

July 29 - 30, 1957

Conference AUI Office, Green Bank, West Virginia

Present

AUI:

Dr. Berkner
Dr. R. M. Emberson
✓ L. R. Burchill
David Heeshan
John W. Findlay
Mr. Carroll
Meade Westman

U. S. CORPS OF ENGINEERS:

A. C. Brown
John J. Diamond
Vincent A. Virgalito

NSF:

IBA:

Irving Bowman
R. N. Shepard
Charles Pahl
G. O. Wardrop

The following agenda were discussed:

1. Land Acquisition Progress -

Mr. Brown of U. S. Corps of Engineers advised that property along proposed right-of-way for the road including Brown, Arbogast, Moro Beard, Mary Beard, and Clyde Hevener properties will be acquired. Action anticipated at earliest by August 10 to 12, 1957. In the meantime Messrs. Diamond and Westman arranged for survey party to have access to property for Monday, August 5, 1957.

2. Roads and Parking Areas -

Proposed plans and profiles were submitted for the proposed project road from West Virginia State Route 28 to end of road opposite the 140 ft. telescope. Bidding documents are to be issued to bidders August 9, 1957 and bids will be publicly opened at the office of Irving Bowman and Associates, 2:00 o'clock p. m. EDT August 23, 1957. Mr. Westman will be present at the opening of bids. Contract work will start September 3 and will be completed by December 2, 1957. (IBA recommended this completion date to Dr. Emberson by telephone August 1, 1957 on advice of bidders that 60 days construction time would cause considerable extra expense and higher bids than 90 days construction time. Dr. Emberson approved). The road will be designed according to West Virginia State Road specifications for 9,000 pounds axle load with all culverts and underdrains designed for 18,000 pound axle load. (Review of design indicates culverts were designed for 32,000 pound axle load). It was decided that all existing telephone and power lines shall remain undisturbed except where local conditions require alteration.

3. Review revised site plan -

Discussed construction of model. Irving Bowman and Associates will arrange for a Charleston model builder to prepare a topographic model of property arranged on two 4 ft. x 8 ft. plywood panels (in accordance with enlarged maps of U. S. Corps of Engineers which will be forwarded to Irving Bowman and Associates). The model will be in accordance with the Moss topographical survey U. S. G. S. data. The model will show all proposed buildings, roads, 85 ft., and 140 ft. telescopes and existing power lines, etc. Model to be completed and delivered to Green Bank by October 8, 1957.

4. Discuss buildings and foundations -

Mr. Burchill requested that sketches for all buildings and foundations together with cost estimates should be in his office by August 20.

A watchman punch clock system for 24 hour service shall be provided for all buildings and telescopes.

85 Ft. Telescope Control Building

Pavement of area around telescope to be covered in a later contract. Parking area to be stone surfaced. (Approved by Dr. Emberson by telephone to IBA on August 1, upon recommendation of bidders and IBA). Omit curbs but include them in later contract for final finish. Plan access road to scope under road finishing contract after scope construction. Irving Bowman and Associates will make working drawings for foundations and take bids for comparative costs. Provide facilities for flush threaded inserts for treads all equipment rack locations. No rubber tile floors in control room. Relocate control building as close to telescope as possible without drainage difficulties. Final location to be determined by AUI. Locate power panel next to light panel. Change location of drinking fountain.

140 Ft. Telescope Foundation

The question of a heavy traffic lane for crane access was discussed. Decided to install a concrete paved trench to collect rain water. This will be done after completion of scope. In the initial road contract, the road will be rough graded, curbs will be omitted, and drainage piping and stone will be placed on parking area under road contract but all other work including heavy traffic lane, curbs around parking areas, etc. will be installed after erection of scope. Include treads and flush threaded inserts for all equipment rack locations. No rubber tile floors in electronic rooms. All reinforcement rods to be welded at least in two places and grounded. Change windows to 18" to 24" portholes. De-humidify entire building, air condition entire second floor. Available space in air conditioning room on second floor to be used as second laboratory room. Operation of air conditioning blower unit to be continuous, with temperature controlled by means of motorized dampers. Terminate vertical cable ducts in large panel junction box to receive connector blocks. Arrangements made for Mr. Carroll to review structural foundation design criteria with Mr. Withrow of the Irving Bowman and Associates in Charleston, West Virginia on August 5. Integral water proofing to be used in all exterior

140 Ft. Telescope Foundation (Con't)

walls, roofs, and basement floors. Advised that main dish will have drainage opening at center only, at base of antenna. A 10 H. P. motor generator to be installed in basement for emergency operation of slewing motor. Complete final drawings to be in AUI office by September 6, 1957.

Laboratory Building

Central part of laboratory building tentatively approved. Driveway to main entrance also approved. Space requirements for future wings were determined in conference by Messrs. Heeshan and Findlay of AUI. Bowman and Pahl were advised accordingly. The following decisions were also made: Design floor for laboratory for 175 psf L. L., roof 30 psf, L. L. Laboratory service power 110-220 volt with Hubbell plugs. Trough wiring to be provided for bench control. No gas piping required. All gas to be bottled gas. Dark room to be provided with duriron drain piping to french drain. Laboratory benches to be constructed using non-conductive tops. Provide facilities for relay racks using flush mounted threaded inserts. Provide plug receptacles for all bench areas for 115 volt receptacles also in each room one or more receptacles for 208 volt, 3 wire single phase and also for 208 volt 3 phase service.

Works Area (formerly Maintenance Bldg.)

The following portion of Works Area was approved for Phase I construction: Building 48 feet (clear span) X 80 feet with 10" reinforced concrete floor. Building to be designed for 10 ton crane. Include utility area and if possible, space for receiving room. Heating plant to be located in utility area. Phase 2 to include approximately 7,000 sq. feet of space, balance of space for machinery repairs and trade shops with small office for shop Superintendent and general storage area. Straight aisle from crane area through utility and to receiving area. Toilets should accommodate approximately 100 personnel. Four to six permanent personnel located in Works Area.

5. Priority of Construction -

The question of priority was discussed and decisions were as follows:

- (1) Road Construction
- (2) 85 Ft. and 140 Ft. Telescopes and Electrical Distribution system
- (3) Phase I - Works Area and Phase I Laboratory Building
- (4) Residence Area
- (5) Phase II Works Area and Phase II Laboratory Building additions.

6. Utilities -

Reviewed preliminary estimate for water and sanitary distribution systems. Preliminary figures presented showing costs of water distribution and sanitary sewage system exceeded budget estimate. After discussion, decision was made to design water supply with 8" well plus 2,000 gallon receiving tank capacity at each building area including Works Area, Laboratory and Residence Area. A test well will be installed at the Works Area location by AUI in the near future.

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Minutes of Site Planning Committee

Green Bank, W. Va.

August 6, 1957

Meeting #1

At a meeting held in the Green Bank offices the item of a sanitary sewer system for the Observatory site was discussed. The following members were present:

M. L. Westman, Chairman

Dr. John W. Findlay

Dr. David S. Hoeschen

John J. Carroll

On page 4, item 6 of the IBA minutes of the July 29-30th meeting held at the Green Bank site it is indicated that a decision was made to have - "individual septic tanks and sand filter lines installed at each building location and also at scope locations".

No member of the committee was aware of any discussion on this item except that it had been agreed that individual wells and septic tanks should be installed at the telescope sites. It is our feeling that final decision should not be made until a careful study and cost analysis of proper sanitary sewer has been studied.

This suggestion has been discussed by phone with Dr. Emberson who agrees with this decision. It was further agreed that Irving Bowman should be advised of this decision.

All committee members present and all agreed to the action above.

Signed


Committee Chairman

cc: L. V. Berkner
R. M. Emberson
L. R. Burchill
C. F. Dunbar
File