Stormwater, Zoning, & SALDO Proposed Changes w/Status Updates

Created: January 29, 2019

No. (origination year - month)	Ordinance Name	Description of Changes/Status	Source ⁱ	Priority	Approved date (PC)	Approved date (BOS)
2013-10	Chapter 57 Bi-Directional Antennas	MR checked with Andy Kirk, and Pat McKenna. Ordinance appears to only need appropriate IBC reference. The Township uses 2009 IBC.	WEGO PD	1	hold	hold
2017-08.4	Chapter 170 Zoning 170-1509 Storage	Reword this section to apply to residential situations.	PC (EA)	1	Discussion 02/03	
2017-09.7	Chapter 149 Subdivision of Land Lighting waivers	Remove lighting requirements in residential from the code): 149-602.C.(4).(h)	MT (KM)	1	Discussion 02/03	
2017-08.7	Chapter 170 Zoning 170-1605. G. (2). n Major home occupations	Correct reference from 170-1700D to 170-1708.A	PC (EA)	1	Draft ordinance 02/03	
2018-08.8	Chapter 170 Zoning 170-602.D R-1 Residential Area and Bulk Regulations	Residential Cluster per 170-602, which has been deleted (replaced by Flexible Development.) Remove 170-602.D and renumber as necessary.	PC (EA)	1	Draft ordinance 02/03	
2017-09.1	Chapter 149 Subdivision of Land 149-910 Street Construction	This section could be revised to remove the reference to "PennDOT Seldom Used Specifications 1983" and more appropriately Reference PennDOT Publication 46. Bob Flinchbaugh to provide edits	МТ (КМ)	1	pending	
2017-09.2	Chapter 149 Subdivision of Land 149-910.D Paving - Bituminous Surface Course ID-2A	This section could be revised to remove the reference to Bituminous Surface Course ID-2A. This section should be completely re-written to include a modern specification of the Superior Asphalt Paving System (Superpave). Bob Flinchbaugh to provide edits	МТ (КМ)	1	pending	

2017-09.3	Chapter 149 Subdivision of Land 149-803 Stormwater Management in the Land Development Ordinance	This section could be completely removed since the Township Stormwater regulations were installed as a "stand alone - §144" section in 2013. A general reference to Chapter 144 should be retained in Chapter 149	МТ (КМ)	1	Draft ordinance 02/03	
2017-09.4	Chapter 144 Stormwater Management 144-301T General Requirements	A typo appears in the code. The ordinance should correctly read "seventy-five" (75), not fifty, which was the original language from the Chester County Model ordinance.	МТ (КМ)	1	Draft ordinance 02/03 discussion	
2017-09.8	Chapter 144 Stormwater Management Stormwater	§144-311.B.2 HDPE Pipes to be used in areas not supporting traffic loads. This request has been made on several applications and been granted by the BOS frequently enough to warrant amending the code.	CE (BU); MT (KM)	2	Draft ordinance 02/03	
2017-09.14	Chapter 170 Zoning Definitions "lot area" and "tract area"	The definition of "Lot Area" and "Tract Area" are treated differently in Zoning	MT (KM); PC (EA)	2		
2017-09.15	Lot Area	The acreage contained within the property lines of a lot, as defined in the deed or as shown on an approved subdivision plan. Such acreage shall be exclusive of the following: A. Any area used for gas, oil, natural gas, electric, or communications transmission facilities, whether below or aboveground, that do not serve the lot or lots traversed. B. Any area within a street or other transportation right-of-way, existing or proposed. C. Any area within a permanent drainage easement. D. Every lot created by subdivision shall have a contiguous and uninterrupted area equal to 75% of the minimum lot area required by the applicable zoning district, which is unencumbered by wetlands, one-hundred-year floodplains, steep slopes and/or stormwater management basins/facilities.	МТ (КМ)	2		
2017-05	Open Space	When the Flexible Development option was added to the Ordinance, it included an extensive Open Space description -170-907. It was decided to refer the Open	PC (EA)	3		

		Space requirements in all other districts to this section in order to avoid repetition. While there are requirements for some portion of the Open Space be useable for active recreation, storm water management often occupies a significant area. Revising the open space definition and regulations has been suggested. Establishment of an Open Space fund, clarification of in lieu of fees			
	Revise Floodplain Ordinance	Based on comments received during review in 2017, PC members indicated a desire to make some changes with Beth Uhler' assistance		3	
2001-08.1	Buffers & Screening - MU and R-3 Districts	Present regulations generally require buffers between districts rather than between uses. (Except for commercial vs residential). Possibility for problems in MU and R-3 districts where residential and non-residential uses are permitted. The MU District is presently developed as residential except for one tract (5 acres?) currently industrial, which could be redeveloped for any use permitted in the C1 District.	PC (EA)	3	
2017-08.3	Chapter 170 Zoning 170-900 Flexible Development	170-904.C There are no lot size limits in Flex. For single-family dwellings, the only control of lot size is the requirement that there can be only 4 lots per acre in the area used for single-family dwellings (smallest lots could be just under 11,000 square feet). 170-904. E. (3). (10) Setbacks - The only setback regulations for dwellings in Flex are 30 feet behind the curb line and 30-foot separation between structures. This applies to decks, sheds, and even dwellings. (Not to swimming pools, however.)	PC (EA)	3	
2017-08.5	Chapter 170 Zoning 170-1513.B Interior circulation and streets minimum widths	Consider reducing the minimum paved width of streets on low traffic volume streets.	PC (EA)	3	
2001-08.2	Chapter 149 Subdivision of Land 149-915 Driveways	PC has suggested on several occasions that the Board adopt a freestanding driveway ordinance.	MT (KM)	3	

	Chapter 170 Zoning				
2017-09.9	Proposed Additions to the Code (1)	§170-1600 – Consider adding Drive Thru Regulations Recall Dunkin' Donuts	MT (KM)	3	
2017-09.10	Chapter 170 Zoning Proposed Additions to the Code (2)	§170-1600 – Consider adding MS4 Assist Regulations Recall the Maneri Property 1126 Kolbe Lane, Rustin and Crebilly CU	MT (KM)	3	
2017-09.11	Chapter 149 Subdivision of Land Proposed Additions to the Code (3)	§149-1514 – Consider adding a Belgian Block Section of Code with detail.	MT (KM)	3	
2017-09.12	Chapter 170 Zoning Proposed Additions to the Code (4)	§170-1600 – Parking has become popular for compact cars, oversized vehicle, electric vehicle, seniors citizen and new or expecting parents, multi-family, and residential uses. (rideshare parking)	MT (KM)	3	
2017-09.13	Chapter 170 Zoning Proposed Additions to the Code (5)	§170-1600 – Truck Turning Templates are not required by ordinance and should be added to the preliminary/ final plan set requires. All vehicles for emergency response, delivery, trash, and recycling should be provided to major applications.	MT (KM)	3	
2019-03	Parking Regulations Update	Times, circumstances, streets, locations, rideshare parking locations	Twp (WE)	4	
2015-07	Residential Chicken Ord.	Tabled indefinitely		4	
2018-05	High tunnels or "hoop houses"	No adoption deadline	House Bill No. 1486	4	
2017-06	Conditional Use Posting Requirements	Brought before BOS in summer 2017 (WIP), not scheduled before the PC or BOS		4	
2017-09.5	Administrative Preliminary or Final Waivers	Modern applications contain so much information that the boundary between preliminary and final has become almost negligible as far as engineering detail. Rarely have I seen a request for a waiver from preliminary to prelim/final denied.	МТ (КМ)	?	
2017-09.6	Landscaping Waivers	 Westtown Woods: §149-925-I.5 – Street Trees within 5 feet of property and within 10 feet of side lot lines §149-924.D which would require a separate tree protection plan. 	MT (KM)	?	

		 Fairshare Builders: §149-924.D(12)(b) – Regarding the request to waive the full amount of compensatory trees, the site was formerly a tree nursery. Rustin Residential: §149-925-I.5 – Street Trees within 10 feet of side lot lines. -Considering that these requests are handled on a case-bycase basis, I see no reason to make changes to the Code KM 			
	Medical Services (curative amendment)	Adopted by BOS 7/16/2018. PC and BOS noted at the time that Medical Services may be appropriate in more zoning districts than just POC. (R-3, C-1, C-2). Consider amending by-right uses in these zoning districts to allow Medical Services, and to make existing medical services conforming to code.	(Twp) WE	?	
2019-01	Sidewalks	(discussed)	PC	?	
2019-02	Riparian Buffers	Needs contemporary definition	PC	?	
2019-04	Commencement of Development	Add times and days of the week, 149-404?	PC	?	
2019-05	Gross Habitable Area	Add definition: "All usable space within a dwelling unit without netting out any space unless it is not capable of being lived in." (Examples of spaces to exclude: hvac closets, unfinished basements, unfinished attics)	PC	?	
2019-06	Business or Trade School	Add definition	WE	?	
2019-07	Chapter 170 Zoning Accessory Dwelling Units	Gross habitable area definition, proximity to principal dwelling, require water & sewer connection, maximum number of parking spaces, including garages in size restrictions	KF	?	
2019	Chapter 170 Zoning 170-201 Definitions	Add definition for "Boarding_home(s)"	PC	1	
2020-11	Chapter 170 Zoning 170-201 Definitions	Add definition or clarification to existing definitions of "building area" and "floor area" to include more details about "breezeway"	MR & JS	?	

2020-11	Chapter 170 Zoning 170-201 Definitions	Add definition and subsequent regulations regarding "self-storage facilities"	RH	?		
2021-01	Chapter 170 Zoning 170-1806.F.4.a	Specify which "right-of-way" (existing, legal or future)	JS	?		
2020-11	Chapter 170 Zoning 170-1502 Projections into setbacks and setback exceptions	Issue of 15 feet setback for patios on small lots	MR & JS	?		
2017-08.6	Chapter 170 Zoning 170-1502.B & G, Projections into setbacks and setback exceptions	Safety issue for access for emergency equipment, also swimming pool decks and patios (or other materials) should be required to remain outside of the 25' setback.	PC (EA)	1	Moved to BOS with other Flex amendments	
2020-08	Chapter 49 Animals	To address dog feces and strengthen language regarding leashing and control of animals	BOS	1	11/4/2020	in progress
2020-08	Chapter 170 Zoning Signs Ordinance Amendment	Add language that was missed when original ordinance was adopted; BOS authorized Act 247 review at 9/8/20 mtg	BOS/PC	COMPLETED	9/9/2020	11/16/2020
2020-02	Update to Alarms Ordinance	Update language and move fees to fee schedule	WE / JG	COMPLETED		02-18-2020
2020-03	Chapter 170 Zoning Sign Ordinance	BOS Authorized Act 247 review at 1/21/2020 mtg	PC (EA)	COMPLETED	4/3/19	1/21/2020
2017-08.1	Chapter 170 Zoning New Accessory Structure Setbacks	PC refers back to Twp Mgr for resolution of including word "uninhabitable" in language	PC (EA)	COMPLETED	4/17/19	6/3/2019
2017-08.2	Chapter 170 Zoning Convert Accessory Dwelling Units into Rental Dwelling Units by Special Exception	PC recommends language to BOS for consideration	PC (EA)	COMPLETED	4/17/19	5/6/2019

¹ Source Initials Key: Board of Supervisors (BOS) and initials Planning Commission (PC) and initials Township Staff (Twp) and initials Cedarville Engineering (CE) and initials

McCormick Taylor (MT) and initials Al Federico (AF) Brandywine Conservancy (BC) and initials William Ethridge (WE) JoAnne Grubbe (JG) Mila Robinson (MR) John Snook (JS)

Memorandum

1/29/21

To: Westtown Township Planning Commission

From: John D. Snook

Re: Storage Regulations

Chapter 170, Zoning, Article XV, §170-1509, Outdoor Storage

Storage is one of the issues on your list of potential amendments, but with only the note that it needs to specifically deal with residential properties, presumably as different from non-residential properties. We discussed this further at your meeting on 1/19/21 and the following draft text is aimed at resolving our most recent discussion.

Definitions:

There do not appear to be any current pertinent definitions other than "Junkyard."

ACCESORY STORAGE STRUCTURES

Permitted Accessory Structures may be used for Indoor Storage as an Accessory Use. Indoor Storage structures or units comprising a principal use, including Self-Storage Units or Structures shall be regulated as a commercial use.

Temporary accessory storage units structures including, for example, "pods," even while enclosed, shall be regulated as Outdoor Storage.

FUEL

Any material, as coal, oil, gas, wood, etc., burned to supply heat or power.

JUNKYARD

An area of land, with or without buildings, which is used for the storage, outside a completely enclosed building, of used and discarded materials, just including but not limited to: waste paper, rags, metal, building materials, house furnishings, machinery, vehicles, or parts thereof, with or without the dismantling, processing, salvage, sale, or other use or disposition of the same. The deposit or storage on a lot of two or more unlicensed, wrecked, or disabled vehicles, or the major parts thereof, shall be deemed a junkyard.

INDOOR STORAGE

Storage entirely indoors, except for temporary storage units such as "pods" shall be considered an accessory use. Where Indoor Storage is a principal use, as in

<u>a wholesale sales, storage, or distribution facility, it shall be regulated as a commercial use.</u>

OUTDOOR STORAGE

Outdoor storage of products, materials, equipment, machinery, or supplies other than those accessory to a permitted agricultural use or timber harvesting operation shall be regulated pursuant to §170-1509, Outdoor Storage,

SELF STORAGE UNITS OR STRUCTURES

Self Storage Units or Structures are Indoor Storage facilities usually made available for rent to individuals and are regulated as a principal commercial use where permitted. This includes "high cube warehousing" available to individual renters.

§170-1509, Outdoor Storage

A. General Requirements

- There shall be no storage of hazardous [JS2] waste anywhere within the Township, including temporary storage in a parked vehicle. Hazardous waste shall be as defined in Pa. Act 97-1980, the Solid Waste Management Act (35 P.S. § 6018.101 et seq.), or any subsequent amendment or revision thereto.
- 2. Outdoor storage, for periods in excess of 30 days [JS3], of products, materials, solid waste, equipment, machinery, or supplies other than those accessory to a permitted agricultural use or active timber harvesting operation shall be screened from view of public rights-of-way and adjacent residential uses or zoning districts. Screen landscaping shall be in accordance with Section [JS4].
- 3. All organic refuse or garbage shall be stored in tight, vermin-proof containers. In multiple family, commercial and industrial developments, solid waste storage shall be centralized to expedite collection and enclosed on three (3) sides by masonry walls or opaque fencing.
- 4. No highly flammable or explosive liquids, solids, or gases shall be stored in bulk above ground, except the following where permitted in accordance with Chapter 87 of the Township Code, Fire Prevention, and where enclosed within an approved safety fence, compatible with the architectural and landscaping style employed on the lot. Permitted liquid storage tanks shall be enclosed by a moat or berm to contain potential spillage.
 - a. Tanks or drums of fuel connected directly with and located and operated on the same lot as the devices or appliances they serve.

- b. Tanks or drums for storage of not more than three hundred (300) gallons of fuel, provided such tanks are located no closer than twenty-five (25) feet to any lot line.
- 5. No storage and no materials or wastes shall be deposited upon a lot or allowed to accumulate in such form or manner where not in compliance with the Pa. Clean Streams Law, 35 P.S. §§ 691, et seq., the Pa. Solid Waste Management Act, 35 P.S. §§ 6018.101, et seq., the Pa. Air Pollution Control Act, 35 P.S. §§ 4000, et seq., and any other applicable local, state or federal law, and any applicable rules and regulations.
- 6. No storage shall be permitted which constitutes disposal under applicable local, state or federal law.
- 7. No vehicles without current license plates shall be stored outside on any lot. [JSS]
- 8. No storage which threatens or causes release of polluting substances or materials, contaminants, hazardous substances, etc. into the environment; or otherwise causes pollution.
- 9. No outdoor storage shall be permitted of human or animal remains, etc.
- 10. No storage shall be permitted within access rights-of-way, or on drainage areas, culverts, stormwater management structures, floodways or other environmentally sensitive areas.
- 11. No storage is permitted if the storage is likely to cause, or causes, a nuisance, or otherwise threatens to adversely affect public health, safety and welfare.

B. Residential Outdoor Storage

All outdoor storage on residential lots shall comply with the general standards above and the following:

- Recreational Vehicles.
 - a. Not more than one recreational vehicle, including travel trailers and water craft, shall be parked or stored on any residential property, except in a carport or enclosed building or to the rear of the rearmost wall of the dwelling where screened from view from any public road or neighboring residential property, provided, however, that such equipment may be parked anywhere on residential premises for a period not to exceed forty-eight (48) hours.

- b. No such equipment shall be used for dwelling purposes on a residential lot for more than seven days per quarter.
- 2. Temporary accessory storage units structures including, for example, "pods" or dumpsters may be permitted in the front yard or driveway for not more than 60 days[JS7].
- 3. Except as provided in subsections 170-1509.B.1 and 2 above, no storage shall be permitted within the front yard of any residential lot. In the case of a reverse-frontage or corner lot where more than one yard is considered a front yard, storage may be permitted beyond the minimum front yard setback in no more than one such front yard, where screened from view of public rights-of-way and adjacent residential uses or residential zoning districts.
- 4. Outdoor storage of construction equipment or materials, where not required for on-site construction pursuant to a valid construction permit or for normal property maintenance, shall not be permitted.
- Appliances and household furniture that are not designated for exterior use are prohibited in front yards, open front porches, and open carports[JS8].

C. Non-Residential Outdoor Storage

For all non-residential uses, storage of materials, equipment or vehicles, but not including parking and similar activities, shall be carried on within a building, except that outdoor storage for a permitted agricultural, timber harvesting, industrial or commercial use may be authorized where the general standards above are complied with and all of the following conditions are met:

- 1. The agricultural, industrial or commercial use involved traditionally employs long-term outdoor storage of materials or products (e.g., lumber yard).
- 2. Such storage is needed for the successful operation of the use, and the proposed site is suitable for outdoor storage.
- 3. The applicant can demonstrate that indoor storage is not practical.
- 4. No merchandise, goods, articles, or equipment shall be stored, displayed, or offered for sale outside any building except seasonal articles which are too large or otherwise infeasible to be stored indoors. Such articles shall be stored adjacent to the principal building housing the commercial use, and shall be enclosed by either walls or opaque fencing designed to be architecturally compatible with the building. Such enclosure shall be at

- least six feet high. Any outdoor display area shall be considered sales floor area for purposes of computing building coverage and parking requirements.
- 5. The materials stored shall not exceed eight (8) feet in height and the storage area shall comply with setback and impervious coverage requirements, measured as if the storage area, when full up to eight (8) feet in height, were an accessory structure.
- 6. The storage shall comply with any applicable condition of a prior plan approval.
- 7. Except where otherwise specifically permitted, including seasonal displays and shopping cart storage, all storage areas shall be located to the side or rear of the property behind the front building line of any principal structure.
- 8. Any establishment which furnishes shopping carts as an adjunct to shopping shall provide definite areas within the building and parking area for storage of said carts. Each designated storage area shall be enclosed by a barrier at least six (6) inches higher than the parking area surface, and shall be clearly marked for storage of shopping carts. All shopping carts shall be stored indoors, or otherwise secured during non-operating hours.

§ 149-602. Preliminary plan requirements.

- A. The preliminary plans shall be presented as follows:
 - (1) The preliminary plans of a proposed subdivision and/or land development shall be clearly and legibly drawn to a scale of one inch equals 50 feet or larger.
 - (2) The original drawing, and all submitted prints thereof, shall be made on sheets no larger than 30 inches by 42 inches. If the entire proposed development cannot be shown on a single sheet, an overall key plan shall be submitted at an appropriate scale. The key plan shall show by number each plan sheet and its relationship to other plan sheets.
- B. The preliminary plans shall include, but not be limited to, the following identification information:
 - (1) Name of the proposed subdivision, Township, county and state.
 - (2) North point, graphic scale, written scale, the date the original drawing was completed, and the date of each revision with the location and a clear and concise description of the changes made in each revision.
 - (3) Name and address of record owner and applicant and source(s) of title to the land being developed, as shown by the records of the County Recorder of Deeds.
 - (4) Name, address, Pennsylvania license number, signature and seal of the registered engineer or surveyor responsible for the plan. No engineer or surveyor shall sign or seal plans that contain information that they are not qualified to design or produce.
 - (5) The names of all abutting or adjacent property owners, if any, with the deed book and page numbers and unified parcel index number. [Amended 7-22-2002 by Ord. No. 2002-5]
 - (6) A key map, for the purpose of locating the property being subdivided, showing the relation of the property, differentiated by tone or pattern, to adjoining property and to all streets, roads, municipal boundaries and recorded subdivision plans existing within 1,000 feet of any part of the property. In addition, the approximate distance to the nearest existing street shall be shown, and a title, scale and North point shall be indicated. The key map shall also show

> approximate locations of important natural features on the subject property and adjoining lots, such as creeks, onehundred-year floodplain and very steeply sloped areas. [Amended 7-22-2002 by Ord. No. 2002-5]

- (7) The total tract boundary lines of the property being developed, with accurate distances to hundredths of a foot and bearings to the nearest second. These boundaries shall be balanced and closed with an error closure not less than one foot in 10,000 feet; provided, however, that the boundary(ies) of adjoining additional unplatted land of the subdivider (i.e., between separately submitted plan sections) are not required to be based upon field survey, and may be calculated. Existing and proposed monuments shall be indicated, along with a statement of the total area of the property being developed. In addition, the engineer or surveyor shall certify to the accuracy of the survey and that the drawn plan is in conformance with all Township chapters.
 - [Amended 7-22-2002 by Ord. No. 2002-5]
- (8) Location and elevation of the bench mark to which contour elevations refer. Where reasonable and practical, datum used shall be USGS (United States Geodetic Survey) from a known, established bench mark. All subdivisions and/or land developments shall have an actual field run or aerial topography.
- (9) Precautionary and prohibitive slope areas and floodplain shall be noted as defined by Chapter 170, Zoning.
- (10) Location and ownership of all existing sewer lines, water lines, fire hydrants, utility transmission lines, culverts, railroads. watercourses, trees. wetlands bridges. certification that none are present), soils, easements, rightsof-way and other significant man-made or natural features within the proposed subdivision and within 50 feet from the boundaries of the proposed subdivision.
- (11) All existing buildings, structures and other significant structures including parking areas, recreational areas, open space, etc.
- (12) All existing streets, including streets of record (recorded but not constructed), on or abutting the tract, including names, widths, right-of-way cartway (pavement) widths approximate grades.

(13) A statement of the intended use of all nonresidential lots. A statement of restriction of any type which exists or will exist as covenants in the deed(s) for all lots contained wholly or in part in the development and, if covenants are recorded, including the deed book and page number.

- (14) A legend indicating existing features and proposed features.
- C. The preliminary plan shall show the full plan of the proposed development including, but not limited to:
 - (1) Streets.
 - (a) Location and width of all streets and rights-of-way, with a statement of any conditions governing their use.
 - (b) Suggested street names.
 - (c) Conceptual designs of any bridges or culverts which may be required. Such designs shall meet all applicable requirements of the Department of Environmental Protection and/or the Pennsylvania Department of Transportation and shall be subject to the approval of the Township Engineer.
 - (d) Typical street cross-section drawings(s) for all proposed streets shall be shown.
 - (e) Preliminary profile sheets for all proposed streets within the tract. Such profiles shall show at least the following information, properly labeled:
 - [1] Existing (natural) profile along both right-of-way edges and along the center line of each street.
 - [2] Proposed finished grade of the center line, or proposed finished grade at the top of both curbs.
 - [3] The length of all vertical curves.
 - [4] Existing and proposed sanitary sewer mains and manholes.
 - [5] Existing and proposed storm sewer facilities and drainage improvements.
 - [6] The profile sheets shall be legibly drawn at one of the following scales:

1 inch = 10 feet horizontal and 1 inch = 1 foot vertical; or

1 inch = 20 feet horizontal and 1 inch = 2 feet vertical; or

1 inch = 40 feet horizontal and 1 inch = 4 feet vertical; or

1 inch = 50 feet horizontal and 1 inch = 5 feet vertical.

- (f) The following data for the cartway edges (curblines) and right-of-way lines of all recorded (except those which are to be vacated) and/or proposed streets, within or abutting the property.
 - [1] The length (in feet and hundredths of a foot) of all straight lines and of the radius and the arc (or chord) of all curved lines (including curved lot lines).
 - [2] The width (in feet) of the cartway, existing right-ofway and of the ultimate right-of-way, and (in degrees, minutes and quarters of a minute) of the delta angle of all curved lines, including curved lot lines.
- (g) A note shall be added to the drawings indicating the need for a PennDOT highway occupancy permit (if applicable). A state highway occupancy permit is required pursuant to Section 420 of the Act of June 1, 1945 (P.L. 1242, No. 428) known as the "State Highway Law," before access to a state highway is permitted. [Amended 7-22-2002 by Ord. No. 2002-5]
- (2) Lots.
 - (a) Lot numbers and a statement of the total number of lots.
 - (b) Lot lines with approximate dimensions and approximate size of each lot.
 - (c) The proposed building setback line for each lot, and, where applicable, the proposed placement of each building.
- (3) Utilities and easements.
 - (a) Utility easement locations.

^{1.} Editor's Note: See 36 P.S. § 670-101 et seq.

(b) Conceptual location, size and invert elevation of all sanitary and storm sewers and location of all manholes, inlets and culverts with the material of each indicated, and any proposed connections with existing facilities. (These data may be on a separate plan.) (NOTE: All construction of sanitary sewers shall be in accordance with the standards and specifications adopted by Westtown Township and the plan shall be so noted.)

- (c) The location of on-site sewage and water facilities.
- (d) Size and location of water mains and fire hydrants.
- (e) All easements or rights-of-way, public or private, and any limitations on such easement or rights-of-way shall be shown and accurately identified on the plan.
- (4) Supplementary data.
 - (a) A statement noting current and expected traffic conditions.
 - (b) A statement noting water and sewer needs and verification of the availability of both.
 - (c) A statement noting method and ownership of sewage disposal, water supply, streets and other utilities.
 - (d) A statement noting use(s) for each section of the development.
 - (e) A statement of the intended use of all nonresidential lots and parcels.
 - (f) Parks, playgrounds, open space and other areas dedicated or reserved for public use, with any conditions governing such use and notation of ownership.
 - (g) Where applicable, the location and width of all buffer areas.
 - (h) A statement noting proposed signage and lighting for the development.
 - (i) Full documentation of any proposed homeowners' association, covenants or other such proposed association and/or restrictions governing the subdivision and/or land development.

(j) Full documentation of required existing and proposed zoning data. Where applicable, a statement listing variances, special exceptions or conditional use approvals and any qualifying conditions shall be included.

- (k) Where applicable, a statement listing waivers requested and/or approved shall be included.
- (l) If the plan involves the splitting off of one or more lots from a larger tract, a sketch plan showing a possible subdivision of the entire tract, for informational purposes only, shall be provided. Said plan will not be binding upon either the Township or the applicant, but is to show how the proposed "splitting off" affects future subdivision of the tract.
- D. The preliminary plan shall include the following plans in accordance with Article VIII of this chapter:
 - (1) Conservation plan in accordance with § 149-801.
 - (2) Landscape plan in accordance with § 149-802.
 - (3) Stormwater management plan in accordance with § 149-803.
- E. The preliminary plan shall include all supplementary studies in accordance with Article VIII of this chapter as required by the Township.

ORDINANCE 2021 - ##

WESTTOWN TOWNSHIP CHESTER COUNTY, PENNSYLVANIA

AN ORDINANCE AMENDING CHAPTER 170, ZONING, OF THE CODE OF WESTTOWN TOWNSHIP REGARDING THE PARKING OF COMMERCIAL VEHICLES ASSOCIATED WITH MAJOR HOME OCCUPATIONS, AND THE AREA AND BULK REGULATIONS FOR THE R-1 RESIDENTIAL DISTRICT.

BE IT ENACTED AND ORDAINED by the Board of Supervisors of Westtown Township, Chester County, Pennsylvania, that certain provisions of Chapter 170, Zoning, of the Code of Westtown Township, as amended, be amended as follows:

SECTION 1. Chapter 170, Zoning, Article VI, R-1 Residential District, §170-602, Area and bulk regulations, shall be amended to read as follows:

- A. The maximum density of use on any tract within the R-1 District shall be as determined by §170-1519.B of this chapter.
- B. Single-family detached dwellings.
 - (1) Lot size: one-acre minimum.
 - (2) Lot width at building: 150 feet minimum setback line.
 - (3) Lot width at street line: 50 feet minimum, except 250 feet minimum at the future right-of-way lines of Routes 202, 352, 3, or 926, if the lot would have direct access onto any of these routes.
 - (4) Impervious coverage: 20% maximum.
 - (5) Minimum building setback line: 60 feet minimum except, no structure shall be located within 100 feet of the future right-of-way line of Route 202 or Route 3, regardless of lot lines.
 - (a) This requirement shall be reduced to 60 feet minimum for lots of record existing prior to the adoption of this chapter that have a lot depth from the future right-of-way line of Route 202 or Route 3 of less than 150 feet.
 - (b) The land within this required setback may be accepted as part of the requirements for open space of this chapter and Chapter 149, Subdivision and Land Development.

- (6) Side yards: 25 feet minimum.
- (7) Rear yard: 50 feet minimum.
- (8) Maximum building height: three stories, not to exceed 38 feet.
- C. Agricultural use: As required by standards in §170-1609 of this chapter.
- D. Residential cluster development: As required by the standards in § 170-1612 of this chapter.
- **E.D.** Residential development as per flexible development procedure: As required by the standards in Article IX of this chapter.
- E. Uses by special exception: as required by §170-702.E of this chapter. [Amended 5-2-2005 by Ord. No. 2005-4]
- G.F. Accessory uses: Accessory uses may be located in side and rear yards, but only in conformance with the standards of §170-1502 of this chapter.
- H.G. Conditional uses: Residential conditional uses, as applicable, shall conform to the standards for single-family detached dwellings in §170-602.B above. Nonresidential conditional uses shall conform to the standards for nonresidential uses in Article VII, §170-702.E, of this chapter.
- **SECTION 2.** Chapter 170, Zoning, Article XVI, Supplemental Regulations, §170-1605, Home occupations, Subsection G, Major home occupations, Subparagraph (2)(n), shall be amended to read as follows:
 - (n) Parking of commercial vehicles is in accordance with §170-1700.D1708.A of this chapter.
- **SECTION 3.** If any sentence, clause or section or part of this Ordinance is for any reason found to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or validity shall not affect or impair any of the remaining provisions, sentences, clauses, sections or parts of this Ordinance. It is hereby declared as the intent of the Board of Supervisors that this Ordinance would have been adopted had such unconstitutional, illegal, invalid sentence, clause, section or part thereof not been included herein.
- **SECTION 4.** All ordinances or parts of ordinances conflicting or inconsistent herewith are hereby repealed.
- **SECTION 5.** This Ordinance will be effective five (5) days after enactment.

ENACTED AND ORDAINED this	_ day of, 2021.
ATTEST:	WESTTOWN TOWNSHIP
Secretary	Carol R. De Wolf, Chair
	Scott E. Yaw Esq., Vice Chair
	Richard Pomerantz, Police Commissioner

ORDINANCE 2021 -

WESTTOWN TOWNSHIP CHESTER COUNTY, PENNSYLVANIA

AN ORDINANCE AMENDING CHAPTER 144, STORMWATER MANAGEMENT, OF THE CODE OF WESTTOWN TOWNSHIP REGARDING LIMITATIONS OF DISTURBANCE OF EXISTING GROUND COVER DURING CONSTRUCTION.

BE IT ENACTED AND ORDAINED by the Board of Supervisors of Westtown Township, Chester County, Pennsylvania, that certain provisions of Chapter 144, Stormwater Management, of the Code of Westtown Township, as amended, be amended as follows:

SECTION 1. Chapter 144, Stormwater Management, Article III, Stormwater Management Standards, §144-301, General requirements, Subparagraph T, shall be amended to read as follows:

T. Disturbance of existing ground cover during construction of the proposed regulated activity is prohibited within fifty-seventy-five (75) feet of top-of-bank of all perennial and intermittent waterways, water bodies (lakes, ponds, etc.) and wetlands. Exemptions include activities that are authorized by the appropriate county, state and/or federal agencies, such as stream restoration and improvements, roadway crossings, riparian improvement projects, subsurface utility installation. Non-disturbance area shall be increased to 150 feet for projects located in special protection (High Quality, Exceptional Value watersheds) consistent with PA Code Chapter 102.14(a)(1)., except for activities otherwise approved by state or local agencies (e.g., stream restoration projects, road crossings, subsurface utility projects, etc.). At the Municipal Engineer's discretion, and with Conservation District and PADEP approval where necessary, the nondisturbance, buffer may be reduced because of setback or other site constraints, but never be less than 10 feet. [4] Editor's Note: So in original [PMM1]

SECTION 2. Chapter 144, Stormwater Management, Article III, Other conveyance and system design standards, §144-311, Subparagraph B, shall be amended to read as follows:

(2) Storm sewers shall be reinforced concrete when constructed within rights-of-way of <u>public</u> streets. <u>High Density Polyethylene Pipe (HDPE) may be used in all other areas.</u>

SECTION 3. If any sentence, clause or section or part of this Ordinance is for any reason found to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or validity shall not affect or impair any of the remaining provisions, sentences, clauses, sections or parts of this

Ordinance. It is hereby declared as the intent of the Board of Supervisors that this Ordinance woul
have been adopted had such unconstitutional, illegal, invalid sentence, clause, section or par
hereof not been included herein.

SECTION 4. All ordinances or parts of ordinances conflicting or inconsistent herewith are hereby repealed.

SECTION 5. This Ordinance will be effective five (5) days after enactment.

ENACTED AND ORDAINED this	_ day of, 2021.
ATTEST:	WESTTOWN TOWNSHIP
Secretary	Carol R. De Wolf, Chair
	Scott E. Yaw Esq., Vice Chair
	Richard Pomerantz, Police Commissioner

§ 144-301. General requirements.

- A. Applicants proposing regulated activities in the municipality which are not exempt under § 144-106 shall submit a stormwater management site plan (SWM site plan) to the municipality for review and approval in accordance with Articles III and IV. SWM site plans approved by the municipality shall be on site throughout the duration of the regulated activity.
- B. The stormwater management and runoff control criteria and standards in this chapter shall apply to the total proposed regulated activity, even if it is to take place in stages. The measurement of impervious surfaces shall include all of the impervious surfaces in the total proposed regulated activity even if the development is to take place in stages.
- C. No regulated activity within the municipality shall commence until:
 - (1) The municipality issues approval of a SWM site plan, which demonstrates compliance with the requirements of this chapter; and
 - (2) The applicant has received a letter of adequacy or approval for the erosion and sediment control plan review by the municipality and the Conservation District (if required), and has received all other local, state and federal permit approvals required for the project involving the regulated activity.
- D. Neither submission of an SWM site plan under the provisions herein nor compliance with the provisions of this chapter shall relieve any person from responsibility for damage to any person or property otherwise imposed by law.
- E. The applicant shall design the site to minimize disturbances to land, site hydrology, and natural resources, and to maintain the natural hydrologic regime, drainage patterns and flow conditions. The applicant shall apply the procedures set forth in § 144-304 for the overall site design and for selection, location and design of features and BMPs to be used to comply with the requirements of this chapter.
- F. To the maximum extent practicable, post-construction stormwater shall be discharged within the drainage area of the same stream or water body receiving the runoff prior to construction of the proposed regulated activity.

G. For regulated activities with one acre or more of proposed earth disturbance, existing drainage peak rate discharges up to and including the one-hundred-year storm onto or through adjacent property(ies) or down-gradient property(ies), including diffuse drainage discharge, shall not be altered in any manner without written permission from, and, where applicable as determined by the municipality an easement and agreement with, the affected landowner(s) for conveyance of discharges onto or through their property(ies). Such discharge shall be subject to any applicable discharge criteria specified in this chapter.

- (1) If directed by the Township, regulated activities with one acre or less proposed earth disturbance, the applicant shall provide written notification to the affected landowner(s) describing the proposed regulated activity and proposed discharge(s), unless otherwise required by the municipality.
- H. Areas located outside of the site (i.e., areas outside of the regulated activity) that drain through a proposed site are not subject to water quality and volume control, infiltration, stream channel protection, or peak flow rate control requirements (as presented in §§ 144-305, 144-306, 144-307, and 144-308). Drainage facilities located on the site shall be designed to safely convey flows from outside of the site through the site.
- I. If site conditions preclude capture of runoff from limited portions of the disturbed area for achieving water quality volume control standards, stream channel protection standards, and the five-year and ten-year storm event peak runoff rate reduction standards for new development required by this chapter, the applicant shall propose alternate methods to mitigate the bypass of the BMPs, subject to the approval of the Municipal Engineer. In no case shall resulting peak rate be greater than the predevelopment peak rate for the equivalent design storm.
- J. For all regulated activities, erosion and sediment control BMPs shall be designed, implemented, operated, and maintained during the regulated activities (i.e., during construction) as required to meet the purposes and requirements of this chapter, to meet the erosion and sediment control requirements of the municipality, if applicable, and to meet all requirements under Title 25 of the Pa. Code and the Clean Streams Law.¹
- K. For all regulated activities, permanent BMPs and conveyances shall be designed, implemented, operated, and maintained to

^{1.} Editor's Note: See 35 P.S. § 691.1 et seq.

meet the purposes and requirements of this chapter and to meet all requirements under Title 25 of the Pennsylvania Code, the Clean Streams Law,² and the Storm Water Management Act.³

- L. The design of all BMPs and conveyances shall incorporate sound engineering principles and practices in a manner that does not aggravate existing stormwater problems as identified by the municipality. The municipality reserves the right to disapprove any design that would result in construction in an area affected by existing stormwater problem(s) or continuation of an existing stormwater problem(s).
- M. Existing wetlands, either on the site or on an adjacent property, shall not be used to meet the minimum design requirements for stormwater management or stormwater runoff quality treatment. Stormwater discharges to existing wetlands shall not degrade the quality or hydrologic integrity of the wetland.
- N. Hotspots runoff controls. Specific structural or pollution prevention practices may be required, as determined to be necessary by the Municipal Engineer, to pretreat runoff from hotspots prior to infiltration. Following is a list of examples of hotspots:
 - (1) Vehicle salvage yards and recycling facilities;
 - (2) Vehicle fueling stations;
 - (3) Vehicle service and maintenance facilities;
 - (4) Vehicle and equipment cleaning facilities;
 - (5) Fleet storage areas (bus, truck, etc.);
 - (6) Industrial sites based on Standard Industrial Classification Codes;
 - (7) Marinas (service and maintenance areas);
 - (8) Outdoor liquid container storage;
 - (9) Outdoor loading/unloading facilities;
 - (10) Public works storage areas;
 - (11) Facilities that generate or store hazardous materials;

^{2.} Editor's Note: See 35 P.S. § 691.1 et seq.

^{3.} Editor's Note: See 32 P.S. § 680.1 et seq.

- (12) Commercial container nursery;
- (13) Contaminated sites/brownfields;
- (14) Other land uses and activities as designated by the municipality.
- O. Contaminated and brownfield sites. Where BMPs may contribute to the migration of contaminants in groundwater, the water quality and runoff volume, stream channel protection, and peak rate control standards shall be met; however, at the Municipal Engineer's discretion, the minimum infiltration requirement may be reduced or eliminated commensurate with the contaminated area and the required water quality and runoff control measures may be increased to mitigate the reduced infiltration requirement for the contaminated area.
- P. Additional water quality requirements. The municipality may require additional stormwater control measures for stormwater discharges to special management areas, including, but not limited to:
 - (1) Water bodies listed as "impaired" by PADEP.
 - (2) Any water body or watershed with an approved total maximum daily load (TMDL), specifically Goose Creek Watershed.
 - (a) Total phosphorous is the assigned TMDL pollutant to Westtown Township within the Goose Creek Watershed. As such, the Township may require additional phosphorous-reducing measures for regulated activities within the Goose Creek Watershed, including but not limited to:
 - [1] Rain gardens/bioretention.
 - [2] Constructed wetlands.
 - [3] Permanent compost filter sock.
 - [4] Water quality inlet filter.
 - (3) Areas of known existing flooding problems.
 - (4) Critical areas with sensitive resources (e.g., state-designated special protection waters, cold water fisheries, carbonate geology or other groundwater recharge areas that may be

§ 144-301 § 144-301

highly vulnerable to contamination, drainage areas to water supply reservoirs, etc.).

- Q. Applicants shall utilize the Pennsylvania Stormwater Best Management Practices Manual (PA BMP Manual), as amended, or other sources acceptable to the Municipal Engineer, for testing and design standards for BMPs, and, where there is a conflict with the provisions of this chapter, the most restrictive applies.
- R. For areas underlain by karst or carbonate geology that may be susceptible to the formation of sinkholes and other karst features, the location, type, and design of infiltration BMPs shall be based on a site evaluation conducted by a qualified licensed professional and based on the PA BMP Manual or other design guidance acceptable to the Municipal Engineer.
- S. All regulated activities located within a special flood hazard area designated by the Federal Emergency Management Agency (FEMA) shall comply with the Westtown Township Zoning Ordinance, § 170-401, Floodplain District, and shall be designed to maintain the flood-carrying capacity of the floodway such that the base flood elevations are not increased, either upstream or downstream. The natural conveyance characteristics of the site and the receiving floodplain shall be incorporated into the stormwater management practices proposed for the site.
- T. Disturbance of existing ground cover during construction of the proposed regulated activity is prohibited within fifty (75)⁴ feet of top-of-bank of all perennial and intermittent waterways, water bodies (lakes, ponds, etc.) and wetlands, except for activities otherwise approved by state or local agencies (e.g., stream restoration projects, road crossings, subsurface utility projects, etc.). At the Municipal Engineer's discretion, and with Conservation District and PADEP approval where necessary, the nondisturbance, buffer may be reduced because of setback or other site constraints, but never be less than 10 feet.

U. Riparian buffer.

(1) Where a development site is traversed by perennial or intermittent watercourses, riparian buffers shall be provided conforming to the line of such watercourses. The riparian buffer shall be created to extend a minimum of 75 feet to either side of the top of the bank of the channel, unless a wider riparian buffer is required by the provisions of

^{4.} Editor's Note: So in original.

§ 144-301 § 144-301

Pennsylvania Code Chapter 102, as amended, in which case the greater of the two shall apply.

- (2) If the applicable rear or side yard setback is less than 75 feet, the buffer width may be reduced to 25 feet of the setback to a minimum of 10 feet. If an existing buffer is legally prescribed (e.g., deed covenant, easement, etc.) and it exceeds the requirement of this chapter, the existing buffer shall be maintained.
- (3) The buffer shall be maintained with appropriate native vegetation as defined in the appendices of the Pennsylvania Stormwater Best Management Manual, dated December 30, 2006. Excavating, placing fill, building structures, or making any alterations that may adversely affect the flow of stormwater within any portion of the riparian buffer shall be prohibited unless the proposed work is associated with a regulated wetlands mitigation program.
- (4) The buffer must be defined though a deed restriction.
- (5) The riparian buffer shall be built in accordance with § 170-407 of the Westtown Township Zoning Ordinance.

§ 144-311. Other conveyance and system design standards.

- A. Design criteria. The criteria behind the design of stormwater management facilities is that "the peak rate of runoff after development shall not exceed the peak rate prior to development." The stormwater system design shall be based on the following methodology:
 - (1) Storm sewers shall be designed to carry a storm of twenty-five-year frequency. When determined applicable by the Township Engineer, an overflow system shall be provided to carry flow to the proposed stormwater management basin or system discharge point when the capacity of the storm drain pipe system is exceeded. The overflow system shall have sufficient capacity to carry the difference between the one-hundred-year and the twenty-five-year peak flow rates.
 - (2) Detention and retention basins shall be designed to control the peak flow of storms of two-, five-, ten-, twenty-five-, fifty-, and one-hundred-year frequency and of twenty-four-hour duration.
 - (3) Basins shall be designed to pass a storm of one-hundred-year frequency through the outlet structure without failure of the basin embankment.
 - (4) The entire contributory drainage area shall be taken into account in basin and storm sewer system capacity design.

B. Storm sewer system.

- (1) Storm sewer design shall meet the requirements of PennDOT Publication 408 Construction Specifications, latest edition and PennDOT Publication 72 Standards for Roadway Construction, latest edition.
- (2) Storm sewers shall be reinforced concrete when constructed within rights-of-way of streets.
- (3) All inlets shall be precast concrete, PennDOT type and shall have bicycle-safe-type grate.
- (4) Inlets shall have a minimum two-inch drop from all inlet pipe invert elevations to most shallow outlet pipe invert elevation.
- (5) Storm sewer design shall take into account the time of concentration. Time of concentration calculations shall be provided for all drainage areas in which the time of concentration exceeds five minutes.

(6) Calculations shall be provided to show the flow in the system, pipe size, allowable flow, actual flow and velocity.

- (7) Storm sewers shall have a minimum grade of 0.5%.
- (8) Storm sewers shall have a minimum inside diameter of 15 inches.
- (9) Storm sewers shall have a minimum cover of 24 inches, unless compliance with PennDOT and manufacturers' specifications can be demonstrated to the satisfaction of the Township Engineer.
- (10) A minimum one foot of freeboard between the hydraulic grade line (HGL) of the design storm and the ground elevation shall be provided throughout all proposed storm sewer conveyance systems.
- (11) Velocity within the storm sewer system shall be no less than three feet per second and no greater than 11 feet per second for the design storm peak flow.
- (12) Storm sewer profiles shall be provided for all systems and shall show all applicable design information including, but not limited to, pipe size, material, slope, invert and grate/ground elevations, and cover.
- C. Detention/retention basins. All basins shall be designed and constructed to include, but not be limited to, the following standards:
 - (1) Berm constructed of earth of a clay base with no topsoil and a cutoff trench key continuous along the berm base. Construction details and sequence shall indicate that compaction tests shall be performed by the applicant and observed by the Township Engineer, or assigned representative thereof. Trench key shall be of 95% compaction or greater.
 - (2) The top of the berm shall be a minimum of 10 feet. The sides shall have a maximum slope of three horizontal to one vertical (3:1).
 - (3) The bottom of the basin shall have a minimum slope of 2% and any channel shall have a minimum slope of 0.5%.
 - (4) The riser shall be precast concrete, box inlet or equivalent with grate top and shall be built into the berm whenever possible.

(5) The barrel shall be concrete pipe with anti-seep collars with a minimum projection of two feet beyond the pipe. Anti-seep collar design calculations shall be provided.

- (6) Emergency spillway shall be constructed of concrete/grass pavers or riprap protection. Protection shall extend down the basin slopes at the spillway location. Calculations shall be provided to ensure adequate protection is provided.
- (7) Basin barrel outfall shall have an end wall or flared end section with properly designed riprap or energy dissipators.
- (8) Surface stormwater storage must be drained complete within 72 hours of the end of the design storm rain event.
- D. Retention basins shall be defined with provisions for draining the permanent pond.
- E. Subsurface retention basin/recharge systems shall be designed in accordance with the Pennsylvania Stormwater Best Management Practices Manual, latest edition, and the following criteria:
 - (1) A sump shall be provided between the impervious area and the inground facility to collect and trap sediment and debris before reaching the inground facility.
 - (2) Runoff into the facility shall be evenly distributed through a series of level, perforated PVC or HDPE pies with Class 2 perforations.
 - (3) The distribution pipe shall be encased in a bed of AASHTO No. 1 coarse aggregate completed envelope (top, sides and bottom) by PennDOT Class 1 geotextile.
 - (4) The facility shall be designed to completely drain within 72 hours, and infiltration rates used to design the facility shall be determined by field testing conducted in accordance with the Pennsylvania Stormwater Best Management Practices Manual, latest addition.
 - (5) The facility shall be provided with an emergency overflow device. An operations and maintenance program shall be developed for the facility and provided to the homeowner for implementation.
- F. Individual berms or in-ground basins may be used where practical. Title plan shall contain a note that facilities are permanent and shall be maintained by the property owner.

G. Landscaping; drainage channels and retention areas. All storm drainage channels and retention areas whether existing or proposed shall be graded and planted to effectively naturalize areas so as to become an integral and harmonious part of the landscape by contour and type of plant material employed.

The following Code does not display images or complicated formatting. Codes should be viewed online. This tool is only meant for editing.

§ 149-803 Stormwater management Storm Drainage Facilities.

- A. Storm drainage. Storm drainage facilities shall be constructed by the applicant to control runoff from street and/or any other area that could impair public safety or cause physical damage to adjacent lands. The facilities may consist of a storm sewer collection system and, swales and basins.
- B.B. The stormwater management plan shall consist of written material, calculations and topographical plandrawn to the same scale as the preliminary and/or final plan. The stormwater management plan shall include, but not be limited to:
- (1) General requirements. For all subdivision and land development proposals, a stormwater management plan and report shall be submitted containing, but not limited to, the following:
 - (a) A suitable map of the total watershed (a USGS quadrangle map is sufficient).
 - (b) Suitable maps and drawings showing all existing and proposed drainage systems attributable to the subdivision or land development.
 - (c) A plan of the proposed stormwater drainage system attributable to the subdivision or land development.
 - (d) The design computations for the stormwater drainage systems including storm drainpipes and inlets, runoff control measures, and culverts and drainage channels.
 - (e) A plan of the grading of the subject subdivision or land development.
 - (f) A plan of the erosion and sedimentation procedures to be utilized.
 - (g) Notation of ownership and responsibility for maintenance of stormwater management structures.

 [Amended 7-22-2002 by Ord. No. 2002-5]
 - [1] The stormwater management plan shall include a plan stating the proposed methods and schedules of maintenance of stormwater facilities to ensure their proper operation. The method of ownership and maintenance responsibilities of stormwater facilities shall be subject to approval by the Board of Supervisors.
 - [2] At its discretion, the Township may require that stormwater facilities be dedicated to the Township for maintenance. However, the Township is under no obligation to accept dedication or maintenance responsibilities. If the Township accepts maintenance responsibilities, it may require the developer to fund an account to pay for ongoing maintenance.
 - [3] The Township may require that maintenance responsibilities be handled through a property owners' association with all owners legally obligated to fund their share of the costs.
 - [4] If stormwater facilities that require proper maintenance are to be privately owned, legal mechanisms shall be established prior to property conveyance to require the owner and his/her successor and assigns to properly maintain the facilities in a safe, functional and attractive manner in accordance

with the approved maintenance schedule.

- [5] If stormwater facilities will not be municipally owned, the developer shall establish a legal right of the Township to access the facilities for periodic inspections and maintenance at the Township's discretion. However, the Township is under no obligation to perform such inspections and maintenance. The Township may require that the entity responsible for maintenance of stormwater facilities reimburse the Township for costs of maintenance and repair of stormwater facilities if that entity fails to perform its duties.
- (2) Design criteria. The criteria behind the design of stormwater management facilities is that "the peak rate of runoff after development shall not exceed the peak rate prior to development." The stormwater system design shall be based on the following methodology:
 - (a) Design shall be by Modified Rational Method or Soil Conservation Service (Technical Release No. 55) Urban Hydrology for Small Watersheds.
 - (b) <u>Storm sewers.</u> Storm sewers shall be designed to carry a storm of twenty-five-year frequency. An overflow system shall be provided to carry flow to the detention basin when the capacity of the storm drain pipe system is exceeded. The overflow system shall have sufficient capacity to carry the difference between the one-hundred-year and the twenty-five-year peak flow rates.
 - (1) General requirements. All stormwater management design shall comply with the criteria set forth in Chapter 144, Stormwater Management.
 - _(c) Detention and retention basins shall be designed to control the peak flow of storms of two-, five-, ten-, twenty-five-, fifty- and one-hundred-year frequency and of twenty-four-hour-duration.
 - (d) Basins shall be designed to pass a storm of one-hundred-year frequency through the outlet structure without failure of the basin embankment.
 - (e) The entire contributory drainage area shall be taken into account in basin design.
 - (23) <u>Design criteria.</u> Storm sewer system.
 - (a) Storm sewer design shall meet the requirements of PennDOT 408 Standards. [Amended 7-22-2002 by Ord. No. 2002-5]
 - (b) Storm sewers shall be reinforced concrete when constructed within rights-of-way of streets.
 - (c) All inlets shall be precast concrete, PennDOT type and shall have bicycle-safe type grater. [Amended 7-22-2002 by Ord. No. 2002-5]
 - (d) Inlets shall have a two-inch drop from inlet to outlet.
 - (e) Storm sewer design shall take into account the time of concentration.
 - (f) Calculations shall be provided to show the flow in the system, pipe size, allowable flow,

- actual flow and velocity.
- (g) Storm sewers shall have a minimum grade of 0.5% and a minimum inside diameter of 15 inches.
- (h) Storm sewers shall have a minimum cover of 24 inches.
- (4) Detention/retention basins. All basins shall be constructed to include, but not be limited to, the following standards:
- (a) Berm constructed of earth of a clay base with no topsoil and a cutoff trench key continuous along the berm base.
- (b) The top of the berm shall be a minimum of 10 feet. The sides shall have a maximum slope of three horizontal to one vertical (3:1).
- (c) The bottom of the basin shall have a minimum slope of 2% and any channel shall have a minimum slope of 0.5%.
- (d) The riser shall be precast concrete, box inlet or equivalent with grate top and shall be built into the bermwhenever possible.
- (e) The barrel shall be concrete pipe with anti-seep collars with a minimum projection of two feet beyond the pipe.
- (f) Emergency spillway shall be constructed of concrete/grass pavers. Pavers shall extend down the basin-slopes at the spillway location. [Amended 7-22-2002 by Ord. No. 2002-5]
- (g) Basin barrel outfall shall have an end wall or flared end section with properly designed rip-rap or energy dissipators.
- (5) Retention basins shall be designed with provisions for draining the permanent pond.
- (6) Inground retention basins/recharge systems shall be required for all subdivisions and land developments and shall be designed to recharge the increased volume of runoff from all additional impervious areas for a two-year storm event. The systems shall be designed in accordance with the following criteria:

 [Amended 7-22-2002 by Ord. No. 2002-5]
- (a) A sump shall be provided between the impervious area and the inground facility to collect and trapsediment and debris before reaching the inground facility.
- (b) The storage volume provided by the inground facility shall be equal to 210 cubic feet of volume per 1,000 square feet of impervious area.
- (c) Runoff into the facility shall be evenly distributed through a series of perforated PVC or HDPE pipes with Class 2 perforations.
- (d) The distribution pipe shall be encased in a bed of AASHTO No. 1 coarse aggregate completed envelope

- (top, sides and bottom) by PennDOT Class 1 geotextile.
- (e) The facility shall be designed to completely drain within 24 hours, and percolation rates used to design the facility shall be determined by field testing conducted in accordance with PA DEP criteria for onsite septic system design.
- (f) The facility shall be provided with an emergency overflow device. An operations and maintenance program shall be developed for the facility and provided to the homeowner for implementation.
- (7) Individual berms or inground basins may be used where practical but title plan shall contain a note that facilities are permanent and shall be maintained by the property owner.
- (8) Landscaping; drainage channels and retention areas. All storm drainage channels and retention areas whether existing or proposed shall be graded and planted to effectively naturalize areas so as to become an integral and harmonious part of the landscape by contour and type of plant material employed.
- (9) Best Management Practices. This subsection shall apply in addition to § 149-803B(6). Where determined by the Township Engineer to be feasible considering soil conditions, the Board of Supervisors may require that a subdivision or land development include Best Management Practices to promote groundwater recharge and to minimize pollutants in runoff. These measures should take into account the manual entitled "Best Management Practices for Developing Areas in Pennsylvania" that is available through the County Conservation District. Where required, the applicant shall submit construction details of the measures. Such measures shall include, but not be limited to the following: [Added 7-22-2002 by Ord. No. 2002-5]
- (a) Seepage beds, infiltration devices and/or pervious parking to promote groundwater recharge.
- (b) Devices to separate out a significant amount of pollutants from stormwater runoff, including devices to separate oils, greases and suspended solids.