**INSTALLATION NOTES:**

1. All utility covers to be raised shall be replaced as needed to conform to covers specified above. Covers shall be imprinted with the appropriate utility name.

2. Collars constructed in P.C.C. streets shall be circular in shape and shall be separated from the adjacent P.C.C. street by either a cold joint or a tin form.

3. MANHOLES: Rings shall be 3" or 6". Top of cone to top of frame shall not exceed 18". Grade rings and manhole frame shall be sealed at every joint with butyl rubber (CONSEAL CS-102 or equal). When proper grade cannot be achieved with standard grade rings, the manhole frame shall be suspended in position over the last grade ring, the inside of the frame and shaft shall be formed with tube or monoform system, and the concrete collar shall be poured to provide the joint between the manhole frame and the grade ring stack. Inside of rings shall be grouted with non-shrink grout to obtain a smooth surface free from gaps, holes and sharp edges. 2" clearance applies to the low side of the frame. Clearance may be greater on the high side as dictated by the street grades and as directed by the University Engineer. Use 6" concrete reducing rings in cases where existing manhole opening must be reduced to accommodate the new frame and cover.

**GENERAL NOTES:**

A. Completely remove existing concrete collar prior to pouring new concrete collar. The diameter of the new collar shall be equal to the existing collar or the minimum diameter specified in the above detail, whichever is larger.

B. Concrete shall be Class 2 concrete, troweled to street grade, and allowed to cure for 24 hours prior to any traffic use. Class 1 concrete with 2% non-corrosive polar set may be required to allow expedited traffic use following 4 hour cure time.

C. Depth and radius dimensions shown apply to similar covers that are not shown.

D. When a roadway is overlaid with asphalt concrete, the contractor may use extension rings to adjust utility covers to the new surface elevation. When extension rings are used to adjust grade, a preformed thermoplastic ring shall be applied around the perimeter of the concrete. Extension ring shall be compatible with the existing cover. Thermoplastic ring width shall be a minimum of 6 inches.

E. Utility frame and cover shall be installed so that cover does not rock or rattle and is flush with adjacent surface.

**SCALE:** N.T.S.