



CITY OF PANAMA CITY BEACH

110 South Arnold Road
Panama City Beach, FL 32413

SITE/ STORMWATER CHECK LIST

Updated April 21, 2016

PROJECT: _____

PROJECT LOCATION OR ADDRESS: _____

ONLY IF IN CITY LIMITS

Construction Plans to Include:

YES	NO	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	In City Limits → if yes, we check water, wastewater, reclaimed water, stormwater and roads. → if, no, we check water, wastewater and reclaimed water.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Proposed Use of Site
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Address or Legal Description of Site
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Location Map
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Name, Address, and Phone of Engineer
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Date of Preparation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Scale of Drawing - Not greater than 1" = 50'
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	North Arrow
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Boundary Lines and Dimensions of the Site
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Designated Land Use of Site

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Designated Land Use of All Adjacent Lots or Parcels |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Name(s) of All Adjacent Streets |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Alleys, Easements, or Right-Of-Way |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 25' Min. Radius For Light Commercial Driveway Connection |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 30'-50' Radius For Commercial/Industrial Driveway Connection |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 24' Min. Pavement Width for public roads. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Public Road Pavement Structural Requirements |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Groundwater Elevations Under Roadway at Sufficient Intervals to Verify Pavement Design Adequacy |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 60' Min. R.O.W. for public streets. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Design Speed for Residential (Lots 50' wide and greater) 30 mph - posted 25 mph |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Design Speed for Multifamily (Apartments, Townhomes etc.) or high density Residential (Lots less than 50' wide) 25 mph - posted 20 mph |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Design Speed for Residential Collector 35 mph - posted 30 mph |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Pavement Markings & Signage, (i.e. stop signs, speed limit signs, striping, etc) is the responsibility of the Developer. The City provides street name signs only. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Core and Compaction Tests are required on pavement, base and sub-grade in accordance with FDOT standards. Data should be submitted as part of "as built" process prior to acceptance of roads. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Topographic survey including existing utilities on or adjacent to project surveyed by a PLS. Provide Existing Contours a min. of 25' beyond project boundary. |

Drainage Report To Include:

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Name, address, and telephone number of the applicant. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Location and/or aerial photograph of the development site, which clearly outlines project boundaries. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Boundary and topographic survey, including the location of all easements, rights of way, and Coastal Setback Line or Coastal Construction Control Line. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Methodology and explanation of calculations |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Pre-Development Basin and Sub-basin Maps w/ stormwater runoff direction, volume, and flow rates at each point of discharge (Include any offsite drainage basins that discharge towards the site.) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Post-Development Basin and Sub-basin Maps w/ stormwater runoff direction, volume, and flow rates at each point of discharge (Include any offsite drainage basins that discharge towards the site.) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map & project boundary overlaid |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | If Project has 50 lots or 5 acres, whichever is the lesser, and within FEMA Flood Zone A, Base Flood Elevations must be established with a hydrologic and hydraulic study by a FL Registered P.E. A FEMA Conditional Letter of Map Revision or Amendment (CLOMR/CLOMA) is required prior to Engineering Approval and a FEMA LOMR/LOMA is required prior to City Acceptance of Project. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | If Project is less than 50 lots or 5 acres, and within FEMA Flood Zone A, Base Flood Elevations must be established with a hydrologic and hydraulic study by a FL Registered P.E. When BFE data is not available from any source the lowest floor of the structure shall be elevated at least three (3) feet above the highest |

- | | | | |
|--------------------------|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | adjacent grade. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Elevations of any flood zone along the flood hazard boundaries shall be delineated on the drainage plans. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Nearby wetlands and other environmentally significant resources clearly labeled and required buffers shown. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A description of on-site vegetation and soils. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Information on Percolation Rate Used and Derivation. The standard factor of safety applied to percolation rates shall be 2 for DRI tests, 3 for other field testing, and 4 for percolation rates as contained in the Bay County Soil Survey. Maximum design percolation rate shall not exceed twenty-four (24) in/hr. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Groundwater Elev. at date of boring (Licensed FL Geotech. Firm) |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Existing and projected seasonal high groundwater levels beneath and proximate to the proposed stormwater treatment and attenuation system. The pond bottom for all dry ponds shall be a minimum of two (2) feet above the seasonal high groundwater table. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Calculations for site Pre & Post C or CN. Coefficient of runoff used shall be as follows: Roofed and paved areas = 0.95. Bodies of water and retention and detention ponds = 1.0. Swale and recharge areas = 0.7. Gravel = 0.6. Compacted base material in vehicular areas = 0.75. All pre-development calculations shall be considered in site's natural state. Natural state meaning without any structure, concrete, asphalt, or other impervious surfaces. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Grading and drainage plan to include existing and proposed finished grade contours at one (1) foot elevation intervals. |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Erosion and Sediment Control Plan |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | If discharging into public easement or right-of-way with capacity (calculations must be provided with submittal to show capacity), attenuate 25 yr. frequency, critical duration so post-development |

peak discharge rate shall NOT BE GREATER than pre-development rate.

If discharge is other than above, the storm event of critical duration shall attenuate a 100 yr frequency storm event.

Consider the effects of tail water and seasonal high ground water elevation.

Location of Retention / Detention Structures. A minimum of six (6) inches or ten percent (10%) of the total volume shall be provided as freeboard, whichever is more restrictive.

Proposed stormwater management system features including the pre- and post-development locations and dimensions of inlets, wet and dry swales, wet and dry ponds, conveyance systems, easements, etc. including a grading and drainage plan showing the exact location and dimensions (top of bank, slope of bank and depth) of all ponds, swales, closed and open conveyances.

Description and Location of Receiving Drainage Structures

Plan and Profile of storm drainage pipes or channels

All stormwater discharge facilities are to have sediment controls and skimming devices.

Offsite discharge flows shall be limited to non-erosion velocities.

Hydraulic Analysis of stormwater conveyance structures - provide Hydraulic Grade Line and Seasonal High Groundwater Elevation in profiles.

Wet Pond Design: Eliminate Short-Circuit of Pond by NOT Placing Overflow Weir in Line with the Inflow Pipe

Wet Detention Ponds dedicated to the City must be enclosed with 4' high vinyl coat chain link fence and gate. Fence shall be set back a sufficient distance for maintenance vehicles to have access to all portions of the pond.

Any storm drain pipe within City R/W must be RCP

Any storm drain pipe dedicated to the City must be videoed after construction completion. Videos must be reviewed and approved by the City.

A schedule for continual maintenance of the stormwater management system, erosion and sedimentation control.

Private stormwater management system will need to provide evidence of compliance with Section 26-22 "Minimum Dwellings Served" and Section 26-53 "Maintenance By An Acceptable Entity."

Certification by Engineer of Record for construction Completion of Stormwater Management facilities.

Certification by Engineer of Record for NPDES Best Management Practices.

Provide copies of all required state and federal permits.