

February 17, 2016
Curtis Hall

A regular meeting of the **BOARD OF COMMISSIONERS** was held this evening, President Morton J. Simon, Jr. presiding. Members present were Commissioners Brockington, Holland, Norris, Pransky, Rappoport, and Sharkey.

Staff present were Alyson Elliott, Assistant Township Manager; Christopher Clewell, Superintendent of Public Works; Nancy Gibson, Public Information and Complaint Officer; Brian Hinson, Director of Parks and Recreation; John J. Norris, Chief of Police; Joseph O'Neill, Fire Marshal; Bruce Rangnow, Director of Fiscal Affairs; Henry Sekawungu, Director of Planning and Zoning; and Bryan T. Havir, Township Manager. Also present was Joseph Bagley, Esq., Wisler Pearlstine, LLP. A Public Attendance List is attached.

1. The meeting commenced at 7:30 p.m. with the Pledge of Allegiance being led by Commissioner Brockington.

2. Each member having received a copy of the Commissioners' Regular Meeting Minutes dated January 20, 2016, upon motion of Ms. Rappoport, the Minutes were unanimously approved by the Board of Commissioners.

3. Each member having received a copy of the Executive Summary Financial Report of the Manager/Secretary for the month of January, 2016, upon motion of Mr. Norris, the Report was unanimously approved by the Board of Commissioners.

4. Each member having received a copy of the Accounts Paid Report for the month of January, 2016, upon motion of Mr. Norris, the Report was unanimously approved by the Board of Commissioners.

[Mr. Pransky joined the meeting at this time].

5. Mr. Sharkey presented **Resolution No. 53-16** to Joseph and Colleen Coll, owners of the Glenside Pub, honoring the 50th Anniversary of the pub (see attached).

[Mr. Sharkey left the meeting at this time].

6. Mr. Norris presented a Community Service Award to Sam Rucket recognizing his attainment of the rank of Eagle Scout.

7. Mr. Holland presented a Community Service Award to Bret Harris recognizing his attainment of the rank of Eagle Scout.

8. Mr. Simon presented a Commendation to Public Works Department employee Mark Mills for heroic behavior during the blizzard of January 23-24, 2016.

9. Mr. Norris presented Commendations to members of the Cheltenham Township Police Department and Upper Dublin and Upper Moreland Townships and Borough of Hatboro Police Departments:

Merit

Det. Ronald Cupo
Det. James McClelland

Certificate of Commendation

Sgt. Brian Griffin
Ofc. Thomas Byrne
Ofc. Stewart Coyle
Ofc. Bobby Richardson

Unit Citation

Lt. John Frye	Ofc. Brett Paul –
Sgt. Brian Griffin	Hatboro Police SWAT
Sgt. Joseph O'Neill	Ofc. Michael Milligan –
Sgt. Richard Schaffer	Upper Dublin SWAT
Sgt. James Slavin	Ofc. Scott Metheny –
Sgt. John Slavin	Upper Moreland SWAT
Sgt. Andrew Snyder	
Sgt. Jesse Tyler	
Ofc. Kevin O'Donnell	
Ofc. Christopher Pachuta	

PUBLIC HEARINGS

[All notes at Public Hearings are taken by a court reporter as “*Notes of Testimony*” and are available upon request at the office of Planning and Zoning].

10. **PUBLIC HEARING:** Mr. Bagley opened a Public Hearing to receive any and all comments regarding the adoption of an Ordinance amending the Code of the Township by adding a new Chapter 291 entitled “Stormwater Management Ordinance for the Wissahickon Creek Watershed in Cheltenham Township” implementing the requirements of the Wissahickon Creek Watershed Stormwater Management Plan.

11. Upon motion of Mr. Simon, the Board of Commissioners unanimously adopted **Ordinance No. 2320-16** amending the Code of the Township by adding a new Chapter 291 entitled “Stormwater Management Ordinance for the Wissahickon Creek Watershed in Cheltenham Township” (see attached).

12. **PUBLIC HEARING:** Upon motion of Mr. Sharkey, the Board of Commissioners unanimously tabled the Public Hearing scheduled for this evening to consider the adoption of an Ordinance to create an “Off Premises Advertising Sign Overlay District” to regulate the installation and operation of off-premises advertising signs or billboards and amend the Township’s Zoning Map accordingly to the Board of Commissioners meeting on Wednesday, March 16, 2016.

13. **PUBLIC HEARING:** Mr. Bagley opened a Public Hearing to receive any and all comments regarding the adoption of an Ordinance amending the Code of the Township of Cheltenham, Chapter 295 thereof, entitled “Zoning,” Article XXI, entitled “Floodplain Overlay Conservation District” for the purpose of complying with the National Flood Insurance Act of 1968, as amended, and associated regulations by, among other things, adopting the updated Floodplain Insurance Rate Map of the Township (see attached and Township website).

14. Upon motion of Mr. Pransky, the Board of Commissioners unanimously adopted **Ordinance No. 2321-16** amending the Code of the Township of Cheltenham, Chapter 295 thereof, entitled “Zoning,” Article XXI, entitled “Floodplain Overlay Conservation District” for the purpose of complying with the National Flood Insurance Act of 1968, as amended, and associated regulations by, among other things, adopting the updated Floodplain Insurance Rate Map of the Township (see attached).

15. **PUBLIC HEARING:** Upon motion of Ms. Rappoport, the Board of Commissioners unanimously approved the scheduling of a Public Hearing to consider and possibly adopt a TEFRA Resolution (“Tax Equity and Fiscal Responsibility Act”) authorizing approval of the projects to be financed by Salus University’s bond issue (see attached).

Mr. Bagley opened a Public Hearing to hear any and all comments regarding the adoption of a TEFRA Resolution approving projects by Salus University to be financed by the university’s bond issue.

16. Upon motion of Ms. Rappoport, the Board of Commissioners unanimously adopted **TEFRA Resolution No. 56-16** (“Tax Equity and Fiscal Responsibility Act”) authorizing approval of the projects to be financed by Salus University’s bond issue (see attached).

17. **Review of the Public Works Committee Regular Meeting Minutes dated February 10, 2016:**

a. Upon motion of Mr. Simon, the Board of Commissioners unanimously approved a Certificate of Appropriateness for Application L16-164 for the restoration of a two-block section of the Cedar Lane street improvements in La Mott, PA as recommended by the La Mott Board of Historical and Architectural Review.

b. Mr. Simon reviewed the Resolution of land development plan approval for the Cedarbrook Middle School.

Upon motion of Mr. Holland, the Board of Commissioners unanimously adopted **Resolution No. 57-16**, Cheltenham Township Development Application No. 15-10 for the Cedarbrook Middle School Land Development Plan, 300 Longfellow Road, Wyncote, PA, subject to the following Conditions and Waivers (see attached):

A. **CONDITIONS**

1. Compliance with the Boucher & James, Inc. review letter dated February 4, 2016.

B. WAIVERS REQUESTED FROM THE BOARD OF COMMISSIONERS

1. **§260-32 and 33** requiring certain information to be shown on the plan. In lieu of this, an aerial photograph has been added to the plan set to depict the existing features within 400 feet of the site.
 - a. The location, names, and widths of streets, including those shown on the Township plan of streets; the location and name of railroads; the location of property lines and names of owners; and the location of watercourses, sanitary sewers, storm drains and similar features within four hundred (400) feet (**§260-32.D.(2) and §260-33.C.(1)(k)**).
2. **§290-22.A.(1)** requiring proposed BMPs to be designed to detain the proposed conditions two-year, twenty-four-hour design storm to the existing conditions one-year flow using the SCS Type II distribution. A waiver has been requested from this Section of the Ordinance to utilize the Rational Method instead of the SCS Method. The calculations utilizing the Rational Method meet the Ordinance requirements.

c. Mr. Simon reviewed the Resolution of land development approval for the Cheltenham Mall.

Hercules W. Grigos, Esq. represented the applicant and presented a plan for a new pedestrian walkway along the northern edge of Shoppers Lane that will connect to the existing walkway at Shop Rite food market.

Mr. Holland believed that this showed the owner's concern for residents' safety since the walkway was not a requirement. He suggested that the Township's Sustainability Plan be considered in the construction of the walkway. Mr. Grigos replied that his client is not considering the LEED certification process in this regard, but stormwater management and sustainability will be considered in future capital improvements. He noted that a deteriorated mall is being rehabilitated.

In response to questions from Mr. Norris, Mr. Grigos stated that lampposts would be erected around the mall and asphalt or pavers are being considered for the walkway.

Mr. Pransky acknowledged that rehabilitation of the mall is not a simple undertaking and it will be a great improvement.

Mr. Bagley noted that the plan for the pedestrian walkway would be added as an Exhibit to the Resolution.

Upon motion of Mr. Holland, the Board of Commissioners unanimously adopted **Resolution No. 58-16** for Cheltenham Township Land Development Application No. 15-11 for the Cheltenham Mall Land Development Plan, 2385 W. Cheltenham Avenue, Wyncote, PA., subject to the following Conditions and Waivers (see attached):

A. CONDITIONS

1. Compliance with the Boucher & James, Inc. review letter dated February 2, 2016.

B. WAIVERS REQUESTED FROM THE BOARD OF COMMISSIONERS

1. **§260-25.B** requiring the minimum pipe size of all storm sewer must be fifteen inches (15”).

2. **§260-32 and 33** requiring certain information to be shown on the plan. In lieu of this, an aerial photograph has been added to the plan set to depict the existing features within 400 feet of the site.

a. The location, names, and widths of streets, including those shown on the Township plan of streets; the location and name of railroads; the location of property lines and names of owners; and the location of watercourses, sanitary sewers, storm drains and similar features within four hundred (400) feet (**§260-32.D.(2) and §260-33.C.(1)(k)**).

b. Location of all underground utilities (**§260-32.D.(4)**).

c. Topography within and adjacent to the property for a minimum distance of four hundred (400) feet (**§260-32.D.(5)**).

3. **§260-32.E.(7)** requiring underground utility information to be provided on the plan. A partial waiver is requested to show the utilities within the area of work only.

4. **§290-13.B** requiring an existing resource and site analysis map be provided showing environmentally sensitive areas. The applicant indicates that all proposed work is within a previously developed area and that no existing natural features will be impacted.

5. **§290-20** requiring calculations for the recharge volume to be provided. The proposed infiltration basins are located within the area of the proposed building to be removed; therefore, the Applicant will not be able to perform the required testing until the building is demolished. They are requesting a waiver from **§290-20** in the event infiltration is found to be infeasible for the underground infiltration basins at the time when it can be tested.

d. The Board of Commissioners reviewed a recommendation to participate in the legal fund of municipalities and treatment plant operators of the Wissahickon Creek Watershed to prevent the EPA's draft TMDL (Total Maximum Daily Load) study for the reduction of phosphorus from becoming law so that the municipalities and sewer treatment plant operators can pursue an alternative TMDL plan.

Ms. Rappoport asked that the Public Works Minutes be corrected to reflect that she did not vote in favor of participation. She believed that the money would be better spent on remediation and problem solving. She suggested submitting a letter of protest.

Mr. Simon noted that the percentage of the TMDL flowing into the Wissahickon Creek Watershed from the Township comes from a very small portion of land in the Township, and the Township is being asked to participate in a legal fund for a contribution of \$214.00 that is a percentage based on this small land portion, and the Township would not pay any amount higher than this.

Upon motion of Mr. Simon, the Board of Commissioners approved a contribution of up to \$214.00 and no more to the legal fund of the combined municipalities and sewer treatment plant operators of the Wissahickon Creek Watershed to prevent the EPA's draft TMDL study for the reduction of phosphorus from becoming law, thereby enabling the Wissahickon Creek Watershed municipalities and sewer treatment plant operators to pursue an alternative TMDL plan (AYES: Brockington, Holland, Norris, Pransky, Simon; NAYES: Rappoport).

Mr. Havir noted that the \$214.00 contribution was for future legal expenses, and he would send a letter advising of the Board's decision to participate in the legal fund.

e. Upon motion of Mr. Simon, the Board of Commissioners unanimously adopted **Resolution No. 59-16** authorizing the Township Manager to execute all required contract documents and reimbursement grant agreements for the Transportation Alternative Program (TAP) Grant in the amount of \$1 Million for the design and construction of streetscape improvements at the intersection of Church Road and Old York Road, known as the Elkins Park West Commercial District Phase I Project (see attached).

f. Upon motion of Mr. Simon, the Board of Commissioners unanimously adopted a Temporary License and Right-of-Way Easement Agreement for Horace F. Hankinson in the amount of \$5,000.00, covering the period October 1, 2015 until December 31, 2017 (see attached).

g. Upon motion of Mr. Simon, the Board of Commissioners unanimously authorized the assignment of the Springfield Township Wastewater Sewer Agreement to Bucks County Water and Sewer Authority.

h. Upon motion of Mr. Simon, the Board of Commissioners unanimously approved a Commendation to Public Works Department employee Mark Mills for heroic behavior.

i. Upon motion of Mr. Simon, the Board of Commissioners unanimously authorized the publication of a Legal Notice advising of the Board's intent to hold a Public Hearing on March 16, 2016 to consider and possibly adopt an Ordinance amending the Zoning Code to require three or more of certain of the uses listed in Subsection 295-258.d. in conjunction with

multiple dwelling use in the M4 zoning district, to modify density in the M4 zoning district, to modify the amount of permissible 3-bedroom multiple dwelling units, to delete apartment hotel use, and to permit certain additional uses consisting of retail shop, bank, personal care business, professional service business, and municipal building to the M4 Zoning District.

j. Upon motion of Mr. Simon, the Board of Commissioners unanimously rejected all bids on the Masonry Roof and Restoration Project for Curtis Hall and approved acceleration of the bid schedule and have Staff present new bids to the Public Works Committee at its March 2, 2016 meeting.

k. Upon motion of Mr. Simon, the Board of Commissioners unanimously approved a Community Service Award to Bret Harris, in honor of attaining the rank of Eagle Scout.

l. Upon motion of Mr. Simon, the Board of Commissioners unanimously appointed Sean P. Kilkenny, Esq., 17 E. Airy Street, Norristown, PA, as Zoning Hearing Board Solicitor, at the rate of \$125.00 per hour for calendar year 2016.

m. Upon motion of Mr. Simon, the Board of Commissioners unanimously accepted the Public Works Committee Regular Meeting Minutes dated February 10, 2016 as amended.

18. Review of the Public Safety Committee Regular Meeting Minutes dated February 3, 2016:

a. Upon motion of Mr. Norris, the Board of Commissioners unanimously adopted **Ordinance No. 2322-16** amending Chapter 285 of the Code entitled "Vehicles and Traffic" (see attached).

b. Upon motion of Mr. Norris, the Board of Commissioners unanimously adopted **Resolution No. 60-16** authorizing the disbursement of \$4,500 (or less) annually to fund the Township's contribution to the Montgomery County SWAT-Eastern Region Team (see attached).

c. Upon motion of Mr. Norris, the Board of Commissioners unanimously accepted the Public Safety Committee Regular Meeting Minutes dated February 10, 2016 as amended.

19. Review of the Public Affairs Committee Regular Meeting Minutes dated February 3, 2016:

a. Upon motion of Ms. Rappoport, the Board of Commissioners unanimously adopted **Resolution No. 61-16** for the Disposition of Municipal Records (see attached).

b. Ms. Rappoport noted that at the Public Affairs Committee meeting when the Committee discussed the reconfiguring of the Standing Committees, it was agreed that *Staff would make a written recommendation on each appeal to the Zoning Hearing Board only if requested by the Zoning Hearing Board.*

Ms. Rappoport suggested this be changed to “*Staff would make a written recommendation on each appeal to the Zoning Hearing Board only if requested by the Zoning Hearing Board and/or by vote of the majority of the Commissioners at a Committee meeting or Board of Commissioners meeting*”. The Board of Commissioners unanimously agreed to said change.

c. Upon motion of Ms. Rappoport, the Board of Commissioners unanimously authorized the publication of a Legal Notice for the scheduling of a Public Hearing on March 16, 2016 to consider and possibly adopt a Resolution approving an inter-municipal liquor license transfer to Brown’s Wyncote, LLC at Cedarbrook Plaza, Suite 100, 1000 Easton Road, Wyncote (see attached).

d. Upon motion of Ms. Rappoport, the Board of Commissioners unanimously accepted the Public Affairs Committee Regular Meeting Minutes dated February 10, 2016.

20. Review of the Building and Zoning Committee Regular Meeting Minutes dated February 3, 2016:

a. Upon motion of Mr. Simon, the Board of Commissioners unanimously accepted the Building and Zoning Committee Regular Meeting Minutes dated February 10, 2016.

21. Review of the Pension Board Regular Meeting Minutes dated February 5, 2016:

a. Upon motion of Mr. Simon, the Board of Commissioners unanimously accepted the Pension Board Regular Meeting Minutes dated February 10, 2016.

22. Review of the Parks and Recreation Regular Meeting Minutes dated February 10, 2016:

a. Mr. Simon noted that many activities scheduled to commemorate Black History Month. He referred everyone to the Township’s website for a listing of said activities.

b. Upon motion of Ms. Rappoport, the Board of Commissioners unanimously accepted the Parks and Recreation Regular Meeting Minutes dated February 10, 2016.

23. Old Business: None.

24. New Business: None.

25. Citizens’ Forum: Allen Siegel, 7905 Ronale Drive, Elkins Park, felt there was a lack of concern by the Police Department for enforcement of traffic and parking regulations. He noted that the handicap spaces at the Cheltenham Square Shop Rite are being used by cars that are not handicap designated. He suggested that these vehicles be ticketed with a surcharge of \$85 for violations, and said surcharge could pay for the hiring of a parking officer to enforce the regulations. Such violations also take place at the Wyncote Post Office.

Mr. Pransky suggested an intermittent enforcement, and Mr. Holland believed the same but with a high penalty ticket. Ms. Rappoport felt the matter needed further review by the Police Department.

There being no further business, upon motion of Mr. Simon, the Board of Commissioners unanimously agreed to adjourn the meeting at 10:15 p.m.



Bryan T. Havir
Township Manager

as per Anna Marie Felix

Resolution No. 53-16
of the Board of Commissioners of Cheltenham Township

Whereas, THE BOARD OF COMMISSIONERS OF CHELTENHAM TOWNSHIP, Montgomery County, Pennsylvania, with great pride and admiration, salutes **THE GLENSIDE PUB** of 122 S. Easton Road on the occasion of its 50th Anniversary; and

Whereas, **THE GLENSIDE PUB** opened its doors on November 29, 1965. Eleven years later, Joe and Colleen Coll assumed ownership and today operate one of the most recognizable, respected and successful businesses in the Township. Affectionately known as "The Pub," this full service restaurant is regularly filled with good times, laughter and friendly banter, offering a welcoming environment that values all people; and

Whereas, Cheltenham Township is genuinely grateful for the Coll family's service to and support of the community. **THE GLENSIDE PUB** is an ardent supporter of the Glenside 4th of July Parade, the Glenside Youth Athletic Club, Downtown Glenside Partnership events and many other education and civic organizations. In turn, over 100 local businesses and civic associations demonstrate their loyalty to the restaurant by displaying their shingle signs from its ceiling.

NOW, THEREFORE, BE IT RESOLVED that the BOARD OF COMMISSIONERS OF CHELTENHAM TOWNSHIP, duly convened in regular session this Seventeenth Day of February A.D., 2016, does hereby officially recognize **THE GLENSIDE PUB** for its 50 successful years in Downtown Glenside and salutes the Coll family for their many contributions to the community. It is further directed that this Resolution be spread in full upon the minutes of this meeting and that a copy thereof be presented to Mr. and Mrs. Coll.

IN WITNESS WHEREOF, I, MORTON J. SIMON, JR., President of the BOARD OF COMMISSIONERS OF CHELTENHAM TOWNSHIP, have hereunto set my hand and caused the Seal of the Township of Cheltenham to be made a part thereof. DONE AT ELKINS PARK, PENNSYLVANIA, in the year of the Township of Cheltenham, the one hundred and seventeenth.

**BOARD OF COMMISSIONERS
OF CHELTENHAM TOWNSHIP**


By: _____
Morton J. Simon, Jr., President


Attest: _____
Bryan T. Havir
Township Manager and Secretary

**CHELTENHAM TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA**

ORDINANCE NO. 2321-16

AN ORDINANCE OF THE TOWNSHIP OF CHELTENHAM AMENDING THE CODE OF THE TOWNSHIP OF CHELTENHAM, CHAPTER 295 THEREOF, ENTITLED "ZONING," ARTICLE XXI ENTITLED "FLOODPLAIN OVERLAY CONSERVATION DISTRICT" FOR THE PURPOSE OF COMPLYING WITH THE NATIONAL FLOOD INSURANCE ACT OF 1968, AS AMENDED, AND ASSOCIATED REGULATIONS BY, AMONG OTHER THINGS, ADOPTING THE UPDATED FLOODPLAIN INSURANCE RATE MAP OF THE TOWNSHIP.

NOW THEREFORE, the Board of Commissioners of Cheltenham Township does hereby **ENACT** and **ORDAIN** the following:

SECTION I – Amendment to the Code

Chapter 295 of the Codified Ordinances of the Township entitled "Zoning", Article XXI entitled "Floodplain Overlay Conservation District," is amended as follows, additions marked in bold, underline and deletions crossed out:

- A. §295-154.C. – "Promote the general health, welfare, and safety of the ~~Community~~ **Township** by preventing development in areas prone to flooding."
- B. §295-155.C. – "The Floodplain Conservation District shall be delineated according to FEMA's ~~Flood Insurance Rate Map~~ FIRM for Cheltenham Township **effective as of March 2, 2016** which is hereby made a part of this article, and additional area based on soils as described in § 295-155A(2). The FIRM is available for inspection at the ~~municipal~~ **Township Planning and Zoning** office."
- C. §295-159 – "EXISTING MANUFACTURED HOME PARK OR SUBDIVISION: A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by ~~the a-community~~ **Township.**"

- D. §295-159 – “NEW MANUFACTURED HOME PARK OR SUBDIVISION: A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by ~~a community~~ **the Township**.”
- E. §295-159 – “POST-FIRM STRUCTURE: A structure for which construction or substantial improvement occurred after ~~December 31, 1974, or on or after the community’s~~ **Township’s** initial FIRM dated May 20, 1976, ~~whichever is later,~~ and, as such, would be required to be compliant with the regulations of the NFIP.”
- F. §295-159 – “PRE-FIRM STRUCTURE: A structure for which construction or substantial improvement occurred on or before ~~December 31, 1974, or before~~ **the Township’s** initial FIRM dated May 20, 1976, and, as such, would not be required to be compliant with the regulations of the NFIP.”
- G. §295-160.B. – “The Floodplain Conservation District shall also include areas with soils listed in § 295-155C, along with any Community-**Township**-identified flood hazard areas.”
- H. §295-161.C. – revise paragraph to include the bolded and underlined words: “No new construction or development **in the Floodway** shall be allowed unless a permit is obtained from the Department of Environmental Protection regional office.”
- I. §295-162 – revise paragraph to include the bolded and underlined words: “The Floodplain Conservation District may be revised or modified by **the** Township Board of Commissioners where studies or information provided by a qualified agency or person documents the need for such revision. However, prior to any such change, approval must be obtained from ~~the~~ FEMA. Additionally, as soon as practicable, but not later than six (6) months after the date such information becomes available, ~~a community~~ **the Township** shall notify FEMA of the changes by submitting technical or scientific data.”
- J. §295-162.1 – revise paragraph to read as follows (delete stricken words and add bolded and underlined words): “Should a dispute concerning any identified floodplain boundary arise, an initial determination shall be made by the Cheltenham ~~Planning Commission~~ **Township Zoning Officer**, and any party aggrieved by this decision or determination may appeal to the Township **Zoning Hearing** Board ~~of Commissioners~~. The burden of proof shall be on the appellant.”
- K. §295-162.2 – revise paragraph to read as follows (delete stricken words and add bolded and underlined words): “Prior to development occurring in areas where annexation or other corporate boundary changes are proposed or have occurred, the ~~community~~ **Township** shall review flood hazard data affecting the lands

subject to boundary changes. The ~~community~~ **Township** shall adopt and enforce floodplain regulations in areas subject to annexation or corporate boundary changes which meet or exceed those in CFR 44 60.3.”

- L. §295-162.6.H. (add bolded and underlined words): **H. Any modification, alteration, reconstruction or improvement of any kind which removes an existing tree(s) of 4 caliper inches or greater in diameter on the site shall require replacement trees which shall be planted equal in number to the total diameter in caliper inches of trees proposed to be removed from the site plus additional trees (from a list selected by the Shade Tree Advisory Commission (“STAC”) or the equivalent agency if STAC does not exist) so that a minimum of one new tree (4 caliper inch diameter minimum) for every 900 square feet of impermeable structure modified, altered, reconstructed or improved shall be planted on the site in addition to all other landscaping and buffer required by other applicable Township Codes. Proper care and maintenance of the said replacement trees shall be deemed to be part of the term “planted”.**
- M. §295-162.7.C (added bolded and underlined words): C. **(2) All subdivision proposals and development proposals containing at least 50 lots or at least 5 acres, whichever is less, shall comply with the requirements of 295-162.13.C.(9).**
- N. §295-162.13.C (added bolded and underlined words): C. **(9) A plotted census of all existing trees of 4 caliper inches or greater in diameter on the site and identifying those trees which would be removed by the construction, enlargement or expansion proposed. The Applicant shall also demonstrate on the plan the location of replacement trees which shall be planted equal to the total diameter in caliper inches of trees proposed to be removed from the site plus additional trees (from a list selected by STAC or the equivalent agency if STAC does not exist) so that a minimum of ten (10) trees per acre within the Floodplain District on the site shall be planted in addition to all other landscaping and buffer required by other applicable Township Codes. Proper care and maintenance of the said replacement trees shall be deemed to be part of the term “planted” as used in this provision.**
- O. §295-162.16 – revise paragraph to read as follows (delete stricken words and add bolded and underlined words): “Permits Required. A permit **issued by the Floodplain Administrator under §295-162.16** shall be required before any construction or development is undertaken within the Floodplain Conservation District. In the case of a proposed hospital, nursing home, jail, prison, or manufactured home park, the permit referenced here**in** would be the Special Permit of §295-162.**12-17.**”
- P. §295-162.22 – revise paragraph to read as follows (delete stricken words and add bolded and underlined words): “~~Work on the proposed construction~~ **The start of construction under the permit issued by the Floodplain Administrator under**

§295-162.16, shall begin within 180 days after the date of issuance and shall be completed within 12 months after the date of issuance of said permit otherwise said ~~or the permit~~ shall expire unless a time extension is granted, in writing, by the Floodplain Administrator. The term “start of construction” shall be understood as defined in §295-159 of this article.”

- Q. §295-162.23.A.(4) – revise paragraph to read as follows (delete stricken words and add bolded and underlined words): “Be served upon the property owner or his agent, as the case may require; provided, however, that such notice or order shall be deemed to have been properly served upon such owner or agent when a copy thereof has been served ~~with such notice~~ by any ~~other~~ method authorized or required by the laws of this state; and”
- R. §295-162.23.B. – revise paragraph to read as follows (delete stricken words and add bolded and underlined words): “Penalties. Any person who fails to comply with any or all of the requirements or provisions of this article or who fails or refuses to comply with any notice, order of direction of the Floodplain Administrator or any other authorized employee of the Township municipality ~~shall pay a fine~~ may have a civil judgment payable to Cheltenham Township of not less than \$300 nor more than \$1,000 per violation, plus costs of prosecution entered against them. In addition to the above penalties, all other actions are hereby reserved, including an action in equity for the ~~proper~~ enforcement of this article. The imposition of a ~~fine or penalty~~ judgment for any violation of, or noncompliance with, this article shall not excuse the violation or noncompliance or permit it to continue, and all such persons shall be required to correct or remedy such violations and noncompliance within a reasonable time. Any development initiated, or any structure or building constructed, reconstructed, enlarged, ~~altered~~, substantially improved or relocated, in ~~noncompliance with~~ violation of this article may be declared by the Township Board ~~of Commissioners~~ to be a public nuisance and may be abatable as such.”
- S. §295-162.24.C. – revise paragraph to read as follows (delete stricken words and add bolded and underlined words): “Any person aggrieved by any decision of the Township Board of Commissioners may seek relief therefrom by appeal to court, as provided by the laws of this ~~State~~ Commonwealth including the Pennsylvania Flood Plain Management Act.”

SECTION II– Severability

The provisions of this Ordinance are intended to be severable, and if any section, sentence, clause, part or provision hereof shall be held illegal, invalid or unconstitutional by any court of competent jurisdiction, such decision of the court shall not affect or impair the remaining sections, sentences, clauses, parts or provisions of this Ordinance. It is hereby declared to be the intent of the Board that this Ordinance would have been adopted even if such illegal, invalid or unconstitutional section, sentence, clause, part or provision had not been included herein.

SECTION III – Failure to Enforce Not a Waiver

The failure of the Township to enforce any provision of this Ordinance shall not constitute a waiver by the Township of its rights of future enforcement hereunder.

SECTION IV - Repealer

All other ordinances and resolutions or parts thereof insofar as they are inconsistent with this Ordinance are hereby repealed.

SECTION V - Effective Date

This Ordinance shall take effect and be in force from and after its approval as permitted by law.

ORDAINED AND ENACTED into an Ordinance this 17th day of February, 2016.

CHELTENHAM TOWNSHIP



BY: _____
Morton J. Simon, Jr., President
Board of Commissioners



ATTEST: _____
Bryan T. Havir
Township Manager and Secretary

**CHELTENHAM TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA**

RESOLUTION NO. 56-16

**A RESOLUTION OF CHELTENHAM TOWNSHIP
APPROVING THE ISSUANCE OF BY THE NORTH PENN
HEALTH HOSPITAL AND EDUCATION AUTHORITY OF
ITS TAX-EXEMPT BOND FOR A FACILITY LOCATED IN
CHELTENHAM TOWNSHIP, MONTGOMERY COUNTY,
PENNSYLVANIA; AND AUTHORIZING THE TAKING OF
ALL SUCH ACTS NOT INCONSISTENT WITH THE
PROPOSED RESOLUTION.**

WHEREAS, the North Penn Health Hospital and Education Authority (the "Authority") has approved the application (the "Application") of Salus University and the Pennsylvania College of Optometry Foundation (collectively, "Applicant") for aid in financing a project, as described below, pursuant to the Pennsylvania Municipal Authorities Act (53 Pa.C.S.A. §5601 et.seq., as amended) (the "Act");

WHEREAS, the project consists of (i) currently refunding the Authority's \$9,435,000 Salus University Revenue Bond Series 2012, (ii) financing certain renovations to the facilities of Salus University including renovating certain laboratory space, classrooms, clinical sites and office space; (iii) financing certain other capital improvements, renovations and repairs to the facilities of Salus University; and (iv) paying bond issuance expenses and related costs and expenses;

WHEREAS, the Authority and the Applicant have requested Cheltenham Township to approve the issuance by the Authority of the Authority's bond in the amount not to exceed \$25,000,000, pursuant to Sections 103 and 147(f) of the Internal Revenue Code of 1986, as amended (the "Code"), to provide funds, together with other available funds, which will be used to finance the costs of the Project; and

WHEREAS, pursuant to public notice, the Authority has conducted a hearing on said Application at which hearing all interested persons were invited to attend and comment.

NOW, THEREFORE, the Board of Commissioners of Cheltenham Township hereby RESOLVES, as follows:

1. The issuance by the Authority of its bond in the amount not to exceed \$25,000,000 to assist Applicant in the financing of the Project, is hereby approved.

2. The Board of Commissioners of Cheltenham Township is authorized and directed to deliver this Resolution on behalf of Cheltenham Township and to do all other acts as

may be necessary to carry this Resolution into effect, provided, however that Cheltenham Township shall incur no liability hereby.

3. The President of the Board of Commissioners is hereby appointed and directed as the applicable representative of the Board of Commissioners of Cheltenham Township for purposes of signing a certification of applicable representative pursuant to the Act and the Code. The said applicable representative is authorized to execute all such approvals, applications, and/or other documents necessary or convenient to facilitate the project contemplated herein.

4. Nothing contained herein shall cause Cheltenham Township to incur any liability, general or otherwise, by reason of this project or the obligation of the Authority to finance the same, not shall the same be deemed to pledge the credit or general taxing power of Cheltenham Township.

5. The proper officers hereof and of the Authority, to the extent said authorization is necessary, are hereby authorized to execute any and all documents and to do and take any and all other acts and actions as may be necessary to comply with the provisions and intentions of this Resolution and the implementation thereof.

6. This approval is for the exclusive purposes of designating the applicable representative of Cheltenham Township and providing the approval of the development of the project by the governing body of the location of the project as required by the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA), and the Act. It does not constitute any zoning, land use, land development or other approval.

7. All prior resolutions or parts thereof inconsistent herewith, are hereby repealed.

ADOPTED this 17th day of February, 2016.

CHELtenham TOWNSHIP

By: 
President


Attest: _____
Township Manager

**CHELTENHAM TOWNSHIP
BOARD OF COMMISSIONERS**

MONTGOMERY COUNTY, COMMONWEALTH OF PENNSYLVANIA

RESOLUTION NO. 57-16

**Cedarbrook Middle School Land Development
Project No. 15-82-061R**

PRELIMINARY / FINAL LAND DEVELOPMENT APPROVAL

WHEREAS, THE SCHOOL DISTRICT OF CHELTENHAM TOWNSHIP ("Developer") is the owner and developer of a certain tract of land consisting of 34.1± acres situate in Cheltenham Township with an address of 300 Longfellow Rd, Wyncote, PA 19095 (the "Property"), on which the Developer intends to demolish the existing parking areas, access drives, and approximately 14,000 square feet of the existing building, and construct building additions with a total area of approximately 28,000 square feet, parking areas and access driveways, public utilities, and a new infield at the existing baseball and softball fields (the "Development"); and

WHEREAS, the Development is more particularly shown on the following, which shall collectively be referred to hereinafter as the "Plans":

- Land Development Plans prepared by Renew Design Group, being plans consisting of thirty (30) sheets dated January 18, 2016 with a final revision date of January 27, 2016;
- Drainage Area Plans prepared by Renew Design Group, being plans consisting of four (4) sheets, dated July 6, 2015, last revised January 27, 2016; and
- Post Construction Stormwater Management Report, dated August 11, 2015, last revised January 27, 2016.

WHEREAS, Developer has previously obtained and supplied or will obtain and supply to the Township all applicable permits from all Authorities, Agencies and Municipalities having jurisdiction in any way over the Development and any necessary offsite easements to legally discharge stormwater or connect to utilities; and

WHEREAS, the Developer desires to obtain preliminary/final land development approval of the Plans from Cheltenham Township in accordance with Section 508 of the Pennsylvania Municipalities Planning Code.

NOW, THEREFORE, BE IT RESOLVED that Cheltenham Township hereby grants preliminary/final approval of the land development as shown on the Plans described herein subject, however, to the following conditions:

1. At this time, the Cheltenham Township Board of Commissioners waives strict compliance with the following provisions of the Cheltenham Township Subdivision and Land Development Ordinance:

a. Sections 260-32.D.(2) and 260-33.C.(1)(k), requiring certain existing features within four hundred (400) feet of the Property to be shown on the plan. A partial waiver is granted. In lieu of the requirements of these sections, Developer has added an aerial photograph to the Plans to depict the existing features within 400 feet of the Property.

2. At this time, the Cheltenham Township Board of Commissioners waives strict compliance with the following provisions of the Cheltenham Township Watershed Stormwater Management Ordinance:

a. Section 290-22.A.(1), requiring proposed BMPs to be designed to detain the proposed conditions two-year, twenty-four-hour design storm to the existing conditions one-year flow using the SCS Type II distribution. A partial waiver is granted to allow the Developer to utilize the Rational Method instead of the SCS Method. The calculations utilizing the Rational Method meet the ordinance requirements.

3. Prior to the recording of the Plans, the Developer shall revise the Plans to resolve to the satisfaction of the Township, all issues set forth in the Township Engineer's review

letter dated February 4, 2016, the entire contents of which are incorporated herein by reference, and a true and correct copy of which is attached hereto as Exhibit "A".

4. Prior to recording the Plans, Developer shall enter into a Land Development and Financial Security Agreement with Cheltenham Township. The Agreement shall be satisfactory to the Township Solicitor and the Board of Commissioners and the Developer shall obligate itself to complete all of the public improvements shown on the Plans in accordance with Township criteria and specifications as well as to secure the completion of the said public improvements by posting satisfactory financial security as required by the Pennsylvania Municipalities Planning Code.

5. Although the maintenance of all stormwater management facilities and BMPs shall be the responsibility of the lot owner on whose lot said facilities are located, Developer shall, prior to the Township the recording of the Plans, execute a declaration reserving easements in favor of the Township so that the stormwater facilities and BMPs may be maintained by the Township (with all expenses being charged to the appropriate property owner) in the event that the maintenance responsibilities of the individual lot owners are not fulfilled after reasonable notice to do so. The declaration shall be subject to the review and approval of the Township Solicitor and shall be recorded simultaneously with the Plans.

6. Prior to the recording of the Plans, Developer shall revise the Plans to include a crosswalk from the gymnasium to the athletic fields, and a sidewalk from the proposed parking lot to the building. The location of such crosswalk and sidewalk shall be satisfactory to the Township Engineer.

7. Prior to the recording of the Plans, Developer shall revise the Plans to depict the relocated electrical equipment.

8. Prior to recording the Plans, Developer shall provide the Township with all required approvals from any outside agencies having jurisdiction over the Development, including, but not limited, to approval from the Pennsylvania Department of Transportation, the Montgomery County Roads and Bridges Department, the Pennsylvania Department of Environmental Protection, and the Montgomery County Conservation District.

9. The Development shall be constructed in strict accordance with the content of the Plans, notes on the Plans and the terms and conditions of this Preliminary/Final Approval Resolution.

10. The cost of accomplishing, satisfying and meeting all of the terms and conditions and requirements of the Plans, notes to the Plans, this Preliminary/Final Approval Resolution, and the Land Development and Financial Security Agreement shall be borne entirely by the Developer and shall be at no cost to the Township.

11. Developer shall provide the Township Manager and the Township Engineer with at least seventy-two (72) hours notice prior to the initiation of any grading or ground clearing (whether for the construction of public improvements or in connection with individual buildings or additions) so that the Township may certify that all appropriate erosion and sedimentation control facilities have been properly installed and also that snow fencing or other types of boundary markers (acceptable to the Township) have been installed to protect such trees as are specifically proposed not to be eliminated during the construction of the Development.

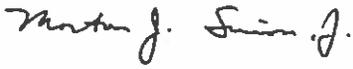
12. Consistent with Section 509(b) of the Pennsylvania Municipalities Planning Code (as amended) the payment of all applicable fees and the funding of all escrows under the Land Development and Financial Security Agreement must be accomplished within ninety (90) days of the date of this Resolution unless a written extension is granted by Cheltenham Township. Until the applicable fees have been paid and the escrows fully funded, the final plat or record plan

shall not be signed or recorded. In the event that the fees have not been paid and the escrow has not been funded within ninety (90) days of this Resolution (or any written extension thereof), this contingent approval shall expire and be deemed to have been revoked.

13. Under the provisions of the Pennsylvania Municipalities Planning Code, the Developer has the right to accept or reject conditions imposed by the Board of Commissioners upon preliminary/final approval. In the absence of an appeal or a notice of rejection filed in writing within thirty (30) days from the date of this Resolution, the conditions set forth herein shall be deemed to have been accepted by the Developer. If the Township receives written notice of an appeal or rejection of any of the conditions set forth herein within thirty (30) days from the date of this Resolution, this approval and the waivers granted in Paragraphs 1 and 2 (which waivers are granted contingent upon the acceptance of the conditions set forth herein) shall be deemed to be automatically rescinded and revoked and the application shall be considered denied based upon the failure to fully comply with all of the sections set forth in Paragraphs 1 and 2, all as authorized by Section 508 of the Pennsylvania Municipalities Planning Code.

APPROVED at the public meeting of the Cheltenham Township Board of Commissioners held on February 17, 2016.

CHELTENHAM TOWNSHIP

By: 

**Morton J. Simon, Jr., President
Board of Commissioners**

Attest: 

Bryan T. Havar, Manager/Secretary

**CHELTENHAM TOWNSHIP
BOARD OF COMMISSIONERS**

MONTGOMERY COUNTY, COMMONWEALTH OF PENNSYLVANIA

RESOLUTION NO. 58-16

**Cheltenham Mall
Project No. 15-82-068R**

PRELIMINARY / FINAL LAND DEVELOPMENT APPROVAL

WHEREAS, AA OLYMPIC CHELTENHAM, LLC ("Developer") is the owner and developer of seven (7) parcels having a total area of 53.69± acres situate in Cheltenham Township with frontage on Ogontz Avenue (S.R. 0309), Cheltenham Avenue (S.R. 0309), and Washington Lane (S.R. 2056) (the "Property");

WHEREAS, the Property is more commonly known as the Cheltenham Mall, and Developer has submitted a land development application to demolish a portion of an existing building, provide additional parking, realign the southern driveway from Washington Lane, install parking islands, landscaping, restripe parking areas and Shoppers Lane, and install associated storm sewer and stormwater management facilities on the Property (the "Development"); and

WHEREAS, the Development is more particularly shown on the following, which shall hereinafter be referred to as the "Plans":

- Land Development Plans prepared by Bohler Engineering, being plans consisting of twenty-nine (29) sheets dated October 7, 2015 with a final revision date of January 26, 2016;
- General Project Description and Stormwater Management Calculations prepared by Bohler Engineering, dated January 26, 2016;
- Stormwater Management Facilities Operations and Maintenance Manual prepared by Bohler Engineering, dated January 26, 2016; and
- Infiltration Testing Report prepared by GeoStructures, dated January 25, 2016.

WHEREAS, Developer has previously obtained and supplied or will obtain and supply to the Township all applicable permits from all Authorities, Agencies and Municipalities having jurisdiction in any way over the Development and any necessary offsite easements to legally discharge stormwater or connect to utilities; and

WHEREAS, the Developer desires to obtain preliminary/final land development approval of the Plans from Cheltenham Township in accordance with Section 508 of the Pennsylvania Municipalities Planning Code.

NOW, THEREFORE, BE IT RESOLVED that Cheltenham Township hereby grants preliminary/final approval of the land development as shown on the Plans described herein subject, however, to the following conditions:

1. At this time, the Cheltenham Township Board of Commissions waives strict compliance with the following provisions of the Cheltenham Township Subdivision and Land Development Ordinance:

a. Section 260-25.B, requiring a minimum pipe size for all storm sewers of fifteen inches (15"). A waiver is granted to allow the Developer to install storm sewer piping with a diameter of twelve inches (12") on the Property.

b. Sections 260-32.D.(2), 260-33.C.(1)(k), 260-32.D.(4), and 260-32.D.(5), requiring certain existing features within four hundred (400) feet of the Property, including, but not limited to, all underground facilities, to be shown on the plan. A partial waiver is granted. In lieu of the requirements of these sections, Developer has added an aerial photograph to the Plans to depict the existing features within 400 feet of the Property.

c. Section 260-32.E.(7), requiring underground utility information to be provided on the plan. A partial waiver is granted to permit the Developer to depict only the utilities within the area of work on the Plans.

2. At this time, the Cheltenham Township Board of Commissioners waives strict compliance with the following provisions of the Cheltenham Township Watershed Stormwater Management Ordinance:

a. Section 290-13.B, requiring an existing resource and site analysis map to be provided showing environmentally sensitive areas. A waiver is granted in consideration of the fact that the Developer is located within a previously developed area and, therefore, no existing natural features will be impacted as part of the Development.

b. Section 290-20, requiring calculations for the recharge volume to be provided. Since the proposed infiltration basins are located within the area of the proposed building to be removed, the Developer will not be able to perform the required testing until the building is demolished. In the event infiltration is found to be infeasible for the underground infiltration basins at the time when it can be tested, a waiver is hereby granted with regard to the required recharge volume.

3. Prior to the recording of the Plans, the Developer shall revise the Plans to resolve to the satisfaction of the Township, all issues set forth in the Township Engineer's review letter dated February 2, 2016, the entire contents of which are incorporated herein by reference, and a true and correct copy of which is attached hereto as Exhibit "A".

4. Prior to recording the Plans, Developer shall enter into a Land Development and Financial Security Agreement with Cheltenham Township. The Agreement shall be satisfactory to the Township Solicitor and the Board of Commissioners and the Developer shall obligate itself to complete all of the public improvements shown on the Plans in accordance with Township criteria and specifications as well as to secure the completion of the said public improvements by posting satisfactory financial security as required by the Pennsylvania Municipalities Planning Code.

5. Although the maintenance of all stormwater management facilities and BMPs shall be the responsibility of the lot owner on whose lot said facilities are located, Developer shall, prior to the Township the recording of the Plans, execute a declaration reserving easements in favor of the Township so that the stormwater facilities and BMPs may be maintained by the Township (with all expenses being charged to the appropriate property owner) in the event that the maintenance responsibilities of the individual lot owners are not fulfilled after reasonable notice to do so. The declaration shall be subject to the review and approval of the Township Solicitor and shall be recorded simultaneously with the Plans.

6. Prior to recording the Plans, Developer shall revise the Plans to depict an enclosed walkway from the parking deck to the Target store on the Property.

7. Prior to recording the Plans, Developer shall revise the Plans to depict the installation of a pedestrian walkway in the vicinity of Shoppers Lane generally in conformity with the diagram attached hereto as Exhibit "B". The layout of the walkway may meander around trees to accommodate the existing topography. The pedestrian walkway shall be fully engineered, shall comply with all stormwater management regulations, and shall receive the approval of the Township Engineer prior to the recording of the Plans.

8. Prior to recording the Plans, Developer shall provide the Township with all required approvals from any outside agencies having jurisdiction over the Development, including, but not limited, to approval from the Pennsylvania Department of Transportation, the Montgomery County Roads and Bridges Department, the Pennsylvania Department of Environmental Protection, and the Montgomery County Conservation District.

9. The Development shall be constructed in strict accordance with the content of the Plans, notes on the Plans and the terms and conditions of this Preliminary/Final Approval Resolution.

10. The cost of accomplishing, satisfying and meeting all of the terms and conditions and requirements of the Plans, notes to the Plans, this Preliminary/Final Approval Resolution, and the Land Development and Financial Security Agreement shall be borne entirely by the Developer and shall be at no cost to the Township.

11. Developer shall provide the Township Manager and the Township Engineer with at least seventy-two (72) hours notice prior to the initiation of any grading or ground clearing (whether for the construction of public improvements or in connection with individual buildings or additions) so that the Township may certify that all appropriate erosion and sedimentation control facilities have been properly installed and also that snow fencing or other types of boundary markers (acceptable to the Township) have been installed to protect such trees as are specifically proposed not to be eliminated during the construction of the Development.

12. Consistent with Section 509(b) of the Pennsylvania Municipalities Planning Code (as amended) the payment of all applicable fees and the funding of all escrows under the Land Development and Financial Security Agreement must be accomplished within ninety (90) days of the date of this Resolution unless a written extension is granted by Cheltenham Township. Until the applicable fees have been paid and the escrows fully funded, the final plat or record plan shall not be signed nor recorded. In the event that the fees have not been paid and the escrow has not been funded within ninety (90) days of this Resolution (or any written extension thereof), this contingent approval shall expire and be deemed to have been revoked.

13. Under the provisions of the Pennsylvania Municipalities Planning Code, the Developer has the right to accept or reject conditions imposed by the Board of Commissioners upon preliminary/final approval. In the absence of an appeal or a notice of rejection filed in writing within thirty (30) days from the date of this Resolution, the conditions set forth herein shall be deemed to have been accepted by the Developer. If the Township receives written notice

of an appeal or rejection of any of the conditions set forth herein within thirty (30) days from the date of this Resolution, this approval and the waivers granted in Paragraphs 1 and 2 (which waivers are granted contingent upon the acceptance of the conditions set forth herein) shall be deemed to be automatically rescinded and revoked and the application shall be considered denied based upon the failure to fully comply with all of the sections set forth in Paragraphs 1 and 2, all as authorized by Section 508 of the Pennsylvania Municipalities Planning Code.

APPROVED at the public meeting of the Cheltenham Township Board of Commissioners held on February 17, 2016.

CHELtenham TOWNSHIP

By: 

Morton J. Simon, Jr., President
Board of Commissioners

Attest: 

Bryan T. Havir, Manager/Secretary

Township Engineer Review Letter – February 4, 2016

Exhibit "A"



Boucher & James, Inc.
CONSULTING ENGINEERS

AN EMPLOYEE OWNED COMPANY

INNOVATIVE ENGINEERING

Fountainville Professional Building
1456 Ferry Road, Building 500
Doylestown, PA 18901
215-345-9400
Fax 215-345-9401

2738 Nimrock Drive
Stroudsburg, PA 18360
570-629-0300
Fax 570-629-0306

559 Main Street, Suite 230
Bethlehem, PA 18018
610-419-9407
Fax 610-419-9408
www.bjengineers.com

February 2, 2016

Mr. Henry Sekawungu, Director of Planning and Zoning
Cheltenham Township
8230 Old York Road
Elkins Park, Pennsylvania 19027

**SUBJECT: PRELIMINARY/FINAL LAND DEVELOPMENT PLAN REVIEW NO. 3
CHELTENHAM MALL
CHELTENHAM TOWNSHIP, MONTGOMERY COUNTY, PA
PROJECT NO. 15-82-068R**

Dear Henry,

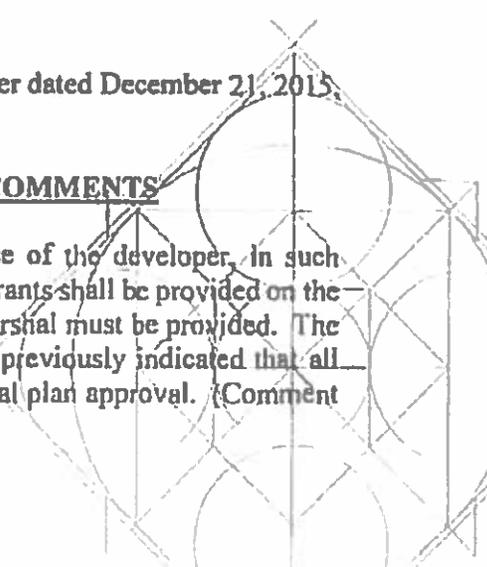
Pursuant to your request, we have completed our third review of the Land Development Plan submitted for the above referenced project. The submitted information consists of the following items:

- Response letter prepared by Bohler Engineering, dated January 26, 2016.
- Waiver request letter prepared by Bohler Engineering, dated January 26, 2016.
- Infiltration Testing Report prepared by GeoStructures, dated January 25, 2016.
- Stormwater Management Facility Operations and Maintenance Manual prepared by Bohler Engineering, dated January 26, 2016.
- Preliminary Opinion of Probable Construction Cost prepared by Bohler Engineering, dated January 26, 2016.
- General Project Description and Stormwater Management Calculations prepared by Bohler Engineering, dated January 26, 2016.
- A twenty nine (29) sheet Land Development Plan set prepared by Bohler Engineering, dated October 7, 2015, last revised January 26, 2016.

Based on our review of the information and our previous review letter dated December 21, 2015, we offer the following comments for your consideration.

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE COMMENTS

1. Per §260-21, fire hydrants shall be installed at the expense of the developer, in such locations as prescribed by the Fire Marshal. Existing fire hydrants shall be provided on the plans and any proposed fire hydrants required by the Fire Marshal must be provided. The Fire Marshal has reviewed the plans and the Applicant has previously indicated that all comments from the Fire Marshal will be satisfied prior to final plan approval. (Comment 1 of our previous review letter)



2. Per §260-25.B, the minimum pipe size of all storm sewer must be fifteen inches (15"). The proposed twelve inch (12") storm sewer must be revised. The Applicant is requesting a waiver from §260-25.B to permit twelve inch (12") diameter storm sewer on private property. (Comment 2 of our previous review letter)
3. Per §260-30.C, it shall be the responsibility of the Applicant to prepare a planning module when required by the Pennsylvania Department of Environmental Protection (PADEP). The Environmental Impact Study states that a decrease in sewage flows is anticipated and a Planning Module Exemption form will be submitted to PADEP. This form must be submitted through the Township. (Comment 4 of our previous review letter) The Applicant has indicated that the Sewer Planning Module Exemption is still pending review.
4. Per §260-32.D.(2) and §260-33.C.(1)(k), the location, names and widths of streets, including those shown on the Township plan of streets; the location and name of railroads; the location of property lines and names of owners; and the location of watercourses, sanitary sewers, storm drains and similar features within four hundred (400) feet must be provided on the plan. The Applicant is requesting a partial waiver from §260-32.D.(2) and §260-33.C.(1)(k) to permit the use of an aerial photograph. We support this request. (Comment 5 of our previous review letter)
5. Per §260-32.D.(4), the location size and ownership of all underground utilities and any rights-of-way within the property shall be shown. The plans must provide the locations of the existing gas and water lines, as well as any rights-of-way and the ownership of all existing underground utilities. The plans have been revised to show the location of the existing gas and water lines. The Applicant is requesting a partial waiver from §260-32.D.(4) to provide underground utility information within the area of work only. (Comment 6 of our previous review letter)
6. Per §260-32.D.(5), topography within and adjacent to the property for a minimum distance of four hundred (400) feet must be provided. The Applicant is requesting a waiver from §260-32.D.(5) to permit the use of an aerial photograph. The existing topography is shown within the property. We support this request. (Comment 7 of our previous review letter)
7. Per §260-32.E.(7), the location and size of existing storm sewer, sanitary sewers, water mains, gas mains, fire hydrants, etc. shall be provided on the plan. The water main is not shown and the other utilities are sporadically shown throughout the plan set. All applicable utility information is now shown on the plan. The Applicant is requesting a partial waiver from §260-32.E.(7) to provide underground utility information within the area of work only. (Comment 9 of our previous review letter)
8. Per §260-34.E.(3), profiles of the proposed storm sewers must be provided. Additionally, profiles of the existing storm sewer where the proposed storm sewer ties into must be provided. All existing and proposed utility crossings must be provided on the profiles. (Comment 13 of our previous review letter) Storm sewer profiles have been provided with this submission and we offer the following comments.

- a. The profile sheet indicates a curb reveal of eight inches (8") while the grading and detail plans indicate a curb reveal of six inches (6"). The plans must be revised for consistency.
- b. The rim elevation of 320.90 provided for MH202 on the profile sheet is low when compared to the existing 322 and 321 contours and must be revised.

STORMWATER MANAGEMENT ORDINANCE COMMENTS

9. Per §290-13.A.(4), §290-14.A.(1), §290-18.D. and M., E&S control and SWM best management practices (BMPs) shall be designed, implemented, operated and maintained during the regulated earth disturbance activities to meet the purposes and requirements of this chapter and to meet all requirements under Title 25 of the Pennsylvania Code and the Clean Streams Law. All reviews and letters of adequacy from the County Conservation District, and an approved NPDES permit must be provided. The Applicant has previously indicated that copies of correspondences with the County Conservation District will be provided to the Township. All permits must also be provided upon receipt. (Comment 14 of our previous review letter)
10. Per §290-13.B, an existing resource and site analysis map (ERSAM) must be provided showing environmentally sensitive areas, including, but not limited to steep slopes, ponds, lakes, streams, wetlands, hydric soils, vernal ponds, stream buffers, floodplains and hydrologic soil groups. Existing Features Plans have been provided which can be utilized as an ERSAM, however, all requirements of this Section must be provided. In addition to the Existing Features Plans, an overall plan must also be provided. The Applicant is requesting a waiver from §290-13.B and indicates that all proposed work is within a previously developed area and that no existing natural features will be impacted. (Comment 15 of our previous review letter)
11. Per §290-20, calculations for the required recharge volume must be provided. Additionally, infiltration testing and test pits must be completed to ensure the suitability of the soils for infiltration and depth of the infiltration basins. The proposed infiltration basins are located within the area of the proposed building to be removed. It is noted in the Stormwater Management Calculations that testing will be completed following the demolition of the existing building. (Comment 19 of our previous review letter) Infiltration testing has been completed for the proposed rain garden and the volume requirements have been met. The Applicant is requesting a waiver from §290-20 in the event infiltration is not feasible for the underground infiltration basins.
12. Per §290-30.A, the applicant shall provide a financial guarantee to the municipality for the timely installation and proper construction of all stormwater management facilities as required by the approved SWM site plan. A construction cost estimate must be provided for review. (Comment 21 of our previous review letter) A probable construction cost has been submitted. A review will be completed and any comments will be provided under separate cover.

13. Per §290-33, the owner must sign an Operations and Maintenance agreement with the municipality covering all stormwater facilities and BMPs that are to be privately owned. The Township Solicitor's office generally prepares this agreement prior to the recordation of the plan. (Comment 22 of our previous review letter)

ADDITIONAL COMMENTS

14. "Cheltenham Township Development Application No. 15-11" must be provided on the lower right hand corner of all plan sheets. (Comment 25 of our previous review letter) The application number must still be provided on Sheet 13.
15. Sidewalk must be provided along one (1) side of Shoppers Lane. Sidewalk has not been provided and the Applicant has previously indicated that there are significant grade changes and several trees that limit the additional sidewalk along the northern side of Shoppers Lane. The Applicant had also indicated that there is not sufficient room on the southern side of Shoppers Lane for a sidewalk. (Comment 28 of our previous review letter) It is further noted that the Applicant will consider installation of sidewalk in the future in order to not delay construction of the current proposal.
16. We recommend the Applicant add new landscape islands throughout the property to increase the pervious area, reduce the lengths of parking rows, and to provide canopy tree opportunities. Two (2) additional landscape areas are proposed near Wendy's and Washington Lane. The Applicant indicates that additional landscape islands cannot be accommodated due to existing tenant agreements. (Comment 36 of our previous review letter)

REVISED PLAN COMMENTS

17. It does not appear that the total flow from OS1 to MH103 is included in the storm sewer calculations. The discharge from Basin #1 for the 25-year storm event is 7.982 and must be included in the OS1 to MH103 storm sewer calculations.
18. Our landscaping count indicates there are 200 Japanese Garden Juniper and 126 Dwarf Fountain Grass. The Landscape Schedule on Sheet 15 indicates 232 Japanese Garden Juniper and 154 Dwarf Fountain Grass, and must be revised.
19. On Sheet 17, a Willow Oak is proposed within the Right-of-Way of Washington Lane and must be relocated.
20. The Basin Pipe Elevation provided in the Prop. Basin Outlet Structure OS02 detail on Sheet 26 is 315.50. The invert elevations of the manholes shown in the associated plan view on the same sheet are lower than 315.50 and will not provide positive flow toward the proposed outlet structure.

Mr. Henry Sekawungu
Cheltenham Mall Land Development
February 2, 2016
Page 5 of 5

21. The chart that accompanies the Typical Bioretention Area Detail on Sheet 26 must be revised to include the infiltration testing results, and the correct overflow grate and overflow invert elevations.

We recommend the above comments be addressed to the satisfaction of Cheltenham Township prior to approval of this plan.

Please contact me if you have any additional questions or concerns.

Sincerely,



Amy Riddle Montgomery, P.E.
Township Engineer

ARM/mep/cg

cc: Bryan T. Havar – Township Manager
AA Olympic Cheltenham, LLC – Owner/Applicant
Cornelius Brown, P.E. – Bohler Engineering PA, LLC
Brian Olszak - Montgomery County Planning Commission

Diagram
Exhibit "B"

**TOWNSHIP OF CHELTENHAM
RESOLUTION NO. 59-16**

A RESOLUTION AUTHORIZING THE TOWNSHIP MANAGER TO EXECUTE AND FILE ALL REQUIRED CERTIFICATIONS, ASSURANCES, CONTRACTS, AGREEMENTS AND OTHER DOCUMENTS AS THEY RELATE TO THE STATE TRANSPORTATION ALTERNATIVES PROGRAM (TAP) GRANT FOR THE ELKINS PARK WEST COMMERCIAL DISTRICT PHASE I STREETScape IMPROVEMENT PROJECT

WHEREAS, the Township of Cheltenham, Montgomery County, Pennsylvania was successful in its application to the Pennsylvania Department of Transportation (PennDOT) for a federal Transportation Alternatives Program (TAP) grant in the amount of \$1 Million for the design and construction of streetscape improvements at the intersection of Church Road and Old York Road, known as the Elkins Park West Commercial District Streetscape Improvements Phase I Project; and

WHEREAS, Cheltenham Township is required to execute a Federal Reimbursement Agreement and other certifications, assurances, contracts and agreements for this project;

NOW THEREFORE BE IT RESOLVED, that the Township Manager of Cheltenham Township be authorized to execute and file all required certifications, assurances, contracts, agreements and other documents as they relate to the TAP grant for the Elkins Park West Commercial District Phase I Streetscape Improvement project.

DONE IN ELKINS PARK, PENNSYLVANIA, under my hand and the Seal of the Township of Cheltenham, this 17th day of February, A.D., 2016, in the year of the Township of Cheltenham, the one hundred seventeenth.

Resolved and adopted this 17th day of February, A.D., 2016.

ATTEST:



Bryan T. Havir
Township Manager and Secretary

TOWNSHIP OF CHELTENHAM
BOARD OF COMMISSIONERS



By: _____
Morton J. Simon, President

Prepared by and Return To:

Joseph M. Bagley, Esquire
Wisler Pearlstine, LLP
Office Court at Walton Point
484 Norristown Road
Suite 100
Blue Bell, PA 19422

T.M.P. No. 31-00-19117-00-4

TEMPORARY LICENSE AND RIGHT-OF-WAY AGREEMENT

KNOW ALL MEN BY THESE PRESENTS THAT:

WHEREAS, the Township of Cheltenham (hereinafter referred to as "Licensee"), has constructed a sanitary sewer interim bypass pipe (hereinafter referred to as the "Project"), along the channel of Tookany Creek so as to alleviate, in part, sanitary sewer overflows, as much as feasible; and

WHEREAS, Horace F. Hankinson (hereinafter referred to as the "Owner") is the owner of that certain land in the Township of Cheltenham, Montgomery County, Pennsylvania, as noted on Exhibit "B" (denoted as Temporary Easement Area T-E46-18) and made a part hereof (hereinafter referred to as "Property"), and

WHEREAS, the Licensee has requested the Owner to grant it, its agents, assigns, and employees, a Right-of-Way into and upon the Property and license and right to perform the work described in Exhibit "A" as well as on the plan attached hereto and made a part hereof as Exhibit "B", and a right to do all things necessary or required to effectively carry on the work including but not limited to the installation of an interim bypass pipe for sanitary sewage; and

WHEREAS, the Owner is willing to grant such License and Right-of-Way upon the terms and conditions contained herein.

NOW THEREFORE, in consideration of the benefits which will inure to the Owner and the general public from the Project, as well as the additional consideration described below, and intending to be legally bound hereby, the parties hereto covenant and agree as follows:

1. The Owner hereby grants and conveys to the Licensee and its agents and employees, a license to enter and a Right-of-Way upon the aforesaid Property, with the necessary rights of ingress, egress, regress with all necessary personnel, materials and equipment, a Right-of-Way for the interim bypass pipe to occupy the Property where designated on Exhibit "B" and a license to perform the work described on the attached Work Description, and to do all things necessary or required to effectively carry on the work in a good and workmanlike manner.

2. The Term of this Right-of-Way Agreement shall commence on September 30, 2010, and shall be terminated upon the earlier of (a) final completion of the construction and use of the Project or (b) December 31, 2017 ("Expiration Date").

3. In consideration for the rights granted herein by Owner, Licensee: (1) has already paid Owner the sum of Ten Thousand Dollars (\$10,000.00) for the time period of September 30, 2010 until September 30, 2015 and (2) shall pay Owner the sum of Five Thousand Dollars (\$5,000.00) for the time period October 1, 2015 until the Expiration Date. In exchange, Owner RELEASES and DISCHARGES Licensee from all claims, damages, expenses, remuneration, costs, judgments, and awards of any kind including, but not limited to, the taking, the use and occupancy of Owner's land, the Work by Licensee, all claims for eminent domain damages and expenses, inverse condemnation damages and expense and for trespassing.

4. In no event shall Licensee disturb the Owner's land outside the temporary easement, nor undermine or damage the buildings or improvements on the Property.

5. Licensee shall repair and/or replace any vegetation, trees, and or shrubbery disturbed by Licensee or damaged in anyway by the Project during the term of this Agreement.

6. (a) Licensee agrees to be solely responsible for, and hereby agrees to indemnify, defend and hold harmless Owner from and against, any and all claims, demands, suits, loss, liabilities or causes of action of any type of nature relating to, arising out of, or in anyway connected with Licensee's use of the Owner's Property for a period of (1) one year after the Expiration Date EXCEPT those with regards to a taking, inverse condemnation and/or trespassing and all damages arising prior to or on the Expiration Date.

(b) To the fullest extent provided by law, Licensee agrees to defend, protect, indemnify and hold harmless Owner and any mortgagor of the land, and their agents, employees, officers, directors and partners, general and limited (collectively the "Indemnities") of and from any and all claims, demands, suits, damages, expenses, penalties, fees, fines proceedings and liabilities (including without limitation, costs of defense, investigation and adjustment) of any kind whatsoever (collectively "Liabilities") asserted against Indemnities arising from or relating to the Work of Licensee's activities while on the Property owned by Owner for a period of (1) one year after the Expiration Date.

7. Upon removal of the interim bypass pipe, Licensee shall remove its goods and effects, repair damage caused by such removal, and peaceably yield up the Property in good order, repair and condition, and restore the Owner's Property substantially to the condition to which it existed prior to its installation.

8. Licensee, its agents, employees and contractors shall conduct its Work in a careful, safe and proper manner and shall keep the Property and the area around the Property in a clean and safe condition.

9. This Agreement shall inure to the benefit of, and shall bind, the parties, their respective heirs, executors, administrators, trustees, transferees, successors and assigns.

10. This Agreement shall be governed by and be interpreted by the laws of the Commonwealth of Pennsylvania.

IN WITNESS WHEREOF, the parties hereto, intending to be legally bound hereby, have set their hands by the dates written below.

Dated:

OWNER

Horace F. Hankinson

Dated:

TOWNSHIP OF CHELTENHAM

By: _____

Title: _____

ORDINANCE NO. 2322-16

AN ORDINANCE TO AMEND THE CODE OF THE TOWNSHIP OF CHELTENHAM, CHAPTER 285 THEREOF, ENTITLED VEHICLES AND TRAFFIC, BY AMENDING CERTAIN STREET AND PARKING REGULATIONS.

The Board of Commissioners of the Township of Cheltenham hereby ordains:

SECTION 1. The Code of the Township of Cheltenham, Chapter 285, Article IV, entitled Schedule of Traffic Regulations, Section 285-43 thereof is hereby amended by **DELETING** the following:

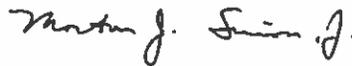
COTTMAN AVE (C) HANDICAPPED PARKING, at 420 Cottman Avenue

SECTION 2. That in all other respects Chapter 285 of the Code of the Township of Cheltenham is hereby approved and accepted as amended, and shall continue in full force and effect.

SECTION 3. This Ordinance shall take effect and be in force from and after its approval as required by law.

ENACTED into an Ordinance this 17th day of February, 2016.

BOARD OF COMMISSIONERS
TOWNSHIP OF CHELTENHAM



By _____
Morton J. Simon, President



ATTEST: _____
Bryan T. Havir, Township Manager

**CHELTENHAM TOWNSHIP
BOARD OF COMMISSIONERS**

MONTGOMERY COUNTY, COMMONWEALTH OF PENNSYLVANIA

RESOLUTION NO. 60-16

**RESOLUTION AUTHORIZING THE
DISBURSEMENT OF \$4,500 (OR LESS) ANNUALLY
IN ORDER TO FUND THE CHELTENHAM
TOWNSHIP CONTRIBUTION TOWARDS THE
MONTGOMERY COUNTY SWAT-EASTERN
REGION TEAM**

WHEREAS, the Pennsylvania Legislature has empowered law enforcement officers to exercise their powers outside of their normal jurisdictions when a request for assistance is forthcoming from another law enforcement agency, 42 Pa.C.S.A. §8953; and

WHEREAS, certain governing bodies of municipalities in the eastern portion of Montgomery County, Pennsylvania have determined that it is in the public interest and of mutual advantage to enter into an agreement for the provision of inter-agency police services in the form of the Montgomery County SWAT-Eastern Region Team; and

WHEREAS, Cheltenham Township has agreed to participate as a signatory to a mutual aid compact for Montgomery County SWAT-Eastern Region Team.

NOW, THEREFORE, pursuant to the above background, the Board of Commissioners of Cheltenham Township hereby **RESOLVES** as follows:

1. The Township administration is hereby authorized to disburse \$4,500 (or less if billed a lesser amount) annually to fund a yearly assessment for Cheltenham Township's participation in the Montgomery County SWAT-Eastern Region Team, as billed by Upper Dublin Township, until further action by the Cheltenham Township Board of Commissioners.

ADOPTED this 17th day of February, 2016 by the Board of Commissioners of Cheltenham Township, in lawful session, duly assembled.

CHELTENHAM TOWNSHIP

Morton J. Simon, Jr.

By: _____

Morton J. Simon, Jr., President
Board of Commissioners

Bryan T. Havir

Attest: _____

Bryan T. Havir, Manager/Secretary

**TOWNSHIP OF CHELTENHAM
RESOLUTION NO. 61-16**

**A RESOLUTION DECLARING CHELTENHAM
TOWNSHIP'S INTENT TO FOLLOW THE SCHEDULES
AND PROCEDURES FOR DISPOSITION OF RECORDS AS
SET FORTH IN THE PENNSYLVANIA MUNICIPAL
RECORDS ACT AND THE MUNICIPAL RECORDS
MANUAL OF 1968, REVISED DECEMBER 16, 2008, AS
AMENDED FROM TIME-TO-TIME**

WHEREAS, the Board of Commissioners of Cheltenham Township, Montgomery County, Pennsylvania, hereby acknowledges that a Local Government Records Committee of the Pennsylvania Historical and Museum Commission, Division of Archival and Records Management Services was created by the Pennsylvania State Legislature, Act 428 "Municipal Records Act" of 1968, as amended from time to time, and empowered thereby to make rules and regulations for the disposition and management of municipal records; and

WHEREAS, the Township of Cheltenham desires to dispose of municipal records according to Pennsylvania statutory requirements in accordance with the schedule of the Municipal Records Manual (MRM) issued by the Local Government Records Committee, which a list of said Cheltenham Township records are outlined in the attached Exhibit "A."

NOW, THEREFORE, BE IT RESOLVED by the Board of Commissioners of the Township of Cheltenham, Montgomery County, Pennsylvania, that it intends to follow the schedules and procedures for disposition of records as set forth in the Municipal Records Manual revised on December 16, 2008, as amended from time to time.

I HEREBY CERTIFY that the foregoing resolution was adopted by the Board of Commissioners of the Township of Cheltenham, County of Montgomery, Commonwealth of Pennsylvania, at its public meeting held at Curtis Hall, 1250 West Church Road, Wyncote, Pennsylvania, 19095, under my hand and the Seal of the Township of Cheltenham, this seventeenth day of February, A.D., 2016, in the year of the Township of Cheltenham the one hundred seventeenth.

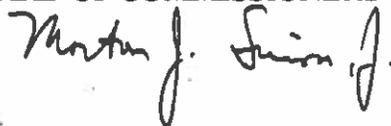
Resolved and adopted this 17th day of February, A.D., 2016.

ATTEST:



Bryan T. Havir
Township Manager and Secretary

TOWNSHIP OF CHELTENHAM
BOARD OF COMMISSIONERS



By: _____
Morton J. Simon, Jr., President

EXHIBIT "A"

Box #	Year(s) of Record	Record Type	Year End To Destroy	MRM REF.
		ADMINISTRATIVE & LEGAL		
	Per grant agency requirements	Grant Files and Unfunded Grant Applications	2015	AL-14
	2012 & earlier	Right to Know Requests	2015	AL-46
	2012 & earlier	Police Dept. Purchase Orders – Duplicates of Financial & Purchasing Records	2015	AL-1
		FINANCIAL & PURCHASING		
1067	2008	Payables A-D	2015	FN-2
1068	2008	Payables E-L	2015	FN-2
1069	2008	Payables M-P	2015	FN-2
1070	2008	Payables Q-Z	2015	FN-2
1015	2007	Daily Cash Receipts January – June	2014	FN-12
1036	2008	Daily Cash Receipts January – June	2015	FN-12
1037	2008	Daily Cash Receipts July – December	2015	FN-12
1017	2008	Daily Cash Posting Reports; Interface Invoice Short Listing; Receivable Activity Report	2015	FN-1
1018	2008	Activity Report: Payable & Check Register, Check Ledger	2015	FN-1
	2008	Street light billing records	2015	FN-3
3-2008	2008 & earlier	Tax Office: Letters and correspondence, A/P and closeouts	2015	FN-2
		PARKS AND RECREATION		
1272	2006	Pool and Program Income Receipts	2015	PR-5, FN-3
1273	2007	Pool and Program Income Receipts	2015	PR-5, FN-3
1274	2008	Pool and Program Income Receipts	2015	PR-5, FN-3
6011	2006-2007	Parks and Recreation Injuries	2015	PR-1
		PAYROLL		
1021	2008	Payroll Timesheets July – September	2015	PL-14
1019	2008	Payroll Timesheets April-June	2015	PL-14
991	2007	Payroll Timesheets July-Sept	2014	PL-14
1018	2008	Payroll Activity & Check Ledger	2015	PL-6
1074	2008	Payroll Journals January – June	2015	PL-6
1073	2008	Payroll Journals July – September	2015	PL-6
	2012 and earlier	Public Works Timesheets	2015	PL-14
		PERSONNEL		
6011	2006	Workers Comp. Claims	2015	PS-14
6011	2005-2006	Health & Fitness Reimbursements	2015	FN-15
6011	2006	Vision Benefits Bills	2015	FN-2
6011	2000-2006	Alston Advertising Bills	2015	FN-2
6011	2006	Summer Students Material	2015	PS-8
	2012 & earlier	Public Works Accident Reports – In accordance with CDL Records retention requirements	2015	PS-4

6011	2006	Terminated Employees Short-Term Disability Files: Jamcil Gaskins, Deborah Goss-Leo, John Harper, Thomas Dorley	2015	PS-7
6011	2006	Terminated Employees FMLA Files: Leo Jordan, Frank Sassa	2015	PS-7
PLANNING, BUILDING, ZONING & CODE ENFORCEMENT				
	2009 & earlier	Residential Building Permits	2015	PZ-3
	2012 & earlier	Zoning Use & Occupancy Applications	2015	PZ-2
POLICE				
	Years Prior to 2013	Traffic and Non Traffic (Summary) Citations	2015	PO-4
	Years Prior to 2013	PA Uniform Crime Reporting	2015	PO-19
	Years Prior to 1996	Detective Case Files – Minor Cases	2015	PO-8
	Years Prior to 2014	Cell Supervision Sheets	2015	PO-10
	Years Prior to 2014	Patrol Logs	2015	PO-10
	Years Prior to 2011	Police Applicant Testing Materials	2015	Not covered Under MRM, Directive 15
TAX COLLECTION & ASSESSMENT				
1-2008	2008 & earlier	Tax Duplicates; Proof Book and Computer Printouts	2015	TA-15
2-2008	2008 & earlier	Real Estate Tax Payment Records; Earned Income Tax and Transmittal Records	2015	TA-6
4-2008	2008 & earlier	Business Privilege Tax Files for Filers who went out of Business	2015	TA-6

**BOARD OF COMMISSIONERS
CHELTENHAM TOWNSHIP
MONTGOMERY COUNTY, PENNSYLVANIA**

ORDINANCE NO. 2320-16

**“Stormwater Management Ordinance for the Wissahickon Creek Watershed
in Cheltenham Township”**

**AN ORDINANCE OF THE TOWNSHIP OF CHELTENHAM
IMPLEMENTING THE REQUIREMENTS OF THE WISSAHICKON
CREEK WATERSHED STORMWATER MANAGEMENT PLAN**

The Board of Commissioners of Cheltenham Township does hereby ENACT and ORDAIN:

SECTION I. – Amendment to Code

The Code of the Township of Cheltenham is hereby amended to add a new Chapter 291 entitled “Stormwater Management Ordinance for the Wissahickon Creek Watershed in Cheltenham Township” which new Chapter shall consist of Articles I through IX as set forth below and certain appendices as attached hereto:

ARTICLE I- GENERAL PROVISIONS

Section 101. Short Title

This Ordinance shall be known and cited as the “Wissahickon Creek Stormwater Management Ordinance”.

Section 102. Statement of Findings

The governing body of the Municipality finds that:

- A. Inadequate management of accelerated stormwater runoff resulting from development throughout a watershed increases flood flows and velocities, contributes to erosion and sedimentation, overtaxes the carrying capacity of existing streams and storm sewers, greatly increases the cost of public facilities to convey and manage stormwater, undermines floodplain management and flood reduction efforts in upstream and downstream communities, reduces groundwater recharge, and threatens public health and safety.
- B. Inadequate planning and management of stormwater runoff resulting from land development throughout a watershed can also harm surface water resources by changing the natural hydrologic patterns, accelerating stream flows (which increase scour and erosion of streambeds and streambanks, thereby increasing sedimentation), destroying aquatic habitat, and increasing aquatic pollutant concentrations and loadings such as sediments, nutrients, heavy metals, and pathogens. Groundwater resources are also impacted through loss of recharge.

- C. A comprehensive program of stormwater management, including minimization of impacts of development, redevelopment, and activities causing accelerated erosion and loss of natural infiltration, is fundamental to the public health, safety, welfare, and the protection of the people of the Municipality and all of the people of the Commonwealth, their resources, and the environment.
- D. Stormwater is an important resource by providing groundwater recharge for water supplies and baseflow of streams, which also helps to protect and maintain surface water quality.
- E. Impacts from stormwater runoff can be minimized by using project designs that maintain the natural hydrologic regime and sustain high water quality, groundwater recharge, stream baseflow, and aquatic ecosystems.
- F. Federal and state regulations require certain municipalities to implement a program of stormwater controls. These municipalities are required to obtain a permit for stormwater discharges from their separate storm sewer systems under the National Pollutant Discharge Elimination System (NPDES).
- G. Nonstormwater discharges to municipal separate storm sewer systems can contribute to pollution of waters of the Commonwealth.

Section 103. Purpose

The purpose of this Ordinance is to promote the public health, safety, and welfare within the Wissahickon Creek Watershed by maintaining the natural hydrologic regime and by minimizing the harms and maximizing the benefits described in Section 102 of this Ordinance, through provisions designed to:

- A. Meet legal water quality requirements under state law, including regulations of 25 Pa. Code 93 to protect, maintain, reclaim, and restore the existing and designated uses of the waters of the Commonwealth.
- B. Preserve the natural drainage systems as much as possible.
- C. Manage stormwater close to the source.
- D. Provide procedures and performance standards for stormwater planning and management.
- E. Maintain groundwater recharge to prevent degradation of surface and groundwater quality and to otherwise protect water resources.
- F. Prevent scour and erosion of streambanks and streambeds.
- G. Provide proper operation and maintenance of all Stormwater Best Management Practices (BMPs) that are implemented within the Municipality. Provide standards to meet National Pollutant Discharge Elimination System (NPDES) requirements.
- H. Meet legal water quality requirements under state law, including regulations at 25 Pennsylvania Code Chapter 93.4.a requiring protection and maintenance of “existing uses” and maintenance of

the level of water quality to support those uses in all streams, and the protection and maintenance of water quality in “special protection” streams.

- I. Address the quality and quantity of stormwater discharges.
- J. Provide standards necessary to meet NPDES permit requirements.
- K. Implement an illegal discharge detection and elimination program that addresses non-stormwater discharges into the Municipality’s separate storm sewer system.
- L. Preserve and restore the flood-carrying capacity of streams.
- M. Prevent scour and erosion of streambanks and streambeds.
- N. Provide proper operation and maintenance of all stormwater management facilities and BMPs that are implemented in the Municipality.

Section 104. Statutory Authority

The Municipality is empowered to regulate land use and activities that may affect runoff and surface and groundwater quality and quantity by the authority of:

- A. **Primary Authority.** The Municipality is empowered to regulate land use activities that affect runoff and surface and groundwater quality and quantity by the authority of the Act of October 4, 1978, P.L. 864 (Act 167), 32 P.S. Section 680.1, et seq., as amended, the “Storm Water Management Act” and the (appropriate municipal code).
- B. **Secondary Authority.** The municipality also is empowered to regulate land use activities that affect runoff by the authority of the Act of July 31, 1968, P.L. 805, No. 247, The Pennsylvania Municipalities Planning Code, as amended.

Section 105. Applicability

All Regulated Activities and all activities that may affect stormwater runoff, including Land Development and Earth Disturbance Activities, are subject to regulation by this Ordinance. This Ordinance shall apply to those portions of the Municipality that lie within the Wissahickon Creek Watershed, in accordance with the Stormwater Management Districts established in Section 408.

Regulated Activities include the following:

- A. Land development,
- B. Subdivisions,
- C. Alteration of the natural hydrologic regime,
- D. Construction or reconstruction (see definition in Section 202.B) of or addition of new impervious or semi-pervious surfaces (i.e., driveways, parking lots, roads, etc.),
- E. Construction of new buildings or additions to existing buildings,
- F. Redevelopment,

- G. Diversion piping or encroachments in any natural or man-made channel,
- H. Stormwater BMPs or appurtenances thereto,
- I. Earth disturbance activities of equal to or greater than five thousand (5,000) square feet,
- J. Any of the above regulated activities which were approved more than five (5) years prior to the effective date of this Ordinance and resubmitted for municipal approval.

Section 106. Exemptions

- A. Table 106.1a summarizes the exemptions from certain requirements in this Ordinance. “Proposed Impervious Surface” in Tables 106.1a includes new, additional, or replacement impervious surface/cover. “Repaving” existing surfaces without reconstruction (see Section 202) does not constitute replacement.

**Table 106.1a
Exemptions for the Montgomery County Portion of the
Watershed**

Article or Section	Type of Project	Proposed New Impervious Cover						
		<1000 sq. ft.			>1000 to <5,000 sq. ft.			>5,000 sq. ft.
		Earth Disturbance <5,000 sq. ft.	Earth Disturbance >5,000 sq. ft. - 1 acre*	Earth Disturbance > 1 acre	Earth Disturbance <5,000 sq. ft.*	Earth Disturbance >5,000 sq. ft. - 1 acre*	Earth Disturbance > 1 acre	All Earth Disturbance Categories
Article III SWM Site Plan Requirements	Development and Redevelopment	Exempt	Not Exempt	Not Exempt	Not Exempt	Not Exempt	Not Exempt	Not Exempt
Section 404 Nonstructural Project Design	Development and Redevelopment	Exempt	Not Exempt	Not Exempt	Not Exempt	Not Exempt	Not Exempt	Not Exempt
Section 405 Groundwater Recharge	Development and Redevelopment	Exempt	Not Exempt	Not Exempt	Not Exempt	Not Exempt	Not Exempt	Not Exempt
Section 406 Water Volume Control Requirements	Development and Redevelopment	Exempt	Not Exempt	Not Exempt	Not Exempt	Not Exempt	Not Exempt	Not Exempt
Section 407 Stream Bank Erosion Requirements	Development	Exempt	Not Exempt	Not Exempt	Not Exempt	Not Exempt	Not Exempt	Not Exempt
	Redevelopment		Exempt		Exempt			
Section 408 Stormwater Peak Rate Control and Management Districts	Development and Redevelopment	Exempt	Exempt	Not Exempt	Exempt	Exempt	Not Exempt	Not Exempt
Erosion and Sediment Pollution Control Plan	Earth Disturbance	See Earth Disturbance Requirements	See Earth Disturbance Requirements	See Earth Disturbance Requirements	See Earth Disturbance Requirements	See Earth Disturbance Requirements	See Earth Disturbance Requirements	See Earth Disturbance Requirements
(Refer to municipal earth disturbance requirements, as applicable)								

Notes:

Exempt – Exempt unless a determination is made by the municipality that the project is subject to Section 106.C. Not Exempt – Not exempt. All provisions apply.

*Not exempt, but if a municipality has adopted the ordinance for the Small Project SWM Site Plan for Residential Development in Appendix B, such a plan may be submitted in lieu of the SWM Site Plan for residential development.

B. Exemptions for Land Use Activities

(Note: Appendix B contains guidance for preparation of Small Project SWM Site Plans. *This guidance provides property owners who propose such small regulated activities the opportunity to submit SWM Site Plans without having to hire Qualified Persons.*)

1. Disconnected Regulated Activities (Regulated Activities that create Disconnected Impervious Areas) smaller in area than 1000 square feet are exempt from the SWM Site Plan (Section 301) preparation requirements of this Ordinance, except when the associated earth disturbance area is equal to or greater than 5,000 square feet.
2. Disconnected Regulated Activities (Regulated Activities that create Disconnected Impervious Areas), having an area equal to or greater than 1000 square feet and less than 5,000 sq. ft., and with an associated earth disturbance area of less than 5,000 square feet, are exempt only from the peak rate control(Section 408) requirements of this Ordinance in the case of new development, and are exempt from peak rate control (Section 408) and streambank erosion (Section 407) requirements in the case of redevelopment.
3. Agricultural plowing and tilling are exempt from the rate control and SWM Site Plan preparation requirements of this Ordinance provided the activities are performed according to the requirements of 25 Pa. Code Chapter 102.
4. Forest management and timber operations are exempt from the rate control and SWM Site Plan preparation requirements of this Ordinance provided the activities are performed according to the requirements of 25 Pa. Code Chapter 102.

C. Infiltration Exemptions

1. Depth to Limiting Zone: A minimum of two (2) feet of soil suitable for infiltration must exist between the invert of the infiltration BMP and the top of the nearest limiting zone. Otherwise, the Rev requirement shall not be applied to the development site, and the entire WQv must be treated.
2. Stormwater Hotspots – Below is a list of types of hotspots that may be recognized by the Municipality. If a site is a potential hotspot, it has important implications for how stormwater is managed. First and foremost, untreated stormwater runoff from hotspots concentrated into a collection system, shall not be recharged into groundwater where it may contaminate water supplies. Therefore, the Rev requirement shall NOT be applied to development sites that lie within a hotspot (the entire WQv must still be treated). Second, a greater level of stormwater treatment shall be applied at hotspot sites to prevent pollutant washoff after construction. The Environmental Protection Agency’s (EPA) National Pollutant Discharge Elimination System (NPDES) stormwater program requires some industrial sites to prepare and implement a stormwater pollution prevention plan.
 - a. List of potential 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 Codes
7. Marinas (service and maintenance)
8. Outdoor liquid container storage
9. Commercial/industrial facilities
10. Public works storage areas
11. Facilities that generate, transfer, store, or dispose hazardous materials
12. Commercial container nursery

b. The following land uses and activities are not normally considered hotspots:

1. Residential streets and rural highways
2. Residential development
3. Institutional development
4. Office developments
5. Nonindustrial rooftops
6. Pervious areas, except golf courses and nurseries (which may need an integrated pest management (IPM) plan).

3. Rate of Infiltration: When infiltration is not feasible due to poor infiltration rates or hotspot, the water quality volume must be treated by an approved SMP.

D. Additional Exemption Criteria:

1. Exemption Responsibilities – An exemption shall not relieve the Applicant from implementing such measures as are necessary to protect public health, safety, property, water quality, and the environment.
2. Drainage Problems – Where drainage problems exist downstream of the proposed activity, then the Municipality may deny exemptions.
3. Exemptions are limited to specific portions of this Ordinance.
4. HQ and EV Streams – The Municipality shall deny exemptions in High Quality (HQ) or Exceptional Value (EV) waters and Source Water Protection Areas (SWPA).
5. For a development taking place in stages, the entire development plan must be used in determining compliance with these exemption criteria. The starting point from which to consider tracts as “parent tracts” in which future subdivisions and respective impervious area computations are cumulatively considered shall be the date of the municipal ordinance adoption of the original Wissahickon Creek Watershed Stormwater Management Plan Ordinance.

For example: If a property owner in Montgomery County proposes a 300-square-foot shed after adoption of the municipal stormwater management ordinance, that property owner would be exempt from site plan and peak rate control requirements. If, at a later date, the

property owner proposes to construct a garage and driveway adding an additional 1,300 square feet of impervious surface, the applicant would be required to submit a SWM Site Plan or Small Project SWM Site Plan demonstrating the stormwater control requirements for the total impervious surface of 1,600 square feet.

- E. The municipality may deny or revoke any exemption pursuant to this Section at any time for any project that the municipality believes may pose a threat to public health, safety, property or the environment.

Section 107. Repealer

Any other Ordinances, provisions or regulations of the Municipality inconsistent with any of the provisions of this Ordinance are hereby repealed to the extent of the inconsistencies only. Municipalities with land area in more than one watershed may enact a single ordinance provided that its provisions are at least as restrictive as the provisions herein. The specific peak rate controls and management districts in Section 408 shall be included in the ordinance.

Section 108. Severability

In the event that a court of competent jurisdiction declares any section or provision of this Ordinance invalid, such decision shall not affect the validity of any of the remaining provisions of this Ordinance.

Section 109. Compatibility with Other Ordinances or Legal Requirements

Approvals issued pursuant to this Ordinance do not relieve the Applicant of the responsibility to secure required permits or approvals for activities regulated by any other applicable code, rule, act, or Ordinance, including Title 25 PA Code, Chapter 92, 102 & 105.

Section 110. Duty of Persons Engaged in the Development of Land

Notwithstanding any provision(s) of this Ordinance, including exemptions, any landowner or any person engaged in the alteration or development of land that may affect stormwater runoff characteristics shall implement such measures as are reasonably necessary to prevent injury to health, safety, or other property. Such measures also shall include actions as are required to manage the rate, volume, direction, and quality of resulting stormwater runoff in a manner that otherwise adequately protects health, safety, property, and water quality.

Section 111. Erroneous Permit

Any permit or authorization issued or approved based on false, misleading, or erroneous information provided by an applicant is void without the necessity of any proceedings for revocation. Any work undertaken or use established pursuant to such permit or other authorization is unlawful. No action may be taken by a board, agency, or employee of the Municipality purporting to validate such a violation.

ARTICLE II-DEFINITIONS

Section 201. Interpretation

For the purposes of this Ordinance, certain terms and words used herein shall be interpreted as follows:

- A. Words used in the present tense include the future tense; the singular number includes the plural, and the plural number includes the singular; words of masculine gender include feminine gender; and words of feminine gender include masculine gender.
- B. The word “includes” or “including” shall not limit the term to the specific example, but is intended to extend its meaning to all other instances of like kind and character.
- C. The words “shall” and “must” are mandatory; the words “may” and “should” are permissive.

Section 202. Definitions

Accelerated Erosion – The removal of the surface of the land through the combined action of man’s activity and the natural processes at a rate greater than that which would occur because of natural process alone.

Agricultural Activities – Activities associated with agriculture such as agricultural cultivation, agricultural operation, and animal heavy use areas. This includes the work of producing crops including tillage, land clearing, plowing, disking, harrowing, planting, harvesting crops, or pasturing and raising of livestock and installation of conservation measures. Construction of new buildings or impervious area is not considered an agricultural activity.

Alteration – As applied to land, a change in topography as a result of the moving of soil and rock from one location or position to another; also the changing of surface conditions by causing the surface to be more or less impervious; land disturbance.

Applicant – A landowner, developer or other person who has filed an application to the Municipality for approval to engage in any Regulated Activity at a project site in the Municipality.

As-built Drawings – Engineering or site drawings maintained by a developer to show the actual locations of building components and changes from the original contract documents. These documents, or a copy of same, are turned over to the Municipality at the completion of the project.

Bankfull – The channel at the top-of-bank or point from where water begins to overflow onto a floodplain.

Baseflow – Portion of stream discharge derived from groundwater; the sustained discharge that does not result from direct runoff or from water diversions, reservoir releases, piped discharges, or other human activities.

Bioretention – A stormwater retention area that utilizes woody and herbaceous plants and soils to remove pollutants before infiltration occurs.

BMP (Best Management Practice) – Activities, facilities, designs, measures or procedures used to manage stormwater impacts from Regulated Activities, to meet State Water Quality Requirements, to promote groundwater recharge and to otherwise meet the purposes of this Ordinance. Stormwater BMPs

are commonly grouped into one of two broad categories or measures: “structural” or “non- structural.” In this Ordinance, non-structural BMPs or measures refer to operational and/or behavior-related practices that attempt to minimize the contact of pollutants with stormwater runoff, or to provide other environmental or aesthetic benefits such as low impact designs, riparian or forested buffers; whereas structural BMPs or measures are those that consist of a physical device or practice that is installed to capture and treat stormwater runoff. Structural BMPs include, but are not limited to, a wide variety of practices and devices, from large-scale retention ponds and constructed wetlands, to small-scale underground treatment systems, infiltration facilities, filter strips, bioretention, wet ponds, permeable paving, grassed swales, sand filters, detention basins, and manufactured devices. Structural Stormwater BMPs are permanent appurtenances to the project site.

BMP Manual- *Pennsylvania Stormwater Best Management Practices Manual*, No. 363-0300-002 (December 2006).

Buffer – The area of land immediately adjacent to any stream, measured perpendicular to and horizontally from the top-of-bank on both sides of a stream (see Top-of-bank).

Channel – An open drainage feature through which stormwater flows. Channels include, but shall not be limited to, natural and man-made drainageways, swales, streams, ditches, canals, and pipes flowing partly full.

Channel Erosion – The widening, deepening, or headward cutting of channels and waterways caused by stormwater runoff or bankfull flows.

Cistern – An underground reservoir or tank for storing rainwater.

Conservation District – A conservation district, as defined in section 3(c) of the Conservation District Law (3 P. S. § 851(c)), that has the authority under a delegation agreement executed with DEP to administer and enforce all or a portion of the regulations promulgated under 25 Pa. Code 102.

Conveyance – A facility or structure used for the transportation or transmission of something from one place to another.

Culvert – A structure with its appurtenant works which carries water under or through an embankment or fill.

Dam – A man-made barrier, together with its appurtenant works, constructed for the purpose of impounding or storing water or another fluid or semifluid. A dam may include a refuse bank, fill, or structure for highway, railroad, or other purposes that impounds or may impound water or another fluid or semifluid.

DEP (or PADEP) - The Pennsylvania Department of Environmental Protection.

Design Storm – The magnitude and temporal distribution of precipitation from a storm event measured in probability of occurrence that such magnitude will be equaled or exceeded in any one year (e.g., the 20% chance, or so-called 5-year (recurrence interval) storm), and duration (e.g., twenty-four (24) hours), used in the design and evaluation of stormwater management systems. Also see Return Period.

Detention Volume- The volume of runoff that is captured and released into the waters of the Commonwealth at a controlled rate.

Detention Basin – An impoundment designed to collect and retard stormwater runoff by temporarily storing the runoff and releasing it at a predetermined rate. Detention basins are designed to drain completely soon after a rainfall event, and to become dry until the next rainfall event.

Developer – A person who seeks to undertake any regulated earth disturbance activities at a project site in the Municipality.

Development – Any human-induced change to improved or unimproved real estate, whether public or private, including, but not limited to, land development, construction, installation, or expansion of a building or other structure, land division, street construction, and site alteration such as embankments, dredging, grubbing, grading, paving, parking or storage facilities, excavation, filling, stockpiling, or clearing.

Development Site (Site) – See Project Site.

Diameter at Breast Height (DBH) – The outside bark diameter at breast height which is defined as four and one half (4.5) feet (1.37m) above the forest floor on the uphill side of the tree.

Diffused Drainage Discharge – Drainage discharge that is not confined to a single point location or channel, including sheet flow or shallow concentrated flow.

Directly Connected Impervious Area (DCIA) – An impervious or impermeable surface that is directly connected to a stormwater drainage or conveyance system, leading to direct runoff, decreased infiltration, decreased filtration, and decreased time of concentration.

Disconnected Impervious Area (DIA) – An impervious or impermeable surface that is disconnected from any stormwater drainage or conveyance system, and is redirected or directed to a pervious area, which allows for infiltration, filtration, and increased time of concentration.

Disturbance – See Earth Disturbance.

Disturbed Area – An unstabilized land area where an earth disturbance activity is occurring or has occurred.

Ditch – A man-made waterway constructed for irrigation or stormwater conveyance purposes.

Downslope Property Line – That portion of the property line of the lot, tract, or parcels of land being developed, located such that overland or pipe flow from the project site would be directed towards it by gravity.

Drainage Conveyance Facility – A stormwater management facility designed to transport stormwater runoff that includes channels, swales, pipes, conduits, culverts, and storm sewers.

Drainage Easement – A right granted by a landowner to a grantee allowing the use of private land for stormwater management purposes.

Drainage Plan – See Stormwater Management Site Plan.

Earth Disturbance Activity– A construction or other human activity which disturbs the surface of land including, but not limited to, clearing and grubbing, grading, filling, excavations, embankments, land development, agricultural plowing or tilling, timber harvesting activities, road maintenance activities, mineral or fluid extraction, and the moving, depositing, stockpiling, or storing of soil, rock, or earth materials.

Emergency Spillway – A conveyance area that is used to pass peak discharge greater than the maximum design storm controlled by the stormwater facility.

Encroachment – A structure or activity that changes, expands, or diminishes the course, current, or cross-section of a watercourse, floodway, or body of water.

Erosion – The natural process by which the surface of the land is worn away by water, wind or chemical action.

Erosion and Sediment Control Plan – A plan that is designed to minimize accelerated erosion and sedimentation.

Exceptional Value Waters – Surface waters having quality that satisfy one (1) or more of the conditions established in Pennsylvania Code Title 25 Environmental Protection, Chapter 93, Water Quality Standards, §93.4b(b).

Existing Condition – The dominant land cover during the 5-year period immediately preceding a proposed Regulated Activity. If the initial condition of the site is undeveloped land, the land use shall be considered as “meadow” unless the Municipality determines that the natural land cover has a lower Curve Number (CN) or Rational “c” value, such as forested lands.

FEMA – Federal Emergency Management Agency.

Flood – A temporary condition of partial or complete inundation of land areas from the overflow of streams, rivers, and other waters of the Commonwealth.

Floodplain – Any land area susceptible to inundation by water from any natural source or delineated by applicable FEMA maps and studies as being a special flood hazard area. Included are lands adjoining a river or stream that have been or may be expected to be inundated by a 100-year flood, i.e., the flood of magnitude that has a one (1) percent chance of being equaled or exceeded in any given year.

Floodway – The channel of a watercourse and those portions of the adjoining floodplains that are reasonably required to carry and discharge the 100-year frequency flood. Unless otherwise specified, the boundary of the floodway is as indicated on Flood Insurance Rate Maps (FIRMs) and flood insurance studies provided by FEMA. In an area where no FEMA maps or studies have defined the boundary of the 100-year frequency floodway, it is assumed, absent evidence to the contrary, that the floodway extends fifty (50) feet from the top-of-bank on each side of the stream.

Fluvial Geomorphology – The study of landforms associated with river channels and the processes that form them.

Forest Management/Timber Operations – Planning and associated activities necessary for the management of forest lands. These include timber inventory and preparation of forest management plans, silvicultural treatment, cutting budgets, logging road design and construction, timber harvesting, site preparation, and reforestation.

Freeboard – A vertical distance between the elevation of the design high-water and the top of a dam, levee, tank, basin, swale, or diversion berm. The space is required as a safety margin in a pond or basin.

Grade – 1. (noun) A slope, usually of a road, channel, or natural ground specified in percent and shown on plans as specified herein. 2. (verb) To finish the surface of a roadbed, the top of an embankment, or the bottom of an excavation.

Grassed Waterway – A natural or man-made waterway, usually broad and shallow, covered with erosion-resistant grasses used to convey surface water.

Groundwater – Water beneath the earth's surface that supplies wells and springs and is within the saturated zone of soil and rock.

Groundwater Recharge – The replenishment of existing natural underground water supplies from precipitation or overland flow.

HEC-HMS – The U.S. Army Corps of Engineers, Hydrologic Engineering Center (HEC) - Hydrologic Modeling System (HMS). This model was used to model the Wissahickon Creek Watershed during the Act 167 plan development and is the basis for the standards and criteria of this Ordinance.

High Quality Waters – Surface waters having quality that satisfy one (1) or more of the conditions established by Pennsylvania Code Title 25 Environmental Protection, Chapter 93, Water Quality Standards, § 93.4b(a).

Hotspots – Areas where land use or activities generate highly contaminated runoff, with concentrations of pollutants in excess of those typically found in stormwater.

Hydrograph – A graph representing the discharge of water versus time at a selected point in the drainage system.

Hydrologic Regime – The hydrologic cycle or balance that sustains quality and quantity of stormwater, baseflow, storage, and groundwater supplies under natural conditions.

Hydrologic Soil Group (HSG) – Infiltration rates of soils vary widely and are affected by subsurface permeability as well as surface intake rates. Soils are classified into four HSGs (A, B, C, and D) according to their minimum infiltration rate, which is obtained for bare soil after prolonged wetting. The NRCS defines the four groups and provides a list of most of the soils in the United States and their group classifications. The soils in the area of the development site may be identified from a soil survey report that can be obtained from local NRCS offices or conservation district offices. Soils become less pervious as the HSG varies from A to D (NRCS).

Impervious Surface (Impervious Area) – A surface that prevents the infiltration of water into the ground. Impervious surfaces (or areas) shall include, but not be limited to, roofs, additional indoor living spaces, patios, garages, storage sheds and similar structures, swimming pools, and any new streets or sidewalks.

Decks, parking areas, and driveway areas are not counted as impervious areas if they do not prevent infiltration.

Impoundment – A retention or detention basin designed to retain stormwater runoff and release it at a controlled rate.

Infill – Development that occurs on smaller parcels that has remained undeveloped, but is within or in very close proximity to urban or densely developed areas. Infill development usually relies on existing infrastructure and does not require an extension of water, sewer, or other public utilities.

Infiltration – Movement of surface water into the soil, where it is absorbed by plant roots, evaporated into the atmosphere, or percolated downward to recharge groundwater.

Infiltration basin- A shallow impoundment that is designed to infiltrate stormwater into the soil. Infiltration basins are believed to have a high pollutant removal efficiency, and can also help recharge the groundwater, thus restoring baseflows to stream systems. Infiltration basins can be problematic at many sites because of stringent soil requirements.

Infiltration Structures – A structure designed to direct runoff into the underground water (e.g., French drains, seepage pits, seepage trenches, or infiltration galleries).

Inflow – The flow entering the stormwater management facility and/or BMP.

Inlet – The upstream end of any structure through which water may flow.

Intermittent Stream – A stream that flows only part of the time. Flow generally occurs for several weeks or months in response to seasonal precipitation or groundwater discharge.

Invert – The lowest surface, the floor or bottom of a culvert, drain, sewer, channel, basin, BMP, or orifice.

Karst -A type of topography or landscape characterized by surface depressions, sinkholes, rock pinnacles/uneven bedrock surface, underground drainage and caves. Karst is formed on carbonate rocks, such as limestone or dolomite.

Land Development – Any of the following activities:

- (i) The improvement of one (1) lot or two (2) or more contiguous lots, tracts, or parcels of land for any purpose involving:
 - a. A group of two (2) or more residential or nonresidential buildings, whether proposed initially or cumulatively, or a single nonresidential building on a lot or lots regardless of the number of occupants or tenure, or
 - b. The division or allocation of land or space, whether initially or cumulatively, between or among two (2) or more existing or prospective occupants by means of, or for the purpose of, streets, common areas, leaseholds, condominiums, building groups, or other features;
- (ii) A subdivision of land;

(iii) Development in accordance with Section 503(1.1) of the PA Municipalities Planning Code.

Limiting Zone – A soil horizon or condition in the soil profile or underlying a stratum that includes one of the following:

- (i) A seasonal high water table, whether perched or regional, determined by direct observation of the water table or indicated by soil mottling.
- (ii) A rock with open joints, fracture or solution channels, or masses of loose rock fragments, including gravel, with sufficient fine soil to fill the voids between the fragments.
- (iii) A rock formation, other stratum, or soil condition that is so slowly permeable that it effectively limits downward passage of water.

Lot – A designated parcel, tract, or area of land established by a plat or otherwise as permitted by law and to be used, developed, or built upon as a unit.

Main Stem (Main Channel) – Any stream segment or other runoff conveyance used as a reach in the Wissahickon Creek Watershed hydrologic model.

Manning Equation (Manning Formula) – A method for calculation of velocity of flow (e.g., feet per second) and flow or discharge rate (e.g., cubic feet per second) in open channels based upon channel shape, roughness, depth of flow, and slope. “Open channels” may include closed conduits so long as the flow is not under pressure.

Maximum Design Storm – The maximum (largest) design storm that is controlled by the stormwater facility.

Municipal Engineer – A professional engineer (PE) licensed as such in the Commonwealth of Pennsylvania, duly appointed as the Engineer for a Municipality, planning agency, or joint planning commission.

Municipality – Cheltenham Township, Montgomery County, Pennsylvania.

Natural Condition – Pre-development condition.

Natural Hydrologic Regime – See Hydrologic Regime.

Natural Recharge Area – Undisturbed surface area or depression where stormwater collects and a portion of which infiltrates and replenishes the underground and groundwater.

Nonpoint Source Pollution – Pollution that enters a waterbody from diffuse origins in the watershed and does not result from discernible, confined, or discrete conveyances.

Nonstormwater Discharges – Water flowing in stormwater collection facilities, such as pipes or swales, which are not the result of a rainfall event or snowmelt.

Nonstructural Best Management Practice (BMPs) – Methods of controlling stormwater runoff quantity and quality, such as innovative site planning, impervious area and grading reduction, protection of natural depression areas, temporary ponding on site, and other techniques.

NPDES – National Pollutant Discharge Elimination System, the federal government’s system for issuance of permits under the Clean Water Act, which is delegated to DEP in Pennsylvania.

NRCS – Natural Resource Conservation Service of the U.S. Department of Agriculture (previously the Soil Conservation Service (SCS)).

Open Channel – A conveyance channel that is not enclosed.

Outfall – “Point source” as described in 40 CFR § 122.2 at the point where the Municipality’s storm sewer system discharges to Surface Waters of the Commonwealth.

Outflow – The flow exiting the stormwater management facility and/or BMP.

Outlet – Points of water disposal to a stream, river, lake, tidewater, or artificial drain.

Parent Tract – The parcel of land from which a land development or subdivision originates, determined from the date of municipal adoption of this Ordinance.

Parking Lot Storage – Involves the use of parking areas as temporary impoundments with controlled release rates during rainstorms.

Peak Discharge – The maximum rate of stormwater runoff from a specific storm event.

Pipe – A culvert, closed conduit, or similar structure (including appurtenances) that conveys stormwater.

Post-construction – Period after construction during which disturbed areas are stabilized, stormwater controls are in place and functioning, and all proposed improvements in the approved land development plan are completed.

Pre-construction – Prior to commencing construction activities.

Pre-development Condition – Undeveloped/natural condition.

Pretreatment – Techniques employed in stormwater BMPs to provide storage or filtering to trap coarse materials and other pollutants before they enter the system, but not necessarily designed to meet the water quality volume control requirements (WQ_v) of Section 406. For example, any inlets draining to an infiltrating system should be sumped and trapped to prevent the system from becoming clogged with excess sediment.

Project Site – The specific area of land where any regulated activities in the Municipality are planned, conducted, or maintained.

Qualified Person- Any person licensed by the Pennsylvania Department of State or otherwise qualified by law to perform the work required by the Ordinance.

Rational Formula – A rainfall-runoff relation used to estimate peak flow; $Q = CiA$

Reach – Any stream segment or other runoff conveyance used in the Wissahickon Creek Watershed hydrologic model.

Recharge – The replenishment of groundwater through the infiltration of rainfall, other surface waters, or land application of water or treated wastewater.

Recharge Volume (Rev) – The volume of stormwater, in cubic feet, required to be infiltrated on site, where practicable and appropriate.

Reconstruction – Demolition and subsequent rebuilding of impervious surface.

Record Drawings – Construction drawings revised to represent the as-built conditions.

Recurrence Interval– See Return Period.

Redevelopment – Any development that requires demolition or removal of existing structures or impervious surfaces at a site and replacement with new impervious surfaces. Maintenance activities such as top-layer grinding and re-paving are not considered to be redevelopment. Interior remodeling projects and tenant improvements are also not considered to be redevelopment.

Regulated Activities – Any Earth Disturbance Activities or any activities that involve the alteration or development of land in a manner that may affect stormwater runoff.

Regulated Earth Disturbance Activity–Activity involving earth disturbance subject to regulation under 25 PA Code 92, 25 PA Code 102, or the Clean Streams Law.

Release Rate – The percentage of existing conditions peak rate of runoff from a site or subarea to which the proposed conditions peak rate of runoff must be reduced to protect downstream areas.

Repaving – Replacement of an impervious surface that does not involve reconstruction of an existing paved (impervious) surface (e.g., addition of a new layer of asphalt over an existing paved surface).

Replacement Paving – Reconstruction of and full replacement of an existing paved (impervious) surface (e.g., demolition and removal of surface layer, foundation, and base course; and subsequent reconstruction of the entire sequence).

Retention Volume/Removed Runoff - The volume of runoff that is captured and not released directly into the surface waters of the Commonwealth during or after a storm event.

Return Period – The average interval, in years, within which a storm event of a given or greater magnitude can be expected to recur. For example, the 25-year return period rainfall would be expected to recur on the average of once every twenty-five (25) years, or conversely would have a four (4) percent chance of occurrence or exceedance in any given year.

Riparian Buffer – An area of land adjacent to a body of water and managed to maintain the integrity of stream channels and shorelines to 1) reduce the impact of upland sources of pollution by trapping, filtering, and converting sediments, nutrients, and other chemicals, and 2) supply food, cover and thermal protection to fish and other wildlife.

Riparian Forest Buffer – A type of riparian buffer that consists of permanent vegetation that is predominantly native trees, shrubs, and forbs along surface waters that is maintained in a natural state or

sustainably managed to protect and enhance water quality, stabilize stream channels and banks, and separate land use activities from surface waters.

Riser – A vertical pipe extending from the bottom of a pond that is used to control the discharge rate from the pond for a specified design storm.

Road Maintenance – Earth disturbance activities within the existing road cross-section, such as grading and repairing existing unpaved road surfaces, cutting road banks, cleaning or clearing drainage ditches, and other similar activities.

Roof Drains – A drainage conduit or pipe that collects water runoff from a roof and leads it away from the structure.

Rooftop Detention – The temporary ponding and gradual release of stormwater falling directly onto flat roof surfaces using controlled-flow roof drains in building designs.

Runoff – Any part of precipitation that flows over the land surface.

SALDO – Subdivision and Land Development Ordinance.

Sediment -Soils or other materials transported by surface water as a product of erosion.

Sediment Basin – A barrier, dam, or retention or detention basin located and designed in such a way as to retain rock, gravel, sand, silt, clay or other material transported by water during construction.

Sediment Pollution – The placement, discharge, or any other introduction of sediment into the waters of the Commonwealth.

Sedimentation – The process by which mineral or organic matter is accumulated or deposited by the movement of water or air.

Seepage Pit/Seepage Trench – An area of excavated earth filled with loose stone or similar coarse material into which surface water is directed for infiltration into the underground water.

Separate Storm Sewer System – A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) primarily used for collecting and conveying stormwater runoff.

Shallow Concentrated Flow – Stormwater runoff flowing in shallow, defined ruts prior to entering a defined channel or waterway.

Sheet Flow – A flow process associated with broad, shallow water movement on sloping ground surfaces that is not channelized or concentrated.

Soil Cover Complex Method – A method of runoff computation developed by NRCS that is based on relating soil type and land use/cover to a runoff parameter called curve number (CN).

Source Water Protection Areas (SWPA) – The zones through which contaminants, if present, are likely to migrate and reach drinking water wells or surface water intakes.

Spillway – A conveyance that is used to pass the peak discharge of the maximum design storm that is controlled by the stormwater facility.

Standard Grading Permit - The permit required to be issued by the Municipality before any grading activities are allowed to commence on a site within the Municipality. Such permits typically require information including, but not limited to, a contour map of the site showing existing and proposed contours, a plot plan showing streams and drainage courses on or within fifty (50) feet of the site, drainage structures, neighboring streets and alleys, trees, and floodplain zones on or within fifty (50) feet of the site, soil classifications.

State Water Quality Requirements – The regulatory requirements to protect, maintain, reclaim, and restore water quality under Title 25 of the Pennsylvania Code and the Clean Streams Law.

Storage Indication Method – A reservoir routing procedure based on solution of the continuity equation (inflow minus outflow equals the change in storage) with outflow defined as a function of storage volume.

Storm Frequency – The number of times that a given storm “event” occurs or is exceeded on average in a stated period of years (see Return Period).

Storm Sewer – A system of pipes and/or open channels that convey intercepted runoff and stormwater from other sources but exclude domestic sewage and industrial wastes.

Stormwater – Drainage runoff from the surface of the land resulting from precipitation or snow or ice melt.

Stormwater Management District – Those subareas of a watershed in which some type of detention is required to meet the plan requirements and the goals of Act 167.

Stormwater Management Facility (SMF) – Any structure, natural or man-made, that, due to its condition, design, or construction, conveys, stores, or otherwise affects stormwater runoff quality, rate, or quantity. Typical stormwater management facilities include, but are not limited to, detention and infiltration basins, open channels, storm sewers, pipes, and infiltration structures.

Stormwater Management Plan – The watershed plan, known as the “Wissahickon Creek Watershed Act 167 Stormwater Management Plan,” for managing those land use activities that will influence stormwater runoff quality and quantity, and that would impact the Wissahickon Creek Watershed adopted by Montgomery and Philadelphia Counties as required by the Act of October 4, 1978, P.L. 864 (Act 167).

Stormwater Management Site Plan (SWM Site Plan) –The plan prepared by the Applicant or the Applicant’s representative indicating how stormwater runoff will be managed a project site to meet the requirements of this Ordinance. Small Project SWM Site Plans may be prepared for certain projects.

Stream – A natural watercourse.

Stream Buffer – The land area adjacent to each side of a stream essential to maintaining water quality (see Buffer).

Stream Enclosure – A bridge, culvert, or other structure in excess of one hundred (100) feet in length upstream to downstream, which encloses a regulated water of the Commonwealth.

Subarea (Subwatershed) – The smallest drainage unit of a watershed for which stormwater management criteria have been established in the stormwater management plan.

Subdivision – The division or redivision of a lot, tract, or parcel of land by any means into two (2) or more lots, tracts, parcels, or other divisions of land including changes in existing lot lines for the purpose, whether immediate or future, of lease, partition by the court for distribution to heirs or devisees, transfer of ownership, or building or lot development; provided, however, that the subdivision by lease of land for agricultural purposes into parcels of more than ten (10) acres not involving any new street or easement of access or any residential dwelling shall be exempted. As defined in The Pennsylvania Municipalities Planning Code, Act of July 31, 1968, P.L. 805, No. 247.

Surface Waters – Perennial and intermittent streams, rivers, lakes, reservoirs, ponds, wetlands, springs, natural seeps, and estuaries, excluding water at facilities approved for wastewater treatment, such as wastewater treatment impoundments, cooling water ponds, and constructed wetlands used as part of a wastewater treatment process.

Swale – A low-lying stretch of land that gathers or carries surface water runoff.

Timber Operations – See Forest Management.

Time-of-concentration (T_c) – The time required for surface runoff to travel from the most remote point of a watershed to the watershed outlet.

Top-of-bank – Highest point of elevation in a stream channel cross-section at which a rising water level just begins to flow outside of the channel and over the floodplain.

Undeveloped Condition – Natural condition (see also Pre-development Condition).

USDA - United States Department of Agriculture.

Vernal Pond – Seasonal depression wetlands that are covered by shallow water for variable periods from winter to spring but may be completely dry for most of the summer and fall.

Watercourse – A channel or conveyance of surface water having a defined bed and banks, whether natural or artificial, with perennial or intermittent flow.

Water Volume Control (see Section 406) – The storage capacity, in acre-feet, required to capture and treat a portion of stormwater runoff from the developed or redeveloped areas of the site.

Waters of the Commonwealth – Rivers, streams, creeks, rivulets, impoundments, ditches, watercourses, storm sewers, lakes, dammed water, ponds, springs and other bodies or channels of conveyance of surface and underground water, or parts thereof, whether natural or artificial, within or on the boundaries of the Commonwealth.

Watershed – Region or area drained by a river, watercourse or other surface water of the Commonwealth.

Wellhead – 1. A structure built over a well, 2. The source of water for a well.

Wellhead Protection Area – The surface and subsurface area surrounding a water supply well, well field, or spring supplying a public water system through which contaminants are reasonably likely to move toward and reach the water source.

Wet Basin – Pond for urban runoff management that is designed to detain urban runoff and always contains water.

Wetland – Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas.

Woods – A natural groundcover with more than one (1) viable tree of a DBH of six (6) inches or greater per fifteen hundred (1,500) square feet which existed for a minimum of three (3) consecutive years.

ARTICLE III-STORMWATER MANAGEMENT (SWM) SITE PLAN REQUIREMENTS

Section 301. SWM Site Plan Contents

The SWM Site Plan shall consist of a general description of the project, including calculations, maps, and plans. A note on the maps shall refer to the associated computations and Erosion and Sediment (E&S) Control Plan by title and date. The cover sheet of the computations and E&S Control Plan shall refer to the associated maps by title and date. All SWM Site Plan materials shall be submitted to the Municipality in a format that is clear, concise, legible, neat, and well organized; otherwise, the Municipality may not accept the SWM Site Plan for review. The following items shall be included in the SWM Site Plan:

A. General

1. General description of the project.
2. All stormwater management facilities must be located on a plan and detailed description of proposed stormwater management techniques, including drainage and construction specifications of the materials to be used for the stormwater management facilities.
3. Complete hydrologic, hydraulic, and structural computations for all stormwater management facilities.
4. An erosion and sediment control plan. The applicant is required to obtain a letter of approval or adequacy from the Conservation District for the Erosion and Sediment Control Plan.
5. A general description of proposed nonpoint source pollution controls.
6. The SWM Site Plan Application and completed fee schedule form and associated fee.
7. The SWM Site Plan Checklist.

B. Maps. Prepare an Existing Resource and Site Analysis Map (ERSAM) showing environmentally sensitive areas including, but not limited to, steep slopes, ponds, lakes, streams, wetlands, hydric soils, vernal pools, stream buffers, floodplains, hydrologic soil groups, closed topographic depressions and recharge areas. Land development, existing recharge areas, and any other requirements specifically outlined in the municipal SALDO also shall be included. Map(s) of the project area shall be submitted on 24-inch x 36-inch sheets and/or shall be prepared in a form that meets the requirements for recording at the offices of the Recorder of Deeds of Montgomery County. If the SALDO has more stringent criteria than this Ordinance, then the more stringent criteria shall apply. The contents of the map(s) shall include, but not be limited to:

1. The location of the project relative to highways, municipal boundaries, or other identifiable landmarks.
2. Existing contours at intervals of two (2) feet or less. In areas of slopes greater than 10 percent, 5-foot contour intervals may be used.

3. Existing streams, lakes, ponds, or other waters of the Commonwealth within the project area.
4. Other physical features including flood hazard boundaries, stream buffers, existing drainage courses, areas of natural vegetation to be preserved, and the total extent of the upstream area draining through the site.
5. The locations of all existing and proposed utilities, sanitary sewers, and water lines within fifty (50) feet of property lines.
6. A map, which may be done as an overlay, showing soil names and boundaries.
7. Limits of earth disturbance, including the type and amount of impervious area that is proposed.
8. Proposed structures, roads, paved areas, and buildings.
9. Final contours at intervals of two (2) feet or less. In areas of steep slopes (greater than 10 percent), 5-foot contour intervals may be used.
10. The name of the development, the name and address of the owner of the property, and the name of the individual or firm preparing the plan.
11. The date of submission.
12. A graphic and written scale of one (1) inch equals no more than fifty (50) feet; for tracts of twenty (20) acres or more, the scale shall be one (1) inch equals no more than one hundred (100) feet.
13. A north arrow.
14. The total tract boundary and size with distances marked to the nearest foot and bearings to the nearest degree.
15. Existing and proposed land use(s).
16. A key map showing all existing man-made features beyond the property boundary that would be affected by the project.
17. Location of all open channels.
18. Overland drainage patterns and swales.
19. A 15-foot wide access easement around all stormwater management facilities to provide ingress to and egress from a public right-of-way, where necessary, or appropriate at discretion of the Municipality.
20. The location of all erosion and sediment control facilities.

21. A note on the plan indicating the location and responsibility for maintenance of stormwater management facilities that would be located off site. All off-site facilities shall meet the performance standards and design criteria specified in this Ordinance located within this Municipality.
22. A statement, signed by the Applicant, acknowledging that any revision to the approved drainage plan must be approved by the Municipality, and that a revised erosion and sediment control plan must be submitted to the Municipality and County Conservation District for approval.
23. The following signature block for the Design Engineer:

“I, (Design Engineer), on this date (date of signature); hereby certify that this drainage plan meets all requirements of the Department of Environmental Protection’s (DEP’s) regulations and this Ordinance.”

C. Supplemental Information to be Submitted to the Municipality

1. The following information shall be submitted by the Applicant and shall include:
 - a. The overall stormwater management concept for the project designed.
 - b. Stormwater runoff computations required by this Ordinance.
 - c. Stormwater management techniques to be applied both during and after development.
 - d. Expected project time schedule.
 - e. Development stages or project phases, if so proposed.
 - f. An Operations and Maintenance (O&M) Plan in accordance with Section 702 of this Ordinance.
2. A description of the effect of the project (in terms of runoff volumes and peak flows) on adjacent properties and on any existing municipal stormwater collection system that may receive runoff from the project site.
3. An Approved Highway Occupancy Permit from the Pennsylvania Department of Transportation (PennDOT) District office when drainage towards PennDOT property is proposed.

D. Stormwater Management Facilities

1. When infiltration measures such as seepage pits, beds, or trenches are used, the locations of existing and proposed septic tank infiltration areas and wells must be shown.
2. All calculations, assumptions, and criteria used in the design of the stormwater management facilities must be shown.

Section 302. Plan Submission

The Municipality requires submission of a complete SWM Site Plan, as specified in this Ordinance.

- A. Proof of application or documentation of required permit(s) or approvals for the programs listed below shall be part of the plan:
 - 1. National Pollutant Discharge Elimination System (NPDES) Permit for Stormwater Discharges from Construction Activities, when required.
 - 2. Any other permit under applicable state or federal regulations.
- B. Six (6) copies of the SWM Site Plan shall be submitted and distributed as follows:
 - 1. Three (3) copies to the Municipality accompanied by the requisite fees, as specified in this Ordinance.
 - 2. Two (2) copies to the County Conservation District.
 - 3. The Montgomery County Planning Commission will be notified by letter regarding submission of the SWM Plan to the municipality and MCCD, and that no SWM Plan need be submitted to MCPC.
- C. If any submissions to the agencies listed above are found to be incomplete, the municipalities have the option of notifying the applicant and requesting specific information missing from the submission. The application review clock will not start until the municipality has determined that the submission is complete.
- D. Additional copies shall be submitted as requested by the Municipality, County Conservation District, or DEP.

Section 303. SWM Site Plan Review

- A. The SWM Site Plan must be consistent with this Ordinance. If any submissions are found to be incomplete, the municipalities have the option of notifying the applicant and requesting specific information missing from the submission. The application review clock will not start until the municipality has determined that the submission is complete.
- B. The Municipality will notify the applicant in writing within 45 days whether the SWM Site Plan is approved or disapproved. If the SWM Site Plan involves a Subdivision and Land Development Plan, the notification period is 120 days. If a longer notification period is provided by other statute, regulation, or ordinance, the applicant will be so notified by the Municipality. If the Municipality disapproves the SWM Site Plan, the Municipality shall cite the reasons for disapproval in writing.

Section 304. Modification of SWM Site Plans

A modification to a submitted SWM Site Plan that involves a change in BMPs or techniques, or that involves the relocation or redesign of BMPs, or that is necessary because soil or other conditions are not as stated on the SWM Site Plan as determined by the Municipality shall require modification and resubmission of the SWM Site Plan in accordance with this Article.

Section 305. Resubmission of Inconsistent or Noncompliant SWM Plans

A disapproved SWM Site Plan may be resubmitted, with the revisions addressing the municipality's concerns, to the municipality in accordance with this Article. The applicable review fees must accompany a resubmission of a disapproved SWM Site Plan.

ARTICLE IV - STORMWATER MANAGEMENT

Section 401. General Requirements

- A. For any of the activities regulated by this Ordinance, unless preparation of a Stormwater Management (SWM) Site Plan is specifically exempted, the preliminary or final approval of subdivision and/or land development plans, the issuance of any building or occupancy permit, the commencement of any earth disturbance activity shall not proceed until the Property Owner or Applicant or his/her agent has received written approval from the Municipality of a SWM Site Plan that demonstrates compliance with the requirements of this Ordinance, and a written approval of an adequate Erosion and Sediment (E&S) Control Plan from the Municipality or County Conservation District, when and as required.
- B. SWM Site Plan approved by the municipality shall be on-site throughout the duration of the regulated activity.
- C. The municipality may, after consultation with the Department of Environmental Protection (DEP), approve measures for meeting the state water quality requirements other than those in this Ordinance, provided that they meet the minimum requirements of, and do not conflict with, state law including but not limited to the Clean Streams Law.
- D. For all regulated earth disturbance activities, Erosion and Sediment (E&S) control Best Management Practices (BMPs) shall be designed, implemented, operated and maintained during the Regulated Earth Disturbance activities (e.g., during construction) to meet the purposes and requirements of this Ordinance and to meet all requirements under Title 25 of the Pennsylvania Code and the Clean Streams Law.
- E. Impervious areas:
 - 1. The measurement of impervious areas shall include all of the impervious areas in the total proposed development even if development is to take place in stages.
 - 2. For development taking place in stages, the entire development plan must be used in determining conformance with this Ordinance.
 - 3. For projects that add impervious area to a parcel, Sections 403 through 408 shall apply to the total impervious area within the limits of earth disturbance.
- F. Stormwater discharges onto adjacent property shall not be created, increased, decreased, relocated, or otherwise altered without written notification of the adjacent property owner(s) by the applicant. Such stormwater discharges shall be subject to the requirements of this Ordinance.
- G. All Regulated Activities shall include such measures as necessary to:
 - 1. Protect health, safety and property;
 - 2. Meet the water quality goals of this Ordinance by implementing measures to:
 - a. Minimize disturbance to floodplains, wetlands, and wooded areas.

- b. Maintain or extend riparian buffers.
 - c. Avoid erosive flow conditions in natural flow pathways.
 - d. Minimize thermal impacts to waters of the Commonwealth.
 - e. Disconnect impervious surfaces by directing runoff to pervious areas, wherever possible.
3. To the maximum extent practicable, incorporate the techniques for Low Impact Development Practices described in the *Pennsylvania Stormwater Best Management Practices Manual* (BMP Manual) or the Philadelphia Stormwater Management Guidance Manual.
- H. The design of all facilities over karst shall include an evaluation of measures to minimize adverse effects.
- I. Infiltration BMPs should be dispersed on site, made as shallow as practicable, and located to maximize use of natural onsite infiltration features while still meeting the other requirements of this Ordinance.
- J. Storage facilities should completely drain both the volume control and rate control capacities over a period of time not less than 24 and not more than 72 hours from the end of the design storm.
- K. Design storm volumes and precipitation intensities to be used in the analysis of discharge or runoff should be obtained from the [Precipitation-Frequency Atlas of the United States](http://hdsc.nws.noaa.gov/hdsc/pfds/), Atlas 14, Volume 2, Version 3.0, U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), National Weather Service, Hydrometeorological Design Studies Center, Silver Springs, Maryland. NOAA's Atlas 14 can be accessed at: <http://hdsc.nws.noaa.gov/hdsc/pfds/>.
- L. For all regulated activities, SWM BMPs shall be designed, implemented, operated, and maintained to meet the purposes and requirements of this Ordinance and to meet all requirements under Title 25 of the Pennsylvania Code, the Clean Streams Law, and the Storm Water Management Act.
- M. Various BMPs and their design standards are listed in the BMP Manual¹.

Section 402. Permit Requirements by Other Governmental Entities

Approvals issued and actions taken under this Ordinance do not relieve the Applicant of the responsibility to secure required permits or approvals for activities regulated by any other code, law, regulation or ordinance.

Section 403. Erosion and Sediment Control During Regulated Earth Disturbance Activities

- A. Additional erosion and sediment control standards and criteria are recommended to be applied where infiltration BMPs are proposed. They shall include the following:
- 1. These areas shall be protected from sedimentation and compaction during the construction phase.

2. BMPs shall not be constructed, nor the areas receive runoff, until the entire drainage areas tributary to the infiltration BMPs have achieved final stabilization.

Section 404. Nonstructural Project Design to Minimize Stormwater Impacts

The design of all regulated activities should include the following to minimize stormwater impacts:
(See Appendix C for a Nonstructural Project Design Checklist.)

- A. The Applicant should find practicable alternatives to the surface discharge of stormwater, the creation of impervious surfaces, and the degradation of waters of the Commonwealth and must maintain as much as possible the natural hydrologic regime of the site.
- B. An alternative is practicable if it is available and capable of implementation after taking into consideration existing technology and logistics in light of overall project purposes and other municipal requirements.

Section 405. Groundwater Recharge Requirements

- A. Infiltration Best Management Practices (BMPs) shall meet the following minimum requirements unless the site qualifies for an exemption from the infiltration requirements of this ordinance as listed in Section 106:
 1. Infiltration BMPs intended to receive runoff from developed areas shall be selected based on suitability of soils and site conditions and shall be constructed on soils that have the following characteristics:
 - a. A minimum soil depth of twenty-four (24) inches between the bottoms of the infiltration BMPs and bedrock or other limiting zones.
 - b. An infiltration rate sufficient to accept the additional stormwater load and dewater completely as determined by field tests conducted by the Applicant's Qualified Person.
 - c. All open-air infiltration facilities shall be designed to completely infiltrate the recharge (infiltration) volume (Re_v) within three (3) days (72 hours) from the end of the design storm.
 - d. All subsurface and contained facilities such as capture-and-reuse systems must have storage available equivalent to the Water Volume Control amount within three (3) days (72 hours) from the end of the design storm.
 - e. Pretreatment (See Section 202) shall be provided prior to infiltration.
 2. The size of the infiltration facility shall be based upon the following volume criteria: Where practicable and appropriate the recharge volume shall be infiltrated on site. The recharge volume shall be equal to one (1.0) inch of runoff (I) over all proposed impervious surfaces. The Re_v required shall be computed as:

$$Re_v = (1/12) * (I)$$

Where:

Rev = Recharge Volume (cubic feet)

I = Impervious Area within the limits of earth disturbance (square feet)

An asterisk (*) in equations denotes multiplication.

- B. Soils - A detailed soils evaluation of the project site shall be developed by the Applicant to determine the suitability of infiltration facilities. The evaluation shall be performed by a Qualified Person, and, at a minimum, address soil permeability, depth to bedrock, and subgrade stability. The general process for designing an infiltration BMP shall be:
1. Analyze hydrologic soil groups as well as natural and man-made features within the site to determine general areas of suitability for infiltration practices. In areas where development on fill material is under consideration, conduct geotechnical investigations of sub-grade stability; infiltration must be implemented if these tests are not completed.
 2. Perform field tests, such as double ring infiltrometer or hydraulic conductivity tests (at the level of the proposed infiltration surface) to determine the appropriate hydraulic conductivity rate. Percolation tests are not accepted for design purposes.
 3. Design the infiltration structure for the required recharge volume (Rev) based on field tests at the elevation of the proposed infiltration surface.
 4. If on-lot infiltration structures are proposed by the Applicant's Qualified Person, the Applicant must demonstrate to the Municipality that the soils are conducive to infiltrate on the lots identified.
 5. The Applicant must install an impermeable liner in detention basins where the possibility of groundwater contamination exists. A detailed hydrogeologic investigation may be required by the Municipality.

Section 406. Water Volume Control Requirements

The low impact development practices provided in the BMP Manual shall be utilized for all regulated activities to the maximum extent practicable. Water Volume Controls shall be implemented using the *Design Storm Method* in Subsection A or the *Simplified Method* in Subsection B below. For regulated activity areas equal to or less than one (1) acre that do not require hydrologic routing to design the stormwater facilities, this Ordinance establishes no preference for either methodology; therefore, the applicant may select either methodology on the basis of economic considerations, the intrinsic limitations on applicability of the analytical procedures associated with each methodology, and other factors. All regulated activities greater than one (1) acre must use the Design Storm Method.

- A. The *Design Storm Method* (CG-1 in the BMP Manual) is applicable to any size of regulated activity. This method requires detailed modeling based on site conditions.
1. The post-development total runoff volume for all storms equal to or less than the 2-year, 24-hour storm event shall not be increased.

2. For modeling purposes:
 - a. Existing (predevelopment) nonforested pervious areas must be considered meadow.
 - b. Twenty (20) percent of existing impervious area, when present, shall be considered meadow in the model for existing conditions.

B. The *Simplified Method* (CG-2 in the BMP Manual) provided below is independent of site conditions and should be used if the *Design Storm Method* is not followed. This method is not applicable to regulated activities greater than one (1) acre, or for projects that require design of stormwater storage facilities. For new impervious surfaces:

1. Stormwater facilities shall capture at least the first two (2) inches of runoff from all new impervious surfaces. (*Note: An asterisk (*) in equations denotes multiplication.*)

$$\text{Volume (cubic feet)} = (2/12) * \text{Impervious Surfaces (square feet)}$$

2. At least the first one (1) inch of runoff from new impervious surfaces shall be permanently removed from the runoff flow-- i.e., it shall not be released into the surface waters of the Commonwealth. Removal options include reuse, evaporation, transpiration, and infiltration.

$$\text{Volume (cubic feet)} = (1/12) * \text{Impervious Surfaces (square feet)}$$

3. Wherever possible, infiltration facilities should be designed to accommodate infiltration of the entire permanently removed runoff; however, in all cases at least the first half (0.5) inch of the permanently removed runoff should be infiltrated.
4. This method is exempt from the requirements of Section 408, Peak Rate Controls.

Section 407. Stream Bank Erosion Requirements (Channel Protection)

If a perennial or intermittent stream passes through the site, the Applicant shall create a riparian buffer extending a minimum of fifty (50) feet to either side of the top-of-bank of the channel. The buffer area shall be established and maintained in an undisturbed state. This buffer area may be maintained as a meadow with minimal mowing of the grassed area, or as a forested buffer, being planted with appropriate native vegetation (refer to Appendix B of the BMP Manual for plant lists). If the applicable rear or side yard setback is less than fifty (50) feet, the buffer width may be reduced to twenty-five (25) percent of the setback to a minimum of ten (10) feet. If an existing buffer is legally prescribed (i.e., deed, covenant, easement, etc.) and it exceeds the requirements of this Ordinance, the existing buffer shall be maintained. This does not include lakes or wetlands.

Applicants shall adhere to the following Stream Bank Erosion/Channel Protection Requirements:

- A. In addition to the control of water quality volume (in order to minimize the impact of stormwater runoff on downstream stream bank erosion), the primary requirement is to design a BMP to detain the proposed conditions 2-year, 24-hour storm event to the existing conditions 1-year flow using the SCS Type II distribution. Additionally, provisions shall be made (such as adding a small orifice at the bottom of the outlet structure or a sand filter) so that the proposed

conditions 1-year, 24-hour storm event takes a minimum of twenty-four (24) hours to drain from the facility from a point when the maximum volume of water from the 1-year, 24-hour storm event is captured (i.e., the maximum water surface elevation is achieved in the facility). Release of water can begin at the start of the storm (i.e., the invert of the water volume control orifice is at the invert of the facility).

- B. The minimum orifice size in the outlet structure to the BMP shall be three (3) inches in diameter, where possible, and a trash rack shall be installed to prevent clogging. On sites with small drainage areas contributing to this BMP that do not provide enough runoff volume to allow a 24-hour attenuation with the 3-inch orifice, the calculations shall be submitted showing this condition. Orifice sizes less than three (3) inches can be utilized, provided that the design will prevent clogging of the intake. It is recommended that the design, to accommodate maintenance, include a replaceable and/or porous media filter cartridge.

Section 408. Stormwater Peak Rate Control and Management Districts

- A. The Wissahickon Creek Watershed has been divided into stormwater management districts as shown on the Management District Map (Ordinance Appendix A). The peak rate requirements specified in Table 408.1 below shall be implemented in addition to all other applicable requirements. Standards for managing peak rates of runoff from each subarea in the Wissahickon Creek Watershed for the 2-, 5-, 10-, 25-, 50-, and 100-year storm events are shown in Table 408.1. Development sites located in each of the management districts must control proposed condition runoff rates to existing condition runoff rates for the design storms in accordance with Table 408.1.

TABLE 408.1

**PEAK RATE CONTROL STANDARDS BY STORMWATER MANAGEMENT DISTRICT
IN THE WISSAHICKON CREEK WATERSHED**

District	Proposed Condition Design Storm		Existing Condition Design Storm
A	2-year	Reduce to	1-year
	5-year		5-year
	10-year		10-year
	25-year		25-year
	50-year		50-year
	100-year		100-year
B	2-year	Reduce to	1-year
	5-year		2-year
	10-year		5-year
	25-year		10-year
	50-year		25-year
	100-year		50-year
C*	Conditional Direct Discharge District		

In District C, development sites that can discharge directly to the Wissahickon Creek Main Channel and to the Schuylkill River main channel without use of City infrastructure may do so without control of proposed conditions peak rate of runoff.

Projects that are required to obtain a NPDES Permit for stormwater discharges associated with construction activities are required to show no increase in peaks from existing conditions.

When adequate capacity in the downstream system does not exist and will not be provided through improvements, the proposed conditions peak rate of runoff must be controlled to the Predevelopment Conditions peak rate as required in District A provisions for the specified Design Storms. The Predevelopment Condition for new development is the existing condition. For redevelopment purposes in Philadelphia County, the Predevelopment Condition shall be determined according to the procedures found in the Philadelphia Stormwater Guidance Manual.

- B. General - Proposed condition rates of runoff from any regulated activity shall not exceed the peak release rates of runoff from existing conditions for the design storms specified on the Stormwater Management District Watershed Map (Ordinance Appendix A).
- C. District Boundaries - The boundaries of the stormwater management districts are shown on an official map that is available for inspection at the municipal and County Planning offices. A copy of the official map at a reduced scale is included as Ordinance Appendix A. The exact location of the stormwater management district boundaries as they apply to a given development site shall be determined by mapping the boundaries using the 2-foot topographic contours (or most accurate data required) provided as part of the drainage plan.
- D. Sites Located in More than One (1) District - For a proposed development site located within two (2) or more stormwater management districts, the peak discharge rate from any subarea shall meet the management district criteria in which the discharge is located.
- E. Off-site Areas - Off-site areas that drain through a proposed development site are not subject to release rate criteria when determining allowable peak runoff rates. However, on-site drainage facilities shall be designed to safely convey off-site flows through the development site.
- F. Site Areas - Where the site area to be impacted by a proposed development activity differs significantly from the total site area, only the proposed impact area utilizing stormwater management measures shall be subject to the management district criteria. In other words, unimpacted areas bypassing the stormwater management facilities would not be subject to the management district criteria.
- G. Alternate Criteria for Redevelopment Sites - For redevelopment sites, one of the following minimum design parameters shall be accomplished, whichever is most appropriate for the given site conditions as determined by Cheltenham Township;
 - 1. Meet the full requirements specified by Table 408.1 and Sections 408.A through 408.F.
or
 - 2. Reduce the total impervious surface on the site by at least twenty (20) percent based upon a comparison of existing impervious surface to proposed impervious surface.
- H. Stormwater Control Measures which increase storage or infiltration volume, and which are not associated with new land development or redevelopment activity that increases runoff volume

above existing levels, are exempt from the peak rate requirements of this ordinance, so long as peak outflow is not increased.

Section 409. Calculation Methodology

- A. Stormwater runoff from all development sites with a drainage area of greater than 200 acres shall be calculated using a generally accepted calculation technique that is based on the NRCS soil cover complex method. The Qualified Person must consult with the municipality to gain approval of design methods prior to design. Table 409.1 summarizes acceptable computation methods and the method selected by the Qualified Person shall be based on the individual limitations and suitability of each method for a particular site. The Municipality may allow the use of the Rational Method to estimate peak discharges from drainage areas that contain less than 200 acres. The Soil Cover Complex Method shall be used for drainage areas greater than 200 acres.

**TABLE 409.1
Acceptable Computation Methodologies For
Stormwater Management Plans**

Montgomery County Portion of the Watershed

METHOD	METHOD DEVELOPED BY	APPLICABILITY
WINTR-20	USDA NRCS	Applicable where use of full hydrology computer model is desirable or necessary.
WINTR-55	USDA NRCS	Applicable for land development plans within limitations described in TR-55.
HEC-HMS	US Army Corps of Engineers	Applicable where use of full hydrologic computer model is desirable or necessary.
Rational Method or commercial computer package based on Rational Method)	Emil Kuichling (1889)	For sites less than 200 acres and with times of concentration less than 60 minutes ($t_c < 60$ min), or as approved by the Municipality
Other Methods	Varies	Other computation methodologies approved by the Municipality and/or Municipal Engineer.

**Note: Successors to the above methods are also acceptable.*

- B. If a hydrologic computer model such as HydroCAD or HEC-HMS is used for stormwater runoff calculations, then the duration of rainfall shall be 24 hours. The rainfall distribution should reference NRCS Type II.

- C. For the purposes of existing conditions flow rate determination, undeveloped land shall be considered as "meadow", unless the natural ground cover generates a lower curve number or Rational 'C' value (i.e., forest).
- D. Times-of-concentration for overland flow shall be calculated using the methodology presented in Chapter 3 of Urban Hydrology for Small Watersheds, NRCS, TR-55 (as amended or replaced from time to time by NRCS). Times-of-concentration for channel and pipe flow shall be computed using flow velocities as determined by Manning's equation.
- E. The Manning equation is preferred for 1-D, gradually-varied, open channel flow. In other cases, appropriate, applicable methods should be applied, however, early coordination with the municipality is necessary.
- F. Outlet structures for stormwater management facilities shall be designed to meet the performance standards of this Ordinance using the generally accepted hydraulic analysis technique or method of the Municipality.
- G. The design of any stormwater detention facilities intended to meet the performance standards of this Ordinance shall be verified by routing the design storm hydrograph through these facilities using the Storage-Indication Method. For drainage areas greater than 200 acres in size, the design storm hydrograph shall be computed using a calculation method that produces a full hydrograph. The Municipality may approve the use of any generally accepted full hydrograph approximation technique that shall use a total runoff volume that is consistent with the volume from a method that produces a full hydrograph.

ARTICLE V - INSPECTIONS

Section 501. Inspections

- A. The Municipality may inspect all phases of the installation of the Best Management Practices (BMPs) and/or stormwater management facilities as deemed appropriate by the Municipality.
- B. During any stage of the work, if the Municipality determines that the BMPs and/or stormwater management (SWM) facilities are not being installed in accordance with the approved SWM plan, the Municipality, may suspend or revoke, in whole or in part, any existing permits or other approvals and issue a cease and desist order until a revised SWM Site Plan is submitted and approved, as specified in this Ordinance, and until the deficiencies are corrected.
- C. A final inspection of all BMPs and/or SWM facilities may be conducted by the Municipality to confirm compliance with the approved Stormwater Management Site Plan prior to the issuance of any occupancy permit.
- D. The developer shall be responsible for providing as-built plans of all SWM BMPs included in the approved SWM Site Plan. The as-built plans and an explanation of any discrepancies, which were reviewed and received approval by the Municipality, shall be submitted to the Municipality.
- E. The as-built submission shall include a certification of completion signed and sealed by a Qualified Person verifying that all permanent SWM BMPs have been constructed according to the approved plans and specifications. If any licensed Qualified Persons contributed to the construction plans, they must sign and seal the completion certificate.
- F. Final plans based upon the Record Drawings must be submitted to the Municipality for the project to be eligible for the issuance of a Certificate of Occupancy.

ARTICLE VI-FEES AND EXPENSES

Section 601. Municipality SWM Site Plan Review and Inspection Fees

Fees may be established by the Municipality to defray costs incurred by the Municipality. All fees shall be paid by the Applicant. A fee schedule shall be established by resolution of the municipal Governing Body, which may be based on the size of the Regulated Activity or the Municipality's costs for processing SWM Site Plans and conducting inspections. The Municipality may periodically update the fee schedule to ensure that its costs are adequately reimbursed.

Section 602. Expenses Covered by Fees

The fees authorized by this Ordinance may at a minimum cover:

- A. Administrative costs.
- B. Review of the SWM Site Plan by the Municipality.
- C. Site inspections.
- D. Inspection of SWM facilities and drainage improvements during construction.
- E. Final inspection at the completion of the construction of the SWM facilities and drainage improvements presented in the SWM Site Plan.
- F. Any additional work required to enforce any permit provisions, correct violations, and assure proper completion of necessary remedial actions.

ARTICLE VII-MAINTENANCE RESPONSIBILITIES

Section 701. Performance Guarantee

- A. For subdivisions and land developments, the Applicant shall provide a financial guarantee to the Municipality for the timely installation and proper construction of all stormwater management facilities as required by the approved SWM Site Plan. The amount of the guarantee shall be equal to or greater than the full construction cost of the required controls.
- B. For other regulated activities, the Municipality may require a financial guarantee from the Applicant.

Section 702. Responsibilities for Operation and Maintenance (O&M) of Stormwater Facilities and Best Management Practices (BMPs)

- A. The owner of any land upon which stormwater facilities and BMPs will be placed, constructed, or implemented, as described in an O&M Plan, shall record the following documents in the Office of the Recorder of Deeds for Montgomery County, within ninety (90) days of approval of the O&M plan by the Municipality:
 - 1. The O&M Plan, or a summary thereof;
 - 2. O&M Agreements under Section 704; and
 - 3. Easements under Section 705.
- B. The Municipality may suspend or revoke any approvals granted for the project site upon discovery of failure on the part of the owner to comply with this Ordinance.
- C. The following items shall be included in the O&M Plan:
 - 1. Map(s) of the project area, in a form that meets the requirements for recording at the offices of the Recorder of Deeds of Montgomery County, shall be submitted on 24- inch x-36-inch sheets. The contents of the map(s) shall include, but not be limited to:
 - a. Clear identification of the location and nature of stormwater controls and BMPs,
 - b. The location of the project site relative to highways, municipal boundaries or other identifiable landmarks,
 - c. Existing and final contours at intervals of two (2) feet, or others as appropriate,
 - d. Existing streams, lakes, ponds, or other bodies of water within the project site area,
 - e. Other physical features including flood hazard boundaries, sinkholes, streams, existing drainage courses, and areas of natural vegetation to be preserved,
 - f. The locations of existing and proposed utilities, sanitary sewers, and water lines within fifty (50) feet of property lines of the project site,
 - g. Proposed final changes to the land surface and vegetative cover, including the type and amount of impervious area that would be added,
 - h. Proposed final structures, roads, paved areas, and buildings, and

- i. At the discretion of the Municipality, a 15-foot wide access easement around all stormwater controls and BMPs that would provide ingress to and egress from a public right-of-way.
 - 2. A description of how each stormwater facility and BMP will be operated and maintained, and the identity and contact information associated with the person(s) responsible for operations and maintenance,
 - 3. The name of the project site, the name and address of the owner of the property, and the name of the individual or firm preparing the plan, and
 - 4. A statement, signed by the landowner, acknowledging that the stormwater facilities and BMPs are fixtures that cannot be altered or removed without prior approval by the Municipality.
- D. The O&M Plan for the project site shall establish responsibilities for the continuing O&M of all stormwater facilities and BMPs, as follows:
- 1. If a plan includes structures or lots that are to be separately owned and in which streets, sewers, and other public improvements are to be dedicated to the Municipality, associated stormwater controls and BMPs also may be dedicated to and maintained by the Municipality;
 - 2. If a plan includes operation and maintenance by a single ownership or if sewers and other public improvements are to be privately owned and maintained, the O&M of stormwater controls and BMPs, and inspections required by permits, shall be the responsibility of the owner.
- E. The Municipality will make the final determination on the continuing operation and maintenance responsibilities prior to final approval of the Stormwater Management Site Plan. The Municipality reserves the right to accept or reject the O&M responsibility for any or all portions of the stormwater controls and BMPs.
- F. The O&M Plan shall be recorded as a restrictive deed covenant that runs with the land.
- G. The municipality may take enforcement actions against an owner for any failure to satisfy the provisions of this Article and this Ordinance.

Section 703. Municipal Review of an O&M Plan

- A. O&M plans shall be consistent with the requirements of this Ordinance.
- B. The Municipality will notify Applicants in writing whether or not O&M plans are approved.
- C. The Municipality's approval letter will indicate whether or not "record drawings" of all stormwater controls and BMPs are required, including a final "as-built" O&M Plan.

Section 704. Operation and Maintenance (O&M) Agreement for Privately Owned Stormwater Controls and BMPs

- A. The owner shall sign an O&M agreement with the Municipality covering all stormwater facilities and BMPs that are to be privately owned. The O&M agreement shall be transferred with transfer of ownership.
- B. Other items may be included in the agreement where determined necessary to guarantee the satisfactory operation and maintenance of all stormwater facilities and BMPs. The O&M Agreement shall be subject to the review and approval of the Municipality.
- C. The owner is responsible for O&M of the SWM BMPs. If the owner fails to adhere to the O&M Agreement, the Municipality may perform the services required and charge the owner appropriate fees. Nonpayment of fees may result in a lien against the property.

Section 705. Stormwater Management Easements

- A. The owner must obtain all necessary real estate rights to install, operate, and maintain all stormwater facilities in the SWM Site Plan and the O&M Plan.
- B. The owner must provide the municipal easements, or other appropriate real estate rights, to perform inspections and maintenance or the preservation of stormwater runoff conveyance, infiltration, and detention area.

ARTICLE VIII-PROHIBITIONS

Section 801. Prohibited Discharges and Connections

- A. Any drain or conveyance, whether on the surface or subsurface, that allows any non- stormwater discharge, including sewage, process wastewater, or wash water to enter the separate storm sewer system, or otherwise to enter the waters of the Commonwealth is prohibited. Any connections to the storm drain system from indoor drains and sinks also are prohibited.
- B. No person shall allow, or cause to allow, discharges into surface waters of the Commonwealth which are not composed entirely of stormwater, except (1) as provided in subsection C below, and (2) discharges allowed under a state or federal permit.
- C. The following discharges are authorized unless they are determined to be significant contributors to pollution to the waters of the Commonwealth:

- Discharges from fire fighting activities	- Flows from riparian habitats and wetlands
- Potable water sources including water line flushing	- Uncontaminated water from foundations or from footing drains
- Irrigation drainage	- Lawn watering
- Air conditioning condensate	- Dechlorinated swimming pool discharges
- Springs	- Uncontaminated groundwater
- Water from crawl space pumps	- Water from individual residential car washing
- Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spill material has been removed) and where detergents are not used	- Routine external building wash down (which does not use detergents or other compounds)

- D. In the event that the Municipality or DEP determines that any of the discharges identified in Subsection C significantly contribute to pollution of the waters of the Commonwealth, the Municipality or DEP will notify the responsible person(s) to cease the discharge.

Section 802. Roof Drains

In Montgomery County, roof drains shall not be connected to streets, sanitary or storm sewers, or roadside ditches, and shall discharge to infiltration areas or vegetative BMPs to the maximum extent practicable, except for already existing developed sites where the onsite stormwater system already is designed and equipped to accomplish stormwater rate, quality, and quantity mitigation. The applicant shall, in these cases, submit documentation on the existing stormwater system to the municipal engineer, who shall determine if the stormwater system accomplishes comparable stormwater rate, quality, and quantity mitigation.

In the event that an existing developed site is to be redeveloped, existing roof drains that discharge to an existing stormwater system that is designed and equipped to accomplish stormwater rate, quality, and quantity mitigation, those existing roof drains may remain, provided the applicant submits documentation

on the existing stormwater system to the municipal engineer, who shall determine if the stormwater system accomplishes comparable stormwater rate, quality, and quantity mitigation.

Section 803. Alteration of BMPs

- A. No person shall modify, remove, fill, landscape, or alter any existing stormwater facility or BMP unless it is part of an approved maintenance program and written approval of the Municipality has been obtained.
- B. No person shall place any structure, fill, landscaping, or vegetation into a stormwater control or BMP or within a drainage easement which would limit or alter the functioning of the stormwater control or BMP without the written approval of the Municipality.

ARTICLE IX - ENFORCEMENT AND PENALTIES

Section 901. Right-of-Entry

The Municipality, or its authorized agents and employees, will provide forty-eight (48) hours written notice when appropriate, at its sole discretion, and may then enter upon any part of the property within the Municipality to inspect and determine the compliance of the implementation, condition, or operation and maintenance (O&M) of the stormwater facilities or Best Management Practices (BMPs) in regard to any aspect governed by this Ordinance. Inspection includes monitoring and sampling to determine proper operation of stormwater facilities and BMPs. The Municipality shall have the right to temporarily locate on any stormwater control or BMP in the Municipality such devices as are necessary to conduct monitoring and/or sampling of the discharges from such stormwater control or BMP.

Section 902. Inspection

BMPs should be inspected for proper operation by the landowner, or the owner's designee (including the municipality for dedicated and owned facilities), according to the following list of minimum frequencies:

- A. Annually for the first 5 years.
- B. Once every 3 years thereafter.
- C. During or immediately after the cessation of a 10-year, 24-hour, or greater storm event.
- D. As specified in the O&M agreement.

Section 903. Enforcement

All inspections regarding compliance with the Stormwater Management (SWM) Site Plan and this Ordinance shall be the responsibility of the Municipality.

- A. Whenever the Municipality finds that a person has violated a prohibition or failed to meet a requirement of this Ordinance, the Municipality may order compliance by notifying the responsible person. Such notice may include the following remedies:
 - 1. Performance of monitoring, analyses, and reporting;
 - 2. Elimination of prohibited connections or discharges;
 - 3. Cessation of any violating discharges, practices, or operations;
 - 4. Abatement or remediation of stormwater pollution or contamination hazards and the restoration of any affected property;
 - 5. Payment of a fine;
 - 6. Payments to reimburse administrative and remediation costs;
 - 7. Implementation of stormwater controls and BMPs; and

8. O&M of stormwater facilities and BMPs.
- B. Such notification shall set forth the nature of the violation(s) and establish a time limit for correction of those violations(s). If the violator fails to take the required action within the established deadline, the work may be done by the Municipality and the expenses may be charged to the violator.
- C. Failure to comply within the time specified may subject a violator to the penalty provisions of this Ordinance. All such penalties shall be deemed cumulative and shall not prevent the Municipality from pursuing other remedies available in law or equity.

Section 904. Suspension and Revocation

- A. Any approval or permit issued by the municipality pursuant to this Ordinance may be suspended or revoked for:
 1. Non-compliance with or failure to implement any provision of the approved SWM Site Plan or O&M Agreement.
 2. A violation of any provision of this Ordinance or any other applicable law, ordinance, rule, or regulation relating to the Regulated Activity.
 3. The creation of any condition or the commission of any act during the Regulated Activity which constitutes or creates a hazard, nuisance, pollution, or endangers the life or property of others.
- B. A suspended approval may be reinstated by the municipality when:
 1. The municipality has inspected and approved the corrections to the violations that caused the suspension.
 2. The municipality is satisfied that the violation has been corrected.
- C. An approval that has been revoked by the municipality cannot be reinstated. The applicant may apply for a new approval under the provisions of this Ordinance.
- D. If a violation causes no immediate danger to life, public health or safety, or property, at its sole discretion, the municipality may provide a limited time period for the owner to correct the violation. In these cases, the municipality will provide the owner, or the owner's designee, with a written notice of the violation and the time period allowed for the owner to correct the violation. If the owner does not correct the violation within the allowed time period, the municipality may revoke or suspend any, or all, applicable approvals and permits pertaining to any provision of this Ordinance.

Section 905. Penalties

- A. Anyone violating the provisions of this Ordinance shall be guilty of a summary offense, and upon conviction, shall be subject to a fine of not more than \$1,000 for each violation, recoverable with costs or imprisonment of not more than 30 days, or both. Each day that the violation continues shall be a separate offense and penalties shall be cumulative.

- B. In addition, the municipality may institute injunctive, mandamus, or any other appropriate action or proceeding at law or in equity for the enforcement of this Ordinance. Any court of competent jurisdiction shall have the right to issue restraining orders, temporary or permanent injunctions, mandamus, or other appropriate forms of remedy or relief.

Section 906. Appeals

- A. Any person aggrieved by any action of the municipality or its designee, relevant to the provisions of this Ordinance, may appeal to the municipality within 30 days of that action.
- B. Any person aggrieved by any decision of the municipality, relevant to the provisions of this Ordinance, may appeal to the County Court of Common Pleas in the county where the activity has taken place within 30 days of the municipality's decision.

SECTION II. – Severability

The provisions of this Ordinance are severable, and if any Section, sentence, clause or phrase shall be held by a court of competent jurisdiction to be illegal, invalid, or unconstitutional, the remaining portions of this Ordinance shall not be affected or impaired thereby.

SECTION III. – Failure to Enforce Not a Waiver

The failure of the Township to enforce any provision of this Ordinance shall not constitute a waiver by the Township of its rights of future enforcement hereunder.

SECTION IV. – Effective Date

This Ordinance shall take effect and be in force as soon after adoption as is permitted by law.

SECTION V. – Repealer

Any Ordinance or part of any Ordinance conflicting with the provisions of this Ordinance shall be deemed and the same are hereby repealed to the extent of such conflict.

ENACTED and ADOPTED by the Board of Commissioners this 17th day of February, 2016.

CHELtenham TOWNSHIP

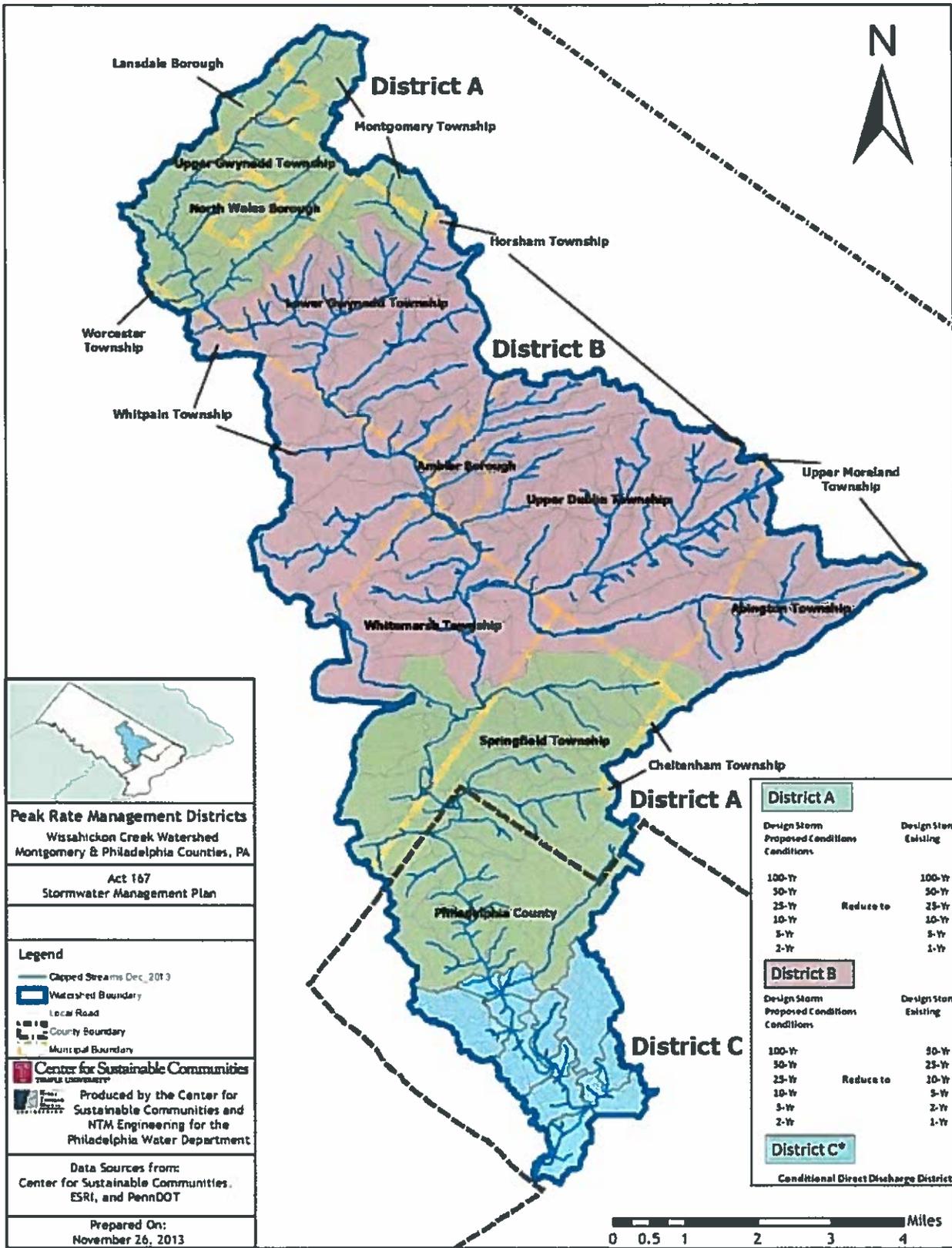


ATTEST: _____
Bryan T. Havir
Township Manager and Secretary



By: _____
Morton J. Simon, Jr. President
Board of Commissioners

**ORDINANCE APPENDIX A
STORMWATER MANAGEMENT DISTRICT WATERSHED MAP**



**ORDINANCE APPENDIX B
SMALL PROJECT STORMWATER MANAGEMENT (SWM) SITE
PLAN FOR RESIDENTIAL DEVELOPMENT**

Small Project Stormwater Management Site Plan

This Small Project SWM Site Plan is included as an option for municipalities to adopt to give small regulated activities the opportunity to submit a non-engineered stormwater management plan. The requirements of this site plan alternative are consistent with the volume control requirements of the *Wissahickon Creek Watershed Stormwater Management Plan (SMP)*. This small project site plan is only permitted for projects identified in Table 106.1.

A. What is an applicant required to submit?

A brief description of the proposed stormwater facilities, including types of materials to be used, total square footage of proposed impervious areas, volume calculations, and a simple sketch plan showing the following information:

- Location of proposed structures, driveways, or other paved areas with approximate surface area in square feet.
- Location of any existing or proposed onsite septic system and/or potable water wells showing proximity to infiltration facilities.
- Montgomery County Conservation District erosion and sediment control “Adequacy” letter as required by Municipal, County or State regulations.

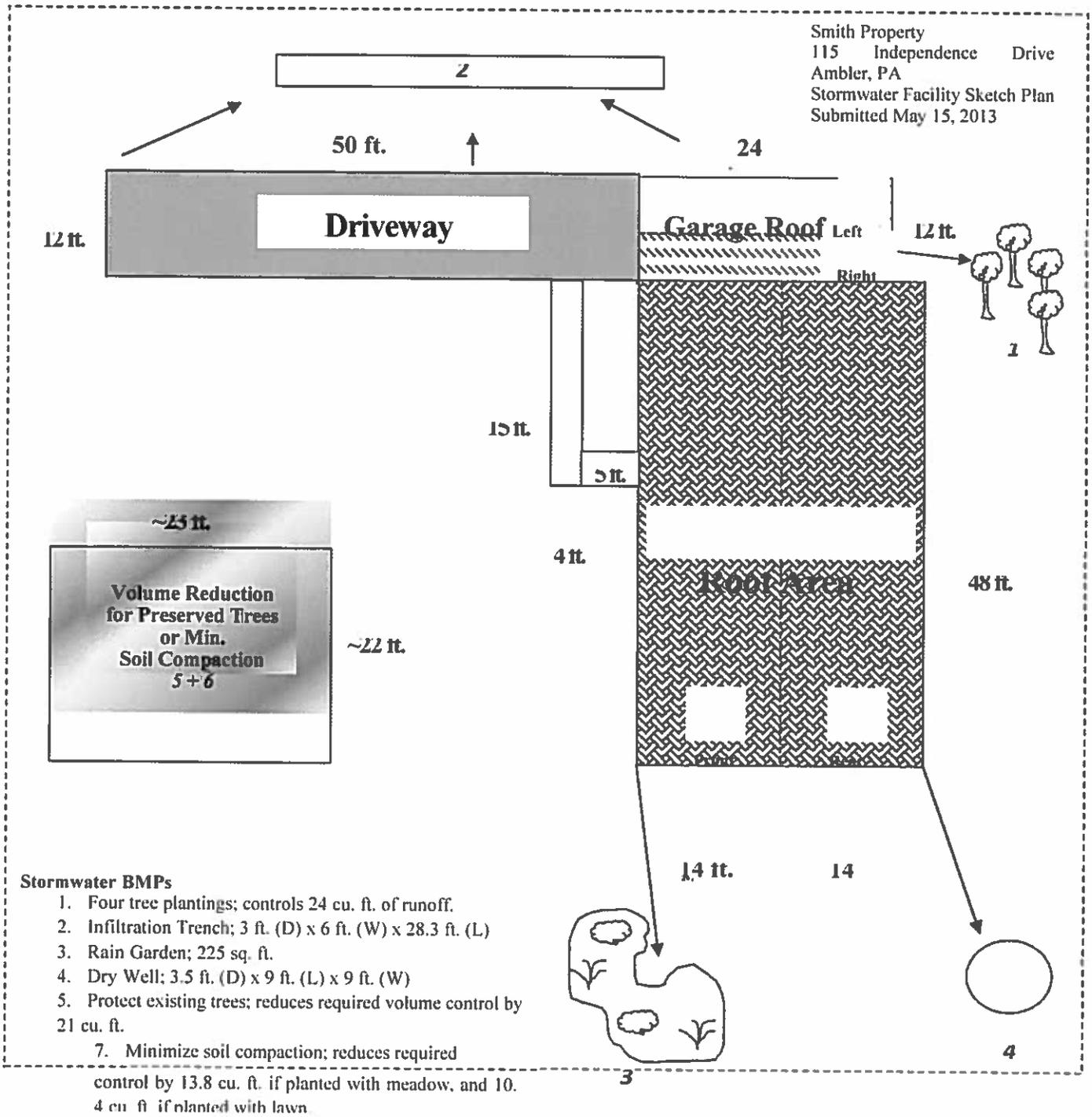
B. Determination of Required Volume Control and Sizing Stormwater Facilities

By following the simple steps outlined below in the provided example, an applicant can determine the runoff volume that is required to be controlled and how to choose the appropriate stormwater facility to permanently remove the runoff volume from the site. Impervious area calculations must include all areas on the lot proposed to be covered by roof area or pavement which would prevent rain from naturally percolating into the ground, including impervious surfaces such as sidewalks, driveways, parking areas, patios or swimming pools. Sidewalks, driveways or patios that are designed and constructed to allow for infiltration are not included in this calculation.

Site Plan Example: Controlling runoff volume from a proposed home site Step 1: Determine Total Impervious Surfaces

Impervious Surface			Area (sq. ft.)
House Roof (Front)	14 ft. x 48 ft.	=	672 sq. ft.
House Roof (Rear)	14 ft. x 48 ft.	=	672 sq. ft.
Garage Roof (Left)	6 ft. x 24 ft.	=	144 sq. ft.
Garage Roof (Right)	6 ft. x 24 ft.	=	144 sq. ft.
Driveway	12 ft. x 50 ft.	=	1,000 sq. ft.
Walkway	4 ft. x 20 ft.	=	80 sq. ft.
	Total Impervious		3,000 sq. ft.
	Total Earth Disturbance		6,000 sq. ft.

Figure 1: Sample Site Sketch Plan



Step 2: Determine Required Volume Control (cubic feet) using the following equation:

Volume (cu. ft.) = (Total impervious area in square feet x 2 inches of runoff) /12 inches

(3,000 sq. ft. x 2 inches of runoff) /12 inches = 500 cu. ft.

Step 3: Sizing the Selected Volume Control BMP

Several Best Management Practices (BMPs), as described below, are suitable for small stormwater management projects. However, their application depends on the volume required to be controlled, how much land is available, and the site constraints. Proposed residential development activities can apply both non-structural and structural BMPs to control the volume of runoff from the site. A number of different volume control BMPs are described below. Note that Figure 1 is an example of how these BMPs can be utilized in conjunction to control the total required volume on one site.

Structural BMPs

1. Infiltration Trench

An Infiltration Trench is a linear stormwater BMP consisting of a continuously perforated pipe at a minimum slope in a stone-filled trench. During small storm events, infiltration trenches can significantly reduce volume and serve in the removal of fine sediments and pollutants. Runoff is stored between the stones and infiltrates through the bottom of the facility and into the soil matrix. Runoff should be pretreated using vegetative buffer strips or swales to limit the amount of coarse sediment entering the trench which can clog and render the trench ineffective. In all cases, an infiltration trench should be designed with a positive overflow.

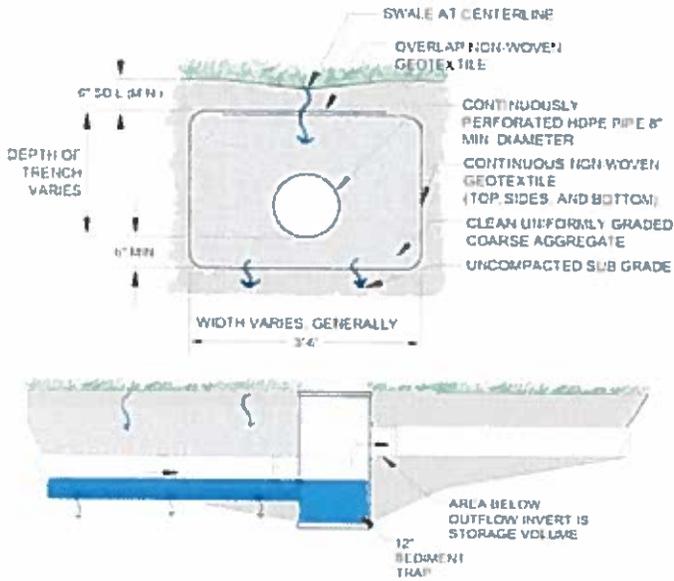
Design Considerations:

- Although the width and depth can vary, it is recommended that Infiltration Trenches be limited in depth to not more than six (6) feet of stone.
- Trench is wrapped in nonwoven geotextile (top, sides, and bottom).
- Trench needs to be placed on uncompacted soils.
- Slope of the Trench bottom should be level or with a slope no greater than 1%.
- A minimum of 6" of topsoil is placed over trench and vegetated.
- The discharge or overflow from the Infiltration Trench should be properly designed for anticipated flows.
- Cleanouts or inlets should be installed at both ends of the Infiltration Trench and at appropriate intervals to allow access to the perforated pipe.
- Volume of facility = Depth x Width x Length x Void Space of the gravel bed (assume 40%).

Maintenance:

- Catch basins and inlets should be inspected and cleaned at least two times a year.
- The vegetation along the surface of the infiltration trench should be maintained in good condition and any bare spots should be re-vegetated as soon as possible.
- Vehicles should not be parked or driven on the trench and care should be taken to avoid soil compaction by lawn mowers.

Figure 2: Infiltration Trench Diagram



Source: PA BMP Guidance Manual, Chapter 6, page 42.

Figure 3: Example of Infiltration Trench Installation



Source: PA BMP Guidance Manual, Chapter 6, Page 46.

Sizing Example for Infiltration Trench

1. Determine Total Impervious Surface to drain to Infiltration Trench:

Garage Roof (Left)	6 ft. x 24 ft.	=	144 sq.ft.
Driveway	12 ft. x 50 ft.	=	1000 sq.ft.
Walkway	4 ft. x 20 ft.	=	80 sq.ft.

2. Determine the required infiltration volume:

$$(1224 \text{ sq. ft.} \times 2 \text{ inches of runoff}) / 12 \text{ ft.} = 204 \text{ cu. ft.} / 0.4^* = 510 \text{ cu. ft.}$$

(*0.4 assumes 40% void ratio in gravel bed)

3. Sizing the infiltration trench facility:

$$\text{Volume of Facility} = \text{Depth} \times \text{Width} \times \text{Length}$$

Set Depth to 3 feet and determine required surface area of trench.

$$510 \text{ cu. ft.} / 3 \text{ ft.} = 170 \text{ sq. ft.}$$

The width of the trench should be greater than 2 times its depth (2 x D), therefore in this example the trench width of 6 feet selected.

$$\text{Determine trench length: } L = 170 \text{ sq. ft.} / 6 \text{ ft.} = 28.3 \text{ ft.}$$

Final infiltration trench dimensions: 3 ft. (D) x 6 ft. (W) x 28.3 ft. (L)

2. Rain Garden

A Rain Garden is a planted shallow depression designed to catch and filter rainfall runoff. The garden captures rain from a downspout or a paved surface. The water sinks into the ground, aided by deep rooted plants that like both wet and dry conditions. The ideal location for a rain garden is between the source of runoff (roofs and driveways) and the runoff destination (drains, stream, low spots, etc.). Design Considerations:

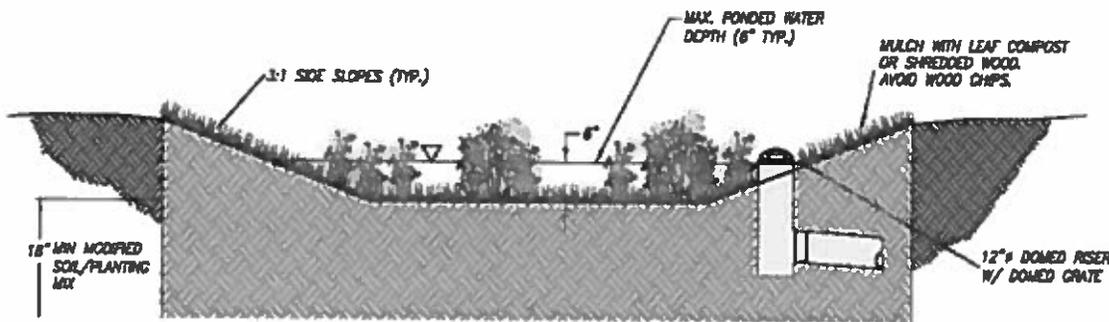
- A maximum of 3:1 side slope is recommended.
- The depth of a rain garden can range from 6 - 8 inches. Poned water should not exceed 6 inches.
- The rain garden should drain within 72 hours.
- The garden should be at least 10-20 feet from a building's foundation and 25 feet from septic system drainfields and wellheads.
- If the site has clay soils, soil should be amended with compost or organic material.
- Choose native plants. See <http://pa.audubon.org/habitat/PDFs/RGBrochurecomplete.pdf> for a native plant list. To find native plant sources go to www.pawildflower.org.

- At the rain garden location, the water table should be at least 2' below the soil level. If water stands in an area for more than one day after a heavy rain you can assume it has a higher water table and is not a good choice for a rain garden.

Maintenance:

- Water plants regularly until they become established.
- Inspect twice a year for sediment buildup, erosion and vegetative conditions.
- Mulch with hardwood when erosion is evident and replenish annually.
- Prune and remove dead vegetation in the spring season.
- Weed as you would any garden.
- Move plants around if some plants would grow better in the drier or wetter parts of the garden.

Figure 4: Rain Garden Diagram



Source: PA BMP Guidance Manual, Chapter 6 Page 50

Sizing Example for Rain Garden

1. Pick a site for the rain garden between the source of runoff and between a low lying area, a.k.a., a drainage area.
2. Perform an infiltration test to determine the depth of the rain garden:
 - Dig a hole 8" x 8"
 - Fill with water and put a popsicle stick at the top of the water level.
 - Measure how far it drains down after a few hours (ideally 4).
 - Calculate the depth of water that will drain out over 24 hours.
3. Determine total impervious surface area to drain to rain garden:

House Roof (Front)	14 ft. x 48 ft.	=	672 sq.ft.
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4. Sizing the rain garden:

For this example the infiltration test determined 6" of water drained out of a hole in 24 hours. The depth of the rain garden should be set to the results of the infiltration test so 6" is the depth of the rain garden. The sizing calculation below is based on controlling 1" of runoff. First divide the impervious surface by the depth of the rain garden.

$$(672 \text{ sq.ft.} / 6 \text{ ft.}) = 112 \text{ sq. ft.}$$

In order to control 2" of runoff volume, the rain garden area needs to be multiplied by 2.

$$112 \text{ sq. ft.} * 2 = 224 \text{ sq. ft.}$$

The rain garden should be about 225 sq. ft. in size and 6" deep.

3. Dry Well (a.k.a., Seepage Pit)

A Dry Well, sometimes called a Seepage Pit, is a subsurface storage facility that temporarily stores and infiltrates stormwater runoff from the roofs of structures. By capturing runoff at the source, Dry Wells can dramatically reduce the increased volume of stormwater generated by the roofs of structures. Roof leaders connect directly into the Dry Well, which may be either an excavated pit filled with uniformly graded aggregate wrapped in geotextile, or a prefabricated storage chamber or pipe segment. Dry Wells discharge the stored runoff via infiltration into the surrounding soils. In the event that the Dry Well is overwhelmed in an intense storm event, an overflow mechanism (surcharge pipe, connection to a larger infiltration area, etc.) will ensure that additional runoff is safely conveyed downstream.

Design Considerations:

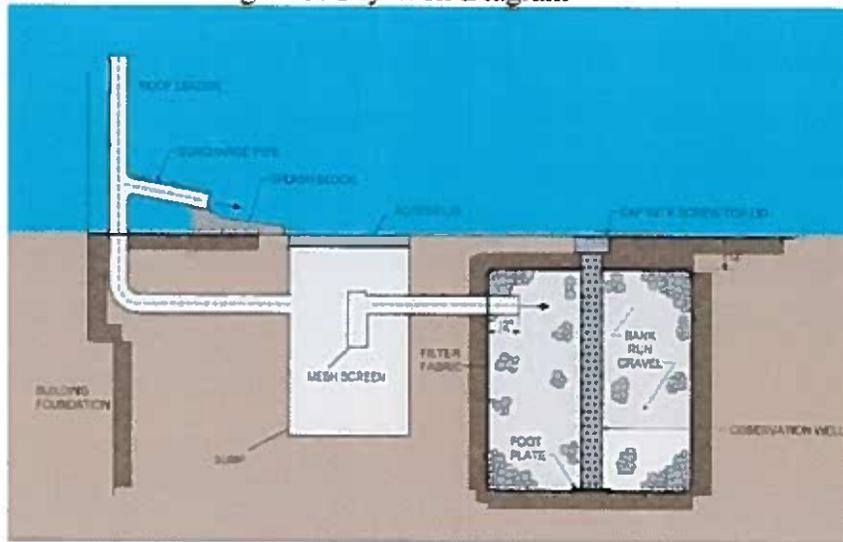
- Dry Wells typically consist of 18 to 48 inches of clean washed, uniformly graded aggregate with 40% void capacity (AASHTO No. 3, or similar). "Clean" gravel fill should average one and one-half to three (1.5 – 3.0) inches in diameter.
- Dry Wells are not recommended when their installation would create a significant risk for basement seepage or flooding. In general, 10 - 20 feet of separation is recommended between Dry Wells and building foundations.
- The facility may be either a structural prefabricated chamber or an excavated pit filled with aggregate.
- Depth of dry wells in excess of three-and-a-half (3.5) feet should be avoided unless warranted by soil conditions.
- Stormwater dry wells must never be combined with existing, rehabilitated, or new septic system seepage pits. Discharge of sewage to stormwater dry wells is strictly prohibited.

Maintenance:

- Dry wells should be inspected at least four (4) times annually as well as after large storm events.
- Remove sediment, debris/trash, and any other waste material from a dry well.
- Regularly clean out gutters and ensure proper connections to the dry well.

- Replace the filter screen that intercepts the roof runoff as necessary.

Figure 5: Dry Well Diagram



Source: PA BMP Guidance Manual, Chapter 6, Page 65.

Sizing Example for Dry Wells:

1. Determine contributing impervious surface area:

House Roof (Rear)	14 ft. x 48 ft.	=	672 sq. ft.
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2. Determine required volume control:

$$(672 \text{ sq. ft.} * 2 \text{ inches of runoff}) / 12 \text{ inches} = 112 \text{ cu. ft.}$$

$$112 \text{ cu. ft.} / 0.4 = 280 \text{ cu. ft. (assuming the 40% void ratio in the gravel bed)}$$

3. Sizing the dry well:

Set depth to 3.5 ft.; Set width equal to length for a square chamber. $280 \text{ cu. ft.} = 3.5 \text{ ft.} \times L \times L$;

$$L = 9 \text{ ft.}$$

$$\text{Dimensions} = 3.5 \text{ ft. (D)} \times 9 \text{ ft. (L)} \times 9 \text{ ft. (H)}$$

Non-Structural BMPs

1. Tree Plantings and Preservation

Trees and forests reduce stormwater runoff by capturing and storing rainfall in the canopy and releasing water into the atmosphere through evapotranspiration. Tree roots and leaf litter also create soil conditions that promote the infiltration of rainwater into the soil. In addition, trees and forests reduce pollutants by taking up nutrients and other pollutants from soils and water through their root systems. A development site can reduce runoff volume by planting new trees or by preserving trees which existed on the site prior to development. The volume reduction calculations either determine the cubic feet to be directed to the area under the tree canopy for infiltration or determine a volume reduction credit which can be used to reduce the size of any one of the planned structural BMPs on the site.

Tree Considerations:

- Existing trees must have at least a 4" trunk caliper or larger.
- Existing tree canopy must be within 100 ft. of impervious surfaces.
- A tree canopy is classified as the continuous cover of branches and foliage formed by a single tree or collectively by the crowns of adjacent trees.
- New tree plantings must be at least 6 ft. in height and have a 2" trunk caliper.
- All existing and newly planted trees must be native to Pennsylvania. See <http://www.dcnr.state.pa.us/forestry/commontr/commontrees.pdf> for a guide book titled *Common Trees of Pennsylvania* for a native tree list.
- When using trees as volume control BMPs, runoff from impervious areas should be directed to drain under the tree canopy.

Determining the required number of planted trees to reduce the runoff volume:

1. Determine contributing impervious surface area:

Garage Roof (Right)	6 ft. x 24 ft.	=	144 ft.
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2. Calculate the required control volume:

$$(144 \text{ sq. ft.} \times 2 \text{ inches of runoff}) / 12 \text{ inches} = 24 \text{ cu. ft.}$$

3. Determine the number of tree plantings:

- A newly planted deciduous tree can reduce runoff volume by 6 cu. ft.
- A newly planted evergreen tree can reduce runoff volume by 10 cu. ft.

$$24 \text{ cu. ft.} / 6 \text{ cu. ft.} = 4 \text{ Deciduous Trees}$$

Determining the volume reduction for preserving existing trees: 1.

Calculate approximate area of the existing tree canopy:

$$\sim 22 \text{ sq. ft.} \times \sim 23 \text{ sq. ft.} = 500 \text{ sq. ft.}$$

2. Measure distance from impervious surface to tree canopy: 35 ft.

3. Calculate the volume reduction credit by preserving existing trees:

- For Trees within 20 feet of impervious cover:
Volume Reduction cu. ft. = (Existing Tree Canopy sq. ft. x 1 inch) / 12
- For Trees beyond 20 feet but not farther than 100 feet from impervious cover:
Volume Reduction cu. ft. = (Existing Tree Canopy sq. ft. x 0.5 inch) /

$$12 (500 \text{ sq. ft.} \times 0.5 \text{ inches}) / 12 = 21 \text{ cu. ft.}$$

This volume credit can be utilized in reducing the size of any one of the structural BMPs planned on the site. For example, the 21 cu. ft. could be subtracted from the required infiltration volume when sizing the infiltration trench;

$$510 \text{ cu. ft.} - 21 \text{ cu. ft.} = 489 \text{ cu. ft.}$$

$$489 \text{ cu. ft.} / 3 \text{ ft. (Depth)} = 163 / 6 \text{ ft. (Width)} = 27.1 \text{ ft. (Length)}$$

Using the existing trees for a volume credit would decrease the length of the infiltration trench to 27.1 ft. instead of 28.3 ft.

2. Minimize Soil Compaction and Replant with Lawn or Meadow

When soil is overly compacted during construction it can cause a drastic reduction in the permeability of the soil and rarely is the soil profile completely restored. Runoff from vegetative areas with highly compacted soils similarly resembles runoff from an impervious surface. Minimizing soil compaction and re-planting with a vegetative cover like meadow or lawn, not only increases the infiltration on the site, but also creates a friendly habitat for a variety of wildlife species. Design Considerations:

- Area shall not be stripped of topsoil.
- Vehicle movement, storage, or equipment/material lay down shall not be permitted in areas preserved for minimum soil compaction.
- The use of soil amendments and additional topsoil is permitted.
- Meadow should be planted with native grasses. Refer to *Meadows and Prairies: Wildlife-Friendly Alternatives to Lawn* at <http://pubs.cas.psu.edu/FreePubs/pdfs/UH128.pdf> for reference on how to properly plant the meadow and for a list of native species.

Determining the volume reduction by minimizing soil compaction and planting a meadow:

1. Calculate approximate area of preserved meadow: $\sim 22 \text{ sq. ft.} \times \sim 23 \text{ sq. ft.} = 500 \text{ sq. ft.}$
2. Calculate the volume reduction credit by minimizing the soil compaction and planting a lawn/meadow:

- For Meadow Areas: Volume Reduction (cu. ft.) = (Area of Min. Soil Compaction (sq. ft.) \times 1/3 inch of runoff) / 12

$$(500 \text{ sq. ft.} \times 1/3 \text{ inch of runoff}) / 12 = 13.8 \text{ cu. ft.}$$

- For Lawn Areas: Volume Reduction (cu. ft.) = (Area of Min. Soil Compaction (sq. ft.) \times 1/4 inch of runoff) / 12

$$(500 \text{ sq. ft.} \times 1/4 \text{ inch of runoff}) / 12 = 10.4 \text{ cu. ft.}$$

This volume credit can be used to reduce the size of any one of the structural BMPs on the site. See explanation under the volume credit for preserving existing trees for details.

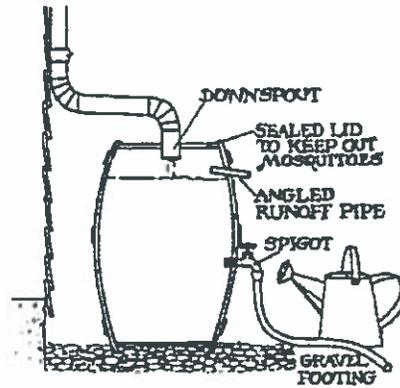
Alternative BMP to Capture and Reuse Stormwater Rain Barrels

Rain barrels are large containers that collect drainage from roof leaders and temporarily store water to be released to lawns, gardens, and other landscaped areas after the rainfall has ended. Rain barrels are typically between 50 and 200 gallons in size. It is not recommended for rain barrels to be used as a volume control BMP because infiltration is not guaranteed after each storm event. For this reason, a rain barrel is not utilized in the site plan example. However, the information is included to provide an alternative for a homeowner to utilize when considering capture and reuse stormwater methods.

Design Considerations:

- Rain barrels should be directly connected to the roof gutter/spout.
- There must be a means to release the water stored between storm events to provide the necessary storage volume for the next storm.
- When calculating rain barrel size, rain barrels are typically assumed to be 25% full because they are not always emptied before the next storm.
- Use screens to filter debris and cover lids to prevent mosquitoes.
- An overflow outlet should be placed a few inches below the top with an overflow pipe to divert flow away from structures.
- It is possible to use a number of rain barrels jointly for an area.
- Are requirements for 15-foot access easements waived?

Figure 6: Rain Barrel Diagram and Examples



Sources: (top picture) <http://www.citywindsor.ca/DisplayAttach.asp?AttachID=12348>
 (bottom picture on left) <http://repurposinglife.blogspot.com/2009/05/rainwater-harvesting.html> (bottom picture on right)
<http://www.floridata.com/tracks/transplantedgardener/Rainbarrels.cfm>

Sizing Example for a Rain Barrel

1. Determine contributing impervious surface area:

Garage Roof (Right)	6 ft. x 24 ft.	=	144 sq. ft.
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2. Determine the amount of rainfall to be captured by the Rain Barrel. A smaller storm, no more than 2", is recommended to calculate the runoff to be captured. This example chose the 1" storm event.
3. Calculate the volume to be captured and reused: $(144 \text{ sq. ft.} \times 1 \text{ inch of runoff}) / 12 \text{ inches} = 12 \text{ cu. ft.}$

4. Size the rain barrel:

1 cu. ft. = 7.48 gallons

12 cu. ft. x 7.48 = 90 gallons

90 gallons x (0.25*) = 22.5 gallons (*assuming that the rain barrel is always at least 25% full)

90 gallons + 22.5 gallons = 112 gallons

The rain barrel or barrels should be large enough to hold at least 112 gallons of water.

REFERENCES:

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DeBarry, Paul A. *Watersheds: Processes, Assessment and Management*, John Wiley & Sons, Inc., Hoboken, NJ, 2004.

Delaware County Planning Commission. (2010). *Crum Creek Watershed Act 167 Stormwater Management Plan. Ordinance Appendix B. Simplified Approach to Stormwater Management for Small Projects*.

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ORDINANCE APPENDIX C NONSTRUCTURAL PROJECT DESIGN CHECKLIST

The goal of this checklist is to minimize the increases in stormwater runoff and impacts to water quality resulting from the proposed regulated activity:

1. Prepare an Existing Resource and Site Analysis Map (ERSAM, see Section 301.B.)
2. Establish a stream buffer according to Section 407.
3. Prepare a draft project layout avoiding sensitive areas identified in Section 301.
4. Identify site-specific existing conditions drainage areas, discharge points, recharge areas, and hydrologic soil groups A and B (areas conducive to infiltration).
5. Evaluate nonstructural stormwater management alternatives (Section 404):
 - a) Minimize earth disturbance.
 - b) Minimize clearing operations (vegetation removal)
 - c) Minimize impervious surfaces.
 - d) Break up large impervious surfaces.
6. Satisfy the groundwater recharge (infiltration) objective (Section 405) and provide for stormwater pretreatment prior to infiltration.
7. Provide for water quality protection in accordance with Section 406 water volume control requirements.
8. Provide stream bank erosion protection in accordance with Section 407 stream bank erosion requirements.
9. Determine into what management district the site falls (Section 408) and conduct an existing conditions runoff analysis.
10. Prepare final project design to maintain existing conditions drainage areas and discharge points, to minimize earth disturbance and impervious surfaces, and, to the maximum extent possible, to ensure that the remaining site development has no surface or point discharge.
11. Conduct a proposed conditions runoff analysis based on the final design that meets the management district requirements (Section 408).
12. Manage any remaining runoff prior to discharge through detention, bioretention, direct discharge, or other structural control.

ORDINANCE APPENDIX D

RIPARIAN BUFFER TRAIL GUIDELINES

Introduction

Riparian buffers are used as non-structural best management practices (BMPs) for protecting and enhancing water quality. Depending on their size, location, and design, riparian buffers often supply additional environmental, economic, aesthetic, and recreational value. Passive recreational trails can be a compatible use within riparian buffers if the trails are sized and placed appropriately. The trail guidelines below are meant to supplement Section 406, Water Volume Control Requirements, and do not alter or modify the regulations set forth in Section 401, General Requirements. All other applicable rules and requirements should be followed, including all federal, state, permitting, and local stormwater and floodplain ordinances.

Installing a trail does not relieve a developer or municipality of the minimum buffer and vegetation requirements described in Section 407, or infiltration and peak rate controls in Sections 405 and 408. Effort shall be made to mitigate water quality and peak rate adjacent the trail structure to avoid collecting runoff in a large facility and creating a point discharge. This can be accomplished by trail- side stone filtration trenches, vegetative filter strips, small bio-retention facilities, and other mechanisms subject to site constraints and municipal engineer approval. See Figure 1. In situations where site constraints negate the feasibility of trail-side mitigation methods, effort shall be made to collect runoff in multiple stormwater facilities for segmented portions of the trail, in place of detaining stormwater in one large facility. Level spreaders shall be constructed at facility outlets to decrease point-source discharges.

As with all trails, adequate land acquisition, easements, and/or landowner permission should be obtained in advance of any trail placement. Care should be given when designing and installing trails so as not to compromise the buffer's ability to protect water quality. Many factors such as slope, vegetation, and soil type will determine the type, size, and placement of the trail within the riparian buffer. Heavily used trails and trails with wide impervious surfaces should be set back farther from the stream edge to help mitigate the effects of any associated increase in runoff. Note: failure to comply with these guidelines (Installing a trail with inadequate setback from the stream bank) could result in increased stormwater runoff, decreased water quality, stream bank degradation, and damage to the buffer or trail.

Trail Recommendations

Location, Size, and Orientation

All trails should be a reasonable width appropriate for the site conditions. It is not recommended that the width of any paved trail exceed twenty five (25) percent of the total buffer width. All trail designs and specifications are subject to approval by the Municipality.

Natural vegetation must be present throughout the buffer as described in Section 306 of the ordinance. Grassy areas should be managed as meadows or be reforested and should not be mowed as lawn in any part of the buffer. Where existing vegetation is insufficient to protect water quality, additional native species should be planted to enhance the buffer.

Paved trails, if appropriate to the site, are permitted and must be located at least twenty-five (25) feet from the top of the stream bank. In limited instances, paved trails be placed closer to a stream due to topography, or in order to accommodate passive educational and recreational activities, but must always be at least ten (10) feet from the top of the stream bank. Although this can be achieved by diverting the entire trail closer to the stream, more conservative methods should be considered, such as smaller spur trails or loop trails. These smaller trails provide access to the stream, but reduce the total traffic along the sensitive stream bank.

In rare instances where the buffer width is reduced due to zoning setback or geographical constraints, the municipality should strongly consider whether the benefits of a trail outweigh the benefits of a wider buffer.

Signage

The installation of interpretive and educational signage is strongly encouraged along the trail. Signs should point out local natural resources and educate the public on how riparian buffers protect the watershed. There should be minimum disturbance in the vegetated buffer between the trail and the stream. Therefore, all appurtenances (e.g. benches, educational signs, kiosks, fountains, etc.) should be installed on the landward side of the trail, if possible. All appurtenances shall be installed in compliance with federal, state, local, stormwater, floodplain, and other regulations and permitting requirements (e.g. anchoring, etc.)

Parking Areas

New trailheads and trail parking areas shall meet all the infiltration, rate control, and minimum setback requirements of this ordinance. Every effort should be made to coordinate trail access with existing parking areas. Any new parking areas and trailhead clearings should not encroach on the riparian buffer in any way.

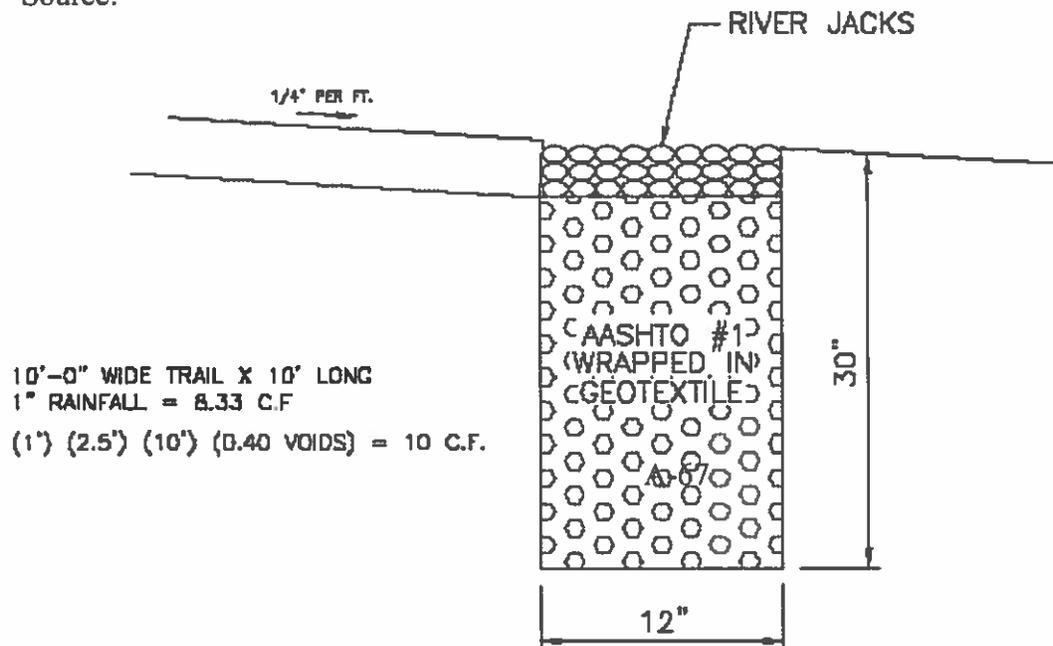
Trail Maintenance

The installation and maintenance of all trails should be performed in a manner that minimizes site disturbance and prevents runoff and erosion. Soil disturbance should be avoided if possible. The removal of native trees and other native vegetation should also be kept to a minimum. If

large or heavy equipment is required for trail installation, special care should be given not to damage existing trees and tree roots.

FIGURE 1.
EXAMPLE DESIGN OF A TRAIL-SIDE
STONE FILTRATION TRENCH

Source:



James MacCombie, Herbert E. MacCombie Jr. P.E. Consulting Engineers & Surveyors Inc.

**ORDINANCE APPENDIX E
OPERATION AND MAINTENANCE (O&M) AGREEMENT**

OPERATION AND MAINTENANCE (O&M) AGREEMENT
STORMWATER MANAGEMENT BEST
MANAGEMENT PRACTICES (SWM BMPs)

THIS AGREEMENT, made and entered into this _____ day of _____, 20____, by and between _____, _____ (hereinafter “the Landowner”), and Cheltenham Township, Montgomery County, Pennsylvania, (hereinafter “Municipality”);

WITNESSETH:

WHEREAS, the Landowner is the owner of certain real property as recorded by deed in the land records of Montgomery County, Pennsylvania, Deed Book _____ at page, _____ (hereinafter “Property”).

WHEREAS, the Landowner is proceeding to build and develop the Property; and

WHEREAS, the SWM Site Plan approved by the Municipality (hereinafter referred to as the “Plan”) for the property identified herein, which is attached hereto as Appendix F and made part hereof, as approved by the Municipality, provides for management of stormwater within the confines of the Property through the use of BMPs; and

WHEREAS, the Municipality, and the Landowner, his successors and assigns, agree that the health, safety, and welfare of the residents of the Municipality and the protection and maintenance of water quality require that on-site SWM BMPs be constructed and maintained on the Property; and

WHEREAS, the Municipality requires, through the implementation of the SWM Site Plan, that stormwater BMPs as required by said Plan and the Municipal Stormwater Management Ordinance be constructed and adequately operated and maintained by the Landowner, successors, and assigns.

NOW, THEREFORE, in consideration of the foregoing promises, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

1. The Landowner shall construct the BMPs in accordance with the plans and specifications identified in the SWM Site Plan.
2. The Landowner shall operate and maintain the BMPs as shown on the Plan in good working order in accordance with the specific maintenance requirements noted on the approved SWM Site Plan.
3. The Landowner hereby grants permission to the Municipality, its authorized agents and employees, to enter upon the property, at reasonable times and upon presentation of proper credentials, to inspect the BMPs whenever necessary. Whenever possible, the Municipality shall notify the Landowner prior to entering the property.
4. In the event the Landowner fails to operate and maintain the BMPs per paragraph 2, the Municipality or its representatives may enter upon the Property and take whatever action is deemed necessary to maintain said BMP(s). It is expressly understood and agreed that the Municipality is under no obligation to maintain or repair said facilities, and in no event shall this Agreement be construed to impose any such obligation on the Municipality.

5. In the event the Municipality, pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like, the Landowner shall reimburse the Municipality for all expenses (direct and indirect) incurred within 10 days of receipt of invoice from the Municipality.
6. The intent and purpose of this Agreement is to ensure the proper maintenance of the onsite BMPs by the Landowner; provided, however, that this Agreement shall not be deemed to create or affect any additional liability of any party for damage alleged to result from or be caused by stormwater runoff.
7. The Landowner, its executors, administrators, assigns, and other successors in interests, shall release the Municipality from all damages, accidents, casualties, occurrences, or claims which might arise or be asserted against said employees and representatives from the construction, presence, existence, or maintenance of the BMP(s) by the Landowner or Municipality.
8. The Municipality shall inspect the BMPs at a minimum of once every three years to ensure their continued functioning.

This agreement shall be recorded at the Office of the Recorder of Deeds of Montgomery County, Pennsylvania, and shall constitute a covenant running with the Property and/or equitable servitude, and shall be binding on the Landowner, his administrators, executors, assigns, heirs, and any other successors in interests, in perpetuity.

ATTEST:
 WITNESS the following signatures and seals:
 (SEAL)

For the Municipality:

For the Landowner:

ATTEST:

_____(City, Borough, Township), County of _____, Pennsylvania
 I, _____, a Notary Public in and for the County and state aforesaid,
 whose commission expires on the _____ day of _____, 20____, do hereby certify
 that _____ whose name(s) is/are signed to the foregoing Agreement
 bearing date of the _____ day of _____, 20____, has acknowledged the same before me in
 my said County and State.

GIVEN UNDER MY HAND THIS _____ of _____, 20____.

 NOTARY PUBLIC

 (SEAL)



PUBLIC ATTENDANCE LIST



Board of Commissioners Meeting

Wednesday, February 17, 2016 @ 7:30 P.M.

Curtis Hall

1250 W. Church Road, Wyncote, PA 19095

(Please Print Clearly)

Print Name	Mailing Address	Telephone Number	E-mail Address
Joe Mattia	536 Shoemaker Rd Elkins Park	215-635-5515	jimattia@verizon.net
Bill Engle	Chapel Rd		on file
CAROL + ALLEN SIEGEL	7905 RONALE E-P	215-782-1367	SALES LADY@AOL.COM
JOE + KAREN PENECK	249 HARRISON	215-534-3988	PEESJ@COMCAST.NET
Bob + Debbie [unclear] [unclear]			
DAVID BIRME	542 SHOMAKER		
Paul Hrusky	607 Lawrence Rd		
CHRISTINE KEAMER	8103 ROCKW		
MARYANN KLAFF	228 RICES MILL RD		
ROBERT HAYSLOR	211 HARRISON	215-886-0813	
Deb M Glade	320 Brookside		dmgglade320@comcast.net