

	<b>Checklist</b>	<b>Checklist#:</b> PWD-ENG-CKLST-002b
	<b>Engineering Services</b>	<b>Revision #:</b> 1.0
	<b>Final Site Plan Review<sup>1</sup> External</b>	<b>Effective Date:</b> July 24, 2024

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*The following checklist is provided as a resource to developers and engineers to aid in the preparation and approval of engineering documents for Final Site Plan reviews. The information presented covers the most common items encountered in Final Site Plan reviews, however it is not inclusive of all Martin County Land Development requirements.*

## Division 8: Excavating, Filling, and Mining

### Excavation & Fill

- \_\_\_ Engineer’s opinion of probable excavating, filling, and hauling provided ([Excavation, Fill & Hauling Form](#))

### Swales

- \_\_\_ 8” minimum swale depth ([4.347.A.5](#))
- \_\_\_ 1’ minimum swale bottom ([1.2.B.1](#))
- \_\_\_ 5’ minimum shoulder on one side of swale for maintenance ([1.2.B.1](#))

### Dewatering

- \_\_\_ Dewatering plan provided if dewatering exceeds 10 days ([4.343.D](#))
- \_\_\_ Maximum depth of dewatering not to exceed 20’ ([4.347.A.8](#))

### Minimum Distances from Open Body of Water

- \_\_\_ 50’ from road right-of-way ([4.347.A.1](#))
- \_\_\_ 20’ from property line ([4.347.A.2](#))
- \_\_\_ Demonstrate no wetland impacts ([4.347.A.3](#))
- \_\_\_ 75’ from well or septic system ([4.347.A.4](#))

### Maximum waterbody depth

- \_\_\_ 20’ maximum depth below control water elevation ([4.347.A.6](#))
- \_\_\_ Geotechnical report required when depth exceeds 15’ below control water elevation ([4.347.A.6](#))

### Side Slopes

- \_\_\_ Open Body of Water: 4:1 max (3’ below control elevation and above), 2:1 max (3’ below control elevation and below) ([4.347.A.7](#))
- \_\_\_ Littoral Planting Zone: 10:1 max to a distance of 5 feet waterward of the designated littoral planting zone ([4.385.F.5.c](#))
- \_\_\_ All Other Slopes: 4:1 max ([4.347.A.7](#) & [4.347.B.2](#))

<sup>1</sup> Does not apply to projects within a designated Community Redevelopment Agency

## Mining<sup>2</sup>

### General

- \_\_\_ Excavated material classified as sand per ASTM D-2487 ([4.348.A.1](#))
- \_\_\_ 100-acre minimum site size ([4.348.A.2](#))
- \_\_\_ Maximum depth 40' & 30' above Upper Floridan Aquifer confining unit ([4.348.B.5](#))
- \_\_\_ Maximum side slopes: 4:1 max (3' below control elevation and above), 2:1 max (3' below control elevation and below) ([4.348.B.6](#))
- \_\_\_ Dewatering plan provided ([4.348.B.7](#))

### Sampling

- \_\_\_ Geotechnical report provided ([4.348.A.3](#))
- \_\_\_ Minimum of 2 onsite monitoring wells ([4.348.A.3.d](#))
- \_\_\_ Background groundwater sampling provided ([4.348.A.3.d](#))
- \_\_\_ Background chlorides <250 mg/l ([4.348.A.3.d](#))
- \_\_\_ Background TDS <920 mg/l ([4.348.A.3.d](#))

### Minimum Distances from Water Control Elevation

- \_\_\_ 100' from road right-of-way w/ Type 5 Buffer ([4.348.B.1](#))
- \_\_\_ 300' from road right-of-way w/out Type 5 Buffer ([4.348.B.1](#))
- \_\_\_ 100' from property line w/ Type 5 Buffer ([4.348.B.2](#))
- \_\_\_ 300' from property line w/out Type 5 Buffer ([4.348.B.2](#))
- \_\_\_ Demonstrate no wetland impacts ([4.348.B.3](#))
- \_\_\_ 300' from well or septic system ([4.348.B.4](#))

## Division 9: Stormwater Management

### Stormwater Management Report

- \_\_\_ Signed & sealed ([4.384.A.2](#))
- \_\_\_ Design certification language included ([4.384.A.2](#))

### Stormwater Narrative

- \_\_\_ Perimeter conditions and presence or absence of on or off-site flows
- \_\_\_ Soil & vegetation types
- \_\_\_ Wet season water table (seasonal high)
- \_\_\_ Measures for addressing hardpan layer (if applicable)
- \_\_\_ Legal Positive Outfall
- \_\_\_ Measures for detention, retention, or infiltration
- \_\_\_ Means of meeting stormwater attenuation requirements
- \_\_\_ Means of meeting water quality requirements

### Existing Site Information

- \_\_\_ Map or figure identifying dimensions, locations, and elevations of areas of vegetation, impervious surfaces, roads, buildings, watercourses, water bodies, water management facilities, and wetlands and adjacent wetlands, development, or significant features ([4.384.A.3.a.1](#))

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<sup>2</sup> Applicable to projects that meet the criteria for a commercial mining operation

- \_\_\_ Topography, sufficient to be mapped to 1-foot contour intervals, that extends a minimum of 200 feet off the site (or to a discernible basin boundary) with elevations referenced to NAVD88 ([4.384.A.3.a.2](#))
- \_\_\_ Map or figure of drainage basin(s) and size(s) and related flow paths
- \_\_\_ Perimeter conditions along each side presented with narrative of the presence or absence of on or off-site flows ([1.4.A.2.c](#))
- \_\_\_ Soil & vegetation types ([4.384.A.3.a.3](#))
- \_\_\_ Wet season water table (seasonal high) provided with supporting documentation ([4.384.3.c.\(1\)](#))
- \_\_\_ Presence/absence of a hardpan layer

*Stormwater Calculations*

- \_\_\_ Detailed description of the measures for detention, retention, or infiltration ([4.384.A.3.c](#), [1.4.A](#), and [1.4.B](#))
- \_\_\_ Lowest finished floor elevation established above 100-yr, 3-day event ([4.385.B.15](#))
- \_\_\_ Analysis of surface and ground water levels, site soil storage, and proposed changes ([1.4.B.2.f.\(5\)](#))
- \_\_\_ Soils percolation rate w/ supporting documentation ([4.384.A.3.c.\(3\)](#))
- \_\_\_ Rainfall intensity w/ supporting documentation ([SFWMD ERP Applicant's Handbook](#))
- \_\_\_ Available soil storage ([SFWMD ERP Applicant's Handbook](#))

Legal-Positive Outfall:

- \_\_\_ Substantiate and analyze presence or absence of legal positive outfall within narrative ([4.385.C.1](#) and [1.4.A.2.d](#))
- \_\_\_ Legal Positive Outfall: Peak discharge rate and volume below pre-development conditions for the 25-year, 3-day storm event ([4.385.B.4](#), [4.385.D.1](#), and [4.385.D.3](#))
- \_\_\_ No Legal Positive Outfall: Full on-site retention of a 100-year, 72-hour storm ([4.385.C.1.c](#))
- \_\_\_ No Legal Positive Outfall w/ conveyance to roadside ditch: Full on-site retention of a 100-year, 24-hour storm ([4.385.C.1.c](#))

Attenuation:

- \_\_\_ Pre-development runoff rate analyzed (if legal positive outfall has been substantiated) and supporting documentation provided<sup>3</sup> ([1.4.A.3.e](#))
  - \_\_\_ Previously permitted rate or;
  - \_\_\_ Historic 0.20 to 0.30 CFS/acre
- \_\_\_ Timing of discharges ([4.385.D.2](#))
  - \_\_\_ Model nodal diagram provided
  - \_\_\_ Model inputs/outputs provided
  - \_\_\_ Detailed time stage model runs provided

Water Quality:

- \_\_\_ 3 inches required treatment volume<sup>4,5</sup> ([4.385.F.4](#))

<sup>3</sup> The condition which existed before any alteration of the topography or vegetation by development affected the rate, volume, timing, quality, or direction of surface or groundwater flow for the 25-year, 3-day event

<sup>4</sup> 3 inches over total impervious area less lakes, preserves, and wetlands; roof areas included

<sup>5</sup> 1 Ac-Ft of required volume = 1 Ac-Ft dry retention volume = 1¼ Ac-Ft dry detention volume = 1½ Ac-Ft wet detention volume

- \_\_\_ Half treatment volume recovered between 24 hours and five days ([4.385.F.4](#))
- \_\_\_ 90 percent of 25-year 72-hour day total runoff volume recovered in 12 days ([4.385.F.4](#))
- \_\_\_ 14-day minimum wet season residence time for wet detention ([4.385.F.4.b.1](#))
- \_\_\_ Plan for erosion and sedimentation control with type and location of control measures; the stage of development installed or used; and provisions for inspections and maintenance ([1.4.B.2.f.\(3\)](#))

#### Stormwater Maintenance Plan

- \_\_\_ Stormwater maintenance plan provided ([4.386](#))
- \_\_\_ Detailed checklist and timing of inspection items ([4.386.1](#))
- \_\_\_ Plan for removal of nuisance exotics ([4.386.3](#))

### Division 10: Flood Protection

#### General

- \_\_\_ Two benchmarks provided on Construction Plans, referenced to NAVD88, when in Special Flood Hazard Area ([4.426.A.\(2\)](#))
- \_\_\_ Lift station top of wetwell elevation above 100-yr, 3-day flood elevation ([4.432.B](#) and [F.A.C. 62-604.400\(2\)\(e\)](#))
- \_\_\_ Underground tanks anchored when in Special Flood Hazard Area ([4.435.A](#))

#### Stormwater Management Report

- \_\_\_ Special Flood Hazard Areas and floodway boundaries identified ([4.426.A.\(1\)](#) and [4.431.B](#))
- \_\_\_ Floodway encroachment analysis provided when in regulatory floodway ([4.432.D](#))

### Division 14: Parking & Loading

#### General

- \_\_\_ Minimum number spaces provided consistent with the Final Site Plan ([4.623](#), [4.624](#), and [Table 4.14.1](#))
- \_\_\_ Parking rate adjustment required if # of spaces deviates by more than 20% (<51 spaces) or 10% (>51 spaces) ([4.623.A](#) and [4.625](#))
- \_\_\_ Back-out parking prohibited in public right-of-way except when speed <30 mph or land use single-family or duplex ([4.626.B](#) and [Standard Detail R-81](#))
- \_\_\_ Minimum size spaces and aisle width ([4.627.A](#), [4.627.B](#), and [Table 4.14.2](#))
- \_\_\_ Front yard minimum setback: 10' (<2-acre parking area), 15' (>2-acre parking area), 25' (offsite parking) ([4.627.C.2.a](#))
- \_\_\_ Side yard minimum setback: 10', 15' (nonresidential adjacent to residential) ([4.627.C.2.b](#))
- \_\_\_ Lighting plan provided demonstrating de minimis offsite impacts ([4.627.C.3](#))
- \_\_\_ Parking in excess of thresholds are pervious ([4.625.A](#))
- \_\_\_ Minimum number and size loading spaces ([4.626.B.4.b](#), [4.626.B.4.c](#), and [4.626.B.4.d](#))

#### Drive-Through Facilities

- \_\_\_ Minimum number and size queuing spaces ([4.627.F.1](#) and [4.627.F.2](#))
- \_\_\_ Bypass lane provided if one-way traffic flow is used ([4.627.F.3](#))

## Division 19: Roadway Design

### General

- \_\_\_ Road ownership and maintenance identified as private or public on the Final Site Plan ([4.843.I](#))
- \_\_\_ Minimum right-of-way width provided ([4.843.B.3](#) and [Table 4.19.1](#))
- \_\_\_ Open Road application is required if new roads will be added to the County road inventory
- \_\_\_ Right-of-way Use Permit application is required if work will occur in a County right-of-way
- \_\_\_ Right-of-way Maintenance Agreement is required for non-standard features within the County right-of-way (e.g. paver crosswalks)

### Road Design

- \_\_\_ Minimum intersection fillet ([4.843.B.4](#))
- \_\_\_ Minimum lane and buffer width ([4.843.C](#), [Table 4.19.2](#), and [Detail R-41](#))
- \_\_\_ Minimum gutter and swale profile slope ([4.843.D.2.a](#) and [1.2](#))
- \_\_\_ Crowned pavement with and 2% minimum cross slope ([4.843.D.2b](#))
- \_\_\_ Correct pavement design used ([Details R-10](#), [R-20](#), and [R-30](#))
- \_\_\_ Minimum hydraulic capacity of drainage met ([Table 4.19.3](#))
- \_\_\_ Minimum road elevations met ([Table 4.19.4](#))
- \_\_\_ Approved road end treatments used ([Detail Series R-90](#))
- \_\_\_ Minimum intersection radii met ([4.843.E](#) and [Table 4.19.5](#))
- \_\_\_ Clear sight triangles shown on Landscape Plan ([FDOT Design Manual 212.11](#))
- \_\_\_ Correct signage and pavement markings used ([4.843.H](#) and [Detail Series R-140](#), [R-150](#), [R-160](#), [R-170](#), [R-180](#), and [R-190](#))
- \_\_\_ Streetlight installation or modification in County right-of-way ([Detail R-130](#))
- \_\_\_ Traffic signal installation or modification in County right-of-way ([Detail Series R-150](#) and [R-160](#))
- \_\_\_ Lane minimum/maximum cross-slope ([FDOT Design Manual Chapter 210 Arterials and Collectors 210.2.4](#))

### Mobility

- \_\_\_ Sidewalks provided on both sides of all roadways except roadways classified as local or residential which require sidewalks on one side ([4.843.G.3](#))
- \_\_\_ 6' minimum unobstructed sidewalk width ([4.843.G.1](#), [Detail R-41](#), and [Detail Series R-120](#))
- \_\_\_ Sidewalks located 1' from right-of-way line ([4.843.G.1](#))
- \_\_\_ Approved crosswalks used within County right-of-way ([Detail Series R-120](#))
- \_\_\_ Bicycle and pedestrian mobility provided ([4.844.B](#))
- \_\_\_ Equestrian connection to greenways where applicable ([4.844.C](#))

### Access/Connectivity

- \_\_\_ Connected neighborhoods without cut-through traffic ([4.844.A](#))
- \_\_\_ Minimum separation between access points ([4.845.B](#) and [Table 4.19.6](#))
- \_\_\_ Access outside intersection or acceleration/deceleration lanes or tapers ([4.845.C](#))
- \_\_\_ Cross access and pedestrian access to adjacent commercial or office properties and existing developed properties ([4.485.D](#), [4.485.E](#), [Comp Plan Policy 5.2A.13](#), [5.2A.14](#), [5.2A-15](#))

### Driveways

- \_\_\_ Maximum change in driveway grade met ([Table 4.19.10](#))

- Residential lots not accessed from arterials and major collectors ([4.485.F](#))
- Left and right turn lanes required on two-lane undivided facilities posted 35 MPH or greater ([4.485.G.2](#))
- Alignment of access points across roadway ([4.485.G.5](#) and [Table 4.19.7](#))
- Throat length, throat width, and return radius ([Table 4.19.8](#) and [Table 4.19.9](#))
- Driveways located outside acceleration/deceleration lanes or tapers ([8.485.G.3](#))

## Construction Plans

- Index of sheets
- Topographic survey
- Horizontal control plan
- Erosion and sediment control plan
- Plan and profiles of all roads
- Site grading with sufficient detail to demonstrate compliance with applicable regulations
- Technical Specifications

### Information on Proposed construction

- Pipe material, lengths, or end treatments
- Roadway culverts
- Access provided to stormwater control structures
- Planting information for bottom of detention/retention areas (sod prohibited)
- Means of stabilization of disturbed areas (must be completed with 30 days after completion of excavation, vegetation removal, or fill replacement) ([4.347.C](#))

### Typical sections

- Stormwater basins
- Canals, swales, and open channels
- Roads and curbs
- Lake banks and littoral zones

### Details (as required)

- Pavement details ([Standard Details R-10, R-20, and R-30](#))
- Open cut trench ([Standard Details R-31A and R-31B](#))
- Drainage structures & improvements ([Standard Details R-35, R-38, R-40, R-50, R-51, R-60, R-70](#))
- Stabilized construction entrance ([Standard Detail R-39](#))
- Sidewalks & crosswalks ([Standard Details R-41, R-42, R-43, R-120A, R-120B](#))
- Bleeder and weir size and location
- Hardpan removal<sup>6</sup>
- Impermeable barrier
- Lot grading
- Streetlight pole and pull box relocation ([Standard Detail R-130](#))<sup>7</sup>

<sup>6</sup> Required Plan Note: As part of the Core Infrastructure certification and prior to the issuance of a building permit, the engineer must furnish a signed and sealed geotechnical report certifying the excavation of the restrictive soils layer has been removed and replaced with adequately draining soil.

<sup>7</sup> Required Plan Note: All streetlight poles and circuit relocations must be done by a certified electrical contractor. Contact the Traffic Signal & Light Supervisor at (772) 288-5465 prior to any activities that require changes to the streetlight circuits and for inspection when work is complete. Relocate all streetlight circuits the same day of the pole relocation

- \_\_\_ Traffic signal design or modification ([Standard Detail Series 140 and 150](#))
- \_\_\_ Sediment control and oil removal ([1.1.B](#))
- \_\_\_ Warning signs for proposed excavation ([4.343.A.6](#))

## Final Site Plan

- \_\_\_ Finished floor elevation labeled as minimum
- \_\_\_ Existing and proposed easements shown
- \_\_\_ 10' minimum easement provided over all shared side lot swales

## Other Documents

- \_\_\_ Boundary and topographic survey with field date within 180 days of submittal ([4.912.C](#))
- \_\_\_ Preliminary plat provided (if project is being platted)

## ADA Compliance

### Sidewalks / Pedestrian Facilities / Accessible Routes

- \_\_\_ Brick red, cast-in-place detectable warning mats used at all crosswalks in County right-of-way ([Detail Series R-120](#))
- \_\_\_ Sidewalk and Accessible Path Slopes – max 5% running slope, 2% cross slope ([ADA Standards for Accessible Design 403](#))
- \_\_\_ Pedestrian connection to perimeter sidewalk
- \_\_\_ Slope curb ramp – Max 8.33%, must have landing at top and bottom that does not exceed 2% in any direction ([ADA Standards for Accessible Design 405](#))

### Accessible Parking

- \_\_\_ Minimum # of stalls provided ([ADA Standards for Accessible Design 208](#))
- \_\_\_ Accessible parking must be spread out among all accessible entrances ([ADA Standards for Accessible Design 206](#))
- \_\_\_ Stall striping detail and signage per Florida Building Code ([Florida Building Code 502](#))
- \_\_\_ Accessible parking is located on the shortest accessible route to the accessible entrance ([ADA Standards for Accessible Design 206](#))
- \_\_\_ Accessible parking paved ([4.627.E](#))