FRANCHISE AGREEMENT
BETWEEN THE
CITY OF ALEXANDRIA, VIRGINIA, AND
THE TALL SHIP PROVIDENCE FOUNDATION

THIS FRANCHISE AGREEMENT is made this _____ day of November 2022, by the City of Alexandria, a municipal corporation of Virginia ("City"), and the Tall Ship Providence Foundation, a non-profit, tax-exempt organization ("Franchisee" or “Tall Ship Providence”).

WHEREAS, in or about November 12, 2022 City Council of the Alexandria Virginia, approved a franchise agreement permitting the Tall Ship Providence a reproduction historic tall ship (“Vessel”) that will provide a living history museum, public cruises, private charters and retail items, to dock at the riparian area adjacent to the Waterfront Park bulkhead (1A Prince St.) in the City of Alexandria, Virginia consistent with Special Use Permit #2021-0001 (Exhibit A); and

WHEREAS, in or about June 25, 2019, City Council after adopting Franchise Ordinance 5235, pursuant to §15.2-2100 et. seq. of the Code of Virginia (1950) as amended, the City solicited bids to moor an historic or reproduction historic tall ship for sightseeing tours, private charters, private events, educational programming and to allow design construction upgrades of the City’s infrastructure. The Tall Ship Providence Foundation was the responsive party, and

WHEREAS, the City is willing to permit Franchisee to use the Waterfront Park bulkhead and/or City Marina G/H Pier T-Head (“Berth”) for docking purposes and for visitor and service access in accordance with the terms and conditions set forth below;

NOW, THEREFORE, in consideration of the premises, the mutual promises contained herein, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. Representations. By executing this agreement, the Franchisee warrants that it is the legal

owner and operator of the Vessel described in paragraph 14 below (the "Vessel") and is authorized to enter into this Franchise Agreement.

2. Applicability of City, State and Federal Law. This Franchise Agreement is subject to title 6, chapter 3 of the Alexandria City Code and any and all applicable provisions of federal, state, and local law. Franchisee agrees to comply with the criminal, fire, health and safety laws of the City of Alexandria and the Commonwealth of Virginia pertaining to the operation of the Vessel. Franchisee shall permit officers and employees of the City of Alexandria charged with the enforcement of such laws to board and inspect the Vessel for the purpose of enforcing such laws. Franchisee hereby agrees to permit periodic inspection of the Vessel by code enforcement inspectors of the City of Alexandria, and to remedy to the extent practicable any and all deficiencies and unsafe conditions found by such inspectors.
3. Rules and Regulations. Franchisee shall comply with all applicable rules and regulations of the City of Alexandria, including the conditions as approved or amended in Special Use Permit #2021-0001 (Exhibit A) and which are incorporated by reference into this Agreement as if fully set forth herein. The Franchisee shall also comply with any rules and regulations of the City or of the Alexandria Marina which are adopted subsequent to the execution of this Agreement unless such rules are manifestly unreasonable in their application to Franchisee.
4. Insurance. Franchisee shall certify to the satisfaction of the City that the Franchisee and the Vessel are covered by:
    a. liability insurance in an amount not less than $1,000,000 per person per occurrence and $3,000,000 in the aggregate per occurrence which insures the

Franchisee against claims of personal injury and property damage arising from the negligent use or operation of the Vessel by the Franchisee or Franchisee's agents and employees;

b. insurance in the amount of not less than $1,000,000 per occurrence which insures Franchisee, regardless of fault or negligence by Franchisee or any agent or employee of Franchisee, against claims of damage to property of the City of Alexandria caused by (i) the use or operation of the Vessel by Franchisee or any agent or employee of Franchisee, and (ii) any casualty or event involving the Vessel, or any agent, employee, invitee or guest of Franchisee; and

c. wreck removal insurance to cover the cost of removing the Vessel if it should sink or become awash, and the City shall be named beneficiary of such policy.

Franchisee agrees to maintain such insurance coverage throughout the term of this Franchise Agreement, and to furnish evidence to the City of such coverage prior to the effective date, and throughout the term, of this Franchise Agreement. In addition, City shall be named on the liability insurance policy required by subsection (a) as an additional insured.

5. Indemnification. Subject to the dollar limitations set out in subsection 4(a), and apart from and in addition to any insurance coverage, Franchisee agrees to indemnify and hold harmless the City and all of its officers, employees and agents from and against all suits, actions, causes of action, damages, claims, liability and expenses (including court costs and attorneys' fees), and against any losses, resulting from or arising out of any bodily injury or property damage caused, in whole or in part, by any act or omission of the Franchisee or any of its employees, agents, invitees, Franchisees or guests in the course

of operating, maintaining or using the Vessel while located within or approaching or departing the Alexandria Marina, except to the extent such injury or damage is caused by the negligence of the City or its officers or employees.

6. Waiver of City's Liability. By executing this Franchise Agreement, Franchisee expressly acknowledges and agrees that the City and its officers and employees shall not be liable to Franchisee or to any of its employees, agents, invitees, Franchisees or guests for any bodily injury or property damage sustained by any of them while on Franchisee's Vessel or while at or on the Alexandria Marina, or for any property damage to Franchisee's Vessel sustained while the Vessel is located within or is approaching or departing the Marina, except to the extent such injury or damage is caused by the negligence of the City or its officers or employees.

7. Grant and Term of Franchise.

    a. In exchange for the consideration described herein City grants permission to Franchisee to dock the Vessel at the Waterfront Park bulkhead (1A Prince St.) and/or the City Marina G/H Pier T-Head.

    b. The term of this franchise shall be ten (10) years, from January 1, 2023, through December 31, 2032.

8. Renewal. Provided Franchisee is not in default of its obligations of performance under this Agreement at the end of the initial ten (10) year term, Franchisee shall have the right to negotiate this Agreement for an additional ten (10) year term exercised by Franchisee by written notice to City within six (6) months immediately preceding the expiration of the original term of this Agreement. The City Manager for the City will analyze and review use of the docking by Franchisee under terms of this Agreement to determine if

additional or modifications to the terms of this Agreement are necessary including but not limited recalculating the annual fee. Notwithstanding this option for renewal, the City Manager shall have the right to terminate this Agreement at the end of any term if the City Manager determines the lease agreement is no longer in the best interest of the public. Franchisee shall have the right to negotiate up to three (3) individual ten (10) year terms. The annual rent for each 10 year period will increase 3% annually from the prior year.

9. Franchise Fee. Franchisee shall pay to City an annual fee for the Franchise Rights to use the Berth.

    a. Franchisee shall pay to the City a guaranteed annual fee for the Franchise granted hereunder. The fee shall be based on the terms, conditions, insurance, and financial obligations hereby incorporated into the Franchise Agreement as if fully set forth herein. The Guaranteed Annual Fee the use of the Berth for the first ten (10) years are shown in the table below.

Term	Annual Payment	Monthly Payment
Year One:	$15,914	$1,326
Year Two:	$16,391	$1,366
Year Three:	$16,883	$1,407
Year Four:	$17,389	$1,449
Year Five:	$17,911	$1,493
Year Six:	$18,448	$1,537
Year Seven:	$19,002	$1,583
Year Eight:	$19,572	$1.631
Year Nine:	$20,159	$1,680
Year Ten:	$20,764	$1,730

For each lease year, the City shall receive, in addition to the guaranteed annual payments, an Additional Fee equal to five percent (2.5%) of Net Revenue in excess of $1,000,000.

Net Revenue is defined as the aggregate dollar amount of all business resulting from the operations as outlined in 17.d. including all sales of food, beverages and merchandise and all charges for services performed in, upon or resulting from, visitors boarding the Vessel at the Berth. Within thirty (60) days after each Franchise year (February 28), Franchisee shall submit to the City a report of Net Revenue for the Franchise year and the payment of the Additional Fee.

b. Franchisee shall continue to pay to the City a guaranteed annual fee of $5,493.36 for repayment of suspended License fee during COVID-19 from January 1, 2023 through December 31, 2024. The COVID-19 repayment fee will be paid in twelve (12) monthly payments on the first day of each month with the first fee due on January 1, 2023.

Term	Annual Payment	Monthly Payment
Calendar Year 2023:	$5,493.36	$457.78
Calendar Year 2024	$5,493.36	$457.78

c. Licensee shall not be entitled to any reduction in fees in the event any Berth is not occupied by a Licensed Vessel or Licensee does not conduct Services from the Alexandria City Marina.

d. If Licensee fails to pay any installment in full within ten (10) calendar days of the installment's due date, Licensee shall be liable for a penalty, equal to ten percent (10%) of said installment, plus interest, based upon the amount unpaid and a rate of ten percent (10%) per annum (compounded annually), from the due date. Any such penalty and interest shall be due at the next installment due date.

e. *Annual Fee*. The annual fee will be paid in twelve (12) monthly payments on the first day of each month with the first fee due on January 1, 2023.

f. *Payment Mailing Address*. All payments shall be sent to the City at the following address:

City of Alexandria/RPCA
Jack Browand, Deputy Director
1108 Jefferson Street
Alexandria VA 2314

Check tendered in payment of the monthly fee shall be made payable to the "City of Alexandria."

g. *Late payment*: In the event any payment due to the City hereunder is delayed by more than thirty (30) days business days, such payment shall be deemed to increase by ten percent (10%) of the payment due. Interest on the unpaid amount shall accrue at the rate of 2.5% per month from the due date until paid.

10. Assignment. This Agreement granting a franchise may not be assigned by the Franchisee without the prior written consent of City, which consent may or may not be granted at the City's discretion.

11. Termination. In the event that Franchisee violates any of the terms of this Agreement, Franchisee shall be considered in default. If such default continues for thirty (30) days after Franchisee has received written notice of the default, then this Agreement may be terminated, effective immediately, by City. Notwithstanding the above, City shall have the right to terminate this Agreement, effective immediately, in the event that Franchisee shall be adjudicated as bankrupt, or if a receiver is appointed in a legal proceeding of any kind to take possession of the assets of Franchisee, or if any creditor of Franchisee shall seize, take possession of or foreclose upon the Vessel. City shall also have the right to terminate this Agreement, effective immediately, if Franchisee fails to maintain all of the types of insurance required by paragraph 4 of this Agreement.

12. Removal. If this Agreement is terminated, Franchisee shall immediately remove the Vessel from and cease utilizing the Berth and any alternate docking facility owned by City. If it becomes necessary for City to remove or cause the removal of the Vessel through any legal proceeding, or otherwise, then the City shall be entitled to recover all costs incurred in conjunction with the removal and with such proceeding, including

attorney's fees, from the Franchisee and any successor in interest in ownership or possession of the Vessel, and such liability shall be joint and several.

13. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia.
14. Description. The Vessel is a replica tall ship with a deck 62 feet in length, an overall length of 110 feet (including bowsprit/jib-boom), and 22 feet in width. The Vessel mast has a height of 93 feet and 6 inches.
15. Use of Vessel. The Vessel shall be used solely and exclusively as a living history museum and tourist attraction open to the public and may schedule public cruises and private charters. Franchisee may operate a Tall Ship Providence Foundation Gift Shop consistent with 17 m., (there is no 17 m?) not both, in conjunction with the docking. All activity and business operations are limited to conditions consistent with conditions as approved or amended in Special Use Permit #2021-0001 (Exhibit A) unless permission is provided by the City in writing. The Franchisee is not permitted to conduct any activity or business operation from the shore consistent with conditions as approved or amended in Special Use Permit #2021-0001 (Exhibit A).
16. Fuel. The Vessel shall not take on gasoline or other fuel when it is docked at the Berth.
17. Provisions, Operation and Appearance.
    a. Franchisee agrees to provision the Vessel at such time and in such manner as to minimize the adverse impact upon businesses, their invitees and guests, and members of the general public on or adjacent to the Berth. Franchisee shall require all vendors and service personnel who supply goods or render services to the Vessel, or who engage in any activity related to the use or maintenance of the

Vessel, use Prince St. or the loading zone in Thompson's Alley.

i. Franchisee agrees that public access to Waterfront Park and the Alexandria Marina G/H Pier shall be open to the public consistent with the posted hours of operations.

ii. The Franchisee shall not interfere with the use of and access to Waterfront Park and all designated slips on the City Marina G/H Pier.

iii. Franchisee shall not interfere with and must allow for unimpeded access to the City of Alexandria's Fire Boat while berthing at the City Marina G/H Pier. The City retains the right to modify Franchisee's business operations to ensure full access to the Fire Boat.

b. At all times, Franchisee shall maintain the Vessel in such a manner as to keep it neat and orderly in appearance, with its operating systems functioning in good working order.

c. Franchisee shall not engage in any activity which results in visual, excessive noise, foul odors, the accumulation of litter or debris on the shore areas adjacent to the Berth, including all City parks or in the waters adjacent to the Berth, or such other conditions which the City may, in its sole discretion, deem inconsistent with the use and enjoyment of the Berth. No music, amplified sound, machine noise or any other noise from the Vessel shall be audible at the closest City street at any time.

d. Franchisee is permitted to conduct public operations as follows:

i. Public tours from 9 a.m. to 8 p.m. Monday through Friday, and from 11 a.m. to 5 p.m. Saturday, Sunday & Holidays;

ii. Private craft beer cruise from 3:30 p.m. to 9 p.m. on Friday, Saturday &

Sunday;

iii. Private pirate and/or other themed cruises from 8:30 a.m. to 10:30 a.m. on Saturday & Sunday and pirate, afternoon or sunset cruises from 3:30 p.m. to 9 p.m. daily ;

iv. Private charters from 5 p.m. to 12 a.m. (midnight) daily; and

v. Lectures, classes and other educational activities from 8 a.m. to 11 a.m. on Saturday & Sunday

vi. Special events on any day

e. Franchisee shall not place any signs, advertisements or notices of any nature, on any part of the bulkhead, without City's prior written consent and without such sign, advertisement or notice complying with all applicable laws, including but not limited to the City of Alexandria Zoning Ordinance, which shall be deemed applicable to the Vessel for the purposes of this paragraph.

f. No more than 49 persons plus five crew which is permitted by the Coast Guard, may occupy the Vessel at any one time.

g. Franchisee shall undergo a crime prevention survey by the Alexandria Police Department within 15 days of the date that this Agreement is finally executed, or by such other date as may be mutually agreed upon by the parties to this Agreement, and Franchisee shall implement all crime prevention procedures and devices recommended by the Alexandria Police Department within 15 business days of receiving the results of the survey.

h. If the Vessel is closed to the public for more than 30 consecutive days, Franchisee shall notify City in writing of the reason for the closure and the anticipated date when the Vessel will reopen. City may require removal of the Vessel from the Berth if the Vessel is closed to the public for more than 30 consecutive days. In

the event that the Franchisee intends to move the Vessel from the Berth for a period of more than 30 consecutive days, Franchise shall so notify the City in writing. The foregoing removal will not in any way relive Franchisee of its obligation to pay the Franchise Fee.

i. While using the Waterfront Park Bulkhead, the Franchisee may install a docking facility consistent with Special Use Permit #2021-0001 (Exhibit A) and any subsequent amendments or interim actions associated with Special Use Permit #2021-0001 (Exhibit A).

j. While using the City Marina G/H Pier T-Head, the Franchisee may operate consistent with this License.

k. Per Special Use Permit #2021-0001 (Exhibit A), TSPF shall provide a perpetual public access easement for the portion of the pier marked as public on the plans submitted to the City, during public operation hours, hours as determined in paragraph 17.d. of this agreement.

18. Utilities and Services Provided.

a. While using the Waterfront Park Bulkhead, Franchisee is responsible for providing all utilities and services in support of its business operations consistent with Special Use Permit #2021-0001 (Exhibit A).

b. While using the City Marina G/H Pier, the City is responsible for providing all utilities and services in support of its business operations consistent with the License.

19. Refuse. Franchisee shall arrange and pay for the prompt and continuous collection and removal of all litter, debris and refuse generated by the Vessel and of its employees,

agents, invitees, Franchisees or guests If Franchisee fails to fulfill its obligations under this paragraph, as determined by City in its sole discretion, City may arrange and pay for such collection and removal of litter, debris and refuse. Franchisee shall, upon demand by City, reimburse City for expenses incurred for such collection of refuse within 30 days of Franchisee's receipt of a billing statement itemizing such expenses and issued by City.

20. Parking. Franchisee shall take all reasonable efforts to advise passengers of off-street parking facilities to avoid on-street parking in the City, including, without limitation, providing passengers, visitors and their agents with maps and directions to off-street parking facilities and shall provide such maps and directions available at Franchisee's office, website and included in any and all other promotional materials.
21. Waterfront Small Area Plan Implementation.
    a. At such time as the City implements the proposed waterfront and flood mitigation improvements to the area approved in Special Use Permit #2021-0001 (Exhibit A), TSPF shall remove and relocate the Tall Ship Providence, floating pier, gangway, cottages, above or below grade utility infrastructure and any other associated structures to an interim location to be determined in consultation with the City. The relocation of the floating pier, gangway, cottages and any other associated structures shall be for the duration of related construction activities to the satisfaction of the City.

       The timing associated with the removal and relocation of the floating pier, gangway, cottages and any other associated structures shall be mutually agreed in writing between the City and TSPF. The City will use its best efforts to provide the applicant with updates on the planning and the design of the flood mitigation

improvements to be constructed on the adjacent City-owned property. If practicable given the circumstances the City will give Franchisee 12 months written notice of the City's intention to remove or relocate the floating pier, gangway, cottages and other associated structures.

TSPF shall allow the City access to provide maintenance and enable the City to conduct any necessary preparations in the area approved in Special Use Permit ##2021-0001to facilitate design and engineering activities in the implementation of proposed waterfront and flood mitigation improvements. TSPF understands that maintenance and/or potential design and engineering activities may result in temporary or long-term disruption of TSPF operations, including utility connections, and/or the temporary relocation of the Tall Ship Providence, floating pier, gangway, cottages and any other associated structures. It shall be the responsibility of TSPF to coordinate temporary utility service as needed and for the relocation, either within or outside the City's jurisdiction during these time periods at no cost or liability to the City.

The timing of interim disruptions to operations, including utility connections, and the relocation of the Tall Ship Providence and/or the floating pier, gangway, cottages and any other associated structures shall be mutually agreed in writing between the City and TSPF. The City will use its best efforts to provide the applicant with updates on the planning and the design of the flood mitigation improvements to be constructed on the adjacent City-owned property.

ATTACHMENTS

1. Exhibit A - Special Use Permit #2021-0001
2. City Council Approved Franchise Agreement
3. Approved Grading Plan
4. Approved Building Permits

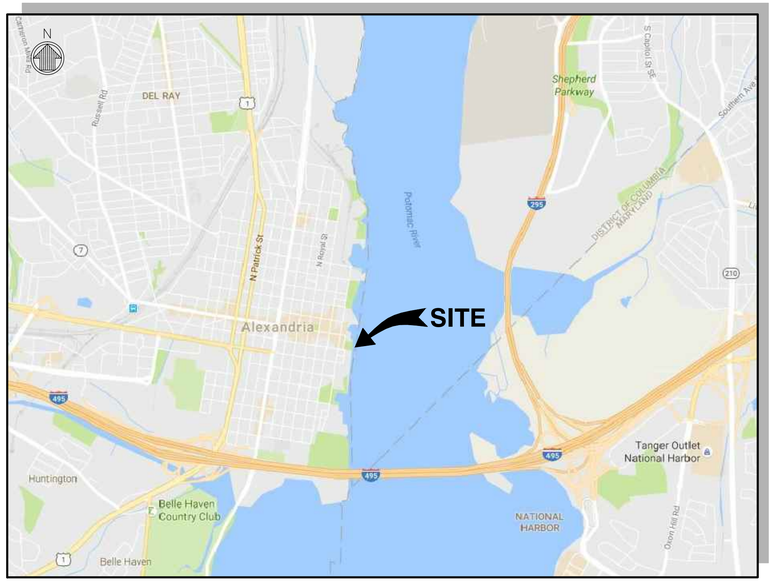
SIGNATURES FOLLOW

IN WITNESS WHEREOF, the parties hereto have executed this Agreement.

CITY OF ALEXANDRIA, **a municipal corporation of Virginia** **By: _____** **James P. Parajon** **City Manager** **Date: _____**	**TALL SHIP PROVIDENCE FOUNDATION** **By: _____** **Clair S. Sassin** **President & CEO** **Date: _____**
APPROVED AS TO FORM: **_____** **Karen Snow** **Senior Assistant City Attorney**	

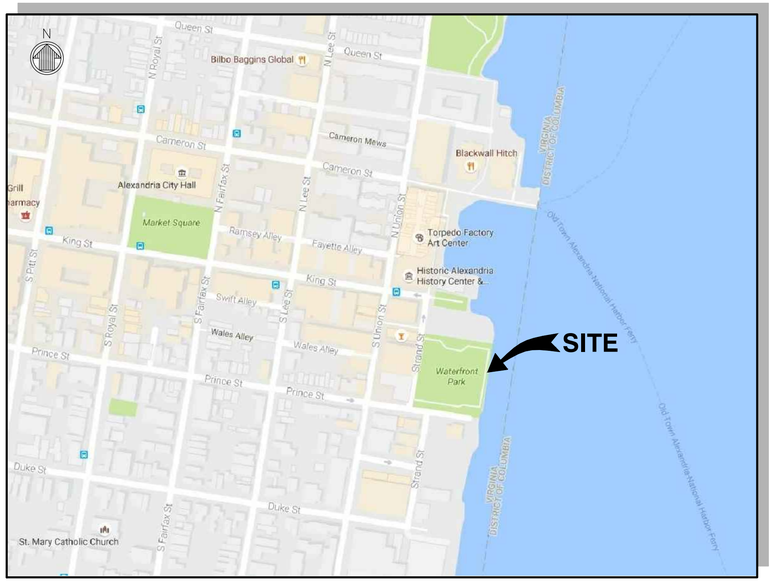
TALL SHIP PROVIDENCE
INTERIM DOCKING FACILITY

ALEXANDRIA VIRGINIA
TOWNSHIP 3N, RANGE 69W, SECTION 34



VICINITY MAP
NTS

INDEX OF DRAWINGS		
INDEX NO.	SHEET NO.	SHEET TITLE
GENERAL		
1	G-001	COVER SHEET
2	G-002	GENERAL NOTES
STRUCTURAL		
3	D-101	DEMOLITION PLAN
4	S-001	STRUCTURAL NOTES
5	S-101	SITE PLAN
6	S-201	ELEVATION
7	S-301	TYPICAL SECTIONS
8	S-401	TIMBER PIER FRAMING PLAN AND DECK PLAN
9	S-501	TIMBER PIER DETAILS
10	S-502	GANGWAY DETAILS
11	S-503	FLOAT GUIDE DETAILS 1 OF 2
12	S-504	FLOAT GUIDE DETAILS 2 OF 2
13	S-505	TIMBER FENDER DETAILS
14	S-506	MISCELLANEOUS DETAILS



LOCATION PLAN
NTS

PREPARED FOR:

tall Ship PROVIDENCE
ALEXANDRIA, VA

TALL SHIP FOUNDATION
201 N. UNION STREET, SUITE110
ALEXANDRIA, VIRGINIA 22314

PREPARED BY:

moffatt & nichol

4700 FALLS OF NEUSE RD, SUITE 300
RALEIGH, NC 27609
919-781-4626

PERMIT SET
ISSUED: 2021-11-19

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

tall Ship PROVIDENCE
ALEXANDRIA, VA

Mark	Description	Date	Appr
0	ISSUED FOR CONSTRUCTION	4/9	MAP

TALL SHIP PROVIDENCE
INTERIM DOCKING FACILITY

COVER SHEET

Designed by: MRP	Date: APRIL 2021	Rev: 0	
Dwn by: BDF	Cad by: MAP	M&N Project No. 201466	Drawing scale:
Reviewed by: PRG	Submitted by: MARK PIRRELLO MOFFATT & NICHOL	Drawing Scale:	Plot scale: 1:1 (D SHEET)

4700 FALLS OF NEUSE RD, SUITE 300
RALEIGH, NC 27609
919-781-4626

moffatt & nichol

COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
Lic. No.030083
PROFESSIONAL ENGINEER
SEAL

Sheet Reference No.
G-001
INDEX: 1 OF 14

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PROJECT NARRATIVE:

THE PROJECT CONSISTS OF THE CONSTRUCTION OF AN 80 SQUARE FOOT PILE SUPPORTED TIMBER LANDING, A 6-FOOT X 67-FOOT LONG ALUMINUM ARTICULATING GANGWAY, AND A FLOATING BARGE PLATFORM THAT SUPPORTS MOORING OF THE 64-FOOT LONG TALL SHIP PROVIDENCE AND SUPPORT FACILITIES FOR THE OPERATION OF THE TALL SHIP PROVIDENCE AS A MUSEUM AND TOURIST DESTINATION. THE FLOATING BARGE PLATFORM IS ANCHORED BY FIVE (5) 80-FOOT LONG 24-INCH DIAMETER STEEL PIPE PILES THAT LIE LANDWARD OF THE PIERHEAD LINE. THE PROJECT IS LOCATED IN WATERFRONT PARK AND EXTENDS APPROXIMATELY 115 FEET OFFSHORE OF THE EXISTING BULKHEAD.

EXISTING CONDITIONS SURVEY NOTES:

1. HORIZONTAL DATUM: NORTH AMERICAN HORIZONTAL DATUM OF 1983
   VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988

2. TIDAL DATUM RELATIONSHIP:

   MEAN HIGHER HIGH WATER (HIGH TIDE LINE) (MHHW). . . . . .1.65 FEET
   MEAN HIGH WATER (MHW). . . . . .1.43 FEET
   NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). . . . . .0.00 FEET
   MEAN LOW WATER (MLW). . . . . .-1.16 FEET
   MEAN LOWER LOW WATER (MLLW). . . . . .-1.30 FEET

3. THE BATHYMETRIC INFORMATION DEPICTED REPRESENTS THE SURVEY MADE BY GAHAGAN & BRYANT ASSOCIATES, INC. ON APRIL 13, 2016 AND CAN ONLY INDICATE THE GENERAL CONDITIONS EXISTING ON SAID DATE.

4. THE TOPOGRAPHIC INFORMATION DEPICTED REPRESENTS THE SURVEY MADE BY STANTEC ON MAY 25, 2016 AND CAN ONLY INDICATE THE GENERAL CONDITIONS EXISTING ON SAID DATE.

STANDARD NOTES:

1. OWNER: TALL SHIP FOUNDATION
   201 N. UNION STREET, SUITE 110
   ALEXANDRIA, VA 22314

2. THE SITE IS LOCATED IN THE POTOMAC RIVER WATERSHED.

3. THE SUBJECT PROPERTY LIES WITHIN A CITY OF ALEXANDRIA RESOURCE PROTECTION AREA.

4. ALL EROSION AND SEDIMENTATION CONTROL SHALL, IF REQUIRED, BE PLACED AND MAINTAINED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY OF ALEXANDRIA AND/OR VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH).

DEMOLITION:

1. ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE MOST CURRENT APPLICABLE FEDERAL, STATE , AND LOCAL LAWS AND REGULATIONS, INCLUDING BUT NOT LIMITED, TO ENVIRONMENTAL PROTECTION AGENCY (EPA), OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), VIRGINIA OCCUPATIONAL AND SAFETY HEALTH COMPLIANCE PROGRAM (VOSH ENFORCEMENT), VIRGINIA OVERHEAD HIGH VOLTAGE LINE SAFETY ACT, NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAPS), AND NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH (NIOSH).

2. PRIOR TO COMMENCING NEW WORK, ALL EXISTING ADJACENT AREAS WILL BE PROTECTED FROM DAMAGE. ALL ADJACENT AREAS DAMAGED DURING DEMOLITION AND/OR CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.

ARCHAEOLOGY NOTES:

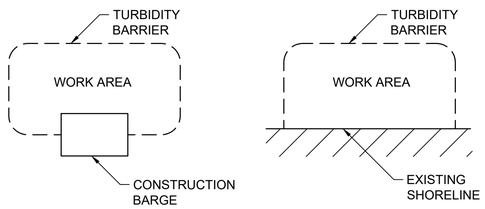
1. CALL CITY OF ALEXANDRIA ARCHAEOLOGY DEPARTMENT (703-838-4399) IMMEDIATELY IF ANY STONE OR POTTERY, INDIAN ARTIFACTS OR HISTORICAL STRUCTURAL REMAINS, WALL FOUNDATIONS, PRIVIES, CISTERNS, ICE WELLS, ETC OR CONCENTRATION OF ARTIFACTS ARE FOUND DURING CONSTRUCTION WORK. WORK MUST CEASE IN THE AREA OF THE DISCOVERY UNTIL A CITY ARCHEOLOGIST COMES TO THE SITE TO RECORD THE FINDS.

EROSION AND SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO FURNISH, INSTALL AND MAINTAIN TURBIDITY AND EROSION CONTROL MEASURE AND FOR QUALITY AND QUANTITY OF OFFSITE, WETLAND, AND OPEN WATER DISCHARGES.

2. THE CONTRACTOR SHALL BE RESPONSIBLE TO FURNISH, INSTALL, AND MAINTAIN TURBIDITY BARRIERS IN ALL PERMANENT BODIES OF WATER REGARDLESS OF WATER DEPTH AROUND THE WORK AREA DURING ALL DREDGING, DEWATERING, AND MARINE CONSTRUCTION ACTIVITIES. THE CONTRACTOR HAS THE OPTION TO ENCLOSE THE ENTIRE WATERSIDE OF THE SITE, WITHIN THE LIMITS OF DISTURBANCE OR TO INSTALL AND MOVE THE TURBIDITY BARRIERS IN STAGES.

TURBIDITY BARRIER DIAGRAMS:



GENERAL NOTES:

1. GENERAL NOTES ARE NOT INTENDED TO REPLACE THE CONTRACT DOCUMENTS. SEE CONTRACT DOCUMENTS FOR REQUIREMENTS IN ADDITION TO THESE GENERAL NOTES. THE CONTRACT DOCUMENTS SHALL CONSIST OF THE COMPLETE PROJECT SPECIFICATIONS AND WORKING DRAWINGS INCLUDING BUT NOT LIMITED TO GENERAL PROVISIONS, SPECIAL PROVISIONS, DIVISION 1 REQUIREMENTS, TECHNICAL SPECIFICATIONS, AND ANY RELEVANT ADDENDA ITEMS. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

2. THE WORKING DRAWINGS ARE NOT NECESSARILY COMPLETE IN EVERY DETAIL. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIAL, SERVICES, LABOR, ETC FOR A COMPLETE INSTALLATION INCLUDING WORK REASONABLY INFERRED FROM THE CONTRACT DOCUMENTS AS BEING NECESSARY TO PRODUCE THE INTENDED RESULTS, WHETHER SHOWN OR NOT ON THE DRAWINGS.

3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE STARTING WORK. DO NOT SCALE PROJECT DRAWINGS. REPORT ANY DISCREPANCIES IN THE DRAWINGS AND/OR SPECIFICATIONS TO THE ENGINEER FOR CLARIFICATIONS OR ADJUSTMENTS PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL NOT BEGIN DEMOLITION/CONSTRUCTION IN ANY SUCH AFFECTED AREA UNTIL THE DISCREPANCY HAS BEEN RESOLVED.

4. SHOULD THERE BE A CONFLICT BETWEEN THESE GENERAL NOTES, WORKING DRAWINGS, AND/OR SPECIFICATIONS, THE MOST RESTRICTIVE INTERPRETATION SHALL PREVAIL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING FROM THE ENGINEER ANY CLARIFICATION OR INTERPRETATION OF THE GENERAL NOTES, WORKING DRAWINGS, AND/OR SPECIFICATIONS IN WRITING AND IN ADVANCE OF THE BEGINNING OF DEMOLITION/CONSTRUCTION. NUMERICAL DIMENSIONS AND ELEVATIONS SHOWN SHALL SUPERCEDE ANY DISCREPANCY IN THE SCALING ON THE DRAWINGS.

5. ALL FEDERAL, STATE, AND LOCAL SAFETY REGULATIONS ARE TO BE STRICTLY FOLLOWED. METHODS OF DEMOLITION/CONSTRUCTION AND INSTALLATION OF MATERIAL IS THE CONTRACTOR'S RESPONSIBILITY.

6. THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE FEDERAL, STATE, AND LOCAL ENVIRONMENTAL PROTECTION STANDARDS, LAWS, AND REGULATIONS.

7. THE CONTRACTOR SHALL KEEP ACCURATE RECORDS OF ANY CHANGES MADE TO THE DRAWINGS ON A SEPARATE WHITE SET OF PLANS PROVIDED BY THE ENGINEER. THESE ANNOTATED DRAWINGS SHALL BE RETURNED TO THE ENGINEER PRIOR TO APPROVAL OF THE FINAL PAYMENT APPLICATION.

8. UNLESS OTHERWISE NOTED, THE CONTRACTOR SHALL, ON A DAILY BASIS, REMOVE FROM THE SITE ANY DEBRIS RESULTING FROM DEMOLITION/CONSTRUCTION. DISPOSAL OF MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL MATERIALS TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE NOTED, AND SHALL BE DISPOSED OF AS SPECIFIED. ALL DEBRIS SHALL BE PROPERLY DISPOSED OF IN A PERMITTED LANDFILL. THE CONTRACTOR SHALL KEEP RECORDS OF ALL MATERIALS REMOVED FROM THE SITE, INCLUDING DESCRIPTION, QUANTITIES, AND DISPOSAL LOCATION.

9. EXISTING CONSTRUCTION, INCLUDING UTILITIES AND OTHER MISCELLANEOUS ITEMS WHICH ARE TO REMAIN, SHALL REMAIN UNDISTURBED AND BE PROTECTED, UNLESS NOTED OTHERWISE.

10. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING, AT HIS OWN EXPENSE, ANY AND ALL DAMAGES THAT MAY OCCUR OUTSIDE AND WITHIN THE LIMITS OF THIS PROJECT AS A RESULT OF DEMOLITION/CONSTRUCTION.

11. ALL AREAS DISTURBED DURING DEMOLITION/CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION, AT NO EXPENSE TO THE OWNER, UNLESS OTHERWISE NOTED.

12. THE CONTRACTOR SHALL PROTECT ADJACENT STRUCTURES, UTILITIES, PEDESTRIANS, VEHICULAR, AND MARINE TRAFFIC FROM POTENTIAL DAMAGE DUE TO CONTRACTOR'S OPERATIONS.

13. THE CONTRACTOR SHALL PLACE CONSTRUCTION DEBRIS CONTROL DEVICES, TURBIDITY CURTAINS, BOOMS, TARPAULINS, FLOATS, STAGING, AND OTHER DEVICES AS NECESSARY TO PREVENT CONSTRUCTION DEBRIS FROM ENTERING THE WATER AND AIRBORNE MATERIALS FROM LEAVING THE IMMEDIATE VICINITY OF THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP OF ANY MATERIALS DEPOSITED OUTSIDE THE WORK AREA. ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH USACE PERMITS.

14. THE OWNER SHALL HAVE THE SOLE AUTHORITY TO DESIGNATE AND/OR LIMIT AREAS OF CONSTRUCTION, STAGING, ACCESS, AND STORAGE.

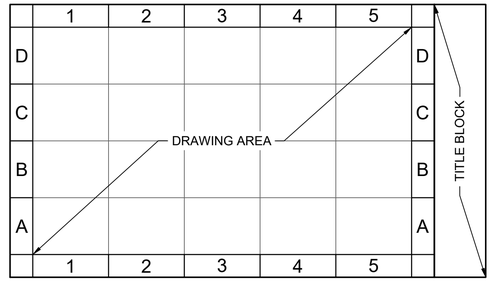
15. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN IN THE DRAWINGS ARE APPROXIMATE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATION OF ALL EXISTING UNDERGROUND UTILITIES BEFORE COMMENCING ANY WORK. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF DAMAGES THAT OCCUR AS A RESULT OF A FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.

16. WHERE PEDESTRIAN AND DRIVER SAFETY IS ENDANGERED IN THE AREA OF DEMOLITION/ CONSTRUCTION WORK, USE TRAFFIC BARRICADES ("JERSEY" TYPE BARRIERS) WITH FLASHING LIGHTS. BARRICADES SHALL BE POSITIONED A MINIMUM OF 5 FEET FROM THE EDGE OF ANY OPENINGS IN THE STRUCTURE RESULTING FROM DEMOLITION/CONSTRUCTION ACTIVITIES.

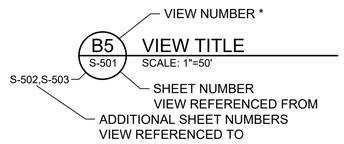
17. THE CONTRACTOR SHALL NOT OVERLOAD THE EXISTING STRUCTURE DURING DEMOLITION/ CONSTRUCTION. OPERATION OF ANY EQUIPMENT OR STORAGE MATERIALS WHICH WOULD RESULT IN OVERLOAD WILL NOT BE PERMITTED. CRANE OUTRIGGERS AND OTHER SUCH CONCENTRATED LOADS SHALL BE PROVIDED WITH CRIBBING TO PROPERLY DISTRIBUTE THE LOAD. SAFETY OF PERSONNEL, REQUIRED EQUIPMENT, CONDITION, AND SUITABILITY OF THE EXISTING STRUCTURE TO SUPPORT MATERIAL AND EQUIPMENT LOADS IS THE CONTRACTOR'S RESPONSIBILITY.

18. PILES THAT BECOME DAMAGED OR FOR OTHER REASONS DO NOT BECOME A PERMANENT PART OF THE STRUCTURE SHALL BE EXTRACTED.

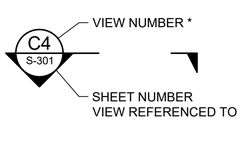
19. THE OWNER MAKES NO REPRESENTATIONS ABOUT SUBSURFACE CONDITIONS THAT MAY BE ENCOUNTERED WITHIN THE LIMITS OF THE PROJECT.



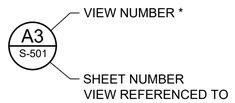
DRAWING AREA COORDINATE SYSTEM (DACS)



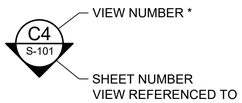
VIEW TITLE



SECTION CUT



DETAIL CALLOUT



ELEVATION VIEW

* VIEW NUMBER IS BASED ON THE DACS LOCATION OF THE LOWER-LEFT EXTENTS OF THE VIEW ON THE REFERENCED SHEET. WHEN REFERENCING DRAWING INFORMATION BETWEEN SHEETS, BOTH THE VIEW AND SHEET NUMBERS MUST BE QUOTED TOGETHER - EITHER IN A CALLOUT FORMAT AS SHOWN ABOVE OR IN THE FORM;
"VIEW NO./SHEET NO." (C1/MS301)

PERMIT SET
ISSUED: 2021-11-19

Tall Ship PROVIDENCE
ALEXANDRIA, VA

No.	Mark	Description	Date	Appr
0		ISSUED FOR CONSTRUCTION	4/9	MAP

TALL SHIP PROVIDENCE
INTERIM DOCKING FACILITY

GENERAL NOTES

moffatt & nichol
4700 FALLS OF NEUSE RD, SUITE 300
RALEIGH, NC 27609
919-781-4626

Designed by: MRP
Drawn by: BDF
Cad by: MAP
Reviewed by: PRG
Submitted by: MARK PIRRELLO
MOFFATT & NICHOL
Date: APRIL 2021
Rev. 0
M&N Project No. 201466
Drawing code:
Drawing Scale:
Plot scale: 1:1 (D SHEET)

COMMONWEALTH OF VIRGINIA
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Sheet Reference No.
G-002
INDEX: 2 OF 14

File: C:\RA\201466\0500_CAD_Active_201466\201466-G002 - Plotted: 11/19/2021 5:01 PM by FORD, BRIAN - Saved: 11/19/2021 3:56 PM by BFORD

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

N

20' 0' 20' 40'

SCALE: 1"=20'

PERMIT SET
ISSUED: 2021-11-19

NOTE:
REMOVE FLOATING ALUMINUM DOCKS, ANCHOR CHAINS AND TIMBER PILE CLUSTERS.

Tall Ship PROVIDENCE
ALEXANDRIA, VA

No.	Mark	Description	Date	Appr
0		ISSUED FOR CONSTRUCTION	4/9	MAP

TALL SHIP PROVIDENCE
INTERIM DOCKING FACILITY

DEMOLITION PLAN

Rev: 0			
Date: APRIL 2021	M&N Project No. 201466	Drawing code:	Drawing Scale: Plot scale: 1:1 (D SHEET)
Designed by: MRP	Cad by: MAP	Reviewed by: PRG	Submitted by: MARK PIRRELLO MOFFATT & NICHOL
Dwn by: BDF			

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Sheet Reference No.
D-101
INDEX: 3 OF 14

File: Q:\RAI\201466\0500_CAD_Active_201466\201466-D101 - Plotted: 11/19/2021 5:02 PM by FORD, BRIAN - Saved: 11/19/2021 3:57 PM by BFORD

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

DESIGN CRITERIA:

1. TIMBER FIXED DOCK:

   A. UNIFORM LIVE LOAD. . . . . 100 PSF
   B. CONCENTRATED LIVE LOAD. . . . . 400 LB POINT LOAD
   C. HANDRAIL LOAD. . . . . AS REQ'D PER VA BUILDING CODE
   D. GANGWAY LOAD. . . . . ROLLER REACTIONS PER MANUFACTURER

2. FLOATING DOCK GUIDE PILES:

   A. WIND LOAD . . . . . 50 KNOTS (58 MPH), 30 SECOND AVERAGE W/ VESSEL
   B. CURRENT . . . . . 0.5 KNOTS (0.84 FT/SEC)
   C. WAVE HEIGHT . . . . . 2.0 FEET (2.5 SECOND PEAK PERIOD)

3. DESIGN VESSEL:

   TALL SHIP PROVIDENCE
   A. LENGTH OVERALL . . . . . 64.54 FEET
   B. BEAM . . . . . 20.0 FEET
   C. DRAFT . . . . . 9.0 FEET
   D. DISPLACEMENT . . . . . 64.7 TONS

4. ALUMINUM GANGWAY:

   A. UNIFORM LIVE LOAD. . . . . 100 PSF
   B. HANDRAIL LOAD. . . . . AS REQ'D PER VA BUILDING CODE
   C. MAXIMUM DEFLECTION. L/240

5. GEOTECHNICAL DESIGN DATA:

   GEOTECHNICAL DESIGN PARAMETERS ARE BASED UPON GEOTECHNICAL INVESTIGATION REPORTS PROVIDED BY SCHNABEL ENGINEERING DATED OCTOBER 6, 2016 AND JANUARY 25, 2017. BORING BH-2A TAKEN LANDSIDE AT WATERSIDE PARK WAS USED TO DEVELOP LATERAL AND AXIAL PILE CAPACITIES FOR THE FLOATING DOCK GUIDE PILES AND TIMBER PIER PILES WITH THE FOLLOWING PARAMETERS.

GEOTECHNICAL DESIGN DATA - BORING BH-2A					
TOP ELEVATION (FT)	STRATUM	SOIL TYPE	EFFECTIVE (DRY) UNIT WEIGHT (PCF)	UNDRAINED COHESION (PSF)	STRAIN VALUES FOR CLAY, E50
-5.0	A	SOFT CLAY	33.0	250	0.02
-40.0	B	SOFT CLAY	33.0	250	0.02
-65.0	D	SOFT CLAY	53.0	1000	0.01
-96.0	D	SOFT CLAY	53.0	1000	0.01

6. GUIDE PILE TOP ELEVATION DESIGNED FOR THE 100-YEAR FLOOD EVENT BASED ON REMA INSURANCE STUDY DATED JUNE 16, 2011.

CONCRETE AND REINFORCING STEEL:

1. ALL CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE", UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL REINFORCED CONCRETE MATERIALS SHALL BE PROPORTIONED, FABRICATED, DELIVERED, AND PLACED IN ACCORDANCE WITH ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
2. ALL DETAILING, FABRICATION, AND ERECTION OF REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITION OF THE "ACI MANUAL OF CONCRETE PRACTICE" INCLUDING BUT NOT LIMITED TO: ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE" AND ACI SP-66 "ACI DETAILING MANUAL".
3. ALL REINFORCING BAR SPLICES SHALL BE CLASS "B" TENSION LAP SPLICES IN ACCORDANCE WITH ACI 318, CHAPTER 12, UNLESS OTHERWISE NOTED.
4. ALL CAST-IN-PLACE CONCRETE SHALL BE NORMAL WEIGHT CONCRETE (145± PCF).
5. MINIMUM CONCRETE COVER FOR STEEL REINFORCEMENT SHALL BE 3", UNLESS OTHERWISE NOTED ON THE DRAWINGS.
6. PROVIDE 3/4", 45° CHAMFER ON ALL EXPOSED EXTERNAL CORNERS OF CONCRETE, UNLESS OTHERWISE NOTED ON THE DRAWINGS.
7. ALL JOINTS BETWEEN CAST-IN-PLACE CONCRETE AND HARDENED CONCRETE SHALL BE CLEANED WITH A ROUGHENED SURFACE OF 1/4" AMPLITUDE AND COATED A EPOXY BONDING COMPOUND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, UNLESS OTHERWISE NOTED.
8. CONCRETE MATERIALS SHALL CONFORM TO THE FOLLOWING, UNLESS OTHERWISE NOTED:

   A. CAST-IN-PLACE CONCRETE. . . . . 4000 PSI @ 28 DAYS

9. REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM A 615. CONCRETE REINFORCING MATERIALS SHALL CONFORM TO THE FOLLOWING, UNLESS OTHERWISE NOTED:

   A. REINFORCEMENT FOR CONCRETE. . . . . ASTM A 615, GR 60

TIMBER CONSTRUCTION:

1. ALL TIMBER CONSTRUCTION SHALL CONFORM TO THE RECOMMENDATIONS OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION.
2. TIMBER PILES SHALL BE DRIVEN TO THE TIP ELEVATION INDICATED ON THE DRAWINGS, USING A HAMMER OF AN APPROVED TYPE, WITH A CAPACITY AT LEAST EQUAL TO THE HAMMER MANUFACTURER'S RECOMMENDATION FOR THE TOTAL WEIGHT OF PILE AND CHARACTER OF THE SUBSURFACE MATERIAL TO BE ENCOUNTERED.
3. SPUDDING AND/OR JETTING OF TIMBER PILES SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS.
4. TIMBER PILES SHALL BE TREATED IN WITH WATERBORNE PRESERVATIVES IN ACCORDANCE WITH AWPA (USE CATEGORY SYSTEM STANDARD U1-18).
5. LUMBER TREATMENT REQUIREMENTS:

   A. TREATED IN ACCORDANCE WITH USE CATEGORY 5B (UC5B)

6. TIMBER RELATED MATERIALS SHALL CONFORM TO THE FOLLOWING, UNLESS OTHERWISE NOTED:

   A. TIMBER PILES. . . . . ASTM D 25
   B. TIMBER BENT CAPS & CROSS BRACING. . . . . SP NO. 1 DENSE (S4S)
   C. TIMBER STRINGERS/HEADERS/FASCIA. . . . . SP NO. 1 DENSE (S4S)
   D. MISC TIMBER (INCLUDING HANDRAIL). . . . . SP NO. 1 DENSE (S4S)
   E. TIMBER DECKING (BASE BID) . . . . . SP SELECT GRADE DECKING
   F. COMPOSITE DECKING (ALT BID). . . . . 5/4x6 SOLID PROFILE
   G. CONNECTING BOLTS & NUTS. . . . . ASTM A 307, GALV, UON

7. WHEN CONNECTING HARDWARE IS SHOWN ON THE DRAWINGS, THE TYPE, SIZE, SPACING, AND ALIGNMENT ARE CRITICAL AND MUST BE MAINTAINED. DO NOT UNDERCUT WOOD. CONNECTIONS SHALL PULL AND HOLD MEMBERS BEING JOINED INTO CLOSE CONTACT.
8. WASHERS SHALL BE CIRCULAR FLAT SMOOTH AND SHALL CONFORM TO ANSI B18.22.1. USE DOCK WASHERS OR OGEE WASHERS WHERE INDICATED OR REQUIRED.
9. CHECK ALL BOLTS BY BURRING THE THREADS AFTER THE NUTS HAVE BEEN FINALLY TIGHTENED. RECOAT EXPOSED PORTION OF BOLT WITH TWO COATS OF HIGH ZINC DUST OXIDE PAINT.
10. BORE HOLES FOR THRU BOLTS WITH A BIT 1/16 INCH LARGER IN DIAMETER THAN THE SHANK OF THE BOLT.
11. TIMBER PILE WORKING (UNFACTORED) LOADS:

    A. 12"Ø TIMBER PILES. . . . . 20 KIPS

STRUCTURAL AND MISCELLANEOUS STEEL:

1. ALL STEEL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
2. ALL WELDING SHALL CONFORM TO AWS D1.1.
3. STEEL MATERIALS SHALL CONFORM TO THE FOLLOWING, UNLESS OTHERWISE NOTED:

   A. STRUCTURAL CARBON STEEL. . . . . ASTM A 992
   B. HOLLOW STRUCTURAL SECTIONS. . . . . ASTM A 500, GRADE 50
   C. MISC PLATES, BARS, & SHAPES. . . . . ASTM A 36
   D. PIPES. . . . . ASTM A 53
   E. PIPE PILES. . . . . ASTM A 252, GRADE 3, FY=50KSI
   F. BOLTS & NUTS. . . . . ASTM A 307

4. ALL STRUCTURAL STEEL SHALL BE PAINTED AFTER FABRICATION AND INSTALLATION IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, UNLESS OTHERWISE NOTED.
5. ALL HARDWARE INDICATED SHALL BE ZINC-COATED OR GALVANIZED BY THE HOT-DIPPED PROCESS IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A 123 AND/OR A 153, AS APPLICABLE, AFTER FABRICATION, UNLESS OTHERWISE NOTED. STEEL SHAPES, PLATES, AND OTHER FABRICATIONS SHALL ONLY BE GALVANIZED WHERE NOTED.
6. FIELD TREAT DAMAGED GALVANIZED STEEL FINISH WITH TWO COATS OF HIGH ZINC DUST OXIDE PAINT, COLD GALVANIZED COMPOUNDS, OR APPROVED EQUAL, CONFORMING TO THE REQUIREMENTS OF ASTM A 780. IN ADDITION, ALL EXPOSED THREADED SURFACES SHALL BE PAINTED WITH TWO COATS OF HIGH ZINC DUST OXIDE PAINT AFTER INSTALLATION OF THE NUT.

PERMIT SET
ISSUED: 2021-11-19

Tall Ship PROVIDENCE
ALEXANDRIA, VA

Mark	Description	Date	Appr
0	ISSUED FOR CONSTRUCTION	4/9	MAP

TALL SHIP PROVIDENCE
INTERIM DOCKING FACILITY

STRUCTURAL NOTES

Rev: 0
Date: APRIL 2021
M&N Project No. 201466
Drawing code:
Drawing Scale: Plot scale: 1:1 (D SHEET)

Designed by: MRP
Drawn by: BDF
Cad by: MAP
Reviewed by: PRG
Submitted by: MARK PIRRELLO MOFFATT & NICHOL

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COMMONWEALTH OF VIRGINIA
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Sheet Reference No.
S-001
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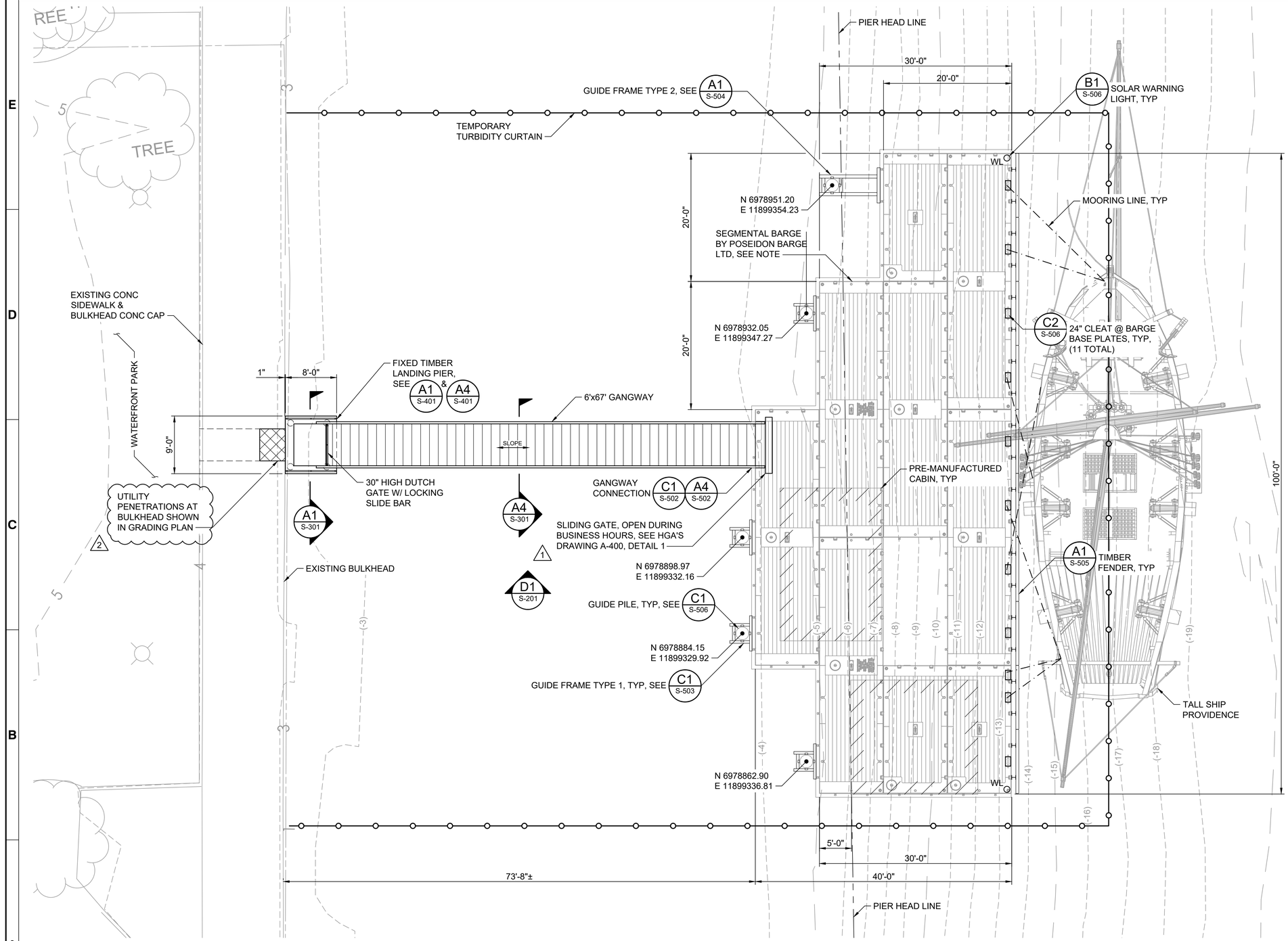
DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

ATTACHMENT 3



NOTE:
SEE DRAWING SET BY HGA FOR CONSTRUCTION DETAILS FOR UPFIT OF SEGMENTAL BARGE.

PERMIT SET
ISSUED: 2021-11-19

Tall Ship PROVIDENCE
ALEXANDRIA, VA

Mark	Description	Date	Appr
2	REMOVED UTILITY PENETRATION DETAILS	11/19	MAP
1	ADDED SLIDING GATE	9/14	MAP
0	ISSUED FOR CONSTRUCTION	4/9	MAP

TALL SHIP PROVIDENCE
INTERIM DOCKING FACILITY

SITE PLAN

Date: APRIL 2021
Rev. 0
M&N Project No. 201466
Drawing code:
Drawing Scale:
Plot scale: 1:1 (D SHEET)

Designed by: MRP
Drawn by: BDF
Checked by: MAP
Reviewed by: PRG
Submitted by: MARK PIRRELLO MOFFATT & NICHOL

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Sheet Reference No.
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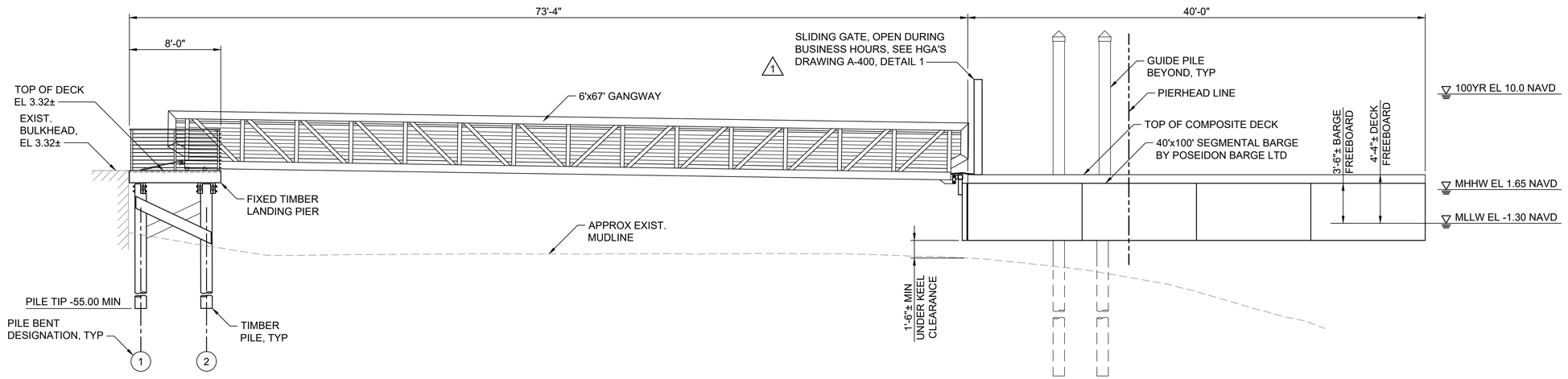
DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

ATTACHMENT 3



D1 / S-101 ELEVATION
SCALE: 3/16"=1'-0"

8'-0" 0'-0" 4'-0" 8'-0"
SCALE: 3/16"=1'-0"

PERMIT SET
ISSUED: 2021-11-19

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

Tall Ship PROVIDENCE ALEXANDRIA, VA

Mark	Description	Date	
1	ADDED SLIDING GATE	9/14	MAP
0	ISSUED FOR CONSTRUCTION	4/9	MAP

TALL SHIP PROVIDENCE
INTERIM DOCKING FACILITY

ELEVATION

4700 FALLS OF NEUSE RD, SUITE 300
RALEIGH, NC 27609
919-781-4626
moffatt & nichol

Designed by: MRP
Drawn by: BDF
Cad by: MAP
Reviewed by: PRG
Submitted by: MARK PIRRELLO MOFFATT & NICHOL
Date: APRIL 2021
M&N Project No. 201466
Drawing code:
Drawing Scale:
Plot scale: 1:1 (D SHEET)
Rev: 0

COMMONWEALTH OF VIRGINIA
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Sheet Reference No.
S-201
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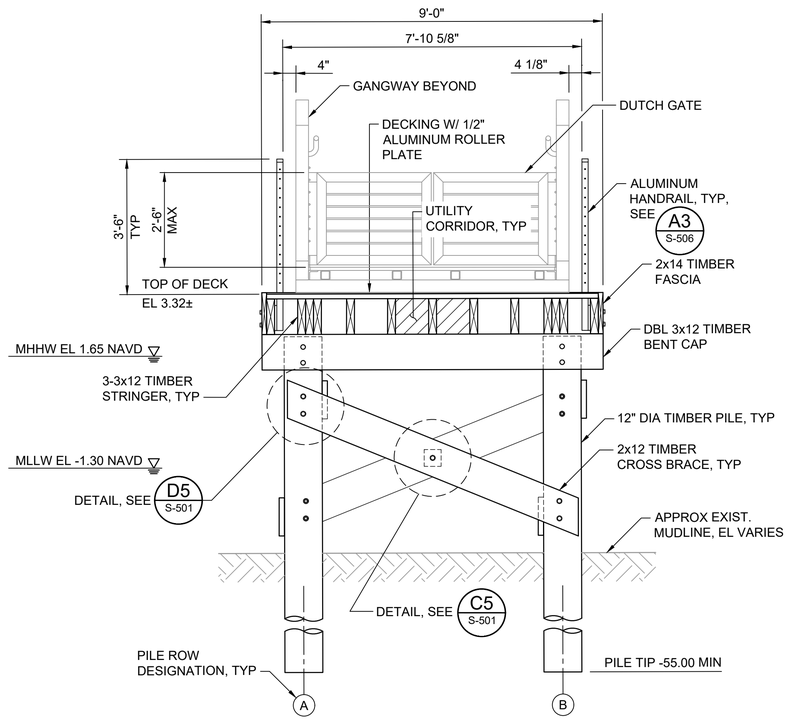
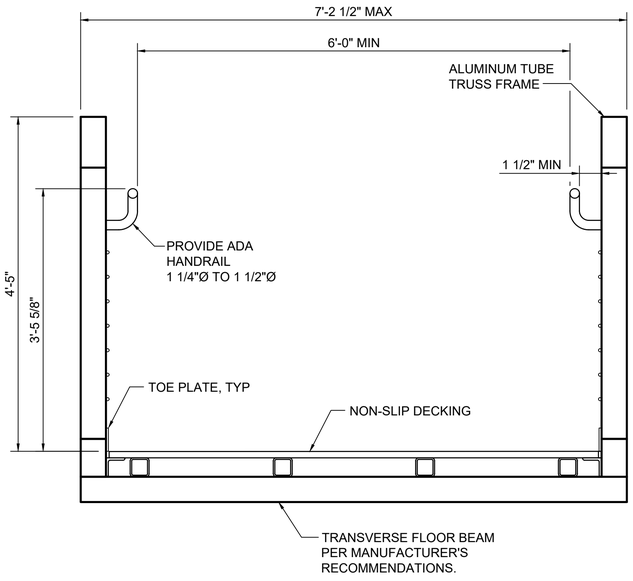


A1 S-101 PIER SECTION
SCALE: 1/2"=1'-0"



A4 S-101 GANGWAY SECTION
NOT TO SCALE

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

PERMIT SET
ISSUED: 2021-11-19

tall ship PROVIDENCE
ALEXANDRIA, VA

Mark	Description	Date	Appr
0	ISSUED FOR CONSTRUCTION	4/9	MAP

TALL SHIP PROVIDENCE
INTERIM DOCKING FACILITY

TYPICAL SECTIONS

4700 FALLS OF NEUSE RD, SUITE 300
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Designed by: MRP
Drawn by: BDF
Checked by: MAP
Reviewed by: PRG
Submitted by: MARK PIRRELLO MOFFATT & NICHOL
Date: APRIL 2021
Rev. 0
M&N Project No. 201466
Drawing code:
Drawing Scale:
Plot scale: 1:1 (D SHEET)

COMMONWEALTH OF VIRGINIA
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Sheet Reference No.
S-301
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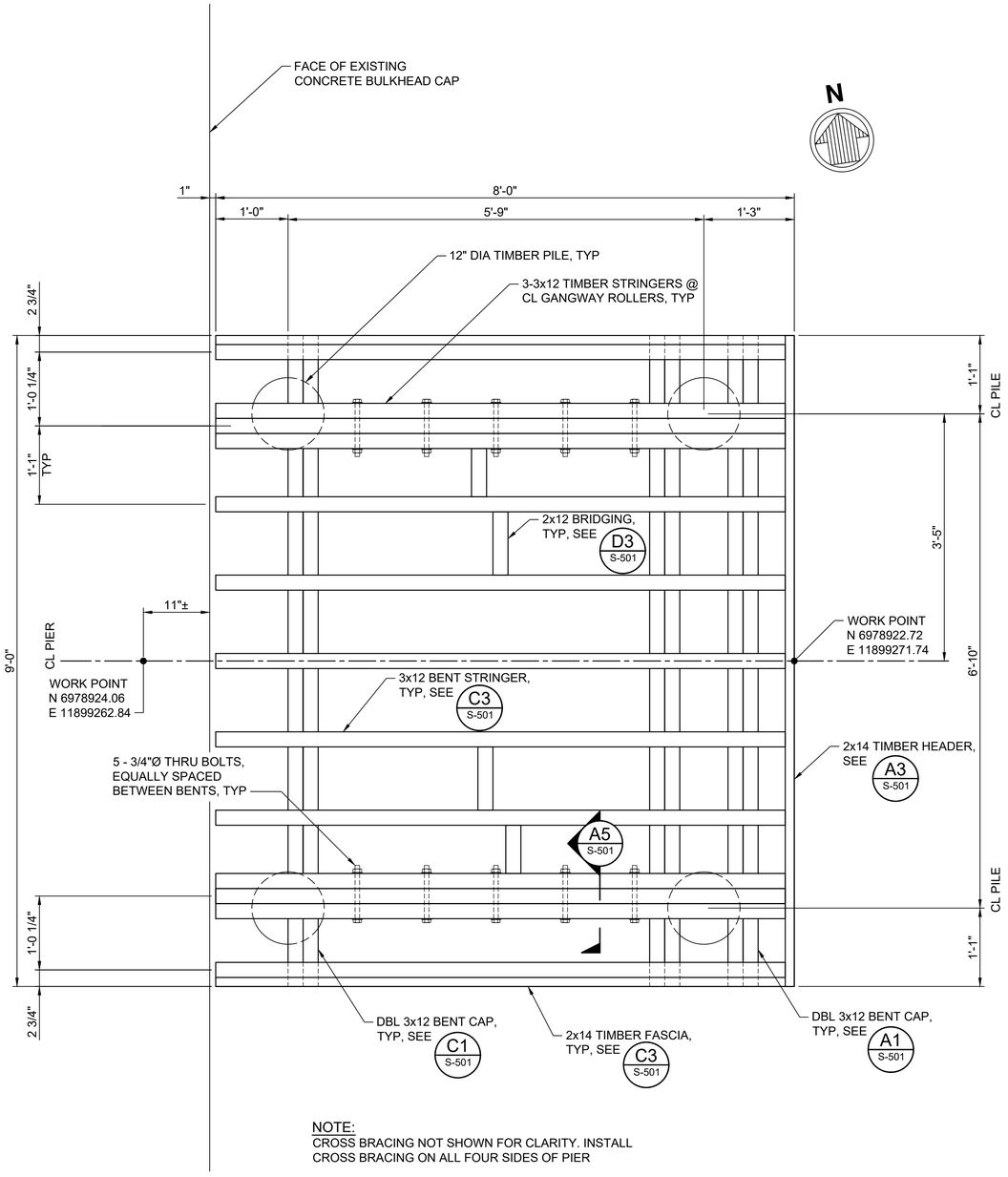
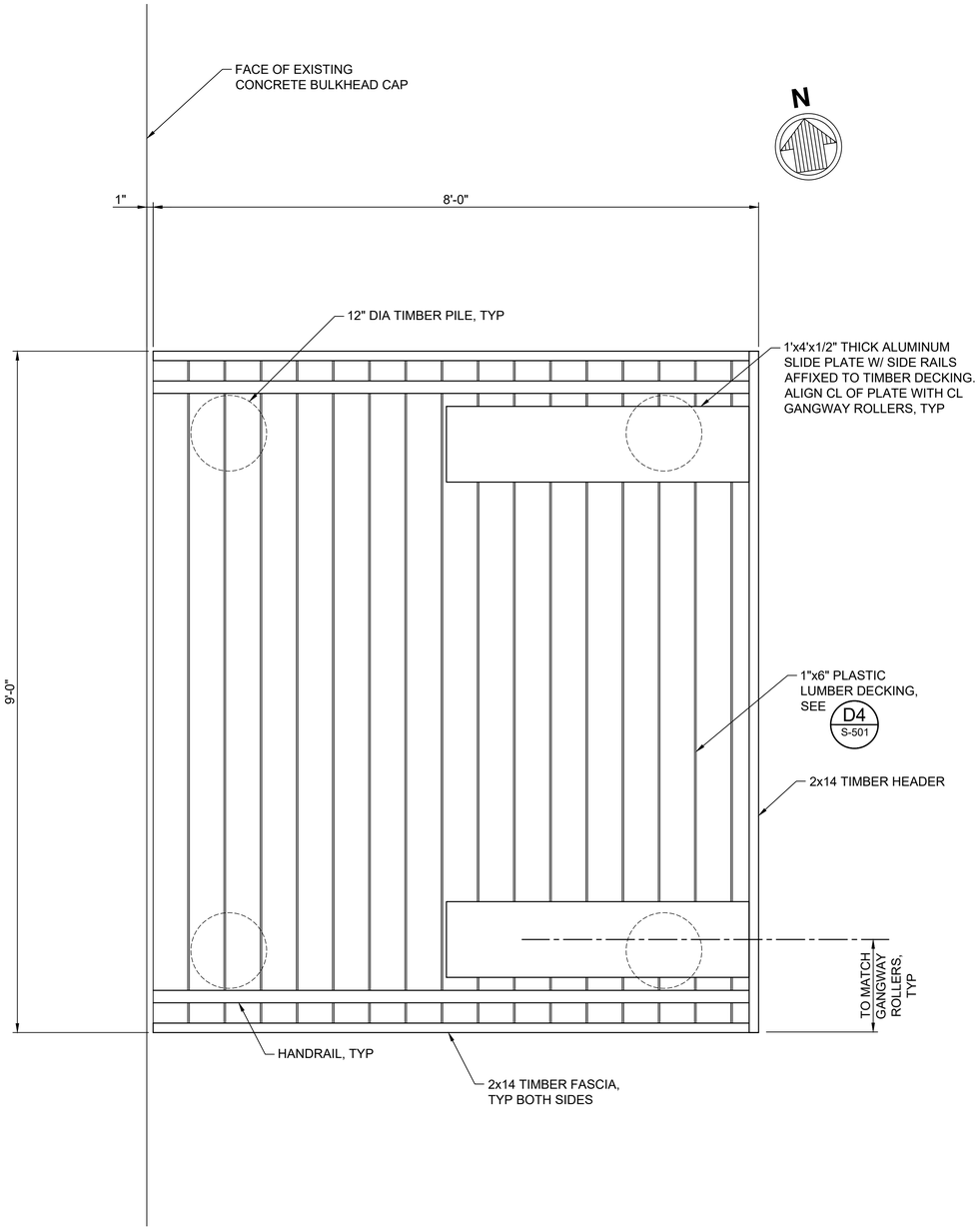
File: Q:\RA\201466\0500_CAD_Active_201466\201466-S301 ; Plotted: 11/19/2021 5:02 PM by FORD, BRIAN ; Saved: 11/19/2021 4:50 PM by BFORD

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



NOTE:
CROSS BRACING NOT SHOWN FOR CLARITY. INSTALL CROSS BRACING ON ALL FOUR SIDES OF PIER

A1 S-101 **FRAMING PLAN**
SCALE: 1"=1'-0"



A4 S-101 **DECK PLAN**
SCALE: 1"=1'-0"

1'-0" 0'-0" 1'-0" 2'-0"
SCALE: 1"=1'-0"

PERMIT SET
ISSUED: 2021-11-19

Mark	Description	Date	Appr
0	ISSUED FOR CONSTRUCTION	4/9	MAP

TALL SHIP PROVIDENCE
INTERIM DOCKING FACILITY

TIMBER PIER FRAMING PLAN AND DECK PLAN

4700 FALLS OF NEUSE RD, SUITE 300
RALEIGH, NC 27609
919-781-4626
moffatt & nichol

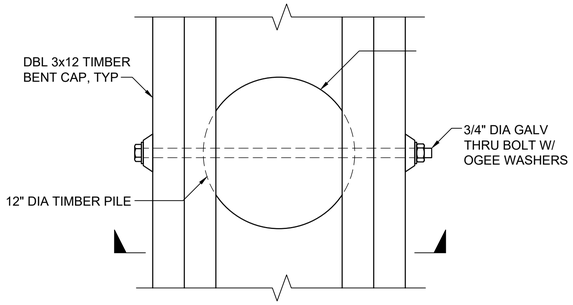
Rev.: 0
Date: APRIL 2021
M&N Project No.: 201466
Drawing code:
Drawing Scale:
Plot scale: 1:1 (D SHEET)
Designed by: MRP
Drawn by: BDF
Cad by: MAP
Reviewed by: PRG
Submitted by: MARK PIRRELLO
MOFFATT & NICHOL

COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
Lic. No. 030083
PROFESSIONAL ENGINEER
SEAL

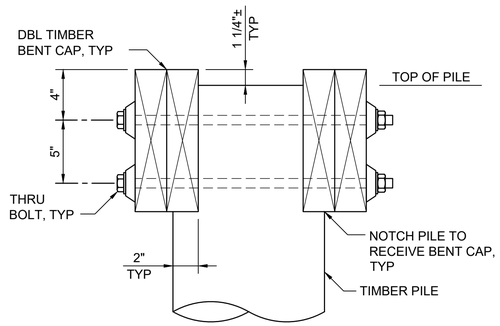
Sheet Reference No.
S-401
INDEX: 8 OF 14

File: Q:\RA\201466\10500_CAD_Active_201466\201466-S401 - Plotted: 11/19/2021 5:03 PM by FORD, BRIAN - Saved: 11/19/2021 4:12 PM by BFORD

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

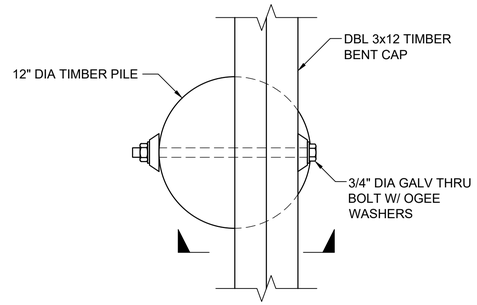


PLAN

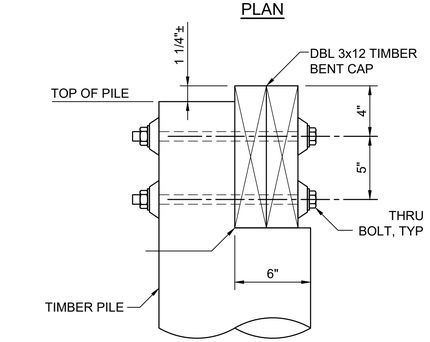


SECTION

C1 / S-401 — DBL BENT CAP CONNECTION AT BULKHEAD
SCALE: 2"=1'-0"

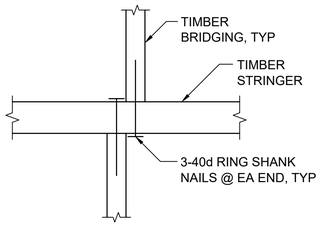


PLAN

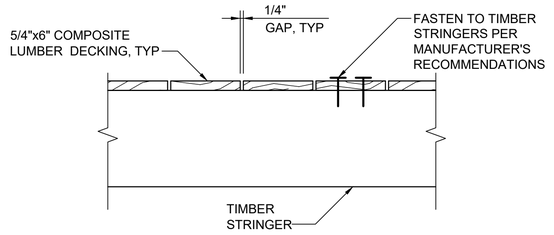


SECTION

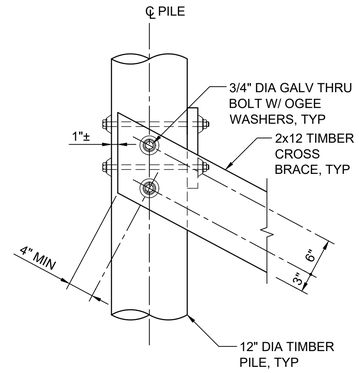
A1 / S-401 — DBL BENT CAP CONNECTION AT GANGWAY
SCALE: 2"=1'-0"



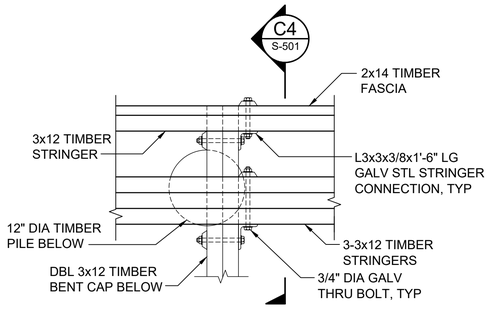
D3 / S-401 — BRIDGING CONNECTION
NOT TO SCALE



D4 / S-401 — DECKING CONNECTION
NOT TO SCALE

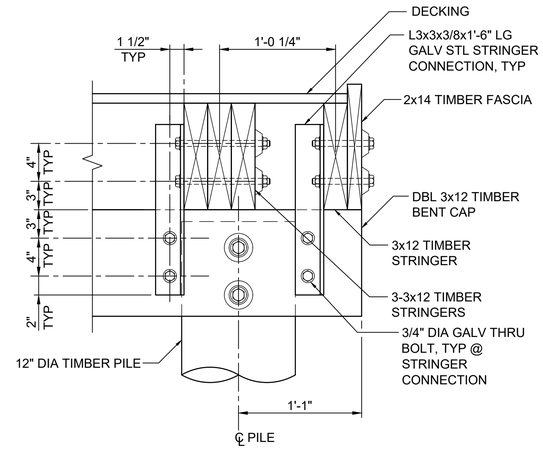


D5 / S-301 — CROSS BRACING CONNECTION
SCALE: 1"=1'-0"



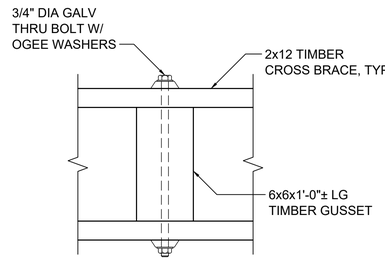
NOTE:
PROVIDE OGEE WASHERS AT ALL TIMBER INTERFACE.

C3 / S-401 — STRINGER & FASCIA CONNECTION
SCALE: 1"=1'-0"

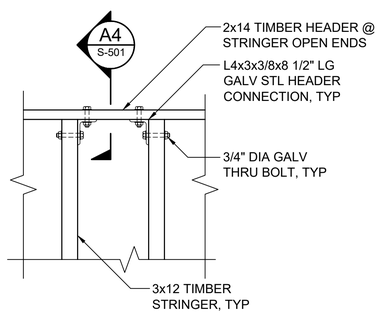


NOTE:
PROVIDE OGEE WASHERS AT ALL TIMBER INTERFACE.

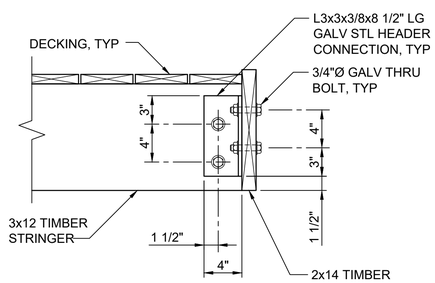
C4 / S-501 — SECTION
SCALE: 1 1/2"=1'-0"



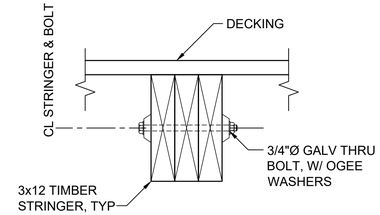
C5 / S-301 — CROSS BRACE BLOCKING
SCALE: 1 1/2"=1'-0"



A3 / S-401 — HEADER CONNECTION
SCALE: 1"=1'-0"



A4 / S-501 — SECTION
SCALE: 1 1/2"=1'-0"



A5 / S-401 — SECTION
SCALE: 1 1/2"=1'-0"

1'-0" 0'-0" 6" 1'-0"
SCALE: 1 1/2"=1'-0"

6" 0'-0" 6" 1'-0"
SCALE: 2"=1'-0"

1'-0" 0'-0" 1'-0" 2'-0"
SCALE: 1"=1'-0"

PERMIT SET
ISSUED: 2021-11-19

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

tall ship PROVIDENCE
ALEXANDRIA, VA

Rev.	Description	Date	Appr
0	ISSUED FOR CONSTRUCTION	4/9	MAP

TALL SHIP PROVIDENCE
INTERIM DOCKING FACILITY

TIMBER PIER DETAILS

Date: APRIL 2021
M&N Project No.: 201466
Drawing scale: 1:1 (D SHEET)
Drawing Scale:
Plot scale: 1:1 (D SHEET)
Designed by: MRP
Cad by: MAP
Dwn by: BDF
Reviewed by: PRG
Submitted by: MARK PIRRELLO MOFFATT & NICHOL

4700 FALLS OF NEUSE RD, SUITE 300
RALEIGH, NC 27609
919-781-4626
moffatt & nichol

COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
Lic. No. 030083
PROFESSIONAL ENGINEER
SEAL

Sheet Reference No.
S-501
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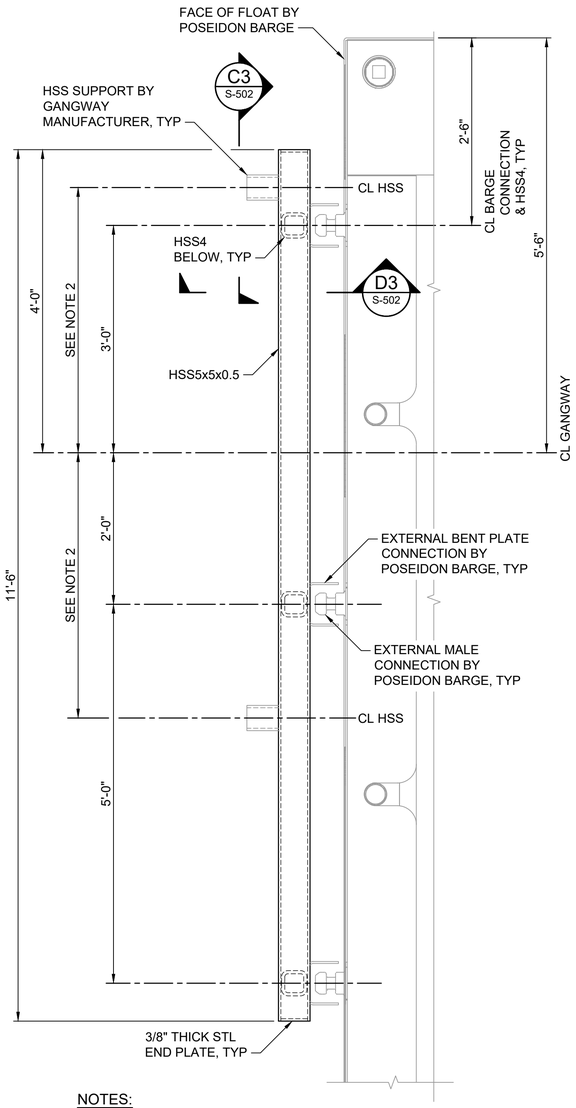
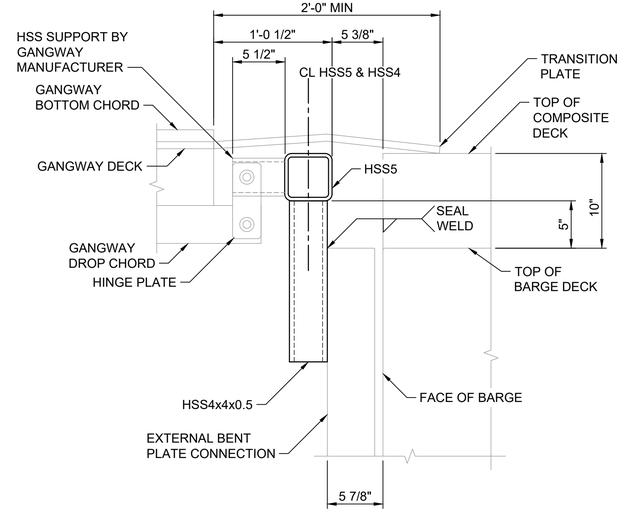
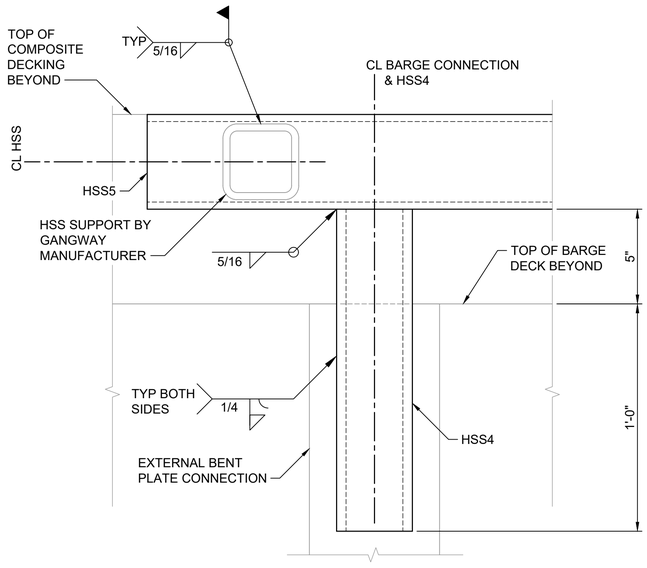


NOTES:
1. GANGWAY NOT SHOWN FOR CLARITY.
2. DETERMINED BY GANGWAY MANUFACTURER, ALIGN CL OF HSS WITH CL OF GANGWAY BOTTOM CHORD.
3. SEE ARCHITECTURAL PLANS FOR FASCIA DETAILS. BLOCKOUT FASCIA AT STRUCTURAL SUPPORTS WHERE REQUIRED.

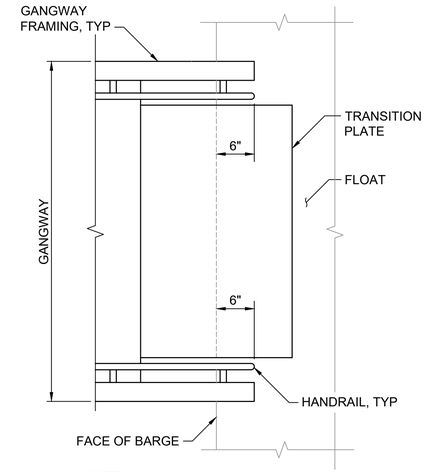
C1 S-101 GANGWAY CONNECTION
SCALE: 1"=1'-0"



D3 S-502 SECTION
SCALE: 1 1/2"=1'-0"

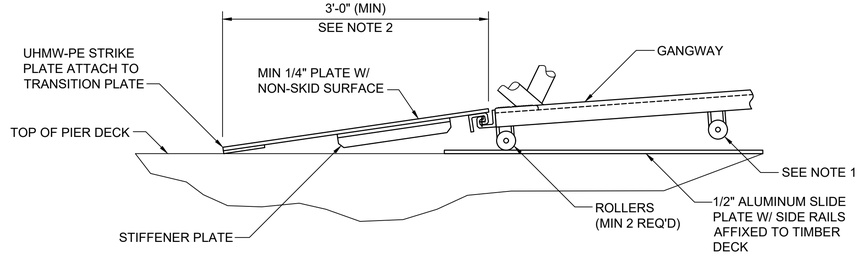


C3 S-502 SECTION
SCALE: 3"=1'-0"



NOTE:
LOCATION OF ENTRANCE GATE TO BE COORDINATED WITH ARCHITECTURAL PLANS

A4 S-101 HANDRAIL OVERHANG
NOT TO SCALE



NOTES:
1. MANUFACTURER SHALL PROVIDE A SECONDARY ROLLER/SUPPORT TO ACCOMMODATE HIGH AND LOW WATER EVENTS. GANGWAY DESIGN SHALL INCLUDE SPACING BETWEEN ROLLERS.
2. FINAL LENGTH OF TRANSITION PLATE SHALL BE DESIGNED TO MEET ADA GUIDELINES BASED ON HEIGHT OF GANGWAY FRAMING MEMBER AT TRANSITION PLATE CONNECTION.

A1 S-502 TRANSITION PLATE
NOT TO SCALE

1" 0'-0" 1" 2"
SCALE: 1"=1"

1'-0" 0'-0" 6" 1'-0"
SCALE: 1 1/2"=1'-0"

4" 0' 4" 8"
SCALE: 3"=1'-0"

PERMIT SET
ISSUED: 2021-11-19

tall ship PROVIDENCE
ALEXANDRIA, VA

No.	Mark	Description	Date	Appr
0		ISSUED FOR CONSTRUCTION	4/9	MAP

TALL SHIP PROVIDENCE
INTERIM DOCKING FACILITY

GANGWAY DETAILS

Rev: 0
Date: APRIL 2021
M&N Project No. 201466
Drawing code:
Drawing Scale: 1:1 (D SHEET)
Designed by: MRP
Drawn by: BDF
Checked by: MAP
Reviewed by: PRG
Submitted by: MARK PIRRELLO MOFFATT & NICHOL
Plot scale:

4700 FALLS OF NEUSE RD, SUITE 300
RALEIGH, NC 27609
919-781-4626
moffatt & nichol

COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
Lic. No.030083
PROFESSIONAL ENGINEER
SEAL

Sheet Reference No.
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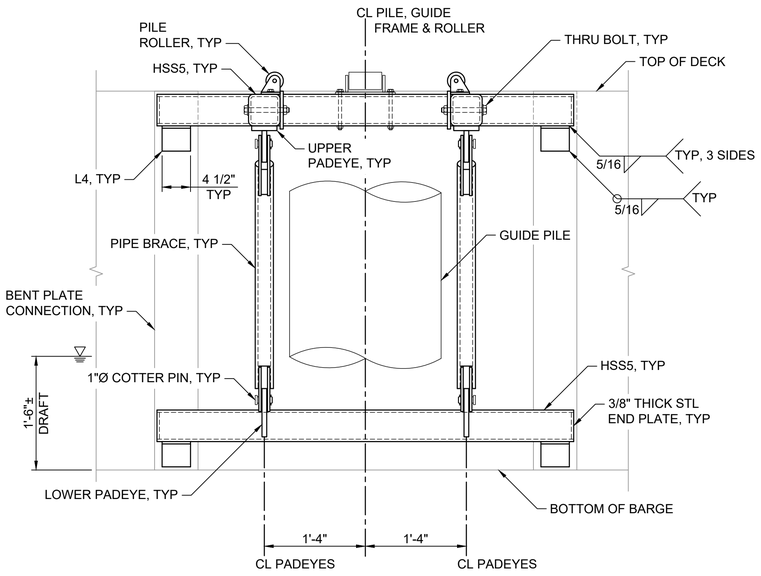
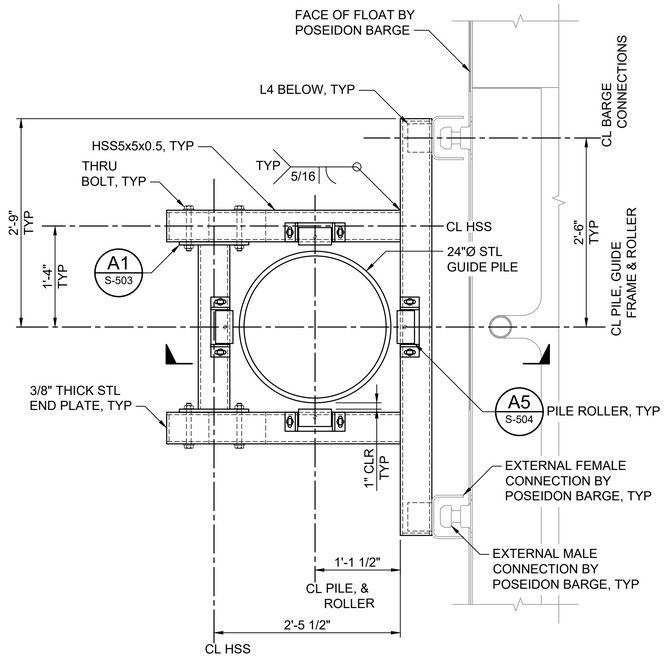
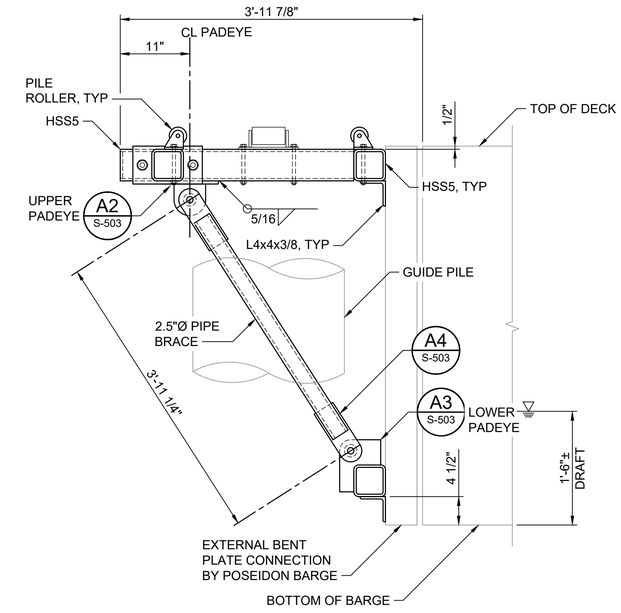
DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



SIDE ELEVATION



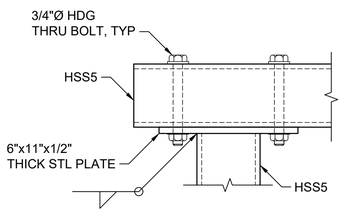
PLAN



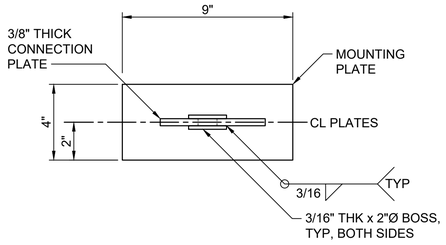
SECTION

NOTE:
PAINT FRAME AFTER FABRICATION.

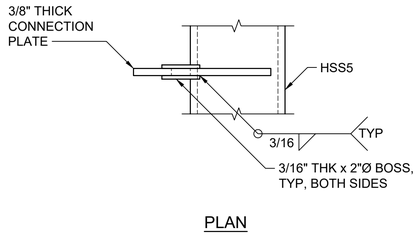
C1 / S-101 GUIDE FRAME TYPE 1
SCALE: 1"=1'-0"



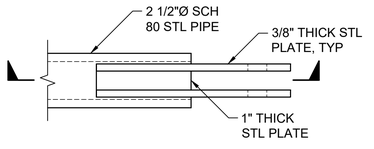
PLAN



PLAN



PLAN



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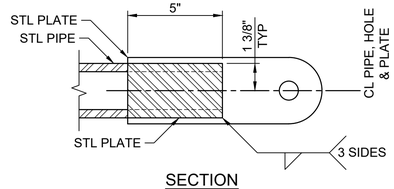
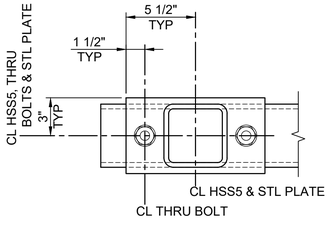
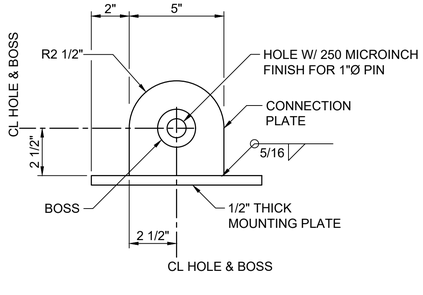


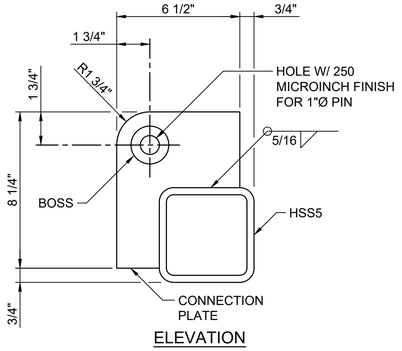
SECTION



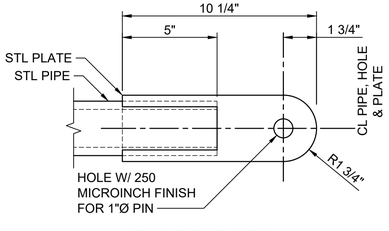
ELEVATION



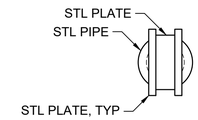
ELEVATION



ELEVATION



FRONT ELEVATION



SIDE ELEVATION

A1 / S-503 CONNECTION
SCALE: 2"=1'-0"

A2 / S-503 UPPER PADEYE
SCALE: 3"=1'-0"

A3 / S-503 LOWER PADEYE
SCALE: 3"=1'-0"

A4 / S-503 PIPE BRACE CONNECTION
SCALE: 3"=1'-0"

1'-0" 0'-0" 1'-0" 2'-0"
SCALE: 1"=1'-0"

6" 0'-0" 3" 6"
SCALE: 3"=1'-0"

PERMIT SET
ISSUED: 2021-11-19

TALL SHIP PROVIDENCE
ALEXANDRIA, VA

Mark	Description	Date	Appr
0	ISSUED FOR CONSTRUCTION	4/9	MAP

TALL SHIP PROVIDENCE
INTERIM DOCKING FACILITY

FLOAT GUIDE
DETAILS 1 OF 2

Designed by: MRP
Drawn by: BDF
Checked by: MAP
Reviewed by: PRG
Submitted by: MARK PIRRELLO MOFFATT & NICHOL

Date: APRIL 2021
Rev: 0
M&N Project No. 201466
Drawing code:
Drawing Scale:
Plot scale: 1:1 (D SHEET)

4700 FALLS OF NEUSE RD, SUITE 300
RALEIGH, NC 27609
919-781-4626
moffatt & nichol

COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
Lic. No. 030083
PROFESSIONAL ENGINEER
SEAL

Sheet Reference No.
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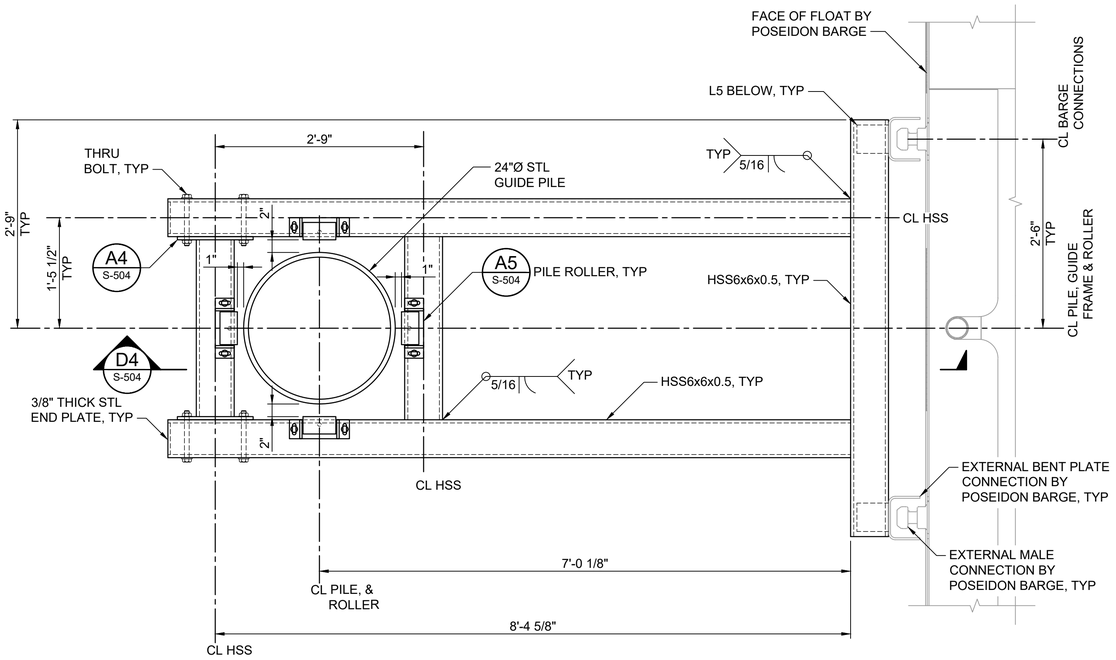
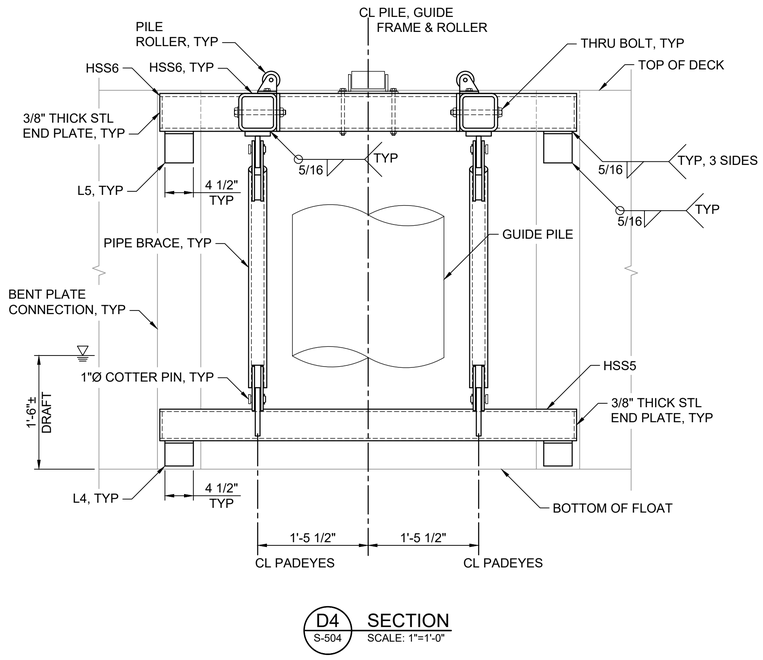
File: Q:\PA\201466\0500_CAD_Active_201466\201466-S503 ; Plotted: 11/19/2021 5:03 PM by FORD, BRIAN ; Saved: 11/19/2021 4:59 PM by BFORD

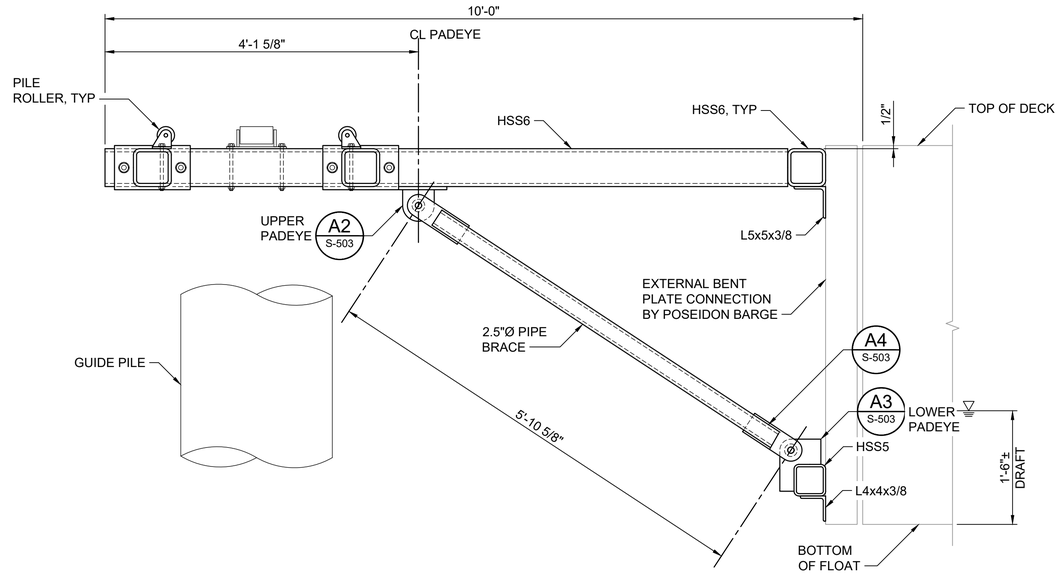
DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



PLAN



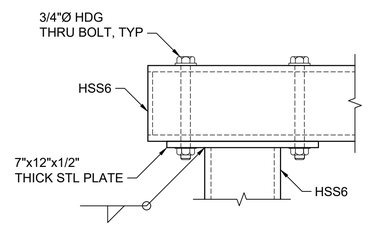
D4 S-504 SECTION
SCALE: 1"=1'-0"



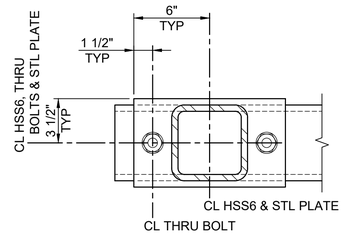
SECTION

NOTE:
PAINT FRAME AFTER FABRICATION.

A1 S-101 GUIDE FRAME TYPE 2
SCALE: 1"=1'-0"

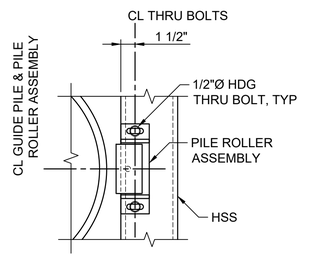


PLAN

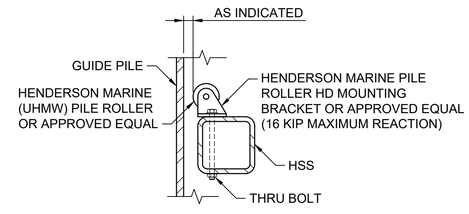


ELEVATION

A4 S-504 CONNECTION
SCALE: 2"=1'-0"



PLAN



ELEVATION

A5 S-504 PILE ROLLER ASSEMBLY
SCALE: 1 1/2"=1'-0"

1'-0" 0'-0" 1'-0" 2'-0"
SCALE: 1"=1'-0"

1'-0" 0'-0" 6" 1'-0"
SCALE: 1 1/2"=1'-0"

6" 0'-0" 6" 1'-0"
SCALE: 2"=1'-0"

PERMIT SET
ISSUED: 2021-11-19

tall ship PROVIDENCE
ALEXANDRIA, VA

Mark	Description	Date	Appr
0	ISSUED FOR CONSTRUCTION	4/9	MAP

TALL SHIP PROVIDENCE
INTERIM DOCKING FACILITY

FLOAT GUIDE
DETAILS 2 OF 2

Designed by: MRP
Drawn by: BDF
Checked by: MAP
Reviewed by: PRG
Submitted by: MARK PIRRELLO MOFFATT & NICHOL
Date: APRIL 2021
M&N Project No. 201466
Drawing code:
Drawing Scale:
Plot scale: 1:1 (D SHEET)
Rev: 0

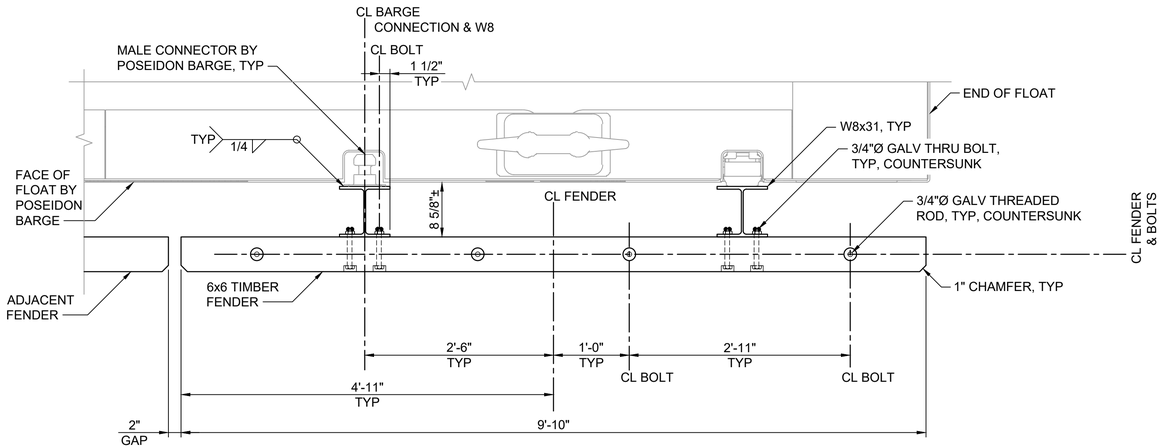
4700 FALLS OF NEUSE RD. SUITE 300
RALEIGH, NC 27609
919-781-4626
moffatt & nichol

COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
Lic. No. 030083
PROFESSIONAL ENGINEER
SEAL

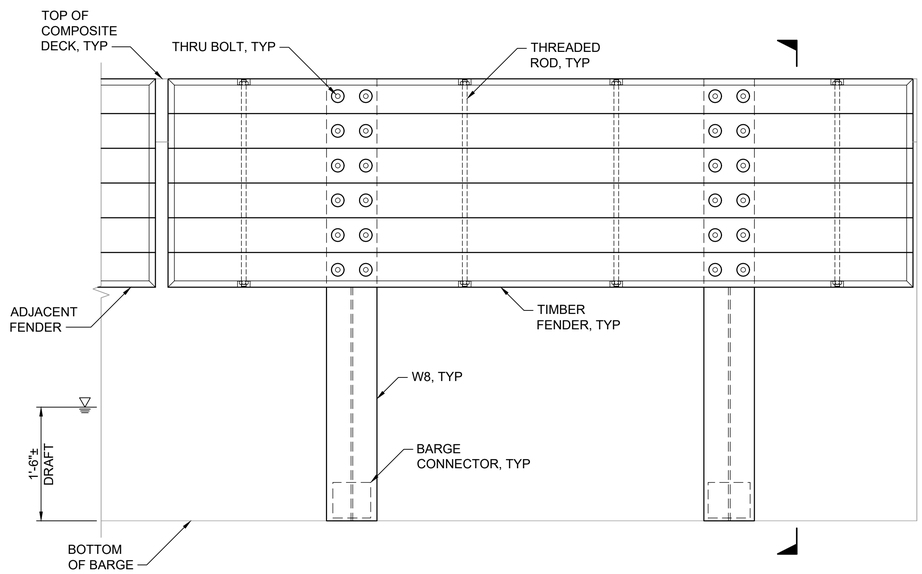
Sheet Reference No.
S-504
INDEX: 13 OF 14

File: Q:\RA\201466\0500_CAD_Active_201466\201466-S504 - Plotted: 11/19/2021 5:03 PM by FORD, BRIAN - Saved: 11/19/2021 5:00 PM by BFORD

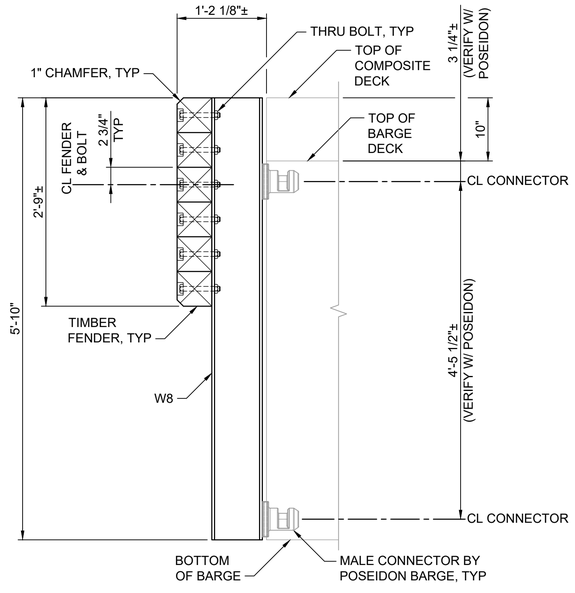
DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



PLAN



ELEVATION



SECTION

A1 / S-101 TIMBER FENDER
SCALE: 1"=1'-0"

1'-0" 0'-0" 1'-0" 2'-0"
SCALE: 1"=1'-0"

PERMIT SET
ISSUED: 2021-11-19

tall ship PROVIDENCE
ALEXANDRIA, VA

Mark	Description	Date	Appr
0	ISSUED FOR CONSTRUCTION	4/9	MAP

TALL SHIP PROVIDENCE
INTERIM DOCKING FACILITY

TIMBER FENDER
DETAILS

4700 FALLS OF NEUSE RD, SUITE 300
RALEIGH, NC 27609
919-781-4626
moffatt & nichol

Designed by: MRP
Drawn by: BDF
Checked by: MAP
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Rev: 0
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COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
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SEAL

Sheet
Reference No.
S-505
INDEX: 14 OF 14

File: Q:\RA\201466\0500_CAD_Active_201466\201466-S505 - Plotted: 11/19/2021 5:03 PM by FORD, BRIAN - Saved: 11/19/2021 5:00 PM by BFORD

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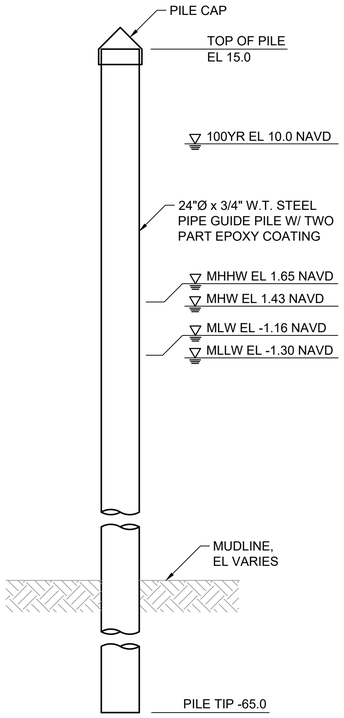
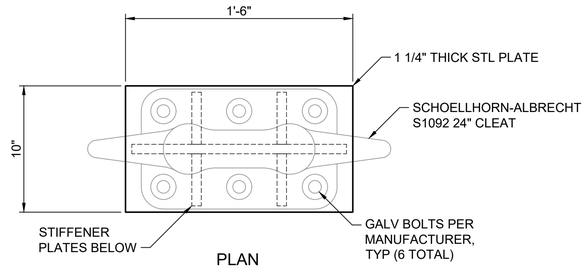


C1 S-101 GUIDE PILE
NOT TO SCALE



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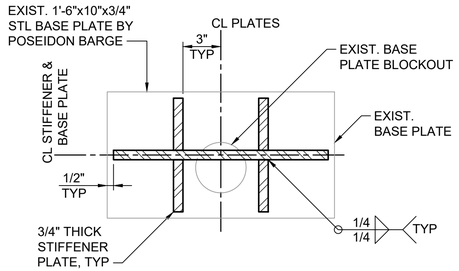
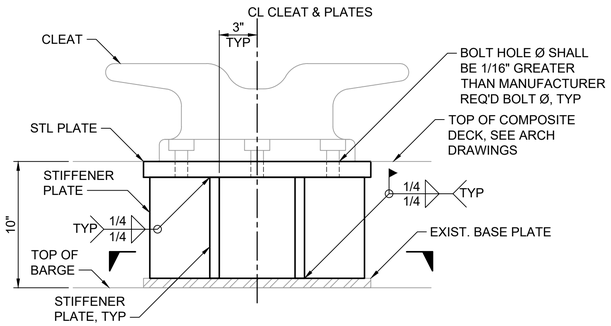
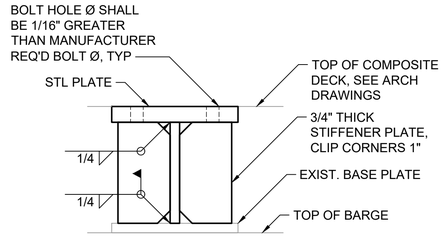


SECTION



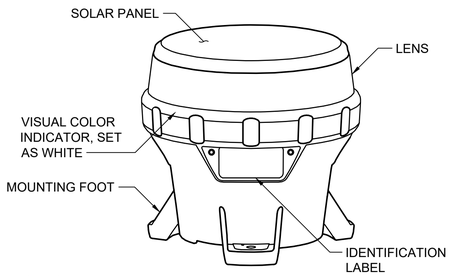
FRONT ELEVATION



NOTE:
CLEAT NOT SHOWN FOR CLARITY.

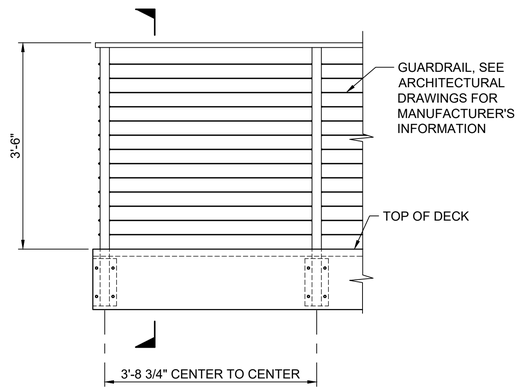
SIDE ELEVATION

C2 S-101 24 INCH CLEAT
SCALE: 2"=1'-0"

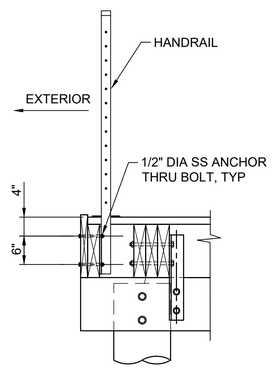


NOTES:
1. UV RESISTANT, POLYCARBONATE/POLYSOLAXANE CO-POLYMER BODY AND LENS MATERIAL. DOUBLE O-RING SEALING WITH WATERPROOF VENT. REPLACEABLE BATTERY PACK WITH STATUS FEEDBACK.
2. SOLAR PANEL WITH BYPASS BLOCKING DIODE FUNCTION AND MAXIMUM POWER POINT (MPPT).
3. LED LIGHT SOURCE WITH TEMPERATURE-CORRECTED LED DRIVERS. SELECTABLE FLASH PATTERNS. SELECTABLE INTENSITY FROM 25 TO 925 LUX. SELECTABLE COLOR TO BE WHITE
4. LUMINAIRE SHALL BE MANUFACTURER SABIK MARINE MODEL: #M550 OR APPROVED EQUAL. -45 TO 124 FAHRENHEIT AMBIENT OPERATING TEMPERATURE. USCG PATON 33CFR66 & CFR67 CLASS C COMPLAINT.
5. SECURE WARNING LIGHT TO COMPOSITE DECKING WITH 316 STAINLESS STEEL HARDWARE ACCORDING TO LIGHT AND DECKING MANUFACTURER RECOMMENDATIONS..
6. LOCATE LIGHT IN OPTIMUM LOCATION VISIBLE TO APPROACHING VESSELS, PROTECTED FROM ARTIFICIAL LIGHT SOURCES, AND PROTECTION FROM POSSIBLE DAMAGE.

B1 S-101 SOLAR WARNING LIGHT
NOT TO SCALE



ELEVATION



SECTION

A3 S-301 HANDRAIL
NOT TO SCALE

6" 0'-0" 6" 1'-0"
SCALE: 2"=1'-0"

PERMIT SET
ISSUED: 2021-11-19

tall ship PROVIDENCE
ALEXANDRIA, VA

Rev.	Description	Date	Appr
0	ISSUED FOR CONSTRUCTION	4/9	MAP

TALL SHIP PROVIDENCE
INTERIM DOCKING FACILITY

MISCELLANEOUS DETAILS

Date: APRIL 2021
M&N Project No. 201466
Drawing code:
Drawing Scale:
Plot scale: 1:1 (D SHEET)

Designed by: MRP
Drawn by: BDF
Cad by: MAP
Reviewed by: PRG
Submitted by: MARK PIRRELLO
MOFFATT & NICHOL

4700 FALLS OF NEUSE RD, SUITE 300
RALEIGH, NC 27609
919-781-4626
moffatt & nichol

COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
Lic. No. 030083
PROFESSIONAL ENGINEER
SEAL

Sheet Reference No.
S-506
INDEX: 15 OF 14

File: Q:\PA\201466\0500_CAD_Active_201466\201466-S506 - Plotted: 11/19/2021 5:03 PM by FORD, BRIAN - Saved: 11/19/2021 5:00 PM by BFORD

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

PROJECT INFORMATION

PROJECT NAME: JOHN WARNER MARITIME HERITAGE CENTER

PROJECT DESCRIPTION: CONSTRUCTION OF A BARGE, A PIER, AND TWO COTTAGES TO BE LOCATED ON THE WATERFRONT. THE PROPOSED PIER IS REQUIRED TO MOOR THE PROVIDENCE IN ALEXANDRIA. THE TWO COTTAGES ARE DESIGNED TO SERVE AS THE VISITOR CENTER / MUSEUM AND WILL SUPPORT THE CULTURAL AND HISTORICAL PROGRAMMING ASSOCIATED WITH THE PROVIDENCE.

OCCUPANCY:
ASSEMBLY (A3), MERCANTILE(M)

PROPOSED USE:
VISITOR CENTER / MUSEUM

PROJECT ADDRESS:
TALL SHIP PROVIDENCE PIER
RIPARIAN AREA ADJACENT TO 1A PRINCE STREET
ALEXANDRIA, VA 22314

TYPE OF CONSTRUCTION:
VB COMBUSTABLE, UNPROTECTED WOOD FRAME

HEIGHT OF NEW BUILDING:
ONE STORY HEIGHT

PROJECT FLOOR AREA:
3850 SF

CONTACT INFORMATION

OWNER: THE TALL SHIP PROVIDEN FOUNDATION	CONTACT: CLAIR SASSIN	PHONE: (703) 304-6685
ARCHITECT: HGA	CONTACT: JIM POLHAMUS	PHONE: (703) 317-6024 JPolhamus@hga.com
CIVIL: MOFFATT & NICHOL	CONTACT: MARK PIRRELLO	PHONE: (919) 781-4626 EXT. 1264
ELECTRICAL: HGA	CONTACT: JOE DALY	PHONE: (703) 836-7766 JDaly@hga.com
MECHANICAL/PLUMBING: HGA	CONTACT: ED CLEMENTS.	PHONE: (703) 836-7766 EClements@hga.com
STRUCTURAL: ADTEK ENGINEERS. INC	CONTACT: ROSE A. RODRIGUEZ	PHONE: (703) 691-4040 rrodriguez@adtekengineers.com
CONTRACTOR: JLL	CONTACT: HALI VOYCIK	PHONE: (724) 561-2902

JOHN WARNER MARITIME HERITAGE CENTER

ALEXANDRIA, VIRGINIA

tall Ship PROVIDENCE
ALEXANDRIA, VA

AGENCY: TALL SHIP PROVIDENCE FOUNDATION

HGA
44 CANAL CENTER PLAZA, SUITE 100
ALEXANDRIA, VIRGINIA 22314
TELEPHONE: 703.836.7766

hga commission number: 2135-015-00

APRIL 2, 2021

04-02-21
JAMES W. SCRUGGS JR.
Lic. No. 0401017843
COMMONWEALTH OF VIRGINIA

PERMIT SET

SPECIAL USE PERMIT # 2021-00001

DRAWING INDEX

NUMBER	SHEET NAME
1-GENERAL	
A000	COVER SHEET
A010	GENERAL NOTES, ABBREVIATIONS AND SYMBOLS
A020	LIFE SAFETY PLAN
A021	COMCHECK ENVELOPE COMPLIANCE REPORT
A022	COMCHECK ENVELOPE COMPLIANCE REPORT
A040	ARCHITECTURAL SITE PLAN
4-ARCHITECTURAL	
A200	FLOOR PLAN - MAIN LEVEL
A201	FLOOR PLAN - MEZZANINE
A202	ROOF PLAN
A300	REFLECTED CEILING PLAN - MAIN LEVEL
A400	EXTERIOR ELEVATIONS
A401	EXTERIOR ELEVATIONS
A402	EXTERIOR ELEVATIONS
A410	BUILDING SECTIONS
A420	WALL SECTIONS
A430	EXTERIOR DETAILS
A431	EXTERIOR DETAILS
A432	EXTERIOR DETAILS
A433	EXTERIOR DETAILS

DRAWING INDEX

NUMBER	SHEET NAME
A440	PRE-ENGINEERED TRUSS DETAILS
A600	TYPICAL MOUNTING HEIGHTS
A601	SIGNAGE + DESIGN GUIDE - MOUNTING HEIGHTS
A660	PARTITION TYPES & DOOR SCHEDULE
5-STRUCTURE	
S001	STRUCTURAL NOTES
S003	TOP OF DECK FRAMING PLAN
S005	MEZZANINE FRAMING PLAN
S200	ROOF FRAMING PLAN
S202	WALL SECTIONS
S410	DECK LEVEL DETAILS
6-MECHANICAL	
M001	MECHANICAL GENERAL NOTES AND SYMBOLS
M002	MECHANICAL COMCHECK
M003	MECHANICAL COMCHECK
M004	MECHANICAL COMCHECK

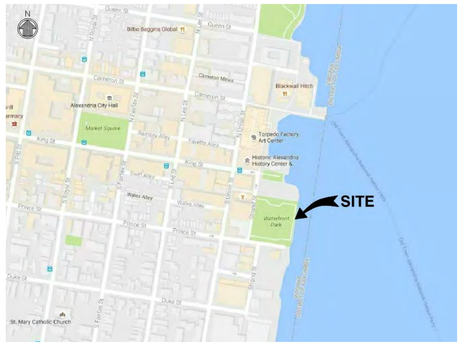
DRAWING INDEX

NUMBER	SHEET NAME
M005	MECHANICAL SPECS
M201	MAIN LEVEL PLAN - HVAC
M700	MECHANICAL SCHEDULES AND DETAILS
M701	MECHANICAL VRF SCHEMATICS
M800	MECHANICAL SCHEDULES
7-PLUMBING	
P001	PLUMBING GENERAL NOTES AND SYMBOLS
P200	DECK UNDERFLOOR PLAN - PLUMBING
P201	MAIN LEVEL PLAN - PLUMBING
P401	ENLARGED MAIN LEVEL PLAN - PLUMBING
P600	PLUMBING RISERS
P700	PLUMBING DETAILS
P800	PLUMBING SCHEDULES
8-ELECTRICAL	
E000	ELECTRICAL GENERAL NOTES AND SYMBOLS
E001	ELECTRICAL SPECIFICATIONS
E201	LIGHTING PLAN - LEVEL 01
E301	POWER PLAN - LEVEL 01 AND MEZZANINE
E401	SYSTEMS PLAN - LEVEL 01
E500	LUMINAIRE SCHEDULE
E510	ELECTRICAL SCHEDULES
E600	ELECTRICAL COMCHECK
E601	ELECTRICAL COMCHECK
Grand total: 54	

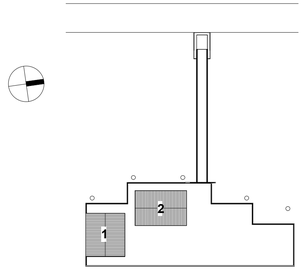
APPPLICABLE CODES

BUILDING CODE:
2015 VA CONSTRUCTION CODE / USBC PART I
MAINTENANCE CODE
2015 VA MAINTENANCE CODE / USBC PART III
MECHANICAL CODE:
2015 VA MECHANICAL CODE
ELECTRICAL CODE:
NEC 2014
PLUMBING CODE:
2015 VA PLUMBING CODE
ENERGY CODE:
2015 VA ENERGY CONSERVATION CODE
FIRE PREVENTION CODE:
2015 VA FIRE PREVENTION CODE
ACCESSIBILITY CODE:
2015 VA CONSTRUCTION CODE AND ICC/2009 ANSI A117.1 CODE

LOCATION PLAN



KEY PLAN:



4/2/2021 4:21:14 PM

A	
A/E	ARCHITECT/ENGINEER
ACOUS	ACOUSTICAL
AD	ACCESS DOOR
ADA	THE AMERICANS WITH DISABILITIES ACT
ADD	ADDENDUM
ADDL	ADDITIONAL
ADJ	ADJUSTABLE
ADJC	ADJACENT
AED	DEFIBRILATOR
AF	ACCESS FLOOR
AFF	ABOVE FINISH FLOOR
AL	ALUMINUM
ALT	ALTERNATE
AP	ACCESS PANEL
APPROX	APPROXIMATE(LY)
ARCH	ARCHITECT(URAL)
ASC	ABOVE SUSPENDED CEILING
ASPH	ASPHALT
B	
BD	BOARD
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BO	BOTTOM OF
BOT	BOTTOM
BRKT	BRACKET
BS	BACKSPLASH
BSMT	BASEMENT
BTW	BETWEEN
BYND	BEYOND
C	
CAB	CABINET
CEN	CENT(ER) (TRAL)
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CG	CORNER GUARD
CIP	CAST IN PLACE
CJ	CONTROL/CONSTRUCTION JOINT
CL	CENTER LINE
CLG	CEILING
CLR	CLEAR(ANCE)
CLR	CLEAR
CMPST	COMPOSITE
CMU	CONCRETE MASONRY UNIT
CNTFG	CENTRIFUGE
CNTR	COUNTER
CO	CASED OPENING; CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONN	CONNEC(TION)
CONST	CONSTRUCTION
CONT	CONTINU(E) (OUS) (ATION)
CONT	CONTINUOUS
CORR	CORRIDOR
CR	CARD READER
CYL	CYLINDER
D	
D	DEEP, DEPTH
DBL	DOUBLE
DED	DEDICATED
DEG	DEGREE
DEMO	DEMO(LISH) (LITION)
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DISP	DISPENSER
DN	DOWN
DO	DATA OUTLET
DR	DOOR
DWG(S)	DRAWING(S)
E	
(E), EXIST	EXISTING
E	ELEVATOR
EA	EACH
EIFS	EXTERIOR INSULATION FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRIC(AL)
ELEV	ELEVATOR
EMER	EMERGENCY
EMI	ELECTROMAGNETIC INTERFERENCE
ENCL	ENCLOSURE
EO	ELECTRICAL OUTLET
EOS	EDGE OF SLAB
EP	ELECTRICAL PANEL
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EPRF	EXPLOSION PROOF
EQ	EQUAL
EQUIP	EQUIPMENT

ETR	EXISTING TO REMAIN
EXCL	EXCLUD(E) (ED) (ING)
EXG	EXISTING
EXH	EXHAUST
EXP	EXPAN(D) (SION)
EXT	EXTERIOR
EXTR	EXTERIOR
F	
F/F	FACE TO FACE
FA	FIRE ALARM
FACP	FIRE ALARM PANEL
FAS	FASTEN(ED) (ER)
FB	FLAT BAR
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FLOOR FINISH
FHC	FIRE HOSE CABINET
FHP	FULL HEIGHT PARTITION
FIN	FINISH
FL	FLASHING
FLR	FLOOR(ING)
FO	FACE OF
FOC	FACE OF CONCRETE
FOW	FACE OF WALL
FP	FILLER PANEL
FSTR	FASTEN(ED) (ER)
FT	FOOT, FEET
FTG	FOOTING
G	
GA	GAUGE
GC	GENERAL CONTRACTOR
H	
H	HIGH, HEIGHT
HD	HEAD
HDW	HARDWARE
HM	HOLLOW METAL
HO	HOLD OPEN
HORIZ	HORIZONTAL
HR	HANDRAIL(S)
HT	HEIGHT
I	
ID	INSIDE DIAMETER/DIMENSION
IN	INCH(ES)
INCL	INCLU(DE) (DED) (DING) (SIVE)
INSUL	INSULAT(E) (ED)
INT	INTERIOR
INTR	INTERIOR
J	
JAN	JANITOR
JST	JOIST
JT	JOINT
K	
KOP	KNOCKOUT PANEL
KPL	KICK PLATE
KS	KNEE SPACE
L	
L	ANGLE (STRUC SHAPE)
LAB	LABORATORY
LAV	LAVATORY
LB	POUND
LENGTH	LONG, LENGTH
LF	LINEAR FOOT
LFFEET	LINEAL FOOT, FEET
LH	LEFT HAND
LHR	LEFT HAND REVERSE
LKR	LOCKER
LNTL	LINTEL
LT	LIGHT
LTG	LIGHTING
LTWT	LIGHTWEIGHT
LVL	LEVEL
LVR	LOUVER
M	
MACH	MACHINE
MAINT	MAINTENANCE
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MB	MARKERBOARD
MECH	MECHANICAL(LY)
MED	MEDIUM
MEMB	MEMBRANE
MET	METAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MIR	MIRROR

MISC	MISCELLANEOUS
MO	MASONRY OPENING
MT(D)	MOUNT(ED)
MTL	METAL
MUL	MULLION
MVBL	MOVABLE
N	
N	NORTH; NITROGEN
N/A	NOT APPLICABLE
NEC	NECESSARY
NIC	NOT IN CONTRACT
NO2	NITROUS OXIDE
NOM	NOMINAL
NTS	NOT TO SCALE
O	
O	OXYGEN
O2	OXYGEN
OC	ON CENTER
OD	OUTSIDE DIAMETER/DIMENSION
OF	OUTSIDE FACE
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFF	OFFICE
OFOI	OWNER FURNISHED, OWNER INSTALLED
OFVI	OWNER FURNISHED, VENDOR INSTALLED
OH	OVERHEAD
OH	OPPOSITE HAND
OHSC	OVERHEAD SERVICE CARRIER
OPG	OPENING
OPP	OPPOSITE
OPT	OPTION(AL)
P	
PA	POWER ASSIST
PAR	PARALLEL
PART	PARTICLE; PARTIAL
PB	PANIC BAR
PC	PRECAST
PERF	PERFORATED
PERIM	PERIMETER
PGBD	PEG BOARD
PL	PLATE
PLAM	PLASTIC LAMINATE
PLBG	PLUMBING
PLYWD	PLYWOOD
PNEU	PNEUMATIC
PNL	PANEL
PR	PAIR
PRCST	PRECAST
PREFAB	PREFABRICATED
PTD	PAINTED
PTN	PARTITION
PTS	PNEUMATIC TUBE STATION
Q	
QTY	QUANTITY
R	
R	RADIUS; RADII; RISER (STAIR)
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REC	RECESSED
RECP	RECEPTACLE
REF	REFER(ENCE)
REFR	REFRIGERATOR
REINF	REINFORC(E) (ED) (ING) (EMENT)
REQD	REQUIRED
RESIL	RESILIENT
REV	REVIS(E) (ED) (ION)
RH	RIGHT HAND
RHR	RIGHT HAND REVERSE
RM	ROOM
RO	ROUGH OPENING
S	
SCHED	SCHEDULE
SECT	SECTION
SF	SQUARE FOOT/FEET
SHT	SHEET(ING)
SHTG	SHEATHING
SIM	SIMILAR
SKLT	SKYLIGHT(S)
SPEC(S)	SPECIFICATION(S)
SPK	SPEAKER
SS	STAINLESS STEEL
ST	STREET
STAG	STAGGER
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUC	STRUCTUR(E) (AL)
SUSP	SUSPENDED
SYM	SYMMETR(Y) (ICAL)
T	
T	TREAD
T&G	TONGUE AND GROOVE
T/D	TELEPHONE DATA OUTLET

TEL	TELEPHONE
TEMP	TEMPORARY
TER	TERRAZZO
THK	THICKNESS
TME	TO MATCH EXISTING
TO	TOP OF
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
TV	TELEVISION
TYP	TYPICAL
U	
UC	UNDER CABINET
UCL	UNDER CABINET LIGHTING
UNEX	UNEXCAVATED
UNFIN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
UR	URINAL
UV	ULTRAVIOLET
V	
VAC	VACUUM
VAR	VAR(Y) (IES) (IATION)
VCT	VINYL COMPOSITION TILE
VEN	VENEER
VERT	VERTICAL
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
W	
W	WIDE, WIDTH
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WP	WATERPROOFING
WSCT	WAINSCOT
WT	WEIGHT
X	
XP(D)	EXPOSE(D)

SPECIAL SYMBOLS			
&	AND	#	NUMBER
∠	ANGLE(STRUC SHAPE)	/	PER
@	AT	⊥	PERPENDICULAR
℄	CENTERLINE	±	PLUS/MINUS
ø	DIAMETER		

SHEET NUMBER EXPLANATION

1. ARCHITECTURAL
THIS CHARACTER DENOTES THE SHEET IS AN ARCHITECTURAL DRAWING.

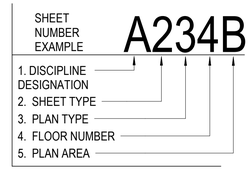
2. SHEET TYPE
THIS CHARACTER DENOTES THE TYPE OF INFORMATION ON THE SHEET

1. DEMOLITION PLANS
2. FLOOR PLANS
3. CEILING PLANS
4. EXTERIOR DETAILING
5. VERTICAL CIRCULATION
6. INTERIOR DETAILING
7. SCHEDULES

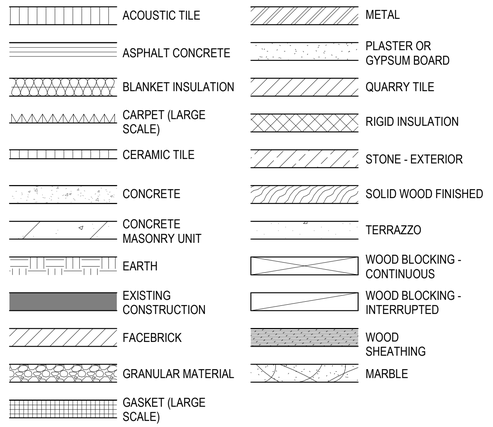
3. PLAN TYPE
THESE CHARACTERS DENOTE THE SUB CATEGORY OF THE SHEET TYPE

4. FLOOR NUMBER
THESE CHARACTERS DENOTE THE FLOOR SHOWN ON THE SHEET

5. PLAN AREA
THESE CHARACTERS DENOTE THE AREA PLAN SHOWN ON THE SHEET (IF USED)



1 ARCHITECTURAL SHEET NUMBER DESIGNATIONS
12" = 1'-0"



2 ARCHITECTURAL MATERIAL DESIGNATIONS
12" = 1'-0"

GENERAL NOTES

A. THESE GENERAL NOTES APPLY TO THE CONSTRUCTION DOCUMENTS AND SHALL GOVERN UNLESS NOTED OTHERWISE BY GENERAL NOTES OR KEYNOTES ON SPECIFIC SHEETS.

B. COORDINATE ALL PROJECT PHASING WITH OWNER OR AS SPECIFIED AND/OR SHOWN ON THE DRAWINGS.

C. PROVIDE A SAFE MEANS OF EGRESS THROUGH AND/OR AROUND THE BUILDING AND SITE PER APPLICABLE CODES AT ALL TIMES DURING THE CONSTRUCTION PROCESS. MINIMIZE DISRUPTION TO ADJACENT AREAS/FLOORS AS MUCH AS POSSIBLE.

F. NOTIFY ARCHITECT PROMPTLY IF INFORMATION SHOWN IN ONE CONSTRUCTION DOCUMENT CONFLICTS WITH INFORMATION SHOWN ON ANOTHER.

G. NOTIFY ARCHITECT PROMPTLY IF CONSTRUCTION DOCUMENTS ARE INCONSISTENT WITH THE CURRENT APPLICABLE CODES AND REGULATIONS.

H. NOTIFY ARCHITECT PROMPTLY IF ANY EXISTING CONDITIONS CONFLICT WITH THE CONSTRUCTION DOCUMENTS.

J. STRUCTURAL STEEL MEMBER PROFILES AS INDICATED ON ARCHITECTURAL DRAWINGS MAY VARY FROM ACTUAL PROFILES AND SIZES INDICATED ON THE STRUCTURAL DRAWINGS WHICH SHALL GOVERN.

K. COORDINATE EXACT LOCATIONS OF LIGHT FIXTURES, SPEAKERS, SMOKE DETECTORS, EXIT LIGHTS, ACCESS PANELS, SPRINKLER HEADS, HVAC DUCTS, DIFFUSERS, REGISTERS, AND OTHER CEILING ITEMS WITH MECHANICAL, ELECTRICAL AND OTHER TRADES. NOTIFY ARCHITECT PROMPTLY IF ANY LOCATIONS CONFLICT WITH ARCHITECTURAL REFLECTED CEILING PLANS.

L. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR FLOOR, WALL AND CEILING OPENINGS. ALL OPENINGS SHALL BE CUT AND PATCHED AS REQUIRED BY EACH DISCIPLINE OR TRADE REQUIRING THE OPENING UNLESS NOTED OTHERWISE IN THE CONSTRUCTION DOCUMENTS. PATCHING IS TO BE IN CONFORMANCE WITH APPLICABLE CODES.

M. WOOD BLOCKING WITHIN THE WALL SYSTEM SHALL BE FIRE RETARDANT TREATED. ALL EXTERIOR WOOD BLOCKING SHALL BE MOISTURE TREATED. WOOD MAY NOT BE USED IN AN EXPOSED LOCATION UNLESS IT IS A FINISH MATERIAL IN A NON-COMBUSTIBLE ASSEMBLY OR AS SPECIFIED.

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PROJECT:
JOHN WARNER MARITIME HERITAGE CENTER

RIPARIAN AREA ADJACENT TO
1A PRINCE STREET
ALEXANDRIA, VA
22314

Tall Ship PROVIDENCE ALEXANDRIA, VA

AGENCY:
TALL SHIPS PROVIDENCE FOUNDATION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER T SINIA

COMMONWEALTH OF VIRGINIA
04-02-21
JAMES W. SCRUGGS JR.
Reg. No. 040107843
ARCHITECT

NAME:
DATE: APRIL 2, 2021
REGISTRATION NUMBER:

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

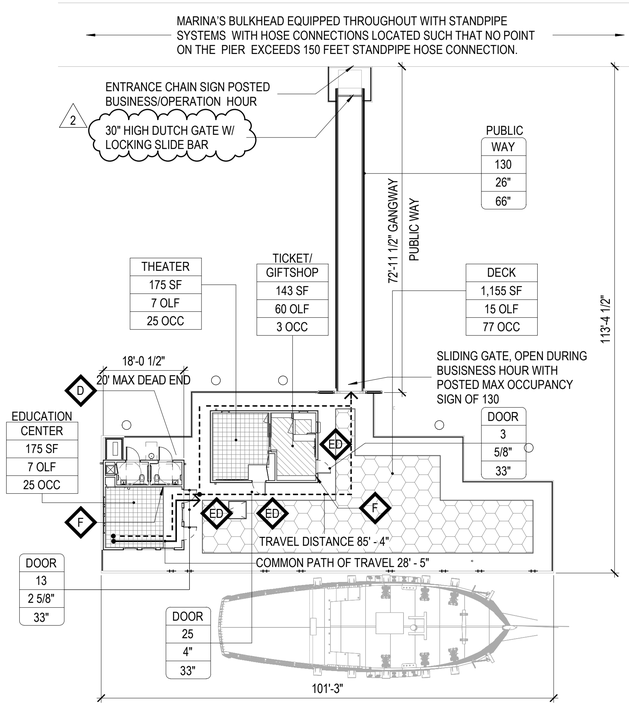
HGA NO: 2135-015-00

GENERAL NOTES, ABBREVIATIONS AND SYMBOLS

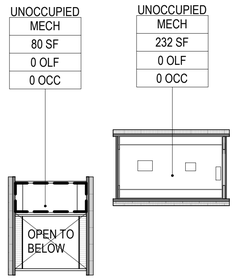
DATE: APRIL 2, 2021

PERMIT SET

A010



1 LIFE SAFETY PLAN - MAIN LEVEL - BARGE POSTED MAX 130
1/16" = 1'-0"



2 LIFE SAFETY PLAN - MEZZANINE - UNOCCUPIED ATTIC
1/16" = 1'-0"

OCCUPANCY TYPE

- ASSEMBLY (CONCENTRATED)
- ASSEMBLY (UNCONCENTRATED)
- MERCANTILE (AREAS ON OTHER FLOORS)

LIFE SAFETY PLAN SYMBOL DESIGNATIONS

(SYMBOLS ONLY- SEE LIFE SAFETY PLANS FOR ACTUAL INFORMATION)

- FUNCTION OF SPACE.
- TOTAL SQUARE FEET.
- OCCUPANT LOAD FACTOR.
- OCCUPANT LOAD.
- EXIT/EXIT-ACCESS COMPONENT (E.G., STAIR, DOOR).
- NUMBER OF OCCUPANTS USING EXIT/EXIT-ACCESS COMPONENT.
- MINIMUM REQUIRED CLEAR WIDTH (INCHES).
- AVAILABLE CLEAR WIDTH (INCHES).
- ## — NUMBER OF OCCUPANTS USING EXIT/EXIT-ACCESS COMPONENT.
- TRAVEL DISTANCE TO NEAREST EXIT (FEET).
- COMMON PATH OF TRAVEL OR EXIT ACCESS TRAVEL DISTANCE (#FEET).

F	FIRE EXTINGUISHER CABINET (MAXIMUM TRAVEL 75'-0")	S	FIRE DEPARTMENT CONNECTION (SIAMESE CONNECTION)
D	DRINKING FOUNTAIN	SP	STANDPIPE
ED	EXIT DISCHARGE		

OCCUPANCY CALCULATIONS

BUILDING OCCUPANCY BY AREA

OCCUPANCY TYPE	AREA	OCCUPANT LOAD	NOTES
TOP OF DECK			
A-3	175 SF	25	
A-3	175 SF	25	
A-3	1,155 SF	77	
M	143 SF	3	
MEZZANINE			
	80 SF		UNOCCUPIED
	232 SF		UNOCCUPIED
Grand total	1,960 SF	130	

CODE ANALYSIS

1. CODE SUMMARY

OCCUPANCY:
NON SEPARATED ASSEMBLY (A3), MERCANTILE(M)
PROPOSED USE:
VISITOR CENTER / MUSEUM
TYPE OF CONSTRUCTION:
VB COMBUSTABLE, UNPROTECTED WOOD FRAME
STANDPIPES: YES
MARINA'S BULKHEAD EQUIPPED THROUGHOUT WITH STANDPIPE SYSTEMS WITH HOSE CONNECTIONS LOCATED SUCH THAT NO POINT ON THE PIER EXCEEDS 150 FEET STANDPIPE HOSE CONNECTION.
BUILDING SPRINKLER: NO
HEIGHT OF STORIES:
1 LEVEL
FIRE ALARM:
NO

2. PROJECT DISCRIPTION

- CONSTRUCTION OF A BARGE, A PIER, AND TWO COTTAGES TO BE LOCATED ON THE WATERFRONT.
- MECHANICAL, ELECTRICAL, & LIGHTING WORK IN ASSOCIATION WITH THE ABOVE.

3. BUILDING CONSTRUCTION TYPE, HEIGHT, AND AREA
(VIRGINA STATE BUILDING CODE CHAPTERS 5 AND 6)

3.1.BUILDING HEIGHT: 14' 0" / HEIGHT ALLOWED: 40'-0" / 1 STORY ABOVE GRADE PLANE.

FLOOR LEVEL	PROPOSED TOTAL GROSS SQ FT	ALLOWABLE SF PER VBC TABLE 506.2
BARGE & GANGWAY	3,850 GSF	6,000 SF (NON-SPRINKLERED)
COTTAGE1		
GROUND FLOOR	320 GSF	
UNOCCUPIED MECHANICAL MEZZANIE/ATTIC	70 GSF	
COTTAGE 2		
GROUND FLOOR	384 GSF	
UNOCCUPIED STORAGE MEZZANIE/ATTIC	250 GSF	

3.2 GROUP A3

4. FIRE-RESISTANCE REQUIREMENTS (VIRGINIA STATE BUILDING CODE 601 AND 602)

4.1. TYPE VB CONSTRUCTION	REQUIRED	PROVIDED
4.1.1 PRIMARY STRUCTURAL FRAME	0HR	0HR
4.1.2 BEARING WALLS, EXTERIOR	0HR	0HR
4.1.3. BEARING WALLS , INTERIOR	0HR	0HR
4.1.4. NONBEARING WALLS , EXTERIOR, INTERIOR	0HR	0HR
4.1.5. FLOOR CONSTRUCTION AND ASSOCIATED SECONDARY MEMBERS	0HR	0HR
4.1.6. ROOF CONSTRUCTION AND ASSOCIATED SECONDARY MEMBERS	0HR	0HR

FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE (TABLE 602):

BUILDING SEPARATION DISTANCE	REQUIRED	PROVIDED
NORTH > 30-FT (OPEN WATER)	0HR	0HR
SOUTH> 30-FT (OPEN WATER)	0HR	0HR
EAST> 30-FT (OPEN WATER)	0HR	0HR
WEST> 30-FT (OPEN WATER)	0HR	0HR

(EXCEPTION 1 SECTION 705.3, VBC: COTTAGE 1 AND 2 SHALL BE CONSIDERED AS PORTIONS OF ONE BUILDING FOR THE PURPOSE OF DETERMINING FIRESEPARATION DISTANCE REQUIREMENT.)

5. FIRE SUPRESSION
AUTOMATIC SPRINKLER SYSTEM: NO
STANDPIPES: YES

6. PORTABLE FIRE EXTINGUISHERS
6.1. EXTERIOR CARTRIDGE-TYPE, MULTIPURPOSE DRY CHEMICAL-TYPE PORTABLE FIRE EXTINGUISHERS HAVING A MINIMUM RATING OF 4-A:40-B:C SHALL BE PROVIDED IN GENERAL AREAS THROUGHOUT THE FACILITY WITH A MAXIMUM TRAVEL DISTANCE TO ANY EXTINGUISHERS OF 22,860 mm (75ft.) FROM ANY PORTION OF THE FACILITY.

7. FIRE DETECTION, ALARM, AND COMMUNICATION
FIRE ALARM SYSTEM: NO

8. MEANS OF EGRESS
8.1. OCCUPANT LOAD FACTORS (SQ FT PER OCCUPANT) (VBC TABLE 1004.1.2)
SEE AREA SCHEDULES SHOWN PER FLOOR.
8.3.1. IN GENERAL, TWO EXITS ARE REQUIRED FROM ALL BUILDING AREAS, UP TO AN OCCUPANT LOAD OF 500. ONE WAY TRAVEL TO SHORE IS ALLOWED FOR PIER EXTENDING LESS THAN 150 FT FROM SHORE PER NFPA 101, 11.5.
8.3.2. A SINGLE EXIT MAY BE PROVIDED UNDER BOTH OF THE FOLLOWING CONDITIONS:
8.3.2.1. THE MAXIMUM OCCUPANT LOAD OF THE SPACE SERVED IS 49 FOR GROUP A, M , FIRST STORY ABOVE GRADE PLANE.
8.3.2.2. THE COMMON PATH OF EGRESS TRAVEL DOES NOT EXCEED 75 FEET FOR GROUP A, M W/O SPRINKLER SYSTEM
8.4.DEAD-END LIMITATIONS
8.4.1. WHERE MORE THAN ONE EXIT OR EXIT ACCESS DOORWAY IS REQUIRED, THE DEAD-END LIMITATION IS 20 FEET W/O SPRINKLER SYSTEM.
8.4.2. THE LENGTH OF A DEAD-END CORRIDOR SHALL NOT BE LIMITED WHERE THAT LENGTH IS LESS THAN 2.5 TIMES THE LEAST WIDTH OF THE DEAD-END CORRIDOR.
8.6. EXIT ACCESS TRAVEL DISTANCE LIMITATION: 250 FEET FOR GROUP A,M.
8.7. ILLUMINATION OF MEANS OF EGRESS - PROVIDE ILLUMINATION FOR ALL MEANS OF EGRESS, INCLUDING THE EXIT DISCHARGE.
8.8.EMERGENCY LIGHTING - IN THE EVENT OF A FAILURE OF NORMAL POWER, MEANS OF EGRESS ILLUMINATION SHALL BE MAINTAINED BY EMERGENCY POWER (FOR NOT LESS THAN 90 MINUTES)
IN THE FOLLOWING AREAS:
8.8.1. AISLES IN ROOMS AND SPACES THAT REQUIRE TWO OR MORE MEANS OF EGRESS.
8.8.2. CORRIDORS, EXIT ENCLOSURES, AND EXIT PASSAGEWAYS IN BUILDINGS REQUIRED TO HAVE TWO OR MORE EXITS.
8.9.MARKING OF MEANS OF EGRESS - PROVIDE APPROPRIATE EXIT SIGNAGE AT ALL EXITS AND EXIT ACCESS DOORS. ACCESS TO EXITS SHALL BE MARKED BY READILY VISIBLE EXIT SIGNS WHERE THE EXIT OR EXIT PATH IS NOT IMMEDIATELY VISIBLE TO THE OCCUPANTS. EXIT SIGNS
SHALL BE PLACED IN CORRIDORS SUCH THAT NO POINT IN THE CORRIDOR IS MORE THAN 100 FEET OR THE LISTED VISIBILITY DISTANCE OF THE SIGN, FROM THE NEAREST SIGN.
8.9.1. EXIT SIGNS ARE NOT REQUIRED IN ROOMS OR AREAS THAT REQUIRE ONLY ONE EXIT OR EXIT ACCESS.
8.10 DOORS
MINIMUM WIDTH: 32 INCHES MIN. CLEAR, BETWEEN THE DOOR AND FACE STOP (PER SECTION 1010.1.1)
REQ'D WIDTH PER OCCUPANT: 0.2" PER OCCUPANT (NON-SPRINKLERED)
MINIMUM HEIGHT: 6'-8" MIN
DIRECTION OF SWING: IN DIRECTION OF EGRESS WHERE THERE ARE 50 OR MORE OCCUPANTS
PROJECTIONS INTO CLEAR WIDTH: MAX 4" AT HEIGHT ABOVE GROUND OF 34" TO 80"
8.11 POSTING OF OCCUPANCY LOAD
ASSEMBLY OCCUPANCY OF 50 OR MORE SHALL HAVE THE OCUUPANCY LOAD POSTED IN NEAR MAIN EXIT OR EXIT ACCESS DOORWAY.

EGRESS COMPONENTS

(ETD) EXIT ACCESS TRAVEL DISTANCE (1016.1)	250'-0" GROUP A, M	PROVIDED: TBD"
DEAD END CORRIDORS (NOT SPRINKLED)	20'-0" MAX	PROVIDED: N/A
NUMBER OF EXITS AT COTTAGE 1	1 REQUIRED	PROVIDED: 1
NUMBER OF EXITS AT COTTAGE 2	1 REQUIRED	PROVIDED: 2
NUMBER OF EXITS AT THE BARGE	1 REQUIRED	PROVIDED: 1

(PIER EXTENDING LESS THAN 150FT FROM SHORE, NFPA 101, 11.5)

MINIMUM CORRIDOR WIDTH 44 INCHES

1

9. ACCESSIBILITY REQUIREMENTS
THE BUILDING SHALL MEET THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) AND ARCHITECTURAL BARRIERS ACT (ABA):
ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES, FEDERAL REGISTER JULY 23, 2004.
ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES, ICC/ANSI A117.1-09

10. INTERIOR FINISHES - FLAME SPREAD AND SMOKE DEVELOPMENT REQUIREMENTS
(VBC 803.11, 803.1.1, AND 804.4.1)
WALL AND CEILING FINISHES - FLAME SPREAD:
ROOMS, AND ENCLOSED SPACES: CLASS C FLAME SPREAD, 76-200, PER ASTE E84-09.
WALL AND CEILING FINISHES - SMOKE DEVELOPMENT:
SMOKE-DEVELOPED RATING LESS THAN OR EQUAL TO 450 WHEN TESTED IN ACCORDANCE WITH ASTE E84-09. ALL OCCUPANCIES & ALL SPACES
INTERIOR FLOOR FINISH SHALL COMPLY WITH 2007 EDITION OF DOC FF-1, " PILL TEST",(CPSC 16 CFR, PART 1630. PER VBC 804.4.1 & CHAPTER 35) ALL OCCUPANCIES & ALL SPACES

11. PLUMBING FIXTURES
MAXIMUM OCCUPANCY 130

FEMALE OCCUPANCY	65	WATER CLOSETS 1 PER 65 / 1 REQ'D	LAVATORIES 1 PER 200 / 1 REQ'D
MALE OCCUPANCY	65	WATER CLOSETS 1 PER 125 / 1 REQ'D	LAVATORIES 1 PER 200 / 1 REQ'D
DRINKING FOUNTAIN		1 PER 500 /1 REQ'D	
SERVICE SINK		1 REQ'D	

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PROJECT:
JOHN WARNER MARITIME HERITAGE CENTER

RIPARIAN AREA ADJACENT TO
1A PRINCE STREET
ALEXANDRIA, VA
22314

Tall Ships PROVIDENCE ALEXANDRIA, VA

AGENCY:
TALL SHIPS PROVIDENCE FOUNDATION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF VIRGINIA

COMMONWEALTH OF VIRGINIA
09.15.21
JAMES W. SCRUGGS JR.
Lic. No. 0401017843
ARCHITECT

NO	DESCRIPTION	DATE
	PERMIT SET	04/02/2021
	PRICING SET	04/16/2021
1	PERMIT REV #1	05/11/2021
2	PERMIT REV #2	09/15/2021

ISSUANCE HISTORY - THIS SHEET

HGA NO: 2135-015-00

LIFE SAFETY PLAN

DATE: APRIL 02, 2021

PERMIT SET

A020

COMcheck Software Version 4.1.5.1
Envelope Compliance Certificate

Project Information

Energy Code:	2015 IECC
Project Title:	Tall Ships Foundation
Location:	Alexandria, Virginia
Climate Zone:	4a
Project Type:	New Construction
Vertical Glazing / Wall Area:	18%

Construction Site:	Owner/Agent:	Designer/Contractor:
Alexandria, VA 22314	Claire Sussin Tall Ships Foundation Alexandria, VA 22314	HGA 44 Canal Center Plaza Suite 100 Alexandria, VA 22314 703.317.6024

Additional Efficiency Package(s)

Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.

Building Area	Floor Area
1-Cottage 1 (Museum) : Nonresidential	360
2-Cottage 2 (Museum) : Nonresidential	384

Envelope Assemblies

Assembly	Gross Area or Perimeter	Cavity R-Value	Cont. R-Value	Proposed U-Factor	Budget U-Factor[a]
Roof 1: Attic Roof with Wood Joists: [Bldg. Use 1 - Cottage 1]	360	38.0	0.0	0.027	0.027
Roof 2: Attic Roof with Wood Joists: [Bldg. Use 2 - Cottage 2]	384	38.0	0.0	0.027	0.027
Floor 1: Wood-Framed, [Bldg. Use 1 - Cottage 1]	360	31.5	0.0	0.032	0.033
Floor 2: Wood-Framed, [Bldg. Use 1 - Cottage 1]	384	31.5	0.0	0.032	0.033
NORTH					
Exterior Wall 1: Wood-Framed, 16" o.c., [Bldg. Use 1 - Cottage 1]	286	21.0	0.0	0.082	0.084
Door 1: Glass (> 50% glazing) Nonmetal Frame, Entrance Door, Perf Specs : Product ID Pella, SHGC 0.35, PF 0.06, [Bldg. Use 1 - Cottage 1] (b)	75	—	—	0.250	0.770
Exterior Wall 5: Wood-Framed, 16" o.c., [Bldg. Use 2 - Cottage 2]	150	21.0	0.0	0.082	0.084
Window 2: Wood Frame/Operable, Perf. Specs.: Product ID Pella, SHGC 0.35, [Bldg. Use 2 - Cottage 2] (b)	11	—	—	0.250	0.450
Door 4: Glass (> 50% glazing) Nonmetal Frame, Entrance Door, Perf Specs : Product ID Pella, SHGC 0.35, [Bldg. Use 2 - Cottage 2] (b)	25	—	—	0.250	0.770
EAST					
Exterior Wall 2: Wood-Framed, 16" o.c., [Bldg. Use 1 - Cottage 1]	172	21.0	0.0	0.082	0.084
Door 2: Glass (> 50% glazing) Nonmetal Frame, Non Entrance Door, Perf. Specs.: Product ID Pella, SHGC 0.35, PF 0.06, [Bldg. Use 1 - Cottage 1] (b)	75	—	—	0.250	0.450
Exterior Wall 6: Wood-Framed, 16" o.c., [Bldg. Use 2 - Cottage 2]	228	21.0	0.0	0.082	0.084
Door 5: Glass (> 50% glazing) Nonmetal Frame, Entrance Door, Perf Specs : Product ID Pella, SHGC 0.35, [Bldg. Use 2 - Cottage 2] (b)	25	—	—	0.250	0.770
SOUTH					
Exterior Wall 3: Wood-Framed, 16" o.c., [Bldg. Use 1 - Cottage 1]	286	21.0	0.0	0.082	0.084
Window 1: Wood Frame/Fixed, Perf. Specs.: Product ID Pella, SHGC 0.35, PF 0.06, [Bldg. Use 1 - Cottage 1] (b)	40	—	—	0.250	0.360
Exterior Wall 7: Wood-Framed, 16" o.c., [Bldg. Use 2 - Cottage 2]	150	21.0	0.0	0.082	0.084
WEST					
Exterior Wall 4: Wood-Framed, 16" o.c., [Bldg. Use 1 - Cottage 1]	172	21.0	0.0	0.082	0.084
Door 3: Insulated Metal, Swinging, [Bldg. Use 1 - Cottage 1]	50	—	—	0.077	0.610
Exterior Wall 8: Wood-Framed, 16" o.c., [Bldg. Use 1 - Cottage 1]	228	21.0	0.0	0.082	0.084
Window 3: Vinyl/Fiberglass Frame,Operable, Perf. Specs.: Product ID Pella, SHGC 0.35, [Bldg. Use 1 - Cottage 1] (b)	19	—	—	0.250	0.450

(a) Budget U-factors are used for software baseline calculations ONLY, and are not code requirements.
(b) Fenestration product performance must be certified in accordance with NFRC and requires supporting documentation.

Envelope PASSES: Design 39% better than code

Envelope 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 systems have been designed to meet the 2015 IECC requirements in COMcheck Version 4.1.5.1 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Jim Polhamus, AIA Associate Vice President — Name - Title
Signature
2021/04/02 — Date

COMcheck Software Version 4.1.5.1
Inspection Checklist

Energy Code: 2015 IECC

Requirements: 85.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req ID	Plan Review	Complies?	Comments/Assumptions
C103.2 (PR1)[1]	Plans and/or specifications provide all information with which compliance can be determined for the building envelope and document where exceptions to the standard are claimed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** See drawings submitted
C402.4.1 (PR10)[1]	The vertical fenestration area <= 30 percent of the gross above-grade wall area.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** See window to wall area calculation, A402
C402.4.1 (PR11)[1]	The skylight area <= 3 percent of the gross roof area.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C402.4.2 (PR14)[1]	In enclosed spaces > 2,500 ft2 directly under a roof with ceiling heights >15 ft. and used as an office, lobby, atrium, concourse, corridor, storage, gymnasium/exercise center, convention center, automotive service, manufacturing, non-refrigerated warehouse, retail store, distribution/sorting area, transportation, or workshop, the following requirements apply: (a) the daylight zone under skylights is >= half the floor area; (b) the skylight area to daylight zone is >= 3 percent with a skylight VT >= 0.40; or a minimum skylight effective aperture >= 1 percent.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C406 (PR9)[1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** M002

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C303.2.1 (FO6)[1]	Exterior insulation protected against damage, sunlight, moisture, wind, landscaping and equipment maintenance activities.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C402.2.6 (FO12)[1]	Radiant heating systems panels insulated to >=R-3.5 on face opposite space being heated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply. *See the Envelope Assemblies table for values*

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req ID	Framing / Rough-In Inspection	Complies?	Comments/Assumptions
C303.1.3 (FR12)[1]	Fenestration products rated in accordance with NFRC.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** See window types, A402
C303.1.3 (FR13)[1]	Fenestration products are certified as to performance labels or certificates provided.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** See window types, A402
C402.4.3 (FR10)[1]	Vertical fenestration SHGC value.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values*
C402.4.3, C402.4.3.4 (FR8)[1]	Vertical fenestration U-Factor.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values*
C402.4.4 (FR14)[1]	U-factor of opaque doors associated with the building thermal envelope meets requirements.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.5.1, 2.1 (FR19)[1]	The building envelope contains a continuous air barrier that is sealed in an approved manner and material permeability <= 0.004 cfm/ft2. Air barrier penetrations are sealed in an approved manner.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** See wall sections and detail sections: A420s and A430s sheets
C402.5.2, C402.5.4 (FR18)[1]	Factory-built fenestration and doors are labeled as meeting air leakage requirements.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C402.5.7 (FR17)[1]	Vestibules are installed on all building entrances. Doors have self-closing devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Doors that open directly from a space =3000 ft2.

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C402.5.5, C403.2.4.3 (ME3)[1]	Stair and elevator shaft vents have motorized dampers that automatically close.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C402.5.5, C403.2.9.1 (ME5B)[1]	Outdoor air and exhaust systems have motorized dampers that automatically shut when not in use and meet maximum leakage rates. Check gravity dampers where allowed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Gravity dampers acceptable in systems with outside or exhaust air flow rates less than 300 cfm. **Location on plans/spec:** Refer to Mechanical Drawings

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

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PROJECT:
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RIPARIAN AREA ADJACENT TO
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AGENCY:
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COMMONWEALTH OF VIRGINIA
04.02.21
JAMES W. SCRUGGS JR.
Lic. No. 0401017843
ARCHITECT

NAME:
DATE: APRIL 2, 2021
REGISTRATION NUMBER:

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 2135-015-00

COMCHECK ENVELOPE COMPLIANCE REPORT

DATE: APRIL 2, 2021

PERMIT SET

A021

Section # & Req.ID	Insulation Inspection	Complies?	Comments/Assumptions
C303.1 (IN3)[1]	Roof insulation installed per manufacturer's instructions. Blown or poured loose-fill insulation is installed only where the roof slope is <= 3 in 12.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** See wall sections and detail sections: A420s and A430s sheets
C303.1 (IN10)[2]	Building envelope insulation is labeled with R-value or insulation certificate providing R-value and other relevant data.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C303.2 (IN7)[3]	Above-grade wall insulation installed per manufacturer's instructions.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** See wall sections and detail sections: A420s and A430s sheets
C303.2, C402.2.4 (IN9)[4]	Floor insulation installed per manufacturer's instructions. Cavity or structural slab insulation installed in permanent contact with underside of decking or structural slabs.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** See wall sections and detail sections: A420s and A430s sheets
C303.2.1 (IN14)[5]	Exterior insulation is protected from damage with a protective material. Verification for exposed foundation insulation may need to occur during Foundation Inspection.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply. **Location on plans/spec:** See wall sections and detail sections: A420s and A430s sheets
C402.2.1, (IN17)[6]	Insulation intended to meet the roof insulation requirements cannot be installed on top of a suspended ceiling. Mark this requirement compliant if insulation is installed accordingly.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** See wall sections and detail sections: A420s and A430s sheets
C104 (IN6)[1]	Installed above-grade wall insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C104 (IN8)[5]	Installed floor insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.2.6 (IN18)[7]	Radiant panels and associated components, designed for heat transfer from the panel surfaces to the occupants or indoor space are insulated with a minimum of R-3.5.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C104 (IN2)[1]	Installed roof insulation type and R-value consistent with insulation specifications reported in plans and COMcheck reports. For some ceiling systems, verification may need to occur during Framing Inspection.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Envelope Assemblies table for values.*
C402.5.1.1 (IN1)[1]	All sources of air leakage in the building thermal envelope are sealed, caulked, gasketed, weather stripped or wrapped with moisture vapor-permeable wrapping material to minimize air leakage.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** See wall sections and detail sections: A420s and A430s sheets

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Project Title: Tall Ships Foundation — Report date: 04/02/21
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Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C402.5.3 (FI51)[1]	Where open combustion air ducts provide combustion air to open combustion fuel burning appliances, the appliances and combustion air opening are located outside the building thermal envelope or enclosed in a room, isolated from inside the thermal envelope. Such rooms are sealed and insulated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement is not applicable.
C402.5.6 (FI37)[7]	Weatherseals installed on all loading dock cargo doors.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C402.5.8 (FI26)[1]	Recessed luminaires in thermal envelope to limit infiltration and be IC rated and labeled. Seal between interior finish and luminaire housing.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** Refer to Electrical Drawings.

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Project Title: Tall Ships Foundation — Report date: 04/02/21
Data filename: N:\2100\23.35\015-00\04 Work\Shared\Tall Ships.cck — Page 9 of 10

Project Title: Tall Ships Foundation — Report date: 04/02/21
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04.02.21
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REGISTRATION NUMBER:

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

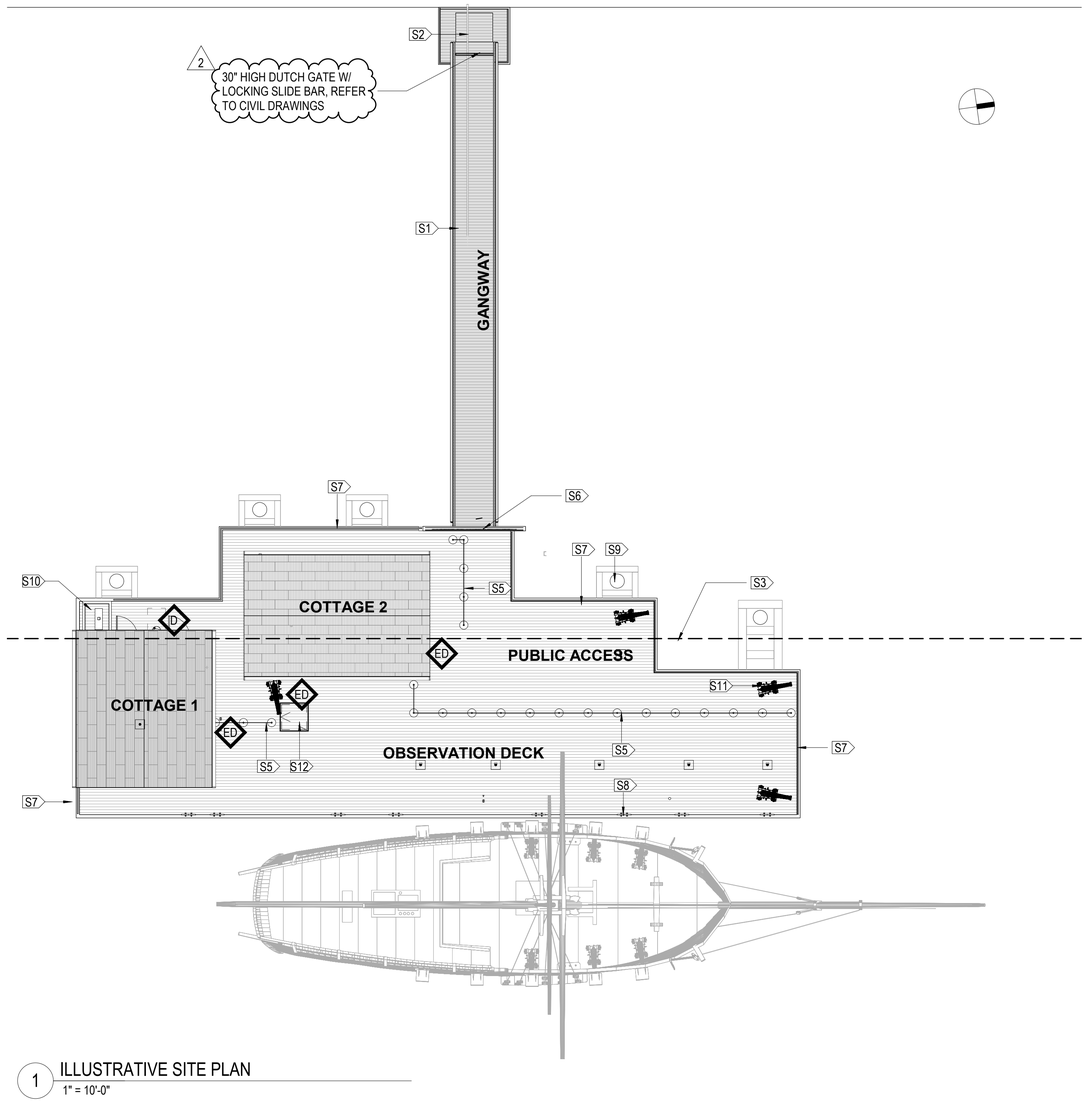
HGA NO: 2135-015-00

COMCHECK ENVELOPE COMPLIANCE REPORT

DATE: APRIL 2, 2021

PERMIT SET

A022



1 ILLUSTRATIVE SITE PLAN
1" = 10'-0"

GENERAL NOTES - SITE PLAN

A. REFER LANDSCAPE SHEETS FOR INFORMATION ON ARCHITECTURAL SITE IMPROVEMENT WORK.
B. PROVIDE TEMPORARY BARRIERS AND ENCLOSURES AS REQUIRED TO PROTECT MATERIALS AND PEOPLE. PREVENT DUST, FUMES, AND ODORS FROM ENTERING OCCUPIED AREAS. MAINTAIN AND RELOCATE TEMPORARY BARRIERS AND ENLOSURES AS REQUIRED BY THE PROGRESS OF THE WORK. REMOVE TEMPORARY BARRIERS AND ENCLOSURES AT COMPLETION OF WORK.
C. REFER TO DISCPLINE-SPECIFIC DRAWINGS FOR RELATED SITE, BUILDING MECHANICAL, PLUMBING, AND ELECTRICAL SITE WORK.

SITE PLAN LEGEND

SEE A010 FOR ALL GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS

EXIT DISCHARGE	ED
DRINKING FOUNTAIN	D

KEYNOTES

#	DESCRIPTION
S1	6'-0" x 67-0' ALUM GANGWAY BY OTHER
S2	GANGWAY LANDING BY OTHER
S3	PIERHEAD LINE
S5	STANCHION ON BARGE DECK
S6	SLIDING GATE, OPEN DURING BUSINESS HOUR
S7	ALUMN RAILING TYP.
S8	DECK CLEAT TYP. BY OTHER
S9	ANCHORED STEEL PILES TYP. BY OTHER
S10	MECHANICAL ENCLOSURE
S11	DECK CANNON BY OWNER, TYP.
S12	FLOOR ACCESS HATCH 3'-6" x 3'-6"

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COMMONWEALTH OF VIRGINIA
09.15.21
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NO	DESCRIPTION	DATE
	PERMIT SET	04/02/2021
	PRICING SET	04/16/2021
2	PERMIT REV #2	09/15/2021

ISSUANCE HISTORY - THIS SHEET

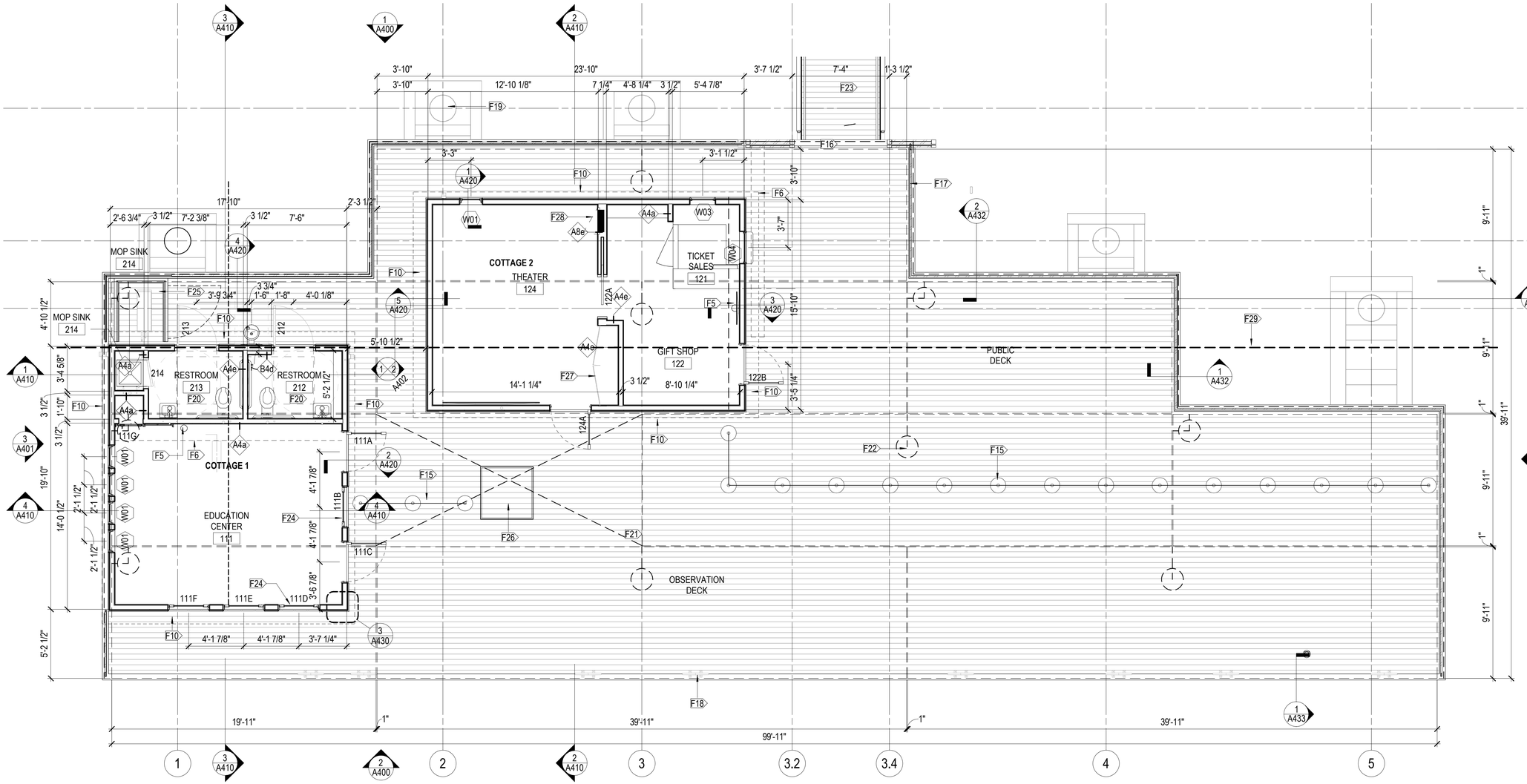
HGA NO: 2135-015-00

ARCHITECTURAL SITE PLAN

DATE: APRIL 02, 2021

PERMIT SET

A040



1 FLOOR PLAN - MAIN LEVEL
1/4" = 1'-0"

GENERAL NOTES - FLOOR PLAN

A. ALL INTERIOR PARTITIONS SHALL BE **"A4_"** UNLESS NOTED OTHERWISE.
B. PLAN DIMENSIONS ARE FROM FACE OF FINISH WHERE "HOLD" OR "CLEAR" ARE INDICATED. ALL OTHER PLAN DIMENSIONS ARE FROM FACE OF STUD AND DO NOT INCLUDE APPLIED FINISHES.
C. ENSURE FINISH SURFACES ARE FLUSH AND SEAMLESS WHERE PARTITIONS AND/OR FURRING ARE COPLANAR.
D. ALL PIPING, CONDUITS AND RELATED MECHANICAL AND ELECTRICAL ITEMS SHALL BE CONCEALED WITHIN PARTITION/WALL ASSEMBLY IN FINISHED AREAS UNLESS NOTED OTHERWISE.
E. PROVIDE BACKING/BLOCKING TO SUPPORT ALL WALL-MOUNTED ITEMS.
F. ALL MECHANICAL EQUIPMENT PADS TO BE 4" HIGH MINIMUM, UNLESS NOTED OTHERWISE. SIZE OF PADS TO BE VERIFIED BY CONTRACTOR

KEYNOTES

#	DESCRIPTION
F5	FIRE EXTINGUISHER AND CABINET
F6	LINE OF OVERHANG ABOVE, SEE REFLECTED CEILING PLAN
F15	STANCHION ON BARGE DECK
F16	SLIDING GATE, OPEN DURING BUSINESS HOUR
F17	ALUMN RAILING TYP.
F18	DECK CLEAT TYP. BY OTHER
F19	ANCHORED STEEL PILES TYP. BY OTHER
F20	REFER TO A600 FOR TYPICAL MOUTING HEIGHT
F21	THE GRINDER PUMP AND EJECTOR BASIN BELOW, REFER TO PLUMBING AND CIVIL
F22	BARGE INSPECTION ACCESS, TYP.
F23	6'-0" x 67-0'ALUM GANGWAY BY OTHER
F24	FIXED WOOD ALUMINUM CLAD DOOR TYP.
F25	MECHANICAL ENCLOSURE
F26	FLOOR ACCESS HATCH 3'-6" x 3'-6"
F27	DISPLAY WITH DIMABLE LIGHT
F28	3'-0"x3'-0" RECESSED ACCESS PANEL WITH [SDG-3] FINISH TO MATCH ADJACENT

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NO	DESCRIPTION	DATE
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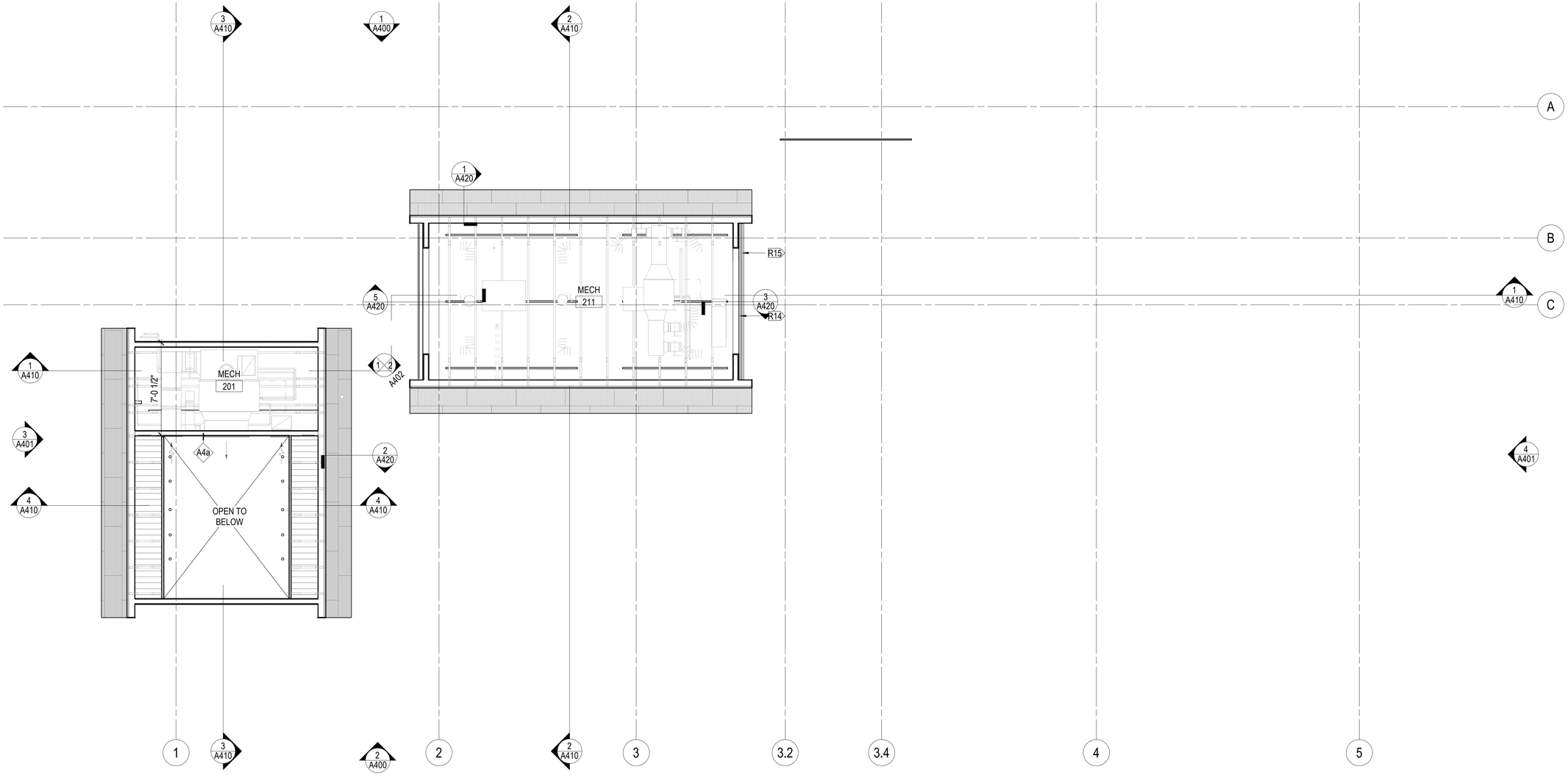
FLOOR PLAN - MAIN LEVEL

DATE: APRIL 2, 2021

PERMIT SET

A200



1 FLOOR PLAN - MEZZANINE

1/4" = 1'-0"

GENERAL NOTES - FLOOR PLAN

A. ALL INTERIOR PARTITIONS SHALL BE **"A4 ."** UNLESS NOTED OTHERWISE.
B. PLAN DIMENSIONS ARE FROM FACE OF FINISH WHERE "HOLD" OR "CLEAR" ARE INDICATED. ALL OTHER PLAN DIMENSIONS ARE FROM FACE OF STUD AND DO NOT INCLUDE APPLIED FINISHES.
C. ENSURE FINISH SURFACES ARE FLUSH AND SEAMLESS WHERE PARTITIONS AND/OR FURRING ARE COPLANAR.
D. ALL PIPING, CONDUITS AND RELATED MECHANICAL AND ELECTRICAL ITEMS SHALL BE CONCEALED WITHIN PARTITION/WALL ASSEMBLY IN FINISHED AREAS UNLESS NOTED OTHERWISE.
E. PROVIDE BACKING/BLOCKING TO SUPPORT ALL WALL-MOUNTED ITEMS.
F. ALL MECHANICAL EQUIPMENT PADS TO BE 4" HIGH MINIMUM, UNLESS NOTED OTHERWISE. SIZE OF PADS TO BE VERIFIED BY CONTRACTOR

KEYNOTES

#	DESCRIPTION
R14	FUTURE KNOCKOUT OPENING - COORDINATE WITH STRUCTURAL
R15	MECHANICAL LOUVER W/ INSECT NET

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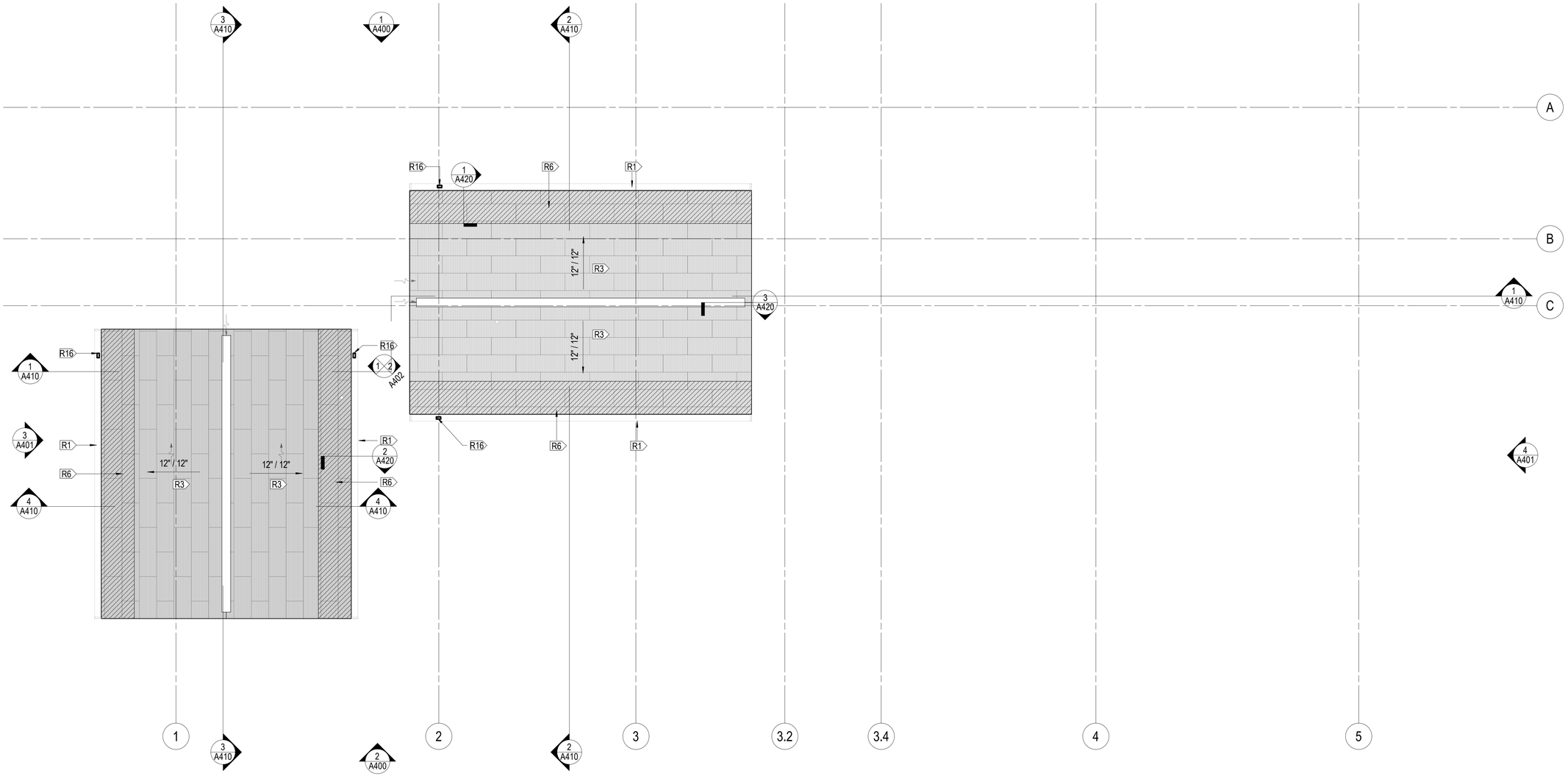
HGA NO: 2135-015-00

FLOOR PLAN - MEZZANINE

DATE: APRIL 2, 2021

PERMIT SET

A201



1 ROOF PLAN
1/4" = 1'-0"

GENERAL NOTES - ROOF PLAN

A. REFER TO EXTERIOR ELEVATIONS FOR ROOF OVERHANG DIMENSIONS
B. COORDINATE ALL ROOF PENETRATION WITH MECHINICAL AND PLUMBING DRAWINGS.
C. PROVIDE PENETRATION DETAILS PER ROOFING MANUFACTURER AND/OR MECHANICAL/PLUMBING DRAWING DETAILS.
D. SLOPE CRICKET TO DRAIN AROUND PENETRATIONS (VENTS, STACK, ETC) AND AT VALLEYS BETWEEN ROOF DRAINS.

KEYNOTES

#	DESCRIPTION
R1	5" PREFINISHED ALUM GUTTER SEE ELEVATION
R3	TESLA SOLAR ROOF TILES
R6	ICE AND WATER SHIELD, 24" MIN FROM FACE OF EXTERIOR WALL
R16	2x4 DOWNSPOUT, DISCHARGED BELOW DECK

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	PERMIT SET	04/02/2021
	PRICING SET	04/16/2021
2	PERMIT REV #2	09/15/2021

ISSUANCE HISTORY - THIS SHEET

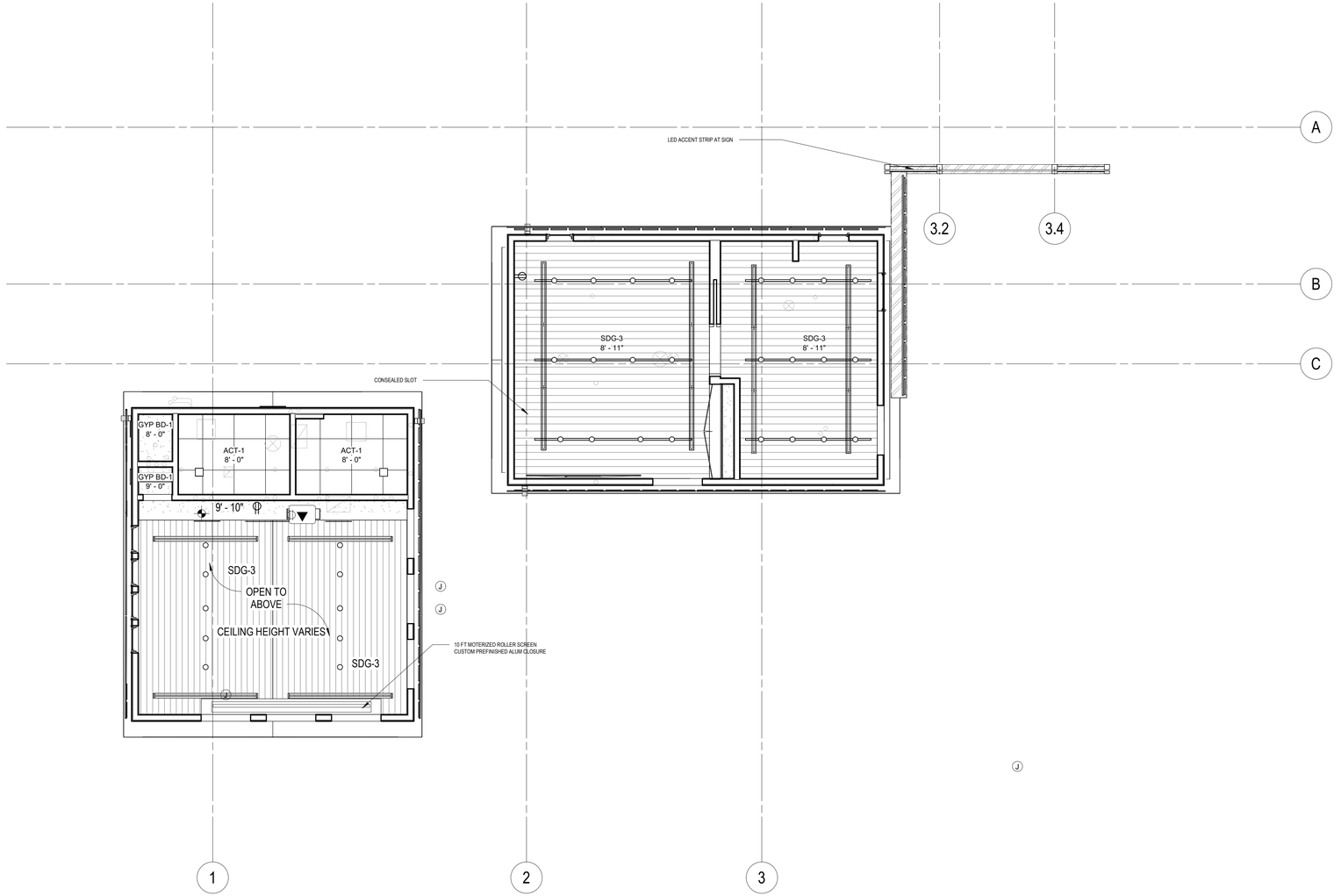
HGA NO: 2135-015-00

ROOF PLAN

DATE: APRIL 02, 2021

PERMIT SET

A202



1 REFLECTED CEILING PLAN - MAIN LEVEL

1/4" = 1'-0"

GENERAL NOTES - CEILING PLAN

A. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR DEVICE AND FIXTURE INFORMATION.
B. ACOUSTICAL CEILING GRID SHALL BE CENTERED IN ROOM(S) UNLESS NOTED OTHERWISE.
C. CEILING HEIGHTS ARE DIMENSIONED FROM FLOOR DATUM ELEVATION TO FINISHED, UNLESS OTHERWISE NOTED.
D. CENTER RECESSED LIGHTS, ELECTRICAL, & MECHANICAL DEVICES WHEN SHOWN IN CEILING TILES AND SIDING PANELS. PROVIDE ACCESS PANEL(S) AS REQUIRED. REVIEW LOCATION OF ACCESS PANEL(S) NOT SHOWN ON THE DRAWINGS WITH ARCHITECT PRIOR TO INSTALLATION.

KEYNOTES

#	DESCRIPTION

RCP LEGEND

SEE A010 FOR ALL GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS

- 2x2 ACT; SEE PLAN FOR CEILING HEIGHTS
- 2x4 ACT; SEE PLAN FOR CEILING HEIGHTS
- SHIPLAP PANLE CEILING - [SDG-3]
- GYPSUM BOARD CEILING; SEE PLAN FOR CEILING HEIGHTS
- 2X2 LIGHT FIXTURE
- 2X4 LIGHT FIXTURE
- 1X4 LIGHT FIXTURE
- RECESSED DOWNLIGHT
- COVE LIGHT
- WALL WASHER
- EXIT SIGN
- PENDANT LIGHT FIXTURE
- LINEAR LIGHT FIXTURE
- WALL SCONCE LIGHT FIXTURE
- UNDERCABINET LIGHT FIXTURE
- TRACK LIGHT
- SMOKE DETECTOR - EXISTING
- SMOKE DETECTOR - NEW
- RETURN GRILLE
- SUPPLY DIFFUSER
- EXHAUST DIFFUSER
- SPEAKER
- CURTAIN TRACK
- SECURITY CAMERA
- ACCESS PANEL
- START POINT OF CEILING GRID
- SPOT ELEVATION
- POLE MOUNTED LIGHT FIXTURE
- POST TOP LIGHT FIXTURE

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DATE: APRIL 2, 2021
REGISTRATION NUMBER:

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

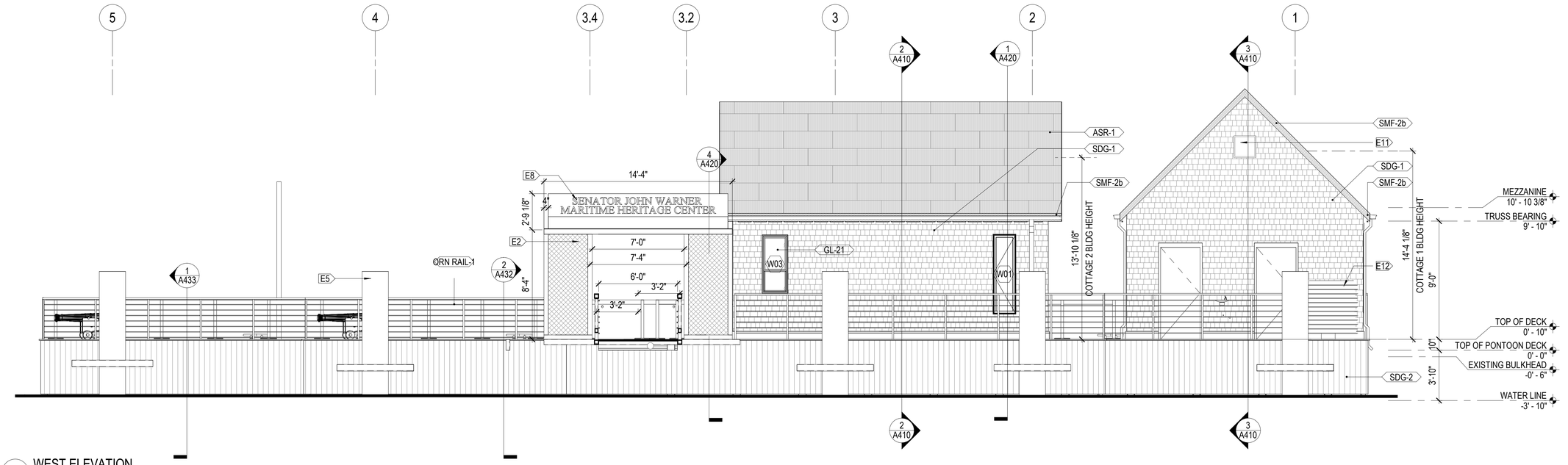
HGA NO: 2135-015-00

REFLECTED CEILING PLAN - MAIN LEVEL

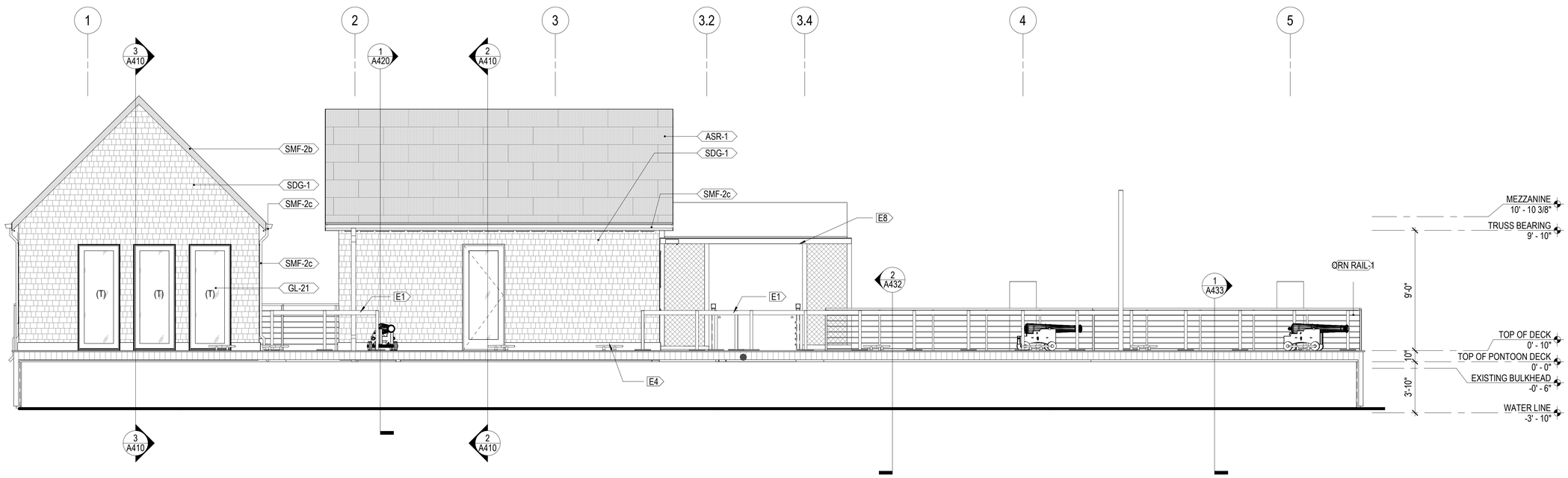
DATE: APRIL 2, 2021

PERMIT SET

A300



1 WEST ELEVATION
1/4" = 1'-0"

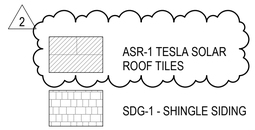


2 EAST ELEVATION
1/4" = 1'-0"

GENERAL NOTES - EXTERIOR ELEVATIONS

A. ELEVATIONS OF EXISTING FLOORS ARE BASED ON SURVEY INFORMATION AND \OR AS-BUILT DRAWINGS PROVIDED BY THE OWNER. THE SURVEY DATA MAY NOT BE COMPLETE AND THE ACTUAL EXISTING ELEVATIONS MAY VARY IN DIFFERENT PORTIONS OF THE EXISTING BUILDING. ALL INFORMATION MUST BE FIELD VERIFIED AND COORDINATED BETWEEN NEW AND EXISTING CONSTRUCTION TO PROVIDE MATCHING FLOOR ELEVATIONS WHERE REQUIRED.

MATERIAL LEGEND



GL-1 CLEAR INSULATED GLAZING

SDG-2 - VERTICAL SIDING

ARCHITECTURAL WOOD LOUVER

PREFINISHED METAL FASCIA & ALUMINUM FABRICATION

KEYNOTES

#	DESCRIPTION
E1	STANCHION ON BARGE DECK
E2	SLIDING GATE, OPEN DURING BUSINESS HOUR
E4	DECK CLEAT TYP. BY OTHER
E5	ANCHORED STEEL PILES TYP. BY OTHER
E8	EXTERIOR SIGNAGE, CENTERED TO ENTRANCE GATE
E11	MECHINICAL INTAKE, REFER TO MECHNICAL DRAWINGS
E12	WOOD SLAT MECHINICAL ENCLOSURE , REFER TO MECHNICAL DRAWINGS

HGA
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STRUCTURE
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CIVIL/MARINE
MOFFATT & NICHOL
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SUITE 300
RALEIGH, NC 27609
(919) 78-4626

PROJECT:
JOHN WARNER MARITIME HERITAGE CENTER

RIPARIAN AREA ADJACENT TO
1A PRINCE STREET
ALEXANDRIA, VA
22314

tall Ship PROVIDENCE ALEXANDRIA, VA

AGENCY:
TALL SHIPS PROVIDENCE FOUNDATION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF VIRGINIA

COMMONWEALTH OF VIRGINIA
09.15.21
JAMES W. SCRUGGS JR.
Lic. No. 040107843
ARCHITECT

NO	DESCRIPTION	DATE
	PERMIT SET	04/02/2021
	PRICING SET	04/16/2021
2	PERMIT REV #2	09/15/2021

ISSUANCE HISTORY - THIS SHEET

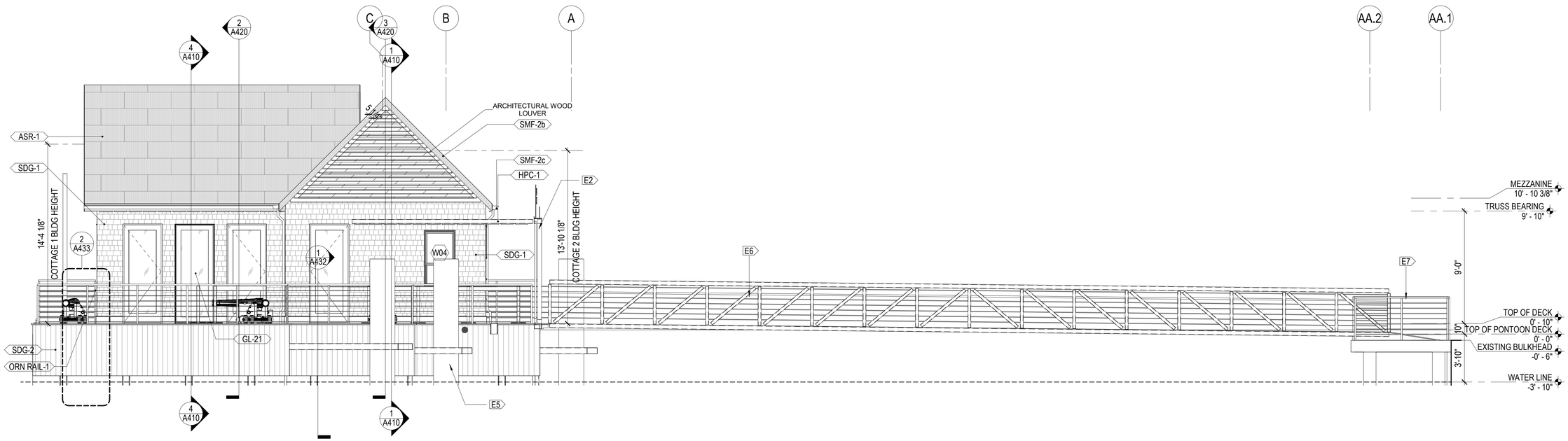
HGA NO: 2135-015-00

EXTERIOR ELEVATIONS

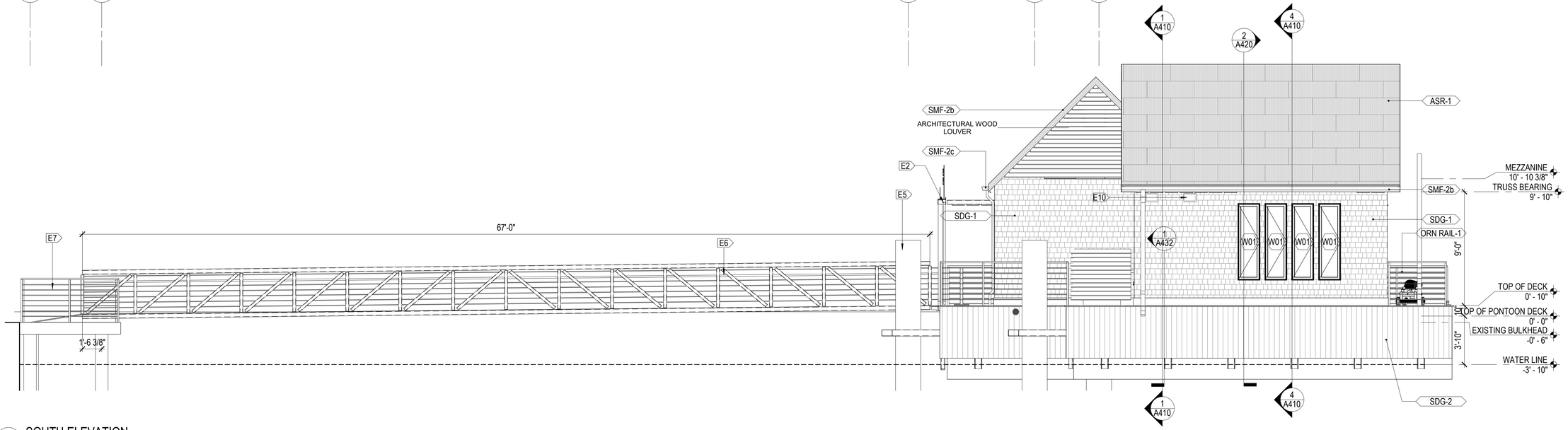
DATE: APRIL 02, 2021

PERMIT SET

A400



4 NORTH ELEVATION
1/4" = 1'-0"



3 SOUTH ELEVATION
1/4" = 1'-0"

GENERAL NOTES - EXTERIOR ELEVATIONS

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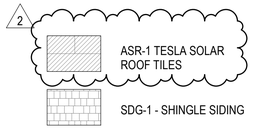
MATERIAL LEGEND



GL-1 CLEAR INSULATED GLAZING

SDG-2 - VERTICAL SIDING

ARCHITECTURAL WOOD LOUVER

PREFINISHED METAL FASCIA & ALUMINUM FABRICATION

KEYNOTES

#	DESCRIPTION
E2	SLIDING GATE, OPEN DURING BUSINESS HOUR
E5	ANCHORED STEEL PILES TYP. BY OTHER
E6	6'-0" x 67-0' ALUM GANGWAY BY OTHER
E7	GANGWAY LANDING BY OTHER
E10	MECHINICAL EXHAUST, REFER TO MECHNICAL DRAWINGS

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COMMONWEALTH OF VIRGINIA
09.15.21
JAMES W. SCRUGGS JR.
Lic. No. 0403017843
ARCHITECT

NO	DESCRIPTION	DATE
	PERMIT SET	04/02/2021
	PRICING SET	04/16/2021
2	PERMIT REV #2	09/15/2021

ISSUANCE HISTORY - THIS SHEET

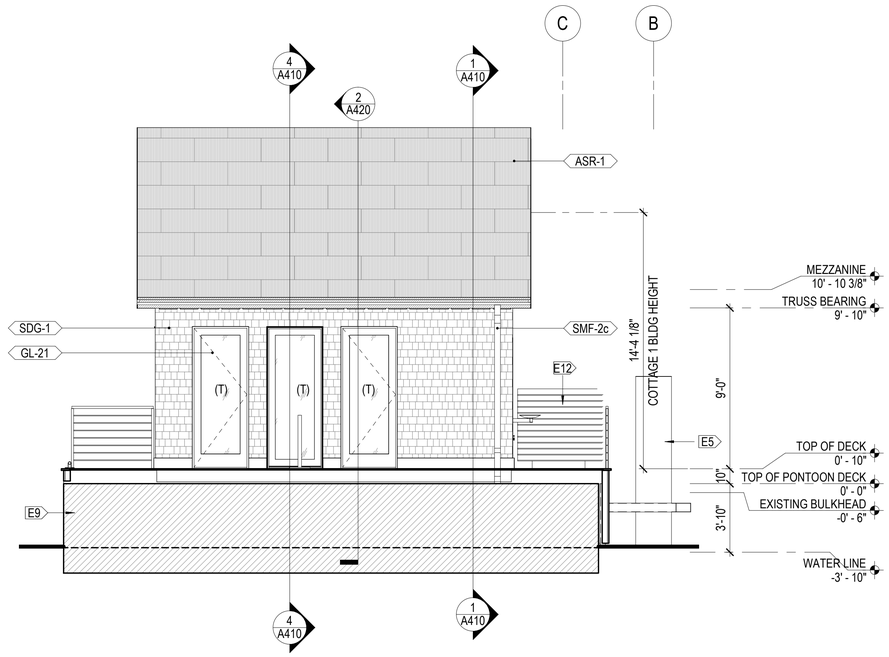
HGA NO: 2135-015-00

EXTERIOR ELEVATIONS

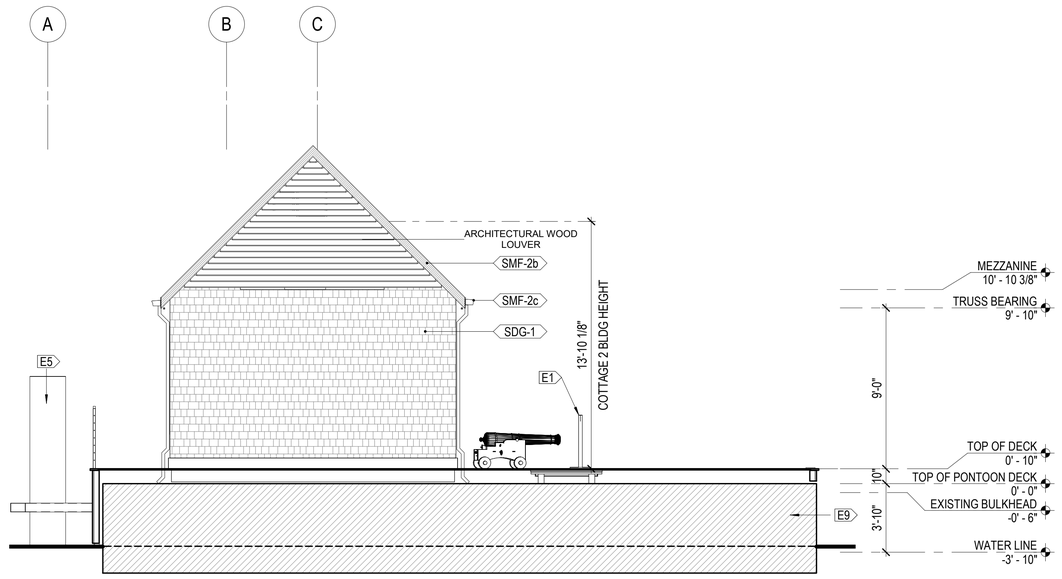
DATE: APRIL 02, 2021

PERMIT SET

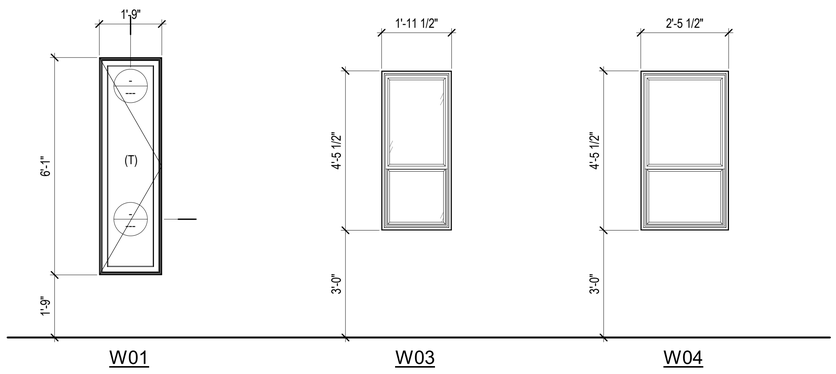
A401



1 COTTAGE 1 - NORTH ELEVATION
1/4" = 1'-0"



2 COTTAGE 2 - SOUTH ELEVATION
1/4" = 1'-0"



*(T): TEMPERED GLASS

NOTES:
A. ALL EXTERIOR GLAZING SHALL BE **"GL_21"** UNLESS NOTED OTHERWISE.
B. FENESTRATION PRODUCS ARE RATED IN ACCORDANCE WITH NFRC, BASIS OF DEISIGN PELLA RESERVE WOOD AND ALUM CLAD WINDOWS.
C. PROVIDE LOW-E COATING ON NO. 2 SURFACE OF INSULATING GLASS UNITS, BASIS OF DESIGN ADVANCED LOW-E ON LOW IRON GLASS, SOLAR HEAT GAIN COEFFICIENT: 0.35, U VALUE: 0.25.
D. VERTICAL FENESTRATION U-FACTOR MAXIMUM:
OPERABLE FENESTRATION: U-0,45
ENTRANCE DOORS: U-0.77

WINDOW TYPE
1/2" = 1'-0"

WINDOW TO WALL AREA

3/29/2021

	WALL(SF)				GLAZING(SF)			
	NORTH	**EAST**	**SOUTH**	**WEST**	**NORTH**	**EAST**	**SOUTH**	**WEST**
COTTAGE 1	205	172	205	172	75	75	40	0
GRAND TOTAL (SF)				**754**				**190**
SUBTOTAL WINDOW TO WALL...	**37%**	**44%**	**20%**	**0%**				
WINDOW TO WALL (%)				**25%**				
COTTAGE 2	150	228	150	228	36	25	0	19
GRAND TOTAL (SF)				**756**				**80**
SUBTOTAL WINDOW TO WALL...	**24%**	**11%**	**0%**	**8%**				
WINDOW TO WALL (%)				**11%**				

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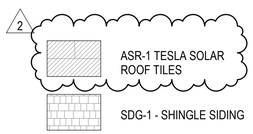

GL-1 CLEAR INSULATED GLAZING

SDG-2 - VERTICAL SIDING

ARCHITECTURAL WOOD LOUVER

PREFINISHED METAL FASCIA & ALUMINUM FABRICATION

KEYNOTES

#	DESCRIPTION
E1	STANCHION ON BARGE DECK
E5	ANCHORED STEEL PILES TYP. BY OTHER
E9	POISEIDON PONTOON BARGE SYSTEM BY OTHER
E12	WOOD SLAT MECHINICAL ENCLOSURE , REFER TO MECHNICAL DRAWINGS

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Tall Ship PROVIDENCE ALEXANDRIA, VA

AGENCY:
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COMMONWEALTH OF VIRGINIA
09.15.21
JAMES W. SCRUGGS JR.
Lic. No. 0401017843
ARCHITECT

NO	DESCRIPTION	DATE
	PERMIT SET	04/02/2021
	PRICING SET	04/16/2021
2	PERMIT REV #2	09/15/2021

ISSUANCE HISTORY - THIS SHEET

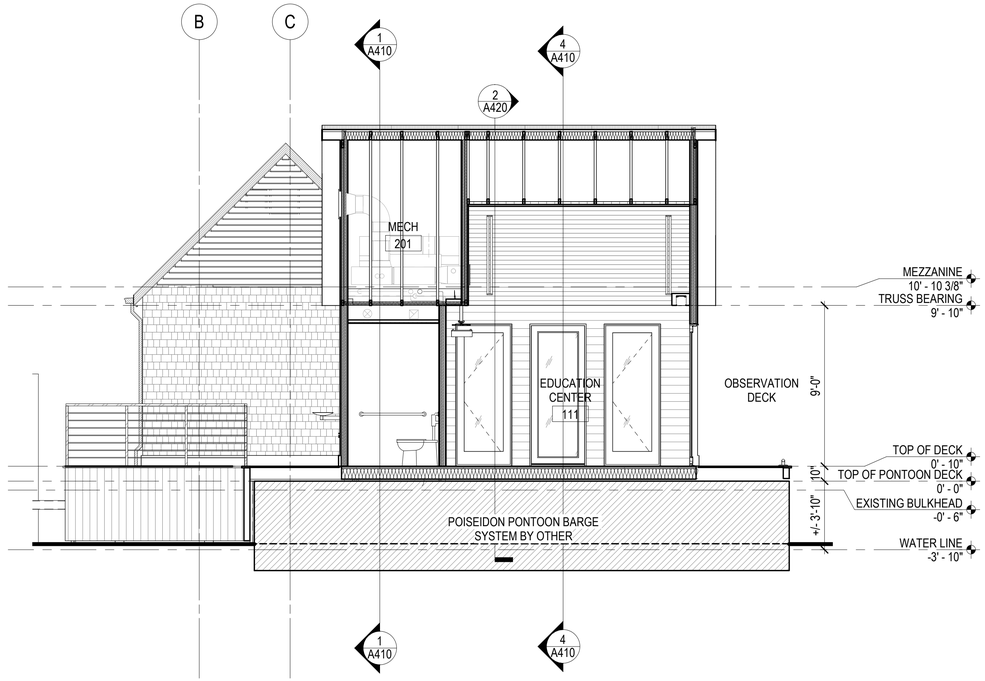
HGA NO: 2135-015-00

EXTERIOR ELEVATIONS

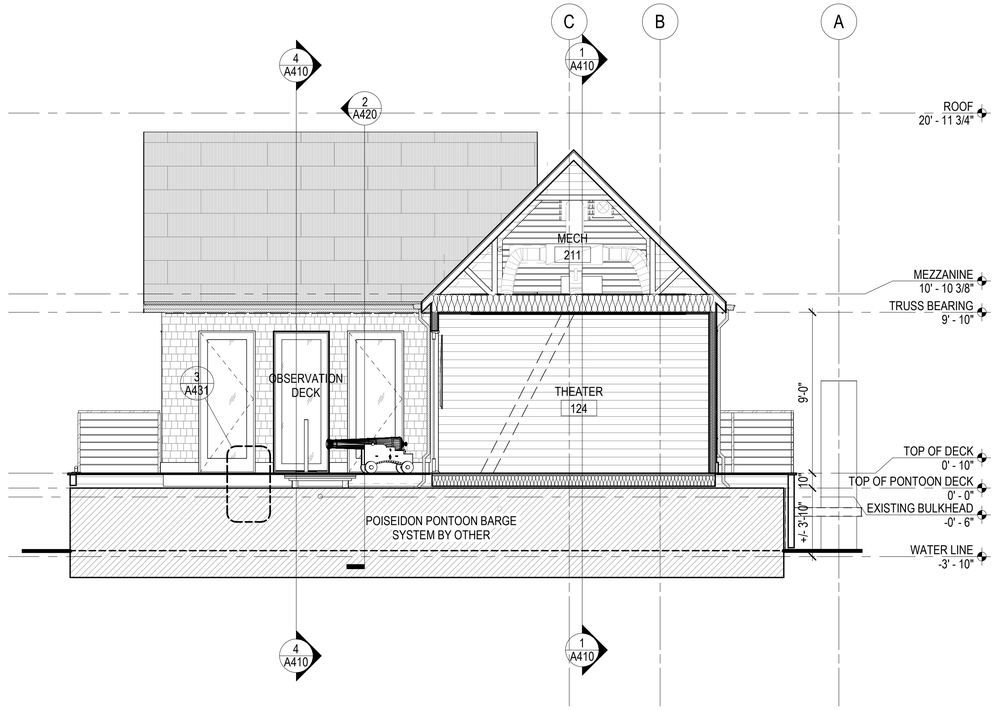
DATE: APRIL 02, 2021

PERMIT SET

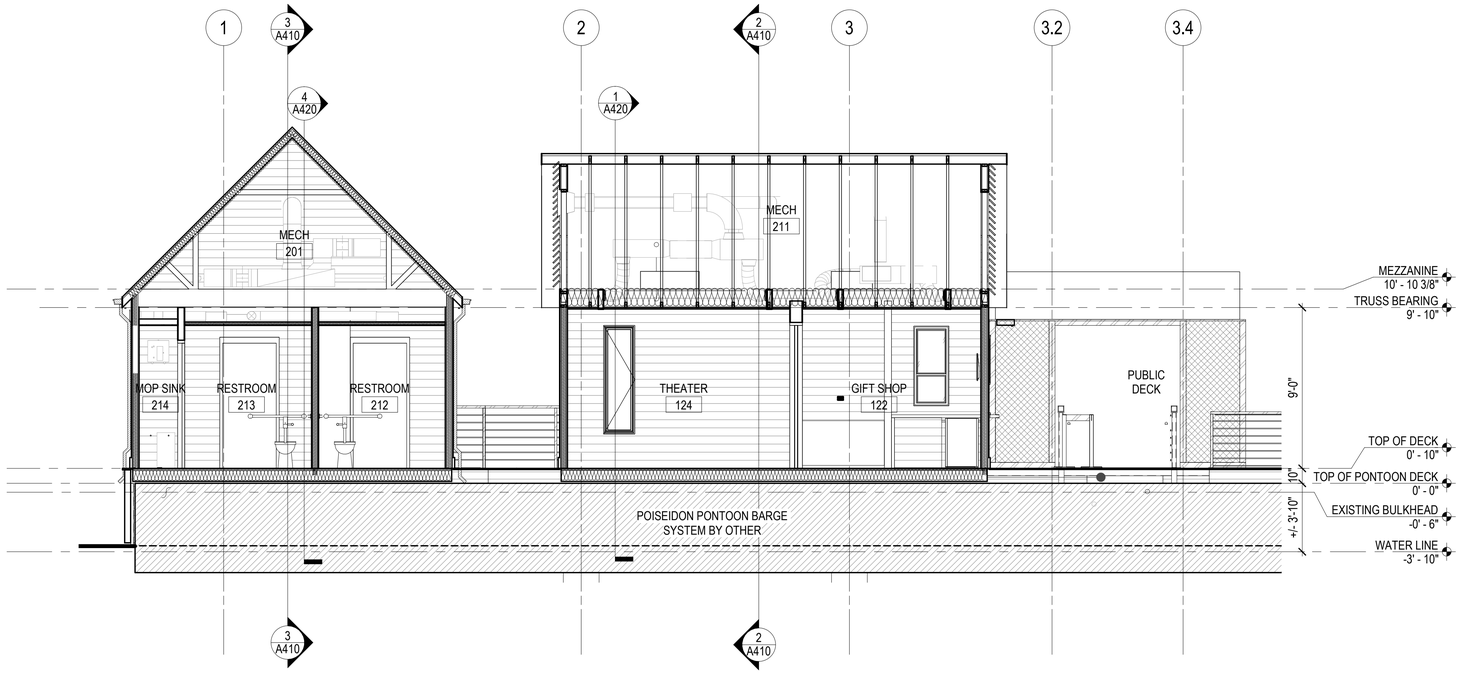
A402



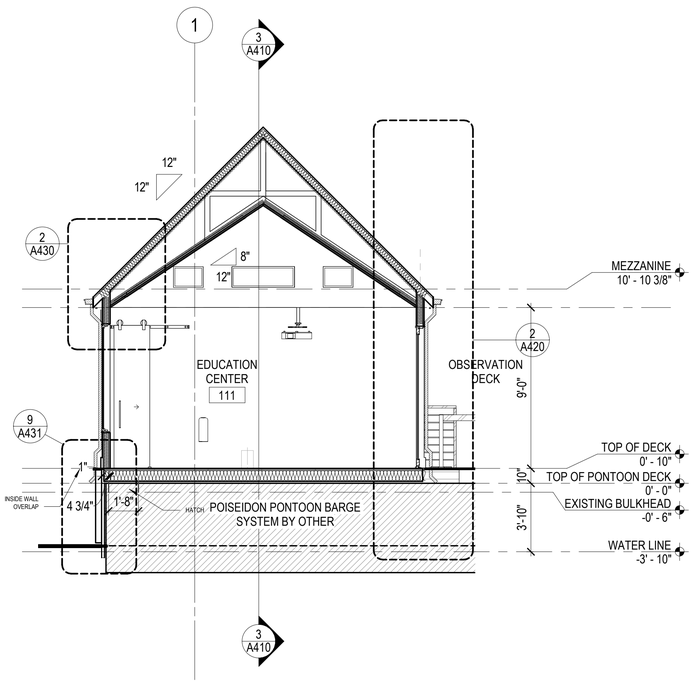
3 COTTAGE 1 - SECTION 1
1/4" = 1'-0"



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



1 COTTAGE 1 & 2 - SECTION
1/4" = 1'-0"



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

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COMMONWEALTH OF VIRGINIA
04.02.21
JAMES W. SCHLOOS JR.
Lic. No. 0401017843
ARCHITECT

NAME:
DATE: APRIL 2, 2021
REGISTRATION NUMBER:

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

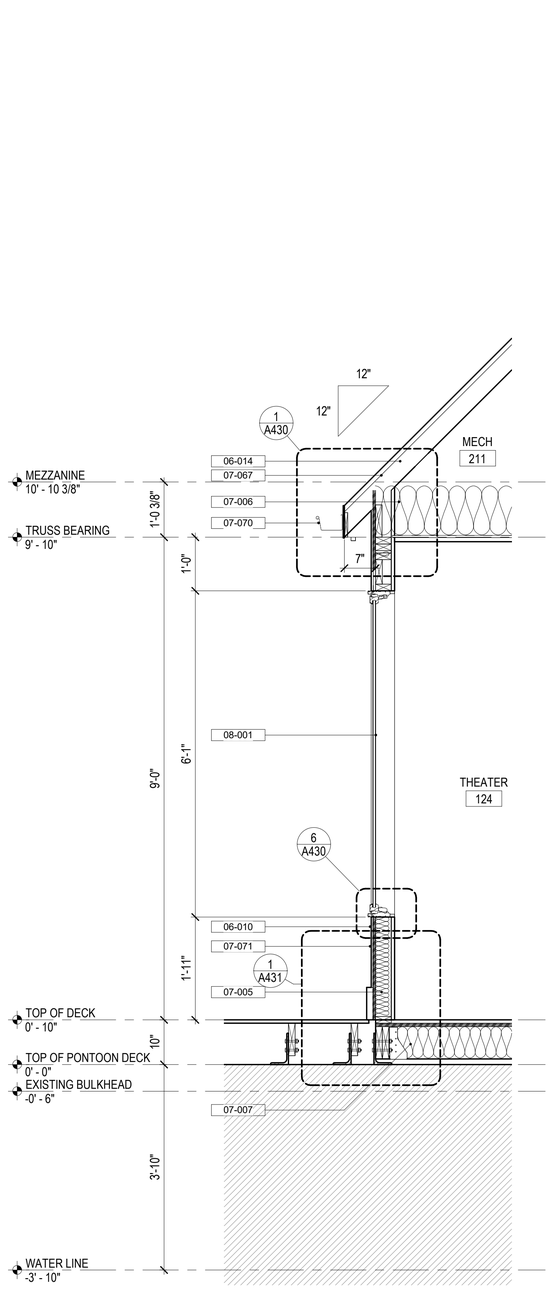
HGA NO: 2135-015-00

BUILDING SECTIONS

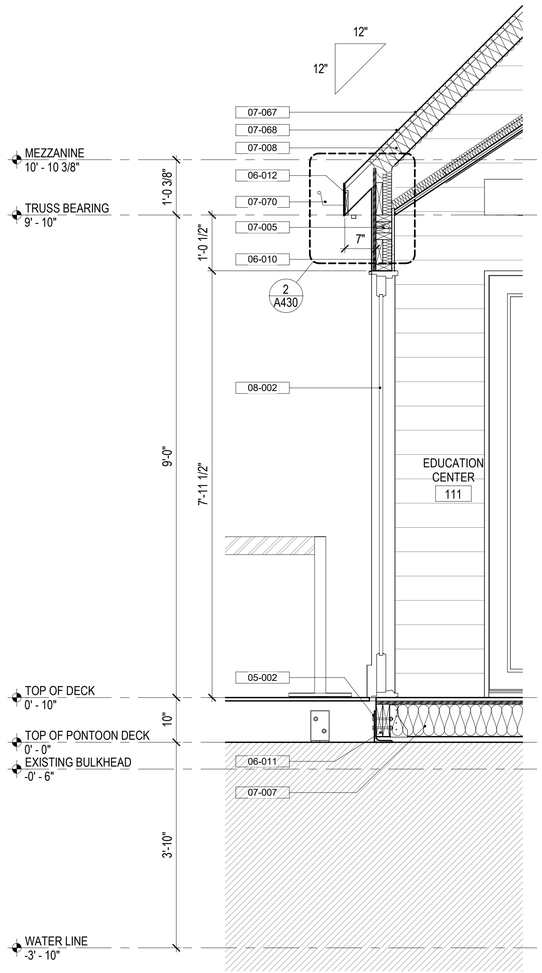
DATE: APRIL 2, 2021

PERMIT SET

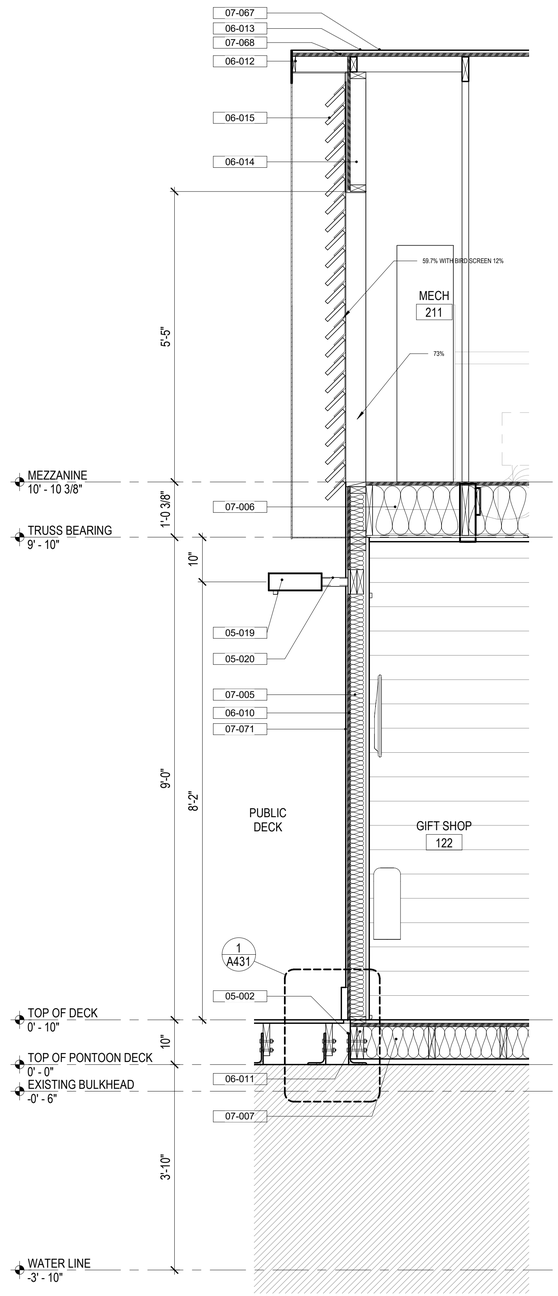
A410



1 WALL SECTION - TYP. SIDE EAVE
3/4" = 1'-0"



2 WALL SECTION - SIDE EAVE AT SCISSOR TRUSS
3/4" = 1'-0"



3 WALL SECTION - GABLE END @ MECH LOUVER
3/4" = 1'-0"

KEYNOTES

#	DESCRIPTION
05-002	STRUCTURAL STEEL ANGLE - SEE STRUCTURAL DRAWINGS FOR MORE INFO
05-019	12x4x3/16 HSS STEEL TUBE ATTCHED TO BUILDING 2X FRAME
05-020	1 1/2 x 1 1/2 HSS STEEL TUBE FRAME, 4'-0" O.C.
06-010	3/4" PLYWOOD / OSB SHEATHING
06-011	2X8 CONT. PRESSURE-TREATED WOOD RIM BOARDS
06-012	1X4 CONT. FASCIA BOARD WRAPPED IN ALUM.
06-013	3/4" ROOF T&G PLYWOOD SHEATHING
06-014	PRE-ENGINEERED WOOD TRUSS RAFTERS
06-015	1X LOUVER ATTCHED TO END GABLE TRUSS
07-005	R-21; 3"JOHNS MANSVILLE JM CORBOND III CLOSED-CELL SPRAY POLYURETHANE FOAM (INSUL-)
07-006	R-38; 10 1/4" OWENS CORNING R-38C ECOTOUCH PINK FIBERGLAS BLANKET INSULATION; VERIFY STC RATING AGAINST PROGRAM REQUIREMENTS (INSUL-)
07-007	R-31.5; 4 1/2" JOHNS MANSVILLE JM CORBOND III CLOSED-CELL SPRAY POLYURETHANE FOAM (INSUL)
07-008	R-38; 5 1/2"JOHNS MANSVILLE JM CORBOND III CLOSED-CELL SPRAY POLYURETHANE FOAM (INSUL-)
07-067	TESLA SOLAR ROOF TILES; VERIFY PROFILE AND LOADING DEMANDS WITH TESLA; PROVIDE BLOCKING AS NEEDED
07-068	ICE AND WATER SHIELD; EXTEND ACROSS ALL SIDES OF ROOF A MIN. OF 24" INBOARD OF EXT. FACE OF EXT. WALL SHEATHING
07-070	PREFINISHED ALUMINUM GUTTER AND DOWNSPOUT
07-071	SDG-1 - SHINGLE SIDING
08-001	FACTORY FINISHED ALUMINUM WOOD CLAD WINDOW
08-002	FACTORY FINISHED ALUMINUM WOOD CLAD DOOR

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PROJECT:
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tall Ship PROVIDENCE ALEXANDRIA, VA

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COMMONWEALTH OF VIRGINIA
04-02-21
JAMES W. SCRUGGS JR.
Lic. No. 0401017843
ARCHITECT

NAME:
DATE: APRIL 2, 2021
REGISTRATION NUMBER:

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

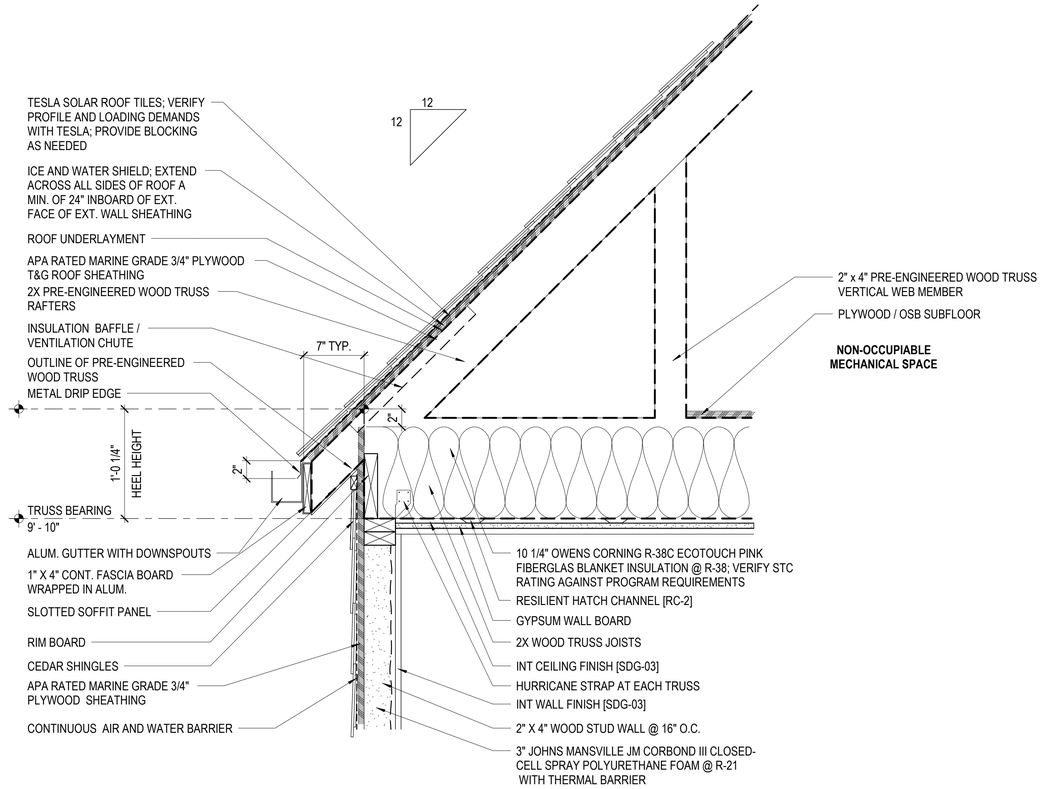
HGA NO: 2135-015-00

WALL SECTIONS

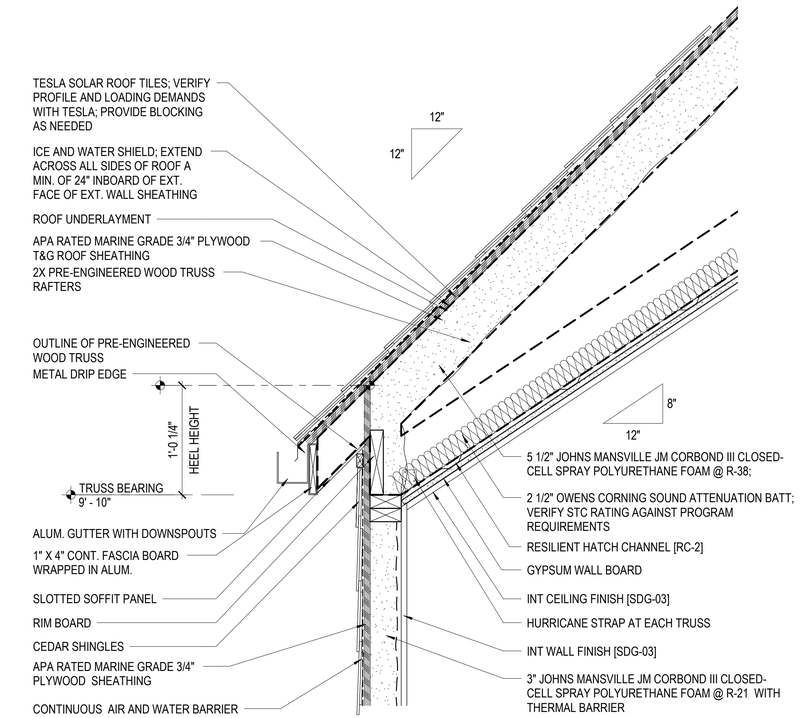
DATE: APRIL 2, 2021

PERMIT SET

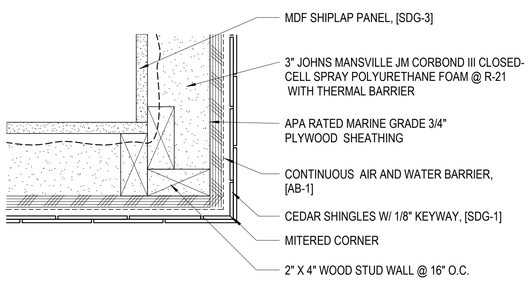
A420



1 ROOF, EAVE, AND WINDOW HEAD AT ATTIC TRUSS, TYP. SECTION
1 1/2" = 1'-0"



2 ROOF, EAVE, AND WINDOW HEAD AT SCISSOR TRUSS, TYP. SECTION
1 1/2" = 1'-0"



3 SDF-1 OUTSIDE CORNER DETAIL
3" = 1'-0"

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COMMONWEALTH OF VIRGINIA
04.02.21
JAMES W. SCRUGGS JR.
Lic. No. 0401017843
ARCHITECT

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DATE: APRIL 2, 2021
REGISTRATION NUMBER:

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

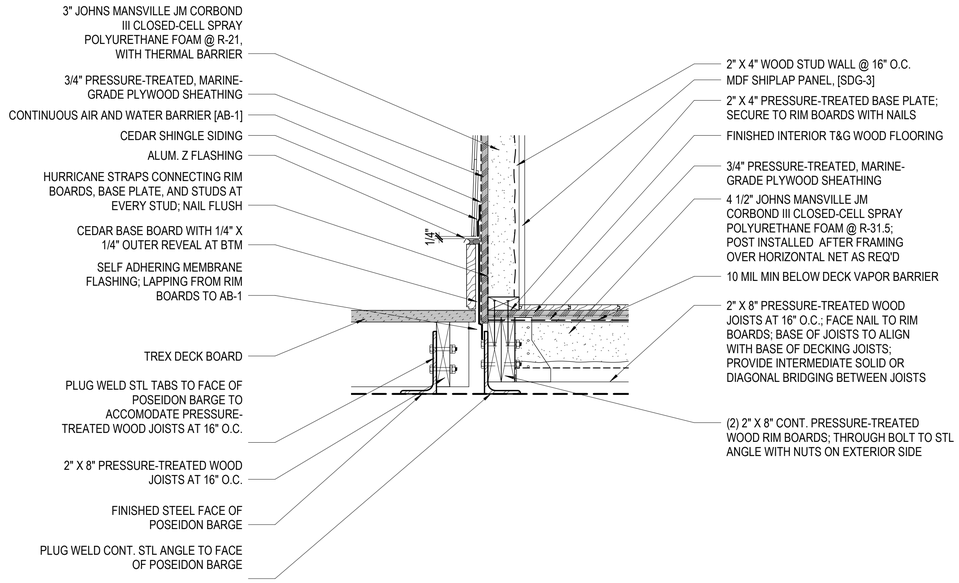
HGA NO: 2135-015-00

EXTERIOR DETAILS

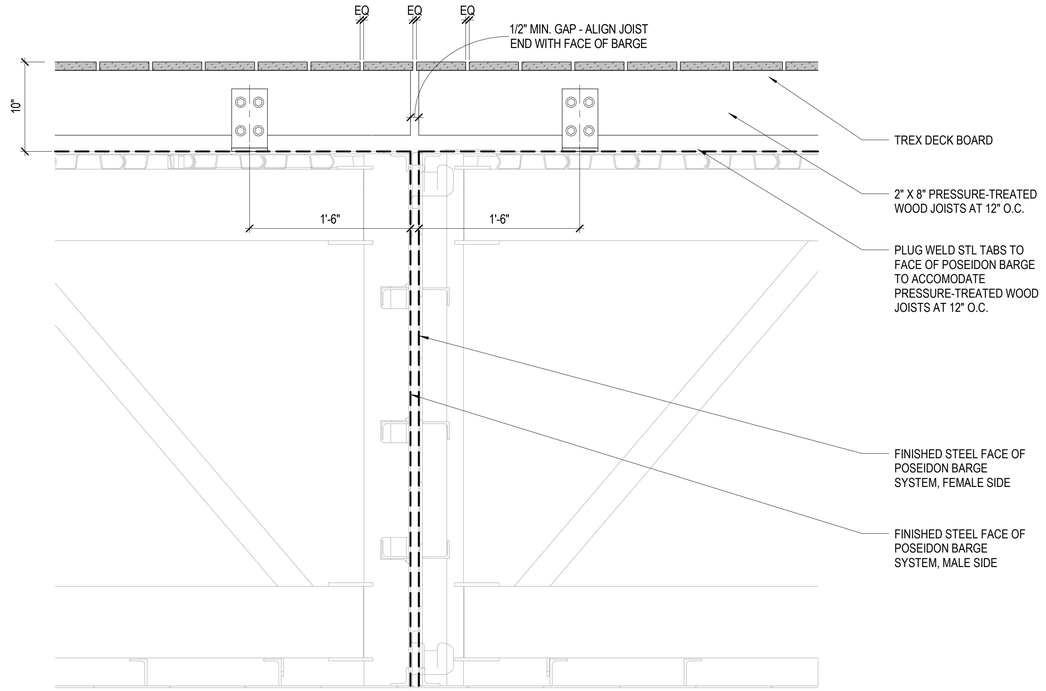
DATE: APRIL 2, 2021

PERMIT SET

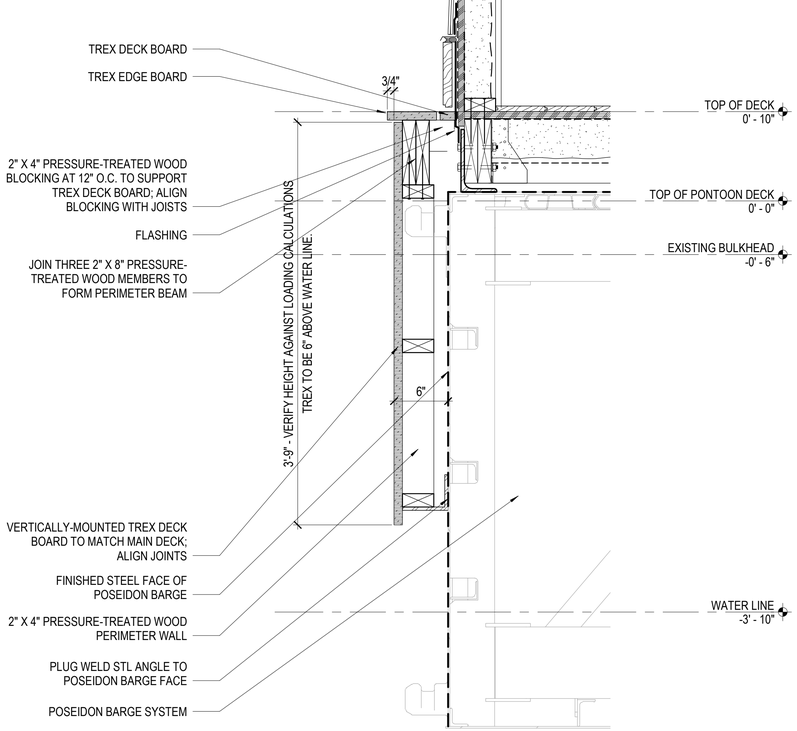
A430



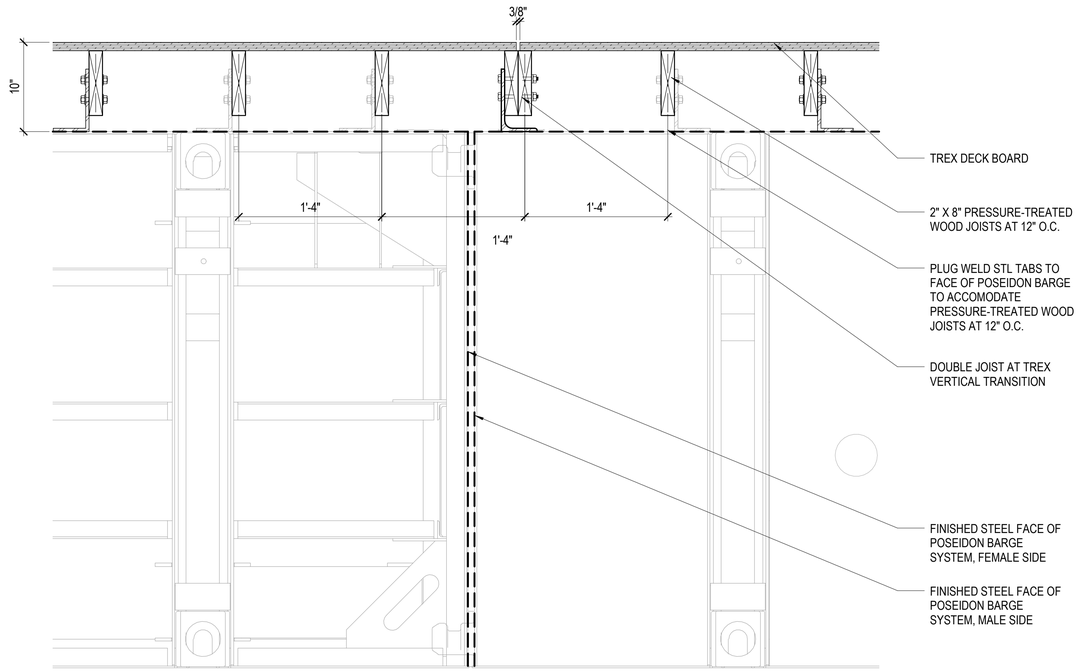
1 COTTAGE TO BARGE CONNECTION, TYP. SECTION 1
1 1/2" = 1'-0"



3 BARGE CONNECTION - TYP. SECTION 1
1 1/2" = 1'-0"



2 COTTAGE TO BARGE CONNECTION, TYP. SECTION 2
1 1/2" = 1'-0"



4 BARGE CONNECTION - TYP. SECTION 2 - CONDITION A
1 1/2" = 1'-0"

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COMMONWEALTH OF VIRGINIA
04.02.21
JAMES W. SCRUGGS JR.
REG. NO. 040202743
ARCHITECT

NAME:
DATE: APRIL 2, 2021
REGISTRATION NUMBER:

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

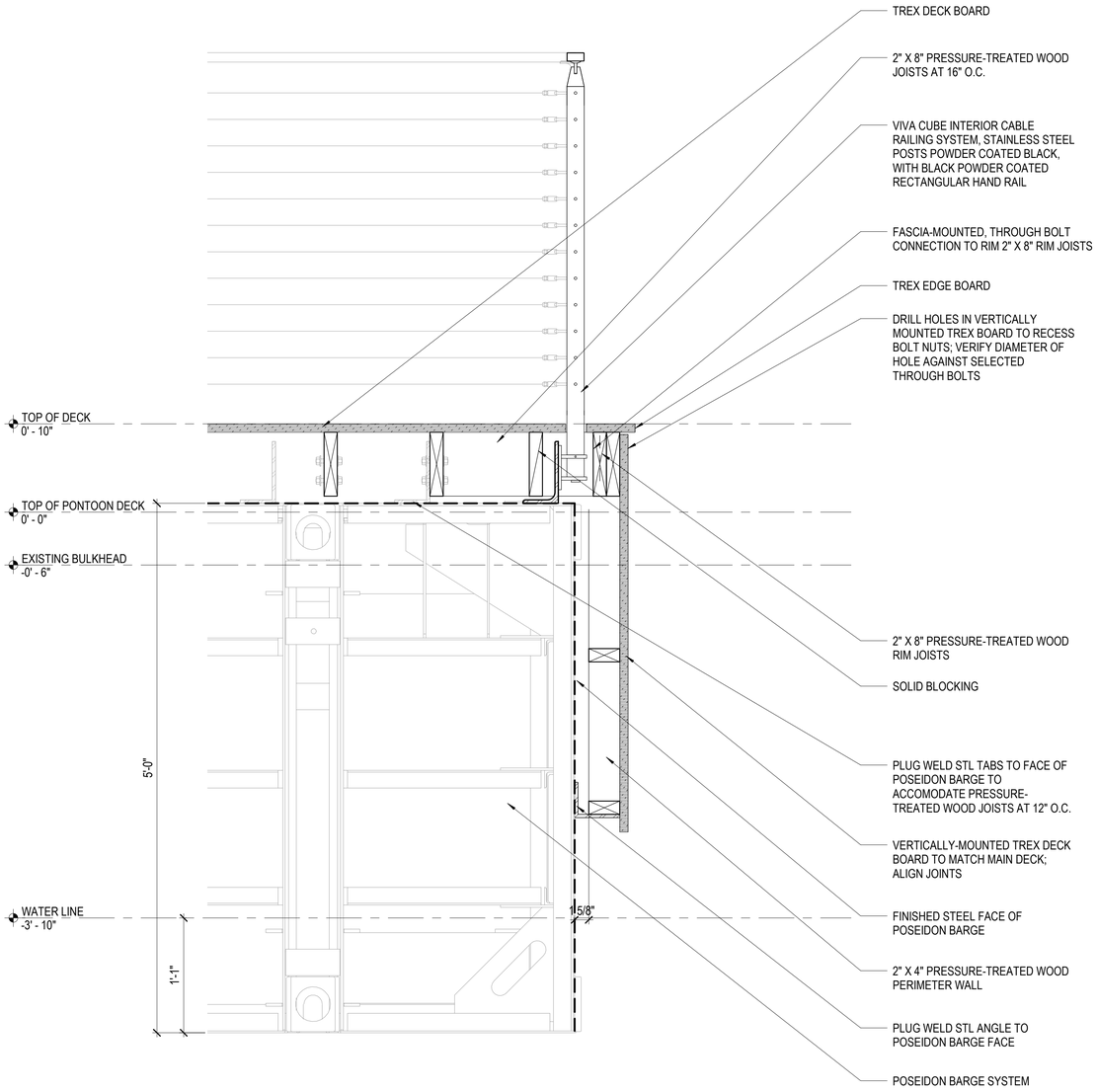
HGA NO: 2135-015-00

EXTERIOR DETAILS

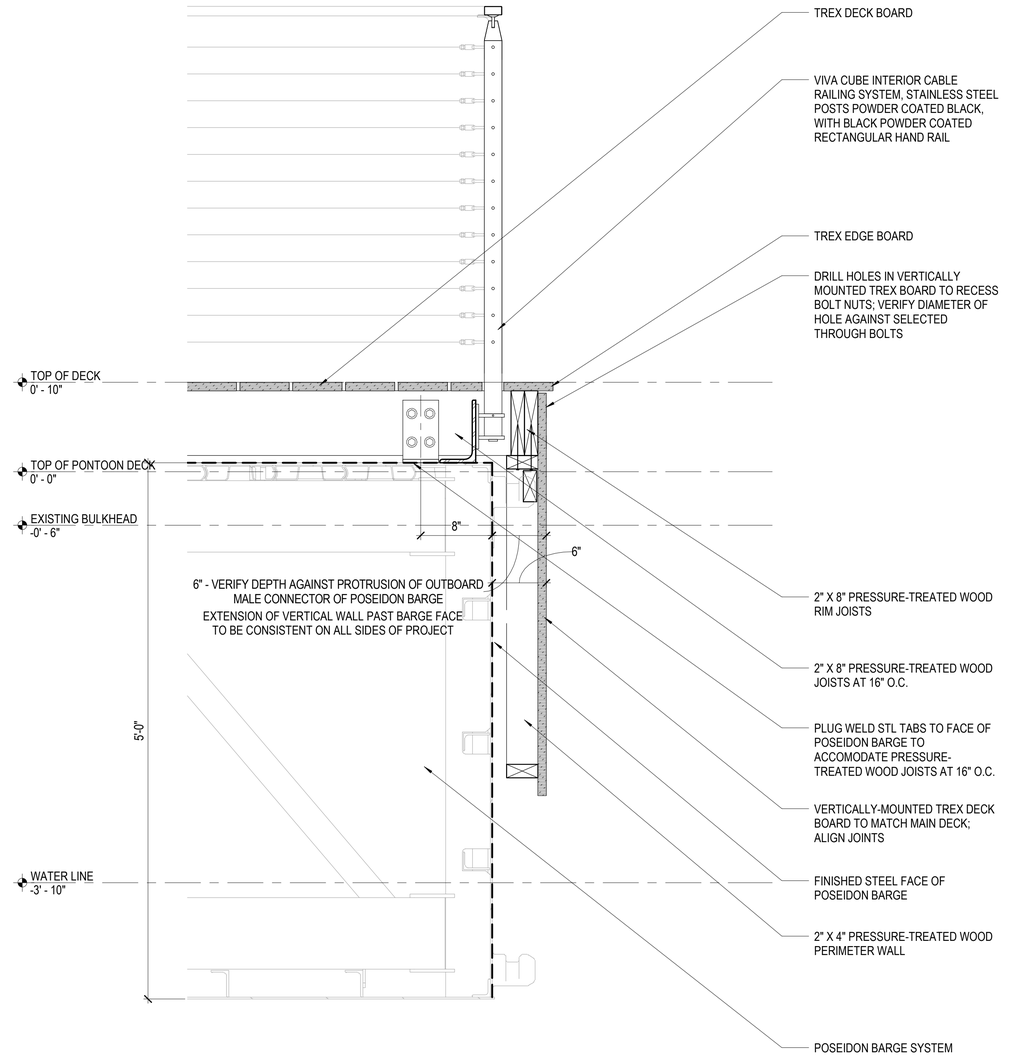
DATE: APRIL 2, 2021

PERMIT SET

A431



1 DECK RAILING, TYP. SECTION 1
1 1/2" = 1'-0"



2 DECK RAILING, TYP. SECTION 2
1 1/2" = 1'-0"

HGA
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766

STRUCTURE
ADTEK ENGINEERS. INC
9990 FAIRFAX BLVD #300
FAIRFAX, VA 22030
(703) 691-4040

CIVIL/MARINE
MOFFATT & NICHOL
4700 FALLS OF NEUSE ROAD
SUITE 300
RALEIGH, NC 27609
(919) 78-4626

PROJECT:
JOHN WARNER MARITIME HERITAGE CENTER

RIPARIAN AREA ADJACENT TO
1A PRINCE STREET
ALEXANDRIA, VA
22314

Tall Ship PROVIDENCE ALEXANDRIA, VA

AGENCY:
TALL SHIPS PROVIDENCE FOUNDATION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER T SNIA

COMMONWEALTH OF VIRGINIA
04-02-21
JAMES W. SCRUGGS JR.
Reg. No. 040107843
ARCHITECT

NAME:
DATE: APRIL 2, 2021
REGISTRATION NUMBER:

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

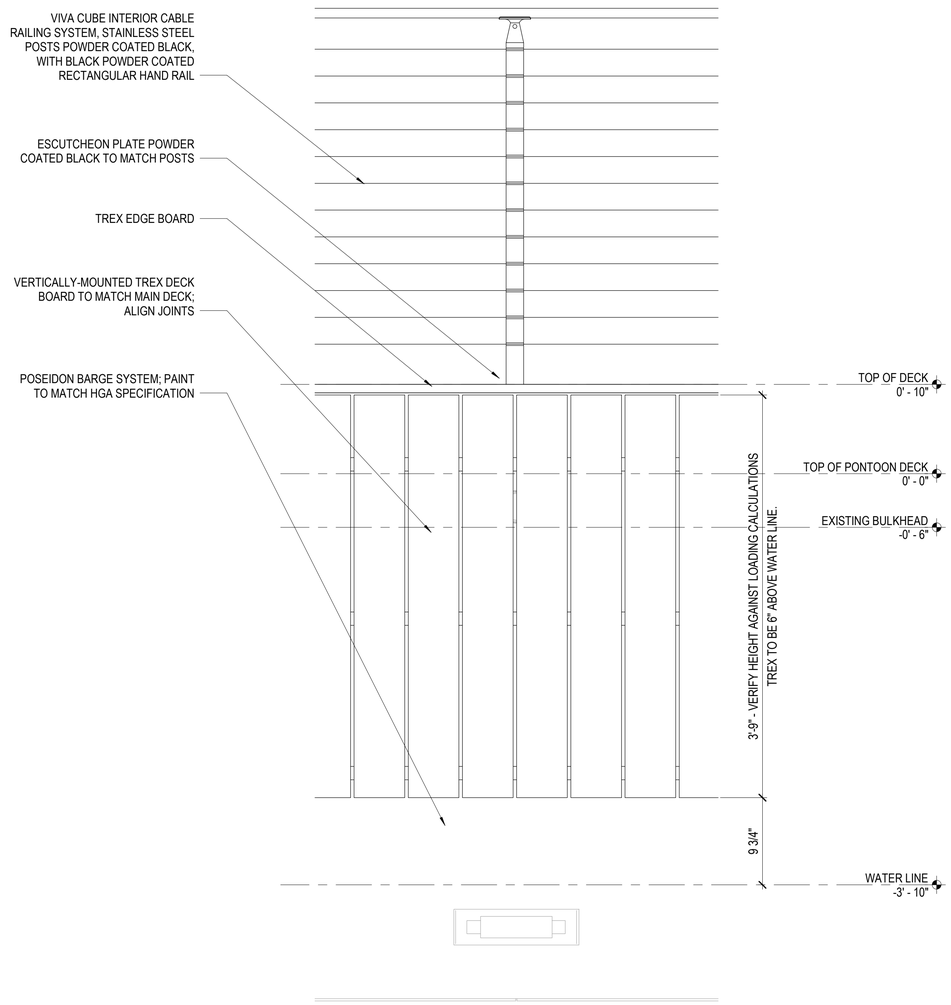
HGA NO: 2135-015-00

EXTERIOR DETAILS

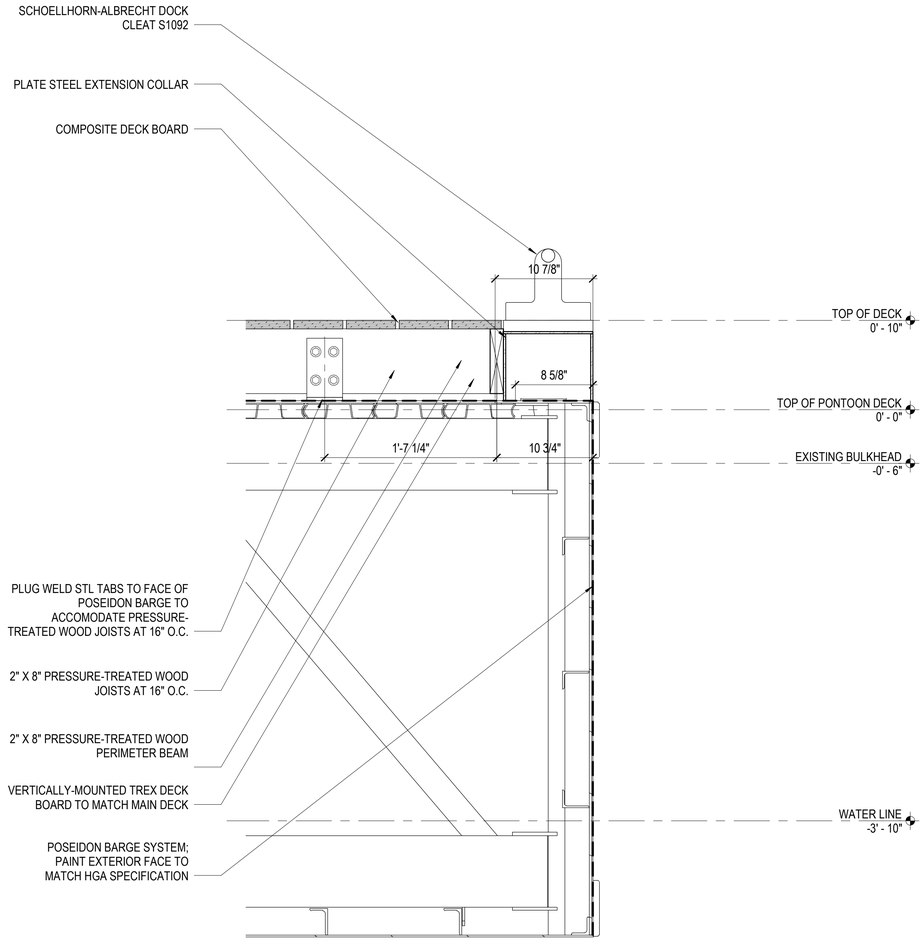
DATE: APRIL 2, 2021

PERMIT SET

A432



2 DECK RAILING, TYP. ELEVATION
1 1/2" = 1'-0"



1 EASTERN RAFT EDGE
1 1/2" = 1'-0"

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COMMONWEALTH OF VIRGINIA
04.02.21
JAMES W. SCRUGGS JR.
Lic. No. 0402017843
ARCHITECT

NAME:
DATE: APRIL 2, 2021
REGISTRATION NUMBER:

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

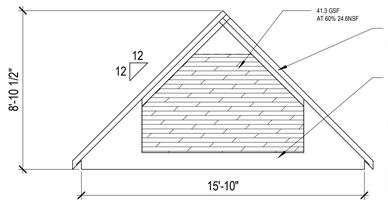
HGA NO: 2135-015-00

EXTERIOR DETAILS

DATE: APRIL 2, 2021

PERMIT SET

A433



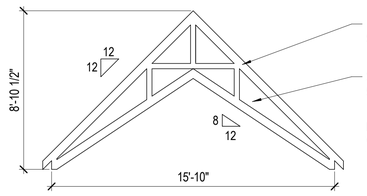
TOP CHORDS TO ACCOMMODATE TESLA SOLAR ROOF TILES

2" X 12" BOTTOM CHORD TO ACCOMMODATE 10 1/4" FIBERGLAS BLANKET INSULATION

NOTE: MEMBER SIZES AND LOCATION OF WEB MEMBERS TO BE DETERMINED BY TRUSS DESIGNER

NOTE: CLEAR HEIGHT AND WIDTH ARE TO BE MAXIMIZED AS MUCH AS POSSIBLE

1 ATTIC TRUSS DIAGRAM
1/4" = 1'-0"

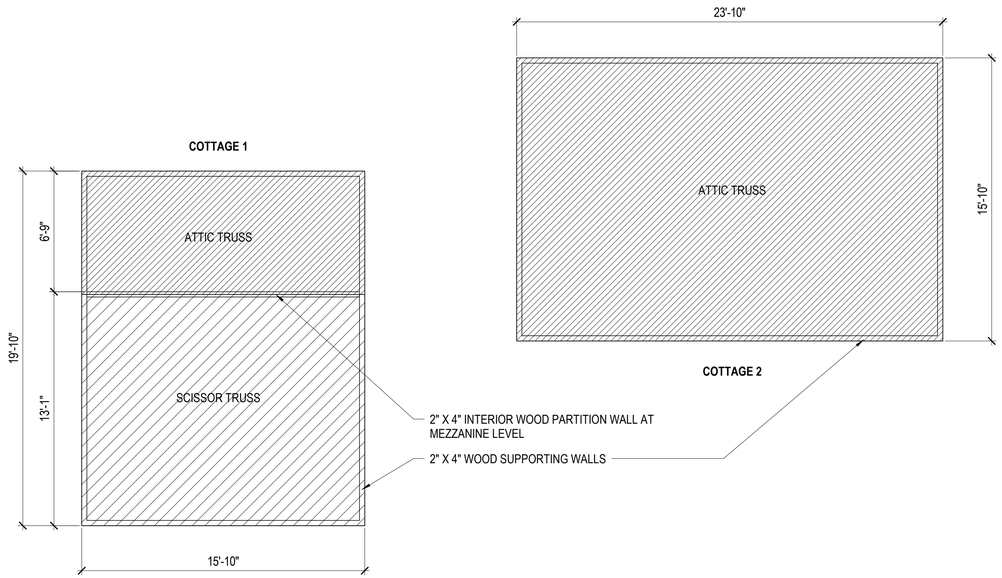


TOP CHORDS TO ACCOMMODATE TESLA SOLAR ROOF TILES

2" X 6" BOTTOM CHORDS TO ACCOMMODATE 5 1/2" SPRAY FOAM INSULATION

NOTE: MEMBER SIZES AND LOCATION OF WEB MEMBERS TO BE DETERMINED BY TRUSS DESIGNER

2 SCISSOR TRUSS DIAGRAM
1/4" = 1'-0"



3 TRUSS LOCATION KEY PLAN
1/4" = 1'-0"

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COMMONWEALTH OF VIRGINIA
04.02.21
JAMES W. SCRUGGS JR.
Lic. No. 0401017843
ENGINEER

NAME:
DATE: APRIL 2, 2021
REGISTRATION NUMBER:

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

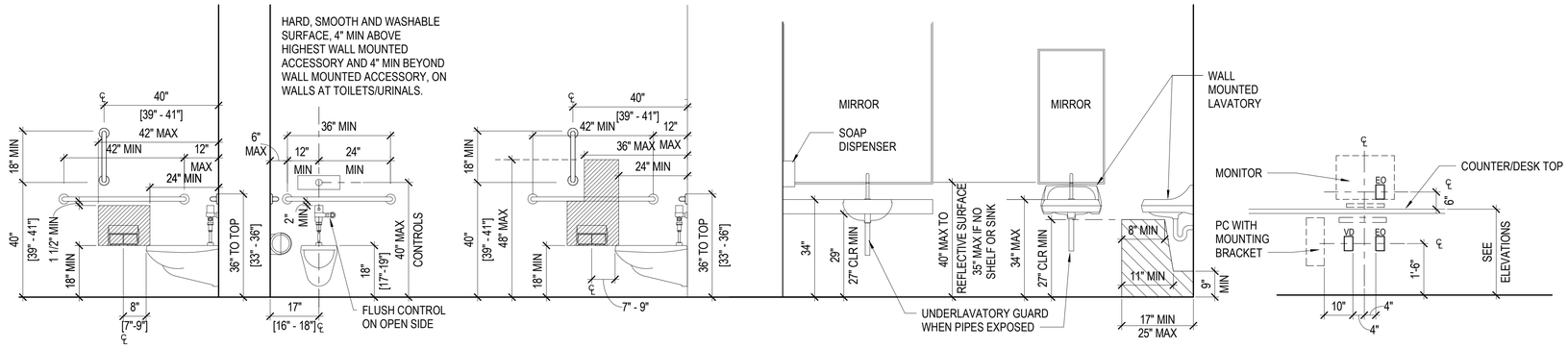
HGA NO: 2135-015-00

PRE-ENGINEERED TRUSS DETAILS

DATE: APRIL 2, 2021

PERMIT SET

A440



ACCESSIBLE/AMBULATORY TOILET SIDE WALL AT PROTRUDING DISPENSER

ACCESSIBLE/AMBULATORY TOILET SIDE WALL AT RECESSED DISPENSER

1 MOUNTING HEIGHTS - RESTROOMS
1/2" = 1'-0"

GENERAL NOTES - MOUNTING HEIGHTS

A. ALL ACCESSORIES TO BE ACCESSIBLE UNLESS NOTED OTHERWISE.

B. ALL ITEMS SHOWN NOT NECESSARILY USED.

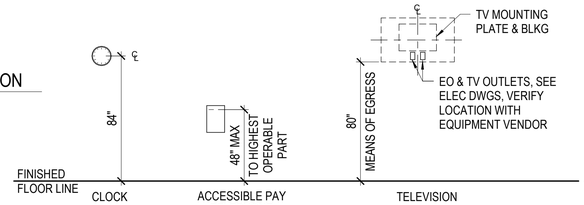
C. "#" SYMBOL SHOWN SERVES AS A PLACE HOLDER ONLY. REFER TO MATERIAL ID LIST, SPECIFICATIONS AND EQUIPMENT SCHEDULE FOR ACTUAL EQUIPMENT NUMBER.

D. PROVIDE BACKING SUPPORTS AT ALL SHELVES, TOILET ACCESSORIES, MIRRORS, CLOCKS, CHALKBOARDS, MARKER BOARDS, WALL HOOKS, COAT RACKS/HOOKS, WOOD TRIM, DOOR BUMPERS, FIRE EXTINGUISHERS AND ALL OTHER ITEMS NOT NOTED TO BE SECURED TO WALL, UNLESS OTHER MEANS OF SUPPORT ARE INDICATED.
A B AND SYMBOL DESIGNATES BACKING TYPE. WHERE MORE THAN ONE IS LISTED, CONTRACTOR TO CHOOSE APPROPRIATE DETAIL FROM THOSE LISTED. WHERE NO OPTION IS LISTED CONTRACTOR TO CHOOSE APPROPRIATE METHOD. REFER TO A662 FOR BACKING TYPE DETAILS.

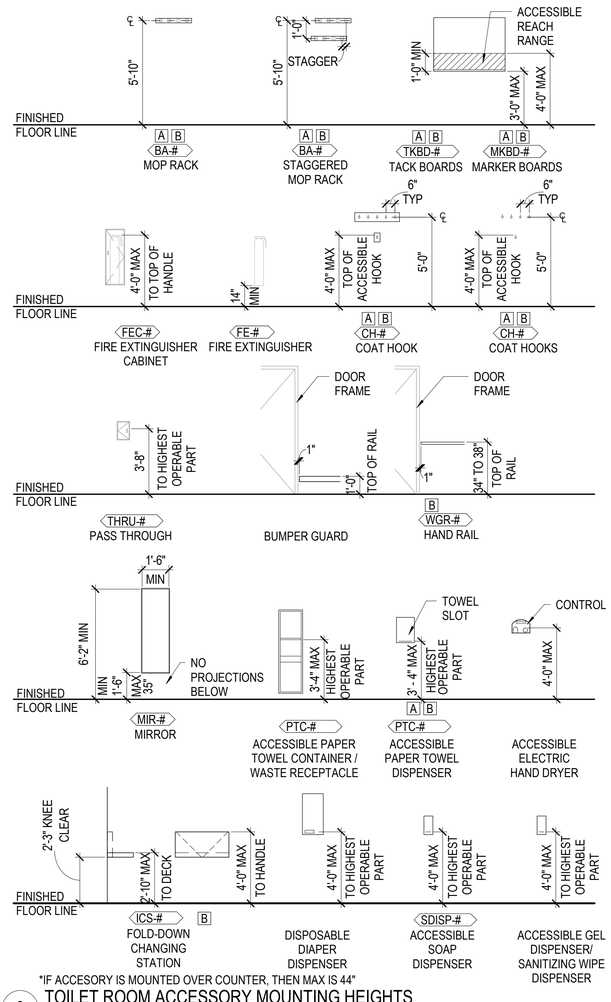
E. PROVIDE BACKING SUPPORTS AT LOCATIONS WHERE REQUIRED BY OWNER FOR OWNER INSTALLED ITEMS. CONTRACTOR TO COORDINATE WITH OWNER (SEE EQUIPMENT INFORMATION AND SPECIFICATIONS FOR ADDITIONAL INFORMATION).

F. SEE ELECTRICAL AND PLUMBING DRAWINGS FOR FURTHER MOUNTING HEIGHT INFORMATION.

4 MOUNTING HEIGHTS - PC WORKSTATION
1/2" = 1'-0"

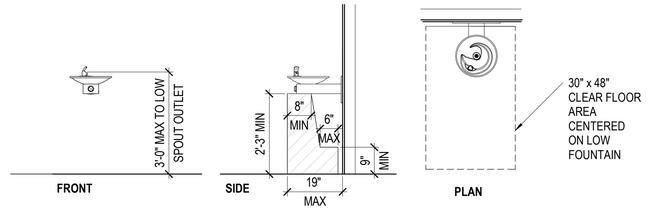


2 EQUIPMENT MOUNTING HEIGHTS
1/4" = 1'-0"

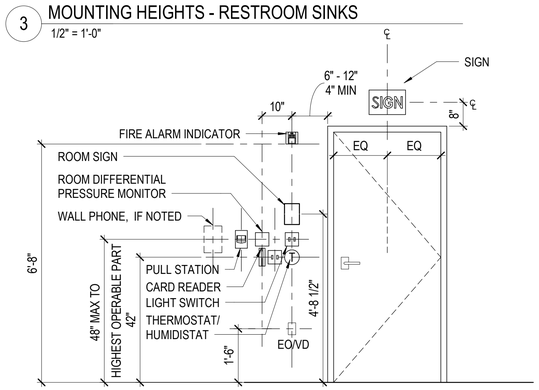


*IF ACCESORY IS MOUNTED OVER COUNTER, THEN MAX IS 44"

9 TOILET ROOM ACCESSORY MOUNTING HEIGHTS
1/4" = 1'-0"



5 TYPICAL RECESSED DRINKING FOUNTAIN
1/2" = 1'-0"

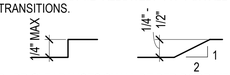


NOTE DOOR SHOWN FOR REFERENCE. DEVICES ARE SHOWN FOR ILLUSTRATIVE PURPOSES. TYPES AND QUANTITIES WILL VARY.

3 MOUNTING HEIGHTS - RESTROOM SINKS
1/2" = 1'-0"

8 MOUNTING HEIGHTS - DOORS
1/2" = 1'-0"

A. FLR TRANSITION LEVEL CHANGES UP TO 1/4" MAY BE VERTICAL CHANGES IN LEVEL BTW 1/4" AND 1/2" SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 2:1 WITH NO FLR MATERIAL TRANSITION GREATER THAN 1/2" ALLOWED. TYP FOR ALL FLOOR TRANSITIONS.



B. DR CLEARANCES SHALL BE PER DOOR MFR'S STANDARDS OR AS REQUIRED BY CODE

C. FIELD VERIFY & COORDINATE HEIGHTS OF MATERIALS PRIOR TO FABRICATION AND/OR INSTALLATION OF TRANSITION STRIPS.

(A) TRANSITION GENERAL NOTES

6 TRANSITION NOTES AND DETAILS
1 : 1

ATTACHMENT 3

HGA
44 Canal Center Plaza, Suite 100
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COMMONWEALTH OF VIRGINIA 04.02.21 JAMES W. SCRUGGS JR. Reg. No. 040107843 ARCHITECT

NAME:
DATE: APRIL 2, 2021
REGISTRATION NUMBER:

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

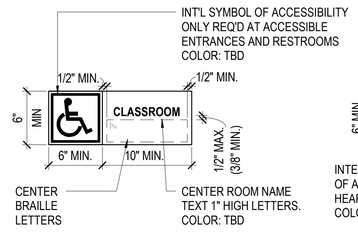
HGA NO: 2135-015-00

TYPICAL MOUNTING HEIGHTS

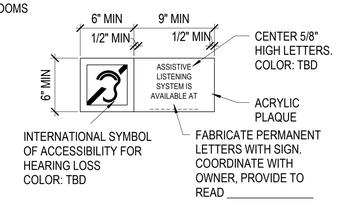
DATE: APRIL 2, 2021

PERMIT SET

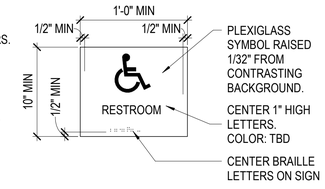
A600



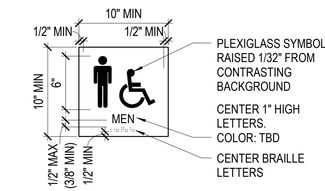
A PLAN SYMBOL (W ISA GRAPHIC) 1 1A



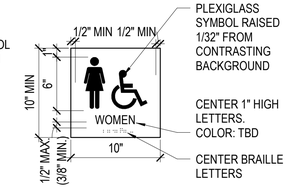
B ASSISTIVE LISTENING DEVICE 2



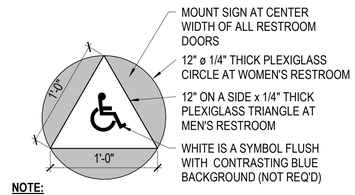
C ALL GENDER RESTROOM SIGN 3



D MEN'S RESTROOM SIGN 4

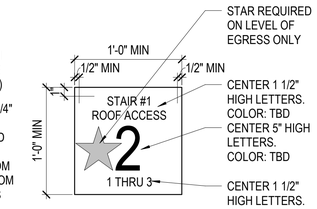


E WOMEN'S RESTROOM SIGN 5

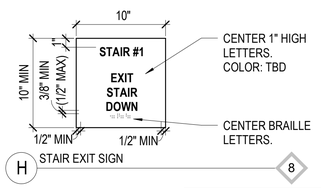


NOTE:
1. PROVIDE 1/4" THICK AND 12 INCHES IN DIAMETER WITH A 1/4" THICK CONTRASTING TRIANGLE SUPERIMPOSED ON THE CIRCLE AND WITHIN THE 12 INCH DIAMETER FOR UNISEX AND ALL GENDER RESTROOMS
2. PROVIDE 1/4" THICK TRIANGLE ONLY FOR MEN'S RESTROOM
3. PROVIDE 1/4" THICK CIRCLE ONLY FOR WOMEN'S RESTROOM
4. SIGN SHALL CONTRAST WITH DOOR ON WHICH IT RESIDES

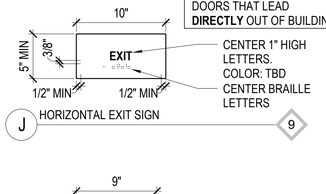
F ISA RESTROOM DOOR SIGN 6



G STAIR WITH ROOF ACCESS SIGN 7

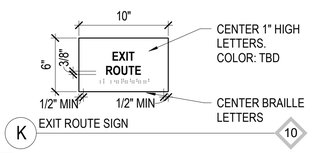


H STAIR EXIT SIGN 8



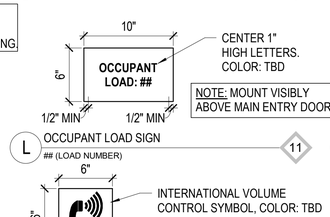
J HORIZONTAL EXIT SIGN 9

NOTE: PROVIDE AT EXIT DOORS THAT LEAD **DIRECTLY** OUT OF BUILDING.



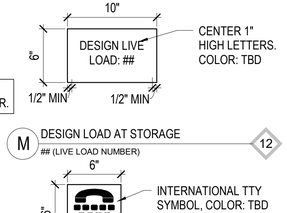
K EXIT ROUTE SIGN 10

NOTE: WHERE THE LIVE LOADS FOR WHICH EACH FLOOR OR PORTION THEREOF OF A COMMERCIAL OR INDUSTRIAL BUILDING IS OR HAS BEEN DESIGNED TO EXCEED 50 PSF (2.40 kN/m²), SUCH DESIGN LIVE LOADS SHALL BE CONSPICUOUSLY POSTED BY THE OWNER IN THAT PART OF EACH STORY IN WHICH THEY APPLY, USING DURABLE SIGNS. IT SHALL BE UNLAWFUL TO REMOVE OR DEFACE SUCH NOTICES.
(CBC 1603A.3) -MOUNT VISIBLY ABOVE DOOR.



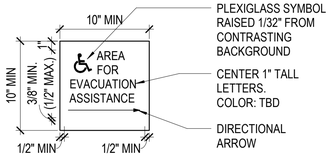
NOTE: MOUNT VISIBLY ABOVE MAIN ENTRY DOOR.

L OCCUPANT LOAD SIGN 11
(LOAD NUMBER)

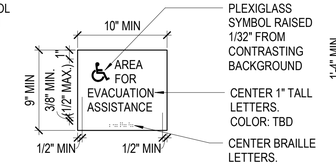


M DESIGN LOAD AT STORAGE 12
(LIVE LOAD NUMBER)

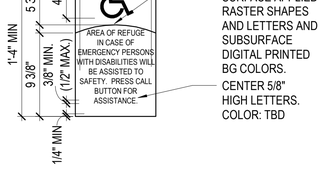
NOTE: DIRECTIONAL SIGNAGE POSTED AS NECESSARY TO INDICATE LOCATION OF ACCESSIBLE EXITS WHICH CONTAIN AN AREA OF EVACUATION ASSISTANCE.



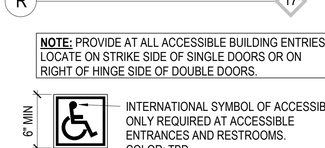
N ASSIST. DIRECTIONAL SIGN 13
AREA OF EVAC (RESCUE)



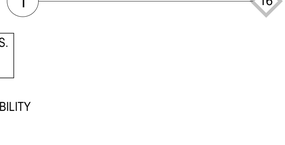
P AREA OF EVAC (RESCUE) ASSISTANCE SIGN 14



Q AREA OF EVAC (RESCUE) ASSISTANCE SIGN 15



R PHONE VOLUME CONTROL SYMBOL 17

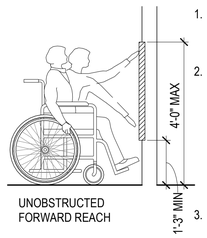


T TTY PHONE SYMBOL 16

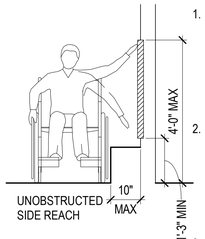
NOTE: PROVIDE AT ALL ACCESSIBLE BUILDING ENTRIES. LOCATE ON STRIKE SIDE OF SINGLE DOORS OR ON RIGHT OF HINGE SIDE OF DOUBLE DOORS.

S ISA SYMBOL 16

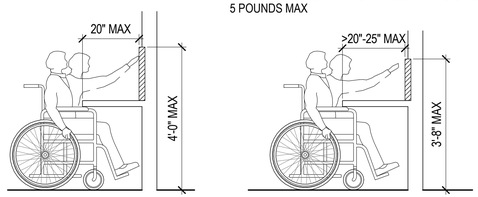
5 TYPICAL SIGNAGE
1 1/2" = 1'-0"



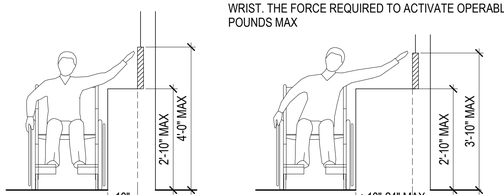
1. UNOBSTRUCTED: WHERE A FORWARD REACH IS UNOBSTRUCTED, THE HIGH FORWARD REACH SHALL BE 48 INCHES MAX AND THE LOW FORWARD REACH SHALL BE 15 INCHES MIN ABOVE FINISH FLOOR OR GROUND.
2. OBSTRUCTED HIGH REACH: WHERE A CLEAR FLOOR OR GROUND SPACE ALLOWS A FORWARD REACH IS OVER AN OBSTRUCTION, THE CLEAR SPACE SHALL EXTEND BENEATH THE ELEMENT FOR A DISTANCE NOT LESS THAN THE REQUIRED REACH DEPTH OVER THE BOSTRUCTION AND THE DEPTH OF THE OBSTRUCTION SHALL BE 25 INCHES MAX THE HIGH FORWARD REACH SHALL BE 48 INCHES MAX FOR A REACH DEPTH OF 20 INCHES, THE HIGH FORWARD REACH SHALL BE 44 INCHES MAX FOR A DEPTH OF 25 INCHES MAX
3. OPERATION: OPERABLE PARTS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE OPERABLE PARTS SHALL BE 5 POUNDS MAX



1. UNOBSTRUCTED: WHERE A CLEAR FLOOR OR GROUND SPACE ALLOWS A PARALLEL APPROACH TO AN ELEMENT AND THE SIDE REACH IS UNOBSTRUCTED, THE HIGH SIDE REACH SHALL BE 48 INCHES MAX AND THE LOW SIDE REACH SHALL BE 15 INCHES MIN ABOVE FINISH FLOOR OR GROUND.
   A. EXCEPTION: AN OBSTRUCTION SHALL BE PERMITTED BETWEEN THE CLEAR FLOOR OR GROUND SPACE AND THE ELEMENT WHERE THE DEPTH OF THE OBSTRUCTION IS 10 INCHES MAX
2. OBSTRUCTED HIGH REACH: WHERE A CLEAR FLOOR OR GROUND SPACE ALLOWS A PARALLEL APPROACH TO AN ELEMENT AND THE HIGH SIDE REACH IS OVER AN OBSTRUCTION, THE HEIGHT OF THE OBSTRUCTION SHALL BE 34 INCHES MAX AND THE DEPTH OF THE OBSTRUCTION SHALL BE 24 INCHES MAX THE HIGH SIDE REACH SHALL BE 48 INCHES MAX FOR A REACH DEPTH OF 10 INCHES MAX WHERE THE REACH DEPTH EXCEEDS 10 INCHES, THE HIGH SIDE REACH SHALL BE 46 INCHES MAX FOR A REACH DEPTH OF 24 INCHES MAX.
3. OPERATION: OPERABLE PARTS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE OPERABLE PARTS SHALL BE 5 POUNDS MAX



OBSTRUCTED HIGH FORWARD REACH



OBSTRUCTED HIGH SIDE REACH

* NOTE: SALES OR SERVICE COUNTER SHALL BE PROVIDED WITH 36 INCHES HIGH MAXIMUM ABOVE THE FINISH FLOOR.

4 REACH RANGES - SIDE & FORWARD
1/2" = 1'-0"

GENERAL NOTES - SIGNAGE

A. CHARACTER TYPE: CHARACTERS ON SIGNS SHALL BE RAISED 1/32" MINIMUM AND SHALL BE SANS SERIF UPPER CASE CHARACTERS ACCOMPANIED BY GRADE 2 BRAILLE COMPLYING WITH CBC 11B-703.3.

B. CHARACTER SIZE: RAISED CHARACTERS SHALL BE A MINIMUM OF 5/8" AND A MAXIMUM OF 2" HIGH. TACTILE CHARACTERS ON SIGNS SHALL BE LOCATED 48 INCHES MIN AFF, MEASURED FROM THE BASELINE OF THE LOWEST TACTILE CHARACTER AND 60 INCHES MAX AFF, MEASURED FROM THE BASELINE OF THE HIGHEST TACTILE CHARACTER.

C. FINISH AND CONTRAST: CHARACTERS, SYMBOLS, AND THEIR BACKGROUNDS SHALL HAVE A NON-GLARE FINISH, CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND, EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND.

D. PROPORTIONS: VISUAL AND RAISED CHARACTERS ON SIGNS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER "O" IS 60% MIN AND 110% MAX OF THE HEIGHT OF THE UPPERCASE LETTER "I". STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 10% MIN AND 20% MAX OF THE HEIGHT OF THE CHARACTER.

E. BRAILLE: BRAILLE SHALL BE CONTRACTED (GRADE 2) AND SHALL COMPLY WITH SECTIONS 11B-703.3 AND 11B-703.4 OF CBC. BRAILLE DOTS SHALL HAVE A DOMED OR ROUNDED SHAPE AND SHALL COMPLY WITH TABLE 11B-703.3.1 OF CBC. THE INDICATION OF AN UPPERCASE LETTER OR LETTERS SHALL ONLY BE USED BEFORE THE FIRST WORD OF SENTENCES, PROPER NOUNS AND NAMES, INDIVIDUAL LETTERS OF THE ALPHABET, INITIALS AND ACRONYMS.

F. LOCATION: LOCATE SIGN A MINIMUM OF 4" AND A MAXIMUM OF 12" AWAY FROM DOOR STRIKE SIDE, UNLESS OTHERWISE NOTED. SIGNS CONTAINING TACTILE CHARACTERS SHALL BE LOCATED SO THAT A CLEAR FLOOR SPACE OF 18"X18" MIN, CENTERED ON THE TACTILE CHARACTERS, IS PROVIDED BEYOND THE ARCH OF ANY DOOR SWING BETWEEN THE CLOSED POSITION AND 45 DEGREE OPEN POSITION. FOR ADDITIONAL INFORMATION, SEE DETAILS -/---
-/--- &

G. MATERIAL: SIGN MATERIAL TO BE 1/8" THICK ES PLASTIC WITH 1/32" RAISED BORDER AND LETTERS. MATCH EXISTING SIGNS. EDGES OF SIGNS SHALL BE ROUNDED, CHAMFERED OR EASED. CORNERS OF SIGNS SHALL HAVE A MINIMUM RADIUS OF 1/8 INCH

H. COMPLIANCE: ALL SIGNAGE MUST COMPLY WITH ARTICLE 11B-703 OF CBC AS WELL AS CURRENT ADA STANDARDS.

J. WHERE SIGNAGE MUST BE INSTALLED DIRECTLY TO GLAZING, PROVIDE BLANK SIGN ON OPPOSITE SIDE OF GLAZING WHERE NONE PRESENT.

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PROJECT:
JOHN WARNER MARITIME HERITAGE CENTER

RIPARIAN AREA ADJACENT TO
1A PRINCE STREET
ALEXANDRIA, VA
22314

Tall Ship PROVIDENCE ALEXANDRIA, VA

AGENCY:
TALL SHIPS PROVIDENCE FOUNDATION

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER T SINIA

COMMONWEALTH OF VIRGINIA
04.02.21
JAMES W. SCRUGGS JR.
Lic. No. 0401017843
ARCHITECT

NAME:
DATE: APRIL 2, 2021
REGISTRATION NUMBER:

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

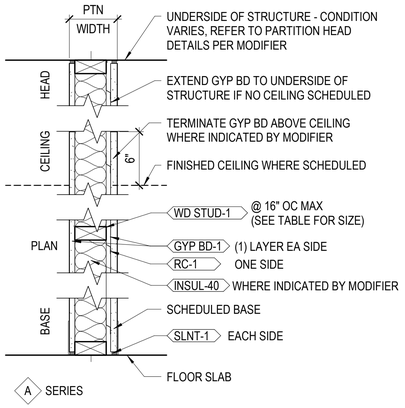
HGA NO: 2135-015-00

SIGNAGE + DESIGN GUIDE - MOUNTING HEIGHTS

DATE: APRIL 2, 2021

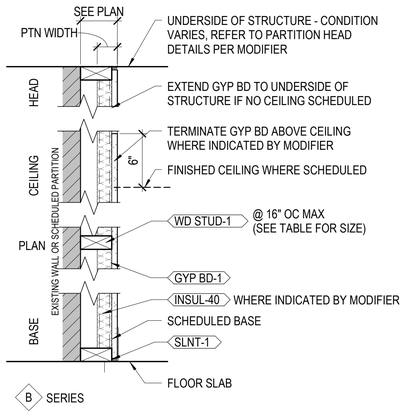
PERMIT SET

A601



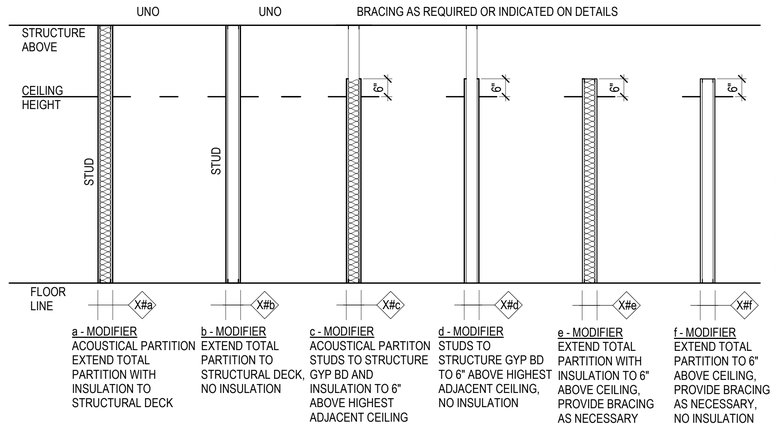
PTN TYPE	STUD WIDTH	PTN WIDTH	DESIGN STC	AVAILABLE FIRE RESISTANCE
A4	2x4	4 3/4"	STC 49 / RAL-TL12-211	
A6	2x8	8 1/2"		

1 INTERIOR PARTITION TYPE - A SERIES
1 1/2" = 1'-0"



PTN TYPE	STUD	PTN WIDTH	DESIGN STC	AVAILABLE FIRE RESISTANCE
B2	2x2	2 1/8"		
B4	2x4	4 1/8"		

11 INTERIOR PARTITION TYPE - B SERIES
1 1/2" = 1'-0"



2 INTERIOR PARTITION MODIFIER KEY
1/2" = 1'-0"

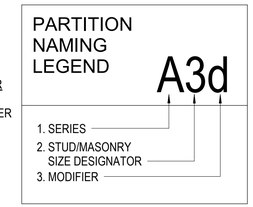
GENERAL NOTES - INTERIOR PARTIONS

1. MINIMUM SOUND TRANSMISSION CLASS (STC) VALUES INDICATED ARE BASED ON PARTITION TYPE WITH "A" MODIFIER; WHERE PARTITION ASSEMBLY EXTENDS TO DECK WITH ACOUSTIC INSULATION FILLING SPACE BETWEEN FRAMING FOR FULL HEIGHT OF PARTITION.
2. PROVIDE ACOUSTICAL SEALANT AND SOUND ATTENUATION BLANKETS AT STC-RATED PARTITIONS.
3. FLOOR PLAN DIMENSIONS ARE TO FACE OF SCHEDULED PARTITION ASSEMBLY EXCLUSIVE OF APPLIED FINISHES, UNLESS NOTED OTHERWISE.
4. "CLEAR", "HOLD" OR "FACE OF FINISH" DIMENSIONS INDICATE MINIMUM CLEARANCE REQUIRED BETWEEN SCHEDULED PARTITIONS WITH APPLIED FINISHES.
5. PARTITION TYPES INDICATE GENERAL INTERIOR PARTITION REQUIREMENTS. REFER TO OTHER CONTRACT DOCUMENTS FOR ADDITIONAL REQUIREMENTS RELATED TO INTERIOR PARTITION CONSTRUCTION AND PERFORMANCE REQUIREMENTS.
6. PARTITION TYPES INDICATED REFLECT TYPICAL CONDITIONS. REFER TO REFERENCED DETAILS FOR SPECIFIC PARTITION DETAILS.
7. PROVIDE PENETRATION FIRESTOPPING AND JOINT FIRESTOPPING AS SCHEDULED AND AS REQUIRED TO MAINTAIN CONTINUITY OF FIRE-RESISTANCE RATINGS OF ASSEMBLIES.
8. REFER TO STRUCTURAL DRAWINGS FOR INTERIOR STRUCTURAL PARTITIONS OF COLD-FORMED METAL FRAMING AND PARTITIONS INDICATED AS <STR-#>.
9. FIRE-RESISTANCE RATINGS AND ACOUSTICAL PERFORMANCE REQUIREMENTS INDICATED ARE BASED ON SPECIFIED PRODUCTS AND SYSTEMS. FIRE-RESISTANCE RATINGS AND ACOUSTICAL PERFORMANCE REQUIREMENTS FOR SYSTEMS USING MATERIALS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY VARY.
10. PROVIDE MOISTURE- AND MOLD-RESISTANT GYPSUM BOARD AT THE FOLLOWING LOCATIONS, UNLESS NOTED OTHERWISE: PARTITIONS IN TOILET ROOMS OTHER THAN SHOWER WALLS, JANITOR'S CLOSETS, OTHER PARTITIONS TO RECEIVE CERAMIC AND STONE TILE, AND AS INDICATED.
11. PROVIDE CEMENTITIOUS BACKER BOARD AT PARTITIONS AROUND SHOWERS AND OTHER LOCATIONS AS INDICATED.
12. PROVIDE GYPSUM BASE FOR VENEER PLASTER WHERE GYPSUM VENEER PLASTER FINISH IS INDICATED.
13. WHERE WALLS OR PARTITIONS OF UNEQUAL THICKNESS ABUT, ALIGN COPLANAR EXPOSED FINISH SURFACES.

1. SERIES
THIS CHARACTER DENOTES THE ASSEMBLY SERIES TO WHICH THE WALL BELONGS.

2. METAL STUD/MASONRY UNIT SIZE DESIGNATOR
THIS CHARACTER DENOTES THE STUD OR FURRING WIDTH. FOR MASONRY, THIS CHARACTER INDICATES NOMINAL UNIT WIDTH.

3. MODIFIER
THIS CHARACTER DENOTES MODIFICATION(S) TO THE SERIES ASSEMBLY.



3 PARTITION NAMING LEGEND
1 1/2" = 1'-0"

DOOR AND FRAME SCHEDULE

IDENTIFICATION		DOOR					FRAME				
DOOR NUMBER	ROOM NAME	WIDTH	HEIGHT	TYPE	FINISH	GLAZING TYP	TYPE	FINISH	RATING	HDWE GROUP	NOTES
111A	EDUCATION CENTER	3' - 1 7/8"	7' - 11 1/2"	WD-AL-FG	--	GL-21T	WD-AL	--			
111B	EDUCATION CENTER	3' - 1 7/8"	7' - 11 1/2"	WD-AL-FG	--	GL-21T	WD-AL	--			FIXED IN-SWING WOOD ALUM CLAD
111C	EDUCATION CENTER	3' - 1 7/8"	7' - 11 1/2"	WD-AL-FG	--	GL-21T	WD-AL	--			FIXED IN-SWING WOOD ALUM CLAD
111D	OBSERVATION DECK	3' - 1 7/8"	7' - 11 1/2"	WD-AL-FG	--	GL-21T	WD-AL	--			FIXED IN-SWING WOOD ALUM CLAD
111E	OBSERVATION DECK	3' - 1 7/8"	7' - 11 1/2"	WD-AL-FG	--	GL-21T	WD-AL	--			FIXED IN-SWING WOOD ALUM CLAD
111F	OBSERVATION DECK	3' - 1 7/8"	7' - 11 1/2"	WD-AL-FG	--	GL-21T	WD-AL	--			FIXED IN-SWING WOOD ALUM CLAD
111G	STOR	2' - 0"	8' - 0"	SBD-1	--			--			BARN DOOR
122A	THEATER	3' - 0"	8' - 0"	WD-F	PT-1	--	WDP-1	PT-1			POCKET DOOR
122B	PUBLIC DECK	3' - 1 7/8"	7' - 11 1/2"	WD-AL-FG	--	GL-21T	WD-AL	--			
124A	OBSERVATION DECK	3' - 1 7/8"	7' - 11 1/2"	WD-AL-FG	--	GL-21T	WD-AL	--			
124B	THEATER	6' - 0 1/8"	8' - 0"	AL-FG	ALUM-1	GL-1T	--	Brick			
212	RESTROOM	3' - 0"	7' - 0"	HM-F	PT-2	PT-2	HM-002	PT-2			
213	RESTROOM	3' - 0"	7' - 0"	HM-F	PT-2	PT-2	HM-002	PT-2			
214	MOP SINK	2' - 0"	7' - 0"	WD-F	PT-2	--	HM-002	PT-2			

DOOR HARDWARE GENERAL NOTES

A. ALL HARDWARE TO BE **[SELECT FINISH]**, U.N.O.
B. ALL DOOR STOPS TO BE **[FLOOR / WALL]** MOUNTED, U.N.O. REFER TO OVERHEAD STOPS FOR DOORS THAT DON'T OPEN AGAINST A WALL.
C. ALL CLOSERS TO BE SURFACE-MOUNTED, U.N.O. ON ROOM SIDE.
D. ALL LOCKSETS TO BE [CYLINDRICAL/MORTISE], U.N.O.
E. CONTRACTOR TO COORDINATE KEYING WITH OWNER AND CONFIRM EXISTING KEY SYSTEM(S).

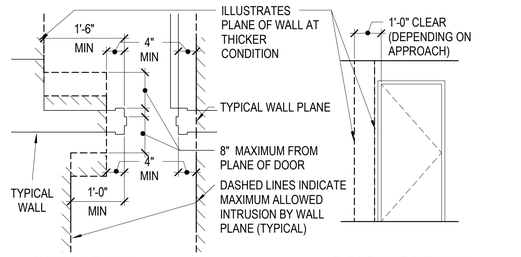
DOOR HARDWARE MODIFIERS

DOOR HARDWARE MODIFIERS ARE ADDED TO HARDWARE GROUPS TO ADD A MODIFICATION TO HARDWARE GROUP.

K ADD KICKPLATE, REFER TO DOOR TRIM

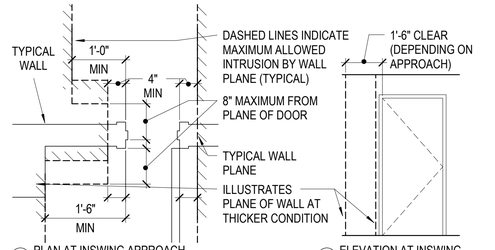
G ADD GASKET **[JAMB] [DOOR BOTTOM] [THRESHOLD] [ASTRAGAL AT PAIRS]**
REFER TO SPECIAL GASKET

W ADD WEATHERSTRIP, THRESHOLD, DOOR BOTTOM/SWEEP, RAIN DRIP AND ASTRAGAL AT PAIRS - REFER TO WEATHERSTRIP



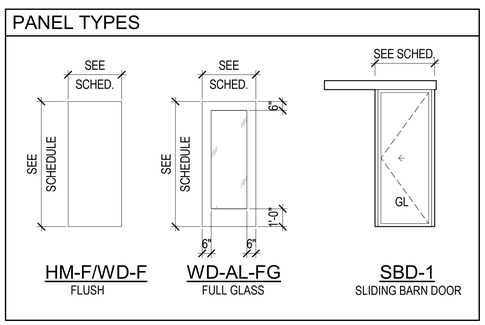
NOTE: AT NARROW CONDITIONS THE SETBACKS INCREASE DUE TO LACK OF WHEELCHAIR MOBILITY AREA - REFER TO ADA.

6 DOOR MANEUVERING CLEARANCES OUTSWING APPROACH
3/4" = 1'-0"

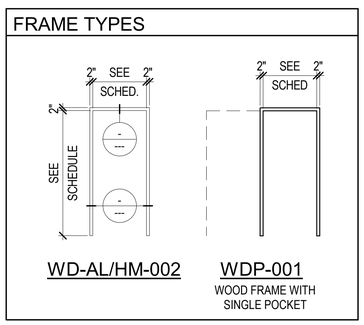


NOTE: AT NARROW CONDITIONS THE SETBACKS INCREASE DUE TO LACK OF WHEELCHAIR MOBILITY AREA - REFER TO ADA.

5 DOOR MANEUVERING CLEARANCES INSWING APPROACH
3/4" = 1'-0"



DOOR PANEL LEGEND
1/4" = 1'-0"



DOOR FRAME LEGEND
1/4" = 1'-0"

A. NOT ALL DOOR AND FRAME TYPES SHOWN HERE MAY BE USED IN THIS PROJECT.

B. REFER TO DOOR AND FRAME SCHEDULE, SEE DOOR ELEVATIONS AND DETAILS FOR FRAME TYPE, FRAME WIDTH AND RELATED DOOR GLAZING INFORMATION.

C. PROVIDE TEMPERED GLASS AT LOCATIONS INDICATED AND AS REQUIRED TO COMPLY WITH APPLICABLE CODES.

D. REFER TO PLANS FOR INTERIOR PARTITION TYPES AND EXTERIOR WALL TYPES.

E. GROUT SOLID HOLLOW METAL FRAMES AT MASONRY PARTITIONS. SPOT GROUT HOLLOW METAL FRAMES OTHER PARTITION TYPES.

F. REFER TO DOOR AND FRAME SCHEDULE FOR FRAME WIDTHS AND FOR DOOR INFORMATION.

G. WHERE FIRE-RATED PARTITIONS INTERSECT ANOTHER FIRE-RATED OR NON-RATED PARTITION, MAINTAIN HIGHER-RATED ASSEMBLY CONTINUITY ACROSS INTERSECTION.

8 DOOR AND FRAME GENERAL NOTES
1'-0"=1'=0"

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COMMONWEALTH OF VIRGINIA
04.02.21
JAMES W. SCRUGGS JR.
Reg. No. 0402027843
ARCHITECT

NAME:
DATE: APRIL 2, 2021
REGISTRATION NUMBER:

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 2135-015-00

PARTITION TYPES & DOOR SCHEDULE

DATE: APRIL 2, 2021

PERMIT SET

A660

STRUCTURAL NOTES

BUILDING CODE: 2015 INTERNATIONAL BUILDING CODE AS MODIFIED BY 2015 VIRGINIA CONSTRUCTION CODE AND ASCE 7-10 PER THE VIRGINIA UNIFORM STATEWIDE BUILDING CODE

ANY REFERENCES TO VARIOUS TRADE CODES THROUGHOUT THESE NOTES ARE TO THE YEAR OF THE CODE CITED IN THE ABOVE REFERENCE BUILDING CODE.

DESIGN LIVE LOADS

ROOF STRUCTURAL ELEMENTS SHALL BE DESIGNED FOR THE MORE CRITICAL OF THE FOLLOWING LOAD CASES

CASE 1 20 PSF MINIMUM (NOT REDUCIBLE)
CASE 2 SNOW LOAD BASED ON 25 PSF GROUND SNOW LOAD WITH APPLICABLE DRIFT AND SLIDING LOADS

ROOF SNOW LOAD DESIGN DATA:
FLAT ROOF SNOW LOAD (Pf) - 17 PSF
SNOW EXPOSURE FACTOR (Ce) – 0.8
SNOW LOAD IMPORTANCE FACTOR (I) - 1.0
THERMAL FACTOR (Ct) – 1.2

FLOORS: THE FLOOR AREAS HAVE BEEN DESIGNED FOR THE FOLLOWING MINIMUM LIVE LOADS. LIVE LOAD REDUCTION HAS BEEN CONSIDERED IN FLOOR AND COLUMN DESIGN.

PUBLIC SPACES	100 PSF
ATTIC MEZZANINE	40 PSF + EQUIPMENT LOADS PER PLAN

DESIGN DEAD LOADS

ROOF	25 PSF (TOTAL INCLUDING SELF WEIGHT)
TRUSSES-TOP CHORD	8 PSF (SUPERIMPOSED)
TRUSSES-BOTTOM CHORD	12 PSF (SUPERIMPOSED) + ATTIC MEZZANINE (WHERE SHOWN)

LATERAL LOADS

WIND LOAD ANALYSIS

RISK CATEGORY	II
ULTIMATE WIND SPEED (Vult)	115 MPH
NOMINAL WIND SPEED (Vasd)	89 MPH
WIND EXPOSURE	D
INTERNAL PRESSURE COEFFICIENT	+/- 0.18

NET WIND UPLIFT ON TRUSSES AND ROOFING TO BE PER THE LOADS IN THE COMPONENTS AND CLADDING WIND CHART ON THIS SHEET.

GENERAL NOTES

REFER TO THE ARCHITECTURAL, ELECTRICAL, MECHANICAL AND PLUMBING DRAWINGS FOR ADDITIONAL SLEEVES, ANCHORS, VENT OPENINGS, ETC. NOT SHOWN ON THE STRUCTURAL PLANS.

NOTIFY THE STRUCTURAL ENGINEER OF RECORD OF ANY DEVIATION FROM THE STRUCTURAL CONTRACT DOCUMENTS FOR APPROVAL.

ALL MATERIALS SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE ASTM SPECIFICATIONS NOTED IN THE STRUCTURAL NOTES AND PROJECT SPECIFICATIONS BASED ON THE FINAL DATE NOTED ON THE CONSTRUCTION DOCUMENTS.

ALL DIMENSIONS AND NOTES SHALL SUPERSEDE ALL SCALE REFERENCES ON THE DRAWINGS.

ALL WORK SPECIFIED HEREIN SHALL BE INSPECTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, THE BUILDING CODE AND ALL LOCAL ORDINANCES. THE CONTRACTOR SHALL HIRE AN EXPERIENCED, QUALIFIED SPECIAL INSPECTOR TO PERFORM ALL THE REQUIRED INSPECTION WORK. ADTEK ENGINEERS WILL NOT PERFORM THE CONTINUOUS DAILY SPECIAL INSPECTIONS DURING CONSTRUCTION. ADTEK ENGINEERS MAY VISIT THE SITE TO ASCERTAIN GENERAL CONFORMANCE TO THE CONTRACT DOCUMENTS AND SUCH VISITS ARE NOT TO BE CONSTRUED AS MEETING THE DAILY SPECIAL INSPECTION REQUIREMENTS UNLESS THE ENGINEER SPECIFICALLY SO STATES IN WRITING.

IT IS THE INTENT OF THESE DRAWINGS FOR ALL DISCIPLINES AND SPECIFICATIONS TO PRODUCE A COMPLETE PROJECT. IN ALL CASES THE DRAWINGS AND SPECIFICATIONS MUST BE REVIEWED, PRICED, ESTIMATED, AND CONSTRUCTED IN THEIR ENTIRETY. THE DRAWINGS ARE COMPLEMENTARY TO ONE ANOTHER AND THE SPECIFICATIONS. ANYTHING SHOWN OR IMPLIED ON ANY ONE DRAWING MUST BE PROVIDED, INSTALLED AND CONNECTED AS THOUGH IT WAS SHOWN ON ALL DRAWINGS AND INCLUDED IN THE ORIGINAL PRICING. NO REQUEST FOR ADDITIONAL COST OR CHANGE ORDER WILL BE ACCEPTED BY THE OWNER FROM ANY CONTRACTOR, SUPPLIER, OR INSTALLER THAT RESULTS FROM A FAILURE TO THOROUGHLY REVIEW ALL DRAWINGS AND SPECIFICATIONS, COORDINATE WITH OTHER TRADES, OR THOROUGHLY INSPECT THE SITE TO DETERMINE ALL EXISTING CONDITIONS.

IF AN ASSUMED OR ACTUAL CONFLICT IS DISCOVERED IN THE CONTRACT DOCUMENTS, THE MORE EXPENSIVE OR HIGHER QUALITY OPTION (AS DETERMINED BY THE ARCHITECT/ENGINEER) SHALL BE ASSUMED TO APPLY UNLESS DIRECTED OTHERWISE BY THE ARCHITECT/ENGINEER.

THE CONTRACTOR IS REQUIRED TO VISIT THE SITE, FAMILIARIZE THEMSELVES WITH THE LOCAL CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND AS ARE NECESSARY FOR CONSTRUCTION, AND CORRELATE THEIR OBSERVATIONS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. IT IS ASSUMED THAT THE CONTRACTOR HAS OBTAINED, BEFORE AWARD OF THE CONTRACT, CLARIFICATION OF ALL QUESTIONS AS TO THE INTENT OF THE CONTRACT DOCUMENTS AND OF ASSUMED OR ACTUAL CONFLICT BETWEEN TWO OR MORE ITEMS IN CONTRACT DOCUMENTS. SHOULD THE CONTRACTOR FAIL TO OBTAIN SUCH CLARIFICATION, THE ARCHITECT/ENGINEER SHALL DIRECT WORK TO PROCEED BY THE METHOD INDICATED, SPECIFIED OR REQUIRED BY CONTRACT DOCUMENTS WHICH WILL PRODUCE THE BEST RESULTS, AS JUDGED BY THE ARCHITECT/ENGINEER. SUCH DIRECTION BY THE ARCHITECT/ENGINEER SHALL NOT ENTITLE THE CONTRACTOR TO ANY CLAIM FOR EXTRA COST.

CONTRACTOR RESPONSIBILITIES

THE FOLLOWING LIST IS NOT INTENDED TO BE ALL INCLUSIVE, BUT MERELY TO PLACE EMPHASIS ON PARTICULAR ITEMS OF JOB SCHEDULING AND SAFETY.

1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE PROJECT ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW, ALLOWING A MINIMUM OF TWO WEEKS FOR REVIEW BY THE PROJECT ARCHITECT AND STRUCTURAL ENGINEER.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REDESIGN OF THE STRUCTURAL SUPPORTS OF EQUIPMENT WHEN THE OPERATING WEIGHT OF THE EQUIPMENT PROVIDED (INCLUDING CURBS AND ACCESSORIES) EXCEEDS THE MAXIMUM DESIGN WEIGHTS NOTED ON THE STRUCTURAL DRAWINGS. SUBMIT STRUCTURAL CALCULATIONS AND DETAILS FOR THE REVISED EQUIPMENT SUPPORT TO THE PROJECT ARCHITECT FOR REVIEW. THE SUBMITTAL SHALL BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROJECT JURISDICTION.
3. IF ACTUAL FIELD CONDITIONS VARY FROM WHAT IS SHOWN OR ASSUMED IN THE CONTRACT DOCUMENTS, THE CONTACTOR IS REQUIRED TO PROMPTLY NOTIFY THE ARCHITECT/ENGINEER AND RECEIVE DIRECTION PRIOR TO PROCEEDING WITH THE WORK AFFECTED BY THE ACTUAL FIELD CONDITION.
4. THE CONTRACTOR SHALL NOTIFY THE PROJECT SPECIAL INSPECTOR IN ADVANCE OF WORK REQUIRING INSPECTIONS OR ON-SITE PERSONNEL. COORDINATE ADVANCE NOTIFICATION REQUIREMENTS WITH THE SPECIAL INSPECTOR.

CONTRACTOR RESPONSIBILITIES (CONT.)

5. IF THE CONTRACTOR ANTICIPATES A PROBLEM THAT WILL REQUIRE ASSISTANCE FROM THE PROJECT STRUCTURAL ENGINEER, THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROVIDE THE ENGINEER WITH MINIMUM 24 HOURS NOTICE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL CONSTRUCTION IS ACCORDING TO THE SIGNED AND SEALED CONSTRUCTION DOCUMENTS AND THE REVIEWED SHOP DRAWINGS.
7. THE CONTRACTOR SHALL ENGAGE A PROFESSIONAL ENGINEER REGISTERED IN THE PROJECT JURISDICTION TO DESIGN AND DETAIL THE SUBMITTAL ITEMS NOTED IN THE DEFERRED SUBMITTALS BELOW.
8. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING BETWEEN THE STRUCTURAL AND ARCHITECTURAL DRAWINGS. IT IS NOT INTENDED THAT THE STRUCTURAL DRAWINGS BE USED INDEPENDENTLY OF THE ARCHITECTURAL DRAWINGS. ANY DISCREPANCIES, INCLUDING DIMENSIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER BEFORE PROCEEDING WITH THE WORK.
9. THE CONTRACTOR IS RESPONSIBLE FOR METHODS TO ENSURE CONSTRUCTION SAFETY AT THE SITE THROUGHOUT THE COURSE OF THE PROJECT CONSTRUCTION. SEE O.S.H.A. & M.O.S.H. REGULATIONS FOR CONSTRUCTION.
10. UPON STRUCTURAL COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE SPECIAL INSPECTOR SUBMIT A LETTER OF CERTIFICATION INDICATING THAT THE STRUCTURE IS IN COMPLIANCE WITH THE PLANS, SPECIFICATIONS, CONCRETE TEST REPORTS AND CODE REQUIREMENTS. THIS LETTER MUST BE REVIEWED BY THE ARCHITECT AND ENGINEER OF RECORD BEFORE SUBMITTAL.

SUBMITTALS NOTES

1. SUBMIT THE SHOP DRAWINGS NOTED BELOW TO THE PROJECT ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW.
2. DEFERRED SUBMITTALS (DRAWINGS AND CALCULATIONS) NOTED BELOW SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROJECT JURISDICTION. THE ENGINEER MUST HAVE A MINIMUM OF THREE YEARS EXPERIENCE IN THE DESIGN OF THE TYPE OF STRUCTURAL COMPONENT REQUIRED FOR THE SUBMITTAL. THE ENGINEER SHALL PERFORM PERIODIC FIELD OBSERVATIONS AND ISSUE A FINAL CERTIFICATION FOR THE FINAL CONSTRUCTION OF THE STRUCTURE INCLUDED IN THEIR SUBMITTAL.
3. REPRODUCTION OF ANY PORTION OF THE STRUCTURAL CONSTRUCTION DOCUMENTS FOR USE AS SHOP DRAWINGS IS PROHIBITED.
4. IF REQUIRED BY THE AUTHORITY HAVING JURISDICTION, PROVIDE THE REVIEWED SHOP DRAWINGS OF THE DEFERRED SUBMITTALS FOR THEIR REVIEW.

SUBMITTALS
A. MISCELLANEOUS STRUCTURAL STEEL
B. ANY OPENINGS IN STRUCTURAL ELEMENTS NEED TO BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD FOR APPROVAL.

DEFERRED SUBMITTALS
A. WOOD TRUSSES (FRAMING PLANS AND CALCULATIONS)

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS ARE REQUIRED DURING CONSTRUCTION IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE. THE TERM SPECIAL INSPECTOR REFERS TO THE SPECIAL INSPECTING ENGINEER OF RECORD HIRED BY THE OWNER IN COMPLIANCE WITH THE INTERNATIONAL BUILDING CODE. INSPECTIONS OF FOUNDATION SUBGRADES MUST BE CONDUCTED BY A LICENSED GEOTECHNICAL ENGINEER, REFERRED TO HEREIN AS THE GEOTECHNICAL INSPECTOR. SPECIAL INSPECTIONS SHALL BE PERFORMED FOR, BUT NOT LIMITED TO, THE FOLLOWING STRUCTURAL ITEMS:

1. WOOD TRUSSES

EXISTING CONDITIONS

ALL EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED IN THE FIELD BEFORE EXCAVATION, DEMOLITION, OR CONSTRUCTION IS BEGUN. EXISTING UTILITIES SHALL BE LOCATED AND PROTECTED AS REQUIRED BY THE EXCAVATION, DEMOLITION, OR CONSTRUCTION. FIELD MEASUREMENTS SHALL BE MADE OF ADJOINING CONSTRUCTION RELATIVE TO THE PROPER INSTALLATION OF NEW WORK. ALL DISCREPANCIES SHALL BE REPORTED TO THE PROJECT ARCHITECT AND STRUCTURAL ENGINEER PRIOR TO PROCEEDING WITH THE WORK IN THE AREA OF THE DISCREPANCY.

FIELD VERIFY ALL RELEVANT EXISTING DIMENSIONS, ELEVATIONS, AND MEMBER SIZES.

STRUCTURAL STEEL (MISCELLANEOUS)

ALL STEEL SHALL BE IN ACCORDANCE WITH THE SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, AISC 360-10, BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC).

ALL ANGLES, CHANNELS, BENT PLATES, FLAT STOCK AND OTHER MISC. METAL SHAPES SHALL BE ASTM A36 UNLESS NOTED OTHERWISE. ALL CONNECTIONS SHALL BE WELDED OR BOLTED.

FASTENERS INTO WOOD SHALL BE ASTM A305 GALVANIZED, UNLESS NOTED OTHERWISE.

WELDING SHALL BE DONE ONLY BY AWS CERTIFIED WELDERS. WELD IN ACCORDANCE WITH THE AWS "STANDARD CODE" FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION. USE E70XX ELECTRODES.

SEE THE "CONTRACTOR RESPONSIBILITES" AND "SUBMITTAL" NOTES FOR ADDITIONAL STEEL SHOP DRAWING REQUIREMENTS.

ALL STEEL (MISCELLANEOUS) SHALL BE CONSIDERED EXPOSED TO WEATHER AND SHALL BE HOT DIPPED GALVANIZED PER ASTM A123 AFTER FABRICATION. APPLY ZINC PRIMER TO BOLTED AND WELDED CONNECTIONS IN THE FIELD.

ALL EXPOSED STRUCTURAL STEEL (MISCELLANEOUS) SHALL BE PAINTED IN ACCORDANCE WITH THE ARCHITECTURAL DRAWINGS.

THE DESIGN TEAM MAY CONSIDER AN ALTERATE TO GALVANIZED AND PAINTED STEEL. CONTRACTORS OPTION: SUBMIT AN APPROPRIATE EPOXY PAINT SYSTEM FOR REVIEW.

WOOD FRAMING

ALL WOOD DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH FOLLOWING STANDARDS:
AMERICAN WOOD COUNCIL NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION WITH 2018 SUPPLEMENT (AWC NDS-2018)
AMERICAN WOOD COUNCIL SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC (AWC SDPWS-2015)

ALL STRUCTURAL WOOD MEMBERS, INCLUDING EXTERIOR WALL STUDS, SHALL BE #2 SOUTHERN PINE OR EQUIVALENT WITH THE FOLLOWING COMBINATIONS OF UNIT STRESSES, UNLESS NOTED OTHERWISE ON THE DRAWINGS:

EXTREME FIBER STRESS IN BENDING	1,100 PSI
COMPRESSION PARALLEL TO GRAIN	1,150 PSI
MODULUS OF ELASTICITY	1,400,000 PSI
SHEAR STRESS	135 PSI

ALL PRESSURE TREATED STRUCTURAL WOOD MEMBERS SHALL BE #1 SOUTHERN PINE OR EQUIVALENT WITH THE FOLLOWING COMBINATIONS OF UNIT STRESSES, UNLESS NOTED OTHERWISE ON THE DRAWINGS (BASED ON 2X8 LUMBER):

EXTREME FIBER STRESS IN BENDING	1,250 PSI
COMPRESSION PARALLEL TO GRAIN	1,500 PSI
MODULUS OF ELASTICITY	1,600,000 PSI
SHEAR STRESS	175 PSI

ALL NON-STRUCTURAL WALL STUDS SHALL BE SPF STUD GRADE OR EQUIVALENT WITH THE FOLLOWING COMBINATIONS OF UNIT STRESSES, UNLESS NOTED OTHERWISE ON THE DRAWINGS:

EXTREME FIBER STRESS IN BENDING	675 PSI
COMPRESSION PARALLEL TO GRAIN	725 PSI
MODULUS OF ELASTICITY	1,200,000 PSI
SHEAR STRESS	135 PSI

ALL STRESS GRADE LUMBER MEMBERS SHALL BE CLEARLY STAMPED WITH THE LUMBER INSPECTION ASSOCIATION SEAL SHOWING THE STRESS GRADE. ALL FABRICATION, ERECTION AND OTHER PROCEDURES SHALL CONFORM TO THE CURRENT "NATIONAL DESIGN SPECIFICATION FOR STRESS GRADE LUMBER AND ITS FASTENINGS."

WOOD FRAMING MEMBERS SHALL NOT BE CUT OR DRILLED UNLESS SO AUTHORIZED BY THE PROJECT STRUCTURAL ENGINEER.

ALL BEAMS INDICATED ON PLANS, INCLUDING MULTIPLE MEMBER BEAMS ARE TO BE CONTINUOUS BETWEEN SUPPORTS. NO SPLICES ARE PERMITTED WITHIN SPAN. SPLICES ARE PERMITTED AT SUPPORTS ONLY.

ALL EXTERIOR STUD WALLS SHALL BE CONTINUOUSLY BRIDGED WITH WOOD BLOCKING AT A MAXIMUM SPACING OF 4'-0" ON CENTER BETWEEN THE FLOORS AND THE ROOF. ALL STUD WALLS SHALL HAVE A MINIMUM OF TWO 2X TOP PLATES. ALL TOP PLATE SPLICES SHALL BE STAGGERED AND LOCATED OVER WALL STUDS.

ALL CONNECTIONS SHALL BE IN ACCORDANCE TO THE AFPA'S "NATIONAL DESIGN SPECIFICATION".

ALL WOOD CONNECTIONS SHALL BE PER FASTENING SCHEDULE OF CHAPTER 23 OF THE CURRENT IBC.

ALL BOLTS REQUIRE WASHERS WHERE BOLT HEAD OR NUT IS IN CONTACT WITH WOOD. BOLT HOLES TO BE NO MORE THAN 1/16" LARGER THAN BOLT DIAMETER.

WHERE MULTIPLE MEMBERS ARE INDICATED ON THE DRAWINGS, MECHANICALLY FASTEN OR NAIL THE MEMBERS TO EACH OTHER IN ORDER FOR THE MEMBERS TO SHARE THE SUPERIMPOSED LOADS PER THE FASTENING SCHEDULED IN THE CURRENT IBC.

ALL CONNECTIONS SHALL BE DESIGNED AND INSTALLED WITH PREFABRICATED GALVANIZED STEEL CONNECTORS.

ALL EXPOSED WOOD OR TIMBER SHALL BE PRESSURE TREATED.

ALL FASTENERS IN CONTACT WITH ACQ TREATED TIMBER SHALL BE HOT DIPPED GALVANIZED OR STAINLESS STEEL. THE USE OF ALUMINUM OR MILD STEEL FASTENERS IN ACQ TREATED TIMBER IS NOT PERMITTED.

FIRE RETARDANT TREATED LUMBER SHALL BE PROVIDED IF INDICATED ON THE ARCHITECTURAL DRAWINGS.

WOOD ROOF TRUSSES

SEE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR TRUSS CONFIGURATIONS, LOCATIONS AND DETAILS.

ROOF TRUSSES SHALL BE DESIGNED BY THE TRUSS MANUFACTURER FOR THE LOADS INDICATED. SUBMIT COMPLETE SHOP DRAWINGS AND CALCULATIONS INCLUDING TRUSS LOADING, FRAMING PLANS, BEARING, BRIDGING AND CONNECTION DETAILS. SEE THE "CONTRACTOR RESPONSIBILITIES" AND "SUBMITTAL" NOTES FOR ADDITIONAL REQUIREMENTS. ERECTION DRAWINGS, TRUSS CALCULATIONS, AND CONNECTION CALCULATIONS MUST BE STAMPED AND SIGNED BY THE TRUSS DESIGNER AND SUBMITTED TOGETHER AS ONE SUBMITTAL.

THE MAXIMUM TRUSS TOTAL LOAD SPAN/DEFLECTION RATIO SHALL BE L/240.
THE MAXIMUM TRUSS TOTAL LIVE LOAD DEFLECTION RATIO SHALL BE L/360.

WOOD ROOF TRUSSES SHALL BE FABRICATED WITH TOOTHED METAL PLATES DESIGNED AND INSTALLED PER THE TRUSS PLATE INSTITUTE SPECIFICATIONS. TRUSSES SHALL BE DESIGNED IN ACCORDANCE WITH TPI-1, "NATIONAL DESIGN STANDARD FOR METALPLATECONNECTED WOOD TRUSS CONSTRUCTION". SEE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR TRUSS CONFIGURATIONS, LOCATIONS AND DETAILS.

ALL ROOF TRUSSES SHALL BE CONNECTED WITH APPROVED HOLD-DOWN CLIPS. THE TRUSS DESIGNER CAN SELECT A HOLD-DOWN CLIP THAT IS DIFFERENT THAN SHOWN ON THESE STRUCTURAL DRAWINGS, AS LONG AS CALCULATIONS ARE PROVIDED.

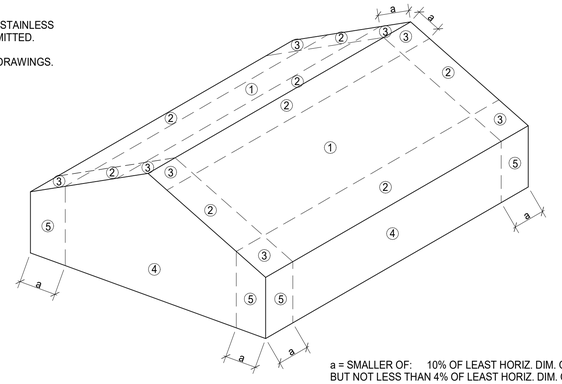
ALL TRUSS TO TRUSS CONNECTORS ARE TO BE DESIGNED OR SELECTED BY THE TRUSS ENGINEER. THE ROOF TRUSS IS CONSIDERED A SYSTEM AND STABILITY OF THE ROOF TRUSS SYSTEM ABOVE THE ELEVATION OF THE TRUSS SUPPORTS IS THE RESPONSIBILITY OF THE ROOF TRUSS MANUFACTURER. TRUSS MANUFACTURER IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF ALL TEMPORARY AND PERMANENT BRIDGING REQUIRED FOR THE STABILITY OF THE ROOF TRUSS SYSTEM. ADTEK WILL NOT BE RESPONSIBLE FOR THE DESIGN OF TEMPORARY OR PERMANENT BRIDGING OR BRACING REQUIRED BY OR FOR THE ROOF TRUSSES.

THE ROOF TRUSSES SHALL NOT BE CUT OR DRILLED UNLESS SO AUTHORIZED BY THE TRUSS MANUFACTURER.

WOOD / TIMBER SHEATHING

WOOD/TIMBER SHEATHING SHALL BE IDENTIFIED WITH THE APA GRADE TRADEMARK OF THE AMERICAN PLYWOOD ASSOCIATION, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

GLUE AND FASTEN WOOD SHEATHING TO ROOF AND FLOOR MEMBERS PER DETAILS.



a = SMALLER OF: 10% OF LEAST HORIZ. DIM. OR 0.4h
BUT NOT LESS THAN 4% OF LEAST HORIZ. DIM. OR 3 ft.

WIND COMPONENT & CLADDING LOAD SCHEDULE

	POSITIVE PRESSURE		NEGATIVE PRESSURE				
AREA (SQ. FT.)	ZONE 4 (PSF)	ZONE 5 (PSF)	ZONE 1 (PSF)	ZONE 2 (PSF)	ZONE 3 (PSF)	ZONE 4 (PSF)	ZONE 5 (PSF)
10	35	35	-35	-41	-41	-38	-47
20	34	34	-34	-40	-40	-37	-44
50	32	32	-31	-37	-37	-35	-40
100	30	30	-30	-30	-30	-33	-37

NOTES:
1. POSITIVE AND NEGATIVE SIGNS ON VALUES IN SCHEDULE INDICATE PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACE, RESPECTIVELY.
2. ZONES 1, 2, AND 3 ARE FOR ROOFS. ZONES 4 AND 5 ARE FOR WALLS. SEE DIAGRAM ABOVE FOR THE GENERAL WIND PRESSURE ZONE DIAGRAM IDENTIFYING EXTENTS OF WIND PRESSURE ZONES.
3. VALUES GIVEN ARE FOR 700 YEAR MRI (MEAN RECURRANCE INTERVAL) AS REQUIRED FOR STRENGTH CALCULATIONS. ALTERNATE DESIGN VALUES MAY BE USED PROVIDED SUPPORTING CALCULATIONS, SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE PROJECT'S JURISDICTION, ARE SUBMITTED FOR REVIEW.

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RIPARIAN AREA ADJACENT TO
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AGENCY:
TALL SHIPS PROVIDENCE FOUNDATION

ROSE ANNA RODRIGUEZ
Lic. No. 055403
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PROFESSIONAL ENGINEER
04/02/21

NO	DESCRIPTION	DATE
	PERMIT SET	04/02/2021

ISSUANCE HISTORY - THIS SHEET

HGA NO: 2135-015-00

STRUCTURAL NOTES

DATE: APRIL 2, 2021

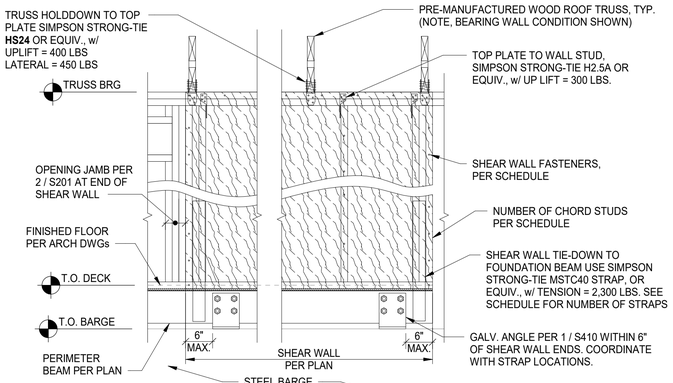
PERMIT SET

S001

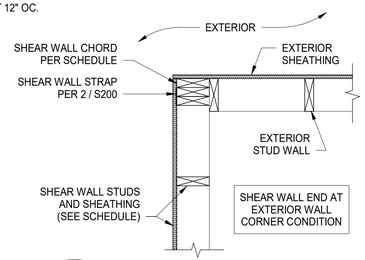
WOOD SHEAR WALL SCHEDULE

MARK	FRAMING	No. OF SIDES	FASTENER TYPE & SIZE	EDGE NAIL SPACING	NO. OF STRAPS	CHORD	UPLIFT (kips)	COMPRESSION (kips)	NOTES
SW1	2x4 @ 16" OC	1	8d @ 6" O.C.	6 in.	1	(2) 2x4	2.3	4	
SW2	2x4 @ 16" OC	1	8d @ 6" O.C.	6 in.	2	(4) 2x4	3.0	5	
SW3	(2) 2x4 @ 16" OC	1	8d @ 6" O.C.	6 in.	2	(4) 2x4	3.0	5	

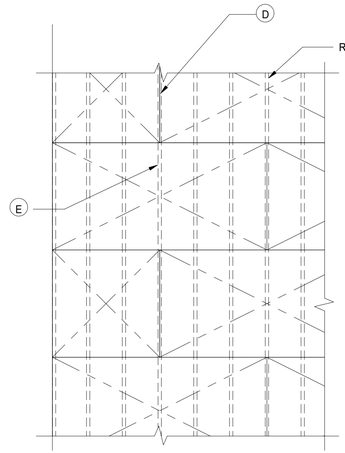
NOTES:
1. EDGE NAILS ARE TO BE STAGGERED AND SPACED AS PER THE TABLE ABOVE. NAILS ALONG SUPPORTS OF THE INTERIOR FIELD ARE TO BE SPACED AT 12" OC.
2. PROVIDE SOLID BLOCKING AT ALL HORIZONTAL JOINTS.



2 / S200 ELEVATION: TYPICAL SHEAR WALL
SCALE: NTS



3 / S200 SHEAR WALL ENDS
SCALE: NTS



A) 2'-0" x 4'-0" MIN. SIZE OF PLYWOOD SHEET.

B) LONG DIM. OF PLYWOOD SHALL RUN ACROSS JOISTS OR RAFTERS.

C) NAILS SHALL HAVE MIN. 3/8" EDGE DISTANCE AND SHALL NOT BE OVER-DRIVEN THRU OUTERPLY.

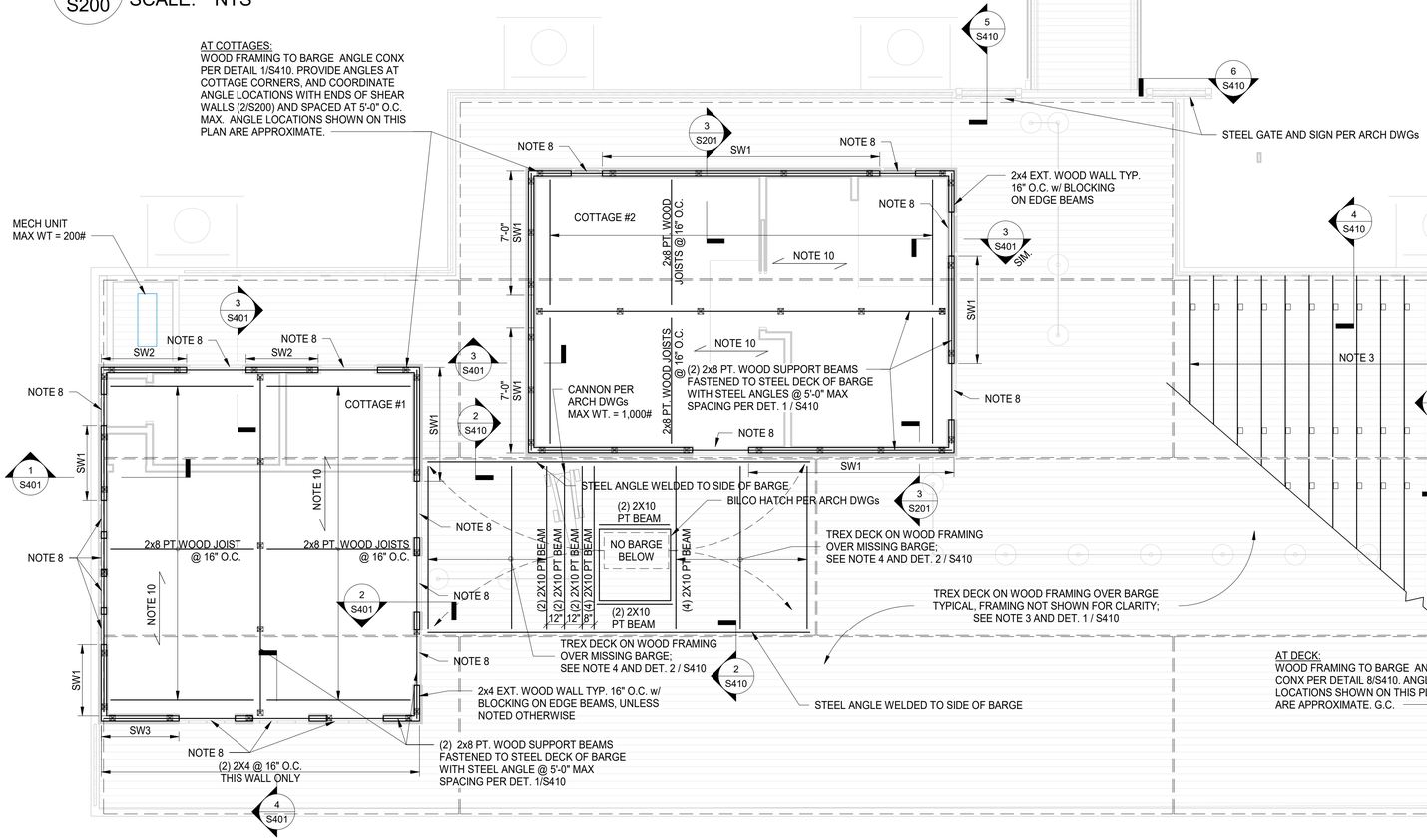
D) EDGE NAILS AT EDGE OF ALL PLYWOOD SHEETS :
FLOORS 8d @ 6" O.C.
ROOFS 8d @ 6" O.C.

E) INTERMEDIATE NAILS AT ALL INTERIOR SUPPORTS :
FLOORS 8d @ 10" O.C.
ROOFS 8d @ 12" O.C.

F) FLOORS: GULE SHEATHING PRIOR TO NAILING

4 / S200 NAILING FOR ROOF AND FLOOR PLYWOOD SHEATHING
SCALE: NTS

AT COTTAGES:
WOOD FRAMING TO BARGE ANGLE CONX PER DETAIL 1/S410. PROVIDE ANGLES AT COTTAGE CORNERS, AND COORDINATE ANGLE LOCATIONS WITH ENDS OF SHEAR WALLS (2/S200) AND SPACED AT 5'-0" O.C. MAX. ANGLE LOCATIONS SHOWN ON THIS PLAN ARE APPROXIMATE.



1 / S200 TOP OF DECK FRAMING PLAN
SCALE: 1/4" = 1'-0"

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

DECK LEVEL NOTES:

1. SEE SHEET S001 FOR STRUCTURAL NOTES AND S400 SERIES FOR TYPICAL DETAILS.
2. STEEL BARGE - PERMITTED SEPARATELY.
   A. TOP OF BARGE TYPICAL IS 11 GAGE STEEL SHEET COMPOSITE WITH 1 1/2" CORRUGATED DECK BELOW.
   B. TOP OF BARGE AROUND THE PERIMETER IS 1/4" THICK PLATE STEEL, REINFORCED INTERNALLY.
   C. SIDES OF BARGE ARE 1/4" THICK PLATE STEEL, REINFORCED INTERNALLY.
3. 2X8 @ 16 O.C. TYPICAL WOOD-FRAMED DECK FASTENED DOWN TO STEEL BARGES BELOW; SEE ARCH DWGs FOR ADDITIONAL INFORMATION AND ELEVATION INFORMATION. PROVIDE DOUBLE 2X AT TREKDECK BUTT JOINTS.
4. (2) 2X10 @ 16 O.C. TYPICAL WOOD-FRAMED DECK FASTENED DOWN TO STEEL BARGES BELOW; SEE ARCH DWGS. FOR ADDITIONAL INFORMATION AND ELEVATION INFORMATION.
5. REFER TO THE ARCHITECTURAL DRAWINGS FOR INFORMATION AND DIMENSIONS NOT SHOWN.
6. SEE ARCHITECTURAL DRAWINGS FOR THE LOCATION OF ALL NON-BEARING WALLS.
7. SEE MECHANICAL, PLUMBING AND DRAWINGS FOR INFORMATION.
8. OPENING IN WALL STUD WALL REFER TO 2 / S201 FOR HEADER AND SILL SIZES. REFER TO ARCHITECTURAL DRAWINGS FOR SIZE OF OPENINGS.
9. SHEAR WALLS DENOTED ON PLAN THUS "SWX". REFER TO DETAILS AND SCHEDULE ON THIS SHEET.
10. 3/4" PRESSURE-TREATED, MARINE GRADE PLYWOOD SHEATHING. LOWER FRAMING AND SHEATHING AS REQ'D FOR ARCH FLOOR FINISHES

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ISSUANCE HISTORY - THIS SHEET

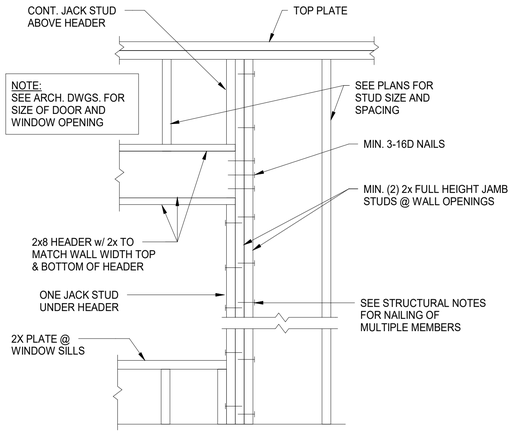
HGA NO: 2135-015-00

TOP OF DECK FRAMING PLAN

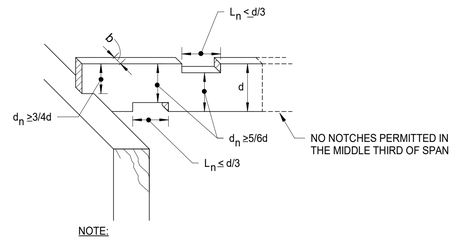
DATE: APRIL 2, 2021

PERMIT SET

S200



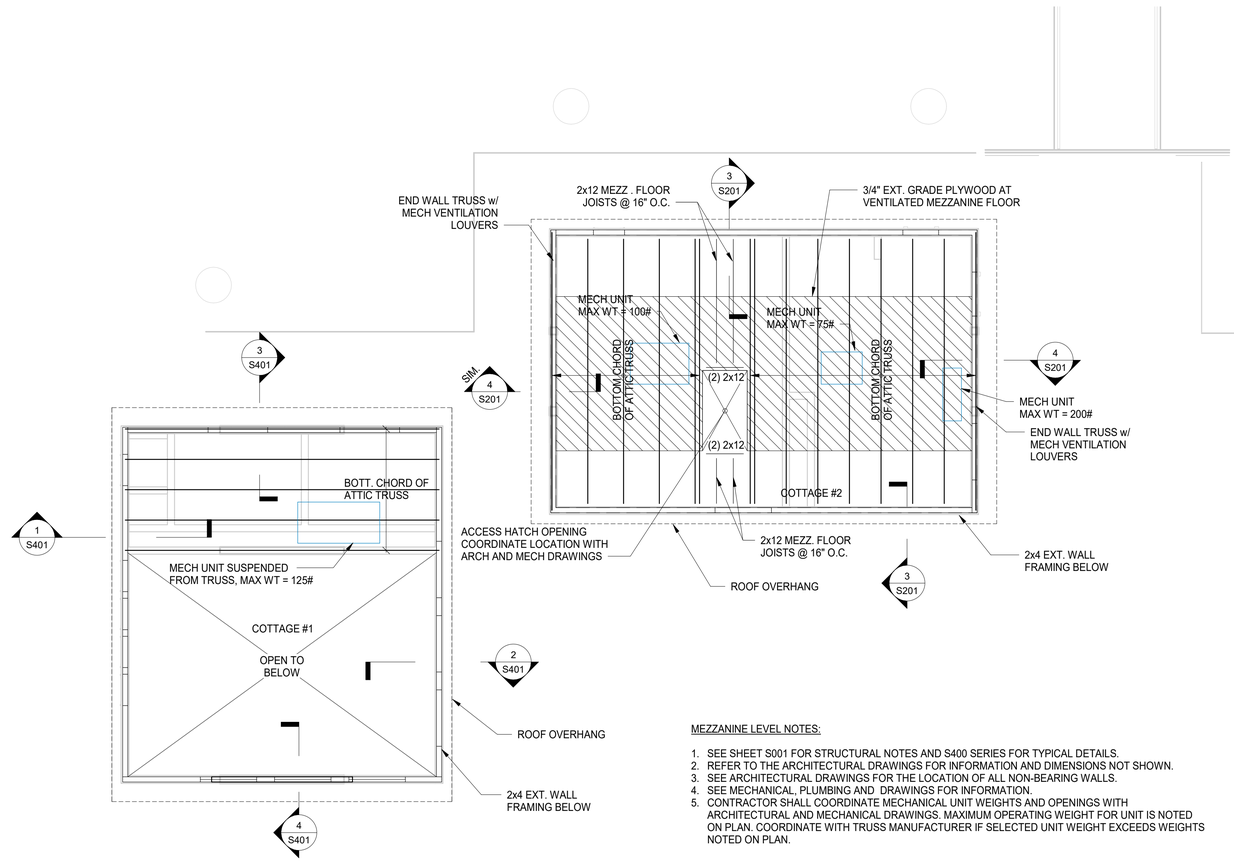
2 S201 WOOD WALL HEADER BEARING DETAIL
SCALE: 3/4" = 1'-0"



NOTE:

- NO NOTCHES PERMITTED IN THE TENSION FACE WHEN B > 3-1/2" (EXCEPT WHEN NOTCHED AT ENDS FOR BEARING OVER SUPPORT.)
- WHERE NOTCHES OCCUR OUTSIDE THESE LIMITATIONS OR ARE LARGER THAN NOTED AND OUTSIDE THE MIDDLE THIRD OF SPAN, PROVIDE AN EQUAL SIZED JOIST SISTERED AND NAILED TO EXISTING JOIST FOR REINFORCING.

5 S201 NOTCH LIMITATIONS FOR SAWN LUMBER BEAMS
SCALE: NTS

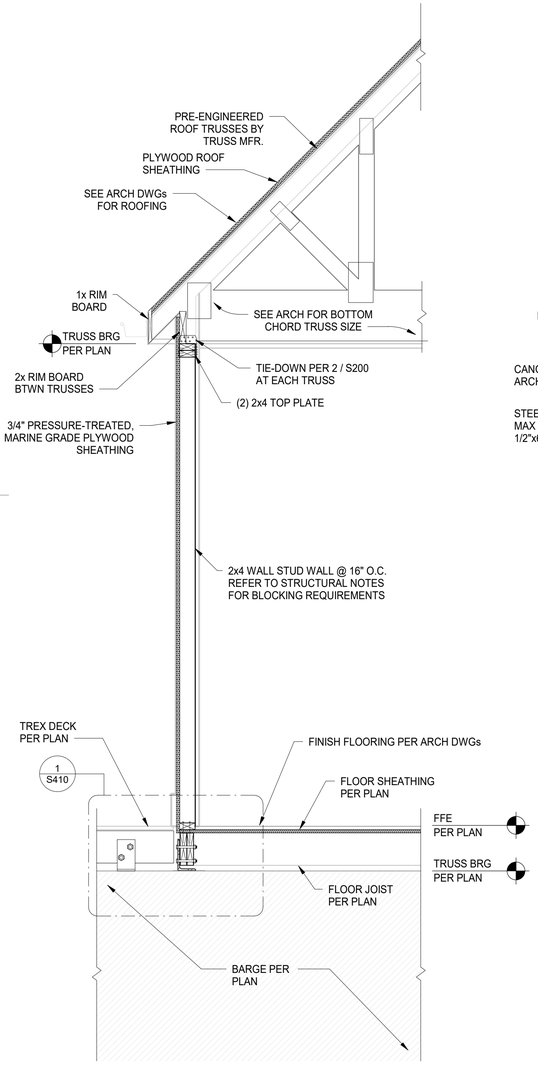


MEZZANINE LEVEL NOTES:

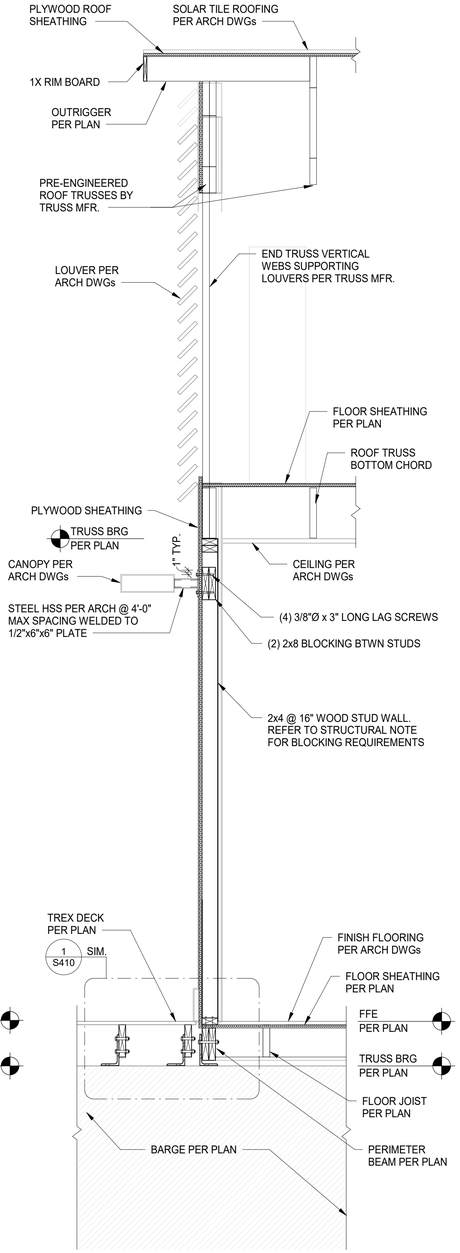
1. SEE SHEET S001 FOR STRUCTURAL NOTES AND S400 SERIES FOR TYPICAL DETAILS.
2. REFER TO THE ARCHITECTURAL DRAWINGS FOR INFORMATION AND DIMENSIONS NOT SHOWN.
3. SEE ARCHITECTURAL DRAWINGS FOR THE LOCATION OF ALL NON-BEARING WALLS.
4. SEE MECHANICAL, PLUMBING AND DRAWINGS FOR INFORMATION.
5. CONTRACTOR SHALL COORDINATE MECHANICAL UNIT WEIGHTS AND OPENINGS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS. MAXIMUM OPERATING WEIGHT FOR UNIT IS NOTED ON PLAN. COORDINATE WITH TRUSS MANUFACTURER IF SELECTED UNIT WEIGHT EXCEEDS WEIGHTS NOTED ON PLAN.

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

1 S201 MEZZANINE FRAMING PLAN
SCALE: 1/4" = 1'-0"



3 S201 ATTIC TRUSS WALL SECTION - INTERIOR
SCALE: 3/4" = 1'-0"



4 S201 COTTAGE 2 END WALL SECTION
SCALE: 3/4" = 1'-0"

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ISSUANCE HISTORY - THIS SHEET

HGA NO: 2135-015-00

MEZZANINE FRAMING PLAN

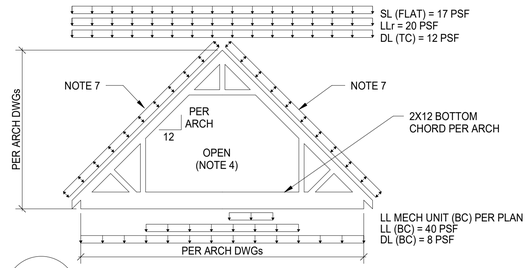
DATE: APRIL 2, 2021

PERMIT SET

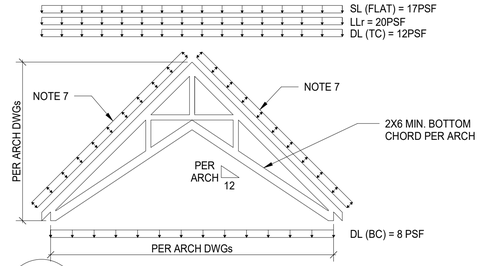
S201

PRE-FABRICATED WOOD TRUSS NOTES:

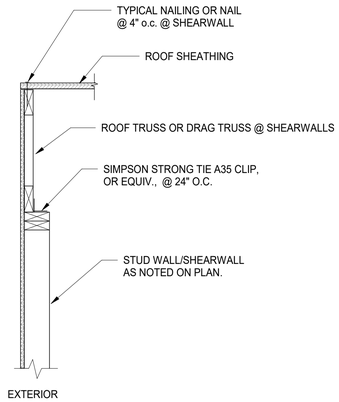
1. TRUSS SPACING SHALL BE 2'-0" O.C. MAXIMUM UNLESS NOTED OTHERWISE ON PLANS. FINAL TRUSS LAYOUT SHALL BE BY TRUSS MANUFACTURER.
2. TRUSS WEB MEMBERS, IF SHOWN, ARE SCHEMATIC IN NATURE ONLY. FINAL WEB CONFIGURATION SHALL BE BY TRUSS MANUFACTURER.
3. TRUSS MANUFACTURER SHALL SIZE ALL MEMBERS BASED UPON LOADS SHOWN AND CODE REQUIRED WIND LOADS UNLESS LARGER MEMBER SIZE IS NOTED ON ARCHITECTURAL DRAWINGS. PROVIDE CALCULATIONS, STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER REGISTERED IN THE JURISDICTION OF THE PROJECT.
4. REFER TO ARCHITECTURAL DRAWINGS FOR TRUSS DIMENSIONS, AND TOP AND BOTTOM CHORD SLOPES.
5. TRUSS MANUFACTURER SHALL COORDINATE MECHANICAL DUCT LOCATIONS AND PROVIDE CONSISTENT OPENINGS TO ALLOW DUCT STRAIGHT RUNS.
6. IT IS THE CONTRACTOR'S AND TRUSS MANUFACTURER'S RESPONSIBILITY TO VERIFY DIMENSIONS AND RIDGE LINES WITH ARCHITECTURAL DRAWINGS.
7. COMPONENTS AND CLADDING TOP CHORD WIND LOADS SHALL BE IN ACCORDANCE WITH COMPONENTS AND CLADDING CHART AND CODES NOTED IN THE STRUCTURAL GENERAL NOTES.
8. UPLIFT / HOLDDOWN CLIPS ARE TO BE VERIFIED BY TRUSS MANUFACTURER BASED ON DEAD LOADS AND THE VERTICAL AND HORIZONTAL COMPONENT WIND LOADS. REDUCTIONS IN LOADS WILL NOT BE ACCEPTABLE.
9. COMBINE LOADS PER LOAD COMBINATIONS IN ASCE 7.



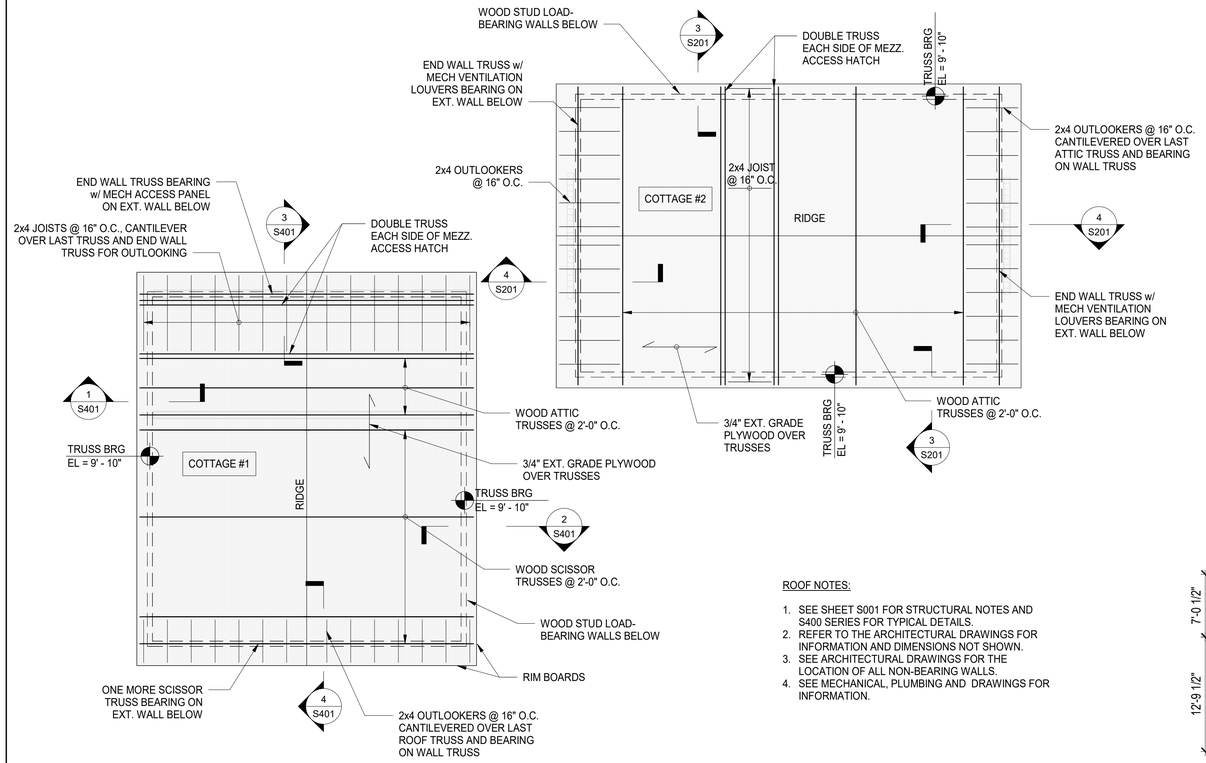
3 S202 ATTIC TRUSS LOADING DIAGRAM
SCALE: NTS



4 S202 SCISSOR TRUSS LOADING DIAGRAM
SCALE: NTS



5 S202 ROOF END TRUSS TO WOOD STUD WALL
SCALE: NTS

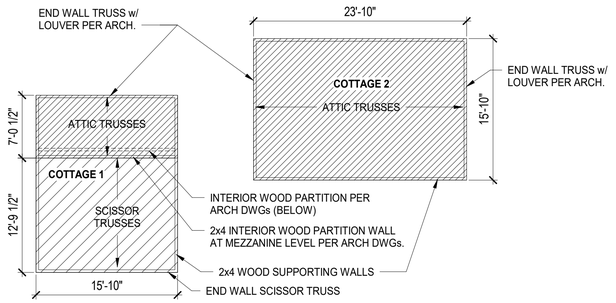


ROOF NOTES:

1. SEE SHEET S001 FOR STRUCTURAL NOTES AND S400 SERIES FOR TYPICAL DETAILS.
2. REFER TO THE ARCHITECTURAL DRAWINGS FOR INFORMATION AND DIMENSIONS NOT SHOWN.
3. SEE ARCHITECTURAL DRAWINGS FOR THE LOCATION OF ALL NON-BEARING WALLS.
4. SEE MECHANICAL, PLUMBING AND DRAWINGS FOR INFORMATION.

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

1 S202 ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"



2 S202 TRUSS LOCATION KEY PLAN
SCALE: NTS

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PROJECT:
JOHN WARNER MARITIME HERITAGE CENTER

RIPARIAN AREA ADJACENT TO
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ALEXANDRIA, VA
22314

AGENCY:
TALL SHIPS PROVIDENCE FOUNDATION

COMMONWEALTH OF VIRGINIA
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04/02/21

NO	DESCRIPTION	DATE
	PERMIT SET	04/02/2021

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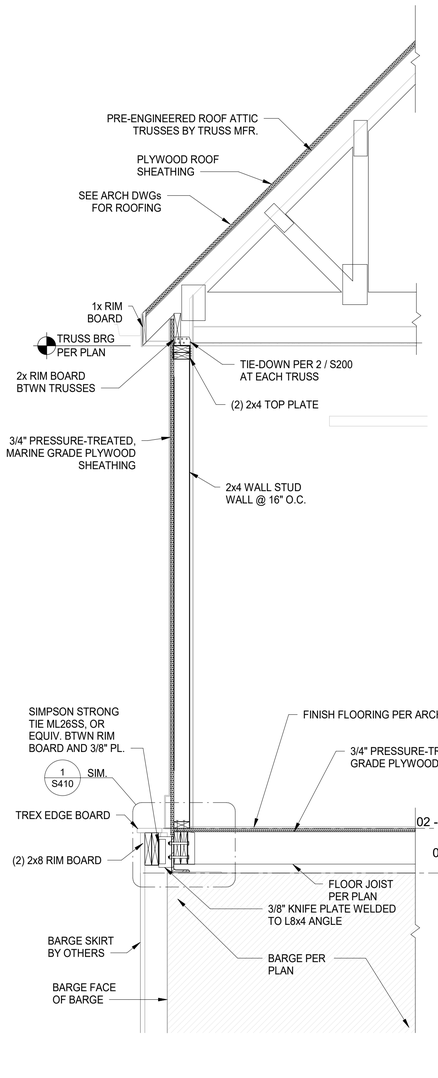
ROOF FRAMING PLAN

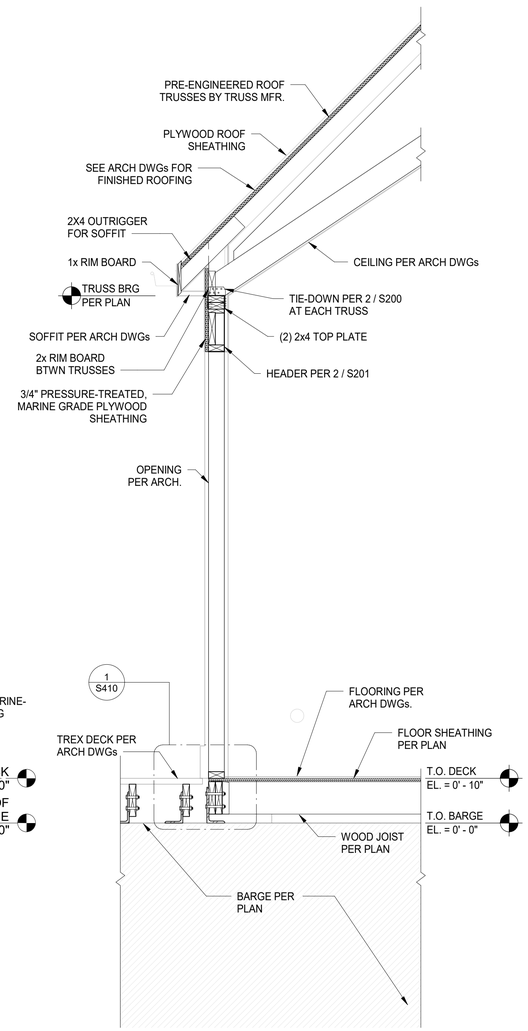
DATE: APRIL 2, 2021

PERMIT SET

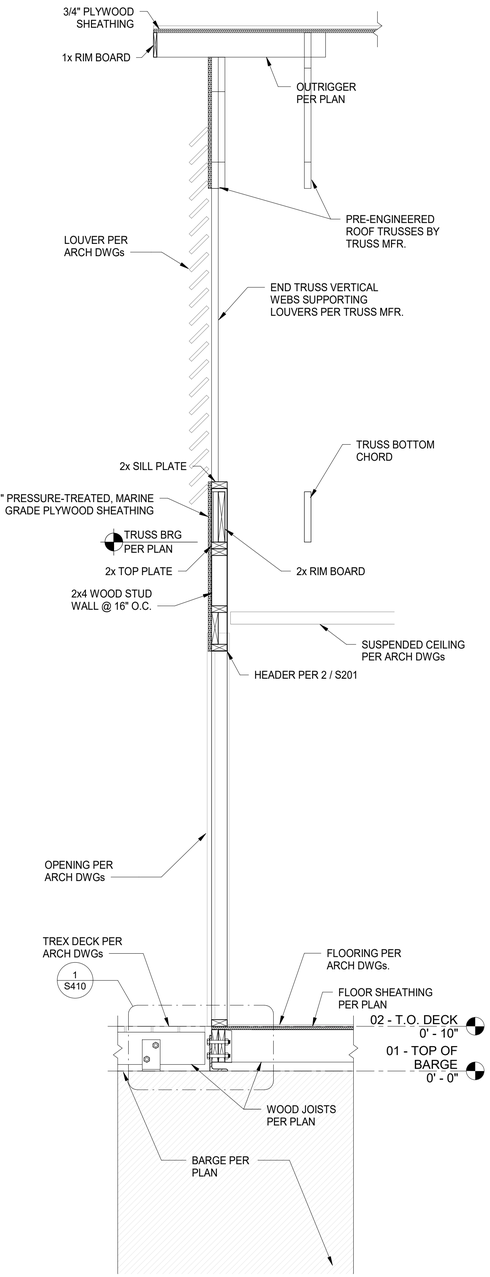
S202



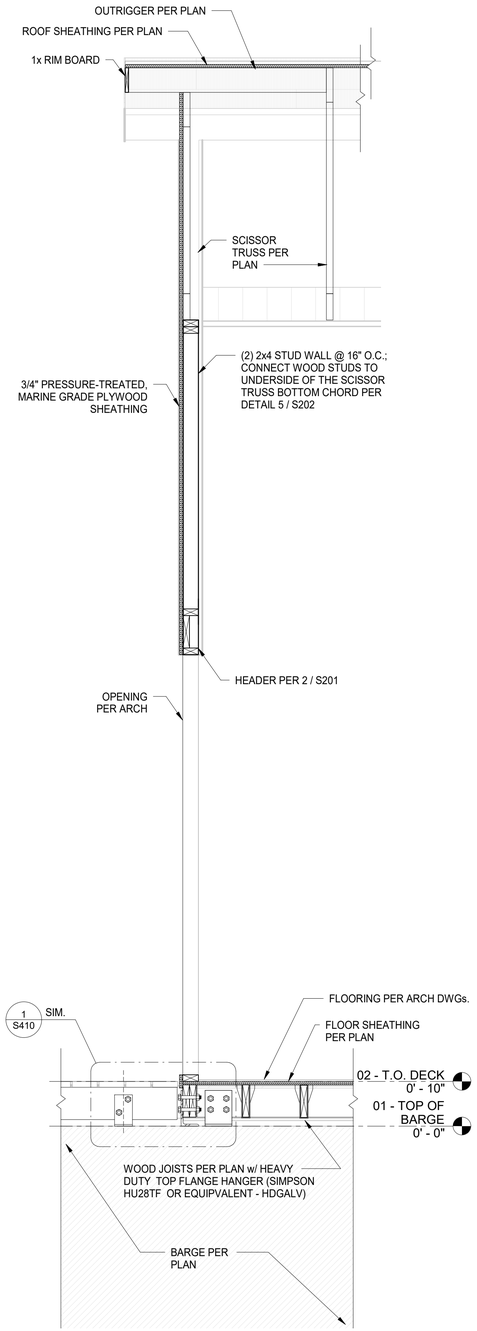
1 S401 COTTAGE WALL SECTION AT ATTIC TRUSS
SCALE: 3/4" = 1'-0"



2 S401 COTTAGE WALL SECTION AT SCISSOR TRUSS
SCALE: 3/4" = 1'-0"



3 S401 END WALL SECTION - ATTIC TRUSS
SCALE: 3/4" = 1'-0"



4 S401 END WALL SECTION - SCISSOR TRUSS
SCALE: 3/4" = 1'-0"

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Tall Ship PROVIDENCE ALEXANDRIA, VA

AGENCY:
TALL SHIPS PROVIDENCE FOUNDATION

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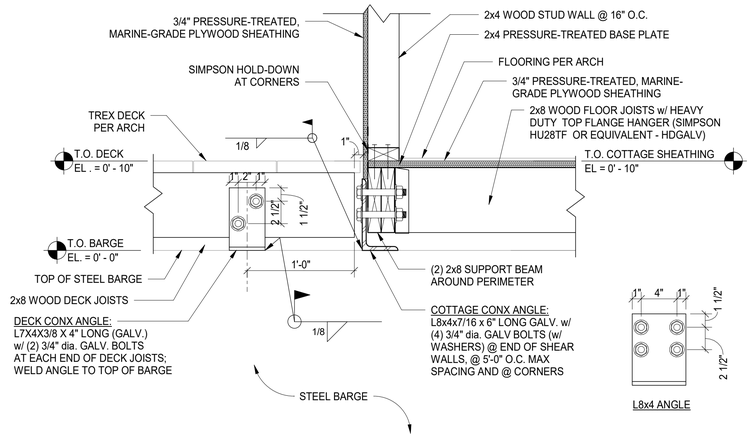
HGA NO: 2135-015-00

WALL SECTIONS

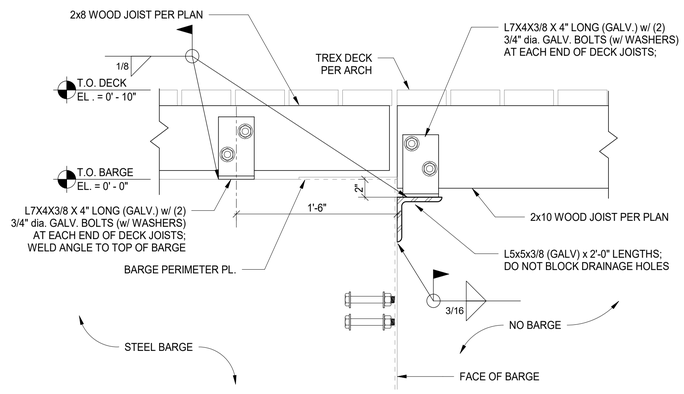
DATE: APRIL 2, 2021

PERMIT SET

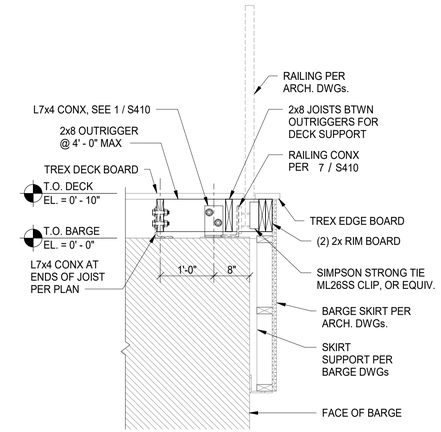
S401



1 S410 COTTAGE TO BARGE CONNECTION
SCALE: 1 1/2" = 1'-0"



2 S410 DECK TO BARGE CONNECTION AT MISSING BARGE
SCALE: 1 1/2" = 1'-0"



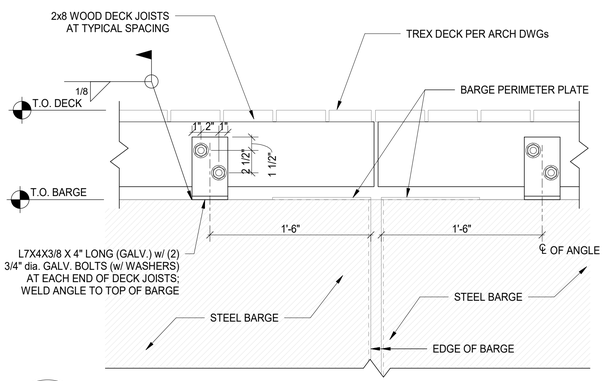
3 S410 RAILING DETAIL - PARALLEL
SCALE: 3/4" = 1'-0"

4 S410 RAILING DETAIL - PERPENDICULAR
SCALE: 3/4" = 1'-0"

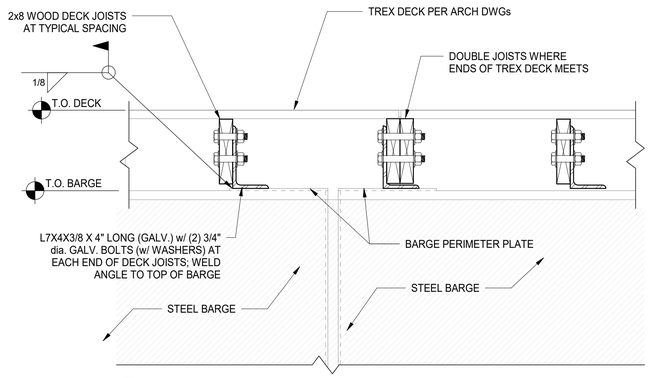
5 S410 GATE SUPPORT
SCALE: 3/4" = 1'-0"

6 S410 GATE SUPPORT
SCALE: 3/4" = 1'-0"

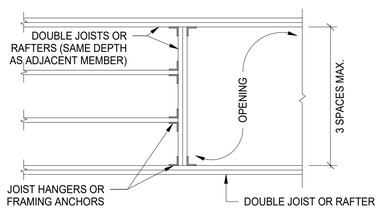
7 S410 RAILING DETAIL
SCALE: 1 1/2" = 1'-0"



8 S410 DECK DETAIL AT BARGE INTERIOR
SCALE: 1 1/2" = 1'-0"



9 S410 DECK DETAIL AT BARGE INTERIOR
SCALE: 1 1/2" = 1'-0"



FOR OPENINGS MORE THAN CLEAR SPACE BETWEEN JOISTS

10 S410 WOOD FRAMING AROUND OPENINGS
SCALE: NTS

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DECK LEVEL DETAILS

DATE: APRIL 2, 2021

PERMIT SET

S410

ABBREVIATIONS

A	
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AFMS	AIRFLOW MEASURING STATION
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
AP	ACCESS PANEL(S)
APD	AIR PRESSURE DROP
ARCH	ARCHITECT(URAL)
B	
BAS	BUILDING AUTOMATION SYSTEM
BHP	BRAKE HORSE POWER
BLDG	BUILDING
BTUH	BRITISH THERMAL UNIT PER HOUR
BWV	BACK WATER VALVE
C	
CD	CONDENSATE
CFH	CUBIC FOOT PER HOUR
CFM	CUBIC FOOT PER MINUTE
CIP	CAST IRON PIPE
CLG	CEILING
CO	CARBON MONOXIDE
CO2	CARBON DIOXIDE
COMB	COMBINATION
CONC	CONCRETE
COND	CONDENS(ATE) (ER)
CONN	CONNECTION
CONT	CONTINU(E) (OUS) (ATION)
CONTR	CONTRACT(OR)
CORR	CORRIDOR
D	
DB	DRY BULB
DDC	DIRECT DIGITAL CONTROL (PANEL)
DEG	DEGREE(S)
DET	DETAIL
DI	DEIONIZED WATER
DIFF	DIFFUSER
DMPR	DAMPER
DN	DOWN
DP	DIFFERENTIAL PRESSURE
DWG(S)	DRAWING(S)
E	
EA	EACH
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
ECM	ELECTRONICALLY COMMUTATED MOTOR
EFT	ENTERING FLUID TEMPERATURE
ELEC	ELECTRIC(AL)
EMER	EMERGENCY
ESP	EXTERNAL STATIC PRESSURE
EWT	ENTERING WATER TEMPERATURE
EXG	EXISTING
EXH	EXHAUST
EXT	EXTERIOR

F	
F	FAHRENHEIT
FA	FROM ABOVE
FB	FROM BELOW
FDC	FIRE DEPT CONNECTION
FFE	FINISHED FLOOR ELEVATION
FLR	FLOOR
FLEX	FLEXIBLE
FPB	FAN POWERED VAV BOX
FPM	FEET PER MINUTE
F&T	FLOAT AND THERMOSTATIC (TRAP)
FT	FOOT, FEET
FTG	FOOTING
FTR	FINNED TUBE RADIATION
G	
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GEN	GENERATOR
GPH	GALLON(S) PER HOUR
GPM	GALLON(S) PER MINUTE
H	
HB	HOSE BIB
HP	HIGH PRESSURE
HP	HORSEPOWER
HTG	HEATING
HTR	HEATER
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
I	
ID	INSIDE DIAMETER/DIMENSION
IN	INCH(ES)
INSUL	INSULATION
INV	INVERT
ISOL	ISOLATOR
L	
LAT	LEAVING AIR TEMPERATURE
LBS/HR	POUNDS PER HOUR
LF	LINEAL FOOT, FEET
LFT	LEAVING FLUID TEMPERATURE
LVR	LOUVER
LWT	LEAVING WATER TEMPERATURE
M	
MAX	MAXIMUM
MBH	1,000 BTUH
MECH	MECHANICAL(LY)
MEZZ	MEZZANINE
MFR	MANUFACTURER
MIN	MINIMUM
MIN	MINUTE
MISC	MISCELLANEOUS
N	
NC	NOISE CRITERIA
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE

O	
OA	OUTSIDE AIR
OD	OUTSIDE DIAMETER/DIMENSION
P	
PD	PRESSURE DROP
PLBG	PLUMBING
PPM	PARTS PER MILLION
PRES	PRESSURE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
R	
R	RADIUS
RA	RETURN AIR
REG	REGISTER
REQD	REQUIRED
RH	RELATIVE HUMIDITY
RM	ROOM
RO	REVERSE OSMOSIS
RPM	REVOLUTIONS PER MINUTE
RPZ	REDUCED PRESSURE BACKFLOW PREVENTER
RTU	ROOFTOP UNIT
S	
SA	SUPPLY AIR
SF	SQUARE FEET
SHT	SHEET
SP	STATIC PRESSURE
SPEC(S)	SPECIFICATION(S)
SQ	SQUARE
SS	STAINLESS STEEL
STRUC	STRUCTUR(E) (AL)
T	
T	THERMOSTAT
TA	TO ABOVE
TB	TO BELOW
TCP	TEMPERATURE CONTROL PANEL
TEMP	TEMPERATURE
TMV	THERMOSTATIC MIXING VALVE
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
U	
UNO	UNLESS OTHERWISE NOTED
V	
VAV	VARIABLE AIR VOLUME
VENT	VENTILATION OR VENTILATOR
VERT	VERTICAL
VOL	VOLUME
VSD	VARIABLE SPEED DRIVE
/VFD	(MOTOR CONTROLLER)
VTR	VENT THROUGH ROOF
W	
W	WASTE
W/	WITH
W/O	WITHOUT
WB	WET BULB
WC	WATER COLUMN
WG	WATER GAUGE
WH	WALL HYDRANT
WS	WASTE STACK
WTR	WATER

NOTE:
REFER TO PIPING SYSTEM DESIGNATIONS, CONTROL DRAWINGS, AND EQUIPMENT SCHEDULES FOR ADDITIONAL ABBREVIATIONS.

MECHANICAL GENERAL NOTES

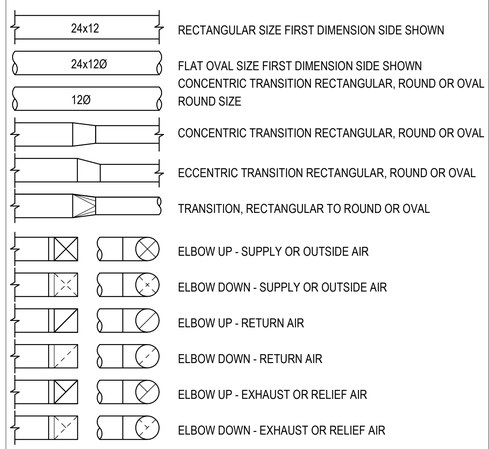
A. IN ALL AREAS WITH EXPOSED CEILINGS, SPECIAL CARE MUST BE TAKEN IN THE INSTALLATION OF PIPING AND ANY OTHER MECHANICAL / PLUMBING EQUIPMENT. LAYOUTS MUST BE ARRANGED TO COMPLIMENT THE AESTHETICS OF THE SPACE. REFER ALSO TO ARCHITECTURAL DRAWINGS, SPECIFICATIONS, AND COORDINATION REQUIREMENTS FOR FURTHER INFORMATION FOR AESTHETIC INTENTS AND PAINTING REQUIREMENTS IN EXPOSED AREAS.
B. CAREFULLY COORDINATE ALL PIPING, DUCTWORK, FIRE PROTECTION, EQUIPMENT, CONTROLS, SUPPORTS, ELECTRICAL, CABLE TRAY, AV DEVICES, ETC. TO SUPPORT ACCESS, SERVICE, INSTALLATION AND MAINTENANCE OF EQUIPMENT, DEVICES, VALVES, DAMPERS, CONTROLS, ETC. REFER ALSO TO COORDINATION REQUIREMENTS IN DRAWINGS AND SPECIFICATIONS.
C. DUCTWORK, HYDRONIC PIPING SHALL BE INSULATED TO AT LEAST MINIMUM INSULATION LEVELS REQUIRED IN THE MOST CURRENT STATE ENERGY CODE AT THE TIME OF THE BIDDING.
D. MOTORIZED DAMPERS ARE REQUIRED AT ALL DUCTWORK PENETRATIONS TO EXTERIOR AND TO INTAKE / RELIEF PLENUMS. DAMPERS SHALL BE INTERLOCKED WITH ASSOCIATED SYSTEM OPERATION. INSULATE DUCTWORK FROM EXTERIOR, THROUGH THE EXTERIOR PENETRATION TO DAMPER WITH A MINIMUM OF 2" INSULATION.
E. ACCESS PANELS ARE INDICATED ON ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. ANY EQUIPMENT, VALVES, FIELD DEVICES, ETC. NEEDING AN ACCESS PANEL NOT INDICATED ON THE DRAWINGS SHALL ALSO BE PROVIDED AND SUBMITTED TO THE ARCHITECT FOR APPROVAL OF PANEL SIZE, DETAIL, AND PANEL LOCATION PRIOR TO INSTALLATION OF ITEM REQUIRING ACCESS.
F. MOUNTING HEIGHTS OF ANY WALL DEVICES REQUIRE FINAL LOCATION AND ELEVATION COORDINATED WITH ARCHITECTURE. REFER ALSO TO INTERIOR ELEVATIONS AND FURNITURE PLANS FOR DETAILS.
G. ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE CLEAR AIRFLOW DIMENSIONS. CONTRACTOR SHALL UPSIZE DUCTWORK TO ACCOMODATE INTERNAL LINER WHERE REQUIRED IN SPECIFICATIONS OR SHOWN ON DRAWINGS.
H. PROVIDE AND EXTEND CONDENSATE DRAIN PIPING FROM ALL EQUIPMENT WITH CONDENSATE CONNECTIONS TO NEAREST SINK P-TRAP WITH WYE FITTING, NEAREST JANITOR CLOSET, OR FLOOR DRAIN. PROVIDE ACCESS COVER UNDER SINK FOR ACCESS. ROUTE ALL PIPING SO AS TO NOT INTERFERE WITH JANITOR CLOSET OR FLOOR DRAIN. SLOPE CONDENSATE PIPING AT MIN. 1/4" PER 1'-0".
I. REFER TO ARCHITECTURAL PLANS AND OTHER AREAS OF THE PLANS AND SPECIFICATIONS FOR ACOUSTICALLY SENSITIVE SPACES, WALLS AND WALL DESIGNATIONS. REFER TO ARCHITECTURAL AND MECHANICAL SPECIFICATIONS AND DETAILS FOR APPROPRIATE PENETRATIONS.

MECHANICAL SHEET LIST

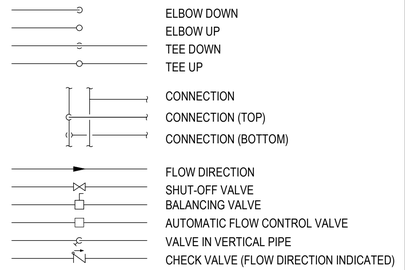
SHEET NUMBER	SHEET NAME
M001	MECHANICAL GENERAL NOTES AND SYMBOLS
M002	MECHANICAL COMCHECK
M003	MECHANICAL COMCHECK
M004	MECHANICAL COMCHECK
M005	MECHANICAL SPECS
M201	MAIN LEVEL PLAN - HVAC
M700	MECHANICAL SCHEDULES AND DETAILS
M701	MECHANICAL VRF SCHEMATICS
M800	MECHANICAL SCHEDULES

NOTES:
REFER ALSO TO EM800 IN ELECTRICAL DRAWINGS FOR MORE INFORMATION

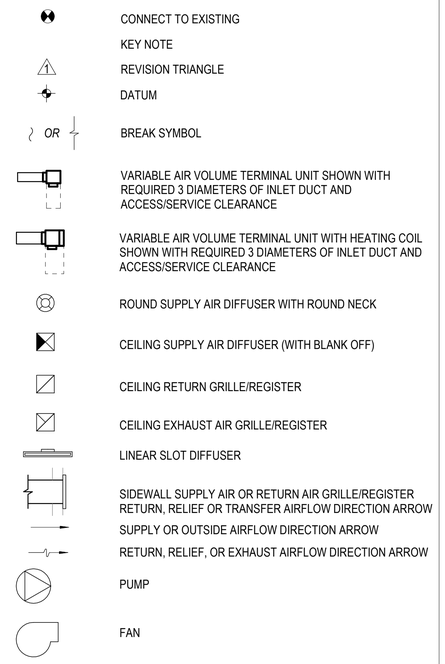
MECHANICAL DUCTWORK SYMBOLS



MECHANICAL PIPING SYMBOLS



GENERAL MECHANICAL & PLUMBING SYMBOLS



MECHANICAL PIPING SYSTEMS

RC — REFRIGERANT CIRCUIT (SUCTION AND DISCHARGE)

PC — PUMPED CONDENSATE

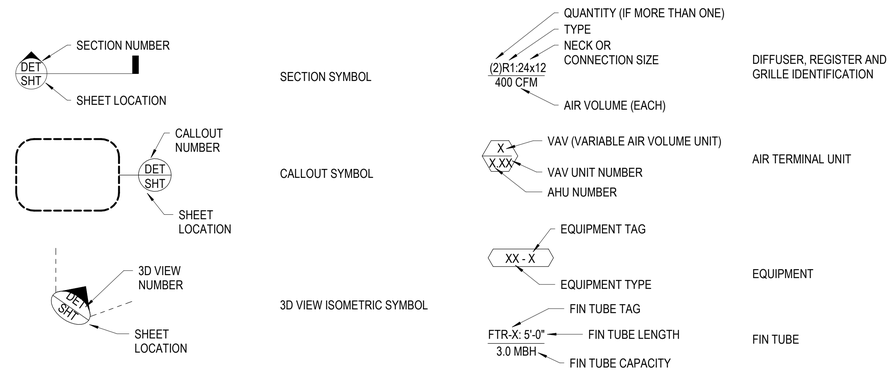
THERMAL DESIGN CONDITIONS

OUTDOOR DESIGN CONDITIONS
- WINTER OUTDOOR: 10° F
- SUMMER OUTDOOR: 95°F DB / 75.5°F WB

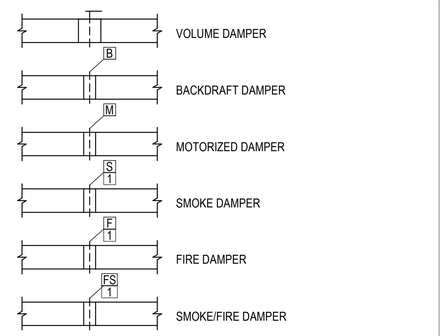
INDOOR DESIGN CONDITIONS
- COTTAGES:
  - SUMMER: 75° F, 50% RH
  - WINTER: 70° F

NOTES:
REFER TO ARCHITECTURAL SHEETS FOR APPLICABLE BUILDING CODES

GENERAL SHEET ANNOTATIONS



DAMPER SYMBOLS



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PROJECT:
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AGENCY:
TALL SHIPS PROVIDENCE FOUNDATION

COMMONWEALTH OF VIRGINIA
EDWARD D. CLEMENTS
Lic. No. 0402053931
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4/2/2021

NO	DESCRIPTION	DATE
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HGA NO: 2135-015-00

MECHANICAL GENERAL NOTES AND SYMBOLS

DATE: APRIL 2, 2021

PERMIT SET

M001

ATTACHMENT 3

COMcheck Software Version 4.1.0.0
Mechanical Compliance Certificate

Project Information

Energy Code:	2015 IECC
Project Title:	Tall Ships Foundation
Location:	Alexandria, Virginia
Climate Zone:	4a
Project Type:	New Construction

Construction Site:	Owner/Agent:	Designer/Contractor:
Alexandria, VA 22314	Claire Sassin Tall Ships Foundation Alexandria, VA 22314	Edward Clements HGA 44 Canal Center Plaza Suite 100 Alexandria, VA 22314 703.317.6013

Additional Efficiency Package(s)

Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.

Mechanical Systems List

Quantity	System Type & Description
1	Cottage 2 VRF System (Unknown): VRF Condensing Unit, Air Cooled Heat Pump Heating Mode: Capacity = 37 kBtu/h, No minimum efficiency requirement applies Cooling Mode: Capacity = 34 kBtu/h, No minimum efficiency requirement applies Fan System: Unspecified
1	Cottage 2 VRF fan coi - Theater (Unknown): Cooling: 1 each - VRF Zone Fan Unit, Capacity = 24 kBtu/h, No Economizer, Economizer exception: Low Capacity Residential No minimum efficiency requirement applies Fan System: FCU 2 -- Compliance (Brake HP method) : Passes Fans: FAN 2 Supply, Single-Zone VAV, 688 CFM, 0.3 motor nameplate hp, 0.3 design brake hp (0.3 max. BHP), 70.0 fan efficiency grade Pressure Drop Credits: Particulate filtration credit: MERV 9 through 12, 0.0678 credit
1	Cottage 2 VRF Fan coil - Gift (Unknown): Cooling: 1 each - VRF Zone Fan Unit, Capacity = 10 kBtu/h, No Economizer, Economizer exception: Low Capacity Residential No minimum efficiency requirement applies Fan System: FCU 1 -- Compliance (Brake HP method) : Passes Fans: FAN 3 Supply, Single-Zone VAV, 320 CFM, 0.3 motor nameplate hp, 0.1 design brake hp (0.1 max. BHP), 70.0 fan efficiency grade Pressure Drop Credits: Particulate filtration credit: MERV 9 through 12, 0.0384 credit
1	Cottage 1 VRF System (Unknown): VRF Condensing Unit, Air Cooled Heat Pump Heating Mode: Capacity = 50 kBtu/h, No minimum efficiency requirement applies Cooling Mode: Capacity = 46 kBtu/h, No minimum efficiency requirement applies Fan System: Unspecified

Quantity	System Type & Description
1	Cottage 1 VRF Fan Coil copy 1 (Single Zone): Cooling: 1 each - VRF Zone Fan Unit, Capacity = 48 kBtu/h, No Economizer, Economizer exception: Low Capacity Residential No minimum efficiency requirement applies Fan System: FCU 3 -- Compliance (Brake HP method) : Passes Fans: FAN 1 Supply, Single-Zone VAV, 1377 CFM, 0.8 motor nameplate hp, 0.6 design brake hp (0.6 max. BHP), 70.0 fan efficiency grade Pressure Drop Credits: Particulate filtration credit: MERV 9 through 12, 0.1368 credit
1	Water Heater 1: Electric Storage Water Heater, Capacity: 6 gallons w/ Heat Trace Tape Installed No minimum efficiency requirement applies

Mechanical 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 2015 IECC requirements in COM*check* Version 4.1.0.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title	Signature	Date
Edward Clements, Vice President Mechanical Engineering	[signature]	**3/25/2021**

COMcheck Software Version 4.1.0.0
Inspection Checklist

Energy Code: 2015 IECC

Requirements: 100.0% were addressed directly in the COM*check* software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR2][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C103.2 [PR3][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the service water heating systems and equipment and document where exceptions to the standard are claimed. Hot water system sized per manufacturer's sizing guide.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C406 [PR9][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** M002

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C403.2.4.5, C403.2.4.6 [FO9][3]	Snow/ice melting system sensors for future connection to controls. Freeze protection systems have automatic controls installed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Plumbing Rough-In Inspection	Complies?	Comments/Assumptions
C404.5, C404.5.1, C404.5.2 [PL6][3]	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C404.5, C404.5.1, C404.5.2 [PL6][3]	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C404.5, C404.5.1, C404.5.2 [PL6][3]	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C404.5, C404.5.1, C404.5.2 [PL6][3]	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C404.5, C404.5.1, C404.5.2 [PL6][3]	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C404.5, C404.5.1, C404.5.2 [PL6][3]	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C404.6.1, C404.6.2 [PL3][1]	Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C404.6.3 [PL7][3]	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C404.6.3 [PL7][3]	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C404.6.3 [PL7][3]	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C404.6.3 [PL7][3]	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C404.6.3 [PL7][3]	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Plumbing Rough-In Inspection	Complies?	Comments/Assumptions
C404.6.3 [PL7][3]	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C404.7 [PL8][3]	Water distribution system that pumps water from a heated-water supply pipe back to the heated-water source through a cold-water supply pipe is a demand recirculation water system. Pumps within this system have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance and limits the temperature of the water entering the cold-water piping to 104°F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C404.7 [PL8][3]	Water distribution system that pumps water from a heated-water supply pipe back to the heated-water source through a cold-water supply pipe is a demand recirculation water system. Pumps within this system have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance and limits the temperature of the water entering the cold-water piping to 104°F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C404.7 [PL8][3]	Water distribution system that pumps water from a heated-water supply pipe back to the heated-water source through a cold-water supply pipe is a demand recirculation water system. Pumps within this system have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance and limits the temperature of the water entering the cold-water piping to 104°F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C404.7 [PL8][3]	Water distribution system that pumps water from a heated-water supply pipe back to the heated-water source through a cold-water supply pipe is a demand recirculation water system. Pumps within this system have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance and limits the temperature of the water entering the cold-water piping to 104°F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C404.7 [PL8][3]	Water distribution system that pumps water from a heated-water supply pipe back to the heated-water source through a cold-water supply pipe is a demand recirculation water system. Pumps within this system have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance and limits the temperature of the water entering the cold-water piping to 104°F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

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PROJECT:
JOHN WARNER MARITIME HERITAGE CENTER

RIPARIAN AREA ADJACENT TO
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4/2/2021

NO	DESCRIPTION	DATE
	PERMIT SET	04/02/2021

ISSUANCE HISTORY - THIS SHEET

HGA NO: 2135-015-00

MECHANICAL COMCHECK

DATE: APRIL 2, 2021

PERMIT SET

M002

Section # & Req.ID	Plumbing Rough-In Inspection	Complies?	Comments/Assumptions
C404.7 [PL8][3]	Water distribution system that pumps water from a heated-water supply pipe back to the heated-water source through a cold-water supply pipe is a demand recirculation water system. Pumps within this system have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance and limits the temperature of the water entering the cold-water piping to 104°F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C402.2.6 [ME41][3]	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.2.12.1 [ME65][3]	HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp or fan system bhp.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. *See the Mechanical Systems list for values.*
C403.2.12.1 [ME65][3]	HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp or fan system bhp.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. *See the Mechanical Systems list for values.*
C403.2.12.3 [ME117][2]	Fans have efficiency grade (FEG) >= 67. The total efficiency of the fan at the design point of operation <= 15% of maximum total efficiency of the fan.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.12.3 [ME117][2]	Fans have efficiency grade (FEG) >= 67. The total efficiency of the fan at the design point of operation <= 15% of maximum total efficiency of the fan.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.13 [ME71][2]	Unenclosed spaces that are heated use only radiant heat.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.2.3 [ME55][2]	HVAC equipment efficiency verified.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Mechanical Systems list for values.*
C403.2.6.1 [ME59][1]	Demand control ventilation provided for spaces >500 ft2 and >25 people/1000 ft2 occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.2.6.2 [ME115][3]	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.2.7 [ME57][1]	Exhaust air energy recovery on systems meeting Table C403.2.7(1) and C403.2.7(2).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.2.8 [ME116][3]	Kitchen exhaust systems comply with replacement air and conditioned supply air limitations, and satisfy hood rating requirements and maximum exhaust rate criteria.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.2.9 [ME60][2]	HVAC ducts and plenums insulated. Where ducts or plenums are installed in or under a slab, verification may need to occur during Foundation Inspection.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.2.9 [ME10][2]	Ducts and plenums sealed based on static pressure and location.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.9.1.3 [ME11][3]	Ductwork operating >3 in. water column requires air leakage testing.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.2.9.1.3 [ME11][3]	Ductwork operating >3 in. water column requires air leakage testing.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.2.9.1.3 [ME11][3]	Ductwork operating >3 in. water column requires air leakage testing.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.2.9.1.3 [ME11][3]	Ductwork operating >3 in. water column requires air leakage testing.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.2.9.1.3 [ME11][3]	Ductwork operating >3 in. water column requires air leakage testing.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.4.2.3.2.1 [ME121][3]	Closed-circuit cooling tower within heat pump loop have either automatic bypass valve or lower leakage positive closure dampers. Open-circuit tower within heat pump loop have automatic valve to bypass all heat pump water flow around the tower. Open- or closed-circuit cooling towers used in conjunction with a separate heat exchanger have heat loss by shutting down the circulation pump on the cooling tower loop.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.4.2.3.2.1 [ME121][3]	Closed-circuit cooling tower within heat pump loop have either automatic bypass valve or lower leakage positive closure dampers. Open-circuit tower within heat pump loop have automatic valve to bypass all heat pump water flow around the tower. Open- or closed-circuit cooling towers used in conjunction with a separate heat exchanger have heat loss by shutting down the circulation pump on the cooling tower loop.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.4.4.6 [ME110][3]	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply. *See the Mechanical Systems list for values.*
C403.4.4.6 [ME110][3]	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply. *See the Mechanical Systems list for values.*

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.4.4.6 [ME110][3]	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply. *See the Mechanical Systems list for values.*
C403.4.4.6 [ME110][3]	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply. *See the Mechanical Systems list for values.*
C403.4.4.6 [ME110][3]	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply. *See the Mechanical Systems list for values.*
C408.2.2.1 [ME53][3]	Air outlets and zone terminal devices have means for air balancing.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.5, C403.5.1, C403.5.2 [ME123][3]	Refrigerated display cases, walk-in coolers or walk-in freezers served by remote compressors and remote condensers not located in a condensing unit, have fan-powered condensers that comply with Sections C403.5.1 and refrigeration compressor systems that comply with C403.5.2..	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.3 [FI8][3]	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.2 [FI27][3]	HVAC systems and equipment capacity does not exceed calculated loads.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.1 [FI47][3]	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.1 [FI47][3]	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.1 [FI47][3]	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.1 [FI47][3]	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.1 [FI47][3]	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.1.1 [FI42][3]	Heat pump controls prevent supplemental electric resistance heat from coming on when not needed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.1.1 [FI42][3]	Heat pump controls prevent supplemental electric resistance heat from coming on when not needed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.1.2 [FI38][3]	Thermostatic controls have a 5 °F deadband.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.1.3 [FI20][3]	Temperature controls have setpoint overlap restrictions.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C403.2.4.2 [FI39][3]	Each zone equipped with setback controls using automatic time clock or programmable control system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.2.1, C403.2.4.2.2 [FI40][3]	Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.2.3 [FI41][3]	Systems include optimum start controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.2.4.2.3 [FI41][3]	Systems include optimum start controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.2.4.2.3 [FI41][3]	Systems include optimum start controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C404.3 [FI11][3]	Heat traps installed on supply and discharge piping of non-circulating systems.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C404.4 [FI25][2]	All piping insulated in accordance with section details and Table C403.2.10.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.1 [FI28][1]	Commissioning plan developed by registered design professional or approved agency.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.3.1 [FI31][1]	HVAC equipment has been tested to ensure proper operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Unitary or packaged HVAC eqiupment without supply air economizers.
C408.2.3.2 [FI10][1]	HVAC control systems have been tested to ensure proper operation, calibration and adjustment of controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.4 [FI29][1]	Preliminary commissioning report completed and certified by registered design professional or approved agency.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.5.1 [FI7][3]	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

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PROJECT:
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4/2/2021

NO	DESCRIPTION	DATE
	PERMIT SET	04/02/2021

ISSUANCE HISTORY - THIS SHEET

HGA NO: 2135-015-00

MECHANICAL COMCHECK

DATE: APRIL 2, 2021

PERMIT SET

M003

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C408.2.5.3 (FI43)[1]	An air and/or hydronic system balancing report is provided for HVAC systems.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.5.4 (FI30)[1]	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Project Title: Tall Ships Foundation
Data filename: N:\2100\2135\015-00\04 Work\Shared\Tall Ships.cck
Report date: 03/25/21
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Lic. No. 0402053931
PROFESSIONAL ENGINEER
4/2/2021

NO	DESCRIPTION	DATE
	PERMIT SET	04/02/2021

ISSUANCE HISTORY - THIS SHEET

HGA NO: 2135-015-00

MECHANICAL COMCHECK

DATE: APRIL 2, 2021

PERMIT SET

M004

MECHANICAL DRAWING SPECIFICATIONS

Conditions of Contract

Owner - Contractor Agreement: AIA form A107 with attached General Conditions. For payments, performance bond and completion time, see contract. Substitute the term "Engineer" for the term "Architect."

General Requirements:

Project Meetings: As designated by Owner - Contractor.

Protection, Safety and Security: Contractor responsible until acceptance by Owner.

Submittals: Shop drawings, equipment brochures, product data, list of materials, and list of subcontractors, maintenance manuals, and record set of drawings. Equipment shop drawings will include factory furnished product data, wiring diagrams, installation instructions, and operating instructions.

Construction Facilities and Temporary Controls: Construction heat, light and power, water, telephone, sanitary facilities, storage, hoisting facilities by contractor as required by project conditions.

Substitutions and Product Option Requests: Accepted prior to bid date.

Product Substitutions: Must have the engineer's approval. The contractor responsible for a substitution is responsible for all additional costs related to the substitution including but not limited to structural, electrical, and engineering costs.

Project Closeout: Instructions to Owner, systems and equipment startup and testing, clean up.

Liability Insurance: Adequate coverage by contractor to protect against liability. Provide completed operations; contractual hold-harmless; worker's compensation and employee's liability as required by law.

Auto Insurance: Adequate coverage by contractor.

Property Insurance: By Owner.

Code Compliance: In accordance with applicable codes.

Work included: Equipment, materials and work necessary for complete installation of systems by personnel skilled in each individual trade. Modify due to existing conditions as necessary to complete work.

Cutting and Patching: Do all cutting and patching to complete work, including systems. Return areas and surfaces to same condition as existed at the time work started.

Site Inspection: After site inspection, notify the engineer of any modification due to existing conditions.

Standards: Conform to SMACNA, ASHRAE, UL, NEC and NFPA standards. Notify engineer of conflicting data.

Installation: Equipment and material will be installed according to the manufacturer's written instructions.

Electrical Coordination: Refer to Division 26 (Electrical) construction documents for the electrical requirements of the mechanical equipment identified in the Division 22 and 23 (Plumbing and Mechanical) construction documents. The Division 26 contractor will provide power wiring. The Division 22 and 23 contractor(s) will provide Division 22/23 control wiring.

Structural Coordination: Mechanical work requiring structural support or openings shall be coordinated with the structural engineer, dock, cottage, and/or deck fabricators and installing contractor(s).

Hangers and Supports: Comply with requirements of state and local building codes, and amendments, and referenced standards if more restrictive than MSS SP-69 and SP-89.

Mechanical Identification: Provide identification of mechanical and plumbing piping and duct systems. Comply with ASME A13.1, "Scheme for the Identification of Piping Systems" for lettering size, length of color field, colors, and viewing angles of identification devices. Provide standard stencils or preprinted duct/pipe labels, prepared with letter sizes conforming to recommendations of ASME A13.1. Minimum letter height is 1-1/4 inches for ducts and 3/4 inch for access door signs and similar operational instructions. Wherever heat tracing is installed, provide warning labels according to manufacturer recommendations, but at not less than 10' o.c.

Insulation: Ducts, pipes, and mechanical and plumbing equipment will be insulated with fiberglass insulation in compliance with the State Code. All insulated cold surfaces will have a vapor barrier jacket. All piping and plumbing equipment installed outside the thermal envelope of the cottages shall be further protected by weather resistant jacketing. Type 3005 Aluminum pipe/tank jacket - or self-adhering insulation jacketing (minimum 60 mil – Alumaguard or 3M VentureClad). Duct insulation shall be a minimum of R-8.

Heat Tracing: All piping exposed to the outdoor elements shall be heat traced with a self-regulating electric heat trace cable. Minimum for piping is 5W/ft. Minimum for sewage ejector tank is 10W/ft. Provide factory thermostat controllers for the piping to maintain the pipe and contents temperature at or above 50 deg F. Provide an ambient controller to lock out heat tracing if ambient temperature is above 70 deg F (adjustable).

Motors: Provide high efficiency motors adequate for the designed use. Motors used in conjunction with variable frequency drives shall have a minimum service factor of 1.15 and be approved by the motor manufacturer for use with the drive.

Variable Frequency Drives: Provided by the same supplier as the controlled device. An external disconnect switch will also be provided by the drive supplier.

Vibration Control: Provide vibration control devices as manufactured by Mason Industries. Provide vibration isolation devices as indicated on the drawings and details.

Plumbing:

Water Distribution System: Comply with ASME B31.9, "Building Services Piping" for materials, products, and installation and NSF 61, "Drinking Water System Components-Health Effects" Sections 1 through 9 for potable-water piping and components. Water distribution piping will be copper tube: ASTM B 88, Types L and M, water tube, drawn temper with copper, solder-joint pressure fittings: ASME B16.18 cast-copper alloy or ASME B16.22 wrought copper.

Drainage and Vent Piping: Comply with ASME B31.9, "Building Services Piping" for materials, products, and installation, and with NSF 14, "Plastics Piping Components and Related Materials" for plastic piping components. Include marking with "NSF-dwv" for plastic drain, waste, and vent piping; "NSF-drain" for plastic drain piping; "NSF-tubular" for plastic continuous waste piping; and "NSF-sewer" for plastic sewer piping. Provide PVC plastic pipe: ASTM D 2665, Schedule 80 with PVC socket fittings: ASTM D 2665, made to ASTM D 3311 drain, waste, and vent pipe patterns. Piping and fittings located in air plenums will be hubless, cast-iron soil pipe: ASTM A 888 or CISPI 301 with heavy-duty, FM-approved, stainless-steel couplings: ASTM A 666, Type 304, stainless-steel housing; and stainless-steel clamps. Include gasket or bushing. Pumped waste piping shall be Schedule 80 CPVC.

Plumbing Specialties: Provide plumbing specialties indicated on the drawings and/or necessary to complete the plumbing systems. Required plumbing specialties include: backflow preventers, water regulators, water filters, thermostatic water mixing valves and water tempering valves, trap seal primer valves and systems, hose stations, sanitary hydrants, backwater valves, grease interceptors, grease recovery units, oil interceptors, oil storage tanks, and solids interceptors. Provide plumbing specialties where required to meet state and local codes and ordinances. Refer to equipment schedules on the drawings for floor and roof drain requirements.

Sewage Ejector: Provide sewage ejector system including pumps, pump lifting system, duplex alternating controller with alarms and power inverter, control wiring, steel basin, heat tracing, and connected piping. Since the basin will be installed in a location that is exposed to the air, it shall be capable of self-support on its sides without bolstering by external structure. The basin will be supported from below by the superstructure. Pumps shall be grinder type. Refer to schedules. Coordinate motor requirements with electrical service and electrical contractor.

Electric Water Heater: Provide a tank type electric water heater according to the plumbing schedules.

Plumbing Fixtures: Refer to the schedules on the drawings.
Hydronic Piping: Comply with the following ASME provisions: ASME B31.9, "Building Services Piping" for materials, products, and installation. Safety valves and pressure vessels shall bear the appropriate ASME label, fabricate and stamp air separators and compression tanks to comply with ASME Boiler and Pressure Vessel Code, Section VIII, Division 1. Welding Standards: Qualify welding processes and operators according to ASME Boiler and Pressure Vessel Code, Section IX, "Welding and Brazing Qualifications." Hydronic piping 3" inches and smaller will be drawn-temper copper tubing: ASTM B 88, Type L (ASTM B 88M, Type B) with wrought-copper fittings: ASME B16.22. Refrigerant piping will be copper type ACR with wrought joints and brazed fittings.

Variable Refrigerant Volume Fan Coils: Provide UL listed and labeled VRV heating and air-conditioning units. Refer to the equipment schedule for unit capacities and accessories. Provide a programmable master controller (i-Touch Manager for Daikin systems) to control indoor and outdoor unit operations. Controller shall be capable of sending alarms via email, text, or web-based interface. Mount fan coil units from spring + neoprene isolated hangers. Mount outdoor unit on neoprene isolators connected to structure. Refrigerant line sizing shall be completed by the equipment manufacturer using vendor available software. Equipment shown is the basis of design, but line sizes must be verified by the vendor prior to order. A complete VRF system including indoor and outdoor units, piping, branch selectors (as applicable), controller, controls, and wiring is required.

Metal Ducts: Comply with SMACNA standards and the State Building Code for the construction and installation of metal ducts. Metal ducts exposed in finished spaces shall not have visible scratches, dents, or other flaws.

Duct Accessories: Provide back draft dampers, manual volume dampers, fire dampers, smoke dampers, combination fire and smoke dampers, duct silencers, flexible ducts, duct-mounted access doors, turning vanes, and accessories hardware where indicated on the drawings and where required for the proper operation of the HVAC system.
Exhaust Fans: Direct drive, ceiling mounted fan with insulated housing. Energy star rated. UL/cUL 507 listed. Provide controller with time delay switch for operation when toilet room lights are turned on. Refer to Control Sequences. Provide backdraft damper in discharge duct.

Wall caps: Provide commercial wall caps for exhaust outlets and any outdoor air intake without a louver. Provide bird screens in wall cap duct.

Air Filters: Provide MERV 13 air filters for all fan coil units.

Electric Controls: Electric/electronic control devices and wiring will be provided to accomplish control sequences required to adequately control the mechanical equipment and accomplish specified control sequences.

Specified Control Sequences:
Variable Refrigerant Volume fan coils shall operate continuously to maintain the space temperature at the setpoint, as programmed into the master controller using factory packaged controls. Setpoints shall be user adjustable. Initial setpoint is 75 degrees cooling, 70 degrees heating. Off hours drift points shall be 80 degrees (cooling) 60 degrees (heating), and shall be adjustable. Factory optimal start control sequences are required.

Exhaust fans shall be engaged by an automatic timer connected via a relay to the lighting occupancy sensor. When lights are turned on, the exhaust fan shall run for a minimum of 15 minutes.

Sewage Ejector Alarm shall be connected to an external relay to send high water warning and high-water alarm level alarms to the VRV system controller for reporting of alarm via web interface.

Testing, Adjusting and Balancing: Testing, adjusting, and balancing of Division 22 and 23 systems will be provided by an AABC certified professional engineer. Submit certified preliminary and final balance reports for the engineer's approval and include the final reports in the Owner's operations and maintenance manuals.

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PROJECT:
JOHN WARNER MARITIME HERITAGE CENTER

RIPARIAN AREA ADJACENT TO
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ALEXANDRIA, VA
22314

Tall Ship PROVIDENCE ALEXANDRIA, VA

AGENCY:
TALL SHIPS PROVIDENCE FOUNDATION

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MECHANICAL SPECS

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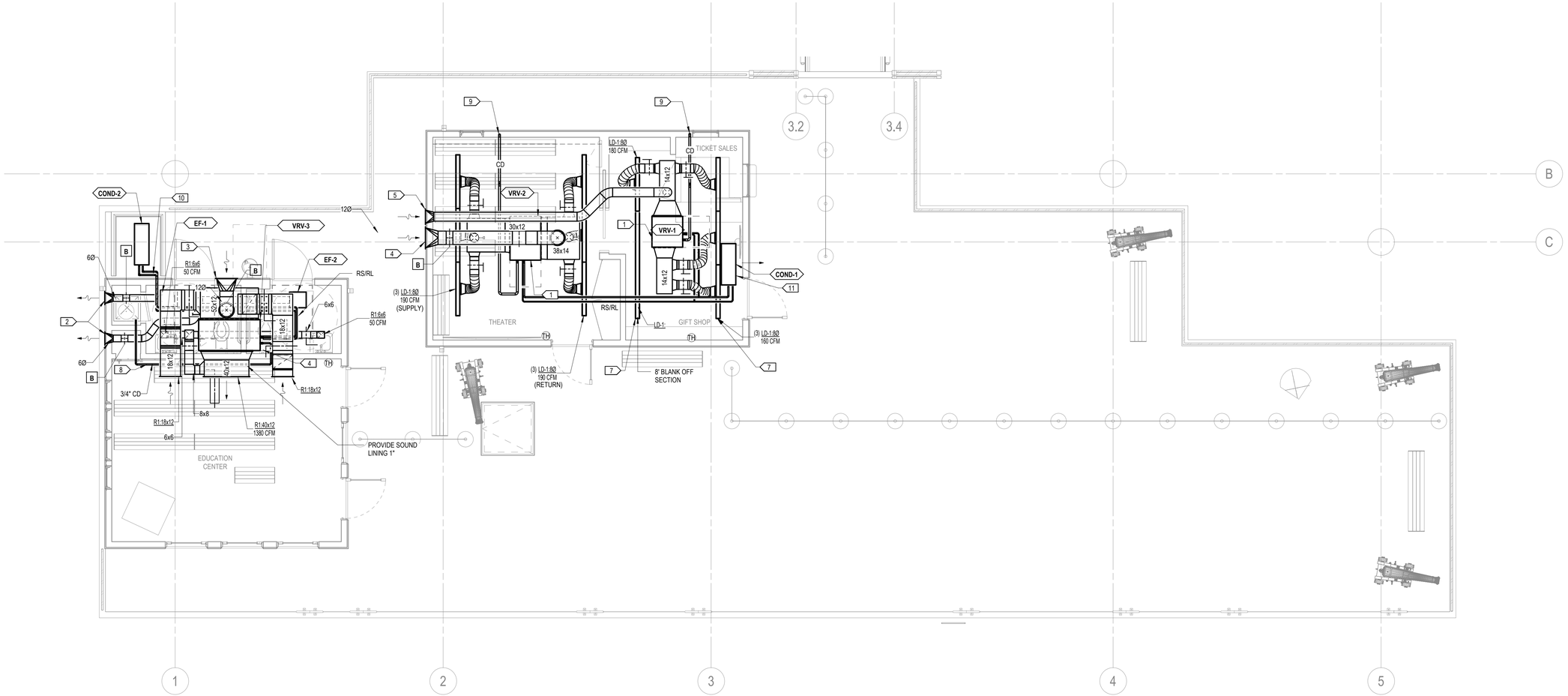
M005



1 MAIN LEVEL PLAN - HVAC

1/4" = 1'-0"

NEW CONSTRUCTION HVAC GENERAL NOTES:

A. THE CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED FOR INSTALLATION OF DUCTWORK & ACCESSORIES. ALL PENETRATIONS THROUGH FIRE RATED WALLS AND FLOORS SHALL BE REVIEWED AND APPROVED BY ARCHITECT/ENGINEER PRIOR TO INSTALLATION.
B. PROVIDE VOLUME DAMPERS AT EACH TAKEOFF ON SUPPLY, EXHAUST, AND RETURN GRILLES AND DIFFUSERS.
C. COORDINATE WITH CEILING CONTRACTOR FOR EXACT LOCATION OF ALL SUPPLY DIFFUSERS & RETURN GRILLES LOCATED IN CEILINGS. COORDINATE ROUTING AND ELEVATION OF ALL DUCTWORK WTIH LIGHTING & CEILING ELEVATIONS. PROVIDE ALL NECESSARY OFFSETS IN DUCTWORK TO MAINTAIN CEILING ELEVATIONS. SEE ARCHITECTURAL REFLECTIVE CEILING PLAN. EQUIPMENT, PIPING AND DUCTWORK IDENTIFICATION SHALL COMPLY WITH OWNERS EXISTING IDENTIFICATION SYSTEM.

KEY NOTES:

1. LOCATE FCU'S AND HEAT PUMP IN LOUVERED ATTIC SPACE ABOVE OCCUPIED AREAS. INSULATE ALL DUCTWORK TO MINIMUM R8 FOR OUTDOOR DUCTWORK PER IECC.
2. PROVIDE WALL CAP AT EXHAUST TERMINATION: BROAN NU-TONE MODEL 647 ALUMINUM WALL CAP. FIELD PAINT WALL CAP TO MATCH ADJACENT WAL MATERIAL.
3. PROVIDE OUTSIDE 18X18 OUTSIDE AIR INTAKE LOUVER WITH BIRDSCREEN. BALANCE TO 250 CFM. BOD: DAYTON 5NKJ2
4. PROVIDE OUTSIDE 18X18 OUTSIDE AIR INTAKE LOUVER WITH BIRDSCREEN. BALANCE TO 250 CFM. BOD: DAYTON 5NKJ2
5. PROVIDE OUTSIDE 12X12 OUTSIDE AIR INTAKE LOUVER WITH BIRDSCREEN. BALANCE TO 50 CFM. BOD: DAYTON 45C669
6. LOCATE FCU IN ATTIC SPACE ABOVE BATHROOMS. MAINTAIN CLEAR SERVICE ACCESS.
7. CONTINUOUS LINEAR SLOT DIFFUSER WITH CONCEALED BORDER.
8. ROUTE CONDENSATE TO MOP SINK.
9. ROUTE CONDENSATE DOWN THROUGH STILL PLATE. TERMINATE AT OPEN ENDED PIPE MIN 12" BELOW TOP OF BARGE PLATFORM. SEAL PENETRATION WITH WEATHER TIGHT SEALANT. INSULATE EXPOSED CONDENSATE PIPE.
10. ROUTE RS/RL PIPING DOWN IN EXTERIOR WALL. SEAL WALL PENETRATION WITH WEATHER TIGHT FLASHING+SEALANT.
11. ALIGN CONDENSING UNIT SUCH THAT THE FAN BLOWS IMMEDIATELY OUT THROUGH THE LOUVER.

VRF SYSTEM GENERAL NOTES:

A. VARIABLE REFRIGERANT FAN COIL UNITS, BRANCH SELECTOR BOXES AND REFRIGERANT PIPING BASED UPON DAIKIN EQUIPMENT. IF ANOTHER MANUFACTURER IS CHOSEN, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE A VRF SYSTEM LAYOUT AND SELECTION USING THE VRF MANUFACTURER'S APPROVED DESIGN SOFTWARE. COORDINATE ALL REVISED PIPING, ELECTRICAL, DUCTWORK, AIRFLOW QUANTITIES, CONTROLS, ETC. CHANGES AND REVISIONS.
B. REFRIGERANT PIPING CONSISTS OF SUCTION GAS PIPE, LIQUID PIPE, AND HIGH/LOW PRESSURE PIPING BETWEEN THE HRU'S AND THE BRANCH SELECTOR BOXES. ROUTING INDICATED ON DRAWINGS IS DIAGRAMMATIC ONLY. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR LAYOUT AND SIZING. SIZE PIPING AND DESIGN ACTUAL PIPING LAYOUT, INCLUDING OIL TRAPS, DOUBLE RISERS, SPECIALTIES, PIPE, AND TUBE SIZES TO ACCOMMODATE, AS A MINIMUM, EQUIPMENT PROVIDED, ELEVATION DIFFERENCE BETWEEN COMPRESSOR AND EVAPORATOR, AND LENGTH OF PIPING TO ENSURE PROPER OPERATION AND COMPLIANCE WITH WARRANTIES OF CONNECTED EQUIPMENT.
C. MINIMUM 3/4" PUMPED CONDENSATE DRAIN FROM VRF FAN COIL UNITS. PUMPED CONDENSATE SHALL BE RAISED AS HIGH AS POSSIBLE, THEN CONNECTED INTO TOP OF GRAVITY CONDENSATE DRAIN THRU WYE FITTING. GRAVITY CONDENSATE DRAIN SHALL RUN AT 1% SLOPE TO POINT OF CONNECTION TO THE WASTE SYSTEM.
D. SOME REFRIGERANT CIRCUITS ARE SHOWN AS SINGLE LINE PIPING FOR VISUAL CLARITY. SEE DETAILS AND PIPING DIAGRAMS FOR ADDITIONAL DETAIL.
E. PROPSED THERMOSTAT LOCATIONS ARE INDICATED ON PLANS. COORDINATE FINAL LOCATIONS WITH FURNITURE VENDOR. F. SPECIFIED THERMOSTATS INCLUDE TEMPERATURE SENSING ELEMENT SUCH THAT UNITS CAN BE CONTROLLED BY EITHER WALL SENSOR OR RETURN AIR SENSOR INTERNAL TO AC UNIT.
F. AT SYSTEM STARTUP, SET AC UNITS TO UTILIZE WALL THERMOSTAT TEMPERATURE SENSOR TO DETERMINE SUPPLY SETTINGS WITH THE FOLLOWING CAVEATS AND EXCEPTIONS: 1) WHERE THERMOSTAT IS LOCATED ON PERIMETER WALL, INTERNAL AC UNIT RA SENSOR SHALL BE USED. 2) WHERE MULTIPLE UNITS ARE CONTROLLED BY A COMMON THERMOSTAT, INTERNAL AC UNIT RA SENSOR SHALL BE USED. 3) WHERE MULTIPLE THERMOSTATS ARE ASSOCIATED WITH A SINGLE AC UNIT, POLLING OF ALL THERMOSTATS SHALL DETERMINE SUPPLY SETTING.

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PROJECT:
JOHN WARNER MARITIME HERITAGE CENTER

RIPARIAN AREA ADJACENT TO
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ALEXANDRIA, VA
22314

AGENCY:
TALL SHIPS PROVIDENCE FOUNDATION

COMMONWEALTH OF VIRGINIA
EDWARD D. CLEMENTS
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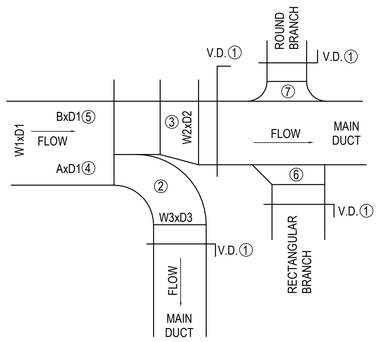
HGA NO: 2135-015-00

MAIN LEVEL PLAN - HVAC

DATE: APRIL 2, 2021

PERMIT SET

M201

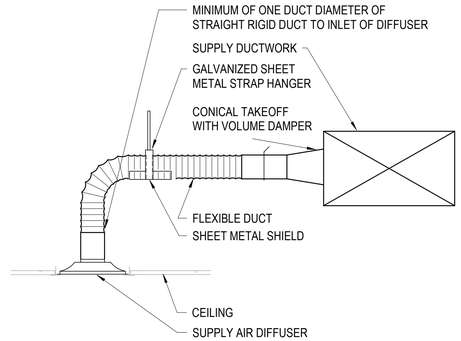


NOTE: CONSTRUCTION OF ALL DUCTWORK TO CONFORM TO S.M.A.C.N.A. DUCT CONSTRUCTION STANDARDS.

PLAN NOTES

1. VOLUME DAMPER
   RECTANGULAR DUCTS - SINGLE BLADE FOR DUCTS 12" DEEP OR LESS, MULTIPLE BLADE FOR DUCTS GREATER THAN 12" DEEP.
   ROUND DUCTS - SINGLE BLADE
2. RADIUS TRANSITION ELBOW
3. DUCT TRANSITION
4. A = [(W3 x D3) / ((W2 x D2) + (W3 X D3))] x W1 (A = 4" MIN.)
5. B = [(W2 x D2) / ((W2 x D2) + (W3 X D3))] x W1
6. 45 DEGREE SHOE TAP CONNECTION, MINIMUM 6" LONG.
7. BELLMOUTH ROUND CONNECTION.

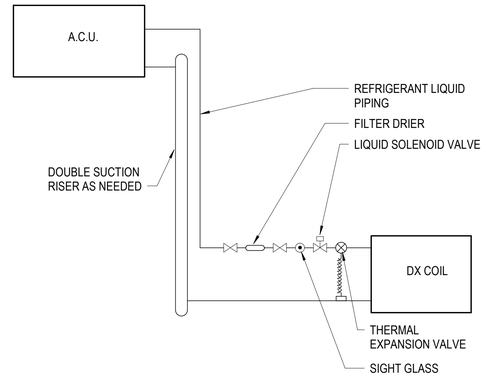
3 SUPPLY AIR DUCTWORK CONNECTION
NOT TO SCALE



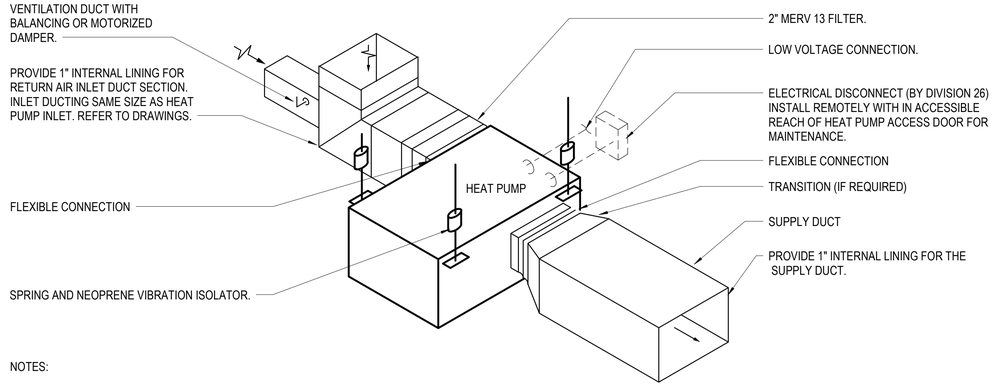
GENERAL NOTES:

A. PROVIDE GALVANIZED SHEET METAL HANGER AND SHIELD ON FLEXIBLE DUCT LENGTHS GREATER THAN 5'-0".

2 DUCT CONNECTION TO CEILING DIFFUSER
NOT TO SCALE



1 DX COIL/CONDENSING UNIT PIPING
NOT TO SCALE



NOTES:

A. ALLOW ADEQUATE ACCESS FOR SERVICING AND FILTER REMOVAL OF ALL HORIZONTAL FAN COIL UNITS. NO PIPING, DUCTWORK OR WIRING TO BE INSTALLED IN AREAS THAT WOULD INTERFERE WITH MAINTENANCE OF UNIT, COORDINATE WITH ALL TRADES.
B. REFER TO PLANS FOR SUPPLY AIR & RETURN AIR DUCT CONFIGURATION

4 HEAT PUMP DETAIL
NOT TO SCALE

COTTAGE 2 - SINGLE ZONE VENTILATION TABLE

System Name and Number	Condition Analyzed (impacts Ez)	Occupancy Category	Zone Floor Area *Az* (sq ft)	Are you using default value for zone population?	Zone Population *Pz* people	People Outdoor Air Rate *Rp* (cfm per person)	Area Outdoor Air Rate *Ra* (cfm per sq ft)	Breathing Zone Outdoor Airflow *Vbz* (cfm)	Zone Air Distribution Effectiveness *Ez*	Zone Outdoor Airflow *Voz* (cfm)	Outdoor air intake flow provided (measured or design) (cfm)
								Rp Pz + Ra Az		Vbz / Ez	
Cottage 2 - Gift Shop	Cooling	Sales	165	Yes	2.48	7.50	0.12	38.36	0.80	48	50
Cottage 2 - Theater	Cooling	Lecture classroom	200	No	25.00	7.50	0.06	199.50	0.80	249	250

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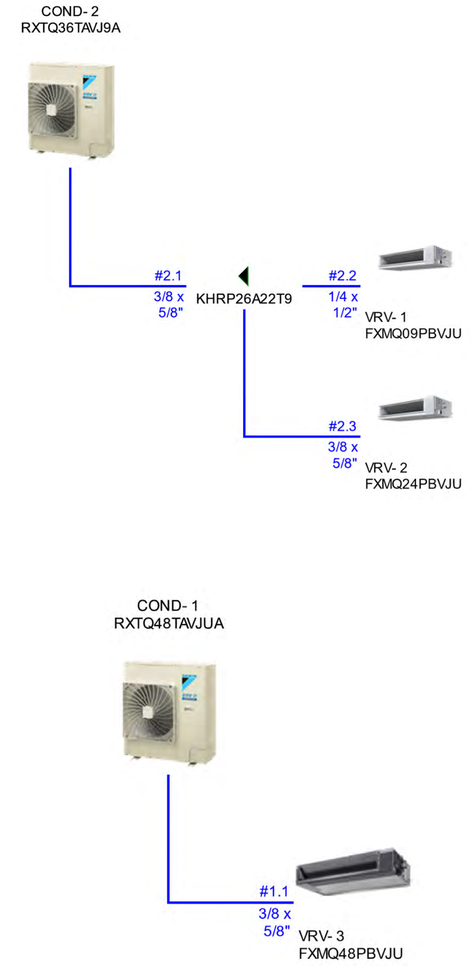
MECHANICAL SCHEDULES AND DETAILS

DATE: APRIL 2, 2021

PERMIT SET

M700



GENERAL NOTES:

A. REFIGERANT PIPING DIAGRAMS ARE PROVIDED FOR GENERAL GUIDANCE REGARDING PIPE SIZE, DISTANCES, IN ADDITION TO GROUPING OF INDOOR UNITS, BRANCH SELECTOR BOXES AND OUTDOOR UNITS. CONTRACTOR SHALL SUBMIT FINAL DIAGRAMS OF PIPE ROUTING BASED ON FIELD CONDITIONS AND INTERDISCIPLINARY COORDIANTION DESCRIBED ON PLANS AND SPECIFICATIONS.
B. INFORMATION ON PLANS AND SCHEDULES SHALL TAKE PRECEDENCE OVER DIAGRAMS WHERE DISCREPANCIES ARE PRESENT.

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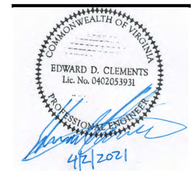

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MECHANICAL VRF SCHEMATICS

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M701

VRF - INDOOR UNITS - FAN COIL SCHEDULE

UNIT NUMBER	UNIT TYPE	OUTSIDE AIRFLOW (CFM)	FAN		COOLING PERFORMANCE					HEATING PERFORMANCE			CONDENSATE PUMP (Y/N)	ELECTRICAL			BASIS OF DESIGN		NOTES
			SUPPLY AIRFLOW (CFM)	ESP (IN. WG)	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	EAT DB (°F)	EAT WB (°F)	LAT DB (°F)	HEATING CAPACITY (MBH)	EAT (°F)	LAT (°F)		MCA	VOLTAGE	PHASE	MANUFACTURER	MODEL	
VRV-1	DUCTED	50	320	0.2	9.5	7.8	80 °F	67 °F	58 °F	10.5	70 °F	86 °F	Y	0.6	208	1	DAIKIN	FXMQ09PVJU	HANG FROM SPRING + NEOPRENE ISOLATORS.
VRV-2	DUCTED	250	700	0.4	24.0	18.8	80 °F	67 °F	52 °F	27	70 °F	86 °F	Y	1.8	208	1	DAIKIN	FXMQ24PVJU	HANG FROM SPRING + NEOPRENE ISOLATORS.
VRV-3	DUCTED	250	1380	0.4	48.0	35.8	80 °F	67 °F	57 °F	54	70 °F	80 °F	Y	3.4	208	1	DAIKIN	FXMQ48PVJU	HANG FROM SPRING + NEOPRENE ISOLATORS.

VRF - CONDENSING UNIT - AIR SOURCE

UNIT NUMBER	SEER	TOTAL COOLING CAPACITY @ 95°F (MBH)	HEATING CAPACITY @ 10°F (MBH)	ELECTRICAL					BASIS OF DESIGN		NOTES
				MCA	MOCP	VOLTAGE	PHASE	SINGLE POINT CONN. (Y/N)	MANUFACTURER	MODEL	
COND-1	18	48.1	28.4	29.1	35	208	1	Y	DAIKIN	RXTQ48TAVJUA	ANCHOR TO DECKING USING NEOPRENE ISOLATOR
COND-2	18	36.1	35.2	16.5	20	208	1	Y	DAIKIN	RXTQ36TAVJUA	HANG FROM SPRING ISOLATORS

FAN -HVAC SCHEDULE

UNIT NUMBER	LOCATION	UNIT TYPE	AIRFLOW (CFM)	ESP (IN. WG)	FAN SPEED (RPM)	HP	SOUND RATING (SONES)	DAMPER TYPE (MOTORIZED, GRAVITY, NA)	MAX OPERATING WEIGHT (LBS)	ELECTRICAL		BASIS OF DESIGN		NOTES
										VOLTAGE	PHASE	MANUFACTURER	MODEL	
EF-1	RESTROOM	CEILING MOUNTED	100	0.3	960	1/10	2	BACK DRAFT	12	120	1	GREENHECK	SP-110-VG	
EF-2	RESTROOM	CEILING MOUNTED	100	0.3	960	1/10	2	BACK DRAFT	12	120	1	GREENHECK	SP-110-VG	

GRILLES, REGISTERS AND DIFFUSERS SCHEDULE (Smart)

GRILLES, REGISTERS AND DIFFUSERS SCHEDULE

TAG	USAGE	DESCRIPTION	FINISH	BASIS OF DESIGN		REMARKS
				MAKE	MODEL	
LD-1	LINEAR SLOT DIFFUSER	TITUS FL-10 SLOT DIFUSER WITH CONCEALED MUD IN BORDER AND PLENUM FOR ACTIVE SECTIONS.	1	TITUS	FL-15	
R1	SUPPLY/RETURN/EXHAUST GRILLE	DOUBLE DEFLECTION SURFACE MOUNTED REGISTER. TWO SETS INDIVIDUALLY ADJUSTABLE, FRONT SET HORIZONTAL LOUVERS, 3/4" LOUVER SPACING, OPPOSED BLADE DAMPER, 1-1/4" WIDE, 20 GA. BORDER. 22 DEGREE DEFLECTION	5	TITUS	300 FL	

NOTES:
A. GRILLE AND REGISTER SIZES ARE NOTED ON THE HVAC FLOOR PLANS AND VENTILATION SCHEDULES
B. PROVIDE APPROPRIATE FRAME/BORDER/FLANGE FOR PROPER MOUNTING. REFER TO THE ARCHITECTURAL DRAWINGS FOR SURFACES IN WHICH GRILLES, REGISTERS, AND DIFFUSERS ARE LOCATED
C. MATERIAL/FINISH KEY (FOR SPECIFIC SPECIAL AREAS, SEE SPECIFICATIONS
1. ALUMINUM WITH STANDARD FACTORY WHITE ENAMEL FINISH
2. STEEL WITH STANDARD FACTORY WHITE ENAMEL FINISH.
3. POLISHED STAINLESS STEEL.
4. NATURAL ALUMINUM.
5. ANODIZED ALUMINUM: COLOR SELECTED BY ARCHITECT.

COTTAGE 1 VENTILATION TABLE

System name and number	Cottage 1
Condition analyzed (impacts Ez, Vdz, Vpz and Vps)	Cooling
All zones are included in the VRP calculation	Yes

Zone Name and Number	Occupancy Category	Zone Floor Area Az (sq ft)	Are you using default value for zone population?	Zone Population Pz (people)	Zone Air Distribution Effectiveness Ez	Zone Outdoor Airflow Voz (cfm) Vbz / Ez	Zone Discharge Airflow Vdz (cfm)	Zone Primary Airflow Vpz (cfm)	Zone Secondary Recirculation Fraction Er	Zone Primary Air Fraction Ep Vpz/Vdz
Education Center	Multi-use assembly	235	No	25.00	0.80	252.00	1,030	1,030	0.75	1.00
Toilet Rooms	Storage rooms	95	Yes	0.00	0.80	14.25	100	100	0.75	1.00
						0.00				0.00

System area	*As*	(sq ft)	330
System population	*Ps*	(people)	24.00
Sum of zone population	*sum of Pz*	(people)	25.00
Occupant diversity	*D*		0.96
Uncorrected outdoor air intake	*Vou*	(cfm)	205.50
System primary airflow (at condition analyzed)	*Vps*	(cfm)	1,130
Average outdoor air fraction	*Xs*		0.18

Which method from ASHRAE 62.1 is being used to determine system ventilation efficiency (Ev)?			Table 6-3
Ventilation efficiency	*Ev*		0.91
Outdoor air intake flow (required by 62.1)	*Vot*	(cfm)	226

Outdoor air intake flow provided (measured or design)		(cfm)	250

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NO	DESCRIPTION	DATE
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ISSUANCE HISTORY - THIS SHEET

HGA NO: 2135-015-00

MECHANICAL SCHEDULES

DATE: APRIL 2, 2021

PERMIT SET

M800

ABBREVIATIONS

A	
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AFMS	AIRFLOW MEASURING STATION
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
AP	ACCESS PANEL(S)
APD	AIR PRESSURE DROP
ARCH	ARCHITECT(URAL)
B	
BAS	BUILDING AUTOMATION SYSTEM
BHP	BRAKE HORSE POWER
BLDG	BUILDING
BTUH	BRITISH THERMAL UNIT
BWV	BACK WATER VALVE
C	
CD	CONDENSATE
CFH	CUBIC FOOT PER HOUR
CFM	CUBIC FOOT PER MINUTE
CIP	CAST IRON PIPE
CLG	CEILING
CO	CARBON MONOXIDE
CO2	CARBON DIOXIDE
COMB	COMBINATION
CONC	CONCRETE
COND	CONDENS(ATE) (ER)
CONN	CONNECTION
CONT	CONTINU(E) (OUS) (ATION)
CONTR	CONTRACT(OR)
CORR	CORRIDOR
D	
DB	DRY BULB
DDC	DIRECT DIGITAL CONTROL (PANEL)
DEG	DEGREE(S)
DET	DETAIL
DI	DEIONIZED WATER
DIFF	DIFFUSER
DMPR	DAMPER
DN	DOWN
DP	DIFFERENTIAL PRESSURE
DWG(S)	DRAWING(S)
E	
EA	EACH
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
ELEC	ELECTRIC(AL)
EMER	EMERGENCY
ESP	EXTERNAL STATIC PRESSURE
EWT	ENTERING WATER TEMPERATURE
EXG	EXISTING
EXH	EXHAUST
EXT	EXTERIOR

F	
F	FAHRENHEIT
FA	FROM ABOVE
FB	FROM BELOW
FDC	FIRE DEPT CONNECTION
FFE	FINISHED FLOOR ELEVATION
FLR	FLOOR
FLEX	FLEXIBLE
FPM	FEET PER MINUTE
FPB	FAN POWERED VAV BOX
F&T	FLOAT AND THERMOSTATIC (TRAP)
FT	FOOT, FEET
FTG	FOOTING
FTR	FINNED TUBE RADIATION
G	
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GEN	GENERATOR
GPH	GALLON(S) PER HOUR
GPM	GALLON(S) PER MINUTE
H	
HB	HOSE BIB
HP	HIGH PRESSURE
HP	HORSEPOWER
HTG	HEATING
HTR	HEATER
HVAC	HEATING, VENTILATION AND AIR CONDITIONING
I	
ID	INSIDE DIAMETER/DIMENSION
IN	INCH(ES)
INSUL	INSULATION
INV	INVERT
ISOL	ISOLATOR
L	
LAT	LEAVING AIR TEMPERATURE
LBS/HR	POUNDS PER HOUR
LF	LINEAL FOOT, FEET
LVR	LOUVER
LWT	LEAVING WATER TEMPERATURE
M	
MAX	MAXIMUM
MBH	1000 BTUH
MECH	MECHANICAL(LY)
MEZZ	MEZZANINE
MFR	MANUFACTURER
MIN	MINIMUM
MIN	MINUTE
MISC	MISCELLANEOUS
N	
NC	NOISE CRITERIA
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE

O	
OA	OUTSIDE AIR
OD	OUTSIDE DIAMETER/DIMENSION
P	
PD	PRESSURE DROP
PLBG	PLUMBING
PPM	PARTS PER MILLION
PRES	PRESSURE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
R	
R	RADIUS
RA	RETURN AIR
REG	REGISTER
REQD	REQUIRED
RH	RELATIVE HUMIDITY
RM	ROOM
RO	REVERSE OSMOSIS
RPM	REVOLUTIONS PER MINUTE
RPZ	REDUCED PRESSURE BACKFLOW PREVENTER
RTU	ROOFTOP UNIT
S	
SA	SUPPLY AIR
SF	SQUARE FEET
SHT	SHEET
SP	STATIC PRESSURE
SPEC(S)	SPECIFICATION(S)
SQ	SQUARE
SS	STAINLESS STEEL
STRUC	STRUCTUR(E) (AL)
T	
T	THERMOSTAT
TA	TO ABOVE
TB	TO BELOW
TCP	TEMPERATURE CONTROL PANEL
TEMP	TEMPERATURE
TMV	THERMOSTATIC MIXING VALVE
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
V	
VAV	VARIABLE AIR VOLUME
VENT	VENTILATION OR VENTILATOR
VERT	VERTICAL
VOL	VOLUME
VSD	VARIABLE SPEED DRIVE (MOTOR CONTROLLER)
VTR	VENT THROUGH ROOF
W	
W	WASTE
W/	WITH
W/O	WITHOUT
WB	WET BULB
WC	WATER COLUMN
WG	WATER GAUGE
WH	WALL HYDRANT
WS	WASTE STACK
WTR	WATER
WCO	WALL CLEANOUT

NOTE:
REFER TO PIPING SYSTEM DESIGNATIONS AND EQUIPMENT SCHEDULES FOR ADDITIONAL ABBREVIATIONS.

PLUMBING & FIRE PROTECTION GENERAL NOTES

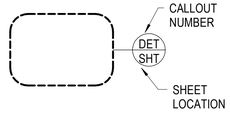
A. IN ALL AREAS WITH EXPOSED CEILINGS, SPECIAL CARE MUST BE TAKEN IN THE INSTALLATION OF PIPING AND ANY OTHER MECHANICAL / PLUMBING EQUIPMENT. LAYOUTS MUST BE ARRANGED TO COMPLIMENT THE AESTHETICS OF THE SPACE. REFER ALSO TO ARCHITECTURAL DRAWINGS, SPECIFICATIONS, AND COORDINATION REQUIREMENTS FOR FURTHER INFORMATION FOR AESTHETIC INTENTS AND PAINTING REQUIREMENTS IN EXPOSED AREAS.
B. CAREFULLY COORDINATE ALL PIPING, FIRE PROTECTION, EQUIPMENT, CONTROLS, SUPPORTS, ETC. TO SUPPORT ACCESS, SERVICE, INSTALLATION AND MAINTENANCE OF EQUIPMENT, DEVICES, VALVES, CONTROLS, ETC. REFER ALSO TO COORDINATION REQUIREMENTS IN DRAWINGS AND SPECIFICATIONS.
C. REFER TO ARCHITECTURAL PLANS AND OTHER AREAS OF THE PLANS AND SPECIFICATIONS FOR ACOUSTICALLY SENSITIVE SPACES, WALLS AND WALL DESIGNATIONS. REFER TO ARCHITECTURAL AND MECHANICAL SPECIFICATIONS AND DETAILS FOR APPROPRIATE PENETRATIONS.
D. PIPING SHALL BE INSULATED TO AT LEAST MINIMUM INSULATION LEVELS REQUIRED IN THE MOST CURRENT STATE ENERGY CODE AT THE TIME OF THE BIDDING.
E. STORMWATER PIPING REQUIRES 2" OF INSULATION AT LEAST A MINIMUM OF 10' FROM ANY EXTERIOR WALL PENETRATIONS - DRAINS OR OVERFLOWS. REFER ALSO TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
F. ACCESS PANELS ARE INDICATED ON ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. ANY EQUIPMENT, VALVES, FIELD DEVICES, ETC. NEEDING AN ACCESS PANEL NOT INDICATED ON THE DRAWINGS SHALL ALSO BE PROVIDED AND SUBMITTED TO THE ARCHITECT FOR APPROVAL OF PANEL SIZE, DETAIL, AND PANEL LOCATION PRIOR TO INSTALLATION OF ITEM REQUIRING ACCESS.
G. MOUNTING HEIGHTS OF ANY WALL DEVICES REQUIRE FINAL LOCATION AND ELEVATION COORDINATED WITH ARCHITECTURE. REFER ALSO TO INTERIOR ELEVATIONS AND FURNITURE PLANS FOR DETAILS.
H. WHERE CONNECTING TO EXISTING SYSTEMS OR RECONFIGURING EXISTING SYSTEMS, MEASURE AND DOCUMENT PERFORMANCE OF IMPACTED SYSTEMS AT COMPLETION WORK AND BALANCE / ADJUST PERFORMANCE TO MEET CONDITIONS PRESENT PRIOR TO WORK.

GENERAL SHEET ANNOTATIONS

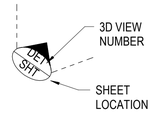
EQUIPMENT

PLUMBING FIXTURE TAG

SECTION SYMBOL



CALLOUT SYMBOL



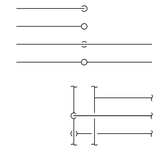
3D VIEW ISOMETRIC SYMBOL

PLUMBING SHEET LIST

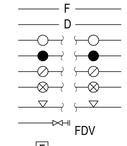
SHEET NUMBER	SHEET NAME
P001	PLUMBING GENERAL NOTES AND SYMBOLS
P200	DECK UNDERFLOOR PLAN - PLUMBING
P201	MAIN LEVEL PLAN - PLUMBING
P401	ENLARGED MAIN LEVEL PLAN - PLUMBING
P600	PLUMBING RISERS
P700	PLUMBING DETAILS
P800	PLUMBING SCHEDULES

NOTES:
REFER ALSO TO EM800 IN ELECTRICAL DRAWINGS FOR MORE INFORMATION

PLUMBING PIPING SYMBOLS


ELBOW DOWN
ELBOW UP
TEE DOWN
TEE UP
CONNECTION
CONNECTION (TOP)
CONNECTION (BOTTOM)
FLOW DIRECTION
SHUT-OFF VALVE
BALANCING VALVE
AUTOMATIC FLOW CONTROL VALVE
VALVE IN VERTICAL PIPE
CHECK VALVE (FLOW DIRECTION INDICATED)
2-WAY MODULATING CONTROL VALVE
3-WAY MODULATING CONTROL VALVE
2-WAY, 2-POSITION CONTROL VALVE
3-WAY, 2-POSITION CONTROL VALVE
PRESSURE REDUCING VALVE
REDUCED PRESSURE ZONE BACKFLOW PREVENTER
RELIEF VALVE (ELEVATION)
RELIEF VALVE (PLAN VIEW)
FLOW MEASURING DEVICE
STRAINER
STRAINER W/ BLOWDOWN VALVE
EXPANSION JOINT
FLEXIBLE CONNECTION
UNION
PIPE ANCHOR
PIPE GUIDE
MANUAL AIR VENT
ECCENTRIC REDUCER
CONCENTRIC REDUCER
SENSOR WELL
TEST PLUG
THERMOMETER
PRESSURE GAUGE
TEMPERATURE GAUGE
PITCH PIPE DOWN
STEAM TRAP
CLEANOUT
HOSE BIBB OR WALL HYDRANT

FIRE PROTECTION PIPING SYMBOLS



FIRE PROTECTION PIPING
DRAIN PIPING
UPRIGHT SPRINKLERS
PENDANT SPRINKLERS
RECESSED SPRINKLERS
FLUSH CONCEALED SPRINKLERS
SIDEWALL SPRINKLERS
FIRE DEPARTMENT VALVE
FLOW SWITCH
STANDPIPE
INSPECTORS VALVE
SUPERVISED VALVE
DOUBLE CHECK VALVE
CHECK VALVE WITH BALL DRIP
FIRE DEPARTMENT CONNECTION
FIRE PUMP TEST CONNECTION
DRY PIPE VALVE
REACTION VALVE
FLOW SWITCH

PLUMBING PIPING SYSTEMS

	COLD WATER (DCW)
	HOT WATER (DHW)
	RECIRCULATING HOT WATER (DRHW)
W	SANITARY WASTE
NP	NON-POTABLE WATER
PW	PUMPED WASTE (SEWAGE FORCE MAIN)
V	VENT
SV	SPECIAL VENT
AW	ACID WASTE
AV	ACID VENT
IV	INFLAMMABLE VENT
RW	STORM WATER/RAIN WATER
ORW	OVERFLOW STORM WATER/RAIN WATER
PS	PUMPED STORM (SEWAGE FORCED MAIN)
D	DRAIN
NG	NATURAL GAS
DT	DRAIN TILE
RO	REVERSE OSMOSIS WATER

GENERAL SYMBOLS

CONNECT TO EXISTING
KEY NOTE
REVISION TRIANGLE
DATUM
BREAK SYMBOL (OR)
FLOOR DRAIN
FLOOR SINK
TRENCH DRAIN
ROOF DRAIN
DEMOLISH EXISTING DUCT, PIPE OR EQUIPMENT INCLUDING SUPPORTS, ACCESSORIES AND RELATED CONTROLS AND COMPONENTS

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4/2/2021

NO	DESCRIPTION	DATE
	PERMIT SET	04/02/2021

ISSUANCE HISTORY - THIS SHEET

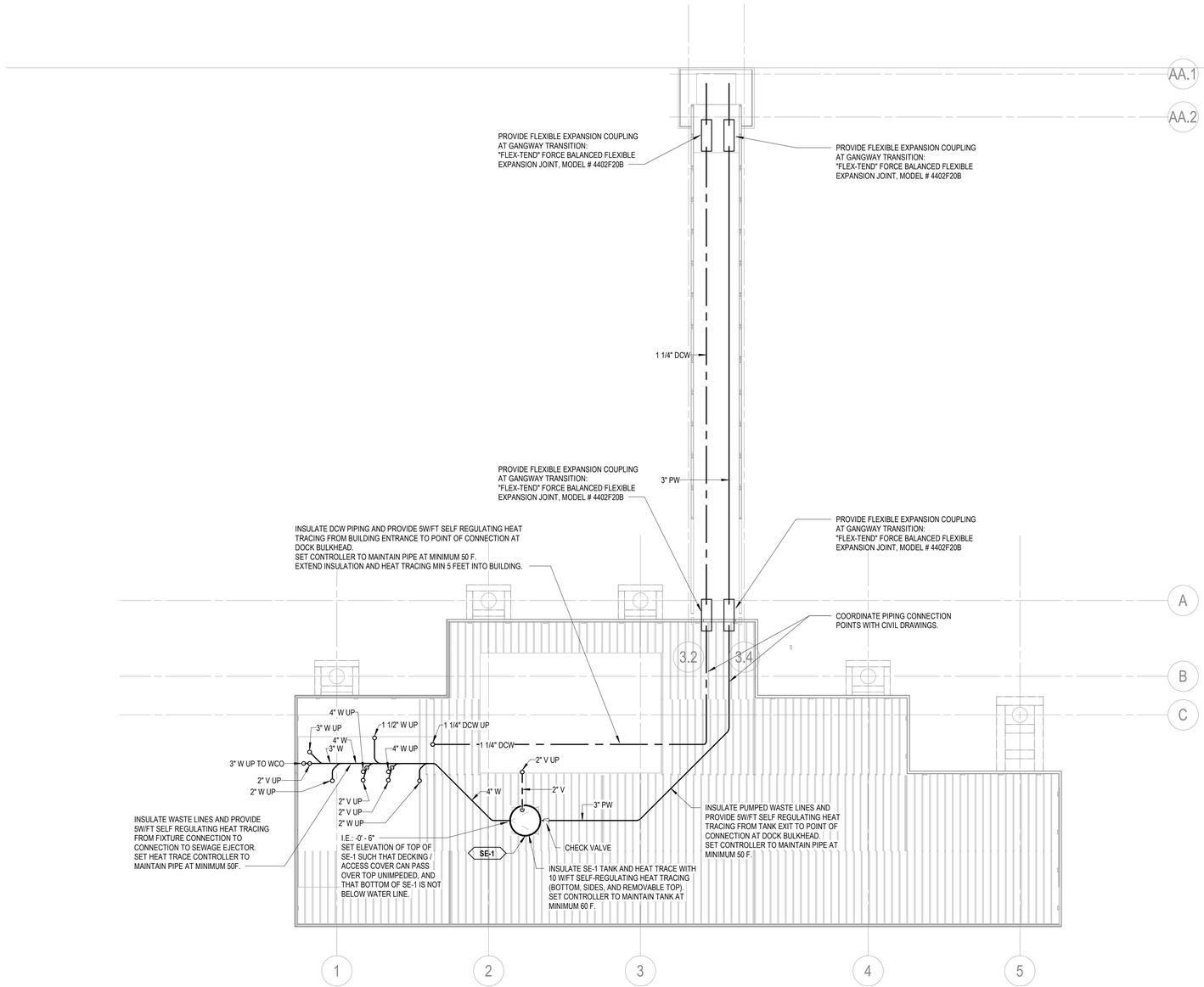
HGA NO: 2135-015-00

PLUMBING GENERAL NOTES AND SYMBOLS

DATE: APRIL 2, 2021

PERMIT SET

P001



PLUMBING GENERAL NOTES:

A. SEAL ALL PIPE PENETRATIONS THROUGH DECKING WITH A WATER TIGHT SEALANT.
B. REFER TO SPECIFICATIONS, SHEET M005 FOR MATERIALS.

1 DECK UNDERFLOOR PLAN - PLUMBING
1/8" = 1'-0"

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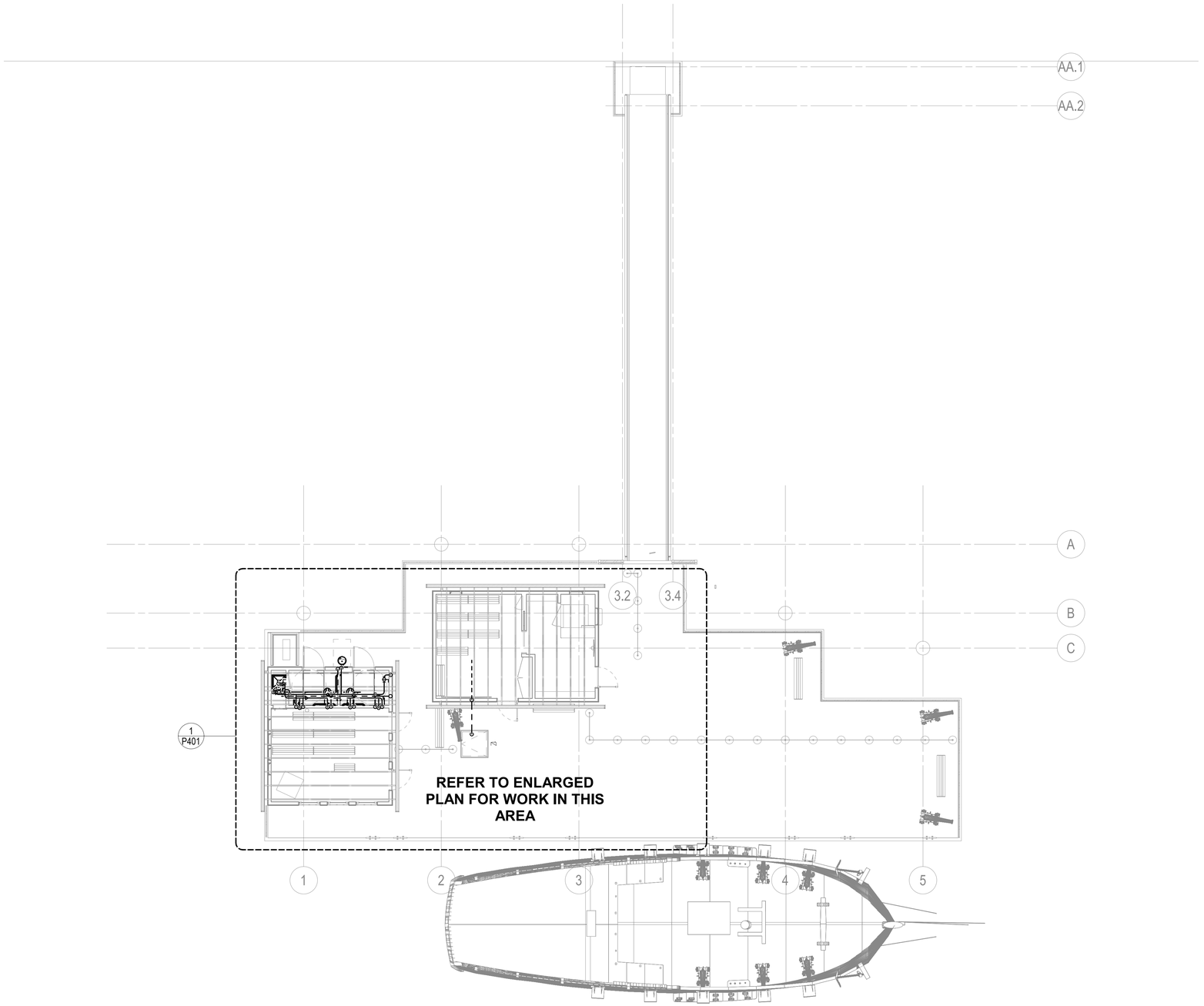
DECK UNDERFLOOR PLAN - PLUMBING

DATE: APRIL 2, 2021

PERMIT SET

P200



1 MAIN LEVEL PLAN - PLUMBING
1/8" = 1'-0"

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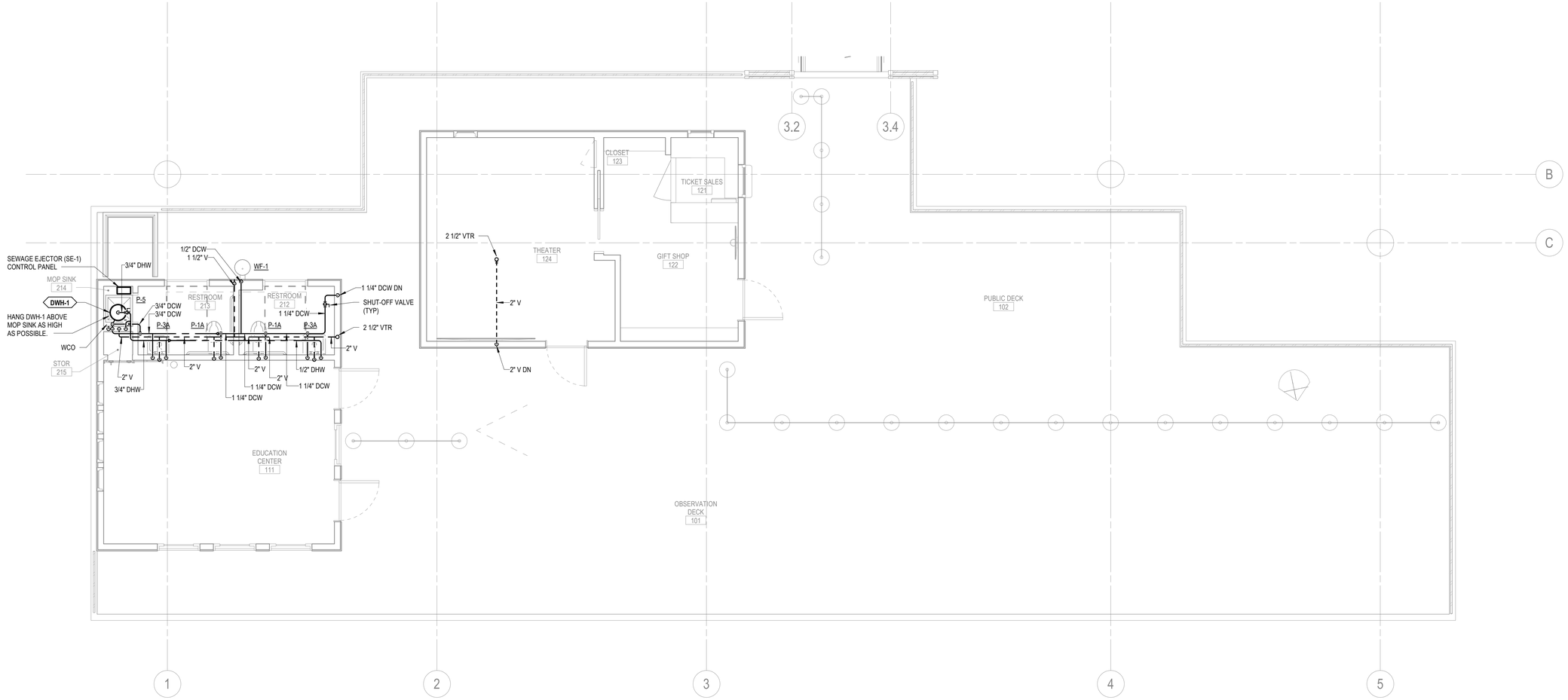
MAIN LEVEL PLAN - PLUMBING

DATE: APRIL 2, 2021

PERMIT SET

P201



1 MAIN LEVEL PLAN - PLUMBING

1/4" = 1'-0"

PLUMBING GENERAL NOTES:

A. SEAL ALL PIPE PENETRATIONS THROUGH DECKING WITH A WATER TIGHT SEALANT.
B. REFER TO SPECIFICATIONS, SHEET M005 FOR MATERIALS.

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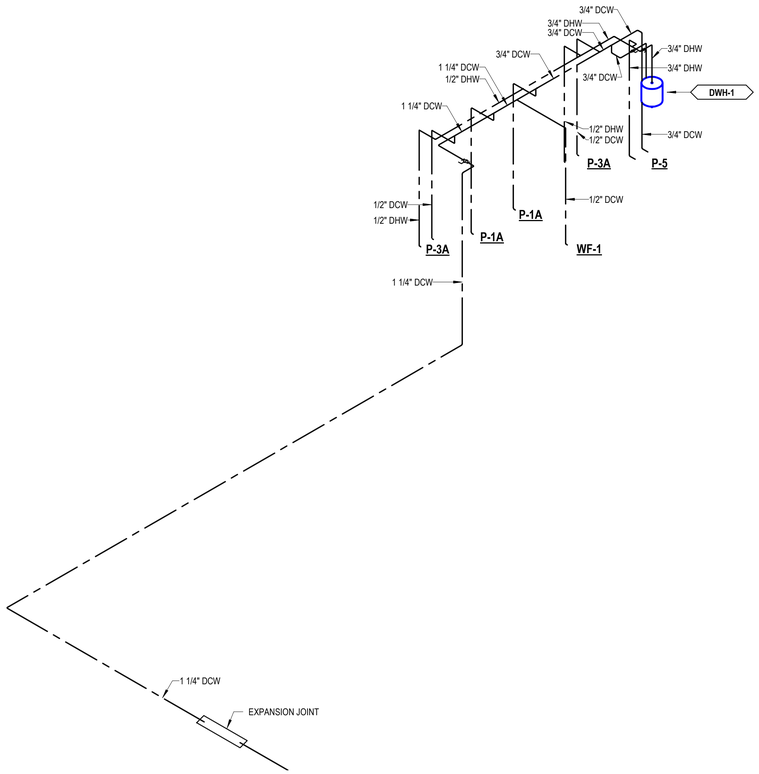
HGA NO: 2135-015-00

ENLARGED MAIN LEVEL PLAN - PLUMBING

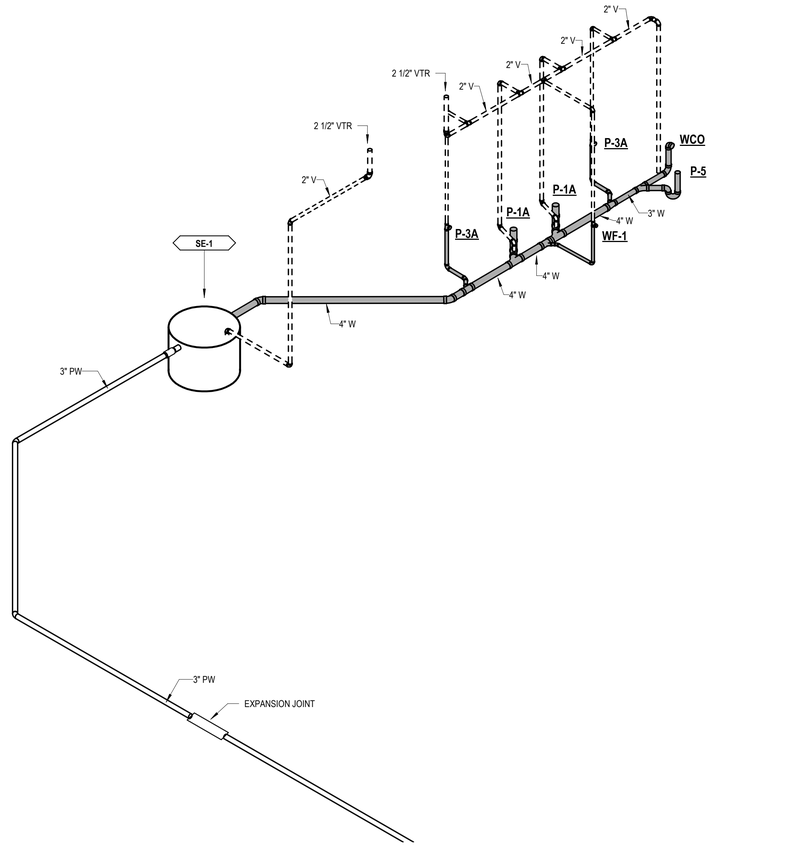
DATE: APRIL 2, 2021

PERMIT SET

P401



1 PLUMBING RISER - DOMESTIC WATER



2 PLUMBING RISER - WASTE AND VENT

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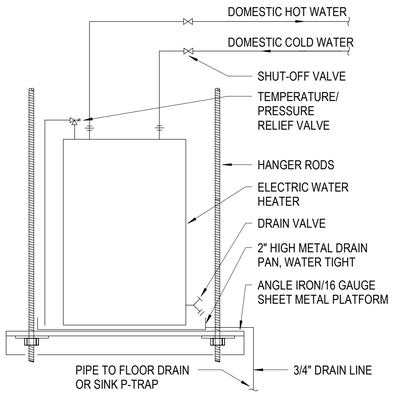
PLUMBING RISERS

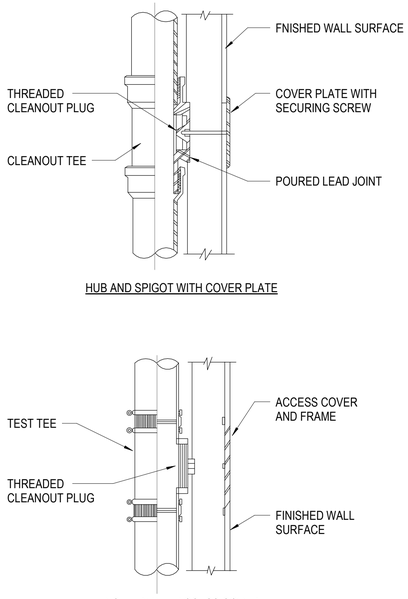
DATE: APRIL 2, 2021

PERMIT SET

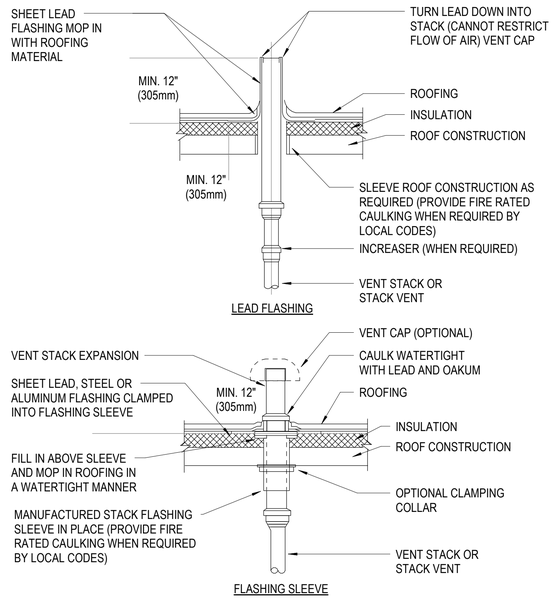
P600



1 ELECTRIC WATER HEATER
NOT TO SCALE



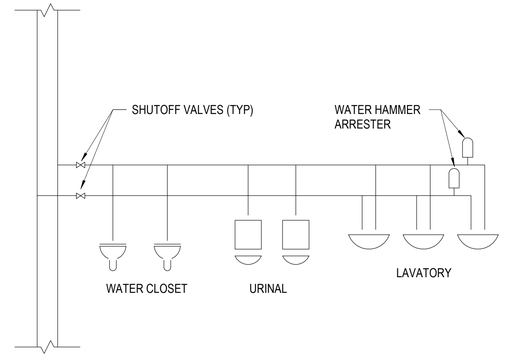
2 WALL CLEANOUTS
NOT TO SCALE



3 VENT THROUGH ROOF (VTR)
NOT TO SCALE

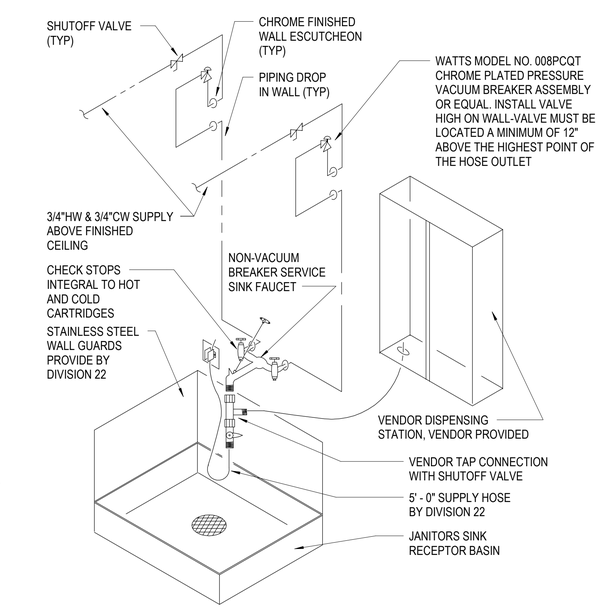
SIZING CHART

PLUMBING AND DRAINAGE INSTITUTE (P.D.I.) ARRESTOR SYMBOL	A	B	C	D	E	F
FIXTURE UNIT RATING	1-11	12-32	33-60	61-113	114-154	155-330

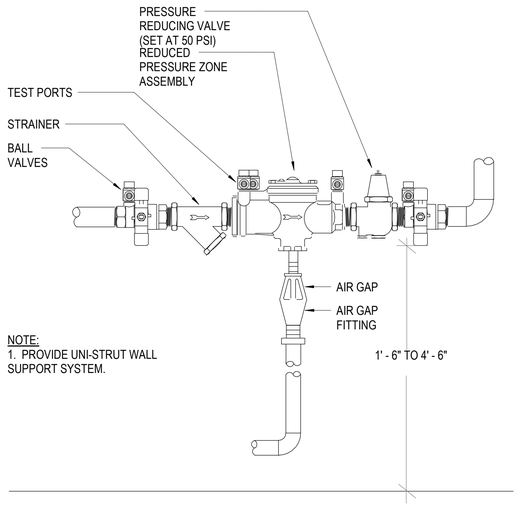


NOTE:
1. INSTALL WATER HAMMER ARRESTERS IN THE FOLLOWING LOCATIONS: PLUMBING FIXTURE GROUPS CONTAINING FLUSH VALVES, EQUIPMENT WITH AUTOMATIC FILL VALVES (DISHWASHERS, CLOTHES WASHERS, HUMIDIFIERS, ETC.) SEE SPECIFICATION 221119 PLUMBING SPECIALTIES.

4 SHOCK ABSORBERS LOCATIONS
NOT TO SCALE



5 SERVICE SINK FAUCET W/ CHEMICAL DISPENSER CONNECTION
NOT TO SCALE



NOTE:
1. PROVIDE UNI-STRUT WALL SUPPORT SYSTEM.

6 SINGLE RPZ ASSEMBLY
NOT TO SCALE

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PROJECT:
JOHN WARNER MARITIME HERITAGE CENTER

RIPARIAN AREA ADJACENT TO
1A PRINCE STREET
ALEXANDRIA, VA
22314

Tall Ship PROVIDENCE ALEXANDRIA, VA

AGENCY:
TALL SHIPS PROVIDENCE FOUNDATION

COMMONWEALTH OF VIRGINIA
EDWARD D. CLEMENTS
Lic. No. 0402053931
PROFESSIONAL ENGINEER
4/2/2021

NO	DESCRIPTION	DATE
	PERMIT SET	04/02/2021

ISSUANCE HISTORY - THIS SHEET

HGA NO: 2135-015-00

PLUMBING DETAILS

DATE: APRIL 2, 2021

PERMIT SET

P700

SEWAGE EJECTOR SCHEDULE (SE)

UNIT NUMBER	LOCATION	SERVING	TOTAL FLOW (GPM)	FT. HD	MOTOR			BASIN		REMOVAL SYSTEM	FLOAT TYPE	ELECTRICAL			BASIS OF DESIGN		COMMENTS
					QTY.	HP	RPM	DIA. (IN.)	DEPTH (IN.)			VOLTAGE	PHASE	EMERGENCY POWER	MANUFACTURER	MODEL	
SE-1	101 - OBSERVATION DECK	TOILET ROOMS	15	90	2	5	3600	48	36	YES	4 FLOAT	208	1	NO	BELL & GOSSETT	BG15GD	

ELECTRIC WATER HEATER SCHEDULE (EWH)

UNIT NUMBER	LOCATION	EWT (°F)	LFT (°F)	TANK SIZE (GAL.)	ELECTRICAL REQUIREMENTS					BASIS OF DESIGN		COMMENTS
					KW	RECOVERY GPH 60°F RISE	VOLTAGE	PHASE	EMERGENCY POWER	MANUFACTURER	MODEL	
DWH-1	214 - MOP SINK	60	120	6	2	14	208	1	NO	A.O. SMITH	DEL-6	

WATER FOUNTAIN SCHEDULE (WF)

UNIT NUMBER	CABINET	BOWL MATERIAL TYPE	CONTROL	BOTTLE FILLER	MOUNTING TYPE	SPOUT MOUNTING HEIGHT (IN.)	SUPPLY CONNECTION (IN.)	WASTE OUTLET (IN.)	BASIS OF DESIGN		COMMENTS
									MANUFACTURER	MODEL	
WF-1	STAINLESS STEEL	STAINLESS STEEL	PUSH BUTTON	NO	RECESSED	SEE ARCH	1/2"	1-1/2"	ELKAY	EDFPB114FPK	NON-FREEZE MODEL REQUIRED

NOTES: PROVIDE ELKAY EWF172 - WATER FILTER KIT, MPW101 IN-WALL CARRIER ACCESSORY, AP99 ACCESS PANEL

PLUMBING FIXTURE SCHEDULE

UNIT NUMBER	TYPE	DESCRIPTION	NOTE	RIM MOUNTING HEIGHT	WASTE (IN)	VENT (IN)	DOMESTIC SUPPLY		
							FLOW	CW	HW
P-1A	WATER CLOSET - FLOOR MOUNTED, FLOOR OUTLET	FIXTURE: AMERICAN STANDARD "MADERA" 3461.001 FLOOR MOUNT, BOTTOM OUTLET, WHITE VITREUOUS CHINA WATER CLOSET WITH TOP SPUD AND ELONGATED BOWL, 1.28 GPF. VALVE: SLOAN REGAL 111-1.28 MANUAL EXPOSED WATER CLOSET FLUSHOMETER, 11-1/2" HIGH VALVE, 1.28 GPF SEAT: CHURCH MODEL NO. 295SSC OPEN FRONT SEAT LESS COVER, ELONGATED, SOLID PLASTIC, EXTERNAL STAINLESS STEEL SELF-SUSTAINING HINGES. ACCESSORIES: TWO BOLT CAPS.		17"	4"	2"	1.28 GPF	1 1/4"	
P-3A	SINK - WALL HUNG	FIXTURE: AMERICAN STANDARD INC. "LUCERNE" 0355.012 WALL-MOUNTED LAVATORY, CONCEALED ARMS SUPPORT, BACK & SIDE SPLASH SHIELDS, VITREOUS CHINA, FRONT OVERFLOW THREE HOLES. FAUCET: CHICAGO FAUCETS ECAST 2200-4E2805ABCP DECK MOUNTED FAUCET, SINGLE LEVER HANDLE, 0.5 GPM VANDAL RESISTENT ECONO-FLO SPRAY OUTLET, 4" CENTERS, WITH COVER PLATE, CHROME PLATED. STRAINER: OPEN GRID STRAINER WITH CHROME PLATED TAILPIECE. ACCESSORIES: CHICAGO FAUCETS THERMOSTATIC MIXING VALVE # 131-ABNF, ASSE 1070, INTEGRAL INLET CHECK VALVES. ACCESSORIES: TRUEBRO "LAV GUARD" MOLDED COVERING FOR WATER AND WASTE PIPING WHERE WATER PIPING & TRAPS ARE EXPOSED. ACCESSORIES: ZURN Z1231 CONCEALED ARM CARRIER, CAST IRON ADJUSTABLE HEADERS, ALIGNMENT TRUSS & RECTANGULAR STEEL UPRIGHTS WITH WELDED FEET.		34"	2"	1 1/2"	0.5 GPM	1/2"	1/2"
P-5	SERVICE SINK, FLOOR MOUNTED	FIXTURE: FIAT PRODUCTS MODEL # MSB2424, FLOOR SET MOP SERVICE BASIN, MOLDED STONE, 24" X 24" X 10" HIGH, 3" DRAIN OPENING. FAUCET: CHICAGO FAUCETS # 897-CCCP, POLISHED CHROME PLATED CAST BRASS, 8" SERVICE SINK FAUCET, VACUUM BREAKER, INTEGRAL WATER STOPS AND CHECK VALVES, ¾" HOSE THREADED OUTLET, PAIL HOOK AND ADJUSTABLE ARMS. STRAINER: REMOVABLE STAINLESS STEEL COMBINATION DOME STRAINER AND LINT BASKET. ACCESSORIES: 24" X 24" WALL GAURDS, MOP BRACKET, 30" RUBBER HOSE, MOUNTING BRACKET AND STAINLESS STEEL BUMPER GUARDS FOR BASIN. ASSE 1055 BACKFLOW PREVENTION DEVICE.		FLOOR SET	3"	2"	1.5 GPM	3/4"	3/4"

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SYMBOL EXPLANATION

A 23 b — 1 UPPER CASE LETTERS WITH NUMBER INDICATES LUMINAIRE TYPE. (REFER TO THE E500 LUMINAIRE SCHEDULE)
2 NUMBER INDICATES CIRCUIT CONNECTION.
3. LOWER CASE LETTER INDICATES CONTROL DEVICE.

L6-30 — SPECIAL RECEPTACLES. THE NEMA STANDARD TYPE IS SHOWN WITH AN UPPER CASE LETTER. TYPE AS NOTED. EXAMPLE: NEMA L6-30R, 250V, SINGLE PHASE, 30A, TWIST-LOCK RECEPTACLE

PTR 2 IG — THE CIRCUIT DESIGNATION IS SHOWN BY NUMBER ADJACENT TO EQUIPMENT. ABBREVIATION NEXT TO CIRCUIT NUMBER INDICATES A DEDICATED CIRCUIT FOR THAT TYPE OF EQUIPMENT.
EXAMPLE: WALL MOUNTED ISOLATED GROUND DUPLEX RECEPTACLE ON DEDICATED CIRCUIT NUMBER 2 FOR A PRINTER.

EF-1 — SYMBOL WITH EQUIPMENT IDENTIFICATION. SEE MECHANICAL EQUIPMENT SCHEDULE FOR COMPLETE ELECTRICAL INFORMATION. EXAMPLE: EXHAUST FAN #1

PLAN KEY NOTE. SEE KEY NOTE SCHEDULE ON THAT DRAWING. ARROW POINTS TO THE ITEM TO WHICH THE NOTE APPLIES.

ELP1 2,4,6 — 3/4"C #8 — INDIVIDUAL HOME RUN TO BRANCH CIRCUIT PANELBOARD. PANELBOARD AND CIRCUIT DESIGNATION ARE PLACED ADJACENT TO HOMERUN ARROW. REFER TO PANEL SCHEDULES FOR AMPS AND NUMBER OF POLES. EXAMPLE: HOMERUN TO PANEL ELP1. UNDESIGNATED TICK MARKS INDICATE #12 CONDUCTORS; NO TICK MARKS INDICATE 2 #12 CONDUCTORS. CONDUCTOR SIZES INDICATED ADJACENT TO SLASH MARKS SHALL APPLY TO ENTIRE CIRCUITS. PROVIDE MINIMUM #12 AWG CONDUCTORS FOR HOMERUNS, #10 AWG CONDUCTORS FOR HOMERUNS THAT EXCEED 100 FEET (30480mm) FOR 120 VOLT CIRCUITS AND 250FEET (76200mm) FOR 277 VOLT CIRCUITS. HOMERUNS SHALL BE CONSIDERED TO ORIGINATE FROM THE POWER SOURCE TO THE FIRST PIECE OF EQUIPMENT OR DEVICE.

WIRELESS DEVICE: ANY DEVICES IN THE SYMBOLS LEGEND THAT INCLUDES THE WIRELESS SYMBOL SHALL BE CONSIDERED A WIRELESS DEVICE.

COMMUNICATIONS ROUGH-IN REQUIREMENTS

	BACK BOX SIZE	RACEWAY SIZE
W — WALL PHONE VOICE OUTLET	4" x 4" SQUARE W/ SINGLE GANG TRIM RING	3/4"
DATA OUTLET	4" x 4" SQUARE W/ SINGLE GANG TRIM RING	3/4"
WA — WIRELESS LAN OUTLET	4" x 4" SQUARE W/ SINGLE GANG TRIM RING	3/4"
VOICE/DATA OUTLET	4- 11/16" x 4- 11/16" SQUARE W/ SINGLE GANG TRIM RING	3/4"
4 — QUAD VOICE/DATA OUTLET	4- 11/16" x 4- 11/16" SQUARE W/ SINGLE GANG TRIM RING	1"

COMMUNICATIONS ROUGH-IN REQUIREMENT NOTES:

A. PROVIDE CONDUIT FROM WALL MOUNTED COMMUNICATIONS DEVICE BACK BOXES TO NEAREST ACCESSIBLE CABLE TRAY. CONDUIT SHALL RUN BETWEEN ACCESSIBLE CEILING SPACES AND ACOUSTICAL CEILINGS.

B. ROUGH-IN BACK BOX FOR WIRELESS LAN ACCESS POINTS SHOWN AT PRACTICE ROOMS, FACULTY OFFICES, ETC. SHALL BE MOUNTED BETWEEN ACCESSIBLE CEILING SPACES AND ACOUSTICAL CEILINGS. LOCATE ABOVE SHELF IN REHEARSAL ROOMS, REFER TO INTERIOR ELEVATIONS.

C. FOLLOW PROPER INSTALLATION OF BACK BOXES AND RACEWAYS PENETRATING THROUGH ACOUSTICAL WALLS AND VAPOR BARRIERS.

D. PROVIDE PULL STRINGS IN ALL ROUGH-INS.

ABBREVIATIONS

A or AMP	AMPERE
A/V or AV	AUDIO/VISUAL
AC	ALTERNATING CURRENT
ACS	AUTOMATIC CONTROL SYSTEM
AFF	ABOVE FINISHED FLOOR
AIC	AMPERE INTERRUPTING RATING
AL	ALUMINUM
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BIO	BIOMETRIC
BMS	BUILDING MANAGEMENT SYSTEM
C	CONDUIT
CATV	CABLE TELEVISION
CLG	CEILING
COFF	COFFEE MAKER
CU	COPPER
dB	DECIBEL
DC	DIRECT CURRENT
DED	DEDICATED CIRCUIT
DIA	DIAMETER
DSP	DIGITAL SIGNAL PROCESSOR
DW	DISH WASHER
ELEC	ELECTRICAL
EMI	ELECTROMAGNETIC INTERFERENCE
EMT	ELECTRICAL METALLIC TUBING
EWC	ELECTRIC WATER COOLER
EXST	EXISTING
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FLA	FULL-LOAD AMPERE
FP	FURNITURE POWER
FSS	FUSED SAFETY SWITCH
GAP	GENERATOR ANNUCIATOR PANEL
GD	GARBAGE DISPOSAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
HH	HANDHOLE
HMT	HARMONIC MITIGATING TRANSFORMER
HP	HORSE POWER
HRZ	HORIZONTAL
Hz	HERTZ
I/O	IN-BOARD/OUT-BOARD
IG	ISOLATED GROUND
IP	INTERNET PROTOCOL
IPC	INTERGRATED POWER CENTER
IR	INFRARED
kHz	KILOHERTZ
KK	KIRK KEY
KV	KILOVOLT
KVA	KILOVOLT-AMPERE
KW	KILOWATT
LAN	LOCAL AREA NETWORK
LCP	LIGHTING CONTROL PANEL
LED	
LSI	LONG TIME SHORT TIME INSTANTANEOUS
LV	LOW-VOLTAGE
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MH	MANHOLE
MLO	MAIN LUG ONLY
MM	MULTI-MODE
MMCS	MANUAL MOTOR CONTROL SWITCH
MOCP	MAXIMUM OVERCURRENT PROTECTION
MSS	MOTOR STARTER SWITCH
MV	MEDIUM VOLTAGE
MW	MICROWAVE
N	NEUTRAL
NAC	NOTIFICATION APPLIANCE CIRCUIT
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION AGENCY
NFSS	NON-FUSED SAFETY SWITCH
NTS	NOT TO SCALE
OC	ON CENTER
OCPD	OVER CURRENT PROTECTIVE DEVICE
P	POLE
PB	PULL BOX
PF	POWER FACTOR
PH or Ø	PHASE
PNL	PANEL
POS	POINT OF SALE
PR	PAIR
PRI	PRIMARY
PTR	PRINTER
PTZ	PAN TILT ZOOM
PVC	POLYVINYL CHLORIDE
RCPT	RECEPTACLE
REF	REFRIGERATOR
RF	RADIO FREQUENCY
RX	RECEIVE/RECEIVER
SEC	SECONDARY
SM	SINGLEMODE
SPD	SURGE PROTECTION DEVICE
ST	SHUNT TRIP
STP	SHIELDED TWISTED PAIR
TBB	TELECOMMUNICATIONS BONDING BACKBONE
TELECOM	TELECOMMUNICATIONS
TGB	TELECOMMUNICATIONS GROUNDING BUSBAR
TIA	TELECOMMUNICATIONS INDUSTRIES ASSOCIATION
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS OTHERWISE NOTED/UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTABLE POWER SUPPLY
UTP	UNSHIELDED TWISTED PAIR
V	VOLT
VA	VOLT-AMPERE
VEND	VENDING
VGA	VIDEO GRAPHICS ARRAY
VSD/VFD/ VFC	VARIABLE SPEED DRIVE/ FREQUENCY DRIVE / FREQUENCY CONTROLLER
W	WATT
WAP	WIRELESS ACCESS POINT
WP	WEATHER-PROOF
XFMR	TRANSFORMER

GENERAL NOTES

GENERAL NOTES:

A. ELECTRICAL ORDINANCES:
ALL ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND FEDERAL LAWS OR ORDINANCES GOVERNING THE PROJECT. IF, IN ANY INSTANCE, THE PLANS AND SPECIFICATIONS ARE IN DIRECT CONFLICT WITH SUCH CODES, LAWS OR ORDINANCES, THE CODE, LAWS AND ORDINANCES SHALL HAVE JURISDICTION AND THE WORK IN QUESTION SHALL BE INSTALLED ACCORDING TO THE CODES, LAWS AND ORDINANCES. ALL WORK SHALL BE INSTALLED UNDER THE SUPERVISION OF A LICENSED MASTER ELECTRICIAN.

B. BRING DISCREPANCIES SHOWN ON DIFFERENT DRAWINGS AND BETWEEN DRAWINGS AND SPECIFICATIONS OR BETWEEN DOCUMENTS AND FIELD CONDITIONS TO THE IMMEDIATE ATTENTION OF THE ARCHITECT.

C. COORDINATE ELECTRICAL INSTALLATION WITH ALL OTHER CONTRACTORS AND OWNER FOR THE LOCATION AND SIZES OF ALL EQUIPMENT PRIOR TO ROUGH-IN. SHOULD ELECTRICAL WORK BE INSTALLED WHICH INTERFERES WITH THE WORK OF OTHER CONTRACTORS OR OWNER, SUCH WORK SHALL BE CHANGED WITH NO ADDITIONAL COST TO OWNER.

D. MOUNT EQUIPMENT AT NOMINAL MOUNTING HEIGHT INDICATED IN ELECTRICAL SYMBOL SCHEDULE UNLESS NOTED OTHERWISE ON THE FLOOR PLANS OR DETAILED IN ARCHITECTURAL ELEVATIONS. DIMENSION SHOWN IS TO CENTER LINE OF BOX. SEE ARCHITECTURAL INTERIOR AND EXTERIOR ELEVATIONS FOR EXACT LOCATION OF WALL MOUNTED DEVICES AND LIGHT FIXTURES.

E. CONDUCTORS SHALL BE COPPER, UNLESS SPECIFIED OTHERWISE. BUILDING POWER WIRING SHALL HAVE THHN/THWN INSULATION. CONDUCTOR AMPACITY SHALL BE BASED ON TABLE 310-16 OF THE NEC. USE 60-DEGREE C RATING FOR CIRCUITS TERMINATING ON DEVICES RATED BELOW 100A. USE 75-DEGREE RATING FOR CIRCUITS TERMINATING ON DEVICES AND IN ENCLOSURES RATED 100A AND OVER.

F. INSTALL INSULATED GREEN EQUIPMENT GROUNDING CONDUCTOR WITH ALL BRANCH CIRCUIT AND FEEDER CONDUCTORS, SIZED IN ACCORDANCE WITH NEC ARTICLE 250.

G. DRAWINGS INDICATE DESIGN LOADS, VOLTAGES, CORRESPONDING CONTROL EQUIPMENT, FEEDERS AND OVER CURRENT DEVICES. IF EQUIPMENT ACTUALLY FURNISHED HAVE LOADS OTHER THAN THOSE INDICATED ON THE DRAWINGS OR SPECIFIED HEREIN, CONTROL EQUIPMENT, FEEDERS AND OVER CURRENT DEVICES SHALL BE ADJUSTED IN SIZE ACCORDINGLY AT NO ADDITIONAL COST TO THE OWNER. SUCH ADJUSTMENT SHALL BE SUBJECT TO THE REVIEW OF THE ARCHITECT PRIOR TO ACCEPTANCE OR PURCHASE.

H. ALL DEVICES SHALL BE INSTALLED TO COMPLY WITH ADA STANDARDS FOR ACCESSIBLE DESIGN.

I. IN GENERAL, BRANCH CIRCUIT CONDUIT AND WIRE IS NOT SHOWN. PROVIDE CONDUIT AND WIRE TO CONNECT DEVICES TO CIRCUITS SHOWN. WIRE FILL AND CONDUCTOR SIZE SHALL BE AS SPECIFIED. PROVIDE A MAXIMUM OF THREE PHASE CONDUCTORS IN A SINGLE HOME RUN. PROVIDE A DEDICATED NEUTRAL FOR EACH PHASE CONDUCTOR UNLESS OTHERWISE NOTED. INSTALL PULL BOXES AND JUNCTION BOXES AS REQUIRED TO AID IN THE INSTALLATION OF CABLES AND CONDUCTORS. LABEL LOCATION OF POWER CIRCUITS ON COVER OF ALL RECEPTACLES AND ON COVER OF JUNCTION BOXES AND BOXES ASSOCIATED WITH EQUIPMENT. INCLUDE PANEL AND CIRCUIT IDENTIFICATION. LABEL LOCATION OF POWER CIRCUITS ON COVER OF ALL LIGHT SWITCHES. INCLUDE PANEL AND CIRCUIT IDENTIFICATION.

J. SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR FINAL LOCATION OF CEILING MOUNTED EQUIPMENT. MOUNT RECESSED CEILING FIXTURES WITH FLEXIBLE METAL CONDUIT OF LENGTH REQUIRED TO MEET MOUNTING LOCATION AND NEC REQUIREMENTS. MAXIMUM FLEXIBLE CONDUIT LENGTH SHALL BE (6') SIX FEET (1828mm).

K. INSTALL ALL ITEMS NECESSARY TO COMPLETE THE INSTALLATION. TOUCH-UP OR REFINISH THE FACTORY FINISH OF EQUIPMENT MARRED DURING SHIPMENT, DEMOLITION OR INSTALLATION.

L. SUBMIT SHOP DRAWINGS OF ALL NEW EQUIPMENT, DEVICES, FIXTURES AND CABLES/CONDUCTORS TO BE INSTALLED IN SYSTEM FOR WRITTEN APPROVAL FROM ENGINEER PRIOR TO INSTALLATION. REFER TO SPECIFICATIONS FOR ADDITIONAL SUBMITTAL REQUIREMENTS.

M. ALL WORK SHALL BE GUARANTEED FREE FROM DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE.

N. MAINTAIN FIRE RATING WHERE RACEWAYS, CABLING, DEVICES, ETC. PENETRATE A FIRE RATED STRUCTURE. REFER TO THE ARCHITECTURAL DRAWINGS FOR LOCATION OF FIRE RATED WALLS AND CEILINGS. FIRE PROOF ALL PENETRATIONS AS REQUIRED.

O. SEAL INTERIOR OF ALL CONDUITS WHERE THEY PENETRATE WALLS, FLOORS, OR CEILINGS ENTERING OR EXITING STAIRWELLS.

POWER NOTES:

P. ALL CONDUCTOR SPLICES MADE BELOW THE DECK SHALL BE MADE IN JUNCTION BOXES UTILIZING SEALED WIRE CONNECTOR SYSTEMS LISTED AND IDENTIFIED FOR SUBMERSION.

LIGHTING NOTES:

Q. PROVIDE AUXILIARY CONTACTS WITH ALL OCCUPANCY AND VACANCY SENSORS FOR BAS/BMS STATUS OUTPUT.

R. COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF LUMINAIRES IN MECHANICAL ROOMS WITH DUCTS, PIPES, AND EQUIPMENT. MOUNT LUMINAIRES BELOW DUCTS AND PIPES AND DO NOT MOUNT LUMINAIRES OVER EQUIPMENT. SUPPORT LUMINAIRES INDEPENDENTLY OF DUCTS, PIPES, AND EQUIPMENT.

S. LIGHT SWITCHES SHALL BE MOUNTED ON LATCH SIDE OF DOOR, WITHIN 12 INCHES (305mm) OF DOOR/SIDELIGHT FRAMING, UNLESS NOTED OTHERWISE. LIGHT SWITCHES INSTALLED ADJACENT TO DOOR SWINGS SHALL BE MOUNTED CLEAR OF DOOR SWING AND WITHIN 12 INCHES (305mm) OF DOOR IN OPEN POSITION. COORDINATE LOCATION WITH OTHER WALL DEVICES

ELECTRICAL SYMBOLS

SYMBOL	DESCRIPTION	NOMINAL MOUNTING HEIGHT
	LIGHTING	
	RECESSED MOUNTED LIGHT FIXTURES	**
	SURFACE MOUNTED LIGHT FIXTURES	**
	SUSPENDED MOUNTED LIGHT FIXTURES	**
	RECESSED LIGHT FIXTURES ON CRITICAL POWER CIRCUIT	**
	SURFACE MOUNTED LIGHT FIXTURES ON CRITICAL POWER CIRCUIT	**
	RECESSED LIGHT FIXTURES ON LIFE SAFETY (S) POWER CIRCUIT	**
	SURFACE MOUNTED LIGHT FIXTURES ON LIFE SAFETY (S) POWER CIRCUIT	**
	RECESSED INDIRECT LIGHT FIXTURE (ORIENTATION OF BASKET INDICATED BY LINE IN CENTER OF FIXTURE)	**
	EXIT SIGN SHADED PORTION OF EXIT SIGN INDICATES FACE(S) TO BE ILLUMINATED.	**
	LIGHT TRACK	**
	POLE MOUNTED LIGHT FIXTURE	**
	WALL MOUNTED LIGHT FIXTURE	**
	ARROW OF LIGHT FIXTURE INDICATES AIMING DIRECTION	**
	POST TOP LIGHT FIXTURE	**
	EMERGENCY LIGHTING UNIT WITH BATTERY PACK	**
E P T	UL-924 EMERGENCY POWER TRANSFER DEVICE LVS CONTROLS OR EQUAL.	**
	SWITCHES	
$	SINGLE POLE SWITCH	46"
$ 2	2 POLE SWITCH	46"
$ 3	3 WAY SWITCH	46"
$ 4	4 WAY SWITCH	46"
$ L	LOW VOLTAGE SWITCH	46"
$ D	DIMMER SWITCH	46"
$ K	KEY OPERATED SWITCH	46"
$ M	MOMENTARY CONTACT SWITCH	46"
$ WP	WEATHERPROOF SWITCH	46"
$ P	SWITCH WITH PILOT LIGHT	46"
$ MMCS	MANUAL MOTOR CONTROL SWITCH	46"
$ MSS	MOTOR STARTER SWITCH	46"
T	DIGITAL TIME SWITCH	46"
O	OCCUPANCY SENSOR	**
V	VACANCY SENSOR (MANUAL ON OCCUPANCY)	**
P	DIMMING PHOTO SENSOR	**
	POWER	
	SINGLE RECEPTACLE	18"
	DUPLEX 125V RECEPTACLE	18"
	EMERGENCY DUPLEX 125V RECEPTACLE	18"
	GFCI PROTECTED DUPLEX 125V RECEPTACLE	18"
	DUPLEX W/ USB COMBO	18"
	EMERGENCY DUPLEX W/ USB COMBO	18"
	DOUBLE DUPLEX 125V RECEPTACLE	18"
	GFCI PROTECTED DOUBLE DUPLEX 125V RECEPTACLE	18"
	EMERGENCY DOUBLE DUPLEX 125V RECEPTACLE	18"
L5-20	SPECIAL PURPOSE RECEPTACLE. LABEL INDICATES RECEPTACLE TYPE.	**
	SWITCHED OR SPLIT WIRED RECEPTACLE	**
	JUNCTION BOX	
	FLOOR BOX CAST-IN-PLACE	
	POKE THROUGH	
	PEDESTAL DUPLEX 125V RECEPTACLE SERVICE FITTING	
	CEILING MOUNTED DUPLEX 125V RECEPTACLE	

** SEE DRAWING, SPECIFICATION OR LIGHTING FIXTURE SCHEDULE FOR MOUNTING HEIGHT

SYMBOL	DESCRIPTION	NOMINAL MOUNTING HEIGHT
	POWER DISTRIBUTION	
	MOTOR	**
	SAFETY DISCONNECT SWITCH	**
	FUSED STARTER	**
	COMBINATION STARTER	**
VSD	VARIABLE SPEED DRIVE	**
T	DRY TYPE TRANSFORMER-FLOOR MOUNT	**
T	DRY TYPE TRANSFORMER - CEILING/WALL MOUNT	**
	POWER OR DISTRIBUTION PANEL	**
	SURFACE MTD PANELBOARD	**
	FLUSH MTD PANELBOARD	**
	GROUND BUS BAR	
	COMMUNICATION	
	VOICE OUTLET	18"
W	WALL PHONE VOICE OUTLET	48"
	DATA OUTLET	18"
WAP	WIRELESS LAN OUTLET	CLG
	VOICE/DATA OUTLET	18"
TV	TV OUTLET	**
	INTERCOM	54"
M	MICROPHONE JACK	**
P	PROJECTOR OUTLET	CLG
AV	AUDIO VISUAL BACK BOX	18"
C	CLOCK	84"
S	SPEAKER	84"
S	SPEAKER	CLG
V	VOLUME CONTROL	54"
	PUSHBUTTON	46"
	CONDUIT AND WIRING	
	CONDUIT CONCEALED IN WALL OR OVERHEAD	**
	CONDUIT CONCEALED IN OR BELOW FLOOR	**
	CONDUIT INSTALLED EXPOSED	**
	CONDUIT VERTICAL TRANSITION	**
	CONDUIT STUBBED OUT	**
	CONDUIT SEAL	**
	EXISTING CONDUIT	**
	EXISTING CONDUIT INTERCEPTED	**
	SINGLE CHANNEL SURFACE RACEWAY	
	DUAL CHANNEL SURFACE RACEWAY	
PS	PLUG STRIP	
	MISCELLANEOUS	
	DASHED SYMBOL INDICATES EXISTING DEVICES TO BE REMOVED.	

** SEE ONE-LINE/RISER DIAGRAMS AND FEEDER SCHEDULE DRAWINGS FOR ADDITIONAL SYMBOLS AND EQUIPMENT NAMING CONVENTIONS.

ELECTRICAL SHEET INDEX

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PROJECT:
JOHN WARNER MARITIME HERITAGE CENTER

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tall ships PROVIDENCE ALEXANDRIA, VA

AGENCY:
TALL SHIPS PROVIDENCE FOUNDATION

COMMONWEALTH OF VIRGINIA
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NO	DESCRIPTION	DATE
	PERMIT SET	04/02/2021

ISSUANCE HISTORY - THIS SHEET

HGA NO: 2135-015-00

ELECTRICAL GENERAL NOTES AND SYMBOLS

DATE: APRIL 2, 2021

PERMIT SET

E000

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260500 COMMON WORK RESULTS FOR ELECTRICAL

A. General
1. Scope: Project shall be provided with a complete electrical installation, including lighting, power, and signal systems in the building as defined in the drawings and specifications.

2. Codes: Electrical work shall comply with the currently adopted National Electrical Code and all state and local codes that apply. Secure and pay for all permits, licenses and inspection fees, and coordinate all work with local inspection authorities.

3. Quality Assurance: All materials shall be new and free from defects, bearing certification for use as required by Underwriter's Laboratory, National Electrical Manufacturer's Association, National Fire Protection Association, American Society for Testing and Material, American National Standards Institute, and other standards that apply. Material shall be assembled in a manner consistent with the highest standards of construction practice. Work such as carpentry, painting or welding related to the electrical construction shall be performed by persons skilled in the related trade.

4. Testing and Adjustment: All electrical power systems shall be tested for insulation integrity and wiring continuity prior to energization. All grounding systems shall be tested for earth path resistance and continuity. After energization, phase rotation and voltage at distribution equipment and motors shall be verified, and all loads shall be balanced on the distribution system to within 5% of each other.

5. Cutting, Patching and Excavation: Electrical Contractor shall be responsible for all cutting, patching, and excavation required by the work. All work shall be accomplished in a manner complying with the requirements of General Specifications. Do not cut or drill structural members without Structural Engineer approval.

6. Rubbish Removal and Storage: Electrical Contractor shall remove all rubbish associated with the work at the end of the project and as required to prevent hazard. Electrical Contractor shall be responsible for obtaining and securing a space for material storage and staging. This space shall not interfere with construction nor shall it constitute a hazard.

7. Cleaning, Painting and Labeling: All fixtures and equipment shall be cleaned free from construction dust, paint and foreign matter both externally and internally. All equipment shall be primed and painted or galvanized in a factory finish, or in the field if so specified, using methods to assure maximum durability. Provide a typewritten index in all panelboards and an engraved plastic laminate label identifying all distribution equipment, distribution panelboards, and major equipment disconnects and control devices. Using permanent marker, label each system junction box on the face of the cover in exposed construction and at the interior in finished construction.

8. Shop drawings, Submittals, and Owner's Manual: Shop drawings shall be submitted for approval on all devices and plates, distribution equipment, control equipment, light fixtures and lamps, specified utilization equipment and systems. Alternates to specified equipment may be proposed if submitted for approval ten days prior to bid date and time. No equipment shall be considered approved until such approval is made by Addendum. The Electrical Contractor shall maintain a set of accurate as-built drawings. Two copies of Owner's manuals shall be assembled with operating and maintenance manuals for all building equipment and systems, copies of all shop drawings, specialized utilization procedures and as-built drawings. Manuals shall be submitted for approval.

9. The drawings are diagrammatic. Field verify equipment, light fixture and device locations. Coordinate electrical work with the other trades.

B. Temporary Electric Services: Provide temporary electric power and lighting services for all trades. Provide service equipment, feeders, panelboards, receptacles, and lighting as required for the trades to perform quality work in a safe environment. Work shall include ground fault protection where required and comply with OSHA and the NEC. Remove facilities prior to occupancy.

C. Outages: Outages shall be requested in writing, scheduled with the landlord, and coordinated with the electric utility where applicable. All work shall be done to minimize down time and inconvenience.

260519 LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

A. Branch circuit conductors shall be THW or THWN/THHN solid copper through #10 and stranded copper #8 and larger. Minimum wire size is #12. 75 degree C ampacities shall be used for sizing conductors and conduit fill shall conform to NEC. Feeder conductors #6 and larger shall be THW or THWN/THHN. All conductors shall be in raceways with color coded insulation and each voltage system shall be separately identified.

260526 GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

A. Provide grounding of all equipment comprising a permanent bonding together of all metallic, non-current carrying parts of the electrical system like raceways, boxes, panels, cabinets, equipment enclosures, housings, motor frames, cable trays, ducts, and lighting fixtures. Scrape light fixture finish to assure a good ground. Provide grounding conductors in all nonmetallic conduit systems, flexible conduit lengths, and surface raceways.

B. Ground all transformers and secondary neutrals to the transformer case and to the nearest grounded building structural steel. Motor circuits shall have a ground conductor pulled with the phase conductors.

260529 HANGERS AND SUPPORTS FOR ELECTRICAL SYSTEMS

A. Equipment Support: Provide support of all electrical work through the use of hanger rods, clamps, structural framing, fastening devices, and backboards. Provide vibration isolation in all supporting hardware for vibrating electrical equipment installed by this Contractor. Provide 4" high concrete pads for floor mounted equipment.

260533 RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

A. Conduits: Rigid steel, rigid aluminum, PVC coated rigid steel, IMC, EMT, Flexible steel and Liquid-tight, and PVC conduits will be used where customary with approved fittings. Provide complete raceway systems including outlet boxes, pull boxes, and fittings. Conceal conduits in finished spaces. Group conduits on racks leaving 25% conduit space and suspend from the structure. Size conduits, boxes, and bends per the NEC where not specified on plan. Provide expansion fittings, conduit seals, drain tees, conduit hubs, fire/smoke barriers where required. Metal conduits shall have continuous grounding integrity and PVC conduits shall be complete with a properly sized circuit grounding conductor.

B. Wireways: Wireways shall be used where shown on the plans. Wireways shall be galvanized steel, painted grey, with hinge cover and all flanges, elbows, connections and partitions necessary for a complete system. Wireways shall be deburred, complete with a grounding conductor, NEMA 1 inside and NEMA 3R outside.

C. Surface Metal Raceways: Surface metal raceways shall be complete with all fittings, devices, plate covers, green grounding conductor, and mounting supports to make a complete system. The following Wiremold numbers identify type to be used: Type 2100, Type 2200, Type G-3000, Type G-4000 with divider, and Type G-6000. Locate devices on 18" centers and use specification grade devices in type G-3000 and larger.

D. Pull & Junction Boxes: Indoor boxes shall be NEMA 1, constructed of a single piece code gauge steel, with folded and welded corners, complete with flat removable screw down cover. Outdoor boxes utilizing rigid metal conduit shall be cast iron with cast iron gasketed cover held down with stainless steel screws. Outdoor boxes utilizing PVC conduit shall be plastic with screw down gasketed cover. Size all boxes per NEC article 370. Boxes are not shown on plan. Provide boxes to comply with code and to provide ease of conductor installation.

E. Floor Boxes: Provide floor boxes to match underfloor duct or raceway systems installed. Finishes of coverplates, trimmings, and carpet flanges will be aluminum. Provide poke through floor outlets installed in core drilled holes with devices as shown on the drawings. AV poke through devices shall be Wiremold 6AT Evolution series AV version with AV input devices per AV contrator requirements. All other poke throughs to be Wiremold RC4 with aluminum flange with nonmetailc aluminum cover.

F. Outlet Boxes and Fittings: Interior outlet boxes shall be galvanized steel, non-gangable, with knockouts and covers or extension rings as required. Exterior surface outlet boxes shall be cast iron alloy with threaded hubs and screw down gasketed WP covers.

G. Cabinets: Cabinets shall be constructed of code gauge steel without factory knockouts, surface or flush mounted as noted on plans and schedules, and shall appear as a panelboard with a hinged and latched door. Provide barriers to separate low voltage and power wiring as required.

260553 IDENTIFICATION FOR ELECTRICAL SYSTEMS

A. Identification: Provide engraved nameplates, wire and cable markers, embossed tape, and device plate cover engraving where required or specified on the drawings. Provide engraved nameplates on electrical distribution and control equipment and the loads they serve, main power and special system cabinets, motor control centers, motor starters and variable frequency drives, capacitors, and disconnects.

262416 PANELBOARDS

A. Panelboard enclosures shall be made of code gauge steel with finished cabinet front with concealed trim clamps, gasketed door, concealed door hinges, and lockable trim door with flush locks all keyed alike. 120/240 volt circuit breakers shall be bolt-on, minimum 10kAIC rating or as shown on the drawings. Provide removable typewritten circuit breaker identification inside door.

262726 WIRING DEVICES

A. Switches shall be specification grade, 20 amp, 120 volt, quiet toggle. Provide single pole, double pole, 3-way, 4-way, or SPDT as required. Similar to Hubbell 1221 series.

B. Receptacles shall be specification grade, duplex or single outlet, voltage, and NEMA configuration as required or shown on the drawings. Provide GFI where shown on the drawings. GFI receptacles shall have test and reset buttons and meet UL 2003 standards. Specification grade shall be similar to Hubbell 5362 series.

C. Devices shall be white.

D. Interior device plate covers shall be white thermoplastic nylon and galvanized steel in unfinished areas; exterior device plates shall be in-use type cover.

E. Dimmers complete with calibrated linear vertical slide control, separate push on-push off illuminated switch, square law dimming, concealed fins, and preset feature with high adjust trim. Install dimmers where shown on the drawings. Group dimmers so that finished installation appears ganged without breaking off any cooling fins.

F. Occupancy sensors shall be WattStopper or equal dual-technology, ceiling or wall mounted solid-state units with a separate relay unit.

262816 ENCLOSED SWITCHES AND CIRCUIT BREAKERS

A. Disconnect Switches shall be heavy duty, horsepower rated, 250 volt or 600 volt, 2-pole, solid neutral, or 3-pole fused or un-fused and as required. Switch shall be quick-make quick-break with interlock and lockable enclosure door for opening. Provide NEMA 1 enclosure indoors, NEMA 3R outdoors, and NEMA 4X in interior wet locations. Fusible switches shall use current limiting fuses with rejection type fuse clips. Provide sizes shown on the drawings.

B. Circuit Breaker Disconnects: Provide molded case disconnect switches, 250 volt or 600 volt, 2-pole or 3-pole without thermal overload protection, with silver alloy contacts, common trip and trip indicator. Circuit breaker AIC rating shall coordinate with the circuit.

262913 ENCLOSED CONTROLLERS

A. Motor Starters: Provide a combination starter disconnect, in NEMA 1 enclosure with pilot light, HOA switch, control transformer with matching closing coil, 1-NO & 1-NC auxiliary contact and thermal overload protection sized to the motor. Provide a combination starter disconnect when starters are mounted in site of the motor connection and motor disconnect is deleted. Fusible switches shall be quick make, quick break with interlock to door. Starters shall be full voltage across the line sized as noted on the drawings.

265100 INTERIOR LIGHTING AND 265600 EXTERIOR LIGHTING

A. Light Fixtures: Provide a light fixture of the type scheduled at each light fixture location shown on plan. Light fixtures shall be complete with lamps, ballasts, all necessary accessories and mounting hardware, and shall be compatible with ceiling or wall system they are installed on. Provide samples as indicated on the drawings. Lenses shall be 100% virgin acrylic. LED fixtures shall meet LM-79 and LM-80 testing standards.

266000 PATHWAYS FOR COMMUNICATION AND SECURITY SYSTEMS

A. PROVIDE AN EMPTY RACEWAY SYSTEM COMPLETE WITH RACEWAYS, PULL AND JUNCTION BOXES, TERMINAL CABINETS, MOUNTING BOARDS, WALL OUTLET BOXES, COVER PLATES, SERVICE FITTINGS, SLEEVES BETWEEN FLOORS, AND NYLON PULL CORDS FULL LENGTH.

SYSTEM	CONDUIT	SO BOX	DEPTH	RING	REMARKS
LIGHTING	3/4"	4"	2-1/8"	1 GANG	
POWER	3/4"	4"	2-1/8"	1 GANG	
AUDIO VISUAL	1-1/4"	5"	2-1/8"	2 GANG	2
SECURITY	3/4"	4"	2-1/8"	1 GANG	2
DOOR ACCESS	3/4"	4"	2-1/8"	1 GANG	3
VOICE/DATA	1"	4"	2-1/8"	1 GANG	3

REMARKS:
1. ROUTE CONDUIT BACK TO SOURCE
2. ROUTE CONDUIT STUB FROM BOX UP TO ACCESSIBLE CEILING
3. ROUTE CONDUITS TO CABLE TRAY

ATTACHMENT 3

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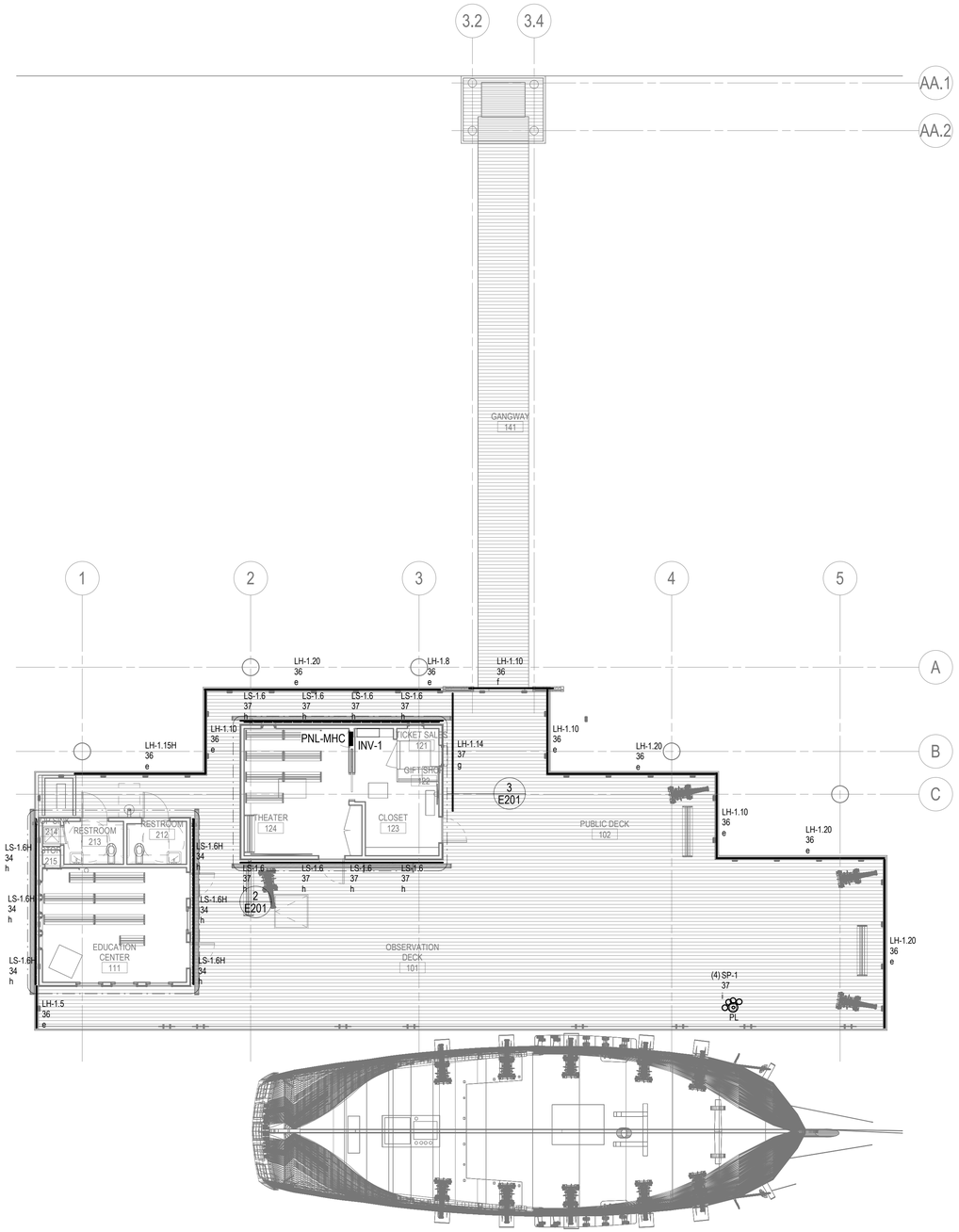
ELECTRICAL SPECIFICATIONS

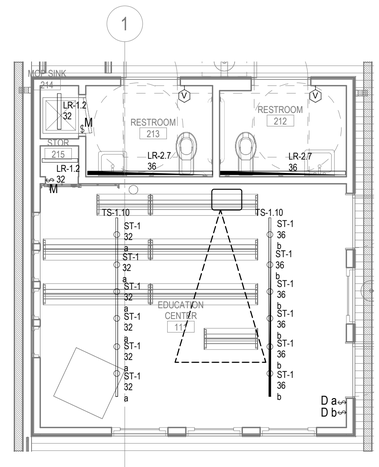
DATE: APRIL 2, 2021

PERMIT SET

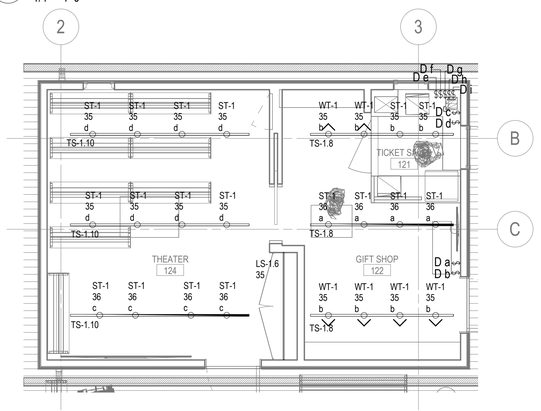
E001



1 LIGHTING PLAN - LEVEL 01
1/8" = 1'-0"



2 LIGHTING PLAN - LEVEL 01 - COTTAGE 1
1/4" = 1'-0"



3 LIGHTING PLAN - LEVEL 01 - COTTAGE 2
1/4" = 1'-0"

Scale: 1/4" = 1'-0"
0' 2' 4' 8' 16'

Scale: 1/8" = 1'-0"
0' 4' 8' 16' 32'

GENERAL NOTES

A. REFER TO EXTERIOR ELEVATIONS FOR MOUNTING HEIGHTS OF EXTERIOR WALL MOUNTED FIXTURES.

B. NORMAL POWER LIGHT FIXTURES SHALL BE CIRCUITED FROM PANEL-MHC; EMERGENCY POWER LIGHT FIXTURES SHALL BE CIRCUITED FROM INV-1 UNLESS NOTED OTHERWISE.

C. CONDUIT AND WIRING MAY NOT BE SHOWN GRAPHICALLY ON THE PLANS. PROVIDE COMPLETE CONDUIT AND WIRING BASED ON IDENTIFICATION OF CIRCUIT NUMBERS, RELAY NUMBERS, AND SWITCHING IDENTIFICATION.

D. WHERE OCCUPANCY AND VACANCY SENSORS ARE SHOWN, PROVIDE APPROPRIATE TYPES AND QUANTITIES OF SENSORS TO ACCOMMODATE ROOM GEOMETRY. REFER TO SPEC SECTION 260923 FOR DETAILS. INSTALL OCCUPANCY AND VACANCY SENSORS AT LOCATIONS RECOMMENDED BY MANUFACTURER. SEE OCCUPANCY AND VACANCY SENSOR SHOP DRAWINGS FOR REFERENCE.

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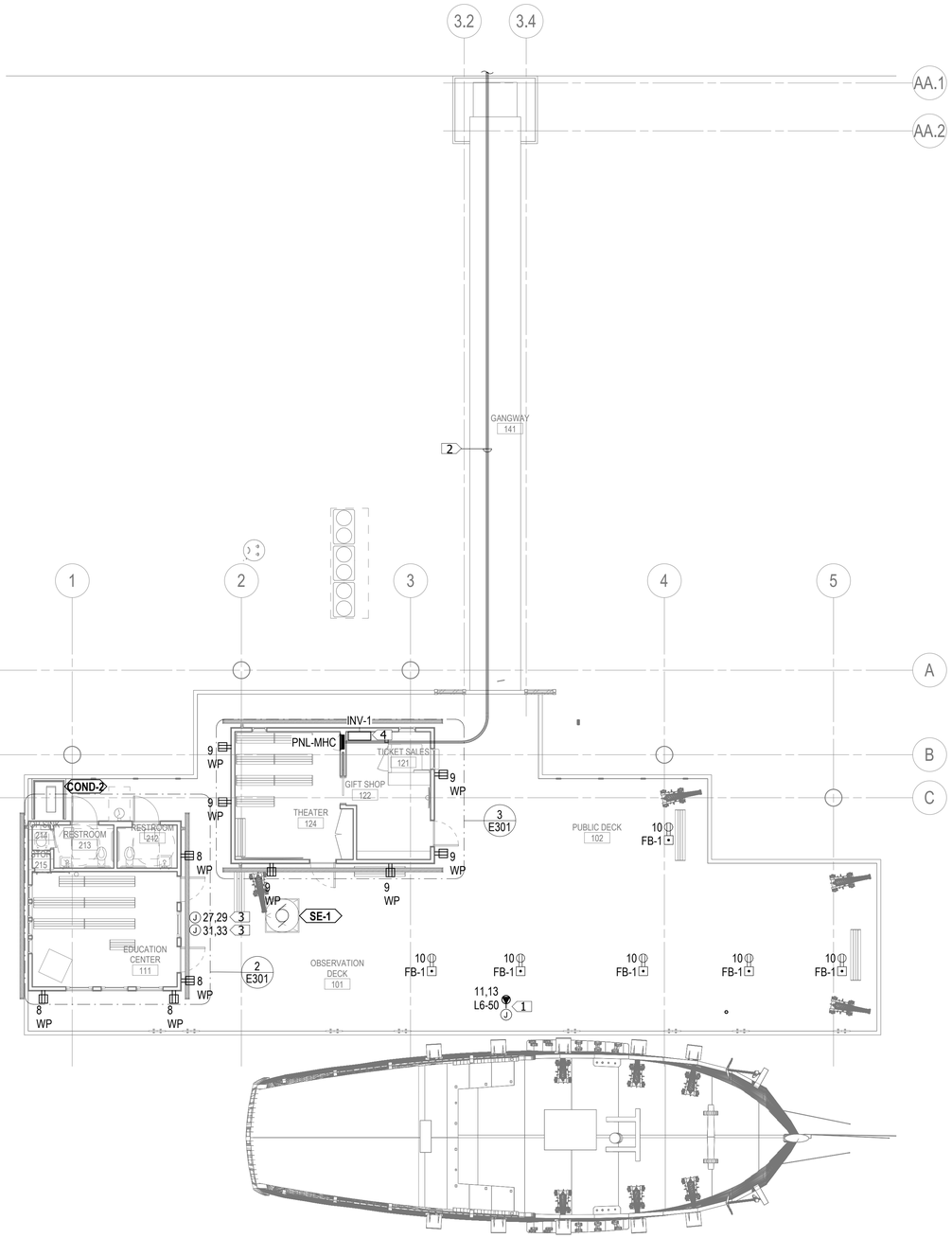
HGA NO: 2135-015-00

LIGHTING PLAN - LEVEL 01

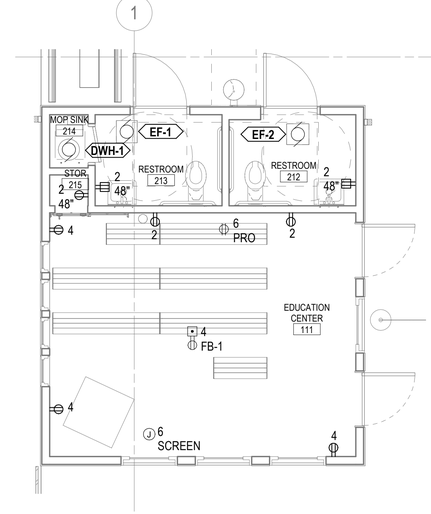
DATE: APRIL 2, 2021

PERMIT SET

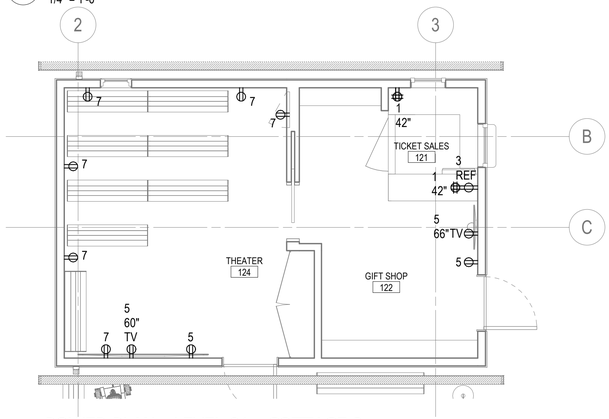
E201



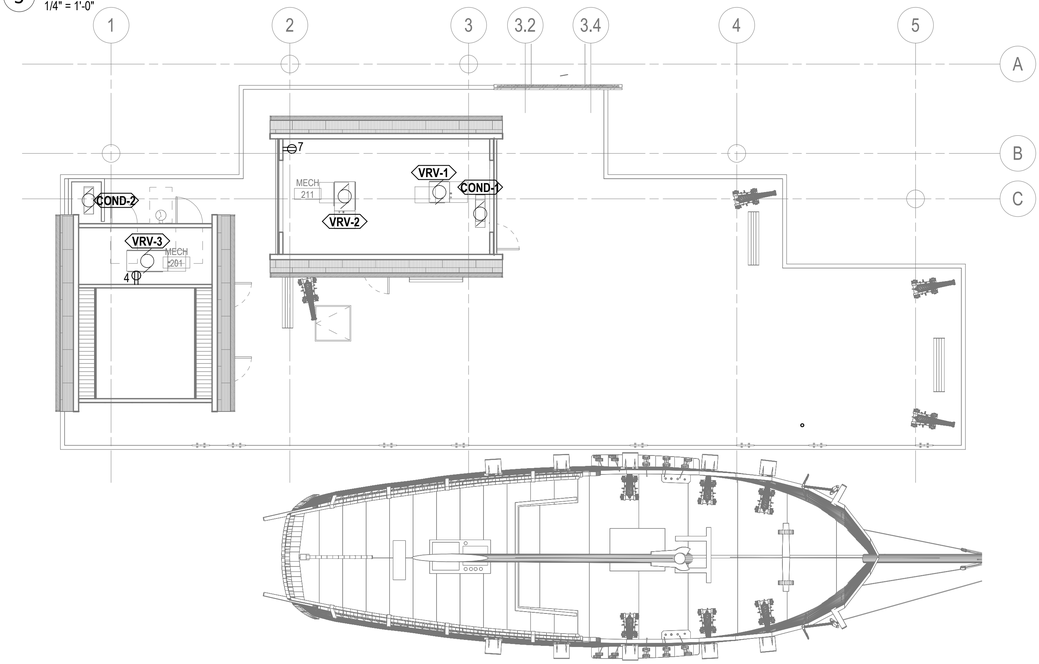
1 POWER PLAN - LEVEL 01
1/8" = 1'-0"



2 POWER PLAN - LEVEL 01 - COTTAGE 1
1/4" = 1'-0"



3 POWER PLAN - LEVEL 01 - COTTAGE 2
1/4" = 1'-0"



4 POWER PLAN - MEZZANINE
1/8" = 1'-0"

KEYNOTES:

1. PROVIDE EATON LIGHTHOUSE POWER PEDESTAL WITH THE RECEPTACLE INDICATED ON THE PLANS. UTILIZE 2#6 & 1#10 GND IN 1" CONDUIT. COORDINATE THE FINAL LOCATION WITH THE OWNER PRIOR TO ROUGH-IN, AND INSTALLATION.
2. SITE UTILITY SCOPE, AND COORDINATION WITH DOMINION ENERGY IS BEING PROVIDED BY MOFFATT & NICHOL. THE MOFFATT & NICHOL PROJECT WILL PROVIDE CONDUIT AND CABLE THROUGH THE GANGWAY. COORDINATE EXACT TIE-IN LOCATION WITH MOFFATT & NICHOL PROJECT.
3. PROVIDE CONNECTION TO HEAT TRACE.
4. PROVIDE EMERGECY LIGHTING INVERTER IN BASE CABINET. BASIS OF DISGN IS DUAL LITE DLS-1500-120-A-20-01.

GENERAL NOTES

A. REFER TO E510 SHEET FOR ADDITIONAL MOTOR INFORMATION.
B. COORDINATE LOCATION AND MOUNTING OF DEVICES WITH MILLWORK AND CASEWORK.
C. COORDINATE DEVICE LOCATIONS AND ELEVATIONS AT ALL WORKSTATIONS WITH FINAL FURNITURE PLANS AND SHOP DRAWINGS PRIOR TO DEVICE ROUGH-IN.
D. REFER TO THE ARCHITECTURAL DETAILS AND ELEVATION DRAWINGS FOR COORDINATION OF ELECTRICAL DEVICES.
E. DEVICES AND EQUIPMENT SHALL BE CIRCUITED FROM PANEL MHC UNLESS NOTED OTHERWISE.
F. CONDUIT AND WIRING MAY NOT BE SHOWN GRAPHICALLY ON THE PLANS. HOWEVER IT SHALL BE PROVIDED COMPLETE AS REQUIRED BASED ON IDENTIFICATION OF CIRCUIT NUMBERS, RELAY NUMBERS, SWITCHING IDENTIFICATION, MOTOR EQUIPMENT SCHEDULE, PANEL BOUNDARIES, SPECIFIED MINIMUM CONDUIT SIZE, SPECIFIED MINIMUM CONDUCTOR SIZES, AND/OR SPECIFIED MINIMUM GROUNDING.
G. REFER TO ONE-LINE DIAGRAMS FOR ADDITIONAL INFORMATION FOR FEEDERS AND ELECTRICAL EQUIPMENT.
H. REFER TO ELECTRICAL DETAILS SHEETS FOR LIGHTING CONTROL DIAGRAMS AND ZONE SCHEDULES.
I. CONDUIT ROUTES AS SHOWN ARE DIAGRAMMATIC IN NATURE. FIELD VERIFY ACTUAL CONDUIT ROUTES PRIOR TO INSTALLING CONDUIT. PROVIDE PULL BOXES FOR SITE CABLING AS REQUIRED, BUT NOT TO EXCEED MORE THAN 200' BETWEEN BOXES.

Scale: 1/4" = 1'-0"
0' 2' 4' 8' 16'

Scale: 1/8" = 1'-0"
0' 4' 8' 16' 32'

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HGA NO: 2135-015-00

POWER PLAN - LEVEL 01 AND MEZZANINE

DATE: APRIL 2, 2021

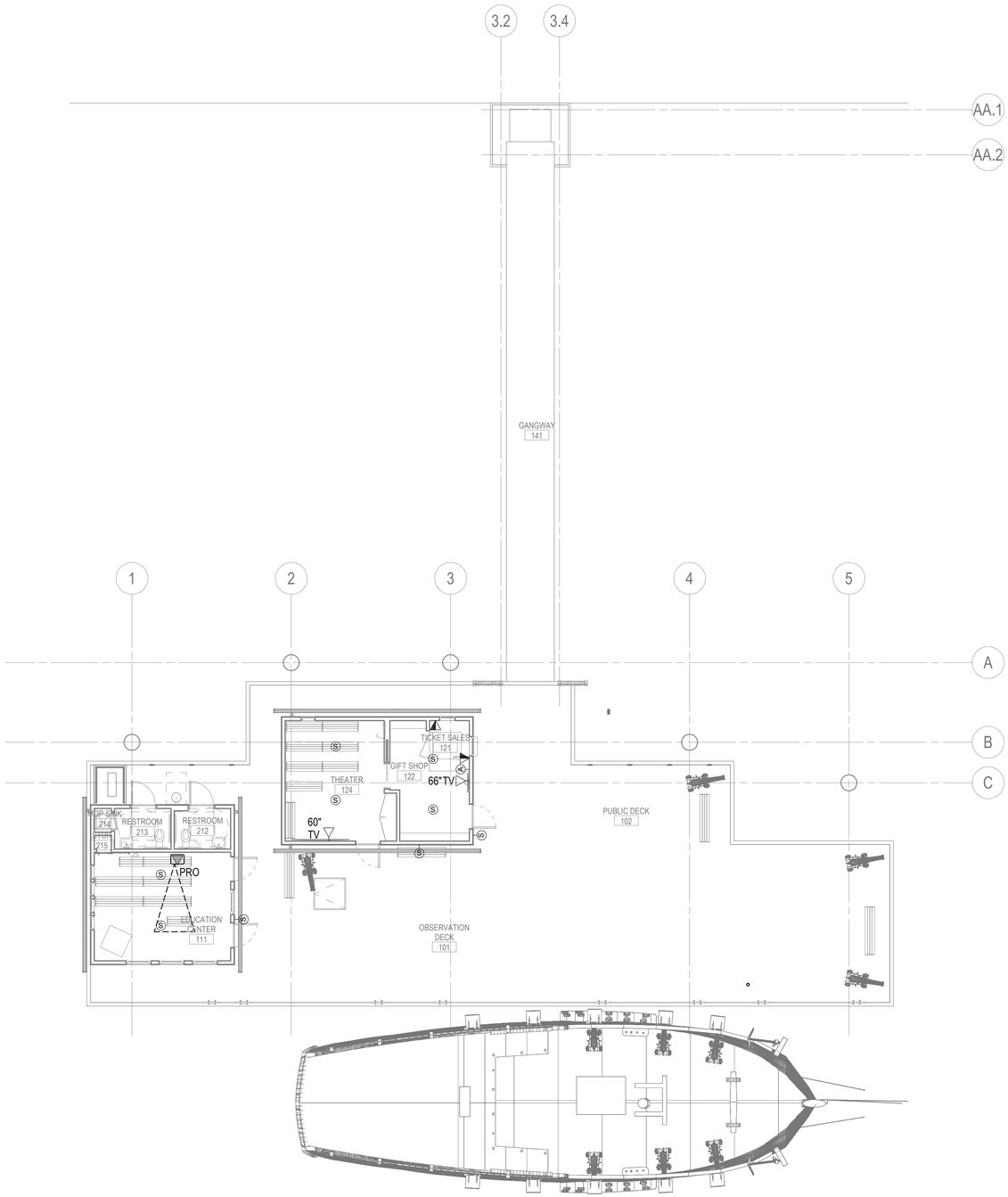
PERMIT SET

E301

GENERAL NOTES

A. REFER TO ARCHITECTURAL ELEVATIONS FOR ADDITIONAL MOUNTING INFORMATION OF DEVICES.

B. COORDINATE DEVICE LOCATIONS AND ELEVATIONS AT ALL WORKSTATIONS WITH FINAL FURNITURE PLANS AND SHOP DRAWINGS PRIOR TO DEVICE ROUGH-IN.



1 SYSTEMS PLAN - LEVEL 01
1/8" = 1'-0"

Scale: 1/8" = 1'-0"
0' 4' 8' 16' 32'

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HGA NO: 2135-015-00

SYSTEMS PLAN - LEVEL 01

DATE: APRIL 2, 2021

PERMIT SET

E401

LUMINAIRE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	WATTS	VOLTAGE	Ballast/Power Supply	EQUAL MANUFACTURERS	NOTES	REVISION HISTORY
				AUTHOR:XXX			AUTHOR:XXX		
LH-1.5	TARGETTI DURA LAMP	DFN-TB-42-O-27-24-KT09UTL2-KT09UTC1-XX	SURFACE MOUNTED 5 FEET LONG BY 0.63" WIDE BY 0.59" HEIGHT IN A CONTRACTOR BUILT HANDRAIL GROOVE FLEXIBLE LED. DRIVERS TO BE PLACED IN A WET LISTED NEMA BOX. PROVIDE DIMMABLE DRIVERS AND COORDINATE DRIVER LOCATION WITH THE ARCHITECT. PROVIDE ALL MOUNTING HARDWAIRES AS REQUIRED.	21 VA	120 V	0-10V DIMMING	OR APPROVED EQUAL		
LH-1.8	TARGETTI DURA LAMP	DFN-TB-42-O-27-24-KT09UTL2-KT09UTC1-XX	SAME AS LH-1.5 BUT 8 FEET LONG	34 VA	120 V	0-10V DIMMING	OR APPROVED EQUAL		
LH-1.10	TARGETTI DURA LAMP	DFN-TB-42-O-27-24-KT09UTL2-KT09UTC1-XX	SAME AS LH-1.5 BUT 10 FEET LONG	42 VA	120 V	0-10V DIMMING	OR APPROVED EQUAL		
LH-1.14	TARGETTI DURA LAMP	DFN-TB-42-O-27-24-KT09UTL2-KT09UTC1-XX	SAME AS LH-1.5 BUT 14 FEET LONG	59 VA	120 V	0-10V DIMMING	OR APPROVED EQUAL		
LH-1.15H	TARGETTI DURA LAMP	DFN-TB-42-O-27-24-KT09UTL2-KT09UTC1-XX	SAME AS LH-1.5 BUT 15.5 FEET LONG	65 VA	120 V	0-10V DIMMING	OR APPROVED EQUAL		
LH-1.20	TARGETTI DURA LAMP	DFN-TB-42-O-27-24-KT09UTL2-KT09UTC1-XX	SAME AS LH-1.5 BUT 20 FEET LONG	84 VA	120 V	0-10V DIMMING	OR APPROVED EQUAL		
LR-1.2	SELUX	L60-1C30-935-M-SF3-SP3-2-WH-U-DIM-SM007	RECESSED MOUNT IN GYP CEILING 2 FEET LONG X 2 3/8" WIDE X 3 9/16" TALL, LOW GLARE MICROPRISMATIC AND SECONDARY DIODE DIFFUSING & DUST TIGHT LENS, RUNS TO BE INSTALLED BACK TO BACK TO MAKE CONTINUOUS/SEAMLESS RUNS, LENS MUST BE ONE SINGLE PIECE, 7.3 W/FT, 0-10V DIMMING, UNIVERSAL VOLTAGE	15 VA	120 V	0-10V DIMMING	OR APPROVED EQUAL		
LR-2.7	SELUX	L60-1C30-935-M-SF3-PM-7-WH-U-DIM-SM007	RECESSED PERIMETER MOUNT IN GYP WITH GYP FLANGE ON OPPOSITE SIDE OF WALL, 7 FEET LONG X 2 3/8" WIDE X 3 9/16" TALL, LOW GLARE MICROPRISMATIC AND SECONDARY DIODE DIFFUSING & DUST TIGHT LENS, RUNS TO BE INSTALLED BACK TO BACK TO MAKE CONTINUOUS/SEAMLESS RUNS, LENS MUST BE ONE SINGLE PIECE, 7.3 W/FT, 0-10V DIMMING, UNIVERSAL VOLTAGE	51 VA	120 V	0-10V DIMMING	OR APPROVED EQUAL		
LS-1.6	LEDLINEAR	KALYPSO-HYDRA-HD25-W8-27-6'-10-13000202 | D-REM-096W-DIM-UNV-IP65	SURFACE MOUNTED 0.81" WIDE BY 0.33" TALL BY 6 FEET LONG LINER LED. IP67 RATED AND DUST PROOF LENSE. PROVIDE REMOTE DIMMABLE DRIVER AND COORDINATE THE LOCATION WITH ARCHITECT PROVIDE ALL MOUNTING HARDWARE AS REQUIRED. .	46 VA	120 V	0-10V DIMMING	OR APPROVED EQUAL		
LS-1.6H	LEDLINEAR	KALYPSO-HYDRA-HD25-W8-27-6.5'-10-13000202 | D-REM-096W-DIM-UNV-IP65	SAME AS LS-1.6H BUT 6.5 FEET LONG	49 VA	120 V	0-10V DIMMING	OR APPROVED EQUAL		
PL	NLS LIGHTING	RSAP-10-4R-188-9BC-ND-GRY-XX-XX	10 FEET TALL WITH 4" DIAMETER ALUMINUM ROUND POLE. CONTRACTOR TO COORDINATE AND DRILL HOLES FOR SP-1 FIXTURES TO BE MOUNTED ON THIS POLE	0 VA	0 V	N/A	OR APPROVED EQUAL		
SP-1	IGUZZINI	IPLCIO-M-HE-827-MD-UNV-15-D10-X417-X258-X250	POLE MOUNTED MARINE RATED SPOT LED LIGHT. PROVIDE HONENYCOMB LOUVER AND BLACK SNOOT.	14 VA	120 V	0-10V DIMMING	OR APPROVED EQUAL		
ST-1	SYSTEMALUX	1770S1-BO-927-20-120-52-1593-1596-52-1697-52	TRACK MOUNT STUDIO MINI LED PROJECTOR HEAD MOUNTED TO TS-1 TRACK, 26 DEG BEAM SPREAD, WITH BLACK HEX LOUVER AND BLACK SNOOT TRAILING EDGE DIMMING, UNIVERSAL VOLTAGE	13 VA	120 V	LEADING AND TRAILING EDGE DIMMING	OR APPROVED EQUAL		
TS-1.8	SYSTEMALUX	8008-S1-02 | 02-8019-S1	SURFACE MOUNTED 1 CIRCUIT TRACK. PROVIDE END FEEDER AND ALL MOUNTING HARDWARE AS REQUIRED	0 VA	120 V	LEADING AND TRAILING EDGE DIMMING	OR APPROVED EQUAL		
TS-1.10	SYSTEMALUX	8008-S1-02 | 02-8019-S1	SAME AS TS-1.8 BUT 10 FEET LONG	0 VA	120 V	LEADING AND TRAILING EDGE DIMMING	OR APPROVED EQUAL		
WT-1	SYSTEMALUX	1770S1-BO-927-60-120-52-1593-1599-1598-1596-52-1700-52	TRACK MOUNT STUDIO MINI LED PROJECTOR HEAD MOUNTED TO TK-1 TRACK, 57 DEG BEAM SPREAD WITH WALLWASHER VISO AND 1 WAT SPREAD LENS, WITH BLACK HEX LOUVER AND BLACK SNOOT. TRAILING EDGE DIMMING, UNIVERSAL VOLTAGE	13 VA	120 V	LEADING AND TRAILING EDGE DIMMING	OR APPROVED EQUAL		

GENERAL NOTES:

A. REFER TO DIVISION 26 SPECIFICATIONS FOR ADDITIONAL INFORMATION BEFORE ORDERING.
B. ALL LED LUMINAIRES MUST COMPLY WITH LM-79 AND LM-80 TESTING STANDARDS. L70 LIFE SHALL HAVE A MINIMUM OF 50,000 HOURS.
C. ANY PROPOSED SUBSTITUTIONS MUST BE SUBMITTED WITH PHOTOMETRIC CALCULATIONS AND CATALOG SHEETS WITH DATA TO PROVE EQUAL CHARACTERISTICS. PROVIDE PHYSICAL SAMPLES OF PROPOSED SAMPLES UPON REQUEST

ALLOWANCE NOTES:

A1. MAXIMUM ALLOWANCE PRICE OF $XXX PER LUMINAIRE. DOES NOT INCLUDE FREIGHT, TAXES, CONTRACTOR MARKUP OR INSTALLATION COSTS.

NOTES:

1. UL LISTED FOR WET LOCATION.
2. COORDINATE MOUNTING AND LOCATION WITH EQUIPMENT IN ROOM.
3. PROVIDE WALL TO WALL INSTALLATION. FIELD VERIFY LENGTH PRIOR TO ORDERING.
4. COORDINATE CHEVRONS WITH PLANS PRIOR TO ORDERING
5. INCLUDE POWER SUPPLIES, MOUNTING HARDWARE, AND NECESSARY COMPONENTS TO PROVIDE A COMPLETE INSTALLATION. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR WIRE SIZES AND DISTANCE LIMITATIONS.

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CIVIL/MARINE
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SUITE 300
RALEIGH, NC 27609
(919) 78-4626

PROJECT:
JOHN WARNER MARITIME HERITAGE CENTER

RIPARIAN AREA ADJACENT TO
1A PRINCE STREET
ALEXANDRIA, VA
22314

AGENCY:
TALL SHIPS PROVIDENCE FOUNDATION

COMMONWEALTH OF VIRGINIA
JOSEPH B. DALY
Lic. No. 043140
04/02/2021
PROFESSIONAL ENGINEER

NO	DESCRIPTION	DATE
	PERMIT SET	04/02/2021

ISSUANCE HISTORY - THIS SHEET

HGA NO: 2135-015-00

LUMINAIRE SCHEDULE

DATE: APRIL 2, 2021

PERMIT SET

E500

FLOOR BOX SCHEDULE								
BOX TYPE	BOX DESCRIPTION	MANUFACTURER	MODEL	POWER REQUIREMENTS	VOICE/DATA REQUIREMENTS	A/V REQUIREMENTS	COVER REQUIREMENTS	NOTES
FB-1	POWER ONLY CAST IN PLACE FLOOR BOX	WIREMOLD OR HUBBELL	RFB2 OR CFB2	DUPLEX RECEPTACLE	NONE	NONE	SURFACE STYLE	COORDINATE COLOR FOR COVER PLATES WITH ARCHITECT

ELECTRICAL MECHANICAL EQUIPMENT SCHEDULE

TAG	LOCATION	CONFIGURATION	HP	KW	FLA	MCA	OCP	VOLTAGE	PHASE	LOAD	PANEL	CIRCUIT #	CONDUIT AND WIRE	DISCONNECT FURNISHED	DISCONNECT SIZE	VSD	STARTER SIZE	VSD OR STARTER RESPONSIBILITY			CONTROL RESPONSIBILITY			START-STOP CONTROL DEVICE	OTHER EQUIPMENT INTERLOCKS / REMARKS
																		FURNISHED	INSTALLED	WIRED	FURNISHED	INSTALLED	WIRED		
CONDENSER																									
COND-1	MECH 211	SINGLE	--	--	15.3	16.5	20	240 V	1	3672 VA	PNL-MHC	23,25	2#12 & 1#12 GND IN 3/4" C	DIV. 26	30A NFSS	NO	W/ EQUIP.	DIV. 23	DIV.26	DIV. 26	DIV. 23	DIV. 23	DIV. 23	ACS	
COND-2	OBSERVATION DECK 101	SINGLE	--	--	19.0	29.1	35	240 V	1	4560 VA	PNL-MHC	28,30	2#8 & 1#10 GND IN 3/4" C	DIV. 26	60A NFSS	NO	W/ EQUIP.	DIV. 23	DIV.26	DIV. 26	DIV. 23	DIV. 23	DIV. 23	ACS	
EXHAUST FAN																									
EF-1	RESTROOM 113	SINGLE	1/10	--	4.4	5.5	15	120 V	1	528 VA	PNL-MHC	12	2#12 & 1#12 GND IN 3/4" C	DIV. 26	15A MMCS	NO	W/ EQUIP.	DIV. 23	DIV.26	DIV. 26	DIV. 23	DIV. 23	DIV. 23	ACS	
EF-2	RESTROOM 114	SINGLE	1/10	--	4.4	5.5	15	120 V	1	528 VA	PNL-MHC	14	2#12 & 1#12 GND IN 3/4" C	DIV. 26	15A MMCS	NO	W/ EQUIP.	DIV. 23	DIV.26	DIV. 26	DIV. 23	DIV. 23	DIV. 23	ACS	
SEWAGE EJECTOR																									
SE-1	OBSERVATION DECK 101	DUPLEX	5	--	22	27.5	30	240 V	1	5280 VA	PNL-MHC	24,26	2#10 & 1#10 GND IN 3/4" C	DIV. 26	30A NFSS	NO	W/ EQUIP.	DIV. 22	DIV.26	DIV. 26	DIV. 22	DIV. 22	DIV. 22	ACS	SINGLE POINT CONNECTION
VRV UNIT																									
VRV-1	MECH 211	SINGLE	--	--	0.48	0.6	15	240 V	1	115 VA	PNL-MHC	19,21	2#12 & 1#12 GND IN 3/4" C	DIV. 26	15A MMCS	NO	W/ EQUIP.	DIV. 23	DIV.26	DIV. 26	DIV. 23	DIV. 23	DIV. 23	ACS	
VRV-2	MECH 211	SINGLE	--	--	1.44	1.8	15	240 V	1	346 VA	PNL-MHC	15,17	2#12 & 1#12 GND IN 3/4" C	DIV. 26	15A MMCS	NO	W/ EQUIP.	DIV. 23	DIV.26	DIV. 26	DIV. 23	DIV. 23	DIV. 23	ACS	
VRV-3	MECH 201	SINGLE	--	--	2.72	3.4	15	240 V	1	653 VA	PNL-MHC	20,22	2#12 & 1#12 GND IN 3/4" C	DIV. 26	15A MMCS	NO	W/ EQUIP.	DIV. 23	DIV.26	DIV. 26	DIV. 23	DIV. 23	DIV. 23	ACS	
WATER HEATER																									
DWH-1	MOP SINK 115	SINGLE	--	2	8.3	10.375	15	240 V	1	1992 VA	PNL-MHC	16,18	2#12 & 1#12 GND IN 3/4" C	DIV. 26	15A MMCS	NO	W/ EQUIP.	DIV. 22	DIV.26	DIV. 26	DIV. 22	DIV. 22	DIV. 22	ACS	

GENERAL NOTES:

A. EQUIPMENT INFORMATION IN SCHEDULE IN BASED ON DESIGN EQUIPMENT. FINAL REQUIREMENTS TO BE COORDINATED WITH EQUIPMENT PROVIDED BY DIVISION 22, 23 AND 26.

B. WIRE SIZE IS BASED ON MCA REQUIREMENTS OF EQUIPMENT WITHOUT CONSIDERATION FOR VOLTAGE DROP BASED ON INSTALLED WIRE LENGTHS.

C. REFER TO MECHANICAL ELECTRICAL EQUPIMENT SCHEDULE FOR ADDITIONAL MOTOR INFORMATION, CONDUIT, AND CONDUCTOR SIZES TO MECHANICAL EQUIPMENT.

D. REFER TO FEEDER SCHEDULE FOR WIRE AND CONDUITT SIZES AS WELL AS FEEDER REQUIREMENTS.

E. REFER TO PANEL SCHEDULE FOR RATINGS AND ADDITIONAL REQUIREMENTS OF PANELBOARDS AND DISTRIBUTION BOARDS.

KEYNOTES:

1. SOLAR ROOF SYSTEM IS TO BE PROVIDED BY TESLA. COORIDNATE REQUIREMENTS FOR PV SYSTEM WITH TESLA.

2. SITE UTILITY SCOPE AND COORDINATION WITH DOMINION ENERGY IS BEING PROVIDED BY MOFFATT & NICHOL. COORDINATE ELECTRICAL SERVICE DISTRIBUTION REQUIREMENTS AND TIE-IN WITH MOFFATT & NICHOL.

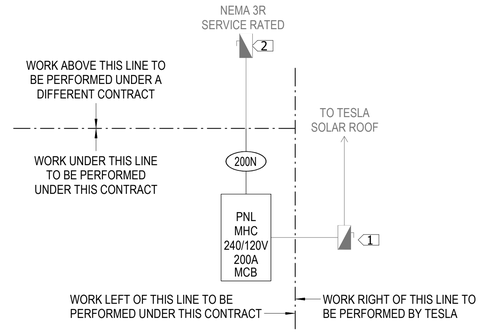
Panel: PNL-MHC

Location: GIFT SHOP 122 | **Distribution System:** 240/120V | **A.I.C Rating:** 10 kAIC
Supply From: | **Phase:** 1 | **Mains Type:** MCB
Mounting: RECESSED | **Wire:** 3 | **Mains Rating:** 200 A
Enclosure Type: NEMA 1 | **MCB Rating:** 200 A

Note	Descriptions	Amps	Pole	CKT	A		B		CKT	Pole	Amps	Descriptions	Note
	RCPT - RM 121	20 A	1	1	720 VA	900 VA			2	1	20 A	RCPT - RM 111-114	
	REFRIGERATOR - RM 121	20 A	1	3			960 VA	900 VA	4	1	20 A	RCPT - RM 111, 201	
	RCPT - RM 124, 122	20 A	1	5	1080 VA	600 VA			6	1	20 A	PROJECTOR & SCREEN - RM 111	
	RCPT - RM 124	20 A	1	7			1260 VA	720 VA	8	1	20 A	RCPT - EXTERIOR	
	RCPT - EXTERIOR	20 A	1	9	1080 VA	1080 VA			10	1	20 A	RCPT - RM 101, 102	
	RCPT - RM 101	50 A	2	11			4800 VA	528 VA	12	1	15 A	EF-1 - RM 113	
				13	4800 VA	528 VA			14	1	15 A	EF-2 - RM 114	
	VRV-2 - RM 211	15 A	2	15			173 VA	996 VA	16	2	15 A	DWH-1 - RM 115	
				17	173 VA	996 VA			18				
	VRV-1 - RM 211	20 A	2	19			58 VA	326 VA	20	2	15 A	VRV-3 - RM 201	
				21	58 VA	326 VA			22				
	COND-1 - RM 211	20 A	2	23			1836 VA	2640 VA	24	2	30 A	SE-1 - RM 101	
				25	1836 VA	2640 VA			26				
	TANK HEAT TRACE	30 A	2	27			1800 VA	2280 VA	28	2	35 A	COND-2 - RM 101	
				29	1800 VA	2280 VA			30				
	PIPING HEAT TRACE	30 A	2	31			1800 VA	104 VA	32	1	20 A	LTG - COTTAGE 1	
				33	1800 VA	296 VA			34	1	20 A	LTG - COTTAGE 1 EXTERIOR	
	LTG - COTTAGE 2	20 A	1	35			246 VA	901 VA	36	1	20 A	EMERGENCY LIGHTING INVERTER	
	LTG - COTTAGE 2 EXTERIOR	20 A	1	37	480 VA	0 VA			38	1	20 A	SPARE	--
--	SPARE	20 A	1	39			0 VA	0 VA	40	1	20 A	SPARE	--
--	SPARE	20 A	1	41	0 VA	0 VA			42	1	20 A	SPARE	--
					Phase A		Phase B						
					23473 VA		22327 VA						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
01 - Ltg	2027 VA	125.00%	2533 VA		
03 - Rcpt Non-Dwlg	7020 VA	100.00%	7020 VA	**Total Conn. Load:**	45800 VA
04 - Equipment	11880 VA	100.00%	11880 VA	**Total Est. Demand:**	47627 VA
05 - Equipment Greater than 3 Hr	0 VA	0.00%	0 VA	**Total Conn. Current:**	191 A
06 - Heating	9192 VA	100.00%	9192 VA	**Total Est. Demand Current:**	198 A
07 - Heating Greater than 3 Hr	0 VA	0.00%	0 VA		
08 - Cooling	8693 VA	100.00%	8693 VA		
09 - Cooling Greater than 3 Hr	0 VA	0.00%	0 VA		
10 - NS Intmtt Motor	0 VA	0.00%	0 VA		
11 - Kitchen 65% (6 or more Items)	0 VA	0.00%	0 VA		
Spare	0 VA	0.00%	0 VA		

Panelboard Notes:
A. ALL RECEPTACLES ARE TO BE GFCI PROTECTED.



1 ELECTRICAL ONE-LINE DIAGRAM

FEEDER (AMPS)	FEEDER AND CONDUIT SIZES - AL	
	CONDUIT	CONDUCTOR
200N	3"	4#250 AL & 1#6 CU GND

NOTES:
* VOLTAGE DROP CONSIDERATIONS NOT TAKEN INTO CONSIDERATION IN TABLE.

100= 3 WIRES
100N= 4 WIRES

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PROJECT:
JOHN WARNER MARITIME HERITAGE CENTER

RIPARIAN AREA ADJACENT TO 1A PRINCE STREET
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AGENCY:
TALL SHIPS PROVIDENCE FOUNDATION

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JOSEPH B. DALY
Lic. No. 043140
04/02/2021
PROFESSIONAL ENGINEER

NO	DESCRIPTION	DATE
	PERMIT SET	04/02/2021

ISSUANCE HISTORY - THIS SHEET

HGA NO: 2135-015-00

ELECTRICAL SCHEDULES

DATE: APRIL 2, 2021

PERMIT SET

E510

ATTACHMENT 3

COMcheck Software Version 4.1.5.0

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2015 IECC
Project Title: Tall Ships Foundation
Project Type: New Construction

Construction Site:
Alexandria, VA 22314

Owner/Agent:
Claire Sassin
Tall Ships Foundation
Alexandria, VA 22314

Designer/Contractor:
HGA
44 Canal Center Plaza
Suite 100
Alexandria, VA 22314
703.317.6024

Additional Efficiency Package(s)

Reduced interior lighting power. Requirements are implicitly enforced within interior lighting allowance calculations.

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B X C)
1-Cottage 1 (Museum)	380	0.92	330
2-Cottage 2 (Museum)	384	0.92	353
		Total Allowed Watts =	683

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-Cottage 1 (Museum)				
ST-1: Other:	1	12	13	156
LR-2.7: Other:	1	2	51	102
LR-1.2: Other:	1	2	15	30
2-Cottage 2 (Museum)				
ST-1: Other:	1	18	13	234
WT-1: Other:	1	6	13	78
		Total Proposed Watts =		600

Interior Lighting PASSES: Design 12% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2015 IECC requirements in COMcheck Version 4.1.5.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title | Signature | Date

COMcheck Software Version 4.1.5.0

Exterior Lighting Compliance Certificate

Project Information

Energy Code: 2015 IECC
Project Title: Tall Ships Foundation
Project Type: New Construction
Exterior Lighting Zone: 3 (Other)

Construction Site:
Alexandria, VA 22314

Owner/Agent:
Claire Sassin
Tall Ships Foundation
Alexandria, VA 22314

Designer/Contractor:
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Suite 100
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Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B X C)
Plaza area	2458 ft2	0.16	Yes	393
Illuminated area of facade wall or surface	88 ft2	0.15	No	13
Main entry	9 ft of door	30	Yes	270
Other door (not main entry)	9 ft of door	20	Yes	180
		Total Tradable Watts (a) =		843
		Total Allowed Watts =		856
		Total Allowed Supplemental Watts (b) =		750

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
(b) A supplemental allowance equal to 750 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Proposed Exterior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Plaza area (2458 ft2): Tradable Wattage				
LH-1.5: Other:	1	1	21	21
LH-1.8: Other:	1	1	34	34
LH-1.10: Other:	1	4	42	168
LH-1.20: Other:	1	4	84	336
SP-1: Other:	1	4	14	56
LH-1.15H: Other:	1	1	65	65
Illuminated area of facade wall or surface (88 ft2): Non-tradable Wattage				
LS-1.8H: Other:	1	4	49	196
LS-1.6: Other:	1	8	46	368
Main entry (9 ft of door width): Tradable Wattage				
LS-1.8H: Other:	1	2	49	98
LS-1.6: Other:	1	1	46	46
Other door (not main entry) (9 ft of door width): Tradable Wattage				
LH-1.14: Other:	1	1	59	59
Total Tradable Proposed Watts =				683

Exterior Lighting PASSES: Design 15% better than code

Exterior Lighting 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 exterior lighting systems have been designed to meet the 2015 IECC requirements in COMcheck Version 4.1.5.0 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title | Signature | Date

COMcheck Software Version 4.1.5.0

Inspection Checklist

Energy Code: 2015 IECC

Requirements: 85.0% were addressed directly in the COMcheck software.

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented; or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req ID	Plan Review	Complies?	Comments/Assumptions
C103.2 (PR4)	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment, and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C103.2 (PR8)	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment, and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C406 (PR9)	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met: **Location on plans/spec:** M002

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C402.2.6 (FO12)	Radiant heating systems panels insulated to >=R-3.5 on face opposite space being heated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply. *See the Envelope Assemblies table for values.*

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.1 (EL15)	Lighting controls installed to uniformly reduce the lighting load by at least 50%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.1 (EL18)	Occupancy sensors installed in required spaces	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.1, C405.2.2.3 (EL23)	Independent lighting controls installed per approved lighting plans and all manual controls readily accessible and visible to occupants.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.2.1 (EL22)	Automatic controls to shut off all building lighting installed in all buildings.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.3 (EL16)	Daylight zones provided with individual controls that control the lights independent of general area lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.3, C405.2.3.1, C405.2.3.2 (EL20)	Primary sidelighted areas are equipped with required lighting controls	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.3, C405.2.3.1, C405.2.3.3 (EL21)	Enclosed spaces with daylight area under skylights and rooftop monitors are equipped with required lighting controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.4 (EL4)	Separate lighting control devices for specific uses installed per approved lighting plans.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.4 (EL8)	Additional interior lighting power allowed for special functions per the approved lighting plans, and is automatically controlled and separated from general lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.5 (EL25)	Automatic lighting controls for exterior lighting installed. Controls will be daylight controlled, set based on business operation time of day, or reduce connected lighting > 30%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.3 (EL6)	Exit signs do not exceed 5 watts per face.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

HGA
44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766

STRUCTURE
ADTEK ENGINEERS, INC
9990 FAIRFAX BLVD #300
FAIRFAX, VA 22030
(703) 691-4040

CIVIL/MARINE
MOFFATT & NICHOL
4700 FALLS OF NEUSE ROAD
SUITE 300
RALEIGH, NC 27609
(919) 78-4626

PROJECT:
JOHN WARNER MARITIME HERITAGE CENTER

RIPARIAN AREA ADJACENT TO
1A PRINCE STREET
ALEXANDRIA, VA
22314

tall Ship PROVIDENCE ALEXANDRIA, VA

AGENCY:
TALL SHIPS PROVIDENCE FOUNDATION

COMMONWEALTH OF VIRGINIA
JOSEPH B. DALY
Lic. No. 043140
04/02/2021
PROFESSIONAL ENGINEER

NO	DESCRIPTION	DATE
	PERMIT SET	04/02/2021

ISSUANCE HISTORY - THIS SHEET

HGA NO: 2135-015-00

ELECTRICAL COMCHECK

DATE: APRIL 2, 2021

PERMIT SET

E600

Section # & Req ID	Final Inspection	Complies?	Comments/Assumptions
C101.3, C408.2.5.2 (FI17)	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.4.1 (FI18)	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Interior Lighting fixture schedule for values.*
C405.5.1 (FI19)	Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Exterior Lighting fixture schedule for values.*
C408.2.5.1 (FI16)	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.3 (FI33)	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

ATTACHMENT 3

HGA

44 Canal Center Plaza, Suite 100
Alexandria, Virginia 22314
Telephone 703.836.7766

STRUCTURE
ADTEK ENGINEERS. INC
9990 FAIRFAX BLVD #300
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PROJECT:
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22314

AGENCY:
TALL SHIPS PROVIDENCE FOUNDATION

COMMONWEALTH OF VIRGINIA
JOSEPH B. DALY
Lic. No. 043140
04/02/2021
PROFESSIONAL ENGINEER

NO	DESCRIPTION	DATE

ISSUANCE HISTORY - THIS SHEET

HGA NO: 2135-015-00

ELECTRICAL COMCHECK

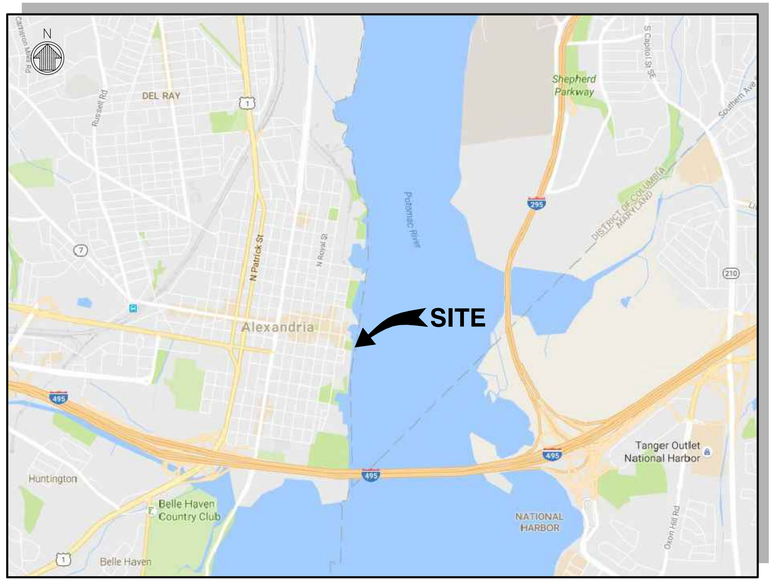
DATE: APRIL 2, 2021

PERMIT SET

E601

UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

ALEXANDRIA VIRGINIA
TOWNSHIP 3N, RANGE 69W, SECTION 34



VICINITY MAP
NTS

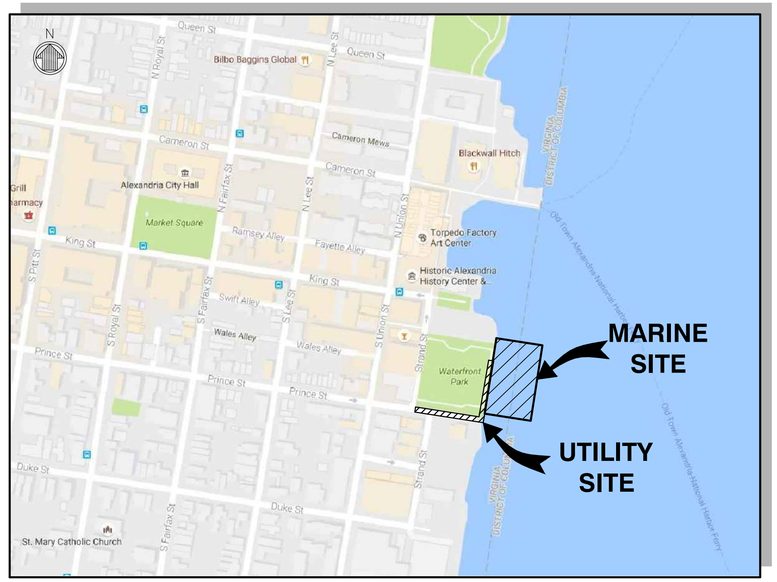
UTILITY INFRASTRUCTURE PROJECT DESCRIPTION:

THE JOHN WARNER MARITIME HERITAGE CENTER PROJECT IS LOCATED LANDWARD OF WATERFRONT PARK (PARCEL 075.01-05-08) AND INCLUDES WORK WITHIN THE RIGHT-OF-WAY OF PRINCE STREET.

THE UTILITY INFRASTRUCTURE ENCUMBERS 4,820 SQUARE FEET (0.111 ACRES). APPROXIMATELY 3,159 SQUARE FEET LIES WITHIN THE RESOURCE PROTECTION AREA (RPA). THE PARCEL IS ZONED WATERFRONT PARK AND RECREATION (WPR). THE UTILITY INFRASTRUCTURE WILL SUPPORT THE OPERATION OF THE JOHN WARNER MARITIME HERITAGE CENTER AND MOORING OF TALL SHIP PROVIDENCE.

MARINE INFRASTRUCTURE PROJECT DESCRIPTION:

THE MARINE INFRASTRUCTURE FOR THE PROJECT CONSISTS OF THE CONSTRUCTION OF AN 80 SQUARE FOOT PILE SUPPORTED TIMBER LANDING, A 6-FOOT X 67-FOOT LONG ALUMINUM ARTICULATING GANGWAY, AND A FLOATING BARGE PLATFORM THAT SUPPORTS MOORING OF THE 64-FOOT LONG TALL SHIP PROVIDENCE AND JOHN WARNER MARITIME HERITAGE CENTER. THE FLOATING BARGE PLATFORM IS ANCHORED BY FIVE (5) 80-FOOT LONG 24-INCH DIAMETER STEEL PIPE PILES THAT LIE LANDWARD OF THE PIERHEAD LINE WITH THE ENTIRE MARINE INFRASTRUCTURE EXTENDING APPROXIMATELY 115 FEET OFFSHORE OF THE EXISTING BULKHEAD. THE MARINE INFRASTRUCTURE APPROVED UNDER SUP #2021-00001 AND BUILDING PERMIT BLDG 2021-00332.



LOCATION PLAN
NTS

PREPARED FOR:

TALL SHIP PROVIDENCE FOUNDATION
201 N. UNION STREET, SUITE110
ALEXANDRIA, VIRGINIA 22314
703-304-6685
CONTACT: CLAIR SASSIN
clair.sassin@tallshipprovidence.org

PREPARED BY:

4700 FALLS OF NEUSE RD, SUITE 300
RALEIGH, NC 27609
919-781-4626
CONTACT: MARK PIRRELLO, P.E.
mpirrello@moffattnichol.com
VA PE: 0402030083

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ISSUED: 2022-10-20
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PLAN NUMBER: _____

APPROVED DATE: _____

DEPARTMENT OF TRANSPORTATION
& ENVIRONMENTAL SERVICES.

No.	Description	Date	Appr
2	FINAL 2 COMMENTS	10/2022	MAP
1	FINAL 1 COMMENTS	09/2022	MAP
0	FINAL SUBMITTAL	07/2022	MAP
Mark			

UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

COVER SHEET

Rev. 0
Date: SEPTEMBER 2022
M&N Project No. 201466
Drawing scale:
Drawing Scale: 1:1 (D SHEET)
Prot scale: 1:1 (D SHEET)
Designed by: M. PIRELLO
Drawn by: BDF/VNM
Chd by: MAP
Reviewed by: P. GRANEY
Submitted by: MARK PIRRELLO
MOFFATT & NICHOL

4700 FALLS OF NEUSE RD, SUITE 300
RALEIGH, NC 27609
919-781-4626

moffatt & nichol

COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
Lic. No. 030083
PROFESSIONAL ENGINEER
SEAL

Sheet Reference No.
G-001
INDEX: 1 OF 41

File: Q:\RA\201466\0500_CAD_Active_201466\201466-G001 - Plotted: 10/20/2022 3:00 PM by MORGAN, NEKOL - Saved: 10/20/2022 1:24 PM by NMORGAN

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

PROJECT NARRATIVE:

UTILITY INFRASTRUCTURE:

THE UTILITY INFRASTRUCTURE CONSISTS OF THE INSTALLATION OF LAND-BASED UTILITY SERVICES THAT WILL CONNECT FROM THE FLOATING JOHN WARNER MARITIME HERITAGE CENTER ON THE POTOMAC RIVER TO EXISTING PUBLIC AND PRIVATE UTILITIES SERVICES. THE SCOPE OF THE UTILITY INFRASTRUCTURE ALSO INCLUDES THE ACCOMPANYING UTILITY EQUIPMENT, BULKHEAD MODIFICATIONS TO SUPPORT UTILITY ROUTING, AND REPAIR OF CITY INFRASTRUCTURE ARE REQUIRED FOR UTILITY INSTALLATION.

1. INSTALLATION OF A 3-INCH OUTSIDE DIAMETER (OD) HDPE SANITARY SEWER FORCE MAIN PIPE FROM GANGWAY LANDING STRUCTURE (PERMIT NO. BLDG 2021-00332) ALONG THE BULKHEAD FACE AND WITHIN THE PRINCE STREET RIGHT-OF-WAY.
2. INSTALLATION OF A PRIVATE MANHOLE WITHIN THE PRINCE STREET RIGHT-OF-WAY TO RECEIVE SANITARY SEWER FLOWS FROM JOHN WARNER MARITIME HERITAGE CENTER AND CONVEY THOSE FLOWS VIA A 8-INCH O.D. HDPE PIPE TO EXISTING MANHOLE ON THE SOUTHEAST CORNER OF THE INTERSECTION OF PRINCE STREET AND STRAND STREET.
3. INSTALLATION OF 2-INCH OD HDPE POTABLE WATER PIPE FROM THE GANGWAY LANDING STRUCTURE (PERMIT NO. BLDG 2021-00332) ALONG THE BULKHEAD FACE TO A GATE VALVE IN ACCORDANCE WITH VIRGINIA AMERICAN WATER DESIGN REQUIREMENTS.
4. INSTALLATION OF BACKFLOW PREVENTER AND WATER METER IN ACCORDANCE WITH VIRGINIA AMERICAN WATER DESIGN REQUIREMENTS.
5. INSTALLATION OF A BRANCH WATER LINE (8-INCH OD DUCTILE IRON PIPE) AND GATE VALVE TO CONVEY WATER SERVICE FROM NEW GATE VALVE TO EXISTING 12-INCH OD DUCTILE IRON POTABLE WATER SUPPLY LINE AT NORTHWEST CORNER OF INTERSECTION OF PRINCE ST WITH STRAND ST.
6. INSTALLATION OF FIRE DEPARTMENT CONNECTION (FDC), AT END OF PRINCE ST RIGHT OF WAY, AND 4-INCH DUCTILE IRON PIPE FROM THE GANGWAY LAND STRUCTURE ALONG FACE OF THE BULKHEAD TO FDC.
7. INSTALLATION OF NEW FIRE HYDRANT WITH 6-INCH DUCTILE IRON PIPE CONNECTION.
8. INSTALLATION OF NEMA 6P ELECTRICAL ENCLOSURE HOUSING ELECTRICAL SERVICE EQUIPMENT.
9. INSTALLATION OF ELECTRICAL CONDUIT TO CONNECT TO EXISTING DOMINION POWER TRANSFORMER AND POWER SUPPLY.
10. COORDINATION WITH DOMINION POWER AND VIRGINIA AMERICAN WATER.

MARINE INFRASTRUCTURE:

THE MARINE INFRASTRUCTURE CONSISTS OF THE FOLLOWING:

1. TIMBER LANDING PIER BUILT WITH COMPOSITE DECKING AND 12"Ø TIMBER PILES.
2. INSTALLATION OF A 6-FT WIDE BY 67-FT LONG ARTICULATING ALUMINUM GANGWAY WITH CONNECTION HARDWARE WITH BARGE.
3. INSTALLATION OF FIVE 24"Ø x 5/8 WT STEEL PIPE PILES WITH EPOXY COATING AND ASSOCIATED GUIDE FRAMED TO ANCHOR BARGE.
4. INSTALLATION OF VESSEL FENDER SYSTEM AND MOORING HARDWARE.
5. INSTALLATION OF UTILITY SERVICES (ELECTRIC, POTABLE WATER, FIRE WATER, SANITARY SEWAGE, AND COMMUNICATION) ON BARGE AND GANGWAY TO CONNECT TO LANDSIDE SERVICE CONNECTION.

GENERAL NOTES:

1. GENERAL NOTES ARE NOT INTENDED TO REPLACE THE CONTRACT DOCUMENTS. SEE CONTRACT DOCUMENTS FOR REQUIREMENTS IN ADDITION TO THESE GENERAL NOTES. THE CONTRACT DOCUMENTS SHALL CONSIST OF THE COMPLETE PROJECT SPECIFICATIONS AND WORKING DRAWINGS INCLUDING BUT NOT LIMITED TO GENERAL PROVISIONS, SPECIAL PROVISIONS, DIVISION 1 REQUIREMENTS, TECHNICAL SPECIFICATIONS, AND ANY RELEVANT ADDENDA ITEMS. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
2. THE WORKING DRAWINGS ARE NOT NECESSARILY COMPLETE IN EVERY DETAIL. THE CONTRACTOR SHALL PROVIDE ALL EQUIPMENT, MATERIAL, SERVICES, LABOR, ETC FOR A COMPLETE INSTALLATION INCLUDING WORK REASONABLY INFERRED FROM THE CONTRACT DOCUMENTS AS BEING NECESSARY TO PRODUCE THE INTENDED RESULTS, WHETHER SHOWN OR NOT ON THE DRAWINGS.
3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE STARTING WORK. DO NOT SCALE PROJECT DRAWINGS. REPORT ANY DISCREPANCIES IN THE DRAWINGS AND/OR SPECIFICATIONS TO THE ENGINEER FOR CLARIFICATIONS OR ADJUSTMENTS PRIOR TO COMMENCING WORK. THE CONTRACTOR SHALL NOT BEGIN DEMOLITION/CONSTRUCTION IN ANY SUCH AFFECTED AREA UNTIL THE DISCREPANCY HAS BEEN RESOLVED.
4. SHOULD THERE BE A CONFLICT BETWEEN THESE GENERAL NOTES, WORKING DRAWINGS, AND/OR SPECIFICATIONS, THE MOST RESTRICTIVE INTERPRETATION SHALL PREVAIL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING FROM THE ENGINEER ANY CLARIFICATION OR INTERPRETATION OF THE GENERAL NOTES, WORKING DRAWINGS, AND/OR SPECIFICATIONS IN WRITING AND IN ADVANCE OF THE BEGINNING OF DEMOLITION/CONSTRUCTION. NUMERICAL DIMENSIONS AND ELEVATIONS SHOWN SHALL SUPERCEDE ANY DISCREPANCY IN THE SCALING ON THE DRAWINGS.
5. ALL FEDERAL, STATE, AND LOCAL SAFETY REGULATIONS ARE TO BE STRICTLY FOLLOWED. METHODS OF DEMOLITION/CONSTRUCTION AND INSTALLATION OF MATERIAL IS THE CONTRACTOR'S RESPONSIBILITY.
6. THE CONTRACTOR SHALL ABIDE BY ALL APPLICABLE FEDERAL, STATE, AND LOCAL ENVIRONMENTAL PROTECTION STANDARDS, LAWS, AND REGULATIONS.
7. THE CONTRACTOR SHALL KEEP ACCURATE RECORDS OF ANY CHANGES MADE TO THE DRAWINGS ON A SEPARATE WHITE SET OF PLANS PROVIDED BY THE ENGINEER. THESE ANNOTATED DRAWINGS SHALL BE RETURNED TO THE ENGINEER PRIOR TO APPROVAL OF THE FINAL PAYMENT APPLICATION.
8. EXISTING CONSTRUCTION, INCLUDING UTILITIES AND OTHER MISCELLANEOUS ITEMS WHICH ARE TO REMAIN, SHALL REMAIN UNDISTURBED AND BE PROTECTED, UNLESS NOTED OTHERWISE.
9. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING, AT HIS OWN EXPENSE, ANY AND ALL DAMAGES THAT MAY OCCUR OUTSIDE AND WITHIN THE LIMITS OF THIS PROJECT AS A RESULT OF DEMOLITION/CONSTRUCTION.
10. ALL AREAS DISTURBED DURING DEMOLITION/CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION, AT NO EXPENSE TO THE OWNER, UNLESS OTHERWISE NOTED.
11. THE CONTRACTOR SHALL PROTECT ADJACENT STRUCTURES, UTILITIES, PEDESTRIANS, VEHICULAR, AND MARINE TRAFFIC FROM POTENTIAL DAMAGE DUE TO CONTRACTOR'S OPERATIONS.
12. THE CITY OF ALEXANDRIA WILL HAVE INPUT TO DESIGNATE AND/OR LIMIT AREAS OF CONSTRUCTION, STAGING, ACCESS, AND STORAGE.
13. WHERE PEDESTRIAN AND DRIVER SAFETY IS ENDANGERED IN THE AREA OF DEMOLITION/ CONSTRUCTION WORK, USE TRAFFIC BARRICADES ("JERSEY" TYPE BARRIERS) WITH FLASHING LIGHTS. BARRICADES SHALL BE POSITIONED A MINIMUM OF 5 FEET FROM THE EDGE OF ANY OPENINGS IN THE STRUCTURE RESULTING FROM DEMOLITION/CONSTRUCTION ACTIVITIES.
14. PILES THAT BECOME DAMAGED OR FOR OTHER REASONS DO NOT BECOME A PERMANENT PART OF THE STRUCTURE SHALL BE EXTRACTED.
15. THE OWNER MAKES NO REPRESENTATIONS ABOUT SUBSURFACE CONDITIONS THAT MAY BE ENCOUNTERED WITHIN THE LIMITS OF THE PROJECT.

EXISTING CONDITIONS SURVEY NOTES:

1. HORIZONTAL DATUM: NORTH AMERICAN HORIZONTAL DATUM OF 1983 VERTICAL DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988
2. TIDAL DATUM RELATIONSHIP:

   MEAN HIGHER HIGH WATER (HIGH TIDE LINE) (MHHW). . . . . .1.65 FEET
   MEAN HIGH WATER (MHW). . . . . .1.43 FEET
   NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). . . . . .0.00 FEET
   MEAN LOW WATER (MLW). . . . . -1.16 FEET
   MEAN LOWER LOW WATER (MLLW). . . . . -1.30 FEET

3. THE BATHYMETRIC INFORMATION DEPICTED REPRESENTS THE SURVEY MADE BY GAHAGAN & BRYANT ASSOCIATES, INC. ON APRIL 13, 2016 AND CAN ONLY INDICATE THE GENERAL CONDITIONS EXISTING ON SAID DATE.
4. THE TOPOGRAPHIC INFORMATION DEPICTED REPRESENTS THE SURVEY MADE BY STANTEC ON MAY 25, 2016 AND CAN ONLY INDICATE THE GENERAL CONDITIONS EXISTING ON SAID DATE.
5. THE ACCURACY OF EXISTING UTILITIES, BULKHEADS, AND OTHER STRUCTURES SHOWN ON THE PLANS ARE NOT GUARANTEED. ACTUAL FIELD CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF MATERIALS, ORDERING MATERIALS, OR PERFORMING WORK.

CITY STANDARD NOTES:

1. THE SUBJECT PROPERTY IS LOCATED ON THE CITY OF ALEXANDRIA PRINCE STREET RIGHT-OF-WAY AND WATERFRONT PARK.
2. OWNER: CITY OF ALEXANDRIA
   301 KING STREET
   ALEXANDRIA, VA 22314
3. TOTAL DISTURBED AREA IS 4,820 SQUARE FEET OR 0.111 ACRES FOR THIS PROJECT.
4. THE SITE IS LOCATED IN THE POTOMAC RIVER WATERSHED.
5. THE PROJECT LIES PARTIALLY WITHIN A CITY OF ALEXANDRIA RESOURCE PROTECTION AREA.
6. CONSTRUCTION PERMITS ARE NOT REQUIRED FOR THIS PROJECT.
7. ALL NEW CONSTRUCTION WILL CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF ALEXANDRIA AND/OR THE VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) STANDARDS AND SPECIFICATIONS.
8. ALL EROSION AND SEDIMENTATION CONTROL SHALL, IF REQUIRED, BE PLACED AND MAINTAINED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY OF ALEXANDRIA AND/OR VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH).
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRS TO THE ADJACENT CURB, GUTTER, AND RIGHT-OF-WAY, IF DAMAGED DURING CONSTRUCTION ACTIVITY AS DETERMINED BY THE DIRECTOR, TRANSPORTATION AND ENVIRONMENTAL SERVICES (T&ES).
10. ALL WATER FACILITY CONSTRUCTION SHALL CONFORM TO VIRGINIA AMERICAN WATER COMPANY STANDARDS AND SPECIFICATIONS. CONTRACTOR SHALL CONTACT VIRGINIA AMERICAN WATER COMPANY AT (703) 549-7080 TO COORDINATE CONSTRUCTION AND INSPECTION OF WATER FACILITIES.
11. CONTRACTOR SHALL ENSURE THAT THERE IS NO DISTURBANCE ON ADJACENT PROPERTIES.
12. THE CONTRACTOR SHALL VISIT THE SITE AND SHALL VERIFY EXISTING CONDITIONS PRIOR TO STARTING CONSTRUCTION.
13. PERMITS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO ANY WORK WITHIN THE RIGHT OF WAY.
14. APPLICANT SHALL BE RESPONSIBLE FOR ANY DAMAGE TO CITY UTILITIES AND INFRASTRUCTURE AND SHALL REPAIR.
15. APPLICANT SHALL BE RESPONSIBLE FOR ANY DAMAGE TO CITY'S IRRIGATION AND ELECTRICAL SYSTEM IN WATERFRONT PARK AND SHALL REPAIR.

INDEX OF DRAWINGS

* DENOTES SHEET NOT INCLUDED IN PERMIT SET. THESE SHEETS WERE APPROVED UNDER BUILDING PERMIT BLDG 2021-00332.

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PLAN NUMBER: _____

APPROVED DATE: _____

DEPARTMENT OF TRANSPORTATION
& ENVIRONMENTAL SERVICES.

Tall Ship PROVIDENCE ALEXANDRIA, VA

Mark	Description	Date	Appr
2	FINAL 2 COMMENTS	10/2022	MAP
1	FINAL 1 COMMENTS	09/2022	MAP
0	FINAL SUBMITTAL	07/2022	MAP

UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

GENERAL NOTES & ABBREVIATIONS
1 OF 2

Rev: 0
Date: SEPTEMBER 2022
M&N Project No. 201466
Drawing code:
Drawing Scale:
Plot scale: 1:1 (D SHEET)
Designed by: M. PIRELLO
Drawn by: BDF/VNM
Checked by: MAP
Reviewed by: P. GRANEY
Submitted by: MARK PIRRELLO MOFFATT & NICHOL

4700 FALLS OF NEUSE RD. SUITE 300
RALEIGH, NC 27609
919-781-4626
moffatt & nichol

COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
Lic. No. 030083
PROFESSIONAL ENGINEER
SEAL

Sheet Reference No.
G-002
INDEX: 2 OF 41

File: Q:\RA\201466\10500_CAD_Active_201466\201466-G002 ; Plotted: 10/20/2022 3:00 PM by MORGAN, NEKOL, Saved: 9/8/2022 9:41 PM by DKOONS

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

STORMWATER MANAGEMENT NARRATIVE:

1. NO STORMWATER BEST MANAGEMENT PRACTICES (BMP) ARE REQUIRED FOR THIS PROJECT.

ENVIRONMENTAL ASSESSMENT:

1. THIS SITE IS LOCATED IN THE REGULATORY FLOODPLAIN. NO FLOOPLAIN REGULATIONS APPLY TO THIS PROJECT.
2. THE CONTRACTOR IS RESPONSIBLE FOR ADHERING TO ALL PERMIT CONDITIONS AND REPORTING REQUIREMENTS.
3. ALL CONSTRUCTION ACTIVITIES MUST COMPLY WITH THE ALEXANDRIA NOISE CONTROL CODE TITLE 11, CHAPTER 5 WHICH PERMITS CONSTRUCTION ACTIVITIES TO OCCUR BETWEEN THE FOLLOWING HOURS:
   A. MONDAY THROUGH FRIDAY FROM 7 AM TO 6 PM AND SATURDAYS FROM 9 AM TO 6 PM.
   B. NO CONSTRUCTION ACTIVITIES ARE PERMITTED ON SUNDAY.

DEMOLITION:

1. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO STRICTLY CONTAIN THE DEMOLITION WITHIN THE LIMITS OF THE REQUIRED CONSTRUCTION AND AVOID ANY DAMAGE TO THE EXISTING BULKHEAD AND CITY INFRASTRUCTURE WITHIN PRINCE STREET RIGHT OF WAY. PLAN SHALL INCLUDED DETAILED MEANS AND METHOD OF DEMOLITION WORK.
2. ANY DAMAGE INCURRED IN EXECUTION OF THIS CONTRACT TO ANY PART OF THE PROPERTY/STRUCTURE NOT SPECIFICALLY DESIGNATED FOR DEMOLITION SHALL BE REPAIRED, REPLACED, AND/OR RECONSTRUCTED BY THE CONTRACTOR TO ITS ORIGINAL CONDITION AS DIRECTED BY THE CITY AT THE EXPENSE OF THE CONTRACTOR.
3. ALL DEMOLISHED MATERIAL, EXCEPT AS NOTED OTHERWISE, BECOMES THE PROPERTY OF, AND SHALL BE COMPLETELY REMOVED AND DISPOSED OF BY THE CONTRACTOR. THE REMOVAL, HANDLING, AND DISPOSAL OF ALL DEMOLITION MATERIALS SHALL BE IN STRICT ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS.
4. ALL REMOVAL AND/OR RELOCATION OF EXISTING UTILITIES SHALL BE COORDINATED WITH THE CITY PRIOR TO PROCEEDING WITH THE CONSTRUCTION.
5. ALL SURVEY MONUMENTS WITHIN LIMITS OF CONSTRUCTION ARE TO BE PROTECTED.
6. TREATED TIMBER SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
7. NO DEMOLITION CAN BEGIN UNTIL ALL EROSION AND SEDIMENT CONTROLS ARE IN PLACE, AND ARE APPROVED BY AN EROSION AND SEDIMENT CONTROL INSPECTOR OF THE DEPARTMENT OF PROJECT IMPLEMENTATION.
8. ALL WORK SHALL BE PERFORMED IN STRICT COMPLIANCE WITH THE MOST CURRENT APPLICABLE FEDERAL, STATE , AND LOCAL LAWS AND REGULATIONS, INCLUDING BUT NOT LIMITED, TO ENVIRONMENTAL PROTECTION AGENCY (EPA), OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), VIRGINIA OCCUPATIONAL AND SAFETY HEALTH COMPLIANCE PROGRAM (VOSH ENFORCEMENT), VIRGINIA OVERHEAD HIGH VOLTAGE LINE SAFETY ACT, NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAPS), AND NATIONAL INSTITUTE OF OCCUPATIONAL SAFETY AND HEALTH (NIOSH).
9. PRIOR TO COMMENCING NEW WORK, THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING ADJACENT AREAS. ALL ADJACENT AREAS DAMAGED DURING DEMOLITION AND/OR CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE CITY OF ALEXANDRIA.
10. THE CONTRACTOR SHALL PROTECT AND PREVENT DAMAGE TO EXISTING ON-SITE UTILITY DISTRIBUTION FACILITIES. ACTIVE UTILITY DISTRIBUTION FACILITIES ENCOUNTERED DURING DEMOLITION AND/OR CONSTRUCTION ACTIVITIES SHALL BE SHUT OFF AT THE SERVICE MAIN WITH THE APPROVAL OF THE CITY.
11. DURING DEMOLITION AND/OR CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CITY UPON ENCOUNTERING ANY EXISTING UTILITIES AND/OR UTILITY SYSTEM STRUCTURES NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL DOCUMENT SAME TO THE CITY AND OBTAIN DIRECTION AS TO THE APPROPRIATE ACTION(S) TO BE TAKEN.

CONSTRUCTION NOTES:

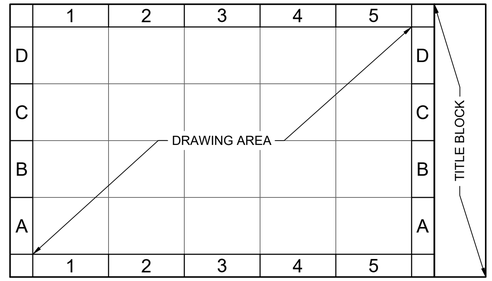
1. SITE VERIFICATION: PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL VERIFY THE SITE CONDITIONS AND NOTIFY THE CITY IN WRITING OF ANY DISCREPANCIES IN DIMENSIONS OR SITE CONDITIONS. THE CONTRACTOR SHALL NOT BEGIN CONSTRUCTION IN ANY SUCH AFFECTED AREA UNTIL THE DISCREPANCY HAS BEEN RESOLVED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
2. CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID FOR THE PROJECT.
3. ALL SAFETY REGULATIONS ARE TO BE STRICTLY FOLLOWED. METHODS OF CONSTRUCTION AND ERECTION OF STRUCTURAL MATERIAL ARE THE RESPONSIBILITY OF THE CONTRACTOR.
4. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF EXISTING STRUCTURES AND NEW WORK AND SHALL PROVIDE ALL SHORING AND TEMPORARY FALSE WORK AS NECESSARY TO PREVENT DAMAGE TO EXISTING AND NEW WORK.
5. THE CONTRACTOR SHALL PLACE CONSTRUCTION DEBRIS CONTROL DEVICES, BOOMS, TARPAULINS, FLOATS, STAGING, AND OTHER DEVICES AS NECESSARY TO PREVENT CONSTRUCTION DEBRIS FROM ENTERING THE WATER AND AIR BORNE MATERIALS FROM LEAVING THE IMMEDIATE VICINITY OF THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN-UP OF ANY MATERIALS DEPOSITED OUTSIDE THE WORK AREA OR IN THE WATER. SEE PERMIT CONDITIONS.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BRINGING ALL ELEMENTS OF THE PROJECT IN CONFORMANCE WITH THESE PLANS AND SPECIFICATIONS. IF ANY MODIFICATIONS ARE REQUIRED IN ANY ELEMENT, THE CONTRACTOR SHALL SUBMIT PROPOSED CHANGES TO THE OWNER FOR APPROVAL.
7. THE CONTRACTOR SHALL REMOVE ALL BARGES, WORK BOATS, STAGING AND ANY OTHER TEMPORARY PLATFORMS AND/OR AREAS AT THE COMPLETION OF WORK.
8. THE ACCURACY OF EXISTING UTILITIES, BULKHEADS, AND OTHER STRUCTURES SHOWN ON PLANS ARE NOT GUARANTEED. ACTUAL FIELD CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION OF MATERIALS, ORDERING MATERIALS, OR PERFORMING WORK.
9. ALL TEMPORARY UTILITIES NECESSARY FOR CONSTRUCTION SHALL BE PROVIDED AT THE EXPENSE OF THE CONTRACTOR.
10. THE CONTRACTOR SHALL CONSIDER AND PLAN FOR, ON A DAILY BASIS, THE EFFECT OF TIDAL FLUCTUATION IN THE EXECUTION OF THE WORK.
11. ALL CONSTRUCTION METHODS AND MATERIAL SHALL CONFORM TO THESE DRAWINGS, PROJECT SPECIFICATIONS, AND ALL CURRENT APPLICABLE CODES AND THE LATEST REVISIONS OF THE FOLLOWING REFERENCE DOCUMENTS.
    A. VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT) ROAD AND BRIDGE SPECIFICATIONS.
    B. VIRGINIA WORK AREA PROTECTION MANUAL.
    C. VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH).
    D. CITY OF ALEXANDRIA DESIGN AND CONSTRUCTION STANDARDS.
13. CONTRACTOR SHALL PROVIDE AS-BUILT SURVEY AND DRAWINGS OF COMPLETED WORK TO THE CITY.

ARCHAEOLOGY NOTES:

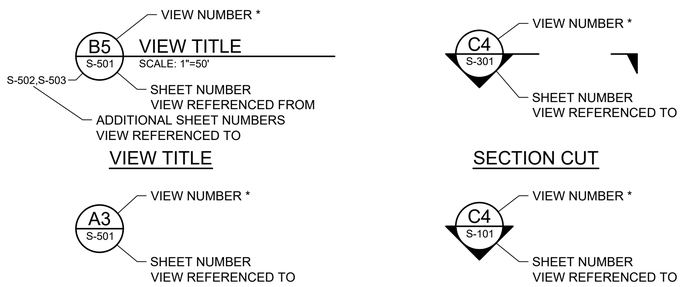
1. CALL CITY OF ALEXANDRIA ARCHAEOLOGY DEPARTMENT (703-838-4399) IMMEDIATELY IF ANY STONE OR POTTERY, INDIAN ARTIFACTS OR HISTORICAL STRUCTURAL REMAINS, WALL FOUNDATIONS, PRIVIES, CISTERNS, ICE WELLS, ETC OR CONCENTRATION OF ARTIFACTS ARE FOUND DURING CONSTRUCTION WORK. WORK MUST CEASE IN THE AREA OF THE DISCOVERY UNTIL A CITY ARCHEOLOGIST COMES TO THE SITE TO RECORD THE FINDS.
2. METAL DETECTION SHALL NOT BE CONDUCTED ON THE PROPERTY UNLESS AUTHORIZED BY THE CITY OF ALEXANDRIA ARCHAEOLOGY DEPARTMENT.

ABBREVIATIONS

ACI	AMERICAN CONCRETE INSTITUTE
ADA	AMERICANS WITH DISABILITIES ACT
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	APPROXIMATE
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
BLDG	BUILDING
CF	CUBIC FEET
CL	CENTERLINE
CLR	CLEAR
CU	CUBIC or COPPER
DBL	DOUBLE
DIA	DIAMETER
E	EAST
EA	EACH
EL	ELEVATION
EMBED	EMBEDDMENT
EXIST.	EXISTING
FT	FOOT or FEET
GALV	GALVANIZED
GR	GRADE
HSS	HOLLOW STRUCTURAL SECTIONS
KSI	KIPS PER SQUARE INCH
LB	POUND
MAX	MAXIMUM
MHHW	MEAN HIGHER HIGH WATER
MIN	MINIMUM
MLLW	MEAN LOWER LOW WATER
MPH	MILE PER HOUR
N	NORTH
NAVD	NORTH AMERICAN VERTICAL DATUM
NO.	NUMBER
NTS	NOT TO SCALE
PCF	POUND PER CUBIC FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
REINF	REINFORCING
REQD	REQUIRED
SEC	SECOND
SF	SQUARE FOOT or FEET
SQ	SQUARE
SS	STAINLESS STEEL or SANITARY SEWER
STL	STEEL
THRU	THROUGH
TYP	TYPICAL
UHMW-PE	ULTRA HIGH MOLECULAR WEIGHT POLYETHELENE
UON	UNLESS OTHERWISE NOTED
VA	VIRGINIA
W/	WITH
YR	YEAR
&	AND
@	AT
°	DEGREES
Ø	DIAMETER



DRAWING AREA COORDINATE SYSTEM (DACS)



* VIEW NUMBER IS BASED ON THE DACS LOCATION OF THE LOWER-LEFT EXTENTS OF THE VIEW ON THE REFERENCED SHEET. WHEN REFERENCING DRAWING INFORMATION BETWEEN SHEETS, BOTH THE VIEW AND SHEET NUMBERS MUST BE QUOTED TOGETHER - EITHER IN A CALLOUT FORMAT AS SHOWN ABOVE OR IN THE FORM;
"VIEW NO./SHEET NO." (C1/MS301)

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APPROVED DATE: _____

DEPARTMENT OF TRANSPORTATION
& ENVIRONMENTAL SERVICES.

Tall Ship PROVIDENCE ALEXANDRIA, VA

No.	Description	Date	Appr
2	FINAL 2 COMMENTS	10/2022	MAP
1	FINAL 1 COMMENTS	09/2022	MAP
0	FINAL SUBMITTAL	07/2022	MAP

UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

GENERAL NOTES & ABBREVIATIONS
2 OF 2

Designed by: M. PIRELLO
Drawn by: BDF/VNM
Cad by: MAP
Reviewed by: P. GRANEY
Submitted by: MARK PIRELLO MOFFATT & NICHOL
Date: SEPTEMBER 2022
M&N Project No. 201466
Drawing code:
Drawing Scale:
Plot scale: 1:1 (D SHEET)
Rev: 0

4700 FALLS OF NEUSE RD. SUITE 300
RALEIGH, NC 27609
919-781-4626
moffatt & nichol

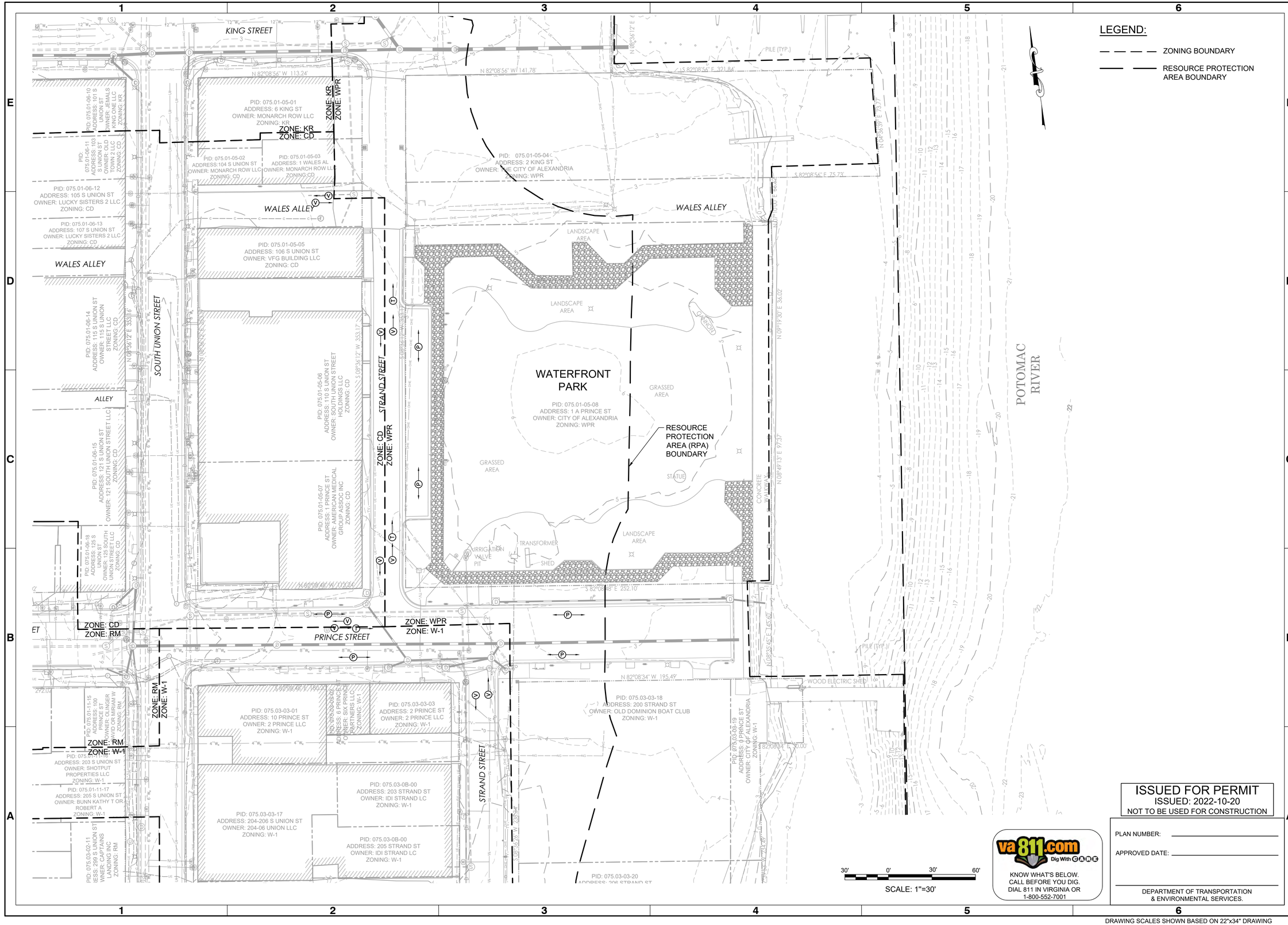
COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
Lic. No.030083
PROFESSIONAL ENGINEER
SEAL

Sheet Reference No.
G-003
INDEX: 3 OF 41

File: Q:\RA\201466\0500_CAD_Active_201466\201466-G003 ; Plotted: 10/20/2022 3:00 PM by MORGAN, NEKOL ; Saved: 9/8/2022 4:58 PM by DKOONS

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

ATTACHMENT 3



tall ship PROVIDENCE
ALEXANDRIA, VA

2	FINAL 2 COMMENTS	10/2022	MAP
1	FINAL 1 COMMENTS	09/2022	MAP
0	FINAL SUBMITTAL	07/2022	MAP
Mark	Description	Date	Appr

UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

CONTEXT PLAN

Date: SEPTEMBER 2022
Rev: 0
M&N Project No. 201466
Drawing scale:
Drawing Scale: Plot scale: 1:1 (D SHEET)
Designed by: M. PIRELLO
Drawn by: BDF/VNM
Checked by: MAP
Reviewed by: P. GRANEY
Submitted by: MARK PIRRELLO MOFFATT & NICHOL

moffatt & nichol
4700 FALLS OF NEUSE RD, SUITE 300
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919-781-4626

COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
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DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES.

Sheet Reference No.
V-101
INDEX: 4 OF 41

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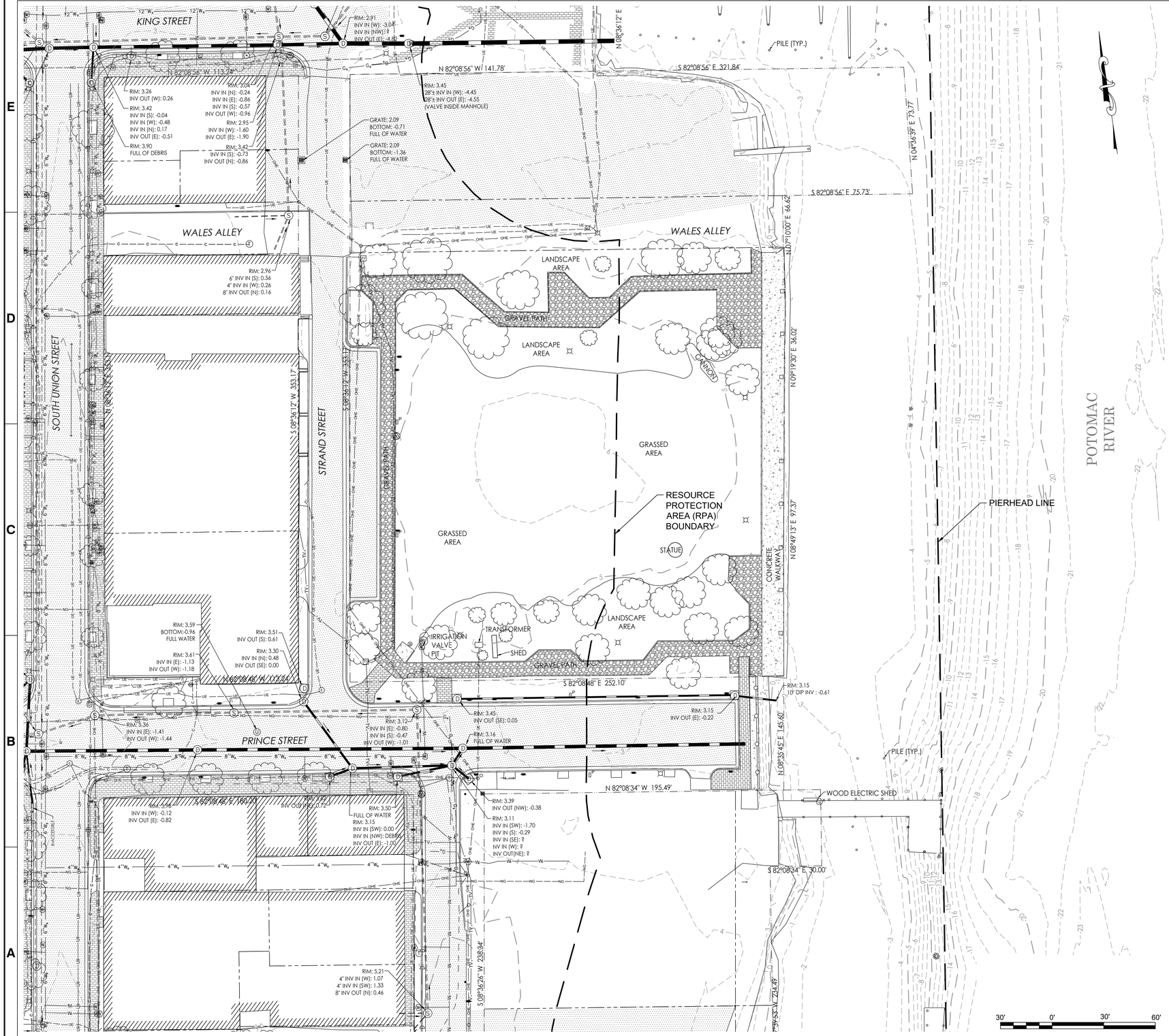
DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



NOTE:

LANDSCAPING AREAS IN PARK ARE REFLECTIVE OF SURVEY DATE WITH EXCEPTION OF THE PRINCE STREET RIGHT OF WAY. THE CONDITIONS WITHIN THE PRINCE STREET RIGHT OF WAY ARE REFLECTIVE OF JUNE 2022.

EXISTING FEATURES LEGEND

- BOLLARD
- CLEAN-OUT
- COMMUNICATIONS MANHOLE
- CONTROL POINT
- DECIDUOUS TREE
- ELECTRIC MANHOLE
- FIRE HYDRANT
- GAS METER
- GAS VALVE
- GUY WIRE
- JUNCTION BOX
- LIGHT POLE
- MANHOLE (UNKNOWN TYPE)
- SANITARY SEWER MANHOLE
- SIGN
- STORM DRAIN MANHOLE
- TRAFFIC LIGHT POLE
- UTILITY POLE
- WATER METER
- WATER VALVE
- WATER MANHOLE
- PAVERS
- GRAVEL
- ASPHALT
- COBBLES
- CONCRETE
- CABLE TV
- COMMUNICATIONS LINE, UNDERGROUND
- ELECTRIC LINE, OVERHEAD
- ELECTRIC LINE, UNDERGROUND
- FENCE
- NATURAL GAS LINE
- SANITARY SEWER LINE
- STORM DRAIN PIPE
- WATER LINE, UNDERGROUND
- UNDERGROUND LINE (UNKNOWN TYPE)
- HANDRAIL
- MAJOR CONTOUR
- MINOR CONTOUR

Rev.	Description	Date	Appr
2	FINAL 2 COMMENTS	10/2022	MAP
1	FINAL 1 COMMENTS	09/2022	MAP
0	FINAL SUBMITTAL	07/2022	MAP
Mark			

UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

EXISTING CONDITIONS PLAN

Designed by: M. PIRELLO
Drawn by: BDF/VNM
Checked by: MAP
Reviewed by: P. GRANEY
Submitted by: MARK PIRRELLO
MOFFATT & NICHOL
Date: SEPTEMBER 2022
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Drawing scale:
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DEPARTMENT OF TRANSPORTATION
& ENVIRONMENTAL SERVICES.

COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
Lic. No. 030083
PROFESSIONAL ENGINEER
SEAL

Sheet Reference No.
V-102
INDEX: 5 OF 41

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

EROSION AND SEDIMENT CONTROL NARRATIVE:

1. CRITICAL AREAS: N/A
2. EROSION CONTROL PROGRAM: N/A
3. SEDIMENT CONTROL STRATEGIES:
   - A. LIMITS OF DISTURBED AREAS MUST BE CLEARLY MARKED OR FLAGGED
   - B. ANY CLEARING SHOULD BE DONE WHEN PERIMETER CONTROLS ARE IN PLACE.
   - C. INSTALL FLOATING TURBIDITY BARRIERS AROUND WORK AREA AND BARGES AS APPLICABLE.
   - D. INSTALL SILT FENCE WHERE APPLICABLE WITHIN THE DESIGNATED CONSTRUCTION ACCESS CORRIDOR ALONG THE EXISTING GRAVEL PATHS AT THE SOUTH END OF FOUNDERS PARK.
   - E. ESTABLISH TREE PROTECTION ZONES ADJACENT TO CONSTRUCTION ACCESS CORRIDOR.
   - F. ALL VEHICLES WILL BE CLEANED BEFORE ENTERING ONTO THE PUBLIC RIGHT-OF-WAY.
6. EQUIPMENT AND MATERIALS SHOULD NOT BE STORED IN THE RPA AFTER WORK HOURS. POTENTIAL POLLUTANT SOURCES MUST INCLUDE MITIGATION MEASURES SUCH AS SECONDARY CONTAINMENT.

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

1. AN EROSION AND SEDIMENT CONTROL PLAN MUST BE APPROVED BY THE DIRECTOR OF TRANSPORTATION AND ENVIRONMENTAL SERVICES PRIOR TO ANY LAND DISTURBING ACTIVITY GREATER THAN 2,500 SQUARE FEET.
2. THE CONTRACTORS ARE TO KEEP DENUDED AREAS TO A MINIMUM. AN EROSION AND SEDIMENT CONTROL PLAN IS INCLUDED WITH THESE FINAL PLANS FOR APPROVAL BY T&ES FOR REFERENCE BY THE EROSION AND SEDIMENT CONTROL PERMIT. ALL EROSION / SEDIMENT CONTROL MEASURES WILL CONFORM TO THE CURRENT STANDARDS OF THE CITY OF ALEXANDRIA AND THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH).
3. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH) AND VIRGINIA REGULATIONS §4VAC50-30 EROSION AND SEDIMENT CONTROL REGULATIONS.
4. T&ES MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENTS OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION. CERTIFIED RESPONSIBLE LAND DISTURBER (CRLD) IS REQUIRED TO ATTEND PRE-CONSTRUCTION MEETING.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING OR IN-WATER CONSTRUCTION. AN INSPECTION BY THE CITY OF ALEXANDRIA IS REQUIRED AFTER INITIAL INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND BEFORE ANY CLEARING OR IN-WATER WORK CAN BEGIN.
6. ALL DISTURBED AREAS OF THE SITE NOT TO BE WORKED FOR SEVEN OR MORE CALENDAR DAYS MUST BE STABILIZED.
7. THE CONTRACTOR SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES DAILY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT AND DURING IN-WATER CONSTRUCTION ACTIVITIES. ANY NECESSARY REPAIRS, ADJUSTMENTS, OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION AND SEDIMENT CONTROL DEVICES SHALL BE MADE IMMEDIATELY.
8. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF ANY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES AS NECESSARY TO PREVENT EROSION AND SEDIMENTATION AND AS DETERMINED BY THE CITY OF ALEXANDRIA.

POLLUTION PREVENTION PLAN:

1. THE CONTRACTOR SHALL ENSURE THE POLLUTION PREVENTION MEASURES ARE DESIGNED, INSTALLED, IMPLEMENTED, AND MAINTAINED.
   - A. PROHIBIT THE DISCHARGE OF WASTEWATER AND WASH WATER, WASHOUT, AND CLEANOUT OF STUCCO, FORM RELEASE OILS, CURING COMPOUNDS, OR OTHER CONSTRUCTION MATERIALS.
   - B. PROHIBIT DISCHARGE OF FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE.
   - C. PROHIBIT DISCHARGE OF SOAPS OR SOLVENT USED IN VEHICLE AND EQUIPMENT WASHING.
   - D. MINIMIZE EXPOSURE OF CONSTRUCTION AND LANDSCAPE MATERIALS AND WASTES, TRASH, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, SANITARY WASTE, AND OTHER MATERIALS ONSITE FROM PRECIPITATION.
   - E. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM SPILLS AND LEAKS AND IMPLEMENT CHEMICAL SPILL AND LEAK PREVENTION AND RESPONSE PROCEDURES.

NOTES FOR PRESERVATION AND PROTECTION OF EXISTING VEGETATION:

1. VEGETATION TO BE REMOVED SHALL BE APPROVED BY CITY ARBORIST.
2. PROVIDE, IMPLEMENT, AND FOLLOW A TREE CONSERVATION AND PROTECTION PROGRAM THAT IS DEVELOPED TO THE SATISFACTION OF THE CITY ARBORIST.
3. PROTECTION PROGRAM SHALL BE AUTHORIZED BY AN ARBORIST CERTIFIED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE.
4. LOCATION AND METHOD FOR PROTECTION AND PRESERVATION OF EXISTING TREES SHALL BE APPROVED IN-FIELD BY THE CITY ARBORISTS PRIOR TO COMMENCEMENT OF GROUND DISTURBING ACTIVITIES.
5. PROVIDE PROTECTION OF EXISTING VEGETATION IN COMPLIANCE WITH LANDSCAPE GUIDELINES OF THE CITY OF ALEXANDRIA.
6. CONTRACTOR MUST PROVIDE DOCUMENTATION OF COMMUNICATION WITH THE ADJACENT PROPERTY OWNER(S) VERIFYING NOTIFICATION OF CONSTRUCTION IMPACT, POTENTIAL FOR LOSS, AND AGREED UPON REMEDIAL MEASURES PERTAINING TO THE EXISTING TREES(S) ON ADJACENT PROPERTIES THAT WILL BE EFFECTED BY PROJECT WORK.
7. PROVIDE SPECIFIC STAGING INFORMATION THAT INDICATES THE METHODS, AND PROCEDURES TO BE IMPLEMENTED FOR PROTECTION OF EXISTING ON-SITE AND OFF-SITE VEGETATION.
8. TREE PROTECTION SHALL BE PROVIDED WHERE SILT FENCE IS NOT ADEQUATE. PROTECTION SHALL BE INSTALLED AS CLOSE AS POSSIBLE TO THE DRIP LINE OF THE TREES TO BE SAVED. THE CONTRACTOR WILL CONSULT THE SITE INSPECTOR BEFORE THE CONSTRUCTION STARTS. TREE PROTECTION FENCING MUST BE ESTABLISHED AND APPROVED BY THE CITY ARBORIST BEFORE ANY CLEARING AND CONSTRUCTION CAN BE STARTED. TO THE EXTENT POSSIBLE, ALL TREE PROTECTION SHALL BE INSTALLED AT THE DRIP LINE OF THE TREE(S).

SEQUENCE OF CONSTRUCTION:

1. INSTALL PERIMETER EROSION AND SEDIMENT CONTROLS AND STABILIZED CONSTRUCTION ENTRANCE AS SHOWN ON THIS PLAN.
2. CONDUCT DEMOLITION AND CONSTRUCTION ACTIVITIES ACCORDING TO THE APPLICABLE PLANS.
3. INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL PRACTICES AS NECESSARY AND AS DIRECTED BY THE EROSION AND SEDIMENT CONTROL INSPECTOR.
4. UPON COMPLETION OF DEMOLITION, CONSTRUCTION AND LAND DISTURBING ACTIVITIES AND WITH THE APPROVAL OF THE EROSION AND SEDIMENT CONTROL INSPECTOR; REMOVE ALL REMAINING EROSION AND SEDIMENT CONTROL PRACTICES AND PROVIDE PERMANENT STABILIZATION ACCORDING TO APPROVED METHODS.
5. CONSTRUCTION DEBRIS MUST BE REMOVED TO AN APPROVED LANDFILL WITH ADEQUATE FREQUENCY IN ACCORDANCE WITH THE VIRGINIA STATE LITTER CONTROL ACT.

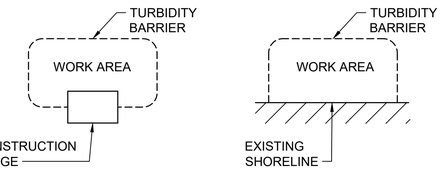
TURBIDITY CURTAIN MATERIALS:

1. TURBIDITY CURTAIN BARRIERS SHALL BE ORANGE IN COLOR IN ORDER TO ATTRACT THE ATTENTION OF NEARBY BOATERS.
2. SEAMS IN THE TURBIDITY CURTAIN FABRIC SHALL BE EITHER VULCANIZED WELDED OR SEWN, AND SHALL DEVELOP THE FULL STRENGTH OF THE FABRIC.
3. FLOATATION DEVICES SHALL BE FLEXIBLE, BUOYANT UNITS CONTAINED IN AN INDIVIDUAL FLOTATION SLEEVE OR COLLAR ATTACHED TO THE CURTAIN. BUOYANCY PROVIDED BY THE FLOATATION UNITS SHALL BE SUFFICIENT TO SUPPORT THE WEIGHT OF THE CURRENT AND MAINTAIN A FREEBOARD OF AT LEAST 3 INCHES ABOVE THE WATER SURFACE LEVEL.
4. LOAD LINES MUST BE FABRICATED INTO THE TOP AND BOTTOM OF ALL FLOATING TURBIDITY CURTAINS. THE TOP LOAD LINE SHALL CONSIST OF WOVEN WEBBING OR VINYL-SHEATHED STEEL CABLE AND SHALL HAVE A BREAK STRENGTH IN EXCESS OF 10,000 POUNDS. THE SUPPLEMENTAL (BOTTOM) LOAD LINE SHALL CONSIST OF A CHAIN INCORPORATED INTO THE BOTTOM HEM OF THE CURTAIN OF SUFFICIENT WEIGHT TO SERVE AS BALLAST TO HOLD THE CURTAIN IN A VERTICAL POSITION. ADDITIONAL ANCHORAGE SHALL BE PROVIDED AS NECESSARY. THE LOAD LINES SHALL HAVE SUITABLE CONNECTING DEVICES WHICH DEVELOP THE FULL BREAKING STRENGTH FOR CONNECTING TO LOAD LINES IN ADJACENT SECTIONS.
5. BOTTOM ANCHORS ARE REQUIRED. BOTTOM ANCHORS MUST BE SUFFICIENT TO HOLD THE CURTAIN IN THE SAME POSITION RELATIVE TO THE BOTTOM OF THE WATERCOURSE WITHOUT INTERFERING WITH THE ACTION OF THE CURTAIN. THE ANCHOR MAY DIG INTO THE BOTTOM (GRAPPLING HOOK, PLOW, OR FLUKE TYPE) OR MAY BE WEIGHTED (MUSHROOM TYPE), AND SHOULD BE ATTACHED TO A FLOATING ANCHOR BUOY VIA AN ANCHOR LINE. THE ANCHOR LINE WOULD THEN RUN FROM THE BUOY TO THE TOP LOAD LINE OF THE CURTAIN. THESE LINES MUST CONTAIN ENOUGH SLACK TO ALLOW THE BUOY AND CURTAIN TO FLOAT FREELY WITH A WATER SURFACE ELEVATION INCREASE FROM THE MEAN LOWER LOW WATER (MLLW) ELEVATION TO THE MEAN HIGHER HIGH WATER (MHHW) ELEVATION WITHOUT PULLING THE BUOY OR CURTAIN DOWN. THESE LINES MUST BE CHECKED REGULARLY TO MAKE SURE THEY DO NOT BECOME ENTANGLED WITH DEBRIS. ANCHOR SPACING WILL VARY WITH CURRENT VELOCITY AND POTENTIAL WIND AND WAVE ACTION, THEREFORE THE MANUFACTURER'S RECOMMENDATIONS SHOULD BE FOLLOWED. SEE ORIENTATION OF EXTERNAL ANCHORS AND ANCHOR BUOYS AS SHOWN IN FIGURE 1 ON THIS DRAWING FOR INSTALLATION.

TURBIDITY CURTAIN INSTALLATION:

1. THE CURTAIN SHOULD NEVER TOUCH THE BOTTOM. A MINIMUM 1 FOOT "GAP" SHOULD EXIST BETWEEN THE WEIGHTED LOWER END OF THE SKIRT AND THE BOTTOM AT MLLW. MOVEMENT OF THE LOWER SKIRT OVER THE BOTTOM DUE TO CURRENT OR ELEVATION FLUCTUATION ON THE FLOTATION SYSTEM MAY FAN AND STIR SEDIMENTS ALREADY SETTLED OUT.
2. TURBIDITY CURTAINS SHOULD BE LOCATED PARALLEL TO THE DIRECTION OF FLOW OF A MOVING BODY OF WATER. TURBIDITY CURTAIN SHOULD NOT BE PLACED ACROSS THE MAIN FLOW OF A SIGNIFICANT BODY OF MOVING WATER.
3. WHEN SIZING THE LENGTH OF A FLOATING CURTAIN, ALLOW AN ADDITIONAL 10 TO 20 PERCENT VARIANCE TO STRAIGHT LINE MEASUREMENTS. THIS WILL ALLOW FOR MEASURING ERRORS, MAKE INSTALLING EASIER AND REDUCE STRESS FROM POTENTIAL WAVE ACTION DURING HIGH WINDS.
4. AN ATTEMPT SHOULD BE MADE TO AVOID AN EXCESSIVE AMOUNT OF JOINTS IN THE CURTAIN. A MINIMUM CONTINUOUS SPAN OF 50 FEET BETWEEN JOINTS IS REQUIRED.
5. FOR STABILITY REASONS, A MAXIMUM SPAN OF 100 FEET BETWEEN JOINTS (ANCHOR OR STAKE LOCATIONS) IS REQUIRED. IF SPACINGS EXCEEDING THIS ARE ALLOWED BY THE MANUFACTURER, DATA SHALL BE SUBMITTED FOR REVIEW.
6. THE ENDS OF THE CURTAIN (BOTH FLOATING UPPER AND WEIGHTED LOWER) SHOULD EXTEND WELL UNDER THE EXISTING STRUCTURE TO BE REMOVED. THE ENDS SHOULD BE SECURED FIRMLY TO FULLY ENCLOSE THE AREA WHERE SEDIMENT MAY ENTER THE WATER.
7. TYPICAL ALIGNMENTS OF TURBIDITY CURTAINS CAN BE SEEN IN THE DIAGRAM ON THIS DRAWING. THE NUMBER AND SPACING OF EXTERNAL ANCHORS MAY VARY DEPENDING ON CURRENT VELOCITIES AND POTENTIAL WIND AND WAKE ACTION. THE MANUFACTURER'S RECOMMENDATIONS SHOULD BE FOLLOWED.
8. IN RIVERS OR IN OTHER MOVING WATER, IT IS IMPORTANT TO SET ALL THE CURTAIN ANCHOR POINTS. CARE MUST BE TAKEN TO ENSURE THAT ANCHOR POINTS ARE OF SUFFICIENT HOLDING POWER TO RETAIN THE CURTAIN UNDER THE EXISTING CURRENT CONDITIONS, PRIOR TO PUTTING THE FURLED CURTAIN INTO THE WATER. AGAIN, ANCHOR BUOYS SHOULD BE EMPLOYED ON ALL ANCHORS TO PREVENT THE CURRENT FROM SUBMERGING THE FLOTATION AT THE ANCHOR POINTS.
9. WHEN THE ANCHORS ARE SECURE, THE FURLED CURTAIN SHOULD BE SECURED TO THE UPSTREAM ANCHOR POINT AND THEN SEQUENTIALLY ATTACHED TO EACH NEXT DOWNSTREAM ANCHOR POINT UNTIL THE ENTIRE CURTAIN IS IN POSITION. AT THIS POINT, AND BEFORE UNFURLING, THE "LAY" OF THE CURTAIN SHOULD BE ASSESSED AND ANY NECESSARY ADJUSTMENTS MADE TO THE ANCHORS. FINALLY, WHEN THE LOCATION IS ASCERTAINED TO BE AS DESIRED, THE FURLING LINES SHOULD BE CUT TO ALLOW THE SKIRT TO DROP.
10. ALWAYS ATTACH ANCHOR LINES TO THE FLOATATION DEVICE, NOT TO THE BOTTOM OF THE CURTAIN. THE ANCHORING LINE ATTACHED TO THE FLOATATION DEVICE ON THE DOWNSTREAM SIDE WILL PROVIDE SUPPORT FOR THE CURTAIN. ATTACHING THE ANCHORS TO THE BOTTOM OF THE CURTAIN COULD CAUSE PREMATURE FAILURE OF THE CURTAIN DUE TO THE STRESSES IMPARTED ON THE MIDDLE SECTION OF THE CURTAIN.

TURBIDITY BARRIER DIAGRAMS:



TURBIDITY CURTAIN MAINTENANCE:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE TURBIDITY CURTAIN FOR THE DURATION OF THE PROJECT IN ORDER TO ENSURE THE CONTINUOUS PROTECTION OF THE WATERWAY.
2. SHOULD REPAIRS TO THE GEOTEXTILE FABRIC BECOME NECESSARY, REPAIR KITS AVAILABLE FROM THE ORIGINAL MANUFACTURER SHALL BE USED. MANUFACTURER'S INSTRUCTIONS MUST BE FOLLOWED TO ENSURE THE ADEQUACY OF THE REPAIR.
3. WHEN THE CURTAIN IS NO LONGER REQUIRED, THE CURTAIN AND RELATED COMPONENTS SHALL BE REMOVED IN SUCH A MANNER AS TO MINIMIZE TURBIDITY. REMAINING SEDIMENT SHALL BE SUFFICIENTLY SETTLED BEFORE REMOVING THE CURTAIN.

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Mark			

UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

EROSION AND SEDIMENT CONTROL NOTES

Designed by: M. PIRELLO
Drawn by: BDF/VNM
Reviewed by: P. GRANEY
Submitted by: MARK PIRRELLO MOFFATT & NICHOL
Date: SEPTEMBER 2022
Cad by: MAP
Drawing code:
Drawing Scale:
Plot scale: 1:1 (D SHEET)
Rev: 0
M&N Project No. 201466

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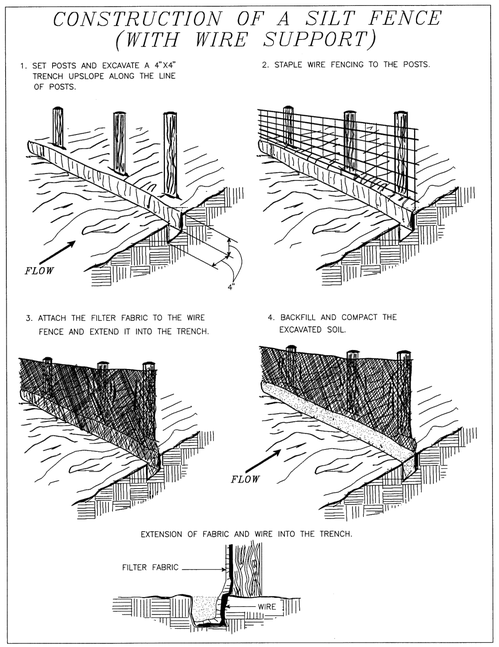
moffatt & nichol

COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
Lic. No.030083
PROFESSIONAL ENGINEER
SEAL

Sheet Reference No.
EC001
INDEX: 6 OF 41

1992 3.05

CONSTRUCTION OF A SILT FENCE (WITH WIRE SUPPORT)

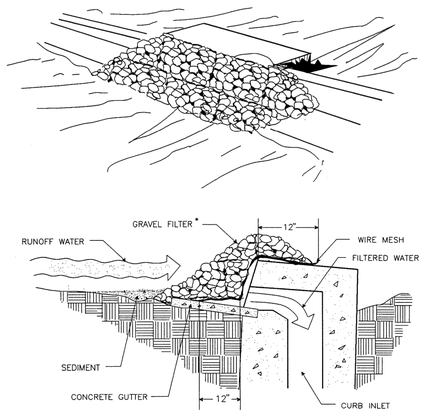


Source: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant

Plate 3.05-1

1992 3.07

GRAVEL CURB INLET SEDIMENT FILTER



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE PONDING IN FRONT OF THE STRUCTURE IS NOT LIKELY TO CAUSE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

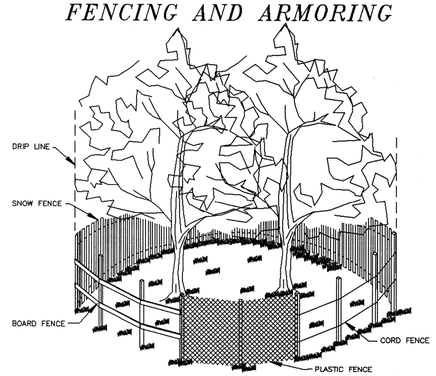
* GRAVEL SHALL BE VDOT #3, #357 OR 5 COARSE AGGREGATE.

Source: Va. DSWC

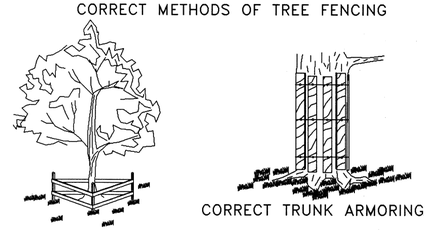
Plate 3.07-6

1992 3.38

FENCING AND ARMORING



CORRECT METHODS OF TREE FENCING

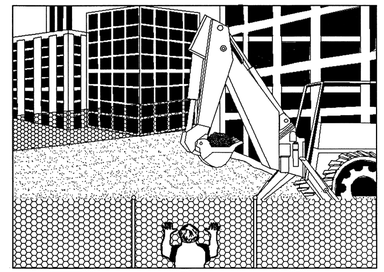


Source: Va. DSWC

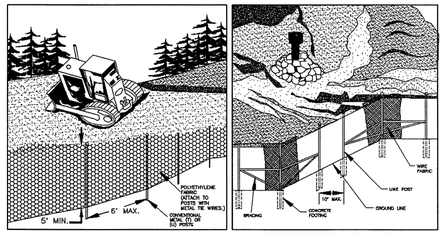
Plate 3.38-2

1992 3.01

SAFETY FENCE



PERSPECTIVE VIEW



PERSPECTIVE VIEW PLASTIC FENCE

PERSPECTIVE VIEW METAL FENCE

Source: Adapted from Conwed Plastics and VDOT Road and Bridge Standards

Plate 3.01-1

III - 24

C1 EC101 SILT FENCE DETAIL
SCALE: NTS

III - 41

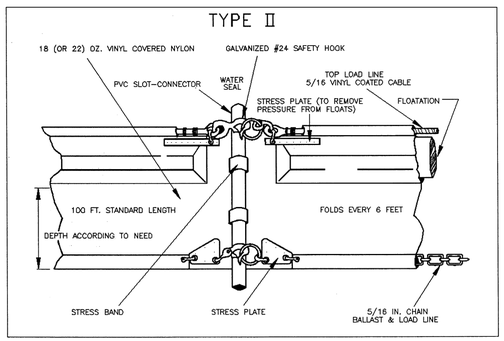
C2 EC101 INLET PROTECTION DETAIL
SCALE: NTS

III - 401

C4 EC101 TREE PROTECTION DETAIL
SCALE: NTS

III - 5

C5 EC101 SAFETY FENCE DETAIL
SCALE: NTS

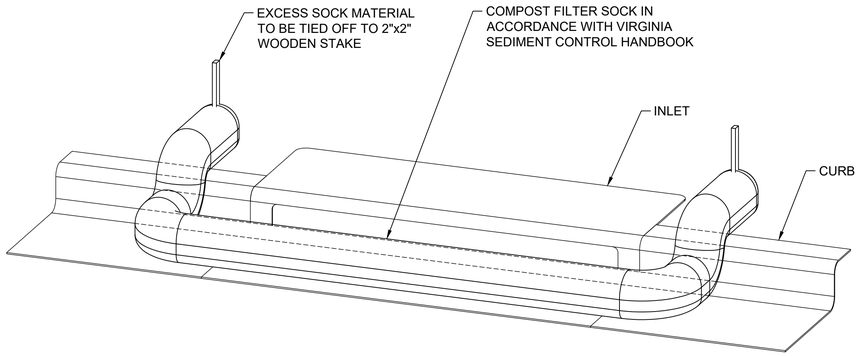


Source: American Boom and Barrier Corp. product literature

Plate 3.27-1

III - 249

A1 EC101 TURBIDITY CURTAIN DETAIL
SCALE: NTS



A2 EC101 ALTERNATE INLET PROTECTION DETAIL
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0	FINAL SUBMITTAL	07/2022	MAP

UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

EROSION AND SEDIMENT CONTROL DETAILS

moffatt & nichol
4700 FALLS OF NEUSE RD. SUITE 300
RALEIGH, NC 27609
919-781-4626

Designed by: M. PIRELLO
Drawn by: BDF/VNM
Checked by: MAP
Reviewed by: P. GRANEY
Submitted by: MARK PIRRELLO MOFFATT & NICHOL
Date: SEPTEMBER 2022
M&N Project No. 201466
Drawing code:
Drawing Scale:
Plot scale: 1:1 (0 SHEET)
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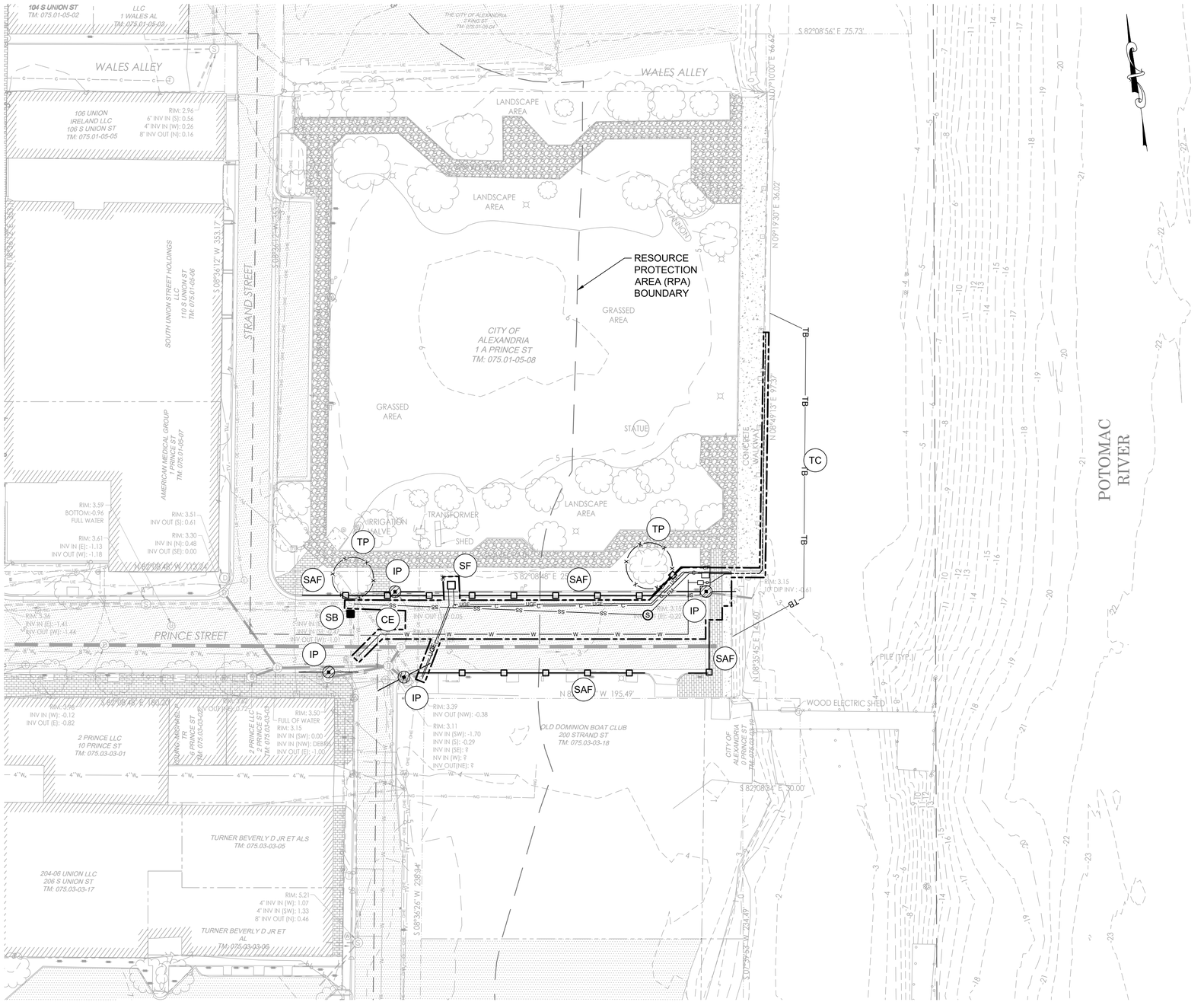

EROSION CONTROL FEATURES NOTES:

1. PRIOR TO STARTING CONSTRUCTION, CONTRACTOR TO SUBMIT A PEDESTRIAN ACCESS PLAN FOR CITY APPROVAL. IT SHALL INCLUDE THE FOLLOWING ELEMENTS THE CONTRACTOR NEEDS TO MEET REQUIREMENTS.

   A. AT ALL TIMES DURING CONSTRUCTION THE PLAN MUST PROVIDE PERIMETER CONTROLS TO LIMIT PUBLIC ACCESS TO THE SITE. THE CONTROLS CAN INCLUDE THE USE OF TEMPORARY CHAIN LINK FENCE TO MAINTAIN LIMITED ACCESS TO THE SITE.

   B. A MINIMUM 8' WIDE PEDESTRIAN ACCESS PATH ALONG THE SOUTHEAST OF PRINCE STREET MUST BE MAINTAINED THROUGHOUT CONSTRUCTION. A TEMPORARY CHAIN LINK FENCE SHALL BE MAINTAINED ON THE SOUTHWEST SIDE OF THE ACCESS PATH.

EROSION CONTROL FEATURES LEGEND:

- SF — SILT FENCE, SEE C1 / EC002
- SAF — SAFETY FENCE, SEE C5 / EC002
- IP — INLET PROTECTION, SEE A2 / EC002
- TC — TURBIDITY CURTAIN, SEE A1 / EC002
- TP — TREE PROTECTION, SEE C4 / EC002
- SB — 3'x3'x1' SETTLING BASIN, TO BE INSTALLED AT THE DISCRETION OF THE CITY OF ALEXANDRIA SITE INSPECTOR
- CE — CONSTRUCTION ENTRANCE

LEGEND:

- UGE — PROPOSED ELECTRIC LINE
- FM — PROPOSED FORCEMAIN
- W — PROPOSED WATER LINE
- F — PROPOSED FIRE LINE
- SS — PROPOSED GRAVITY SANITARY SEWER LINE
- C — PROPOSED COMMUNICATION LINE
- LIMITS OF DISTURBANCE

30' 0' 30' 60'

SCALE: 1"=30'

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ALEXANDRIA, VA

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1	09/2022	FINAL 1 COMMENTS	MAP
0	07/2022	FINAL SUBMITTAL	MAP
Mark	Date	Description	Appr

UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

EROSION AND SEDIMENT CONTROL PLAN

Rev.: 2 0
Date: SEPTEMBER 2022
M&N Project No.: 201466
Drawing scale:
Drawing Scale:
Plot scale: 1:1 (D SHEET)

Designed by: M. PIRRELLO
Drawn by: BDF/VNM
Checked by: MAP
Reviewed by: P. GRANEY
Submitted by: MARK PIRRELLO
MOFFATT & NICHOL

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moffatt & nichol

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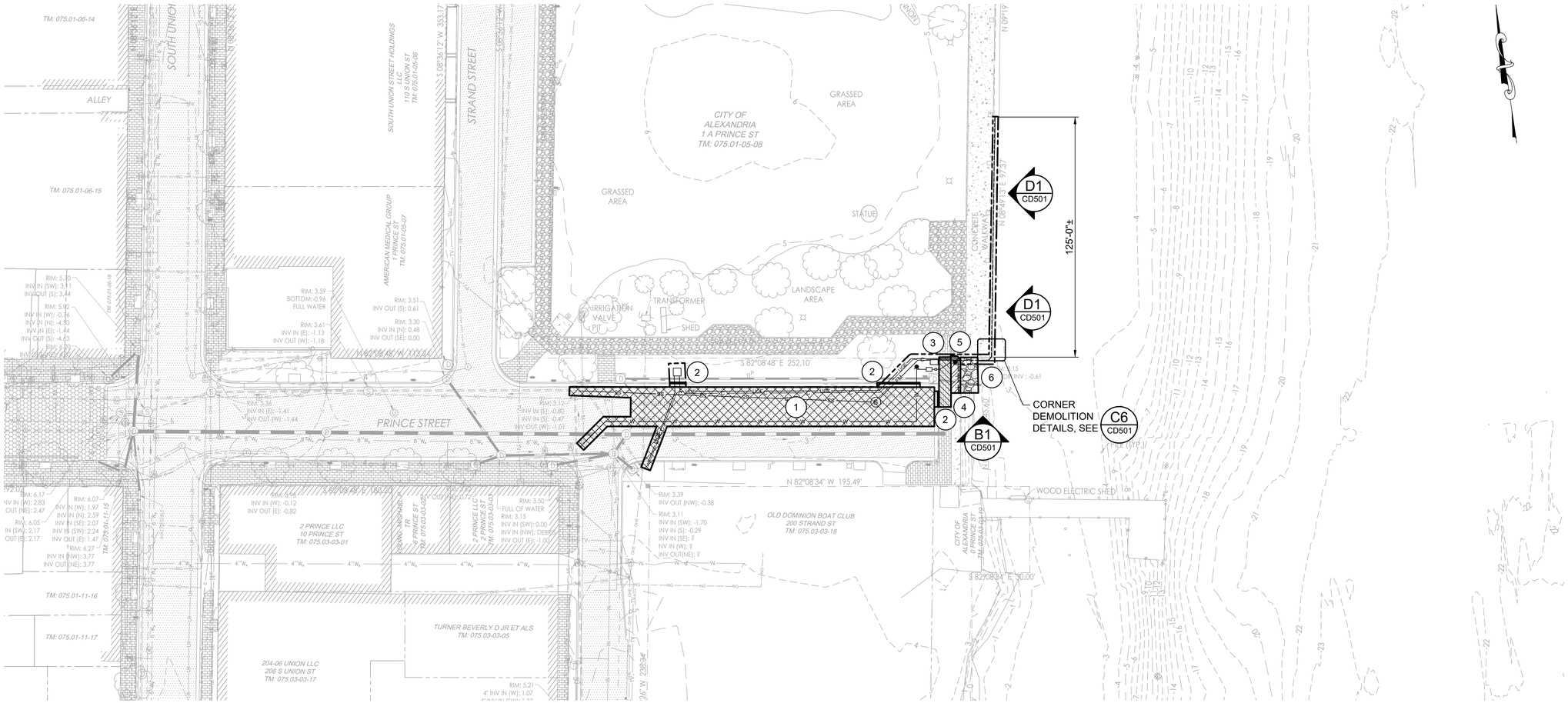

LEGEND:

1. REMOVE ASPHALT PAVEMENT AS NEEDED FOR PIPE INSTALLATION
2. SAWCUT & REMOVE CONCRETE CURB & GUTTER AS NEEDED FOR INSTALLATION
3. REMOVE AND SALVAGE BRICK WALKWAY
4. SAWCUT & REMOVE CONCRETE WALKWAY
5. REMOVE & SALVAGE STEEL HANDRAIL AS REQUIRED
6. REMOVE AND SALVAGE STONE SLOPE PROTECTION

SCALE: 1"=30'

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UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

CIVIL DEMOLITION PLAN

Rev. 2 0
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Designed by: M. PIRELLO
Drawn by: BDF/VNM
Ckd by: MAP
Reviewed by: P. GRANEY
Submitted by: MARK PIRRELLO MOFFATT & NICHOL

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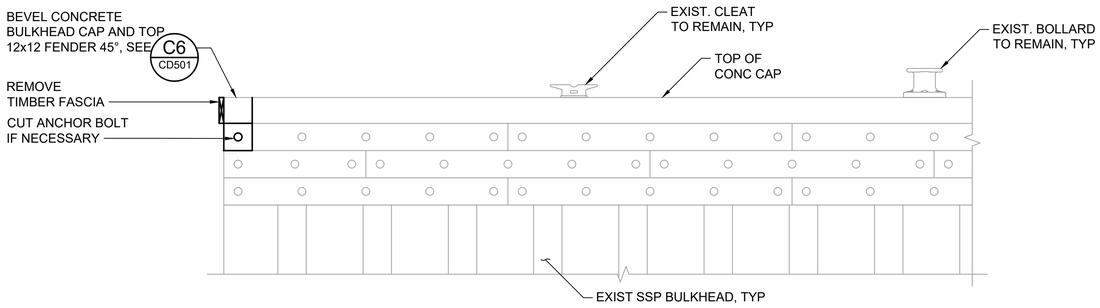
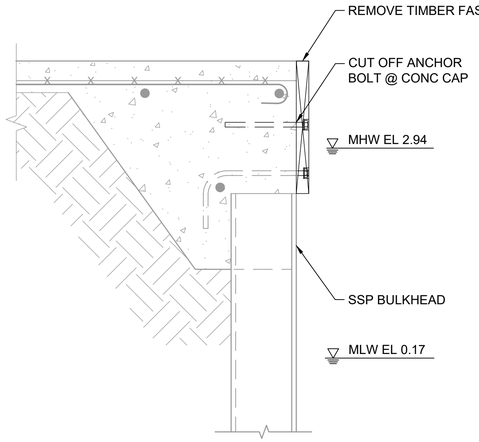
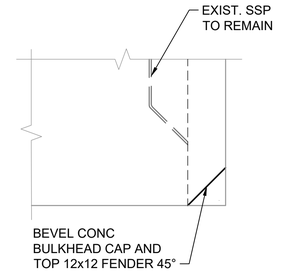


D1 CD501 BULKHEAD ELEVATION
SCALE: 3/8" = 1'-0"



B1 CD501 BULKHEAD SECTION
SCALE: 1" = 1'-0"



C6 CD501 CORNER DEMOLITION PLAN
SCALE: 1" = 1'-0"

4'-0" 0'-0" 2'-0" 4'-0"
SCALE: 3/8"=1'-0"

1'-0" 0'-0" 1'-0" 2'-0"
SCALE: 1"=1'-0"

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JOHN WARNER MARITIME HERITAGE CENTER

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Ckd by: MAP
Reviewed by: P. GRANEY
Submitted by: MARK PIRRELLO MOFFATT & NICHOL

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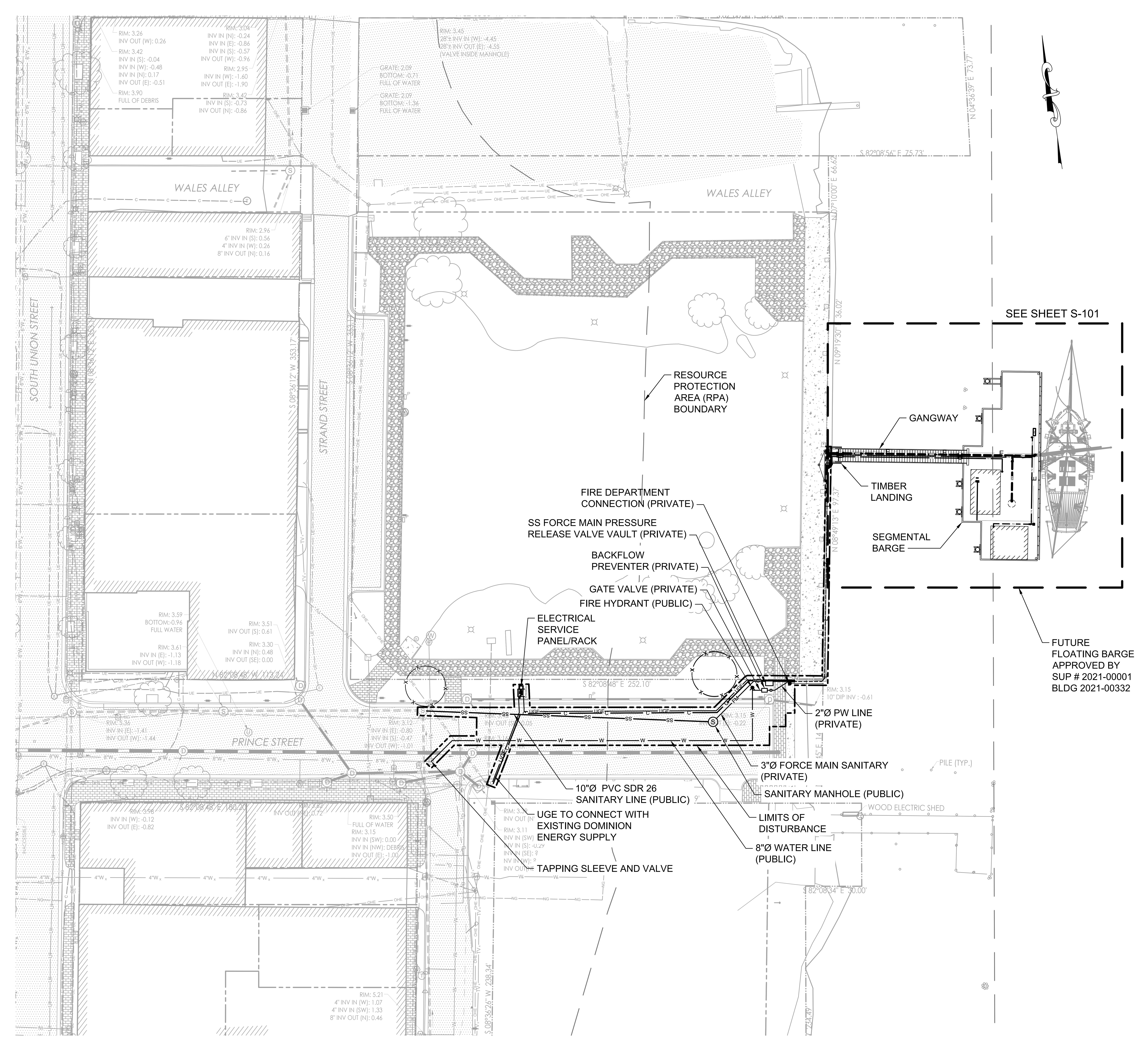

WATER QUALITY NARRATIVE:

THE PROPOSED DEVELOPMENT, KNOWN AS THE JOHN WARNER MARITIME HERITAGE CENTER, WILL CREATE A FLOATING INTERACTIVE MUSEUM THAT EMBRACES THE MARITIME HISTORY OF THE ALEXANDRIA WATERFRONT. IN SUPPORT OF THE INSTALLATION OF THE WATER-DEPENDENT ACTIVITY, UTILITY SERVICE INFRASTRUCTURE WILL BE INSTALLED WITHIN THE RIGHT-OF-WAY OF PRINCE STREET AND SELECT SECTIONS OF WATERFRONT PARK. THE UTILITY SERVICE INFRASTRUCTURE PROJECT IS LOCATED WITHIN ENTIRELY WITHIN THE LIMITS OF THE POTOMAC RIVER FLOODPLAIN (POTOMAC RIVER WATERSHED HUC 020700100307). AREAS OF IMPERVIOUS AND PERVIOUS LAND USE IN AND OUTSIDE OF THE RPA BOUNDARY ARE SHOWN IN TABLE 1.

THE PROJECT LIMITS OF DISTURBANCE ARE SHOWN ON THIS DRAWING IS 4,820 SQUARE FEET (0.111 AC). THIS INCLUDES THE ENTIRE AREA WITHIN THIS BOUNDARY. THE MAJORITY OF UTILITY SERVICE INFRASTRUCTURE IN AND OUTSIDE OF THE RPA LIES WITHIN THE IMPERVIOUS AREAS OF PRINCE STREET AND PRINCE STREET RIGHT-OF-WAY. THERE WILL BE NO CHANGES TO THE IMPERVIOUS AREA IN THIS AREA DUE TO THE PROJECT.

THE ELECTRIC SERVICE PANEL WITHIN THE PRINCE STREET RIGHT-OF-WAY (OUTSIDE OF THE RPA) WILL CONVERT APPROXIMATELY 18 SQUARE FEET FROM PERVIOUS TO IMPERVIOUS AREA. WITHIN THE RPA, THE INSTALLATION OF THE NEW FIRE HYDRANT WILL CHANGE APPROXIMATELY 2 SQUARE FEET OF PERVIOUS AREA TO IMPERVIOUS AREA. THERE IS ALSO A BACK FLOW PREVENTER WITH HEATED CABINET (20 SQUARE FEET), SANITARY SEWER PRESSURE RELIEF VAULT (10 SQUARE FEET) AND THE VAULTED WATER METER (4 SQUARE FEET). THE FDC CONNECTION WILL BE INSTALLED ON THE EXISTING CONCRETE SIDEWALK (CORNER OF RAILING) SO THERE WILL BE NO CHANGE IN IMPERVIOUS AREA. THE CHANGES TO THE PERVIOUS AND IMPERVIOUS AREAS WILL NOT AFFECT THE FLOODPLAIN AND INCONSEQUENTIAL TO WATER QUALITY IMPACTS WITHIN THE RPA.

TABLE 1

IMPERVIOUS AREA TABULATION

	LIMITS OF DISTURBANCE	4,820 SF (0.111 AC)	
		IMPERVIOUS AREA	PERVIOUS AREA
PRE-DEVELOPMENT	OUTSIDE OF RPA	1,850 SF	95 SF
	WITHIN RPA	2,350 SF	525 SF
	TOTAL	4,200 SF	620 SF
POST-DEVELOPMENT	OUTSIDE OF RPA	1,832 SF	113 SF
	WITHIN RPA	2,314 SF	561 SF
	TOTAL	4,146 SF	674 SF

LEGEND:

- UGE — PROPOSED ELECTRIC LINE
- FM — PROPOSED FORCEMAIN
- SS — PROPOSED SEWER LINE
- W — PROPOSED WATER LINE
- C — PROPOSED COMMUNICATION LINE
- LIMITS OF DISTRUBANCE
- FIRE HYDRANT
- SANITARY MANHOLE

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UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

CIVIL SITE PLAN

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Dwn by: BDF/VNM Ckd by: MAP
Reviewed by: P. GRANEY
Submitted by: MARK PIRELLO MOFFATT & NICHOL

moffatt & nichol
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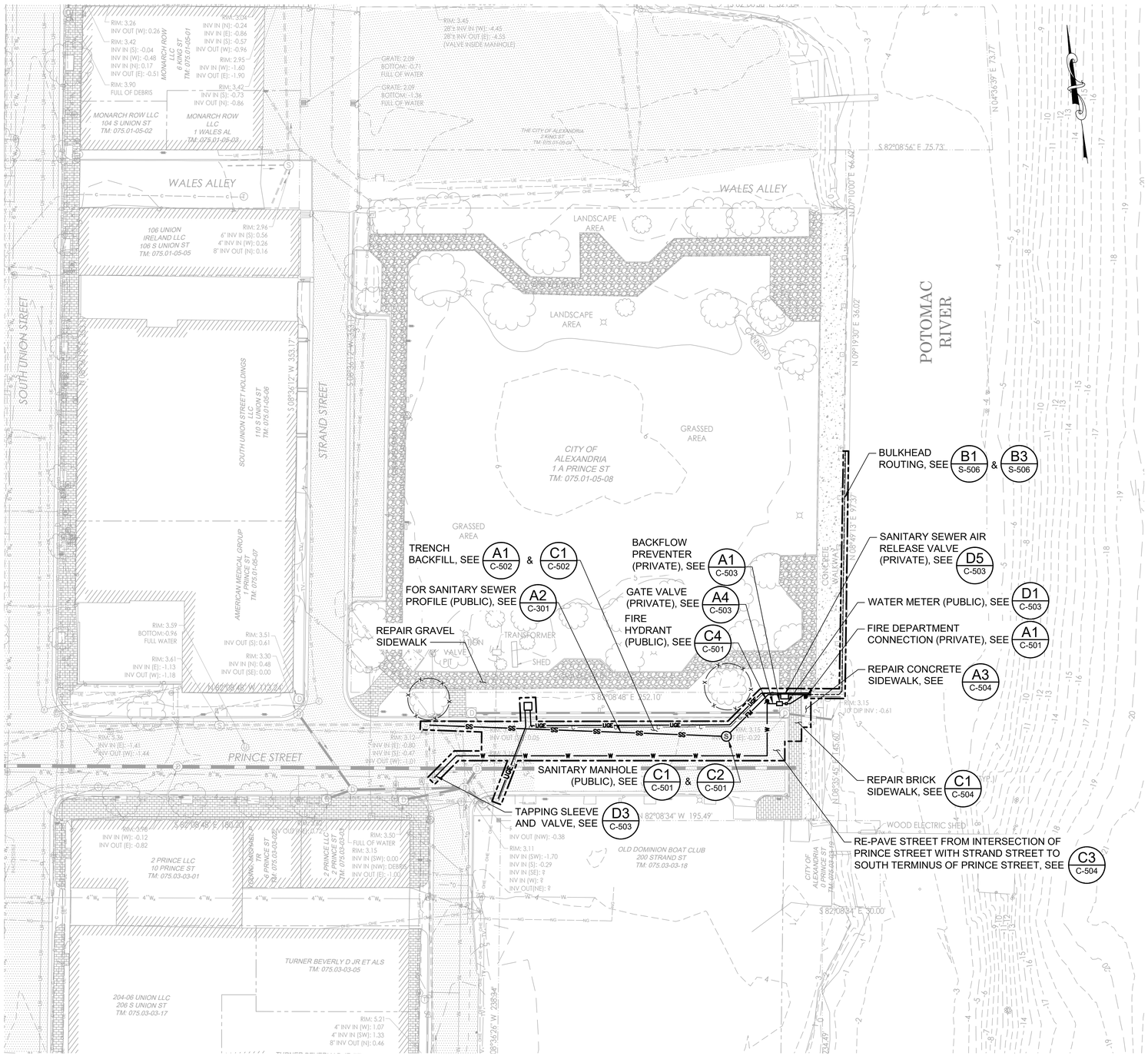

LEGEND:

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- FM — PROPOSED FORCEMAIN
- SS — PROPOSED SEWER LINE
- W — PROPOSED WATER LINE
- C — PROPOSED COMMUNICATION LINE
- LIMITS OF DISTRUBANCE
- FIRE HYDRANT
- (S) SANITARY MANHOLE

SCALE: 1"=30'

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JOHN WARNER MARITIME HERITAGE CENTER

GRADING PLAN

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M&N Project No. 201466
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Designed by: M. PIRELLO
Drawn by: BDF/VNM
Qcd by: MAP
Reviewed by: P. GRANEY
Submitted by: MARK PIRRELLO MOFFATT & NICHOL

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C-102
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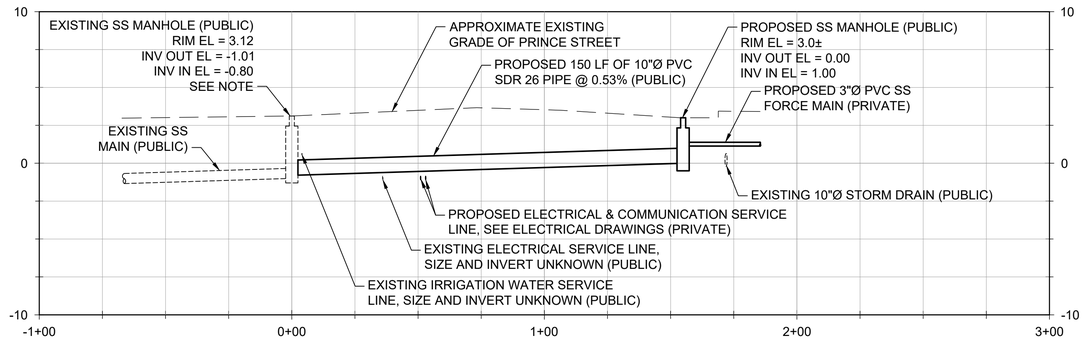
File: Q:\RA\201466\0500_CAD_Active_201466\201466-C102 - Plotted: 10/20/2022 3:03 PM by MORGAN, NEKOL - Saved: 9/8/2022 6:12 PM by DKOONS

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



NOTE: PROPOSED 10"Ø PVC SEWER (PUBLIC) CONNECTION TO EXISTING MANHOLE SHALL BE AT LOCATION AND INVERT OF EXISTING PLUGGED PENETRATION. LOCATION AND INVERT TO BE FIELD VERIFIED.

A2 / C-101 SAINTARY SEWER PROFILE

ISSUED FOR PERMIT
ISSUED: 2022-10-20
NOT TO BE USED FOR CONSTRUCTION

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DEPARTMENT OF TRANSPORTATION
& ENVIRONMENTAL SERVICES.

tall Ship PROVIDENCE
ALEXANDRIA, VA

Mark	Description	Date	Appr
2	FINAL 2 COMMENTS	10/2022	MAP
1	FINAL 1 COMMENTS	09/2022	MAP
0	FINAL SUBMITTAL	07/2022	MAP

UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

SANITARY SEWER PROFILE

moffatt & nichol
4700 FALLS OF NEUSE RD, SUITE 300
RALEIGH, NC 27609
919-781-4626

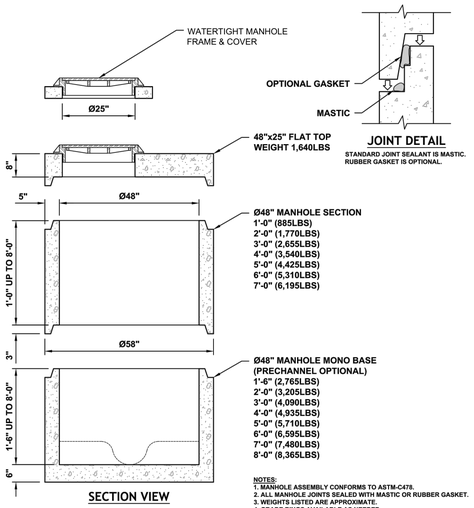
Designed by: DSGN
Drawn by: DRFT
Checked by: CHKR
Reviewed by: REVR
Submitted by: MARK PIRRELLO
MOFFATT & NICHOL
Date: SEPTEMBER 2022
M&N Project No. 201466
Drawing code:
Drawing Scale:
Plot scale: 1:1 (D SHEET)
Rev: 0

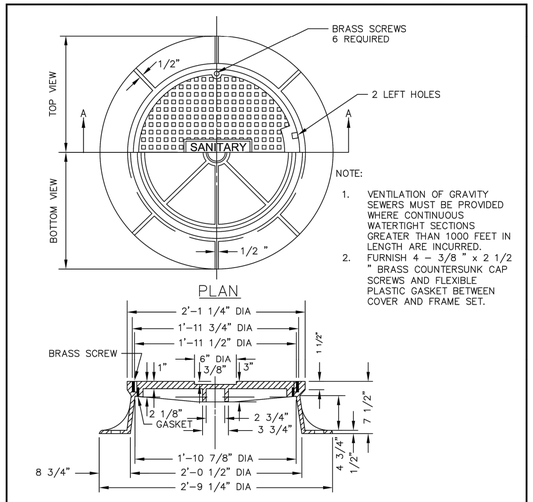
COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
Lic. No. 030083
PROFESSIONAL ENGINEER
SEAL

Sheet Reference No.
C-301
INDEX: 13 OF 41

File: Q:\PA\201466\10500_CAD_Active_201466\201466-C301 - Plotted: 10/20/2022 3:03 PM by MORGAN, NEKOL - Saved: 10/20/2022 2:10 PM by MMORGAN

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING





MINIMUM AVG. WEIGHTS	
FRAME	190 LBS
COVER	120 LBS
TOTAL	310 LBS

NOTE: THE MANHOLE FRAME AND COVER SHALL BE DESIGNED TO MEET HS-20 LOADING CAPACITY.

MANHOLE FRAME & COVER (Bolted - Watertight)

06/21/2021 REVISION DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
ALEXANDRIA, VIRGINIA

CSFC–4

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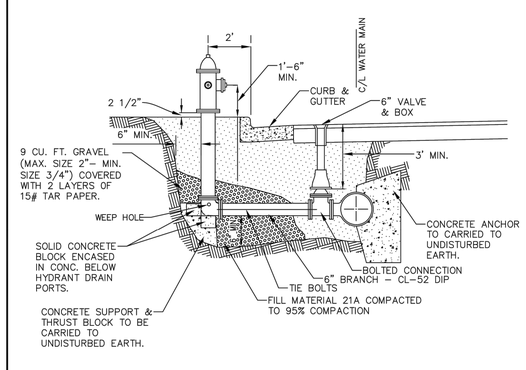

FIRE HYDRANT INSTALLATION

06/21/2021 REVISION DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
ALEXANDRIA, VIRGINIA

CSFH–1

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NOTES:
1. FIRE HYDRANT: MUELLER CENTURION – CATALOG # A423 WITH 1 1/2 INCH PENTAGON OPERATING NUT; LEFT TURN TO OPEN TWO 2 1/2" HOSE NOZZLES AND ONE 4" HOSE NOZZLE.
2. VALVE: MUELLER GATE VALVE – CATALOG # A2380–20, WITH 6 INCH MECHANICAL JOINTS. 2 INCH SQUARE NUT, LEFT TURN TO OPEN. VALVES AND FITTINGS SHALL BE WRAPPED IN 10MIL. OR THICKER POLYETHYLENE.
3. ALL FITTINGS SHALL BE DUCTILE IRON. ALL FITTINGS TO BE RESTRAINED.
4. LOCATIONS TO BE AS SHOWN ON PLANS. VARIANCE OF THE 2' MIN. FROM THE FACE OF THE CURB SHALL BE REVIEWED ON AN INDIVIDUAL BASIS BY THE TRANSPORTATION AND ENVIRONMENTAL SERVICES ENGINEER.
5. FIRE HYDRANTS TO BE INSTALLED AND TESTED IN ACCORDANCE WITH CURRENT VERSION OF AWWA M17 MANUAL.
6. VALVES AND SERVICE LINES ARE TO BE INSTALLED AND TESTED IN ACCORDANCE WITH THE CURRENT VERSION OF AWWA C200–09 DISTRIBUTION SYSTEMS AND M44 DISTRIBUTION VALVES; SELECTION, INSTALLATION, FIELD TESTING, AND MAINTENANCE, 3RD ED.
7. PRIOR TO ACCEPTANCE BY THE CITY OF ALEXANDRIA, FIELD TESTING AND PRESSURE READINGS SHALL BE PROVIDED BY THE CONTRACTOR.
8. FIRE HYDRANTS SHALL BE LOCATED AT EACH STREET INTERSECTION. THERE SHALL BE AT LEAST ONE FIRE HYDRANT LOCATED AT EACH INTERSECTION. THE MAXIMUM DISTANCE BETWEEN FIRE HYDRANTS IN BUSINESS DISTRICTS, MEASURING ALONG STREET CENTERLINES, SHALL BE 300 FEET. ALL PARTS OF EACH BUILDING SHALL BE WITHIN 500 FEET OF HOSE RUN FROM A FIRE HYDRANT. THE MAXIMUM DISTANCE BETWEEN FIRE HYDRANTS IN RESIDENTIAL DISTRICTS, MEASURED ALONG STREET CENTERLINES, SHALL NOT EXCEED 500 FEET.
9. PRIOR TO INSTALLATION OF PRIVATE HYDRANTS, AMERICAN WATER IS TO SIGN OFF ON THE HYDRANT LOCATION.
10. HYDRANTS SHALL NOT BE USED AS TEMPORARY BLOW–OFFS DURING CONSTRUCTION.
11. NO VERTICAL OBSTRUCTIONS SHALL BE WITHIN 10' OF EITHER SIDE OR REAR OF HYDRANT.
12. SPECIFY BOLLARDS WHERE HYDRANTS ARE UNPROTECTED BY CURB AND GUTTER, PLACED IN OPEN SPACE OR AT THE REAR OF COMMERCIAL BUILDINGS.
13. FIRE HYDRANTS SHALL BE PLACED AT SIGNIFICANT HIGH POINTS OF MAINS TO RELEASE AIR.
14. TO ENABLE THE DRAINING AND FLUSHING OF ALL MAINS, SPECIFY FIRE HYDRANTS AT SIGNIFICANT LOW POINTS.
15. LANDSCAPING, TREES, BMP'S, SIGNS, SIGNALS, LIGHT POLES, AND/OR OTHER UTILITIES ARE NOT PERMITTED TO BE WITHIN 5 FEET OF A HYDRANT.
16. WHEN INSTALLED IN PARKING AREA, FIRE HYDRANT SHALL BE PROTECTED BY BARRIERS THAT WILL PREVENT PHYSICAL DAMAGE BY VEHICLES.
17. IN THE CITY OF ALEXANDRIA, PUBLIC AND PRIVATE FIRE HYDRANTS ARE LOCATED AND MAINTAINED TO ASSURE THE APPROPRIATE SUPPLY OF WATER IS AVAILABLE FOR FIREFIGHTING PURPOSES. ALL PUBLIC FIRE HYDRANTS ARE THE PROPERTY OF THE CITY OF ALEXANDRIA. ALL FIRE HYDRANTS LOCATED ON PRIVATE PROPERTY ARE THE OWNERSHIP AND MAINTENANCE RESPONSIBILITY OF THE PROPERTY OWNER. IN ORDER TO PROVIDE FOR FIREFIGHTING PURPOSES, IT IS NECESSARY THAT ALL FIRE HYDRANTS BE EASILY RECOGNIZABLE TO AVOID BEING BLOCKED OR OBSTRUCTED. TO AID IN MAINTAINING THE IDENTIFIABLE APPEARANCE AND BY ORDER OF THE FIRE CHIEF, ALL FIRE HYDRANTS SHALL BE PAINTED AS DIRECTED:
   A. ALL PUBLIC AND PRIVATE HYDRANT BARRELS AND EXTENSIONS SHALL BE PAINTED WITH THE APPROVED: SHERWIN WILLIAMS "SAFETY YELLOW" #B54YZ437
   B. ALL PUBLIC HYDRANT BONNETS AND CAPS SHALL BE PAINTED WITH AN APPROVED REFLECTIVE WHITE: SHERWIN WILLIAMS "PURE WHITE" # B54WZ401
   C. ALL PRIVATE HYDRANT BONNETS SHALL BE PAINTED WITH THE APPROVED: SHERWIN WILLIAMS "SAFETY YELLOW" #B54YZ437
   D. ALL PRIVATE HYDRANT CAPS SHALL BE PAINTED WITH THE APPROVED: SHERWIN WILLIAMS "PURE WHITE" #B54WZ401
   E. HYDRANT BARRELS AND EXTENSIONS MAY BE PAINTED WITH AN APPROVED FLAT BLACK IN THE HISTORIC AND OLD TOWN AREAS OF THE CITY WHEN SPECIFICALLY APPROVED IN WRITING BY THE FIRE CHIEF.

FIRE HYDRANT INSTALLATION NOTES

06/21/2021 REVISION DATE

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES
ALEXANDRIA, VIRGINIA

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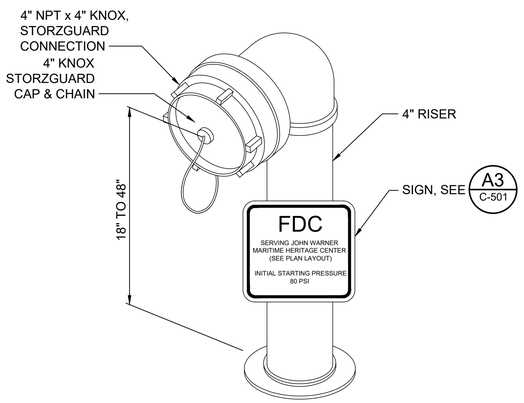
C1 C-102 MANHOLE DETAIL
SCALE: NTS

C2 C-102 MANHOLE COVER DETAIL
SCALE: NTS

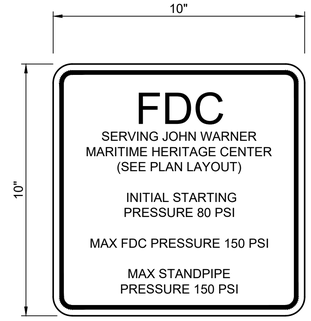
C4 C-102 FIRE HYDRANT DETAIL & NOTES
SCALE: NTS



NOTE:

SIGN READING "FDC" SHALL BE MOUNTED ON FDC RISER.

A1 C-102 FIRE DEPARTMENT CONNECTION
SCALE: NTS



NOTE:

SIGNS SHALL BE PHENOLIC ALL-WEATHER RESISTANT WITH RED BACKGROUND AND WHITE LETTERING.

A3 C-102 FDC SIGN
SCALE: NTS

ISSUED FOR PERMIT
ISSUED: 2022-10-20
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DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES.

tall ship PROVIDENCE ALEXANDRIA, VA

Mark	Description	Date	Appr
2	FINAL 2 COMMENTS	10/2022	MAP
1	FINAL 1 COMMENTS	09/2022	MAP
0	FINAL SUBMITTAL	07/2022	MAP

UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

CIVIL DETAILS 1 OF 4

Designed by: M. PIRELLO
Drawn by: BDF/VNM
Cad by: MAP
Reviewed by: P. GRANEY
Submitted by: MARK PIRRELLO MOFFATT & NICHOL
Date: SEPTEMBER 2022
M&N Project No. 201466
Drawing code:
Drawing Scale:
Plot scale: 1:1 (D SHEET)
Rev: 0

4700 FALLS OF NEUSE RD, SUITE 300
RALEIGH, NC 27609
919-781-4626
moffatt & nichol

COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
Lic. No.030083
PROFESSIONAL ENGINEER
SEAL

Sheet Reference No.
C-501
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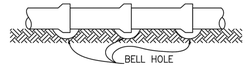
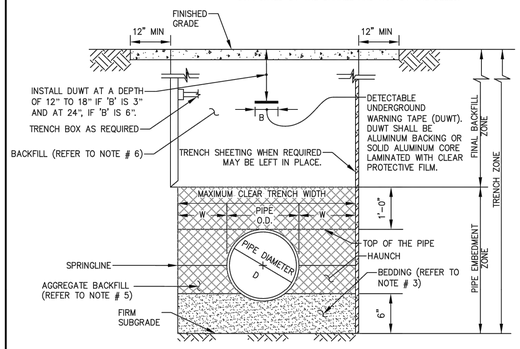
DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

W = 1'-0" OUTSIDE THE PIPE BELL FOR PIPE DIAMETER LESS THAN 18"

W = 1'-6" OUTSIDE THE PIPE BELL FOR PIPE DIAMETER GREATER THAN 18"



BELL HOLES SHALL BE EXCAVATED SO THAT THE PIPE IS SUPPORTED BY THE BARREL AND NOT BY THE BELLS.



NOT TO SCALE

NOTE:
- THE TRENCH WIDTH SHOULD NOT EXCEED THE PIPE OUTSIDE DIAMETER PLUS W.
- PAVEMENT RESTORATION IS 12 INCHES MINIMUM BEYOND THE EDGE OF THE TRENCH ON LONGITUDINAL OPEN CUTS, OR 25 FEET MINIMUM BEYOND THE TRENCH CENTERLINE ON PERPENDICULAR OPEN CUT, OR AS MENTIONED ON COA APPROVED PLANS.

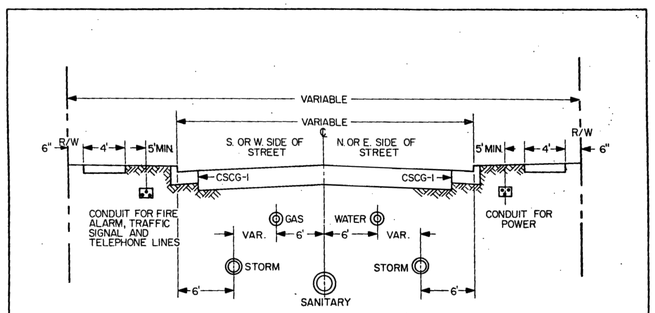
TRENCH BEDDING & BACKFILL DETAIL DUCTILE IRON PIPE (DIP) - TYPE 4	06/21/2021 REVISION DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES ALEXANDRIA, VIRGINIA	CSTB-2 PAGE 37

NOTE:

1. DUCTILE IRON PIPE (DIP) SHALL BE INSTALLED PER THE REQUIREMENTS OF ANSI/AWWA C150/A21.50 AND ANSI/AWWA C600, AS MODIFIED IN THIS DETAIL.
2. MINIMUM COVER FOR ALL H-25 LOADING APPLICATIONS SHALL BE 3'-6". MINIMUM COVER IS MEASURED FROM THE TOP OF PIPE TO THE TOP OF A RIGID PAVEMENT OR BOTTOM OF FLEXIBLE/ASPHALT PAVEMENT SECTIONS.
3. BEDDING MATERIAL SHALL BE SAND, GRAVEL, OR CRUSHED STONE CONFORMING TO THE REQUIREMENTS OF ANSI/AWWA C150/A21.50 AND ANSI/AWWA C600 OR VDOT AGGREGATE #8 OR CRUSHER RUN AGGREGATE #25 OR #26 CONFORMING TO THE REQUIREMENTS OF SECTION 205 OF VDOT ROAD AND BRIDGE SPECIFICATIONS TO A DEPTH OF 1/8 PIPE DIAMETER, D, OR 6" MINIMUM. WORK MATERIAL UNDER PIPE TO PROVIDE HAUNCH SUPPORT. WHEN STANDING WATER IS IN PIPE FOUNDATION AREA, #57 STONE CAN BE USED AS A BACKFILL IN THE SUBFOUNDATION WITH THE CONDITION THAT #57 STONE SHALL BE CAPPED WITH A MINIMUM 4" CRUSHER RUN PRIOR TO PLACEMENT OF A PIPE (COMPACTION TESTING ON #57 STONE IS NOT REQUIRED; SEAT STONE IN TRENCH).
4. PIPE BEDDED TO ITS CENTERLINE IN COMPACTED GRANULAR MATERIAL CONFORMING TO THE REQUIREMENTS OF ANSI/AWWA C150/A21.50 AND ANSI/AWWA C600 WITH 6" MINIMUM UNDER PIPE OR VDOT AGGREGATE #8 OR CRUSHER RUN AGGREGATE #26 AND #27 CONFORMING TO THE REQUIREMENTS OF SECTION 205 OF VDOT ROAD AND BRIDGE SPECIFICATIONS. WORK MATERIAL UNDER PIPE TO PROVIDE HAUNCH SUPPORT. WHEN STANDING WATER IS IN PIPE FOUNDATION AREA, #57 STONE CAN BE USED AS A BACKFILL IN THE SUBFOUNDATION WITH THE CONDITION THAT #57 STONE SHALL BE CAPPED WITH A MINIMUM 4" CRUSHER RUN PRIOR TO PLACEMENT OF A PIPE (COMPACTION TESTING ON #57 STONE IS NOT REQUIRED; SEAT STONE IN TRENCH).
5. AGGREGATE BACKFILL MATERIAL SHALL BE SAND, GRAVEL, OR CRUSHED STONE CONFORMING TO THE REQUIREMENTS OF ANSI/AWWA C150/A21.50 AND ANSI/AWWA C600 COMPACTED TO 1 FOOT ABOVE TOP OF PIPE (APPROXIMATELY 80% STANDARD PROCTOR, AASHTO T-99) OR VDOT CLASS I BACKFILL MATERIAL SHALL BE CRUSHER RUN #26 AND #27, AGGREGATE BASE 21-A, OR 21-B WITH DRAINAGE, FLOWABLE FILL, OR CRUSHED GLASS CONFORMING TO THE SIZE REQUIREMENTS FOR CRUSHER RUN AGGREGATE SIZE #26 AND #27 – FROM BEDDING TO 1 FOOT ABOVE TOP OF PIPE. THE BACKFILL SHALL BE INSTALLED IN LIFTS AND COMPACTED PER ANSI/AWWA C150/A21.50 AND ANSI/AWWA C600.
6. EXCAVATED MATERIAL BACKFILLED IN 6" LAYERS TO 95% COMPACTION. SELECT MATERIAL, WHERE CALLED FOR, MAY BE USED.
7. BACKFILL UNDER PAVED ROAD TO BE SELECT MATERIAL VDOT 21A.
8. SHEETING LEFT IN PLACE SHALL BE EITHER STEEL OF PRESSURE TREATED WOOD.

TRENCH BEDDING & BACKFILL DETAIL NOTES FOR DUCTILE IRON PIPE	06/21/2021 REVISION DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES ALEXANDRIA, VIRGINIA	CSTB-2B PAGE 39

C1 C-102 IRON DUCTILE PIPE BACKFILL DETAIL AND NOTES
SCALE: NTS



SECTION OF TYPICAL STREET

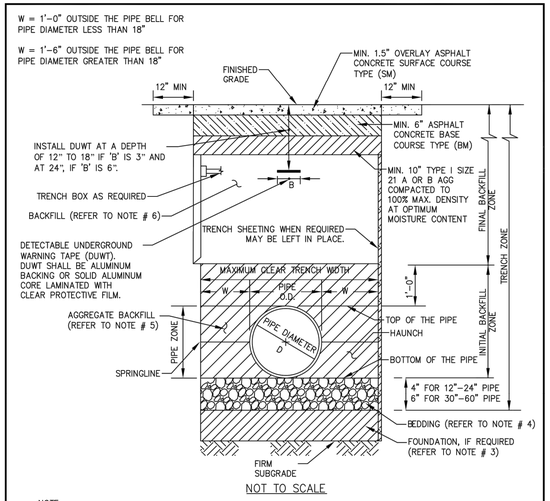
NOTES: 1. LOCATIONS MAY ONLY BE CHANGED WITH WRITTEN APPROVAL FROM THE CITY ENGINEER.

REVISIONS:
TRANSPORTATION & ENVIRONMENTAL SERVICES DEPARTMENT
ALEXANDRIA VIRGINIA
STANDARD LOCATION OF SEWERS & UTILITIES
CSSU-1 | PAGE 21

C4 C-102 PIPE LOCATION DETAIL
SCALE: NTS

W = 1'-0" OUTSIDE THE PIPE BELL FOR PIPE DIAMETER LESS THAN 18"

W = 1'-6" OUTSIDE THE PIPE BELL FOR PIPE DIAMETER GREATER THAN 18"



NOT TO SCALE

NOTE:
- THE TRENCH WIDTH SHOULD NOT EXCEED THE PIPE OUTSIDE DIAMETER PLUS W.
- PAVEMENT RESTORATION IS 12 INCHES MINIMUM BEYOND THE EDGE OF THE TRENCH ON LONGITUDINAL OPEN CUTS, OR 25 FEET MINIMUM BEYOND THE TRENCH CENTERLINE ON PERPENDICULAR OPEN CUT, OR AS MENTIONED ON COA APPROVED PLANS.

TRENCH BEDDING & BACKFILL DETAIL FLEXIBLE / PVC PIPE	06/21/2021 REVISION DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES ALEXANDRIA, VIRGINIA	CSTB-1 PAGE 35

NOTE:

1. ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT ASTM D2321 STANDARD, AS MODIFIED IN THIS DETAIL.
2. MINIMUM COVER FOR ALL H-25 LOADING APPLICATIONS SHALL BE 3'-6". MINIMUM COVER IS MEASURED FROM THE TOP OF PIPE TO THE TOP OF A RIGID PAVEMENT OR BOTTOM OF FLEXIBLE/ASPHALT PAVEMENT SECTIONS.
3. UNSTABLE TRENCH BOTTOM MATERIAL AND/OR ROCK SHALL BE EXCAVATED TO A DEPTH SPECIFIED BY THE ENGINEER AND SHALL BE REPLACED WITH CLASS I MATERIAL PER CURRENT ASTM D2321 STANDARD OR 21-A COMPACTED TO 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY OR 90% OF THE MAXIMUM MODIFIED PROCTOR DENSITY. WHEN STANDING WATER IS IN PIPE FOUNDATION AREA, #57 STONE CAN BE USED AS A BACKFILL IN THE SUBFOUNDATION WITH THE CONDITION THAT #57 STONE SHALL BE CAPPED WITH A MINIMUM 4" CRUSHER RUN OR 21-A PRIOR TO PLACEMENT OF A PIPE (COMPACTION TESTING ON #57 STONE IS NOT REQUIRED; SEAT STONE IN TRENCH). FOR SEVERE CONDITIONS, THE ENGINEER MAY REQUIRE A SPECIAL FOUNDATION SUCH AS PILES OR SHEETING CAPPED WITH CONCRETE MAT. CONTROL OF QUICK AND UNSTABLE TRENCH BOTTOM CONDITIONS MAY BE ACCOMPLISHED WITH THE USE OF APPROPRIATE GEOFABRICS.
4. BEDDING MATERIAL SHALL BE CLASS I MATERIAL #26 AND #27 PER CURRENT ASTM D2321 STANDARD OR VDOT AGGREGATE #8 OR CRUSHER RUN AGGREGATE #25 OR #26 CONFORMING TO THE REQUIREMENTS OF SECTION 205 AND 302 OF VDOT ROAD AND BRIDGE SPECIFICATIONS. WORK MATERIAL UNDER PIPE TO PROVIDE HAUNCH SUPPORT.
5. INITIAL BACKFILL MATERIAL SHALL BE CLASS I MATERIAL PER CURRENT ASTM D2321 STANDARD OR VDOT AGGREGATE #8, #68, OR #78, OR CRUSHER RUN AGGREGATE #25 OR #26 CONFORMING TO THE REQUIREMENTS OF SECTION 205 OF VDOT ROAD AND BRIDGE SPECIFICATIONS; OR AGGREGATE BASE MATERIAL SIZE 21 A OR FLOWABLE FILL. THE BACKFILL SHALL BE INSTALLED IN LIFTS AND COMPACTED PER ASTM D2321, AS APPLICABLE. BACKFILL SHALL EXTEND TO NOT LESS THAN 1'-0" ABOVE THE TOP OF THE PIPE.
6. EXCAVATED MATERIAL BACKFILLED IN 6" LAYERS TO 95% COMPACTION. SELECT MATERIAL, WHERE CALLED FOR, MAY BE USED.
7. BACKFILL UNDER PAVED ROAD TO BE SELECT MATERIAL VDOT 21A.
8. SHEETING LEFT IN PLACE SHALL BE EITHER STEEL OF PRESSURE TREATED WOOD.

TRENCH BEDDING & BACKFILL DETAIL NOTES FOR PVC	06/21/2021 REVISION DATE
DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES ALEXANDRIA, VIRGINIA	CSTB-1A PAGE 36

A1 C-102 PVC PIPE TRENCH BACKFILL AND NOTES
SCALE: NTS

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ISSUED FOR PERMIT
ISSUED: 2022-10-20
NOT TO BE USED FOR CONSTRUCTION

PLAN NUMBER: _____

APPROVED DATE: _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES.

tall ship PROVIDENCE
ALEXANDRIA, VA

2	FINAL 2 COMMENTS	10/2022	MAP
1	FINAL 1 COMMENTS	09/2022	MAP
0	FINAL SUBMITTAL	07/2022	MAP
Mark	Description	Date	Appr

UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

CIVIL DETAILS 2 OF 4

moffatt & nichol
4700 FALLS OF NEUSE RD. SUITE 300
RALEIGH, NC 27609
919-781-4626

Designed by: M. PIRELLO
Drawn by: BDF/VNM
Checked by: MAP
Reviewed by: P. GRANEY
Submitted by: MARK PIRRELLO MOFFATT & NICHOL

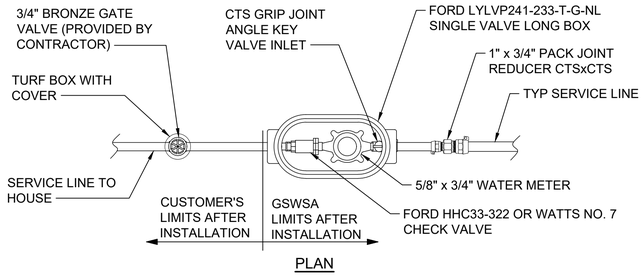
Rev. 0
Date: SEPTEMBER 2022
M&N Project No. 201466
Drawing code:
Drawing Scale:
Plot scale: 1:1 (D SHEET)

COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
Lic. No.030083
PROFESSIONAL ENGINEER
SEAL

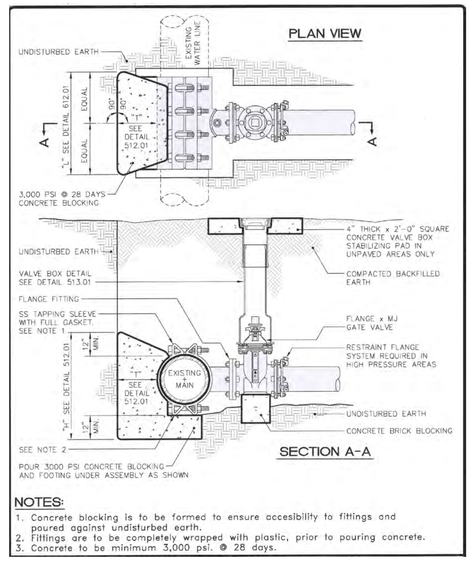
Sheet Reference No.
C-502
INDEX: 15 OF 41

File: Q:\RA\201466\0500_CAD_Active_201466\201466-C502 - Plotted: 10/20/2023 3:04 PM by MORGAN, NEKOL - Saved: 10/20/2022 2:14 PM by MMORGAN

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

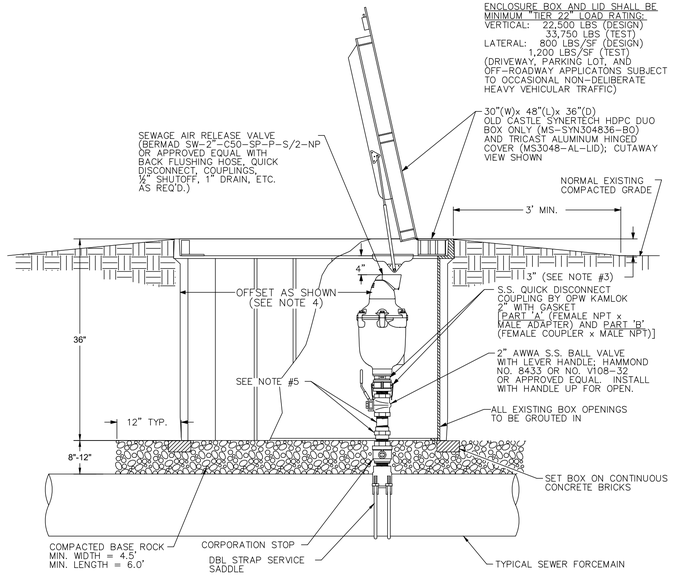


D1 C-102 **TYPICAL METER BOX DETAIL**
SCALE: NTS



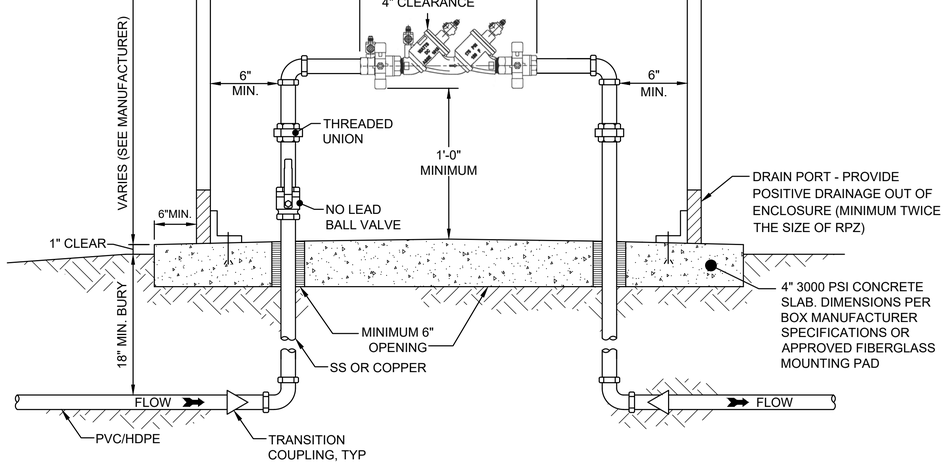
NOTES:
1. Concrete blocking is to be formed to ensure accessibility to fittings and poured against undisturbed earth.
2. Fillings are to be completely wrapped with plastic, prior to pouring concrete.
3. Concrete to be minimum 3,000 psi. @ 28 days.

D3 C-102 **4" TO 12" STANDARD TAPPING SLEEVE AND VALVE ASSEMBLY**
SCALE: NTS



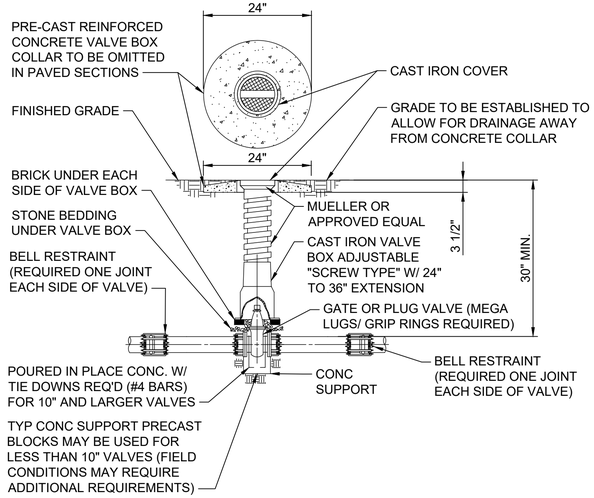
NOTES:
1) USE AN APPROVED JOINT COMPOUND ON ALL THREADED CONNECTIONS.
2) ROTATION & LOCATION OF BOX SETTING TO BE APPROVED BY THE INSPECTOR PRIOR TO INSTALLATION.
3) ARV ASSEMBLIES INSTALLED IN ROAD RIGHTS-OF-WAY MUST BE FLUSH WITH EXISTING SHOULDER GRADE. INSTALLATIONS IN EASEMENT AREAS SHALL BE RAISED ABOVE EXISTING GRADE AS SHOWN IN DETAIL.
4) ARV ASSEMBLY SHOULD BE OFFSET TO ONE SIDE OF THE BOX AS SHOWN TO ALLOW EASIER ACCESS TO QUICK DISCONNECT AND BALL VALVE HANDLE.
5) 2" S.S. NIPPLES AND COUPLINGS SHALL BE USED IF NEEDED.

D3 C-102 **TYPICAL SEWER FORCEMAIN SLEEVE AND VALVE ASSEMBLY**
SCALE: NTS



NOTES:
1) REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY SHALL COMPLY WITH ASSE 1013 & AWWA C511.
2) DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY SHALL COMPLY WITH ASSE 1015 & AWWA C510.
3) BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED WITHIN 5-FT OF THE METER BOX.
4) BACKFLOW PREVENTION ASSEMBLY SHALL BE CENTERED ON CONCRETE OR APPROVED FIBERGLASS MOUNTING PAD AND CENTERED WITHIN ENCLOSURE.
5) MINIMUM INSULATED CLASS I OR CLASS II, ASSE 1060 WEATHERPROOF ENCLOSURE REQUIRED
6) PIPE RISER MATERIAL SHALL BE SS (SCH. 40 OR BETTER).
7) INSTALLATION SHALL BE IN COMPLIANCE WITH ALL APPLICABLE CITY ORDINANCES AND SPECIFICATIONS IN ADDITION TO THE N.C. PLUMBING CODE.
8) PROPERTY OWNER SHALL BE RESPONSIBLE FOR MAINTENANCE AND OPERATION OF BACKFLOW ASSEMBLY AND COMPLIANCE WITH REPORTING AND TESTING REQUIREMENTS.

A1 C-102 **BACKFLOW PREVENTER**
SCALE: NTS



NOTES:
1. SEE "TYPICAL FITTING AND JOINT RESTRAINT" DETAIL FOR VALVE RESTRAINTS.
2. TOP OF VALVE BOX AND COLLAR SHALL BE PAINTED GREEN FOR SEWER FM AND BLUE FOR WATER.
3. EXTENSION STEM WILL BE REQUIRED TO BE WITHIN 2 FT. OF THE SURFACE IF OPERATING NUT IS OVER 5 FT. BELOW GRADE. EXTENSIONS SHALL BE PERMANENTLY ATTACHED TO VALVE NUT AND SHALL BE PROVIDED WITH HORIZONTAL SPACERS FOR BERTICLE ALIGNMENT WITHIN THE VALVE BOX.
4. PER GSWSA STANDARDS, MATERIAL APPROVAL THRU THE SUBMITTAL PROCESS ARE REQUIRED PRIOR TO ANY INSTALLATIONS.

A4 C-102 **GATE VALVE**
SCALE: NTS

ISSUED FOR PERMIT
ISSUED: 2022-10-20
NOT TO BE USED FOR CONSTRUCTION

PLAN NUMBER: _____

APPROVED DATE: _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES.

tall ship PROVIDENCE ALEXANDRIA, VA

2	FINAL 2 COMMENTS	10/2022	MAP
1	FINAL 1 COMMENTS	09/2022	MAP
0	FINAL SUBMITTAL	07/2022	MAP
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UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

CIVIL DETAILS 3 OF 4

moffatt & nichol
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RALEIGH, NC 27609
919-781-4626

Designed by: M. PIRELLO
Drawn by: BDF/VNM
Checked by: MAP
Reviewed by: P. GRANEY
Submitted by: MARK PIRRELLO MOFFATT & NICHOL

Rev. 0
Date: SEPTEMBER 2022
M&N Project No. 201466
Drawing code:
Drawing Scale:
Plot scale: 1:1 (0 SHEET)

COMMONWEALTH OF VIRGINIA
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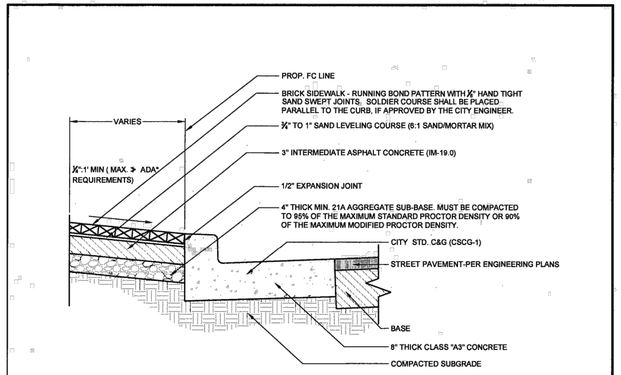
DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



*ADA: AMERICAN WITH DISABILITY ACT.

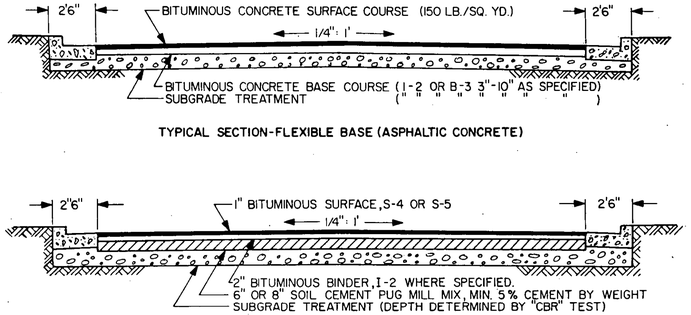
NOTES:

1. THE BRICK SHALL BE OLD VIRGINIA #24 EXTRUDED / WIRE CUT, MODULAR SIZE, SHENANDOAH SERIES POPLAR FOREST RED RANGE CONFORMING TO THE REQUIREMENTS OF ASTM C902 CLASS SX, TYPE I OR APPROVED EQUAL. THE BRICK SUBJECTED TO HEAVY VEHICULAR TRAFFIC SHALL CONFORM TO THE REQUIREMENTS OF ASTM C1272 OR APPROVED EQUAL.
2. THE EXPANSION JOINTS SHALL BE ½" WIDE AND SHALL BE THE FULL THICKNESS OF THE BRICK LAYER, AND SHALL BE OF PRE-FORMED EXPANSION JOINT MATERIAL CONFORMING TO THE REQUIREMENTS OF ASTM D994 ASPHALT OR ASTM D1751 FIBRE. EXPANSION MATERIAL SHALL BE SECURED IN A MANNER THAT WILL PREVENT MOVEMENT OR DISPLACEMENT OF BRICK DURING PLACEMENT.
3. THE EXPANSION JOINTS SHALL BE PLACED PARALLEL TO THE CONCRETE CURB.
4. ALL STRUCTURAL ITEMS TO CONFORM TO THE LATEST EDITION OF UNIFORM STATEWIDE BUILDING CODE (USBC) REQUIREMENTS.
5. PRIOR TO CONSTRUCTION, ALL STRUCTURAL CROSS SECTIONS SHALL BE REVIEWED BY A QUALIFIED STRUCTURAL AND/OR GEOTECHNICAL ENGINEER, AND MODIFIED AS NECESSARY BASED ON THE SITE SPECIFIC GEOTECHNICAL REPORT.

(N.T.S.)

BRICK SIDEWALK		DATE
	DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES	CSSW-3
APPROVED DATE	ALEXANDRIA VIRGINIA	PAGE X

C1 / C-102 BRICK SIDEWALK DETAIL
SCALE: NTS



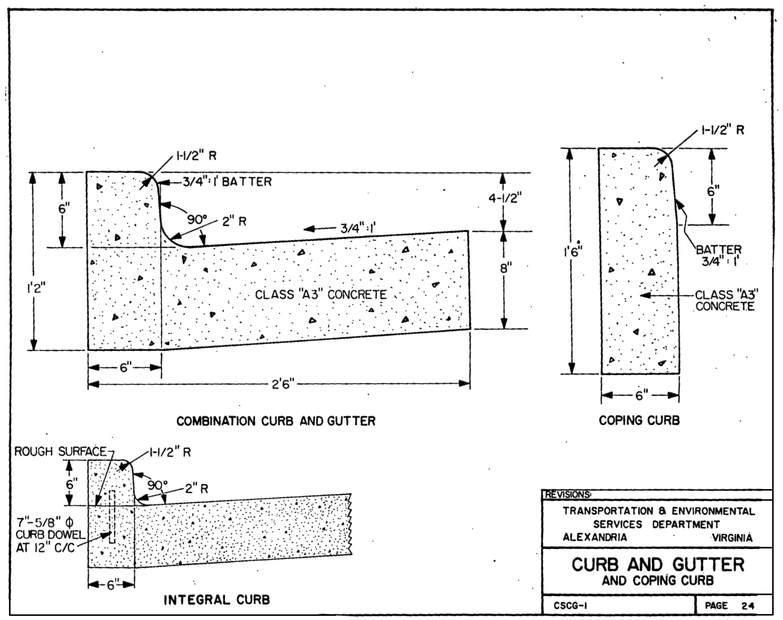
TYPICAL SECTION-FLEXIBLE BASE (ASPHALTIC CONCRETE)

TYPICAL SECTION-RIGID BASE (SOIL CEMENT)

NOTE 1. 12 1/2" MIN. FROM BASE OF SUBGRADE TREATMENT TO SURFACE.

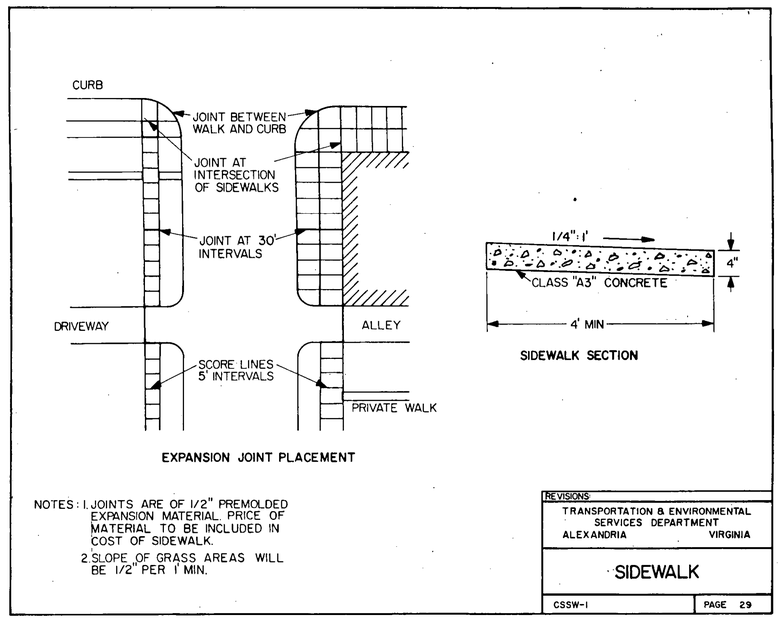
REVISIONS:	
TRANSPORTATION & ENVIRONMENTAL SERVICES DEPARTMENT ALEXANDRIA VIRGINIA	
ASPHALT PAVING	
CSAP-1	PAGE 23

C3 / C-102 ASPHALT PAVING DETAIL
SCALE: NTS



REVISIONS:	
TRANSPORTATION & ENVIRONMENTAL SERVICES DEPARTMENT ALEXANDRIA VIRGINIA	
CURB AND GUTTER AND COPING CURB	
CSCG-1	PAGE 24

A1 / C-102 CURB & GUTTER DETAIL
SCALE: NTS



NOTES: 1. JOINTS ARE OF 1/2" PREMOLDED EXPANSION MATERIAL. PRICE OF MATERIAL TO BE INCLUDED IN COST OF SIDEWALK.
2. SLOPE OF GRASS AREAS WILL BE 1/2" PER 1' MIN.

REVISIONS:	
TRANSPORTATION & ENVIRONMENTAL SERVICES DEPARTMENT ALEXANDRIA VIRGINIA	
SIDEWALK	
CSSW-1	PAGE 29

A3 / C-102 SIDEWALK DETAIL
SCALE: NTS

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DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES.

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ALEXANDRIA, VA

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UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

CIVIL DETAILS 4 OF 4

moffatt & nichol
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919-781-4626

Designed by: M. PIRELLO
Drawn by: BDF/VNM
Cad by: MAP
Reviewed by: P. GRANEY
Submitted by: MARK PIRRELLO MOFFATT & NICHOL
Date: SEPTEMBER 2022
M&N Project No. 201466
Drawing code:
Drawing Scale:
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Rev. 0

COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
Lic. No. 030083
PROFESSIONAL ENGINEER
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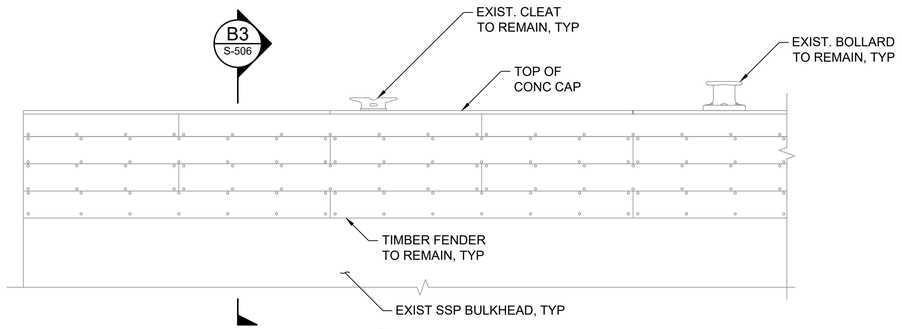
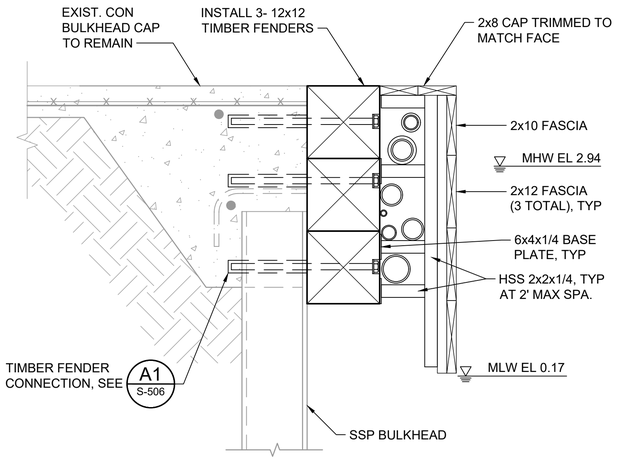


D1 S-506 **BULKHEAD ELEVATION**
SCALE: 3/8"=1'-0"

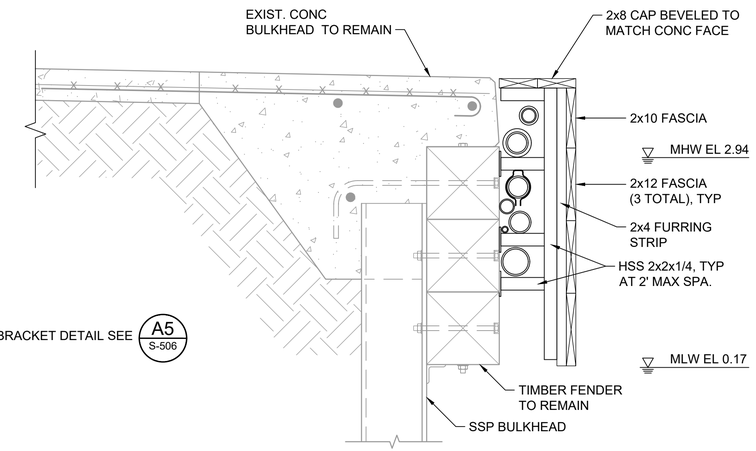
NOTES:

1. ALL HARDWARE SHALL BE A316 STAINLESS STEEL.
2. USE 3" #8 SCREWS AT 2' MAX CENTERS TO SECURE 2X LUMBER TO CAP REST AND SPACERS.
3. USE 3/8"x6" STAINLESS STEEL LAG BOLTS TO SECURE SUPPORT BRACKETS TO BULKHEAD.

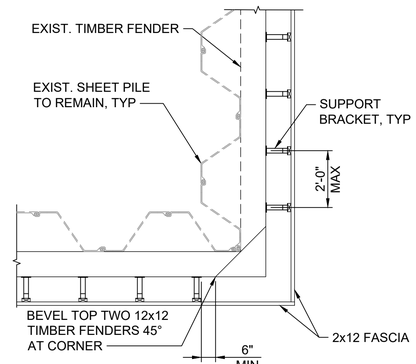


B1 S-506 **BULKHEAD SECTION**
SCALE: 1"=1'-0"

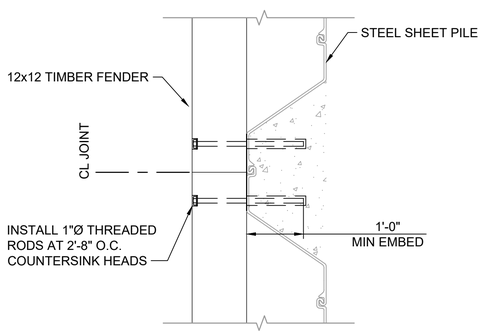
NOTE: FOR SUPPORT BRACKET DETAIL SEE A5 S-506



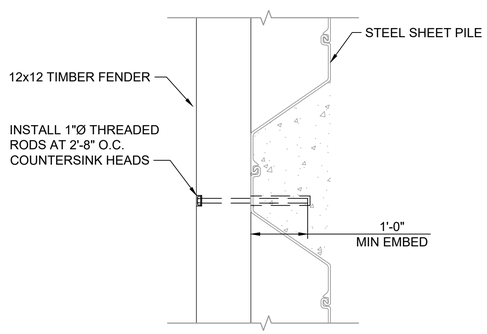
B3 S-506 **BULKHEAD SECTION**
SCALE: 1"=1'-0"



C6 S-506 **PLAN- CORNER**
SCALE: 3/8"=1'-0"

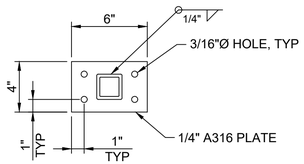


AT FENDER JOINT

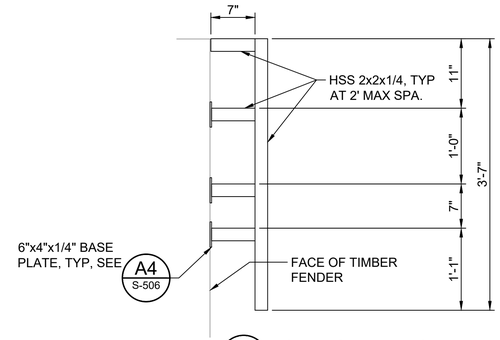


AT INTERMEDIATE BOLT

A1 S-506 **TIMBER FENDER CONNECTION**
SCALE: 3/4"=1'-0"



A4 S-506 **BASE PLATE**
NOT TO SCALE



A5 S-506 **SUPPORT BRACKET**
SCALE: 1"=1'-0"

4'-0" 0'-0" 2'-0" 4'-0"
SCALE: 3/8"=1'-0"

2'-0" 0'-0" 1'-0" 2'-0"
SCALE: 3/4"=1'-0"

1'-0" 0'-0" 1'-0" 2'-0"
SCALE: 1"=1'-0"

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0	FINAL SUBMITTAL	07/2022	MAP

UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

BULKHEAD DETAILS

Rev. 0
Date: SEPTEMBER 2022
M&N Project No. 201466
Drawing code:
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Plot scale: 1:1 (0 SHEET)

Designed by: M. PIRELLO
Drawn by: BDF/VNM
Cad by: MAP
Reviewed by: P. GRANEY
Submitted by: MARK PIRRELLO MOFFATT & NICHOL

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PROFESSIONAL ENGINEER
SEAL

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DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

ELECTRICAL GENERAL NOTES

1. GENERAL CONDITIONS:

   A. UNDER THIS SECTION THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL, EQUIPMENT, APPURTENANCES, SERVICES AND SUPERVISION FOR A COMPLETE ELECTRICAL SYSTEM AS SHOWN ON THE DRAWING. ALL MATERIAL AND EQUIPMENT SHALL BE WORKED INTO A COMPLETE, CONVENIENT, AND ECONOMICAL SYSTEM OR SYSTEMS. ALL APPARATUS, PARTS, MATERIAL, AND ACCESSORIES WHICH ARE NECESSARY TO ACCOMPLISH THIS RESULT SHALL BE PROVIDED. MANUFACTURER'S INSTRUCTIONS, WRITTEN OR OTHERWISE, SHALL BE FOLLOWED, UNLESS SUPERSEDED HERE IN. ALL ITEMS SHOWN ARE NEW AND SHALL BE PROVIDED FOR THE CONTRACTOR UNLESS SPECIFICALLY INDICATED OTHERWISE.
   B. "PROVIDE" IS DEFINED TO MEAN THAT THE CONTRACTOR SHALL FURNISH, INSTALL, ADJUST, TEST AND INTEGRATE INTO A COMPLETE SYSTEM THE ITEM INDICATED. INCLUDING ALL HARDWARE WIRING, AND MISCELLANEOUS ITEMS AS NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM.
   C. CONTRACTOR SHALL GIVE REQUIRED NOTICES, OBTAIN NECESSARY PERMITS, AND PAY PERMIT FEES.
   D. THE DRAWINGS INDICATE DIAGRAMMATICALLY THE EXTENT OF THE WORK. MINOR VARIATIONS IN LOCATION OF EQUIPMENT SHALL BE MADE UPON WRITTEN APPROVAL OF THE ENGINEER AT NO ADDITIONAL CHARGE. REFER TO ARCHITECTURAL, STRUCTURAL, AND CIVIL DRAWINGS FOR GUIDANCE ON DIMENSION, DETAILS, AND LOCATIONS OF DUCTS AND PIPES. INSTALL THE ELECTRICAL SYSTEMS WITHOUT INTERFERING WITH PIPES, STRUCTURAL STEEL, OR OTHER SYSTEMS.
   E. ALL DIMENSIONS AND ELEVATIONS NOTED ARE ENGLISH UNITS UNLESS OTHERWISE NOTED.
   F. COOPERATE AND COORDINATE THE WORK OF THIS DIVISION WITH OTHER TRADES.
   G. ALL WORK TO CONFORM TO THE LATEST EFFECTIVE PUBLICATIONS OF THE FOLLOWING STANDARDS, CODES, ETC. FORM A PART OF THESE SPECIFICATIONS:

      ALL STATE AND LOCAL BUILDING CODES.
      SERVICE RULES AND REGULATIONS OF THE LOCAL ELECTRIC UTILITY COMPANY.
      AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
      ASTM INTERNATIONAL (ASTM).
      BUILDING INDUSTRY CONSULTING SERVICE INTERNATIONAL (BICSI).
      INTERNATIONAL BUILDING CODE (IBC).
      INTERNATIONAL FIRE CODES (IFC).
      INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE).
      NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA).
      NATIONAL FIRE PROTECTION ASSOCIATION (NFPA).
      NATIONAL ELECTRICAL CODE (NEC).
      TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA).
      UNDERWRITERS LABORATORIES (UL).
      ILLUMINATING ENGINEERING SOCIETIES (IES).

   H. SUBSTANTIAL COMPLETION: UPON COMPLETION OF THE ENTIRE WORK, THE CONTRACTOR SHALL PERFORM SUCH TESTS AS REQUIRED BY THE ENGINEER. THE ENGINEER SHALL BE GIVEN (5) DAYS NOTICE BEFORE TESTS ARE MADE. THE CONTRACTOR SHALL FURNISH THE ENGINEER A CERTIFICATE OF APPROVAL FROM THE LOCAL INSPECTION AUTHORITY HAVING JURISDICTION.
   I. WARRANTY: CONTRACTOR SHALL FURNISH WRITTEN WARRANTY, COUNTERSIGNED, AND GUARANTEED BY THE GENERAL CONTRACTOR, STATING THAT THE WORK EXECUTED UNDER THIS DIVISION OF THE SPECIFICATIONS SHALL BE FREE FROM DEFECTS OF MATERIALS AND WORKMANSHIP FOR A PERIOD OF 12 MONTHS FROM DATE OF FINAL ACCEPTANCE UNLESS INDICATED OTHERWISE IN THE SPECIFICATIONS. DEFECTS DEVELOPING DURING THAT PERIOD SHALL BE CORRECTED WITHOUT COST TO THE OWNER.
   J. IT IS THE RESPONSIBILITY OF THE OWNER TO MAINTAIN THE INTEGRITY OF THE SYSTEMS. CONTRACTOR SHALL PROVIDE OWNER WITH COMPLETE OPERATION AND MAINTENANCE INFORMATION FROM EQUIPMENT MANUFACTURERS.
   K. COMPLETE SCHEDULES OF MATERIALS AND EQUIPMENT PROPOSED FOR INSTALLATION SHALL BE SUBMITTED TO THE ENGINEER WITHIN 30 DAYS AFTER AWARD OF THE CONTRACT. THE SCHEDULES SHALL INCLUDE CATALOG CUTS, DIAGRAMS AND SUCH OTHER DESCRIPTIVE DATA AND/OR SAMPLES AS MAY BE REQUIRED BY THE ENGINEER. LIGHTING FIXTURE SUBMITTALS SHALL INCLUDE PHOTOMETRIC REPORTS BY INDEPENDENT TESTING LABORATORIES FOR EACH FIXTURE INDICATED BASED ON IES PUBLISHED PROCEDURES.
   L. SHOULD THERE BE A CONFLICT BETWEEN THESE GENERAL NOTES, WORKING DRAWINGS, AND/OR SPECIFICATIONS, THE MOST RESTRICTIVE INTERPRETATION SHALL PREVAIL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING FROM THE OWNER REPRESENTATIVE ANY CLARIFICATION OR INTERPRETATION OF THE GENERAL NOTES, WORKING DRAWINGS, AND/OR SPECIFICATIONS IN WRITING AND IN ADVANCE OF THE BEGINNING OF DEMOLITION/CONSTRUCTION.
   M. EXISTING CONSTRUCTION, INCLUDING UTILITIES AND OTHER MISCELLANEOUS ITEMS WHICH ARE TO REMAIN, SHALL REMAIN UNDISTURBED AND BE PROTECTED, UNLESS OTHERWISE NOTED.
   N. AREAS DISTURBED DURING DEMOLITION/CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION, AT NO ADDITIONAL EXPENSE TO THE OWNER, UNLESS OTHERWISE NOTED.
   O. LIMITED STAGING AREAS SHALL BE PROVIDED ON SITE FOR CONTRACTOR'S USE. THE CONTRACTOR SHALL CONFIRM THE EXTENTS OF STAGING AREAS WITH THE OWNERS REPRESENTATIVE.
   P. ALL EXISTING ELECTRICAL EQUIPMENT INCLUDING LIGHTING SHALL BE RETURNED TO OWNER. OWNER RESERVES RIGHT TO REFUSAL AND CONTRACTOR SHALL DISPOSE OF EQUIPMENT.

2. GENERAL MATERIAL REQUIREMENTS:
   A. EQUIPMENT AND PRODUCTS TO BE USED SHALL BE REVIEWED AND APPROVED BY OWNER PRIOR TO PLACING ORDER OR PURCHASE.
   B. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BEAR THE LABEL OF A NATIONALLY RECOGNIZED TESTING AGENCY AND SHALL BE INSTALLED IN THE MANNER FOR WHICH IT IS DESIGNED AND APPROVED.
   C. ALL MATERIAL, INCLUDING PULL BOXES, CONDUIT BODIES, FITTINGS AND MOUNTING HARDWARE INSTALLED OUTSIDE SHALL BE APPROVED WEATHER TIGHT CORROSION RESISTANT (316 STAINLESS STEEL), UNLESS NOTED OTHERWISE.
   D. CONTRACTOR SHALL INSPECT MATERIALS DELIVERED TO SITE FOR DAMAGE. UNLOAD AND STORE WITH MINIMUM HANDLING. STORE MATERIALS ON SITE IN ENCLOSURES OR UNDER PROTECTIVE COVERING. STORE PLASTIC PIPING UNDER COVER OUT OF DIRECT SUNLIGHT. DO NOT STORE MATERIALS DIRECTLY ON THE GROUND. KEEP INSIDE OF CONDUITS, FITTINGS AND EQUIPMENT FREE OF DIRT AND DEBRIS. HANDLE CONDUIT, FITTINGS, AND OTHER ACCESSORIES IN SUCH MANNER AS TO ENSURE DELIVERY TO THE INSTALLATION LOCATION IN A SOUND UNDAMAGED CONDITION.
   E. SUPPORTS AND HARDWARE SHALL BE 316 STAINLESS STEEL. SUBMIT SHOP DRAWINGS OR CATALOG DATA FOR REVIEW AND APPROVAL. A DIELECTRIC ISOLATION SHEET SHALL BE PLACED WHERE DISSIMILAR METALS CONTACT ON THE SUPPORT. INCLUDE LOCKWASHERS.
   F. PANELBOARDS, ENCLOSED CIRCUIT BREAKERS AND SAFETY SWITCHES, WHEN APPLICABLE, SHALL BE MANUFACTURED BY THE SAME MANUFACTURER. WIRING DEVICES SHALL BE MANUFACTURED BY ONE MANUFACTURER.
   G. SUBSTITUTION OF MATERIAL AND EQUIPMENT: THE NAME OF A CERTAIN BRAND, MAKE, MANUFACTURER OR DEFINITE SPECIFICATION IS TO DENOTE THE QUALITY STANDARD OF ARTICLE DESIRED. SUBSTITUTION OF ANY OTHER BRAND, MAKE, OR MANUFACTURER, WHICH IN THE OPINION OF THE ENGINEER IS RECOGNIZED THE EQUAL OF THAT SPECIFIED MAY BE ACCEPTED.
   H. PROVIDE ENGRAVED PLASTIC NAMEPLATES ON ALL DISTRIBUTION EQUIPMENT AND PANELS, SECURED BY MEANS OF STAINLESS STEEL RIVETS. TAPES AND ADHESIVES ARE NOT ACCEPTABLE.
   I. UNLESS NOTED OTHERWISE, ALL PANEL BUSES, FEEDER CONDUCTORS AND BRANCH CIRCUIT WIRING SHALL BE COPPER. ALL WIRE SHALL BE UL LISTED, RATED FOR 600 VOLTS, NO. 12 MINIMUM SIZE, UNLESS NOTED OTHERWISE.
   J. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED.

3. GENERAL INSTALLATION REQUIREMENTS:
   A. INSTALL MATERIALS AND EQUIPMENT IN FIRST CLASS AND WORKMANLIKE MANNER AND IN ACCORDANCE WITH NECA STANDARD 101-2013. RUN CONCEALED, EXCEPT AS INDICATED.
   B. POWER WIRING AND POWER CONNECTIONS TO EQUIPMENT SHALL BE PROVIDED UNDER "ELECTRICAL" UNLESS OTHERWISE INDICATED ON THE ELECTRICAL DRAWINGS. WHEN SUBSTITUTED MOTORS AND/OR EQUIPMENT REQUIRES ELECTRICAL MODIFICATIONS, THE COST OF THE ELECTRICAL MODIFICATIONS AND COORDINATION SHALL BE INCLUDED UNDER THE DIVISION PROVIDING THE MOTOR AND/OR EQUIPMENT.
   C. THE ELECTRICAL CONTRACTOR SHALL NOT BORE, NOTCH OR IN ANY WAY CUT INTO ANY STRUCTURAL MEMBER, WITHOUT APPROVAL FROM THE ENGINEER. THE ELECTRICAL CONTRACTOR SHALL PROVIDE SUPPORT FOR ALL ELECTRICAL EQUIPMENT TO COMPLY WITH THE REQUIREMENTS OF THE LATEST ADOPTED BUILDING CODE AND ALL LOCAL ORDINANCES.
   D. SCHEDULING, TRENCHING, LINE SHUTDOWN, DRAINAGE, TIE-IN, CONDUIT BEDDING, SUPPORTS, INSTALLATION OF NEW LINE, WALL PENETRATIONS, AND EQUIPMENT PLACEMENTS, TESTING, WARNING TAPE, BACKFILL, SURFACING, LANDSCAPING, ACTIVATION OF SERVICE, ETC., SHALL COMPLY WITH THE LOCAL BUILDING CODE STANDARDS AND REGULATIONS AND SHALL BE COORDINATED WITH THE LOCAL CODE OFFICIAL AND THE FIRE DEPARTMENTS. PRIOR APPROVAL OF AND NOTICE TO PROCEED WITH CONCEALING ELECTRICAL WIRING AND FINAL CONNECTIONS ARE REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION.
   E. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITY LOCATIONS IN THE FIELD BEFORE STARTING WORK. THE REGIONAL NOTIFICATION CENTER (AND/OR PROPERTY OWNERS) SHALL BE NOTIFIED 48 HOURS PRIOR TO THE START OF SHUTDOWN, DIGGING OR EXCAVATION WORK. THE CONTRACTOR SHALL FIELD VERIFY THE POINTS OF CONNECTIONS AND PHASED CONSTRUCTION TIE-INS. LOCATIONS OF PIPING AND APPURTENANT FITTINGS SHOWN ON THE DRAWINGS ARE APPROXIMATE. IT IS INTENDED THAT SUCH ITEMS BE LOCATED BASED ON EXACT LOCATIONS DETERMINED IN THE FIELD AND THE SUPPLIED MATERIALS.
   F. CONTRACTOR SHALL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES TO REMAIN FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. SHOULD SPECIAL EQUIPMENT BE REQUIRED TO WORK OVER AND AROUND THE UTILITIES, CONTRACTOR SHALL BE REQUIRED TO FURNISH SUCH EQUIPMENT. THE COST OF PROTECTING UTILITIES FROM DAMAGE AND FOR FURNISHING SPECIAL EQUIPMENT SHALL BE INCLUDED IN THE PRICE BID.
   G. THE ELECTRICAL CONTRACTOR SHALL INSTALL ALL CONDUITS AND WIRES WITH A MINIMUM NUMBER OF BENDS AND IN SUCH A MANNER AS TO CONFORM TO THE STRUCTURE. AVOID OBSTRUCTIONS, AND MEET ALL STRUCTURAL CODE REQUIREMENTS. THESE DRAWINGS ARE PRIMARILY DIAGRAMMATIC, AND DO NOT SHOW ALL SUCH REQUIRED BENDS, OFFSETS, FITTING, BOXES, ETC..
   H. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY NATIONAL ELECTRICAL CODE. POWER CONDUITS SHALL HAVE A INSULATED COPPER, CODE SIZED GROUND WIRE INSTALLED.
   I. VEHICULAR ACCESS MUST BE PROVIDED AND MAINTAINED SERVICEABLE THROUGHOUT CONSTRUCTION.
   J. DIELECTRIC COUPLINGS/FLANGES SHALL BE USED AT DISSIMILAR METAL PIPING CONNECTIONS, POSTS.
   K. SUPPORTS AND HANGERS SHALL BE 316 STAINLESS STEEL (UNLESS OTHERWISE NOTED) AND SHALL BE FROM MANUFACTURED SHAPES. FIELD BENDING IS NOT PERMITTED. PLATE MATERIAL MAY BE WELDED IN THE FIELD TO FORM SHAPES.

4. CONDUIT REQUIREMENTS:
   A. BURIED CONDUIT LINES SHALL HAVE PLASTIC WARNING TAPE MEETING APWA STANDARDS WITH METALLIC CORE OR METAL FACED PLACED IN TRENCH ABOVE PIPING. THE TAPE SHALL BE PLACED 9 INCHES TO 12 INCHES BELOW FINISHED GRADE.
   B. ALL CONDUIT SHALL FOLLOW THE GENERAL ARRANGEMENT SHOWN. CONDUIT SHALL BE RUN ESSENTIALLY AS INDICATED, CARE BEING TAKEN TO AVOID INTERFERENCE WITH OTHER PIPING, CONDUIT OR EQUIPMENT. BEFORE JOINTING AND INSTALLATION OF CONDUIT, THOROUGHLY CLEAN INTERIORS OF CONDUIT, AND COMPONENTS. MAINTAIN CLEANLINESS BY CLOSURE OF CONDUIT OPENINGS WITH CAPS OR PLUGS.
   C. THE CONTRACTOR SHALL ENSURE SUFFICIENT CONDUIT FLEXIBILITY AND ANCHORAGE IS PROVIDED FOR ALL LINES FOR THERMAL EXPANSION AND CONTRACTION, PRESSURE AND FLEXING. THE STRUCTURE AND COMPONENTS SHALL ACCOMMODATE THE CONDUIT LAYOUT REQUIREMENTS SUCH THAT THE CONDUIT SHALL NOT BECOME OVERSTRESSED. THE CONDUIT SHALL BE PROPERLY SECURED IN ACCORDANCE WITH NEC.
   D. CONDUIT AND FITTINGS SHALL CONFORM TO THE FOLLOWING:

      (1) RIGID STEEL - ANSI C80 (HOT DIPPED GALVANIZED).
      (2) PVC COATED RIGID STEEL - ANSI RN 1, TYPE 40 (40 MILS THICK).
      (3) PLASTIC CONDUIT (PVC) - NEMA TC-2 AND TC-3.
      (4) FLEXIBLE METAL CONDUIT - UL-1.
      (5) LIQUID-TIGHT FLEXIBLE METAL CONDUIT - UL-360.

   E. CONDUIT SHALL BE RUN CONCEALED, EXCEPT CONDUIT MAY BE EXPOSED AS APPROVED BY THE ENGINEER. WHERE FLEXIBILITY IS REQUIRED, PROVIDE LIQUID TIGHT FLEXIBLE METAL CONDUIT EXCEPT AS INDICATED OTHERWISE. CONDUITS RUN EXPOSED SHALL BE GALVANIZED RIGID STEEL, UNLESS OTHERWISE NOTED. LIQUID TIGHT FLEXIBLE METALLIC CONDUIT RUN EXPOSED SHALL BE RATED AS SUNLIGHT RESISTANT.
   F. CONDUIT RUN ON LAND SHALL BE BURIED A MINIMUM OF 36 INCHES BELOW FINISHED GRADE, UNLESS OTHERWISE NOTED. CONDUITS RUN BELOW SLAB ON GRADE SHALL BE BURIED A MINIMUM OF 12 INCHES BELOW SLAB, AND SHALL BE RIGID HOT DIPPED GALVANIZED STEEL CONDUIT PAINTED WITH TWO COATS OF BITUMASTIC PAINT, OR RIGID NON-METALLIC POLYVINYLCHLORIDE CONDUIT, MINIMUM SCHEDULE 40, AT THE OPTION OF THE CONTRACTOR, UNLESS A SPECIFIC TYPE OF CONDUIT IS SPECIFIED OR INDICATED ON THE DRAWINGS.
   G. RIGID STEEL CONDUIT FITTINGS SHALL BE THREADED.
   H. MINIMUM SIZE CONDUIT SHALL BE INDICATED AND AS REQUIRED BY NATIONAL ELECTRIC CODE WITH A MINIMUM SIZE OF 3/4".
   I. FLEXIBLE CONDUIT SHALL BE GALVANIZED, SINGLE STRIP TYPE. IN AREAS SUBJECT TO MOISTURE, OR WHERE CALLED FOR ON THE DRAWINGS, FLEXIBLE CONDUIT SHALL HAVE A PLASTIC COVERING IN ACCORDANCE WITH NEC. FITTINGS SHALL BE STANDARD UL APPROVED WITH GROUND CONNECTOR. WATERTIGHT CONNECTORS SHALL BE USED WITH PLASTIC COVERED CONDUIT. FLEXIBLE CONDUIT, MINIMUM 18 INCHES/ MAXIMUM 48 INCHES IN LENGTH, SHALL BE USED FOR CONNECTIONS TO MOTORS, DRY TYPE TRANSFORMERS AND OTHER EQUIPMENT SUBJECT TO VIBRATION.
   J. EXPOSED CONDUITS SHALL BE RUN PARALLEL AND PERPENDICULAR TO STRUCTURES AND SHALL BE SUPPORTED AS SPECIFIED AND IN ACCORDANCE WITH NEC.
   K. CONDUIT SUPPORTS SHALL BE APPROVED WALL BRACKETS, TRAPEZE, STRAP HANGER OR PIPE STRAPS SECURED TO HOLLOW MASONRY WITH TOGGLE BOLTS; TO CONCRETE WITH DRILL AND EPOXY IN PLACE RODS, EXPANSION BOLTS ARE NOT PERMITTED TO BE USED; TO METAL SURFACES WITH MACHINE SCREWS; AND TO WOOD WITH WOOD SCREWS. ANY FORM OF TIE WIRE IS UNACCEPTABLE.
   L. PROVIDE EXPANSION FITTINGS WHERE CONDUITS CROSS EXPANSION JOINTS. PROVIDE SLIP JOINTS AS NECESSARY FOR THERMAL EXPANSION AND CONTRACTION.
   M. CONDUIT TERMINATIONS AND CONDUIT STUBS SHALL HAVE INSULATING BUSHINGS.
   N. CONDUITS PASSING THROUGH BULKHEADS, CONCRETE WALLS, FLOORS OR FOOTINGS AND SLAB ON GRADE SHALL BE MADE WATERTIGHT. PROVIDE PIPE SLEEVES WITH ONE-HALF INCH MINIMUM CLEARANCE AROUND THE CONDUIT AND CAULK WITH SEALANT.
   O. PROVIDE 4" MINIMUM SEPARATION BETWEEN ELECTRICAL AND OTHER UTILITIES.
   P. PROVIDE STAINLESS STEEL CABLE/CONDUIT TAGS WITH STAINLESS STEEL STRAPS. EMBOSS TAG WITH PANEL AND CIRCUIT NUMBER TO EACH CONDUIT AND WIRE. THIS APPLIES TO ALL CONDUIT/WIRE TERMINATIONS, MANHOLES, HANDHOLES, TERMINATION BOXES, AND EXPOSED CONDUITS AT TERMINATIONS AND EVERY 100' OF EXPOSED CONDUIT.
   Q. EVERY NEW SPARE CONDUIT SHALL HAVE A PULL STRING INSTALLED. EVERY NEW SPARE CONDUIT SHALL HAVE A #12 (MIN) COPPER TRACER WIRE INSTALLED, WITH INSULATION THAT IS NOT WHITE, GRAY, OR GREEN IN COLOR. THE TRACER WIRE MAY ALSO SERVE AS THE PULL STRING.

5. WIRING REQUIREMENTS:
   A. THE ENTIRE WIRING SYSTEM SHALL BE TESTED FOR SHORT CIRCUITS, GROUNDS AND INSULATION RESISTANCE BETWEEN CONDUCTORS AND TO GROUND PRIOR TO COMPLETION OF PROJECT.
   B. WIRE AND CABLE SHALL BE INSTALLED IN CONDUIT EXCEPT AS SPECIFICALLY INDICATED OTHERWISE.
   C. WIRE AND CABLE SHALL BE COPPER, 600 VOLT INSULATION, MINIMUM SIZE NO. 12, TYPE "THHN/THWN" AS APPLICABLE, UNLESS OTHERWISE INDICATED ON DRAWINGS.
   D. WIRES NO. 10 AND 12 AWG SHALL BE CONNECTED WITH COIL SPRING INSERT "WIRE-NUT" OR "WING-NUT" CONNECTORS MANUFACTURED BY IDEAL INDUSTRIES OR APPROVED EQUAL. CONNECTORS SHALL BE RATED 600 VOLTS.
   E. WIRE SHALL BE COLOR CODED AS FOLLOWS:

208Y/120V SYSTEM	120/240V 1 PH SYSTEM
PH A - BLK	PH A - BLK
PH B - RED	PH B - RED
PH C - BLU	
NEUT - WHT	NEUT - WHT W/GRY STRIPE
GND - GRN	GND - GRN W/WHT STRIPE

   F. PROVIDE CABLE LUGS ON ALL CABLES AS REQUIRED TO PROPERLY TERMINATE ON THE EQUIPMENT AS NECESSARY.

6. PULL BOX REQUIREMENTS
   A. LANDSIDE PULL BOXES SHALL BE AS DEFINED IN DRAWINGS. MARK COVERS PERMANENTLY WITH "ELECTRICAL" OR "COMMUNICATIONS", AS REQUIRED.
   B. PROVIDE 6" THICK BUILD OF CRUSHED ROCK BELOW BOX AND AS RECOMMENDED BY MANUFACTURER.
   C. WHERE SEVERAL FEEDERS PASS THROUGH A COMMON PULL BOX OR JUNCTION BOX, THE FEEDERS SHALL BE TAGGED TO INDICATE CLEARLY THEIR ELECTRICAL CHARACTERISTICS, CIRCUIT NUMBER, AND PANEL DESIGNATION. PAINT SAME INFORMATION ON COVER OF THE BOX.

7. JUNCTION BOX REQUIREMENTS
   A. OUTLET BOXES SHALL BE HOT DIPPED GALVANIZED OR CAST METAL AS NECESSARY WITH STANDARD KNOCKOUTS AS REQUIRED FOR CONDUIT TERMINATION. MINIMUM SIZE OF OUTLET BOX SHALL BE FOUR INCHES SQUARE, ONE AND ONE-QUARTER INCHES DEEP.
   B. OUTLET BOXES OCCURRING IN FINISHED OUTSIDE WALLS AND WET AREAS SHALL BE CAST AND PROVIDED WITH GASKETS BETWEEN BOX AND WATERPROOF COVER.

(CONTINUES NEXT SHEET)

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UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

ELECTRICAL NOTES 1 OF 2

Rev. 0
Date: SEPTEMBER 2022
M&N Project No. 201466
Drawing code:
Drawing Scale:
Plot scale: 1:1 (D SHEET)
Designed by: DSGN
Drawn by: RC
Cad by: MAP
Reviewed by: P.GRANEY
Submitted by: MARK PIRRELLO MOFFATT & NICHOL

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E-001
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DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

ELECTRICAL GENERAL NOTES (CONTINUED)

8. WIRING DEVICES (CONVENIENCE OUTLETS, LIGHT SWITCHES, ETC)
   A. WIRING DEVICES SHALL BE SPECIFICATION GRADE IN BROWN FINISH.
   B. CONVENIENCE OUTLETS SHALL BE PROTECTED BY GROUND FAULT INTERRUPTER DEVICES.
   C. DEVICE PLATES SHALL BE PVC WEATHER PROTECTED COVERS IN EXTERIOR LOCATIONS AND STEEL IN INTERIOR LOCATIONS.
   D. WHERE CONDUIT AND WIRING HAS NOT BEEN SHOWN ON THE DRAWINGS THE ARRANGEMENT AND ROUTING OF LIGHTING AND RECEPTACLE BRANCH CIRCUITS WILL BE AT THE CONTRACTOR'S DISCRETION IN ACCORDANCE WITH GENERALLY ACCEPTED GOOD PRACTICE AND NEC REQUIREMENTS.

9. CIRCUIT BREAKER ENCLOSURE
   A. CIRCUIT BREAKER SHALL BE SERVICE ENTRANCE RATED AND RATED 600 VOLTS SHALL BE TYPE "HD" AND HAVE A PUSH BUTTON OR OTHER MEANS OF SHUT DOWN FROM EXTERIOR OF ENCLOSURE.
   B. ENCLOSURES SHALL BE NEMA 6P, 316 STAINLESS STEEL UON.
   C. CIRCUIT BREAKERS SHALL BE SQUARE D OR APPROVED EQUAL.
   D. CIRCUIT BREAKERS SHALL BE SECURELY MOUNTED TO WALL, STRUCTURE, OR EQUIPMENT. PROVIDE MISCELLANEOUS ACCESSORIES FOR MOUNTING, INCLUDING STEEL ANGLES WHERE REQUIRED.

10. PANELBOARDS
   A. PANELBOARDS SHALL BE CIRCUIT BREAKER TYPE AS INDICATED. PANELS SHALL BE KEYED ALIKE AND SHALL HAVE A MINIMUM 20 INCH WIDE ENCLOSURE. A DIRECTORY, COMPLETELY TYPED TO IDENTIFY CIRCUITS, WITH TRANSPARENT PROTECTOR SHALL BE PROVIDED IN EACH PANEL.
   B. PANELBOARDS SHALL BE PROVIDED WITH COPPER PHASE, NEUTRAL AND GROUND BUSES.
   C. SUB-FEED BREAKER SHALL NOT BE ACCEPTABLE UNLESS INDICATED.
   D. BREAKER ARRANGEMENT SHALL BE AS INDICATED.
   E. PANELBOARDS SHALL BE SQUARE D OR APPROVED EQUAL.
   F. PANELBOARDS IN EXTERIOR LOCATIONS SHALL BE ENCLOSED IN A NEMA 4X, 316 STAINLESS STEEL ENCLOSURE UON.

11. DRY TYPE TRANSFORMERS
   A. DRY TYPE TRANSFORMERS SHALL BE IN ACCORDANCE WITH NEMA STANDARDS. KVA RATINGS AND MOUNTING SHALL BE AS INDICATED. TRANSFORMER PRIMARY VOLTAGE AND SECONDARY VOLTAGE SHALL BE AS INDICATED. INSULATION SHALL BE EQUAL TO THE PRIMARY VOLTAGE AS A MINIMUM BUT NOT LESS THAN THE INDUSTRY STANDARD FOR THE VOLTAGES, RATED 80 DEGREES CENTIGRADE WITH 220 DEGREES CENTIGRADE INSULATION. TRANSFORMERS, 30 KVA AND LARGER, SHALL HAVE FOUR TWO AND ONE-HALF PERCENT TAPS BELOW AND TWO, TWO AND ONE-HALF PERCENT ABOVE NORMAL PRIMARY VOLTAGE; AND 15 KVA TRANSFORMERS AND SMALLER SHALL HAVE TWO, TWO AND ONE-HALF PERCENT TAPS BELOW AND TWO, TWO AND ONE-HALF PERCENT TAPS ABOVE NORMAL PRIMARY VOLTAGE. TRANSFORMERS SHALL BE AS MANUFACTURED BY SQUARE D OR EQUAL. TRANSFORMERS SHALL BE ENCAPSULATED TYPE WITH NEMA 3R ENCLOSURE.

12. QUALITY CONTROL
   A. DURING CONSTRUCTION BID, PROVIDE A BLANK COPY OF A QUALIFIED POST CONSTRUCTION QA/QC INSPECTION FORM TO ENGINEER FOR REVIEW AND APPROVAL.
   B. POST CONSTRUCTION AND PRIOR TO CALLING ENGINEER FOR INSPECTION, COMPLETE QA/QC INSPECTION WITH SUPPORTING DOCUMENTS AND PICTURES. THIS COMPLETED QA/QC FORM WITH PICTURES IS TO BE SUBMITTED TO ENGINEER FOR REVIEW PRIOR TO ENGINEER INSPECTION. COMPLETE A QA/QC INSPECTION FOLLOWING ALL STAGES OF INSTALLATION AND PRIOR TO CONTACTING ENGINEERING FOR INSPECTION.
   C. PRIOR TO COVERING UP ANY ELECTRICAL CONDUCTORS WITH FILL (CONCRETE, DIRT, ETC). NOTIFY OWNER'S AUTHORIZED REPRESENTATIVE FOR AN INSPECTION. ALLOW MINIMUM (5) DAYS FOR ENGINEERING REVIEW PRIOR TO COVERING ANY ELECTRICAL WORK. PROVIDE PICTURES OF ANY ELECTRICAL WORK PRIOR TO COVERING AND SUBMIT WITH QA/QC REPORT.

13. GENERAL
   A. CONTRACTOR SHALL NOT INITIATE ANY LAND DISTURBING ACTIVITY UNTIL AUTHORIZED BY OWNER.
   B. CONTRACTOR SHALL CLOSELY COORDINATE ALL CONSTRUCTION ACTIVITY WITH OWNER.
   C. CONTRACTOR SHALL KEEP ASPHALT ADJACENT TO WORK AREA CLEAN OF DEBRIS.
   D. COORDINATE WITH OWNER IF ADDITIONAL SPACE IS REQUIRED FOR CONSTRUCTION OR LAYDOWN AREA.

MARINE PEDESTAL TYPES

NOTE:

1. PROVIDE PEDESTAL MOUNTED GFEP CIRCUIT BREAKERS FOR EACH 30A AND 50A RECEPTACLES.
2. PROVIDE 10KAIC CB RATING FOR ALL 125/250V MARINE PEDESTAL RECEPTACLES UON.
3. REFER TO PEDESTAL DETAILS FOR ADDITIONAL INFORMATION.
4. PROVIDE GFI RECEPTACLES FOR ALL RECEPTACLES LOCATED ON BARGE.

MARINE POWER PEDESTAL

(1) 50A, 125V/250V, 1Ø, 3 POLE, 4 WIRE MARINE TWISTLOCK RECEPTACLE (NEMA L14-50R) W/ 50A (50mA GFEP) CIRCUIT BREAKER
(1) 30A, 125V, 1Ø, 2 POLE, 3 WIRE TWISTLOCK RECEPTACLE (NEMA L5-30) W/ 30A (30mA GFEP) CIRCUIT BREAKER
(1) 20A, GFI CONVENIENCE RECEPTACLE W/ 20A CIRCUIT BREAKER

CABLE DESIGNATION

101

CABLE NUMBER CALLOUT

1. DESIGNATION FOR CABLE NUMBERS ARE TO DEFINE CABLE AND CONDUIT SIZE OF CIRCUIT.
2. REFER TO CABLE SCHEDULES TO DEFINE TERMINATION POINTS, CONDUIT, AND WIRE SIZE OF ALL CABLE NUMBERS.
3. REFER TO PANEL SCHEDULES FOR ADDITIONAL CLARIFICATION OF CABLE SCHEDULE TERMINATION POINTS.

LEGEND

ALL SYMBOLS ARE NOT NECESSARILY USED

E	ELECTRICAL CONDUIT
C	COMM CONDUIT
UE	UNDERGROUND CONDUIT
	ELECTRICAL PULL BOX (AS NOTED)
	PANELBOARD
SER	SERVICE ENTRANCE RATED ENCLOSED CIRCUIT BREAKER
PNL	MARINE PANELBOARD
	GFI RECEPTACLE
M	METER
	SOLAR POWERED NAVIGATIONAL LIGHT SEE #####
	SPECIALTY RECEPTACLE
	MARINE LIGHT BOLLARD

ABBREVIATIONS

ALL ABBREVIATIONS ARE NOT NECESSARILY USED

1P	SINGLE POLE, OR AS INDICATED	KCMIL	THOUSAND CIRCULAR MILS
2P	TWO POLE, OR AS INDICATED	KWH	KILOWATT HOUR
3P	THREE POLE, OR AS INDICATED	KV	KILOVOLT
A	AMPERES	KVA	KILOVOLT AMPERE
AC	ALTERNATING CURRENT	KW	KILOWATT
AFF	ABOVE FINISHED FLOOR	LC	LANDSIDE CONTRACTOR
AIC	AMPERES INTERRUPTING CAPACITY	LTG	LIGHTING
AM	AMPERAGE METER/AMMETER	mA	MILLIAMP
AWG	AMERICAN WIRE GAGE	MCB/MB	MAIN CIRCUIT BREAKER
C, CND	CONDUIT	MECH	MECHANICAL
CATV	CABLE TELEVISION	MLO	MAIN LUG ONLY
CB	CIRCUIT BREAKER	N/A	NOT APPLICABLE (N/A)
CIP	CAST IN PLACE	NEUT	NEUTRAL WIRE
CKT	CIRCUIT	NEC	NATIONAL ELECTRICAL CODE
CO	CONDUIT ONLY	NIC	NOT IN CONTRACT
COMM	COMMUNICATIONS	NTS	NOT TO SCALE
CONC	CONCRETE	OC	ON CENTER
CT	CURRENT TRANSFORMER	P	POLE
DC	DIRECT CURRENT	PB	PULL BOX
DIA	DIAMETER	PC	PHOTOCELL
DWG	DRAWING	PH,ø	PHASE
EC	EMPTY CONDUIT	PNL, PNBD	PANEL, PANELBOARD
EL, ELEV	ELEVATION	PVC	POLYVYNIL CHLORIDE
ELEC	ELECTRIC/ELECTRICAL	PVMT	PAVEMENT
EX, EXIST	EXISTING, EXIST'G	RECEPT	RECEPTACLE
FHC	FIRE HOSE CABINET	SC	SHORT CIRCUIT
FO	FIBER OPTIC	SCH	SCHEDULE
FVNR	FULL VOLTAGE NON-REVERSING	SPD	SURGE PROTECTION DEVICE
FVR	FULL VOLTAGE REVERSING	SS	STAINLESS STEEL
G, GND	GROUND	SWBD	SWITCHBOARD
GF	GROUND FAULT	TBD	TO BE DETERMINED
GFEP	GROUND FAULT EQUIPMENT PROTECTION	TYP	TYPICAL
GFI, GFIC	GROUND FAULT INTERRUPTER	UL	UNDERWRITERS LABORATORIES
GFM	GROUND FAULT MONITOR	UON	UNLESS OTHERWISE NOTED
HOA	HAND OFF AUTO SELECTOR SWITCH	V	VOLT
HP	HORSE POWER	VIF	VERIFY IN FIELD
HTR	HEATER	VERT	VERTICAL
Hz	HERTZ, CYCLES PER SECOND	W	WATT
INST	INSTRUMENT, INSTRUMENTATION	WP	WEATHER PROOF
IT	INFORMATION TECHNOLOGY	XFMR	TRANSFORMER
JBOX	JUNCTION BOX		

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UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

ELECTRICAL NOTES 2 OF 2

moffatt & nichol
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Designed by: DSGN
Drawn by: RC
Checked by: MAP
Reviewed by: P.GRANEY
Submitted by: MARK PIRRELLO MOFFATT & NICHOL
Date: SEPTEMBER 2022
M&N Project No. 201466
Drawing code:
Drawing Scale:
Plot scale: 1:1 (D SHEET)

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Sheet Reference No.
E-002
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DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

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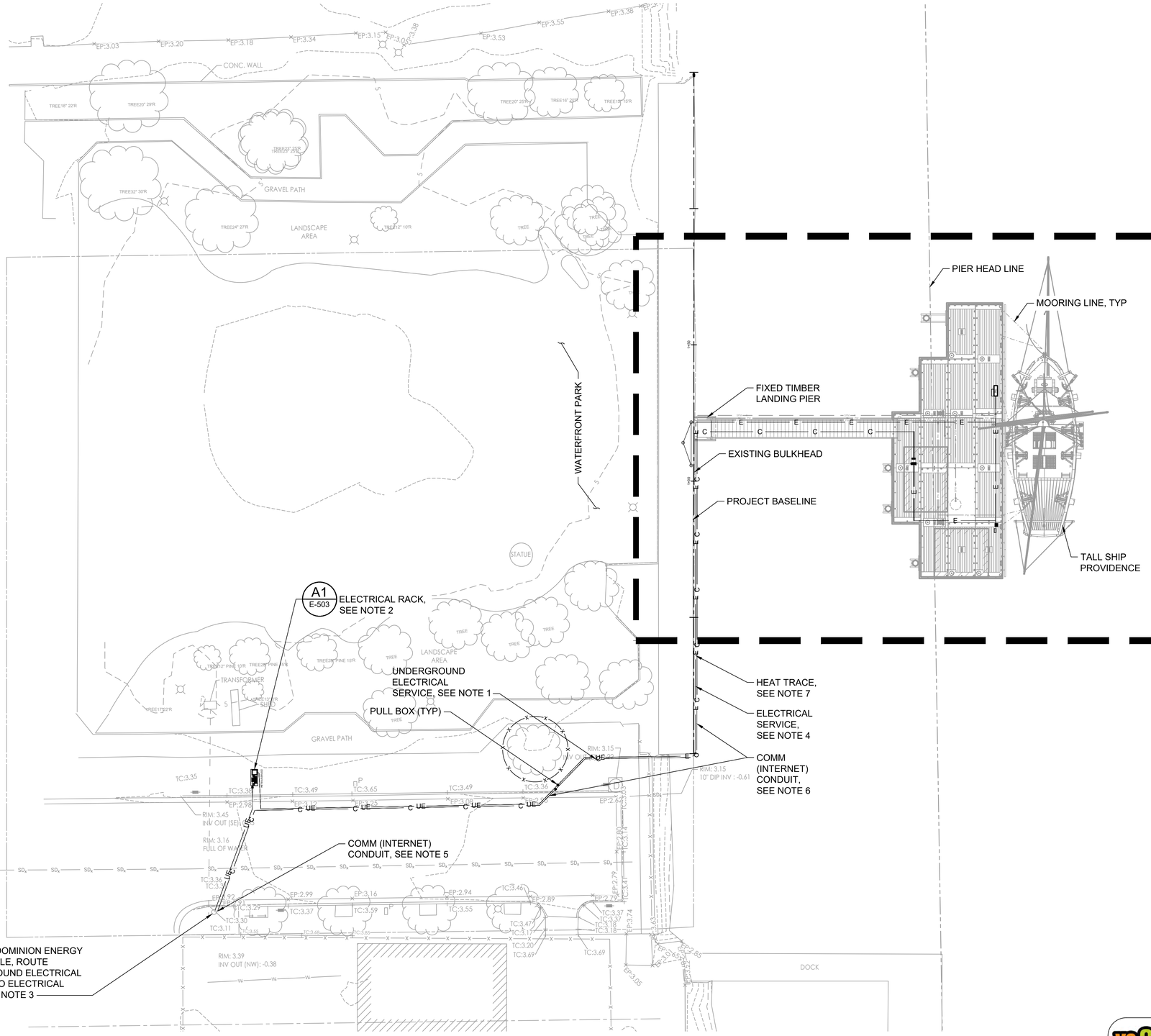

NOTES

1. UNDERGROUND ELECTRICAL ROUTED FROM BULKHEAD/ GANGWAY TO LANDSIDE SERVICE ENTRANCE RATED ENCLOSED CIRCUIT BREAKER/UTILITY METER LOCATION. COORDINATE EXACT ROUTING OF CONDUIT THRU CITY PARK WITH CITY OF ALEXANDRIA.
2. PROVIDE SERVICE ENTRANCE RATED ENCLOSED CIRCUIT BREAKER AND UTILITY METER AT ELECTRICAL RACK. PROVIDE RACK, SUPPORTS, AND EQUIPMENT PAD. COORDINATE EXACT LOCATION WITH CITY OF ALEXANDRIA AND DOMINION ENERGY.
3. PROVIDE CONDUIT UNDER ROAD FROM DOMINION ENERGY POWER POLE TO ELECTRICAL RACK. COORDINATE EXACT ROUTING AND REQUIREMENTS WITH DOMINION ENERGY
4. ELECTRICAL ROUTED IN RGS CONDUIT ALONG BULKHEAD WITH STAINLESS STEEL SUPPORTS AND HARDWARE. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION
5. PROVIDE COMM (INTERNET PROVIDER) CONDUIT FROM DOMINION ENERGY POLE AS SHOWN TO BULKHEAD PENETRATION. MAINTAIN 12" SEPARATION OF UTILITY SERVICE CONDUIT AND COMM CONDUIT.
6. PROVIDE COMM (INTERNET PROVIDER) CONDUIT PARALLEL TO ELECTRICAL SERVICE TO END OF PRINCE ST. TRANSITION AT BULKHEAD TO RGS CONDUIT ALONG BULKHEAD WITH STAINLESS STEEL SUPPORTS AND HARDWARE. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
7. PROVIDE HEAT TRACE FOR ALL SEWER FORCE MAIN (SFM) AND PORTABLE WATER (PW) LINES ROUTED ALONG BULKHEAD. REFER TO E-601 FOR ADDITIONAL INFORMATION.

A1 E-101 OVERALL ELECTRICAL SITE PLAN
SCALE: 1"=20'

20' 0' 20' 40'
SCALE: 1"=20'

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JOHN WARNER MARITIME HERITAGE CENTER

OVERALL ELECTRICAL SITE PLAN

Designed by: DSGN
Drawn by: RC
Reviewed by: P.GRANEY
Submitted by: MARK PIRRELLO MOFFATT & NICHOL
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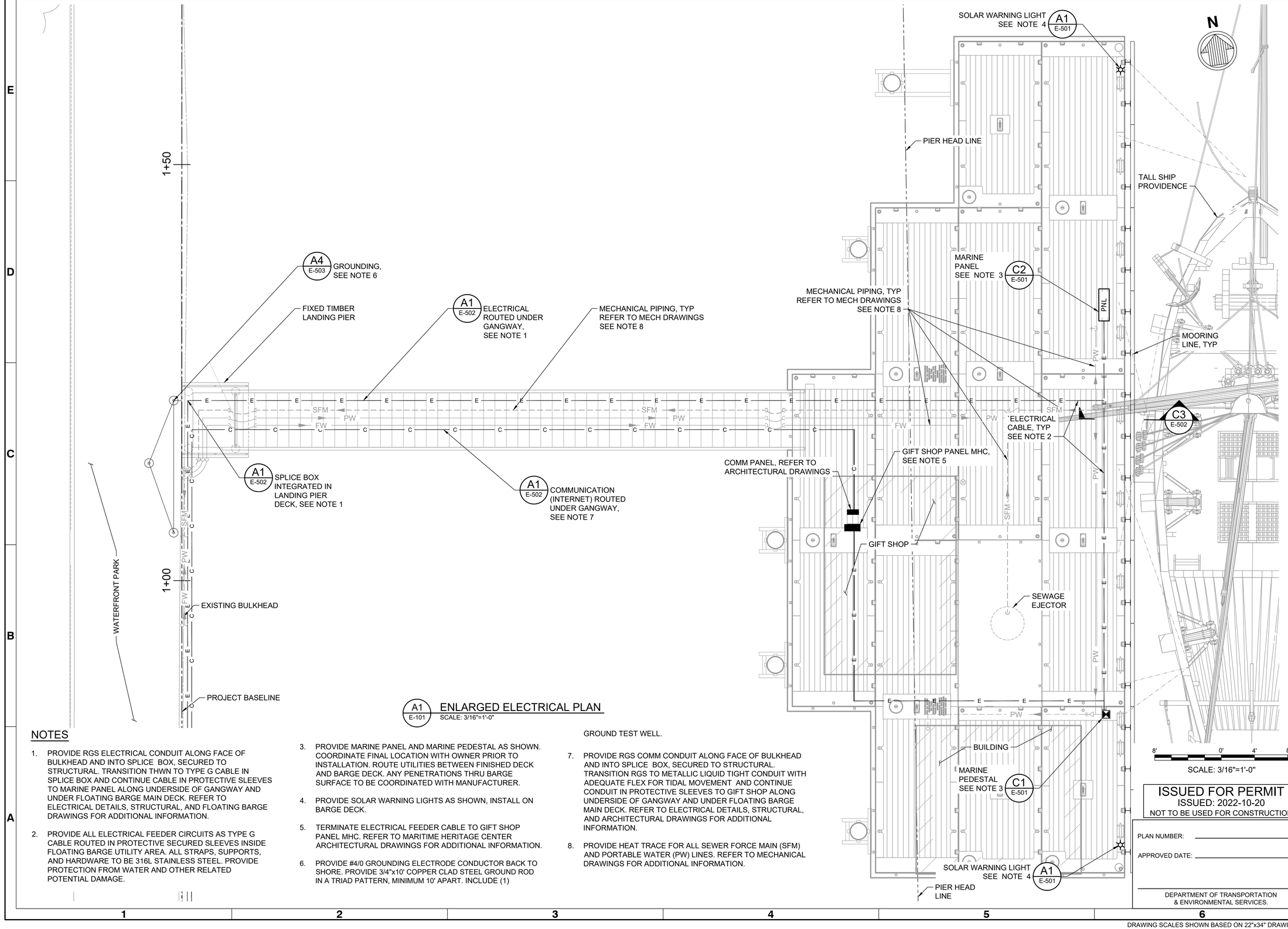
DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



A1 E-101 ENLARGED ELECTRICAL PLAN

SCALE: 3/16"=1'-0"

NOTES

1. PROVIDE RGS ELECTRICAL CONDUIT ALONG FACE OF BULKHEAD AND INTO SPLICE BOX, SECURED TO STRUCTURAL. TRANSITION THWN TO TYPE G CABLE IN SPLICE BOX AND CONTINUE CABLE IN PROTECTIVE SLEEVES TO MARINE PANEL ALONG UNDERSIDE OF GANGWAY AND UNDER FLOATING BARGE MAIN DECK. REFER TO ELECTRICAL DETAILS, STRUCTURAL, AND FLOATING BARGE DRAWINGS FOR ADDITIONAL INFORMATION.
2. PROVIDE ALL ELECTRICAL FEEDER CIRCUITS AS TYPE G CABLE ROUTED IN PROTECTIVE SECURED SLEEVES INSIDE FLOATING BARGE UTILITY AREA. ALL STRAPS, SUPPORTS, AND HARDWARE TO BE 316L STAINLESS STEEL. PROVIDE PROTECTION FROM WATER AND OTHER RELATED POTENTIAL DAMAGE.
3. PROVIDE MARINE PANEL AND MARINE PEDESTAL AS SHOWN. COORDINATE FINAL LOCATION WITH OWNER PRIOR TO INSTALLATION. ROUTE UTILITIES BETWEEN FINISHED DECK AND BARGE DECK. ANY PENETRATIONS THRU BARGE SURFACE TO BE COORDINATED WITH MANUFACTURER.
4. PROVIDE SOLAR WARNING LIGHTS AS SHOWN, INSTALL ON BARGE DECK.
5. TERMINATE ELECTRICAL FEEDER CABLE TO GIFT SHOP PANEL MHC. REFER TO MARITIME HERITAGE CENTER ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
6. PROVIDE #4/0 GROUNDING ELECTRODE CONDUCTOR BACK TO SHORE. PROVIDE 3/4"x10' COPPER CLAD STEEL GROUND ROD IN A TRIAD PATTERN, MINIMUM 10' APART. INCLUDE (1) GROUND TEST WELL.
7. PROVIDE RGS COMM CONDUIT ALONG FACE OF BULKHEAD AND INTO SPLICE BOX, SECURED TO STRUCTURAL. TRANSITION RGS TO METALLIC LIQUID TIGHT CONDUIT WITH ADEQUATE FLEX FOR TIDAL MOVEMENT AND CONTINUE CONDUIT IN PROTECTIVE SLEEVES TO GIFT SHOP ALONG UNDERSIDE OF GANGWAY AND UNDER FLOATING BARGE MAIN DECK. REFER TO ELECTRICAL DETAILS, STRUCTURAL, AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
8. PROVIDE HEAT TRACE FOR ALL SEWER FORCE MAIN (SFM) AND PORTABLE WATER (PW) LINES. REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

8' 0' 4' 8'

SCALE: 3/16"=1'-0"

ISSUED FOR PERMIT
ISSUED: 2022-10-20
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PLAN NUMBER: _____

APPROVED DATE: _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES.

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING

Tall Ship PROVIDENCE ALEXANDRIA, VA

Mark	Description	Date	Appr
2	FINAL 2 COMMENTS	10/2022	MAP
1	FINAL 1 COMMENTS	09/2022	MAP
0	FINAL SUBMITTAL	07/2022	MAP

UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

ENLARGED ELECTRICAL PLAN

Designed by: DSGN
Drawn by: RC
Reviewed by: P. GRANEY
Submitted by: MARK PIRRELLO MOFFATT & NICHOL
Cad by: MAP
Date: SEPTEMBER 2022
Rev: 0
M&N Project No. 201466
Drawing scale:
Drawing Scale:
Plot scale: 1:1 (10 SHEET)

4700 FALLS OF NEUSE RD, SUITE 300
RALEIGH, NC 27609
919-781-4626
moffatt & nichol

COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
Lic. No. 030083
PROFESSIONAL ENGINEER
SEAL

Sheet Reference No.
E-102
INDEX: 33 OF 41

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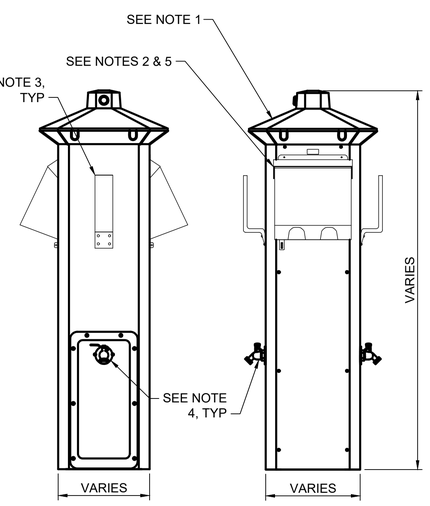
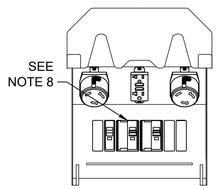
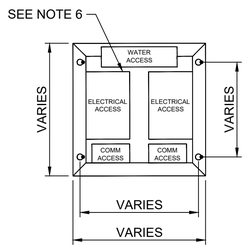


NOTE: ACTUAL PEDESTAL MAY VARY FROM DEPICTION

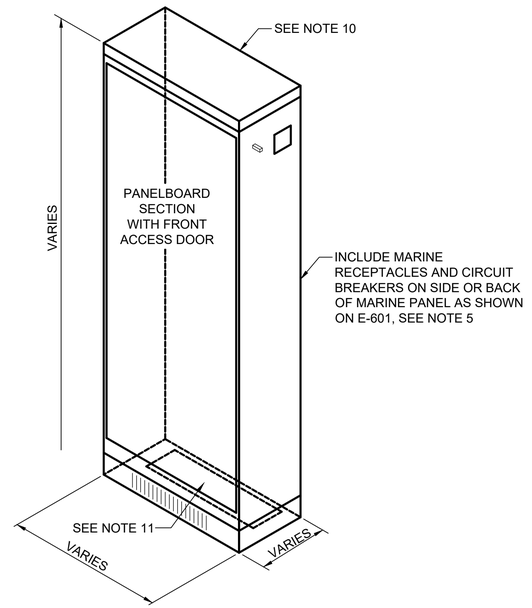
C1 E-102 DETAIL - MARINE POWER PEDESTAL
SCALE: NTS



FACEPLATE DETAIL (NTS)



BASE FOOTPRINT (VERIFY WITH MANUFACTURER)

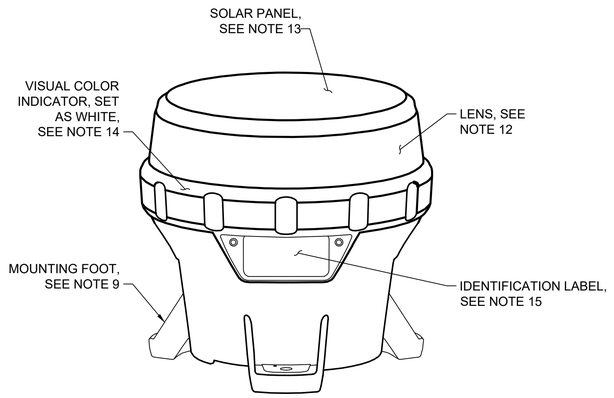


NOTE: ACTUAL SUBSTATION MAY VARY FROM DEPICTION

C2 E-102 DETAIL - MARINE SUBSTATION
SCALE: NTS

NOTES:

1. PROVIDE MARINE POWER PEDESTALS (MEE MFG OR APPROVED EQUAL), COMMODORE SS SERIES WITH A NEMA 3R RATING AND 316L STAINLESS STEEL POWDER COATED WHITE ENCLOSURE.
2. CIRCUIT BREAKERS FOR LARGER RECEPTACLES LOCATED UNDER LOCKABLE WEATHERPROOF DOOR. REFER TO ENLARGED ELECTRICAL PLANS, SINGLE LINE DIAGRAMS, AND PANEL SCHEDULES FOR ALL POWER RECEPTACLE/BREAKER SIZE OF INDIVIDUAL PEDESTALS. PROVIDE A SEPARATE CIRCUIT BREAKER FOR EACH RECEPTACLE AS NOTED.
3. PROVIDE ALUMINUM HOSE BRACKET.
4. WATER HOSE BIB WITH STAINLESS STEEL 316L HANDLE.
5. LIGHTING ASSEMBLY. (2) 14W LED LIGHTS WITH PHOTO CELL AND AMBER LENS.
6. ELECTRICAL ACCESS PANELS. REFER TO MANUFACTURERS SPECIFICATIONS.
7. SHORE POWER RECEPTACLES, REFER TO SHEET ENLARGED ELECTRICAL PLANS, SINGLE LINE DIAGRAMS, AND PANEL SCHEDULES FOR ADDITIONAL INFORMATION.
8. PROVIDE CIRCUIT BREAKERS WITH A CLEAR LINE OF SIGHT AND NO POWER CORD OBSTRUCTIONS WITH RECEPTACLES WHEN IN USE BY TALL SHIP PROVIDENCE. SUBMIT TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION. CIRCUIT BREAKERS SHALL NOT BE LOCATED UNDER RECEPTACLES.
9. SOLAR POWER NAVIGATIONAL SHALL BE INSTALLED AS SHOWN ON DRAWINGS. SECURE NAVIGATIONAL LIGHT WITH 316 STAINLESS STEEL HARDWARE. LOCATE LIGHT IN OPTIMUM LOCATION VISIBLE TO APPROACHING VESSELS, PROTECTED FROM ARTIFICIAL LIGHT SOURCES AND PROTECTION FROM POSSIBLE DAMAGE.
10. PROVIDE MARINE PANEL (MEE MFG OR APPROVED EQUAL), WITH A NEMA 3R RATING AND 316L STAINLESS STEEL POWDER WHITE ENCLOSURE.
11. ELECTRICAL ACCESS PANELS, REFER TO MANUFACTURER SPECIFICATIONS DETAILED DRAWINGS.
12. UV RESISTANT, POLYCARBONATE/POLYSOLAXANE CO-POLYMER BODY AND LENS MATERIAL. DOUBLE O-RING SEALING WITH WATERPROOF VENT. REPLACEABLE BATTERY PACK WITH STATUS FEEDBACK.
13. SOLAR PANEL WITH BYPASS BLOCKING DIODE FUNCTION AND MAXIMUM POWER POINT (MPPT).
14. LED LIGHT SOURCE WITH TEMPERTURE-CORRECTED LED DRIVERS. SELECTABLE FLASH PATTERNS. SELECTABLE INTENSITY FROM 25 TO 925 LUX. SELECTABLE COLOR TO BE WHITE.
15. LUMINAIRE SHALL BE MANUFACTURER SABIK MODEL: #M650H OR APPROVED EQUAL. -45 TO 124 FAHRENHEIT AMBIENT OPERATING TEMPERATURE. USCG PATON 33CFR66 & CFR67 CLASS C COMPLAINT.



A1 E-102 DETAIL - SOLAR NAVIGATION LIGHT
SCALE: NTS

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Tall Ship PROVIDENCE ALEXANDRIA, VA

Mark	Description	Date	Appr
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0	FINAL SUBMITTAL	07/2022	MAP

UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

ELECTRICAL DETAILS 1 OF 3

moffatt & nichol
4700 FALLS OF NEUSE RD, SUITE 300
RALEIGH, NC 27609
919-781-4626

Designed by: DSGN
Drawn by: RC
Coded by: MAP
Reviewed by: P.GRANEY
Submitted by: MARK PIRRELLO MOFFATT & NICHOL
Date: SEPTEMBER 2022
M&N Project No. 201466
Drawing code:
Drawing Scale:
Plot scale: 1:1 (D SHEET)
Rev. 0

COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
Lic. No.030083
PROFESSIONAL ENGINEER
SEAL

Sheet Reference No.
E-501
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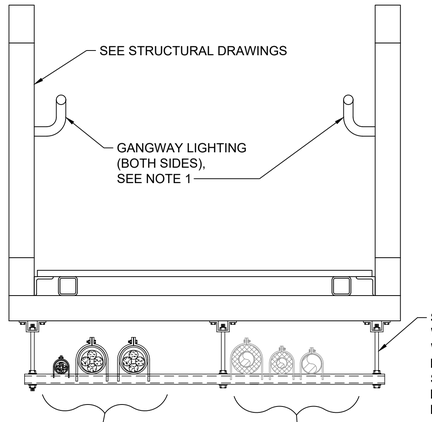
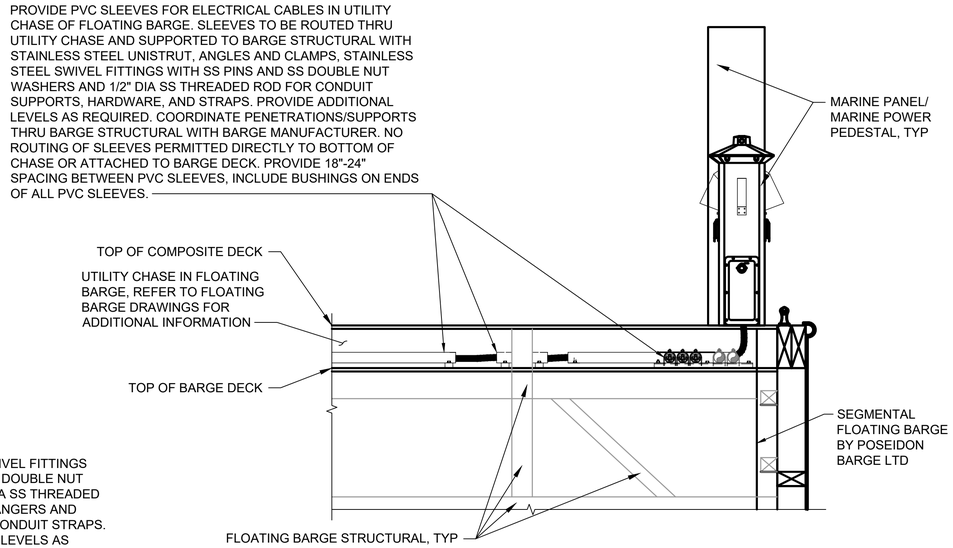
DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING



C1 / E-502 DETAIL - GANGWAY SECTION
SCALE: NTS

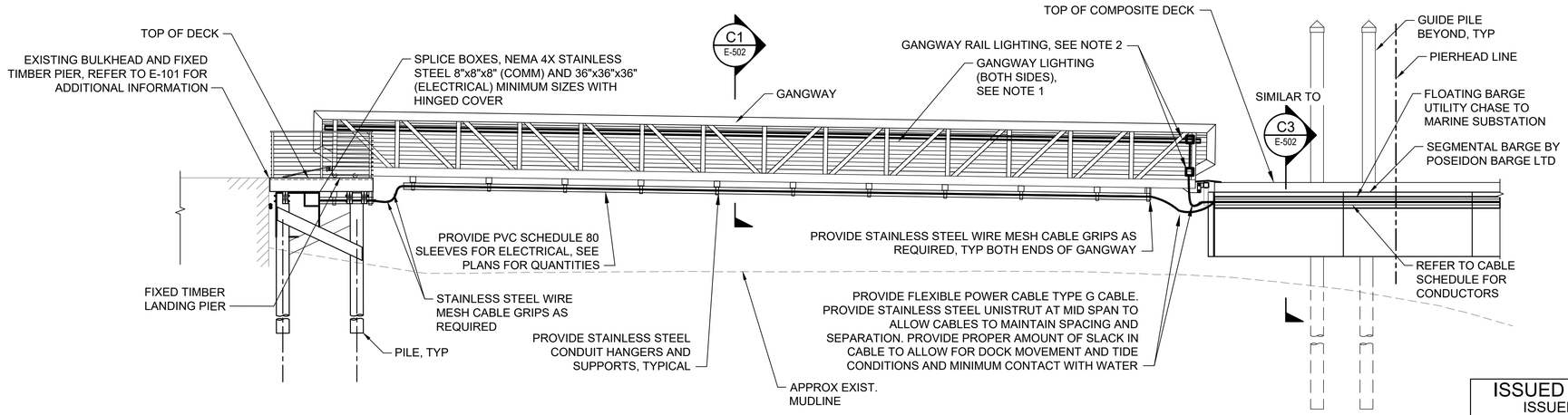


NOTE:
SEE MECHANICAL AND ELECTRICAL PLANS FOR UTILITY ROUTING.

C3 / E-502 SECTION - FLOATING BARGE
SCALE: NTS

NOTES

1. PROVIDE ELECTRICAL TO INTEGRATED GANGWAY RAIL LIGHTING BY GANGWAY MANUFACTURER. PROVIDE STAINLESS STEEL DRIVER CABINETS (AS NECESSARY) AND SPLICE BOXES WITH 3/4" RGS CONDUIT INTO LUMINAIRES. PROVIDE PHOTO CELL CONTROL (AS NECESSARY). LUMINAIRES WILL BE SUBMITTED BY DOCK MANUFACTURER FOR APPROVAL. PROVIDE LUMINAIRE DRIVER IN NEMA 4X SS 316L ENCLOSURE (AS NECESSARY). CONFIRM CIRCUIT CONNECTION WITH ARCHITECTURAL DRAWINGS.
2. PROVIDE WEATHERPROOF STAINLESS STEEL SPLICE BOX (8"x8") OR SIZED PER NEC AND PROPERLY SECURED TO PLATFORM/GANGWAY STRUCTURAL. SPLICE BOX WILL TRANSITION WIRES TO RAIL LIGHTING. PROVIDE SPLICE IN JUNCTION BOXES FOR 2#10, #10GND THWN COPPER IN 3/4" RGS CONDUIT INTO GANGWAY RAIL LIGHTING.



A1 / E-102 TYPICAL GANGWAY ELEVATION
SCALE: NTS

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Tall Ship PROVIDENCE
ALEXANDRIA, VA

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0	FINAL SUBMITTAL	07/2022	MAP

UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

ELECTRICAL DETAILS 2 OF 3

moffatt & nichol
4700 FALLS OF NEUSE RD, SUITE 300
RALEIGH, NC 27609
919-781-4626

Designed by: DSGN | Drawn by: RC | Cad by: MAP | Reviewed by: P. GRANEY | Submitted by: MARK PIRRELLO, MOFFATT & NICHOL

Date: SEPTEMBER 2022 | Rev: 0
M&N Project No. 201466
Drawing code:
Drawing Scale:
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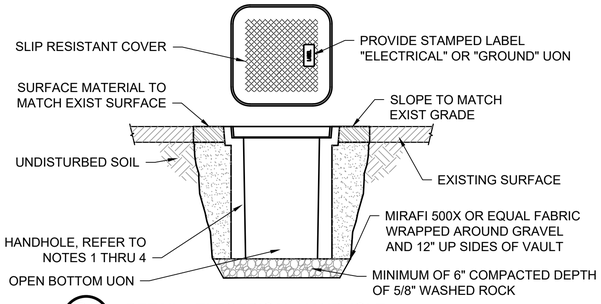
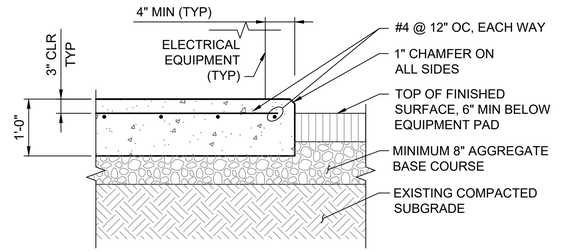


D1 / E-501 DETAIL - ELECTRICAL HANDHOLE
SCALE: NTS

NOTES:

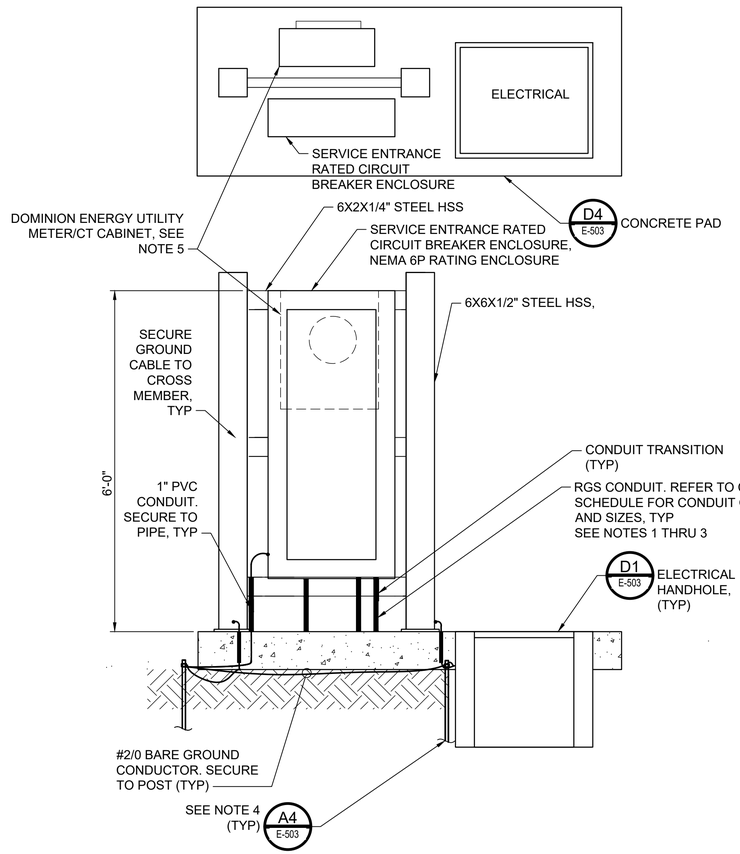
1. PROVIDE POLYMER CONCRETE, QUAZITE STYLE HANDHOLE THAT MEETS TIER 22 RATING UON. PROVIDE STAINLESS STEEL 316L WASHERS, CAPTIVE HEAD BOLTS, AND PULL SLOTS.
2. INSTALL HANDHOLE AS SHOWN AND PER MANUFACTURER RECOMMENDATIONS.
3. PROPERLY LABEL ALL CONDUITS AND WIRES IN ALL HANDHOLES.
4. ALL SIZES CALLED OUT IN ELECTRICAL DRAWINGS ARE INSIDE CLEAR DIMENSIONS,



D4 / E-503 DETAIL - ELECTRICAL EQUIPMENT PAD
SCALE: NTS

NOTES:

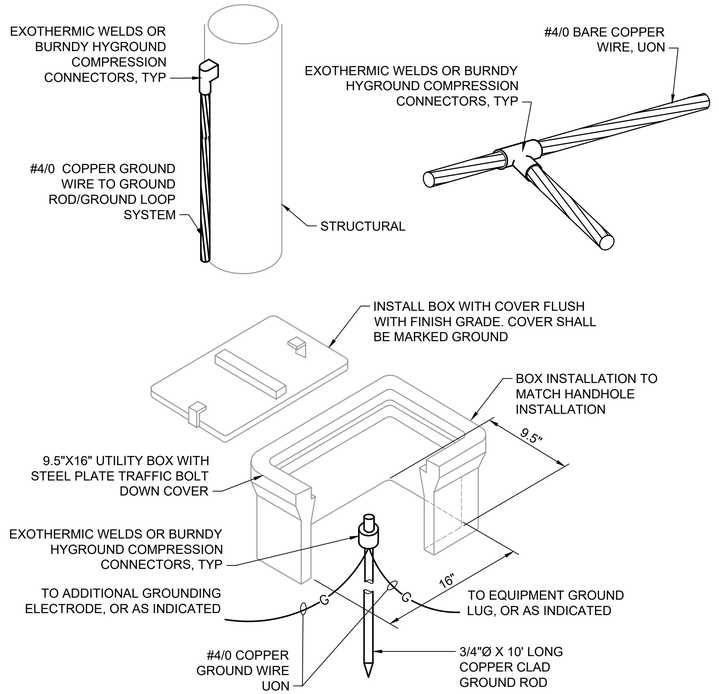
1. SEE ELECTRICAL DRAWINGS FOR ELECTRICAL EQUIPMENT LAYOUT.
2. FIELD VERIFY BOLLARDS DO NOT INTERFERE WITH OPENING TRANSFORMER DOORS.



NOTES

1. PROVIDE GROUND BUSHINGS ON ALL CONDUITS.
2. PROVIDE CONDUIT AND CONDUCTORS FOR ALL DEVICES SHOWN ON THIS DETAIL. REFER TO SINGLE LINE AND PANEL SCHEDULE FOR ADDITIONAL INFORMATION.
3. TRANSITION FROM PVC TO RGS CONDUIT UNDERGROUND PRIOR TO CONDUIT ELBOW.
4. CONNECT SEVICE ENTRANCE RATED CIRCUIT BREAKER ENCLOSURE TO AT LEAST (2) GROUND RODS WITH 6' SEPARATION.
5. COORDINATE ADDITIONAL METER REQUIREMENTS WITH DOMINION ENERGY PRIOR TO INSTALLATION. METER TO BE ADDED TO ELECTRICAL RACK AS ACCEPTABLE BY DOMINION ENERGY.

A1 / E-101 DETAIL - ELECTRICAL EQUIPMENT RACK
SCALE: NTS



NOTE:
1. REFER TO HANDHOLE DETAIL THIS SHEET FOR TEST WELL BOX..
2. PROVIDE MINIMUM (1) TEST WELL AT ALL ELECTRICAL RACKS

TEST WELL

GENERAL GROUNDING NOTES

1. PROVIDE GROUNDING AND GROUND RODS AS SHOWN ON PLANS FOR ALL ELECTRICAL PANELS, BUILDINGS, EQUIPMENT PADS, STRUCTURAL STEEL, AND EQUIPMENT INCLUDED IN THESE DRAWINGS.
2. PROVIDE A COMPLETE, CONTINUOUS GROUNDING SYSTEM.
3. CONNECT GROUND RODS TO GROUNDED COMPONENT WITH #4/0 BARE COPPER WIRE, UON. BURNDY HYGROUND COMPRESSION CONNECTORS ARE ACCEPTABLE BONDS.
4. GROUND EQUIPMENT PADS, BUILDINGS AND FOUNDATIONS A MINIMUM OF 2 PLACES AT OPPOSITE CORNERS, UON.
5. PROTECT GROUND WIRE EMERGING FROM UNDERGROUND WITH 3/4" PVC CONDUIT AS SHOWN IN DETAILS.

A4 / E-503 DETAILS - TYPICAL GROUNDING CONNECTIONS
SCALE: NTS

ISSUED FOR PERMIT
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DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES.

Tall Ship PROVIDENCE ALEXANDRIA, VA

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UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

ELECTRICAL DETAILS 3 OF 3

4700 FALLS OF NEUSE RD, SUITE 300
RALEIGH, NC 27609
919-781-4626
moffatt & nichol

Designed by: DSGN
Drawn by: RC
Cad by: MAP
Reviewed by: P.GRANEY
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Date: SEPTEMBER 2022
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Rev. 0

COMMONWEALTH OF VIRGINIA
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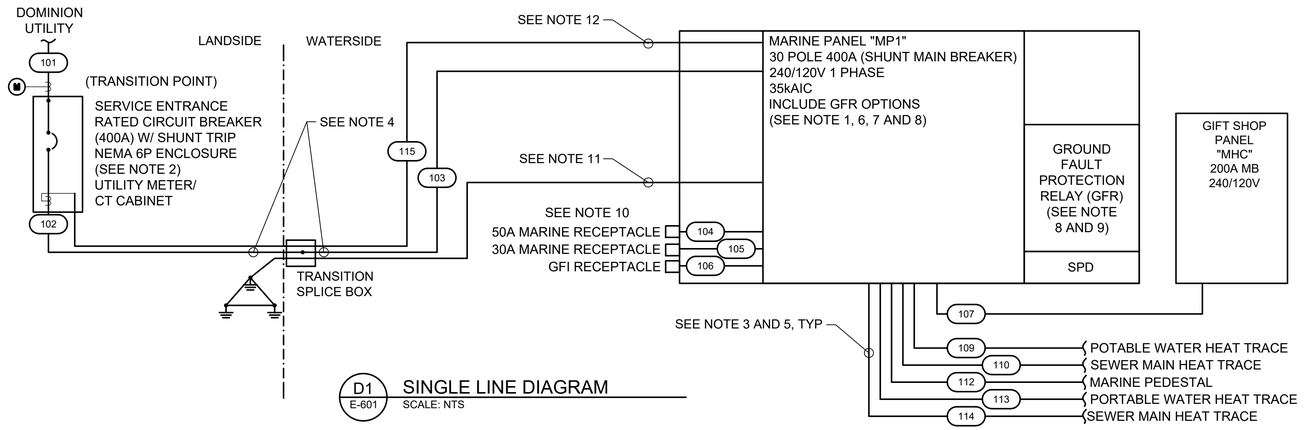

D1 / E-601 SINGLE LINE DIAGRAM
SCALE: NTS

LEGEND:

* INDICATES A SHUNT-TRIP CIRCUIT BREAKER CONTROLLED BY GROUND FAULT MONITOR SYSTEM

** INDICATES 30mA GFCI CIRCUIT BREAKER

NOTES

1. PROVIDE 20A, 1P CIRCUIT BREAKER IN MARINE PANEL TO PROVIDE POWER FOR GROUND FAULT MONITOR.
2. PROVIDE 480V, 1 PHASE, 400A SERVICE ENTRANCE RATED CIRCUIT BREAKER WITH SHUNT TRIP IN NEMA 6P ENCLOSURE. INCLUDE PHENOLIC NAME TAG OF SERVICE TO JOHN WARNER HERITAGE CENTER AND OWNER INFORMATION. COORDINATE EXACT SIGNAGE WITH OWNER.
3. PROVIDE TYPE "G" CABLE IN CONDUIT SLEEVES FOR ALL SUBSTATION FEEDER CIRCUITS IN BARGE UTILITY CHASE. TYPE "G" CABLE MANUFACTURERS STANDARD GROUND CONDUCTOR SIZE FOR EACH SIZE CABLE IS ACCEPTABLE.
4. PROVIDE 600V, THHN/THWN COPPER CONDUCTORS FROM SERVICE ENTRANCE RATED CIRCUIT BREAKER ENCLOSURE TO TRANSITION SPLICE BOX. PROVIDE TYPE "G" CABLE FROM TRANSITION POINT TO MARINE PANEL. TYPE "G" CABLE MANUFACTURERS STANDARD GROUND CONDUCTOR SIZE FOR EACH SIZE CABLE IS ACCEPTABLE.
5. ALL CONDUCTORS ARE COPPER UNLESS NOTED OTHERWISE.
6. PROVIDE TERMINATION LUGS FOR ALL ELECTRICAL GEAR SHOWN IN THIS PLAN.
7. PROVIDE PERMANENT PHENOLIC SIGNAGE TO ALL ELECTRICAL GEAR, SPLICE/PULL BOXES, AND MARINE PEDESTALS STATING DEVICE NAME, PEDESTAL NUMBER, AND CIRCUIT INFORMATION.
8. PROVIDE MARINE PANEL AS SHOWN WITH GROUND FAULT PROTECTION RELAY, CT'S, SPD'S, SHUNT TRIP BREAKERS AS NOTED, LOCKABLE, AND NEMA 3R RATING AND 316L STAINLESS STEEL WITH POWDER COATED WHITE ENCLOSURE. MANUFACTURER TO BE MEE OR APPROVED EQUAL.
9. PROVIDE GROUND FAULT PROTECTION RELAY (GFR) OF MARINE PANEL AND FEEDER CIRCUITS AS SHOWN. GFM MANUFACTURER SHALL BE BENDER, MODEL: RCMS490-D OR ENGINEER APPROVED EQUAL. PROVIDE CT'S, WIRING AND MOUNTING ENCLOSURE/GUTTER AS REQUIRED FOR GFM SYSTEM. PROVIDE 120V POWER TO GFR AS INDICATED. EACH MANUFACTURED CIRCUIT SHALL BE WIRED THROUGH A DEDICATED CT. CT'S SHALL BE WIRED TO THE GFM. IN THE EVENT OF A GROUND FAULT, THE GFR WILL PROVIDE A TRIP SIGNAL TO THE RESPECTIVE SHUNT-TRIP BREAKER, DE-ENERGIZING THE CIRCUIT CONTAINING THE GROUND FAULT. SET FEEDER PROTECTION AT 30mA. SET MAIN PROTECTION AT 100MmA.
10. MARINE RECEPTACLES AND CIRCUIT BREAKER TO BE PRE-WIRED AND INSTALLED AS A PART OF THE MARINE PANEL "MP1".
11. PROVIDE #4/0 GROUNDING ELECTRODE CONDUCTOR BACK TO SHORE. PROVIDE 3/4"x10' COPPER CLAD STEEL GROUND ROD IN A TRIAD PATTERN, MINIMUM 10' APART.
12. PROVIDE GROUND FAULT PROTECTION RELAY (GFR) SYSTEM FOR SERVICE ENTRANCE RATED CIRCUIT BREAKER AS SHOWN. IN THE EVENT OF A GROUND FAULT, THE GFR WILL PROVIDE A TRIP SIGNAL TO THE RESPECTIVE SERVICE ENTRANCE RATED SHUNT-TRIP CIRCUIT BREAKER, DE-ENERGIZING THE CIRCUIT. ALL RGS CONDUIT AND PENETRATIONS INTO NEMA 6P CABINET TO BE SEALED.

SUBSTATION: MARINE PANEL - MP1

VOLTAGE:	120/240	**BUS RATING (A):**	400A	**ENCLOSURE:**	NEMA 3R
PHASE:	1	**MAIN OC DEVICE:**	400A MAIN BREAKER *	**MOUNTING:**	WATERSIDE
WIRE:	3+GND	**INTERRUPTING RATING (KAIC):**	35	**LOCATION:**	WATERSIDE
NEUTRAL:	YES	**SERVICE ENTRANCE LABEL:**	NO		

CKT NO.	DESCRIPTION	CONNECTED LOAD (VA) LTS	PED	MECH	MISC	OCP AMPS	P		OCP AMPS	P	CONNECTED LOAD (VA) LTS	PED	MECH	MISC	DESCRIPTION	CKT NO.
1	MARINE PEDESTAL P5		6000			50*	2	A	30*	2		3600			30A MARINE RECEPTACLE	2
3			6000					B				3600				4
5	(SHUNT TRIP SPACE)							A							(SHUNT TRIP SPACE)	6
7	GIFT SHOP PANEL		24000			200*	2	B	50*	2		6000			50A MARINE RECEPTACLE	8
9			24000					A				6000				10
11	(SHUNT TRIP SPACE)							B							(SHUNT TRIP SPACE)	12
13	SPARE					20**	1	A	20	1			180		GROUND FAULT MONITOR	14
15	SPARE					20**	2	B	20**	1			180		RECEPT (SUBSTATION)	16
17	SPARE					20**	3	A	20**	1			1320		HEAT TRACE - POTABLE WTR	18
19	SPARE					20	1	B	20**	1			1440		HEAT TRACE - SEWER MAIN	20
21	SPD					30	2	A	20**	1			360		HEAT TRACE - POTABLE WTR	22
23								B	20**	1			360		HEAT TRACE - SEWER MAIN	24
25	SPACE							A							SPACE	26
27	SPACE							B							SPACE	28
29	SPACE							A							SPACE	30

LOAD SUMMARY

	LTS	PED	MECH	MISC	SPARE	TOTAL			
CONNECTED LOAD (KVA)	0.0	79.2	3.8	0.0		83.0		240	LINE-TO-LINE VOLTS
DEMAND FACTOR	1.25	1.00	1.00	1.00		---		346	CONNECTED AMPS
DESIGN LOAD (KVA)	0.0	79.2	3.8	0.0		83.0		346	DESIGN AMPS

CABLE SCHEDULE

CABLE #	FROM	TO	CONDUCTORS	CONDUIT	VOLTAGE/CONTROL	SEE NOTE
101	DOMINION UTILITY	SERVICE ENTRANCE RATED CIRC BRKR/ UTILITY METER	BY DOMINION UTILITY	(2)3" RGS/PVC	240V, 1PHASE	
102	SERVICE ENTRANCE RATED DISCONNECT/UTILITY MTR	BULKHEAD - TRANSITION SPLICE BOX	2#4/0, #2 GND	(2)3" RGS/PVC	240V, 1PHASE	4
103	BULKHEAD - TRANSITION SPLICE BOX	MARINE PANEL "MP1"	2/C #4/0, #1 GND	3" RGS/4" PVC SLEEVE	240V, 1PHASE	4
104	MARINE PANEL "MP1"	MARINE PANEL "MP1" 50A RECEPTACLE	3#6, #10 GND	1" RGS	240V, 1PHASE	10
105	MARINE PANEL "MP1"	MARINE PANEL "MP1" 30A RECEPTACLE	2#10, #10 GND	1" RGS	240V, 1PHASE	10
106	MARINE PANEL "MP1"	MARINE PANEL "MP1" GFI RECEPTACLE	2#12, #12 GND	1" RGS	120V, 1PHASE	10
107	MARINE PANEL "MP1"	GIFT SHOP PANEL "MHC"	3/C #3/0, #6 GND	2" RGS	240V, 1PHASE	3
108	NOT USED					
109	MARINE PANEL "MP1"	POTABLE WATER HEAT TRACE (MAIN LINE)	2/C #8, #8 GND	1-1/2" RGS/PVC SLEEVE	120V, 1PHASE	3
110	MARINE PANEL "MP1"	SEWER MAIN HEAT TRACE (MAIN LINE)	2/C #8, #8 GND	1-1/2" RGS/PVC SLEEVE	120V, 1PHASE	3
111	NOT USED					
112	MARINE PANEL "MP1"	MARINE PEDESTAL	3/C #6, #10 GND	1-1/2" RGS/PVC SLEEVE	120/240V, 1PHASE	3
113	MARINE PANEL "MP1"	POTABLE WATER HEAT TRACE (TO PEDESTAL/BLDG)	2/C #8, #8 GND	1-1/2" RGS/PVC SLEEVE	120V, 1PHASE	3
114	MARINE PANEL "MP1"	SEWER MAIN HEAT TRACE (TO INJECTOR PUMP)	2/C #8, #8 GND	1-1/2" RGS/PVC SLEEVE	120V, 1PHASE	3
115	MARINE PANEL "MP1" GFR	SERVICE ENTRANCE RATED CIRCUIT BREAKER	2/C #14	1" RGS/PVC	CNTRL/SHUNT TRIP	12
116	NOT USED					
117	NOT USED					
118	NOT USED					
119	NOT USED					
120	NOT USED					

ISSUED FOR PERMIT
ISSUED: 2022-10-20
NOT TO BE USED FOR CONSTRUCTION

va811.com Dig With CARE
KNOW WHAT'S BELOW. CALL BEFORE YOU DIG. DIAL 811 IN VIRGINIA OR 1-800-552-7001

PLAN NUMBER: _____

APPROVED DATE: _____

DEPARTMENT OF TRANSPORTATION & ENVIRONMENTAL SERVICES.

Tall Ship PROVIDENCE ALEXANDRIA, VA

Rev.	Description	Date	Appr
2	FINAL 2 COMMENTS	10/2022	MAP
1	FINAL 1 COMMENTS	09/2022	MAP
0	FINAL SUBMITTAL	07/2022	MAP

UTILITY AND MARINE INFRASTRUCTURE IMPROVEMENTS
JOHN WARNER MARITIME HERITAGE CENTER

ELECTRICAL SINGLE LINE DIAGRAM AND SCHEDULES

Rev: 0
Date: SEPTEMBER 2022
M&N Project No. 20146
Drawing scale:
Drawing Scale: Plot scale: 1:1 (0 SHEET)
Designed by: DSGN
Drawn by: RC
Chd by: MAP
Reviewed by: P.GRANEY
Submitted by: MARK PIRRELLO MOFFATT & NICHOL

4700 FALLS OF NEUSE RD, SUITE 300
RALEIGH, NC 27609
919-781-4626
moffatt & nichol

COMMONWEALTH OF VIRGINIA
MARK ANTHONY PIRRELLO
Lic. No. 030083
PROFESSIONAL ENGINEER
SEAL

Sheet Reference No.
E-601
INDEX: 37 OF 41

File: Q:\RA\201466\0500_CAD_Active_201466\201466-E601 Plotted: 10/20/2022 3:06 PM by MORGAN, NEKOL Saved: 9/8/2022 11:41 AM by DKOONS

DRAWING SCALES SHOWN BASED ON 22"x34" DRAWING