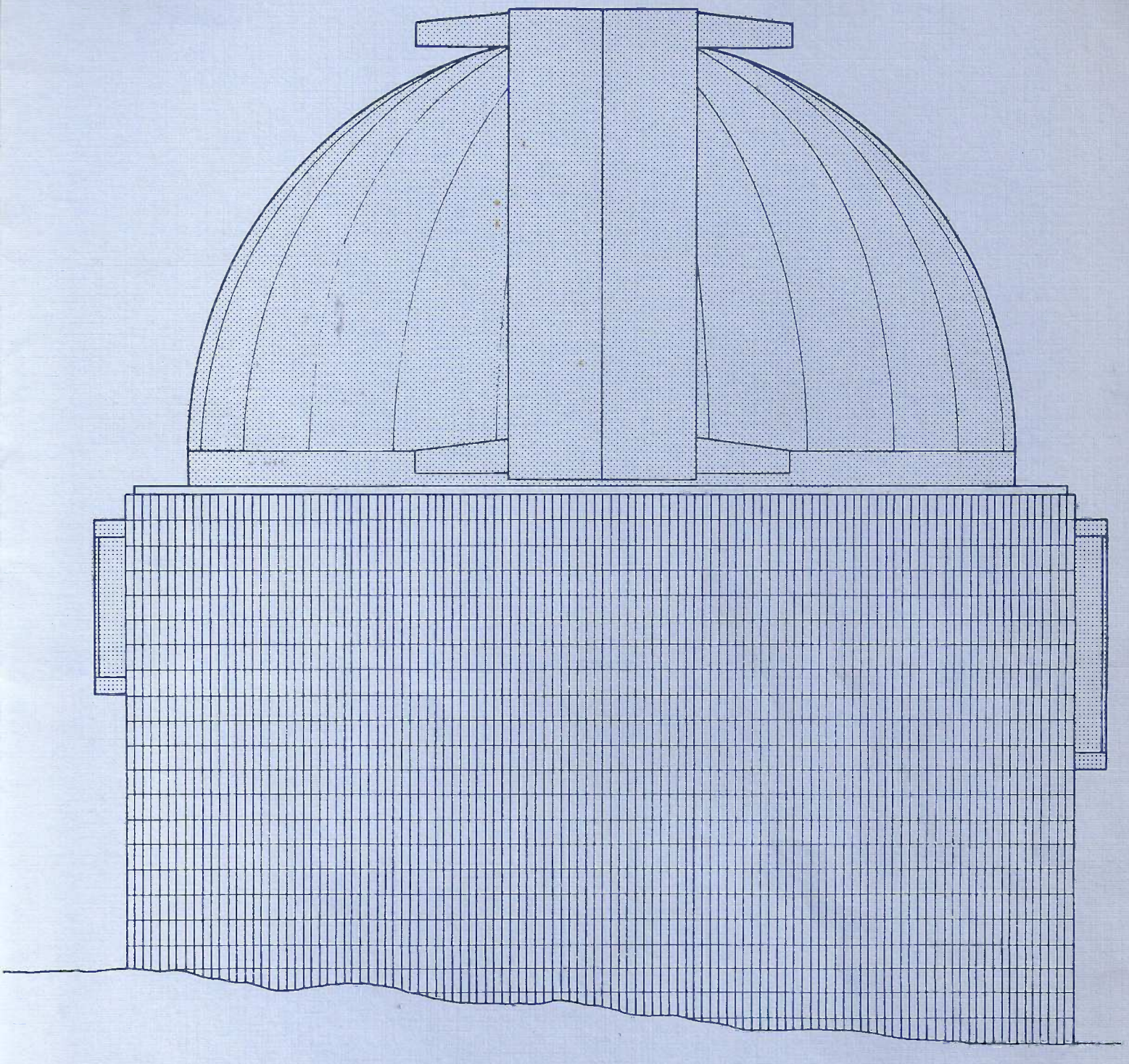


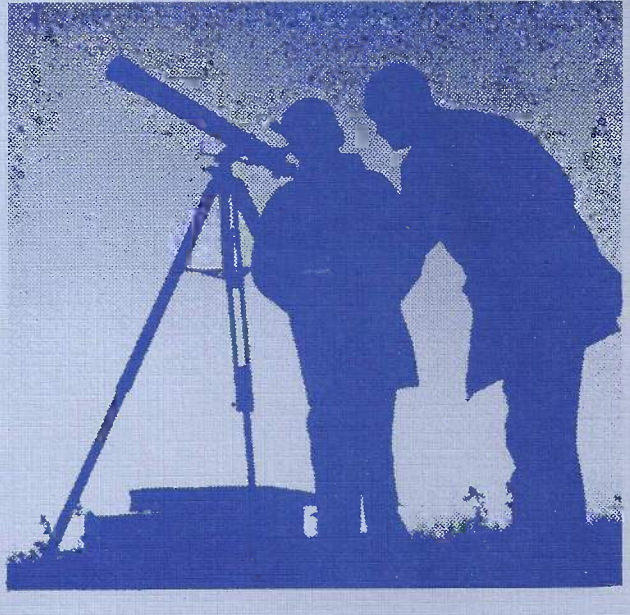
Milwaukee Needs a New Observatory

Milwaukee Needs A New Observatory

For nearly fifty years, the needs of stargazers, hobby astronomers, and the public have been fulfilled by the Milwaukee Astronomical Society's Observatory. And, virtually unkonwn to the Milwaukee public, members of the Society have made valuable scientific contributions to the study of variable stars and satellite tracking. Also, at the Observatory, located outside the bright city lights of Milwaukee on Observatory Road in New Berlin, the Society has hosted schoolchildren, Scout groups, and the general public at annual summertime Public Star Nights when the telescopes and observatory are open for inspection -- as are the Moon, stars, and planets.

The big telescopes in the twin domes and the smaller telescopes on the grounds have provided two generations of youngsters with their first glimpse of the craters of the moon and the rings of Saturn. Many an adult, "just bringing my kids out for a look," has become fascinated with the wonders in the sky -- and has gone on to join the Society and build a telescope himself. We are pleased and proud to have contributed so much enjoyment to so many.

To continue our work, we are now building a third major telescope -- a telescope with more than twice the light-gathering power of our present two combined -- to enable more people to share a better view of the heavens with us than has ever before been possible. The new telescope will be thoroughly modern -- more powerful, faster, more efficient, and easier to use than our older telescopes. We are already hard at work on it. Even if you make just a quick visit to our New Berlin site, you'll see the new observatory building we began in Spring 1980.



Our Plan: Astronomy for Milwaukee

Our new telescope will be a 25" Cassegrain reflecting telescope. Its large aluminum-coated glass mirror reflects and focuses starlight up the eight-foot-long tube to a precisely ground small mirror that sends it to final focus at the back end of the tube. There, at a comfortable height, the astronomer can inspect a celestial object. The large arms of the fork-type mounting guide the telescope to follow the sky precisely, counteracting the Earth's steady rotation. The building, capped by a hemispherical "dome," capable of opening on clear nights for observing and closing weathertight to protect the

The Milwaukee Astronomical Society

"Astronomy is our Hobby "

Who are we? We're an organization of people who share an interest in understanding and observing the stars, planets, and galaxies. Established in 1932, we provide a forum for astronomy in the Milwaukee area.

As an organization, the MAS encompasses the many and varied interests within its membership. The Society offers a vehicle for the furtherance of individual interest in astronomy -- be that an "armchair" fascination with the celestial clockwork, helping the beginning observer, building telescopes, photographing the stars, or participating in one of our ongoing observing projects.

Our programs include:

- A monthly public meeting and lecture. We invite astronomers and scientists to share with us their insights and discoveries about the origin, structure, and evolution of our cosmic environment.
- The observatory, now featuring two 12.5" reflecting telescopes housed in hemispherical domes. It serves as a place for our members to use and enjoy the Society's telescopes as well as their own. Members frequently use the observatory for personal observing projects.
- Our Public Star Nights during the summer that draw crowds even on cloudy nights. Everyone is welcome to see our observatory, its telescopes, a slide show and lecture presentation, and, if it's a clear night, magnificent views of the stars, planets, and the Moon.
- Ongoing scientific data collection, in conjunction with the American Association of Variable Star Observers and the International Occulation Timing Association, on the brightness of long period variable stars, the minima of eclipsing variable stars, and grazing occultations of stars by the Moon.

Highlights in the History of the Milwaukee Astronomical Society 1932-1980

1932: A dozen amateur astronomers form the Society, meeting in a back yard to observe meteors and variable stars.

1933: MAS membership grows to 130. Society observes brightness of variable stars and makes meteor height determinations and calculations.

1934: In recognition of enthusiasm, the AAVSO lends the MAS a 13-inch telescope; land in New Berlin (away from city light) is lent by member. MAS becomes a nonprofit organization.

1937: Observatory begun.

1938: First telescope installed at the observatory.

1940: Harvard donates a star patrol camera to the MAS; National Geographic Society lends two aurora cameras.

1944: MAS members set up an optical shop to make prisms for binoculars to help the war effort.

1945: Expedition to Manitoba to make observations to link European map grid to American map grid.

1947: MAS assists Astronomical League in forming, MAS member elected first president.

1948: MAS eclipse expedition to Burma sponsored by NGS.

1949: Construction for second observatory building begun.

1951: Second 12" telescope ("B" telescope) completed and in operation.

1954: Transit of planet Mercury photographed. Eclipse expedition to Canada.

1955: Quonset building donated to provide meeting space at observatory. Eclipse expedition to Somalialand.

1957: MAS joins Smithsonian "Project Moonwatch."

1960-62: MAS tracks satellites for US; three members observe the reentry of Sputnik 4 in September 1962.

1963: MAS purchases 2 acres of land adjacent to observatory.

1965: MAS pre-eminent in observing grazing occultations of stars with 2-mile timing cable. Esterline-Angus company donates 20-pen recorder.

1970: 12 "Portascopes," 10" reflectors, begun by MAS to do grazing occultations measurments on fainter stars.

1972: Eclipse expedition to eastern Canada. 25" mirror blank donated to the Society.

1974: Eclipsing binary star program begun for AAVSO.

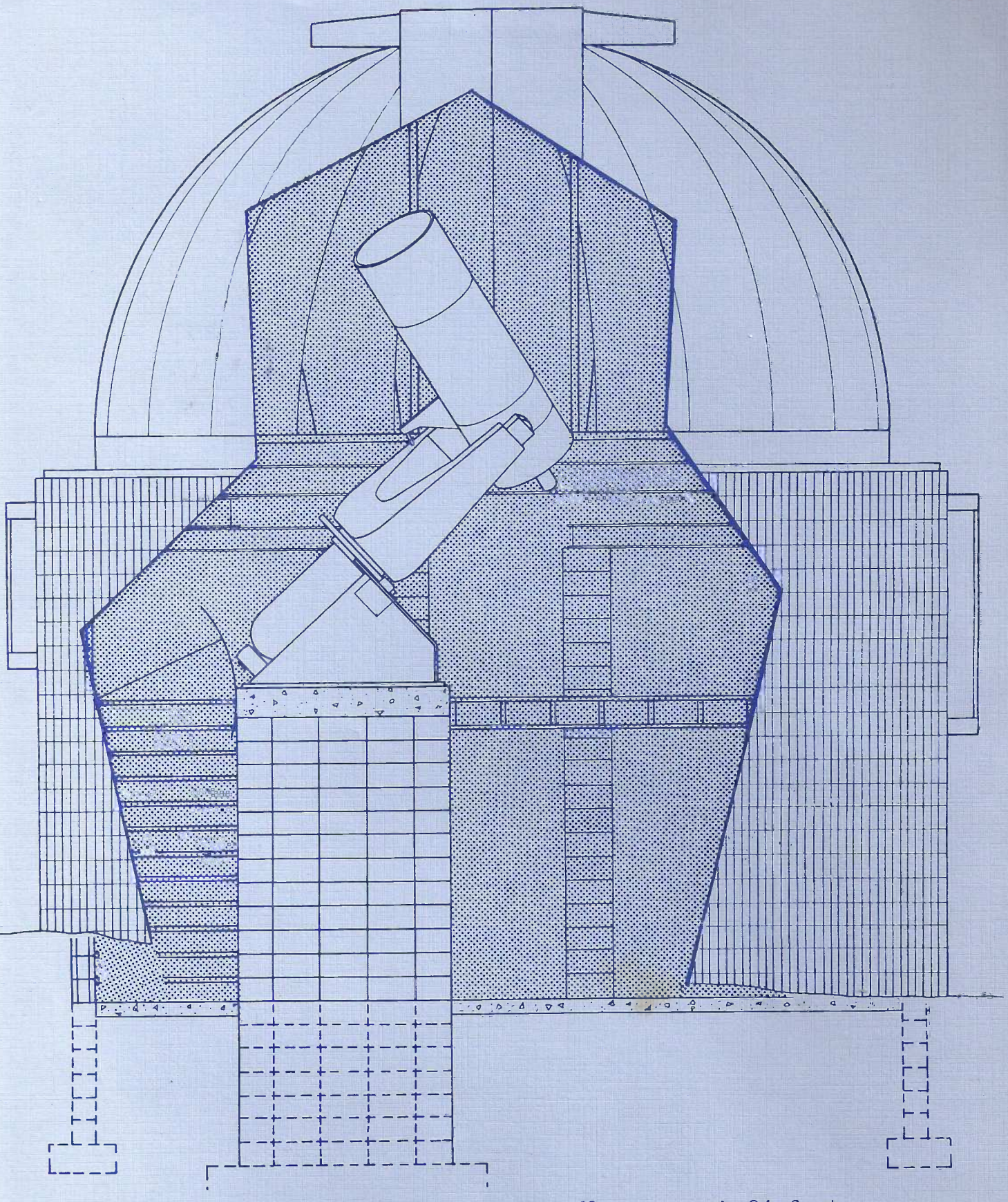
1976: Half of EB observations in US come from MAS. Society plans a new large telescope.

1977: Nine observers obtain record "graze" results, data points define position of Moon very accurately.

1978: Fund drive begins for 25" telescope, $10,000 in funds collected; work on telescope begins.

1979: Eclipse expedition to North Dakota; MAS applies to New Berlin for observatory building permit.

1980: Ground broken for new observatory in April; work on 26" telescope continues.



telescope when it's not in use, has two floors, each 24 feet square. The upper floor accommodates the moving telescope, its mounting, the control panel, and people; while the ground floor will have support equipment, meeting space, and educational exhibits.

Using modern digital computer logic and careful design, we hope to make our new telescope so easy to use that any responsible adult could quickly learn how to run it. New low-light-level television cameras

may further the goals of our public "Star Nights" by allowing many people to "see" on television what the telescope is looking at while they wait their turn at the eyepiece, as well as aiding the Society's ongoing study of variable stars.

When the new telescope is completed, we will be able to expand our Public Star Night program to bring the stars to more people for a larger part of the year. Not only will the new telescope shorten waiting in line and its greater power provide better views, but the improved lecture and exhibit area in its building will expand our present facilities. We expect that our membership will grow, and that our new members will join with us in examining and learning about the wonders of the sky.

You Can Help

The Milwaukee Astronomical Society's new 25" telescope and observatory project is unquestionably a major engineering and scientific undertaking -- and we are doing it ourselves. If we were to purchase such a telescope, it would cost about $250,000, but since our membership includes a large number of skilled enginners and technical people from the Milwaukee area, we can do it.

As a group of dedicated astronomers "for the fun of it," we have always been ready and willing to share our fascination with the cosmos with the community as a whole. For the most part, our facilities have been member-built and member-maintained. However, a telescope of this capability and potential requires that we go to the community we have served to ask for assistance. While much of the initial design, and even the construction, of the observatory building, have been done by the membership, the fabrication and funding of this instrument cannot be done with the resources of the members alone. We are therefore appealing to the Milwaukee community for assistance, be it technical, material, or financial. Please help us capture the starlight which is there -- for all to see.