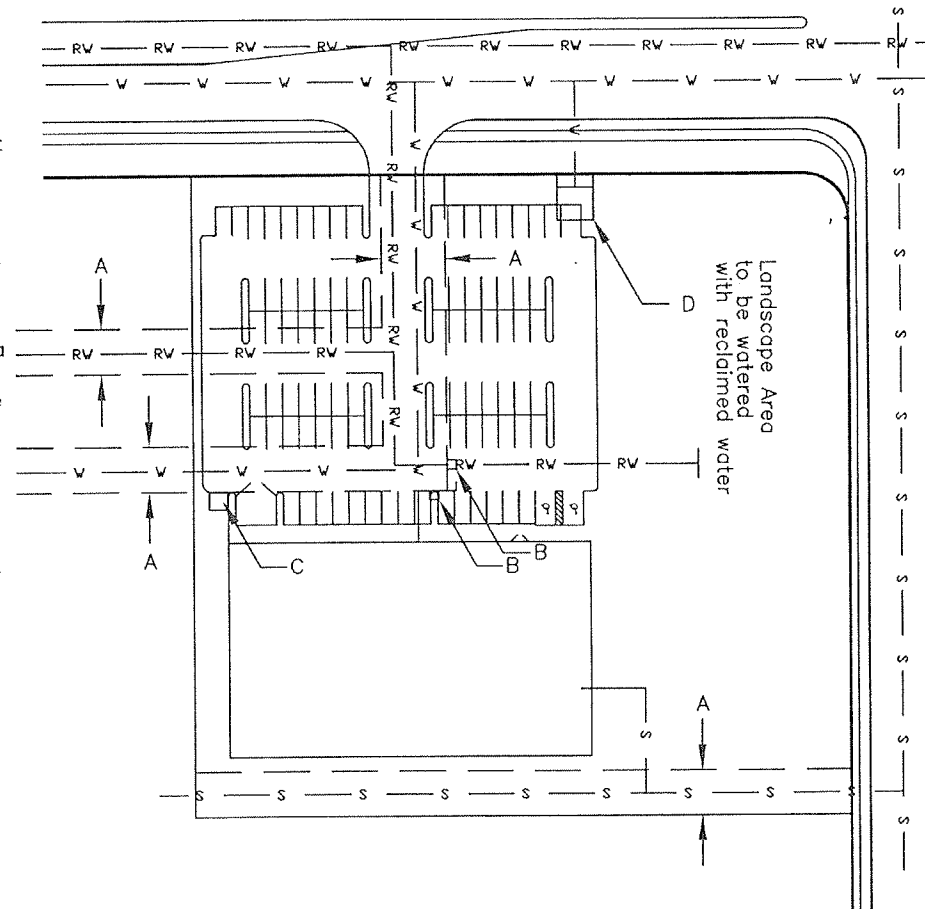


Town of Marana Utility Easement Requirements

- 1) Easements shall be exclusive Town of Marana wet utility easement with maximum 5' encroachment by a PUE.
 - 2) Easement width shall be increased by 5' for every 2' water line is buried below the minimum as required by the May 2009 or subsequent version of the Town of Marana Utility Department General Notes and Standard Details.
 - 3) Easement width shall be increased by 10' for every additional variety of wet utility (potable water, non potable water, sewer). For example, the easement width shall be increased to 35' if two types of wet utilities are located within the easement, and to 45' if all three types of wet utilities are located within the easement.
 - 4) Easement width shall increase by 5' where the easement overlaps a vertical drop of 3 or more feet where the slope is greater than 3:1 horizontal to vertical. The easement width shall increase by 10' if the slope exceeds 2:1 horizontal to vertical.
 - 5) The maximum wet utility easement, including increases for depth, PUE encroachment, additional wet utilities and slope, shall not be greater than 50'.
 - 6) Wet utility line shall be a minimum of 5' from the edge of the easement.
 - 7) Wet utility line shall be set back an additional 2' from the edge of the easement for every 5' in depth the line is buried below the minimum depth.
 - 8) A 15' x 15' easement area outside of the normal easement width shall be provided for all fire hydrants.
 - 9) A 15' x 15' easement area outside of the normal easement width shall be provided for all meters, valves and fire line stub outs.
 - 10) Where Terrain and/or Geology warrant an exception to these standards, a waiver may be granted by the Town Engineer or his designee in which all of the following apply:
 - a) A showing of good and sufficient cause
 - b) A determination that failure to grant the waiver would result in exceptional hardship to the development.
 - c) The waiver is determined to be the minimum relief necessary.
 - d) Other mitigating design elements are utilized such as ductile iron pipe with restrained joints or other improvements as directed by the utilities engineer.
- Cost shall not be a determining factor in the granting of waivers.



LEGEND

- w — Potable Water
- rw — Reclaimed Water
- s — Sewer

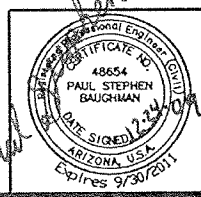
- A — MINIMUM 25 FEET EASEMENT
- B — 15'X15' EASEMENT FOR METER
- C — 15'X15' EASEMENT FOR HYDRANT
- D — 15'X15' EASEMENT FOR FIRE LINE STUBOUT

NOT TO SCALE

APPROVED FOR DISTRIBUTION:

Keith E. Brann
 Keith E. Brann, P.E.,
 Town Engineer

Paul Stephen Baughman
 Paul Stephen Baughman
 Professional Engineer
 CERTIFICATE NO. 48654
 PAUL STEPHEN BAUGHMAN
 DATE SIGNED 12/24/09
 ARIZONA, U.S.A.
 Expires 9/30/2011



MARANA UTILITY STANDARDS		DETAIL NO:
TYPICAL UTILITY EASEMENTS		500-1
DATE: 8/19/2009	REVISED: 12/24/2009	SHEET 1 OF 1