CITY OF PANAMA CITY BEACH
Utilities Administration & Engineering Offices
116 South Arnold Road
Panama City Beach, FL 32413

COMMERCIAL/RESIDENTIAL UTILITY PLAN COMPLETENESS CHECK LIST

Updated May 25, 2016

PROJECT TITLE: _____

PROJECT LOCATION OR ADDRESS: _____

*I Understand that this Water/Sewer Utilities Engineering Review will **NOT** begin until the application is considered complete.*

APPLICANT NAME: _____

APPLICANT SIGNATURE: _____ DATE: _____

A. IDENTIFICATION:

YES	NO	N/A	
☐	☐	☐	Address or Legal Description of Site
☐	☐	☐	Location Map
☐	☐	☐	Name, Address, and Phone Number of Engineer
☐	☐	☐	Date of Preparation
☐	☐	☐	Scale of Drawing - Not greater than 1" = 50'
☐	☐	☐	North Arrow

B. SITE INFORMATION:

YES	NO	N/A	
☐	☐	☐	Boundary Lines and Dimensions of the Site
☐	☐	☐	Name(s) of All Adjacent Streets
☐	☐	☐	Alleys, Easements, or Right-Of-Way
☐	☐	☐	Topographic survey including existing utilities on or adjacent to project surveyed by a PLS.

C. UTILITIES INFORMATION

☐	☐	☐	Demolition Note: All existing water/sewer utilities to be abandoned must be capped in the presence of Panama City Beach staff. The gravity main in the public right-of-way adjacent to the property must be video taped and a copy submitted to the City of Panama City Beach for verification of existing service locations prior to demolition.
☐	☐	☐	Location and Size of Water Lines and Taps
☐	☐	☐	Subdivisions: In-line valves 500' max. apart & at every intersection. Rural: In-line valves @2500’ max.
☐	☐	☐	Flushing hydrants or blow-offs at all dead ends
☐	☐	☐	System hydraulic analysis submitted if fire flow demand is 750 gpm (500 gpm for 6” mains) or higher. System wastewater capacity analysis submitted if the site design flow is over 150 GPM.
☐	☐	☐	Subdivisions - Hydrant spacing 350 to 650 feet along road centerline.
☐	☐	☐	Commercial - Hydrant location < 500 ft from the furthest point on the structure and < 100' from fire department connection

☐ ☐ ☐ 12 ga minimum insulated locate wire detail for non metallic pipe

☐ ☐ ☐ Thrust restraint and/or restrained joint details and schedules for pipe fittings. Thrust blocks are not permitted.

☐ ☐ ☐ On profile sheet show all utility crossings and minimum clearance requirements.

☐ ☐ ☐ All gravity sewer lines must be videoed after system is complete and reviewed and approved by the City. Videos must be digital format with system location map and include identification for each manhole and segment of pipe. Each joint should be able to be visibly inspected the entire 360 degrees perimeter and all lateral connections should be drawn.

☐ ☐ ☐ Bacteriologic test locations must be specified on overall utility sheet per Florida Administrative Code Chapter 62-555.

☐ ☐ ☐ Specify requirements for water main disinfection per AWWA Standard C651.

☐ ☐ ☐ Specify requirements for as-built survey by PLS conforming with
attached Minimum Technical Standards Checklist for Utility As-builts.

Potable and Reuse Water Mains

☐ ☐ ☐ PVC Less Than 4" = ASTM D2241 SDR-21

☐ ☐ ☐ PVC 4"-8" = AWWA C900 DR18 (Pressure Class 235)

☐ ☐ ☐ PVC 10” – 12” = AWWA C900 DR25 (Pressure Class 165)
DR 18 is required on all firelines downstream of check valve

☐	☐	☐	PVC Greater than 12" = AWWA C905 DR25 (Pressure Class 160)
☐	☐	☐	FPVC 4"-12” = AWWA C900 DR21 (Pressure Class 200) ***DR 18 is required on all firelines downstream of check valve***
☐	☐	☐	FPVC Greater than 12" = AWWA C905 DR21 (Pressure Class 200)
☐	☐	☐	HDPE Less than 4” = AWWA C901 SDR 9 IPS
☐	☐	☐	HDPE Larger than 4” = AWWA C906 SDR 11 DIPS
☐	☐	☐	Specify Reclaimed Water mains shall be color purple
☐	☐	☐	Specify Potable Water mains shall be color blue
☐	☐	☐	Show all service tap locations on plan
☐	☐	☐	Specify meter/backflow devices and provide site specific construction details
☐	☐	☐	Specify flushing requirements per AWWA standards (3 fps minimum, 10 X Pipe Volume minimum.)
☐	☐	☐	Specify requirements for 2-hour hydrostatic test at 150 psi
☐	☐	☐	All valves 4” and larger shall be Epoxy Coated Resilient Seat Gate Valves

Force Main

☐	☐	☐	PVC Less Than 4" = ASTM D2241 SDR-21
☐	☐	☐	PVC 4"-8" = AWWA C900 DR18 (Pressure Class 235)
☐	☐	☐	PVC 10” – 12” = AWWA C900 DR25 (Pressure Class 165)
☐	☐	☐	PVC Greater than 12" = AWWA C905 DR25 (Pressure Class 160)
☐	☐	☐	FPVC 4"-8" = AWWA C900 DR21 (Pressure Class 200)
☐	☐	☐	FPVC Greater than 12" = AWWA C905 DR21 (Pressure

			Class 200)
☐	☐	☐	HDPE Less than 4” = AWWA C901 SDR 9 IPS
☐	☐	☐	HDPE Larger than 4” = AWWA C906 SDR 11 DIPS
☐	☐	☐	Specify forcemains shall be color coded green
☐	☐	☐	Specify requirements for 2-hour hydrostatic test at 100 psi
☐	☐	☐	Specify flushing requirements per AWWA standards (3 fps minimum, 6 X Pipe Volume minimum.)
☐	☐	☐	All valves 4” and larger shall be Epoxy Coated Resilient Seat Gate Valves

Gravity Sewer

☐	☐	☐	PVC (4" - 15") = ASTM D3034 SDR 35 (≤ 10 feet depth)
☐	☐	☐	PVC (18" - 27") = F679 SDR 35 (≤ 10 feet depth)
☐	☐	☐	Any gravity sewer deeper than 10 feet shall be SDR 26 pipe.
☐	☐	☐	Profile of gravity sewer line and manholes. Profile shall show existing and proposed grades, and any existing or proposed utility crossings.
☐	☐	☐	Show all sewer lateral locations on plan
☐	☐	☐	Slopes provide critical velocity >= 2 ft/s
☐	☐	☐	Specify requirements for low pressure air testing or infiltration as dictated by groundwater conditions.
☐	☐	☐	Fiberglass or stainless manhole cover inserts are required at all manholes with rim elevation below 7 feet NGVD.
☐	☐	☐	Manhole rings and cover should be 3 inches above grade in unpaved areas to prevent stormwater inflow.
☐	☐	☐	Specify requirements for flushing/cleaning
☐	☐	☐	Interior coating/lining is required on all manholes receiving forcemain discharges and terminal manholes immediately upstream of lift stations.

Minimum Technical Standards Checklist For Utility As-builts

City of Panama City Beach

Dated May 2012

Surveyors and mappers must meet the following minimum standards of accuracy, completeness, and quality for the City of Panama City Beach to accept as-builts:

1. Must identify the responsible surveyor and mapper.
2. Shall state the type of survey it depicts and the purpose of the survey.
3. Must bear the name, certificate of authorization number, and street and mailing address of the business entity issuing the as-built survey, along with the name and license number of the surveyor in responsible charge.
4. Must reflect a survey date, which is the date of acquisition. When the graphics of the as-built survey are revised, but the survey date stays the same, the as-built survey must list dates for all revisions.
5. Must be signed and sealed by the surveyor in responsible charge.
6. A designated "north arrow" and either a stated scale or graphic scale shall be shown. North arrow direction, scale and stationing shall match that indicated on the original approved construction plans.
7. Appropriate line types, line weights, and line widths shall be used on the as-built drawing to differentiate existing from proposed and water from sewer, reclaim, and storm. All physical items (i.e. pipes, valves, etc.), surveyed boundaries, and easements should be clearly marked, and dimensioned, and identified by size and material.
8. All utilities in the public right of way and within easements or to the end of the publicly owned portion of the utility (i.e. meter and backflow preventer, cleanout, air release valves, etc.) shall be shown with associated sizes labeled. This includes, but is not limited to, stub-outs/laterals, meters, backflow preventers, water mains, force mains, gravity sewer mains, manholes, storm water piping and associated structures, valves, fire hydrants, lift stations, etc. All pipe line work must be continuous and connected within the site as well as indicate the connection(s) to existing utilities adjacent to the site (It is the surveyor's responsibility to coordinate with all contractors for locations and sizing). All utility connections to the buildings must be shown.

9. All proposed utility/ingress/egress easements must be shown on the drawing and must have the associated legal description written.
10. Edge of pavement, roads (asphalt shaded), curbs, driveway connections, buildings, parking lots, right-of-way, and street names must be shown in all applications. All items mentioned above must be field located.
11. If a lift station is to be dedicated to the City the plan must show a detail scaled at 1"=10' showing all improvements including: water and sewer services, manholes, inverts, rims, by-pass pumping connection, backflow prevention devices, yard hydrants, control panels, fencing, parcel boundary, legal description of parcel boundary, wet well, valve box, force main, flow meter (if applicable), driveway, gate.
12. Property boundary must be clearly labeled and dimensioned.
13. Inverts, grates, tops, rims must be shown for all storm water drainage structures. Inverts (pipes and cleanouts) and rims must be shown for all gravity sewer manholes. Slopes must be shown on each run of pipe for review and approval.
14. "As-Built" profile of all Directional Bores and Jack-and-Bores indicating grade and pipe elevations at 10 foot intervals shall be provided on as-built plan sheets based on bore logs developed by boring contractor during installation. Profiles shall use the same horizontal stationing and vertical datum as the approved construction plans. Profiles shall also show existing surface elevations as well as any proposed surface elevations on the profile. Surface profiles must show any pavement, sidewalks, ditches, swales etc. Note that profiles locating pipe solely by "depth below existing ground" will not be accepted.
15. Coastal Setback Line or Coastal Construction Control Line should be designated.
16. Elevations and location of any flood zones along the flood hazard boundaries shall be delineated.
17. Nearby wetlands and other environmentally significant resources clearly labeled.
18. Storm water management system features including dimensions of wet and dry swales, wet and dry ponds, conveyance systems, easements, along with all associated head/end walls, mitered end sections, structures and inverts, outfall structures and inverts, skimmers, discharge structures and inverts and slot elevations, top of bank, slope of bank and bottom of all ponds, swales, closed and open conveyances. For FEMA Letter of Map Revision (LOMR) submittals also provide: finished floor elevations, spot elevations and/or contours showing lowest lot elevations.

The engineer of record shall review and approve the as-built prior to submission to the City for final approval. Written approval by the engineer of record shall be noted on a transmittal with a statement of no exceptions to minimum standards provided herein.

Storm water requirements for the as-built surveys only apply to parcels within City limits. Please submit three (3) hardcopies and one (1) digital each in (AutoCAD version 2010 or later) and pdf formats for review and approval.