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:

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<th>YES</th>
<th>NO</th>
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In City Limits ➔ if yes, we check water, wastewater, reclaimed water, stormwater and roads. ➔ if, no, we check water, wastewater and reclaimed water.

Proposed Use of Site
Address or Legal Description of Site
Location Map
Name, Address, and Phone of Engineer
Date of Preparation
Scale of Drawing - Not greater than 1" = 50'
North Arrow
Boundary Lines and Dimensions of the Site
Designated Land Use of Site
Designated Land Use of All Adjacent Lots or Parcels

Name(s) of All Adjacent Streets

Alleys, Easements, or Right-Of-Way

25' Min. Radius For Light Commercial Driveway Connection

30'-50' Radius For Commercial/Industrial Driveway Connection

24' Min. Pavement Width for public roads.

Public Road Pavement Structural Requirements

Groundwater Elevations Under Roadway at Sufficient Intervals to Verify Pavement Design Adequacy

60' Min. R.O.W. for public streets.

Design Speed for Residential (Lots 50' wide and greater) 30 mph - posted 25 mph

Design Speed for Multifamily (Apartments, Townhomes etc.) or high density Residential (Lots less than 50' wide) 25 mph - posted 20 mph

Design Speed for Residential Collector 35 mph - posted 30 mph

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.

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.

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:**

- Name, address, and telephone number of the applicant.
- Location and/or aerial photograph of the development site, which clearly outlines project boundaries.
- Boundary and topographic survey, including the location of all easements, rights of way, and Coastal Setback Line or Coastal Construction Control Line.
- Methodology and explanation of calculations
- 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.)
- 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.)
- Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map & project boundary overlaid

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.

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
adjacent grade.

Elevations of any flood zone along the flood hazard boundaries shall be delineated on the drainage plans.

Nearby wetlands and other environmentally significant resources clearly labeled and required buffers shown.

A description of on-site vegetation and soils.

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.

Groundwater Elev. at date of boring (Licensed FL Geotech. Firm)

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.

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.

Grading and drainage plan to include existing and proposed finished grade contours at one (1) foot elevation intervals.

Erosion and Sediment Control Plan

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 groundwater 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.