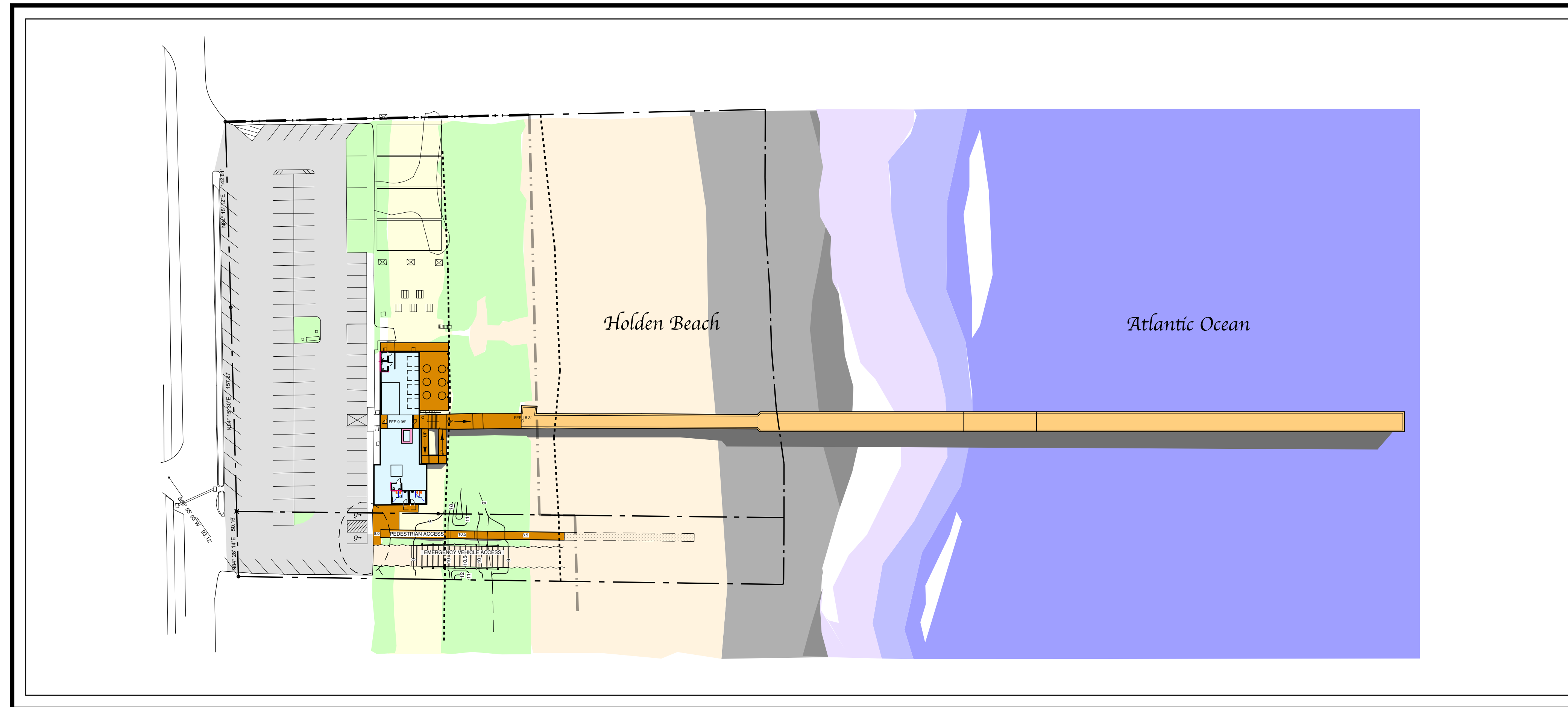
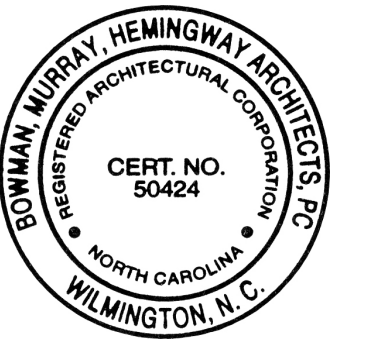


The Town of Holden Beach

# Holden Beach Pier Renovation

441 Ocean Boulevard West  
Holden Beach, North Carolina 28462



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Holden Beach Pier Renovation  
441 Ocean Boulevard West  
Holden Beach, North Carolina 28462



**Bowman Murray Hemingway Architects, PC**  
514 Market Street  
Wilmington, North Carolina 28401  
Phone (910) 762-2621  
[www.bmharch.com](http://www.bmharch.com)

**Civil Engineering & Structural:**  
Andrew Consulting Engineers P.C.  
3811 Peachtree Avenue, Suite 300  
Wilmington, NC 28403  
(910) 202-5555

**Plumbing, Mechanical & Electrical:**  
CBHF Engineers, PLLC  
2246 Yaupon Drive  
Wilmington, NC 28401  
(910) 791-4000



KEY MAP	

Cover Sheet  
Drawing Index

JOB NUMBER

DRAWN BY  
MG

CHECKED BY  
GCH

DATE  
12/8/22

REVISIONS

SHEET NUMBER



**2018 APPENDIX B**  
EXISTING BUILDING DATA SUMMARY

Name of Project: Holden Beach Pier Renovation  
 Address: 441 Ocean Blvd West, Holden Beach, NC Zip Code 28462  
 Proposed Use: Public Fishing Pier with Tackle Shop, Concessions, Public Restrooms  
 Owner or Authorized Agent: \_\_\_\_\_  
 Phone #: \_\_\_\_\_ E-mail: \_\_\_\_\_  
 Owned By:  City / County  Private  State  
 Code Enforcement Jurisdiction:  City: Holden Beach  County: \_\_\_\_\_  State

LEAD DESIGN PROFESSIONAL: Text

DESIGNER	FIRM	NAME	LIC#	TEL#	E-MAIL
Architectural	Bowman Murray Hemingway	George (Chip) Hemingway	7487	910.762.2621	hemingway@bmharch.com
Civil	Andrew Consulting Engineers	Neal W. Andrew	23591	910.202.5555	
Electrical	TBD				
Fire Alarm	TBD				
Plumbing	TBD				
Mechanical	TBD				
Sprinkler/Standpipe	TBD				
Structural	Andrew Consulting Engineers	Neal W. Andrew	23591	910.202.5555	
Retaining Walls > 5' High					
Other					

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

CLASSIFICATION OF WORK: WORK AREA METHOD (PIER HOUSE ONLY)  
 Repair: Damaged exterior walls at specific locations  
 Alteration Level I: Exterior fenestration to be restored and painted. Exterior walls to received new interior finish & insulation. New floor finishes.  
 Alteration Level II: New restrooms for ADA compliance. Reconfigure interior spaces. New concrete slab-on-grade. New Plumbing, Mechanical, and Electrical systems. New windows and doors. New public restrooms for Beach & Pier visitors

CONSTRUCTED: (date) 1960 (PIER) CURRENT OCCUPANCY(S) (Ch. 3): Merchantile, A-2  
 RENOVATED: (date) 1980 (PIER HOUSE) PROPOSED OCCUPANCY(S) (Ch. 3): Merchantile, A-2  
 RISK CATEGORY (Table 1604.5): Current:  I  II  III  IV  
 Proposed:  I  II  III  IV

**BASIC BUILDING DATA**  
 Construction Type:  I-A  II-A  III-A  IV  V-A  
 I-B  II-B  III-B  V-B  
 Sprinklers:  No  Partial  Yes  NFPA 13  NFPA 13R  NFPA 13D  
 Standpipes:  No  Yes Class:  I  II  III  Wet  Dry  
 Fire District:  No  Yes Flood Hazard Area:  No  Yes  
 Special Inspections Required:  No  Yes

FLOOD DATA: Flood Zone - AE  
 Base Flood Elevation (BFE): 11 FT  
 County: Brunswick  
 Panel: 2015  
 Map Number: 3720201500K  
 Existing Finish Floor: 9.95 FT

GROSS BUILDING AREA TABLE (Pier House Only)

Floor	Existing (sq ft)	New (sq ft)	Sub Total (sq ft)	Upfit (sq ft)
First Floor	3,891	0		
<b>Total</b>	<b>3,891</b>	<b>0</b>		

OCCUPANCY  
 Primary Occupancy Classification(s):  
 Assembly  A-1  A-2  A-3  A-4  A-5  
 Mercantile   
 Primary Occupancy Classification(s): A-2 ASSEMBLY  
 Mixed Occupancy:  No  Yes Separation: 0 Hr.  
 Non-Separated Use (508.3)

BUILDING HEIGHT  
 EXISTING BUILDING HEIGHT = 10'-6" +/- AVERAGE (FLAT ROOF)  
 TOP OF PARAPET = 13'-6" +/-

FIRE PROTECTION REQUIREMENTS  
 TYPE 5B NON-PROTECTED COMBUSTIBLE  
 FIRE SEPARATION: 30+ MIN. ALL SIDES  
 NON-RATED EXTERIOR WALLS  
 OPENING PROTECTION: NOT APPLICABLE  
 OPEN RESTRICTIONS: NONE

ACCESSIBLE PARKING  
 103 EXISTING ON-SITE PARKING SPACES (TOTAL)  
 6 ACCESSIBLE SPACES (INCLUDED)

**[TBD] LIFE SAFETY SYSTEM REQUIREMENTS**

Emergency Lighting  No  Yes  
 Exit Signs  No  Yes  
 Fire Alarms  No  Yes  
 Smoke Detection Systems  No  Yes  Partial \_\_\_\_\_  
 Carbon Monoxide Detection  No  Yes

**[TBD] LIFE SAFETY PLAN REQUIREMENTS**

Life Safety Plan Sheet #: X  
 Fire and / or smoke rated wall locations (Chapter 7)  
 Assumed and real property line locations (if not on site plan)  
 Exterior wall opening area with respect to distance to assumed property lines (705.8)  
 Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)  
 Occupant loads for each area  
 Occupant loads for each area  
 Exit access travel distances (1017)  
 Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))  
 Dead end lengths (1020.4)  
 Clear exit widths for each exit door  
 Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)  
 Actual occupant load for each exit door  
 A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation  
 Location of doors with panic hardware (1010.1.10)  
 Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)  
 Location of doors with electromagnetic egress locks (1010.1.9.9)  
 Location of doors equipped with hold-open devices  
 Location of emergency escape windows (1030)  
 The square footage of each fire area (202)  
 The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)  
 Note any code exceptions or table notes that may have been utilized regarding the items above

**PLUMBING FIXTURES**

CONCESSIONS: 1,976 SF seating area = 1,976 / 15 = 132 (66 male, 66 female)  
 Required: [A-2] (1) WC per 75, (1) LAV per 75 each sex.  
 Provided: (2) Single use toilets with (1) WC & (1) LAV each.  
 Maximum supported occupants = 150  
 TACKLE SHOP: 1,160 SF space = 1,160 / 60 = 20 occupants  
 Required: [M] (1) WC per 500, (1) LAV per 750  
 Provided: (1) Single use toilet with (1) WC & (1) LAV  
 Maximum supported occupants = 100  
 D.F. not required when under 100 occupants.  
 RETAIL [TBD]: 400 SF space = 400 / 100 = 4 (2 male, 2 female)  
 Required: [TBD] (1) WC per 25, (1) LAV per 40  
 Provided: (1) Single use toilet with (1) WC & (1) LAV (shared with Tackle Shop)  
 Maximum supported occupants = 25 (for single unisex restroom)  
 D.F. : To be determined depending on occupancy.  
 (Calculation for Business shown for reference.)  
 PUBLIC RR: Provided: (2) Multi-Use restroom with (2) WC & (1) LAV each.  
 Assuming use similar to [A-5] with (1) WC per 100  
 the supported occupancy load is (4) WC x 100 = 400 people.

**SPECIAL APPROVALS**

Special approval: (Local Jurisdiction, Department of Insurance, SBCCI, ICC, etc., describe below.)  
 Local Jurisdiction \_\_\_\_\_

**[TBD] ENERGY SUMMARY**

Existing building envelope complies with code:  No  Yes (The remainder of this section is not applicable)  
 Exempt Building:  No  Yes (Provide code or statutory reference): \_\_\_\_\_  
 Climate Zone  3A  4A  5A  
 Method of Compliance: Energy Code  Performance  Prescriptive  
 ASHRAE 90.1  Performance  Prescriptive  
 (If "Other" specify source here) \_\_\_\_\_

**THERMAL ENVELOPE (Prescriptive method only)**

**Roof/Ceiling Assembly** (each assembly)  
 Description of assembly \_\_\_\_\_  
 U-Value of total assembly \_\_\_\_\_  
 R-Value of insulation \_\_\_\_\_  
 Skylights in each assembly \_\_\_\_\_  
**Exterior Walls** (each assembly)  
 Description of assembly \_\_\_\_\_  
 U-Value of total assembly \_\_\_\_\_  
 R-Value of insulation \_\_\_\_\_  
 Openings (windows or doors with glazing)  
 U-Value of assembly: \_\_\_\_\_  
 Solar heat gain coefficient: \_\_\_\_\_  
 projection factor: \_\_\_\_\_  
 Door R-Values: \_\_\_\_\_  
**Floor Slab on Grade**  
 Description of assembly \_\_\_\_\_  
 U-Value of total assembly \_\_\_\_\_  
 R-Value of insulation \_\_\_\_\_

**STRUCTURAL DESIGN [TBD]**

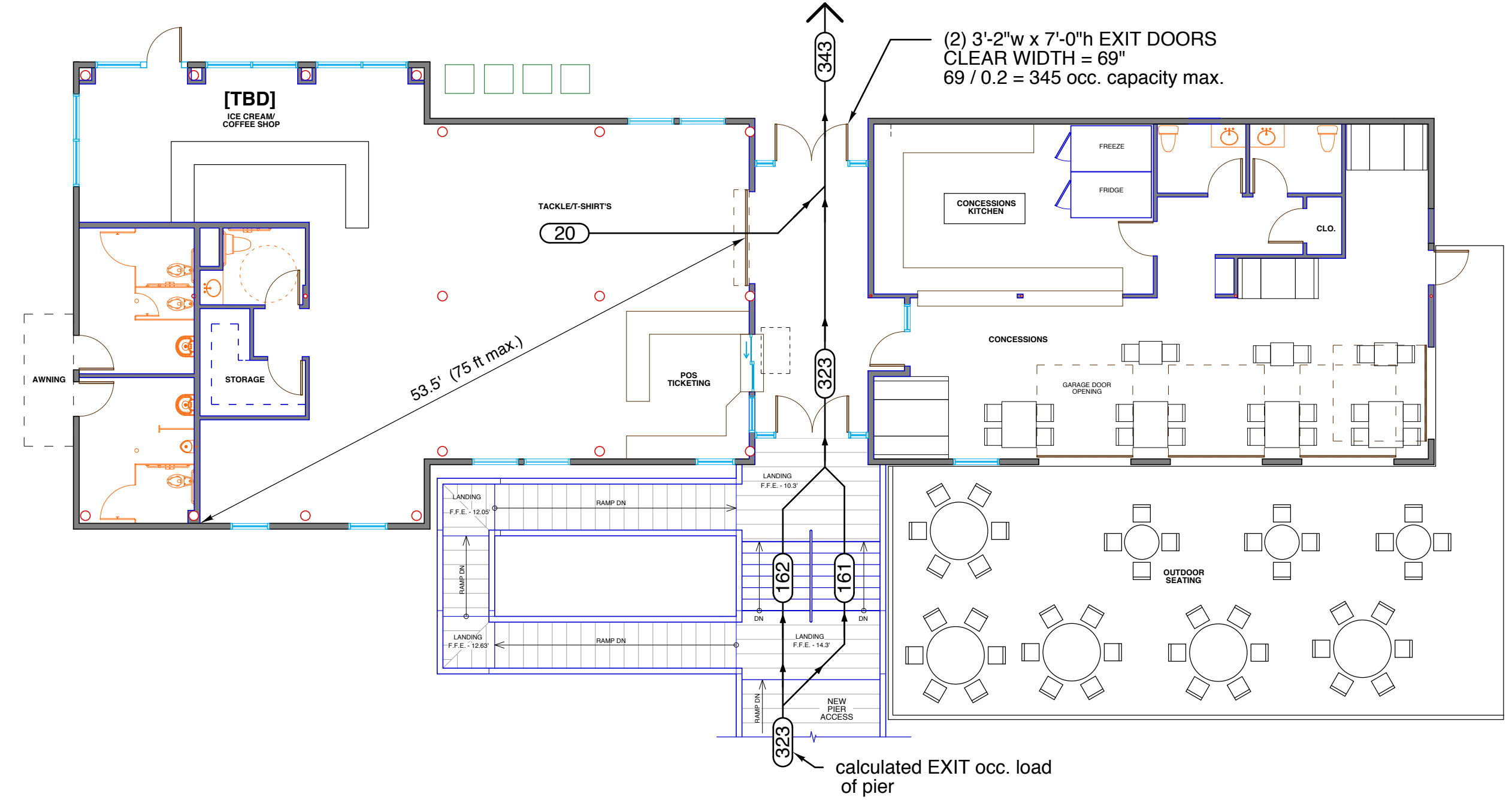
DESIGN LOADS:  
 Importance Factors: Snow (I<sub>s</sub>) \_\_\_\_\_  
 Seismic (I<sub>e</sub>) \_\_\_\_\_  
 Live Loads: Roof \_\_\_\_\_ psf  
 Mezzanine \_\_\_\_\_ psf  
 Floor \_\_\_\_\_ psf  
 Ground Snow Loads: \_\_\_\_\_ psf  
 Wind Loads: Ultimate Wind Speed \_\_\_\_\_ mph (ASCE-7)  
 Exposure Category \_\_\_\_\_

SEISMIC DESIGN CATEGORY:  A  B  C  D  
 Provide the following Seismic Design Parameters:  
 Risk Category (Table 1604.5)  I  II  III  IV  
 Spectral Response Acceleration SS \_\_\_\_\_ %g SI \_\_\_\_\_ %g  
 Site Classification (ASCE 7)  A  B  C  D  E  F  
 Data Source:  Field Test  Presumptive  Historical Data  
 Basic Structural System  Bearing Wall  Dual w/Special Moment Frame  
 Building Frame  Dual w/Intermediate R/C or Special Steel  
 Moment Frame  Inverted Pendulum  
 Analysis Procedure  Simplified  Equivalent Lateral Force  Dynamic  
 Architectural, Mechanical, Components anchored?  Yes  No

LATERAL DESIGN CONTROL: Earthquake  Wind   
 SOIL BEARING CAPACITIES:  
 Field Test (provide copy of test report) \_\_\_\_\_ psf  
 Presumptive Bearing capacity \_\_\_\_\_ psf  
 Pile size, type, and capacity \_\_\_\_\_

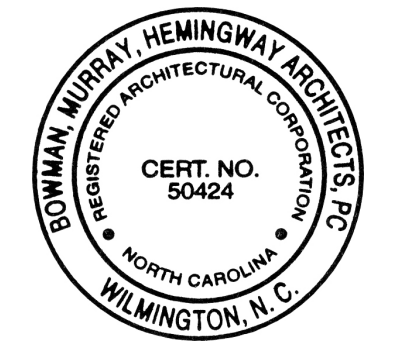
**[TBD] MECHANICAL SUMMARY**

**[TBD] ELECTRICAL SUMMARY**



TRUE  
 PROJECT NORTH  
 1  
 G1.1  
**Life Safety Plan [Preliminary]**  
 scale: 1" = 10'-0"

**bmh**  
**BOWMAN MURRAY HEMINGWAY**  
 ARCHITECTS  
 514 Market Street  
 Wilmington, NC 28401  
 Tel - (910) 762-2621  
 Fax - (910) 762-5506



**Holden Beach Pier Renovation**  
 441 Ocean Boulevard West  
 Holden Beach, North Carolina 28462

**Building Data**  
**Life Safety Plan**

JOB NUMBER \_\_\_\_\_  
 DRAWN BY AT  
 CHECKED BY GCH  
 DATE 12/8/22  
 REVISIONS \_\_\_\_\_

SHEET NUMBER

**G1.1**





**BOWMAN  
MURRAY  
HEMINGWAY**

ARCHITECTS  
514 Market Street  
Wilmington, NC 28401  
Tel - (910) 762-2821  
Fax - (910) 762-8506



**Holden Beach Pier**  
441 Ocean Boulevard West  
Holden Beach, North Carolina 28462

Existing Site Plan

JOB NUMBER	
DRAWN BY	MG
CHECKED BY	GCH
DATE	12/8/22
REVISIONS	03.31.23 ADD UPDATED SURVEY INFO.

SHEET NUMBER

**A1.0**

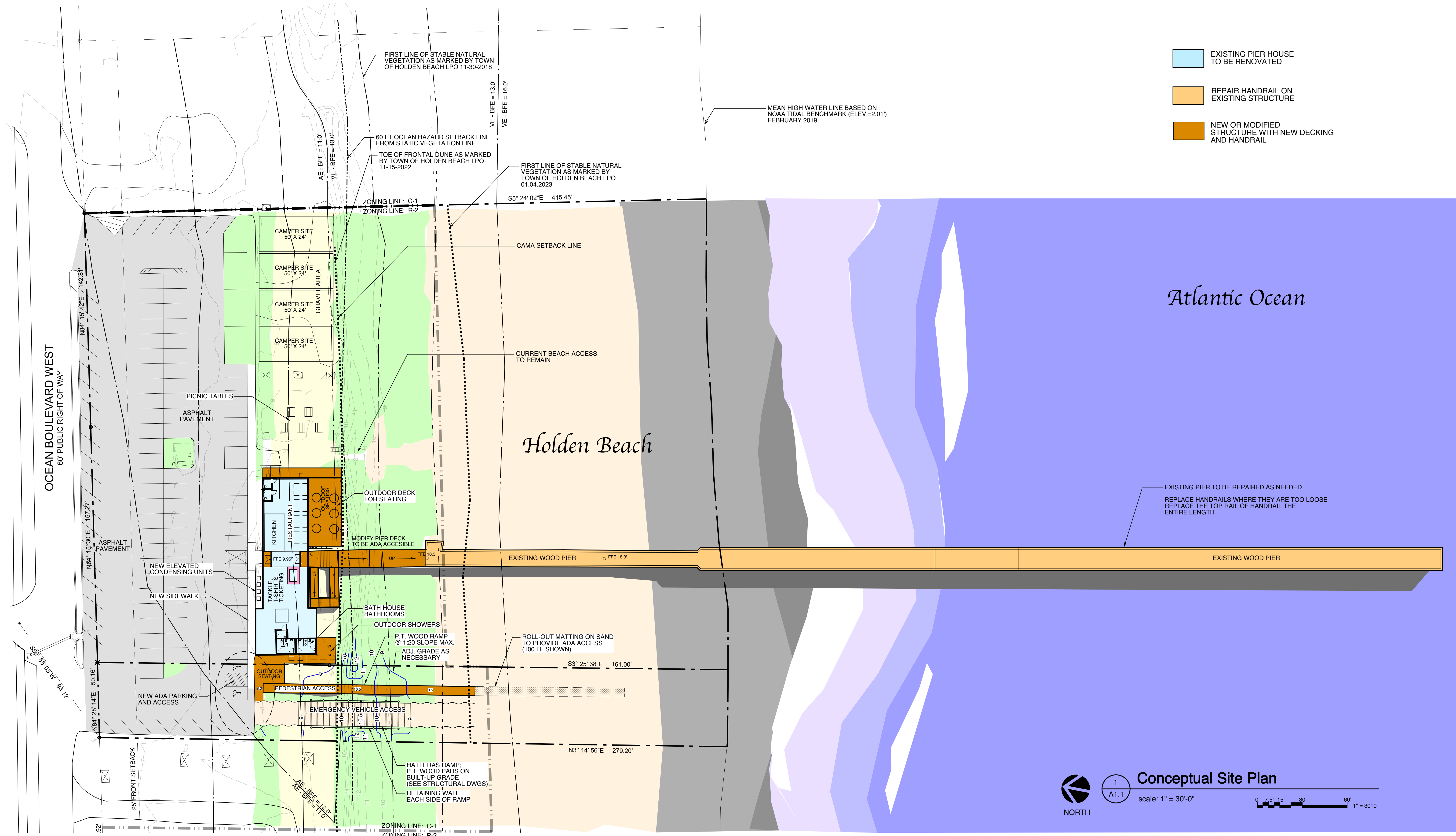


**Existing Site Plan**

scale: 1" = 30'-0"





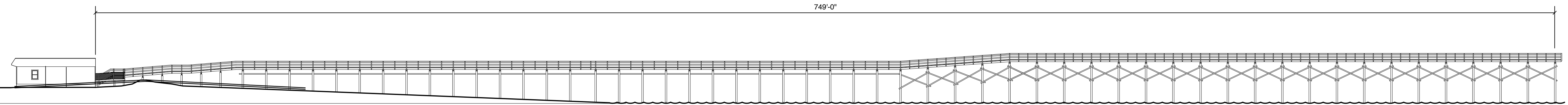


Atlantic Ocean

Holden Beach

EXISTING PIER TO BE REPAIRED AS NEEDED  
REPLACE HANDRAILS WHERE THEY ARE TOO LOOSE  
REPLACE THE TOP RAIL OF HANDRAIL THE ENTIRE LENGTH

**1 Conceptual Site Plan**  
scale: 1" = 30'-0"  
0' 7.5' 15' 30' 60' 1" = 30'-0"



**2 Conceptual Elevation**  
scale: 1" = 30'-0"  
0' 7.5' 15' 30' 60' 1" = 30'-0"

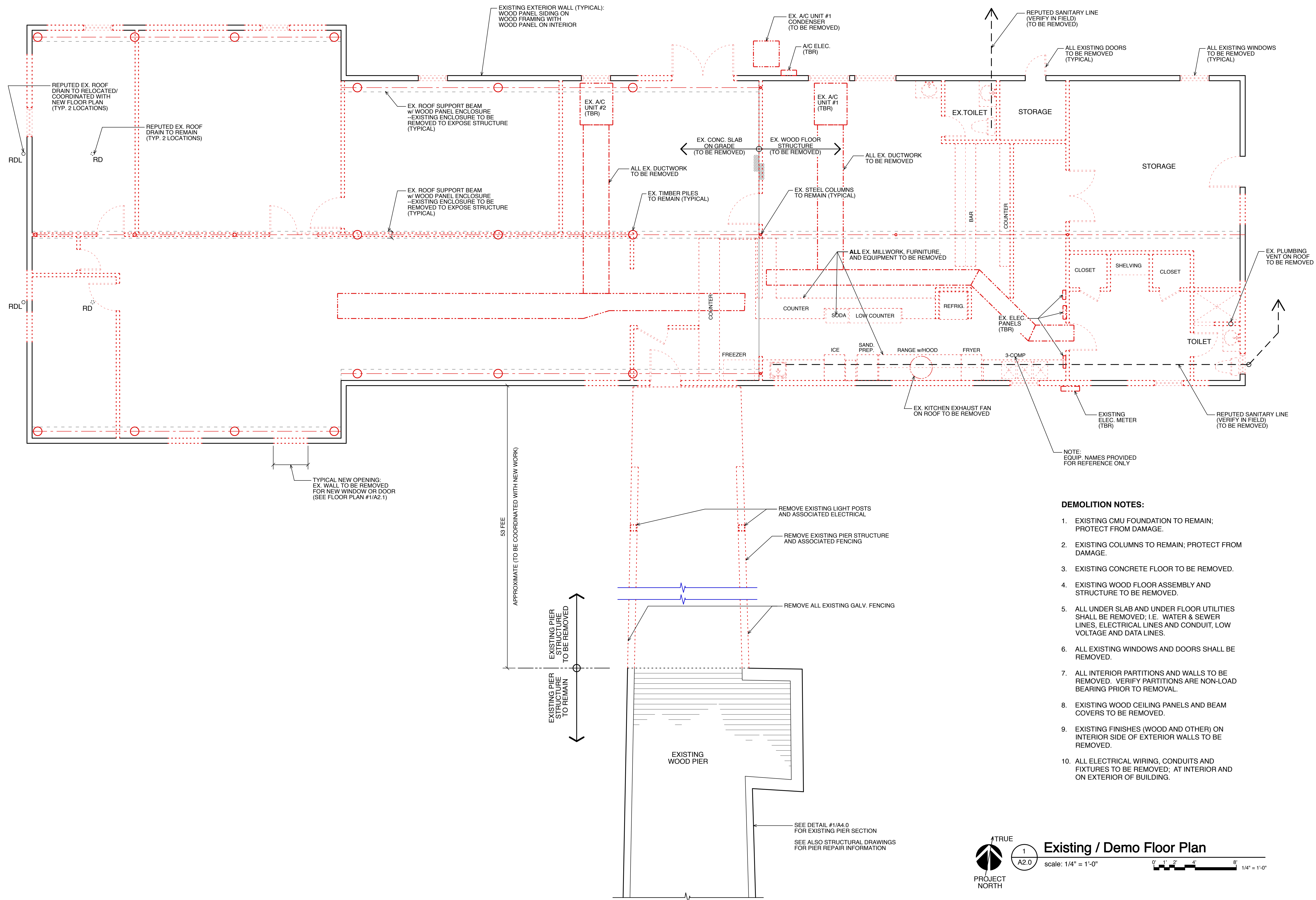


**Holden Beach Pier**  
441 Ocean Boulevard West  
Holden Beach, North Carolina 28462

Conceptual Site  
Plan & Elevation

JOB NUMBER
DRAWN BY MG
CHECKED BY GCH
DATE 12/8/22
REVISIONS 03.31.23 ADD UPDATED SURVEY INFO.





**DEMOLITION NOTES:**

1. EXISTING CMU FOUNDATION TO REMAIN; PROTECT FROM DAMAGE.
2. EXISTING COLUMNS TO REMAIN; PROTECT FROM DAMAGE.
3. EXISTING CONCRETE FLOOR TO BE REMOVED.
4. EXISTING WOOD FLOOR ASSEMBLY AND STRUCTURE TO BE REMOVED.
5. ALL UNDER SLAB AND UNDER FLOOR UTILITIES SHALL BE REMOVED; I.E. WATER & SEWER LINES, ELECTRICAL LINES AND CONDUIT, LOW VOLTAGE AND DATA LINES.
6. ALL EXISTING WINDOWS AND DOORS SHALL BE REMOVED.
7. ALL INTERIOR PARTITIONS AND WALLS TO BE REMOVED. VERIFY PARTITIONS ARE NON-LOAD BEARING PRIOR TO REMOVAL.
8. EXISTING WOOD CEILING PANELS AND BEAM COVERS TO BE REMOVED.
9. EXISTING FINISHES (WOOD AND OTHER) ON INTERIOR SIDE OF EXTERIOR WALLS TO BE REMOVED.
10. ALL ELECTRICAL WIRING, CONDUITS AND FIXTURES TO BE REMOVED; AT INTERIOR AND ON EXTERIOR OF BUILDING.

**Existing / Demo Floor Plan**

scale: 1/4" = 1'-0" 0' 1' 2' 4' 8' 1/4" = 1'-0"



1  
A2.0

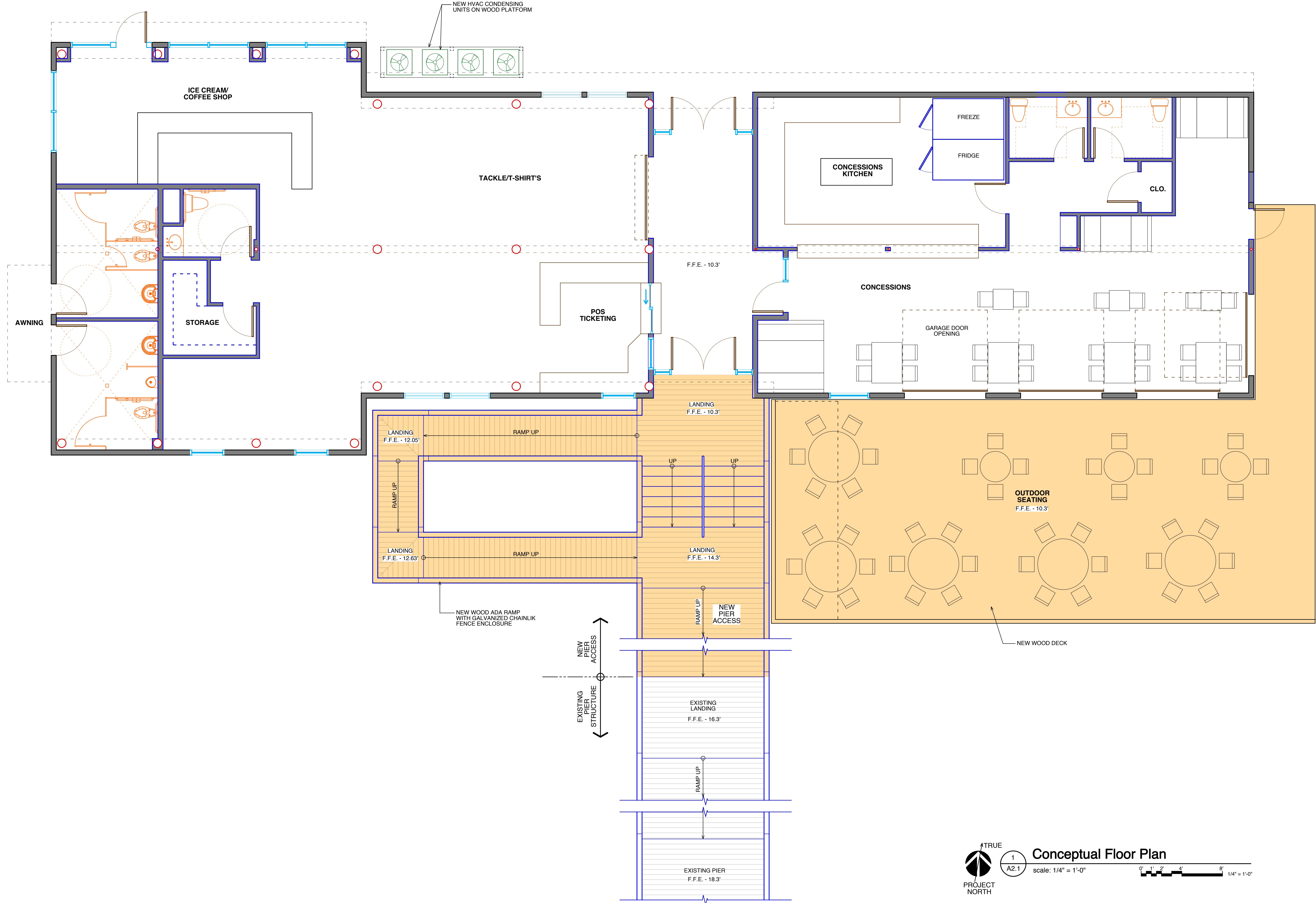
**Holden Beach Pier**  
 441 Ocean Boulevard West  
 Holden Beach, North Carolina 28462

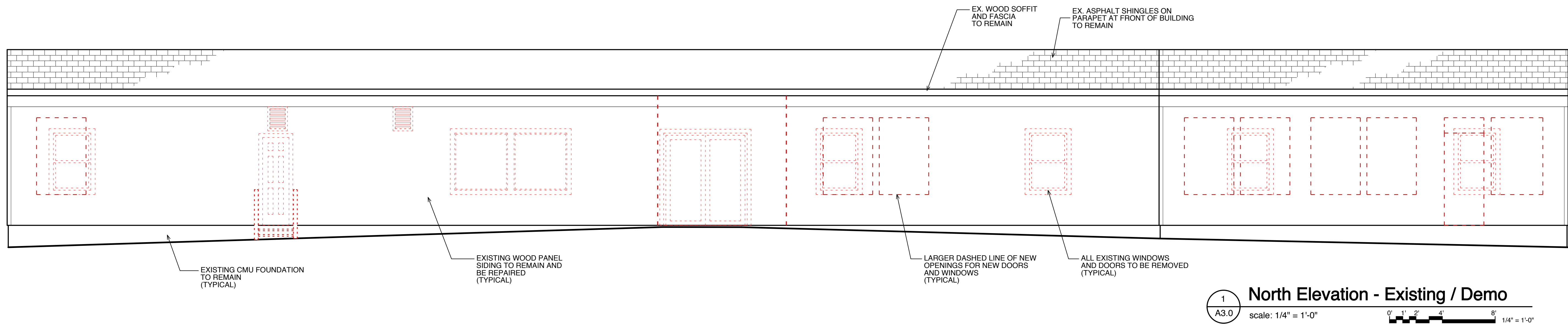
Existing / Demo  
 Floor Plan

JOB NUMBER
DRAWN BY MG
CHECKED BY GCH
DATE 12/8/22
REVISIONS

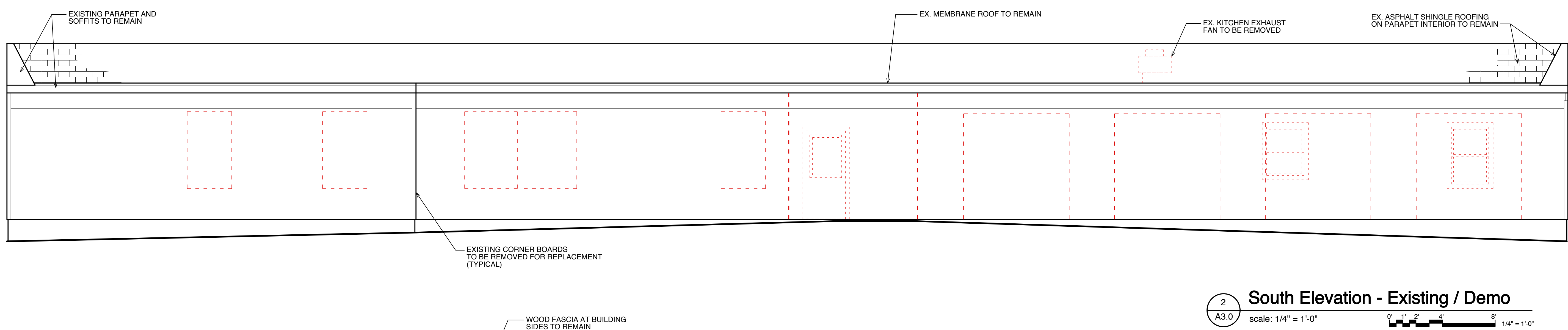
SHEET NUMBER

**A2.0**

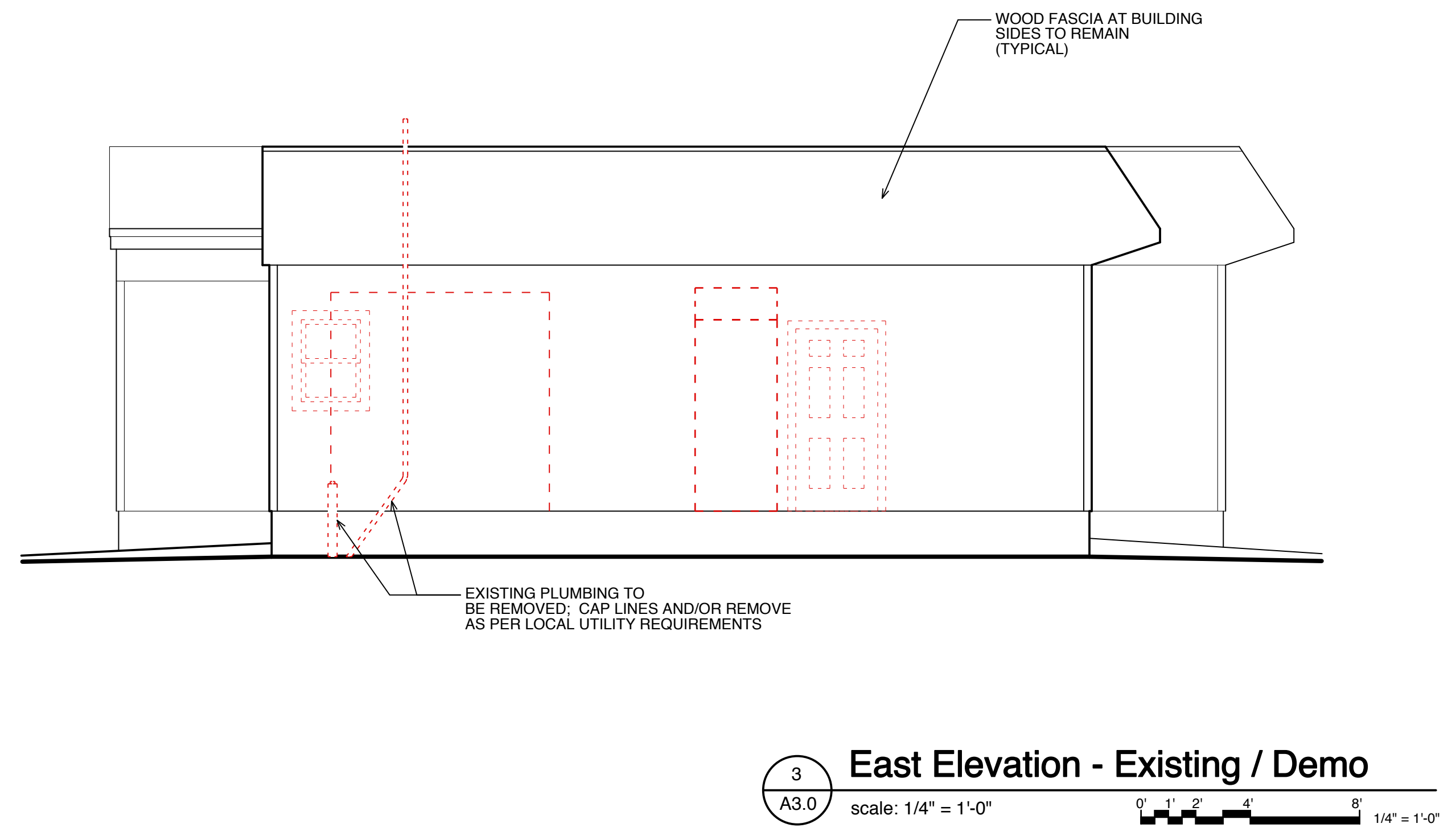




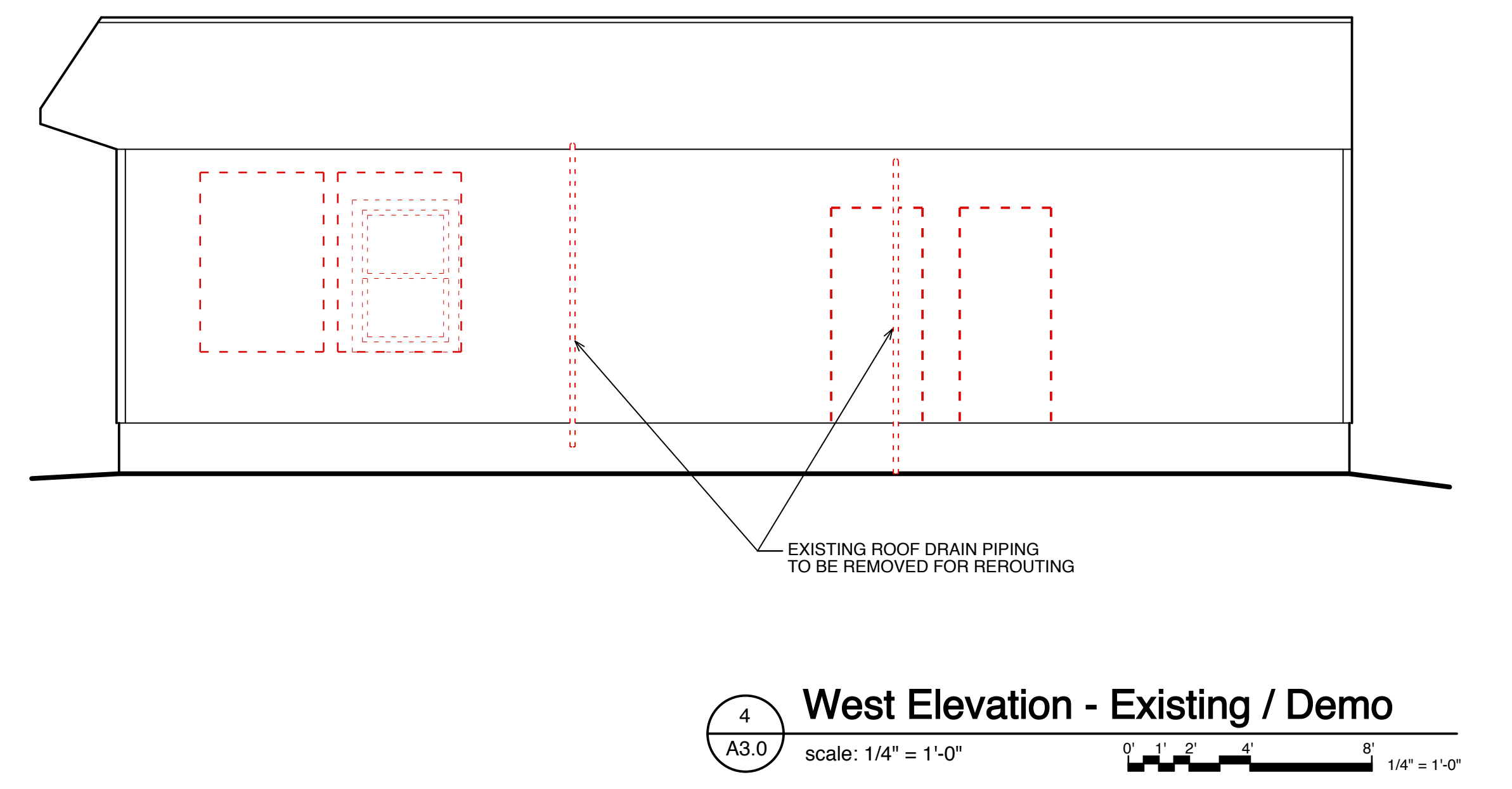
**1 North Elevation - Existing / Demo**  
A3.0 scale: 1/4" = 1'-0" 0' 1' 2' 4' 8' 1/4" = 1'-0"



**2 South Elevation - Existing / Demo**  
A3.0 scale: 1/4" = 1'-0" 0' 1' 2' 4' 8' 1/4" = 1'-0"



**3 East Elevation - Existing / Demo**  
A3.0 scale: 1/4" = 1'-0" 0' 1' 2' 4' 8' 1/4" = 1'-0"



**4 West Elevation - Existing / Demo**  
A3.0 scale: 1/4" = 1'-0" 0' 1' 2' 4' 8' 1/4" = 1'-0"

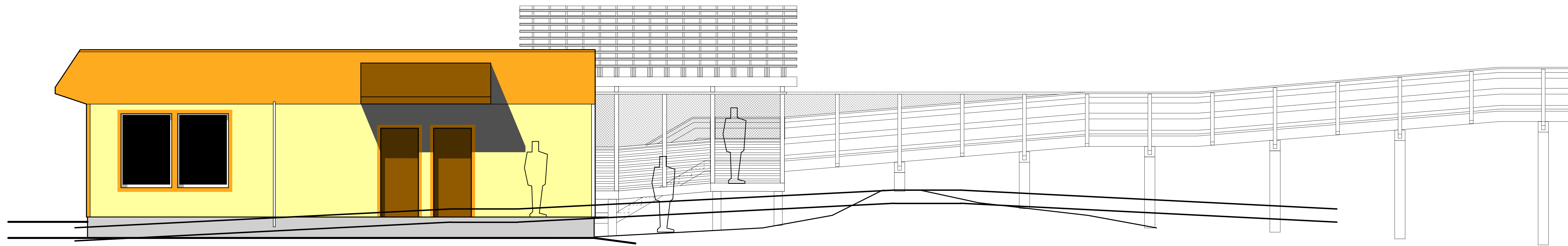
**Holden Beach Pier**  
441 Ocean Boulevard West  
Holden Beach, North Carolina 28462

Existing / Demo  
Elevations

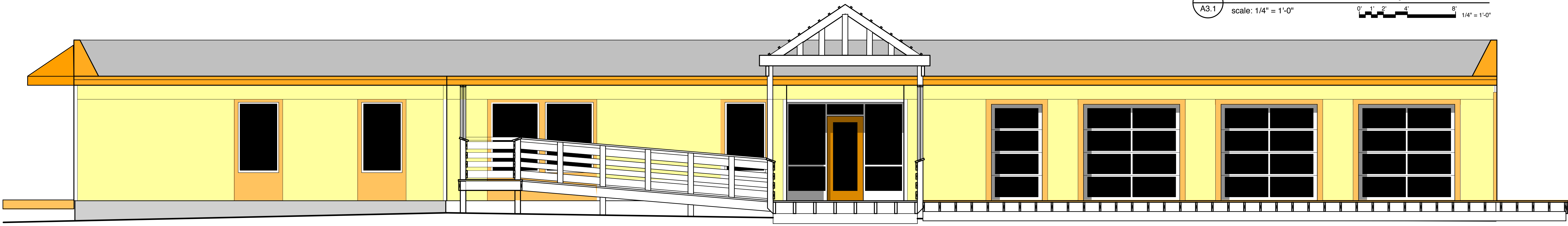
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REVISIONS

SHEET NUMBER  
**A3.0**





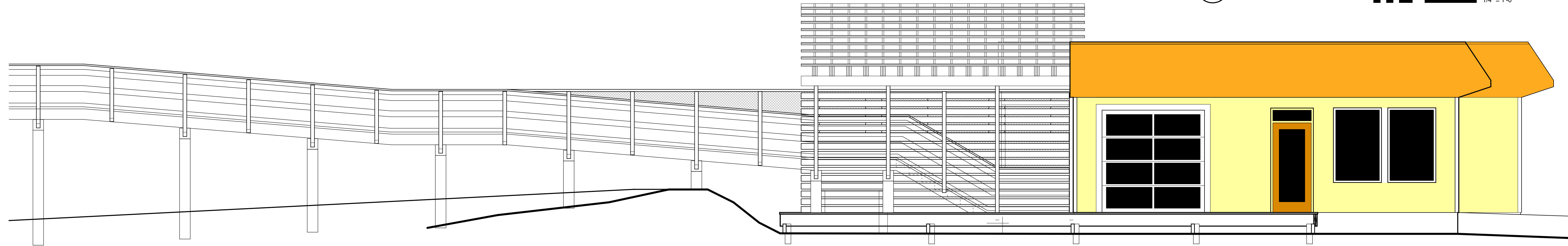
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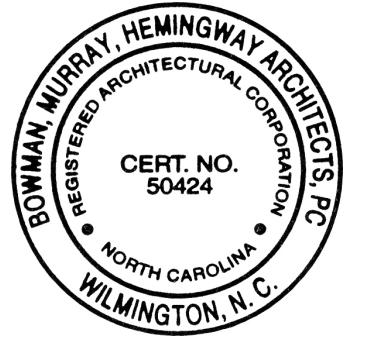
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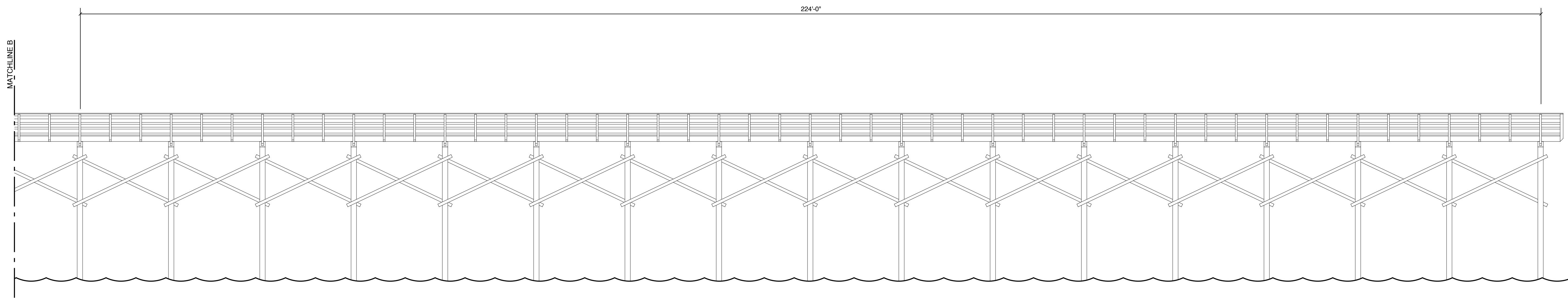
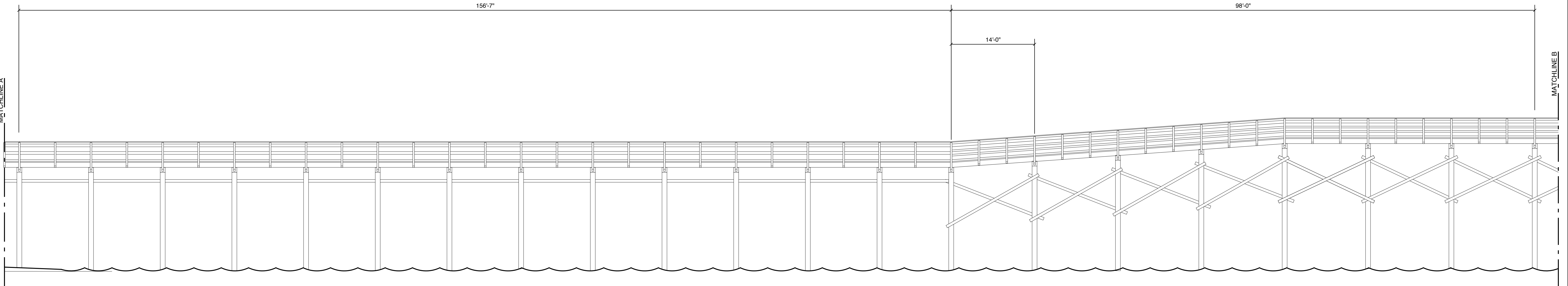
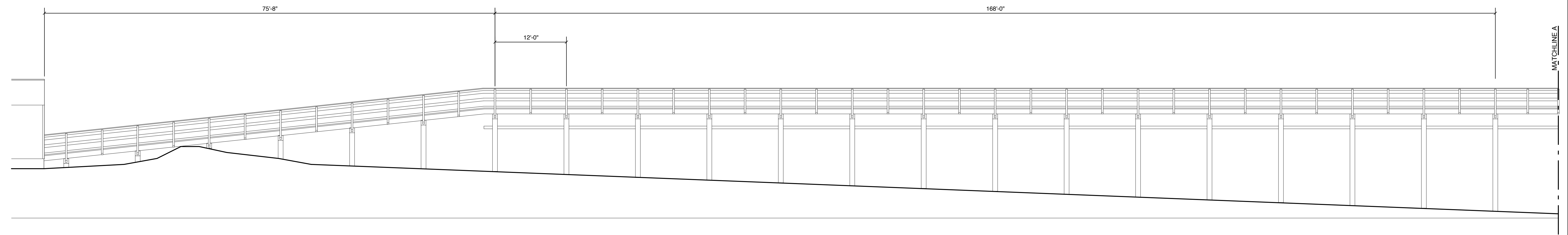
3 North Elevation - Conceptual  
 A3.1 scale: 1/4" = 1'-0" 0' 1' 2' 4' 8' 1/4" = 1'-0"



4 East Elevation - Conceptual  
 A3.1 scale: 1/4" = 1'-0" 0' 1' 2' 4' 8' 1/4" = 1'-0"







**bmh**  
**BOWMAN MURRAY HEMINGWAY**  
 ARCHITECTS  
 514 Market Street  
 Wilmington, NC 28401  
 Tel - (910) 762-2621  
 Fax - (910) 762-8506

**BOWMAN MURRAY HEMINGWAY ARCHITECTS, PC**  
 REGISTERED ARCHITECTURAL CORPORATION  
 CERT. NO. 50424  
 NORTH CAROLINA  
 WILMINGTON, N.C.

**Holden Beach Pier**  
 441 Ocean Boulevard West  
 Holden Beach, North Carolina 28462

Existing  
 Pier Elevations

JOB NUMBER
DRAWN BY MG
CHECKED BY GCH
DATE 12/8/22
REVISIONS

**1** Existing Pier Elevations  
 A3.2 scale: 1/8" = 1'-0"

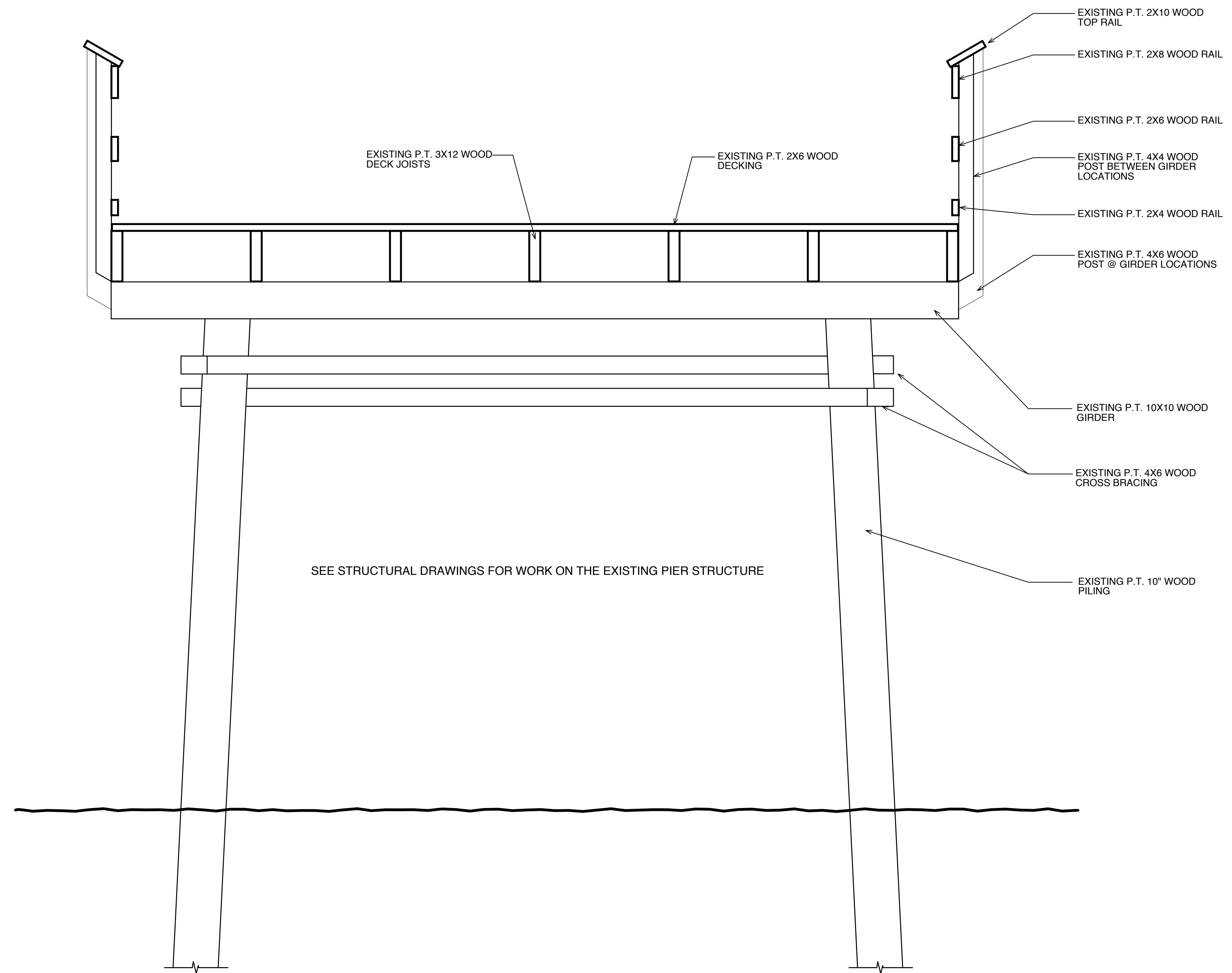
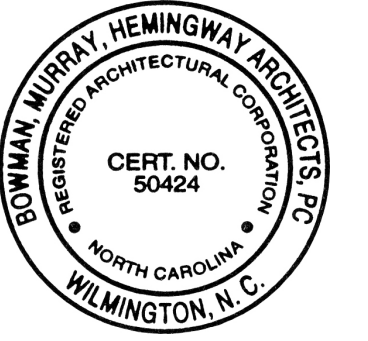
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**A3.2**





BOWMAN  
MURRAY  
HEMINGWAY

ARCHITECTS  
514 Market Street  
Wilmington, NC 28401  
Tel - (910) 762-2621  
Fax - (910) 762-8506



SEE STRUCTURAL DRAWINGS FOR WORK ON THE EXISTING PIER STRUCTURE

1 Existing Pier Section  
 A4.0 scale: 3/4" = 1'-0"

**Holden Beach Pier**  
 441 Ocean Boulevard West  
 Holden Beach, North Carolina 28462

Existing  
 Pier Section

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SHEET NUMBER  
**A4.0**