

SCHEDULE D

STORMWATER MANAGEMENT FACILITIES

WMO Permit Number: _____

NAME OF PROJECT: _____ a
(Submit a separate Schedule D for each stormwater facility, as needed)

1. **RUNOFF REQUIREMENTS:** Submit calculations and an exhibit that delineates the 100-year critical storm conveyed by the major stormwater system including cross-sections indicating the HGL at critical points (e.g. overflow weirs)
 - A. Method used to calculate the 100-year peak design runoff rate:
 Hydrologic model Rational Method → $i_{100\text{-year}}$ _____ in/hr
 - B. Onsite tributary area to the major stormwater system..... C or CN _____ , _____ acres
 - C. Offsite tributary area to the major stormwater system..... C or CN _____ , _____ acres
 - D. Total tributary area to the major stormwater system..... C or CN _____ , _____ acres
 - E. Ratio of offsite to onsite tributary area..... _____
 - F. Time-of-concentration..... _____ minutes
 - G. 100-year peak design runoff rate..... _____ cfs
 - H. Capacity of major stormwater system discharging offsite..... _____ cfs
 - I. Offsite discharge location of the major stormwater system:
 ROW/drainage easement Adjacent property *(submit calculations to comply with §502.3.B)*
 - J. Type and location of major stormwater system: _____
 - K. Building lowest entry elevation(s) are located at least 1 foot above the adjacent HGL:
(Submit calculations and cross-sections showing the lowest entry elevation(s) and adjacent HGL)
 Yes No *(for existing buildings located within the property holdings, submit acknowledgment)*

2. **VOLUME CONTROL REQUIREMENTS:** Submit calculations and a detail for the volume control facility including a cross-section indicating relevant elevations and the seasonal high groundwater table (SHGWT).
 - A. Does the site have any restrictive covenants related to environmental conditions (e.g., NFR letter)?
 No Yes → Explain: _____
 - B. Site constraint(s) that precludes the use of onsite retention-based practices *(submit documentation)*:
 None SHGWT Contaminated Soil Other: _____
 - C. Proposed impervious area of development..... _____ acres
 - D. Gross volume control storage (2.C / 12)..... _____ ac-ft
 - E. The onsite gross volume control storage may be reduced when a site constraint is present:
 1. Existing impervious area within development..... _____ acres
 2. VC storage reduction (5)(2.D)[1 - (2.C / 2.E.1)]..... _____ ac-ft
 - F. Required volume control storage (2.D - 2.E.2)..... _____ ac-ft
 - G. Provided volume within retention-based practice..... _____ ac-ft
 - H. Volume control facility (**only when a site constraint is present*)
 - Retention-based practice → Type of practice: _____
 - Flow-through practice* → Type of practice: _____
 - Detention Storage* → Type of facility: _____
 - Offsite retention-based practice* → WMO Permit Number: _____
 - I. Designed as an offsite retention-based practice:
 No Yes → Impervious runoff volume tributary to facility..... _____ ac-ft

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3. DETENTION REQUIREMENTS: Submit calculations and an exhibit that includes a cross-section of the detention facility and a detail of the control structure, and delineates the tributary, unrestricted, depressional storage, and bypass areas with the acreage and curve number indicated.

- A. Watershed specific release rate (*Appendix B*)..... cfs/ac
- B. Detention service area acres
- C. Gross allowable release rate cfs
- D. Unrestricted area..... *CN* _____ , _____ acres
- E. Unrestricted release rate (*100-year, 24-hour storm*)..... cfs
- F. Depressional storage release rate adjustment (*100-year, 24-hour storm*)..... cfs
- G. Net allowable release rate (*3.C – 3.E – 3.F*)..... cfs
- H. Control structure (restrictor) information:
 - 1. Diameter..... in
 - 2. Actual Release Rate..... cfs
 - 3. C_d
 - 4. HWL..... ft
 - 5. Type
 - 6. Invert elevation..... ft
- I. Method used to determine the required detention volume:
 Hydrologic Model Nomograph
- J. Time-of-concentration..... minutes
- K. Area detained (*include trade areas*)..... *CN* _____ , _____ acres
- L. Adjusted *CN* (*when onsite retention-based practices are provided*).....
- M. Required detention volume at actual release rate (*3.H.2*)..... ac-ft
- N. Provided detention volume at HWL (*3.H.4*)..... ac-ft
- O. Drawdown time..... hours
- P. Type of stormwater detention facility: _____
- Q. Designed as an offsite detention facility:
 No Yes → Runoff volume tributary to facility..... ac-ft

4. OFFSITE DETENTION REQUIREMENTS: This item is only applicable when the development utilizes an offsite detention facility to comply with the detention requirements.

- A. Site limitation(s) that precludes the use of an onsite detention facility (*submit justification*):
 Floodway Shallow Bedrock Other: _____
- B. Area requiring detention *CN* _____ , _____ acres
- C. Runoff volume from area to be detained offsite ac-ft
- D. WMO Permit Number for offsite detention facility.....

Engineering Firm: _____



Name: _____ **Phone:** _____

Title: _____ **Email:** _____

Signature: _____ **Date:** _____