

Basis of Design

This section applies to design standards and procedures involved in the field location and plotting of all natural objects and surface improvements.

Surveying

- Limit survey accuracy to three times the map-plotting accuracy.
- Horizontal control shall be state plane coordinate system North Zone. Show grid lines on drawings. Tie corners of buildings into this system by showing their coordinates and the distance and bearing to the nearest monument.
- Vertical control shall be the City of Seattle datum.
- Physically locate baseline in the field and show on the topographic map. Reference baseline by coordinates and a bearing. Establish baselines parallel to a face or major axis of the proposed or existing building.
- Where existing survey data adjacent to or within the work area is available, the University will furnish such information to the surveyor. The surveyor must verify the present day accuracy of all data prior to incorporation into their work.

Mapping

- Preferred mapping scale is 1 inch to 20 feet with a scale accuracy between random points on the map of 6 inches. Contour intervals shall be 1 foot; 2 feet is allowable on steep slopes for clarity of the drawings, with average allowable errors of $\frac{1}{4}$ the interval or 6 inches for improved ground surfaces. Unimproved surfaces may be twice this amount.
- Match all new work to existing survey maps to provide topographic continuity.
- Represent all 1-foot ground surfaces on the drawings by means of contours and spot elevations. Show spot elevations at all tie-in locations.
- Note all ground floor elevations of existing buildings and slab structures on the drawings to the nearest hundredth of a foot.
- Verify and show all storm and sanitary sewer inlet and outlet invert elevations at manholes by field measurement as well as grated elevations. Show underground storm, water and sanitary pipes.
- Identify all buildings shown wholly or partially on the finished drawings by name and accented by shading or crosshatching. In tabular form show all major building corner coordinates.
- Field-locate, record the location, and identify on map, all surface improvements and natural conditions.
- Field-locate all trees and major vegetation and record location on the map. Identify tree size and type on the map. (Protect existing shrubs, trees and lawn areas during the progress of fieldwork; under no circumstances will their removal be permitted.)
- Locate all tunnels and manholes, and show floor elevation of tunnels and tunnel coordinates.
- Show coordinates of University of Washington monuments.
- Include a general vicinity map, small scale, on the finished drawings. The University will furnish appropriate background, 50 or 200 scale, for the vicinity map.

Design Evaluation

- Provide standard industry submittal requirements.

Construction Submittals

- Provide standard industry submittal requirements.

Related Sections

- None

Product, Materials and Equipment

- Map on mylar, showing all the construction areas, including lay-down areas and disturbance to the existing surrounding area
- If the survey map is generated by Computer Aided Drafting (CAD), provide to the University a copy of each drawing on a 3½ inch, 1.2 MB floppy disk as well as one drawing. Provide typed labels completely identifying the contents of each disk.

Topographic Map Details

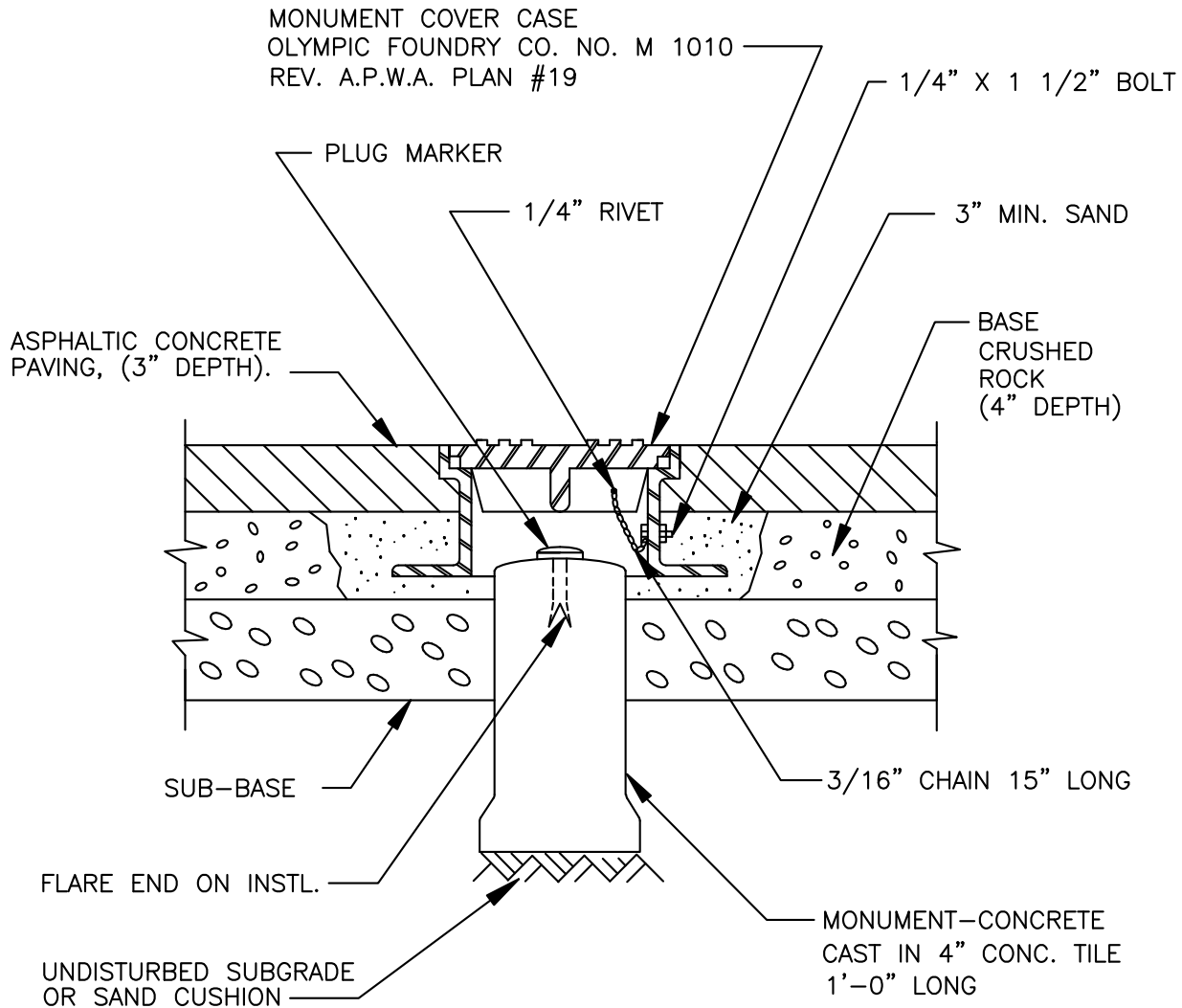
- Drafting and layout standards
 - 1) All lettering on drawings shall be $\frac{1}{8}$ inch minimum height and clearly legible when reduced to $\frac{1}{2}$ scale.
 - (a) Major callouts such as building names, street names, elevations, and dimensions require use of single-stroke vertical Gothic lettering.
 - (b) Callouts of minor physical features require single-stroke slant lettering, upper and lower case.
 - (c) All lettering to be clear and uniform in appearance and line density.
 - (d) Use Leroy or other lettering devices where applicable, but in no instances place lettering, either pencil or ink, over or through any prior notes, callouts, or legends.
 - (e) Do not use stick-on letters, lines and shading on drawings.
 - 2) Provide drawings on a dimensionally stable 3-mil, double matte mylar film. Diazo sepia, sepia mylar, slicks, or sticky back on mylar are not acceptable.
 - 3) Provide a $\frac{1}{2}$ inch border on the top, bottom and right side of the sheet.
 - 4) Provide a 1-inch binding edge on the left side of the sheet.
 - 5) Correspond sheet sizes to the University of Washington Facility Management Office standard sizes. Typical sheet sizes to trim lines are as follows:
 - (a) 18" x 24"
 - (b) 30" x 42"

- (c) 36" x 48"
 - (d) Do not provide sheet size larger than 36" x 48"
 - (e) Provide identical size for all sheet sizes for any given survey.
 - 6) Surveyors shall consult with the Architect/ Engineer project consultants to ensure that the topographic drawings will be the same size as the design drawings.
- Coordinate all phases of the work with the Civil Engineer of Campus Engineering or their designees. State any departures from these standards in writing.

Installation, Fabrication, and Construction

- See Monument Installation drawing.
- See Monument Plug Marker drawing.

END OF DESIGN GUIDE SECTION

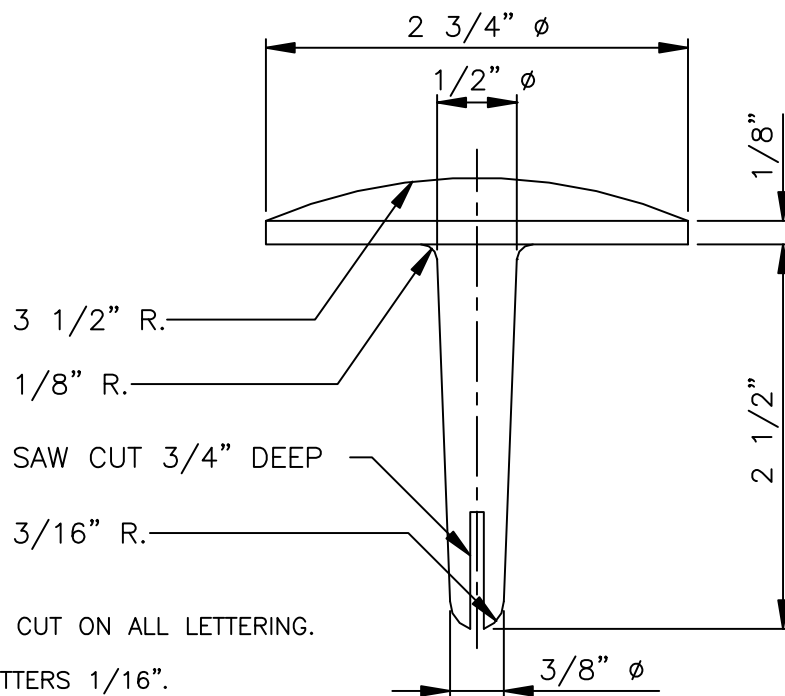
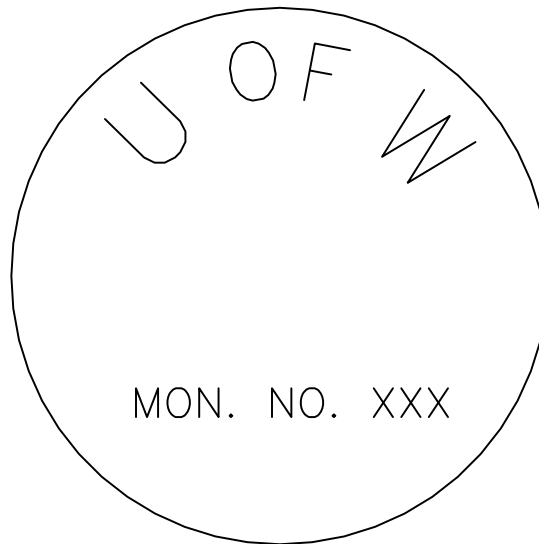


NOTES :

1. MONUMENT COVERS ARE REQUIRED IN ALL PAVED "TRAFFIC" AREAS.
2. SET MONUMENT FLUSH WITH GROUND SURFACE IN ALL OTHER AREAS AND MONUMENT COVER CASE IS NOT REQUIRED IN THESE AREAS.

SD-C-55

Monument Installation



NOTES :

1. USE " V " CUT ON ALL LETTERING.
2. RECESS LETTERS 1/16".
3. CURVED TOP SURFACE TO BE BUFFED A ROUGH SATIN FINISH.
4. TOLERANCE FOR ALL DIMENSIONS TO BE 1/32" ±.

Monument Plug Marker

SD-C-56