



December 14, 2021

Project 211006

El Paso County Public Works  
325 S Cascade Ave  
Colorado Springs, CO 80903

Attn.: Mr. Joe Daly

Re: CJC Kitchen MAU & KEF Installs (PO 7419476)  
El Paso County Criminal Justice Center  
2739 E. Las Vegas Street  
Colorado Springs, CO 80906

Reference 1: The *Tenant Improvement Mechanical Plans* for The El Paso County Criminal Justice Center, by *5IEC and Accurex*, dated August 26, 2021, Project Number 5156-21-02.

Reference 2: The Original Structural Plans for The *El Paso Criminal Justice Center*, by *KKBNA Consulting Engineers, Denver Springs, CO*, Issued November 10, 1986, Job Number 8616.01.

Dear Mr. Daly:

As requested, personnel of Cornell Engineering, LLC have reviewed the proposed mechanical drawings and the original structural drawings for the El Paso County Criminal Justice Center (CJC) referenced above.

A new kitchen exhaust fan (KEF) and makeup-air unit (MAU) are to be added to the roof over the kitchen area of Building Section E. The proposed locations for each rooftop unit (RTU) are shown in the proposed mechanical drawings referenced above and overlaid onto the original structural plan in Appendix A below. The proposed KEF will weigh approximately 122-pounds and require an 18.5-inch roof opening/penetration. The proposed MAU will weigh 779-pounds and require a similar sized roof penetration.

The existing roof structure was analyzed to determine whether the new RTU's could be safely installed or if alterations/reinforcing of the existing roof structure would be required. The new KEF described above and shown in Appendix A can be installed without any alterations to the existing roof structure. Similarly, the MAU can also be installed at the location shown in Appendix A **given that a minimum 1-foot-wide bearing area around the entire perimeter (104.89"x33.66") of the base will be provided to distribute the RTU's design weight to the existing roof structure below.** The *Typical Roof Opening Framing Details* on Sheet S-17 of the original framing plans referenced above and shown in Appendix A can be used for the proposed roof penetrations for the new KEF and MAU RTU's.

The opinions expressed in this letter are based on the proposed mechanical plans and the original roof framing plans referenced herein. No site visit/observations of the existing roof structure to

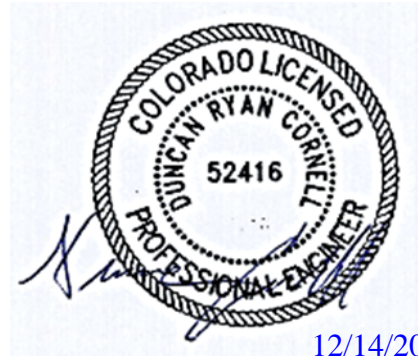
support the proposed RTU's was completed. Therefore, material and construction defects and other adverse conditions may exist which were not discoverable while performing the specified scope of work. As a result, this report is only valid for the information and assumptions presented herein. If any of the above or referenced information is incorrect it is the responsibility of the contractor, client, and or owner(s) to notify personnel of Cornell Engineering, LLC immediately. Cornell Engineering, LLC does not accept liability for incorrectly reported information if the errors are not brought to the attention of Cornell Engineering, LLC personnel. If additional information becomes available for items assumed or incorrectly labeled in the referenced plans, Cornell Engineering, LLC reserves the right to change the findings and recommendations reported above based on such new information.

We trust this letter has provided you with the information you required. If you have any questions or need additional information, please do not hesitate to contact us.

Respectfully Submitted,  
CORNELL ENGINEERING, LLC



Duncan Cornell,  
PE #52416

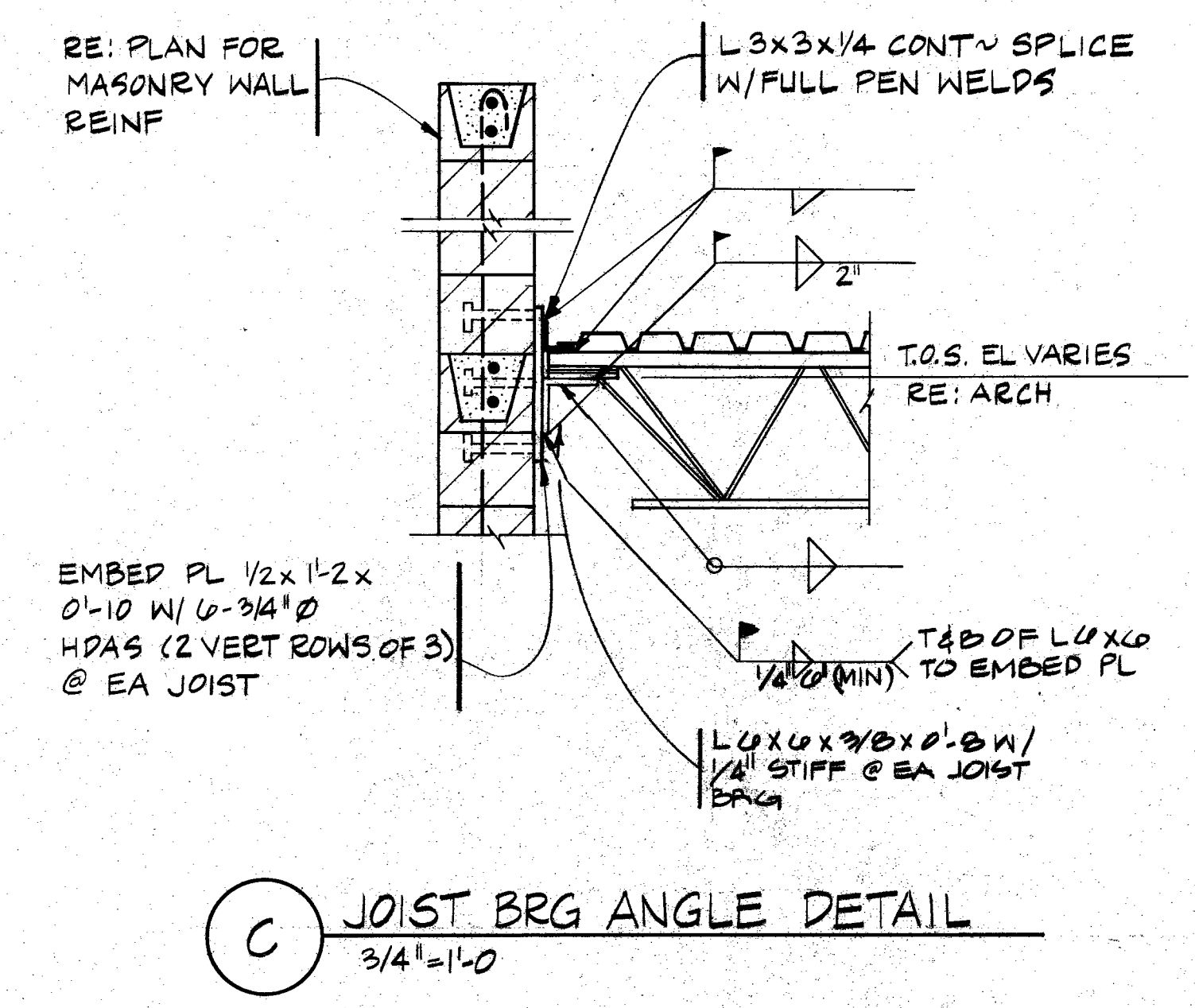
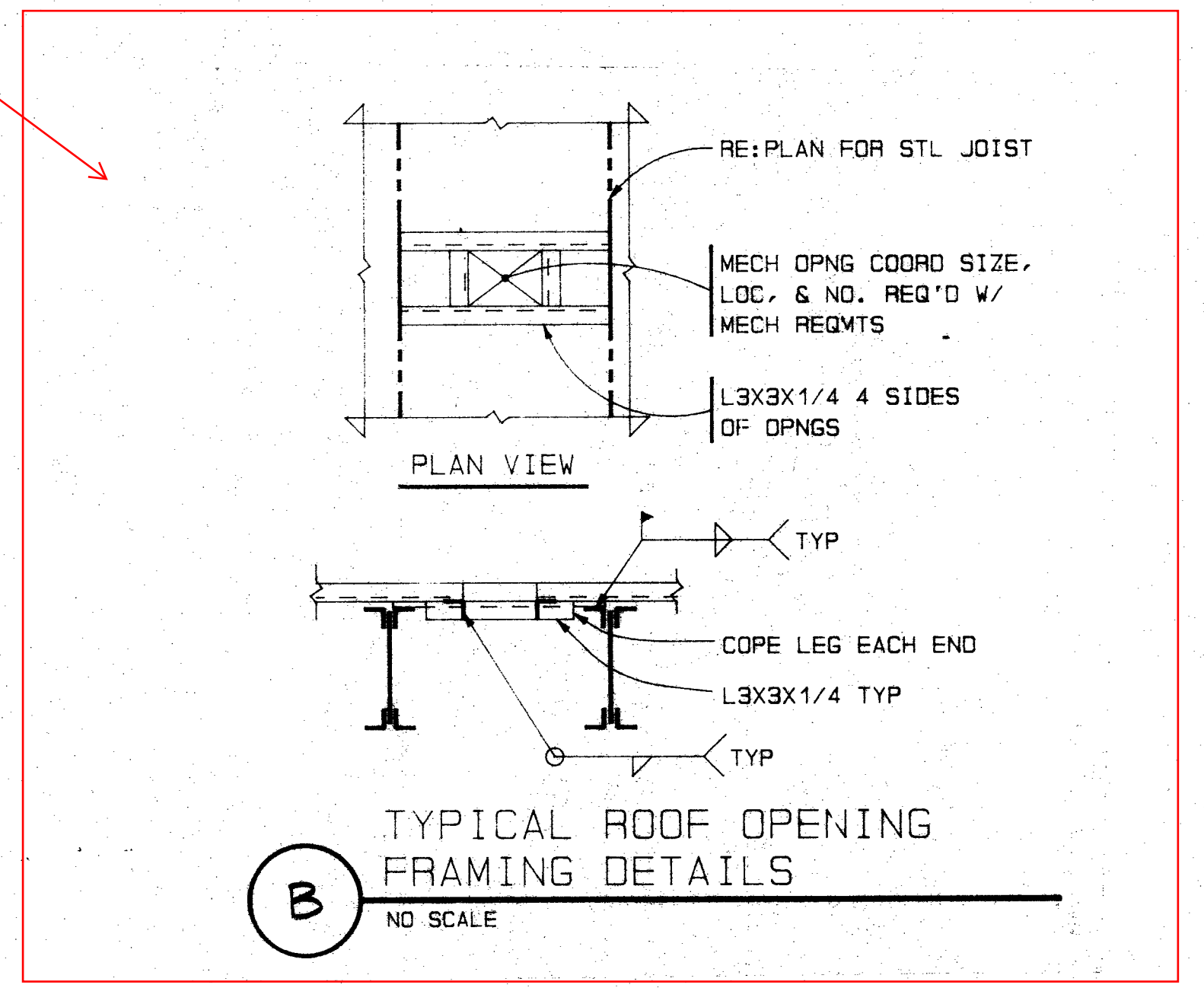
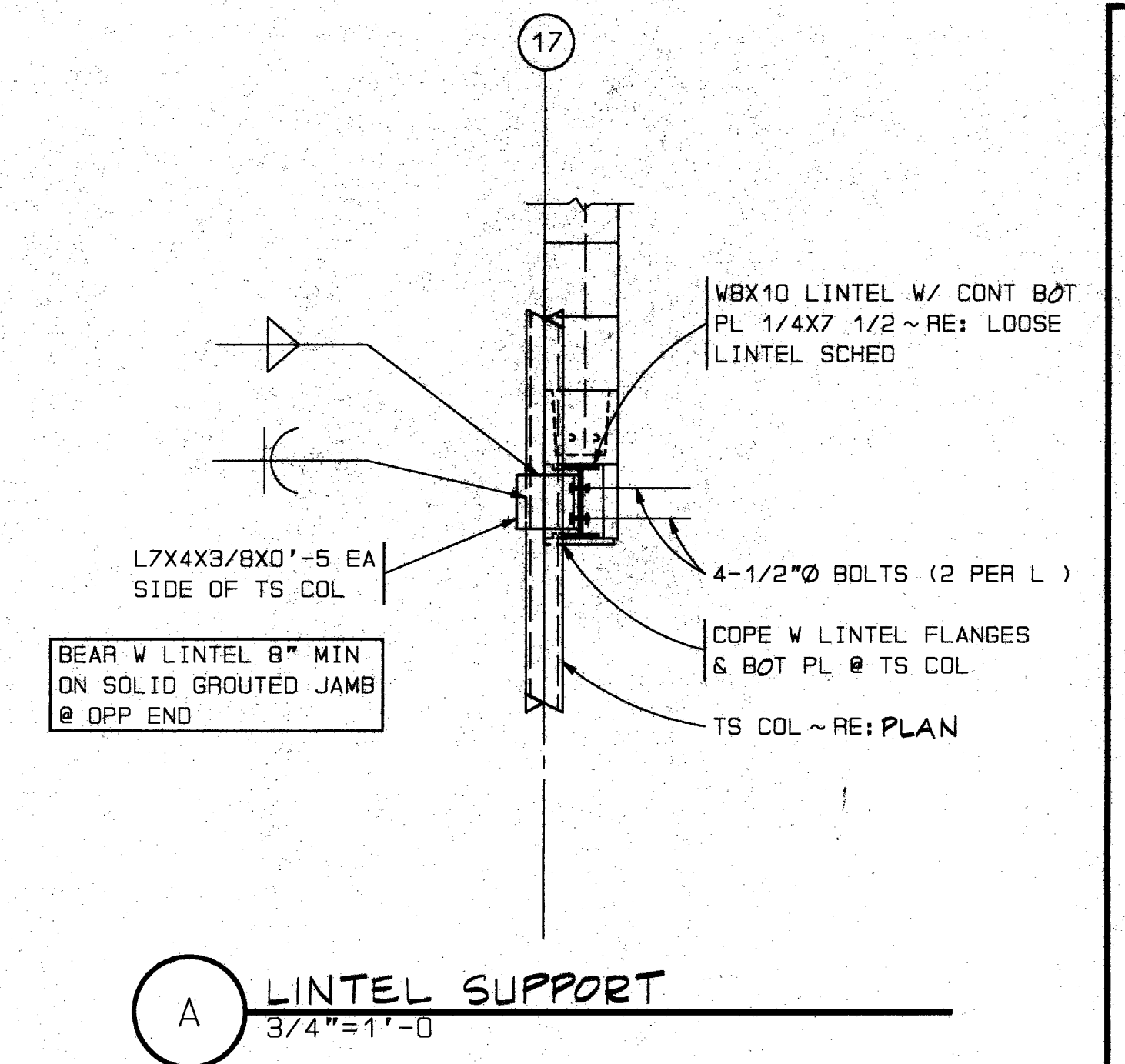
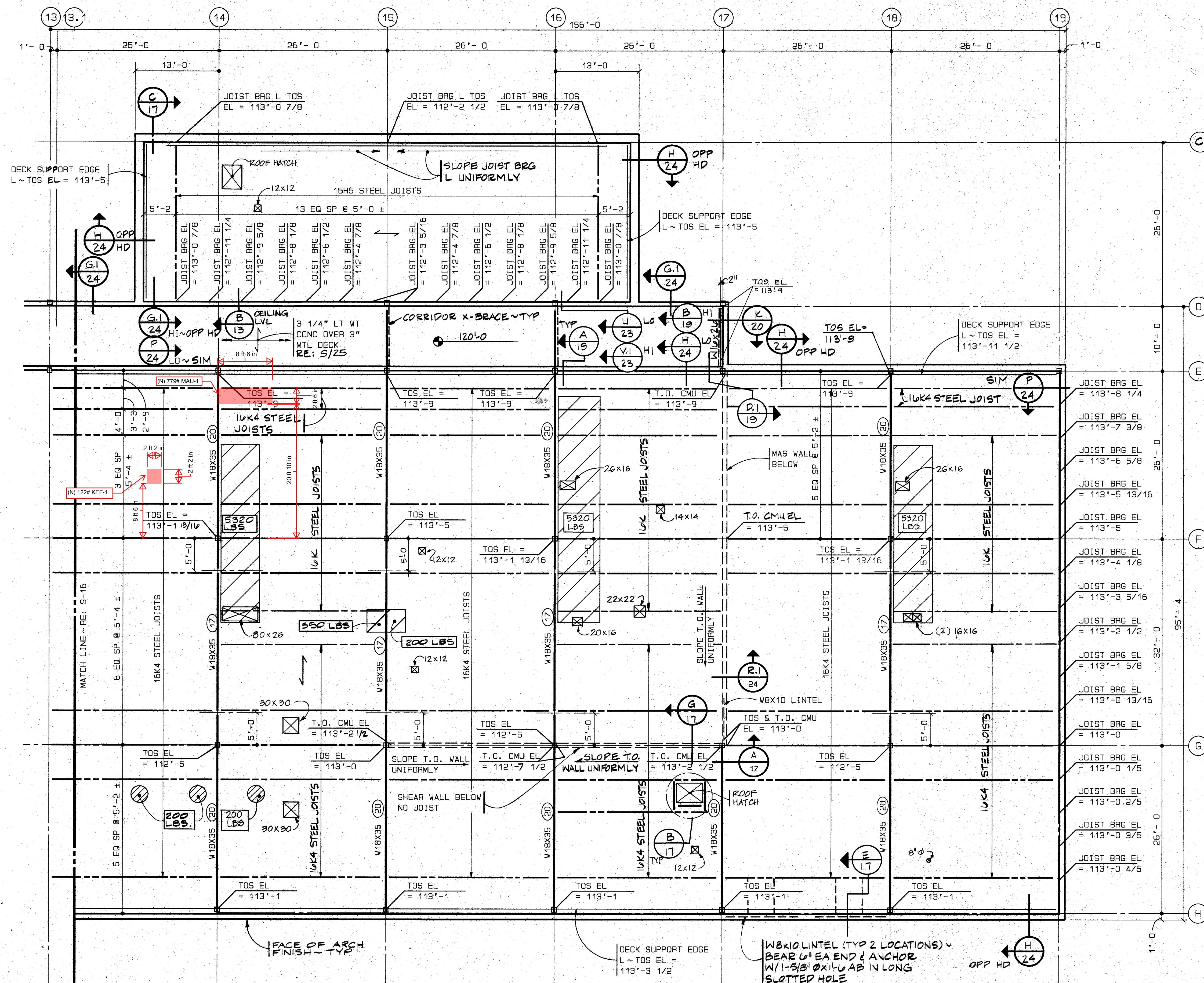


**Appendices**

- A. Original Roof Framing Plan Red Lines (Sheet S-17)
- B. Typical Roof Penetration Detail (Sheet S-17)

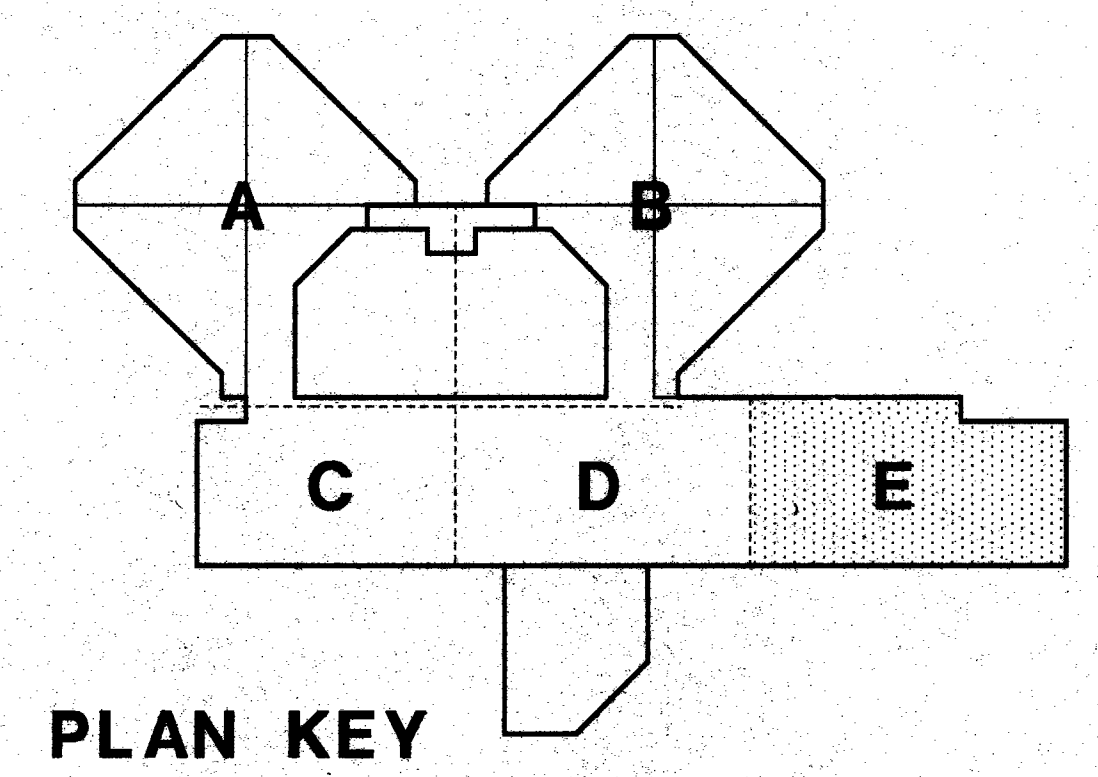
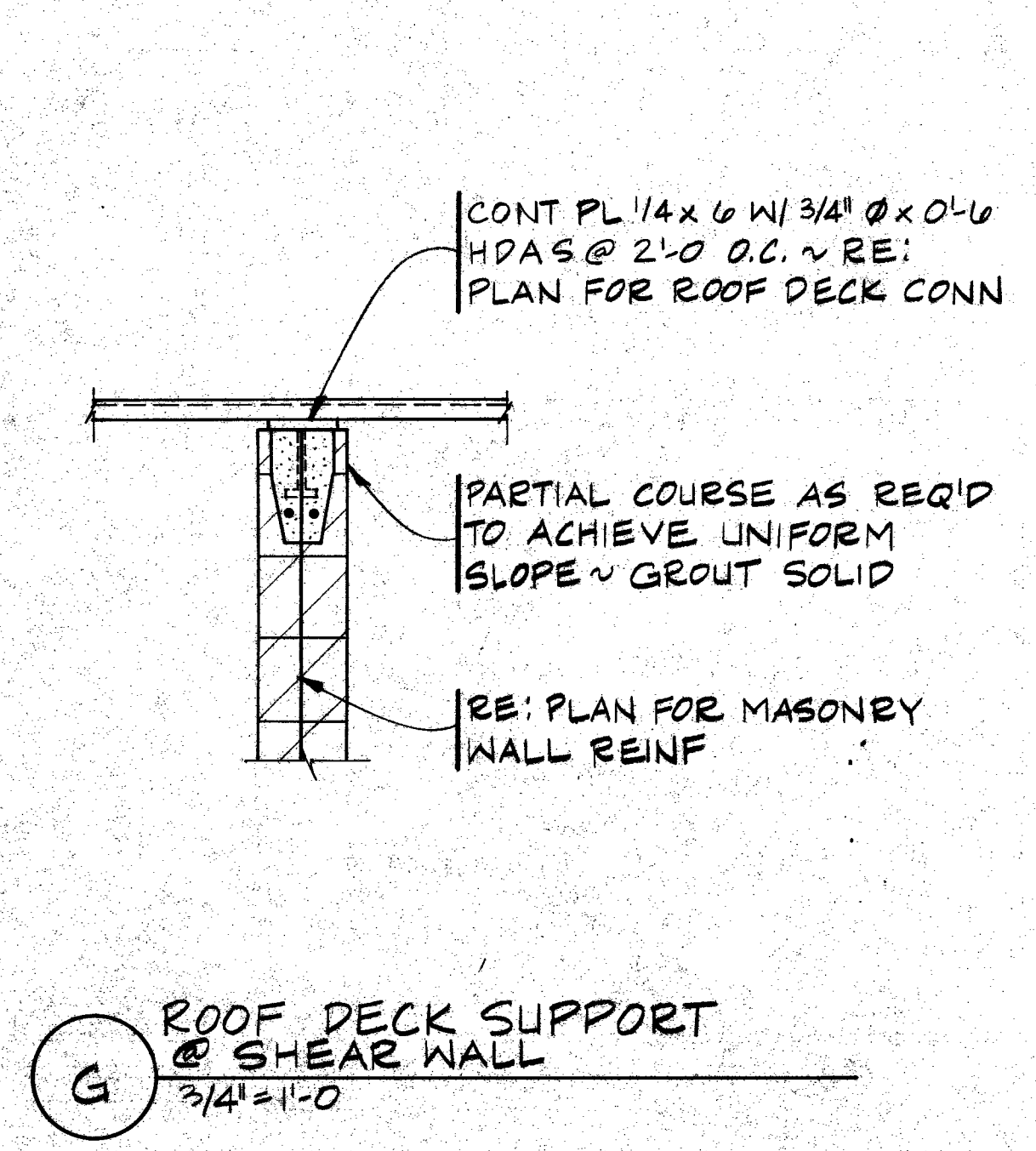
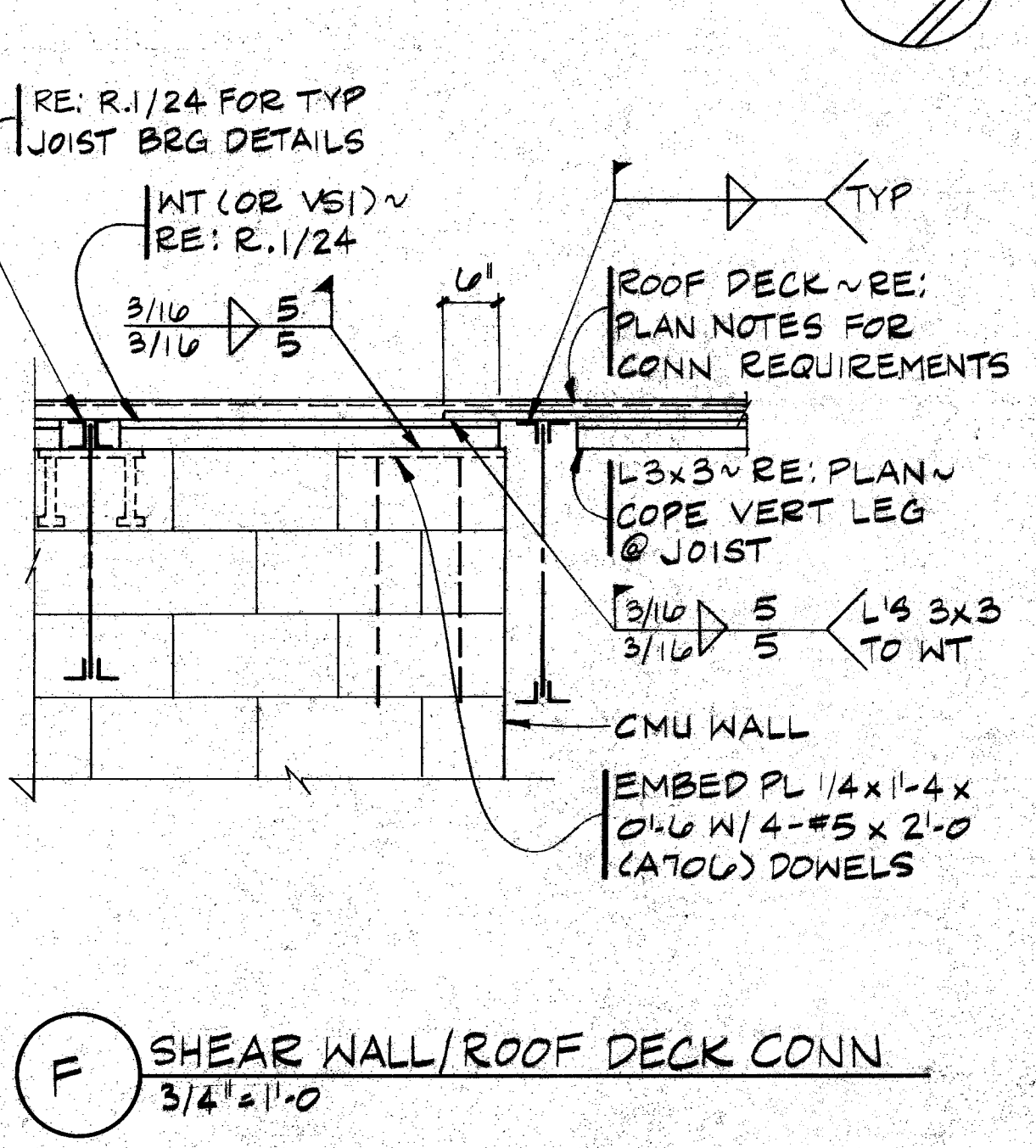
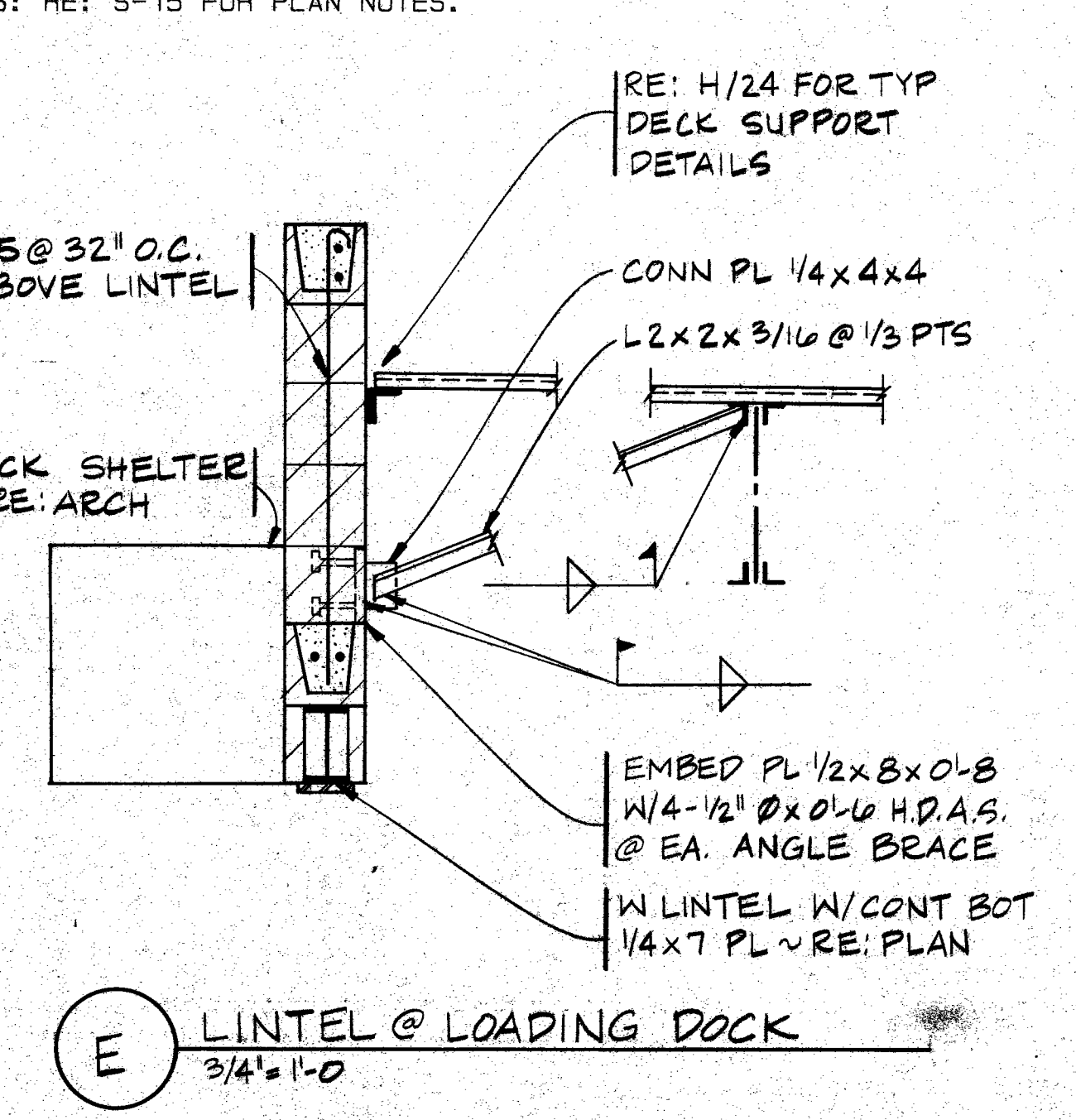
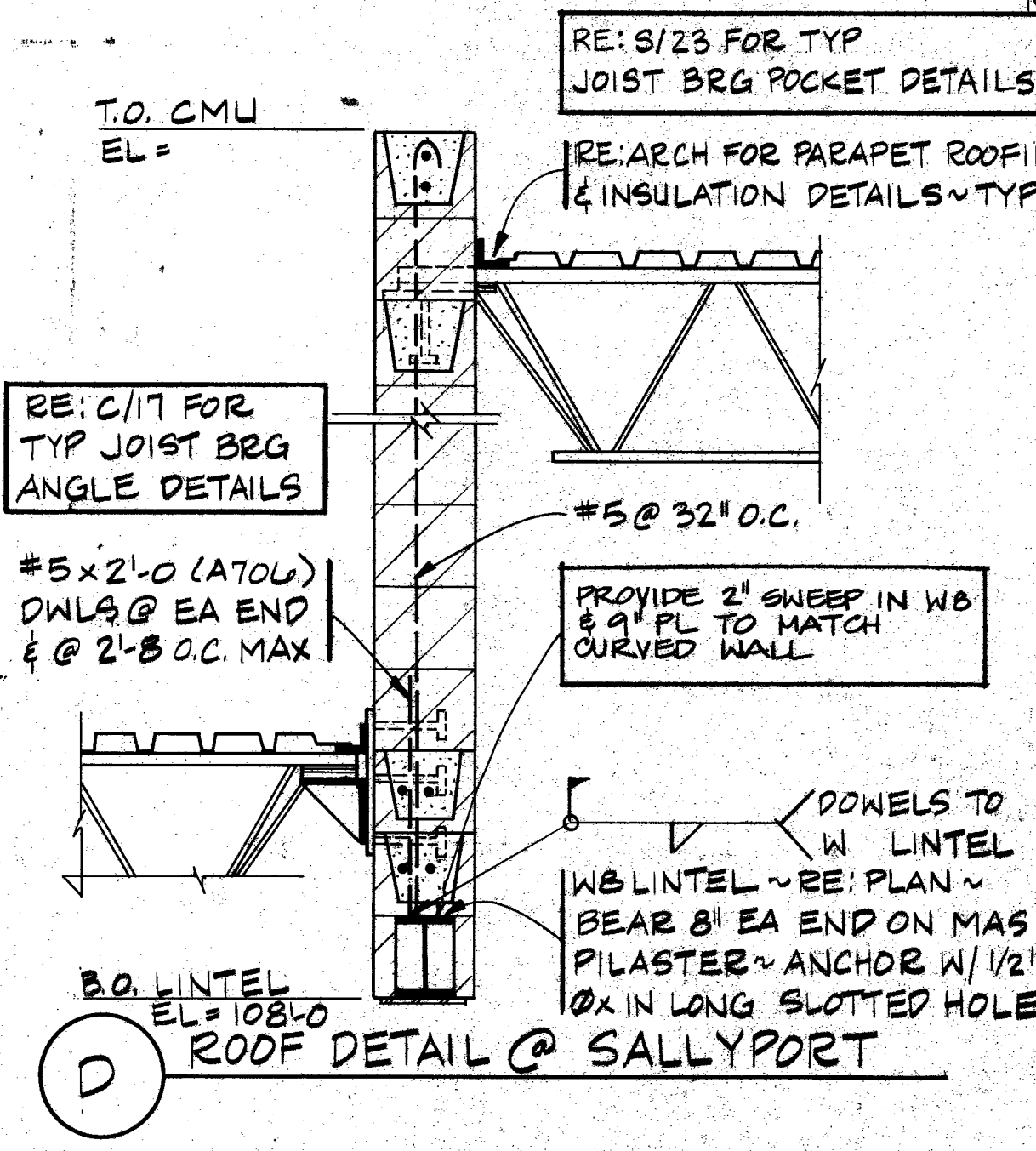
# Appendix A

Original Roof Framing Plan Red Lines (Sheet S-17)



**ROOF FRAMING & LEVEL 2 SUPPORT SERVICES E**

NOTES: RE: S-15 FOR PLAN NOTES.



DWG UPDATED BY: DDB  
 PROJECT: EL PASO COUNTY JAIL  
 PROJECT MANAGER: DOUG TIMMONS  
 DESIGNED BY: PAUL DOAK  
 JOB NO. 8615.010N  
 DRAWN BY: DENNIS D. BUSSOW  
 SHEET NO. S-17

**KKBNA**  
 CONSULTING ENGINEERS  
 DENVER, COLORADO  
 (303) 431-8100

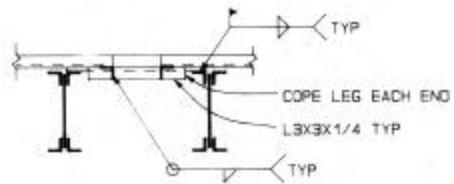
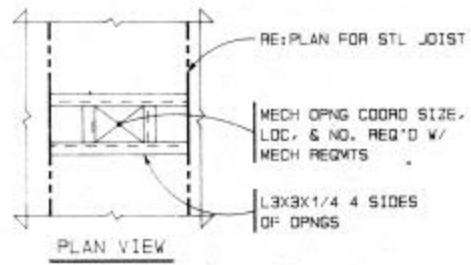
EL PASO COUNTY  
 CRIMINAL JUSTICE CENTER  
 VC MUCHOW AND PARTNERS INC ARCHITECTS

Issue/Date  
 (4) 3/18  
 10 NOV 1986

SUPPORT SERVICES  
 Title  
 ROOF & LEVEL 2  
 SUPPORT SERVICES E  
**S-17**

# Appendix B

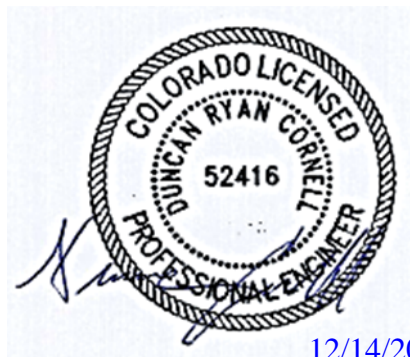
Typical Roof Penetration Detail (Sheet S-17)



TYPICAL ROOF OPENING FRAMING DETAILS

B

NO SCALE



12/14/2021