

Irrigation Plan

Submittal Requirements

Town of Oro Valley

Community and Economic Development Department - Planning Division

Questions: 520.229.4800 | orovalleyaz.gov



Plan Format

1. Plans must be drawn to a scale of one-inch equals forty feet (1" = 40'). Scale to be the same for all sheets. Different sheet size or scale must be pre-approved by the Town Engineer and Planning Division Manager.
2. Plans must include a page border, 1/16" (0.0625 inches) width, with one-half (1/2") inch margins on the top, bottom and right-hand sides of the page; and a two (2") inch margin on the left-hand side of the page.
3. Margins are to only contain the name of the project in the lower right-hand corner below the Title Block.
4. All lettering and dimensions must be the equivalent of twelve (0.12") point font or greater in size.
5. In the lower right corner of each sheet, provide a Title Block which includes:
 - A. Type of Plan (i.e., Conceptual Site Plan)
 - B. Name of development
 - C. "Lots ___ through ___ and Common Areas A through ___", if applicable.
 - D. Brief legal description, i.e., "Portion of Section ____, T ____, S, R ____, E, G&SRB&M, Town of Oro Valley, Pima County, Arizona
 - E. Scale
 - F. Contour interval
 - G. Date (revised plans must show date of revision)
 - H. Town of Oro Valley case number for this plan
 - I. Sheet ___ of ___ (total pages)
6. Reference related Case Numbers (e.g., general plan amendments, rezoning, variance) adjacent to the title block on each sheet.
7. Each sheet must bear the seal, signature, and registration expiration of the registered professional who prepared the plan in the lower right-hand corner near the title block.
8. Show north arrow and scale bar towards the top of each page that include the site layout. Every effort must be made to have north oriented toward the top of the sheet. Some slight rotation may be made to accommodate long narrow parcels, convenient match lines, etc., but in no case will the north arrow point downward without pre-approval.
9. If the plan consists of more than one (1) sheet, a small index drawing of the site showing the area represented on each sheet must be placed on the right side of each sheet.
10. If the firm name, address and phone number of the registrant who prepared the plan is to be listed on every sheet, then it must be in the lower right-hand corner of the page immediately next to the Title Block.

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All Sheets

1. Town limits must be shown on or immediately adjacent to the project site, where applicable.
2. Indicate graphically, where possible, compliance with conditions of any General Plan amendment, rezoning, Conditional Use Permit (CUP), annexation, or variance conditions.
3. All existing zoning classifications on and adjacent to the project (including across any adjacent right-of-way) must be indicated on all site layout drawings with zoning boundaries clearly defined. Include subdivision name, recording information, lot lines and lot numbers.
4. Addressing:
 - A. Provide interior street names, if applicable
 - B. All naming and signage of streets shall conform to Pima County's Addressing Ordinance and Policies
5. Ensure all line types are different and clearly indicated.
6. The development exterior site property boundary line must be delineated with a solid BOLD line, which must be the boldest line on the plan.
7. If more than one zone applies, show the zoning boundary line on the plan.
8. If the proposed development must be depicted on more than one plan sheet due to scale, adequate match lines must be provided "See sheet (insert #)" on edges of the plan where an abutting sheet depicts more information.

A. Cover Sheet

1. The following is to be centered at the top of the cover sheet in bold lettering with a font of forty (0.40") point or greater:
 - A. Irrigation Plan
 - B. Project Name
 - C. Oro Valley Case Number
2. A site plan of the entire project (scale to vary to accommodate placement on the cover sheet) is to be centered, toward the top of the page directly below the information listed above; and is to include at a minimum, the following:
 - A. North arrow
 - B. Lot lines
 - C. Sheet cuts
 - D. Circulation
3. Each section of the plan (e.g. Site Plan, General Notes, Location Map, etc.) must be Titled and labeled in a font no less than fourteen (0.14") point.
4. A legend which depicts and describes all symbols used in the document.
5. List the following on the cover sheet:
 - A. The name, mailing and email addresses, and phone number of:
 - i. The primary property owner of the site
 - ii. The developer of the project,

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- iii. The registrant(s), and other person(s), firm(s), or organization(s) that prepared the development package documents must be provided.
- B. The Arizona registrant responsible for preparing the conceptual site plan must seal all drawings and supporting documents in accordance with Arizona Board of Technical Registration guidelines
6. Location Map
 - A. A small project location map must be drawn in the upper right-hand corner with north oriented to the top of the sheet. The map must cover approximately one (1) square mile, be drawn at a scale of 3" = 1 mile, and provide the following information:
 - B. The subject property identified and centered within a one square mile area
 - C. Any adjacent conditions (e.g., subdivisions, non-residential development, un-subdivided land, schools, existing zoning, major streets, rivers, railroads, National Forests and city, town or other jurisdictional limits).
 - D. The section, township and range of the subject development
 - E. Labeled section corners
7. A north arrow and scale
8. The following General Notes shall be provided on the cover sheet:
 - A. Irrigation and/or watering plans shall meet the minimum standards of the American Society of Irrigation Consultants.
 - B. Irrigation systems connected to potable water mains (public or private) shall be equipped with backflow preventers.
 - C. The annual water use for a project shall not exceed the annual landscape water plan.
 - D. Irrigation meter readings shall be used to determine compliance with the landscape water plan. Non-compliance is subject to penalties under Oro Valley Town Code.
 - E. Meter readings shall be taken, at a minimum, on an annual basis. Monthly readings may be required, at the discretion of the Planning and Zoning Administrator, in order to address non-compliance with the Water Plan.
 - F. An initial meter reading shall be taken prior to the issuance of the certificate of occupancy and recorded for reference as part of the water plan.
 - G. Irrigation water shall not leave the landscaped areas and flow onto roads, parking areas or sidewalks.
 - H. Contractor notes should be located at back of plan. For areas designated as common space or open space, specifically indicate ownership, purpose, restrictions, and maintenance responsibilities.

B. Proposed Irrigation Plan Sheets

1. Existing and proposed sidewalks, roadways, pavement, curbs, walls, and parking areas (lighter line weight).
2. Existing and proposed storm drainage facilities.
3. Existing and proposed buildings, patios, and any other structures.

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4. Existing and proposed water lines.
5. Graphically depict details and location of system for underground, automatic irrigation to all landscaped areas in plan with legend, including:
 6. Drip irrigation, low flow bubblers, or similar components
 7. Self-timing devices
 8. Meter locations
 9. Areas where irrigation will be discontinued after five years.
10. Provide an irrigation valve, pipe and emitter schedule
11. Specifications for irrigation system tubing, such as polyvinyl chloride (PVC)
12. Inspection schedule for irrigation system
13. Irrigation system shall be designed to be site-specific, reflecting plant type, soil type, infiltration rates, slopes and prevailing wind directions.
14. Provide an equipment control schedule for all components of the irrigation control system.
15. If desert landscaping is used which will ultimately rely on natural water sources, a temporary drip irrigation system shall be employed until such time as the plant materials is sustained by natural water sources.
16. Provide a Landscape Water Plan in table format (see example below) to include the following information:
 17. Water use reduction schedule in accordance with OVZCR Section 27.6.D.3.e. and Section 27.6.D.3.f., that begins implementation three (3) years after issuance of the first certificate of occupancy.
 18. The total values for monthly and annual irrigation water use (gallons) that are indicated in the Plant Material Schedule on the landscape plan must be incorporated.
 19. Phased reduction plan shown by month, so that by the end of three years, the "Total water at maturity" value is achieved. By the end of five years, the amount of metered irrigation water used at the site must be fifty (50%) percent of the ADWR "Total water use at maturity" value.
 20. As part of the reduction plan, the amount of irrigation water received by plants in buffers, medians, and ROWs must equal zero at five (5) years.
 21. Delineation of project phases, if applicable, and associated water use for each phase.
 22. Landscape Water Plan should include monthly irrigation values for years 4 and 5. The values should reflect a gradual decrease in irrigation from the end of year 3 to the end of year 5. Seasonal variation in irrigation needs should also be incorporated.

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EXAMPLE OF A LANDSCAPE WATER PLAN¹

Landscape Water Plan												
Season	Winter		Spring			Summer	Monsoon			Winter		
Month	1	2	3	4	5	6	7	8	9	10	11	12
Year 3	Continue to increase irrigation water use as needed as plants mature up to, but not exceeding, 100% ADWR value by end of year. (Average monthly water use = 7332 gal/month)											
Monthly Water Use	7,000	7,500	7,900	8,500	8,700	8,700	6,000	6,000	6,800	7,332	7,100	6,900
	TOTAL (100% ADWR = 87,998 gal/year)											81,632
Year 4	Begin gradually decreasing irrigation to buffer, median, and ROW areas in order to reach zero irrigation in those areas by end of year 5. (to reach 75% ADWR by end of year, average monthly water use = 5,500 gal/month)											
Monthly Water Use	6,700	6,500	6,300	6,500	7,000	7,000	3,500	3,500	4,100	4,700	4,600	4,100
	TOTAL (75% ADWR = 65,991 gal/year)											65,000
Year 5	Continue decreasing irrigation to buffer, median, and ROW areas. By end of year 5, irrigation to buffer, median, and ROW areas must be zero, and total amount of water used at site must meet 50% of ADWR maturity value. (Average monthly water use = 3,666 gal/month)											
Monthly Water Use	4,000	4,000	4,100	4,200	4,500	4,500	2,000	2,000	2,500	3,666	3,500	3,500
	TOTAL (50% ADWR = 43,991 gal/year)											42,466

¹This irrigation reduction schedule is provided for illustrative purposes. The exact irrigation reduction schedule should be developed by the project landscape designer for the site.

23. Provide an irrigation control schedule that demonstrates compliance with the required landscape water plan. The "Total Water" column must match the Landscape Water Plan's total water use for each year. A sample table is provided below:

Irrigation Control Schedule				
Year	Days	Frequency	Time	Total Water
3	M,W,F	4	45	81,632 gal
4	M,W,F	3	45	65,000 gal
5	M,W,F	1	45	42,466 gal