



WATER PLAN REVIEW CHECKLIST

LOG NUMBER: 13893-

PROJECT: _____

REVIEWER: 1st _____ Date _____
 2nd _____ Date _____
 3rd _____ Date _____

KEY: / = Acceptable X = Not Applicable
 O = Not Acceptable or Missing ? = Unable to Determine Acceptability Status

PLEASE RETURN THIS ORIGINAL CHECKLIST WITH THE NEXT SUBMITTAL.

Complies	Requirement
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PLAN PREPARATION AND SUBMITTAL

- _____ 1. The First Submittal of the Water Plans shall include, at a minimum, the following items (unless previously submitted):
 - a. Master Water Plan covering the entire development that includes, at a minimum:
 1. Full Description of all existing facilities being tied into,
 2. Water demand and Peak Hour demand calculations,
 3. Pressure and Pipe sizing calculations,
 4. Fire Flow Analysis including design flows for all proposed fire Hydrants,
 5. Water System Map showing all pipes, pipe sizes, valves, and appurtenances, both existing and proposed, and Fire Hydrant locations, both existing and proposed.
 - b. A copy of the Certificate of Assured Water Supply or a copy of the Commitment to Supply Water Service to this subdivision from the Private Water Company.

- _____ 2. The Water Plans shall be submitted on 24" x 36" sheets bound or stapled in sets. The Plans shall be at a minimum scale of 1" = 40'.

- _____ 3. Each sheet of the Water Plans must be signed and sealed by the Engineer preparing the plans.

- _____ 4. The minimum height of all text, numbering, and lettering shall be 0.1" (one tenth of one inch).

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- _____ 5. If an Easement or Right of Way dedication is required by Separate Instrument, the following exhibits and/or information must be provided with the Easement Document:
- a. The Subdivision Name.
 - b. The Type of Easement or Right of Way.
 - c. The Reason or purpose of the Easement or Right of Way and why it is required.
 - d. A Vicinity Map showing the major cross streets.
 - e. The Legal Description Sealed by an RLS.
 - f. A Detail Map showing the Easement or Right of Way alignment with dimensions and bearings, True Point of Beginning, Section, Township, and Range.
 - g. Current Title Report (6 months or less).

COVER SHEET REQUIREMENTS

- _____ 6. The Name of the proposed development must be shown on the Title Block on the cover sheet, with the Legal Description of the property, including the TOWN, County, and State.
- _____ 7. The Developer's name, address and phone number must be shown on the cover sheet.
- _____ 8. The Engineer's name, address, and phone number must be shown on the cover sheet.
- _____ 9. The following Town standard notes must be shown, on the cover sheet:
- a. General Notes
 - b. Water Notes
- _____ 10. Detailed typical street sections for all streets shall be shown on the cover sheet or on a separate detail sheet. The street section shall include, at a minimum, the following items with dimensions and applicable standard detail identification:
- a. Right-of-Way,
 - b. Roadway with curb and gutter identified by type,
 - c. Sidewalks,
 - d. Public Utility Easements,
 - e. All underground utility locations dimensioned relative to the centerline or monument line of the street or the right of way line.
- _____ 11. All elevations shown on the plans must be referenced to an approved TOWN benchmark. The benchmark description must be shown on the cover sheet.
- _____ 12. The Basis of Bearings must be shown on the cover sheet.

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- _____ 13. An Index Map with the following information is required on the cover sheet:
- a. Street Names
 - b. Existing water system, both internal and perimeter, including pipe sizes, Fire Hydrants and valves,
 - c. Proposed water system including pipe sizes, Fire Hydrants and valves,
 - d. Sheet Numbers
 - e. Phase limits and numbers if applicable
 - f. Lot Numbers and Tract Designations
 - g. Retention Basin Designations.
- _____ 14. A Vicinity or Site Location map is required on the cover sheet.
- _____ 15. A Quantity Tabulation is required on the cover sheet.
- _____ 16. A "Utility Coordination Block" shall be included on the cover sheet showing the names of the utility companies servicing the area of the Development and the date(s) plans were submitted to them.
- _____ 17. A Legend shall be shown on the cover sheet, or detail sheet, for all symbols used on the water plans.
- _____ 18. A Detail for trench width, bedding, and backfill shall be shown on the cover sheet with appropriate references to the MAG Standard Specification 601.
- _____ 19. A Service Tap Detail is required to be shown on the Cover Sheet. The Detail shall include the following items:
- a. The standard tap location,
 - b. The required minimum separation of 6 feet between water and sewer taps,
 - c. Standard Detail number(s),
 - d. The location, and standard detail number of the backflow prevention device as applicable.
- _____ 20. A Review by the Florence Fire District is required prior to Approval by the Town Engineer. The following Approval Block must be shown on the Cover Sheet, above the Town Engineer's Approval Block:

APPROVED	
<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> REPRESENTATIVE FLORENCE FIRE DISTRICT	<hr style="border: 0; border-top: 1px solid black; margin-bottom: 5px;"/> DATE

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- _____ 21. A review by the private water company serving the area of the development is required, if applicable, prior to the Approval by the Town Engineer. The following Approval Block shall be included on the cover sheet, above the Town Engineer's Approval Block:

APPROVED:	
REPRESENTATIVE (PRIVATE WATER COMPANY)	DATE

- _____ 22. A Review by the Arizona Department of Environmental Quality (ADEQ) is required prior to Approval by the Town Engineer. The following Approval Block shall be added to the cover sheet, above the Town Engineer's Approval Block.

APPROVED	
ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY	DATE

- _____ 23. The following Approval Block for the Town Engineer shall be included in the lower right of the cover sheet:

APPROVED:	
TOWN ENGINEER TOWN OF FLORENCE, ARIZONA	DATE

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_____ 24. The following "As Built Certification shall be included on the cover sheet:

<u>AS BUILT CERTIFICATION</u>	
I HEREBY CERTIFY THAT THE "AS BUILT" MEASUREMENTS AS SHOWN OR NOTED HEREON WERE MADE BY ME OR UNDER MY SUPERVISION AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.	
REGISTERED CIVIL ENGINEER OR REGISTERED LAND SURVEYOR	DATE
(SEAL)	

GENERAL INFORMATION REQUIRED ON THE PLAN SHEETS

- _____ 25. A North arrow and scale must be shown on each sheet of the Plans.
- _____ 26. Match lines and sheet references must be shown on each sheet as applicable. Show match line stations on plan and profile with invert elevations at all match lines.
- _____ 27. Phase limits and numbers, if applicable, must be shown on each applicable sheet.
- _____ 28. Existing storm drainage facilities such as retention basins, catch basins, scuppers, and storm drain pipes must be shown on plans.
- _____ 29. Existing buildings and other significant structures must be shown on the Plans.
- _____ 30. All existing water lines being tied into and nearest existing Fire Hydrants must be shown.
- _____ 31. Dimensional ties, station and offset from the street centerline, must be provided for all existing water lines being tied into.
- _____ 32. All proposed water lines must be shown. Water lines are required adjacent to all streets.
- _____ 33. All water lines 12 inches in diameter and larger shall be shown on Plan and Profile sheets.
- _____ 34. The location of all existing and proposed street light bases shall be shown on the Water Plans.
- _____ 35. Water Lines must be dimensioned from the street centerline.

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_____	36. Water Lines shall be installed in standard locations. Water lines located within easement or tracts, shall have a minimum 20 foot wide dedication.
_____	37. Domestic or Potable Water Lines, Fire Lines, and Domestic Water Service Lines are not allowed to pass under any portion of retention basins.
_____	38. A 1-inch Water Service is required for all single family Lots. Water Service Lines for landscaping tracts shall be determined by the Landscape Architect.
_____	39. All Water Service Lines shall be stationed in reference to the street centerline stationing.
_____	40. Water Line Stub-outs must be provided for all adjacent undeveloped property unless otherwise justified and approved.
_____	41. Water Line Stub-outs must be provided for all major parcels within or adjacent to the development.
_____	42. All crossings of existing or proposed water, sewer, or reclaimed water lines must be shown on the Plans, both in the plan and in the profile views. The crossing clearances must be shown in the profile view.
_____	43. All Water Lines crossing a sanitary sewer or reclaimed water line shall be ductile iron pipe with encasement per MAG Standard Detail 404.
_____	44. All Water Line crossings of wet utilities such as irrigation lines and storm drain lines must be shown on the Plans, both in the plan and in the profile views. The crossing clearances must be shown in the profile view.
_____	45. All Water Lines that cross arterial streets, including Fire Hydrant connections, must be ductile iron pipe for all portions that are under the pavement.
_____	<p>46. All dip sections or depth transitions to normal depth shall be ductile iron pipe, either shall be mechanical-joint or restrained-joint and shall be shown in the profile view with:</p> <ol style="list-style-type: none"> a. A minimum vertical clearance of 2 feet from obstructions, b. Concrete encasement per MAG Standard Detail 404, if applicable, c. Thrust blocks or joint restraints with the appropriate standard detail call-out, d. Use Megalug restraining joints or Town of Florence approved equal. e. For wash crossing, provide "additional" cover for scour as follows: <ul style="list-style-type: none"> • > 0 cfs. 1' additional cover • > 50 cfs. 2' additional cover • > 100 cfs. 3' additional cover • 500 cfs. >
_____	47. All Water Lines crossing under a sanitary sewer, including residential service connections, or under a reclaimed water line shall be provided additional protection in accordance with MAG Standard Details and Specifications.

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_____	48. Dead end lines for future connection shall be extended beyond the edge of pavement and shall include curb stop and flushing pipe per MAG Standard Detail 390. Type B.
_____	49. A gate valve shall be installed on all dead end lines between the last fitting and the flushing pipe assembly.
_____	50. Backflow prevention devices are required on the potable water services to commercial or industrial facilities as determined by the TOWN Engineer.
_____	51. All PVC Water Lines must be installed per MAG Standard Specifications and/or the manufacturer's specifications.
_____	52. Valve installations must comply with the following requirements: <ul style="list-style-type: none"> a. Valve box installations must conform to MAG Standard Detail 391-1 or 391-2, and these details must be specified in the construction notes on the plan. b. Valve installation shall include blocking per MAG Standard Detail 301. c. Valves shall not be located in a sidewalk, ramp or driveway. d. All valve locations must be stationed relative to the street centerline.
_____	53. Fire Hydrant installations must comply with the following requirements: <ul style="list-style-type: none"> a. A maximum spacing of 500 feet in single-family residential areas. b. Fire Hydrant installations must conform to MAG Standard Detail 360 and 362. c. All Fire Hydrants must be stationed relative to the street centerline.
_____	54. A Fire Hydrant shall be installed at the end of a Cul-de-Sac dead end line if the Cul-de-Sac exceeds 500 feet in length.

Provide pressure certification and flow test information.

Provide PRV detail (to be reviewed by the Public Works Department). Provide Engineer sealed cost estimate for the PRV and vault installation.

Provide Booster Pump Station plans, designed in accordance with the Town of Florence Public Work Department.

Provide special details.