

**TOWN OF PARADISE  
PUBLIC WORKS DEPARTMENT  
IMPROVEMENT PLAN CHECKLIST**

**CHECKED BY:**

**APPROVED BY:**

**IMPROVEMENT & SITE PLANS**

- \_\_\_\_\_ 24" x 36" or 22" x 34" plan and profile sheets.
- \_\_\_\_\_ Name of subdivision or development, scale, north arrow, lot nos., easement and property lines.
- \_\_\_\_\_ Single plan and profile paper--preferred scale 20' to the inch horizontal and 4' to the inch vertical.
- \_\_\_\_\_ Engineer's signature and license number & seal.
- \_\_\_\_\_ Approval block for Town Engineer.
- \_\_\_\_\_ Reference to Town standards and any drawings that apply.
- \_\_\_\_\_ Check entire development boundary for adequate discharge and pickup points. Particular care taken with street profiles at subdivision boundary where streets will be extended in future.
- \_\_\_\_\_ Show plan and profile of all storm drainage facilities, including length, type, size, typical section and slope--also existing ground profiles and invert elevations at structures, etc.
- \_\_\_\_\_ Show complete detailed drawings of all drainage facilities, such as headwalls or endwalls, retaining walls, junction boxes, swales, ditches, etc. Structural calculations may be required for complicated structures.
- \_\_\_\_\_ Check for minimum cover of all drainage lines.
- \_\_\_\_\_ All necessary easements shown on both plans.
- \_\_\_\_\_ Where steep grades exist, special inlets should be designed for adequate pickup with no overshooting.
- \_\_\_\_\_ When allowed, provide a 0.4% minimum slope on valley gutters and indicate flow line elevations at flow line intersections.
- \_\_\_\_\_ Provide sub-drains and filter material in locations having excessive ground water-- check for compliance with onsite wastewater system setback requirements.
- \_\_\_\_\_ Show typical cross section of all streets. Include curb and gutter, sidewalk, drainage conduits, existing utilities, proposed utilities, pavement section and any other improvements within public R/W.
- \_\_\_\_\_ Show property lines, easements, and lot numbers along the street.
- \_\_\_\_\_ On plan, show curb lines, drainage facilities, sanitary sewers, water lines, and other structures, sidewalks, details of sidewalk at returns and pedestrian improvements.
- \_\_\_\_\_ Show street widths.
- \_\_\_\_\_ Show curve data (radius, delta, length)
- \_\_\_\_\_ Show stationing at 100 ft. intervals, at all B.C. and

- \_\_\_\_\_ E.C. points in Plan--at B.V.C. and E.V.C. points, and at grade breaks in Profile.
- \_\_\_\_\_ Show top of curb elevations at curb return points, at intermediate points around returns, grade breaks, and at vertical curves.
- \_\_\_\_\_ Show centerline grades and elevations at intersections, vertical and horizontal curves and grade breaks.
- \_\_\_\_\_ Check curb returns for smooth curves in profile.
- \_\_\_\_\_ Show existing ground and finished grade centerline profiles.
- \_\_\_\_\_ Show adequate vertical curve data--vertical curves required where difference in grade exceeds 1.0%.
- \_\_\_\_\_ Profiles of minor streets should be subordinated to the crown of major street.
- \_\_\_\_\_ Check outboard curbs on curves for flat grade.
- \_\_\_\_\_ Show established permanent bench mark in area-- datum based upon 1991 town-wide mapping.
- \_\_\_\_\_ Where improvements are made within existing improved streets or plans vary from typical section, show sufficient cross sections and profiles to assure proper conformance with existing improvements.
- \_\_\_\_\_ Where improvements are made within County or State R/W, a letter of approval is necessary.
- \_\_\_\_\_ Check proposed improvements for conformance with existing improvements on adjacent property with respect to elevation, grade, and width of sidewalks, pavements, etc.
- \_\_\_\_\_ Show locations of all street signs, monuments, barricades, street lights, fire hydrants, and postal units.
- \_\_\_\_\_ Show storm drain facilities in plan and profiles.
- \_\_\_\_\_ Typical trench to show bedding and backfill for onsite wastewater disposal system, water and storm drain systems..
- \_\_\_\_\_ Show water in plan with thrust block details.
- \_\_\_\_\_ Location of onsite wastewater and water services.
- \_\_\_\_\_ Wheelchair ramps at returns.
- \_\_\_\_\_ Street lights.
- \_\_\_\_\_ Location of street legends, pavement marking and striping.
- \_\_\_\_\_ Plans stamped and signed by Registered Civil Engineer.

**GRADING PLANS**

- \_\_\_\_\_ Show all cut and fill slopes.
- \_\_\_\_\_ Show original contours, finish contours and spot
- \_\_\_\_\_ Direction of flow on finished lots, gutters, conduits, ditches, and etc.
- \_\_\_\_\_ Locate retaining walls.
- \_\_\_\_\_ Check periphery of subdivision for drainage conflicts and downstream effect.
- \_\_\_\_\_ Plans stamped and signed by Registered Civil Engineer.

## **DRAINAGE MAP AND CALCULATIONS**

- \_\_\_\_\_ Hydrologic and hydraulic calculations based on rational method in tabular form, covering ultimate development of any contributing watershed area and extension of in-tract improvements to the subdivision boundary.
- \_\_\_\_\_ Head loss calculations at all drainage structures.
- \_\_\_\_\_ Drainage map must show the boundary of all contributing areas, including off-site.
- \_\_\_\_\_ Locations of all catch basins, curb inlets, valley gutters, junction boxes and other drainage structures.
- \_\_\_\_\_ Slope of curb and gutter.
- \_\_\_\_\_ Location, size and slope of all drainage conduits, ditches, channels, etc.
- \_\_\_\_\_ Letter of approval from proper authority or drainage release before increasing or redirecting drainage upon downstream properties.
- \_\_\_\_\_ Compliance with the Interim Drainage Design Guidelines, dated April 2, 1998
- \_\_\_\_\_ Plans and Calculations stamped and signed by Registered Civil Engineer

## **ONSITE SANITATION SYSTEMS**

- \_\_\_\_\_ Specify tank size and type of construction (1000 gallon minimum).
- \_\_\_\_\_ Traffic rated tank and lids if in driveway area.
- \_\_\_\_\_ Check setbacks from drainage systems, french drains building structures and potable water lines.
- \_\_\_\_\_ Check for easements if facilities cross property lines.
- \_\_\_\_\_ Properly abandon old systems.
- \_\_\_\_\_ Identify soil types - provide percolation test(s) and soil profiles as required by the Onsite Manual and the Onsite Official.
- \_\_\_\_\_ Typical trench section and loading calculations.
- \_\_\_\_\_ Nitrogen calculations (if applicable).
- \_\_\_\_\_ Mounding calculations (if applicable).
- \_\_\_\_\_ Show new system in plan view, with appropriate

elevations throughout.

- \_\_\_\_\_ Finished grade elevation shown at lot corners, house pads and along boundary of development elevations on tanks, distribution boxes, leach lines, etc.
- \_\_\_\_\_ Is pre-treatment required?

## **ENGINEER'S COST ESTIMATE**

- \_\_\_\_\_ Submitted for purposes of establishing encroachment permit and inspection fees.
- \_\_\_\_\_ Include all streets construction items, filling and grading, all drainage items, street name signs, monuments, water and sewer items, and all other construction items necessary to produce completed development project.

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