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Title: RANT Building Upgrade Pre-Proposal Meeting

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Intended for: Pre-bid meeting presentation for the RANT Seismic Upgrades project

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Los Alamos National Laboratory

TA-54-0038
RANT Building Upgrade
Pre-Proposal Meeting
Proposal No. 1589927

8/01/17

LA-UR-17-26604

Introduction (Melinda T)

WELCOME!

- Complete the sign-in sheet
- Security Requirements/Visitor Badges
- Emergency Exits/Assembly Area
- ***All questions need to be written and submitted by e-mail to Contract Administrator – Melinda Thompson (mthompson@lanl.gov)***

Purpose (Melinda T)

This Pre-Proposal meeting is designed to:

- Introductions
- Provide an overview of the project scope and RFP
- Discuss interfaces for the construction project
- Highlight key expectations and deliverables from the subcontractor
- Address questions and provide clarification of the project scope

Project Team

(Melinda T)

- Contract Administrator (CA) – Melinda Thompson
  - CA is the direct contact for any contract questions and the only individual that can direct deviation from subcontract
- Subcontract Technical Representative (STR) – Eric Ulibarri
  - technical aspects of the performance of the work.
- Project Manager – Gabriela Lopez Escobedo
- Project Engineer – Karen Marsh
- Structural Engineer – Eric MacFarlane
- SME – Doug Dugan
- ES&H – Adan Ortega (Exhibit F)
- Security Representative – Roger Rodriguez (Exhibit G)
- Quality Assurance – Darren Meadows (Exhibit H)

Overview of the Request for Proposal (Melinda T)

- Proposal Due Date
  - Last day for questions: 8/21/2017 COB
    - All questions must be in writing
  - Proposals due: 8/31/2017 12:00 MDT
  - E-Sourcing price entry due: 8/31/2017 12:00 MDT
- Submit proposals (hard copy and email) to Contract Administrator
- Input final bid price in Aribba (NNSA e-sourcing site)
- Must be in System for Award Management and be listed in under NAICS Code 236220; $36.5 million as a small business (subcontract is not a small business set aside)

Overview of the Request for Proposal (Melinda T)

- Basis of Award
  - Lowest Price Technically Acceptable
    - Compliant NQA-1 2008/2009 Quality Program
    - Minimum of 2 years NQA-1 work experience under bidders program
    - Corporate QAP must be sufficient to support the scope of work and Offeror *must be able to be listed* or already on the Institutional Evaluated Suppliers (IESL) List for LANL in order to perform the work
    - Technically responsive and acceptable in accordance with Exhibit D
    - Responsive and Acceptable Schedule (bidders had opportunity to provide an optimal schedule)

Overview of the Request for Proposal (Melinda T)

- Basis of Award (cont.)
  - Key Personnel must have experience in similar projects
  - Offeror shall have demonstrated experience and provide at least 3 examples of installation of heavy industrial concrete including but not limited to complex formwork, drilled piers, and complex rebar installation
  - Sub-tier subcontractors must be qualified and experienced in the scope of work they are to perform
  - 5 years similar construction experience

Project Milestones (Gabriela LE)

No.	Subcontract Milestones	Date
(1)	Award	9/29/2017
(2)	Limited Notice to Proceed	10/02/2017
(3)	Shop drawings (deliverable to LANL for review), bonds, insurance, & schedule	11/15/2017*
(4)	Construction substantial Completion	9/11/2018

*Change to RFP – amendment to be issued

The Subcontractor is to propose dates that optimize the schedule for additional intermediate milestones:

(5) IWD, QA Plan, Work Plan, and Safety Submittals

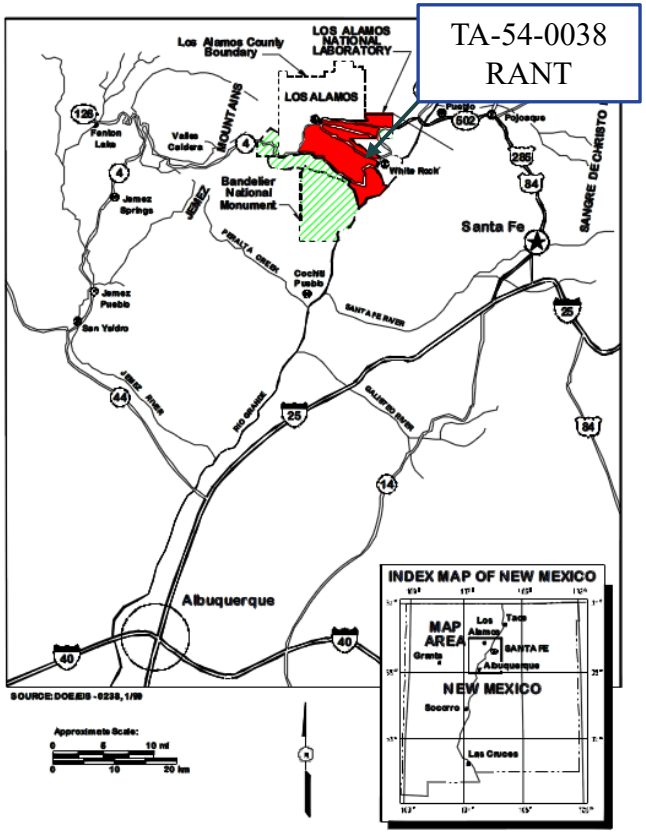
(6) Mobilization

(7) Start of Foundation (Caisson, Beams, Walls) construction

(8) Start of CFRP Installation

Exhibit D – Scope of Work (Gabriela LE)

Project Location: The project is located at Technical Area 54 (TA-54), located along the Pajarito Corridor at LANL in Los Alamos, New Mexico. The project is an existing building TA-54-0038.



Project Site Conditions (Doug D)

- Lay down area will be provided.
- Offices and bathrooms inside the facility will be available to the Subcontractor. **Optional:** a construction trailer may be placed next to site with FOD approval.
- The facility is not in a Q clear secure area
- Access to site through in Pajarito Corridor
- Safety Basis may impose special requirements (i.e., fuel volume limits) – working to prevent issues
- 2-Week written notice of need for CONTRACTOR-provided on-site utilities and/or construction water

Construction Laydown Areas (Doug D)

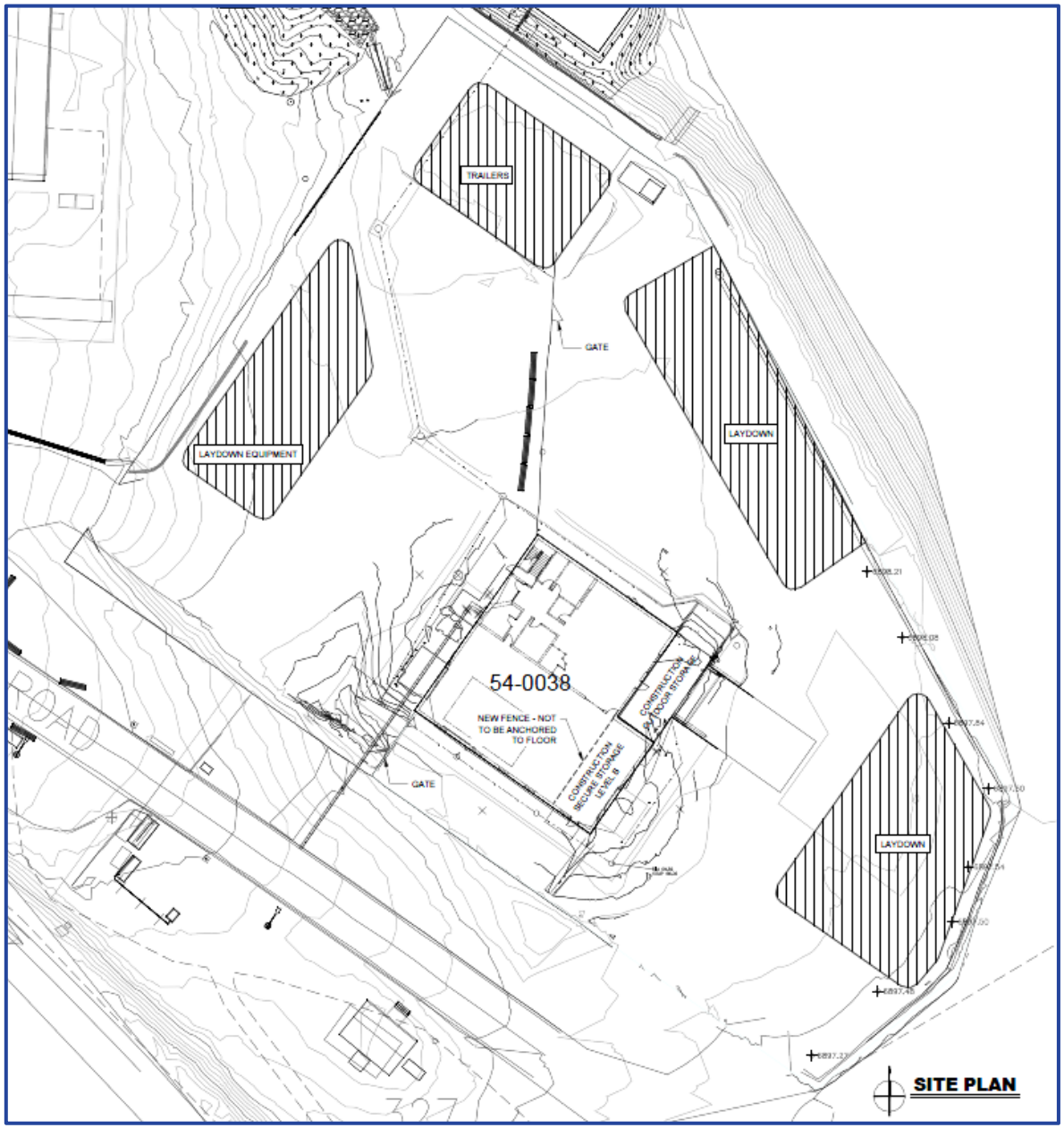


Exhibit D – Scope of Work (Eric U)

Project Description:

This project includes the architectural, mechanical, structural, electrical, and plumbing work required to support a seismic upgrade of this existing facility. The project will result in a facility that complies with the seismic requirements of a Hazard Category 2 Nuclear Facility. The work includes but is not limited to:

- Demolition of the existing roofing system, portions of the existing EIFS wall finishes, and the existing lightning protection system
- Removal of existing rooftop equipment as designated in the SUBCONTRACT documents
- Excavation and earthwork required to install the new concrete caissons and grade beams
- Installation of new concrete shear walls and required formwork design to construct the shear walls
- Installation of the new CFRP reinforcing system at the roof, including the protective silica application
- Install new concrete collector element at the roof
- Install new steel reinforcement on the existing pre-cast panels
- Re-install existing roof mechanical equipment on roof

Exhibit D – Scope of Work (continued) (Eric U)

Project Description (continued):

- Install new mechanical equipment on the roof (equipment procurement to be priced as an option – *change from RFP amendment to be issued*)
- Install new roof drains and related piping connections to existing drain lines
- Install new ductwork and connections to existing ductwork
- Install new roof hatch
- Design and Install new lightning protection system
- Relocate existing utilities if required to install the work. Coordinate any relocation of utilities with the Contractor STR
- Patch and repair any paving, concrete, fencing, gates or drain systems disturbed or impacted by the work

Exhibit D – Scope of Work (continued) (Eric U)

Optional Scope Of Work (Exhibit D 1.1.17) (If exercised)

- Provide and install glass fiber reinforced polymer (GFRP) at the roof if needed
- Provide and install new guardrail system on roof
- Provide repairs of CFRP if damage occurs by the Contractor's independent roofing Subcontractor (provide hourly rate)
- HVA-1, -2, and -3 equipment procurement to be priced as an option (change from RFP amendment to be issued)

Exhibit D – Scope of Work (continued) (Eric U)

Work Excluded

- LANL will procure and install the roofing system after the Subcontractor has completed the structural work at the roof and prior to the installation of the lightning protection system.
- Permits
- On-site Services of a Geotechnical Engineer for geotechnical inspection services.
- LANL will fabricate the CFRP (Carbon Fiber Reinforced Polymer) Anchors to the project site for installation by the Subcontract (subcontractor provides the material).
- Utility Locates
- Ground Penetrating Radar (GPR) for Concrete prior to penetrations

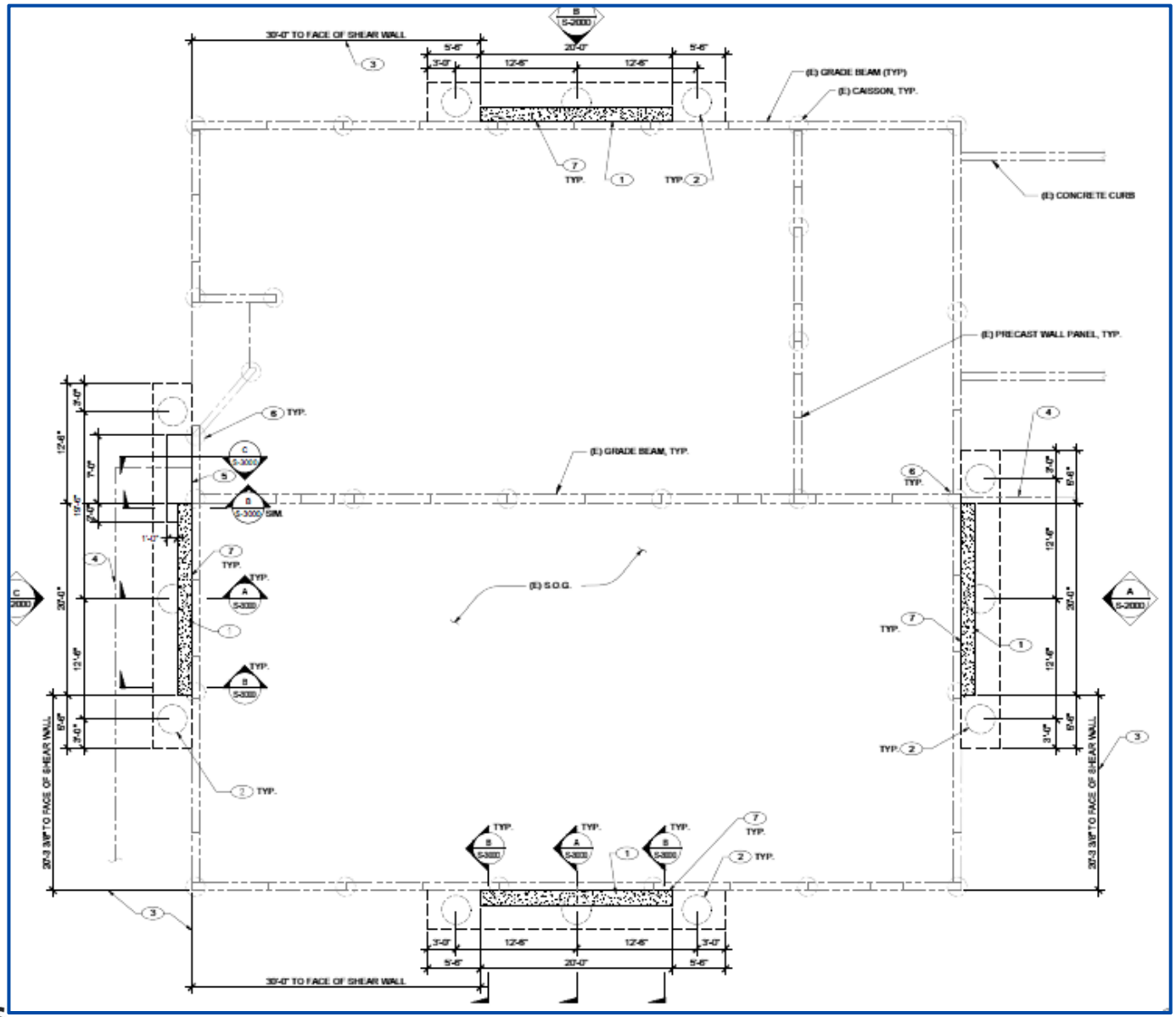
Exhibit D – Scope of Work (continued) (Eric U)

- PM-0701 Subcontractor Submittals
- Participate in Design Revision Control (AP 341-519)
  - Request for Information (RFI) – notify LANL of any changes
  - Field Change Request (FCR)
  - Design Revision Notice (DRN)
- Exhibit H QC-25 Non-conformance Reporting (NCR)
- Training:
  - See Training Matrix Exhibit D, Attachment A

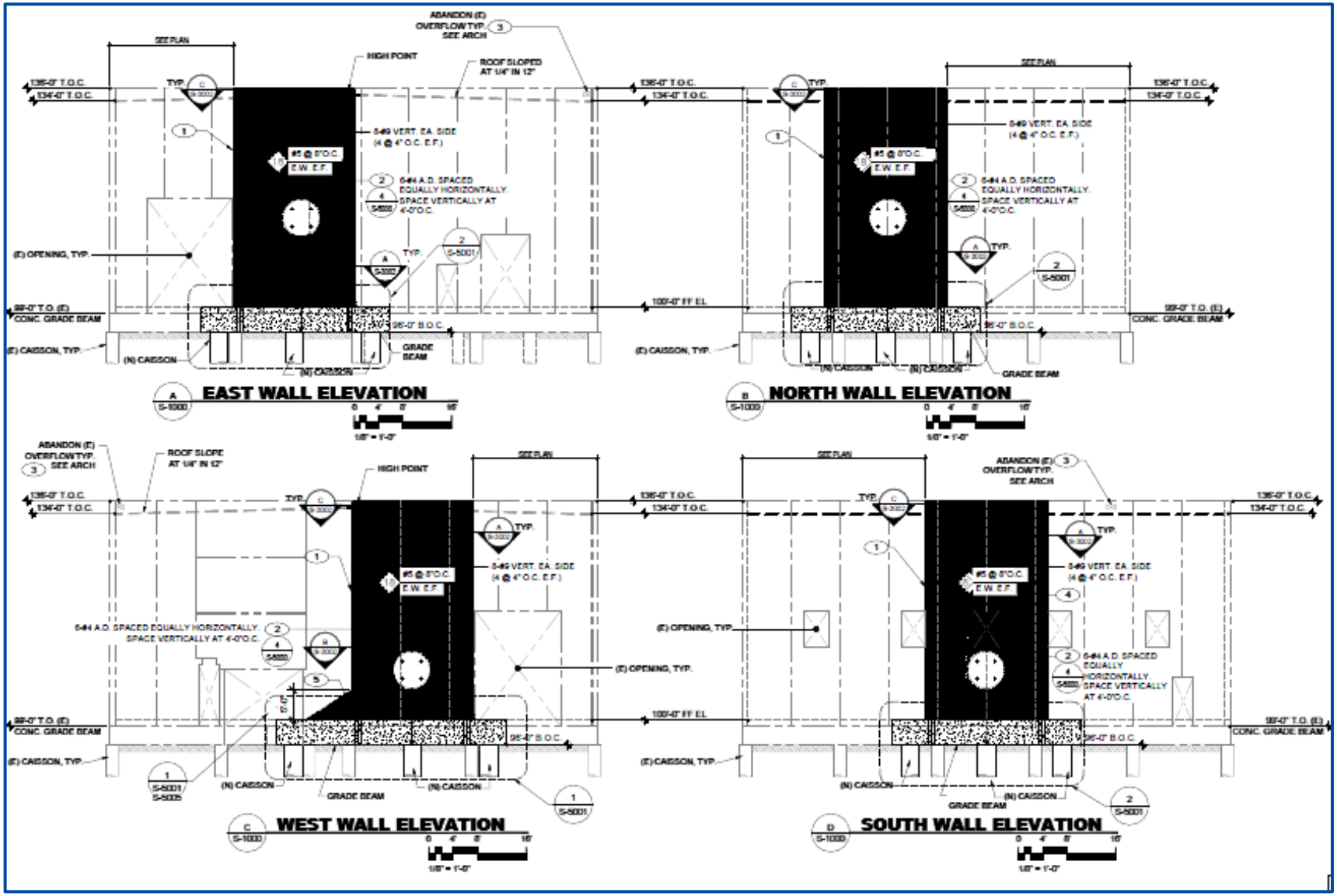
Highlights of the Structural Components (Eric M)

- Foundation
- Shear walls
- Concrete collector element
- CFRP installation
  - Roof and wall panel reinforcing
  - CFRP anchors

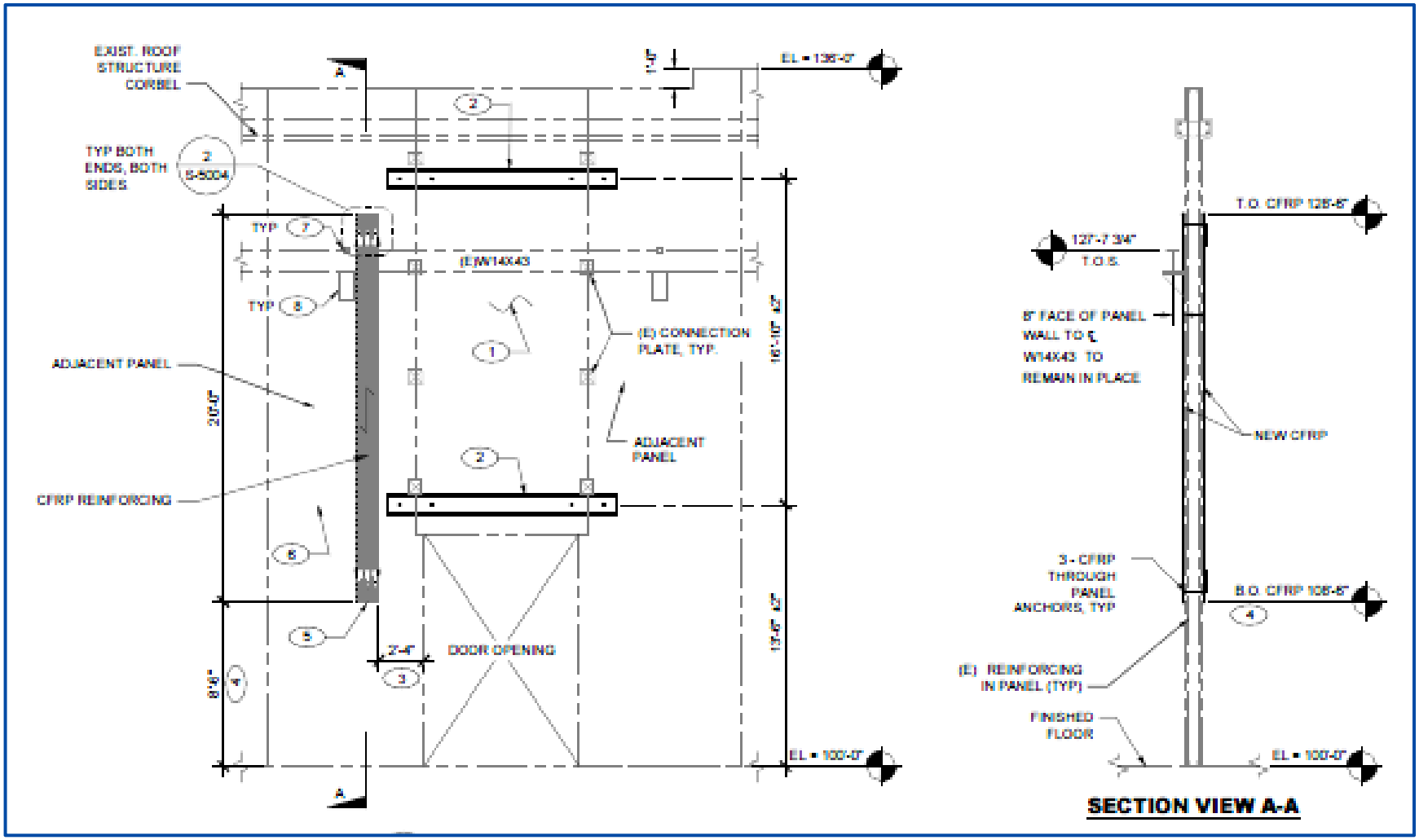
Foundation and Wall Panel Plan



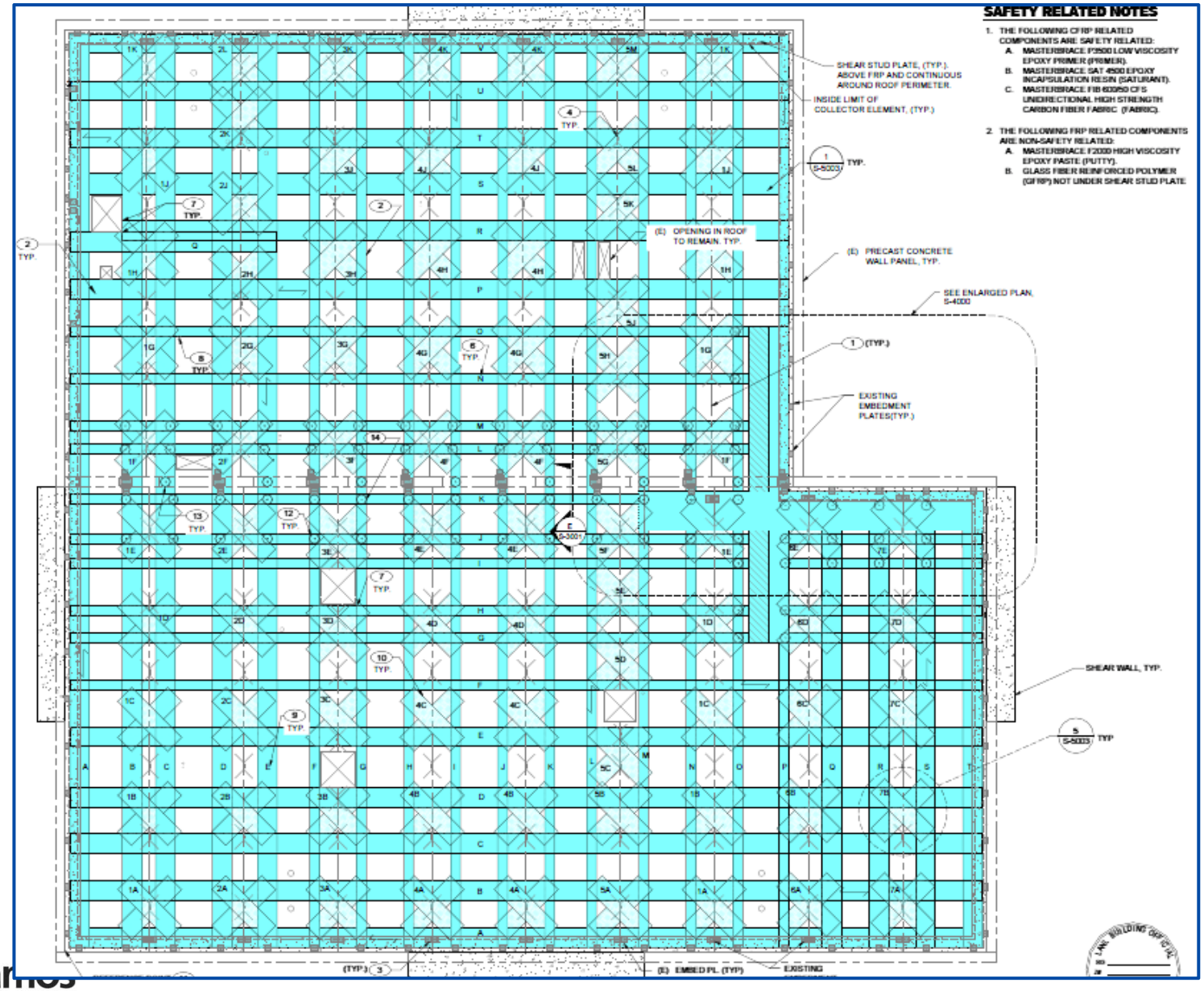
Foundation and Shear Wall Elevations



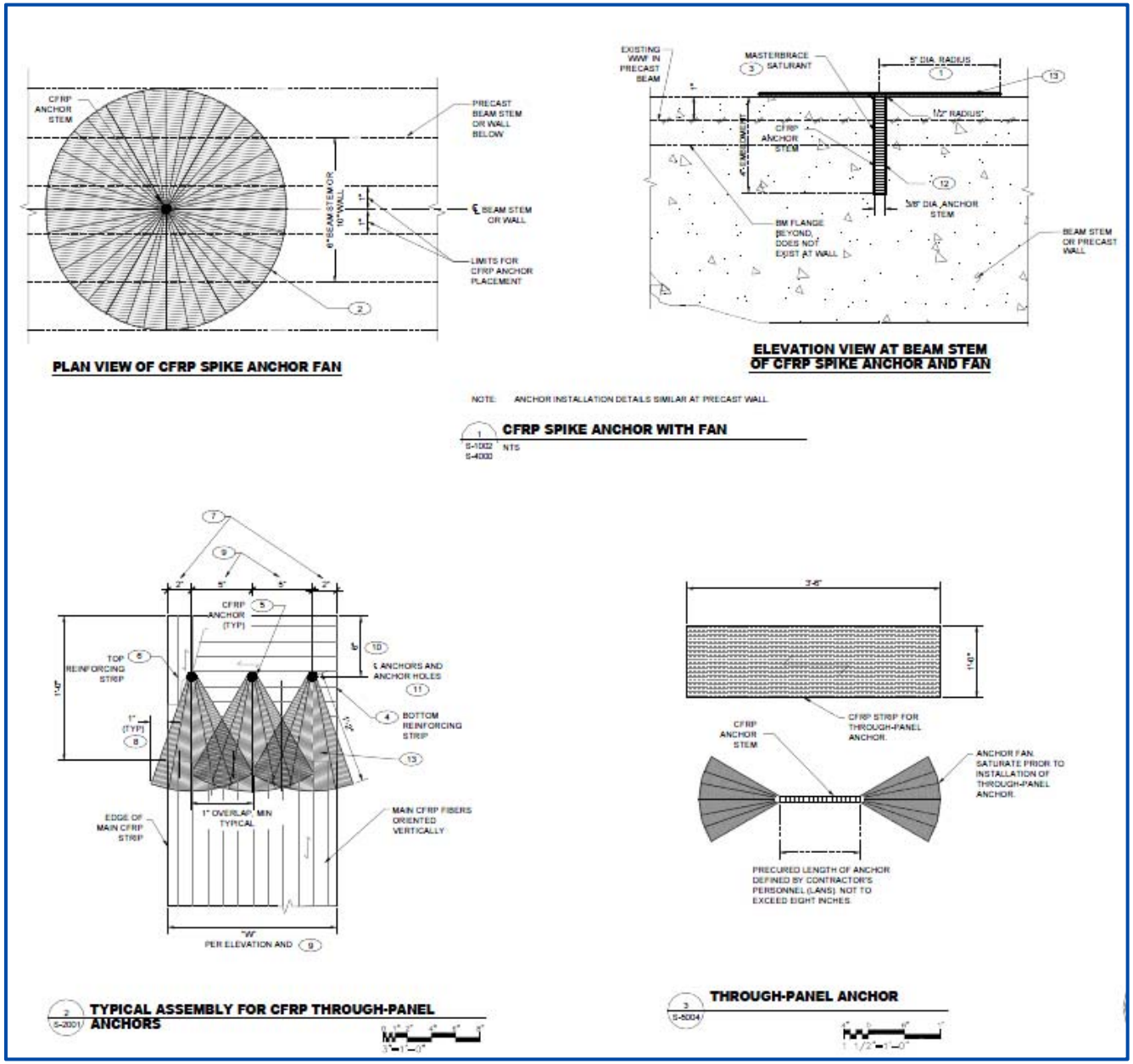
CFRP on Wall Panel



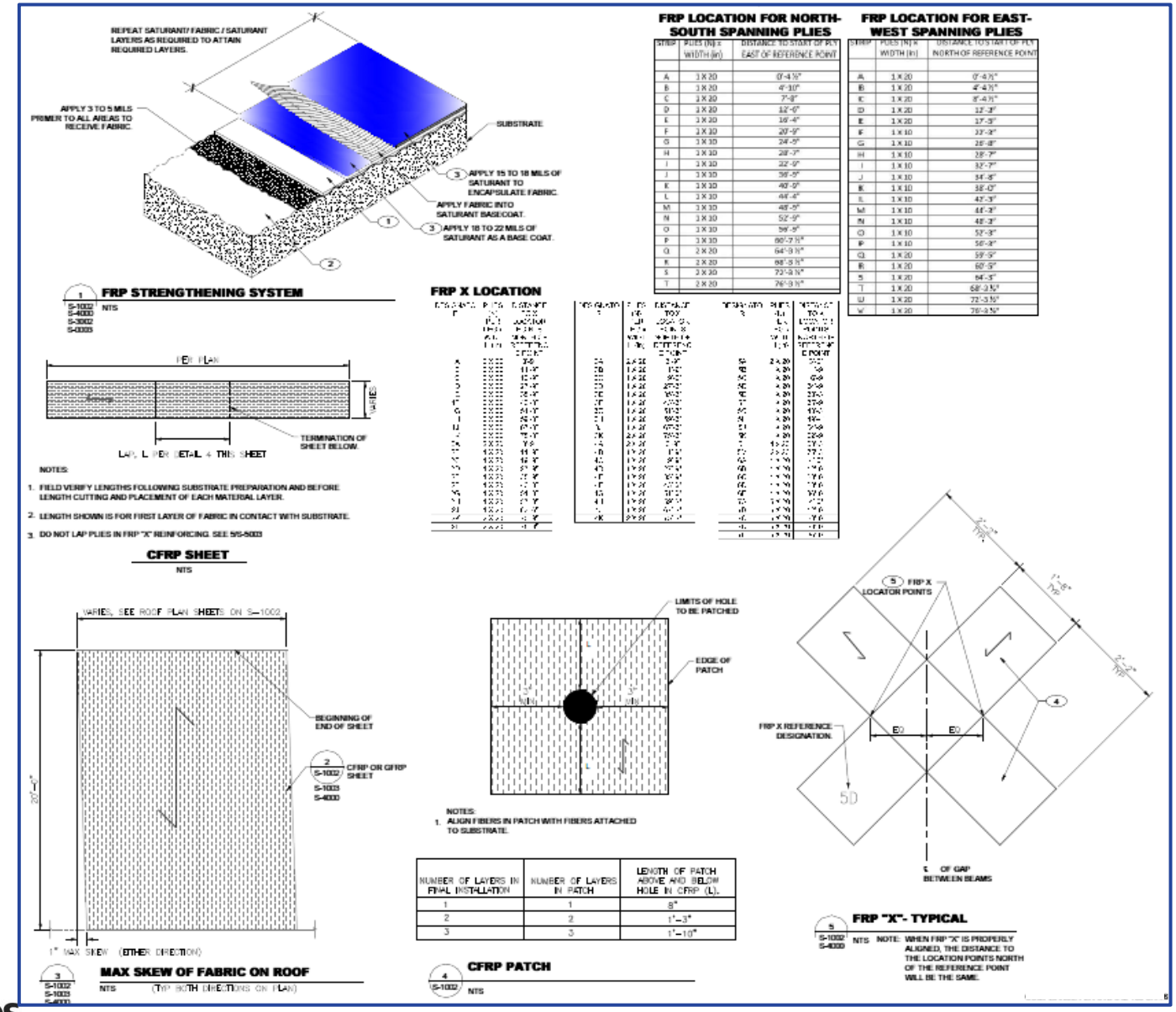
Roof CFRP Reinforcing Plan



CFRP Anchorage Details



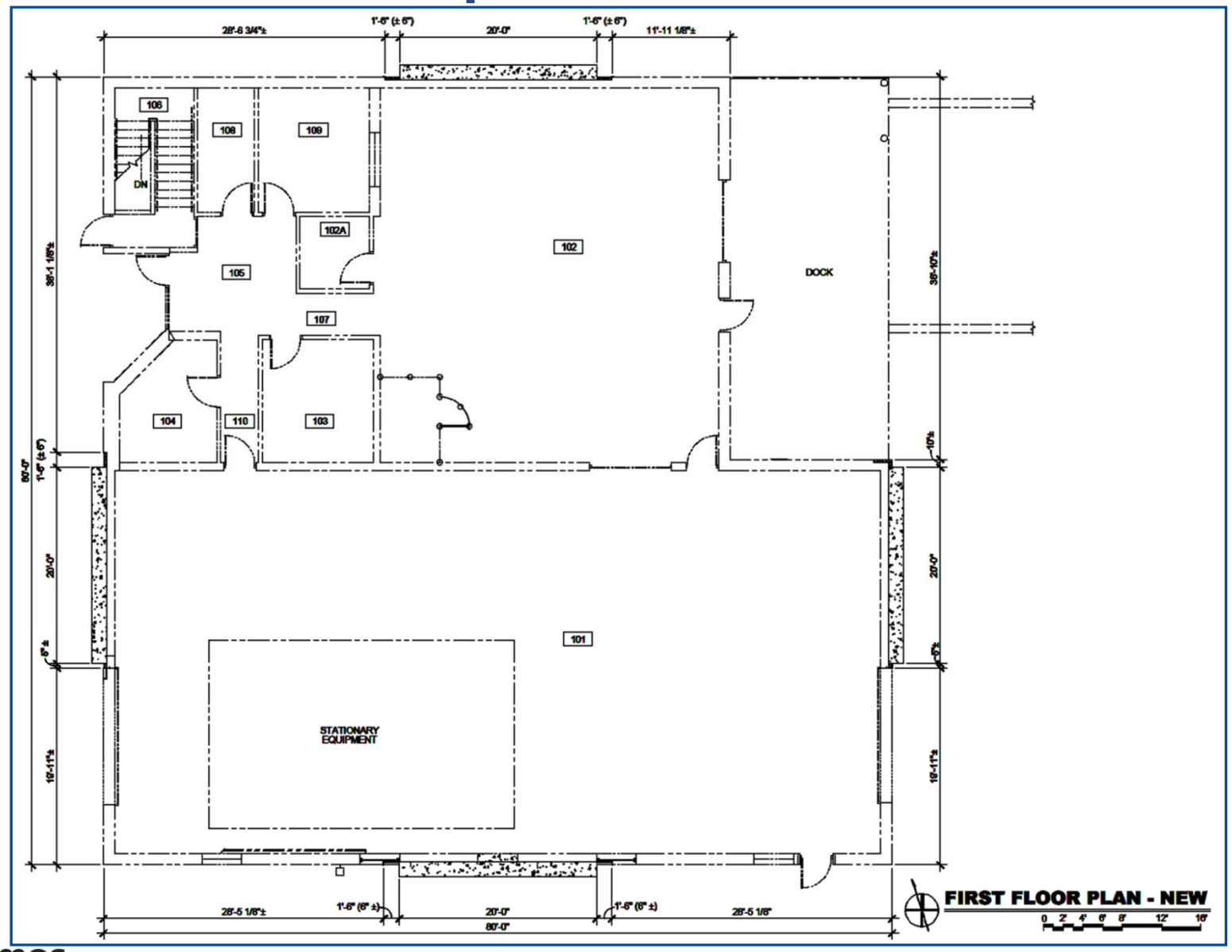
FRP Details


REPEAT SATURANT/ FABRIC / SATURANT LAYERS AS REQUIRED TO ATTAIN REQUIRED LAYERS.
APPLY 3 TO 5 MILS PRIMER TO ALL AREAS TO RECEIVE FABRIC.
SUBSTRATE
APPLY 15 TO 18 MILS OF SATURANT TO ENCAPSULATE FABRIC.
APPLY FABRIC INTO SATURANT BASECOAT.
APPLY 18 TO 22 MILS OF SATURANT AS A BASE COAT.
FRP STRENGTHENING SYSTEM
NTS
PER PLAN
VARIES
TERMINATION OF SHEET BELOW
LAP L PER DETAIL 4 THIS SHEET
NOTES:
1. FIELD VERIFY LENGTHS FOLLOWING SUBSTRATE PREPARATION AND BEFORE LENGTH CUTTING AND PLACEMENT OF EACH MATERIAL LAYER.
2. LENGTH SHOWN IS FOR FIRST LAYER OF FABRIC IN CONTACT WITH SUBSTRATE.
3. DO NOT LAP PLIES IN FRP "X" REINFORCING. SEE S5-5003
CFRP SHEET
NTS
FRP LOCATION FOR NORTH-SOUTH SPANNING PLIES
FRP LOCATION FOR EAST-WEST SPANNING PLIES
FRP X LOCATION
VARIES, SEE ROOF PLAN SHEETS ON S-1002
BEGINNING OF END OF SHEET
CFRP OR GFRP SHEET
1" MAX SKEW (EITHER DIRECTION)
MAX SKEW OF FABRIC ON ROOF
NTS (TYP. BOTH DIRECTIONS ON PLAN)
LIMITS OF HOLE TO BE PATCHED
EDGE OF PATCH
NOTES:
1. ALIGN FIBERS IN PATCH WITH FIBERS ATTACHED TO SUBSTRATE.
NUMBER OF LAYERS IN FINAL INSTALLATION
NUMBER OF LAYERS IN PATCH
LENGTH OF PATCH ABOVE AND BELOW HOLE IN CFRP (L).
1 1 8"
2 2 1'-3"
3 3 1'-10"
CFRP PATCH
NTS
FRP X LOCATION POINTS
FRP X REFERENCE DESIGNATION
ED
ED
5D
℄ OF GAP BETWEEN BEAMS
FRP "X"- TYPICAL
NTS
NOTE: WHEN FRP "X" IS PROPERLY ALIGNED, THE DISTANCE TO THE LOCATION POINTS NORTH OF THE REFERENCE POINT WILL BE THE SAME.

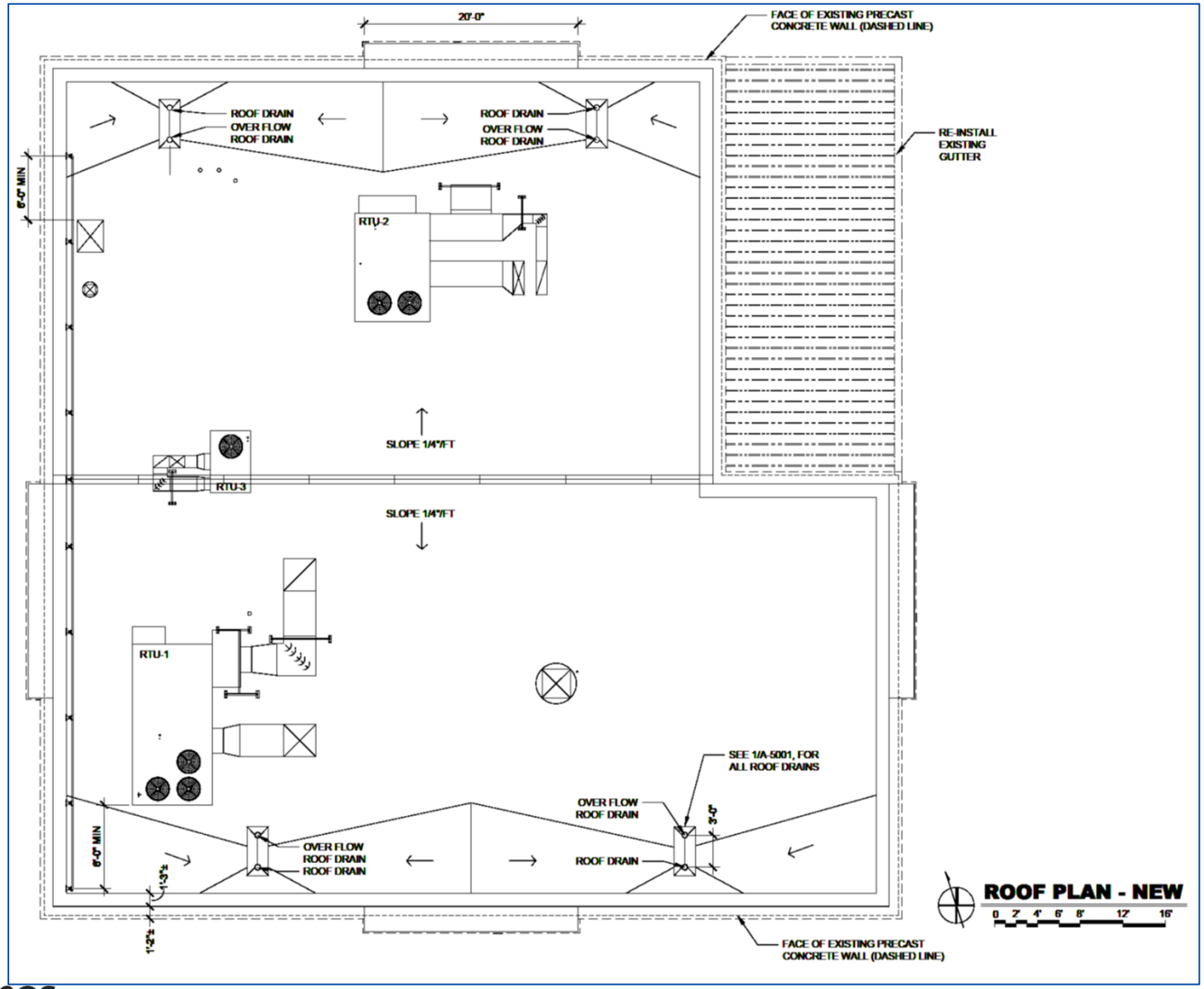
Other Key Components (Karen M)

- Summary and highlights of the portions of the scope
  - Architectural floor plan - A1052
  - Roof plan - A1053
  - Site utilities – P1001
  - Lightning Protection System – E1002
- RAMP interface – interface document highlights

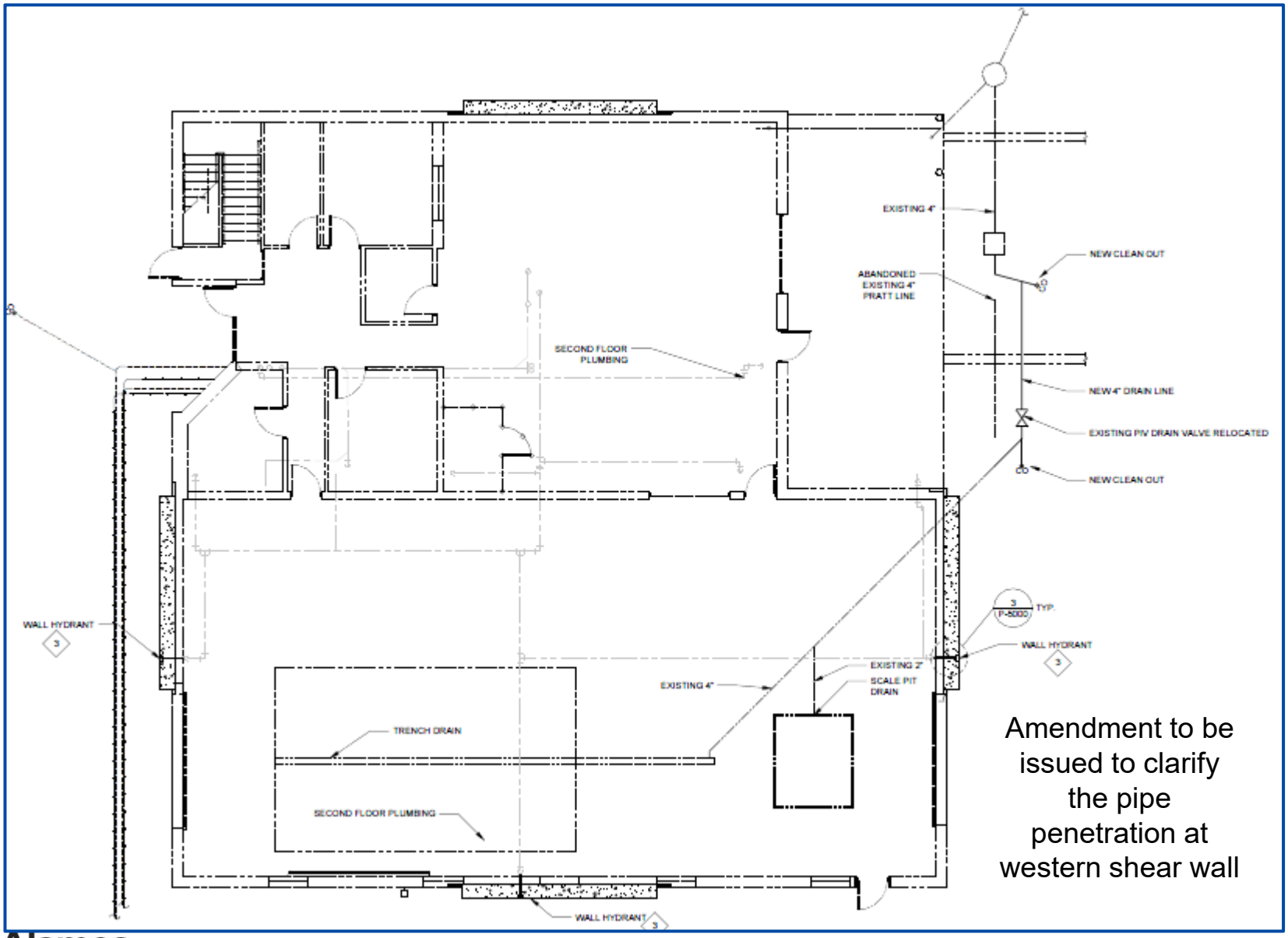
Architectural floor plan



Roof plan

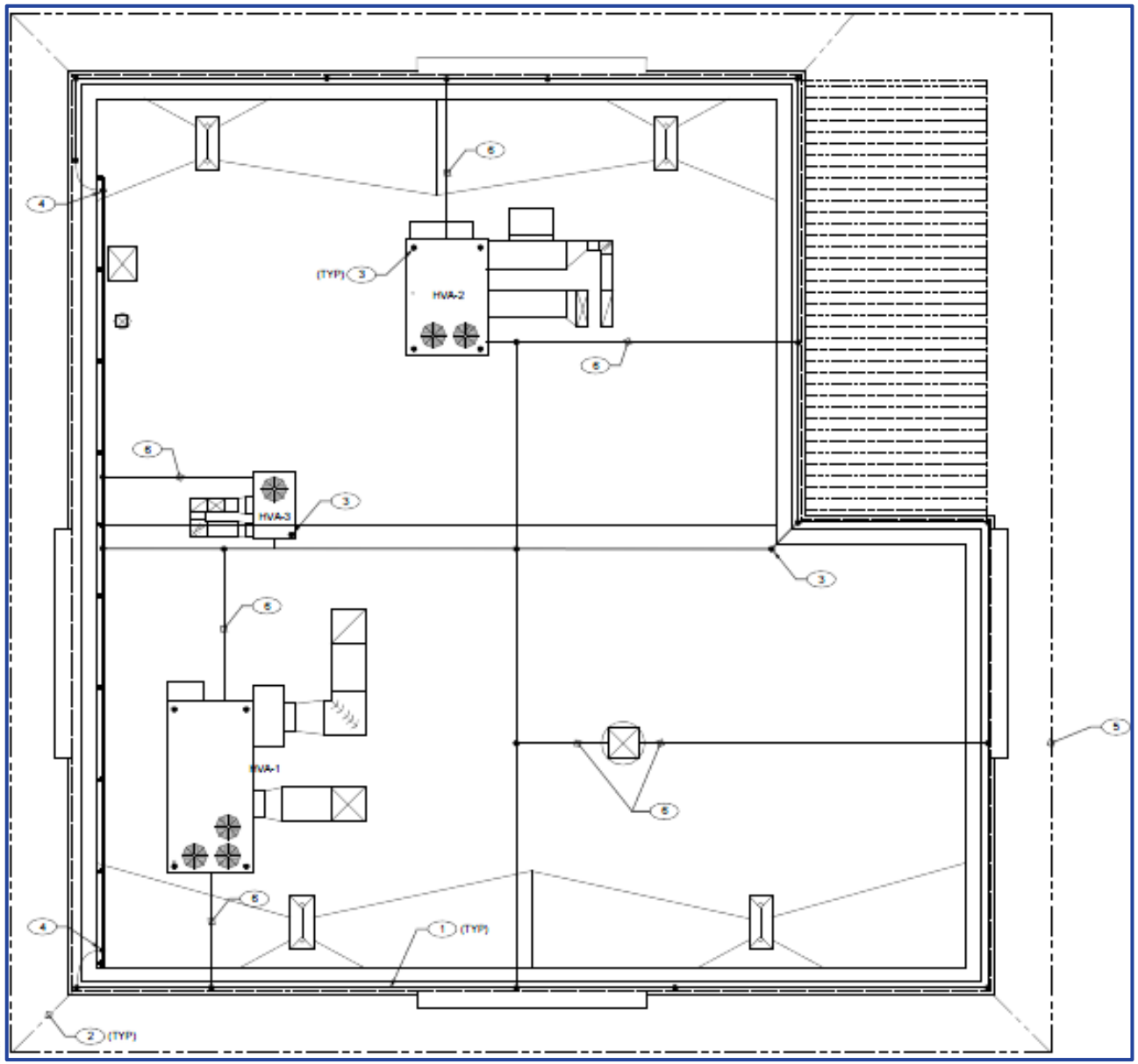

20'-0"
FACE OF EXISTING PRECAST CONCRETE WALL (DASHED LINE)
ROOF DRAIN
OVER FLOW ROOF DRAIN
ROOF DRAIN
OVER FLOW ROOF DRAIN
RE-INSTALL EXISTING GUTTER
6'-0" MIN
RTU-2
SLOPE 1/4"/FT
RTU-3
SLOPE 1/4"/FT
RTU-1
SEE 1/A-5001, FOR ALL ROOF DRAINS
OVER FLOW ROOF DRAIN
3'-0"
OVER FLOW ROOF DRAIN
ROOF DRAIN
6'-0" MIN
1'-3"±
1'-2"±
FACE OF EXISTING PRECAST CONCRETE WALL (DASHED LINE)
ROOF PLAN - NEW
0 2' 4' 6' 8' 12' 16'

Site utilities



Amendment to be issued to clarify the pipe penetration at western shear wall

Lightning Protection System



Project Interfaces (Karen M)

- Subcontractor shall interface with LANL's independent Roofing Subcontractor. The roofing system is scheduled to be installed in October 2018, possibly several months after the Subcontractor's work at the roof is complete. The roof structure and systems on the roof shall be protected.
- In the event the Roofing Subcontractor damages the CFRP or any other part of the roof structure, the Seismic Upgrade project Subcontractor shall be available to execute the necessary repairs required to bring the project back into compliance with the contract documents (a separate line item in the bid on a per hour basis should be included in case this happens).
- The Subcontractor shall execute the final roof drain installation in conjunction with the schedule for roofing installation.
- The Subcontractor shall install the Lightning Protection System after the roofing system is complete.
- The Subcontractor shall coordinate installation of the LANL provided CFRP anchors with LANL.

Exhibit F: Safety (Adan O)

- Details in Exhibit F are to be carefully reviewed and followed
- Safety performance and overall compliance to requirements will be closely monitored by LANL
- Safety has our highest priority and it will take precedence over schedule and cost!
- Subcontractor will create an integrated work document (IWD) which outlines the task, hazards, controls, references and training requirements
- Sub-contractor will develop a site specific ESH plan
- Subcontractor will provide a ESH representative
- Ensure LOTO is performed to LANL Policy P101-3

Exhibit F – High Risk Factors

- EXAMPLES OF HIGH RISK FACTORS:
  - Hoisting & Rigging
  - Work at Heights, 6’ or greater
  - Work with/near Heavy Equipment
  - Confined Spaces
  - Blind Penetrations (Class 1/Class 2)
  - Excavations (Work at depths, 5’ or greater)
  - Exposures to hazardous substances
  - Electrical Safety – Lock Out/Tag Out (Energized systems)
  - Other Factors

Exhibit F - Other Factors

- Training – Exhibit G
  - LANL Site Training (GET - ESH Training Center – White Rock/RLUOB)
- Site Specific (TA/FOD – Training Plan)
- Person In Charge (PIC) Training and Alternate PICs
- Subcontractor ESH Plan (Specific to Exhibit F)
- Integrated Work Documents (IWDs)
- Plan of the Day (POD) Daily Safety Pre- Briefing Safety Documentation

Exhibit F - Other Factors

- Permits
  - Excavation Permits
  - Spark/Flame Permits
  - Penetration Permit
  - Confined Space Permit
- Weekly Man-hour Reports
- Emergency Contact List
- Mock Evacuation/Fire Drill
- MSDS (Chemicals/Compressed Gases)
- Radiological Sealed Source

Exhibit G: Security Requirements (Roger R)

Risk Analysis:

This an unclassified project within a Property Protection Area – Unclassified/open publication Information will be process

External uncleared badge personnel will be supporting this construction project

Risk:

Unauthorized introduction of Prohibited items and /or Controlled articles

Unauthorized access to LANL property

Controls

Understanding of what is Prohibited and controlled articles

Escort Trained personnel and direct control

Exhibit G: Security Requirements

Physical Security

- Prohibited Articles

  Prohibited Articles are those never permitted on DOE property (e.g., LANL) which includes leased facilities and parking lots, such as: Weapons, explosives, knives

- Controlled Articles / Wireless Technology

  Any recording or transmitting devices (audio, video, optical, or data), such as: cell phones, two way pagers, computers, cameras, CDs, memory devices, flash drives, radios

Business Interactions (objectives evidence, validation, & communication)

In Depth Security

- Vehicles access Portal, target vehicle inspection, random searches
- Access Control, enhance security areas
- Escorting – Qualified escort, direct control, coordinate and document visit
- Security Fences and Barriers modification – obtain security authorization

Exhibit G: Security Requirements

Personnel Security (No foreign national)

Badge Requirements - Display a valid badge at all times

Proof of US Citizenship, Photo Identification Card (Compliant with the Real ID Act)

An Original of one of the following Birth Certificate, Certificate of Naturalization Certificate of Citizenship US Passport.

Protect Personal Identifiable information (PII) – Social Security Numbers

Random Drug Testing may occur at any time – zero tolerance

Exhibit G: Security Requirements

G8.0 Controlled Articles / Wireless Technology

8.1 Controlled Articles

- Cell phones, smart phones, cordless phones, two-way pagers & radios;
- Recording equipment (audio, video, optical, or data);
- Radio frequency (RF) transmitting equipment (including ankle monitoring devices), Infrared (IR) or other wireless transmission capabilities
- Electronic equipment with a data exchange port capable of being connected to automatic information system equipment;
- Portable computers such as laptops, personal digital assistant (PDAs), palm-top computers, Blackberrys or iPods;

Exhibit G: Security Requirements

8.1 Controlled Articles (continued)

- Cameras – video, still, digital, film or in cell phones. If the use of cameras – either inside or outside of a security area is deemed mission essential – then use of cameras shall be authorized via coordination with the STR, the RLM and the Physical Security Team prior to the use of such cameras
- CD / DVD write drives
- External hard drives
- Flash memory (i.e. PC cards, SD memory cards)
- USB memory devices (i.e. thumb drives, memory sticks, jump drives)

Exhibit H: Quality Assurance (Nan W)

- As a supplier, your biggest responsibility is to ensure that your products conform to the Subcontract requirements
- Specifications and drawings must be strictly followed
- Subcontractor will implement their nonconformance reporting program
- Dedicated QA Manager required during construction

Exhibit H: Quality Assurance

Quality Requirements:

The RANT Project includes Safety Significant Systems, Structures and Components and as such requires compliance to DOE Order 414.1D and **ASME NQA-1-2008 and NQA-1a-2009** addenda as prescribed in Exhibit H, Quality Assurance Requirements. Subcontractors QA Program must demonstrate compliance with:

- DOE 414.1D including:
  - Attachment I, Contractor Requirements Document
  - Attachment II, Quality Assurance Criteria
  - Attachment III, Suspect Counterfeit Items Prevention; and
- ASME NQA-1, 2008, 2009a
  - Part 1: Requirements 1 through 18
  - Part 2: Subpart 2.14 QA Requirements for Commercial Grade Items and Services, other subparts as applicable to scope

Exhibit H: Quality Assurance

- The Subcontractor must submit their QA Program for review and evaluation of compliance with the QA requirements
- An on-site formal audit will be performed at the Subcontractor's facilities to evaluate compliance with the QA requirements if not already on the LANL IESL
- The Subcontractor must be listed on the LANL Institutional Evaluated Suppliers List (IESL) *prior to full notice to proceed*
- QA requirements must be flowed down as appropriate in the Subcontractor's lower tier subcontracts
- Exhibit H includes QC clauses that detail additional LANL specific QA requirements including Design Change Control, Calibration of M&TE, Procedures, Training and Qualification, Nonconformances, Suspect/Counterfeit Items, etc.
- LANL will perform routine compliance based and performance based assessments of the Subcontractor's QA program

Exhibit H: Quality Assurance

Procurement Quality Requirements:

- The RANT Project has designated Safety Significant (ML-2) Items in project design documents including:
  - Earthwork
  - Drilled Concrete Piers
  - Reinforced Concrete and Rebar
  - Post installed dowels into concrete
  - Structural Metal Framing
  - Carbon Fiber Reinforced Polymer (CFRP) System and Components
- The Subcontractor shall procure ML-2 items either 1) from a NQA-1 Supplier or 2) through a NQA-1 compliant Commercial Grade Dedication Process
- Commercial Grade Dedication Plans shall be submitted to LANL for review and approval prior to procurement
- Commercial Grade Dedication is not required for ML-4 structures, systems and components

Quality Control

- LANL (or LANL designee) will perform inspections per IBC as specified in the tests and inspection/special inspection plan
- LANL will perform all Owner Inspections per tests and inspection plan
- Neither of the above inspections will relieve the Subcontractor of performing any and all contractual and specification required inspections and examinations
- Subcontractor must submit examiner(s) qualifications for LANL review and approval
- Subcontractor must submit third party testing agencies for LANL review and approval
- Subcontractors must get offsite fabricators approved and added to the LANL IBC Approved Testing and Fabricators list if approved vendors are not used

Open for Questions

- All questions will need to be submitted in writing to the Contract Administrator.
- RFP Amendments will be issued to all Offerors with answers to all questions.