#### **DOCUMENT 00910**

#### **ADDENDA**

#### **ADDENDUM NUMBER 7**

**DATE:** June 15, 2012

PROJECT: Little Whiteface Ski Patrol Building

**AES PROJECT NO: 3760** 

**OWNER:** Essex County

**ARCHITECT: AES Northeast, PLLC** 

TO: Prospective Bidders/Plan Holders

This Addendum forms a part of the Contract Documents and modifies the Documents dated May 4, 2012, Addendum No. 1 dated May 15, 2012, Addendum No. 2 dated May 16, 2012, Addendum No. 3 dated May 30, 2012, Addendum No. 4 dated June 5, 2012, Addendum No. 5 dated June 6, 2012, Addendum No. 6 dated June 7, 2012 with amendments and additions noted below.

Acknowledge receipt of this Addendum in the space provided in the Bid Form. Failure to do so may disqualify the Bidder.

This Addendum consists of (51 Pages (including (21) Drawings); including DOCUMENT 00910 -ADDENDUM NO. 7 (7) Pages; DOCUMENT 00010-A – TABLE OF CONTENTS (3) Pages; SECTION 07270 – AIR BARRIERS (2) Pages; SECTION 07311 – ASPHALT SHINGLES (4) Pages; SECTION 07469 - WOOD SIDING (4) Pages; SECTION 07620 - SHEET METAL FLASHING AND TRIM (3) Pages; SECTION 08999 - MICROWAVE CONCEALMENT PANELS (4) Pages; SECTION 16100 -LIGHTNING PROTECTION (3) Pages; DRAWING C-101 – SITE PLAN, 24" X 36" (1); DRAWING C-102 – ENLARGED SITE PLAN, 24" X 36" (1); DRAWING C-201 – SITE PROFILES, 24" X 36" (1); DRAWING C-202 – SITE PROFILES, 24" X 36" (1); DRAWING S-001 – STRUCTURAL NOTES, 24" X 36" (1); DRAWING S-101 – ATTIC FLOOR & ROOF FRAMING PLANS, 24" X 36" (1); DRAWING S-201 – SECTION SHEET 2, 24" X 36" (1); DRAWING S-202 – SECTION & DETAIL SHEET 1, 24" X 36" (1); DRAWING S-204 – SECTION & DETAIL SHEET 3, 24" X 36" (1); DRAWING A-101 - FLOOR & CEILING PLANS, 24" X 36" (1); DRAWING A-102 - ATTIC, CUPOLA & ROOF PLANS, 24" X 36" (1); DRAWING A-201 – EXTERIOR ELEVATIONS, 24" X 36" (1); DRAWING A-202 – EXTERIOR ELEVATIONS, 24" X 36" (1); DRAWING A-301 – BUILDING SECTIONS, 24" X 36" (1); DRAWING A-401 – INTERIOR ELEVATIONS, RAMP & STAIR PLANS, 24" X 36" (1); DRAWING A-402 – WALL SECTIONS, 24" X 36" (1); DRAWING A-501 – CONSTRUCTION DETAILS, 24" X 36" (1); DRAWING A-601 – DOOR, WINDOW & FINISH SCHEDULES & DETAILS, 24" X 36" (1): DRAWING E-101 – ELECTRICAL PLANS, 24" X 36" (1): DRAWING E-102 - ELECTRICAL GROUNDING PLAN, 24" X 36" (1); DRAWING E-103 -SPECIAL SYSTEMS PLAN, 24" X 36" (1).

#### **CHANGES TO THE PROJECT MANUAL**

ITEM NO. 1

Narrative Summary: Adds and Deletes Necessary Sections.

DOCUMENT 00010 - TABLE OF CONTENTS

Delete: In its entirety.

Insert: DOCUMENT 00010-A – TABLE OF CONTENTS.

ITEM NO. 2

Narrative Summary: Delete Specification Section from Project Manual.

SECTION – 06600 – GLASS-REINFORCED PLASTIC FABRICATIONS

Delete: In its entirety.

ITEM NO. 3

Narrative Summary: Add Specification (Inadvertently Omitted).

SECTION – 07270 – AIR BARRIERS

Insert: SECTION 07270 – AIR BARRIERS

ITEM NO. 4

Narrative Summary: Add Specification (Inadvertently Omitted).

SECTION - 07311 - ASPHALT SHINGLES

Insert: SECTION 07311 – ASPHALT SHINGLES

ITEM NO. 5

Narrative Summary: Add Specification (Inadvertently Omitted).

SECTION - 07469 - WOOD SIDING

Insert: SECTION 07469 – WOOD SIDING

ITEM NO. 6

Narrative Summary: Add Specification (Inadvertently Omitted).

SECTION - 07620 - SHEET METAL FLASHING AND TRIM

Insert: SECTION 07620 - SHEET METAL FLASHING AND TRIM

ITEM NO. 7

Narrative Summary: Add New Specification Section.

SECTION – 08999 – MICROWAVE CONCEALMENT PANELS

Insert: SECTION 08999 – MICROWAVE CONCEALMENT PANELS

ITEM NO. 8

Narrative Summary: Revises Alarm Monitoring.

SECTION - 16140 - WIRING DEVICES

PART 2.4, Paragraph A

Remove: ".... and analog (0-5VDC)...."

ITEM NO. 9

Narrative Summary: Revises Temperature Sensors to Dry Contact Type.

SECTION - 16140 - WIRING DEVICES

PART 2.4, Paragraph C, Subparagraph 2

Remove: In its entirety.

Add: High and Low Level Temperature Limits: Johnson Controls A70 Series or

equal. Heavy duty temperature limit controls with auxiliary contact closure at set point. 3/8" x 3" bulb capillary, screwdriver adjustment, manual reset.

35 to 80 degree F low limit, 90-170 degree high limit.

ITEM NO. 10

Narrative Summary: Add New Specification Section.

SECTION - 16100 - LIGHTNING PROTECTION

Insert: SECTION 16100 - LIGHTNING PROTECTION

ITEM NO. 11

Narrative Summary: Delete FSC Certification Section 06185.

Delete: Paragraph 2.2A in its entirety.

#### **CHANGES TO THE DRAWINGS**

ITEM NO. 12

Narrative Summary: Revises Drawing.

DRAWING G-001 - TITLE SHEET

Insert: In the "Schedule of Drawings" Table: Drawing S-204 SECTION & DETAIL

SHEET 3.

ITEM NO. 13

Narrative Summary: Revises Drawing.

DRAWING C-101 – SITE PLAN

Delete: In its entirety.

Insert: C-101 – SITE PLAN - Revised per Addendum #7 dated 6/15/12.

ITEM NO. 14

**Narrative Summary: Revises Drawing.** 

DRAWING C-102 – ENLARGED SITE PLAN

Delete: In its entirety.

Insert: C-102 – ENLARGED SITE PLAN – Revised per Addendum #7 dated

6/15/12.

ITEM NO. 15

Narrative Summary: Revises Drawing.

DRAWING C-201 – SITE PROFILES

Delete: In its entirety.

Insert: C-201 –SITE PROFILES – Revised per Addendum #7 dated 6/15/12.

ITEM NO. 16

Narrative Summary: Revises Drawing.

DRAWING C-202 – SITE PROFILES

Delete: In its entirety.

Insert: C-202 –SITE PROFILES – Revised per Addendum #7 dated 6/15/12.

ITEM NO. 17

**Narrative Summary: Revises Drawing.** 

DRAWING S-001 - STRUCTURAL NOTES

Delete: In its entirety.

Insert: S-001 – STRUCTURAL NOTES – Revised per Addendum #7 dated 6/15/12.

ITEM NO. 18

**Narrative Summary: Revises Drawing.** 

DRAWING S-101 - ATTIC FLOOR & ROOF FRAMING PLANS

Delete: In its entirety.

Insert: S-101 – ATTIC FLOOR & ROOF FRAMING PLANS – Revised per

Addendum #7 dated 6/15/12.

ITEM NO. 19

**Narrative Summary: Revises Drawing.** 

DRAWING S-201 - SECTION SHEET 2

Delete: In its entirety.

Insert: S-201 – SECTION SHEET 2 – Revised per Addendum #7 dated 6/15/12.

ITEM NO. 20

Narrative Summary: Revises Drawing.

DRAWING S-202 – SECTION & DETAIL SHEET 1

Delete: In its entirety.

Insert: S-202 – SECTION & DETAIL SHEET 1 – Revised per Addendum #7 dated

6/15/12.

ITEM NO. 21

Narrative Summary: Add Drawing.

DRAWING S-204 – SECTION & DETAIL SHEET 3

Insert: S-204 – SECTION & DETAIL SHEET 3– Sheet added per Addendum #7

dated 6/15/12.

ITEM NO. 22

Narrative Summary: Revises Drawing.

DRAWING A-101 - FLOOR & CEILING PLANS

Delete: In its entirety.

Insert: A-101 – FLOOR & CEILING PLANS – Revised per Addendum #7 dated

6/15/12.

ITEM NO. 23

Narrative Summary: Revises Drawing.

DRAWING A-102 - ATTIC, CUPOLA & ROOF PLANS

Delete: In its entirety.

Insert: A-102 - ATTIC, CUPOLA & ROOF PLANS - Revised per Addendum #7

dated 6/15/12.

ITEM NO. 24

Narrative Summary: Revises Drawing.

DRAWING A-201 – EXTERIOR ELEVATIONS

Delete: In its entirety.

Insert: A-201 – EXTERIOR ELEVATIONS – Revised per Addendum #7 dated

6/15/12.

ITEM NO. 25

**Narrative Summary: Revises Drawing.** 

DRAWING A-202 – EXTERIOR ELEVATIONS

Delete: In its entirety.

Insert: A-202 – EXTERIOR ELEVATIONS – Revised per Addendum #7 dated

6/15/12.

ITEM NO. 26

Narrative Summary: Revises Drawing.

DRAWING A-301 – BUILDING SECTIONS

Delete: In its entirety.

Insert: A-301 – BUILDING SECTIONS – Revised per Addendum #7 dated 6/15/12.

ITEM NO. 27

Narrative Summary: Revises Drawing.

DRAWING A-401 – INTERIOR ELEVATIONS, RAMP & STAIR PLANS

Delete: In its entirety.

Insert: A-401 – INTERIOR ELEVATIONS, RAMP & STAIR PLANS – Revised per

Addendum #7 dated 6/15/12.

ITEM NO. 28

Narrative Summary: Revises Drawing.

DRAWING A-402 – WALL SECTIONS

Delete: In its entirety.

Insert: A-402 – WALL SECTIONS – Revised per Addendum #7 dated 6/15/12.

ITEM NO. 29

Narrative Summary: Revises Drawing.

DRAWING A-501 – CONSTRUCTION DETAILS

Delete: In its entirety.

Insert: A-501 – CONSTRUCTION DETAILS – Revised per Addendum #7 dated

6/15/12.

ITEM NO. 30

Narrative Summary: Revises Drawing.

DRAWING A-601 – DOOR, WINDOW & FINISH SCHEDULES & DETAILS

Delete: In its entirety.

Insert: A-601 – DOOR, WINDOW & FINISH SCHEDULES & DETAILS –

Revised per Addendum #7 dated 6/15/12.

ITEM NO. 31

Narrative Summary: Revises Drawing.

DRAWING E-101 – ELECTRICAL PLANS

Delete: In its entirety.

Insert: E-101 – ELECTRICAL PLANS – Revised per Addendum #7 dated 6/15/12.

ITEM NO. 32

**Narrative Summary: Revises Drawing.** 

DRAWING E-102 – ELECTRICAL GROUNDING PLAN

Delete: In its entirety.

Insert: E-102 – ELECTRICAL GROUNDING PLAN – Revised per Addendum #7

dated 6/15/12.

ITEM NO. 33

Narrative Summary: Revises Drawing.

DRAWING E-103 - SPECIAL SYSTEMS PLAN

Delete: In its entirety.

Insert: E-103 – SPECIAL SYSTEMS PLAN – Revised per Addendum #7 dated

6/15/12.

**QUESTIONS** 

Question No. 1 Is the generator indoors or outdoors?

ANSWER Indoors.

Question No. 2 What decibel rating is the generator?

ANSWER Not specified, critical grade muffler required.

Question No. 3 Section 16231, Page 7 states 120 hour fuel tank; but Section 16231 page 10 states 68

hour fuel tank. Which is correct?

ANSWER Minimum 68 hour fuel tank required at full load.

Question No. 4 Cable Entries clarification????

ANSWER Cable entry ports are part of the "E" Contract and specified in Section 16133.

Question No. 5 Information needed on missing specification section. Section 16100 – Lightning

Protection: Grounding of lightning protection system. Our company needs this

information to produce a bid for this project.

ANSWER Added Specification Section 16100 – Lightning Protection to this Addendum No.

7.

Question No. 6 Drawings do not show ladder or other type of access from communications room to

cupola/attic.

ANSWER Ladder has been added. See revised Drawings.

Question No. 7 Spec Section 02821 identifies fence as 10' while drawing A-101 shows 8'.

ANSWER The fence height has been reduced to 7'-0" (to allow clearance for cable tray).

Question No. 8 Would it be possible to waive the FSC standards for wood trusses? Suppliers believe

that such a product is difficult to come by.

ANSWER See Item #11 above.

Question No. 9 S-201 Section 10 shows 2x6 studded gable wall and conventional ladder framed roof

and ceiling back to T2 truss girder 4'-0" away. A-402 shows dropped gable end truss

and dropped trusses under the roof ladder (no ceiling ladder framing).

ANSWER A wood-framed (studded) gable wall is required as shown on structural

drawings. The architectural drawings have been revised accordingly and

included herewith.

Question No. 10 Will a siding spec be issued soon?

ANSWER: Specification Section 07469 – Wood Siding - is included herewith.

END DOCUMENT

#### DOCUMENT 00010-A

#### TABLE OF CONTENTS

Section Title

#### SERIES 0 DOCUMENTS

#### MISCELLANEOUS DOCUMENTS

00010-A Table of Contents

#### **BIDDING REQUIREMENTS**

- 00105 Invitation to Bid
- 00200 Instructions to Bidders
- 00411 Bid Form Stipulated Sum
- 00430 Bid Form Supplements
  - Essex County Bidder's Checklist (1 Page)
  - Essex County Certificate of Authority (1 Page)
  - Essex County Certification of Experience (1 Page)
  - Essex County Security Form #1: Consent of Surety (1 Page)
  - Essex County Statement of Surety's Intent (2 Pages)
  - Essex County Non-Collusive Bidding Certification (1 Page)
  - Essex County Contractor's Acknowledgement (1 Page)
  - Subcontractor's List (1 Page)
  - Cost Break Down (1 Page)

#### CONTRACTING REQUIREMENTS

- 00501 Agreement AIA
  - AIA A101 Agreement
- 00701 General Conditions AIA
  - AIA A201 General Conditions

#### 00811 Supplementary Conditions

- Essex County General Specifications for Procurement Contracts
- Appendix C Insurance Requirements Public Works Contractors
- Appendix D Standard Clauses for Essex County Contracts
- Contractor Progress Payment Waiver, Release and Discharge

00910 New York State Prevailing Wage Rates

#### **DIVISION 1 - GENERAL REQUIREMENTS**

- 01001 Special Conditions
- 01100 Summary
- 01200 Price and Payment Procedures
- 01230 Alternates
- 01300 Administrative Requirements
- 01330 Submittal Procedures
  - Submittal Coversheet
- 01400 Quality Requirements
- 01500 Temporary Facilities and Controls
- 01600 Product Requirements
- 01700 Execution Requirements

Closeout Checklist

#### 01800 Information Available to Bidders

- ATL Limited Hazardous Material Study, No. PL5260CE-01-02-11, dated February 2, 2011
- ATL Statement of Special Inspections

#### **DIVISION 2 - SITE CONSTRUCTION**

- 02055 Soils
- 02060 Aggregate
- 02221 Building Demolition
- 02311 Rough Grading
- 02315 Excavation and Fill
- 02316 Rock Removal
- 02320 Backfill
- 02324 Trenching
- 02821 Chain Link Fence and Gates

#### **DIVISION 3 – CONCRETE**

03300 Cast-In-Place Concrete

#### **DIVISION 4 – MASONRY**

- 04700 Manufactured Stone Veneer
- 04816 Concrete Unit Masonry

#### **DIVISION 6 - WOOD AND PLASTICS**

- 06100 Rough Carpentry
- 06112 Ramp and Stair Framing and Railings
- 06160 Sheathing
- 06185 Shop-Fabricated Wood Trusses

#### DIVISION 7 - THERMAL AND MOISTURE PROTECTION

- 07212 Board Insulation
- 07217 Blown Insulation
- 07260 Vapor Retarders
- 07261 Crawl Space Vapor Barrier
- 07270 Air Barriers
- 07311 Asphalt Shingles
- 07469 Wood Siding
- 07620 Sheet Metal Flashing and Trim
- 07840 Firestopping
- 07900 Joint Sealers

#### **DIVISION 8 - DOORS AND WINDOWS**

- 08255 Polyester Flush Doors
- 08311 Access Panels
- 08552 Aluminum-Clad Wood Windows
- 08710 Door Hardware
- 08800 Glazing
- 08999 Microwave Concealment Panels

DIVISION 9 - 1	FINISHES
09250	Gypsum Board Systems
09650	Gypsum Board Systems Resilient Flooring
09900	Paints and Coatings
DIVISION 10 -	SPECIALTIES
10210	Louvers
	Fire Extinguishers
10999	
DIVISION 12 -	- FURNISHINGS
	Casework
DIVISION 15 -	MECHANICAL
	Hangers and Supports
	Mechanical Insulation
	Pipes and Tubes
15760	Terminal Heating and Cooling Units
15810	Terminal Heating and Cooling Units Ducts
15820	Duct Accessories
	Air Outlets and Inlets
DIVISION 16 -	- ELECTRICAL
	Grounding and Bonding
	Electrical Supports and Seismic Restraints
16075	Electrical Identification
	Lightning Protection
16121	Medium-Voltage Cable
	Building Wire and Cable
	Raceway and Boxes
	Cable Trays for Communications Systems
	Wiring Devices
	Generator Set
16271	Pad-Mounted Transformers
16289	Transient Voltage Surge Suppressors
16413	Automatic Delayed Transition Transfer Switch
16440	Panelboards
16510	Interior and Exterior Luminaires
	Emergency Lighting
16720	

#### **SECTION 07270**

#### **AIR BARRIERS**

#### PART 1 GENERAL

#### 1.1 SUMMARY

A. Section includes air leakage criteria for primary air seal building enclosure materials and assemblies; materials and installation methods supplementing air seal materials and assemblies; and air seal materials to connect and seal openings, joints, and junctions between other air seal materials and assemblies.

#### 1.2 REFERENCES

- A. ANSI A58.1 Minimum Design Loads For Buildings and Other Structures.
- B. ASTM A123 Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
- C. ASTM C920 Elastomeric Joint Sealants.
- D. ASTM E283 Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen.
- E. ASTM E330 Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
- F. SWRI (Sealant, Waterproofing and Restoration Institute) Sealant and Caulking Guide Specification.

#### 1.3 DEFINITIONS

A. Air Barrier: Continuous network of materials and joints providing air tightness, with adequate strength and stiffness to not deflect excessively under air pressure differences, to which it will be subjected in service. It can be comprised of single material or combination of materials to achieve performance requirements.

#### 1.4 DESIGN REQUIREMENTS

A. Perform design work in accordance with ANSI A58.1.

#### 1.5 SUBMITTALS

A. Product Data: Submit data on material characteristics, performance criteria, limitations.

#### 1.6 ENVIRONMENTAL REQUIREMENTS

A. Section 01600 - Product Requirements.

B. Maintain temperature and humidity recommended by materials manufacturers before, during and after installation.

#### 1.7 COORDINATION

- A. Section 01300 Administrative Requirements: Coordination and project conditions.
- B. Coordinate the Work of this section with sections referencing this section.

#### PART 2 PRODUCTS

#### 2.1 AIR BARRIERS

- A. Manufacturers:
  - 1. Dupont Tyvek "Commercial Wrap".
  - 2. Substitutions or approved equal: Section 01600 Product Requirements.
- B. Product Description:
  - 1. ASTM E-1677 Type 1.
  - 2. Non woven, non perforated, breathable building wrap.

#### 2.2 ACCESSORIES

A. Tape: Polyethylene self adhering type, mesh reinforced, 50 mm wide, compatible with sheet material.

#### PART 3 EXECUTION

#### 3.1 INSTALLATION

- A. Install air barrier to maintain continuity across different substrates and interface with construction.
- B. Install over wood sheathing.

#### 3.2 PROTECTION OF INSTALLED CONSTRUCTION

- A. Section 01700 Execution Requirements: Protecting installed construction.
- B. Do not permit adjacent work to damage work of this section.

#### **SECTION 07311**

#### **ASPHALT SHINGLES**

#### PART 1 GENERAL

#### 1.1 SUMMARY

- A. Section includes granular surfaced asphalt shingle roofing, moisture shedding underlayment, eave, and valley protection.
  - 1. Provide associated metal flashings and accessories, matching fasteners, premolded plumbing roof sleeves, pre-finished aluminum drip edge, see Section 07620.

#### 1.2 REFERENCES

- A. ASTM B209/B209M Aluminum and Aluminum-Alloy Sheet and Plate.
- B. ASTM D225 Asphalt Shingles (Organic Felt) Surfaced with Mineral Granules.
- C. ASTM D226 Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
- D. ASTM D2178 Asphalt Glass (Felt) Used in Roofing and Waterproofing.
- E. ASTM 2822 Asphalt Roof Cement.
- F. ASTM 3018 Class A Asphalt Shingles Surfaced with Mineral Granules.
- G. ASTM D3161 Test Method for Wind-Resistance of Asphalt Shingles (Fan-Induced Method).
- H. ASTM D3462 Asphalt Shingles Made From Glass Felt and Surfaced With Mineral Granules.
- I. ASTM D4586 Asphalt Roof Cement, Asbestos Free.
- J. NRCA (National Roofing Contractors Association) Steep Roofing Manual.
- K. US 55B (Underwriters Laboratories, Inc.) Class C Asphalt Organic-Felt Sheet Roofing and Shingles.
- L. UL 580 (Underwriters Laboratories, Inc.) Tests for Wind Uplift Resistance of Roof Assemblies.
- M. UL 997 (Underwriters Laboratories, Inc.) Wind Resistance of Shingles.

#### 1.3 SUBMITTALS

- A. Section 01330 Submittal Procedures: Submittal procedures.
- B. Product Data: Submit data indicating material characteristics, performance criteria, and limitations.

- C. Samples: Submit two samples of each shingle color indicating color range and finish texture/pattern; for color and texture selection.
- D. Manufacturer's Certificate: Provide Certificate of Compliance from an independent laboratory indicating that the asphalt fiber glass shingles made in normal production meet or exceed the requirements of the following:
  - 1. ASTM E108/UL 790 Class A Fire Resistance.
  - 2. ASTM D3161/UL 997 Type I Wind Resistance.
  - 3. ASTM 3462.

#### 1.4 ENVIRONMENTAL REQUIREMENTS

- A. Section 01600 Product Requirements.
- B. Do not install eave protection and shingles when surface, ambient air, or wind chill temperatures are below 45 degrees F.

#### 1.5 WARRANTY

- A. Section 01700 Execution Requirements: Product warranties and product bonds.
- B. Furnish lifetime manufacturer warranty for asphalt shingles.

#### 1.6 EXTRA MATERIALS

- A. Section 01700 Execution Requirements: Spare parts and maintenance products.
- B. Supply 35 sq. ft. of extra shingles of each color.

### PART 2 PRODUCTS

#### 2.1 ASPHALT SHINGLES

- A. Manufacturers:
  - 1. Certainteed Landmark.
  - 2. IKO Cambridge.
  - 3. Owens Corning.
  - 4. Substitutions: Section 01600 Product Requirements.
- B. Product Description: Asphalt shingles conforming to ASTM D 3018 Type 1 Self Sealing; UL Certification of ASTM D 3462, UL 997 Wind Resistance, and UL Class A Fire Resistance, glass fiber mat base; ceramically colored/UV resistant mineral surface granules across entire face of shingle; architectural style/tab.
  - 1. Weight: 305 pounds per square (100 square feet).
  - 2. Color: As selected by Architect from manufacturer's standards.
  - 3. Algae resistant.
  - 4. Lifetime warranty. 10-year full warranty.

#### 2.2 COMPONENTS

- A. Eave (Ice Dam) Protection: Sheet barrier of rubberized asphalt bonded to sheet polyethylene, 40 mil total thickness, with strippable treated release paper; winter guard as manufactured by CertainTeed, or equal.
- B. Underlayment: CertainTeed "Roofer's" Select"; asphalt-impregnated fiberglass-reinforced organic felt designed for use on roof decks as a water-resistant layer beneath roofing shingles, or equal.

#### 2.3 ACCESSORIES

- A. Nails: Standard round wire shingle type hot dipped zinc coated steel type, of sufficient length to penetrate through roof sheathing.
- B. Plastic Cement: ASTM D2822, Asphalt type with mineral fiber components, free of toxic solvents, capable of setting within 24 hours at temperatures of 75 degrees F and 50 percent RH.
- C. Lap Cement: Fibrated cutback asphalt type, recommended for use in application of underlayment, free of toxic solvents.
- D. Ridge Vents: Plastic, with vent openings that do not permit direct water or weather entry; V-400 style manufactured by COR-A-VENT.
- E. Flashing Materials:
  - 1. Sheet Flashings: Refer to Section 07620.
- F. Bituminous Paint: Acid and alkali resistant type; black color.

#### 2.4 FABRICATION

- A. Form flashings to profiles indicated on Drawings, and to protect roofing materials from physical damage and shed water.
- B. Form flashing sections square and accurate to profile, in maximum possible lengths, free from distortion or defects detrimental to appearance or performance.
- C. Hem exposed edges of flashings minimum ¼ inch on underside.
- D. Apply bituminous paint on concealed surfaces of flashings.

#### PART 3 EXECUTION

#### 3.1 EXAMINATION

- A. Section 01300 Administrative Requirements: Coordination and project conditions.
- B. Verify roof penetrations and plumbing stacks are in place and flashed to deck surface.
- C. Verify deck surfaces are dry, free of ridges, warps, or voids.

#### 3.2 PREPARATION

- A. Fill knot holes and surface cracks with latex filler at areas of bonded eave protection.
- B. Broom clean deck surfaces under eave protection and underlayment.

#### 3.3 INSTALLATION

- A. Eave (Ice Dam) Protection Installation:
  - 1. Place eave edge and gable drip edge metal flashings tight with fascia boards. Weather lap joints minimum 2 inches and seal with plastic cement. Secure flange with nails, 2 rows, 3" D.C.
  - 2. Provide rubberized membrane up-slope beyond outside edge of aluminum drip edge and around roof penetrations.
- B. Protective Underlayment Installation:
  - 1. Place one ply of underlayment over entire area with ends and edges weather lapped minimum 4 inches. Stagger end laps of each consecutive layer. Nail in place.
- C. Valley Protection Installation:
  - 1. Adhere one ply of rubberized membrane, centered over valleys. Weather lap joints minimum 2 inches.
- D. Metal Flashing and Accessories Installation:
  - 1. Weather lap joints and seal weather tight with plastic cement.
  - 2. Flash and seal work weather tight.
- E. Asphalt Shingles Installation:
  - 1. Place shingles in straight coursing pattern with 5 inches weather exposure to produce double thickness over full roof area. Provide double course of shingles at eaves.
  - 2. Project first course of shingles ¾ inch beyond fascia boards.
  - 3. Extend shingles ½ inch beyond face of gable edge fascia boards.
  - 4. Extend shingles on one slope across valley and fasten. Trim shingles from other slope 2 inches from valley center line to achieve closed cut valley, concealing valley protection.
  - 5. Cap hips and ridges with individual shingles, maintaining 5 inch weather exposure. Place to avoid exposed nails.
  - 6. Coordinate installation of roof mounted components or work projecting through roof with weather tight placement of Counter-flashings.
  - 7. Complete installation to provide weather tight service.

#### 3.4 PROTECTION OF INSTALLED CONSTRUCTION

- A. Section 01700 Execution Requirements: Protecting installed construction.
- B. Do not permit traffic over finished roof surface.

#### **SECTION 07469**

#### **WOOD SIDING**

#### PART 1 GENERAL

#### 1.1 SUMMARY

- A. Section includes sheathing paper, wood siding for walls, related trim, corner boards, flashings, accessories, and fastenings.
  - 1. Type of Siding: "Log" style horizontal boards and cedar shingles.
  - 2. Fascia and soffit.
  - 3. Log style trim.
- B. Related Sections:
  - 1. Section 07900 Joint Sealers.
  - 2. Section 09900 Paints and Coatings.
  - 3. Section 06112 Framing and Sheathing.

#### 1.2 REFERENCES

- A. Cedar Shake and Shingle Bureau (CSSB).
- B. ASTM International:
  - 1. ASTM D226 Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
- C. American Wood-Preservers' Association:
  - 1. AWPA C2 Lumber, Timbers, Bridge Ties, and Mine Ties, Pressure Treatment.
  - 2. AWPA C9 Plywood Preservative Treatment by Pressure Process.
- D. National Institute of Standards and Technology:
  - 1. NIST PS 20 American Softwood Lumber Standard.
- E. Northeastern Lumber Manufacturers Association:
  - 1. NELMA Standard Grading Rules for Northeastern Lumber.

#### 1.3 SUBMITTALS

- A. Section 01330 Submittal Procedures: Submittal procedures.
- B. Product Data: Submit data indicating materials, component profiles, fastening methods, jointing details, sizes, surface texture, finishes, and accessories.

#### 1.4 QUALITY ASSURANCE

- A. Grade materials in accordance with the following:
  - 1. Lumber Grading: Certified by NELMA.

- 2. Shingles: Per CSSB.
- B. Maintain one copy of each document on site.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Section 01600 Product Requirements: Product storage and handling requirements.
- B. Store in ventilated areas with constant minimum temperature of 60 degrees F and maximum relative humidity of 55 percent.

#### 1.6 WARRANTY

- A. Section 01700 Execution Requirements: Product warranties and product bonds.
- B. Furnish five year manufacturer warranty for wood siding.

#### **PART 2 PRODUCTS**

#### 2.1 WOOD SIDING

- A. Horizontal Boards: "Log" style (round 6" nominal face) siding, kiln-dried lumber siding, maximum 10 percent moisture content, eastern white pine species, rabbetted joints.
- B. Cedar Shingles: CSSB sized and graded, No. 2 (Red Label) long, even bottom style.
- C. Fascia: 5/4" thick x height, EWP species, premium grade.
- D. Soffit: ½" CDX plywood with AC veneer.
- E. Log Style Trim: Eastern white pine, debarked, size as noted on drawings.

#### 2.2 SHEATHING

A. Exterior Plywood: APA/EWA Panel CDX type, sanded; Group 1 species face veneer; core material of veneer.

#### 2.3 ACCESSORIES

- A. Nails: Hot dipped galvanized type; non-staining, of size and strength to securely and rigidly retain the work.
- B. Building Paper: Spun bonded polyolefin (Tyvek or equal).
- C. Flashing: Refer to Spec Section 07620.
- D. Accessory Components: Starter strips, and corner boards of same material and finish as siding, manufactured from whole logs to profiles indicated on drawings.

E. Preservative: Clear wood saturating type.

#### 2.4 FABRICATION - BOARD SIDING

- A. Board Siding:
  - 1. Size: 3 inch thick, 6 inch high nominal board with 1/2 inch lap joint.
  - 2. Board Profile: Rabbeted lap joint.
  - 3. Surface Texture: Sanded.

#### PART 3 EXECUTION

#### 3.1 EXAMINATION

- A. Section 01300 Administrative Requirements: Coordination and project conditions.
- B. Verify framing, substrate surfaces, and wall openings are ready to receive work.

#### 3.2 PREPARATION

- A. Preservative Treatment: Apply preservative treatment in accordance with AWPA.
  - 1. Verify materials do not exceed specified percent moisture content before applying wood preservative treatment.
  - 2. Brush apply two coats of preservative treatment to siding and related trim.
- B. Treat site-sawn ends of wood siding. Allow preservative to cure prior to erecting materials.
- C. Prime paint surfaces in contact with cementitious materials.

#### 3.3 INSTALLATION - BUILDING PAPER

- A. Building Paper: Install one layer of building paper horizontally on sheathed walls.
  - 1. Weather lap edges and ends minimum 6 inches.
  - 2. Stagger vertical joints.
  - 3. Staple in place.

#### 3.4 INSTALLATION - SIDING

- A. Board Siding: Install board siding using single course method with 6 inch approximate exposure.
  - 1. Install metal flashings at internal and external corners, sills, and head of wall openings and gables.
  - 2. Nail at maximum 12 inches oc. Fasten siding in place level and plumb. Nail to aligned pattern.
  - 3. Miter horizontal joints tight at 45 degrees. Miter external corners.
  - 4. Install siding for natural shed of water.
  - 5. Position cut ends over bearing surfaces. Sand cut edges smooth and clean.
  - 6. Install corner strips, closures, trim.

7. Touch-up prefinished disfigured painted surfaces. Unsightly touch-up will require removal and replacement of affected siding.

#### B. Shingle Siding:

- 1. Place shingles in accordance with CSSB requirements to produce straight coursing pattern with 6 inch approximate weather exposure to produce double coverage.
- 2. Install shingles with 0.25 to 0.375 inch space between shingles.
- 3. Stagger side laps in adjacent courses minimum 1.5 inches.
- 4. Complete installation to provide weather tight service.

#### C. Preparation for Site Finishing:

- 1. Set exposed fasteners, fill set holes, sand smooth.
- 2. Site Finishing: Specified in Section 09900.

#### 3.5 ERECTION TOLERANCES

- A. Section 01400 Quality Requirements: Tolerances.
- B. Maximum Variation From Plumb Level: 1/4 inch per 10 feet.
- C. Maximum Offset From Joint Alignment: 1/8 inch.

#### **SECTION 07620**

#### SHEET METAL FLASHING AND TRIM

#### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes the following:
  - 1. Sheet metals.
  - 2. Miscellaneous materials.
  - 3. Fabrication.

#### 1.2 SUBMITTALS

- A. Product Data: For each product indicated.
- B. Shop Drawings: Show layouts, profiles, shapes, seams, dimensions, and details for fastening, joining, supporting, and anchoring sheet metal flashing and trim.
- C. Samples: For each type of sheet metal flashing and trim.

#### 1.3 QUALITY ASSURANCE

- A. Sheet Metal Flashing and Trim Standard: Comply with SMACNA's "Architectural Sheet Metal Manual." Conform to dimensions and profiles shown unless more stringent requirements are indicated.
- B. Preinstallation Conference: Conduct conference at Project site.

#### PART 2 - PRODUCTS

#### 2.1 SHEET METALS

- A. Aluminum Sheet: ASTM B 209, Alloy 3003, 3004, 3105, or 5005, Temper suitable for forming and structural performance required, but not less than H14, finished as follows:
  - 1. Siliconized-Polyester Coating: Epoxy primer and silicone-modified, polyester-enamel topcoat.
    - a. Color: As selected by Architect from manufacturer's full range.

#### 2.2 MISCELLANEOUS MATERIALS

- A. General: Provide materials and types of fasteners, solder, welding rods, protective coatings, separators, sealants, and other miscellaneous items as required for complete sheet metal flashing and trim installation.
- B. Fasteners: Wood screws, annular threaded nails, self-tapping screws, self-locking rivets and bolts, and other suitable fasteners designed to withstand design loads.

- 1. Exposed Fasteners: Heads matching color of sheet metal by means of plastic caps or factory-applied coating Stainless steel where indicated.
- 2. Fasteners for Flashing and Trim: Blind fasteners or self-drilling screws, gasketed, with hex washer head.
- 3. Blind Fasteners: High-strength aluminum or stainless-steel rivets.
- C. Sealing Tape: Pressure-sensitive, 100 percent solids, polyisobutylene compound sealing tape with release-paper backing. Provide permanently elastic, nonsag, nontoxic, nonstaining tape.
- D. Elastomeric Sealant: ASTM C 920, elastomeric polyurethane polymer sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and trim and remain watertight.
- E. Butyl Sealant: ASTM C 1311, single-component, solvent-release butyl rubber sealant, polyisobutylene plasticized, heavy bodied for hooked-type expansion joints with limited movement.
- F. Bituminous Coating: Cold-applied asphalt mastic, SSPC-Paint 12, compounded for 15-mil dry film thickness per coat.

#### 2.3 FABRICATION, GENERAL

- A. General: Custom fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of item indicated. Shop fabricate items where practicable. Obtain field measurements for accurate fit before shop fabrication.
- B. Fabricate sheet metal flashing and trim without excessive oil canning, buckling, and tool marks and true to line and levels indicated, with exposed edges folded back to form hems.
  - 1. Seams for Aluminum: Fabricate nonmoving seams with flat-lock seams. Form seams and seal with epoxy seam sealer. Rivet joints for additional strength.
  - 2. Seams for Other Than Aluminum: Fabricate nonmoving seams in accessories with flat-lock seams. Tin edges to be seamed, form seams, and solder.
- C. Sealed Joints: Form nonexpansion but movable joints in metal to accommodate elastomeric sealant to comply with SMACNA recommendations.
- D. Expansion Provisions: Where lapped or bayonet-type expansion provisions in the Work cannot be used, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with elastomeric sealant concealed within joints.
- E. Conceal fasteners and expansion provisions where possible on exposed-to-view sheet metal flashing and trim, unless otherwise indicated.
- F. Fabricate cleats and attachment devices from same material as accessory being anchored or from compatible, noncorrosive metal, and in thickness not less than that of metal being secured.

#### PART 3 - EXECUTION

#### 3.1 INSTALLATION, GENERAL

- A. General: Anchor sheet metal flashing and trim and other components of the Work securely in place, with provisions for thermal and structural movement. Use fasteners, protective coatings, separators, sealants, and other miscellaneous items as required to complete sheet metal flashing and trim system.
  - 1. Torch cutting of sheet metal flashing and trim is not permitted.
- B. Metal Protection: Where dissimilar metals will contact each other or corrosive substrates, protect against galvanic action by painting contact surfaces with bituminous coating or by other permanent separation as recommended by fabricator or manufacturers of dissimilar metals.
- C. Install exposed sheet metal flashing and trim without excessive oil canning, buckling, and tool marks.
- D. Install sheet metal flashing and trim true to line and levels indicated. Provide uniform, neat seams with minimum exposure of solder, welds, and elastomeric sealant.
- E. Install sheet metal flashing and trim to fit substrates and to result in watertight performance. Verify shapes and dimensions of surfaces to be covered before fabricating sheet metal.
  - 1. Space cleats not more than 12 inches apart. Anchor each cleat with two fasteners. Bend tabs over fasteners.
- F. Expansion Provisions: Provide for thermal expansion of exposed flashing and trim. Space movement joints at a maximum of 10 feet with no joints allowed within 24 inches of corner or intersection. Where lapped or bayonet-type expansion provisions cannot be used or would not be sufficiently watertight, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with elastomeric sealant concealed within joints.
- G. Fasteners: Use fasteners of sizes that will penetrate substrate not less than 1-1/4 inches for nails and not less than 3/4 inch for wood screws.
  - 1. Aluminum: Use stainless-steel fasteners.
  - 2. Copper: Use stainless-steel fasteners.
- H. Seal joints with elastomeric sealant as required for watertight construction.

#### **SECTION 08999**

#### MICROWAVE CONCEALMENT PANELS

#### PART 1 GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification Sections, apply to work of this section.

#### 1.2 SUMMARY

- A. This section includes the following Products & Fabrications:
  - 1. Microwave Concealment Panels (MCP) for Cupola Openings.

#### 1.3 SCOPE OF WORK

A. Furnish all labor, materials, equipment and incidentals necessary to install the microwave concealment panels (MCP) products as specified herein.

#### 1.4 QUALITY ASSURANCE

- A. The material covered by these specifications shall be furnished by a certified manufacturer of proven ability who has regularly engaged in the manufacture and installation of MCP systems.
- B. Substitution of any component or modification of system shall be made only when approved by the Architect or Engineer.
- C. Fabricator Qualifications: Firm experienced in successfully producing MCP fabrications similar to that indicated for this project, with sufficient production capacity to produce required units without causing delay in the work.
- D. In addition to requirements of these specifications, comply with manufacturer's instructions and recommendations for work.

#### 1.5 DESIGN CRITERIA

- A. The design of MCP products including connections shall be in accordance with governing building codes and applicable standards.
- B. Structural members shall be designed to support all applied loads. Deflection in any direction shall not be more than L/180 of span for structural members. Connections shall be designed to transfer the loads.
- C. Panels shall be designed to withstand applicable wind loads in excess of 110 mph at an elevation of 6,000 ft. above sea level.

- D. Panels shall be weather tight construction.
- E. Panels shall allow radio frequencies up to 80 GHz and a maximum of 1db loss.

#### 1.6 SUBMITTALS

- A. Shop drawings of all fabricated MCP shall be submitted to the Architect for approval. Fabrication shall not start until receipt of Architect's approval marked "Approved As Submitted" or "Approved As Noted".
- B. Manufacturer's catalog data showing:
  - 1. Materials of construction
- C. Detail shop drawings showing:
  - 1. Dimensions
  - 2. Sectional assembly
  - 3. Location and identification mark
  - 4. Size and type of supporting frames required

#### 1.7 SHIPPING AND STORAGE INSTRUCTIONS

- A. All systems, sub-systems and structures shall be shop fabricated and assembled into the largest practical size suitable for transporting.
- B. All materials and equipment necessary for the fabrication and installation of MCP and appurtenances shall be stored before, during, and after shipment in a manner to prevent cracking, twisting, bending, breaking, chipping or damage of any kind to the materials or equipment. Any material which, in the opinion of the Architect, has become damaged as to be unfit for use, shall be promptly removed from the site of work, and the Contractor shall receive no compensation for the damaged material or its removal.
- C. Identify and match-mark all materials, items and fabrications for installation and field assembly.

#### PART 2 PRODUCTS

#### 2.1 GENERAL

- A. Materials used in the manufacture of the MCP products shall be raw materials in conformance with the specification.
- B. All materials shall be of the kind and quality specified.
- C. All MCP products noted in 2.2 shall be manufactured using a pultruded process utilizing polyester or vinyl ester resin with flame retardant and ultraviolet (UV) inhibitor additives. A synthetic surface veil shall be the outermost layer covering the exterior surface. The flame retardant FRP shapes shall achieve a flame spread rating of 25 or less in accordance with ASTM test method E-84.

- D. If required, after fabrication, all cut ends, holes and abrasions of FRP shapes shall be sealed with a compatible resin coating.
- E. FRP products exposed to weather shall contain an ultraviolet inhibitor. Should additional ultraviolet protection be required, a one mil minimum UV coating can be applied.
- F. All exposed surfaces shall be smooth and true to form.
- G. Manufacturers:
  - 1. Atlantic Concealment, Windham, ME, www.atlantic-concealment.com.
  - 2. Stealth Concealment Solutions Inc., N. Charleston, SC, www.stealthsite.com.
  - 3. Or equal manufacturer approved by architect, design engineer or owner.
- H. Fasteners: Stainless steel for all bolts, screws, etc.

#### 2.2 STRUCTURAL SHAPES (FRAMING)

#### A. Material

1. Structural shapes and plate shall be made from isophthalic polyester or vinyl ester resin with fire retardant additives to meet a flame spread rating of less than 25 per ASTM E-84 and meet the self-extinguishing requirements of ASTM D-635. All structural shapes shall contain a UV inhibitor.

#### B. Process

- 1. Manufactured by the pultrusion process.
- 2. Structural FRP members' composition shall consist of a glass fiber reinforced polyester or vinyl ester resin matrix, approximately 50% glass by weight. A synthetic surface veil shall be the outermost layer covering the exterior surfaces. Glass strand rovings shall be used internally for longitudinal strength. Continuous strand glass mats or stitched reinforcements shall be used internally for transverse strength.

#### 2.3 PANELS

- A. Features and Applications for Flexible MicrowaveWindow<sup>TM</sup> Panel:
  - 1. RF friendly up to 80 GHz.
  - 2. Very Low Dielectric Constant and Loss Tangent.
  - 3. Weather and Insect Resistant.
  - 4. UV treated.
  - 5. Stand-alone product includes innovative pre-tensioned FRP frame.
  - 6. Color white.

#### B. Typical Data – Flexible Microwave Window

1. Mechanical:

Maximum frame dimensions: 8 ft x 10 ft
Typical frame material: FRP (fiberglass)

Radome material: Polyester or PTFE composite

Membrane tensile strength: 4300 N/s cm typical Membrane weight: 890 g/m^2 typical Membrane thickness: 1 mm +/- typical

Membrane water absorption: .5% typical Rough opening material required: Wood or metal

UV stabilized: Yes

Paintable surface: No (frame is painted)

Membrane colors: White is standard, other colors available

FRP frame: Pre-fabricated by factory

Frame depth: 6" typical

Membrane tensioning: Spring loaded proprietary tensioning system

2. RF

Insertion loss at nominal incidence: Less than 1 db thru 80 GHz

Dielectric Constant @ 10GHz 2.8 (typical)

#### PART 3 EXECUTION

#### 3.1 PREPARATION

A. Coordinate and furnish anchorages, setting drawings, diagrams, templates, instructions and directions for installation of anchorages. Coordinate delivery of such items to project site.

#### 3.2 INSTALLATION, GENERAL

- A. Fastening to in-place construction: Provide anchorage devices and fasteners where necessary for securing miscellaneous MCP fabrications to in-place construction; include threaded fasteners for concrete and masonry inserts, toggle bolts, through-bolts, lag bolts and other connectors as determined by the Architect.
- B. Cutting, fitting and placement: Perform cutting, drilling and fitting required for installation of miscellaneous MCP fabrications. Set MCP fabrication accurately in location, alignment and elevation; with edges and surfaces level, plumb, true and free of rack: measured from established lines and levels.

#### 3.3 INSTALLATION

- A. If required, all field cut and drilled edges, holes and abrasions shall be sealed with a catalyzed resin compatible with the original resin as recommended by the manufacturer.
- B. Install items specified as indicated and in accordance with manufacturer's instructions.
- C. Panels shall be installed by the MCP manufacturer's representative or certified installer and cannot be installed by the general contractor.

#### **SECTION 16100**

#### LIGHTNING PROTECTION

#### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes lightning protection for the following buildings:
  - 1. Little Whiteface Ski Patrol Building

#### 1.2 RELATED SECTIONS

- A. Related Sections include the following:
  - 1. Section 16060: Grounding and Bonding.
  - 2. Section 16070: Electrical Supports
  - 3. Section 16130: Raceway and Boxes.

#### 1.3 REFERENCES

- A. Underwriters Laboratories, UL96 Standard for Lightning Protection Components
- B. Underwriters Laboratories, UL96A Standard for Lighting Protection System Installation
- C. National Fire Protection Association, NFPA 780 Standard for Lightning Protection System Installation.
- D. Lightning Protection Institute, LPI 175 Lightning Protection Standard.

#### 1.4 SUBMITTALS

- A. Product Data: For air terminals and mounting accessories.
- B. Shop Drawings: Detail lightning protection system, including air-terminal locations, conductor routing and connections, and bonding and grounding provisions. Indicate size and type of grounding for down conductors, roof conductors, air terminals and thru wall/roof assemblies. Include indications for use of raceway and data on how concealment requirements will be met.
- C. Qualification data for firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include data on listing or certification by nationally recognized testing laboratory (NRTL) or trade association.
- D. Certification, signed by Contractor, that roof adhesive for air terminals is approved by manufacturers of both the terminal assembly and roofing material.
- E. Field inspection reports indicating compliance with specified requirements.

#### 1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced installer who is NRTL listed or who is certified by LPI as a Master Installer/Designer.
- B. Listing and Labeling: As defined in NFPA 780, Article 2-2, "Definitions."
- C. Provide UL Master Label Certification.
- D. Provide LPI certification of system.
- E. Provide ETL Master Label indicating system complies with specified requirements.

#### 1.6 COORDINATION

- A. Coordinate installation of lightning protection with installation of other building systems and components, including electrical wiring, supporting structures and building materials, metal bodies requiring bonding to lightning protection components, and building finishes.
- B. Coordinate installation of air terminals attached to roof systems with roofing manufacturer and installer.

#### PART 2 - PRODUCTS

#### 2.1 LIGHTNING PROTECTION SYSTEM COMPONENTS

- A. Manufacturer East Coast Lightning Protection Equipment, Inc., or equal.
- B. System Class: Class 1.
- C. Conductors: Bare Copper. Locations where conductors are mounted to aluminum (flashings and antenna support) use aluminum conductors to prevent galvanic corrosion of dissimilar metals.
- D. Roof-Mounting Air Terminals: Class I, copper, solid, taper, UL listed.
- E. Ground Rods, Ground Loop Conductors, and Concrete-Encased Electrodes: Comply with Division 16 Section "Grounding and Bonding" and standards referenced in this Section.

#### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- Install lightning protection components and systems according to UL 96A.
- B. Install conductors with direct paths from air terminals to ground connections. Avoid sharp bends and narrow loops.
- C. Conceal the following conductors:
  - 1. System conductors.
  - 2. Down conductors.

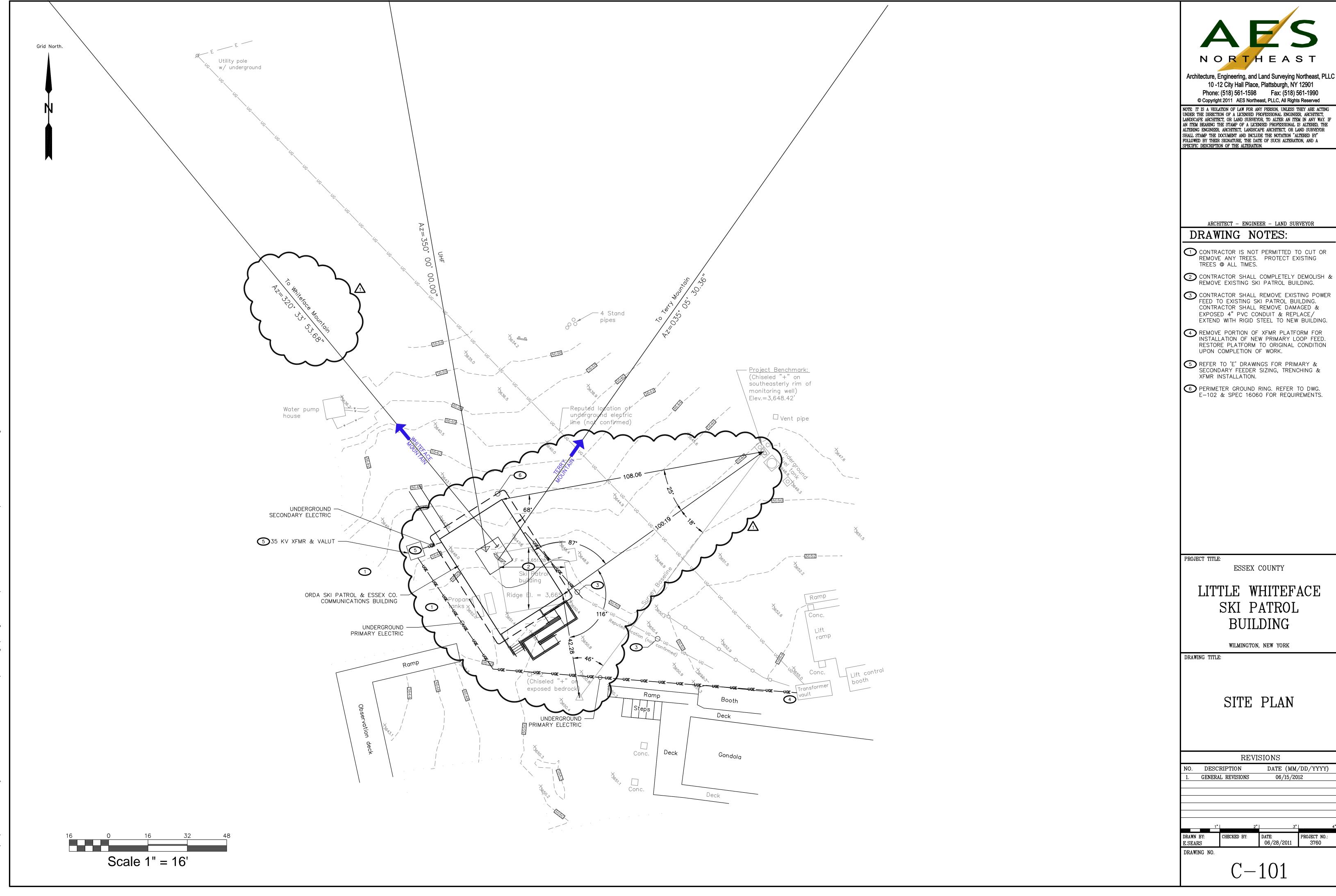
- 3. Interior conductors.
- 4. Notify Architect at least 48 hours in advance of inspection before concealing lightning protection components.
- D. Cable Connections: Use approved exothermic-welded connections for all conductor splices and connections between conductors and other components,.
- E. Bond lightning protection components with intermediate-level interconnection loop conductors to grounded metal bodies of building at 60-foot intervals.

#### 3.2 CORROSION PROTECTION

- A. Do not combine materials that can form an electrolytic couple that will accelerate corrosion in the presence of moisture unless moisture is permanently excluded from junction of such materials.
- B. Use conductors with protective coatings where conditions would cause deterioration or corrosion of conductors.

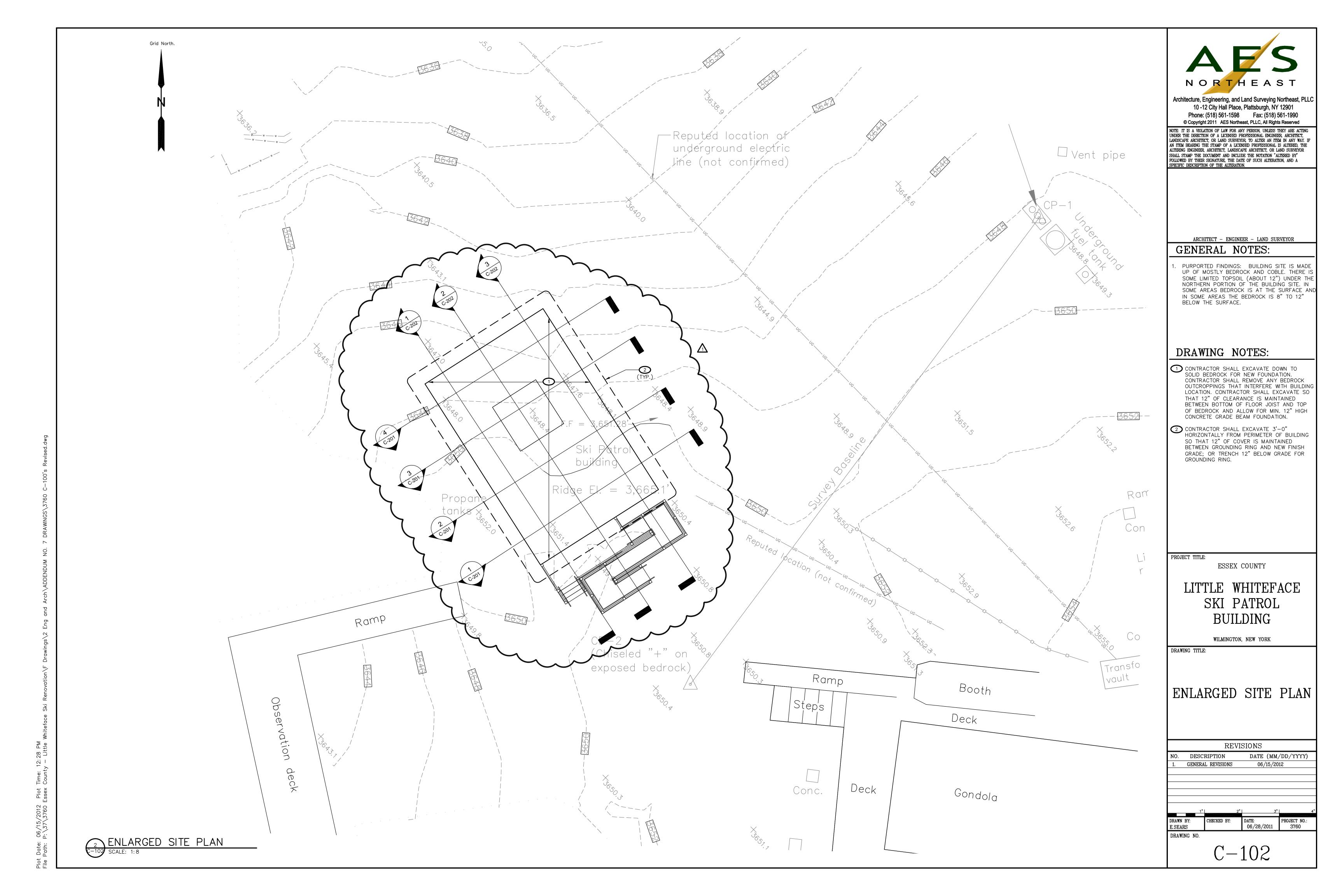
#### 3.3 FIELD QUALITY CONTROL

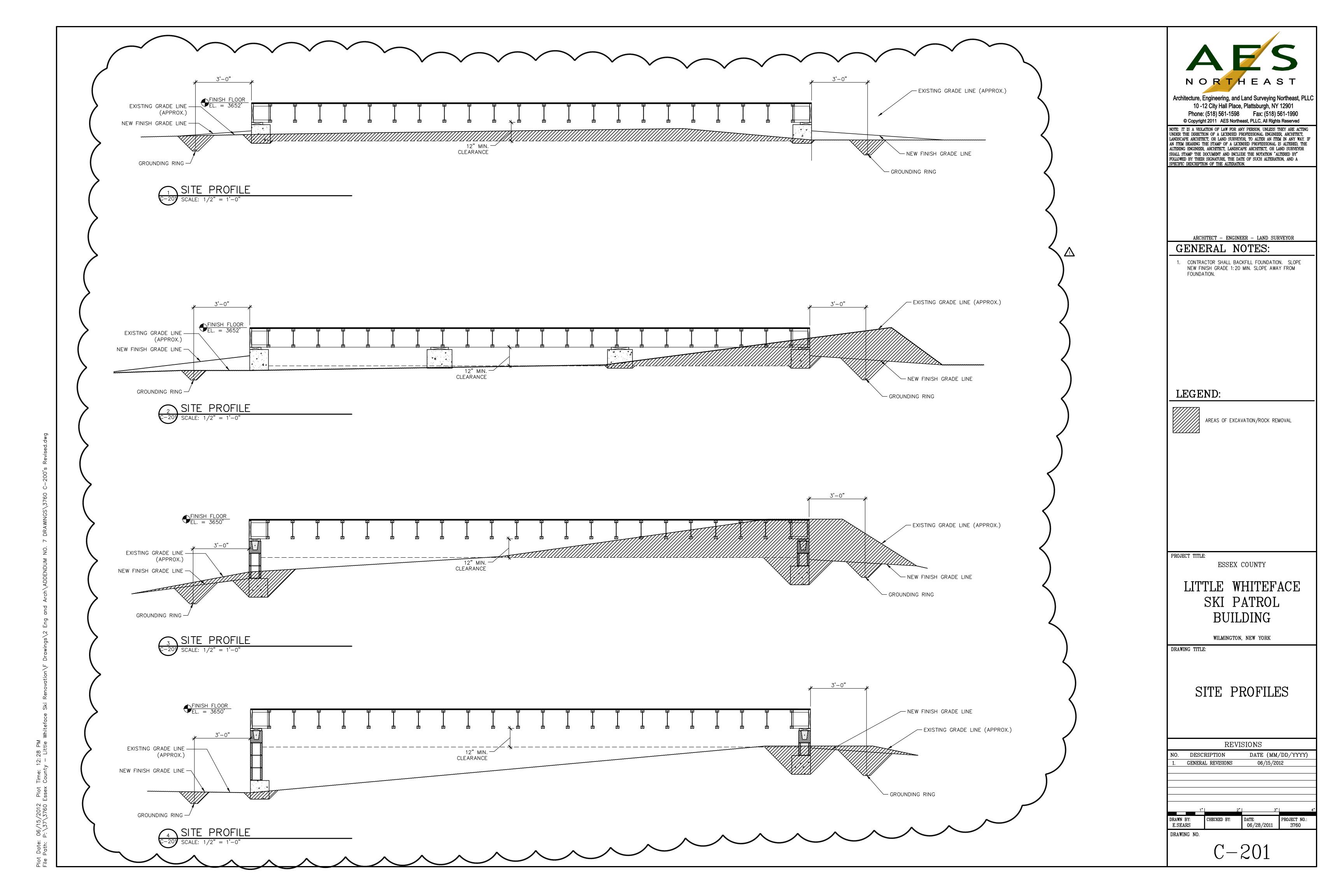
- A. Periodic Inspections: Engage an LPI inspector to perform periodic inspections during construction and at its completion, according to LPI-177.
- B. UL Inspection: Apply for inspection by UL as required to obtain a UL Master Label for system.
- C. ETL Inspection: Engage an ETL inspector to inspect completed system for compliance with specified requirements.

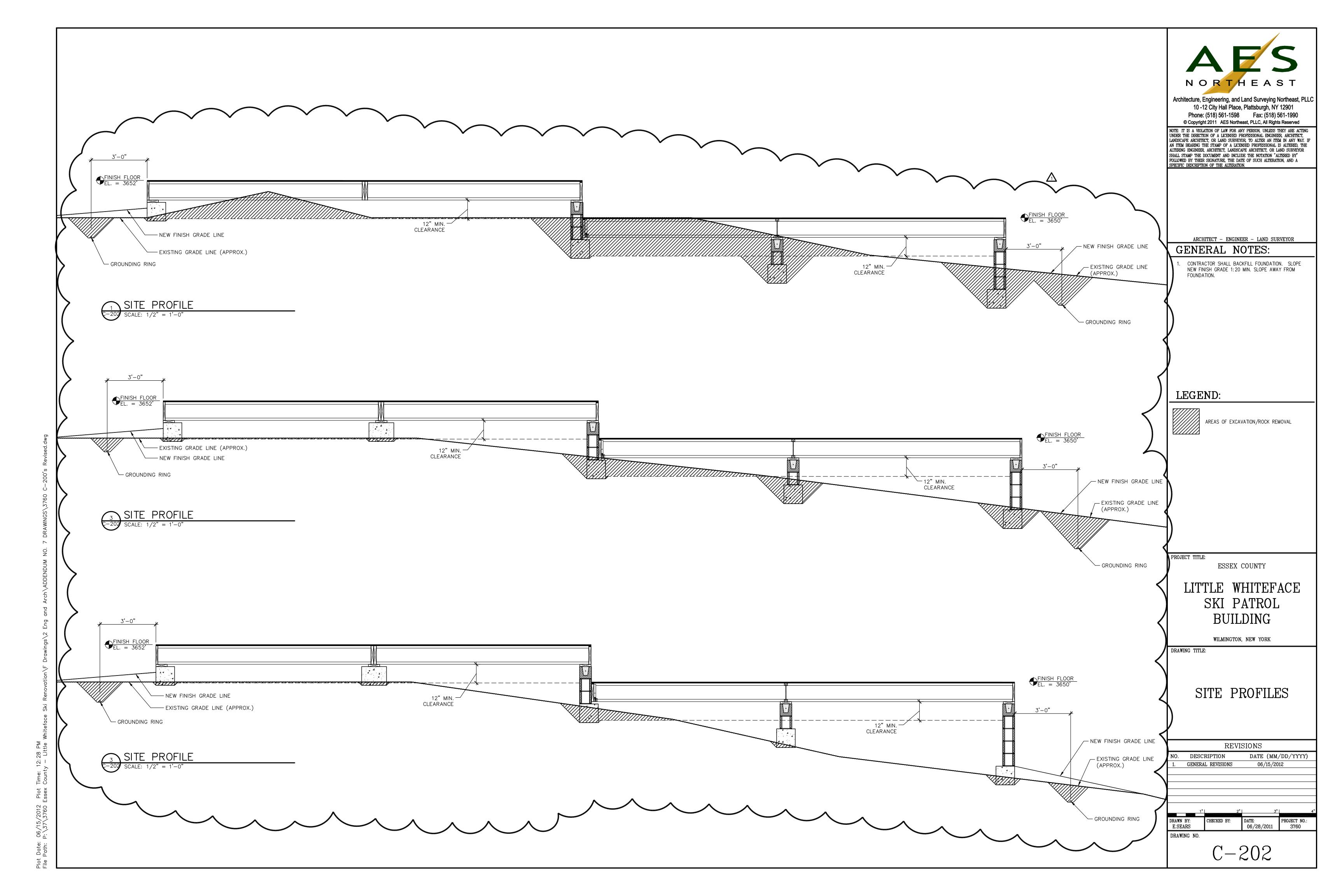


Architecture, Engineering, and Land Surveying Northeast, PLLC

DATE: PROJECT NO.: 3760







## GENERAL NOTES

- ALL STRUCTURAL WORK SHALL BE COORDINATED WITH ARCHITECTURAL & MECHANICAL DRAWINGS & SHALL CONFORM TO THE PROJECT SPECIFICATIONS & THE BUILDING CODE OF NEW YORK STATE.
- 2. DESIGN LOADS:

ROOF LOADS:

SNOW — 99 psf Sloped Roof
134 psf Ground Snow

SNOW EXPOSURE FACTOR Ce = 0.8

SNOW IMPORTANCE FACTOR I = 1.2

THERMAL FACTOR Ct = 1.1

DEAD — 20 psf TOTAL

(NOTE: APPLY 10 psf TO BOTTOM CHORD & 10 psf TO TOP CHORD OF TRUSS)

FOR MORE INFORMATION).

DRIFT, SLIDING & UNBALANCED SNOW LOADS PER ASCE 7-05 (SEE TRUSS LOADING DIAGRAMS DWG. S-203

FLOOR LOADS:

DEAD LOAD — 12 psf ALL AREAS
SKI PATROL ROOM LIVE LOAD — 100 psf
COMMUNICATIONS ROOM LIVE LOAD — 100 psf
STORAGE ROOM LIVE LOAD — 125 psf
GENERATOR ROOM LIVE LOAD — 125 psf
ATTIC BELOW CUPOLA — 100 psf
ATTIC @ ALL OTHER AREAS — 20 psf

LATERAL LOADS:

WIND LOAD — BUILDING CODE OF NYS, (PER ASCE 7-05) FOR MAIN WIND FORCE RESISTING SYSTEM & COMPONENT FORCES.

EXPOSURE CATEGORY DWIND IMPORTANCE FACTOR = 1.15

- 3-SECOND GUST BASIC WIND SPEED = 90 MPH - TOPOGRAPHIC FACTOR Kzt = 1.742

SEISMIC LOAD

SEISMIC OCCUPANCY CATEGORY IV
SEISMIC DESIGN CATEGORY C
Sds = 0.29, Sd1 = 0.08
SITE CLASS D
SEISMIC FORCE RESISITING SYSTEM
LIGHT FRAMED WALLS WITH SHEAR PANELS
R = 6.5
DESIGN BASE SHEAR (V) = 4.51 kips
EQUIVALENT LATERAL FORCE PROCEDURE (ASCE 7.05)

# CONCRETE NOTES

- 1. MINIMUM CONCRETE COMPRESSIVE STRENGTH (F'c) AT 28 DAYS SHALL BE AS FOLLOWS:
  FOUNDATION GRADE BEAMS AND PIERS 4000 psi
- 2. CONCRETE PLACED IN COLD WEATHER SHALL MEET THE REQUIREMENTS OF ACI 306 "COLD WEATHER CONCRETE".
- 3. TOP OF FOUNDATION WALL CONCRETE SHALL RECEIVE A STEEL TROWEL FINISH.
- 4. ALL SIDE SURFACES SHALL HAVE A FORM FINISH FREE OF HONEYCOMBING AND IRREGULARITIES IN EXCESS 1/4" FROM PLANE OF THE SURFACE. PATCH ALL HONEYCOMBED AREAS WITH NON—SHRINK GROUT.
- 5. CURE ALL CONCRETE: MOIST CURE FOR 7 DAYS MIN. OR CURE WITH LIQUID MEMBRANE CURING COMPOUND, MEETING REQUIREMENTS OF ASTM C 309, TYPE 1, APPLIED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. VERIFY CURING COMPOUND'S COMPATIBILITY WITH ADHESION OF ARCHITECTURAL FINISHES.
- 6. ALL ANCHOR BOLTS SHALL COMPLY WITH ASTM A307. HOT-DIP GALVANIZE ALL ANCHOR BOLTS AND ASSOCIATED HARDWARE PER ASTM A153.
- 7. ALL REINFORCEMENT SHALL COMPLY WITH ASTM A615, GR. 60.
- 8. THE CONTRACTOR SHALL CHECK WITH THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL SUBCONTRACTOR'S FOR OPENINGS, SLEEVES, ANCHORS, HANGERS, INSERTS AND OTHER ITEMS RELATED TO THE CONCRETE WORK, AND SHALL ASSUME RESPONSIBILITY FOR THEIR PROPER LOCATION.
- 9. EPOXY ADHESIVE FOR GROUTING REINFORCEMENT DOWELS INTO CONCRETE SHALL BE HY150, AS MANUFACTURED BY HILTI CORP., OR EQUIVALENT.
- 10 LAP LENGTHS FOR CONCRETE REINFORCEMENT SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED TO BE GREATER:

NO. 3 BAR = 17" NO. 4 BAR = 22" NO. 5 BAR = 24" NO. 6 BAR = 33"

11. REFER TO SPECIFICATION SECTION 03300 FOR ADDITIONAL INFORMATION.

## CONCRETE MASONRY

- CONCRETE MASONRY UNITS SHALL COMPLY WITH ASTM C90. NORMAL WEIGHT UNITS WITH A MINIMUM AVERAGE NET—AREA COMPRESSIVE STRENGTH OF 2150 PSI.
- 2. MORTAR SHALL COMPLY WITH ASTM C270, TYPE S.
- 3. REINFORCEMENT SHALL CONFORM TO ASTM A615, GRADE 60. INSTALL REINFORCEMENT IN ACCORDANCE WITH ASCE 6-95/ACI 530.1-95.
- 4. MASONRY JOINT REINFORCEMENT SHALL BE LADDER OR TRUSS TYPE CONFORMING TO ASTM A 951. REINFORCEMENT SHALL BE HOT—DIP GALVANIZED CARBON STEEL WIRE. SIDE RODS AND CROSS ROD WIRE SIZES SHALL BE MINIMUM 9ga.
- 5. GROUT SHALL COMPLY WITH ASTM C 476. MIX GROUT TO A CONSISTENCY THAT HAS A SLUMP BETWEEN 8 AND 11 INCHES. PLACE GROUT IN ACCORDANCE WITH ASCE 6—95/ACI 530.1—95, INCLUDING MECHANICAL CONSOLIDATION.
- 6. REFER TO SPECIFICATION SECTION 04816 FOR ADDITIONAL INFORMATION.

## MANUFACTURED LUMBER

- 1. ALL LVL'S LAMINATED VENEER LUMBER SHALL COMPLY WITH ASTM D 5456 AND ASTM D 2559. LVL SHAPES AND SIZES INDICATED ARE AS MANUFACTURED BY THE WEYERHAEUSER CO. AS A BASIS OF DESIGN. "E" = MIN. 1900 Ksi., "Fb" = MIN. 2.60 Ksi.
- 2. ALL LSL'S LAMINATED STRAND LUMBER SHALL COMPLY WITH ASTM D 5456 AND ASTM D 2559. LSL SHAPES AND SIZES INDICATED ARE AS MANUFACTURED BY THE WEYERHAEUSER CO. AS A BASIS OF DESIGN. "E" = MIN. 1550 Ksi., "Fb" = MIN. 2.325 Ksi.
- 3. ALL TJI'S WOOD I—JOISTS SHALL COMPLY WITH ASTM D 5055. TJI SHAPES AND SIZES INDICATED ARE AS MANUFACTURED BY THE WEYERHAEUSER CO. AS A BASIS OF DESIGN.
- 4. ALL RIM BOARDS SHALL BE LSL MATERIAL OF THE SIZES INDICATED AND SHALL BE MANUFACTURED BY THE SAME SUPPLIER AS THE WOOD I—JOISTS.
- 5. REFER TO SPECIFICATION SECTION 06100 FOR ADDITIONAL INFORMATION.

# ROUGH CARPENTRY

**FURRING** 

- 1. CONTRACTOR SHALL SUBMIT FROM LUMBER SUPPLIER (5) COPIES OF SUBMITTAL TO ENGINEER INDICATING SPECIES AND GRADES OF FRAMING LUMBER AND TIMBER WITH RULES AGENCY NOTED, FOR EACH TYPE OF STRUCTURAL FRAMING SUPPLIED.
- 2. ALL FRAMING LUMBER SHALL BE A MINIMUM OF NO. 1/NO.2 SPRUCE—
  PINE—FIR (SPF) AS GRADED BY THE NATIONAL LUMBER GRADES
  AUTHORITY (NLGA) OR THE NORTHEASTERN LUMBER MANUFACTURER'S
  ASSOCIATION (NELMA) UNLESS OTHERWISE INDICATED. LUMBER
  GRADES FOR SPECIFIC STRUCTURAL MEMBERS SHALL BE A MINIMUM
  OF THE GRADES LISTED BELOW UNLESS OTHERWISE NOTED:

RAFTERS AND JOISTS	NO.	1	OR NO. 2	SPF
EXTERIOR WALL STUDS	NO.	1	/ N.L.G.A.	
INTERIOR WALL STUDS	NO.	1	/ N.L.G.A.	
WALL PLATES			OR NO. 2	SPF
SILL PLATES	NO.	1	OR NO. 2	PPT S. PINE
EXTERIOR EXPOSED LUMBER	NO.	1	OR NO. 2	PPT S. PINE
MISC. BLOCKING &	NO.	1	OR NO. 2	SPF

- 3. ALL WOOD BEARING OR IN CONTACT WITH CONCRETE OR MASONRY SHALL BE PRESSURE PRESERVATIVE TREATED (PPT) SOUTHERN PINE.
- 4. STRUCTURAL MEMBERS SHALL NOT BE CUT FOR PIPES, ETC. UNLESS SPECIFICALLY DETAILED.
- 5. HOLES FOR BOLTS SHALL BE BORED TO 1/32" TO 1/16" LARGER THAN NOMINAL BOLT SIZE INDICATED.
- 6. ALL BOLTS SHALL BE RE—TIGHTENED PRIOR TO APPLICATION OF WALL SHEATHING.
- 7. ALL BOLTS BEARING ON WOOD SHALL HAVE WASHERS UNDER BOLT HEAD AND NUTS.
- 8. PROVIDE MIN. THREE STUDS AT ALL WALL CORNERS U.N.O.
- 9. LUMBER CONNECTORS SUCH AS JOIST HANGERS, METAL ANCHORS, PLATES ETC. SHALL BE HOT DIPPER GALVANIZED STEEL AS MANUFACTURED BY SIMPSON STRONG TIE CO. INC. OR EQUIVALENT. NAIL TO LUMBER WITH SIZE AND NO. OF NAILS AS RECOMMENDED BY MANUFACTURER. (CONNECTORS SHOWN ARE BY SIMPSON.)
- 10. TOP WALL PLATES SHALL BE SPLICED PER THE TYPICAL TOP PLATE JOINT SPLICE DETAIL ON DWG. S-202.
- 11. ALL WOOD FASTENERS SHALL COMPLY WITH TABLE 2304.9.1
  FASTENEING SCHEDULE OF THE BUILDING CODE OF NEW YORK
  STATE OR AS SHOWN ON THE DRAWINGS. ALL NAILS OR
  FASTENERS CONNECTED TO PRESSURE PRESERVATIVE TREATED
  LUMBER SHALL BE HOT—DIP GALVANIZED PER ASTM A153.
- 12. ALL BOLTS SHALL COMPLY WITH ASTM A 307, GRADE A; WITH ASTM A 563 HEX NUTS AND, WHERE INDICATED, FLAT WASHERS. ALL BOLTS AND HARDWARE, INCLUDING ANCHOR BOLTS, CONNECTING PRESSURE PRESERVATIVE TREATED LUMBER SHALL BE HOT DIP GALVANIZED PER ASTM A153.
- 13. LEAD HOLES FOR LAG BOLTS SHALL BE BORED AS FOLLOWS:
  - THE CLEARANCE HOLE FOR THE SHANK (SMOOTH PORTION OF SCREW) SHALL HAVE THE SAME DIAMETER AND PENETRATION AS THE SHANK DIAMETER.
  - THE LEAD HOLE FOR THE THREADED PORTION SHALL BE DRILLED TO AT LEAST THE DEPTH OF THE THREADED PORTION AND SHALL BE OF THE FOLLOWING SIZE:
  - 7/16" DIA. SCREW IN SPF 1/4", IN S. PINE 5/16"
    1/2" DIA. SCREW IN SPF 5/16", IN S. PINE 3/8"
    5/8" DIA. SCREW IN SPF 7/16", IN S. PINE 7/16"
    3/4" DIA. SCREW IN SPF 1/2", IN S. PINE 9/16"
    LEAD HOLES ARE NOT REQ'D FOR 3/8" LAG SCREWS
    PROVIDED EDGE AND END DISTANCE ARE SUFFICIENT TO
    PREVENT SPLITTING.
- 14. REFER TO SPECIFICATION SECTION 06100 FOR ADDITIONAL INFORMATION.

## PRE-FABRICATED WOOD TRUSSES

- 1. WOOD TRUSSES SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH SECTION 2303.4 OF THE NEW YORK STATE BUILDING CODE, ANSI/TPI1-2002 (NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION) AND OTHER APPLICABLE PUBLICATIONS AS PUBLISHED BY THE TRUSS PLATE INSTITUTE. SPECIAL ATTENTION IS DRAWN TO THE INSPECTION AND SHOP DRAWING REQUIREMENTS OF SECTION 2303.4 OF THE NEW YORK STATE BUILDING CODE.
- 2. ALL ROOF TRUSSES SHALL MEET A DEFLECTION CRITERIA OF SPAN/360. ENGINEERING DRAWINGS AND CALCULATIONS CONFORMING WITH THE DESIGN LOAD AND DEFLECTION CRITERIA SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENCED TO PRACTICE IN THE STATE OF NEW YORK
- 3. WOOD TRUSSES SHALL BE BRACED DURING INSTALLATION AND AFTER PERMANENT INSTALLATION IN ACCORDANCE WITH BCSI (BUILDING COMPONENT SAFETY INFORMATION) 1-03 AS PUBLISHED BY THE WOOD TRUSS COUNCIL OF AMERICA AND THE TRUSS PLATE INSTITUTE. THE BRACING SHOWN IN THIS MANUAL SHALL BE THE MINIMUM ACCEPTABLE UNLESS AN ALTERNATIVE BRACING PLAN, DESIGNED BY AN ENGINEER LICENCED TO PRACTICE IN THE STATE OF NEW YORK, IS SUBMITTED FOR REVIEW.
- 4. ANY PERMANENT BRACING REQUIRED TO RESIST WIND AND SEISMIC LOADS SHALL BE ERECTED AS SHOWN ON THE PROJECT DRAWINGS. AFTER REVIEW OF THE TRUSS MANUFACTURER'S SHOP DRAWINGS ADDITIONAL PERMANENT BRACING MAY BE REQUIRED TO RESIST LOCAL WEB AND CHORD MEMBER COMPRESSION BRACING FORCES. THE REQUIREMENTS FOR THIS BRACING WILL BE SHOWN BY THE ENGINEER AS COMMENTS TO THE TRUSS MANUFACTURER'S SHOP DRAWINGS.
- 5. TRUSSES SHALL BE STORED , HANDLED, AND ERECTED IN STRICT ACCORDANCE WITH BCSI 1-03. THE CONTRACTOR SHALL BE THOROUGHLY FAMILIAR WITH THE PROCEDURES OF BCSI 1-03. A COPY OF BCSI 1-03 SHALL BE ON THE JOB SITE FOR THE DURATION OF THE TRUSS ERECTION PROCESS.
- 6. THE TRUSS SUPPLIER SHALL DESIGN AND SUPPLY ALL HANGERS REQUIRED FOR ALL TRUSS TO TRUSS CONNECTIONS, AND ALL BEAM TO TRUSS CONNECTIONS. THESE HANGARS SHALL BE CLEARLY INDICATED ON THE TRUSS SHOP DRAWINGS.
- 7. WOOD TRUSS TOP AND BOTTOM CHORD MEMBERS SHALL BE OF THE MINIMUM SIZES INDICATED ON THE TRUSS LOADING DIAGRAMS.
- 8. SEE DRAWING S-203 FOR TRUSS ELEVATION AND LOADING DIAGRAMS.
- 5. REFER TO SPECIFICATION SECTION 06185 FOR ADDITIONAL INFORMATION.

# **SHEATHING**

- 1. SHEETS SHALL BE LAID WITH LONG DIMENSIONS PERPENDICULAR TO SUPPORTING MEMBERS.
- 2. ROOF SHEATHING SHALL BE 19/32" THK. APA (AMERICAN PLYWOOD ASSOCIATION) RATED SHEATHING, EXTERIOR, WITH A MINIMUM SPAN RATING OF 40/20. ALL ROOF SHEATHING SHALL BE NAILED TO ALL PERIMETER FRAMING WITH 10d NAILS AT A MAXIMUM SPACING OF 6" C-C. PLYWOOD SHALL BE NAILED TO ALL INTERMEDIATE FRAMING WITH 10d NAILS AT A MAXIMUM SPACING OF 12" C-C. ONE PLYWOOD CLIP SHALL BE INSTALLED BETWEEN EACH FRAMING MEMBER AT PANEL EDGES WHEN FRAMING SPACING EXCEEDS 16".
- 3. FLOOR SHEATHING SHALL BE 3/4" THICK APA (AMERICAN PLYWOOD ASSOCIATION) RATED "STURD—I—FLOOR SHEATHING, SPAN RATING OF 24" C—C, EXPOSURE 1 SUBFLOOR.
  ATTACH TO FRAMING WITH ADHESIVE AND 10d NAILS AT 6" C—C AT ALL PERIMETER FRAMING AND 12" C—C AT INTERMEDIATE FRAMING. ADHESIVE SHALL COMPLY WITH APA SPECIFICATION AFG—01 OR ASTM D3498.
- 4. WALL SHEATHING SHALL BE 1/2" THK. APA RATED CDX
  PLYWOOD WITH A MINIMUM SPAN RATING OF 32/16. SHEATHING SHALL
  BE NAILED TO ALL FRAMING WITH 10d NAILS AT 12" C-C IN THE
  FIELD AND 6" C-C AT ALL EDGES. (TYP. U.N.O.) SEE SHEAR WALL
  SCHEDULE ON DWG. S-301 FOR ADDITIONAL REQUIREMENTS AT SHEAR
  WALLS. ALL CUPOLA WALL FRAMING SHALL HAVE BLOCKING AT ALL
  PLYWOOD JOINTS. EDGE NAILING FOR ALL CUPOLA WALLS SHALL
  BE 10d @ 4" C-C.
- 5. REFER TO SPECIFICATION SECTION 06160 FOR ADDITIONAL INFORMATION.

# ANTENNA SUPPORT NOTES

1. DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO ANSI/TIA/EIA-222-G-1996 "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES". DESIGN WIND SPEED = 75 MPH PER NYS BUILDING CODE (65 MPH IN CONJUNCTION WITH 0.5 INCHES OF DESIGN ICE THICKNESS).

- 2. SEE STEEL NOTES, THIS DRAWING, FOR ADDITIONAL INFORMATION REGARDING STEEL SHAPES AND FABRICATION.
- 3. ALL STEEL ANTENNA SUPPORT MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT—DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS".
- 4. ALL BOLTS, NUTS, WASHERS AND MISCELLANEOUS SUPPORT HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC—COATING (HOT DIP) ON IRON AND STEEL HARDWARE".
- DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
- 6. ALL ANTENNA SUPPORTS SHALL BE INSTALLED WITH DOUBLE NUTS. ALL BRACKETS AND HARDWARE ATTACHED TO THE ANTENNA SUPPORTS SHALL BE INSTALLED IN ACCORDANCE WITH THE ANTENNA MANUFACTURERS' SPECIFICATIONS.
- 7. DESIGN OF THE ANTENNA EQUIPMENT MOUNTING BRACKETS AND ASSOCIATED COMPONENTS TO BE ATTACHED TO THE SUPPORT STRUCTURES SHALL BE THE SOLE RESPONSIBILITY OF THE EQUIPMENT MANUFACTURERS. THE EQUIPMENT MANUFACTURERS SHALL PROVIDE AS SUBMITTALS MIN. FIVE (5) COPIES OF ALL DRAWINGS DETAILING ALL COMPONENTS OF THE ASSEMBLY, INCLUDING CONNECTION DESIGN LOADS AND OTHER PERTINENT DATA. THE EQUIPMENT MANUFACTURERS SHALL ALSO PROVIDE A CERTIFICATION OF COMPLIANCE STATING THAT THE ANTENNA BRACKETS AND THE EQUIPMENT HAVE BEEN DESIGNED IN ACCORDANCE WITH ANSI/TIA/EIA-222-F STANDARDS. ALL SUBMITTAL DRAWINGS AND THE CERTIFICATION SHALL BEAR THE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN NEW YORK STATE.

\_\_\_\_\_

# STRUCTURAL STEEL NOTES

- 1. FABRICATE AND ERECT ALL STEEL WORK IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION CODE OF STANDARD PRACTICE.
- 2. THE STEEL FABRICATOR SHALL SUBMIT FOR REVIEW MIN. FIVE (5) COPIES OF SHOP DRAWINGS DETAILING THE FABRICATION OF ALL STRUCTURAL STEEL AND ANTENNA SUPPORT WORK. INCLUDE DETAILS OF CUTS, CONNECTIONS, WELDS, HOLES AND OTHER PERTINENT DATA. INDICATE WELDS BY STANDARD AWS SYMBOLS. THE CONTRACTOR SHALL NOT BEGIN FINAL FABRICATION OF STEEL MEMBERS UNTIL THE DRAWINGS HAVE BEEN REVIEWED BY THE FNGINFFR.
- 3. ALL WELDS SHALL BE SHOP WELDS FIELD WELDING SHALL NOT BE PERMITTED. ALL WELDING SHALL CONFORM TO AWS D1.1 STANDARDS AND SHALL BE PERFORMED BY AWS CERTIFIED WELDERS ONLY.
- MATERIAL REQUIREMENTS FOR VARIOUS STEEL SHAPES ARE AS FOLLOWS:

   PIPES ASTM A53

   MISC. PLATES AND ANGLES ASTM A36
- 5. ALL BOLTS FOR STEEL WORK SHALL CONFORM TO ASTM A325.
- 6. REFER TO THE ANTENNA SUPPORT NOTES, THIS DRAWING, FOR ADDITIONAL INFORMATION REGARDING HOT—DIP GALVANIZING FOR ANTENNA SUPPORT COMPONENTS.
- ALL STEEL WORK OTHER THAN ANTENNA SUPPORT FRAMING SHALL BE PREPARED IN ACCORDANCE WITH SSPS—SP3 POWER TOOL CLEANING AND SHALL BE SHOP COATED WITH ONE COAT, 2—3 MILS D.F.T. OF ALKYD PRIMER. CARBOLINE MULTI—BOND, OR EQUIVALENT.

\_\_\_\_\_

**ABBREVIATIONS** 

A.F.F.

ARCH.

B/STL.

вот.

C-C

C.M.U.

CONC.

CONT.

DEG.

DET.

DIA.

E.W.

DWG.

EMBED.

EQ. SPA.

EXP. BOLT

EXP. JT.

EQUIP.

EXIST.

F.S.

FDN.

FIN.

FLG.

FTG.

GALV.

G.W.B.

H.D.G.

HORIZ.

HGR.

H.S.

GA.

COL.

Anchor Bolt

Architectural

Control Joint

Column

Concrete

Degrees

Diameter

Each Way

Elevation

Epoxy Coated

Equal Spacing

Expansion Bolt

Expansion Joint

Embedment

Equivalent

Equipment

Existing

Far Side

Finish

Flange

Footing

Hanaer

Horizontal

Galvanized

Gypsum Wall Board

Hot Dip Galvanized

Hollow Structural Section W.W.F.

High Strength

Foundation

Drawing

Continuous

Bottom of Steel

Center to Center

Concrete Masonry Unit

Above Finished Floor

# AES

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ARCHITECT - ENGINEER - LAND SURVEYOR

STRUCTURAL ENGINEER:

### SR SCHODER RIVERS ASSOCIATES

Consulting Engineers, P.C. Evergreen Professional Park 453 Dixon Road, Suite 7, Bldg. 3 Queensbury, New York 12804

(518) 761-0417, FAX: (518) 761-0513

DRAWING TITLE:

Inside Face

Information

Long, Length

Long Leg Vertical

Masonry Opening

Long Legs Back to Back

Powder Actuated Fastener

Pressure Preservative Treated

Plywood Edge Nailing

Reference, Refer

Reinforcement

Stainless Steel

Slab On Grade

Step in Footing

Saw Cut Control Joint

Short Leg Vertical

Short Legs Back to Back

Unless Noted Otherwise

Required

Section

Standard

Southern Pine

Spruce Pine Fir

Top and Bottom

Top of Footing

Top of Wall

Tube Steel

Verify In Field

Wall Control Joint

Welded Wire Fabric

Typical

Vertical

Top of Steel

Slip Critical

Pre-formed Joint Filler

Invert

Maximum

Minimum

Near Side

Outside Face

Mechanical

INFO.

INV.

LLBB

LLV

М.О.

MIN.

N.S.

0.F.

P.A.F.

P.E.N.

P.J.F.

PPT

REF.

S.S.

S.I.F.

SCJ

SHT.

SLV

STD.

S.P.F.

T & B

T/FTG.

Ť/STL.

TYP.

U.N.O.

VERT.

V.I.F.

T/WALL

SECT.

SLBB

S.O.G.

REINF.

REQ'D.

MAX.

мЕСН.

PROJECT TITLE: ESSEX COUNTY

# LITTLE WHITEFACE SKI PATROL BUILDING

WILMINGTON, NEW YORK

STRUCTURAL NOTES

REVISIONS

NO. DESCRIPTION DATE (MM/DD/YYYY)

1 GENERAL REVISIONS 6/15/2012

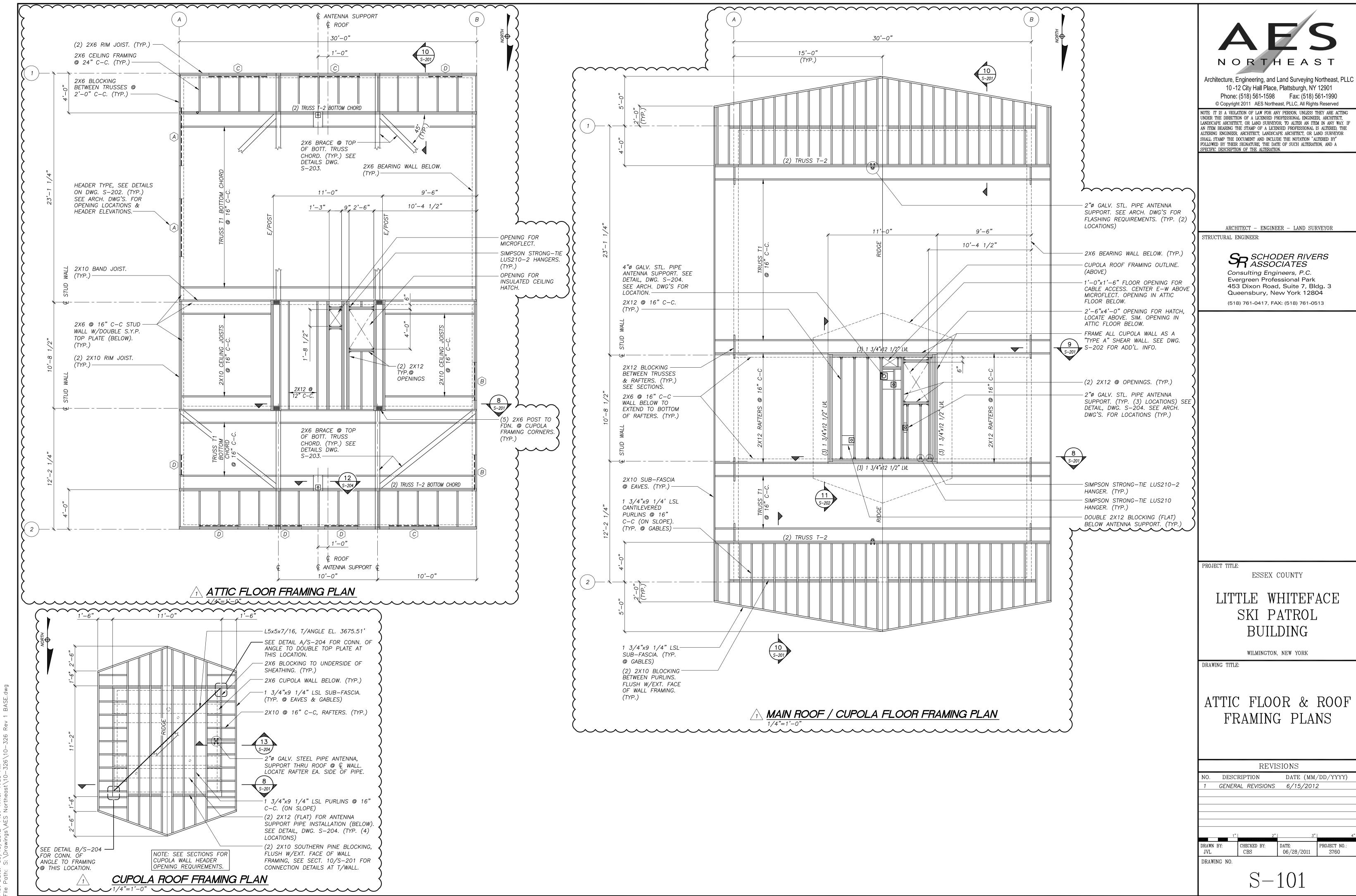
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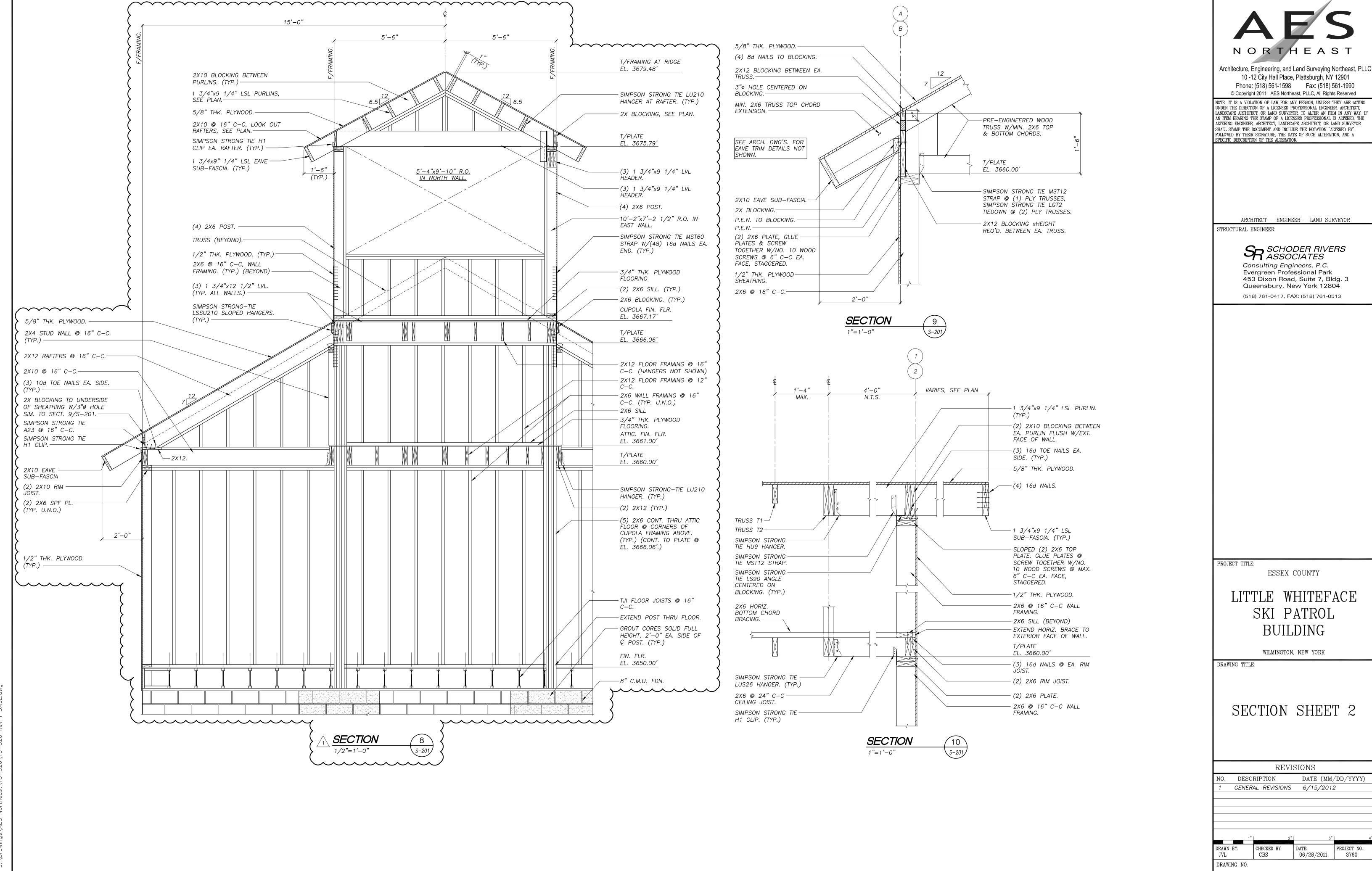
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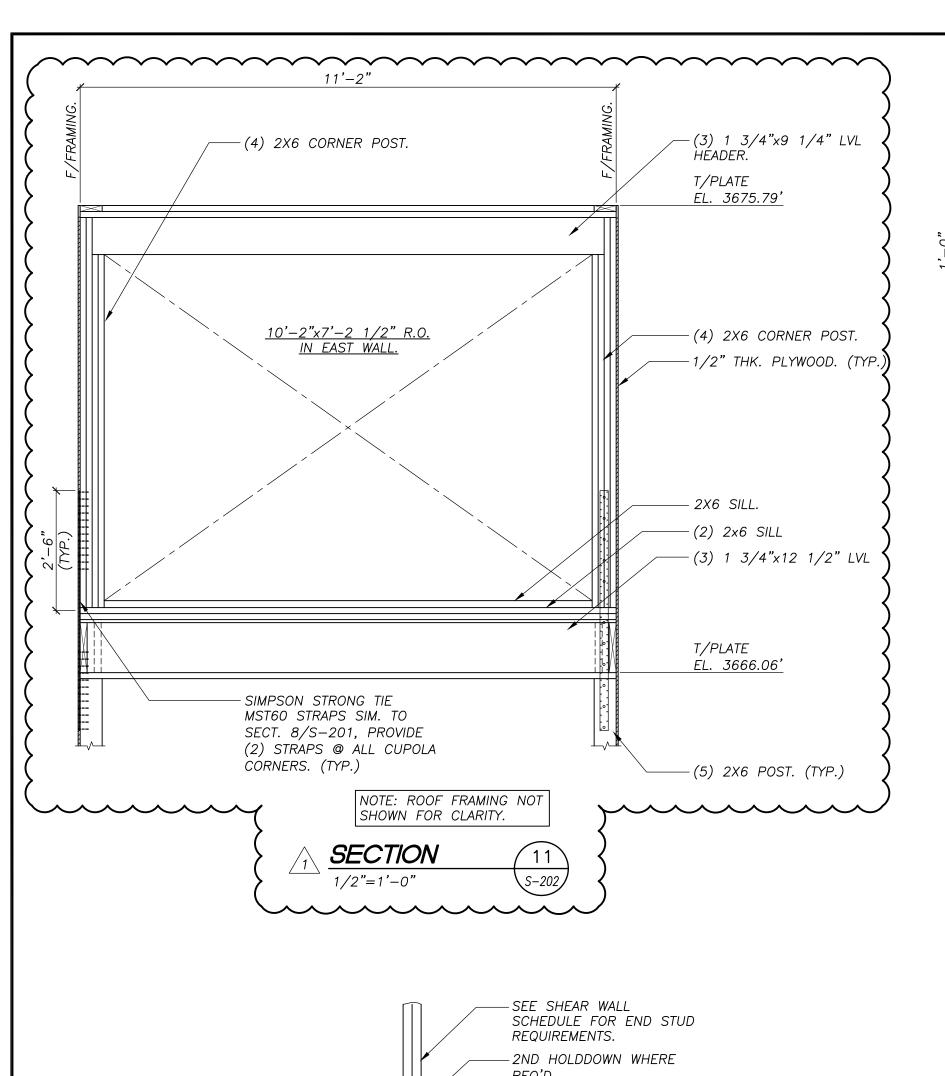


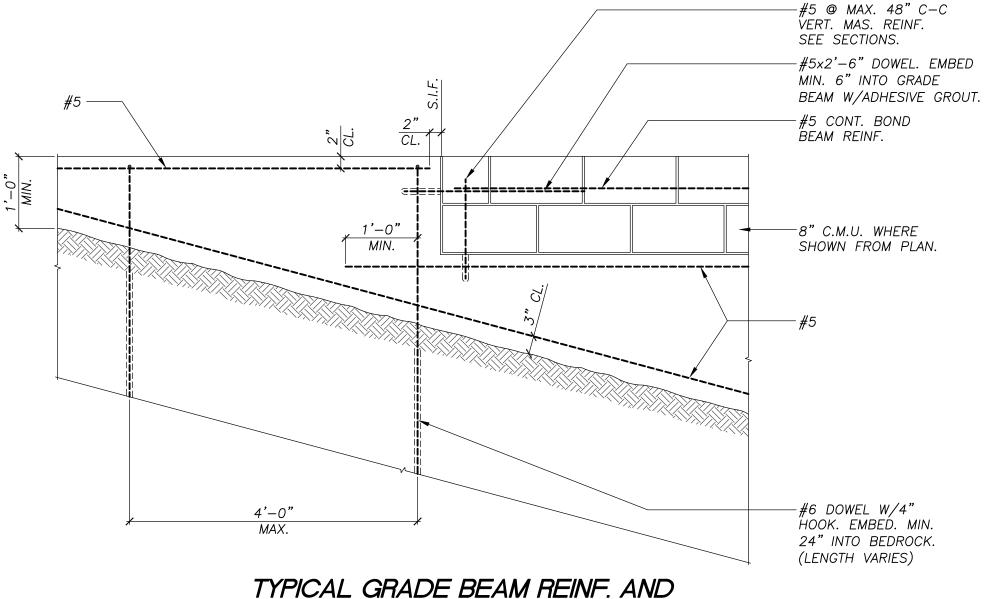
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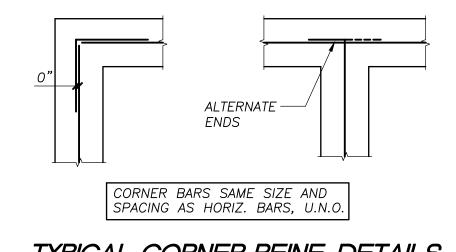
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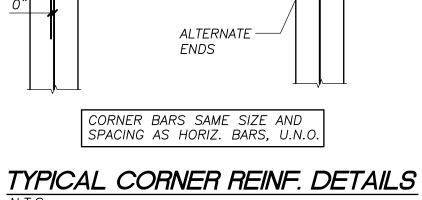
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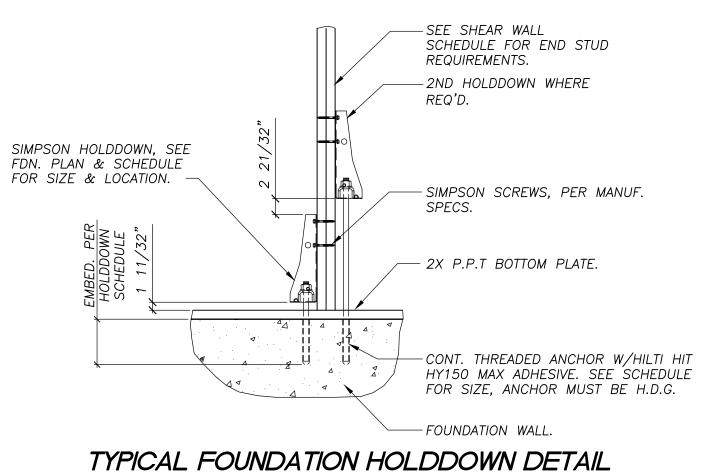




STEP IN FOUNDATION (S.I.F.) DETAIL







R.O., SEE ARCH. DWGS.

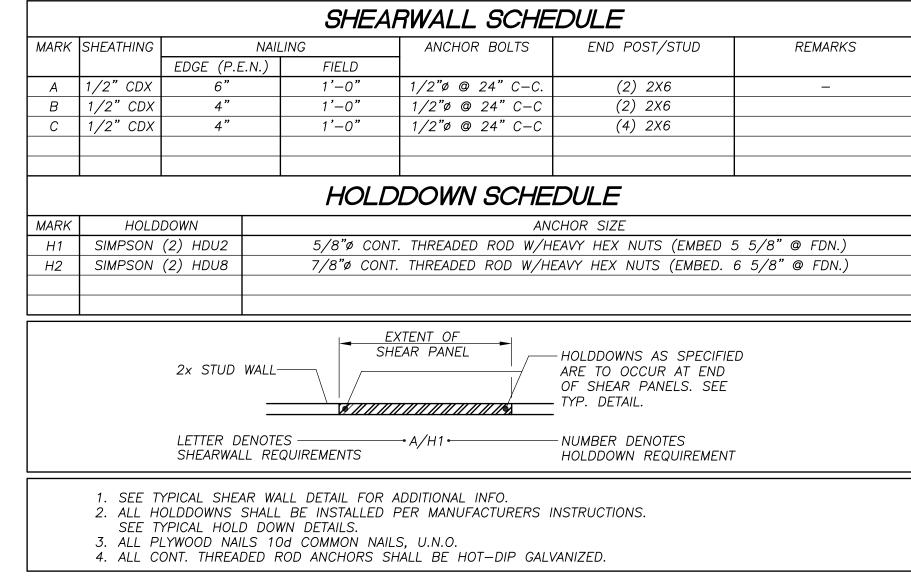
TYPICAL HEADER DETAIL

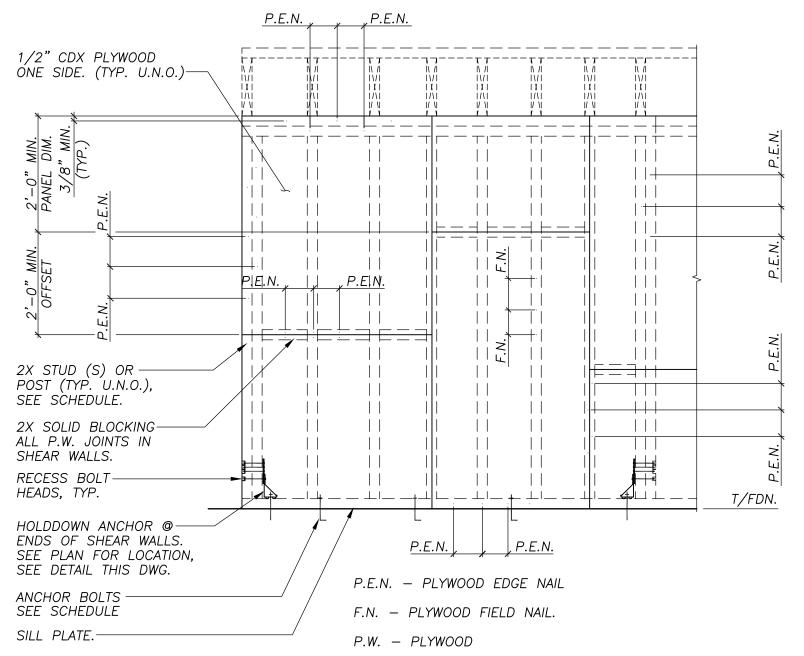
-PLYWOOD FILLER, THK. AS REQ'D.

-T2 TRUSS ABOVE.

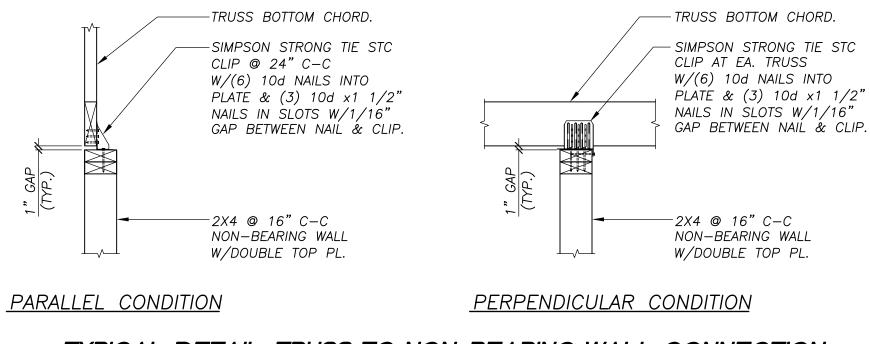
INFILL STUDS UNDER T2 TRUSS ABOVE.

- (1) JACK STUD & (2) KING

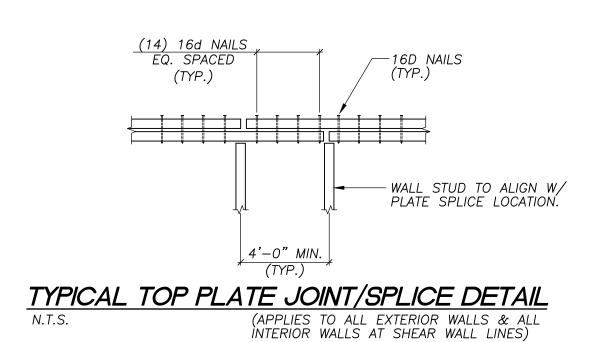




TYPICAL SHEAR WALL DETAIL



TYPICAL DETAIL: TRUSS TO NON-BEARING WALL CONNECTION



NORTHEAST

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ARCHITECT - ENGINEER - LAND SURVEYOR

STRUCTURAL ENGINEER:

SPECIFIC DESCRIPTION OF THE ALTERATION.

SCHODER RIVERS ASSOCIATES

Consulting Engineers, P.C. Evergreen Professional Park 453 Dixon Road, Suite 7, Bldg. 3 Queensbury, New York 12804

(518) 761-0417, FAX: (518) 761-0513

PROJECT TITLE:

ESSEX COUNTY

LITTLE WHITEFACE SKI PATROL BUILDING

WILMINGTON, NEW YORK

DRAWING TITLE:

SECTION & DETAIL SHEET 1

		RE	CVI	SIONS		
NO.	DESCRIPTION			DATE (MM/DD/YYYY)		
1	GENER.	AL REVISIO	NS	6/15/201.	2	
	1"		2"	3"	4	
DRAWN JVL	BY:	CHECKED BY: CBS		DATE: 06/28/2011	PROJECT NO.: 3760	
DRAWI	NG NO.					
		S-	- 6 -	202		

CRIPPLE STUDS

@ 16" C−C. (TYP.) —

HEADER SEE DETAIL.

SEE ARCH. DWG'S.

SIZE

(3) 1 3/4"x9 1/4" LVL

(3) 1 3/4"x9 1/4" LVL

(3) 1 3/4"x9 1/4" LVL

(3) 2X10

GLUE & NAIL

@ EA. FACE.-

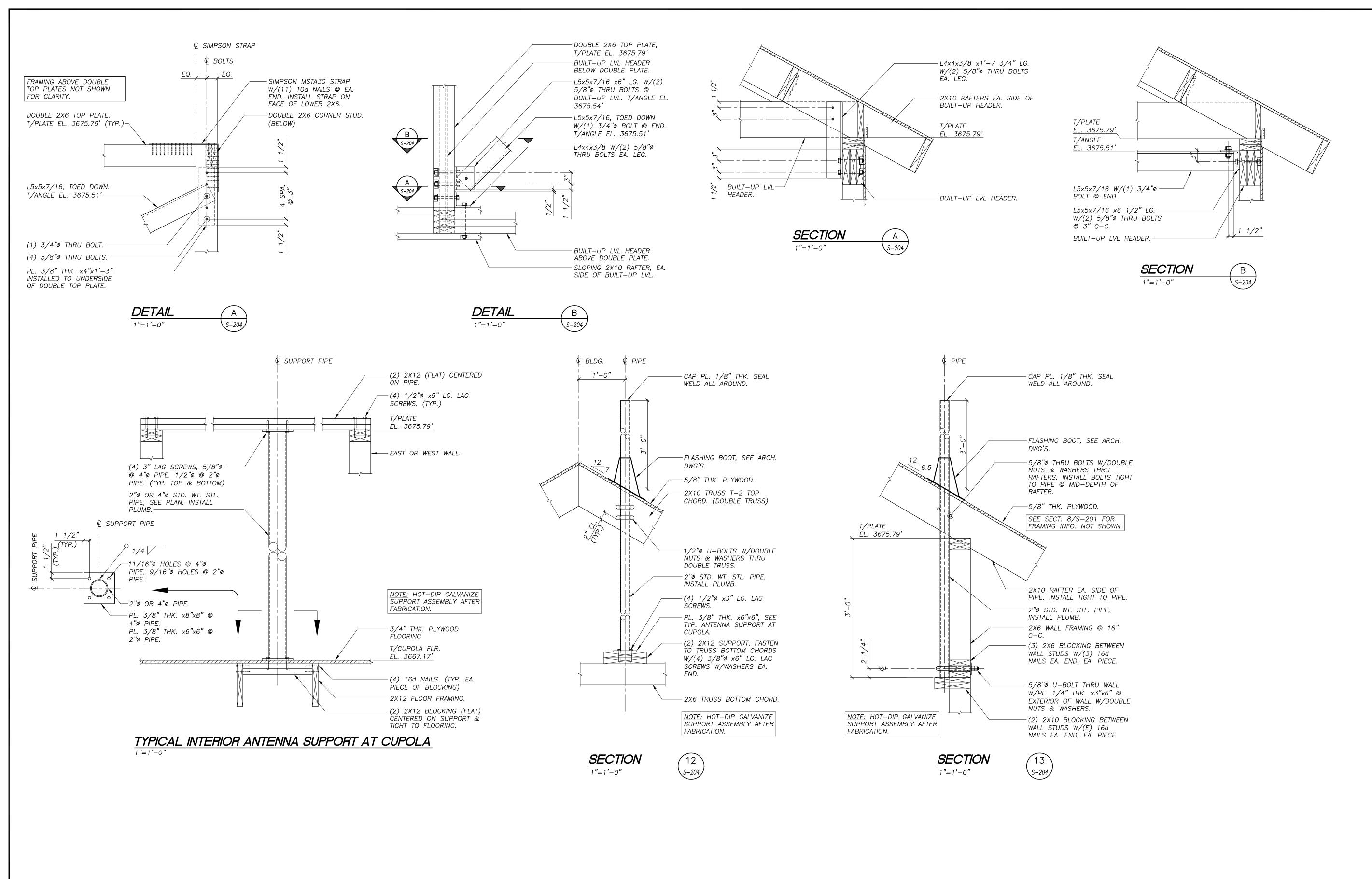
PLYS TOGETHER W/(3) 16d NAILS @ 16" C-C

FOR ELEVATION.

HEADER SCHEDULE

MARK

D





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ARCHITECT - ENGINEER - LAND SURVEYOR

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PROJECT TITLE:

ESSEX COUNTY

LITTLE WHITEFACE
SKI PATROL
BUILDING

WILMINGTON, NEW YORK

DRAWING TITLE:

DRAWING NO.

SECTION & DETAIL SHEET #3

REVISIONS

NO. DESCRIPTION DATE (MM/DD/YYYY)

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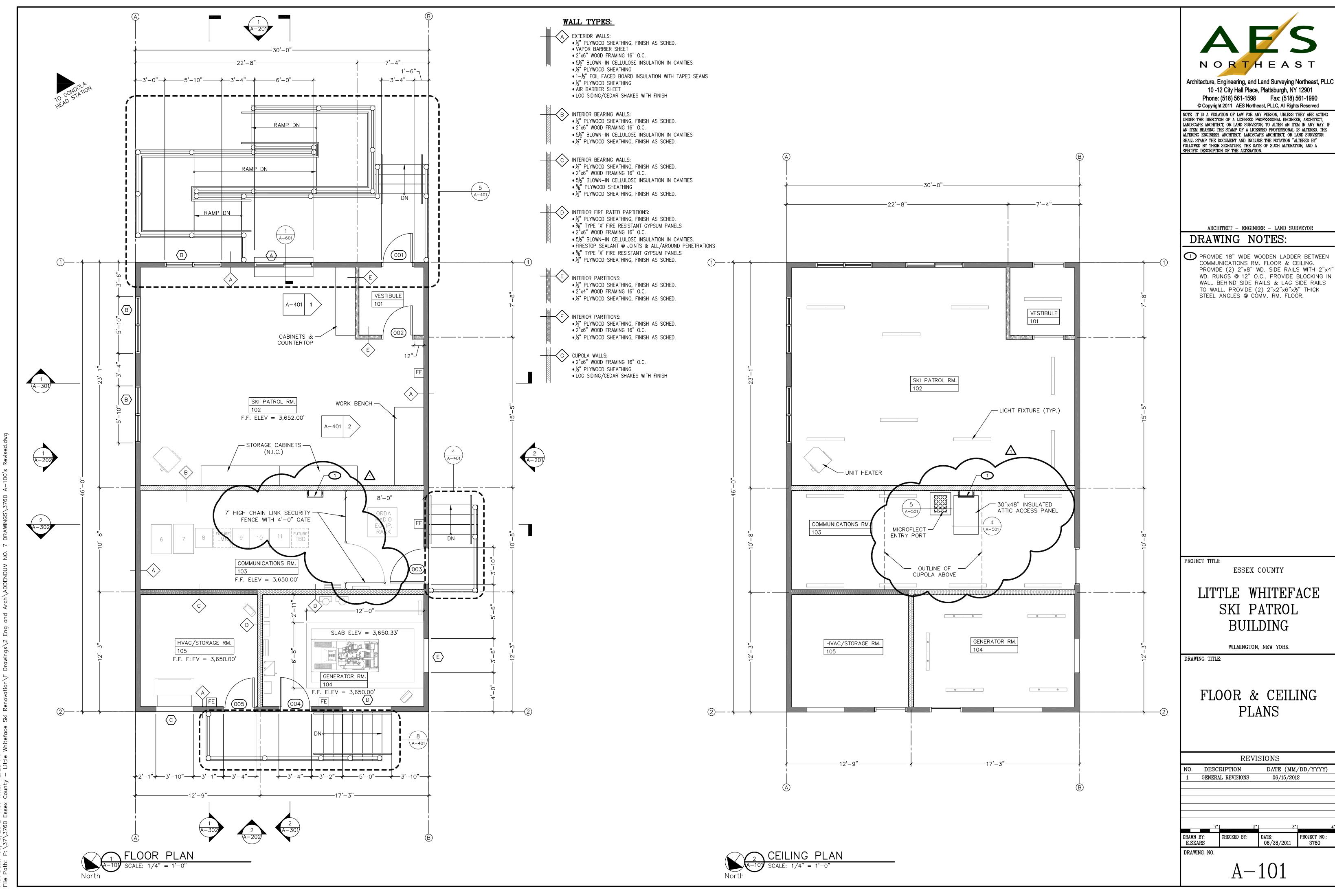
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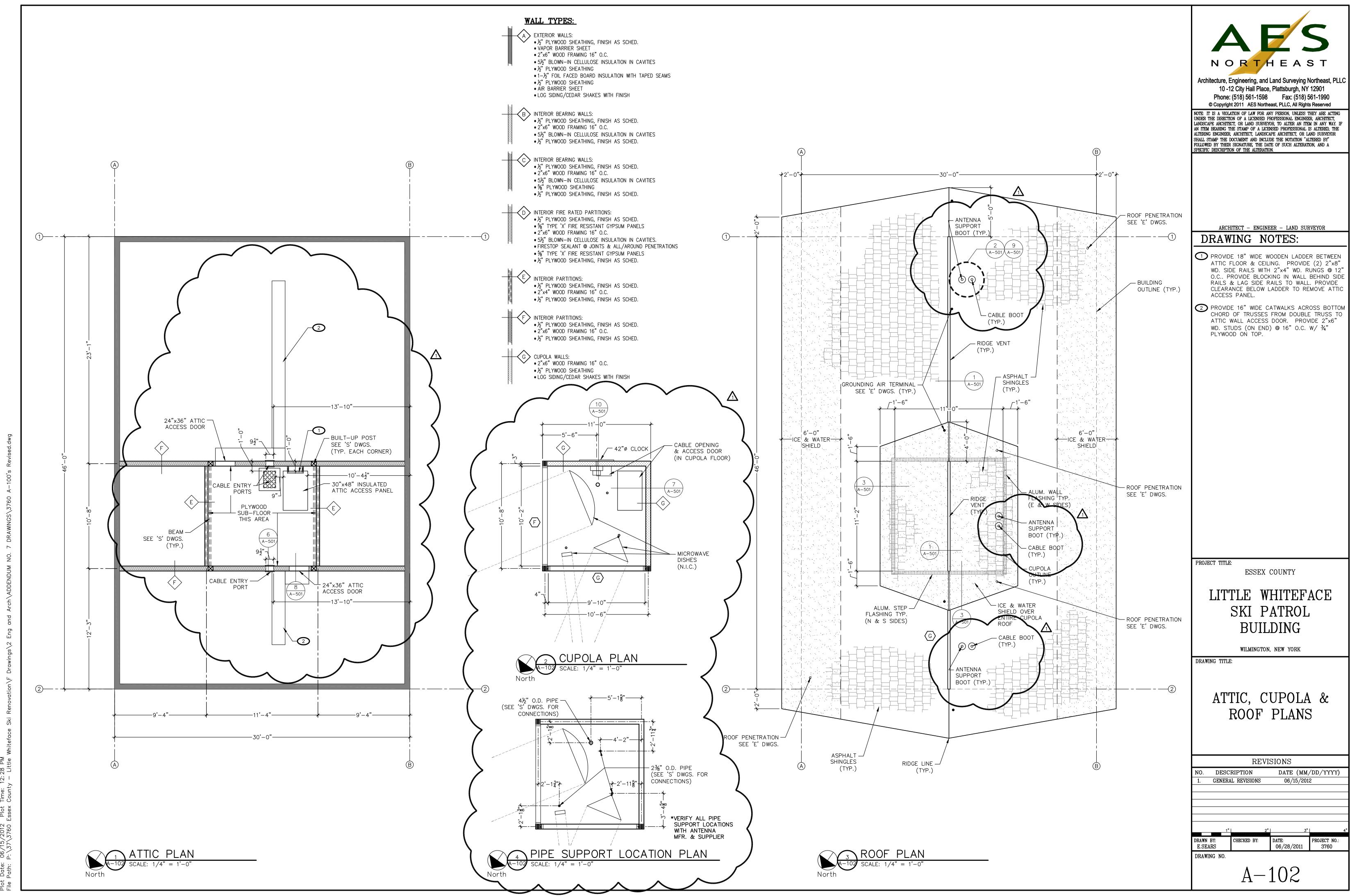
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S - 204

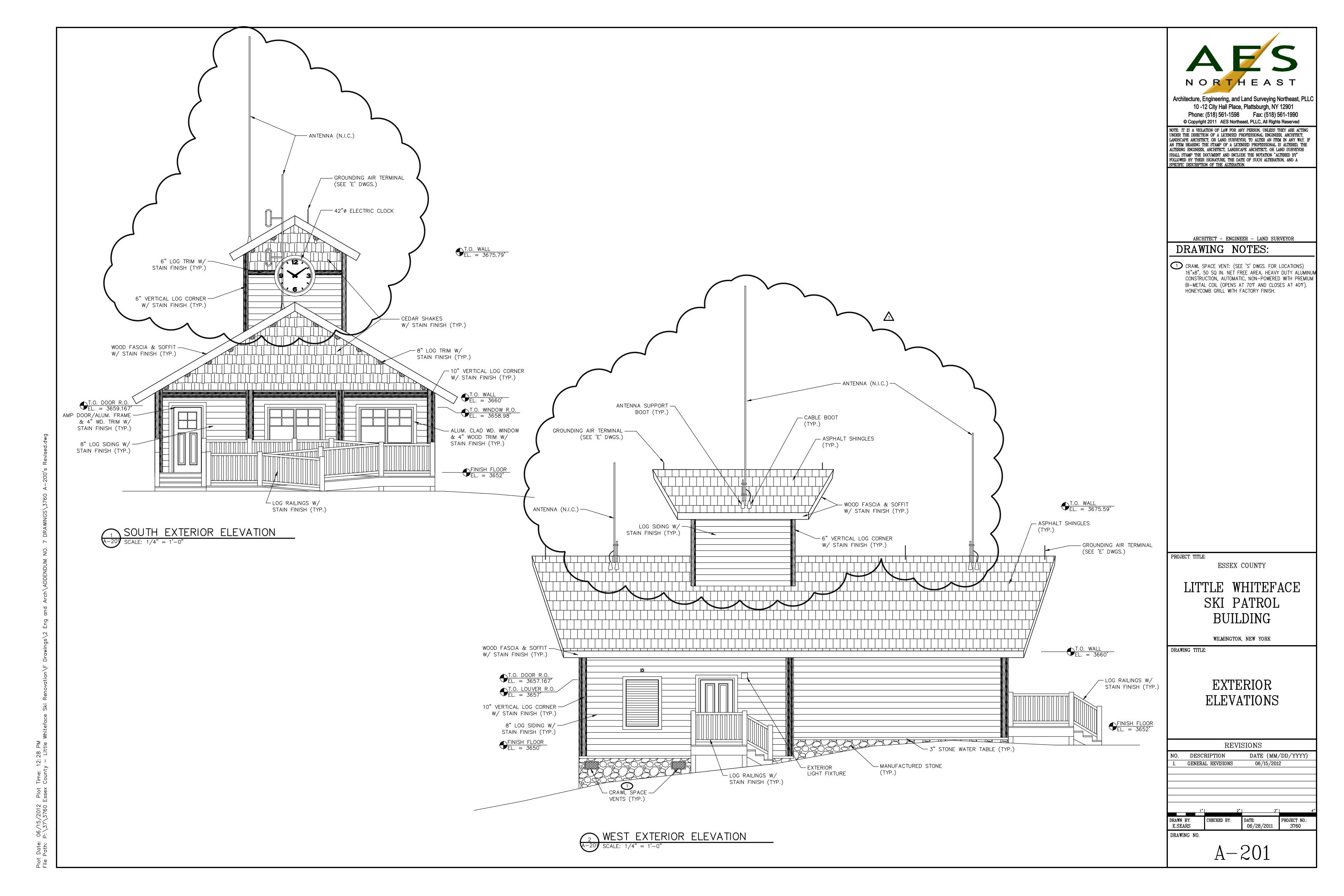
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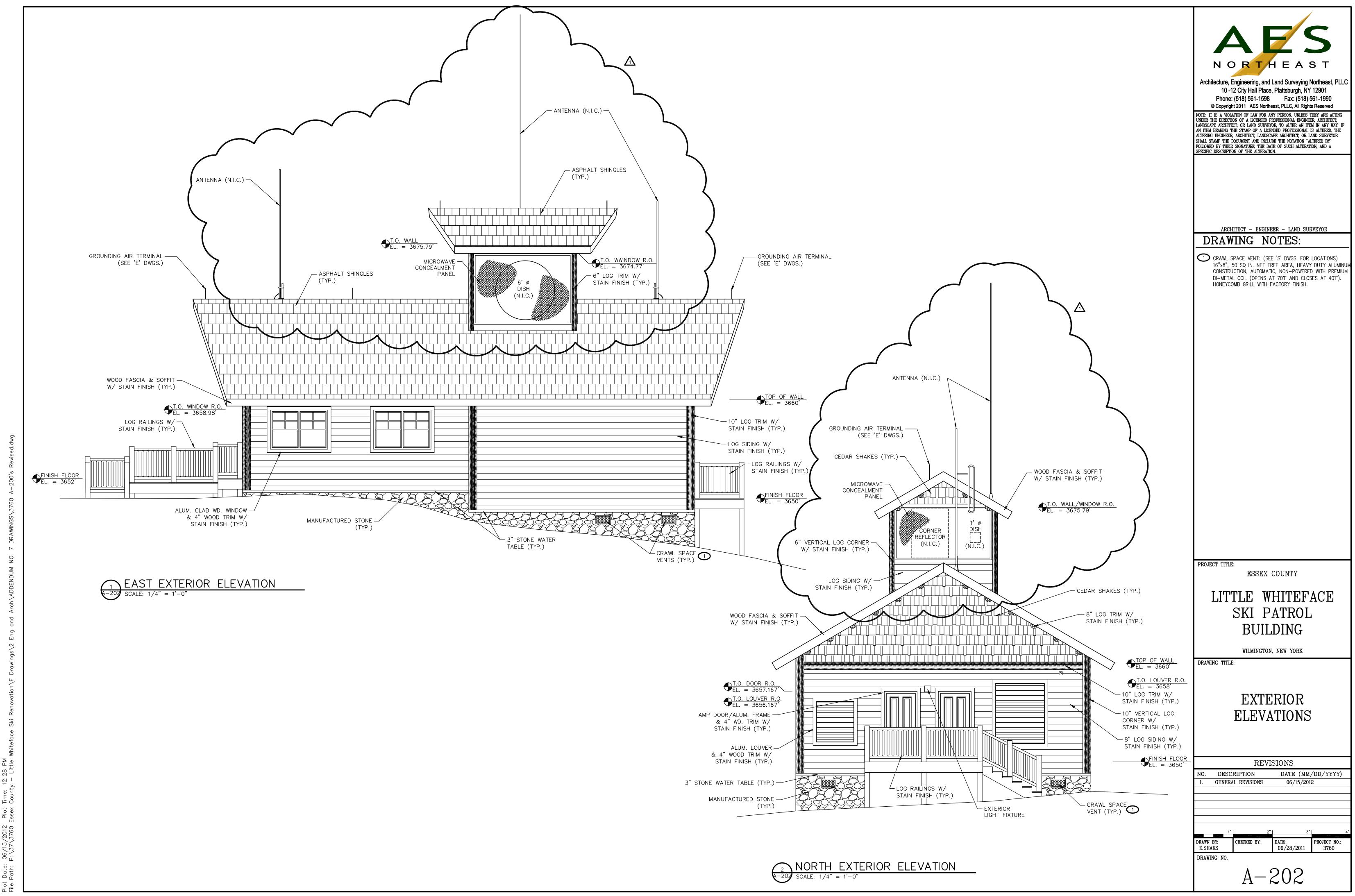


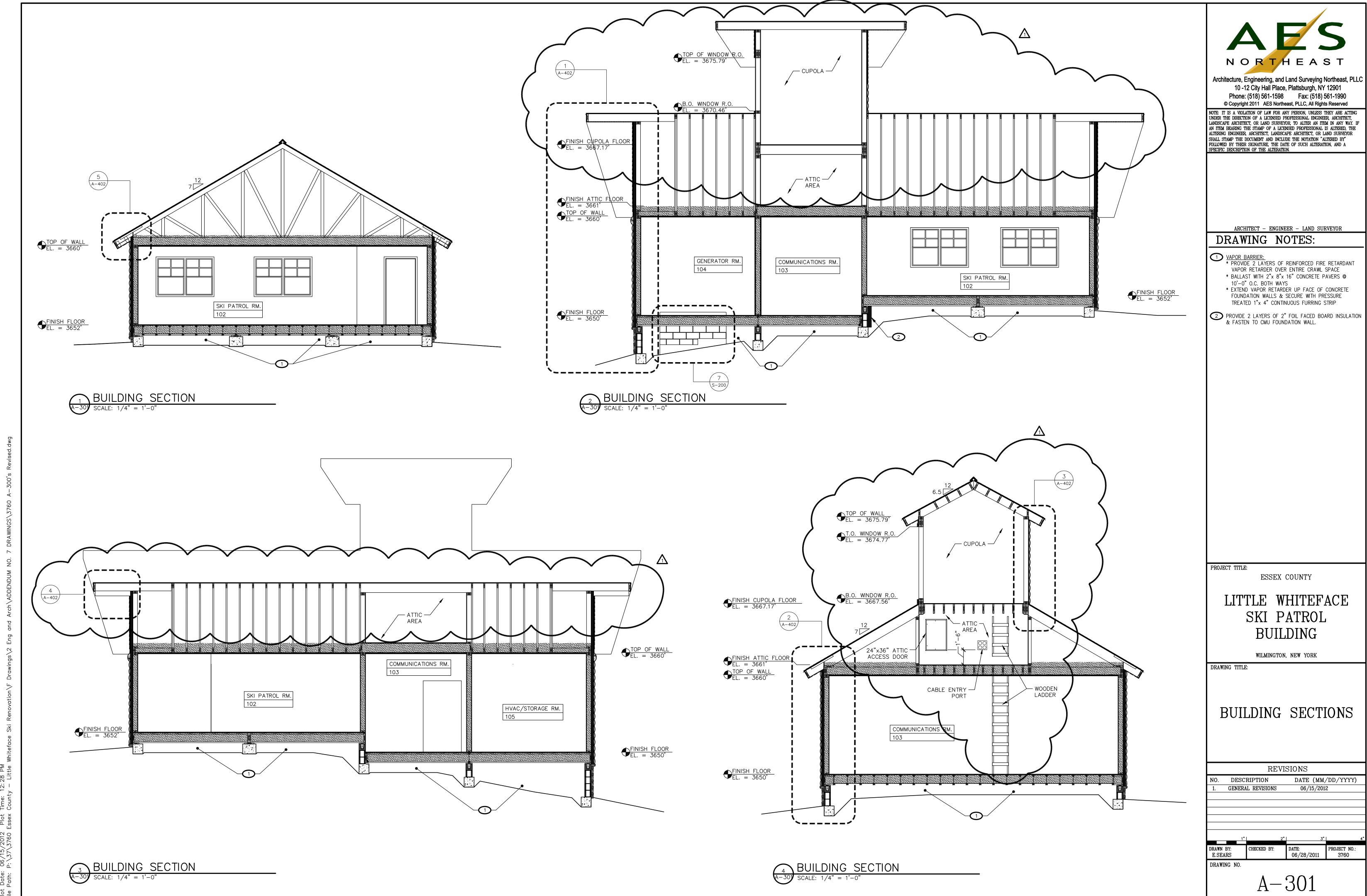
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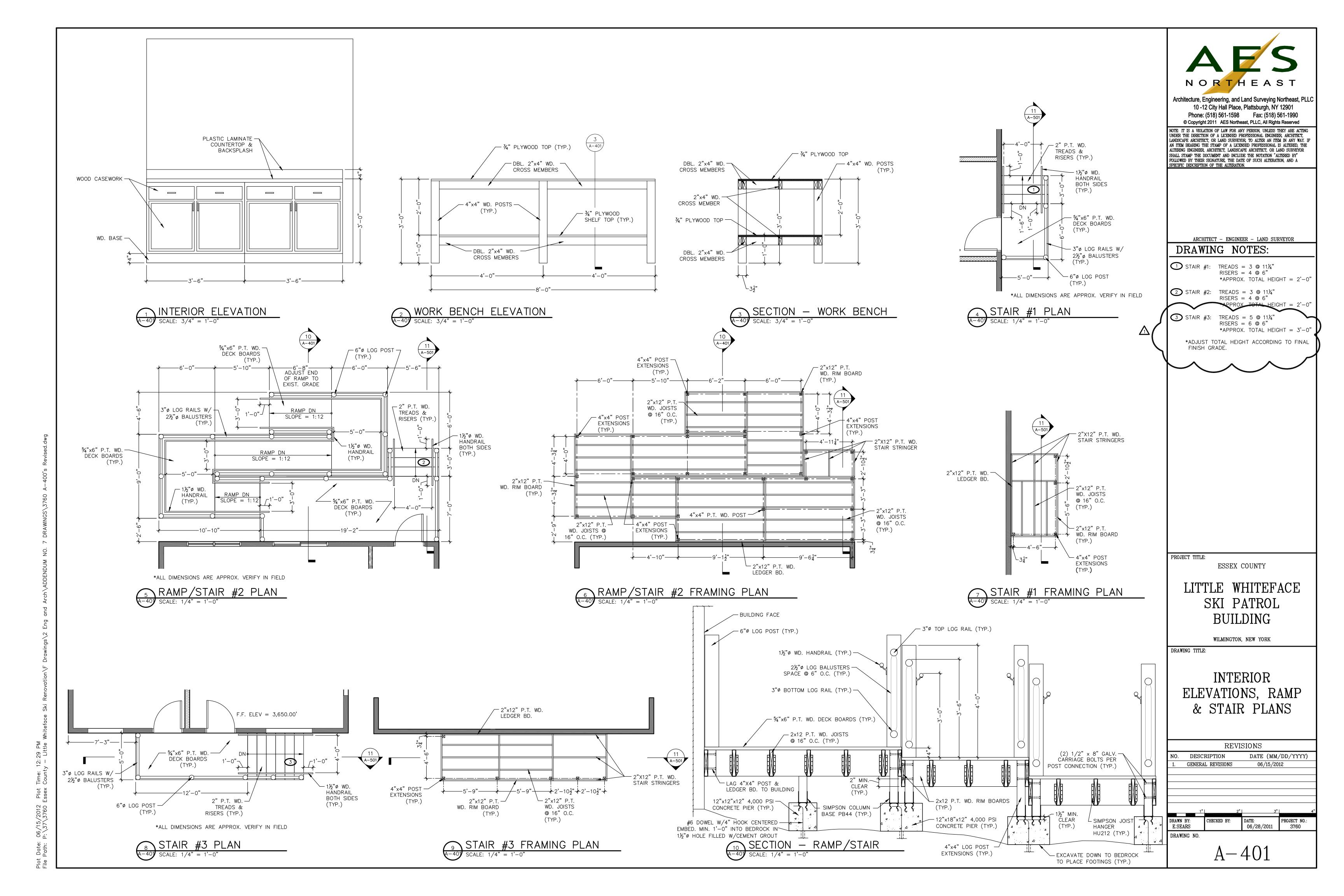


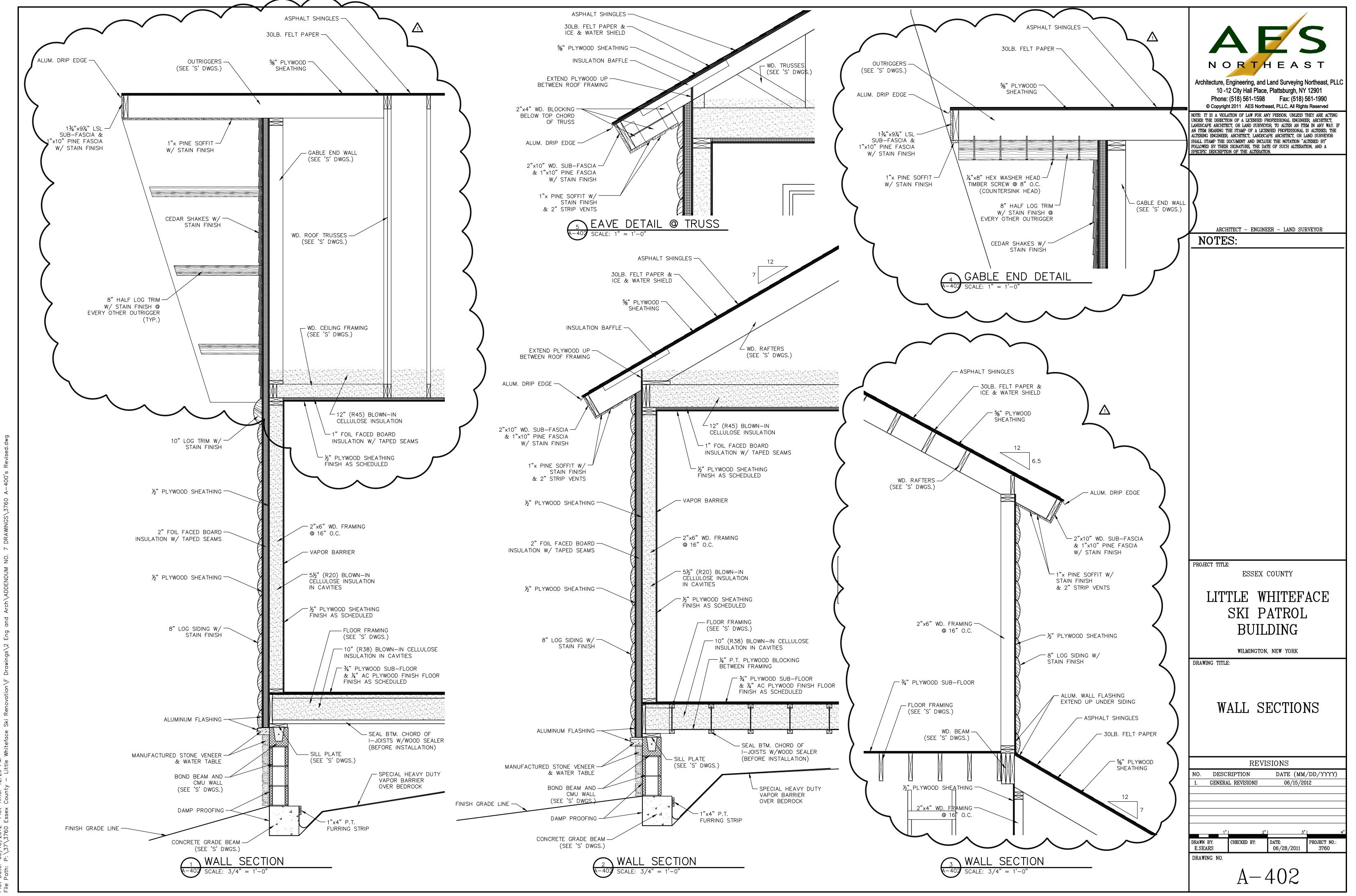
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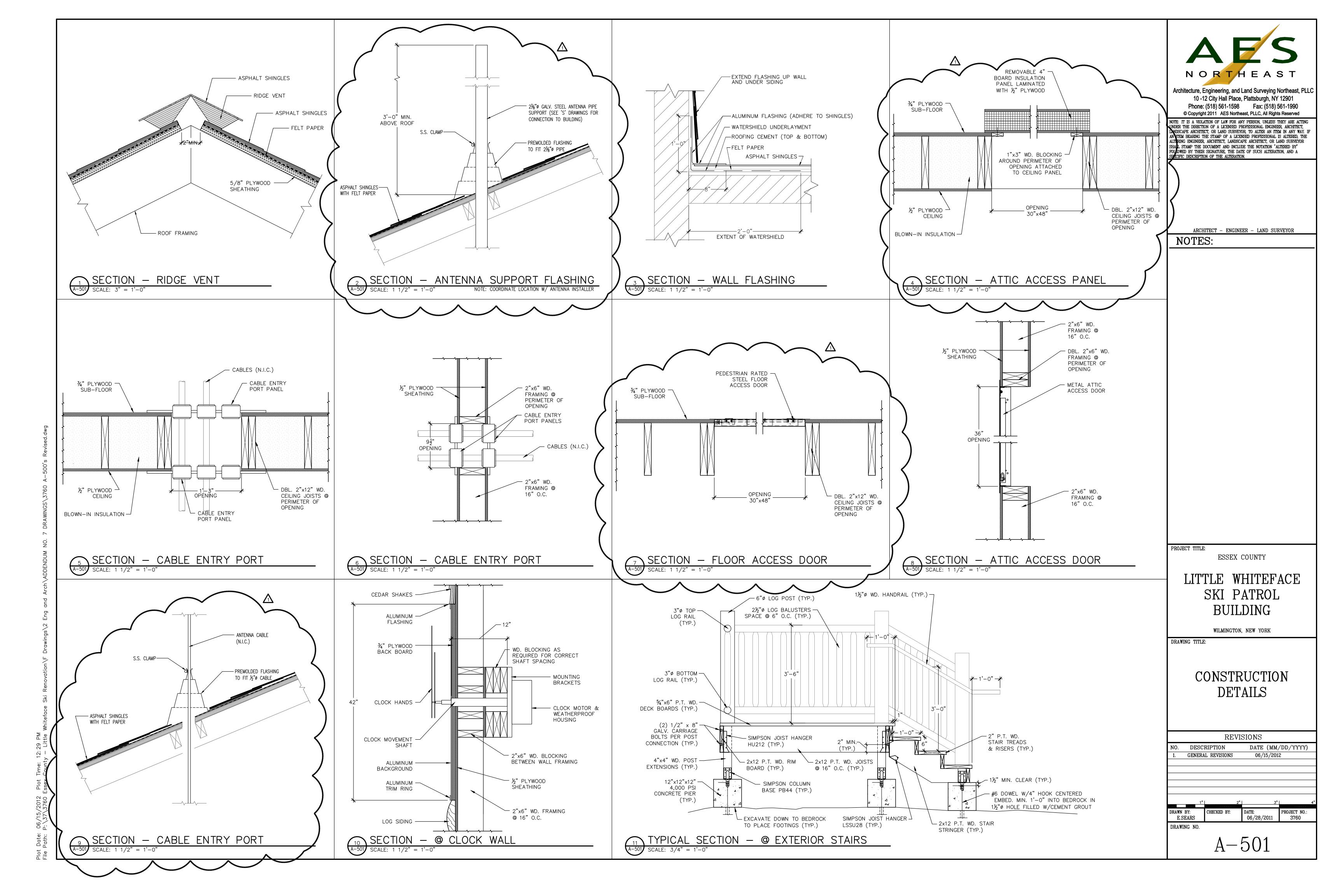


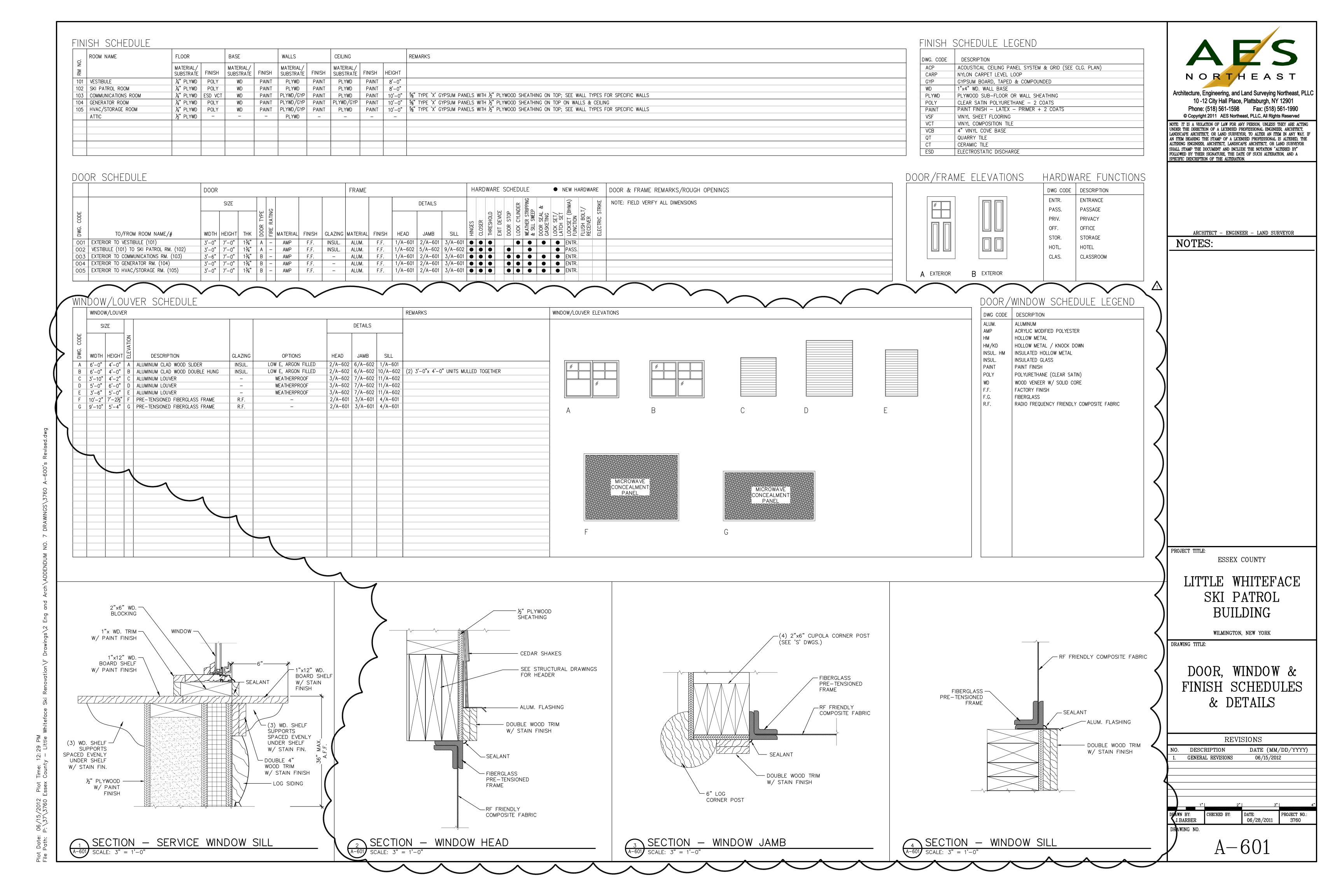


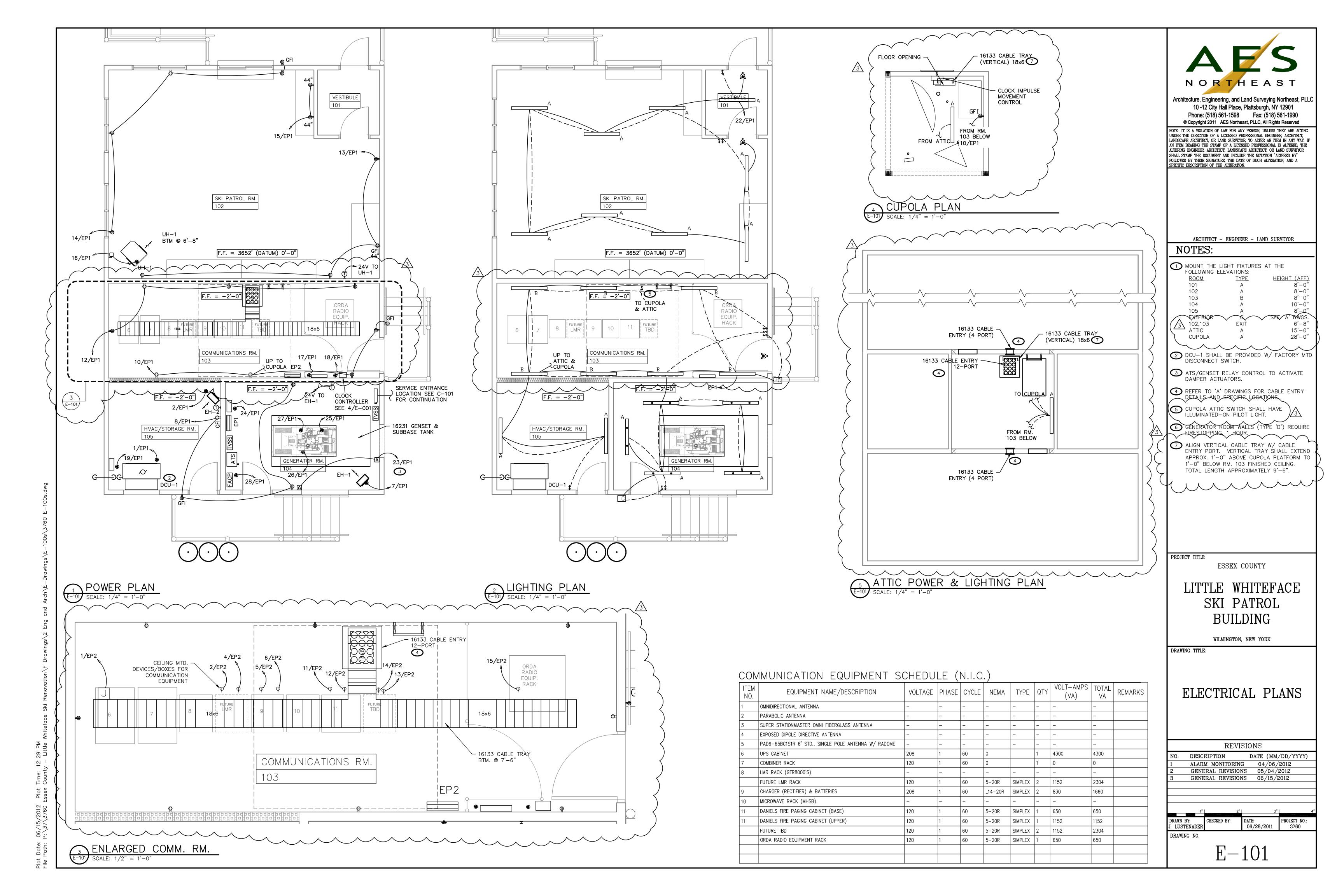


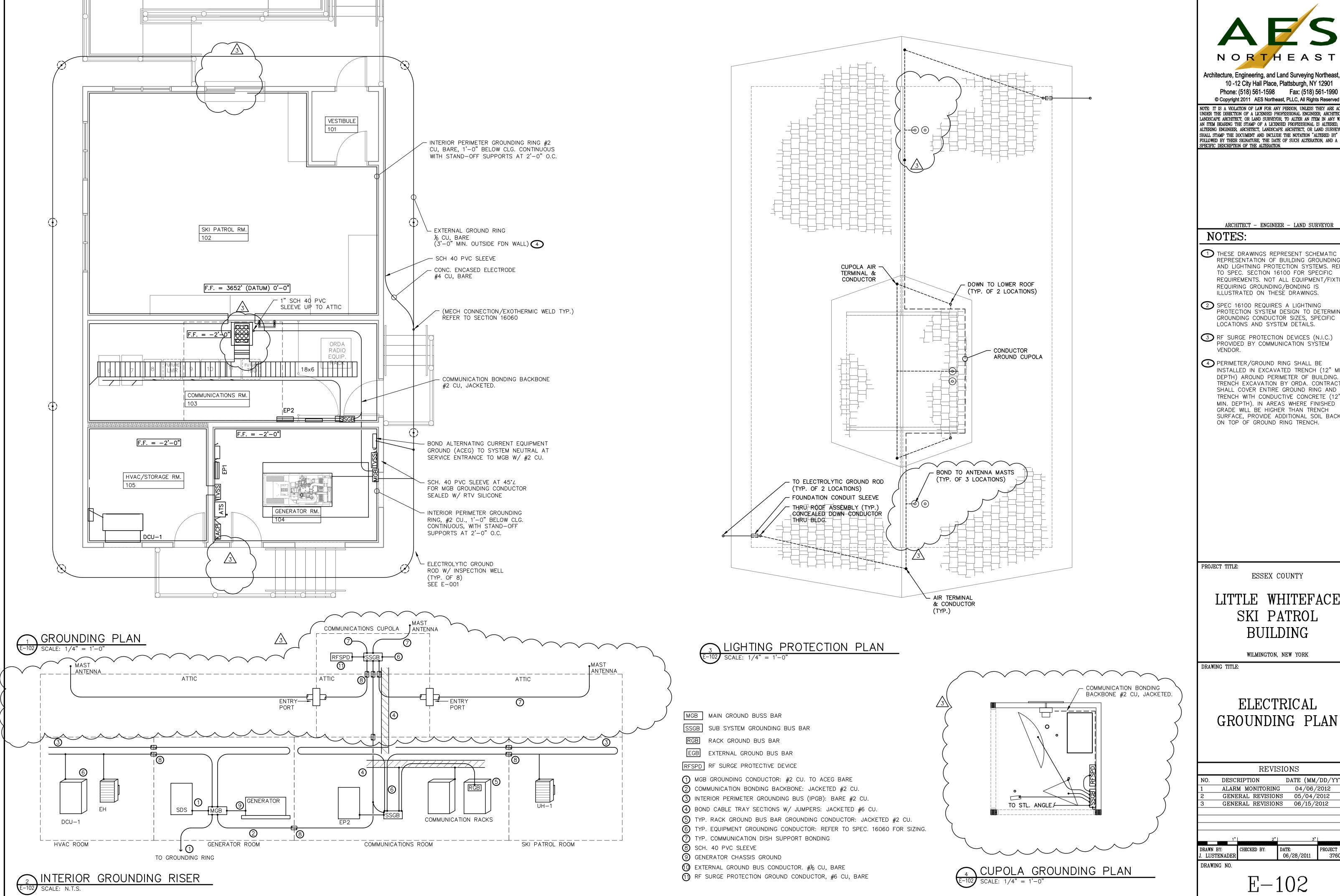












NORTHEAST

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NOTE: IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE STAMP OF A LICENSED PROFESSIONAL IS ALTERED. THE ALTERING ENGINEER, ARCHITECT, LANDSCAPE ARCHITECT, OR LAND SURVEYOR SHALL STAMP THE DOCUMENT AND INCLUDE THE NOTATION "ALTERED BY" FOLLOWED BY THEIR SIGNATURE, THE DATE OF SUCH ALTERATION, AND A

ARCHITECT - ENGINEER - LAND SURVEYOR

## NOTES:

- 1 THESE DRAWINGS REPRESENT SCHEMATIC REPRESENTATION OF BUILDING GROUNDING AND LIGHTNING PROTECTION SYSTEMS. REFER TO SPEC. SECTION 16100 FOR SPECIFIC REQUIREMENTS. NOT ALL EQUIPMENT/FIXTURES REQUIRING GROUNDING/BONDING IS ILLUSTRATED ON THESE DRAWINGS.
- 2 SPEC 16100 REQUIRES A LIGHTNING PROTECTION SYSTEM DESIGN TO DETERMINE GROUNDING CONDUCTOR SIZES, SPECIFIC LOCATIONS AND SYSTEM DETAILS.
- 3 RF SURGE PROTECTION DEVICES (N.I.C.) PROVIDED BY COMMUNICATION SYSTEM VENDOR.
- 4 PERIMETER/GROUND RING SHALL BE INSTALLED IN EXCAVATED TRENCH (12" MIN. DEPTH) AROUND PERIMETER OF BUILDING. TRENCH EXCAVATION BY ORDA. CONTRACTOR SHALL COVER ENTIRE GROUND RING AND TRENCH WITH CONDUCTIVE CONCRETE (12" MIN. DEPTH). IN AREAS WHERE FINISHED GRADE WILL BE HIGHER THAN TRENCH SURFACE, PROVIDE ADDITIONAL SOIL BACKFILL ON TOP OF GROUND RING TRENCH.

ESSEX COUNTY

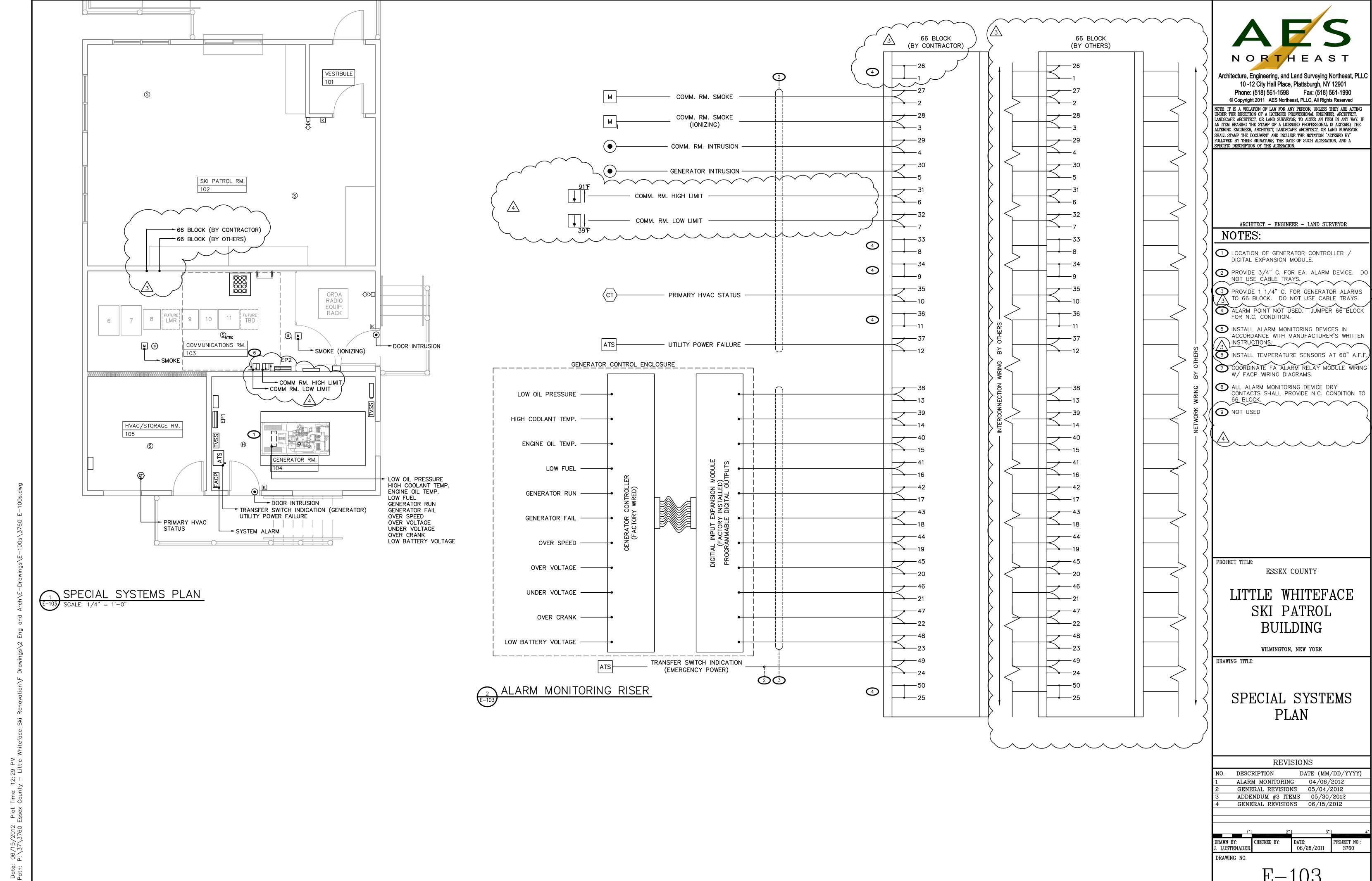
## LITTLE WHITEFACE SKI PATROL BUILDING

WILMINGTON, NEW YORK

## ELECTRICAL GROUNDING PLAN

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NO.	DESC	RIPTION	1	DATE	(MM,	/DD/YYYY
1	ALAR1	M MON	TORING	G 04	/06/	2012
2	GENE	RAL RI	EVISIO	NS 05	/04/	2012
3	GENE	RAL RI	EVISION	NS 06	/15/2	2012
	1"		2"	1	Z <sup>n</sup>	1
	1"		2"		3"	

E - 102



E - 103