Planning Board	
Project index #:	
Application date:	

TOWN OF CAIRO

SWPPP REVIEW CHECKLIST

Instructions: **This form must be included with the initial submission of a Site Plan Application.**

Use the 'Applicant' column to indicate if the SWPPP contains each of the minimum components. Leave the check box blank if the item is not included in the SWPPP and provide an explanation in the available 'preparer comments' space.

Project Name:		**Site Address:**	

Project Applicant:		Contact Person:	
Mailing Address:		Phone Number:	
City/State/Zip		E-mail:	

SWPPP Preparer:		Contact Person:	
Mailing Address:		Phone Number:	
City/State/Zip		E-mail:	

Do not write in the gray shaded areas; these are used by the town's engineer hired to review the project.

SWPPP Reviewer:				SWPPP Date:	
Submittal Date:		Review Date:		Approval Date:	

REQUIREMENTS BASED ON SWPPP TYPE:

Applicant	*Reviewer*	
☐	☐	**Basic SWPPP –** *those construction activities listed in Table 1 of Appendix B of the NYSDEC SPEDES General Permit for Stormwater Discharges from Construction Activities (GP-0-08-001) or as updated by NYSDEC.* **(Complete ONLY items A, B and C of this checklist)**
☐	☐	**Full SWPPP –** *those construction activities listed in Table 2 of Appendix B of the NYSDEC SPEDES General Permit for Stormwater Discharges from Construction Activities (GP-0-08-001) or as updated by NYSDEC.* **(Complete ONLY items A, B, C, D and E of this checklist)**

GENERAL REQUIREMENTS:

	Applicant	*Reviewer*	
1	☐	☐	Project street address, tax parcel ID(s), legal descriptions and boundary line surveys
2	☐	☐	Vicinity Map showing project boundary, adjacent parcels, streets and receiving water(s)
3	☐	☐	Construction drawings and SWPPP with the signature and seal of a qualified professional
4	☐	☐	Copies of other approvals, agreements or permits required for construction of the project

5	☐	☐	Documentation of a consultation with NYSHPO about potential impacts to historic places. Include a printout from the NYSOPRHP website at: www.oprhp.state.ny.us/nr/main.asp
6	☐	☐	A description of any measures necessary to avoid or minimize adverse impacts
7	☐	☐	Completed copy of a NYSDEC and US ACOE Joint Application for Permit (if applicable)
8	☐	☐	Completed and signed copy of DEC Notice of Intent (NOI) for general permit coverage

BASIC SWPPP:

A. Existing and Proposed Mapping and Site Plans:

(Minimum scale of 1" = 50' or as requested by the planning board with clear and legible detail)

	Applicant	*Reviewer*	
9	☐	☐	Existing and proposed topography a minimum of 50' beyond the property (min 2' contours)
10	☐	☐	Location of adjacent perennial and intermittent streams (NYSDEC classification and naming)
11	☐	☐	Mapping and description of all soils on the site, including Hydrologic Soil Group (HSG)
12	☐	☐	Description and boundaries of the existing predominant vegetative cover on the project site
13	☐	☐	Boundary of the proposed limits of clearing and, if different, limits of grading on the site
14	☐	☐	Delineated boundary and acreage of any upstream watersheds draining onto the project site
15	☐	☐	Location and boundaries of resource protection areas such as lakes, ponds and any other known setback requirements (e.g. stream buffers, water supply wells, septic systems, etc.)
16	☐	☐	Logs and mapping of borehole or test pit investigations performed on the site to determine soil properties and groundwater elevations (include geotechnical report if generated)
17	☐	☐	Seasonal high groundwater elevation at the locations of sediment and/or detention basins
18	☐	☐	NYSDEC freshwater wetland and adjacent area boundaries or certification of no wetlands
19	☐	☐	Boundary of US ACOE wetlands under federal jurisdiction or certification of no wetlands
20	☐	☐	Location of existing and proposed roadways, lot boundaries, buildings and other structures
21	☐	☐	Location of existing and proposed utilities (e.g. water, sewer, gas, electric) and easements
22	☐	☐	Location of existing and proposed conveyance systems (i.e. swales, MH's, CB's, pipes, etc)
23	☐	☐	Flow paths of surface and subsurface stormwater management structures (use flow arrows)
24	☐	☐	Location of 100 yr floodplain and floodway limits if disturbance is proposed in the floodplain
25	☐	☐	Location and dimensions of all proposed channel modifications (i.e. bridges & culverts)
26	☐	☐	Use of TR-20 or TR-55 methodology to compute pre and post-construction peak discharge rates from the site or if soil disturbance is under 1 acre, the Rationale Method is acceptable
27	☐	☐	Calculations for the acreage of impervious cover created within the proposed disturbances

28	☐	☐	Time of Concentration (Tc) travel time flow paths for sub-catchments within project limits
29	☐	☐	Curve Number (CN) values and square footage or acreage of evaluated sub-catchment areas
30	☐	☐	Location of Design Points (DP's) for the pre and post-development hydrological analysis

B. Structural Stormwater Management and Conveyance Practices:

(Representative cross-sections, profiles and details of storm drains, channels, swales, etc.)

	Applicant	*Reviewer*	
31	☐	☐	Use of proper specifications for design of the storm drain system (i.e. catch basins, manholes, piping, etc)
32	☐	☐	Use of proper standard rainfall amounts for the 1, 2, 10, 25, 50 and 100 year/24 hr rainfall events
33	☐	☐	Existing and proposed elevations for storm drain structures (i.e. pipes, CB's manholes, etc.)
34	☐	☐	Map of contributing drainage areas for all storm water collection and conveyance structures illustrating the watershed, land cover and square footage or acreage of each drainage area
35	☐	☐	Summary table on sizing of storm water collection and conveyance structures. Must include runoff coefficient, storm intensity, manning's n-value and peak discharge rate and velocity
36	☐	☐	Illustration of the design water surface elevations (WSE) for all applicable rainfall events within any proposed storage or diversion structure (excluding all piping, CB's and MH's)

C. Erosion and Sediment Control (E&SC) Plan:

(Minimum scale of 1" = 50', must include all areas of disturbance within the project)

	Applicant	*Reviewer*	
37	☐	☐	Erosion and sediment control plan satisfying requirements as outlined in the **Blue Book.**
38	☐	☐	Site map/construction drawings showing the specific location(s), size(s) and length(s) of each E&SC practice for all anticipated soil disturbance activities for the entire project
39	☐	☐	Material specifications, dimensions and installation details for proposed E&SC practices including calculations for siting and sizing of any temporary sediment basins and/or traps
40	☐	☐	Typical E&SC measures and specific details for material stockpiling, equipment staging, material storage, borrow/spoil areas, dewatering operations and spill/waste containment
41	☐	☐	Description of temporary and permanent structural and vegetative measures for erosion control, runoff control, and sediment control for each stage and/or phase of the project.
42	☐	☐	Specifications for temporary and permanent seeding – note seed types and application rates
43	☐	☐	Statement requiring soil stabilization in inactive portions of the site in maximum of 14 days
44	☐	☐	Construction phasing plan describing all the major construction activities for the project.
45	☐	☐	Anticipated start and end dates for each phase of the project and the total duration of work
46	☐	☐	Sequencing schedule for all known soil disturbance activities at the site including clearing, grubbing, grading, stockpiling, excavation, infrastructure installation and final stabilization
47	☐	☐	Include a schedule identifying the timing of initial placement or implementation of each E&SC

			practice and minimum time frames each practice remains in place or implemented
48	☐	☐	Maintenance schedule for the continuous and effective operation of all temporary E&SC practices. Indicate all expected daily, weekly, pre and post-rainfall and seasonal activities.
49	☐	☐	Descriptions of structural practices used to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from the exposed areas of the site.
50	☐	☐	Final landscaping plans – include buffer zones, reforestation or wetland mitigation areas.

51	☐	☐	Description of construction and waste materials expected to be utilized on-site, controls to reduce pollutants from these materials, storage practices to minimize exposure of materials to storm water, cleanup procedures and spill prevention and notification for each material.
52	☐	☐	Winter month, October 15 to April 15, requirements related to E&SC (i.e. anchoring mulch material, sediment removal from basins/traps, use of winter rye seed, offset silt fence, etc.)
53	☐	☐	Copy of Contractor Certification Form with a statement equivalent to DEC general permit
54	☐	☐	Copy of the Owner or Operator Inspection Form satisfying requirements in the **Blue Book.**
55	☐	☐	Engineer's estimate for the cost of implementing identified components of the E&SC plan.

SWPPP Preparer Comments:

(explanation for any required items not being provided in the SWPPP)

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STOP HERE if the project does not require the installation of a post-construction SMP

FULL SWPPP:

D. Hydrologic and Hydraulic Analysis:

(For all structural components of the storm water system – i.e. channels, swales, SMP's, etc.)

	Applicant	*Reviewer*	
56	☐	☐	Existing condition analysis for time of concentration, runoff rates, volumes and velocities and water surface elevations showing methodologies used and supporting calculations including existing watershed map with design points, catchment ID's and Tc flow paths.
57	☐	☐	Proposed condition analysis for time of concentration, runoff rates, volumes and velocities and water surface elevations showing methodologies used and supporting calculations including proposed wateshed map with design points, catchment ID's and Tc flow paths.
58	☐	☐	Sizing calculations for all the post-construction storm water management practices (SMP's) including: contributing drainage area, land use cover, storage volumes and outlet structures.
59	☐	☐	Stage-discharge table or outlet rating curves and inflow/outflow hydrographs for all SMP's. Information must be generated from TR-20 based hydrologic/hydraulic modeling software
60	☐	☐	Dam Hazard Class determined in conformance with DEC **Guidelines for Design of Dams.**
61	☐	☐	Detailed comparison and summary of post-development storm water runoff conditions with pre-development conditions for 1 year, 2 year, 10 year, 100 year 24 hour design storms in accordance with the Unified Sizing Criteria identified in Chapter 4 of the *NYS Stormwater Management Design Manual*
62	☐	☐	Water Quality volume (WQv) calculations based upon the Town 90% rainfall event, P=1.0”
63	☐	☐	Calculations for Wqv and Cpv (Use chapter 4, 8 and Appendix B of the *Design Manual*
64	☐	☐	Representative cross sections and plans with dimensions, material specifications and installation details for each SMP (comparable in detail to Chapter 6 of the *Design Manual)*
65	☐	☐	Infiltration and percolation test pit report performed in accordance with Appendix D of the *Design Manual* at the required frequency where required by the SMP Group.
66	☐	☐	Copy of Geotechnical Evaluation Report conducted for the project, if required by the Town
67	☐	☐	Copy of Site Inspection Form that satisfies the requirements in *GP-0-08-001,* or as updated
68	☐	☐	Statement for inspections to be conducted by the qualified inspector every 7 calendar days.
69	☐	☐	Identification of the expected discharge points to be evaluated during these site inspections.

E. SMP Operation and Maintenance Plan:

(Post-construction maintenance schedule ensuring continuous and effective operation of SMP's)

	Applicant	*Reviewer*	
70	☐	☐	Name, Address, phone number and e-mail of party responsible for O&M of all the SMP's.
71	☐	☐	Description and illustration of easements to each SMP from either public or private roads

72	☐	☐	Description of monitoring and maintenance frequencies for required features of the SMP's (i.e. aquatic/safety benches, buffer zones, outlet structures, spillways, access roads, etc.)
73	☐	☐	Minimum qualifications of inspector monitoring specific required features of the SMP's. Structural features must be inspected by a Professional Engineer licensed to practice in NYS.
74	☐	☐	Inspection checklist with all items to be evaluated. (see Appendix G of the *Design Manual*)
75	☐	☐	Minimum vegetative cover requirements based upon specific zones/areas within the SMP's
76	☐	☐	Noted access and safety issues (i.e. confined spaces, testing/disposal of sediments, etc.) associated with the inspection and/or maintenance of the required SMP features.
77	☐	☐	Detailed estimate of annual costs for the O&M of the SMP's as a appendix in the SWPPP titled, "Engineer's Opinion of Projected Maintenance Costs" (NYSDOT Equipment Rental Rates)
78	☐	☐	Description of funding source to ensure long term financing for the O&M of all the SMP's
79	☐	☐	Draft version of the Operation and Maintenance Agreement with the Town for all SMP's (if required.)

SUPPLEMENTARY SWPPP REQUIREMENTS:

The information below does not need to be included with the initial SWPPP submittal. If specific items are applicable to a project, the Planning Board will request this information for review prior to final approval of the project.

F. Deviations from the Technical Standards:

(Requirements for a SWPPP that is **not** in conformance with the *technical standards*)

	Applicant	*Reviewer*	
80	☐	☐	Identify and justify proposed deviation or alternative design from the *technical standards*.
81	☐	☐	Illustration detailing the area of the project draining to the proposed deviation (quantify)
82	☐	☐	Demonstration the deviation or alternative design is equivalent to the *technical standards*.

G. Downstream Analysis:

(Requirements for waving quantity control of Qp (10 yr) and/or Qf (100 yr) storm events)

	Applicant	*Reviewer*	
83	☐	☐	Preparation of downstream analysis report based upon current NYSDEC guidelines
84	☐	☐	Map illustrating the points of analysis or outfalls with direct discharges to a 4th order stream
85	☐	☐	Verification of correspondence with downstream municipalities until the 4th order stream

H. Disturbance greater than 5 acres:

(Requirements for authorization to disturb greater than five acres at any one time)

	Applicant	*Reviewer*	
86	☐	☐	Two inspections to be conducted every seven calendar days when > five acres are disturbed.
87	☐	☐	Statement for soil stabilization measures to be implemented within seven calendar days.
88	☐	☐	Phasing plan with maximum disturbed acreage per phase and a map of the cut and fill acres
89	☐	☐	Identification of any additional site specific practices to be installed to protect water quality.

I. Performance Guarantee

(Requirement for all land development activities)

	Applicant	*Reviewer*	
90	☐	☐	Engineer's estimate for the cost of implementing all the components of the approved plans.
91	☐	☐	Irrevocable letter of credit or surety bond to ensure completion and O&M of all identified components of the approved plans for one full year after the final acceptance by the Town.
92	☐	☐	Final version(s) of signed O&M Agreement(s) with the Town for all of the constructed SMP's.

SWPPP Preparer Comments:

(explanation for any required items not being provided in the SWPPP)

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