



## Drainage Report Checklist

Drainage Reports must show compliance with the La Paz County Floodplain Management Ordinance and Public Works Manuals.

- ✓ Protect drainage ways from grading and filling
- ✓ Hydrology calculations - SCS, rational, or other method approved in advance
- ✓ Runoff volume per 100-yr, 2hr
- ✓ Offsite flows and quantities, determine 100-year flooding limits through site for all off-site flows.
- ✓ Basins drain with 5 days (note may be 3 days according to ADWR)
- ✓ Streets shall not be used to carry off-site drainage
- ✓ All existing drainage patterns shown
- ✓ Legal drainage way provided for floodplains
- ✓ Provide and show routing through project for 100 yr event
- ✓ No increase in peak discharges at lower end of development – provide calculations
- ✓ Provide 25% additional basin capacity in ret/det basins
- ✓ basins deeper than 4' fenced
- ✓ Basin max side slope 3:1 with bottom slope 0.5% with grass 0.3% nongrassed
- ✓ Basins have vehicle ramp to bottom
- ✓ If basin is in residential and not fenced, irrigation and landscaping provided
- ✓ Basins dedicated for drainage and public use if water from public ROW
- ✓ Positive method to drain basin if capacity exceeded or system plugged
- ✓ Drywell and sump in all basins with bleeding or pumping facilities
- ✓ Open channels design for 100-yr storm based on Time of conc
- ✓ Open channels require dedicated drainage ways
- ✓ Storm sewers for 10 yr 2 hr event with max V of 15 fps
- ✓ Min storm drain pipe size 18"
- ✓ Min culvert size 18"
- ✓ Culverts designed for 50 yr 2 hr event and 2 feet below road CL elev
- ✓ Diversion of water at culverts to other drainage areas not allowed
- ✓ Dip crossings only allowed if approved
- ✓ 10 yr 10 min conveyed in streets below top of curb
- ✓ Flow in street not to exceed 0.5 ft deep and 5 fps velocity
- ✓ 100 yr storm contained between Prop lines
- ✓ Arterial and collector streets not more than 1/2 traffic lane flooded
- ✓ Residential streets, 5 yr 20 min storm, contained btwn top of curb, max V of 3 fps
- ✓ Maximum velocity in street should not exceed 10 fps in deepest part
- ✓ Roadside ditches designed for 10 yr 2 hr or storm drain
- ✓ Valley gutters minimum of 0.2% grade
- ✓ Post development runoff does not exceed pre development. Provide calculations.
- ✓ Location by T, R, S
- ✓ Subdivision name and lot
- ✓ Vicinity map



## Drainage Report Checklist

- ✓ Total area of parcel
- ✓ Floodplain Zone
- ✓ Soil groups
- ✓ Offsite flow drainage area and map with USGS (or better) contours
- ✓ Topographic map of site
- ✓ Calculations
- ✓ Assumptions
- ✓ Cross sections and Vel, Q, WSE
- ✓ Tc path and calcs
- ✓ DA for pre and post development
- ✓ Hydraulic calc's for streets and channels
- ✓ Location of basins and dimensions
- ✓ Basin inflow and outflow rates
- ✓ Basin discharge method and rates
- ✓ Prepared by AZ Civil Engineer for public ROW
- ✓ Routing of water to retention basins
- ✓ Erosion control systems