



AGENDA

City of Beaufort

DESIGN REVIEW BOARD MEETING

Thursday, April 14, 2022, 2:00 P.M.

City Hall, Council Chambers, 2nd Floor – 1911 Boundary Street, Beaufort SC

Please click the link below to join the webinar:

<https://us02web.zoom.us/j/88446876338?pwd=QkY2QVppWWlwNERvV0phZ0lQRzB1QT09>

Passcode: 173298

Meeting ID: 884 4687 6338

Call in Phone#: 1+929-205-6099

STATEMENT OF MEDIA NOTIFICATION:

"In accordance with South Carolina Code of Laws, 1976, Section 30-4-80(d), as amended, all local media were duly notified of the time, date, place and agenda of this meeting."

Note: A project will not be reviewed if the applicant or a representative is not present at the meeting.

I. Call to Order

II. Review of Minutes:

A. Minutes of March 10, 2022 Meeting

III. Applications:

**A. Coastal States Bank, PIN R120 004 000 0012 0000, 1203 Boundary Street.
Applicant: Dana McClure, Warner Summers Architecture (22-06 DRB.1)**

The applicant is proposing a new single story bank approximately 2,800 SF with attached 2-lane drive-thru.

**B. Pine Court Apartments, PIN R120 007 000 0871 0087 0000, 2307 Pine Court.
Applicant: Hank Maxwell, Maxwell Creative Contracting (22-07 DRB.1)**

The applicant is proposing to construct a new 60-unit apartment development in five (5) 12-unit buildings.

IV. Discussion

V. Adjournment



Design Review Board

Meeting Minutes – March 10, 2022

CALL TO ORDER

0:49

A regular meeting of the Design Review Board was held in-person on Thursday, March 10, 2022 at 2:00 PM.

ATTENDEES

Members in attendance: Benjie Morillo (Chair), Kimberly McFann (Vice-Chair), Erik Petersen, William Suter, and Whit Cox (virtually).

Staff in attendance: Jeremy Tate (Meadors Architecture), Emmilyn Potts (City of Beaufort Planner of Community and Economic Development), and Heather Spade (City of Beaufort Planner of Community and Economic Development).

APPROVAL OF MINUTES

1:12

Motion: Ms. McFann made a motion to approve the February 10, 2022 minutes and the February 23, 2022 Special Meeting minutes; seconded by Mr. Suter. The motion passed unanimously.

All Design Review Board Meeting minutes are recorded and can be found on the City's website at <http://www.cityofbeaufort.org/AgendaCenter>. Audio recordings are available upon request by contacting the City Clerk, Traci Guldner at 843-525-7024 or by email at tquidner@cityofbeaufort.org

APPLICATIONS

3:25

- A. **Garden Oaks Apartments, PIN R120 029 000 0509 0000**, 2000 Salem Road
Applicant: Pat Iannelli, PDI Architecture (22-03 DRB.1)

The applicant is requesting Change After Certification for the window design within this multifamily new construction project.

Motion (17:40): Mr. Petersen made a motion to uphold staff conditions and require windows to have the approved external gridded simulated divided lights with spacer and shadow bars, and [the board] denies the applicant's request to change the windows. Mr. Cox seconded. Motion passed 4-1, with Mr. Suter opposed.

- B. **Gray Tract A, PIN R120 028 000 0138 0000**, 422 Robert Smalls Parkway
Applicant: Bill Eubanks, FASLA, LEED AP (21-16 DRB.3)

18:39

The applicant is requesting preliminary approval of new construction of a multi-family development.

Motion (1:00:51): Mr. Morillo made a motion to defer the site plan, to locate the garages to not front the streets per Chapter 4.5.7.b.3: “‘parking’, on-site parking must be located behind the building and accessed off of rear alley,” and all staff conditions, with the recommendation to reconfigure the rowhomes so that garages are not facing potential future street connections. Mr. Petersen seconded. Motion passed 4-1, with Ms. McFann opposing.

Motion (1:18:10): Ms. Mcfann moved to reconsider the previous motion. Mr. Suter seconded; the motion passed unanimously.

Motion (1:28:41): Ms. McFann moved that the board take a new vote on the previous motion: ‘ to defer the site plan, to locate the garages to not front the streets per Chapter 4.5.7.b.3: “‘parking’, on-site parking must be located behind the building and accessed off of rear alley,” and all staff conditions, with the recommendation to reconfigure the rowhomes so that garages are not facing potential future street connections.’ Mr. Petersen seconded; Motion failed 2-3 with Ms. McFann, Mr. Cox, and Mr. Suter opposing.

Motion (1:43:04): Ms. Mcfann made a motion to grant final approval to the site plan subject to staff conditions. Mr. Suter seconded; Motion failed 2-3, with Mr. Petersen, Mr. Morillo, and Mr. Cox opposing.

Motion (1:45:00): Ms. Mcfann made a motion for final approval of the site plan subject to staff conditions with the additional condition that the sidewalks be moved to the front of the accessory structures, front meaning street-side, subject to staff approval of the move. Mr. Cox seconded; The motion passed 3-2, with Mr. Morillo and Mr. Petersen opposing.

Motion (2:01:35): Ms. Mcfann made a motion recommending final approval subject to staff conditions and the following additional conditions:

- As to building 2, add two single windows to the elevation on each floor inside closets and convert the paneled area to lap siding.
- As to buildings 2 and 3, continue the siding on each floor into the balconies and into the breezeway areas to turn corners to the point of the bottom of the stairway wall and the same distance on the end of the breezeway that doesn’t have a stairway
- staff to monitor compliance with these conditions.

Mr. Petersen seconded, motion passed 4-1 with Mr. Cox abstaining from the vote.

Motion (2:08:19): Ms. McFann made a motion for final approval as to building 1 subject to staff conditions. Mr. Suter seconded. The motion passed unanimously.

Motion (2:12:53): Ms. McFann made a motion for final approval of the rowhouses with staff conditions with the additional condition that garage doors on the rowhouses be properly centered. Mr. Suter seconded. The motion passed unanimously.

Motion (2:18:00): Ms. McFann made a motion for final approval of the clubhouse subject to staff conditions. Mr. Morillo seconded. The motion passed unanimously.

Motion (2:24:41): Ms. McFann made a motion for final approval of the summer house and garage subject to staff conditions with the additional condition that the fireplace section be

rotated 90 degrees within the summer house. Mr. Petersen seconded the motion; the motion passed unanimously.

DISCUSSION

2:25:58

Mr. Morillo asks about the appropriateness of the comments he sent before the meeting. Ms. Mcfann suggests pursuing a legal opinion, but only sending comments to staff before the meeting, not members of the board.

Ms. Mcfann notes that she likes the change to hard copies.

ADJOURNMENT

2:30:20

Ms. McFann made a motion to adjourn, Mr. Suter seconded the motion. Meeting adjourned at 4:32 PM.

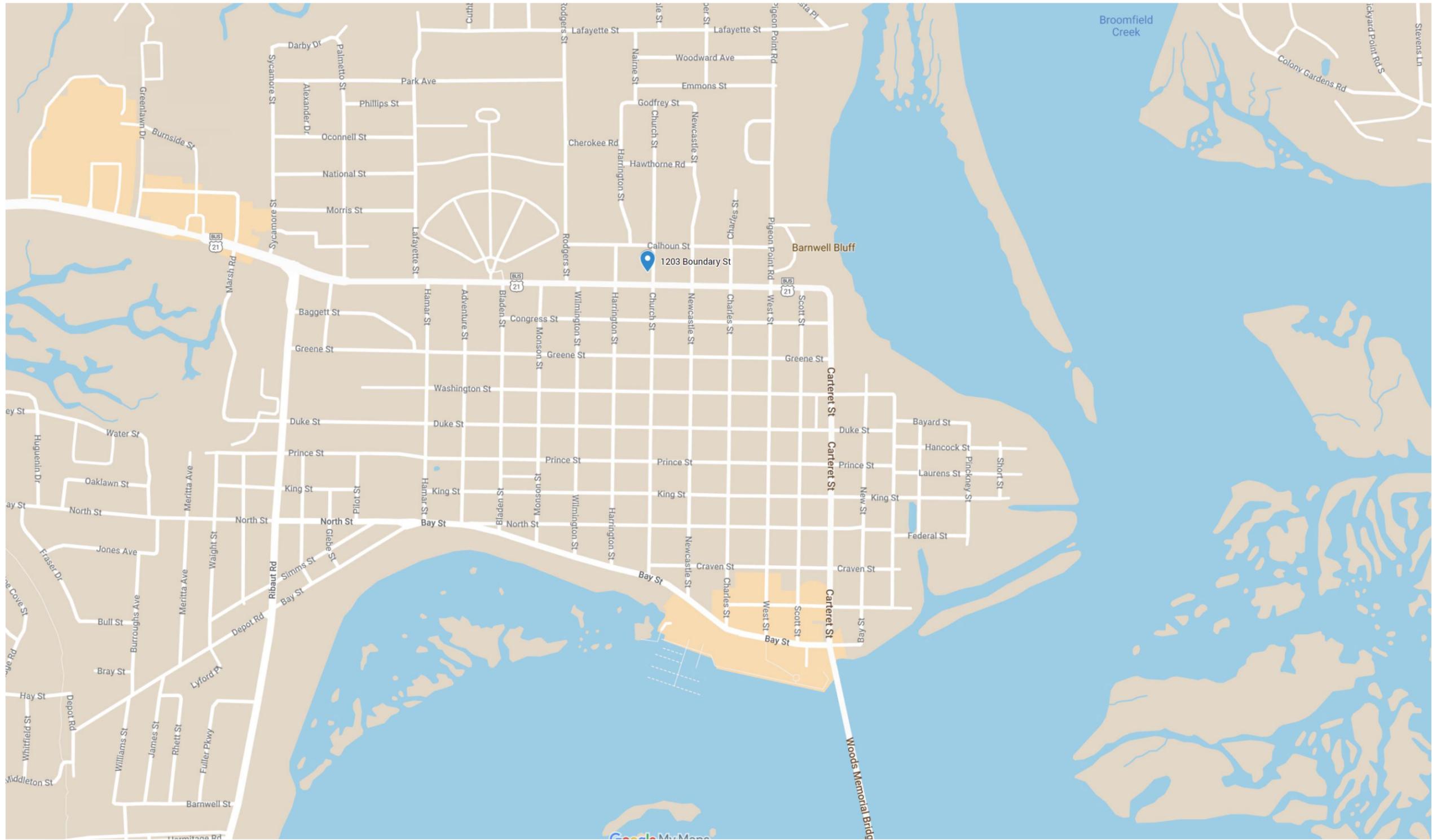
Chair

Date of approval

DRAFT

CITY STAFF INTRODUCTION

1203 BOUNDARY STREET



PROJECT LOCATION- 1203 BOUNDARY STREET



1203 BOUNDARY STREET- GOOGLE EARTH IMAGERY
FEBRUARY 2019



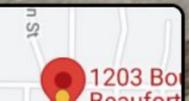
1203 BOUNDARY STREET- GOOGLE EARTH IMAGERY
FEBRUARY 2019



1203 BOUNDARY STREET- GOOGLE EARTH IMAGERY
FEBRUARY 2019



1203 BOUNDARY STREET- GOOGLE EARTH IMAGERY
FEBRUARY 2019



APPLICANT PRESENTATION

1203 BOUNDARY STREET



DEVELOPMENT REVIEW PROCESS
DESIGN REVIEW APPLICATION

Community and Economic Development Department
1911 Boundary Street, Beaufort, South Carolina, 29902
p. (843) 525-7011 / f. (843) 986-5606
Email: development@cityofbeaufort.org / website: www.cityofbeaufort.org

PAID 3-21-22 UC
[] Staff Review
[X] Board Review
Application Fee:

OFFICE USE ONLY: Date Filed: 3/17 Application #: 23402 Zoning District: T5-UC

Schedule: The Design Review Board (DRB) typically meets the 2nd Thursday of each month at 2pm. Upon receipt of an application, staff will review the submittal and then contact the applicant letting them know when the meeting will be. A complete schedule can be found at: https://www.cityofbeaufort.org/379/Design-Review-Board

Submittal Requirements: All forms and information shall be submitted digitally + 5 hardcopies of all documents. In addition to a complete application form, applicants shall submit the required items according to the checklists on the subsequent page.

Review Request: [X] Conceptual [] Preliminary [] Final

Pursuant to Section 6-29-1145 of the South Carolina Code of Laws, is this tract or parcel restricted by any recorded covenant that is contrary to, conflicts with, or prohibits the activity described in this application? [] Yes [X] No

Applicant, Property, and Project Information

Applicant Name: Dana McClure

Applicant Address: 1550 Southland Circle, Suite 100, Atlanta, GA 30318

Applicant E-mail: dmcclore@warnersummers.com Applicant Phone Number: 404.351.6075

Applicant Title: [] Homeowner [] Tenant [X] Architect [] Engineer [] Developer

Owner (if other than the Applicant): 303 Associates

Owner Address: 2015 Boundary Street, Suite 300, Beaufort, SC 29902

Project Name: Coastal States Bank - Beaufort Branch

Property Address: 1203 Boundary Street, Beaufort, SC 29902

Property Identification Number (Tax Map & Parcel Number): R120 004 000 0012 0000

Date Submitted: March 17, 2022



**DEVELOPMENT REVIEW PROCESS
DESIGN REVIEW APPLICATION**

Community and Economic Development Department
1911 Boundary Street, Beaufort, South Carolina, 29902
p. (843) 525-7011 / f. (843) 986-5606

Email: development@cityofbeaufort.org / Website: www.cityofbeaufort.org

Required Project Information

Project Name: Coastal States Bank Beaufort Branch

Property Size in Acres: 1.04 Proposed Building Use: Bank Branch

Building Square Footage (if multiple buildings, please list each one and their square footage by floor): 2,500-3,000 SF

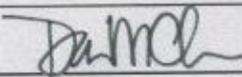
of Parking Spaces Required: 9 # of Parking Spaces Provided: 13

Is this project a redevelopment project: Y N

Are there existing buildings on the site? Y N if yes, will they remain? Y N

Provide a brief Project Narrative and outline any specific questions you would like addressed.

New single-story bank branch with attached 2-lane drive-thru. Site work scope includes new curb cuts, parking lot, sidewalks and required landscaping. Building design will include steel frame structure, standing seam metal roofing, stucco, authentic tabby and board-and-batten hardie siding. Fenestration will be a combination of punched storefront windows, curtainwall and clerestory windows with black anodized metal and clear low-e glazing. Entrance canopy will be comprised of metal roofing and metal structure, all to be finished black or dark gray.

Applicant's Signature: 

Date: March 17, 2022

Owner's Signature: _____

Date: _____

(The owner's signature is required if the applicant is not the owner.)

CONTACT INFORMATION:

Attention: Julie A. Bachety, Administrative Assistant II

City of Beaufort Department of Planning & Development Services

1911 Boundary Street, Beaufort, South Carolina 29902

E-Mail: development@cityofbeaufort.org | Phone: (843) 525-7011 | Fax: (843) 986-5606

CITY OF BEAUFORT - DESIGN REVIEW Application Requirements

DIGITAL SUBMITALL OF ALL DOCUMENTS ONLY

The *Beaufort Code* applies to all projects.

The *Civic Master Plan*, Adopted February 2014, shall be used as guidance for all projects.

All documents can be found online at www.cityofbeaufort.org

- The Beaufort Code can be found here: <http://www.cityofbeaufort.org/zoning-map-ordinance.aspx>
- The Civic Master Plan can be found here: <http://www.cityofbeaufort.org/345/Forms>

General Notes:

- A complete application form, including a written narrative (both in digital form) and applicable fee, shall be submitted for each review. Application fees may be paid online or in person with a credit card or with a check made out to The City of Beaufort.
- Plans must be submitted in digital format only.
- All plans must be drawn to-scale, and shall include a scale bar on each drawing.
 - All plans for preliminary and final review shall have the following information:
 - Cover or Index Sheet with project title, developer name, consultant name, an index to drawings by title and sheet number, a project location map and if applicable a graphic key.
 - North Arrow (as appropriate) on all site plans;
 - Written and Graphic Scale on all plans; and
 - Appropriate Legends, Notes and Labels on all plans.
- An incomplete application will not be reviewed.
- Most projects submitted for Design Review should attend the Pre-Design conference – held every Tuesday at 2pm – prior to proceeding past the conceptual submission. A separate application form for the Pre-Design, along with submission instructions, can be found here: <http://www.cityofbeaufort.org/345/Forms>.

City of Beaufort Design Review Checklists

Submission Requirements for Design Review Board or Staff Level Design Review New Construction / Additions where Design Review is Required

Conceptual Review

- **Existing Context:** Color photographs of the existing structure, if applicable, and adjacent structures.
- **Plat:** A plat indicating the tax map and parcel number, and providing boundary information, setbacks and all existing items on the property including: existing structure(s), pavement, setbacks, existing trees 8" caliper DBH and greater, and fences.
- **Site Plan:** A site plan, to scale, indicating general design elements; this may be in sketch form, or a hard-lined drawing is acceptable as well. The site plan should include:
 - Proposed Buildings
 - Vehicular and Pedestrian Circulation
 - Parking Areas
 - Planting Areas, including existing trees
 - Connections to the public right-of-way and adjacent sites
 - Parking Requirement Calculation
 - Impervious Surface Calculation
 - Delivery and Service Areas
- **Floor Plans:** Floor Plans, showing the general interior layout of all levels.
- **Building Elevations:** Conceptual Elevations of the front and sides. They should display massing and scale of new construction and how it relates to the surrounding context and existing structure (if applicable). For infill construction, this drawing should include a street elevation and/or a street section showing height and width relationships to existing adjacent buildings.

Preliminary Review: All of the documents required for Conceptual Review, PLUS:

- **Detailed Site Plan:** A hard-lined site plan, including the following *additional* information: turning radii, all trees and trees to be removed marked with an "X", pavement materials, existing grading, and conceptual proposed grading
- **Floor Plans:** Floor plans of all levels of the building, including square footage. For Alterations or Additions, existing conditions drawings of the floor plan are also required, showing the area and square footage affected by the addition
- **Building Elevations:** Elevation drawings of all sides of the building, including heights – height above grade, floor-to-floor heights, eave height and ridge height (if applicable). Mechanical equipment should be dashed-in on elevations.
- **Color Rendering:** A colored version of at least one elevation, noting proposed materials and colors.
- **3-D Rendering:** A 3-D rendering showing the height, mass and scale of the proposed building in its context may be required for structures in infill contexts
- A Certified Arborist report is required for all grand trees (24" DBH and greater) which are affected by the project

Final Review: see the next sheet

City of Beaufort Design Review Checklists

Submission Requirements

New Construction / Additions where Design Review is Required Districts *(ctd.)*

Final Review: All of the documents required for Preliminary Review, PLUS:

- **Detailed Site Plan:** A hard-lined site plan(s), including the following *additional* information: utilities, mechanical equipment, stormwater, outdoor merchandise or vending
 - **Landscaping Plan:** A landscaping plan is required for commercial projects. It shall include A schedule detailing materials and colors of all plants and landscape materials, all existing trees, with the trees to be removed noted, existing and proposed grading, and any exterior lighting proposed.
 - **Building Elevations:** Elevations should be updated to include: mechanical equipment, lighting, location of signage, materials labeled, gutters and downspouts
 - **Details:** A typical wall section, window details, eave details, colonnade/awning details, and any other details characteristic to the building are required
 - **Material Samples:** Samples of windows, lighting and building materials may be required
 - **Final Materials List:** A final list, including colors, is required.
 - **Lighting:** A lighting and photometric should be prepared for the site. All exterior building lighting should be shown on the building elevations. If lights exceed 5500 lumens, they should be indicated on the photometric plan. Cut sheets are required for all site and exterior building lighting.
-

Submission Requirements

New Construction / Additions where Design Review is NOT Required

- **Existing Context:** Color photographs of the adjacent structures and existing structure, if applicable.
- **Plat:** A plat indicating the tax map and parcel number, and providing boundary information, setbacks and all existing items on the property including: existing structure(s), pavement, setbacks, existing trees 8" caliper DBH and greater, and fences.
- **Site Plan:** A site plan, to scale, indicating general design elements; this may be in sketch form, or a hard-lined drawing is acceptable as well. The site plan should include:
 - Proposed Buildings
 - Vehicular and Pedestrian Circulation
 - Delivery and Service Areas
 - Parking Areas
 - Planting Areas
 - All existing 8"+ caliper DBH trees
 - Trees to be removed marked with "X"
 - Mechanical Equipment
 - Connections to the public right-of-way and adjacent sites
 - Parking Requirement Calculation
 - Existing and Proposed Grading
 - Impervious Surface Calculation
 - Turning Radii
 - Pavement Materials
 - Utilities & Stormwater
 - Outdoor Merchandise or Vending
- **Floor Plans:** Floor plans of all levels of the building, including square footage.
- **Elevations:** Complete elevations including building heights – height above grade, floor-to-floor heights, eave height and ridge height (if applicable) - materials labeled, colors, downspouts and gutters, lighting, mechanical equipment dashed in, signage



DESIGN REVIEW BOARD FEE SCHEDULE

(As of July 1, 2020)

BOARD REVIEW FEES:

Single-family residential projects (board review)	\$100.00
Multifamily and commercial projects (board review)	\$250.00
Change After Certification	\$100.00
Demolition (whole structure)	\$250.00
Special Board Meeting	\$500.00

Post facto applications shall be triple the normal fee.

STAFF REVIEW FEES:

Single Family and 2/3-unit buildings not in a historic district are exempt.

Type 1

Renovations/Improvements (not including additions), $\leq 50\%$ of the value of the structures

<u>Value</u>	<u>Fee</u>
Improvements \leq \$5,000	\$50
Improvements $>$ \$5,000 but \leq \$25,000	$\$50 + 0.25\% \times \text{value above } \$5,000$
Improvements $>$ \$25,000	$\$100 + 0.20\% \times \text{value above } \$25,000$

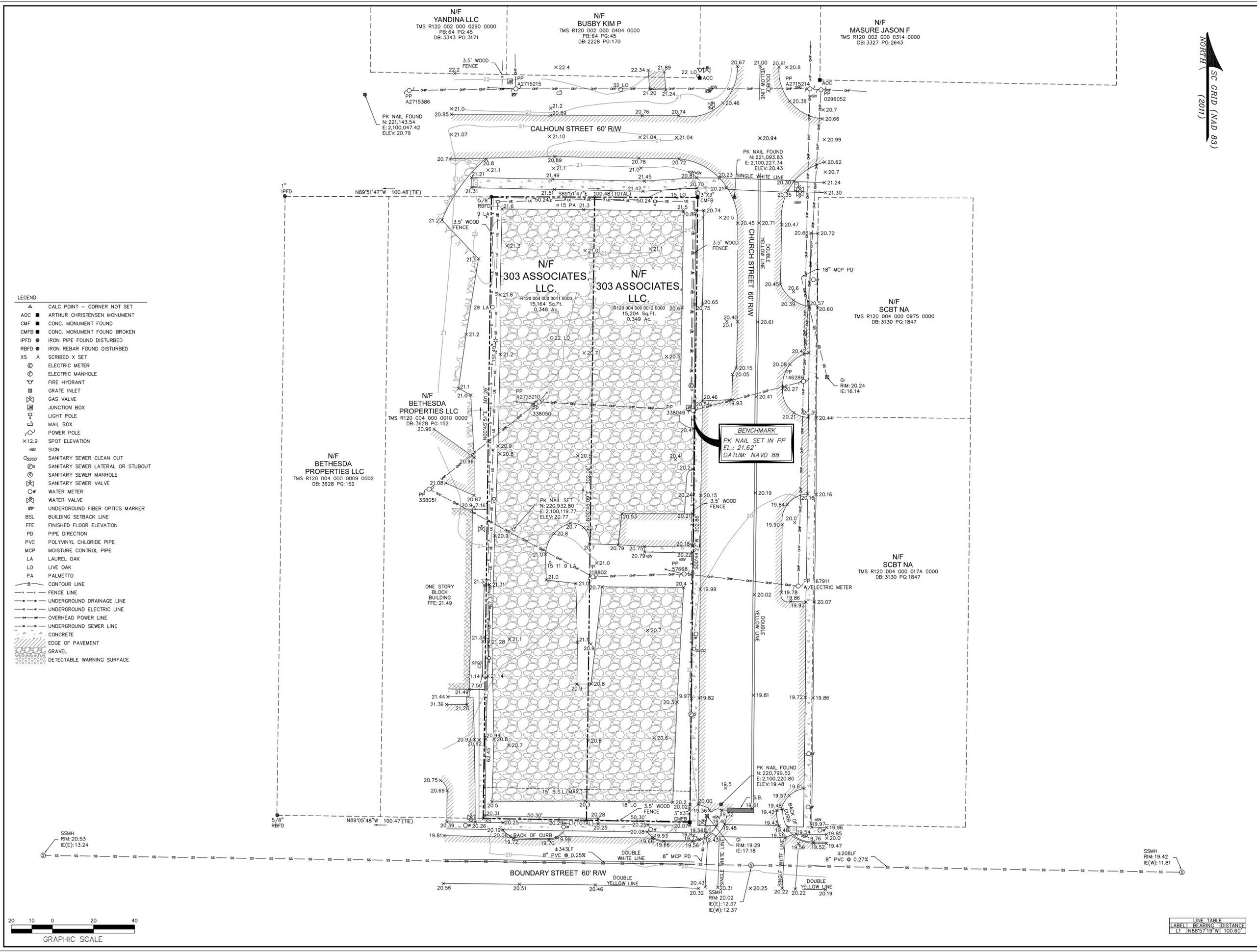
Type 2

- Any single-family and 2/3-unit residential addition in a historic district: \$50
- All other additions: \$500 base fee + \$0.05/square foot of addition.

Type 3

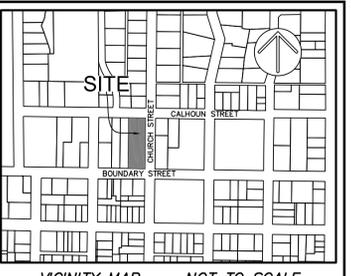
Review for new construction and for renovations/improvements totaling over 50% of the value of the structure:

- Single-family and 2-3 unit residential in the historic district
- $\leq 10,000$ square feet: \$500 base fee + 0.05/square foot of building
- $> 10,000$ square feet: \$1,000 base fee + \$0.05/square foot of building for the first 100,000 square feet of building. For additional square footage over 100,000, \$0.02/square foot.



LEGEND

- ▲ CALC POINT - CORNER NOT SET
- ▲ AOC ARTHUR CHRISTENSEN MONUMENT
- CMF CONC. MONUMENT FOUND
- CMBF CONC. MONUMENT FOUND BROKEN
- IPFD IRON PIPE FOUND DISTURBED
- Rbfd IRON REBAR FOUND DISTURBED
- XS X SCRIBED X SET
- ⊙ ELECTRIC METER
- ⊙ ELECTRIC MANHOLE
- ⊙ FIRE HYDRANT
- ⊙ GRATE INLET
- ⊙ GAS VALVE
- ⊙ JUNCTION BOX
- ⊙ LIGHT POLE
- ⊙ MAIL BOX
- ⊙ POWER POLE
- ⊙ SPOT ELEVATION
- ⊙ SIGN
- ⊙ SANITARY SEWER CLEAN OUT
- ⊙ SANITARY SEWER LATERAL OR STUBOUT
- ⊙ SANITARY SEWER MANHOLE
- ⊙ SANITARY SEWER VALVE
- ⊙ WATER METER
- ⊙ WATER VALVE
- ⊙ UNDERGROUND FIBER OPTICS MARKER
- BSL BUILDING SETBACK LINE
- FFE FINISHED FLOOR ELEVATION
- PD PIPE DIRECTION
- PVC POLYVINYL CHLORIDE PIPE
- MCP MOISTURE CONTROL PIPE
- LA LAUREL OAK
- LO LIVE OAK
- PA PALMETTO
- CONTOUR LINE
- FENCE LINE
- UNDERGROUND DRAINAGE LINE
- UNDERGROUND ELECTRIC LINE
- OVERHEAD POWER LINE
- UNDERGROUND SEWER LINE
- CONCRETE
- EDGE OF PAVEMENT
- GRAVEL
- DETECTABLE WARNING SURFACE



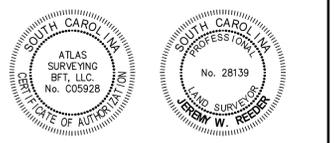
- NOTES**
1. THIS PARCEL APPEARS TO LIE IN FLOOD ZONE X, COMMUNITY 450026, MAP NUMBER 45013001586.
 2. CONTOURS ARE IN ONE FOOT INTERVALS. TREE SIZES SHOWN ARE IN INCHES OF DIAMETER.
 3. VERTICAL DATUM IS NAVD 88.
 4. BUILDING SETBACKS ARE PER EMAIL FROM THE CITY OF BEAUFORT ON 3-18-2022, AND MUST BE VERIFIED PRIOR TO CONSTRUCTION.
 5. HORIZONTAL DATUM IS SOUTH CAROLINA STATE PLANE GRID (NAD 83).
 6. THE EXISTENCE AND LOCATION OF THE SURFACE AND SUB-SURFACE UTILITIES SHOWN HEREON ARE BASED UPON AVAILABLE RECORDS AND SURFACE VISIBLE FEATURES ALONG WITH ELECTRONIC AND ACUSTICAL EVIDENCE AS OF XXXX, 20XX. THE EXTENT AND LIABILITY OF THIS INFORMATION IS LIMITED TO THE STANDARDS OF CARE FOR A SPECIFIC UTILITY INVESTIGATION AS DEFINED BY THE AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) PUBLICATION 38-02. THE EXACT LOCATION AND DEPTH OF UNDERGROUND UTILITIES CANNOT BE DETERMINED WITHOUT EXPOSING THEM IN SOME WAY. PRIOR TO CONSTRUCTION OR EXCAVATION, IT IS REQUIRED BY LAW TO CONTACT THE STATE 811 UTILITY PROTECTION CENTER.

- REFERENCES**
1. SURVEY DONE BY GASQUE & ASSOCIATES INC., DATED 3-14-18.
 2. DB: 3743 PG: 3072

PREPARED FOR:
303 ASSOCIATES, LLC.
 AN AS-BUILT/
 TREE AND TOPOGRAPHIC SURVEY OF
#1203 & #1205
BOUNDARY STREET
 TAX PARCEL Nos. R120 004 000 0012 0000
 & R120 004 000 0011 0000
 THE CITY OF BEAUFORT
 BEAUFORT COUNTY, SOUTH CAROLINA

FIELD WORK: LKW
 FIELD CHECK: JWR
 DRAWN BY: DTJ
 DATE: 03-22-2022
 SCALE: 1"=20'
 PROJECT No.: BFT-22037
 FILE: BFT-22037_ATL.DWG

ATLAS SURVEYING, INC.
 49 BROWN'S COVE ROAD, SUITE #5
 RIDGELAND, SC 29936
 PHONE: (843) 645-9277
 WEBSITE: WWW.ATLASSURVEYING.COM



I HEREBY STATE THAT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION, AND BELIEF, THE SURVEY SHOWN HEREIN WAS MADE IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARDS OF PRACTICE MANUAL FOR SURVEYING IN SOUTH CAROLINA, AND MEETS OR EXCEEDS THE REQUIREMENTS AS SPECIFIED THEREIN.

JEREMY W. REEDER
 S.C.P.L.S. No. 28139
 NOT VALID UNLESS CRIMPED WITH SEAL

LINE TABLE

LINE	BEARING	DISTANCE
L1	N88°57'19" W	100.60'



DATE	REV.	DESCRIPTION
20 MAR 2022	1	DESIGN REVIEW BOARD COMMENTS
REVISION SCHEDULE		

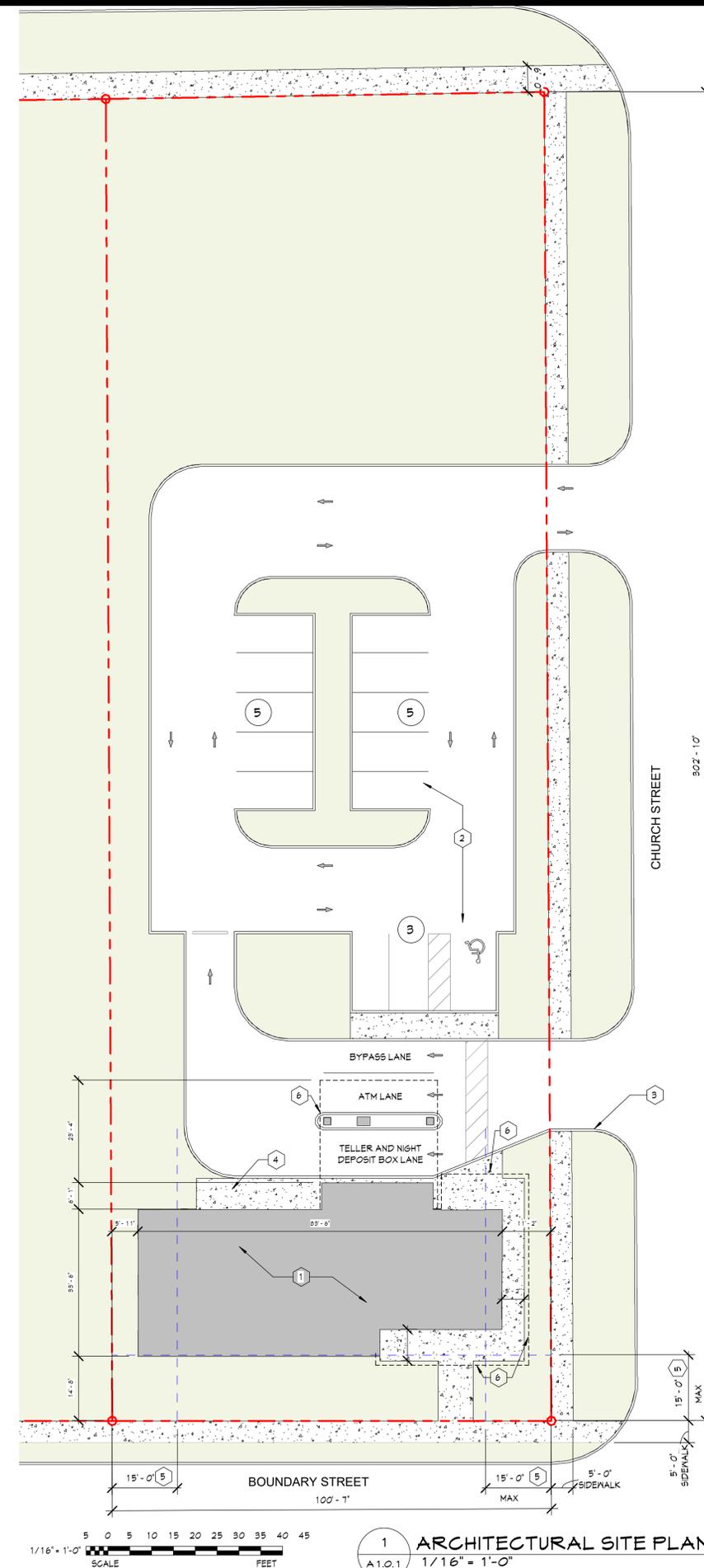
THIS DRAWING AND ITS REPRODUCTIONS ARE THE PROPERTIES OF THE ARCHITECTS AND MAY NOT BE REPRODUCED, PUBLISHED, OR USED IN ANY WAY WITHOUT THE WRITTEN PERMISSION OF WARNER SUMMERS.

ISSUED FOR
DESIGN BOARD
REVIEW

ISSUED FOR	DATE	17 MAR 2022
PROGRESS	DRAWN BY	JAH
PRICING	CHECKED BY	DFM
CONSTRUCTION	PROJ. NO.	22010

SHEET TITLE
**ARCHITECTURAL
SITE PLAN -
OPTION 1**

SHEET NUMBER
A1.0.1



SITE PLAN GENERAL NOTES

- ALL TREES WILL BE NEW COMPLYING WITH THE BEAUFORT CODE.
- CHURCH STREET PROPOSED TO RECEIVE 5'-0" SIDEWALK AND 6'-0" PLANTING STRIP PER STREET SECTIONS IN APPENDIX C.
- BOUNDARY STREET PROPOSED TO RECEIVE 5'-0" SIDEWALK AND 5'-0" PLANTING STRIP PER STREET SECTIONS IN APPENDIX C.

PARKING SUMMARY:

BUILDING SF APPROXIMATELY:	2,800 SF
SERVICE OR RETAIL USE:	1 PER 300 SF
MINIMUM REQUIRED PARKING:	9 SPACES
MAXIMUM ALLOWED 140% OF REQUIRED:	13 SPACES
PARKING PROVIDED:	13 SPACES

IMPERVIOUS AREA SUMMARY:

IMPERVIOUS AREA:	15,217 SF
TOTAL SITE AREA:	45,302 SF
PROPOSED IMPERVIOUS AREA:	33.1%
MAXIMUM ALLOWED:	100%

SITE PLAN KEYED NOTES

- PROPOSED 2,800 SF SINGLE STORY BRANCH BANK WITH TWO DRIVE THROUGH LANES BEHIND BUILDING.
- PROPOSED THIRTEEN TOTAL PARKING SPOTS INCLUDING ONE ADA COMPLIANT SPOT.
- PROPOSED CURB CUT COMPLIES WITH SCDOT'S 15' SPACING REQUIREMENT FROM BOUNDARY STREET.
- PROPOSED DELIVERY AND SERVICE AREA.
- SITE IS ZONED T5-UC. NO MINIMUM SETBACKS (0 FT) ARE REQUIRED IN TABLE 2.4.1 OF THE BEAUFORT CODE. 15 FT SETBACKS INDICATED ARE THE MAXIMUM FRONT AND SIDE (INTERIOR) SETBACKS.
- LINE OF CANOPY ABOVE.



1 ARCHITECTURAL SITE PLAN
A1.0.1 1/16" = 1'-0"



Design Review Board Meeting Staff Report

From the Department of Community and Economic Development
14 April 2022

1 SUMMARY OF REQUEST

1203 Boundary Street/Coastal States Bank, New Construction

Applicant: Dana McClure, Warner Summers Architecture

In this application, the applicant is proposing a new single story bank approximately 2,800 SF with attached 2-lane drive-thru.

This is proposed new construction of a branch bank on a currently vacant lot.

Background: This is the first application for this project. The applicant is requesting Conceptual Approval.

2 FACTS

Property Address:	1203 Boundary Street
Parcel ID:	R120 004 000 0012 0000
Case Number:	23402
Applicant:	Dana McClure/Warner Summers Architecture
Type of Request:	Conceptual New Construction
Zoning:	T5-UC
Current Use:	Vacant
Proposed Use:	Commercial Retail with Drive-Thru Facilities

District Development Standards for T5-UC:

- **Setback requirements – Primary Structure:**
 - *Front- 0' min./15 ft. max.*
 - *Rear setback – 5' min.*
 - *Side Corner/Alley – 0'min./15' max.*
 - *Side Interior – 0'min.*
- **Maximum Lot Coverage:** 100%
- **Frontage Buildout:** 60% Min
- **Conditional Uses:** Retail with Drive-Thru Facilities are conditional in T5-UC

References:

- The Beaufort Code

3 STAFF COMMENTS

Staff Acknowledgements:

- A. Section 9.8.2.A.2 requires that proposed new developments including drive-thru facilities are considered Design Review Major and must be brought to the board.

Staff Conditions:

Building:

1. Applicant appears to be compliant with the 60% minimum frontage buildout requirement. In future submissions, applicant to note the percentage of the building that falls within the minimum and maximum front setback.
2. Staff supports the height, scale, and mass of the proposed branch bank structure.
3. Staff generally supports the proposed materials of the branch bank structure, except for the proposed “authentic tabby stucco” noted as #6 on sheet A3.1. True tabby was never meant to be exposed, but rather covered with stucco to protect the integrity of the wall structure. Modern attempts to replicate tabby inaccurately replicate a historical material. Staff supports smooth stucco in these areas.
4. Applicant to note the transparency requirement of 40% minimum at ground floor on each elevation facing a street per Section 4.6.3.C.1 and demonstrate compliance on future submissions with a chart or table.
5. There appears to be a discrepancy between the building location on the site plan and the building elevations relative to the setback from the sidewalk and street. The elevations appear to show the building right up next to sidewalk, while the site plan shows more open space between the building and the sidewalk. In future submissions, applicant to properly coordinate all drawings.
6. In future submissions, applicant to note dimension heights to ridge.
7. In future submissions, applicant to note the dimension of the first-floor ceiling and demonstrate compliance with Section 2.6.2.D.3 which requires single-story commercial structures to have a minimum 14 feet ceiling height measured from finished floor to ceiling.

STAFF RECOMMENDATION (Building):

Conceptual Approval for the building with conditions noted.

Site Design:

8. Staff notes that there is currently a tree (18” Live Oak) on the property within the front setback along Boundary Street. Applicant has not illustrated this tree on the site plan. Applicant to note whether this tree is to be removed. If it is to be removed, this tree is a specimen tree and will require a certified arborist report.
9. Applicant has provided two proposed site plans; Option 1 and Option 2.

Site Plan Option 1:

10. Staff is concerned with the drive-thru lanes layout on the Architectural Site Plan sheet A1.0.1. The lanes are accessed from Church Street as indicated by note 3# on the site plan. There does not appear to be sufficient lane queuing and staff is concerned with traffic backing up and spilling out onto Church Street.
11. Staff is also concerned that the parking area does not connect to the drive-thru lanes meaning that a person who decides to utilize the drive-thru lanes but is already in the parking lot, must egress to Church and then re-enter the site.

Site Plan Option 2:

12. Staff supports the proposed site plan option 2 as illustrated on sheet A1.0.2 and this plan alleviates the concerns staff raised in comments 10 and 11 above related to Site Plan Option 1.
13. Staff recommends the applicant provide a drive aisle to the north of the diagonal parking to allow onsite circulation since all lanes are one-way as proposed.

STAFF RECOMMENDATION (Site Design Option 1 & 2):

Denial of Conceptual Approval of Site Plan Option 1 for conditions 10 and 11.

Conceptual Approval for site plan Option 2 with conditions noted.

Further Recommendations Beyond Conceptual to Guide Applicant:

1. *Applicant to note the private frontage types in Section 4.4 and ensure compliance with one permitted for T5-UC. Staff currently views the applicant's design to most closely resemble the shopfront/awning. Applicant to review the section and demonstrate compliance. Note: porch frontage is not permitted in T5-UC per this section.*
2. Applicant to review the Building Design Standards found in Section 4.6 and demonstrate compliance with all parts of this section.
3. Applicant to demonstrate compliance with Section 5.5 Perimeter Landscaping and Screening.
4. Applicant to demonstrate compliance with Section 5.6 Landscape Installation and Maintenance.
5. Applicant to demonstrate compliance with Section 5.7 Parking, and specifically section 5.7.7 Parking Lot Design and section 5.7.8 Parking Lot Screening and Landscaping.
6. Applicant to demonstrate compliance with Section 5.8 Lighting.

CITY STAFF INTRODUCTION

PINE COURT APARTMENTS



PROJECT LOCATION- 2307 PINE COURT- PINE COURT APARTMENTS











APPLICANT PRESENTATION

PINE COURT APARTMENTS



DEVELOPMENT REVIEW PROCESS
DESIGN REVIEW APPLICATION

Community and Economic Development Department
1911 Boundary Street, Beaufort, South Carolina, 29902
p. (843) 525-7011 / f. (843) 986-5606

Email: development@cityofbeaufort.org / website: www.cityofbeaufort.org

2207
DRB

- Staff Review
- Board Review

Application Fee:

OFFICE USE ONLY: Date Filed: 3/15 Application #: 23404 Zoning District: _____

Schedule: The Design Review Board (DRB) typically meets the 2nd Thursday of each month at 2pm. Upon receipt of an application, staff will review the submittal and then contact the applicant letting them know when the meeting will be. A complete schedule can be found at: <https://www.cityofbeaufort.org/379/Design-Review-Board>

Submittal Requirements: All forms and information shall be submitted digitally + 5 hardcopies of all documents. In addition to a complete application form, applicants shall submit the required items according to the checklists on the subsequent page.

Review Request: Conceptual Preliminary Final

Pursuant to Section 6-29-1145 of the South Carolina Code of Laws, is this tract or parcel restricted by any recorded covenant that is contrary to, conflicts with, or prohibits the activity described in this application? Yes No

Applicant, Property, and Project Information

Applicant Name: Hank Maxwell

Applicant Address: 3689 Stamler Court, Mt. Pleasant, SC 29466

Applicant E-mail: hank@maxwellcreativecontracting.com Applicant Phone Number: 843-789-9010

Applicant Title: Homeowner Tenant Architect Engineer Developer
Owner

Owner (if other than the Applicant): Same as above

Owner Address: "

Project Name: Pine Court Apartments

Property Address: 2307 Pine Court

Property Identification Number (Tax Map & Parcel Number): _____

Date Submitted: 3/14/22

Hank Maxwell-843-789-9016
Karl Kokinakis-843-352-7075



**DEVELOPMENT REVIEW PROCESS
DESIGN REVIEW APPLICATION**

Community and Economic Development Department
1911 Boundary Street, Beaufort, South Carolina, 29902
p. (843) 525-7011 / f. (843) 986-5606

Email: development@cityofbeaufort.org / Website: www.cityofbeaufort.org

Required Project Information

Project Name: Pine Court Apartments

Property Size in Acres: 3.35 Proposed Building Use: Apartments

Building Square Footage (if multiple buildings, please list each one and their square footage by floor): Bldg #1 = 9,324 sq. ft. Bldg #2-5 = 12,216 total/ea bldg.

of Parking Spaces Required: _____ # of Parking Spaces Provided: 96

Is this project a redevelopment project: Y N

Are there existing buildings on the site? Y (N) if yes, will they remain? Y N

Provide a brief Project Narrative and outline any specific questions you would like addressed.

Building 60 apartments, 12 one bedroom and 48 two bedroom. New construction.

Applicant's Signature: [Signature] Date: 3/14/22

Owner's Signature: " Date: _____

(The owner's signature is required if the applicant is not the owner.)

CONTACT INFORMATION:

Attention: Julie A. Bachery, Administrative Assistant II
City of Beaufort Department of Planning & Development Services
1911 Boundary Street, Beaufort, South Carolina 29902
E-Mail: development@cityofbeaufort.org | Phone: (843) 525-7011 | Fax: (843) 986-5606















APPLICABLE CODES

INTERNATIONAL BUILDING CODE 2015 ICC / ANSI A117.1 2009
INTERNATIONAL MECHANICAL CODE 2015 INTERNATIONAL / ENERGY CONSERVATION CODE 2009
INTERNATIONAL PLUMBING CODE 2015
INTERNATIONAL FIRE CODE 2015
NATIONAL ELECTRICAL CODE 2014

Table with columns: DESIGNER, NAME, LICENSE NUMBER, TELEPHONE NUMBER. Lists architects, electrical, mechanical, plumbing, structural, and civil engineers.

BUILDING DATA

DWELLING UNITS
OCCUPANCY: RESIDENTIAL (R-2)
CONSTRUCTION TYPE: V-A
MIXED OCCUPANCY: NO
SPRINKLERED: YES (WITH 13R SYSTEM)
NUMBER OF STORIES
ALLOWABLE: 3 ACTUAL: 3
HEIGHT MOD: NO
H.C. TABULATION
TOTAL UNITS = 60
TYPE "A" UNITS PROVIDED = 2

FIRE RESISTANCE RATINGS

Table with columns: BUILDING ELEMENT, REQUIRED HOURLY RATING, DETAIL NUM., DESIGN NUM. Lists ratings for party wall, tenant separation, vertical exit enclosure, etc.

KEY

N/A = NOT APPLICABLE NC = NON-COMBUSTIBLE NL = NO LIMIT E = EXISTING

LIFE SAFETY SYSTEM

Table with columns: APARTMENT BUILDINGS, LEASING OFFICE BUILDING. Lists emergency lighting, sprinkler alarm, smoke detectors, etc.

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS WILL BE REQUIRED FOR:
SOILS COMPACTION AT FOOTINGS & SLABS
PRE MANUFACTURED FLOOR AND ROOF TRUSSES
POST TENSIONED SLABS (IF POST TENSIONED SLABS ARE USED)

DESIGN LOADS

Table with columns: LIVE LOADS, WIND LOADS, SEISMIC LOADS. Lists live load, ultimate wind speed, design category, etc.

SEE STRUCTURAL DRAWINGS FOR ADDITIONAL LOAD INFORMATION.

BUILDING BREAKDOWN

Table with columns: BUILDING #, BUILDING TYPE, 1 BR, 1 BR ACC, 1 BR HC, 2 BR, 2 BR ACC, 2 BR HC, TOTAL. Lists breakdown for buildings #1 through #5.

SQUARE FOOTAGES

Table with columns: UNIT TYPE, QUANTITY, GROSS HEATED, NET HEATED, TOTAL GROSS HEATED, TOTAL NET HEATED. Lists square footages for 1 BR, 2 BR, and total.

PINE COURT APARTMENTS

BEAUFORT, SOUTH CAROLINA

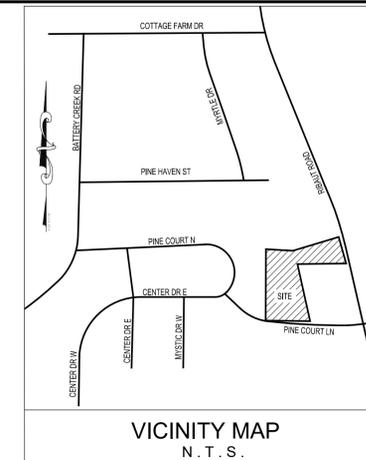
ARCHITECTURAL
PARKS / PLAYER
ARCHITECTS AND PLANNERS, LTD.
1010 EAST NORTH STREET, SUITE 'A'
GREENVILLE, SOUTH CAROLINA 29601

MECH. / PLUMB.
ELECTRICAL
Carolina Engineering Solutions, LLC
8 WEST McBEE AVE. SUITE 203
GREENVILLE, SOUTH CAROLINA 29601

H2L CONSULTING ENGINEERS
116 SOUTH PLEASANTBURG DRIVE
GREENVILLE, SOUTH CAROLINA 29607

STRUCTURAL

Milligan Engineering, Inc.
Structural Design
4008 Greenside Trace
Hoover, AL
Ph: (205) 337-9500
Fax: (205) 267-4200



VICINITY MAP N.T.S.

H.C. UNIT SCHEDULE table with columns: BLDG. #, 1BR, 2BR, TOTAL. Shows 1 unit for BLDG. #1 and 2 units for BLDG. #5.

SEE SHEET A-1 FOR 1BR H.C. UNIT
SEE SHEET A-2 FOR 2BR H.C. UNIT
NOTE: ALL HANDICAP UNITS ARE DESIGNED IN ACCORDANCE W/ LOCAL BUILDING CODES & ANSI GUIDELINES

PARKING:
96 STANDARD PARKING SPACES
6 H.C. PARKING SPACES
102 PARKING SPACES TOTAL
102 / 60 = 1.70 SPACES/UNIT

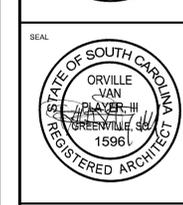
SHEET INDEX

JOB NUMBER: 16_24

Main sheet index table with columns: DRAWING NUMBER, CURRENT ISSUE, DRAWING DESCRIPTION. Lists drawings for civil, structural, mechanical, electrical, and plumbing.

Revision table with columns: No., Date, Description. Shows revisions 0 through 3.

Job Number: 2016_24
File Reference: 16-24_Ribault Rd Pine Ct



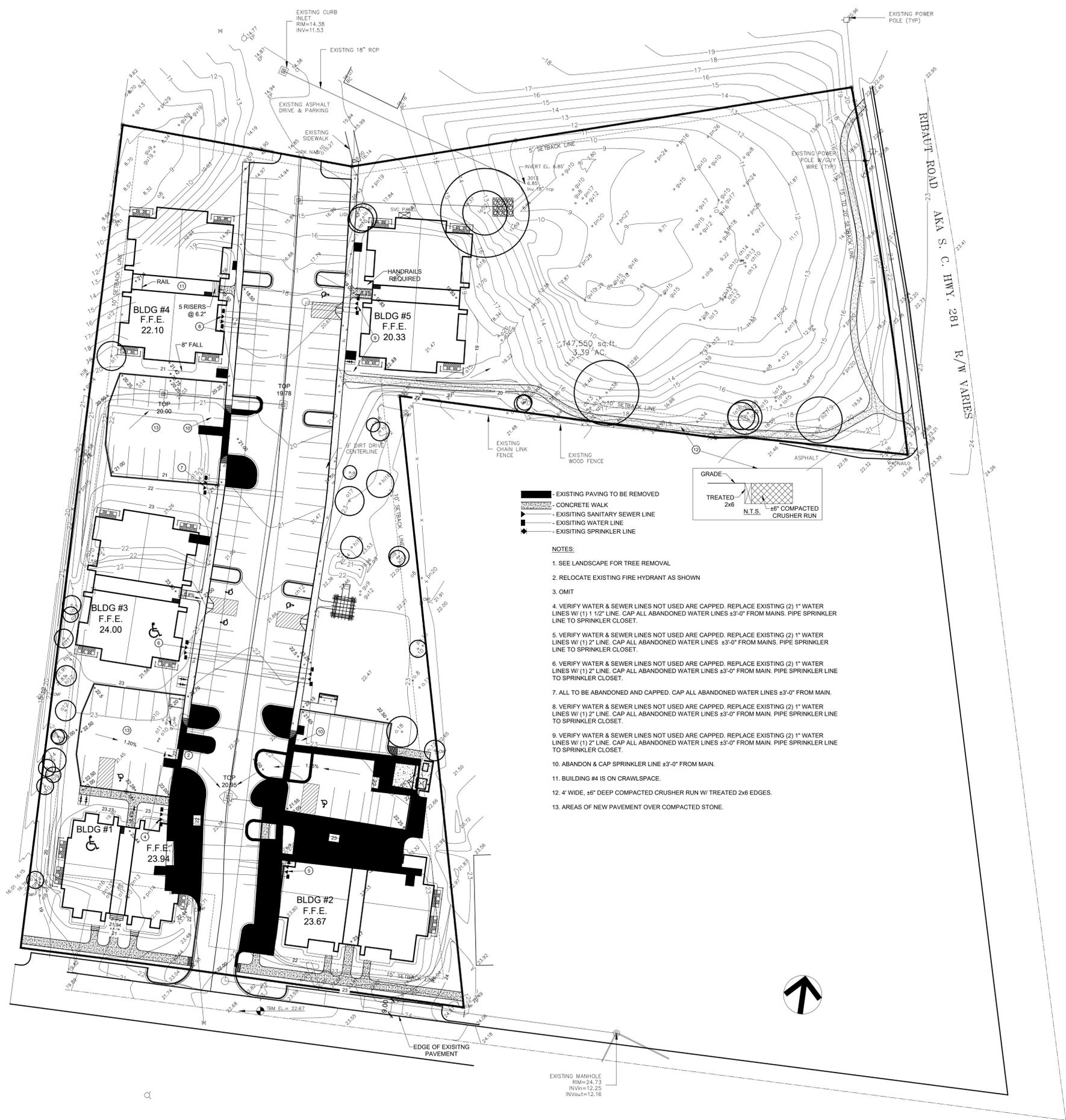
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BEAUFORT, SOUTH CAROLINA

PARKS-PLAYER ARCHITECTURE & PLANNING
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GREENVILLE, SC 29601
(864) 242-0177

COVERSHEET
Sheet Number: A-0.00

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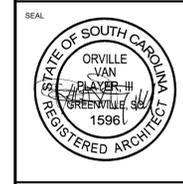


No.	Date	Description
0	3.18.19	For Permit

Job Number: 2016_24

File Reference:

Scale: AS NOTED



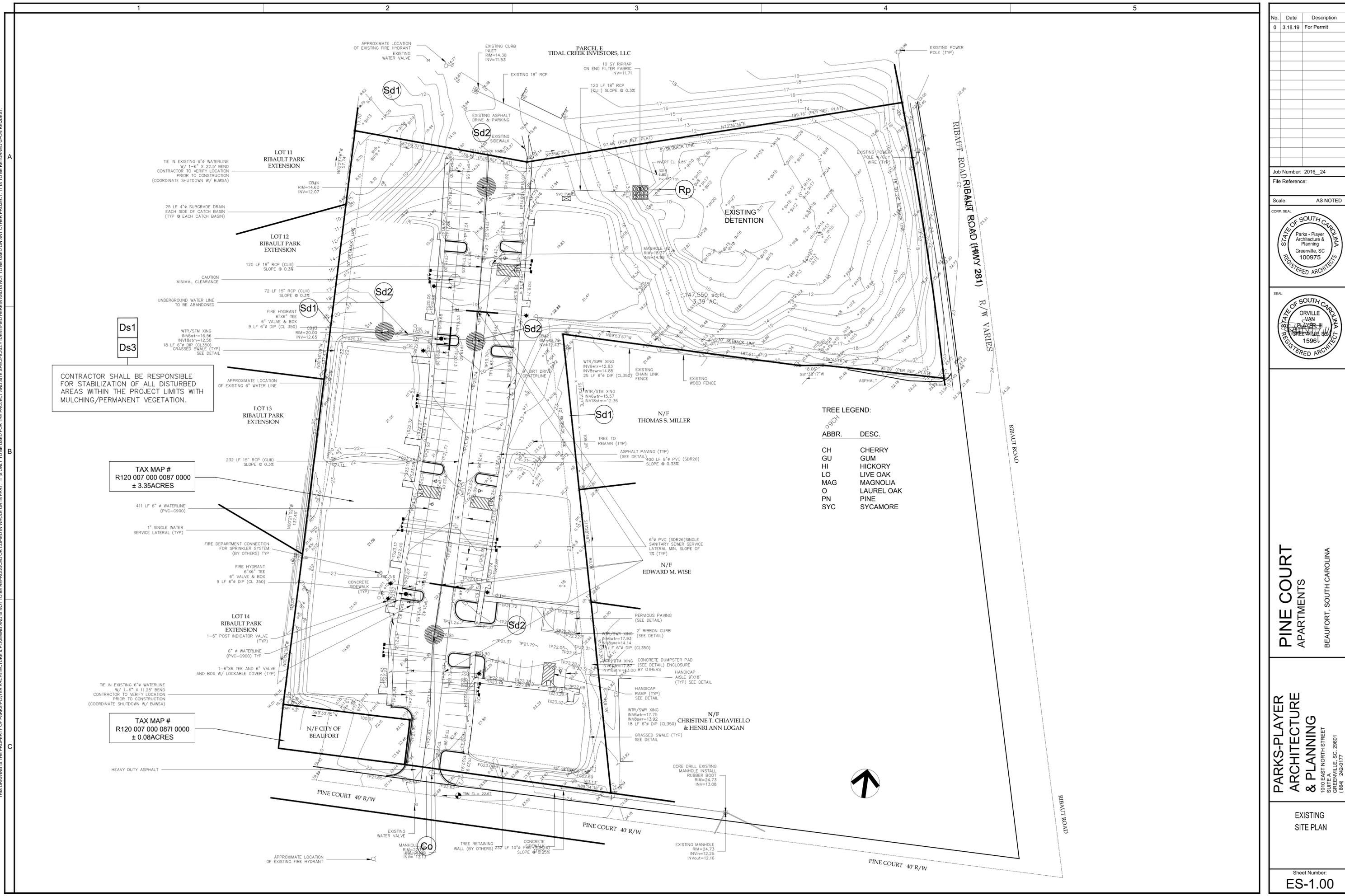
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DEMOLITION & PROPOSED GRADING PLAN

Sheet Number:
D-1.00

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CONTRACTOR SHALL BE RESPONSIBLE FOR STABILIZATION OF ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS WITH MULCHING/PERMANENT VEGETATION.

TAX MAP # R120 007 000 0087 0000 ± 3.35ACRES

TAX MAP # R120 007 000 0871 0000 ± 0.08ACRES

TREE LEGEND:

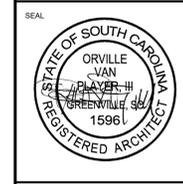
ABBR.	DESC.
CH	CHERRY
GU	GUM
HI	HICKORY
LO	LIVE OAK
MAG	MAGNOLIA
O	LAUREL OAK
PN	PINE
SYC	SYCAMORE

No.	Date	Description
0	3.18.19	For Permit

Job Number: 2016_24

File Reference:

Scale: AS NOTED



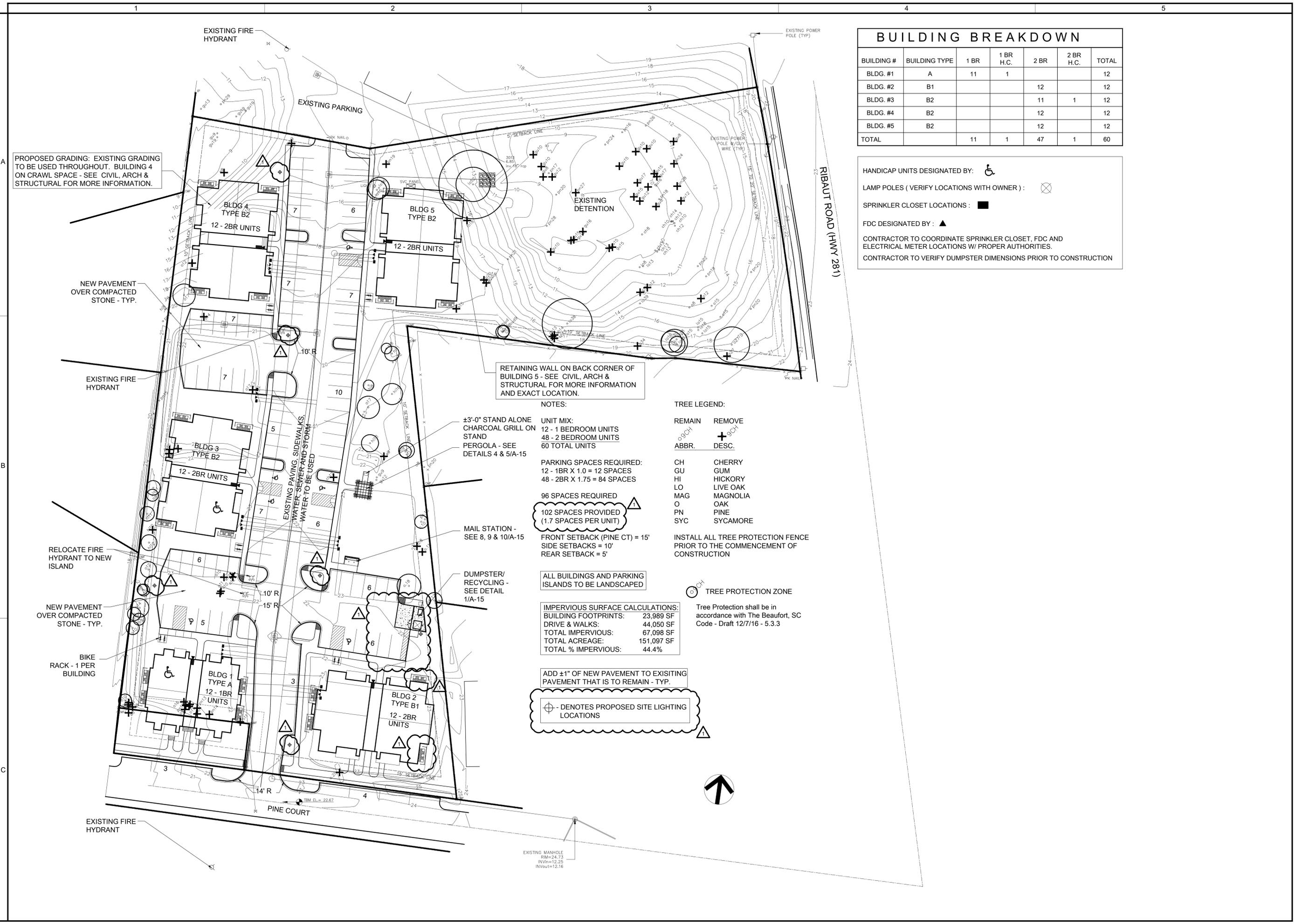
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EXISTING SITE PLAN

Sheet Number: ES-1.00

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BUILDING BREAKDOWN

BUILDING #	BUILDING TYPE	1 BR	1 BR H.C.	2 BR	2 BR H.C.	TOTAL
BLDG. #1	A	11	1			12
BLDG. #2	B1			12		12
BLDG. #3	B2			11	1	12
BLDG. #4	B2			12		12
BLDG. #5	B2			12		12
TOTAL		11	1	47	1	60

HANDICAP UNITS DESIGNATED BY: ♿

LAMP POLES (VERIFY LOCATIONS WITH OWNER): ⊗

SPRINKLER CLOSET LOCATIONS: ■

FDC DESIGNATED BY: ▲

CONTRACTOR TO COORDINATE SPRINKLER CLOSET, FDC AND ELECTRICAL METER LOCATIONS W/ PROPER AUTHORITIES.

CONTRACTOR TO VERIFY DUMPSTER DIMENSIONS PRIOR TO CONSTRUCTION

No.	Date	Description
0	3.18.19	For Permit
1	6.4.19	Per City Comments

Job Number: 2016_24
 File Reference:

Scale: AS NOTED



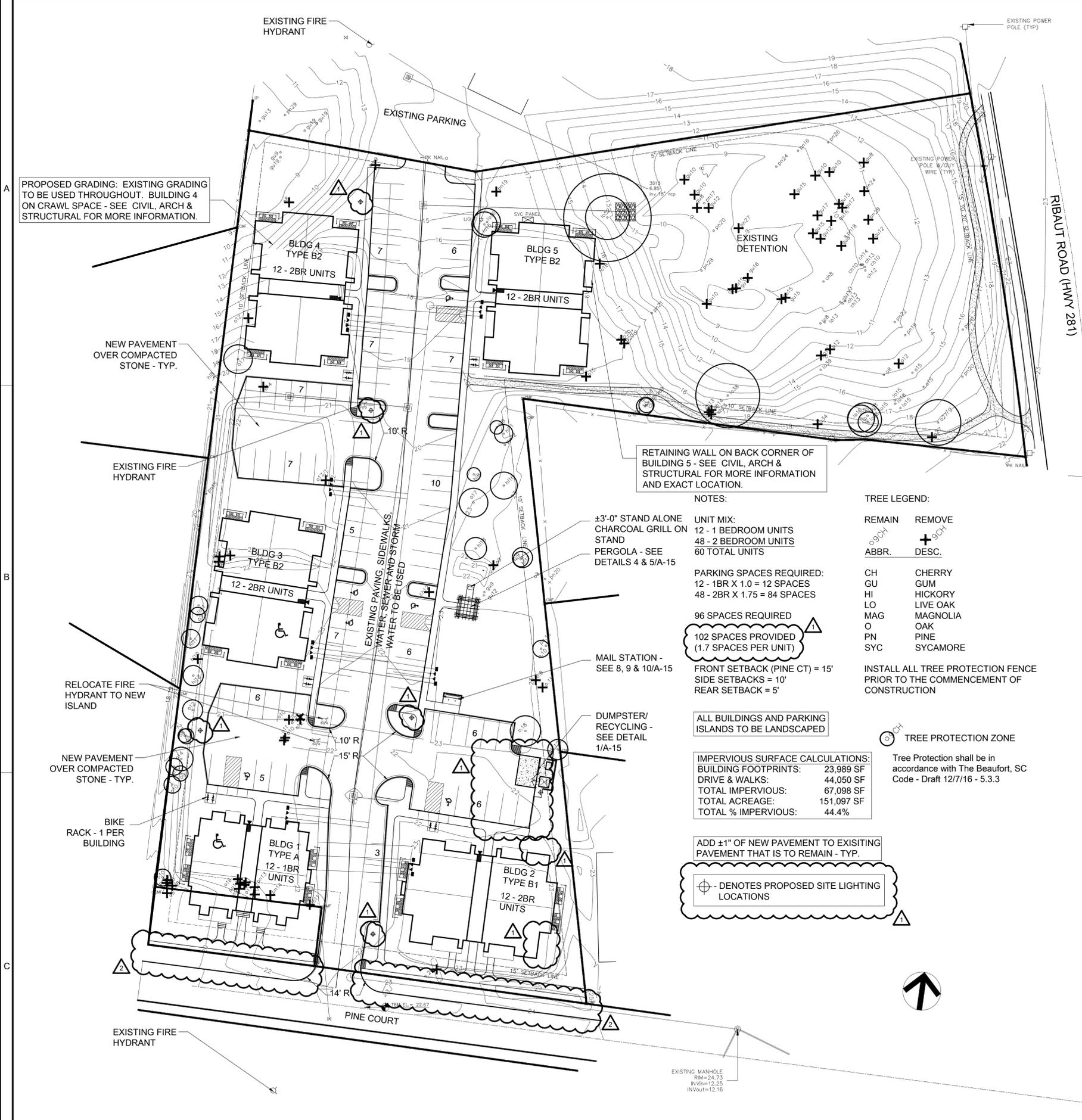
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SITE LAYOUT

Sheet Number:
SL-1.00

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PROPOSED GRADING: EXISTING GRADING TO BE USED THROUGHOUT. BUILDING 4 ON CRAWL SPACE - SEE CIVIL, ARCH & STRUCTURAL FOR MORE INFORMATION.

NEW PAVEMENT OVER COMPACTED STONE - TYP.

EXISTING FIRE HYDRANT

RELOCATE FIRE HYDRANT TO NEW ISLAND

NEW PAVEMENT OVER COMPACTED STONE - TYP.

BIKE RACK - 1 PER BUILDING

EXISTING FIRE HYDRANT

EXISTING PAVING, SIDEWALKS, WATER, SEWER AND STORM WATER TO BE USED

RETAINING WALL ON BACK CORNER OF BUILDING 5 - SEE CIVIL, ARCH & STRUCTURAL FOR MORE INFORMATION AND EXACT LOCATION.

NOTES:

±3'-0" STAND ALONE CHARCOAL GRILL ON STAND PERGOLA - SEE DETAILS 4 & 5/A-15

UNIT MIX:
12 - 1 BEDROOM UNITS
48 - 2 BEDROOM UNITS
60 TOTAL UNITS

PARKING SPACES REQUIRED:
12 - 1BR X 1.0 = 12 SPACES
48 - 2BR X 1.75 = 84 SPACES

96 SPACES REQUIRED
102 SPACES PROVIDED
(1.7 SPACES PER UNIT)

FRONT SETBACK (PINE CT) = 15'
SIDE SETBACKS = 10'
REAR SETBACK = 5'

ALL BUILDINGS AND PARKING ISLANDS TO BE LANDSCAPED

IMPERVIOUS SURFACE CALCULATIONS:
BUILDING FOOTPRINTS: 23,989 SF
DRIVE & WALKS: 44,050 SF
TOTAL IMPERVIOUS: 67,039 SF
TOTAL ACREAGE: 151,097 SF
TOTAL % IMPERVIOUS: 44.4%

ADD ±1" OF NEW PAVEMENT TO EXISTING PAVEMENT THAT IS TO REMAIN - TYP.

⊕ - DENOTES PROPOSED SITE LIGHTING LOCATIONS

TREE LEGEND:

REMAIN REMOVE
ABB. +
DESC. CH

CH CHERRY
GU GUM
HI HICKORY
LO LIVE OAK
MAG MAGNOLIA
O OAK
PN PINE
SYC SYCAMORE

INSTALL ALL TREE PROTECTION FENCE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION

⊙ CH TREE PROTECTION ZONE

Tree Protection shall be in accordance with The Beaufort, SC Code - Draft 12/7/16 - 5.3.3

BUILDING BREAKDOWN

BUILDING #	BUILDING TYPE	1 BR	1 BR H.C.	2 BR	2 BR H.C.	TOTAL
BLDG. #1	A	11	1			12
BLDG. #2	B1			12		12
BLDG. #3	B2			11	1	12
BLDG. #4	B2			12		12
BLDG. #5	B2			12		12
TOTAL		11	1	47	1	60

HANDICAP UNITS DESIGNATED BY: ♿

LAMP POLES (VERIFY LOCATIONS WITH OWNER): ⊗

SPRINKLER CLOSET LOCATIONS : ■

FDC DESIGNATED BY : ▲

CONTRACTOR TO COORDINATE SPRINKLER CLOSET, FDC AND ELECTRICAL METER LOCATIONS W/ PROPER AUTHORITIES.
CONTRACTOR TO VERIFY DUMPSTER DIMENSIONS PRIOR TO CONSTRUCTION

No.	Date	Description
0	3.18.19	For Permit
1	6.4.19	Per City Comments
2	7.30.19	

Job Number: 2016_24
File Reference:

Scale: AS NOTED



PINE COURT APARTMENTS
BEAUFORT, SOUTH CAROLINA

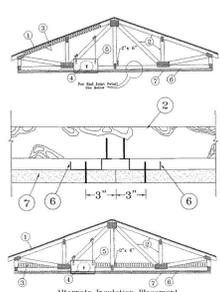
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(864) 242-0177

SITE LAYOUT

Sheet Number:
SL-1.00

UL Design No. P522

Design No. P522
Unrestrained Assembly Rating -- 1 Hr
Finish Rating -- 25 Min (See Items 3 or 3A)



1. Roofing System -- Any UL Class A, B or C Roofing System (TG/UF) or Prepared Roof Covering (TFWZ) acceptable for use over nom 15/32 in. thick wood structural panels, min. grade "C-D" or "Sheathing". Nom 15/32 in. thick wood structural panels secured to trusses with No. 6d ringed shank nails spaced 12 in. OC along each truss. Staples having equal or greater withdrawal and lateral resistance strength may be substituted for the 6d nails. Construction details may be used with either the nails or staples.
2. Trusses -- Pitched or parallel chord wood trusses, spaced a max of 24 in. OC, fabricated from nom 2 by 4 lumber, with lumber oriented vertically or horizontally. Truss members secured together with min. 0.0356 in. thick galv steel plates. Plates have 5/16 in. long teeth projecting perpendicular to the plane of the plate. The teeth are in pairs facing each other (made by the same punch), forming a split tooth type joint. Each tooth has a chisel point on its outside edge. These points are diagonally opposite each other for each pair. The top half of each tooth has a twist for stiffness. The pairs are repeated on approximately 7/8 in., centers with four rows of teeth per inch of plate width. Where the truss intersects with the interior face of the exterior walls, the min truss depth shall be 5-1/4 in. with a min roof slope of 3/12 and a min. area in the plane of the truss of 21 sqft. Where the truss intersects with the interior face of the exterior walls, the min truss depth may be reduced to 4 1/2 in., if the batts and blankets (Item 3) are used as shown in the above illustration (Alternate Insulation Placement) and are firmly packed against the intersection of the bottom chords and the plywood sheathing.
3. Batts and Blankets -- (Optional) -- Glass fiber insulation, secured to the wood structural panels with staples spaced 12 in. OC or to the trusses with 0.090 in. diam galv steel wires spaced 12 in. OC. Any glass fiber insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance, having a min density of 0.5 pcf. As an option, the insulation may be fitted in the concealed space, draped over the resilient channel/gypsum board ceiling membrane when resilient channels and gypsum board attachment is modified as specified in Items 6 and 7. The finished rating has only been determined when the insulation is secured to the decking.
3A. Loose Fill Material -- As an alternate to Item 3 -- Any thickness of loose fill material bearing the UL Classification Marking for Surface Burning Characteristics, having a min density of 0.5 pcf, applied within the concealed space, over the resilient channel/gypsum board ceiling membrane when resilient channels and gypsum board attachment is modified as specified in Items 6 and 7. The finished rating has only been determined when the loose fill material is used as specified in Item 3.
4. Air Duct -- Any UL Class 0 or Class 1 flexible air duct installed in accordance with the instructions provided by the damper manufacturer.
5. Ceiling Damper -- Max nom area, 324 sq in. Max square size, 18 in. by 18 in. rectangular sizes not to exceed 324 sq in. with a max width of 18 in. Max damper height is 14 in. Installed in accordance with manufacturers installation instructions provided with the damper. Max damper openings not to exceed 162 sq in. per 100 sq ft of ceiling area.
C&S AIR PRODUCTS -- Model RD-521

5A. Alternate Ceiling Damper -- Max nom area, 196 sq in. Max square size, 14 in. by 14 in. Rectangular sizes not to exceed 196 sq in. with a max width of 24 in. Max overall damper height is 7 in. Installed in accordance with the manufacturers installation instructions provided with the damper. Max damper openings not to exceed 196 sq in. per 100 sq ft of ceiling area.
C&S AIR PRODUCTS -- Model RD-521-BT

6. Furring Channels -- Resilient channels, nom. 1/2 in. deep by 2-3/8 in. wide at the base and 1-3/8 in. wide at the face, formed from 0.020 in. thick galv steel. Installed perpendicular to the trusses (Item 2), spaced a max of 16 in. OC when trusses (Item 3 or 3A) is fitted in the field, or a max of 12 in. OC when insulation (Item 3 or 3A) is fitted in the concealed space, draped over the resilient channel/gypsum board ceiling membrane. Two courses of resilient channel positioned 6 in. OC at wallboard butt-joints (3 in. from each end of wallboard). Channels oriented opposite at wallboard butt-joints. Channel splices overlapped 4 in. beneath wood trusses. Channels secured to each truss with 1/4 in. long, Type S screw (finish rating 24 min).
6A. Steel Framing Members -- (Not Shown) -- As an alternate to Item 6, furring channels and Steel Framing Members as described below:
a. Furring Channels -- Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to trusses when no insulation (Items 3 or 3A) is fitted in the concealed space or 12 in. OC when insulation (Items 3 or 3A) is fitted in the concealed space, draped over the furring channel/gypsum board ceiling membrane or 24 in. OC when insulation (Items 3 or 3A) is fitted in the concealed space, draped over the furring channel/gypsum board ceiling membrane and a second layer of gypsum board is attached as described in Item 7 for steel framing members. Channels secured to joists as described in Item 6. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap.
b. Steel Framing Members -- Used to attach furring channels (Item a) to trusses (Item 2). Clips spaced 48 in. OC and secured to alternating trusses with No. 8 x 2-1/2 in. coils drywall screw through the center grommet. Furring channels are friction fitted into clips.
As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 7.
PAC INTERNATIONAL INC -- Type RSC1-C.

7. Gypsum Board -- One layer of nom 5/8 in. thick by 48 in. wide boards, installed with long dimension parallel to trusses. Attached to the resilient channels using 1 in. long Type S bugle-head screws. Screws spaced a max of 12 in. OC along butted end-joints and in the field when no insulation (Item 3 or 3A) is fitted in the concealed space, or a max of 8 in. OC along butted end-joints and in the field when insulation (Item 3 or 3A) is fitted in the concealed space, draped over the resilient channel/gypsum board ceiling membrane. When Steel Framing Members (Item 6A) are used, sheets installed with long dimension perpendicular to furring channels and side joints of sheet located beneath trusses. Gypsum board screws are driven through channel spaced 12 in. OC in the field when no insulation (Item 3 or 3A) is fitted in the concealed space, or 8 in. OC in the field when insulation (Item 3 or 3A) is fitted in the concealed space, draped over the furring channel/gypsum board ceiling membrane. Gypsum board butt joints shall be staggered nom. 2 ft. within the assembly, and occur between the main furring channels. At the gypsum board butt joints, each end of the gypsum board shall be supported by a single length of furring channel equal

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to the width of the wallboard plus 6 in. on each end. The furring channels shall be spaced approximately 3-1/2 in. OC, and be attached to the trusses with one RSC1-C clip at each end of the channel. Screw spacing along the butt joint to attach the gypsum board to the furring channels shall be 8 in. OC. Second (outer) layer of gypsum board required when furring channels (Item 6A), are spaced 24 in. OC and insulation is fitted in the concealed space, draped over the furring channel/gypsum board ceiling membrane. Outer layer of gypsum board attached to the furring channels using 1-5/8 in. long Type S bugle-head screws spaced 8 in. OC at butted joints and 12 in. OC in the field. Butted end joints of outer layer to be offset a minimum of 8 in. from base layer end joints. Butted side joints of outer layer to be offset minimum 18 in. from butted side joints of base layer.

CANADIAN GYPSUM COMPANY -- Types C, IP-X2, IPC-AR, UNITED STATES GYPSUM CO -- Types C, IP-X2, IPC-AR.
USG MEXICO S A DE C V -- Types C, IP-X2, IPC-AR.

8. Finishing System -- (Not Shown) -- Vinyl, dry or premixed joint compound, applied to joints and screw-heads, paper tape, 2 in. wide, 2 in. thick, embedded in first layer of compound over all joints. As an alternate, nom 3/32 in. thick veneer plaster may be applied to the entire surface of gypsum board. Alternate Ceiling Membrane -- Not Shown.
9. Steel Framing Members --
a. Main runners -- Installed perpendicular to Structural Steel Members -- Nom 10 or 12 in. long, 15/16 in. or 1-1/2 in. wide face, spaced 4 ft OC. Main runners hung a max of 2 in. from bottom chord of Structural Steel Members with 12 SWG galv steel wire. Wires located a max of 48 in. OC.
b. Cross tees or channels -- Nom 4 ft long, 15/16 in. or 1-1/2 in. wide face or cross channels, nom 4 ft long, 1-1/2 wide face, installed perpendicular to the main runners, spaced 16 in. OC. Additional cross tees or channels used at 8 in. from each side of butted gypsum board end joints. The cross tees or channels may be riveted or screw-attached to the wall angle or channel to facilitate the ceiling installation.
c. Wall angles or channels -- Used to support steel framing member ends and for screw-attachment of the gypsum wallboard -- Min 0.016 in. thick painted or galvanized steel angle with 1 in. legs or min. 0.016 in. thick painted or galvanized steel channel with 1 by 1-1/2 by 2 in. profile, attached to walls at perimeter of ceiling. Furring Channels or Steel Framing Members 16 in. OC.
CGC INTERIORS, DIV OF

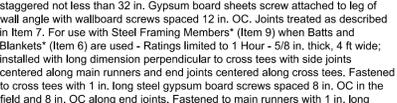
CGC INC -- Type DGL or RX.
USG INTERIORS INC -- Type DGL or RX.

10. Gypsum Board -- For use with Steel Framing Members (Item 9) when Batts and Blankets (Item 6) are not used -- One layer of nom 5/8 in. thick by 48 in. wide boards, installed with long dimension parallel to the main runners. Gypsum board fastened to each cross tee or channel with five wallboard screws, with one screw located at the midpoint of the cross tee or channel, one screw located 12 in. from and on each side of the cross tee or channel mid span and one screw located 1-1/2 in. from each gypsum board side joint. Except at wallboard end joints, wallboard screws shall be located on alternating sides of cross tee flange. At gypsum board end joints, gypsum board screws shall be located 1/2 in. from the joint. Gypsum board fastened to main runners with wallboard screws 1/2 in. from side joints, midway between intersections with cross tees or channels (16 in. OC). End joints of adjacent gypsum board sheets shall be staggered not less than 32 in. Gypsum board sheets screw attached to leg of wall angle with wallboard screws spaced 12 in. OC. Joints treated as described in Item 7. For use with Steel Framing Members (Item 9) when Batts and Blankets (Item 6) are used -- Ratings limited to 1 Hour - 5/8 in. thick, 4 ft wide; installed with long dimension perpendicular to cross tees with side joints centered along main runners and end joints centered along cross tees. Fastened to cross tees with 1 in. long steel gypsum board screws spaced 8 in. OC in the field and 8 in. OC along end joints. Fastened to main runners with 1 in. long gypsum board screws spaced midway between cross tees. Screws along sides and ends of boards spaced 3/8 to 1/2 in. from board edge. End joints of the sheets shall be staggered with spacing between joints on adjacent boards not less than 4 ft OC.
CANADIAN GYPSUM COMPANY -- Type C or IP-X2.

UNITED STATES GYPSUM CO -- Type C or IP-X2.
USG MEXICO S A DE C V -- Type C or IP-X2.
*Bearing the UL Classification Mark

UL Design No. F-C-2020

SYSTEM NO. F-C-2020
F Ratings -- 1 and 2 Hr (See Item 1)
T Rating -- 1 and 2 Hr (See Item 1)
L Rating at Ambient -- 1 CFM/sq ft
L Rating At 400 F -- Less than 1 CFM/sq ft



1. Floor-Ceiling Assembly -- The 1 hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the material and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The 2 hr fire-rated wood joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in Design Nos. L505, L511 or L535 in the UL Fire Resistance Directory. The F and T Ratings of the firestop system are equal to the hourly fire rating of the floor-ceiling assembly. The general construction features of the floor-ceiling assembly are summarized below:
A. Flooring System -- Lumber or Plywood subfloor with finish floor of lumber, plywood, or Floor Topping Mixture as specified in the individual Floor-Ceiling Design Max diam. of floor opening is 5 in.
B. Wood Joists -- For 1 hr fire-rated floor-ceiling assemblies, nom 10 in. deep (or deeper) lumber, steel or combination lumber and steel joists. Joists or Structural Wood Members with bridging as required and with ends firestopped. For 2 hr fire-rated floor-ceiling assemblies, nom 2 by 10 in. lumber joists spaced 16 in. OC when nom 1 by 3 in. lumber bridging and with ends firestopped.
C. Furring Channels -- (Not Shown) -- In 2 hr fire-rated assemblies, resilient galv steel furring installed perpendicular to wood joists between first and second layers of wallboard (Item 1D). Furring channels spaced max 24 in. OC. In 1 hr fire-rated assemblies, resilient galv steel furring installed perpendicular to wood joists between wallboard and wood joists as specified in the individual Floor-Ceiling Design. Furring channels spaced max 24 in. OC.
D. Gypsum Board -- Nom 4 ft wide by 5/8 in. thick as specified in the individual Floor-Ceiling Design. First layer of wallboard secured to wood joists or furring channels as specified in the individual Floor-Ceiling Design. Second layer of wallboard (2 hr fire-rated assembly) screw-attached to furring channels as specified in the individual Floor-Ceiling Design. Max diam of ceiling opening is 5 in.

UL Design No. F-C-2020 CONT.

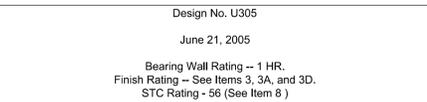
2. Through Penetrants -- One nonmetallic pipe or conduit to be installed approximately midway between wood joists and centered within the firestop system. Diam of opening hole-drawn through flooring system and through gypsum wallboard ceiling to be 1/4 in. larger than the outside diam of through-penetrant. Pipe or conduit to be rigidly supported on both sides of the floor-ceiling assembly. The following types and sizes of nonmetallic pipes or conduits may be used:
A. Polyvinyl Chloride (PVC) Pipe -- Nom 4 in. diam (or smaller) Schedule 40 solid core PVC pipe for use in closed (process or supply) or vented (drain, waste, or vent) piping system.
B. Rigid Nonmetallic Conduit+ -- Nom 4 in. diam (or smaller) Schedule 40 PVC conduit installed in accordance with Article 347 or the National Electrical Code (NFPA No. 70).
C. Chlorinated Polyvinyl Chloride (CPVC) Pipe -- Nom 4 in. diam (or smaller) SDR11 CPVC pipe for use in closed (process or supply) or vented (drain, waste, or vent) piping systems.

3. Firestop System -- The firestop system shall consist of the following:
A. Fill, Void, or Cavity Material+ -- Sealant -- Fill material forced into annulus to fill space to max extent possible, flush with top surface of floor and bottom surface of ceiling.
B. Firestop Device -- Galv steel collar lined with an intumescent material sized to fit the specific diam of the through-penetrant Device shall be installed around through-penetrant in accordance with the accompanying installation instructions. Device incorporates anchor tabs for securement to finished gypsum wallboard ceiling by means of 3/16 in. diam by 3-1/2 in. long toggle bolts in conjunction with 1/4 in. by 1-1/4 in. diam steel fender washers.
SPECIFIED TECHNOLOGIES INC -- Spesceal Firestop Collar

+ Bearing the UL Listing Mark

UL Design No. U305

Design No. U305
June 21, 2005
Bearing Wall Rating -- 1 HR.
Finish Rating -- See Items 3, 3A, and 3D.
STC Rating - 56 (See Item 8)



1. Wood Studs -- Nom 2 by 4 in. spaced 16 in. OC max, effectively firestopped.
2. Joints and Nail-Heads -- Exposed or covered with fiber tape and joint compound, except where required for specific edge configuration. For tapered, rounded-edge gypsum board, joints covered with joint compound or fiber tape and joint compound. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of the gypsum board. Joints reinforced. Nailheads exposed or covered with joint compound.
3. Gypsum Board -- 5/8 in. thick paper or vinyl surfaced, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels nailed 7 in. OC with 6d cement coated nails 1-7/8 in. long, 0.0915 in. shank diam and 15/64 in. diam heads. When used in widths other than 48 in., gypsum panels are to be installed horizontally. For an alternate method of attachment of gypsum panels, refer to Item 6 or 6A, Steel Framing Members.

When Item 6, Steel Framing Members, is used, gypsum panels attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC.
When Item 6A, Steel Framing Members, is used, two layers of gypsum panels attached to furring channels. Base layer attached to furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC. Face layer attached to furring channels with 1-5/8 in. long Type S bugle-head steel screws spaced 12 in. OC. All joints in face layers staggered with joints in base layers. One layer of gypsum board attached to opposite side of wood stud without furring channels as described in Item 3.
When Item 7, resilient channels are used, 5/8 in. thick, 4 ft wide gypsum panels applied vertically. Screw attached furring channels with 1 in. long self-drilling, self-tapping Type S or S-12 steel screws spaced 8 in. OC, vertical joints located midway between studs.
AMERICAN GYPSUM CO -- Types AGX-1 (finish rating 23 min.), Type AGX-11 (finish rating 26 min) or Type AG-C
BEIJING NEW BUILDING MATERIALS CO LTD -- Type DBX-1 (finish rating 24 min)

BPB AMERICA INC -- Type 1, Type SF3 (finish rating 20 min) or FRPC, ProRoC Type C or ProRoC Type X (finish rating 26 min), Type EGRG (finish rating 23 min)
BPB CANADA INC -- ProRoC Type C, ProRoC Type X or ProRoC Type Abuse-Resistant (finish rating 26 min)
CANADIAN GYPSUM COMPANY -- Type AR (finish rating 24 min), Type C (finish rating 24 min), Type FCV (finish rating 24 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type IP-X2 (finish rating 24 min), Type SCX (finish rating 24 min), Type SHX (finish rating 24 min), Type WRC (finish rating 24 min), Type WRX (finish rating 24 min)

G-P GYPSUM CORP. SUB OF GEORGIA-PACIFIC CORP -- Type 5 (finish rating 26 min), Type 6 (finish rating 23 min), Type 9 (finish rating 26 min), Type C (finish rating 26 min), Type DGG (finish rating 20 min), Type GPF51 (finish rating 20 min), Type GPF52 (finish rating 20 min), Type GPF56 (finish rating 26 min), Type DS, Type DAP, Type DD (finish rating 20 min), DA.
LAFARGE NORTH AMERICA INC -- Type LGFC2 (finish rating 20 min), Type LGFC3 (finish rating 20 min), Type LGFC6 (finish rating 26 min), Type LGFC-C (finish rating 20 min), Type LGFCFA (finish rating 34 min), Type LGFC2A, Type LGFC-C/A.
NATIONAL GYPSUM CO -- Type FSK (finish rating 20 min), Type FSK-G (finish rating 20 min), Type FSW (finish rating 20 min), Type FSW-2 (finish rating 24 min), Type FSW-3 (finish rating 20 min), Type FSW-5 (finish rating 22 min), Type FSW-G (finish rating 20 min), Type FSK-C (finish rating 20 min), Type FSW-C (finish rating 20 min), Type FSMR-C.
PARCO GYPSUM, DIV OF PACIFIC COAST BUILDING PRODUCTS INC -- Types C, PG-2 (finish rating 20 min), PG-3 (finish rating 20 min), Types PG-3W, PG-5W (finish rating 20 min), Type PG-4 (finish rating 20 min), Type PG-6 (finish rating 23 min), Types PG-3WS, PG-5WS (finish rating 20 min), Types PG-5, PG-9 (finish rating 26 min) or Type PG-C.
PIANEL REY S A -- Type FRX.
SUMMIT GYPSUM INDUSTRY (SARABURI) CO LTD -- Type EX-1 (finish rating 26 min)
STANDARD GYPSUM L L C -- Type SGC (finish rating 20 min), Type SGC-3 (finish rating 20 min), Type SGC-C or SGC-G (finish rating 20 min), FRX-6, VPBX-6, FRWRX-6, TC-C or FRX-6 Exterior Gypsum Soffit Board.
TEMPLE-INLAND FOREST PRODUCTS CORP -- Types T (finish rating 20 min), VPB-Type T (finish rating 20 min), WR-Type T (finish rating 20 min), Type T SHTG (finish rating 20 min), Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X.
UNITED STATES GYPSUM CO -- Type AR (finish rating 24 min), Type SCX (finish rating 24 min), Type FCV (finish rating 24 min), Type WRX (finish rating 24 min), Type FCV (finish rating 24 min), Type IP-X1 (finish rating 24 min), Type FCV (finish rating 24 min), Type FRX-G (finish rating 29 min), Type IP-AR (finish rating 24 min), Type IP-C-AR (finish rating 24 min).
USG MEXICO S A DE C V -- Type AR (finish rating 24 min), Type C (finish rating 24 min), Type FCV, Type IP-X2, Type SHX, Type SCX, Type IP-AR, Type IP-C-AR.

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24 min), Type IP-AR (finish rating 24 min), Type IPC-AR (finish rating 24 min).
3A. Gypsum Board -- (As an alternate to Item 3) -- 5/8 in. thick gypsum panels, with beveled, square, or tapered edges, applied either horizontally or vertically. Gypsum panels fastened to framing with 1/4 in. long Type W coarse thread gypsum panel steel screws spaced a max 8 in. OC, with last screw 1 in. from edge of board. When used in widths other than 48 in., gypsum boards are to be installed horizontally. Finished Rating is 24 minutes.
CANADIAN GYPSUM COMPANY -- Types AR, Type C, Type FCV, Type IP-AR, Type IP-C-AR, Type IP-X1, Type IP-X2, Type SCX, Type SHX, Type WRX, Type WRC, Type WRX.
UNITED STATES GYPSUM CO -- Type AR, Type SCX, Type C, Type WRX, Type WRC, Type IP-X1, Type FCV, Type IP-X2, Type SHX, Type FRX-G, Type IP-AR, Type IP-C-AR.
USG MEXICO S A DE C V -- Type AR, Type C, Type WRX, Type WRC, Type IP-X1, Type FCV, Type IP-X2, Type SHX, Type SCX, Type IP-AR, Type IP-C-AR.

3B. Gypsum Board -- (As an alternate to Item 3) -- Nom 3/4 in. thick, installed with 1-7/8 in. long cement coated nails as described in Item 3 or 1-3/8 in. long Type W coarse thread gypsum panel steel screws as described in Item 3A.
CANADIAN GYPSUM COMPANY -- Types AR, IP-AR, UNITED STATES GYPSUM CO -- Types AR, IP-AR.
USG MEXICO S A DE C V -- Types AR, IP-AR.
3C. Gypsum Board -- (As an alternate to Items 3, 3A and 3B) -- 5/8 in. thick, 2 ft wide, tongue and groove edge, applied horizontally to one side of the assembly. Installed with 1-7/8 in. long cement coated nails as described in Item 3 or 1-1/4 in. long Type W coarse thread gypsum panel steel screws as described in Item 3A. Joint covering (Item 2) not required.
CANADIAN GYPSUM COMPANY -- Type SHX.
UNITED STATES GYPSUM CO -- rating 24 Type SHX.
USG MEXICO S A DE C V -- Type SHX.

3D. Wall and Partition Facings and Accessories -- (As an alternate to Items 3, 3A, 3B and 3C, not shown) -- Nominal 5/8 in. thick, 4 ft wide panels, applied vertically to studs and bearing plates on one side of the assembly with 1-5/8 in. long Type S screws spaced 12 in. OC at perimeter of panels and 8 in. OC in the field. Horizontal joints of vertically applied panels need not be backed by studs. Panel joints covered with paper tape and two layers of joint compound. Screwheads covered with two layers of joint compound. Batts and Blankets placed in stud cavity as described in Item 5E. Not evaluated for use with Steel Framing Members. Furring Channels or Steel Framing Members.
QUIET SOLUTION INC -- Type QuietRoC FR-530 (finish rating 23 min).
4. Batts and Blankets -- (Optional) -- For use with wall corners, Channel shaped, 2 in. long by 1 in. high on the back side with two 1/8 in. wide cleats protruding into the 5/8 in. wide channel, fabricated from 24 gauge galv steel. Fasteners applied only to the end or cut edge (not along tapered edges) of the gypsum board, no greater than 2 in. from corner of gypsum board, max spacing 16 in. OC. Nailed to adjacent stud through tab using one No. 6d cement coated nail per fastener. Corners of wall board shall be nailed to top and bottom plate using No. 6d cement coated nails.
5. Batts and Blankets+ -- (Optional - Required when Item 6A is used) -- Glass fiber or mineral wool insulation. Placed to completely or partially fill the stud cavities. When Item 6A is used, glass fiber or mineral wool insulation shall be placed to completely fill the stud cavities and shall be secured to the studs 24 in. OC with staples, nails or screws.
CERTANTEED CORP
GUARDIAN FIBERGLASS INC
JOHNS MANVILLE INTERNATIONAL INC
KNAUF FIBER GLASS GMBH
OWENS CORNING INT. INC, DIV OF OWENS CORNING -- Coming Fiberglas Corp.
ROCK WOOL MANUFACTURING CO -- Delta Board.
ROXUL INC
THERMAFIBER INC -- Type SAFB.

5A. Fiber, Sprayed* -- (Not shown - Not for use with Item 6A) As an alternate to Batts and Blankets (Item 5) -- Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 3.0 lb/ft3. Alternate application method: The fiber is applied with U.S. Greenfiber LLC Type AD100 hot melt adhesive at a nominal ratio of one part adhesive to 6.6 parts fiber to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 2.5 lb/ft3.
U S GREENFIBER L L C -- Cocoon2 Stabilized or Cocoon-FRM (Fire Rated Material)
5B. Fiber, Sprayed* -- (Not shown - Not for use with Item 6A) As an alternate to Batts and Blankets (Item 5) and Item 5A -- Spray applied cellulose insulation material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.
NJ-WOOL CO INC -- Cellulose Insulation
5C. Batts and Blankets+ -- Required for use with resilient channels, Item 7, 3 in. thick mineral wool batts, placed to completely fill the stud cavity, attached to the 4 in. face of the studs with staples placed 24 in. OC.
THERMAFIBER INC -- Type SAFB
5D. Glass Fiber Insulation -- (As an alternate to Item 5C) -- 3 in. thick glass fiber batts bearing the UL Classification Marking 24 -- as to Surface Burning and/or Fire Resistance, placed to fill the interior of the wall, attached to the 4 in. face of the studs with staples placed 24 in. OC. See Batts and Blankets (Item 5) or Batts and Blankets (Item 5A) for names of manufacturers.
5E. Batts and Blankets+ -- (Required for use with Wall and Partition Facings and Accessories, Item 3D) -- Glass fiber insulation, nom 3-1/2 in. thick, min. density of 0.80 pcf, with a flame spread of 25 or less and a smoke developed of 50 or less, friction-fitted to completely fill the stud cavities. See Batts and Blankets Category (BKX) for names of manufacturers.
6. Steel Framing Members (Optional, Not Shown) -- Furring channels and Steel Framing Members as described below:
a. Furring Channels -- Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 6. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. Ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 3.
b. Steel Framing Members -- used to attach furring channels (Item a) to studs (Item 1). Clips spaced 48 in. OC, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips.
PAC INTERNATIONAL INC -- Type RSC1-C.

6A. Steel Framing Members (Optional, Not Shown) -- Furring channels and Steel Framing Members on one side of studs as described below:
a. Furring Channels -- Formed of No. 25 MSG galv steel, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 6. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. Ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping #6 framing screws, min. 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Gypsum board attached to furring channels as described in Item 3.
b. Steel Framing Members -- used to attach furring channels (Item a) to studs (Item 1). Clips spaced 48 in. OC, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. Furring channels are friction fitted into clips.
KINETICS NOISE CONTROL INC -- Type IsoMax.

7. Furring Channel -- Optional - Not Shown - For use on one side of the wall - Resilient channels, 25 MSG galv steel, spaced vertically 24 in. OC, flange portion screw attached to one side of studs with 1-1/4 in. long diamond shaped joint, double lead Phillips head steel screws. When resilient channels are used, insulation, Items 5C or 5D is required.
8. Caulking and Sealants -- (not shown, optional) A bead of acoustical sealant applied around the partition perimeter for sound control.
9. STC Rating -- The STC Rating of the wall assembly is 56 when it is constructed as described in Item 5.
A. Item 1, above - Nailheads Shall be covered with joint compound.
B. Item 2, above - Joints As described, shall be covered with fiber tape and joint compound.
C. Item 5, above - Batts and Blankets+ The cavities formed by the studs shall be friction fit with R-19 unfaced fiberglass insulation batts measuring 6-1/4 in. thick and 15-1/4 in. wide.

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D. Item 6, above - Steel Framing Members* Shall be used to attach gypsum board to studs on rating 24 either the acoustical source or receiving side of the wall assembly.
E. Item 7, above - Caulking and Sealants (not shown) A bead of acoustical sealant shall be applied around the partition perimeter for sound control.
F. Steel Corner Fasteners (Item 4), Fiber, Sprayed (Items 5A and 5B) and Steel Framing Members (Item 6A), not evaluated as alternatives for obtaining STC rating.
*Bearing the UL Classification Mark

UL Design No. U356

Design No. U356
(Exposed to Fire on Interior Face Only)
Bearing Wall Rating - 1 Hr
Finish Rating - 23 Min



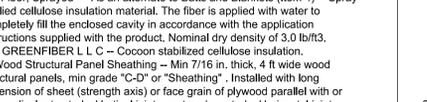
1. Wood Studs -- Nom 2 by 4 in. spaced 16 in. OC with two 2 by 4 in. top and end by 4 in. bottom plates. Studs laterally-braced by wood structural panel sheathing (Item 5) and effectively fire stopped at top and bottom of wall.
2. Gypsum Board -- Any Classified 5/8 in. thick, 4 ft wide, applied vertically and nailed to studs and bearing plates 7 in. OC with 6d cement-coated nails, 1-7/8 in. long with 1/4 in. diam head.
See Gypsum Board (CKNX) category for names of Classified Companies.
3. Joints and Nailheads -- (Not Shown) -- Wallboard joints covered with tape and joint compound. Nail heads covered with joint compound.
4. Batts and Blankets -- Mineral fiber or glass fiber insulation, 3-1/2 in. thick, pressure fit to fill wall cavities between studs and plates. Mineral fiber insulation to be unfaced and to have a min density of 3 pcf. Glass fiber insulation to be faced with aluminum foil or kraft paper and to have a min density of 0.9 pcf (min R-13 thermal insulation rating).
See Batts and Blankets (BKX) Category in the Building Materials Directory and Batts and Blankets (BZJZ) Category in the Fire Resistance Directory for names of Classified Companies.

4A. Fiber, Sprayed* -- As an alternate to Batts and Blankets (Item 4) -- Spray applied cellulose insulation material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 3.0 lb/ft3. U S GREENFIBER L L C -- Cocoon stabilized cellulose insulation.
5. Wood Structural Panel Sheathing -- Min 7/16 in. thick, 4 ft wide wood structural panels, min grade "C-D" or "Sheathing". Installed with long dimension of sheet (strength axis) or face grain of plywood parallel with or perpendicular to studs. Vertical joints centered on studs. Horizontal joints backed with nom 2 by 4 in. wood blocking. Attached to studs on exterior side of wall with 6d cement coated box nails spaced 6 in. OC at perimeter of panels and 12 in. OC along interior studs.
6. Exterior Facings -- Installed in accordance with the manufacturer's installation instructions. One of the following exterior facings is to be applied over the sheathing:
A. Vinyl Siding -- Molded Plastic* -- Contoured rigid vinyl siding having a flame spread value of 20 or less.
See Molded Plastic (B2AT) category in the Building Materials Directory for names of manufacturers.
B. Particle Board Siding -- Hardboard exterior sidings including patterned panel or lap siding.
C. Wood Structural Panel or Lap Siding -- APA Rated Siding, Exterior, plywood, OSB or composite panels with veneer faces and structural wood core, per PS 1 or APA Standard PRP-108, including textured, rough sawn, medium density overlay, brushed, grooved and lap siding.
D. Cementitious Stucco -- Portland cement or synthetic stucco systems with self-furring metal lath or adhesive base coat. Thickness from 3/8 to 3/4 in., depending on system.
E. Brick Veneer -- Any type on nom 4 in. wide brick veneer. When brick veneer is used, the rating is applicable with exposure on either face. Brick veneer fastened with corrugated metal wall ties attached over sheathing to wood studs with 8d nail per tie; ties spaced not more than each sixth course of brick and max 32 in. OC horizontally. One in. air space provided between brick veneer and sheathing.
F. Exterior Insulation and Finish System (EIFS) -- Nom 1 in. Foamed Plastic* insulation bearing the UL Classification Marking, attached over sheathing and finished with coating system, or Portland cement or synthetic stucco systems, in accordance with manufacturer's instructions. See Foamed Plastic (BRYX and CCWV) categories for names of Classified companies.
G. Siding -- Aluminum or steel siding attached over sheathing to studs.
H. Fiber-Cement Siding -- Fiber-cement exterior sidings including smooth and patterned panel and lap siding.

*Bearing the UL Classification Mark

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Bearing Wall Rating -- 1 Hr.
Finish Rating -- Min 20 min.



1. Wood Studs -- Nom 2 by 4 in. spaced 24 in. OC max. Cross braced at mid-height and effectively firestopped at top and bottom of wall.
2. Gypsum Board -- Any Classified 5/8 in. thick, 4 ft wide, wallboard or lath applied horizontally or vertically and nailed to studs and bearing plates 7 in. OC with 6d cement coated nails, 1-7/8 in. long, 0.0915 in. shank diam and 1/4 in. diam head. As an alternate, No. 6 bugle head drywall screws, 1-7/8 in. long, may be substituted for the 6d cement coated nails.
3. Steel Framing Members (Optional, Not Shown) -- Furring channels with 1 in. long Type S bugle-head steel screws spaced 12 in. OC.

When used in widths other than 48 in., gypsum board to be installed horizontally.
See Gypsum Board (CKNX) category for names of Classified companies.

3. Joints and Nailheads -- Wallboard joints of outer layer covered with tape and joint compound. Nail heads of outer layer covered with joint compound. As an alternate, nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard.
4. Sheathing -- (Optional) -- Sheathing may be sheathed with min 7/16 in. thick wood structural panels min grade "C-D" or "Sheathing" or min 1/2 in. thick Mineral and Fiber Boards*. Use Mineral and Fiber Boards (CERZ) category for names of Classified companies.
5. Batts and Blankets+ -- 3-1/2 in. max thickness glass or mineral fiber batt insulation. Optional when sheathing (Item 4) is used on both halves of wall. See Batts and Blankets (BZJZ) category for list of Classified companies.

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5A. Fiber, Sprayed* -- As an alternate to Batts and Blankets (Item 5) -- Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 3.0 lb/ft3. Alternate application method: The fiber is applied with U.S. Greenfiber LLC Type AD100 hot melt adhesive at a nominal ratio of one part adhesive to 6.6 parts fiber to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 2.5 lb/ft3.
U S GREENFIBER L L C -- Cocoon2 Stabilized or Cocoon-FRM (Fire Rated Material)
5B. Fiber, Sprayed* -- As an alternate to Batts and Blankets (Item 5) and Item 5A.
6 Steel Framing Members (Optional, Not Shown) -- Furring channels and Steel Framing Members as described below:
A. Furring Channels -- Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 6. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be

1	2	3	4	5	
<p>00300 - GENERAL CONDITIONS</p> <p>1. SPECIFICATIONS EXPLANATION A. The Specifications have been partially "stream lined" and some words and phrases have been intentionally omitted. Missing portions shall be supplied by inference as with notes on drawings. B. Words such as "approved," "inspected," "directed," and "selected" shall be construed to be followed by the words "By the Architect." C. Words such as "unsatisfactory," "submitted," and "reported," shall be construed to be followed by the words "To the Architect." D. Words such as "install," "provide," "furnish," and "supply," shall be construed to include complete furnishing, installing, or constructing in accordance with the best industry standards, unless modified by additional information. E. Instructions, Directions, and Requirements, as specified, shall be construed to be followed by the phrase "unless otherwise specified or indicated". If for some reason Instructions, Directions and Requirements are not specifically noted, the contractor shall assume that he must follow manufacturer's specifications or industry standards, whichever are most stringent.</p> <p>2. STANDARDS A. References to standards, codes, specifications, recommendations, and regulations, refer to the latest edition or printing in effect at the date of issue shown on the Documents unless other such date is implied by the suffix number of the standard. B. Applicable portions of the referenced standards listed that are not in conflict with the Contract Documents shall be construed as part of the specifications for this work. C. Specified variations from the standards listed shall be construed as amendments and the unaltered portions shall remain in full effect. D. In cases of discrepancies or variations between the specification and standard practice, the requirements of the specifications shall govern. E. In cases of discrepancies or variations between the referenced standards, the more stringent requirements shall govern.</p> <p>3. DELIVERIES AND STORING A. Schedule deliveries and unloading to prevent traffic congestion, blocking of access, and interference with work. B. Provide for continuity of supply to avoid change of supplier or change in brand of materials during any phase of work. C. Pack and handle materials to prevent damage during delivery as specified by manufacturer. D. Store materials at locations that will not interfere with progress of work. Arrange locations for storage in approximate order of intended use. Store materials in a manner that will prevent damage. Materials shall be covered and kept dry from the elements. All materials shall be stored off the ground. Only material stored on site or in an approved, bonded warehouse will be considered as "stored materials" as it applies to construction pay requests by the contractor.</p> <p>4. MANUFACTURER'S DIRECTIONS A. Apply, install, connect, and erect manufactured items or materials according to the recommendations of the manufacturer when such recommendations are not in conflict with Contract Documents. If there is a conflict, the Architect is to be notified. B. Furnish, on request, copies of manufacturer's recommendations to the Architect before proceeding with work.</p> <p>5. MANUALS AND INSTRUCTIONS A. Deliver to the Owner, upon substantial completion of the work, three copies of maintenance and instruction manuals customarily supplied by manufacturers for items incorporated in this work. B. Give physical demonstration and oral instructions for proper operation and maintenance of machines and equipment to the Owner or his designated representative.</p>	<p>03332 - GYPSUM FLOOR FILL</p> <p>MATERIAL (@ 2nd & 3rd floors) A. Material used shall be gypsum cement sound insulating material. (Alternate: Homasote sound deadening board) B. Materials shall be batched in accordance with manufacturer's recommendations. Compressive strength shall be at least 1000 PSI tested in accordance with ASTM C471-73. C. Gypsum topping product and its installation shall comply with criteria of the UL fire assembly noted on the drawings. D. Verify with owner/contractor if acoustical mat is to be used at hard tile areas (kitchen, bathroom, etc locations)</p> <p>INSTALLATION A. Comply with manufacturer's written recommendations for substrate temperature and moisture content, ambient temperature and humidity, ventilation, and other conditions affecting underlayment performance. B. Close areas to traffic during underlayment application and for time period after application recommended in writing by manufacturer. C. Prior to placing the floor fill, the sub-floor shall be properly treated per manufacturer's specifications. D. Gypsum cement shall be placed in careful workmanlike manner to avoid splashing on walls. Any such splashing shall be removed immediately while the material is still plastic. E. The gypsum cement shall be spread to 3/4" thickness and troweled to produce a flat surface, suitable for application of the specified floor covering. Topping is to be applied to elevated interior floor decks and patio storage closet floor deck. F. Topping shall be installed beneath bathtub and shower units installed on 1X4 blocking.</p> <p>FINISHES A. Interior areas to be covered by carpet shall be given a float finish. Surface is to be level and plane without ridges. B. Interior areas not covered by carpet shall have a fine finish.</p>	<p>6. Protection requirements for completed masonry and masonry not being worked on a. Mean daily air temperature 40 F. to 32 F.: Protect masonry from rain or snow for 24 hr. by covering with weather resistive membrane. b. Mean daily air temperature 32 F. to 25 F.: Completely cover masonry with weather resistive membrane for 24 hr. c. Mean daily air temperature 25 F. to 20 F.: Completely cover masonry with insulating blankets or equal protection for 24 hr. d. Mean daily air temperature 20 F. and below: Maintain masonry temperature above 32 F. for 24 hr. by enclosure and supplementary heat, or electric heating blankets, or infrared lamps, or other approved methods. D. Provide pre-cast decorative concrete caps at Pool fence piers, at Trash station fence piers and column bases as indicated on the drawings.</p> <p>04100 - MORTAR</p> <p>MORTAR A. Mortar for all masonry walls shall conform to the requirements of ASTM C 270 for Type N for above grade work, except as specified elsewhere, and Type S for below grade work. B. Pre-mixed mortar: Selected brick mortar shall be a standard color by Holcim Rainbow Mortamix® Custom Color, equal. Verify with owner/contractor if color is required. C. Site mixed mortar ingredients: 1. Portland Cement: ASTM C 150, Type I 2. Hydrated Lime: ASTM C 207, Type S 3. Sand: ASTM C 144 4. Water: Drinkable quality C. Mixing: 1. Provide mortar Type "N" or Type "S" as designated on the drawings or otherwise directed by the Architect, and in accordance with ASTM C 270. 2. Proportions: a. For Type "N" mortar, provide one (1) part portland cement to one (1) part hydrated lime and six (6) parts sand by volume. b. For Type "S" mortar, provide one (1) part portland cement to one-half (1/2) part hydrated lime and four and one-half (4 1/2) parts sand by volume. 3. The method of measuring shall be such that the specified proportions can be accurately maintained. Measurement of sand by shovel shall not be permitted. 4. All cementitious materials and aggregate shall be mixed for at least three (3) minutes and not more than five (5) minutes in a mechanical batch mixer, with a maximum amount of water to produce a workable consistency. 5. Mortar shall not be retempered. D. Mortar joints shall be tooled concave.</p> <p>GROUT A. Ingredients: 1. Portland cement shall comply with ASTM C 150, Type I 2. Provide clean, sharp, well graded aggregate free from injurious amounts of dust, lumps, shale, alkali, surface coatings, and organic matter. 3. Do not use admixtures unless specifically approved in advance by the Architect. 4. Provide water free from injurious amounts of acids, alkalis, and organic materials. B. Mixing: 1. Provide "fine grout" or "coarse grout" as designated on the Drawings or otherwise directed by the Architect, and in accordance with ASTM C 476. 2. When the minimum grout compressive strength is required to be more than 2000 PSI, provide laboratory design mix prepared as required for design mixes of concrete under Section 03300 of these Specifications. 3. Proportions: a. For "fine grout", provide one (1) part portland cement to 2 1/4 parts minimum to three (3) parts maximum of damp loose sand, with sufficient water to achieve fluid consistency. b. For "coarse grout", provide one (1) part portland cement to three (3) parts maximum of damp loose sand to two (2) parts coarse aggregate, with sufficient water to achieve fluid consistency. 4. "Fluid consistency" is interpreted as meaning as fluid as possible for pouring intimately in place without segregation. C. Use "fine grout" where called for on the Drawings, where the grout space is less than 3" in its least dimension, and where otherwise directed by the Architect or required by governmental agencies having jurisdiction</p>	<p>ANCHORS AND TIES A. Coated or corrosion resistant metal meeting or exceeding applicable standard. 1. Zinc coating flat metal: ASTM A 153. 2. Zinc coating of wire: ASTM A 116, Class 3. B. Type: 1. Wire mesh: a. Minimum gage: 20 b. Mesh: 12 in. by 12 in. c. Galvanized wire d. Width: 1 in. less than width of masonry 2. Corrugated veneer ties: a. Minimum gage: 22 b. Minimum width: 7/8 in. c. Length: 6 in.</p> <p>0410 - BRICK VENEER</p> <p>FACING BRICK: A. ASTM C 216, Grade SW. B. Dimensions: "queen-size" (Verify with Owner) C. Decorative Brick/Block: (Verify with Owner) D. Minimum compressive strength: 2500 PSI E. Brick shall be selected by Owner. (Verify with Owner) F. Do not exceed variations in color and texture of samples accepted by the Owner. G. Brick manufacturer shall be Boral, Richtex, Statesville, General Shale or owner approved.</p> <p>ERECTOR A. Examine the areas and conditions under which this work is to be performed. Correct conditions detrimental to the timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected. B. Cleaning Reinforcement: Before being placed, remove loose rust, ice and other coatings from reinforcement. C. Pattern Bond: 1. Lay exposed masonry in running bond. 2. See Drawings for brick veneer, special masonry, accessories, insets, off-sets, and projections. 3. Brick veneer returns to overings and vertical edges of panels return to building/sheathing or "kill" to an inside corner. D. Joining of Work: 1. Where fresh masonry joints partially set masonry: a. Remove loose brick and mortar. b. Clean and lightly wet exposed surface of set masonry. 2. Stop off horizontal run of masonry by racking back 1/2 length of unit in each course. 3. Tooling is not permitted except upon written acceptance of the Architect/Engineer. C. Tooling: 1. Tool exposed joints when "thumb print" hard with a round jointer, slightly larger than width of joints. 2. Trowel point or concave tool exterior joints below grade. 3. Clean surface of masonry smooth and free from projections which might puncture flashing material. a. Place through wall flashing on bed of mortar. b. Cover flashing with mortar. D. Weep Holes: 1. Provide weep holes in head joints at base of veneer (below finish slab elevation) panels and in brick course immediately above all flashing by leaving brick hole free and clean of mortar. Maximum spacing: 32 in. o.c. 2. Keep weep holes and area above flashing free of mortar droppings. E. Leave joints around outside perimeters of exterior doors, window frames and other wall openings for sealant: Depth: uniform 3/4 in., Width: 1/4 in. to 3/8 in. F. Movement Joints are to be kept clean from all mortar and debris. Locate joints as shown on drawings. G. Cut exposed brick with motor driven saw, or by other methods which provide cuts that are straight and true. H. Mortar Joint Thickness: Lay all brick with 3/8 in +/- joint. I. Air space between brick and sheathing: Keep at least the minimum air space allowed by local codes. J. Moisture protection at sheathing: Overlapping #15 roofing felt or other moisture protection as required by code. K. Brick Installation: 1. Lay brick plumb and true to lines. 2. Lay with completely filled mortar joints. 3. Do not furrow bed joints. 4. Butter ends of brick with sufficient mortar to fill head joints. 5. Rock closures into place with head joints thrown against two adjacent brick in place. L. Cavity Walls: 1. Keep cavity in cavity walls clean by Slightly beveling mortar bed to incline toward cavity OR lacing wood strips with attached wire pulls on metal ties. Before placing next row of metal ties, remove and clean wood strips. 2. As work progresses, trowel protruding mortar fins in cavity flat on to inner face of wythe.</p>	<p>05500 - METAL FABRICATIONS</p> <p>GENERAL A. Work included: Provide miscellaneous metal work shown on the Drawings, as specified herein, and as needed for a complete and proper installation. Railings to match construction of pre-fabricated steel stair system. 1. Cane detection rails 2. Handrails 3. Guardrails 4. Other miscellaneous metal work as indicated on the drawings. B. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section. C. Perform shop and/or field welding required in connection with the work of this Section in strict accordance with pertinent recommendations of the American Welding Society.</p> <p>SUBMITTALS A. Product data: Within 35 calendar days after the Contractor has received the Owner's Notice to Proceed, submit: 1. Materials list of items proposed to be provided under this Section; 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements; 3. Shop Drawings in sufficient detail to show fabrication, installation, anchorage, and interface of the work of this Section with the work of adjacent trades; 4. Manufacturer's recommended installation procedures which, when approved by the Architect, will become the basis for accepting or rejecting actual installation procedures used on the Work.</p> <p>MATERIALS A. In fabricating items which will be exposed to view, limit materials to those which are free from surface blemishes, pitting, rolled trade names, and roughness. B. Comply with following standards, as pertinent: 1. Steel plates, shapes, and bars: ASTM A36; 2. Steel plates to be bent or cold-formed: ASTM A283, grade C; 3. Steel tubing (hot-formed, welded, or seamless): ASTM A501; 4. Steel bars and bar-size shapes: ASTM A306, grade 65, or ASTM A36; 5. Cold-finished steel bars: ASTM A108; 6. Cold-rolled carbon steel sheets: ASTM A336; 7. Galvanized carbon steel sheets: ASTM A526, with G90 zinc coating in accordance with ASTM A525; 8. Stainless steel sheets: AISI type 302 or 304, 24 gage, with number 4 finish; 9. Gray iron castings: ASTM A48, class 10; 10. Malleable iron castings: ASTM A47; 11. Steel pipe: ASTM A53, grade A, schedule 40, black finish unless otherwise noted; 12. Concrete inserts: a. Threaded or wedge type galvanized ferrous castings of malleable iron complying with ASTM A27; b. Provide required bolts, shims, and washers, hot-dip galvanized in accordance with ASTM A153.</p> <p>FASTENERS A. General: 1. For exterior use and where built into exterior walls, provide zinc-coated fasteners. 2. Provide fasteners of type, grade, and class required for the particular use. B. Comply with following standards as pertinent. 1. Bolts and nut: Provide hexagon-head regular type complying with ASTM A307, grade A; 2. Lag bolts: Provide square-head type complying with Fed Spec FF-A-111; 3. Machine Screws: Provide cadmium plated steel type complying with Fed Spec FF-A-111; 4. Plain washers: Comply with Fed Spec FF-W-92, round, carbon steel; 5. Lock washers: Comply with Fed Spec FF-W-84, helical spring type carbon steel; 6. Toggle bolts: Provide type, class, and style needed but complying with Fed Spec FF-B-588; 7. Anchorage devices: Provide expansion shield complying with Fed Spec FF-S-325.</p> <p>OTHER MATERIALS A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.</p> <p>SHOP PAINT A. Primer: Use "10-99 Thnec Primer" or "Rustoleum Number 5769 Primer." B. For repair of galvanizing, use a high zinc-dust content paint complying with MIL-P-21035.</p> <p>FABRICATION A. Except as otherwise shown on the Drawings or the approved Shop Drawings, use materials of size, thickness, and type required to produce reasonable strength and durability in the work of this Section. B. Fabricate with accurate angles and surfaces which are true to the required lines and levels, grinding exposed welds smooth and flush, forming exposed connections with halfline joints, and using concealed fasteners wherever possible. C. Prior to shop painting or priming, properly clean metal surfaces as required for the applied finish and for the proposed use of the item. D. On surfaces inaccessible after assembly or erection, apply two coats of the specified primer. Change color of second coat to distinguish it from the first.</p> <p>EXECUTION A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section. B. Immediately after erection, clean the field welds, bolted connections, and abraded areas of shop priming. Paint the exposed areas with same material used for shop priming.</p>	<p>05512 - PREFABRICATED STEEL STAIR SYSTEMS</p> <p>GENERAL A. Provide prefabricated and custom metal stair systems, including rails, anchors, supports and other accessories. B. Comply with applicable code requirements and the following criteria. In case of conflict, the more stringent requirements shall govern. Stairs shall withstand the following structural loads without exceeding the allowable design working stress of materials, including anchors and connections. Apply each load to produce the maximum stress in each component. 1. Treads and Platforms of Metal Stairs: Capable of withstanding a uniform load of 100 lbs/ft and concentrated load of 300 lbf applied on an area of 4 square inches. Concentrated and uniform loads need not be assumed to act concurrently. 2. Stair Framing: Capable of withstanding stresses resulting from loads specified in addition to stresses resulting from railing system loads. 3. Limit deflection of treads, platforms and framing members to L/240 or 1/4 inch whichever is less. 4. Top Rail of Guardrail shall be capable of withstanding a concentrated load of 200 lbf applied in any direction and a uniform load of 50 lbf/ft, applied in any direction. Concentrated and uniform loads need not be assumed to act concurrently.</p> <p>DELIVERY, STORAGE, AND HANDLING A. Deliver stair and rail components in Manufacturer's pre-bundled protective wrapping, clearly labeled for stair type and location in building. B. Store stair and rail components above ground, protected from exposure to the elements and from physical damage caused by other construction activities. Rusted, bent, warped or otherwise damaged units will not be accepted. C. Field Measurements: General Contractor will provide guaranteed field measurements if schedule does not allow for physical dimensioning. Otherwise field verify floor to floor and horizontal dimensions of spaces where stairs will be installed prior to fabrication of stairs under this section.</p> <p>MATERIALS A. Steel Shapes and Plates: ASTM A36; B. Steel Pipe: ASTM A53, Type E or S, Grade B. C. Steel Tubing: 1. Structural use: ASTM A500, Grade B or C. 2. Non-Structural Use: ASTM A513, hot rolled or cold rolled (mill option). D. Steel Sheet: 1. Structural use: ASTM A570 (hot rolled) or A366 (cold rolled). 2. Non-Structural Use: ASTM A585 (hot rolled) or A366 (cold rolled). E. Provide all necessary anchor bolts, clip angles, hanger rods and other hardware, accessories and incidental materials required for complete installation of stairs and rails.</p> <p>STAIR AND RAIL SYSTEM A. Manufacturer's standard prefabricated, pre-engineered straight run stair consisting of pre-cast concrete treads and steel plate or channel stringers with top mounted prefabricated railings. Provide landings if shown on drawings. 1. Stringers: Minimum thickness or gauge as determined by structural design calculations, structural grade steel plate or channel. 2. Treads: Drop-In Precast Treads: 1-1/2 inch thick, 5,000 psi, compressive strength. Natural concrete color with broom finish. Bolt to angle mounts on inside face of stair stringers. Provide integral cast risers as indicated on drawings. 3. Mid Landings: Minimum of 11 gauge hot-rolled mild steel sheets, formed for a minimum 3 inches concrete fill, with 12 gage channel supports and bracing welded to perimeter frame at 12 inches o.c. 4. Fasteners and Supports: Sized by the Manufacturer to meet the structural design criteria. B. Rail System: 42 inch height picket style guard rail system with 34 inch ADA hand rail. Comply with details indicated on the Drawings. 1. Rails: 1-1/2 inches diameter by minimum 13 gauge round steel tube. Wrap rail continuously past space between flights to form guardrail as required by building code. Handrails shall have a minimum extension per code at top and bottom risers. Terminate rail ends with radiused returns, newel posts, or safety terminations approved by local code. Provide not less than 1-1/2 inches clear between handrail and guardrail or wall. 2. Rail Posts: 1-1/2 inches diameter by 11 gauge round steel tube. Rail posts to fasten to side of plate stringers per manufacturer's shop drawings. Manufacture to pre-weld erection aid to rail post for proper height to aid stair erector. Erection aid (Setting block) to be removed and weld ground smooth after installation. 3. Pickets: 1 inch diameter round steel tube at 4" o.c. maximum. C. Wall Handrails: Match stair handrails. Provide manufacturer's standard pressed steel wall brackets with anchors suitable for supporting construction.</p> <p>SHOP CLEANING AND FINISHING A. Rails and Stair Components: Completely remove oil, grease, dirt, mill scale, rust, corrosion products, oxides, paint or other foreign matter from surface of steel in accordance with SSPC-SP3, "Power Tool Cleaning." B. Shop Primer: Immediately after shop fabrication and cleaning, spray apply primer to a minimum dry film thickness as recommended by primer manufacturer, but not less than 2.0 mils. Apply one coat hi-solids red oxide anti corrosive primer meeting federal specifications TT-664, TT-P-636, and SSPC1364.</p> <p>INSTALLATION A. Do not begin installation until substrates and adjacent construction have been properly constructed. Verify structural framing, enclosures, weld plates, blocking, and size and location of pockets. B. If unsatisfactory conditions are encountered, notify Architect in writing. Do not proceed until unsatisfactory conditions have been corrected. C. Notify Manufacturer of any detail, design or tolerance deviations as noted or drawn on stair shop drawing. D. Install stairs, landings and handrails in accordance with manufacturer's instructions. Install square, plumb, straight, and true to line and level, with neatly fitted joints and intersections. 1. Welds in area of travel shall be ground smooth. 2. Do not cut or alter structural components without written authorization. 3. Field welding and joining shall conform to AWS D1.1 and AWS D1.3 requirements. E. Installation shall be secure and rigid. 4. Landing and flights properly spaced and within Manufacturer's tolerance. Set railing level and uniformly spaced. 5. Attach rail post to stringers and install wall railing per approved shop drawings. 6. Grind all exposed welds smooth and touch up shop-primed areas with same primer as used by Manufacturer. 7. Touch-up field welds and abraded areas by application of same coating used for shop primer. E. Repair or replace damaged components. F. After stairs are completely installed, remove all construction debris and rubbish from area. Clean surface of exposed rail and stairs with wet cloth or mop. Leave stair system ready for finish painting.</p>
<p>02220 - SOIL TREATMENT</p> <p>MATERIALS A. Cypermethrin +/ 2 lb. Per gallon or as per local approved method. B. All termiticides shall be EPA registered, labeled and applied by a licensed applicator in accordance with manufacturer's label instructions</p> <p>TREATMENT A. Treat areas within exterior foundation walls including porches, entrance platforms, and under slabs. B. Treat areas after earth fill, and porous fill under slabs, has been compacted, and after piping and duct work is in place. Treat before installation of vapor barrier. C. Apply treatment only when soil is dried sufficiently to prevent flow from point of application. D. Cover treated areas and protect from disturbance and from contact with persons and animals.</p> <p>QUANTITIES (Or as per manufacturer's instructions) A. Treat interior slabs on earth fill at a rate of one gallon per 10 square feet. B. Treat porous fill at a rate of one gallon per 7 square feet. C. Treat exterior slabs at a rate of one gallon per 2 1/2 lineal feet per foot of wall depth in shallow trench. D. Treat exterior foundation walls at a rate of one gallon per 2 1/2 lineal feet per foot of wall depth in shallow trench. E. Treat voids of unit masonry foundation walls at a rate of 2 gallons per 5 lineal feet. F. Treat expansion joints, conduits, and piping, through slabs, at a rate of 2 gallons per 7 square feet to 3 feet from subject.</p> <p>GUARANTEE A. Deliver to the Owner a surety bonded guarantee that the following listed requirements have been met. 1. Chemical used was as specified and had at least the required concentration. 2. Rate and methods of application has met requirements of the specifications. 3. Re-treatment will be made without cost to Owner, on evidence of termite infestation within a period of five years. 4. Repairs, or replacements, will be made of parts of structures damaged by subterranean termites during guarantee period.</p>	<p>04000 - UNIT MASONRY & MORTAR</p> <p>MATERIALS A. CONCRETE MASONRY UNITS: Provide shapes indicated, special shapes for lintels, corners, jamps, sash, control joints, headers, bonding, and other special conditions. Provide square-edged units for outside corners, unless indicated as bullnose. B. Concrete Masonry Units: ASTM C 90 and as follows: 1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 2150 psi. 2. Weight Classification: Medium weight. 3. Provide Type II, nonmoisture-controlled units. 4. Size (Width): Manufactured to the following dimensions: BRICK: Provide shapes indicated and as follows for each form of brick required: 1. Provide units without cores or frogs and with exposed surfaces finished for ends of sills and caps and for similar applications that would otherwise expose unfinished brick surfaces. 2. Provide special shapes for applications requiring brick of size, form, color, and texture on exposed surfaces that cannot be produced by sawing. 3. Provide special shapes for applications where stretcher units cannot accommodate special conditions, including those at corners, movement joints, bond beams, sashes, and lintels. 4. Provide special shapes for applications where shapes produced by sawing would result in sawed surfaces being exposed to view. C. Face Brick: ASTM C 216, Grade SW and as follows: 1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 3000 psi. 2. Initial Rate of Absorption: Less than 20 g/30 sq. in. per minute when tested per ASTM C 67. 3. Efflorescence: Provide brick that has been tested according to ASTM C 67 and is rated "not effloresced." 4. Surface Coloring: Brick with surface coloring, other than flashed or sand-finished brick, shall withstand 50 cycles of freezing and thawing per ASTM C 67 with no observable difference in the applied finish when viewed from 10 feet (3 m). 5. Size - Modular: 3-1/2 to 3-5/8 inches wide by 2-1/4 inches high by 7-1/2 to 7-5/8 inches long. 6. Color and Texture: As selected by the owner from manufacturer's standards.</p> <p>SUBMITTALS A. Furnish Sample Panel approximately 4 ft. long, by 3 ft. high, showing the proposed brick selection(s) color range, texture, bond, mortar and workmanship 1. When required, provide a separate panel for each type of brick or mortar. 2. Do not start work until Architect/Engineer has accepted sample panel. 3. Use panel as standard of comparison for all masonry work built of same material. 4. Do not destroy or move panel until work is completed and accepted by Owner.</p> <p>PRODUCT DELIVERY, STORAGE AND HANDLING A. Store brick off ground to prevent contamination by mud, dust or materials likely to cause staining or other defects. B. Cover materials when necessary to protect from elements. C. Protect reinforcement from elements.</p> <p>JOB CONDITIONS A. Protection of Work: 1. Wall Covering: a. During erection, cover top of wall with strong waterproof membrane at end of each day or shutdown. b. Cover partially completed walls when work is not in progress. c. Extend cover minimum of 24 in. down both sides. d. Hold cover securely in place. 2. Load Application: a. Do not apply uniform floor or roof loading for at least 12 hr. after building masonry columns or walls. b. Do not apply concentrated loads for at least 3 days after building masonry columns or walls. B. Staining: 1. Prevent grout or mortar from staining the face of masonry to be left exposed or painted: a. Remove immediately grout or mortar in contact with face of such masonry. b. Protect all sills, ledges and projections from droppings of mortar, protect door jambs and corners from damage during construction. C. Cold Weather Protection: 1. Preparation: a. If ice or snow has formed on masonry bed, remove by carefully applying heat until top surface is dry to the touch. b. Remove all masonry deemed frozen or damaged. 2. When brick suction exceeds recommendations, sprinkle with heated water: a. When units are above 32 F., heat water above 70 F. b. When units are below 32 F., heat water above 130 F. 3. Use dry masonry units. 4. Do not use wet or frozen units. 5. Construction requirements while work is progressing: No masonry shall be laid when the temperature has dropped below 45 F. unless it is rising. At no time when the temperature has dropped below 40 F may masonry work proceed unless permission from the Architect is obtained before proceeding with the work</p>	<p>04200 - CONCRETE BLOCK</p> <p>SCOPE A. This work includes concrete block work, mortar, and other related items necessary to complete the work indicated by the Contract Documents unless specifically excluded. B. 8" CMU foundation/retaining walls. 1. Ladder-style horizontal reinforcing continuous every-other course. 2. Fill cells with 2,000 psi. grout. C. 8" CMU fence-pier caps at swimming pool enclosure and trash station. Fill cavity solid with rubble and mortar, or concrete</p> <p>MATERIALS: (A.S.T.M. latest edition) A. Portland Cement: ASTM C 150, Type I B. Masonry cement: ASTM C 91 C. Sand: ASTM C 144, Natural D. Water: Drinkable Quality E. Joint reinforcing: ASTM A82, No. 9 gauge, ladder type F. Flashing: Polyethylene 20 mil thick, or 4 oz. copper coated paper G. Mortar & Grout: ASTM C 476</p> <p>REINFORCING A. Install continuous joint reinforcing in alternate courses of all block walls. Use galvanized, corrugated ties or equal in nominal size equivalent to total wall thickness.</p> <p>BUILT-IN-WORK A. Consult other trades in advance and make provisions for installation of their work in order to avoid cutting and patching. B. Built in flashings, sleeves, anchors, clips, and other accessories as the work progresses. C. Install loose lintels in full beds of mortar. Fill voids at metal frames with mortar.</p> <p>CLEANING A. Keep face of block work free from excess mortar while laying block. B. On completion, point up all exposed block, fill all holes and joints; remove loose mortar, cut out defective joints and re-point where necessary. Masonry surfaces to be exposed, either painted or unpainted, shall be thoroughly cleaned. Leave surfaces free from mortar or other stains at completion of work.</p> <p>REINFORCEMENT A. Welded steel wire: ASTM A 185 B. Billet steel deformed bars: ASTM A 615, Grade 40</p>	<p>05500 - METAL FABRICATIONS</p> <p>GENERAL A. Work included: Provide miscellaneous metal work shown on the Drawings, as specified herein, and as needed for a complete and proper installation. Railings to match construction of pre-fabricated steel stair system. 1. Cane detection rails 2. Handrails 3. Guardrails 4. Other miscellaneous metal work as indicated on the drawings. B. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section. C. Perform shop and/or field welding required in connection with the work of this Section in strict accordance with pertinent recommendations of the American Welding Society.</p> <p>SUBMITTALS A. Product data: Within 35 calendar days after the Contractor has received the Owner's Notice to Proceed, submit: 1. Materials list of items proposed to be provided under this Section; 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements; 3. Shop Drawings in sufficient detail to show fabrication, installation, anchorage, and interface of the work of this Section with the work of adjacent trades; 4. Manufacturer's recommended installation procedures which, when approved by the Architect, will become the basis for accepting or rejecting actual installation procedures used on the Work.</p> <p>MATERIALS A. In fabricating items which will be exposed to view, limit materials to those which are free from surface blemishes, pitting, rolled trade names, and roughness. B. Comply with following standards, as pertinent: 1. Steel plates, shapes, and bars: ASTM A36; 2. Steel plates to be bent or cold-formed: ASTM A283, grade C; 3. Steel tubing (hot-formed, welded, or seamless): ASTM A501; 4. Steel bars and bar-size shapes: ASTM A306, grade 65, or ASTM A36; 5. Cold-finished steel bars: ASTM A108; 6. Cold-rolled carbon steel sheets: ASTM A336; 7. Galvanized carbon steel sheets: ASTM A526, with G90 zinc coating in accordance with ASTM A525; 8. Stainless steel sheets: AISI type 302 or 304, 24 gage, with number 4 finish; 9. Gray iron castings: ASTM A48, class 10; 10. Malleable iron castings: ASTM A47; 11. Steel pipe: ASTM A53, grade A, schedule 40, black finish unless otherwise noted; 12. Concrete inserts: a. Threaded or wedge type galvanized ferrous castings of malleable iron complying with ASTM A27; b. Provide required bolts, shims, and washers, hot-dip galvanized in accordance with ASTM A153.</p> <p>FASTENERS A. General: 1. For exterior use and where built into exterior walls, provide zinc-coated fasteners. 2. Provide fasteners of type, grade, and class required for the particular use. B. Comply with following standards as pertinent. 1. Bolts and nut: Provide hexagon-head regular type complying with ASTM A307, grade A; 2. Lag bolts: Provide square-head type complying with Fed Spec FF-A-111; 3. Machine Screws: Provide cadmium plated steel type complying with Fed Spec FF-A-111; 4. Plain washers: Comply with Fed Spec FF-W-92, round, carbon steel; 5. Lock washers: Comply with Fed Spec FF-W-84, helical spring type carbon steel; 6. Toggle bolts: Provide type, class, and style needed but complying with Fed Spec FF-B-588; 7. Anchorage devices: Provide expansion shield complying with Fed Spec FF-S-325.</p> <p>OTHER MATERIALS A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.</p> <p>SHOP PAINT A. Primer: Use "10-99 Thnec Primer" or "Rustoleum Number 5769 Primer." B. For repair of galvanizing, use a high zinc-dust content paint complying with MIL-P-21035.</p> <p>FABRICATION A. Except as otherwise shown on the Drawings or the approved Shop Drawings, use materials of size, thickness, and type required to produce reasonable strength and durability in the work of this Section. B. Fabricate with accurate angles and surfaces which are true to the required lines and levels, grinding exposed welds smooth and flush, forming exposed connections with halfline joints, and using concealed fasteners wherever possible. C. Prior to shop painting or priming, properly clean metal surfaces as required for the applied finish and for the proposed use of the item. D. On surfaces inaccessible after assembly or erection, apply two coats of the specified primer. Change color of second coat to distinguish it from the first.</p> <p>EXECUTION A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section. B. Immediately after erection, clean the field welds, bolted connections, and abraded areas of shop priming. Paint the exposed areas with same material used for shop priming.</p>	<p>05512 - PREFABRICATED STEEL STAIR SYSTEMS</p> <p>GENERAL A. Provide prefabricated and custom metal stair systems, including rails, anchors, supports and other accessories. B. Comply with applicable code requirements and the following criteria. In case of conflict, the more stringent requirements shall govern. Stairs shall withstand the following structural loads without exceeding the allowable design working stress of materials, including anchors and connections. Apply each load to produce the maximum stress in each component. 1. Treads and Platforms of Metal Stairs: Capable of withstanding a uniform load of 100 lbs/ft and concentrated load of 300 lbf applied on an area of 4 square inches. Concentrated and uniform loads need not be assumed to act concurrently. 2. Stair Framing: Capable of withstanding stresses resulting from loads specified in addition to stresses resulting from railing system loads. 3. Limit deflection of treads, platforms and framing members to L/240 or 1/4 inch whichever is less. 4. Top Rail of Guardrail shall be capable of withstanding a concentrated load of 200 lbf applied in any direction and a uniform load of 50 lbf/ft, applied in any direction. Concentrated and uniform loads need not be assumed to act concurrently.</p> <p>DELIVERY, STORAGE, AND HANDLING A. Deliver stair and rail components in Manufacturer's pre-bundled protective wrapping, clearly labeled for stair type and location in building. B. Store stair and rail components above ground, protected from exposure to the elements and from physical damage caused by other construction activities. Rusted, bent, warped or otherwise damaged units will not be accepted. C. Field Measurements: General Contractor will provide guaranteed field measurements if schedule does not allow for physical dimensioning. Otherwise field verify floor to floor and horizontal dimensions of spaces where stairs will be installed prior to fabrication of stairs under this section.</p> <p>MATERIALS A. Steel Shapes and Plates: ASTM A36; B. Steel Pipe: ASTM A53, Type E or S, Grade B. C. Steel Tubing: 1. Structural use: ASTM A500, Grade B or C. 2. Non-Structural Use: ASTM A513, hot rolled or cold rolled (mill option). D. Steel Sheet: 1. Structural use: ASTM A570 (hot rolled) or A366 (cold rolled). 2. Non-Structural Use: ASTM A585 (hot rolled) or A366 (cold rolled). E. Provide all necessary anchor bolts, clip angles, hanger rods and other hardware, accessories and incidental materials required for complete installation of stairs and rails.</p> <p>STAIR AND RAIL SYSTEM A. Manufacturer's standard prefabricated, pre-engineered straight run stair consisting of pre-cast concrete treads and steel plate or channel stringers with top mounted prefabricated railings. Provide landings if shown on drawings. 1. Stringers: Minimum thickness or gauge as determined by structural design calculations, structural grade steel plate or channel. 2. Treads: Drop-In Precast Treads: 1-1/2 inch thick, 5,000 psi, compressive strength. Natural concrete color with broom finish. Bolt to angle mounts on inside face of stair stringers. Provide integral cast risers as indicated on drawings. 3. Mid Landings: Minimum of 11 gauge hot-rolled mild steel sheets, formed for a minimum 3 inches concrete fill, with 12 gage channel supports and bracing welded to perimeter frame at 12 inches o.c. 4. Fasteners and Supports: Sized by the Manufacturer to meet the structural design criteria. B. Rail System: 42 inch height picket style guard rail system with 34 inch ADA hand rail. Comply with details indicated on the Drawings. 1. Rails: 1-1/2 inches diameter by minimum 13 gauge round steel tube. Wrap rail continuously past space between flights to form guardrail as required by building code. Handrails shall have a minimum extension per code at top and bottom risers. Terminate rail ends with radiused returns, newel posts, or safety terminations approved by local code. Provide not less than 1-1/2 inches clear between handrail and guardrail or wall. 2. Rail Posts: 1-1/2 inches diameter by 11 gauge round steel tube. Rail posts to fasten to side of plate stringers per manufacturer's shop drawings. Manufacture to pre-weld erection aid to rail post for proper height to aid stair erector. Erection aid (Setting block) to be removed and weld ground smooth after installation. 3. Pickets: 1 inch diameter round steel tube at 4" o.c. maximum. C. Wall Handrails: Match stair handrails. Provide manufacturer's standard pressed steel wall brackets with anchors suitable for supporting construction.</p> <p>SHOP CLEANING AND FINISHING A. Rails and Stair Components: Completely remove oil, grease, dirt, mill scale, rust, corrosion products, oxides, paint or other foreign matter from surface of steel in accordance with SSPC-SP3, "Power Tool Cleaning." B. Shop Primer: Immediately after shop fabrication and cleaning, spray apply primer to a minimum dry film thickness as recommended by primer manufacturer, but not less than 2.0 mils. Apply one coat hi-solids red oxide anti corrosive primer meeting federal specifications TT-664, TT-P-636, and SSPC1364.</p> <p>INSTALLATION A. Do not begin installation until substrates and adjacent construction have been properly constructed. Verify structural framing, enclosures, weld plates, blocking, and size and location of pockets. B. If unsatisfactory conditions are encountered, notify Architect in writing. Do not proceed until unsatisfactory conditions have been corrected. C. Notify Manufacturer of any detail, design or tolerance deviations as noted or drawn on stair shop drawing. D. Install stairs, landings and handrails in accordance with manufacturer's instructions. Install square, plumb, straight, and true to line and level, with neatly fitted joints and intersections. 1. Welds in area of travel shall be ground smooth. 2. Do not cut or alter structural components without written authorization. 3. Field welding and joining shall conform to AWS D1.1 and AWS D1.3 requirements. E. Installation shall be secure and rigid. 4. Landing and flights properly spaced and within Manufacturer's tolerance. Set railing level and uniformly spaced. 5. Attach rail post to stringers and install wall railing per approved shop drawings. 6. Grind all exposed welds smooth and touch up shop-primed areas with same primer as used by Manufacturer. 7. Touch-up field welds and abraded areas by application of same coating used for shop primer. E. Repair or replace damaged components. F. After stairs are completely installed, remove all construction debris and rubbish from area. Clean surface of exposed rail and stairs with wet cloth or mop. Leave stair system ready for finish painting.</p>	
<p>003300 - CAST IN PLACE CONCRETE</p> <p>1. SEE STRUCTURAL DRAWINGS 2. For post tension concrete contractor to provide sealed drawings before installation to contractor and building department.</p>	<p>04000 - UNIT MASONRY & MORTAR</p> <p>MATERIALS A. CONCRETE MASONRY UNITS: Provide shapes indicated, special shapes for lintels, corners, jamps, sash, control joints, headers, bonding, and other special conditions. Provide square-edged units for outside corners, unless indicated as bullnose. B. Concrete Masonry Units: ASTM C 90 and as follows: 1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 2150 psi. 2. Weight Classification: Medium weight. 3. Provide Type II, nonmoisture-controlled units. 4. Size (Width): Manufactured to the following dimensions: BRICK: Provide shapes indicated and as follows for each form of brick required: 1. Provide units without cores or frogs and with exposed surfaces finished for ends of sills and caps and for similar applications that would otherwise expose unfinished brick surfaces. 2. Provide special shapes for applications requiring brick of size, form, color, and texture on exposed surfaces that cannot be produced by sawing. 3. Provide special shapes for applications where stretcher units cannot accommodate special conditions, including those at corners, movement joints, bond beams, sashes, and lintels. 4. Provide special shapes for applications where shapes produced by sawing would result in sawed surfaces being exposed to view. C. Face Brick: ASTM C 216, Grade SW and as follows: 1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 3000 psi. 2. Initial Rate of Absorption: Less than 20 g/30 sq. in. per minute when tested per ASTM C 67. 3. Efflorescence: Provide brick that has been tested according to ASTM C 67 and is rated "not effloresced." 4. Surface Coloring: Brick with surface coloring, other than flashed or sand-finished brick, shall withstand 50 cycles of freezing and thawing per ASTM C 67 with no observable difference in the applied finish when viewed from 10 feet (3 m). 5. Size - Modular: 3-1/2 to 3-5/8 inches wide by 2-1/4 inches high by 7-1/2 to 7-5/8 inches long. 6. Color and Texture: As selected by the owner from manufacturer's standards.</p> <p>SUBMITTALS A. Furnish Sample Panel approximately 4 ft. long, by 3 ft. high, showing the proposed brick selection(s) color range, texture, bond, mortar and workmanship 1. When required, provide a separate panel for each type of brick or mortar. 2. Do not start work until Architect/</p>				

06200 - FINISH CARPENTRY
EXTERIOR FINISH CARPENTRY
A. Brick mold door casings, solid synthetic, pre-finished white.
B. Glass door casings shall be fiber cement casing or owner approved.
C. Sill below exterior doors at elevated floor levels, 5/4 x 6 P.TSYP, Premium grade, KDAT.
D. Overhead door jamba, 2X8 #2 SPF, wrapped with pre-finished aluminum break-metal.
E. Trim, "nailer", extends deck to beam and receives railings at patios & breezeways. 1.5-in x 5.5-in x 10-ft exterior vinyl tube extrusion, pre-finished white. Brackets to be positioned on the "nailer" and fastened thru the "nailer" into solid wood frame/blocking. "Nailers" shall fit between deck floor and structure beam above, and align with face of elevated deck.
F. Patio & breezeway decking, 5/4 x 6 composite decking (UV resistant).
G. Patio & breezeway deck beams, #2 P.TSYP, selected for appearance. Verify with structural.
H. Patio post, 5.5-in x 5.5-in x 10-ft P.TSYP mfg. hollow post, "RealPost" by Woodtone Building Products, 800-863-3844 or as per contractor.
I. Patio and Breezeway guardrails at open ends, front and rear; prefabricated railings with steel reinforcement. Matching brackets and accessories.
J. Leasing Office painted trim and columns:
1. Smooth surface cement fiber panel.
2. Synthetic solid trim boards, KOMA or MiraTEC products.
3. Pre-fabricated cedar half-round openings and trim.
4. Porch soffits: painted smooth finish 5/8-in exterior gypsum board.
5. Brick mold window casings, solid synthetic, pre-finished white.
P. Other exterior woodwork: No. 2 Spruce-Fir or Cypress S4S, or GP Prime Trim or composite.
Q. All exterior finish carpentry material shall have eased edges.

INTERIOR FINISH CARPENTRY
A. Apartments
1. Casing, 2.25-in, solid finger-joint wood, FJ356.
2. Base, 3.25-in, solid finger-joint wood, FJ623.
3. Window sill, 5.25-in, solid finger-joint wood, FJ1021.
4. Window sill's apron, 3.25-in, solid finger-joint wood, FJ623.
5. Shoe mold, 0.5-in x 0.75-in solid wood, FJ129.
6. Chair rail (part A), 4.5-in backer molding solid finger-joint wood.
7. Chair rail (part B), 3-in rail molding solid finger-joint wood.
8. Window returns, smooth composite or 3/4-in white pine.
9. Window sill, 5.25-in, solid finger-joint wood.
10. Window sill's apron, 3.5-in, solid finger-joint wood.
11. Shoe mold, 0.5-in x 0.75-in solid wood.
12. Mantelpiece, pre-fabricated, paint grade.
13. Restroom Countertops, prefabricated post-form plastic laminates.
14. Kitchen Countertops, natural stone countertop and bar top, "Ubatuba" granite. Bar top edges "doubled" for appearance.
C. Maintenance buildings
1. Casing (storage closets & maint. shop only), 2.25-in, solid finger-joint wood, FJ356.
2. Base (maint. shop only), 5.25-in, solid finger-joint wood.
3. Shelving (maint. shop only), #2 white pine.

EXPOSED FINISH
A. Make joints over bearings/blocking.
B. Milled/Shaped trim shall have miter joints
C. Board trim shall have butt joints.
D. Butt Joints shall have uniform 1/8" reveal
E. Use non-corroding nails for installing.
F. Joints shall be tight and formed to conceal shrinkage and to exclude water.
G. See plan for location of trim to be covered with vinyl or aluminum. Clad members may be framing grade.

INTERIOR TRIM
A. Miter standing trim at corners. Use splined joint or clamp nails.
B. Cope running trim at inside corners and miter at outside corners.
C. All interior finish joints shall be mitered. Miters not permitted in sections less than 8 feet long - Butt joints not acceptable.
D. Set nails to receive putty. Sand trim to eliminate marks and defects that would show through or affect finish.
E. Meet AWI requirements for custom grade millwork.
F. Do not bring trim materials into building until spaces are thoroughly dry. Store to prevent damage.
G. Trim and all finish work shall be installed free of hammer marks and finger joint chattering.
H. Baseboard shall extend behind appliances & equipment (range & refrigerator and water heater.)
I. No baseboard in apartment patio storage closets, garage storage closets and pool equipment room.
J. Provide shoe mold at vinyl sheet floor perimeter, including at baseboards, cabinet kicks and end panels.

06620 GUARD RAILS
DESIGN REQUIREMENTS
A. Owner / Contractor to verify material required by city.
B. Check governing codes for requirements
C. A. Minimum Load Requirements: Railing system shall withstand the following:
1. Minimum concentrated load of 200 pounds applied horizontally or vertically down at any point on top railing.
2. Uniform load of 50 pounds per foot applied vertically down and horizontally, but not simultaneously on top railing.
SUBMITTALS
A. Submit manufacturer's complete and current Product Data for each product required, including complete installation requirements.
B. Shop Drawings: Show locations of each item and installation details. Provide elevations of non-standard conditions.
C. Selection Samples: Color charts consisting of actual product pieces, demonstrating full range of available colors, for initial color selection.
D. Verification Samples: 12 inches (305 mm) long assemblies, including one end cap, in color specified.
MANUFACTURERS
A. Provide metal painted guardrail systems that are to be owner and city approved.

07210 - BUILDING INSULATION
QUALITY ASSURANCE
A. Upon completion of this portion of the Work, complete and post a certificate of insulation compliance in accordance with pertinent requirements of governmental agencies having jurisdiction.
B. General building insulation shall have a flame spread rating of not more than 75 and a smoke developed rating of not more than 450.
PRODUCTS
A. Provide the following building insulation where shown on the Drawings or otherwise needed to achieve the degree of insulation required under pertinent regulations of governmental agencies having jurisdiction.
1. Exterior walls - R-13 glass fiber batts with Kraft-paper face.
2. Ceiling (attics) - Blown fiberglass insulation with an insulation-only value of R-38. Ceiling batts (R-38 fiberglass) at least four-feet long, are required at "top" of vaulted ceilings, clubhouse and maintenance shop.
3. Insulation to be Owens Corning, Apache, or Celotex.
4. Crawl spaces - R-19
5. Sound insulation at party walls between apartments: R-11 sound batts. Two layers, including floor truss cavity. Verify with owner / contractor.
6. Loose fiberglass chinking and/or low volume self expanding polyurethane foam to seal gaps at rough openings.
B. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.
C. Provide cardboard baffles to keep eaves and soffits clear of blown insulation

07112 - WATERPROOFING
A. Seal between sole plate and concrete slab with continuous polyethylene foam sill gasket, 1/2" thick x 3 1/2" wide.
B. Seal between exterior door thresholds and its rough-opening's sill with (2) two continuous 3/4-in beads of 100% clear silicone sealant.
C. Seal window fins to exterior wall sheathing with continuous bead of silicone caulk per manufacturer's installation instructions.
D. Tape window perimeter fins and sliding glass door perimeter fins to exterior wall's sheathing. Use flexible membrane with adhesive designed to adhere to OSB sheathing in this application.
1. Wall finished with siding shall receive GreenGuard RainDrop house wrap, Tyvek by Raven Industries, or Fortifiber Building Products System or approved equal. Install house wrap(s) after other flashings and seals.
2. Wall finished with brick veneer or stone veneer shall receive #15 roofing felt install horizontally. Overlap butt-ends and its horizontal courses at least six-inches to shed water.
E. At foundation walls and where indicated on the Drawings, and where otherwise required for proper waterproofing, provide "Thorsoseal" system of waterproofing manufactured by Thorsoseal System Products, Grace Construction Products, or Mar-Flex Systems Corporation.
F. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect / contractor.

07310 - ROOF SHINGLES
MATERIALS
A. Provide #15 smooth surface asphalt saturated roofing felts over all sub straits.
B. Provide tear resistant synthetic underlayment in high wind areas. Approved products are: Synshield, Palisade, and Rex SynFelt.
C. Provide 90# roll roofing centered and continuous the length of all valleys, over roofing felt.
D. Plastic Cement shall conform to Federal Specification SS-C-153, Type 1.
E. Nails for fastening felt and shingles shall be large headed zinc-coated roofing nails of size recommended by shingle manufacturer. Staples are not an acceptable application method.
F. Valleys shall be woven of the same shingles specified..
G. Architectural grade shingles shall have a 30-year mfg. warranty and dimensional cut and appearance, 32# by Tanko, Certainteed, or GAF. Color selected by Owner from manufacturers standard colors. To be Anti-Fungal.
H. Provide continuous pre-finished aluminum ridge vent on apartment buildings.
I. Provide continuous "shingle over style ridge vent for amenity buildings (Leasing office, garage-storage, maintenance/car wash buildings, mail kiosks, etc.)
J. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.
INSTALLATION
A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.
B. Shingle nailing pattern shall be in accordance with Building Codes and Local Regulations to meet wind load conditions.
C. Hip and Ridge Shingles: Standard preformed Hip and Ridge Shingles having exposures of 5 inches on each side and laid with 2 inch head laps. Ridge vents for apartment buildings shall be continuous pre-finished aluminum style designed to exclude blowing water. Ridge vents for amenity buildings shall be roll-down type, overlaid with same ridge shingles.
D. Install shingles over pre-finished (match eave color) aluminum drip - edge strips at eaves. Install strips under felts on eaves. Rake edges have aluminum break-metal fascia wrap that simulates shingle mold applied to fascia and extends flat on roof, between shingle and felt, at least 1-in. Each tab of strip shingles shall be sealed to the undercourse with adhesive of asphaltic type, approximately 1 inch diameter spot or interrupted strips 1 inch wide, at bottom edge of tabs.
F. Starter strips under the first course is an inverted shingle minus 3 inches, or a starter strip.
G. Subcontractor shall provide full warranty of roofing work for 12 months.
H. All flashing to be per manufacturer's installation instructions.

07462 - CEMENT FIBER SIDING
SCOPE
A. Furnish and install fiber-cement siding and accessories where shown on drawings or as specified herein.
B. Coordinate this section with interfacing and adjoining work for proper sequence of installation.
SUBMITTALS
A. Submit pertinent manufacturer's literature in accordance with the general specifications.
B. Submit 6"x6" sample pieces of Fiber Cement Siding/panel in texture, color and widths shown or specified herein.

PRODUCT HANDLING
A. Fiber Cement Siding or panel should be stacked on edge or laid flat on smooth, level surface, under cover and keep dry prior to installing. If sheets should become wet, allow to dry thoroughly before installing. Edges and corners should be protected from chipping.
PRODUCTS
A. Fiber-cement siding to comply with ASTM Standard Specification C1186 Grade II, Type A.
B. Plank siding will have the following nominal physical or mechanical properties:
1. Density avg. at EMC 90lb./ft.
2. Moisture content at EMC 75% 0.7461-1.
3. Thermal conductivity at 77° 0.17W/m.k.
4. Linear Thermal Expansion (avg.) 7.1 x 10^-6.
5. Modulus of Elasticity at EMC:
In Tension: Across sheet 1,200,000 psi, Along sheet 1,100,000 psi
In Static Cross Bending: Along sheet 739,000 psi
6. Modulus of Rupture (avg.) 2100 psi.
7. Tensile strength at EMC: Across sheet 1,100 psi, Along sheet 725 psi
C. Fiber-cement siding to be non-combustible when tested in accordance with ASTM test method E1346.
D. Fasteners - Wood framing: 6d common corrosion resistant nails or 1 1/2" roofing nails. (Nails to meet or exceed manufacturer's requirements for wind loading of specific area).
E. Fasteners - Metal framing: 2 1/2" No. 8-18 self-drilling, corrosion-resistant S-12 screws or 1 1/2" No. 8-18 self-drilling, corrosion resistant screws.
F. Flashing as per manufacturers installation instructions and aluminum flashing at top of all horizontal trim at material change.
INSTALLATION
A. Correct conditions detrimental to timely and proper completion of work.
B. Framing: Fiber cement lag siding can be installed directly to wood or steel studs spaced up to 24" on center. Framing, bracing and installation must meet local building code requirements.
C. Starting and Joining Methods: Install a minimum 1/4" thick starter strip at the bottom course of the wall. Planks are applied horizontally with 1 1/2" wide laps at the top. The bottom edge of the first plank overlaps the starter strip. The vertical joints of the planks shall align over framing members of studs.
D. Off-Stud Splices: When vertical joints occur between stud or framing members an off-stud metal joiner is utilized. The metal joiner is positioned so that the bottom lip is resting on the solid course of planks. The plank is then fastened to the framing. The abutting plank is positioned and fastened into place insuring that the lower edges of the two planks align. The metal joiner is located centrally behind the joint. Off-stud splices shall be located a minimum of two stud cavities from wall corner. Successive splices within the same plank course shall be located no closer than 48". Splices shall be at least one stud cavity away from window and door openings. All splices shall be staggered at minimum 24" intervals when located in the same wall activity.
E. Wind Resistance: Where a specified level of wind resistance is required cement fiber lag siding is installed to framing members and secured with fasteners described in Table No. II in National Evaluation Service Report No. NEW-405. Material shall be installed for proposed wind resistance for the location of the project and height of the building shown on the plans.
F. Manufacturers specifications and recommendations shall take precedence over conflicting details shown on the plans in order to assure the manufacturer's warranty. The architect shall be notified of any conflicts.
G. All flashing to be per manufacturer's installation instructions.
H. See manufacturers installation instructions.

07920 - SEALANTS AND CAULKING
PRODUCTS
A. Provide the following materials manufactured by Products Research & Chemical Corporation, Dow Corning Corporation, or GE Silicones, where indicated and where otherwise required for a complete and proper installation.
Material
1. PRC Rubber Calk 6000: Throughout the Work, except where other sealant is specified, where anticipated joint movement will be 25% or less
1. PRC Rubber Calk 7000: Throughout the Work, except where other sealant is specified, where anticipated joint movement will be 50% or less
2. PRC Rubber Calk 270: Horizontal joints exposed to pedestrian and vehicular traffic, and all joints subject to immersion
3. PRC Rubber Calk 210: Vertical and horizontal joints subject to extreme movement
4. PR-851 Duct Seal: Pipes and conduits penetrating underground walls
6. PR-855 Fire Stop Seal: Pipes and conduits penetrating fire separations
7. Polyethylene backer rod: Where required to prevent 3-point adhesion
B. For other services, provide products especially formulated for the proposed use and approved in advance by the Architect.
C. Colors for each sealant installation will be selected by the Architect from standard colors normally available from the specified manufacturer.
1. Should such standard color not be available from the approved manufacturer except at additional charge, provide such colors at no additional cost to the Owner.
2. In concealed installations, and in partially or fully exposed installations where so approved by the Architect, use standard grey or black sealant.
D. Use only those primers which have been tested for durability on the surfaces to be sealed and are specifically recommended for this installation by the manufacturer of the sealant used.
E. Use only those backup materials which are specifically recommended for this installation by the manufacturer of the sealant used, which are non-absorbent, and which are non-staining.
F. For masking around joints, provide an appropriate masking tape which will effectively prevent application of sealant on surfaces not scheduled to receive it, and which is removable without damage to substrate.
H. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.
EXECUTION
A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.
B. Seal and caulk joints where shown on the Drawings and elsewhere as required to provide a positive barrier against passage of moisture and passage of air
C. Concrete and ceramic tile surfaces:
1. Install only on surfaces which are dry, sound, and well brushed, wiping free from dust.
2. At open joints, remove dust by mechanically blown compressed air if so required.
3. To remove oil and grease, use sandblasting or wire brushing.
4. Where surfaces have been treated, remove the surface treatment by sandblasting or wire brushing.
5. Remove laitance and mortar from joint cavities.
D. Steel surfaces:
1. Sandblast as required to achieve acceptable surface for bond.
2. If sandblasting is not practical, or would damage adjacent finish, scrape the metal or wire brush to remove mill scale and rust.
3. Use solvent to remove oil and grease, wiping the surfaces with clean white rags only.
E. Aluminum surfaces:
1. Aluminum surfaces in contact with sealant:
a. Remove temporary protective coatings, dirt, oil, and grease.
b. When masking tape is used for protective cover, remove the tape just prior to applying the sealant.
2. Use only such solvents to remove protective coatings as are recommended for that purpose by the manufacturer of the aluminum work, and which are non-staining.
F. When using backup of tube or rod stock, avoid lengthwise stretching of the material. Do not twist or braid hose or rod backup stock.
1. For installation of backup material, provide a blunt-surfaced tool of wood or plastic, having shoulders designed to ride on the adjacent finished surface and a protrusion of the required dimensions to assure uniform depth of backup material below the sealant.
2. Do not, under any circumstances, use a screwdriver or similar tool for this purpose.
3. Using the approved tool, smoothly and uniformly place the backup material to the depth indicated on the Drawings or otherwise required, compressing the backup material 25% to 50% and securing a positive fit.
G. Use only the primer approved by the Architect for the particular installation, applying in strict accordance with the manufacturer's recommendations as approved by the Architect.
H. Provide an approved bond-breaker where recommended by the manufacturer of the sealant, and where directed by the Architect, adhering strictly to the manufacturer's installation recommendations.

07600 - FLASHING AND SHEET METAL
Provide flashing and sheet metal not specifically described, but required to prevent penetration of water through the exterior shell of the building.
QUALITY ASSURANCE
A. In addition to complying with pertinent codes and regulations, comply with pertinent recommendations contained in current edition of "Architectural Sheet Metal Manual" published by the Sheet Metal and Air Conditioning Contractors National Association (SMACNA).
B. Standard commercial items may be used for flashing, trim, and similar purposes provided such items meet or exceed the quality standards specified herein.
C. All flashing to be per manufacturer's installation instructions.
PRODUCTS
Where sheet metal is required, and no material or gage is indicated on the Drawings, provide the highest quality and gage commensurate with the referenced standards.
A. Sheet Metal shall be 0.027" aluminum ASTM B209 alloy 3003 or 3004 except as otherwise specified.
B. At the Contractor's Option galvanized (paint grip) steel sheets may be substituted for aluminum. In this event use appropriate gage per SMACNA. Use only soft iron rivets having rust-resistive coating, galvanized nails, and cadmium plated screws and washers in connection with galvanized iron and steel.
D. Nails, screws, Rivets and Bolts shall be of type best suited for the purpose and shall be same material as the sheet metal to be secured or shall be a composition which is compatible with the metal.
E. Where flux is required, use raw muriatic acid.
F. Where solder is required, comply with ASTM B32.
G. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.
H. Bituminous Plastic Cement shall conform to T.S. SS-C-153, Type 1.
EXECUTION
A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.
B. Form, fabricate, and install sheet metal so as to adequately provide for expansion and contraction in the finished Work. Provide suitable watertight expansion joints for runs of more than 40'-0", except where closer spacing is indicated on the Drawings or required for proper installation.
1. Form sheet metal accurately and to the dimensions and shapes required, finishing milled and broken surfaces with true, sharp, and straight lines and angles and, where intersecting other members, coping to an accurate fit and soldering securely.
2. Unless otherwise specifically permitted by the Architect, turn exposed edges back 1/2".
C. Weatherproofing:
1. Form, fabricate and install sheet metal watertight and weather-tight where so required.
2. Make lock seams work flat and true to line, soldered full of solder.
3. Make lock seams and lap seams, when soldered, at least 1/2" wide.
4. Where lap seams are not soldered, lap according to pitch, but in no case less than 2".
5. Make flat and lap seams in the direction of flow.
6. Flanges of edging strips, vents, and flashing shall be set on top of all felts and nailed three (3) inches on center.
D. Joints:
1. Join parts with rivets or sheet metal screws where necessary for strength and stiffness.
2. Provide suitable watertight expansion joints for runs of more than 40'-0", except where closer spacing is indicated on the Drawings or required for proper installation.
3. Joints and seams shall be as few as possible. Overlap seams in direction of flow of water. Make ample provisions for expansion and contraction.
E. Nailing:
1. Whenever possible, secure metal by means of clips or cleats, without nailing through the exterior metal.
2. In general, space nails, rivets, and screws not more than 8" apart and, where exposed to the weather, use lead washers.
3. For nailing into wood, use barbed roofing nails 1-1/4" long by 11 gage.
4. For nailing into concrete, use drilled pilotholes and plugs.
F. Embed metal in connection with roofs in a solid bed of sealant, using materials and methods described in Section 07920 of these specifications or other materials and methods approved in advance by the Architect.
H. Soldering
1. Thoroughly clean and tin the joint materials prior to soldering.
2. Perform soldering slowly, with a well heated copper, in order to heat the seams thoroughly and to completely fill them with solder.
3. Perform soldering with a heavy soldering copper of blunt design, properly tinned for use.
4. Make exposed soldering on finished surfaces neat, full flowing, and smooth.
5. After soldering, thoroughly wash acid flux with a soda solution.
J. Upon request of the Architect, demonstrate by hose or standing water that the flashing and sheet metal are completely watertight.
WORKMANSHIP
A. Workmanship shall be best quality, strictly in accordance with best practices. In the absence of details on the drawings or descriptions specified, follow appropriate details in "Architectural Sheet Metal Manual of SMACNA."
B. Shingle or stepped flashing (installed at all sloped roof conditions) shall be formed of separate pieces woven in with each course; each piece shall extend out onto roof not less than 8 inches and up on vertical wall 8 inches. Lap vertically not less than 4 inches. Mill finish aluminum, thickness .019 inches.
C. For Vertical Wall, Sill and Lintel Flashing: Provide and install a non-reinforced homogeneous, waterproof, impermeable, sheeting compound of elastomeric substances reduced to thermoplastic state and extruded into a continuous sheeting not less than .020" thick especially manufactured for wall flashing, such as Nervastral H-D or Reverse 3 or Dyseal, or B.F. Goodrich Water Barrier 20 mil.
D. Miscellaneous sheet metal items not covered in this Section shall be as indicated on the Drawings and as required to provide a watertight installation.
E. Roof beams revealed on patios and in breezeways are to be wrapped with pre finished break metal.
ROOF VENTS
A. Ridge Vents (apartments, garages-storage, mail kiosks, and maint./carwash buildings: Nominal .019" TK with 18 sq. in. net free area per foot, connector plugs and baffle strips, No. 011 aluminum nails at 8" o.c., black aluminum finish. Mfr. to be AirVent Corp., type Shinglevent II. Color approved by Architect/Owner.
B. Roof vents (clubhouse) metal dome static roof vent, Air Vent's B-144.
EDGE STRIPS & RAIN DIVERTERS
A. Edge strips ("drip edge") shall be provided for all roofs. Edge strips shall be pre-finished aluminum. Edge strips shall be not less than 3" wide nailed to the roof at 8" on center along upper edge and extend down fascia 1 1/2", and turned out 1/2" to form a drip on the bottom edge.
B. Apply the edge strip below the roof felt at the eaves and end of roof felt along the rake. Edge strips do not install at raked roof overhangs: break-metal fascia (with simulated shingle molding) is bent and extends between shingles and felt at rakes.
C. Rain diverters shall be "L" shaped with 1 1/2" high upstanding leg with tip edge molded over for rigidity. Horizontal leg shall be approximately 4" long; woven under the course of shingles and fastened at 8" centers with zinc or aluminum roofing nails. Rain diverters shall be furnished when shown on the Drawings at Clubhouse or apartment buildings doors not covered by porches.
D. Metal for edge strips and rain diverters shall be not less than .019".
E. Color approved by Architect / Contractor.

GUTTERS AND DOWNSPOUTS
A. Furnish all labor, materials and equipment required to complete installation of all Alcoa Rain Removal Systems, Architectural Products Company, or Atlas International and related work indicated on drawings or specified herein.
B. MATERIALS
1. Gutters shall be made of pre-finished continuous 0.032" thick aluminum, "K"-style, 5" size, and roll formed on site. Color by Architect/Owner.
2. Gutters shall include pre-finished aluminum valley shields to check over running water from roof valleys.
3. Downspouts shall be pre-finished aluminum and from pre-fabricated components, 3-in x 4-in size. Downspout component material shall be 0.019-in thickness.
4. Downspouts shall terminate with an elbow turned away from building. Bottom of downspout elbow is approximately same elevation as finish floor.
5. Downspouts shall be supported by pre-finished aluminum hangers. Hangers shall be located at least at each joint on wall.
6. Accessories shall be pre-manufactured and pre-finished to match the aluminum gutters and downspouts.
a). Roof apron: 0.027-in thickness.
b). End caps to be 0.019-in thickness.
c). Inside and outside box miters shall be pre-fabricated.
7. Prior to painting, the metal shall receive a special cleaning process to assure maximum paint adhesion. The inside of all gutters and downspouts shall be coated with a special gold colored corrosion-inhibiting finish. The exterior shall be a two-coat acrylic applied in a two-phase operation, which includes a corrosion-inhibiting primer and a baked-on high performance epoxy top coat.
8. Gutter contractor shall provide a splash block at each downspout. Splash blocks shall be of composite-resin material and 18" length
INSTALLATION, WORKMANSHIP
A. Before starting work, verify governing dimensions at building; examine, clean and repair, if necessary, any adjoining work on which this work is in any way dependent for its proper installation.
B. Gutter systems shall be installed by using hangers so that movement is not restricted. (Note: Spikes and ferrules or brackets attached to the outside periphery of the gutter will not be used.)
C. Expansion joints provided wherever necessary to allow for proper expansion and contraction - 1/8" per 10' (3.2 per 3048). Expansion joints will be used on all sides of a hip roof and on runs of more than 40 feet (12219) in length. Provide the number of downspouts that are necessary. The water-carrying capabilities of a gutter will be determined by the number and placement of downspouts used. A 3" x 4" downspout will carry the average rainfall from 1,200 sq. ft. of roof area. Use these numbers as a guide when determining proper amount of downspouts. Roof area shall be calculated from dimensions of horizontal plan of roof.
E. Upon completion, the contractor shall clean all aluminum work.
F. Dissimilar materials:
1. Care must be exercised in placing aluminum in contact with metals or materials not compatible with aluminum.
2. Dissimilar materials shall be painted or otherwise protected when they are in contact with aluminum or when drainage from them passes over aluminum.

08110 - DOORS AND FRAMES
Exterior doors
A. Hinged doors
1. Apartment entry door: 1 hr. fire rated assembly, 1-3/4-in 6-panel insulated steel door, 24 gage, factory primer, 4-3/4-in split jamb, 1 pair UL spring hinges & 1 standard hinge, compression weather-strip, threshold (ADA compliant at ground floor), 2-3/8" b/s prep for latch, deadbolt, half-deadbolt, and peep.
2. Apartment patio storage closet door: 1 hr. fire rated assembly, 1-3/4-in 6-panel insulated steel door, 24 gage, factory primer, 4-3/4-in split jamb, 1 pair UL spring hinges & 1 standard hinge, compression weather-strip, threshold (ADA compliant at ground floor), 2-3/8" b/s prep for latch and half-deadbolt.
3. Apartment sprinkler closet door: 1-3/4" flush insulated steel door with factory primer, 4-9/16" primed "NO ROT" wood jamba, 1.5 pair std. hinges, with compression w/s & threshold, 2-3/8" bs prep for latch bolt.
4. Maintenance shop service door: Garage-storage closet door: 1-3/4-in 6-panel, 24 gage, factory primer, 4-9/16" primed wood "NO ROT" jamba, 1.5 pair exterior hinges, compression weather-strip, threshold, 2-3/8" b/s prep for latch.
5. Apartment patio door: Leasing Office public entry doors: 1-3/4-in flush insulated fiberglass-clad door with full LOE glass insert, factory primer, wood "NO ROT" jamba, 1.5 pair exterior hinges, compression weather-strip, ADA compliant threshold, 2-3/8" b/s prep for latch and deadbolt. Note, see plans: Leasing Office doors may have transom-lites.
6. Apartment: Spring hinges at Handicap Units.
B. Overhead doors
1. Overhead door at maintenance building, insulated pre-finished steel door with electric operator with light and two remote controls. Holmes SF-21 solid or approved equal.
2. Includes weather-seal at threshold and weather-strip/causing at jamb and head.
3. Includes torsion-spring balance.
Interior doors
A. Hinged doors are hard board pressed interior grade primed 1-3/8-in embossed-panel doors, pre-hung in split-wood jamb with applied finger-joint casings, 1.5 pair pre-finished hinges, 2-3/8" bs prep for latch. No composite materials at revealed siles & rails, jambs or casings.
B. Leasing Office doors
1. Office doors: 1-3/4-in paint-grade wood doors with 15-lite true-divided-lite style glazing, wood jamb, 1.5 pair hinges, 2-3/8" bs prep for latch and deadbolt.
2. Other interior doors solid core interior grade primed 1-3/8-in embossed-panel doors, pre-hung in split-wood jamb with applied finger-joint casings, 1.5 pair pre-finished hinges, 2-3/8" bs prep for latch. No composite materials at revealed siles & rails, jambs or casings.

INSTALLATION
A. Prehung units shall be installed level and plumb. Frames shall have 6 spacer blocks between sides or trim.
B. Anchor frame to shed stud jamba securely.
C. Undercut for free air flow cut for floor material.
D. All flashing to be per manufacturer's installation instructions.

No. Date Description
0 3.18.19 For Permit
Job Number: 2016_24
File Reference:
Scale: AS NOTED
CORP SEAL
STATE OF SOUTH CAROLINA
Parks + Player Architecture & Planning Greenville, SC 100975
REGISTERED ARCHITECTS
ORVILLE VAN DYKE III GREENVILLE, SC 15961
REGISTERED ARCHITECT
PINE COURT APARTMENTS
PARKS-PLAYER ARCHITECTURE & PLANNING
1010 EAST NORTH STREET SUITE A GREENVILLE, SC 29601 (864) 242-0177
BEAUFORT, SOUTH CAROLINA
SPECIFICATIONS
Sheet Number: A-0.30

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A

B

C

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08565 - WINDOWS

Provide Vinyl windows as follows. (Impact Glass)

A. MANUFACTURERS

- Acceptable Manufacturers: Ply Gem 1500 series
- Manufacturer to verify units meet DP rating for the location and building. Window units shall comply with the following standards:
 - AAMA/NWDA 101/LS-2 - Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors; 1997
 - ASTM 701.92 - Standard Specifications for Weatherseals.
 - ASTM E 774 - Standard Specification for the Classification of the Durability of Sealed Insulating Glass Units, 1997
- Provide manufacturer's standard limited lifetime warranty; deliver any necessary warranty documents to Owner
- Provide Manufacturer's data sheets on each product to be used, including:
 - Certified test reports showing compliance with performance standards specified.
 - Preparation instructions and recommendations.
 - Storage and handling requirement and recommendations.
 - Installation methods.
 - Schedule of size and number of units provided.

B. Windows - General: Frame and sash constructed of multi-chambered PVC extrusions stabilized for physical properties and color retention.

- U-factor of 0.35 or less, SHGC of 0.30 or less, or to meet the requirements of the International Energy Conservation Code.
- Interlocking rails on by-passing sash.
- Welded Corners: Mitered and fusion welded.
- Provide nailing fins on all sides; 1 inches wide, minimum, pre-punched, all sides.
- Screens: Replaceable fiberglass screen; color coordinated to window frame.; aluminum frames for windows, pre-finished steel frames for doors.
- Provide integral "J" channel on exterior.
- Provide frame extensions, drywall rabbet, and other accessories as indicated on the drawings or required for a complete installation.
- Color: White.

C. Single-Hung and Fixed Windows: Fusion Welded PVC frame and sash, with bottom sash tilting in for cleaning.

- U-factor of 0.35 or less, SHGC of 0.30 or less, or to meet the requirements of the International Energy Conservation Code.
- Performance Grade: AAMA 1010 SH-R30, minimum
- Glazing Thickness: 3/4 inch
- Frame Depth: 3 inches
- Frame and Sash Wall Thickness: 0.70 mil.
- Frame Profile: Beveled profile
- Weatherstripping: Polypropylene Fin seal
- Built in "J" Channel
- Hardware: Field adjustable spiral balance with surface mounted tilt latches
- Screen: 1/2 fiberglass screen with roll formed screen frame. No screen at fixed windows

D. Glazing for Windows: Insulating glass of thickness indicated, ASTM E 774 CBA certified; PPG Solarban 60 with Intercept "warm edge" spacer.

- Argon gas filled and/or Low E coating, Solarban60 as necessary to meet thermal and solar heat gain requirements.
- Tempered where indicated on drawings.

E. Glazing for Doors and Sidelights: Tempered insulating glass of thickness indicated, ASTM E 774 CBA certified.

- Argon gas filled and/or Low E coating, Solarban60 as necessary to meet thermal and solar heat gain requirements.
- Tempered Glass Standard - manufacturer to verify all units meet DP rating for the location and building(s).

EXECUTION

J. DELIVERY, STORAGE AND HANDLING

- Store products out of direct sunlight in manufacturer's unopened packaging and in accordance with manufacturer's recommendations until ready for installation.
- Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

B. EXAMINATION

- Do not begin installation until substrates have been properly prepared.
- Substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

C. PREPARATION

- Clean surfaces thoroughly prior to installation.
- Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

D. INSTALLATION

- Install in accordance with manufacturer's instructions.
- Install plumb, level and true to line and position; securely anchor in place.
- Adjust for smooth operation without binding or racking.
- All flashing to be per manufacturer's installation instructions.

E. PROTECTION

- Protect installed products until completion of project.
- Touch-up, repair or replace damaged products before Substantial Completion.

08700 - DOOR HARDWARE

MATERIALS

A. Hardware shall conform to Federal and/or ANSI A15 Specifications and the type members specified. Each system, material and product used in the Work shall be as regularly produced by a manufacturer with a history of supply acceptable to the Owner. Hardware shall be manufactured by Schlage, Kwikset, or Falcon.

B. Provide handicap acceptable lever hardware at all handicapped units, and Clubhouse exterior and interior doors. Handicap accessible levers shall be Kwikset "Maximum Security" series, "Dorian" style lever.

C. Door hardware and hinge finish

- Apartments, garage-storage buildings: US26D and/or Satin Nickel. Kwikset "Ultramax" series, "Hancock" style knob.
- Clubhouse: polished brass, US3.

D. All Clubhouse hardware shall be heavy duty, designed for heavy usage and shall have lever hardware..

KEYS AND KEYING

A. Locks shall be keyed differently for each apartment unit.

B. Locks for Clubhouse shall be keyed alike.

C. Locks for Clubhouse Offices shall be keyed differently.

D. Locks for garage doors & storage closets shall be keyed differently.

E. Locks for sprinkler closet doors shall be keyed alike.

F. Apartment locks shall be construction and master keyed for entire project.

G. All locks shall be furnished with 2 keys each.

H. Furnish six construction keys to contractor and six master keys to owner. Master keys shall be shipped directly from hardware vendor to Owner.

DOOR HARDWARE SCHEDULE

Reference to specific proprietary products is used to establish minimum standards of utility and quality. Design is based on the materials specified. (Kwikset part numbers used to establish standards)

APARTMENTS

ENTRY DOOR FROM BREEZEWAY:

- Entry passage #725 U.L. listed.
- Deadbolt, single cylinder, #6601 - Half-deadbolt, thumb only, #6631.
- Knocker/Viewer, Better Homes #599SN
- stop - spring type, 504SN

PATIO FRENCH DOOR:

- Entry passage #725 U.L.
- Deadbolt single cylinder, #660
- stop - spring type, 504SN

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OUTSIDE STORAGE DOOR or SPRINKLER CLOSET DOOR:

- Keylock #741H (at ground level)
- Crash chain, BHP647V

BEDROOM & BATHROOM DOORS:

- Privacy lock #730
- stop - spring type, 504SN, or hinge-stop #522SN

CLOSETS AND OTHER SECONDARY DOORS:

- passage lock, #720
- stop - spring type, 504SN, or hinge-stop #522SN

GARAGE-STORAGE CLOSET and MAINTENANCE SERVICE DOORS:

- Keylock #741H
- Crash chain, BHP647V

COMMUNITY BUILDING / CLUBHOUSE:

EXTERIOR ENTRIES TO CLUB ROOM:

- Double-cylinder deadbolt.
- Passage lever.
- Closer, Norton 1703.
- 6-in kick plate.

EXTERIOR ENTRIES TO LAUNDRY, BUSINESS CENTER AND EXERCISE ROOM:

- Double-cylinder deadbolt.
- Storeroom function lever. (always locked outside, always unlocked inside)
- Electric strike, Adams Rite #7110-540-652-00.
- Closer Norton 1703.
- 6-in kick plate.

INTERIOR OFFICES TO CLUB ROOM

- Passage lever.
- Double-cylinder deadbolt.
- Spring stop.

CLOSET DOORS, JANITOR CLOSET, STORAGE ROOMS AND WATER HEATER CLOSET

- Keylock lever.
- Spring stop.

HALL TO CLUB ROOM DOOR.

- Passage lever.
- Double cylinder deadbolt.
- Closer.
- 6-in kick plate.

RESTROOMS

- Privacy lever.
- Closer Norton 1703.
- Spring stop.
- 6-in kick plate.

DRYER SERVICE ACCESS DOOR

- UL passage knob.
- Crash chain.

09255 - GYPSUM BOARD ASSEMBLIES

MATERIALS

A. Gypsum products to be by National Gypsum Co., U.S. Gypsum, and Georgia Pacific.

B. Gypsum wallboard: National Gypsum Company Georgia Pacific Corp. United States Gypsum Co.

C. Fire rated gypsum wallboard: National Gypsum Co. - Types FSW-C, FSW-G Georgia Pacific Corp. - Type 5 United States Gypsum Co. - Types C, JP-X2, IPC-AR

D. Nails, Screws, and Fasteners: Per UL Design as indicated on drawings

E. Corner Reinforcement: As recommended by manufacturer.

F. Joint Tape & Compound: As recommended by manufacturer.

PREPARING

A. Examine surfaces that are to receive drywall. Check size, spacing, and alignment of supports.

B. Correct defects that could affect quality of finished work.

C. Starting drywall work will be construed as evidence of acceptance of conditions under which work will be done.

INSTALLING

A. For 1-hour fire rated flooring/ceiling assemblies, applications shall be done in accordance with the Gypsum Association Fire Resistance Design Manual or per UL Design as indicated on drawings.

B. Provide RC-1 steel channels at apartment ceilings, prior to hanging gypsum board.

C. Provide RC-1 steel channels on one side of party wall at adjoining bedroom walls.

D. Provide RC-1 steel channels at vaulted portions of Leasing Office ceiling; isolate roof framing from finish ceiling.

E. Return wallboard to windows and sliding glass doors at side jamba and head. Leave window sills open for wood sills by others. Butt factory, paper, edge of gypsum board, or provide vinyl J-molding where gypsum board meets aluminum window frame in apartments. Leasing Office window returns are wood.

F. For partitions around tubs only use water-resistant wallboard typical in all baths, full height. Water-resistant wallboard to be 5/8" Type 'X' at party walls. Install in strict accordance with manufacturer's recommendation to provide a waterproof installation. Extend drywall down behind tubs at all walls. Omit water resistance GWB at one-piece fiberglass tub and surround. Other locations for moisture resistant drywall shall include: ceiling and walls at bathrooms, laundry rooms, mechanical closets, exterior storage closets and behind kitchen sink base.

G. For all partitions, except those specified above or as indicated on the Drawings, use 1/2" standard wallboard.

H. Apply wallboard to ceiling and soffits before applying on vertical surfaces.

I. Install wallboard in longest pieces practicable. Stagger joints on opposite side of a wall. Provide support for all edges.

J. Butt joints loosely, maximum gap 1/2 inch. Sand edges that have been cut.

K. Drive nails/secure screws to slightly dimple surface but not to break paper. Reinforce external corners with nail-on metal corner bead and internal corners with tape.

FINISHING

A. Provide Level 2 gypsum board finishing in garages, garage-storage closets, maintenance shop, and equipment rooms.

B. Joints and interior angles shall have tape embedded in joint compound and wiped with a joint knife leaving a thin coating of joint compound over all joints and interior angles. Fastener heads and accessories shall be covered with a coat of joint compound. Surface shall be free of excess joint compound tool marks and ridges are acceptable. Joint compound applied over the body of the tape at the time of tape embedment shall be considered a separate coat of joint compound and shall satisfy the conditions of this level.

C. Provide Level 3 gypsum board finishing of ceilings in apartments and all Leasing Office, except Community Room.

D. All joints and interior angles shall have tape embedded in joint compound and one additional coat of joint compound applied over all joints and interior angles. Fastener heads and accessories shall be covered with two separate coats of joint compound. All joint compound shall be covered with two separate coats of joint compound. All joint compound shall be smooth and free of tool marks and ridges. NOTE: It is recommended that the prepared surface be coated with a drywall primer prior to the application of final finishes.

E. Provide Level 4 gypsum board finishing in apartments (walls), leasing office (walls), and Community Room (ceiling).

F. All joints and interior angles shall have tape embedded in joint compound and two separate coats of joint compound applied over all flat joints and one separate coat of joint compound applied over interior angles. Fastener heads and accessories shall be covered with three separate coats of joint compound. All joint compound shall be smooth and free of tool marks and ridges.

G. Provide medium spray texture as final surface of ceilings in apartments and all of Leasing Office, except Community Room.

- Provide texture finish sample for Owner approval prior to starting production.
- Community Room ceiling finish is level 4.

09651 - RESILIENT TILE FLOORING

MATERIALS

A. Luxury Vinyl Tile (LVT) shall have or exceed specifications for moderate traffic. (Wood Grain styles)

B. Edging: Metal molding with concealed fastenings.

C. Adhesive: Waterproof as recommended by Manufacturer.

PREPARING

A. Examine surfaces to receive materials before work is started. Remove dirt, grease, and foreign matter from receiving surfaces.

B. Correct defects which could interfere with the laying of resilient materials in proper manner.

C. Level floors, or run true to a plane, to within 1/8 inch in 8 feet. Correct minor variations with trowable leveling or patching compound.

D. Starting work shall be construed as acceptable of conditions under which work will be done.

E. Store resilient materials, in original packages, at a temperature of not less than 70 F. for at least 24 hours prior to laying.

ADHESIVES

C. Mix and apply adhesives according to manufacturer's instructions and recommendations.

D. Prevent soiling and staining of adjacent surfaces with adhesive.

E. Apply adhesive at a rate to permit installation of flooring within working time of adhesive.

INSTALLING

A. Maintain temperature of not less than 70 F. while laying.

B. Install according to manufacturer's instructions and recommendations. Heat underside if necessary to obtain bond.

C. Lay out tiles from center marks established with principal walls, so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid using cut widths that are less than one-half tile at perimeter. Lay tiles square with room axis or in pattern indicated.

D. Scribe, and fit tiles to butt neatly and lightly to vertical surfaces and accurately adjoining to other materials. Extend tiles into toe spaces, door reveals, closets and similar openings.

E. Adhere tiles to flooring substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints.

F. Install edging strip where edge would be exposed.

G. Tightly adhere wall base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates. Do not stretch wall base during installation. Install base at bath tubs as a single piece without seams.

CLEANING AND PROTECTING

A. Remove adhesive and other blemishes from exposed surfaces.

B. Protect floors from soiling and damage. Replace damaged flooring.

C. Clean and finish floors as recommended by flooring manufacturer. Coat floors with a water emulsion wax and buff.

D. Prohibit foot and wheel traffic for 48 hours after installation.

09680 - CARPET

MATERIALS

A. Carpet and pad shall meet or exceed HUD specifications for moderate traffic, UM 44D. Note handicapped specifications shall be complied with.

INSTALLATION

A. Do not install carpet until wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at levels when occupied for its intended use.

B. Do not install carpet over concrete slabs until slabs have cured and are sufficiently dry to bond with adhesive and concrete slabs have a pH range recommended by carpet manufacturer.

C. Use trowable leveling and patching compounds, according to manufacturer's written instructions, to fill cracks, holes and depressions in substrates.

D. Remove coatings, including curing compounds and other substances that are incompatible with adhesives and that contain soap, wax, oil or silicone without using solvents.

E. Broom and vacuum clean substrates to be covered immediately before installing carpet. After cleaning, examine substrates for moisture, alkaline salts, carbonation or dust. Proceed with installation only after unsatisfactory conditions have been corrected.

F. Carpet shall be installed to comply with CRI 104, section 11, "Stretch-in installation" to provide a properly stretched and smooth uniform surface. Install pattern parallel to walls and borders.

G. Padding shall be completed with as few seams as possible. Where joints are necessary, edges shall be firmly butted together. Install padding seams at 90-degree angle with carpet seams.

H. Areas shall be covered with carpet widths requiring the fewest seams possible, maintaining uniformity of carpet direction and lay of pile. All required seams shall be done in a first class workmanship manner resulting in the least detection of seam location possible.

I. Extend carpet into toe spaces, door reveals, closets, open-bottom obstructions, alcoves and similar openings. At doorways, center seams under the door in closed position.

J. Cut and fit carpet to butt tightly to vertical surfaces, permanent fixtures, cabinets and built in furniture, pipes, outlets, edgings, thresholds, and nosings. Bind or seal cut edges as recommended by carpet manufacturer.

K. Dye lots may not be combined within individual units.

CLEANING AND PROTECTION

A. Perform the following operations immediately after installing carpet:

- Remove excess adhesive, seam sealer, and other surface blemishes using cleaner recommended by carpet manufacturer.
- Remove yarns that protrude from carpet surface.
- Vacuum carpet using commercial machine with face-beater element.

B. Protect carpet against damage from construction operations and placement of equipment and fixtures during the remainder of construction period. Use protection methods indicated or recommended in writing by carpet manufacturer.

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09900 - PAINTING

PAINT FINISHES:

A. Wall and Ceilings (U.N.O) - Flat - Sherwin Williams Painters Edge

B. Bathroom and Kitchen Walls - Eggshell - Sherwin Williams Painters Edge

C. Doors and Trim - Semi-Gloss - Sherwin Williams Painters Edge

D. Use Exterior Latex Flat paint on all exterior surfaces (porch and breezeway ceilings to be eggshell / satin finish - Sherwin Williams Super Paint

E. Exterior Painting - Includes siding, exterior doors, meters, piping, stairs and breezeway rails, etc - Sherwin Williams ALKYD Industrial Enamel to be used on all steel stairs and rails.

DELIVERING AND HANDLING

A. Arrange storage facilities to accommodate sufficient quantities to avoid necessity for changing brand or supplier during any phase of work.

B. Deliver painting materials to site in manufacturer's original, sealed, and labeled containers.

C. Mix, reduce, and thin according to manufacturer's recommendations.

MATERIALS

A. Paint and accessory products shall be provided as recommended by manufacturer and shall meet terms and conditions of the manufacturers warranties as installed.

B. No paint shall contain more than .06 percent lead by weight calculated as lead metal in the total non volatile content of liquid paints or in the dried film of paint already applied.

C. Prepared Paints: Pittsburgh, Glidden, Porter, Sherwin Williams, Benjamin Moore.

- Exterior finish coat paints shall be high performance, Sherwin-Williams "Duration"
- Exterior finish coat paint on steel stair rails and apartment entry doors shall be gloss sheen industrial enamel, custom blended color, Charleston Green.
- Interior flat-sheen paints, Sherwin-Williams "Optimus" (SE market regional product name).
- Interior semi-gloss paints, Sherwin-Williams "Master Hide Semi-Gloss"

D. Stain: Olympic, Cabots, Cupnol (solid).

E. Raw Linseed Oil: ASTM D234 66T.

F. Bolted Linseed Oil: ASTM D280 61.

G. Turpentine: ASTM D 13 65.

H. Mineral Spirits: ASTM D235 61.

I. Shellac: ASTM D237 57.

J. Putty: Fed Spec. TTP 731c, Type 1.

K. Tinting Colors: By manufacturer of prepared paint.

L. No paint shall be used on any surfaces on which the manufacturer or supplier will not accept as meeting their requirements for warranty purposes.

PRE PAINTED ITEMS

A. Prime coats, as specified in this Section, will not be required for items properly primed before delivery.

B. Painting at site will not be required for items completely finished before delivery.

C. Retouch pre painted items that have been damaged. Replace items that cannot be restored to original condition.

COLORS

A. Owner will select colors and will furnish Contractor with a set of color cards and a schedule showing location for various colors.

- Apartment interiors have one decorating scheme.
- Leasing Office interior may have four (4) different wall colors, one (1) ceiling color, one (1) interior semi-gloss trim color, and one (1) site applied natural wood stain/finish color.
- Apartment exteriors, storage buildings, mail kiosks, and carwash/maintenance buildings share one exterior color/material scheme.
- Leasing Office exterior has a separate color/material scheme, distinct from other buildings at project.

PRECAUTIONS

A. Do not apply paint or varnish under conditions that could affect drying or final finish.

B. Do not apply paint or varnish when temperature is below 50 degrees F., or when excessive humidity is present.

C. Do not apply paint or varnish on surfaces that will be exposed to direct rays of sun before drying sufficiently to prevent damage.

D. Protect or remove hardware, escutcheons, fixtures, plates, covers and other items subject to damage or discoloration from painting. Remove doors for painting tops and bottoms.

E. Replace items removed for painting.

F. Protect all windows, frames, etc. prior to and during painting process.

PREPARATION

A. Examine surfaces that are to receive painting before beginning work.

B. Correct defects that could affect quality of finished work.

C. Starting painting work will be construed as evidence of acceptance of conditions under which work will be done.

D. Prepare surfaces, as necessary, to receive painting as specified. Retouch shop coats and prime coats as necessary.

E. Clean surfaces to be painted, and spaces in which paint and spaces in which painting will be done, to be broom clean and dust free.

F. Remove soil, prints, stains, and adhered materials, that could affect finish painting.

G. Protect or remove rough-ins, door hinges, escutcheons, plates, covers and other items subject to painting activities. (Remove & dispose of following work

APPLICATION

A. Apply paint according to manufacturer's instructions and recommendations.

B. Do not apply paint over surfaces containing excessive moisture. Do not apply a coat over another coat until the preceding coat has thoroughly dried.

C. Apply paint and varnish by brushing or roller. Other methods of application permitted only with specific approval.

D. Work each coat out evenly to be free from runs, sags, or thin spots.

E. Make edges of paint, adjoining other materials or other colors, sharp, clean and straight. Prevent overlapping of colors.

PAINT SCHEDULE

A. Exterior Wood doors, columns, patio and breezeway beam faces, pickets, rails and exposed surfaces shall be primed and painted.

- Sand smooth, clean, dust, and fill holes after prime or stain coat. Use putty or plastic wood to fill holes. Color putty or plastic wood to match natural finish.

B. Exterior Ferrous Metal, Other Than Galvanized.

- Remove rust, scale, grease, oil, and adhered matter. Provide suitable surface for painting. For severe rust, use wire brush to clean and then apply one coat of rust killer.
- First Coat: Exterior Primer.
- Second Coat: Exterior Paint.

C. Galvanized Metal.

- Clean galvanized metals with solvent to remove soil, grease, oil, and adhered matter.
- Apply one coat of acetic acid and, after adequate drying time, remove residue.
- Finish as specified for ferrous metal.

D. Interior Ferrous Metal, Other than galvanized.

- Remove rust, scale, grease, oil, and adhered matter. Provide suitable surface for painting. For severe rust, use wire brush to clean and then apply one coat of rust killer.
- First Coat: Metal Primer.
- Second Coat: Enamel.
- Third Coat: Enamel.

E. Interior Wood.

- Sand smooth, clean, and fill holes after prime or stain coat. Use putty or plastic wood to fill holes. Color putty or plastic wood to match finish.
- For Stain Finish.
 - First Coat: Stain.
 - Second Coat: Polyurethane.
 - Third Coat: Polyurethane.
- For Semi gloss Finish.
 - First Coat: Enamel Undercoater.
 - Second Coat: Latex enamel.

F. Drywall.

- Paint drywall inside garage-storage buildings and equipment rooms.
- Fill cracks, scratches, and holes. Repair tape and compound at joints and nail heads. Sand to even, smooth finish.
- Latex primer coat.
- Finish coat ceilings.
- Finish coat walls (wall color contrasts with ceiling color).
 - Bath walls and Kitchen walls receive semi-gloss sheen paint finish coat. Verify with owner receiver.
 - Typical interior walls and ceilings receive flat sheen paint finish coat.
 - Back-roll wall paint finish coat.
- Interior doors and wood trim: primer, prep, semi-gloss, touchups per section 'E'.
 - Latex semi-gloss, one color selected by Owner.
 - Include latex semi-gloss paint of gypsum board "returns" at side jamba and head of window and sliding glass door.
 - Include latex semi-gloss paint of gypsum board "returns" at drywall cased openings of Dining Room closet and Laundry Room or Closet.

H. DO NOT PAINT the following exterior portions of project:

- Exterior pre-finished "no maintenance" products; such as vinyl railings, vinyl cladding & accessories, etc.
- Pressure-treated wood of patio and breezeway decks, stairways, wood stair railings, and wood railings protecting breezeway deck's opening for stair.
- Pressure-treated wood structural framing supporting breezeway and patio decks (EXCEPTION: patio and beam "faces" revealed while viewing buildings "in elevation" shall be painted.)
- 5/4 pressure-treated board used at sills of elevated doorway openings.
- Pre-finished electric service, switch gear, fire-extinguisher cabinets, etc
- Pre-finished vinyl, aluminum, etc, typically do not paint, (EXCEPTION: pre-finished PVC and other synthetic components of clubhouse exterior shall be painted).
- Do not paint interior pre-finished equipment and products; including electrical panel covers, exhaust or supply grille, air-handler covers, etc.

09255 - GYPSUM BOARD ASSEMBLIES

MATERIALS

A. Gypsum products to be by National Gypsum Co., U.S. Gypsum, and Georgia Pacific.

B. Gypsum wallboard: National Gypsum Company Georgia Pacific Corp. United States Gypsum Co.

C. Fire rated gypsum wallboard: National Gypsum Co. - Types FSW-C, FSW-G Georgia Pacific Corp. - Type 5 United States Gypsum Co. - Types C, JP-X2, IPC-AR

D. Nails, Screws, and Fasteners: Per UL Design as indicated on drawings

E. Corner Reinforcement: As recommended by manufacturer.

F. Joint Tape & Compound: As recommended by manufacturer.

PREPARING

A. Examine surfaces that are to receive drywall. Check size, spacing, and alignment of supports.

B. Correct defects that could affect quality of finished work.

C. Starting drywall work will be construed as evidence of acceptance of conditions under which work will be done.

INSTALLING

A. For 1-hour fire rated flooring/ceiling assemblies, applications shall be done in accordance with the Gypsum Association Fire Resistance Design Manual or per UL Design as indicated on drawings.

B. Provide RC-1 steel channels at apartment ceilings, prior to hanging gypsum board.

C. Provide RC-1 steel channels on one side of party wall at adjoining bedroom walls.

D. Provide RC-1 steel channels at vaulted portions of Leasing Office ceiling; isolate roof framing from finish ceiling.

E. Return wallboard to windows and sliding glass doors at side jamba and head. Leave window sills open for wood sills by others. Butt factory, paper, edge of gypsum board, or provide vinyl J-molding where gypsum board meets aluminum window frame in apartments. Leasing Office window returns are wood.

F. For partitions around tubs only use water-resistant wallboard typical in all baths, full height. Water-resistant wallboard to be 5/8" Type 'X' at party walls. Install in strict accordance with manufacturer's recommendation to provide a waterproof installation. Extend drywall down behind tubs at all walls. Omit water resistance GWB at one-piece fiberglass tub and surround. Other locations for moisture resistant drywall shall include: ceiling and walls at bathrooms, laundry rooms, mechanical closets, exterior storage closets and behind kitchen sink base.

G. For all partitions, except those specified above or as indicated on the Drawings, use 1/2" standard wallboard.

H. Apply wallboard to ceiling and soffits before applying on vertical surfaces.

I. Install wallboard in longest pieces practicable. Stagger joints on opposite side of a wall. Provide support for all edges.

J. Butt joints loosely, maximum gap 1/2 inch. Sand edges that have been cut.

K. Drive nails/secure screws to slightly dimple surface but not to break paper. Reinforce external corners with nail-on metal corner bead and internal corners with tape.

FINISHING

A. Provide Level 2 gypsum board finishing in garages, garage-storage closets, maintenance shop, and equipment rooms.

B. Joints and interior angles shall have tape embedded in joint compound and wiped with a joint knife leaving a thin coating of joint compound over all joints and interior angles. Fastener heads and accessories shall be covered with a coat of joint compound. Surface shall be free of excess joint compound tool marks and ridges are acceptable. Joint compound applied over the body of the tape at the time of tape embedment shall be considered a separate coat of joint compound and shall satisfy the conditions of this level.

C. Provide Level 3 gypsum board finishing of ceilings in apartments and all Leasing Office, except Community Room.

D. All joints and interior angles shall have tape embedded in joint compound and one additional coat of joint compound applied over all joints and interior angles. Fastener heads and accessories shall be covered with two separate coats of joint compound. All joint compound shall be covered with two separate coats of joint compound. All joint compound shall be smooth and free of tool marks and ridges. NOTE: It is recommended that the prepared surface be coated with a drywall primer prior to the application of final finishes.

E. Provide Level 4 gypsum board finishing in apartments (walls), leasing office (walls), and Community Room (ceiling).

F. All joints and interior angles shall have tape embedded in joint compound and two separate coats of joint compound applied over all flat joints and one separate coat of joint compound applied over interior angles. Fastener heads and accessories shall be covered with three separate coats of joint compound. All joint compound shall be smooth and free of tool marks and ridges.

G. Provide medium spray texture as final surface of ceilings in apartments and all of Leasing Office, except Community Room.

- Provide texture finish sample for Owner approval prior to starting production.
- Community Room ceiling finish is level 4.

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09651 - RESILIENT TILE FLOORING

MATERIALS

A. Luxury Vinyl Tile (LVT) shall have or exceed specifications for moderate traffic. (Wood Grain styles)

B. Edging: Metal molding with concealed fastenings.

C. Adhesive: Waterproof as recommended by Manufacturer.

PREPARING

A. Examine surfaces to receive materials before work is started. Remove dirt, grease, and foreign matter from receiving surfaces.

B. Correct defects which could interfere with the laying of resilient materials in proper manner.

C. Level floors, or run true to a plane, to within 1/8 inch in 8 feet. Correct minor variations with trowable leveling or patching compound.

D. Starting work shall be construed as acceptable of conditions under which work will be done.

E. Store resilient materials, in original packages, at a temperature of not less than 70 F. for at least 24 hours prior to laying.

ADHESIVES

C. Mix and apply adhesives according to manufacturer's instructions and recommendations.

D. Prevent soiling and staining of adjacent surfaces with adhesive.

E. Apply adhesive at a rate to permit installation of flooring within working time of adhesive.

INSTALLING

A. Maintain temperature of not less than 70 F. while laying.

B. Install according to manufacturer's instructions and recommendations. Heat underside if necessary to obtain bond.

C. Lay out tiles from center marks established with principal walls, so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid using cut widths that are less than one-half tile at perimeter. Lay tiles square with room axis or in pattern indicated.

D. Scribe, and fit tiles to butt neatly and lightly to vertical surfaces and accurately adjoining to other materials. Extend tiles into toe spaces, door reveals, closets and similar openings.

E. Adhere tiles to flooring substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints.

F. Install edging strip where edge would be exposed.

G. Tightly adhere wall base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates. Do not stretch wall base during installation. Install base at bath tubs as a single piece without seams.

CLEANING AND PROTECTING

A. Remove adhesive and other blemishes from exposed surfaces.

B. Protect floors from soiling and damage. Replace damaged flooring.

C. Clean and finish floors as recommended by flooring manufacturer. Coat floors with a water emulsion wax and buff.

D. Prohibit foot and wheel traffic for 48 hours after installation.

09680 - CARPET

MATERIALS

A. Carpet and pad shall meet or exceed HUD specifications for moderate traffic, UM 44D. Note handicapped specifications shall be complied with.

INSTALLATION

A. Do not install carpet until wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at levels when occupied for its intended use.

B. Do not install carpet over concrete slabs until slabs have cured and are sufficiently dry to bond with adhesive and concrete slabs have a pH range recommended by carpet manufacturer.

C. Use trowable leveling and patching compounds, according to manufacturer's written instructions, to fill cracks, holes and depressions in substrates.

D. Remove coatings, including curing compounds and other substances that are incompatible with adhesives and that contain soap, wax, oil or silicone without using solvents.

E. Broom and vacuum clean substrates to be covered immediately before installing carpet. After cleaning, examine substrates for moisture, alkaline salts, carbonation or dust. Proceed with installation only after unsatisfactory conditions have been corrected.

F. Carpet shall be installed to comply with CRI 104, section 11, "Stretch-in installation" to provide a properly stretched and smooth uniform surface. Install pattern parallel to walls and borders.

G. Padding shall be completed with as few seams as possible. Where joints are necessary, edges shall be firmly butted together. Install padding seams at 90-degree angle with carpet seams.

H. Areas shall be covered with carpet widths requiring the fewest seams possible, maintaining uniformity of carpet direction and lay of pile. All required seams shall be done in a first class workmanship manner resulting in the least detection of seam location possible.

I. Extend carpet into toe spaces, door reveals, closets, open-bottom obstructions, alcoves and similar openings. At doorways, center seams under the door in closed position.

J. Cut and fit carpet to butt tightly to vertical surfaces, permanent fixtures, cabinets and built in furniture, pipes, outlets, edgings, thresholds, and nosings. Bind or seal cut edges as recommended by carpet manufacturer.

K. Dye lots may not be combined within individual units.

CLEANING AND PROTECTION

A. Perform the following operations immediately after installing carpet:

- Remove excess adhesive, seam sealer, and other surface blemishes using cleaner recommended by carpet manufacturer.
- Remove yarns that protrude from carpet surface.
- Vacuum carpet using commercial machine with face-beater element.

B. Protect carpet against damage from construction operations and placement of equipment and fixtures during the remainder of construction period. Use protection methods indicated or recommended in writing by carpet manufacturer.

09900 - PAINTING

PAINT FINISHES:

A. Wall and Ceilings (U.N.O) - Flat - Sherwin Williams Painters Edge

B. Bathroom and Kitchen Walls - Eggshell - Sherwin Williams Painters Edge

C. Doors and Trim - Semi-Gloss - Sherwin Williams Painters Edge

D. Use Exterior Latex Flat paint on all exterior surfaces (porch and breezeway ceilings to be eggshell / satin finish - Sherwin Williams Super Paint

E. Exterior Painting - Includes siding, exterior doors, meters, piping, stairs and breezeway rails, etc - Sherwin Williams ALKYD Industrial Enamel to be used on all steel stairs and rails.

DELIVERING AND HANDLING

A. Arrange storage facilities to accommodate sufficient quantities to avoid necessity for changing brand or supplier during any phase of work.

B. Deliver painting materials to site in manufacturer's original, sealed, and labeled containers.

C. Mix, reduce, and thin according to manufacturer's recommendations.

MATERIALS

A. Paint and accessory products shall be provided as recommended by manufacturer and shall meet terms and conditions of the manufacturers warranties as installed.

B. No paint shall contain more than .06 percent lead by weight calculated as lead metal in the total non volatile content of liquid paints or in the dried film of paint already applied.

C. Prepared Paints: Pittsburgh, Glidden, Porter, Sherwin Williams, Benjamin Moore.

- Exterior finish coat paints shall be high performance, Sherwin-Williams "Duration"
- Exterior finish coat paint on steel stair rails and apartment entry doors shall be gloss sheen industrial enamel, custom blended color, Charleston Green.
- Interior flat-sheen paints, Sherwin-Williams "Optimus" (SE market regional product name).
- Interior semi-gloss paints, Sherwin-Williams "Master Hide Semi-Gloss"

D. Stain: Olympic,

16100 - ELECTRICAL

NOTE: The following are in addition to any specs on the drawings

SCOPE

- A. Furnish all necessary materials, tools, and labor, and install in each project building a complete and fully operable electrical system as indicated on the drawings and hereinafter specified. All outlets and fixtures shall be fully connected to sources of current supply and be left ready for use. All materials employed in the construction must be new.
B. The exterior electrical distribution system supplying service to the project will be provided by the electric utility to the extent indicated on the drawings. From this point provide power for lighting and other electrical services throughout.
C. Install and connect electrically operated equipment as hereinafter specified.
D. Make final electrical connections for electrically powered equipment furnished and/or installed under other Sections.
E. All work shall be done in conformance with the latest National Electrical Code and all local requirements. Electrical contractor shall be responsible for coordinating with local authorities and ensuring the compatibility of the drawings and specifications s to local codes and conditions.

SYSTEMS

- A. Secondary electric service to all dwelling buildings will be single phase, 3 wire, 120/240 volts, which grounded neutral. From the points of incoming services, extend wiring and make connections to circuit protective devices, fixtures and outlets.

GENERAL REQUIREMENTS

- A. The Contractor's attention is called to the General Scope of the Base Contract, the General Conditions, the Special Conditions, and Supplementary Conditions which shall govern the installation of his work. The Contractor shall also refer to the Site and Architectural Drawings.
B. All electrical installations shall be made in accordance with the latest edition of the National Electrical Code and its supplement in force at the time of entering into the Contract, and all materials employed shall be Underwriter's listed and approved and bear the Underwriter's official labels where such labeling is customary. In the event local codes are more rigid than the National Code, both codes shall then be considered as jointly governing and the most rigid requirements prevail. The Contractor shall be responsible for the proper selection and application of material and the methods of their installation.
C. It will be noted that the plans are generally diagrammatic and the actual final locations of wiring extensions and outlets are subject to building and structural conditions; therefore, the Contractor shall familiarize himself with other trades engaged to make minor changes in outlet locations at any time prior to roughing in of the electrical work without incurring any additional costs.
D. Wiring systems, with outlet devices and boxes, shall be grounded as required by the governing codes. The system shall be bonded. Conduit may be used for bonding. Non metallic sheathed cable shall contain a ground wire.
E. All wiring shall be installed in metal raceways when and where so indicated on the drawings or specified.

MATERIALS

- A. Basic materials and devices required in the wiring system shall be of type and grade in accordance with Federal Specifications or Underwriters' approved standards. In the event any Federal Specification or Underwriters' standard is revised, supplemented, or modified, the latest requirements shall govern.
B. The Contractor shall submit a list of materials he proposes to use in the construction, or provide samples, fully establishing the type, grade and quality of each device or item of material. The Contractor shall be responsible for installing only such devices and materials as meet all governing requirements.
C. The following listed items of materials and devices shall be employed in the construction, subject to their suitability, the regulations of the governing codes, building structural conditions, and the particular requirements of the drawings and the specifications.
1. Raceways, Fittings, and Outlet Boxes
a. Rigid steel conduits, zinc coated Fed. Spec. WWC 581c.
b. Electrical metallic tubing Fed. Spec. WW T 806b.
c. Flexible metal conduits, single strip, zinc coated Fed.Spec. WW C 566.
d. Fittings, zinc coated steel Fed. Spec. WF 406.
e. Outlet boxes and covers, zinc coated Fed. Spec. WO 821a.
f. Outlet boxes and covers, cadmium plated (for out door duty) Underwriters' approved.
g. Outlet boxes, plastic or fiberglass Underwriters' approval
2. Wires and Cables
a. Building wires, thermoplastic insulated Types THW Fed. Spec. J C 30.
b. Non metallic sheathed cables, R, insulated, Types MN & NMC Underwriters' approved.
c. Armored bushed cables, Type R or T insulated Fed. Spec. J C 71A.
d. Cord, all rubber Type S, heavy duty grade Underwriters' approved.
e. Fixture wires Underwriters' approved.
3. Wiring Devices
a. Receptacles, duplex type 15 amperes, 2 wire, 125 volts, with appliance ground contracts, shall be Leviton 5230 I.
b. Receptacles, duplex type 20 amperes, 2 wire, 125 volts, with appliance ground contracts, shall be Leviton 5800 I.
c. Switches, wall tumbler type, 15 amperes, 120/277 volts, Fed. Spec. W S 896. Shall be Leviton 1451 I.
d. Finishing plates for wall switches and convenience outlet of bakelite, ivory use "Jumbo" size plates at brick walls.
e. Switches, Service Type C Underwriters' approved.
4. Service Equipment
a. Circuit panels, circuit breaker type Fed. Spec. S P 115a.
b. Circuit breakers Fed. Spec. W C 375a (amendment #3) Class 1, Single Unit Construction.
5. Insulating Tapes
a. Friction Tape Fed. Spec. HH T 101
b. Rubber Tape Fed. Spec. HH T 111a
c. Varnished Cambric Tape Underwriters' Approved
d. Plastic Tapes Underwriters' Approved
6. Lamps, Incandescent Type
a. General service lamps Fed. Spec. W L 101e.
7. Alarm System
a. Emergency sign light & Wheelock #7004-T-115 sound alarm

CABINETS

- A. Cabinets shall be constructed of sheet metal, of code gauge, and for either surface of flush mounting as specified or otherwise required for job conditions. Surfaces shall be bonded or otherwise treated to resist corrosion or rusting.
B. Cabinets for Interior Installation shall be flush mounted and have a standard finish to protect the metal against action of the elements.
C. Cabinets Mounted Outdoors shall be of weatherproof construction with a finish to protect the metal against action of the elements.

MAIN CIRCUIT PANELS

- A. Each Panel shall have the necessary number of circuit protective devices as required to properly protect the wiring conductor with capacities of protective devices coordinated with the circuits.

METERING OF DWELLING SERVICES

- A. Electric service will be supplied by local electric utility company. The Contractor shall furnish and install all necessary equipment and wiring to complete the service entrance, and arrange with the electric utility for those items (such as meters which they furnish for retail electric customers). Meter sockets and service facilities shall be installed to meet utility standards and requirements.

BUILDING SERVICE CONNECTIONS

- A. Electrical System covered by this Division of the Specifications shall commence at the point of service on exterior of each building. From this point, extend wiring to service equipment and outlets.

INSTALLATION OF SERVICE ENTRANCE EQUIPMENT & METERING FACILITIES

- A. Install service entrance equipment and grounding as required by Article 250 of the National Electrical Code. (See Paragraph 16A 08.)

INSTALLATION OF RACEWAYS

- A. Conceal raceways from view. In non fireproof floor and roof construction, run raceway parallel to and between joists where-ever practical. In crossing joists, notch underside within 1 foot of either bearing; upper side of joists may be notched, provided 10 gauge steel plate is installed over raceways to prevent penetration of floor nails.
B. In structural slabs, run raceways at least 1 1/2" below top and above reinforcing steel, except as otherwise indicated on the drawings.
C. Keep raceways clear of partitions at ends of bathtubs permitting of future cutting of partitions to remove tub without disturbing electrical system.
D. Where raceways cross structural joints, provide approved type expansion fittings in all raceways.
E. Raceway systems shall be capped during course of construction. Clean inside of raceways before installing conductors.
F. All threaded slip joints shall be made up tight. Wherever threads are left exposed where protective coatings have been removed in handling, such places shall be painted with one coat of lead and oil of color to match raceway finish.

INSTALLATION OF OUTLET BOXES, COVERS AND PLATES

- A. Outlet boxes shall be of size and type to properly accommodate the size and number of raceways entering boxes.
B. Boxes shall be selected to suit the particular devices to be installed at outlets, and to have sufficient wiring space as required by the National Electrical Code.
C. Mount all boxes so that covers and plates will finish flush with wall or ceiling finished surfaces. Furnish and install plaster rings where necessary. In lighting fixture outlet boxes install 3/8 inch fixture studs when the fixtures to be installed require such studs.
D. Properly center outlets in architectural features and clear trims and corners by 4 inches. Switch boxes are to be located adjacent to door openings (strike sides), unless shown otherwise.
E. The height of wall outlets above finished floors shall be as follows:
1. Switches: 4'0" (except bathrooms 4'6", H.C. bathrooms 4' 0")
2. Receptacles: 16" (24" at H.C. units) except above counter height
3. Telephone Outlets: 16" (24" at H.C. units), except above counters
4. Thermostats: 5'0" (48" at H.C. units)
5. Refrigerator Receptacle: 3'6" to bottom of box
NOTE: Mounting heights are approximate. Actual installation heights shall be conformed prior to installation. Some buildings for elderly and handicapped may vary.
F. All wiring devices shall have plaster ears.
G. Offset outlets in one hour walls so they are not in same stud space. Use collars that will maintain fire rating.

INSTALLATION OF ARMORED CABLE AND NON METALLIC SHEATHED CABLE

- A. Conceal wiring from view. In non fireproof floor and roof construction, run parallel to and between joists wherever practicable. Ceiling joists may be drilled in the center span only.
B. Keep wiring clear of partitions at ends of bathtubs, permitting of future cutting of partitions to remove the tub without disturbing electrical systems.
C. Armored and non metallic sheathed cables installed in masonry walls and partitions, and in solid plaster partitions, shall be enclosed in metallic raceways the full length of such extensions which occur in these walls and partitions. Likewise, these cables shall not be installed in masonry cavity walls and voids of masonry blocks without raceway protection.

INSTALLATION OF WIRES AND CABLES

- A. In most locations of where raceways must be trapped, use moisture resisting grade of wires (Type THW). Armored cables shall not be embedded in masonry unless with lead covering.
B. Eliminate splicing of conductors wherever possible. Where necessary, make all splices in readily accessible outlet or junction boxes or outlet fittings or conventional types.
C. Make taps and splices in wire of sizes No. 6 or larger by means of brass or copper pressure type connectors applied after conductors are properly cleaned, then make tight fully insulate the joint at least 100 percent in excess of wire insulation.
D. Branch feeders to dwelling unit circuit panels may be aluminum or copper. Aluminum wire shall have inhibitor used on solderless lugs and connectors. If copper conductor size shown the equivalent in aluminum shall be furnished in accordance with NEC.
E. All branch circuit conductors shall be copper with amp rating equal to circuit breaker size.

WIRING CONNECTIONS - GENERAL

- A. Balance loads on all 3 wire, 115/230 volt services. This can usually be done by reversing the lines at every second dwelling panel. Three wire circuits shall have potential difference between conductors, otherwise, two wire circuits shall be used.
B. Where conditions permit, panel and switch connections for wire of size No. 8 and larger shall be made with solderless copperlugs of adequate capacity.
C. Make connections to all panels, switches, receptacles, fixtures install finish plates and make all systems complete and ready for use.

GROUNDING

- A. In general, all wiring systems shall be grounded in accordance with the rules of Article 250 of the National Electric code.
B. Ground each building service as indicated on the drawings.
C. Where non metallic sheathed cables are used in conjunction with armored cables or wiring in metallic raceways, the grounding requirements are of special importance. All metallic raceways and enclosure shall be grounded. Attention shall be paid to the installation of wiring systems in kitchens and bathrooms. Refer to electrical drawings for ground fault outlets.
D. In each dwelling unit panel, provide a separate equipment grounding terminal bar as required by Section 384.27 of the National Electrical Code. Bond the grounding terminal box to the Panel Cabinet. Connect the ground conductor of each cable to terminal bar.

INSTALLATION OF LIGHTING FIXTURES

- A. Furnish, install and connect all lighting fixtures complete with lamps as listed.
B. All fixtures shall be properly polarized.

INSTALLATION OF TELEPHONE FACILITIES

- A. Electrical contractor shall provide and install all telephone outlets as indicated on the drawings to a designated location as determined by the telephone vendor. The telephone vendor or others shall be allowed to pre-wire units for telephone service. The electrical contractor shall include the telephone wiring as a separate cost for a possible deduct if a local telephone provider is contracted by the owner to install the system.
B. It shall be the Contractor's responsibility to coordinate pre-wiring with the telephone installer and business phone vendor when pre-wiring is used as well with the General Contractor. Cost shall be included in the General Contractor's cost for wiring to the designated location. Telephone wiring shall be provided and installed and/or coordinated by the electrical contractor. Wiring shall be category 5 (or as per the owner).

SMOKE ALARM EQUIPMENT

- A. Locate one smoke detector in each living unit and one inside each bedroom where indicated. If not indicated, located as per the architect or in accordance with the local building or fire code. Smoke detectors shall conform to the following description.
B. Smoke detectors shall be listed by a nationally recognized testing laboratory that maintains periodic inspection of production of listed equipment, and whose listing states either that the equipment meets nationally recognized standards or has been tested and found suitable for use in a specified manner.
C. Smoke detectors shall be either the ionization chamber or the photoelectric type and shall comply with all the requirements of Underwriters' Laboratories Standard No. 167 for ionization and 168 for photoelectric type detectors. Detectors shall bear the label of a testing and approval laboratory that indicates the smoke detectors have been tested and approved under the requirement of UL 16 or UL 168. The testing and approval laboratory shall be one which maintains compliance with the original approval.
D. All smoke detectors shall operate from the building electrical circuit and have battery backup. The detector mounting shall be permanently attached to an electrical outlet box and the detector wired into a general electrical circuit. There shall be no switches in the circuit to the detector other than the overcurrent protective device protecting the branch circuit.

INSPECTION AND TESTS

- A. Following completion of all wiring installation, test the individual systems, and eliminate any existing ground of potential conductors, short circuits, and other faults. At the time of testing all feeders, branches, panels, and outlets shall be connected and the wiring systems complete from points of service connection. Test insulation resistance of systems.
B. Insulation resistance shall meet the requirements of the National Electrical Code. Provide suitable equipment and devices for making tests in the presence of the authorized representative.
C. Insulation resistance shall meet the requirements of the National Electrical Code. Provide suitable equipment and devices for making tests in the presence of the authorized representative.

TEMPORARY POWER

- A. The electrical contractor shall make all provisions, and pay all costs related to temporary power requirements for construction on the site.

TELEVISION SERVICES

- A. Television cable and outlet box shall be provided at all locations as shown on the drawings and carried to outside of buildings in a single location. All necessary wiring to meet local codes shall be provided by electrical contractor. Coordinate the TV system with the owner's representative or supplier.

PHONE SERVICE

- A. Telephone Service to the buildings shall be provided for by the Owner and coordinated by the General Contractor.

SPRINKLER MONITOR PROTECTION

- A. Electrical contractor shall provide (if not provided by the sprinkler contractor-coordinate with general contractor) protection for electrical and lighting surges to prevent damage to the fire alarm system and auto-dialing equipment including those originating in electrical power supplies, private telephone cabling and its public telephone line interface, and inter-building/zone low voltage signal wires.

16721- FIRE ALARMS

SYSTEM DESCRIPTION

- A. Zoned non-coded addressable, microprocessor based type system with both manual and automatic alarm initiation, addressable detection devices including analog addressable smoke detectors and both audible and visible evacuation alarms.
B. Multiplex signal transmission dedicated to fire alarm service only.
C. Audible Alarm Indication by systems horns.
D. Visual Alarm Indication by strobe light units that comply with A.D.A and ANSI A117.1 guidelines.
E. Systems connections for alarm initiation circuits. Multiplex communications writing (addressable type).
F. Provide a complete fire alarm and detection system including but not limited to the following functions and operating features:
1. Automatic response functions shall be accomplished by the first zone initiated. Alarm functions resulting from initiation by the first zones shall be altered by subsequent alarms. An alarm signal shall be the highest priority. Supervisory or trouble signals shall have record and third level priority. Signals of a higher level priority shall take precedence over signals of lower priority even though the lower priority condition occurred first. Annunciate all alarms signals regardless of priority or order received.
2. Provide zoned powered, wired, and supervised system so a signal on one zone does not prevent the receipt of signals from any other zone. All zones shall be manually resettable from the FACP panel after the initiating device or devices have been restored to normal. Systems that require the use of batteries or battery backup for the programming function shall not be used.
3. Alarm signals shall be automatically routed to central reporting station via a digital communicator using one of two connected dedicated telephone lines.
4. Switches shall provide capability for acknowledgement of alarm; supervisory, trouble, and other specified signals at the FACP. Subsequent zone alarms shall cause the audible signal to sound again until silenced in turn by switch operation. Restoration to normal of alarm, supervisory, and trouble conditions shall extinguish the associated LED and cause the audible signal to sound again until the restoration is acknowledged by switch operation.
5. Sound trouble signal at the FACP upon loss of utility power to the system. Provide an indication at the FACP when the system is operating on an alternate power supply.
6. Remote Detector Status Indication
a. Tamper: Status annunciation of individual smoke detectors at the FACP and at the printer to indicate when a detector has been removed from its base.
b. Maintenance: Status annunciation of individual addressable smoke detectors at the FACP and the system printer to indicate when a detector requires cleaning.
7. Manipulation of controls at the FACP causes the selection of specific addressable smoke detectors for adjustment, displays their current status and sensibility. Product certification signed by the manufacturer of the fire alarm system components certifying that their products comply with the referenced standards.

QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced installer who is a factory - authorized service representative and a contractor licensed with the state to perform the Work of this Section.
B. Comply with the state building codes, International Building Code, local ordinances, local regulations, and requirements of the Barrier- Free Design Board (A.D.A.), and requirements of the State Fire Marshal.
C. Installation of equipment, devices, and controls shall comply with CABO/ANSI A117.1, "Accessible and Usable Buildings and Facilities."
D. Components and installation shall comply with NFPA 70 "National Electrical Code."
E. Provide fire alarm and detection systems conforming to the requirements of NFA 72, "National Fire Alarm Code."
F. UL Listing and Labeling: Provide system and components from a single source that assumes responsibility for compatibility of system components furnished.

WARRANTY

- A. Provide maintenance of fire alarm systems and equipment for a period of 12 months commencing with Substantial Completion, using factory- authorized service representatives.
1. Provide systematic, routine maintenance visits on a monthly basis at times coordinated with the Owner. In addition, respond to service calls within 24 hours of notification of system trouble. Adjust and replace defective parts and components with original manufacturer's replacement parts, components and supplies.

SPARE PARTS

- A. Furnish spare parts matching products installed, as described below, packaged with protective covering for storage, and identified with labels clearly describing contents.
B. Glass Rods for Manual Stations: Furnish ten.
C. Lamps for Strobe Unites: Furnish two.
D. Smoke Detectors: Furnish two.
E. Cable Taps: Use numbered terminal strips in junction, pull or outlet boxes, cabinets, or equipment enclosures where any circuit is made. Solder connections shall not be used for field wiring.
F. Color-code all fire alarm conductors differently from the normal building power wiring. Provide one color code for alarm circuits wiring and a different color for supervisory circuits. Provide a color code for audible alarm indicating circuits different from alarm initiating circuits. Use different colors for visual alarm indicating devices. Paint concealed fire alarm system junction boxes and covers red.
G. Provide a 1-inch conduit between the FACP and the central station transmitter panel. Provide number of conductors as required to monitor general trouble, supervisory, and alarm conditions of FACP. Writing between FACP and the central station panel shall be supervised.

FIELD QUALITY CONTROL

- A. Ground equipment, boxes, and cable shields. Provide a green insulated ground wire in all raceways.
B. Manufacturer's Field Services: Provide services of a factory- authorized service representative to supervise the field assembly and connection of components and the pretesting, testing, and adjustment of the systems.
C. Upon completing installation of the systems adjust, and balance the system and perform complete pretesting. Determine, through pretesting, the conformance of the system to the requirements of the Drawings and Specifications. Correct deficiencies observed in pretesting. Replace malfunctioning or damaged items with new and retest until satisfactory performance and conditions are achieved. Provide NFPA 72 testing forms. Prepare forms for systematic recording of test results prior notification of final acceptance test. Preparation shall include a list of each alarm-initiating device and each alarm signal circuit.
D. After pretesting is complete, provide a letter certifying the installation is complete and fully operable. The letter shall include the name and titles of the witnesses to the preliminary tests.
E. Provide 10 days minimum notice in writing when the system is ready for final acceptance testing.
F. Test the system in accordance with the procedure outlined in NFPA 72, Chapter 7 and NFPA 72E, Chapter 8. Minimum required tests are as follows.
1. Verify the absence of unwanted voltages between circuit conductors and ground.
2. Verify the control unit is in the normal condition as detailed in the manufacturer's operating and maintenance manual.
3. Test initiating and indicating circuits for proper signal transmission under open circuit conditions. One connection each should be opened at not less than 10 percent of the initiating and indicating devices. Proper signal transmission in accordance with class of wiring used shall be observed.
4. Test each initiating and indicating device for alarm operating and proper response at the control unit. Test smoke detectors with actual products of combustion.
5. Test the system for all specified functions in accordance with the manufacturer's operating and maintenance manual. Systematically initiate specified functional performance items at each station.

Table with 3 columns: No., Date, Description. Row 1: 0, 3.18.19, For Permit.

Job Number: 2016_24

File Reference:

Scale: AS NOTED

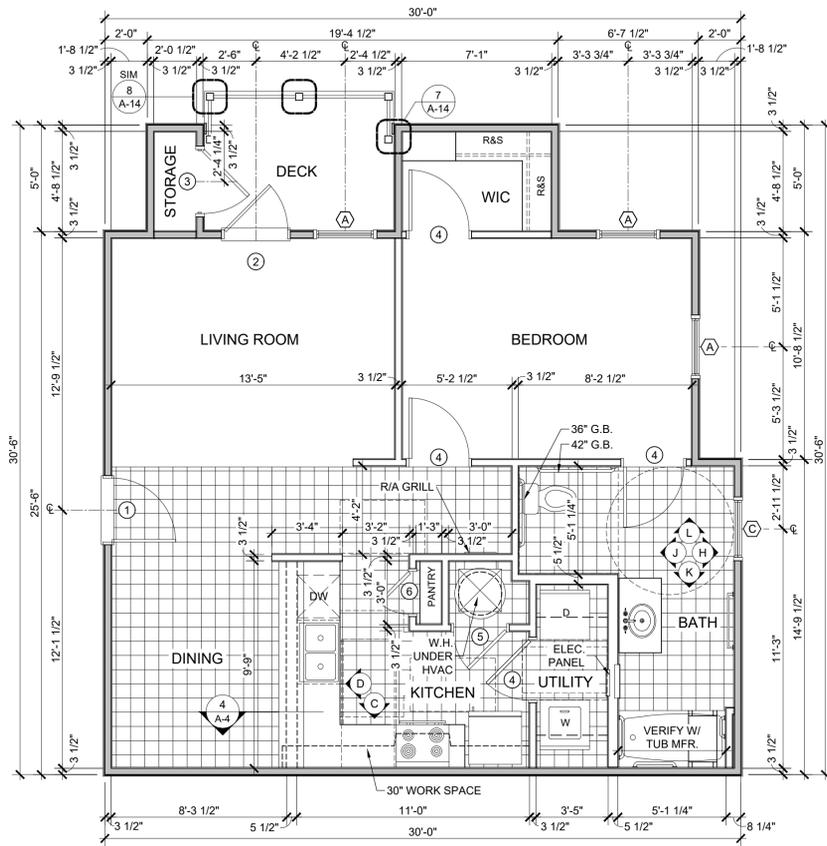


PINE COURT APARTMENTS

PARKS-PLAYER ARCHITECTURE & PLANNING

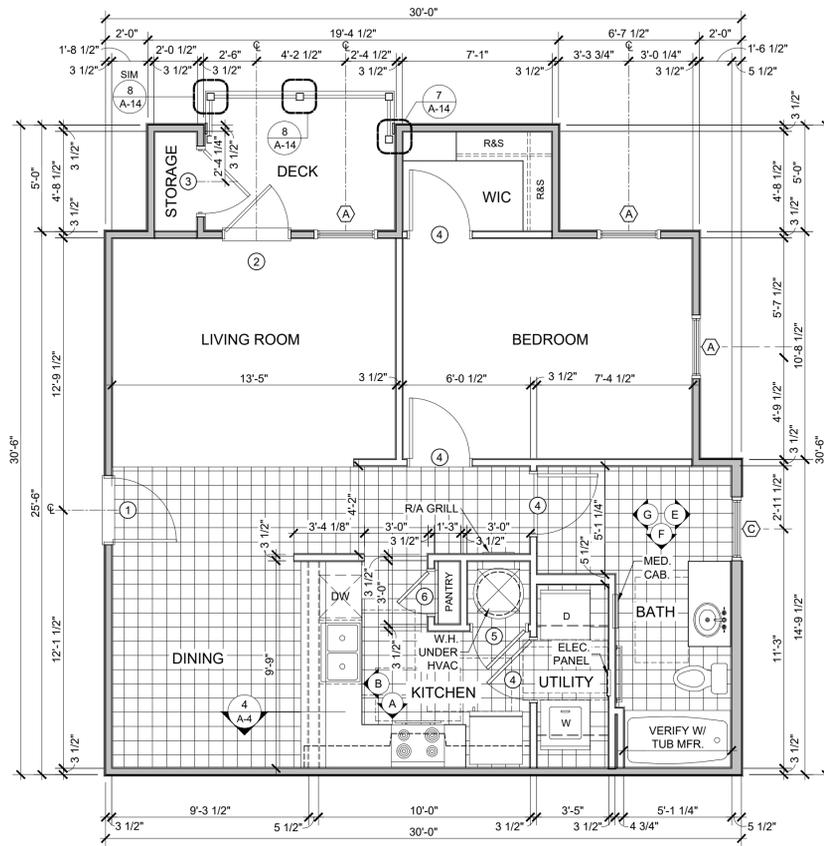
SPECIFICATIONS

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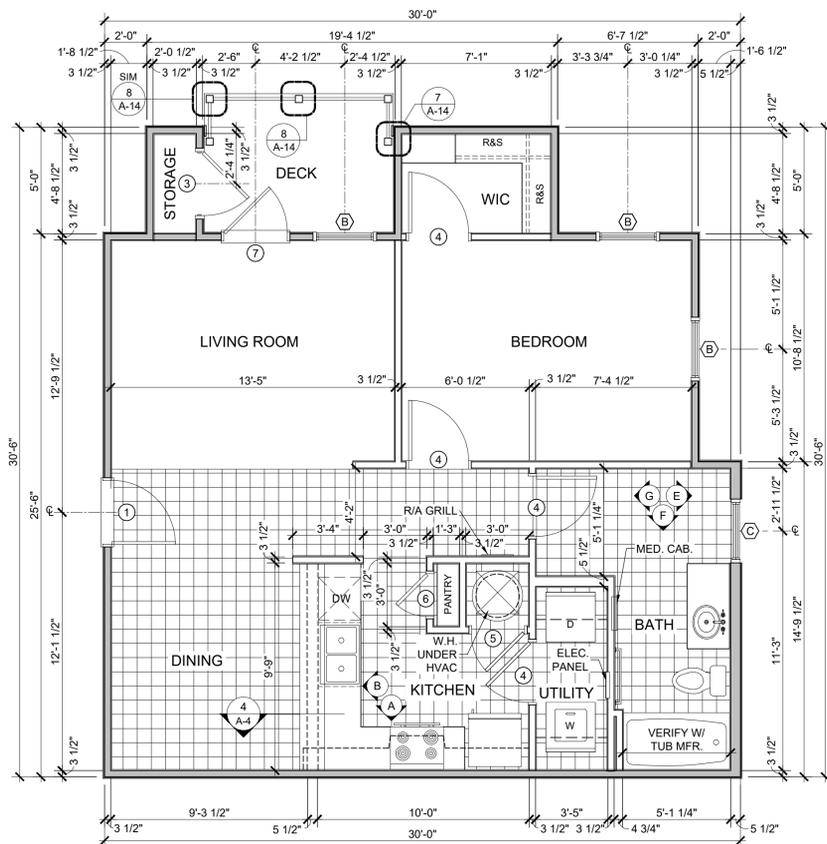
1 1BR HANDICAP UNIT FLOOR PLAN
 1/4" = 1'-0" (ACCESSIBLE TYPE "A")
 @ PARKING SIDE (REAR) OF BLDG #1

GROSS HEATED AREA = 782 SF
 NET HEATED AREA = 747 SF



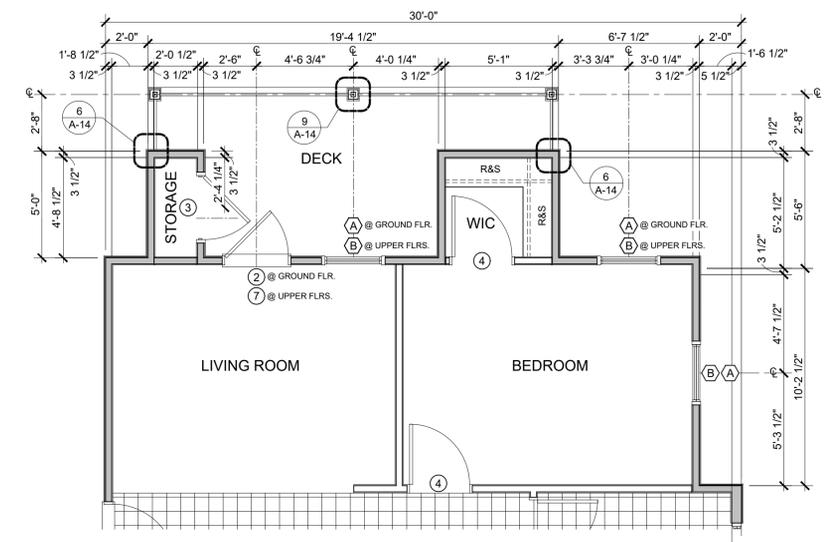
2 1BR UNIT GROUND FLOOR PLAN
 1/4" = 1'-0" (ACCESSIBLE TYPE "B")
 @ PARKING SIDE (REAR) OF BLDG #1

GROSS HEATED AREA = 782 SF
 NET HEATED AREA = 747 SF



3 1BR UNIT FLOOR PLAN - 2ND & 3RD FLOORS
 1/4" = 1'-0" @ PARKING SIDE (REAR) OF BLDG #1

GROSS HEATED AREA = 782 SF
 NET HEATED AREA = 747 SF



4 1BR UNIT FLOOR PLAN - EXTENDED DECK
 1/4" = 1'-0" @ PINE COURT LN. SIDE (FRONT) OF BLDG #1

GROSS HEATED AREA = 772 SF
 NET HEATED AREA = 737 SF

SHELVING NOTES:
 A. All shelving to be plastic coated wire. Shelving and its accessories shall be as manufactured by Closetmaid, EMCO Specialty Products, E-Z Shelving System, Inc., or Approved equal.
 1) Closet Clothes hanging and shelving, "Shelf & Rod, 12"
 2) Linen and laundry shelving, "Linen shelving", 16"
 B. Closet shelving shall be mounted 5'-10" above finished floor.
 1) "L" shaped closets shall have 2 shelves at 4'-0" and 7'-0" on one leg, and at 5'-10" on the other.
 C. Closet shelving in handicapped units shall be mounted 4'-0" above finished floor.
 D. Pantry to have 5 shelves unless noted otherwise.

R&S = CLOSET HANGER
 ROD AND SHELF

NOTE:
 PROVIDE SOLID BLOCKING BEHIND SHELVING AND CABINET WALL AREAS.

NOTE:
 PROVIDE SOLID BLOCKING IN ACCESSIBLE UNITS AT ALL GRAB BAR LOCATIONS (ALL TUBS & W.C.) SEE INTERIOR ELEVATIONS FOR H.C. UNITS. PROVIDE VERTICAL BLOCKING WHERE W.C. IS NEXT TO TUB.

INDICATES 1HR. WALL.

NOTE:
 ANTI-TIP DEVICES MUST BE INSTALLED ON ALL KITCHEN RANGES AND BE SECURELY FASTENED TO THE FLOOR. WALLS BEHIND OR DIRECTLY BESIDE RANGES MUST BE COVERED WITH A SPLASH PANEL. THE PANEL SHOULD SPAN FROM THE RANGE TO THE HOOD AND BE PLASTIC, LAMINATE OR ALUMINUM.

NOTE:
 SEE SHEET A-3 FOR INTERIOR ELEVATIONS

NOTE:
 SEE SHEET A-4 FOR SCHEDULES

NOTE:
 SEE BUILDING PLANS & ELEVATIONS FOR DIFFERENT DECK CONFIGURATION TYPE LOCATIONS - TYP.

No.	Date	Description
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Job Number: 2016_24
 File Reference:

Scale: 1/4" = 1'



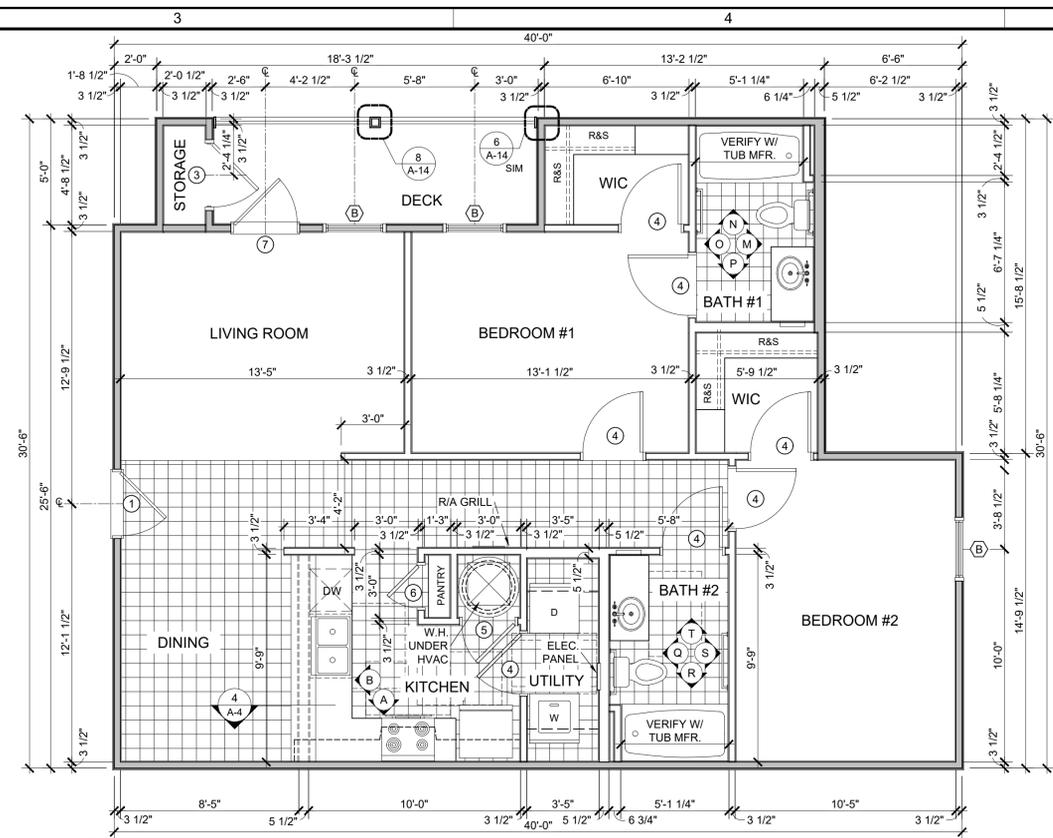
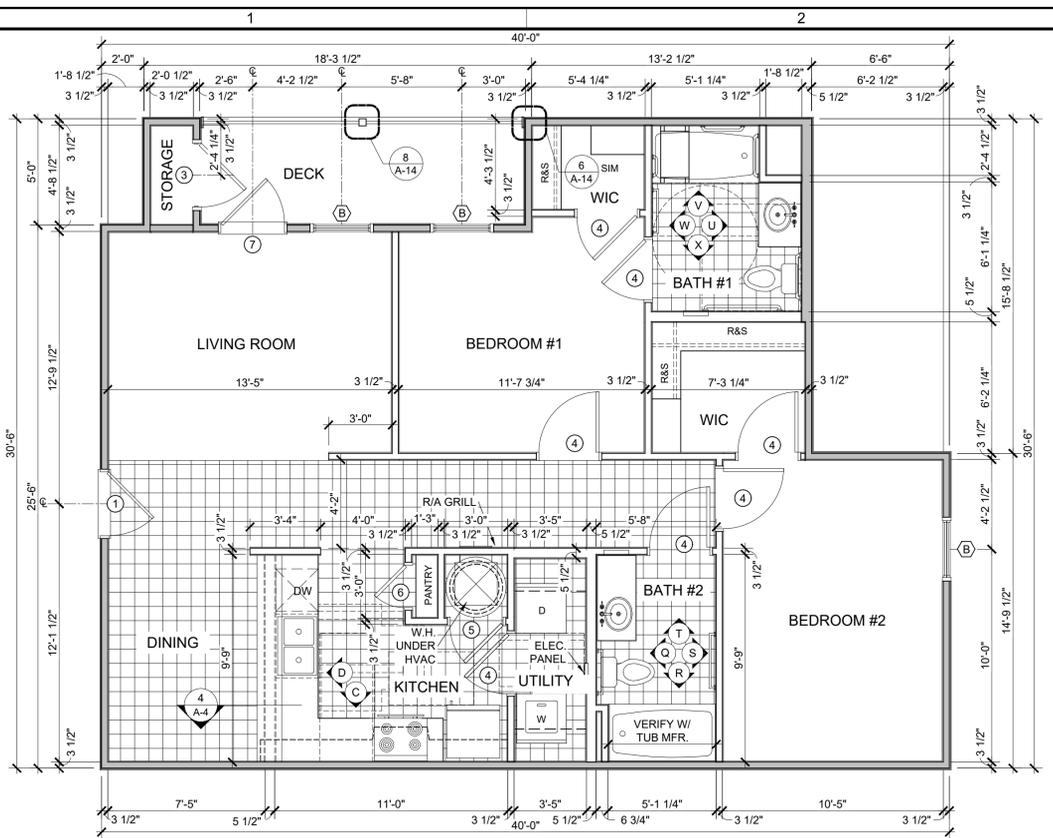
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 SUITE A
 GREENVILLE, SC 29601
 (864) 242-0177

1 BEDROOM UNIT FLOOR PLANS

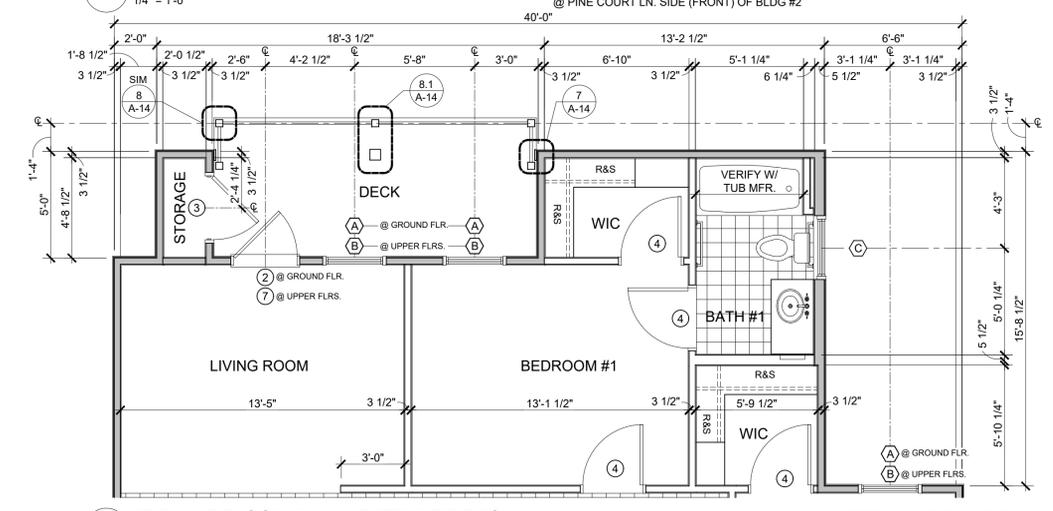
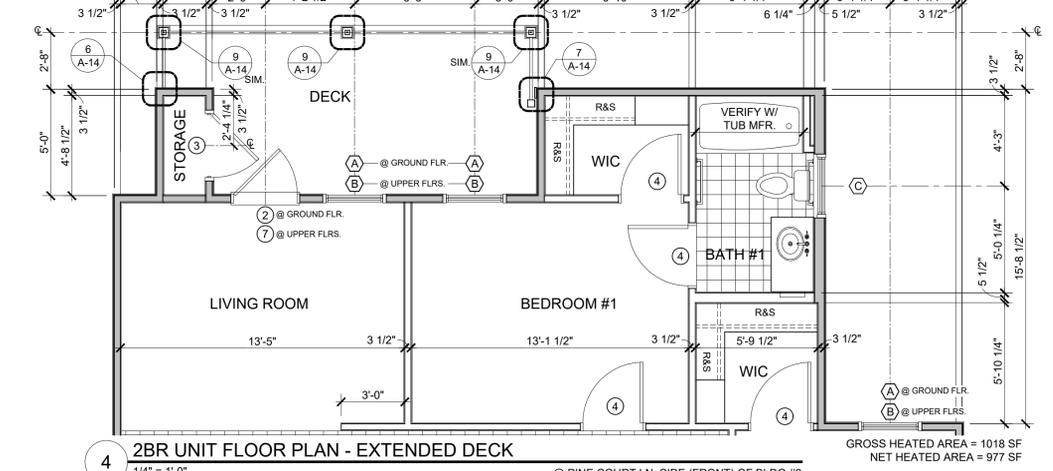
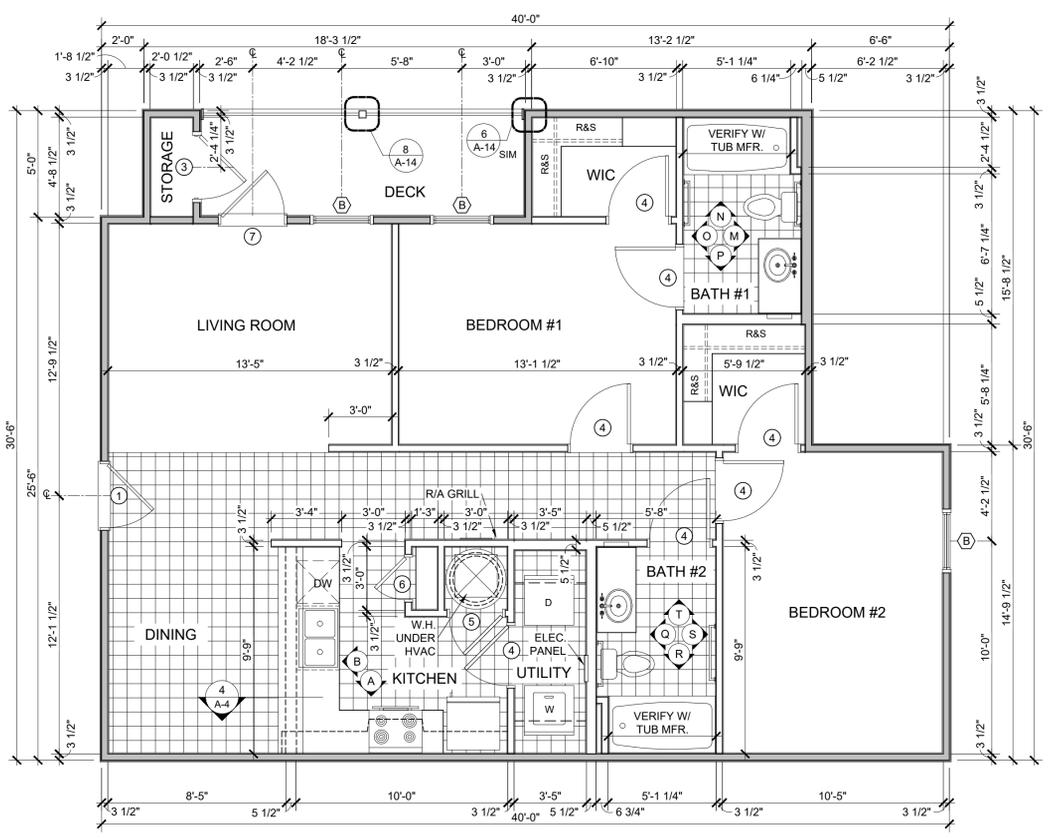
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1 2BR HANDICAP UNIT FLOOR PLAN (ACCESSIBLE TYPE "A")
 1/4" = 1'-0"
 BLDGS #3, #4, & #5
 BLDG #2 SIMILAR - SEE BUILDING PLANS
 GROSS HEATED AREA = 1018 SF
 NET HEATED AREA = 977 SF

2 2BR UNIT FLOOR PLAN (ACCESSIBLE TYPE "B")
 1/4" = 1'-0"
 BLDGS #3, #4, & #5
 BLDG #2 SIMILAR - SEE BUILDING PLANS
 GROSS HEATED AREA = 1018 SF
 NET HEATED AREA = 977 SF



3 2BR UNIT FLOOR PLAN - SECOND & THIRD FLOORS
 1/4" = 1'-0"
 BLDGS #3, #4, & #5
 BLDG #2 SIMILAR - SEE BUILDING PLANS
 GROSS HEATED AREA = 1018 SF
 NET HEATED AREA = 977 SF

4 2BR UNIT FLOOR PLAN - EXTENDED DECK
 1/4" = 1'-0"
 @ PINE COURT LN. SIDE (FRONT) OF BLDG #2
 GROSS HEATED AREA = 1018 SF
 NET HEATED AREA = 977 SF

5 2BR UNIT FLOOR PLAN - EXTENDED DECK
 1/4" = 1'-0"
 @ PARKING SIDE (REAR) OF BLDG #2
 GROSS HEATED AREA = 1018 SF
 NET HEATED AREA = 977 SF

SHELVING NOTES:
 A. All shelving to be plastic coated wire. Shelving and its accessories shall be as manufactured by Closetmaid, EMCO Specialty Products, E-Z Shelving System, Inc. or Approved equal.
 1) Closet Clothes hanging and shelving, "Shelf & Rod, 12"
 2) Linen and laundry shelving, "Linen shelving", 16"
 Closet shelving shall be mounted 5'-10" above finished floor.
 1) "L" shaped closets shall have 2 shelves at 4'-0" and 7'-0" on one leg, and at 5'-10" on the other.
 C. Closet shelving in handicapped units shall be mounted 4'-0" above finished floor.
 D. Pantry to have 5 shelves unless noted otherwise.

R&S = CLOSET HANGER
 ROD AND SHELF

NOTE:
 PROVIDE SOLID BLOCKING BEHIND SHELVING AND CABINET WALL AREAS.

NOTE:
 PROVIDE SOLID BLOCKING IN ACCESSIBLE UNITS AT ALL GRAB BAR LOCATIONS (ALL TUBS & W.C.) SEE INTERIOR ELEVATIONS FOR H.C. UNITS. PROVIDE VERTICAL BLOCKING WHERE W.C. IS NEXT TO TUB.

INDICATES 1HR. WALL

NOTE:
 ANTI-TIP DEVICES MUST BE INSTALLED ON ALL KITCHEN RANGES AND BE SECURELY FASTENED TO THE FLOOR. WALLS BEHIND OR DIRECTLY BESIDE RANGES MUST BE COVERED WITH A SPLASH PANEL. THE PANEL SHOULD SPAN FROM THE RANGE TO THE HOOD AND BE PLASTIC, LAMINATE OR ALUMINUM.

NOTE:
 SEE SHEET A-3 FOR INTERIOR ELEVATIONS

NOTE:
 SEE SHEET A-4 FOR SCHEDULES

No.	Date	Description
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Job Number: 2016_24

File Reference:

Scale: 1/4" = 1'



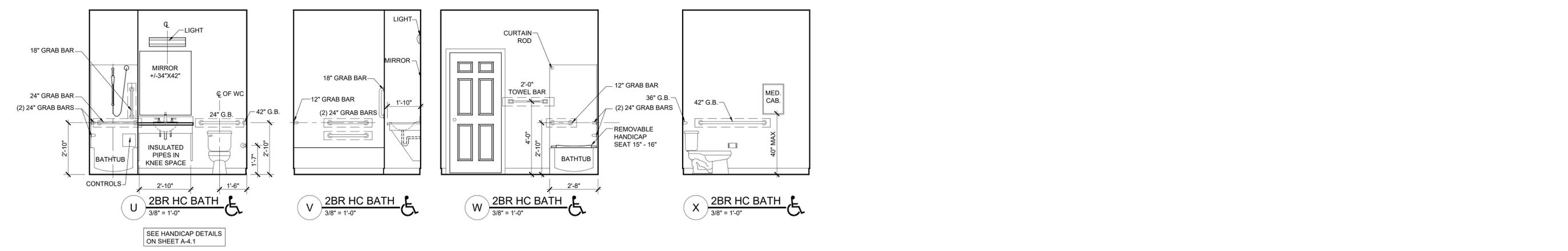
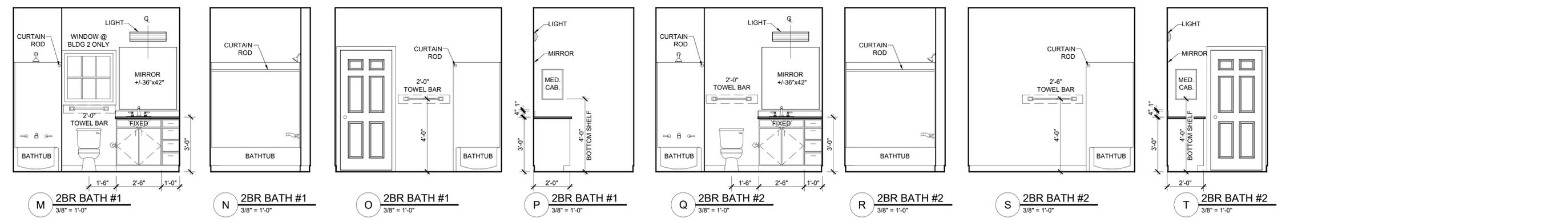
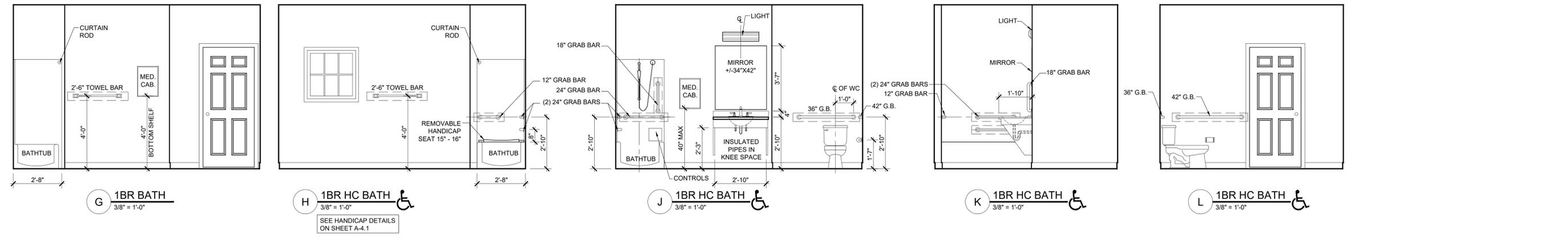
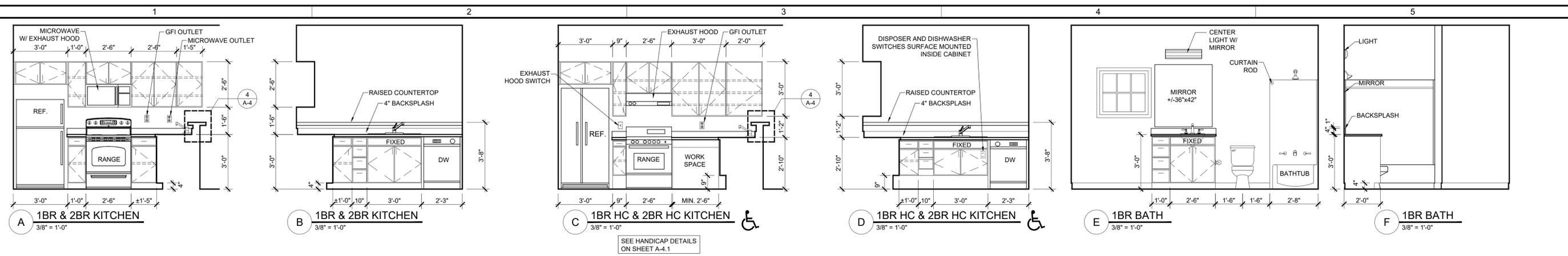
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2 BEDROOM UNIT FLOOR PLANS

Sheet Number:
A-2.00

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No.	Date	Description
0	3.18.19	For Permit

Job Number: 2016_24
File Reference:

Scale: AS SHOWN
CORP. SEAL



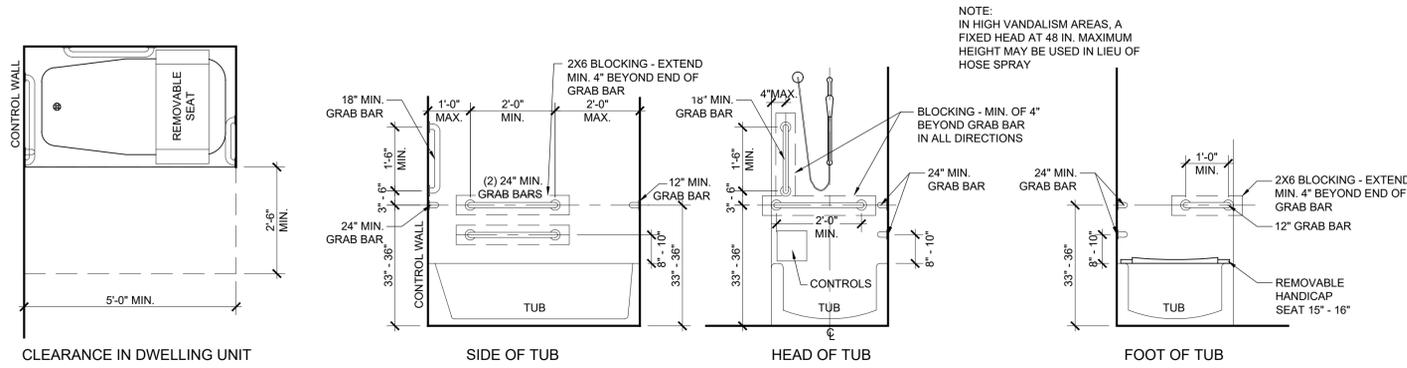
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INTERIOR ELEVATIONS

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HANDICAP TUB WITH REMOVABLE SEAT REQUIREMENTS



NOTE:
IN HIGH VANDALISM AREAS, A
FIXED HEAD AT 48 IN. MAXIMUM
HEIGHT MAY BE USED IN LIEU OF
HOSE SPRAY

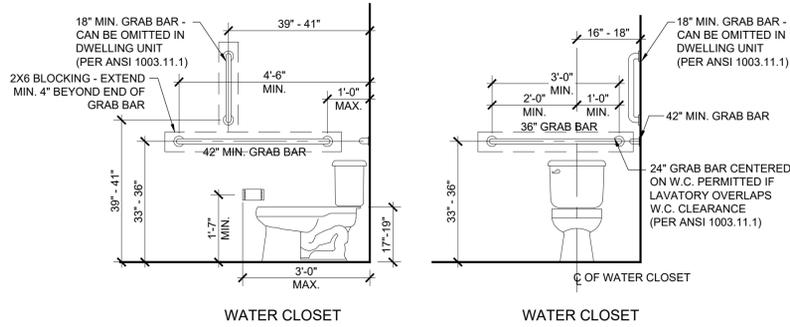
BATHROOM ACCESSORIES (Owner to have final approval - Typ.)

- A. Each bath, shall have the following: (Miami Carey, Tayco, Bradley, Tubular Specialties, or Nutone shall also be acceptable)
- Paper Holder (1): 01-94052309SN
 - Towel Bar (1): 01-940023185SN - 18"
 - Towel Bar (1): 01-940023245SN - 24"
 - Shower Rod (1): Chrome plated rod at each tub
 - Medicine Cabinet (1): Taymor semi-recessed 16"x22" OM18CH#9600-B with mirror door
 - Mirror, one inch narrower than width of vanity top, 42" high with rounded edge. Secured with chrome clips at backsplash and top.
- B. Each bath at handicap units shall have items 1-6 above plus:
- Grab Bar, (2) per water closet: Taymor 01-C2300 - 24" (36" in North Carolina) Taymor 01-C2300 - 42"
- C. Vanites at Hall Baths, at ground floor, shall be 1'-7" wide, with smaller bowl.

CABINETS - APARTMENTS (Owner to have final approval - Typ.)

- A. All manufactured factory finished cabinets shall comply with ANSI A161.1, "Recommended Minimum Construction and Performance Standards for Kitchen and Vanity Cabinets." Handicap designated apartments have handicap convertible cabinetry. Submit shop drawings for Architect and Owner's approval.
- B. Cabinets and counters shall be factory assembled, complete with hardware and equal to requirements specified herein.
- C. Erect cabinets straight, level and plumb. Securely anchor in place with finish moldings and fillers to fit cabinets to walls and ceilings. Cabinets shall be screw anchored at all accessible studs.
- D. Kitchen cabinets in handicapped units shall have 6" deep x 9" high toe spaces.
- E. Kitchen cabinets shall be Normac Kitchens Camelot 800 White PVC with standard pulls or approved equal.
- F. Lavatory Cabinets shall be Normac Kitchens Décor 500 White with standard pulls or approved equal. Cabinets shall be shop assembled with hole for drop in lavatory unit pre cut.
- G. Countertops shall be post-formed laminate with 180 radius edge and applied end-splashes. One color as selected by the owner and architect.

HANDICAP WATER CLOSET REQUIREMENTS



TYPICAL BLOCKING DETAILS FOR ALL FIRST FLOOR INCLUDING H.C. UNITS

NOTE:
- PROVIDE SOLID BLOCKING IN ACCESSIBLE UNITS AT ALL GRAB BAR LOCATIONS (ALL TUBS & W.C.) SEE INTERIOR ELEVATIONS FOR H.C. UNITS. PROVIDE VERTICAL BLOCKING WHERE W.C. IS NEXT TO TUB.

NOTE:
- PROVIDE SOLID BLOCKING AT ALL FUTURE GRAB BAR LOCATIONS (ALL TUBS AND W.C. AT 1ST FLOOR UNITS) SEE INTERIOR ELEVATIONS FOR H.C. UNITS. PROVIDE VERTICAL BLOCKING WHERE W.C. IS NEXT TO TUB.

DOOR SCHEDULE (IMPACT GLASS)

NO.	TYPE	SIZE	TYPE	REMARKS
1	A	3'-0"x6'-8"x1 3/4"	METAL, INSUL. - 6 PANEL 1 HR. LABELED DOOR AND FRAME	H.C. THRESHOLDS @ 1st LEVEL
2	B	3'-0"x6'-8"x1 3/4"	METAL, INSUL. - 10 LITE, PATIO HINGE, APPLIED GRILLE, SOLID JAMB W/ 1'-6" x 3'-0" TRANSOM	DEAD BOLT KEYED, IMPACT GLASS
3	A	2'-0"x6'-8"x1 3/4"	METAL, INSUL. - 6 PANEL 1 HR. LABELED DOOR AND FRAME	
4	C	2'-10"x6'-8"x1 3/8"	HARD BOARD INTERIOR, 6 PANEL PRESSED	32" CLEAR OPENING REQUIRED
5	C	2'-6"x6'-8"x1 3/8"	HARD BOARD INTERIOR, 6 PANEL PRESSED	
6	C	2'-0"x6'-8"x1 3/8"	HARD BOARD INTERIOR, 6 PANEL PRESSED	
7	D	3'-0"x6'-8"x1 3/4"	METAL, INSUL. - 10 LITE, PATIO HINGE APPLIED GRILLE, SOLID JAMB	DEAD BOLT KEYED, IMPACT GLASS
8	A	2'-6"x6'-8"x1 3/4"	METAL, INSUL. - 6 PANEL 1 HR. LABELED DOOR AND FRAME	SPRINKLER RISER CLOSET
9	E	(2) 3'-0"x6'-8"x1 3/4"	METAL, INSUL. - 6 PANEL 1 HR. LABELED DOOR AND FRAME	ELEC. METER CLOSET BLDG. #1 & #2

- H.C. THRESHOLD AT DOORS 1 & 2 OF ACCESSIBLE AND H.C. UNITS.
- LEVER HANDLE HARDWARE AT ENTRY DOORS OF ACCESSIBLE AND H.C. UNITS. LEVER HANDLE THROUGHOUT H.C. UNIT.
- ENTRY DOORS TO HAVE PEEP HOLE AND DEAD BOLT LOCKS WITH THUMB LATCH ON INTERIOR SIDE.
- UNDERCUT BEDROOM DOORS 1".

WINDOW SCHEDULE (IMPACT GLASS)

MARK	SIZE	TYPE	REMARKS
A	3'-0"x6'-6"	SINGLE-HUNG - U=0.35 - SHGC=0.30 - VERIFY TYPE	COLOR = WHITE
B	3'-0"x5'-0"	SINGLE-HUNG - U=0.35 - SHGC=0.30 - VERIFY TYPE	COLOR = WHITE
C	3'-0"x3'-0"	FIXED - U=0.35 - SHGC=0.30 - VERIFY TYPE	COLOR = WHITE

NOTES:
ALL WINDOWS TO HAVE IMPACT GLASS
BEDROOM WINDOWS TO MEET EMERGENCY ESCAPE AND RESCUE SIZE REQUIREMENTS:
NET CLEAR OPENING GROUND FLOOR = 5.0 SQUARE FEET
NET CLEAR OPENING UPPER FLOORS = 5.7 SQUARE FEET
WINDOW SILL HT. NOT TO EXCEED 44" AFF
WINDOWS TO MEET 2009 ENERGY CODE AND ENERGY STAR REQUIREMENTS
ALL WINDOWS TO HAVE LOCKS TO LIMIT OPENING HEIGHT

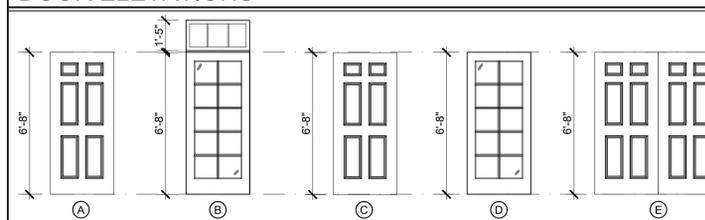
METAL FLASHING OR 20 MIL POLYETHYLENE WHEN USED IN CONJUNCTION WITH A SELF-ADHERING POLYETHYLENE LAMINATE FLASHING, MUST BE INSTALLED ABOVE ALL EXTERIOR DOORS AND WINDOW UNITS.

FINISH SCHEDULE

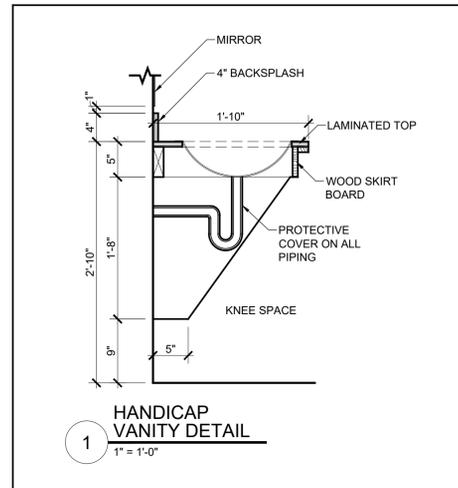
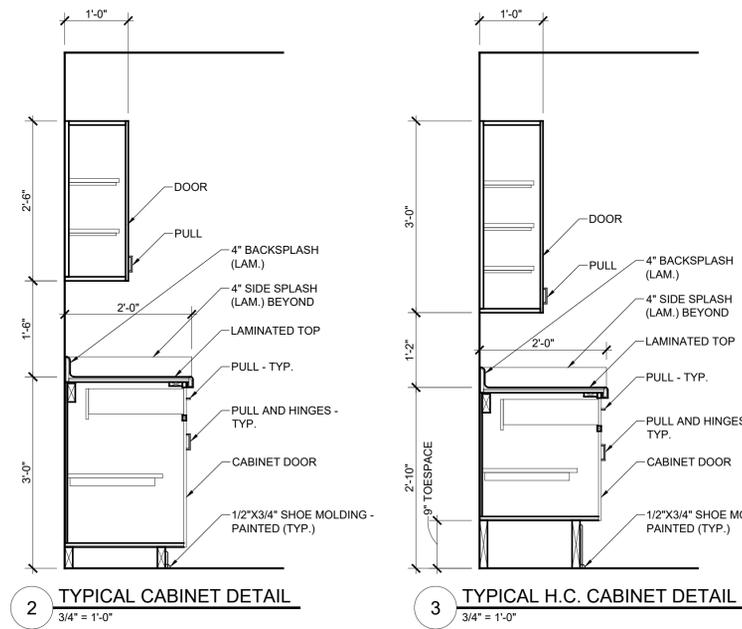
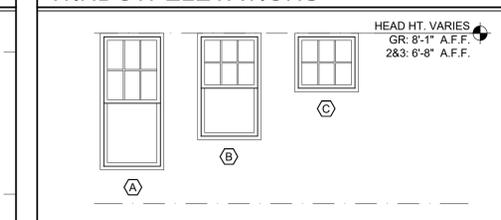
ROOM	FLOOR	BASE	WALL A	WALL B	WALL C	WALL D	CEILING	REMARKS
LIVING ROOM	CAR	MDF	GYP. BD. - PAINTED					
DINING	LVT							1/2" X 3/4" SHOE MOLD @ LVT(TTP)
KITCHEN	LVT							1/2" X 3/4" SHOE MOLD @ LVT(TTP)
LAUNDRY	LVT							1/2" X 3/4" SHOE MOLD @ LVT(TTP)
BEDROOMS	CAR							
BATHS	LVT							1/2" X 3/4" SHOE MOLD @ LVT(TTP)
CLOSETS	CAR							
ENTRY & HALL	LVT							1/2" X 3/4" SHOE MOLD @ LVT(TTP)
DECK	5/4X6 WOOD-TREATED	--	SIDING	SIDING	SIDING	SIDING	5/8" TYPE 'X' SHEATHING ON 24" O.C. FURRING AT UPPER MOST LEVEL W/ VINYL SOFFIT	
BREEZEWAY	5/4X6 WOOD-TREATED	--	SIDING	SIDING	SIDING	SIDING	5/8" TYPE 'X' SHEATHING ON 24" O.C. FURRING AT UPPER MOST LEVEL W/ VINYL SOFFIT	
STORAGE	LVT	MDF	GYP. BD. - PAINTED					

NOTES:
1. PROVIDE VINYL STRIP AT TUB BASE.

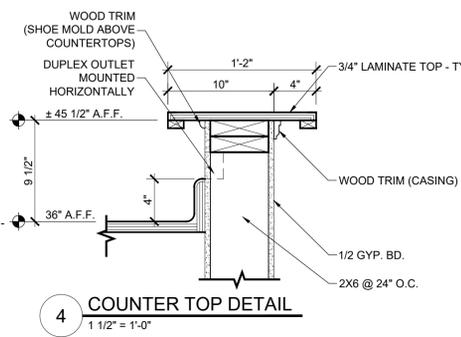
DOOR ELEVATIONS (IMPACT GLASS)



WINDOW ELEVATIONS (IMPACT GLASS)



1
1" = 1'-0"



4
1 1/2" = 1'-0"

No.	Date	Description
0	3,18,19	For Permit

Job Number: 2016_24

File Reference:

Scale: AS SHOWN

CORP. SEAL



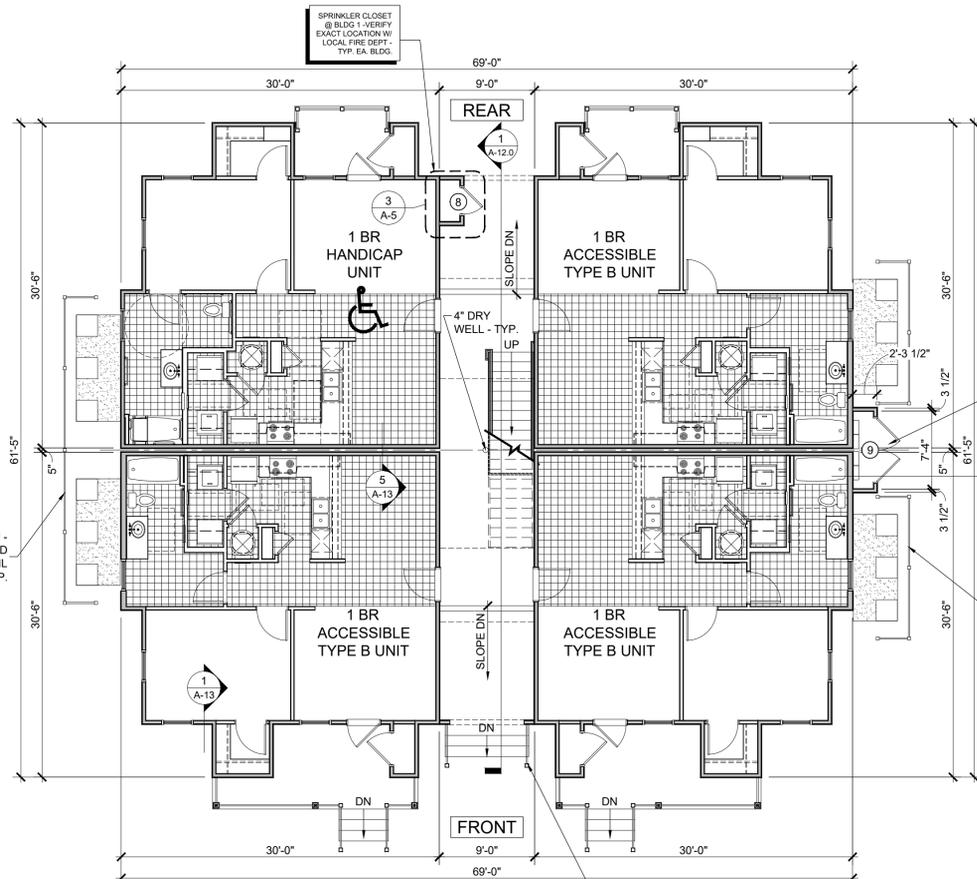
PINE COURT APARTMENTS
BEAUFORT, SOUTH CAROLINA

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1010 EAST NORTH STREET
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GREENVILLE, SC 29601
(864) 242-0177

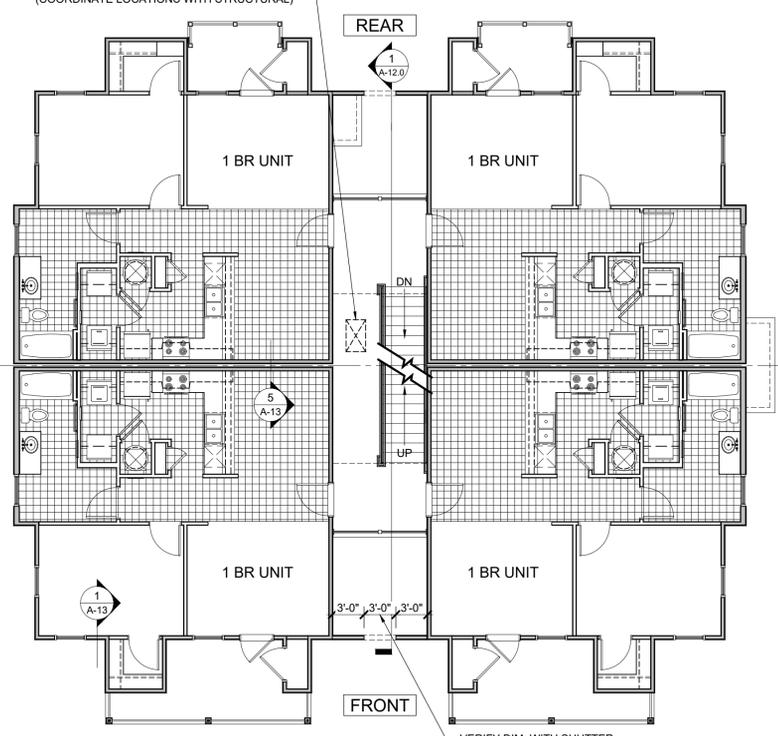
INTERIOR ELEVATIONS

Sheet Number:
A-4.00

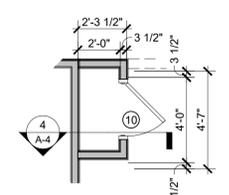
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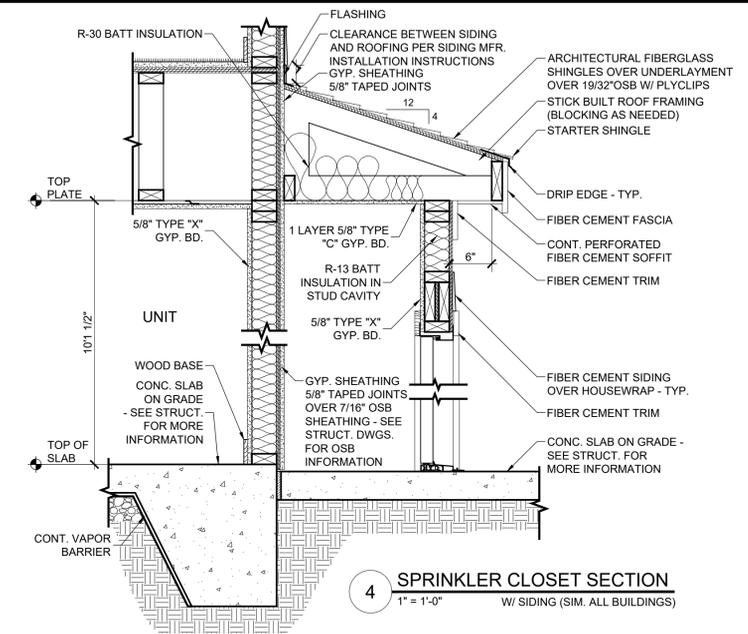
1 BUILDING TYPE "A" - GROUND FLOOR PLAN
 1/8" = 1'-0"
 Building #1
 HANDRAIL AT STAIR LOCATIONS - TYP. (SEE DETAIL 6/A-5 - EACH SIDE OF STAIRS & VERIFY RISER HGTS W/ CIVIL - MAX 7")



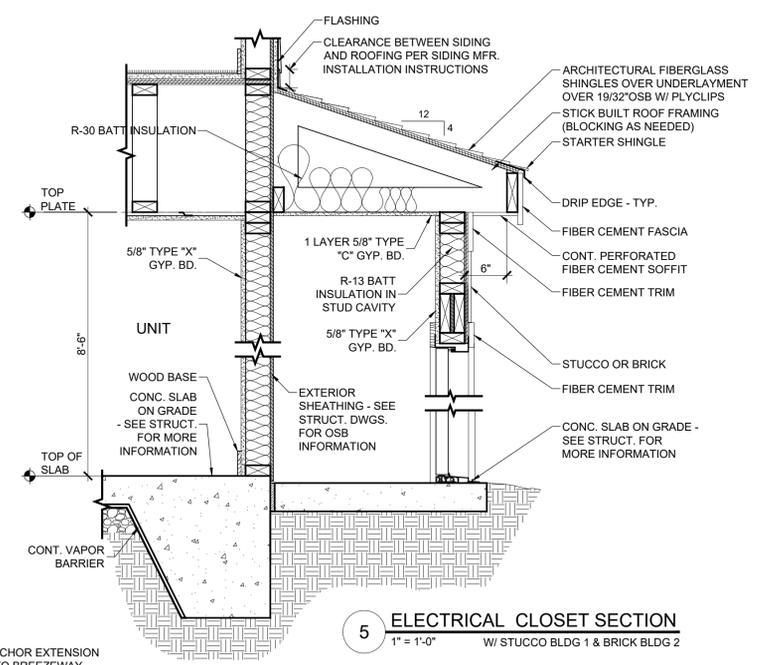
2 BUILDING TYPE "A" - 2ND & 3RD FLOOR PLAN
 1/8" = 1'-0"
 Building #1
 VERIFY DIM. WITH SHUTTER SIZE - TYP ALL BUILDINGS



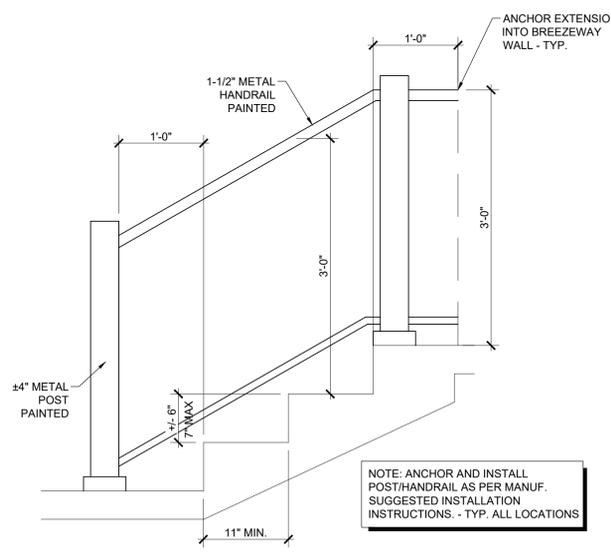
3 ENLARGED SPRINKLER CLOSET
 1/4" = 1'-0"



4 SPRINKLER CLOSET SECTION
 1" = 1'-0"
 W/ SIDING (SIM. ALL BUILDINGS)



5 ELECTRICAL CLOSET SECTION
 1" = 1'-0"
 W/ STUCCO BLDG 1 & BRICK BLDG 2
 NOTE: VERIFY METER CLEAR WORKING AREA W/ LOCAL ELECTRIC AUTHORITY.



6 BREEZEWAY HANDRAIL
 1" = 1'-0"
 AT STAIR LOCATIONS (BLDG #1)

No.	Date	Description
0	3.18.19	For Permit

Job Number: 2016_24

File Reference:

Scale: 1/8" = 1'



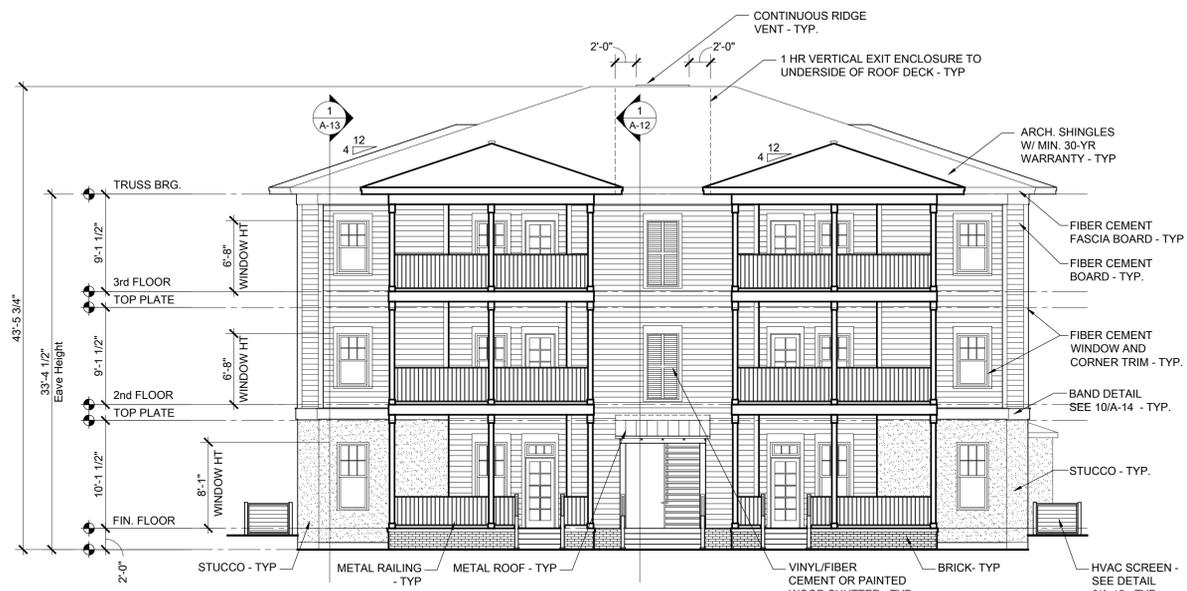
PINE COURT APARTMENTS
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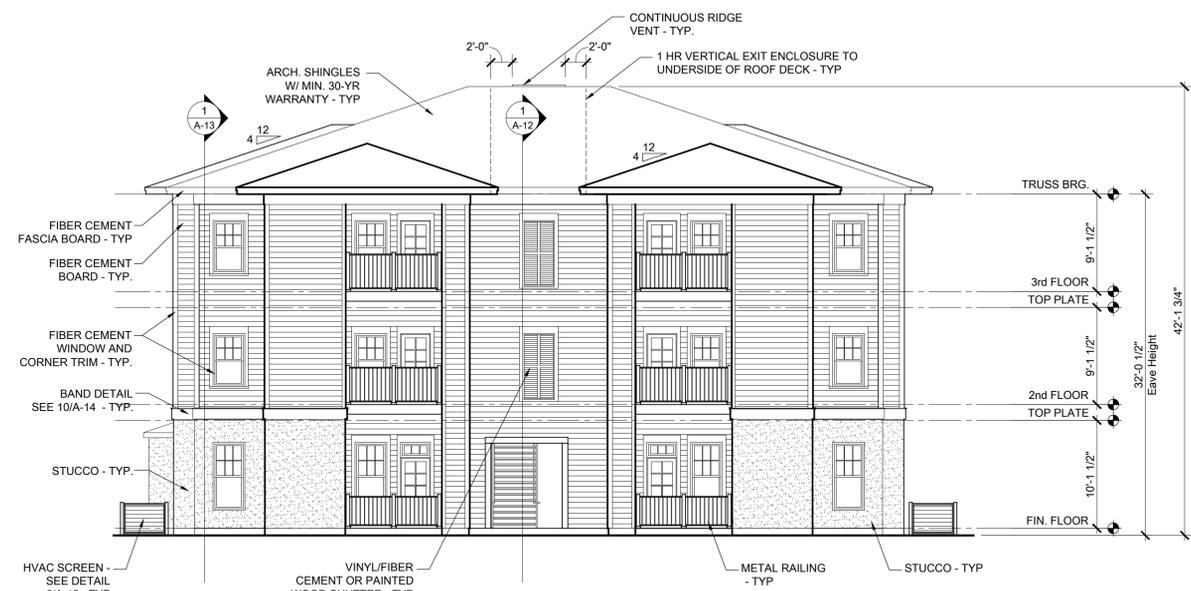
BLDG. TYPE "A" FLOOR PLANS

Sheet Number:
A-5.00

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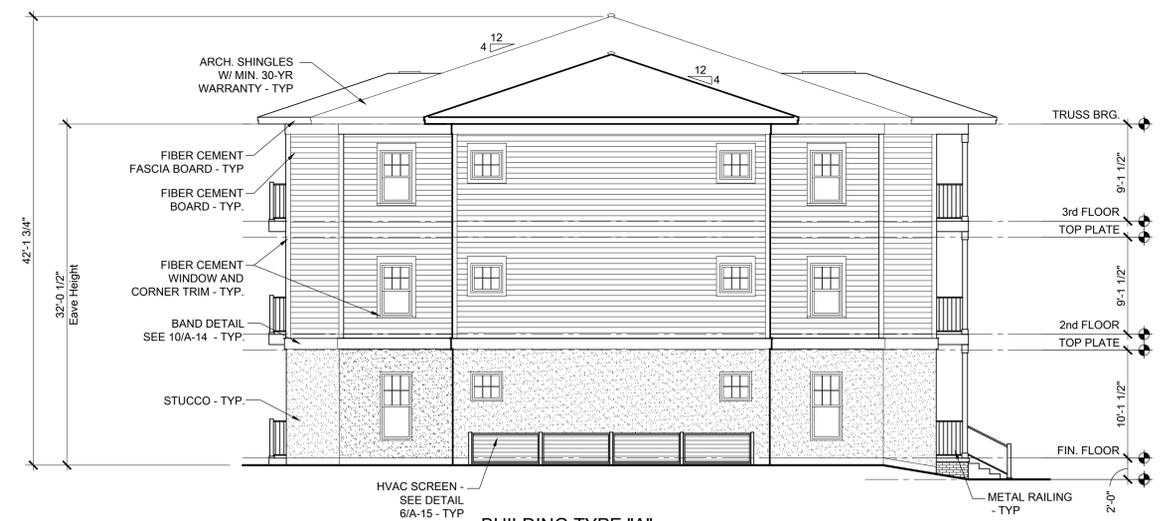
**1 BUILDING TYPE "A"
BLDG #1 PINE COURT FRONT ELEVATION**
1/8" = 1'-0"



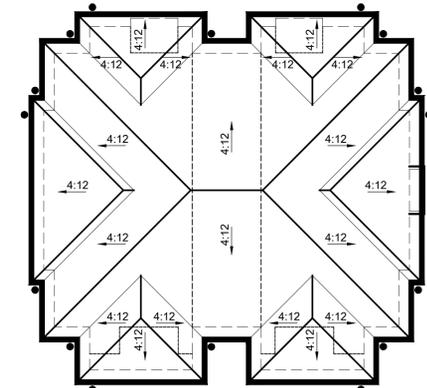
**2 BUILDING TYPE "A"
BLDG #1 PINE COURT REAR ELEVATION**
1/8" = 1'-0"



**3 BUILDING TYPE "A"
BLDG #1 RIGHT SIDE ELEVATION**
1/8" = 1'-0"

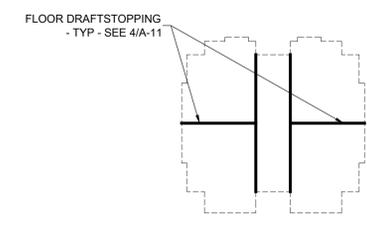


**4 BUILDING TYPE "A"
BLDG #1 LEFT SIDE ELEVATION**
1/8" = 1'-0"

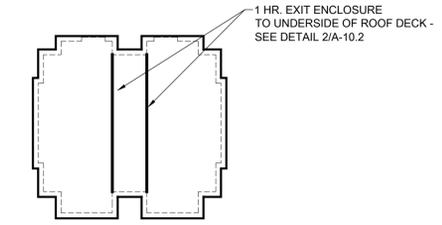


5 ROOF GUTTERS AND DOWNSPOUTS
1/16" = 1'-0"

— DENOTES SEAMLESS GUTTERS
• DENOTES DOWNSPOUTS TIED IN TO UNDERGROUND STORM DRAINAGE SYSTEM



6 FLOOR DRAFTSTOPPING PLAN
1/32" = 1'-0"



7 ATTIC DRAFTSTOPPING PLAN
1/32" = 1'-0"

No.	Date	Description
0	3.18.19	For Permit

Job Number: 2016_24
File Reference: X:\2016\16-24_Ribault Rd Pine Ct
Scale: AS SHOWN



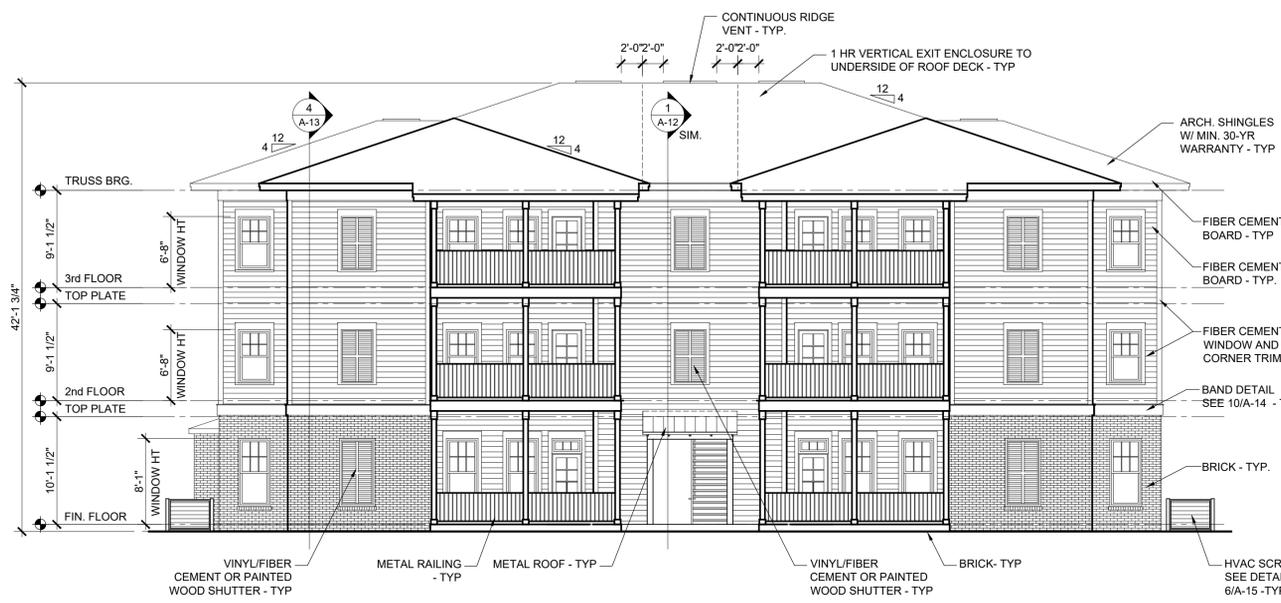
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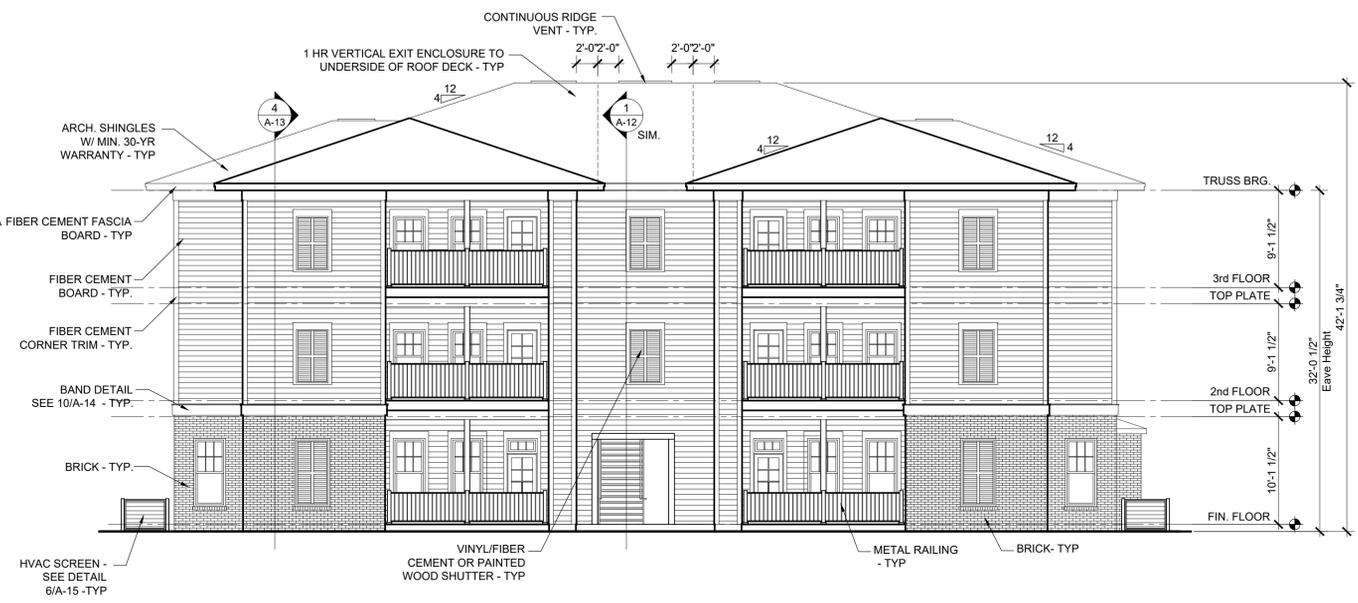
BLDG TYPE "A"
BUILDING 1
ELEVATIONS

Sheet Number:
A-6.00

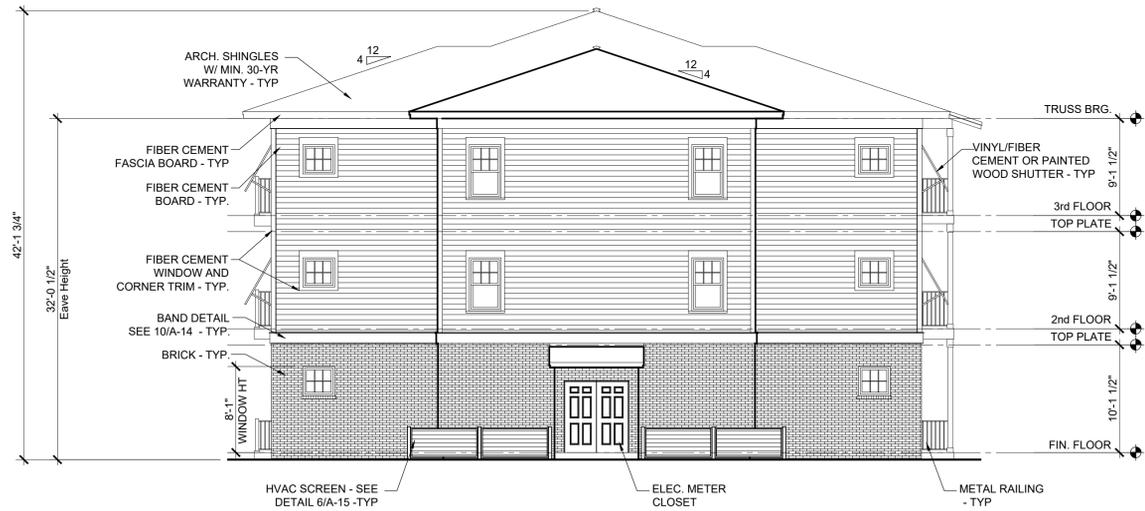
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**1 BUILDING TYPE "B1"
BLDG #2 PINE COURT FRONT ELEVATION**
1/8" = 1'-0"



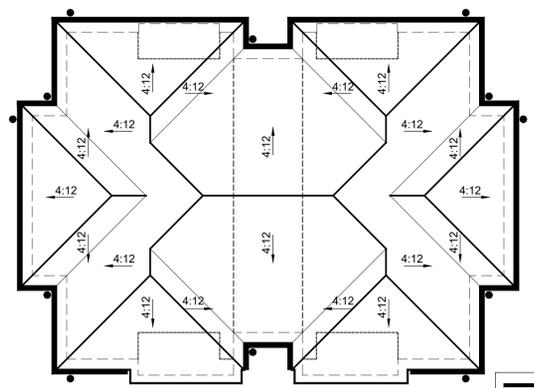
**2 BUILDING TYPE "B1"
BLDG #2 PINE COURT REAR ELEVATION**
1/8" = 1'-0"



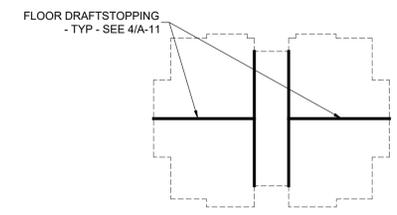
**3 BUILDING TYPE "B1"
BLDG #2 LEFT SIDE ELEVATION**
1/8" = 1'-0"



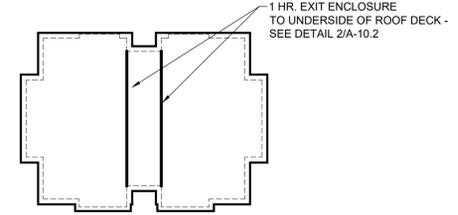
**4 BUILDING TYPE "B1"
BLDG #2 RIGHT SIDE ELEVATION**
1/8" = 1'-0"



5 ROOF GUTTERS AND DOWNSPOUTS
1/16" = 1'-0"



6 FLOOR DRAFTSTOPPING PLAN
1/32" = 1'-0"



7 ATTIC DRAFTSTOPPING PLAN
1/32" = 1'-0"

No.	Date	Description
0	3.18.19	For Permit

Job Number: 2016_24
File Reference: X:_2016\16-24_Ribault Rd Pine C
Scale: AS SHOWN



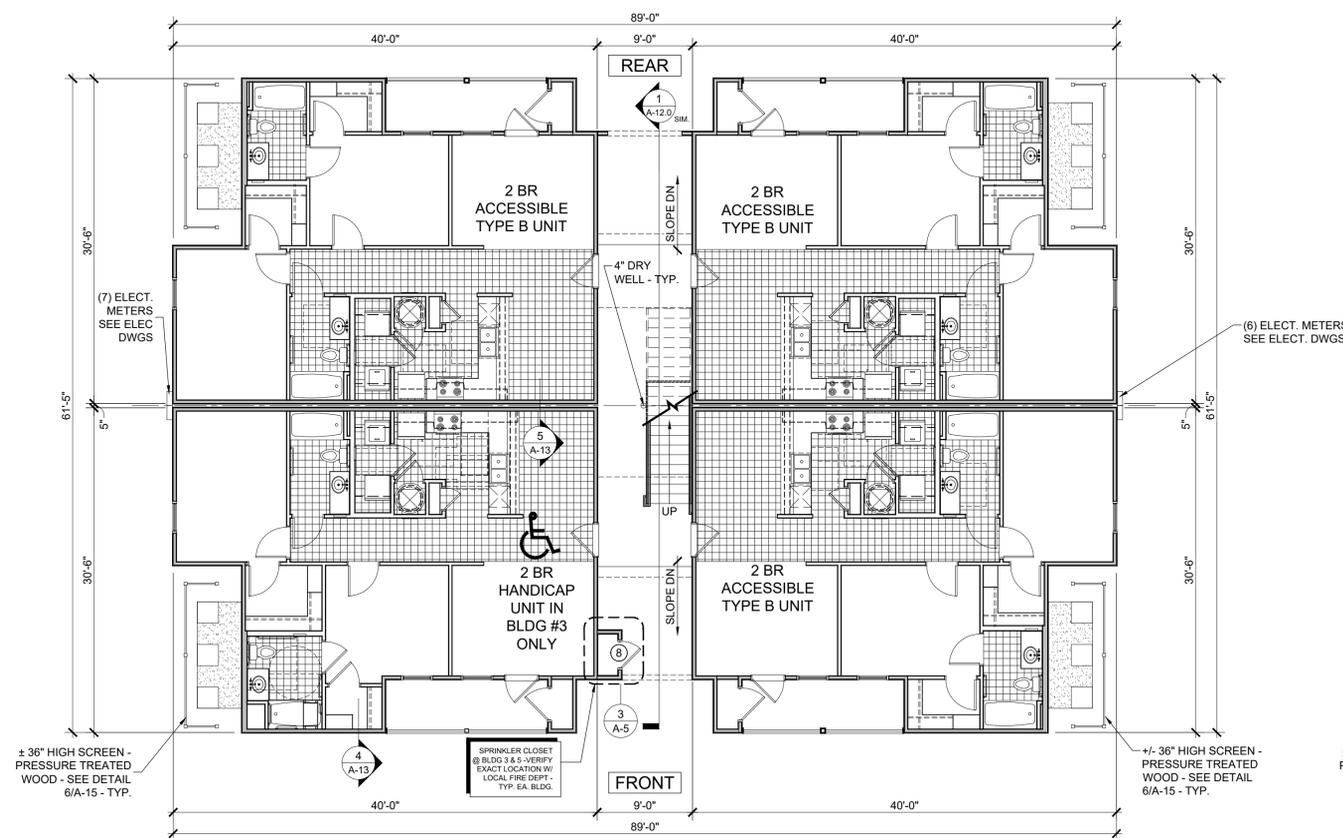
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BLDG TYPE "B1"
BUILDING 2
ELEVATIONS

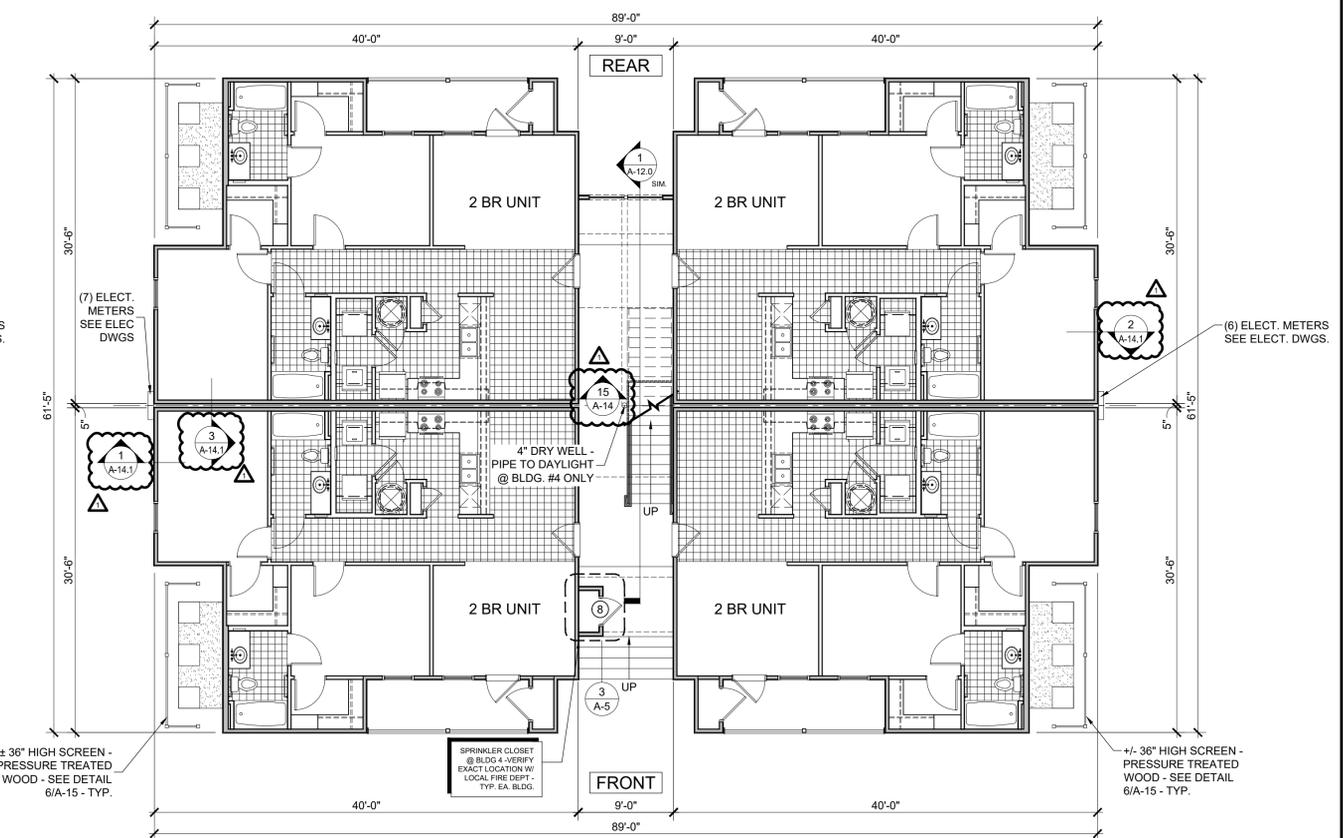
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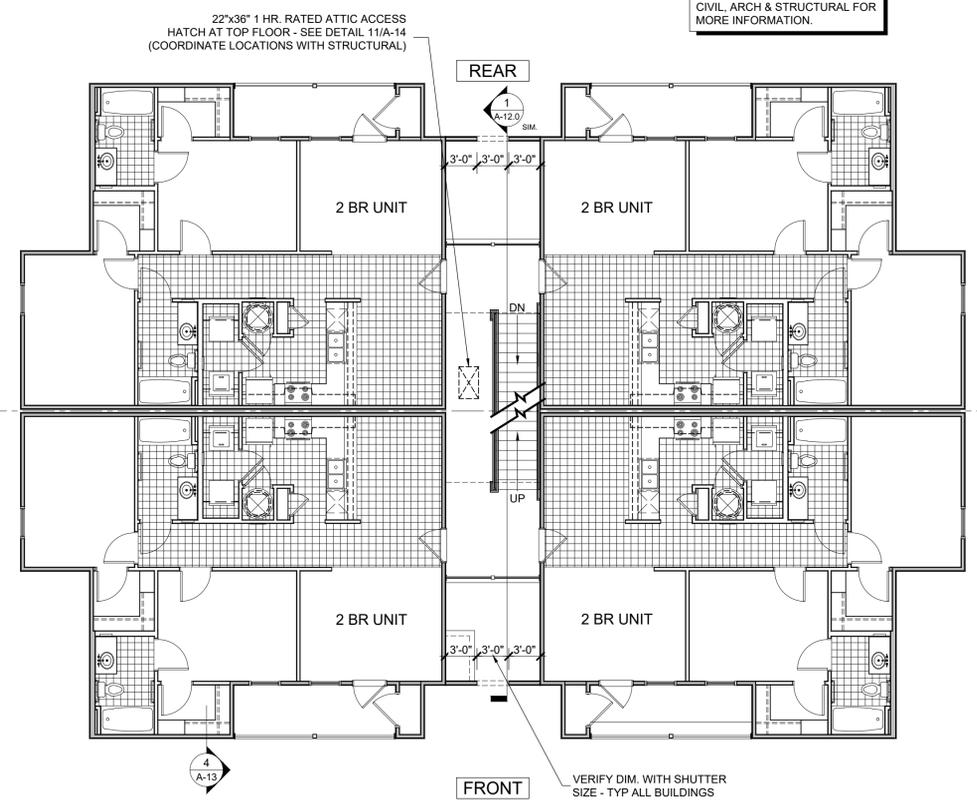
1 BUILDING TYPE "B2" - GROUND FLOOR PLAN
 1/8" = 1'-0"
 BUILDINGS #3 & #5

NOTE: BUILDING #5 WILL HAVE A PARTIAL RETAINING WALL AT THE REAR OF THE BUILDING BUT IS STILL SLAB ON GRADE - SEE CIVIL ARCH & STRUCTURAL FOR MORE INFORMATION.

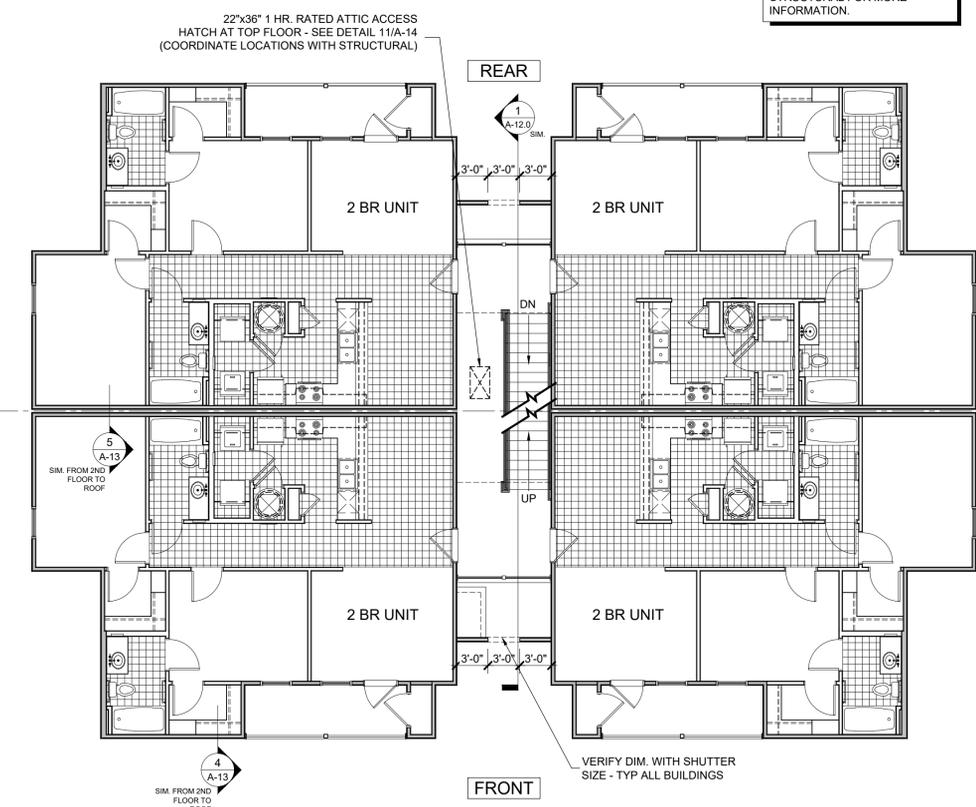


3 BUILDING TYPE "B2" - GROUND FLOOR PLAN
 1/8" = 1'-0"
 BUILDING #4

NOTE: BUILDING #4 IS ON CRAWL SPACE - SEE CIVIL, ARCH & STRUCTURAL FOR MORE INFORMATION.



2 BUILDING TYPE "B2" - 2ND & 3RD FLOOR PLAN
 1/8" = 1'-0"
 BUILDINGS #3 & #5



4 BUILDING TYPE "B2" - 2ND & 3RD FLOOR PLAN
 1/8" = 1'-0"
 BUILDING #4

No.	Date	Description
0	3.18.19	For Permit
1	12.9.19	New Detail Marks

Job Number: 2016_24

File Reference:

Scale: 1/8" = 1'

CORP. SEAL



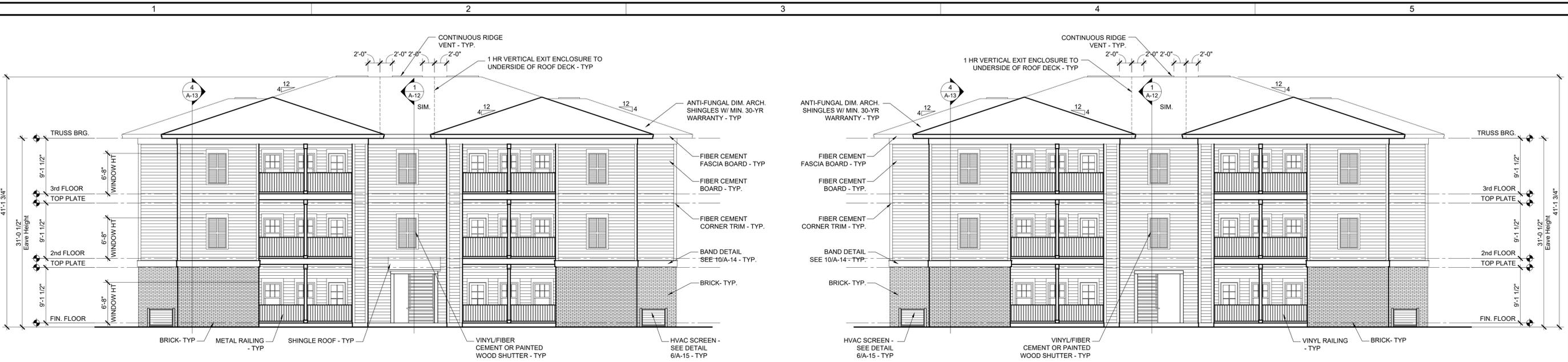
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BLDG. TYPE "B2"
 FLOOR PLANS

Sheet Number:
A-9.00

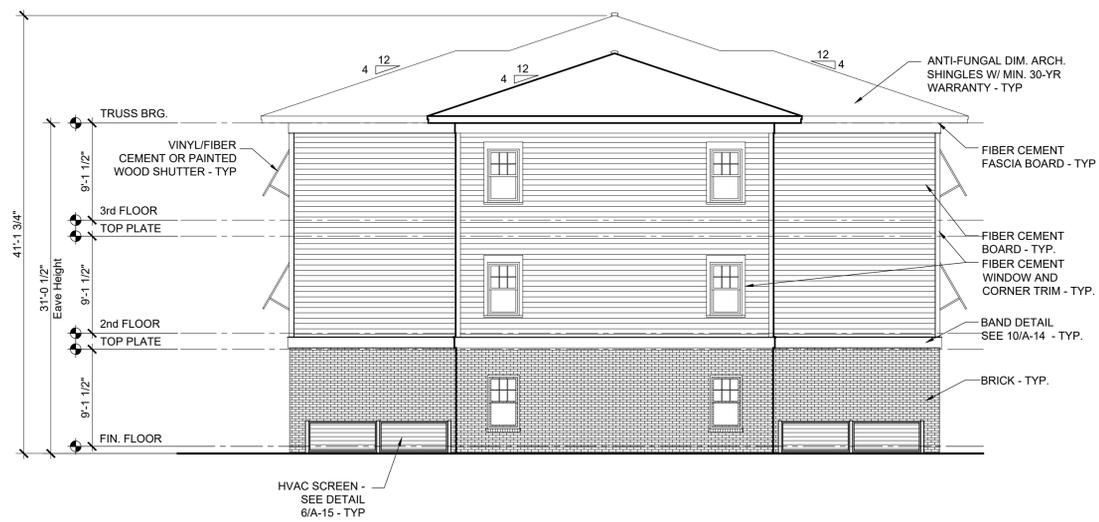
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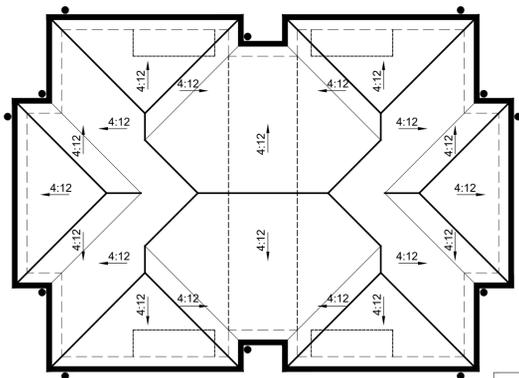
1 BUILDING TYPE "B2" FRONT ELEVATION
 1/8" = 1'-0" (BLDG.'S #3 & #5)

2 BUILDING TYPE "B2" REAR ELEVATION
 1/8" = 1'-0" (BLDG #3; BLDG. #5 SIM.)

NOTE: BUILDING #5 WILL HAVE A PARTIAL RETAINING WALL AT THE REAR OF THE BUILDING BUT IS STILL SLAB ON GRADE - SEE CIVIL, ARCH & STRUCTURAL FOR MORE INFORMATION.

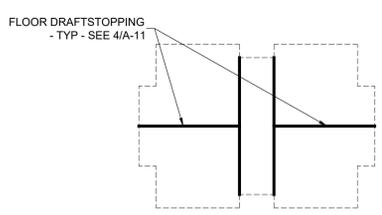


3 BUILDING TYPE "B2" SIDE ELEVATION
 1/8" = 1'-0" (BLDG #3; BLDG. #5 SIM.)

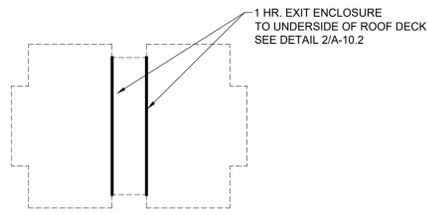


4 ROOF GUTTERS AND DOWNSPOUTS
 1/16" = 1'-0"

— DENOTES SEAMLESS GUTTERS
 • DENOTES DOWNSPOUTS TIED IN TO UNDERGROUND STORM DRAINAGE SYSTEM



5 FLOOR DRAFTSTOPPING PLAN
 1/32" = 1'-0"



6 ATTIC DRAFTSTOPPING PLAN
 1/32" = 1'-0"

No.	Date	Description
0	3.18.19	For Permit

Job Number: 2016_24
 File Reference: X:_2016\16-24_Ribault Rd Pine C
 Scale: AS SHOWN

STATE OF SOUTH CAROLINA
 Parks - Player
 Architecture &
 Planning
 Greenville, SC
 100975
 REGISTERED ARCHITECTS
 CORP SEAL

ORVILLE
 VAN
 PLAYER III
 ARCHITECT
 GREENVILLE, SC
 15961
 REGISTERED ARCHITECT
 SEAL

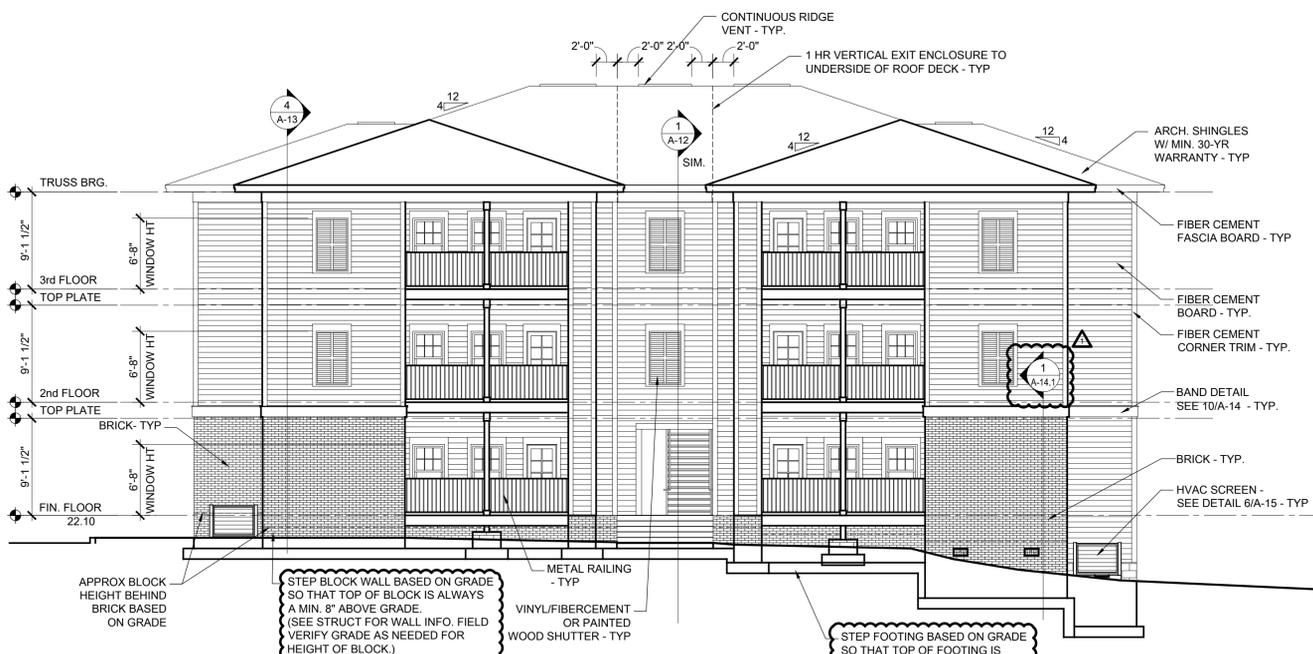
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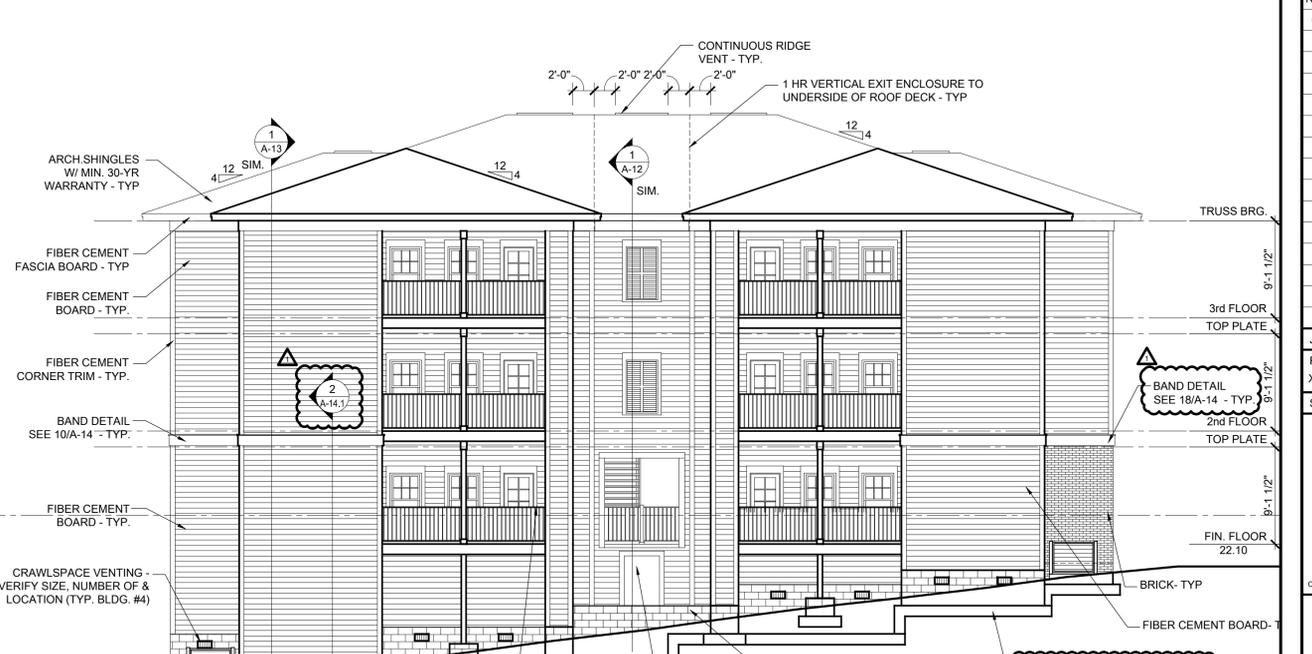
BLDG TYPE "B2"
 BUILDING 3 & 5
 ELEVATIONS

Sheet Number:
A-10.00

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1 BLDG. TYPE "B2" FRONT ELEVATION
1/8" = 1'-0" (BLDG. #4 STEP WALL)



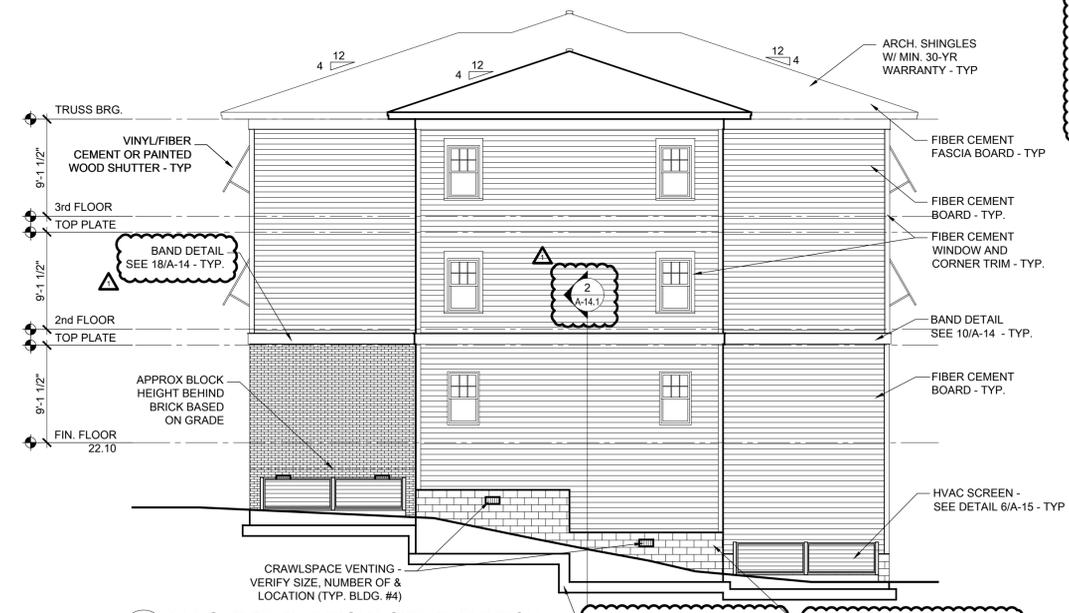
2 BLDG. TYPE "B2" REAR ELEVATION
1/8" = 1'-0" (BLDG. #4 STEP WALL)

NOTE: ALL CRAWLSPACE WALLS TO BE (2)2X4 ON TREATED PLATE AT BLOCK WALL. SEE STRUCT.

NOTE: SEE STRUCT. FOR MORE INFORMATION ON BLOCK WALL & FOOTINGS OF CRAWLSPACE.

NOTE: VERIFY FOOTING COMPACTION

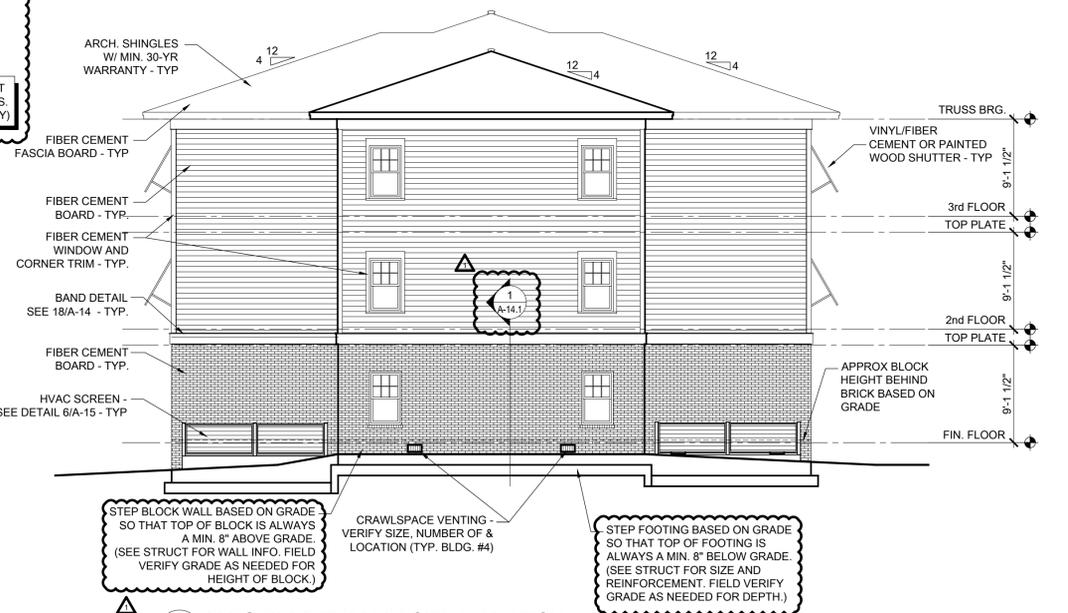
--- DENOTES APPROX. BLOCK HEIGHT AT BRICK VENEER - SEE ELEVATIONS. (VARIES WITH GRADE, FIELD VERIFY)



3 BLDG. TYPE "B2" RIGHT SIDE ELEVATION
1/8" = 1'-0" (BLDG. #4 STEP WALL)

STEP FOOTING BASED ON GRADE SO THAT TOP OF FOOTING IS ALWAYS A MIN. 8" BELOW GRADE. (SEE STRUCT FOR SIZE AND REINFORCEMENT. FIELD VERIFY GRADE AS NEEDED FOR DEPTH.)

STEP BLOCK WALL BASED ON GRADE SO THAT TOP OF BLOCK IS ALWAYS A MIN. 8" ABOVE GRADE. (SEE STRUCT FOR WALL INFO. FIELD VERIFY GRADE AS NEEDED FOR HEIGHT OF BLOCK.)

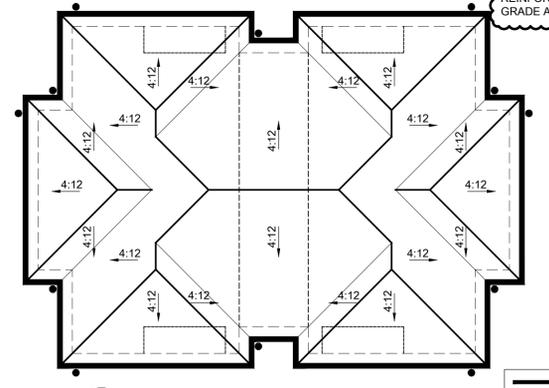


4 BLDG. TYPE "B2" LEFT SIDE ELEVATION
1/8" = 1'-0" (BLDG. #4 STEP WALL)

STEP BLOCK WALL BASED ON GRADE SO THAT TOP OF BLOCK IS ALWAYS A MIN. 8" ABOVE GRADE. (SEE STRUCT FOR WALL INFO. FIELD VERIFY GRADE AS NEEDED FOR HEIGHT OF BLOCK.)

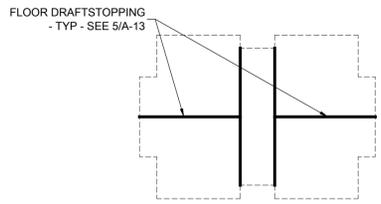
CRAWLSPACE VENTING - VERIFY SIZE, NUMBER OF & LOCATION (TYP. BLDG. #4)

STEP FOOTING BASED ON GRADE SO THAT TOP OF FOOTING IS ALWAYS A MIN. 8" BELOW GRADE. (SEE STRUCT FOR SIZE AND REINFORCEMENT. FIELD VERIFY GRADE AS NEEDED FOR DEPTH.)

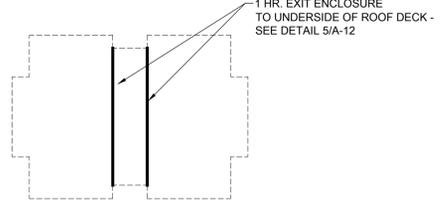


5 ROOF GUTTERS AND DOWNSPOUTS
1/16" = 1'-0"

— DENOTES SEAMLESS GUTTERS
• DENOTES DOWNSPOUTS TIED IN TO UNDERGROUND STORM DRAINAGE SYSTEM



6 FLOOR DRAFTSTOPPING PLAN
1/32" = 1'-0"



7 ATTIC DRAFTSTOPPING PLAN
1/32" = 1'-0"

No.	Date	Description
0	3.18.19	For Permit
1	12.9.19	Modified Crawlspace

Job Number: 2016_24
File Reference: X:_2016\16-24_Ribault Rd Pine Ct
Scale: AS SHOWN

STATE OF SOUTH CAROLINA
Parks - Player
Architecture &
Planning
Greenville, SC
100975
REGISTERED ARCHITECTS
CORP. SEAL

STATE OF SOUTH CAROLINA
ORVILLE
VAN
PARKS - PLAYER
ARCHITECTURE &
PLANNING
GREENVILLE, SC
15961
REGISTERED ARCHITECTS
SEAL

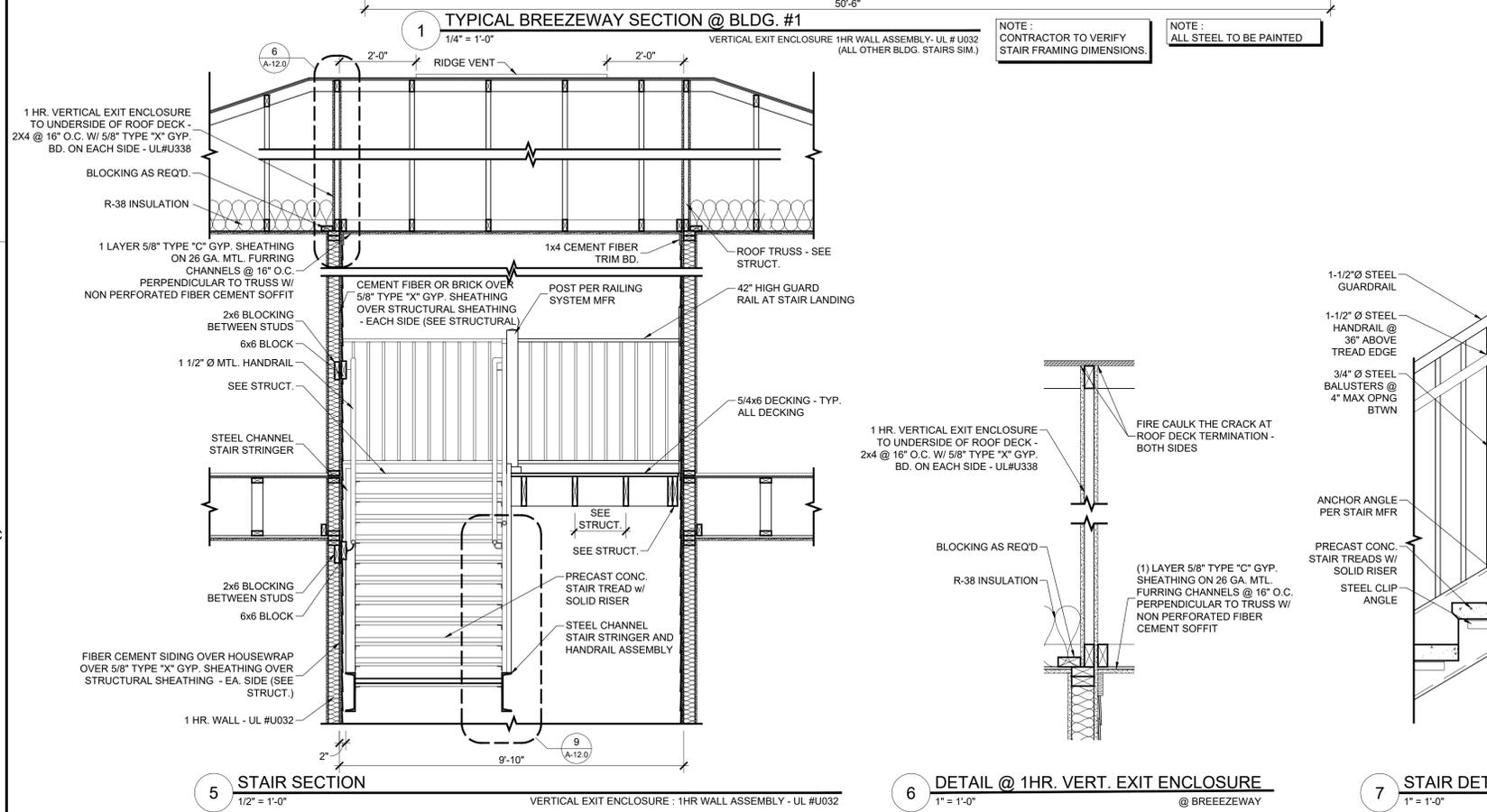
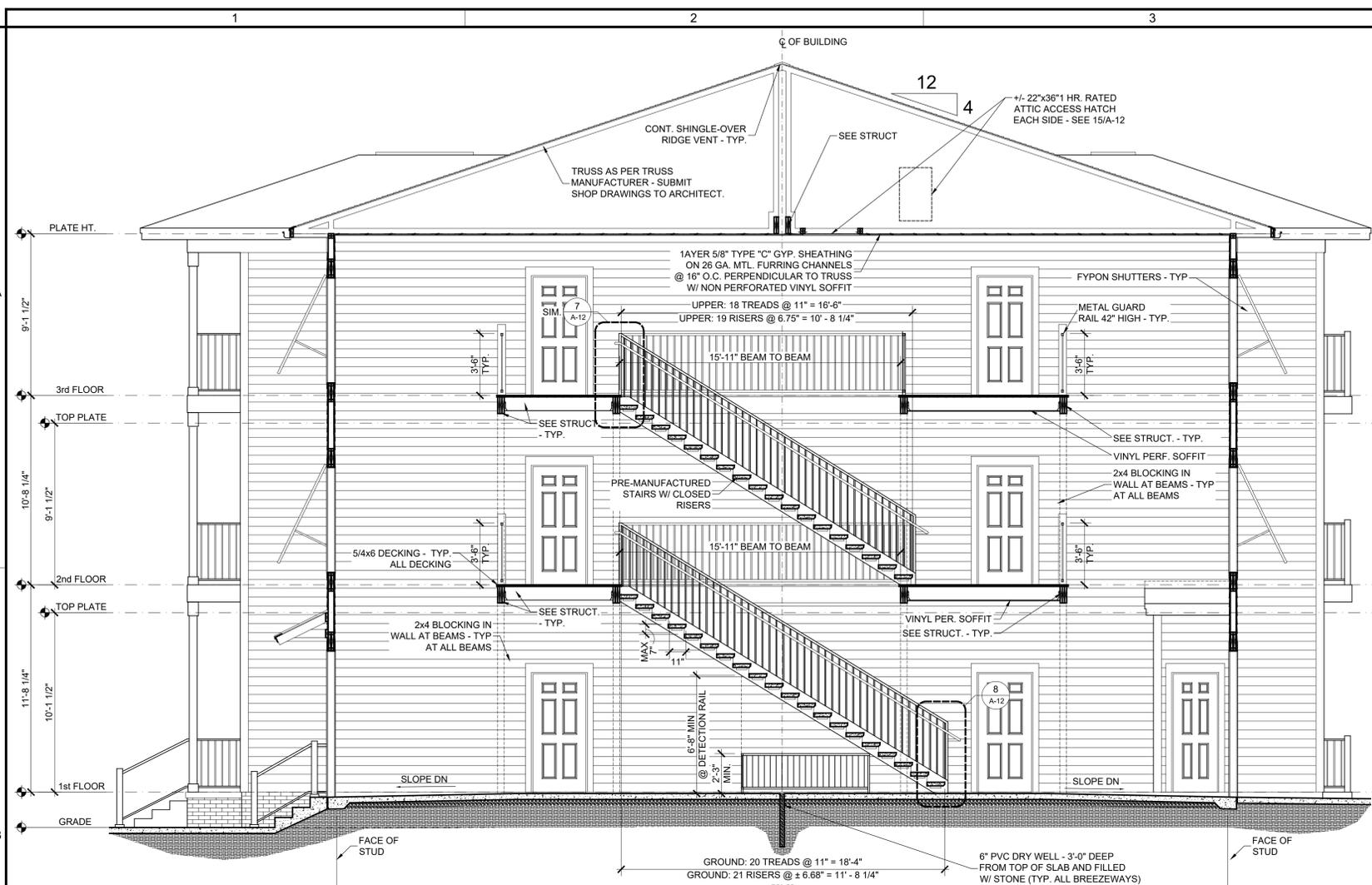
PINE COURT APARTMENTS
BEAUFORT, SOUTH CAROLINA

PARKS-PLAYER ARCHITECTURE & PLANNING
1010 EAST NORTH STREET
SUITE A WILLE, SC, 29601
(864) 242-0177

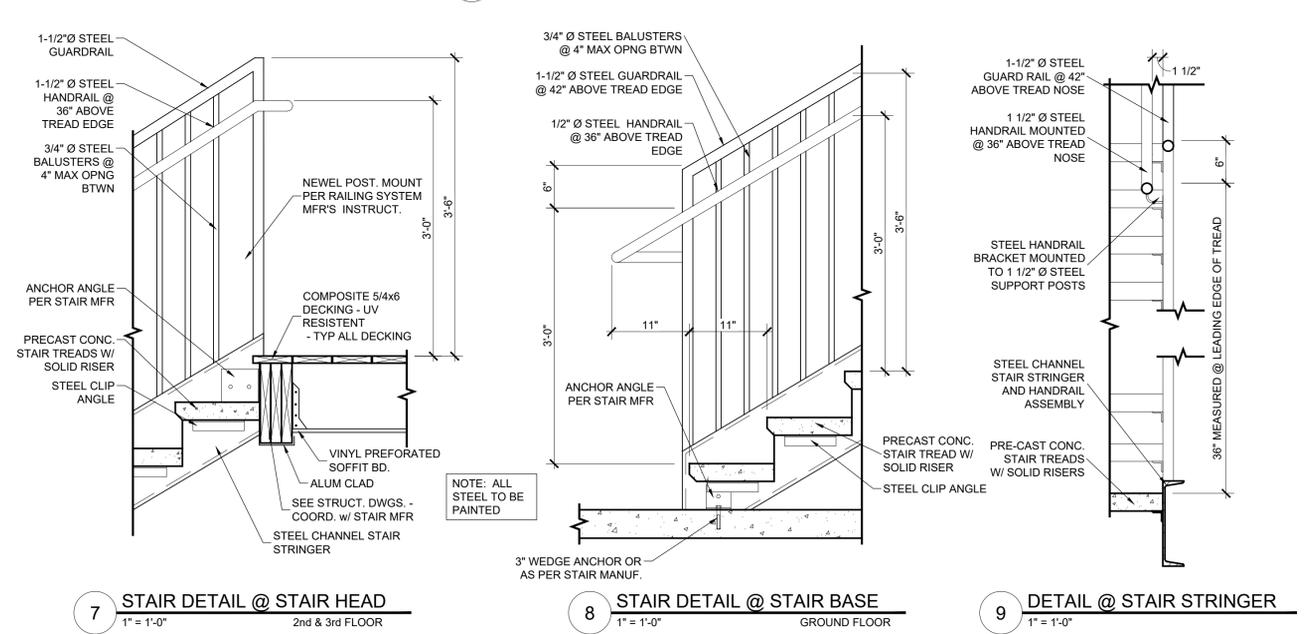
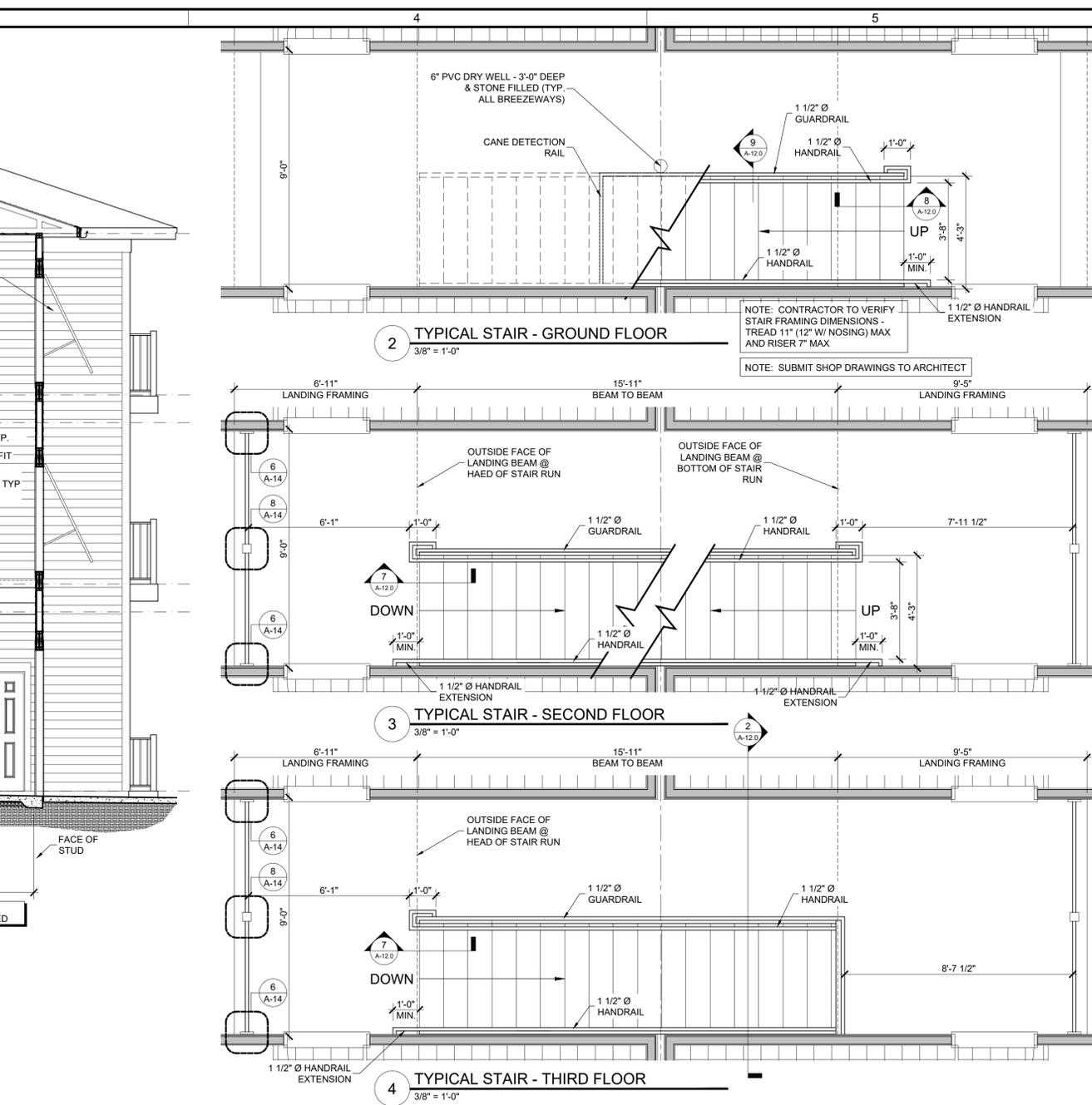
BLDG TYPE "B2"
BUILDING 4
ELEVATIONS

Sheet Number:
A-11.00

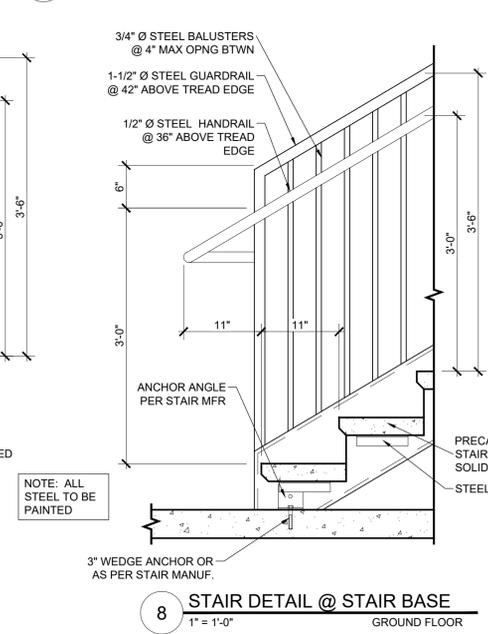
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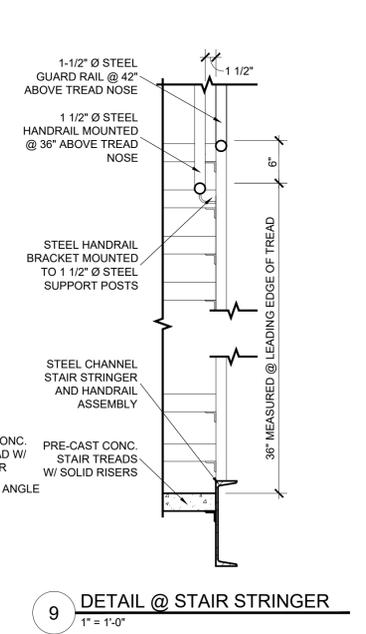
6 DETAIL @ 1HR. VERT. EXIT ENCLOSURE
1" = 1'-0"
@ BREEZEWAY



7 STAIR DETAIL @ STAIR HEAD
1" = 1'-0"
2nd & 3rd FLOOR



8 STAIR DETAIL @ STAIR BASE
1" = 1'-0"
GROUND FLOOR



9 DETAIL @ STAIR STRINGER
1" = 1'-0"

No.	Date	Description
0	3.18.19	For Permit

Job Number: 2016_24
File Reference:
Scale: 1/4" = 1'
CORP. SEAL

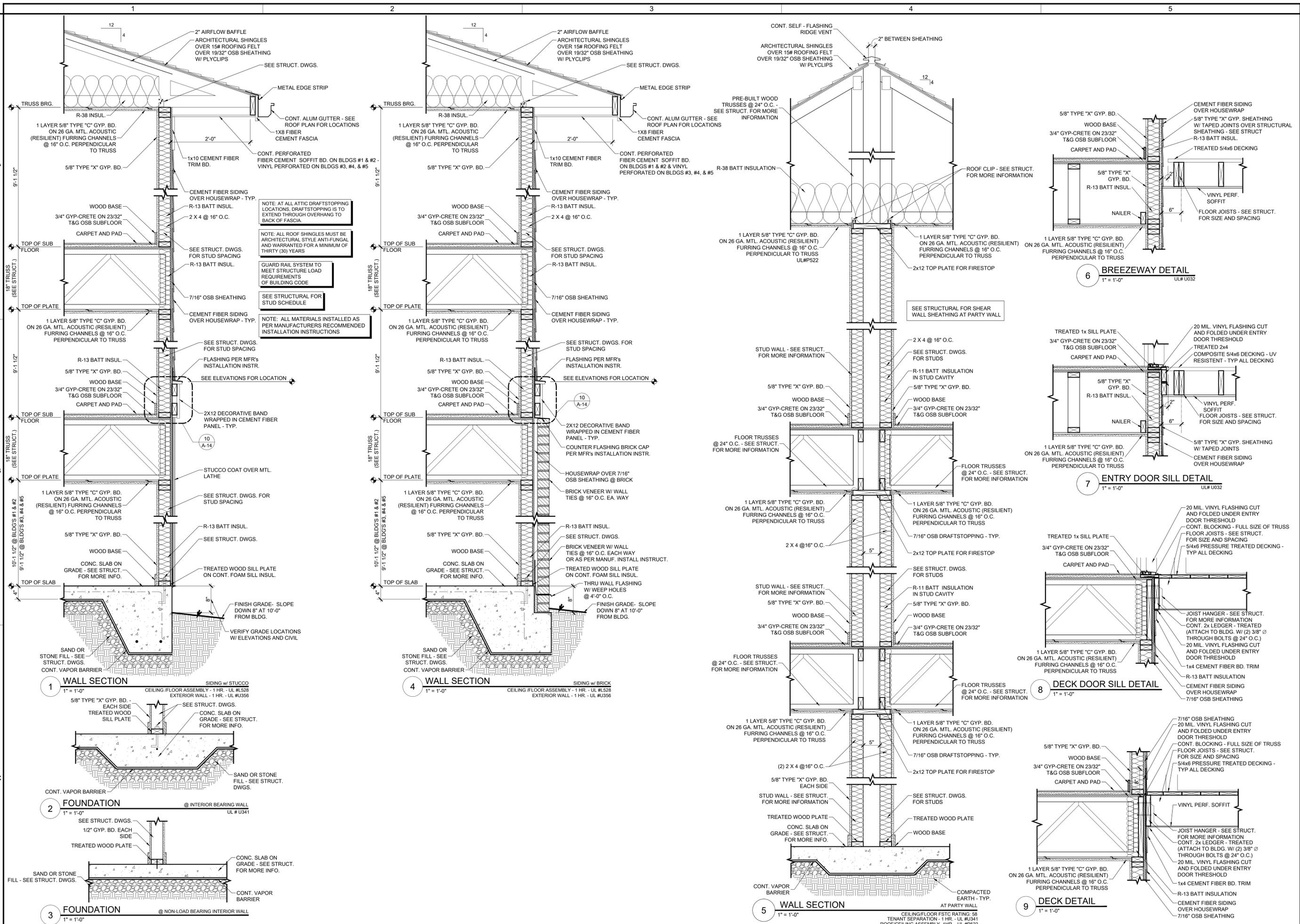
PINE COURT APARTMENTS
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PARKS-PLAYER ARCHITECTURE & PLANNING
1010 EAST NORTH STREET
SUITE A
GREENVILLE, SC 29601
(864) 242-0177

BLDG. TYPE "A"
STAIR SECTIONS
AND DETAILS

Sheet Number:
A-12.00

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No.	Date	Description
0	3.18.19	For Permit

Job Number: 2016_24
 File Reference: X:\2016\16-24_Ribault Rd Pine Ct
 Scale: 1" = 1'-0"

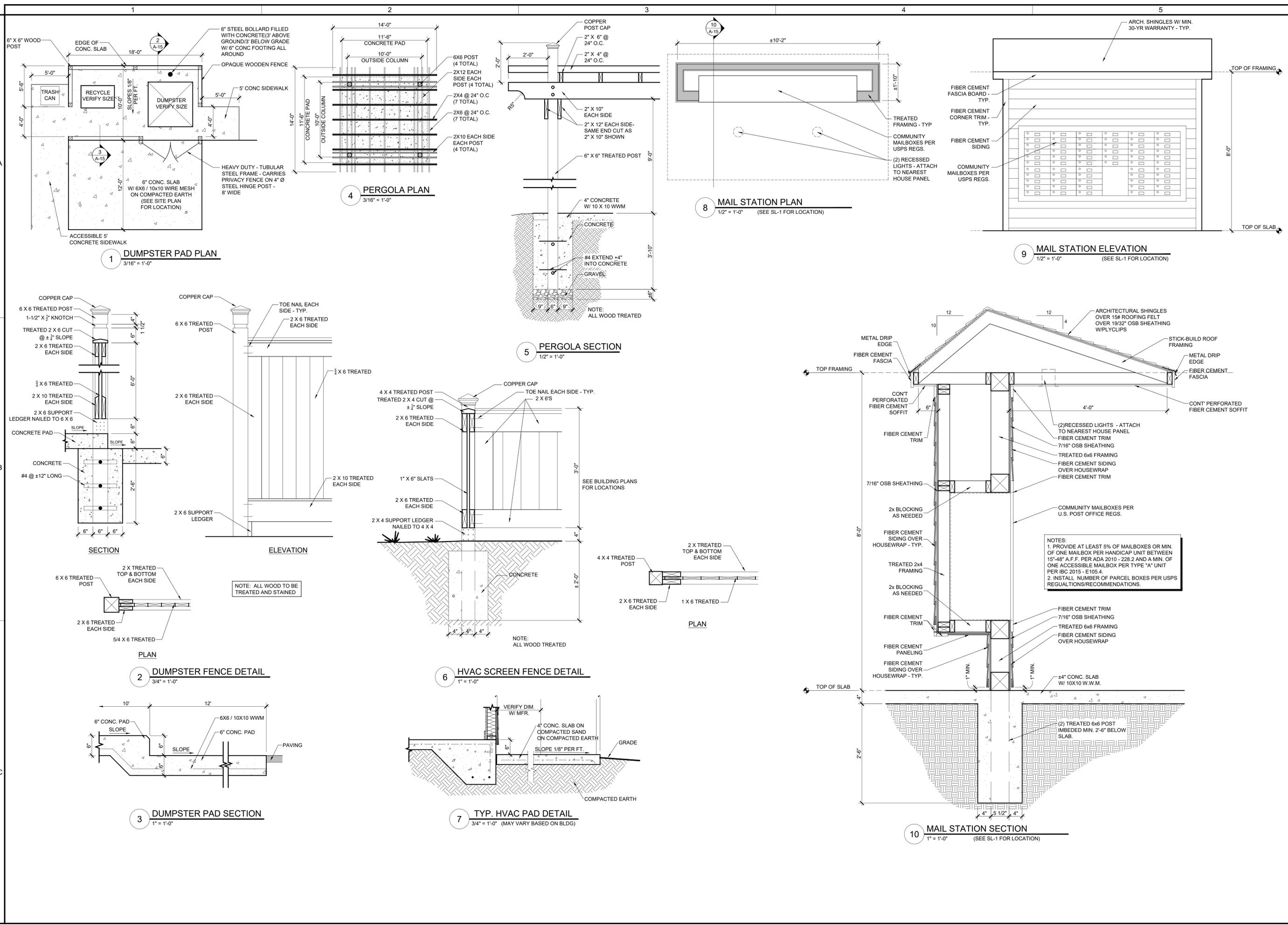


PINE COURT APARTMENTS
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Sheet Number:
A-13.00

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No.	Date	Description
0	3.18.19	For Permit

Job Number: 2016_24
 File Reference:
 X:\2016\16-24_Ribault Rd Pine Ct
 Scale: AS SHOWN

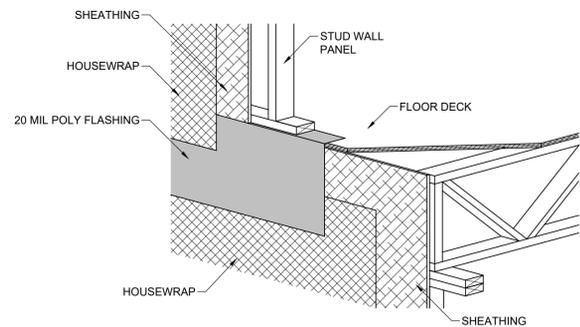


PINE COURT APARTMENTS
BEAUFORT, SOUTH CAROLINA

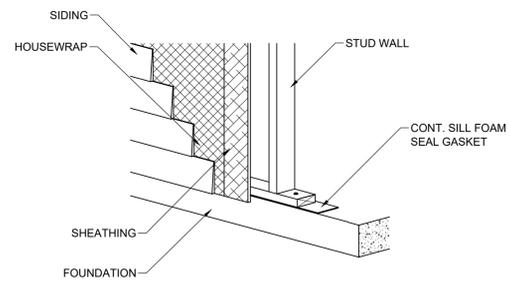
PARKS-PLAYER ARCHITECTURE & PLANNING
1010 EAST NORTH STREET
SUITE A
GREENVILLE, SC 29601
(864) 252-0177

DETAILS

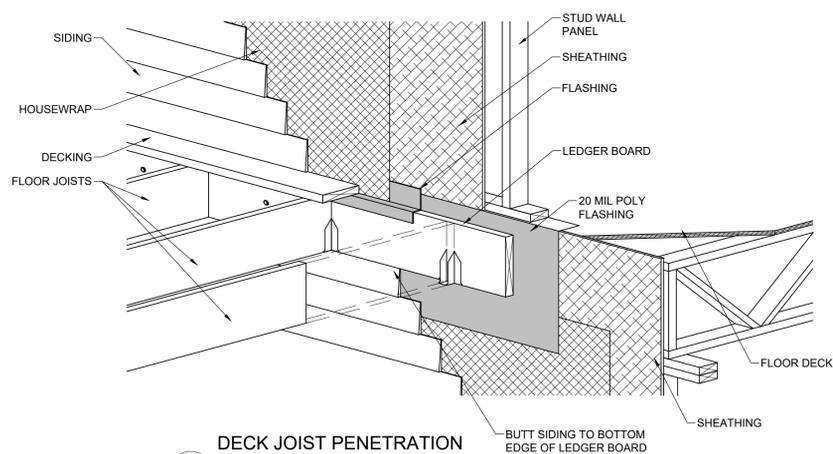
Sheet Number:
A-15.00



1 PANELIZED WALL FLASHING DETAIL
3/4" = 1'-0"



2 WALL SILL FLASHING DETAIL
3/4" = 1'-0"



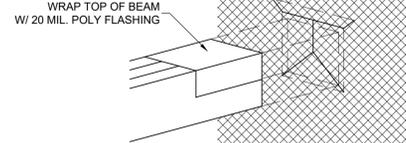
3 DECK JOIST PENETRATION FLASHING DETAIL AT WALL
3/4" = 1'-0"

BUILDING WRAP NOTES:

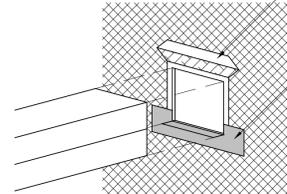
- A. Provide a protective membrane, "House wrap" where shown on the drawings, as specified herein and as needed for a complete and proper installation.
- B. Building walls finished with vinyl siding shall receive house wrap.
- C. Building walls finished with brick veneer shall receive #15 roofing felt install horizontally. Overlap butt-ends and its horizontal courses at least six-inches to shed water.
- D. House wrap shall be installed before window and doors are installed or per manufacture's installation instructions.
- E. #15 felt shall be installed BEFORE window and doors are tape-sealed and flashed to exterior sheathing.
- F. Conditions - Install under correct conditions not detrimental to timely and proper completion of work.
- G. Installation Methods - To attach protective membrane to external wood sheathing, insulated sheathing board, use nails with large heads or nails with plastic washer heads or wide staples with a minimum 1" crown. Install housewrap per manufacturers requirements for warranty protection. Use manufacturer's recommended flashing and sealing materials. Manufacturer's instructions shall supercede all details on these plans.
- H. Repair any tears, breaks, holes and other damage by taping or patching per manufacturers recommendations

BUILDING WRAP NOTES:

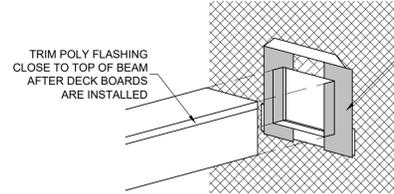
- A. INSTALL PER MANUFACTURE'S INSTALLATION INSTRUCTIONS.
- B. BUILDING WRAP MANUFACTURER'S INSTALLATION INSTRUCTIONS AND DETAILS TO SUPERSEDE ANY AND ALL ARCHITECTURAL FLASHING DETAILS.



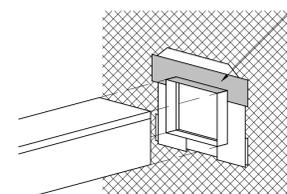
STEP 1
FOLD HOUSEWRAP UP AT HEAD



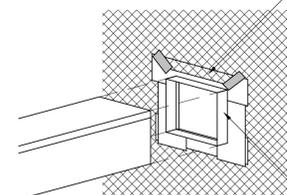
STEP 2
INSTALL SELF ADHESIVE SILL FLASHING



STEP 3
INSTALL SELF ADHESIVE JAMB FLASHING



STEP 4
INSTALL SELF ADHESIVE HEAD FLASHING

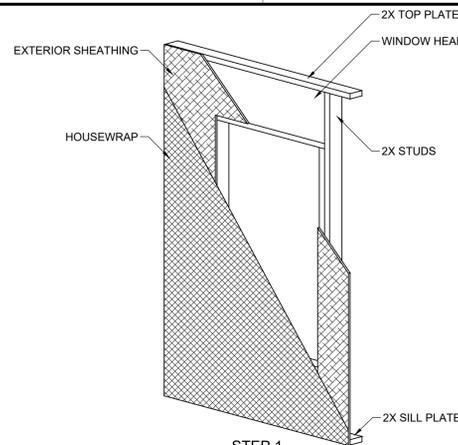


STEP 5
FOLD DOWN HOUSEWRAP HEADER FLAP OVER HEAD FLASHING AND APPLY SEALING TAPE TO THE CUT EDGES

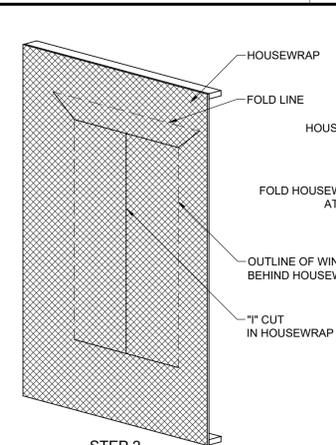
4 SEALING HOUSEWRAP AT DECK BEAM PENETRATIONS
3/4" = 1'-0"

NOTE:
INSTALL HOUSEWRAP PER MANUFACTURER'S REQUIREMENTS FOR WARRANTY PROTECTION. USE MANUFACTURER RECOMMEND FLASHING AND SEALING MATERIALS.

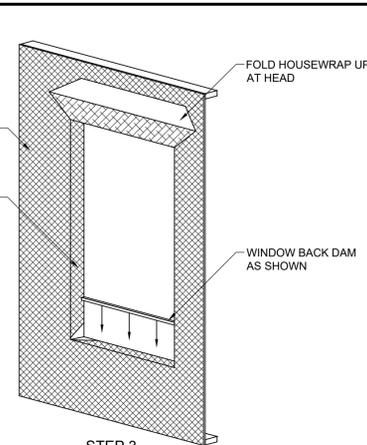
METAL FLASHING OR 20 MIL POLYETHYLENE WHEN USED IN CONJUNCTION WITH A SELF-ADHERING POLYETHYLENE LAMINATE FLASHING, MUST BE INSTALLED ABOVE ALL EXTERIOR DOORS AND WINDOW UNITS.



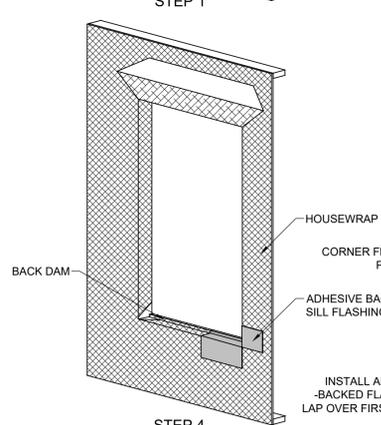
STEP 1



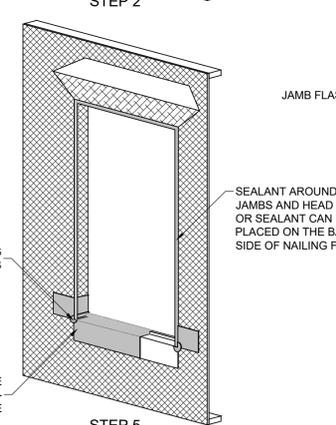
STEP 2



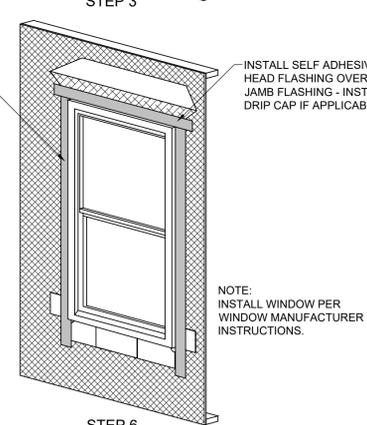
STEP 3



STEP 4

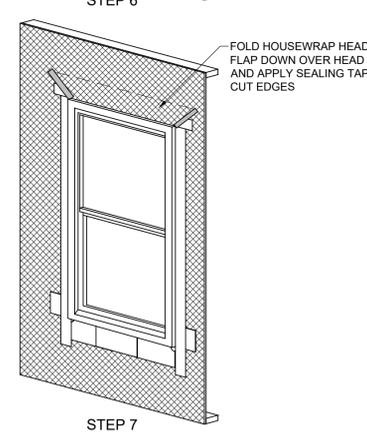


STEP 5



STEP 6

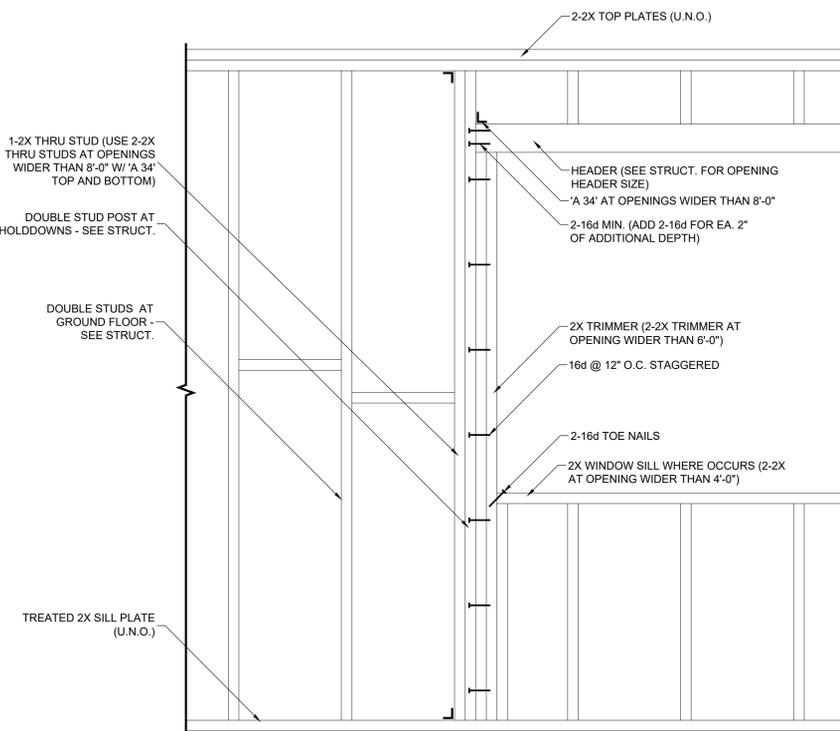
5 SEALING HOUSEWRAP AT WINDOWS (DOORS SIMILAR)
1/2" = 1'-0"



STEP 7

NOTE:
INSTALL WINDOW PER WINDOW MANUFACTURER INSTRUCTIONS.

NOTE:
INSTALL WINDOW PER WINDOW MANUFACTURER INSTRUCTIONS.

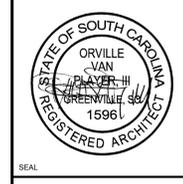
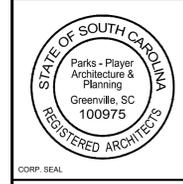


6 TYPICAL FRAMED OPENING
1" = 1'-0"

NOTE:
1. PROVIDE 2X FIRE STOPS AT CEILING AND 8'-0" O.C. VERTICAL.
2. FOR BALANCE OF NAILING, SEE STRUCT. DWGS.

No.	Date	Description
0	3.18.19	For Permit

Job Number: 2016_24
File Reference: X:\2016\16-24_Ribault Rd Pine Ct
Scale: AS NOTED



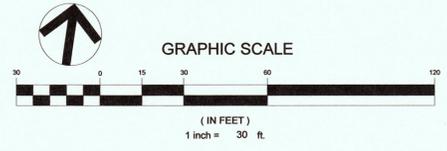
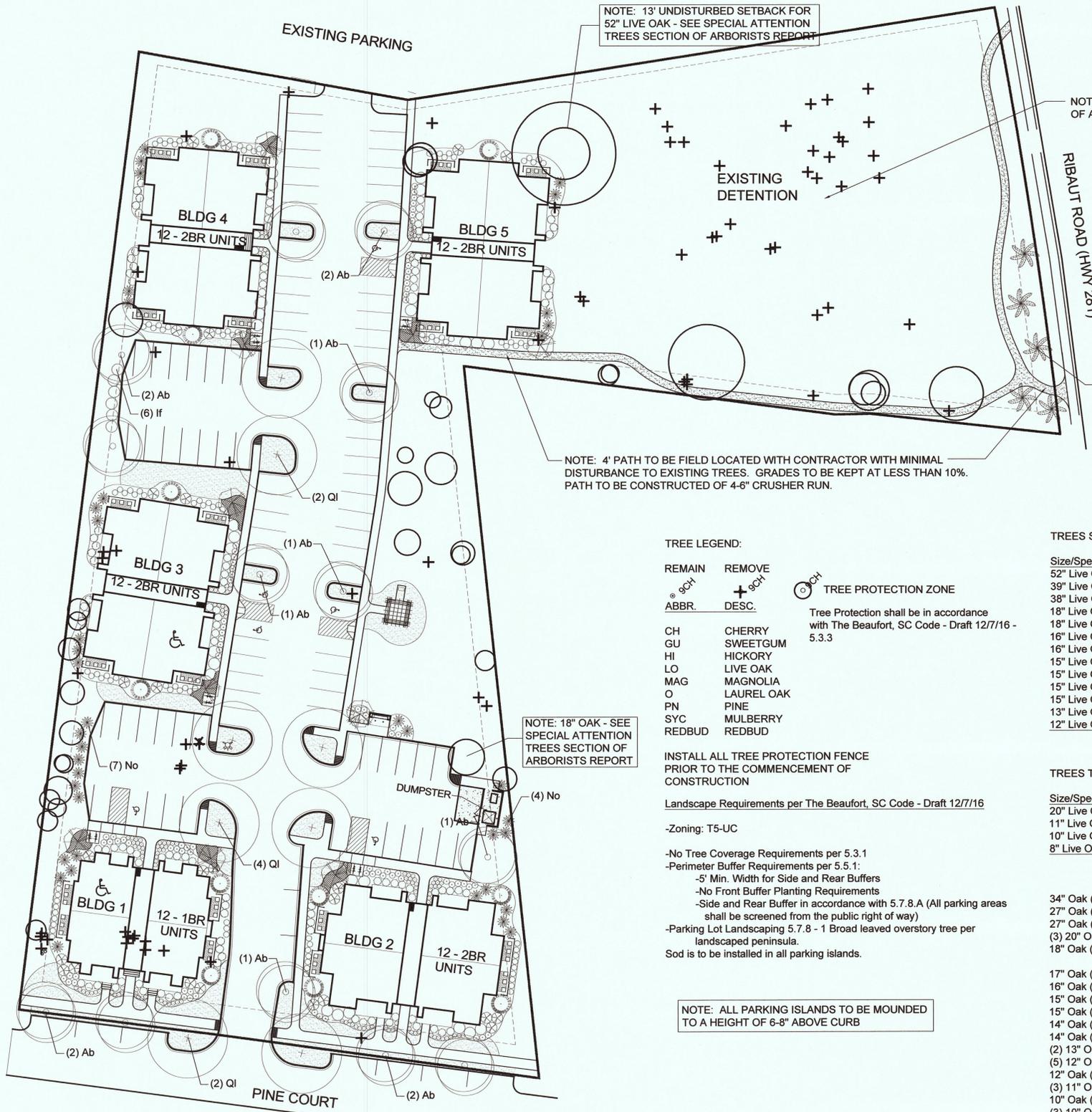
PINE COURT APARTMENTS
BEAUFORT, SOUTH CAROLINA

PARKS-PLAYER ARCHITECTURE & PLANNING
100 EAST NORTH STREET
SUITE A
GREENVILLE, SC 29601
(864) 242-0177

BUILDING WRAP DETAILS

Sheet Number:
A-16.00

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TREE LEGEND:

REMAIN	REMOVE		TREE PROTECTION ZONE
⊙ 9CH	⊕ 9CH	⊙ CH	
ABBR.	DESC.		Tree Protection shall be in accordance with The Beaufort, SC Code - Draft 12/7/16 - 5.3.3
CH	CHERRY		
GU	SWEETGUM		
HI	HICKORY		
LO	LIVE OAK		
MAG	MAGNOLIA		
O	LAUREL OAK		
PN	PINE		
SYC	MULBERRY		
REDBUD	REDBUD		

TREES SAVED

Size/Species	Tree Credits
52" Live Oak	5
39" Live Oak	5
38" Live Oak	5
18" Live Oak	3
18" Live Oak	3
16" Live Oak	3
16" Live Oak	3
15" Live Oak	3
13" Live Oak	3
12" Live Oak	3
	45

TREES TO BE REMOVED

Size/Species	Replacement %	Size/Species	Replacement %
20" Live Oak (Severe)	25% (4")	10" Hickory (Severe)	25% (2.5")
11" Live Oak	25% (2.8")	9" Sycamore (Slight)	25% (2.25")
10" Live Oak	25% (2.5")	28" Pine (Severe)	25% (7")
8" Live Oak	25% (2")	27" Pine (Severe)	25% (6.75")
	(11.3" = 4 Trees)	24" Pine (Severe)	25% (6")
		19" Pine (Moderate)	25% (4.75")
34" Oak (Critical)	25% (8.5")	18" Pine (Moderate)	25% (4.5")
27" Oak (Severe)	25% (6.75")	18" Pine (Severe)	25% (4.5")
27" Oak (Critical)	25% (6.75")	14" Pine (Moderate)	25% (3.5")
(3) 20" Oak (Severe)	25% (15")	13" Pine (Moderate)	25% (3.3")
18" Oak (Moderate)	25% (4.5")	13" Pine (Slight)	25% (3.3")
		(2) 17" Gum (Severe)	25% (8.5")
17" Oak (Moderate)	25% (4.25")	(2) 16" Gum (Severe)	25% (8")
16" Oak (Moderate)	25% (4")	(2) 15" Gum (Critical)	25% (7.6")
15" Oak (Moderate)	25% (3.8")	(4) 15" Gum (Severe)	25% (15.2")
15" Oak (Severe)	25% (3.8")	(3) 12" Gum (Severe)	25% (9")
14" Oak (Moderate)	25% (3.5")	(6) 10" Gum (Severe)	25% (10")
14" Oak (Severe)	25% (3.5")	(3) 8" Gum (Severe)	25% (6")
(2) 13" Oak (Severe)	25% (6.6")		(115.15" = 37 Trees)
(5) 12" Oak (Severe)	25% (15")		
12" Oak (Critical)	25% (3")		
(3) 11" Oak (Severe)	25% (8.4")		
10" Oak (Moderate)	25% (2.5")		
(3) 10" Oak (Severe)	25% (7.5")		
(3) 9" Oak (Severe)	25% (6.75")		
8" Oak (Moderate)	25% (2")		
(3) 8" Oak (Severe)	25% (6")		
	(108.6" = 37 Trees)		

INSTALL ALL TREE PROTECTION FENCE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION

Landscape Requirements per The Beaufort, SC Code - Draft 12/7/16

-Zoning: T5-UC

-No Tree Coverage Requirements per 5.3.1

-Perimeter Buffer Requirements per 5.5.1:

- 5' Min. Width for Side and Rear Buffers
- No Front Buffer Planting Requirements
- Side and Rear Buffer in accordance with 5.7.8.A (All parking areas shall be screened from the public right of way)

-Parking Lot Landscaping 5.7.8 - 1 Broad leaved overstory tree per landscaped peninsula.

Sod is to be installed in all parking islands.

NOTE: SEE ATTACHED ARBORISTS REPORT FOR PROTECTION AND MAINTENANCE OF REMAINING TREES ON SITE.

No.	Date	Description
0	3.18.19	For Permit

Job Number: 2016_24
File Reference:

Scale: AS NOTED

CORP. SEAL

SEAL

State of South Carolina
Professional Landscaper
No. 608
KATHARINA L. HOUSTON

PINE COURT APARTMENTS
BEAUFORT, SOUTH CAROLINA

PARKS-PLAYER ARCHITECTURE & PLANNING
1010 EAST NORTH STREET
SUITE A
GREENVILLE, SC 29601
(864) 242-9177

LANDSCAPE PLAN

Sheet Number:
LS-1.00

1

OUTLET BOXES AND FITTINGS CLASSIFIED FOR FIRE RESISTANCE (CEY)

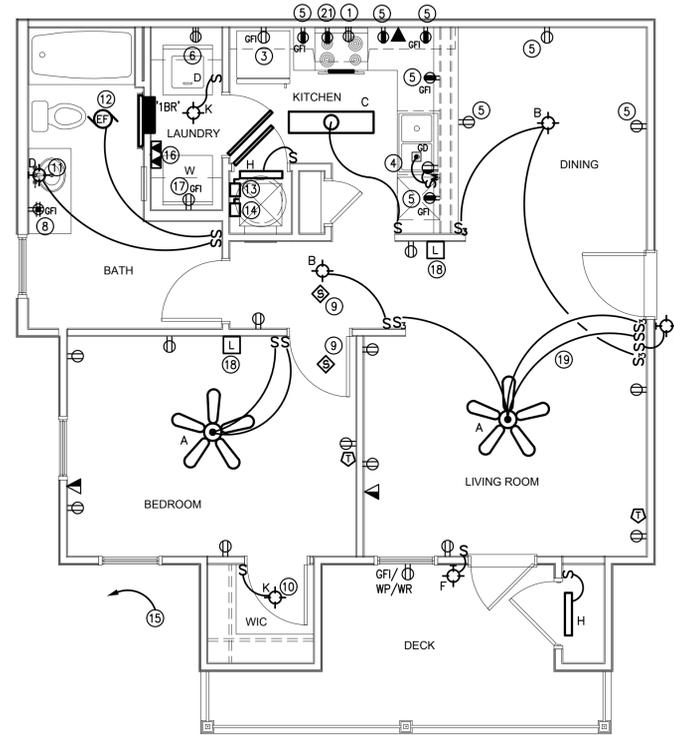
This category covers special purpose boxes for installation in floors and nonmetallic outlet boxes for installation in floors, walls and partitions, and/or ceilings in accordance with provisions of the National Electrical Code. They have shown a degree of fire resistance when installed in the particular floor(s), wall(s) and ceiling(s) described for each Classified category. Boxes of the type listed in the Electrical Construction Equipment Directory have been investigated and found to comply with established electrical requirements and are so listed.

This category includes Classifications for nonmetallic outlet and switch boxes for use in fire resistive rated wall or partition assemblies. The information provided for each Classification includes the model numbers for the Classified products, a description of the rated assemblies, the spacing limitations for the boxes and the installation details. Nonmetallic boxes shall not be installed on opposite sides of walls or partitions of staggered stud construction unless Classified for use in such constructions.

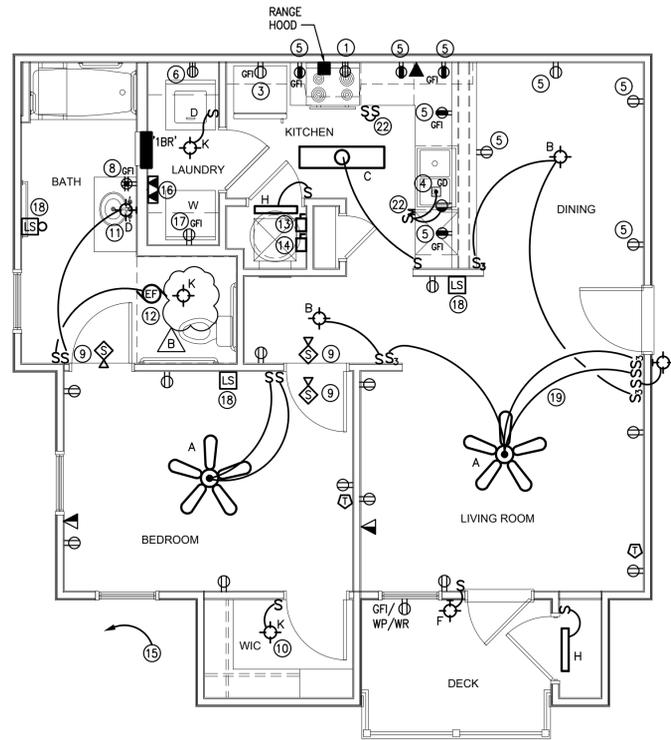
ALLIED MOULDED PRODUCTS, INC. R9379
222 N. UNION ST. PO BOX 587, BRYAN, OH 43506

Series 1082, 1084, 1085, 1086, 1088, 1096, 1098, 1099, 2300, 2301, 2302, 3300, 3303, 3305, 3307, 3309, 3311, 3313, 3315, 3317, 3319, 3321, 3323, 3325, 3327, 3329, 3331, 3333, 3335, 3337, 3339, 3341, 3343, 3345, 3347, 3349, 3351, 3353, 3355, 3357, 3359, 3361, 3363, 3365, 3367, 3369, 3371, 3373, 3375, 3377, 3379, 3381, 3383, 3385, 3387, 3389, 3391, 3393, 3395, 3397, 3399, 3401, 3403, 3405, 3407, 3409, 3411, 3413, 3415, 3417, 3419, 3421, 3423, 3425, 3427, 3429, 3431, 3433, 3435, 3437, 3439, 3441, 3443, 3445, 3447, 3449, 3451, 3453, 3455, 3457, 3459, 3461, 3463, 3465, 3467, 3469, 3471, 3473, 3475, 3477, 3479, 3481, 3483, 3485, 3487, 3489, 3491, 3493, 3495, 3497, 3499, 3501, 3503, 3505, 3507, 3509, 3511, 3513, 3515, 3517, 3519, 3521, 3523, 3525, 3527, 3529, 3531, 3533, 3535, 3537, 3539, 3541, 3543, 3545, 3547, 3549, 3551, 3553, 3555, 3557, 3559, 3561, 3563, 3565, 3567, 3569, 3571, 3573, 3575, 3577, 3579, 3581, 3583, 3585, 3587, 3589, 3591, 3593, 3595, 3597, 3599, 3601, 3603, 3605, 3607, 3609, 3611, 3613, 3615, 3617, 3619, 3621, 3623, 3625, 3627, 3629, 3631, 3633, 3635, 3637, 3639, 3641, 3643, 3645, 3647, 3649, 3651, 3653, 3655, 3657, 3659, 3661, 3663, 3665, 3667, 3669, 3671, 3673, 3675, 3677, 3679, 3681, 3683, 3685, 3687, 3689, 3691, 3693, 3695, 3697, 3699, 3701, 3703, 3705, 3707, 3709, 3711, 3713, 3715, 3717, 3719, 3721, 3723, 3725, 3727, 3729, 3731, 3733, 3735, 3737, 3739, 3741, 3743, 3745, 3747, 3749, 3751, 3753, 3755, 3757, 3759, 3761, 3763, 3765, 3767, 3769, 3771, 3773, 3775, 3777, 3779, 3781, 3783, 3785, 3787, 3789, 3791, 3793, 3795, 3797, 3799, 3801, 3803, 3805, 3807, 3809, 3811, 3813, 3815, 3817, 3819, 3821, 3823, 3825, 3827, 3829, 3831, 3833, 3835, 3837, 3839, 3841, 3843, 3845, 3847, 3849, 3851, 3853, 3855, 3857, 3859, 3861, 3863, 3865, 3867, 3869, 3871, 3873, 3875, 3877, 3879, 3881, 3883, 3885, 3887, 3889, 3891, 3893, 3895, 3897, 3899, 3901, 3903, 3905, 3907, 3909, 3911, 3913, 3915, 3917, 3919, 3921, 3923, 3925, 3927, 3929, 3931, 3933, 3935, 3937, 3939, 3941, 3943, 3945, 3947, 3949, 3951, 3953, 3955, 3957, 3959, 3961, 3963, 3965, 3967, 3969, 3971, 3973, 3975, 3977, 3979, 3981, 3983, 3985, 3987, 3989, 3991, 3993, 3995, 3997, 3999, 4001, 4003, 4005, 4007, 4009, 4011, 4013, 4015, 4017, 4019, 4021, 4023, 4025, 4027, 4029, 4031, 4033, 4035, 4037, 4039, 4041, 4043, 4045, 4047, 4049, 4051, 4053, 4055, 4057, 4059, 4061, 4063, 4065, 4067, 4069, 4071, 4073, 4075, 4077, 4079, 4081, 4083, 4085, 4087, 4089, 4091, 4093, 4095, 4097, 4099, 4101, 4103, 4105, 4107, 4109, 4111, 4113, 4115, 4117, 4119, 4121, 4123, 4125, 4127, 4129, 4131, 4133, 4135, 4137, 4139, 4141, 4143, 4145, 4147, 4149, 4151, 4153, 4155, 4157, 4159, 4161, 4163, 4165, 4167, 4169, 4171, 4173, 4175, 4177, 4179, 4181, 4183, 4185, 4187, 4189, 4191, 4193, 4195, 4197, 4199, 4201, 4203, 4205, 4207, 4209, 4211, 4213, 4215, 4217, 4219, 4221, 4223, 4225, 4227, 4229, 4231, 4233, 4235, 4237, 4239, 4241, 4243, 4245, 4247, 4249, 4251, 4253, 4255, 4257, 4259, 4261, 4263, 4265, 4267, 4269, 4271, 4273, 4275, 4277, 4279, 4281, 4283, 4285, 4287, 4289, 4291, 4293, 4295, 4297, 4299, 4301, 4303, 4305, 4307, 4309, 4311, 4313, 4315, 4317, 4319, 4321, 4323, 4325, 4327, 4329, 4331, 4333, 4335, 4337, 4339, 4341, 4343, 4345, 4347, 4349, 4351, 4353, 4355, 4357, 4359, 4361, 4363, 4365, 4367, 4369, 4371, 4373, 4375, 4377, 4379, 4381, 4383, 4385, 4387, 4389, 4391, 4393, 4395, 4397, 4399, 4401, 4403, 4405, 4407, 4409, 4411, 4413, 4415, 4417, 4419, 4421, 4423, 4425, 4427, 4429, 4431, 4433, 4435, 4437, 4439, 4441, 4443, 4445, 4447, 4449, 4451, 4453, 4455, 4457, 4459, 4461, 4463, 4465, 4467, 4469, 4471, 4473, 4475, 4477, 4479, 4481, 4483, 4485, 4487, 4489, 4491, 4493, 4495, 4497, 4499, 4501, 4503, 4505, 4507, 4509, 4511, 4513, 4515, 4517, 4519, 4521, 4523, 4525, 4527, 4529, 4531, 4533, 4535, 4537, 4539, 4541, 4543, 4545, 4547, 4549, 4551, 4553, 4555, 4557, 4559, 4561, 4563, 4565, 4567, 4569, 4571, 4573, 4575, 4577, 4579, 4581, 4583, 4585, 4587, 4589, 4591, 4593, 4595, 4597, 4599, 4601, 4603, 4605, 4607, 4609, 4611, 4613, 4615, 4617, 4619, 4621, 4623, 4625, 4627, 4629, 4631, 4633, 4635, 4637, 4639, 4641, 4643, 4645, 4647, 4649, 4651, 4653, 4655, 4657, 4659, 4661, 4663, 4665, 4667, 4669, 4671, 4673, 4675, 4677, 4679, 4681, 4683, 4685, 4687, 4689, 4691, 4693, 4695, 4697, 4699, 4701, 4703, 4705, 4707, 4709, 4711, 4713, 4715, 4717, 4719, 4721, 4723, 4725, 4727, 4729, 4731, 4733, 4735, 4737, 4739, 4741, 4743, 4745, 4747, 4749, 4751, 4753, 4755, 4757, 4759, 4761, 4763, 4765, 4767, 4769, 4771, 4773, 4775, 4777, 4779, 4781, 4783, 4785, 4787, 4789, 4791, 4793, 4795, 4797, 4799, 4801, 4803, 4805, 4807, 4809, 4811, 4813, 4815, 4817, 4819, 4821, 4823, 4825, 4827, 4829, 4831, 4833, 4835, 4837, 4839, 4841, 4843, 4845, 4847, 4849, 4851, 4853, 4855, 4857, 4859, 4861, 4863, 4865, 4867, 4869, 4871, 4873, 4875, 4877, 4879, 4881, 4883, 4885, 4887, 4889, 4891, 4893, 4895, 4897, 4899, 4901, 4903, 4905, 4907, 4909, 4911, 4913, 4915, 4917, 4919, 4921, 4923, 4925, 4927, 4929, 4931, 4933, 4935, 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5269, 5271, 5273, 5275, 5277, 5279, 5281, 5283, 5285, 5287, 5289, 5291, 5293, 5295, 5297, 5299, 5301, 5303, 5305, 5307, 5309, 5311, 5313, 5315, 5317, 5319, 5321, 5323, 5325, 5327, 5329, 5331, 5333, 5335, 5337, 5339, 5341, 5343, 5345, 5347, 5349, 5351, 5353, 5355, 5357, 5359, 5361, 5363, 5365, 5367, 5369, 5371, 5373, 5375, 5377, 5379, 5381, 5383, 5385, 5387, 5389, 5391, 5393, 5395, 5397, 5399, 5401, 5403, 5405, 5407, 5409, 5411, 5413, 5415, 5417, 5419, 5421, 5423, 5425, 5427, 5429, 5431, 5433, 5435, 5437, 5439, 5441, 5443, 5445, 5447, 5449, 5451, 5453, 5455, 5457, 5459, 5461, 5463, 5465, 5467, 5469, 5471, 5473, 5475, 5477, 5479, 5481, 5483, 5485, 5487, 5489, 5491, 5493, 5495, 5497, 5499, 5501, 5503, 5505, 5507, 5509, 5511, 5513, 5515, 5517, 5519, 5521, 5523, 5525, 5527, 5529, 5531, 5533, 5535, 5537, 5539, 5541, 5543, 5545, 5547, 5549, 5551, 5553, 5555, 5557, 5559, 5561, 5563, 5565, 5567, 5569, 5571, 5573, 5575, 5577, 5579, 5581, 5583, 5585, 5587, 5589, 5591, 5593, 5595, 5597, 5599, 5601, 5603, 5605, 5607, 5609, 5611, 5613, 5615, 5617, 5619, 5621, 5623, 5625, 5627, 5629, 5631, 5633, 5635, 5637, 5639, 5641, 5643, 5645, 5647, 5649, 5651, 5653, 5655, 5657, 5659, 5661, 5663, 5665, 5667, 5669, 5671, 5673, 5675, 5677, 5679, 5681, 5683, 5685, 5687, 5689, 5691, 5693, 5695, 5697, 5699, 5701, 5703, 5705, 5707, 5709, 5711, 5713, 5715, 5717, 5719, 5721, 5723, 5725, 5727, 5729, 5731, 5733, 5735, 5737, 5739, 5741, 5743, 5745, 5747, 5749, 5751, 5753, 5755, 5757, 5759, 5761, 5763, 5765, 5767, 5769, 5771, 5773, 5775, 5777, 5779, 5781, 5783, 5785, 5787, 5789, 5791, 5793, 5795, 5797, 5799, 5801, 5803, 5805, 5807, 5809, 5811, 5813, 5815, 5817, 5819, 5821, 5823, 5825, 5827, 5829, 5831, 5833, 5835, 5837, 5839, 5841, 5843, 5845, 5847, 5849, 5851, 5853, 5855, 5857, 5859, 5861, 5863, 5865, 5867, 5869, 5871, 5873, 5875, 5877, 5879, 5881, 5883, 5885, 5887, 5889, 5891, 5893, 5895, 5897, 5899, 5901, 5903, 5905, 5907, 5909, 5911, 5913, 5915, 5917, 5919, 5921, 5923, 5925, 5927, 5929, 5931, 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6597, 6599, 6601, 6603, 6605, 6607, 6609, 6611, 6613, 6615, 6617, 6619, 6621, 6623, 6625, 6627, 6629, 6631, 6633, 6635, 6637, 6639, 6641, 6643, 6645, 6647, 6649, 6651, 6653, 6655, 6657, 6659, 6661, 6663, 6665, 6667, 6669, 6671, 6673, 6675, 6677, 6679, 6681, 6683, 6685, 6687, 6689, 6691, 6693, 6695, 6697, 6699, 6701, 6703, 6705, 6707, 6709, 6711, 6713, 6715, 6717, 6719, 6721, 6723, 6725, 6727, 6729, 6731, 6733, 6735, 6737, 6739, 6741, 6743, 6745, 6747, 6749, 6751, 6753, 6755, 6757, 6759, 6761, 6763, 6765, 6767, 6769, 6771, 6773, 6775, 6777, 6779, 6781, 6783, 6785, 6787, 6789, 6791, 6793, 6795, 6797, 6799, 6801, 6803, 6805, 6807, 6809, 6811, 6813, 6815, 6817, 6819, 6821, 6823, 6825, 6827, 6829, 6831, 6833, 6835, 6837, 6839, 6841, 6843, 6845, 6847, 6849, 6851, 6853, 6855, 6857, 6859, 6861, 6863, 6865, 6867, 6869, 6871, 6873, 6875, 6877, 6879, 6881, 6883, 6885, 6887, 6889, 6891, 6893, 6895, 6897, 6899, 6901, 6903, 6905, 6907, 6909, 6911, 6913, 6915, 6917, 6919, 6921, 6923, 6925, 6927, 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1 1 BEDROOM RM UNIT - DECK
1/4" = 1'-0"



2 1 BEDROOM RM UNIT - HANDICAP
1/4" = 1'-0"

HANDICAP UNIT NOTES:

1. ALL HANDICAPPED UNITS SHALL CONFORM TO A.D.A.
2. PROVIDE ACCESSIBLE SWITCHES FOR STOVE & HOOD.
3. ALL OUTLETS AND SWITCHES SHALL BE LOCATED IN ACCORDANCE W/ A.D.A. MAX. HGT. IS 48" AFF. FOR SWITCHES, AND OUTLETS TO BE MIN. 15" AFF.
4. PROVIDE SMOKE DETECTORS WITH STROBE AND HORN INSIDE ALL BEDROOMS, OUTSIDE EACH BEDROOM DOOR AND IN BATHS COMPLYING W/ REQ. OF NFPA 72.
5. ALL HANDICAP UNITS SHALL COMPLY WITH 16.1-16.3 VOL.-1C IN REGARD TO LOCATION AND MOUNTING HEIGHTS OF CONTROLS AND OPERATORS SUCH AS LIGHT SWITCHES AND OUTLETS.

ELECTRICAL KEYED NOTES

- 1 RANGE RECEPTACLE: HOMERUN USING 3#6 W/G FROM SURFACE MOUNTED 250V 4-POLE RANGE RECEPTACLE. LOCATED TO BE ACCESSIBLE PER CODE REQUIREMENTS. WIRING ACCORDING TO NAMEPLATE 10,500 WATTS.
- 2 PROVIDE 120 VOLT POWER TO RANGE HOOD VIA JUNCTION BOX. PROVIDE TWO (2) REMOTE SWITCHES - ONE FOR LIGHT AND ONE FOR FAN.
- 3 REFRIGERATOR RECEPTACLE: (120 VOLT, 1200 WATTS) HOMERUN USING 2#12 W/G.
- 4 PROVIDE 120V, 20A, DUPLEX GFCI RECEPTACLE MOUNTED UNDER SINK FOR DISHWASHER AND DISPOSAL. OUTLET TO BE SPLIT WIRED, WITH TOP HALF CONTROLLED BY WALL SWITCH NEAR SINK FOR DISPOSAL. BOTTOM HALF TO BE CONSTANT "ON" FOR DISHWASHER.
- 5 OUTLETS IN THE KITCHEN AND DINING ROOM (NOT DESIGNATED AS A DEDICATED CIRCUIT) SHALL BE FED FROM THE (2)-SMALL APPLIANCE BRANCH CIRCUITS. OUTLETS SHALL ALTERNATE BETWEEN CIRCUITS.
- 6 CLOTHES DRYER - 30A, 120/250V, 4P FLUSH MOUNTED RECEPTACLE. HOMERUN USING 3#10 W/G AND RECEPTACLE COVER PLATE SHALL BE STAINLESS STEEL.
- 7 NOT USED
- 8 WIRE RECEPTACLE TO CIRCUIT INDICATED FOR BATHROOM USE AND MOUNT AT SAME HEIGHT AS BATH SWITCHES WHEN IMMEDIATELY ADJACENT TO THOSE SWITCHES.
- 9 SMOKE DETECTOR WIRED TO "SMOKE DETECTOR CIRCUIT". SMOKE DETECTOR TO BE 120V, BATTERY BACKED-UP WITH SOUNDER.
- 10 CLOSET FIXTURES MUST BE INSTALLED A MINIMUM OF 12" FROM THE NEAREST POINT OF STORAGE SPACE.
- 11 CENTER LIGHT WITH SINK AND OVER MIRROR.
- 12 EXHAUST FAN LOCATED IN CEILING OF BATHROOMS. SEE MECHANICAL DRAWINGS FOR EXACT LOCATION.
- 13 PROVIDE CIRCUIT FOR WATER HEATER, HARDWARE USING 2#10 W/G. PROVIDE LOCAL DISCONNECT IN ACCESSIBLE SPACE IN CLOSET.
- 14 PROVIDE CIRCUIT TO FEED AIR HANDLER SERVING APARTMENT. PROVIDE LOCAL DISCONNECT IN ACCESSIBLE SPACE IN CLOSET. SEE HVAC EQUIPMENT FEEDER SCHEDULE ON THIS DRAWING. CONTRACTOR TO VERIFY REQUIREMENTS OF ACTUAL UNITS PURCHASED.
- 15 PROVIDE CIRCUIT FOR APARTMENT HEAT PUMP WHICH IS LOCATED IN A CENTRAL BUILDING LOCATION. PROVIDE DISCONNECT ADJACENT TO HEAT PUMP. REFER TO HVAC EQUIPMENT FEEDER SCHEDULE ON THIS DRAWING FOR INFO. CONTRACTOR TO VERIFY REQUIREMENTS OF ACTUAL UNITS PURCHASED.
- 16 TECHNOLOGY "HUB". SEE DRAWING E1.02 FOR NOTES AND DETAILS.
- 17 CLOTHES WASHER RECEPTACLE: (120 VOLT, 1500 WATTS, CORD & PLUG CONNECTED) HOMERUN USING 2#12 W/G.
- 18 NOTIFICATION DEVICE CONNECTED TO BUILDING FIRE ALARM SYSTEM. REFER TO E1.01 LEGEND.
- 19 PROVIDE 3-WAY SWITCHES AS SHOWN ON PLAN FOR LIGHT KIT ON CEILING FAN. PROVIDE ONE SINGLE-POLE SWITCH AT ONE LOCATION ONLY FOR CEILING FAN MOTOR.
- 20 NOT USED
- 21 PROVIDE 120V, 20A RECEPTACLE WITH DEDICATED CIRCUIT, MOUNTED IN UPPER CABINET OVER RANGE FOR COMBINATION MICROWAVE/HOOD OR HOOD ONLY. CONTRACTOR TO VERIFY EXACT LOCATION.
- 22 SWITCHES MOUNTED IN ADJACENT CABINET FACE FOR HOOD LIGHT AND FAN, AND DISPOSAL. 'HANDICAP' UNITS ONLY.

SWITCHES AND THERMOSTATS SHALL NOT BE LOCATED MORE THAN 48" AFF. RECEPTACLES, TELEPHONE JACKS AND CABLE JACKS MUST NOT BE LOCATED LESS THAN 16" AFF.

ALL OPERABLE ELECTRICAL DEVICES IN "ACCESSIBLE" GROUND FLOOR DWELLING UNITS SHALL COMPLY WITH ANSI 117.1-2003.

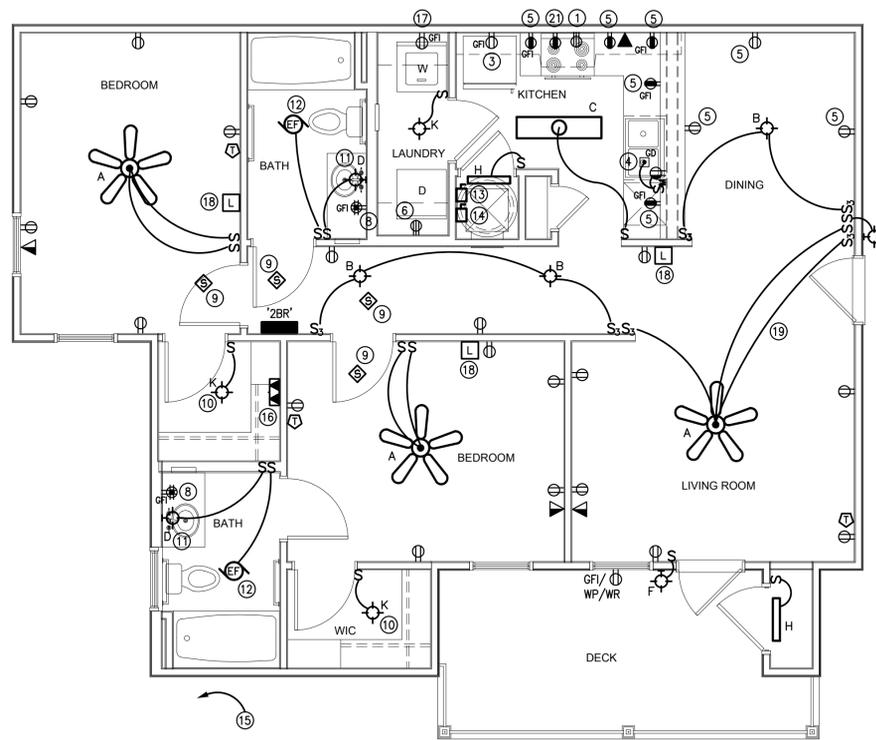
IN ALL AREAS IN DWELLING UNITS, ALL 120V, 15 AND 20 AMP RECEPTACLES SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES.

HVAC EQUIPMENT CONNECTION SCHEDULE FOR 1 BEDROOM UNITS

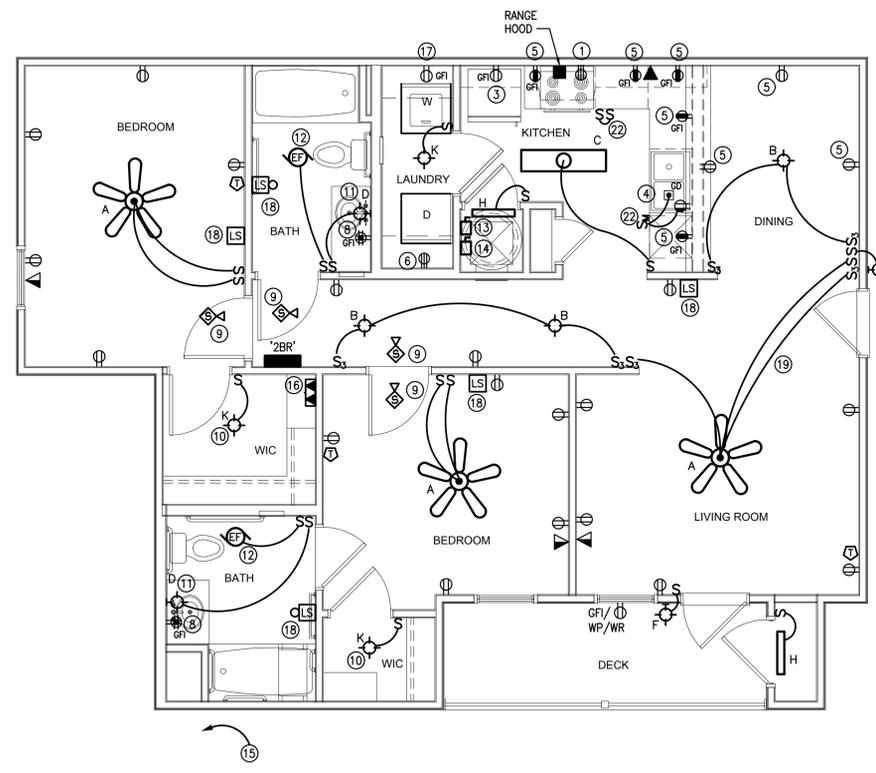
APARTMENT TYPE	UNIT	PANEL/CIR.	WIRE/CONDUIT	DISCONNECT/FUSE	BREAKER
1 BEDROOM UNIT	AIR HANDLER	UNIT PANEL	2#10 W/GND	60A/2P/1/NF	30A
1 BEDROOM UNIT	HEAT PUMP	UNIT PANEL	2#12 W/GND	30A/2P/3R/25AF	20A

HVAC EQUIPMENT CONNECTION SCHEDULE FOR 2 BEDROOM UNITS

APARTMENT TYPE	UNIT	PANEL/CIR.	WIRE/CONDUIT	DISCONNECT/FUSE	BREAKER
2 BEDROOM UNIT	AIR HANDLER	UNIT PANEL	2#8 W/GND	60A/2P/1/NF	40A
2 BEDROOM UNIT	HEAT PUMP	UNIT PANEL	2#10 W/GND	30A/2P/3R/25AF	25A



3 2 BEDROOM RM UNIT - DECK
1/4" = 1'-0"



4 2 BEDROOM RM UNIT - HANDICAP
1/4" = 1'-0"

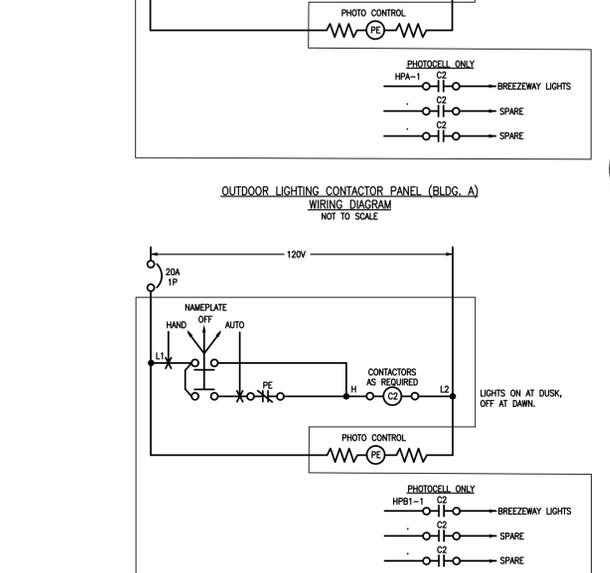
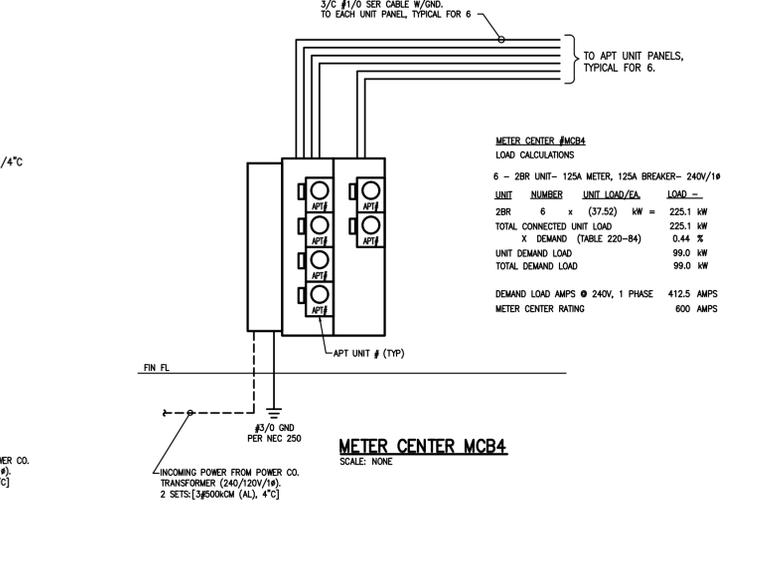
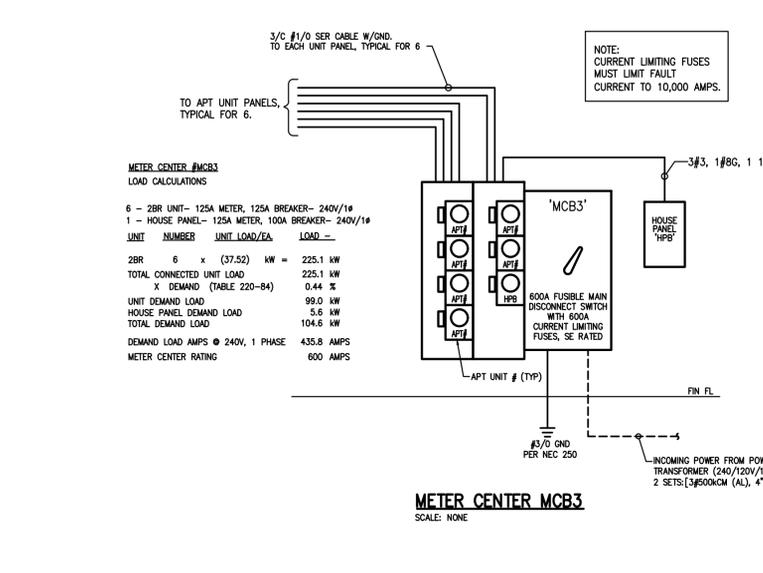
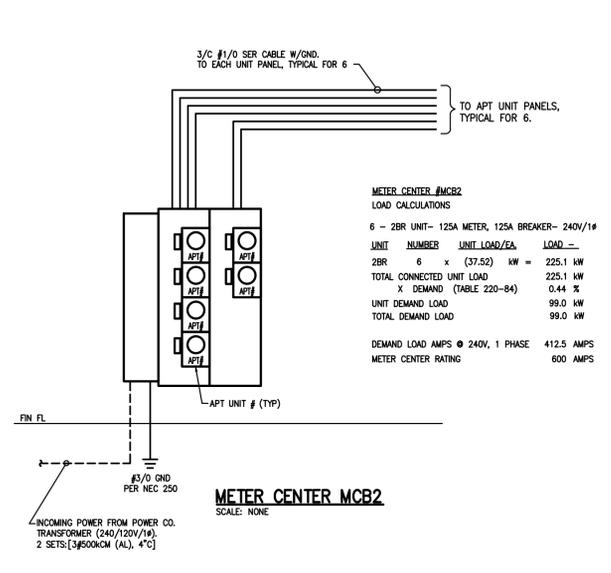
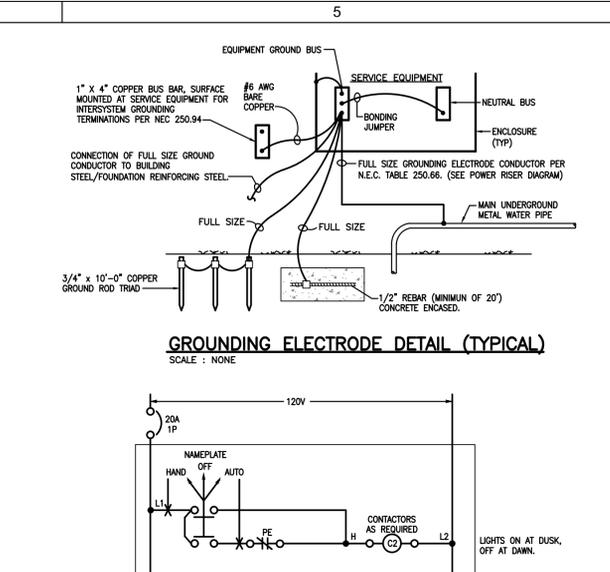
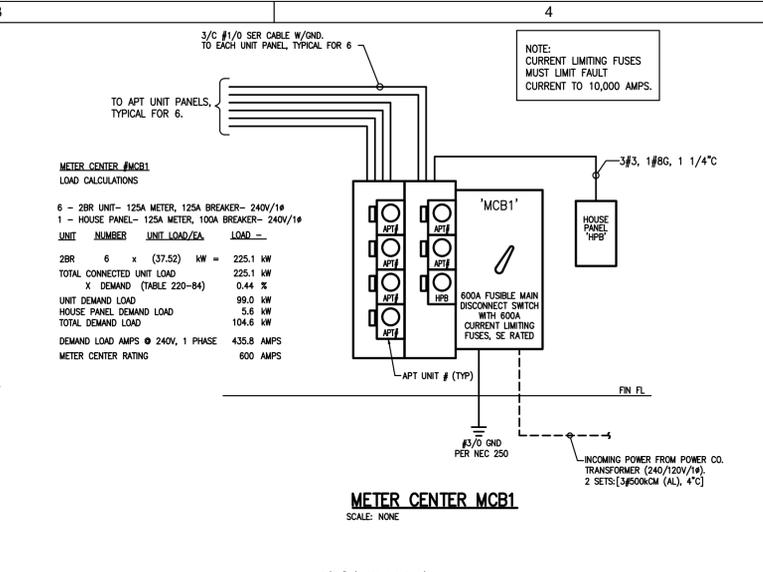
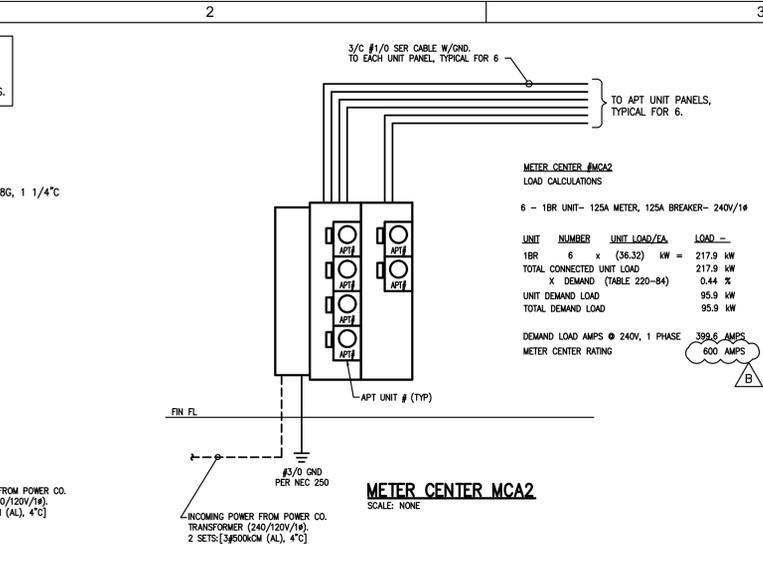
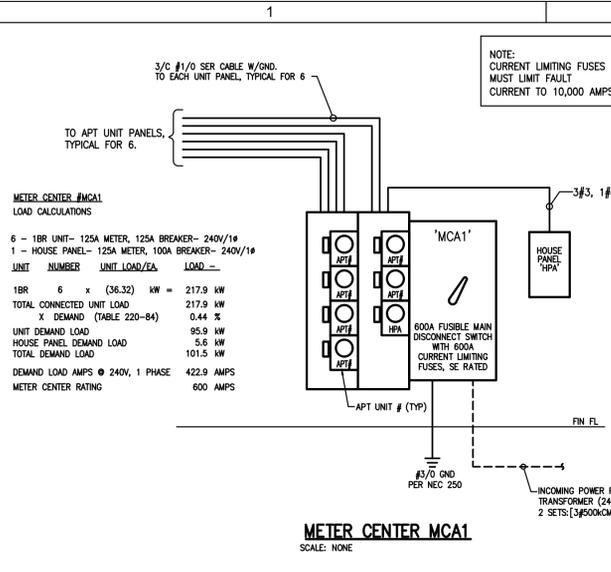
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B	03/18/19	COMMENTS
A	07/05/17	FOR PERMIT
Job Number: 2017_13		
File Reference:		
Scale:		AS NOTED
SEAL date 03/18/2019		

PINE COURT APARTMENTS
BEAUFORT, SOUTH CAROLINA

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GREENVILLE, SC 29607
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H2L Project 17046

1 & 2 BEDROOM UNIT
FLOOR PLANS

Sheet Number:
E2.01



PANEL #1BR (NOTE 3&4)
VOLTAGE: 120/240V-1φ-3W

DEVICES	BRANCH CIRCUIT	PHASE LOAD (VOLT-AMPS)		DESIGNATION	NOTES	POLES	AMP
		#A	#B				
15 1 2	RECEPTS & LIGHTS	1	2	KITCHEN RECEPTS (SM APPL)	2	1	20
15 1 2	RECEPTS & LIGHTS	3	4	KITCHEN RECEPTS (SM APPL)	2	1	20
15 1 2	RECEPTS & LIGHTS	5	6	SMOKE DETECTORS	2	1	15
20 1	BATH#1 RECP	7	8	RANGEOOD/MICROWAVE	*	1	20
30 2 5	AIR HANDLER (NOTE 5)	9	10	DISHWASHER/GARBAGE DISPOSAL	2	1	20
12	REFRIGERATOR	11	12	REFRIGERATOR	2	1	20
20 2 1.5	HEAT PUMP (NOTE 5)	13	14	CLOTHES WASHER	2	1	20
15	RANGE	17	18	CLOTHES DRYER	2	3	30
20 1 2	SPARE	21	22	WATER HEATER WH-1	2	3	30
20 1 2	SPARE	23	24	SPARE	2	1	20

INTEGRATED EQUIPMENT RATING: 10,000 AC

KVA TOTAL: 2.00

TOTAL KVA: 5.34

TOTAL AMPS: 22.25

NOTE: 1. BREAKER SHALL BE HACR RATED.
2. BREAKER SHALL BE ARC FAULT INTERRUPTING TYPE.
3. SEE DWELLING UNIT PANEL LOAD CALCULATIONS.
4. PANEL #1BR IS TYPICAL FOR ALL ONE BEDROOM UNITS.

NOTE: 5. NOTE: SEE HVAC EQUIPMENT CONNECTION SCHEDULE ON UNIT PLANS FOR BREAKER SIZES OF ACTUAL EQUIPMENT USED IN VARIOUS 1 BEDROOM UNITS.
6. BREAKER SHALL HAVE LOCK-ON DEVICE.

PANEL #HPA
VOLTAGE: 240/120V-1P-3W

DEVICES	BRANCH CIRCUIT	PHASE LOAD (VOLT-AMPS)		DESIGNATION	NOTES	POLES	AMP
		#A	#B				
20 1	LIGHTS- BREZZEWAY, 1st, 2nd, 3rd FL	319	1	360 RECEPTS- CORR/MECH, 1st FL	1	20	20
20 1	LIGHTS- EXTERIOR	3	1039	360 RECEPTS- CORR/MECH, 2nd FL	1	20	20
20 1	SPARE	5	720	360 RECEPTS- CORR/MECH, 3rd FL	1	20	20
20 1	RISER RM ALARM PANEL	400	7	900 RECEPTS- EXTERIOR	1	20	20
20 1	RISER RM LIGHT/RECEPT	240	9	SPARE	1	20	20
20 1	RISER RM HEATER EH-3	1000	11	SPARE	1	20	20
20 1	SPARE	13	14	SPARE	1	20	20
20 1	SPARE	15	16	SPARE	1	20	20
20 1	SPARE	17	18	SPARE	1	20	20
20 1	SPARE	19	20	SPARE	1	20	20
20 1	SPARE	21	22	SPARE	1	20	20
20 1	SPARE	23	24	SPARE	1	20	20

INTEGRATED EQUIPMENT RATING: 25,000 AC MINIMUM

KVA TOTAL: 2.00

TOTAL KVA: 5.34

TOTAL AMPS: 22.25

NOTE: 1. PANEL TO BE RATED FOR SERVICE ENTRANCE.

LOAD DESCRIPTION	DEMAND FACTOR	CONNECTED	DEMAND
LIGHTING	1.25	878	1098
RECEPTACLES	N.E.C.	3060	3060
HVAC EQUIPMENT	1.00	1000	1000
MISC. EQUIPMENT	1.00	400	400
WATER HEATER	1.25	400	400
KITCHEN EQUIPMENT	0.65	5338	5558
TOTAL		5338	5558

DEMAND LOAD AMPS = 23.2 A

PANEL #HPB2
VOLTAGE: 240/120V-1P-3W

DEVICES	BRANCH CIRCUIT	PHASE LOAD (VOLT-AMPS)		DESIGNATION	NOTES	POLES	AMP
		#A	#B				
20 1	LIGHTS- BREZZEWAY, 1st, 2nd, 3rd FL	319	1	360 RECEPTS- CORR/MECH, 1st FL	1	20	20
20 1	LIGHTS- EXTERIOR	3	1039	360 RECEPTS- CORR/MECH, 2nd FL	1	20	20
20 1	SPARE	5	720	360 RECEPTS- CORR/MECH, 3rd FL	1	20	20
20 1	RISER RM ALARM PANEL	400	7	900 RECEPTS- EXTERIOR	1	20	20
20 1	RISER RM LIGHT/RECEPT	240	9	SPARE	1	20	20
20 1	RISER RM HEATER EH-3	1000	11	SPARE	1	20	20
20 1	SPARE	13	14	SPARE	1	20	20
20 1	SPARE	15	16	SPARE	1	20	20
20 1	SPARE	17	18	SPARE	1	20	20
20 1	SPARE	19	20	SPARE	1	20	20
20 1	SPARE	21	22	SPARE	1	20	20
20 1	SPARE	23	24	SPARE	1	20	20

INTEGRATED EQUIPMENT RATING: 25,000 AC MINIMUM

KVA TOTAL: 2.00

TOTAL KVA: 5.34

TOTAL AMPS: 22.25

NOTE: 1. PANEL TO BE RATED FOR SERVICE ENTRANCE.

LOAD DESCRIPTION	DEMAND FACTOR	CONNECTED	DEMAND
LIGHTING	1.25	878	1098
RECEPTACLES	N.E.C.	3060	3060
HVAC EQUIPMENT	1.00	1000	1000
MISC. EQUIPMENT	1.00	400	400
WATER HEATER	1.25	400	400
KITCHEN EQUIPMENT	0.65	5338	5558
TOTAL		5338	5558

DEMAND LOAD AMPS = 23.2 A

DWELLING UNIT PANEL LOAD CALCULATIONS

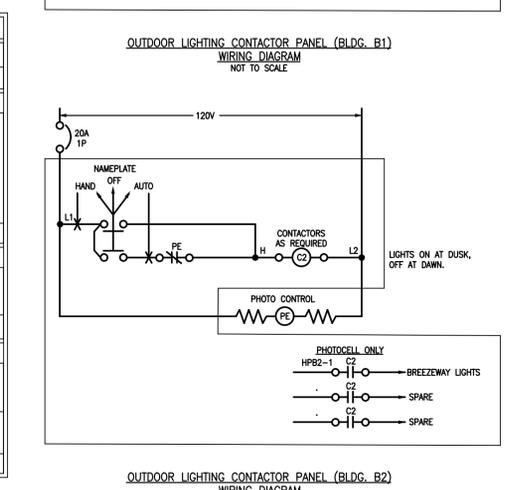
DWELLING UNIT SQUARE FOOTAGE	1 BR UNIT	2 BR UNIT
740 SQ FT	962 SQ FT	
① GENERAL LOADS PER N.E.C. ARTICLE 220-80(b)		
LIGHTS & RECEPTS @ 3W PER SQ FT	2220 W	2886 W
SMALL APPLANCE CKTS: 2 @ 1500 W EACH	3000 W	3000 W
LAUNDRY CIRCUIT: 1 @ 1500 W	1500 W	1500 W
WATER HEATER	4500 W	4500 W
DISHWASHER	1200 W	1200 W
CLOTHES DRYER	5000 W	5000 W
RANGE	10000 W	10000 W
REFRIGERATOR	1200 W	1200 W
DISPOSAL	800 W	800 W
② TOTAL GENERAL LOADS	29420 W	30086 W
③ HEATING AND AIR COND. LOAD PER N.E.C. ARTICLE 220-80(c)		
FAN MOTOR	800 W	800 W
SUPPLEMENTAL HEAT	5000 W	5000 W
LOSS OF HEAT	3250 W	3250 W
HEAT PUMP	2852 W	3381 W
④ TOTAL HEAT-AIR	6902 W	7431 W
DWELLING UNIT DEMAND		
HEATING AND AIR	6902 W	7431 W
FIRST 10W GENERAL LOAD	10000 W	10000 W
40% OF REMAINDER OF GENERAL LOAD	7768 W	8034 W
DEMAND LOAD (kW) FOR DWELLING UNITS	24.67 kW	25.47 kW
DEMAND LOAD (AMPS @ 240/14 VOLTS)	102.79 A	106.13 A
PANEL RATING IN AMPS	125 A	125 A
TOTAL CONNECTED	36.32 kW	37.52 kW

PHOTOCELL ONLY

HPB2- C2 - BREZZEWAY LIGHTS

C2 - SPARE

C2 - SPARE



PANEL #2BR (NOTE 3&4)
VOLTAGE: 120/240V-1φ-3W

DEVICES	BRANCH CIRCUIT	PHASE LOAD (VOLT-AMPS)		DESIGNATION	NOTES	POLES	AMP
		#A	#B				
15 1 2	RECEPTS & LIGHTS	1	2	KITCHEN RECEPTS (SM APPL)	2	1	20
15 1 2	RECEPTS & LIGHTS	3	4	KITCHEN RECEPTS (SM APPL)	2	1	20
15 1 2	RECEPTS & LIGHTS	5	6	SMOKE DETECTORS	2	1	15
20 1	BATH#1 RECP	7	8	RANGEOOD/MICROWAVE	*	1	20
40 2 1.5	AIR HANDLER (NOTE 5)	9	10	DISHWASHER/GARBAGE DISPOSAL	2	1	20
11	REFRIGERATOR	11	12	REFRIGERATOR	2	1	20
20 2 1.5	HEAT PUMP (NOTE 5)	13	14	CLOTHES WASHER	2	1	20
15	RANGE	17	18	CLOTHES DRYER	2	3	30
20 1 2	SPARE	21	22	WATER HEATER WH-2	2	3	30
20 1 2	SPARE	23	24	SPARE	2	1	20

INTEGRATED EQUIPMENT RATING: 10,000 AC

KVA TOTAL: 2.00

TOTAL KVA: 5.34

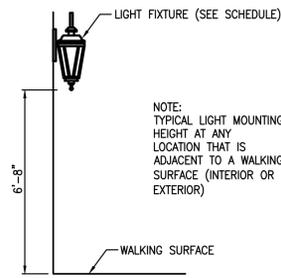
TOTAL AMPS: 22.25

NOTE: 1. BREAKER SHALL BE HACR RATED.
2. BREAKER SHALL BE ARC FAULT INTERRUPTING TYPE.
3. SEE DWELLING UNIT PANEL LOAD CALCULATIONS.
4. PANEL #2BR IS TYPICAL FOR ALL TWO BEDROOM UNITS.

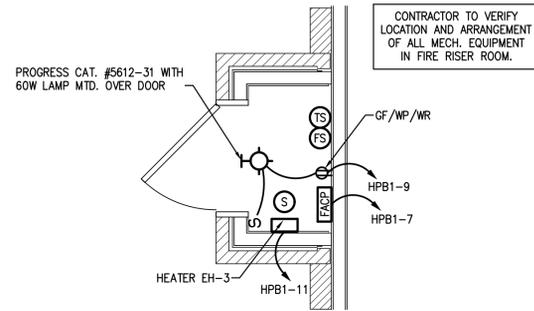
NOTE: 5. NOTE: SEE HVAC EQUIPMENT CONNECTION SCHEDULE ON UNIT PLANS FOR BREAKER SIZES OF ACTUAL EQUIPMENT USED IN VARIOUS 2 BEDROOM UNITS.
6. BREAKER SHALL HAVE LOCK-ON DEVICE.
* EXHAUST HOOD/LIGHT ON HANDCAP UNITS

PANEL #HPB1
VOLTAGE: 240/120V-1P-3W

DEVICES	BRANCH CIRCUIT	PHASE LOAD (VOLT-AMPS)		DESIGNATION	NOTES	POLES	AMP
		#A	#B				
20 1	LIGHTS- BREZZEWAY, 1st, 2nd, 3rd FL	319	1	360 RECEPTS- CORR/MECH, 1st FL	1	20	20
20 1	LIGHTS- EXTERIOR	3	1039	360 RECEPTS- CORR/MECH, 2nd FL	1	20	20
20 1	SPARE	5	720	360 RECEPTS- CORR/MECH, 3rd FL	1	20	20
20 1	RISER RM ALARM PANEL	400	7	540 RECEPTS- EXTERIOR	1	20	20
20 1	RISER RM LIGHT/RECEPT	240	9	SPARE	1	20	20
20 1	RISER RM HEATER EH-3	1000	11	SPARE	1	20	20
20							



BREEZEWAY FIXTURE MOUNTING HEIGHT
NOT TO SCALE



FIRE RISER ROOM LAYOUT
SCALE: NOT TO SCALE

FIRE RISER NOTE

THE SYSTEM SHALL PROVIDE NOTIFICATION TO ALL OCCUPANTS OF THE BUILDING WHEN THE SPRINKLER SYSTEM IS ACTIVATED.

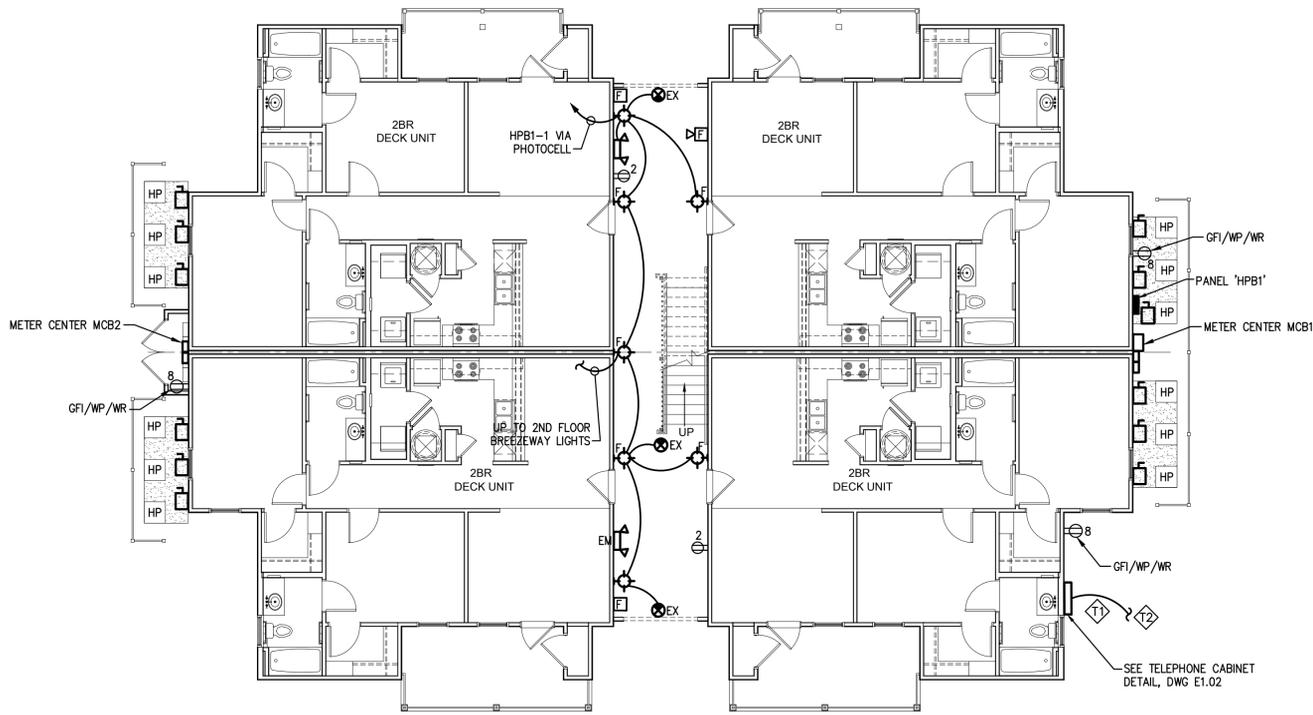
ALL BUILDINGS WITH AN ALARM SYSTEM ARE TO BE WIRED TO A SINGLE CONTROL/DIALING STATION.

INSTALL HORN/STROBE ALARMS IN H.C. UNITS WHERE INDICATED ON H.C. PLAN. (ALL BEDROOMS, BATHROOMS AND LIVING ROOMS.)

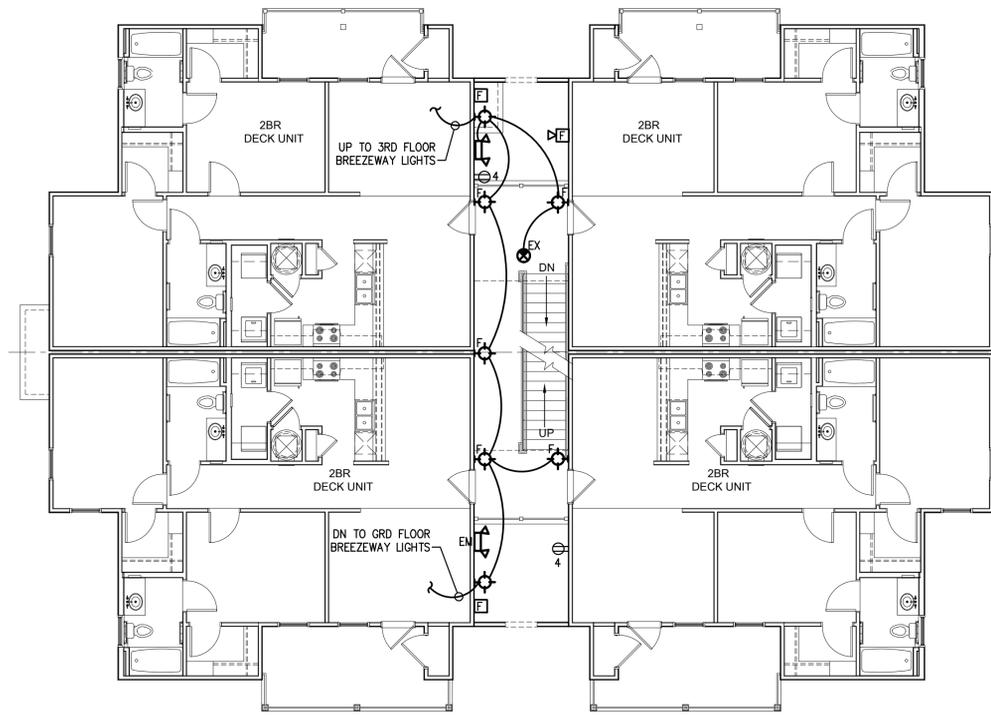
SEE DRAWING E1.01 FOR FIRE ALARM NOTES, LEGEND AND RISER DIAGRAM.

OVERALL BUILDING (HOUSE) ELECTRICAL NOTES:

1. ALL BRANCH CIRCUIT 'HOUSE' WIRING SHALL BE #10 AWG UNLESS NOTED OTHERWISE. QUANTITY OF WIRES SHALL BE AS REQUIRED TO ACCOMPLISH THE CIRCUITRY AND SWITCHING INDICATED. ALL EMERGENCY LIGHTING SHALL BE FED 'HOT' WITH AN UNSWITCHED CONDUCTOR OF LOCAL EXTERIOR LIGHTING CIRCUIT.
2. ALL LIGHTING FIXTURES, OUTLETS AND EQUIPMENT ON THIS PLAN SHALL BE WIRED TO PANEL 'HPB' AND CIRCUIT AS INDICATED, UNLESS NOTED OTHERWISE.
3. ALL BREEZEWAY LIGHTS SHALL BE FED FROM PANEL 'HPB' AND CONTROLLED VIA A PHOTOCELL.
4. SEE BEDROOM APARTMENT PLANS HVAC EQUIPMENT FEEDER SCHEDULES FOR HVAC UNIT FEEDER INFORMATION.
5. A BUILDING MAY HAVE MORE THAN ONE ELECTRICAL SERVICE PER N.E.C. ARTICLE 230, SECTION 2 (c) (1).
6. BUILDING METERING & LOCATIONS AS PER LOCAL CODES & LOCAL POWER COMPANY. PREFERRED LOCATIONS ARE SHOWN. COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS.
7. FOR GENERAL ELECTRICAL NOTES AND DETAILS, SEE DRAWINGS E1.01 & E1.02.



1 BUILDING TYPE 'B1' - GROUND FLOOR PLAN
1/8" = 1'-0" BUILDING #2



1 BUILDING TYPE 'B1' - SECOND & THIRD FLOOR PLAN
1/8" = 1'-0" BUILDING #2

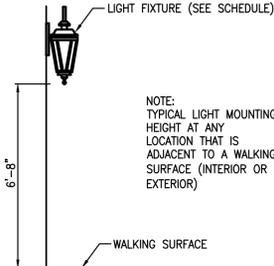
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PINE COURT APARTMENTS
BEAUFORT, SOUTH CAROLINA

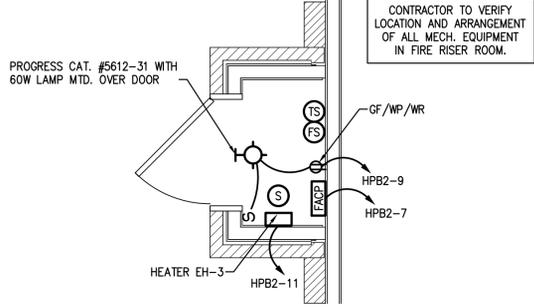
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BLDG B1
GROUND, SECOND & THIRD FLOOR PLANS

Sheet Number:
E3.02



BREEZEWAY FIXTURE MOUNTING HEIGHT
NOT TO SCALE



FIRE RISER ROOM LAYOUT
SCALE: NOT TO SCALE

FIRE RISER NOTE

THE SYSTEM SHALL PROVIDE NOTIFICATION TO ALL OCCUPANTS OF THE BUILDING WHEN THE SPRINKLER SYSTEM IS ACTIVATED.

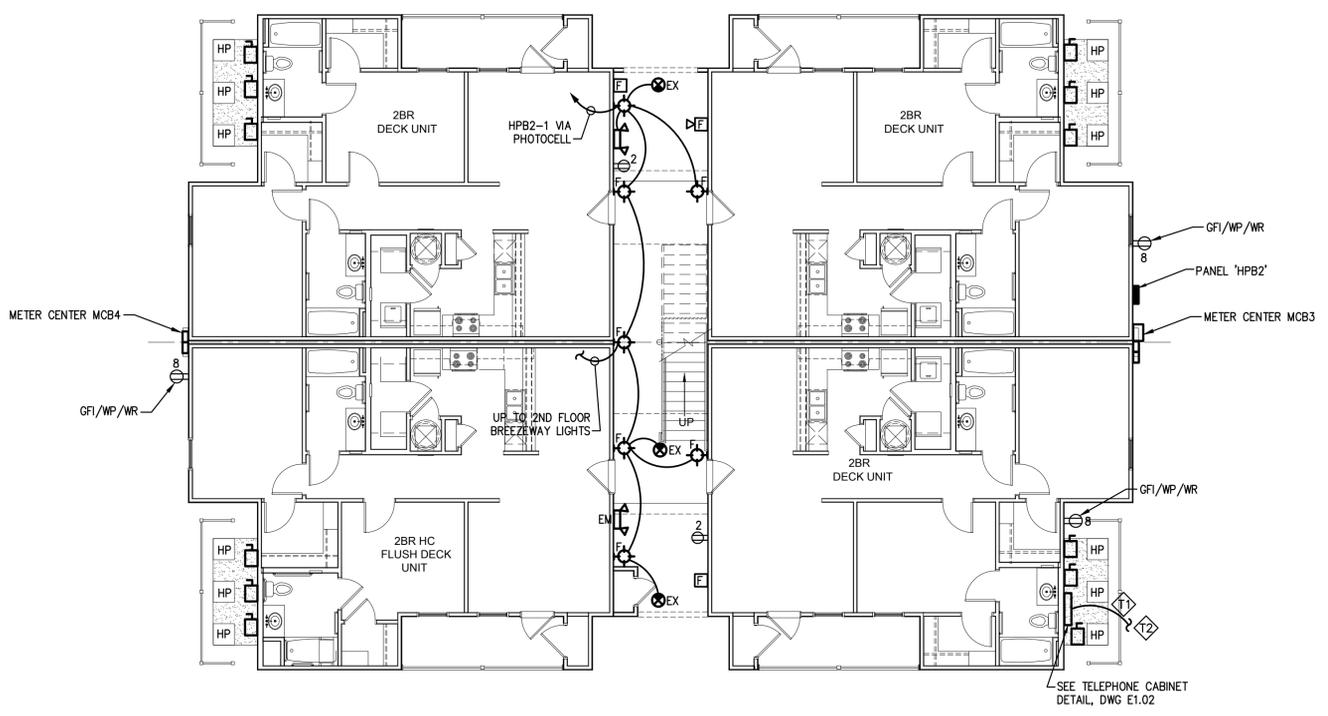
ALL BUILDINGS WITH AN ALARM SYSTEM ARE TO BE WIRED TO A SINGLE CONTROL/DIALING STATION.

INSTALL HORN/STROBE ALARMS IN H.C. UNITS WHERE INDICATED ON H.C. PLAN. (ALL BEDROOMS, BATHROOMS AND LIVING ROOMS.)

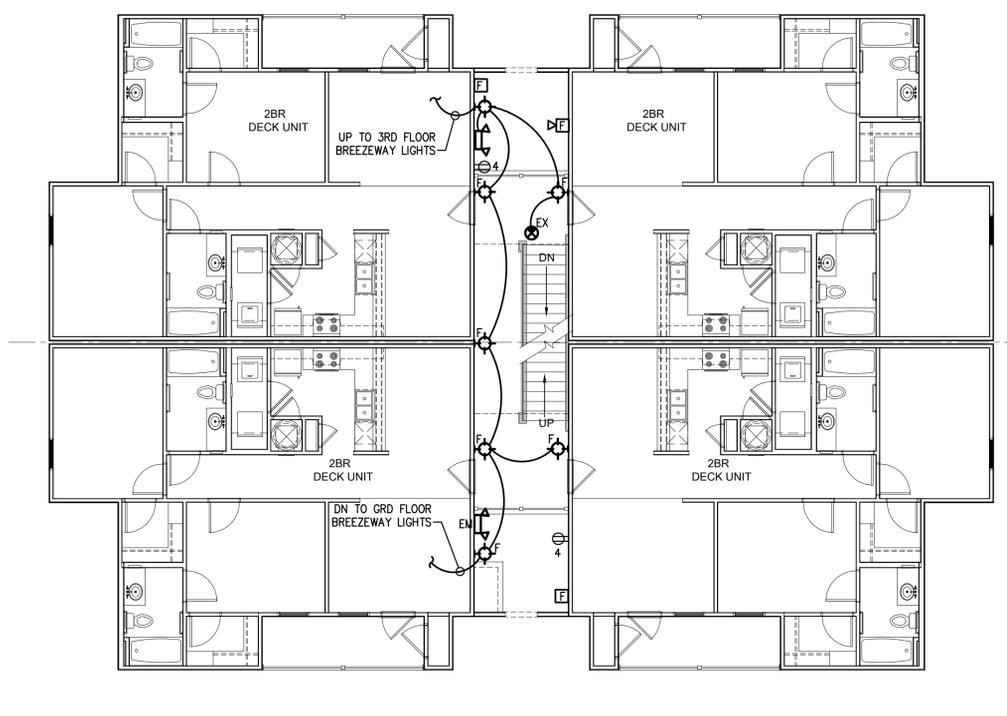
SEE DRAWING E1.01 FOR FIRE ALARM NOTES, LEGEND AND RISER DIAGRAM.

OVERALL BUILDING (HOUSE) ELECTRICAL NOTES:

1. ALL BRANCH CIRCUIT 'HOUSE' WIRING SHALL BE #10 AWG UNLESS NOTED OTHERWISE. QUANTITY OF WIRES SHALL BE AS REQUIRED TO ACCOMPLISH THE CIRCUITRY AND SWITCHING INDICATED. ALL EMERGENCY LIGHTING SHALL BE FED 'HOT' WITH AN UNSWITCHED CONDUCTOR OF LOCAL EXTERIOR LIGHTING CIRCUIT.
2. ALL LIGHTING FIXTURES, OUTLETS AND EQUIPMENT ON THIS PLAN SHALL BE WIRED TO PANEL 'HPB' AND CIRCUIT AS INDICATED, UNLESS NOTED OTHERWISE.
3. ALL BREEZEWAY LIGHTS SHALL BE FED FROM PANEL 'HPB' AND CONTROLLED VIA A PHOTOCELL.
4. SEE BEDROOM APARTMENT PLANS HVAC EQUIPMENT FEEDER SCHEDULES FOR HVAC UNIT FEEDER INFORMATION.
5. A BUILDING MAY HAVE MORE THAN ONE ELECTRICAL SERVICE PER N.E.C. ARTICLE 230, SECTION 2 (c) (1).
6. BUILDING METERING & LOCATIONS AS PER LOCAL CODES & LOCAL POWER COMPANY. PREFERRED LOCATIONS ARE SHOWN. COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS.
7. FOR GENERAL ELECTRICAL NOTES AND DETAILS, SEE DRAWINGS E1.01 & E1.02.



1 BUILDING TYPE 'B2' - GROUND FLOOR PLAN
1/8" = 1'-0"
BUILDING #3,4 & 5



1 BUILDING TYPE 'B2' - SECOND & THIRD FLOOR PLAN
1/8" = 1'-0"
BUILDING #3,4 & 5

No.	Date	Description
-	-	-
A	03/18/19	FOR PERMIT
Job Number: 2017_13		
File Reference:		
Scale:		AS NOTED
SEAL		date 03/18/2019

PINE COURT APARTMENTS
BEAUFORT, SOUTH CAROLINA

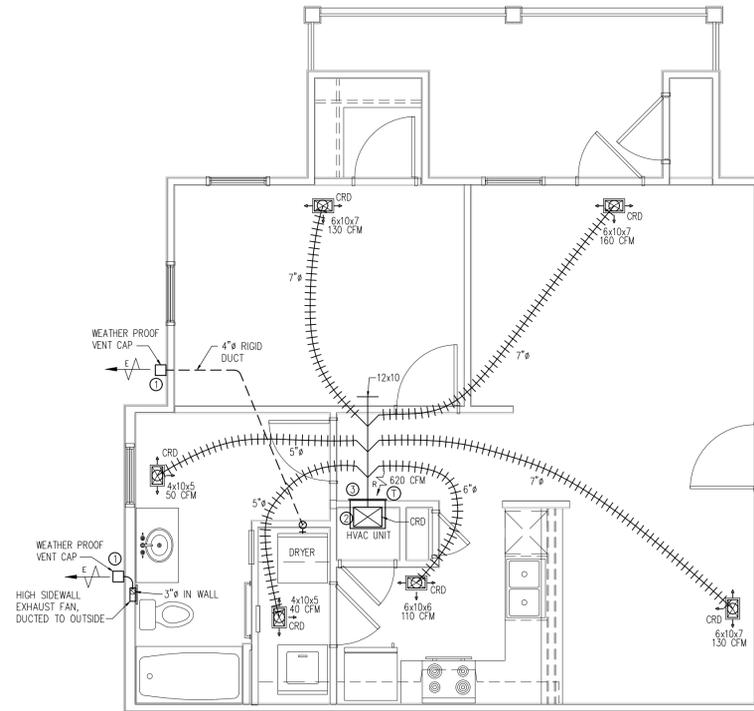
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BLDG B2
GROUND, SECOND & THIRD FLOOR PLANS

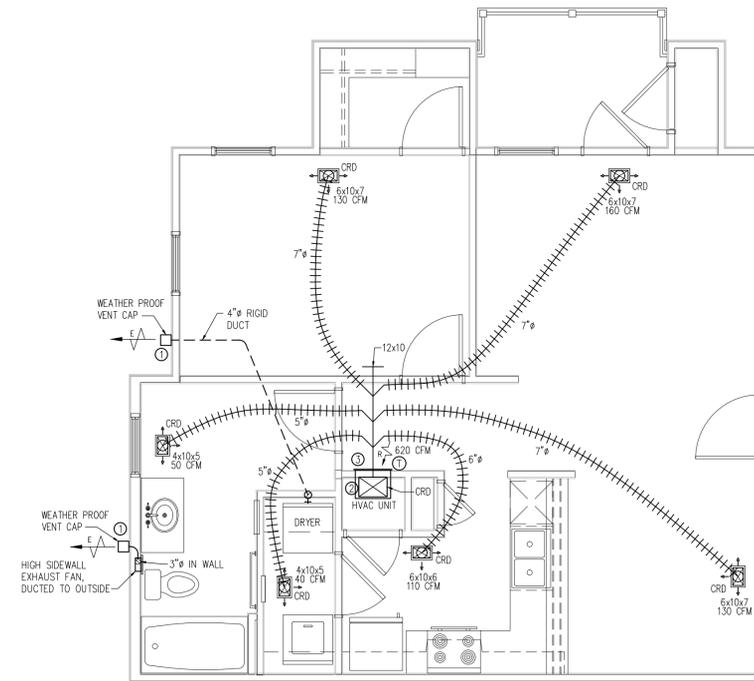
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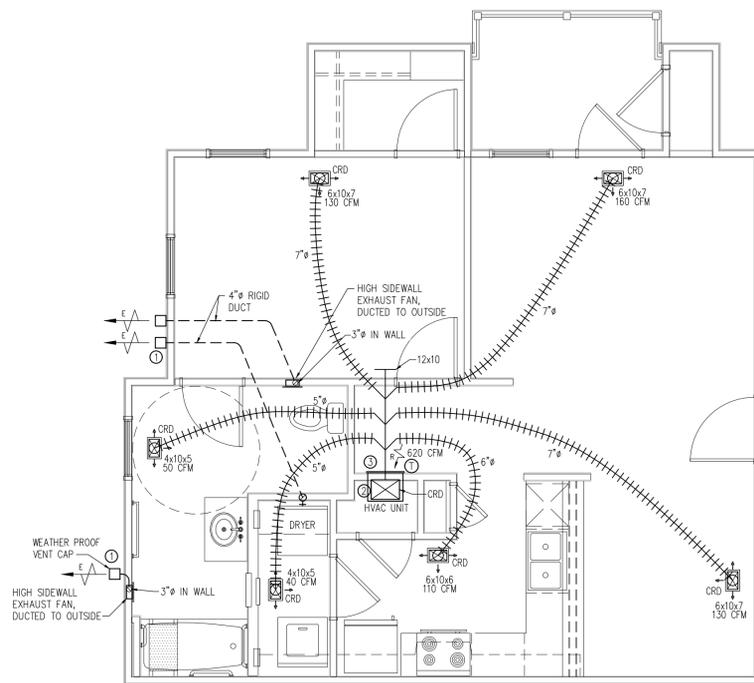
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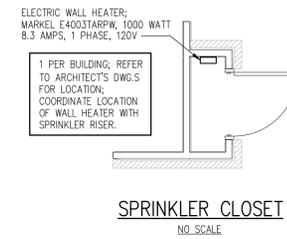
1 BEDROOM- HVAC PLAN
SCALE 1/4" = 1'-0"



1 BEDROOM- HVAC PLAN
SCALE 1/4" = 1'-0"



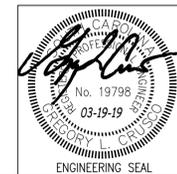
1 BEDROOM - HANDICAP - HVAC PLAN
SCALE 1/4" = 1'-0"



SPRINKLER CLOSET
NO SCALE

- PLAN NOTES**
- ① COORDINATE PLACEMENT OF EXHAUST VENT CAPS WITH OTHER TRADES FOR A UNIFORM AND NEAT APPEARANCE. LOCATE VENT CAPS A MINIMUM OF 6" CLEAR OF EACH OTHER OR STRUCTURAL MEMBERS, BUILDING CORNERS, ETC.
 - ② FURNISH STACK HEAD DUCT SAME SIZE AS UNIT DISCHARGE.
 - ③ FURNISH FACTORY WALL ACCESS RETURN PANEL.

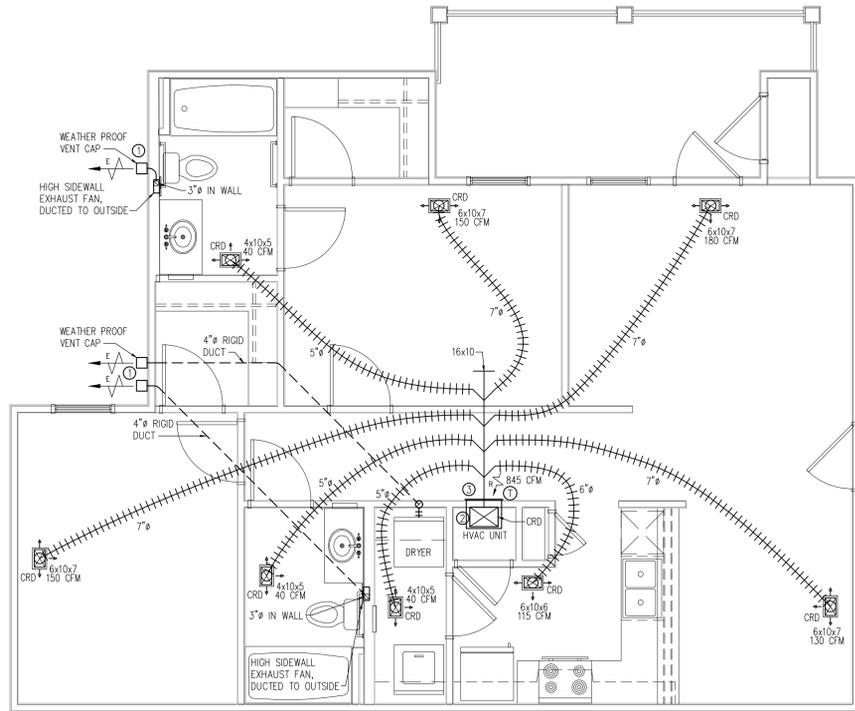
- HVAC SYMBOLS**
- SUPPLY DUCT IN SECTION
 - RETURN AIR DUCT IN SECTION
 - DUCT SIZE: FIRST DIMENSION AS VIEWED
 - CEILING REGISTER
 - EXHAUST AIR
 - RETURN AIR
 - THERMOSTAT
 - SIDEWALL EXHAUST FAN
 - FLEXIBLE AIR DUCT
 - CRD CEILING RADIATION DAMPER
 - UC GENERAL CONTRACTOR TO UNDERCUT DOOR 3/4"



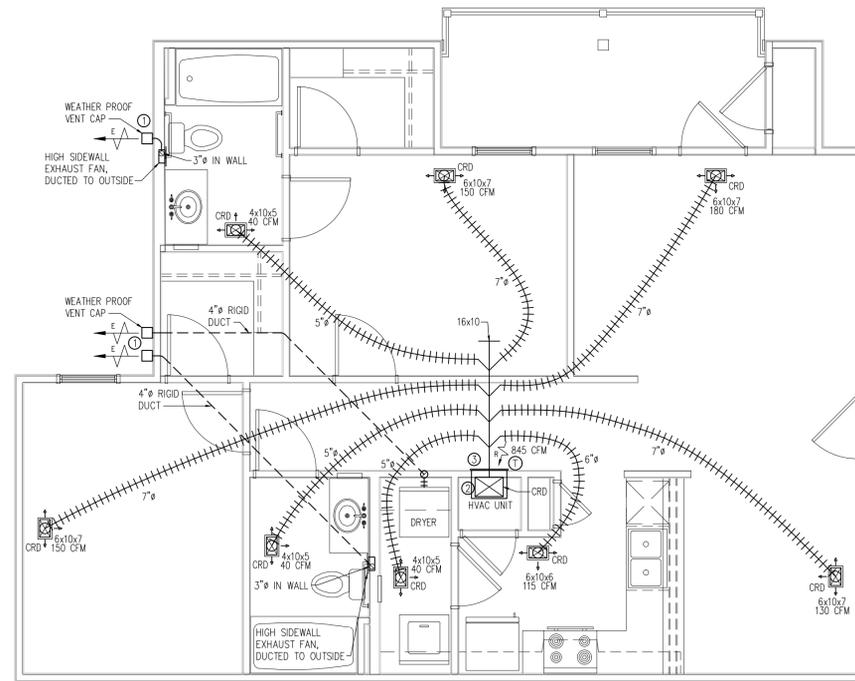
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ISSUE	DATE	DESCRIPTION
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M1

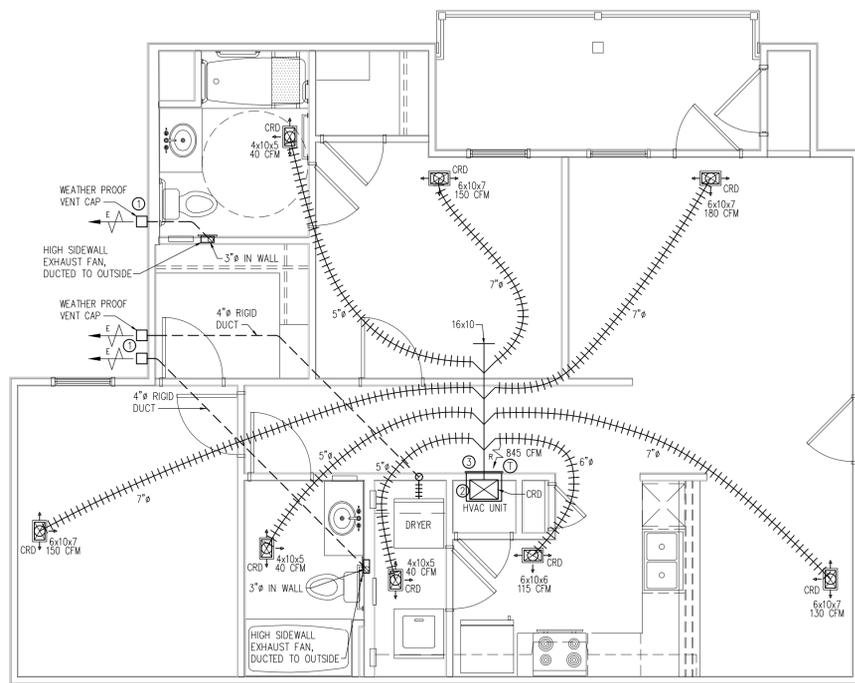
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2 BEDROOM- HVAC PLAN
SCALE 1/4" = 1'-0"



2 BEDROOM- HVAC PLAN
SCALE 1/4" = 1'-0"

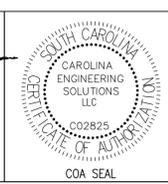
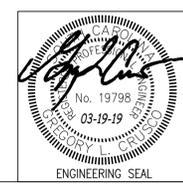


2 BEDROOM - HANDICAP - HVAC PLAN
SCALE 1/4" = 1'-0"

- PLAN NOTES**
- COORDINATE PLACEMENT OF EXHAUST VENT CAPS WITH OTHER TRADES FOR A UNIFORM AND NEAT APPEARANCE. LOCATE VENT CAPS A MINIMUM OF 6" CLEAR OF EACH OTHER OR STRUCTURAL MEMBERS, BUILDING CORNERS, ETC.
 - FURNISH STACK HEAD DUCT SAME SIZE AS UNIT DISCHARGE.
 - FURNISH FACTORY WALL ACCESS RETURN PANEL.

HVAC SYMBOLS

- SUPPLY DUCT IN SECTION
- RETURN AIR DUCT IN SECTION
- DUCT SIZE: FIRST DIMENSION AS VIEWED
- CEILING REGISTER
- EXHAUST AIR
- RETURN AIR
- THERMOSTAT
- SIDEWALL EXHAUST FAN
- FLEXIBLE AIR DUCT
- CRD CEILING RADIATION DAMPER
- UC GENERAL CONTRACTOR TO UNDERCUT DOOR 3/4"



PROJECT:		PINE COURT APARTMENTS BEAUFORT, SC	
0	3/19/2019	ISSUED FOR REVIEW	
ISSUE	DATE	DESCRIPTION	PROJECT: 19075

M2

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AIR HANDLER UNIT SCHEDULE											
APARTMENT TYPE	MANUFACTURER	MODEL NO.	INDOOR FAN				ELECTRICAL				
			CFM	ESP	KW	STEPS	VOLTS	PHASE	FREQ.	MCA	MOCP
1 BEDROOM UNITS	GOODMAN	AWUF31-0516A	620	.50	5	1	230	1	60	30.1	35
2 BEDROOM UNITS	GOODMAN	AWUF31-0516A	845	.50	5	1	230	1	60	30.1	35

NOTE: EXTERNAL STATIC PRESSURE INCLUDES DUCTS AND GRILLES. MANUFACTURER SHALL ADD FOR ALL INTERNAL LOSSES.

HEAT PUMP UNIT SCHEDULE																		
APARTMENT TYPE	MANUFACTURER	MODEL NO.	NOMINAL REFRIG. (TONS)	SEER	HSPF	COOLING					HEATING		ELECTRICAL					
						ENTERING AIR		COND.	SENSIBLE MBH	TOTAL MBH	OUTSIDE AIR	INSIDE AIR	VOLTS	PHASE	FREQ.	MCA	MOCP	
						D.B.	W.B.											80F
1 BEDROOM UNITS	GOODMAN	GS214-018	1.5	14.5	8.2	80F	67F	95F	13.6	17.2	17F	70F	10.3	230	1	60	12.4	20
2 BEDROOM UNITS	GOODMAN	GS214-024	2.0	14.5	8.2	80F	67F	95F	18.2	22.8	17F	70F	14.5	230	1	60	14.7	25

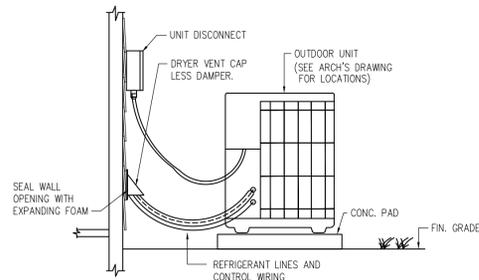
NOTE: CONTRACTOR SHALL PERMANENTLY IDENTIFY OUTDOOR UNITS TO MATCH ASSOCIATED INDOOR AIR HANDLER BY APARTMENT NUMBER. REFER TO ARCHITECT'S PLAN FOR LOCATIONS.

EXHAUST FAN SCHEDULE										
MODEL NO.	MANUFACTURER	CFM	ESP (IN. WG)	MOTOR AMPS	SONES	MOUNTING	VOLTS	ELECTRICAL PHASE	FREQ.	SCHEDULE NOTES
LPN80	NUTONE	70	.175	.3	1.1	CEILING	120	1	60	1,2

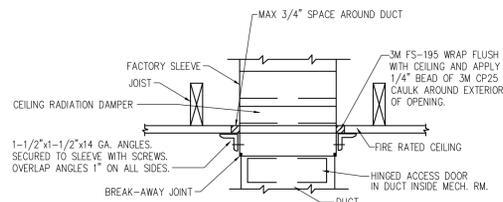
1. FURNISH LOCAL DISCONNECT, BACKDRAFT DAMPER, HOODED WALL VENT AND RDF1 CEILING RADIATION DAMPER.
2. TOILET FAN SHALL BE WIRED THROUGH LIGHT SWITCH BY ELECTRICAL SUBCONTRACTOR.

GENERAL NOTES

- ALL WORK & MATERIALS SHALL BE IN ACCORDANCE WITH THE 2015 INTERNATIONAL MECHANICAL CODE & ANY LOCAL REGULATIONS.
- REGISTERS/BRANCH DUCT IS SIZED FOR LISTED CFM.
- FLEXIBLE AIR DUCT TO BE FIRE/SMOKE TESTED PRODUCT, APPLICABLE FOR THIS INSTALLATION.
- FLEXIBLE AIR DUCT TO BE RUN IN CONTINUOUS LENGTHS. (NO SPLICING) SHALL BE SUPPORTED MIN. EVERY 5'. SAG RATIO TO BE MAX. 1/2":1'-0"
- PLUMBING CONTRACTOR SHALL STUB LINE IN CLOSET RISER FOR AC DRAIN. MECHANICAL CONTRACTOR TO CONNECT DRAIN TRAP TO STUB-OUT. COORDINATE HEIGHT FROM FINISHED FLOOR WITH PLUMBING CONTRACTOR.
- REFRIGERATION LINE SETS TO BE RUN CONTINUOUSLY BETWEEN FLOORS AND EXITED OUT OF BUILDING THROUGH EXTERIOR WALL.
- REFRIGERATION LINE SETS TO RUN UP IN INTERIOR WALLS. INSULATE SUCTION LINES AS REQUIRED BY CODE IN AREAS WHERE SWEATING MAY OCCUR.
- ALL REGISTERS ARE TO BE PREFINISHED W/ COLORS TO BE SELECTED BY OWNER.
- PROVIDE EXTERIOR WEATHERPROOF CAPS FOR DRYER DUCT TERMINATIONS. CAP SHALL BE WHITE AT SOFFIT OUTLETS; COLOR MATCHED AT BRICK/SIDING OUTLETS. DRYER DUCT SHALL BE RIGID METAL. DUCTWORK SHALL HAVE NO SCREWS, SCREENS, ETC. OBSTRUCTING FLOW.
- PROVIDE CEILING RADIATION DAMPERS AT ALL PENETRATIONS OF RATED CEILINGS. (EXCEPTION: DRYER EXHAUST). SEE DETAILS.
- DUCT LOCATIONS MAY VARY SLIGHTLY DUE TO TRUSS CHORD LOCATIONS.
- THIS DRAWING PREPARED AND REVIEWED FOR CONFORMANCE TO NEPA-80A FOR FIRE DAMPERS AND SMOKE DETECTORS. SEE ELEC. DWGS FOR SMOKE DETECTOR LOCATIONS.
- HVAC UNITS MUST COMPLY WITH SECTIONS, 6100, FIRE PROTECTION OF DUCTS, AND 304.8, CONDENSATE AND AUXILIARY CONDENSATE PIPING AND PANS.
- HVAC SUBCONTRACTOR TO COORDINATE W/ FRAMING SUBCONTRACTOR
- ALL OPENINGS IN DUCTWORK AT REGISTERS AND GRILLES MUST BE COVERED AFTER INSTALLATION TO KEEP OUT DEBRIS DURING CONSTRUCTION.

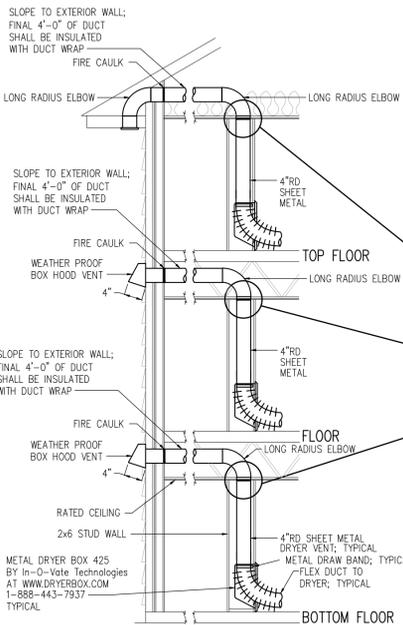


DETAIL OF REFRIGERANT LINES AT EXTERIOR WALL
NO SCALE

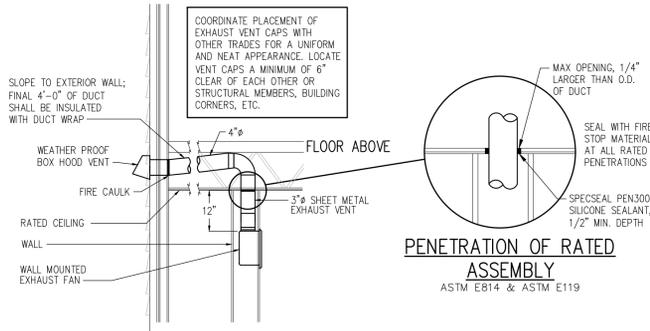


DUCT FIRESTOPPING
NO SCALE

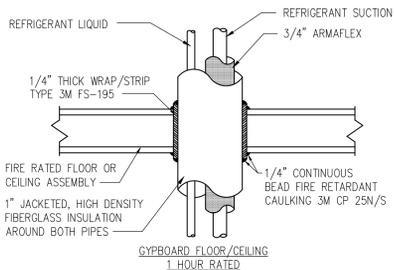
NOTE: ABOVE DETAIL IS TYPICAL FOR SUPPLY DUCTWORK CONNECTED TO AIR HANDLING UNITS.



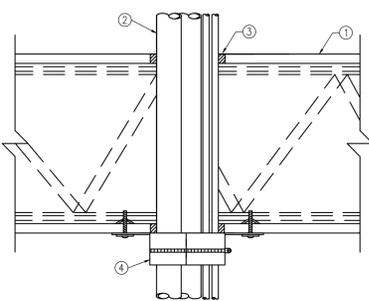
TYPICAL DRYER VENT DETAIL
NO SCALE



TYPICAL EXHAUST FAN DETAIL
NO SCALE

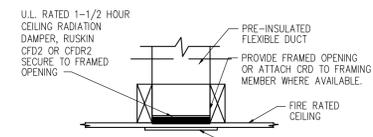


REFRIGERANT LINE FIRESTOPPING
NO SCALE



REFRIGERANT LINE FIRESTOPPING (MULTIPLE LINE SETS)
NO SCALE

- NOTES:
- ONE HOUR RATED WOOD FLOOR ASSEMBLY CONSISTING OF: GYPSUM BOARD MEMBRANE WITH FASTENERS AND/OR FURRING STRIPS AS REQUIRED BY RATED FIRESTOP DESIGN. JOISTS, STEEL OR COMBINATION LUMBER AND STEEL JOISTS, TRUSSES OR STRUCTURAL WOOD MEMBERS WITH BRIDGING AS PER THE INDIVIDUAL U.L. FLOOR-CEILING DESIGNS. PLYWOOD SUB-FLOOR WITH FINISHED FLOOR AS REQUIRED.
 - AC LINE SETS CONSISTING OF MULTIPLE: MAX. 3/4" STEEL, IRON OR COPPER PIPE OR TUBE WITH UP TO 1/2" AB/PVC FOAM PLASTIC PIPE INSULATION. MAX. 3/4" STEEL, IRON OR COPPER PIPE OR TUBE. MAX. 1" PVC OR CPVC PIPE (VENTED OR CLOSED). MAX. 4 PAIR NO. 18 AWG THERMOSTAT CABLE. ANNULAR SPACE BETWEEN PENETRANTS AND PERIPHERY OF OPENING IS 1/4" MIN. TO 3/4" MAX. NOMINAL 1/4" SPACE TO BE MAINTAINED AROUND TUBE INSULATION.
 - SPECSEAL® SERIES 100 SEALANT INSTALLED WITHIN TOP ANNULUS TO 3/4" DEPTH. MINIMUM 5/8" DEPTH OF SEALANT APPLIED WITHIN BOTTOM OF ANNULUS. SEALANT TO BE FORCED INTO INTERSTICES OF GROUPED PENETRANTS TO MAX. EXTENT.
 - SPECSEAL® SSWRD WRAP STRIP, ONE LAYER WRAPPED AROUND PENETRANT BUNDLE, ENCRICLE WITH 30 GAUGE STEEL RESTRAINING COLLAR (SSWRC2). SECURE COLLAR WITH THREE #8x1/4" LONG SHEET METAL SCREWS OR ONE STAINLESS STEEL HOSE CLAMP. FASTEN COLLAR TO CEILING WITH FENDER WASHERS AND TOGGLE BOLTS.
 - PRODUCTS USED IN THIS DESIGN SYSTEM HAVE BEEN TESTED AS FOLLOWS: ASTM E814 (UL1479). REFER TO SYSTEM NO. FC-8010 ASTM E119 (TIME/TEMPERATURE EXPOSURE) (COTTON WASTE IGNITION) ANNULAR SPACE REQUIREMENTS



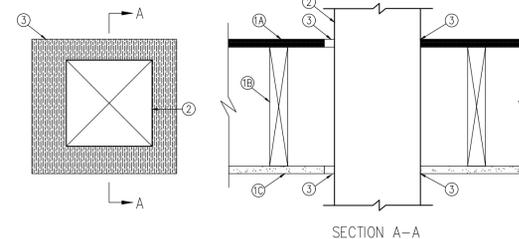
DETAIL OF CEILING RADIATION DAMPER
NO SCALE

INSPECTOR SHALL OBSERVE ALL RADIATION DAMPERS INSTALLED BEFORE FACE GRILLES ARE INSTALLED.

System No. F-C-7043

January 21, 2015

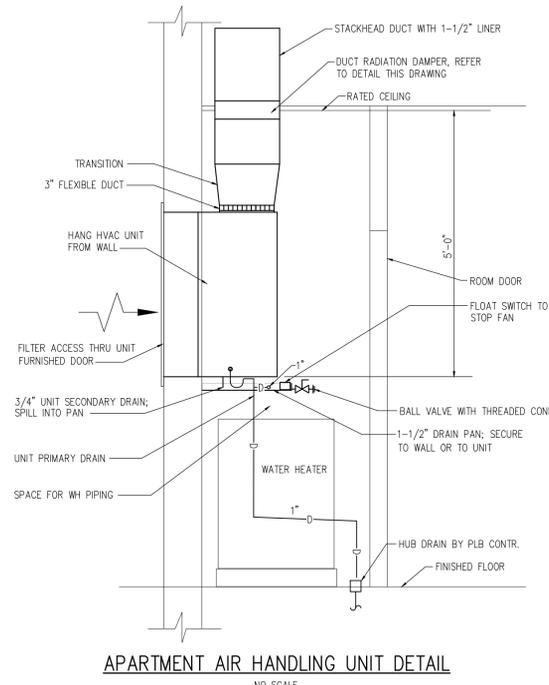
ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating - 1 Hr	F Rating - 1 Hr
T Rating - 1/4 Hr	FT Rating - 1/4 Hr
	FH Rating - 1 Hr
	FTH Rating - 1/4 Hr



- Floor Ceiling Assembly - The 1 hr fire rated solid or trussed lumber joist Floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The general construction features of the floor-ceiling assembly are summarized below:
 - A. Flooring System - Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture* as specified in the individual Floor-Ceiling Design. Max area of opening shall be 143 in.2 (923 cm2) with a max dimension of 13 in. (330mm).
 - B. Wood Joists* -Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members* with bridging as required and with ends firestopped.
 - C. Gypsum Board* -Min 5/8 in. (16 mm) thick as specified in the individual Floor-Ceiling Design. Gypsum board secured to wood joists or furring channels as specified in the individual Floor-Ceiling Design. Max area of opening shall be 143 in.2 (923 cm2) with a max dimension of 13 in. (330mm).
- Steel Duct -Max 12 by 10 in. (305 by 254 mm) No. 28 ga. (or heavier) galv steel duct to be installed either concentrically or eccentrically within the firestop system. The space between the steel duct and periphery of opening shall be min 0 in. (point contact) to max 1 in. (25 mm). Steel duct to be rigidly supported on both sides of the floor-ceiling assembly.
- Firestop System - Min 3/4 in. (19 mm) thickness of sealant applied within the annulus flush with the top surface of the floor. Min 5/8 in. (16 mm) thickness of sealant applied within the annulus flush with the bottom surface of gypsum board ceiling.

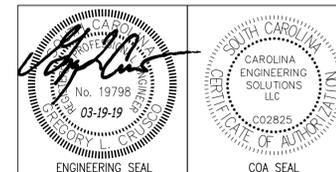
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC - CP 606 Flexible Firestop Sealant or FS-One Sealant or FS-ONE MAX Intumescent Sealant
* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively. ©2017 UL LLC

DUCT THRU PENETRATION FIRESTOP DETAIL
NO SCALE



APARTMENT AIR HANDLING UNIT DETAIL
NO SCALE

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PROJECT:	PINE COURT APARTMENTS BEAUFORT, SC		M3
ISSUE	DATE	DESCRIPTION	
0	3/19/2019	ISSUED FOR REVIEW	
ISSUE	DATE	DESCRIPTION	
PROJECT:	19075		

MECHANICAL SPECIFICATIONS

SECTION 15000 – GENERAL CONDITIONS

GENERAL:

The general provisions of the contract, including General and Supplementary Conditions and General Requirements apply to the work specified in this Section.

It shall be the duty of the contractors to familiarize themselves with the details of the general construction of the building. They shall cooperate with other trades in making the installation of the Heating, Ventilation and Air Conditioning systems as the job progresses.

The Contractor shall obtain at his own expense all permits for the prosecution of the work and shall deliver to the Owner all inspection certificates issued him without cost to the owner.

It shall be the duty of the prospective contractors to visit the job site and familiarize themselves with job conditions as no extras will be allowed because of additional work necessitated or changes in plans required by job conditions unless same is brought to the Architect's attention before letting of the Contract.

All materials and labor shall be in strict accordance with rules and regulations of the National Board of Fire Underwriters, State Building Codes and any and all local rules, laws, or ordinances covering or otherwise appertaining thereto.

The Contractor shall do all necessary cutting of walls, floors, roof, partitions, etc., to properly install work. The repair of all damage caused by cutting shall be done by the Contractor to the satisfaction of the Architect. Care shall be exercised in cutting to avoid unnecessary damage where openings in roof and walls are to be provided. Openings will be provided by the General Contractor, providing the Contractor locates same and advises the General Contractor in time to make the necessary arrangements.

The Contractor shall do all excavation and back filling required for the installation of work under these specifications. Bottom of trench for underground piping shall be excavated to an even, smooth grade.

PROCEDURES:

Three sets of installation and operating instructions on all heating and air conditioning equipment shall be obtained from the respective manufacturers and turned over to the Owner at the completion of the Contract. They shall be bound in notebooks bearing contractors name and address.

MATERIALS AND EQUIPMENT:

All materials and equipment shall be new and shall conform to the grade, quality and standards of those specified.

Immediately after the award of the Contract, and within thirty (30) days, a complete set of shop drawings, materials and equipment showing name of manufacturer shall be furnished the Mechanical Engineer for approval. Orders may be placed subject to the approval of the above list, but no material shall be delivered to the site until after approval has been received.

The following is a list of items which shall be included but not limited to the contractor's submission of material for approval:

MECHANICAL:

1. HVAC equipment
2. Air Distribution and Control Devices
3. Controls
4. Insulation
5. Flexible Duct

All equipment shall be installed in strict accordance with the manufacturer's printed instructions for type and capacity of each piece of equipment used. This Contractor shall obtain these instructions which shall be considered as a part of these specifications.

MECHANICAL GUARANTEE:

The Heating and Air Conditioning Contractor guarantees by his acceptance of this contract all materials, equipment and workmanship furnished and performed under specifications for a period of one (1) year from date of acceptance of the work. Any equipment, material, or workmanship proving defective during this guarantee period shall be replaced or repaired, as the case may be, at the expense of the contractor. Upon just demand by the Owner's representative, he shall promptly make good any defects brought to his attention. Such replacements and repair shall also be subject to inspection and approval by the Architect and shall be done in accordance with the same quality expected in these specifications.

The system shall be serviced during first year's warranty by Heating and Air conditioning contractor. This cost shall be included in the Heating and Air Conditioning Contract.

Owner to change filters. Contractor to furnish one set of filters. Contractor to furnish first year warranty on compressors and manufacturers extended four year parts warranty.

SECTION 15055 – POWER WIRING

ELECTRICAL:

All electric power wiring to motors and heaters shall be furnished and installed by Electrical Contractor.

All wiring to exhaust fans including fan switches shall be furnished and installed by Electrical Contractor. Program wiring shall be furnished and installed in galvanized conduit by Mechanical Contractor.

MOTORS:

All motors shall be single phase, 60 cycle, 120/208/240 volt, 1750 RPM up to 1/2 HP unless otherwise noted. Motors 1/2 HP and up shall be three phase, 60 cycle, 208 volt. All motors shall be 40°C rise, drip proof and equipped with hand operated grease cups. Motors shall be G.E. Refer to equipment schedule for exact phase and voltage.

SECTION 15060 – PIPE, TUBE, AND FITTINGS:

PVC PIPE AND FITTINGS:

All condensate drains shall be Schedule 40 PVC DWV pipe and fittings meeting requirements of ASTM D-2665-82. Pipe shall be marked with ASTM identification and bear NSF seal of approval.

FITTINGS:

A. Refrigerant Pipe: All refrigerant piping shall be dehydrated refrigerant tubing with silver soldered connections. Furnish accessories as required based on length of installation.

NAME TAGS:

All equipment and controls shall be tagged by Mechanical Contractor with 2-1/2" identification plate as manufactured by Seton Name Plate Company. Tags shall be riveted to equipment and controls identifying equipment number to match schedule on drawings.

SECTION 15785 – MECHANICAL EQUIPMENT

GENERAL:

Furnish and install units having minimum capacity as indicated on Drawings.

Compressor shall have five (5) year warranty.

Units shall be Trane, Carrier, McQuay, York or approved equal.

SPLIT SYSTEM HEAT PUMP

A. Inside Unit: Unit shall be complete with evaporator coil fan, motor, drain pan, controls refrigerant metering devices, valves, filter, etc., all housed in baked-on finish insulated cabinet. Mount unit on vibration isolators as indicated on the drawings or furnish wall sleeve on apartment units with integral return air grille.

B. Electric Heat Coil: Shall be furnished by unit supplier and be wired to terminal block with fusible links and manual and automatic reset limit switches. Heater shall have stages as shown on schedule. Built-in transformer shall provide power for controls and indoor blower. Electric heater shall be designed to fit in discharged of inside unit. Electric heater shall be UL approved and shall have air pressure differential switch.

C. Outside Unit: Outside unit shall be mounted on ground where indicated on drawings. Compressor shall be of the hermetic type with vibration isolation. Condenser coil shall be copper with aluminum fins. Condenser fan shall be direct drive, propeller type for vertical discharge. Controls shall consist of internal and external current and thermal overloads built-in compressor motor; anti-cycle high and low pressure switches; suction line accumulator; pressure relief valve; filter-drier; crank case heater; defrost cycle; change over valves; and sight glass. Outdoor thermostat set at 40° shall prevent electric heat from operating. See "controls".

SECTION 15890 – DUCTWORK

DUCTWORK:

Fabricate ductwork in a workmanlike manner with air tight joints and presenting a smooth surface on the inside and neatly finished on the outside. Construct with curves and bends to aid in flow of air. Use double thick metal duct turns on turns. Make inside radius of curves and bends not less than width of duct unless space limitations prohibit it.

Duct dimensions shown on drawings are Net Inside Free Area. Add thickness of insulation to obtain the exact metal size.

A. Sheet metal Low Pressure Ductwork: All low pressure ducts shall be constructed in accordance with "Low Velocity Standards" as published by SMACNA. Round duct shall be Snap-Loc.

Ductwork, unless otherwise noted, shall be galvanized sheet steel of not less than the following gauges:

Up to 30" wide.....24.

31" to 60" wide.....22.

Joints shall be fabricated air tight with the following type of joints:

Up to 24" wide use drive slip joint.

25" to 30" wide use bar slip joints.

All ducts of 12" width shall be cross broken.

Ducts shall be suspended from building structure with the following type of hangers: Up to 40" wide use band iron hangers.

B. Insulation: All insulation shall be applied by workmen regularly engaged in the application of insulation. Surfaces shall be thoroughly cleaned before insulation is applied. The various services and equipment shall be insulated with materials as specified below.

Wrap all rectangular supply & return air ducts with R-6 fiberglass duct insulation with anti-microbial facing. Insulation shall be secured to ducts with adhesive and welding pins. Insulation and adhesive shall meet all requirements of NFPA. Duct dimensions on drawings are Net Inside Free Area. Use R-8 insulation in attic areas.

Duct wrap shall be cut to form 2" overlap, which shall be stapled approximately 6" on center with outward cinching staples. Seams shall then be sealed with mastic to provide a vapor tight system.

Insulate return air plenums with R value of 6, (R-8 in attics) Non-fibrous duct liner secured to the metal duct with welding pins and adhesive. Contractor shall account for size increase to add liner.

Round ducts shall be wrapped with 2.3" thick, R value of 6, (R-8 in attics) Fiberglass duct insulation with reinforced foil draft (FRK) vapor barrier facing. Refer to paragraph below for additional insulation requirements.

Duct wrap shall be cut to form 2" overlap, which shall be stapled approximately 6" on center with outward cinching staples. Seams shall then be sealed with mastic to provide a vapor tight system.

MASTIC AND GLASS FABRIC

Mastic meeting listed closure requirements of UL 181 – Cadsprene 725.

All longitudinal and circumferential joints must be stapled with outward flaring 1/2" minimum staples approximately 2" on centers.

Brush second coat of mastic over glass fabric until completely filled.

Allow joints to dry for 24 hours before pressurizing system.

C. Round Flexible Duct: Shall be Type SM as manufactured by Flexmaster. Assembly shall be listed and labeled in accordance with UL-181, Class 1, Air Duct Material. Provide sheet metal takeoff with Twist-Lock for connection to ductwork with hand damper and suitable for flexible duct take off or round duct extension. Flexible duct shall not be used in any areas where exposed to view. Secure flexible duct to take-off with metal draw-band and coat with mastic.

D. Duct Openings: General Contractor shall form all duct openings through roof. Heating and Air Conditioning Contractor shall furnish exact dimensions.

E. Fire Dampers: Furnish where indicated Ruskin or equal. Ceiling Radiation Fire Dampers at all ceiling penetrations of rated assembly by supply or return air grilles and ductwork. Furnish access door at duct penetrations.

SECTION 15952 – CONTROLS

GENERAL:

The control system throughout the building shall consist of electric-electronic solid state control system; shall be complete as specified herein. The control system shall include all relays, transformers, switches, valves, and all necessary auxiliary equipment to function in accordance with the following specifications.

This contractor shall furnish and install thermostats and include all required wiring.

ELECTRIC WIRING:

Unless otherwise noted, all control and interlock wiring shall be furnished and installed in galvanized conduit by the Mechanical Contractor.

A. Sequence of Operation

LEASING BUILDING

1. Heating/Cooling Equipment:

Wall programmable (7 day) thermostat with battery back-up and System On-Off; Heat-Cool-Auto; Fan-On/Auto shall operate system to maintain space conditions in the mode as indicated. Thermostats shall be White Rodgers or equal. Furnish emergency heat switch under cover. Supply fan shall run continuously.

2. Exhaust Fan: See fan schedule for operation.

APARTMENTS

1. Heating/Cooling Equipment:

Wall thermostat with System On-Off; Heat-Cool-Auto; Fan-On/Auto shall operate system to maintain space conditions in the mode as indicated.

2. Exhaust Fan: Fan shall run intermittently through bathroom light switch by Electrical Contractor.

SECTION 15960 – AIR DISTRIBUTION

GRILLES, DIFFUSERS AND REGISTERS:

Furnish and install, where shown on drawings, air diffusion devices in accordance with the following specifications.

All supply and return air grilles shall be furnished with opposed blade damper. Air distribution shall be Hart & Cooley, Price, Barber-Coleman, Krueger, Cody, Selkirk or Carnes

LEASING BUILDING

Square Ceiling Supply Air Grilles: Price SMDA Adjustable Square Diffuser with Type 3 opposed blade damper, Type SR round neck adapter, white finish, Type 36 frame for lay-in installation, Type 1 frame for surface mounting.

Ceiling Return Air Grilles: Price PDDR Perforated Return Grille with white with opposed blade damper. Refer to architect's drawings for ceiling types. Finish, Type 3 frame for lay-in installation, Type 1 frame for surface mounting

APARTMENTS

Ceiling Supply Air Grilles: Selkirk Airmate 140 3-way register with white finish.

SideWall Return Air Grilles: HVAC Unit Factory Return

EXHAUST FANS:

Furnish and install centrifugal aluminum exhaust fans where shown on drawings. Fans shall have minimum capacity as shown in Schedule.

Fans shall be furnished with built-in disconnect switch, backdraft damper and roof, wall or eave vent. Refer to plans.

Fans shall be Nutone, Broan, Cook, or Greenheck.

SECTION 15953 – CLEANING AND BALANCING

CLEANING SYSTEM

After each section of the system is completed and before installation of air units, etc., this Contractor shall thoroughly flush and clean the piping and ducts for the purpose of removing all grit, grease, scale, debris, etc. The General Contractor shall be responsible for verification of this requirement. Should the General Contractor desire to use the System prior to the final inspection then the General Contractor shall furnish additional sets of filters as required to maintain clean filters in each unit. Filters shall be checked daily.

BALANCING

All forced circulation air systems shall be balanced by adjusting the balancing devices to produce a uniform circulation.

Balancing shall be done by the Mechanical Contractor. Submit report before final inspection. All air systems shall be balanced to within 10% of CFM shown.

OPERATING TESTS

The Contractor shall demonstrate, by actual tests in the presence of the Owner's and Architect's Representative that the following requirements have been fulfilled:

That air is distributed through all ducts in accordance with air quantities shown on drawings.

That all apparatus with moving parts operates without objectionable noise.

That all other material and equipment not mentioned in the above paragraph shall meet in all respects the requirements of the specifications and the uses for which the material and equipment were installed. That the automatic controls, etc. are all positive and prompt in operation.

The General Contractor shall provide electric current, etc. for operating the equipment during tests. This Contractor shall supply all the necessary skilled labor for tests.

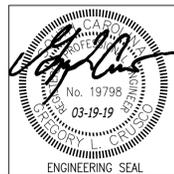
After work has been completed, tested and adjusted and approved, test systems for five 8-hour days under normal operating conditions to demonstrate that they fulfill requirements of plans and specifications and that they operate satisfactorily.

Test system for proper functioning of operating devices.

OPERATING INSTRUCTIONS

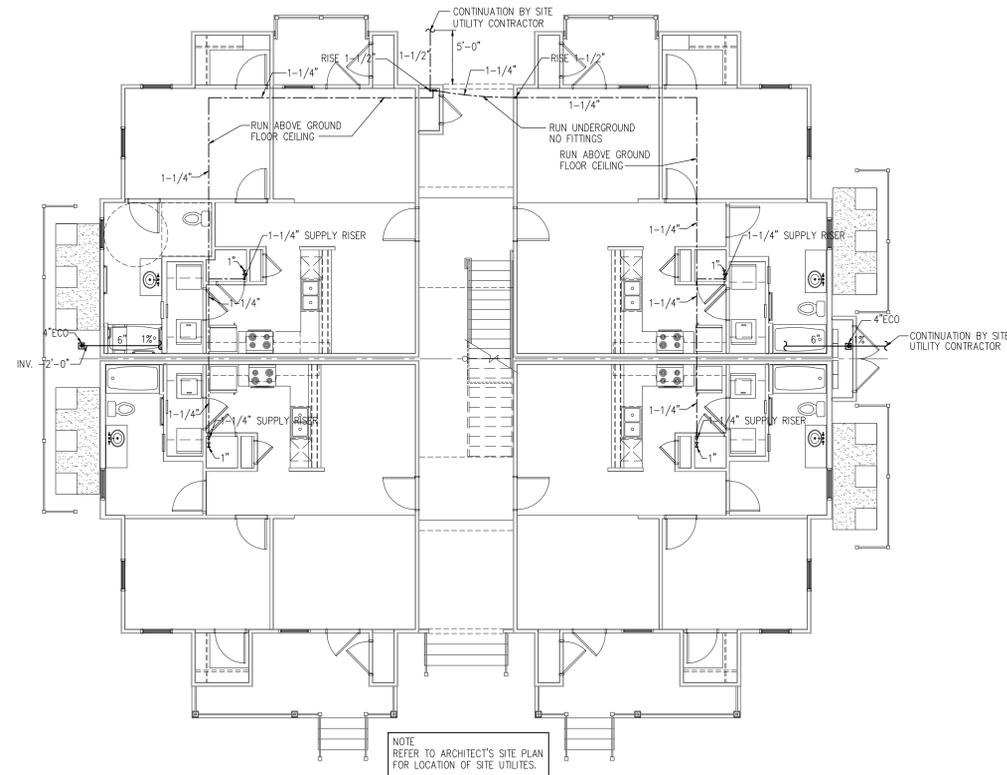
The Heating and Air Conditioning Contractor shall instruct the Owner's Representative carefully in operation of the entire system so that the function of the plant can be thoroughly and satisfactorily accomplished. Certificates, service guarantee and operating instructions shall be posted in the respective areas.

All equipment shall be properly tagged as specified under Identification Tags. Heating and Air Conditioning Contractor shall furnish the Architect with a signed statement from the Owner's Representative to the effect that the operation of the system is thoroughly understood and that labeled designation of the parts in the system is sufficiently understood for making minor adjustments in the operations.

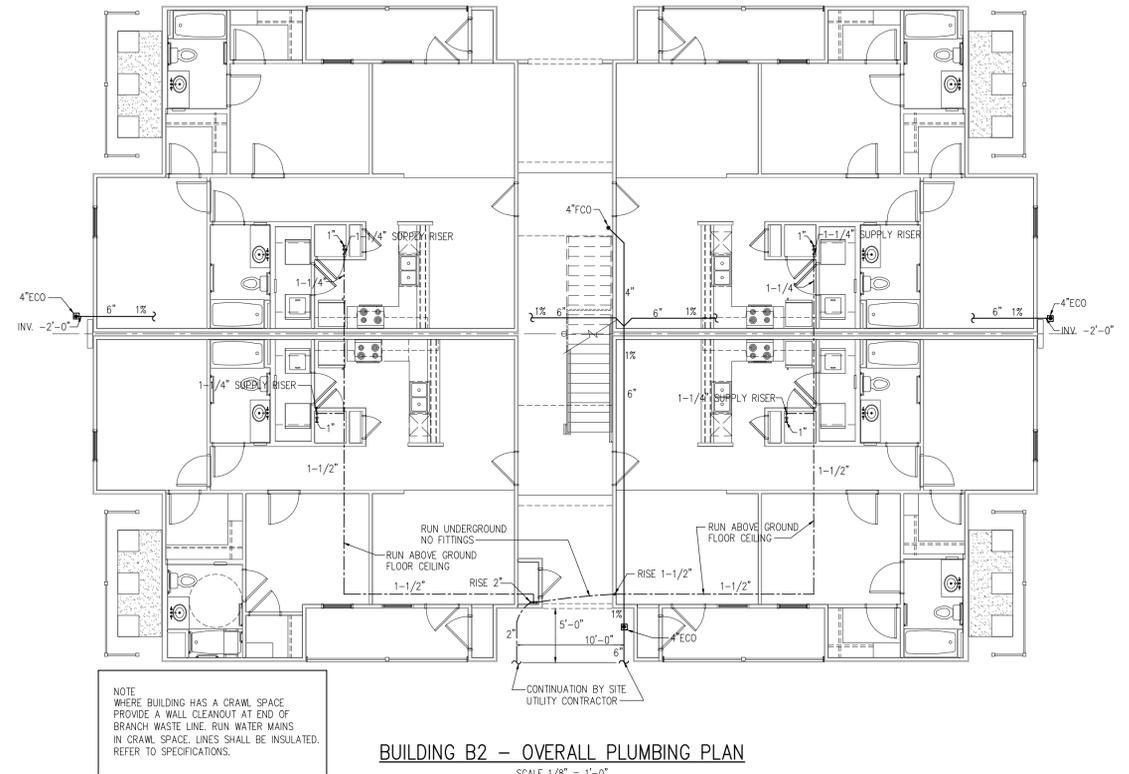


PROJECT:		PINE COURT APARTMENTS BEAUFORT, SC		M5
0	3/19/2019	ISSUED FOR REVIEW		
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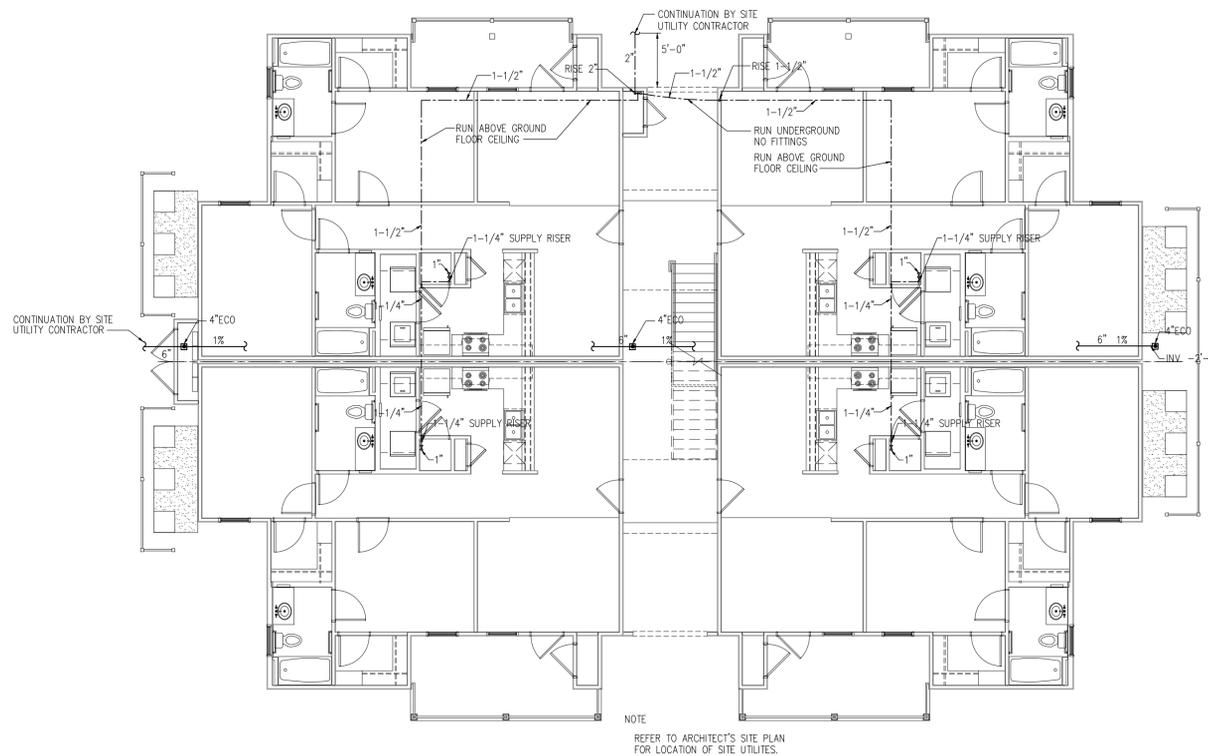
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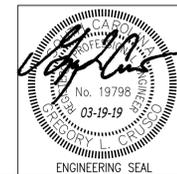
BUILDING A – OVERALL PLUMBING PLAN
SCALE 1/8" = 1'-0"



BUILDING B2 – OVERALL PLUMBING PLAN
SCALE 1/8" = 1'-0"



BUILDING B1 – OVERALL PLUMBING PLAN
SCALE 1/8" = 1'-0"



CES
Carolina ENGINEERING SOLUTIONS, LLC

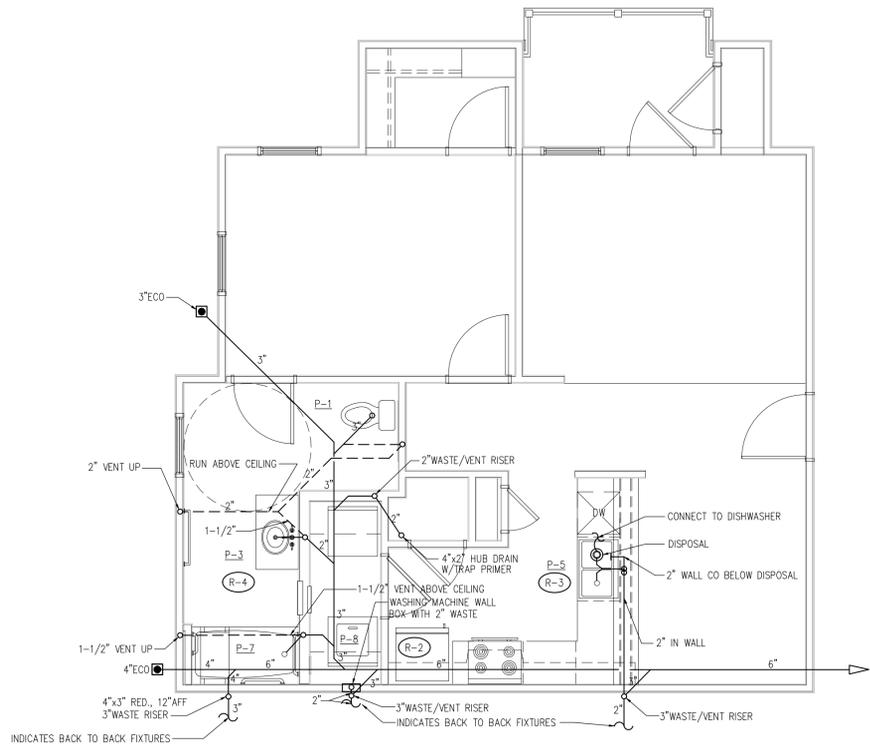
8 WEST MeBEE AVE, Suite 203
Greenville, SOUTH CAROLINA 29601
PH: (864) 370-9355 FAX: (864) 370-9505
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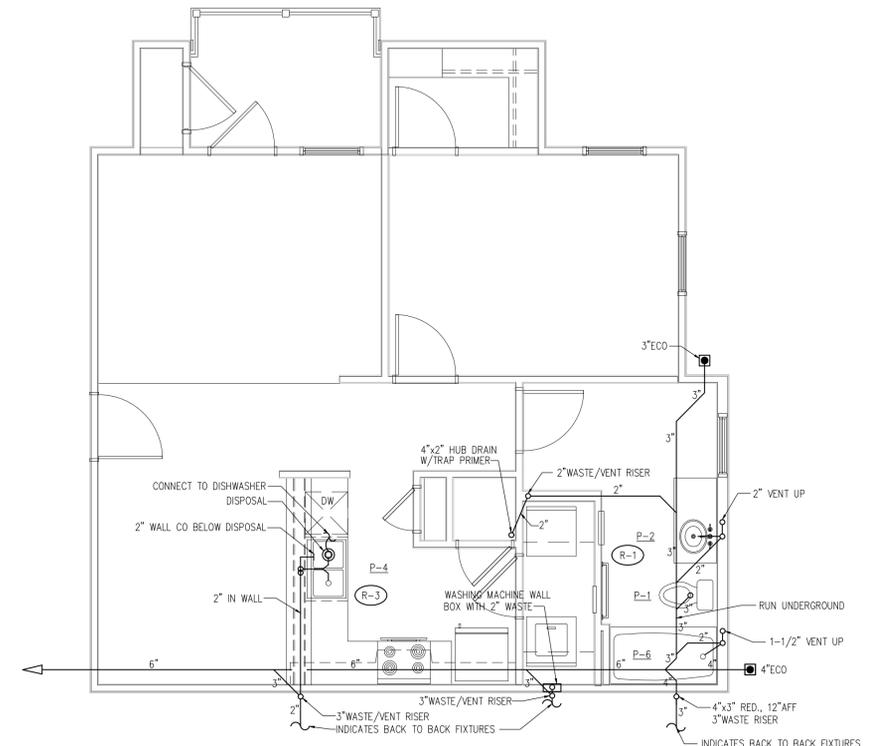
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PROJECT: 19075

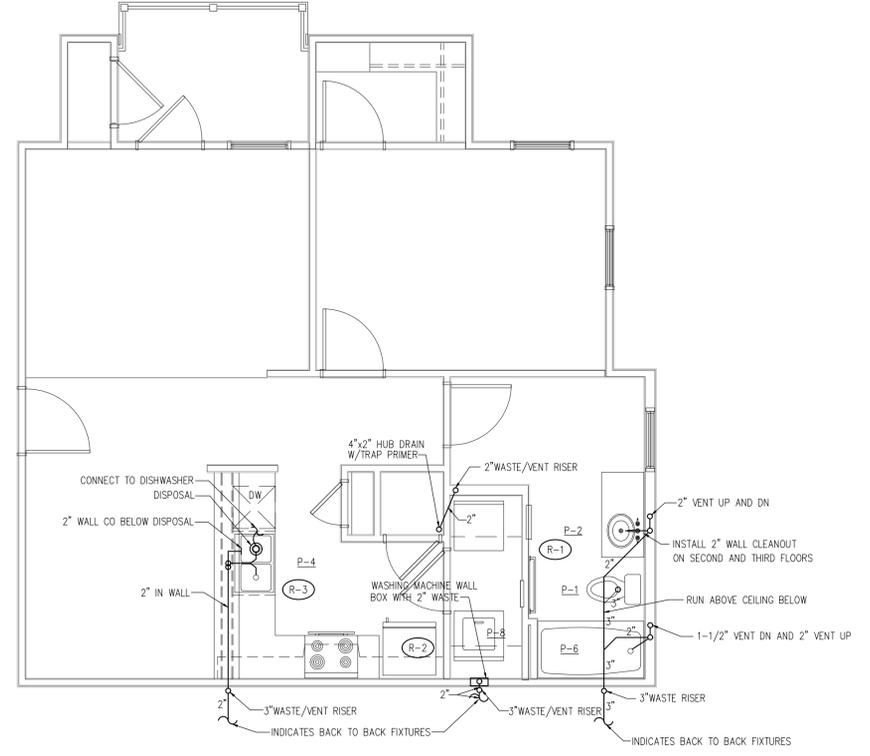
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1 BEDROOM – HANDICAP – WASTE PLAN
SCALE 1/4" = 1'-0"

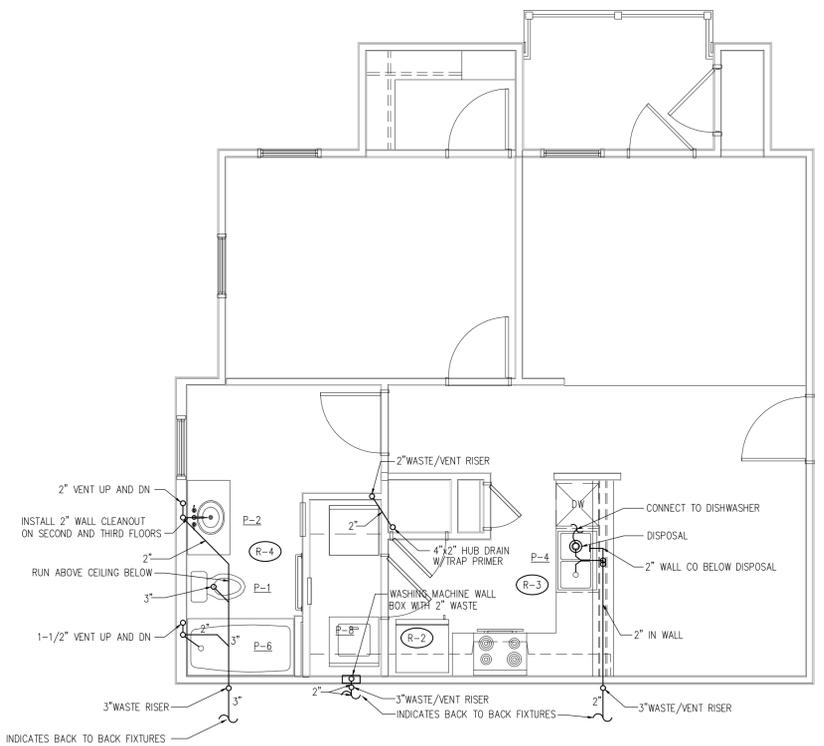


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SCALE 1/4" = 1'-0"



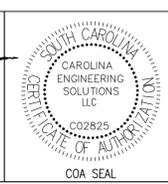
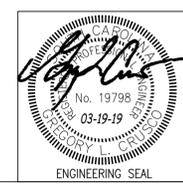
1 BEDROOM – SECOND & THIRD FLOORS – WASTE PLAN
SCALE 1/4" = 1'-0"

NOTE
REFER TO RISER DIAGRAMS FOR VENTING



1 BEDROOM – SECOND & THIRD FLOORS – WASTE PLAN
SCALE 1/4" = 1'-0"

NOTE
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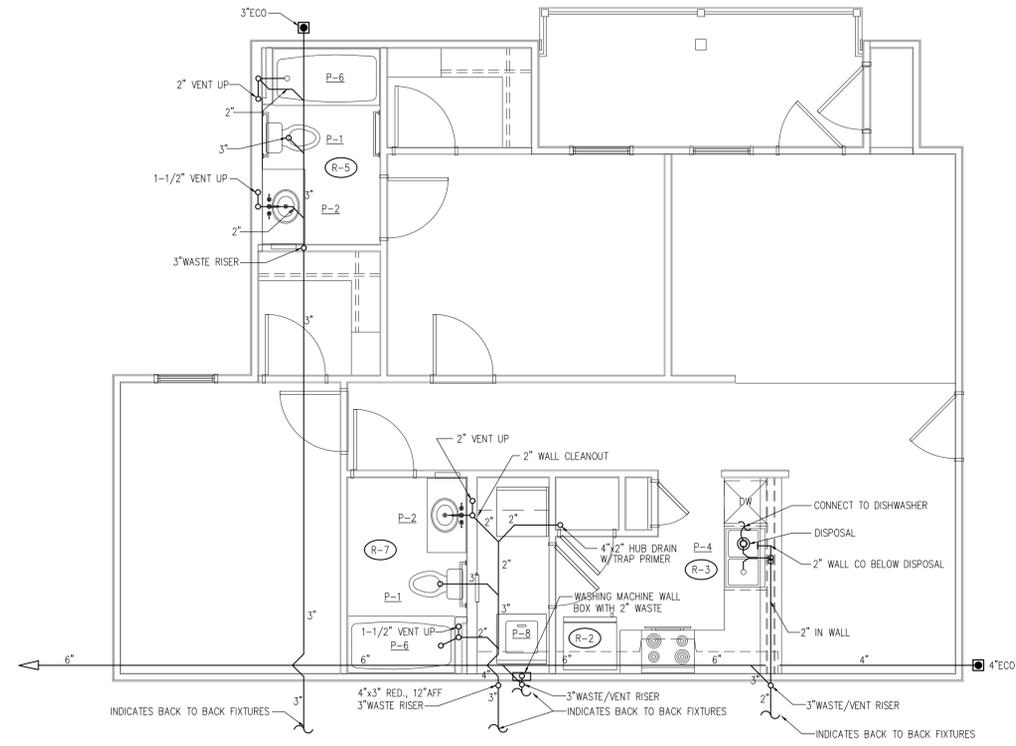
CES
Carolina Engineering Solutions, LLC
8 WEST MeBEE AVE, Suite 203
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PH: (864) 370-9355 FAX: (864) 370-9505
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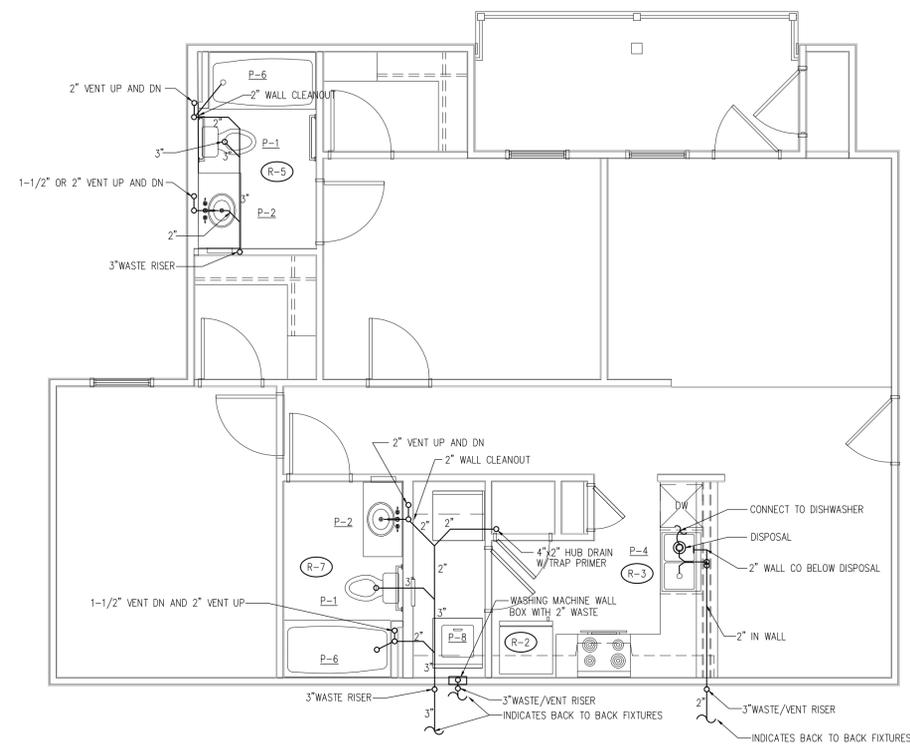
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PROJECT: 19075

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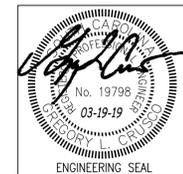


2 BEDROOM - WASTE PLAN
SCALE 1/4" = 1'-0"



2 BEDROOM - SECOND & THIRD FLOORS - WASTE PLAN
SCALE 1/4" = 1'-0"

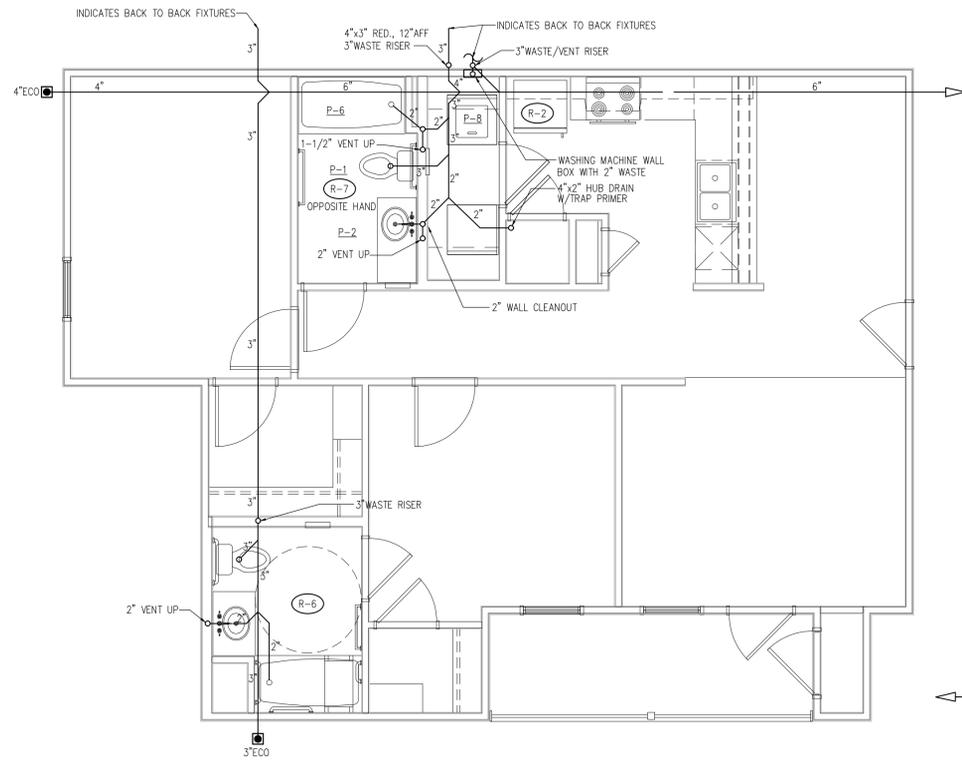
NOTE
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PROJECT:		PINE COURT APARTMENTS BEAUFORT, SC	
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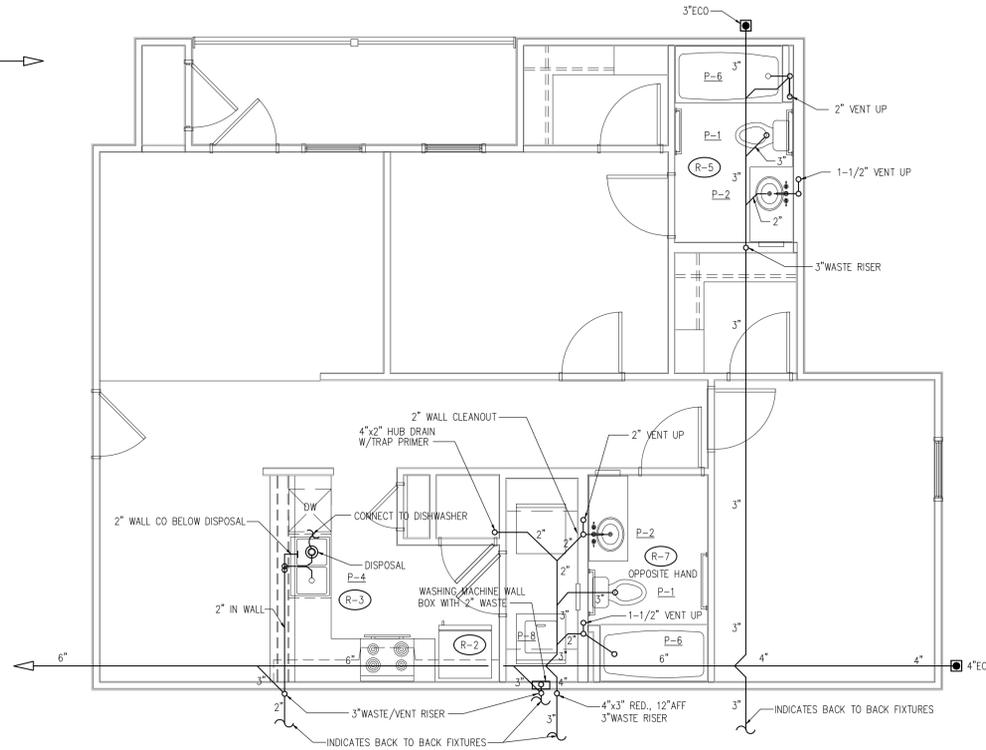
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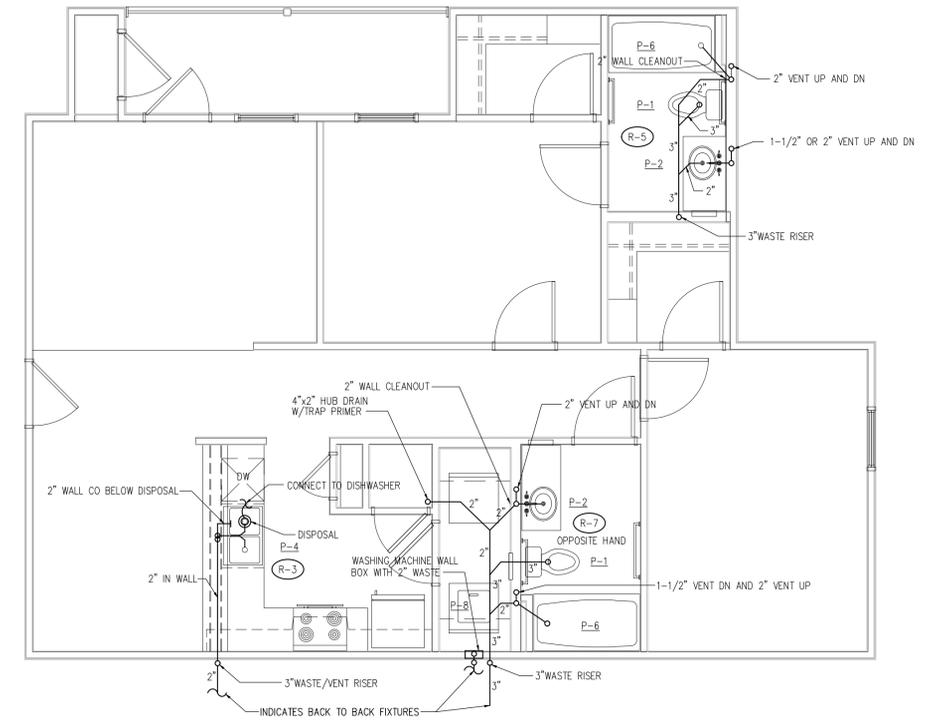
2 BEDROOM – HANDICAP – WASTE PLAN

SCALE 1/4" = 1'-0"



2 BEDROOM – WASTE PLAN

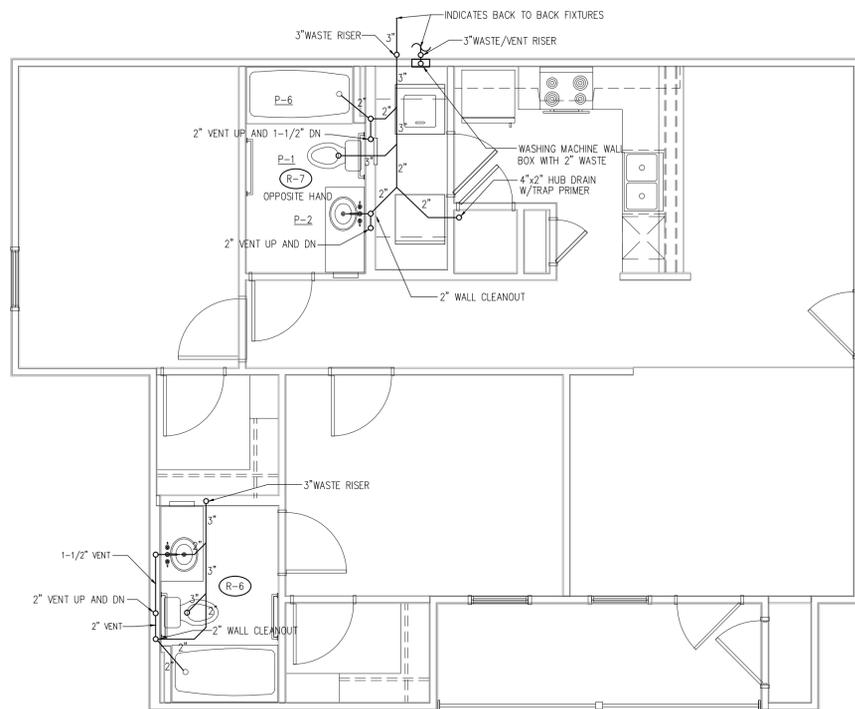
SCALE 1/4" = 1'-0"



2 BEDROOM – SECOND & THIRD FLOORS – WASTE PLAN

SCALE 1/4" = 1'-0"

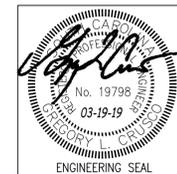
NOTE
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2 BEDROOM – SECOND & THIRD FLOORS – WASTE PLAN

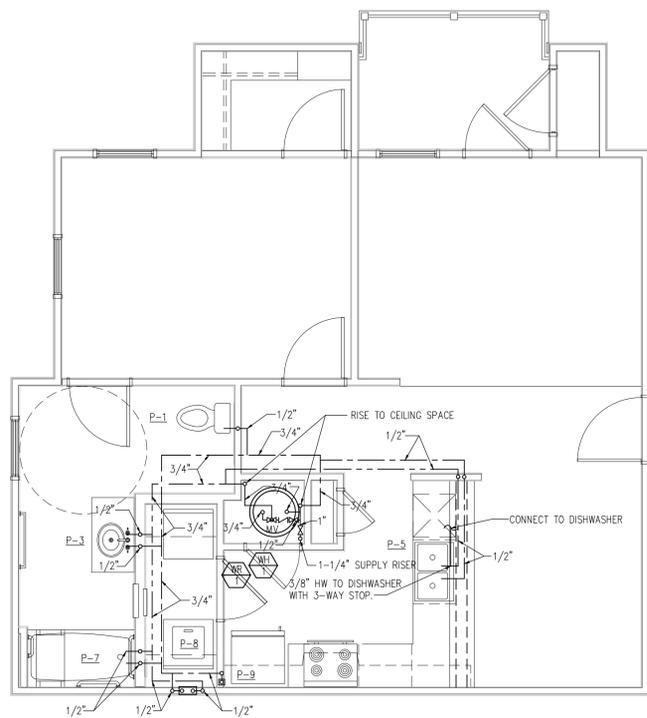
SCALE 1/4" = 1'-0"

NOTE
REFER TO RISER DIAGRAMS FOR VENTING



PROJECT:		PINE COURT APARTMENTS BEAUFORT, SC	
ISSUE	DATE	ISSUED FOR REVIEW	DESCRIPTION
0	3/19/2019	ISSUED FOR REVIEW	
PROJECT: 19075			P4

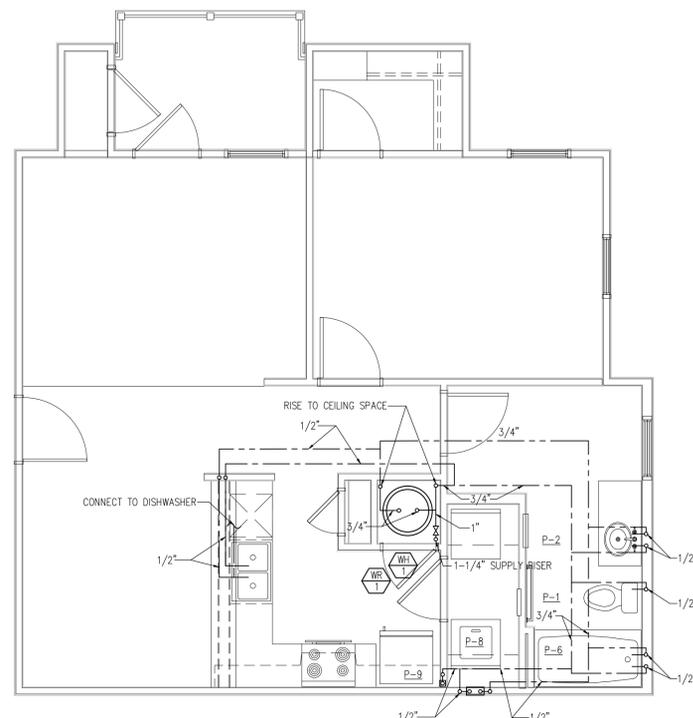
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1 BEDROOM – HANDICAP – WATER PLAN

SCALE 1/4" = 1'-0"

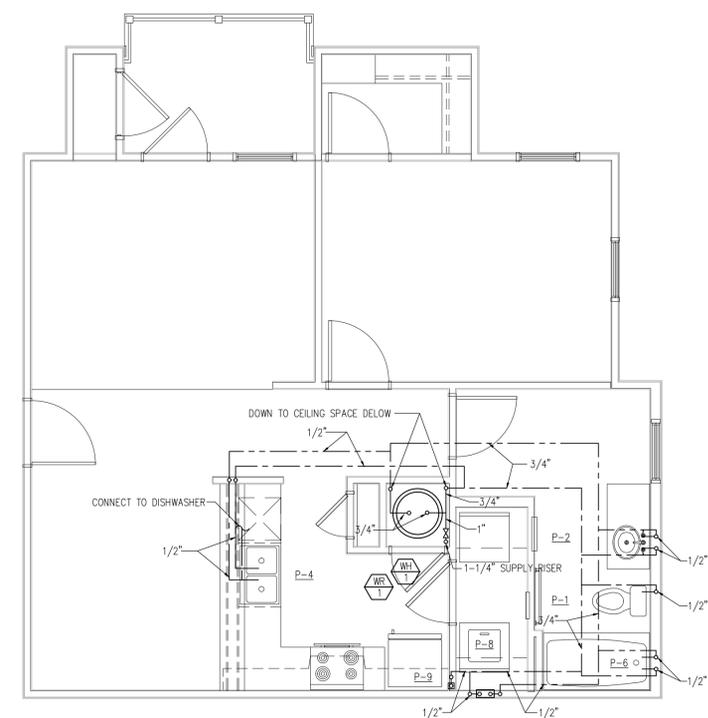
NOTE
REFER TO BUILDING PLANS FOR LOCATION OF WATER MAIN ABOVE GROUND FLOOR CEILING



1 BEDROOM – WATER PLAN

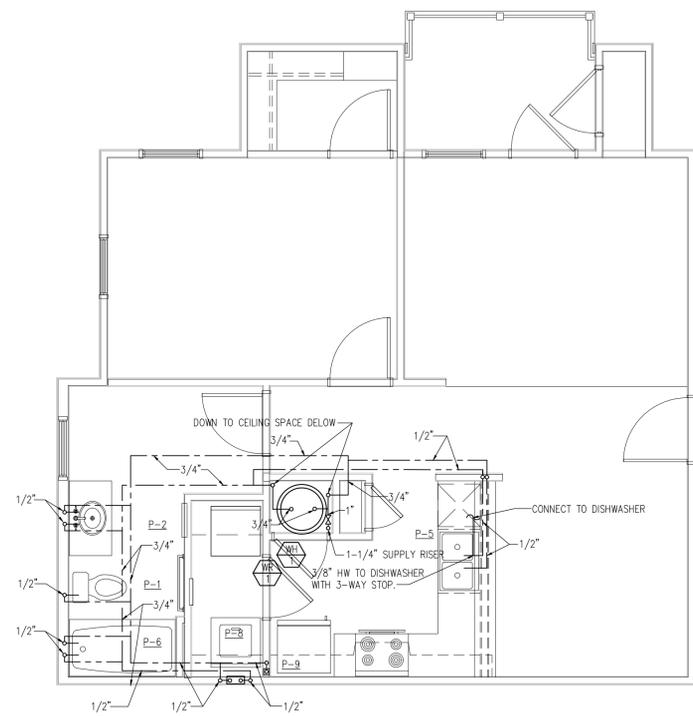
SCALE 1/4" = 1'-0"

NOTE
REFER TO BUILDING PLANS FOR LOCATION OF WATER MAIN ABOVE GROUND FLOOR CEILING



1 BEDROOM – SECOND & THIRD FLOORS – WATER PLAN

SCALE 1/4" = 1'-0"



1 BEDROOM – SECOND & THIRD FLOORS – WATER PLAN

SCALE 1/4" = 1'-0"

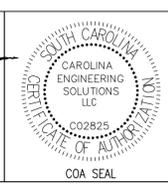
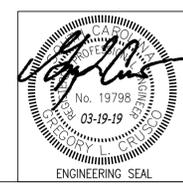
NOTICE:
CONTRACTOR, AT HIS OPTION, MAY UTILIZE "MANABLOC" MANFOLD SYSTEM ON HOT AND COLD WATER. EACH PORT SHALL HAVE INDIVIDUAL CUT-OFFS. UNIT SHALL BE NSF APPROVED. PROVIDE TUBING TO EACH FIXTURE. OPENINGS IN FLOOR AND WALLS SHALL ALLOW FOR MOVEMENT. INSTALL SYSTEM IN ACCORDANCE WITH MANUFACTURERS PRINTED LITERATURE. FURNISH IN EACH WATER HEATER ROOM, ACCESS BOX FOR MANFOLD.

CONTRACTOR SHALL PROVIDE AT EACH PENETRATION OF FIRE RATED FLOORS AND WALLS U.L. CLASSIFIED "SPECSEAL" OR EQUAL COLLARS ON PVC PIPE MEETING ASTM E814 AND UL1479. FIRE STOP CAULK SHALL BE EQUAL TO U.L. CLASSIFIED "SPECSEAL" SERIES 100 MEETING ASTM E814 AND UL1479. DETAILS OF FIRE STOPPING AND CAULK SHALL BE SUBMITTED TO LOCAL BUILDING OFFICIAL FOR APPROVAL.

DISTRIBUTION MAIN SHALL CROSS CORRIDOR VIA COPPER LOOPED BELOW SLAB CONCRETE. ANY RISERS OF WATER PIPE FROM BELOW SLAB SHALL BE AT LEAST 2'-0" WITHIN HEATED SPACE WALLS.

BATH FIXTURES COLOR WHITE, ALL TRIM CHROME/CLEAR

WHERE HANDICAPPED UNITS ARE INDICATED THE OWNER SHALL INSTRUCT THE PLUMBING CONTRACTOR TO FURNISH HANDICAPPED FIXTURES AND TRIM TO BE APPROVED BY OWNER.

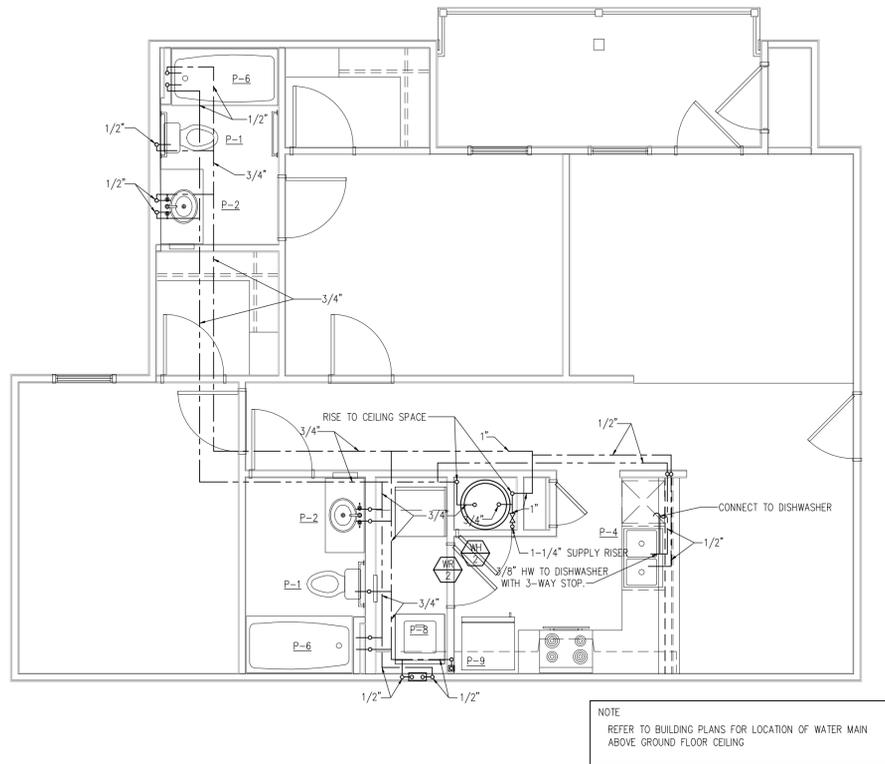


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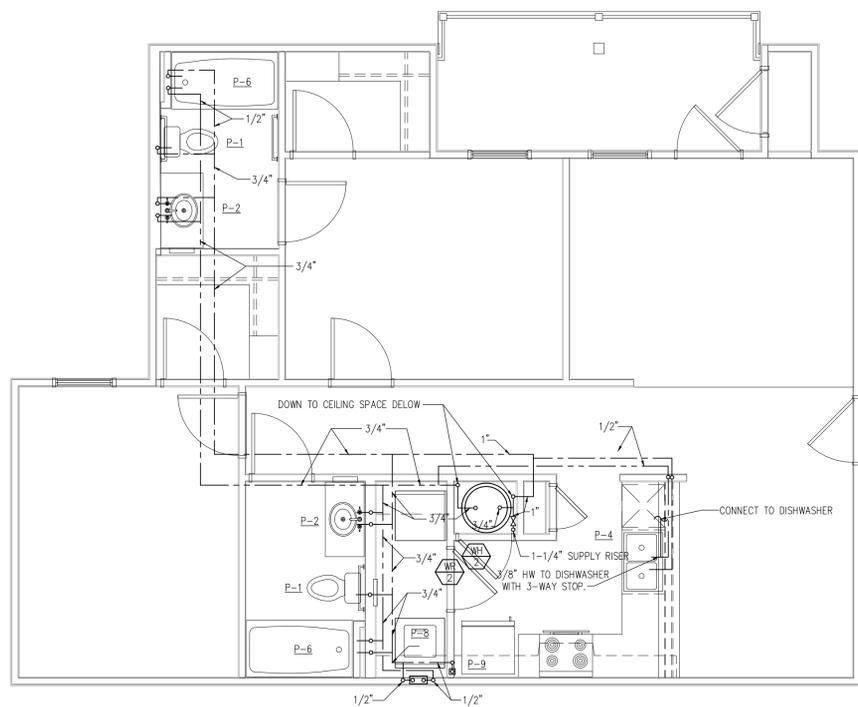
P5

PROJECT: 19075

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2 BEDROOM- WATER PLAN
SCALE 1/4" = 1'-0"



2 BEDROOM - SECOND & THIRD FLOORS - WATER PLAN
SCALE 1/4" = 1'-0"

NOTICE:

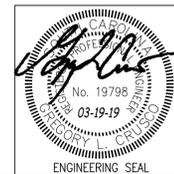
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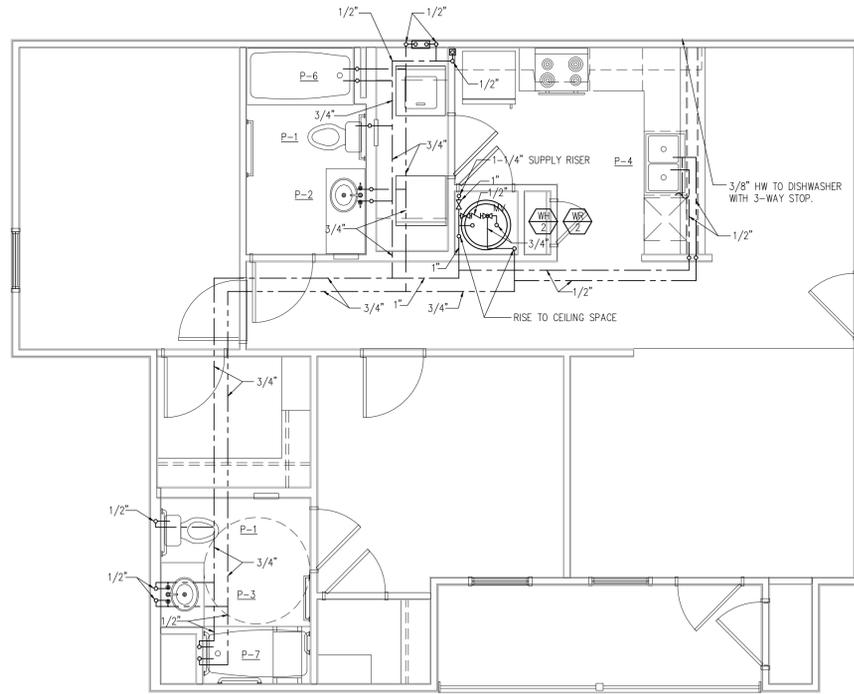


PROJECT:		PINE COURT APARTMENTS BEAUFORT, SC	
ISSUE	DATE	ISSUED FOR REVIEW	DESCRIPTION
0	3/19/2019		

P6

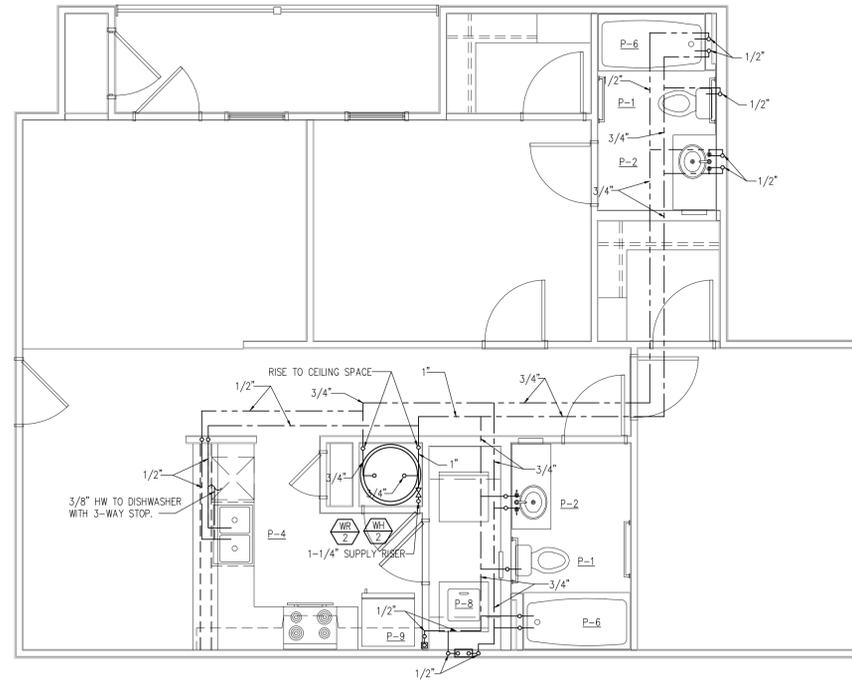
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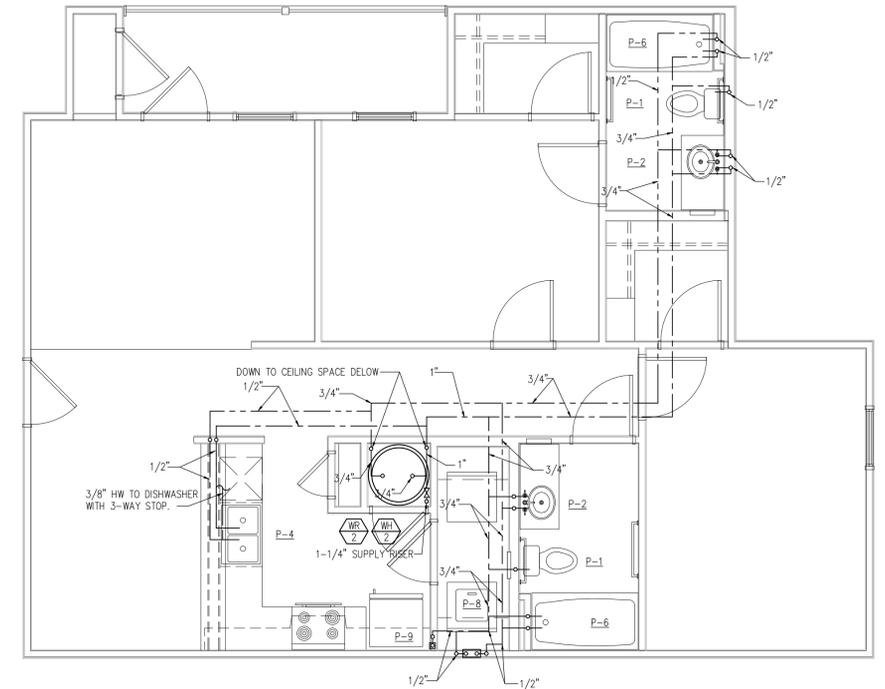
2 BEDROOM – HANDICAP – WATER PLAN
SCALE 1/4" = 1'-0"

NOTE
REFER TO BUILDING PLANS FOR LOCATION OF WATER MAIN ABOVE GROUND FLOOR CEILING

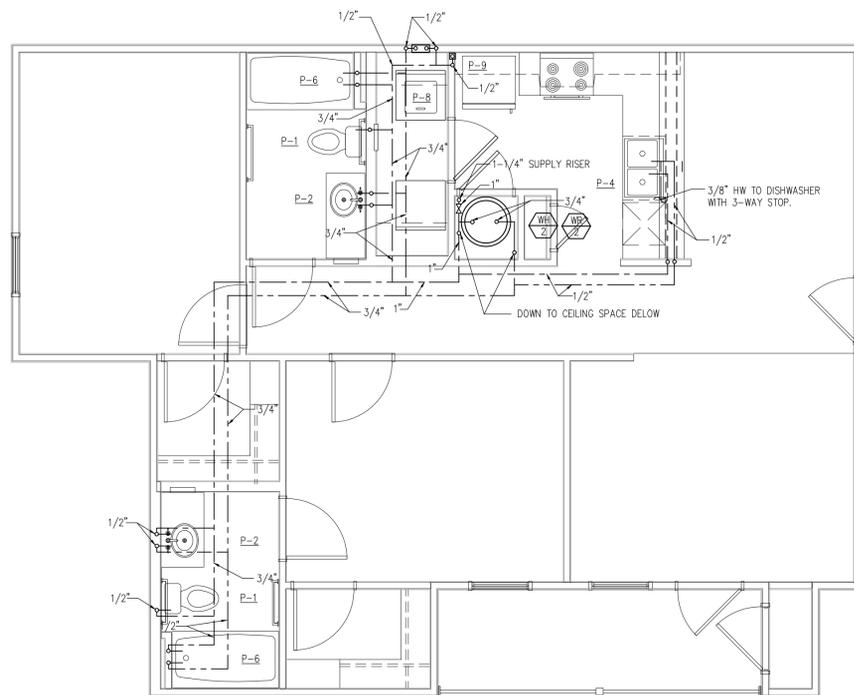


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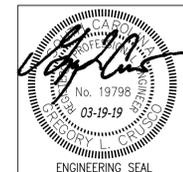


2 BEDROOM – SECOND & THIRD FLOORS – WATER PLAN
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P7

PLUMBING NOTES

1. PROVIDE PANS UNDER WATER HEATERS, AS PER LOCAL CODES.
2. PROVIDE WATER HEATER POP-OFFS AS PER LOCAL CODE.
3. PROVIDE SHUT-OFF VALVES FOR EA. UNIT @ W.H. CLOSE.
4. PROVIDE SHUT-OFF VALVES @ EA. FIXTURE SUPPLY LINE (INCLUDE ICEMAKER)
5. PROVIDE PVC HOUSING FOR WASHER CONNECTIONS & ICE MAKER.
6. ALL FIXTURES TO BE APPROVED BY G.C. & ARCHITECT.
7. INSULATE ALL SUPPLY LINES IN EXTERIOR WALLS OR OTHER AREAS SUBJECT TO FREEZING. NO LINES ALLOWED IN ATTIC.
8. WATER HEATER TO MEET REQ'D. ENERGY CODE.
9. BOTTOM FED H.W.'S TO BE EQUIPPED W/ VACUUM RELIEF VALVE.
10. SEE SITE PLAN FOR WATER METER LOCATION.
11. ALLOW 2" MIN. DISTANCE UNDER SLAB.
12. ALL PLUMBING SHALL CONFORM TO LOCAL CODES
13. ONE MAIN WATER SERVICE PER BLDG.
14. INSTALL GARBAGE DISPOSALS IN ALL UNITS.
15. REFER TO BUILDING PLANS FOR NUMBER OF UNITS AND LOCATION OF HANDICAPPED UNITS ON THE GROUND FLOOR.
16. INSTALL CLEANOUTS WHERE REQUIRED BY CODES.
17. PROVIDE APPROVED PIPE FIRESTOPPING AT ALL CEILING, FLOOR AND FIREWALL PENETRATIONS.

PLUMBING LEGEND	
-----	COLD WATER
-----	HOT WATER
-----	WASTE
-----	VENT

HC NOTES

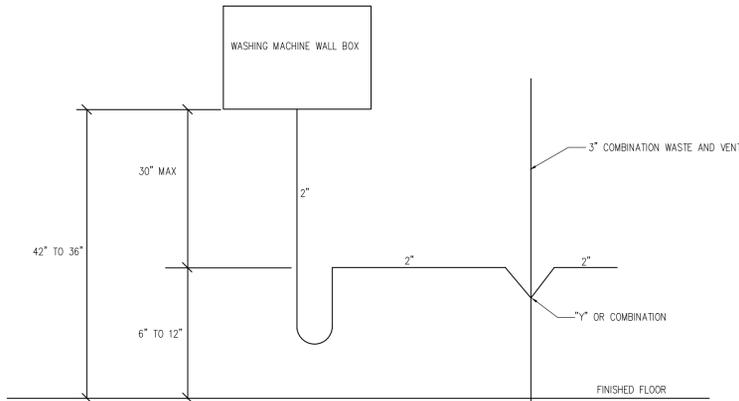
1. HOT WATER AND DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES OR SINKS. (OMIT IF PIPING IS ABOVE MIN. HT.)
2. THE BATH TUB SHALL BE EQUIPPED W/ SHOWER SPRAY UNIT W/ A HOSE @ LEAST 60" LONG THAT CAN BE USED EITHER AS A FIXED SHOWER HEAD OR A HAND HELD SHOWER.
3. TUBS SHALL BE PROVIDED W/ AN IN-TUB SEAT.
4. FAUCETS AND CONTROLS FOR TUB SHALL BE LOCATED AS SHOWN ON ELEVATIONS.
5. PROVIDE GRAB BARS AND HANDICAPPED FIXTURES FOR THOSE UNITS DESIGNATED AS HANDICAPPED. PROVIDE BLOCKING FOR GRAB BARS AT TUB & W.C. FOR ALL FIRST FLOOR UNITS.

APARTMENT FIXTURE SUPPLY SIZE

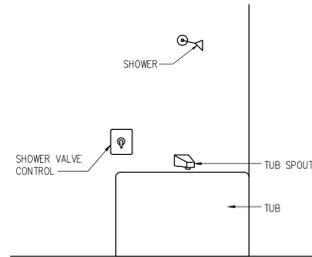
FIXTURE NUMBER	FIXTURE TYPE	WATER CONNECTION		WASTE	TRAP	WATER USAGE
		COLD	HOT			
P-1	WATER CLOSET (HC)	1/2"	--	3"	--	1.28 GPF
P-2	LAVATORY	1/2"	1/2"	2"	1-1/2"	1.5 GPM
P-3	LAVATORY (HC)	1/2"	1/2"	2"	1-1/2"	1.5 GPM
P-4	SINK	1/2"	1/2"	2"	1-1/2"	1.28 GPM
P-5	SINK (HC)	1/2"	1/2"	2"	1-1/2"	1.28 GPM
P-6	TUB	1/2"	1/2"	2"	2"	2.0 GPM
P-7	TUB (HC)	1/2"	1/2"	2"	2"	2.0 GPM
P-8	WASHER BOX	1/2"	1/2"	2"	2"	--
P-9	ICE MAKER BOX	1/2"	--	--	--	--

NOTES:

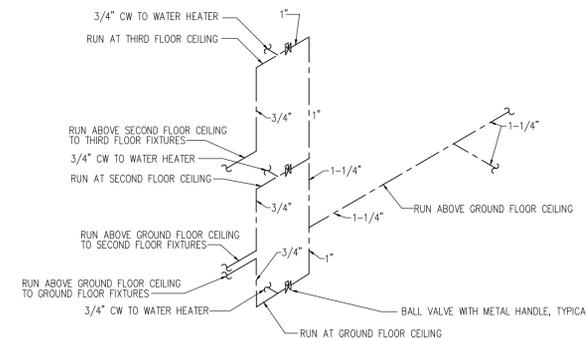
1. INSULATE WATER AND WASTE UNDER HANDICAP LAVATORIES AND KITCHEN SINK.
2. FIXTURES SHALL BE EPA WATERSENSE RATED.
3. SHOWER VALVES SHALL BE ANTI-SCALD TYPE.



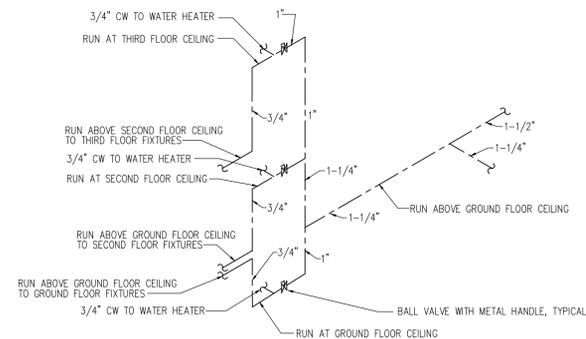
DETAIL OF WASHER BOX INSTALLATION
NO SCALE



DETAIL OF HC TUB SUPPLIES
NO SCALE



DETAIL OF CITY WATER RISER
NO SCALE



DETAIL OF CITY WATER RISER
NO SCALE

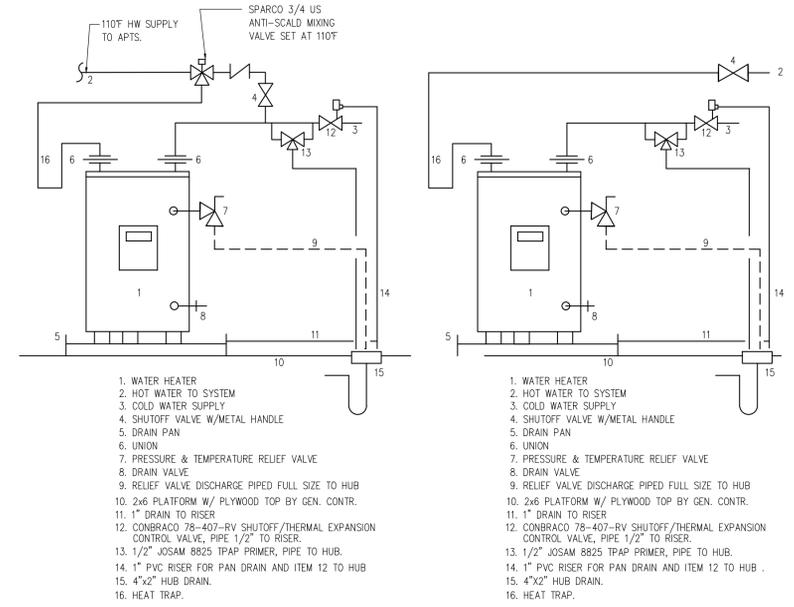


PLUMBING FIXTURE SCHEDULE - APARTMENTS

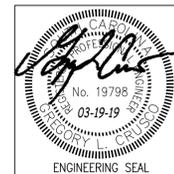
NO.	FIXTURE	MANUFACTURER	MODEL NO.	TRIM	MANUFACTURER	ADDITIONAL REQUIREMENTS
P-1	WATER CLOSET (HC)	MANSFIELD	137-160 ALTO	SEAT	BEMIS 1800EC	3/8" C.P. STOP W/ POLYBUTYLENE RISER BY BRASSCRAFT
P-2	LAVATORY	GERBER	12-834-CH WHITE 4" CC, 20"x17" MAXWELL DROP IN	FAUCET	NO. 47711L FLAGSTONE	1-1/2" DURACRAFT 400W TRAP, 3/8" STOPS W/ POLYBUTYLENE RISER BY BRASSCRAFT.
P-3	LAVATORY (HC)	GERBER	12-834-CH WHITE 4" CC, 20"x17" MAXWELL DROP IN	FAUCET	NO. 47711L FLAGSTONE	1-1/2" DURACRAFT 400W TRAP, 3/8" STOPS W/ POLYBUTYLENE RISER BY BRASSCRAFT. INS. COVER BY PLUMBEREX.
P-4	SINK	DAYTON/ELKAY	KJ-23322	FAUCET W/ SPRAY	NO. 47513 FLAGSTONE	1-1/2" DURACRAFT 334W DISPOSER KIT W/400W TRAP, 3/8" STOP AND 3/8" DUAL STOP WITH POLYBUTYLENE RISER BY BRASSCRAFT, DURACRAFT 143ISSTBY BASKETS, FURNISH 1/3 HP BADGER DISPOSAL.
P-5	SINK (HC)	DAYTON/ELKAY	GE233214 INSULATED BOTTOM REAR DRAINS	FAUCET W/ SPRAY	NO. 47513 FLAGSTONE	1-1/2" DURACRAFT 334W DISPOSER KIT W/400W TRAP, 3/8" STOP AND 3/8" DUAL STOP WITH POLYBUTYLENE RISER BY BRASSCRAFT, DURACRAFT 143ISSTBY BASKETS. INS. COVERS BY PLUMBEREX. FURNISH 1/3 HP BADGER DISPOSAL.
P-6	TUB	STERLING	61040110 OR 61040120	FAUCET		SYMMONS 9602-PLR-X ORIGINS, PULL UP TUB DIVERTER SPOUT W/ 1/2" I.P.S., 4-1/2" LONG. SHOWER HEAD, PRESSURE BALANCE SHOWER VALVE, VANDAL RESISTANT ADA SINGLE LEVER HANDLE, TEMPERATURE CONTROLLED W/ ROTATIONAL LIMIT STOP IN HANDLE, 2.0 GPM SHOWER HEAD, ARM AND FLANGE. FURNISH STOPS AT VALVE.
P-7	TUB (HC)	STERLING	71090115 OR 71090125	FAUCET		Symmons 9606 PLR-X ORIGINS shower with integral stops, tub spout, inline vacuum breaker, handspray with metal hose, 30" slide bar, lever diverter, shower head with arm and flange. Furnish 2.0 gpm shower head.
P-8	WASHER BOX	WATER-TITE	W4701 CP	---	-----	UPRIGHT METAL VALVE HANDLES WITH ARRESTERS
P-9	ICE MAKER BOX	WATER-TITE	AB9701HA/AB9702HA	---	-----	UPRIGHT METAL VALVE HANDLE WITH ARRESTER
P-10	WALL HYDRANT	B&K	104-511-1/2"	---	-----	-----
WH-1	WATER HEATER	BRADFORD WHITE	MODEL RE240L6, 38 GALLON WATER HEATER WITH TWO 4500 WATT, 1φ-240V ELEMENTS. NON-SIMULTANEOUS OPERATION, .95 EF.			
WH-2	WATER HEATER	BRADFORD WHITE	MODEL RE250L6, 47 GALLON WATER HEATER WITH TWO 4500 WATT, 1φ-240V ELEMENTS. NON-SIMULTANEOUS OPERATION, .95 EF.			
WH-3	WATER HEATER	EEMAX SP55SL TANKLESS HEATER, .75 GPM, 5.5 KW, 23 AMP, 1φ-240V, 50" RISE, .75 FLOW RESTRICTOR.				
---	DISPOSAL	IN-SINK-ERATOR	BADGER 1, 1/3 HP, 1φ-60C-120V			

NOTES:

1. BATH FIXTURES COLOR WHITE, ALL TRIM CHROME/CLEAR
2. WHERE HANDICAPPED UNITS ARE INDICATED THE OWNER SHALL INSTRUCT THE PLUMBING CONTR. TO FURNISH HANDICAPPED FIXTURES AND TRIM TO BE APPROVED BY OWNER.
3. SHOWER VALVES SHALL BE ANTI-SCALD TYPE.
4. SEE FIXTURE SCHEDULE FOR WATER USAGE REQUIREMENTS.
5. FURNISH 2" INSULATION BLANKET FOR WH-2 WATER HEATER.



WATER HEATER DETAILS
NO SCALE



CES
Carolina ENGINEERING SOLUTIONS, LLC
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Greenville, SOUTH CAROLINA 29601
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WWW.CarolinaENR.COM

PROJECT:	PINE COURT APARTMENTS BEAUFORT, SC	
ISSUE	DATE	DESCRIPTION
0	3/19/2019	ISSUED FOR REVIEW

P8
PROJECT: 19075

PLUMBING SPECIFICATIONS

GENERAL:
The general provisions of the contract, including General and Supplementary Conditions and General Requirements apply to the work specified in this Section.

It shall be the duty of the contractor to familiarize themselves with the details of the general construction of the building. They shall cooperate with other trades in making the installation of the Plumbing systems as the job progresses.

The Contractor shall obtain at his own expense all permits for the prosecution of the work and shall deliver to the Owner all inspection certificates issued him without cost to the owner.

It shall be the duty of the prospective contractor to visit the job site and familiarize themselves with job conditions as no extras will be allowed because of additional work necessitated or changes in plans required by job conditions unless same is brought to the Architect's attention before letting of the Contract.

All materials and labor shall be in strict accordance with rules and regulations of the National Board of Fire Underwriters, State Building Codes and any and all local rules, laws, or ordinances covering or otherwise appertaining thereto.

The Contractor shall do all necessary cutting of walls, floors, roof, partitions, etc., to properly install work. The repair of all damage caused by cutting shall be done by the Contractor to the satisfaction of the Architect. Care shall be exercised in cutting to avoid unnecessary damage where openings in roof and walls are to be provided. Openings will be provided by the General Contractor, providing the Contractor locates same and advises the General Contractor in time to make the necessary arrangements.

The Contractor shall do all excavation and back filling required for the installation of work under these specifications. Bottom of trench for underground piping shall be excavated to an even, smooth grade.

All work shall be tested in the presence of the General Contractor, and no work shall be covered up until after inspection.

SERVICES:

Plumbing contractor shall extend the water and waste outside of the building to a point where shown on plans. Continuation by Site Utility Contractor.

MATERIALS AND EQUIPMENT:

All materials and equipment shall be new and shall conform to the grade, quality and standards of those specified.

Immediately after the award of the Contract, and within thirty (30) days, a complete set of shop drawings, materials and equipment showing name of manufacturer shall be furnished the Mechanical Engineer for approval. Orders may be placed subject to the approval of the above list, but no material shall be delivered to the site until after approval has been received.

The following is a list of items which shall be included but not limited to the contractor's submission of material for approval:

PLUMBING:

1. Fixtures
2. Water Heaters
3. Cleanouts
4. Insulation

All equipment shall be installed in strict accordance with the manufacturer's printed instructions for type and capacity of each piece of equipment used. This Contractor shall obtain these instructions which shall be considered as a part of these specifications.

PLUMBING GUARANTEE:

The Plumbing Contractor shall, by acceptance of this contract, guarantee all material, equipment and workmanship furnished and performed under these specifications for a period of one (1) year dating from date of acceptance of the work. Any equipment, material, or workmanship proving defective during this guarantee period shall be replaced or repaired, as the case may be, at the expense of the Contractor. All adjustments and corrections made within the year of guarantee shall be equal to the quality of materials and workmanship originally called for and shall be subject to inspection and acceptance by Architect and Engineer.

SECTION 15055 - POWER WIRING

ELECTRICAL:

All electric power wiring to motors and heaters shall be furnished and installed by Electrical Contractor.

SECTION 15060 - PIPE, TUBE, AND FITTINGS:

PVC PIPE AND FITTINGS:

All sanitary drains, and vents shall be Schedule 40 PVC DWV pipe and fittings meeting requirements of ASTM D-2665-03. Pipe shall be marked with ASTM identification and bear NSF seal of approval.

DOMESTIC WATER PIPE:

All domestic hot water lines, and all city water piping shall be pressure rated CPVC equal to brand name "FlowGuard GOLD". No lines are allowed in the attic.

ROOF OPENINGS AND FLASHINGS:

Flashings for plumbing vent stacks through the roof shall be one-piece no caulk thermoplastic. Vent stacks shall extend 8" above roofline. Do not install within 10'-0" of mechanical outside air intake. Refer to plans for sizes required.

FITTINGS:

A. PVC Pipe: Joint surfaces shall be cleaned and free of moisture. A purple primer that conforms to ASTM F656 shall be applied. Solvent not purple in color and conforming to ASTM D 2564 shall be applied to all joint surfaces. The joint shall be made while the cement is wet and shall be in accordance with the ASTM D 2855. Solvent - cement joints shall be permitted above or below ground. Section 705.8.2 IPC 2006.

PIPE GRADING:

All sanitary piping shall be run at a uniform grade of approximately 1/4" per foot minimum, inside building. Turns shall be made with long turn bends. In other special cases, where 1/4" pitch cannot be obtained, the Contractor shall obtain the approval of the Architect before installing the work.

Each section of pipe shall be laid to the specified grade, working in the upstream direction with the bell and spigot end laid up grade.

EXCAVATION

All pipe outside of building shall have a minimum covering of 30" of earth. Pipe under slabs inside of building shall be only deep enough for proper grading of lines. The Contractor shall so locate concealed lines as not to disturb the work of other trades or impair the strength of any part of the building. He shall be responsible for proper back filling of all his trenches and tamping so that slabs cast above his lines shall be as well supported as on back filling done under the General Contract. Trenches shall be graded evenly, providing bell holes as necessary to ensure uniform bearings for pipe. In case of rock, excavate to uniform grade 3" below lowest part of pipe joint. The Architect shall be notified if a serious rock condition is encountered so that the amount of extra work can be estimated and an equitable adjustment can be made. Refill all cuts below bottom grade of pipe with sand or fine gravel, firmly impacted. Back fill shall be tamped compactly in place so as to secure a stable surface. Use no rock for back filling for a depth of two feet over top of pipe.

All water and sewer lines shall be laid in relation to each other in accordance with Section 29.3 of "Ten States Standard."

EXPANSION

Special care shall be exercised in placing all pipe so as to allow for expansion. The Contractor shall install the required elbows and bends to form expansion loops where shown or required.

TESTS: The entire sanitary and drainage system shall be tested by the Contractor in the presence of and to the satisfaction of a representative of the Owner. When all the plumbing systems shall have been finished, tested, proven tight, and accepted, the Contractor shall clean all fixtures, pipes, and other exposed work.

All PVC pipe shall be tested at 10' head of water above the top fixture of a fixture group.

All water piping shall be tested to 100 lbs. hydrostatic pressure before they are covered, and shall remain absolutely tight for a period of at least two (2) hours. Tests shall comply to AWWA Standard C-600-77, Section 4.1.

SECTION 15100 - VALVES

VALVES - PLUMBING:

Valves: Furnish CPVC ball valves w/metal handles.

SECTION 15250 - SYSTEM INSULATION

INSULATION

All insulation shall be applied by workmen regularly engaged in the application of insulation. Surfaces shall be thoroughly cleaned before insulation is applied. The various services and equipment shall be insulated with materials as specified below. Insulation shall be Owens-Corning.

1. Cold Water Piping: Cold water lines, thru concrete slab shall be insulated with nominal 1/2" thickness Armstrong Armatex 22.

All joints shall be sealed with Armstrong 520 adhesive. Insulation shall be applied in strict accordance with manufacturer's recommendations.

2. Cold Water Piping: All water supply piping run in crawl space shall be insulated with 1" thick molded fiberglass pipe insulation with All-Service Jacket sealed. All fittings, valves, etc., shall be insulated with same material with plastic fitting covers.

SECTION 15430 - PLUMBING SPECIALTIES

ELECTRIC WATER HEATER:

Furnish and install electric water heater where shown on drawings. Heater shall be dual element type equipped with magnesium anodes, fiberglass insulation in jacket, thermostats, pre-wiring, etc., with all controls enclosed in heater. Heater to meet ASHRAE 90A Standards. Electric water heater shall be constructed and tested to withstand a temperature of 400°F without deteriorating in any manner, and the tank shall be labeled by the manufacturer. Furnish and install trim on heater as indicated on the drawings.

CLEANOUTS:

Cleanouts on horizontal and vertical lines shall be PVC as manufactured by Zum, Sioux Chief or equal. Cleanouts on horizontal lines shall have metal access cover at grade. Cleanouts on vertical lines shall have round metal access plate at wall.

MISCELLANEOUS:

- Valve Boxes: Shall be fiberglass with removable top marked WATER in raised letters. Furnish and install stop valve in each box on water service.
- Dielectric Couplings: Furnish and install dielectric couplings on all connections of dissimilar materials and electric devices.
- Floor Drain: Shall be Watts FD-100A-P-A5 with polished brass strainer, P-Trap and no-hub outlet. Furnish drains in sizes as indicated on plans. Furnish Proset TG22P trap guard where indicated.

ANTI-FREEZE WALL HYDRANT:

Hydrants shall be 1/2" size, Woodford, Model 17C, with brass face and hand wheel. Supply line to be concealed in wall.

Hydrants shall be set 18" above finished grade. Each hydrant shall be fitted with self-draining vacuum breaker.

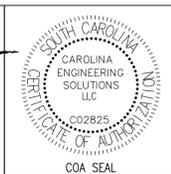
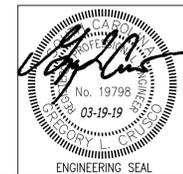
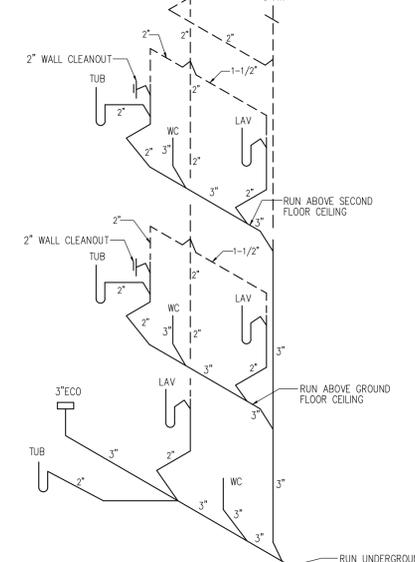
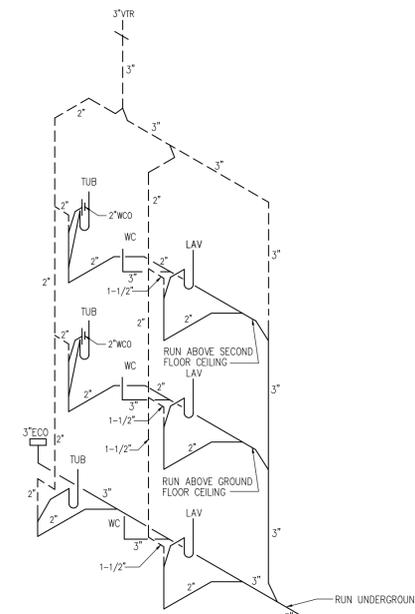
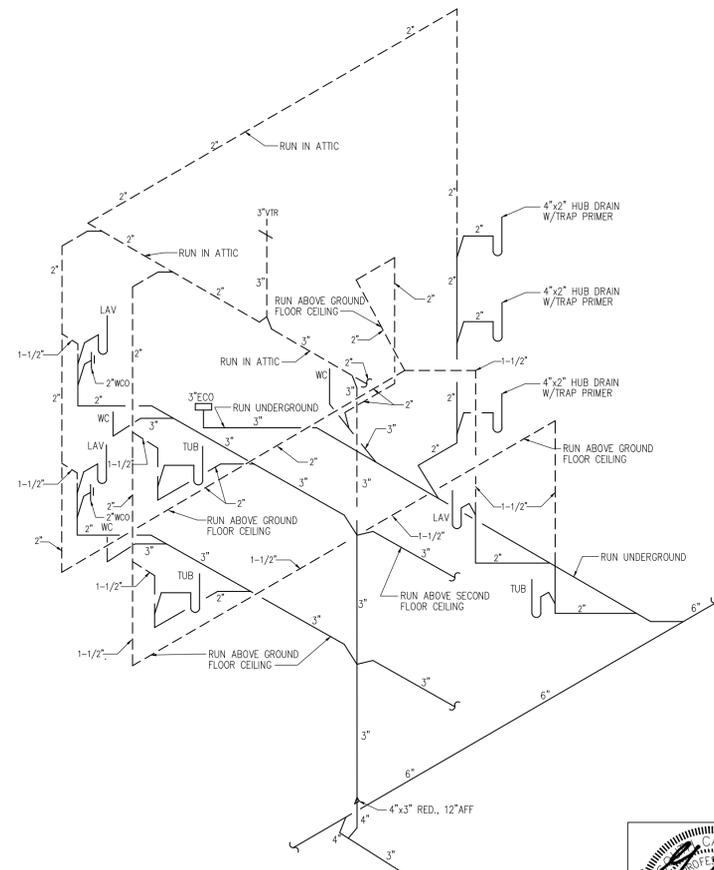
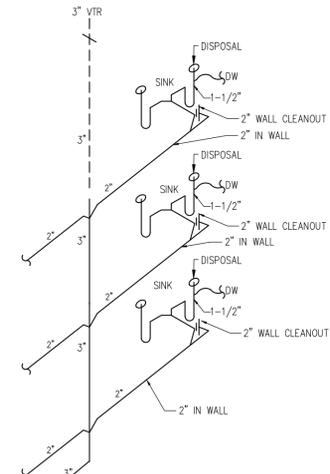
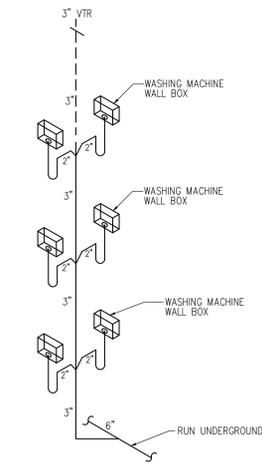
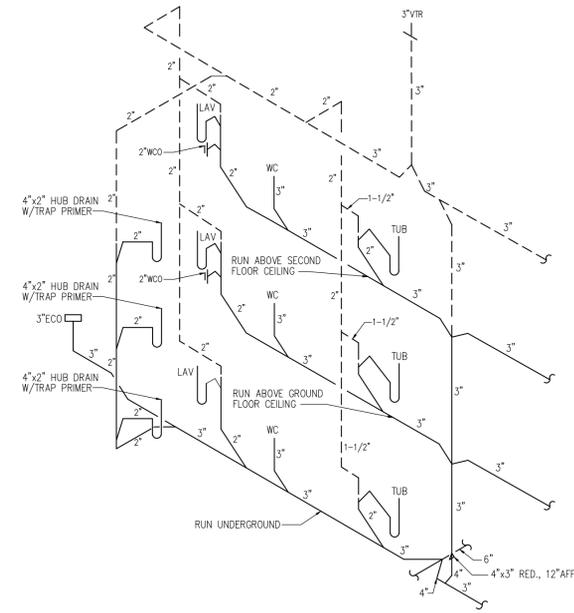
SECTION 15440 - PLUMBING FIXTURES

All fixtures, unless otherwise stated, shall be the product of manufacturer listed on plans. However, fixtures by other manufacturers shall be accepted, if approved by owner and Architect. Submit cut sheets, for review, on items for which substitution is requested. All approvals for substitution shall be made by addendum.

Exposed metal parts of all fixtures, unless otherwise noted shall be polished chromium finish on nickel-plated brass. Use C.P. brass nipples on supply pipes through wall to fixture.

All fixtures shall have individual cut-off stops on cold and hot water lines where some are not specified as part of the fixture. They shall be installed in supply lines as close to fixture as possible.

Handicapped fixtures and trim shall comply with Title III Provisions of the Americans with Disabilities Act, and applicable ANSI Codes.



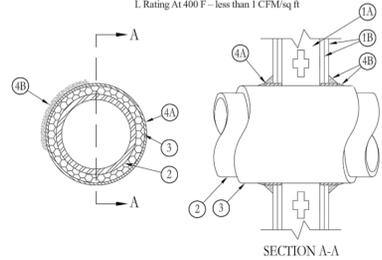
PROJECT:			PINE COURT APARTMENTS BEAUFORT, SC		
ISSUE	DATE	ISSUED FOR REVIEW	DESCRIPTION		
0	3/19/2019	ISSUED FOR REVIEW			

P9
PROJECT: 19075

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SYSTEM NO. W-L-5001

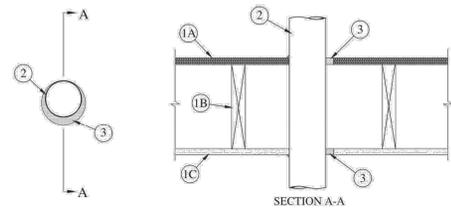
May 19, 2005
 F Ratings - 1 and 2 Hr (See Item 1)
 T Ratings - 3/4, 1 and 1-1/2 Hr (See Item 3)
 L Rating At Ambient - 2 CFM/sq ft
 L Rating At 400 F - less than 1 CFM/sq ft



1. **Wall Assembly** - The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual L300, L400 or V400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
- A. **Studs** - Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 in. by 4 in. (25 mm by 102 mm) lumber spaced 16 in. (406 mm) OC with nom 2 by 4 in. lumber end plates and cross braces. Steel studs to be min 3-5/8 in. (92 mm) wide by 1-3/8 in. (35 mm) deep channels spaced max 24 in. (610 mm) OC.
 - B. **Gypsum Board*** - Nom 5/8 in. (16 mm) thick, 4 ft (122 cm) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual L300 or L400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 14-1/2 in. (368 mm) for wood stud walls and 18 in. (457 mm) for steel stud walls.
- The hourly F Rating of the firestop system is 1 hr when installed in a 1 hr fire rated wall and 2 hr when installed in a 2 hr fire rated wall.
2. **Through Penetrants** - One metallic pipe or tubing to be centered within the firestop system. Pipe or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tubing may be used:
- A. **Steel Pipe** - Nom 12 in. (305 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - B. **Copper Tubing** - Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper tubing.
 - C. **Copper Pipe** - Nom 6 in. (152 mm) diam (or smaller) Regular (or heavier) copper pipe.
3. **Pipe Covering*** - Nom 1 in. or 2 in. (25 mm or 51 mm) thick hollow cylindrical heavy density glass fiber units jacketed on the outside with an oil service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints sealed with metal fasteners or with butt strip tape supplied with the product. When nom 1 in. (25 mm) thick pipe covering is used, the annular space between the pipe covering and the circular cutout in the gypsum board layers on each side of the wall shall be min 1/4 in. to max 3/8 in. (6 mm to max 10 mm). When nom 2 in. (51 mm) thick pipe covering is used, the annular space between the pipe covering and the circular cutout in the gypsum board layers on each side of the wall shall be min 1/2 in. to max 3/4 in. (13 mm to max 19 mm).
- See **Pipe and Equipment Covering - Materials (BRGI)** category in Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
- The hourly T Rating of the firestop system is 3/4 hr when nom 1 in. (25 mm) thick pipe covering is used. The hourly F Rating of the firestop system is 1 hr and 1-1/2 hr when nom 2 in. (51 mm) thick pipe covering is used with 1 hr and 2 hr fire rated walls, respectively.
4. **Firestop System** - Installed symmetrically on both sides of wall assembly. The details of the firestop system shall be as follows:
- A. **Fill, Void or Cavity Materials* - Wrap Strip** - Nom 1/4 in. (6 mm) thick intumescent elastomeric material faced on one side with aluminum foil, supplied in 2 in. (51 mm) wide strips. Nom 2 in. (51 mm) wide strip tightly wrapped around pipe covering (foil side out) with seam butted. Wrap strip layer securely bound with steel wire or aluminum foil tape and slid into annular space approx 1-1/4 in. (32 mm) such that approx 3/4 in. (19 mm) of the wrap strip width protrudes from the wall surface. One layer of wrap strip is required when nom 1 in. (25 mm) thick pipe covering is used. Two layers of wrap strip are required when nom 2 in. (51 mm) thick pipe covering is used.
 - 3M COMPANY - FS-195+
 - B. **Fill, Void or Cavity Materials* - Caulk or Sealant** - Min 1/4 in. (6 mm) diam continuous bead applied to the wrap strip/wall interface and to the exposed edge of the wrap strip layer approx 3/4 in. (19 mm) from the wall surface.
 - 3M COMPANY - CP 25WB+, IC 15WB+, FireDam 150+ caulk or FB-3000 WT sealant
- *Bearing the UL Classification Marking
- This material was extracted and drawn by 3M Fire Protection Products from the 2007 edition of the UL Fire Resistance Directory.

SYSTEM NO. F-C-1094

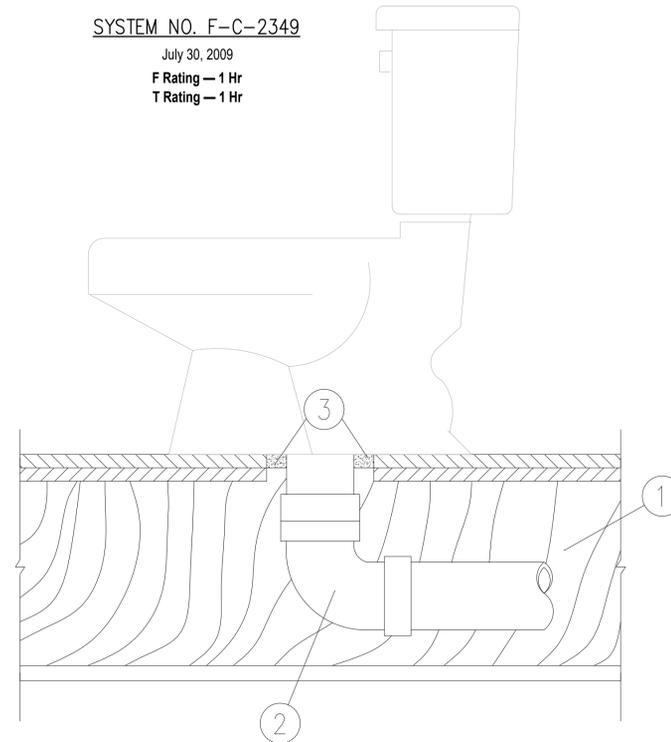
March 07, 2014
 F Rating - 1 Hr
 T Rating - 1/4 Hr



1. **Floor-Ceiling Assembly** - The 1 hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The general construction details of the floor-ceiling assembly are summarized below:
- A. **Flooring System** - Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture* as specified in the individual Floor-Ceiling Design. Max diam of opening is 5-1/2 in. (140 mm).
 - B. **Wood Joists** - Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members* with bridging as required and with ends firestopped.
 - C. **Gypsum Board*** - Nom 4 ft (122 cm) wide by 5/8 in. (16 mm) thick as specified in the individual Floor-Ceiling Design. Max diam of opening is 5-1/2 in. (140 mm).
- 1.1 **Chase Wall** - (Optional, not shown) - The through penetrants (Item No. 2) may be routed through a fire-rated single, double or staggered wood stud gypsum board chase wall having a fire rating consistent with that of the floor-ceiling assembly. The chase wall shall be constructed of the materials and in the manner specified in the individual L300 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
- A. **Studs** - Nom 2 by 6 in. (51 by 152 mm) or double nom 2 by 4 in. (51 by 102 mm) lumber studs.
 - B. **Sole Plate** - Nom 2 by 6 in. (51 by 152 mm) or parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Max diam of opening is 5-1/2 in. (140 mm).
 - C. **Top Plate** - The double top plate shall consist of two nom 2 by 6 in. (51 by 152 mm) or two sets of parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Max diam of opening is 5-1/2 in. (140 mm).
 - D. **Gypsum Board*** - Thickness, type, number of layers and fasteners shall be as specified in individual Wall and Partition Design.
2. **Through Penetrants** - One metallic pipe, cooling, tubing or flexible metal pipe installed concentrically or eccentrically within opening. Annular space between penetrant and periphery of opening to be min 0 in. (0 mm) (point contact) to max 1-3/8 in. (35 mm). Penetrant to be rigidly supported on both sides of floor-ceiling. The following types and sizes of penetrants may be used:
- A. **Steel Pipe** - Nom 4 in. (102 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.
 - B. **Iron Pipe** - Nom 4 in. (102 mm) diam (or smaller) cast or ductile iron pipe.
 - C. **Cooling** - Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing (EMT) or nom 6 in. rigid steel conduit.
 - D. **Copper Tubing** - Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tubing.
 - E. **Copper Pipe** - Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe.
 - F. **Through Penetrating Product* - Flexible Metal Pipe** - The following types of steel flexible metal gas piping may be used:
 - 1.) Nom 2 in. (51 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.
 - OMEGA FLEX INC.
 - 2.) Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.
 - GASTITE, DIV OF TITELIX
 - 3.) Nom 1 in. (25 mm) diam (or smaller) steel flexible metal gas piping. Plastic covering on piping may or may not be removed on both sides of floor or wall assembly.
 - WARD MFG L.L.C.
3. **Fill, Void or Cavity Materials* - Caulk or Sealant** - Min 3/4 in. (19 mm) thickness of caulk applied within annulus, flush with top surface of floor or sole plate. Min 5/8 in. (16 mm) thickness of caulk applied within annulus, flush with bottom surface of ceiling or top floor or sole plate and at penetrant/ceiling or plastic interfaces.
- 3M COMPANY - IC 15WB+, CP 25WB+ caulk or FB-3000 WT sealant.

SYSTEM NO. F-C-2349

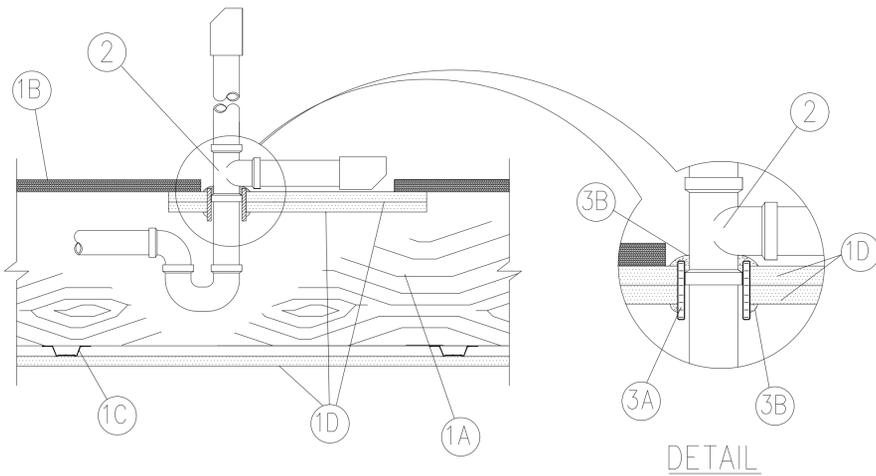
July 30, 2009
 F Rating - 1 Hr
 T Rating - 1 Hr



1. **Floor-Ceiling Assembly** - The 1 hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The general construction details of the floor-ceiling assembly are summarized below:
- A. **Flooring System** - Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture* as specified in the individual Floor-Ceiling Design. Diam of opening shall be 1 in. (25 mm) larger than diam of pipe. Max diam of opening is 5-1/2 in. (140 mm).
 - B. **Wood Joists** - Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members* with bridging as required and with ends firestopped.
 - C. **Gypsum Board*** - Nom 4 ft (1.2 m) wide by 5/8 in. (16 mm) thick as specified in the individual Floor-Ceiling Design.
2. **Nonmetallic Pipe** - One nonmetallic drain pipe with max 4 in. (102 mm) diam toilet flange installed within the firestop system. The annular space between drain pipe and periphery of opening shall be min 0 in. (point contact) to max 1 in. (25 mm). Pipe to be rigidly supported on lower side of floor assembly. The following types and sizes of nonmetallic pipes, fittings and flanges may be used:
- A. **Polyvinyl Chloride (PVC) Pipe** - Nom 4 in. (102 mm) diam (or smaller) Schedule 40 solid core or cellular core PVC pipe for use in vented (drain, waste or vent) piping system.
 - B. **Acrylonitrile Butadiene Styrene (ABS) Pipe** - Nom 4 in. (102 mm) diam (or smaller) Schedule 40 cellular core or solid core ABS pipe for use in vented (drain, waste or vent) piping systems.
3. **Fill, Void or Cavity Materials* - Caulk or Sealant** - Min 1/2 in. (13 mm) thickness of caulk applied within annular space around perimeter of pipe (Item 2), flush with top surface of floor.
- 3M COMPANY - IC 15WB+, CP 25WB+, FB-3000WT
4. **Water Closet** - Floor mounted vitreous china water closet.
- *Bearing the UL Classification Mark

SYSTEM NO. F-C-2026

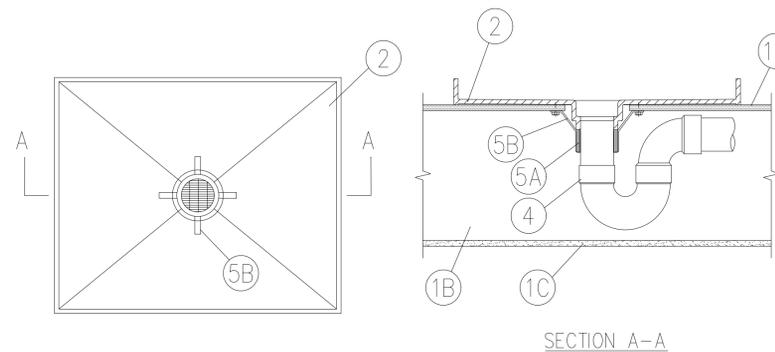
May 18, 2005
 F Rating - 1 Hr
 T Rating - 1 Hr



1. **Floor-Ceiling Assembly** - The fire-rated solid or trussed lumber joist Floor-Ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory and shall include the following construction features:
- A. **Joists** - Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members* with bridging as required and with ends firestopped.
 - B. **Flooring System** - Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture* as specified in the individual Floor-Ceiling Design. Rectangular cutout in flooring to accommodate the bathtub drain piping (Item 2) to be max 8 by 12 in. (203 mm by 305 mm).
 - C. **Furring Channels** - Rigid or resilient galv steel furring channels installed perpendicular to joists.
 - D. **Gypsum Board*** - Nom 4 ft (122 cm) wide by 5/8 in. (16 mm) thick. Wallboard screw-attached to furring channels as specified in the individual Floor-Ceiling Design. Two pieces of gypsum wallboard, each min 4 in. (102 mm) longer and wider than the cutout in the flooring, screw-attached to bottom of flooring concentric with cutout. Diam of opening hole-sawed through both layers of the gypsum wallboard patch to be 1/2 in. to 5/8 in. (13 mm to 16 mm) larger than outside diam of bathtub drain piping (Item 2).
2. **Drain Piping** - Nom 1-1/2 in. (38 mm) diam Schedule 40 PVC pipe and drain fittings cemented together and provided with PVC bathtub waste/overflow fitting.
3. **Firestop System** - The details of the firestop system shall be as follows:
- A. **Fill, Void or Cavity Materials* - Wrap Strip** - Nom 1/4 in. (6 mm) thick intumescent elastomeric material faced on one side with aluminum foil, supplied in 2 in. (51 mm) wide strips. Nom 2 in. (51 mm) wide strip tightly-wrapped around PVC drain piping (foil side exposed), secured with two steel wire ties, and slid into hole-sawed opening in gypsum wallboard patch (Item 1D). Bottom edge of wrap strip to project approx 1/2 in. (13 mm) below bottom surface of gypsum wallboard patch.
 - 3M COMPANY - FS-195+
 - B. **Fill, Void or Cavity Materials* - Caulk or Sealant** - Nom 1/4 in. (6 mm) diam bead of caulk to be applied to perimeter of wrap strip at its egress from the underside of the gypsum wallboard patch. Nom 1/4 in. (6 mm) thickness of caulk to be applied to the exposed edge of the wrap strip layer and to fill all gaps between the wrap strip layer and the tee of the drain fitting on the top surface of the gypsum wallboard patch.
 - 3M COMPANY - CP 25WB+, IC 15 WB, FireDam 150+ caulk or FB-3000 WT sealant
- *Bearing the UL Classification Marking

SYSTEM NO. F-C-2351

January 12, 2009
 T Rating - 1 Hr
 F Rating - 1 Hr



1. **Floor-Ceiling Assembly** - The 1 hr fire-rated wood joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Designs in the UL Fire Resistance Directory, as summarized below:
- A. **Flooring System** - Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture* as specified in the individual Floor-Ceiling Design. Max diam of opening is 6 in. (152 mm).
 - B. **Wood Joists** - Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members* with bridging as required and with ends firestopped.
 - C. **Gypsum Board*** - Thickness, type, number of layers and fasteners as required in the individual Floor-Ceiling Design.
2. **Plastic Plumbing Fixtures* - Shower Base Receptor** - One-piece molded nonmetallic shower base receptor with stainless steel drain plate. Shower base receptor to be installed in accordance with the manufacturer's instructions.
- TILE-REDI LTD - Model 3360L, 3360R, 37NEO, 3737, 4837, 4837ADA, 4837MB or 4848
3. **Tile** - (Not Shown) - Ceramic or stone tile applied to shower pan floor with epoxy adhesive in accordance with shower base receptor installation instructions.
4. **Nonmetallic Pipe** - Nom 2 in. (51 mm) diam Schedule 40 solid or cellular core PVC pipe solvent-welded into drain in the bottom of the shower base receptor and centered in the floor opening.
5. **Firestop System** - The details of the firestop system shall be as follows:
- A. **Fill, Void or Cavity Materials* - Wrap Strip** - Nom 1/8 in. (3.2 mm) thick intumescent material supplied in 2 in. (51 mm) wide strips. Single layer of wrap strip tightly wrapped around nonmetallic drain pipe (Item 4) with a butted seam and with the top edge of the wrap strip abutting the hub of the shower drain. Wrap strip layer temporarily held in position using tape.
 - 3M COMPANY - Ultra GS
 - B. **Steel Collar** - Nom 2 in. (51 mm) deep collar with 1-1/4 in. (32 mm) wide by 2 in. (51 mm) long anchor tabs and tabs to retain wrap strip layer. Colls of precut 0.016 in. (0.41 mm) thick (28 gauge) galv sheet steel available from wrap strip manufacturer. Steel collar, with anchor tabs bent outward 90 deg, wrapped tightly around wrap strip with min 1 in. (25 mm) overlap at seam. Anchor tabs to be pressed tightly against hub of shower drain and collar to be compressed around wrap strip using a min 1/2 in. (13 mm) wide stainless steel clamp at the collar midpoint. Collar to be secured to underside of flooring system with steel screws with min 1-1/4 in. (32 mm) diam steel washers in conjunction with steel extension straps. Hanger tab extension straps to be fabricated from min 0.022 in. (0.6 mm) thick galv sheet steel. Taper straps from 1/4 in. (6 mm) wide to 1 in. (25 mm) wide with sufficient length to allow 1-1/2 to 2 in. (38 to 51 mm) lap onto floor. Straps secured to collar by inserting min 1 in. (25 mm) length of 1/4 in. (6 mm) wide end into hole on mounting tab and bending 180 degrees. Min of two anchor screws, diametrically opposed, are required.
- *Bearing the UL Classification Mark

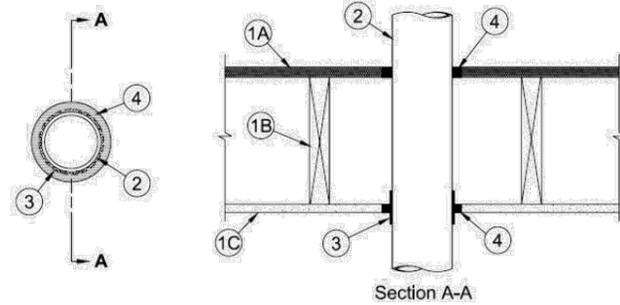
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		<p>8 WEST McBEE AVE., Suite 203 Greenville, SOUTH CAROLINA 29601 PH: (864) 370-9355 FAX: (864) 370-9505 WWW.CarolinaENGR.COM</p>	PROJECT:	PINE COURT APARTMENTS BEAUFORT, SC	P11
			ISSUE	0 3/19/2019	
			PROJECT:	19075	

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SYSTEM NO. F-C-2396

April 25, 2013
F Rating – 1 Hr
T Rating – 1 Hr



1. Floor-Ceiling Assembly – The 1 hr fire rated wood joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Designs in the UL Fire Resistance Directory, as summarized below:

- A. Flooring System** – Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture* as specified in the individual Floor-Ceiling Design. Max diam of opening is 6 in. (152 mm).
- B. Wood Joists** – Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members* with bridging as required and with ends firestopped.
- C. Gypsum Board*** – Thickness, type, number of layers and fasteners as required in the individual Floor-Ceiling Design. Max diam of opening is 6 in. (152 mm).

1.1 Chase Wall – (Optional, not shown) – The tubing (Item No. 2) may be routed through a fire-rated single, double or staggered wood stud/gypsum board chase wall having a fire rating consistent with that of the floor-ceiling assembly. The chase wall shall be constructed of the materials and in the manner specified in the individual U300 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:

- A. Studs** – Nom 2 by 6 in. (51 by 152 mm) or double nom 2 by 4 in. (51 by 102 mm) lumber studs.
- B. Sole Plate** – Nom 2 by 6 in. (51 by 152 mm) or parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Diameter of opening shall be 1-1/2 in. (38 mm) larger than the outside diam of tubing (Items 2).
- C. Top Plate** – The double top plate shall consist of two nom 2 by 6 in. (51 by 152 mm) or two sets of parallel 2 by 4 in. (51 by 102 mm) lumber plates, tightly butted. Diameter of opening shall be 1-1/2 in. (38 mm) larger than the outside diam of tubing (Items 2).
- D. Gypsum Board*** – Thickness, type, number of layers and fasteners shall be as specified in Individual Wall and Partition Design.

2. Through Penetrant – One nonmetallic pipe or conduit to be centered within the opening. Annular space between the pipe or conduit and the periphery of the opening shall be nom 3/4 in. (19 mm). Penetrant to be rigidly supported on both sides of floor-ceiling assembly. The following types and sizes of nonmetallic pipe or conduit may be used:

- A. Polyvinyl Chloride (PVC) Pipe** – Nom 4 in. (102 mm) diam (or smaller) Schedule 40 solid or cellular core PVC pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
- B. Rigid Nonmetallic Conduit (RNC)*** – Nom 4 in. (102 mm) diam (or smaller) Schedule 40 PVC conduit installed in accordance with the National Electrical Code (NECA 70).

3. Fill, Void or Cavity Material* - Wrap Strip – Min 3/16 in. (5 mm) thick intumescent material supplied in 2-1/2 in. (64 mm) wide strips. Single layer of pre-cut wrap strip tightly wrapped around nonmetallic pipe and secured with the adhesive closure tab. Wrap strip is to be recessed within the opening in the gypsum board ceiling such that the bottom of the wrap strip layer is 7/8 in. (22 mm) below the bottom plane of the ceiling.

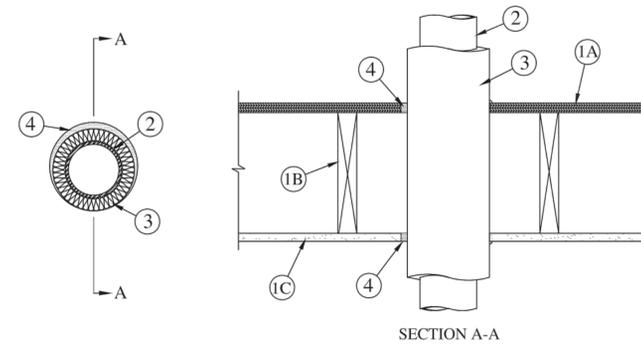
3M COMPANY 3M FIRE PROTECTION PRODUCTS – Fire Barrier Tuck-In Wrap Strip WS 200, WS 300 or WS 400

4. Fill, Void or Cavity Material* - Sealant – Min 3/4 in. (19 mm) thickness of fill material applied within the annulus, flush with the top surface of the floor. Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with the bottom surface of the gypsum board ceiling.

3M COMPANY 3M FIRE PROTECTION PRODUCTS – IC 15WB+, CP 25WB+ or FB-3000 WT Sealant

SYSTEM NO. F-C-5058

May 19, 2005
F Rating – 1 Hr
T Ratings – 0, 3/4 and 1 Hr (See Item 3)



1. Floor-Ceiling Assembly – The 1 hr fire-rated solid or trussed lumber joist floor-ceiling assembly shall be constructed of the materials and in the manner specified in the individual L500 Series Floor-Ceiling Designs in the UL Fire Resistance Directory. The general construction details of the floor-ceiling assembly are summarized below:

- A. Flooring System** – Lumber or plywood subfloor with finish floor of lumber, plywood or Floor Topping Mixture* as specified in the individual Floor-Ceiling Design. Max diam of opening is 8 in. (203 mm).
- B. Wood Joists** – Nom 10 in. (254 mm) deep (or deeper) lumber, steel or combination lumber and steel joists, trusses or Structural Wood Members* with bridging as required and with ends firestopped.
- C. Gypsum Board*** – Nom 4 ft (122 cm) wide by 5/8 in. (16 mm) thick as specified in the individual Floor-Ceiling Design. Max diam of opening is 8 in. (203 mm).

2. Through Penetrants – One metallic pipe, conduit, tubing or flexible metal pipe installed concentrically or eccentrically within opening. Penetrant to be rigidly supported on both sides of floor-ceiling. The following types and sizes of penetrants may be used:

- A. Steel Pipe** – Nom 4 in. (102 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.
- B. Iron Pipe** – Nom 4 in. (102 mm) diam (or smaller) cast or ductile iron pipe.
- C. Copper Tubing** – Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tubing.
- D. Copper Pipe** – Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe.

3. Pipe Coverings – Pipe covering installed such that the annular space between pipe covering and periphery of opening shall be min 0 in. (point contact) to max 7/8 in. (0 mm to 22 mm). The following types of pipe coverings shall be used:

- A. Pipe Coverings*** – Nom 1-1/2 in. (38 mm) thick (or less) hollow cylindrical heavy density glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied SSL tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product.

See **Pipe and Equipment Covering- Materials (BRGU)** category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.

- B. Tube Insulation-Plastics*** – Nom 3/4 in. (19 mm) thick (or less) acrylonitrile butadiene/polyvinyl chloride (AB/PVC) flexible foam furnished in the form of tubing.

See **Plastics (QME22)** category in the Recognized Component Directory for names of manufacturers. Any Recognized Component tube insulation material meeting the above specifications and having a UL 94 Flammability Classification of 94-5A may be used.

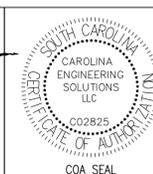
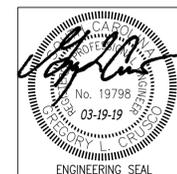
T Rating is 1 Hr for nom 1-1/2 and 1 in. (25 mm) thick glass fiber units. T Rating is 0 Hr for glass fiber units less than nom 1 in. (25 mm) thick. T Rating is 3/4 Hr for nom 3/4 in. (19 mm) thick tube insulation. T Rating is 0 Hr for tube insulations less than nom 3/4 in. (19 mm) thick.

4. Fill, Void or Cavity Materials* – Caulk or Sealant – Min 3/4 in. (19 mm) thickness of caulk applied within annulus, flush with top surface of floor. Min 5/8 in. (16 mm) thickness of caulk applied within annulus, flush with bottom surface of ceiling. Min 1/4 in. (6 mm) diam bead of caulk applied at point contact locations at pipe covering/floor interface on top surface of floor and at pipe covering/ceiling interface.

3M COMPANY – IC 15WB+, CP 25WB+ caulk or FB-3000 WT sealant

*Bearing the UL Classification Marking
 *Bearing the UL Recognized Component Marking

This material was extracted and drawn by 3M Fire Protection Products from the 2007 edition of the UL Fire Resistance Directory.



PROJECT:		PINE COURT APARTMENTS BEAUFORT, SC
ISSUE	DATE	DESCRIPTION
0	3/19/2019	ISSUED FOR REVIEW

P12

PROJECT: 19075

GENERAL STRUCTURAL NOTES

- GOVERNING BUILDING CODE: INTERNATIONAL BUILDING CODE, 2012 EDITION
- DESIGN LOADS:
 - LIVE LOADS (PER NBCB):
 - FLOORS - UNITS: 40 PSF
 - CORRIDORS: 100 PSF
 - PUBLIC ROOMS AND CORRIDORS SERVING THEM: 100 PSF
 - BALCONIES: 60 PSF
 - ROOF: 20 PSF
 - STAIR DESIGN LOADS (PER NBCB):
 - LIVE LOAD: 100 PSF
 - CONCENTRATED LIVE LOAD: 300 LB MID-TREAD
 - HANDRAIL AND GUARDRAIL DESIGN LOADS (PER NBCB):
 - CONCENTRATED LOAD: 200 LB AT ANY POINT AND IN ANY DIRECTION APPLIED AT TOP OF GUARDRAIL
 - UNIFORM LOAD: 50 PLF APPLIED IN ANY DIRECTION AT TOP OF GUARDRAIL
- MATERIALS:
 - CONCRETE (NORMAL WEIGHT - 28 DAY COMPRESSIVE STRENGTH):
 - SLAB ON GRADE & WALLS: 3000 PSI
 - REINFORCING: ASTM A615, GRADE 60
 - REINFORCING TO BE WELDED: ASTM A706, GRADE 60
 - WELDED WIRE FABRIC: ASTM A185
 - STRUCTURAL STEEL SHAPES: ASTM A992, Fy = 50 KSI
 - PLATES, ANGLES AND BARS: ASTM A36, Fy = 36 KSI
 - STEEL PIPE: ASTM A53, GRADE B, Fy = 35 KSI
 - STEEL TUBING (HSS): ASTM A500, GRADE B, Fy = 46 KSI
 - STEEL STUDS: DALE/INCOB OR APPROVED EQUAL
 - ANCHOR BOLTS: ASTM A307
 - HIGH STRENGTH BOLTS: ASTM A325
 - ELECTRODES FOR WELDING: AWS SERIES E70XX
 - HEADED SHEAR CONNECTORS: ASTM A108
 - FRAMING ANCHORS (CONCRETE): HLTI OR EQUAL
 - VAPOR BARRIER: 6 MILS POLYETHYLENE
 - GROUT: 5,000 PSI, NON-SHRINK
 - CONCRETE MASONRY UNITS (WITH SPECIAL INSPECTIONS): ASTM C90
 - MASONRY MORTAR: ASTM C270
 - MASONRY GROUT: ASTM C476
 - MASONRY JOINT REINFORCEMENT: ASTM A82
 - FIELD VERIFY ALL EXISTING ABOVE AND BELOW GROUND CONDITIONS PRIOR TO FABRICATION AND CONSTRUCTION.
 - THE STRUCTURAL DESIGN OF BUILDING IS BASED ON THE FULL INTERACTION OF ALL ITS COMPONENT PARTS, WITH NO PROVISION FOR CONDITION OCCURRING DURING CONSTRUCTION. THEREFORE, CONTRACTOR SHALL PROVIDE ADEQUATE BRACING DURING CONSTRUCTION.
 - STRUCTURAL DRAWINGS INDICATE TYPICAL AND CERTAIN SPECIFIC CONDITIONS ONLY. SHOP DRAWINGS SHALL DETAIL ALL CONDITIONS IN ACCORDANCE WITH SPECIFIED STANDARDS AND SPECIFIC REQUIREMENTS OF THIS PROJECT AS INDICATED ON THE DRAWINGS.
 - MINIMUM REQUIRED TURN-AROUND TIME FOR SHOP DRAWING APPROVAL IS EIGHT WORKING DAYS. SHOP DRAWINGS MUST BE APPROVED BY THE GENERAL CONTRACTOR AND THE ARCHITECT OF RECORD PRIOR TO REVIEW BY ENGINEER OF RECORD. PLEASE SCHEDULE ACCORDINGLY TO AVOID DELAYS. THE FOLLOWING SHOP DRAWINGS MUST BE SUBMITTED PRIOR TO CONSTRUCTION:
 - CONCRETE MIX DESIGN
 - FOUNDATION REINFORCING
 - STAIRS AND RAILING
 - FLOOR JOISTS AND ROOF TRUSSES
 - REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
 - ALL STRUCTURAL DETAILS AND NOTES APPLY TO AREAS SHOWN ON STRUCTURAL DRAWINGS AND MUST NOT BE USED FOR OTHER STRUCTURES OR PAVEMENTS.
 - DESIGN SOIL BEARING PRESSURE IS 1500 psf. THIS VALUE IS TO BE FIELD VERIFIED BY A QUALIFIED SOILS ENGINEER PRIOR TO CONCRETE PLACEMENT. ALL RECOMMENDATIONS OF REFERENCED REPORT SHALL BE FOLLOWED.

WIND LOADS (PER ASCE):	
BASIC WIND SPEED (V30):	115 MPH
WIND LOAD IMPORTANCE FACTOR (I):	1.00
WIND EXPOSURE:	C
INTERNAL PRESSURE COEFFICIENT (Cp):	+/-0.55
COMPONENTS AND CLADDING DESIGN WIND PRESSURE:	-21 PSF
SEISMIC DESIGN DATA (PER IBC):	
SEISMIC USE GROUP:	I
SPECTRAL RESPONSE COEFFICIENT Sps:	0.413g
SPECTRAL RESPONSE COEFFICIENT S01:	0.212g
SITE CLASS:	D
BASIC SEISMIC-FORCE RESISTING SYSTEM:	TABLE 1617.6 LINE 1x
DESIGN BASE SHEAR:	55 KIPS
ANALYSIS PROCEDURE:	EQUVALENT LATERAL FORCE PROCEDURE
SEISMIC DESIGN CATEGORY:	D

CONCRETE AND FOUNDATION NOTES

- CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 301 "SPECIFICATION FOR STRUCTURAL CONCRETE", EXCEPT AS MODIFIED BY THE REQUIREMENTS OF THESE CONTRACT DOCUMENTS.
- SUB GRADE AND UNDER SLAB DRAINAGE SYSTEM SHALL BE PREPARED PER GEOTECHNICAL ENGINEER'S REPORT (S&M, INC. REPORT #1426-15-130 EFFECTIVE DATE OCTOBER 21, 2015).
- ANY FILL BELOW INTERIOR CONCRETE SLABS ON GRADE AND ANY FILL WITHIN 10'-0" OF BUILDING LIMIT SHALL BE AS DETERMINED BY THE GEOTECHNICAL ENGINEER. ALL FOOTINGS SHALL BEAR ON ORIGINAL UNDISTURBED SOIL OR CONTROLLED FILL.
- CONCRETE MIX DESIGNS SHALL BE ESTABLISHED BY THE SUPPLIER IN ACCORDANCE WITH ACI SPECIFICATIONS. MIX DESIGNS AND BACK-UP DATA SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PLACEMENT OF CONCRETE.
- ALL CONCRETE SHALL BE NORMAL WEIGHT (150 PCF) UNLESS NOTED OTHERWISE ON THE PLANS.
- CONCRETE FOR FLOOR SLABS SHALL HAVE A MAXIMUM SLUMP OF 5 INCHES AT THE POINT OF DELIVERY.
- AIR ENTRAINING AGENTS CONFORMING TO ASTM C260 SHALL BE ADDED TO ALL CONCRETE EXPOSED TO FREEZING AND THAWING TO PRODUCE 5 % ENTRAINED AIR. AIR-ENTRAINING ADMIXTURES SHALL NOT BE ADDED TO CONCRETE USED FOR TROWEL-FINISHED INTERIOR SLABS-ON-GRADE OR ELEVATED SLABS.
- SIZE OF AGGREGATES SHALL CONFORM TO ASTM C33.
- NO CALCIUM CHLORIDE SHALL BE USED IN ANY CONCRETE.
- UNLESS NOTED OTHERWISE, ALL INTERIOR AND EXTERIOR SLABS ON GRADE SHOWN ON STRUCTURAL DRAWINGS, INCLUDING STEPS, SHALL BE 4" THICK.
- CONCRETE FINISH FLOORS SHALL HAVE A HARD STEEL TROWEL FINISH AND EXTERIOR SLABS, SIDEWALKS, PADS AND RAMPS SHALL HAVE A LIGHT BROOM FINISH UNLESS NOTED OTHERWISE.

- FLATNESS AND LEVELNESS TOLERANCES FOR FLOORS AS TESTED IN ACCORDANCE WITH ASTM E1155:
 - FLOOR FLATNESS NUMBER: F F
 - SPECIFIED OVERALL VALUE = [50]
 - MINIMUM LOCAL VALUE = [25]
 - FLOOR LEVELNESS NUMBER: F L
 - SPECIFIED OVERALL VALUE = [33]
 - MINIMUM LOCAL VALUE = [17]
- ONLY F VALUE APPLIES TO ELEVATED SLABS.
- TEMPORARY EXCAVATION FOR FOOTINGS, PITS, PIPES OR OTHER PURPOSES SHALL BE SLOPED AND BRACED IN ACCORDANCE WITH O.S.H.A. REQUIREMENTS.
- REINFORCING STEEL PLACEMENT SHALL BE INSPECTED BY A QUALIFIED STRUCTURAL ENGINEER IN ACCORDANCE WITH ACI 318 SECTION 1.3.
- PROVIDE BAR SUPPORTS AND SPACERS IN ACCORDANCE WITH ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCING".
- SPICES NOT SHOWN ON THE DRAWINGS SHALL BE SUBJECT TO APPROVAL. LAP ALL HORIZONTAL BARS A MINIMUM OF 30 BAR DIAMETERS AND ALL VERTICAL BARS A MINIMUM OF 24 BAR DIAMETERS UNLESS NOTED OTHERWISE.
- WELDING OF REINFORCING STEEL SHALL NOT BE PERMITTED EXCEPT AS AUTHORIZED OR DIRECTED BY THE STRUCTURAL ENGINEER.
- HORIZONTAL REINFORCEMENT IN FOOTINGS, TURNDOWN SLAB, AND WALLS SHALL BE CONTINUOUS AROUND CORNERS.
- ALL FIELD BENDING OF REINFORCING SHALL BE DONE COLD. HEATING OF BARS IS NOT PERMITTED.
- PRINCIPAL OPENINGS ARE SHOWN ON STRUCTURAL DRAWINGS. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL OPENINGS, EMBEDS, SLEEVES, DEPRESSIONS, SLOPES, ETC..
- ALL OPENINGS SHALL BE REINFORCED WITH (2)-#5 BARS, ALL SIDES, EXTENDED A MINIMUM OF 3'-0" BEYOND OPENING, UNLESS NOTED OTHERWISE.
- PROVIDE A MINIMUM OF (2)-#4 BARS, 4'-0" LONG AT REINTRAIT CORNERS OF SLABS-ON-GRADE AND ELEVATED SLABS, CENTERED ABOUT CORNER, UNLESS NOTED OTHERWISE ON PLANS.
- ALL DEBRIS SHALL BE REMOVED FROM FORMS PRIOR TO PLACEMENT OF CONCRETE.
- MINIMUM CONCRETE COVER FOR CAST-IN-PLACE CONCRETE REINFORCEMENT:
 - CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3 inches
 - CONCRETE EXPOSED TO EARTH OR WEATHER:
 - NO. 6 THROUGH NO. 18 BARS: 2 inches
 - NO. 5 BAR AND SMALLER: 1-1/2 inches
 - CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
 - SLABS, WALLS, JOISTS:
 - NO. 11 BAR AND SMALLER: 3/4 inches
 - BEAMS, COLUMNS:
 - PRIMARY REINFORCEMENT, TIES, STIRRUPS: 1-1/2 inches

WOOD FRAMING NOTES

- ALL STUDS SHALL BE STUD GRADE SYP OR STUD GRADE SPF.
- ALL HEADERS AND BEAMS SHALL BE No.2 SYP OR BETTER. SEE SCHEDULE FOR SIZES. Fv = 875 psi MINIMUM Fv = 90 psi MINIMUM E = 1400 ksi MINIMUM
- ALLOWABLE DESIGN STRESSES FOR LAMINATED VENEER LUMBER (LVL) TO BE AS FOLLOWS: Fb = 2800 psi MINIMUM Fv = 285 psi MINIMUM E = 1900 ksi MINIMUM
- ALLOWABLE DESIGN STRESSES FOR PARALLEL STRAND LUMBER (PSL) TO BE AS FOLLOWS: Fb = 2900 psi MINIMUM Fv = 290 psi MINIMUM E = 2000 ksi MINIMUM
- ALLOWABLE DESIGN STRESSES FOR LAMINATED STRAND LUMBER (LSL) TO BE AS FOLLOWS: Fb = 2250 psi MINIMUM Fv = 400 psi MINIMUM E = 1500 ksi MINIMUM
- ALL PLATES SHALL BE No.2 SYP LAPPED A MINIMUM OF 48" AND NAILED TOGETHER WITH A MINIMUM OF FIVE (5) 16g NAILS PER FOOT AT DOUBLE TOP PLATES.
- ALL SILL PLATES IN CONTACT WITH CONCRETE OR MASONRY AND EXPOSED LUMBER SHALL BE PRESSURE-TREATED PER ACPA SPECIFICATIONS. EXPOSED ENGINEERED LUMBER BEAMS SHALL BE PRESSURE-TREATED PSL HAVING A MAXIMUM MOISTURE CONTENT OF 28% (SERVICE LEVEL 2).
- ALL JAMB AND BEAM SUPPORT STUDS SHALL BE BLOCKED CONTINUOUSLY THROUGH JOIST CAVITY WITH AN EQUAL NUMBER OF VERTICAL 2x4 STUDS. AT BEAMS ADD SUFFICIENT BLOCKS TO EACH END OF BEAM TO MATCH STUD GROUP ABOVE.
- REFER TO ARCHITECTURAL PLANS FOR ROOF TRUSS LAYOUTS. ALL ROOF BEAMS AND TRUSS GIRDERS SHALL BE ANCHORED WITH STRAP TIES TO A MINIMUM OF (2)-2x4 STUDS AT EACH END CONTINUOUS TO FOUNDATION, UNLESS NOTED OTHERWISE.
- WOOD FRAMING CONNECTIONS TO BE MADE WITH JOIST HANGERS UNLESS NOTED OTHERWISE ON PLANS.
- BRACE STUD WALLS UNTIL ALL DECKING, ROOF TRUSSES, AND SHEAR PANELS ARE IN PLACE.
- ALL EXTERIOR BALCONY AND BREEZEWAY FRAMING BEAMS, JOISTS AND LEDGERS TO BE OF PRESSURE-TREATED LUMBER.
- UNLESS NOTED OTHERWISE, USE THE FOLLOWING HEADER SCHEDULE FOR LOAD-BEARING HEADERS. FOR NON-LOADBEARING HEADERS USE (2) 2x6 + 1/2" PLYWOOD.
- CONTRACTOR MUST PROVIDE STEEL CONNECTORS TREATED APPROPRIATELY FOR NEW PRESSURED TREATED LUMBER (TYP.)
- SILL PLATES FOR WALLS WHICH ARE NOT SHEAR WALLS OR EXTERIOR WALLS SHALL BE ATTACHED TO SLAB WITH 0.145" POWDER ACTUATED FASTENERS WITH 1-7/16" MINIMUM EMBEDMENT (HLTI X-DNI 72P8S36 OR EQUAL). AT LEAST ONE PIN SHALL BE LOCATED AT 6" FROM THE PLATE END AND ANOTHER AT 10" FROM THE PLATE END. MAXIMUM SPACING OF POWDER ACTUATED FASTENERS SHALL BE 12" O.C.

LIST OF ABBREVIATIONS

A.B.	ANCHOR BOLT	LSL	TIMBERSTRAND LSL LUMBER
ARCH.	ARCHITECT / ARCHITECTURAL	LVL	LAMINATED VENEER LUMBER
C.J.	CONTROL JOINT OR CONSTRUCTION JOINT	MAX.	MAXIMUM
CL	CENTER LINE	MIN.	MINIMUM
CLR.	CLEAR	M.O.	MASONRY OPENING
C.M.U.	CONCRETE MASONRY UNIT	N.S.	NEAR SIDE
CONT.	CONTINUOUS	N.T.S.	NOT TO SCALE
D.B.A.	DEFORMED BAR ANCHOR DRAWINGS	P.I.P.	POURED IN PLACE
DWGS.	DRAWINGS	PSL	PARALLEL STRAND LUMBER
E.F.	EACH FACE	S.A.D.	SEE ARCHITECTURAL DRAWINGS
E.O.S.	EDGE OF SLAB	T.O.F.	TOP OF FOOTING
E.W.	EACH WAY	T.O.J.	TOP OF JOIST
F.G.	FINISH GRADE	T.O.S.	TOP OF SLAB
F.O.M.	FACE OF MASONRY	T & B	TOP AND BOTTOM
F.S.	FAR SIDE	TYP.	TYPICAL
H.C.	HOLLOW CORE	U.N.O.	UNLESS NOTED OTHERWISE
		W.P.	WORKING POINT

WOOD TRUSS NOTES:

- TRUSS LOADS & DEFLECTION REQUIREMENTS:
 - ROOF:
 - ROOF DEAD LOAD: 10 PSF
 - TOP CHORD DEAD W/ ASPHALT SHINGLES = 10 PSF
 - BOT CHORD DEAD = 10 PSF
 - ROOF TOP CHORD LIVE = 20 PSF
 - ROOF DEFLECTION MAX = L/360
 - FLOOR:
 - FLOOR DEAD LOAD: 17 PSF
 - TOP CHORD DEAD = 8 PSF
 - BOT CHORD DEAD = 8 PSF
 - FLOOR TOP CHORD LIVE = 20 PSF
 - FLOOR DEFLECTION MAX = L/480
 - ALL WOOD ROOF TRUSSES SHALL BE DESIGNED AND FABRICATED TO COMPLY WITH THE NATIONAL DESIGN SPECIFICATIONS FOR STRESS-GRADE LUMBER AND ITS FASTENERS, LATEST EDITION, TIMBER CONSTRUCTION STANDARDS (A.I.T.C.) AND THE BUILDING CODE.
 - ALL TRUSS DESIGNS SHALL BEAR THE NAME AND SEAL OF A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT.
 - THE TRUSS SUPPLIER SHALL SUBMIT THE TRUSS DESIGN CALCULATIONS AND SHOP DRAWINGS TO THE PROJECT ENGINEER FOR APPROVAL.
 - ALL LUMBER SHALL CONFORM TO THE SPECIES AND RECOGNIZED NOMINAL SIZES SHOWN ON THE TRUSS ENGINEERING DRAWINGS.
 - ALL TRUSS CONNECTOR PLATES SHALL BE MANUFACTURED FROM ASTM A446-72 GRADE A GALVANIZED STEEL OF NO LESS THAN 20 GAGE THICKNESS WITH A MINIMUM YIELD OF 33,000 PSI AND AN ULTIMATE TENSILE STRENGTH OF 45,000 PSI.
 - TRUSSES ARE TO BE STORED OFF THE GROUND IN A MANNER WHICH WILL NOT DAMAGE OR WARP THE TRUSSES PRIOR TO ERECTION.
 - FIELD REPAIR OF DAMAGED TRUSSES MUST BE APPROVED IN WRITING BY THE ENGINEER OF RECORD.
 - ALL ROOF TRUSSES ARE TO HAVE METAL STRAPS AT EACH END TO RESIST UP/LIFT FORCES. STRAPS ARE TO BE ATTACHED IN ACCORDANCE WITH SUPPLIER SPECIFICATIONS. CONTRACTOR VERIFY THAT THE ROOF CLIPS CALLED OUT ON THE STRUCTURAL DRAWINGS WILL RESIST FORCES CALLED OUT ON THE TRUSS SHOP DRAWINGS AND PROVIDE ADD'L CLIPS IF REQUIRED.
 - TRUSS SUPPLIER IS TO SUPPLY PLAN SHOWING LOCATION AND REQUIREMENTS FOR ANY TEMPORARY BRACING REQUIRED FOR OR DURING ERECTION.
 - ALL PREFABRICATED PLATE CONNECTED MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH REFERENCED STANDARDS TPI-1 AND AFPA NDS. PLATE INSTITUTE.
- NOTE:
CONTRACTOR SHALL BRACE TRUSSES DURING CONSTRUCTION AS PER TRUSS MFG.

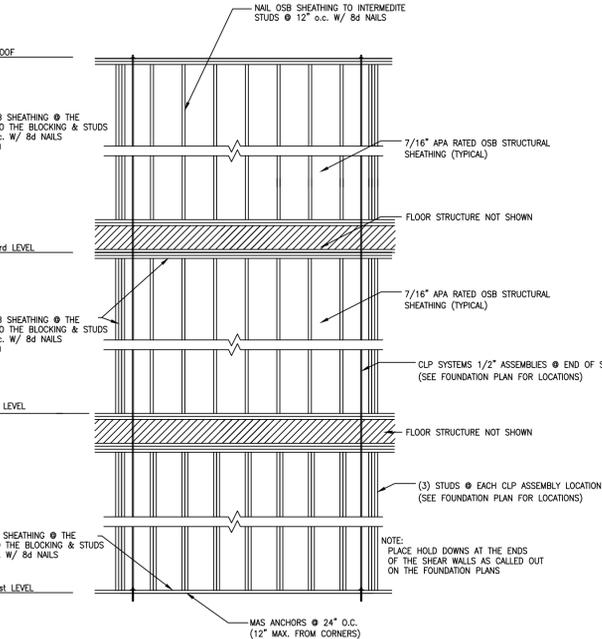
LINTEL SCHEDULE					
OPENING WIDTH		FOR EACH 1" WALL THICKNESS	WALL DIMENSION AND REINFORCING		
MIN.	MAX.	STEEL (LLV)	DEPTH 4"WALL	8"WALL	12"WALL
1'-11"	---	L-3x3 1/2x1/4	7 3/4"	---	2#5 BOT 2#5 BOT
2'-0"	3'-6"	L-3x3 1/2x1/4	7 3/4"	---	2#5 BOT 2#5 BOT
3'-0"	4'-11"	L-3x3 1/2x1/4	7 3/4"	---	2#5 BOT 2#5 BOT
5'-0"	6'-5"	L-3 1/2x4x1/4	7 3/4"	---	2#5 BOT 2#6 BOT
6'-6"	7'-11"	L-3 1/2x5x1/4	7 3/4"	---	1#8 BOT 2#7 BOT
8'-0"	9'-0"	L-3 1/2x6x5/16	15 3/8"	---	1#8 BOT

NOTE: DO NOT USE THIS SCHEDULE IF CONCENTRATED LOADS ARE APPLIED. PROVIDE 12" (MIN.) BEARING AT EACH END.

STUD SCHEDULE (LOAD BEARING WALLS & EXTERIOR WALLS)	
4 LEVEL CONDITION	
LEVEL	STUD TYPE & SPACING
1st LEVEL	(2) 2x4 STUDS @ 16" o.c.
2nd LEVEL	(2) 2x4 STUDS @ 16" o.c.
3rd LEVEL	2x4 STUDS @ 16" o.c.
4th LEVEL	2x4 STUDS @ 16" o.c.
3 LEVEL CONDITION	
LEVEL	STUD TYPE & SPACING
1st LEVEL	(2) 2x4 STUDS @ 16" o.c.
2nd LEVEL	2x4 STUDS @ 16" o.c.
3rd LEVEL	2x4 STUDS @ 16" o.c.
2 LEVEL CONDITION	
LEVEL	STUD TYPE & SPACING
1st LEVEL	2x4 STUDS @ 16" o.c.
2nd LEVEL	2x4 STUDS @ 16" o.c.
1 LEVEL CONDITION	
LEVEL	STUD TYPE & SPACING
1st LEVEL	2x4 STUDS @ 16" o.c.

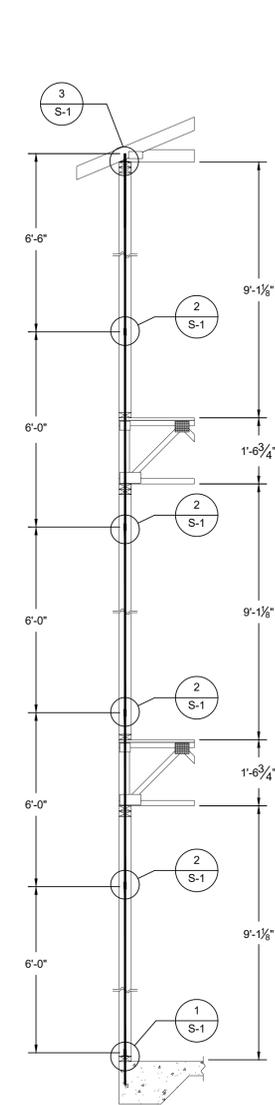
NOTES:

- #2 SYP FINGER JOINTED STUDS MAY BE USED IN PLACE OF SOLID STUDS AT INTERIOR WALLS ONLY.
- ALL PLATES SHALL BE #2 SYP.
- PROVIDE BLOCKING IN FLOOR SPACE BELOW JACK & KING STUDS SUPPORTING INTERIOR HEADERS. BLOCKING SHALL BE 2-2x4 STUDS (TYP.)



TYP. OSB SHEARWALL ELEVATION

NOTE:
ALL EXTERIOR WALLS ARE SHEARWALLS AND ALL INTERIOR WALLS MARKED SW ARE SHEARWALLS.



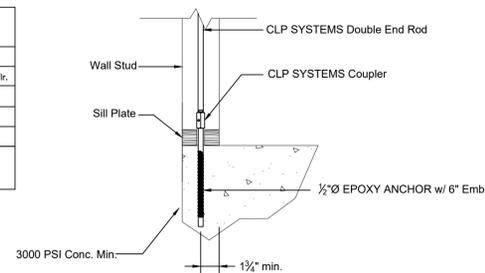
Typical Three Story Wall Section

Scale: 1/2" = 1'-0"

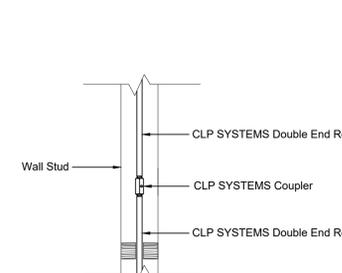
Denoted as ● on the Foundation Plan.

JACK/KING STUD SCHEDULE (LOAD BEARING WALLS & EXTERIOR WALLS)			
OPENING	JACK STUDS	KING STUDS	
up to 4'-0"	(2)	(1)	(2)*
4'-0" to 6'-0"	(2)	(2)	(3)
6'-0" to 9'-0"	(2)	(2)	(4)

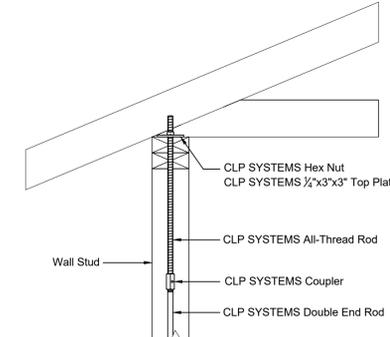
NOTE:
* (3) STUDS REQUIRED AT CLP SYSTEMS ASSEMBLY LOCATIONS



1 Section
1/2" = 1'-0"



2 Section
1/2" = 1'-0"



3 Section
1/2" = 1'-0"

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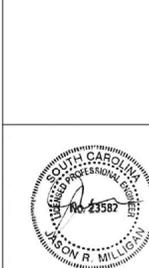
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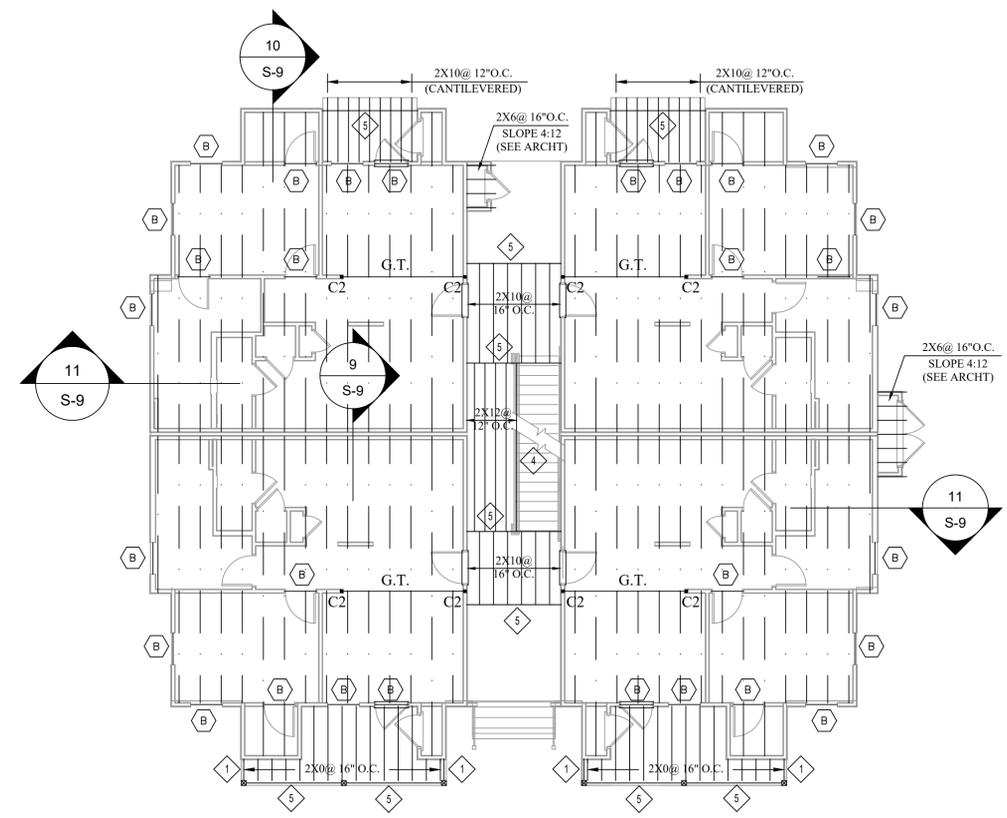
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GENERAL NOTES & TYPICAL DETAILS

Sheet Number:

S-1



SECOND FLOOR FRAMING PLAN - TYPE A
 BLDG #1

NOTE: FLOOR FRAMING IS 18" DEEP FLOOR TRUSSES @ 24" O.C. UNLESS NOTED OTHERWISE.

G.T. DENOTES 18" OPEN WEB GIRDER TRUSS FLUSH W/ FLOOR TRUSSES (TYP).

NOTE: VERIFY AND COORDINATE ALL DIMENSIONS W/ FOUNDATION PLAN & ARCH'T DRAWINGS

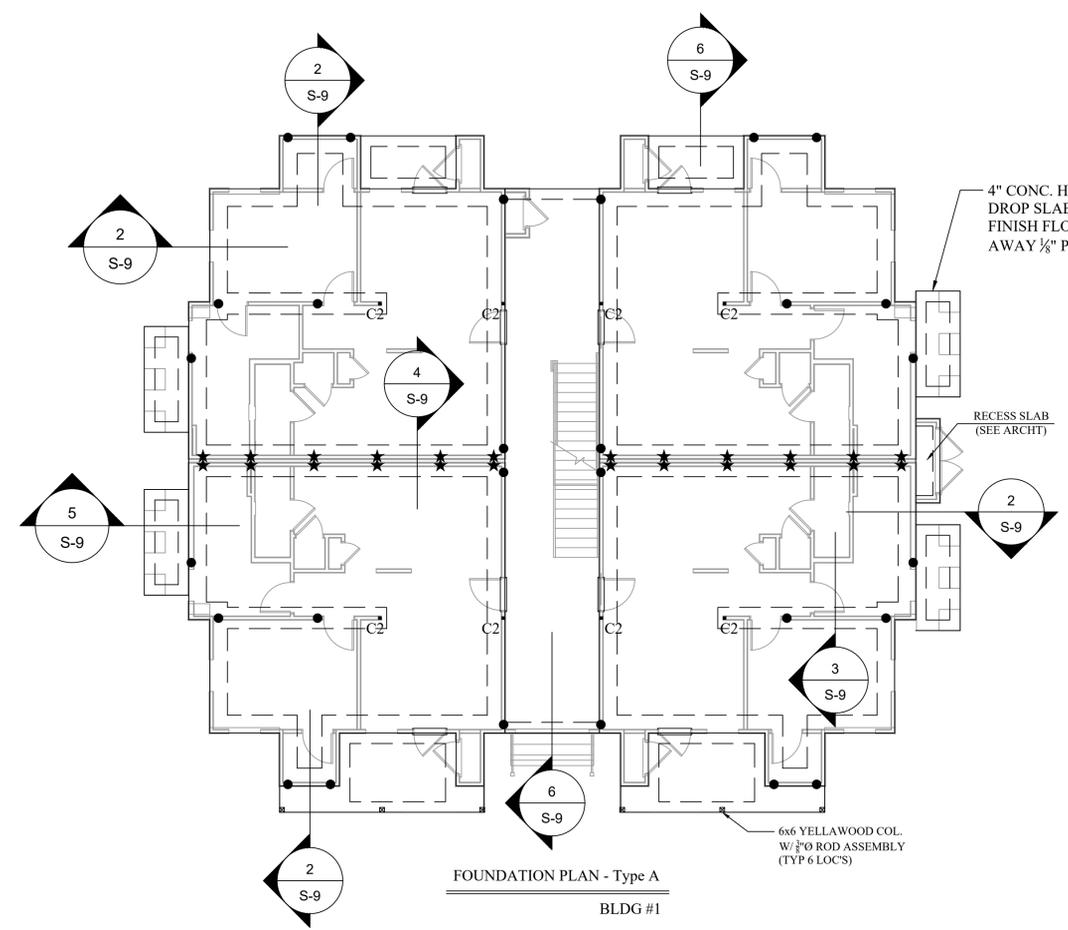
COLUMN SCHEDULE	
C1 - (3) 2X4	
C2 - (4) 2X4	
C3 - 6X6 COLUMN W/ CB66 POST BASE	
C4 - 5-1/4 x 5-1/4 PSL COLUMN W/ CB66 POST BASE	

NOTE: WOOD POST/COLS MUST EXTEND CONT. TO FOUNDATION

HEADER SCHEDULE	
A (2) 2 X 6'S W/ 1/2" OSB	
B (2) 2 X 8'S W/ 1/2" OSB	
C (2) 2 X 10'S W/ 1/2" OSB	
D (2) 2 X 12'S W/ 1/2" OSB	

BEAM SCHEDULE		
BEAM	STUDS	
1 (2) 2 X 10'S	(2) 2X4	
2 (3) 2 X 10'S	(2) 2X4	
3 (4) 2 X 10'S	(2) 2X4	
4 (2) 2 X 12'S	(3) 2X4	
5 (3) 2 X 12'S	(3) 2X4	
6 (2) 1 3/4 X 18 LVL	(3) 2x4	
7 (3) 1 3/4 X 18 LVL	6X6 POST	

NOTE: WOOD POST/COLS MUST EXTEND CONT. TO FOUNDATION



FOUNDATION PLAN - Type A
 BLDG #1

4" CONC. HVAC SLAB (TYP)
 DROP SLAB 6" BELOW BLDG.
 FINISH FLOOR AND SLOPE
 AWAY 1/8" PER FOOT

● 1/2"Ø CLP SYSTEMS ASSEMBLY (SEE SHT. S1 FOR DETAILS)
 ★ 3/8"Ø CLP SYSTEMS ASSEMBLY (SEE SHT. S1 FOR DETAILS)

PLEASE NOTE: ONE 1/2" SILL PLATE ANCHOR CAN BE REPLACED AT EACH CLP ANCHOR LOCATION (USE TYP. SILL ANCHORAGE IN BETWEEN CLP ROD LOCATIONS).

NOTE: VERIFY AND COORDINATE ALL DIMENSIONS W/ ARCH'T DRAWINGS (DIM ARE FROM FACE OF STUD U.N.O.)

NOTE: VERIFY AND COORDINATE ALL HVAC SLAB DIMENSIONS W/ HVAC CONTRACTOR (TYP)

NOTE: COORDINATE EXTERIOR BRICK EXTENT AND LOCATION W/ ARCH'T DWGS.

COLUMN SCHEDULE	
C1 - (3) 2X4	
C2 - (4) 2X4	
C3 - 6X6 COLUMN W/ CB66 POST BASE	
C4 - 5-1/4 x 5-1/4 PSL COLUMN W/ CB66 POST BASE	

NOTE: WOOD POST/COLS MUST EXTEND CONT. TO FOUNDATION

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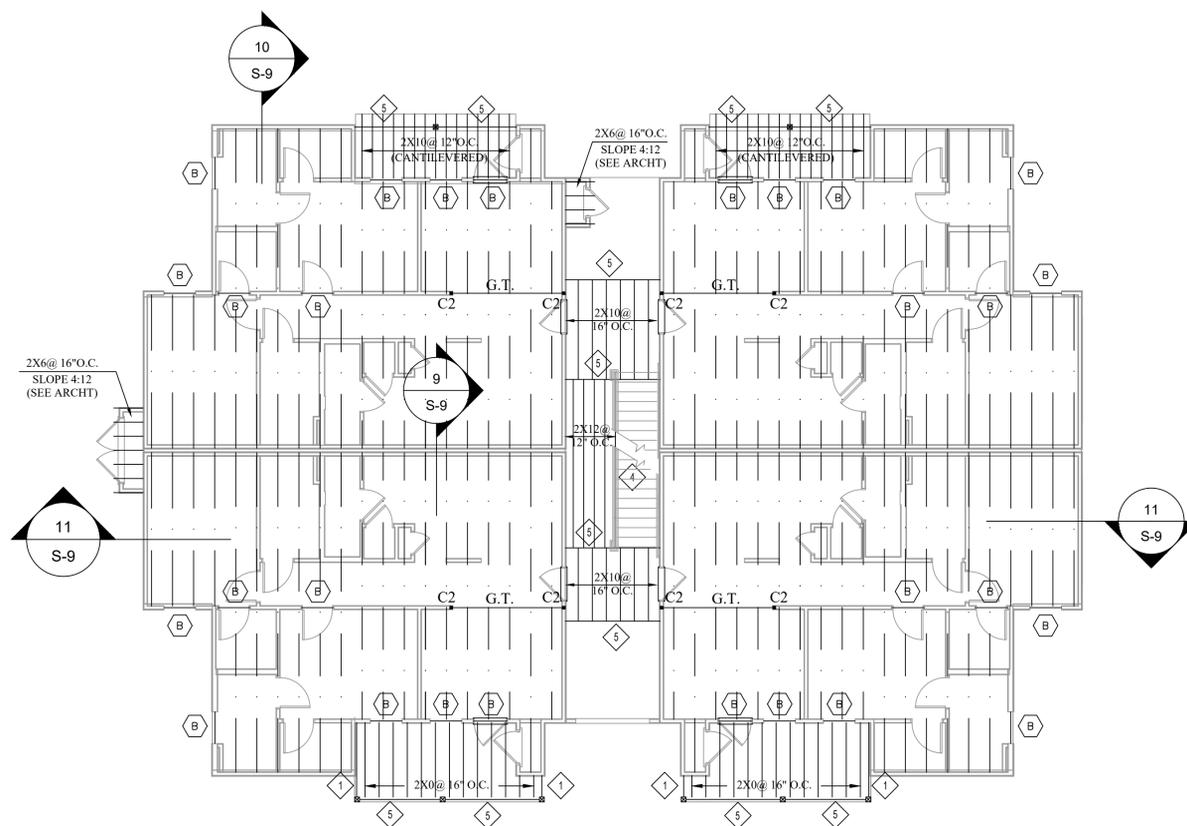
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FOUND & 2ND FLR
 TYPE A

Sheet Number:
S-2



SECOND FLOOR FRAMING PLAN - TYPE B1
BLDG #2

NOTE: FLOOR FRAMING IS 18" DEEP FLOOR TRUSSES @ 24" O.C. UNLESS NOTED OTHERWISE.

G.T. DENOTES 18" OPEN WEB GIRDER TRUSS FLUSH W/ FLOOR TRUSSES (TYP).

NOTE: VERIFY AND COORDINATE ALL DIMENSIONS W/ FOUNDATION PLAN & ARCH'T DRAWINGS

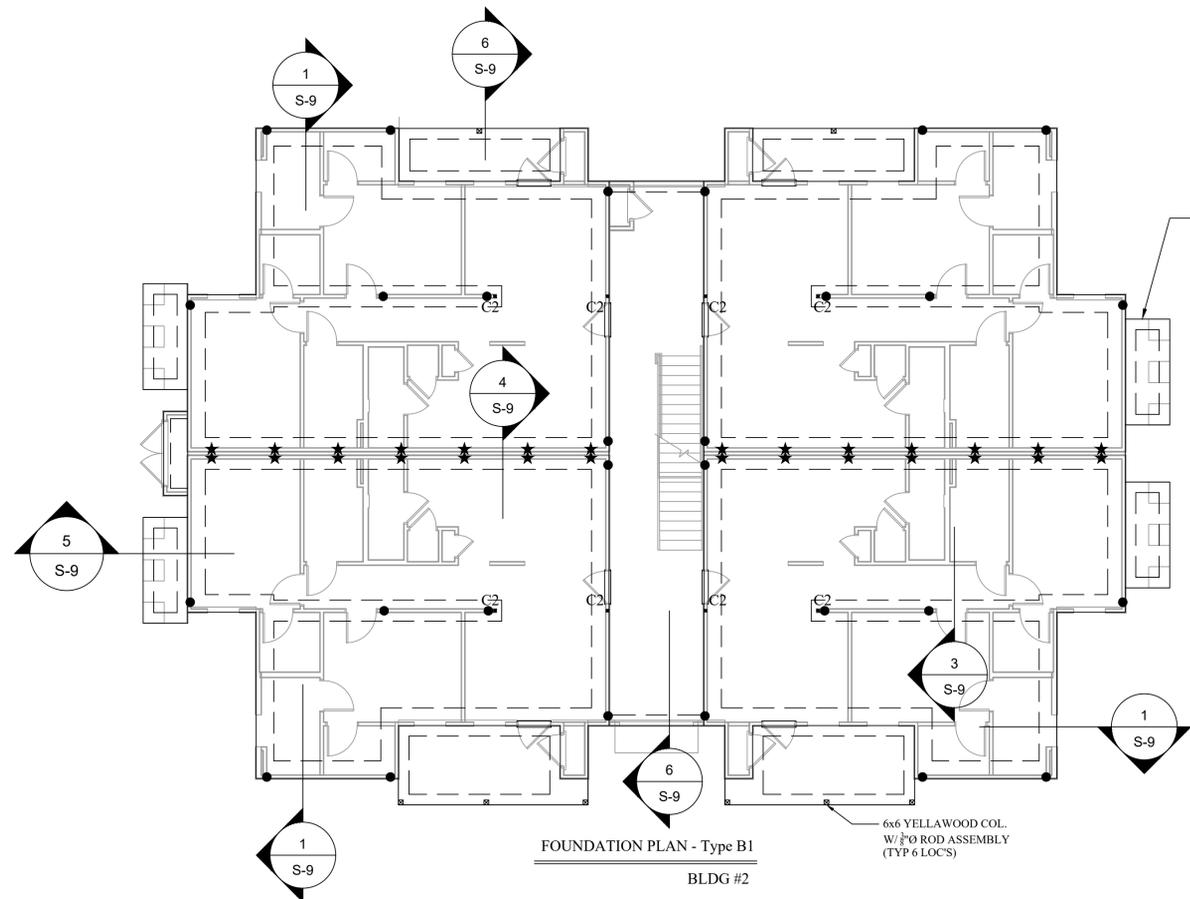
COLUMN SCHEDULE	
C1	(3) 2X4
C2	(4) 2X4
C3	6X6 COLUMN W/ CB66 POST BASE
C4	5-1/4 x 5-1/4 PSL COLUMN W/ CB66 POST BASE

NOTE: WOOD POST/COLS MUST EXTEND CONT. TO FOUNDATION

HEADER SCHEDULE	
A	(2) 2 X 6'S W/ 1/2" OSB
B	(2) 2 X 8'S W/ 1/2" OSB
C	(2) 2 X 10'S W/ 1/2" OSB
D	(2) 2 X 12'S W/ 1/2" OSB

BEAM SCHEDULE		
BEAM	STUDS	
1	(2) 2 X 10'S	(2) 2X4
2	(3) 2 X 10'S	(2) 2X4
3	(4) 2 X 10'S	(2) 2X4
4	(2) 2 X 12'S	(3) 2X4
5	(3) 2 X 12'S	(3) 2X4
6	(2) 1 3/4 X 18 LVL	(3) 2x4
7	(3) 1 3/4 X 18 LVL	6X6 POST

NOTE: WOOD POST/COLS MUST EXTEND CONT. TO FOUNDATION



FOUNDATION PLAN - Type B1
BLDG #2

4" CONC. HVAC SLAB (TYP)
DROP SLAB 6" BELOW BLDG.
FINISH FLOOR AND SLOPE
AWAY 1/8" PER FOOT

● 1/2"Ø CLP SYSTEMS ASSEMBLY (SEE SHT. S1 FOR DETAILS)
★ 3/8"Ø CLP SYSTEMS ASSEMBLY (SEE SHT. S1 FOR DETAILS)
PLEASE NOTE: ONE 1/2" SILL PLATE ANCHOR CAN BE REPLACED AT EACH CLP ANCHOR LOCATION (USE TYP. SILL ANCHORAGE IN BETWEEN CLP ROD LOCATIONS).

NOTE: VERIFY AND COORDINATE ALL DIMENSIONS W/ ARCH'T DRAWINGS (DIM ARE FROM FACE OF STUD U.N.O.)

NOTE: VERIFY AND COORDINATE ALL HVAC SLAB DIMENSIONS W/ HVAC CONTRACTOR (TYP)

NOTE: COORDINATE EXTERIOR BRICK EXTENT AND LOCATION W/ ARCH'T DWGS.

COLUMN SCHEDULE	
C1	(3) 2X4
C2	(4) 2X4
C3	6X6 COLUMN W/ CB66 POST BASE
C4	5-1/4 x 5-1/4 PSL COLUMN W/ CB66 POST BASE

NOTE: WOOD POST/COLS MUST EXTEND CONT. TO FOUNDATION

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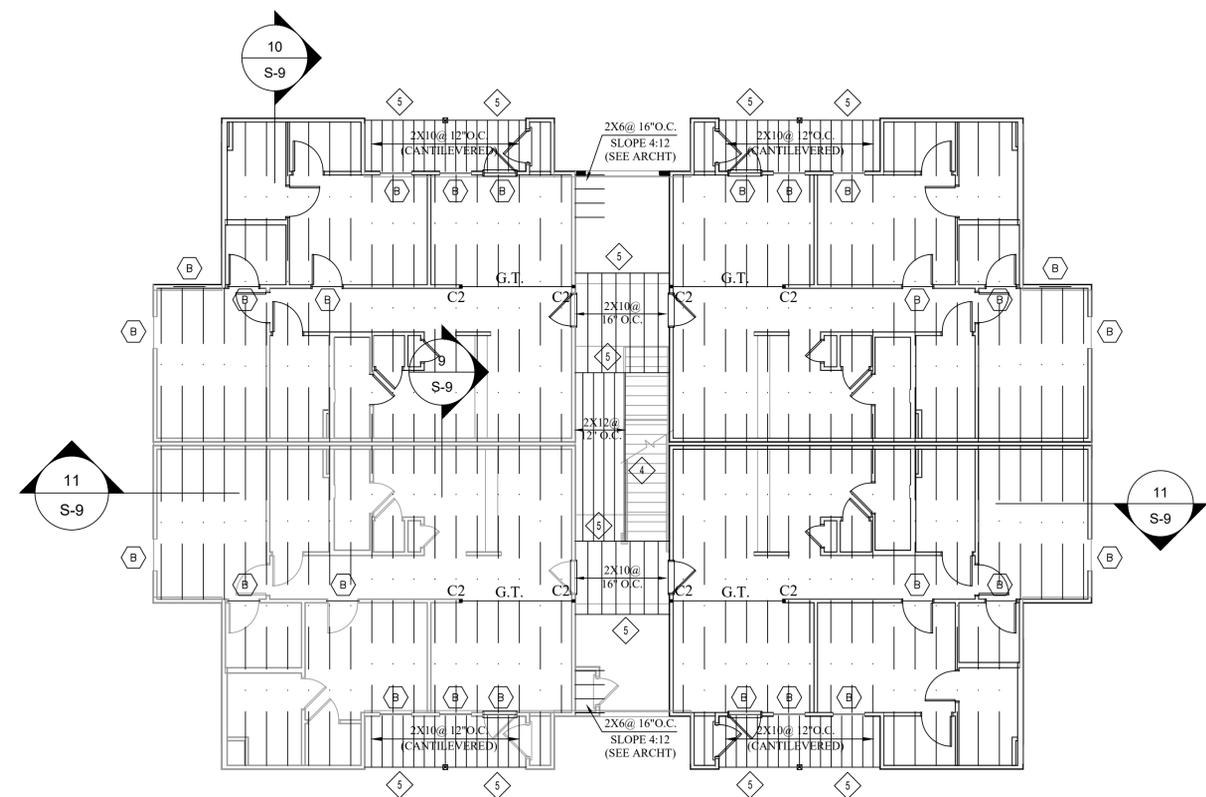
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FOUND & 2ND FLR
TYPE B1

Sheet Number:
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SECOND FLOOR FRAMING PLAN - TYPE B2
 BLDG #3, #4, & #5

NOTE: FLOOR FRAMING IS 18" DEEP FLOOR TRUSSES @ 24" O.C. UNLESS NOTED OTHERWISE.

G.T. DENOTES 18" OPEN WEB GIRDER TRUSS FLUSH W/ FLOOR TRUSSES (TYP).

NOTE: VERIFY AND COORDINATE ALL DIMENSIONS W/ FOUNDATION PLAN & ARCH'T DRAWINGS

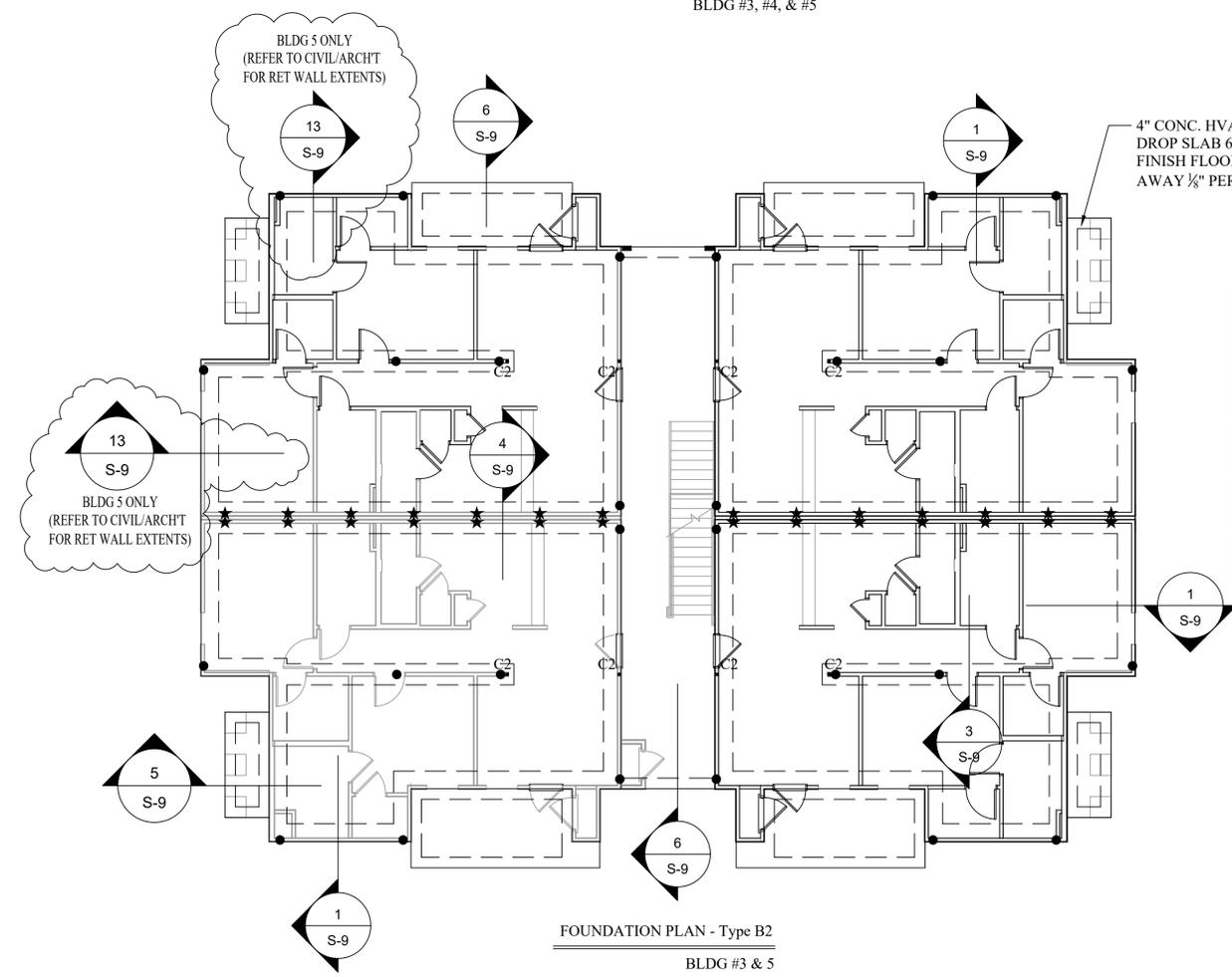
COLUMN SCHEDULE	
C1 - (3) 2X4	
C2 - (4) 2X4	
C3 - 6X6 COLUMN W/ CB66 POST BASE	
C4 - 5-1/4 x 5-1/4 PSL COLUMN W/ CB66 POST BASE	

BEAM SCHEDULE		
BEAM	STUDS	
1	(2) 2 X 10'S	(2) 2X4
2	(3) 2 X 10'S	(2) 2X4
3	(4) 2 X 10'S	(2) 2X4
4	(2) 2 X 12'S	(3) 2X4
5	(3) 2 X 12'S	(3) 2X4
6	(2) 1 3/4 X 18 LVL	(3) 2x4
7	(3) 1 3/4 X 18 LVL	6X6 POST

NOTE: WOOD POST/COLS MUST EXTEND CONT. TO FOUNDATION

HEADER SCHEDULE	
A	(2) 2 X 6'S W/ 1/2" OSB
B	(2) 2 X 8'S W/ 1/2" OSB
C	(2) 2 X 10'S W/ 1/2" OSB
D	(2) 2 X 12'S W/ 1/2" OSB

NOTE: WOOD POST/COLS MUST EXTEND CONT. TO FOUNDATION



FOUNDATION PLAN - Type B2
 BLDG #3 & 5

● 1/2" CLP SYSTEMS ASSEMBLY (SEE SHT. S1 FOR DETAILS)
 ★ 3/8" CLP SYSTEMS ASSEMBLY (SEE SHT. S1 FOR DETAILS)

PLEASE NOTE: ONE 1/2" SILL PLATE ANCHOR CAN BE REPLACED AT EACH CLP ANCHOR LOCATION (USE TYP. SILL ANCHORAGE IN BETWEEN CLP ROD LOCATIONS).

NOTE: VERIFY AND COORDINATE ALL DIMENSIONS W/ ARCH'T DRAWINGS (DIM ARE FROM FACE OF STUD U.N.O.)

NOTE: VERIFY AND COORDINATE ALL HVAC SLAB DIMENSIONS W/ HVAC CONTRACTOR (TYP)

NOTE: COORDINATE EXTERIOR BRICK EXTENT AND LOCATION W/ ARCH'T DWGS.

COLUMN SCHEDULE	
C1 - (3) 2X4	
C2 - (4) 2X4	
C3 - 6X6 COLUMN W/ CB66 POST BASE	
C4 - 5-1/4 x 5-1/4 PSL COLUMN W/ CB66 POST BASE	

NOTE: WOOD POST/COLS MUST EXTEND CONT. TO FOUNDATION

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 TYPE B2

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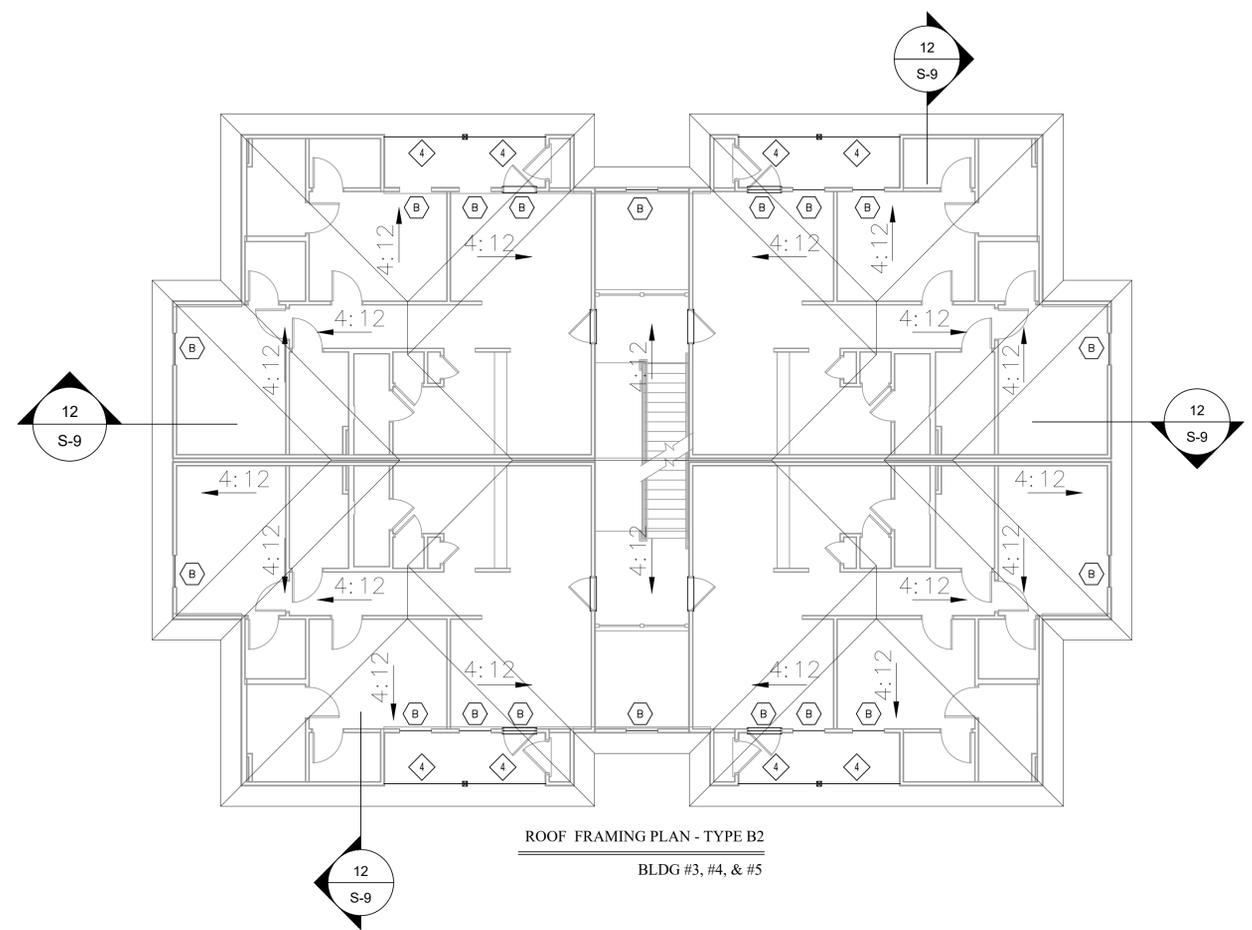
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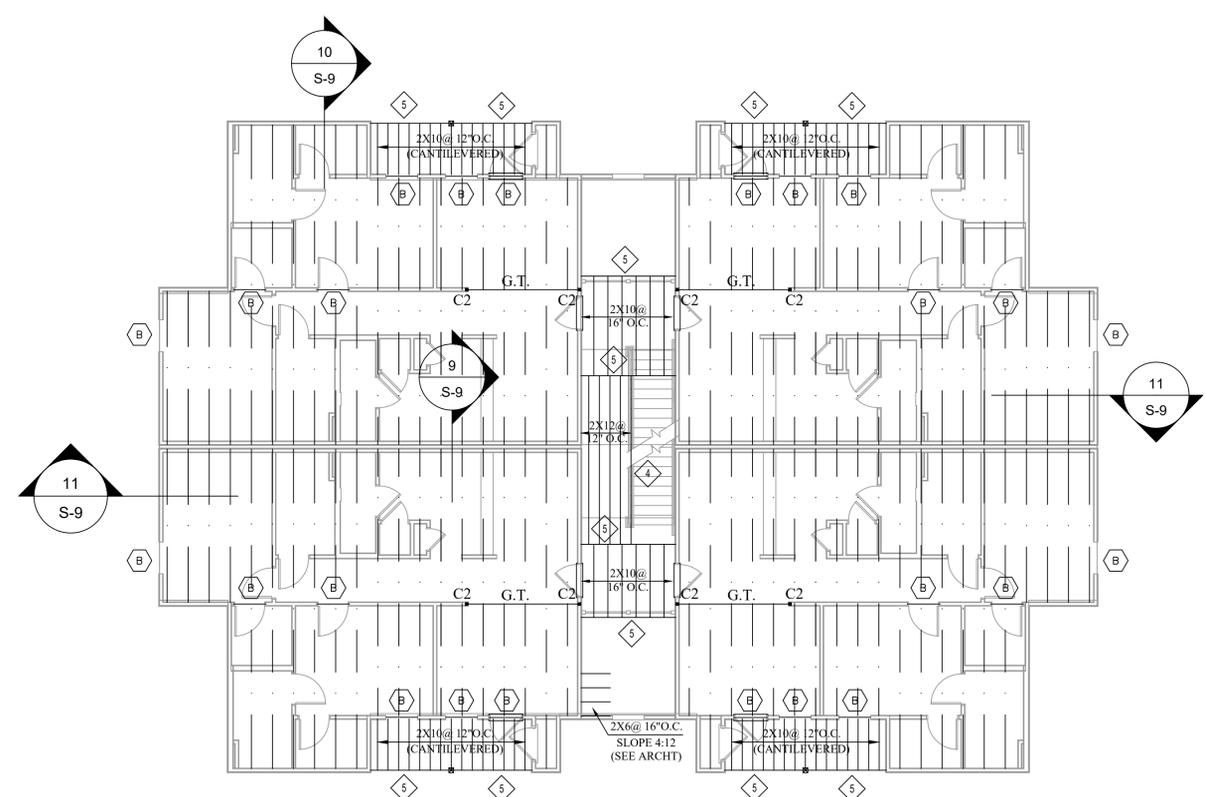
3RD FLR & ROOF
 TYPE B2

Sheet Number:

S-7



ROOF FRAMING PLAN - TYPE B2
 BLDG #3, #4, & #5



THIRD FLOOR FRAMING PLAN - TYPE B2
 BLDG #3, #4, & #5

NOTE: FLOOR FRAMING IS 18" DEEP FLOOR TRUSSES @ 24" O.C. UNLESS NOTED OTHERWISE.

G.T. DENOTES 18" OPEN WEB GIRDER TRUSS FLUSH W/ FLOOR TRUSSES (TYP).

NOTE: VERIFY AND COORDINATE ALL DIMENSIONS W/ FOUNDATION PLAN & ARCH'T DRAWINGS

COLUMN SCHEDULE	
C1 - (3) 2X4	
C2 - (4) 2X4	
C3 - 6X6 COLUMN W/ CB66 POST BASE	
C4 - 5-1/4 x 5-1/4 PSL COLUMN W/ CB66 POST BASE	

NOTE: WOOD POST/ COLS MUST EXTEND CONT. TO FOUNDATION

HEADER SCHEDULE	
(A) (2) 2 X 6'S W/ 1/2" OSB	
(B) (2) 2 X 8'S W/ 1/2" OSB	
(C) (2) 2 X 10'S W/ 1/2" OSB	
(D) (2) 2 X 12'S W/ 1/2" OSB	

BEAM SCHEDULE		
BEAM	STUDS	
1 (2) 2 X 10'S	(2) 2X4	
2 (3) 2 X 10'S	(2) 2X4	
3 (4) 2 X 10'S	(2) 2X4	
4 (2) 2 X 12'S	(3) 2X4	
5 (3) 2 X 12'S	(3) 2X4	
6 (2) 1 3/4 X 18 LVL	(3) 2x4	
7 (3) 1 3/4 X 18 LVL	6X6 POST	

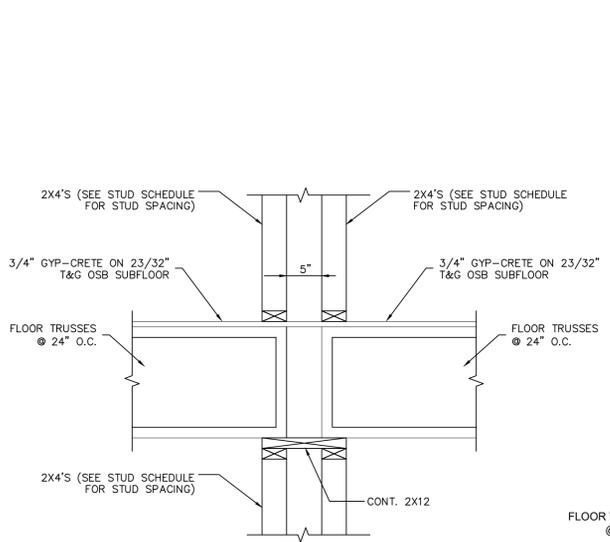
NOTE: WOOD POST/ COLS MUST EXTEND CONT. TO FOUNDATION

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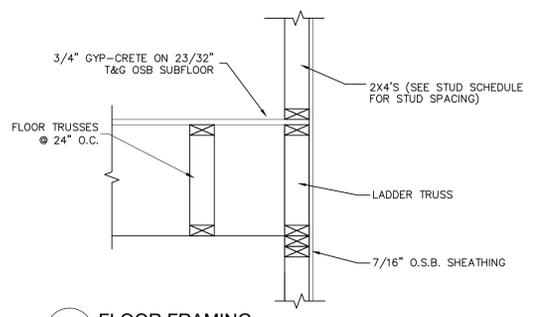
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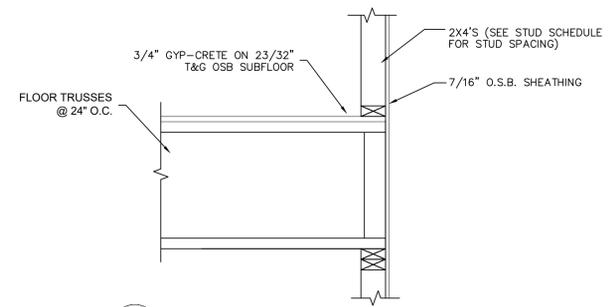
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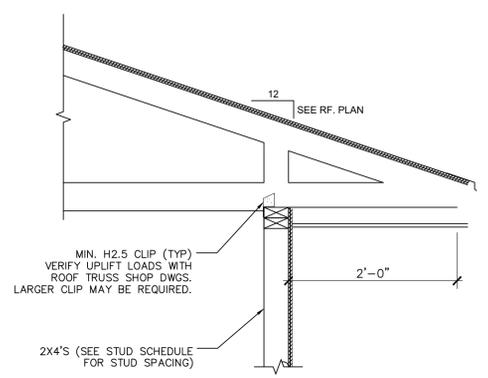
9 FLOOR FRAMING
 1" = 1'-0" @ PARTY WALL



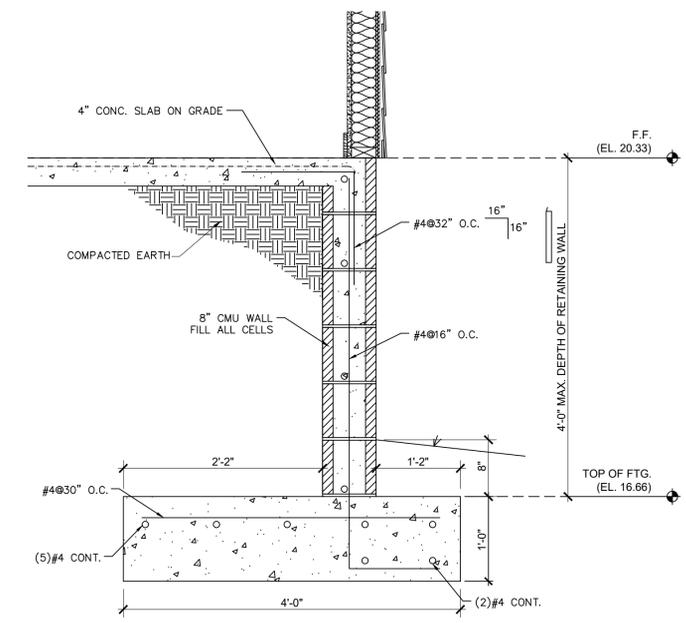
11 FLOOR FRAMING
 1" = 1'-0"



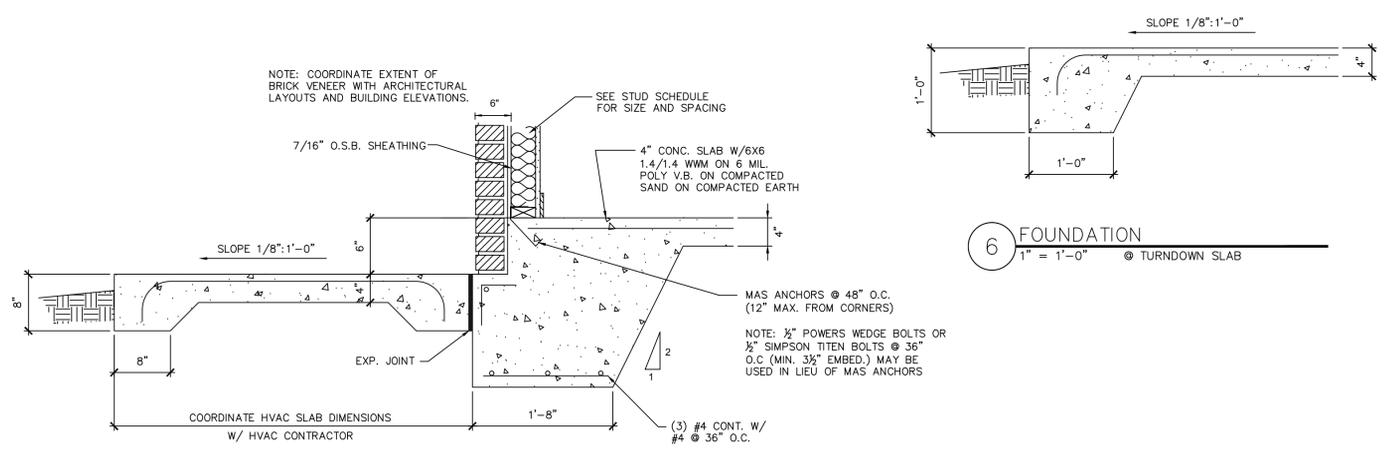
10 FLOOR FRAMING
 1" = 1'-0"



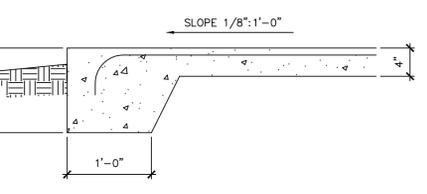
12 ROOF
 1" = 1'-0"



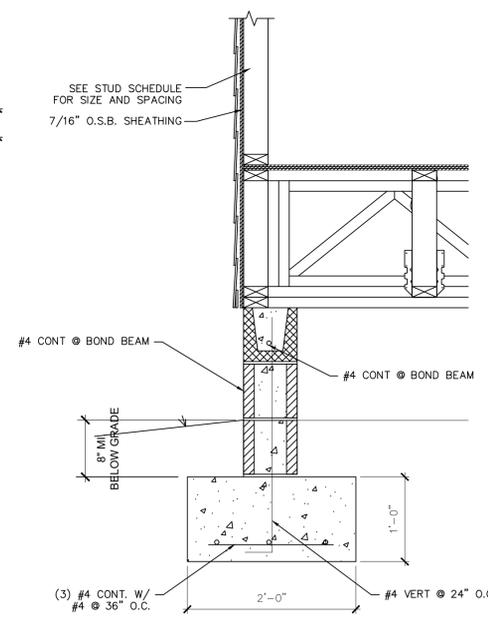
13 FOUNDATION - RETAINING WALL BLDG #5
 1" = 1'-0"



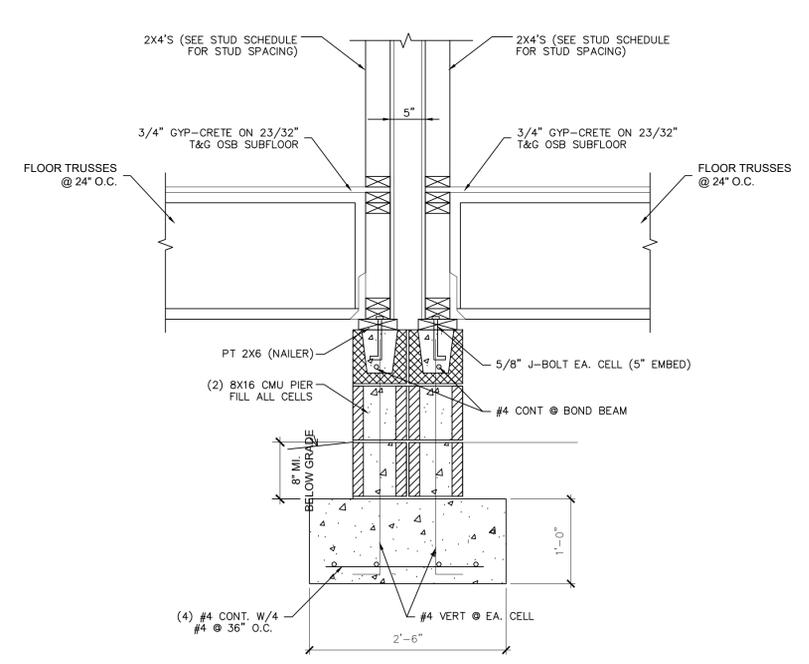
5 FOUNDATION
 1" = 1'-0" @ HVAC SLAB



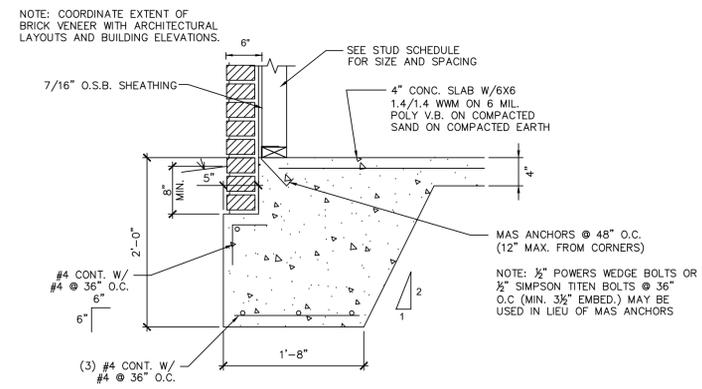
6 FOUNDATION
 1" = 1'-0" @ TURNDOWN SLAB



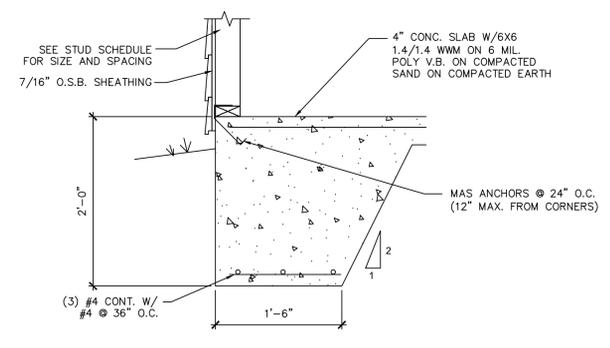
7 FOUNDATION - EXT BLDG #4
 1" = 1'-0"



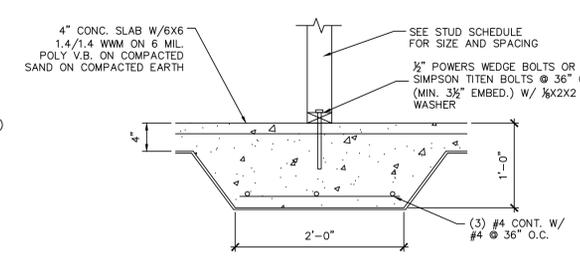
8 FOUNDATION - PARTY WALL BLDG #4
 1" = 1'-0"



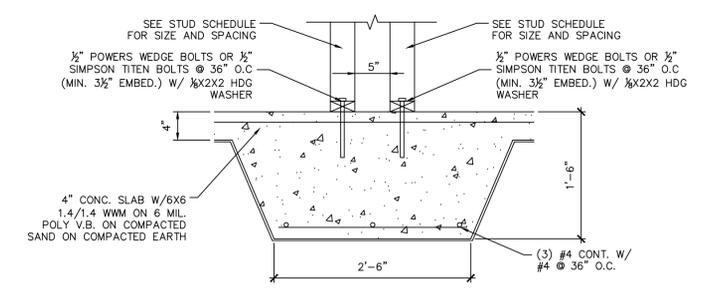
1 FOUNDATION
 1" = 1'-0" W/ BRICK



2 FOUNDATION
 1" = 1'-0" W/ SIDING



3 FOUNDATION
 1" = 1'-0" @ INTERIOR BEARING WALL - SINGLE

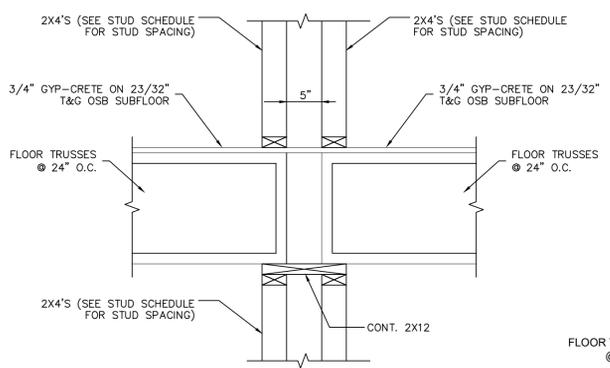


4 FOUNDATION
 1" = 1'-0" @ INTERIOR BEARING WALL - DOUBLE

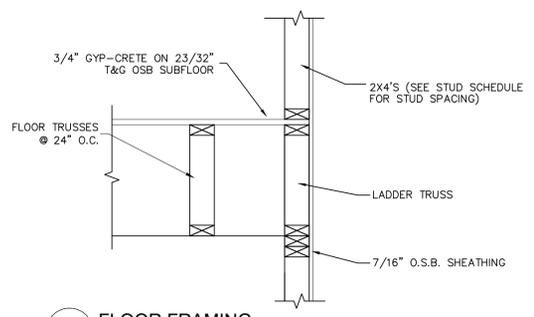
REVISIONS		
No.	Date	Comments
03-19-19		Issued for Permit
12-09-19		Revision

**PINE COURT
 APARTMENTS
 BEAUFORT, SOUTH CAROLINA**

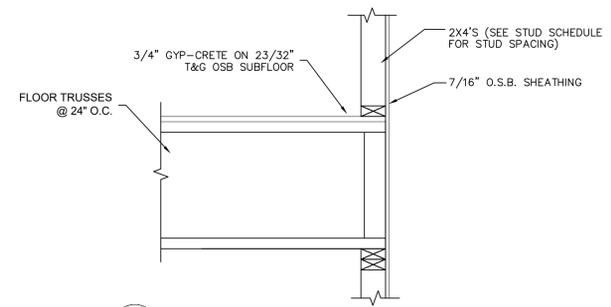
Job Number:
 File Reference:
 Designed By: JRM
 Drawn By: JRM
 Issue Date: 06-26-17



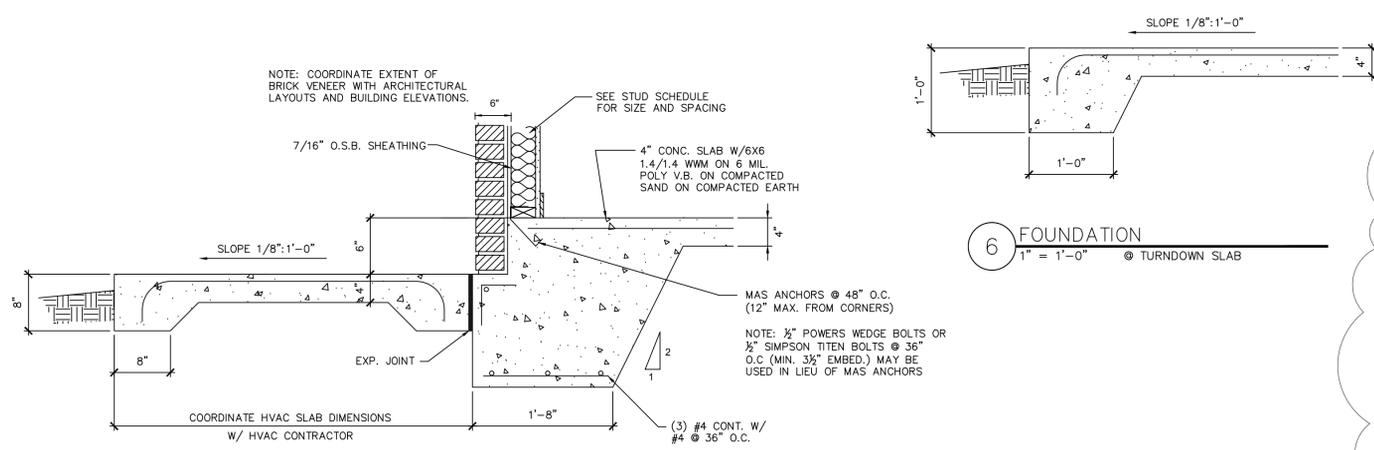
9 FLOOR FRAMING
 1" = 1'-0" @ PARTY WALL



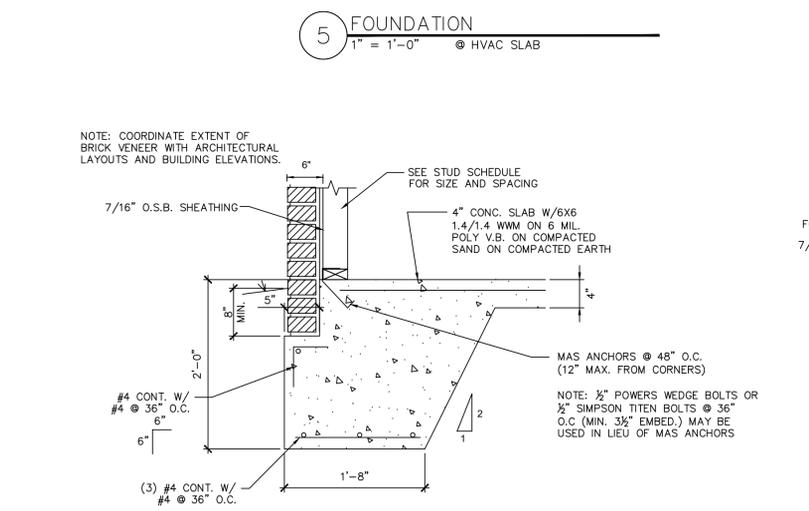
11 FLOOR FRAMING
 1" = 1'-0"



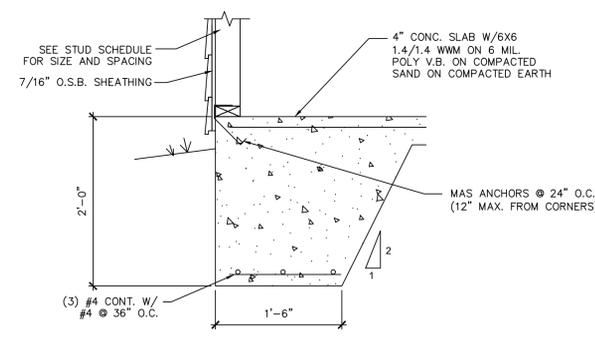
10 FLOOR FRAMING
 1" = 1'-0"



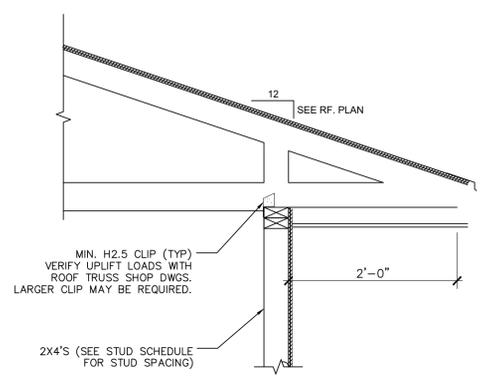
6 FOUNDATION
 1" = 1'-0" @ TURNDOWN SLAB



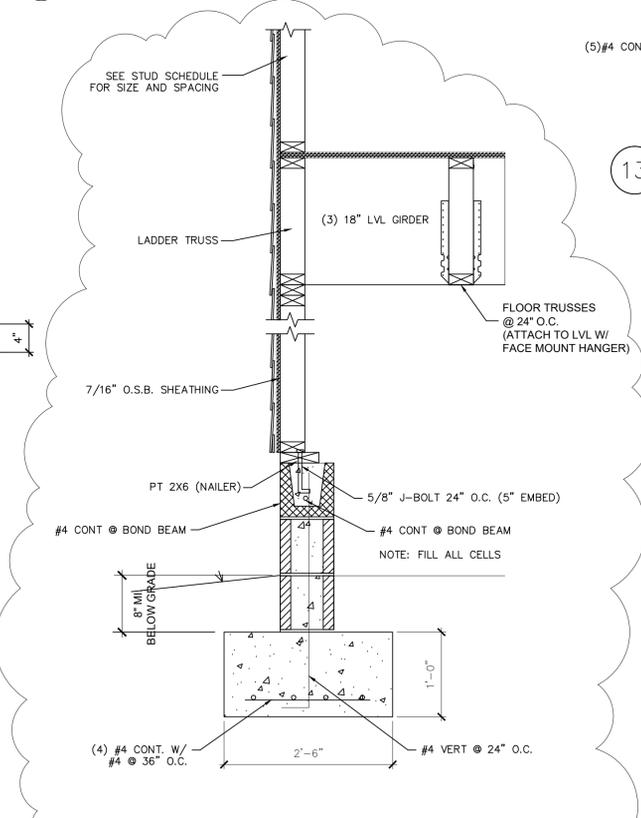
1 FOUNDATION
 1" = 1'-0" W/ BRICK



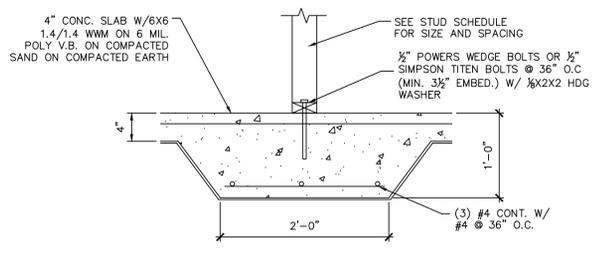
2 FOUNDATION
 1" = 1'-0" W/ SIDING



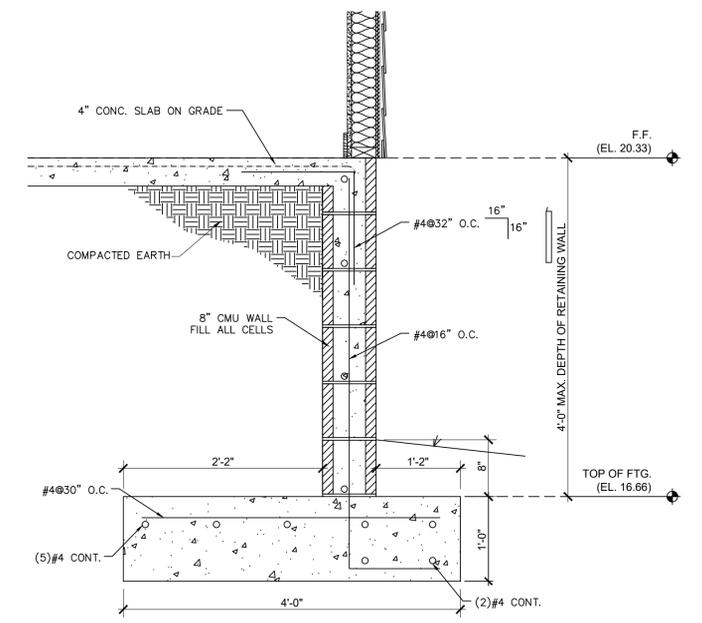
12 ROOF
 1" = 1'-0"



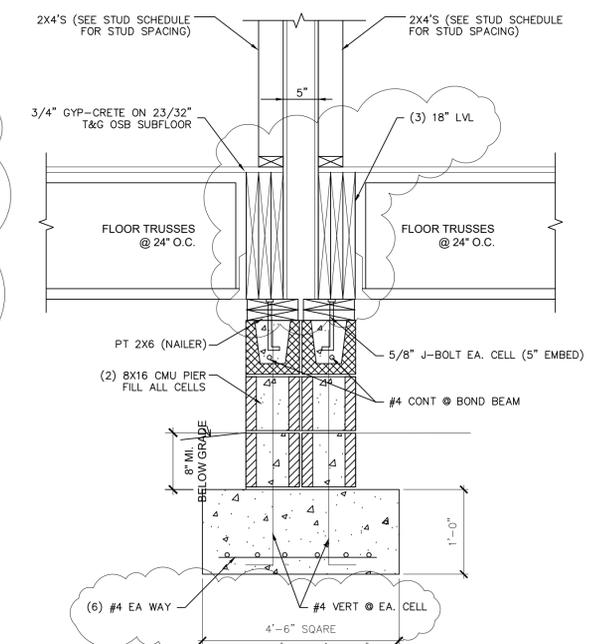
7 FOUNDATION - EXT BLDG #4
 1" = 1'-0"



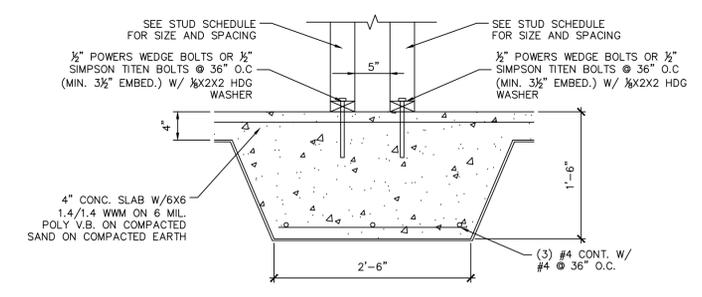
3 FOUNDATION
 1" = 1'-0" @ INTERIOR BEARING WALL - SINGLE



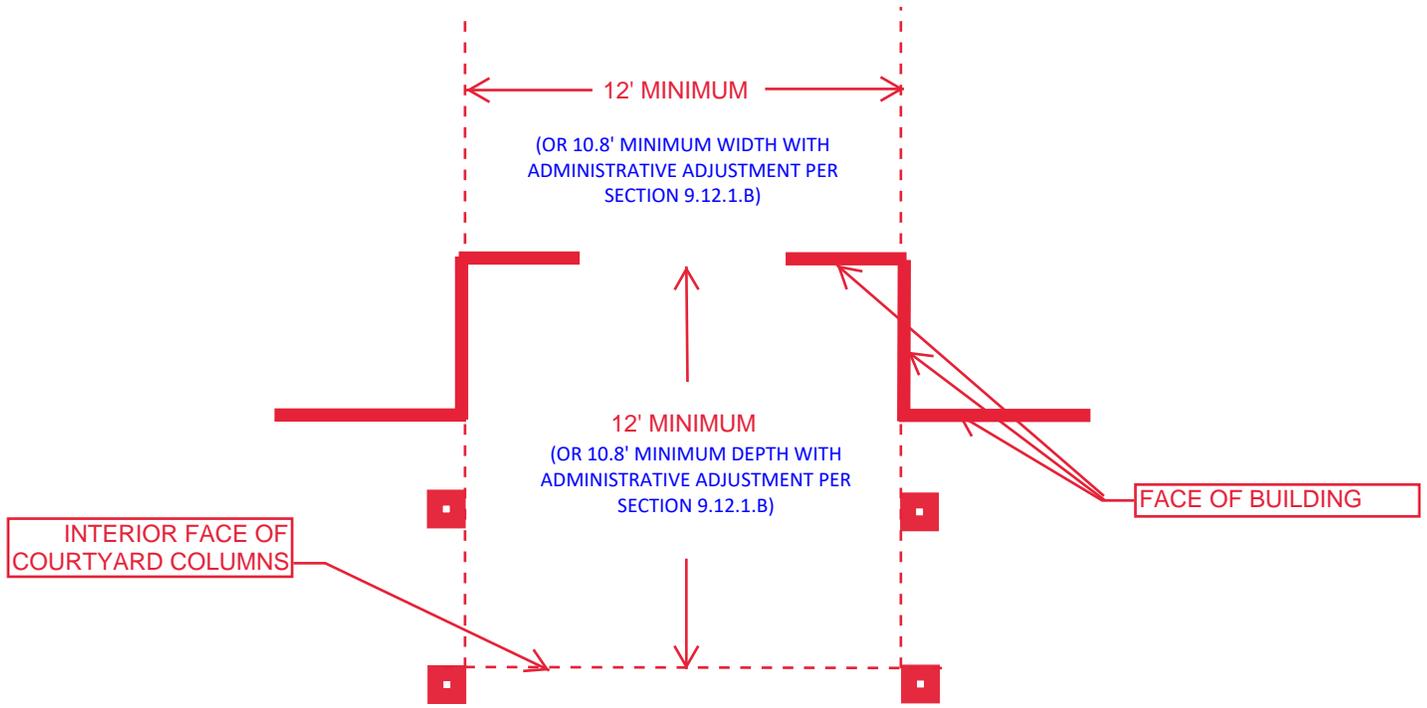
13 FOUNDATION - RETAINING WALL BLDG #5
 1" = 1'-0"



8 FOUNDATION - PARTY WALL BLDG #4
 1" = 1'-0"



4 FOUNDATION
 1" = 1'-0" @ INTERIOR BEARING WALL - DOUBLE



**STAFF INTERPRETATION DIAGRAM OF SECTION 4.4.B
FORECOURT REQUIREMENTS FOR BUILDINGS WITH
FORMAL ENTRY COURTYARDS.**

Meredith Jacobs

From: Hank Maxwell <hank@maxwellcreativecontracting.com>
Sent: Monday, April 4, 2022 1:54 PM
To: Meredith Jacobs
Cc: Jeremy Tate
Subject: Re: Pine Court Apartments

I have just shared the remaining photos with Jeremy.

I measured the distance from buildings 1 & 2 to the property line, scaled on the drawings, and building 1 is 21'-6" and building 2 is 22'.

On Mon, Apr 4, 2022 at 10:55 AM Meredith Jacobs <meredith@meadorsinc.com> wrote:

Hi Hank,

Right now, it will just be me and Jeremy. We've reached out to Heather to see if she can join as well, but I'm not sure of her schedule today.

In the meantime, would you be able to grant us access to the photos sent in the attached email? Jeremy said he has not been able to access them. Also, can you please provide the distance from the front buildings 1 and 2 to the front property line? This will help our review.

Thanks!

Meredith Jacobs, AIA

Meadors Inc.

Architecture Workshop

2811 Azalea Drive

Charleston, SC 29405

Cell: 843-729-0172

Office: 843-723-8585

www.meadorsinc.com



Design Review Board Meeting Staff Report

From the Department of Community and Economic Development
14 April 2022

1 SUMMARY OF REQUEST

2307 Pine Court - New Construction

Applicant: Hank Maxwell, Maxwell Creative Contracting

In this application, the applicant is proposing to construct a new 60-unit apartment development in five (5) 12-unit buildings.

Background: This project, under a different applicant, received conceptual approval on January 12, 2017, preliminary approval on February 9, 2017, and Final approval on May 11, 2017. A final approval letter was issued on May 23, 2017. A subsequent application was deferred at the August 13, 2020, DRB meeting.

The permit for construction was issued on August 28, 2019. The last construction inspection occurred on March 27, 2020, and the construction permit expired 180 days after that inspection, approximately end of September to beginning of October 2020.

All approvals (DRB and Permits) have expired.

A new applicant is seeking Final approval from the board to continue the project. Note, key items required for final review are missing from the applicant's submission.

2 FACTS

Property Address:	2307 Pine Court
Parcel ID:	R120 007 000 0871 & R120 007 000 00087
Case Number:	22-07 DRB.1
Applicant:	Hank Maxwell/ Maxwell Creative Contracting
Type of Request:	Conceptual New Construction
Zoning:	T5-UC
Current Use:	Vacant/Inactive Construction
Proposed Use:	Apartment House/Multifamily

District Development Standards for T5-UC:

- **Setback requirements – Primary Structure:**
 - *Front- 0' min./15 ft. max.*
 - *Rear setback – 5' min.*
 - *Side Corner/Alley – 0' min./15' max.*
 - *Side Interior – 0' min.*
- **Maximum Lot Coverage:** 100%

- **Frontage Buildout:** 60% Min
- **Permitted Uses:** Apartment House/Multifamily

References:

- The Beaufort Code

3 STAFF COMMENTS

Staff Acknowledgements:

- A. This project started under the UDO and received DRB, and permit approvals. Construction started and stopped and now the site sits unfinished. Since the project's prior design approvals expired along with the permit for construction. The project is not eligible for administrator renewal. Therefore, the project must be reviewed and approved by the Design Review Board.
- B. Three of the proposed five structures exist on the site unfinished as framed wood structures with some windows and doors installed. Each of the three existing structures is covered by weather resistive barrier (WRB) on roofs and walls (some WRB is tattered from years of sitting in the elements).
- C. Infrastructure on the site pre-existed the 2017 apartment project. From notes in the January 12, 2017, staff report, a prior office complex project received DRB approvals in 2007 -2008 and much of the infrastructure from that project was installed on the site. The 2017 Pine Court Apartment project sought to reuse as much of the infrastructure as possible and this appears to be illustrated in the current submission on sheet D-1.00.
- D. Given the time that has passed since the final approval from May 2017, approvals have expired, construction is present on the site, and the previous project was designed and approved under the UDO, staff seeks to review this project with The Beaufort Code and apply the Code to the greatest extent possible. Staff offers the following:
 - a. Buildings 1 and 2 are consistent with the requirements of The Beaufort Code regarding frontage orientation. Both buildings front to Pine Court, have sidewalk connections to Pine Court, and their first floor is elevated 2 feet above the adjacent sidewalk at street. However, both buildings 1 and 2 are not compliant with the following:
 - i. Neither building is within the minimum and maximum front setback as required under The Beaufort Code, T5-UC.
 - ii. Since both buildings exist outside the maximum front setback, both buildings do not contribute to the required minimum frontage buildout.
 - b. Buildings 3, 4, and 5 do not front a typical street as they are fronting on head-in parking spaces and are not compliant with The Beaufort Code.

Staff Conditions:

Site:

To achieve greater compliance with The Beaufort Code, Staff offers the following conditions:

1. Regarding acknowledgement D.a.i and D.a.ii above, Staff recommends the applicant make application to the ZBOA to seek the following variance:
 - a. Relief from the 15' maximum setback along Pine Court and establish a new maximum setback line along the face of the buildings as they currently exist on the site. This will allow the two buildings (1 and 2) to have their frontage buildout compliant with the Beaufort Code's minimum 60% requirement. Staff approximates the applicant will need to set the maximum setback at 23 feet from property line to bring the building fronts into compliance.
2. Regarding acknowledgement D.b above, Staff recommends either of the following solutions:
 - a. Convert the head-in parking to two-way diagonal parking to convert parking alley to a proper street which will allow the buildings as designed to have a proper front,
 - b. Utilize pedestrian pathways to the west side of buildings 3 and 4 and to the east side of building 5.
3. The applicant shall comply with Section 4.5.7.B.1 frontage types. See comment 4 below for further related condition. Further information on private frontages is defined in Section 4.4.
4. To better comply with Section 4.5.7.B.2, Staff recommends the applicant provide either option a or b below;
 - a. All ground floor units facing a frontage line shall have individual entrances from that frontage line,
 - i. If applicant utilizes staff condition 2.a above, the frontage line will be along the diagonal parking street for buildings 3, 4, and 5.
 - ii. If the applicant utilizes staff condition 2.b above, the frontage line will be to the pedestrian pathways (refer to Section 2.5.1.D).
 - b. Or the applicant can utilize a formal entry courtyard or lobby to be exempt from the requirement in 4.5.7.B.2.
 - i. Refer to staff diagram 1 for formal entry courtyard/forecourt.
5. The applicant's required parking of 96 spaces required is correct with The Beaufort Code. On the most recent site plan (SL-1.00 with revision date of 7.30.2019), the applicant is only providing 95 off-street parking spaces. The applicant must provide at least one additional parking space to comply with the minimum parking requirements. Note: sheet SL-1.00 dated 6.4.2019 illustrates 7 on-street parallel parking spots along Pine Court. These were removed from the most recent site plan.
6. Per section 5.5.1, side buffers at 5' width are required at the west property lines.
7. Parking lot screening and landscaping must follow Section 5.7.8. Applicant to provide dimensions and buffer descriptions to demonstrate compliance.

Architecture:

8. All fiber cement fascia, trim, siding, bandings, etc. shall be installed with the smooth side facing out per Section 4.6.3.A.1.b.
9. Applicant to provide color rendered elevations denoting paint selections for all exterior items.
10. Applicant to submit cut sheets for all exterior items; roof shingles, windows, doors, columns, metal railings, metal roofs of awnings, shutters, brick, stucco, lighting, etc.
11. Per Section 4.6.3.A.7.a, exposed CMU is prohibited. Applicant to cover CMU with stucco where currently shown exposed on Sheet A-11.00.

12. All shutters shown on the project must be operable and installed with all hardware necessary for them to be operable per Section 4.6.3.D.1.
13. Applicant to demonstrate compliance with Section 4.6.3.C.1 regarding transparency requirements in the T5 zone. Note, apartment houses may have a minimum ground floor transparent fenestration percentage of 30% and upper floors shall have a minimum transparent fenestration percentage of 20%. Applicant to provide a table for each elevation facing a street or frontage line and note transparency percentages provided.
14. All windows must have a projecting sill per Section 4.6.3.C.2. Applicant to adjust the window details on sheet A-14.00 and elevations to illustrate the projecting sill.

STAFF RECOMMENDATION:

Preliminary Approval with conditions noted.

Even though the applicant submitted for final, the submission was missing key items required for final review. Staff offers the following further recommendations beyond Preliminary to guide Applicant:

1. Applicant to demonstrate compliance with Section 5.6 Landscape Installation and Maintenance.
2. Applicant to demonstrate compliance with Section 5.8 Lighting.