

APPENDIX B: IMPROVEMENT PLAN CHECKLIST

NOTE: Contact Oro Valley Development Services at (520) 229-4800 or visit the Town of Oro Valley web site for the most recent updates.

GENERAL ITEMS

- 1. A legible P.E. stamp and registered engineer's signature must be provided on each sheet.
- 2. All sheets must be numbered.
- 3. All necessary details must be included on the plans.
- 4. The lettering must be appropriately sized (minimum 0.125 except for reference data at 0.10 min.)
- 5. The plans must adhere to the Oro Valley Subdivision Street Standards.
- 6. The plans must be in compliance with the Town of Oro Valley Grading Ordinance.
- 7. Each sheet must include the scale, contour interval and north arrow, where applicable. Every effort should be made to have north oriented to the top of the sheet; however, if the north arrow shall point downward, prior staff approval will be necessary. In the case of multiple sheets, the north orientation shall be the same on all sheets.
- 8. All items not to scale must be labeled "NTS".
- 9. All off-site easements must be recorded prior to improvement plan approval.
- 10. A copy of the Arizona Department of Environmental Quality's (ADEQ) N.O.I. for projects 1 acre or greater, and Stormwater Pollution Prevention Plan for projects of any size, must be provided prior to the issuance of a grading permit.
- 11. The following documents must be approved and on file with the Town of Oro Valley:
 - a. Archeological Clearance
 - b. Hydrology Report (Rip-rap sizing calculations will be provided.)
 - c. Salvage Plan and Landscape Plan
 - d. Geotechnical Report (including pavement design report). If the pavement design is revised during construction, an as-built pavement section shall be provided to be included with the approved plans.

DETAIL SHEETS

- 12. All necessary cross-sections must be shown (roadway and drainage).
 - a. Roadway cross-sections must correspond to the preliminary plat.
 - b. Drainage cross-sections must correspond to the approved Hydrology Report. Hydraulic data shall be provided with each section. (Q100, Depth, Slope and Velocity.)
- 13. All details must be correctly referenced.
 - a. From sheet to sheet.
 - b. From accepted/adopted standard literature.
- 14. The pavement design and slope treatment must correspond to the soils report. If these items were not included in the approved soils report, they must be submitted at this time. A note shall be provided stating slope stabilization and slope treatment requirements.
- 15. Typical lot drainage plan or spot elevations and flow arrows indicating lot drainage on each lot will be provided except in the case of custom lot grading.

COVER SHEET

- 16. Project Title must be centered at the top and contain:
 - a. Project name
 - b. Number of lots (if applicable)
 - c. Phasing (if applicable)
 - d. Public or Private streets
 - e. Oro Valley case number
 - f. Type of Plan(s) (ie. Grading, paving, sewer, etc.)
- 17. Symbol Legend must be provided.
- 18. Sheet Index which lists each sheet content must be provided; for example:

Sheet Index

Cover Sheet1
Grading Plan2
Water Plan3

- 19. Location Map must be provided in the upper right-hand corner and must include:
 - a. Area showing, "This Project"
 - b. Scale (3"=1 mile) and north arrow
 - c. Brief legal description
- 20. Engineer Identification must include:
 - a. Company Name
 - b. Address
 - c. Telephone Number
- 21. Developer/Owner Identification must include:
 - a. Name
 - b. Address
 - c. Telephone Number
- 22. General Notes must be provided when necessary.
- 23. Oro Valley Grading Notes and Paving Notes (attached) must be provided. Any deviation from these notes shall require the approval of the Oro Valley Public Works Department.
- 24. Project Overview Plan shall be provided and must contain:
 - a. Scale (no smaller than 1"=400')
 - b. Street names
 - c. Phase lines
 - d. Lot numbers
 - e. Sheet index
- 25. Vertical and horizontal bench datum must be provided.
- 26. Acceptance block/date must be provided for:
 - a. Town of Oro Valley
 - b. P.C.W.W.M.
 - c. Others as needed
- 27. Design Certification Statement, if Design Certification, must be shown and executed.

- 28. List of all PC/COT Details being referenced must be provided (include modification notes where applicable).
- 29. Excavation quantities must be provided. (May be noted as approximate.)

PLAN AND PROFILE SHEETS (PAVING OR GRADING)

PAVING PLANS

- 30. All uncurbed returns must have concrete headers.
- 31. Uncurbed returns must have a minimum 40-foot radius. Curbed returns must have a minimum 25-foot radius. Radii shall be noted at all locations.
- 32. Cul-de-sacs must meet or exceed minimum radius requirements per the Oro Valley Subdivision Street Standards.
- 33. The maximum grade break allowed without a vertical curve shall be 1.00%.
- 34. The turning radius must meet the minimum requirements for the design vehicle as approved on the preliminary plat or development plan.
- 35. "Trim, tack and join to existing pavement" shall be provided where applicable.
- 36. Centerline bearings, distances and curve data must be provided.
- 37. Survey monuments must be provided:
 - a. At all P.C.'s and P.T.'s
 - b. Cul-de-sac radius points (R.P. of eyebrow, if a non-conforming design)
 - c. Intersections of all public streets
- 38. Handrails must be shown for all necessary areas.
- 39. All centerline grades must be shown in profile.
- 40. All vertical curve data must be shown.
- 41. Existing ground shall be shown in profile.
- 42. All points of change must be shown by station and elevation in plan and profile.
- 43. Vertical curves must meet Town standards.
- 44. "Tick marks" must be provided at 100-foot stations for road centerlines.
- 45. Warp sections shall be shown in profile.
- 46. Superelevation sections shall be shown in profile with elevations at gutter (left or right) given at all transition points, high points, low points and points relative to a centerline vertical curve, when applicable.

GRADING PLANS

- 47. Detention/retention information must be addressed:
 - a. Volume
 - b. WSEL
- 48. Detention/retention barrier must be provided per PCDOT/FCD Stormwater Detention/Retention Manual requirements.
- 49. Filter fabric should be placed under all hand placed and dumped rip-rap.
- 50. Plans must conform with the Grading Ordinance and/or HDZ
 - a. Cut and fill slopes and heights must conform.
 - 1. Slope ratio (for proper mitigation)
 - b. All grading limits must be shown.

- c. Finish grades on all pads must be shown.
- d. F.F.E. of all buildings on flood prone lots must be provided.
- e. For all sites greater than five acres, 100 feet of additional topography outside the grading limits will be provided.
- 51. Sight visibility triangles will be shown and the area within the sight visibility triangle shall be free of obstructions.
- 52. All culverts must show:
 - a. Invert elevations
 - b. Size and type
 - c. Length and skew
- 53. Profiles of culvert crossings when being constructed with the grading, shall be provided.
- 54. Culvert crossings shall be shown on road profiles (relative to street centerline).
- 55. Post-development 100-year floodplain limits must be provided. Developed WSEL sections shall be shown.
- 56. Post-development concentration points shall be shown and developed Q100 drainage data shall be provided for each point.
- 57. Existing contours, and proposed contours when applicable, shall be identified at frequent intervals. Topography shall be accurate and legible.
- 58. A table of minimum F.F.E. for flood prone lots shall be provided. Minimum F.F.E. shall be WSE + 1 foot.

BOTH PAVING AND GRADING PLANS

- 59. All adjacent offsite parcels must be referenced.
 - a. Show proposed lot lines, subdivision name and current zoning or,
 - b. Identify as unsubdivided and provide current zoning.
- 60. If flow is other than continuous at left and right gutter, flow arrows shall be shown and water must flow as directed by plan.
- 61. 100-year Q's must be noted at:
 - a. All dip crossings
 - b. All culverts
- 62. Longitudinal grades and cross slopes must be verified:
 - a. They must be correctly plotted.
 - b. They must be calculated correctly.
 - c. Grade break points, high points, low points, and the corresponding elevations will be shown.
- 63. The minimum centerline and flowline at gutter longitudinal slopes shall be 0.5%, or as approved by Town Engineer.
- 64. "Begin" and "End Project" shall be noted where necessary.
- 65. Lot access locations as approved or designated on the preliminary plat or development plan must be shown.