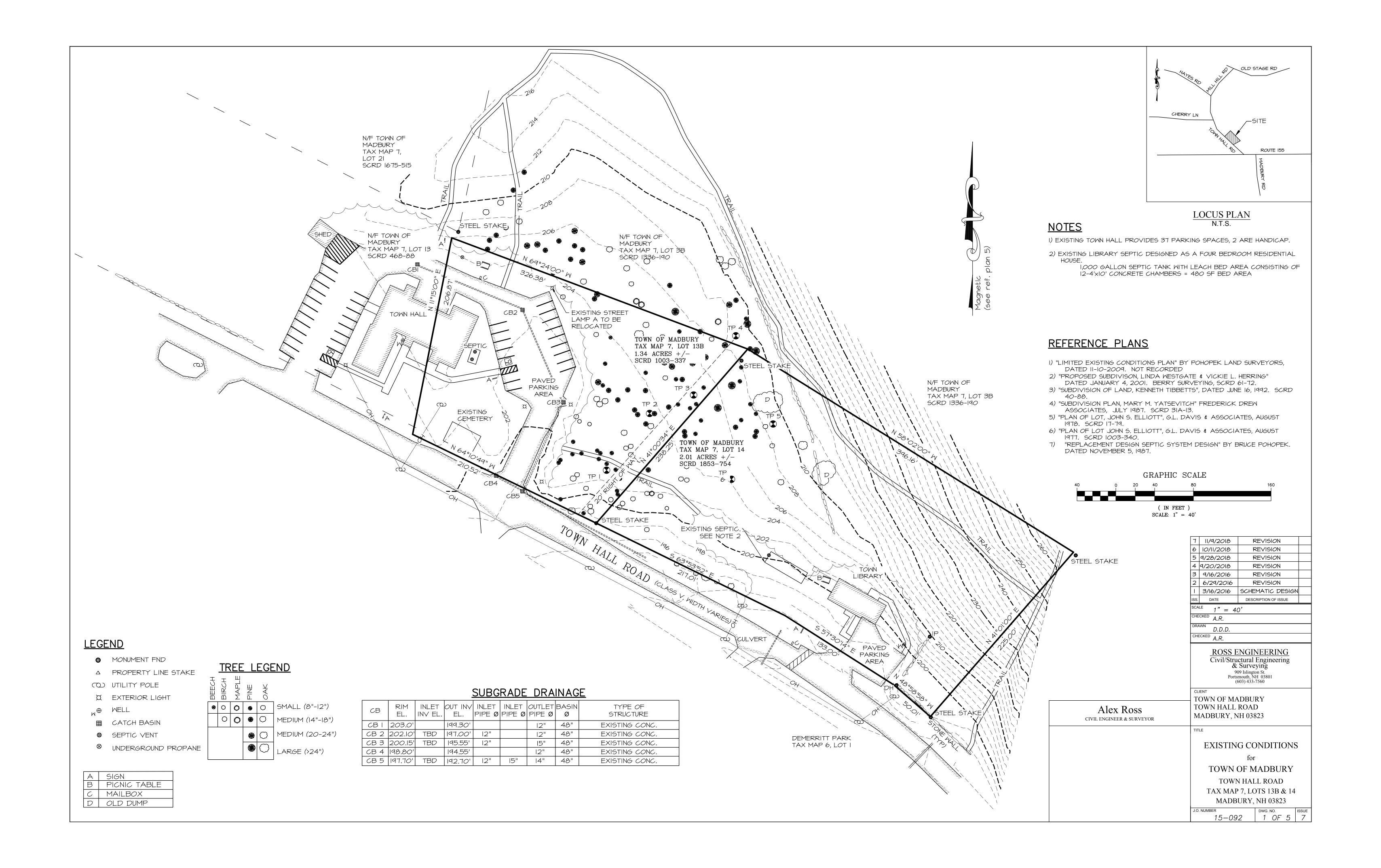
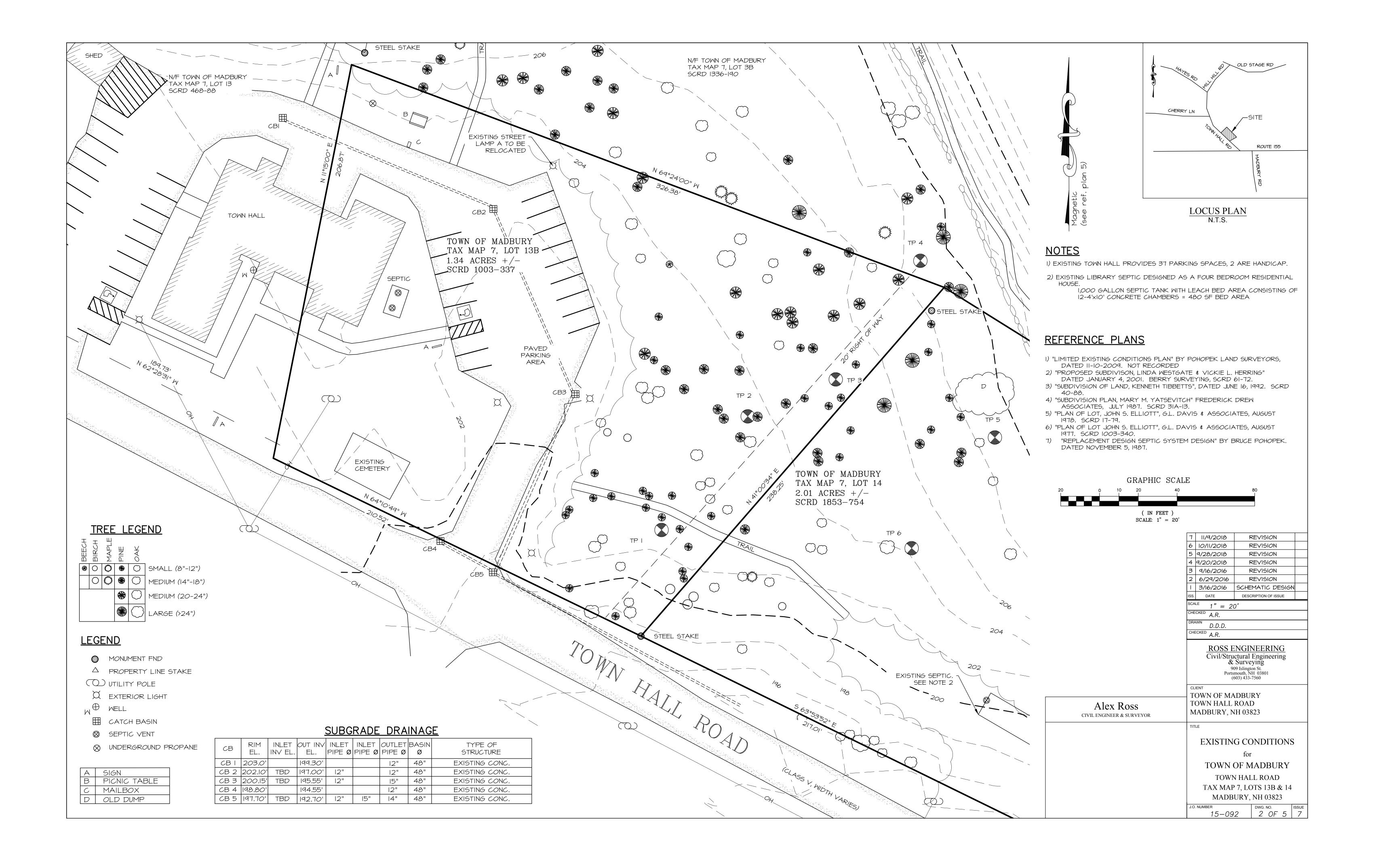
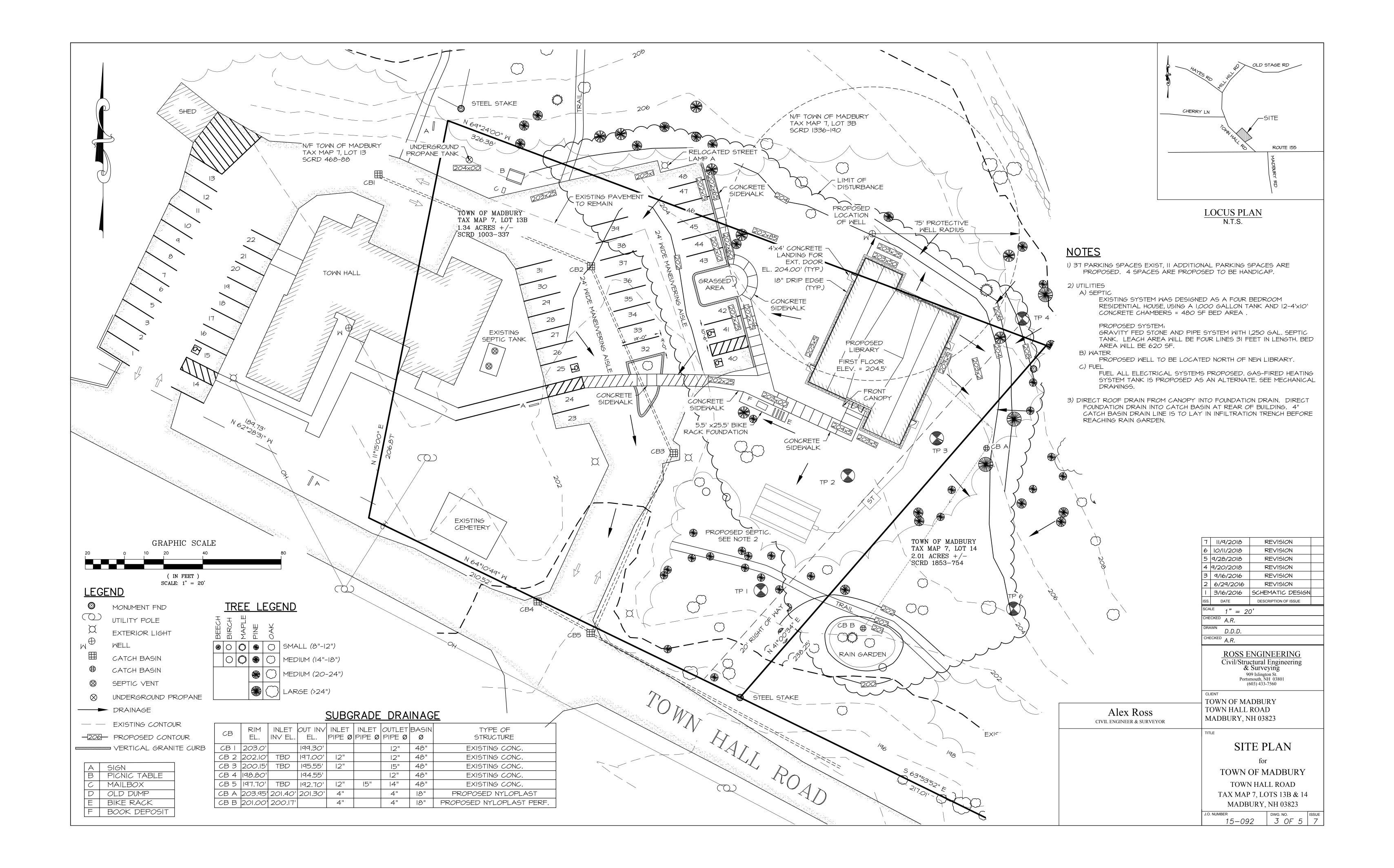
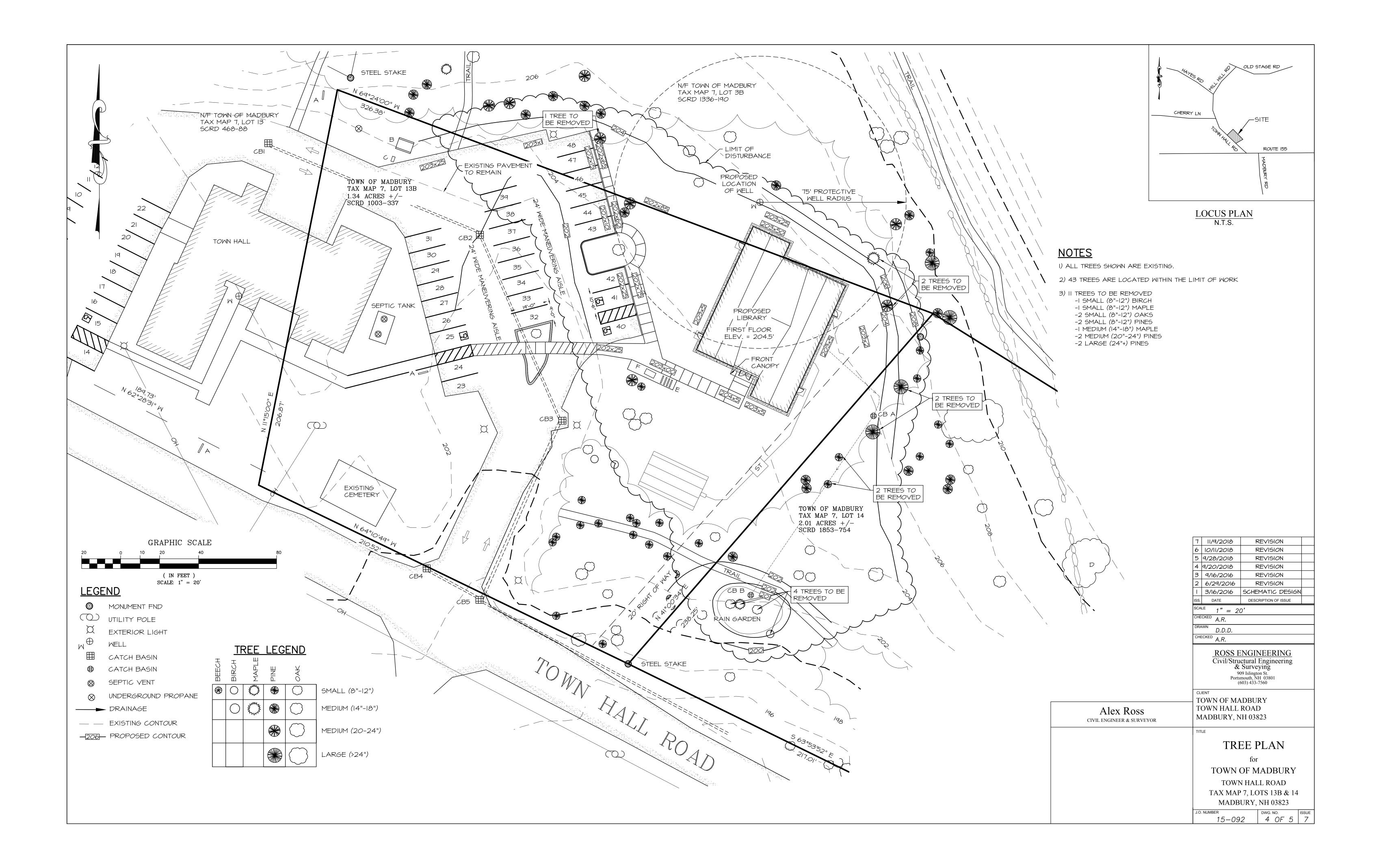
#### MADBURY PUBLIC LIBRARY **GENERAL NOTES** GRAPHIC SYMBOLS MADBURY, NH CENTER LINE 1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CODES, RULES, REGULATIONS AND CODE COMPLIANCE REVIEW ORDINANCES. SHOULD THE DRAWINGS CONFLICT WITH GRID LINE THESE, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OR ENGINEER. HIDDEN OR REFLECTED LINE \_\_ \_\_ \_\_ \_\_ BASIC CODE INFORMATION 2. ALL WORK SHALL BE PERFORMED BY CONTRACTORS (EXT.) EXISTING DOOR LICENSED TO DO THEIR TRADES IN THE STATE OF NEW TO REMAIN 3. ALL WALLS, ROOFS, FLOORS AND SLABS AS PART OF GENERAL PROJECT DESCRIPTION: # NEW DOOR NUMBER THE EXTERIOR THERMAL ENVELOPE SHALL BE INSULATED WORK INCLUDES NEW CONSTRUCTION OF A PUBLIC LIBRARY. IN ACCORDANCE WITH APPLICABLE ENERGY CONSERVATION (X'-Y'')CEILING HEIGHT APPLICABLE CODES 4. WORK SHALL INCLUDE ALL ITEMS, BUILDING AND SITE, REVISION NUMBER AS INDICATED IN THIS SET OF CONTRACT DOCUMENTS 2009 INTERNATIONAL BUILDING CODE (IBC 2009) NATIONAL FIRE PROTECTION AGENCY LIFE SAFETY CODE 2015 (NFPA 101) UNLESS OTHERWISE STATED. DRAWING KEY NOTE 2009 INTERNATIONAL ENERGY CONSERVATION CODE (IECC 2009) 5. ALL DIMENSIONS MEASURED FROM FACE OF FRAMING INTERNATIONAL MECHANICAL CODE (1A)---PARTITION TYPE UNLESS OTHERWISE NOTED. 6. DRAWINGS SHALL NOT BE SCALED. WRITTEN WEIGHT ROOM ROOM NAME & # DESIGNATION BUILDING DATA DIMENSIONS GOVERN CONSTRUCTION AND ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION **BUILDING FOOTPRINT** 3,815 SQ. FT. OF THE ARCHITECT OR ENGINEER FOR CLARIFICATION. 19'-0" BUILDING HEIGHT: (5) WINDOW TYPE NUMBER OF STORIES ABOVE GRADE: 7. ALL DIMENSIONS RELATED TO EXISTING CONDITIONS TO CONSTRUCTION TYPE: TYPE V B (COMBUSTIBLE, NON-RATED) 602.5, IBC 2009 BE VERIFIED BY THE CONTRACTOR AND REVIEWED BY THE 903.2.1.3, IBC 2009 SPRINKLER SYSTEM: ARCHITECT OR ENGINEER PRIOR TO CONSTRUCTION. OCCUPANCY: 303.1, IBC 2009 A-3LOCUS MAP NONE ACCESSORY USES: 8. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR SECTION/ELEV. KEY SCALE: 1" = 800' NONE SEPARATED USES: DEPOSITS AND FEES PERTAINING TO SITE UTILITIES AND NONE NEARBY BUILDINGS WITHIN 30'-0": PERMITTING. 9. THE GENERAL CONTRACTOR SHALL CREATE AND ELEV. # MAINTAIN ON SITE AN "AS BUILT" RECORD SET OF BASIC CODE REQUIREMENTS DRAWINGS. ALL DEVIATIONS FROM THE PERMIT SET OF ELEVATION KEY DRAWINGS SHALL BE ACCURATELY REPRESENTED ON THE BASIC HEIGHT LIMITATIONS: "AS BUILT" DRAWINGS WHEN THEY ARE MADE. UPON OCCUPANCY A-3: 1 STORY TABLE 503, IBC 2009 COMPLETION OF CONSTRUCTION THE CONTRACTOR SHALL 40 FT TABLE 503, IBC 2009 CERTIFY THE "AS BUILT" RECORD SET AND SUBMIT TO BASIC AREA LIMITATIONS: THE ARCHITECT. OCCUPANCY A-3: 6,000 SQ. FT. TABLE 503, IBC 2009 SPRINKLERS REQUIRED: 903.2.1.3, IBC 2009; 12.3.5, NPFA 101 2015 10. UPON COMPLETION OF CONSTRUCTION THE GENERAL CONTRACTOR SHALL PROVIDE THE OWNER WITH ALL MATERIALS PERTAINING TO OPERATION AND MAINTENANCE OF THE BUILDING SUCH AS MATERIALS SPECIFICATIONS, MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT LIBRARY, READING ROOM = 50 NET TABLE 1004.1.1, IBC 2009 DETAIL KEY LIBRARY, STACK AREA = 100 GROSS TABLE 1004.1.1, IBC 2009 MANUFACTURER'S RECOMMENDATIONS, EQUIPMENT BUSINESS = 100 GROSS TABLE 1004.1.1, IBC 2009 WARRANTEES, AND MANUALS. ELEVATION LOCATION TOTAL OCCUPANT LOAD: BASED ON COMMUNITY ROOM, CIHLDREN'S ROOM ELEVATION OF 11. ALL CONSTRUCTION MATERIALS SHALL BE NEW AND AND XX SF OF READING ROOM AREA AT 50 NET; GRADE OR SURFACE BEAR THE MARK OF THE UNDERWRITER WHERE BALANCE OF BUILDING AT 100 GROSS. APPLICABLE. 12. PROVIDE WATER RESISTANT GYPSUM BOARD UNDER MINIMUM NUMBER OF EXITS: 1021.2, IBC2009 NOT IN CONTRACT REQUIRED EGRESS WIDTH AT DOORS: ALL TUB AND SHOWER ENCLOSURES AND AT ADJACENT 1005.1, IRC2009 NEW PARTITION WALLS UP TO 7'-0''. (N/A)TRAVEL DISTANCE TO EXIT: 13. SUBSTITUTIONS FOR PROPRIETARY PRODUCTS LISTED 200 FT EXIT ACCESS TRAVEL DISTANCE: 12.2.6, NFPA 2015 EXISTING PARTITION IN DRAWINGS AND SPECIFICATIONS SHALL BE APPROVED MINIMUM CORRIDOR WIDTH: 1018.2, IBC2009 AFTER REVIEW BY OWNER AND ARCHITECT. CONCRETE FLOOR/LANDING REQUIREMENTS AT EXTERIOR DOORS: 44" IN DIRECTION OF TRAVEL 1008.1.6, IBC2009 SUBSTITUTIONS SHALL BE COMPARABLE TO OR EXCEED THE PERFORMANCE LEVEL OF THE SPECIFIED ITEMS. STEEL FIRE RATINGS (TYPE V B CONSTRUCTION) 14. PROVIDE FIRE BLOCKING IN CONCEALED CAVITIES IN EXTERIOR BEARING WALLS: TABLE 601, IBC2009 STUD WALLS, PARTITIONS, AND FURRED SPACES IN GLASS TABLE 601, IBC2009 INTERIOR BEARING WALLS: 0 HOURS FLOORS AND CEILINGS. TABLE 601, IBC2009 NON-BEARING INTERIOR WALLS: 0 HOURS 15. THE GENERAL CONTRACTOR SHALL UPHOLD A STRICT FLOOR CONSTRUCTION: 0 HOURS TABLE 601, IBC2009 FINISHED WOOD ROOF CONSTRUCTION: NO-SMOKING POLICY THROUGHOUT THE CONSTRUCTION 0 HOURS TABLE 601, IBC2009 STRUCTURAL FRAME: 0 HOURS TABLE 601, IBC2009 SITE AT ALL TIMES. ROUGH WOOD 16. THE GENERAL CONTRACTOR SHALL REMOVE ANY DEBRIS FROM THE PROJECT PREMISES AND LEAVE THE INTERIOR FINISH EXIT ENCLOSURES AND CORRIDORS: PLYWOOD SITE BROOM CLEAN. AT THE END OF CONSTRUCTION WINDOWS SHALL BE THOROUGHLY CLEANED INSIDE AND GYPSUM WALLBOARD ROOMS & ENCLOSED SPACES: OUTSIDE. MARKS SHALL BE REMOVED FROM ALL FINISHED SURFACES AS WELL AS EXCESS DUST. RIGID INSULATION LOT DIAGRAM 12 OCTOBER 2018 ISSUED FOR BID 17. THE GENERAL CONTRACTOR SHALL GUARANTEE ALL SCALE: 1/32" = 1'-0" 28 SEPTEMBER 2018 75% CD SET MATERIALS AND WORKMANSHIP FOR A PERIOD OF AT 15 SEPTEMBER 2016 DESIGN DEVELOPMENT SUBMISSION BATT INSULATION LEAST ONE YEAR FROM THE DATE OF COMPLETION. 15 MARCH 2016 SCHEMATIC DESIGN SUBMISSION DEFECTS SHALL BE ADDRESSED IN A TIMELY MANNER ISSUES / REVISIONS RAINSCREEN DRAINAGE WITHOUT ADDITIONAL CHARGE. SEACOAST CONSULTING ENGINEERS INSULATED SHEATHING SYSTEM ALTERNATES DRAWING LIST, CONTINUED **ABBREVIATIONS** DRAWING LIST **ROSS ENGINEERING** TEL: 603-433-7560 HVAC\_CONCEPT\_PLAN\_\_\_FIRST\_FLOOR\_PLAN /1 A001 PROJECT INFORMATION ALUM. ALUMINUM (HVAC ROOF & OPTIONAL DUCTLESS PLAN } ADD ALTERNATE 1 C1 EXISTING CONDITIONS 1:40 BASE BID: PROVIDE ARCHITECTURAL ASPHALT B.O. BOTTOM OF HVAC SCHEDULES & NOTES C2 EXISTING CONDTIONS 1:20 SHINGLES AS SHOWN IN THE DRAWINGS MANYPENNY | MURPHY ARCHITECTURE C3 SITE PLAN ADD ALT: PROVIDE FIELD-LOK OR SIMILAR 2" CONC. CONCRETE C4 TREE PLAN PLUMBING FIRST FLOOR PLAN 96 PENHALLOW STREET, PORTSMOUTH, NH 03801 STANDING SEAM METAL ROOF IN LIEU OF ASPHALT C5 NOTES AND DETAILS COORD. COORDINATE SHINGLES ELECTRICAL SYMBOLS, LEGEND, NOTES, SCHEDULE C6 SUBSURFACE DISPOSAL SYSTEM { SCOPE OF WORK, SPECIFICATIONS ELEV. ADD ALTERNATE 1 ELEVATION S1 FOUNDATION PLAN AND DETAILS RISER DIAGRAM, SITE NOTES MADBURY PUBLIC LIBRARY BASE BID: PROVIDE VRF SYSTEM AS SHOWN ON S2 PROPOSED FRAMING FLOOR PLAN - POWER EXG. EXISTING MECHANICAL DRAWINGS MADBURY, NH S3 SECTIONS FLOOR PLAN — LIGHTING DEDUCT ALT: PROVIDE DUCTLESS SPLIT SYSTEM IN S4 SHEAR WALLS FLOOR PLAN - FIRE ALARM EXT. LIEU OF VRF AS SHOWN ON M2 EXTERIOR SN1 GENERAL NOTES SN2 GENERAL TRUSS NOTES EQUAL A201 FIRST FLOOR PROJECT INFORMATION F.O. FACE OF A202 ROOF PLANS A301 REFLECTED CEILING PLAN GWB GYPSUM WALL BOARD A401 EXTERIOR ELEVATIONS A501 SECTIONS MAXIMUM A502 SECTION DETAILS A601 INTERIOR DETAILS MIN. MINIMUM A701 INTERIOR ELEVATIONS A702 INTERIOR ELEVATIONS METAL PROJECT NO.: 15-017 SCALE: A703 ENLARGED KITCHEN AND BATH PLANS & ELEV. A801 WINDOW, DOOR & FINISH SCHEDULES PTD. PAINTED A802 PARTITION TYPES; WINDOW & DOOR DETAILS BY: ECC CHECK: AMM A901 SPECIFICATIONS STD. STAINED DATE: 09/28/18 T.O. TOP OF V.I.F. VERIFY IN FIELD

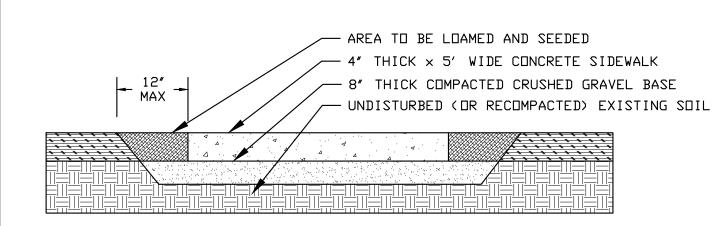








# SIDEWALK & CURB OPTIONS



## TYPICAL SIDEWALK CROSS SECTION

ALL CONCRETE MUST BE 4000 PSI, 5-7% AIR ENTRAINED, FIBER REINFORCED WITH CONTROL JOINTS EVERY 5' AND EXPANSION JOINTS EVERY 25'. ALL CONTROL JOINTS WILL BE MADE WITH JOINTING TOOL TO A DEPTH OF 1/4 OF THE SIDEWALK DEPTH. EXPANSION MATERIAL WILL ALSO BE USED AROUND MANHOLE COVERS, UTILITY POLES, ETC.

A PROTECTIVE COATING OF SILANE-SILOXANE SHALL BE APPLIED TO ALL EXPOSED SURFACES. THREE DAYS AFTER APPLICATION, THE ENGINEER WILL TEST THE PRODUCT. IF THE TEST COMES OUT NEGATIVE, THE CONTRACTOR WILL INSTALL A SECOND COAT OF THE PRODUCT.

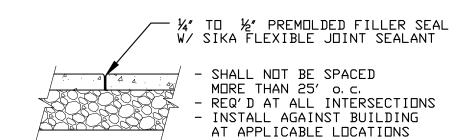
CURING COMPOUNDS WILL NOT BE PERMITTED UNLESS DIRECTED BY THE ENGINEER.

ALL SIDEWALKS WILL HAVE A LIGHT BROOM FINISH TRANSVERSE TO THE WALKING PATH

AFTER STRIPPING FORMS, THE SUBGRADE ON THE SIDES OF THE CONCRETE WILL BE BROUGHT UP EVEN WITH THE BOTTOM OF THE SIDEWALK OR 5" FROM THE TOP WHICHEVER IS LESS.

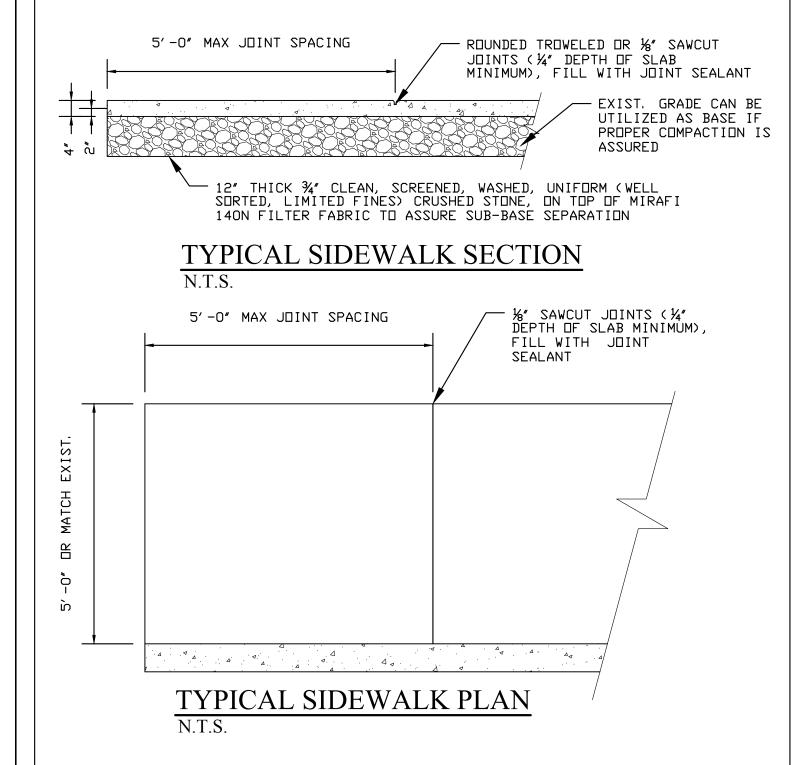
DISTURBANCE OF LOAM MORE THAN 12" WIDE ON EITHER SIDE OF THE FINISHED SIDEWALK WILL NOT BE PAID FOR UNLESS DIRECTED BY THE ENGINEER. A TRUE 4" OF LOAM WILL BE PLACED ON ALL DISTURBED AREAS.

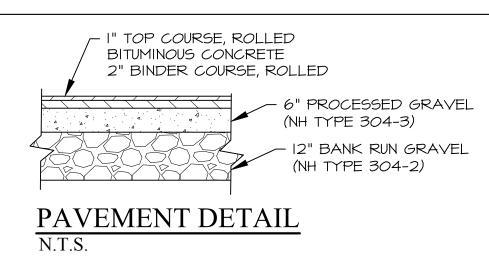
HANDICAPPED RAMPS AT STREET CORNERS SHALL BE 6" DEEP.

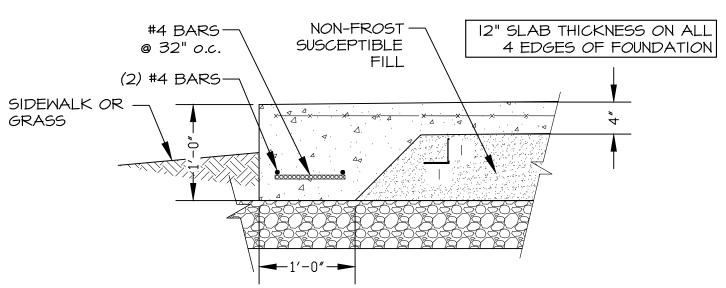


### TYPICAL EXPANSION JOINT

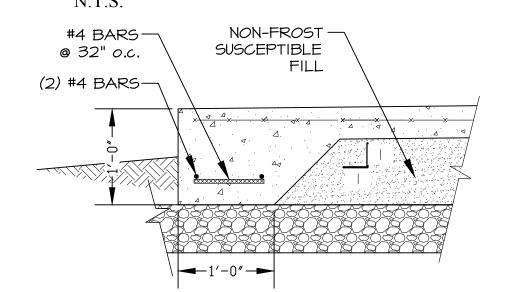
N.T.S

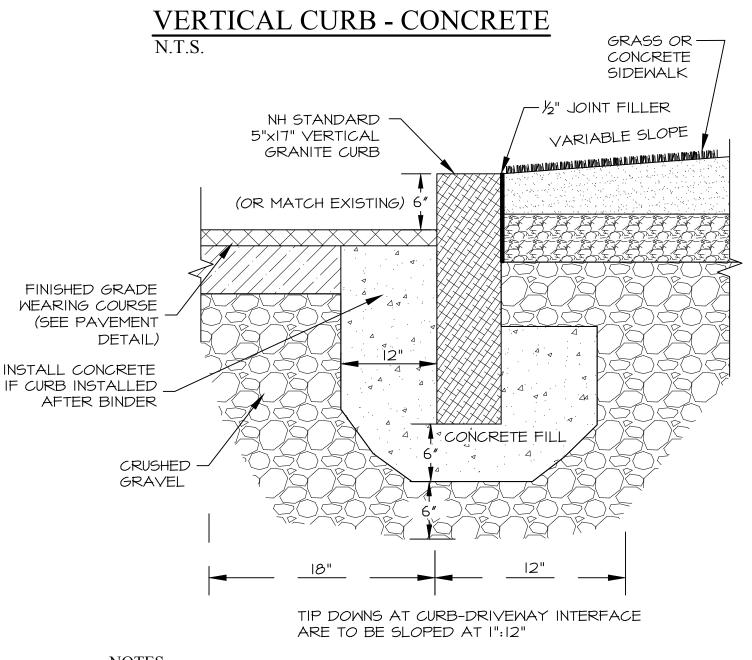






### BIKE RACK FOUNDATOIN DETAIL

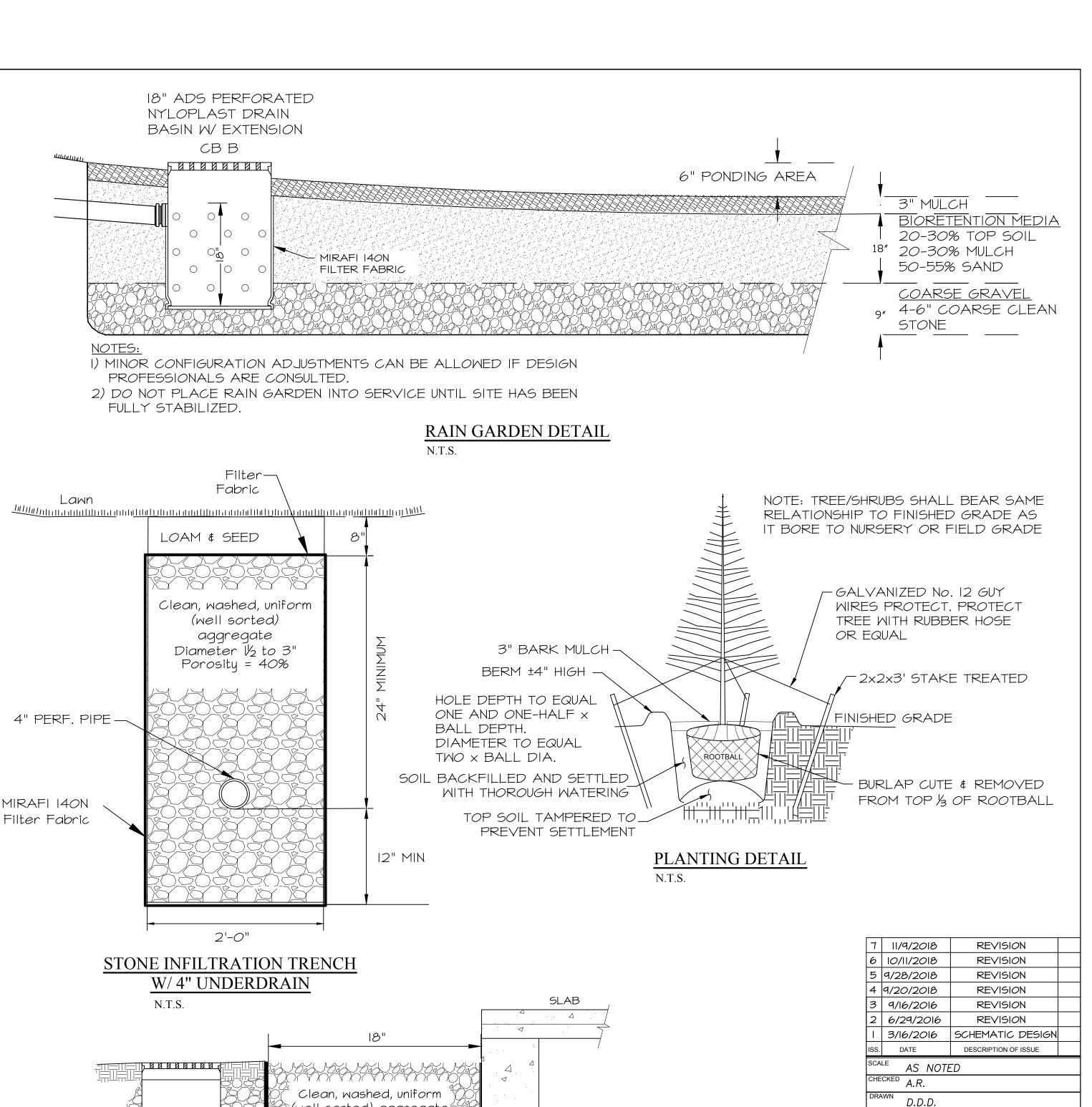


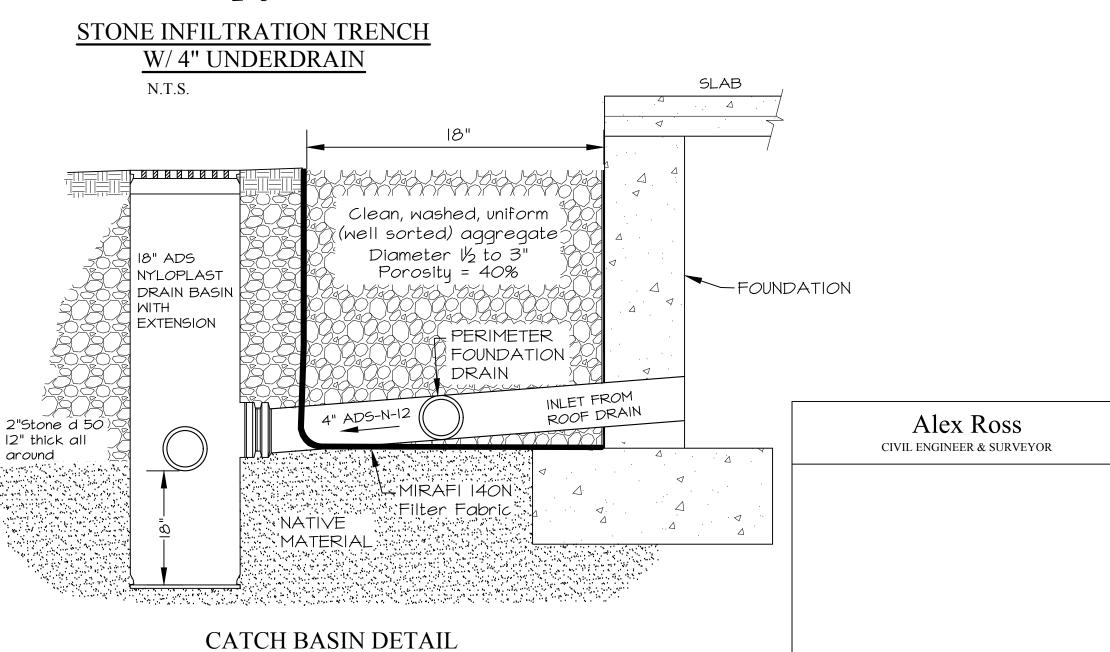


### NOTES:

- 1) DAMAGED OR IMPACTED CURB IS TO BE REPLACED AT THE CONTRACTORS OWN EXPENSE, UNLESS OTHERWISE NOTED ON PLAN.
- 2) CLASS B CONCRETE FILL SHALL BE PLACED IN VOIDS IN FRONT, BEHIND, AND BELOW CURBING PRIOR TO INSTALLATION OF GRAVEL BACKING AND FINISH GRADE WEARING COURSE PAVEMENT.

VERTICAL CURB - GRANITE N.T.S.





**ROSS ENGINEERING** 

Civil/Structural Engineering & Surveying

909 Islington St. Portsmouth, NH 03801

NOTES AND DETAILS

TOWN OF MADBURY

TOWN HALL ROAD

TAX MAP 7, LOTS 13B & 14

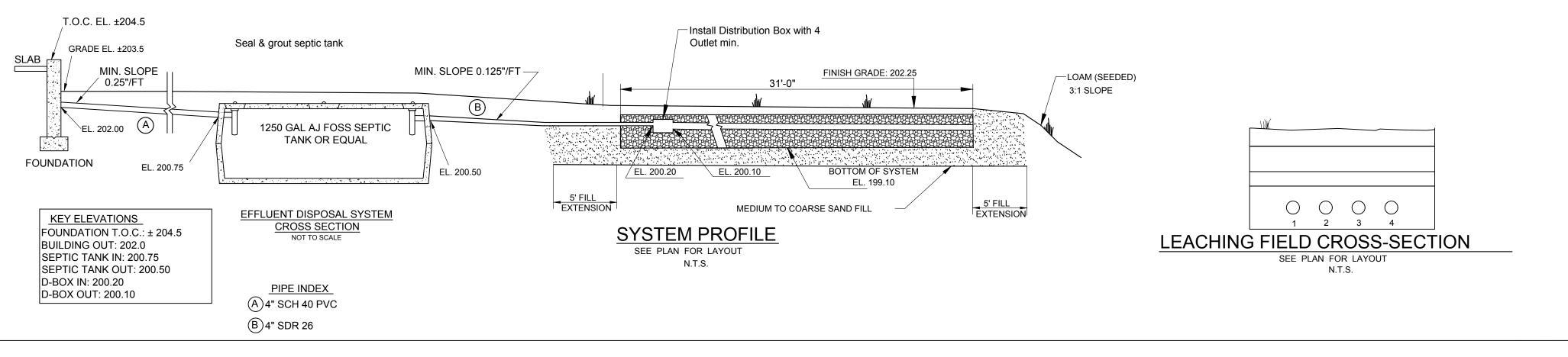
MADBURY, NH 03823

15-092 | 5 OF 5 | 7

TOWN OF MADBURY

TOWN HALL ROAD

MADBURY, NH 03823



TEST PIT #2 ● Date: 12-8-09 \*Observed Ground Water @ NONE \*Roots @ NONE \*Seasonal High Ground Water (Mottling) @ NONE

LOCATION:

CLIENT:

TOWN OF MADBURY

SOIL DATA:

<u>Witnessed by</u>

\*Roots @ NONE

(Mottling) @ NONE

County: STRAFFORD Town: MADBURY

NH Subdivision Approval No.: 200503580

TEST PIT #1 ● Date: 12-8-09

Sewage Load: 455 GPD Garbage Disposal: NO

Area Required: 617 s.f., Area Provided: 620 s.f.

Hydric Soils: >> 50 FT Away To Hydric B Soil

Nearest Surface Water: >> 75 FT Away

Type of Cellar: SLAB ON GRADE Foundation Drains: NO

\*Observed Ground Water @ NONE

\*Seasonal High Ground Water

Performed By: BRUCE POHOPEK Depth: 36" Rate: 2 MIN/INCH

SYSTEM DESIGN DATA

Building Type: TOWN OFFICE

Distribution Box: 4 OUTLET

Leach Bed Requirements:

Sewage Pump: No

Drinking Water: WELL

Septic Tank Required: 1250 GAL.

Well Installed Prior to 1989: NO

Nearest Abutting Well: N/A

Tax Map: 7 Lot No. 13B Deed: BK 1003 PG 337

Performed on 12-8-2009 by: BRUCE POHOPEK

Subdivision Title: "MADBURY, N.H., JOHN S. ELLIOT TO TOWN OF

MADBURY" BY G.L. DAVIS & ASSOCIATES DATED AUGUST 1976

10YR 4/6 FSL

10YR 5/6

10YR 5/6

MEDIUM SAND

MEDIUM SAND

O"-I2"

12"-38"

38"-72"

0"-13"	2.5YR 5/5 FSL
13"-35"	2.5YR 4/4 FINE SILTY LOAM
35"-5 "	IOYR 5/6 MEDIUM GRAVEL
51"-72"	IOYR 5/6 FINE SAND

TEST PIT #3 ● Date: 12-8-09 \*Observed Ground Water @ NONE \*Roots @ NONE \*Seasonal High Ground Water (Mottling) @ NONE

( 5 5 5 3)	
0"-21"	10YR 5/8 FSL
21"-36"	2.5YR 5/4 FINE SILTY LOAM
36"-62"	2.5YR 4/4 LOAMY SAND
62"-72"	2.5YR 5/4 MEDIUM SAND

### DESIGN INTENT

Maintain at least 48" above the seasonal high water table and 5' above ledge or impermeable substratum by constructing the leach bed bottom at elevation 199.60', which is approximately 3.15' BELOW grade on the high contour of the designed effluent disposal area.

### **NOTES**

I) OWNER OF RECORD: TOWN OF MADBURY TOWN HALL ROAD MADBURY, NH 04823 TAX MAP 7, LOTS 13B & 14 SCRD 1003-337, SCRD 1853-754

2) THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED SEPTIC SYSTEM FOR THE NEW LIBRARY.

3) LOT LOADING DESIGN FLOW FOR A TOWN OFFICE 15 GPD PER OFFICE STAFF + 5 GPD PER TRANSIENT 15 GPD (2 EMPLOYEES) + 5 GPD (85 TRANSIENTS) = 455 GPD

LOADING FROM SITE = 455 GPD

PROPOSED LOADING = 455 GPD

4) THIS DRAWING DOES NOT REPRESENT A BOUNDARY SURVEY. CONTRACTOR TO ASSURE PROPERTY LINE LOCATION.

5) LOT LOADING REGULATIONS (ENV-WQ 1008.01): LOT SIZE = Q(GPD) / 2000(GPD/ACRE) X FACTOR Q(GPD) = LOT SIZE X 2000(GPD/ACRE) / FACTOR ENV-WQ 1005.03M TABLE 1005-1 NH DES SOIL GROUP: I HYDROLOGIC SOIL GROUP: B FACTOR = 1.0 LOT LOADING CALCULATION:

MAXIMUM ALLOWABLE LOADING = 2680 GPD

1.34(ACRES) X 2000(GPD/ACRE) / 1.0 = 2680 GPD



2) Pipes shall be designed for H-10 LIVE LOADING. No Vehicular or livestock

travel nor snow removal allowed in area of system.

3) All 4 inch PVC pipe shall be as shown in cross section. Pipe outside leaching area shall be watertight. All joints, inlets, outlets, etc. to be sealed with a non-shrink grout, "water-plug" or equal.

4) In event of future system failure, replacement system shall be built in the same location as the original system after contaminated materials have been

5) All pre cast units, (tanks, D-boxes) shall be manufactured by A.J. Foss or equal.

7) Boundary information taken from plan entitled: "Boundary Survey &

9) equalizer flow inserts shall be installed in distribution box outlets.

11) do not install system on frozen ground or leave system uncovered for

12) This document is for the construction of the effluent disposal system shown. anyone using information from this document for any other purpose

13) System must be constructed in accordance with env—ws 1000. "approval for construction" is valid for 4 years from date of issue.

### SITE PREPARATION:

1) Check Design intent and verify the elevation of existing ground—upslope side before disturbing site. Contact the designer should any discrepancy

2) Remove all trees, brush, boulders, and debris from the leach field site. 3) Remove topsoil. Leave subsoil in place. Do not compact subsoil with machinery; scarify as needed before filling.

4) Fill 6" under leaching area, around pipes, and fill extension with medium

to coarse textured sand (NH DES Specifications).

6) Fill for backfiling shall be clean, permeable fill, free of stones larger than 6 inches.

7) Side slope of fill 3:1, (3' horizontal for every 1' vertical).

5) Sand fill to be pushed onto prepared surface from the side.

8) Place 6 inches of loam as a blanket on side slopes where required.

9) Entire disturbed area shall be loamed and seeded as soon as possible after backfilling to prevent erosion.

10) Backfill depth over system to be 6 to 12 inches.

11) Final grading shall provide for drainage of surface runoff away from leaching area.

### OPERATION AND MAINTENANCE:

1) System is not designed to handle discharge from a hot tub or similar large volume water use.

2) Every system's design capacity is limited. Careful and reasonable water use is required to maximize the system's life.

3) Do not dispose of grease, chemicals, solvents, etc. via this system. 4) Septic tank must be pumped by a licensed hauler at least every two years. Keep pumping receipts as proof of maintenance. Check tank yearly. If sludge and surface scum exceed 1/3 of liquid depth, have the tank

5) Do not allow vehicular traffic over any component of the system unless that structure is designed to withstand an H-20 wheel load.

1) System to be installed in accordance with state and local regulations.

6) This plan does not represent a boundary survey.

Existing Conditions" by this office, to be recorded.

8) Record deed: BK 2705 PG 2884

10) installer advised to contact dig safe prior to construction.

extended periods of time.

does so at their own risk.

FILTER FABRIC OR 2"-3" COMPACTED HAY/STRAW 1<sup>1</sup>/<sub>2</sub>" UNIFORM WASHED CRUSHED 6" STONE 2'-6" 5'-0" C.C. TYP. NOT TO SCALE

4"-6" SEEDED LOAM

6"-12" CLEAN BACKFILL

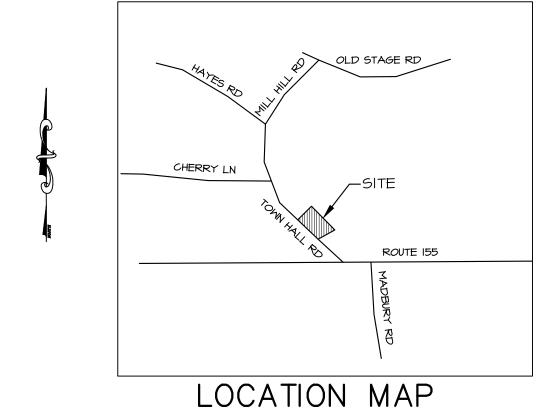
1) SEE PLAN FOR LOCATION AND ORIENTATION OF BED.

CONVENTIONAL ABSORPTION BED CROSS SECTION

2) PERFORATED PIPE IS TO BE LAID LEVEL. 3) JOINTS ARE TO BE BELLED PVC OR STANDARD SLIP COLLARS. 4) ALL LATERALS ARE TO BE JOINED AT ENDS.

5) ALL LATERALS ARE TO EXIT DISTRIBUTION BOX AT SAME LEVEL.

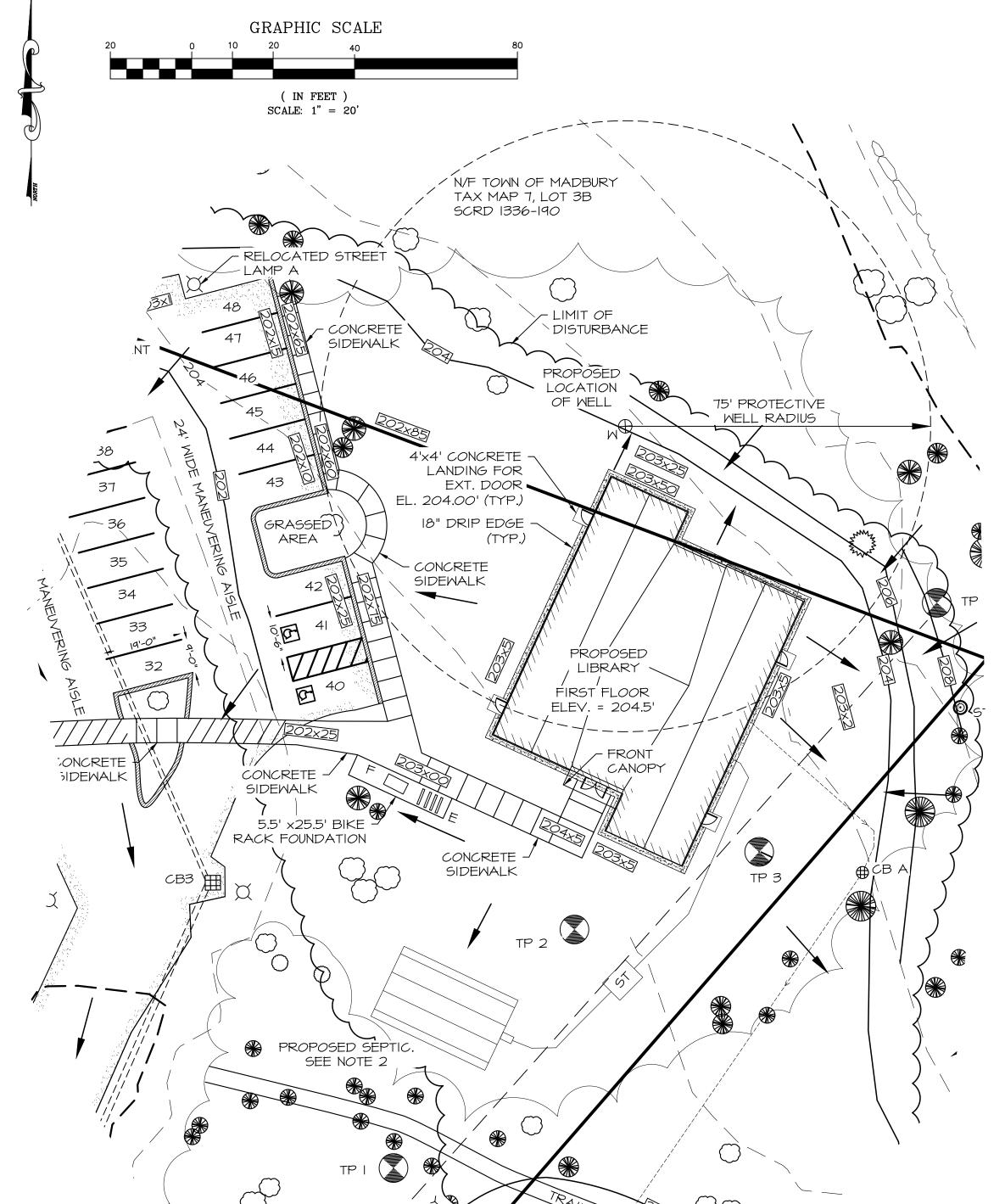
6) NO VEHICLES SHALL PASS OVER SEPTIC TANK OR ABSORPTION BED.

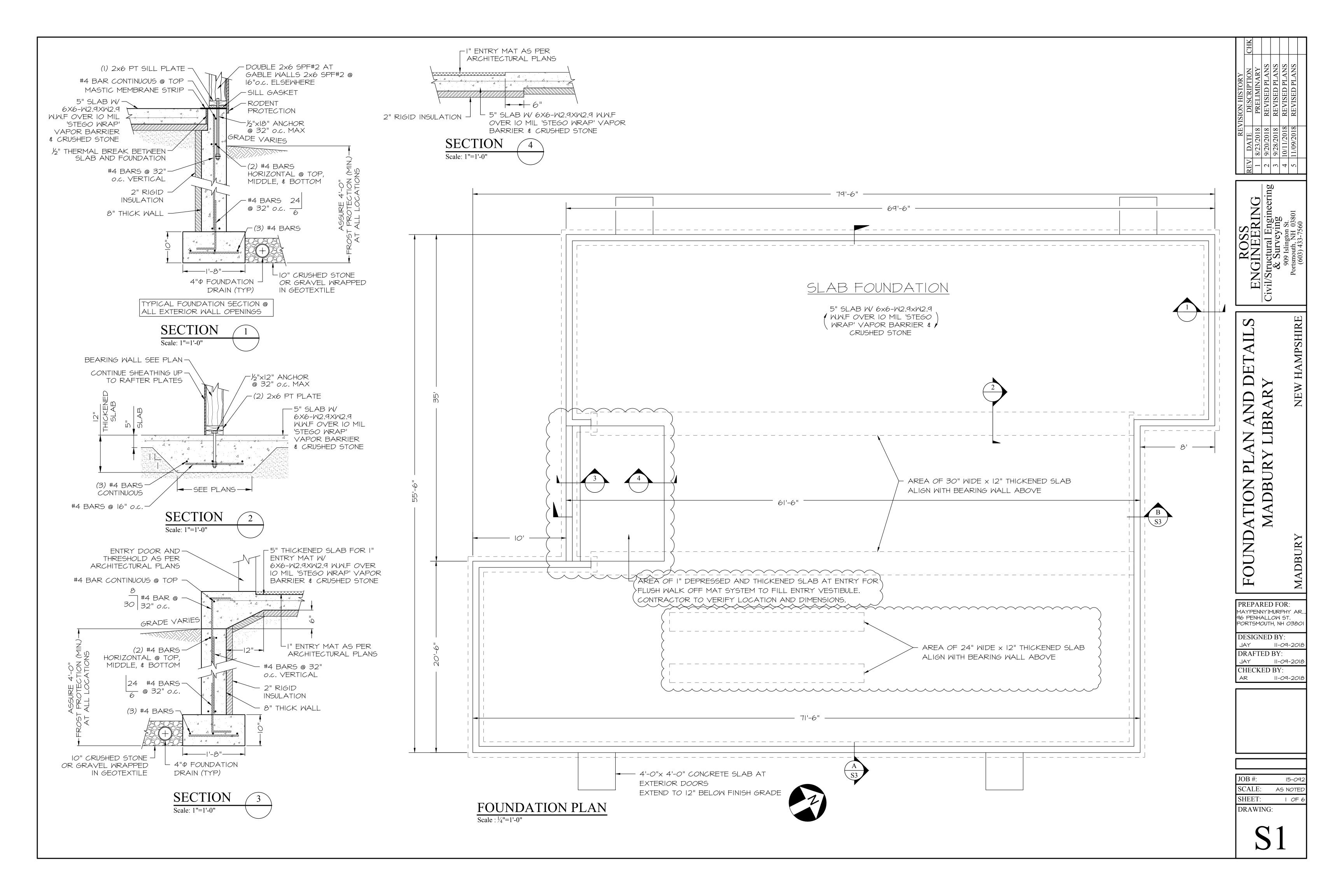


### ROSS ENGINEERING PORTSMOUTH, NEW HAMPSHIRE 909 ISLINGTON STREET (603) 433-7560 DESIGNED: DDD 8-23-2018 CHECKED: AR 8-23-2018 PROJECT NO. 15-092 DRAWN: DDD 8-23-2018 SCALE: 1": 20' DWG. NO. SUBSURFACE DISPOSAL SYSTEM

**TOWN OF MADBURY TAX MAP 7, LOT 13B & 14 TOWN HALL ROAD MADBURY, NH 03823** 

PLOT PLAN SCALE: 1 inch = 20 feet Elevation of Benchmark ls Assumed MAINTENANCE REQUIRED: RECOMMEND CLEANING SEPTIC TANK AT LEAST ONCE EVERY 2 YEARS





ALL POST TO BEAM CONNECTIONS  2-2xIO RAFTERS  HUC2IO-2  8-I6D  6-I6D	PD   P   S - 2x6	COLUMN SCHEDULE	D-		
P2 5½*x9½* VERSALAM POST  *ASSURE POSITIVE ATTACHMENT AT ALL POST TO BEAM CONNECTIONS  **PD#, PU#, AND PUD# REFER TO POST-DOWN, POST-UP, AND POST-UP & -DOWN RESPECTIVELY  **POST-UP, AND POST-UP & -DOWN RESPECTIVELY  2x6 RAFTERS LISSU26 4-IOD 5-IODXI½ 2x6 RAFTERS LSSU28 9-IOD 5-IODXI½ 2x7 RAFTERS LSSU28 9-IOD 5-IODXI½ 2x8 RAFTERS LSSU28 9-IOD 5-IODXI½ 2x8 RAFTERS LSSU28 9-IOD 5-IODXI½ 2x6 RAFTERS LSSU28 9-IOD 5-IODXI½ 2x7 RAFTERS LSSU28 9-IOD 5-IODXI½ 2x8 RAFTERS LSSU28 9-IOD 5-IODXI½ 2x6 RAFTERS LSSU28 9-IODXI 2x6 RAFTERS LSSU28 9-IODXI 2x6 RAFTERS LSSU28 9-IODXI 2x7	M				JOIST
*AGSURE POSITIVE ATTACHMENT AT ALL POST TO BEAM CONNECTIONS  **PD#, PU#, AND PUD# REFER TO POST-DOWN, POST-UP, AND POST-UP & -DOWN RESPECTIVELY  **AFTERS LSSUZIO 9-10D S-10DXI/2 2×IO RAFTERS LSSUZIO 9-10DXI/2 2×IO RAFT	ASSURE POSITIVE ATTACHMENT AT ALL POSIT TO BEAM CONJECTIONS  220 RAFTERS LS90210 4-100 7-100x/5  220 RAFTERS LS90210 4-100 7-100x/5  220 RAFTERS HUC2 0-2 8-160 6-160  220 RAFTERS HUC2 0-2 8-160 6-160  220 RAFTERS HUC2 0-2 8-160 6-160  220 RAFTERS HUC2 0-1 8-160 6-160  220 RAFTERS HUC2 0-2 8-160 6-160  220 RAFTERS HUC2 0-1 8-160 6-160  220 RAFTERS HUC2 0-2 8-160 6-160  220 RAFTERS HUC2 0-1 8-160 6-160  220 RAFTERS HUC2 0-2 8-160  220 RAFTERS HUC2 0-				4-10D
ALL POST TO BEAM CONNECTIONS  2-2xio Rafters Huc2io-2 8-16D 6-16D  2-9xio Rafters Huc2io-2 8-16D 6-16D  2-9xio Rafters Huc2io-2 8-16D 6-16D	ALL POST TO BEAM CONNECTIONS  2-2XIO RAFTERS  FUCZIO-2  8-16D  6-16D  2-2XIO RAFTERS  FUCZIO-2  8-16D  6-16D  5-16D  5-16				
**PD#, PU#, AND PUD# REFER TO POST-DOWN, POST-UP, AND POST-UP 4 -DOWN RESPECTIVELY	**PDH, PUH, AND PUDE REFER TO POST-DOWN, POST-UP, AND POST-UP & -DOWN RESPECTIVELY  SEE CANOPY FRAMING DETAIL  SEE CANOPY  FRAMING DETAIL				
POST-UP, AND POST-UP & -DOWN RESPECTIVELY	POSIT-UP, AND POSIT-UP & -DOWN RESPECTIVELY  SEE CANOPY FRAMING DETAIL  4-194-x20* LVL HEADER		2 2/10 17 11 121 3	1100210 2	
SCISSOR TE	SEE CANOPY FRAMING DETAIL  4-13/4"x20" LVL HEADER				
	FRAMING DETAIL  4-13/4"x20" LVL HEADER				SCISSOR

///// - INTERIOR 2x4 (min) BEARING WALLS

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

BEAM	& JOIST HANGER SO	CHEDULE	
MEMBER	SIMPSON HANGER	FACE	JOIST
2x6 RAFTERS	LUS26	4-10D	4-10D
2x8 RAFTERS	LSSU28	9-10D	5-10Dx1/2
2×10 RAFTERS	LSSU2IO	9-10D	7-10Dx1/2
2-2xIO RAFTERS	HUC210-2	8-16D	6-16D

SCISSOR TRUSSES BY OTHERS

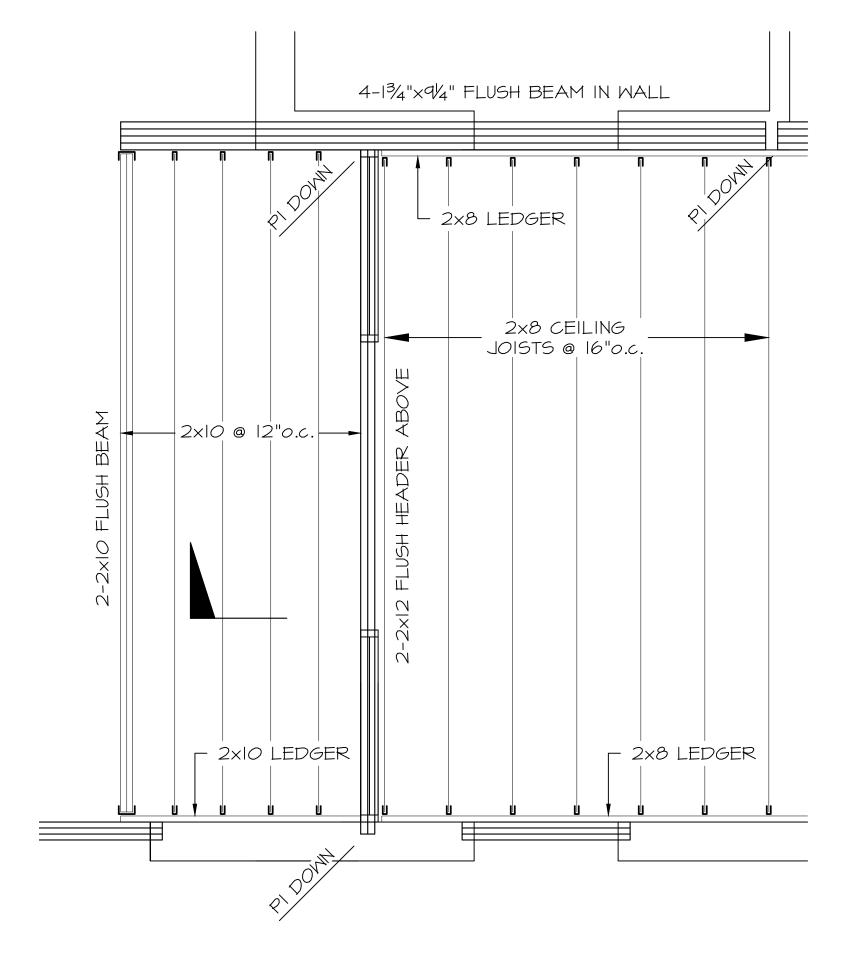
SCISSOR TRUSSES BY OTHERS

CEILING FRAMING
IN THIS AREA ONLY
(SEE ARCHITECTURAL PLANS)

 $\frac{A}{S3}$ 

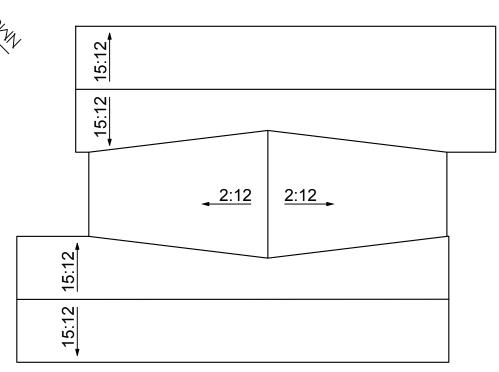
AREA OF OVERFRAME

L AREA OF OVERFRAME



CANOPY FRAMING DETAIL

Scale: 1/2"=1'-0"



# ROOF PLAN

Refer to Architectural Plans for All Dimensions

Scale : ½6"=1'-0"



JOB #: SCALE: AS NOTED SHEET: DRAWING:

FRAMING TIBRARY

PROPOSED | MADBURY

PREPARED FOR:
MAYPENNYIMURPHY AR...
96 PENHALLOW ST.
PORTSMOUTH, NH 03801

JAY 11-09-2018

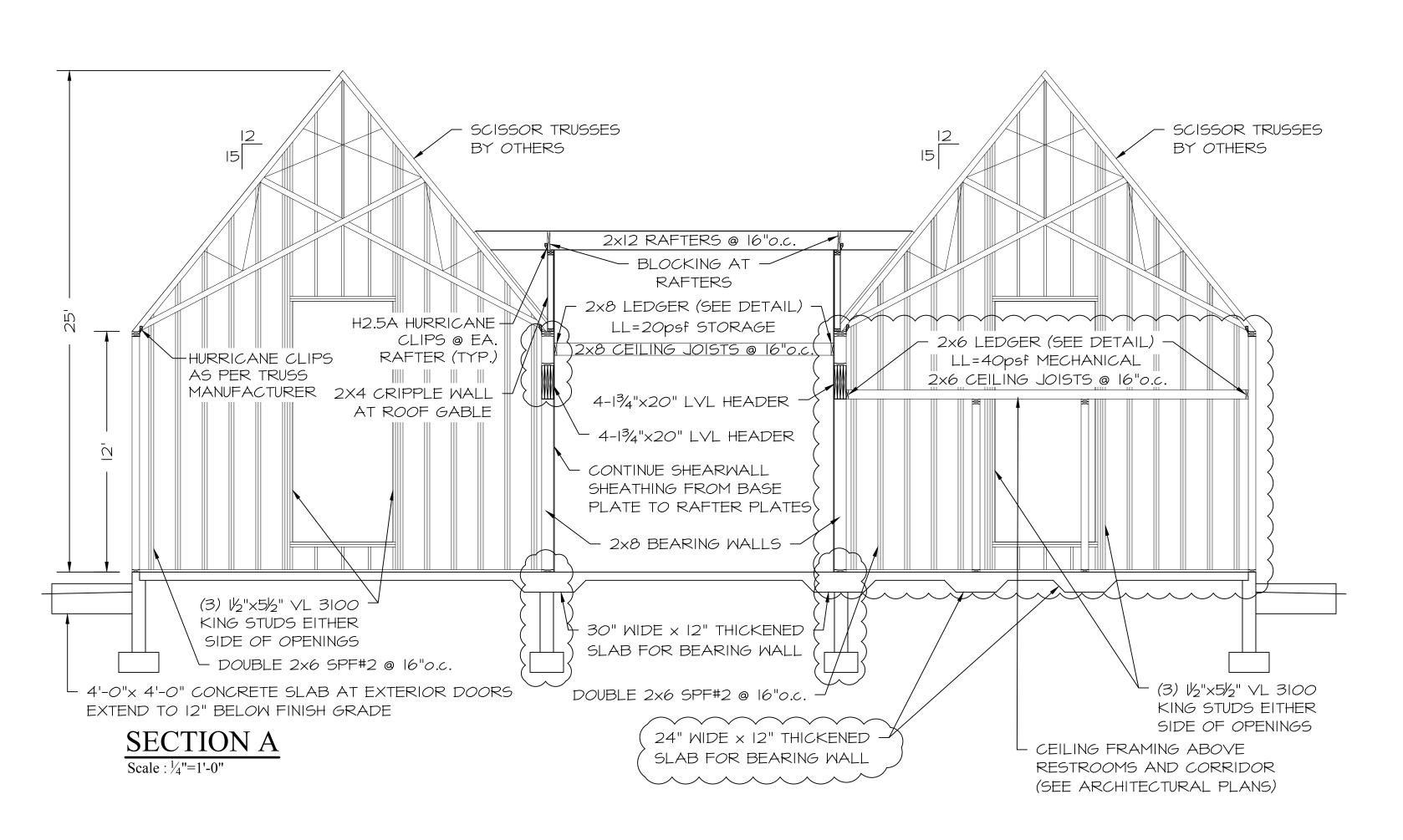
11-09-2018

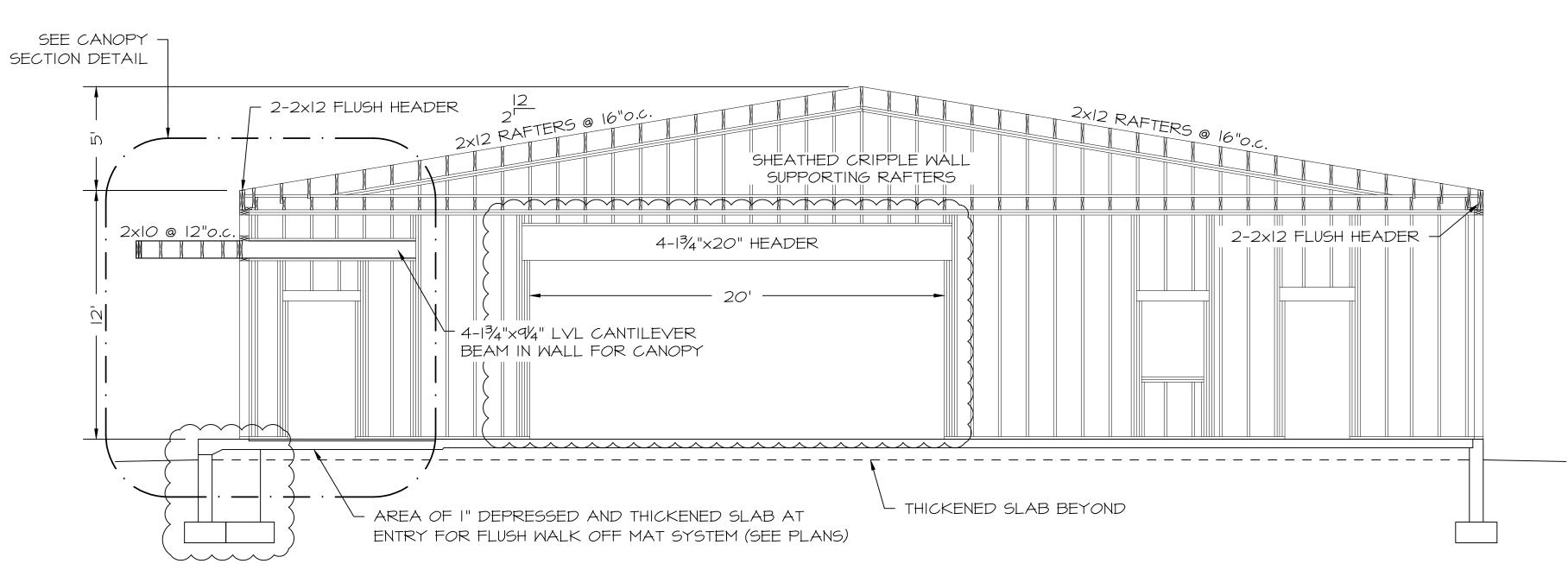
11-09-2018

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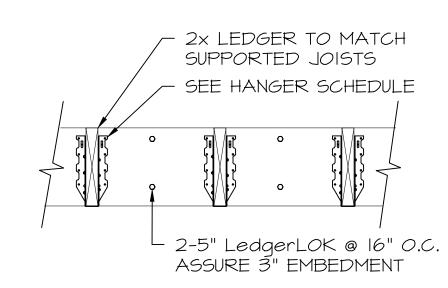
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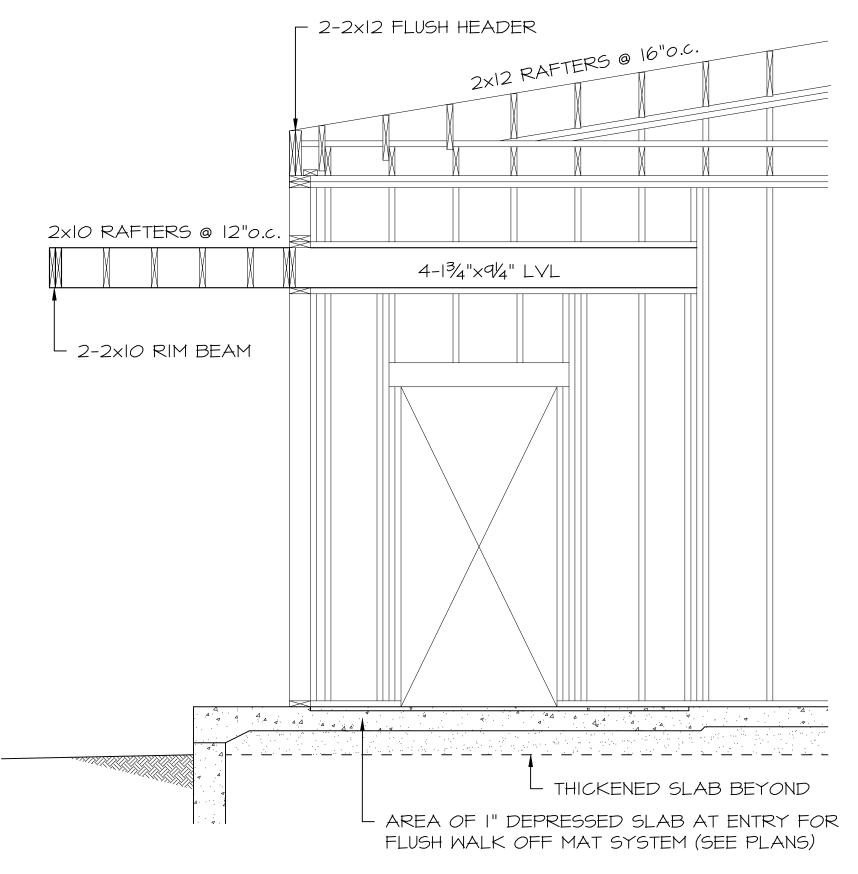


 $\frac{SECTION \ B}{Scale : \frac{1}{4}"=1'-0"}$ 



## LEDGER TO WOOD DETAIL

Scale: 1"=1'-0"



# **CANOPY SECTION DETAIL**

e:½"=1'-0"

	KE\	REVISION HISTORY	
REV.	REV. DATE	DESCRIPTION CH	CHK
1	8/23/2018	PRELIMINARY	
2	9/20/2018	REVISED PLANS	
3	9/28/2018	REVISED PLANS	
4	4  10/11/2018	REVISED PLANS	
5	11/09/2018	REVISED PLANS	

ENGINEERING
//il/Structural Engineering
& Surveying
909 Islington St.
Portsmouth, NH 03801

KAKY

SECTIONS MADBURY LIBR

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MAYPENNYIMURPHY AR.
96 PENHALLOW ST.
PORTSMOUTH, NH 03801

DESIGNED BY:

JAY II-09-2018

DRAFTED BY:

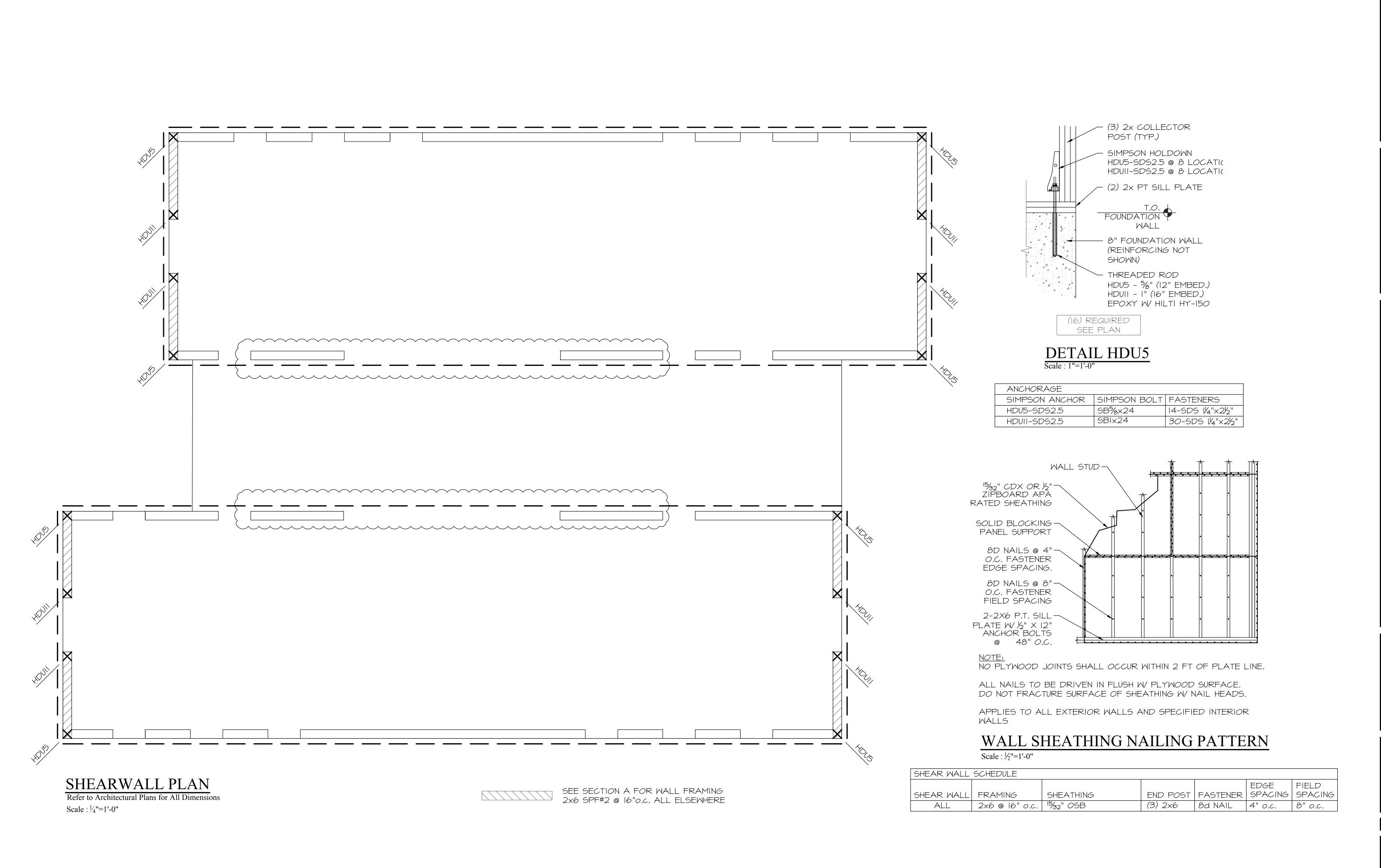
JAY II-09-2018

CHECKED BY:
AR II-09-2018

JOB #: 15-092
SCALE: AS NOTED
SHEET: 3 OF 6

**S**3

DRAWING:



REVISION HISTORYDATEDESCRIPTIONCHK8/23/2018PRELIMINARY9/20/2018REVISED PLANS9/28/2018REVISED PLANS10/11/2018REVISED PLANS11/09/2018REVISED PLANS

ENGINEERING
/il/Structural Engineering
& Surveying

Civil/Struc & 90 90 Portsn

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SHEAR W MADBURY I

PREPARED FOR:
MAYPENNYIMURPHY AR..
96 PENHALLOW ST.
PORTSMOUTH, NH 03801

DESIGNED BY:

JAY II-09-2018

DRAFTED BY:

JAY | |1-09-20|8 CHECKED BY: AR | |1-09-20|8

JOB #: 15-092
SCALE: AS NOTED
SHEET: 4 OF 6

DRAWING:

**S**4

### GENERAL NOTES:

SCOPE OF ENGINEERING SERVICE:

ROSS ENGINEERING IS ONLY RESPONSIBLE FOR THE STRUCTURAL DESIGN AND ENGINEERING AS SHOWN ON THESE DRAWINGS.

THE INTENT OF THIS DRAWING SET IS TO DEPICT THE STRUCTURAL MEMBERS REQUIRED. SEE ARCHITECTURAL DRAWINGS BY MANYPENNYIMURPHY ARCHITECTURE FOR ADDITIONAL INFORMATION.

### GENERAL:

- I. ALL WORK SHALL CONFORM TO THE FOLLOWING REFERENCE STANDARDS:
- \* "INTERNATIONAL BUILDING CODE" 2009 EDITION.
- \* "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES" ASCE 7-10.
- \* "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" ACI 301-05.
- \* "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" ACI 318-11. \* "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" - AF&PA NDS-2005
- 2. ALL CONTRACTORS SHALL VERIFY AND COORDINATE ALL DIMENSIONS AND DETAILS RELATED TO THIS PROJECT. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER PRIOR TO PROCEEDING WITH THE AFFECTED WORK. ANY CHANGES OR SUBSTITUTIONS OF MATERIALS OR DETAILS FROM THOSE INDICATED ON THE CONTRACT DOCUMENTS MAY BE MADE ONLY WITH PRIOR APPROVAL OF THE PROJECT ENGINEER
- 3. ALL CONTRACTORS SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, COORDINATION OF OTHER TRADES AND THE TECHNIQUES TO PRODUCE A SOUND AND QUALITY PROJECT. SHORING IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 4. ALL CONTRACTORS SHALL BE RESPONSIBLE FOR ALL JOB SAFETY DURING CONSTRUCTION INCLUDING BUT NOT LIMITED TO SHEETING, SHORING, AND GUYING STRUCTURES, BARRIERS AND
- 5. ALL DETAILS AND NOTES SHOWN ON THE CONTRACT DOCUMENTS SHALL BE CONSIDERED TYPICAL FOR ALL SIMILAR CONDITIONS EXCEPT WHERE SPECIFICALLY REQUIRED OTHERWISE.
- 6. NO MAIN FRAMING OR STRUCTURAL MEMBERS ARE TO BE MODIFIED, ALTERED, OR CUT WITHOUT THE APPROVAL OF THE PROJECT ENGINEER.

#### STRUCTURAL LOADS:

- I. LIVE LOADS
- PER INTERNATIONAL BUILDING CODE 2009 EDITION
- LIVING SPACE. 40 PSF - ATTIC SPACE (WITHOUT STORAGE) .. . IO PSF
- 2. SNOW LOADS
- PER INTERNATIONAL BUILDING CODE 2009 EDITION AND MINIMUM
- DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES ASCE 7-05
- GROUND SNOW LOAD. 50 PSF
- FLAT ROOF SNOW LOAD. 42 PSF (ADDITIONAL ALLOWANCES FOR DRIFTING AND SLIDING SNOW)

### **FOUNDATIONS:**

- FOUNDATION DESIGN IS BASED ON AN ASSUMED NET ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF. VARYING CONDITIONS MUST BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER PRIOR TO WORK BEING CARRIED OUT. IT IS RECOMMENDED THAT THE OWNER HIRE A CONSULTANT TO PERFORM SOIL BORINGS AND ASSOCIATED TESTING TO VERIFY THE ASSUMED VALUES. THE CONTRACTOR OR OWNER SHALL ASSUME ALL RESPONSIBILITY IF A GEOTECHNICAL ENGINEER IS NOT RETAINED.
- 2. FOUNDATIONS SHALL BE FOUNDED ON NATURALLY UNDISTURBED SOIL OR CONTROLLED STRUCTURAL FILL HAVING A NET ALLOWABLE BEARING CAPACITY OF 2000 PSF.
- 3. MAINTAIN CONTINUOUS CONTROL OF SURFACE AND SUBSURFACE WATER DURING CONSTRUCTION SUCH THAT FOUNDATION WORK IS IN DRY AND UNDISTURBED SUB-GRADE MATERIAL, AS APPLICABLE.
- 4. ALL FOOTINGS EXPOSED TO FROST TO BE PLACED AT A MINIMUM DEPTH OF 4'-O" BELOW FINISH GRADE. ANY DISCREPANCIES OR ADJUSTMENTS TO THE FOOTING ELEVATIONS TO BE BROUGHT TO THE PROJECT ENGINEER PRIOR TO PLACEMENT OF CONCRETE.
- 5. ALL FOOTINGS SHALL BE CENTERED UNDER SUPPORTED STRUCTURAL MEMBERS UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- 6. BACKFILL THE EXCAVATION WITH APPROVED GRANULAR MATERIAL PLACED IN 6 INCH LIFTS AND COMPACTED TO 95% DENSITY AT OPTIMUM MOISTURE CONTENT, AS DEFINED BY ASTM DI557, METHOD D AFTER BOTTOM OF EXCAVATION HAS BEEN APPROVED BY THE PROJECT
- 7. BACKFILL SHALL BE PLACED TO EQUAL ELEVATIONS ON BOTH SIDES OF FOUNDATION WALLS. WHERE BACKFILL IS ON ONE SIDE ONLY, WORK SHALL BE SHORED OR HAVE PERMANENT ADJACENT CONSTRUCTION IN PLACE BEFORE BACKFILLING.

### **CONCRETE NOTES:**

- CONCRETE WORK SHALL CONFORM TO THE FOLLOWING REFERENCE STANDARDS:
- \* "INTERNATIONAL BUILDING CODE" 2009 EDITION. \* "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS" - ACI 301-05.
- \* "COLD WEATHER CONCRETING" ACI-306.
- \* "DETAILING REINFORCING STEEL" ACI 315-05. \* "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" - ACI 318-11.
- \* "BUILDING CODE REQUIREMENTS FOR PLAIN CONCRETE" ACI 322-05.
- \* "FORMWORK" ACI 347-05.
- 2. COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 4000 PSI AFTER 28 DAYS. WITH A SLUMP SHALL OF 4" TO 6" AND IN ACCORDANCE WITH ASTM C143.
- 3. REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM A615 GRADE 60. EXCEPT TIES AND STIRRUPS MAY BE GRADE 40. WELDED WIRE FABRIC (W.W.F.) SHALL BE SHEETS ONLY, IN

ACCORDANCE WITH ASTM A185. LAP TWO SQUARES AT ALL JOINTS AND TIE AT 3'-O" ON

- 4. CEMENT MIXTURE FOR CONCRETE SHALL CONTAIN TYPE II CEMENT CONFORMING WITH ASTM-C 150. THE WATER CEMENT RATIO SHALL NOT EXCEED 0.45.
- 5. AGGREGATE SHALL BE SOUND AND COMFORM TO THE PROVISIONS OF ASTM C33. COARSE AGGREGATE SIZE SHALL NOT EXCEED 34". (NO. 67)
- 6. PLACING OF CONCRETE SHALL BE IN ACCORDANCE WITH ACI 304-05 AND SHALL BE A CONTINUOUS OPERATION AVOIDING ANY HORIZONTAL JOINTS. FORMWORK SHALL BE SMOOTH PLYWOOD FORMS FOR EXPOSED SLABS OR VERTICAL SURFACES. BOARD FORMS FOR FOOTINGS OR UNEXPOSED CONCRETE SURFACES. NO EARTH FORMS SHALL BE PERMITTED. ALL CONCRETE SHALL BE VIBRATED.
- 7. PLACE REINFORCING USING STANDARD BAR SUPPORTS TO PROVIDE PROPER CLEARANCE AND PREVENT DISPLACEMENT DURING CONCRETE OPERATIONS. LAP CONTINUOUS BARS 40
- 8. REINFORCING BARS SHALL BE PLACED IN ACCORDANCE WITH THE LATEST EDITION OF THE CRSI "RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS".
- 9. PROPERLY BRACE AND SHORE FORMWORK TO MAINTAIN ALIGNMENT AND TOLERANCES IN ACCORDANCE WITH ACI 347-05.
- IO. PROVIDE TWO #5 BARS EACH SIDE OF ALL OPENINGS IN WALLS AND SLABS. BARS TO EXTEND 24" BEYOND EDGE OF OPENINGS. (FOR SIZE AND LOCATION OF OPENINGS, SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS).

#### CONCRETE CONTINUED:

\* SLABS ON GRADE - I" FROM TOP

- MINIMUM CONCRETE COVER REQUIREMENTS OVER REINFORCING STEEL ARE AS FOLLOWS:
- \* FORMED CONCRETE EXPOSED TO EARTH, WEATHER, OR WATER 2"
- \* UNFORMED CONCRETE PLACED AGAINST THE EARTH 3"
- \* UNFORMED CONCRETE PLACED AGAINST VAPOR BARRIER 2"
- 12. DETAILS NOT SHOWN ON DRAWINGS SHALL BE IN ACCORDANCE WITH THE ACI DETAILING MANUAL (ACI 315-05).
- 13. CONTRACTOR TO NOTIFY THE OWNER'S ENGINEER 48 HOURS IN ADVANCE OF CONCRETE PLACEMENT SO THAT THE FORMWORK AND REINFORCING MAY BE INSPECTED PRIOR TO BEING
- 14. CONSULT PROJECT OWNER FOR SURFACE FINISHES REQUIRED FOR CONCRETE SLAB.
- 15. UNDERSLAB VAPOR BARRIER SHALL BE AS MANUFACTURED BY STEGO INDUSTRIES OR EQUAL CONSISTING OF IO MIL STEGO WRAP VAPOR BARRIER SEAMS SHALL BE OVERLAPPED A MINIMUM OF 6" AND TAPED WITH STEGO VAPOR BARRIER TAPE OR EQUAL AS REQ'D.
- 16. QUALITY CONTROL SPECIFICATIONS ARE AS FOLLOWS: \* CONTRACTOR SHALL MAKE PROVISIONS TO HAVE FOUR CYLINDERS CAST FOR
- EACH 50 CUBIC YARDS OR FOR ANY ONE DAYS OPERATION. \* TESTING LABORATORY SHALL BE RESPONSIBLE FOR MAKING AND CURING SPECIMENS IN CONFORMANCE TO ASTM C31 AND TESTING SPECIMENS IN ACCORDANCE WITH ASTM C29.
- \* ALL TESTING ASSOCIATED WITH CONCRETE SHALL BE IN ACCORDANCE WITH CHAPTER IT OF "INTERNATIONAL BUILDING CODE" - 2009 EDITION
- \* THE COSTS OF ALL TESTS AND INSPECTIONS SHALL BE THE RESPONSIBILITY OF THE OWNER.

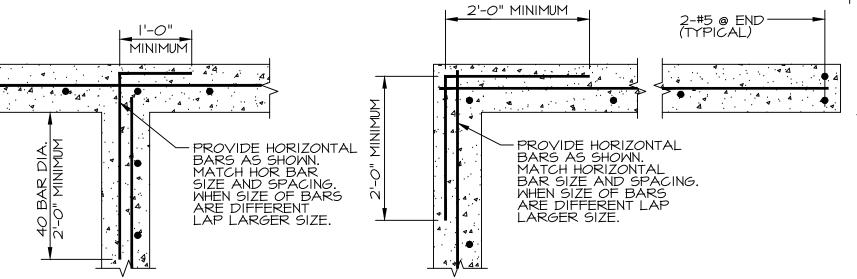
#### **WOOD FRAMING:**

- I. ALL WOOD FRAMING SHALL CONFORM TO THE FOLLOWING REFERENCE STANDARDS. \* "INTERNATIONAL BUILDING CODE - 2009 EDITION"
- \* "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION" AF&PA NDS-2005
- 2. ALL FRAMING MEMBERS SHALL BE No.1 / No. 2 OR BETTER SPRUCE-PINE-FIR WITH A MAXIMUM MOISTURE CONTENT OF 19% UNLESS NOTED OTHERWISE
- BASE DESIGN VALUES: Fb=875 (1,000 REP) PSI, Fv=70 PSI, E=1,400 KSI
- 3. ALL LUMBER AND PLYWOOD SHALL BE GRADE-STAMPED BY THE APPROPRIATE
- MANUFACTURER'S ASSOCIATION FOR THE APPROPRIATE USE. ROOF: 1/32" SQUARE EDGE PLYWOOD W/ FRAMING CLIPS
- FLOORS: 23/32" TONGUE & GROOVE PLYWOOD - WALLS: 15/32" PLYWOOD
- 4. ROOF AND WALL SHEATHING SHALL COMPLY WITH THE FOLLOWING:
- APA RATED SHEATHING, EXPOSURE I OR 2
- ROOF SHEATHING SHALL HAVE A 40/20 SPAN RATING
- ROOF SHEATHING SHALL HAVE (I) PANEL EDGE CLIP BETWEEN EACH SUPPORT A 1/8" EXPANSION GAP SHALL BE LEFT BETWEEN ALL PANELS AS REQUIRED BY APA
- SHEETS SHALL BE INSTALLED WITH FACE GRAIN PERPENDICULAR TO SUPPORTING MEMBERS
- 5. ALL WOOD IN CONTACT WITH CONCRETE, MASONRY, OR EARTH SHALL BE PRESSURE TREATED (PT) WITH A CCA-C 0.40 PROCESS.
- 6. ALL FRAMING SHALL BE PLUMB, TRUE, AND ADEQUATELY BRACED SUCH THAT THE STRUCTURE IS RIGID AND BEARS FULLY WITHOUT THE USE OF SHIMS.
- SPIKE TOGETHER ALL FRAMING MEMBERS WHICH ARE BUILT UP WITH 16d NAILS AT 16" O.C. MAX. UNLESS NOTED OTHERWISE. PROVIDE PLYMOOD FILLERS BETWEEN 2x MEMBERS TO MATCH
- 8. PROVIDE A MINIMUM OF TWO 2x STUDS AT THE END OF ALL BUILT-UP 2x BEAMS AND LVL BEAMS, UNLESS NOTED OTHERWISE.
- 9. CORNERS OF EXTERIOR WALLS SHALL HAVE A MINIMUM OF (3) 2x STUDS
- 10. PROVIDE SOLID BLOCKING UNDER ALL CONCENTRATED LOADS. PROVIDE CONTINUITY TO TOP OF FOUNDATION WALL OR FOOTING.
- II. PROVIDE A DOUBLE TOP PLATE FOR ALL EXTERIOR WALLS W/ SPLICES STAGGERED BY 4'-O"
- 12. NON-STRUCTURAL INTERIOR WALLS SHALL BE CONSTRUCTED w/ 2x4 STUDS.
- 13. ENGINEERED LUMBER PRODUCTS SHALL BE MANUFACTURED BY BOISE CASCADE OR APPROVED EQUAL, INCLUDING ALL I-JOISTS AND LVL'S. ALL BOISE CASCADE PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS AND STANDARD DETAILS AS PUBLISHED BY BOISE CASCADE.
- BASE DESIGN VALUES: 134" WIDE VERSA-LAM BEAMS GRADE 3100 Fb SP:
  - \* Fb=3,100 PSI \* Fv=285 PSI
- \* E=2,000 KSI 31/2' AND WIDER VERSA-LAM BEAMS GRADE 3100 Fb SP:
- \* Fb=3,100 PSI
- \* Fv=285 PSI \* E=2,000 KSI
- VERSA-LAM COLUMNS GRADE 3100 Fb SP: \* Fb=3,100 PSI
- \* FcII=3,000 PSI
- \* E=1,800 KSI
- 14. FASTENERS SHALL COMPLY WITH THE FOLLOWING:
- NAILS SHALL BE COMMON WIRE NAILS, GALVANIZED @ EXPOSED FRAMING BOLTS, NUTS AND WASHERS SHALL BE ASTM A-307, HOT DIP GALVANIZED AT EXTERIOR
- EXPOSED FRAMING CONFORMING TO ASTM A153 METAL CONNECTORS SHALL BE AS MANUFACTURED BY SIMPSON OR APPROVED EQUAL
- STAINLESS STEEL NAILS FOR ATTACHING EXTERIOR TRIM AND SIDING

15. PLYWOOD SHALL BE NAILED AT 6" OC AT ALL JOINTS AND EDGES & AT IO" OC AT OTHER

- ALL WOOD MEMBERS TO BE NAILED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE - 2009 EDITION APPENDIX C
- SUPPORTS. PLYWOOD SUB-FLOORS SHALL BE GLUED TO JOISTS, BEFORE NAILING WITH CONSTRUCTION ADHESIVE. 16. LIGHTWEIGHT RESIDENTIAL LALLY COLUMNS - 31/2" OUTER DIAMETER 16 GAGE STEEL PIPE
- CONFORMING TO ASTM A513 FILLED WITH CONCRETE HAVING A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS. (UNLESS OTHERWISE NOTED.)
- 17. PROVIDE DOUBLE JOISTS UNDER PARALLEL PARTITION WALLS AT ALL FLOORS UNLESS OTHERWISE NOTED.
- 18. NEW PRESSURE TREATING PROCESSES REQUIRED FOR WOOD ARE HIGHLY CORROSIVE. SEE NOTE 5. AND MANUFACTURER'S RECOMMENDATIONS FOR FASTENING TO PT WOOD.

### TYPICAL CONCRETE WALL DETAIL WITH SINGLE LAYER REINFORCING



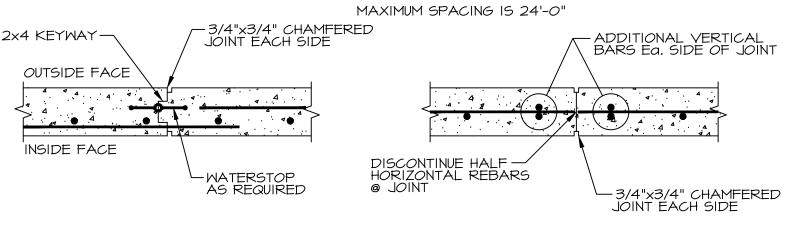
**CORNER DETAIL** 

## **CONSTRUCTION JOINT** AT CONCRETE WALL

INTERSECTION DETAIL

### CONTROL JOINT W/ SINGLE REINFORCING AT CONCRETE WALL

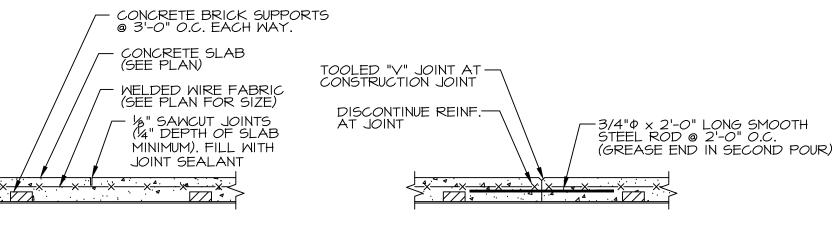
END WALL DETAIL



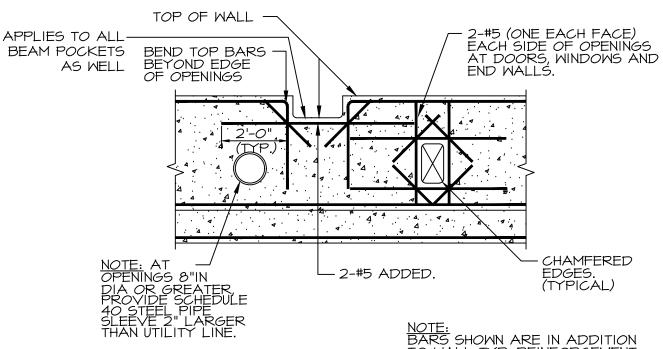
### TYPICAL CONCRETE SLAB CONTROL JOINT DETAIL

### TYPICAL CONCRETE SLAB CONSTRUCTION JOINT DETAIL

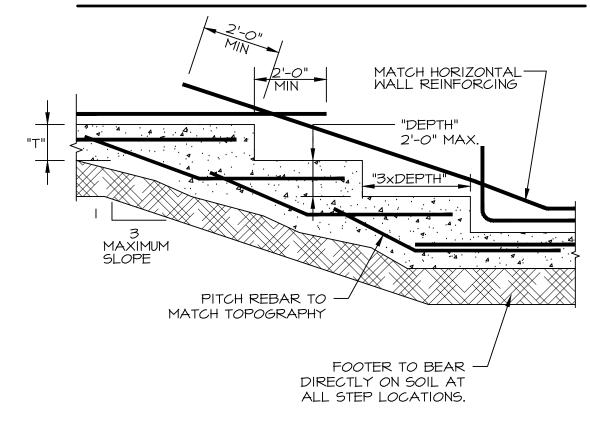
TO WALL TYP. REINFORCEMENT



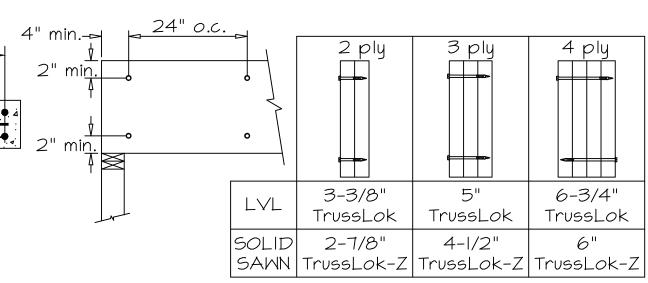
### TYPICAL ADDITIONAL REINFORCING AT OPENINGS AND BREAKS IN CONCRETE WALLS



### TYPICAL STEPPED FOOTING DETAIL



### BUILT UP BEAM DETAIL

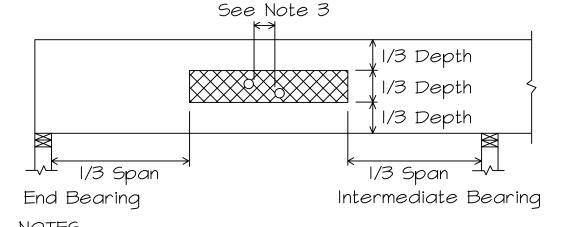


one side of multi-ply Versa-Lam beams.

- All TrussLok screws may be installed from

- Bring underside of washer-head flush with wood surface. Do not countersink.

## ALLOWABLE HOLES IN LVL BEAMS



1. Square and rectangular holes are NOT permitted.

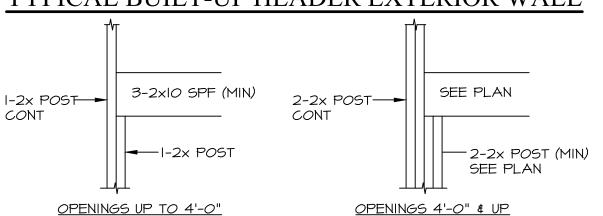
- 2. Round holes may be drilled or cut with a hole saw anywhere within the hatched area of the beam.
- 3. The horizontal distance between adjacent holes must be at least two times the diameter of the larger hole.
- 4. Do not drill more than three access holes in any four foot long section of beam.

5. The maximum round hole	diameter p	ermitted is:	
Beam Depth	5 1/2"	7 1/4"	9 1/4" +
Maximum Hole Diameter	3/4"		2"

- 6. These limitations apply to holes drilled for plumbing or wiring access only. The size and location of holes drilled for fasteners are governed by the provisions of the National Design Specification of for Wood Construction.
- clearance where required. 8. This hole chart is valid for beams supporting uniform load only. For beams supporting concentrated loads or for beams with larger holes, contact Boise P EMP Engineering.

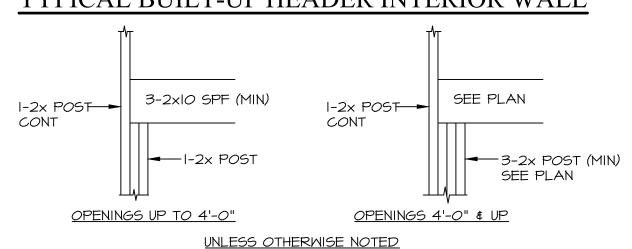
Beams deflect under load. Size holes to provide

### TYPICAL BUILT-UP HEADER EXTERIOR WALL

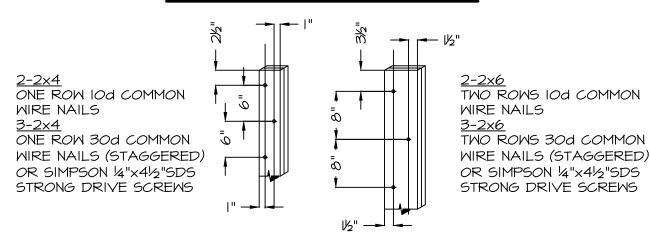


UNLESS OTHERWISE NOTED

## TYPICAL BUILT-UP HEADER INTERIOR WALL



### TYPICAL BUILT-UP POST



ROSS
INEER

Ictural Eng

Surveying

Surveying

Surveying

Surveying

Surveying

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PREPARED FOR: MAYPENNYIMURPHY AF 96 PENHALLOW ST. PORTSMOUTH, NH 0380

DESIGNED BY: 11-09-2018 DRAFTED BY: 11-09-2018 CHECKED BY: 11-09-2018

JOB #: 15-092

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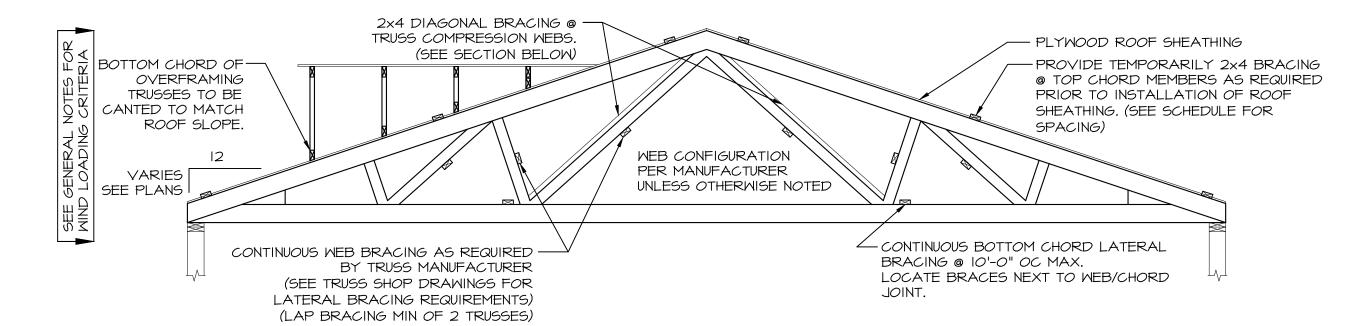
DRAWING:

SCALE:

SHEET

#### PRE-ENGINEERED WOOD TRUSSES:

- I. ALL PRE-ENGINEERED WOOD TRUSS WORK SHALL CONFORM TO REFERENCE STANDARDS:
- \* "INTERNATIONAL BUILDING CODE" 2009 EDITION. \* "TRUSS PLATE INSTITUTE (TPI) PUBLICATION HIB-91"
- \* "BUILDING COMPONENT SAFETY INFORMATION (BCSI)" 2008 EDITION
- 2. ALL WOOD ROOF TRUSSES SHALL BE DESIGNED AND MANUFACTURED BY BOISE STRUCTURAL SOLUTIONS OF BIDDEFORD, MAINE, OR APPROVED EQUAL. ALL ASSOCIATED CONNECTION HARDWARE FOR TRUSSES SHALL ALSO BE DESIGNED AND SUPPLIED BY TRUSS MANUFACTURER. TRUSS DESIGNS ARE TO BE STAMPED BY A REGISTERED PROFESSIONAL ENGINEER RETAINED BY MANUFACTURER. CALCULATIONS AND SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO START OF PRODUCTION.
- 3. ALL WOOD TRUSSES SHALL BE BRACED IN ACCORDANCE WITH THE MANUFACTURER'S REQUIREMENTS AND IN ACCORDANCE WITH TRUSS PLATE INSTITUTE (TPI) PUBLICATION HIB-91 FOR BRACING WOOD TRUSSES. PROPER BRACING OF WOOD TRUSSES DURING ERECTION IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
- 4. MINIMUM GRADE FOR ANY TRUSS MEMBER SHALL BE #2.
- 5. WOOD TRUSS MANUFACTURER SHALL CLEARLY LABEL ALL COMPRESSION WEBS WHICH REQUIRE LATERAL BRACING WITH RED TAGS OR PAINT. FAILURE TO LABEL WILL REQUIRE IN-PLACE LABELING BY TRUSS MANUFACTURER.
- 6. WOOD TRUSS MANUFACTURER SHALL MAINTAIN A MAXIMUM PANEL POINT SPACING OF 10 FT. UNLESS WRITTEN APPROVAL FOR A MODIFICATION IS RECEIVED FROM ENGINEER.
- 7. ROOF TRUSSES SHALL BE DESIGNED FOR:
- TOP CHORD LIVE LOAD .... ..50 PSF OR CONTROLLING SNOW LOAD
- TOP CHORD DEAD LOAD. BOTTOM CHORD LIVE LOAD AT ATTIC SPACE WITHOUT STORAGE.
- BOTTOM CHORD LIVE LOAD AT ATTIC SPACE WITH STORAGE .... BOTTOM CHORD DEAD LOAD ..... ..IO PSF
- NOTE: ATTIC SPACE <u>WITH</u> STORAGE IS CONSIDERED ALL AREAS CAPABLE OF CONTAINING A 42"x24" RECTANGLE IN THE PLANE OF THE TRUSS PER IRC 2009 TABLE R301.5 FOOTNOTE G.
- 8. WOOD TRUSS LAYOUT DRAWINGS SHALL BE PREPARED ON 24"X36" SHEETS AND CLEARLY LABEL ALL TRUSSES AND CONNECTORS. SHOP DRAWINGS MUST INCLUDE THE FOLLOWING INFORMATION: MEMBER SPECIES AND GRADE; MEMBER FORCES; MEMBER CSI RATIOS; ACTUAL DL AND LL DEFLECTIONS; REACTIONS; CONNECTOR PLATE REQUIREMENTS AND SIZES.
- 9. OVERBUILD TRUSSES SHALL HAVE BOTTOM CHORDS BEVEL CUT TO MATCH THE SLOPE OF THE SUPPORTING ROOF.
- IO. ROOF TRUSSES SHALL BE DESIGNED FOR A MAXIMUM LIVE LOAD DEFLECTION CRITERIA OF L/480.
- II. THE "MINIMUM" MEMBER SIZE USED IN ANY ROOF TRUSS SHALL BE A 2X4. THE MINIMUM "PLATE" SIZE USED ON ANY ROOF TRUSS CONNECTION SHALL BE 3"X4", REGARDLESS OF DESIGN REQUIREMENT.
- 12. CONNECTOR PLATES SHALL BE NOT LESS THAN 0.036 INCHES (20 GAUGE) IN COATED THICKNESS, SHALL MEET OR EXCEED ASTM GRADE A OR HIGHER AND SHALL BE HOT DIPPED GALVANIZED ACCORDING TO ASTM A-525 (COATING G60). MINIMUM STEEL YIELD STRESS SHALL BE 33,000 PSI.
- 13. TRUSS MANUFACTURER SHALL BE ACCEPTABLE TO THE ENGINEER. CONTRACTOR SHALL QUALIFY MANUFACTURERS WITH ENGINEER PRIOR TO BIDDING. TRUSSES SHALL BE FABRICATED IN A PROPERLY EQUIPPED MANUFACTURING FACILITY OF A PERMANENT NATURE. TRUSSES SHALL BE MANUFACTURED BY EXPERIENCED WORKMEN, USING PRECISION CUTTING, JIGGING AND PRESSING EQUIPMENT UNDER THE REQUIREMENTS IN QUALITY CONTROL STANDARD QST-88 OF THE TRUSS PLATE INSTITUTE.
- 14. ERECTION BRACING OF WOOD TRUSSES IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. THIS IS MEANS AND METHODS. FOLLOW TPI PUBLICATION HIB-91 STRICTLY IN ADDITION TO WEB BRACING REQUIREMENTS SHOWN ON TRUSS SHOP DRAWINGS. CONSULT TRUSS MANUFACTURER OR INDEPENDENT ENGINEER IF FURTHER DESIGN ASSISTANCE IS NEEDED.
- 15. ALL LATERAL BRACING INSTALLED ON COMPRESSION WEBS OF TRUSSES, AS DIRECTED BY MANUFACTURER, MUST HAVE CROSS BRACING INSTALLED ON SAME WEB PLANE AT INTERVALS SHOWN ON THESE DRAWINGS AND HIB-91 FRAME 4. NOTE THAT ALTHOUGH FRAME 4 SUGGESTS THIS CROSS BRACING IS TEMPORARY, IT IS ALSO REQUIRED PERMANENT BRACING TO PREVENT WEBS FROM BUCKLING AS A GROUP. WHERE DIAGONAL BRACES CROSS, INTERRUPT ONE BRACE AND ADD A 4-FT. LONG 2X4 SPLICE OVER THE INTERRUPTED BRACE AND USE (8) IOd NAILS ON EACH SIDE. AS AN ALTERNATE, VEE OR CHEVRON BRACING CAN BE INSTALLED USING THE SAME QUANTITY OF DIAGONAL MEMBERS, WHICH ELIMINATES THE NEED FOR THE SPLICE. IN THE EVENT THAT TEE-BRACING OR STRONGBACKS ARE USED INSTEAD OF CONTINUOUS LATERAL BRACING, THE CROSS BRACING IS THEN ONLY A TEMPORARY ERECTION STABILITY REQUIREMENT. CONTINUOUS LATERAL BRACING MUST, HOWEVER, BE LOCATED ON TOP AND BOTTOM CHORDS ABOVE AND BELOW CROSS BRACING FOR TEMPORARY CROSS BRACING TO BE EFFECTIVE.
- 16. TRUSS MANUFACTURER SHALL ATTEMPT TO ALIGN ADJACENT TRUSS WEBS TO ALLOW INSTALLATION OF LATERAL BRACING. A MINIMUM OF 6 ADJACENT WEBS MUST ALIGN, OTHERWISE MANUFACTURER SHALL SPECIFY TEE-BRACING INSTEAD.
- 17. DO NOT USE HINGED FALSE TOP CHORDS WHERE OR PIGGYBACKS ARE REQUIRED FOR SHIPPING HEIGHTS. USE PIGGYBACKS OVER 2X4 PURLINS AT 24" O/C WITH DIAGONAL BRACING APPLIED TO THE TOP CHORD PLANE.
- 18. TRUSS MEMBERS AND COMPONENTS SHALL NOT BE CUT, NOTCHED, DRILLED, AND NOT OTHERWISE ALTERED IN ANY WAY WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
- 19. SUBMIT COMPLETE SHOP DRAWINGS FOR ALL WOOD TRUSSES SHOWING MEMBER SIZES, SPECIES, GRADE, MOISTURE CONTENT, SPAN, CAMBER, DIMENSIONS, CHORD PITCH, BRACING REQUIREMENTS AND LOADINGS. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER AND SHALL BEAR THE SEAL OF A PROFESSIONAL ENGINEER REGISTERED IN NEW HAMPSHIRE.



TRUSS ELEVATION

I. REFER TO THE BUILDING COMPONENT SAFETY INFORMATION (BCSI) SUMMARY SHEET FOR ERECTION BRACING REQUIREMENTS.

2. REFER TO THE ROOF FRAMING DRAWINGS AND THE TRUSS MANUFACTURER'S SHOP DRAWINGS FOR SPECIFIC BRACING REQUIREMENTS AND LOCATIONS.

3. ALL TEMPORARY AND PERMANENT BRACING SHALL BE NO LESS THAN 2x4 GRADE MARKED LUMBER. ALL CONNECTIONS SHALL BE MADE WITH A MINIMUM 2-16d NAILS.

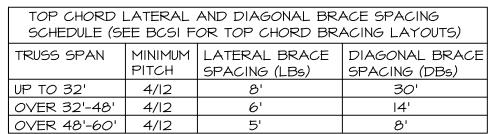
4. ALL TRUSSES ARE ASSUMED TO BE 24" OC OR LESS.

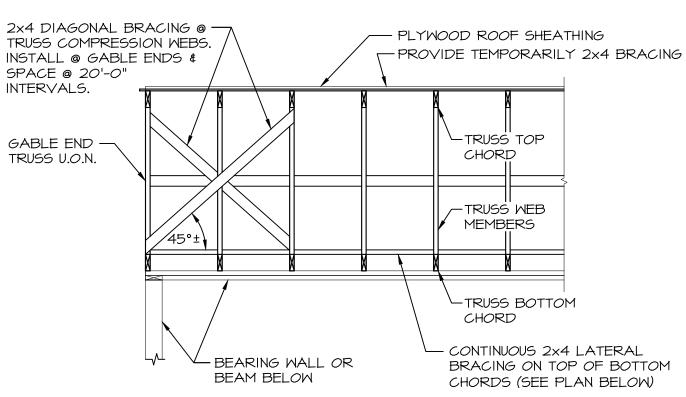
5. ALL MULTI-PLY TRUSS MEMBERS SHALL BE CONNECTED TOGETHER IN ACCORDANCE WITH TRUSS MANUFACTURERS REQUIREMENTS PRIOR TO INSTALLATION.

6. THE TYPICAL TRUSS BRACING DETAILS INCLUDE SOME OF THE BRACING REQUIREMENTS FOR WOOD ROOF TRUSSES. THE TYPICAL DIAGRAMS DO NOT REFLECT PARTICULAR DETAILS OF THIS PROJECT, SUCH AS ROOF SLOPE, WEB CONFIGURATION, OVERHANGS, ROOF LOADS, ETC.

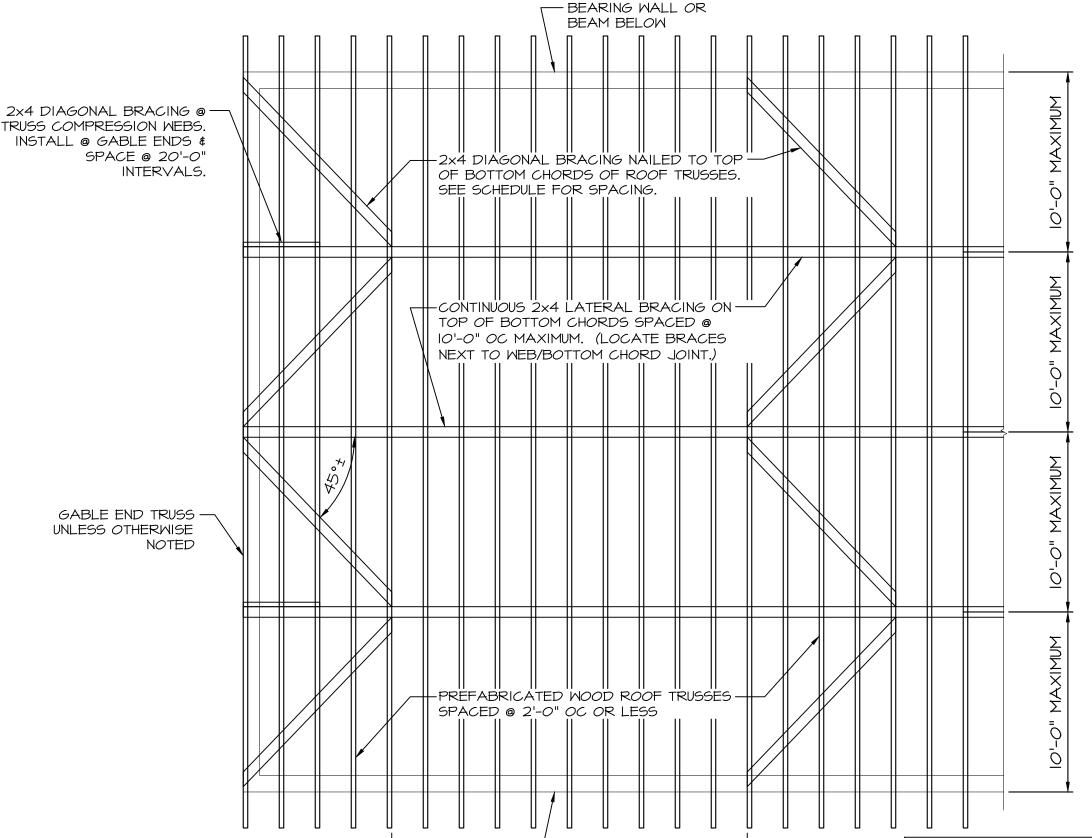
7. TRUSS SHOP AND ERECTION DRAWINGS SHALL BE STAMPED BY A REGISTERED ENGINEER OF THE STATE OF NEW HAMPSHIRE AND SUBMITTED FOR APPROVAL.

8. TRUSS LOADING & CONFIGURATION FOR SUPPORT STRUCTURE HAVE BEEN ASSUMED. TRUSS MANUFACTURED TO SUBMIT FINAL STAMPED LOADING TO ENGINEER TO CONFIRM ASSUMPTION.





SECTION @ TRUSSES



GENERAL CONTRACTOR SHALL BE FAMILAR WITH AND STRICTLY ADHERE TO PUBLICATION BCSI 2008 SUMMARY SHEETS, WHICH IS TYPICALLY DELIVERED WITH THE TRUSS PACKAGE.

NOTE: COMPRESSION WEB BRACING REQUIREMENTS ARE SHOWN ONLY ON THE INDIVIDUAL TRUSS COMPONENTS SHOP DRAWINGS WHICH ARE ALSO DELIVERED WITH THE TRUSSES.

THE BRACING DETAILS SHOWN HERE ARE A GENERAL LAYOUT OF SOME OF THE BRACING REQUIRED. ASSURE THAT ALL TRUSS MANUFACTURERS BRACING SPECIFICATIONS ARE REVIEWED AND INSTALLED.

BEARING WALL OR BEAM BELOW SEE SCHEDULE

BOTTOM CHORD BRACING PLAN TYPICAL TRUSS BRACING DETAILS SCALE: N.T.S.

BOTTOM CHORD DIAGONAL BRACE SPACING SCHEDULE TRUSS SPAN

MINIMUM | DIAGONAL BRACE PITCH SPACING (DBs) UP TO 32' 4/12 30' OVER 32'-48' 4/12 14' OVER 48'-60' | 4/12

ROSS
GINEERING
Structural Enginee
& Surveying
909 Islington C.

X X B

DB NE

**VER** 

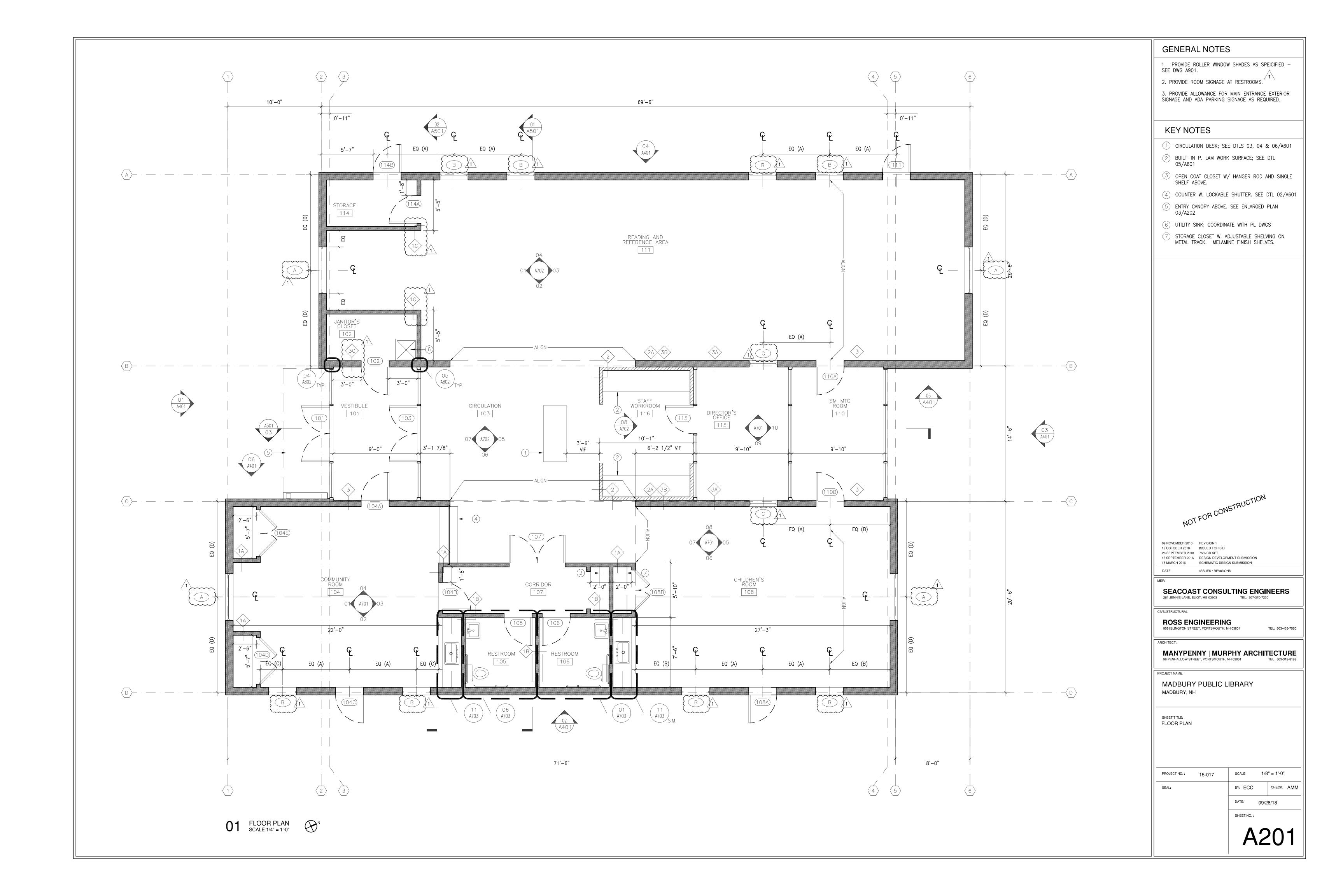
PREPARED FOR: MAYPENNYIMURPHY AF 96 PENHALLOW ST. PORTSMOUTH, NH 0380

DESIGNED BY: 11-09-2018 DRAFTED BY: 11-09-2018

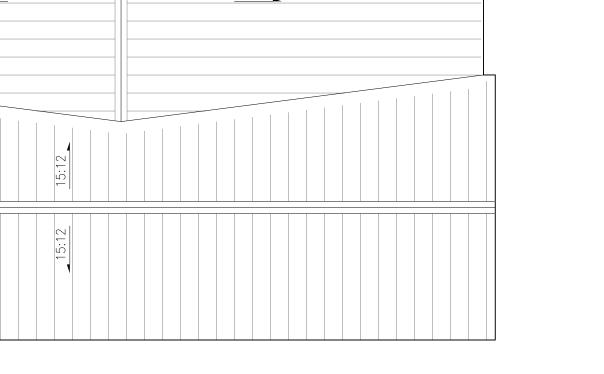
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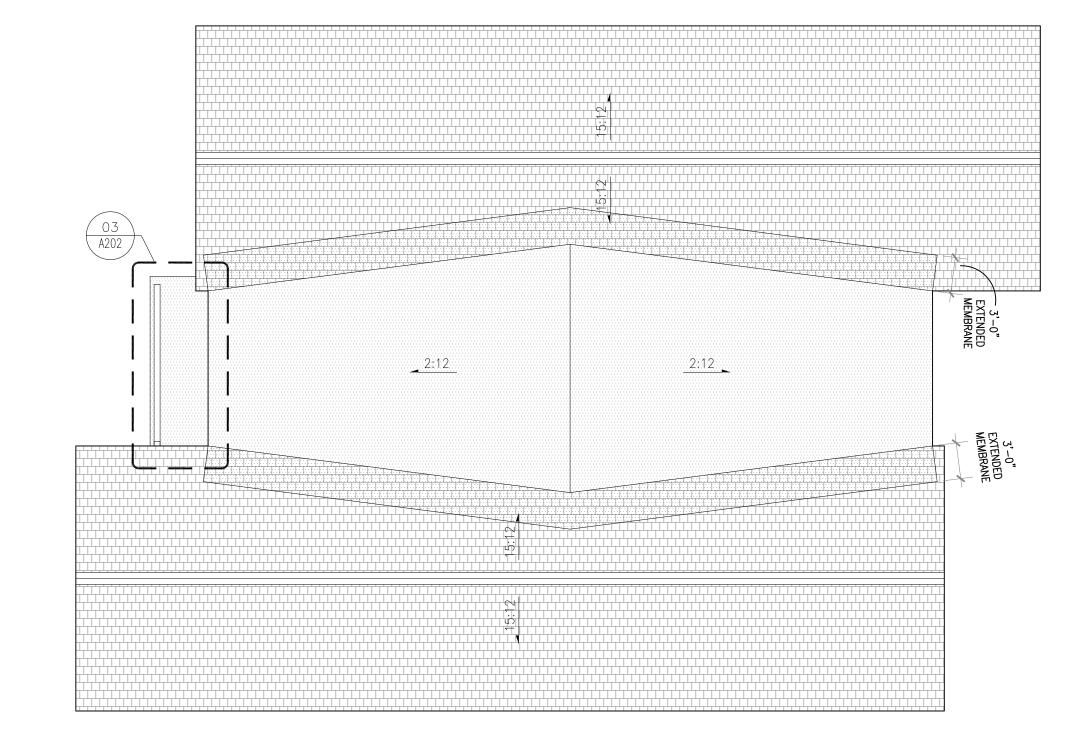
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DRAWING:

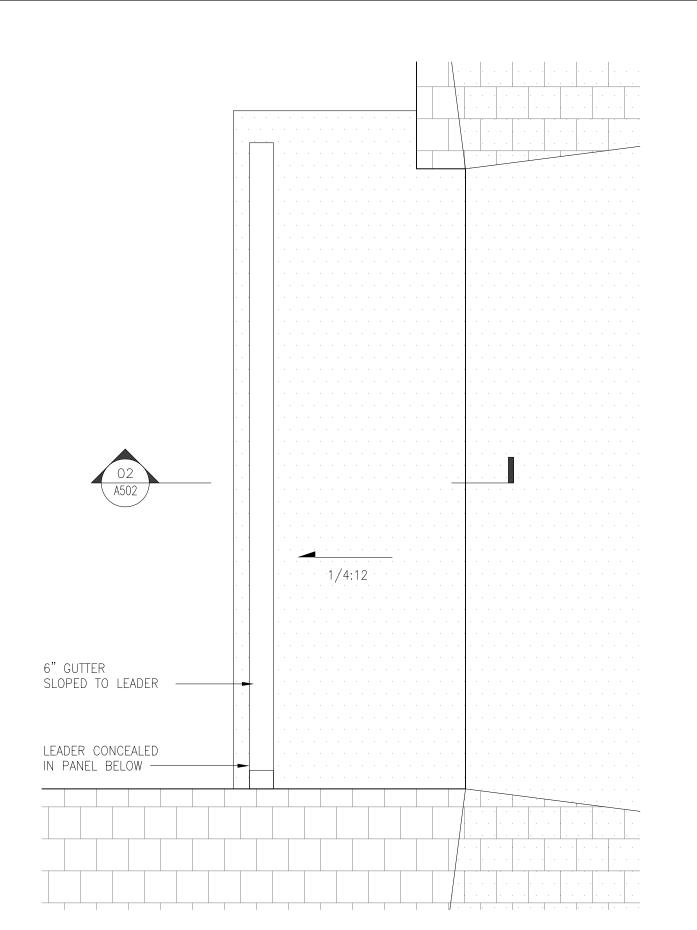


ROOF PLAN - ADD ALTERNATE SCALE 1/8" = 1'-0"





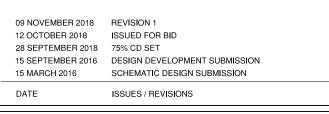
# O3 ENLARGED CANOPY PLAN SCALE 1/2" = 1'-0"



### ADD ALTERNATE 1

BASE BID: PROVIDE ARCHITECTURAL ASPHALT SHINGLES AT 15:12 PITCH AND FULLY ADHERED SARNAFIL DECOR MEMBRANE ROOF LEAD GRAY AT 2:12 PITCH, 3 FOOT EXTENSION TURNED UP 15:12 PITCH AT TRANSITION, AND AT CANOPY.

ADD ALT: PROVIDE FIELD—LOK OR SIMILAR 2" STANDING SEAM METAL ROOF FOR ALL ROOFING. PROVIDE SNOW CLEATS AT 15:12.



# SEACOAST CONSULTING ENGINEERS 261 JENNIE LANE, ELIOT, ME 03903 TEL: 207-370-7230

## ROSS ENGINEERING 909 ISLINGTON STREET, PORTSMOUTH, NH 03801

# MANYPENNY | MURPHY ARCHITECTURE 96 PENHALLOW STREET, PORTSMOUTH, NH 03801 TEL: 603-319-8199

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MADBURY, NH

SHEET TITLE: ROOF PLAN

PROJECT NO. :	15-017	SCALE:	1/8" = 1'-0"
SEAL:		BY: ECC	снеск: АММ
		DATE: 09	/28/18
		SHEET NO.:	

# ROOF PLAN - BASE BID SCALE 1/8" = 1'-0"



RCP NOTES

1. LIGHT FIXTURES SHOWN ON RCP ARE FOR LOCATION ONLY; SEE ELECTRICAL DRAWINGS FOR LIGHT FIXTURE SCHEDULE. COORDINATE FINAL LOCATION WITH ARCHITECT

2. DIFFUSER/GRILLE LOCATIONS SHOWN ON RCP ARE FOR LOCATION ONLY; SEE MECHANICAL DRAWINGS FOR DIFFUSER AND EQUIPMENT SCHEDULE. COORDINATE FINAL LOCATIONS WITH ARCHITECT IN FIELD.

3. PROVIDE FLUSH MOUNT ACCESS PANEL AT HEATING/

SEACOAST CONSULTING ENGINEERS

TEL: 603-433-7560

MANYPENNY | MURPHY ARCHITECTURE 96 PENHALLOW STREET, PORTSMOUTH, NH 03801 TEL: 603-319-8199

VARIES BY: ECC CHECK: AMM DATE: 08/199/28/18



### GENERAL NOTES

1. COORDINATE LOCATION OF EXTERIOR VENTS, LIGHTS, UTILITY METERS AND OTHER EQUIPMENT WITH ARCHITECT BEFORE INSTALLATION.

### **KEY NOTES**

- PAINTED BORAL TRUEXTERIOR 1x6 NICKEL GAP SIDING MITERED AT ALL OUTSIDE CORNERS, SMOOTH FINISH; ALIGN REVEAL OF SIDING WITH TOP OF WINDOW/ DOOR OPENINGS.
- 2 PAINTED BORAL TRUEXTERIOR 1x8 TRIM, SMOOTH FINISH TO EXTERIOR.
- (3) PAINTED 5/4 BORAL TRUEXTERIOR TRIM.
- 4 KYNAR FINISH ALUMINUM TRIM; COLOR TO MATCH STOREFRONT.
- (5) ENTRY CANOPY; SEE ENLARGED PLAN 03/A202.
- (6) ASPHALT SHINGLE ROOFING.
- (7) SARNAFIL DECOR MEMBRANE ROOFING.
- (8) EXTERIOR EXHAUST VENT; SEE MECHANICAL DWGS.
- 9 EXTERIOR EMERGENCY LIGHTING; SEE ELECATRICAL DWGS.
- 10 ALIGN ASPHALT AND MEMBRANE ROOF EDGE HEIGHTS.
- (1) KNOX BOX; SEE ELECTRICAL DWGS.
- 12) PUSH BUTTON FOR AUTOMATIC DOOR OPENER.
- 3 SARNAFIL DECOR MEMBRANE ROOFING.
- PROPOSED LOCATION FOR UTILITY METERS AND ASSOCIATED EQUIPMENT; COORDINATE WITH ARCHITECT.



12 OCTOBER 2018 ISSUED FOR BID
28 SEPTEMBER 2018 75% CD SET
15 SEPTEMBER 2016 DESIGN DEVELOPMENT SUBMISSION
15 MARCH 2016 SCHEMATIC DESIGN SUBMISSION

ISSUES / REVISIONS

## SEACOAST CONSULTING ENGINEERS 261 JENNIE LANE, ELIOT, ME 03903 TEL: 207-370-7230

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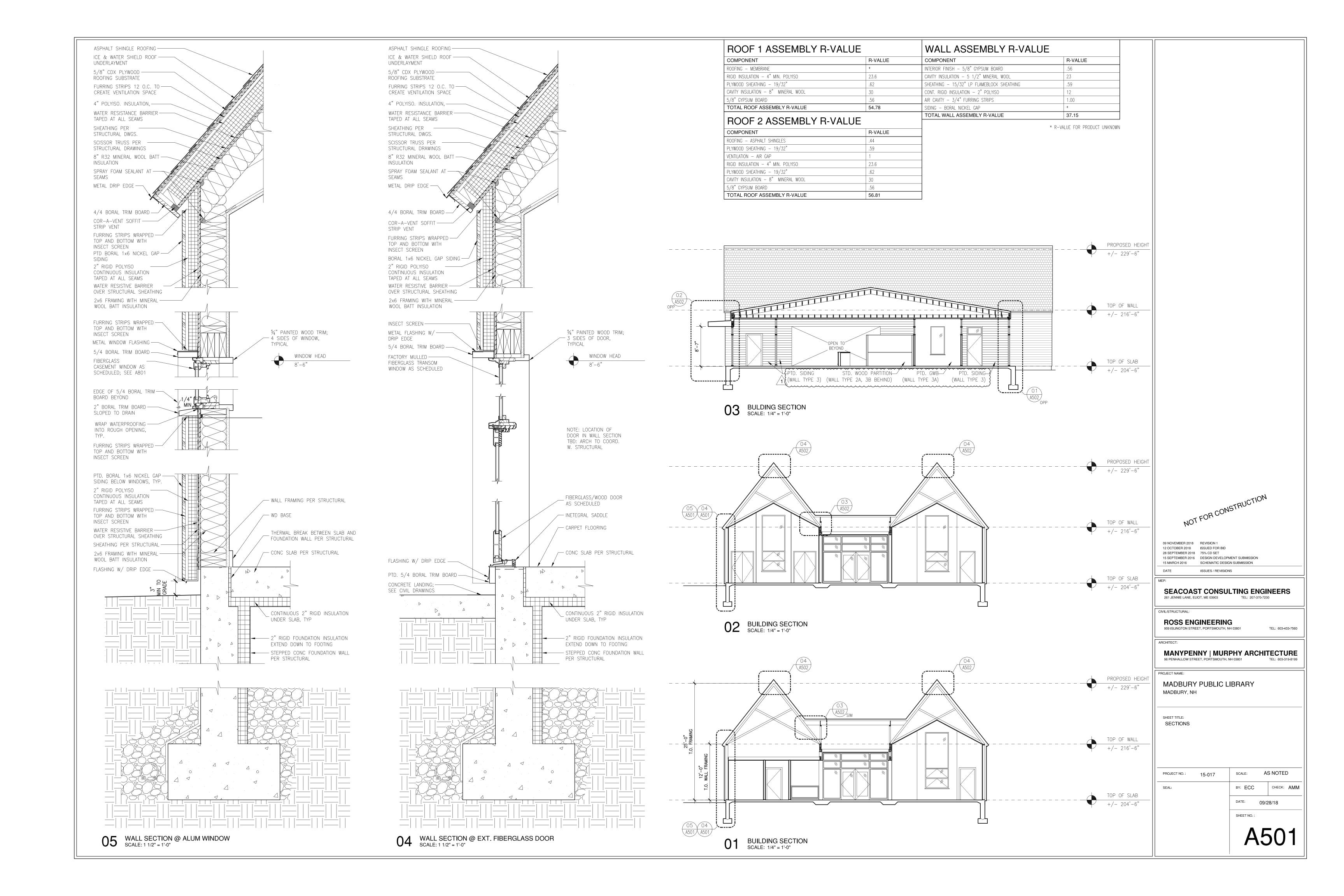
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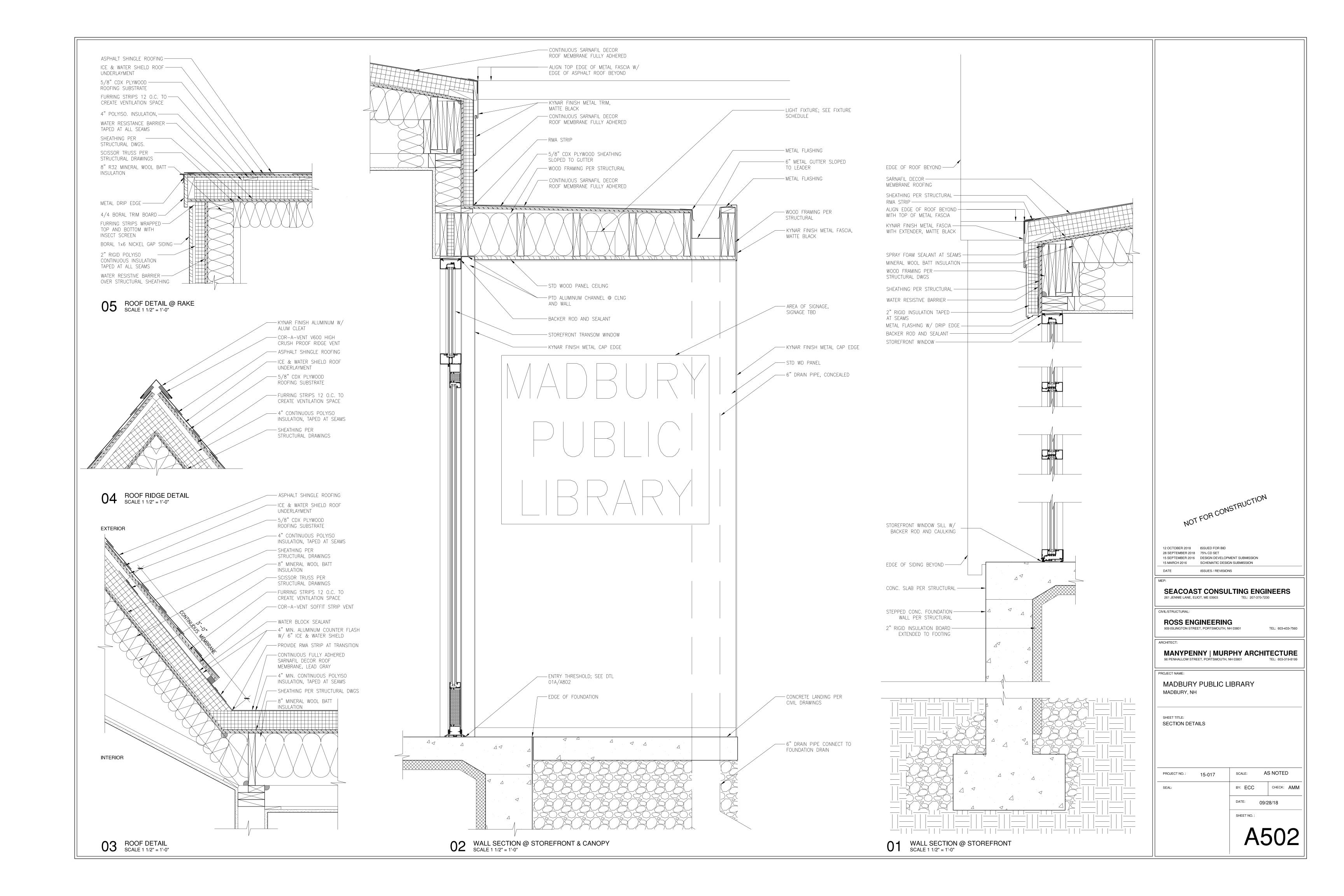
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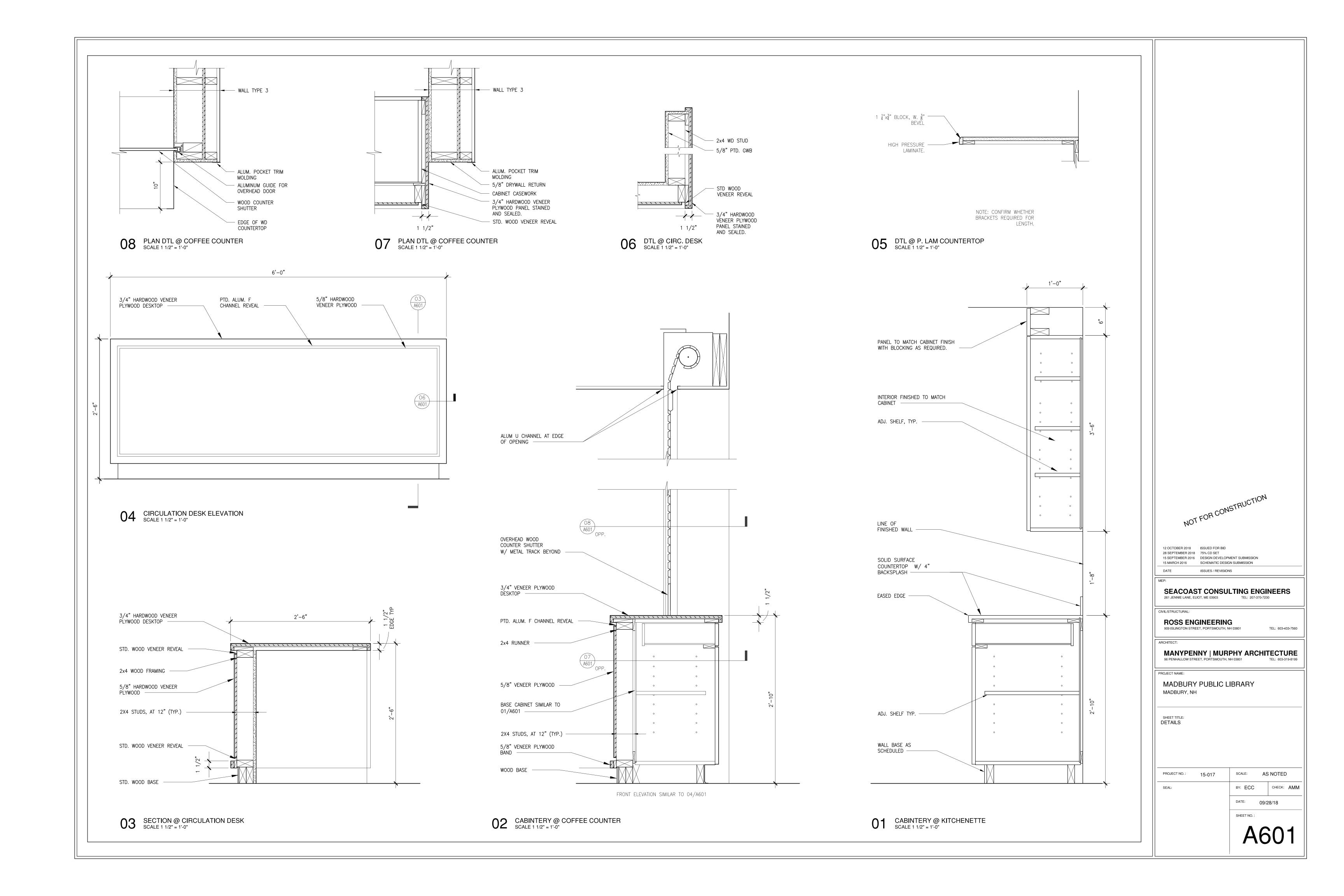
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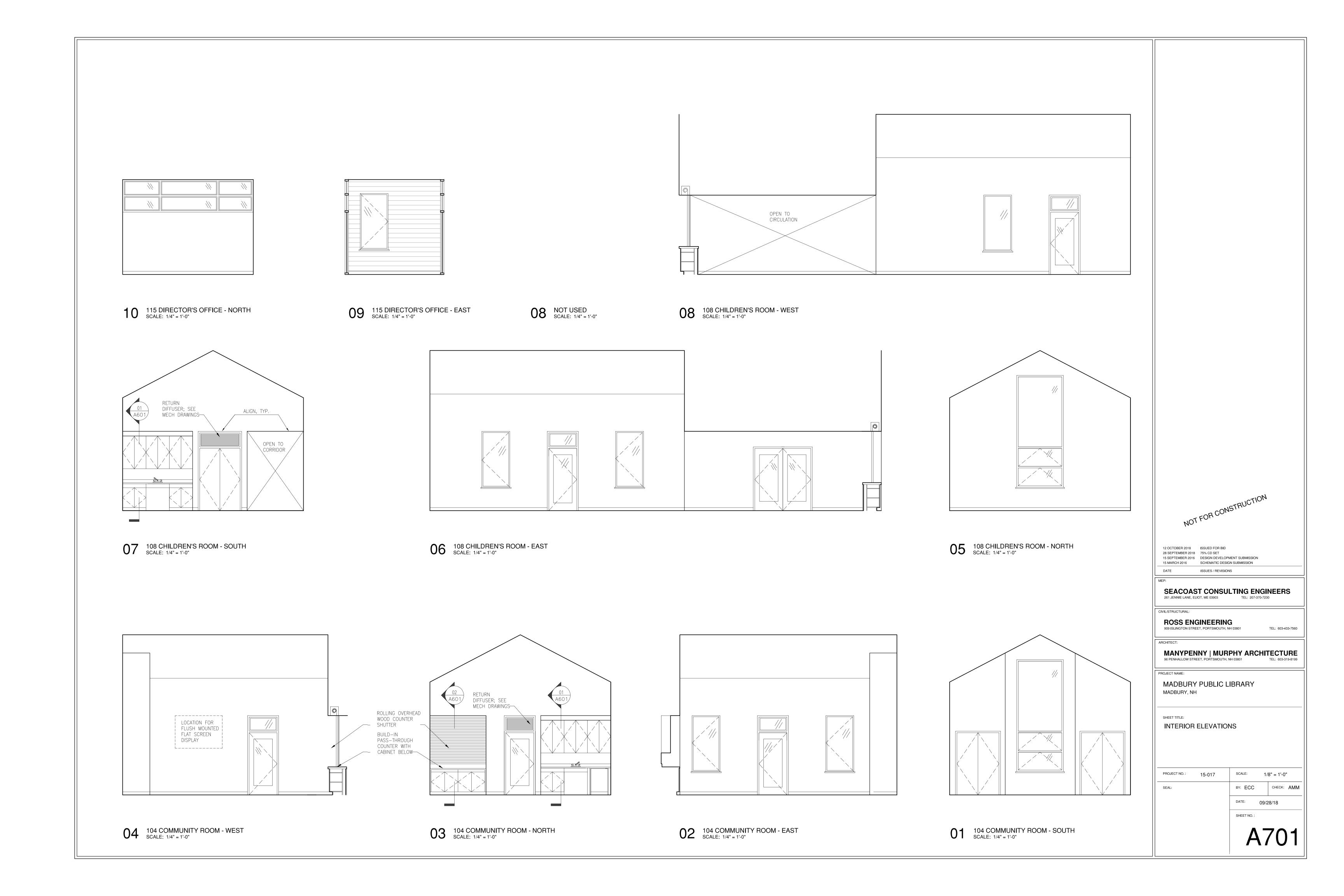
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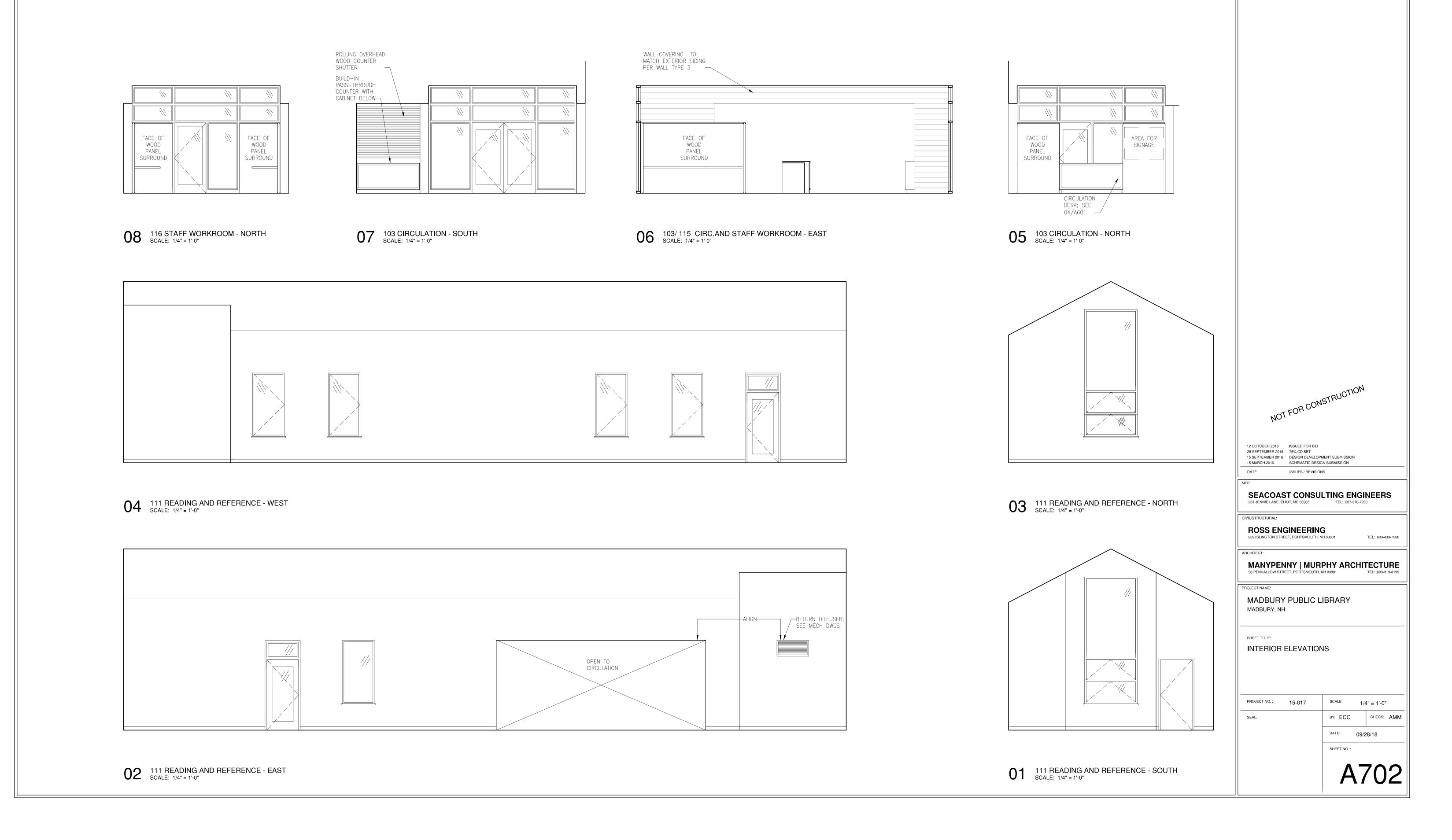
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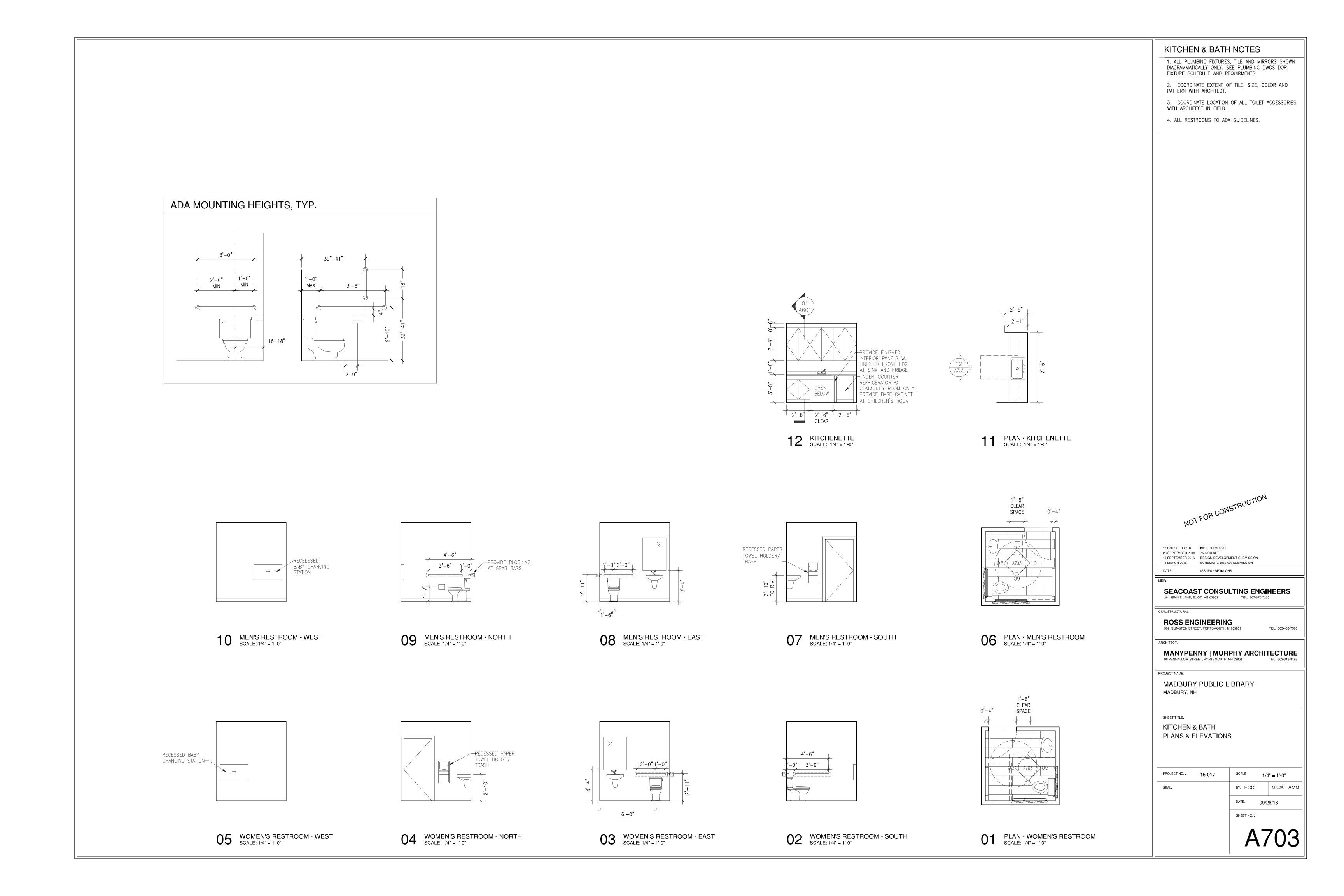


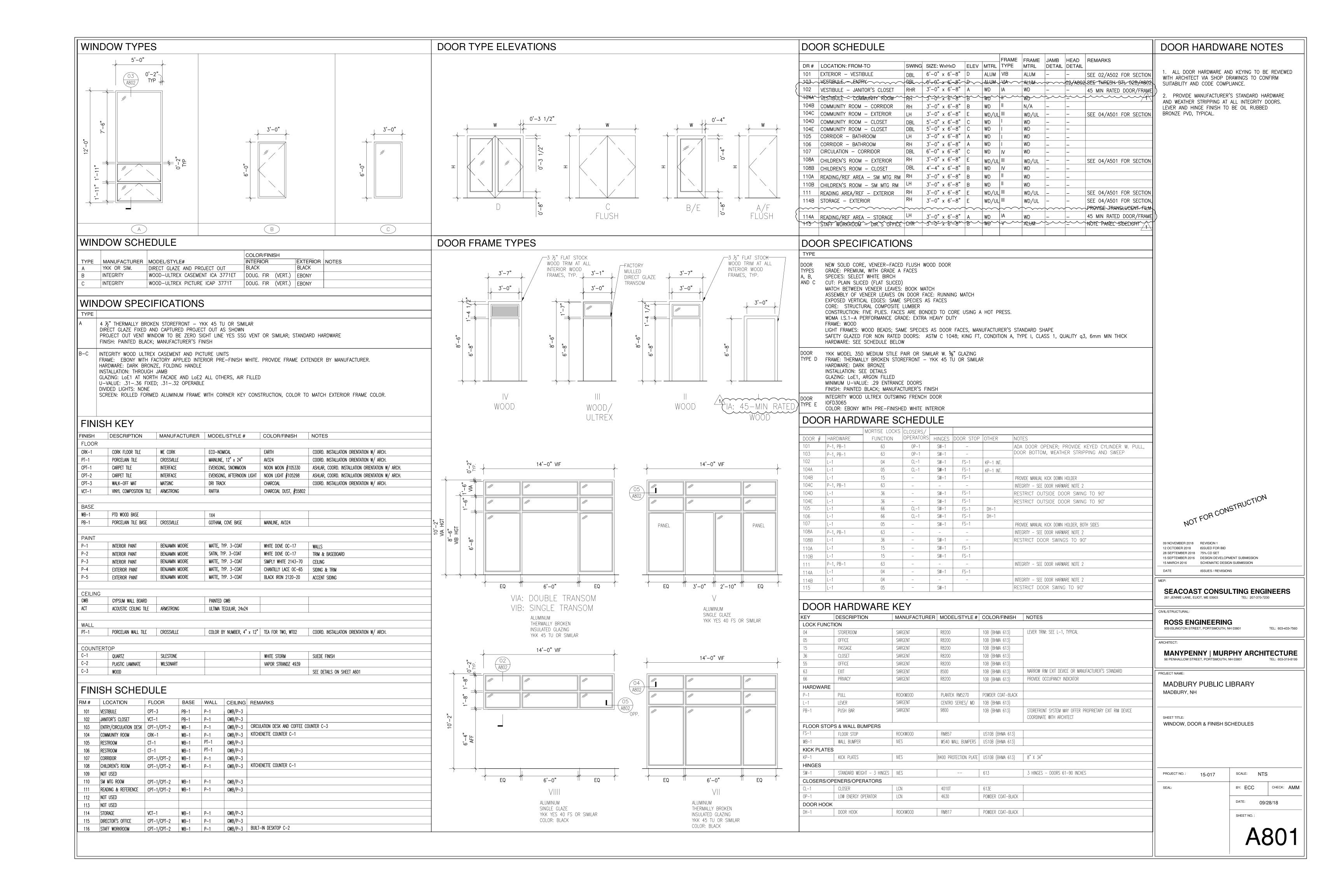


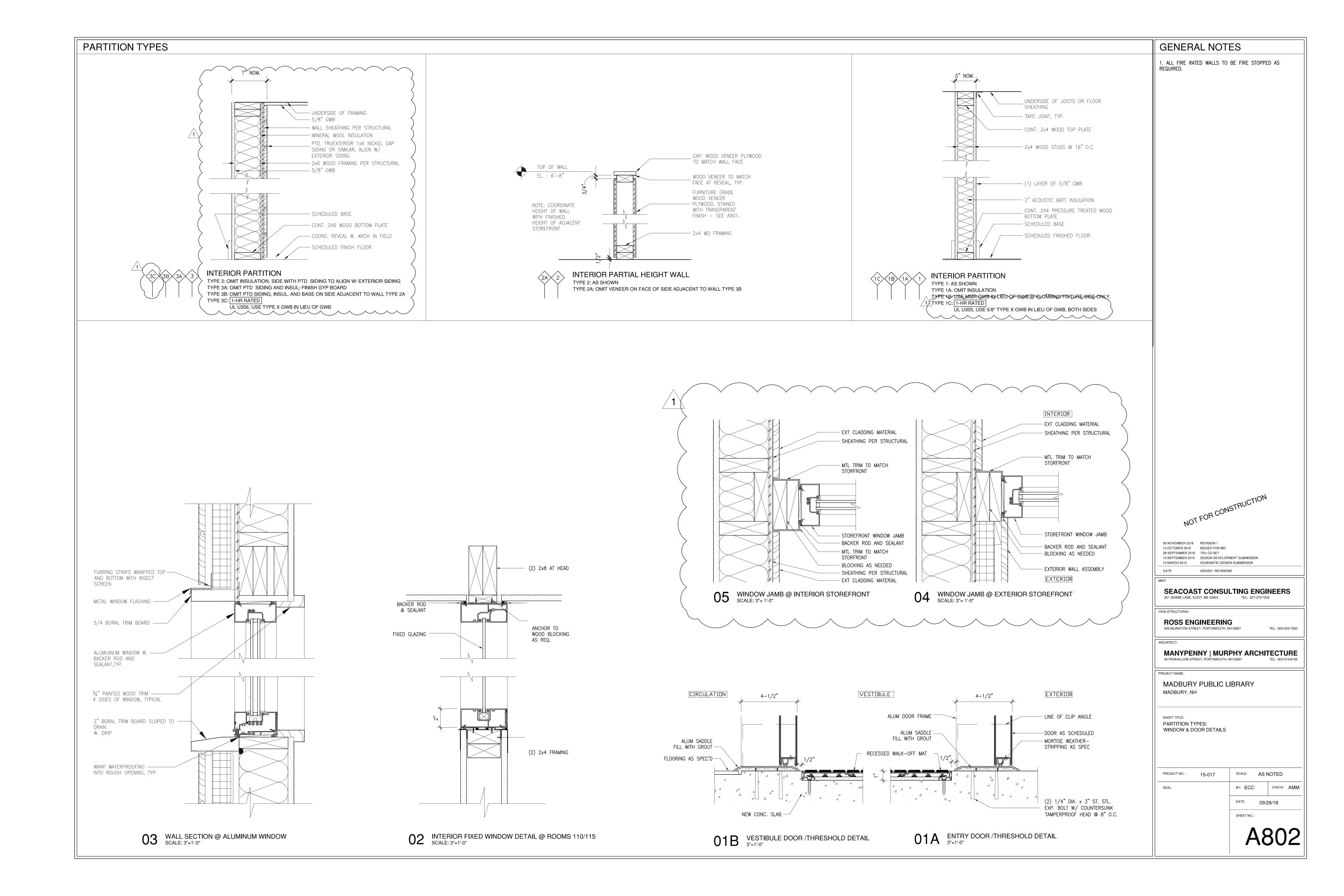












### PRODUCT INFORMATION

#### MILL WORK SPECIFICATION

#### 0. GENERAL:

A. ALL MILLWORK TO PROVIDE MATERIALS THAT COMPLY WITH REQUIREMENTS OF THE AWI QUALITY STANDARD FOR EACH TYPE OF WOODWORK AND QUALITY GRADE SPECIFIED: UNLESS OTHERWISE INDICATED.

B. GENERAL CONTRACTOR TO PROVIDE MANUFACTURER'S TECHNICAL INFORMATION FOR ALL FABRICATED PRODUCTS AND ACCESSORIES, AS SPECIFIED HERE.

C. SHOP DRAWINGS TO BE PROVIDED AND INDICATE MATERIALS, ELEVATIONS, CONSTRUCTION, CLEARANCES, COMPONENT PROFILES, FASTENING METHODS, JOINTING DETAILS, FINISHES, AND HARDWARE LOCATIONS AND ACCESSORIES.

D. SAMPLES AND COLOR CHIPS TO BE PROVIDED TO ARCHITECT FOR WOOD FINISH. FINAL WOOD FINISH TO BE SELECTED AFTER SAMPLES ARE PROVIDED.

E. THE WOODWORK FABRICATOR SHALL BE RESPONSIBLE FOR COORDINATING THE DIMENSIONS OF ALL HIS/HER WORK WITH ACTUAL FIELD CONDITIONS AND COORDINATE WITH THE GENERAL CONTRACTOR TO MAINTAIN PROPER FIT WITHOUT FIELD MODIFICATIONS.

F. GENERAL CONTRACTOR TO COORDINATE AND VERIFY SIZES AND LOCATIONS OF FRAMING, BLOCKING, REINFORCEMENTS, AND OTHER SUPPORTS NECESSARY TO ENSURE WORK IS SUPPORTED AND INSTALLED AS INDICATED.

#### 1. WOOD PRODUCTS: COMPLY WITH THE FOLLOWING:

- A. HARDBOARD: AHA A135.4.
- B. MEDIUM-DENSITY FIBERBOARD, MDF: ANSI A208.2, GRADE MD-21, 48 LB.
- C. PARTICLEBOARD: ANSI A208.1, GRADE M-2.
  HARDWOOD PLYWOOD AND FACE VENEERS: HPVA HP-1, GRADE A
- VENEERS.

  1. VENEER CORE CONSTRUCTION, ALL
  - LOCATIONS EXCEPT AS NOTED: VENEER CORE PLYWOOD, NO
  - VOIDS; POPLAR CORE VENEERS.

    A. 3/4—INCH THICKNESS: 7 PLIES.
  - B. 1/2-INCH THICKNESS: 5 PLIES.
- 2. WOOD CABINETS AND WALL SURFACES FOR TRANSPARENT FINISH
- A. QUALITY STANDARD: COMPLY WITH AWI SECTION 10 CASEWORK AND
- ADDITIONAL SPECIFIED REQUIREMENTS FOR WOOD CABINETS.

  B. GRADE: CUSTOM.
- C. AWI TYPE OF CABINET CONSTRUCTION: REVEAL OVERLAY ON FACE FRAME.
- D. REVEAL DIMENSION: 1/2 INCH, UNLESS INDICATED OTHERWISE.
  E. WOOD SPECIES AND CUT FOR EXPOSED SURFACES: SELECT WHITE
- MAPLE, PLAIN SAWN OR SLICED.

  1. GRAIN MATCHING: RUN AND MATCH GRAIN VERTICALLY FOR DOORS
- AND FIXED PANELS.
  2. MATCHING OF VENEER LEAVES: BOOK MATCH.
- 3. VERTICAL MATCHING OF VENEER LEAVES: END MATCH.4. VENEER MATCHING WITHIN PANEL FACE: RUNNING MATCH.
- 5. DRAWER FACES: SOLID WOOD, GRAIN RUN HORIZONTALLY.
  6. OPEN SHELVING: 1—INCH THICK FOR ALL WIDTHS.

A. EDGE TREATMENT: SOLID WOOD MATCHING FACE FOR

- SPECIES AND CUT; FRONT AND BACK.
  G. SEMIEXPOSED SURFACES: PROVIDE SURFACE MATERIALS INDICATED
- BELOW:
  1. SURFACES OTHER THAN DRAWER BODIES: MATCH SPECIES
- AND CUT INDICATED FOR EXPOSED SURFACES.

  2. DRAWER SIDES AND BACKS: SOLID—HARDWOOD LUMBER, SAME
- SPECIES INDICATED FOR EXPOSED SURFACES.

  3. DRAWER BOTTOMS: HARDWOOD PLYWOOD, SAME SPECIES
- 3. DRAWER BOTTOMS: HARDWOOD PLYWOOD, SAME SPECIES INDICATED FOR EXPOSED SURFACES.
- 4. SHELVING: HARDWOOD PLYWOOD, 3/4-INCH THICK FOR SHELVES UP TO 36 INCHES WIDE, 1-INCH THICK FOR SHELVES OVER 36 INCHES WIDE.
- OVER 36 INCHES WIDE.

  H. CABINET FABRICATION:
  - 1. DOOR AND DRAWER FRONTS: SOLID-WOOD, 3/4 INCH THICK.
- 2. FACE FRAMES: 3/4-INCH THICK SOLID WOOD TO MATCH EXPOSED SPECIES; STILES SHALL BE 1-1/2 INCHES WIDE AND RAILS SHALL BE 1-3/4 INCHES WIDE.
- 3. EXPOSED CABINET END CONSTRUCTION AND FINISH: WOOD VENEER PLYWOOD, MINIMUM 3/4— INCH THICK; EXTERIOR VENEER TO MATCH CABINET SPECIES, INTERIOR WOOD VENEER TO BE ANY WHITE GRAIN
- 4. CABINET TOPS AND BOTTOMS: HARDWOOD PLYWOOD, 1/2-INCH-THICK, FULLY SUPPORTED BY AND SECURED IN RABBETS IN END
- PANELS, FRONT FRAME, AND BACK RAIL.

  5. UNIT BACK PANELS: HARDWOOD PLYWOOD, MINIMUM 3/8-INCH-THICK, FASTENED TO REAR EDGE OF END PANELS AND TO TOP
- AND BOTTOM RAILS.

  6. DRAWER BODIES: FABRICATE WITH EXPOSED FRONTS FASTENED TO SUBFRONT WITH MOUNTING SCREWS FROM INTERIOR OF BODY.

  A. JOIN SUBFRONTS, BACKS, AND SIDES WITH GLUED
  - DOVETAIL JOINTS.

    B. SUBFRONTS, BACKS, AND SIDES: 3/4-INCH- THICK
  - SOLID HARDWOOD.

    C. BOTTOMS: MINIMUM 3/16-INCH-THICK HARDWOOD PLYWOOD; INSERTED INTO DADO IN FRONT, BACK AND SIDES; GLUED AND STAPLED TO SIDES. REINFORCE DRAWER BOTTOMS WITH 1/2- BY 4-INCH FRONT TO BACK HARDWOOD INTERMEDIATE STIFFENERS, GLUED AND FASTENED IN PLACE. PROVIDE ONE STIFFENER FOR DRAWERS TO 24 INCH WIDTH, TWO TO 36 INCH WIDTH
- AND FOUR TO 48 INCH WIDTH.

  7. SHELVES: 3/4-INCH-THICK HARDWOOD PLYWOOD WITH HARDWOOD
- VENEER BANDED FRONT EDGE.

  8. JOINERY: RABBET BACKS FLUSH INTO END PANELS AND SECURE WITH CONCEALED MECHANICAL FASTENERS. CONNECT TOPS AND BOTTOMS OF WALL CABINETS AND BOTTOMS AND STRETCHERS OF BASE CABINETS TO ENDS AND DIVIDERS WITH MECHANICAL FASTENERS. RABBET TOPS, BOTTOMS, AND BACKS INTO END
- 9. CABINET SUB-BASE: SEPARATE AND CONTINUOUS (NO CABINET BODY SIDES TO FLOOR), WATER RESISTANT EXTERIOR GRADE PLYWOOD WITH CONCEALED FASTENING TO CABINET BOTTOM. LADDER TYPE CONSTRUCTION OF FRONT, BACK, AND INTERMEDIATES TO FORM A SECURE AND LEVEL PLATFORM TO WHICH CABINETS ATTACH.

### 3. SHOP FINISHING

- A. QUALITY STANDARD: COMPLY WITH AWI SECTION 5 FINISHING, UNLESS OTHERWISE INDICATED.
- 8.1. GRADE: PROVIDE FINISHES OF SAME GRADES AS ITEMS TO BE FINISHED.

- B. GENERAL: SHOP FINISH TRANSPARENT FINISHED INTERIOR ARCHITECTURAL WOODWORK AT FABRICATION SHOP AS SPECIFIED
- C. PREPARATIONS FOR FINISHING: COMPLY WITH REFERENCED QUALITY STANDARD FOR SANDING, FILLING COUNTERSUNK FASTENERS, SEALING CONCEALED SURFACES, AND SIMILAR PREPARATIONS FOR FINISHING ARCHITECTURAL WOODWORK, AS APPLICABLE TO EACH
- UNIT OF WORK.

  1.1. BACKPRIMING: APPLY ONE COAT OF SEALER OR PRIMER, COMPATIBLE WITH FINISH COATS, TO CONCEALED SURFACES OF WOODWORK. APPLY TWO COATS TO BACK OF PANELING AND TO END-GRAIN SURFACES. CONCEALED SURFACES OF PLASTIC-LAMINATE-CLAD WOODWORK DO NOT REQUIRE BACKPRIMING WHEN SURFACED WITH PLASTIC LAMINATE, BACKING PAPER, OR THERMOSET DECORATIVE OVERLAY.
- D. TRANSPARENT FINISH: COMPLY WITH REQUIREMENTS INDICATED BELOW FOR GRADE, FINISH SYSTEM, STAINING, AND SHEEN, WITH SHEEN MEASURED ON 60-DEGREE GLOSS METER PER ASTM D
- 523: 1.1. GRADE: CUSTOM.
- 1.2. AWI FINISH SYSTEM: CATALYZED POLYURETHANE.1.3. STAINING: MATCH ARCHITECT'S SAMPLE.
- 2. SHEEN: SATIN, 30–50 GLOSS UNITS.

### COUNTER SHUTTER

- 1. OVERHEAD COILING WOOD COUNTER DOORS
- A. WOOD COUNTER DOORS WITH INTEGRAL FRAME: OVERHEAD DOOR
- CORPORATION, SERIES 665.

  1. CURTAIN: INTERLOCKING WOOD SLATS, 1-5/8 INCH (41 MM) HIGH
  BY 1/2 INCH (12.5 MM) THICK. BOTTOM BAR SHALL HAVE FLUSH
- LIFT HANDLES.
  2. SLAT MATERIAL AND FINISH:
- a. BIRCH.b. WITH FINISH AS CHOSEN BY THE ARCHITECT FROM
- MANUFACTURER'S STANDARD FINISHES.
  3. GUIDES:
- a. ALUMINUM GUIDES.4. BRACKETS: GALVANIZED STEEL TO SUPPORT COUNTERBALANCE,
- CURTAIN AND HOOD.

  5. COUNTERBALANCE: HELICAL TORSION SPRING TYPE HOUSED IN A STEEL TUBE OR PIPE BARREL, SUPPORTING THE CURTAIN WITH DEFLECTION LIMITED TO 0.03 INCH (0.8 MM) PER FOOT OF SPAN. COUNTERBALANCE SHALL BE ADJUSTABLE BY MEANS OF AN
- ADJUSTING TENSION WHEEL.

  6. HOOD: PROVIDE INTERMEDIATE SUPPORT BRACKETS AS REQUIRED.
- HOOD FABRICATED OF: A. STEEL PRIME PAINTED.
- 7. OPERATION:b. MANUAL PUSH UP.
- 8. LOCKING:
- A. CYLINDER LOCKS.
- 10. WALL MOUNTING CONDITION:c. BETWEEN JAMBS MOUNTING.

#### WINDOW SHADES

1. PROVIDE ROLLER SHADES BY PHIFER — SHEERWEAVE BASIC, 3% OPEN. STYLE: P02, COLOR: WHITE OR APPROVED EQUAL.

#### WINDOW FILM

a. PROVIDE TRANSLUCENT DECORATIVE GLAZING FILM AT LOCATIONS INDICATED ON THE DRAWINGS. PRODUCT: LLUMAR FILMS BY CPF FILMS INC., OR SIMILAR. COLOR: GLACIER FROSTED

#### BATHROOM ACCESSORIES

- 1. PROVIDE THE FOLLOWING BATHROOM ACCESSORIES:
- a. GRAB BAR BOBRICK B—5806 SERIES. b. SURFACE MOUNTED MULTI—ROLL TISSUE DISPENSER — BOBRICK
- c. SEMI-RECESSED CONVERTIBLE PAPER TOWEL DISPENSER AND
- WASTE RECEPTACLE. BOBRICK B-3942.
  d. HORIZONTAL RECESSED MOUNTED ST ST FINISH BABY CHANGING STATION KOALA KARE PRODUCTS KB110-SSRE.

- NOT FOR CONSTRUCTION
- 12 OCTOBER 2018 ISSUED FOR BID
  28 SEPTEMBER 2018 75% CD SET
  15 SEPTEMBER 2016 DESIGN DEVELOPMENT SUBMISSION
  15 MARCH 2016 SCHEMATIC DESIGN SUBMISSION

# SEACOAST CONSULTING ENGINEERS

ISSUES / REVISIONS

CIVIL/STRUCTURAL:

ROSS ENGINEERING
909 ISLINGTON STREET, PORTSMOUTH, NH 03801

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# MANYPENNY | MURPHY ARCHITECTURE 96 PENHALLOW STREET, PORTSMOUTH, NH 03801 TEL: 603-319-8199

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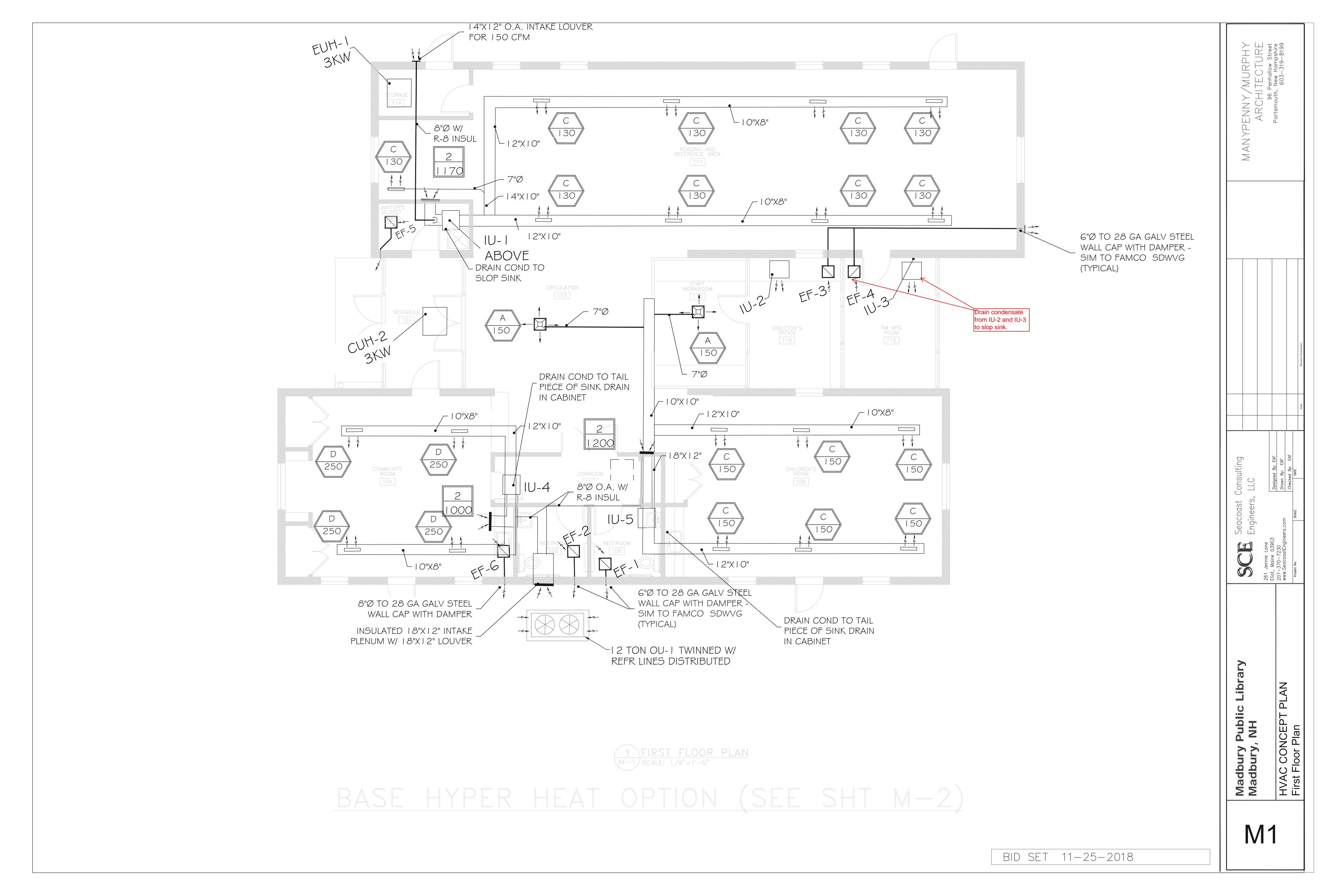
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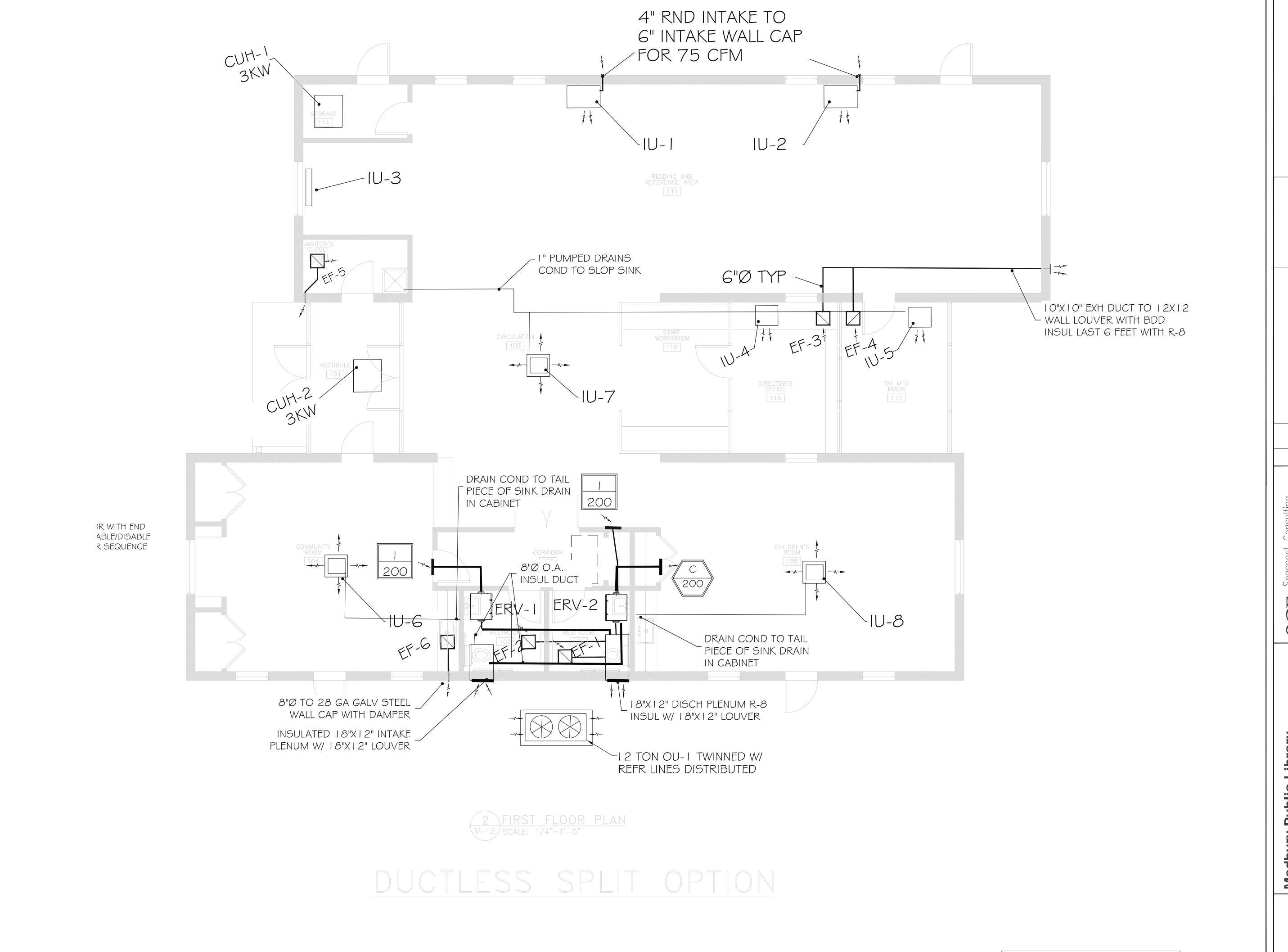
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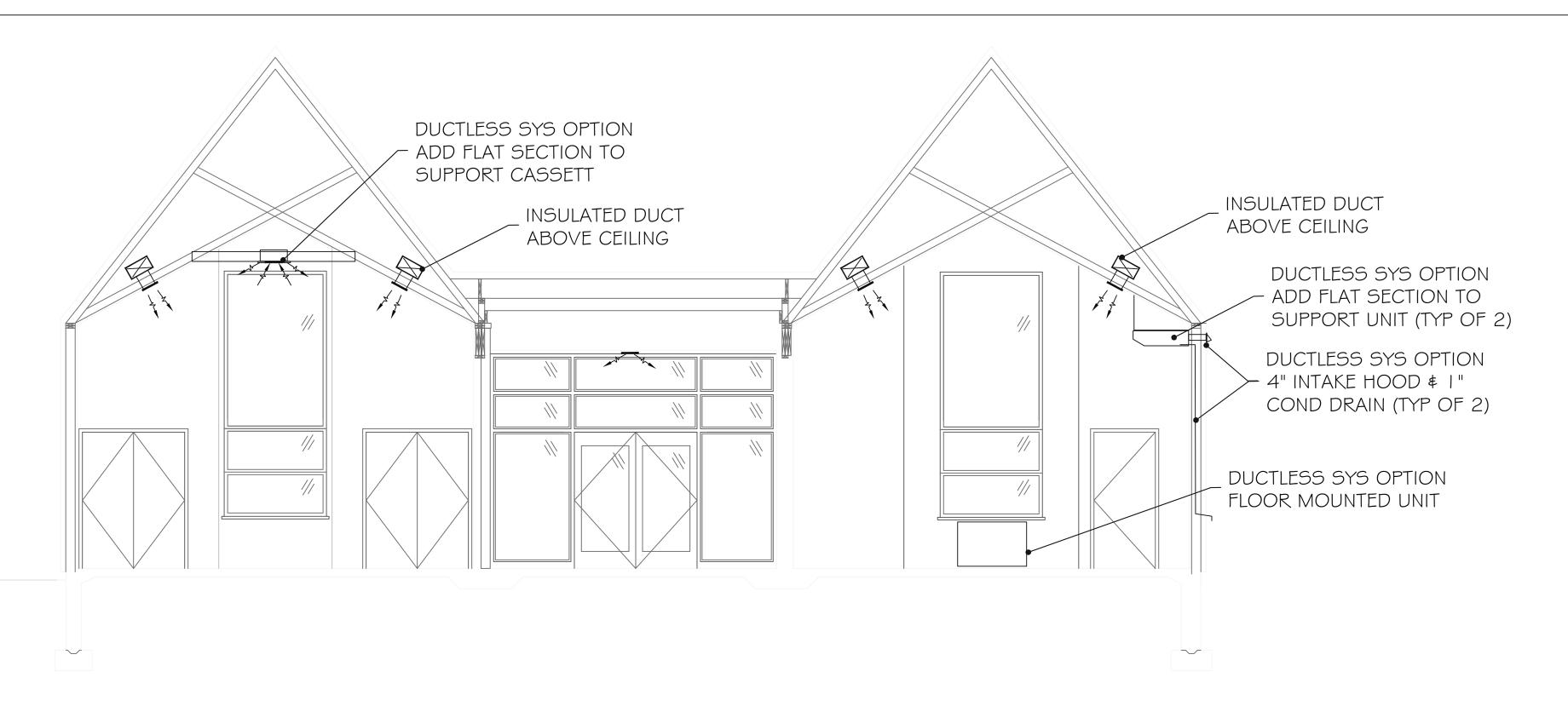




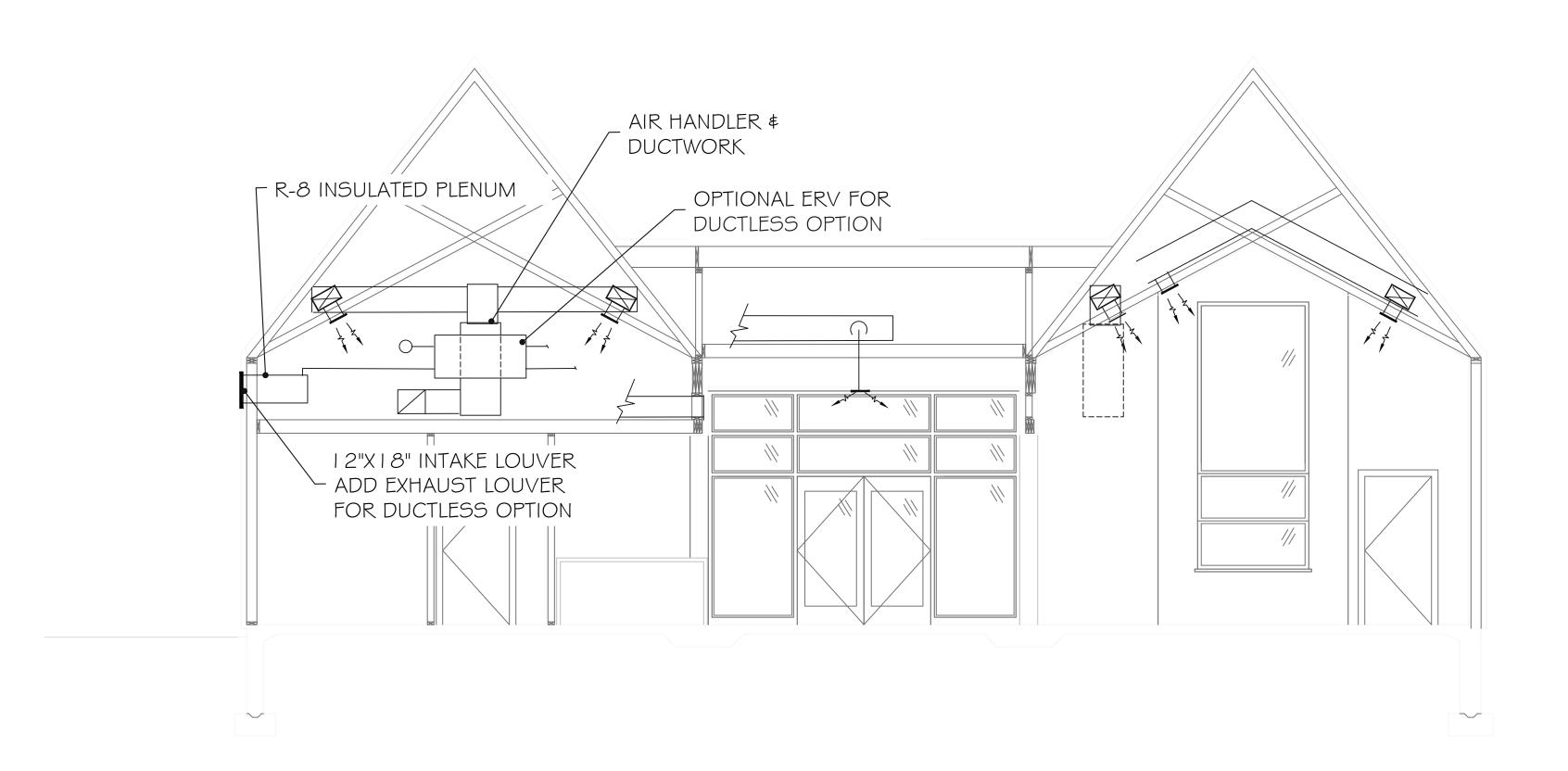
VYPENNY/MURPHY ARCHITECTURE 96 Penhallow Street Portsmouth, New Hampshire 603-319-8199 HVAC Optional Ductless Plan Madbury Public I Madbury, NH

M2

BID SET 11-25-2018



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



O1 BUILDING SECTION SCALE: 1/4" = 1'-0"

Madbury, NH  Madbury, NH  Sedcodst (Engineers,	Eliot, Maine 03903	207-370-7230 www.SeacoastFnaineers.com		Project No.	
Consulting	Designed By: EAF	Drawn By: EAF	Checked By: EAF	DATE	
					Date
					Revision Description
MANYPE					
MANYPENNY/MURPHY	ortsmouth New Hampshir	603-319-8199			

BID SET 11-25-2018

MULTI-Z(	ONE VARIAI	BLE REFRIGERAI	NT FLO	N SCHE	EDULI	E				INDO	OOR	UNIT				OL	TDO	OR L	JNIT			
SERVES	MARK	INDOOR UNIT	CFM	E.S.P. (" W.C.)	W	MINIMUM O.A. (CFM)	HTG CAP @ 9F MBH	CLG CAP MBH	PH.	ELECTR	V.	MCA	REMARKS	MARK	MITSUBSHI BASIS OF DESIGN	NOMINAL CAPACITY	PH.	ELECTI HZ.	т —	MIN. CIR. AMPS	MAX. FUSE SIZE	
STACKS	IU-I	PVFY-36	1200	0.50	-	100	36.0	36.0	1	60	208	3.0	SEE NOTES									R410A REFR , ELEV USING STAND BY MFR
DIR OFFICE	IU-2	PCFY-15	500	0.20	-	75	15.0	15.0	ı	60	208	3.0	SEE NOTES									PROVIDE MFR WIND BAFFLES
SM MTG	IU-3	PCFY-24	650	0.20	_	100	15.0	15.0	1	60	208	3.0	SEE NOTES	OU-1	PURY-HP144TSKMU-A-H	12.0 TON	3	60	208	38	50	PROV REFR PIPING TO EACH IU PROV REFR TWINNING KIT PROV SNOW/HALL GUARDS
MEETING	IU-4	PVFY-30	1,000	0.50	-	150	30.0	30.0	1	60	208	3.0	SEE NOTES									PROV SNOW HOOD PROV BASE PAN HEATERS PROV 24" CONDENSER STANDS
CHILDRENS	IU-5	PVFY-36	1,200	0.50	-	100	36.0	36.0	1	60	208	4.7	SEE NOTES	-								

NOTES: SCHEDULE BASED ON MITSUBISHI PRODUCT - TRANE, AMERICAN STANDARD OR OTHERS THAT MEET SPECIFICATION ARE ACCEPTABLE SUBSTITUTIONS

I.) SPLIT SYSTEM 'HYPER HEAT' HEAT PUMP WITH WIRELESS WALL MOUNT TSTAT.

2.) PROVIDE PREPACKAGED REFR LINE KITS AS REQUIRED TO CONNECT .

3.) DISCONNECTS TO BE PROVIDED BY ELECTRICIAN. 4.) PROVIDE I " CONDENSATE DRAIN FOR PUMP FROM INDOOR UNIT. DRAIN TO APPROVED LOCATION.

		EXHA	UST F	AN SCHE	DULE			
UNIT NO.	MANUFACTURER / MOD# (AS STANDARD)	SERVICE	CFM	FAN TYPE	(IN. WG) E.S.P.	ELECTRICAL	REMARKS	
EF-1,2 \$5	PANASONIC / FV-08VKL3	BATHROOM JAN CLOSET	70	CEILING	0.20	115V/1	ACTIVATE WITH LIGHT SWITCH	
EF-3\$4	F-3\$4 GREENHECK / SP-B110		100	CEILING	0.25	5V /	ACTIVATE WITH WALL SWITCH	
EF-G	GREENHECK / CSP-A200	MEETING RM	200	INLINE	0.25	115V/I	ACTIVATE WITH WALL SWITCH	

ELECTRIC HEATER											
MARK	AREA SERVED	MAKE	MODEL	KW / MBH	VOLTS/PH	FLA	SUPPLY AIR CFM	] WT		DEPTH	
CUH- I	ELECTRIC ROOM	Q-MARK	EFF-4004	3.0 / 13.2	208 / I	14.2	300	30	18.5	3-3/4"	l 5-3/8"
CUH-2	ENTRY WAY	Q-MARK	EFF-4004	3.0 / 13.2	208 / I	14.2	300	30	18.5	3-3/4"	l 5-3/8"

RECESSED IN T-BAR CEILING AT FRONT ENTRYWAY. PROVIDE OPTIONAL THERMOSTAT AND DISCONNECT SWITCH

	R	EGISTER,	GRILLE & D	IFFUSER SCHED	DULE
MARK	MAKE	* MODEL	NECK SIZE	CFM RANGE	REMARKS
A CFM	PRICE	SMD	6"Ø OR 6" X 6"	0-150	LOUVER FACED WITH ADJUSTABLE VANES \$ OPPOSED BLADE DAMPER
B	PRICE	SMD	9"Ø OR 9" X 9"	151-300	LOUVER FACED WITH ADJUSTABLE VANES \$ OPPOSED BLADE DAMPER
CCFM	PRICE	LBPH	16" X 4"	100-150	STEEL CONSTRUCTION LINEAR FLOOR DIFFUSER OPPOSED BLADE DAMPER
D	PRICE	LBPH	16" X 6"	151-250	STEEL CONSTRUCTION LINEAR FLOOR DIFFUSER OPPOSED BLADE DAMPER
I CFM	PRICE	530D	0.6 SQFT	0-250	NC LESS THAN 20 NECK VEL LESS THAN 600 FPM
2 CFM	PRICE	530D	1.2 SQFT	251-500	NC LESS THAN 20 NECK VEL LESS THAN 600 FPM
3 CFM	PRICE	530D	4.0 SQFT	501-2000	NC LESS THAN 20 NECK VEL LESS THAN 600 FPM

BORDER AND FRAME TYPES TO MATCH MOUNTING CONDITIONS IN FIELD

### MECHANICAL GENERAL NOTES

- I. DRAWINGS ARE DIAGRAMMATIC, DETERMINE EXACT LOCATIONS OF SYSTEMS AND COMPONENTS IN FIELD.
- 2. COORDINATE WORK OF THIS SECTION WITH THAT OF OTHER SECTIONS.
- 3. ALL DUCTWORK IS CLASSIFIED AS LOW PRESSURE LESS THAN 2 INCH WATER COLUMN.
- 3. RUN PIPING CONCEALED, UNLESS SPECIFIED OTHERWISE, AND CLEAR OF CEILING INSERTS.
- 5. EXTERIOR LOUVERS SIZES ARE INDICATED. LOUVER DIMENSIONS, STYLE & COLOR ARE TO BE APPROVED BY OWNER.
- 6. VERIFY ALL EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS.
- 7. ACCESS PANELS SHALL BE PROVIDED TO CLEAN COILS AND SERVICE DAMPERS, HEATERS, VALVES AND ALL CONCEALED MECHANICAL EQUIPMENT.
- 8. ALL CONTROL WIRE AND CONDUIT SHALL COMPLY WITH NEC.
- 9. INSULATE PIPING and DUCTWORK TO MEET STATE ENERGY CODE (INTERNATIONAL ENERGY CONSERVATION CODE 2009).
- IO. PROVIDE HANGERS, CLAMPS, OFFSETS, EXPANSION JOINTS, ANCHORS AND GUIDES AS NECESSARY TO PREVENT STRESS ON PIPING & DUCTWORK.

### ALTERNATE DUCTLESS SYSTEM OPTION

MULTI-Z	MULTI-ZONE VARIABLE REFRIGERANT FLOW SCHEDULE								INDOOR UNIT							OUTDOOR UNIT						
SERVES	MARK	INDOOR UNIT	CFM	E.S.P.	W	MINIMUM O.A.	HTG CAP @ 9F	CLG CAP	E	ELECTRIC	CAL	MCA	REMARKS	MARK	MITSUBSHI BASIS OF DESIGN	NOMINAL CAPACITY	E	ELECTRIC			MAX. FUSE	REMARKS
			0,1,1	(" W.C.)	,,	(CFM)	MBH	MBH	PH.	HZ.	٧.		. (2,77,7, 11, (7, (2)		DIGIO OF DESIGN	0/1/1/01/1	PH.	HZ.	٧.	AMPS		
STACKS	IU-I	PCFY-P I 5NKMU-E	600	0.00	-	75	18.0	18.0	1	60	208	3.0	SEE NOTES									
STACKS	IU-2	PCFY-P I 5NKMU-E	600	0.00	-	75	18.0	18.0	1	60	208	3.0	SEE NOTES								I I	R410A REFR , ELEV USING STAND BY MFR
STACKS	IU-3	PFFY-P I 5NKMU-E	500	0.00	-	75	18.0	18.0	1	60	208	3.0	SEE NOTES		PURY-HP I 44TSKMU-A-H	100		60	200	38		PROVIDE MFR WIND BAFFLES PROV REFR PIPING TO EACH IU
DIR OFFICE	IU-4	PCFY-15	500	0.50	-	0	15.0	15.0	1	60	208	3.0	SEE NOTES	- 00-1		12.0	3	60	208		50	PROV REFR TWINNING KIT PROV SNOW/HAIL GUARDS PROV SNOW HOOD
SM MTG	IU-5	PCFY-24	650	0.50	-	0	27.0	24.0	1	60	208	3.0	SEE NOTES									PROV BASE PAN HEATERS PROV 24" CONDENSER STANDS
COMM RM	IU-6	PLFY-EP3ONEMU-E	1,000	0.50	-	0	30.0	30.0	1	60	208	3.0	SEE NOTES									
ENTRY	IU-7	PLFY-EPO8NEMU-E	500	0.50	-	0	9.0	8.0	1	60	208	3.0	SEE NOTES									
CHILDRENS	IU-8	PLFY-EP24NEMU-E	800	0.50	-	0	24.0	24.0	1	60	208	4.7	SEE NOTES									

NOTES: SCHEDULE BASED ON MITSUBISHI PRODUCT - TRANE, AMERICAN STANDARD OR OTHERS THAT MEET SPECIFICATION ARE ACCEPTABLE SUBSTITUTIONS

I.) SPLIT SYSTEM 'HYPER HEAT' HEAT PUMP WITH WIRELESS WALL MOUNT TSTAT. 2.) PROVIDE PREPACKAGED REFR LINE KITS AS REQUIRED TO CONNECT .

3.) DISCONNECTS TO BE PROVIDED BY ELECTRICIAN.
4.) PROVIDE 3/4" CONDENSATE DRAIN FOR PUMP FROM INDOOR UNIT. DRAIN TO APPROVED LOCATION.

## ALTERNATE DUCTLESS SYSTEM OPTION

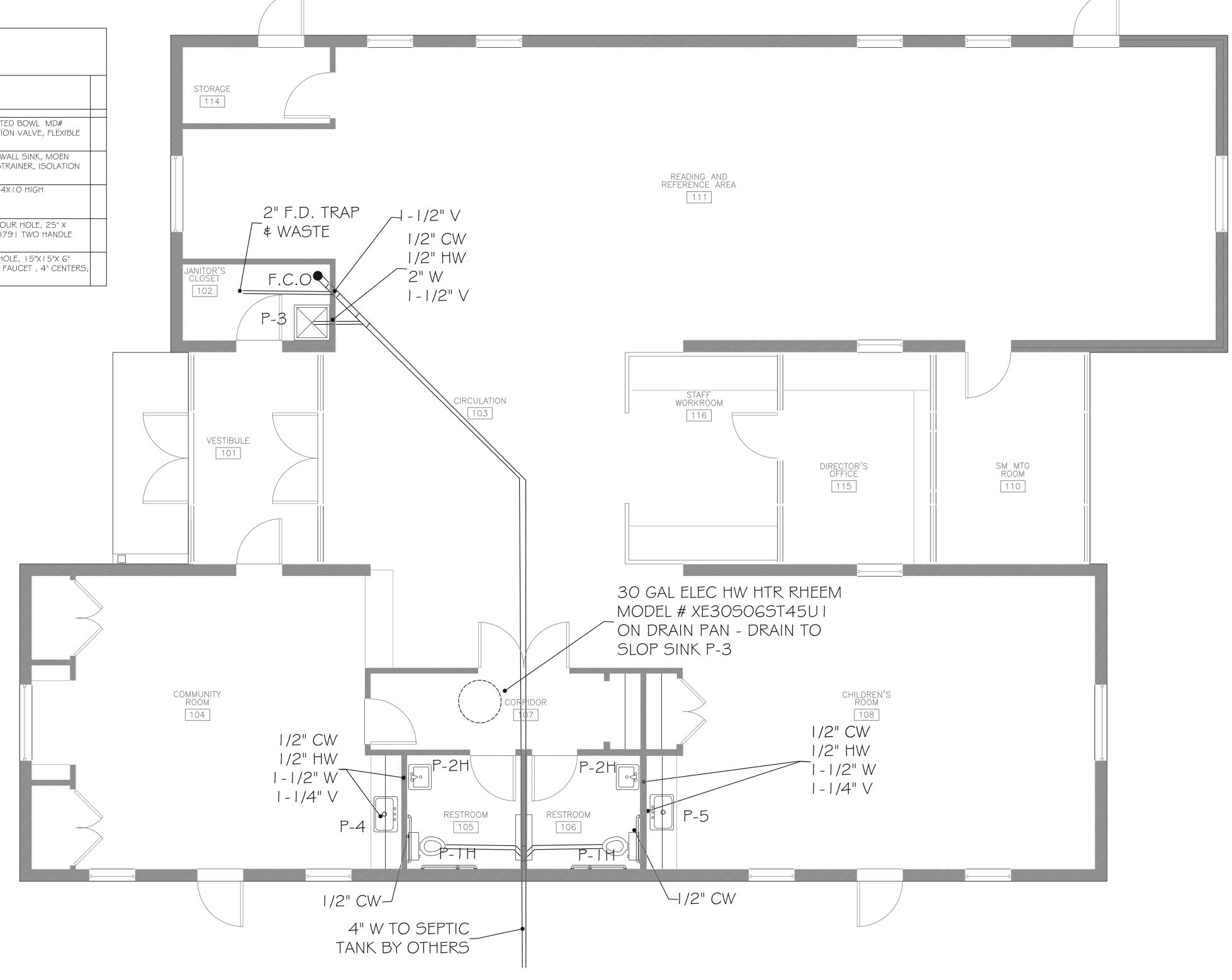
			EN	ERGY RECO	VERY UNIT	SCHE	EDULE				
MARK	AREA SERVED	MAKE	MODEL	EFFICIENCY	VOLTS/PH	FLA	SUPPLY AIR @ 0.6 WC	WT		IONAL LNGTH	
ERV-1\$2	FIRST FLOOR	RENEWAIRE	EV 240	69% @ 210 CFM	5/	3.3	200 CFM	60 lbs	19"	34"	15"

UNIT TO RUN DURING OCCUPIED PERIODS THRU AN OCCUPANCY SWITCH SIM TO LEVITON ODS-15 HVAC Schedules & Notes

PLUMBING FIXTURE SCHEDULE												
		F	PIPE SIZE				FURNIS	SHED BY				
FIXTURE	W	V	CW	HW	I.W.	I.W. GAS		OWNER	REMARKS			
P-1H B	3"	2"	1/2"	-	-	-	X	-	AMERICAN STANDARD CADET 3 RIGHT HEIGHT ELONGATED BOWL MD# 3378.128ST.020, 1.3 GPF, COVERED SEAT, ISOLATION VALVE, FLEXIBLE CONNECTION			
P-2H TOUNTER SINK	1-1/2"	- /4"	1/2"	1/2"	-	-	Х	-	AMERICAN STANDARD LUCURNE MD# 0356.028.020 WALL SINK, MOEN CHATEAU MD# L4635 SINGLE HANDLE FAUCET, GRID STRAINER, ISOLATION VALVE, FLEXIBLE CONNECTION			
P-3 SERVICE BASIN	2"	1-1/2"	1/2"	1/2"	-	-	Х	-	FIAT MODEL #MSB 2424 MOLDED STONE BASIN 24X24X10 HIGH #830-AA HOSE, BRACKET, #889-CC MOP HANGER #1-453-BB BASIN STRAINER			
P-4 ***** KITCHEN SINK	1-1/2"	- /4"	1/2"	1/2"	-	-	X	-	ELKAY DAYTON MD# D-12521-4 SINGLE BOWL SINK, FOUR HOLE, 25" X 21-1/4" X 6-9/16" BOWL, SELF RIMMING, MOEN MD# 8791 TWO HANDLE FAUCET W/ SIDE SPRAY, 4" CENTERS, LEVER HANDLES			
P-5 KITCHEN SINK	1-1/2"	- /4"	1/2"	1/2"	-	-	Х	-	ELKAY DAYTON MD# BCR   5 SINGLE BOWL SINK, TWO HOLE,   15"X   5"X   6" BOWL, SELF RIMMING, MOEN MD# 8938 TWO HANDLE FAUCET, 4" CENTERS, LEVER HANDLES			

\* THE PLUMBING CONTRACTOR IS TO RECEIVE FIXTURES, STORAGE AND PLACE FIXTURES. PROVIDE ALL REQUIRED PIPING, FITTINGS, VALVES, INSTALLATION, HOOKUP AND TESTING FOR A COMPLETE INSTALLATION.
ALL FIXTURES TO BE ADA COMPLIANT

- I. DRAWINGS ARE ONLY DIAGRAMMATIC, IT IS NOT THE INTENT TO SHOW EVERY CONSTRUCTION DETAIL. EXACT DIMENSIONS AND FIXTURE LOCATIONS ARE TO BE FIELD MEASURED.
- 2. THE MECHANICAL CONTRACTOR SHALL SUPPLY ALL MATERIALS, LABOR, EQUIPMENT AND APPLIANCES REQUIRED TO INSTALL ALL PLUMBING WORKS NECESSARY.
- 3. CONTRACTOR TO OBTAIN ALL PERMITS FOR HIS WORK.
- 4. CONTRACTOR TO SUBMIT INSURANCE CERTIFICATE PRIOR TO COMMENCEMENT OF ANY WORK.
- 5. CONTRACTOR TO SUBMIT (4) SETS OF SHOP DRAWINGS OF EQUIPMENT AND MATERIALS FOR APPROVAL PRIOR TO PURCHASE AND INSTALLATION.
- 6. CONTRACTOR TO PROVIDE (2) O#M MANUALS AT COMPLETION OF PROJECT. (1) SET TO BE RETAINED BY THE ENGINEER AND (1) SETS TO OWNER.
- 7. CONTRACTOR TO MAINTAIN AND UPDATE ACCURATELY MARKED UP AS-BUILT DRAWINGS DURING CONSTRUCTION THEN AT COMPLETION OF PROJECT SUBMIT TO THE ARCHITECT AND ENGINEER.
- 8. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2012 ICC PLUMBING CODE AND ANY LOCAL APPLICABLE CODE REQUIREMENTS.
- 9. WATER LINE PIPING MATERIAL SELECTION SHALL BE AS ALLOWED BY INTERNATIONAL PLUMBING CODE. PROVIDE CHROME STOP VALVE ON CW/HW CONNECTIONS AT EACH FIXTURE.
- I O. SANITARY WASTE & VENT TO BE CAST IRON NO-HUB OR BELL & SPIGOT SERVICE WEIGHT PIPING TO MATCH EXISTING PLUMBING SYSTEM. USE OF PVC SCHED 40 IS ACCEPTABLE IF ALLOWED BY THE ICC PLUMBING CODE AND FIRE RATING REQUIREMENTS.
- I I. WASTE PIPING EXPOSED CONDITION SHALL BE CHROME FINISH.
- I 2. PROVIDE PROTECTIVE COVERING ON WATER AND WASTE AT HANDICAPPED LAVATORIES.



1 FIRST FLOOR PLAN
P-1 SCALE: 1/4"=1'-0"

P1

Plumbing First Floor Plan

Public , NH

Madbury, Madbury,

Const

Y/MURPHY HITECTURE 36 Penhallow Street 1th, New Hampshire 603-319-8199

				LUMINAIRE SCHEDULE			
SYMBOL	LABEL	MANUF	CATALOG NUMBER	DESCRIPTION	LAMP	LAMP LUMENS	WATTS
A O	A			DOWNLIGHT, 4" DIA	LED		
ВО	В			DOWNLIGHT 6" DIA WITH PLASTER KIT (FOR PERIMETER, OPEN AREAS)	LED		
	С			NOT USED			
D .	D	AUTRY	DFMA DDL-6	DOUBLE DRUM PENDANT,SMALL. BOTTOM OF FIXTURE SHALL BE LOCATED 10' AFF OR AS DIRECTED BY OWNER (FOR OPEN AREAS)	LED, FMPA NL6 78-40		
E	Е	AUTRY	DFMA DDL-14	DOUBLE DRUM PENDANT, LARGE. BOTTOM OF FIXTURE SHALL BE LOCATED 10' AFF OR AS DIRECTED BY OWNER (FOR OPEN AREAS)	LED, FMPA NL14 208-40		
F 🔲	F	PANASONIC		EXHAUST FAN/LIGHT COMBO FOR RESTROOMS	LED		
G I	G	LITHONIA	UCEL-24-35K 90CRI-SWR- WH	UNDERCOUNTER, 2' LENGHT	LED	800	8.7
Н	Н	MARK	SL4L-LOP 4FT 800 LMF	RECESSED SLOT, LINEAR, 4FT LENGTH	LED	2920	32
H1	H1	MARK	SL4L-LOP 2FT 800 LMF	RECESSED SLOT, LINEAR, 2FT LENGTH	LED	1460	16
I	ı	LITHONIA	ZL1N-L48-5000LM FST-MVOLT-35K- 80CRI-WH	STRIP FIXTURE, SURFACE MOUNTED (FOR MECHANICAL RM)	LED	2900	68
(OS)	os	SENSOR SWITCH	CM 10 9FT	EXTENDED RANGE 360° OCCUPANCY SENSOR WITH PASSIVE INFRARED TECHNOLOGY & CIRCULAR COVERAGE PATTERN. WHEN MOUNTED AT 9 FT, SENSOR VIEWS UP TO 28 FT IN ALL DIRECTIONS.			
PP	PP	SENSOR SWITCH	PP-20	POWER PACK FOR OCCUPANCY SENSOR			

	LUMINAIRE SCHEDULE - SITE LIGHTING												
Symbol	Label	Manuf	Catalog number	Description	Lamp	Lumens	Watts						
¤	S1	WAC LANDSCAPE LTG	6642-30BZ	BOLLARD, BRONZE ON ALUMINUM	LED	390	12						

EMERGENCY LIGHTING & EXIT SIGN SCHEDULE  NOTE: WIRE EACH EMERGENCY LIGHTING UNIT AD EXIST SIGN TO THE LIGHTING CIRCUIT WITHIN THE SPACE. WIRE TO THE UNSWITCHED SIDE OF THE LIGHTING CIRCUIT.											
SYMBOL LABEL MANUFACTURER CATALOG NUMBER DESCRIPTION											
	EB	COMPASS		LED EMERGENCY LIGHT							
	EBEX	COMPASS	SD	LED EMERGENCY LIGHT WITH EXIT SIGN AND HIGH OUTPUT FOR ADDITIONAL BATTERY CAPACITY FOR REMOTE HEAD							
9	RH	JUNO	MSL2-35I	K UN WH EM	MINI SECURITY SCONCE WITH EMERGENCY BATTERY (650 LUMENS, 13W)						
⊗ WA	ALL MOUNTED	EXIT SIGN.									
⊥ SIG <u>⊗</u> CE	SN.	ED SINGLE FACE E ED SINGLE FACE E NAL ARROW.	COMPASS	CAR							
CEILING MOUNTED DOUBLE FACE EXIT SIGN WITH DIRECTIONAL ARROW.											

### RECEPTACLES AND FIXED EQUIPMENT CONNECTIONS

DUPLEX CONVENIENCE RECEPTACLE -18" A.F.F

QUADPLEX CONVENIENCE RECEPTACLE -

DUPLEX RECEPTACLE

DUPLEX RECEPTACLE - 18" A.F.F

REFRIGERATOR RECEPTACLE - 18" A.F.F

MICROWAVE RECEPTACLE - 18" A.F.F UNLESS OTHERWISE DIRECTED BY OWNER. LOCATE ADJACENT TO MICROWAVE

DISHWASHER RECEPTACLE - 18" A.F.F UNLESS OTHERWISE DIRECTED BY OWNER. LOCATE ADJACENT TO DISHWASHER

### FIRE ALARM

SMOKE DETECTOR - CEILING MOUNT

HEAT DETECTOR - "H" INDICATES FIXED AT 190° F

HEAT DETECTOR - "F" INDICATES FIXED AT 135° F

SMOKE DETECTOR MOUNTED IN HVAC DUCT WITH REMOTE TEST STATION

MANUAL PULL STATION - CENTERLINE 4'-0" AFF AUDIO / VISUAL SIGNAL - CENTERLINE 6'-8" AFF SUBCRIPT INDICATES CANDLA

VISUAL SIGNAL - CENTERLINE 6'-8" AFF SUBCRIPT INDICATES CANDLA

FIRE ALARM CONTROL PANEL

ROTATING BEACON WITH HORN - EXTERIOR

FIRE ALARM ANNUNCIATOR PANEL CARBON DIOXIDE DETECTOR

SPRINKLER FLOW SWITCH

SPRINKLER TAMPER

MONITOR MODULE

**DUAL MONITOR MODULE** 

R

POWER SUPPLY

HOUSING

─ K
KNOX BOX - CENTERLINE 4'-0" AFF

PHOTOCELL, LEVITON CATALOG

#PCOUT, WITH WEATHERPROOF

PHOTOCELL MOUNTED ON -BUILDING EXTERIOR WALL

ASCO MODEL 641A043C LIGHTING CONTROL WITH 120 VAC CONTROL COIL. PERMITS —

PHOTOCELL WITH TIME CLOCK / LIGHTING CONTACTOR "LC" WIRING DIAGRAM

MANUAL AND AUTOMATIC TIME CLOCK AND PHOTOCELL CONTROL OF CIRCUITS.

TO EXTERIOR LIGHTING

& EXTERIOR SIGNS

P2-11 P2-13

18" A.F.F

DUPLEX RECEPTACLE GROUND FAULT INTERRUPT, - 18" A.F.F. (SP INDICATES SURGE PROTECTOR)

ARC FAULT CIRCUIT INTERRUPT - 18" A.F.F.

WEATHER PROOF - 18" A.F.F

PUSH BUTTON FOR DOOR OPENER

### **SECURITY & COMMUNICATIONS**

ELECTRIC METER

POWER PANEL, SURFACE MOUNTED

HOMERUN TO PANEL "P1" CIRCUITS 1

JUNCTION BOX - CEILING MOUNTED

JUNCTION BOX - WALL MOUNTED

FLUSH FLOOR BOX WITH DUPLEX

RECEPTACLE & TELE/DATA OUTLET

POWER PANEL, RECESSED

P1-1,3 & 3 - DIAGONAL LINES INDICATE
NUMBERS OF CONDUCTORS WHEN

MORE THAN TWO.

SAFETY SWITCH -

FOR RATING

FOR RATING

REFER TO MECHANICAL

EQUIPMENT SCHEDULE

REFER TO MECHANICAL EQUIPMENT SCHEDULE

SAFETY SWITCH WITH FUSE -

VOICE OUTLET - CENTERLINE 18" A.F.F

VOICE/DATA/CABLE TV OUTLET - CENTERLINE 18" A.F.F.

VOICE/DATA/CABLE TV OUTLET - CENTERLINE 4'-6" A.F.F

VOICE/DATA/CABLE TV OUTLET - MOUNTED ABOVE COUNTER c OR BACKSPLASH

WIRELESS ACCESS POINT, CEILING MOUNTED. RUCKUS ZONE FLEX 7982 OR EQUAL

### **SWITCHES**

SINGLE POLE SWITCH, 42" AFF SUBSCRIPT "D" INDICATES DIMMING CONTROL

THREE WAY SWITCH, 42" AFF SUBSCRIPT "D" INDICATES DIMMING CONTROL

FOUR WAY SWITCH, 42" AFF

OCCUPANCY SENSOR & SWITCH, 42" AFF WALL MOUNTED. SUBSCRIPT "D" INDICATES DIMMING CONTROL

OCCUPANCY SENSOR, CEILING MOUNTED

### **GENERAL NOTES**

- NONMETALLIC TYPE WIRING MAY BE USED FOR INTERIOR WIRING IN ACCORDANCE WITH NEC REQUIREMENTS.
- . ALL EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, RECTILINEAR TO BUILDING STRUCTURE.
- . ALL COMPONENTS SHOWN ON RISER DIAGRAMS, BUT NOT ON THE PLAN OR VICE VERSA, SHALL BE INCLUDED AS IF SHOWN ON BOTH.
- REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION OF MECHANICAL EQUIPMENT THAT REQUIRE ELECTRICAL CONNECTIONS.
- . ALL RACEWAYS RUNNING THROUGH BUILDING EXPANSION JOINTS SHALL BE EQUIPPED WITH EXPANSION FITTINGS.
- . CONTRACTOR SHALL REVIEW ALL TRADES' CONTRACT DOCUMENTS TO DETERMINE SPECIFIC MOUNTING LOCATIONS FOR ELECTRICAL EQUIPMENT. COORDINATE EXACT MOUNTING LOCATIONS WITH THE ARCHITECT.
- REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR MOUNTING HEIGHTS AND EXACT LOCATIONS OF ALL DEVICES.
- ALL LIGHTING AND GENERAL POWER BRANCH CIRCUITS SHALL INCLUDE A SEPARATE NEUTRAL CONDUCTOR FOR EACH AND EVERY CIRCUIT UNLESS SPECIFICALLY NOTED OTHERWISE.
- FOR LIGHTING CONTROLS, IT IS THE INTENT THAT ALL LIGHTING SHALL BE TURN-ON ONLY WITH THE WALL SWITCH. THE OCCUPANCY SENSOR WILL THEN SHUT-OFF LIGHTING AFTER OCCUPANTS HAVE LEFT THE ROOM

10. ALL DATA CABLING SHALL BE CAT 6, PLENUM RATED.

1. IF THERE IS A CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS, USE THE HIGHER STANDARD.

12. VERIFY LOCATION OF ALL FLOOR MOUNTED RECEPTACLES AND TELE/DATA OUTLETS BEFORE INSTALLING.

#### **BRANCH CIRCUITS SCHEDULE** 120 Volt 1-Phase, 2W, Circuits

Circuit Breaker Conductor 30A - 1P 2#10, 1#10G, 3/4"C 40A - 1P 2#8, 1#10G, 3/4"C 50A - 1P 2#6, 1#10G, 3/4"C 60A - 1P 2#6, 1#10G, 3/4"C

208Volt, 1-Phase, 2W, Circuits

20A - 2P 2#12, 1#12G, 3/4"C 30A - 2P 2#10, 1#10G, 3/4"C 2#8, 1#10G, 3/4"C 50A - 2P 2#6, 1#10G, 3/4"C

120/208 Volt, 1-Phase, 3W, Circuits

20A - 2P 3#12, 1#12G, 3/4"C 30A - 2P 3#10, 1#10G, 3/4"C 40A - 2P 3#8, 1#10G, 3/4"C 50A - 2P 3#6, 1#10G, 3/4"C

Note:

60A - 2P

1. Type MC cable shall include full size insulated ground conductor sized as indicated in schedule.

2#6, 1#10G, 3/4"C

3#6, 1#10G, 3/4"C



12 OCTOBER 2018 ISSUED FOR BID 28 SEPTEMBER 2018 75% CD SET 15 SEPTEMBER 2016 DESIGN DEVELOPMENT SUBMISSION 15 MARCH 2016 SCHEMATIC DESIGN SUBMISSION

ISSUES / REVISIONS

**SEACOAST CONSULTING ENGINEERS** 

CIVIL/STRUCTURAL:

ROSS ENGINEERING 909 ISLINGTON STREET, PORTSMOUTH, NH 03801

MANYPENNY | MURPHY ARCHITECTURE

TEL: 603-433-7560

PROJECT NAME:

MADBURY PUBLIC LIBRARY MADBURY, NH

Electrical Symbols, Legend, Notes, Lighting Schedule

> SCALE: PROJECT NO.: 15-017 CHECK: AMM BY: ECC DATE: 09/28/18 SHEET NO.:

Review Set 11-12-2018

#### ELECTRICAL SPECIFICATIONS

#### PART 1 - GENERAL

- 1. GENERAL PROVISIONS: DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF WORK IN CONTRACT. REFER TO ALL DRAWINGS ASSOCIATED WITH THIS PROJECT (EACH TRADE) FOR EXACT LOCATION OF ALL EQUIPMENT AND REQUIRED MOUNTING HEIGHTS.
- 2. SCOPE: PERFORM WORK AND PROVIDE NEW MATERIAL AND EQUIPMENT AS SHOWN ON DRAWINGS AND AS SPECIFIED IN THIS SECTION OF THE SPECIFICATIONS. PROVIDE ALL COMPONENTS AND MATERIALS, WHETHER SPECIFICALLY SHOWN OR NOT, THAT ARE NECESSARY TO MAKE THE SYSTEMS COMPLETE AND FULLY OPERATIONAL. WORK SHALL INCLUDE, BUT NOT BE LIMITED TO: 1) INSTALLATION OF NEW POWER DISTRIBUTION, AND LIGHTING AS ILLUSTRATED ON THESE DRAWINGS, 2) ALL TESTING AND CERTIFICATIONS NECESSARY FOR COMPLIANCE AND ANY REQUIRED REMEDIAL ACTIONS AND RETESTING DUE TO FAILURE.
- 3. SITE VISIT: VISIT AND CAREFULLY EXAMINE SITE TO IDENTIFY EXISTING CONDITIONS THAT MAY AFFECT WORK OF THIS SECTION BEFORE SUBMITTING BID. NO EXTRA PAYMENT WILL BE ALLOWED FOR ADDITIONAL WORK CAUSED BY UNFAMILIARITY WITH SITE CONDITIONS THAT ARE VISIBLE OR READILY DISCERNED
- 4. RELATED WORK: THE FOLLOWING WORK IS NOT INCLUDED IN THIS SECTION AND WILL BE PROVIDED UNDER OTHER SECTIONS: 1) TEMPORARY LIGHTING AND POWER FOR USE DURING CONSTRUCTION AND TESTING UNLESS SPECIFICALLY NOTED IN OTHER SPECIFICATION SECTIONS, 2) PAINTING.
- 5. CODES, STANDARDS, AUTHORITIES AND PERMITS: ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITIONS OF THE STATE BUILDING CODE, THE STATE ELECTRICAL CODE, NFPA, ANSI/NECA INSTALLATION STANDARDS AND OTHER APPLICABLE CODES, REGULATIONS AND LAWS OF LOCAL, STATE AND FEDERAL GOVERNMENT, OTHER AUTHORITIES HAVING JURISDICTION AND APPLICABLE BASE BUILDING STANDARDS AND SPECIFICATIONS. CODES, LAWS AND ORDINANCES PROVIDE A BASIS FOR THE MINIMUM INSTALLATION CRITERIA. THESE DRAWINGS AND SPECIFICATIONS ILLUSTRATE THE SCOPE REQUIRED FOR THIS PROJECT, WHICH MAY EXCEED MINIMUM CODE, LAW AND STANDARDS CRITERIA. GIVE NOTICES, FILE PLANS, OBTAIN PERMITS AND LICENSES, PAY BACKCHARGES AND OBTAIN NECESSARY APPROVALS FROM UTILITY COMPANIES AND AUTHORITIES HAVING JURISDICTION AS REQUIRED FOR THE EXECUTION OF ALL WORK ASSOCIATED WITH THIS PROJECT.
- 6. INTERPRETATION OF DOCUMENTS: ADVISE THE ENGINEER IN WRITING (RFI) PRIOR TO PROCEEDING WITH PROCUREMENT OR INSTALLATION THAT THE DESIGN INTENT IS UNCLEAR OR THAT CONSTRUCTION DOCUMENTS DO NOT COINCIDE WITH MANUFACTURER'S RECOMMENDATIONS. ALL COSTS FOR REWORK NECESSARY TO RESOLVE DISCREPANCIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 7. REQUEST FOR INFORMATION: RFI ISSUED TO RESOLVE A CONFLICT OR DISCREPANCY SHALL BE PROVIDED WITH THE PREFERRED SOLUTION VIA WRITTEN DESCRIPTION OR SKETCH.
- 8. SUBMITTALS: PROVIDE SPECIFIED MATERIALS AND EQUIPMENT UNLESS "EQUAL" OR "APPROVED EQUAL" IS EXPLICITLY INDICATED ON THE DRAWINGS. DEVIATIONS TO SPECIFIED MATERIALS SHALL BE AT THE SOLE RISK OF THE CONTRACTOR, WHO SHALL BE RESPONSIBLE FOR ALL ASSOCIATED CHANGES TO THIS AND OTHER TRADES. SUBMITTALS SHALL INDICATE REVIEW AND APPROVAL BY THE RESPONSIBLE CONTRACTOR. SUBMIT FOR REVIEW (6) SETS OF MANUFACTURER'S PRODUCT DATA FOR DEVICES (RECEPTACLES AND SWITCHES) AND PLATES; PANELBOARDS, CIRCUIT BREAKERS; DISCONNECT SWITCHES. ALLOW ENGINEER A MINIMUM OF 10 WORKING DAYS FOR PROCESSING AND REVIEW OF EACH SUBMISSION.
- 9. OPERATION AND MAINTENANCE DATA: SUBMIT (3) SETS OF OPERATING AND MAINTENANCE MANUALS INCLUDING SYSTEM DESCRIPTION, WIRING DIAGRAMS, WRITTEN WARRANTY, RECOMMENDED SPARE PARTS AND ROUTINE MAINTENANCE REQUIREMENTS WITH RECOMMENDED INTERVALS FOR ALL SUPPLIED EQUIPMENT.
- 10. RECORD DRAWINGS: CAD RECORD DRAWING FILES SHALL BE SUBMITTED AT THE COMPLETION OF THE PROJECT SHOWING THE "AS-BUILT" CONDITION INCLUDING WORK INSTALLED AND ALL MODIFICATIONS OR ADDITIONS TO ORIGINAL DESIGN. OBTAIN THE AUTOCAD FILES FOR PREPARATION OF AS-BUILT DRAWINGS FROM THE ARCHITECT. THE ARCHITECT AND ENGINEER ARE NOT GRANTING ANY OWNERSHIP OR PROPERTY INTEREST IN THE CAD DRAWINGS BY THE DELIVERY OF THE CAD FILES. THE RIGHTS TO USE THE CAD FILES AND DRAWINGS ARE LIMITED TO USE FOR THE SOLE PURPOSE OF ASSISTING IN THE PERFORMANCE OF CONTRACTUAL OBLIGATIONS WITH RESPECT TO THIS PROJECT. ANY REUSE AND/OR OTHER USE WILL BE AT THE CONTRACTOR'S SOLE RISK AND WITHOUT LIABILITY TO THE ARCHITECT AND ENGINEER.
- 11. WARRANTIES: WARRANTY INSTALLATION IN WRITING FOR ONE YEAR FROM DATE OF OWNER'S ACCEPTANCE OF CERTIFICATE OF SUBSTANTIAL COMPLETION. REPAIR. REPLACE OR PROVIDE TEMPORARY ACCOMMODATIONS FOR DEFECTIVE MATERIALS, EQUIPMENT, WORKMANSHIP AND INSTALLATION THAT DEVELOP WITHIN 24 HOURS OF NOTIFICATION. WARRANTY SHALL INCLUDE A CONTACT PERSON (NAME AND 24 HOUR TELEPHONE NUMBER) FOR SERVICE REQUESTS. CORRECT DAMAGE CAUSED WHILE MAKING NECESSARY REPAIRS AND REPLACEMENTS UNDER WARRANTY PERIOD AT NO ADDITIONAL COST.
- 12. COORDINATION: CONFER WITH ALL OTHER TRADES RELATIVE TO LOCATION OF ALL APPARATUS AND EQUIPMENT TO BE INSTALLED AND SELECT LOCATIONS SO AS NOT TO CONFLICT WITH OR HINDER PROGRESS OF WORK OF OTHER SECTIONS. WORK INSTALLED THAT CREATES INTERFERENCE OR RESTRICTS ACCESS REQUIRED BY CODE OR TO CONDUCT MAINTENANCE AND/OR ADJUSTMENTS SHALL BE MODIFIED AT NO ADDITIONAL COST TO THE OWNER.
- 13. SUPPORTS: INCLUDE ALL STRUCTURAL STEEL SUPPORTS, HANGER BRACKETS, ETC., REQUIRED FOR THE EXECUTION OF THE WORK OF THIS

- SECTION. HANGERS SHALL BE PREFINISHED CHANNEL AND THREADED ROD USED WITH APPROVED CLAMPS, HARDWARE, ETC. CHANNEL INSTALLED IN EXTERIOR LOCATIONS SHALL BE GALVANIZED STEEL WITH STAINLESS STEEL HARDWARE.
- 14. CUTTING AND PATCHING: INCLUDE ALL CORING, CUTTING, PATCHING AND FIREPROOFING NECESSARY FOR THE EXECUTION OF THE WORK OF THIS SECTION. STRUCTURAL ELEMENTS SHALL NOT BE CUT WITHOUT WRITTEN APPROVAL OF THE ARCHITECT. PROVIDE FIRE STOPPING TO MAINTAIN THE FIRE RATING OF THE FIRE RESISTANCE-RATED ASSEMBLY. ALL PENETRATIONS AND ASSOCIATED FIRE STOPPING SHALL BE INSTALLED IN ACCORDANCE WITH THE FIRE STOPPING MANUFACTURER'S LISTED INSTALLATION DETAILS AND BE LISTED BY UL OR FM.
- 15. HOISTING, SCAFFOLDING AND PLANKING: INCLUDE THE FURNISHING, SET-UP AND MAINTENANCE OF ALL HOISTING MACHINERY, CRANES, SCAFFOLDS, STAGING AND PLANKING AS REQUIRED FOR THE EXECUTION OF WORK FOR THIS SECTION.
- 16. SAFETY PRECAUTIONS: LIFE SAFETY AND ACCIDENT PREVENTION SHALL BE A PRIMARY CONSIDERATION. COMPLY WITH ALL OF THE SAFETY REQUIREMENTS OF THE OWNER AND OSHA THROUGHOUT THE ENTIRE CONSTRUCTION PERIOD OF THE PROJECT. FURNISH, PLACE AND MAINTAIN PROPER GUARDS AND ANY OTHER NECESSARY CONSTRUCTION REQUIRED TO SECURE SAFETY OF LIFE AND PROPERTY.
- 17. ACCESSIBILITY: ALL WORK PROVIDED UNDER THIS SECTION OF THE SPECIFICATION SHALL BE SO THAT PARTS REQUIRING PERIODIC INSPECTION. MAINTENANCE AND REPAIR ARE READILY ACCESSIBLE. WORK OF THIS TRADE PART 3 EXECUTION SHALL NOT INFRINGE UPON CLEARANCES REQUIRED BY EQUIPMENT OF OTHER TRADES,
- 18. PROTECTION OF WORK AND PROPERTY: THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE CARE AND PROTECTION OF ALL WORK INCLUDED UNDER THIS SECTION UNTIL THE COMPLETION AND FINAL ACCEPTANCE OF THIS PROJECT. PROTECT ALL EQUIPMENT AND MATERIALS FROM DAMAGE FROM ALL CAUSES INCLUDING, BUT NOT LIMITED TO, FIRE VANDALISM AND THEFT. ALL MATERIALS AND EQUIPMENT DAMAGED OR STOLEN SHALL BE REPAIRED OR REPLACED WITH EQUAL MATERIAL OR EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER. PROTECT ALL EQUIPMENT, OUTLETS AND OPENINGS, AND ROOF PENETRATIONS WITH TEMPORARY PLUGS, CAPS AND COVERS. PROTECT WORK AND MATERIALS OF OTHER TRADES FROM DAMAGE THAT MIGHT BE CAUSED BY WORK OR WORKMEN UNDER THIS SECTION AND MAKE GOOD DAMAGE THUS CAUSED. DAMAGED MATERIALS ARE TO BE REMOVED FROM THE SITE; NO SITE STORAGE OF DAMAGED MATERIALS WILL BE ALLOWED. ANY DAMAGE TO EXISTING SYSTEMS AND EQUIPMENT CAUSED BY THIS CONTRACTOR DURING INSTALLATION SHALL BE REPAIRED AND/OR REPLACED AT THIS CONTRACTOR'S EXPENSE TO THE COMPLETE SATISFACTION OF THE BUILDING OWNER.
- 19. PROJECT CLOSEOUT: A CERTIFICATE OF COMPLETION SHALL BE ISSUED BY THE CONTRACTOR INDICATING THAT THE INSTALLATION IS IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS AND ALL APPLICABLE LOCAL, STATE AND FEDERAL STATUTES AND CODES. ALL SUBMITTALS, AS-BUILTS, O&M MANUALS, AND BALANCING REPORTS ARE TO BE PROVIDED, FOR ENGINEER'S REVIEW, PRIOR TO REQUEST FOR COMPLETION CERTIFICATES. IN ADDITION, AND ALSO PRIOR TO REQUEST FOR COMPLETION CERTIFICATES, ALL PUNCH LIST ITEMS MUST BE COMPLETED TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR MUST VERIFY THAT ALL SEQUENCES OF OPERATIONS AND CONTROLS HAVE BEEN INCORPORATED AND ALL SYSTEMS AND EQUIPMENT ARE WORKING PER THE SPECIFIED SEQUENCES OF OPERATIONS.

### PART 2 - PRODUCTS

- 1. IDENTIFICATION: NAMEPLATES SHALL INDICATE EQUIPMENT TAG, VOLTAGE CHARACTERISTICS AND SOURCE OF POWER. REFER TO NAMEPLATE DETAIL FOR ADDITIONAL INFORMATION.
- 2. RACEWAYS AND CONDUIT: RIGID GALVANIZED STEEL CONDUIT (RGS) SHALL BE UTILIZED WITH THREADED FITTINGS ONLY. ELECTRICAL METALLIC TUBING (EMT) SHALL BE UTILIZED WITH COMPRESSION COUPLINGS. PROVIDE CONDUIT EXPANSION FITTINGS WITH EXTERNAL BONDING JUMPERS EQUAL TO OZ GEDNEY TYPE EX FOR RGS AND TYPE TX FOR EMT WHEN CROSSING EXPANSION JOINTS. UL LISTED LIQUID TIGHT FLEXIBLE METAL CONDUIT (LFMC) AND FLEXIBLE METAL CONDUIT (FMC) SHALL BE USED FOR FINAL CONNECTIONS TO EQUIPMENT WHERE FLEXIBILITY OR VIBRATION ISOLATION EQUIPMENT TESTING AND CLEANING: ARE REQUIRED. LFMC SHALL BE UV RESISTANT WHEN INSTALLED IN AN EXTERIOR LOCATION.
- 3. WIRE AND CABLE: ALL CONDUCTORS SHALL BE TYPE THHN/THWN OR XHHW, COPPER, RATED 75°/90°C, 600 VOLT INSULATION UNLESS OTHERWISE NOTED. MINIMUM SIZE CONDUCTOR SHALL BE #12 AWG COPPER. CONDUCTORS #10 AWG AND LARGER SHALL BE STRANDED; #12 AWG AND SMALLER SHALL BE SOLID. EACH BRANCH CIRCUIT AND FEEDER SHALL BE PROVIDED WITH AN INSULATED GROUNDING CONDUCTOR SIZED IN ACCORDANCE WITH NEC TABLE 250.122. CONDUCTOR COLOR CODING SHALL BE IN ACCORDANCE WITH THE DETAILS ON THESE DRAWINGS. COLOR CODING SHALL BE CONSISTENT THROUGHOUT NCLUDING CONDUCTORS INSTALLED IN RACEWAYS AND IN ALL CABLE ASSEMBLIES (MC AND/OR AC). FLEXIBLE METAL CLAD (MC) CABLE SHALL BE UL LISTED WITH INSULATED THHN PHASE AND GROUND CONDUCTORS WITHIN A GALVANIZED STEEL OR ALUMINUM INTERLOCKING ARMOR.
- 4. WIRING DEVICES AND PLATES: ALL DEVICES SHALL BE SPECIFICATION GRADE WITH NYLON PLATE, COLOR AS SPECIFIED BY THE ARCHITECT OR TO MATCH EXISTING. ALL DEVICES SHALL HAVE A GREEN GROUNDING TERMINAL ON THE YOKE. RECEPTACLES SHALL BE UL FEDERAL SPECIFICATION WC-596 EXTRA HEAVY DUTY 20A 125V EQUAL TO COOPER 5362. GFCI RECEPTACLES SHALL BE COMMERCIAL SPECIFICATION GRADE 20A 125V EQUAL TO COOPER GF20. SWITCHES SHALL BE INDUSTRIAL-INSTITUTIONAL HEAVY DUTY SPECIFICATION GRADE 20A 120/277V EQUAL TO COOPER 2200 SERIES.
- 5. SAFETY DISCONNECT SWITCHES: DISCONNECT SWITCHES SHALL BE

THREE-POLE HEAVY DUTY TYPE RATED FOR 240 VOLT IN NEMA 1 (INTERIOR DRY APPLICATIONS) AND NEMA 3R (EXTERIOR APPLICATIONS) ENCLOSURES UNLESS NOTED OTHERWISE ON THE DRAWINGS. ALL SWITCHES SHALL BE HORSEPOWER RATED AND SUITABLE FOR SERVICE ENTRANCE USE WHERE INDICATED ON THE DRAWINGS. PROVIDE WITH SOLID NEUTRAL WHERE FOUR WIRE CIRCUITS ARE ILLUSTRATED. MANUAL MOTOR STARTERS SHALL HAVE QUICK MAKE, QUICK BREAK TOGGLE MECHANISMS WITH ALLOWANCE FOR UP TO 10% FIELD ADJUSTMENT TO NOMINAL OVERLOAD HEATER VALUES. MANUAL MOTOR STARTERS SHALL BE SINGLE PHASE AND MAY BE USED FOR APPLICATIONS UP TO 1 HP AT 277 VOLT. ACCEPTABLE MANUFACTURERS SHALL BE SQUARE D, GE, SIEMENS OR EATON CUTLER-HAMMER.

- 6. PANELBOARDS: PANELBOARDS SHALL BE CIRCUIT BREAKER TYPE WITH THERMAL MAGNETIC BOLT-ON MOLDED CASE CIRCUIT BREAKERS AND ALUMINUM OR COPPER BUSSES. REFER TO CIRCUIT SCHEDULES FOR MINIMUM INTERRUPTING CAPACITY. PANELBOARD COVERS SHALL BE DOOR-IN-DOOR DESIGN UP TO AND INCLUDING 400A. ACCEPTABLE MANUFACTURERS SHALL BE SQUARE D, GE, SIEMENS OR EATON CUTLER-HAMMER.
- 7. MAIN DISTRIBUTION PANELBOARD: NOT USED.
- 8. FIRE ALARM SYSTEM: PROVIDE LABOR, MATERIALS, AND EQUIPMENT REQUIRED FOR COMPLETE INSTALLATION OF FIRE ALARM SYSTEM AS SHOWN ON FLOOR PLANS OF DRAWING. FIRE ALARM CONTRACTOR TO PROVIDE RISER DIAGRAM, DEVICE ADDRESSES AND BATTERY CALCULATIONS.

- GENERAL: ALL INTERRUPTIONS AND SHUTDOWNS OF EXISTING ELECTRICAL SYSTEMS AND SERVICES SHALL BE AS SHORT AS POSSIBLE AND AT A TIME AND DURATION APPROVED BY THE OWNER AND ENGINEER. THE CONTRACTOR SHALL INCLUDE ALL PREMIUM TIME ASSOCIATED WITH THE SYSTEM AND SERVICE INTERRUPTIONS AND SHUTDOWNS.
- 2. IDENTIFICATION: FURNISH AND INSTALL NAMEPLATES ON ALL ELECTRICAL EQUIPMENT INCLUDING PANELS, JUNCTION BOXES, DISCONNECT SWITCHES, TRANSFORMERS AND STARTERS.
- 3. RACEWAYS AND CONDUIT: REFER TO POWER, LIGHTING AND FIRE ALARM DRAWINGS FOR ALLOWABLE WIRING METHODS. EMT MAY BE USED WITH SET SCREW FITTINGS IN CONCEALED AND EXPOSED LOCATIONS WHERE NOT EXPOSED TO PHYSICAL DAMAGE OR MOISTURE. USE RIGID GALVANIZED STEEL WITH THREADED FITTINGS WHERE EMT PROHIBITED. ALL RACEWAYS WHICH PASS THROUGH BUILDING EXPANSION JOINTS, SHALL BE EQUIPPED WITH EXPANSION FITTINGS. ALL CONDUITS SHALL BE SUPPORTED IN AN APPROVED MANNER TO THE BUILDING STRUCTURE. SUPPORT FROM CONDUITS, DUCTWORK, PIPING, ETC. WILL NOT BE PERMITTED, RACEWAYS SHALL BE RUN CONCEALED UNLESS NOTED OTHERWISE, PERPENDICULAR AND/OR PARALLEL TO THE BUILDING STRUCTURE. NECA STANDARDS SHALL DEFINE MINIMUM QUALITY LEVEL FOR INSTALLATION WHERE APPLICABLE.
- 4. WIRE AND CABLE: BRANCH CIRCUIT WIRING IS NOT ILLUSTRATED ON THE DRAWINGS AND IS INDICATED BY CIRCUIT NUMBERS NEXT TO FIXTURES, EQUIPMENT AND DEVICES. PROVIDE COMPLETE WIRING SYSTEM TO MEET ILLUSTRATED INTENT. CONDUIT HOMERUNS SHOWN ON THE DRAWINGS WITH MORE THAN 3 CURRENT CARRYING CONDUCTORS ARE SHOWN DIAGRAMMATICALLY. THE INSTALLATION OF MORE THAN 3 CURRENT CARRYING CONDUCTORS IN A COMMON RACEWAY SHALL REQUIRE THE DERATING OF ALL ASSOCIATED CONDUCTORS. ALL CIRCUITS SHALL CONTAIN A FULL SIZE, INSULATED GROUND CONDUCTOR.
- 5. WIRING DEVICES AND PLATES: ALL DEVICES OTHER THAN 20A 120V SHALL BE CLEARLY LABELED WITH PERMANENTLY APPLIED NAMEPLATES (OR ENGRAVED FACEPLATES) DETAILING THE VOLTAGE CHARACTERISTICS AND CIRCUIT NUMBER.
- 6. SAFETY DISCONNECT SWITCHES: FUSES SHALL BE CLASS RK-1 SIZED PER DRAWING AND NAMEPLATE REQUIREMENTS. INSTALL REJECTION CLIPS TO PROHIBIT INSTALLATION OF OTHER THAN CURRENT LIMITING FUSES.
- 7. PANELBOARDS: THE CONTRACTOR SHALL BALANCE PANELBOARD LOADS TO WITHIN 10% PHASE TO PHASE. PROVIDE NEW AND OR UPDATED TYPEWRITTEN DIRECTORIES OF BRANCH CIRCUITS IN ALL PANELBOARDS, NEW AND EXISTING, WHICH ARE MODIFIED UNDER THIS CONTRACT. INDICATE CIRCUIT CHANGES IN AS-BUILT RECORD DRAWINGS.

- CLEAN THE INTERIOR AND EXTERIOR OF ALL EQUIPMENT AT PROJECT COMPLETION OF ALL CONSTRUCTION DEBRIS AND RESIDUE. DAMAGED SURFACES SHALL BE REPAIRED AND FINISHES TOUCHED UP PAINT TO MATCH THE MANUFACTURER'S FINISH. EXTENSIVELY DAMAGED ENCLOSURES SHALL BE REPLACED.
- 2. TEST THE INSULATION RESISTANCE BETWEEN EACH PHASE AND GROUND OF ALL FEEDERS ILLUSTRATED ON THE ONE LINE DIAGRAM. PROVIDE A TEST REPORT INDICATING THE RESULTS. REPLACE ALL CONDUCTORS THAT FAIL TO COMPLY WITH NETA TESTING STANDARDS. VERIFY VOLTAGE AT THE ASSOCIATED PANELBOARD UNDER LOAD AND ADJUST TAP SETTINGS AS REQUIRED TO DELIVER NOMINAL VOLTAGE DURING NORMAL AND LIGHTLY LOADED CONDITIONS.



12 OCTOBER 2018 ISSUED FOR BID 28 SEPTEMBER 2018 75% CD SET 15 SEPTEMBER 2016 DESIGN DEVELOPMENT SUBMISSION 15 MARCH 2016 SCHEMATIC DESIGN SUBMISSION

**SEACOAST CONSULTING ENGINEERS** 

CIVIL/STRUCTURAL

ROSS ENGINEERING

MANYPENNY | MURPHY ARCHITECTURE

TEL: 603-433-7560

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SHEET TITLE:

MADBURY, NH

Scope of Work, Specifications

PROJECT NO.: SCALE: 15-017 BY: ECC CHECK: AMM 09/28/18 SHEET NO.

									Circuit Schedule											
N.	BR	EAKER		CONN. LOAD (KW)			V)		FOURDMENT/LOCATION	- DII	NO	BREA	AKER		CON	IN. LOAD (KW	<b>(</b> )			EQUIPMENT/LOCATION
No.			Kitch	FLA Motor MISC		MISC.	LTG	REC	EQUIPMENT/LOCATION	PH	NO.	POLE	TRIP	Kitch	ch FLA Motor MISC. LTG. RI		REC.			
Panel P1, 12 kAIC Mir Fed from Meter								House Panel, Storage Rm						120/208 V, 3-Phase, 4W						
1	2			14.5		3.0			HVAC	A	2	2			40.0	8.	3			Panel P2
3		20							-	В	4		60							-
5	2			14.5		3.0			Hot Water	С	6	3			44.0	15	.9			OU-1A
7		20							-	Α	8									-
9	1	20				1.0			Door Opener	В	10		50							-
11	1	20						0.2	Receptacle - Janitor's Closet	С	12	3			44.0	15	.9			OU-1B
13	1	20						0.8	Receptacle - Staff Wk Rm	Α	14									-
15	1	20						0.8	Receptacle - Director's Office	В	16		50							-
17	1	20						0.8	Receptacle - Small Mtg Rm	С	18	1	20		6.6	0.	8			ERV-1 & ERV-2
19	1	20						1.2	Receptacle - Community Rm	A	20	2			12.0	2.	5			IU-1 thru IU-4
21	1	20						0.2	Receptacle - Comm Rm Counter	В	22		20							-
23	1	20						0.2	Receptacle - Comm Rm Counter	С	24	2			12.0	2.	5			IU-5 thru IU-8
25	1	20						1.2	Receptacle - Children's Rm	A	26		20							-
27	1	20						0.4	Receptacle - Restrooms	В	28	2			21.5	4.	5			HW-1 Hot Water
29	1	20						1.2	Receptacle - Reading/Ref Rm	С	30		30							-
31	1	20						0.6	Receptacle - Copier Area	A	32	1	20							
33	1	20				1.2			Receptacle - Copier	В	34	1	20							
35	1	20						0.6	Receptacle - Exterior-Front	С	36	1	20							
37	1	20						0.6	Receptacle - Exterior-Rear	A	38	1	20							
39	1	20						0.2	Recepracle-Child's Rm Counter	В	40	1	20							
41	1	20						0.4	Recepracle-Storage Rm	С	42	1	20							-
тот			0.0		0.0	8.2	0.0	9.4						0.0		0.0 50	.3	0.0	0.0	

							Circuit Schedule							
N.a	BREAKER			CONN. LOAI	D (KW)		EQUIPMENT/LOCATION		NO	BRE	AKER	CON	IN. LOAD (KW)	FOURDMENT (LOCATION
No.	POLE TRIP		Kitch	n FLA Motor MISC.		TG REC	EQUIPMENT/LOCATION		NO.	POLE	TRIP Kitch	FLA	Motor MISC. LTG. REC	EQUIPMENT/LOCATION .
'				Panel P	•	kAIC Min	60A MLO			Hou	ise Panel, Si	torage	Rm	120/208 V, 1-Phase, 3W
1	1	20			1	1.0	Lighting-Children's Rm	Α	2	1	20			
3	1	20			1	1.0	Lighting-Circuilation/Office/Mtg	В	4	1	20			
5	1	20			1	1.0	Lighting-Reading/Ref Rm	Α	6	1	20			
7	1	20			1	1.0	Lighting-Vestible/Jan/Storage	В	8	1	20			
9	1	20			1	1.0	Lighting-Community/Rest Rm	Α	10	1	20			
11	1	20			0	0.1	Lighting-Exterior at Entry	В	12	1	20			
13	1	20			0	0.2	Lighting-Exterior-Walkway	Α	14	1	20			
15	1	20			0	0.5	Lighting Contactor LC	В	16	1	20			
17	1	20			0	0.5	Fire Alarm Control Panel	Α	18	1	20			
19	1	20						В	20	1	20			
21	1	20						Α	22	1	20			
23	1	20						В	24	1	20			
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12 OCTOBER 2018 ISSUED FOR BID
28 SEPTEMBER 2018 75% CD SET
15 SEPTEMBER 2016 DESIGN DEVELOPMENT SUBMISSION
15 MARCH 2016 SCHEMATIC DESIGN SUBMISSION

DATE ISSUES / REVISIONS

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TEL: 603-433-7560

PROJECT NAME

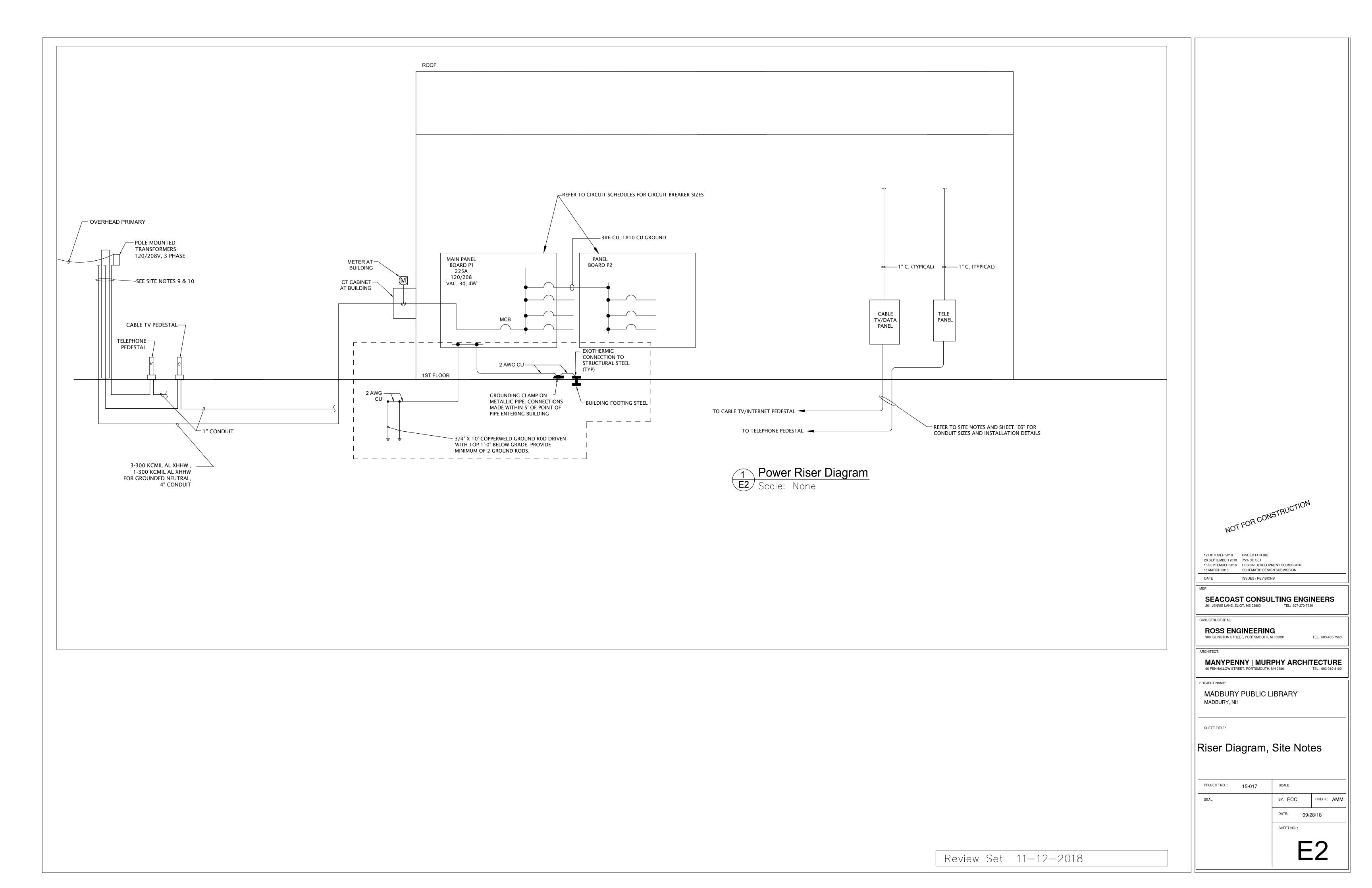
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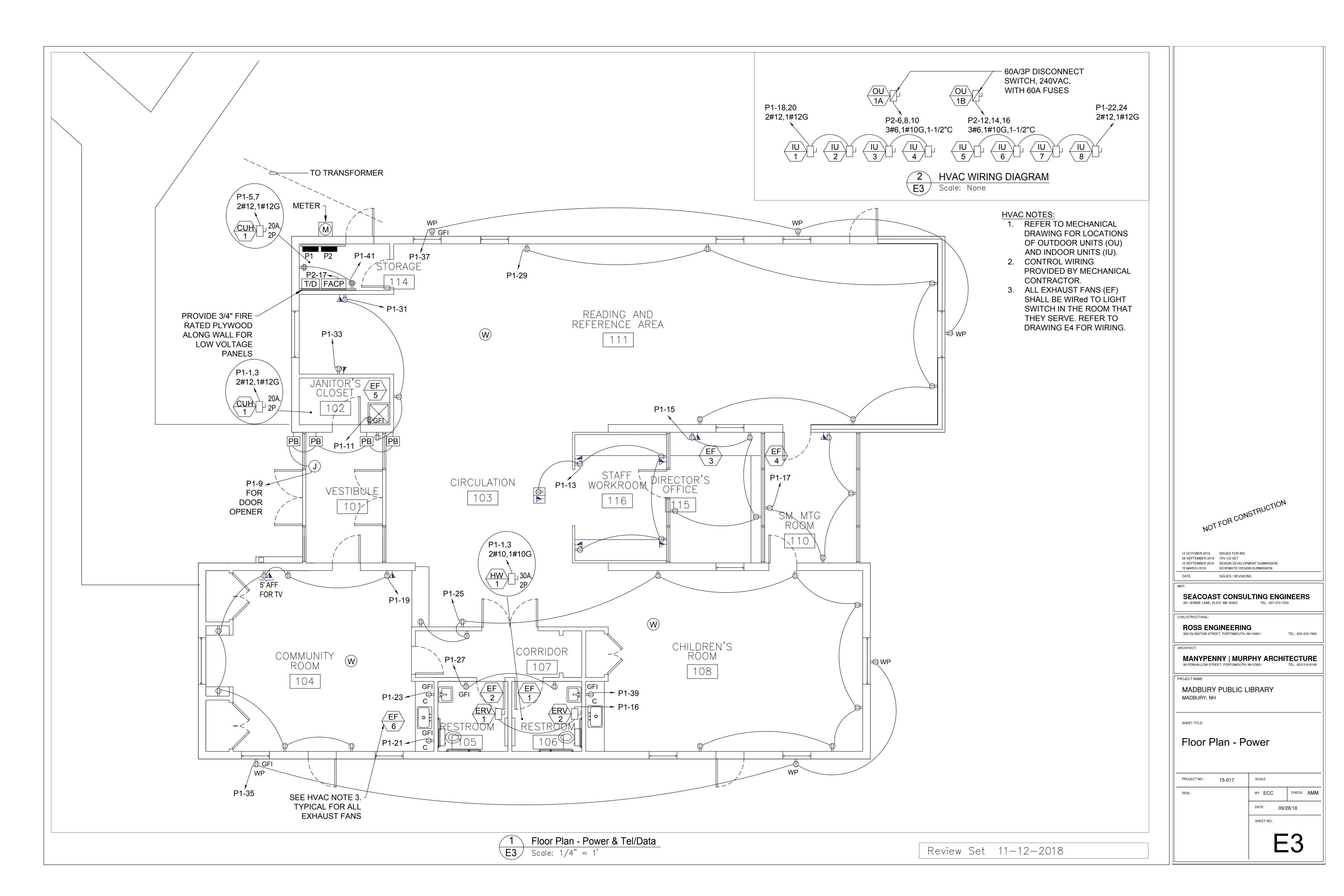
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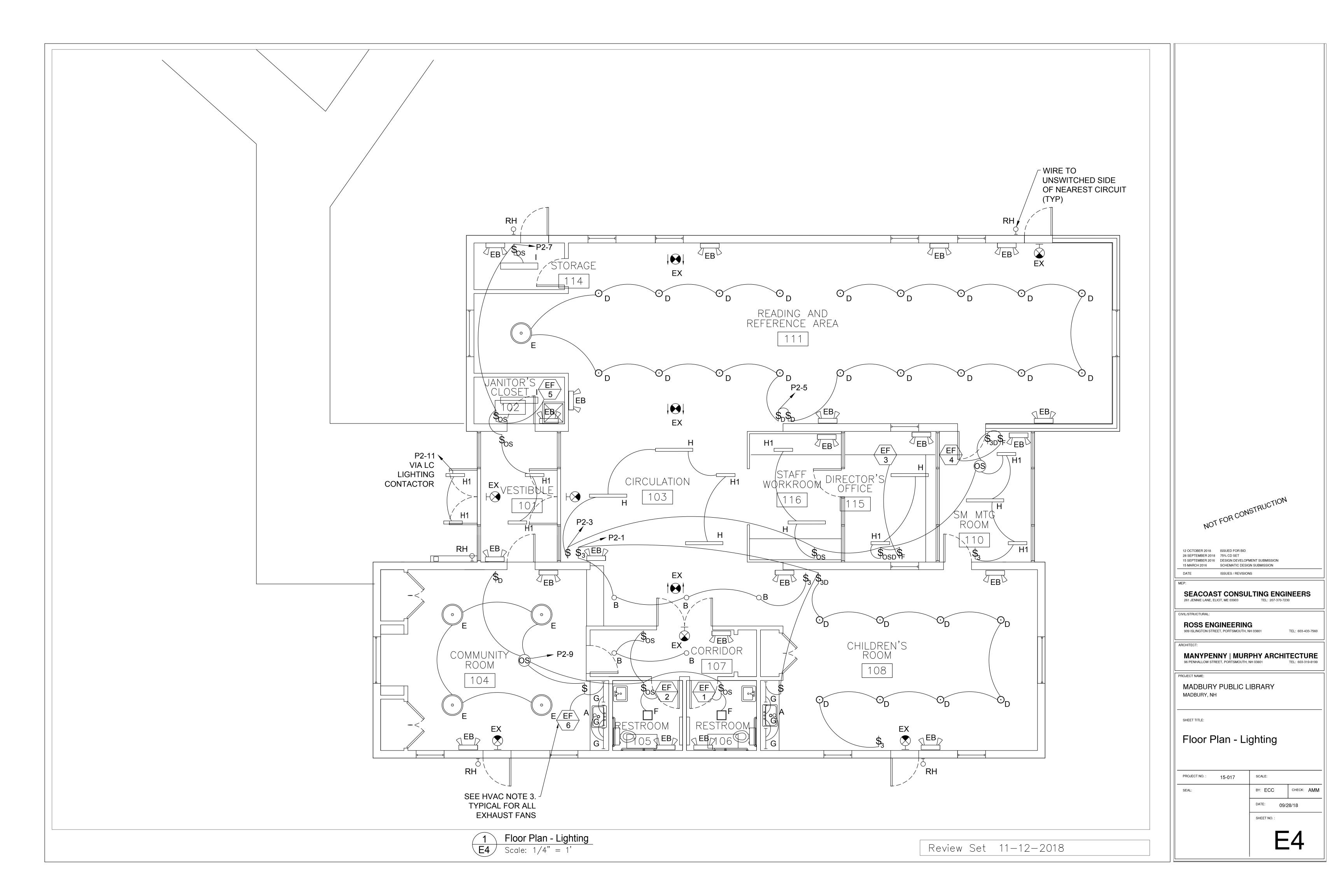
Circuit Schedules

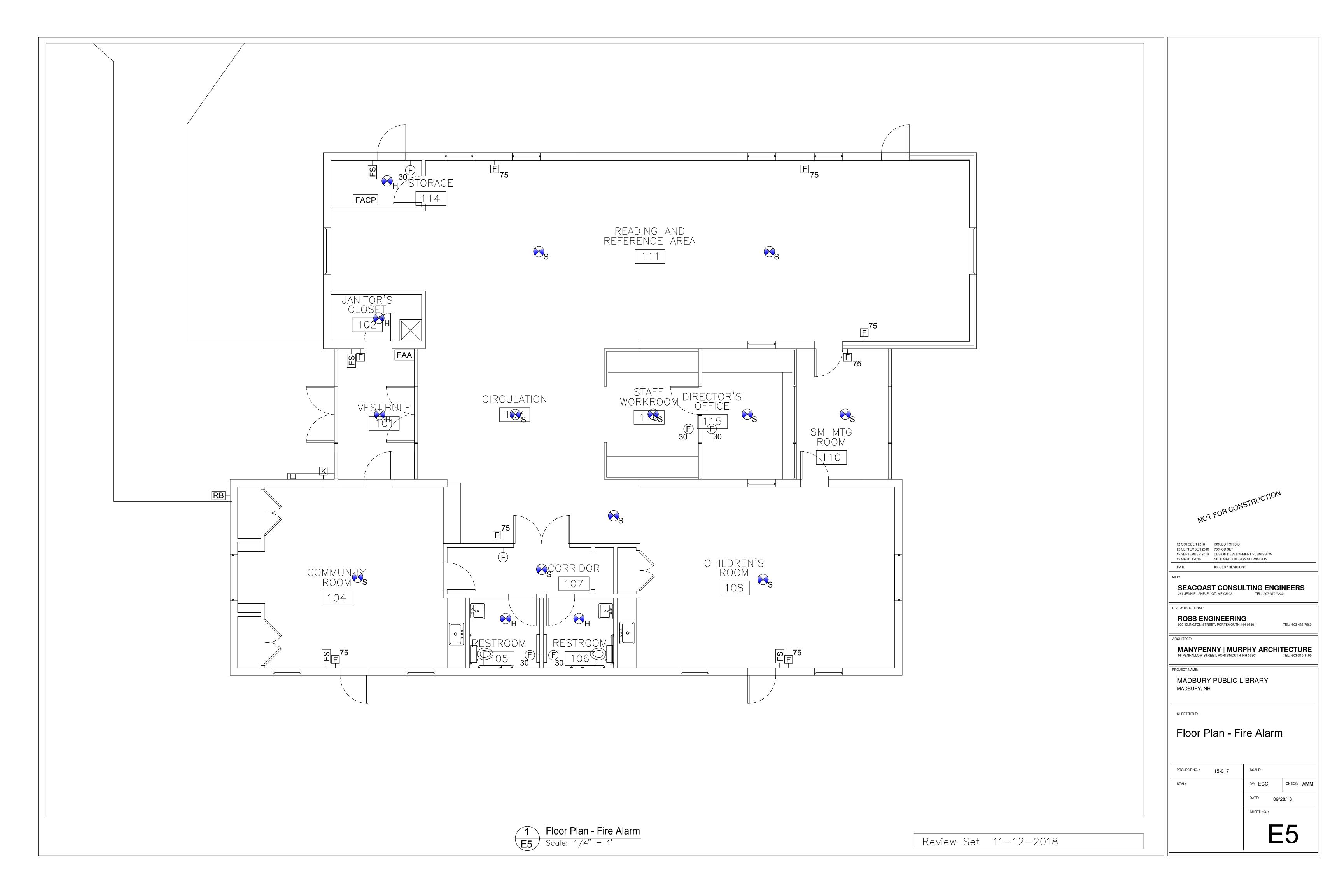
PROJECT NO. :	15-017	SCALE:	
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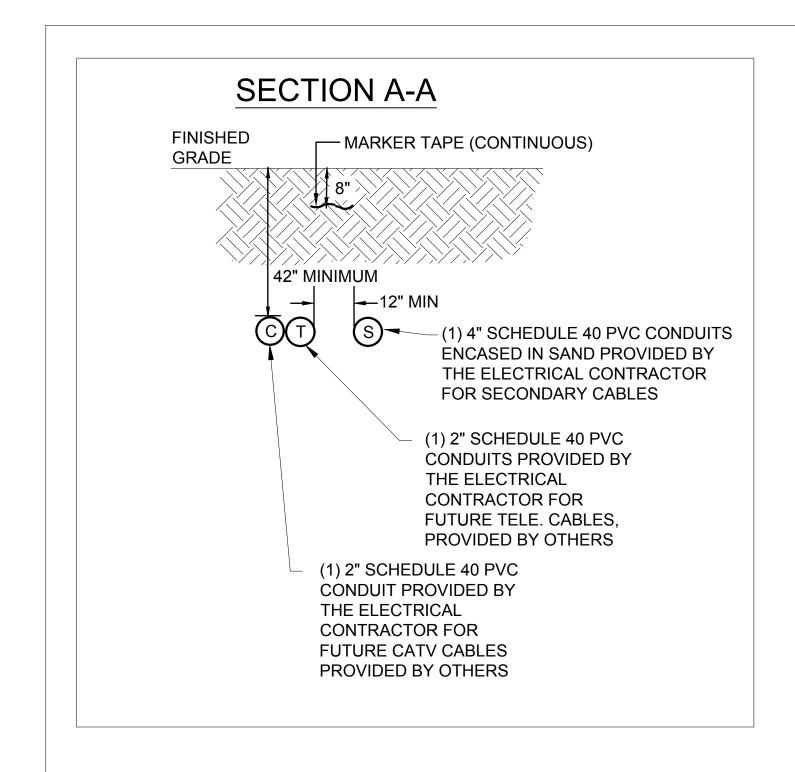
Review Set 11-12-2018

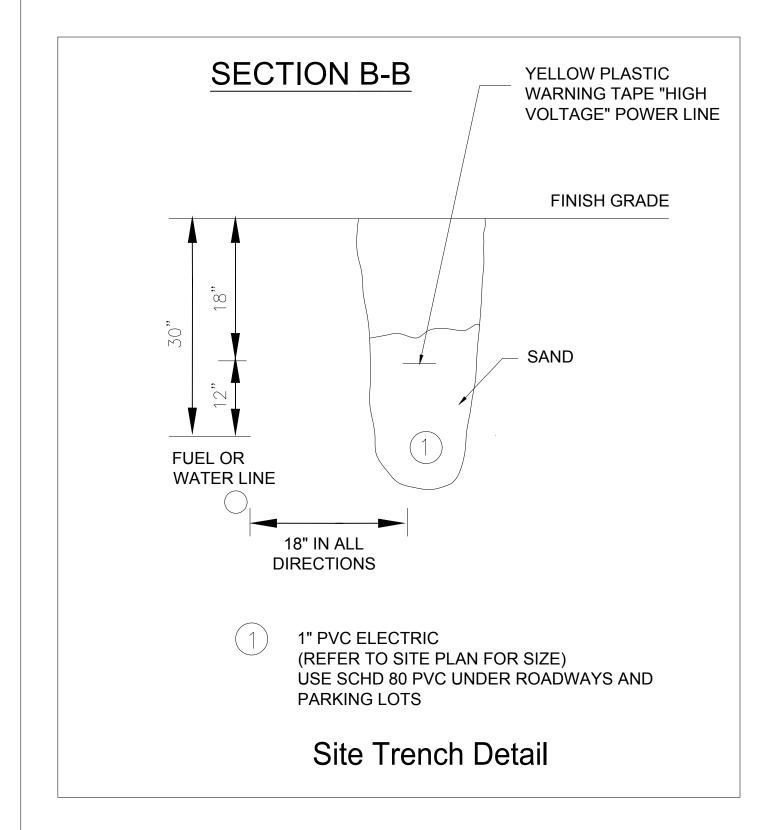


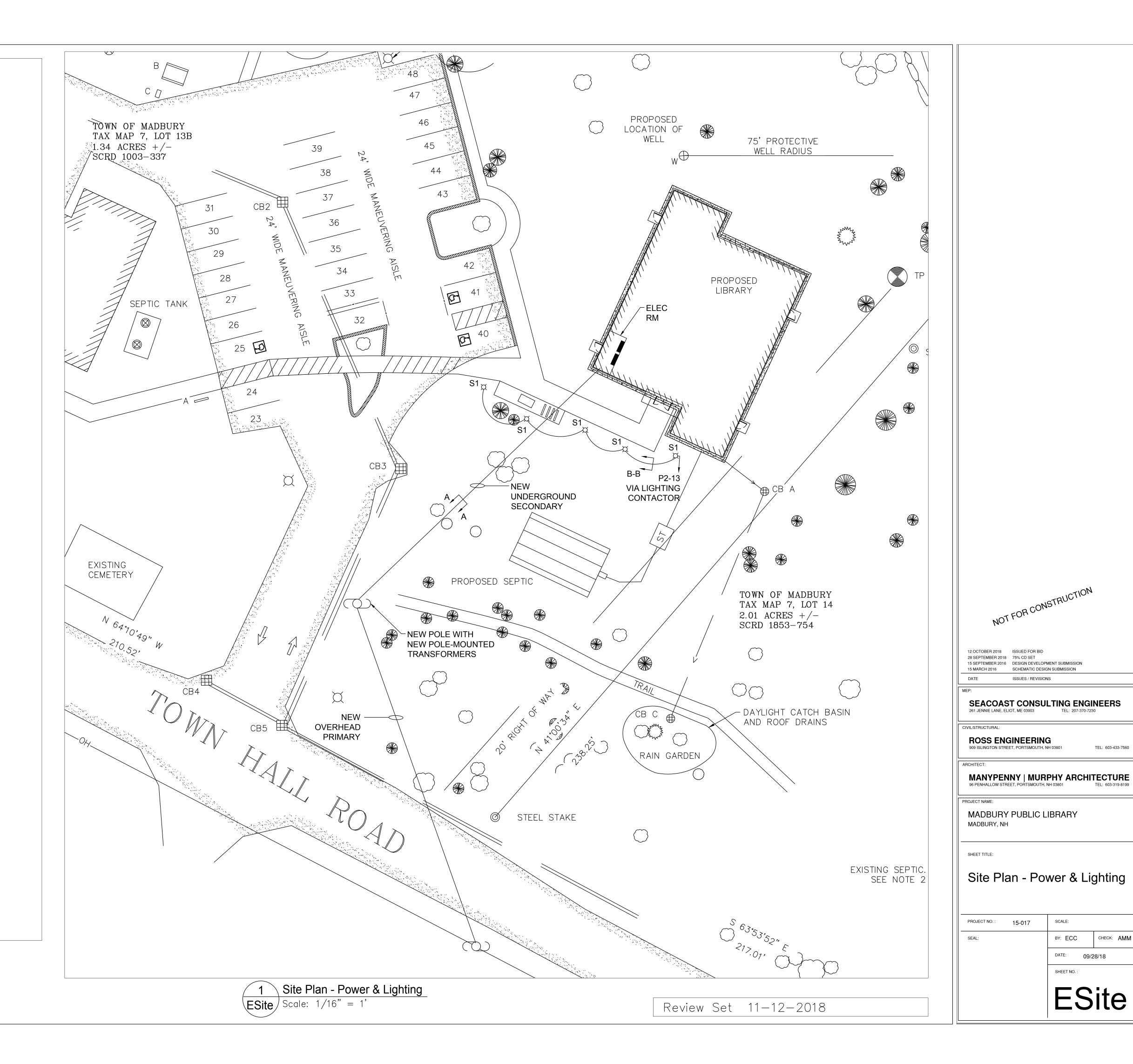












TEL: 603-433-7560

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