NATIONAL RADIO ASTRONOMY OBSERVATORY
SUITE 100, 2010 NORTH FORBES BOULEVARD TUCSON, ARIZONA 85705
TELEPHONE 602 882 8250

April 27, 1982

Request for Quotation #5-1982
Due Date: June 4, 1982

12 METER MILLIMETER WAVE TELESCOPE
MEMO No. 166

Gentlemen:

Associated Universities, Inc. (AUI), a non-profit corporation operating the National Radio Astronomy Observatory (NRAO) under contract with the National Science Foundation, solicits your quotation for modifying the telescope control and computer enclosures which are located at the Millimeter Wave Telescope on Kitt Peak Mountain, in accordance with Attachment A.

Generally, the requirement is to modify the existing computer and telescope control enclosures to eliminate potential interference with a larger reflector that will be mounted on the present telescope mount. Attachments B and C show the existing enclosures that are located within the astrodome. Attachment D contains a sketch showing the existing enclosures, a sketch showing the general concept for modifying the enclosures, and a drawing showing approximate dimensions.

The successful proposer will be responsible for relocation of existing electrical wiring, a commode and sink, as well as structural changes.

Your proposal should be based on an award authorizing commencement of the work on July 15, 1982 and completion by September 1, 1982 or sooner.

AUI desires to enter into a firm fixed price contract for this work based generally on the terms and conditions of the Federal Procurement Regulations. Because detailed specifications are not available for this modification, AUI will hold a pre-proposal conference at our offices at 2010 N. Forbes Blvd., Suite 100, Tucson, AZ at 8:30 a.m. on May 5, 1982. Please contact the undersigned by May 3, 1982 if you plan to attend the pre-proposal conference.

Immediately following the pre-proposal conference, we will visit the site. A visit to the site is a prerequisite for consideration of your proposal.

Proposals shall include a discussion of your general approach to the modification and alterations required. Proposals will list separately the following information to be used in evaluating your proposal:

a. Hours of labor, by types, if appropriate; hours of supervision.
b. Material Cost.
c. Subcontract cost.
d. Engineering.
e. Overhead.
f. General and administrative expense.

Your proposal shall include the price of performing all work set forth in Specifications for Telescope Control and Computer Enclosure Modifications, dated April 16, 1982, Attachment A. Modifications made to these specifications, if any, as a result of the pre-proposal conference or site surveys will be made in writing and mailed to each vendor attending.

All proposals are due at the National Radio Astronomy Observatory. Suite 100, 2010 N. Forbes Blvd., Tucson, Arizona, 85745, on or before the close of business on June 4, 1982. Administrative questions may be addressed to Dale Webb at 882-8250, technical questions may be addressed to Paul Rhodes at 882-8250 or 623-3982.

Sincerely,

Dale A. Webb
Business Manager
Arizona Operations

DAW:mt

Attachments A, B, C & D

Final Bid List
RFQ5-1982

Telescope Control & Computer Control Enclosure Modifications

A & D Development, Inc.
7479 E. Broadway
Tucson, AZ 85710
296-8568

Allin Construction Management, Inc.
3302 E. Presidio Rd.
Tucson, AZ 85716
325-4955

Apcon Construction Co., Inc.
1705 N. Country Club Rd.
Tucson, AZ 85716
327-5639

Arc 5 Development Co.
5045 E. Glenn
Tucson, AZ 85712
323-6710

Arizona Desert Contractors
3011 N. Olsen Avenue
Tucson, Az 85719
881-0879

Ashton Co., Inc.
2727 S. Country Club Rd.
Tucson, AZ 85713

George G. Codd Construction Co., Inc.
621 W. Lester
Tucson, AZ 85705
792-3430

Construction Service Systems, Inc.
922 W. Grant Rd.
Tucson, AZ 85719
884-8844

D & B Builders
6751 N. Placita Ariel
Tucson, AZ 85741
297-7056

DW Construction Co.
7320 E. 20th
Tucson, AZ 85710
298-8319

Decker Construction Co., Inc.
6417 E. Grant Rd.
Tucson, AZ 85715
298-1805

DEFCO Construction Co
3130 E. Grant Rd.
Tucson, AZ 85716
881-3201

Fasko, Inc.
3132 E. Lincoln
Tucson, AZ 85714
889-9516

Hector Felix Construction Co., Inc.
5640 E. 29th
Tucson, AZ 85711
790-8528

G. N. Construction Co., Inc.
1875 W. Gardner Lane
Tucson, AZ 85705
887-8132

McLoughlin Contractors, Inc.
744 E. 44
Tucson, AZ 85713

Pace Construction, Inc.
1815 E. Winsett
Tucson, Az 85719
623-5419

Sigre Contractors, Inc.
3258 E. 47
Tucson, AZ 85713
623-7564

Statos Co., Inc.
3632 E. Fairmount
Tucson, AZ 85716
795-3640

Sundale Construction Co.
1621 W. Avocado
Tucson, AZ 85704
297-7931

Turnkey Improvement Center
3416 E. Speedway
Tucson, AZ 85716
881-5797

Arrow Bldg. Contractors, Inc.
P. O. Box 11187
Tucson, AZ 85734

BIDS REQUESTED

Notice is hereby given that The National Radio Astronomy Observatory, will be soliciting proposals for modifying telescope control and computer enclosures located on Kitt Peak mountain. The work requires modifying metal enclosure walls and relocating electrical wiring, air conditioning, duct work, doors, and plumbing fixtures. The work shall be performed between July 15, 1982 and September 1, 1982.

Bid packages and instructions are available at the National Radio Astronomy Observatory, Suite 100, 2010 N. Forbes Blvd., Tucson, AZ 85745 on May 3, 1982.

Attachment A
RFQ #5-1982

Specifications for Telescope Control and Computer Enclosure Modifications
April 16, 1982

GENERAL INFORMATION

The first telescope control enclosure was assembled in 1965. It is 20 feet 7 inches wide, 21 feet 5 1/2 inches deep, 7 feet 7 inches high, and made of metal panels. In 1970 a service tower was needed to service the telescope focal point. A supporting structure for the service tower was assembled on the roof of the existing telescope control enclosure. The telescope service tower is made of tubular steel and the structure on which it rests is made of 2 x 10 beams placed 24 inches on center and supported with steel beams and cross-bars located at the front and back of the enclosure. The photograph copies, which are enclosed as Attachment B and C, show the enclosures as they are today. The NRAO objective is to obtain a structurally sound, raintight enclosure for the telescope controls and computers, to leave as much room as possible inside the enclosure, and to provide adequate clearance for the larger reflector.

SPECIFIC DETAILS OF WORK TO BE PERFORMED

1. The fronts of the enclosures shall be modified to provide clearance for the new telescope surface (see sketch, Attachment D).

2. Doors must be relocated, modified, or replaced.

3. Relocate electrical wiring as required.

4. The existing commode and sink must be moved approximately six (6) feet.

5. Shatterproof wire embedded glass panels shall be permanently installed in the control enclosure (see sketch, Attachment D).

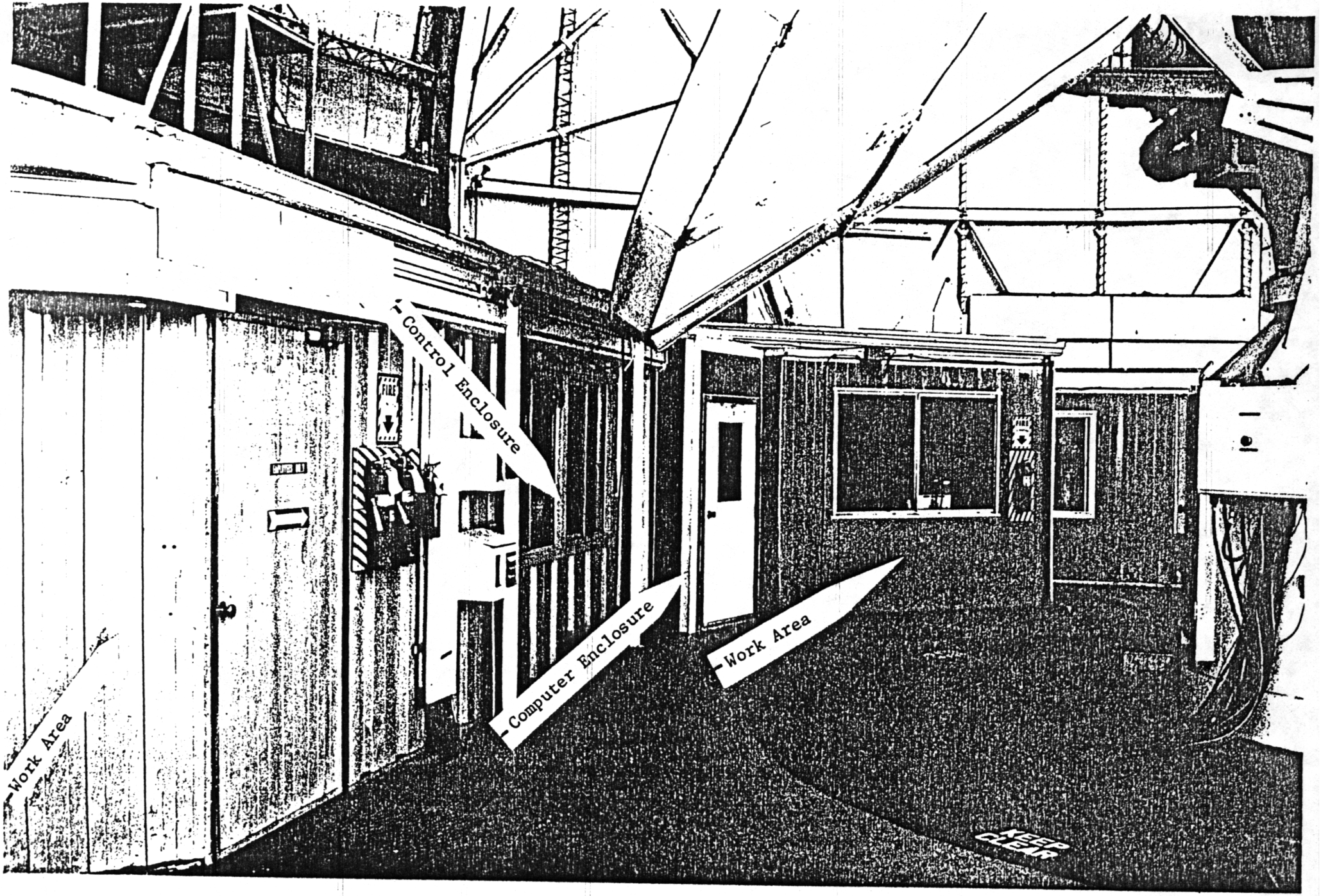
6. The existing air conditioning vents and duct work shall be relocated, as required, to provide adequate air conditioning for the enclosures.

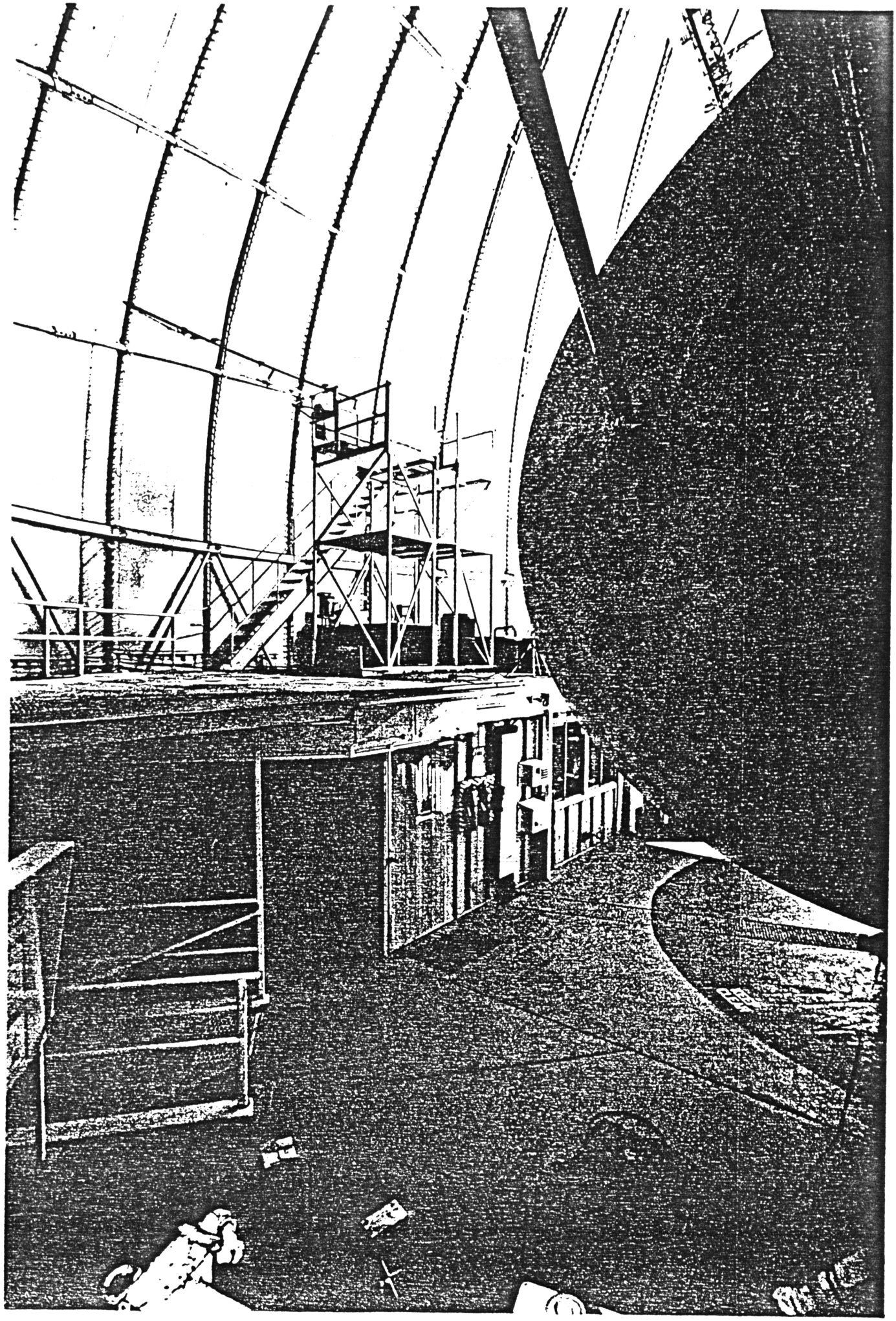
7. Interior of the enclosure shall be finished with sound soak similar to the existing sound soak, where required.

8. Undamaged materials that are removed from the existing structure may be reused. All scrap shall be removed as directed by Paul Rhodes. Except for undamaged materials, vendor shall supply all material and services required to complete the work.

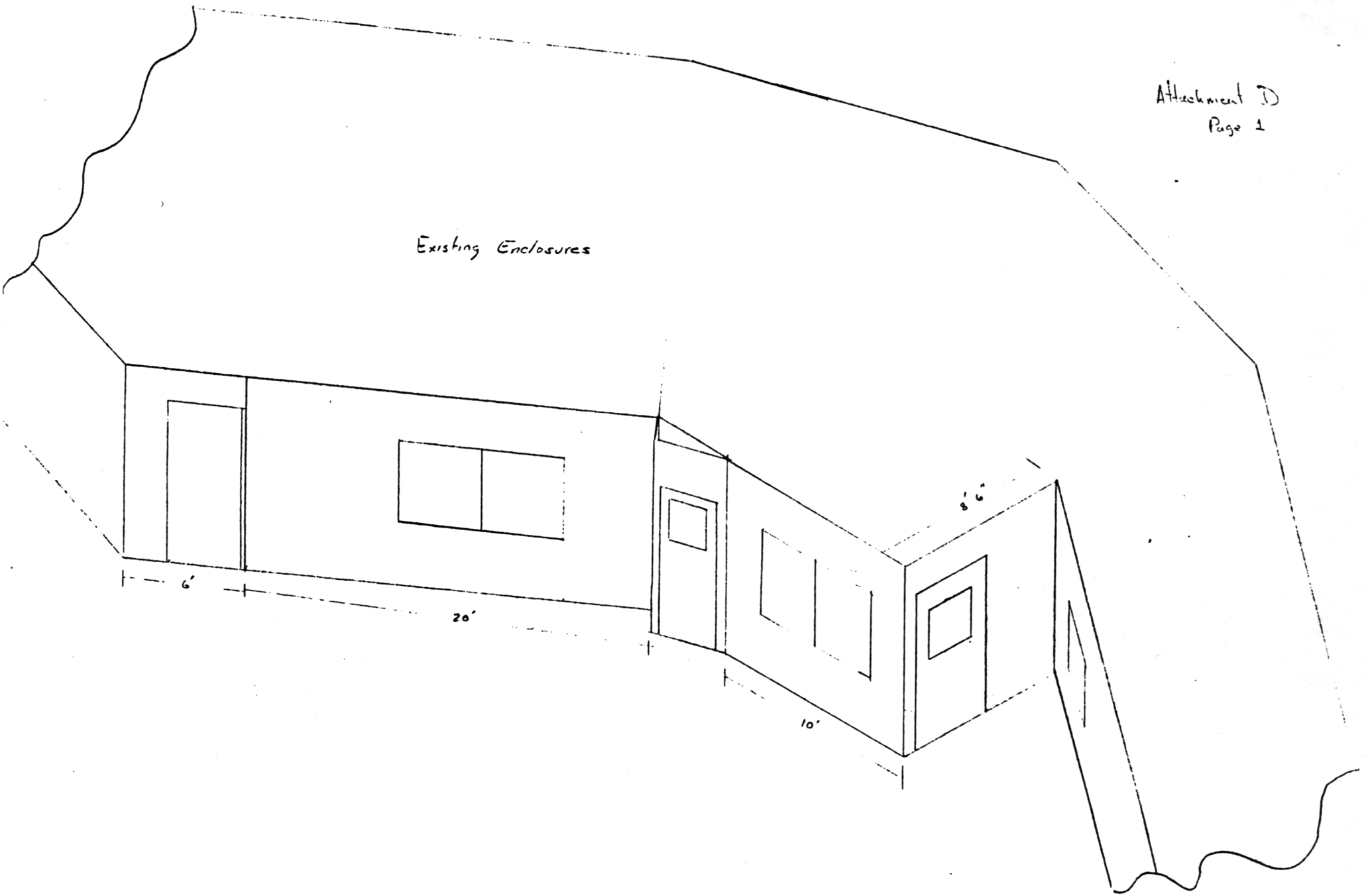
9. Modified enclosures shall be raintight.

10. A reproducible and two copies of detailed drawings showing as-built modifications of all structures shall be required. Current drawings may be obtained from Mr. Paul Rhodes during your visit to the telescope or at the proposal conference. AUI does not represent that the drawings are accurate nor shall any proposal be based solely on the dimension or other representations appearing on these drawings.


Work Area
Control Enclosure
Computer Enclosure
Work Area
FIRE
KEEP CLEAR

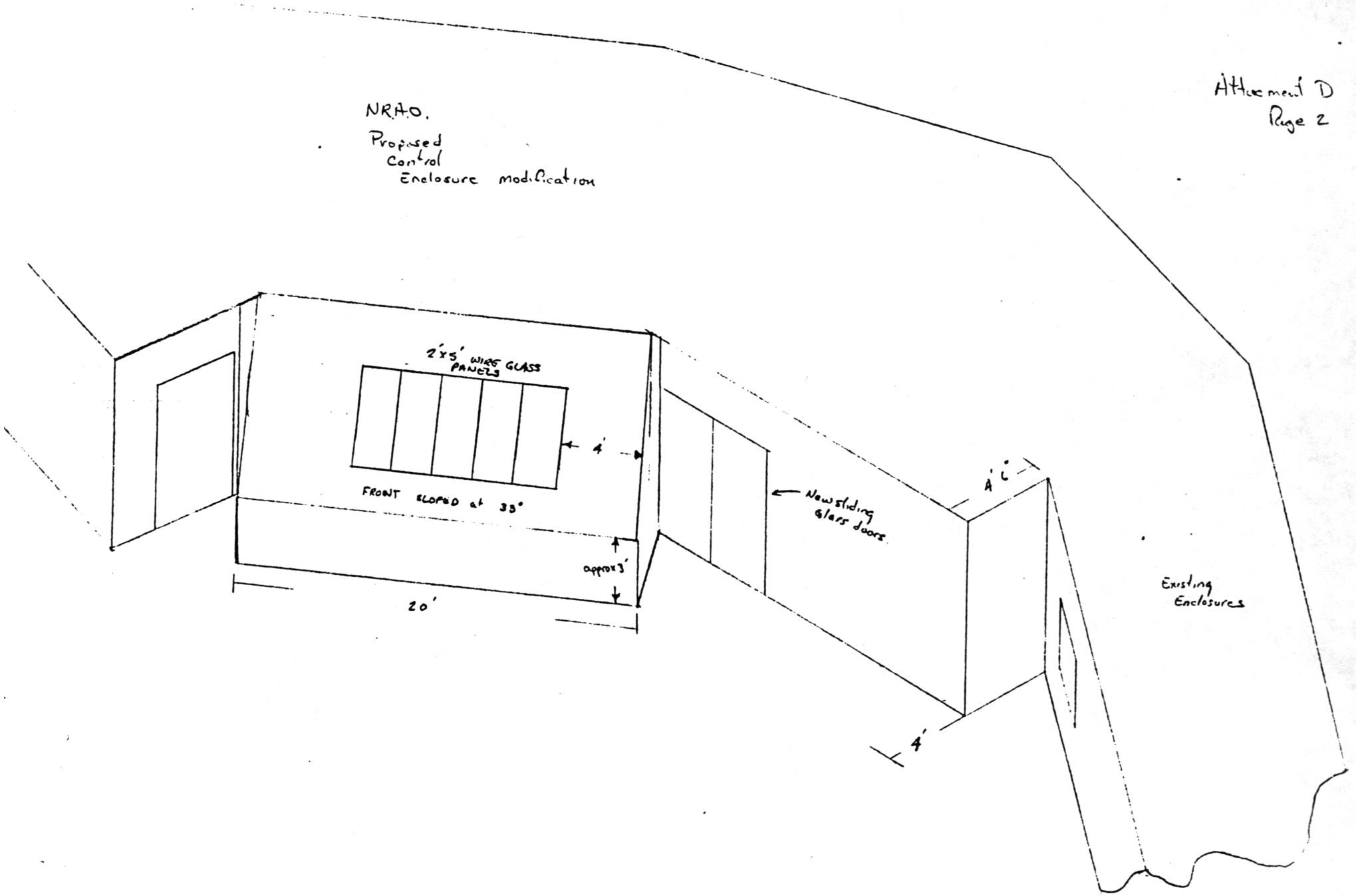


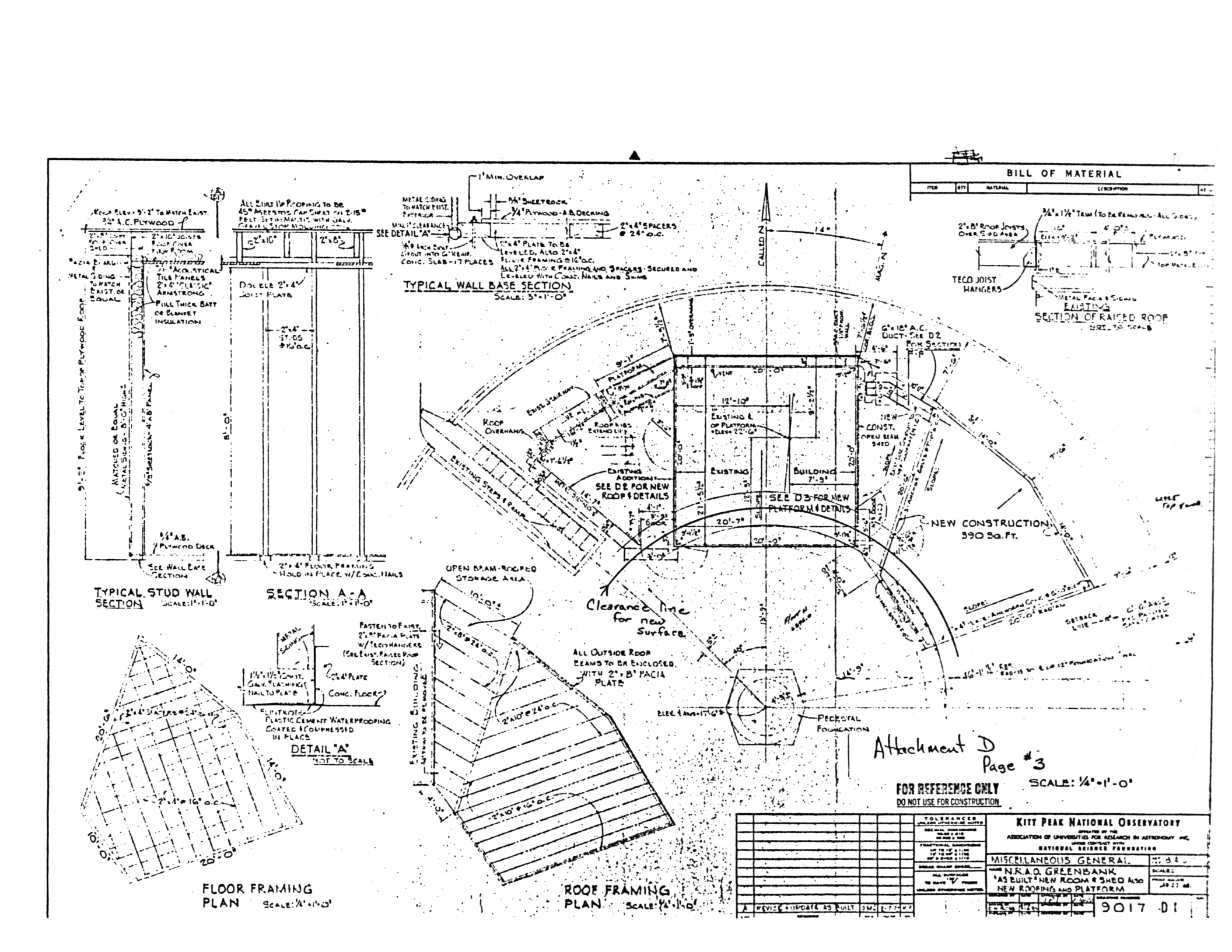
Attachment D
Page 1



NRAO.

Proposed
Control
Enclosure modification




BILL OF MATERIAL
ITEM
QTY
MATERIAL
DESCRIPTION
TYPICAL STUD WALL SECTION
SCALE: 1" = 1'-0"
SECTION A-A
SCALE: 1" = 1'-0"
TYPICAL WALL BASE SECTION
SCALE: 3" = 1'-0"
DETAIL "A"
NOT TO SCALE
FLOOR FRAMING PLAN
SCALE: 1/4" = 1'-0"
ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"
EXISTING SECTION OF RAISED ROOF
NEW CONSTRUCTION 390 Sq. Ft.
Clearance line for new Surface
OPEN BEAM-ROOFED STORAGE AREA
PEDESTAL FOUNDATION
Attachment D
Page #3
FOR REFERENCE ONLY
DO NOT USE FOR CONSTRUCTION
SCALE: 1/4" = 1'-0"
KITT PEAK NATIONAL OBSERVATORY
MISCELLANEOUS GENERAL
N.R.A.O. GREENBANK
"AS BUILT" NEW ROOM & SHED ALSO NEW ROOFING AND PLATFORM
9017 -D1