



TOWNSHIP OF UPPER PROVIDENCE

***MEETING TO BE HELD VIA ZOOM CONFERENCE**

LINK TO BE PROVIDED ON TOWNSHIP WEBSITE (UPROV-MONTCO.ORG)

24 HOURS PRIOR TO THE MEETING TIME*

PLANNING COMMISSION AGENDA

AUGUST 12, 2020— 7:00 PM

CALL TO ORDER / ROLL CALL

PUBLIC COMMENT FOR NON-AGENDA ITEMS

GENERAL DISCUSSION ITEMS:

- a. June 10, 2020 PC Meeting Minutes (re-adoption)
- b. July 8, 2020 PC Meeting Minutes
- c. Providence Business Park III—60k Flex Space Final Plan approval
- d. 395 Greenwood Avenue Waiver Request
- e. Zoning Hearing Board Application #20-04, Floodplain variance

APPLICATIONS TO BE HEARD ON AUGUST 12, 2020:

1. Pope John Paul Home Bleachers

Property Address: Rittenhouse and Township Line Roads

Proposed Development: Home Bleacher Installation

Township #: 5006-0358-0002 Amended Final

Submission Date: February 13, 2020 / Clock Expiration: None per letter (July 17, 2020)

APPLICATIONS PENDING REVIEW: DATE FOR DISCUSSION TO BE DETERMINED

1. SEI North Campus/Reber Road alignment

Property Address: 1 Freedom Valley Drive

Proposed Development: Reber Road extension

Township #: 7040-0333-0004 (T) LD

Submission Date: February 11, 2020 / Clock Expiration: None-signed waiver

Waiver revoked: March 13, 2020 / Clock Expiration: June 11, 2020

Expiration Date per Governor's Order: August 25, 2020

2. 172 Hopwood Road Conditional Use and Tentative Plan

Property Address: 172 Hopwood Road

Proposed Development: 48-unit carriage home development

Township #: 6033-0341-0001 CU / 6033-0341-0002 (T) LD

Submission Date: February 5, 2020

Conditional Use Hearing Clock: ~~April 3, 2020~~ / Extension to September 22, 2020 (per July 13, 2020 letter)

Land Development Clock Expiration: ~~May 5, 2020~~ / Extension to September 22, 2020 (per July 13, 2020 letter)

~~Land Development Expiration Date per Governor's Order: July 17, 2020~~

~~Conditional Use Expiration Date per Governor's Order: August 18, 2020~~



3. Residences at Providence Town Center Final Plan

Property Address: Arcola Road and Water Loop Drive

Proposed Development: Multi-family and Hotel

Township #: 3031-0305-0004 FINAL

Submission Date: December 10, 2019 / Clock Expiration: None-signed waiver

~~4. Providence Business Park 3 — BWR~~

~~Property Address: Egypt and Hollow Road, southeast of intersection~~

~~Proposed Development: development of a clinic, outpatient clinic and administration center~~

~~Township #: 2-059-020-115 (P)LD~~

~~Clock expiration: None (per letter dated November 22, 2019)~~

~~(final removal pending letter from applicant)~~

FUTURE AGENDA DISCUSSION

ADJOURNMENT

- a. June 10, 2020 PC Meeting Minutes (re-adoption)



**UPPER PROVIDENCE TOWNSHIP
PLANNING COMMISSION
REGULAR MEETING
Wednesday, June 10, 2020**

A meeting of the Upper Providence Township Planning Commission was held via Zoom webinar on Wednesday May 13, 2020. Attending were Planning Commission members Chris Caggiano, Bob Heist, Tom Wright, Robert Gilinger and Matt Caffrey. Also in attendance were Bill Dingman from the Township Engineer's Office, Eric Frey, Esq. from the Township Solicitor's office, Anthony Valencia from the Township Traffic Engineer's Office, and Geoffrey Grace, Township Director of Planning.

Call to Order

The regular meeting was called to order by Mr. Caggiano at 7:02 p.m.

Public Comment for Non-Agenda Items

None.

Minutes to be approved

The following minutes were reviewed:
May 13, 2020

Mr. Wright motioned, seconded by Mr. Gilinger, to approve the Planning Commission minutes from May 13, 2020. Motion carried 4-0.

Tindey Run Planning Module Approval

Mr. Dingman stated that the planning module is for the Tindey Run sewer project through the Township. He reviewed the schematic of the area. Pursuant to Act 537, the Planning Commission is tasked with answering several questions regarding the module. There is a public comment period and review by the Montgomery County Planning Commission. Mr. Dingman stated that typically the consultants provide the answers for review by the Planning Commission. Mr. Dingman stated construction will start in about a year.

Mr. Wright motioned, seconded by Mr. Caffrey, to authorize the consultants to prepare the answers and allow the Planning Commission Chair to execute same. Motion carried 5-0.

Residences @ Providence Town Center Planning Module

Mr. Dingman stated that the planning module is for the Residences at PTC planning module. DEP has given preliminary input to the module. Mr. Dingman stated Brad Macy from ALD would like to start construction on the project in the fall with occupancy in mid-2022. The residences and buffer would be first in the first wave of construction. Mr. Caggiano asked about the layout of the buildings. Mr. Grace stated that there might be some small changes to the footprint but the general location of the buildings will not change. There may be changes to the function and amenities/uses of the buildings. Any significant changes would need to be discussed before the Planning Commission.

HBFC Final Plan Recommendation

Mr. Grace stated that the final plans are being submitted. When a plan reaches the final plan stage, all of the consultants' letters are "clean". The only remaining comments would involve outside permits. The next step would be a recommendation to the Board of Supervisors.

Mr. Wright motioned, seconded by Mr. Gilinger, to recommend the HBFC final plan be sent to the Board of Supervisors for final approval as all of the consultant letters are clean. Motion carried 5-0.

Ridgewood Phase 2B Final Plan Approval

Mr. Grace stated that this development has undergone several phases. The initial construction was done by another developer. Rouse-Chamberlin has taken over this project and is in construction of Phase 2A.

*Present: Greg Graham, Rouse Chamberlin
Ed Mullin, Esq., Attorney for the Applicant*

Applicant would like to receive final approval for Phase 2B. Construction on Phase 2B would begin this fall and includes 58 units. Phase 2C would also have 58 units and one single family home. The road at the top of the plan is Linfield-Trappe Road. Mr. Grace stated all of the consultant letters are clean on this project.

Mr. Caffrey motioned, seconded by Mr. Wright, to approve the final plan for Ridgewood Phase 2B. Motion carried 5-0

Subdivision and Land Development Applications

1. Pope John Paul Home Bleachers

Mr. Grace stated he received an email earlier in the day from the applicant saying that they were not ready to present to the Planning Commission and asked to be moved to the next available meeting

2. Testa Dance Conditional Use

*Present: Joe Clement, Esq., Attorney for the Applicant
Dan Testa, representative for the Applicant*

Attorney Clement discussed the project. There is an existing building on Egypt Road. The applicant is proposing using a portion of the building for a dance studio. Under M1 zoning, conditional use approval is required. This tract is comprised of 4 different parcels and divided as condominiums. The parcel in question is Unit 2, there is a common area, Unit 1 is the Malvern School, and Unit 3 is a small structure. There is ample parking. The proposed use is for evening dance classes so there will not be an issue with day parking for the Malvern School. Unit 2 would be divided into Unit 2A and 2B. Applicant would own Unit 2A. Mr. Grace stated this applicant was before the Planning Commission a short time ago but that plan involved a different site. Attorney Clement state there are 54 parking spaces with Unit 2 and of that 47 would be associated with Unit 2A. Due to the space in the studio, there should only be approximately 18 participants per class with 3-5 instructors. Attorney Clement stated the remaining 2B unit does not belong to the applicant and is not part of this application. He further stated the unit would be divided in 2A and 2B before occupancy. The dance studio would predominantly be an open space with a reception area and office. Mr. Grace stated conditional use would be the first step. There is no land development associated with this project. He further stated no additional building could be done to this site without complete land development.

Mr. Wright motioned, seconded by Mr. Heist, to recommend this project moves on to the Board of Supervisors for conditional use approval. Motion carried 5-0.

3. 357 Greenwood Avenue Conditional Use and Tentative Plan

*Present: Ed Mullin, Esq., Attorney for the Applicant
Justin Stramore, representative for WB Homes*

Mr. Stramore discussed the project which includes 26 lots with 25 new single family homes. This would be developed under the R1/Ag District with flexible lotting per conditional use. Applicant has received the township and consultant letters and are a will comply with all of the provisions in the letters. Applicant is seeking a recommendation for a conditional use and tentative plan. Mr. Grace stated there are two slides, one with the flexible lot schematic and the second showing the yield plan. Mr. Stramore stated that the

historic farmhouse would be preserved and be included in the 26 lots. The home price is expected to be in the mid \$800,000 range. The proposed approximate open space would be just under 34%. The flex lot option allows for the minimum lot size to be 20,000 sq. ft. with a lot average of approximately 30,000 sq. ft. Attorney Frey explained that a conditional use hearing is the same format as a zoning board hearing except the conditional use hearing is before the Board of Supervisors. It is a public hearing. Applicant is seeking both conditional use and tentative sketch plan approval. If successful at the conditional use hearing, applicant would be before the Planning Commission again for preliminary and final plan approval. Mr. Stramore stated the reason for a shared driveway for lots 9 and 10 is to minimize the impacts on the water crossing in that area; however, two separate driveways are an option. (44:56)

Applications Pending Review

Adjournment

Mr. Wright motioned, seconded by Mr. Caffrey, to adjourn at 7:57 p.m. Motion carried 5-0.

Respectfully submitted,

Tom Wright, Secretary
Upper Providence Township Planning Commission

b. July 8, 2020 PC Meeting Minutes



**UPPER PROVIDENCE TOWNSHIP
PLANNING COMMISSION
REGULAR MEETING
Wednesday, July 8, 2020**

A meeting of the Upper Providence Township Planning Commission was held via Zoom webinar on Wednesday, July 8, 2020. Attending were Planning Commission members Bob Heist, Vice-Chair; Tom Wright; Robert Gilinger and Matt Caffrey. Also in attendance were Bill Dingman from the Township Engineer's Office; Eric Frey, Esq. from the Township Solicitor's office; Casey Moore from the Township Traffic Engineer's Office; and Geoffrey Grace, Township Director of Planning and Zoning.

Call to Order

The regular meeting was called to order by Mr. Heist at 7:02 p.m.

Public Comment for Non-Agenda Items

None.

Minutes to be approved

The following minutes were reviewed:
June 10, 2020

Mr. Wright motioned, seconded by Mr. Gilinger, to approve the Planning Commission minutes from June 10, 2020. Motion carried 4-0.

188 Bechtel Road Subdivision – Final Plan

Present:

*Chuck Dobson – Project engineer
John Panizza – Applicant*

Mr. Grace stated that a few additional waivers have been identified between the preliminary plan and final plan stages.

Chuck Dobson, project engineer and John Panizza, applicant. Mr. Dobson stated that additional waivers are requested after an additional review of the SALDO. These waivers are in addition to the waivers granted during the preliminary plan stage. The first waiver requested is to use applicant's own topography information. The next waiver requested is to use a slightly smaller plan scale than 1 inch = 50 ft. The next waiver requested has to do with showing existing features within 100 feet. The plan uses an aerial photograph with the plan superimposed in the correct layout. The next waiver requested is from the minimum horizontal line at the center curve. Mr. Grace stated that these waivers were already granted in the preliminary plan stage.

Mr. Dobson stated that there are four additional waivers requested. The first waiver requested is for the post development 50-year storm runoff rate to be reduced to the pre-development 2-year event runoff rate. Mr. Dobson stated that the plan accounts for a portion of a future township road in the stormwater design which accounts for the small percentage over the 2-year event runoff rate. The next waiver requested is from the minimum dimensions for the basin berm. BMPs 2 and 3 are very small and do not require the larger dimensions for the basin berm. The next waiver requested is from the low flow channel made from concrete material. The last waiver requested is the minimum freeboard of one foot. As mentioned BMPs 2 and 3 are very small and do not require the full foot. Freeboard at both BMPs is approximately 6-8 inches.

Mr. Dingman stated he has no concerns with the waivers. The plan met the 50-year to 2-year requirement for their site development. The plan accounts for the future Bechtel Road extension. Waivers 2 and 4 are a matter of definition. Mr. Dingman stated that BMPs 2 and 3 can be considered rain gardens instead of basins. Waiver 3 is discussed in the township's clean up ordinance.

Mr. Dingman stated that the road extension will be put through after lot development, but it is ultimately a Board of Supervisors decision. Mr. Dingman stated there are two sections of Bechtel Road, east and west. The Bechtel Road west project will provide a connection over towards Lewis Road, and the Bechtel Road east project will straighten the road out to Hopwood Road and 113 with no stop sign. This will create a straight through movement from Route 113 to Lewis Road on the realigned Bechtel Road.

Mr. Grace stated there was an administrative oversight from the preliminary plan approval. The resolution did not include three waivers that were granted. These waivers will now be included with this resolution.

Mr. Grace stated he received a phone call from one neighbor about a stormwater easement. Mr. Dobson stated the applicant has notified the neighbors on either side of the easement about what work will be done.

Ianni Vardouniotis (109 Ithan Lane) questioned why the stormwater sanitary needs to be run along Bechtel Road. He is concerned about the anticipated work. He received a letter stating he needed to remove trees and some hardscaping. Mr. Dobson stated that a storm sewer runs from the back of the applicant's property to Ithan Lane that conveys the storm water to the road. This connection is also intended for sanitary sewer with a connection to a receiving manhole on Ithan Lane. The applicant does not want to disrupt the area any more than necessary; however, trees have been planted in the easement which will have to be removed. This connection has been identified as the only way to connect the project to the sanitary sewer system. There will be no disruption with storm water run-off as the pipe is already there. Mr. Vardouniotis stated that the letter from the applicant was very abrasive and unprofessional. He stated there are several issues to work out, i.e.

fencing in the ground, drainage pipes, etc. before construction could start. Mr. Dobson stated that the project work will be fenced off to ensure the safety of children and pets. An eight-inch diameter sanitary sewer pipe will be installed at a depth of six to ten feet. The trenches would not be left open overnight. Work will be done during normal weekday business hours. The area will be backfilled, tamped and stabilized. Temporary stabilization of hay or an erosion control blanket will be used to mitigate any dust. Mr. Dobson stated that the applicant is willing to meet with the affected property owners to discuss ways to make this project as unobtrusive as possible. Mr. Vardouniotis questioned insurance coverage and what would happen if his property is damaged or someone is hurt during the project. The excavator and applicant will have liability insurance.

Mr. Dingman stated that typically a developer would bear the cost to remove any trees that need to be removed for a project.

John Panizza, applicant, stated that there is hardscaping in the area that would need to be removed prior to the start of construction. He further stated that removal of trees would be his responsibility. Mr. Vardouniotis stated the letter was not written with those comments and it asserted that tree removal would be his responsibility. Mr. Grace asked that Mr. Panizza and Mr. Dobson coordinate with Mr. Vardouniotis to resolve these issues prior to moving this plan forward. Mr. Dingman suggested that a site meeting be scheduled with the applicant and impacted property owners and include a stakeout of the center line of the proposed sanitary sewer easement area.

Mr. Wright motioned, seconded by Mr. Caffrey, to recommend approval of the final plan, including the four new waivers and three existing waivers with the caveat that a site meeting with the adjacent property owners take place prior to this matter being heard by the Board of Supervisors. With no public comment, Motion carried 4-0.

ZHB 20-01 Greenwood Avenue Floodplain

Present:

Carl Wiener, Esquire – Applicant’s attorney

Richard R. Carroll, President Hallmark Group - Applicant

This property is approximately 8.8 acres in the R-1 District. The plan shows 17 flexible lots. Conditional use approval was received last September. Applicant is requesting floodplain zoning relief to a portion of four lots – 1, 2, 16 and 17. Applicant’s consultant, Joe Valentine, has reviewed the site and soil and determined that there are no alluvial soils on this property. There have been initial discussions with Mr. Dingman on the issue. Applicant is hopeful this issue will be resolved with an update to the soils map. Mr. Dingman stated an applicant hired a soil consultant and the study was accepted for a different project allowing the issue to be administratively addressed. Mr. Grace stated that the flood plain ordinance requires the planning commission to comment on specific issues like the one being presented.

Mr. Wright motioned, seconded by Mr. Caffrey, to stay neutral as to the zoning hearing relief requested plan for 395 Greenwood Avenue. With no public comment, Motion carried 4-0.

Subdivision and Land Development Applications

1. Yerkes Stations Multifamily Development

*Present: Alyson Zarro, Esq., Attorney for the Applicant
Lance Silver, Applicant
Greg Bogia, Project engineer*

Attorney Zarro gave background information on the project. The site was rezoned to YMU and includes three different lots. The project is for a multifamily development. This plan does not include the Hopwood site. The property is 11.5 acres, spans Collegeville Road and intersects Hopwood Road. The project consists of three multifamily buildings, underground parking under two of the buildings, club house area, trail amenities and various trail connections through the site. Extensive road improvements are proposed as part of the development. Access points for the development are on Yerkes Road and Collegeville Road at the Hopwood Road intersection, which would become a signalized intersection. Additional improvements include the widening of Collegeville Road, additional turn lanes, right of way extensions beyond the site in both directions, and coordinated traffic signals.

Applicant has received consultant letters from Gilmore dated May 29, 2020 and from Gilmore dated June 8, 2020 and July 6, 2020. The transportation impact assessment addresses both cites.

Attorney Zarro stated that this is a by-right subdivision. The development on Hopwood is permitted by conditional use and this plan is permitted by-right allowing for a tentative sketch plan.

Attorney Zarro discussed the overall parking set up for the project. 1.7 spaces are required per the number of units which equates to 381 parking spaces. The right side of the plan includes a 26-space parking area. Applicant has stated that if the additional parking was not needed, it would be put in reserve or possibly offer it for public use for trailhead parking. A detailed floodplain study is being done in the area of the additional parking. Currently there is a vacant house and other structures at the location which are proposed to be demolished.

Yerkes Road improvements will include coordination with Collegeville Road. There is additional ultimate right of way at Yerkes and Collegeville Road and applicant will be requesting a waiver.

Section B will be used for wetlands mitigation.

A trail system is running through the site with a connection to the Perkiomen Trail. The trail would go across Route 29 and extend up Hopwood Road. There would be a pedestrian landing area to help with crossings. Sidewalk is being shown along both frontages; however, there is a question of whether the sidewalks are needed as some sections would not connect to anything. Mr. Silver stated the use of berming and/or decorative walls is being considered as well. Mr. Moore stated that there is huge gap in sidewalk between Hopwood Road and Perkiomen Blvd. on the Upper Providence side of Route 29 but once you get north of Perkiomen Blvd. there is sidewalk that extends to the Wawa property. The missing link is between the proposed 26 lot parking area and to Perkiomen Blvd. Mr. Dingman stated there are no sidewalks going toward the town center. He suggested having sidewalks in the Section B area of the plan allowing those residents to safely cross and get to the trail. Mr. Moore stated sidewalks would be needed in the Section C area to the trail at the Hopwood Road intersection. This is included in the plan.

Attorney Zarro stated a subdivision line is shown on the plan. This is for financing purposes, but the intent is still to build and grade out everything at once.

Mr. Grace stated the applicant was allowed a by-right use when the Yerkes Mixed Use ordinance was adopted. The Hopwood piece has a conditional use piece that needs to be met.

Kevin Middaugh (39 Hemlock Drive) questioned the clock on this plan. Mr. Grace stated the emergency order and Act 15 has affected the clock. Mr. Grace stated Attorney Zarro agreed to an extension but wanted this initial meeting before the Planning Commission and to listen to their comments.

Troy Maniscalco (1814 Collegeville Road) has concerns about the intersection design by his property. Mr. Silver stated stripping will be done on Collegeville Road which will still allow for a left turn from his property. He further stated that the widening of Route 29 will connect at the curb end at Perkiomen Woods to where the widened culvert starts. He believes it is 8 feet on the front. Mr. Maniscalco stated there are utilities in the road that will need to be addressed. Mr. Silver stated that sewer tapping will be done to the pipeline. The connection to the Perkiomen Trail may be better suited at this location.

Rachel Biglin (113 Pin Oak Court) believes a connecting sidewalk would be more beneficial towards Collegeville Proper. She is concerned about the safety of the traffic light at Perkiomen Woods. She stated this development is not falling under the definition of transitional housing as specified by the County and Township Comprehensive Plans. There needs to be a crescendo of houses from single to multifamily to apartments. She would like to know the basis of changing the plan from 135 units in 2018 to 230+ units in 2020. There are 773 signatures in an online petition opposed to five story building structures.

Attorney Zarro stated that this property was rezoned for this use. The use and height of the buildings is permitted on this site. She further stated that what is being proposed is in compliance with the township ordinance. The traffic improvements include coordinated signal timing with the Perkiomen Woods and other signals. Any additional lanes for the Perkiomen Woods signal would be an off-site improvement and is not proposed with this project. Attorney Zarro stated the township requires sidewalks along the property frontage unless it is determined by the Board of Supervisors not to be in the public interest. There is no obligation on the part of the applicant to provide off-site sidewalks. Ms. Biglin stated that Perkiomen Woods is the only development that pumps off the aquifer and she is concerned that due to the amount of impervious surface with the building of this proposed development what will happen with the runoff and will the aquifer become contaminated. She asked if the applicant would purchase a bond to protect the homeowners of Perkiomen Woods. Attorney Zarro stated that purchase of a bond has not been considered by the applicant is required to comply with all state, county and local stormwater management provisions. This is a tentative sketch plan. A preliminary plan would include detailed studies of stormwater management. Attorney Frey stated there is no provision to require the developer to investigate how project construction would affect another part of the township. The applicant is required to comply with all stormwater management requirements, engineering reviews and local ordinances. Ms. Biglin has concerns about the blasting and earth movement during the construction of this project and would like to know how the township will protect the existing homeowners in Perkiomen Woods. Attorney Frey stated when blasting is involved the applicant would have to comply with additional regulations including a baseline and monitoring of water supplies at various locations both pre and post blasting. He stated he does not know if blasting would be need for this project.

Richard Hafer (114 Poplar Court) questioned the 381 required parking spaces and would like to know how the 1.7 spaces per unit was determined. In Perkiomen Woods there are overflow lots to accommodate additional parking as needed. Attorney Zarro stated the township ordinance requires 1.7 spaces per unit. The three building contain 224 units combined. Two buildings will have underground parking spaces and the rest of the parking is surface parking. The proposed units are one and two bedroom units only which would limit the number of excessive cars. Mr. Silver stated that he has had discussions with other developers doing similar projects and 1.7 spaces per unit is more than reasonable for sufficient parking.

Ms. Biglin asked for clarification of the small parking lot on the right side of the plan and whether this would be dedicated for trail parking. Attorney Zarro stated that this was an idea to be discussed with the township. Ms. Biglin stated that this would be a good use of land as a trailhead. Mr. Silver stated if the township wanted to use this parking for the trailhead and the spaces are not needed for this project, he would be willing to discuss installing benches, water fountains and other amenities. A large part of this project is to

have trail connectivity for all residents. Mr. Grace stated that the township is always working toward trail development.

Joel Detweiller (151 Larchwood) asked if there has been any coordination with Allan Myers and Perkiomen Water Conservatory to look at making a trail that runs behind Perkiomen Woods next to the creek and connecting it to this project. Mr. Dingman stated there has been no specific discussion regarding a possible trail placement. He further stated Collegeville Borough is working on a trailhead off of First Avenue with a parking lot.

Christina Betz (146 Iron Bark Court) asked if there is a general idea on a finish date for this project. Attorney Zarro stated that there are three parts to the township process which need to be completed. Outside permits are needed from other parties like PennDOT. Several approvals are needed for stormwater and sanitary sewer. Mr. Silver anticipates construction would begin in about a year and take 2 ½ years to complete.

Debra Dole (103 Honeylocust Court) asked if the five story buildings are the maximum height. Attorney Zarro stated there is a maximum height limitation in the ordinance. Two of the buildings will be 60 feet in height and the third will be 65 feet in height. The 65 feet height building is allowed because the plan contains certain additions including designing the buildings in accordance with green energy standards, additional community space and the trail connection.

Ms. Biglin stated the green space in the recent renderings seems less than previously designed. Mr. Silver stated that the apartments will only be rented. Ms. Biglin stated the plan was more attractive when it was half ownership and half rental. Ms. Biglin asked if there was any outreach to the Perkiomen Water Shed Society. Mr. Grace stated that the project has a percentage of open space that it must meet per the township. Parking lot islands do not count as open space. Attorney Zarro stated the project will meet the 15% open space requirement and the current plan shows 18%. The renderings shown are to illustrate the architecture and layout of the buildings not the full open space and landscaping plans.

Attorney Zarro discussed the May 29, 2020 letter from Gilmore & Associates and stated that applicant will be asking for relief from the ultimate right-of-way. The other relief requested involves Old Route 29 and a waiver from widening and curbing this section. General comments in the letter about trail connections and the 26-space parking lot have been reviewed and discussed. The June 8, 2020 McMahon letter discusses the tentative sketch plan and references the waivers. Most of the items are will comply. Attorney Zarro also stated that this proposal is the best plan for a trail connection and applicant would not seek to extend sidewalks down Yerkes and across Mr. Rush's property to create a trail connection. Mr. Moore stated that this is a small area where people would have to walk along Yerkes Road. A detailed letter was just issued dated July 6, 2020 regarding the transportation impact study and proposed improvements. Mr. Moore stated

the applicant's engineer made submission of the same plan to PennDOT at the end of June. Comments should be received by the end of July.

Mr. Silver stated the price point for these rental units will be between \$2,100 and \$2,400 per month.

Attorney Zarro agreed to extend the clock for this project. She stated that applicant would like a recommendation from the Planning Commission on this plan.

Mr. Wright motioned, seconded by Mr. Gilinger, to recommend this site plan project moves on to the next step for preliminary approval based upon compliance with all consultants' letters and questions. Motion carried 4-0.

Applications Pending Review

Pope John Paul has asked to be on the July 22, 2020 Planning Commission meeting. Since this is the only application on the agenda, Mr. Grace would like direction from the Planning Committee on whether to proceed with the July 22, 2020 meeting or move Pope John Paul to the first meeting in August.

Mr. Grace stated the township is moving forward with meetings in a virtual format. However, the Board of Supervisors, staff and consultants were present at a recent workshop meeting in the Meeting Hall, although socially distant, with the public attending virtually. The township will be trying this hybrid type of meeting format over the next few weeks. The hope is that all board meetings including the Planning Commission will be able to use this format. Alternatively, if the Planning Commission members feel more comfortable and safe meeting in this Zoom format, that can be discussed as well.

Adjournment

Mr. Gilinger motioned, seconded by Mr. Caffrey, to adjourn at 8:54 p.m. Motion carried 4-0.

Respectfully submitted,

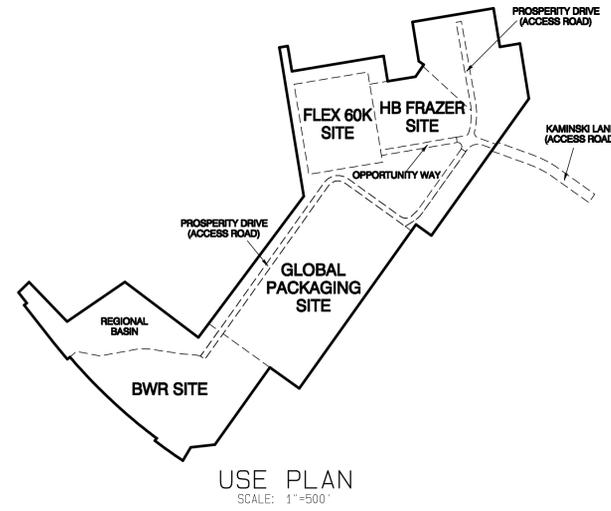
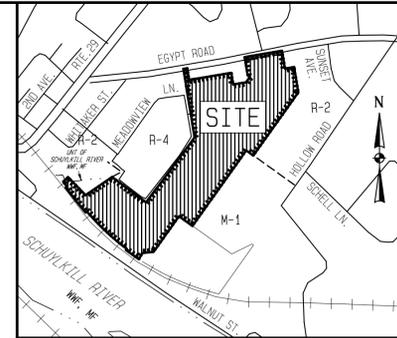
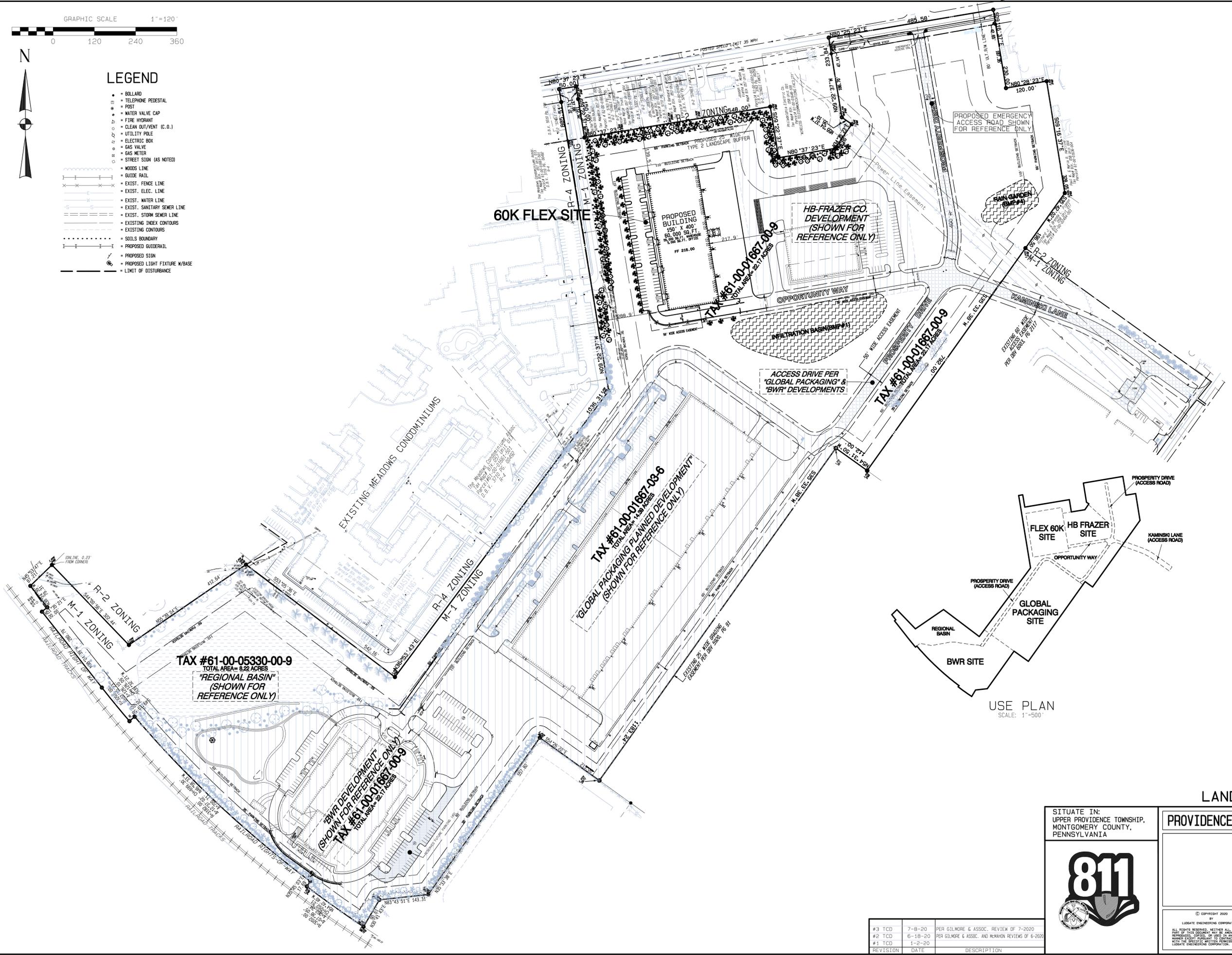
Tom Wright, Secretary
Upper Providence Township Planning Commission

c. Providence Business Park III—60k Flex
Space Final Plan approval



LEGEND

- BOLLARD
- TELEPHONE PEDESTAL
- POST
- WATER VALVE CAP
- FIRE HYDRANT
- CLEAN OUT/VENT (C.O.)
- UTILITY POLE
- ELECTRIC BOX
- GAS VALVE
- GAS METER
- STREET SIGN (AS NOTED)
- WOODS LINE
- GUIDE RAIL
- EXIST. FENCE LINE
- EXIST. ELEC. LINE
- EXIST. WATER LINE
- EXIST. SANITARY SEWER LINE
- EXIST. STORM SEWER LINE
- EXISTING INDEX CONTOURS
- EXISTING CONTOURS
- SOILS BOUNDARY
- PROPOSED GUIDERAIL
- PROPOSED SIGN
- PROPOSED LIGHT FIXTURE W/BASE
- LIMIT OF DISTURBANCE



FINAL PLAN OVERVIEW LAND DEVELOPMENT PLAN

SITUATE IN:
UPPER PROVIDENCE TOWNSHIP,
MONTGOMERY COUNTY,
PENNSYLVANIA



PROVIDENCE BUSINESS PARK 3, LLC/60K FLEX

Ludgate Engineering Corporation
ENGINEERS SURVEYORS PLANNERS
ENVIRONMENTAL SCIENTISTS
© 2020

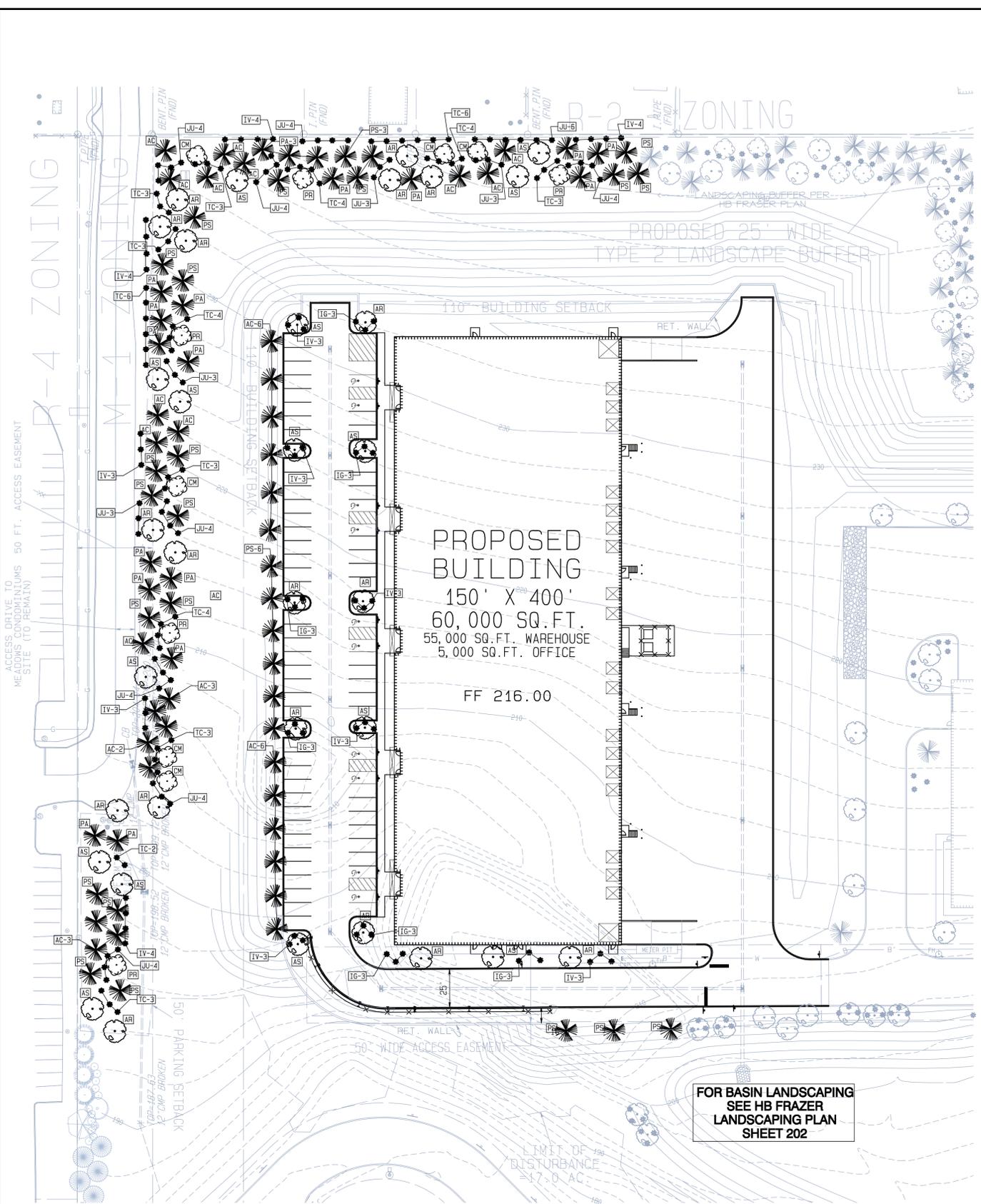
LINCOLN CORPORATE CENTER
10 VANGUARD DRIVE, SUITE 100
READING, PA 19606
PHONE 610/404-7330
FAX 610/404-7371

REVISION	DATE	DESCRIPTION
#3 TCD	7-9-20	PER GILMORE & ASSOC. REVIEW OF 7-2020
#2 TCD	6-18-20	PER GILMORE & ASSOC. AND MONAHAN REVIEWS OF 6-2020
#1 TCD	1-2-20	

DRAWN BY	COMP (ON/PT)	COMP (LOTS)	PA ONE CALL DATE	COMPUTER FILE
2-27-19				C:\Users\tom dawson
SCALE	TAX MAP PARCEL	DRAWING NUMBER		
1"=120'	#61-00-01667-00-9	D-7800419 SHEET 200		

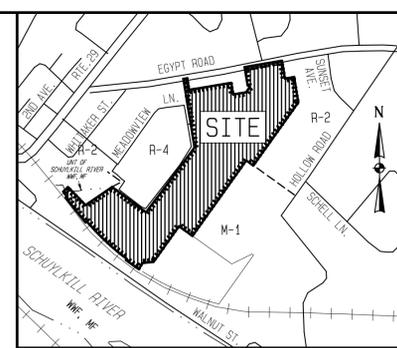
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Project Name: Providence Business Park 3, LLC/60K FLEX; Date: 1/2/2020; File: Providence Business Park 3, LLC/60K FLEX.dwg; Plot Date: 1/2/2020 11:43:33 AM



LEGEND

- BOLLARD
- TELEPHONE PEDESTAL
- POST
- WATER VALVE CAP
- FIRE HYDRANT
- CLEAN OUT/VENT (C.O.)
- UTILITY POLE
- ELECTRIC BOX
- GAS VALVE
- GAS METER
- STREET SIGN (AS NOTED)
- WOODS LINE
- GUIDE RAIL
- EXIST. FENCE LINE
- EXIST. ELEC. LINE
- EXIST. WATER LINE
- EXIST. SANITARY SEWER LINE
- EXIST. STORM SEWER LINE
- EXISTING INDEX CONTOURS
- EXISTING CONTOURS
- SOILS BOUNDARY
- - - - - PROPOSED GUIDERAIL
- - - - - PROPOSED SIGN
- PROPOSED LIGHT FIXTURE W/BASE
- - - - - LIMIT OF DISTURBANCE



25' WIDE TYPE 2 LANDSCAPE BUFFER PLANTING SCHEDULE

907 L.F. OF BUFFER (75% EVERGREEN MATERIAL AND 25% DECIDUOUS MATERIAL)
TOTAL LANDSCAPE MATERIAL = 209 / 158 EVERGREEN PLANTS = 75%

SYMBOL	BOTANICAL NAME	COMMON NAME	PLANTING SIZE	HT. RANGE AT MATURITY	WD. RANGE AT MATURITY	MIN. SPACING AT PLANTING	COMMENTS	TOTAL PROPOSED
SHADE OR CANOPY TREES FOR STREET TREES AND/OR BUFFERS								
AS	ACER SACCHARUM	SUGAR MAPLE	2 1/2" C.	75'	40'-60'	25'	STRAIGHT TRUNK FULL HEAD, B & B	9
AR	ACER RUBRUM	RED MAPLE	2 1/2" C.	50'-60'	35'-45'	25'	STRAIGHT TRUNK FULL HEAD, B & B	11
ORNAMENTAL TREES FOR STREET TREES AND/OR BUFFERS								
PR	PRUNUS SUBHIRTELLA	AUTUMN FLOWERING CHERRY	6'-8" HT.	20'-30'	15'-30'	20'	STRAIGHT TRUNK FULL HEAD, B & B	5
CM	CORNUS MAS	CORNEL LANCHESTRY DOGWOOD	6'-8" HT.	20'-25'	15'-20'	25'	STRAIGHT TRUNK FULL HEAD, B & B	6
EVERGREEN TREES FOR STREET TREES AND/OR BUFFERS								
AC	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	6' HT.	40'-50'	15'-25'	12'	B & B	20
PS	PINUS STROBUS	EASTERN WHITE PINE	6' HT.	40'-50'	15'-25'	12'	B & B	20
PA	PICEA ABIES	NORWAY SPRUCE	6' HT.	40'-50'	15'-25'	12'	B & B	19
SHRUBS								
TC	TAXUS CUSPIDATA	JAPANESE YEW	3' HT.	6'-10'	6'-10'	3'	B & B	51
JU	JUNIPERUS COMMUNIS	JUNIPER	3' HT.	6'-10'	6'-10'	3'	B & B	50
IV	ILEX VERTICILLATA	WINTERBERRY	3' HT.	6'-10'	6'-10'	3'	B & B	22

LANDSCAPE NOTES

- NO TREE MAY BE PLACED WITHIN 10 FEET OF ANY SANITARY SEWER LINE OR LATERAL.
- THE REQUIRED PLANT MATERIAL AS SHOWN ON THE LANDSCAPE AND LIGHTING PLAN SHALL BE MAINTAINED FOR THE LIFE OF THE PROJECT TO ACHIEVE THE REQUIRED VISUAL EFFECT OF THE BUFFER OR SCREEN. IT SHALL BE THE ULTIMATE RESPONSIBILITY OF SUCCESSIVE PROPERTY OWNERS TO ENSURE THAT THE REQUIRED PLANTINGS ARE PROPERLY MAINTAINED. DEAD OR DISEASED PLANT MATERIAL SHALL BE REMOVED PROMPTLY BY THE PROPERTY OWNER AND REPLACED AT THE NEXT GROWING SEASON.
- THE LOCATION, DIMENSIONS AND SPACING OF REQUIRED PLANTINGS SHOULD BE ADEQUATE FOR THEIR PROPER GROWTH AND MAINTENANCE. TAKING INTO ACCOUNT THE SIZES OF SUCH PLANTINGS AT MATURITY AND THEIR PRESENT AND FUTURE ENVIRONMENTAL REQUIREMENTS, SUCH AS WIND, SOIL, MOISTURE AND SUNLIGHT.
- ALL PLANTS SHALL MEET THE MIN. STANDARDS FOR HEALTH, FORM AND ROOT CONDITION AS OUTLINED IN THE AMERICAN ASSOCIATION OF NURSERYMEN (AAN STANDARDS).
- ALL PLANT MATERIAL SHALL BE HARDY WITHIN THE UNITED STATES DEPT. OF AGRICULTURE (USDA) HARDINESS ZONE 6.
- CANOPY TREES SHALL REACH A MIN. HEIGHT AND SPREAD OF 30' AT MATURITY AS DETERMINED BY THE AAN STANDARDS AND SHALL BE DECIDUOUS. SEE PLANTING DETAIL ON SHEET 702.
- ORNAMENTAL TREES OR LARGE SHRUBS SHALL REACH A TYPICAL MIN. HEIGHT OF 10' AT MATURITY BASED ON AAN STANDARDS. TREES AND SHRUBS MAY BE DECIDUOUS OR EVERGREEN AND SHALL HAVE A DISTINCTIVE ORNAMENTAL CHARACTER SUCH AS SHOWY FLOWERS, FRUIT, HABIT, FOLIAGE OR BARK. SEE PLANTING DETAIL ON SHEET 702.
- SMALL SHRUBS MAY BE EVERGREEN OR DECIDUOUS AND SHALL HAVE A MIN. HEIGHT AT MATURITY OF 4' BASED ON AAN STANDARDS FOR THAT SPECIES. SEE PLANTING DETAIL ON SHEET 702.
- EVERGREEN TREES SHALL REACH A TYP. MIN. HEIGHT OF 20' AT MATURITY BASED ON AAN STANDARDS FOR THAT SPECIES AND SHALL REMAIN EVERGREEN THROUGHOUT THE YEAR. SEE PLANTING DETAIL ON SHEET 702.
- REQUIRED PLANT MATERIAL SHALL BE MAINTAINED FOR THE LIFE OF THE PROJECT TO ACHIEVE THE REQUIRED VISUAL EFFECT OF THE BUFFER OR SCREEN. IT SHALL BE THE ULTIMATE RESPONSIBILITY OF SUCCESSIVE PROPERTY OWNERS TO ENSURE THAT THE REQUIRED PLANTINGS ARE PROPERLY MAINTAINED. DEAD OR DISEASED PLANT MATERIAL SHALL BE REMOVED PROMPTLY BY THE PROPERTY OWNER AND REPLACED AT THE NEXT GROWING SEASON. SEE PLANTING DETAIL ON SHEET 702.
- SAFETY. ALL SIGHT TRIANGLES SHALL REMAIN CLEAR, AND ANY PLANT WHICH COULD ENDANGER SAFETY SUCH AS MATERIAL UNSTABLE LIMBS SHALL BE REMOVED AND THE PLANT MATERIAL REPLACED. IT SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER TO ENSURE ALL PLANTINGS AND ARCHITECTURAL ELEMENTS ARE MAINTAINED TO PROVIDE A SAFE ENVIRONMENT.
- MAINTENANCE GUIDELINES FOR THE PLANTINGS ARE ENCOURAGED TO BE PUBLISHED BY THE PLANTING PLAN DESIGNER. TO BE USED BY GROUNDS MAINTENANCE PERSONNEL TO ENSURE THE DESIGN'S VISUAL BUFFERING AND SCREENING CONCEPTS ARE CONTINUED.
- ANY TREE OR SHRUB WHICH DIES WITHIN 18 MONTHS OF PLANTING SHALL BE REPLACED. ANY TREE OR SHRUB WHICH, WITHIN 18 MONTHS OF PLANTING OR REPLANTING, IS DEEMED, IN THE OPINION OF THE TOWNSHIP, NOT TO HAVE SURVIVED OR TO HAVE GROWN IN A MANNER UNCHARACTERISTIC OF ITS TYPE SHALL BE REPLACED. SUBSTITUTIONS FOR CERTAIN SPECIES OF PLANTS MAY BE MADE ONLY WHEN APPROVED BY THE TOWNSHIP.
- PROVISIONS SHALL BE MADE FOR A REPLACEMENT GUARANTEE OF AT LEAST 18 MONTHS FOR ALL PLANT MATERIAL. IF MATERIAL FAILS TO SURVIVE DURING THIS PERIOD, REPLACEMENT SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCESSIVE PLANTING SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT STATED ABOVE. A PERFORMANCE BOND IS REQUIRED IN ACCORDANCE WITH SECTION 154-41, REQUIRED IMPROVEMENTS.
- ALL PLANTING BEDS SHALL HAVE THREE INCHES OF SHREDDED HARDWOOD MULCH OR EQUAL.
- ANY EXISTING BUFFER TREES THAT CAN BE SALVAGED SHALL BE RELOCATED DURING CONSTRUCTION.

LANDSCAPE DETAILS ON SHEET 702

PARKING LOT AND ACCESS DRIVE PLANTING SCHEDULE

SYMBOL	BOTANICAL NAME	COMMON NAME	PLANTING SIZE	HT. RANGE AT MATURITY	WD. RANGE AT MATURITY	MIN. SPACING AT PLANTING	COMMENTS	TOTAL PROPOSED
SHADE OR CANOPY TREES FOR STREET TREES AND/OR BUFFERS								
AS	ACER SACCHARUM	SUGAR MAPLE	2 1/2" C.	75'	40'-60'	25'	STRAIGHT TRUNK FULL HEAD, B & B	6
AR	ACER RUBRUM	RED MAPLE	2 1/2" C.	50'-60'	35'-45'	25'	STRAIGHT TRUNK FULL HEAD, B & B	7
EVERGREEN TREES FOR STREET TREES AND/OR BUFFERS								
AC	PSEUDOTSUGA MENZIESII	DOUGLAS FIR	6' HT.	40'-50'	15'-25'	12'	B & B	12
PS	PINUS STROBUS	EASTERN WHITE PINE	6' HT.	40'-50'	15'-25'	12'	B & B	9
SHRUBS								
IG	ILEX GLABRA	INKBERRY	3' HT.	6'-10'	6'-10'	3'	B & B	21
IV	ILEX VERTICILLATA	WINTERBERRY	3' HT.	6'-10'	6'-10'	3'	B & B	18

LANDSCAPE PLAN

SITUATE IN: UPPER PROVIDENCE TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

PROVIDENCE BUSINESS PARK 3, LLC/60K FLEX

Ludgate Engineering Corporation
ENGINEERS SURVEYORS PLANNERS ENVIRONMENTAL SCIENTISTS © 2020

LINCOLN CORPORATE CENTER
10 VANGUARD DRIVE, SUITE 100
READING, PA 19606
PHONE 610/404-7330
FAX 610/404-7371

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811

DRAWN TCD	COMP (ONDT) 2-27-19	COMP (LOTS) 1-2-20	PA ONE CALL DATE	COMPUTER FILE C:\Users\tom dawson
SCALE 1"=40'	TAX MAP PARCEL #61-00-01667-00-9	DRAWING NUMBER D-7800419	SHEET 202	

#3 TCD	7-9-20	PER GILMORE & ASSOC. REVIEW OF 7-2020
#2 TCD	6-18-20	PER GILMORE & ASSOC. AND MONAHAN REVIEWS OF 6-2020
#1 TCD	1-2-20	
REVISION	DATE	DESCRIPTION

Project Name: Providence Business Park 3, LLC/60K FLEX Landscape Plan
Date: 2/27/19
Scale: 1"=40'
Drawing Number: D-7800419
Sheet: 202



July 13, 2020

File No.: 19-06058T

Mr. Geoff Grace, Zoning Officer / Director of Planning
Upper Providence Township
1286 Black Rock Road
P.O. Box 406
Oaks, PA 19456

Reference: Providence Business Park 3, LLC/60K Flex Space
Final Land Development Plan Review
Twp. Plan #02059-0355-03 (F)LD

Dear Geoff:

In accordance with the Township's request, we have reviewed the Preliminary Land Development Plan for Providence Business Park 60k Flex Space Building. The review consisted of an 20 sheet Land Development Plan set, dated 2/27/19, last revised 7/8/20 as prepared by Ludgate Engineering Corporation. We offer the following comments for your consideration:

General

1. The subject property is the Providence Business Park 3, LLC, total net tract area of 57.84 acres, located along the western side of Hollow Road and the southern side of Egypt Road within the M-1 Office and Limited Industrial Zoning District. The overall plan view lists that the Business Park consists of three parcels: (Parcel No. 61-00-05330-00-9), (Parcel No. 61-00-01667-00-9), and (Parcel No. 61-00-01667-03-6). The cover sheets list the overall project will be owned by a condominium association (Providence Business Center at Oaks III).
2. The Applicant is proposing to construct a 60,000 square foot flexible use building with public water/sewer service, access driveway, parking lot and truck loading dock area in the northwestern corner of the Park and is labeled on the plan as 60k Flex Site (60k Flex). The proposed building uses are identified as 5,000 square feet of office use on the plan and the remaining area of the building is identified on Sheet 100, General Note #6, as warehouse Use. The applicant is proposing access to the proposed buildings from Hollow Road across the adjoining Gracia property and the PECO Easement. An access easement is indicated on the plans. The plan also shows a proposed emergency access from Egypt Road aligned with MacDade Road.
3. The 60K Flex Building use and occupancy permit cannot be issued until all improvements as shown on the H. B. Frazer plans in regards to access, stormwater., sanitary sewer, etc. have been completed.

Permits and Approvals

1. PADEP planning module approval or exemption may be required for the project.
2. The Applicant will be required to obtain sanitary sewer capacity for the project from the Lower Perkiomen Valley Regional Sewer Authority and Upper Providence Township.

184 West Main Street | Suite 300 | Trappe, PA 19426 | Phone: 610-489-4949 | Fax: 610-489-8447

3. The Applicant will be required to obtain approval from the PA American Water Company and the Township Fire Marshal for approval of the public water extension to the project site.
4. The Montgomery County Conservation District must approve the Erosion and Sediment Control Plans and the Post Construction Stormwater Management Plans and issue an NPDES Permit for the project.

The above comments are made with the understanding that all existing features and topography are accurately represented on the plans, and that all designs, calculations and surveys are accurate and have been prepared in accordance with the current laws, regulations and currently accepted Professional Land Surveying and Engineering practices.

Should you have any questions please contact our office.

Very truly yours,



William K. Dingman, P.E.
Gilmore & Associates, Inc.

cc: Board of Supervisors (internally distributed by the Township)
Planning Commission (internally distributed by the Township)
Bryan Bortnichak – Assistant Township Manager (email)
Joseph Bresnan, Esquire – Township Solicitor (email)
Mr. Casey A. Moore, P.E., McMahon Associates (email)
Kevin Chavous, Montgomery County Planning Commission
Eric Ostimchuk, P.E. – Traffic Planning & Design, Inc. (email)
Ted Kochen, P.E. – Gambone Development (email)
Thomas Ludgate, P.E. – Ludgate Engineering Corporation (email)



McMAHON ASSOCIATES, INC.
425 Commerce Drive, Suite 200
Fort Washington, PA 19034
p 215-283-9444 | f 215-283-9446

PRINCIPALS

Joseph J. DeSantis, P.E., PTOE
John S. DePalma
Casey A. Moore, P.E.
Gary R. McNaughton, P.E., PTOE
Christopher J. Williams, P.E.

ASSOCIATES

John J. Mitchell, P.E.
R. Trent Ebersole, P.E.
Matthew M. Kozsuch, P.E.
Maureen Chlebek, P.E., PTOE
Dean A. Carr, P.E.
Jason T. Adams, P.E., PTOE
Christopher K. Bauer, P.E., PTOE
Mark A. Roth, P.E.
John R. Wichner, P.E., PTOE

FOUNDER

Joseph W. McMahon, P.E.

July 9, 2020

Mr. Geoffrey Grace
Director of Planning and Zoning
Upper Providence Township
P.O. Box 406
Oaks, PA 19456

RE: **Traffic Engineering Review #4 – Final Land Development Plans**
Providence Business Park #3, 60k Flex Space
Upper Providence Township, Montgomery County, PA
McMahon Project No. 819497.11

Dear Geoff:

As requested, on behalf of Upper Providence Township, McMahon Associates, Inc. has completed our fourth traffic engineering review of the proposed site development located west of Hollow Road and adjacent to the current development parcel for HB-Frazer Company, south of Schell Lane in Upper Providence Township. It is our understanding that the proposed development will consist of a 60,000 square foot building consisting of flex space warehousing. Access will be provided via a full-movement driveway to Hollow Road shared also by the BWR Development, the Global Packaging Development, and the HB-Frazer Company development, as well as an emergency-only access proposed to/from Egypt Road directly opposite MacDade Road to be completed as part of the HB-Frazer project.

The following documents were reviewed in preparation of our letter:

- Final Land Development Plans for Providence Business Park 3, LLC – 60k Flex Space, prepared by Ludgate Engineering Corporation, last revised July 8, 2020.
- Traffic Letter Response Memo, prepared by Ludgate Engineering Corporation, dated June 25, 2020.

Based on our review of the submitted documents noted above, McMahon concludes that the land development application is satisfactory to us at this time, given that all prior traffic engineering comments have been addressed. We note that the application is subject to a transportation impact fee as follows:

According to the Township's Roadway Sufficiency Analysis, the proposed development is located in Transportation Service Area One, which has a corresponding impact fee of \$1,955.88 per "new" weekday afternoon peak hour trip and the applicant will be required to pay a Transportation Impact Fee in accordance with the Township's Transportation Impact Fee Ordinance. Based on information provided in the Master Plan traffic study for the Providence Business Park 3, the proposed development is expected to generate approximately 67 "new" weekday afternoon peak hour trips, **resulting in a transportation impact fee of \$131,043.96.**

We trust that this review letter responds to your request and we are now satisfied with the plans and related materials that now addresses the traffic engineering-related items for the proposed development and apparent to us at this time. If you or the Township have any questions, please contact me at 215.283.9444 or Anthony Valencia, Project Manager, at 610.594.9995.

Sincerely,



Casey A. Moore, P.E.
Executive Vice President – Corporate Operations

CAM/BMJ/AV

cc: Bryan Bortnichak – Assistant Township Manager
Bill Dingman, P.E. – Township Engineer
Joseph Bresnan, Esquire – Township Solicitor
Board of Supervisors (internally distributed by the Township)
Planning Commission (internally distributed by the Township)
Kevin Chavous – Montgomery County Planning Commission
Ted Kochen, P.E. – Gambone Development
Thomas Ludgate – Ludgate Engineering Corporation
Eric Ostimchuk, P.E. – Traffic Planning and Design, Inc.

d. 395 Greenwood Avenue Waiver Request

HRMM&L

HAMBURG, RUBIN, MULLIN,
MAXWELL & LUPIN, PC
ATTORNEYS AT LAW

July 31, 2020

30642-000

www.HRMML.com

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Douglas I Zeiders
Carl N. Weiner
Jonathan Samel, LL.M.
Merle R. Ochrach
Mark F. Himsworth
Steven A. Hann
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Christen G. Pionzio
Joseph J. McGrory, Jr.
Ethan R. O'Shea
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OF COUNSEL:

John C. Rafferty, Jr.

LANSDALE

ACTS Center – Blue Bell
375 Morris Road
Post Office Box 1479
Lansdale, PA 19446-0773
Phone 215-661-0400
Fax 215-661-0315

LIMERICK

HARRISBURG

Via Email (ggrace@uprov-montco.org)

Geoffrey Grace
Director of Planning and Zoning
Upper Providence Township
1286 Black Rock Road
Phoenixville, PA 19460

Re: Hallmark Building Group, Inc. – 395 Greenwood Ave.

Dear Mr. Grace:

Please accept this letter as a waiver request for the above-referenced development from the following sections of the Township's Subdivision and Land Development Ordinance:

Section 154.31.A and Section 154.31.E.(4) to allow a public water system that provides 1,000 gpm of fire flow at a residual pressure of 20 p.s.i. at a proposed fire hydrant located within 500 feet of the end of the proposed cul-de-sac and to allow a non-looped system.

This request will allow for public water to be provided to the development rather than providing individual wells. The Applicant has requested a variance to allow wells to be provided for the development but after discussions with PAWC and Township Engineer Bill Dingman, the Applicant has continued its zoning hearing as it can provide public water to the development if the Board were to grant the requested waivers.

Please confirm that this request will be on the August 12, 2020 Planning Commission agenda and before the Board of Supervisors on August 17, 2020.

Thank you for your attention to this matter. If you have any questions, I can be reached at 215-661-0400.

Very truly yours,

HAMBURG, RUBIN, MULLIN,
MAXWELL & LUPIN

By: 
BERNADETTE A. KEARNEY

Bryan Bortnichak
Page 2
August 3, 2020

BAK:ch

cc: Richard R. Carroll, III, via email
Rick Mast, via email
Joseph E. Bresnan, Esquire, via email
William Dingman, via email

From: [Tom Dimmerling](#)
To: [Geoffrey Grace](#); [Bryan Bortnichak](#); [wdingman](#); [Joseph E. Bresnan](#)
Subject: RE: Hallmark: Waiver - Public Water
Date: Monday, August 3, 2020 11:31:25 AM
Attachments: [image001.png](#)

Geoff,

I am in favor of this waiver request. Having hydrants capable of 1000gpm in this development is preferred over the possibility of having well water and no hydrants.

Thanks,

Tom Dimmerling
Fire Marshal
Assistant Fire Chief

Township of Upper Providence
Department of Fire and Emergency Services

From: Geoffrey Grace <ggrace@uprov-montco.org>
Sent: Monday, August 3, 2020 11:26 AM
To: Tom Dimmerling <tdimmerling@uprov-montco.org>; Bryan Bortnichak <bbortnichak@uprov-montco.org>; wdingman@gilmore-assoc.com; Joseph E. Bresnan <jbresnan@dischellbartle.com>
Subject: FW: Hallmark: Waiver - Public Water

Tom & Bryan:

Can you weigh in on this waiver request? If you don't have an issue with it, an email staying as much is fine for me. I want to have something for the PC to base their judgement on.

G

From: Bernadette Kearney <bkearney@hrmml.com>
Sent: Friday, July 31, 2020 4:02 PM
To: Geoffrey Grace <ggrace@uprov-montco.org>
Cc: 'rrcarroll@hallmarkhomesgroup.com' <rrcarroll@hallmarkhomesgroup.com>; 'Rick Mast' <rmast@rcmaonline.com>; Joseph E. Bresnan <jbresnan@dischellbartle.com>; wdingman@gilmore-assoc.com
Subject: Hallmark: Waiver - Public Water

Geoff: Please see attached. Thanks Bernadette

Bernadette A. Kearney, Esquire
Hamburg, Rubin, Mullin, Maxwell & Lupin, PC
375 Morris Road, PO Box 1479
Lansdale, PA 19446-0773
215.661.0400; Fax 215.661.0315



BKearney@HRMML.com; HRMML.com

Due to COVID-19, our physical office is presently open but with limited personnel. Note that visitors will only be admitted to our building if an appointment has been previously scheduled. Some firm members are in the office and others continue to work remotely. All are able to perform regular business functions on behalf of the Firm. Note that all documents will be served via e-mail and we request anything that you send by regular mail to us during this time period you also email to the attorney working with you on your matter. Be safe, and stay well.

 Please consider the environment before printing this e-mail

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- e. Zoning Hearing Board Application #20-04,
Floodplain variance

June 29, 2020

31630-000

www.HRMML.com

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Steven H. Lupin
Douglas I Zeiders
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375 Morris Road
Post Office Box 1479
Lansdale, PA 19446-0773
Phone 215-661-0400
Fax 215-661-0315

LIMERICK
HARRISBURG

Via FedEx and Via Email

Geoffrey Grace
Director of Planning and Zoning
Upper Providence Township
1286 Black Rock Road
Phoenixville, PA 19460

**Re: Graphic Packaging International, LLC. – 1035 Longford Road
Zoning Hearing Board Application**

Dear Mr. Grace:

Enclosed are the following items in connection with the above-referenced Application to Zoning Hearing Board:

- Original and six (6) copies of Application to Zoning Hearing Board with Attachments;
- Seven (7) copies of a 7 page Grading Permit Plan set, prepared by Advanced GeoServices (dated 11/19/19); and
- Filing fee in the amount of \$2,000.00

Also enclosed is an extra copy of the application. Please have it time-stamped and return it in the self, addressed stamped envelope provided.

Should you have any questions, please call me at (215) 661-0400. Thank you for your assistance in this matter.

Very truly yours,

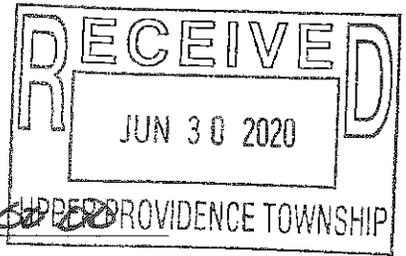
HAMBURG, RUBIN, MULLIN,
MAXWELL & LUPIN

By: 

BERNADETTE A. KEARNEY

BAK:ch
Enclosures

cc: Daniel Wright; via email
Jay Stewart; via email



APPLICATION NO. 20-04

FEE AMOUNT: \$ 2000.00 UPPER PROVIDENCE TOWNSHIP

DATE FILED: 6-30-2020

TIME FILED: VIA FEDEX

(THIS SECTION FOR TOWNSHIP USE ONLY)

APPLICATION TO ZONING HEARING BOARD

Upper Providence Township
1286 Black Rock Road
Phoenixville, Pennsylvania 19460

ORIGINAL

1. DATE: 6/29/2020

2. CLASSIFICATION OF APPLICATION (CHECK ONE OR MORE IF APPLICABLE):

- A. Request for Variance (PA MPC, Section 909.1(a)(5)-910.2)
- B. Request for Special Exception (PA MPC, Section 909.1(a)(6)-912.1)
- C. Appeal of decision of the Zoning Officer (PA MPC, Section 909.1(a)(3)(4)(8))
- D. Challenge of the validity of ordinance or map by person aggrieved by use or development permitted on land of another (PA MPC, Section 909.1(a)(1)(2))

3. APPLICANT:

OWNER:

Name (a) Graphic Packaging International, LLC

(a) Graphic Packaging International, LLC

Mailing Address (b) 1035 Longford Road
Phoenixville, PA 19460

(b) 1035 Longford Road
Phoenixville, PA 19460

Phone Number (c) 224-325-7320

(c) 224-325-7320

APPLICATION TO ZONING HEARING BOARD

Page Two

4. LEGAL STATUS OF APPLICANT (check one):

- Owner of Legal Title - Copy of deed must be attached as Exhibit A
- Owner of Equitable Title-Agreement of Sale must be attached as Exhibit A
- Tenant with the Permission of Owner of Legal Title - Lease must be attached as Exhibit A
- Other (describe)

5. APPLICANT'S ATTORNEY, if any:

- (a) Name Bernadette A. Kearney, Esq. / HRMM&L
- (b) Mailing Address 375 Morris Road, PO Box 1479, Lansdale, PA 19446
- (c) Phone Number 215-661-0400 Email: bkearney@hrmml.com

6. PROPERTY:

- (a) Present Zoning Classification Institutional Overlay; underlying zoning is M-1
- (b) Number and Street (if assigned pursuant to Township Ordinance No. 179, June 28, 1976, as amended):
1035 Longford Road
- (c) Location, with reference to nearby intersections or prominent features:
Along Port Providence Road.
- (d) Tax Map Identification: Block 062 Unit 006 (parcel # 61-00-03310-01-3)
- (e) Dimensions: Area 38.5506 acres
Frontage 2,906 feet Depth 600 feet
- (f) Describe the size, construction and use of existing improvements or use of land, if unimproved:
One-story warehouse building and 3-story office building and associated parking

APPLICATION TO ZONING HEARING BOARD

Page Three

7. DESCRIBE THE PROPOSED USE OR CONSTRUCTION:

See attached

8. DESCRIBE HOW THE PROPOSED USE OR CONSTRUCTION DIFFERS FROM WHAT IS PERMITTED:

See attached

9. STATE LEGAL GROUNDS FOR APPEAL, CITE SPECIFIC SECTIONS OF PENNSYLVANIA MUNICIPALITIES PLANNING CODE, ZONING ORDINANCE, SUBDIVISION REGULATIONS OR OTHER ACTS OR ORDINANCES:

See attached

10. HAS ANY PREVIOUS APPEAL BEEN FILED CONCERNING SUBJECT MATTER OF THIS APPEAL?

Yes No If yes, specify: _____

11. CHALLENGES (IF 2 (d) IS CHECKED ON PAGE 1). LIST REQUESTED ISSUES OF FACT OR INTERPRETATION:

12. I (We) hereby certify that the above information is true and correct to the best of my (our) knowledge, information or belief:

	_____	Applicant's Signature		_____	Owner's Signature
Lauren S. Tashma			Lauren S. Tashma		
EVP, General Counsel & Secretary			EVP, General Counsel & Secretary		
_____		Applicant's Signature	_____		Owner's Signature

Check One:

Owner of Record

Equitable Owner

Zoning Hearing Board Attachment

3. Applicant/Owner:

Applicant has attached the following documentation to demonstrate that Graphic Packaging International, LLC is the owner of the Property and has standing before the Zoning Hearing Board:

June 2006 Deed for the Property setting forth Bluegrass Folding Carton Company, LLC as the Grantee;

Certificate of Merger of Bluegrass Folding Carton Company, LLC with and into Graphic Packaging International, Inc. (merger effective November 30, 2008);

Certificate of Formation of Graphic Packaging International, LLC (executed December 15, 2017) with attached Delaware certification of the filing on December 26, 2017, stating effective date of formation is December 24, 2017;

Certificate of Conversion of Graphic Packaging International, Inc. to become a limited liability company, Graphic Packaging International, LLC (executed December 15, 2017), and

Commonwealth of Pennsylvania Good standing certificate for Graphic Packaging International, LLC

7., 8. & 9.

Applicant will be removing the three story office building shown on the plan and is proposing a 39' x 45' addition and a 33' x 202' locker room addition to the existing warehouse building. Two temporary modular office trailers, a 60' x 60' (3600 sf) unit and a 60' x 36' (2160 sf) unit will be placed on grade in the parking lot area. The Applicant is also proposing an AquaDam, in the location as shown on the plan, with the following dimensions:

405 LF, 8' High x 17' Wide
190 LF, 10' High x 21' Wide
385 LF, 12' High x 25' Wide
751 LF, 8' High x 25' Wide
214 LF, 10' High x 21' Wide

The Applicant is requesting the following variance relief from Chapter 182, Article III, Floodplain Conservation District.

Sections 182-28.1. A and O: To permit the proposed modular office trailers and the proposed fill required to flatten the existing grades for the AquaDam.

Section 182-28.2.B: To permit the proposed Locker Room addition.

Attached are the following documents in support of the Application:

May 11, 2020 letter from FEMA with attached FEMA Conditional Letter of Map Revision Comment Documents for Upper Providence Township

May 11, 2020 letter from FEMA with attached FEMA Conditional Letter of Map Revision Comment Documents for Schuylkill Township

May 21, 2020 letter from the Montgomery County Conservation District.

Information on AquaDams: AquaDam User's Guide 2004

The proposed AquaDam is designed to protect the building and is environmentally friendly. The relief requested will not adversely affect the public health, safety or welfare or the Township. The proposed uses are appropriately located in the floodplain and will not impede the flow or storage of floodwaters or otherwise cause danger to life and property, at, above, or below the location of the Property along the floodplain.

Section 182-195.D, Issuance of permits, to request an additional 12 months for a total of 18 months to apply for permits. Due to the uncertainty surrounding COVID-19, the Applicant is requesting this relief in an abundance of caution.

May 11, 2020 letter from FEMA with attached FEMA
Conditional Letter of Map Revision Comment Documents for
Upper Providence Township



Federal Emergency Management Agency

Washington, D.C. 20472

May 11, 2020

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

The Honorable Helene Calci
Chair, Township of Upper Providence
Board of Supervisors
P. O. Box 406
Oaks, PA 19456

IN REPLY REFER TO:

Case No.: 20-03-0076R
Community Name: Township of Upper Providence, PA
Community No.: 420709

104

Dear Ms. Calci:

We are providing our comments with the enclosed Conditional Letter of Map Revision (CLOMR) on a proposed project within your community that, if constructed as proposed, could revise the effective Flood Insurance Study (FIS) report and Flood Insurance Rate Map (FIRM) for your community.

If you have any questions regarding the floodplain management regulations for your community, the National Flood Insurance Program (NFIP) in general, or technical questions regarding this CLOMR, please contact the Director, Mitigation Division of the Federal Emergency Management Agency (FEMA) Regional Office in Philadelphia, Pennsylvania, at (215) 931-5512, or the FEMA Mapping and Insurance eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP). Additional information about the NFIP is available on our website at <https://www.fema.gov/national-flood-insurance-program>.

Sincerely,

Patrick "Rick" F. Sacbabit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration

Enclosure:

Conditional Letter of Map Revision Comment Document

cc: The Honorable Martha Majewski
Chair, Township of Schuylkill Board of Supervisors

Mr. Geoffrey Grace, AICP
Director of Planning/Zoning Officer
Township of Upper Providence

Ms. Kimberly Yocum
Floodplain Administrator
Township of Schuylkill

Mr. Francis Greene, P.E.
Engineer
Advanced GeoServices Corp.

May 11, 2020 letter from FEMA with attached FEMA
Conditional Letter of Map Revision Comment Documents for
Schuylkill Township



Federal Emergency Management Agency

Washington, D.C. 20472

May 11, 2020

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

The Honorable Martha Majewski
Chair, Township of Schuylkill
Board of Supervisors
111 Valley Park Road
Phoenixville, PA 19460

IN REPLY REFER TO:

Case No.: 20-03-0076R
Community Name: Township of Schuylkill, PA
Community No.: 421489

104

Dear Ms. Majewski:

We are providing our comments with the enclosed Conditional Letter of Map Revision (CLOMR) on a proposed project within your community that, if constructed as proposed, could revise the effective Flood Insurance Study (FIS) report and Flood Insurance Rate Map (FIRM) for your community.

If you have any questions regarding the floodplain management regulations for your community, the National Flood Insurance Program (NFIP) in general, or technical questions regarding this CLOMR, please contact the Director, Mitigation Division of the Federal Emergency Management Agency (FEMA) Regional Office in Philadelphia, Pennsylvania, at (215) 931-5512, or the FEMA Mapping and Insurance eXchange (FMIX) toll free at 1-877-336-2627 (1-877-FEMA MAP). Additional information about the NFIP is available on our website at <https://www.fema.gov/national-flood-insurance-program>.

Sincerely,

Patrick "Rick" F. Sacbibit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration

Enclosure:

Conditional Letter of Map Revision Comment Document

cc: The Honorable Helene Calci
Chair, Township of Upper Providence Board of Supervisors

Ms. Kimberley Yocum
Floodplain Administrator
Township of Schuylkill

Mr. Geoffrey Grace, AICP
Director of Planning and Zoning Officer
Township of Upper Providence

Mr. Francis Greene, P.E.
Engineer
Advanced GeoServices Corp.

May 21, 2020 letter from the Montgomery County Conservation
District.



MONTGOMERY COUNTY CONSERVATION DISTRICT

143 Level Road • Collegeville, PA 19426-3313 • 610-489-4506 • Fax: 610-489-9795
www.montgomeryconservation.org

May 21, 2020

Graphic Packaging International, LLC
Attn: Travis Mount
1035 Longford Road
Phoenixville, PA 19460-1205

Re: Approval of Minor Amendment to Permit Coverage
GPI Valley Forge
NPDES Permit No. PAC460465
Upper Providence Township, Montgomery County

Dear Mr. Mount:

Under the authority of the federal Clean Water Act and Pennsylvania's Clean Streams Law, the Montgomery County Conservation District has approved your request for a minor amendment to your permit. The latest versions of the NOI for PAG-02 and all supporting documents, including the Erosion and Sediment Control (E&S) Plan and Post-Construction Stormwater Management (PCSM) Plan, are incorporated into this approval.

The terms and conditions of your permit, including the expiration date, have not otherwise changed. In addition, if stormwater discharges associated with construction activities are expected to continue beyond the expiration date of your coverage, you must apply to renew your coverage at least 180 days prior to the expiration date, unless otherwise approved by the Department of Environmental Protection (DEP) or the District.

If you have questions, please contact Cody Schmoyer by e-mail at cschmoyer@montgomeryconservation.org or by telephone at 610-489-4506 ext. 19 and refer to Permit No. PAC460465.

Sincerely,

Jessica Buck
District Manager
Montgomery County Conservation District

cc: Francis Greene, Advanced GeoServices
DEP Permits Section Chief
Upper Providence Township

Enclosures: Approved E&S Plan
Approved PCSM Plan
bcc: File

Information on AquaDams: AquaDam User's Guide 2004

AquaDam[®]

User's Guide ~ 2004

(Includes Material Specifications)



“Water Controlling Water”[™]

**LOW-IMPACT, ENVIRONMENTALLY FRIENDLY WATER FILLED
COFFERDAMS FOR STREAM DIVERSIONS, FLOOD CONTROL,
HAZ-MAT CONTAINMENT, AND DEWATERING STRUCTURES.**

AquaDams[®] are water filled barriers that can be used as dams or cofferdams for stream diversions and dewatering boat ramps, boat docks, and pond liners for repairs. Also excellent for flood protection, they are more effective than sandbags and other water control devices.

.....**5 ei U8 Ua 'bW**
P.O. Box 144 / 121 Main St.
Scotia, CA 95565
(800) 682-9283
www.AquaDam.net
email: matthew@aquadam.net

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INTRODUCTION

AquaDam Inc® manufactures AquaDams®, a low-impact alternative to temporary earthen fill cofferdams (barriers). The Clean Water Act demands the use of alternatives to fill discharges to achieve Best Management Practices. On site mitigation is mandatory. Alternative protective devices, such as water filled cofferdams, are the ideal tools for water management programs that protect the aquatic environment. The US Army Corps of Engineers has and is presently approving the use of AquaDams® as a viable, environmentally acceptable method of diverting or containing water.

The following is an overview of Aqua Dam Inc; the various applications of AquaDams®; site and size requirements; equipment and manpower requirements; installation techniques; safety, maintenance, and removal.

ABOUT THE COMPANY

AquaDam Inc was incorporated in 2003, after 20 years of using the idea created in the late 1980's to offer a new concept for managing water diversions, dewatering, flood control barriers, levee toppings, and water storage by using AquaDam Inc® offers installation services and free consulting services regarding the installation and implementation of a water filled cofferdam. The most important features of AquaDams® are the ease and speed at which they can be installed (especially in emergency situations). They consist almost entirely of onsite water, and are reusable.

PATENTS

Aqua Dam Inc uses patents on the design and utilization of multiple chambered AquaDams® that use water and air as the inflation media, and the technique used in connecting multiple AquaDams® together to achieve any necessary length.

US Patent No. 5059065

US Patent No. 5125767

US Patent No. 6481928

Several other patents are currently pending.

CONCEPT

AquaDams® are portable dams filled with onsite water that can be installed wherever needed to cofferdam, contain, or divert the flow of water. AquaDams® consist of two basic parts: an outer or "master tube" (C) made of a heavy duty geotextile woven polypropylene which holds the two inner tubes (A & B) in contact when filled with water. The outer and inner tubes combine to form an AquaDam® as shown in Figure 1, a cut away section illustrating the relationship between the inner and outer tubes of a typical filled AquaDam®.

Figure 1: A TYPICAL FILLED AQUADAM®

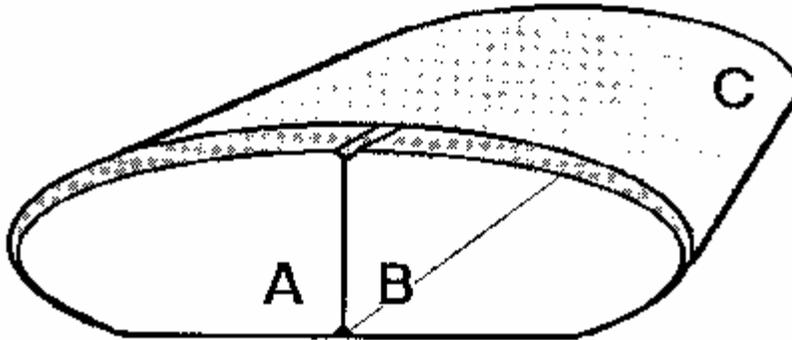


Figure 1. A cross section of a typical AquaDam®, illustrating the relationship between the two inner tubes which contain the water and the "master" tube that keeps the inner tubes parallel and in contact with each other.

A and **B** illustrates the two inner tubes inflated with water.

C is the outer or "master" tube made of very tough polypropylene woven geotextile fabric which confines the water filled inner tubes, making the AquaDam® a solid wall of water. These two confined columns of water provide the mass, weight, and pressure that gives the AquaDam® its stability.

To install an AquaDam®, onsite water is pumped into the two inner tubes during the installation process. The durable woven outer tube confines the water-inflated inner tubes. The counter friction / hydraulic pressure between the inner tube and the outer tube, along with the mass and weight of the water, creates pressure and stabilizes the AquaDam® when lateral water pressure is exerted against it. Due to the inherent flexibility of the materials used to confine the water, AquaDams® will conform to most surfaces, providing an excellent seal and keeping water seepage to a minimum.

AquaDams® come in a variety of sizes, ranging from 1 to 16 feet in height when inflated. AquaDams® come in standard lengths of 50 or 100 feet, and are available for immediate shipment. Any length can be fabricated. Shorter, longer, or irregular lengths are available with notice. Using attachment collars, two or more AquaDams® can be joined together to form a continuous cofferdam of any necessary length. AquaDams® are joined together by a patented coupling collar connection (standard with each AquaDam®). Large and small AquaDams® can be used in conjunction with each other. The possible configurations are almost endless. They can be used in a straight line, to form an arc, or to encircle a building. AquaDams® can also be connected at angles to each other, as may be required by the job requirements.

AquaDams® are usually assembled at the factory and shipped rolled and ready for use at the job site. However, it is not unusual to assemble larger AquaDams® on site. A typical AquaDam® consists of the "master tube" and a pair of inner tubes rolled up on a wooden or metal core as shown in Figure 2. In many instances, the core also plays an important part in the installation, rerolling for future use, and transportation of AquaDams®.

Figure 2:

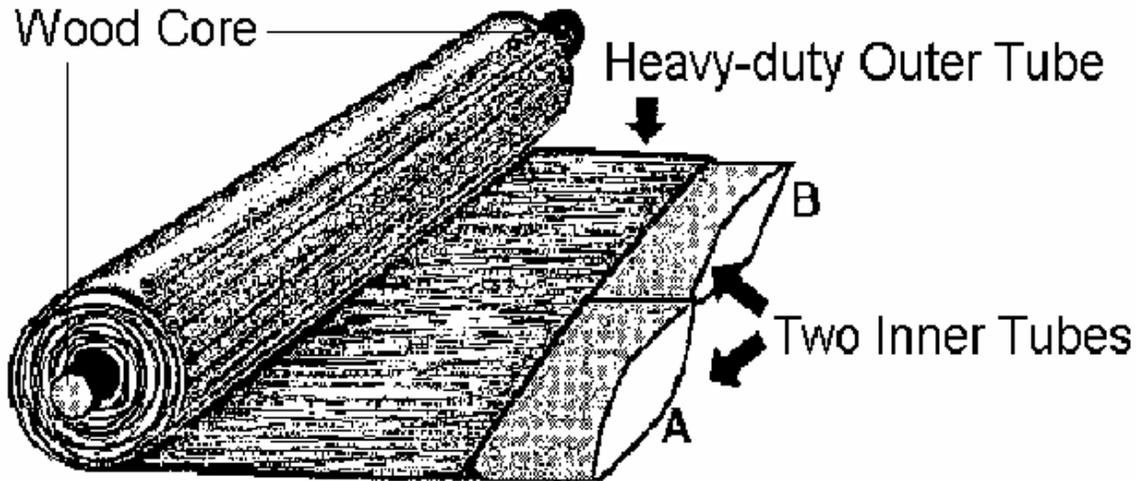


Figure 2. A typical factory assembled AquaDam® prior to inflation, showing the inner and outer tubes rolled up around the core. The AquaDams® tubes (A & B) are left open for filling purposes. This end will be elevated up the stream bank (the starting point) which has to be higher than the height of the AquaDam® when fully inflated. The other end is sealed and has an attached coupling collar used for joining a second AquaDam®.

APPLICATIONS

AquaDams® can be used in a wide range of applications. Listed below are some of the more common applications of AquaDams®:

- | | |
|---|--|
| <ul style="list-style-type: none">• Cofferdams for dewatering construction sites• Water diversion in rivers and wetlands• Water containment• Flood control• Erosion control through diversion or containment of flowing water• Water storage• Boat ramp dewatering• Pond liner repair dewatering• Bridge pier repair• Pipeline crossings | <ul style="list-style-type: none">• Water intake structures for municipalities• Water discharge structures• Fish habitat improvement• Silt containment, sediment collection, or settling ponds• Levees, levee toppings• Hazardous material or chemical spills (containment)• Temporary foot causeway through environmentally sensitive areas• Wetlands management |
|---|--|

The old ways of earthen fill discharges and expensive sheet piling have been the historic ways of working in waterways. These methods are environmentally detrimental, time consuming, and expensive because of their reliance on heavy equipment.

Water filled cofferdams make the ideal water control structure for construction sites. Onsite water is pumped into an AquaDam®, which unrolls due to the water pressure inside it and can be installed in hours in most applications, without causing damage to the aquatic environment. Complete dewatering of the work site can be achieved to form and pour concrete, remove sediments, and install geotextiles.

When used for flood control and augmenting levees, for example, AquaDams® are much more effective than sandbags. They can be installed far quicker, at a fraction of the cost, without all the foot traffic associated with labor-intensive sandbagging, and best of all AquaDams® are reusable.

The amount of water that can be stored in a standard 4 foot AquaDam®, with a width of 10 feet and a length of 100 feet (filled to capacity), is about 25,000 gallons. AquaDams® are durable, long lasting, and with proper installation and removal can be stored and used again and again. Should an inner tube develop a leak, patching tape is available. If necessary, replacement tubes are available from Aqua Dam Inc. AquaDams® are relatively easy to install, requiring only a couple of portable pumps, an onsite water supply, and two or more laborers depending on the size of the AquaDam®.

AQUADAM® HEIGHT SELECTION AND SIZE CRITERIA

AquaDam® height selection is determined by work site conditions, the water depth to be contained or diverted, and to a lesser degree, stream bed slope and water velocity. Maximum projected changes in water depth are very important during the life of the diversion project. Table 1 lists sizes of AquaDams® and their recommended water depth usage. Customized dams of any length can be ordered.

**TABLE 1: STANDARD AQUADAM®
SIZES AND RECOMMENDED USE**

INFLATED HEIGHT (FEET)	INFLATED WIDTH (FEET)	CONTROLLED WATER DEPTH (INCHES)
1	2	9
1.5	3	14
2	4	18
3	7	30
4	-	38
5	1%	44
6	1'	56
8	1+	7(
10	23	-\$
12	27	10(
1*	3'	1' &

This chart represents maximum water depths to be controlled on flat surfaces. The slope and topography of the streambed needs to be accounted for as well as water depths.

Water Depth:

The height of water to be contained by the AquaDam® is the most important factor when selecting the proper size. A good rule of thumb for determining the water height after diversion is as follows:

Add:

- 1.) the maximum water depth along the installation site,
- 2.) the average depth of water at the installation site,
- 3.) and the difference in elevation (water levels) between the installation and diverted water sites.

These three numbers equal the height of water that will be found at the installation site after the AquaDams® have been installed and water is flowing through the diversion channel.

The importance of determining the correct projected maximum water depths after installation and diversion of the stream cannot be taken too lightly. Too small of an AquaDam® will fail. **The depth of water to be retained by an AquaDam® is often underestimated, resulting in an AquaDam® that is too small for the project. This results in delays, increased costs and potentially unsafe work conditions!**

Water Velocity:

When an AquaDam® is used to dam or divert flowing water, water velocity is a concern. During installation, the AquaDam® is being filled with water, causing it to unroll across the stream channel. This causes water flow to back up and increase in water depth. The water velocity around the end of the AquaDam® is increased. Depending on the firmness of the river bed, some undercutting might occur around the end of the AquaDam® as it is being installed. This results in an increase in the depth of water to be retained and should be factored into the analysis. Velocity of current is also a factor. The water head will build up on the upstream side and water on the downstream side flows away before the completion of the installation.

Installation Site:

AquaDams® can be installed on top of most types of soils or fluvial materials, including: flat lying bed rock, mud, sand, gravel, small rocks, and vegetation. Select a site that is flat, and void of: wire, rebar, sharp objects, garbage, glass or dead vegetation containing tree branches, or other rip-rap. The slope of the riverbed should also be relatively flat or inclined in the direction of the upstream or contained water. Make sure to check the installation course for holes, obstructions or washed out areas that may cause problems during installation.

Weather / Spring Run-off:

Local wet seasons and thunderstorms affect water levels in rivers, lakes, and wetlands and are important to understand during your construction Project. Projects that have flexible construction dates should be coordinated with favorable weather conditions that avoid high water levels. Water depth being retained by the AquaDam® should never exceed the recommended maximum water depth during the life of the project, not just the day you install it.

Other Site Criteria:

All of the previous factors are important considerations once the site has been selected. The following are additional factors that may influence the site selection:

Width of the River:

A location on a wide, shallow river is easier to cofferdam than a narrow river channel. Wide rivers will allow a diversion with only minor increases in water depth. A narrow river will quickly increase in water depth. The larger and wider the diversion channel, the less water depth will increase.

Rough River Bed:

An extremely rugged alpine river bed (such as the Eagle River) with large angular boulders within the stream bed is a difficult area, since a good tight seal can only be accomplished through the removal of said boulders by hand or heavy equipment. In the case of the Eagle River, the boulders were scraped into a line, and the AquaDam® was installed directly upstream so that the boulders would help support it. Using four ropes was also important in the installation.

INSTALLATION

SMALL AQUADAMS® (1'- 4' high)

Equipment List:

-  We recommend that you use at least two portable gasoline water 2"-3" discharge pumps or one gasoline discharge pump switched from fill tube to fill tube during inflation; any available water supply will work. Anything from fire hydrants to garden hoses is acceptable; it all depends on the speed at which you want to install the AquaDam®. *
-  Two discharge and suction hoses, one each per pump; no fitting is required on the end of the discharge hoses.
-  A roll of duct tape to secure and constrict the size of the fill tubes when coupling AquaDams® together.
-  For safety reasons, each laborer should carry a utility knife.

The Aqua Dam Inc® crew uses 5.5HP Honda-powered 3" Volume Pumps which provide a maximum flow rate of 16,200 GPH. They are available from your local distributor for sale or rental. They can also be ordered from Great Plains Manufacturers and Distributors 1-800-525-9716; using two of these, you can inflate: A 1' high by 100' long AquaDam® in less than 15 minutes; a 2' high by 100' long AquaDam® in 30 minutes; a 3' high by 100' long AquaDam® in under an hour; and a 4' high by 100' long AquaDam® in under an hour and a half.

Manpower:

Two to four laborers are required to install the smaller AquaDams®. Plan out the installation beforehand and discuss it with your work party. The number of AquaDams® to be installed, time constraints, and access to the installation sites may dictate the need for additional help.

Rock removal:

Someone will have to remove rocks by hand from the path of the AquaDam® to assure that a good seal is achieved (see the Lemhi River installation on our website). The laborers installing the AquaDam® are already committed, and cannot be the rock picking crew. Please see the Installation Section of our web site. Rocks should be picked out from directly in front of the AquaDam® as it is being installed. The rocks can be stacked on the downstream side of the AquaDam® to provide additional support (see the Williams Transco Gas Pipeline installation project in Williamsport, PA. on our website).

LARGE AQUADAMS® (6' – 16' high)

Equipment List:

-  At least two discharge pumps are required; using larger or more numerous pumps will inflate the AquaDam® faster; the fill tubes can be opened to accommodate any size discharge hose.
-  One discharge and suction hose per pump; discharge hoses do not require fittings.
-  A roll of duct tape for securing the fill tubes.
-  For safety reasons, each laborer should have a utility knife.
-  In moving water, restraining ropes need to be used to assist the installation; at the very least, each 100 foot AquaDam® that is installed requires 250 feet of ½ inch rope. A four rope setup is strongly recommended on the installation of AquaDams® 6' high or larger in fast-moving rivers and streams (please see the Eagle River Crossing under the Installation section of our web site).

Manpower (for installation in non-moving water):

Three to five laborers are needed to install the larger AquaDams® in non-moving water. Ropes are usually not needed to restrain the AquaDam® from unrolling during the installation process, but can be used to pull the AquaDam® around if water depths are too great for a laborer to stand. Non-moving water conditions require the fewest number of laborers.

Manpower (for installation in moving water):

Five to seven laborers are needed to install the larger AquaDams®; the exact number of laborers is related to the size and number of AquaDams® to be installed, terrain, water velocity, water depths, and time constraints. Table 2 better describes the manpower needs during a typical installation of AquaDams® 6' or more in height in moving water.

Table 2: RECOMMENDED MANPOWER REQUIREMENTS DURING INSTALLATION IN MOVING WATER

AQUADAM® SIZE	ROPE ASSISTED INSTALLATION	NUMBER OF LABORERS IN WATER	NUMBER OF LABORERS ON PUMPS
1-3 FEET	NO	2-4	0-1
4 FEET	NO	3-5	1
4 FEET	YES-2	2-4	1
6 FEET	YES-3	2-3	1
8 FEET	YES-4	2-3	1

Table 2 (cont.):

Manpower requirements are based on a particular size of AquaDam® in moving water. The chart also provides the number of ropes commonly used with a specific size AquaDam®. Note that 4, 6, and 8 foot structures are commonly installed with the aid of ropes to prevent them from unrolling prematurely. Only in standing water would rope assisted installations not be used on larger size AquaDams®.

Strong water velocities or currents require more manpower to insure proper installation, and to secure the safety of those installing the AquaDam®. The above list does not address personnel that might be operating heavy equipment, such as an excavator. An AquaDam Inc® supervisor who oversees the installation procedure is also recommended.

In most installations, very little site preparation work is required, but to obtain a good seal, rock picking is a must. The area should also be policed for objects that might puncture the AquaDam® during installation.

This Guide assumes that all Federal, State, County, and City Permits have been obtained from the appropriate government authority. Aqua Dam Inc also recommends that the buyer (Prime Contractor, Company Supervisor, etc.) have an understanding of the necessary permits and what can or cannot be done within the river bed (lake) should the use of heavy equipment be necessary.

AquaDam® Installation Procedures

Installation can be broken down into two categories: Moving water (rivers and streams) and nonmoving water (lake shores).

Step 1-Transport:

Transport the AquaDam® to the installation starting point. Smaller AquaDams® can be easily moved into position by hand.



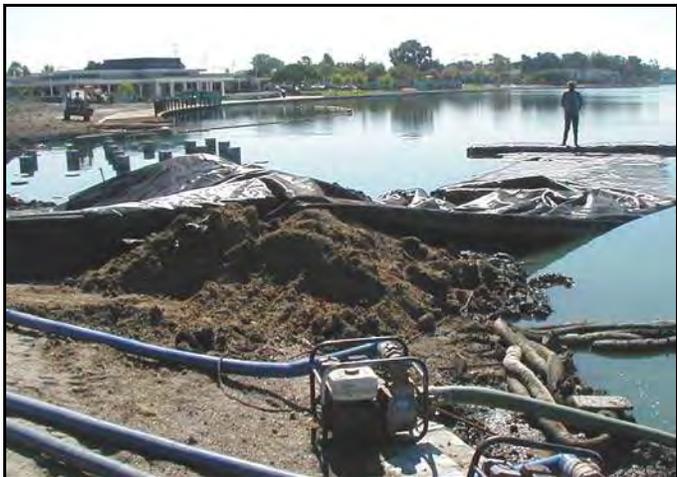
Carrying straps are provided on larger AquaDams®. Just hook or tie the straps to a piece of heavy equipment for transportation. Unpack the AquaDam® by carefully removing the protective wrap from the outside after cutting the packing ropes and carrying straps with a knife.



Step 2-Starting Point:

The end of the AquaDam® will have long fill tubes to start with (usually 2-6 foot long). These are for connecting one AquaDam® to another using a collar. They are not the start of the AquaDam®. The AquaDam® starts at the outside (usually black or white) master tube that confines the two inside fill tubes (see Figure 1). Position the end of the outer tube up the bank at least as high as the AquaDam® will be when fully inflated (i.e., a 3 foot high AquaDam® would have at least 4 feet in elevation up the bank. The bank slope will have to be calculated in, and the end will have to be higher than the water level inside the AquaDam® after inflation. The AquaDam® will only achieve a height of 3+ feet at the lowest point along its path.).

If the bank is not steep enough to achieve the necessary starting height, a small amount of fill material can be placed at the waters edge to create a false bank or berm. This is the least expensive way to make a good starting point.



Step 3-Preparing the AquaDam® for Inflation:

Insert a discharge hose into each inside fill tube. Excess fill tubes can be cut off if not desired for future use. Wrap duct tape or tie packing rope tightly around the fill tubes to keep the discharge hose from slipping out. The corners at the end of the AquaDam® can be tied to a tree or rock to prevent it from slipping down the bank slope. For smaller dams (3 feet and under), laborers are needed to stand in back of the AquaDam® roll at the foot of the slope along the waters edge. The pumping begins by pumping into both inside tubes at the same rate. The rolled portion of the AquaDam® will try to unroll, and will push up against the laborers' legs. The laborers' will wait for the water level to rise and build pressure inside the AquaDam®. When the height of the AquaDam® is great enough, the laborers should take a step back. Then they must wait until the height builds up again before taking another step backwards. All laborers must step backwards in unison and cooperate so that a foot does not get caught while unrolling it®. Water levels inside the AquaDam® must be kept at a level higher than the upstream water side of the AquaDam® (see the Pacific Gas and Electric and other installations on our website). This water depth will increase as the unrolling AquaDam® begins to constrict (cut off) the stream flow.

Step 4-Moving Rocks and Debris:

When installing an AquaDam®, you must not only remove rocks from its path to ensure a good seal, you must remove all debris. Sharp, angular objects are often located under the water level, and usually the only way to find them is to walk around in the water until you step on them. Not only will these obstructions cause a greater amount of leakage, there is always the possibility that they may cause damage to the AquaDam®.

**Never take it for granted that your work area is free from debris!
ALWAYS CHECK FIRST!**

THIS IS YOUR ENEMY...



This shopping cart was completely invisible during high tide.

Step 5-Restraining Ropes:

Large AquaDams®

AquaDams® that are four or more feet in height commonly require restraining ropes to restrain the unrolled portion of the AquaDam® during the installation process in live streams. Without these lines or ropes the pressure of the water in the inner tubes would cause the AquaDam® to unroll before the proper inside head pressure is achieved. Preventing this pressure from prematurely unrolling the AquaDam® is very important. The pressure of the water mass inside the AquaDam® has to overpower the pressure of the water on the upstream side (compared to the downstream side). In lake water, the pressure will be the same on both sides of the AquaDam® (until dewatering begins by pumping).



The number of ropes (lines) required by a particular sized AquaDam® is discussed in Table 2 and Figure 3. If ropes are to be used in the installation process, they should be placed under the AquaDam® before water is added. The ropes are attached to the base of the metal posts or trees, then run under the AquaDam®, over the top, and back to the starting point. They should be held in a manner that will allow the rope to be let out as the AquaDam® unrolls across the stream. The rope should be twice as long as the AquaDam® when inflated, plus an extra 50 feet.

Standing Water Applications:

Standing water or lake installations are much simpler than those using AquaDams® or in live streams. The AquaDam® will unroll itself with a minimum number of laborers to assist in the installation. Ropes can be used to turn the AquaDam® in places where it is too deep for laborers to stand. Water pressure from one side of the AquaDam® to the other should stay equal, making it unnecessary to maintain head pressure inside the unit. Laborers just need to guide it in the right direction.

Step 6-Determine Height & Elevation:

The rolled AquaDam® should start at the top of the riverbank or berm. The end of the AquaDam® must be raised higher up the starting bank than the estimated height of the fully inflated AquaDam®. Gravity keeps the water used to fill the AquaDam® from flowing back out the elevated end. (Actually, we recently began offering double closed-ended AquaDams® which do not need to have the end elevated to hold water. However, the start of the AquaDam® must still tie into something like a bank or berm or water would just go around the end.)

Figure 3: LARGE AQUADAM® INSTALLATION ACROSS A FLOWING STREAM

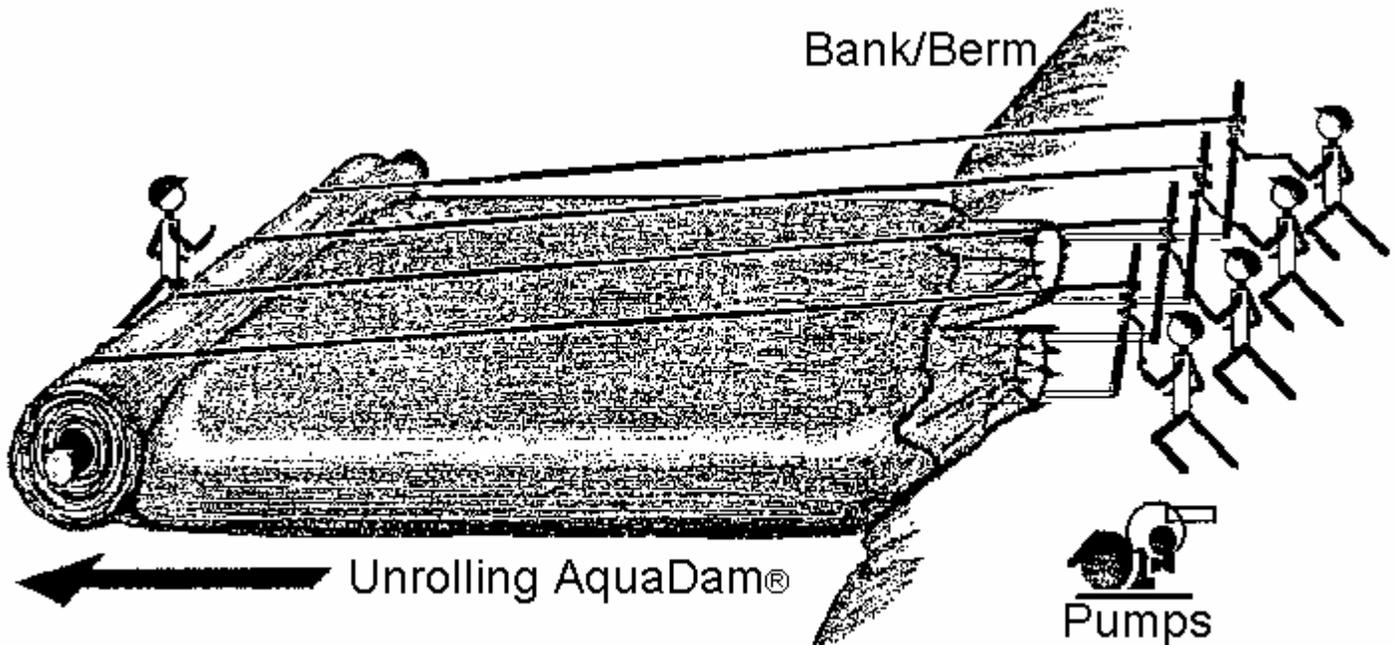


Figure 3. shows the location of the ropes, posts, laborers and the inflating AquaDam®.

Step 7-Inflating the AquaDam®:

Figure 3 represents the most difficult installation scenario, such as a flowing stream where ropes must be used. The onsite conditions can change quickly in live streams because water depths will change from one side of the AquaDam® to the other. This difference in pressure will make the AquaDam® move downstream unless head pressure is maintained inside the AquaDam® during all phases of the installation. An AquaDam® that is unrolled too quickly and is not allowed to inflate above the level of the surrounding water will move downstream with the water flow. The workers on the bank slowly let the ropes out to allow the AquaDam® to unroll when inside water pressure and mass are achieved. Unroll 2-3 feet at a time, then wait for head pressure to build again, repeating this process until the AquaDam® is fully unrolled (see the Eagle River installation in Vail, CO on our website). Timing is everything. **Do not get in a hurry! Let your pumps work!** A requirement of using ropes is that the AquaDam® must be installed in a straight line. Head pressure must be maintained inside the AquaDam® to prevent it from moving. Ropes tend to move to the outside of the unrolling AquaDam®. The worker at the end of the unrolling AquaDam® adjusts the ropes and keeps them in the center by slackening and moving one rope at a time while the other ropes maintain the necessary inside pressure to keep the AquaDam® from moving downstream. On site rock that needs to be moved to assure a good seal should always be moved to the downstream side and used for support.

Figure 4:

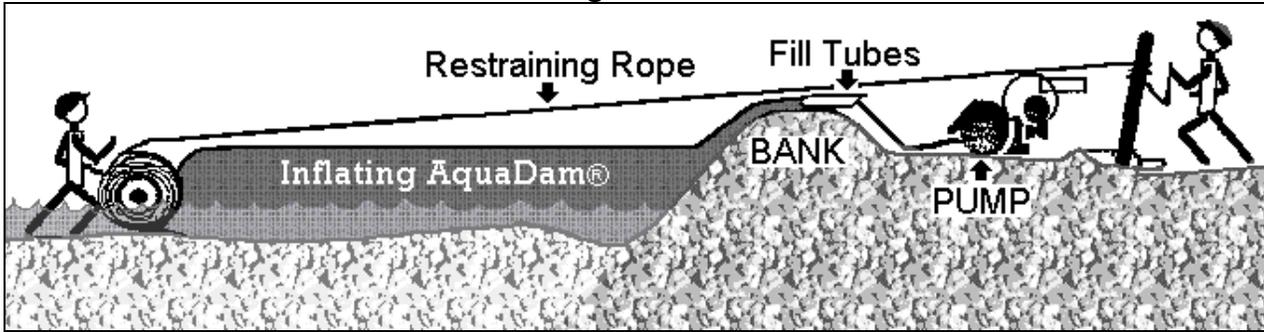


Figure 4. A cross section of a large AquaDam® being installed in flowing water, illustrating the location of the berm, pumps, ropes, laborers and the inside water head pressure, compared to the outside water levels.

Manning the Ropes:

Once the ropes are manned, the pumps are primed, and the AquaDam® is aimed in the proper direction (at a right angle to the starting point on the bank), the pumps can be turned on and the inflation process can begin. Figure 5 shows a picture of restraining ropes used during installation of a large AquaDam® in a fast moving river. The small diversion channel in this project demands that a large AquaDam® be used despite the low water level, because of the anticipated increase in water depth (above 6 feet). The AquaDam® should be unrolled at a rate of about 1 to 3 feet every time the ropes are slipped and maintain a 12-24 inch (or greater) head of water pressure inside the AquaDam®, compared to the upstream water depth, which will be increasing. Each foot of installed AquaDam® requires 2 feet of additional rope. The AquaDam® has to overcome imbalances of water head displacements happening in the river during the installation process. **Only experienced installation personnel should attempt to install large AquaDams® in moving water.** Smaller AquaDams® can be installed more easily and require less expertise.

Figure 5: USING ROPES TO INSTALL AN AQUADAM® IN FLOWING WATER



Figure 5.: A large AquaDam® being installed on the Saddle River in northeastern New Jersey. Only one laborer is needed in the water to keep the ropes in position. Using ropes require that the AquaDam® only be installed in a straight line. Connections can be made at a later date if turns are required. Coupling collars are placed underneath the first AquaDam® as it is being unrolled(if connections are necessary).

Lateral Movement:

An AquaDam® being installed in flowing water can be vulnerable to moving downstream during the installation process. Maintaining internal head pressure is very important. To give support along the side of the AquaDam® a small mound of fill material can be placed directly downstream so that the AquaDam® rests against it. A small mound every 20-30 feet provides a tremendous amount of support. Of course, turbidity is kept to a minimum because the flow has already been diverted by the AquaDam® as it is being installed.

Another technique used to install large AquaDams® in flowing water is to install a shorter, sometimes smaller dam in a straight line using ropes (this is sometimes referred to as a “buffer”), and then place the bigger AquaDam® directly upstream, allowing it to rest against the smaller AquaDam®. In this fashion, the pressure in the larger upstream AquaDam® can be lowered to allow it to turn around the end of the smaller AquaDam®, without it having to be kept in a straight line with ropes. You can see an example of this on the Williams Transco Gas Pipeline project in McComb, MS on our website.

How Lateral Movement Occurs:

Lateral movement of an AquaDam® during installation occurs when there is insufficient water mass inside the AquaDam® to overcome the difference in water pressure on the upstream side of the AquaDam® (compared to the downstream side, which will always be less). The difference in water depth must be compensated for by the amount of pressure inside the AquaDam® during and after installation. Water levels will rise rapidly during installation and should be monitored continuously by the crew in the water.

Sometimes lateral movement is hard to detect, but usually the following are indications:

-  Visual lateral movement of the AquaDam®.
-  The seams on the AquaDam® are straight for some distance but appear bent in the middle.
-  The AquaDam® is no longer pointed in the direction originally taken.

If lateral movement begins to take place or evidence of rolling can be detected, then steps should be taken to correct it. A 6-12 inch change in water level could wipe out all of the installed AquaDams® if the proper amount of head pressure is not kept inside. One step that can be taken to prevent lateral movement is to increase the internal water volume that creates the internal pressure. Fill material can be placed directly on the downstream side in small amounts, allowing the AquaDam® to rest on it. All rocks moved for seepage control should be used to shore it up during installation. Often, fill material has to be excavated from the channel. This is placed behind the AquaDam® for storage, and allows the AquaDam® to rest on it so that more water depth can be controlled than what our User's Guide suggests.

AquaDams® should always be filled with the maximum amount of water possible. Always fill your AquaDams® to their recommended height.

Other solutions to moving or sliding are to install a smaller AquaDam® directly behind the main AquaDam® on the dewatered side. In standing water, stop dewatering and allow the bodies of water on either side of the AquaDam® to equalize.



Figure 6: SHORING-UP CROSS SECTION

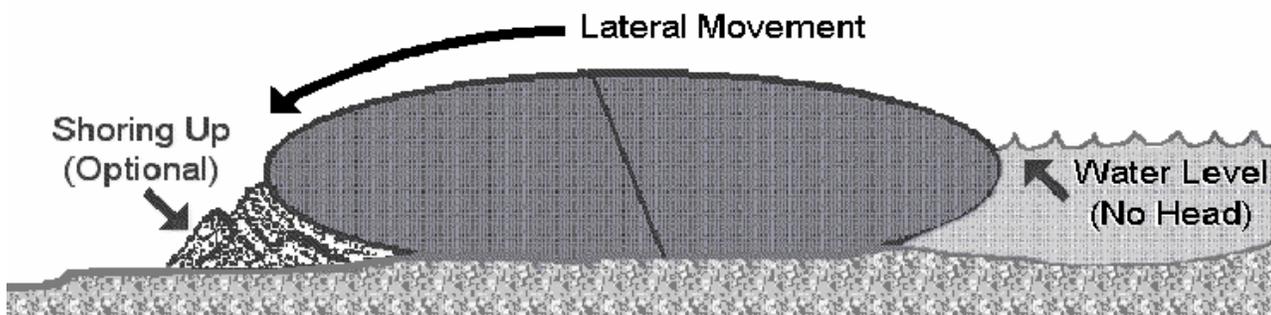


Figure 6. A cross section showing the placement of earthen fill material to shore up an AquaDam® that shows signs of lateral movement.

CONNECTING AQUADAM® SECTIONS USING COUPLING COLLARS:

Step 1: Certain applications require two or more sections to be coupled together to form a longer, continuous water-filled cofferdam. The following illustrates how this is accomplished (the procedure assumes that the AquaDams® are being joined in a straight line end to end). All standard closed-ended AquaDams® come with a coupling collar on the closed end. The other end has the fill tubes, and has been designed to fit snugly into the coupling collar. Before a second AquaDam® can be attached, step one is to install an AquaDam® fitted with a coupling collar.



Step 2: Position the second AquaDam® directly behind and in-line with the filled AquaDam® and unroll about 10 feet of the new section, plus the length of the fill tubes (see Figure 7a).



Step 3: Gather up the end of one fill tube, gently twist or bunch it up, and wrap with duct tape. Do the same thing to the other tube. This will allow the inner tubes to be easily inserted and pulled through the round holes cut into the top of the coupling collar at the end of the installed AquaDam® (see Figure 7b)



Step 4: Carefully cut two round holes 6 inches in diameter in the top of the collar attached to the filled AquaDam® master tube. Each hole should be large enough to accommodate the bunched inner fill tube of the AquaDam® that is being attached. The two holes should be positioned midway between each side of the AquaDam®. They should be about 1-2 feet apart on a four foot AquaDam® and 4 feet apart on a six foot high AquaDam®.



Step 5: Insert the wrapped right inner tube through the hole on the right side of the coupling collar, and the wrapped left inner tube through the hole on the left side of the coupling collar. This is done by working your way inside the coupling collar, pushing the inner tube toward the hole and having a second person reach through the hole from the outside, grab the tube, and pull it through the hole (about four feet of fill tube should be pulled on top for a four foot high AquaDam®). Pull the outer tube of the AquaDam® being connected inside the coupling collar and around the inner tubes as well as possible. The new section should be totally enclosed by the coupling collar, and the master tube of the AquaDam® being installed should be pulled up so as to be in contact with the end of the water-filled AquaDam®. Pull all excess fill tube material up on top through the holes.

(see Figure 7c).



Step 6: The 4'X8'X ½" sheet of plywood described in the equipment list is for the pumps to sit on, should they need to be placed on an inflated AquaDam®. When two AquaDams® are coupled or attached together, pumps are generally set on the previously filled AquaDam®, about 15-20 feet away from the end of the AquaDam®. The plywood will prevent damage to the AquaDam®, but it is not necessary by any means.



Step 7: Remove the tape or string from around the bunched inner fill tubes and insert the discharge hoses deep inside them, making sure that they extend past the coupling collar. Removal of fittings on the discharge hoses is recommended. If they cannot be removed, cover metal ones with duct tape. To keep the fill hoses from sliding back out, bunch the fill tubes up around them and secure with duct tape



(see Figure 7d).

Step 8: At this point the new section is ready to be filled in the same manner as the first section. Follow all of the instructions previously presented to install the first AquaDam®. Figure 8 is a drawing of two AquaDams®, one filled and the other ready to be filled.



Figure 7: CONNECTING AQUADAMS® USING COUPLING COLLARS

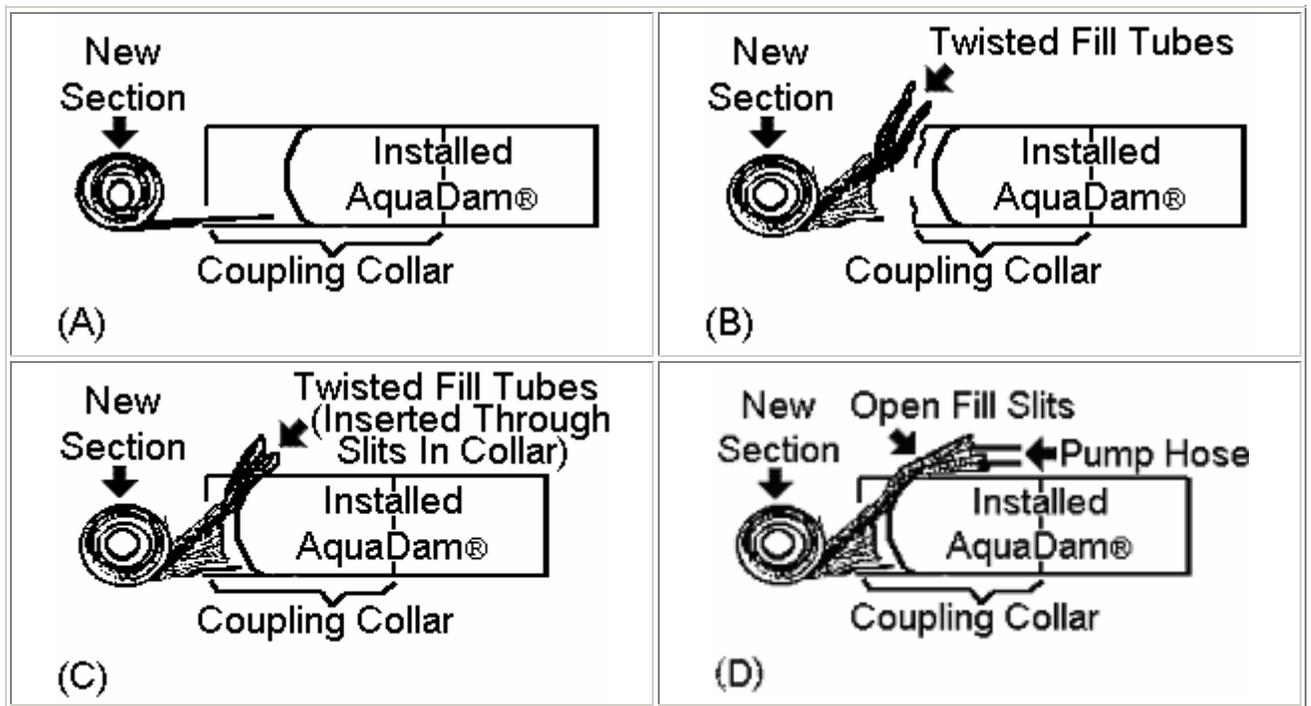


Figure 7, illustrations a, b, c, and d show the different steps taken in the process of joining two AquaDams® together using a collar.

Figure 8: TWO AQUADAMS® COUPLED TOGETHER:

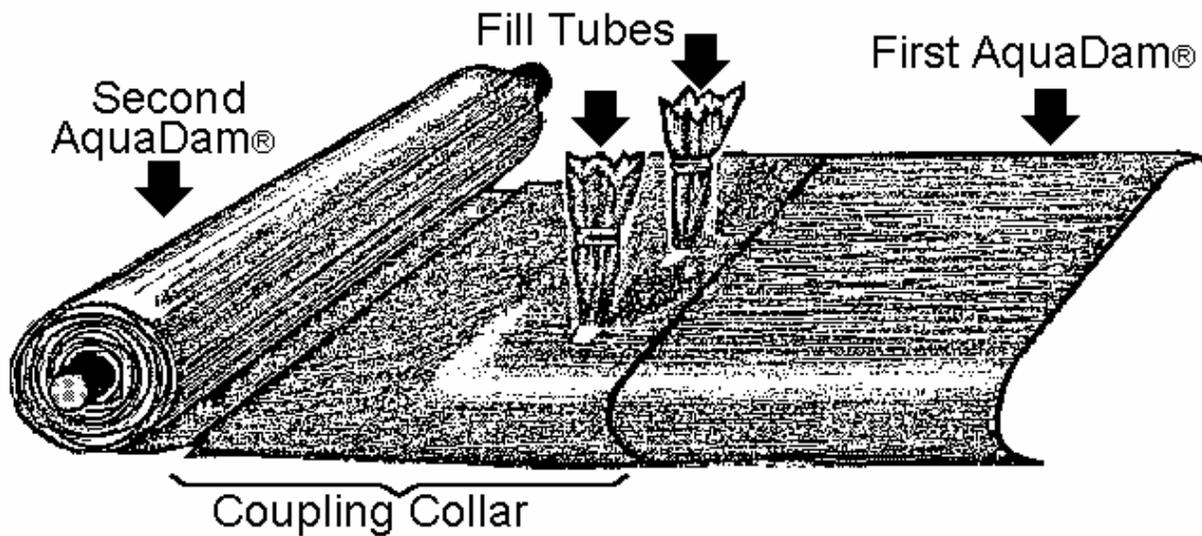


Figure 8: Two AquaDams® are joined together by a coupling collar and ready to be inflated. The two inner tubes stick out and up from the middle portion of the coupling collar. These are the extra fill tubes located at the open end of each AquaDam®.

Step 9: When the second section is filled, the water hoses can be removed from the inner tubes. The fill tubes are rewrapped with duct tape tightly and in such a manner that the tubes will stand up by themselves (see the Woodlawn Lake Sediment Removal project in San Antonio, TX on our website). If possible, use duct tape to attach the two upright inner tubes together, making them even more stable and preventing water from leaking out. Gravity will keep the water from rising above the height of the fill tubes.

MAINTENANCE PROCEDURES

Installed AquaDams® are durable and will last a long time. Each installed section should be monitored regularly for leaks. The easiest way to deal with a leak without removing the AquaDam® is to pump more water into it. Small leaks can be patched with special repair tape

There are four important observations that should be made on a regular basis.

- 🌊 Leaks in the AquaDams®
- 🌊 Seepage under the AquaDams®
- 🌊 Inner fill tubes that have fallen over and are draining water
- 🌊 Lateral movement of the AquaDam®



Most leaks are of such a nature that they can be resolved simply by pumping additional water into the AquaDams® on a periodic basis. Identify which of the tubes is leaking, untie and unwrap the inner tube and insert the discharge hose from the water pump and fill it. Sometimes, a leak is large enough to require a patch. To repair such a leak, first identify and isolate the area around it. Then, using a sharp knife, cut a 'cross' or X through the master tube and pull the material apart to expose the leak, being careful not to further damage the inner tube. Then, using tape provided by AquaDam Inc

, apply

the patch to the inner tube. Once the leak is repaired, cover the 'cross' cut in the master tube with the same repair tape. In most cases it is best to just add water on a regular basis, until the AquaDam® can be taken out of service and patched properly from the inside or the inner tubes can be replaced.

AQUADAM® REMOVAL USING REROLLING BRACKETS

Rerolling a small AquaDam® after use in a small stream. When two or more AquaDams® are connected together the downstream AquaDam® is removed first by pumping out the inside water, or allowing the fill tubes to drain the AquaDam® down to a level where the connection can be disassembled, allowing the water to pass out freely once rewinding begins at the other end. This forces the water to the open end and out.

Note: in some cases, it may be a better idea to hook the closed end to an excavator or other piece of equipment, lift it up, and simply let gravity drain the water out (see below).



LARGE AQUADAM® REMOVAL

For larger AquaDams® that are too big to reroll in place, equipment such as an excavator or backhoe can be used to pull the AquaDam® from the lake (in standing water). Pump out or drain as much of the water as you can, and put a strap around the closed end of the AquaDam®. Place the strap as close to the end as possible or water will remain trapped inside. **Do not pull on the collar.** Very slowly lift up on the strap. The water should drain out the open end. Make sure that the fill tubes are draining, they might need to be pulled further off the bank. Go slowly so that you do not lift the water any higher than is necessary for it to drain. Pull the deflated AquaDam® out of the water. It can now be blown up with air for inspection and rerolling. After the AquaDam® has been inspected and any holes have been patched, make sure that the coupling collar is still in place. It is now time to reroll the AquaDam® for storage and reuse. AquaDams® can be reused over and over again, depending on the application. They can also be used on a one-time basis and be destroyed when they are removed, or if they become contaminated with a hazardous material. It is difficult to remove large AquaDams® used to block off flowing streams and rivers. Sometimes, there is no way to remove the AquaDam® and maintain the internal water pressure necessary to hold it in place at the same time.



As the AquaDam® is being emptied, it will be forced out of the way by the difference in water depth from the upstream side of the AquaDam® to the downstream side.

There are many applications where an AquaDam® can be saved and rerolled for use at a later date. All smaller AquaDams® can be rerolled. Rerolling requires brackets to fit over the ends of the wooden beams that the AquaDams® come assembled on. A 3/4" drive ratchet can then be attached to the bracket. A 5' long section of pipe is slid over the handle of the ratchet (a cheater bar) to achieve maximum torque. Water can be pushed to the open end and out.

SAFETY

Emergency Removal:

Laborers should stay out of harm's way and be aware that standing at the end of the unrolling AquaDam® is dangerous, and they should stand clear whenever possible. The number of personnel in this position should be kept to a minimum. Should the laborers holding the ropes let go of them, the AquaDam® will rapidly unroll, and a laborer could be pinned underneath. That is why **all laborers should carry safety knives**, so that the AquaDam® can be slit open on the upstream side to relieve inside water pressure so that the AquaDam® will immediately drain, allowing it to move off of the trapped worker. The best way to do this is with a single long, lateral slice down the side of the AquaDam®. You must be standing on the upstream side. The downstream side is the direction that the AquaDam® and all of the water behind it will move in. It is very important that everyone works together!

Obstacles & Debris:

The beds of rivers and streams are rough and can have holes and other obstacles that should be avoided in them. The easiest way to avoid them is to just go around. Removing something large that is silted into the riverbed will leave a large hole. This leaves you worse off than you were before. Going over this type of area will have more seepage, and it will also affect the height of the AquaDam®.

Cold Weather:

In cold water, neoprene chest waders are highly recommended. All OSHA rules and guidelines should be followed closely. Personal Flotation Devices (PFDs) should be also used.

Walking on the AquaDam®

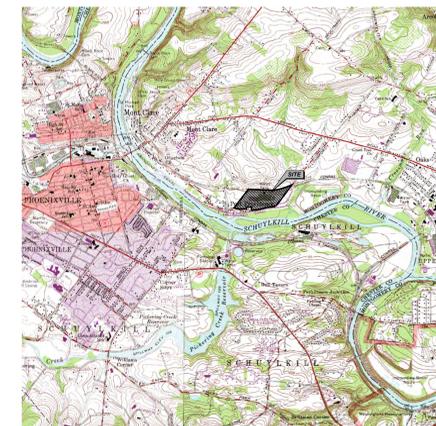
The woven geo-textile fabric that the master tube is made of is puncture and UVI resistant. Heavy foot traffic on top of the AquaDam® is okay. The only time you might curtail foot traffic is during cold weather, when ice occurs within the inner tubes, but they can still be walked on. The ice may cut the polyethylene when it cracks or breaks from foot traffic.

AquaDam Specifications

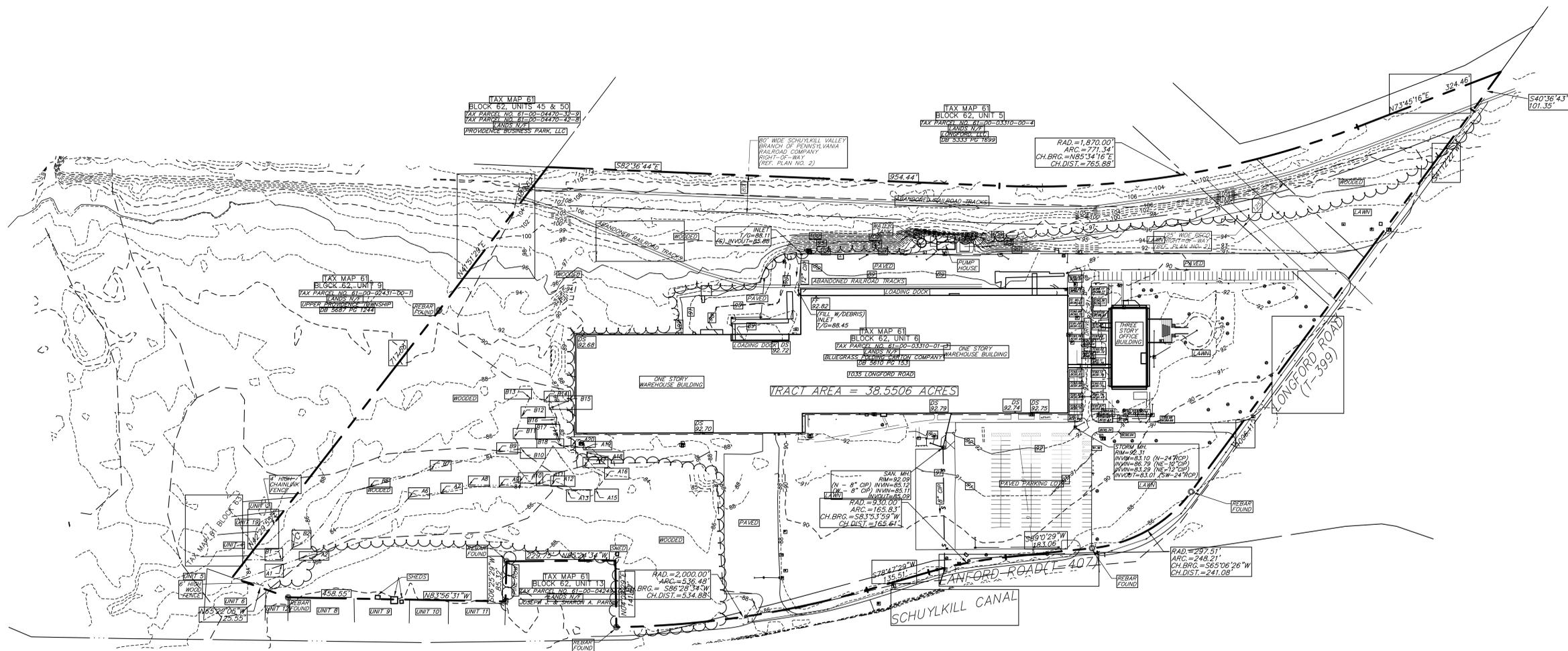
Dimensions (completely full)	Controllable Mud/Water Depth	Specifications of Inner and Outer Tubes	Capacity in Gallons (gal per ft.)	Empty Weight (lbs per ft.)
1' H x 2' W* (0.3m high)	9" (23 cm)	Same material thickness and strength as 4' high AquaDam	12	0.75 lbs
1.5' H x 3' W* (0.5m high)	14" (36 cm)	Same material thickness and strength as 4' high AquaDam	25	0.95 lbs
2.5' H x 5' W* (0.76m high)	24" (61 cm)	Same material thickness and strength as 4' high AquaDam	88	1.85 lbs
3' H x 7' W (1m high)	30" (77 cm)	Same material thickness and strength as 4' high AquaDam	120	2.5 lbs
4' H x 9' W (1.2m high)	38" (97 cm)	12 mil polyethylene inside tube. 300 lb/in ² burst strength woven polyethylene geotextile outside tube.	240	4.25 lbs
5' H x 11' W (1.5m high)	44" (112 cm)	Same material thickness and strength as a 8' high AquaDam	320	6.4 lbs
6' H x 13' W (1.8m high)	54" (137 cm)	Same material thickness and strength as a 8' high AquaDam	400	8.5 lbs
8' H x 17' W (2.4m high)	74" (188 cm)	12 mil polyethylene inside tube. 2 plys of 300 lb/in ² burst strength woven polyethylene geotextile outside tube.	500	12 lbs
10' H x 21' W (3m high)	90" (229 cm)	8 mil polyethylene inside tube. 3 plys of 300 lb/in ² burst strength woven polyethylene geotextile outside tube.	800	25 lbs
12' H x 25' W (3.7m high)	104" (264 cm)	2 plys of 8 mil polyethylene inside tube 1 ply shroud surrounding inside tubes 4 plys of 300 lb/in ² burst strength woven polyethylene geotextile outside tube.	900	31 lbs
16' H x 33' W (4.8m high)	132" (335 cm)	2 plys of 5 mil polyethylene inside tube 1 ply shroud surrounding inside tubes 5 plys of 300 lb/in ² burst strength woven polyethylene geotextile outside tube.	1250	45 lbs

All AquaDams 3' and taller are manufactured with an internal baffle for added stability. Smaller AquaDams can be special ordered with a baffle. Call for pricing.

Aqua Dam Inc
 "Water Controlling Water"
www.aquadam.net
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 matthew@aquadam.net

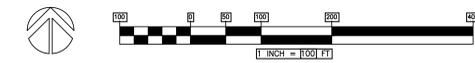


LOCATION MAP
SCALE: 1" = 1000'



PLAN LEGEND

	PROPOSED BUILDING		PROPOSED FOUNDATION
	PROPOSED WALL		PROPOSED WINDOW
	PROPOSED DOOR		PROPOSED STAIRCASE
	PROPOSED ELEVATION		PROPOSED UTILITY
	PROPOSED FENCE		PROPOSED RETENTION WALL
	PROPOSED DRIVEWAY		PROPOSED STORM DRAIN
	PROPOSED SEWER LINE		PROPOSED GAS LINE
	PROPOSED WATER LINE		PROPOSED SANITARY SEWER
	PROPOSED STORM DRAIN		PROPOSED FORCE MAIN
	PROPOSED MANHOLE		PROPOSED VALVE
	PROPOSED METER		PROPOSED TRANSFORMER
	PROPOSED LIGHT POLE		PROPOSED CONDUIT
	PROPOSED ELEVATION		PROPOSED SPOT ELEVATION



- NOTES:**
1. TOPOGRAPHIC INFORMATION TAKEN FROM PASDA DATABASE.
 2. SUPPLEMENTAL TOPOGRAPHIC INFORMATION AND OUTBOUND BASED ON SURVEY PLAN BY NAVE NEWELL ENTITLED "PLAN OF SURVEY - OVERALL SITE LANDS N/F BLUEGRASS FOLDING CARTON COMPANY" DATED 4/10/19.
 3. BEARING BASIS FOR THE NAVE NEWELL SURVEY IS PER THE PLAN ENTITLED "FINAL SUBDIVISION PLAN FOR JEFFERSON SMURFIT CORPORATION, U.S.", DATED JANUARY 4, 1990, LAST REVISED SEPTEMBER 11, 2000 AND RECORDED IN THE MONTGOMERY COUNTY COURTHOUSE AS PLAN BOOK A-99 PAGE 350.
 4. VERTICAL DATUM IS NAVD 1988 DATUM.
 5. WETLAND INFORMATION TAKEN FROM A WETLAND INVESTIGATION REPORT BY VORTEX ENVIRONMENTAL, INC. ENTITLED "WETLAND INVESTIGATION FOR THE GPI VALLEY FORGE PROJECT, 1035 LONGFORD ROAD, UPPER PROVIDENCE TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA" DATED AUGUST 16, 2019.
 6. THE SITE IS LOCATED WITHIN THE M1 OFFICE AND LIMITED INDUSTRIAL DISTRICT.
 7. THE PROPOSED IMPROVEMENTS INCLUDE THE GRADING OF A LEVEL AREA FOR THE PROPOSED AQUADAM, CONSTRUCTION OF ADDITIONS TO THE EXISTING BUILDING AND THE DEMOLITION OF THE EXISTING THREE STORY OFFICE BUILDING.
 8. A. THE EXTENT, EXACT LOCATION AND DEPTH OF UNDERGROUND UTILITIES HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXTENT AND THE EXACT LOCATION AND DEPTH OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. CONTRACTORS SHALL NOTIFY UTILITY COMPANIES THREE (3) DAYS PRIOR TO COMMENCING WORK TO COMPLY WITH PA ACT NO. 38.
B. CONTRACTOR SHALL CONTACT THE PENNSYLVANIA ONE CALL CENTER SYSTEM (1-800-242-1776) 48 HOURS PRIOR TO START OF ANY EXCAVATION. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE TO COMPARE THE SITE DRAWINGS AND REPORT ANY DISCREPANCY WITHIN SET OF DRAWINGS TO THE ENGINEER PRIOR TO FABRICATION AND INSTALLATION OF ANY SITE WORK ELEMENTS.
 9. THE OWNER OF RECORD ARE: GRAPHIC PACKAGING INTERNATIONAL.
 10. FLOOD HAZARD DISTRICT IS LOCATED ON THIS SITE PER FIRM PLAN 42091C02386 DATE EFFECTIVE 3/2/16.
 11. TOTAL TRACT AREA IS EQUAL TO 38.55 ACRES GROSS.

1	03/12/20	REVISIONS PER TWP REVIEW DATED 03/10/20
Number	Date	Revision

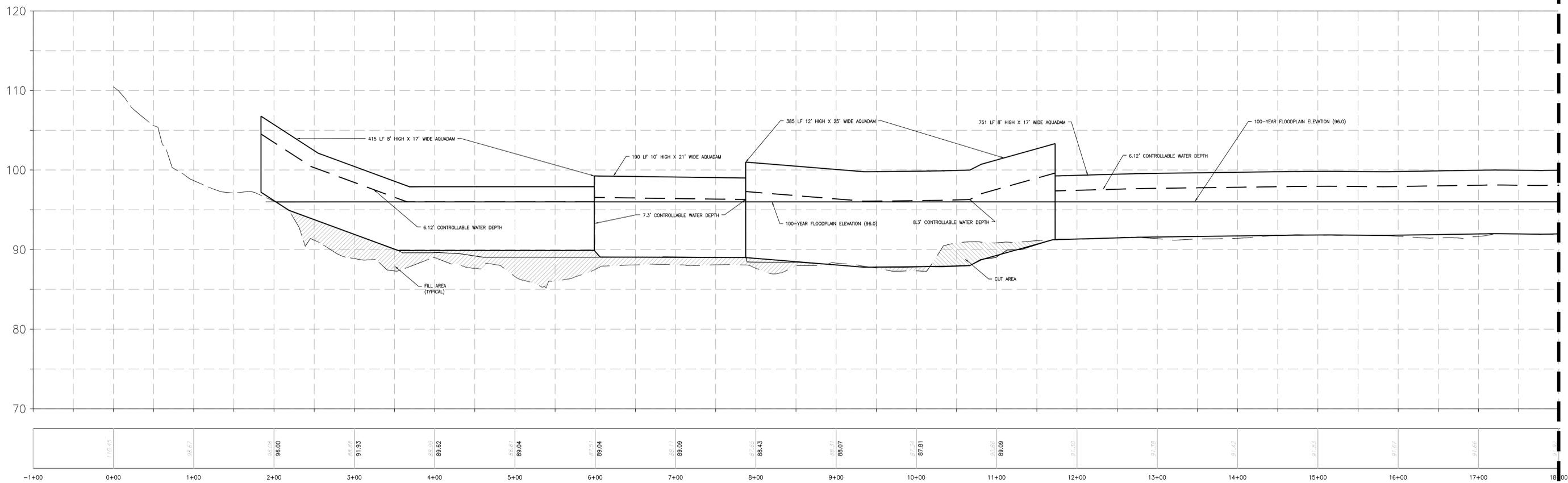
GPI VALLEY FORGE
1035 LONGFORD ROAD
PHOENIXVILLE, PA

EXISTING CONDITIONS PLAN

	Scale	1" = 100'
	Drawn By	RRP
	Checked By	PEG
	Project Mgr	DTW
	Original Date	RRP
Project No.	20193908	
Sheet No.	007	7
Revision Number		

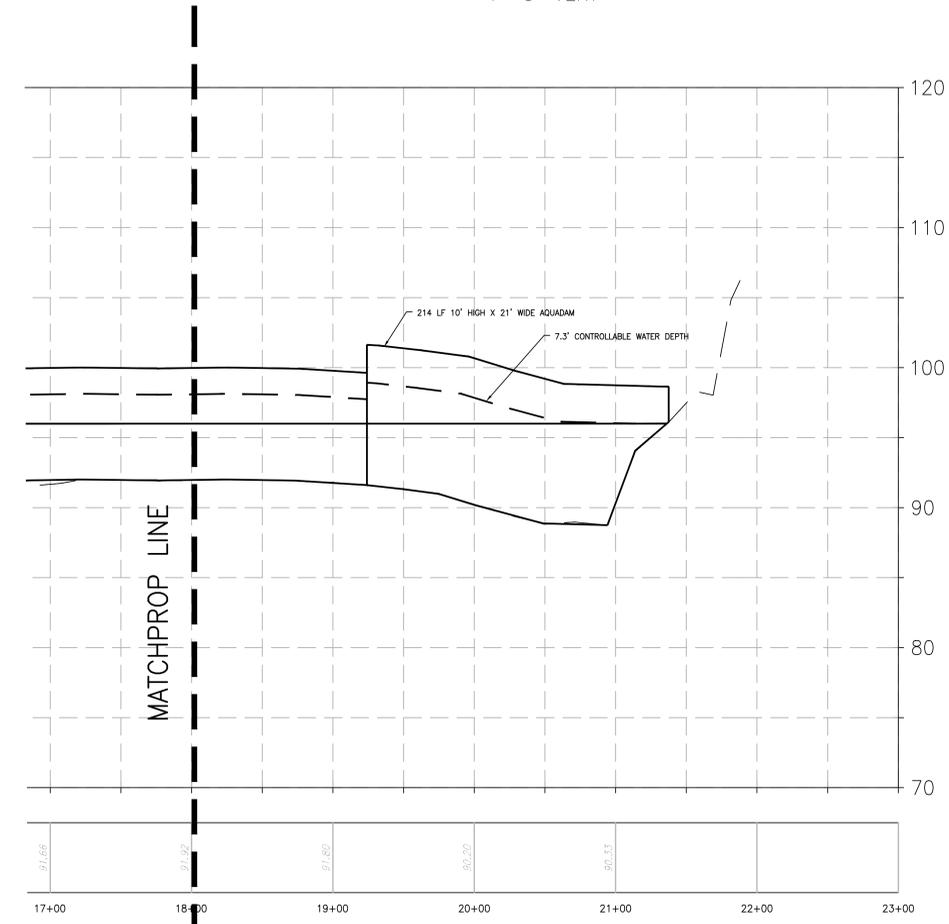
ADVANCED GeoServices
 A MONTROSE ENVIRONMENTAL GROUP COMPANY
 1035 ANDREW DRIVE, SUITE A
 WEST CHESTER, PENNSYLVANIA 19380
 Tel: 610.840.9100 Fax: 610.840.9199 Web: www.advancedgeoservices.com

C010



110.43	98.67	96.09	96.00	95.09	91.33	88.03	89.02	86.61	89.04	87.51	89.04	88.11	89.09	87.63	88.43	86.31	88.07	87.34	87.81	85.26	89.09	91.30	91.38	91.42	91.83	91.67	91.60	91.55
-1+00	0+00	1+00	2+00	3+00	4+00	5+00	6+00	7+00	8+00	9+00	10+00	11+00	12+00	13+00	14+00	15+00	16+00	17+00	18+00									

AQUA DAM
SCALE: 1"=50' HOR
1"=5' VERT



91.68	91.55	91.20	90.20	90.13		
17+00	18+00	19+00	20+00	21+00	22+00	23+00

AQUA DAM
SCALE: 1"=50' HOR
1"=5' VERT

1	03/12/20	REVISIONS PER TWP REVIEW DATED 03/10/20
Number:	Date:	Revision:
GPI VALLEY FORGE 1035 LONGFORD ROAD PHOENIXVILLE, PA		
PROFILE		
	ADVANCED 	Scale: 1" = 50' Drawn By: RRP Checked By: FEG Project Mgr.: DTW Originated By: RRP Project No.: 20193908 Drawing Date: 11/19/19 Sheet No.: 3 OF 7 Revision Number: 1
	A MONTROSE ENVIRONMENTAL GROUP COMPANY 1055 ANDREW DRIVE, SUITE A WEST CHESTER, PENNSYLVANIA 19380 Tel: 610.840.9100 Fax: 610.840.9199 Web: www.advancedgeoservices.com	

MATCHPROP LINE

MATCHPROP LINE

C-550

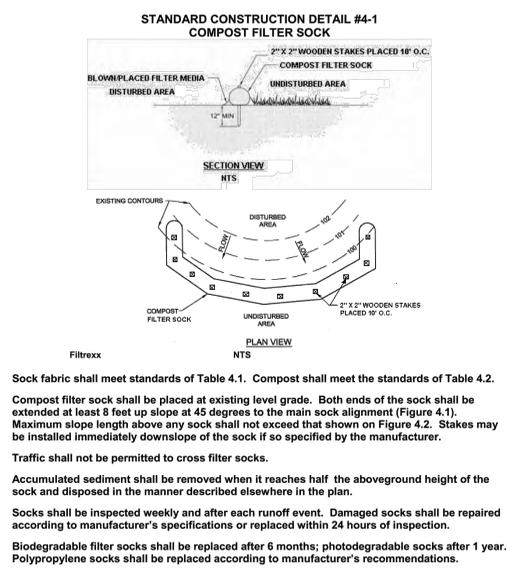
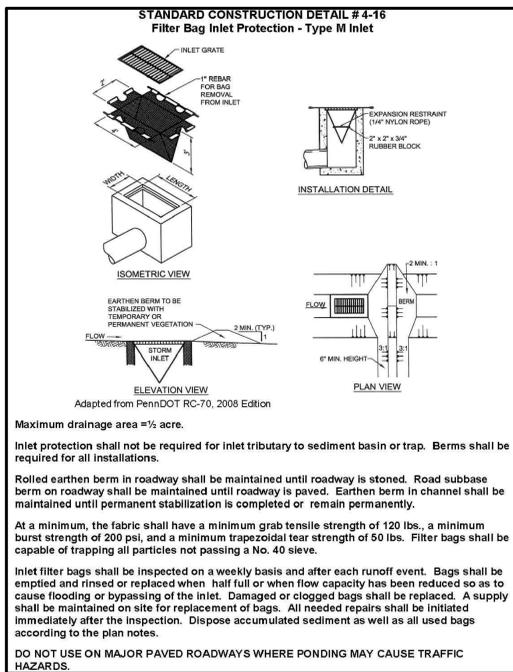
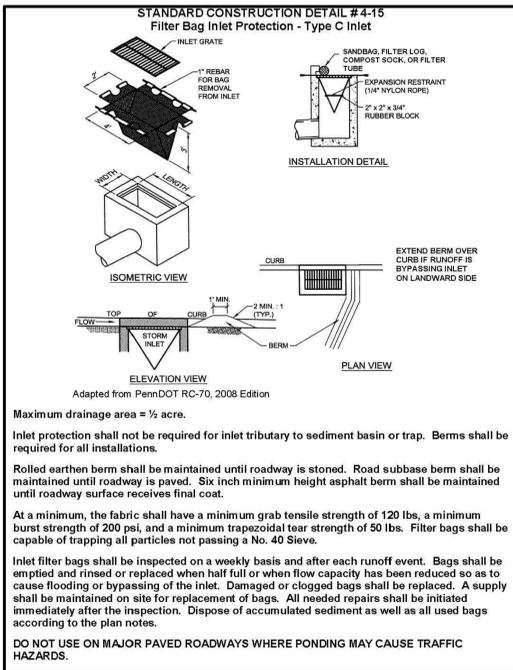


TABLE 4.1
Compost Sock Fabric Minimum Specifications

Material Type	3 mil HDPE	5 mil HDPE	5 mil HDPE	Multi-Filament Polypropylene (MFPP)	Heavy Duty Multi-Filament Polypropylene (HDMFPP)
Material Characteristics	Photo-degradable	Photo-degradable	Bio-degradable	Photo-degradable	Photo-degradable
Sock Diameters	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
Mesh Opening	3/8"	3/8"	3/8"	3/8"	1/8"
Tensile Strength		26 psi	26 psi	44 psi	202 psi
Ultraviolet Stability % Original Strength (ASTM G-155)	23% at 1000 hr.	23% at 1000 hr.		100% at 1000 hr.	100% at 1000 hr.
Minimum Functional Longevity	6 months	9 months	6 months	1 year	2 years

Two-ply systems

System	HDPE biaxial net	Continuously wound Fusion-welded junctures	3/4" X 3/4" Max. aperture size	Composite Polypropylene Fabric (Woven layer and non-woven fleece mechanically fused via needle punch)
Inner Containment Netting				
Outer Filtration Mesh				

Sock fabrics composed of burlap may be used on projects lasting 6 months or less.
Filterrexx & JMD

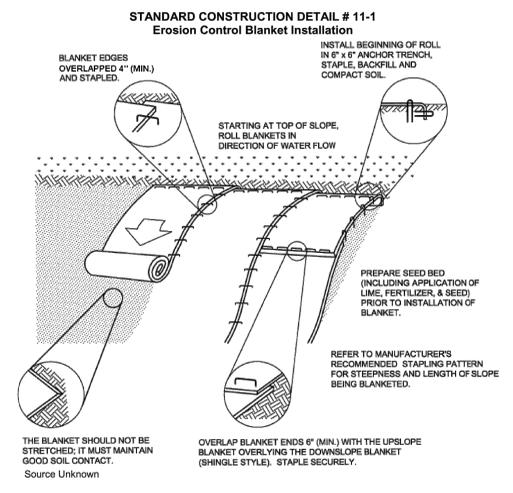
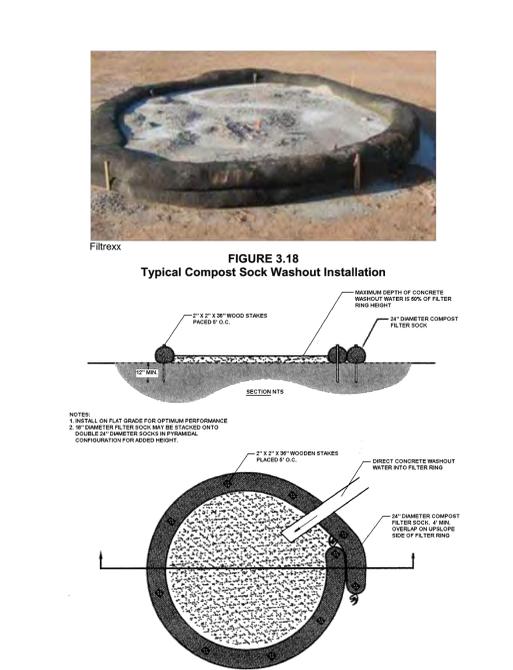
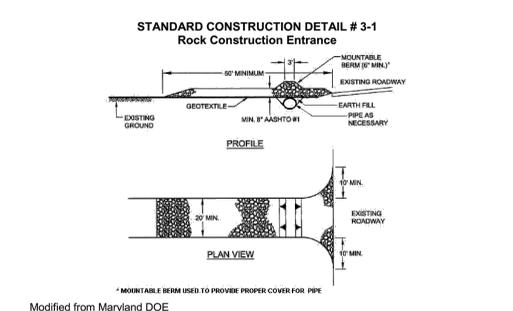
Compost should be a well decomposed, weed-free organic matter derived from agriculture, food, stump grindings, and yard or wood/bark organic matter sources. The compost should be aerobically composted. The compost should possess no objectionable odors and should be reasonably free (<1% by dry weight) of man-made foreign matter. The compost product should not resemble the raw material from which it was derived. Wood and bark chips, ground construction debris or reprocessed wood products are not acceptable as the organic component of the mix.

The physical parameters of the compost should comply with the standards in Table 4.2. The standards contained in the PennDOT Publication 408 are an acceptable alternative.

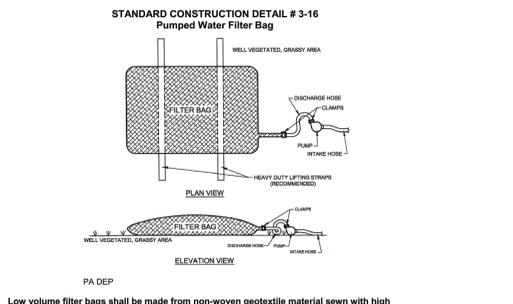
TABLE 4.2
Compost Standards

Organic Matter Content	80% - 100% (dry weight basis)
Organic Portion	Fibrous and elongated
pH	5.5 - 8.0
Moisture Content	35% - 55%
Particle Size	98% pass through 1" screen
Soluble Salt Concentration	5.0 dS/m (mmhos/cm) Maximum

Filterrexx



A suitable impervious geomembrane shall be placed at the location of the washout prior to installing the socks.
Adapted from Filterrexx



Number	Date	Revisions
	03/12/20	REVISIONS PER TWP REVIEW DATED 03/10/20

GPI VALLEY FORGE
1035 LONGFORD ROAD
PHOENIXVILLE, PA

EROSION AND SEDIMENT CONTROL DETAILS

ADVANCED GeoServices
A MONTROSE ENVIRONMENTAL GROUP COMPANY
1035 ANDREW DRIVE, SUITE #1
WEST CHESTER, PENNSYLVANIA 19380
Tel: 610.840.9100 Fax: 610.840.9199 Web: www.advancedgeoservices.com

Scale	AS SHOWN
Drawn By	RRP
Checked By	FFG
Project Mgr	DTN
Originated By	RRP
Project No.	2018-3908
Issued Date	11/19/19
Sheet No.	09 OF 07
Revision Number	0

C750

1. Pope John Paul Home Bleachers

ONECALL NOTES :



PENNSYLVANIA ACT 287, AS AMENDED BY ACT 121, REQUIRES NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE COMMONWEALTH.

ACT 287 UNDERGROUND UTILITY PROTECTION ACT, AS AMENDED BY ACT 121

McCarthy Engineering Associates, Inc. hereby states that, pursuant to the provisions of Act No. 121 of October 2008, of the Pennsylvania Legislature, it has performed the following in preparing these drawings requiring excavation or demolition work at sites within the political subdivision(s) shown on the drawings:

- PURSUANT TO SECTION 4, CLAUSE (2) OF SAID ACT, McCarthy Engineering Associates, Inc. requested from each user's office designated on such list provided by the one call system notification, the information prescribed by section 4, clause (2) of said act, not less than (10) nor more than (90) working days before final design to be completed.
- PURSUANT TO SECTION 4, CLAUSE (5) OF SAID ACT, McCarthy Engineering Associates, Inc. has met their obligations of clause (2) by calling the one call system serving the location where excavation is to be performed.
- PURSUANT TO SECTION 4, CLAUSE (3) OF SAID ACT, McCarthy Engineering Associates, Inc. has shown upon these drawings the position and type of each line, as derived pursuant to the request made as required by clause (2), the serial number provided by the one call system, the toll-free one call system phone number, and the name of the user, the user's designated office address and phone number as shown on the list referred to in section 4, clause (5) of said act.

AND McCarthy Engineering Associates, Inc. DOES NOT MAKE ANY REPRESENTATION, WARRANTY, ASSURANCE OR GUARANTEE THAT THE INFORMATION RECEIVED PURSUANT TO SAID REQUEST AND AS REFLECTED ON THESE DRAWINGS IS CORRECT OR ACCURATE, BUT McCarthy Engineering Associates, Inc. IS REFLECTING SAID INFORMATION ON THESE DRAWINGS ONLY DUE TO THE REQUIREMENTS OF THE SAID ACT NO. 121 OF OCTOBER 2008.

ONE CALL SYSTEM SERIAL NO. NOTIFICATION BY McCarthy Engineering Associates, Inc. DATE: 11/15/2018

ONE CALL SYSTEM SERIAL NUMBER: 20183131867

UNDERGROUND UTILITY USERS:
UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE AND WERE DETERMINED FROM VISIBLE LOCATION, ACT 287, AS AMENDED BY ACT 121, UTILITY RESPONSES AND/OR BEST AVAILABLE PLAN INFORMATION.

McCarthy Engineering Associates, Inc. CANNOT GUARANTEE THE EXACT LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES. AN EXACT LOCATION CAN ONLY BE OBTAINED BY SUBSURFACE EXPLORATION, WHICH IS NOT A PART OF THIS CONTRACT PERFORMANCE.

PA ONE CALL SYSTEM INFORMATION:

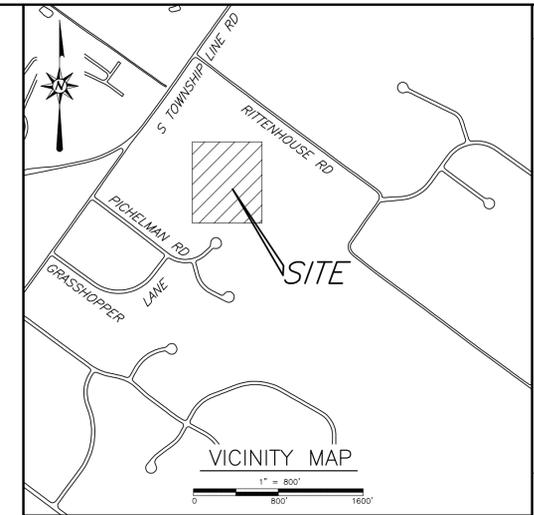
PENNSYLVANIA ACT 287, AS AMENDED BY ACT 121, REQUIRES THREE (3) WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND FIVE (5) WORKING DAYS NOTICE IN DESIGN STAGE.

PA ONE CALL PHONE NUMBER: 1-800-242-1776

AMENDED FINAL PLAN

" POPE JOHN PAUL III

STADIUM "



ZONING:	REQUIRED	EXISTING	PROPOSED
IN INSTITUTIONAL			
MINIMUM LOT AREA:	5 ACRES	92.36 ACRES	92.36 ACRES
MINIMUM LOT WIDTH (AT BUILDING LINE):	100 FT.	1,450 FT.	1,450 FT.
MAXIMUM LOT COVERAGE:	15.0%	15.0%	15.0%
MAXIMUM BUILDING HEIGHT (PRINCIPAL):	30 FT.	30 FT.	<50 FT.
SETBACK REQUIREMENTS			
MINIMUM BUILDING SETBACKS			
FROM A FEEDER OR HIGHER CLASSIFICATION ROAD, BUFFER TYPE 1A REQUIRED FOLLOWING SPECIFICATIONS IN 154-360(S) OF CHAPTER 154, SUBDIVISION AND LAND DEVELOPMENT	50 FT.	50 FT.	50 FT.
FROM A RESIDENTIAL OR VILLAGE ROAD, BUFFER TYPE 2A REQUIRED FOLLOWING SPECIFICATIONS IN 154-360(S) OF CHAPTER 154, SUBDIVISION AND LAND DEVELOPMENT	50 FT.	50 FT.	50 FT.
FROM A RESIDENTIALLY OR INSTITUTIONALLY ZONED OR DEVELOPED PROPERTY, BUFFER TYPE 3 REQUIRED FOLLOWING SPECIFICATIONS IN 154-360(S) OF CHAPTER 154, SUBDIVISION AND LAND DEVELOPMENT	45 FT.	45 FT.	45 FT.
FROM ANY OTHER PROPERTY LINE, BUFFER TYPE 2 REQUIRED FOLLOWING SPECIFICATIONS IN 154-360(S) OF CHAPTER 154, SUBDIVISION AND LAND DEVELOPMENT, EXCEPT IN THE CASE OF A UNIFIED DEVELOPMENT AND MASTER PLAN APPROVAL, IN WHICH CASE THERE IS NO SETBACK TO INTERNAL PROPERTY LINES	50 FT.	50 FT.	50 FT.
FROM INTERIOR DRIVES OR PARKING LOTS, EXCEPT IN AREAS REQUIRED FOR LOADING OR PASSENGER DROP-OFF, AND EXCEPT IN THE CASE OF A UNIFIED DEVELOPMENT AND MASTER PLAN APPROVAL, IN WHICH THERE IS NO REQUIRED SETBACK TO INTERNAL PROPERTY LINES	15 FT.	15 FT.	15 FT.
FROM ADJACENT BUILDINGS (ALL STRUCTURES CONNECTED BY COMMON ROOFLINES OR COVERED WALKWAYS SHALL BE CONSIDERED 1 BUILDING.)	DISTANCE EQUAL TO HEIGHT OF TALLER BUILDING	N/A	N/A
MINIMUM PARKING SETBACKS			
FROM A FEEDER OR HIGHER CLASSIFICATION ROAD, BUFFER TYPE 1A REQUIRED FOLLOWING SPECIFICATIONS IN 154-360(S) OF CHAPTER 154, SUBDIVISION AND LAND DEVELOPMENT	25 FT.	25 FT.	25 FT.
FROM A RESIDENTIAL OR VILLAGE ROAD, BUFFER TYPE 2A REQUIRED FOLLOWING SPECIFICATIONS IN 154-360(S) OF CHAPTER 154, SUBDIVISION AND LAND DEVELOPMENT	35 FT.	35 FT.	35 FT.
FROM A RESIDENTIALLY OR INSTITUTIONALLY ZONED OR DEVELOPED PROPERTY, BUFFER TYPE 3 REQUIRED FOLLOWING SPECIFICATIONS IN 154-360(S) OF CHAPTER 154, SUBDIVISION AND LAND DEVELOPMENT	25 FT.	25 FT.	25 FT.
FROM ANY OTHER PROPERTY LINE, BUFFER TYPE 2 REQUIRED FOLLOWING SPECIFICATIONS IN 154-360(S) OF CHAPTER 154, SUBDIVISION AND LAND DEVELOPMENT, EXCEPT IN THE CASE OF A UNIFIED DEVELOPMENT AND MASTER PLAN APPROVAL, IN WHICH THERE IS NO REQUIRED SETBACK TO INTERNAL PROPERTY LINES	25 FT.	25 FT.	25 FT.
FROM ANOTHER PARKING AREA, EXCEPT IN THE CASE OF A UNIFIED DEVELOPMENT AND MASTER PLAN APPROVAL, IN WHICH THERE IS NO REQUIRED SETBACK TO INTERNAL PROPERTY LINES	20 FT.	20 FT.	20 FT.

GENERAL NOTES:

- LOCATION OF ALL UNDERGROUND UTILITIES IS APPROXIMATE AS SHOWN HEREON. ALL LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS & ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD AT THE TIME OF THIS SURVEY. AVAILABLE MARK-OUTS & UTILITY PLANS DO NOT ENSURE UNDERGROUND UTILITY LOCATIONS.
- THE TOPOGRAPHIC INFORMATION SHOWN HEREON IS BASED ON A FIELD SURVEY PERFORMED AND PREPARED BY McCarthy Engineering in November 2018 & November 2019.
- THIS SURVEY WAS DONE WITHOUT THE BENEFIT OF A TITLE SEARCH, AND THE PROPERTIES SHOWN HEREON MAY BE SUBJECT TO EASEMENTS, RIGHT OF WAYS AND RESTRICTIONS NOT SHOWN HEREON.
- ALL LABELS FOR EXISTING FEATURES ARE SLANTED AND ALL PROPOSED FEATURES ARE STRAIGHT.
- THIS PLAN IS PREPARED FOR LAND DEVELOPMENT PURPOSES ONLY. ADDITIONAL DATA MAY BE REQUIRED FOR CONSTRUCTION.
- THE DEVELOPER IS RESPONSIBLE FOR ACQUIRING ALL NECESSARY PERMITS.
- ALL CONSTRUCTION SHALL BE SUBJECT TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE, AS ADOPTED BY THE MUNICIPALITY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL, TRENCH BARRICADING, COVERING, SHEETING AND SHORING, IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
- SOLID WASTE STORAGE, COLLECTION AND DISPOSAL IS THE RESPONSIBILITY OF THE PROPERTY OWNER.
- A.D.A. RAMPS IN ACCORDANCE WITH MUNICIPAL SPECIFICATIONS SHALL BE PROVIDED FOR ALL PEDESTRIAN CROSSINGS.
- THE PROPOSED LIGHTING FOR THIS DEVELOPMENT SHALL BE ARRANGED SO THAT IT IS NOT DIRECTED TOWARD PUBLIC STREETS AND DOES NOT ANNOY BUILDING OCCUPANTS OR SURROUNDING PROPERTIES.
- THERE ARE NO WETLANDS PRESENT ON THIS SITE.
- AREA WHICH TO BE FILLED SHALL BE COMPACTED TO A MINIMUM DENSITY OF 98% MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST (ASTM D-698) IN THE BUILDING, PAVED AND SIDEWALK AREAS, AND 92% IN OTHER AREAS.
- STRUCTURAL CALCULATIONS AND DETAILS FOR THE ELEVATED WALKWAY AND RETAINING WALLS WITH HEIGHTS GREATER THAN 4 FEET WILL BE REQUIRED TO BE SUBMITTED AND REVIEWED PRIOR TO CONSTRUCTION.

UTILITY NOTES:

- A. SANITARY SEWER SERVICE:**
- ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT RULES AND REGULATIONS OF THE UPPER PROVIDENCE TOWNSHIP, MONTGOMERY COUNTY AND DEP REGULATIONS.
 - A MINIMUM 10' HORIZONTAL CLEARANCE AND A MINIMUM 18" VERTICAL CLEARANCE BETWEEN WATER MAINS, SANITARY SEWERS MAINS AND STORM SEWERS MAINS SHALL BE PROVIDED WHERE APPLICABLE.
 - THE CONTRACTOR IS RESPONSIBLE FOR ALL FIELD TESTING AND "RECORD DRAWINGS" PER THE AUTHORITY REQUIREMENTS.

B. WATER SERVICE:

- ALL WATER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CURRENT RULES AND REGULATIONS OF THE UPPER PROVIDENCE, MONTGOMERY COUNTY AND DEP STANDARDS AND SPECIFICATIONS.
- A MINIMUM 10' HORIZONTAL CLEARANCE AND A MINIMUM 18" VERTICAL CLEARANCE BETWEEN WATER MAINS, SANITARY SEWERS MAINS AND STORM SEWERS MAINS SHALL BE PROVIDED WHERE APPLICABLE.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL FIELD TESTING AND "RECORD DRAWINGS" PER THE AUTHORITY REQUIREMENTS.

C. STORMWATER FACILITIES:

- ANY ALTERATIONS TO THE PROPOSED STORM WATER FACILITIES MUST BE APPROVED BY THE MUNICIPALITY.
- THE PROPOSED STORM WATER FACILITIES ARE TO BE OWNED AND MAINTAINED BY THE PROPERTY OWNER, THE UPPER PROVIDENCE TOWNSHIP HAS THE RIGHT, BUT NOT THE DUTY, TO ENTER THE PREMISES FOR MAINTENANCE OR REPAIR PURPOSES AT THE OWNER'S EXPENSE.
- THE PROPOSED STORM SEWER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT UPPER PROVIDENCE TOWNSHIP STANDARDS.
- THE PROPOSED STORM SEWER PIPE LENGTHS ARE FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE, AND INCLUDE LENGTH OF END SECTIONS, WHERE APPLICABLE.
- THE PROPOSED STORM SEWER SHALL BE CORRUGATED POLYETHYLENE PIPE (CPP) SMOOTH LINED, WATER TIGHT JOINTS COMPLYING WITH THE REQUIREMENTS OF ASTM D-3212 FOR HDPE PIPES.

D. OTHER UTILITIES:

- IT IS NOT THE INTENT OF THIS PLAN TO ILLUSTRATE ANY SUBSURFACE CONDITIONS SHOULD THEY EXIST, I.E. BURIED TANKS, SEEPAGE BEDS, ETC.
- ALL EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE LOCATIONS AND MUST BE VERIFIED WITH THE APPROPRIATE UTILITY COMPANY PRIOR TO ANY CONSTRUCTION OR OPERATION BEING UNDERTAKEN ON THIS SITE.
- ALL PROPOSED UTILITIES SHALL BE UNDERGROUND.

IMPERVIOUS SURFACE CALCULATION

BUILDINGS	3.95 AC.
PARKING/ACCESS	8.37 AC.
TOTAL	12.32 AC. (15.8% TOTAL LOT AREA)
WALKWAYS	1.97 AC.
SPORTS COURTS	2.13 AC.
UTILITY PADS	0.07 AC.
TOTAL	4.17 AC. (6.3% OF THE REMAINING AREA)
REMAINING AREA (LOT AREA - BUILDING AND PARKING/ACCESS AREA)	(77.97 AC. - 12.32 AC. = 65.65 AC.)
	(4.40 AC./65.65 AC.=6.7%)

AREA SUMMARY

GROSS AREA	92.357 AC.
ULTIMATE RIGHT OF WAYS FOR RITTENHOUSE ROAD, TOWNSHIP LINE ROAD, OLD MILL ROAD, AND VALLEY VIEW DRIVE.	-5.911 AC.
LAND TO BE CONVEYED OUT	-8.364 AC.
LAND TO BE ACQUIRED	+0.113 AC.
NET AREA	77.969 AC.

WETLANDS CERTIFICATION

I DO HEREBY CERTIFY THAT THE DELINEATION OF THE WETLANDS SHOWN ON THIS PLAN IS IN ACCORDANCE WITH THE FINDINGS OF MY FIELD INVESTIGATION AND THAT I HAVE DETERMINED THESE LIMITS BASED UPON THE CORPS OF ENGINEER GUIDELINES.

DATE _____ SIGNATURE _____

CERTIFICATE OF OWNERSHIP

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF MONTGOMERY

ON THE _____ DAY OF _____ BEFORE ME, THE SUBSCRIBER, A NOTARY PUBLIC OF THE COMMONWEALTH OF PENNSYLVANIA, RESIDING IN _____ PERSONALLY APPEARED _____ WHO ACKNOWLEDGED HIMSELF TO BE THE _____ OF _____ A CORPORATION, AND THAT AS SUCH HE WAS AUTHORIZED TO DO SO, HE EXECUTED THE FOREGOING PLAN BY SIGNING THE NAME OF SAID CORPORATION BY HIMSELF AS THAT SAID CORPORATION IS THE OWNER OF THE LAND SHOWN HEREON. ALL NECESSARY APPROVALS OF THIS PLAN HAVE BEEN OBTAINED AND IS ENDORSED THEREON AND SAID CORPORATION DESIRES THAT THIS PLAN BE DULY RECORDED.

NOTARY PUBLIC

MY COMMISSION EXPIRES _____, I, _____, ACKNOWLEDGE MYSELF TO BE THE _____ OF _____, A CORPORATION, AND THAT AS SUCH HE WAS AUTHORIZED TO DO SO, HEREBY CERTIFY THAT THE CORPORATION IS THE SOLE REGISTERED OWNER OF THE LAND HEREIN SUBDIVIDED AND THAT THERE ARE NO SUITS PENDING AFFECTING THE TITLE OF THE SAME AND THAT I DO HEREBY ADOPT THIS PLAN AND DESIRE THE SAME TO BE RECORDED. I DO FURTHER SAVE THE TOWNSHIP HARMLESS AND INDEMNIFY THE TOWNSHIP OF UPPER PROVIDENCE AGAINST ANY LIABILITY OR LOSS RESULTING FROM THE SUBDIVISION OR DEVELOPMENT OF THIS PLAT FOR WHATEVER REASON PRESENT OR FUTURE.

CORPORATE OFFICIAL OFFICE _____

RECORD OWNER & SOURCE OF TITLE:

GRANTEE: ARCHDIOCESE OF PHILADELPHIA
DBV: 5387, PG: 819
DEED DATED: AUGUST 6, 2001
PIN: 61-00-04459-007

DATUM:

ELEVATIONS REFER TO NAVD 88
BENCHMARK: SANITARY MANHOLE RIM LOCATED IN PARKING LOT.
ELEV: RIM 246.56

INTENDED USE:

HOME BLEACHERS, TICKET BOOTH & CONCESSION STAND SERVED BY PUBLIC SEWER & WATER

SITE ADDRESS:

181 RITTENHOUSE ROAD
ROYERSFORD, PA 19468

PLAN INDEX LIST

COVER SHEET	190112-C-SHT01	1
EXIST COND & DEMO & LAND DEVELOPMENT PLAN	190112-EL-SHT02	2
GRADING & E&S CONTROL PLAN	190112-GE-SHT03	3
DETAIL SHEET	190112-D-SHT04	4

THE ENTIRE PLAN SET SHALL BE RECORDED UPON FINAL APPROVAL

MONTGOMERY COUNTY PLANNING COMMISSION

FOR USE BY MCPC ONLY
MCPC No. _____
PROCESSED AND REVIEWED. A REPORT HAS BEEN PREPARED BY THE MONTGOMERY COUNTY PLANNING COMMISSION IN ACCORDANCE WITH THE MUNICIPALITIES PLANNING CODE.
CERTIFIED THIS _____ DAY OF _____, A.D. 2020.

FRÖ THE DIRECTOR

SURVEYOR'S CERTIFICATION	PLAN CERTIFICATION OF ACCURACY
I HEREBY CERTIFY THAT THE PLAN SHOWN AND DESCRIBED HEREON, AS WELL AS ALL OTHER DRAWINGS WHICH ARE A PART OF THIS PLAN SET, ARE TRUE AND CORRECT TO THE ACCURACY REQUIRED BY THE UPPER PROVIDENCE TOWNSHIP SUBDIVISION AND LAND DEVELOPMENT ORDINANCE AND WERE PREPARED BY ME OR UNDER MY DIRECTION, FOR WHICH I ACCEPT FULL RESPONSIBILITY, AND REPRESENT A FIELD SURVEY PERFORMED BY ME OR UNDER MY DIRECTION. THE EXISTING PERIMETER MONUMENTS SHOWN HEREON HAVE BEEN LOCATED AS PART OF THE SURVEY AND ALL OTHER PROPOSED PERIMETER MONUMENTS SHALL BE SET.	I, JAMES C MCCARTHY, A PENNSYLVANIA REGISTERED ENGINEER, HEREBY CERTIFY THAT THE SUBDIVISION AND/OR LAND DEVELOPMENT SHOWN HEREON COMPLIES WITH ALL APPLICABLE REGULATIONS INCLUDING, BUT NOT LIMITED TO, THE TOWNSHIP ZONING AND SUBDIVISION & LAND DEVELOPMENT REGULATIONS.
REA D GEHRET, PLS L.L.C. NO. SU-21352-E	JAMES C MCCARTHY, P.E. LIC NO PE-051494E
DATE _____	DATE _____
TOWNSHIP PLANNING COMMISSION CERTIFICATION	TOWNSHIP BOARD OF SUPERVISOR'S CERTIFICATION
THE PLAN HAS BEEN APPROVED BY UPPER PROVIDENCE TOWNSHIP PLANNING COMMISSION THIS _____ DAY OF _____, 2020.	THE PLAN HAS BEEN APPROVED BY UPPER PROVIDENCE TOWNSHIP BOARD OF SUPERVISORS THIS _____ DAY OF _____, 2020.
CHAIRMAN _____ ATTESTED: SECRETARY _____	CHAIRMAN _____ ATTESTED: TOWNSHIP MANAGER _____

RECORDER OF DEEDS

RECORDED IN THE OFFICE OF THE RECORDER OF DEEDS IN NORRISTOWN, PENNSYLVANIA, IN PLAN BOOK _____ PAGE _____ ON THE _____ DAY OF _____

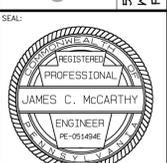
BY: _____
RECORDER OF DEEDS

REV.	DATE	DESCRIPTION
1	2/24/20	REVISED LAYOUT PER ICBA ARCHITECTS
2	6/24/20	REVISED LAYOUT PER TOWNSHIP REVIEW LETTERS

Engineering Your Success
Full Service Multi-Disciplinary Engineers & Consultants

315 East Second Street
Boyleston, PA 15102
Phone: 610.361.3140

www.McCarthy-Engineering.com
www.McCarthy-Engineering.com
Phone: 610.379.9001



AMENDED FINAL PLAN COVER SHEET

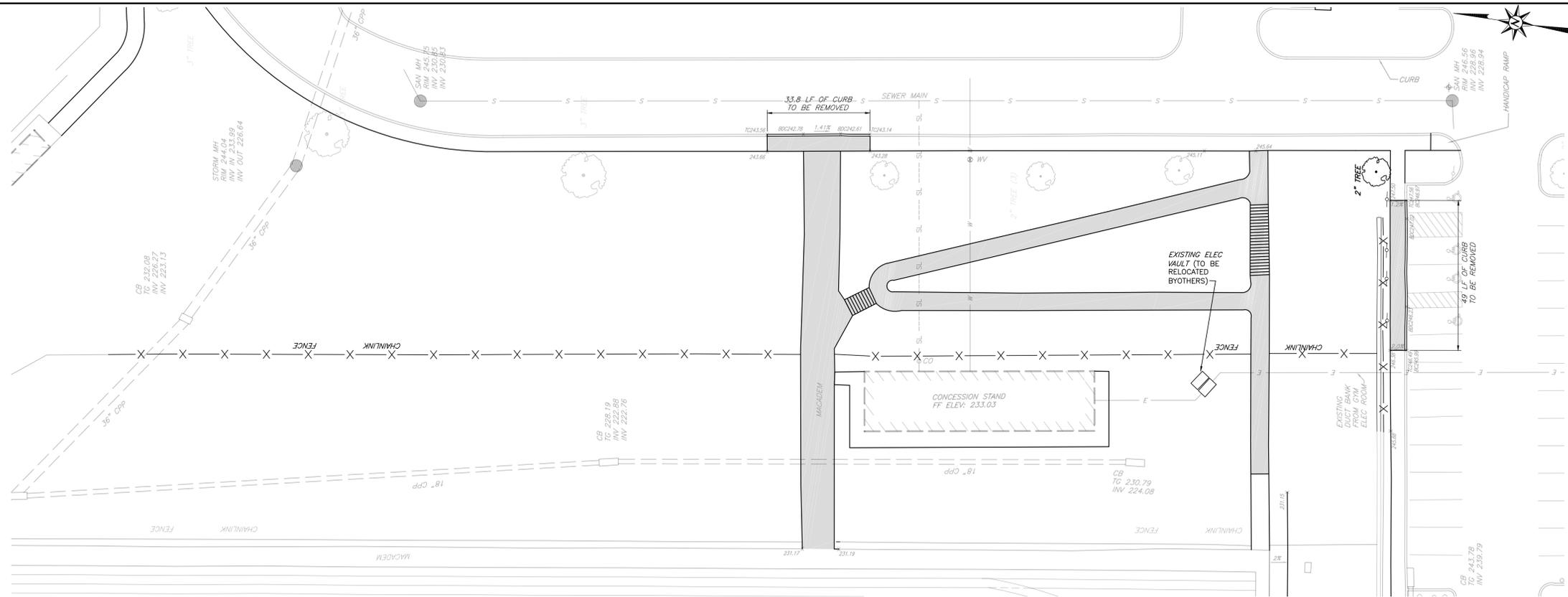
" HOME BLEACHERS "

ICBA ARCHITECTS
UPPER PROVIDENCE TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA
JANUARY 23, 2020

Client: _____
Location: _____
Date: _____

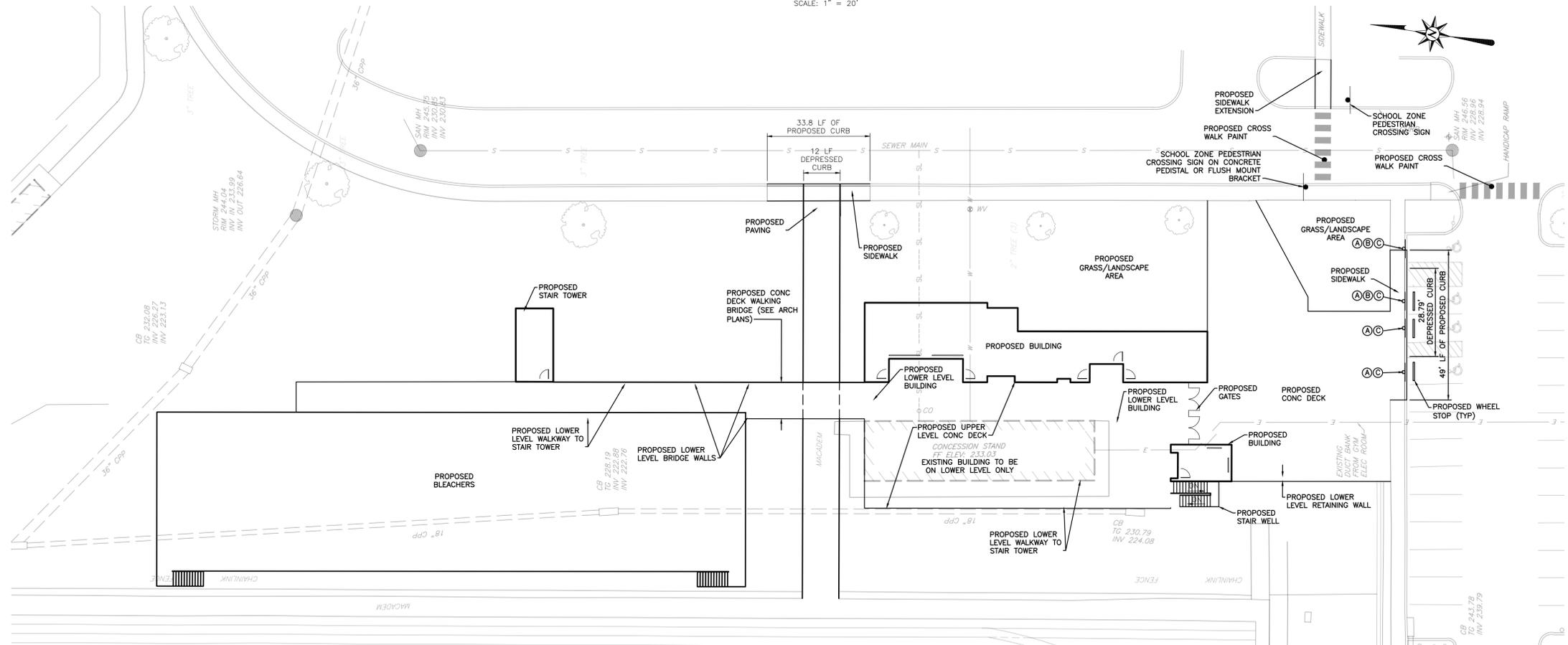
DRAWN BY: _____ PROJ. MANAGER: _____
PRINCIPAL: _____ SCALE: _____
JCM NOT TO SCALE

SHEET NO. **1 OF 4**
PLAN NO. 190112-C-SHT01



EXISTING CONDITIONS/DEMO VIEW

SCALE: 1" = 20'



PROPOSED LAYOUT VIEW

SCALE: 1" = 20'

- EXISTING CONDITIONS/DEMOLITION LEGEND:**
- s- EXISTING SANITARY SEWER & MANHOLE
 - SS- EXISTING STORM SEWER & CATCH BASIN
 - W- EXISTING WATER LINE & VALVE
 - FH- EXISTING FIRE HYDRANT
 - GL- EXISTING GAS LINE & VALVE
 - T- EXISTING TELEPHONE
 - E- EXISTING ELECTRIC
 - OW- EXISTING OVERHEAD WIRE
 - WLD- WETLAND DELINEATION
 - SE- EXISTING SPOT ELEVATION
 - CON- EXISTING CONTOURS
 - LS- EXISTING LIGHT STANDARD
 - UP- EXISTING UTILITY POLE
 - CR- EXISTING CURB
 - RR- EXISTING RIP RAP
 - FX- EXISTING FENCE TO BE REMOVED
 - PR- EXISTING PAVING TO BE REMOVED

- LAND DEVELOPMENT LEGEND:**
- s- EXISTING SANITARY SEWER & MANHOLE
 - SS- EXISTING STORM SEWER & CATCH BASIN
 - W- EXISTING WATER LINE & VALVE
 - FH- EXISTING FIRE HYDRANT
 - GL- EXISTING GAS LINE & VALVE
 - T- EXISTING TELEPHONE
 - E- EXISTING ELECTRIC
 - OW- EXISTING OVERHEAD WIRE
 - LS- EXISTING LIGHT STANDARD
 - UP- EXISTING UTILITY POLE
 - CR- EXISTING CURB
 - RR- EXISTING RIP RAP
 - FX- PROPOSED FENCE
 - PR- PROPOSED CURB
 - PS- PROPOSED SIGNS
 - A- RESERVED PARKING
 - B- VAN ACCESSIBLE
 - C- PENALTIES
 - DWS- DETECTABLE WARNING SURFACES

Revision	Date	Description
1	2/24/20	REVISED LAYOUT PER TOWNSHIP REVIEW LETTERS
2	6/24/20	REVISED LAYOUT PER KCBIA ARCHITECTS

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Full Service Multi-Disciplinary Engineers & Consultants

McCarthy Engineering

315 East Second Street
 Boyertown, PA 19512
 Phone: 610.361.3140

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 www.McCarthy-Engineering.com

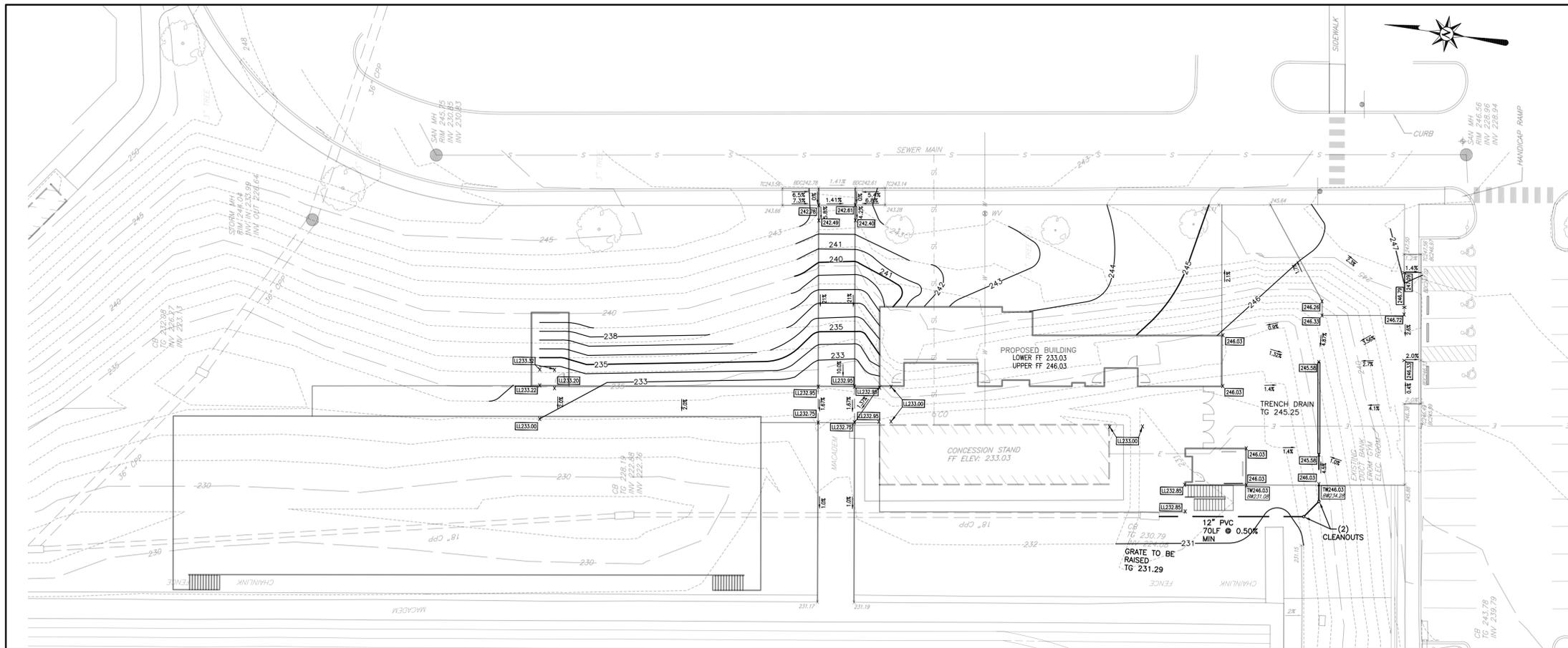


AMENDED FINAL PLAN
EXIST COND & DEMO & LAND DEVELOPMENT PLAN
"HOME BLEACHERS"

KCBA ARCHITECTS
 Location: UPPER PROVIDENCE TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA
 Date: JANUARY 23, 2020

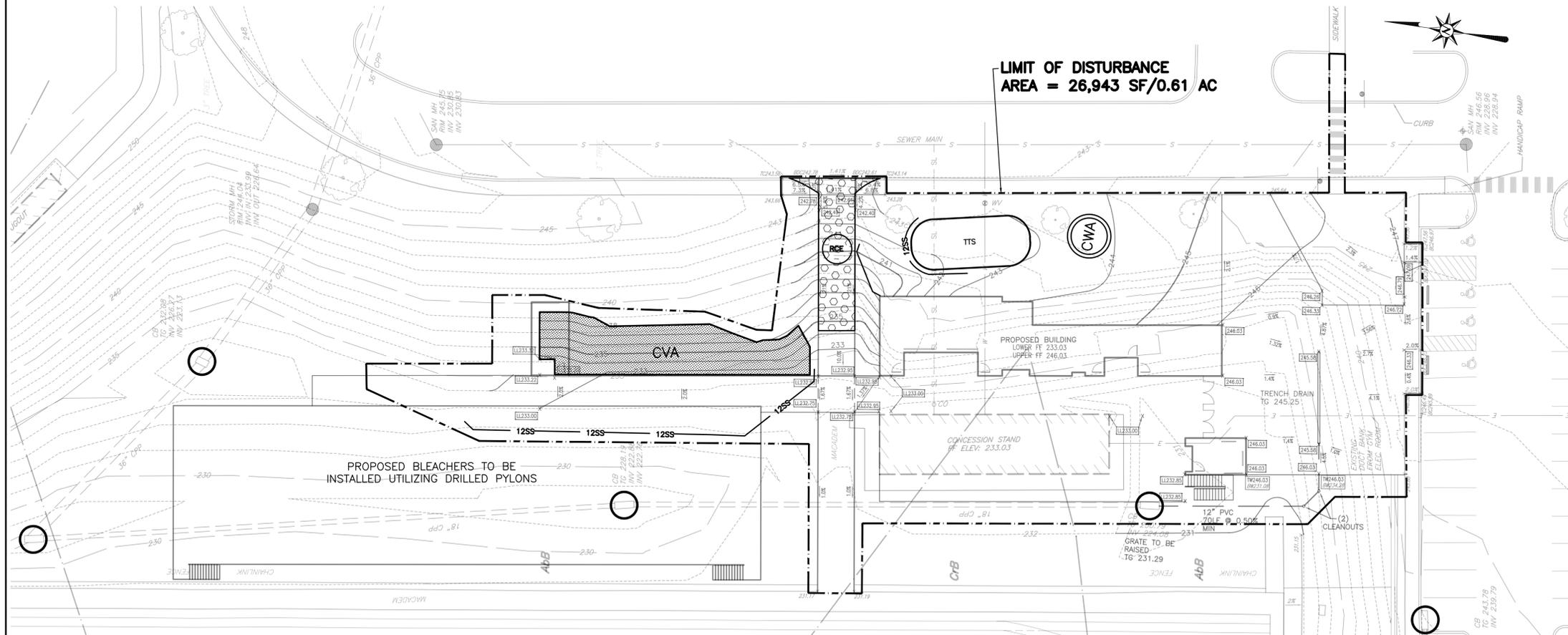
DRAWN BY:	PROJ. MANAGER:
JCM	CMB
PRINCIPAL:	SCALE:
JCM	1"=20'
SHEET NO.	
2 OF 4	
PLAN NO.	
190112-EL-SHT02	





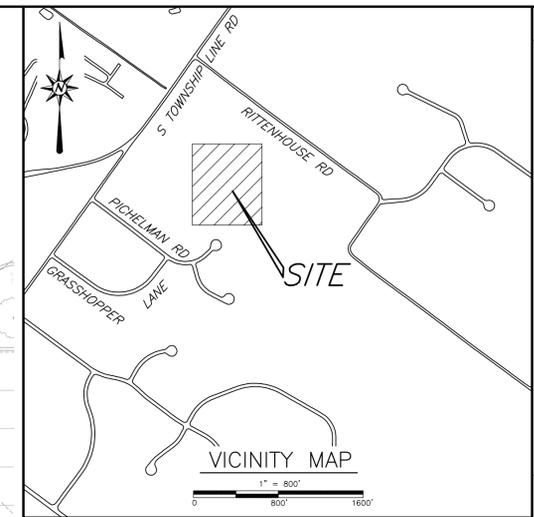
PROPOSED GRADING VIEW

SCALE: 1" = 20'



PROPOSED E&S CONTROL VIEW

SCALE: 1" = 20'



VICINITY MAP

GRADING LEGEND:

- s — EXISTING SANITARY SEWER & MANHOLE
- S — EXISTING STORM SEWER & CATCH BASIN
- S — PROPOSED STORM SEWER & CATCH BASIN
- J — PROPOSED JUNCTION BOX
- W — EXISTING WATER LINE & VALVE
- F — EXISTING FIRE HYDRANT
- G — EXISTING GAS LINE & VALVE
- T — EXISTING TELEPHONE
- E — EXISTING ELECTRIC
- E — EXISTING OVERHEAD WIRE
- W — WETLAND DELINEATION
- 451.25 — EXISTING SPOT ELEVATION
- 451.25 — PROPOSED SPOT ELEVATION
- 451.25 — PROPOSED LOWER LEVEL SPOT ELEVATION
- 450 — EXISTING CONTOURS
- 446 — PROPOSED CONTOURS
- U — EXISTING LIGHT STANDARD
- U — EXISTING UTILITY POLE
- C — EXISTING CURB
- R — EXISTING RIP RAP
- X — PROPOSED FENCE
- C — PROPOSED CURB

E & S CONTROL LEGEND:

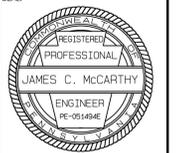
- F — 12" COMPOST FILTER SOCK
- S — SOIL LINE
- L — LIMIT OF DISTURBANCE
- R — ROCK CONSTRUCTION ENTRANCE
- T — TEMPORARY TOPSOIL STOCKPILE
- C — STORM INLET PROTECTION AND BERM(S)
- V — CRITICAL VEGETATIVE AREA (C.V.A.)
- E — EAST COAST EROSION CONTROL BLANKET ECSC-2 MATTING OR EQUAL (TO BE USED ON ALL SLOPES 3:1 AND STEEPER)

SITE LEGEND:

- s — EXISTING SANITARY SEWER & MANHOLE
- S — EXISTING STORM SEWER & CATCH BASIN
- S — PROPOSED STORM SEWER & CATCH BASIN
- J — PROPOSED JUNCTION BOX
- W — EXISTING WATER LINE & VALVE
- F — EXISTING FIRE HYDRANT
- G — EXISTING GAS LINE & VALVE
- T — PROPOSED ELECTRIC
- E — EXISTING ELECTRIC
- U — EXISTING LIGHT STANDARD
- U — EXISTING UTILITY POLE
- C — EXISTING CURB
- C — PROPOSED CURB & CURB TRANSITION
- R — EXISTING RIP RAP

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AMENDED FINAL PLAN
GRADING & E&S CONTROL PLAN
"HOME BLEACHERS"
 KCBA ARCHITECTS
 Client: KCBA ARCHITECTS
 Location: UPPER PROVIDENCE TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA
 Date: JANUARY 23, 2020

DRAWN BY:	PROJ. MANAGER:
JCM	CMB
PRINCIPAL:	SCALE:
JCM	1"=20'
SHEET NO.	PLAN NO.
3 OF 4	190112-GE-SHT03





GILMORE & ASSOCIATES, INC.
ENGINEERING & CONSULTING SERVICES

June 29, 2020

File No: 20-02066T

Mr. Geoff Grace, Zoning Officer / Director of Planning
Upper Providence Township
1286 Black Rock Road
P.O. Box 406
Oaks, PA 19456

Reference: Pope John Paul II High School Stadium
Amended Final Plan Review
Twp. Plan #5006-0358-0002 LD

Dear Geoff:

In accordance with the Township's request, we have reviewed the amended final plan for Pope John Paul II Stadium. The review consisted of a four (4) sheets, titled "Amended Final Plan "Pope John Paul II Stadium,"" dated January 23, 2020, last revised June 24, 2020, prepared by McCarthy Engineering. This plan is being reviewed as an amended final plan submission. The subject property is located on Rittenhouse Road at the south east corner of Township Line Road. The site is currently a high school with an athletic field without lights. The proposal is to add a new concrete deck, building, and bleachers at the existing athletic field.

The plans as submitted are acceptable.

Should you have any questions please contact our office.

Very truly yours,

William K. Dingman, P.E.
Gilmore & Associates, Inc.

cc: Board of Supervisors (internally distributed by the Township)
Planning Commission (internally distributed by the Township)
Bryan Bortnichak – Assistant Township Manager (email)
Joseph Bresnan, Esquire – Township Solicitor (email)
Casey A. Moore, P.E., McMahon Associates (email)
Craig Bonenberger – McCarthy Engineering (email)
Carly Fenske, Esquire. – Applicant's Attorney (email)

184 West Main Street | Suite 300 | Trappe, PA 19426 | Phone: 610-489-4949 | Fax: 610-489-8447



McMAHON ASSOCIATES, INC.
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Fort Washington, PA 19034
p 215-283-9444 | f 215-283-9446

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Jason T. Adams, P.E., PTOE
Christopher K. Bauer, P.E., PTOE
Mark A. Roth, P.E.
John R. Wichner, P.E., PTOE

FOUNDER

Joseph W. McMahon, P.E.

August 4, 2020

Mr. Geoffrey Grace
Director of Planning and Zoning
Upper Providence Township
P.O. Box 406
Oaks, PA 19456

RE: **Traffic Engineering Review #2 – Amended Final Plan**
Pope John Paul II Stadium Modifications
Upper Providence Township, Montgomery County, PA
McMahon Project No. 820219.11
Township Escrow No. 358

Dear Geoff:

As requested, on behalf of Upper Providence Township, McMahon Associates, Inc. has completed our second (2nd) traffic engineering review of the site modifications for the addition of bleachers to be added to the Pope John Paul II High School stadium in Upper Providence Township, Montgomery County, PA. The proposed site modifications will consist of installing bleachers, an approximate 13,000 square-foot concrete pad to be used for entry to the stadium, and accessory buildings, while modifying existing walkway(s) to/from the existing field. Access to the overall site will continue to be provided via the existing site driveways along Rittenhouse Road and Township Line Road.

The following documents were reviewed in preparation of our review:

- Amended Final Land Development Plans for Pope John Paul II Stadium, prepared by McCarthy Engineering Associates, Inc., last revised June 24, 2020.
- Response to Comments Letter – Pope John Paul II Amended Final Plan, prepared by McCarthy Engineering Associates, Inc., dated June 24, 2020.

Based on our review of the submitted documents noted above and coordination with the applicant's engineer, McMahon has no further traffic-related comments pertaining to the land development plans that need to be addressed at this time, and find the plans to be satisfactory for action and the acceptance by the Board of Supervisors.

Mr. Geoffrey Grace

August 4, 2020

Page 2 of 2

We trust that this review letter responds to your request and satisfactorily addresses the traffic issues that are related to the proposed development apparent to us at this time. If you or the Township have any questions, or require clarification, please contact me or Anthony Valencia, Project Manager, at 610.594.9995.

Sincerely,



Casey A. Moore, P.E.

Executive Vice President – Corporate Operations

BMJ/CAM/AV

cc: Bryan Bortnichak – Assistant Township Manager
Bill Dingman, P.E. – Township Engineer
Joseph Bresnan, Esquire – Township Solicitor
Board of Supervisors (internally distributed by the Township)
Planning Commission (internally distributed by the Township)
Kevin Chavous – Montgomery County Planning Commission
James McCarthy, P.E. – McCarthy Engineering Associates, Inc. (Applicant's Engineer)