Town of Hilton Head Island
Regular Design Review Board Meeting

Tuesday, April 22, 2014
1:15 p.m. – Benjamin M. Racusin Council Chambers

AGENDA

As a Courtesy to Others Please Turn Off All Cell Phones and Pagers during the Meeting.

1. **Call to Order**
2. **Roll Call**
3. **Freedom of Information Act Compliance**
   Public notification of this meeting has been published, posted, and mailed in compliance with the Freedom of Information Act and the Town of Hilton Head Island requirements
4. **Approval of Agenda**
5. **Approval of Minutes** – Meeting of April 8, 2014
6. **Staff Report**
7. **Board Business**
8. **Unfinished Business**
   A. Alteration/Addition
      1) DR 140004 – Shelter Cove Towne Centre – Building 121
9. **Old Business**
   A. Alteration/Addition
      1) DR 140018 – Bluewater Resort & Marina (Facilities Building)
10. **New Business**
    A. Alteration/Addition
       1) DR 140019 – Mediterranean Harbour Bar & Grill
       2) DR 140020 – Shelter Cove Towne Centre Building 104
       3) DR 140022 – The Green Thumb
       4) DR 140023 – Marley's Island Grill
    B. New Development - Conceptual
       1) DR 140021 – Palmetto Dunes Administration & Security Offices

11. Appearance by Citizens

12. Adjournment

Please note that a quorum of Town Council may result if four (4) or more of Town Council members attend this meeting.

Town of Hilton Head Island
Design Review Board **DRAFT**
Minutes of the Tuesday, April 8, 2014 Meeting
1:15p.m – Benjamin M. Racusin Council Chambers

Board Members Present:	Chairman Scott Sodemann, Jake Gartner, Jennifer Moffett, Tom Parker, Todd Theodore, and Galen Smith
Board Members Absent:	Vice Chairman Deborah Welch
Town Council Present:	Bill Harkins
Town Staff Present:	Jennifer Ray, Urban Designer Heather Colin, Development Review Administrator Teri Lewis, LMO Official Charles Cousins, Director, Community Development Kathleen Carlin, Administrative Assistant

1. Call to Order
Chairman Scott Sodemann called the meeting to order at 1:15p.m.

2. Roll Call

3. Freedom of Information Act Compliance

4. Approval of the Agenda
Ms. Ray stated that the application for Shelter Cove Towne Centre – Building 121, DR140004, appearing under Unfinished Business, Additions/Alternations, is withdrawn from the agenda at the applicant's request. This application will appear on a future agenda. The Board **approved** the agenda as revised by general consent.

5. Approval of the Minutes
The Board **approved** the minutes of the March 25, 2014 meeting as presented by general consent.

6. Staff Report
Ms. Ray stated that a site visit to the Shelter Cove Towne Centre is planned this afternoon immediately following the business meeting. The staff and the Board will meet at the construction trailer on Shelter Cove Lane adjacent to the park.

7. Board Business
None

8. Unfinished Business
None

9. New Business

A. Alteration/Addition

1. **Bluewater Resort and Marina (Facilities Building)** – DR140018

Ms. Ray introduced the project and stated its location, 10 Bluewater Marina Drive. The applicant proposes to construct a new facilities building as part of their multi-phase project. Ms. Ray presented an in-depth overhead review of the application including the site plan and photos of existing buildings on site. The proposed facilities building is planned to match the existing colors, materials, and style of existing buildings on site.

The overall site plan shows the entrance from Squire Pope Road and the facilities building in the upper right corner. The enlarged site plan shows the driveway to the fenced area and the sidewalk connection. The building floor plan shows two sets of double doors but no connection or reference to the fenced area on the site plan. The building elevation includes materials and details from other buildings on site including the stucco base, hardi-board siding, shutters, and metal roof.

The staff recommended approval of the project with the following conditions: (a) the site plan should be updated if there is not a fenced yard or a detail provided for enclosure fence, if applicable; (b) a landscaping plan is to be provided, specifically addressing the flat elevations (right elevation and the rear elevation). The applicant should submit photos showing sufficient existing landscaping, if applicable. Following the staff's presentation, Chairman Sodemann requested that the applicant make their presentation.

Mr. Charlie Halterman, Construction Manager for the project, presented statements in support of the application. Mr. Halterman discussed the design and color scheme for the new building. The design is compatible with the recently approved pool equipment and restroom buildings as well as other buildings on site. Mr. Halterman presented comments regarding the standing seam metal roof, siding, hard coat stucco. Mr. Halterman also provided an updated site plan indicating removal of the enclosure fence. Following the applicant's presentation, the Board discussed the project.

The Board stated the need for additional landscaping, particularly at the location of the fence on Squire Pope Road. Photos of the existing landscaping would be helpful to the Board. The Board stated that the building is acceptable. The Board stated some concern with the elevation facing Squire Pope Road unless it is adequately screened from the road. At the completion of their discussion, Chairman Sodemann requested that a motion be made.

Mr. Gartner made a **motion** to **approve** the application for the Bluewater Resort and Marina Facilities Building, DR140018, with the following conditions: (a) the applicant is to provide photos of existing landscaping to Town staff including photos of landscaping on Squire Pope Road. The landscaping plan is to be submitted, reviewed and approved by the DRB. Mr. Parker **seconded** the motion and the motion **passed** with a vote of 6-0-0.

B. New Development – Final

1. **Hilton Head Presbyterian Church** – DR 140008

Ms. Ray introduced the Final application for this project located at 235 William Hilton Parkway.

The Board approved the Conceptual application on February 25, 2014 with conditions. Comments by the Board at that time were for the applicant to consider modifying the proposed new main entrance to have better proportions and to provide more design elements. The applicant was also to consider adding roof ventilation dormers on the new roof area of the church addition to match and balance with the existing roof dormers.

Ms. Ray presented an in-depth overhead review of the Final submission including the site plan. The site plan indicates right in/right out access from William Hilton Parkway and two full access points on Bus Drive to an expanded parking lot and drop off area. The parking lot includes one-half basketball court with goal.

The existing building with expansion is located in southern portion of the site and includes a gathering space with swings and fire pit, playground with gazebo, and dumpster enclosure. The new administration building on the south west corner of the site has sidewalk connections to the parking area and other building.

The enlarged site plan shows the materials in greater detail. The majority of the sidewalks are broom-finish concrete. The entrance and the drop off area include concrete paving with tabby finish and brick pavers. The rear of the building is accessed by an existing dirt road and crushed concrete paving. The amenities near the youth wing include a gathering space with plantation mix paving with brick edge, arbor swings around a brick platform; brick fire pit with brick seat wall; and an area with natural boulders for sitting and climbing. Amenities near the children's wing include fenced playground with play structure and gazebo. The proposed gazebo is resin versus wood and the white color will contrast with the adjacent building colors.

The landscaping plan includes materials that are commonly used on the island as well as specimens. A power line crosses the parking lot and limits planting. The parking lot islands are heavily planted and include palms, Asiatic jasmine, saw palms, muhly and other grasses and ink berry. The buffer along Bus Drive includes oleander, sweet spire, hollies, wax myrtle, etc. Adjacent to the building the planting becomes more ornamental including mondo grass, camela, azaleas, viburnum etc. Tea olive and viburnum are used to screen the service area near the sanctuary. The staff has some concerns with the lack of landscaping on the William Hilton Parkway side to transition to the existing buffer. The applicant provided an updated landscape plan adding wax myrtle, azalea, tea olive and cleyera and confederate jasmine to screen the dumpster area and along the playground fence.

Details have been added for the brick seat wall and column, fire pit, and platform. All details use Savannah grey bricks from Old Carolina brick, but use different caps or no cap. The applicant should consider some consistency.

The swing trellis is wood and shows Country Casual swing. The finish is not specified. The applicant should consider the relationship and proximity to the building in selecting the finish. The fence at the playground is a welded wire fence in dark green. Hog wire fence detail is included as deduct alternate. Staff recommends that the applicant consider the addition of wood posts in the fence. The dumpster enclosure is wood and should be painted to match the building siding. Enlargement of the special paving shows concrete paving with tabby finish and brick pavers in different sizes and types of pavers – all are Savannah grey.

Site lighting includes bollard lights along the drop-off area and Palmetto Electric shoebox fixtures on wood poles in the parking lot. The building floor plan shows the existing building on the right and middle with new gathering space and new education wing. The administration building floor plans indicate a two-story building with porch.

Ms. Ray reviewed the modifications made by the applicant since the Conceptual review. The

proposed new main entrance to the church building was modified to have a 12/12 roof slope to match other design elements on the existing facility. The new main entrance portico columns were modified to have more character than the previous straight-sided wood columns. Support beams over the portico were expressed in the new design in order to provide visual depth to the porch roof structure. The glass in the curtain wall on this portico was also modified to reflect the diamond pattern found on the wall of the existing sanctuary building. Ventilation dormers were added to the new roof areas to match the existing conditions. Approximately 7 feet of the proposed covered porch area on the south side of the building was converted to interior use in order to obtain additional space in the proposed three adult meeting rooms. The roof plan and building elevations were unaffected by this change.

Wall sections were provided showing the detail in the aluminum curtain wall system, vertical wood siding, wood trim and aluminum clad windows. The stucco columns and the T&G wood soffit to match the existing.

The wall section for the administration building shows 12/8 pitch roof transitioning to 12/3 for the porch roof, vertical wood siding, and wood porch columns. Colors and materials are the same as the last submission. Materials are intended to match the existing including stucco, vertical wood siding, and an asphalt shingle roof with "Chelsea Gray" building color and "Creamy" trim and eave color. The staff recommends approval of the application with the following conditions: (a) that an alternate gazebo be selected; (b) that there is consistency in the cap details; (c) that the finish for the trellis swings match the building siding; and (d) that the wood posts be incorporated into fence detail. Following the staff's presentation, Chairman Sodemann requested that the applicant make his presentation.

Mr. David McAbee, Architect, and Mr. Eric Walsnovich, Landscape Architect, presented statements in support of the application. Mr. McAbee briefly reviewed the modifications that have been made since the project received Conceptual approval.

The Board stated that the project looks good. The Board stated that they appreciate the changes that have been made since the Conceptual approval. The Board discussed the brick cap details, the gazebo (custom vs. pre-fab), and the fencing. The Board stated that the white trim will stand out too much and should be toned down. The Board stated that they agree with the staff's comments for this project. The Board discussed the gazebo and agreed with the need for better integration of details. The Board stated that they agree with the need for wood posts to be added to the fence. Lastly, the Board discussed the need for additional landscaping. Following the Board's discussion, Chairman Sodemann requested that a motion be made.

Mr. Parker made a **motion** to **approve** the Hilton Head Presbyterian Church Final application, DR 140008, with the following conditions: (a) the gazebo shall be custom built; (b) the swing trellis shall be finished to match the building; (c) the fence shall have wood posts added; (d) the trim color shall be toned down to a lighter tone of building color and brought back to the DRB for review and approval; (e) landscaping shall be added between the building and Highway 278. Mr. Theodore **seconded** the motion and the motion **passed** with a vote of 6-0-0.

(Mr. Tom Parker recused himself from review of the following application, Shelter Cove Community Park, DR 140007, due to a professional conflict of interest. A Conflict of Interest Form was completed and signed by Mr. Parker and attached to the record.)

2. **Shelter Cove Community Park** – DR 140007

Ms. Ray introduced the Final application for the project located at 39 Shelter Cove Lane. This project received Conceptual approved by the DRB in February 2014. The applicant proposes to

relocate Shelter Cove Community Park from its current location to a new site directly behind Shelter Cove Towne Centre encompassing more of Broad Creek. Multiple pedestrian access points are located off of Shelter Cove Lane. Existing parking and the adjacent sidewalk will mostly remain.

The entry plaza is being pulled forward to engage the drop off area. Plaza materials include concrete tiles (9x36 concrete paver that resembles travertine and mimics the plank decking at Coligny) with tabby borders. The concrete tile with tabby borders is replicated at marsh front promenade. The staff recommends that tabby borders be continued to separate adjacent materials. The center space includes small raised lawn with brick border wall and tabby concrete paving, shade structures, and moveable tables and chairs.

To the left of the entrance is the playground as well as the Sunset Pavilion. The rear of the Pavilion has been modified to provide both circulation and gathering space as well as site furnishings. To the right of the entrance is the elevated performance pavilion with tabby concrete with brick borders consistent with brick steps.

Site lighting includes Hagerstown street lights that match Shelter Cove Towne Centre, as well as uplights, step lights, and nose lights on the bulkhead handrail. GFI outlets will be provided along the edge for events and will be coordinated with the staff.

Ms. Ray reviewed details including concrete tile and paving. The brick border at the event lawn is raised 6". The tabby borders are 1'-6". The steps at the Pavilion are brick treads and risers with tabby walk and tabby wall with brick cap. Ms. Ray reviewed the wall section and elevations.

The entry plaza columns, planter and retaining wall at the Performance Plaza are tabby with brick cap. The bulkhead railing is cable rail with 6 x 6 wood post and wood top and bottom rail.

All signage plays off Town of Hilton Head Island signs with wood posts and sandblasted signs with color and materials to match existing Town park signs.

The playground plan shows two wood play structures, swings, and freestanding components. Surfacing includes blue chip rubber mulch, wood mulch, and green artificial turf. The staff is waiting to receive samples of these materials. The playground is fenced with wood piles or landscaped on all edges. The fountain is tabby with brick. The fountain includes water jets and the name of the park is located on the front.

The landscape plan includes sod with shade trees in event areas and palms with Asiatic jasmine along Shelter Cove Lane. Ms. Ray stated that a mix of historically used plants is located in other key areas such as the buffer between the playground and future apartments, the marsh edge, and entrance to the Performance Pavilion. Additional coordination is needed on the treatment of lagoon edges as related to the removal of vines and the addition of supplemental plants.

Ms. Ray stated that the architecture plan has changed very little since the Conceptual review. The Sunset Pavilion requires some coordination with the security cameras and more detail is required on the rain barrel. The shade trellis includes the same materials as reviewed previously with the addition of aluminum panels in a rust brown finish.

Ms. Ray stated that the Shelter Cove ARB has reviewed and approved the Final submission with the **exception** of the design of the building structures. Unfortunately, the meeting that will address the design of building structures takes place tomorrow and the outcome is unknown. The staff recommended that the Board hold their approval of the application pending receipt of the Shelter Cove's ARB approval of the design of building structures. Following staff's presentation, Chairman Sodemann requested that the applicant make his presentation.

Mr. Wallace Milling, Witmer Jones Keefer, presented statements in support of the application. The applicant reviewed several issues including the entry columns and the blue mulch for the playground.

The Board complimented the project and stated that they like the changes that have been made since Conceptual review. The Board stated that they agree with the staff's recommendation regarding the tabby border on the tile area. The Board stated that they like the fountain.

The Board discussed the issue of vehicular access over the tiles. The Board stated that they like the rain barrel (water overflowing into the landscape is a good idea). The Board did express some concern with the bright blue mulch in the playground. If possible, the bright blue color should be toned down somewhat. The Board also discussed the entry columns and stated that adequate landscaping should be included around them. The Board stated that they like the addition of large shade trees. Following the Board's discussion, Chairman Sodemann requested that a motion be made.

Mr. Theodore made a **motion** to **approve** the Shelter Cove Community Park – Final Review application, DR 140007, with the following conditions: (a) approval is for the site portion of the application only – the architecture portion will be approved at a later time; (b) the applicant should reconsider the treatment of the shell border around the tile; (c) the applicant should consider a darker blue for the rubber mulch. Ms. Moffett **seconded** the motion and the motion **passed** with a vote of 5-0-0.

10. Appearance by Citizens

None

11. Adjournment

The meeting was adjourned at 2:40p.m.

Submitted By:	Approved By:
_____	_____
Kathleen Carlin	Scott Sodemann
Administrative Assistant	Chairman

DRAFT

Town of Hilton Head Island

Community Development Department
One Town Center Court
Hilton Head Island, SC 29928
Phone: 843-341-4757 Fax: 843-842-8908
www.hiltonheadislandsc.gov

FOR OFFICIAL USE ONLY
Date Received:
Accepted by:
App. # DR
Meeting Date:

Applicant/Agent Name: CHARLIE HALTERMAN Company: SPINNAKER RESORTS
Mailing Address: PO BOX 6899 City: HILTON HEAD State: SC Zip: 29938
Telephone: (843) 247-1215 Fax: (843) 785-6178 E-mail: chalterman@spinnakerresorts.com
Project Name: BLUEWATER RESORT & MARINA Project Address: 10 BLUEWATER MARINA DRIVE
Parcel Number [PIN]: R511 003 000 0026 0000
Zoning District: _____ Overlay District(s): _____

DESIGN REVIEW BOARD (DR) SUBMITTAL REQUIREMENTS

Digital Submissions may be accepted via e-mail by calling 843-341-4757.

Project Category:

_____New Development – Conceptual
_____New Development – Final, indicate Project Number
_X_ Alteration/Addition
_____Minor External Change

Submittal Requirements for ***All*** projects:

_____ Private Architectural Review Board (ARB) Notice of Action (if applicable): When a project is within the jurisdiction of an ARB, the applicant shall submit such ARB's written notice of action per LMO Section 16-3-1004. Submitting an application to the ARB to meet this requirement is the responsibility of the applicant.

_____ Filing Fee, New Development $175, Alterations/Additions $100, Minor External $50 cash or check made payable to the Town of Hilton Head Island.

Additional Submittal Requirements:

New Development – Conceptual Approval

_____ A survey (1"=30' minimum scale) of property lines, existing topography and the location of trees meeting the tree protection regulations of Sec. 16-3-405, and if applicable, location of bordering streets, marshes and beaches.

_____A site analysis study to include specimen trees, access, significant topography, wetlands, buffers, setbacks, views, orientation and other site features that may influence design.

_____A draft written narrative describing the design intent of the project, its goals and objectives and how it reflects the site analysis results.

_____Context photographs of neighboring uses and architectural styles.

_____Conceptual site plan (to scale) showing proposed location of new structures, parking areas and landscaping.

_____Conceptual sketches of primary exterior elevations showing architectural character of the proposed development, materials, colors, shadow lines and landscaping.

Additional Submittal Requirements:

New Development – Final Approval

_____ A final written narrative describing how the project conforms with the conceptual approval and design review guidelines of Sec. 16-4-503.

_____ Final site development plan meeting the requirements of Sec. 16-3-303.F.

_____ Final site lighting and landscaping plans meeting the requirements of Sec. 16-3-304 and Sec. 16-3-305.

_____ Final floor plans and elevation drawings (1/8"=1'-0" minimum scale) showing exterior building materials and colors with architectural sections and details to adequately describe the project.

_____ A color board (11"x17" maximum) containing actual color samples of all exterior finishes, keyed to the elevations, and indicating the manufacturer's name and color designation.

_____ Any additional information requested by the Design Review Board at the time of concept approval, such as scale model or color renderings, that the Board finds necessary in order to act on a final application.

Additional Submittal Requirements:

Alterations/Additions *and* Minor External Changes

_____ A written narrative describing how project conforms to design guidelines of Section 16-4-503.

_____ Photographs and/or drawings of existing development.

_____ Drawings of the proposed development – 11"x 17".

_____ Material/color samples of existing and proposed changes - 8 ½"X 14" *Maximum*; Stating manufacturer and material name

Note: All application items must be received by the deadline date in order to be reviewed by the DRB per LMO Section 16-3-106.

A representative for each agenda item is strongly encouraged to attend the meeting.

Are there recorded private covenants and/or restrictions that are contrary to, conflict with, or prohibit the proposed request? If yes, a copy of the private covenants and/or restrictions must be submitted with this application. ☐**YES** ☒**NO**

To the best of my knowledge, the information on this application and all additional documentation is true, factual, and complete. I hereby agree to abide by all conditions of any approvals granted by the Town of Hilton Head Island. I understand that such conditions shall apply to the subject property only and are a right or obligation transferable by sale.

I further understand that in the event of a State of Emergency due to a Disaster, the review and approval times set forth in the Land Management Ordinance may be suspended.

_____ _____ 4/10/2014

SIGNATURE DATE

April 10, 2014

Bluewater Resort and Marina, LLC. is requesting review and approval of the design and color scheme of the new facilities building to be located at 10 Bluewater Marina Drive.

The design is compatible with the recently approved pool equipment and restroom buildings, and all other buildings on site. The materials will be the same. Standing seam roof, cementitious siding, and hard coat stucco. The colors will match the previously approved sample board

Thank you for your consideration of this request,

Charlie Halterman

Construction Manager

COMPACT
COMPACT

COMPACT

PROPOSED BUILDING SITE
LOOKING ACROSS SQUIRE POPE
@ HUDSON ROAD

LOOKING NORTH WEST
(STAKES RED)

LOOKING NORTH TOWARDS
HUDSON ROAD
(STAKES RED)

DESIGN TEAM/DRB COMMENT SHEET

The comments below are staff recommendations to the Design Review Board (DRB) and do NOT constitute DRB approval or denial.

PROJECT NAME: Bluewater Resort & Marina (Facilities Building) – ALTERATION/ADDITION

DRB#: DR 140018

DATE: April 22, 2014

RECOMMENDATION: Approval ☐ Approval with Conditions ☒ Denial ☐

The applicant has provided site photos showing the existing landscape buffer material to remain that will provide screening of the building from the adjacent property as well as from Squire Pope Road. A landscape plan for the parking lot side of the building will be provided for DRB review & approval.

Town of Hilton Head Island

Community Development Department
One Town Center Court
Hilton Head Island, SC 29928
Phone: 843-341-4757 Fax: 843-842-8908
www.hiltonheadislandsc.gov

FOR OFFICIAL USE ONLY
Date Received: 3.25.14
Accepted by: SARAH W
App. #: DR 140019
Meeting Date: _____

Applicant/Agent Name: Simon Mikhael Company: Mediterranean Harbour Bar & Gri
Mailing Address: 136 ninth Avenue Bluffton City: ~~Hilton Head~~ State: SC Zip: 29910
Telephone: 843 415 2046 Fax: _____ E-mail: simonmikhail@gmail.com
Project Name: Building outdoor Bar Project Address: 13 Harbourside lane, HHI 299
Parcel Number [PIN]: R 5 20 012 00B 0019 7121
Zoning District: _____ Overlay District(s): _____

DESIGN REVIEW BOARD (DR) SUBMITTAL REQUIREMENTS

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_✓_ Filing Fee, New Development $175, Alterations/Additions $100, Minor External $50 cash or check made payable to the Town of Hilton Head Island.

Additional Submittal Requirements:

New Development – Conceptual Approval

_____ A survey (1"=30' minimum scale) of property lines, existing topography and the location of trees meeting the tree protection regulations of Sec. 16-3-405, and if applicable, location of bordering streets, marshes and beaches.

_____ A site analysis study to include specimen trees, access, significant topography, wetlands, buffers, setbacks, views, orientation and other site features that may influence design.

_____ A draft written narrative describing the design intent of the project, its goals and objectives and how it reflects the site analysis results.

_____ Context photographs of neighboring uses and architectural styles.

_____ Conceptual site plan (to scale) showing proposed location of new structures, parking areas and landscaping.

_____ Conceptual sketches of primary exterior elevations showing architectural character of the proposed development, materials, colors, shadow lines and landscaping.

DR140019

Additional Submittal Requirements:

New Development – Final Approval

_____ A final written narrative describing how the project conforms with the conceptual approval and design review guidelines of Sec. 16-4-503.

_____ Final site development plan meeting the requirements of Sec. 16-3-303.F.

_____ Final site lighting and landscaping plans meeting the requirements of Sec. 16-3-304 and Sec. 16-3-305.

_____ Final floor plans and elevation drawings (1/8"=1'-0" minimum scale) showing exterior building materials and colors with architectural sections and details to adequately describe the project.

_____ A color board (11"x17" maximum) containing actual color samples of all exterior finishes, keyed to the elevations, and indicating the manufacturer's name and color designation.

_____ Any additional information requested by the Design Review Board at the time of concept approval, such as scale model or color renderings, that the Board finds necessary in order to act on a final application.

Additional Submittal Requirements:

Alterations/Additions *and* Minor External Changes

✓ A written narrative describing how project conforms to design guidelines of Section 16-4-503.

✓ Photographs and/or drawings of existing development. will submit on 3/26/14

✓ Drawings of the proposed development – 11"x 17".

✓ Material/color samples of existing and proposed changes - 8 ½"X 14" *Maximum*; Stating manufacturer and material name Same as existing stucco - paint

Note: All application items must be received by the deadline date in order to be reviewed by the DRB per LMO Section 16-3-106.

A representative for each agenda item is strongly encouraged to attend the meeting.

Are there recorded private covenants and/or restrictions that are contrary to, conflict with, or prohibit the proposed request? If yes, a copy of the private covenants and/or restrictions must be submitted with this application. ☐**YES** ☐**NO**

To the best of my knowledge, the information on this application and all additional documentation is true, factual, and complete. I hereby agree to abide by all conditions of any approvals granted by the Town of Hilton Head Island. I understand that such conditions shall apply to the subject property only and are a right or obligation transferable by sale.

I further understand that in the event of a State of Emergency due to a Disaster, the review and approval times set forth in the Land Management Ordinance may be suspended.

SIGNATURE _____ DATE 3/25/2014

Mediterranean Harbour Bar & Grill Build up Proposal

Mediterranean Harbour Bar & Grill is a new Mediterranean Restaurant Located at Shelter Cove Marina at 13 Harbourside Lane unit B, With This project Proposal I wish to improve the outdoor seating area by adding an outdoor bar to offer more variety of options to Locals and tourist at the Marina area , the building materials will be ¾" pressure treated wood on each side over 2x6 pressure treated studs, and will be covered by stucco over wire to match existing stucco color and materials that been used on external walls of the building . The top bar will be slate top glued to plywood w/pl400. The outdoor bar will not be equipped with fridges instead we will install 3 ice bin stations to chill cold drinks plus we will build a sink area.

The proposed location of the outdoor bar will be between the 3rd & 4th pillar counting from the far

Will be matching same stucco color of the outdoor wall of the building

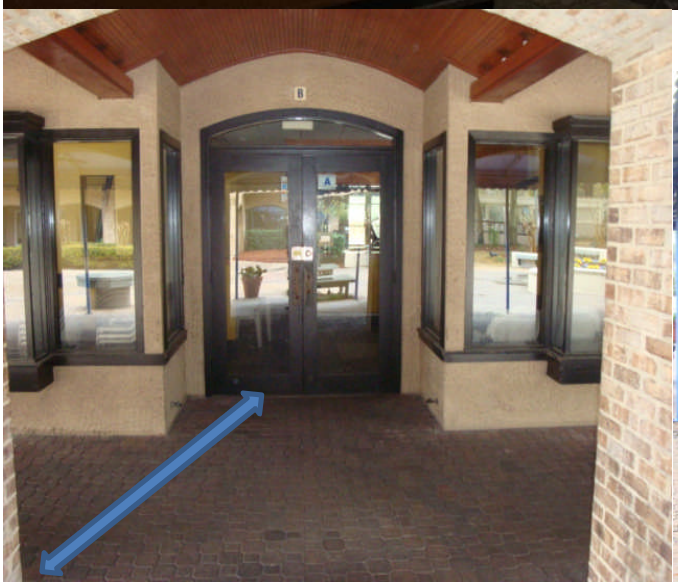
We would like to open a Service window to serve guests more efficient from kitchen area directly to outdoor seating

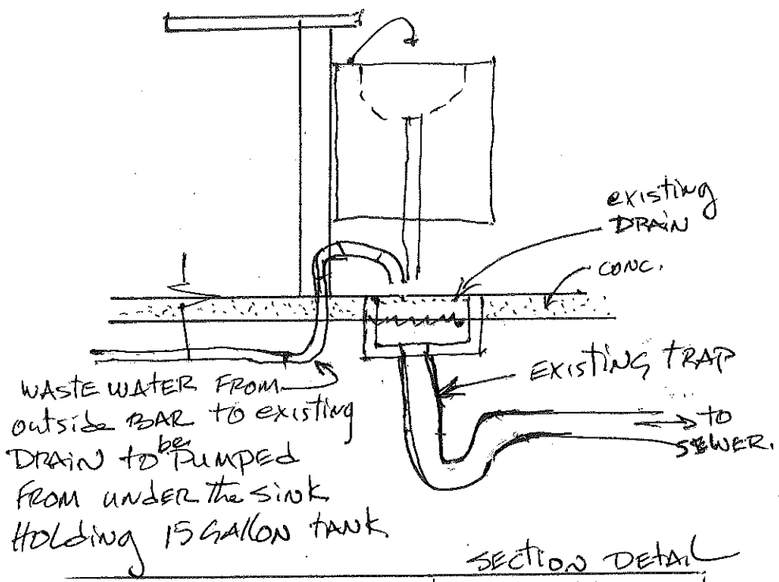
Dimensions for window is ROUGH OPENING: 36-3/8"(w) x 36-3/8"(h) SERVICE OPENING: 14-1/2" (w) X 27" (h)

We are also proposing to improve the flow layout of dining area by moving the service window to the left hand side area towards the service area and install the service window on adjacent wall as shown on picture. New service Window Dimension will be 24"X12". Or what is best fit in the proposed new area.

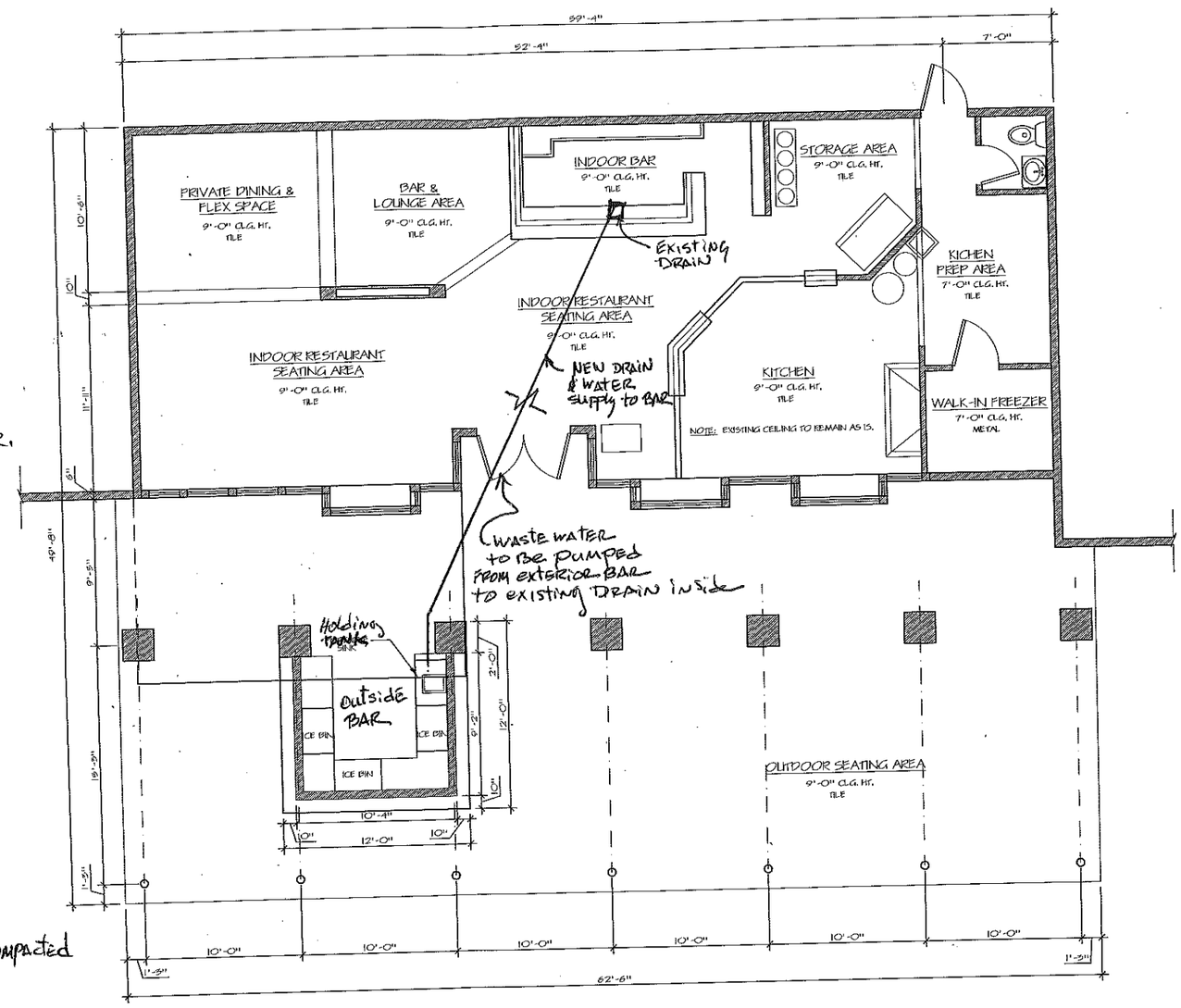
Regarding plumbing for outdoor bar we will install a line from existing indoor bar by digging a line in floor to outdoor bar area; I draw blue arrow line to show the direction of the plumbing line.

In order to eliminate the grease smell to go to the dining area, we have to raise the kitchen panel grid 8 inches.

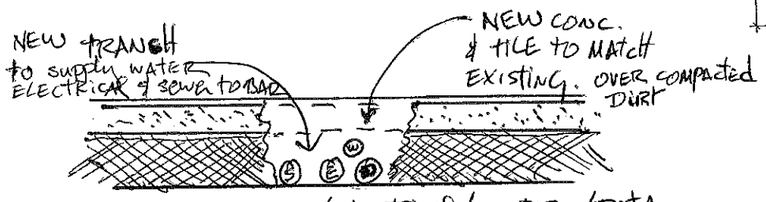




SECTION DETAIL
(401) INTERIOR BAR DRAIN N.T.S.

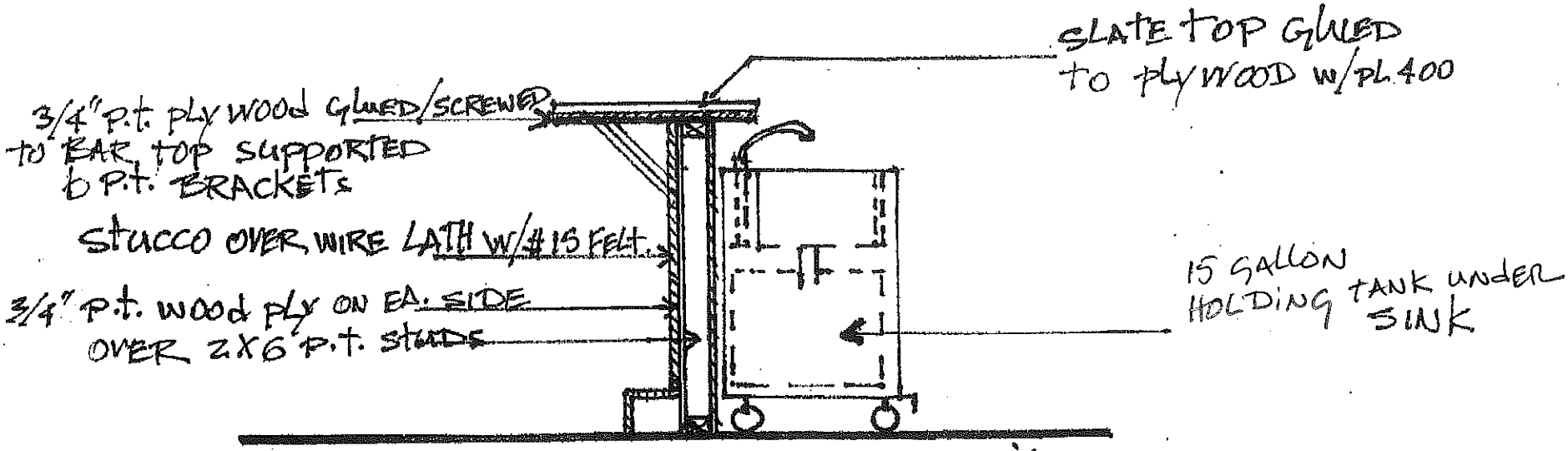


1 FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"



SEWER/ELECTRICAL/WATER/DATA.
PIPING TO EXTERIOR BAR
NEW PIPING SECTION DETAIL
N.T.S.

* NOTE: outside BAR WATER flows through WASTE DRAIN FROM BAR to be PUMPED TO existing DRAIN UNDER INTERIOR BAR



OUTDOOR BAR SECTION DETAIL

N.T.S.

QUIKSERV

we put more in – you get more out

HURRICANE IMPACT WINDOWS

MANUAL, SELF-CLOSING & FULLY AUTOMATIC

MIAMI-DADE COUNTY APPROVED

STANDARD FEATURES

- 3/4″ insulated storm glass
- Shipped fully-assembled and ready to install
- Warranty backed with Nationwide Service Centers
- Weather resistant and sealed to protect from the elements
- Dark bronze or clear anodized aluminum
- Corrosion resistant material: anodized aluminum and #304-#3 finish stainless steel
- Security locking systems
- Maximum security hook-bolt locks
- Dade County Approved (NOA - #11-1206.07)
- State of Florida Approval (#FL-12643.1)
- Automatically lock when unit is closed (SC-models)
- Right or left hand units

OPTIONAL FEATURES

- Custom colors available
- Various glazing options (B/R and Tinted)

SC-4030-IP

MODELS SS-4035E-IP, SC-4030-IP & SC-3030-IP

Quikserv is proud to produce the largest line of Hurricane Impact sliders on the market. These models are self-closing, top hung, single silders. We make both manual opening and fully automatic versions. These units passed large and small impact testing , as well as water infiltration requirements. This series of single sliders has the same excellent quality you have come to expect from Quikserv sliding windows.

Service Opening: **SS-4035E-IP** *20″(w) x 27″(h)*
SC-4030-IP *20″(w) x 27″(h)*
SC-3030-IP *14-1/2″(w) x 27″(h)*

MAXIMUM SECURITY LOCKING SYSTEM

MAXIMUM SECURITY LOCKING SYSTEM

Each Quikserv single-sliding window offers a heavy duty maximum security lock. This hook bolt lock helps to prevent outside intrusion. An easy to grasp thumb-turn allows for ease in operation while locking the unit.

THRU-BEAM PHOTO-ELECTRIC EYE-BAR

THRU-BEAM PHOTO ELECTRIC EYE-BAR

Activated when the attendant stands between the emitter and the receiver. Available on all electric sliders and is best used where there is limited space or tighter working conditions.

MODEL SC-4030-IP

ROUGH OPENING: 48-3/8"(w) x 36-3/8"(h)

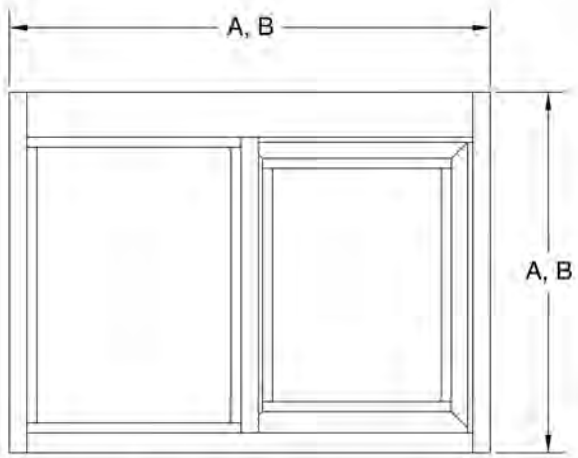
SERVICE OPENING: 20" (w) x 27" (h)

MODEL SC-3030-IP

ROUGH OPENING: 36-3/8"(w) x 36-3/8"(h)

SERVICE OPENING: 14-1/2" (w) X 27" (h)

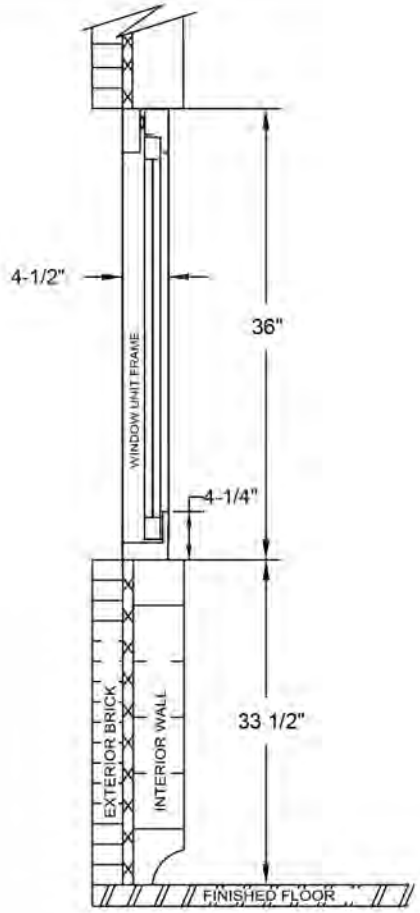
MAIN VIEW



A) SC-4030IP 48" (W) X 36" (H)

B) SC-3030IP 36" (W) X 36" (H)

SIDE VIEW

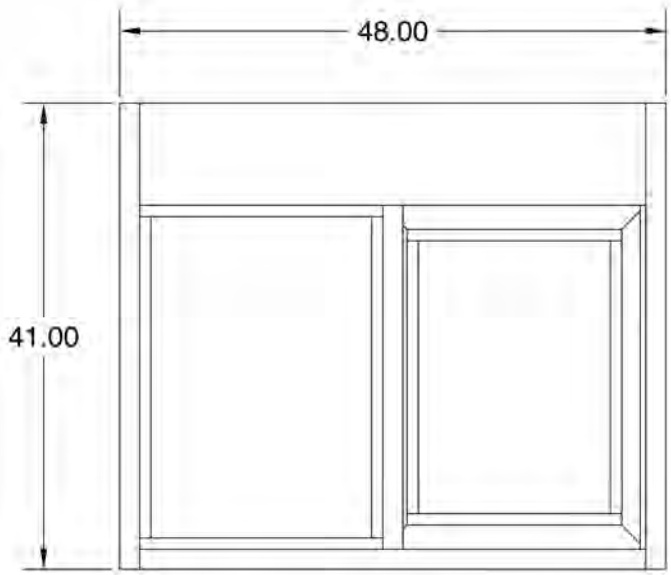


MODEL SS-4035E-IP

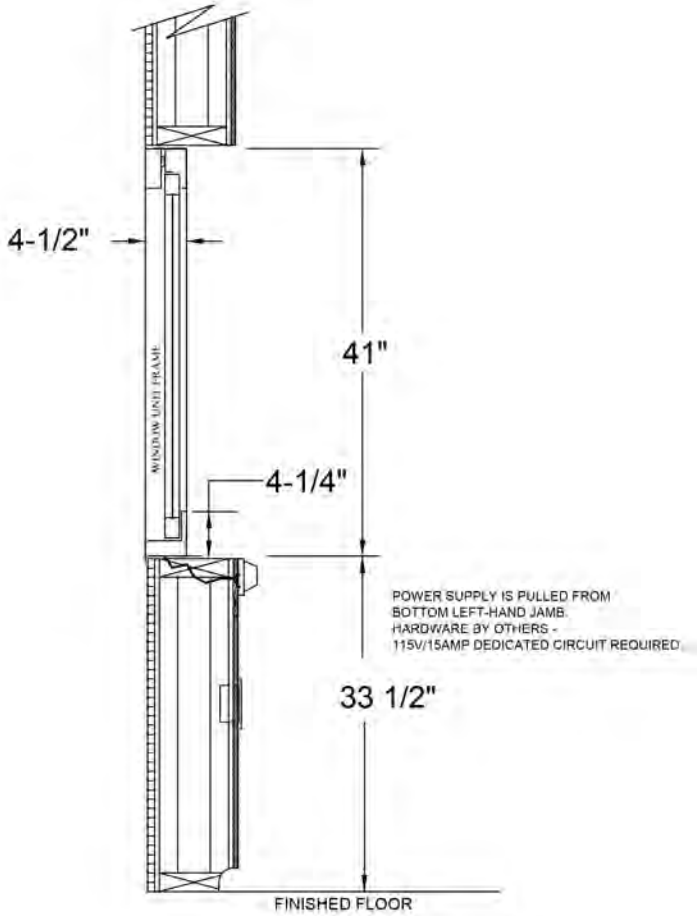
ROUGH OPENING: 48-3/8"(w) x 41-3/8"(h)

SERVICE OPENING: 20" (w) X 27" (h)

MAIN VIEW



SIDE VIEW



New Portable Sinks

For the large community outdoor function **when hand or utensil washing is a must**. Shipped complete with removable fresh and waste water tanks. Now available in four convenient configurations.

Available in two (CVPHS-2) and three (CVPHS-3) compartment sinks. We also offer a one (CVPHS-1) compartment sink with a smaller cabinet for when space is at a premium.

NSF®

cvphs-1

Overall Dimension (W x D x H)	34.375 x 25.25 x 47.75"		
Actual Weight (LBS)	160	**Sink Compartments**	1
Water Pump	120 Volt	**Water Heater**	120 Volt

- Stainless steel contruction
- Lockable Access door
- 120 Volt water heater (9.5 litre) 2 Imp. Gallons
- All units are NSF approved
- Fully assembled & crated
- CSA, UL or equal approved
- 120 volt water pump
- Available with 2 (cvphs2) & 3 (cvphs3) compartments
- Available in a compact 1(cvphs4) cabinet version
- 2 x 20 litre (5 gallon) removable fresh water tanks
- 2 x 30 litre (7.5 gallon) removable waste water tanks
- Backsplash w/soap & towel dispensers
- 12 foot cord with standard wall plug
- City water and drain hookups

CROWN VERITY INC.

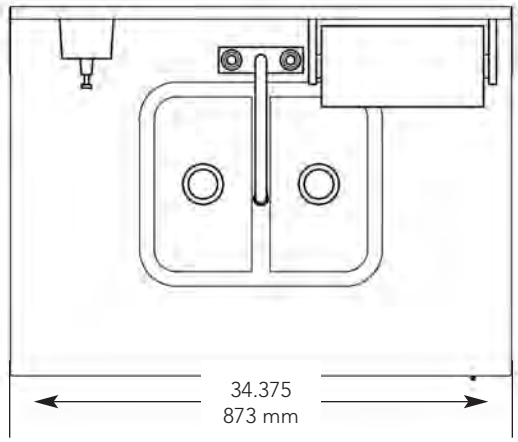
37 Adams Boulevard, Brantford, Ontario, Canada N3S 7V8

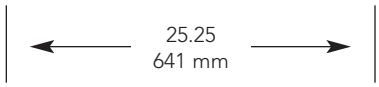
tel **519.751.1800** or 888.505.7240 fax 519.751.1802 e-mail info@crownverity.com web **www.crownverity.com**

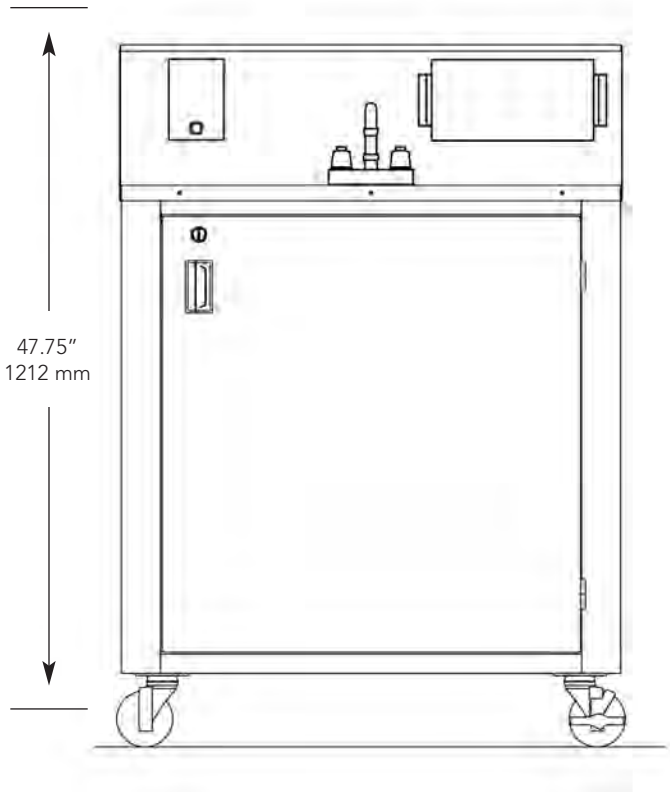
Portable Sinks

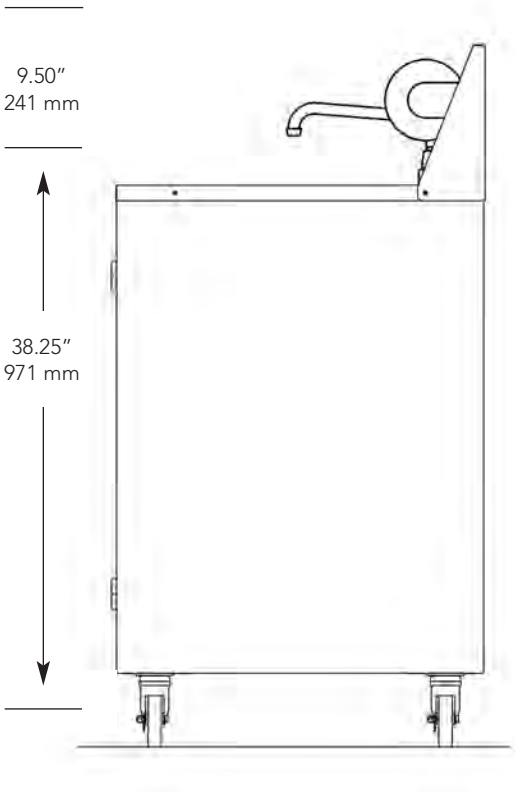
Now available in four convenient models

MODEL	CVPHS-1	CVPHS-2	CVPHS-3	CVPHS-4
SINK BOWL SIZE (LxWxD)	14.0 x 12.0 x 6.0″	12.0 x 6.0 x 5.0″	12.0 x 6.0 x 5.0″	14.0 x 12.0 x 6.0″
SINKS	1	2	3	1
CABINET SIZE (WxDxH)	34.375 x 25.25 x 38.25″	34.375 x 25.25 x 38.25″	34.375 x 25.25 x 38.25″	24.0 x 25.25 x 38.25″
IDEAL TO WASH	hands	utensils	utensils	hands









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DESIGN TEAM/DRB COMMENT SHEET

The comments below are staff recommendations to the Design Review Board (DRB) and do NOT constitute DRB approval or denial.

PROJECT NAME: Mediterranean Harbour Bar & Grill – ALTERATION/ADDITION DRB#: DR 140019

DATE: April 22, 2014

RECOMMENDATION: Approval ☐ Approval with Conditions ☒ Denial ☐

The applicant proposes to make alterations to a new restaurant within Shelter Cove Marina. The proposed outdoor bar is located under the existing awning between two existing columns and is in keeping with the colors and materials as the existing building as well as other improvements within Shelter Cove Marina. Additionally the applicant proposes to add a service window to serve guests directly from the kitchen area to the outdoor seating. A service window directly from the kitchen area could impede pedestrian travel through the corridor. Additionally a service window is in contrast to the existing storefront along the shops within the Marina.

Town of Hilton Head Island

Community Development Department
One Town Center Court
Hilton Head Island, SC 29928
Phone: 843-341-4757 Fax: 843-842-8908
www.hiltonheadislandsc.gov

FOR OFFICIAL USE ONLY
Date Received: 4.2.14
Accepted by: SARAH W.
App. #: DR 140020
Meeting Date:

Applicant/Agent Name: Roni Allbritton Company: Shelter Cove Towne Centre
Mailing Address: 40 Shelter Cove Ln City: HH State: SC Zip: 29928
Telephone: 686-3090 Fax: 686-5581 E-mail: allbritton@sheltercovetownecentre.com
Project Name: Shelter Cove Towne Centre Project Address: Bldg 104
Parcel Number [PIN]: R 520 012 00B0026 0000
Zoning District: _____ Overlay District(s): _____

DESIGN REVIEW BOARD (DR) SUBMITTAL REQUIREMENTS

Digital Submissions may be accepted via e-mail by calling 843-341-4757.

Project Category:

_____ New Development – Conceptual
_____ New Development – Final, indicate Project Number
X Alteration/Addition
_____ Minor External Change

Submittal Requirements for *All* projects:

✓ Private Architectural Review Board (ARB) Notice of Action (if applicable): When a project is within the jurisdiction of an ARB, the applicant shall submit such ARB's written notice of action per LMO Section 16-3-1004. Submitting an application to the ARB to meet this requirement is the responsibility of the applicant.

✓ Filing Fee, New Development $175, Alterations/Additions $100, Minor External $50 cash or check made payable to the Town of Hilton Head Island.

Additional Submittal Requirements:

New Development – Conceptual Approval

_____ A survey (1"=30' minimum scale) of property lines, existing topography and the location of trees meeting the tree protection regulations of Sec. 16-3-405, and if applicable, location of bordering streets, marshes and beaches.

_____ A site analysis study to include specimen trees, access, significant topography, wetlands, buffers, setbacks, views, orientation and other site features that may influence design.

_____ A draft written narrative describing the design intent of the project, its goals and objectives and how it reflects the site analysis results.

_____ Context photographs of neighboring uses and architectural styles.

_____ Conceptual site plan (to scale) showing proposed location of new structures, parking areas and landscaping.

_____ Conceptual sketches of primary exterior elevations showing architectural character of the proposed development, materials, colors, shadow lines and landscaping.

Additional Submittal Requirements:

New Development – Final Approval

_____ A final written narrative describing how the project conforms with the conceptual approval and design review guidelines of Sec. 16-4-503.

_____ Final site development plan meeting the requirements of Sec. 16-3-303.F.

_____ Final site lighting and landscaping plans meeting the requirements of Sec. 16-3-304 and Sec. 16-3-305.

_____ Final floor plans and elevation drawings (1/8"=1'-0" minimum scale) showing exterior building materials and colors with architectural sections and details to adequately describe the project.

_____ A color board (11"x17" maximum) containing actual color samples of all exterior finishes, keyed to the elevations, and indicating the manufacturer's name and color designation.

_____Any additional information requested by the Design Review Board at the time of concept approval, such as scale model or color renderings, that the Board finds necessary in order to act on a final application.

Additional Submittal Requirements:

Alterations/Additions *and* Minor External Changes

__✓__ A written narrative describing how project conforms to design guidelines of Section 16-4-503.

__✓__ Photographs and/or drawings of existing development.

__✓__ Drawings of the proposed development – 11"x 17".

__✓__Material/color samples of existing and proposed changes - 8 ½"X 14" *Maximum*; Stating manufacturer and material name

Note: All application items must be received by the deadline date in order to be reviewed by the DRB per LMO Section 16-3-106.

A representative for each agenda item is strongly encouraged to attend the meeting.

Are there recorded private covenants and/or restrictions that are contrary to, conflict with, or prohibit the proposed request? If yes, a copy of the private covenants and/or restrictions must be submitted with this application. ☐**YES** ☒**NO**

To the best of my knowledge, the information on this application and all additional documentation is true, factual, and complete. I hereby agree to abide by all conditions of any approvals granted by the Town of Hilton Head Island. I understand that such conditions shall apply to the subject property only and are a right or obligation transferable by sale.

I further understand that in the event of a State of Emergency due to a Disaster, the review and approval times set forth in the Land Management Ordinance may be suspended.

SIGNATURE _____ DATE 4-1-14

NARRAMORE ASSOCIATES, INC.
Architects & Planners
AMERICAN INSTITUTE OF ARCHITECTS

March 28, 2014

Shelter Cove Towne Center – Building 104 Narrative of Design Conformance

Building 104 has been designed with a flat roof/parapet system in order to provide a sense of 'variety' within the Shelter Cove Towne Center. The exterior wall finishes, trim and canopies replicate similar design elements and colors as are used on other buildings within the overall development.

Wall finishes of 'board & batten' and 'machine-cut shingles' are reminiscent of structures as can be seen throughout the South Carolina low-country. The walls are capped with a substantial cornice band reflecting a classic design motif which is also a common design element of the area.

Although used in a different design context, the elements and colors provide a sense of continuity between the various building designs of the project. Shadow lines created by varying materials, building setbacks, canopy overhangs and storefront variations provide visual stimulus for the overall building.

Without reliance on repetition or "sameness", we feel the design of Building 104 reflects the 'island vernacular' within a contemporary concept while preserving a traditional ambiance.

Sincerely,

David L. Narramore

P.O. Box 8438, Greenville, SC 29604 • 310 Mills Avenue, Suite 203, Greenville, SC 29605
Phone: 864-242-9881 / Fax: 864-232-5202 • e-mail: plans@narramore-architects.com

SHELTER COVE TOWNE CENTRE - BUILDING 104

STOREFRONT & METAL AWNINGS:
CLEAR ANODIZED ALUMINUM

CORNICE & METAL COPING:
SW #7042 "SHOJI WHITE"

BOARD & BATTEN & TRIM:
SW #6071 "POPULAR GRAY"

FIBER CEMENT MACHINE CUT SHAKE & TRIM:
SW #7534 "OUTERBANKS"

COM*check* Software Version 3.9.2

Envelope Compliance Certificate

2009 IECC

Section 1: Project Information

Project Type: **New Construction**
Project Title : SHELTER COVE TOWNE CENTER - BUILDING 104

Construction Site:
32 SHELTER COVE LANE
HWY. 278, MILE MARKER 8
HILTON HEAD ISLAND, SC 29928

Owner/Agent:
MARK SENN
BLANCHARD & CALHOUN
2743 PERIMETER PKWY
BLDG. 100 STE. 370
AUGUSTA, GA 30909

Designer/Contractor:
DAVID NARRAMORE
NARRAMORE ASSOCIATES, INC.
310 MILLS AVE. SUITE 203
GREENVILLE, SC 29605
864-242-9881
daphneb@narramore.net

Section 2: General Information

Building Location (for weather data):	**Hilton Head Island, South Carolina**
Climate Zone:	**3a**
Building Space Conditioning Type(s):	**Nonresidential**
Vertical Glazing / Wall Area Pct.:	**35%**

Activity Type(s)	Floor Area
Dining: Cafeteria/Fast Food	2039
Retail	2039

Section 3: Requirements Checklist

Envelope PASSES Design 0.4% better than code

Climate-Specific Requirements:

Component Name/Description	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor(a)
Orientation: NORTH					
Exterior Wall 3: Steel-Framed, 16" o.c.	955	0.0	19.0	0.046	0.084
Window 6: Metal Frame with Thermal Break:Double Pane with Low-E, Clear, SHGC 0.62	90	---	---	0.350	0.650
Window 7: Metal Frame with Thermal Break:Double Pane with Low-E, Clear, SHGC 0.62, PF 0.60	300	---	---	0.350	0.650
Orientation: EAST					
Exterior Wall 4: Steel-Framed, 16" o.c.	1406	0.0	19.0	0.046	0.084
Window 8: Metal Frame with Thermal Break:Double Pane with Low-E, Clear, SHGC 0.62, PF 0.60	324	---	---	0.350	0.650
Window 9: Metal Frame with Thermal Break:Double Pane with Low-E, Clear, SHGC 0.62	128	---	---	0.350	0.650
Orientation: SOUTH					
Exterior Wall 2: Steel-Framed, 16" o.c.	955	0.0	19.0	0.046	0.084
Window 4: Metal Frame with Thermal Break:Double Pane with Low-E, Clear, SHGC 0.62	90	---	---	0.350	0.650
Window 5: Metal Frame with Thermal Break:Double Pane with Low-E, Clear, SHGC 0.62, PF 0.60	300	---	---	0.350	0.650
Orientation: WEST					
Exterior Wall 1: Steel-Framed, 16" o.c.	1479	0.0	19.0	0.046	0.084

Window 1: Metal Frame with Thermal Break:Double Pane with Low-E, Clear, SHGC 0.62, PF 0.60	324	---	---	0.350	0.650
Window 2: Metal Frame with Thermal Break:Double Pane with Low-E, Clear, SHGC 0.62	128	---	---	0.350	0.650
Orientation: UNSPECIFIED ORIENTATION					
Roof 1: Insulation Entirely Above Deck	4078	---	24.0	0.040	0.048
Floor 1: Slab-On-Grade:Unheated	4078	---	---	---	---

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.

Air Leakage, Component Certification, and Vapor Retarder Requirements:

- ☐ 1. All joints and penetrations are caulked, gasketed or covered with a moisture vapor-permeable wrapping material installed in accordance with the manufacturer's installation instructions.
- ☐ 2. Windows, doors, and skylights certified as meeting leakage requirements.
- ☐ 3. Component R-values & U-factors labeled as certified.
- ☐ 4. No roof insulation is installed on a suspended ceiling with removable ceiling panels.
- ☐ 5. 'Other' components have supporting documentation for proposed U-Factors.
- ☐ 6. Insulation installed according to manufacturer's instructions, in substantial contact with the surface being insulated, and in a manner that achieves the rated R-value without compressing the insulation.
- ☐ 7. Stair, elevator shaft vents, and other outdoor air intake and exhaust openings in the building envelope are equipped with motorized dampers.
- ☐ 8. Cargo doors and loading dock doors are weather sealed.
- ☐ 9. Recessed lighting fixtures installed in the building envelope are Type IC rated as meeting ASTM E283, are sealed with gasket or caulk.
- ☐ 10. Building entrance doors have a vestibule equipped with self-closing devices.
  Exceptions:
  - ☐ Building entrances with revolving doors.
  - ☐ Doors not intended to be used as a building entrance.
  - ☐ Doors that open directly from a space less than 3000 sq. ft. in area.
  - ☐ Doors used primarily to facilitate vehicular movement or materials handling and adjacent personnel doors.
  - ☐ Doors opening directly from a sleeping/dwelling unit.

Section 4: Compliance Statement

Compliance Statement: The proposed envelope design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed envelope system has been designed to meet the 2009 IECC requirements in COM*check* Version 3.9.2 and to comply with the mandatory requirements in the Requirements Checklist.

DAVID WARRAMORE - ARCHITECT David Warramore 3/28/14

Name - Title Signature Date

COM*check* Software Version 3.9.2

Exterior Lighting Compliance Certificate

2009 IECC

Section 1: Project Information

Project Type: **New Construction**
Project Title : SHELTER COVE TOWNE CENTER - BUILDING 104
Exterior Lighting Zone: **4 (High activity metropolitan commercial district)**

Construction Site:
SHELTER COVE LANE
HWY. 278, MILE MARKER 8
HILTON HEAD ISLAND, SC 29928

Owner/Agent:
MARK SENN
BLANCHARD & CALHOUN
2743 PERIMETER PKWY
BLDG. 100 STE. 370
AUGUSTA, GA 30909

Designer/Contractor:
DAVID NARRAMORE
NARRAMORE ASSOCIATES, INC.
310 MILLS AVE. SUITE 203
GREENVILLE, SC 29605
864-242-9881
daphneb@narramore.net

Section 2: Exterior Lighting Area/Surface Power Calculation

A Exterior Area/Surface	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B x C)	F Proposed Watts
Illuminated length of facade wall or surface	280 ft	5	No	1400	1260
Main entry	12 ft of door width	30	Yes	360	420
Other door (not main entry)	18 ft of door width	20	Yes	360	840
			Total Tradable Watts* =	720	1260
			Total Allowed Watts =	2120	
			Total Allowed Supplemental Watts** =	1300	

* Wattage tradeoffs are only allowed between tradable areas/surfaces.

** A supplemental allowance equal to 1300 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Section 3: Exterior Lighting Fixture Schedule

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Illuminated length of facade wall or surface (280 ft): Non-tradable Wattage				
HID 1: SD: Wall Pack: Metal Halide: Pulse start:	1	6	210	1260
Main entry (12 ft of door width): Tradable Wattage				
HID 2: SD: Wall Pack: Metal Halide: Pulse start:	1	2	210	420
Other door (not main entry) (18 ft of door width): Tradable Wattage				
HID 3: SD: Wall Pack: Metal Halide: Pulse start:	1	4	210	840
			Total Tradable Proposed Watts =	1260

Section 4: Requirements Checklist

Lighting Wattage:

☐ 1. Within each non-tradable area/surface, total proposed watts must be less than or equal to total allowed watts. Across all tradable areas/surfaces, total proposed watts must be less than or equal to total allowed watts.

Compliance: Passes using supplemental allowance watts.

Controls, Switching, and Wiring:

- ☐ 2. All exemption claims are associated with fixtures that have a control device independent of the control of the nonexempt lighting.
- ☐ 3. Lighting not designated for dusk-to-dawn operation is controlled by either a a photosensor (with time switch), or an astronomical time switch.
- ☐ 4. Lighting designated for dusk-to-dawn operation is controlled by an astronomical time switch or photosensor.
- ☐ 5. All time switches are capable of retaining programming and the time setting during loss of power for a period of at least 10 hours.

Exterior Lighting Efficacy:

- ☐ 6. All exterior building grounds luminaires that operate at greater than 100W have minimum efficacy of 60 lumen/watt.

Exceptions:

- ☐ Lighting that has been claimed as exempt and is identified as such in Section 3 table above.
- ☐ Lighting that is specifically designated as required by a health or life safety statue, ordinance, or regulation.
- ☐ Emergency lighting that is automatically off during normal building operation.
- ☐ Lighting that is controlled by motion sensor.

Section 5: Compliance Statement

Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed lighting system has been designed to meet the 2009 IECC requirements in COM*check* Version 3.9.2 and to comply with the mandatory requirements in the Requirements Checklist.

ROGER S. PASSMORE, PE		03-27-2014
Name - Title	Signature	Date

COM*check* Software Version 3.9.2

Mechanical Compliance Certificate

2009 IECC

Section 1: Project Information

Project Type: **New Construction**
Project Title : SHELTER COVE TOWNE CENTER - BUILDING 104

Construction Site:
SHELTER COVE LANE
HWY. 278, MILE MARKER 8
HILTON HEAD ISLAND, SC 29928

Owner/Agent:
MARK SENN
BLANCHARD & CALHOUN
2743 PERIMETER PKWY
BLDG. 100 STE. 370
AUGUSTA, GA 30909

Designer/Contractor:
DAVID NARRAMORE
NARRAMORE ASSOCIATES, INC.
310 MILLS AVE. SUITE 203
GREENVILLE, SC 29605
864-242-9881
daphneb@narramore.net

Section 2: General Information

Building Location (for weather data): **Hilton Head Island, South Carolina**
Climate Zone: **3a**

Section 3: Mechanical Systems List

Quantity	System Type & Description
1	RTU-104-A (Single Zone) : Heating: 1 each - Central Furnace, Electric, Capacity = 77 kBtu/h Cooling: 1 each - Rooftop Package Unit, Capacity = 72 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 12.00 EER, Required Efficiency = 11.20 EER Fan System: FAN SYSTEM 1 -- Compliance (Motor nameplate HP method) : Passes Fans: FAN 1 Supply, Constant Volume, 2400 CFM, 2 motor nameplate hp
1	RTU-104-B (Single Zone) : Heating: 1 each - Central Furnace, Electric, Capacity = 77 kBtu/h Cooling: 1 each - Rooftop Package Unit, Capacity = 72 kBtu/h, Air-Cooled Condenser, Air Economizer Proposed Efficiency = 12.00 EER, Required Efficiency = 11.20 EER Fan System: FAN SYSTEM 1 -- Compliance (Motor nameplate HP method) : Passes Fans: FAN 1 Supply, Constant Volume, 2400 CFM, 2 motor nameplate hp

Section 4: Requirements Checklist

Requirements Specific To: RTU-104-A :

- ☐ 1. Equipment minimum efficiency: Rooftop Package Unit: 11.20 EER
- ☐ 2. Newly purchased equipment meets the efficiency requirements
- ☐ 3. Integrated economizer is required for this location and system.
- ☐ 4. Cooling system provides a means to relieve excess outdoor air during economizer operation.

Requirements Specific To: RTU-104-B :

- ☐ 1. Equipment minimum efficiency: Rooftop Package Unit: 11.20 EER
- ☐ 2. Newly purchased equipment meets the efficiency requirements
- ☐ 3. Integrated economizer is required for this location and system.
- ☐ 4. Cooling system provides a means to relieve excess outdoor air during economizer operation.

Generic Requirements: Must be met by all systems to which the requirement is applicable:

- ☐ 1. Plant equipment and system capacity no greater than needed to meet loads

Exception(s):

- ☐ Standby equipment automatically off when primary system is operating
- ☐ Multiple units controlled to sequence operation as a function of load

☐ 2. Minimum one temperature control device per system

☐ 3. Minimum one humidity control device per installed humidification/dehumidification system

☐ 4. Load calculations per ASHRAE/ACCA Standard 183.

☐ 5. Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup

Exception(s):

- ☐ Continuously operating zones

☐ 6. Outside-air source for ventilation; system capable of reducing OSA to required minimum

☐ 7. R-5 supply and return air duct insulation in unconditioned spaces
R-8 supply and return air duct insulation outside the building
R-8 insulation between ducts and the building exterior when ducts are part of a building assembly

Exception(s):

- ☐ Ducts located within equipment
- ☐ Ducts with interior and exterior temperature difference not exceeding 15°F.

☐ 8. Mechanical fasteners and sealants used to connect ducts and air distribution equipment

☐ 9. Ducts sealed - longitudinal seams on rigid ducts; transverse seams on all ducts; UL 181A or 181B tapes and mastics

☐ 10. Hot water pipe insulation: 1.5 in. for pipes <=1.5 in. and 2 in. for pipes >1.5 in.
Chilled water/refrigerant/brine pipe insulation: 1.5 in. for pipes <=1.5 in. and 1.5 in. for pipes >1.5 in.
Steam pipe insulation: 1.5 in. for pipes <=1.5 in. and 3 in. for pipes >1.5 in.

Exception(s):

- ☐ Piping within HVAC equipment.
- ☐ Fluid temperatures between 55 and 105°F.
- ☐ Fluid not heated or cooled with renewable energy.
- ☐ Piping within room fan-coil (with AHRI440 rating) and unit ventilators (with AHRI840 rating).
- ☐ Runouts <4 ft in length.

☐ 11. Operation and maintenance manual provided to building owner

☐ 12. Thermostatic controls have 5°F deadband

Exception(s):

- ☐ Thermostats requiring manual changeover between heating and cooling
- ☐ Special occupancy or special applications where wide temperature ranges are not acceptable and are approved by the authority having jurisdiction.

☐ 13. Balancing devices provided in accordance with IMC (2006) 603.17

☐ 14. Demand control ventilation (DCV) present for high design occupancy areas (>40 person/1000 ft2 in spaces >500 ft2) and served by systems with any one of 1) an air-side economizer, 2) automatic modulating control of the outdoor air damper, or 3) a design outdoor airflow greater than 3000 cfm.

Exception(s):

- ☐ Systems with heat recovery.
- ☐ Multiple-zone systems without DDC of individual zones communicating with a central control panel.
- ☐ Systems with a design outdoor airflow less than 1200 cfm.
- ☐ Spaces where the supply airflow rate minus any makeup or outgoing transfer air requirement is less than 1200 cfm.

☐ 15. Motorized, automatic shutoff dampers required on exhaust and outdoor air supply openings

Exception(s):

- ☐ Gravity dampers acceptable in buildings <3 stories

☐ 16. Automatic controls for freeze protection systems present

☐ 17. Exhaust air heat recovery included for systems 5,000 cfm or greater with more than 70% outside air fraction or specifically exempted

Exception(s):

- ☐ Hazardous exhaust systems, commercial kitchen and clothes dryer exhaust systems that the International Mechanical Code prohibits the use of energy recovery systems.
- ☐ Systems serving spaces that are heated and not cooled to less than 60°F.
- ☐ Where more than 60 percent of the outdoor heating energy is provided from site-recovered or site solar energy.
- ☐ Heating systems in climates with less than 3600 HDD.
- ☐ Cooling systems in climates with a 1 percent cooling design wet-bulb temperature less than 64°F.
- ☐ Systems requiring dehumidification that employ energy recovery in series with the cooling coil.
- ☐ Laboratory fume hood exhaust systems that have either a variable air volume system capable of reducing exhaust and makeup air volume to 50 percent or less of design values or, a separate make up air supply meeting the following makeup air requirements:

a) at least 75 percent of exhaust flow rate, b) heated to no more than 2°F below room setpoint temperature, c) cooled to no lower than 3°F above room setpoint temperature, d) no humidification added, e) no simultaneous heating and cooling.

Section 5: Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2009 IECC requirements in COM*check* Version 3.9.2 and to comply with the mandatory requirements in the Requirements Checklist.

David S. Bonds - Mech. Engineer | David S. Bonds | 3/26/14

Name - Title | Signature | Date

Section 6: Post Construction Compliance Statement

- ☐ HVAC record drawings of the actual installation, system capacities, calibration information, and performance data for each equipment provided to the owner.
- ☐ HVAC O&M documents for all mechanical equipment and system provided to the owner by the mechanical contractor.
- ☐ Written HVAC balancing and operations report provided to the owner.

The above post construction requirements have been completed.

Principal Mechanical Designer-Name | Signature | Date

PROJECT MANUAL / SPECIFICATIONS

FOR

Shelter Cove Towne Center - Building 104

AT

32 Shelter Cove Lane
Hilton Head, SC 29928

March 26, 2014

DEVELOPED BY:

Blanchard & Calhoun Commercial

2743 Perimeter Pkwy
Building 100, Suite 370
Augusta, GA
(706) 722-5565

SITE WORK BY:

Ward Edwards Engineering

P.O. Box 381
Bluffton, SC 29910
(843) 837-5250

STATE OF SOUTH CAROLINA
NARRAMORE ASSOCIATES, A.I.A. ARCHITECTS, INC.
GREENVILLE, SC
B84033
REGISTERED ARCHITECTS

STATE OF SOUTH CAROLINA
DAVID L. NARRAMORE
GREENVILLE, SC
1402
REGISTERED ARCHITECT

3/28/14

NARRAMORE ASSOCIATES, INC.
Architects & Planners
310 MILLS AVE., SUITE 203, GREENVILLE, SC 29605 • 864-242-9881

PROJECT MANUAL

For

Shelter Cove Towne Center - Building 104

at

32 Shelter Cove Lane

Hilton Head, SC 29928

DEVELOPED BY: Blanchard & Calhoun Commercial
2743 Perimeter Parkway, Building 100, Suite 370
Augusta, GA 30909
(706) 722-5565

ARCHITECT: Narramore Associates, Inc.
Architects and Planners
310 Mills Avenue, Suite 203
Greenville, SC 29605
(864) 242-9881

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DOCUMENT 00700

INSTRUCTIONS TO BIDDERS

Project Name and Location: Building 104, 32 Shelter Cove Lane, Hilton Head, SC

1. This document contains instructions to bidders for the project named above. This bidding document is omitted from the Contract Documents, unless specifically referenced in the Owner/Contractor Agreement.

2. To obtain bidding documents contact:

   Blanchard & Calhoun Commercial
   2743 Perimeter Parkway, Building 100, Suite 370
   Augusta, GA 30909

3. Bids will be opened in private. Unless approved by Blanchard & Calhoun Commercial, bidders may not be present. Bids may not be withdrawn for 30 calendar days after receipt of bids. Announcements of bid results may be made at the Owners discretion.

4. A Performance and Payment Bond may be required. Verify bonding conditions with Blanchard & Calhoun Commercial prior to submission of bids. Bonds must be executed by a surety company licensed to do business at the location of the project. Bond form shall be AIA Document A312.

5. The Owner reserves the right to reject or accept any or all bids or to enter into negotiations with any bidder. The Owner reserves the right to waive any alleged breach of technicality.

6. The Owner reserves the right to modify the Contract Documents and if necessary, re-bid the project to meet the Owner's budgetary requirements.

7. Questions: During the bidding period, submit only written questions to the person named below. All questions will be answered in writing and distributed to Blanchard & Calhoun Commercial for final distribution to bidders of record.

   Daphne Bigley, Project Manager
   Narramore Associates, Inc., Architects & Planners
   310 Mills Ave, Suite 203
   Greenville, SC 29605
   Phone: 864-242-9881
   Fax: 864-232-5202
   Email: daphneb@narramore.net

9. Site Visit: A site visit is recommended. Contact Blanchard & Calhoun Commercial to arrange site visit(s). No allowances will be made for the contractor’s failure to avail himself of recommended site visits and investigations.

END OF DOCUMENT

SECTION 00800

SUPPLEMENTARY CONDITIONS TO THE GENERAL CONDITIONS

GENERAL

The Supplementary Conditions modify, change, delete from, or add to the "General Conditions of the Contract for Construction," A.I.A. Document A201, 2007 Edition. Where any Article of the General Conditions is modified, or any paragraph, subparagraph, or clause thereof is modified or deleted by these Supplementary General Conditions, the unaltered provisions of that Article, paragraph, subparagraph, or clause shall remain in effect.

ARTICLE 11 – INSURANCE AND BONDS

A. Paragraph 11.1.1 - At end of paragraph, add:

9. The Contractor shall require his subcontractors to carry similar insurance and he shall be wholly responsible for securing from them such certificates of coverage as the Owner may require.

B. Paragraph 11.1.2 - At end of paragraph. add:
Contractor's liability insurance shall be in sufficient amounts to reasonably assure the Contractor's and/or Sub-contractor's solvency in the event of any injuries, deaths or property damage.

Limits of coverage shall be not less than $2,000,000.00 combined single limits for bodily injury and property damage and shall include coverage for products and complete operations. Automobile coverage shall be not less than $2,000,000.00 combined single limit and shall include owned, non-owned and hired vehicles.

The Contractor shall require his sub-contractors to carry similar insurance and he shall be wholly responsible for securing from them such certificates of coverage as the Owner may require.

C. Delete paragraph 11.2 "Owner's Liability Insurance" and substitute:

11.2 Owner's Protective Liability Insurance

1. Owner shall take out and maintain during the life of this contract Owner's Protective Liability Insurance with both the Owner and the Architect as named insured with exact names of each shown on the policy. Deductible will be paid by Owner in the event of a claim by the Contractor.

2. Policy shall be written in amount not less than $1,000,000.00 combined single limit.

3. Location of the work shall be shown on the policy.

4. Policy and certificates of coverage shall include an agreement that the policy will not be cancelled or changed until thirty days prior written notice has been given the Owner as evidenced by return receipt of Certified Mail.

:

END OF SECTION

SECTION 00810

SPECIAL CONDITIONS

GENERAL:

The following Special Conditions supplement, add to, and/or clarify specific items within the General Conditions, A.I.A. Document A201, 2007 Edition.

ADDENDA AND INTERPRETATIONS

Should there be conflicting statements or questions of intent in these Specifications, or in the Drawings, the General Contractor or Subcontractor shall notify the Architect. Any such interpretations shall be issued in the form of Addendum and become a part of the contract Documents.

GUARANTEE

The Contractor agrees to repair or replace any defect in materials or workmanship for a period of one (1) year after possession without cost to the Owner and, to the Owner's satisfaction. Date of final acceptance shall be the date of substantial completion or beneficial occupancy by the Owner.

SPECIFICATION DIVISIONS

a. For convenience of reference, and to facilitate letting of sub-contracts, the Specifications are separated into divisions. These divisions shall not operate to make the Architect or Engineer an arbiter to establish subcontract to limits between Contractor and Subcontractor, nor shall such separations operate as limitation upon Contractor's full and complete performance hereunder the Contract Documents. It is understood that the Contractor and/or Subcontractors are independent contractors, and that no employer-employee relationship exists between the Owner and Subcontractor.

b. Contractors for each division indicated in the Specifications shall supply all labor and materials specified therein and shown on the drawings.

UTILITY COSTS

a. The Contractor shall arrange for and pay all temporary utility charges for water, temporary electrical service, temporary telephone and temporary heat.

b. Owner to pay tap fees and meter costs.

SAFETY

All open trenches, excavations, and construction shall be adequately protected with barriers, barricades, and/or lanterns and warning lights. Safety measures shall conform to all local and OSHA requirements.

LAYOUT

a. The Contractor shall be responsible for accurate layout lines and grades and the adequate maintenance of same. Line and elevation shall be established accurately and maintained at each floor level. A Certified Surveyor shall be employed by the Contractor to establish these lines and grades. A Certified wall check survey must be provided prior

to the first request for a "Draw."

b. Initially, an accurate check shall be made by the Surveyor of the building location relative to property set-backs. If any infringement on the set-backs by the proposed new construction exists, the Surveyor shall notify the Contractor, who,in turn, shall notify the Architect immediately, to allow modification on the design to meet the conditions.

SHOP DRAWINGS

a. All shop drawings must be furnished to and be approved by the Owner and the Architect before any of the work which requires drawings is commenced. The approval of such drawings shall be general and does not mean that such drawings have been checked, and in no way relieves the Contractor of the responsibility for proper fitting and construction of the work in strict accordance with the Contract requirements nor from the necessity of furnishing the materials and workmanship required by the drawings and Specifications, which may not be indicated on the Shop Drawings when approved. All Shop Drawings must be marked with the name of the building and submitted in quadruplicate or in numbers hereinafter required, sufficiently in advance of the work to permit correction if necessary, without delaying progress. Shop Drawings shall be checked and coordinated by the General Contractor before submission to the Architect and Owner. Shop Drawings failing to meet the foregoing will be returned uncorrected for revisions necessary to comply.

b. At the time of Shop Drawing submission, the General Contractor shall inform the Architect or Engineer, in writing, of any deviations or omissions from the Contract Documents.

c. The General Contractor shall review all Shop Drawings before submission to the Architect or Engineer, and make all corrections as he deems necessary and stamp, date, and sign the Shop Drawings indicating that he has done so.

d. Should the Architect's notation or change on a shop drawing involve work which the Contractor does not consider covered by the original Contract Documents, such notation or change shall not be construed as an order covering additional costs, but the Architect shall be notified immediately that the Contractor protests and said notation or change, in which case, the matter shall be cleared and a written order obtained from the Architect before the work is undertaken.

SAMPLES

The Contractor is to submit samples to the Architect when requested or required; and no work is to be manufactured, installed, or applied until samples are approved.

WORKMANSHIP AND MATERIALS

All work must be executed in strict accordance with the drawings and details as may be furnished by this Specification and the instructions of the Architect. All materials and workmanship shall be of the best quality and grade.

EXPLANATION

The general character of the detail work is shown on scale drawings; however, minor modifications may be made at the discretion of the Architect. Wall sections, unless otherwise noted, are typical and all similar locations are to be given treatments as shown, whether repeated on the drawings or not. This Specification is intended to supplement drawings, and therefore it will not be the province of these Specifications to mention any portion of the construction which

the drawings are competent to explain, and such omission is not to relieve the Contractor from carrying out the portions indicated on the drawings, and should items be required by these Specifications which are not indicated on the drawings, or mentioned therein but are necessary to complete the entire work called for, they must be supplied in place. The decision of the Architect as to the interpretation of the Drawings and Specifications shall be final.

MEASUREMENTS

The dimensions of the work are given on the drawings, but the Contractor must verify same and take all measurements for getting out his work at the building. Figured dimensions are to take precedence over scaled dimensions. All dimensions shall be made to conform to work in place. Field measurements of existing conditions as shown are for general information only. No guarantee of their accuracy is guaranteed or to be implied. Contractor shall check and verify all such dimensions.

COORDINATION OF TRADES

a. The General Contractor shall be responsible for the coordination of all trades and subcontracts, regardless of the Specification headings and for making necessary provision for accommodation of all equipment and fittings and patching after installation.

b. The General Contractor shall also be responsible for the coordination of installation of "Not-In-Contract" materials and equipment which, by their nature, must be "dove-tailed" into the construction process.

IDENTIFICATION OF PRODUCTS

a. Materials, equipment, fixtures, apparatus, appliances, accessories, and other manufactured articles shall be delivered in unbroken crates, boxes, cans, and similar packages and shall bear the manufacturer's name, brand, quality, and designation or similar markings for convenient field checking. Any such articles that are not easily identifiable or show indication of possible adulteration will be rejected at the discretion of the Architect whose decision is final.

b. The Contractor shall assume full responsibility for materials, equipment, fixtures, apparatus, appliances, accessories, and other manufactured articles from the time or ordering through delivery and until completion and final acceptance of the finished work. Damage to all such items occurring in this time interval shall be made good to the full satisfaction of the Architect at the Contractor's expense.

DAMAGE TO PROPERTY

The Contractor shall be held responsible for, and be required to make good at his own expense, all damages to the Owner's property or adjacent properties caused in the execution of his Contract.

CERTIFICATE OF OCCUPANCY

The Contractor shall obtain evidence that a Certificate of Occupancy has been issued for his work and submit same with the final requisition or before.

DISCREPANCIES

It is the responsibility of the General Contractor to bring any discrepancies found in the Drawings and Specifications immediately to the attention of the Architect. Prior to bid, all discrepancies found will be clarified by Addenda. If not clarified by Addenda, wherever a discrepancy exists, the more restrictive shall govern.

END OF SECTION

SECTION 01100

PROJECT SUMMARY

PART 1 - GENERAL

1.01 SUMMARY

A. Project Identification: Building 104; 32 Shelter Cove Lane, Hilton Head, SC

B. Project Summary: One Building Totaling = 4,078 sq ft

C. Particular Project Requirements: Without effect on the intent of the contract documents, the project requirements are summarized as follows:

Unit 104-A	2,039 SF
Unit 104-B	2,039 SF
Total:	4,078 SF

D. Permits and Fees: Apply for, obtain, and pay for permits, fees, and utility company charges required to complete the work. Submit copies of all permits to Architect.

E. Codes: Comply with applicable codes and regulations of authorities having jurisdiction. Submit copies of all inspection reports, notices and similar communications to Architect.

F. Dimensions: Before fabricating or ordering of materials, verify dimensions indicated on drawings with field dimensions. Do not scale drawings.

G. Existing Conditions: Notify Architect of existing conditions differing from those indicated on the drawings. Do not remove or alter existing structural components without prior written approval.

H. Coordination:

1. Coordinate the work of all trades.
2. Prepare coordination drawings for areas above ceilings where close tolerances are required between building elements and mechanical and electrical work.
3. Verify location of underground utilities and existing conditions.

I. Installation Requirements, General:

1. Inspect substrates and report unsatisfactory conditions in writing.
2. Do not proceed until unsatisfactory conditions have been corrected.
3. Take field measurements prior to fabrication. Form to required shapes and sizes with true edges, lines and angles. Provide inserts and templates as needed for work of other trades.
4. Install materials in exact accordance with manufacturer's instructions and approved submittals.
5. Install materials in proper relation with adjacent construction and with proper appearance.
6. Restore units damaged during installation. Replace units that cannot be restored without additional expense to the Owner.
7. Refer to additional installation requirements and tolerances specified under individual specification sections.

J. Definitions:

1. Provide: Furnish and install, complete with all necessary accessories, ready for intended use. Pay for all related costs.

2. Approved: Acceptance of item submitted for approval. Not a limitation or release for compliance with the Contract Documents or regulatory requirements. Refer to limitations of 'Approved' in General and Supplementary Conditions.
3. Match Existing: Match existing as acceptable to the Owner
4. Overlapping/Conflicting Requirements: The most stringent requirement written directly into the contract documents is intended and will be enforced.
5. Minimum Requirements: Minimum requirements are a level of quality or quantity that is normally recognized within the trade or industry.
6. Approved By Architect/Engineer: Approval relates only to design intent and does not relieve the contractor from fulfilling all contract document requirements.

K. Intent: Drawings and specifications are intended to provide the basis for proper completion of the work suitable for the intended use of the Owner. Anything not expressly set forth but which is reasonable implied or necessary for proper performance of the project shall be included.

L. Writing style: Specifications are written in the imperative mode. Except where specifically intended otherwise, the subject of all imperative statements is the Contractor. For example, 'Provide tile' means 'Contractor shall provide tile.'

M. Work performed by Others:
1. General site construction shall be performed under a separated contract.
2. Specific tenant improvements to individual retail spaces.

PART 2 - PRODUCTS - Not Applicable To This Section

PART 3 - EXECUTION - Not Applicable To This Section

END OF SECTION

SECTION 01300

ADMINISTRATIVE REQUIREMENTS

PART 1 - GENERAL

1.01 SUMMARY

A. Provide administrative requirements for the proper coordination and completion of work including the following:

1. Supervisory personnel.
2. Pre-construction and pre-installation conferences as required.
3. Project meetings at a frequency appropriate to the project level of completion.
4. Project inspections and testing services.

B. Prepare submittal schedule; coordinate with progress schedule.

C. Perform surveys:

1. Initial laying out the work and verifying locations during construction.
   a. Calculate dimensions for project layout, do not scale drawings
2. Record any deviations between final survey and original drawings.

D. Post a list of emergency telephone numbers and address for individuals to be contacted in case of emergency.

E. Maintain record drawings and specifications. Annotations to be completed by the Contractor as work progresses.

F. Provide testing services as required by the Owner. Schedule and provide required inspections so the project schedule will not be delayed.

G. At all times, keep the project site clean and protect the work in place.

PART 2 - PRODUCTS - Not Applicable To This Section

PART 3 - EXECUTION - Not Applicable To This Section

END OF SECTION

SECTION 01330

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.01 SUMMARY

A. Provide types of submittals listed in individual trade sections with number of required copies as listed below.

1. All Shop drawings shall be previously reviewed and annotated by the Contractor – 2 blackline or blueline prints. One set shall be returned to Contractor.
2. Product data - 2 copies.
3. Samples – 2 sets plus, any extra samples as required to clearly show anticipated ranges of color, finish, and textures.
4. Inspection and test reports – 1 copy.
5. Warranties - 1 copy.
6. Survey data / Field Records – 1 copy.
7. Closeout submittals - 1 copy.
8. Project Maintenance Manuals – 1 bound copy.

B. Comply with project format for submittals.

C. Comply with submittal procedures established by Architect including Architect's submittal and shop drawing stamp. Provide required resubmittals if original submittals are not approved. Provide distribution of approved copies including modifications after submittals have been approved.

D. Samples and shop drawings shall be prepared specifically for this project. Shop drawings shall include dimensions and details, including adjacent construction and related work. Note special coordination required. Note any deviations from requirements of the Contract Documents.

1. Submit shop drawings on full size copies or original documents. Do not submit reduced size or faxed copies.

E. Provide warranties as specified by individual trade sections. Warranties shall be signed by the contractor, supplier or installer responsible for maintenance of the warranty.

PART 2 - PRODUCTS - Not Applicable To This Section

PART 3 - EXECUTION - Not Applicable To This Section

END OF SECTION

SECTION 01400

QUALITY REQUIREMENTS

PART 1 - GENERAL

1.01 QUALITY CONTROL

A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.

B. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

1.02 TOLERANCES

A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate. Comply with manufacturers' tolerances.

1.03 REFERENCES

A. For products or workmanship specified by association, trades, or other consensus standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

1.04 MANUFACTURERS' FIELD SERVICES

A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to perform the following as applicable, and to initiate instructions when necessary.

1. Observe site conditions.
2. Conditions of surfaces and installation.
3. Quality of workmanship.
4. Start-up of equipment.
5. Test, adjust and balance of equipment.

1.05 CONTRACTOR'S QUALITY CONTROL

A. Perform quality control during installation.

1.06 MOCK-UP REQUIREMENTS

A. Assemble and erect specified items with specified attachment and anchorage devices, flashings, seals, and finishes. Accepted mock-ups shall be a comparison standard for the remaining Work.

B. Where mock-up has been accepted by Owner and is no longer needed, remove mock-up and clear area when directed to do so.

PART 2 - PRODUCTS - Not Applicable To This Section

PART 3 - EXECUTION - Not Applicable To This Section

END OF SECTION

SECTION 01500

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 SUMMARY

A. Provide, install and maintain temporary services and utilities, including utility costs:

1. Water (potable and non-potable), including required distribution system.
2. Lighting and power distribution system. (Provide one 4-gang outlet with a 20 amp. circuit at least 200' on center.)
3. Metering.
4. Telephone.
5. Toilet facilities. (No more than 300' travel between units and 1 story vertically.)
6. Materials storage areas and protection.

B. Provide, install and maintain construction facilities, including utility costs:

1. Construction equipment.
2. Dewatering and pumping.
3. Enclosures.
4. Heating.
5. Lighting.
6. Site access.
7. Public roads and highways.
9. Erosion control and protection devices.

C. Provide, install and maintain security and protection requirements:

1. Fire extinguishers.
2. Site enclosure fence, barricades, warning signs, and lights.
3. Building enclosure and lock-up.
4. Environmental protection appropriate for project activity.
5. Pest control during and at the end of construction.
6. Snow and ice removal if applicable.

D. Provide and maintain personnel support facilities:

1. Contractor's field office. Maintain up to date copies of all project drawings, documents and correspondence.
2. Sanitary facilities.
3. Drinking water.
4. Cleaning, trash removal and legal disposal of materials.

PART 2 - PRODUCTS - Not Applicable To This Section

PART 3 - EXECUTION - Not Applicable To This Section

END OF SECTION

SECTION 01600

PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.01 SUMMARY

A. Provide products from one manufacturer for each type or kind as applicable. Provide secondary or substrate materials as acceptable to manufacturers of primary surface materials.

B. Provide products selected or equal approved by Architect. Products submitted for substitution shall be submitted with complete supporting documentation.

C. Request for substitutions must be in writing. Conditions for substitution include:

1. An 'or equal' phrase in the specifications.
2. Specified material cannot be coordinated with other work or is no longer available.
3. Specified material is not acceptable to local authorities having jurisdiction.
4. Substantial advantage is offered to the Owner in terms of cost, time, or other valuable consideration.

D. Unless otherwise approved by the Owner, all substitutions shall be submitted prior to award of contract.

E. Approval of shop drawings, product data, or samples containing substitutions is not an approval of a substitution unless item is clearly presented as a substitution at the time of submittal.

PART 2 - PRODUCTS - Not Applicable To This Section

PART 3 - EXECUTION - Not Applicable To This Section

END OF SECTION

SECTION 01700

EXECUTION REQUIREMENTS

PART 1 - GENERAL

1.01 SUMMARY

A. The following are minimum prerequisites to substantial completion. Provide the following:

1. Supporting documentation.
2. Warranties.
3. Certifications.
4. Occupancy permit.
5. Start-up and testing of all building systems.
6. Change over of locks.

B. Provide the following prerequisites to final acceptance:

1. Final payment request with supporting affidavits.
2. Completed punch list.

C. Provide a marked-up set of drawings including changes which occurred during construction.

D. Provide the following during project closeout:

1. Submission of record documents.
2. Submission of maintenance manuals.
3. Training and turnover to Owner's personnel.
4. Final cleaning and touch-up.
5. Removal of temporary facilities.

PART 2 - PRODUCTS - Not Applicable To This Section

PART 3 - EXECUTION - Not Applicable To This Section

END OF SECTION

SECTION 01730

CUTTING AND PATCHING

PART 1 - GENERAL

1.01 SUMMARY

A. Provide cutting and patching work to properly complete the work of the project, complying with project requirements for:

1. Structural work.
2. Mechanical/electrical systems.
3. Visual requirements, including detailing and tolerances.
4. Operational and safety limitations.
5. Fire resistance ratings.
6. Inspection, preparation, and performance.
7. Cleaning.

B. Do not cut and patch in a manner that would result in a failure of the work or system to perform as intended, decrease energy performance, increase maintenance, decrease operational life, or decrease life safety performance.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Match existing materials for cutting and patching work with new materials conforming to project requirements.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Inspect conditions prior to work to identify scope and type of work required. Protect adjacent work. Notify Owner of work requiring interruption to building services or Owner's operations.

B. Perform work with workmen skilled in the trades involved. Prepare sample area of each type of work for approval.

C. Cutting: Use cutting or boring tools, not chopping tools. Make neat holes. Minimize damage to adjacent work. Inspect for concealed utilities and structure before cutting.

D. Patching: Make patches, seams, and joints durable and inconspicuous. Comply with tolerances for new work.

E. Clean work area and areas affected by cutting and patching operations.

END OF SECTION

SECTION 02300

EARTHWORK

PART 1 - GENERAL

1.01 SUMMARY

A. Perform excavation, filling, compacting and grading operations both inside and outside building foundations as required for below-grade improvements and to achieve grades and elevations indicated.

B. Provide trenching and backfill for all underground mechanical and electrical utility work within 5’-0” of the building foundation lines. Refer to civil engineering documents for utility trench backfilling requirements.

C. Provide subbase materials, drainage fill, common fill, and structural fill materials for slabs, pavements, and improvements.

D. Provide suitable fill from off-site if on-site quantities are insufficient or unacceptable.

E. Legally dispose of excess or unsuitable fill materials off-site.

F. Provide rock excavation without blasting unless controlled blasting is specifically approved by local authorities.

G. Refer to Civil Engineering documents for continuation and coordination of all utility and site improvement work extending from 5’-0” outside the building foundation lines to project contract limits as determined by the Owner.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Test Reports: Submit copies of any required soil test reports.

1.03 QUALITY ASSURANCE

A. Compaction:

1. Under structures, building slabs, steps, pavements, and walkways, 95 percent maximum density, ASTM D 1557.
2. Under lawns or unpaved areas, 90 percent maximum density, ASTM D 1557.

B. Grading Tolerances Outside Building Lines:

1. Lawns, unpaved areas, and walks, plus or minus 1 inch.
2. Pavements, plus or minus 1/2 inch.

C. Grading Tolerance for Fill Under Building Slabs: Plus or minus 1/2 inch measured with 10 foot straightedge.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Subbase material: Gravel or crushed stone graded for intended use as subbase for paving materials specified.

B. Drainage fill: Washed gravel or crushed stone, 1/4" to 3/4" size; ASTM C 33, Size 67.

C. Common fill: Mineral soil substantially free from organic and unsuitable materials, and free from rock or gravel larger than 2" in diameter; 80 percent passing No. 40 sieve and not more than 50 percent passing No. 200 sieve.

D. Structural fill: Gravel or sandy gravel free of organic and unsuitable materials and within the following gradation limits: 4" sieve, 100 percent finer by weight; 1" sieve, 60 to 100 percent; No. 4 sieve, 25 to 85 percent; No. 20 sieve, 10 to 60 percent; No. 50 sieve, 4 to 35 percent; No. 200 sieve, 0 to 5 percent.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Excavation is unclassified and includes excavation to subgrade regardless of materials encountered. Repair excavations beyond elevations and dimensions indicated as follows:

1. At Structure: Concrete or compacted structural fill.
2. Elsewhere: Backfill and compact as directed.

B. Maintain stability of excavations; coordinate shoring and bracing as required by authorities having jurisdiction. Prevent surface and subsurface water from accumulating in excavations. Stockpile satisfactory materials for reuse, allow for proper drainage and do not stockpile materials within drip line of trees to remain.

C. Compact materials at the optimum moisture content as determined by ASTM D 1557 by aeration or wetting to the following percentages of maximum dry density:

1. Structure, Pavement, Walkways: Subgrade and each fill layer to 95% of maximum dry density to suitable depth.
2. Unpaved Areas: Top 6" of subgrade and each fill layer to 90% maximum dry density.

D. Place acceptable materials in layers not more than 8" loose depth for materials compacted by heavy equipment and not more than 4" loose depth for materials compacted by hand equipment to subgrades indicated as follows:

1. Structural Fill: Use under foundations, slabs on grade in layers as indicated.
2. Drainage Fill: Use under designated building slabs, at foundation drainage and elsewhere as indicated.
3. Common Fill: Use under unpaved areas.
4. Subbase Material: Use under pavement, walks, steps, piping and conduit.

E. Grade to within 1/2" above or below required subgrade and within a tolerance of 1/2" in 10'.

F. Protect newly graded areas from traffic and erosion. Recompact and regrade settled, disturbed and damaged areas as necessary to restore quality, appearance, and condition of work.

G. Control erosion to prevent runoff into sewers or damage to sloped or surfaced areas.

H. Control dust to prevent hazards to adjacent properties and vehicles. Immediately repair or remedy damage caused by dust including air filters in equipment and vehicles. Clean soiled surfaces.

I. Dispose of waste and unsuitable materials off-site in a legal manner.

END OF SECTION

SECTION 02362

TERMITE CONTROL

PART 1 - GENERAL

1.01 SUMMARY

A. Provide soil treatment for termite control.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Warranty: Submit manufacturer’s standard warranty. Include labor and materials to repair or replace defective materials.

1. Warranty Period: 5 years

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers that have been in satisfactory use in similar service for five years. Use experienced and licensed installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Soil Treatment Materials: Soil treatment materials shall bear Federal registration number of U.S. Environmental Protection Agency and acceptable to authorities having jurisdiction. If acceptable, products may include chloropyrifos, permathrin, cypermethrine, fenvalerate, isofenphose.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Treat soil in strict compliance with National Pest Control Association standards and with manufacturer's printed instructions and recommendations.

B. Treat areas under floor slabs prior to placement of concrete. Treat areas outside foundation walls after excavation, filling and grading are complete. Do not apply treatment to frozen or excessively wet soils.

C. Post signs and other warnings indicating that soil poisoning has been applied. Protect persons and property from injury or damage from soil treatment work.

END OF SECTION

SECTION 02510

WATER DISTRIBUTION

PART 1 - GENERAL

1.01 SUMMARY

A. Provide an operating underground, exterior water service piping system. Include piping and control valves. Include water service system and piping, accessories, and appurtenances for potable water and fire service within 5'-0" of the building foundation line.

B. Coordinate potable water system installation described in this section with the utility work described in the civil engineering documents.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers that have been in satisfactory use in similar service for five years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Testing: Hydrostatic tests at minimum 2 times working pressure for 2 hours.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Copper Water Tube 2 Inches and Smaller: ASTM B 88, Type K seamless, annealed temper; ANSI B16.22 wrought-copper solder-joint copper fittings.

B. PVC Pipe 3 Inches and Smaller: ASTM D 1785, Schedule 40; Schedule 40 socket-type PVC fittings or elastomeric gasketed joint.

C. Valves:

1. Nonrising stem gate valves 2 inches and smaller, MSS SP-80.
2. Service clamps and corporation stops for new connections 2 inches and smaller

D. Anchorages:

1. Clamps, Straps, and Washers: ASTM A 506, steel.
2. Rods: ASTM A 575, steel.
3. Rod Couplings: ASTM A 197, malleable iron.
4. Bolts: ASTM A 307, steel.
5. Cast-Iron Washers: ASTM A 126, gray iron.

E. Water Meter: Exterior in-ground water meter approved by local utility

F. Identification: Metallic-lined plastic underground warning tapes.

G. Fire Service Main Accessories:

1. Alarm Devices: UL 753 and FM approved including water flow indicators, supervisory switches, and pressure switches.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction. Coordinate with work of other sections.

B. Clean and disinfect system. Test for proper operation. Backfill and protect work from damage.

END OF SECTION

SECTION 03300

CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.01 SUMMARY

A. Provide cast-in-place concrete for general building construction, including, without limitation:

1. Footings and foundation walls
2. Slabs on grade

B. Requirements (materials, mixes, finishes) apply to concrete work specified in other sections, such as sidewalk paving.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

1. Shop drawings shall be prepared in accordance with ACI Detailing Manual.
2. Prior to fabrication, project structural engineer shall review reinforcing steel drawings.

C. Mix Design: Submit for approval mix design(s) proposed for use.

D. Testing Reports: On the day of issue, submit two (2) copies of all specified tests to the Architect and Contractor.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Testing: Employ an independent testing agency to design concrete mixes and to perform material evaluation tests. Provide 7 and 28 day cylinder tests. Comply with ASTM C 143, C 173, C 31 and C 39.

C. Standards:

1. ACI 301, Specifications for structural Concrete for Buildings.
2. ACI 318, Building Code Requirements for Reinforced Concrete, and CRSI Manual of Standard Practice

D. Mock-Ups: Provide mock-up as required by the Owner to demonstrate quality of workmanship.

E. Floor Flatness and Levelness Tolerances:

1. Subfloors Under Materials Such as Concrete Toppings and Ceramic Tile: ACI 302.1R and ASTM E 1155, floor flatness (Ff) of 15, floor levelness (Fl) of 13.
2. Subfloors Under Materials Such As Vinyl Tile, Epoxy Toppings, Paint, and Carpet: ACI 302.1R and ASTM E 1155, floor flatness (Ff) of 20, floor levelness (Fl) of 17.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Concrete Design Mixes, ASTM C 94, 28 Day Compressive Strength:

1. Columns, Beams, Walls, Foundations, and Footings:
   a. Compressive Strength: 3000 psi.
2. Slabs on Grade and Paving Base:
   a. Compressive Strength: 3000 psi.
3. Exterior Site Concrete and Pads Exposed to Weather:
   a. Compressive Strength: 3500 psi.

B. Formwork: Plywood or metal panel formwork sufficient for structural and visual requirements.

1. Special forms for textured finish concrete as shown on the drawings.
2. Metal, plastic or coated paper tubes for cylindrical columns and supports.

C. Reinforcing Materials: (see drawings for specific reinforcing applications)

1. Reinforcing Bars: ASTM A 615, Grade 60, deformed.
2. Reinforcing Bars: ASTM A 767, Class II, galvanized.
3. Reinforcing Bars: ASTM A 775, epoxy-coated.
4. Steel Wire: ASTM A 82.
5. Steel Wire Fabric: ASTM A 185, welded.
6. Steel Wire Fabric: ASTM A 497, welded, deformed.
7. Fiber Reinforcement: Engineered polypropylene fibers for secondary reinforcement of slabs. (verify requirements with Owner)

D. Concrete Materials: ASTM C 150, Type I, Portland cement; potable water.

1. Normal weight aggregates, ASTM C 33.
2. Light weight aggregates, ASTM C 330.
3. Fly Ash: ASTM C 618, Type F.
4. Fiber Reinforcement: Polypropylene fibers for secondary reinforcement, ASTM C 1116, Type III.

E. Concrete Admixtures: Containing less than 0.1 percent chloride ions.

1. Air-Entraining Admixture: ASTM C 260, for exterior exposed concrete and foundations exposed to freeze-thaw. (4% to 8% range)
2. Water-Reducing Admixture: ASTM C 494, Type A, for placement and workability.
3. High-Range Water-Reducing Admixture, Super Plasticizer: ASTM C 494, Type F or G for placement and workability.
4. Water-Reducing, Accelerating Admixture: ASTM C 494, Type E for placement and workability.
5. Water-Reducing, Retarding Admixture: ASTM C 494, Type D for placement and workability.

F. Auxiliary Materials:

1. Reglets: Galvanized sheet steel reglets, minimum 26 gauge (.018 inch).
2. Waterstops: PVC waterstops.
3. Vapor Retarder: ASTM E 154 polyethylene sheet, 8 mils.
4. Vapor Barrier: Clear, 6 mil thick polyethylene sheet.
5. Liquid Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class A.
6. Bonding Compound: Polyvinyl acetate or acrylic base.

G. Concrete Finishes For Formed Surfaces:

1. Surfaces Not Exposed To View: As-cast form finish.
2. Surfaces Exposed To View: Smooth form finish.

H. Concrete Finishes for Monolithic Slabs:

1. Scratch finish for surfaces to receive concrete floor topping or mortar setting bed.
2. Trowel finish for surfaces to be exposed to view or covered with resilient flooring, carpet, tile, or other thin finish system.
3. Trowel and fine broom finish for surfaces to receive thin-set ceramic or quarry tile.
4. Nonslip broom finish for exterior concrete platforms, steps, ramps, and sloped walls.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Comply with ASTM C 94. Do not change mix design without approval. Calcium chloride admixtures are not permitted.

B. Chamfer exposed edges/corners to provide straight lines.

C. Tolerance: Plus 1/8" in 10' for grade, alignment, and straightness.

D. Construction Joints: Use keyways, continue reinforcement through joint.

E. Expansion Joints: For exterior work locate at locations as shown on the drawings. Provide smooth dowels across joint which permit 1" horizontal movement and no vertical shear movement.

F. Isolation Joints: Provide between slabs and vertical elements such as columns and structural walls.

G. Control Joints: Provide sawn or tooled joints or removable insert strips; depth equal to 1/4 slab thickness. Spacing as required and approved.

H. Wall Finishes: As-cast and patched for concealed work; rubbed smooth, filled and cement paste coated for exposed work.

I. Slab Finishes: Obtain sample approval before beginning work.

1. Scratch: For surfaces to receive mortar setting beds or cementitious flooring materials.
2. Trowel: Hard, smooth, uniform surface for areas to receive resilient flooring, carpet, or other thin finish material.
3. Broom: After trowel finishing, roughen surface by coarse brooming perpendicular to traffic direction for exposed exterior walks, steps and ramps.

J. Position, support and secure all reinforcement against displacement

K. Comply with ACI 318 for hot and cold weather concrete placement.

L. Cure and protect work. Report defective work in writing.

END OF SECTION

SECTION 05120

STRUCTURAL STEEL

PART 1 - GENERAL

1.01 SUMMARY

A. Provide structural steel for building construction including sub-framing units which are part of the general framing system. Include related anchors, fasteners, and connectors.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction. Submit three (3) blackline/blueline copies to Architect.

1. Structural engineer shall review all shop drawings prior to final fabrication.

C. Submit two (2) copies of any test reports.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three (3) years. Use experienced installers with at least three (3) years of documented experience with projects of similar scope

B. Deliver, handle, and store materials in accordance with manufacturer's instructions.

C. Standards:

1. AISC, Code of Standard Practice for Steel Buildings and Bridges, and applicable regulations.
2. AWS, Structural Welding Code

D. Testing: Independent testing laboratory.

E. Erection Tolerances: AISC standards.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Steel Materials:

1. Structural Steel Shapes, Plates, and Bars: ASTM A 36 or ASTM A 992
2. Cold-Formed Steel Tubing: ASTM A 500, Grade B.
3. Steel Pipe: ASTM A 53, Type E or S, Grade B; or ASTM A 501.
4. Headed Stud-Type Shear Connectors: ASTM A 108, Grade 1015 or 1020.
5. Anchor Bolts: ASTM A 36
6. Unfinished Threaded Fasteners: ASTM A 307, Grade A.
7. High-Strength Threaded Fasteners: ASTM A 325 or ASTM A 490, as applicable.

B. Auxiliary Materials:

1. Direct Tension Indicators: ASTM A 959.
2. Electrodes for Welding: AWS Code.

3. Structural Steel Primer Paint: (Gray) SSPC – SP-2 or SSPC – SP-3, compatible with topcoats.
4. Nonmetallic Shrinkage-Resistant Grout: Premixed nonmetallic grouting compound, ASTM C 1107

PART 3 - EXECUTION

3.01 INSTALLATION

A. Comply with AISC codes and specifications, and with AWS "Structural Welding Code".

B. Owner may engage testing/inspection agency to inspect welded and bolted connections.

C. Architecturally exposed steel: Fabricate with special care using materials carefully selected for best appearance. Store materials off ground and keep clean. Cut, fit and assemble work with surfaces smooth, square and with complete contact at joints. Set all cambers up. Weld all work continuously; grind smooth and flush to make seams not visible after priming. Prepare surfaces to comply with SSPC-SP6; apply prime coat within 24 hours after cleaning.

D. Touch-up field welds and abraded areas with shop primer.

END OF SECTION

SECTION 05210

STEEL JOISTS AND JOIST-GIRDERS

PART 1 - GENERAL

1.01 SUMMARY

A. Provide steel joists, joist-girders, and accessories for roof framing.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction. Submit three (3) blackline/blueline copies to Architect.

1. Structural engineer shall review all shop drawing prior to final fabrication.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Standards:

1. Steel Joist Institute (SJI) Standard Specifications.
2. AWS D1.1, Structural Welding Code – Steel

PART 2 - PRODUCTS

2.01 MATERIALS

A. Steel Materials:

1. Steel: SJI specifications for chord and web sections.
2. Steel Bearing Plates: ASTM A 36.
3. Type: K-series open web steel joists. (regular and special)
4. Type: Joist girders.

B. Auxiliary Materials:

1. Bolts, Nuts and Washers: ASTM A 325, Type 1
2. Bridging: ASTM A 36
3. Steel Prime Paint: (Gray) SSPC-SP-2 or SSPC –SP-3.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Fabricate and install joists in compliance with SJI requirements and recommendations. Shop primer shall be compatible with finish paint specified in painting section.

B. Coordinate installation of anchor bolts and plates with other work as necessary.

C. Place joists and bridging simultaneously; align work, weld or bolt into place in accordance with SJI specifications.

D. Grout bearing plates as required for sound bearing.

E. Field weld joists and joist girders to bearing plates and steel framework.

F. Touch up field welds and abraded areas with shop primer.

END OF SECTION

SECTION 05310

STEEL DECK

PART 1 - GENERAL

1.01 SUMMARY

A. Provide steel floor and roof deck units:

1. Steel roof deck.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction. Submit three (3) blackline/blueline copies to Architect.

1. Structural engineer shall review all shop drawings prior to final fabrication.

C. Submit two (2) copies of any test reports.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three (3) years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Standards:

1. AISI, Specification for the Design of Cold-Formed Steel Structural Members; and SDI Design Manual for Composite Decks, Form Decks, and Roof Decks.
2. AWS – D1.3

C. Approvals: UL label and FM listing.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Steel Materials and Finish:

1. Steel Shapes: ASTM A 36.
2. Shear Connectors: Headed stud type, ASTM A 108.
3. Sheet Metal Accessories: ASTM A 653, G 60, commercial quality, galvanized.
4. Paint: Rust-inhibitive paint. (Gray)
5. Type: Steel for painted metal deck, ASTM A 611, Grade C.

B. Auxiliary Materials:

1. Metal cover plates.
2. Metal closure strips.
3. Roof sump pans.
4. Flexible closure strips.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Form to span at least 3 supports and with 2" laps. Place deck flat, square and with cells aligned. Anchor deck securely in place following manufacturer's directions and approved shop drawings.

B. Cut and fit neatly around penetrations; provide additional framing, reinforcement and closure pieces to maintain structural continuity. Anchor closure strips at ends, edges, and penetrations.

C. Touch-up damaged coatings with primer or galvanized repair paint.

END OF SECTION

SECTION 05400

COLD-FORMED METAL FRAMING

PART 1 - GENERAL

1.01 SUMMARY

A. Provide cold-formed metal framing units:

1. Exterior load-bearing steel-stud walls
2. Exterior non-load-bearing steel-stud walls
3. Bracing

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers that have been in satisfactory use in similar service for three (3) years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Standards:

1. AISI, Specification for Design of Cold-Formed Steel Structural Members.
2. UL, Specifications for Fire Rated Assemblies (see drawings for location of rate assemblies)

C. Fabrication Tolerances: 1/8" in 10'.

D. Erection Tolerances: 1/16".

PART 2 - PRODUCTS

2.01 MATERIALS

A. Cold-Formed Metal Framing Materials: (see drawings)

1. Wall Framing: C-shaped load-bearing steel studs.
2. Joist Framing: C-shaped load-bearing steel joists.
3. Units 16 gauge (.0598 inch) and heavier: ASTM A 653, yield point 50,000.
4. Units 18 gauge (.0358 inch): ASTM A 653, yield point 37,000 psi.
5. Units 20 gauge (.0329 inch): ASTM A 653, yield point 33,000 psi.
6. Finish: Galvanized, ASTM A 653, G60.

B. Framing Accessories:

1. Supplementary framing
2. Bracing, bridging, and solid blocking
3. Web stiffeners
4. Deflection track and vertical side clips
5. Stud kickers and girts
6. Reinforcement plates
7. Anchors, clips, and fasteners

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction. Coordinate with work of other sections.

B. Comply with requirements of ASTM C 1007 for installation of steel studs and accessories and Metal Lath/Steel Framing Association Lightweight Steel Framing Systems Manual.

C. Where possible, prefabricate components into panels prior to erection. Prevent panel distortion during lifting and location.

D. Weld or screw components as indicted on the drawings.

C. Restore damaged components. Protect work from damage.

END OF SECTION

SECTION 05500

METAL FABRICATIONS

PART 1 - GENERAL

1.01 SUMMARY

A. Provide the following metal fabrications as shown on the drawings:

1. Loose bearing and leveling plates
2. Loose steel lintels
3. Miscellaneous steel trim
4. Pipe bollards

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

C. Samples: Submit two representative samples of each requested material indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Ferrous Materials:

1. Steel Plates, Shapes and Bars: ASTM A 36.
2. Rolled Steel Floor Plates: ASTM A 786.
3. Steel Tubing: ASTM A 500 or A 501.
4. Uncoated Structural Steel Sheet: ASTM A 611 or A 570.
5. Uncoated Steel Sheet: ASTM A 366 or A 569.
6. Galvanized Steel Sheet: ASTM A 653, G90.
7. Steel Pipe, Black Finish: ASTM A 53.
8. Steel Pipe, Galvanized Finish: ASTM A 53.
9. Gray Iron Castings: ASTM A 48, Class 30.
10. Malleable Iron Castings: ASTM A 47, Grade 32510.
11. Reinforcing Bars: ASTM A 615, Grade 60.
12. Concrete Inserts: Threaded or wedge type.
13. Welding Rods and Bare Electrodes: AWS specifications.
14. Zinc-Coating: Hot-dip galvanized coating for materials in exterior assemblies or exterior walls.

B. Stainless Steel Materials:

1. Bar Stock: ASTM A 276, Type 302 or 304.
2. Plate: ASTM A 666, Type 302 or 304.

C. Aluminum Materials:

1. Extruded Bars and Shapes: ASTM B 221 aluminum alloy.
2. Rolled Tread Plate: ASTM B 632 aluminum alloy.
3. Rivets: ASTM B 316, aluminum alloy.
4. Fasteners: ASTM A 153.
5. Finish: Mill finish.
6. Finish: Clear anodized.

D. Fasteners:

1. Bolts and Nuts: Hexagon head type, ASTM A 307, Grade A.
2. Lag Bolts: Square head, FS FF-B-561.
3. Machine Screws: Cadmium plated steel, FS FF-S-92.
4. Wood Screws: carbon steel, FS FF-S-111.
5. Plain Washers: Round carbon steel, FS FF-W-92.
6. Drilled-In Expansion Anchors: FS FF-S-325.
7. Toggle Bolts: Tumble-wing type, FS FF-B-588.
8. Lock Washers: Spring type carbon steel, FS FF-W-84.
9. Zinc-Coating: Fasteners in exterior assemblies or exterior walls.

E. Auxiliary Materials:

1. Nonshrink Metallic Grout: CE CRD-C621.
2. Exterior/Interior Anchoring Cement: Erosion-resistant hydraulic expansion cement.
3. Shop Primer: Alkyd primer, FS TT-P-645, compatible with topcoats.
4. Galvanizing Repair Paint: SSPC - Paint 20.
5. Bituminous Paint: Asphalt mastic, SSPC - Paint 12.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Take field measurements prior to preparation of shop drawings and fabrication. Do not delay job; allow for cutting and fitting if field measurement not practical.

B. Form work true to line with sharp angles and edges. Weld continuously, grind flush and make smooth on exposed surfaces.

C. Install work plumb and level with hairline joints and ground flush welds.

D. Lintels: Provide sizes where indicated with 8" minimum bearing at each end.

E. Touch-up damaged coatings with shop primer and galvanizing repair paint.

F. Paint items scheduled in accordance with painting section.

END OF SECTION

SECTION 06100

ROUGH CARPENTRY

PART 1 - GENERAL

1.01 SUMMARY

A. Provide rough carpentry as indicated for non-combustible construction, including but not limited to:

1. Rough framing with dimension lumber.
2. Wood grounds, nailers, and blocking.
3. Backing panels.
4. Sheathing.
5. Air infiltration barrier.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three (3) years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Lumber Standards and Grade Stamps: U.S. Product Standard PS 20, American Softwood Lumber Standard and inspection agency grade stamps.

C. Construction Panel Standards: PS 1, U.S. Product Standard for Construction and Industrial Plywood; APA PRP-108.

D. Wood Framing Standards: NFPA House Framing Manual.

E. Preservative Treatment: AWPA C2 for lumber and AWPA C9 for plywood; waterborne pressure treatment. Provide for wood in contact with soil, concrete, masonry, roofing, flashing, dampproofing and waterproofing.

F. Fire-Retardant Treatment: AWPA C20 for lumber and AWPA C27 for plywood; noncorrosive type. Provide UL label or other acceptable testing agency label on each treated piece.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Dimension Lumber:

1. Light Framing: Stud, No. 3 or Standard grade.
2. Structural Framing: No. 2 grade.
3. Species: Any species of grade indicated.
4. Exposed Framing: Appearance grade.

B. Boards:

1. Exposed Boards: 15 percent moisture content.
2. Exposed Boards: 19 percent moisture content.
3. Concealed Boards: 19 percent moisture content.

C. Miscellaneous Lumber:

1. Moisture Content: 19 percent.
2. Grade: Standard grade light framing.

D. Construction Panels:

1. Wall Sheathing: APA Sheathing, Exterior.
2. Roof Sheathing: APA Sheathing, Exterior.

E. Gypsum Sheathing:

1. Material: Gypsum sheathing board with water-resistant core and faces.
2. Type: Type X fire-resistant ASTM C 79.

F. Auxiliary Materials:

1. Air Infiltration Barrier: Asphalt-saturated organic felt, ASTM D 226, Type I, No. 15 felt, unperforated.
2. Framing Anchors and Fasteners: Non-corrosive, suitable for load and exposure. Drywall screws are not acceptable.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Wood framing: Comply with recommendations of NFPA Manual for House Framing, NFPA Recommended Nailing Schedule, and NFPA National Design Specifications for Wood Construction.

B. Plywood: Comply with recommendations of APA Design and Construction Guide - Residential and Commercial.

C. Provide nailers, blocking and grounds where required. Set work plumb, level and accurately cut.

D. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction. Coordinate with other work.

E. Comply with manufacturer's requirements for cutting, handling, fastening and working treated materials.

F. Restore damaged components. Protect work from damage.

END OF SECTION

SECTION 07210

BUILDING INSULATION

PART 1 - GENERAL

1.01 SUMMARY

A. Provide building insulation and vapor retarders.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three (3) years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Board Insulation:

1. Vapor Retarder: Integral vapor retarder as required for application.
2. Application: Over metal roof deck.
3. Application: Under single-ply roofing membrane.
4. Type: polyisocyanurate board insulation, ASTM C 1289, Type II, Class 2.
5. Thickness: See drawings

B. Blanket/Batt Insulation: (Flame spread not more than 25; smoke developed less than 450)

1. Application: Thermal insulation in studs in exterior walls.
2. Application: Thermal insulation at underside of roofs and over heated spaces.
3. Type: Glass fiber or mineral slag fiber, ASTM C 665, Type III (kraft vapor-retarder membrane).
4. Thickness: See drawings

C. Loose Fill Insulation:

1. Application: Thermal insulation in masonry cells.
2. Type: Loose granular perlite, ASTM C 549, Type II.
3. Type: Loose granular vermiculite, ASTM C 516, Type II.
4. Type: Foamed in-place insulation.

D. Vapor Retarder (Not Integral with Insulation):

1. Application: Exterior walls.
2. Type: Polyethylene, ASTM D 4397, 6 mils, 0.13 perm vapor transmission rating.

E. Accessories:

1. Adhesives and mechanical anchors and clips.
2. Protection board.
3. Crack sealers and tapes.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction. Coordinate with work of other sections. Provide full thickness in one layer over entire area, tightly fitting around penetrations.

B. Pour loose insulation into cavities indicated; provide uniform coverage at correct density and thickness.

C. Install vapor retarder over entire area of inside face of exterior walls and elsewhere as indicated. Seal all seams and around perimeter and penetrations with duct tape to form a continuous vapor retarder free of holes.

D. Protect installed insulation and vapor retarder.

END OF SECTION

SECTION 07240

EXTERIOR INSULATION AND FINISH SYSTEMS

PART 1 - GENERAL

1.01 SUMMARY

A. Provide exterior insulation and finish systems.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

C. Samples: Submit one representative sample of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

D. Warranty: Submit manufacturer’s standard warranty. Include labor and materials to repair or replace defective materials.

1. Warranty Period: 5 years

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers that have been in satisfactory use in similar service for five (5) years. Use experienced installers with at least five (5) years documented experience in project of similar scope and complexity

B. Deliver, handle, and store materials in accordance with manufacturer's instructions.

C. Mock-Ups: Provide mock-ups as required to demonstrate color(s), finish(es), and quality of workmanship.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Manufacturers: Acrocrete, Inc., Dryvit Systems, Inc., Parex Incorporated., Pleko Products, Inc., Senergy Div. of Harris Specialty Chemicals., Sto Corp., Finestone, or approved equal.

B. Finish Coating over Molded Polystyrene Board:

1. Type: EIMA Class PB.
2. Base Coat: Portland cement and polymer adhesive.
3. Finish Coat: Polymer emulsion.
4. Thermal Insulation: Molded rigid cellular polystyrene. Thickness as shown on drawings.
5. Reinforcing Fabric: Standard weight with high-impact type at areas subject to damage.
6. Insulation Attachment: Adhesive and mechanical anchors. Contractor to insure proper adhesive is used for attachment of polystyrene to various substrates as shown on the drawings.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Inspect substrate and report unsatisfactory conditions in writing; beginning work means acceptance of substrate.

B. Comply with system manufacturer's instructions and recommendations; admixtures shall not be used.

C. Provide reinforced base and finish coats to provide a uniform appearance. Completely cover all insulation board including edges.

D. Provide soft joints at all changes of substrate, at intervals suggested by manufacturers, and at locations as indicated on the drawings.

E. Install areas of special patterns as detailed on the drawings.

F. Clean and protect work.

END OF SECTION

SECTION 07466

FIBER CEMENT SIDING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Siding panels.

B. Soffit panels.

C. Accessories and trim.

1.2 RELATED SECTIONS

A. Section 06100 - Rough Carpentry: Framing and Sheathing.

B. Section 07900 - Joint Sealers.

C. Section 09900 - Paints and Coatings: Field painting.

1.3 REFERENCES

A. ASTM C 920 - Standard Specification for Elastomeric Joint Sealants; 1998.

B. ASTM C 1185 - Standard Test Methods for Sampling and Testing Non-Asbestos Fiber-Cement Flat Sheet, Roofing and Siding Shingles, and Clapboards; 1999.

C. ASTM C 1186 - Standard Specification for Flat Non-Asbestos Fiber Cement Sheets; 1999.

D. ASTM E 72 - Standard Test Methods of Conducting Strength Tests of Panels for Building Construction; 1998.

E. ASTM E 84 -- Standard Test Method for Surface Burning Characteristics of Building Materials; 1999.

F. ASTM E 96 - Standard Test Methods for Water Vapor Transmission of Materials; 1995.

G. ASTM E 136 - Standard Test Method for Behavior of Materials in a Vertical Tube Furnace At 750 Degrees C; 1999.

H. ASTM E 228 - Standard Test Method for Linear Thermal Expansion of Solid Materials With a Vitreous Silica Dilatometer; 1995.

I. ASTM G 26 - Standard Practice for Operating Light-Exposure Apparatus (Xenon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials; 1996.

J. ASTM E 330-97 – Structural Performance of exterior windows, curtain walls and doors by uniform static air pressure difference.

1.4 SUBMITTALS

A. Make submittals under provisions of Section 01300.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Installation methods, including nailing patterns.
4. Applicable model code authority evaluation report (ICC, CCMC, etc.)

A. LEED Submittals: Provide documentation of how the requirements of Credit will be met:
1. List of proposed materials with recycled content. Indicate post-consumer recycled content and pre-consumer recycled content for each product having recycled content.
2. Product data and certification letter indicating percentages by weight of post-consumer and pre-consumer recycled content for products having recycled content.
3. List of proposed materials with rapidly renewing content. Indicate rapidly renewing content percentage for each product having rapidly renewing content.

B. Siding manufacturer's requirements for vapor retarders, primer, paint, etc., to be installed by others.

C. Maintenance and periodic inspection recommendations.

D. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Provide installer with not less than three years of experience with products similar to those specified.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Store products off the ground, on a flat surface, and under a roof or separate waterproof covering.

1.7 WARRANTY

A. Provide WeatherBoards 50 year limited siding warranty.

B. CertainTeed ColorMax Finish – provide 15 year limited paint warranty

C. Register manufacturer's warranty, made out in Owner's name, with copy to Owner.

PART 2 PRODUCTS

2.1 MANUFACTURER

A. CertainTeed Corporation, Siding Products Group, P.O. Box 860, Valley Forge, Pennsylvania 19482. ASD. Tel: (800) 233-8990. www.certainteed.com

B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 PANELS

A. Fiber Cement Board Panels - General: CertainTeed Fiber Cement Board Panels consist of cement, recycled content and cellulose fiber formed under high pressure into boards with integral surface texture; complying with ASTM C 1186 Type A Grade II; machined edges; for nail attachment.
   1. Surface Burning Characteristics: Flame spread index of 0, smoke developed index of 5, maximum; when tested in accordance with ASTM E 84 (Class I/A).
   2. Flammability: Noncombustible, when tested in accordance with ASTM E 136.
   3. Flexural Strength: At least 1450 psi (10 MPa) when in equilibrium condition, and at least 1015 psi (7 MPa) when in wet condition, tested in accordance with ASTM C 1185.
   4. Coefficient of Thermal Expansion: Less than 1 x 10^-5/inch/inch/degree F (0.5 x 10^-5/degree C), when tested in accordance with ASTM E 228.
   5. Freeze Thaw Resistance: At least 80 percent flexural strength retained, when tested in accordance with ASTM C 1185.
   6. UV Resistance: No cracking, checking, or erosion, when tested for 2000 hours in accordance with ASTM G 26.
   7. Water Tightness: No water droplets on underside, when tested in accordance with ASTM C 1185.

B. <u>Horizontal Siding: CertainTeed WeatherBoards Lap Siding.</u>
   1. Thickness: 5/16 inch (7.9 mm), plus or minus .04 inch (1 mm).
   2. Length: 12 feet (3657 mm), plus 0, minus 1/8 inch (3 mm).
   3. Style: **Smooth lap siding**.
      a. Width: 5-1/4 inches (133 mm) wide.
      b. Width: 6-1/4 inches (159 mm) wide.
      c. Width: 7-1/4 inches (185 mm) wide.
      d. Width: 8-1/4 inches (210 mm) wide.
      e. Width: 9-1/4 inches (235 mm) wide.
      f. Width: 12 inches (305 mm) wide.
   4. Sealant/Primer: FiberTect Sealant/Primer.
   5. Field Finish Paint: 100 percent acrylic latex as specified in Section 09900.
   6. Factory Finish: Factory applied ColorMax Finishing System by CertainTeed with 100 percent acrylic solid color as follows:
      a. Snow.
      b. Linen.
      c. Sterling Gray.
      d. Desert Tan.
      e. Marigold.
      f. Light Maple.
      g. Savannah Wicker.
      h. Natural Clay.

i. Taupe.
j. Nantucket Gray.
k. Olive.
l. Pewter.
m. Suede.
n. Coastal Blue.
o. Autumn Red.
p. Sable Brown.
q. Cypress.
r. Flagstone.
s. Pacific Blue.
t. Forest.
u. Granite Gray.
v. Hearthstone.

7. Style: **Cedar lap siding**.
   a. Width: 5-1/4 inches (133 mm) wide.
   b. Width: 6-1/4 inches (159 mm) wide.
   c. Width: 7-1/4 inches (185 mm) wide.
   d. Width: 8-1/4 inches (210 mm) wide.
   e. Width: 9-1/4 inches (235 mm) wide.
   f. Width: 12 inches (305 mm) wide.
8. Sealant/Primer: FiberTect Sealant/Primer.
9. Field Finish Paint: 100 percent acrylic latex as specified in Section 09900.
10. Factory Finish: Factory applied ColorMax Finishing System by CertainTeed with 100 percent acrylic solid color as follows:
   a. Snow.
   b. Linen.
   c. Sterling Gray.
   d. Desert Tan.
   e. Marigold.
   f. Light Maple.
   g. Savannah Wicker.
   h. Natural Clay.
   i. Taupe.
   j. Nantucket Gray.
   k. Olive.
   l. Pewter.
   m. Suede.
   n. Coastal Blue.
   o. Autumn Red.
   p. Sable Brown.
   q. Cypress.
   r. Flagstone.
   s. Pacific Blue.
   t. Forest.
   u. Granite Gray.
   v. Hearthstone.
11. Factory Stain Finish: Factory applied CertainTeed Fiber Cement Siding Premium Stain color as follows:
   a. Redwood.
   b. Mahogany.
   c. Maple.

d. Cedar.
e. Emerald.
f. Slate.

C. <u>Simulated Shingle Siding: CertainTeed WeatherBoards Shakes.</u>

1. Thickness: 5/16 inch (7.9 mm), plus or minus .04 inch (1 mm).
2. Style: **Perfection shingle,** grooved, 7 inches (178 mm) exposure, 8-1/4 inches (210 mm) wide by 12 feet (3657 mm), plus 0, minus 1/8 inch (3 mm).
3. Style: **Random square straight edge**, cut between shingles, 5 inches (127 mm) exposure, 12 inches (305 mm) wide by 48 inches (1219 mm) long.
4. Style: **Random square straight edge**, cut between shingles, 7 inches (178 mm) exposure, 16 inches (406 mm) wide by 48 inches (1219 mm) long.
5. Style: **Random square staggered edge**, cut between shingles, 7 inches (178 mm) exposure, 16 inches (406 mm) wide by 48 inches (1219 mm) long.
6. Style: **Half-rounds** full cut between shingles, 7 inches (178 mm) exposure, 16 inches (406 mm) wide by 48 inches (1219 mm) long.
7. Style: **Octagons** full cut between shingles, 7 inches (178 mm) exposure, 16 inches (406 mm) wide by 48 inches (1219 mm) long.
8. Sealant/Primer: FiberTect Sealant/Primer.
9. Field Finish Paint: 100 percent acrylic latex as specified in Section 09900.
10. Factory Finish: Factory applied ColorMax Finishing System by CertainTeed with 100 percent acrylic solid color as follows:
    a. Snow.
    b. Linen.
    c. Sterling Gray.
    d. Desert Tan.
    e. Marigold.
    f. Light Maple.
    g. Savannah Wicker.
    h. Natural Clay.
    i. Taupe.
    j. Nantucket Gray.
    k. Olive.
    l. Pewter.
    m. Suede.
    n. Coastal Blue.
    o. Autumn Red.
    p. Sable Brown.
    q. Cypress.
    r. Flagstone.
    s. Pacific Blue.
    t. Forest.
    u. Granite Gray.
    v. Hearthstone.
11. Factory Stain Finish: Factory applied CertainTeed Fiber Cement Siding Premium Stain color as follows:
    a. Redwood.
    b. Mahogany.
    c. Maple.
    d. Cedar.
    e. Emerald.
    f. Slate.

12. Simulated Shingle Siding: CertainTeed WeatherBoards Shakes.
13. Thickness: ¼ inch (6.4 mm) plus or minus .031 inch (.8mm)
14. Style: **Individual Shakes**, 8" reveal with 18" length. Package comes with all 3 widths to apply in a straight or staggered appearance:
    a. Width: 6 ¼"
    b. Width: 8 ¼
    c. Width: 12"
15. Sealant/Primer: FiberTect Sealant/Primer.
16. Field Finish Paint: 100 percent acrylic latex as specified in Section 09900.

D. **<u>Vertical Siding: CertainTeed WeatherBoards Vertical Siding.</u>**

1. Thickness: 5/16 inch (7.9 mm), plus or minus .04 inch (1 mm).
2. Size: 48 by 96 inches (1220 by 2440 mm).
3. Size: 48 by 108 inches (1220 by 2743 mm).
4. Size: 48 by 120 inches (1220 by 3048 mm).
5. Style: **Smooth panel**.
6. Style: **Stucco texture panel**.
7. Style: **Cedar panel, no grooves**.
8. Style: **Cedar panel, 3/8 inch (9.5 mm) wide grooves at 8 inches** (200 mm) on center.
9. Sealant/Primer: FiberTect Sealant/Primer.
10. Field Finish Paint: 100 percent acrylic latex as specified in Section 09900.
11. Factory Finish: Factory applied ColorMax Finishing System by CertainTeed with 100 percent acrylic solid color as follows:
    a. Snow.
    b. Linen.
    c. Sterling Gray.
    d. Desert Tan.
    e. Marigold.
    f. Light Maple.
    g. Savannah Wicker.
    h. Natural Clay.
    i. Taupe.
    j. Nantucket Gray.
    k. Olive.
    l. Pewter.
    m. Suede.
    n. Coastal Blue.
    o. Autumn Red.
    p. Sable Brown.
    q. Cypress.
    r. Flagstone.
    s. Pacific Blue.
    t. Forest.
    u. Granite Gray.
    v. Hearthstone.

E. **<u>Soffit: CertainTeed WeatherBoards Soffit, ventilated and non-ventilated.</u>**

1. Thickness: 1/4 inch (6.35 mm), plus or minus 1/32 inch (0.8 mm).
2. Length: 12 feet (3657 mm), plus 0, minus 1/8 inch (3 mm).
3. Style: **Smooth texture**
    a. Width: 12 inches (305 mm) wide.
    b. Width: 16 inches (406 mm) wide.

c. Width: 24 inches (610 mm) wide.

4. Style: **Cedar texture**
   a. Width: 12 inches (305 mm) wide.
   b. Width: 16 inches (406 mm) wide.
   c. Width: 24 inches (610 mm) wide.
5. Ventilated soffit.
6. Non-ventilated soffit.
7. Combination of Ventilated and Non-ventilated as indicated on the Drawings.
8. Sealant/Primer: FiberTect Sealant/Primer.
9. Field Finish Paint: 100 percent acrylic latex as specified in Section 09900.
10. Factory Finish: Factory applied ColorMax Finishing System by CertainTeed with 100 percent acrylic solid color as follows:
    a. Snow.
    b. Linen.
    c. Sterling Gray.
    d. Desert Tan.
    e. Marigold.
    f. Light Maple.
    g. Savannah Wicker.
    h. Natural Clay.
    i. Taupe.
    j. Nantucket Gray.
    k. Olive.
    l. Pewter.
    m. Suede.
    n. Coastal Blue.
    o. Autumn Red.
    p. Sable Brown.
    q. Cypress.
    r. Flagstone.
    s. Pacific Blue.
    t. Forest.
    u. Granite Gray.
    v. Hearthstone.
11. Factory Stain Finish: Factory applied CertainTeed Fiber Cement Siding Premium Stain color as follows:
    a. Redwood.
    b. Mahogany.
    c. Maple.
    d. Cedar.
    e. Emerald.
    f. Slate.

F. <u>Soffit/Porch Panel: CertainTeed FiberCement Soffit/Porch Panel.</u>

1. Thickness: 1/4 inch (6 mm), (6.35 mm, plus or minus 0.8 mm).
2. Width: 48 inches (1220 mm).
3. Length: 8 feet (2440 mm), plus 0, minus 1/8 inch (3.17 mm).
4. Style: **Smooth texture**
5. Style: **Cedar texture**
6. Sealant/Primer: FiberTect Sealant/Primer.
7. Field Finish Paint: 100 percent acrylic latex as specified in Section 09900.

2.3 ACCESSORIES

A. Trim: CertainTeed WeatherBoards Trim/Fascia Board

1. Size:
   a. Thickness 7/16 inch (11 mm) plus or minus (1 mm).
   b. Width:
      1) 3-1/2 inch (89 mm).
      2) 5-1/2 inch (140 mm).
      3) 7-1/4 inch (185 mm).
      4) 9-1/4 inch (235 mm).
      5) 11-1/4 inch (286 mm).
   c. Length: 12 feet (3.657 m) plus or minus 1/8 inch (3.17 mm).

2. Sealant/Primer: FiberTect Sealant/Primer.

B. Provide the following trim:
1. Starter strip for lap siding.
2. Outside corners, butted to siding.
3. Outside corners, overlapping siding.
4. Fascia board.

C. Sealant: Paintable, 100 percent acrylic latex caulk complying with ASTM C 920.

D. Sheet Metal Flashing: Minimum 26 gauge hot-dipped galvanized steel sheet, or coated aluminum.

E. Nails: Length as required to penetrate minimum 1-1/4 inch (32mm) into solid backing; hot-dipped galvanized or stainless steel.

F. Building Paper: Kraft or bituminous paper; not polyethylene or foil.

G. Field Finish Paint: 100 percent acrylic latex as specified in Section 09900.

PART 3 EXECUTION

3.1 EXAMINATION

A. Prior to commencing installation, verify governing dimensions of building and condition of substrate.

C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Examine, clean, and repair as necessary any substrate conditions that would be detrimental to proper installation.

B. Do not begin installation until unacceptable conditions have been corrected.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions and Drawing details.

1. Read warranty and comply with all terms necessary to maintain warranty coverage.
2. Install in accordance with conditions stated in model code evaluation report applicable to location of project.
3. Use trim details indicated on drawings.
4. Touch up all field cut edges before installing.
5. Pre-drill nail holes if necessary to prevent breakage.

B. Over Wood Studs Without Sheathing: Install building paper over studs prior to installing siding.

C. Over Wood and Wood-Composite Sheathing: Fasten siding through sheathing into studs.

D. Over Foam Sheathing: Read and comply with sheathing manufacturer's recommendations.
   1. For sheathing of 1 inch (25 mm) thickness or less, nail through sheathing into studs using correspondingly longer nails.

E. Over Masonry Walls: Install furring strips of adequate thickness to accept full length of nails and spaced at 16 inches (406 mm) on center.

F. Over Steel Studs: Minimum 20 gauge steel, 3 5/8” (92 mm) C-studs. Use 1-5/8” (41 mm) long, #8-18 x 3/8” HD self-tapping, corrosion-resistant ribbed bugle head screws. Attach siding at each stud insuring that at least 3 screw threads penetrate the studs.

G. Diagonal Siding: Follow manufacturer's instructions.

H. Allow space between both ends of siding panels that butt against trim for thermal movement; seal joint between panel and trim with exterior grade sealant.

I. Joints in Horizontal Siding: Avoid joints in lap siding except at corners; where joints are inevitable stagger joints between successive courses.

J. Joints in Vertical Siding: Install Z-flashing in horizontal joints between successive courses of vertical siding.

K. Furred Installation: Leave space at top and bottom open; top may be behind soffit; at bottom install insect screen over opening by wrapping a strip of screen over bottom ends of vertical furring strips.

L. Install sheet metal flashing above door and window casings and horizontal trim in field of siding.

M. Do not install siding less than 6 inches (150 mm) from surface of ground nor closer than 1 inch (25 mm) to roofs, patios, porches, and other surfaces where water may collect.

N. After installation, seal all joints except lap joints of lap siding. Seal around all penetrations. Paint all exposed cut edges.

O. Finish Painting: Specified in Section 09900.

P. Finish Painting: Within 24 months after installation, paint siding and trim with one coat finish paint.

Q. Finish Painting: Within 24 months after installation, paint siding and trim with one coat primer and two coats finish paint.

3.4 CLEANING

A. At completion of work, remove debris caused by siding installation from project site.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION

SECTION 07540

THERMOPLASTIC MEMBRANE ROOFING

PART 1 - GENERAL

1.01 SUMMARY

A. Provide thermoplastic membrane roofing.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

C. Warranty: Submit manufacturer’s standard warranty. Include labor and materials to repair or replace defective materials.

1. Base Warranty Period: 10 years.
2. First Warranty Extension Option: Additional 5 years + base 10 for a total of 15 years.
3. Second Warranty Extension Option: Additional 10 years + base 10 for a total of 20 years.
4. Warranty(ies) shall be presented to the Owner at the time of final payment.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers that have been in satisfactory use in similar service for five (5) years. Use system licensed installers with at least five (5) years of documented experience.

B. Deliver, handle, and store materials in accordance with manufacturer's instructions.

C. Listing: UL Class A external fire exposure:

D. Listing: FM Class I construction.

PART 2 - PRODUCTS

2.01 MATERIALS

A. TPO (Thermoplastic Polyolifin) Membrane Roofing:

1. Manufacturers: Carlisle, Stevens, Firestone, Manville, Sarnafil, GAF or approved equal.
2. Type: Mechanically fastened, heat welded.
3. Membrane: TPO, 60 mils, ASTM D 4434.
4. Color: White

B. Accessory Materials:

1. Insulation: FM 4450 approved or UL 1256 rated Polyisocyanurate board as approved by system manufacturer. See drawings for thickness specification.
2. Tapered Insulation: Fabricated to provide proper drainage. See roof plan for layout.
3. Walkway Protection Pads: Compatible with membrane and recommended by roofing system manufacturer.
4. Pipe Flashings: Pre-molded and supplied by roofing system manufacturer.
5. Flashing Materials: .032 aluminum Kynar Metal.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Inspect substrate and report unsatisfactory conditions in writing. Beginning work means acceptance of substrate.

B. Comply with roof system manufacturer's instructions and recommendations; clean, prime and prepare substrate.

C. Install insulation with tightly butted joints and neatly fitted around penetrations.

D. Begin roof installation only in presence of manufacturer's representative. Minimize seams and shingle overlaps to shed water.

E. Install walkway protection over an additional layer of membrane at locations indicated and where required to provide access to roof mounted equipment.

F. Restore or replace damaged components. Protect work from damage.

END OF SECTION

SECTION 07600

FLASHING AND SHEET METAL

PART 1 - GENERAL

1.01 SUMMARY

A. Provide flashing and sheet metal fabrications.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

C. Samples: Submit one representative sample of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations.

B. Provide products of acceptable manufacturers that have been in satisfactory use in similar service for three (3) years. Use experienced installers with at least three (3) years of documented experience.

C. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Applications:

1. Metal cap flashings, counter flashing and base flashing.
2. Exterior wall flashing and expansion joints.
3. Built-in metal valleys and scuppers.
4. Gutters and downspouts.
5. Exposed metal trim and fascia units.
6. Elastic flashing.
7. Elastic roof and wall expansion joint systems.
8. Laminated composition flashing.
9. Sheet metal accessories.

B. Sheet Metal Flashing and Trim:

1. Zinc-Coated Steel: ASTM A 653, G90 hot-dip galvanized, 20 gauge (.0359 inch).
2. Stainless Steel: AISI Type 302/304, ASTM A 666, 2D annealed finish, 28 gauge (.0156 inch).
3. Sheet Aluminum: ASTM B 209, alloy 3003, clear anodized, 20 gauge (.0359 inch).
4. Extruded Aluminum: 6063-T52, clear anodized, 0.080 inches for primary legs of extrusion.

C. Flexible Sheet Membrane Flashing: Nonreinforced flexible black elastic sheet, 50 to 65 mils thick, neoprene synthetic rubber.

D. Flexible Sheet Membrane Flashing: Nonreinforced flexible black elastic sheet, 50 to 65 mils thick, butyl synthetic rubber.

E. Laminated Composition Sheet Flashing: 5 ounce copper sheet laminated between 2 layers of bituminous impregnated Kraft paper or saturated fabric.

F. Fabricated Units: Compliance with SMACNA Sheet Metal Manual.

G. Elastic Expansion Joints: Factory-fabricated metal-flanged edges to fit curbs and curb substrate.

H. Auxiliary Materials:

1. Solder compatible with metal.
2. Bituminous isolation coating.
3. Mastic and elastomeric sealants.
4. Epoxy seam sealer.
5. Rosin-sized building paper slip sheet.
6. Polyethylene underlayment.
7. Reglets and metal accessories.
8. Gutter and conductor head guards.
9. Asphaltic roofing cement.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Follow recommendations of SMACNA Sheet Metal Manual. Allow for expansion. Isolate dissimilar materials using bituminous coatings.

B. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.

C. Restore damaged components and finishes. Clean and protect work from damage.

END OF SECTION

SECTION 07720

ROOF ACCESSORIES

PART 1 - GENERAL

1.01 SUMMARY

A. Provide roof accessories.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Heat and Smoke Vent Insurance Requirements: UL and FM approval or acceptance.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Prefabricated Curb and Equipment Support Units:

1. Type: Designed for roof type and equipment.
2. Materials: Steel, 14 gauge (.0747 inch), hot dip galvanized.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Comply with accessory manufacturers' instructions and recommendations. Coordinate installation with roofing system to ensure weathertight performance. Anchor securely to structure to withstand inward and outward loads.

B. Isolate dissimilar metals to prevent galvanic corrosion.

C. Test and operate units; clean, lubricate and adjust moving parts. Leave units ready for field painting.

END OF SECTION

SECTION 07840

FIRESTOPPING

PART 1 - GENERAL

1.01 SUMMARY

A. Provide firestopping at locations required by code.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Submit for approval test reports.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Fire Performance: ASTM E 119, ASTM E 814, and local regulations.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Through-Penetration Firestop Systems: Subject to compliance with requirements, provide systems designed for use required, of one or more of the following types:

1. Endothermic, latex sealant and compounds.
2. Intumescent latex sealant, putty and wrap strips.
3. Mortar.
4. Silicone foams and sealants.

B. Fire-Resistive Elastomeric Joint Sealants:

1. Single-component, neutral-curing, silicone sealant.
2. Single-component, nonsag, urethane sealant.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Review extent of work with authorities having jurisdiction and obtain approval of installation thicknesses and methods.

B. Sequence work to avoid need for removal of firestopping by work of other trades.

C. Comply with manufacturers' instructions and recommendations. Securely anchor insulation with safing clips. Install firestops without gaps or voids.

D. Protect, inspect and repair work until final acceptance.

END OF SECTION

SECTION 07900

JOINT SEALERS

PART 1 - GENERAL

1.01 SUMMARY

A. Provide joint sealers at interior and exterior vertical and horizontal joints.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1. Include manufacturer’s full range of color and finish options if additional selection is required.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Field-Constructed Mock-Ups: Each joint type.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Urethane Elastomeric Joint Sealants:

1. Manufacturers: Pecora Corp., Sika Corp., Tremco or approved equal.
2. Type and Application: One-part nonsag urethane sealant, ASTM C 920:
   a. Application: For joints in vertical surfaces.
   b. Application: For joints in vertical and horizontal surfaces.
   c. Application: For joints in horizontal. surfaces.
   d. Exterior use.

B. Silicone Elastomeric Joint Sealants:

1. Manufacturers: Dow Corning, GE Silicones, Tremco, or approved equal.
2. Type and Application: One-part nonacid-curing silicone sealant, ASTM C 920, modulus as required for application:
   a. Application: For joints in vertical surfaces.
   b. Application: For joints in vertical and horizontal surfaces.
   c. Application: For joints in horizontal. surfaces.
   d. Exterior and interior use.
3. Type and Application: One-part acid-curing silicone sealant, ASTM C 920, for joints in vertical surfaces:
   a. Exterior use.
   b. Exterior and interior use.
4. Type and Application: One-part mildew-resistant silicone sealant, ASTM C 920, for sanitary applications, interior use.

C. Polysulfide Elastomeric Joint Sealants:

1. Manufacturers: W. R. Meadows, Pecora Corp., Sonneborn Building Products or approved equal.
2. Type and Application: Two-part nonsag polysulfide sealant, ASTM C 920, for joints in vertical surfaces:
   a. Exterior use.
   b. Exterior and interior use.
3. Type and Application: Two-part polysulfide sealant, ASTM C 920, for water immersion.

D. Latex Joint Sealants:

1. Manufacturers: Pecora Corporation, Polymeric Systems, Inc., Sonneborn Building Products, Tremco, or approved equal.
2. Type: Silicone emulsion, ASTM C 834, and ASTM C 920.
3. Application: Interior joints in vertical and overhead surfaces with limited movement.

E. Solvent-Release-Curing Joint Sealants:

1. Manufacturers: H.B. Fuller Company, Pecora Corporation, Polymeric Systems, Inc., Sonneborn Building Products, Tremco, or approved equal.
2. Type: Acrylic, ASTM C 920.
3. Type: Butyl, FS TT-S-001657.
4. Application: Exterior vertical surfaces with limited movement.

F. Compression Seals:

1. Type: Preformed foam sealant.
2. Type: Application: Wide exterior joints in vertical surfaces.

G. Fire-Resistive Joint Sealers:

1. Type: One part fire-stopping sealant.
2. Application: Penetrations in fire-rated floor and wall assemblies.

H. Specialty Sealants:

1. Type and Application: Synthetic rubber for acoustical sealant for concealed joints.
2. Type and Application: Butyl-polyisobutylene sealant and tape sealant for concealed joints.

I. Paving Joint Fillers:

1. Type: Bituminous fiber.
2. Application: Filler for exterior paving joints.

J. Auxiliary Materials:

1. Plastic foam joint fillers.
2. Elastomeric tubing backer rods.
3. Bond breaker tape.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Examine substrate; report unsatisfactory conditions in writing. Beginning work means acceptance of substrates.

B. Provide sealants in colors as selected from manufacturer's standards.

C. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections. Clean and prime joints, and install bond breakers, backer rods and sealant as recommended by manufacturers.

D. Depth shall equal width up to 1/2" wide; depth shall equal 1/2 width for joints over 1/2" wide.

E. Cure and protect sealants as directed by manufacturers. Replace or restore damaged sealants. Clean adjacent surfaces to remove spillage.

END OF SECTION

SECTION 08110

STEEL DOORS AND FRAMES

PART 1 - GENERAL

1.01 SUMMARY

A. Provide steel doors and frames.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Standards: ANSI/SDI-100, Recommended Specifications for Standard Steel Doors and Frames.

C. Performance Standards:

1. Fire-Rated Assemblies: NFPA 80, and acceptable testing agency listing.
2. Thermal-Rated Assemblies at Exterior: ASTM C 236 or ASTM C 976.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Manufacturers: Amweld Building Products, Ceco Door Products, Curries Co., Mesker Door, Steelcraft Manufacturing, or approved equal.

B. Steel Doors:

1. Door Type: Standard steel doors with hollow or composite construction.
2. Interior Doors: ANSI/SDI-100, Grade II, heavy-duty, minimum 18 gauge (.042 inch) cold-rolled steel, 1-3/4 inches thick.
3. Exterior Doors: ANSI/SDI-100, Grade II, heavy-duty, minimum 16 gauge (.053 inch) galvanized sheet steel, 1-3/4 inches thick.
4. Accessories:
5. Finish: Factory primed and field painted.

C. Steel Frames:

1. Interior Frames: (If applicable)
   a. Material: Sheet steel.
   b. Corners: Mitered or coped.
   c. Type: Welded.
   d. Type: Drywall slip-on.
   e. Thickness: 18 gauge (.042 inch).
2. Exterior Frames:
   a. Material: Galvanized sheet steel.

b. Corners: Mitered or coped.
c. Type: Welded.
d. Thickness: 14 gauge (.059 inch).

3. Accessories:
   a. Door silencers.
   b. Plaster guards.
4. Finish: Factory primed and field painted.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Fabricate work to be rigid, neat and free from seams, defects, dents, warp, buckle, and exposed fasteners. Install doors and frames in compliance with SDI-100, NFPA 80, and requirements of authorities having jurisdiction.

B. Provide thermally improved doors with maximum U-value of 0.24 BTU/hr./sq. ft. degree F (ASTM C 236) for all exterior doors and elsewhere as noted.

C. Provide acoustically improved doors with minimum STC of 33 (ASTM E 90 and ASTM E 413) where indicated.

D. Hardware: Prepare doors and frames to receive hardware on final schedule. Provide for 3 silencers on single door frames; 2 on double door frames.

E. Shop Finish: Clean, treat and prime paint all work with rust-inhibiting primer comparable with finish paint specified in Division 9 section. Provide asphalt emulsion sound deadening coating on concealed frame interiors.

F. Touch-up damaged coatings and leave ready to receive finish painting.

END OF SECTION

SECTION 08411

ALUMINUM-FRAMED STOREFRONTS

PART 1 - GENERAL

1.01 SUMMARY

A. Provide aluminum entrances and storefront.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

C. Warranty: Submit manufacturer’s standard warranty. Include labor and materials to repair or replace defective materials.

1. Warranty Period: 5 years.

D. Operation and Maintenance Data: Submit manufacturer’s operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Manufacturers: EFCO Corp., Kawneer Company, Tubelite Architectural Products, United States Aluminum, Vistawall Architectural Products, or approved equal.

B. Aluminum Entrances and Storefront:

1. Aluminum Members: ASTM B 221, B 209 and B 211.
2. Steel Reinforcement (if required by drawings): ASTM A 36, ASTM A 611, and ASTM A 570.
3. Door Style: Narrow stile and rail doors.
4. Glass and Glazing: Single glazing.
   a. Tempered.
5. Glazing Color: Clear glass.
6. Door Hanging Devices: Ball-bearing butts.
7. Closers: Surface mounted.
8. Closer Operation: Single acting closers.
9. Aluminum Finish: Clear Anodized.

C. Auxiliary Materials:

1. Push/pulls, door stops, overhead holders, and deadlocks.
2. Weatherstripping and thresholds.
3. Exit devices.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Take field measurements before fabrication where possible; do not delay job progress.

B. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.

C. Anchor securely in place; install plumb, level and in true alignment. Isolate dissimilar materials to prevent corrosion.

D. Coordinate with glass and glazing work; install hardware and adjust for smooth, proper operation.

E. Clean and protect completed system; repair damage.

END OF SECTION

SECTION 08710

DOOR HARDWARE

PART 1 - GENERAL

1.01 SUMMARY

A. Provide door hardware.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

C. Submit for approval hardware schedule proposed for use based on Owner's requirements.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for five years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Hardware for Fire-Rated Openings: NFPA 80, and local requirements.

C. Materials and Application: ANSI A156 series standards, Grade 2 clyindrical

PART 2 - PRODUCTS

2.01 MATERIALS

A. Manufacturers: Corbin Russwin Architectural Hardware, Sargent Manufacturing, Schlage Lock Co., Yale Locks and Hardware, or approved equal.

B. Door Hardware:

1. Quality Level: Commercial.
2. Locksets and Latchsets: Cylindrical Leverset type.
3. Lock Cylinders: Integral.
4. Keying: Owner's requirements.
5. Hinges and Butts: Full-mortise type with nonremovable pins at exterior doors.
6. Closers, Door Control: Surface Mounted
7. Push/Pull Units: Through-bolted type.
8. Hardware Finishes: Satin chrome finish on exposed surfaces.

C. Auxiliary Materials:

1. Door Trim Units: Stops and kick - type door holders.
2. Weatherstripping and thresholds.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Follow guidelines of DHI "Recommended Locations for Builder's Hardware and hardware manufacturers' instructions.

B. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials and systems in proper relation with adjacent construction and with uniform appearance. Coordinate with work of other sections.

C. Adjust operation, clean and protect.

END OF SECTION

SECTION 08800

GLAZING

PART 1 - GENERAL

1.01 SUMMARY

A. Provide glass and glazing for the following:

1. Storefront
2. Entrances

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

C. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

D. Warranty: Submit manufacturer’s standard warranty. Include labor and materials to repair or replace defective materials.

1. Laminated Glass: Manufacturer's 4 year warranty

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Manufacturers: AFG Industries, Cardinal IG, Libby Owens Ford, Viracon, or approved equal.

B. Glass:

1. Primary Glass Products: Clear float, tinted float, patterned, and wire glass, ASTM C 1036.
2. Heat-Treated Glass Products: Heat-strengthened, tempered, coated, and spandrel glass, ASTM C 1048.
3. Laminated Glass Units: Polyvinyl butyral interlayer.

C. Glazing Accessories:

1. Elastomeric glazing sealants.
2. Preformed glazing tapes.
3. Glazing gaskets.
4. Setting blocks, spacers, and compressible filler rods.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Inspect framing and report unsatisfactory conditions in writing.

B. Comply with GANA "Glazing Manual" and manufacturers instructions and recommendations. Use manufacturer's recommended spacers, blocks, primers, sealers, gaskets and accessories.

C. Install glass with uniformity of pattern, draw, bow and roller marks.

D. Install sealants to provide complete wetting and bond and to create a substantial wash away from glass.

E. Set mirrors on stainless steel clips and adhere to wall with mirror adhesive.

F. Remove and replace damaged glass and glazing. Wash, polish and protect all glass supplied under this section.

3.02 SCHEDULE

A. Glazing Schedule:

1. Storefront: 1 inch insulated Low “E” coating. (See drawings for tempered units)
2. Entrances: 1 inch thick insulated Low “E” tempered glass unit.

END OF SECTION

SECTION 09253

GYPSUM SHEATHING

PART 1 - GENERAL

1.01 SUMMARY

A. Provide gypsum sheathing at exterior of studs at exterior walls.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Manufacturers: Georgia-Pacific, United States Gypsum, LaFarge or approved equal.

B. Gypsum Sheathing Board:

1. Type: ASTM C 79, regular and fire-rated types:
   a. 1/2 inch typical thickness.
   b. 5/8 inch typical thickness.
2. Construction: Water-resistant core gypsum sheathing board.

C. Auxiliary Materials:

1. Fasteners, Type S steel drill screws with corrosion-resistant finish.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Comply with manufacturers instructions and recommendations.

B. Install gypsum sheathing horizontally. Fit tightly around obstructions, but allow for building expansion and structural movement.

C. Provide air infiltration barrier over sheathing, overlapping edges at least 2 inches and tape seams with sheathing tape.

D. Seal perimeter of system and at interface with other materials.

END OF SECTION

SECTION 09260

GYPSUM BOARD ASSEMBLIES

PART 1 - GENERAL

1.01 SUMMARY

A. Provide gypsum board assemblies:

1. Interior walls, partitions, and ceilings with tape and joint compound finish

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Tolerances: Not more than 1/16 inch difference in true plane at joints between adjacent boards before finishing. After finishing, joints shall be not be visible. Not more than 1/8 inch in 10 feet deviation from true plane, plumb, level and proper relation to adjacent surfaces in finished work.

C. Fire Resistance for Fire-Rated Assemblies: ASTM E 119.

D. Performance: Fire, structural, and seismic performance meeting requirements of building code and local authorities.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Manufacturers of Gypsum Board: Domtar Gypsum, Georgia-Pacific Corp., National Gypsum Co., United States Gypsum Co., LaFarge, or approved equal.

B. Manufacturers of Steel Framing and Furring: Dale Incor, Dietrich Industries, Marino Ware, National Gypsum Co., Unimast, or approved equal.

C. Gypsum Board:

1. Gypsum Wallboard for Tape and Joint Compound Finish: ASTM C 36, regular and fire-rated types as required:
   a. Typical Thickness: 1/2 inch.
   b. Typical Thickness: 5/8 inch.
2. Joint Treatment: ASTM C 475 and ASTM C 840, 3-coat system, paper or fiberglass tape.
3. Joint Reinforcing Materials: ASTM C 587.
4. Thickness: 5/8 inch nominal.

D. Trim Accessories:

1. Material: Metal or plastic trim.
2. Types: Cornerbead, edge trim, and control joints.

E. Steel Framing for Walls and Partitions:

1. Steel Studs and Runners: ASTM C 645, steel studs with manufacturer's standard corrosion-resistant coating:
   a. Thickness: 20 gauge (.0329 inch).
   b. Thickness: 22 gauge (.0276 inch).
   c. Typical Depth: 2-1/2 inch.
   d. Typical Depth: 3-5/8 inch.
   e. Typical Depth: 4 inch.
   f. Typical Depth: 6 inch.
2. Furring Channels: ASTM C 645 with manufacturer's standard corrosion-resistant coating:
   a. Thickness: 20 gauge (.0329 inch).
3. Auxiliary Framing Components: Furring brackets, resilient furring channels, Z-furring members, and non-corrosive fasteners.

F. Auxiliary Materials:

1. Gypsum board screws, ASTM C 1002.
2. Fastening adhesive.
3. Concealed acoustical sealant.
4. Mineral fiber thermal insulation.
5. Polyethylene vapor retarder, 6 mils.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install steel framing in compliance with ASTM C 754. Install with tolerances necessary to produce substrate for gypsum board assemblies with tolerances specified. Include blocking for items such as railings, grab bars, casework, toilet accessories and similar items.

B. Install wood framing in compliance with Section 06100 - Rough Carpentry. Install with tolerances necessary to produce substrate for gypsum board assemblies with tolerances specified. Include blocking for items such as railings, grab bars, casework, toilet accessories and similar items.

C. Install gypsum board for tape and 3-coat joint compound finish in compliance with ASTM C 840 and GA 216, Recommended Specifications for the Application and Finishing of Gypsum Board. Install gypsum board assemblies true, plumb, level and in proper relation to adjacent surfaces.

D. Provide continuous vapor retarder at exterior walls.

E. Provide fire-rated systems where indicated and where required by authorities having jurisdiction.

F. Do not allow butt-to-butt joints and joints that do not fall over framing members.

G. Where new partitions meet existing construction, remove existing cornerbeads to provide a smooth transition.

H. Provide insulation full height and thickness in partitions at conference rooms, toilet rooms, between different occupancies, and where required.

I. Provide acoustical sealant at both faces at top and bottom runner tracks, wall perimeters, openings, expansion and control joints.

J. Install trim in strict compliance with manufacturer's instructions and recommendations.

K. Repair surface defects. Leave ready for finish painting or wall treatment.

END OF SECTION

SECTION 09910

PAINTING

PART 1 - GENERAL

1.01 SUMMARY

A. Provide the following:

1. Painting and surface preparation for interior unfinished surfaces as scheduled.
2. Painting and surface preparation for exterior unfinished surfaces as scheduled.
3. Field-painting and surface preparation of exposed mechanical and electrical piping, conduit, ductwork, and equipment.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Submittals: Include the attached 3.02 paint schedule amended to list the proposed manufacturer’s product name for every surface listed in the schedule. Only first line commercial products, shall be listed. Note any proposed changes in the submitted, amended schedule including modifications, additions and or deletions. Receive the contractors returned approved schedule prior to purchasing materials.

C. Samples: Submit two representative samples of each material specified indicating visual characteristics and finish. Include range samples if variation of finish is anticipated.

1. Include manufacturer’s full range of color and finish options if additional selection is required.

D. Extra Stock: Submit 2 unopened gallons of each paint and color used in the project.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Regulations: Compliance with VOC and environmental regulations.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Manufacturers: ICI Devoe Coatings, Benjamin Moore, Pratt and Lambert, Sherwin Williams, Porter or approved equal. Provide only first-line commercial-quality products for all coating systems.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Inspect surfaces, report unsatisfactory conditions in writing; beginning work means acceptance of substrate.

B. Comply with manufacturer's instructions and recommendations for preparation, priming and coating work. Coordinate with work of other sections.

C. Perform related minor preparation including caulk and glazing compounds. Spot prime bare areas before priming and painting as specified.

D. Match approved mock-ups for color, texture, and pattern. Re-coat or remove and replace work that does not match or shows loss of adhesion. Clean up, touch up and protect work.

3.02 PAINT SCHEDULE

A. Gypsum Drywall Walls:

1. Gloss:
   a. Semi
2. System:
   a. 1 coat latex primer
   b. 2 coats latex finish

B. Gypsum Drywall Walls and Ceilings in Bathrooms:

1. Gloss:
   a. Semi
2. System:
   a. 1 coat latex primer
   b. 2 coats latex finish

C. Interior Wood for Painted Finish:

1. Gloss:
   a. Semi
2. System:
   a. 2 coats latex enamel

D. Interior Wood doors, Sealed Finish:

1. Gloss:
   a. Semi
2. System:
   a. 1 coat sanding sealer
   b. 2 coats clear polyurethane sealer

E. Concrete Masonry Units:

1. Gloss:
   a. Semi
2. System:
   a. 1 coat heavy duty block filler
   b. 2 coats elastomeric coating

F. Ferrous Metals:

1. Gloss:
   a. High
2. System:
   a. 1 coat rust-inhibiting primer
   b. 2 coats alkyd enamel

G. Galvanized Metal:

1. Gloss:
   a. High
2. System:

a. 1 coat galvanized metal primer
b. 2 coats alkyd enamel

H. Gas piping.

1. Quote separate.

END OF SECTION

SECTION 10880 – STORM PANELS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section includes the following:

1. Reusable and removable panel system to protect glazed openings from wind and wind-borne debris during a storm. Panel system is to be manually installed and removed.

1.2 PERFORMANCE REQUIREMENTS

A. Design, fabricate, and install panel system to withstand loads from gravity, wind, seismic, and structural movement, including thermally induced movement; and to resist, without failure, other conditions of in-service use, including exposure to weather.

1. Design impact resistance to meet or exceed ASTM E1996 and ASTM E 1886.

2. Wind design criteria: Basic Wind Speed 130 mph, exposure C.

B. Seismic Performance: Capable of withstanding the effects of earthquake motions determined according to IBC 1613.5.6.1 for Seismic Design Category C.

1. Thermal Movements: Allow for thermal movements resulting from a maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components, failure of connections, tearing of panels, and other detrimental effects.

1.3 SUBMITTALS

A. Submit under provisions of Section 01330 – Submittal Procedures

B. Product Data: For entire system and components.

C. Shop Drawings: Include plans, elevations, sections, details, attachments to other work, and operational clearances. Show materials, and graphic panel layout.
1. Include structural analysis data signed and sealed by a South Carolina qualified professional engineer responsible for their preparation.
2. Include installation diagrams for future use by owner.

D. Samples: For each colored or finished component.

1.4 QUALITY ASSURANCE

A. Manufacturer and Installer Qualifications:

1. Installer to have a minimum of three (3) years experience with the installation of storm panels.

2. Manufacturer to have a minimum of five (5) years experience regularly engaged in the production of storm panels. Provide professional engineering services needed to assume engineering responsibility.

PART 2 - PRODUCTS

2.1 STORM PANELS

A. Manufacturers: Subject to compliance with requirements, provide a storm panel system that complies with the following:

B. Panels: Structural roll-formed metal panels designed to overlap each other, and are securely fastened at top and bottom.

C. Materials: Aluminum at 0.50" thick minimum, or steel at 24 gauge minimum. Panels to be capable of nesting when in storage and not in use. Panels to be pre-finished.

D. Fastening systems: Coordinate fastening systems with exterior finishes and with substrate building conditions. Coordinate fastening requirements with Section 06100 – Rough Carpentry. Fastening systems to be designed for rapid installation by owner's maintenance staff. When panels are not installed over openings, fastening holes in finishes and related hardware to have a neat and finished appearance, and not allow water intrusion into and behind finishes.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General: Install storm panel system at locations and in position indicated, securely connected to supports, free of rack, and in proper relation to adjacent construction. Use mounting methods of types described and in compliance with Shop Drawings and fabricator's written instructions.

B. Install storm panel system after other finishing operations, including joint sealing and painting, have been completed.

C. Anchoring to In-Place Construction: Use anchors, fasteners, fittings, hinges, hardware, and installation accessories where necessary for securing panels to structural support and for properly transferring load to in-place construction.

D. Adjust panels to operate smoothly, easily, safely, and free from binding or malfunction throughout entire operational range.

E. De-mount panel system after test fit and store panels in locations designated by the owner.

3.2 DEMONSTRATION

A. Train Owner's maintenance personnel to adjust, operate, store and maintain panel system.

END OF SECTION 10880

SECTION 15050

BASIC MECHANICAL MATERIALS

PART 1 - GENERAL

1.01 SUMMARY

A. Work of this section includes providing basic mechanical materials including, but not limited to, the following:

1. Valves.
2. Pipe expansion joints.
3. Supports and anchors.
4. Mechanical identification.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

C. Operation and Maintenance Data: Submit manufacturer’s operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers that have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 - PRODUCTS

2.01 PRODUCTS

A. Pipe, Fittings, and Specialties: Refer to individual piping systems specifications for materials and installation requirements.

B. Valves: General duty valves cast iron, bronze, and brass, fabricated to comply with Manufacturers Standardization Society (MSS) classification listed. Gate, globe, ball, butterfly, and plug valves for shutoff duty; globe, ball, and plug valves for throttling duty.

1. Gate Valves, 2-Inch and Smaller for Domestic Hot and Cold Water: MSS SP-80, Class 125 or 150 based on system pressure, cast bronze, threaded or solder ends based on service.
2. Gate Valves, 2-1/2-Inch and Larger: MSS SP-70, Class 125, iron body, flanged ends.
3. Ball Valves, 1 Inch and Smaller: Rated for 150 psi saturated steam pressure, 400 psi WOG pressure, 2 piece construction, bronze body, threaded or solder ends based on service.
4. Ball Valves, 1-1/4-Inch to 2-Inch: Rated for 150 psi saturated steam pressure, 400 psi WOG pressure, 3 piece construction, bronze body, threaded or solder ends based on service.
5. Plug Valves, 2-Inch and Smaller: Rated at 150 psi WOG, bronze body, threaded ends.
6. Plug Valves, 2-1/2-Inchand Larger: MSS SP-78, rated at 175 psi WOG, semi-steel body, flanged ends.

7. Globe Valves, 2-Inch and Smaller: MSS SP-80, Class 125 or 150 based on system pressure, cast bronze, threaded or solder ends based on service.
8. Globe Valves, 2-1/2-Inch and Larger: MSS SP-85, Class 125, iron body, flanged ends.
9. Butterfly Valves: 2-1/2-Inch and Larger: MSS SP-67, rated at 200 psi, cast iron body, field replaceable sleeve, stainless steel stem, lug or wafer type based on service.
10. Swing Check Valves, 2-Inch and Smaller: MSS SP-80, Class 125 or 150 based on system pressure, cast-iron body and cap, threaded or solder ends based on service.
11. Swing Check Valves, 2-1/2 Inch and Larger: MSS SP-71, Class 125 or Class 175 FM for fire protection piping systems), cast iron body and cap, flanged ends.
12. Lift Check Valves, 2-Inch and Smaller: Class 125, cast-bronze body and cap, threaded ends.

C. Expansion Joints for Piping Systems: Joints shall provide 200 percent absorption capacity of piping expansion between anchors.

1. Packless expansion joints.
2. Mechanical grooved fittings.
3. Fabricated expansion loops.

D. Supports and Anchors: Hangers and Support Components: MSS SP-58, pipe and equipment hangers and supports including clamps, hanger-rod attachments, saddles and shields, spring hangers, pipe alignment guides, and anchors.

E. Mechanical Identification: ASME A13.1 as applicable, color coded, of the following types: Standard stencils, snap-on plastic pipe markers, pressure-sensitive pipe markers, plastic duct markers, plastic tape, valve tags, valve tag fasteners, access panel markers, valve schedule frames, engraved plastic laminate signs, plastic equipment markers, plasticized tags suitable for use.

F. Vibration Control: Fiberglass pads and shapes, neoprene pads, vibration isolation springs, pad-type isolators, plate-type isolators, double-plate-type isolators, threaded double-plate- type isolators, all-directional anchors, neoprene mountings, free standing spring isolators, housed spring isolators, vertically-restrained spring isolators, earthquake-resistant spring isolators, seismic snubbers, thrust restraints, equipment rails, fabricated equipment bases, inertia base frames, roof-curb isolators, isolation hangers, riser isolators, flexible pipe connectors suitable for use.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials in proper relation with adjacent construction and with uniform appearance for exposed work. Coordinate with work of other sections. Comply with applicable regulations and code requirements. Provide proper clearances for servicing.

B. Maintain indicated fire ratings of walls, partitions, ceilings and floors at penetrations. Seal with firestopping to maintain fire rating.

C. Clearly label and tag all components.

D. Test and balance all systems for proper operation.

E. Restore damaged finishes. Clean and protect work from damage.

F. Instruct Owner's personnel in proper operation of systems.

END OF SECTION

SECTION 15080

MECHANICAL INSULATION

PART 1 - GENERAL

1.01 SUMMARY

A. Provide pipe insulation, equipment insulation, and external duct and plenum insulation.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Operation and Maintenance Data: Submit manufacturer’s operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers that have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 - PRODUCTS

2.01 PRODUCTS

A. Mechanical Insulation Types:

1. Pipe Insulation: Glass fiber type. (K-factor less than .22 at 75 degrees F.)
2. Equipment Insulation: Glass fiber type. (K-factor less than .22 at 75 degrees F.)
3. Duct and Plenum Insulation: Glass fiber type. (K-factor less than .25 at 75 degrees F.)

B. Mechanical Insulation Materials:

1. Glass Fiber Insulation: Inorganic glass fibers bonded with thermosetting resin; board type, ASTM C 612, Class 2, semi-rigid jacketed board; blanket type, ASTM C 553, Type II, Class F-1, jacketed flexible blankets; preformed pipe insulation, ASTM C 547, Class 1, rigid pipe insulation, jacketed.

C. Fire Performance: (Flame Spread less than 25 – smoke developed less than 450)

1. Vapor Barrier: Type suitable for service. (Foil skin kraft facing at ducts and plenums)
2. Insulation Accessories: Insulating cements, adhesives, jackets, glass cloth and tape, bands, wire, and sealing compounds suitable for service and exposure.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials in proper relation with adjacent construction and with uniform appearance for exposed work. Coordinate with work of other sections. Comply with applicable regulations and code requirements. Provide proper clearances for servicing.

B. Restore damaged finishes. Clean and protect work from damage.

END OF SECTION

SECTION 15100

BUILDING SERVICES PIPING

PART 1 - GENERAL

1.01 PROJECT INCLUDES

A. Provide plumbing piping systems within the building including the following:

1. Surface drainage system complete with gratings. Equivalent to ACO SlabDrain – H100K-8 galvanized steel edge rail channel system with 412Q perforated galvanized steel grate.
2. Potable water distribution, including cold and hot water supply.
3. Sanitary drainage and vent systems.

B. Provide plumbing specialties for water distribution systems; soil, waste, and vent systems.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Operation and Maintenance Data: Submit manufacturer’s operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers that have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Standards:

1. Materials, Products, and Installation: ASME B31.9.
2. Plastic Piping Components: NSF 14.

C. Compliance: ASME B31.9.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Surface Drainage System:

1. The trench system bodies shall be manufactured from polyester polymer concrete with minimum properties as follows:
   a. Compression strength: 14,000psi
   b. Flexural strength: 4,000 psi
   c. Water absorption: 0.07%
   d. Frost proof
   e. Salt proof
   f. Dilute acid and alkali resistant
2. The nominal clear opening shall be 4.00” (100mm) with overall width of 5.10” (130mm). Pre-cast units shall be manufactured with neutral invert and have a wall thickness of at least 0.5” (13mm). Each unit will feature a male to female interconnecting end profile. Units shall have horizontal cast in anchoring features on the outside wall to ensure maximum mechanical bond to the surrounding bedding material and pavement surface. The galvanized steel edge rail will be integrally cast in by manufacturer to ensure

maximum homogeneity between polymer concrete body and edge rail. Each edge rail shall be at least 1/8” (3mm) thick.

B. Grates:

1. The grates shall be perforated galvanized steel grate with ‘QuikLok’ locking and have minimum properties as follows:
   a. Independently certified to meet Load Class A to EN 1433 – 3,500 lbs-70 psi.
   b. 16 gauge galvanized steel.
   c. Intake area of 14.1 sq. in. per half meter grate.
2. The overall width shall be 4.84” (123mm) and the overall length of 39.37” (1000mm) (Type 410) and 19.69” (500mm)(Type412). Perforations measure 0.25” (6.35mm) in diameter.

C. Piping System Working Pressure Ratings:

1. Water Distribution Systems, Below Ground: 150 psig.
2. Water Distribution Systems, Above Ground: 125 psig.
3. Soil, Waste, and Vent Systems: 10 foot head of water.

D. Pipes and Tubes:

1. Hard Copper Tube: ASTM B 88, Types K, L, and M, water tube, drawn temper.
2. Soft Copper Tube: ASTM B 88, Types K and L, water tube, annealed temper.
3. Steel Pipe: ASTM A 53, Type S, Grade A, Schedule 40, galvanized, plain ends.
4. Ductile-Iron Pipe: AWWA C151, Classes 50 and 51, mechanical joint and push-on joint, with AWWA C104 cement-mortar lining.
5. Flanged Ductile-Iron Pipe: AWWA C115, ductile-iron barrel, Class 150 or 300 iron- alloy threaded flanges, with AWWA C104 cement-mortar lining.
6. Hub and Spigot, Cast-Iron Soil Pipe: ASTM A 74, service class.
7. Hubless, Cast-Iron Soil Pipe: CISPI 301.
8. ABS Plastic Pipe: ASTM D 2661, Schedule 40, plain ends.
9. CPVC Plastic Pipe and Tube: ASTM D 2846, SDR 11, plain ends.
10. CPVC Plastic Pipe: ASTM F 441, Schedules 40, plain ends.
11. PB Plastic Pipe: ASTM D 2662, SIDR11.5 or SIDR9.
12. PB Plastic Pipe: AWWA C901, IDR or DR.
13. PVC Plastic Water Pipe: ASTM D 1785; Schedules 40, 80, and 120; plain ends.
14. PVC Plastic DWV Pipe: ASTM D 2665, Schedule 40, plain ends.

E. Fittings and Valves:

1. Pressure and Drainage Fittings for Pipe and Tubes: Suitable for working pressure, pipe, tube, and service.
2. Joining Materials: Solder, brazing and welding filler metals; couplings.
3. Valves: Gate, globe, ball, butterfly, and check valves suitable for service.

F. Plumbing Specialties:

1. Water Meters: AWWA C700-C710 series; type as required by local utility company for service, register in gallons or cubic feet as required.
2. Backflow Preventers: ASSE Standard backflow preventers for flow rate and maximum pressure loss required, 150 psig minimum working pressure.
3. Water Pressure Regulators: ASSE 1003, initial working pressure 150 psig minimum.
4. Miscellaneous Piping Specialties: Strainers, hose bibbs, wall hydrants, water hammer arresters, trap seal primer valves, horizontal backwater valves, stack flashing fittings, vent caps, vent terminals, roof flashing assemblies.
5. Cleanouts:
   a. Cast-iron cleanouts, ASME A112.36.2M.
   b. Plastic cleanouts.
6. Sleeve Penetration Systems: UL 1479, through-penetration firestop assembly.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials in proper relation with adjacent construction and with uniform appearance for exposed work. Coordinate with work of other sections. Comply with applicable regulations and code requirements. Provide proper clearances for servicing.

B. Support piping properly. Pitch to drain points. Install with pipe expansion loops, mechanical expansion joints, and anchors.

C. Maintain indicated fire ratings of walls, partitions, ceilings and floors at penetrations. Seal with firestopping to maintain fire rating.

D. Clearly label and tag all components.

E. Test and balance all systems for proper operation.

F. Restore damaged finishes. Clean and protect work from damage.

G. Instruct Owner's personnel in proper operation of systems.

END OF SECTION

SECTION 15410

PLUMBING FIXTURES

PART 1 - GENERAL

1.01 SUMMARY

A. Provide plumbing fixtures and trim, fittings, and related accessories and appliances.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Operation and Maintenance Data: Submit manufacturer’s operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers that have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Standards:

1. Materials, Products, and Installation: ASME B31.9.
2. Plastic Piping Components: NSF 14.

C. Compliance: ANSI A117.1 and local regulations.

D. Accessibility Requirements: ADAAG and local requirements.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Plumbing Fixtures:

1. Water Closets: Consumption per flush cycle, material, bowl type, mounting, outlet, rim height, tank type, trim suitable for service required.
2. Lavatories: Material, mounting, fittings and accessories suitable for service required.
3. Service Sinks: Material, trap standard or floor mounting, fittings suitable for service required.
4. Water Coolers: ARI 100, type, capacity, and fittings suitable for service required.
5. Toilet Seats: Compatible with water closet.
6. Commercial Faucets: Cast-brass faucets.
7. Supports: ASME A112.6.1M, categories and types as required for fixtures required, including wall reinforcement.

2.02 SCHEDULE

A. Water Closets: Handicapped Height, Tank Type with elongated bowl; provide water supply with stop. White color. (Kohler K-3500-EB or equal)

B. Lavatories: Wall hung with chrome wrist blade faucet sets; provide P-trap with escutcheon; provide supplies and stops with escutcheons. Protect supplies and drain from direct contact. (Kohler K-2030 or equal)

C. Service Sinks: Thermoplastic with steel legs; 24”x24”; color shall be white. Provide chrome faucet set with threaded nozzle and wrist blades. Provide tailpiece, supplies and stops with escutcheons.

D. Water Coolers: Handicapped accessible. Mount spout 36” above finished floor. (Elkay EDFPA17C or equal)

E. Toilet Seats: Open front, elongated, white color. (Kohler K4650 or equal)

PART 3 - EXECUTION

3.02 INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials in proper relation with adjacent construction and with uniform appearance for exposed work. Coordinate with work of other sections. Comply with applicable regulations and code requirements. Provide proper clearances for servicing.

B. Support piping properly. Pitch to drain points. Install with pipe expansion loops, mechanical expansion joints, and anchors.

C. Maintain indicated fire ratings of walls, partitions, ceilings and floors at penetrations. Seal with firestopping to maintain fire rating.

D. Clearly label and tag all components.

E. Test and balance all systems for proper operation.

F. Restore damaged finishes. Clean and protect work from damage.

G. Instruct Owner's personnel in proper operation of systems.

END OF SECTION

SECTION 15460

PLUMBING EQUIPMENT

PART 1 - GENERAL

1.01 SUMMARY

A. Provide the following

1. Commercial water heaters for potable water heat systems.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Operation and Maintenance Data: Submit manufacturer’s operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers that have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Standards:

1. Materials, Products, and Installation: ASME B31.9.
2. Plastic Piping Components: NSF 14.

C. Compliance, Water Heaters: UL 174, 732, 778, 1261, 1453; NSF 5; ASME Code Compliance.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Water Heaters:

1. Electric Water Heaters: 6-gallon, automatic type, vertical 150 psig rated storage tank, integral controls, drain valve, relief valve.
2. Accessories: sheet metal overflow containment basin

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials in proper relation with adjacent construction and with uniform appearance for exposed work. Coordinate with work of other sections. Comply with applicable regulations and code requirements. Provide proper clearances for servicing.

B. Support piping properly. Pitch to drain points. Install with pipe expansion loops, mechanical expansion joints, and anchors.

C. Maintain indicated fire ratings of walls, partitions, ceilings and floors at penetrations. Seal with firestopping to maintain fire rating.

D. Clearly label and tag all components.

E. Test and balance all systems for proper operation.

F. Restore damaged finishes. Clean and protect work from damage.

G. Instruct Owner's personnel in proper operation of systems.

END OF SECTION

SECTION 15710

PACKAGED HEAT PUMP

PART 1 - GENERAL

1.01 SUMMARY

A. Provide heat transfer equipment for building HVAC systems.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

C. Operation and Maintenance Data: Submit manufacturer’s operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Unit shall be rated in accordance with ARI Standards 120/208.

C. Unit shall be designed to conform to ASHRAE 15, latest revision, and in accordance with UL 1995.

D. Unit shall be UL tested and certified in accordance with ANSI Z21.47 Standard and UL listed

E. Roof curb shall be designed to conform to NRCA Standards.

F. Insulation and adhesive shall meet NFPA 90A requirements for flame spread and smoke generation.

G. Unit casing shall be capable of exceeding Federal Test Method Standard No. 141 (Method 6061) 500-Hour Salt Spray Test.

H. Each unit shall be subjected to completely automated run testing on the assembly line. Each unit contains a factory-supplied printout indicating tested pressures, amperages, data, and inspectors; providing certification of the unit status at the time of manufacture.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Schematic mechanical layout and electrical equipment characteristics shown on the drawings were based on Carrier Single Package Rooftop Heat Pumps. Alternate equipment, equal to the equipment shown, manufactured by Lenox, York, Trane, or Bryant is acceptable

B. Rooftop Heating and Cooling Units:

1. Rooftop Units Less Than 20 Tons: Factory-assembled and tested, compressors, condensers, evaporator coils, condenser and evaporator fans, refrigeration and temperature controls, filters, dampers, capacity suitable for use. All units shall be provided with alternate indoor fan motor, 208 vac, 3 phase power, alternate belt drive, optional emergency electric heater sized as required for application (by subcontractor) with controller, roof curb with thru-the-curb connections, low ambient kit, seven day programmable thermostat with night-time setback, timeguard, and head pressure control. MCA shall be as shown on the drawings.

C. Unit Cabinet:

1. Unit cabinet shall be constructed of galvanized steel, bonderized and coated with a baked enamel finish on all externally exposed surfaces, and have primer-coated interior panel surfaces.
2. Evaporator fan cabinet interior shall be insulated with a minimum $^{1}/_{2}$-in. thick flexible fiberglass insulation coated on the air side.
3. Cabinet panels shall be easily removable for servicing.
4. Holes shall be provided in the base rails for rigging shackles to facilitate overhead rigging, and forklift slots shall be provided to facilitate maneuvering.
5. Unit shall have a factory-installed, sloped condensate drain pan made of a non-corrosive material, providing a minimum $^{3}/_{4}$-in. connection with both vertical and horizontal drains and shall comply with ASHRAE 62.
6. Unit shall have factory-installed filter access panel to provide filter access with tool-less removal.
7. Unit shall have standard thru-the-bottom power connection capability.

D. Fans:

1. Indoor blower (evaporator fan) shall be of the belt-driven, double inlet, forward-curved centrifugal type. Belt drive shall include an adjustable-pitch motor pulley.
2. Indoor blower (evaporator fan) shall be made from steel with a corrosion-resistant finish and shall be dynamically balanced.
3. Bearings shall be of the sealed, permanently lubricated, ball-bearing type for longer life and lower maintenance.
4. Condenser fan shall be of the direct-driven propeller type and shall discharge air vertically.
5. Condenser fan shall have blades riveted to corrosion-resistant steel spiders and shall be dynamically balanced.
6. Condenser-fan motor shall be totally enclosed.

E. Compressor(s):

1. Scroll type, internally protected.
2. Factory rubber-shock mounted and internally spring mounted for vibration isolation.
3. On independent circuits

F. Coils:

1. Evaporator and condenser coils shall have aluminum plate fins mechanically bonded to enhanced copper tubes with all joints brazed.
2. Tube sheet openings shall be belled to prevent tube wear.
3. Evaporator coil shall be of the face-split design.

G. Refrigerant Components:

Refrigerant circuit components shall include:
1. Refrigerant strainer or filter drier.
2. Service gage connections on suction, discharge, and liquid lines.
3. Ability to route gage hoses through unit top cover or outdoor panel.

H. Filter Section:

1. Standard filter section shall consist of factory-installed low-velocity, throwaway 2-in. thick fiberglass filters of commercially available sizes.
2. Filter face velocity shall not exceed 320 fpm at nominal airflows.
3. Filter section shall use only one size filter.
4. Filters shall be accessible through an access panel with “no-tool” removal.

I. Controls and Safeties:

1. Unit Controls:
   a. Unit shall be complete with self-contained low-voltage control circuit protected by a fuse on the 24-v transformer side.
2. Standard Safeties:
   a. Unit shall incorporate compressor overtemperature and overcurrent safety devices to shut off compressor.
   b. Heating section shall be provided with the following minimum protections:
      1) High-temperature limit switches.
      2) Overcurrent protection.
   c. High-pressure switch.
   d. Low-pressure switch.
   e. Freeze protection thermostat.

J. Operating Characteristics:

1. Unit shall be capable of starting and running at 125 F ambient outdoor temperature, meeting maximum load criteria of ARI Standard 210/ 240 or 360 at ±10% voltage.
2. Compressor with standard controls shall be capable of operation down to 25 F ambient outdoor temperature.

K. Electrical Requirements:

1. All unit power wiring shall enter unit cabinet at a single factory-predrilled location.

L. Motors:

1. Compressor motors shall be cooled by refrigerant passing through motor windings and shall have line break thermal and current overload protection.
2. Indoor blower (evaporator-fan) motor shall have permanently lubricated bearings and inherent automatic-reset thermal overload protection.
3. Totally enclosed condenser-fan motor shall have permanently lubricated bearings and inherent automatic-reset thermal overload protection.

M. Heating Section:

1. May be equipped with field-installed electric resistance heater(s) of the characteristics shown in the equipment schedule.
2. Heater elements shall be open wire type, adequately supported and insulated with ceramic bushings.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials in proper relation with adjacent construction and with uniform appearance for exposed work. Coordinate with work of other sections. Comply with applicable regulations and code requirements. Provide proper clearances for servicing.

B. Maintain indicated fire ratings of walls, partitions, ceilings and floors at penetrations. Seal with firestopping to maintain fire rating.

C. Clearly label and tag all components.

D. Test and balance all systems for proper operation.

E. Restore damaged finishes. Clean and protect work from damage.

F. Instruct Owner's personnel in proper operation of systems.

END OF SECTION

SECTION 15810

DUCTS AND DUCT ACCESSORIES

PART 1 - GENERAL

1.01 SUMMARY

A. Provide air distributions systems including ductwork, duct systems, HVAC casings, duct accessories, air outlets and inlets.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Operation and Maintenance Data: Submit manufacturer’s operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Compliance: NFPA 90A, 96.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Metal Ductwork:

1. Types: Rectangular plenums for HVAC systems in pressure classes from Minus 2 inches to plus 10 inches water gauge.
2. Galvanized Sheet Steel: Lock-forming quality, ASTM A 653 G90.
3. Sealing Materials: Joint and seam sealants, tapes and mastics.
4. Firestopping: Fire-resistant sealant.
5. Hangers and Supports: Concrete inserts, powder actuated fasteners, structural steel fasteners suitable for use; galvanized sheet steel hangers; duct attachments; trapeze and riser supports.
6. Fabrication: SMACNA HVAC Duct construction Standards.

B. Duct Accessories:

1. Backdraft Dampers: Extruded aluminum frame, blades, blade seals, and axles.
2. Manual Volume Control Dampers: Extruded aluminum standard volume, low-leakage volume, and high-performance volume control dampers; galvanized steel jackshaft; damper control hardware
3. Fire Dampers: UL 555 with galvanized steel frame, mounting sleeve, blades, horizontal dampers, fusible link.
4. Duct Silencers: Factory-fabricated rectangular and round units; acoustic fill.
5. Turning Vanes: Manufactured and acoustic turning vanes.
6. Duct-Mounted Access Doors and Panels: Manufactured units.
7. Flexible Connectors: UL 181, Class 1, flame-retardant or noncombustible fabrics.
8. Flexible Ducts: UL 181, Class 1, insulated types.
9. Accessory Hardware: Instrument test holes, splitter damper accessories, flexible duct clamps, adhesives.

C. Air Outlets and Inlets:

1. Ceiling Air Diffusers: Diffuser faces, mountings, patterns, dampers, accessories, and finishes suitable for service, use, and location.
2. Wall Registers and Grilles: Materials, faces, patterns, dampers, accessories, and finishes suitable for service, use, and location as selected.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials in proper relation with adjacent construction and with uniform appearance for exposed work. Coordinate with work of other sections. Comply with applicable regulations and code requirements. Provide proper clearances for servicing. Flexible ductwork lengths shall be limited to 5’-0” maximum.

B. Maintain indicated fire ratings of walls, partitions, ceilings and floors at penetrations. Seal with firestopping to maintain fire rating. Provide a return duct mounted smoke detector to provide positive shutdown of the fan blower motor.

C. Clearly label and tag all components.

D. Test and balance all systems for proper operation.

E. Restore damaged finishes. Clean and protect work from damage.

F. Instruct Owner's personnel in proper operation of systems.

END OF SECTION

SECTION 15900

HVAC INSTRUMENTATION AND CONTROLS

PART 1 - GENERAL

1.01 SUMMARY

A. Scope of work:

1. Provide electric temperature control systems used for building HVAC systems. (24 volt)

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Operation and Maintenance Data: Submit manufacturer’s operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers that have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Electric Control System Components:

1. Thermostats: Room thermostats, remote-bulb thermostats, fire protection thermostats, low-temperature protection thermostats.
2. Sensors: Electronic temperature.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials in proper relation with adjacent construction and with uniform appearance for exposed work. Coordinate with work of other sections. Comply with applicable regulations and code requirements. Provide proper clearances for servicing.

B. Maintain indicated fire ratings of walls, partitions, ceilings and floors at penetrations. Seal with firestopping to maintain fire rating.

C. Clearly label and tag all components.

D. Test and balance all systems for proper operation.

E. Restore damaged finishes. Clean and protect work from damage.

F. Instruct Owner's personnel in proper operation of systems.

END OF SECTION

SECTION 15950

TESTING, ADJUSTING, AND BALANCING

PART 1 - GENERAL

1.01 SUMMARY

A. Provide complete testing, adjusting, and balancing for mechanical systems to meet design specifications.

1.02 SUBMITTALS

A. Operations Plan: Submit list of systems to be tested, adjusted and balanced.

B. Final Report: Submit list of tests performed, results observed, and remedial actions taken. Submit schedule and scope for recommended operation and maintenance of equipment.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers which have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Compliance: Associated Air Balance Council (AABC) requirements; National Environmental Balancing Bureau (NEBB) requirements.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Systems for Testing:

1. Supply air systems, all pressure ranges.
2. Return air systems.
3. Exhaust air systems.
4. Temperature control system.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials in proper relation with adjacent construction and with uniform appearance for exposed work. Coordinate with work of other sections. Comply with applicable regulations and code requirements. Provide proper clearances for servicing.

B. Instruct Owner's personnel in proper operation of systems.

END OF SECTION

SECTION 16050

BASIC ELECTRICAL METHODS

PART 1 – GENERAL

1.01 SUMMARY OF WORK

A. Work shall include the following systems:
1. Power and distribution systems. (Temporary and Permanent)
2. Interior and exterior lighting systems. (Temporary and Permanent)
3. Emergency lighting systems.
4. Empty telephone raceway system and service entrance.
5. Power connections for work covered by other sections of this specification.
6. Modification to existing systems. (Where applicable)
7. Final testing and Record Documents
8. Training for Owner's employees

B. Provide all incidental material and labor as required for complete and fully functional systems including, but not limited to:
1. Permits and fees.
2. Excavation and backfilling.
3. Cutting and patching.
4. Coordination with local utility providers.
5. Labeling and marking
6. Maintenance manuals, Record Drawings, and Owner training.

1.02 SUBMITTALS

A. Provide submittals as described in individual sections of this specification.

1.03 REFERENCE STANDARDS

A. Work of this section shall comply with all current governing codes and regulations including, but not limited to:
1. National Fire Protection Association (NFPA)
2. Underwriters' Laboratories (UL)
3. National Electrical Manufacturers' Association (NEMA)
4. American National Standards Institute (ANSI)
5. American Society for Testing Materials (ASTM)
6. National Electrical Code (NEC)

1.04 QUALITY ASSURANCE

A. Installers shall be trained and skilled in the proper installation of all materials associated with the work of this section.
B. All work associated with this section shall be performed using the established best practices and standards of the trade.

1.05 COORDINATION

A. This contractor shall schedule and coordinate his work with the work described in all other sections of this specification and with representatives of local utility providers.

B. Work associated with underground service entrance shall be divided as follows:
   1. Local utility provider shall:
      a. Provide and install primary feeders and transformers
      b. Provide CT cabinet and KWHD meter base
      c. Provide and install KWHD meter
   2. Contractor shall:
      a. Install CT cabinet and KWHD meter base
      b. Provide and install service entrance conduits, conductors and connections.
      c. Provide and install all cables for secondary service.

1.06 DRAWINGS

A. Electrical drawings are diagrammatic. The indicated location of raceways, fixtures, devices, switches, outlets, etc. is approximate. Coordinate final installations with the work as described in other sections of this specification.

B. Refer to general construction drawings to become familiar with all conditions affecting the work of this section.

PART 2 – PRODUCTS

2.01 MATERIALS

A. All materials shall be new and shall conform to grade, quality and standard or those specified.

2.02 STORAGE AND HANDLING

A. Deliver materials in original, unopened packaging.

B. Store all materials of this section off the ground and in a dry environment.

PART 3 – EXECUTION

3.01 WORKMANSHIP

A. Devices, plates, enclosures, fixtures, exposed raceways, etc. shall be installed perpendicular with adjacent building structure and components.

B. Wiring terminations in panels shall be neatly looped and laced. Do not bundle conductors inside panels or enclosures.

C. Conductor terminations shall be clearly tagged and identified at each end. Panel board circuitry shall be clearly identified on documentation placed inside each panel board. Indicate all space circuits.

D. Conductor splices shall be kept to a minimum. Use splice and tap connectors which are compatible with respective conductor materials.

END OF SECTION

SECTION 16120

CONDUCTORS AND CABLES

PART 1 - GENERAL

1.01 SUMMARY

A. Provide wires, cables, and connectors for power, lighting, signal, control and related systems rated 600 volts and less.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Operation and Maintenance Data: Submit manufacturer’s operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers that have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Compliance: National Electrical Code; UL 4, 83, 486A, 486B, 854; NEMA/ICEA WC-5, WC- 7, WC-8; IEEE 82.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Wire Components:

1. Conductors for Power and Lighting Circuits: Solid conductors for No. 10 AWG and smaller; stranded conductors for No. 8 AWG and larger.
2. Insulation: THHN/THWN for conductors size 500MCM and larger and No. 8 AWG and smaller; THW, THHN/THWN or XHHW insulation for other sizes based on location.
3. Jackets: Factory-applied nylon or PVC.
4. Conductor Material: Copper.

B. Cables:

1. Nonmetallic-Sheathed Cable for Lighting Wiring: UL Type NM and NMC.
2. Underground Service Entrance Cable: UL Type USE.
3. Underground Feeder and Branch-Circuit Cable: UL Type UF.

C. Connectors: UL listed solderless metal connectors with appropriate temperature ratings.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials in proper relation with adjacent construction and with uniform appearance for exposed work. Coordinate with work of other sections. Comply with applicable regulations and code requirements. Provide proper clearances for servicing.

B. Maintain indicated fire ratings of walls, partitions, ceilings and floors at penetrations. Seal with firestopping to maintain fire rating.

C. Clearly label and tag all components.

D. Test and balance all systems for proper operation.

E. Restore damaged finishes. Clean and protect work from damage.

END OF SECTION

SECTION 16130

RACEWAYS AND BOXES

PART 1 - GENERAL

1.01 SUMMARY

A. Provide electrical conduit, tubing, surface raceways, wireways, cable trays, boxes, and cabinets for electrical power and signal distribution.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Operation and Maintenance Data: Submit manufacturer’s operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers that have been in satisfactory use in similar service for five years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Wiring Methods:

1. Exposed Indoor Wiring: Electrical metallic tubing or rigid nonmetallic conduit 6 feet or more above finished floor; galvanized steel conduit below 6 feet above finished floor.
2. Concealed Indoor Wiring: Electrical metallic tubing, electrical nonmetallic tubing, or rigid nonmetallic conduit.
3. Exposed Outdoor Wiring: Intermediate steel conduit.
4. Concealed Outdoor Wiring: Intermediate steel conduit.
5. Underground Wiring, Single Run: Rigid nonmetallic conduit.
6. Underground Wiring, Grouped: Rigid nonmetallic conduit.
7. Connection to Vibrating Equipment: Flexible Metal conduit, liquidtight at exterior.
8. Low voltage (12 / 24 volt) installed without conduit per NEC.

B. Metal Conduit and Tubing:

1. Rigid Steel Conduit: ANSI C80.1.
2. Intermediate Steel Conduit: UL 1242.
3. Electrical Metallic Tubing (EMT) and Fittings: ANSI C80.3.
4. Flexible Metal Conduit: UL 1 aluminum.
5. Flexible Metal Conduit: UL 1 zinc-coated steel.
6. Liquidtight Flexible Metal Conduit and Fittings: UL 360.

C. Nonmetallic Conduit and Ducts:

1. Electrical Nonmetallic Tubing (ENT): NEMA TC 13.
2. Rigid Nonmetallic Conduit (RNC): NEMA TC 2 and UL 651, Schedule 40 or 80 PVC.
3. Underground PVC and ABS Plastic Utilities Duct: NEMA TC 6, Type I for encased burial in concrete, Type II for direct burial.
4. PVC and ABS Plastic Utilities Duct Fittings: NEMA TC 9.
5. Liquidtight Flexible Nonmetallic Conduit and Fittings: UL 1660.

D. Raceway Accessory Materials:

1. Conduit Bodies: NEC requirements.
2. Wireways: NEC requirements.
3. Surface Raceways, Metallic: Galvanized steel, with snap-on covers.
4. Surface Raceways, Nonmetallic: Rigid PVC, UL 94.

E. Cable Trays:

1. Materials: Hot-dip galvanized steel.
2. Materials: PVC-coated steel.
3. Configuration: Ladder type, trough-type, solid-bottom type, channel type.
4. Covers: Solid type, louvered type, and ventilated-hat type.

F. Boxes and Fittings:

1. Cabinet Boxes: UL 50, sheet steel, NEMA 1.
2. Pull and Junction Boxes: UL 50, steel boxes.
3. Metal Outlet, Device and Small Wiring Boxes: UL 514A and OS 1.
4. Nonmetallic Outlet, Device and Small Wiring Boxes: NEMA OS 2.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials in proper relation with adjacent construction and with uniform appearance for exposed work. Coordinate with work of other sections. Comply with applicable regulations and code requirements. Provide proper clearances for servicing.

B. Maintain indicated fire ratings of walls, partitions, ceilings and floors at penetrations. Seal with firestopping to maintain fire rating.

C. Clearly label and tag all components.

D. Restore damaged finishes. Clean and protect work from damage.

E. Instruct Owner's personnel in proper operation of systems.

END OF SECTION

SECTION 16140

WIRING DEVICES

PART 1 - GENERAL

1.01 SUMMARY

A. Provide wiring devices for electrical service.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Shop Drawings: Submit shop drawings indicating material characteristics, details of construction, connections, and relationship with adjacent construction.

C. Operation and Maintenance Data: Submit manufacturer’s operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers that have been in satisfactory use in similar service for five years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Compliance: National Electrical Code, NEMA WD 1, UL.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Wiring Devices and Components:

1. Receptacles: UL 498 and NEMA WD 1, ivory color.
2. Ground-Fault Interrupter (GFI) Receptacles: Feed-thru type ground-fault circuit interrupter with integral duplex receptacles, ivory color.
3. Toggle Switches: UL 20 and NEMA WD 1, AC switches, ivory color.
4. Telephone Jacks: 8 position modular, flush in face of wall, plated.
5. Wall Plates: Single and combination types, steel plate with baked-on ivory finish.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials in proper relation with adjacent construction and with uniform appearance for exposed work. Coordinate with work of other sections. Comply with applicable regulations and code requirements. Provide proper clearances for servicing.

B. Maintain indicated fire ratings of walls, partitions, ceilings and floors at penetrations. Seal with firestopping to maintain fire rating.

C. Maintain the following mounting heights from finished floor:

1. Switches (centerlines): +48” or +6” above countertops or sinks
2. Receptacles (centerlines): +12” or +6” above countertops or sinks

(Adjust mounting heights for even coursing at all masonry walls.)

D. When devices are ganged, use appropriate coverplates for each type.

E. Equip all panelboards with directory cards. Information shall be neatly typed and shall identify all branch circuits by room designation or other location acceptable to the Owner.

3.02 TESTING

A. Contractor shall perform testing and retesting as required to verify that no short circuits or other deficiencies in the entire electrical system are present.

B. Perform testing for equipment circuits with the testing of each piece of equipment.

3.03 CLEANING

A. Following installation, insure that no surface dirt or discoloration is present. Repair and repaint metal surface that have become scratched or rusted.

END OF SECTION

SECTION 16300

TRANSMISSION AND DISTRIBUTION

PART 1 - GENERAL

1.01 SUMMARY

A. Provide electrical service and distribution including but not limited to service entrance, grounding, panelboards, overcurrent protective devices, and motor controllers.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used. List project-specific information, including incoming service characteristics, connection types, transformers, and distribution system characteristics if available.

B. Operation and Maintenance Data: Submit manufacturer’s operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers that have been in satisfactory use in similar service for five years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Service Entrance:

1. Meter Centers: Acceptable to local utility company.
2. Switches: Heavy-duty safety switches with NEMA Type 1 enclosure.
3. Meter Bases: Acceptable to local utility company

B. Grounding:

1. Grounding Equipment: UL 467; copper conductors; NEC Table 8 wire and cable conductors; connectors.
2. Grounding Electrodes: Copper-clad steel ground rods; copper plate electrodes.

C. Panelboards:

1. Panelboard Type: Load-center-type panelboards;

D. Overcurrent Protective Devices:

1. Overcurrent Protective Devices: Integral to panelboards, switchboards, and motor control centers.

E. Fuses:

1. Cartridge Fuses: ANSI/IEEE FU 1, nonrenewable cartridge type, noninterchangeable type.

F. Motor Controllers:

1. Combination Controller/Disconnect: Suitable for use.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials in proper relation with adjacent construction and with uniform appearance for exposed work. Coordinate with work of other sections. Provide proper clearances for servicing.

B. Maintain indicated fire ratings of walls, partitions, ceilings and floors at penetrations. Seal with firestopping to maintain fire rating.

C. Test all systems for proper operation. Label circuits in electrical panels.

D. Restore damaged finishes. Clean and protect work from damage.

E. Instruct Owner's personnel in proper operation of systems.

END OF SECTION

SECTION 16510

INTERIOR LUMINAIRES

PART 1 - GENERAL

1.01 SUMMARY

A. Provide interior lighting fixtures, lamps, ballasts, emergency lighting units, and accessories.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Operation and Maintenance Data: Submit manufacturer’s operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers that have been in satisfactory use in similar service for five years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Compliance: NFPA 70 "National Electrical Code."

PART 2 - PRODUCTS

2.01 MATERIALS

A. Interior Lighting Components:

1. Fluorescent Fixtures: Fixtures, UL 1570; ballasts, UL 935, energy-saving electronic type.
2. Exit Signs: UL 924, self-powered battery type and self-powered luminous source type.
3. Emergency Lighting Units: UL 924.
4. Lamps: ANSI Standards, C78 series. (Provide not less than 5% replacement lamps)

2.02 SCHEDULE

A. Interior Lighting Fixture Schedule: (See Drawings for fixture schedules and descriptions)

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals.

B. Maintain indicated fire ratings of walls, partitions, ceilings and floors at penetrations. Seal with firestopping to maintain fire rating.

C. Test all systems for proper operation. Label lighting circuits in electrical panelboards.

D. Instruct Owner's personnel in proper operation and maintenance of lighting systems.

END OF SECTION

SECTION 16521

EXTERIOR LUMINAIRES

PART 1 - GENERAL

1.01 SUMMARY

A. Provide exterior lighting fixtures, lamps, ballasts, poles, concrete standards, and accessories.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Operation and Maintenance Data: Submit manufacturer’s operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers that have been in satisfactory use in similar service for five years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Compliance: NFPA 70 "National Electrical Code."

PART 2 - PRODUCTS

2.01 MATERIALS

A. Exterior Lighting Components:

1. High Intensity Discharge (HID) Fixtures: UL 1572; ballasts, UL 1029; instant restrike device.
2. Lamps: ANSI Standards, C78 series. (Provide not less than 5% replacement lamps)
3. Fixture Support Poles, Mast Arms and Brackets:
   a. Aluminum.

2.02 SCHEDULE

A. Exterior Lighting Fixture Schedule: (See drawings for exterior lighting fixture and pole schedules)

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install materials and systems in accordance with manufacturer's instructions and approved submittals.

B. Test and balance all systems for proper operation. Clearly label and tag all components.

C. Restore damaged finishes. Clean and protect work from damage.

D. Instruct Owner's personnel in proper operation of systems.

END OF SECTION

SECTION 16720

TELEPHONE AND INTERCOMMUNICATION EQUIPMENT

PART 1 - GENERAL

1.01 SUMMARY

A. Provide telephone and intercommunication equipment as follows:

1. Empty telephone distribution system as shown on the drawings.

1.02 SUBMITTALS

A. Product Data: Submit manufacturer's product data and installation instructions for each material and product used.

B. Operation and Maintenance Data: Submit manufacturer’s operation and maintenance data, including operating instructions, list of spare parts and maintenance schedule.

1.03 QUALITY ASSURANCE

A. Comply with governing codes and regulations. Provide products of acceptable manufacturers that have been in satisfactory use in similar service for three years. Use experienced installers. Deliver, handle, and store materials in accordance with manufacturer's instructions.

B. Compliance: FCC regulations.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Telephone System Components:

1. Empty telephone service raceway
2. Empty raceways and outlets to accommodate future wiring
3. Telephone equipment enclosure to accommodate termination

B. Telephone Distribution System Components:

1. Raceways, Outlet Boxes, Cabinets: Comply with project standards.

PART 3 - EXECUTION

3.01 INSTALLATION

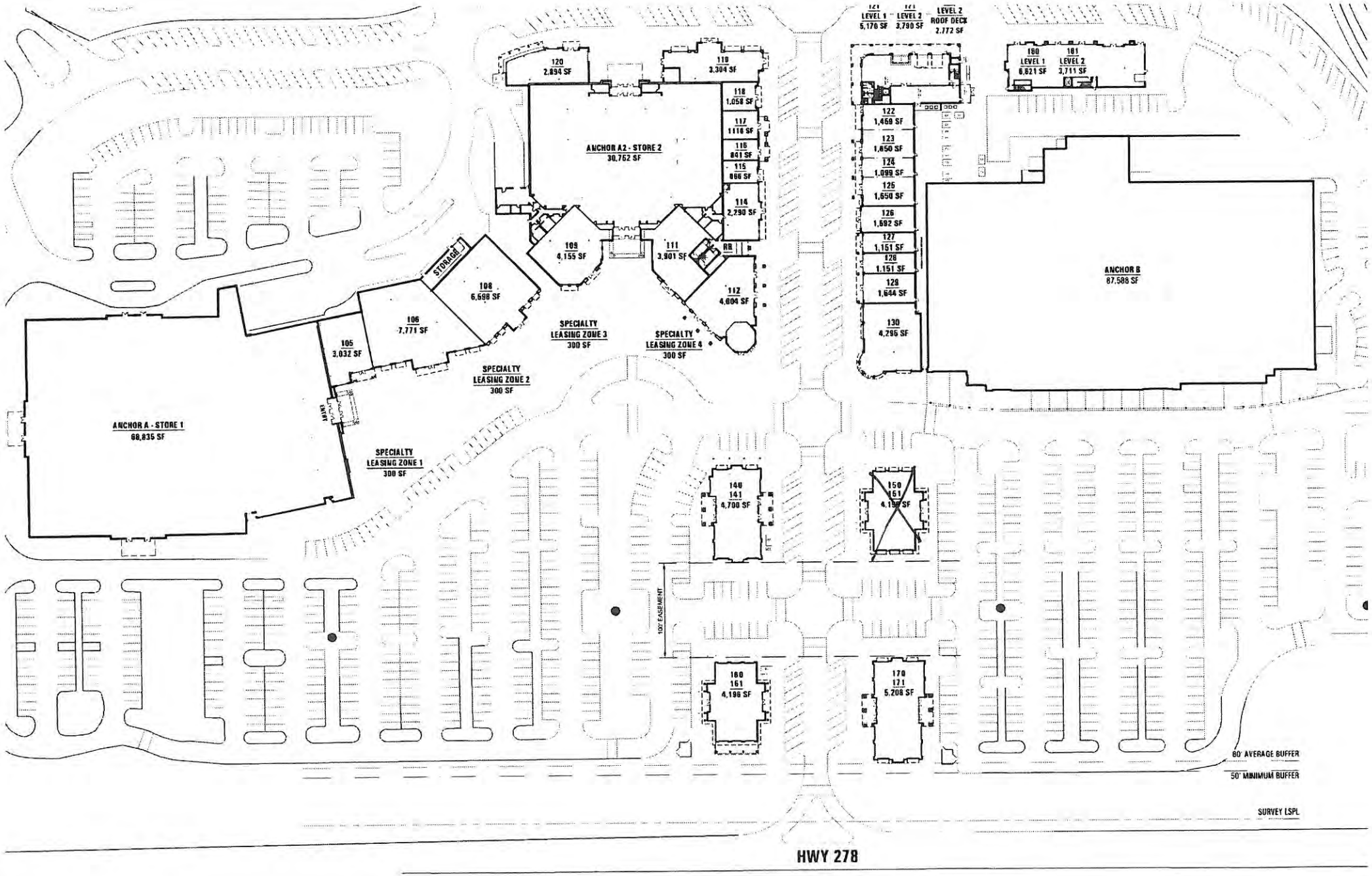
A. Install materials and systems in accordance with manufacturer's instructions and approved submittals. Install materials in proper relation with adjacent construction and with uniform appearance for exposed work. Coordinate with work of other sections. Comply with applicable regulations and code requirements. Provide proper clearances for servicing.

B. Maintain indicated fire ratings of walls, partitions, ceilings and floors at penetrations. Seal with firestopping to maintain fire rating.

C. Clearly label and tag all components.

D. Instruct Owner's personnel in proper operation of systems.

END OF SECTION



AREA TABULATION	
NAME	AREA
Specialty Leasing Zone	
SPECIALTY LEASING ZONE 1	300 SF
SPECIALTY LEASING ZONE 2	300 SF

AREA TABULATION		
NAME	AREA	
105	3,032 SF	CDS
106	7,771 SF	CDS
108	6,598 SF	CDS
109	4,155 SF	CDS
111	3,901 SF	CDS

AREA TABULATION		
NAME	AREA	
122	1,459 SF	RCDS
123	1,650 SF	RCDS
124	1,099 SF	RCDS
125	1,650 SF	RCDS
126	1,592 SF	WB

LEASE PLAN

0' 50' 100' 150

NORTH

BUILDING 104

SHELTER COVE TOWNE CENTRE

HILTON HEAD ISLAND, SC

Blanchard & Calhoun COMMERCIAL

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GENERAL NOTES:

1. THESE DOCUMENTS ARE INTENDED TO DESCRIBE THE WORK REQUIRED TO CONSTRUCT THE BUILDING SHELL AS DELINEATED, AS WELL AS PROVIDE TYPICAL DESIGNS FOR LEASE UNITS OF THE SIZES INDICATED. THESE TYPICAL DESIGNS ARE BASED ON THE OWNER'S STANDARD LEASE UNITS AND ARE NOT INTENDED TO BE SPECIFICALLY DESIGNED FOR INDIVIDUAL TENANTS. PRIOR TO CONSTRUCTION, THE GENERAL CONTRACTOR SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE THE SPECIFIC TENANT REQUIREMENTS FOR EACH SPACE TO INCLUDE: INTERIOR WALL LOCATIONS, TOILET REQUIREMENTS, MECHANICAL REQUIREMENTS, POWER & LIGHTING REQUIREMENTS, REAR DOOR LOCATIONS, STOREFRONT REQUIREMENTS, ETC.
2. FOR ALL RATED CONSTRUCTION AND RATED PENETRATIONS, SEE SHEET A1.2.
3. FOR ALL DOOR HARDWARE SCHEDULES, DOOR SCHEDULES AND WALL TYPES, REFER TO SHEET A1.2.
4. (EXPOSED PIPES AND SURFACES) HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL NOT BE SHARP OR ABRASIVE SURFACES UNDER LAVATORIES
5. "F.E." DENOTES TYPE 2-A FIRE EXTINGUISHERS (3,000 S.F. PROTECTION AREA) EXCEPT AS NOTED OTHERWISE. ALL EXTINGUISHERS ARE TO BE SUPPLIED BY TENANT AT TIME OF UPFIT.
6. REFER TO CIVIL ENGINEERING DRAWINGS FOR HC ACCESSIBLE PARKING SPACES AND CURB CUT LOCATIONS.
7. REFER TO EXTERIOR ELEVATIONS FOR LOCATION OF ALL SAFETY GLAZING.
8. PROVIDE 1/2" FIBER EXPANSION JOINTS FULL WIDTH OF SIDEWALK AT COLUMN LINES.
9. MAXIMUM SLOPE OF SIDEWALKS TO BE 1:20, MAXIMUM CROSS-SLOPE IS 1:50.
10. ALL FIRE WALLS AND FIRE RATED PARTITIONS SHALL BE IDENTIFIED WITH SIGNAGE AS TO FIRE RATING AND PROTECTION OF OPENINGS. STENCIL IN CONCEALED SPACES THE FOLLOWING: "(__) HOUR FIRE AND SMOKE BARRIER - PROTECT ALL OPENINGS." IDENTIFICATION SHALL BE SPACED NO MORE THAT 12'-0' O.C. WITH A MINIMUM LETTER SIZE OF 2" IN HEIGHT ON A CONTRASTING BACKGROUND.

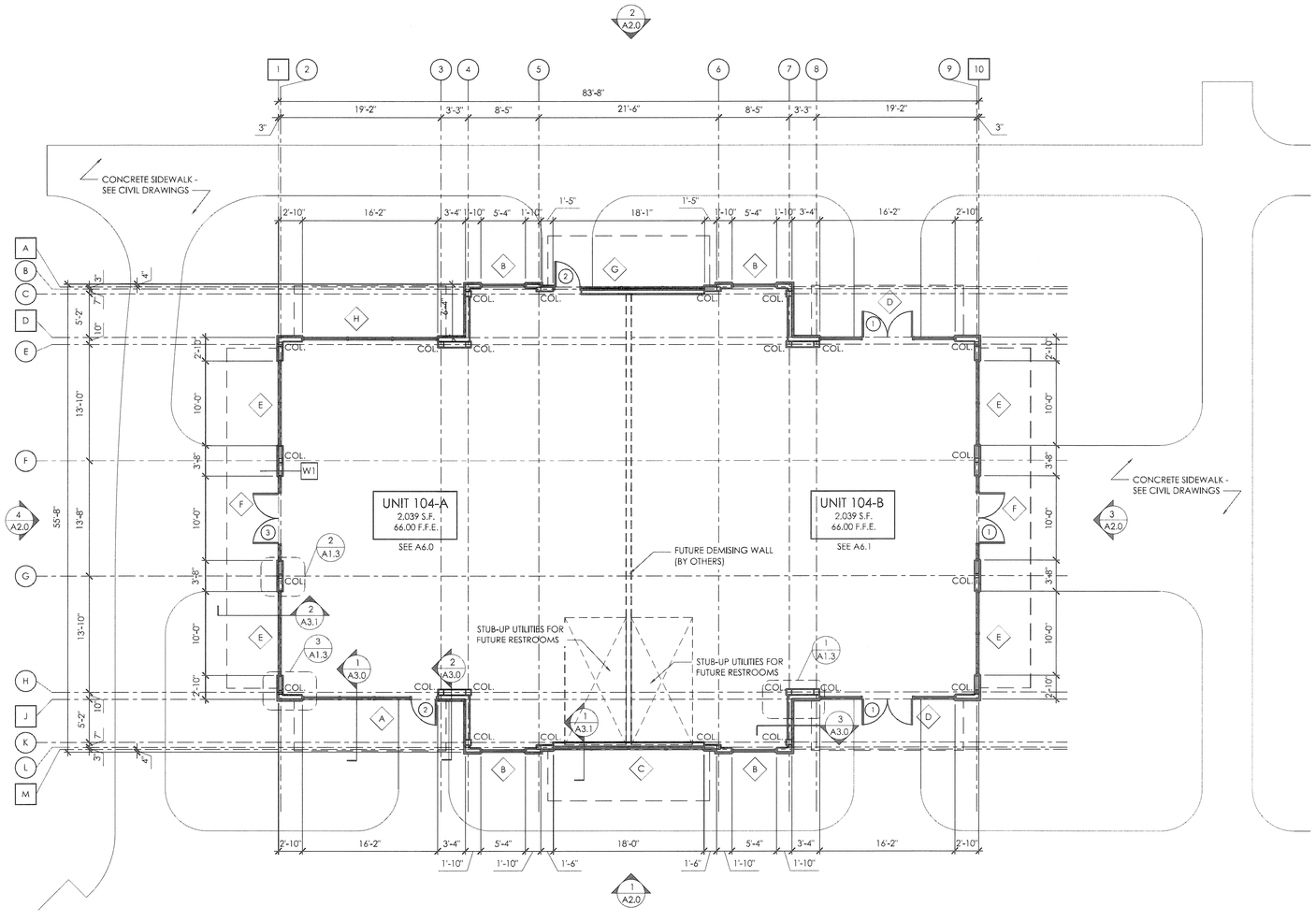
OCCUPANCY LOAD

BUILDING AREA - ALLOWABLE: SEE APPENDIX B

OCCUPANCY LOAD:

	AREA SUM	OCCUPANT SUM
UNIT 104-A - RESTAURANT	(PER TENANT'S SEATING LAYOUT)	59
UNIT 104-B - RETAIL	2,039/30	67
GROSS FLOOR AREA:	4,078 S.F.	126

EXIT WIDTH: REQUIRED: .26" PROVIDED: .252"
126 OCCUPANTS X .20 INCHES = 25.2"



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

NARRAMORE ASSOCIATES, INC.
Architects & Planners
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SEAL

STATE OF SOUTH CAROLINA NARRAMORE ASSOCIATES, A.I.A. ARCHITECTS, INC. GREENVILLE, SC B84033 REGISTERED ARCHITECTS

STATE OF SOUTH CAROLINA DAVID L. NARRAMORE GREENVILLE, SC 1402 REGISTERED ARCHITECT

Blanchard & Calhoun COMMERCIAL
2743 PERIMETER PKWY
BLDG 100 STE 370
AUGUSTA, GA 30909

SHELTER COVE TOWNE CTR-BLDG. 104
32 SHELTER COVE LANE - UNITS 150 & 151
HWY. 278, MILE MARKER 8
HILTON HEAD ISLAND, SC 29928

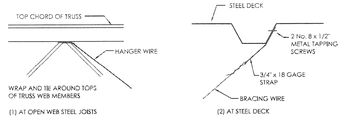
REVISIONS

DOCUMENT DATA
Building 104
PROJECT NUMBER
13916
ISSUE DATE
03-26-14

SHELTER COVE
HILTON HEAD, SC

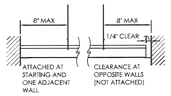
A1.0

FLOOR PLAN
BUILDING 104



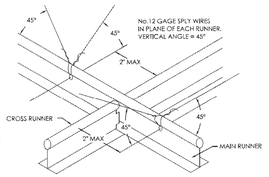
LOCATION OF BRACING WIRES

NTS



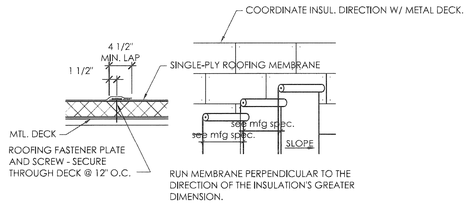
RUNNERS @ WALLS

NTS



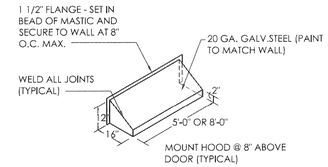
TYPICAL CEILING BRACING

NTS



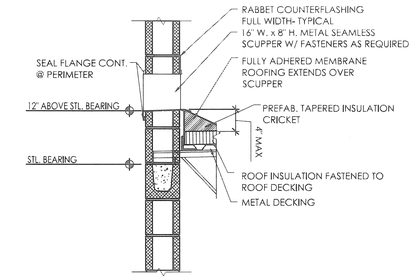
7 ROOFING LAYOUT PLAN

NTS



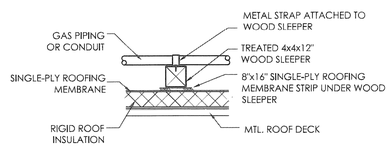
5 RAIN HOOD DETAIL

NTS



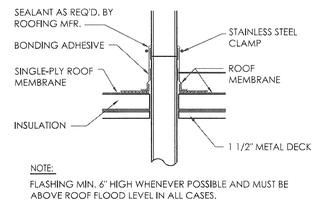
3 SECTION @ OVERFLOW SCUPPER

3/4"=1'-0"



8 ROOF PIPING SLEEPER

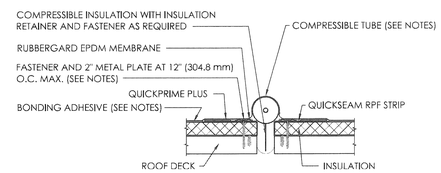
NTS



NOTE:
FLASHING MIN. 6" HIGH WHENEVER POSSIBLE AND MUST BE ABOVE ROOF FLOOD LEVEL IN ALL CASES.

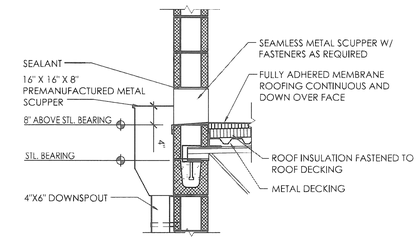
6 VENT STACK FLASHING

NTS



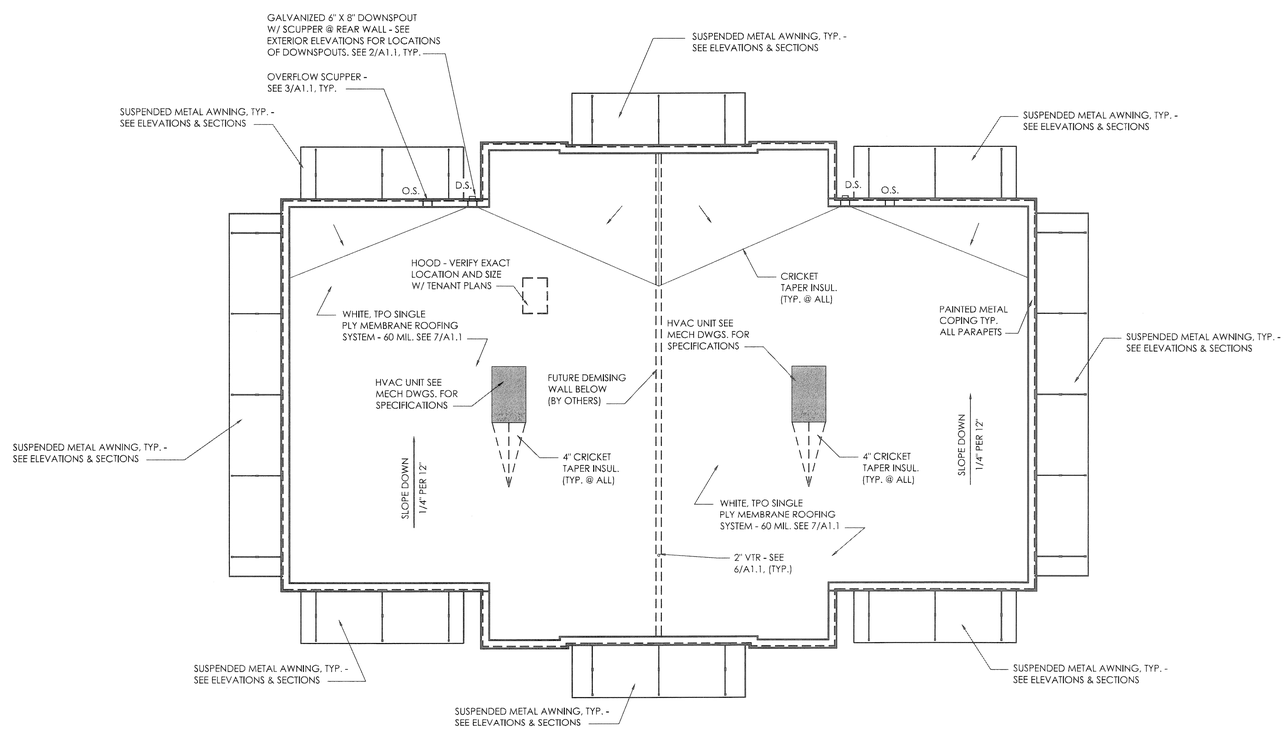
4 ROOFING EXPANSION JOINT DETAIL

NTS



2 SECTION @ ROOF SCUPPER

3/4"=1'-0"



1 ROOF PLAN

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

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SHELTER COVE
HILTON HEAD, SC

A1.1

ROOF PLAN
BUILDING 104

LANDLORD DOOR SCHEDULE

NO.	WIDTH	HEIGHT	THICKNESS	DOOR TYPE	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	HDW.	RATING	COMMENTS
1	6'-0"	7'-0"	1 3/4"	A	AL & GLASS	POWDER COAT	1	AL	POWDER COAT	BY ALUM. STOREFRONT VENDOR			1		
2	3'-0"	7'-0"	1 3/4"	B	AL & GLASS	POWDER COAT	1	AL	POWDER COAT	BY ALUM. STOREFRONT VENDOR			2		
3	6'-0"	7'-0"	1 3/4"	A	AL & GLASS	POWDER COAT	1	AL	POWDER COAT	BY ALUM. STOREFRONT VENDOR			2		

LANDLORD HARDWARE SCHEDULE

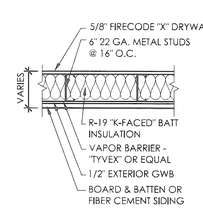
* MANUFACTURERS AND MODEL NUMBERS LISTED SET A STANDARD FOR QUALITY ONLY AND ARE NOT INTENDED TO PREVENT USE OF OTHER SIMILAR HARDWARE MANUFACTURER PRODUCTS.

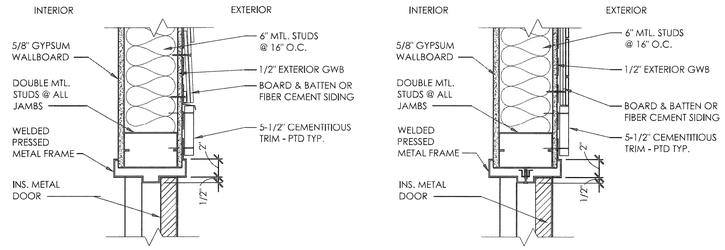
SET	DESCRIPTION
1	HARDWARE BY DOOR MANUF. w/ CYL. LOCK (KEY OUTSIDE, TURN LATCH INSIDE) FINISH TO MATCH DOOR: OVERHEAD CLOSER: ALUMINUM THRESHOLD (CAULKED): FULLY WEATHER-STRIPPED w/ RUBBER SEAL @ BOTTOM
2	HARDWARE BY DOOR MANUF. w/ CYL. LOCK (KEY OUTSIDE, TURN LATCH INSIDE) FINISH TO MATCH DOOR: OVERHEAD CLOSER: ALUMINUM THRESHOLD (CAULKED): FULLY WEATHER-STRIPPED w/ RUBBER SEAL @ BOTTOM: PANIC HARDWARE/PUSH BAR

WALL TYPE LEGEND

W1 EXTERIOR METAL STUD WALL

6" 22 GA. METAL STUD @ 16" O.C.(MAX) WITH 5/8" FIRECODE "X" GYPSUM WALLBOARD TO ROOF DECK ON INTERIOR FACE. VAPOR BARRIER OVER 1/2" EXTERIOR GRADE SHEATHING CONT. @ EXTERIOR FACE W/ BOARD & BATTEN OR FIBER CEMENT SIDING.





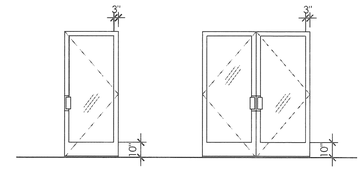
H-1 HEAD

J-1 JAMB

EXTERIOR METAL STUD WALL

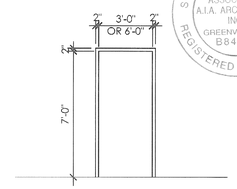
2 DOOR DETAILS - HEAD AND JAMB

SCALE: 1/2" = 1'-0"

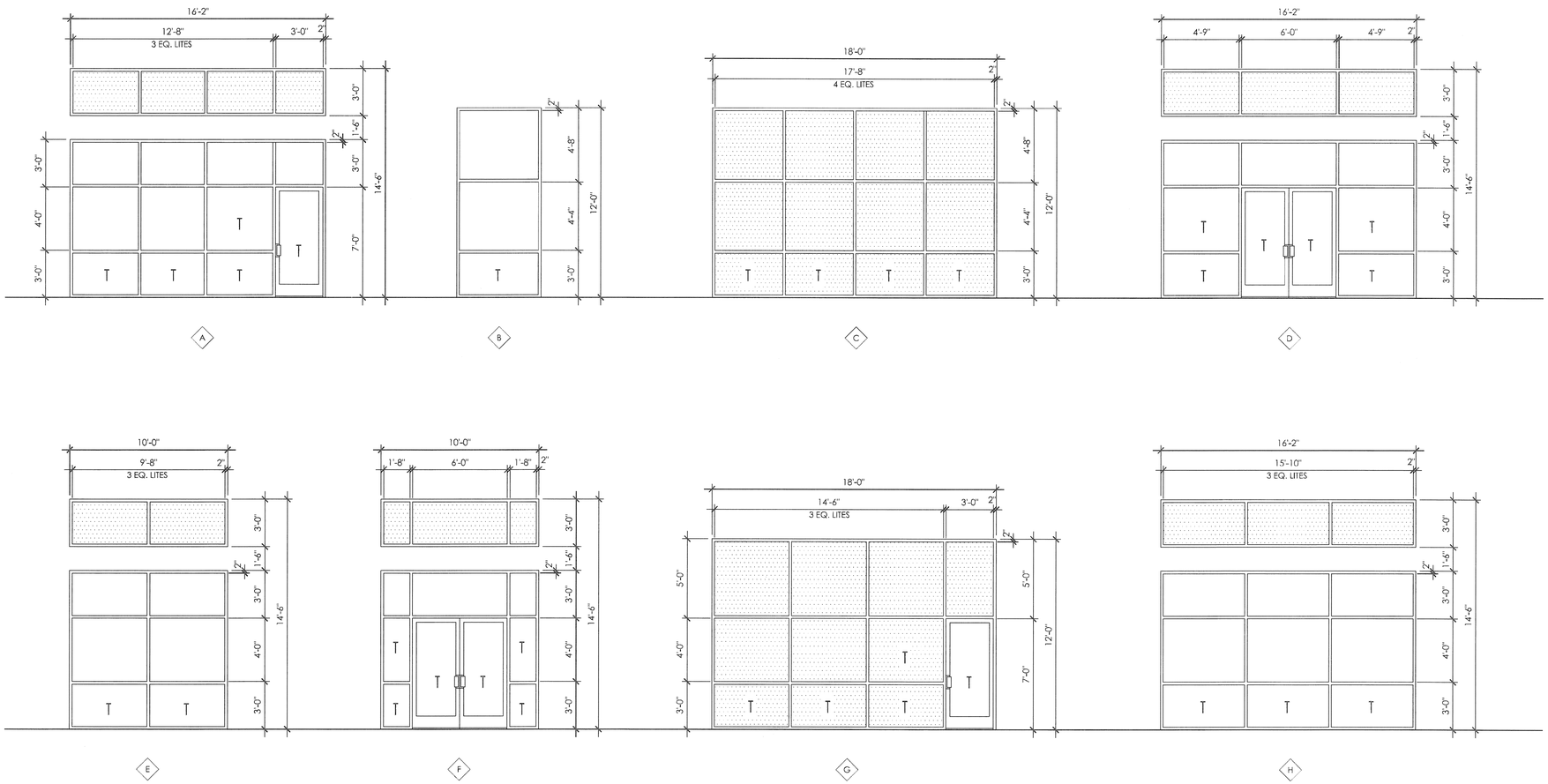


B STOREFRONT ALUMINUM

A STOREFRONT ALUMINUM



1 METAL EXTERIOR DOOR FRAME



1 STOREFRONT DETAILS

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

NOTE:

1. ALL GLAZING IS 1" CLEAR, LOW "E".
2. ALL FRAMES EQUAL TO KAWNEER 450 SERIES STOREFRONT SYSTEM.
3. "T" DENOTES TEMPERED GLAZING WHERE REQUIRED BY CODE.
4. COLOR : CLEAR ANODIZED ALUMINUM.
5. DENOTES SPANDREL GLAZING

ALL STOREFRONT OPENINGS SHALL RECEIVE A CORRUGATED GALVANIZED STEEL STORM PANEL SYSTEM WITH PERMANENT EXTRUDED ALUMINUM TRACK SYSTEM BY EASTERN METAL SUPPLY OR EQUAL. HURRICANE PANEL SUBCONTRACTOR SHALL SUBMIT AN COMPLETE ENGINEERED DESIGN TO THE CITY FOR REVIEW AND APPROVAL. SEE SPECIFICATIONS. BASIS OF DESIGN IS STORM PANEL SYSTEM BY STORM SOLUTIONS OF THE LOWCOUNTRY- (843) 227-1027 OR EQUAL.

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GREENVILLE, SC
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STATE OF SOUTH CAROLINA
JOHN L. NARRAMORE
GREENVILLE, SC
1402
REGISTERED ARCHITECT

Blanchard & Calhoun COMMERCIAL

2743 PERIMETER PKWY
BLDG 100 STE 370
AUGUSTA, GA 30909

SHELTER COVE TOWNE CTR.-BLDG. 104

32 SHELTER COVE LANE - UNITS 150 & 151
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REVISIONS

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ISSUE DATE
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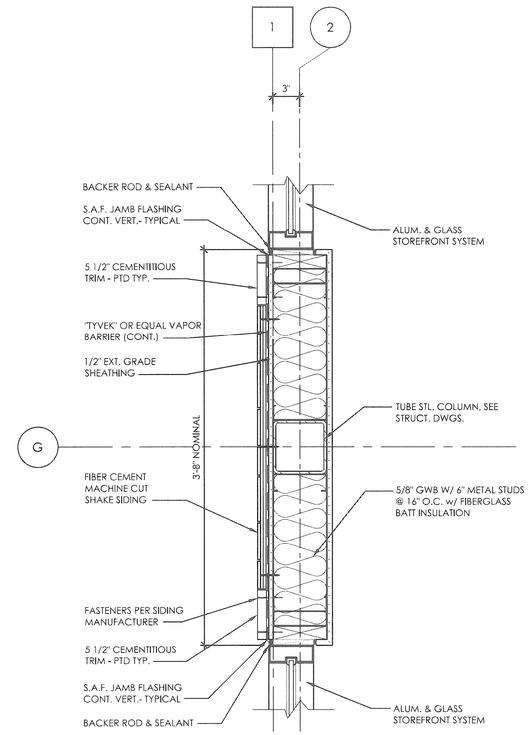
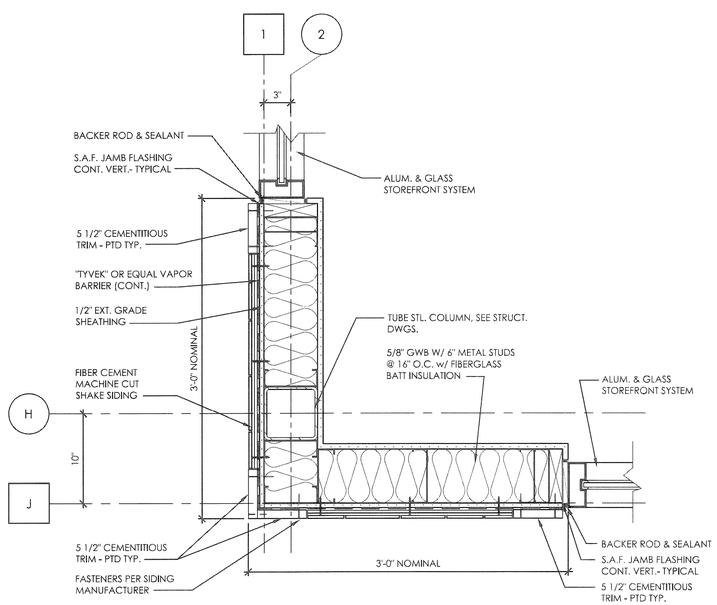
SHELTER COVE
HILTON HEAD, SC

A1.2

SCHEDULES
BUILDING 104



3 PLAN DETAIL
SCALE: 1 1/2"=1'-0"



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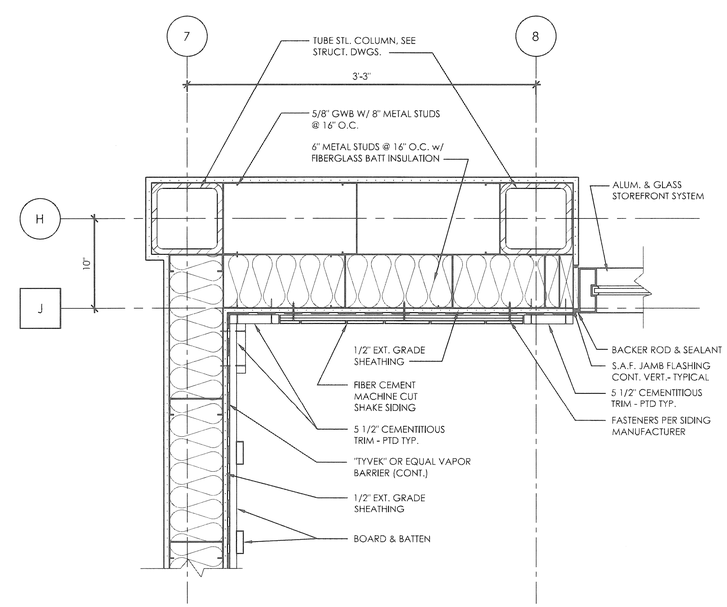
SCALE: 1 1/2"=1'-0"



1 PLAN DETAIL
SCALE: 1 1/2"=1'-0"

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DAVID L. NARRAMORE
GREENVILLE, SC
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REGISTERED ARCHITECT
3/28/14

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SHELTER COVE
HILTON HEAD, SC

A1.3

DETAILS
BUILDING 104

EXTERIOR FINISH SCHEDULE

STOREFRONT SYSTEM:
ALL GLASS SHALL BE 1" LOW-E
INSULATED GLASS W/ CLEAR
ANODIZED ALUMINUM FRAMES

BOARD & BATTEN
SW #6071 "POPULAR GRAY"

SIDING
FIBER CEMENT MACHINE CUT SHAKE
SW #7534 "OUTERBANKS"

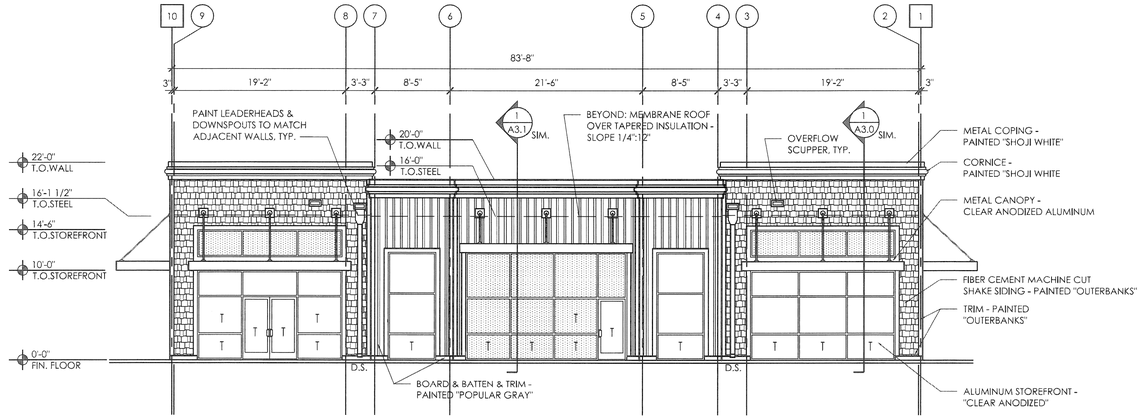
TRIM
SW #6071 "POPULAR GREY"
SW #7534 "OUTERBANKS"

CORNICE
SW #7042 "SHOJI WHITE"

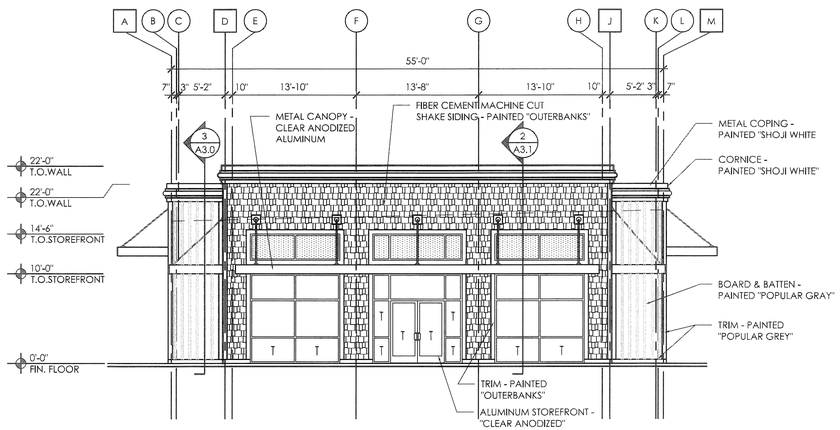
METAL ROOFING AND COPING:
ALL COPING TO BE PAINTED SW #7042 "SHOJI WHITE"

SUSPENDED METAL AWNINGS -
CLEAR ANODIZED ALUMINUM

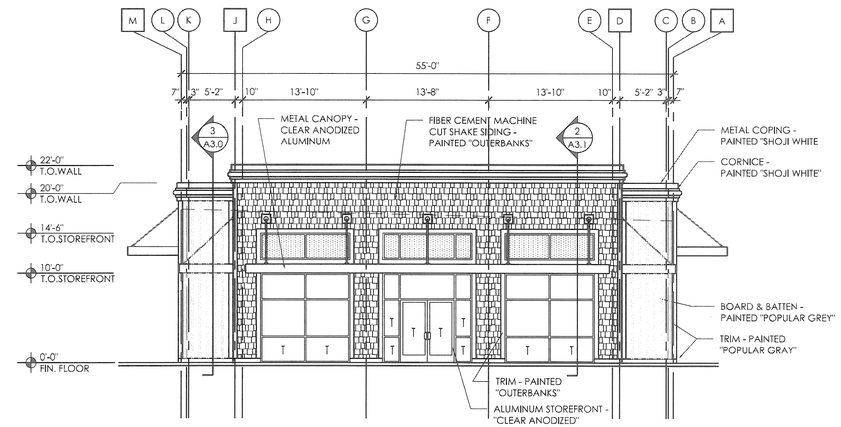
NOTES:
ALL ELECTRICAL EQUIPMENT, DOORS, AND DOWNSPOUTS ARE TO BE PAINTED TO MATCH ADJACENT WALLS.



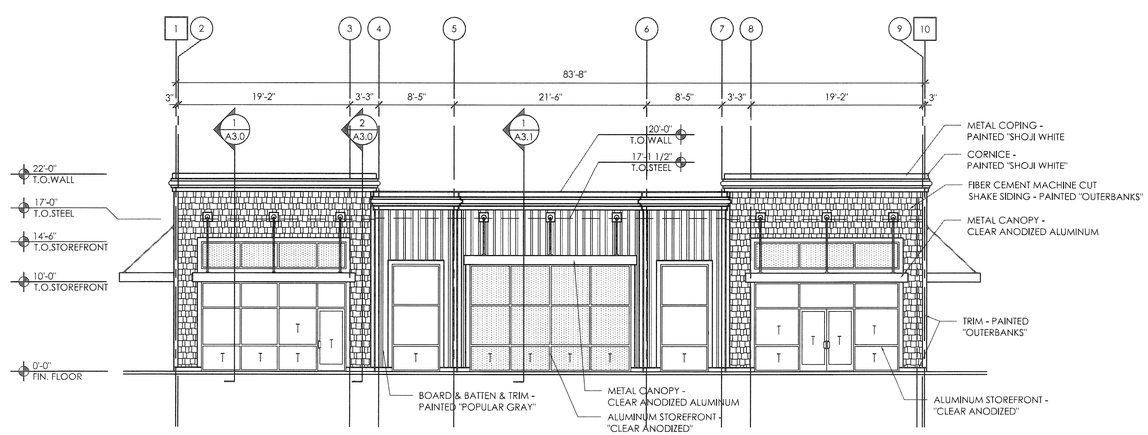
2 EAST ELEVATION
SCALE: 1/8" = 1'-0"



4 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



3 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



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

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STATE OF SOUTH CAROLINA
CHARLES E. NARRAMORE
GREENVILLE, SC
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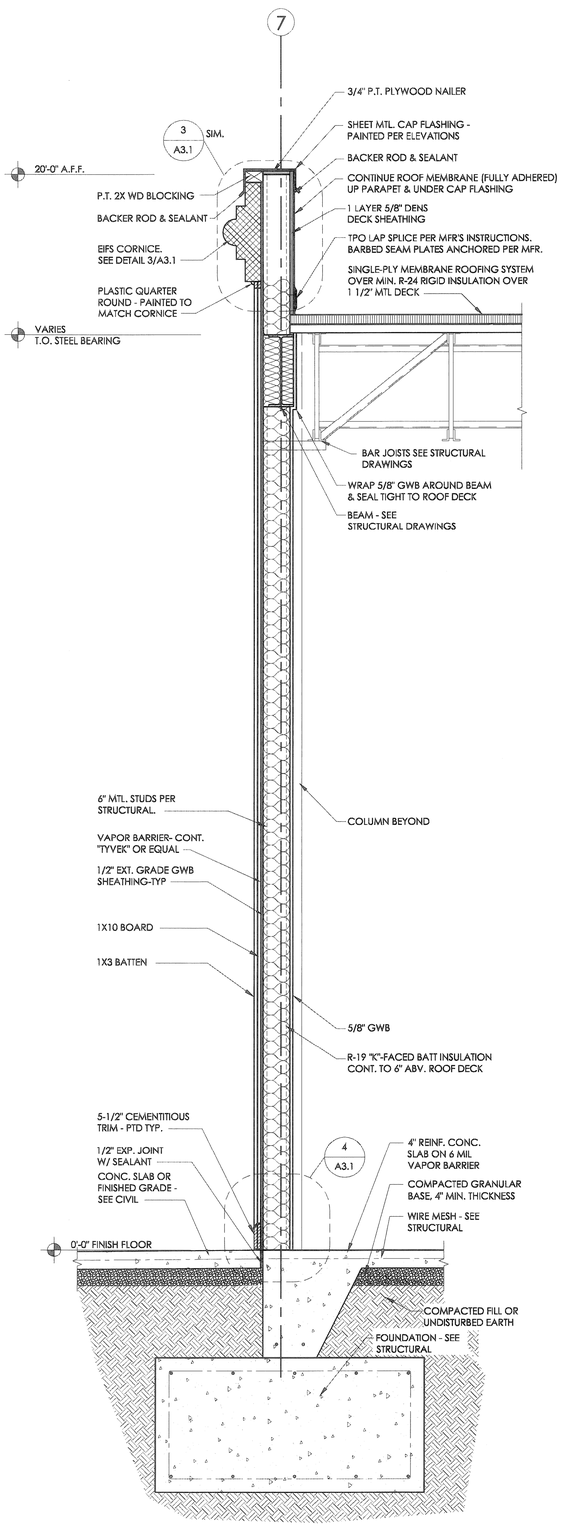
SHELTER COVE
HILTON HEAD, SC

A2.0

EXTERIOR ELEVATIONS
BUILDING 104



3 WALL SECTION
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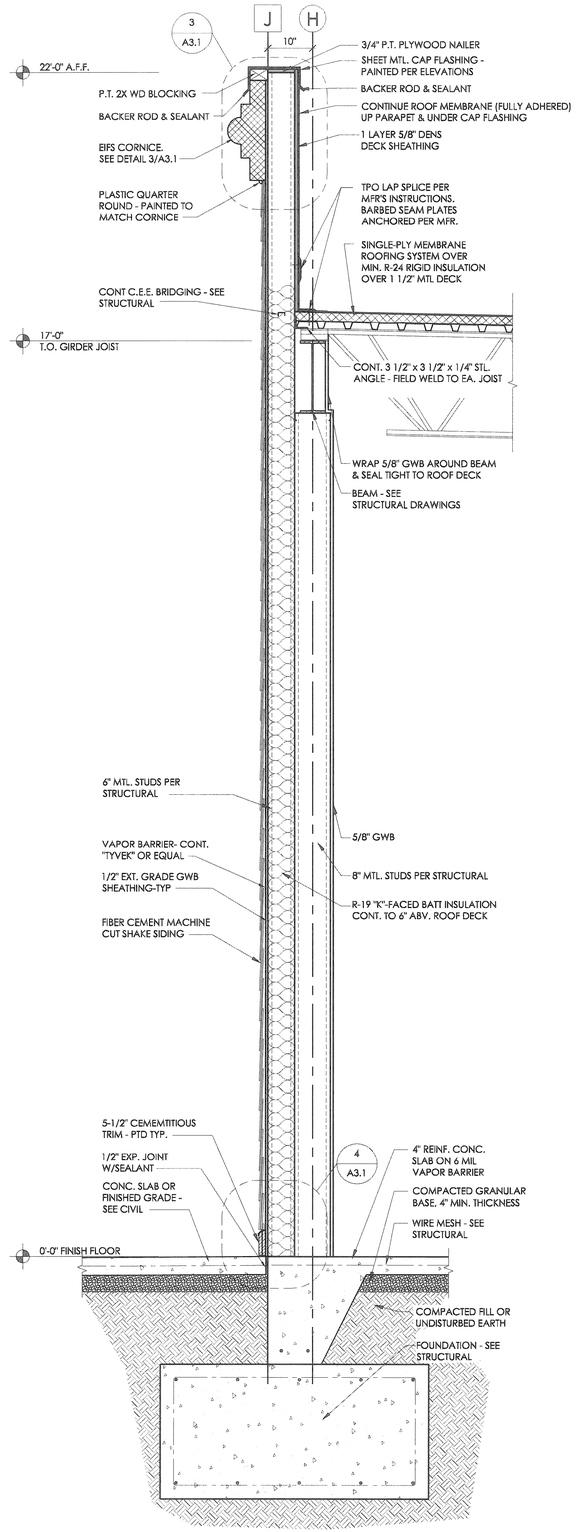

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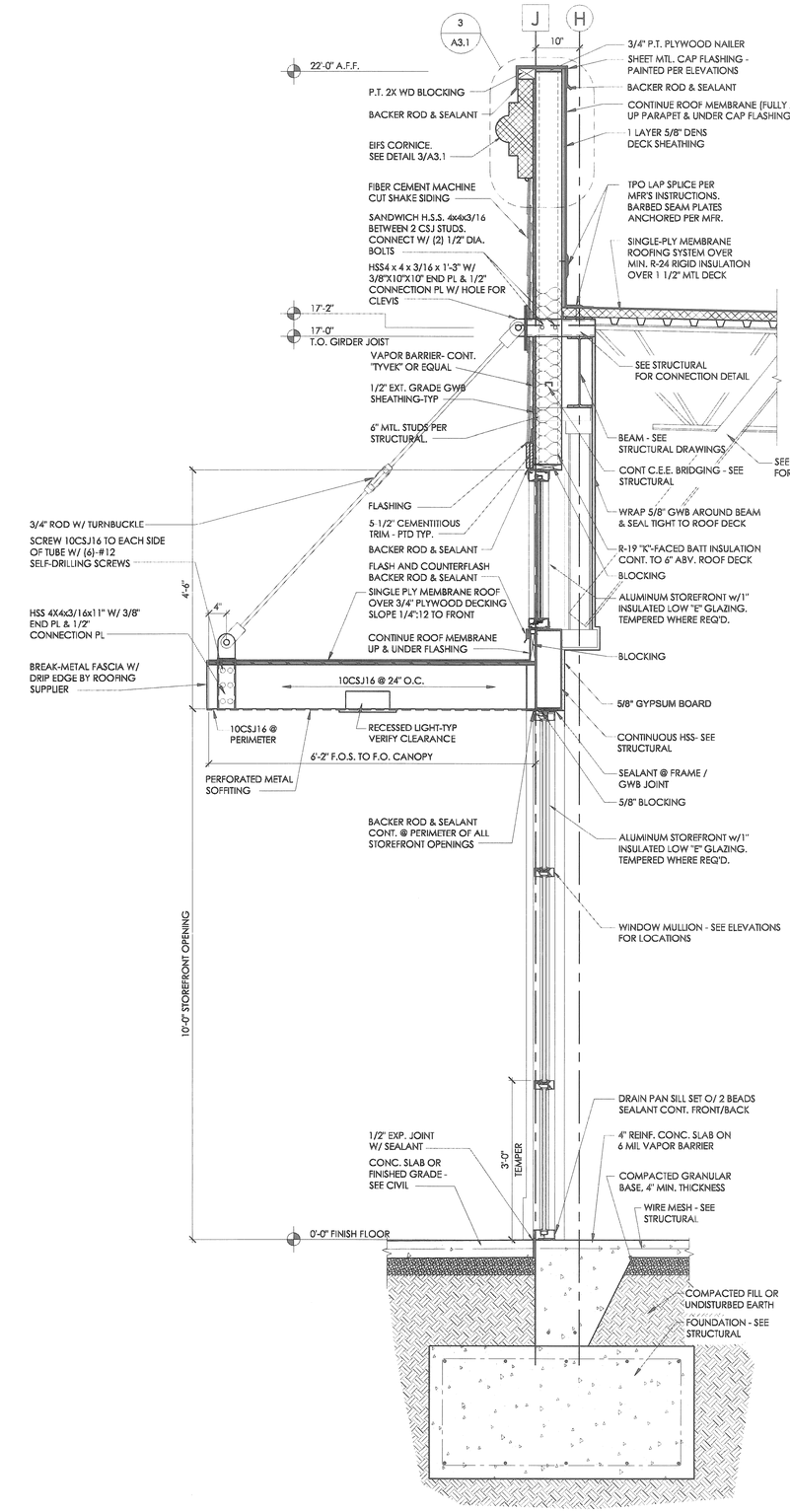

1 WALL SECTION
SCALE: 3/4" = 1'-0"

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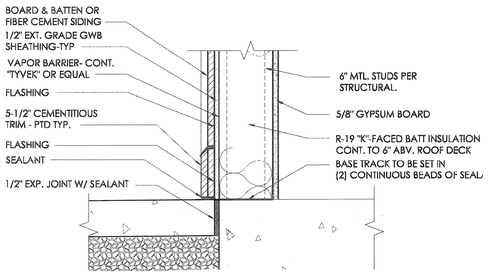
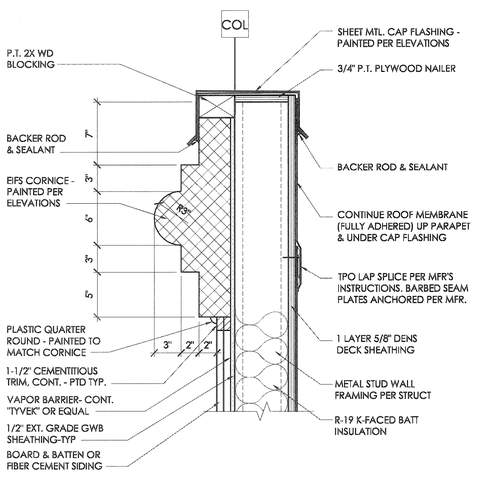
HILTON HEAD, SC

A3.0

WALL SECTIONS
BUILDING 104



4 DETAIL
SCALE: 1 1/2" = 1'-0"



3 DETAIL
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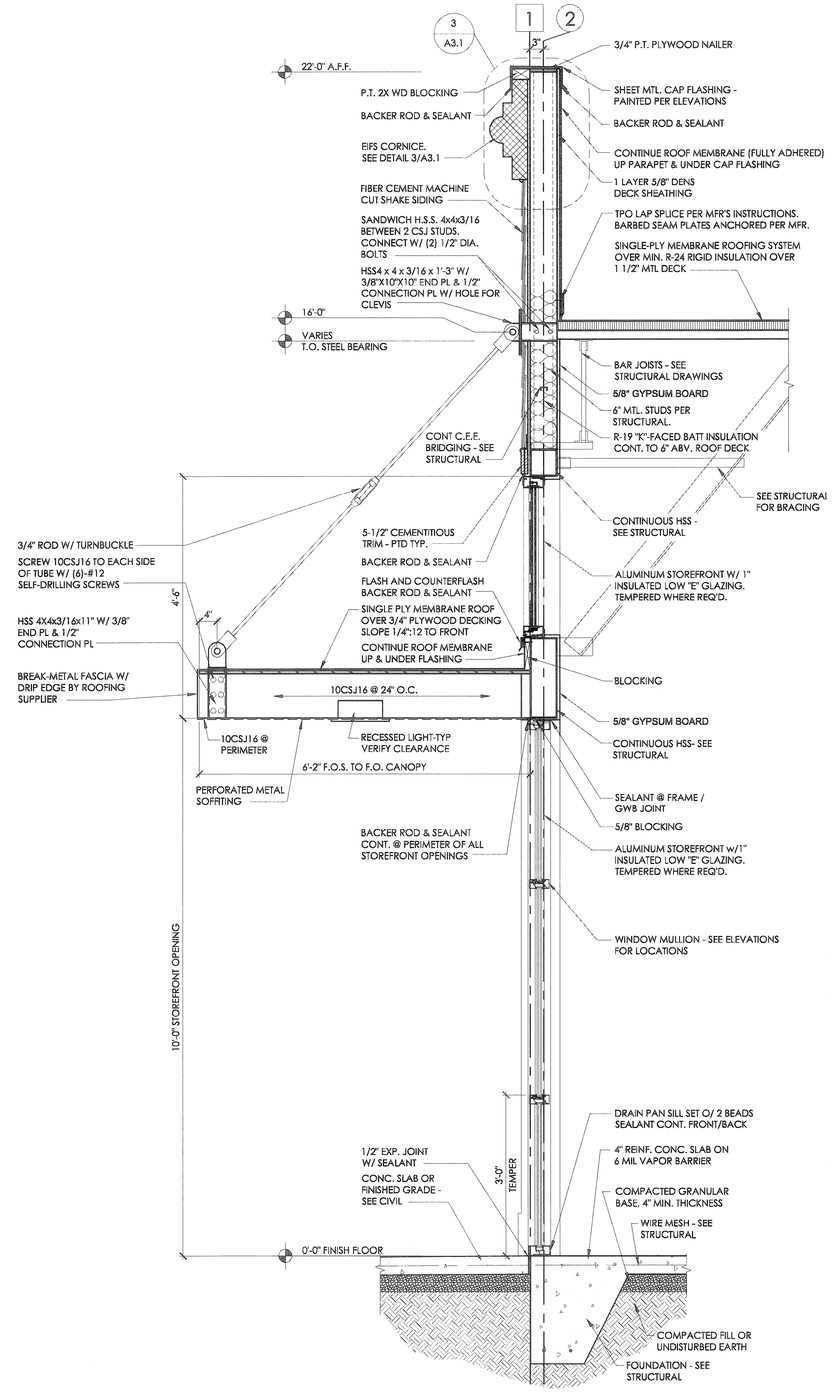

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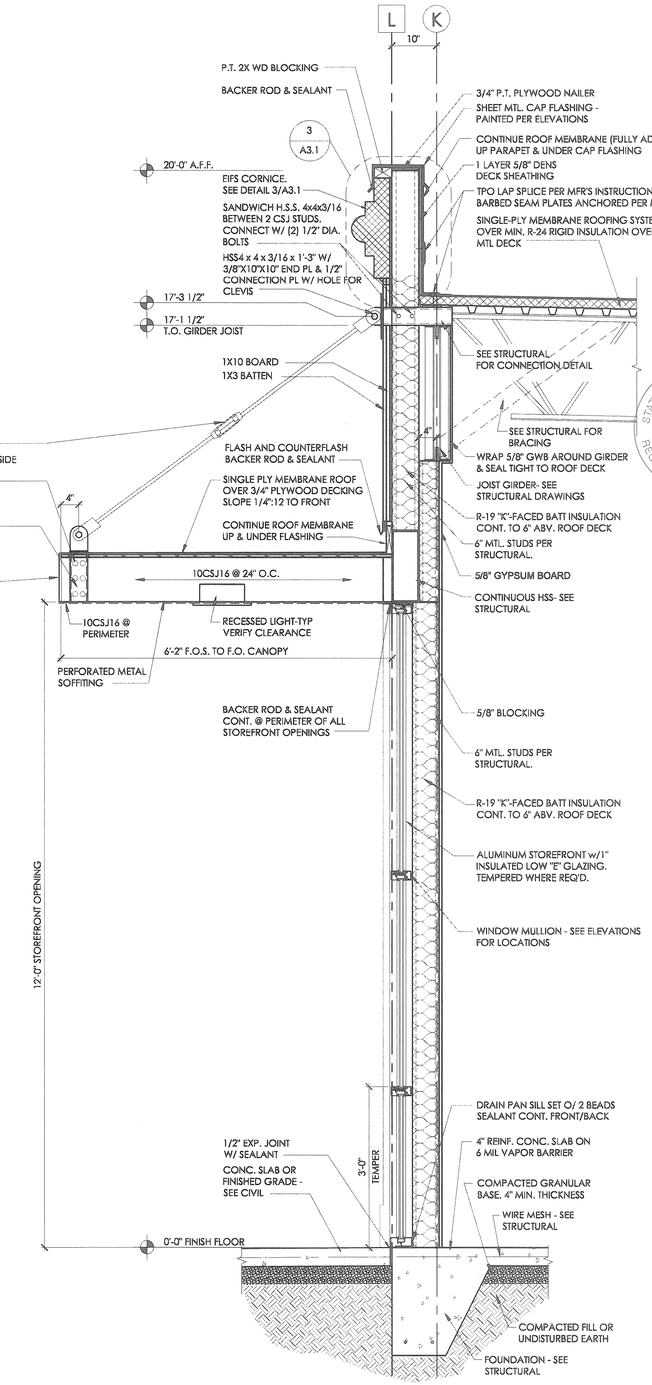

1 WALL SECTION
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3/26/14

STATE OF SOUTH CAROLINA
NARRAMORE ASSOCIATES, A.I.A. ARCHITECTS, INC.
GREENVILLE, SC
B84033
REGISTERED ARCHITECTS

Blanchard & Calhoun COMMERCIAL
2743 PERIMETER PKWY
BLDG 100 STE 370
AUGUSTA, GA 30909

SHELTER COVE TOWNE CTR.-BLDG. 104
32 SHELTER COVE LANE - UNITS 150 & 151
HWY. 278, MILE MARKER 8
HILTON HEAD ISLAND, SC 29928

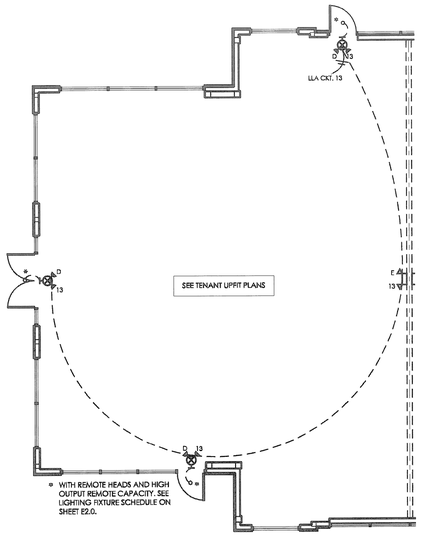
REVISIONS

DOCUMENT DATA
Building 104
PROJECT NUMBER
13916
ISSUE DATE
03-26-14

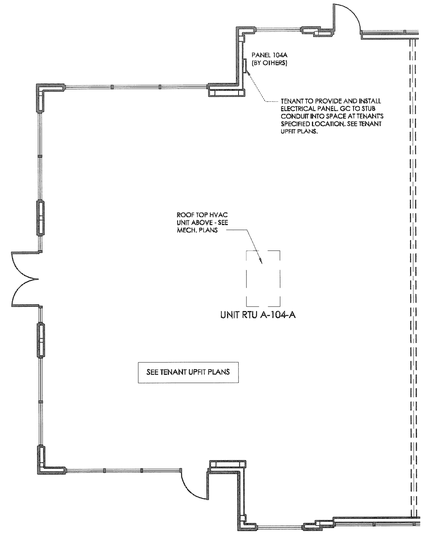
SHELTER COVE
HILTON HEAD, SC

A3.1

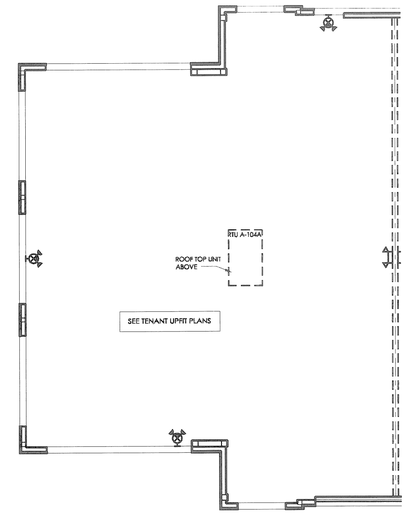
WALL SECTIONS
BUILDING 104



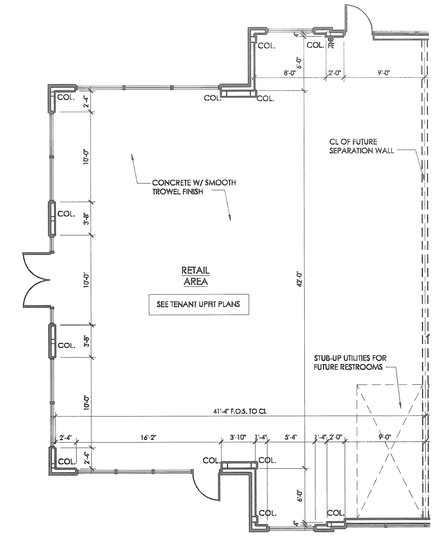
4 LIGHTING PLAN
SCALE: 1/8" = 1'-0"



3 POWER PLAN
SCALE: 1/8" = 1'-0"



2 REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"



1 FLOOR PLAN (2,039 SQ. FT.)
SCALE: 1/8" = 1'-0"

STATE OF SOUTH CAROLINA
NARRAMORE ASSOCIATES, A.I.A. ARCHITECTS, INC.
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GENERAL ELECTRICAL NOTES:

1. SEE OVERALL ELECTRICAL DRAWINGS E1 THROUGH E2 FOR ELECTRICAL LEGEND, DETAILS, & SCHEDULES.
2. ALL ELECTRICAL WORK INCLUDING CONDUIT, WIRE, LIGHTING, PANEL BOARDS, ETC. SHALL BE BY A LICENSED REPRESENTATIVE OF THE ELECTRICAL CONTRACTOR & INSPECTED PRIOR TO COVERING.
3. THE METAL GAS PIPING SYSTEM SHALL BE ELECTRICALLY CONTINUOUS AND BONDED TO THE GROUNDING ELECTRODE.
4. ALL BRANCH CIRCUITS, FEEDERS, AND DISCONNECTS SHALL BE LEGIBLY LABELED TO INDICATE ITS PURPOSE. THE MARKING SHALL BE OF SUFFICIENT DURABILITY TO WITHSTANDING THE ENVIRONMENT INVOLVED.
5. CONTRACTOR SHALL VERIFY SERVICE AND ORDER PANELS AS TOP OR BOTTOM FED DEPENDING ON THE ACTUAL ROUTING OF FEEDER AS DETERMINED IN FIELD.
6. 25,000 AIC IS APPROXIMATE ONLY. CONTRACTOR TO OBTAIN SHORT-CIRCUIT INFORMATION FROM LOCAL POWER UTILITY TO DETERMINE EXACT RATING REQUIRED.
7. LISTED OR LABELED EQUIPMENT SHALL BE USED AND INSTALLED IN ACCORDANCE WITH ANY INSTRUCTIONS INCLUDED IN THE LISTING OR LABELING.
8. PROVIDE 1" CONDUIT, JUNCTION BOX, AND COVER PLATE FOR ALARM/STROBE MTD. +86"A.F.F.

SYMBOL LEGEND

	WALL MOUNTED HPS LIGHT FIXTURE (EXTERIOR)
	WALL MOUNTED EXIT LIGHT / EMERGENCY LIGHT

GENERAL NOTES:

1. FOR ALL UNIT PLAN DIMENSIONS REFER TO SHEET A1.0.
2. SEE DRAWING A1.2 FOR DOOR AND HARDWARE SCHEDULE.

2039 S.F. UNIT 104-A

ROOM FINISH SCHEDULE

SPACE	FLOOR	BASE	WALLS	CEILING	
				MATERIAL	HEIGHT
SALES AREA	CONC. SLAB	NONE	GYP. BD. UNPAINTED **	NONE	

* VERIFY WITH TENANT REQUIREMENTS

** CMU WALL IN THE BACK ROOM @ SALES/STOCKROOM AREA IS TO BE PAINTED WITH AN OFF-WHITE WASHABLE ENAMEL PAINT

*** EXPOSED REAR MASONRY WALL OF RESTROOMS, SALES AREA, AND/OR STOCKROOMS ARE TO BE FURRED OUT WITH 1 5/8" METAL

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SEAL
STATE OF SOUTH CAROLINA
NARRAMORE
GREENVILLE, SC
1402
REGISTERED ARCHITECT
3/28/14

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2743 PERIMETER PKWY
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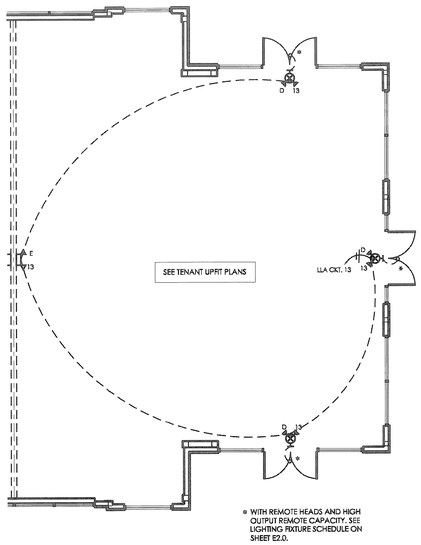
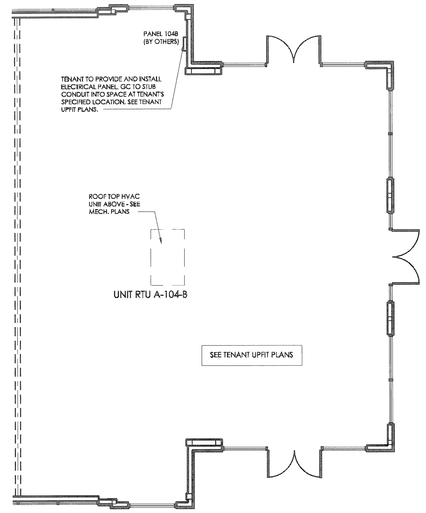
SHELTER COVE
HILTON HEAD, SC

A6.0

UNIT PLAN - 2039 S.F.
BUILDING 104



4 LIGHTING PLAN
SCALE: 1/8" = 1'-0"



3 POWER PLAN
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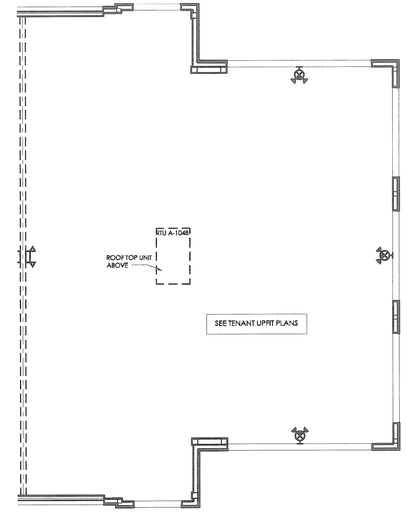
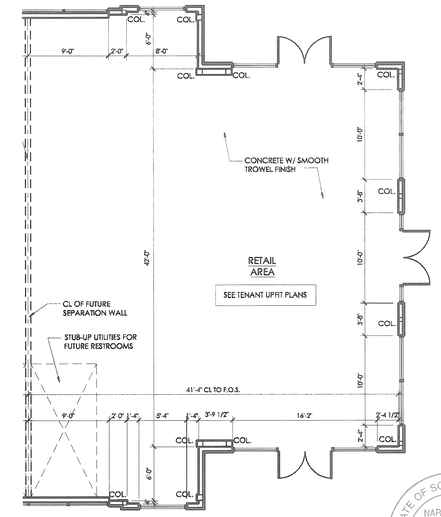


2 REFLECTED CEILING PLAN
SCALE: 1/8" = 1'-0"



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SYMBOL LEGEND

	WALL MOUNTED HPS LIGHT FIXTURE (EXTERIOR)
	WALL MOUNTED EXIT LIGHT / EMERGENCY LIGHT

GENERAL NOTES:

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2. SEE DRAWING A1.2 FOR DOOR AND HARDWARE SCHEDULE.

2039 S.F. UNIT 104-B

ROOM FINISH SCHEDULE

SPACE	FLOOR	BASE	WALLS	CEILING	
				MATERIAL	HEIGHT
SALES AREA	CONC. SLAB	NONE	GYP. BD. UNPAINTED **	NONE	

* VERIFY WITH TENANT REQUIREMENTS

** CMU WALL IN THE BACK ROOM @ SALES/STOCKROOM AREA IS TO BE PAINTED WITH AN OFF-WHITE WASHABLE ENAMEL PAINT

*** EXPOSED REAR MASONRY WALL OF RESTROOMS, SALES AREA, AND/OR STOCKROOMS ARE TO BE FURRED OUT WITH 1 5/8" METAL

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SEAL
STATE OF SOUTH CAROLINA
JOHN L. NARRAMORE
GREENVILLE, SC
1402
REGISTERED ARCHITECT
3/26/14

STATE OF SOUTH CAROLINA
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03-26-14

SHELTER COVE
HILTON HEAD, SC

A6.1

UNIT PLAN - 2039 S.F.
BUILDING 104

NOTES:

1. CONTRACTOR TO PROVIDE 4'X4'X3/4" EXTERIOR A.P.A. PLYWOOD BOARD AND 4'X4' NEMA 3R ENCLOSURE FOR TELEPHONE EQUIPMENT. VERIFY SIZE OF ENCLOSURE WITH LOCAL UTILITY. SEE DETAIL 2/E2.0.
2. ALTERNATE A1: LOCATE FUSED DISCONNECT AND METER AT TENANT SHOPS. FOR THIS ALTERNATE A WIREWAY WOULD NOT BE REQUIRED. SEE DETAIL 5/E2.0.
3. UNDERGROUND ELECTRICAL SERVICE TO UTILITY TRANSFORMER. SEE CIVIL DRAWINGS FOR LOCATION. CHECK WITH UTILITY FOR ALL REQUIREMENTS. (TYPICAL)

PANELBOARD SCHEDULE

PANEL LLA — TYPE: SQUARE 'D' - NQOD — 120/208 VOLTS 3 ϕ 4 W

MOUNTING: SURFACE — NEMA 3R w/ BOLT-ON BREAKERS — 125 AMP MAIN CKT. BKR.

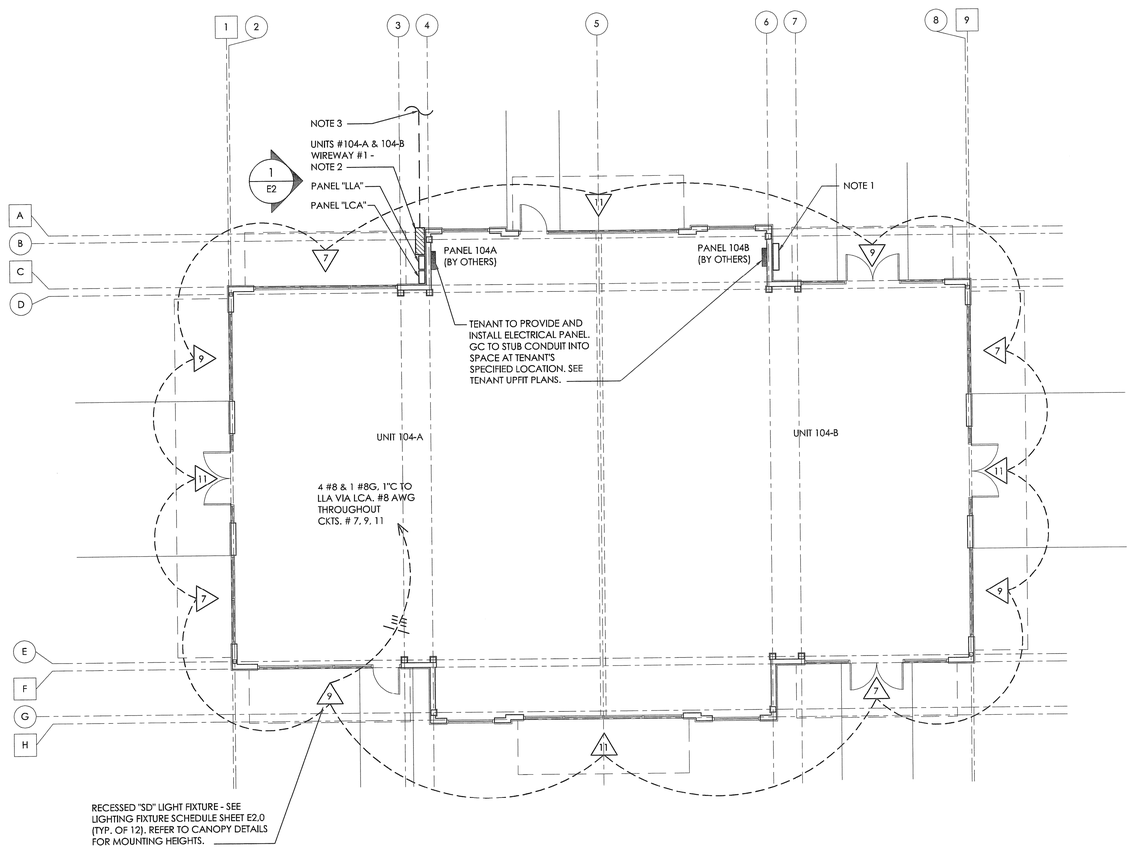
BRANCH BREAKERS

ITEM	AMP RATING	POLE	CIR NO	PHASE LOADING A		PHASE LOADING B		PHASE LOADING C		CIR NO	AMP RATING	POLE	ITEM
SPARE	20	1	1	--	1000					2	20	2	SITE LIGHTING
SPARE	20	1	3			--	1000			4			
SPARE	20	1	5					--	1000	6	20	2	SITE LIGHTING
CANOPY LTG.(VIA. LCA)	20	1	7	880	1000					8			
CANOPY LTG.(VIA. LCA)	20	1	9			880	1000			10	20	2	PYLON SIGN
CANOPY LTG.(VIA. LCA)	20	1	11					880	1000	12			
TENANT EMERG. LIGHTING	20	1	13	300	--					14			SPACE
SPARE	20	1	15			--	--			16			
SPARE	20	1	17					--	--	18			
SPARE	20	1	19	--	--					20			
SPARE	20	1	21			--	--			22			
SPARE	20	1	23					--	--	24			
SPACE			25	--	--					26			
			27			--	--			28			
			29					--	--	30			
			31	--	--					32			
			33			--	--			34			
			35					--	--	36			
			37	--	--					38			
			39			--	--			40			
			41					--	--	42			
				1180	2000	880	2000	880	2000				
				3180		2880		2880					

FEEDER 4#1, 1 1/2" C — TOTAL CONN. LOAD 8940 VA's — CONNECTED 25 AMPS

INTEGRATED EQUIP. RATING 25,000 AMPS RMS. SYM.

NOTE: PANEL 'LLA' TO BE RATED FOR SERVICE ENTRANCE USE



1 OVERALL FLOOR PLAN

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

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SEAL

SOUTH CAROLINA PROFESSIONAL ENGINEER NO. 7953 ROGER S. PASSMORE REGISTERED

3-27-14

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E1.0

ELECTRICAL PLAN
BUILDING 104

LIGHTING FIXTURES

A — RECESSED CEILING MOUNTED FLUORESCENT LIGHTING FIXTURE. THE LETTER DENOTES TYPE OF FIXTURE AS SHOWN IN THE FIXTURE SCHEDULE; AND THE NUMBER DENOTES BRANCH CIRCUIT NUMBER.

A / NL — SIMILAR TO ABOVE EXCEPT CIRCUITED AS A NIGHT LIGHT (NL).

WALL MOUNTED HPS LIGHTING FIXTURE. NOTATION SAME AS ABOVE.

RECESSED CEILING MOUNTED EMERGENCY LIGHING UNIT, NOTATION SAME AS ABOVE

WALL MOUNTED COMBINATION EMERGENCY AND EXIT FIXTURE. NOTATION SAME AS ABOVE.

EXHAUST FAN TOILETS - FURNISHED AND INSTALLED UNDER OTHER DIVISIONS OF THE SPECIFICATIONS, BUT POWER WIRED UNDER DIVISION 16.

WIRING DEVICES

SINGLE POLE LIGHTING SWITCH, 20A., 120-277V., FLUSH MOUNTED, UNLESS OTHERWISE INDICATED. 46" A.F.F. WHERE INDICATED, SUBSCRIPT DENOTES CORRESPONDING LIGHT FIXTURE(S) CONTROLLED.

DUPLEX CONVENIENCE RECEPTACLE, 15A., 125V., 3 WIRE, PARALLEL BLADE, GROUNDING TYPE, NEMA 5-15R, FLUSH MOUNTED, UNLESS OTHERWISE INDICATED, 18" A.F.F. PROVIDE NEMA 5-20R IF SINGLE RECEPTACLE ON 20A. CIRCUIT.

WP — RECEPTACLE, SIMILAR TO ABOVE EXCEPT WITH WEATHERPROOF COVER. GFI INDICATES GROUND FAULT INTERRUPTER TYPE.

MISCELLANEOUS CONNECTIONS

WH — WATER HEATER, FURNISHED AND INSTALLED UNDER OTHER DIVISIONS OF THE SPECIFICATIONS, BUT POWER WIRED UNDER DIVISION 16.

UH — SURFACE MOUNTED WALL UNIT HEATER EQUIPPED WITH THERMOSTATIC FAN FASCO #1235 : 1.5 KW / 120V / 1 OUTLET FOR HVAC THERMOSTAT FURNISHED AND INSTALLED UNDER OTHER DIVISIONS OF SPECIFICATIONS.

T — INSTALL EMPTY 3/4" C. CONCEALED TO CORRESPONDING ROOFTOP A/C UNIT.

MISCELLANEOUS DEVICES

100/90/3P/3R 90AF — ISOLATING DISCONNECT SWITCH - NUMBERS INDICATE : AMPERE RATING/ FUSE SIZE (NF INDICATES NON-FUSED)/ NUMBER OF POLES/NEMA ENCLOSURE RATING. FOR FUSIBLE TYPE, FUSES SHALL BE DUAL ELEMENT, TIME DELAY. SIMILAR TO BUSS FUSETRON, ADDITIONAL DATA AS INDICATED:

J — MISCELLANEOUS OUTLET BOX (USUALLY 4" SQUARE OR OCTAGON X 1-1/2" DEEP MINIMUM) WITH COVER. GENERALLY MOUNT CONCEALED ABOVE HUNG CEILING.

GROUNDING SYSTEM

—G— GROUNDING CONDUCTOR, BARE STRANDED COPPER, DIRECTLY BURIED 24" BELOW FINISHED GRADE. (SIZE PER NEC).

TELEPHONE SYSTEM

TELEPHONE OUTLET. SINGLE GANG FLUSH OUTLET MOUNTED 18" A.F.F. UNLESS NOTED OTHERWISE. HOMERUN 3/4" EMPTY CONDUIT CONCEALED TO TELEPHONE EQUIPMENT BOARD. COORDINATE AND ADJUST THE EXACT OUTLET LOCATION IN THE FIELD WITH THE OWNER'S TELEPHONE INSTALLER.

ELECTRICAL NOTES

1. COMPRESSION CONNECTORS SHALL BE USED ON SERVICE CABLES. ONE-HOLE COMPRESSION LUGS SHALL BE USED AT UTILITY TRANSFORMER BUS CONNECTIONS. CORROSION RESISTANT BOLTS, NUTS, & WASHERS SHALL BE USED. BELVILLE WASHERS OF PROPER TORQUE SHALL BE USED AT XFMR BUS CONNECTIONS.
2. AT WIREWAY, USE T & B (OR EQUIVALENT) "C" OR "H" TAP COMPRESSION CONNECTORS TO BOND ALL SAME PHASE CABLES TOGETHER. SEE 4/E2.0
3. ENSURE ALL WIREWAY, CABINET, PANELS AND DISCONNECT HOUSINGS ARE ROPERLY BONDED TO GROUND.
4. RUN A CONTINUOUS 3/0 CU BARE GROUND FROM REBAR IN FOOTER NEAREST WIREWAY TO GROUND ROD (10'x3/4") TO THE NEUTRAL CABLES IN WIREWAY. EXOTHERMIC WELD OR MECHANICALLY BOND CABLE TO THE GROUND ROD. GROUND CABLE IN FOOTER SHALL BE 10 FT. MIN. LENGTH, WIRE WRAPPED TO REBAR EVERY 2 FT. MIN. ANY STEEL CONDUIT USED TO PROTECT GND. CABLE MUST BE PROPERLY BONDED TO THE GROUND CABLE AT BOTH ENDS OF CONDUIT WITH GROUNDING BUSHINGS.
5. AT EACH WIREWAY LOCATION-RUN A 2/0 CU GROUND CABLE FROM THE WIREWAY GROUND CABLE TO THE ROOF BAR JOIST. MECHANICALLY BOND TO BAR JOIST AT TWO LOCATIONS. COORDINATE THIS RUN SO THAT CABLE IS INCONSPICUOUS AS POSSIBLE AND NON-INTERFERING WITH WALL FINISHES, ETC.
6. ENSURE WATER PIPES, SPRINKLER RISER, ETC. ARE PROPERLY BONDED TO GROUND.
7. ALL ABOVE GRADE WIRE SHALL BE TYPE THHN OR XHHW, 600V, 90°C RATED. BELOW GRADE SHALL BE XHHW-2, 600V, 90° RATED.
8. AT WIREWAY-IF CONDUIT AND/OR BUSHINGS ARE METAL, BOND TOGETHER AND THEN BOND TO WIREWAY GROUND. ENSURE TRANSFORMER END OF CONDUITS ARE NOT BONDED TO THE TRANSFORMER GROUND. THE TRANSFORMER FRAME AND SECONDARY NEUTRAL (X) SHOULD BE BONDED TOGETHER AND GROUNDED BY THE UTILITY. CONTRACTOR SHOULD COORDINATE AND ENSURE THIS GND. IS SECURE AND AT LEAST 10' (MIN.) FROM CUSTOMER GROUND SYSEM.
9. FAULT CURRENT-PANEL RATINGS ARE BASED ON UTILITY TRANSFORMER OF 500 KVA OR LESS WITH 5.5% Z OR HIGHER. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY AND VERIFY SHORT CIRCUIT REQUIREMENTS.
10. PROVIDE PROVISIONS FOR PADLOCKS ON ALL PANELS, HOFFMAN ENCLOSURES AND DISCONNECTS. ALL ENCLOSURES TO BE NEMA 3R.
11. SEE DRAWINGS E1.0 FOR SCHEDULE OF CIRCUITS AT PANEL "LLA".
12. COORDINATE ARRANGMENT AND INSTALLATION OF WIREWAYS, METERS, AND DISCONNECTS WITH LOCAL UTILITY COMPANY.

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	MCB	MAIN CIRCUIT BREAKER
BKR	BREAKER	NTS	NOT TO SCALE
CU	COPPER	PH	PHASE
CKT	CIRCUIT	PNL	PANEL
DWG	DRAWING	RECPT.	RECEPTACLE
FU	FUSE	REQD	REQUIRED
FWE	FURNISHED WITH EQUIPMENT	SW	SWITCH
GFI	GROUND FAULT INTERRUPTER	UNO	UNLESS NOTED OTHERWISE
LTG	DEVICE LIGHTING	W/	WITH
MLO	MAIN LUGS ONLY	WH	WATER HEATER
		WP	WEATHER PROOF

LIGHTING FIXTURE SCHEDULE

☐ TYPE SD

DESCRIPTION	RECESSED SQUARE FIXT.
MANUFACTURER LAMPS VOLT-AMPS, VOLTS	SECURITY LIGHTING SYSTEMS 852-DL-175MH-FP-OW-MG-120. 175 WATT METAL HALIDE. 220V.A., , 120V

TENANT SPACES

☐ TYPE D

DESCRIPTION	COMBINATION EMERGENCY AND EXIT FIXTURE
MANUFACTURER LAMPS VOLT-AMPS, VOLTS	SURELITES #CCX-70-RWH-DH, TWO 9WPAR36, 6V 50 V.A., 120 V. * INDICATES #CCXH WITH 6T-6-W REMOTE HEAD

☐ TYPE E

DESCRIPTION	WALL MOUNTED EMERGENCY LIGHTING UNIT
MANUFACTURER LAMPS VOLT-AMPS, VOLTS	SURELITES #XR-9 TWO 25W 6V DC 50 V.A., 120 V.

ELECTRICAL LEGEND

PANELBOARDS

208/120V., 3 PHASE, 4W. LIGHTING & APPLIANCE PANEL BOARD. SEE SCHEDULE FOR COMPLETE DATA.

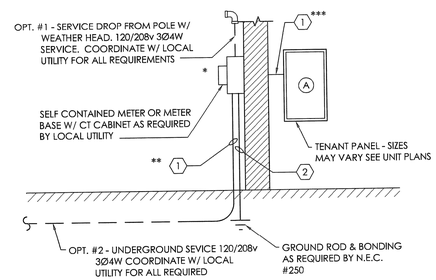
RACEWAYS

BRANCH CIRCUIT WIRING, INSTALLED OVERHEAD OR IN WALL (CONCEALED WHERE POSSIBLE). SHORT HASH MARKS INDICATE NO. OF PHASE CONDUCTORS. LONGER HASH MARKS DENOTE NEUTRAL CONDUCTORS. UNLESS OTHERWISE NOTED OR SPECIFIED USE #12 AWG WIRE. DETERMINE CONDUIT SIZE FROM HASH MARKS UTILIZING CONDUIT FILL TABLES IN N.E.C. 1/2" IS MINIMUM CONDUIT SIZE. NO HASH MARKS INDICATE 2 #12, 1 #12 GROUNDING CONDUCTOR IN 1/2" CONDUIT. (NOTE THAT ALL CONDUITS MUST CONTAIN AN EQUIPMENT GROUNDING CONDUCTOR, AND THAT THIS CONDUCTOR IS NOT INDICATED WITH HASH MARKS). BX-CABLE IS PERMITTED AS ALLOWED BY NEC.

SIMILAR TO ABOVE, EXCEPT RUN IN OR UNDER FLOOR SLAB OR UNDERGROUND. CONDUIT CONDUCTOR SIZES SHALL BE AS INDICATED. MINIMUM SIZE CONDUIT SHALL BE 3/4".

1.3.5 — HOMERUN TO PANELBOARD. NUMBERS INDICATE BRANCH CIRCUITS.

–6VDC– SIMILAR TO ABOVE, EXCEPT CONTAINING 6VDC EMERGENCY LIGHTING CONDUCTORS. MINIMUM CONDUCTOR SIZE SHALL BE #10 AWG.



IF LOCAL UTILITY AND CODES ALLOW, EACH UNIT MAY RECEIVE ITS OWN METER AS SHOWN ABOVE. SERVICE MAY BE OBTAINED FROM A SERVICE DROP OR LATERAL UNDERGROUND. PER LOCAL ELECTRICAL PROVIDER. THIS ALSO APPLIES TO PANEL "LLA".

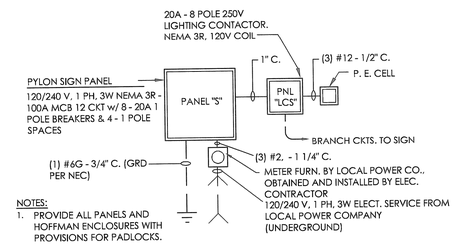
SERVICE	(A)	(1) ** COPPER	(2)
200A	200A MCB	4 #3/0, 2"C	#4
225A	225A MCB	4 #4/0, 2"C	#2
400A	400A MCB	4 #500 KCM, 3"	#1/0
600A	600A MCB	2 (4 #350 KCM, 3")	#2/0

* NEMA 3R DISCONNECT & MLO PANEL IS ACCEPTABLE

** ALUMINUM
200A - 4 #250 KCM, 2 1/2"C
225A - 4 #300KCM, 2 1/2"C
400A - 2 RUNS OF 4 #250 KCM, 2 1/2"C
600A - 2 RUNS OF 4 #500 KCM, 3"C

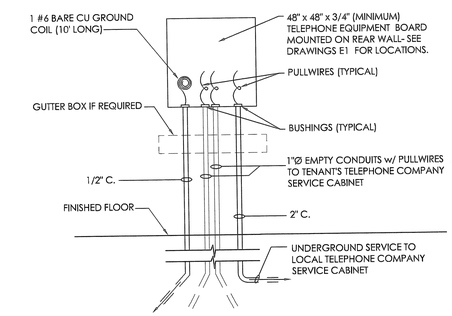
*** IF MLO PANEL:
ADD COPPER GROUND
200A - #6
225A - #4
400A - #3
600A - #1

5 ELECTRICAL ALTERNATE A1
NOT TO SCALE

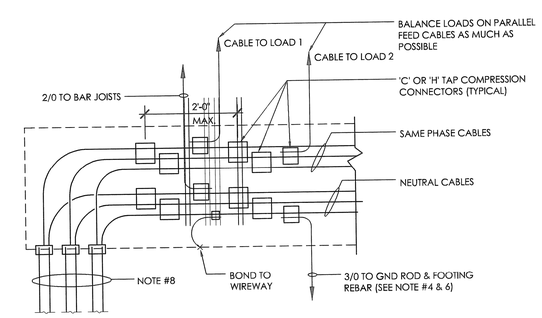


NOTES:
1. PROVIDE ALL PANELS AND HOFFMAN ENCLOSURES WITH PROVISIONS FOR PADLOCKS.

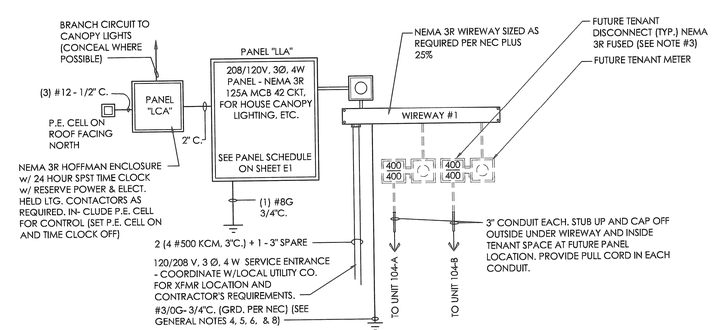
3 PYLON PANEL RISER DIAGRAM
NOT TO SCALE



2 TELEPHONE SERVICE DIAGRAM
NOT TO SCALE



4 TYPICAL WIREWAY CONNECTIONS
NOT TO SCALE



1 RISER DIAGRAM - WIREWAY #1
NOT TO SCALE

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SEAL
SOUTH CAROLINA PROFESSIONAL ENGINEER
NO. 7953
REGISTERED ROGER S. PASSMORE
7-22-14

Blanchard & Calhoun COMMERCIAL
2743 PERIMETER PKWY
BLDG 100 STE 370
AUGUSTA, GA 30909

SHELTER COVE TOWNE CTR-BLDG. 104
32 SHELTER COVE LANE - UNITS 150 & 151
HWY. 278, MILE MARKER 8
HILTON HEAD ISLAND, SC 29928

REVISIONS

DOCUMENT DATA
Building 104
PROJECT NUMBER
13916
ISSUE DATE
03-26-14

SHELTER COVE
HILTON HEAD, SC
E2.0
ELECTRICAL DETAILS
BUILDING 104

SHELTER COVE TOWNE CTR. BLDG. 104

32 SHELTER COVE LANE - UNITS 150 & 151
HWY. 278, MILE MARKER 8
HILTON HEAD, SC 29928

DEVELOPED BY

BLANCHARD & CALHOUN COMMERCIAL

2743 PERIMETER PARKWAY
BUILDING 100, SUITE 370
AUGUSTA, GA 30909

ARCHITECT'S JOB NUMBER: 13916

ISSUE DATE:
03/26/2014

OWNER:
BLANCHARD + CALHOUN
2743 PERIMETER PARKWAY
BUILDING 100, SUITE 370
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ELECTRICAL ENGINEER:
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719 LAURENS RD., STE. 100
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864-235-3374

PROJECT DATA

GENERAL

OCCUPANCY CLASSIFICATION - ASSEMBLY A-2
MERCANTILE GROUP M
CONSTRUCTION TYPE - IIB - UNSPRINKLED - UNPROTECTED

BUILDING CODE REFERENCES

THIS PROJECT WAS DESIGNED TO CONFORM TO THE FOLLOWING APPLICABLE CODES FOR THE LOCALITY.

INTERNATIONAL BUILDING CODE (2012)
INTERNATIONAL FIRE CODE (2012)
INTERNATIONAL PLUMBING CODE (2012)
INTERNATIONAL MECHANICAL CODE (2012)
INTERNATIONAL ENERGY CONSERVATION CODE (2009)
NATIONAL ELECTRICAL CODE (2011)

STRUCTURAL DESIGN CRITERIA

SEISMIC USE GROUP II SEISMIC DESIGN CATEGORY C

FLOOR: 100 PSF ROOF: 20 PSF

BUILDING AREA LIMITATIONS

ASSEMBLY A-2

ALLOWABLE AREA (TABLE 503) (see note below modification formulas)	= 9,500 S.F.
+AREA INCREASE IBC 506.2 (____ x 75%)	N/A
TOTAL ALLOWABLE AREA W/ AREA INCREASE	= 9,500 S.F.
TOTAL AREA PROVIDED	= 4,078 S.F. - O.K.

BUILDING HEIGHT LIMITATIONS

ALLOWABLE BUILDING HEIGHT (TABLE 503)	= 55'
ALLOWABLE NUMBER OF STORIES (TABLE 503)	= 2 STORIES
ACTUAL BUILDING HEIGHT (HIGHEST PARAPET)	= ±22'-0"
ACTUAL NUMBER OF STORIES	= 1 STORY

EGRESS REQUIREMENTS

OCCUPANT LOAD = (PER TENANT'S FLOOR PLAN)	(UNIT 104-A) = 59	
OCCUPANT LOAD = 30 S.F. PER OCCUPANT LOAD	(UNIT 104-B) = 67	TOTAL = 126 OCCUPANTS
(SEE TENANT UPFIT PLANS FOR EXACT SEAT COUNT)		

SHEET INDEX

SHEET	DESCRIPTION
INDEX	INDEX & COVER
S0.0	GENERAL NOTES
S1.0	FOUNDATION & ROOF FRAMING PLANS
S3.0	TYPICAL DETAILS
S3.1	TYPICAL DETAILS
S4.0	SECTIONS
S4.1	SECTIONS
A1.0	FLOOR PLAN
A1.1	ROOF PLAN
A1.2	SCHEDULES
A1.3	DETAILS
A2.0	EXTERIOR ELEVATIONS
A3.0	WALL SECTIONS
A3.1	WALL SECTIONS
A6.0	UNIT PLAN
A6.1	UNIT PLAN
P1.0	PLUMBING PLANS
M1.0	HVAC PLAN / DETAILS
E1.0	ELECTRICAL PLAN
E2.0	ELECTRICAL DETAILS

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SEAL
STATE OF SOUTH CAROLINA
DAVID L. NARRAMORE
GREENVILLE, SC
1402
REGISTERED ARCHITECT
3/26/14

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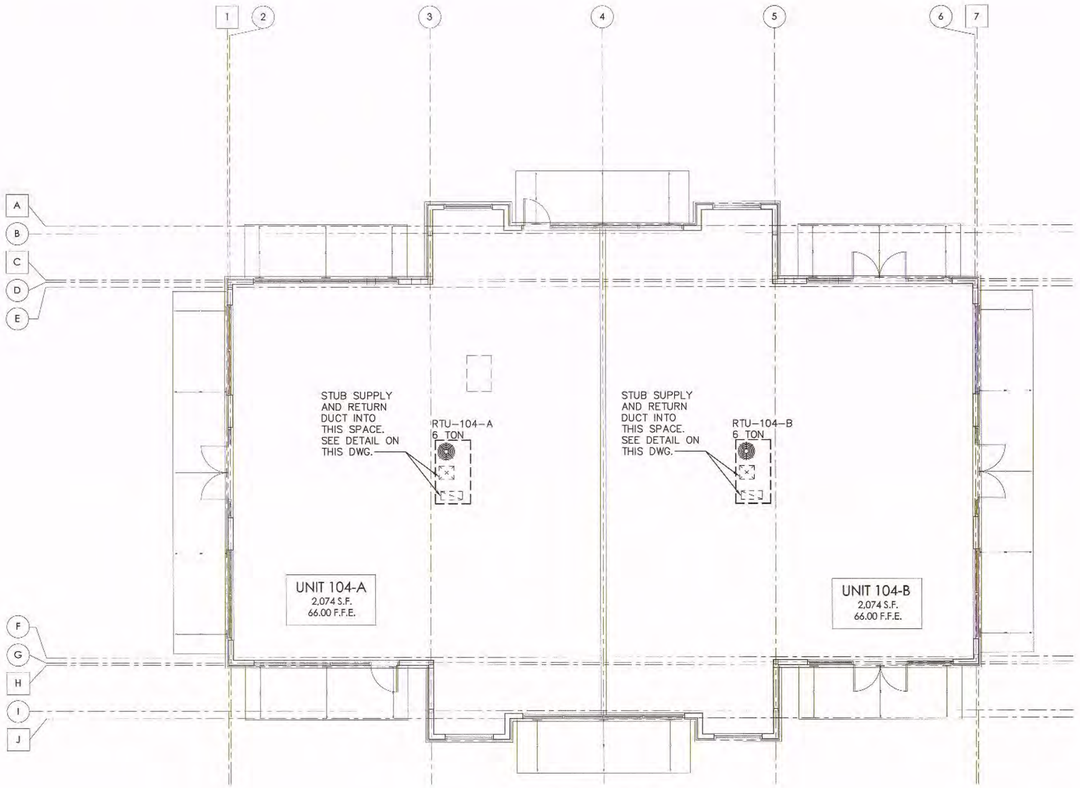
SHELTER COVE
HILTON HEAD, SC

INDEX

INDEX/COVER
BUILDING 104



HVAC PLAN

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

SMOKE DETECTOR NOTE:
MECHANICAL CONTRACTOR SHALL INSTALL SMOKE DETECTORS IN THE RETURN AIR DUCT TO EACH AIR HANDLING UNIT WITH A DESIGN CAPACITY GREATER THAN 2000 CFM TO SHUT DOWN THE UNITS. SMOKE DETECTORS SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR AND INSTALLED IN ACCORDANCE WITH ALL LOCAL CODES AND ORIDINANCES. AS A MINIMUM ONE SMOKE DETECTOR SHALL BE INSTALLED IN THE RETURN DUCT PRIOR TO ANY EXHAUST OR THE INTRODUCTION OF OUTSIDE AIR. COORDINATE THE WIRING AND CONNECTION OF SMOKE DETECTORS WITH ELECTRICAL CONTRACTOR.

PACKAGED ROOFTOP ELECTRIC A/C UNIT SCHEDULE

UNIT NO.	SUPPLY AIR CFM	OUTSIDE AIR CFM	E.S.P. IN W.G.	INDOOR FAN H.P.	ELECTRICAL			SYSTEM COOLING					ELECTRIC HEATING		MANUFACTURER/MODEL NO.	NOM. TONS	WEIGHT LBS.	ACCESSORIES SEE NOTES
					V/PH/HZ	MCA	MAX FUSE	E.D.B. °F	E.W.B. °F	COND. °F	SENSIBLE MBH	TOTAL MBH	HEATING KW	STAGES				
RTU-104-A	2400	600	0.8	2	208/3/60	72	80	77.3	64.7	95	58.1	74.7	22.5	1	LENNOX / LCH072H4	6	1100	1,2,3,4,5,6,7
RTU-104-B	2400	300	0.8	2	208/3/60	72	80	74.6	62.0	95	56.8	72.8	22.5	1	LENNOX / LCH072H4	6	1100	1,2,3,4,5,6,7

ACCESSORIES NOTES:

1. FACTORY ROOF CURB – DOWNFLOW.
2. DIFFERENTIAL ENTHALPY ECONOMIZER.
3. POWERED EXHAUST.
4. DISCONNECT SWITCH
5. THROUGH THE BASE ELECTRICAL
6. LOUVERED COIL GUARDS
7. COSTAL CORROSION COATING.

NOTE:

ROOFTOP A/C UNIT SCHEDULE IS BASED ON UNITS AS MANUFCTURED BY LENNOX. ACCEPTABLE ALTERNATE MANUFACTURERS ARE YORK, CARRIER AND TRANE.

FOR ACCEPTABLE ALTERNATE MANUFACTURERS, CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ELECTRICAL REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.

VENTILATION REQUIRED PER 2012 IMC

AREA	SQ. FT.	NET OCCUPIABLE AREA (SQ. FT.)	OCCUPANTS	CFM PER SQ.FT.	CFM PER OCC.	REQ'D O.A. (CFM) (OCCUPANCY)	REQ'D O.A. (CFM) (AREA)	REQ'D O.A. TOTAL (CFM) (OCCUPANCY + AREA)	ACTUAL DESIGN O.A. (CFM)
UNIT 104-A	2074	1037	50	0.18	7.5	375	187	562	600
UNIT 104-B	2074	1037	20	0.12	7.5	150	125	275	300

MECHANICAL SPECIFICATIONS:

GENERAL: CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND MANAGEMENT NECESSARY OR REASONABLY INCIDENTAL TO COMPLETE THE WORK SHOWN ON THE DRAWINGS AND/OR DESCRIBED IN THE SPECIFICATIONS.

CODES AND ORDINANCES: ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE IN STRICT ACCORDANCE WITH REQUIREMENTS OF THE STANDARD MECHANICAL CODE OF IMC, NFPA, STATE AND LOCAL LAWS AND CODES, AND ALL LAWS, RULES AND REGULATIONS OF PUBLIC BODIES HAVING JURISDICTION.

INTERFERENCES: CONTRACTOR SHALL VISIT THE SITE AND INSPECT THE AREA WHERE THE WORK IS TO BE PERFORMED. CONTRACTOR SHALL BE RESPONSIBLE FOR ACCOMMODATING ALL INTERFERENCES WITH THE WORK, OFFSETTING, MODIFYING, AND OTHERWISE FITTING THE EQUIPMENT TO THE SPACE AVAILABLE, AND COORDINATING WITH OTHER DRAWINGS FOR CONSTRUCTION DETAILS, DIMENSIONS, INTERFERENCES, ETC.

GUARANTEE: ALL MATERIALS AND WORKMANSHIP PROVIDED SHALL BE WARRANTED AGAINST DEFECTS FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK.

CLEAN-UP: ALL DEBRIS, RUBBISH, SCRAPS, ETC. SHALL BE CLEANED UP AT THE END OF EACH WORK DAY. AT THE COMPLETION OF THE WORK, ALL NEW CONSTRUCTION WORK AND MATERIALS SHALL BE CLEANED UP OF MARKINGS, DIRT, ETC. AND LEFT IN A CLEAN AND SIGHTLY CONDITION, READY FOR USE BY THE OWNER.

PIPE PAINTING: ALL UNINSULATED UNCONCEALED PIPING INDOORS SHALL BE CLEANED, PRIMED AND PAINTED. PIPE CLEANING SOLVENT SHALL BE A NON-OILY SOLVENT EQUAL TO HI-FLASH COAL TAR NAPHTHA. PRIME COATING MATERIAL SHALL BE ALKYD ZINC CHROMATE. FINISH MATERIAL SHALL BE ALKYD PAINT, COLOR AS SELECTED BY ARCHITECT. PREPARATION AND APPLICATION SHALL BE PER MANUFACTURERS' SPECIFICATIONS.

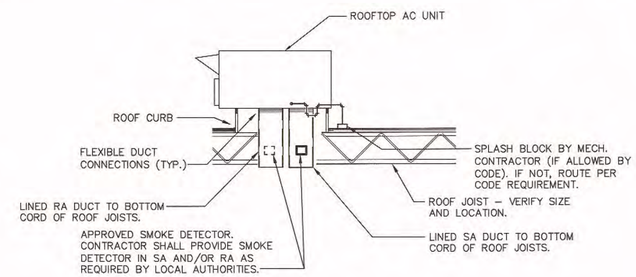
ROOF OPENINGS, WHERE REQUIRED, SHALL BE DEFINED AND LOCATED BY THE HVAC SUBCONTRACTOR AND CONSTRUCTED BY THE GENERAL CONTRACTOR. HVAC CONTRACTOR SHALL FURNISH AND SET ROOF CURBS.

DUCTWORK: DUCTWORK SHALL BE CONSTRUCTED OF LOCK-FORMING GALVANIZED STEEL SHEET. DUCTWORK SHALL BE CONSTRUCTED AND REINFORCED IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE "HVAC DUCT CONSTRUCTION STANDARD – METAL AND FLEXIBLE" AS PUBLISHED BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION, INC. (SMACNA). DUCTWORK SHALL BE CONSTRUCTED AND REINFORCED ACCORDING TO THE TABLE FOR 1" W.G. DUCT DESIGN PRESSURE. DUCT SHALL BE SUPPORTED BY STRAP HANGERS PROPERLY SECURED TO THE BUILDING STRUCTURE. ALL ELBOWS SHALL BE PROVIDED WITH APPROVED TURNING VANES.

DUCT INSULATION: RECTANGULAR SUPPLY AND RETURN AIR DUCTWORK SHALL BE INSULATED WITH SCHULLER "PERMACOTE LINACOUSTIC" FLEXIBLE COATED FIBERGLASS LINER. LINER SHALL BE 1" THICK, 2-LB. DENSITY, WITH APPROVED AIR-SIDE SURFACE COATING. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. ALL INSULATION SHALL BE VAPOR SEALED PER MANUFACTURER'S RECOMMENDATIONS.

HVAC SYSTEM CONTROL WIRING SHALL BE PROVIDED BY THE HVAC CONTRACTOR AND SHALL MEET IMC AND NEC REQUIREMENTS. HVAC CONTROL SYSTEMS SHALL PROVIDE A COMPLETE AND OPERABLE SYSTEM OF TEMPERATURE CONTROL.

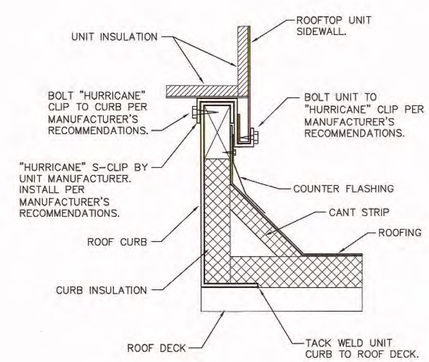
CONTRACTOR SHALL ARRANGE ROOFTOP A/C UNITS TO PROVIDE EFFICIENT CONNECTION OF S.A. AND R.A. DUCTS. ANY CHANGE IN SIZE, WEIGHT, LOCATION, OR ARRANGEMENT OF HVAC EQUIPMENT SHALL BE EVALUATED BY THE HVAC CONTRACTOR FOR BUILDING LOADING, STRUCTURAL INTEGRITY OF THE SUPPORT SYSTEM, DUCT CONNECTIONS, AND GAS AND ELECTRICAL SERVICES, AND HE SHALL SUBMIT REVISED DRAWINGS AND DETAILS TO ACCOMMODATE THE CHANGES.



NOTE:
SMOKE DETECTOR SHALL BE PROVIDED WITH AUDIBLE AND VISUAL ALARMS PER CODE.

ROOFTOP UNIT DETAIL

SCALE: NONE



ROOFTOP UNIT CURB DETAIL

SCALE: NONE

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SOUTH CAROLINA LEBLANC WELCH CONSULTING ENGINEERS NO.C00908 CERTIFICATE OF AUTHORIZATION

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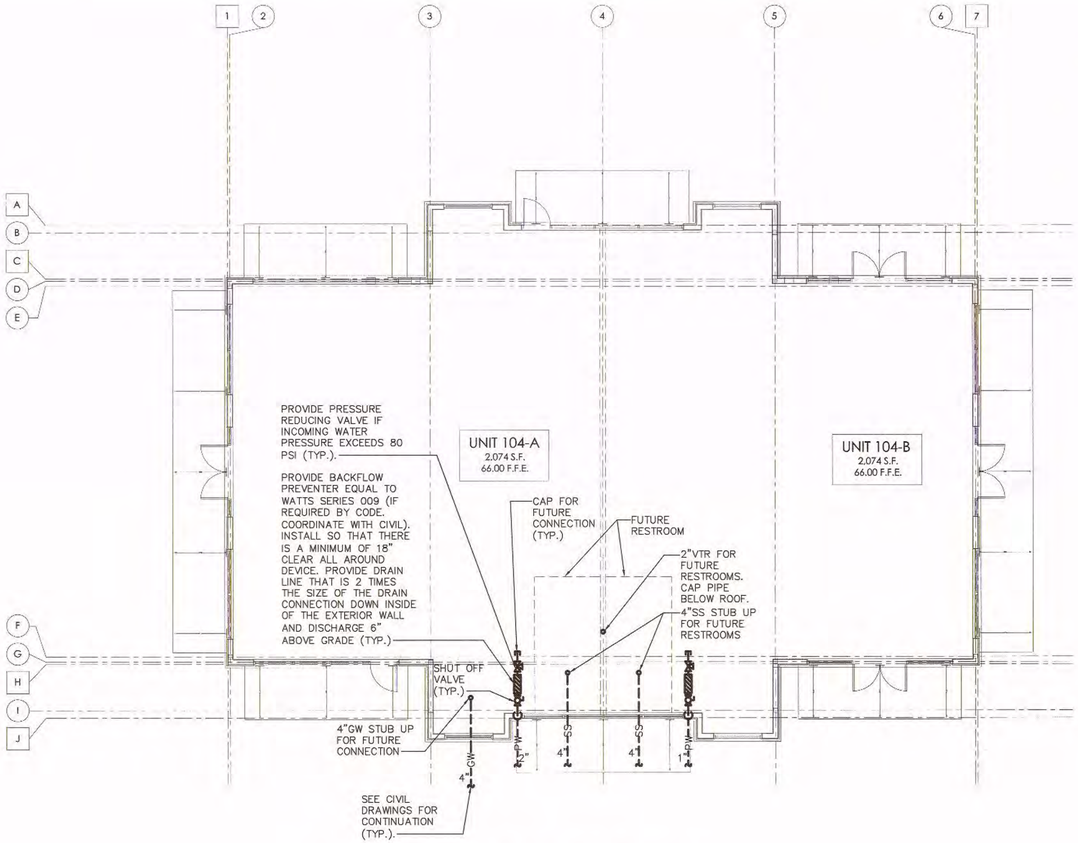
SHELTER COVE
HILTON HEAD, SC

M1.0

14125M1.0

HVAC PLAN/DETAILS
BUILDING 104



PLUMBING PLAN

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

PLUMBING LEGEND

PW	POTABLE WATER
PW	POTABLE WATER BURIED
HW	POTABLE HOT WATER
THW	TEMPERED HOT WATER
SS	SANITARY SEWER
SS	SANITARY SEWER BURIED
	VENT
GW	GREASE WASTE BURIED
V	VENT
VTR	VENT-THRU-ROOF
	CHECK VALVE
	UNION
	SHUT-OFF VALVE
	GAS SHUT-OFF VALVE
CO	FLOOR CLEANOUT
WCO	WALL CLEANOUT

PLUMBING SPECIFICATIONS:

GENERAL: CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND MANAGEMENT NECESSARY OR REASONABLY INCIDENTAL TO COMPLETE THE WORK SHOWN ON THE DRAWINGS AND/OR DESCRIBED IN THE SPECIFICATIONS.

CODES AND ORDINANCES: ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE IN STRICT ACCORDANCE WITH REQUIREMENTS OF THE OWNER'S INSURANCE CARRIER, NFPA CODES, STATE AND LOCAL LAWS AND CODES, AND ALL LAWS, RULES AND REGULATIONS OF PUBLIC BODIES HAVING JURISDICTION.

INTERFERENCES: CONTRACTOR SHALL VISIT THE SITE AND INSPECT THE AREA WHERE THE WORK IS TO BE PERFORMED. CONTRACTOR SHALL BE RESPONSIBLE FOR ACCOMMODATING ALL INTERFERENCES WITH THE WORK, OFFSETTING, MODIFYING, AND OTHERWISE FITTING THE NEW EQUIPMENT TO THE SPACE AVAILABLE.

GUARANTEE: ALL MATERIALS AND WORKMANSHIP PROVIDED SHALL BE WARRANTED AGAINST DEFECTS FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK.

CLEAN-UP: ALL DEBRIS, RUBBISH, SCRAPS, ETC. SHALL BE CLEANED UP AT THE END OF EACH WORK DAY. AT THE COMPLETION OF THE WORK, ALL NEW CONSTRUCTION WORK AND MATERIALS SHALL BE CLEANED UP OF MARKINGS, DIRT, ETC. AND LEFT IN A CLEAN AND SIGHTLY CONDITION, READY FOR USE BY THE OWNER.

PIPING MATERIALS:

POTABLE WATER: POTABLE WATER PIPE SHALL BE ASTM B-88 HARD DRAWN COPPER, TYPE L OR K. FITTINGS SHALL BE ANSI B-16.22, WROUGHT COPPER, SOLDER JOINT. JOINTS SHALL BE MADE USING NON-CORROSIVE FLUX AND SOLDER COMPOUND MEETING NSF REQUIREMENTS FOR USE ON POTABLE WATER PIPING. PIPE ENDS SHALL BE CUT SQUARE AND CLEANED TO A BRIGHT METAL FINISH BEFORE SOLDERING.

SANITARY SEWER WASTE AND VENT ABOVE GROUND: SANITARY SEWER PIPE AND FITTINGS SHALL BE EITHER CAST IRON, ASTM A-74, SERVICE WEIGHT, HUB AND SPIGOT PATTERN WITH ASTM C-564 RESILIENT GASKETS; OR HUBLESS CAST-IRON PIPE AND FITTINGS, ASTM A 888, CISPI-301, WITH STANDARD, SHIELDED, STAINLESS-STEEL COUPLINGS CONFORMING TO CISPI-310, WITH STAINLESS-STEEL CORRUGATED SHIELD, STAINLESS-STEEL BANDS AND TIGHTENING DEVICES, AND ASTM C-564, RUBBER SLEEVE; OR SCHEDULE 40 PVC DRAIN, WASTE AND VENT (DWV) PIPE AND FITTINGS, ASTM D-2665 WITH SOLVENT CEMENT JOINTS INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

SANITARY SEWER/GREASE WASTE AND VENT BELOW GROUND: SANITARY SEWER PIPE AND FITTINGS SHALL BE EITHER CAST IRON, ASTM A-74, SERVICE WEIGHT, HUB AND SPIGOT PATTERN WITH ASTM C-564 RESILIENT GASKETS; OR HUBLESS CAST-IRON PIPE AND FITTINGS, ASTM A 888, CISPI-301, WITH HEAVY DUTY JOINTS CONFORMING TO ASTM C-1540 EQUAL TO HUSKY SD-4000, WITH HEAVY DUTY TYPE 304 STAINLESS STEEL SHIELDED COUPLINGS HAVING 4 SEALING CLAMPS FOR PIPE SIZES 1-1/2" THRU 4" AND 6 SEALING CLAMPS FOR PIPE SIZES 5" THRU 10"; OR SCHEDULE 40 PVC DRAIN, WASTE AND VENT (DWV) PIPE AND FITTINGS, ASTM D-2665 WITH SOLVENT CEMENT JOINTS INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

PIPE SUPPORTS: PIPING SHALL BE SUPPORTED FROM BUILDING STRUCTURE IN A NEAT, PERMANENT AND STABLE MANNER. WHERE BUILDING STRUCTURAL MEMBERS ARE NOT LOCATED TO SUIT EXACT REQUIREMENTS FOR PIPING SUPPORTS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUCH ADDITIONAL STRUCTURAL STEEL MEMBERS AS MAY BE REQUIRED TO SAFEGUARD PIPING INSTALLATION AND BUILDING STRUCTURE.

PIPE PAINTING: ALL UNINSULATED STEEL PIPING SHALL BE THOROUGHLY CLEANED, PRIMED AND PAINTED. PIPE CLEANING SOLVENT SHALL BE A NON-OILY SOLVENT EQUAL TO STODDARD SOLVENT OR HI-FLASH COAL TAR NAPHTHA. PRIME COATING MATERIAL SHALL BE ALKYD ZINC CHROMATE. FINISH MATERIAL SHALL BE ALUMINUM ALKYD PAINT. SURFACE PREPARATION AND PAINT APPLICATION SHALL BE IN STRICT ACCORDANCE WITH PAINT MANUFACTURER'S RECOMMENDATIONS.

PIPE INSULATION: ALL HOT AND COLD WATER PIPING SHALL BE INSULATED. PIPING LOCATED IN INACCESSIBLE LOCATIONS SHALL BE INSULATED WITH NOMINAL 1/2" THICK ELASTOMERIC FOAM INSULATION EQUAL TO ARMSTRONG ARMAFLEX 22. ALL JOINTS SHALL BE MITERED AND SEALED WITH INSULATION MANUFACTURER'S APPROVED ADHESIVE EQUAL TO ARMSTRONG 520-620 INSULATION ADHESIVE. EXPOSED AND ACCESSIBLE PIPING SHALL BE INSULATED WITH FIBERGLASS PIPE INSULATION WITH ALL-SERVICE JACKET. HOT WATER PIPING INSULATION SHALL BE 1" THICK. COLD WATER PIPING INSULATION SHALL BE 1/2" THICK WITH VAPOR BARRIER. VAPOR BARRIER AT COLD WATER PIPING JOINTS SHALL BE MAINTAINED BY MEANS OF MASTIC AND TAPE. ALL FITTINGS, VALVES, ETC. SHALL BE INSULATED WITH THE SAME MATERIAL AND PROVIDED WITH PLASTIC FITTING COVERS. FLAME SPREAD AND SMOKE-DEVELOPED INDEXES SHALL NOT EXCEED 25/50.

PIPE TESTING:

POTABLE WATER: ALL WATER PIPING SHALL BE TESTED BEFORE COVERING. PIPING SYSTEM SHALL BE SUBJECTED TO A HYDROSTATIC TEST AT 150 PSI AND SHALL REMAIN TIGHT FOR A PERIOD OF AT LEAST TWO (2) HOURS. TESTS SHALL COMPLY TO AWWA STANDARD C-60-77, SECTION 4.1.

SANITARY SEWER: SANITARY SEWER PIPING SHALL BE TESTED BEFORE COVERING. ALL OPENINGS, EXCEPT HIGHEST VENT SHALL BE PLUGGED AND THE SYSTEM FILLED WITH WATER TO 10'-0" ABOVE HIGHEST FIXTURE CONNECTED. SYSTEM SHALL STAND WITHOUT LEAK OR LOSS OF WATER FOR A PERIOD OF NOT LESS THAN FOUR (4) HOURS.

STERILIZATION: ALL POTABLE WATER SYSTEM PIPING, FITTINGS AND FIXTURES SHALL BE STERILIZED (DISINFECTED) AND FLUSHED PRIOR TO USE IN ACCORDANCE WITH THE LATEST EDITION OF AMERICAN WATER WORKS ASSOCIATION STANDARD AWWA C-601.

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P1.0
14125M1.0

PLUMBING PLANS
BUILDING 104

GENERAL NOTES

I. GENERAL

A. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, SHOP DRAWINGS AND SPECIFICATIONS.
B. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST ADDENDA AND TO SUBMIT TO ALL SUBCONTRACTORS AND SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS.
C. THE GENERAL CONTRACTOR SHALL COMPARE ALL CONTRACT DRAWINGS AND REPORT ANY DISCREPANCY BETWEEN DISCIPLINES AND WITHIN A GIVEN DISCIPLINE TO THE ARCHITECT AND ENGINEER PRIOR TO FABRICATION AND ERECTION.
D. IF A CONFLICT EXISTS AMONG THE STRUCTURAL DRAWINGS, GENERAL NOTES, OR THE SPECIFICATIONS, THE STRICTEST REQUIREMENTS, AS INDICATED BY THE ENGINEER, SHALL GOVERN.
E. THE CONTRACTOR SHALL COORDINATE ALL ELEVATIONS AND DIMENSIONS, INCLUDING BUT NOT LIMITED TO THOSE FOR OPENINGS IN WALLS AND IN ROOF AND FLOOR SYSTEMS, WITH THE ARCHITECTURAL, PLUMBING, ELECTRICAL, AND MECHANICAL PLANS.
F. ALL DIMENSIONS, ELEVATIONS, AND ANY OTHER CONDITIONS OF ANY EXISTING STRUCTURES OR OTHER FEATURES SHALL BE VERIFIED BY THE GENERAL CONTRACTOR AND ANY DISCREPANCIES WITH THE CONTRACT DRAWINGS REPORTED TO THE ARCHITECT AND ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK. DURING THE CONSTRUCTION PROCESS, IT SHALL BE SOLELY THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE INTEGRITY OF THE EXISTING STRUCTURE AND TO PROTECT FROM DAMAGE ANY PORTIONS THAT ARE TO REMAIN.
G. THE COMPLETED LATERAL-FORCE RESISTING SYSTEMS AND DIAPHRAGMS ARE REQUIRED FOR THE STRUCTURE TO RESIST LATERAL LOADS AND PROVIDE STABILITY UNDER GRAVITY LOADS. DURING THE CONSTRUCTION PROCESS, THE CONTRACTOR SHALL PROVIDE ALL REQUIRED BRACING DURING CONSTRUCTION TO MAINTAIN THE STABILITY AND SAFETY OF ALL STRUCTURAL ELEMENTS UNTIL THE LATERAL-LOAD RESISTING OR STABILITY-PROVIDING SYSTEM IS COMPLETELY INSTALLED AND THE STRUCTURE IS COMPLETELY TIED TOGETHER.
H. UNLESS OTHERWISE NOTED, DETAILS SHOWN ON ANY DRAWING ARE TO BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS.
I. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS AND METHODS AND FOR SAFETY PRECAUTIONS AND PROGRAMS.
J. BRITT, PETERS & ASSOCIATES, INC. SHALL NOT BE RESPONSIBLE FOR THE ACTS OR OMISSION OF THE CONTRACTOR OR FOR THEIR FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
K. PERIODIC SITE OBSERVATION BY BRITT, PETERS & ASSOCIATES, INC. IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS AND IS NOT EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OR QUANTITY OF THE WORK.
L. THE BUILDING OWNER SHALL PROVIDE PERIODIC MAINTENANCE TO INSURE STRUCTURAL INTEGRITY. SUCH MAINTENANCE SHALL INCLUDE BUT NOT LIMITED TO PAINTING OF STEEL, PROTECTIVE COATING FOR CONCRETE, SEALANTS, CAULKED JOINTS, EXPANSION JOINTS, CONTROL JOINTS, SPALLS AND CRACKS IN CONCRETE, AND PRESSURE WASHING OF EXPOSED STRUCTURAL ELEMENTS.

II. DESIGN CRITERIA

A. THE CONTRACT DOCUMENTS ARE BASED ON THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE, 2012 EDITION.
B. DEAD LOADS
1. TYPICAL ROOF SYSTEMS: (20 PSF TOTAL)
a. MEP*: 10 PSF
b. INSULATION & ROOFING: 10 PSF
* MISCELLANEOUS CEILING AND HANGING MECHANICAL LOADS SUCH AS DUCT WORK AND SPRINKLER PIPES.
C. LIVE LOADS
2. LIVE LOADS ARE BASED ON THE MORE RESTRICTIVE OF THE UNIFORM LOAD LISTED BELOW OR THE CONCENTRATED LOAD LISTED ACTING OVER A 6.25 SQUARE FOOT AREA EXCEPT FOR PARKING GARAGES WHICH ACT OVER AN AREA OF 20 SQUARE INCHES. LIVE LOADS HAVE BEEN REDUCED AS PRESCRIBED IN THE AFOREMENTIONED BUILDING CODE.

CATEGORY	UNIFORM LOAD (PSF)	CONCENTRATED LOAD (LBS)
a. RETAIL (GROUND FLOOR)	100	1,000
b. ORDINARY ROOF	20	300

D. DESIGN SNOW LOAD:

GROUND SNOW LOAD,	PG	0 PSF
FLAT ROOF SNOW LOAD,	PF	0 PSF
EXPOSURE FACTOR,	CE	1.0
SNOW THERMAL FACTOR,	CT	1.0
SNOW IMPORTANCE FACTOR,	IS	1.0
RAIN ON SNOW SURCHARGE		0 PSF

E. DESIGN WIND LOADS:

BASIC WIND SPEED (ULT/SERV),	Vult/Vasd	153 MPH/130 MPH (3 SECOND GUST)
RISK CATEGORY		II
EXPOSURE		D
INTERNAL PRESSURE COEFF	GCPI	±0.18

COMPONENTS AND CLADDING WIND LOADS (ULTIMATE PRESSURES):

Design Wind Pressure (psf):

			Effective Wind Area (sqft)					
Walls:			10	20	50	100	200	500
Interior	Area 4	+	57.7	55.1	51.7	49.2	46.6	43.3
		-	-62.5	-59.9	-56.6	-54.0	-51.4	-48.1
Edge	Area 5	+	57.7	55.1	51.7	49.2	46.6	43.3
		-	-76.9	-71.8	-65.0	-59.9	-54.8	-48.1
Roof:			10	20	50	100	200	500
Interior	Area 1	+	25.6	24.0	21.9	20.3	20.3	20.3
		-	-63.0	-61.4	-59.3	-57.7	-57.7	-57.7
Edge	Area 2	+	57.7	55.1	51.7	49.2	46.6	43.3
		-	-105.8	-94.5	-79.6	-68.4	-68.4	-68.4
Corner	Area 3	+	57.7	55.1	51.7	49.2	46.6	43.3
		-	-105.8	-94.5	-79.6	-68.4	-68.4	-68.4
Overhang:			10	20	50	100	200	500
Interior	Area 1	+	16.0	16.0	16.0	16.0	16.0	16.0
		-	-90.8	-89.2	-87.1	-85.5	-74.3	-59.1
Edge	Area 2	+	16.0	16.0	16.0	16.0	16.0	16.0
		-	-90.8	-89.2	-87.1	-85.5	-74.3	-59.1
Corner	Area 3	+	16.0	16.0	16.0	16.0	16.0	16.0
		-	-149.6	-117.4	-74.9	-42.7	-42.7	-42.7

Parapet Design Pressure (psf):

			Effective Wind Area (sqft)					
Parapet:			10	20	50	100	200	500
Edge	Area 2	+	152.2	137.6	118.3	103.8	101.1	97.5
		-	-106.5	-101.1	-94.0	-88.6	-83.2	-76.1
Corner	Area 3	+	152.2	137.6	118.3	103.8	101.1	97.5
		-	-121.7	-113.6	-102.9	-94.9	-86.8	-76.1

CORNER AND EDGE ZONES ARE 5'-6" WIDE.

F. SEISMIC LOADS:

SHORT PERIOD SPECTRAL RESPONSE ACCELERATION,	SS	0.406
1-SEC PERIOD SPECTRAL RESPONSE ACCELERATION,	S1	0.145
SHORT PERIOD DESIGN SPECTRAL RESPONSE ACCELERATION,	SDS	0.399
1-SEC PERIOD DESIGN SPECTRAL RESPONSE ACCELERATION,	SD1	0.215
RISK CATEGORY		II
SEISMIC DESIGN CATEGORY		D
SITE CLASS		D
BASIC SEISMIC-FORCE RESISTING SYSTEM		STEEL ORDINARY CONCENTRICALLY BRACED FRAME
RESPONSE MODIFICATION FACTOR,	R	3.25
DEFLECTION AMPLIFICATION FACTOR,	CD	3.25
SEISMIC IMPORTANCE FACTOR	IE	1.0
SEISMIC RESPONSE COEFFICIENT	CS	0.091
ANALYSIS PROCEDURE		EQUIVALENT LATERAL FORCE
DESIGN BASE SHEAR	V	17 KIPS

G. THE CONTRACTOR SHALL VERIFY ALL MECHANICAL EQUIPMENT WEIGHTS, LOCATIONS AND ASSOCIATED OPENINGS WITH THE MECHANICAL CONTRACTOR AND SUBMIT SUCH INFORMATION PRIOR TO FABRICATION OF THE SUPPORTING STRUCTURE. PROMPTLY NOTIFY THE ENGINEER IF THE ACTUAL WEIGHT EXCEEDS THE WEIGHT SHOWN ON THE STRUCTURAL DRAWINGS.
H. PROVISIONS SHALL BE MADE IN THE DETAILING, FABRICATION, AND ERECTION OF ALL CLADDING, PARTITIONS, WALLS, ETC. TO ACCOUNT FOR FLOOR TO FLOOR DEFLECTIONS AND LATERAL FRAME DEFLECTION.

III. FOUNDATIONS

A. FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL ENGINEERING REPORT, "SHELTER COVE VILLAGE ON HILTON HEAD ISLAND, HILTON HEAD ISLAND, SOUTH CAROLINA", PREPARED BY TERRACON CONSULTANTS, INC. DATED JULY 12, 2011 (TERRACON PROJECT NO. ES115064).
B. CONTRACTOR SHALL OBTAIN A COPY OF THE SOILS REPORT AND ADHERE TO ALL RECOMMENDATION WITHIN, INCLUDING PREPARATION OF SOILS AT BUILDING PAD.
C. ALL SOILS WORK, INCLUDING BACKFILL OF UTILITY TRENCHES AND THE VERIFICATION OF BEARING CAPACITY OF SAME SHALL BE UNDER THE DIRECTION OF A QUALIFIED SOILS ENGINEER. PROXIMITY OF UTILITY TRENCHES TO BUILDING FOUNDATION SYSTEM SHALL BE AS APPROVED BY THE SOILS ENGINEER TO INSURE INTEGRITY OF THE BEARING SOILS.
D. ALL FOOTINGS SHALL BEAR ON UNDISTURBED EARTH OR ENGINEERED FILL AT ELEVATIONS SHOWN ON PLANS AND DETAILS. FLOOR SLABS SHALL BEAR ON A COMPACTED GRANULAR BASE. THE MOISTURE RETARDER SHALL BE PLACED BETWEEN THE STONE AND THE SLAB.
E. NO FOUNDATION CONCRETE SHALL BE INSTALLED UNTIL ALL FOUNDATION WORK HAS BEEN COORDINATED WITH UNDERGROUND UTILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD OF ALL CONFLICTS THAT EXIST BETWEEN FOOTINGS AND UTILITIES.
F. ALL FOUNDATIONS OR PORTIONS THEREOF, BELOW GRADE MAY BE EARTH FORMED BY NEAT EXCAVATIONS.
G. UNLESS OTHERWISE SHOWN, ALL FOOTINGS SHALL BE CENTERED ON WALLS AND/OR COLUMNS.
H. THE CONTRACTOR SHALL DETERMINE THE EXTENT OF CONSTRUCTION DEWATERING REQUIRED FOR THE EXCAVATION. THE CONTRACTOR SHALL SUBMIT TO THE GEOTECHNICAL ENGINEER FOR REVIEW THE PROPOSED PLAN FOR CONSTRUCTION DEWATERING, PRIOR TO EXCAVATION.
I. FOOTINGS SHALL NOT BE PLACED ON FROZEN SUBGRADE OR IN STANDING WATER.
J. ALLOWABLE BEARING PRESSURE:
1. SPREAD FOOTING 2,000 PSF
K. MINIMUM FOOTING BEARING DEPTH = -2'-0"

IV. CONCRETE

A. CONCRETE SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
CONCRETE 28 DAY COMPRESSIVE STRENGTH AND DENSITY REQUIREMENTS:

USAGE	STRENGTH (PSI)	CONC. TYPE
a. ALL CONCRETE NOT OTHERWISE SPECIFIED	4000	NWT
b. FOUNDATIONS WALLS, FOOTINGS, GRADE BEAMS	3000	NWT
c. SLAB-ON-GRADE	3000	NWT

1. INDICATED CONCRETE TYPES SHALL BE PROPORTIONED FOR MAXIMUM WATER CEMENT RATIO OF 0.45.
2. NWT = NORMAL WEIGHT CONCRETE
3. ALL CONCRETE SHALL HAVE ALLOWABLE UNIT SHRINKAGE OF 0.045% AT 28 DAYS. (SEE ASTM C157)
4. ALL SLABS TO RECEIVE MOISTURE SENSITIVE FLOOR COVERINGS SHALL HAVE MAXIMUM WATER/ CEMENT RATIO OF 0.45.
5. EXTERIOR CONCRETE SLABS SHALL HAVE 4% TO 6% ENTRAINED AIR

B. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO THE CURRENT "ACI MANUAL OF CONCRETE PRACTICE".
C. PORTLAND CEMENT SHALL CONFORM TO ASTM C-150, TYPE I OR II.
D. ALL AGGREGATE FOR NORMAL WEIGHT CONCRETE SHALL MEET ASTM C 33.
E. ALL REINFORCEMENT SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:
1. ALL REINFORCING, UNO: ASTM A615 GRADE 60
2. DEFORMED BAR ANCHORS (DBA): ASTM A496 (75 KSI)
3. WELDED WIRE REINFORCEMENT (WWR):
a. DEFORMED WIRE: ASTM A 497 (70 KSI)
4. STEEL FIBERS: ASTM A820 TYPE I, II, & V
5. MACROSYNTHETIC FIBERS: ASTM D7508
F. CONCRETE FOR COMPOSITE STEEL DECK SHALL BE REINFORCED FOR TEMPERATURE & SHRINKAGE BY ONE OF THE FOLLOWING METHODS:
1. WWR: WELDED WIRE REINFORCEMENT AS SPECIFIED ON PLANS BUT NOT LESS THAN 6X6-W1.4XW1.4 WWR
2. STEEL FIBERS: UNO STEEL FIBERS MAY BE USED TO SUBSTITUTE WWR WHEN ADDED TO CONCRETE CONFORMING TO ASTM C1116, TYPE I. DOSAGE RATES SHALL BE DETERMINED BY THE FIBER MANUFACTURER FOR THE APPLICATION, BUT NOT LESS THAN 25 LB/CU. YD.
3. MACROSYNTHETIC FIBERS: UNO MACROSYNTHETIC FIBERS MAY BE USED TO SUBSTITUTE WWR WHEN ADDED TO CONCRETE CONFORMING TO ASTM C1116, TYPE III. DOSAGE RATES SHALL BE DETERMINED BY THE FIBER MANUFACTURER FOR THE APPLICATION, BUT NOT LESS THAN 4 LB/CU YD.
G. CONCRETE FOR SLAB-ON-GRADE SHALL BE REINFORCED FOR TEMPERATURE OR SHRINKAGE BY ONE OF THE FOLLOWING METHODS:
1. WWR: WELDED WIRE REINFORCEMENT AS SPECIFIED ON PLANS.
2. FIBERS: UNO STEEL FIBERS OR MACROSYNTHETIC FIBERS MAY BE USED TO SUBSTITUTE WWR. DOSAGE RATES SHALL BE DETERMINED BY THE FIBER MANUFACTURER FOR THE APPLICATION, BUT NOT LESS THAN 33 LB/CU YD. FOR STEEL FIBERS OR 3 LB/CU YD. FOR MACROSYNTHETIC FIBERS.
H. REINFORCEMENT DETAILING:
1. REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI 315.
2. DEVELOPMENT AND SPLICE LENGTHS ARE IN TENSION UNLESS OTHERWISE INDICATED AND SHALL BE AS TABULATED IN THE SPLICE LENGTH TABLE, UNLESS OTHERWISE INDICATED.
3. LAP WWR ONE CROSSWIRE SPACING PLUS 2".
4. PROVIDE CORNER BARS AT ALL FOOTINGS AND WALL INTERSECTIONS TO MATCH HORIZONTAL REINFORCING SIZE AND SPACING. AT INTERSECTIONS OF CONTINUOUS SPREAD FOOTINGS EXTEND ALL BARS TO FAR SIDE OF INTERSECTING FOOTING
5. REINFORCEMENT SHALL BE SECURELY PLACED TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT. PROVIDE THE FOLLOWING CONCRETE COVER FOR REINFORCING [ACI 318 SECTION 7.7 AND IBC TABLE 720.1], UNLESS SPECIFICALLY DETAILED OTHERWISE:
a. CAST AGAINST EARTH 3"
b. EXPOSED TO EARTH/WEATHER
#6 THRU #18 2"
#5 & SMALLER 1 1/2"
c. SLABS, WALLS, JOISTS
#11 & SMALLER 3/4"
7. PROVIDE DOWELS TO MATCH REINFORCEMENT SIZE AND SPACING INDICATED FOR ALL STRUCTURAL ELEMENTS, UNLESS OTHERWISE INDICATED.
I. FOUNDATION WALLS, GRADE BEAMS AND FOOTINGS SHALL BE CAST IN ALTERNATE PANELS NOT TO EXCEED 60'-0" IN LENGTH. SHEAR KEYS SHALL BE PROVIDED AT EACH CONSTRUCTION JOINT AND SHALL BE LOCATED AT 1/3 POINTS OF SPANS. .
J. SLABS AND BEAMS OR JOISTS SHALL BE CAST MONOLITHICALLY UNLESS OTHERWISE INDICATED.
K. CHAMFER ALL PERMANENTLY EXPOSED CONCRETE EDGES 3/4 INCH, UNO.
L. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR LOCATIONS OF OPENINGS AND SLEEVES IN CONCRETE WALLS AND SUPPORTED FLOORS. SPREAD REINFORCEMENT AT OPENINGS AND SLEEVES UNLESS OTHERWISE SHOWN. DO NOT CUT REINFORCEMENT. SEE TYPICAL REINFORCEMENT DETAILS FOR OPENINGS IN SLABS AND WALLS FOR ADDITIONAL REQUIREMENTS.
M. NO HOLES OR OPENINGS THROUGH FOUNDATION WALLS AND/OR FOOTINGS WITHOUT ENGINEER'S APPROVAL.
N. ALUMINUM SHALL NOT BE EMBEDDED IN ANY CONCRETE.

V. STRUCTURAL STEEL

A. ALL HOT ROLLED STEEL PLATES, SHAPES, SHEET PILING, AND BARS SHALL BE NEW STEEL CONFORMING TO ASTM SPECIFICATION A6-98A.
B. STRUCTURAL STEEL SHALL BE AS FOLLOWS, U.N.O.:
1. WIDE FLANGE SHAPES ASTM A992 FY = 50 KSI
2. STRUCTURAL RECTANGULAR TUBING ASTM A500 GRADE B FY = 46 KSI
3. ALL OTHER STRUCTURAL STEEL ASTM A36 FY = 36 KSI
4. CONNECTION MATERIALS:
a. BEAM COLUMN STIFFENER PLATES AND DOUBLER PLATES: ASTM A572 GRADE 50
b. ALL OTHER CONNECTION MATERIAL, U.N.O.: ASTM A36 UNLESS A HIGHER GRADE OF STEEL IS REQUIRED BY STRENGTH AND PROVIDED THE RESULTING SIZES ARE COMPATIBLE WITH THE CONNECTED MEMBERS.
8. ASTM A572 GRADE 50 IS ACCEPTABLE AS A SUBSTITUTE FOR A992
C. STRUCTURAL STEEL SHALL MEET THE LATEST AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
D. THE CENTERLINES OF ALL COLUMNS AND BEAMS SHALL BE LOCATED ON COLUMN LINES UNLESS OTHERWISE SHOWN.
E. CONNECTIONS:
1. BOLTS SHALL BE A325N TYPE 1, UNLESS OTHERWISE INDICATED.
2. ALL BOLTS SHALL BE SNUG TIGHT U.N.O. BOLTS SHALL BE TIGHTENED UNTIL ALL PLIES OF THE JOINT ARE IN FIRM CONTACT.
3. BOLTS THAT ARE DESIGNATED AS SLIP CRITICAL SHALL BE FULLY TENSIONED TO THE MINIMUM LOADS AS INDICATED IN THE "SPECIFICATION OF STRUCTURAL JOINTS USING ASTM325 OR A490 BOLTS".
4. ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE 36, UNLESS NOTED OTHERWISE.
5. THREADED RODS SHALL CONFORM TO ASTM A36
6. BOLTED MOMENT CONNECTIONS SHALL BE SLIP-CRITICAL CONNECTIONS. OTHER CONNECTIONS SHALL BE BEARING CONNECTIONS WITH THREADS INCLUDED IN SHEAR PLANES.
7. WELDING SHALL CONFORM TO THE STANDARDS SET FORTH IN AWS PUBLICATION, "WELDING IN BUILDING CONSTRUCTION".
8. UNLESS NOTED OTHERWISE, ELECTRODES FOR WELDING SHALL CONFORM TO E70XX (SMAW), F7XX-EXXX (SAW), ER70S-X (GMAW), OR E7XT-X (FCAW).
9. WELDS INDICATED "CJP" SHALL BE COMPLETE JOINT PENETRATION GROOVE WELDS. FABRICATOR SHALL PRODUCE COMPLETE JOINT PENETRATION GROOVE WELDS WHICH CONFORM TO ALL AWS D1.1 QUALIFIED WELD REQUIREMENTS AND WHICH ARE APPLICABLE TO THE SPECIFIC CONDITIONS SHOWN.
10. ALL ERECTION DRAWINGS SHALL SHOW ALL FIELD WELDS REQUIRED.
11. ALL STEEL BEAMS BEARING ON MASONRY TO HAVE MINIMUM OF 8" BEARING LENGTH.
12. CONNECTION DETAILS NOT COMPLETELY DETAILED ON THE DRAWINGS SHALL BE DESIGNED BY THE CONTRACTOR'S ENGINEER TO RESIST FORCES INDICATED ON THE DRAWINGS. INDICATED FORCES ARE BASED ON FACTORED LOADS AND ARE INTENDED FOR USE WITH THE LOAD AND RESISTANCE FACTOR DESIGN METHOD. WHERE NONE ARE INDICATED, BEAMS SHALL BE DESIGNED FOR AN END REACTION EQUAL TO 1/2 OF THE TOTAL UNIFORM LOAD CAPACITY TABULATED IN THE UNIFORM LOAD TABLES OF THE AISC MANUAL. THE CONTRACTOR SHALL EMPLOY THE ASSISTANCE OF A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT. DESIGN CALCULATIONS FOR THE CONNECTIONS DESIGNED BY THE SPECIALTY ENGINEER SHALL BE SUBMITTED FOR THE FILES OF THE ARCHITECT AND ENGINEER. CALCULATIONS SHALL BEAR THE SEAL OF THE PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT. SHOP DRAWINGS CONTAINING CONNECTIONS FOR WHICH CALCULATIONS HAVE NOT BEEN RECEIVED WILL BE RETURNED UNCHECKED AS AN INCOMPLETE SUBMITTAL. CONNECTIONS ECCENTRICITY SHALL BE TAKEN INTO ACCOUNT WHEN DESIGNED AND DETAILING THE CONNECTION.
F. WHERE THE WORK OF OTHER TRADES REQUIRES CUTS, HOLES, ETC., IN STRUCTURAL STEEL MEMBERS, CUTS, HOLES, ETC., SHALL BE MADE IN THE SHOP AND SHALL BE SHOWN ON THE SHOP DRAWINGS. MAKING HOLES OR CUTS IN STRUCTURAL STEEL MEMBERS IN THE FIELD WILL NOT BE PERMITTED WITHOUT SPECIFIC APPROVAL OF THE ENGINEER.
G. ALL EXPOSED TO VIEW MEMBERS SHALL MEET THE REQUIREMENTS OF AISC FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL.
H. BAR GRATINGS SHALL BE STEEL 1 1/2 x 3/16 GALVANIZED GRATING. GRATING SHALL BE CLAMPED TO SUPPORT BEAMS WITH GALVANIZED CLAMPS THAT DO NOT REQUIRE DRILLING OF BEAMS. EDGES AND OPENINGS IN GRATING MORE THAN 4" IN DIAMETER SHALL BE BANDED.
I. GROUT BELOW BASE PLATES SHALL BE NON-METALLIC, NON-SHRINK GROUT WITH A MINIMUM STRENGTH OF 6000 PSI WHEN BEARING ON 3000 PSI CONCRETE OR LESS, STRENGTH OF 8000 PSI WHEN BEARING ON CONCRETE BETWEEN 3000 AND 4000 PSI.
J. ALL STRUCTURAL STEEL SHALL BE SHIPPED WITH ONE COAT OF SHOP PRIMER EXCEPT THOSE MEMBERS THAT ARE GALVANIZED OR IN AREAS SCHEDULED TO RECEIVE FIRE PROOFING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AREAS TO BE FIRE PROOFED.

VI. DECKING

A. PROVIDE DECK IN LENGTHS ADEQUATE FOR A THREE-SPAN CONDITION WHERE POSSIBLE.
B. THE CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL OPENINGS, SLEEVES, INSERTS, ETC., WITH SHOP DRAWINGS OF THE EQUIPMENT TO BE INSTALLED.
C. STEEL DECK SHALL BE ATTACHED TO ALL MEMBERS ON WHOM IT BEARS.

VII. METAL STUD FRAMING

A. FABRICATION, AND ERECTION SHALL CONFORM TO AISI "SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS", LATEST EDITION. ALL METAL STUDS SHALL BE GALVANIZED.
B. ALL 33 MIL AND 43 MIL STUDS, JOISTS, TRACK, BRIDGING, END CLOSURES, AND ACCESSORIES SHALL BE FORMED FROM STEEL THAT CORRESPONDS TO THE REQUIREMENTS OF AISI "SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS" WITH A MINIMUM YIELD OF 33 KSI U.N.O. ALL 54 MIL AND THICKER MEMBERS SHALL HAVE A MINIMUM YIELD OF 50 KSI.
C. ALL MATERIAL AND ACCESSORIES SHALL BE FORMED FROM STEEL HAVING A G-60 GALVANIZED COATING MEETING ASTM A 635.
D. UNLESS NOTED OTHERWISE, ALL SCREWS OR PINS SHALL BE NON-CORROSIVE NO. 8-18 (D=.125") OR LARGER. DO NOT USE STAINLESS STEEL OR COPPER-COATED FASTENERS.
E. UNLESS NOTED OTHERWISE, TRACKS SHALL BE THE SAME DEPTH AS STUDS OR JOISTS AND OF EQUAL OR THICKER GAUGE THAN STUDS OR JOISTS. TRACKS SHALL BE CONNECTED TO SUPPORT AT 16" O.C. MAX. STUDS OR JOISTS SHALL BE CONNECTED TO TRACKS AT EACH SIDE.
F. THE QUANTITY OF STUDS AND JOISTS DISPLACED OR CUT FOR OPENING SHALL BE PLACED HALF ON EACH SIDE OF OPENING PER METAL STUD HEADER SCHEDULE ON THIS SHEET.
G. INSTALLATION OF CURTAIN WALL FRAMING SHALL ACCOMMODATE VERTICAL DISPLACEMENT OF THE PRIMARY STRUCTURE.
H. THE DESIGN OF SLIP TRACKS SHALL CONFORM TO GUIDELINES ESTABLISHED IN SSMA TECHNICAL NOTE NO. 1 PUBLISHED JAN. 2001.
I. PROVIDE THE MANUFACTURER'S STANDARD TRACK, CLIP ANGLES, BRACING, REINFORCEMENTS, FASTENERS, AND ACCESSORIES AS RECOMMENDED BY THE MANUFACTURER FOR THE APPLICATION INDICATED AND AS NEEDED TO PROVIDE A COMPLETE FRAMING SYSTEM. UNLESS OTHERWISE NOTED, INSTALL THE FRAMING SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND RECOMMENDATIONS.
J. WALL SHEATHING SHALL BE FASTENED TO SUPPORTING FRAMING WITH NO. 10, FLAT-HEAD SELF-DRILLING TAPPING SCREWS WITH A MINIMUM HEAD DIAMETER OF 0.333 INCHES AT THE SPACING INDICATED BELOW UNLESS NOTED OTHERWISE IN THE SHEAR WALL SCHEDULE:
1. WALL EDGE ____________ 6"OC
2. SUPPORTED PANEL EDGES AWAY FROM EDGE OF WALL ______ 6"OC
3. CENTER OF PANELS ____________ 12"OC
K. PREPUNCHED HOLES SHALL NOT BE LOCATED WITHIN 10 INCHES OF THE STUD SUPPORT LOCATIONS.
L. USE FLUX COVERED, MILD STEEL ELECTRODES AWS E-6012, E-6013, OR E-7014 FOR WELDING STEEL STUDS. ALL WELDING SHALL BE PERFORMED IN ACCORDANCE AWS PROCEDURES. CONSULT MANUFACTURER FOR EQUIPMENT RECOMMENDATIONS AND PROPER ELECTRODE SELECTION. TOUCH UP WELDED AREAS WITH A ZINC RICH PAINT.

VIII. SUBMITTALS

A. THE GENERAL CONTRACTORS SHALL REVIEW AND STAMP ALL SHOP DRAWINGS BEFORE SUBMITTING FOR REVIEW. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT AND/OR ENGINEER AND HAVE THE ENGINEER'S SHOP DRAWING STAMP AFFIXED PRIOR TO FABRICATION. FABRICATION AND ERECTION SHALL BE FROM REVIEWED SHOP DRAWINGS.
B. A RECORD SET OF APPROVED SHOP DRAWINGS SHALL BE KEPT IN THE FIELD BY THE GENERAL CONTRACTOR.
C. ANY DEVIATION FROM, ADDITION TO, SUBSTITUTION FOR, OR MODIFICATION TO THE STRUCTURE OR ANY PART OF THE STRUCTURE DETAILED ON THE CONTRACT DOCUMENTS SHALL BE SUBMITTED IN WRITING TO THE ENGINEER FOR REVIEW. SHOP DRAWINGS SUBMITTED FOR REVIEW DO NOT CONSTITUTE "IN-WRITING" UNLESS IT IS CLEARLY NOTED THAT SPECIFIC CHANGES ARE BEING SUGGESTED.
D. THE CONTRACTOR SHALL PREPARE A LIST AND SCHEDULE OF ALL STRUCTURAL SUBMITTALS PRIOR TO CONSTRUCTION.
E. THE FOLLOWING SHOP DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR FOR THE ENGINEER'S REVIEW:
1. MISCELLANEOUS STEEL
2. STRUCTURAL STEEL, SHOP AND ERECTION DRAWINGS (1, 3)
3. ROOF METAL DECK
4. CONCRETE MIX DESIGNS
5. REINFORCING STEEL
F. ITEMS MARKED (1) SHALL HAVE SHOP DRAWINGS SEALED BY A REGISTERED ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED. ITEMS MARKED (2) SHALL BE SUBMITTED TO ENGINEER FOR OWNER'S RECORD ONLY AND WILL NOT HAVE THE ENGINEER'S SHOP DRAWING STAMP AFFIXED. ITEMS MARKED (3) SHALL HAVE DESIGN CALCULATIONS SEALED BY A REGISTERED ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED.
1. CONTRACTOR SHALL SUBMIT ONE SET OF REPRODUCIBLES AND TWO SETS OF PRINTS FOR ALL SHOP DRAWINGS SPECIFIED TO BE RETURNED BY THE ENGINEER.
2. THE OMISSION FROM THE SHOP DRAWINGS OF ANY MATERIALS REQUIRED BY THE CONTRACT DOCUMENTS TO BE FURNISHED SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF FURNISHING AND INSTALLING SUCH MATERIALS, REGARDLESS OF WHETHER THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED.
G. THE USE OF ELECTRONIC FILES OR REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES THEIR ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES THEMSELVES TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREON.

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IX. SPECIAL INSPECTION AND TESTING (CHAPTER 17)

A. ALL TESTS AND INSPECTIONS SHALL BE PERFORMED BY AN INDEPENDENT TESTING AND INSPECTION AGENCY. THE SPECIAL INSPECTOR FROM THIS TESTING AGENCY SHALL OBSERVE THE WORK FOR CONFORMANCE TO THE DESIGN DRAWINGS AND SPECIFICATIONS.
B. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OR ARCHITECT OF RECORD, AND ALL OTHER DESIGNATED INDIVIDUALS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF NOT CORRECTED, TO THE PROPER DESIGN AUTHORITY AND TO THE BUILDING OFFICIAL.
C. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED DESIGN DRAWINGS, SPECIFICATIONS, SOILS REPORT AND APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE.
D. MASONRY WORK SHALL HAVE SPECIAL INSPECTION AS DEFINED BY THE AFOREMENTIONED BUILDING CODE.
E. SEE SCHEDULE OF SPECIAL INSPECTIONS LOCATED ON SHEET S2.0.

PROTECTION OF OPENINGS:

GLAZED OPENINGS IN BUILDINGS LOCATED WITHIN 1 MILE OF THE COASTAL MEAN HIGH WATER LINE WHERE THE ULTIMATE DESIGN WIND SPEED VULT IS 130 OR GREATER OR IN AREAS WHERE THE ULTIMATE DESIGN WIND SPEED VULT IS 140 MPH OR GREATER SHALL BE PROTECTED FROM WIND-BORNE DEBRIS. GLAZED OPENING PROTECTION FOR WIND-BORNE DEBRIS SHALL MEET THE REQUIREMENTS OF SSTD 12, ASTM E 1886 AND ASTM E 1996 WITH MODIFICATIONS PER SECTION 1609.1.2.4 OF THE FBC, OR TAS 201, 202 AND 203 OR AAMA 506 REFERENCED THEREIN.

1. GLAZED OPENINGS LOCATED WITHIN 30 FEET OF GRADE SHALL MEET THE REQUIREMENTS OF THE LARGE MISSILE TEST OF ASTM E 1996.
2. GLAZED OPENINGS LOCATED MORE THAN 30 FEET ABOVE GRADE SHALL MEET THE PROVISIONS OF THE SMALL MISSILE TEST OF ASTM E 1996.

FOR RISK CATEGORY II BUILDINGS AND III BUILDINGS, EXCEPT HEALTH CARE FACILITIES, THE ULTIMATE DESIGN WIND SPEED VULT SHALL BE BASED ON FIGURE 1609A AND FOR RISK CATEGORY IV BUILDINGS AND RISK CATEGORY III HEALTH CARE FACILITIES, ULTIMATE DESIGN WIND SPEED VULT SHALL BE BASED ON FIGURE 1609B.

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SHELTER COVE TOWNE CTR-BLDG. 104
SHELTER COVE LANE
HWY. 278, MILE MARKER 8
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BLDG. 104

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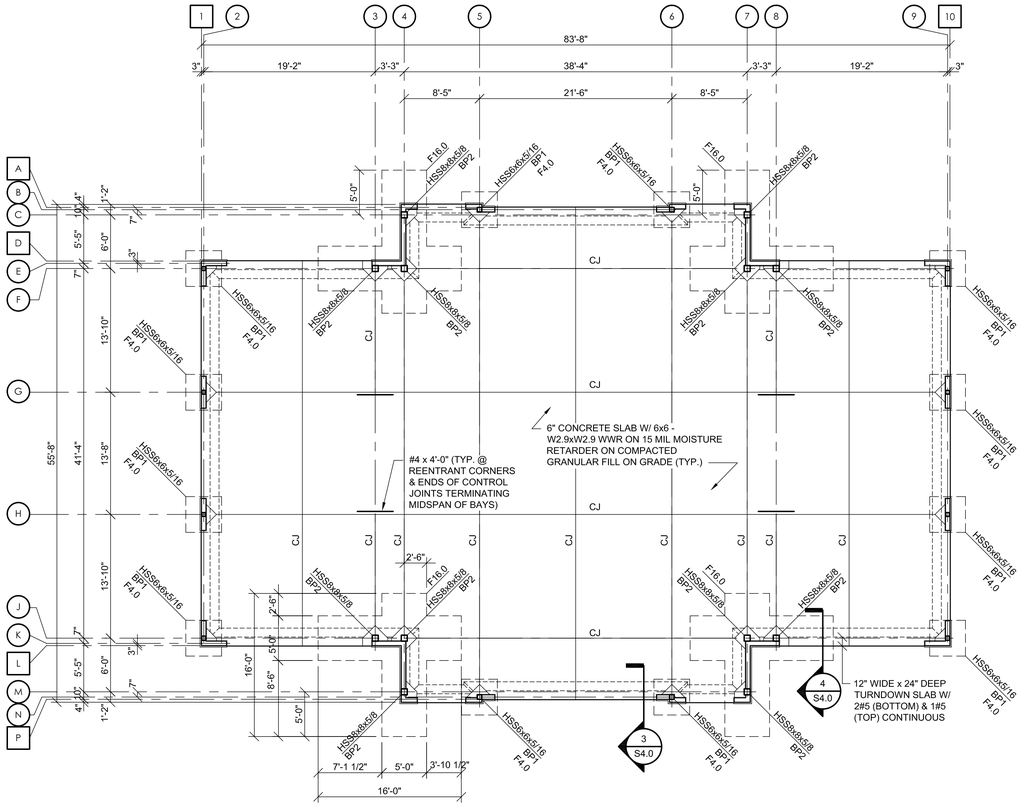
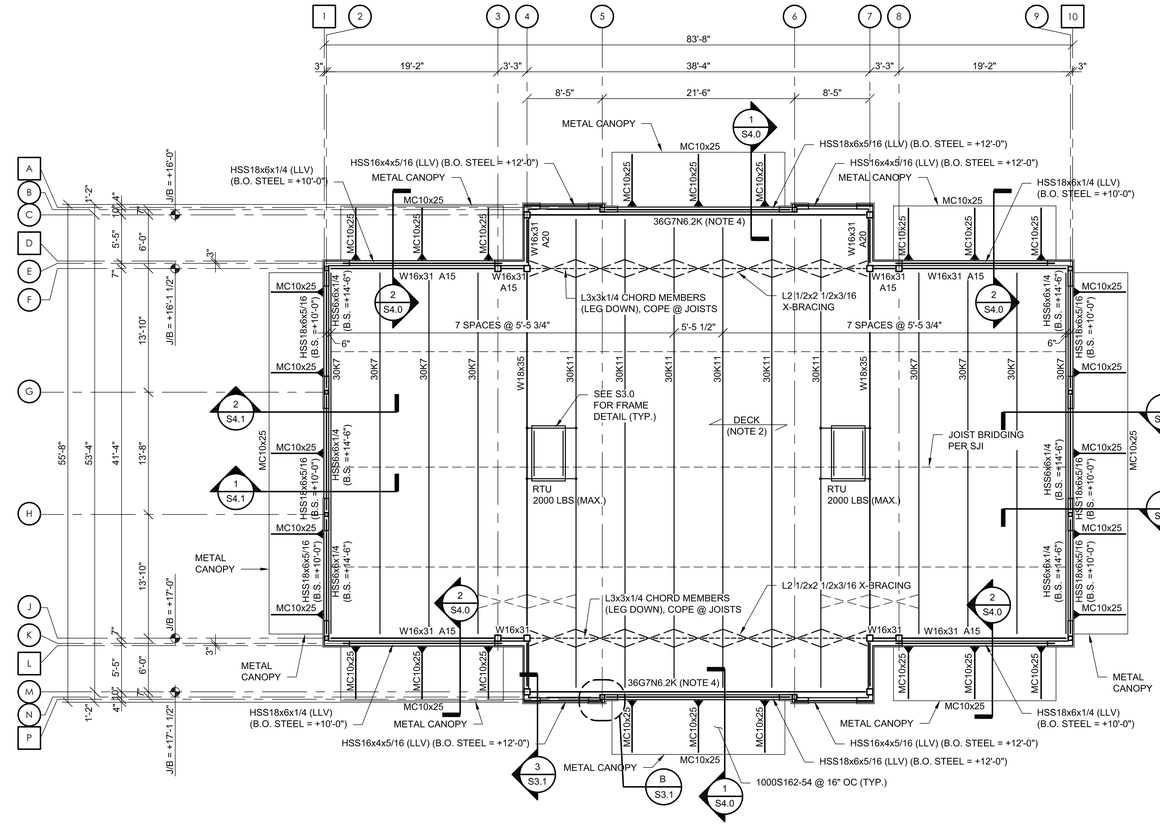
General Notes



FOUNDATION PLAN

N

SCALE: 1/8"=1'-0"
FIN. FLR. EL. = 0'-0"
CJ DENOTES CONTROL JOINT OR CONSTRUCTION JOINT, REFERENCE SHEET S3.0 FOR DETAILS
TOP OF FTG. EL. = -2'-0" (TYP. U.N.O.)
F# DENOTES FOOTING TYPE. REFERENCE SCHEDULE THIS SHEET
REFER TO S3.0 FOR BASE PLATE & ANCHOR BOLT DETAILS



ROOF FRAMING PLAN

N

SCALE: 1/8"=1'-0"
J/B = JOIST BEARING

NOTE:
1. ROOF MEMBERS NEED TO BE DESIGNED WITH RTU UNITS LOCATED AS SHOWN. THE MAXIMUM UNIT WEIGHT IS 1000 LBS. (TYP. U.N.O.)
2. PROVIDE 1 1/2" 22 GAGE GALVANIZED ROOF DECK. REFER TO DETAIL ON S3.0 FOR DECK FASTENING.
3. JOIST MANUFACTURER TO DESIGN PERIMETER JOIST GIRDERS AND JOIST FOR AN ADDITIONAL 250 LBS PER FOOT DEAD LOAD.
4. JOIST MANUFACTURER TO DESIGN JOIST GIRDER FOR A 3/4" MAXIMUM LIVE LOAD DEFLECTION.
5. ▶— DENOTES MOMENT CONNECTION.
6. CONTACT ENGINEER IF RTU WEIGHT EXCEEDS 2000 LBS. EACH.

COLUMN FOOTING SCHEDULE

MARK	SIZE	THICKNESS	REINFORCING
F16.0	SEE PLAN	30"	SEE DETAIL A/S3.1
F4.0	4'-0" x 4'-0"	12"	(4) #5 EACH WAY

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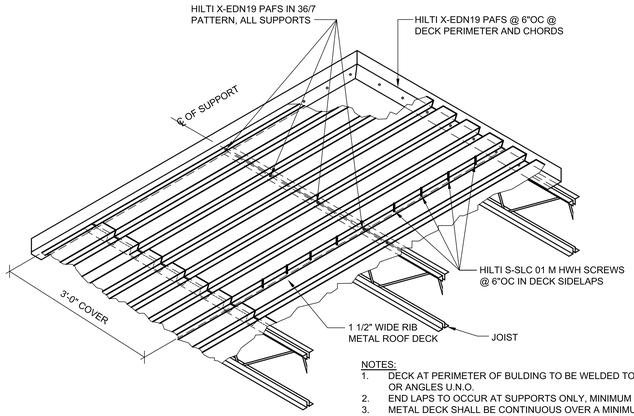
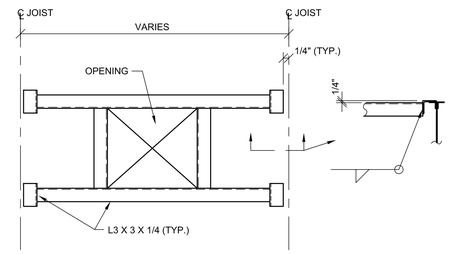
Foundation and Roof Framing Plans



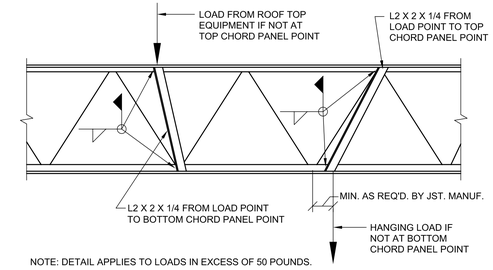
NOTES:
1. DECK AT PERIMETER OF BULDING TO BE WELDED TO BEAMS OR ANGLES U.N.O.
2. END LAPS TO OCCUR AT SUPPORTS ONLY, MINIMUM LAP = 2".
3. METAL DECK SHALL BE CONTINUOUS OVER A MINIMUM OF 2 SPANS.
4. BUTT WELD ALL SPLICES AT PERIMETER ANGLE.

ROOF DECK FASTENING PATTERN

3/4" = 1'-0"

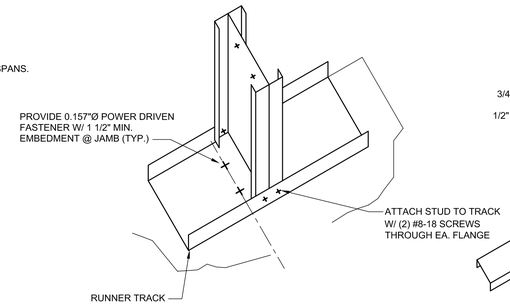


SQUARE OR RECT. FRAME DETAIL

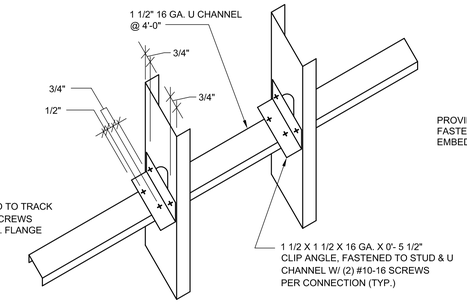


NOTE: DETAIL APPLIES TO LOADS IN EXCESS OF 50 POUNDS.

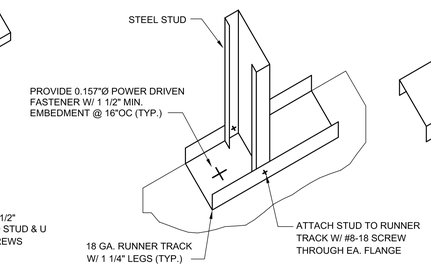
TYP. ROOF-TOP EQUIPMENT SUPPORT & HANGER SUPPORT DETAIL



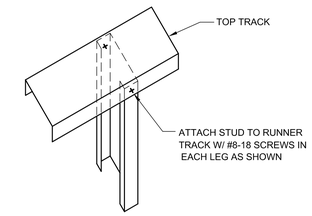
ANCHORAGE AT JAMBS



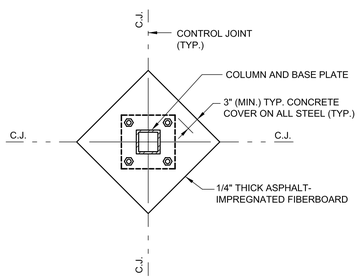
LATERAL BRIDGING



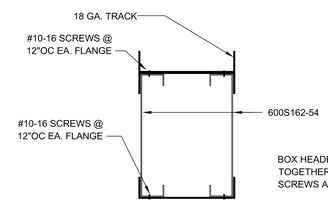
RUNNER TRACK ANCHORAGE



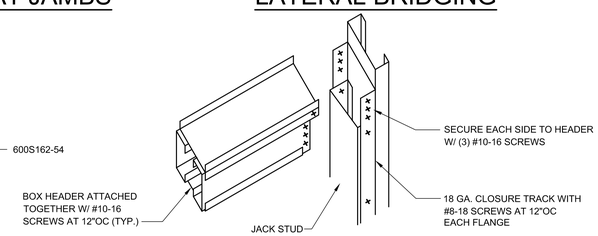
STUD TO TOP TRACK CONNECTION



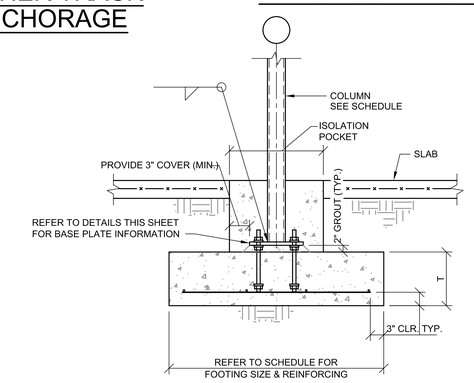
TYP. COL. ISOLATION JOINT



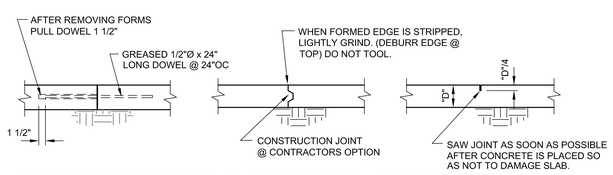
BOXED HEADER DETAIL



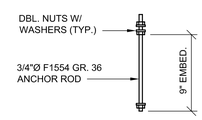
HEADER BOX CONNECTION



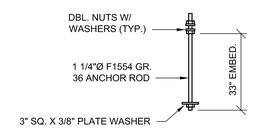
TYPICAL ISOLATION POCKET



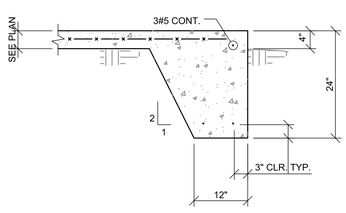
CONSTRUCTION & CONTROL JOINT DETAILS



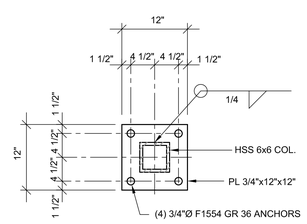
TYP. ANCHOR ROD DETAIL



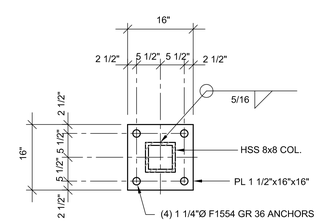
TYP. ANCHOR ROD DETAIL



TYPICAL TURNDOWN DETAIL



BP1



BP2

BASE PLATE DETAILS

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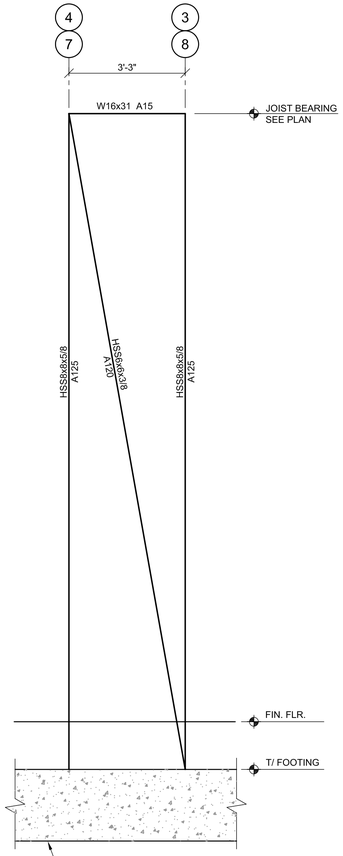
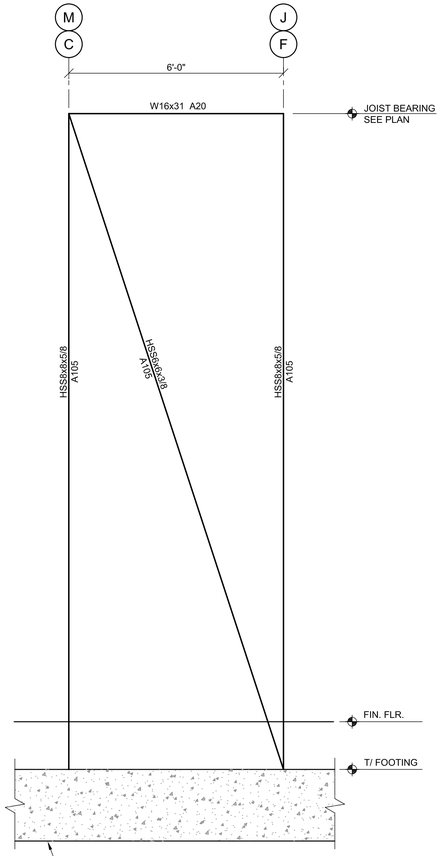
S3.0

Typical Details

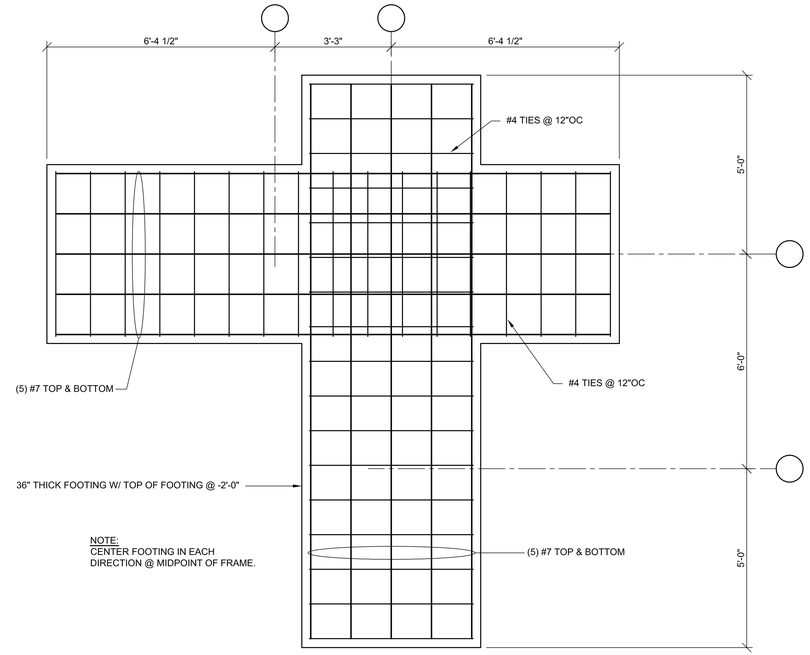


NOTE:
LOADS SHOWN ARE
FACTORED LOADS.



BRACED FRAME ELEVATIONS

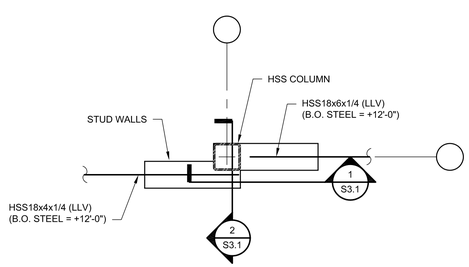
1/2" = 1'-0"



NOTE:
CENTER FOOTING IN EACH
DIRECTION @ MIDPOINT OF FRAME.

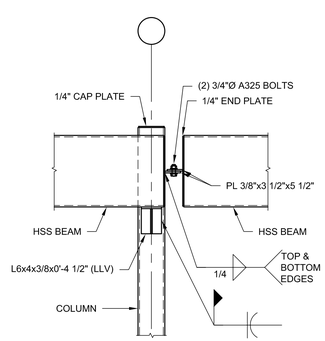
COLUMN FOOTING F16.0 DETAIL

1/2" = 1'-0" (A / S3.1)



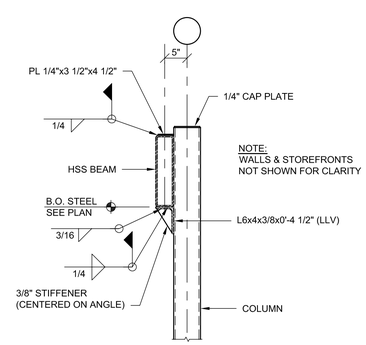
DETAIL

3/4" = 1'-0" (B / S3.1)



SECTION

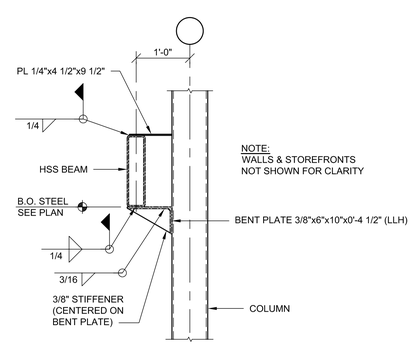
3/4" = 1'-0" (1 / S3.1)



NOTE:
WALLS & STOREFRONTS
NOT SHOWN FOR CLARITY

SECTION

3/4" = 1'-0" (2 / S3.1)



NOTE:
WALLS & STOREFRONTS
NOT SHOWN FOR CLARITY

SECTION

3/4" = 1'-0" (3 / S3.1)

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S3.1

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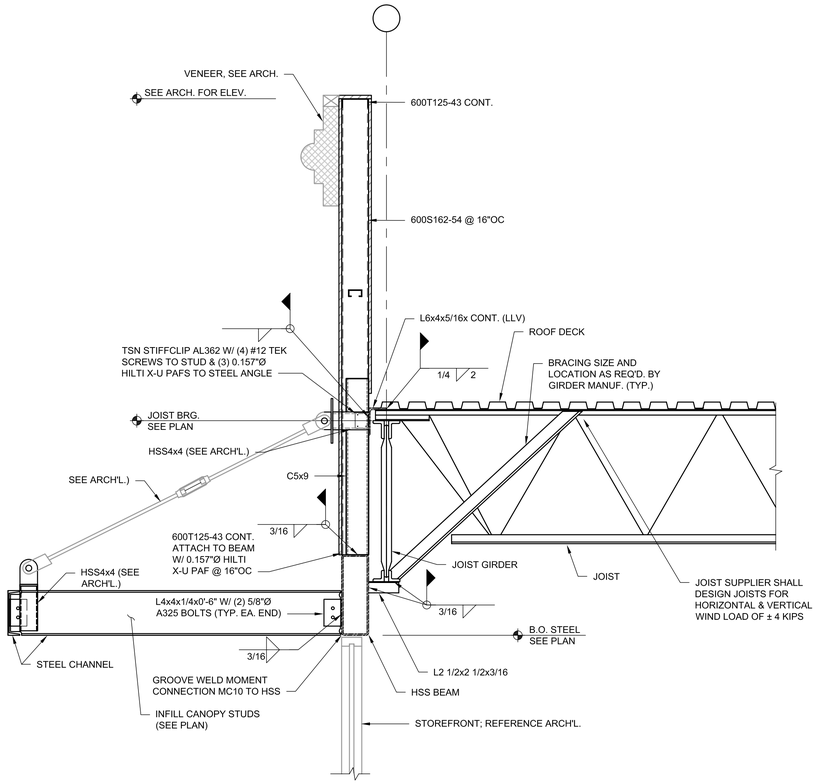
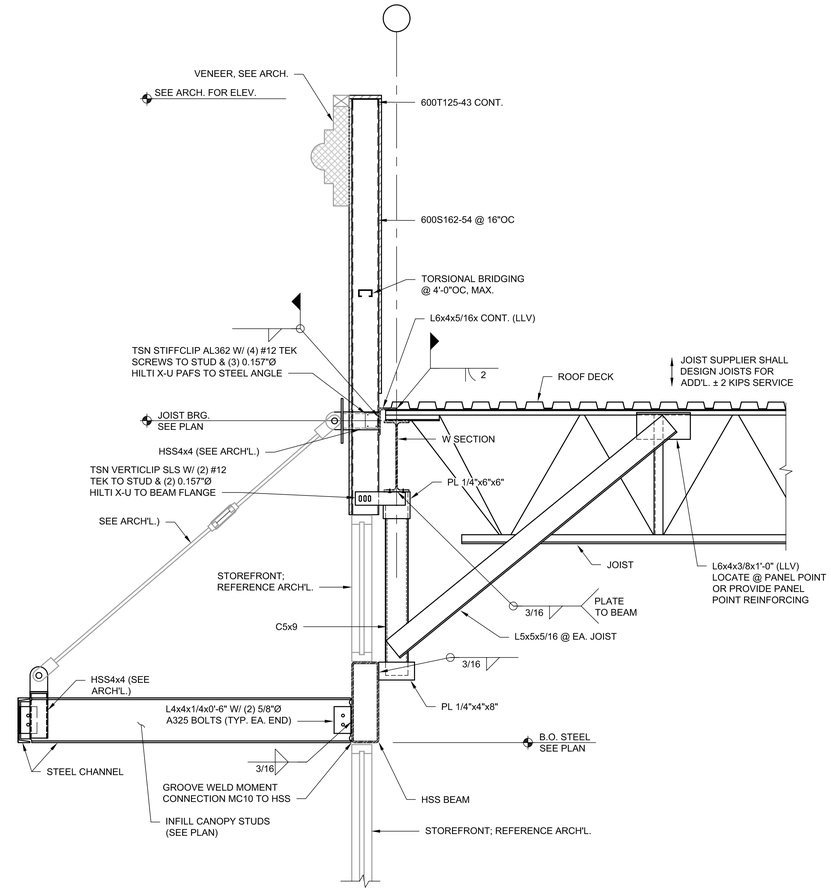
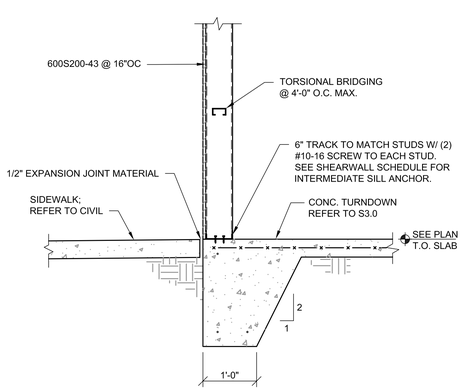


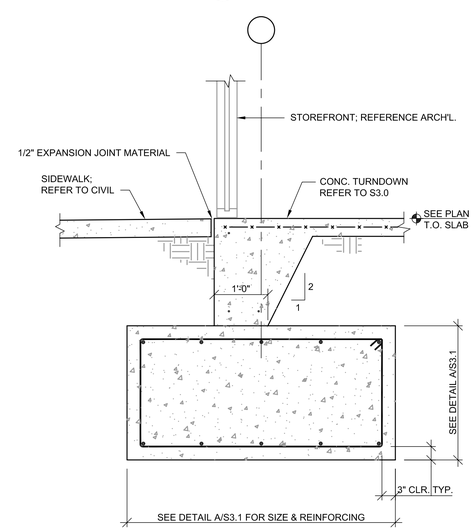
SECTION 1 S4.0
3/4" = 1'-0"



SECTION 2 S4.0
3/4" = 1'-0"



SECTION 3 S4.0
3/4" = 1'-0"



SECTION 3 S4.0
3/4" = 1'-0"

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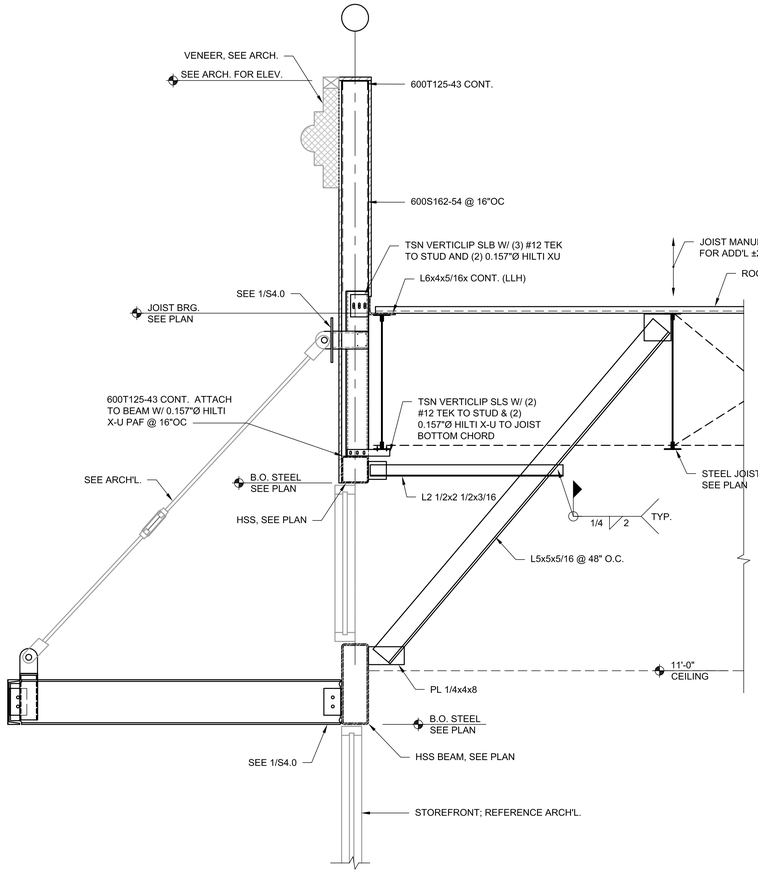
BPA Job No. 13421

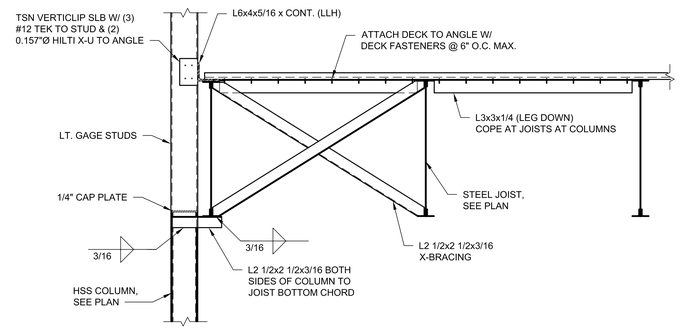
SHELTER COVE
BLDG. 104

S4.0

Sections



SECTION 1 / S4.1
3/4" = 1'-0"



SECTION 2 / S4.1
3/4" = 1'-0"

NARRAMORE ASSOCIATES, INC.
Architects & Planners
AMERICAN INSTITUTE OF ARCHITECTS
P.O. Box 8438 Greenville, SC 29604
310 Mills Ave. Greenville, SC 29605
Phone: 864.242.9881
Fax: 864.232.5202
plans@narramore-architects.com
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SEAL

Britt, Peters & Associates, Inc.
No. C00781
CERTIFICATE OF AUTHORIZATION
SOUTH CAROLINA
3-26-14
STEVEN C. DOVER

Blanchard & Calhoun COMMERCIAL
2743 PERIMETER PKWY
BLDG 100 STE 370
AUGUSTA, GA 30909

SHELTER COVE TOWNE CTR-BLDG. 104
SHELTER COVE LANE
HWY. 278, MILE MARKER 8
HILTON HEAD ISLAND, SC 29928

REVISIONS

DOCUMENT DATA
Building 104
PROJECT NUMBER
13916
ISSUE DATE
03-26-14

BRITT PETERS AND ASSOCIATES INC.
consulting engineers
101 W. Camperdown Way
Suite 601
Greenville, SC 29601
(864) 271-8869
Fax (864) 233-5140
www.brittpeters.com
BPA Job No. 13421

SHELTER COVE
BLDG. 104

S4.1

Sections

DESIGN TEAM/DRB COMMENT SHEET

The comments below are staff recommendations to the Design Review Board (DRB) and do NOT constitute DRB approval or denial.

PROJECT NAME: Shelter Cove Towne Centre Building 104 – ALTERATION/ADDITION

DRB#: DR 140020

DATE: April 22, 2014

RECOMMENDATION: Approval ☐ Approval with Conditions ☒ Denial ☐

ARCHITECTURAL DESIGN

DESIGN GUIDE/LMO CRITERIA	Complies Yes	No	Not Applicable	Comments or Conditions
Structure is designed to be appropriate to the neighborhood	☒	☐	☐	
Promotes pedestrian scale and circulation	☒	☐	☐	
Design is unobtrusive and set into the natural environment	☐	☐	☒	
Utilizes natural materials and colors	☒	☐	☐	
Avoids distinctive vernacular styles	☒	☐	☐	
Design is appropriate for its use	☒	☐	☐	
All facades are have equal design characteristics	☒	☐	☐	
Avoids monotonous planes or unrelieved repetition	☒	☐	☐	
Has a strong roof form with enough variety to provide visual interest	☒	☐	☐	
Minimum roof pitch of 6/12	☐	☒	☐	Flat roofs are generally discouraged per the Design Guide.
Overhangs are sufficient for the façade height.	☐	☒	☐	Little to no overhang. However metal awnings are proposed. Reconsider color of metal awnings.
Forms and details are sufficient to reduce the mass of the	☒	☐	☐	

structure				
Human scale is achieved by the use of proper proportions and architectural elements	☒	☐	☐	
Utilizes a variety of materials, textures and colors	☒	☒	☐	Board & Batten siding, shake siding, glass, metal; three shades of beige.
Incorporates wood or wood simulating materials	☒	☐	☐	
Windows are in proportion to the facade	☒	☐	☐	Note: some windows (windows above metal canopy & window on center of building) include spandrel glazing.
Details are clean, simple and appropriate while avoiding excessive ornamentation	☒	☐	☐	
Utilities and equipment are concealed from view	☒	☐	☐	
Decorative lighting is limited and low wattage and adds to the visual character	☐	☐	☐	No lighting shown on building. Provide cut sheets for any new lighting. Provide cut sheets for landscape & site lighting.
Accessory elements are design to coordinate with the primary structure	☐	☐	☐	None shown.

LANDSCAPE DESIGN – Provide an updated landscape plan based on required site plan changes (i.e. different door locations) for review & approval by the DRB.

NATURAL RESOURCE PROTECTION

DESIGN GUIDE/LMO CRITERIA	Complies Yes	No	Not Applicable	Comments or Conditions
An effort has been made to preserve existing trees and under story plants	☒	☐	☐	
Supplemental and replacement trees meet LMO requirements for size, species and number	☐	☐	☐	
Wetlands if present are avoided and the required buffers are maintained	☐	☐	☒	
Sand dunes if present are not disturbed	☐	☐	☒	

MISC COMMENTS/QUESTIONS

Project requires a written Notice of Action from the Shelter Cove ARB.

Town of Hilton Head Island

Community Development Department
One Town Center Court
Hilton Head Island, SC 29928
Phone: 843-341-4757 Fax: 843-842-8908
www.hiltonheadislandsc.gov

FOR OFFICIAL USE ONLY
Date Received:
Accepted by:
App. #: DR
Meeting Date:

Hardscapes, LLC dba The Green Thumb

Applicant/Agent Name: William Lynch Company: Hilton Head Landscapes
Mailing Address: 35 Dillon Rd City: Hilton Head State: SC Zip: 29926
Telephone: 8437151248 Fax: 8437579599 E-mail: frank@greenthumbhhi.com
Project Name: The Green Thumb Project Address: 35 Dillon Rd
Parcel Number [PIN]: R___ ___ ____ ____ _____ _____
Zoning District: _____ Overlay District(s): _____

DESIGN REVIEW BOARD (DR) SUBMITTAL REQUIREMENTS

Digital Submissions may be accepted via e-mail by calling 843-341-4757.

Project Category:

_____New Development – Conceptual
_____New Development – Final, indicate Project Number
X Alteration/Addition
_____Minor External Change

Submittal Requirements for ***All*** projects:

_____ Private Architectural Review Board (ARB) Notice of Action (if applicable): When a project is within the jurisdiction of an ARB, the applicant shall submit such ARB's written notice of action per LMO Section 16-3-1004. Submitting an application to the ARB to meet this requirement is the responsibility of the applicant.

_____ Filing Fee, New Development $175, Alterations/Additions $100, Minor External $50 cash or check made payable to the Town of Hilton Head Island.

Additional Submittal Requirements:

New Development – Conceptual Approval

_____ A survey (1"=30' minimum scale) of property lines, existing topography and the location of trees meeting the tree protection regulations of Sec. 16-3-405, and if applicable, location of bordering streets, marshes and beaches.

_____A site analysis study to include specimen trees, access, significant topography, wetlands, buffers, setbacks, views, orientation and other site features that may influence design.

_____A draft written narrative describing the design intent of the project, its goals and objectives and how it reflects the site analysis results.

_____Context photographs of neighboring uses and architectural styles.

_____Conceptual site plan (to scale) showing proposed location of new structures, parking areas and landscaping.

_____Conceptual sketches of primary exterior elevations showing architectural character of the proposed development, materials, colors, shadow lines and landscaping.

Additional Submittal Requirements:

New Development – Final Approval

_____ A final written narrative describing how the project conforms with the conceptual approval and design review guidelines of Sec. 16-4-503.

_____ Final site development plan meeting the requirements of Sec. 16-3-303.F.

_____ Final site lighting and landscaping plans meeting the requirements of Sec. 16-3-304 and Sec. 16-3-305.

_____ Final floor plans and elevation drawings (1/8"=1'-0" minimum scale) showing exterior building materials and colors with architectural sections and details to adequately describe the project.

_____ A color board (11"x17" maximum) containing actual color samples of all exterior finishes, keyed to the elevations, and indicating the manufacturer's name and color designation.

_____ Any additional information requested by the Design Review Board at the time of concept approval, such as scale model or color renderings, that the Board finds necessary in order to act on a final application.

Additional Submittal Requirements:

Alterations/Additions *and* Minor External Changes *

_X_ A written narrative describing how project conforms to design guidelines of Section 16-4-503.

_X_ Photographs and/or drawings of existing development.

_X_ Drawings of the proposed development – 11"x 17".

_____ Material/color samples of existing and proposed changes - 8 ½"X 14" *Maximum*; Stating manufacturer and material name Mfg Sunblocker

Note: All application items must be received by the deadline date in order to be reviewed by the DRB per LMO Section 16-3-106.

A representative for each agenda item is strongly encouraged to attend the meeting.

Are there recorded private covenants and/or restrictions that are contrary to, conflict with, or prohibit the proposed request? If yes, a copy of the private covenants and/or restrictions must be submitted with this application. ☐ **YES** ☑ **NO**

To the best of my knowledge, the information on this application and all additional documentation is true, factual, and complete. I hereby agree to abide by all conditions of any approvals granted by the Town of Hilton Head Island. I understand that such conditions shall apply to the subject property only and are a right or obligation transferable by sale.

I further understand that in the event of a State of Emergency due to a Disaster, the review and approval times set forth in the Land Management Ordinance may be suspended.

SIGNATURE _____ DATE 4/8/14

THE GREEN THUMB
35 DILLON ROAD

We are requesting permission to erect a 30'x60' shade structure on part of the existing paved area at 35 Dillon Road.

The shade structure does not require a permit according to Richard Spruce as it does not have doors nor does it require heating or electric.

The shade structure consists of 1" galvanized pipe with a black nylon fabric that is attached to the pipe structure. Its purpose is to shade plant material that would otherwise perish in direct sun.

Thank you for your consideration.

Economical solution for your horticulture needs.

- Frame is constructed from 14-gauge, 1.66" OD USA-made, triple-galvanized structural steel tubing that offers maximum rust and corrosion resistance.
- 8'H legs.
- Block size: 10' x 10'.
- Design your own system. 5-way fittings offer infinite expandability.
- Covers are manufactured from black knitted polyethylene shade fabric (your choice of 40% to 80%) that does not rot, mildew or become brittle.
- Shade panels are fastened to frames with our 8" Snugger Tie-Downs.
- Covers can be removed easily during "off season."
- Anchoring systems are available below. Ask your National Account Manager which system is best for your needs.

SALE SALE SALE SALE SALE SALE SALE SALE SALE SALE SALE SALE SALE

SUNBLOCKER™ ECONOMY SHADE SYSTEMS

STK#	SIZE	SQ. FT.	EACH	SALE
1010F	10'W x 10'L	100	~~$ 569.00~~	$ 569.00
1020F	10'W x 20'L	200	~~875.00~~	875.00
1030F	10'W x 30'L	300	~~1,045.00~~	789.00
1040F	10'W x 40'L	400	~~1,195.00~~	905.00
1050F	10'W x 50'L	500	~~1,375.00~~	1,035.00
2020F	20'W x 20'L	400	~~1,345.00~~	1,009.00
2030F	20'W x 30'L	600	~~1,679.00~~	1,259.00
2040F	20'W x 40'L	800	~~2,015.00~~	1,519.00
2050F	20'W x 50'L	1,000	~~2,349.00~~	1,769.00
3030F	30'W x 30'L	900	~~2,515.00~~	1,885.00
3040F	30'W x 40'L	1,200	~~2,849.00~~	2,189.00
3050F	30'W x 50'L	1,500	~~3,189.00~~	2,395.00
4040F	40'W x 40'L	1,600	~~3,859.00~~	2,895.00
4050F	40'W x 50'L	2,000	~~4,365.00~~	3,275.00

Add 40, 50, 60, 70 or 80 to the end of the STK# for desired shade %.

SUNBLOCKER™ ECONOMY SHADE FRAME ONLY

STK#	SIZE	SQ. FT.	EACH
1010F	10'W x 10'L	100	$ 349.00
1020F	10'W x 20'L	200	509.00
1030F	10'W x 30'L	300	589.00
1040F	10'W x 40'L	400	765.00
1050F	10'W x 50'L	500	879.00
2020F	20'W x 20'L	400	765.00
2030F	20'W x 30'L	600	1,005.00
2040F	20'W x 40'L	800	1,205.00
2050F	20'W x 50'L	1,000	1,395.00
3030F	30'W x 30'L	900	1,579.00
3040F	30'W x 40'L	1,200	1,635.00
3050F	30'W x 50'L	1,500	1,885.00
4040F	40'W x 40'L	1,600	2,139.00
4050F	40'W x 50'L	2,000	2,395.00

Let SunBlocker™ shield plants, people and animals.

- Protect your profits. Shield tender young plants from sunscorch and windburn.
- Great as a carport and for outdoor events, too.
- Manufactured with 2.375" OD 14-gauge, USA-made, triple-galvanized structural steel tubing.
- Anchoring sold separately below. Use ground posts for soil or heavy-duty feet for concrete.
- No-hassle, straightforward assembly.
- Design your own system. 5-way fittings offer infinite expandability.
- Choose black knitted polyethylene 40% to 80% shade cloth.
- Need different shade densities in the same structure? No problem.
- Available in 10'W x 10'H x 20'L and 20'W x 10'H x 20'L sections.
- High enough to keep heat out and allow equipment in.

SALE SALE SALE SALE SALE SALE SALE SALE SALE SALE SALE SALE SALE

SUNBLOCKER™ ADD-A-BAY SHADE SYSTEMS 10'W X 10'H X 20'L BLOCKS

STK#	SIZE	SQ. FT.	EACH	SALE
1020SS	10'W x 20'L	200	~~$1,289.00~~	$ 975.00
1040SS	10'W x 40'L	400	~~2,135.00~~	1,549.00
1060SS	10'W x 60'L	600	~~2,849.00~~	2,139.00
2020SS	20'W x 20'L	400	~~1,969.00~~	1,475.00
2040SS	20'W x 40'L	800	~~3,185.00~~	2,395.00
2060SS	20'W x 60'L	1,200	~~4,365.00~~	3,275.00
3020SS	30'W x 20'L	600	~~2,625.00~~	1,969.00
3040SS	30'W x 40'L	1,200	~~4,495.00~~	3,155.00
3060SS	30'W x 60'L	1,800	~~5,875.00~~	4,415.00
4040SS	40'W x 40'L	1,600	~~5,795.00~~	4,355.00
4060SS	40'W x 60'L	2,400	~~8,059.00~~	6,055.00
4080SS	40'W x 80'L	3,200	~~10,075.00~~	7,569.00

Add 40, 50, 60, 70 or 80 to the end of the STK# for desired shade %.

SALE SALE SALE SALE SALE SALE SALE SALE SALE SALE SALE SALE SALE

SUNBLOCKER™ ADD-A-BAY SHADE SYSTEMS 20'W X 10'H X 20'L BLOCKS

STK#	SIZE	SQ. FT.	EACH	SALE
2020SS1	20'W x 20'L	400	$ ~~1,645.00~~	$ 1,239.00
2040SS1	20'W x 40'L	800	~~2,685.00~~	2,009.00
2060SS1	20'W x 60'L	1,200	~~3,689.00~~	2,769.00
4040SS1	40'W x 40'L	1,600	~~4,699.00~~	3,525.00
4060SS1	40'W x 60'L	2,400	~~6,379.00~~	4,795.00
4080SS1	40'W x 80'L	3,200	~~7,009.00~~	5,265.00
6060SS1	60'W x 60'L	3,600	~~9,235.00~~	6,935.00
6080SS1	60'W x 80'L	4,800	~~11,755.00~~	8,829.00
60100SS1	60'W x 100'L	6,000	~~13,939.00~~	10,549.00
100100SS1	100'W x 100'L	10,000	~~20,059.00~~	15,065.00
200200SS1	200'W x 200'L	40,000	~~69,965.00~~	52,179.00

Add 40, 50, 60, 70 or 80 to the end of the STK# for desired shade %.

Safely secures your ClearSpan™ building or canopy to any wood or concrete surface.

- Heavy-Duty Mounting Feet can be used on all surfaces.
- Accommodates two pipe sizes.
- 4" x 5-1/2" feet have four predrilled fastening holes.
- Use our Wedge Anchors (FAW515), sold below, to attach mounting feet to concrete.

HEAVY-DUTY MOUNTING FEET

STK#	ITEM	EACH
104301	For 1.315"/1.66" Pipe	$21.29
104302	For 1.90"/2.375" Pipe	22.39
FAW515	1/2" Zinc Wedge Anchor	1.08

Ground Posts and Drivers

- Use our Post Drivers to safely and properly secure your ground posts.

3' GROUND POSTS

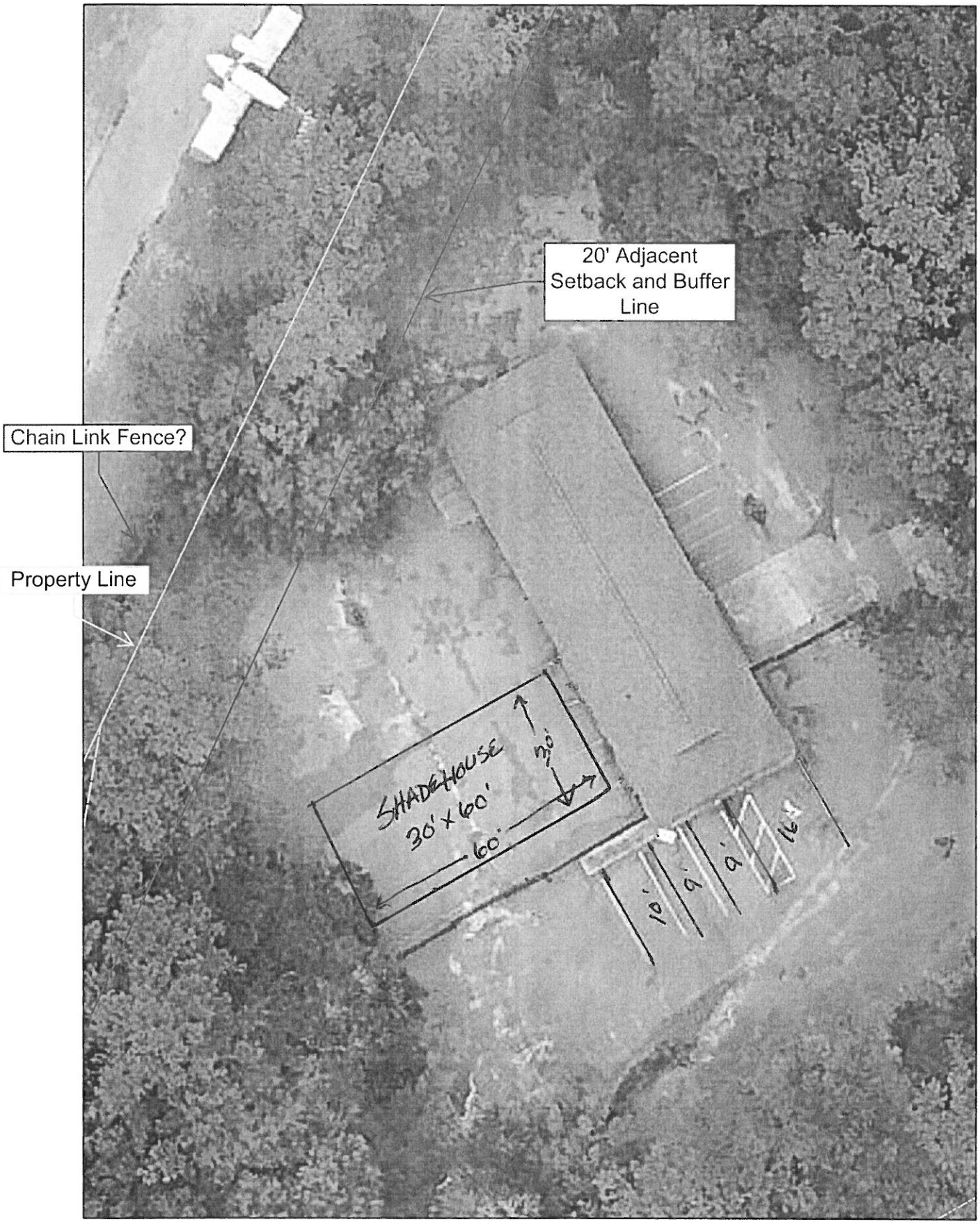
STK#	ITEM	EACH
102676	1.66" OD for 1.315" OD Pipe inserted and 1.90" OD Pipe fitted over	$17.17
102675	1.90" OD for 1.66" OD Pipe	18.31
106728	2.90" OD for 2.375" OD Pipe	28.64

POST DRIVERS

STK#	ITEM	EACH
QH1072	For 1.66" OD Post	$15.48
QH1073	For 1.90" OD Post	16.74
106731	For 2.90" OD Post	32.09

Post Driver

Ground Post


20' Adjacent Setback and Buffer Line
Chain Link Fence?
Property Line
SHADEHOUSE
30' x 60'
30'
60'
10'
9'
9'
16'

DESIGN TEAM/DRB COMMENT SHEET

The comments below are staff recommendations to the Design Review Board (DRB) and do NOT constitute DRB approval or denial.

PROJECT NAME: The Green Thumb – ALTERATION/ADDITION DRB#: DR 140022

DATE: April 22, 2014

RECOMMENDATION: Approval ☒ Approval with Conditions ☐ Denial ☐

The applicant proposes to install a shade structure, on the existing asphalt behind the existing chain link fence, on their property at 35 Dillon Road for the purpose of shading plant material.

Town of Hilton Head Island

Community Development Department
One Town Center Court
Hilton Head Island, SC 29928
Phone: 843-341-4757 Fax: 843-842-8908
www.hiltonheadislandsc.gov

FOR OFFICIAL USE ONLY
Date Received: _____
Accepted by: _____
App. #: DR_____
Meeting Date: _____

Applicant/Agent Name: Don Baker, AIA Company: Square Feet Island Architects
Mailing Address: 10 E Garrison Place City: HHI State: SC Zip: 29928
Telephone: 290 6666 Fax: _____ E-mail: don@squarefeethhi.com
Project Name: **Marleys Island Grill** Project Address: 35 Office Park Road
Parcel Number [PIN]: R 5 5 2 0 1 4 0 0 0 0 9 3 4 0 0 0 0
Zoning District: _____ Overlay District(s): _____

DESIGN REVIEW BOARD (DR) SUBMITTAL REQUIREMENTS

Digital Submissions may be accepted via e-mail by calling 843-341-4757.

Project Category:

_____New Development – Conceptual
_____New Development – Final, indicate Project Number
✓ Alteration/Addition
_____Minor External Change

Submittal Requirements for ***All*** projects:

N/A Private Architectural Review Board (ARB) Notice of Action (if applicable): When a project is within the jurisdiction of an ARB, the applicant shall submit such ARB's written notice of action per LMO Section 16-3-1004. Submitting an application to the ARB to meet this requirement is the responsibility of the applicant.

✓ Filing Fee, New Development $175, Alterations/Additions $100, Minor External $50 cash or check made payable to the Town of Hilton Head Island.

Additional Submittal Requirements:

New Development – Conceptual Approval

_____A survey (1"=30' minimum scale) of property lines, existing topography and the location of trees meeting the tree protection regulations of Sec. 16-3-405, and if applicable, location of bordering streets, marshes and beaches.

_____A site analysis study to include specimen trees, access, significant topography, wetlands, buffers, setbacks, views, orientation and other site features that may influence design.

_____A draft written narrative describing the design intent of the project, its goals and objectives and how it reflects the site analysis results.

_____Context photographs of neighboring uses and architectural styles.

_____Conceptual site plan (to scale) showing proposed location of new structures, parking areas and landscaping.

_____Conceptual sketches of primary exterior elevations showing architectural character of the proposed development, materials, colors, shadow lines and landscaping.

Additional Submittal Requirements:

New Development – Final Approval

_____ A final written narrative describing how the project conforms with the conceptual approval and design review guidelines of Sec. 16-4-503.

_____ Final site development plan meeting the requirements of Sec. 16-3-303.F.

_____ Final site lighting and landscaping plans meeting the requirements of Sec. 16-3-304 and Sec. 16-3-305.

_____ Final floor plans and elevation drawings (1/8"=1'-0" minimum scale) showing exterior building materials and colors with architectural sections and details to adequately describe the project.

_____ A color board (11"x17" maximum) containing actual color samples of all exterior finishes, keyed to the elevations, and indicating the manufacturer's name and color designation.

_____ Any additional information requested by the Design Review Board at the time of concept approval, such as scale model or color renderings, that the Board finds necessary in order to act on a final application.

Additional Submittal Requirements:

Alterations/Additions *and* Minor External Changes

__✓__ A written narrative describing how project conforms to design guidelines of Section 16-4-503.

__✓__ Photographs and/or drawings of existing development.

__✓__ Drawings of the proposed development – 11"x 17".

__✓__ Material/color samples of existing and proposed changes - 8 ½"X 14" *Maximum*; Stating manufacturer and material name

Note: All application items must be received by the deadline date in order to be reviewed by the DRB per LMO Section 16-3-106.

A representative for each agenda item is strongly encouraged to attend the meeting.

Are there recorded private covenants and/or restrictions that are contrary to, conflict with, or prohibit the proposed request? If yes, a copy of the private covenants and/or restrictions must be submitted with this application. ☐ **YES** ☑ **NO**

To the best of my knowledge, the information on this application and all additional documentation is true, factual, and complete. I hereby agree to abide by all conditions of any approvals granted by the Town of Hilton Head Island. I understand that such conditions shall apply to the subject property only and are a right or obligation transferable by sale.

I further understand that in the event of a State of Emergency due to a Disaster, the review and approval times set forth in the Land Management Ordinance may be suspended.

Dan Bale

SIGNATURE

7 APRIL 2014

DATE

Narrative

Marleys

Marleys has been located at Park Plaza at the entrance to Sea Pines since 2002. The Ownership changed hands in 2008, and now the original owner and developer, SERG is resuming ownership.

Currently, the dining experience is changing on Hilton Head Island. More and more, customers are wanting to be and eat out of doors. And our weather can support this for much of the year.

There are 2 parts of this proposal.

First is the outside dining room. It will be situated at the northwest corner of the property. It will be located such that it encompass a live oak tree which is 36" in diameter, ie the deck and roof will be cut away to make the tree an integral element of the dining experience.

Second will be an outdoor service bar. This is to be located under an existing gable that faces the adjacent *Ice Cream Trader* and Office Park Road.

7 APRIL 2014

The existing Marleys construction captures the southern charm with its mix of horizontal siding, shutters, standing seam metal roofing, exposed beams, all enhanced with generous wood trim. Marleys has a Caribbean flair, which includes a Caribbean influenced color palette which is experienced only when on-premises.

The proposed construction is a re-mix of these elements, specifically the metal roofing, exposed beams, and generous wood trim, all finished in the existing Sea Pines color palette. A little surprise of the Caribbean flair will be introduced with a low-slope (6|12) thatched roof over the service bar.

There are several large trees on the site. *NO TREE* will be removed for this project. As a matter of fact, a 30" L. Oak will remain and let through the deck and roof in the new dining area.

All new materials and colors are to match existing. There is only one new material bring introduced to the project, the thatch; its warmth will blend with the existing material vocabulary.

Submitted by

Don Baker, AIA
Square Feet Island Architects
290 6666
don@squafrefeethhi.com

VIEW FROM NORTH

METAL ROOF & RAFTER DETAILS

GABLE FACING GREENWOOD

N. ELEVATION FROM BIKE PATH

N.W. CORNER FROM BIKE PATH

N.W. CORNER FROM BIKE PATH

N.W. CORNER FROM BIKE PATH

LOCATION OF OUTDOOR BAR

CORNER OF OFFICE PARK & GREENWOOD

SQUARE FEET

Square Feet Island Architects
Don Baker, AIA
10 East Garrison Place
Hilton Head, SC 29928

o 843-363-3663
c 843-290-6666

don@squarefeethhi.com
HHI Bus Lic. # BLN0400739

PRELIMINARY INFORMATION
Not For Construction

Improvements at:

MARLEYS ISLAND GRILL
Park Plaza
35 Office Park Road
Hilton Head Island, SC 29928

Copyright 2014, by Square Feet

Note: All ideas, concepts, and designs described herein belong solely to the designer named on this page. These ideas, concepts, and designs are to be used only on this project. Any other use constitutes fraud, and the author of these drawings will prosecute any violators to the fullest extent of the law. Likewise the author of these drawings can not be held responsible for any unauthorized use of these drawings.

Project Number	Mar14
Issue Date	8 APRIL 2014
Issuance	HHI DRB

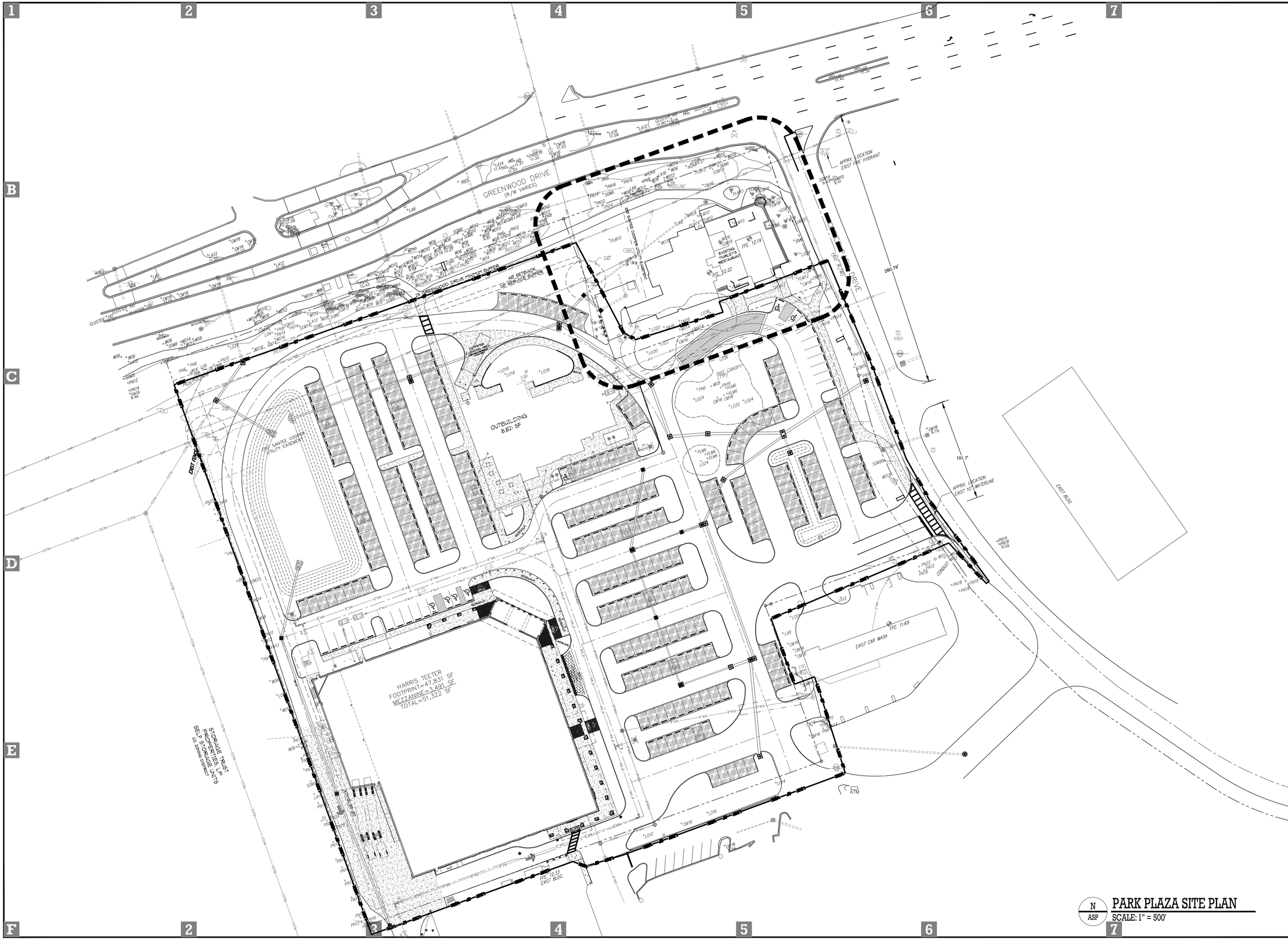
Revisions:

1. 8 APRIL 2014 HHI DRB
2.
3.
4.
5.

Sheet Title:
EXTERIOR PHOTOS

SHEET

PHOTOS



N
ASP

PARK PLAZA SITE PLAN

SCALE: 1" = 500'

SQUARE FEET

Square Feet Island Architects
Don Baker, AIA
10 East Garrison Place
Hilton Head, SC 29928

o 843-363-3663
c 843-290-6666

don@squarefeethhi.com
HHI Bus Lic. # BLN0400739

PRELIMINARY INFORMATION
Not For Construction

Improvements at:

MARLEYS ISLAND GRILL
Park Plaza
35 Office Park Road
Hilton Head Island, SC 29928

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Project Number	Mar14
Issue Date	8 APRIL 2014
Issuance	HHI DRB

Revisions:

1. 8 APRIL 2014 — HHI DRB
2.
3.
4.
5.

Sheet Title:
SITE PLAN:
PARK PLAZA SHOPPING CENTER

SHEET
ASP
PARK PLAZA

AREAS CALCULATIONS

ZONING DISTRICT	CC
TOTAL AREA OF SITE	32,323 SF
IMPERVIOUS AREA % ALLOWED BY LMO16.4.1606	65%
IMPERVIOUS AREA SF ALLOWED BY LMO16.4.1606	21,010 sf
ACTUAL SF CALCULATED	16,222 sf = 50%

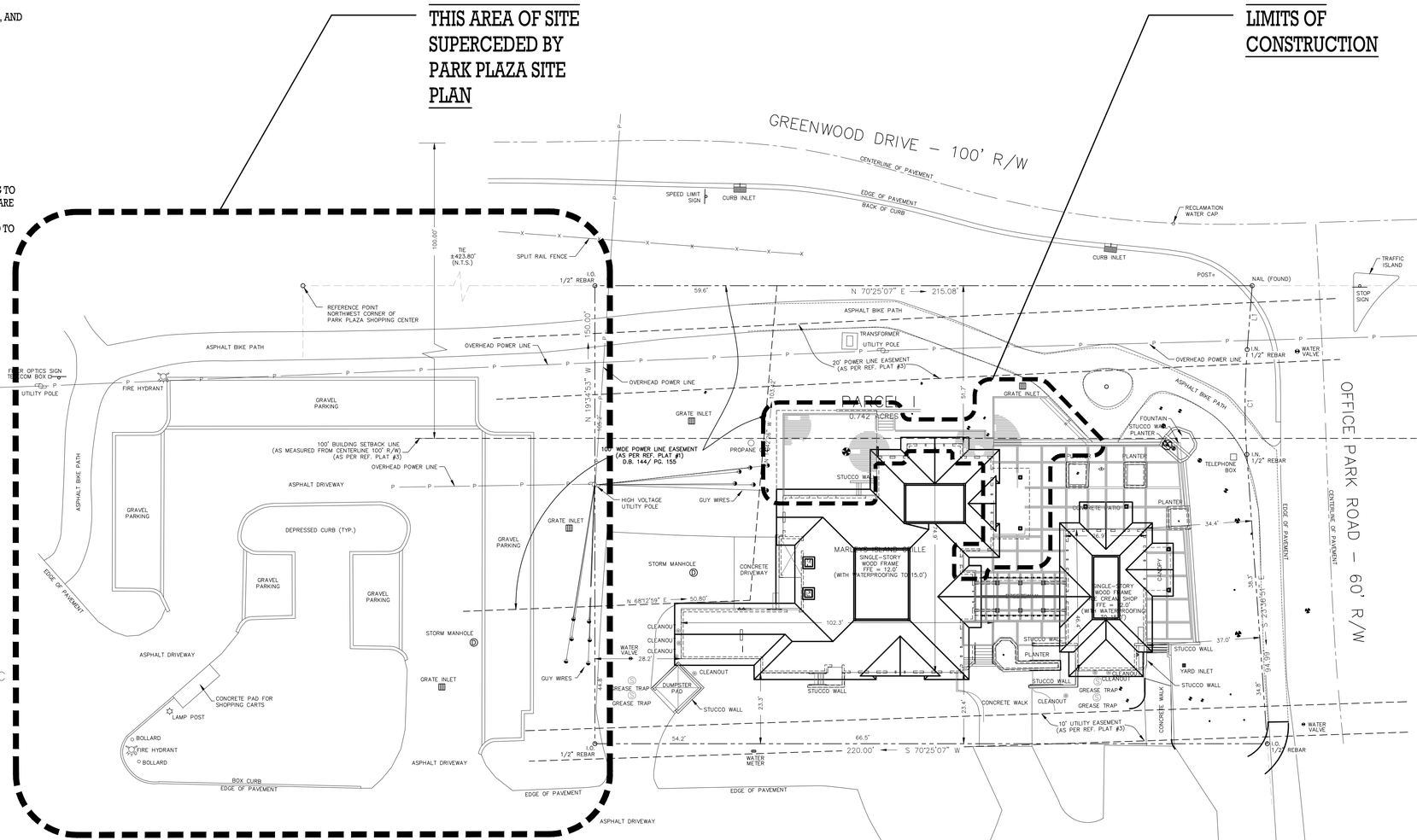
THE ABOVE ARAES ARE INCLUSIVE OF ROOFS, CONC & PAVED WALKS, DRIVES, AND SLABS , AND STAIRS AND THE BIKE PATH.

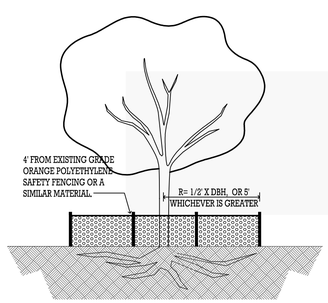
TREE CALCULATIONS

NO TREE REMOVAL IS PROPOSED IN THE EXECUTION OF THIS PROJECT

PARKING CALCULATIONS

THE PROPOSED IMPROVEMENTS ADD 1,099 GSF TO THE PROJECT. ACCORDING TO HHI LMO 16-5-1209, THIS WOULD REQUIRE 3 PARKING SPACES. THESE SPACES ARE AVAILABLE FROM PARK PLAZA THRU AN EASEMENT.
A COPY OF THE 2010 RESTATED EASEMENT DOCUMENT IS BEING FORWARDED TO HHI TOWN HALL BY THE ARCHITECT.





T ASP **TREE PROTECTION**
SCALE: N.T.S.

PREPARED FOR: BLACK MARLIN, LLC
ADDRESS: #35 OFFICE PARK ROAD
TAX PARCEL I.D. NO. R552-014-000-0934-0000

SOUTH CAROLINA SURVEYING CONSULTANTS, INC. No.C00835 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED LAND SURVEYOR 11059 TERRY G. HATCHELL

GRAPHIC SCALE 0 20 40 80

ASBUILT SURVEY OF
0.742 ACRE, PARCEL I
OFFICE PARK ROAD
A PORTION OF
PHASE I
PARK PLAZA SHOPPING CENTER
HILTON HEAD ISLAND, BEAUFORT COUNTY, SOUTH CAROLINA

N/F HARRIS TEETER PROPERTIES LLC
PHASE I
TAX PARCEL I.D. NO. R552-014-000-0886-0000

SCALE: 1" = 20' DATE: 8/1/2002 JOB NO: 93244C-2

SURVEYING CONSULTANTS
39 Sheridan Park Circle, Suite 6, Bluffton, SC 29910
Telephone: (843) 815-3304 FAX: (843) 815-3305
CREW: [redacted]
CAD: [redacted]
COPYRIGHT © BY SURVEYING CONSULTANTS DISK NO: [redacted]

NORTH

N ASP **NEW WORK SITE PLAN**
SCALE: 1" = 20'

SQUARE FEET
Square Feet Island Architects
Don Baker, AIA
10 East Garrison Place
Hilton Head, SC 29928
o 843-363-3663
c 843-290-6666
don@squarefeethhi.com
HHI Bus Lic. # BLN0400739

PRELIMINARY INFORMATION
Not For Construction

Improvements at:
MARLEY'S ISLAND GRILL
Park Plaza
35 Office Park Road
Hilton Head Island, SC 29928

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Project Number Mar14
Issue Date 8 APRIL 2014
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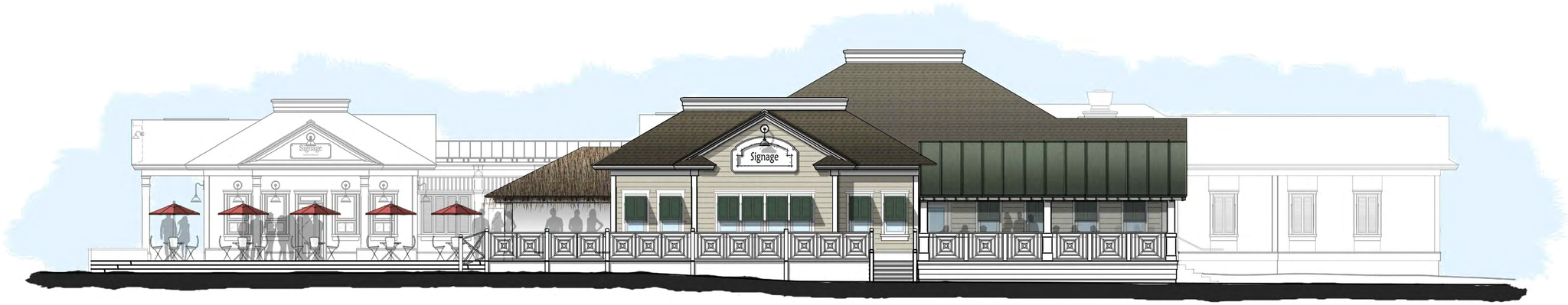
Revisions:
1. 8 APRIL 2014 HHI DRB
2.
3.
4.
5.

Sheet Title:
ARCHITECTS SITE PLAN

SHEET
ASP
MARLEYS



VIEW FROM GREENWOOD DRIVE

VIEW FROM OFFICE PARK ROAD

SQUARE FEET

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HHI Bus Lic. # BLN0400739

PRELIMINARY INFORMATION
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Improvements at:

MARLEYS Island Grille

MARLEYS ISLAND GRILL
Park Plaza
35 Office Park Road
Hilton Head Island, SC 29928

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Revisions:

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2.
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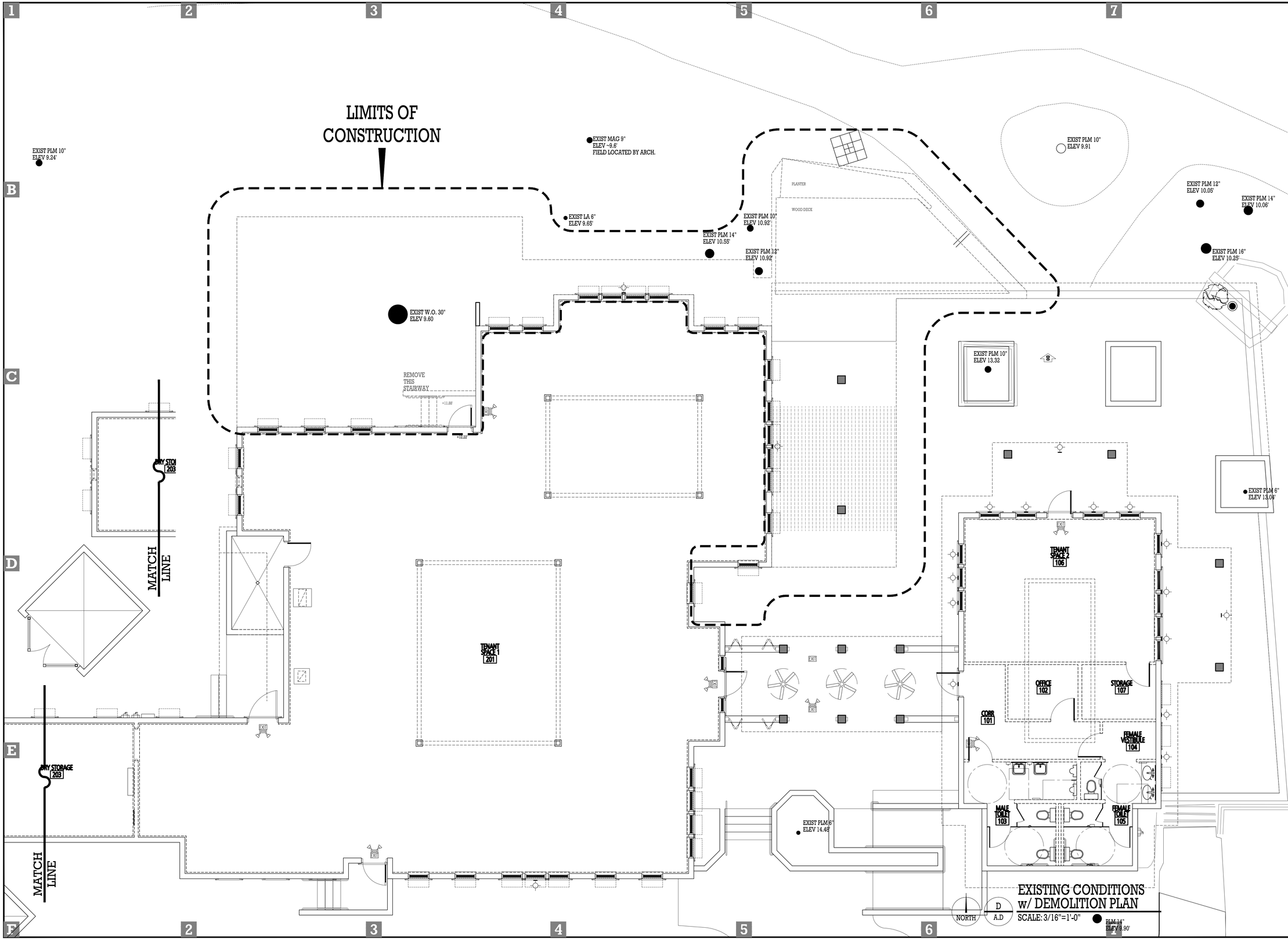
4.
5.

Sheet Title:
EXTERIOR RENDERINGS

SHEET
ARTIST'S RENDERINGS



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Revisions:

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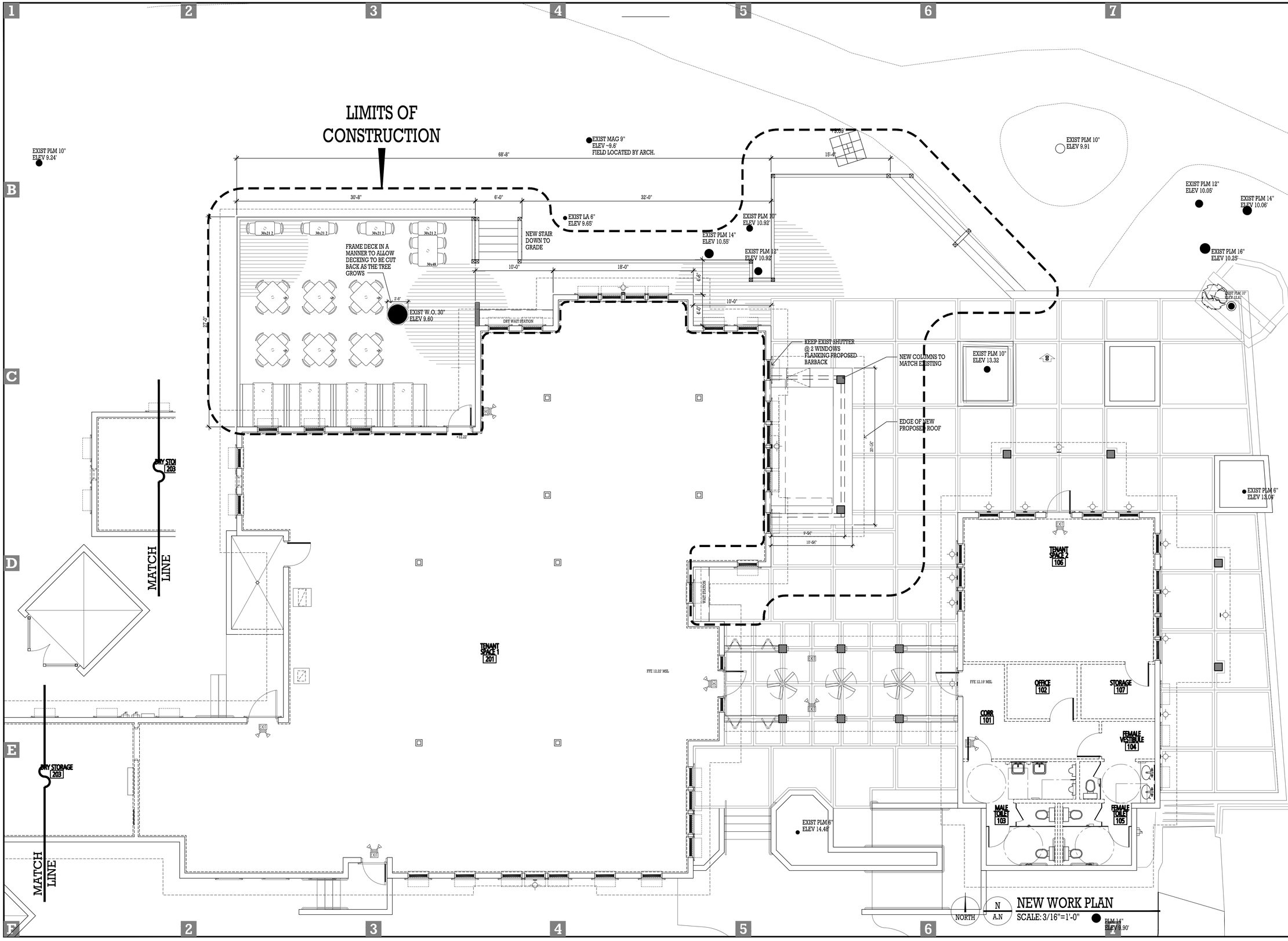
2.
3.
4.
5.

Sheet Title:
EXISTING CONDITIONS & DEMOLITION PLAN

SHEET

A.1D



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PRELIMINARY INFORMATION
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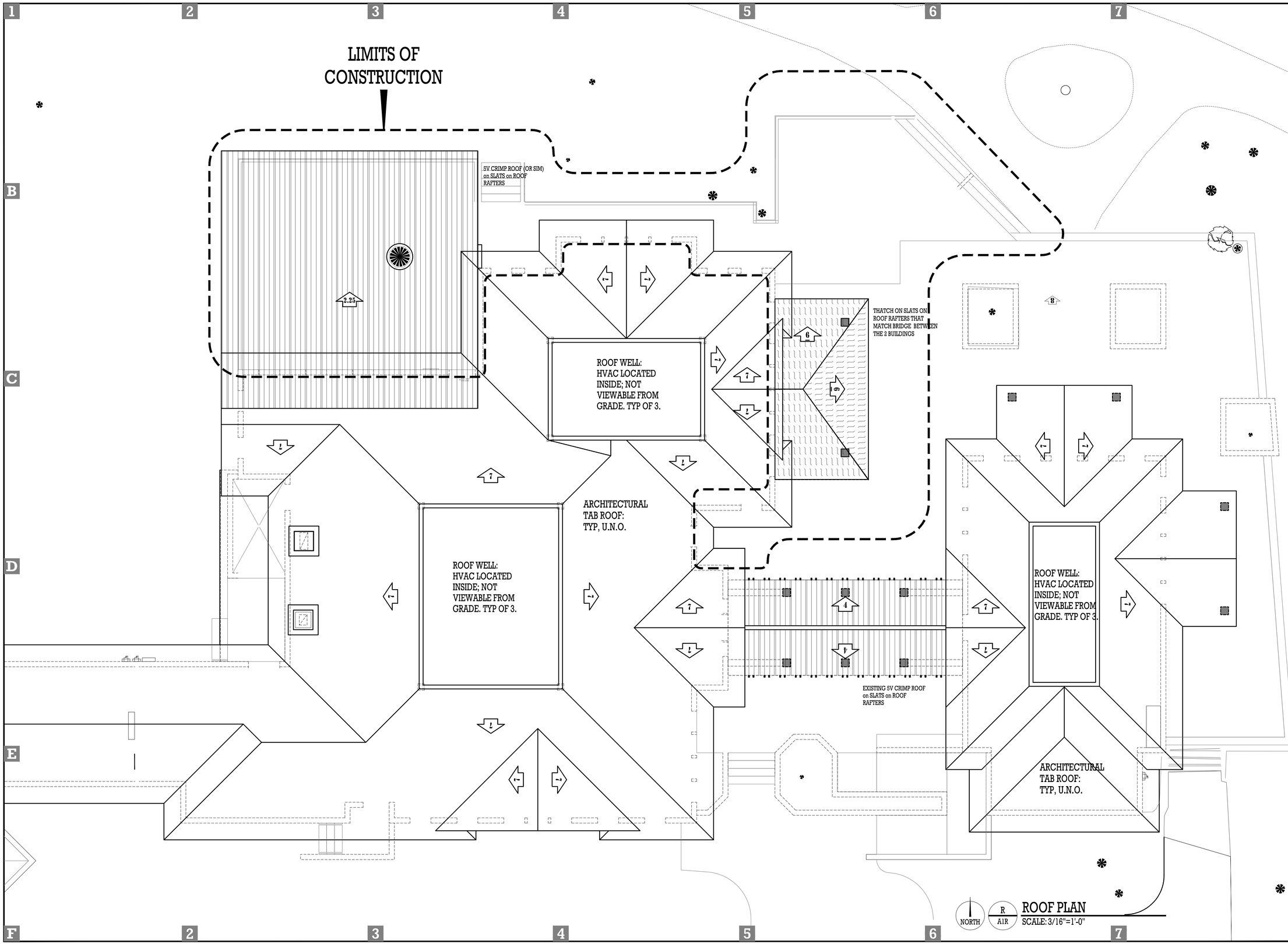
1. 8 APRIL 2014 HHI DRB
2.
3.
4.
5.

Sheet Title:
NEW WORK PLAN

SHEET
A.1N



ROOF PLAN
SCALE: 3/16"=1'-0"

SQUARE FEET

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HHI Bus Lic. # BLN0400739

PRELIMINARY INFORMATION
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Improvements at:

MARLEYS Island Grille

MARLEYS ISLAND GRILL
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35 Office Park Road
Hilton Head Island, SC 29928

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3.
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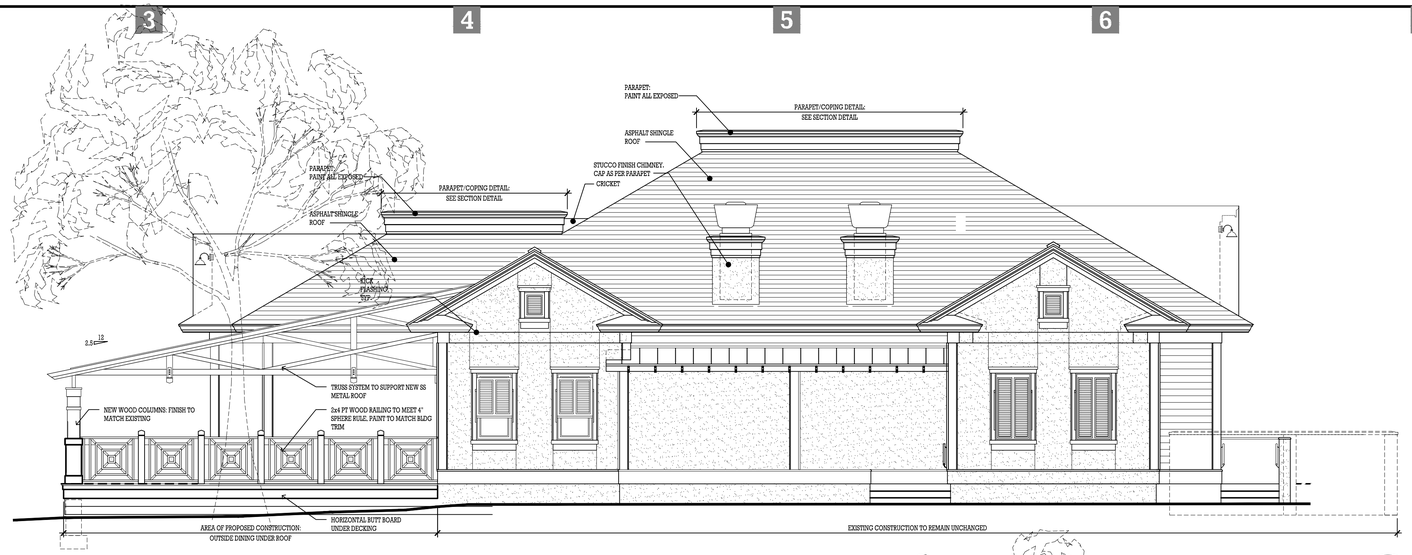
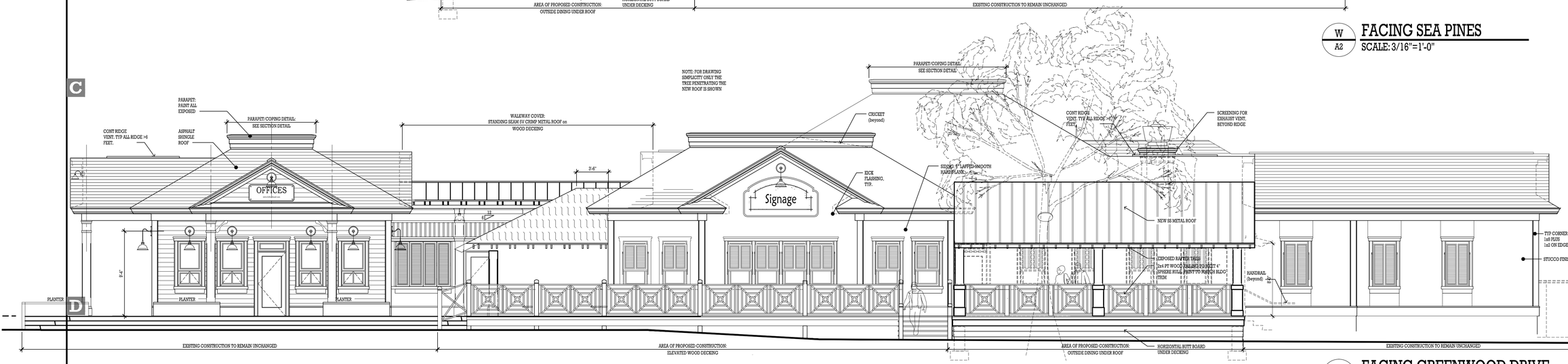
5.

Sheet Title:
ROOF PLAN

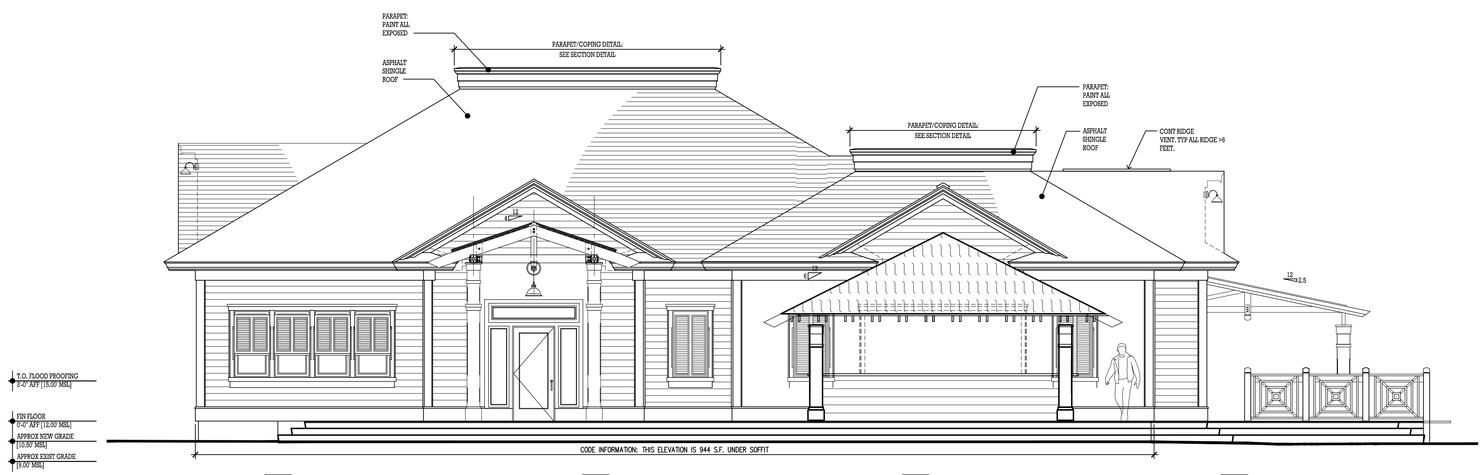
SHEET
A.1R



W A2 FACING SEA PINES
SCALE: 3/16"=1'-0"



N A2 FACING GREENWOOD DRIVE
SCALE: 3/16"=1'-0"



E A2 FACING OFFICE PARK RD
SCALE: 3/16"=1'-0"

SQUARE FEET

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Improvements at:

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3.
4.
5.

Sheet Title:
EXTERIOR ELEVATIONS

SHEET
A2

DESIGN TEAM/DRB COMMENT SHEET

The comments below are staff recommendations to the Design Review Board (DRB) and do NOT constitute DRB approval or denial.

PROJECT NAME: Marley's Island Grill – ALTERATION/ADDITION DRB#: DR 140023

DATE: April 22, 2014

RECOMMENDATION: Approval ☐ Approval with Conditions ☒ Denial ☐

ARCHITECTURAL DESIGN

DESIGN GUIDE/LMO CRITERIA	Complies Yes	No	Not Applicable	Comments or Conditions
Structure is designed to be appropriate to the neighborhood	☒	☐	☐	
Promotes pedestrian scale and circulation	☒	☐	☐	
Design is unobtrusive and set into the natural environment	☐	☒	☐	Design of outdoor seating area impacts existing water oak. Consider working with Natural Resources to remove this tree and provide mitigation.
Utilizes natural materials and colors	☒	☐	☐	Exposed wood beams & trim
Avoids distinctive vernacular styles	☒	☐	☐	
Design is appropriate for its use	☐	☐	☐	Reconsider use of thatched roof as it does not meet the definition of Hilton Head Island character.
All facades are have equal design characteristics	☒	☐	☐	
Avoids monotonous planes or unrelieved repetition	☒	☐	☐	
Has a strong roof form with enough variety to provide visual interest	☒	☐	☐	
Minimum roof pitch of 6/12	☐	☒	☐	2.5/12
Overhangs are sufficient for the façade height.	☒	☐	☐	
Forms and details are sufficient to reduce the mass of the structure	☒	☐	☐	

Human scale is achieved by the use of proper proportions and architectural elements	☒	☐	☐	
Utilizes a variety of materials, textures and colors	☒	☒	☐	Stucco, brick, red cedar, hardie shake siding, glass, shingle roofing; mostly beige with some brick base and "Polo Blue" shutters
Incorporates wood or wood simulating materials	☒	☐	☐	
Windows are in proportion to the facade	☒	☐	☐	
Details are clean, simple and appropriate while avoiding excessive ornamentation	☒	☐	☐	
Utilities and equipment are concealed from view	☒	☐	☐	
Decorative lighting is limited and low wattage and adds to the visual character	☐	☐	☐	No lighting shown on building. Provide cut sheets for any new lighting. Provide cut sheets for landscape & site lighting.
Accessory elements are design to coordinate with the primary structure	☒	☐	☐	

LANDSCAPE DESIGN – Provide a landscape plan for review & approval by the DRB.

NATURAL RESOURCE PROTECTION

DESIGN GUIDE/LMO CRITERIA	Complies Yes	No	Not Applicable	Comments or Conditions
An effort has been made to preserve existing trees and under story plants	☒	☐	☐	
Supplemental and replacement trees meet LMO requirements for size, species and number	☐	☐	☐	
Wetlands if present are avoided and the required buffers are maintained	☐	☐	☒	
Sand dunes if present are not disturbed	☐	☐	☒	

MISC COMMENTS/QUESTIONS

Project requires a written Notice of Action from the Sea Pines Commercial ARB.
Any new signage or modifications to existing signage require approval of a sign permit application.

Town of Hilton Head Island

Community Development Department
One Town Center Court
Hilton Head Island, SC 29928
Phone: 843-341-4757 Fax: 843-842-8908
www.hiltonheadislandsc.gov

FOR OFFICIAL USE ONLY
Date Received: 4/4/14
Accepted by:
App. #: DR 140021
Meeting Date:

Applicant/Agent Name: James Atkins Company: Court Atkins Architects
Mailing Address: P.O. Box 3978 City: Bluffton State: SC Zip: 29910
Telephone: (843) 815-2557 Fax: E-mail: james.atkins@courtatkins.com
Project Name: Palmetto Dunes Admin. and Security Offices Project Address: Queens Folly Road
Parcel Number [PIN]: R 520-012-000-0346 & 347A-0000
Zoning District: Overlay District(s):

DESIGN REVIEW BOARD (DR) SUBMITTAL REQUIREMENTS

Digital Submissions may be accepted via e-mail by calling 843-341-4757.

Project Category:

✓ New Development – Conceptual
____ New Development – Final, indicate Project Number
____ Alteration/Addition
____ Minor External Change

Submittal Requirements for ***All*** projects:

✓ Private Architectural Review Board (ARB) Notice of Action (if applicable): When a project is within the jurisdiction of an ARB, the applicant shall submit such ARB's written notice of action per LMO Section 16-3-1004. Submitting an application to the ARB to meet this requirement is the responsibility of the applicant.

✓ Filing Fee, New Development $175, Alterations/Additions $100, Minor External $50 cash or check made payable to the Town of Hilton Head Island.

Additional Submittal Requirements:

New Development – Conceptual Approval

✓ A survey (1"=30' minimum scale) of property lines, existing topography and the location of trees meeting the tree protection regulations of Sec. 16-3-405, and if applicable, location of bordering streets, marshes and beaches.

✓ A site analysis study to include specimen trees, access, significant topography, wetlands, buffers, setbacks, views, orientation and other site features that may influence design.

✓ A draft written narrative describing the design intent of the project, its goals and objectives and how it reflects the site analysis results.

✓ Context photographs of neighboring uses and architectural styles.

✓ Conceptual site plan (to scale) showing proposed location of new structures, parking areas and landscaping.

✓ Conceptual sketches of primary exterior elevations showing architectural character of the proposed development, materials, colors, shadow lines and landscaping.

Additional Submittal Requirements:

New Development – Final Approval

_____ A final written narrative describing how the project conforms with the conceptual approval and design review guidelines of Sec. 16-4-503.

_____ Final site development plan meeting the requirements of Sec. 16-3-303.F.

_____ Final site lighting and landscaping plans meeting the requirements of Sec. 16-3-304 and Sec. 16-3-305.

✓ Final floor plans and elevation drawings (1/8"=1'-0" minimum scale) showing exterior building materials and colors with architectural sections and details to adequately describe the project.

✓ A color board (11"x17" maximum) containing actual color samples of all exterior finishes, keyed to the elevations, and indicating the manufacturer's name and color designation.

_____ Any additional information requested by the Design Review Board at the time of concept approval, such as scale model or color renderings, that the Board finds necessary in order to act on a final application.

Additional Submittal Requirements:

Alterations/Additions *and* Minor External Changes

_____ A written narrative describing how project conforms to design guidelines of Section 16-4-503.

_____ Photographs and/or drawings of existing development.

_____ Drawings of the proposed development – 11"x 17".

_____ Material/color samples of existing and proposed changes - 8 ½"X 14" *Maximum*; Stating manufacturer and material name

Note: All application items must be received by the deadline date in order to be reviewed by the DRB per LMO Section 16-3-106.

A representative for each agenda item is strongly encouraged to attend the meeting.

Are there recorded private covenants and/or restrictions that are contrary to, conflict with, or prohibit the proposed request? If yes, a copy of the private covenants and/or restrictions must be submitted with this application. ☐YES ☑NO

To the best of my knowledge, the information on this application and all additional documentation is true, factual, and complete. I hereby agree to abide by all conditions of any approvals granted by the Town of Hilton Head Island. I understand that such conditions shall apply to the subject property only and are a right or obligation transferable by sale.

I further understand that in the event of a State of Emergency due to a Disaster, the review and approval times set forth in the Land Management Ordinance may be suspended.

SIGNATURE _____ DATE 4/1/14

DRB Narrative

Project Name:

Palmetto Dunes Admin. And Security Offices

Location: Queen Folly Road, Hilton Head Island

Parcels: R520-012-000-0346 & 347A-0000

Project Contacts:

Owner's Representative:
Ben Brown – Principal Planner & Project Manager
Palmetto Dunes Property Owners Association
Hilton Head Island, SC. 29926
843-785-1109

Architect:
Court Atkins Architects, Inc.
P.O. Box 3978
Bluffton, SC 29910
843-815-2557

Civil Engineer:
Ward Edwards Engineering
P.O. Box 381
Bluffton, SC 29910
843-837-5250

Landscape:
Witmer-Jones-Keefer. Ltd.
P.O. Box 3036
Bluffton, SC 29910
843-757-7411

Project Description:

The project will be a demolition of the existing Fire Station #6 located on Queen Folly Road and construction of a new 7,500 sq. ft. Palmetto Dunes Administration and Security Office building.

Impact on Site:

Reference the Landscape Development Plan sheet L1 for impacts on site.

Other Review Board Approvals:

This project was submitted to The Palmetto Dunes Architectural Review Board and was approved on January 13, 2014. (See attached letter).

SHINGLE ROOFING
GAF TIMBERLINE (WEATHERED WOOD)

FASCIA/SOFFIT/TRIM
HARDIE TRIM CUSTOM MATCH TO DRYVIT (PRAIRIE CLAY)

HARDIE SHAKE SIDING
CUSTOM MATCH TO DRYVIT (PRAIRIE CLAY)

STUCCO VENEER
DRYVIT (PRAIRIE CLAY)

STUCCO TRIM
CUSTOM MATCH TO JELD WEN (DESERT SAND)

WINDOWS / DOORS
JELD WEN (DESERT SAND)

BRICK WAINSCOT
CHEROKEE (MOSSTOWN)

SHUTTERS
BENJAMIN MOORE 2062-10 (POLO BLUE)

WOOD BRACKETS & PERGOLA
RED CEDAR

PALMETTO DUNES
ADMIN. AND SECURITY OFFICES
QUEENFOLLY ROAD, HILTON HEAD ISLAND, SC

PROPOSED EXTERIOR MATERIALS & COLORS

APRIL 1, 2014

COURT ATKINS ARCHITECTS
P.O. Box 3978 Bluffton, SC 29910
P: 843.815.2557 F: 843.815.2547

PALMETTO DUNES
PROPERTY OWNERS ASSOCIATION
A RESIDENTIAL RESORT COMMUNITY

January 13, 2014

James Atkins
Court Atkins Architects
P.O. Box 3978
Bluffton, SC 29910

Via Email

Dear Mr. Atkins,

The Palmetto Dunes Architectural Review Board reviewed and approved the new construction plans for the POA office space to be located at the site of the current fire station on Queens Folly Road. It is understood that the existing fire station will be demolished and the new office space will be constructed in its place.

Please provide a colors and materials board. The building permit will be issued once the colors are finalized and the town permit is obtained. A refundable compliance deposit will not be required for this project.

Sincerely,

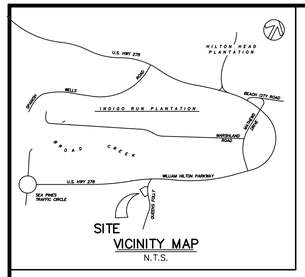
HS

Heidi Stenhammer
ARB Administrator

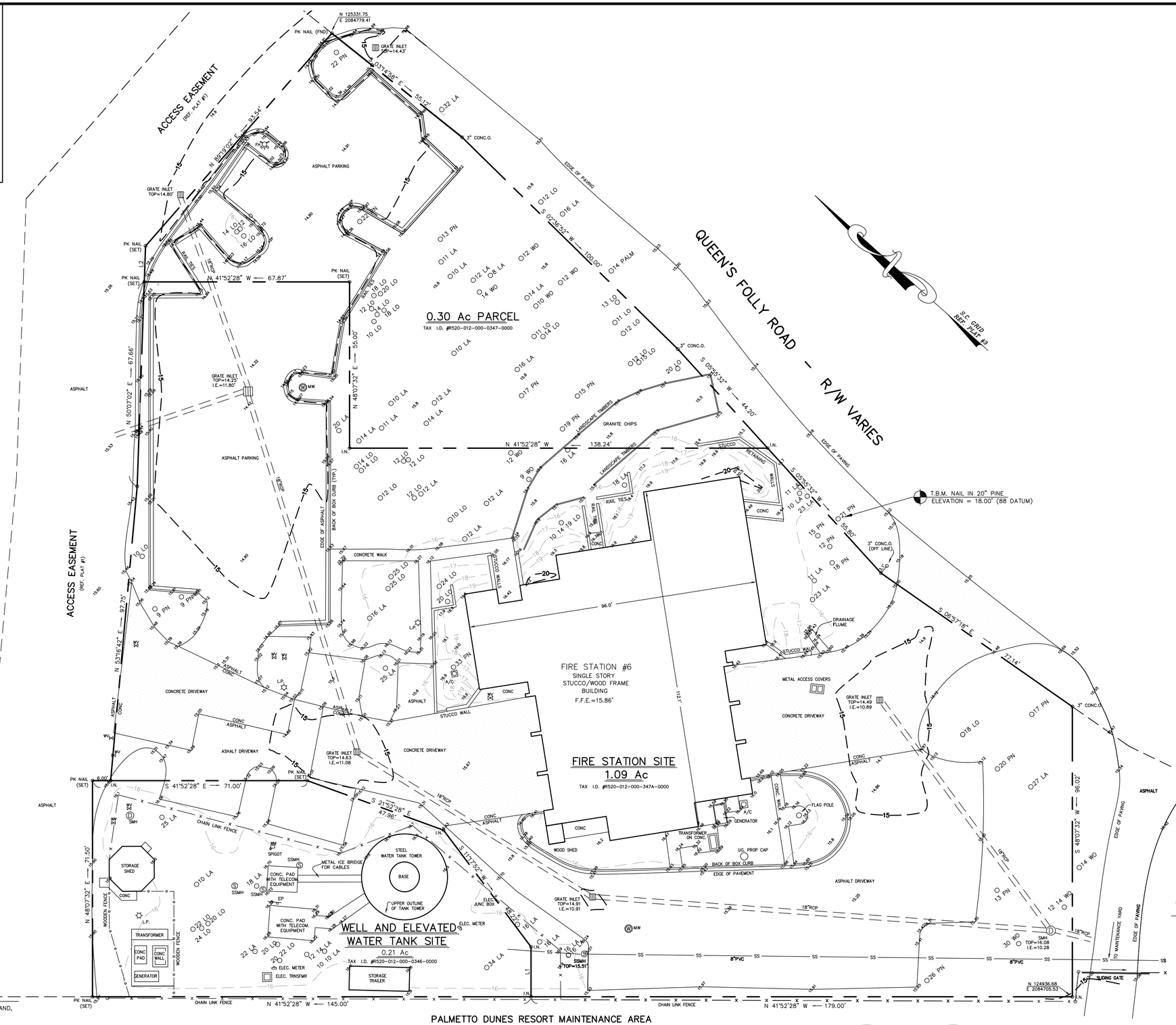
CC: Andrew Schumacher, PDPOA General Manager

SPEED
LIMIT
25

6
STOP



VICINITY MAP
N.T.S.



NOTES

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

2) AS OF THE DATE OF THIS SURVEY THIS PROPERTY IS LOCATED IN ZONE A-7, A SPECIAL FLOOD HAZARD AREA AS DETERMINED BY H.U.D. PANEL 2-D, COMMUNITY NO. 450250, MAP DATED 9/29/86, BASE ELEVATION 14.0' (1929 DATUM). FLOOD HAZARD ZONE AND BASE ELEVATION SHOULD BE VERIFIED BY PROPER TOWN OR COUNTY BUILDING INSPECTIONS DEPARTMENT.

3) BUILDING SETBACKS WHICH EXIST FOR THIS LOT, SHOWN OR NOT SHOWN ON THIS SURVEY, ARE EXPLAINED IN THE COVENANTS, EASEMENTS & SETBACKS SHOWN SHOULD BE VERIFIED THRU THE APPROPRIATE ARCHITECTURAL REVIEW BOARD OR BUILDING AGENCY.

4) UNDERGROUND UTILITIES NOT LOCATED EXCEPT AS SHOWN.

5) SURVEYING CONSULTANTS CERTIFIES TO THE BOUNDARY, TOPOGRAPHIC AND ASBUILT INFORMATION PROVIDED HEREON AS OF THE DATE OF SURVEY. THIS DOCUMENT IS PROVIDED AS A BASE MAP FOR OTHERS. INFORMATION ADDED AFTER THE DATE OF SURVEY IS NOT THE RESPONSIBILITY OF SURVEYING CONSULTANTS.

6) THIS SURVEY WAS PERFORMED WITHOUT BENEFIT OF A CURRENT TITLE REPORT.

7) BEARINGS ARE BASED ON SOUTH CAROLINA STATE PLANE COORDINATES TAKEN FROM REFERENCE PLAT #3. SEE REFERNCE PLAT #1 FOR RECORD BEARINGS.

LINE TABLE		
LINE	LENGTH	BEARING
L1	16.50'	N 48°07'32" E
L2	11.86'	N 50°07'02" E

LEGEND:

TREE SIZES ARE INCHES IN DIAMETER

9.5	SPOT ELEVATION
—9—	CONTOUR
CONC. O.	CONCRETE MONUMENT, OLD (FOUND)
T.B.M.	TEMPORARY BENCH MARK
LA	LAUREL OAK
LO	LIVE OAK
PLM	PALM
PN	PINE
WO	WATER OAK

REFERENCE PLATS:

1) PLAT OF PORTION OF PALMETTO DUNES, HILTON HEAD ISLAND, FOR BROAD CREEK PUBLIC SERVICE DISTRICT, DATED: 2/25/81, REVISED 6/11/82, BY: ROY HUSSEY, S.C.R.L.S. No 2313, RECORDED: P.B. 30, PG. 165, DATE 8/16/82.

2) BOUNDARY, TREE & TOPOGRAPHIC SURVEY OF 1.09 ACRES, QUEEN'S FOLLY ROAD, A SCETION OF PALMETTO DUNES RESORT, DATED: 11/24/1997, BY: TERRY G. HATCHELL, S.C.R.L.S. No 11059.

3) ASBUILT, BOUNDARY, TREE & TOPOGRAPHIC SURVEY OF: FIRE STATION 6 AND VICINITY, QUEENS FOLLY ROAD, PALMETTO DUNES, HILTON HEAD ISLAND, DATED: 3/20/2012, BY: MARK R. RENEW, S.C.R.L.S. No 25437.

PREPARED FOR: PALMETTO DUNES POA
ADDRESS: #14 & #16 QUEEN'S FOLLY ROAD
TAX PARCEL I.D. NO. R520-012-000-0346, 0347 & 347A-0000

SOUTH CAROLINA SURVEYING CONSULTANTS, INC. No.C00835 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA REGISTERED LAND SURVEYOR 11059 TERRY G. HATCHELL

GRAPHIC SCALE 0 16 32 48

ASBUILT, BOUNDARY,
TREE & TOPOGRAPHIC
SURVEY OF

FIRE STATION #6 PARCEL, WATER TANK PARCEL & 0.30 ACRE PARCEL

QUEEN'S FOLLY ROAD

A SECTION OF

PALMETTO DUNES RESORT

HILTON HEAD ISLAND, BEAUFORT COUNTY, SOUTH CAROLINA

SCALE: 1/16" = 1'-0" DATE: 8/30/2013 JOB NO: SC97282A

SURVEYING CONSULTANTS
17 Sherington Drive, Suite C, Bluffton, SC 29910
SC Telephone: (843) 815-3304 FAX: (843) 815-3305
GA Telephone: (912) 826-2775
CREW: CAD: KJ
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PLANTING NOTES:

1. ANY DEVIATION FROM THESE PLANS MUST BE SPECIFICALLY APPROVED BY LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
2. NOTIFY LANDSCAPE ARCHITECT OF ANY SITE CONDITIONS WHICH MAY NECESSITATE MODIFICATION TO THE PLAN. LANDSCAPE ARCHITECT SHALL, IF NECESSARY, MAKE "IN-FIELD MODIFICATIONS".
3. FINE GRADING SHALL CONSIST OF HAND RAKED SMOOTH, FREE OF DEBRIS, ALL AREAS TO RECEIVE LANDSCAPE PLANTING AND/OR MULCH.
4. CONTRACTOR IS RESPONSIBLE FOR INSPECTION OF EXISTING CONDITIONS AND PROMPTLY REPORTING ANY DISCREPANCIES. CONTRACTOR TO PERFORM SOIL TESTS AS NECESSARY TO ASSURE PLANT HEALTH AND GROWTH.
5. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES AND HE IS RESPONSIBLE FOR ANY DAMAGE THAT MAY OCCUR TO EXISTING UTILITIES.
6. CONTRACTOR TO MAKE NECESSARY ADJUSTMENTS TO EXISTING IRRIGATION TO ENSURE ALL PLANTS RECIEVE 100% COVERAGE.
7. MULCH ALL PLANTING BEDS WITH MULCH TO A 3" DEPTH.
8. CONTRACTOR VERIFIES THAT ALL PLANT MATERIAL IS DETERMINED AVAILABLE AS SPECIFIED WHEN BID/PROPOSAL IS SUBMITTED.
9. PLANT SCHEDULE WAS PREPARED FOR ESTIMATING PURPOSES. CONTRACTOR SHALL MAKE OWN QUANTITIES TAKEOFF USING DRAWINGS TO DETERMINE QUANTITIES TO HIS SATISFACTION, REPORTING PROMPTLY ANY DISCREPANCIES WHICH MAY AFFECT BIDDING.
10. ROOT TYPE MAY BE FREELY SUBSTITUTED IN CASE OF BALLED AND BURLAPPED OR CONTAINER GROWN, OTHER SPECIFICATIONS REMAINING UNCHANGED.
11. ANY SIGNIFICANT TREE ROOTS ENCOUNTERED 2" DIA. AND LARGER SHALL BE DUG OUT BY HAND AND CLEANLY CUT BACK IN THE FOOTING / FOUNDATION AREA TO PROMOTE ROOT RE-GROWTH AND HELP PREVENT ROOT DIEBACK.
12. IRRIGATION SHALL NOT SPREAY BEYOND LANDSCAPED AREAS OR INTO ROADWAYS OR PARKING AREAS.
13. IRRIGATION HEADS SHALL NOT BE LOCATED WITHIN 5' OF EDGE OF PAVEMENT OR CURB.
14. CONTRACTOR SHALL SUBMIT IRRIGATION PLAN FOR APPROVAL BY OWNERS REPRESENTATIVE PRIOR TO CONSTRUCTION.

POA PLANT SCHEDULE:

Quantity	Abbrev.	Botanical Name	Common Name	Height	Spread	Container	Cal/Spacing	Notes
Trees								
19	SABP	Sabal Palmetto	Sabal Palm	10-14'		-	-	See plan for heights
6	QUEV	Quercus virginiana	Live Oak	12-16'	10-12'	-	4" calip.	
Understory								
2	BUTC	Bulta capitata	Pindo Palm	6-7'	30-36"	-	-	Full to base
Shrubs								
23	AZIF	Azalea indica	Formosa Azalea	30"	30"	7 gal.	-	
3	AZGI	Azalea indica	G.G. Gerbing Azalea	30"	30"	7 gal.	-	
2	CAMJ	Camelia japonica	Japonica Camelia	4-5'	30-42"	container	-	Red Flowering Variety
20	HYDM	Hydrangea macrophylla	Endless Summer	24-30"	24-30"	7 gal.	-	White / Blue Flowering
2	OSMF	Osmanthus fragrens	Fragrant Tea Olive	3-4'	2-3'	15 gal.	-	
48	PODP	Podocarpus macrophylla 'Pringle'	Dwarf Podocarpus	18-24"	18"	7 gal.	-	
44	PODM	Podocarpus	Podocarpus	4-6'	3-4'	15 gal.	-	
2	RHAH	Rhapidophyllum hystrix	Needle Palm	3-4'		15 gal.	-	
24	SERC	Serenoa repens 'Cinera'	Silver Saw Palmetto	18-24"	18-24"	7 & 3 gal.	-	50/50 mix of sizes
32	SERR	Serenoa repens	Saw Palmetto	30"	30"	7 & 3 gal.	-	50/50 mix of sizes
Grasses/ Vines/ Groundcovers								
135	ANNL	Annuals	Seasonal Color	4-6"	4-6"	1 gal.	6" O.C.	
225	DRYE	Dryopteris erythrosora	Autumn Fern	10-12"	8-12"	1 gal.	18" O.C.	
250	MUHL	Muhlenbergia capillaris	Muhly Grass	14-18"	12-18"	3 gal.	30" O.C.	
50	PLUB	Plumbago	Plumbago	20"	12"	1 gal.	18" O.C.	
190	TRAA	Trachelospermum asiaticum	Asiatic Jasmine	4-6"	12" runners	1 gal.	24" O.C.	
2000	LAWN		Empire Zoysia Sod					
15,000	MULCH-SF	Pine Straw- all disturbed areas	Pine Straw	-	-	-	-	

GREENWOOD PROPERTY PLANT SCHEDULE:

Quantity	Abbrev.	Botanical Name	Common Name	Height	Spread	Container	Cal/Spacing	Notes
Understory								
1	BUTC	Bulta capitata	Pindo Palm	6-7'	30-36"		-	Full to base
Shrubs								
9	AZIF	Azalea indica	Formosa Azalea	30"	30"	15 gal.	-	
2	SABM	Sabal minor	Dwarf Palmetto	2-3'	3-4'	container	-	
20	SERR	Serenoa repens	Saw Palmetto	30"	30"	7 & 3 gal.	-	50/50 mix of sizes
Grasses/ Vines/ Groundcovers								
65	MUHL	Muhlenbergia capillaris	Muhly Grass	14-18"	12-18"	3 gal.	30" O.C.	
825	LAWN		Empire Zoysia Sod					
1,500	MULCH-SF	Pine Straw- all disturbed areas	Pine Straw	-	-	-	-	

TREE REMOVAL

QTY.	LABEL	DESCRIPTION	CALIPER (INCHES)	TOTAL
8	PN	PINE	(2) 6", 9", 10", 12", 15", 18", & 30"	106"
11	LO	LIVE OAK	(2) 8", (4) 10", 12", 17", 22", & (2) 23"	153"
10	LA	LAUREL OAK	(3) 10", 12", (2) 14", 16" & 23"	105"

LIGHTING NOTES:

1. CONTRACTOR TO COORDINATE WITH THE OWNERS REPRESENTATIVE FOR THE LOCATION OF ELECTRICAL PANEL NEEDED FOR LIGHTING.
2. EXACT LOCATIONS OF LIGHTS, TRANSFORMERS, AND CONTROLLERS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION BY CONTRACTOR.
3. ALL LIGHTING EQUIPMENT SHALL BE INSTALLED PER MANUFACTURE'S INSTRUCTIONS AND RECOMMENDATIONS. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ALL PERMITS AND APPROVALS. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE STATE AND COUNTY CODES.
4. ALL FIXTURES PER MODELS SPECIFIED UNLESS CONTRACTOR GETS APPROVAL FROM LANDSCAPE ARCHITECT FOR A SUBSTITUTION.
5. LIGHTING PLAN IS A DIAGRAMMATIC DRAWING AND EXACT LOCATIONS OF LIGHT FIXTURES SHOULD BE APPROVED BY LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
6. CONTRACTOR SHALL COORDINATE LOCATIONS FOR LIGHTING ELECTRICAL CONDUIT PRIOR TO HARDSCAPE CONSTRUCTION.
7. FIELD VERIFY LIGHT LOCATIONS PRIOR TO INSTALLATION.
8. ELECTRICAL SUPPLY TO BE BROUGHT TO SIGN BY PALMETTO DUNES.

LIGHTING SCHEDULE

QUAN.	SYMBOL	DESCRIPTION	SUPPLIER
3	■	SEE DETAIL 1/L1	SIMMONS IRRIGATION 25-D BUCKINGHAM PLANTATION DR BLUFFTON, SC 29910 WWW.FOCUSINDUSTRIES.COM
15	●	FOCUS INDUSTRIES TREE UPLIGHT PRODUCT. DL-13-SC-BRS WITH 4 WATT ARROW LED	
3	▲	FOCUS IND. TREE LIGHT W/ LOUVRES LARGE SIZE PRODUCT. DL-38-NL-AC-BRS 120 V PAR 38 LED 21 W	SIMMONS IRRIGATION CONTRACT W/GATLOR, INC. CONTACT DAYNE MOCH T: 843-726-3269
5	●	STREET LIGHTS TO BE LEASED FROM PALMETTO ELECTRIC	CONTACT BEN BROWN WITH PALMETTO DUNES FOR SPECIFIC LIGHT POLE TYPE

NOTE: TREE LIGHTS ARE REGULAR VOLTAGE AND WILL REQUIRE A FOCUS INDUSTRIES TREE STRAP, INCLUDE IN CONTRACT

N E W

0 10 20 30 40 50 60 70 80

Scale ♦ 1 inch equals 20'

BID SET

NOT FOR CONSTRUCTION

TOPO AND BOUNDARY SURVEYS, EXISTING TREES AND SURVEY DATA WERE TAKEN FROM DIGITAL PROVIDED BY:

SURVEYING CONSULTANTS
HILTON HEAD ISLAND, SC
(803) 842-3304

Wilmer Jones Keefer Ltd.
landscape architecture land planning
www.wjkld.com
14 Palmetto Way, Suite A ♦ Bluffton, South Carolina ♦ 29910 ♦ ph 843.757.7411

LANDSCAPE DEVELOPMENT PLAN FOR PROPERTY OWNERS ASSOCIATION OFFICE

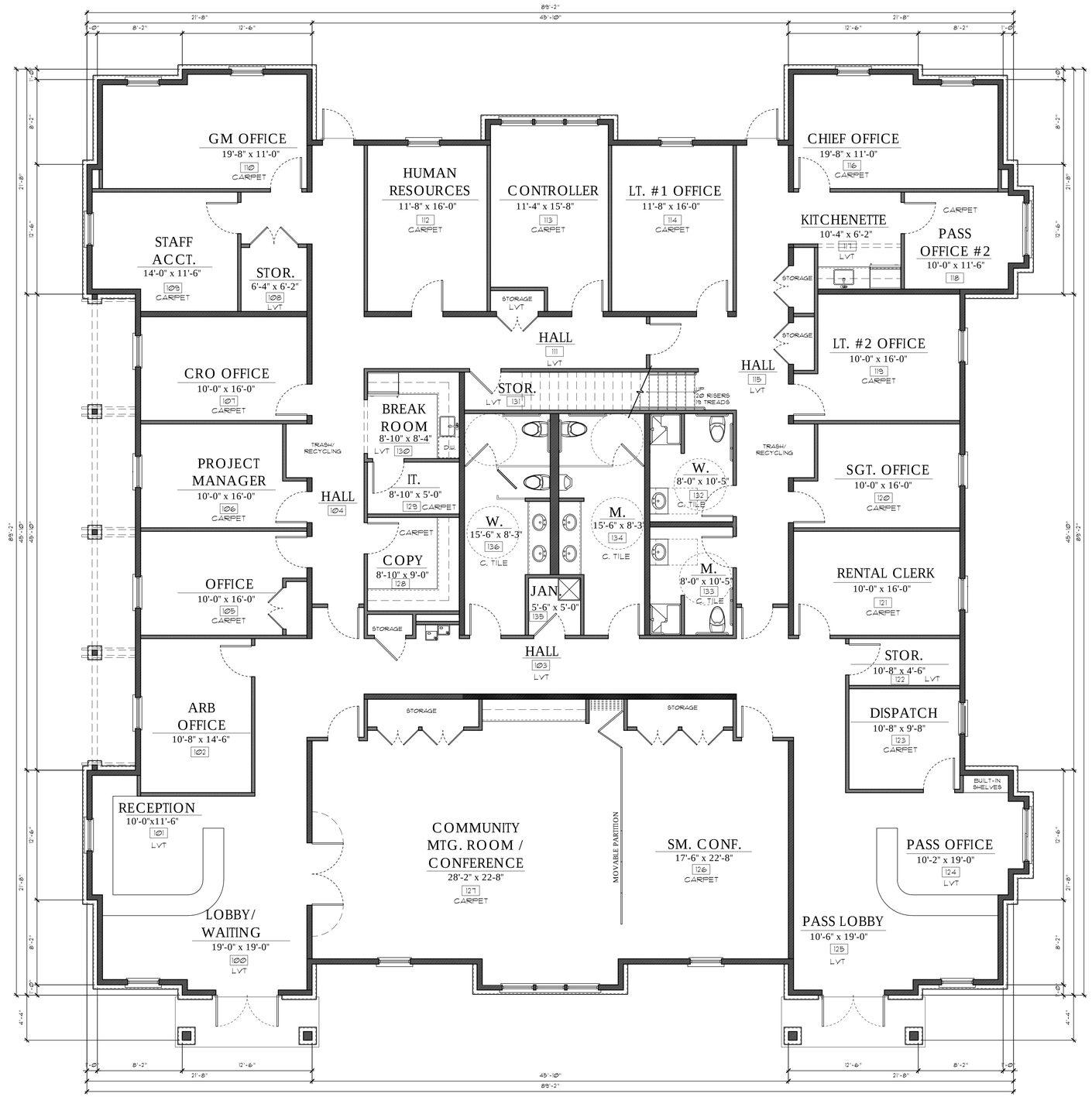
PALMETTO DUNES
HILTON HEAD ISLAND, SOUTH CAROLINA

DRAWING TITLE:
LANDSCAPE PLAN

DATE:	4-8-14
PROJECT NO.:	1042.03
DRAWN BY:	BK
CHECKED BY:	BW/DK

REVISIONS:

DRAWING NUMBER:
L1 OF 1



1 A2.1 FLOOR PLAN
SCALE 3/16" = 1'-0"

SEE COVER PAGE FOR NOTES AND LIMITATIONS TO ARCHITECTURAL SCOPE OF SERVICES.

GENERAL CONTRACTOR NOTE:
ADJUST TOP OF SLAB, WALL, AND ROOF BEARING PLATES AS REQUIRED FOR CHANGES IN STRUCTURAL MEMBER SIZES OR EXISTING SITE CONDITIONS.

GENERAL NOTE
ALL TOP OF WALL NOTES ARE TO THE TOP OF STUD/ BLOCK WALLS (SEE DETAILS FOR FINISHES)

GC/OWNER TO COORDINATE ALL IN-SLAB ELECTRICAL AND PLUMBING REQUIREMENTS WITH APPROPRIATE SUBCONTRACTOR TRADES PRIOR TO PLACING SLAB.

DIMENSION NOTE
DIMENSIONS ARE TO THE EDGE OF FOUNDATION AND FRAMING, U.O.N.
DO NOT SCALE DRAWINGS. CONTACT ARCHITECT WITH ANY DISCREPANCIES.

FOUNDATION NOTE
STRUCTURAL ENGINEERING DOCUMENTS SUPERCEDE ARCH. DOCUMENTS AND SCHEDULES WITH REGARD TO SIZE OF STRUCTURAL MEMBERS, PLACEMENT, AND CONNECTION DETAILS.

SEE STRUCTURAL ENGINEERING DRAWINGS FOR FOUNDATION DESIGN AND DETAILING.

ELECTRICAL NOTE
SEE ENGINEERING DOCUMENTS.
ALL WIRING AND DEVICES TO BE IN CONCEALED CONDUIT. GC TO COORDINATE CONDUIT.

PLUMBING NOTE
SEE ENGINEERING DOCUMENTS.
GC TO COORDINATE FLOOR DRAINS.

CIVIL/ LANDSCAPE NOTE (N.I.C.)
SEE ENGINEERING DOCUMENTS.
GC TO COORDINATE EXTERIOR DOORS WITH WALKWAYS TO MEET IBC 2012 SECTION 1008.1.5

WALL LEDGED
- STONE VENEER
- 2X6 WOOD STUDS
- 2X4 WOOD STUDS

SQUARE FOOTAGE SUMMARY

FIRST FLOOR	=	7,000 SF
SECOND FLOOR	=	500 SF
TOTAL	=	7,500 SF

COURT ATKINS ARCHITECTS
P.O. Box 3978 Bluffton, SC 29910
P: 843.815.2557 F: 843.815.2547

PALMETTO DUNES
ADMIN. AND SECURITY OFFICES
QUEEN FOLLY ROAD, HILTON HEAD ISLAND, SC

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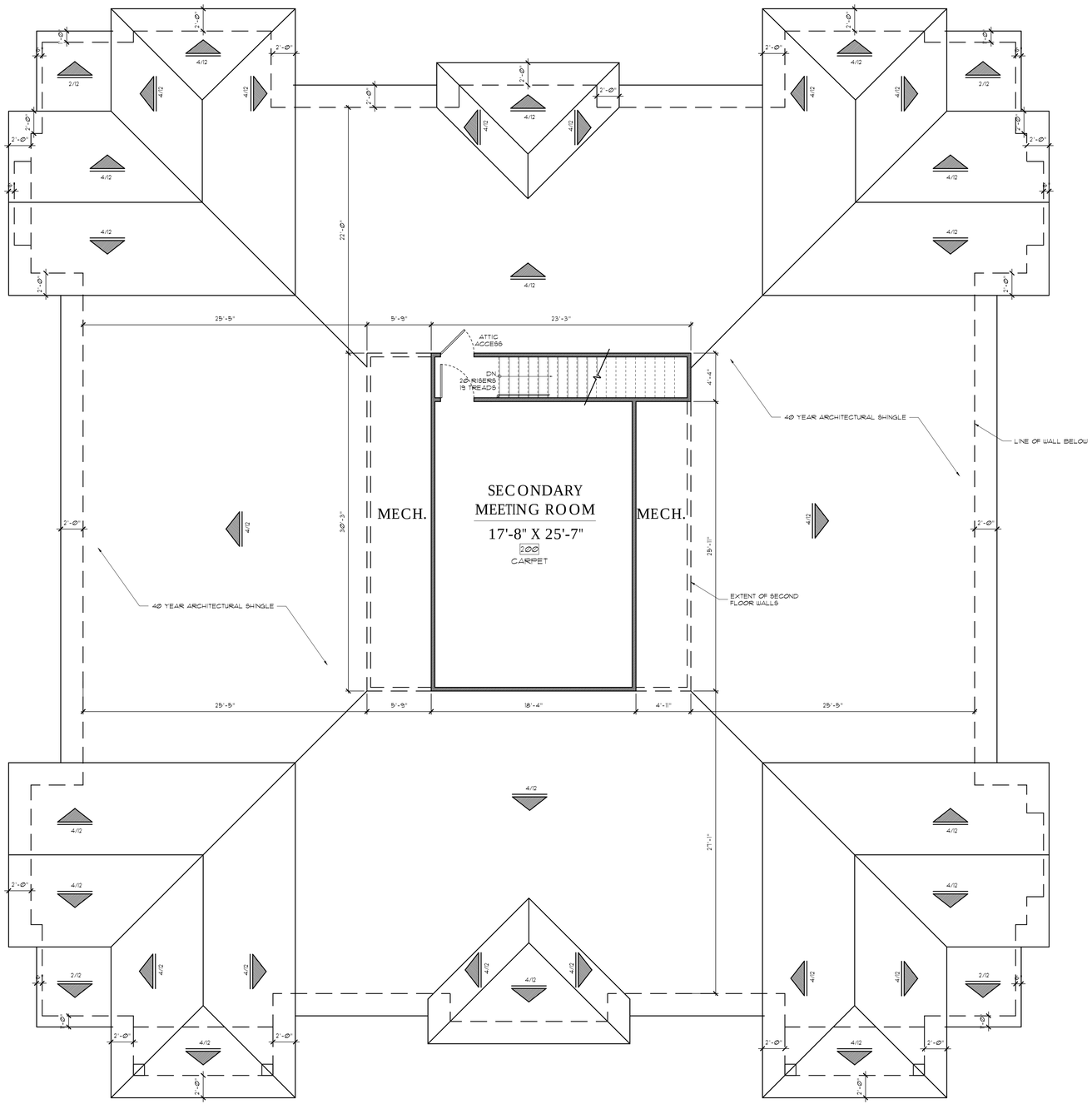
DIMENSIONAL FLOOR PLAN



1 A2.2 SECOND FLOOR PLAN

SCALE 3/16" = 1'-0"

SEE COVER PAGE FOR NOTES AND LIMITATIONS TO ARCHITECTURAL SCOPE OF SERVICES.

GENERAL CONTRACTOR NOTE:
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GENERAL NOTE
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DIMENSION NOTE
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SEE STRUCTURAL ENGINEERING DRAWINGS FOR FOUNDATION DESIGN AND DETAILING.

ELECTRICAL NOTE
SEE ENGINEERING DOCUMENTS.
ALL WIRING AND DEVICES TO BE IN CONCEALED CONDUIT. GC TO COORDINATE CONDUIT.

PLUMBING NOTE
SEE ENGINEERING DOCUMENTS.
GC TO COORDINATE FLOOR DRAINS.

CIVIL/ LANDSCAPE NOTE (N.I.C.)
SEE ENGINEERING DOCUMENTS.
GC TO COORDINATE EXTERIOR DOORS WITH WALKWAYS TO MEET IBC 2012 SECTION 1008.1.5

WALL LEDGED
STONE VENEER
2X6 WOOD STUDS
2X4 WOOD STUDS

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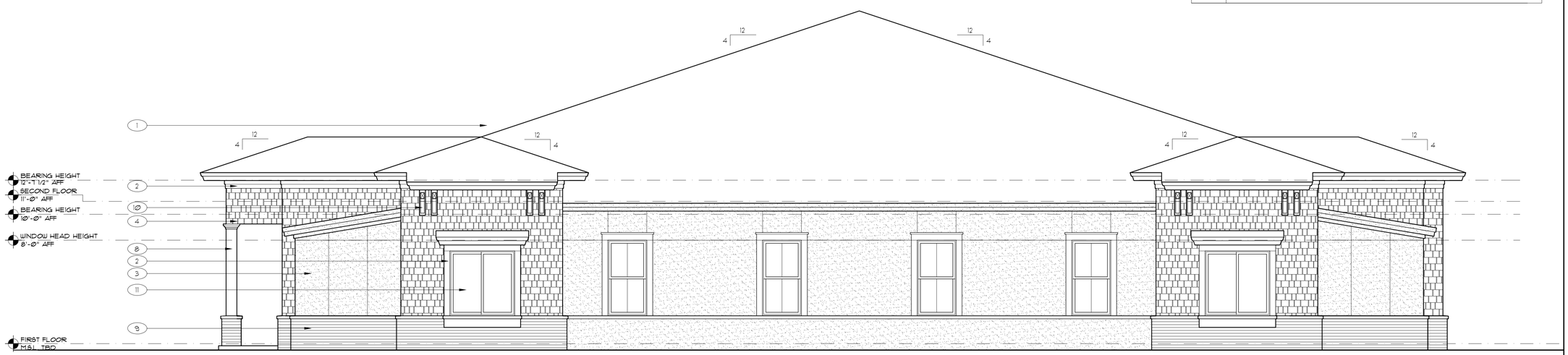
DIMENSIONAL
SECOND FLOOR PLAN

EXTERIOR MATERIALS LEGEND

	MATERIAL
1	40 YEAR ARCHITECTURAL SHINGLE - TIMBERLINE (WEATHERED WOOD)
2	PAINTED HARDIE TRIM - SHERWIN WILLIAMS (CUSTOM MATCH TO JELD WEN DESERT SAND)
3	STUCCO VENEER - DRYVIT: PRAIRIE CLAY
4	PAINTED HARDIE SHAKE SIDING - SHERWIN WILLIAMS (CUSTOM MATCH TO DRYVIT PRAIRIE CLAY)
5	JELD WEN FIXED CLAD WINDOW - COLOR: DESERT SAND
6	PAINTED COMPOSITE SHUTTERS W/ OPERABLE HARDWARE - BENJAMIN MOORE (POLO BLUE)
7	JELD WEN FIBERGLASS GLASS PANEL EXTERIOR DOOR - COLOR: DESERT SAND
8	PT WOOD COLUMN - SHERWIN WILLIAMS (CUSTOM MATCH TO JELD WEN DESERT SAND)
9	BRICK WAINSCOT - CHEROKEE BRICK MOSSTOWN
10	RED CEDAR BRACKET
11	JELD WEN SLIDING CLAD WINDOW - COLOR: DESERT SAND
12	JELD WEN SINGLE HUNG CLAD WINDOW - COLOR: DESERT SAND
13	RED CEDAR PERGOLA



1 A3.0 SIDE ELEVATION
SCALE 1/4" = 1'-0"

2 A3.0 ENTRY ELEVATION
SCALE 1/4" = 1'-0"

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ELEVATIONS

EXTERIOR MATERIALS LEGEND

	MATERIAL
1	40 YEAR ARCHITECTURAL SHINGLE - TIMBERLINE (WEATHERED WOOD)
2	PAINTED HARDIE TRIM - SHERWIN WILLIAMS (CUSTOM MATCH TO JELD WEN DESERT SAND)
3	STUCCO VENEER - DRYVIT; PRAIRIE CLAY
4	PAINTED HARDIE SHAKE SIDING - SHERWIN WILLIAMS (CUSTOM MATCH TO DRYVIT PRAIRIE CLAY)
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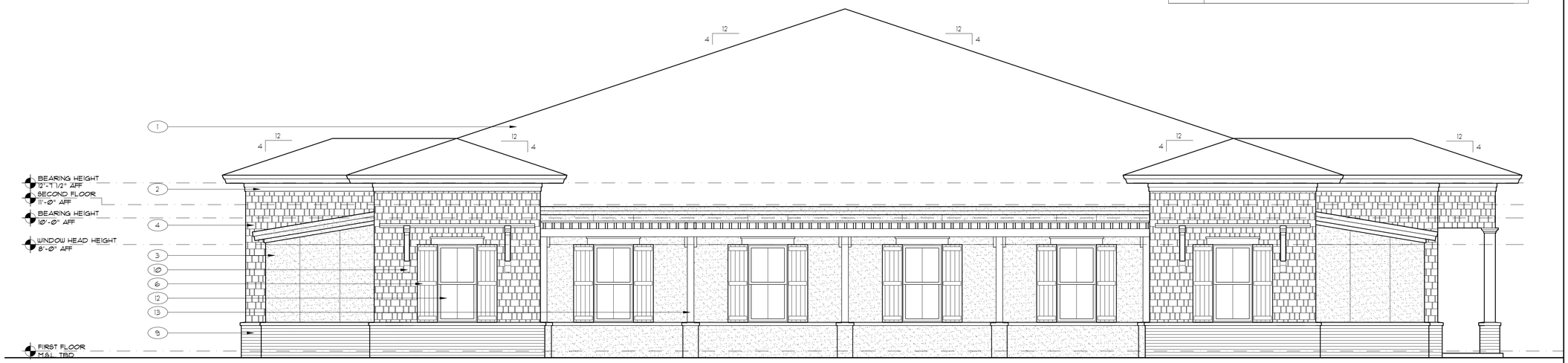
8	PT WOOD COLUMN - SHERWIN WILLIAMS (CUSTOM MATCH TO JELD WEN DESERT SAND)
9	BRICK WAINSCOT - CHEROKEE BRICK MOSSTOWN
10	RED CEDAR BRACKET
11	JELD WEN SLIDING CLAD WINDOW - COLOR: DESERT SAND
12	JELD WEN SINGLE HUNG CLAD WINDOW - COLOR: DESERT SAND
13	RED CEDAR PERGOLA



1 A3.1 SIDE ELEVATION
SCALE 1/4" = 1'-0"

2 A3.1 REAR ELEVATION
SCALE 1/4" = 1'-0"

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ELEVATIONS

Main Entrance - West Elevation

Pass Drive Thru - South Elevation

Street View - East Elevation

Trellis Side - North Elevation

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PROJECT NO. 13-059

DATE 02/19/2014

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DESIGN TEAM/DRB COMMENT SHEET

The comments below are staff recommendations to the Design Review Board (DRB) and do NOT constitute DRB approval or denial.

PROJECT NAME: Palmetto Dunes Administration & Security Offices - NEW DEVELOPMENT - CONCEPTUAL

DRB#: DR 140021

DATE: April 22, 2014

RECOMMENDATION: Approval ☒ Approval with Conditions ☐ Denial ☐

ARCHITECTURAL DESIGN

DESIGN GUIDE/LMO CRITERIA	Complies Yes	No	Not Applicable	Comments or Conditions
Structure is designed to be appropriate to the neighborhood	☒	☐	☐	
Promotes pedestrian scale and circulation	☒	☐	☐	
Design is unobtrusive and set into the natural environment	☒	☐	☐	
Utilizes natural materials and colors	☒	☐	☐	Stucco, Brick, Wood
Avoids distinctive vernacular styles	☒	☐	☐	
Design is appropriate for its use	☒	☐	☐	
All facades are have equal design characteristics	☒	☐	☐	
Avoids monotonous planes or unrelieved repetition	☒	☐	☐	
Has a strong roof form with enough variety to provide visual interest	☒	☐	☐	
Minimum roof pitch of 6/12	☐	☒	☐	Mostly 4/12 with 2/12
Overhangs are sufficient for the façade height.	☒	☐	☐	
Forms and details are sufficient to reduce the mass of the structure	☒	☐	☐	

Human scale is achieved by the use of proper proportions and architectural elements	☒	☐	☐	Consider relocating trellis structure to North Elevation at Employee Courtyard
Utilizes a variety of materials, textures and colors	☒	☒	☐	Stucco, brick, red cedar, hardie shake siding, glass, shingle roofing; mostly beige with some brick base and "Polo Blue" shutters
Incorporates wood or wood simulating materials	☒	☐	☐	
Windows are in proportion to the facade	☒	☐	☐	
Details are clean, simple and appropriate while avoiding excessive ornamentation	☒	☐	☐	
Utilities and equipment are concealed from view	☒	☐	☐	
Decorative lighting is limited and low wattage and adds to the visual character	☐	☐	☐	No lighting shown on building. Provide locations and cut sheets if applicable. Provide cut sheets for landscape & site lighting.
Accessory elements are design to coordinate with the primary structure	☒	☐	☐	

LANDSCAPE DESIGN

DESIGN GUIDE/LMO CRITERIA	Complies Yes	No	Not Applicable	Comments or Conditions
Treats the Landscape as a major element of the project	☒	☐	☐	
Provides Landscaping of a scope and size that is in proportion to the scale of the development	☒	☐	☐	
Landscape is designed so that it may be maintained in its natural shape and size	☒	☐	☐	
Preserves a variety of existing native trees and shrubs	☐	☐	☐	Some trees preserved on south eastern side of site.
Provides for a harmonious setting for the site's structures, parking areas or other construction	☒	☐	☐	
Location of existing trees and new trees provides street buffers, mitigation for parking lots, and an architectural complement that visually mitigates between parking lots and building(s)	☒	☐	☐	
Shrubs are selected to complement the natural setting, provide visual interest and screen less desirable elements of the project	☒	☐	☐	
A variety of species is selected for texture and color	☒	☐	☐	
Provides overall order and continuity of the Landscape plan	☒	☐	☐	
Native plants or plants that have historically been	☒	☐	☐	

prevalent on the Island are utilized				
A variety of sizes is selected to create a “layered” appearance for visual interest and a sense of depth	☒	☐	☐	
The location of existing mature trees is taken into account in placement of shrubs so as not to damage tree roots	☒	☐	☐	
Proper spacing and location for plants to reach their mature size and natural shape while avoiding excessive or unnatural pruning	☒	☐	☐	
Proposed groundcovers are evergreen species with low maintenance needs	☒	☐	☐	
Large grassed lawn areas encompassing a major portion of the site are avoided	☐	☐	☐	
The adjacent development is taken into account in determining the most appropriate buffer so as not to depart too dramatically from the neighborhood	☒	☐	☐	
Ornamentals and Annuals are limited to entrances and other focal points	☒	☐	☐	

NATURAL RESOURCE PROTECTION

DESIGN GUIDE/LMO CRITERIA	Complies Yes	No	Not Applicable	Comments or Conditions
An effort has been made to preserve existing trees and under story plants	☐	☐	☐	
Supplemental and replacement trees meet LMO requirements for size, species and number	☐	☐	☐	
Wetlands if present are avoided and the required buffers are maintained	☐	☐	☒	
Sand dunes if present are not disturbed	☐	☐	☒	

MISC COMMENTS/QUESTIONS