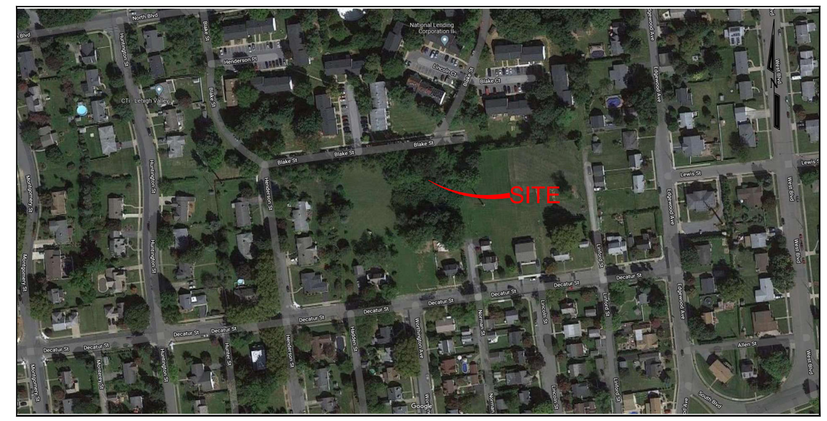
BLAKE STREET APARTMENTS

BLAKE STREET & NORMAN STREET
CITY OF BETHLEHEM
NORTHAMPTON COUNTY, PA

AREA MAP



AERIAL MAP

DRAWING INDEX

SHEET NO.		TITLE
CV	1 OF 6	COVER SHEET
EC	2 OF 6	EXISTING CONDITIONS
SP	3 OF 6	SITE PLAN
GU	4 OF 6	GRADING, UTILITY AND LANDSCAPE PLAN
CD1	5 OF 6	CONSTRUCTION DETAILS 1
CD 2	6 OF 6	CONSTRUCTION DETAILS 2
ES1	1 OF 2	EROSION & SEDIMENTATION CONTROL PLAN
ES2	2 OF 2	EROSION & SEDIMENTATION CONTROL NOTES AND DETAILS

LANDSCAPE AND LIGHTING PLAN BY BROWN DESIGN GROUP

STATEMENT OF INTENT

THE APPLICANT INTENDS TO REVERSE-SUBDIVIDE THE SUBJECT PROPERTY TO CREATE ONE INDIVIDUAL BUILDING LOT INTENDED FOR THE CONSTRUCTION OF A EIGHT 2-BEDROOM APARTMENT UNITS WITH AN ASSOCIATED DRIVEWAY AND PARKING AREA, UTILITY SERVICE CONNECTIONS, PUBLIC SIDEWALK, STREET TREES, AND RELATED IMPROVEMENTS AND SITE GRADING, ALL AS DEPICTED HEREIN.

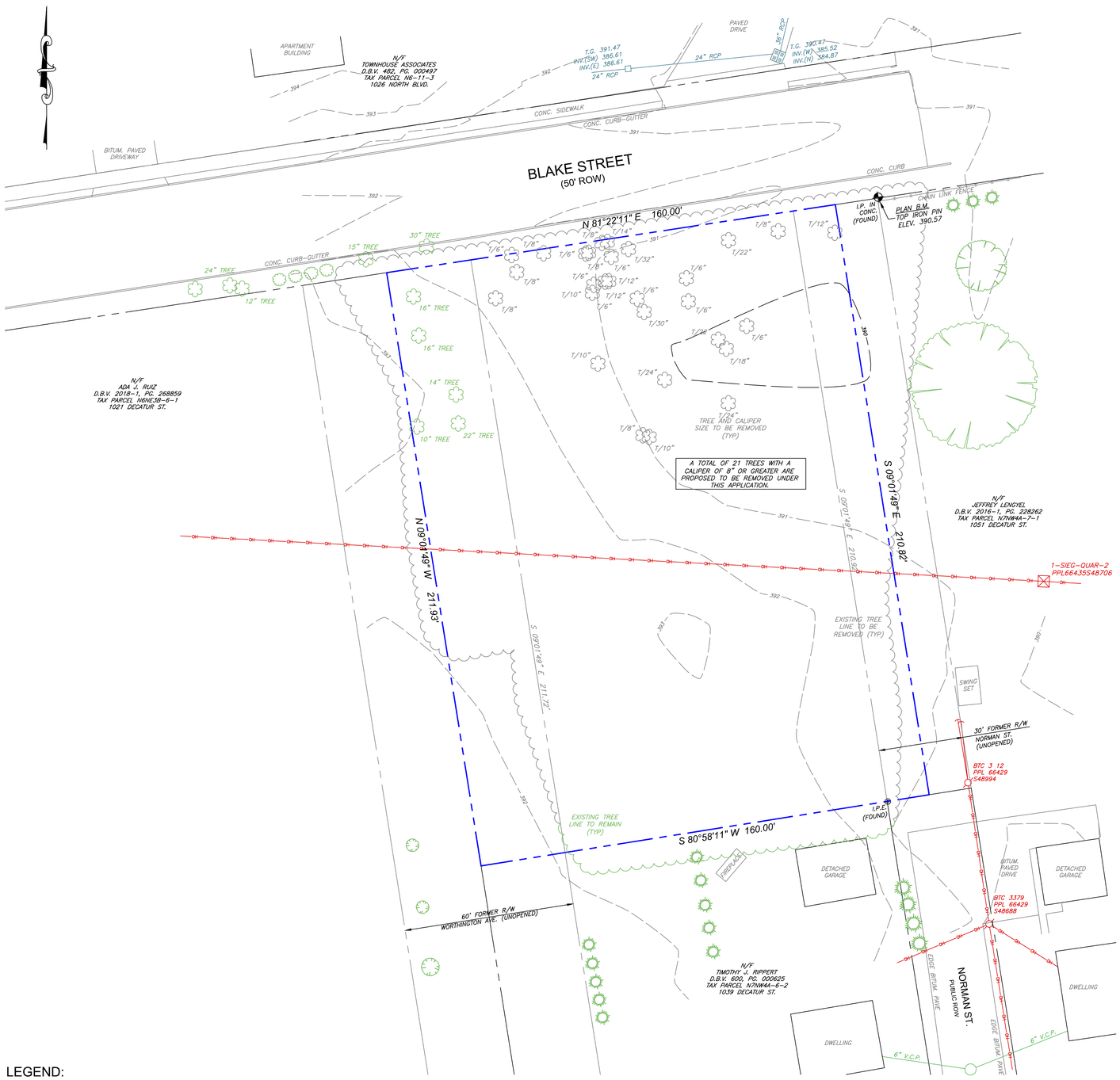
APPLICANT

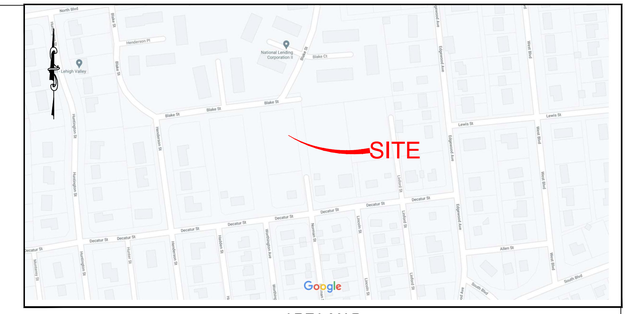
BLAKE STREET PROPERTIES, LLC
910 14th AVENUE
BETHLEHEM, PA 18018
610-317-9070

BLAKE STREET APARTMENTS
SHEET No: CV
1 OF 6
DATE - NOVEMBER 19, 2021
REVISION 1 - MAY 11, 2022
PROJECT No. 21059

KNOW WHAT'S BELOW CALL BEFORE YOU DIG!
PENNSYLVANIA ACT 287 OF 1974 (AS AMENDED) REQUIRES 3 WORKING DAYS NOTICE FOR EXCAVATION PHASE AND 10 WORKING DAYS IN DESIGN STAGE – STOP! CALL!
PENNSYLVANIA ONE CALL SYSTEM, INC.
1–800 242–1776 or 811 PA
ONE–CALL SERIAL No.
20190521671

4340 CREEK ROAD
ALLENTOWN, PA 18104
(610) 297-2868
rmcengineer@hotmail.com
www.boloeng.com
BOLO ENGINEERING, LLC
CIVIL & CONSULTING ENGINEERS





AREA MAP

GENERAL NOTES:

1. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS FROM A FIELD SURVEY COMPLETED BY KEYSTONE CONSULTING ENGINEERS INC. ON FEBRUARY 15, 2019 USING SPECTRA SP80 GPS WITH KEYNET AND A TRIMBLE S5 ROBOTIC TOTAL STATION. BOLO ENGINEERING IS NOT RESPONSIBLE FOR THE ACCURACY OF THE BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON.
2. PROPERTY BOUNDARIES DEPICTED HEREIN AND ANNOTATED WITH BEARING ANGLES, DISTANCES, OR CURVE DATA DENOTE BOUNDARIES MEASURED BY THIS SURVEY. PROPERTY BOUNDARIES WITHOUT GEOMETRIC ANNOTATION MAY HAVE BEEN PLOTTED USING RECORD INFORMATION AND ARE INTENDED FOR GENERAL SITE ORIENTATION PURPOSES ONLY.
3. HORIZONTAL BEARING ANGLES AND COORDINATES CONTAINED HEREIN ARE BASED ON THE PA SOUTH ZONE STATE PLANE COORDINATE SYSTEM IN US FEET. DISTANCES ANNOTATED HEREIN REPRESENT GROUND MEASUREMENTS (NO GRID SCALE FACTOR HAS BEEN APPLIED).
4. PLAN REFERENCES: "PLAN OF LINCOLN PARK UNIT NO. 2", PREPARED BY G. EDWIN PIDCOCK CO., DATED NOVEMBER 14, 1939, LAST REVISED SEPTEMBER 25, 1940, AND RECORDED IN THE NORTHAMPTON COUNTY RECORDER OF DEEDS OFFICE IN MAP BOOK VOLUME 11 PAGE 38.
5. RESEARCH HAS BEEN PERFORMED AT NORTHAMPTON COUNTY COURTHOUSE AND THE CITY OF BETHLEHEM WITHIN THE REASONABLE STANDARD OF CARE. NO NEW ROAD DEDICATIONS, VACATIONS OR EASEMENTS WERE FOUND DURING THE RESEARCH PROCESS. THIS SURVEY AND PLAN HAS BEEN PREPARED WITHOUT THE BENEFIT OF A TITLE SEARCH AND IS THEREFORE SUBJECT TO ANY EASEMENTS OR OTHER PERTINENT FACTS WHICH SUCH MIGHT DISCLOSE.
6. ANY INFORMATION APPEARING ON THESE DRAWINGS AS TO THE UNDERGROUND UTILITY LINES HAS BEEN DEVELOPED FROM ABOVE-GROUND EXAMINATIONS OF THE SITE. THE CONTRACTOR, WITHIN THREE DAYS OF THE START OF CONSTRUCTION, SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH PA ACT NO. 287 (1-800-242-1776).
7. ANY FILL BEING UTILIZED FOR CONSTRUCTION ON THIS SITE SHALL BE OBTAINED FROM A SITE THAT HAS AN APPROVED E&SPC PLAN.
8. ANY PROPOSED ELECTRIC, GAS, TELEPHONE AND CATV SERVICE LINES SHALL BE LOCATED UNDERGROUND.
9. ALL SOILS EXCAVATED FROM THE PROPOSED CONSTRUCTION WILL BE DISPERSED ON-SITE OR TAKEN TO AN APPROVED SITE.
10. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF BETHLEHEM, NORTHAMPTON COUNTY, PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND PENNSYLVANIA DEPARTMENT OF TRANSPORTATION STANDARDS AND REGULATION AS APPLICABLE.
11. CONTRACTOR SHALL VERIFY LOCATIONS OF ANY AND ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH PA ACT 121 PRIOR TO ANY EXCAVATION. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER IN THE EVENT THAT A CONFLICT IS DISCOVERED.
12. PROPOSED ELEVATION CONTOUR LINES DEPICTED ON THIS PLAN REPRESENT FINAL GRADES AT THE COMPLETION OF CONSTRUCTION. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES DURING CONSTRUCTION TO PREVENT THE PONDING OF WATER ON THE SITE.
13. CONTRACTOR SHALL DEWATER AND OTHERWISE MAINTAIN UTILITY TRENCHES AND OTHER EXCAVATIONS FREE OF WATER (GROUND WATER AND SURFACE WATER) AT ALL TIMES USING A PUMPED WATER FILTER BAG OR OTHER APPROVED METHODS (REFER TO PUMPED WATER FILTER BAG DETAIL ON E&S POLLUTION CONTROL DETAILS PLAN). ADDITIONALLY, CONTRACTOR SHALL PROPERLY GRADE ADJACENT AREAS AND TAKE ANY OTHER REASONABLE PRECAUTIONS NECESSARY TO PREVENT WATER FROM ENTERING EXCAVATIONS.
14. IF CONTRACTOR ENCOUNTERS SOFT OR SATURATED SOILS DEEMED UNSUITABLE BY THE PROJECT ENGINEER DURING CONSTRUCTION, CONTRACTOR SHALL EXCAVATE, REMOVE, AND REPLACE ANY SUCH UNSUITABLE MATERIAL WITH COMPACTED CLEAN FILL OR AGGREGATE MATERIAL AS DIRECTED BY THE PROJECT ENGINEER.
15. WHERE PLACEMENT OF FILL BENEATH SETTLEMENT SENSITIVE STRUCTURES (E.G. BUILDING PADS, PARKING LOTS, UTILITY AND STORM SEWERS LINES, AND RELATED STRUCTURES) IS NECESSARY TO ACHIEVE DESIRED SUBGRADE, CONTRACTOR SHALL PLACE AND COMPACT APPROPRIATE FILL MATERIAL IN MAXIMUM 8-INCH LIFTS TO A MINIMUM OF 95% OF THE MODIFIED PROCTOR DENSITY OF THE MATERIAL (98% FOR BUILDING PADS) OR AS OTHERWISE DIRECTED BY THE GEOTECHNICAL ENGINEER.
16. SPOT ELEVATIONS AND CONTOUR LINES CONTAINED HEREIN ARE BASED ON GPS OBSERVATIONS USING A TRIMBLE R-8 GPS WITH KEYNET AND ARE ACCURATE WITHIN 0.15' OF THE U.S.G.S. NORTH AMERICAN VERTICAL DATUM OF 1988.
17. LOCATIONS OF WATER AND SANITARY SEWER LATERALS AS DEPICTED HEREIN ARE APPROXIMATE AND COULD BE SUBJECT TO FIELD ADJUSTMENT.
18. PRIOR TO ANY WORK WITHIN PUBLIC RIGHTS-OF-WAY, PERMITS MUST BE OBTAINED FROM THE CITY OF BETHLEHEM ENGINEERING OFFICE AND/OR PENNDOT, AS APPLICABLE.
19. ANY AND ALL SITE IMPROVEMENTS PROPOSED HEREIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF BETHLEHEM AND/OR PENNDOT CONSTRUCTION STANDARDS IN EFFECT AT THE TIME OF SUBDIVISION AND/OR PENNDOT HIGHWAY OCCUPANCY PERMIT APPROVAL, AS APPLICABLE.
20. BUILDING DESIGN, MATERIALS, AND CONSTRUCTION FOR THE PROPOSED BUILDINGS SHALL MEET OR EXCEED INTERNATIONAL BUILDING CODE STANDARDS, LATEST EDITION.
21. EXISTING NATURAL SLOPES ACROSS THE SUBJECT PROPERTY RANGES FROM 1 TO 5 PERCENT.
22. PROPERTY OWNER(S) THEIR HEIRS, SUCCESSORS, AND ASSIGNS SHALL BE PERPETUALLY RESPONSIBLE TO MAINTAIN EXISTING AND PROPOSED EASEMENTS LOCATED ON THEIR RESPECTIVE PROPERTIES IN A GRASSED OR OTHERWISE IMPROVED CONDITION IN ACCORDANCE WITH THE GRADES AND DESIGNS INDICATED ON THE APPROVED LAND DEVELOPMENT PLANS FOR THE PROJECT. DRAINAGE EASEMENTS PROVIDE FOR THE FLOW OF STORMWATER ACROSS LOTS AND MAY NOT BE ALTERED WITHOUT WRITTEN PERMISSION OF THE CITY ENGINEER. NO OBSTRUCTIONS SUCH AS PLANTING BERMS OR FENCES, OTHER THAN THOSE DEPICTED HEREIN, MAY BE INSTALLED IN DRAINAGE EASEMENTS WITHOUT MAKING SUFFICIENT PROVISIONS FOR THE PASSAGE OF STORMWATER. ANY SUCH PROPOSED PROVISIONS SHALL BE APPROVED IN WRITING BY THE CITY ENGINEER. IT IS INTENDED THAT THE MAINTENANCE RESPONSIBILITIES IMPOSED HEREUNDER SHALL BE A COVENANT RUNNING WITH THE LAND AND ENFORCEABLE AGAINST ALL FUTURE OWNERS.
23. BY SUBMISSION OF THESE PLANS, THE ENGINEER OF RECORD CERTIFIES THAT THESE PLANS ARE IN COMPLETE CONFORMANCE WITH THE CITY OF BETHLEHEM STORM WATER MANAGEMENT ORDINANCE.
24. ACCURATE AS-BUILT PLANS SHALL BE KEPT CURRENT DURING THE CONSTRUCTION PROCESS. AT THE COMPLETION OF THE PROJECT, RECORD DRAWINGS SHALL BE PREPARED FROM AS-BUILT PLANS AND SUBMITTED TO THE CITY ENGINEER'S OFFICE. ALL FINAL DRAWINGS SHALL SHOW NORTH AMERICAN DATUM (NAD) 1983 STATE PLANE COORDINATES IN FEET (PA SOUTH, FIPS ZONE 3702) AND THE DIGITAL FILE SHALL BE IN STATE PLANE FEET COORDINATES AS APPLICABLE. HARD COPIES OF RECORD DRAWINGS SHALL BE IN THE FORM OF MYLAR COPIES. THE ENGINEER OF RECORD SHALL CERTIFY (i.e. P.E. STAMPED AND SIGNED) THAT THE RECORD DRAWINGS COMPLY SUBSTANTIALLY WITH THE APPROVED PLANS AND THAT THEY CONFORM TO INDUSTRY STANDARDS. ALL DIGITAL FILES SHALL RESIDE ON A PC COMPATIBLE CD-ROM CONTAINING THE DIGITAL REPRESENTATION OF THE FINAL PLAN AS PRESENTED ON TWENTY-FOUR BY THIRTY-SIX INCH SHEETS. DIGITAL PLANS SHALL BE AUTOCAD COMPATIBLE. ALL DRAWING LAYERS INCLUDED IN THE DIGITAL PLANS SHALL BE THE STANDARDIZED LAYERS PREPARED AND UTILIZED BY THE CITY OF BETHLEHEM TO ENSURE COMPATIBILITY WITH THE CITY'S EXISTING CAD STANDARDS AND AS DESCRIBED IN APPENDIX A OF THE CITY'S SUBDIVISION AND LAND DEVELOPMENT ORDINANCE. THE CITY'S EXISTING CADD STANDARDS MUST BE REVIEWED AND REVISED TO BE COMPATIBLE WITH THE CITY'S CURRENT GIS SYSTEM AND STANDARDS.
25. REQUIRED 2.5-FOOT MINIMUM SETBACKS BETWEEN DRIVEWAYS AND SIDE LOT LINES SHALL BE MAINTAINED IN VEGETATION IN ACCORDANCE WITH SECTION 1319.02.g(4) OF THE CITY OF BETHLEHEM ZONING ORDINANCE.

SITE DATA

RECORD OWNER: BLAKE STREET PROPERTIES, LLC
PROPERTY ADDRESS: 778 WORTHINGTON AVENUE
TAX MAP REFERENCE.: N7NW4A-6-1
DEED REFERENCE: D.B.V. 242, PG. 162
EX LOT AREA (BY SURVEY): 33,747 S.F. (0.7747 AC.)
CITY WARD/BLOCK: 14/76
ZONING CLASSIFICATION: MEDIUM DENSITY RESIDENTIAL (RG)
CITY OF BETHLEHEM SANITARY SEWER: CITY OF BETHLEHEM
EX EXISTING/PROPOSED LOTS: 1/1

LEGEND:

- EXISTING BOUNDARY
- EXISTING CONTOUR
- EXISTING 5' CONTOUR
- EXISTING CURB
- EXISTING BUILDING
- EXISTING DRIVEWAY
- EXISTING FENCE
- EXISTING BUILDING SETBACK
- EXISTING OVERHEAD ELECTRIC
- EXISTING SEWER LINE
- EXISTING ADJACENT LOT LINES
- EXISTING EASEMENT
- EXISTING STORM SEWER
- EXISTING UTILITY POLE
- EXISTING SANITARY MANHOLE
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING SOIL LIMITS

KNOW WHAT'S BELOW CALL BEFORE YOU DIG!

PENNSYLVANIA ACT 287 OF 1974 (AS AMENDED) REQUIRES 3 WORKING DAYS NOTICE FOR EXCAVATION PHASE AND 10 WORKING DAYS IN DESIGN STAGE – STOP! CALL!
PENNSYLVANIA ONE CALL SYSTEM, INC.
1-800 242-1776 or 811 PA
ONE-CALL SERIAL No.
20190521671

APPLICANT

BLAKE STREET PROPERTIES, LLC
910 14th AVENUE
BETHLEHEM, PA 18018
610-317-9070

0 10 20 60
SCALE : 1"= 20'

Rev.	Date	Comment	Int.
1	05/11/22	PER TOWNSHIP AND NCCD COMMENTS	RC

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
RODERICK M. CHIRUMBOLO
ENGINEER
No. PE-075093

RODERICK M. CHIRUMBOLO
PE-075093

BOLO ENGINEERING, LLC

CIVIL & CONSULTING ENGINEERS
4340 CREEK ROAD
ALLENTOWN, PA 18104
(610) 297-2868
rmcengineer@hotmail.com

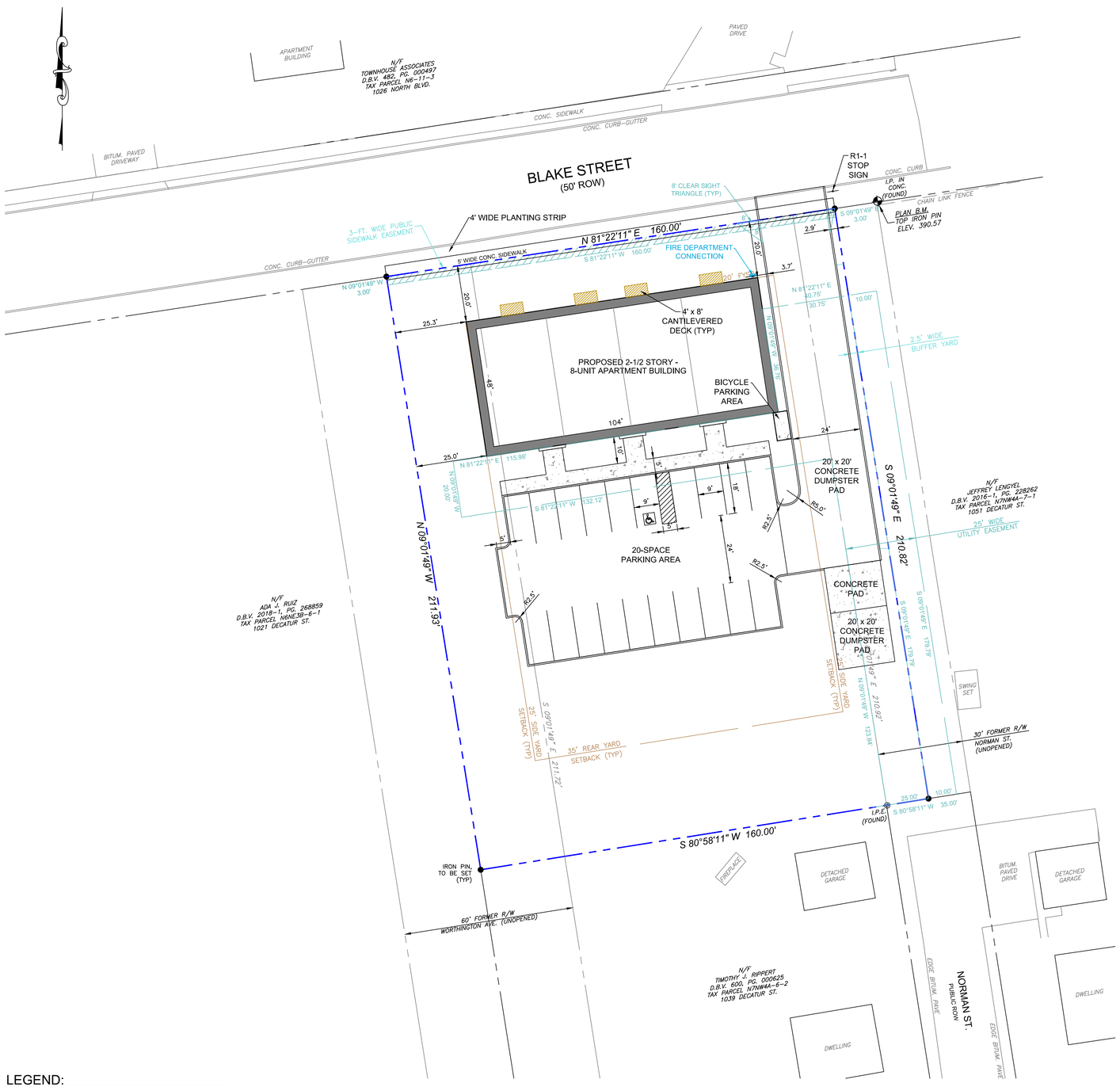
Title: BLAKE STREET APARTMENTS
BLAKE STREET AND NORMAN STREET
CITY OF BETHLEHEM, PA

EXISTING CONDITIONS

Date: NOVEMBER 19, 2021

Plan Scale: 1"=20' | Project No.21059

Sheet No. EC (2 OF 6)



SITE DATA

RECORD OWNER: BLAKE STREET PROPERTIES, LLC
PROPERTY ADDRESS: 778 WORTHINGTON AVENUE
TAX MAP REFERENCE:: N7NW4A-6-1
DEED REFERENCE: D.B.V. 242, PG. 162
EX LOT AREA (BY SURVEY): 33,747 S.F. (0.7747 AC.)
CITY WARD/BLOCK: 14/76
ZONING CLASSIFICATION: SINGLE-FAMILY RESIDENTIAL (RS)
CITY OF BETHLEHEM SANITARY SEWER: CITY OF BETHLEHEM
EX EXISTING/PROPOSED LOTS: 1/1

BUFFER NOTES

1. EXISTING VEGETATION TO THE REAR OF THE SUBJECT PROPERTY SOUTH OF THE LIMIT OF TREE CLEARING DELINEATED ON PLAN SHEETS SHALL BE PRESERVED IN PERPETUITY.
2. IF AFOREMENTIONED EXISTING VEGETATION IS REMOVED, DAMAGED, OR OTHERWISE DISTURBED DURING OR FOLLOWING CONSTRUCTION (EXCEPT DUE TO PRUNING, GROUND CLEARING, SELECTIVE TREE REMOVAL, OR OTHER ACTIVITIES AS NECESSARY TO MAINTAIN THE HEALTH OF THE REMAINING VEGETATION), PROPERTY OWNER(S) WILL BE RESPONSIBLE TO INSTALL MINIMUM SIX-FOOT HIGH SOLID WOOD OR VINYL FENCING ALONG THE EXTERIOR PERIMETER OF THEIR RESPECTIVE PROPERTIES.
3. LANGUAGE REFLECTING THE ABOVE RESTRICTIONS AND RESPONSIBILITIES RELATED TO THE PRESERVATION OF EXISTING VEGETATION SHALL APPEAR IN THE DEEDS OF RECORD FOR THE SUBJECT PROPERTIES. COPIES OF WHICH SHALL BE SUBMITTED TO THE CITY OF BETHLEHEM LEGAL BUREAU FOR REVIEW AND APPROVAL PRIOR TO RECORDING.

GENERAL NOTES:

1. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS FROM A FIELD SURVEY COMPLETED BY KEYSTONE CONSULTING ENGINEERS INC. ON FEBRUARY 15, 2019 USING SPECTRA SP80 GPS WITH KEYNET AND A TRIMBLE S5 ROBOTIC TOTAL STATION. BOLO ENGINEERING IS NOT RESPONSIBLE FOR THE ACCURACY OF THE BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON.
2. PROPERTY BOUNDARIES DEPICTED HEREIN AND ANNOTATED WITH BEARING ANGLES, DISTANCES, OR CURVE DATA DENOTE BOUNDARIES MEASURED BY THIS SURVEY. PROPERTY BOUNDARIES WITHOUT GEOMETRIC ANNOTATION MAY HAVE BEEN PLOTTED USING RECORD INFORMATION AND ARE INTENDED FOR GENERAL SITE ORIENTATION PURPOSES ONLY.
3. HORIZONTAL BEARING ANGLES AND COORDINATES CONTAINED HEREIN ARE BASED ON THE PA SOUTH ZONE STATE PLANE COORDINATE SYSTEM IN US FEET. DISTANCES ANNOTATED HEREIN REPRESENT GROUND MEASUREMENTS (NO GRID SCALE FACTOR HAS BEEN APPLIED).
4. PLAN REFERENCES: "PLAN OF LINCOLN PARK UNIT NO. 2", PREPARED BY G. EDWIN PIDCOCK CO., DATED NOVEMBER 14, 1939, LAST REVISED SEPTEMBER 25, 1940, AND RECORDED IN THE NORTHAMPTON COUNTY RECORDER OF DEEDS OFFICE IN MAP BOOK VOLUME 11 PAGE 38.
5. RESEARCH HAS BEEN PERFORMED AT NORTHAMPTON COUNTY COURTHOUSE AND THE CITY OF BETHLEHEM WITHIN THE REASONABLE STANDARD OF CARE. NO NEW ROAD DEDICATIONS, VACATIONS OR EASEMENTS WERE FOUND DURING THE RESEARCH PROCESS. THIS SURVEY AND PLAN HAS BEEN PREPARED WITHOUT THE BENEFIT OF A TITLE SEARCH AND IS THEREFORE SUBJECT TO ANY EASEMENTS OR OTHER PERTINENT FACTS WHICH SUCH MIGHT DISCLOSE.
6. ANY INFORMATION APPEARING ON THESE DRAWINGS AS TO THE UNDERGROUND UTILITY LINES HAS BEEN DEVELOPED FROM ABOVE-GROUND EXAMINATIONS OF THE SITE. THE CONTRACTOR, WITHIN THREE DAYS OF THE START OF CONSTRUCTION, SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH PA ACT NO. 287 (1-800-242-1776).
7. ANY FILL BEING UTILIZED FOR CONSTRUCTION ON THIS SITE SHALL BE OBTAINED FROM A SITE THAT HAS AN APPROVED E&SPC PLAN.
8. ANY PROPOSED ELECTRIC, GAS, TELEPHONE AND CATV SERVICE LINES SHALL BE LOCATED UNDERGROUND.
9. ALL SOILS EXCAVATED FROM THE PROPOSED CONSTRUCTION WILL BE DISPERSED ON-SITE OR TAKEN TO AN APPROVED SITE.
10. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF BETHLEHEM, NORTHAMPTON COUNTY, PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND PENNSYLVANIA DEPARTMENT OF TRANSPORTATION STANDARDS AND REGULATION AS APPLICABLE.
11. CONTRACTOR SHALL VERIFY LOCATIONS OF ANY AND ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH PA ACT 121 PRIOR TO ANY EXCAVATION. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER IN THE EVENT THAT A CONFLICT IS DISCOVERED.
12. PROPOSED ELEVATION CONTOUR LINES DEPICTED ON THIS PLAN REPRESENT FINAL GRADES AT THE COMPLETION OF CONSTRUCTION. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES DURING CONSTRUCTION TO PREVENT THE PONDING OF WATER ON THE SITE.
13. CONTRACTOR SHALL DEWATER AND OTHERWISE MAINTAIN UTILITY TRENCHES AND OTHER EXCAVATIONS FREE OF WATER (GROUND WATER AND SURFACE WATER) AT ALL TIMES USING A PUMPED WATER FILTER BAG OR OTHER APPROVED METHODS (REFER TO PUMPED WATER FILTER BAG DETAIL ON E&S POLLUTION CONTROL DETAILS PLAN). ADDITIONALLY, CONTRACTOR SHALL PROPERLY GRADE ADJACENT AREAS AND TAKE ANY OTHER REASONABLE PRECAUTIONS NECESSARY TO PREVENT WATER FROM ENTERING EXCAVATIONS.
14. IF CONTRACTOR ENCOUNTERS SOFT OR SATURATED SOILS DEEMED UNSUITABLE BY THE PROJECT ENGINEER DURING CONSTRUCTION, CONTRACTOR SHALL EXCAVATE, REMOVE, AND REPLACE ANY SUCH UNSUITABLE MATERIAL WITH COMPACTED CLEAN FILL OR AGGREGATE MATERIAL AS DIRECTED BY THE PROJECT ENGINEER.
15. WHERE PLACEMENT OF FILL BENEATH SETTLEMENT SENSITIVE STRUCTURES (E.G. BUILDING PADS, PARKING LOTS, UTILITY AND STORM SEWERS LINES, AND RELATED STRUCTURES) IS NECESSARY TO ACHIEVE DESIRED SUBGRADE, CONTRACTOR SHALL PLACE AND COMPACT APPROPRIATE FILL MATERIAL IN MAXIMUM 8-INCH LIFTS TO A MINIMUM OF 95% OF THE MODIFIED PROCTOR DENSITY OF THE MATERIAL (98% FOR BUILDING PADS) OR AS OTHERWISE DIRECTED BY THE GEOTECHNICAL ENGINEER.
16. SPOT ELEVATIONS AND CONTOUR LINES CONTAINED HEREIN ARE BASED ON GPS OBSERVATIONS USING A TRIMBLE R-8 GPS WITH KEYNET AND ARE ACCURATE WITHIN 0.15' OF THE U.S.G.S. NORTH AMERICAN VERTICAL DATUM OF 1988.
17. LOCATIONS OF WATER AND SANITARY SEWER LATERALS AS DEPICTED HEREIN ARE APPROXIMATE AND COULD BE SUBJECT TO FIELD ADJUSTMENT.
18. PRIOR TO ANY WORK WITHIN PUBLIC RIGHTS-OF-WAY, PERMITS MUST BE OBTAINED FROM THE CITY OF BETHLEHEM ENGINEERING OFFICE AND/OR PENNDOT, AS APPLICABLE.
19. ANY AND ALL SITE IMPROVEMENTS PROPOSED HEREIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF BETHLEHEM AND/OR PENNDOT CONSTRUCTION STANDARDS IN EFFECT AT THE TIME OF SUBDIVISION AND/OR PENNDOT HIGHWAY OCCUPANCY PERMIT APPROVAL, AS APPLICABLE.
20. BUILDING DESIGN, MATERIALS, AND CONSTRUCTION FOR THE PROPOSED BUILDINGS SHALL MEET OR EXCEED INTERNATIONAL BUILDING CODE STANDARDS, LATEST EDITION.
21. EXISTING NATURAL SLOPES ACROSS THE SUBJECT PROPERTY RANGES FROM 1 TO 5 PERCENT.
22. PROPERTY OWNER(S) THEIR HEIRS, SUCCESSORS, AND ASSIGNS SHALL BE PERPETUALLY RESPONSIBLE TO MAINTAIN EXISTING AND PROPOSED EASEMENTS LOCATED ON THEIR RESPECTIVE PROPERTIES IN A GRASSED OR OTHERWISE IMPROVED CONDITION IN ACCORDANCE WITH THE GRADES AND DESIGNS INDICATED ON THE APPROVED LAND DEVELOPMENT PLANS FOR THE PROJECT. DRAINAGE EASEMENTS PROVIDE FOR THE FLOW OF STORMWATER ACROSS LOTS AND MAY NOT BE ALTERED WITHOUT WRITTEN PERMISSION OF THE CITY ENGINEER. NO OBSTRUCTIONS SUCH AS PLANTING BERMS OR FENCES, OTHER THAN THOSE DEPICTED HEREIN, MAY BE INSTALLED IN DRAINAGE EASEMENTS WITHOUT MAKING SUFFICIENT PROVISIONS FOR THE PASSAGE OF STORMWATER. ANY SUCH PROPOSED PROVISIONS SHALL BE APPROVED IN WRITING BY THE CITY ENGINEER, IT IS INTENDED THAT THE MAINTENANCE RESPONSIBILITIES IMPOSED HEREUNDER SHALL BE A COVENANT RUNNING WITH THE LAND AND ENFORCEABLE AGAINST ALL FUTURE OWNERS.
23. BY SUBMISSION OF THESE PLANS, THE ENGINEER OF RECORD CERTIFIES THAT THESE PLANS ARE IN COMPLETE CONFORMANCE WITH THE CITY OF BETHLEHEM STORM WATER MANAGEMENT ORDINANCE.
24. ACCURATE AS-BUILT PLANS SHALL BE KEPT CURRENT DURING THE CONSTRUCTION PROCESS. AT THE COMPLETION OF THE PROJECT, RECORD DRAWINGS SHALL BE PREPARED FROM AS-BUILT PLANS AND SUBMITTED TO THE CITY ENGINEER'S OFFICE. ALL FINAL DRAWINGS SHALL SHOW NORTH AMERICAN DATUM (NAD) 1983 STATE PLANE COORDINATES IN FEET (PA SOUTH, FIPS ZONE 3702) AND THE DIGITAL FILE SHALL BE IN STATE PLANE FEET COORDINATES AS APPLICABLE. HARD COPIES OF RECORD DRAWINGS SHALL BE IN THE FORM OF MYLAR COPIES. THE ENGINEER OF RECORD SHALL CERTIFY (i.e, P.E. STAMPED AND SIGNED) THAT THE RECORD DRAWINGS COMPLY SUBSTANTIALLY WITH THE APPROVED PLANS AND THAT THEY CONFORM TO INDUSTRY STANDARDS. ALL DIGITAL FILES SHALL RESIDE ON A PC COMPATIBLE CD-ROM CONTAINING THE DIGITAL REPRESENTATION OF THE FINAL PLAN AS PRESENTED ON TWENTY-FOUR BY THIRTY-SIX INCH SHEETS. DIGITAL PLANS SHALL BE AUTOCAD COMPATIBLE. ALL DRAWING LAYERS INCLUDED IN THE DIGITAL PLANS SHALL BE THE STANDARDIZED LAYERS PREPARED AND UTILIZED BY THE CITY OF BETHLEHEM TO ENSURE COMPATIBILITY WITH THE CITY'S EXISTING CAD STANDARDS AND AS DESCRIBED IN APPENDIX A OF THE CITY'S SUBDIVISION AND LAND DEVELOPMENT ORDINANCE. THE CITY'S EXISTING CADD STANDARDS MUST BE REVIEWED AND REVISED TO BE COMPATIBLE WITH THE CITY'S CURRENT GIS SYSTEM AND STANDARDS.
25. REQUIRED 2.5-FOOT MINIMUM SETBACKS BETWEEN DRIVEWAYS AND SIDE LOT LINES SHALL BE MAINTAINED IN VEGETATION IN ACCORDANCE WITH SECTION 1319.02.g(4) OF THE CITY OF BETHLEHEM ZONING ORDINANCE.

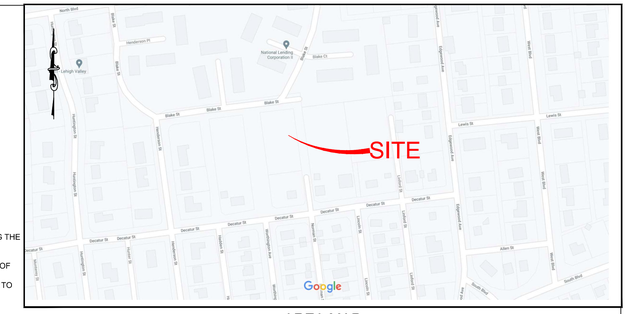
PARKING REQUIREMENTS

ZONING ORDINANCE SECTION 1319.01(a)(1)(ii)
MULTI-FAMILY DWELLING/ APARTMENTS WITH TWO OR FEWER BEDROOMS
1.75 SPACES/UNIT X 8 UNITS = 14 SPACES REQUIRED
20 SPACES PROVIDED INCLUDING ONE VAN-ACCESSIBLE ADA PARKING SPACE

BICYCLE PARKING = 5% OF PARKING REQUIREMENTS WITH A MINIMUM 2 SPACES REQUIRED. 2+ SPACES ARE PROPOSED.

APPLICANT

BLAKE STREET PROPERTIES, LLC
910 14th AVENUE
BETHLEHEM, PA 18018
610-317-6070



AREA MAP

ZONING DATA

SITE IS WITHIN THE RG- MEDIUM-DENSITY RESIDENTIAL DISTRICT
MULTI-FAMILY DWELLING (APARTMENT) USE IS PERMITTED BY-RIGHT
THE SITE WILL BE SERVICED BY PUBLIC WATER AND PUBLIC SEWER

	PER ORD.	EXISTING	PROPOSED
MIN. TRACT SIZE:	12,000 SF	33,747 SF	33,747 SF
MIN. LOT AREA PER DU:	4,000 SF	N/A	4,218 SF
MIN. LOT WIDTH:	100 FT	160.18 FT	160.18 FT
FRONT YARD SETBACK:	20 FT	N/A	20 FT
SIDE YARD SETBACK (EACH):	25 FT	N/A	25 FT
REAR YARD SETBACK:	30 FT	N/A	> 30 FT
MAX. BUILDING HEIGHT:	35 FT	N/A	≤ 35 FT
	2.5 STRY. *	N/A	≤ 2.5 STRY. *
MAX. BUILDING COVER:	70%	N/A	15%

* BY DEED RESTRICTION

A VARIANCE WAS GRANTED BY THE CITY OF BETHLEHEM ON APRIL 27, 2022 FROM ZONING ORDINANCE SECTION 1322.03(III)(5)(1) TO PERMIT THE BUILDING TO BE 3-FEET FROM THE DRIVEWAY WHERE 15-FEET IS REQUIRED.

IMPERVIOUS COVERAGE:

LOT AREA:	33,747 SF
PROPOSED IMPERVIOUS AREA:	
APARTMENT BUILDING	4,992 SF
ASPHALT DRIVEWAY	8,958 SF
WALKWAY	658 SF
CONCRETE REFUSE PAD	722SF
BICYCLE PAD	50 SF
TOTAL EX. IMPERVIOUS AREA:	15,380 SF

PLANNING COMMISSION REVIEW

REVIEWED AND ACCEPTED FOR RECORDING BY THE CITY OF BETHLEHEM PLANNING COMMISSION THIS _____ DAY OF _____ 20_.

CHAIRMAN SECRETARY

LVPC REVIEW

REVIEWED BY THE LEHIGH VALLEY PLANNING COMMISSION

L.V.P.C. STAFF PERSON RESPONSIBLE FOR REVIEW DATE

OWNERS ACKNOWLEDGEMENT

I (WE), THE UNDERSIGNED, BEING THE OWNER(S) IN PEACEFUL POSSESSION OF THE LAND HEREIN PLATTED, DO HEREBY ADOPT THIS PLAN OF PROPERTY SITUATED IN THE CITY OF BETHLEHEM, NORTHAMPTON COUNTY, PENNSYLVANIA AND DESIRE THAT THIS PLAN BE RECORDED ACCORDING TO LAW.

SIGNATURE DATE

COMMONWEALTH OF PENNSYLVANIA
COUNTY OF NORTHAMPTON

SWORN AND SUBSCRIBED TO ME THIS ___ DAY OF _____ , 20

IN WITNESS THEREOF, I HEREUNTO SET MY HAND AND OFFICIAL SEAL.

NOTARY PUBLIC

RECORDED THIS ___ DAY OF _____ , 20

IN THE OFFICE OF THE RECORDER OF DEEDS IN AND FOR THE COUNTY OF NORTHAMPTON, PENNSYLVANIA, IN PLAN

BOOK NO. _____ , PAGE _____ .

RECORDER OF DEEDS

LEGEND:

- EXISTING BOUNDARY
- 344 EXISTING CONTOUR
- 345 EXISTING 5' CONTOUR
- EXISTING CURB
- EXISTING BUILDING
- EXISTING DRIVEWAY
- EXISTING FENCE
- EXISTING BUILDING SETBACK
- EXISTING OVERHEAD ELECTRIC
- EXISTING SEWER LINE
- EXISTING ADJAGENT LOT LINES
- EXISTING EASEMENT
- EXISTING STORM SEWER
- EXISTING UTILITY POLE
- EXISTING SANITARY MANHOLE
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING SOIL LIMITS

KNOW WHAT'S BELOW CALL BEFORE YOU DIG!
PENNSYLVANIA ACT 287 OF 1974 (AS AMENDED)
REQUIRES 3 WORKING DAYS NOTICE FOR EXCAVATION PHASE AND 10 WORKING DAYS IN DESIGN STAGE – STOP! CALL!
PENNSYLVANIA ONE CALL SYSTEM, INC.
1-800 242-1776 or 811 PA
ONE-CALL SERIAL No.
20190521671

STATEMENT OF INTENT

THE APPLICANT INTENDS TO REVERSE-SUBDIVIDE THE SUBJECT PROPERTY TO CREATE ONE INDIVIDUAL BUILDING LOT INTENDED FOR THE CONSTRUCTION OF EIGHT 2-BEDROOM APARTMENTS UNITS WITH AN ASSOCIATED DRIVEWAY AND PARKING AREA, UTILITY SERVICE CONNECTIONS, PUBLIC SIDEWALK, STREET TREES, AND RELATED IMPROVEMENTS AND SITE GRADING, ALL AS DEPICTED HEREIN.

TRIP GENERATION

PER ITE TRIP GENERATION MANUAL, 11TH EDITION:

8 DU APARTMENT
LU 220: MULTIFAMILY HOUSING (LOW-RISE) - NOT CLOSE TO RAIL TRANSIT, GENERAL URBAN/SUBURBAN
54 TRIP PER DAY
3 AM PEAK HOUR (1 ENTERING AND 2 EXITING)
4 PM PEAK HOUR (2 ENTERING AND 2 EXITING)

DUE TO THE SMALL SIZE OF THE DEVELOPMENT THE TRIP GENERATION IS BASED ON THE AVERAGE RATE, NOT THE FITTED CURVE EQUATION.

0 10 20 60
SCALE : 1"= 20'

Rev.	Date	Comment	Int.
1	05/11/22	PER TOWNSHIP AND NCCD COMMENTS	RC

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
RODERICK M. CHIRUMBOLO
No. PE-075093

RODERICK M. CHIRUMBOLO
PE-075093

BOLO ENGINEERING, LLC

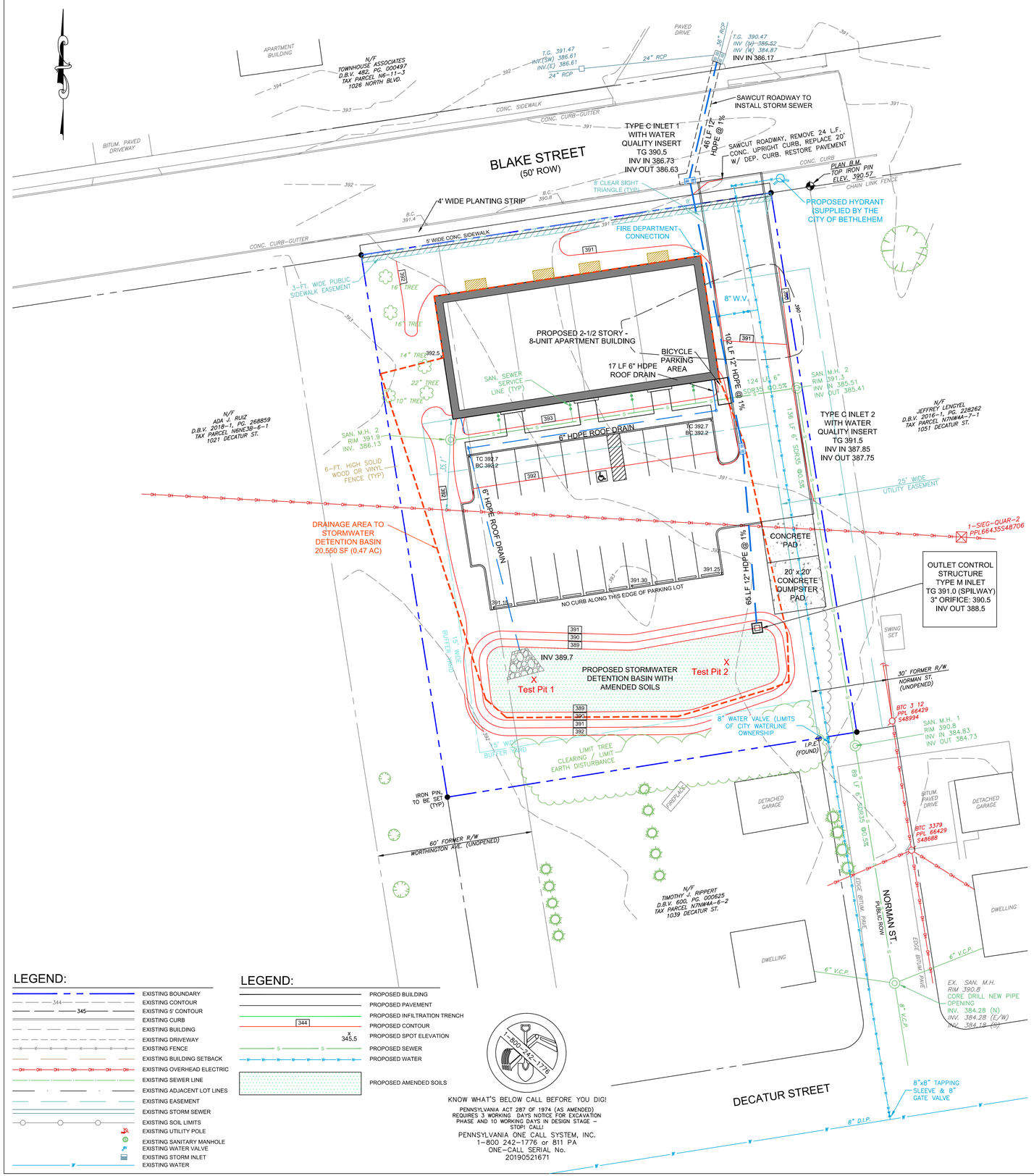
CIVIL & CONSULTING ENGINEERS
4340 CREEK ROAD
ALLENTOWN, PA 18104
(610) 297-2868
rmcengineer@hotmail.com

Title: BLAKE STREET APARTMENTS
BLAKE STREET AND NORMAN STREET
CITY OF BETHLEHEM, PA

SITE PLAN

Date: NOVEMBER 19, 2021

Plan Scale: 1"=20' | Project No.21059 | Sheet No. SP (3 OF 6)



AREA MAP

SOIL TYPE

THE FOLLOWING SOIL TYPE(S) MAY BE PRESENT ON THE PROJECT SITE ACCORDING TO THE SOIL SURVEY FOR NORTHAMPTON COUNTY OF 1974 PREPARED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE.

UoB, URBAN LAND-GLADSTONE COMPLEX, 2 TO 6 PERCENT SLOPES (ENTIRE SITE)

SOIL TYPE LIMITATIONS
1. MODERATE POTENTIAL FOR SINKHOLE DEVELOPMENT
2. SUSCEPTIBLE TO PIPING AND SEEPING
3. SHALLOW DEPTH TO BEDROCK IN THE FORM OF WEATHERED LIMESTONE PINNACLES IN ISOLATED LOCATIONS

RESOLUTIONS TO SOIL TYPE LIMITATIONS
1. CONSTRUCTION ACTIVITIES WILL BE SEQUENCED IN SUCH A WAY AS TO PREVENT THE DEVELOPMENT OF LOW SPOTS AND STANDING WATER.
2. THE CONTRACTOR SHALL EXCAVATE UNSUITABLE SOIL TO A SUFFICIENT DEPTH AND REPLACE SAME WITH SUITABLE MATERIAL, AS DIRECTED BY PROJECT ENGINEER.
3. THE CONTRACTOR SHALL EXCAVATE ROCK BY MEANS OF PNEUMATIC HAMMERING OR RIPPING TO A SUFFICIENT DEPTH (MINIMUM TWO (2) FEET BELOW THE BOTTOM ELEVATION OF INFILTRATION FACILITIES) AND REPLACE SAME WITH SUITABLE MATERIAL, AS DIRECTED BY PROJECT ENGINEER.
4. THE CONTRACTOR SHALL DEWATER OR OTHERWISE MAINTAIN ALL EXCAVATIONS AND TRENCHES FREE OF WATER FOR THE DURATION OF THE PROJECT.
5. THE CONTRACTOR SHALL REPAIR SINKHOLES IMMEDIATELY UPON DISCOVERY IN ACCORDANCE WITH THE SINKHOLE REPAIR DETAIL ON THE PLAN OR AS DIRECTED BY THE PROJECT ENGINEER.

GENERAL NOTES:

1. BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS FROM A FIELD SURVEY COMPLETED BY KEYSTONE CONSULTING ENGINEERS INC. ON FEBRUARY 15, 2019 USING SPECTRA SP80 GPS WITH KEYNET AND A TRIMBLE S5 ROBOTIC TOTAL STATION. BOLO ENGINEERING IS NOT RESPONSIBLE FOR THE ACCURACY OF THE BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN HEREON.
2. ANY INFORMATION APPEARING ON THESE DRAWINGS AS TO THE UNDERGROUND UTILITY LINES HAS BEEN DEVELOPED FROM ABOVE-GROUND EXAMINATIONS OF THE SITE. THE CONTRACTOR, WITHIN THREE DAYS OF THE START OF CONSTRUCTION, SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH PA ACT NO. 287 (1-800-242-1776).
3. ANY FILL BEING UTILIZED FOR CONSTRUCTION ON THIS SITE SHALL BE OBTAINED FROM A SITE THAT HAS AN APPROVED E&SPC PLAN.
4. ANY PROPOSED ELECTRIC, GAS, TELEPHONE AND CATV SERVICE LINES SHALL BE LOCATED UNDERGROUND.
5. ALL SOILS EXCAVATED FROM THE PROPOSED CONSTRUCTION WILL BE DISPERSED ON-SITE OR TAKEN TO AN APPROVED SITE.
6. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF BETHLEHEM, NORTHAMPTON COUNTY, PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION AND PENNSYLVANIA DEPARTMENT OF TRANSPORTATION STANDARDS AND REGULATION AS APPLICABLE.
7. CONTRACTOR SHALL VERIFY LOCATIONS OF ANY AND ALL UNDERGROUND UTILITIES IN ACCORDANCE WITH PA ACT 121 PRIOR TO ANY EXCAVATION. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE CONSTRUCTION MANAGER IN THE EVENT THAT A CONFLICT IS DISCOVERED.
8. PROPOSED ELEVATION CONTOUR LINES DEPICTED ON THIS PLAN REPRESENT FINAL GRADES AT THE COMPLETION OF CONSTRUCTION. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES DURING CONSTRUCTION TO PREVENT THE PONDING OF WATER ON THE SITE.
9. CONTRACTOR SHALL DEWATER AND OTHERWISE MAINTAIN UTILITY TRENCHES AND OTHER EXCAVATIONS FREE OF WATER (GROUND WATER AND SURFACE WATER) AT ALL TIMES USING A PUMPED WATER FILTER BAG OR OTHER APPROVED METHODS (REFER TO PUMPED WATER FILTER BAG DETAIL ON E&S POLLUTION CONTROL DETAILS PLAN). ADDITIONALLY, CONTRACTOR SHALL PROPERLY GRADE ADJACENT AREAS AND TAKE ANY OTHER REASONABLE PRECAUTIONS NECESSARY TO PREVENT WATER FROM ENTERING EXCAVATIONS.
10. IF CONTRACTOR ENCOUNTERS SOFT OR SATURATED SOILS DEEMED UNSUITABLE BY THE PROJECT ENGINEER DURING CONSTRUCTION, CONTRACTOR SHALL EXCAVATE, REMOVE, AND REPLACE ANY SUCH UNSUITABLE MATERIAL WITH COMPACTED CLEAN FILL OR AGGREGATE MATERIAL AS DIRECTED BY THE PROJECT ENGINEER.
11. WHERE PLACEMENT OF FILL BENEATH SETTLEMENT SENSITIVE STRUCTURES (E.G. BUILDING PADS, PARKING LOTS, UTILITY AND STORM SEWERS LINES, AND RELATED STRUCTURES) IS NECESSARY TO ACHIEVE DESIRED SUBGRADE, CONTRACTOR SHALL PLACE AND COMPACT APPROPRIATE FILL MATERIAL IN MAXIMUM 8-INCH LIFTS TO A MINIMUM OF 95% OF THE MODIFIED PROCTOR DENSITY OF THE MATERIAL (98% FOR BUILDING PADS) OR AS OTHERWISE DIRECTED BY THE GEOTECHNICAL ENGINEER.
12. SPOT ELEVATIONS AND CONTOUR LINES CONTAINED HEREIN ARE BASED ON GPS OBSERVATIONS USING A TRIMBLE R-8 GPS WITH KEYNET AND ARE ACCURATE WITHIN 0.15' OF THE U.S.G.S. NORTH AMERICAN VERTICAL DATUM OF 1988.
13. LOCATIONS OF WATER AND SANITARY SEWER LATERALS AS DEPICTED HEREIN ARE APPROXIMATE AND COULD BE SUBJECT TO FIELD ADJUSTMENT.
14. PRIOR TO ANY WORK WITHIN PUBLIC RIGHTS-OF-WAY, PERMITS MUST BE OBTAINED FROM THE CITY OF BETHLEHEM ENGINEERING OFFICE AND/OR PENNDOT, AS APPLICABLE.
15. ANY AND ALL SITE IMPROVEMENTS PROPOSED HEREIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF BETHLEHEM AND/OR PENNDOT CONSTRUCTION STANDARDS IN EFFECT AT THE TIME OF SUBDIVISION AND/OR PENNDOT HIGHWAY OCCUPANCY PERMIT APPROVAL, AS APPLICABLE.
16. BUILDING DESIGN, MATERIALS, AND CONSTRUCTION FOR THE PROPOSED BUILDINGS SHALL MEET OR EXCEED INTERNATIONAL BUILDING CODE STANDARDS, LATEST EDITION.
17. EXISTING NATURAL SLOPES ACROSS THE SUBJECT PROPERTY RANGES FROM 1 TO 5 PERCENT.
18. PROPERTY OWNER(S) THEIR HEIRS, SUCCESSORS, AND ASSIGNS SHALL BE PERPETUALLY RESPONSIBLE TO MAINTAIN EXISTING AND PROPOSED EASEMENTS LOCATED ON THEIR RESPECTIVE PROPERTIES IN A GRASSED OR OTHERWISE IMPROVED CONDITION IN ACCORDANCE WITH THE GRADES AND DESIGNS INDICATED ON THE APPROVED LAND DEVELOPMENT PLANS FOR THE PROJECT. DRAINAGE EASEMENTS PROVIDE FOR THE FLOW OF STORMWATER ACROSS LOTS AND MAY NOT BE ALTERED WITHOUT WRITTEN PERMISSION OF THE CITY ENGINEER. NO OBSTRUCTIONS SUCH AS PLANTING BERMS OR FENCES, OTHER THAN THOSE DEPICTED HEREIN, MAY BE INSTALLED IN DRAINAGE EASEMENTS WITHOUT MAKING SUFFICIENT PROVISIONS FOR THE PASSAGE OF STORMWATER. ANY SUCH PROPOSED PROVISIONS SHALL BE APPROVED IN WRITING BY THE CITY ENGINEER. IT IS INTENDED THAT THE MAINTENANCE RESPONSIBILITIES IMPOSED HEREUNDER SHALL BE A COVENANT RUNNING WITH THE LAND AND ENFORCEABLE AGAINST ALL FUTURE OWNERS.
19. BY SUBMISSION OF THESE PLANS, THE ENGINEER OF RECORD CERTIFIES THAT THESE PLANS ARE IN COMPLETE CONFORMANCE WITH THE CITY OF BETHLEHEM STORM WATER MANAGEMENT ORDINANCE.
20. ACCURATE AS-BUILT PLANS SHALL BE KEPT CURRENT DURING THE CONSTRUCTION PROCESS. AT THE COMPLETION OF THE PROJECT, RECORD DRAWINGS SHALL BE PREPARED FROM AS-BUILT PLANS AND SUBMITTED TO THE CITY ENGINEER'S OFFICE. ALL FINAL DRAWINGS SHALL SHOW NORTH AMERICAN DATUM (NAD) 1983 STATE PLANE COORDINATES IN FEET (PA SOUTH, FIPS ZONE 3702) AND THE DIGITAL FILE SHALL BE IN STATE PLANE FEET COORDINATES AS APPLICABLE. HARD COPIES OF RECORD DRAWINGS SHALL BE IN THE FORM OF MYLAR COPIES. THE ENGINEER OF RECORD SHALL CERTIFY (i.e. P.E. STAMPED AND SIGNED) THAT THE RECORD DRAWINGS COMPLY SUBSTANTIALLY WITH THE APPROVED PLANS AND THAT THEY CONFORM TO INDUSTRY STANDARDS. ALL DIGITAL FILES SHALL RESIDE ON A PC COMPATIBLE CD-ROM CONTAINING THE DIGITAL REPRESENTATION OF THE FINAL PLAN AS PRESENTED ON TWENTY-FOUR BY THIRTY-SIX INCH SHEETS. DIGITAL PLANS SHALL BE AUTOCAD COMPATIBLE. ALL DRAWING LAYERS INCLUDED IN THE DIGITAL PLANS SHALL BE THE STANDARDIZED LAYERS PREPARED AND UTILIZED BY THE CITY OF BETHLEHEM TO ENSURE COMPATIBILITY WITH THE CITY'S EXISTING CAD STANDARDS AND AS DESCRIBED IN APPENDIX A OF THE CITY'S SUBDIVISION AND LAND DEVELOPMENT ORDINANCE. THE CITY'S EXISTING CADD STANDARDS MUST BE REVIEWED AND REVISED TO BE COMPATIBLE WITH THE CITY'S CURRENT GIS SYSTEM AND STANDARDS.
21. REQUIRED 2.5-FOOT MINIMUM SETBACKS BETWEEN DRIVEWAYS AND SIDE LOT LINES SHALL BE MAINTAINED IN VEGETATION IN ACCORDANCE WITH SECTION 1319.02.g(4) OF THE CITY OF BETHLEHEM ZONING ORDINANCE.

SANITARY SEWER SYSTEM NOTES

1. SANITARY SEWERAGE SYSTEM SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH CITY OF BETHLEHEM AND PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION STANDARDS AND REGULATION AS APPLICABLE.
2. PIPING SHALL BE 8-INCH DIAMETER SDR-35 PVC PIPE FOR GRAVITY MAINS AND 4-INCH SDR-35 PVC PIPE FOR INDIVIDUAL SERVICE LINES.
3. ANY SANITARY SEWER GRAVITY MAIN WITH EQUAL TO OR GREATER THAN 15 FEET OF COVER SHALL BE 8-INCH DIAMETER SDR-26 PVC PIPE FOR THE ENTIRE LENGTH OF THE RUN BETWEEN ADJACENT STRUCTURES. IN CASE OF CONFLICT, THIS REQUIREMENT SHALL SUPERCEDE ALL OTHER NOTATIONS ON THIS PLAN.
4. PIPING, STRUCTURES, AND APPURTENANCES SHALL BE DESIGNED TO WITHSTAND HS-25 HIGHWAY LOADING AND SHALL MEET OR EXCEED APPLICABLE PennDOT AND ASTM STANDARDS.
5. PROPOSED SANITARY SEWER MAINS, MANHOLES, AND APPURTENANCES WILL BE DEDICATED TO THE CITY OF BETHLEHEM.
6. PROPOSED SANITARY SEWER SERVICE LATERALS (UPSTREAM OF THE WYE FITTING) WILL BE PRIVATELY OWNED AND MAINTAINED BY THE RESPECTIVE PROPERTY OWNER.

WATER SYSTEM NOTES

1. WATER DISTRIBUTION SYSTEM SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH CITY OF BETHLEHEM, PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, AND AMERICAN WATER WORKS ASSOCIATION STANDARDS AND REGULATION AS APPLICABLE.
2. PIPING SHALL BE CLASS 52 DUCTILE IRON PIPE OF THE SIZES INDICATED HEREIN FOR MAINS AND 3/4-INCH TYPE 'K' FLEXIBLE COPPER TUBING FOR INDIVIDUAL SERVICE LINES.
3. PROVIDE A MINIMUM 10-FOOT HORIZONTAL SEPARATION OR 18-INCH CLEAR VERTICAL SEPARATION BETWEEN WATERLINES AND SANITARY OR STORM SEWERS WHERE PRACTICABLE.
4. PROVIDE CONCRETE THRUST BLOCKS BEHIND ALL BENDS, TEES, FIRE HYDRANTS AND PLUGS.
5. INSTALL WATER LINES AT LEAST FOUR FEET BELOW FINAL GRADE.
6. WATER MAINS AND APPURTENANCES WILL BE DEDICATED TO THE CITY OF BETHLEHEM.
7. INDIVIDUAL WATER SERVICE LATERALS (DOWNSTREAM OF CURB STOPS) WILL BE PRIVATELY OWNED AND MAINTAINED BY THE RESPECTIVE PROPERTY OWNER.

FIRE DEPARTMENT NOTES

1. A KNOX BOX FOR THE CITY OF BETHLEHEM FIRE DEPARTMENT MUST BE INSTALLED. LOCATION TBD.
2. THE ENTIRE BUILDING WILL HAVE A SPRINKLER SYSTEM.
3. THE FDC IS LOCATED ON THE FRONT OF THE BUILDING ON THE DRIVEWAY SIDE OF THE STRUCTURE. ANY CHANGE IN THE LOCATION OF THE FIRE DEPARTMENT CONNECTION (FDC) MUST BE APPROVED BY THE CITY OF BETHLEHEM FIRE DEPARTMENT.

LEGEND:

- EXISTING BOUNDARY
- 344 EXISTING CONTOUR
- 345 EXISTING 5' CONTOUR
- EXISTING CURB
- EXISTING BUILDING
- EXISTING DRIVEWAY
- EXISTING FENCE
- EXISTING BUILDING SETBACK
- EXISTING OVERHEAD ELECTRIC
- EXISTING SEWER LINE
- EXISTING ADJACENT LOT LINES
- EXISTING EASEMENT
- EXISTING STORM SEWER
- EXISTING SOIL LIMITS
- EXISTING UTILITY POLE
- EXISTING SANITARY MANHOLE
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING WATER

LEGEND:

- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED INFILTRATION TRENCH
- 344 PROPOSED CONTOUR
- x 345.5 PROPOSED SPOT ELEVATION
- S PROPOSED SEWER
- PROPOSED WATER
- PROPOSED AMENDED SOILS

KNOW WHAT'S BELOW CALL BEFORE YOU DIG!
1-800-242-1776

PENNSYLVANIA ACT 287 OF 1974 (AS AMENDED) REQUIRES 3 WORKING DAYS NOTICE FOR EXCAVATION PHASE AND 10 WORKING DAYS IN DESIGN STAGE – STOP! CALL!
PENNSYLVANIA ONE CALL SYSTEM, INC.
1-800 242-1776 or 811 PA
ONE-CALL SERIAL No.
20190521671

0 10 20 60
SCALE : 1"= 20'

Rev.	Date	Comment	Int.
1	05/11/22	PER TOWNSHIP AND NCCD COMMENTS	RC

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
RODERICK M. CHIRUMBOLO
No. PE-075093

RODERICK M. CHIRUMBOLO
PE-075093

BOLO ENGINEERING, LLC

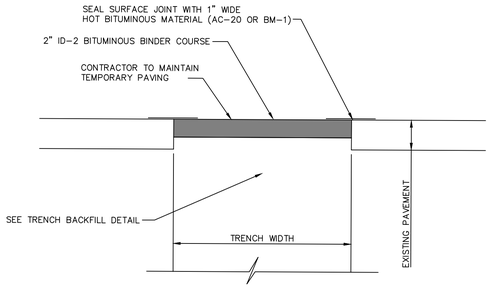
CIVIL & CONSULTING ENGINEERS
4340 CREEK ROAD
ALLENTOWN, PA 18104
(610) 297-2868
rmcengineer@hotmail.com

Title: BLAKE STREET APARTMENTS
BLAKE STREET AND NORMAN STREET
CITY OF BETHLEHEM, PA

GRADING, UTILITY AND LANDSCAPE PLAN

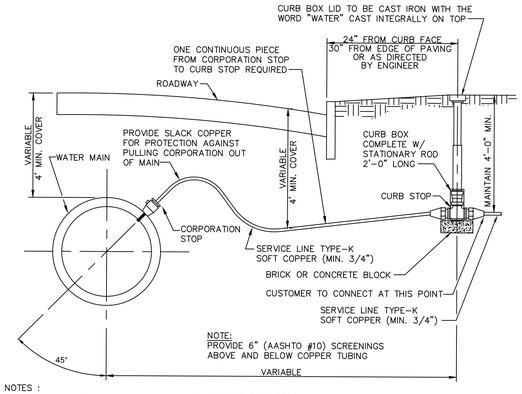
Date: NOVEMBER 19, 2021

Plan Scale: 1"=20' | Project No.21059 | Sheet No. GU (4 OF 6)



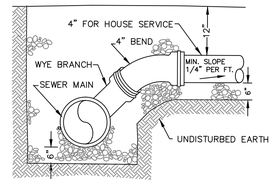
TEMPORARY TRENCH RESTORATION

NO SCALE



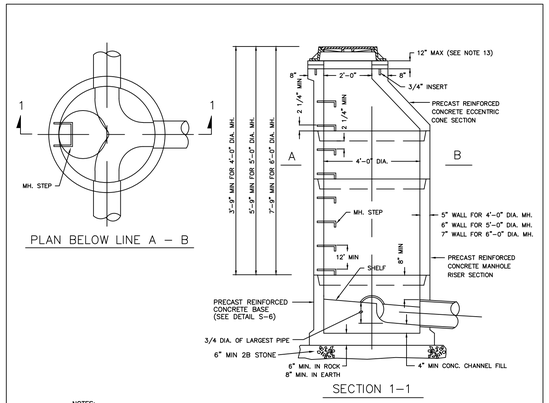
NOTES :

1. WET TAPPING UNDER NORMAL LINE PRESSURE IS REQUIRED.
2. CORPORATION STOPS: MULLER B-25008, OR McDONALD 4701B-22, OR EQUAL.
3. CURB STOPS: MULLER B-25209, OR McDONALD 6100-22, OR EQUAL.
4. CURB BOX: MUELLER H-10306, OR McDONALD 5604, OR FORD EA2-45-50, OR EQUAL.
5. LID WITH CENTER, REMOVABLE, PENTAGONAL PLUG: MUELLER 89375, OR McDONALD 5614L
6. CORPORATION STOP AND CURB STOP TO HAVE COMPRESSION FITTINGS. FLARE FITTINGS NOT PERMITTED.



TYPICAL CONNECTION TO SEWER MAIN

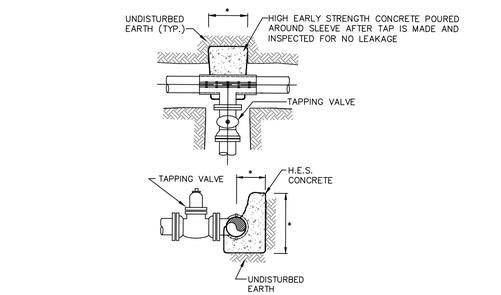
NTS



NOTES:

1. THE DEPTH OF THE INVERT CHANNEL SHALL BE EQUAL TO 3/4 OF THE DIAMETER OF THE SEWER.
2. THE SHELF SHALL SLOPE TOWARD THE INVERT CHANNEL AT A RATE OF 1" PER FOOT.
3. TYPE "B" MANHOLES (SHALLOW TYPE) TO BE PROVIDED WHERE REQUIRED BY DEPTH CONDITIONS.
4. FOR MANHOLES HAVING 5' DIAMETER AND 6' DIAMETER BASE, REDUCTION IN DIAMETER TO 4' SHALL START AT THE FIRST JOINT ABOVE THE UPPERMOST PIPE CONNECTION TO WALL WHERE DEPTH IS SUFFICIENT.
5. ALL MANHOLE FRAMES SHALL BE BOLTED TO THE CONE SECTION WITH 2 – 3/4" DIAMETER BOLTS WITH WASHERS AND NUTS. BOLTS TO BE AT 180° ON BOLT CIRCLE.
6. SEE THE SPECIFICATIONS FOR LENGTH OF PIPE CONNECTIONS TO MANHOLE.
7. ALL CONCRETE SHALL BE 4000 PSI MINIMUM.
8. ENTIRE OUTSIDE SURFACE OF MANHOLE SHALL RECEIVE TWO COATS OF BITUMINOUS COATING. KOPPERS 300M PENNOXY TAR 32-B-4, OR APPROVED EQUAL.
9. INSTALL 2 LAYERS OF PLASTIC PREFORMED JOINT SEALANT BETWEEN ALL SECTIONS AND UNDER FRAME.
10. MANHOLE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ASTM C478
11. STEPS TO BE ALUMINUM ALLOY WITH DEPRESSED TREAD. STEEL REINFORCED POLYPROPYLENE IS OPTIONAL. (SEE DETAIL S-10 AND S-11)
12. 4' DIAMETER MANHOLE – 8" TO 15" PIPES
    5' DIAMETER MANHOLE – 16" TO 27" PIPES
    6' DIAMETER MANHOLE – 30" TO 48" PIPES
13. WHEN TWO OR MORE GRADE ADJUSTMENT RINGS ARE USED, A WATERTIGHT PVC CONNECTOR SHALL BE INSTALLED BETWEEN THE FRAME AND THE CONE. CONNECTOR SHALL BE WATER-LOK CONNECTOR BFA ANTI-FLOATING BY A-LOK PRODUCTS INC. OR APPROVED EQUAL.
14. MANHOLES THAT RECEIVE FORCE MAIN DISCHARGE OR THAT ARE LOCATED ON INTERCEPTORS OR TRUNK SEWERS SHALL BE CONSTRUCTED WITH A PVC LINER IN ACCORDANCE WITH DETAIL S-2.

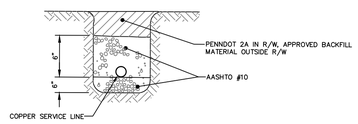
TYPE "A" STANDARD MANHOLE



* SIZE IN FIELD, MIN. OF 4 SF. BEARING AREA

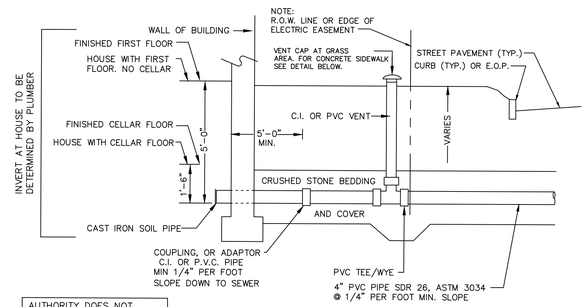
TAPPINE SLEEVE & VALVE

NTS

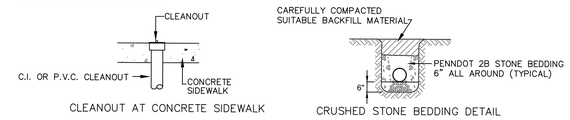


TYPICAL RESIDENTIAL SERVICE LINE CONNECTION DETAIL

NTS



AUTHORITY DOES NOT
PROVIDE BASEMENT SERVICE

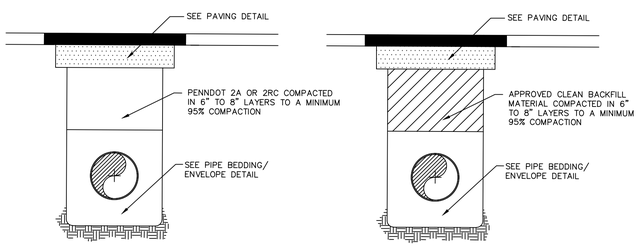


CLEANOUT AT CONCRETE SIDEWALK

CRUSHED STONE BEDDING DETAIL

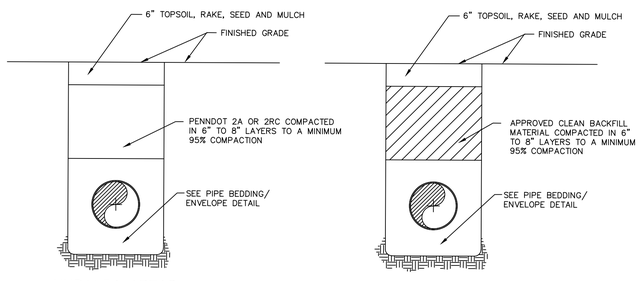
SEWER LATERAL NEW HOUSE CONNECTION DETAIL

NTS



EXISTING ROADS
RIGHT OF WAY
NOT TO SCALE

RIGHT OF WAY
NEW SUBDIVISIONS OR LAND DEVELOPMENTS
NOT TO SCALE

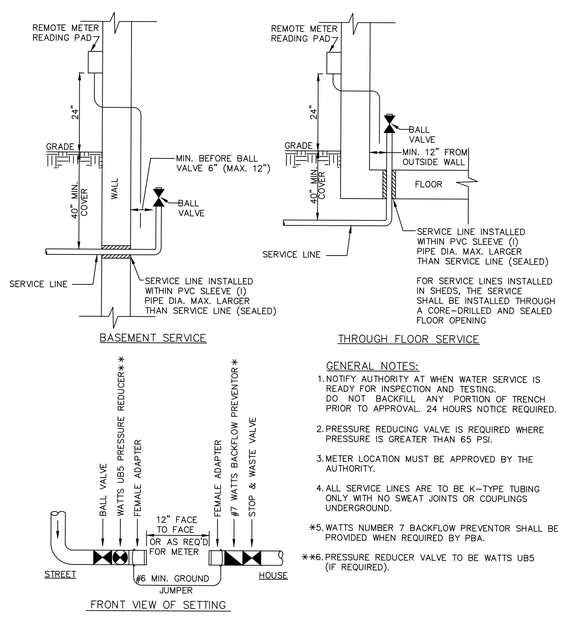


UNPAVED AREAS
WITHIN PUBLIC R/W
NOT TO SCALE

UNPAVED AREAS
OUTSIDE PUBLIC R/W
NOT TO SCALE

NOTES :

1. TRENCH COMPACTION TO BE TESTED, AT THE DEVELOPERS EXPENSE, IN ACCORDANCE WITH PENNDOT PUB 408, AS REQUIRED BY THE AUTHORITY'S ENGINEER.
2. CLEAN FILL MUST BE APPROVED BY THE AUTHORITY'S ENGINEER PRIOR TO PLACEMENT IN THE TRENCH.
3. AREAS AROUND MANHOLES AND OTHER APPURTENANCES SHALL BE HAND COMPACTED AS DIRECTED BY THE AUTHORITY'S ENGINEER.
4. SPECIAL CONDITIONS OF HIGHWAY OCCUPANCY PERMIT MAY SUPERCEDE THIS DETAIL.



GENERAL NOTES:

1. NOTIFY AUTHORITY AT WHEN WATER SERVICE IS READY FOR INSPECTION AND TESTING. DO NOT BACKFILL ANY PORTION OF TRENCH PRIOR TO APPROVAL. 24 HOURS NOTICE REQUIRED.
2. PRESSURE REDUCING VALVE IS REQUIRED WHERE PRESSURE IS GREATER THAN 65 PSI.
3. METER LOCATION MUST BE APPROVED BY THE AUTHORITY.
4. ALL SERVICE LINES ARE TO BE K-TYPE TUBING ONLY WITH NO SWEAT JOINTS OR COUPLINGS UNDERGROUND.

*5. WATTS NUMBER 7 BACKFLOW PREVENTOR SHALL BE PROVIDED WHEN REQUIRED BY PBA.

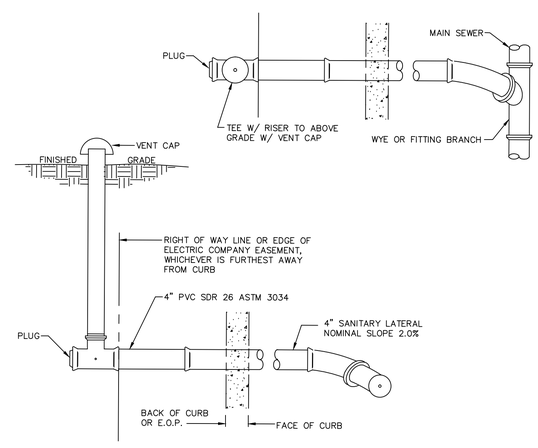
**6. PRESSURE REDUCER VALVE TO BE WATTS UB5 (IF REQUIRED).

RESIDENTIAL METER SETTING REQUIREMENTS

NTS

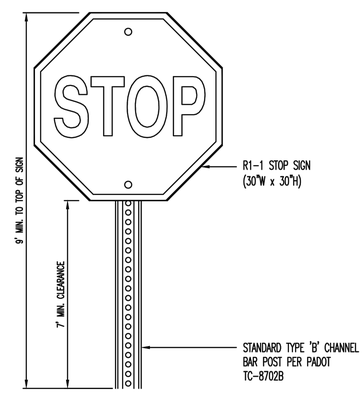
NOTES:

1. ALL WATER SERVICES MUST HAVE DOUBLE STRAP BRASS SADDLES.
2. DIP IS REQUIRED FROM THE HYDRANT VALVE TO THE FIRE HYDRANT AND UNDER STORM SEWERS WHERE THERE IS LESS THAN 18" OF CLEARANCE.



SANITARY LATERAL SHALLOW SEWER DETAIL

NTS



NOTE:

1. SIGNS TO BE INSTALLED IN ACCORDANCE WITH APPLICABLE NOTES AND SPECIFICATIONS PROVIDED WITHIN PADOT TC-8702B.

STOP SIGN

NOT TO SCALE

Rev.	Date	Comment	Init.
1	05/11/22	PER TOWNSHIP AND NCCD COMMENTS	RC

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
RODERICK M. CHIRUMBOLO
No. PE-075093

RODERICK M. CHIRUMBOLO
PE-075093

BOLO ENGINEERING, LLC
CIVIL & CONSULTING ENGINEERS
4340 CREEK ROAD
ALLENTOWN, PA 18104
(610) 297-2868
rmcengineer@hotmail.com

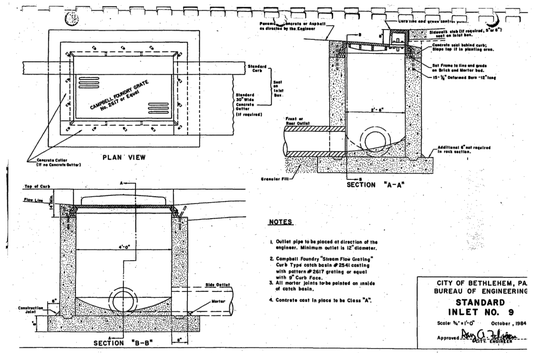
Title: BLAKE STREET APARTMENTS
BLAKE STREET AND NORMAN STREET
CITY OF BETHLEHEM, PA

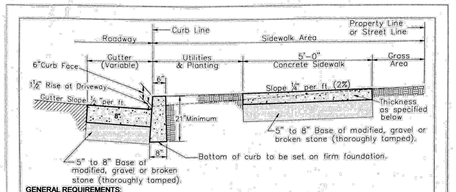
CONSTRUCTION DETAILS 1

NOVEMBER 19, 2021

AS NOTED | Project No.21059

Sheet No. CD 1 (5 OF 6)





GENERAL REQUIREMENTS:

One Course (Monolithic) Construction for all Curb, Gutter and Sidewalk.
Concrete Mix: To be Class A Concrete 3300# 6 Bag Mix – 5.6 Gal. Water per bag throughout; use power batch mixer. No slag.
Curb: 21" Depth with approved finish on top and exposed face.
Gutter: 8" Depth – Slope of Gutter 1/2" rise per foot away from curb.
Sidewalk: Thickness – Residential Area – 5", Business and Industrial Areas – 6"
At Residential Driveways – 6", At Business and Industrial Driveways – 8".
Finish – Use a float and broom finish to produce skid resistant surface.
On Grades of 5% or more, produce a rougher finish.
Slope – Walk and Parkway Areas 1/4" per foot (2%) toward curb.
Expansion and Contraction Joints: See City Construction Standard No.1A.
Handicapped Ramps: Required on all Radii in accordance with current ADA requirements.
Driveways: See City Standard Driveway Entrance and Apron Sketch.

Excavation in Cartway: When excavating in the cartway of a City street, a clean, full depth cut– by jack hammering or sawcutting–shall be made in the street between the affected and the unaffected work areas. Further, final restoration in the affected area of the street shall consist of creating a new clean cut by sawcutting 12" beyond the edge of any affected work areas, backfilling with PennDOT 2A Modified stone, and properly compacting this stone to the elevation of the top of the subbase (i.e. bottom of the base course of the macadam), but no higher than 3–inches below the finish grade–except as required to provide reasonable temporary access at driveways.

ORDINANCE REQUIREMENTS:

Warrant of Survey – Procured from the City Engineer's Office; provides for establishing Line & Grades; Stakes to to be protected by applicant and used within 30 days.
Excavation Permit – Procured from the City Engineer's Office; for Sidewalk and driveway construction.

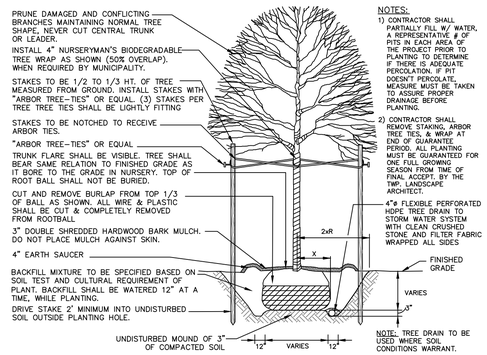
DETAIL REQUIREMENTS:

For further details and other requirements see the following documents on file in the Office of the City Engineer:
"Standard Specifications for the Construction of Concrete Curb, Gutter and Sidewalk"
Codified Ordinances of the City of Bethlehem, Articles 903 and 909.

NOTES:

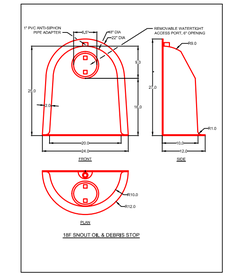
* Whenever a curb, gutter and/or sidewalk is located in a Historic District, special requirements may apply.
* Changes to dimensional requirements may be considered in cases where obstructions or encroachments exist. Any exceptions must be approved by the City Engineer. Current ADA requirements must be met in all cases.

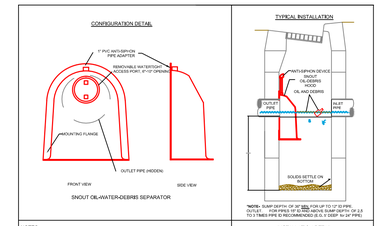
CITY OF BETHLEHEM, PA
BUREAU OF ENGINEERING
CONSTRUCTION STANDARD NO.1
for CONCRETE CURB, GUTTER and SIDEWALK
FEBRUARY 7, 2001
REV. JUNE 4, 2013
CITY ENGINEER 6/5/13



NOTES:
1) CONTRACTOR SHALL PARTIALLY FILL W/ WATER, A REPRESENTATIVE # OF PITS IN EACH AREA OF THE PROJECT PRIOR TO PLANTING TO DETERMINE. IF THERE IS ADEQUATE PERCOLATION. IF PIT DOESN'T PERCOLATE, MEASURE MUST BE TAKEN TO ASSURE PROPER DRAINAGE BEFORE PLANTING.
2) CONTRACTOR SHALL REMOVE STAKING, ARBOR TREE TIES, & WRAP AT END OF GUARANTEE PERIOD. ALL PLANTING MUST BE GUARANTEED FOR ONE FULL GROWING SEASON FROM TIME OF FINAL ACCEPT. BY THE TWP. LANDSCAPE ARCHITECT.

DECIDUOUS TREE PLANTING DETAIL
N.T.S.



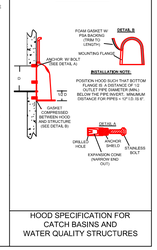


NOTES:

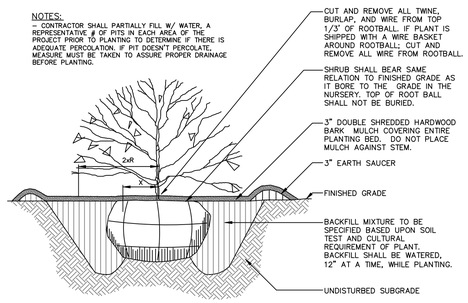
1. ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE MANUFACTURED BY:
BEST MANAGEMENT PRODUCTS, INC.
5 MATHEWS DRIVE, UNIT A1-A2
LAKEVILLE, CT 06039
TOLL FREE: (855) 904-6008 OR (888) 434-0277, FAX: (877) 434-3157
WEB SITE: www.bmpinc.com
OR PRE-APPROVED EQUAL
2. ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
3. ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE,
AND AN ANTI-SIPHON VENT PIPE AND ELBOW AS DRAWN. (SEE CONFIGURATION DETAIL)
4. THE SIZE AND PORTION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION (SNOUT SIZE ALWAYS LARGER THAN PIPE SIZE).
5. THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A MINIMUM DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
6. THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF
12" ACCORDING TO STRUCTURE CONFIGURATION.
7. THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL AND PIPE SHALL BE FINISHED FLUSH TO WALL.
8. ALL STRUCTURE JOINTS SHALL BE WATERTIGHT.
9. THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3" STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL)
10. INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT.
INSTALLATION KIT SHALL INCLUDE:
A. INSTALLATION INSTRUCTIONS
B. PVC ANTI-SIPHON VENT PIPE AND ADAPTER
C. OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING
D. 3/8" STAINLESS STEEL BOLTS
E. ANCHOR SHIELDS

US Patent # 6126917, 7951294, 7857966, 8512556
Canada Patent # 2285146, 2690156, 2690156 others pending

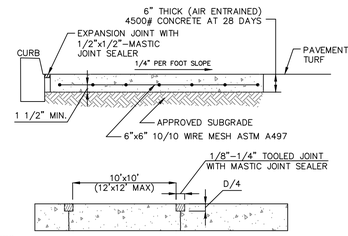
INSTALLATION DETAIL



HOOD SPECIFICATION FOR CATCH BASINS AND WATER QUALITY STRUCTURES

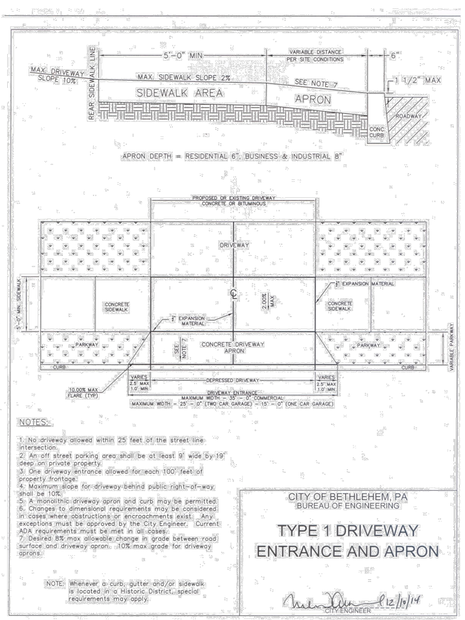


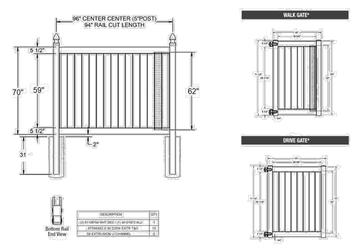
SHRUB PLANTING DETAIL
N.T.S.



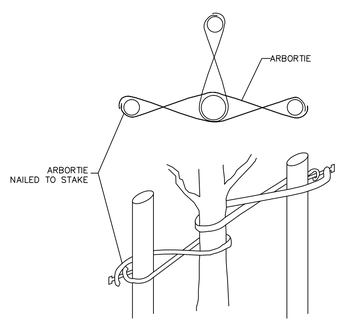
NOTES:
1) EXPANSION JOINTS TO BE LOCATED AT ALL STRUCTURES; AND WHERE PATIO ABUTS THE EXISTING CONCRETE.
2) EXPANSION MATERIALS TO BE 1/2" PREMOLDED, ASPHALT IMPREGNATED, JOINT FILLER.
3) TOOLED JOINTS TO BE SPACED EQUAL TO THE PATIO WIDTH 10'x10' (12'x12' MAX).
4) ALL MATERIALS AND METHODS TO BE IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS.

CONCRETE PAD DETAIL
NTS



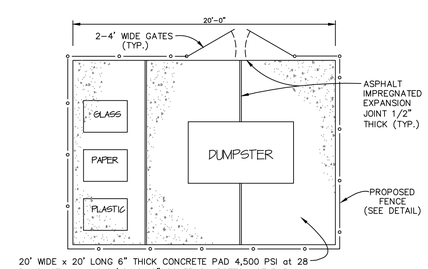


SOLID VINYL OR WOOD FENCE REQUIRED

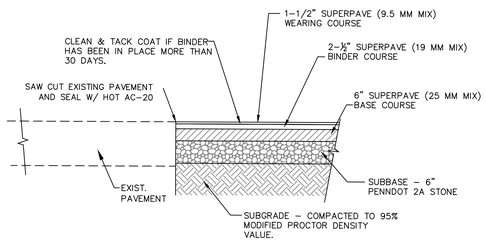


FOLD ENDS OF ARBORTIE BACK, SECURE TO STAKE WITH 1" GALVANIZED ROOFING NAIL OR USE A KNOT.

STAKING DETAIL
N.T.S.



DUMPSTER/RECYCLING PAD DETAIL
NTS



ROADWAY PAVEMENT DETAIL
NTS

Rev.	Date	Comment	
1	05/11/22	PER TOWNSHIP AND NCCD COMMENTS	RC

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
RODERICK M. CHIRUMBOLO
ENGINEER
No. PE–075093

RODERICK M. CHIRUMBOLO
PE–075093

BOLO ENGINEERING, LLC

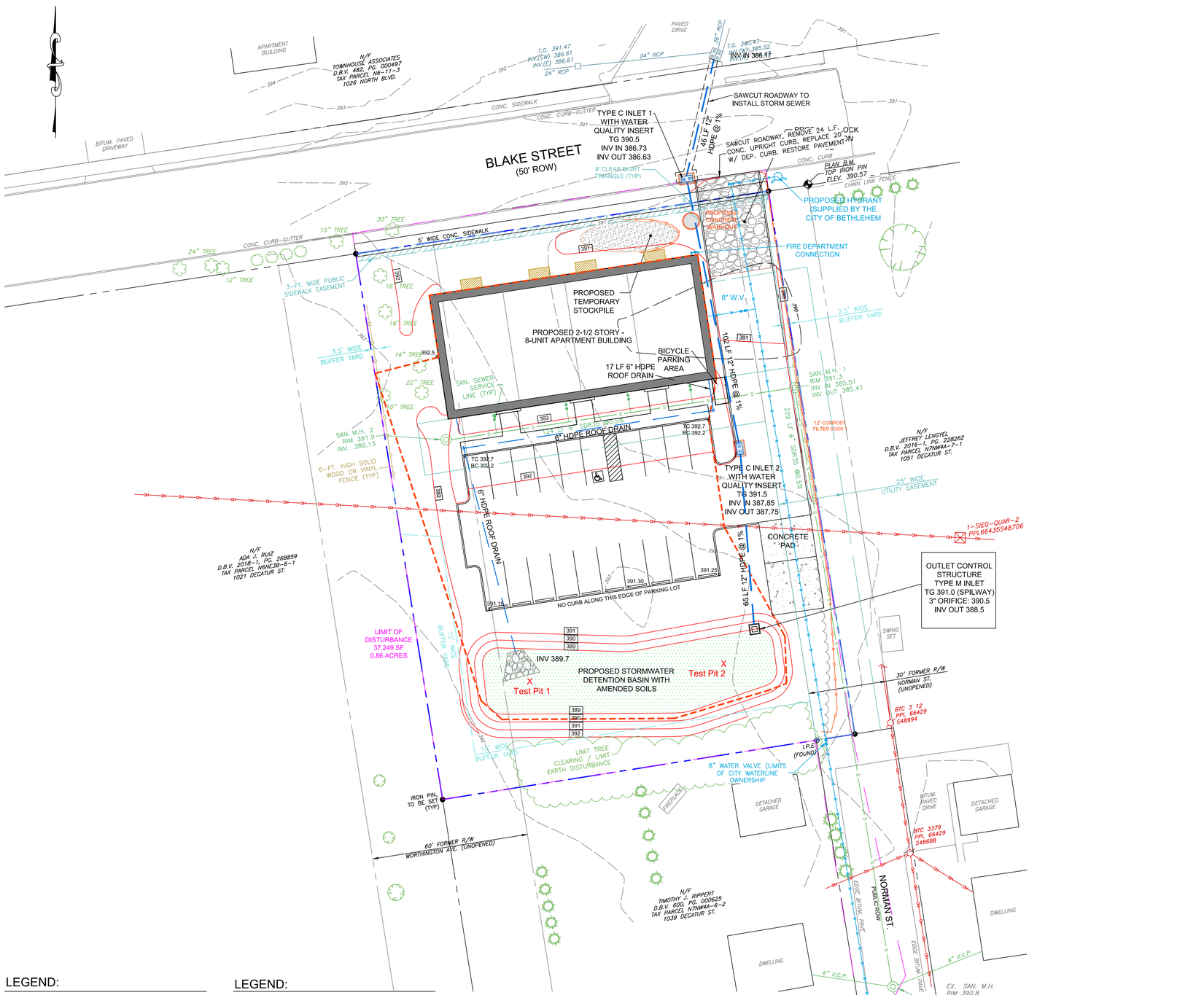
CIVIL & CONSULTING ENGINEERS
4340 CREEK ROAD
ALLENTOWN, PA 18104
(610) 297-2868
rmcengineer@hotmail.com

Title: BLAKE STREET APARTMENTS
BLAKE STREET AND NORMAN STREET
CITY OF BETHLEHEM, PA

CONSTRUCTION DETAILS 2

NOVEMBER 19, 2021

AS NOTED | Project No.21059 | Sheet No. CD 2 (6 OF 6)



AREA MAP

LEGEND:

- EXISTING BOUNDARY
- EXISTING CONTOUR
- EXISTING 5' CONTOUR
- EXISTING CURB
- EXISTING BUILDING
- EXISTING DRIVEWAY
- EXISTING FENCE
- EXISTING BUILDING SETBACK
- EXISTING OVERHEAD ELECTRIC
- EXISTING SEWER LINE
- EXISTING ADJACENT LOT LINES
- EXISTING EASEMENT
- EXISTING STORM SEWER
- EXISTING SOIL LIMITS
- EXISTING UTILITY POLE
- EXISTING SANITARY MANHOLE
- EXISTING WATER VALVE
- EXISTING STORM INLET
- EXISTING WATER

LEGEND:

- PROPOSED BUILDING
- PROPOSED PAVEMENT
- PROPOSED INFILTRATION TRENCH
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED SEWER
- PROPOSED WATER
- PROPOSED COMPOST FILTER SOCK
- PROPOSED CONSTRUCTION FENCE
- PROPOSED LIMIT OF DISTURBANCE
- PROPOSED ROCK CONSTRUCTION ENTRANCE

KNOW WHAT'S BELOW CALL BEFORE YOU DIG!

PENNSYLVANIA ACT 287 OF 1974 (AS AMENDED) REQUIRES 3 WORKING DAYS NOTICE FOR EXCAVATION PHASE AND 10 WORKING DAYS IN DESIGN STAGE – STOP! CALL!

PENNSYLVANIA ONE CALL SYSTEM, INC.
1-800 242-1776 or 811 PA
ONE-CALL SERIAL No.
20190521671

APPLICANT

BLAKE STREET PROPERTIES, LLC
910 14th AVENUE
BETHLEHEM, PA 18018
610-317-9070

0 10 20 60
SCALE : 1"= 20'

Rev.	Date	Comment	Init.
1	05/31/22	PER TOWNSHIP AND NCCD COMMENTS	RC

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
RODERICK M. CHIRUMBOLO
No. PE-075093

RODERICK M. CHIRUMBOLO
PE-075093

BOLO ENGINEERING, LLC

CIVIL & CONSULTING ENGINEERS
4340 CREEK ROAD
ALLENTOWN, PA 18104
(610) 297-2868
rmcengineer@hotmail.com

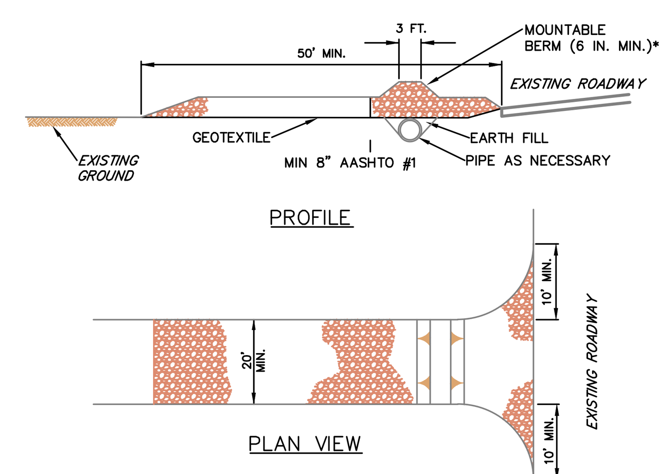
Title: BLAKE STREET APARTMENTS
BLAKE STREET AND NORMAN STREET
CITY OF BETHLEHEM, PA

EROSION AND SEDIMENTATION CONTROL PLAN

Date: NOVEMBER 19, 2021

Plan Scale: 1"=20' | Project No.21059

Sheet No. ES1 (1 OF 2)



* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL #3-1
ROCK CONSTRUCTION ENTRANCE
NOT TO SCALE

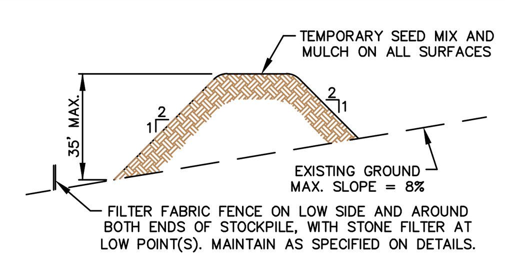
TABLE 4.1
Compost Sock Fabric Minimum Specifications

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					
Inner Containment Netting			HDPE biaxial net Continuously wound Fusion-welded junctures 3/4" X 3/4" Max. aperture size		
Outer Filtration Mesh			Composite Polypropylene Fabric (Woven layer and non-woven fleece mechanically fused via needle punch) 3/16" Max. aperture size		
Sock fabrics composed of burlap may be used on projects lasting 6 months or less.					

Filtrexx & JMD

TABLE 4.2
Compost Standards

Organic Matter Content	25% - 100% (dry weight basis)
Organic Portion	Fibrous and elongated
pH	5.5 - 8.5
Moisture Content	30% - 60%
Particle Size	30% - 50% pass through 3/8" sieve
Soluble Salt Concentration	5.0 dS/m (mmhos/cm) Maximum



TYPICAL SOIL STOCKPILE
N.T.S.

SOIL STOCKPILE MAINTENANCE
1. STOCKPILE TOPSOIL OR EXCAVATED SOIL MATERIAL AT LOCATIONS SHOWN FOR EACH PHASE OF CONSTRUCTION.
2. HEIGHT AND SIDE SLOPES SHALL NOT EXCEED MAXIMUM VALUES SHOWN ON DETAIL.
3. INSTALL COMPOST FILTER SOCK PRIOR TO STOCKPILING OF MATERIAL.
4. REPLACE ANY FENCE REMOVED FOR VEHICULAR ACCESS AFTER EACH WORK DAY.
5. IMMEDIATELY APPLY A TEMPORARY SEED MIX AND MULCH WHEN PILE IS NOT SUBJECT TO VEHICULAR ACCESS.

TEMPORARY SEEDING	
TYPE OF COVER AND SPECIES OR MIXTURES	AMOUNT PER 1,000 SF
100% ANNUAL RYE	40.0 LB

PERMANENT SEEDING	
TYPE OF COVER AND SPECIES OR MIXTURES	AMOUNT PER 1,000 SF
100% KENTUCKY BLUEGRASS	90.0 LB
TOTAL	6 LB

RECOMMENDED FERTILIZATION RATE	
LIME	1 TON PER ACRE
FERTILIZER	500 LBS 10-10-10 PER ACRE
MULCH	3 TONS PER ACRE

RECOMMENDED FERTILIZATION RATE	
LIME	6 TONS PER ACRE
FERTILIZER	1000 LBS 10-20-20 PER ACRE
MULCH	3 TONS PER ACRE

NOTES:

1. SEED SHALL BE A MINIMUM 90% PURITY AND 80% GERMINATION.
2. LIME SHALL BE AGRICULTURAL LIMESTONE AT 90% MINIMUM OF CARBONATES.

SEEDING SPECIFICATIONS

NOT TO SCALE

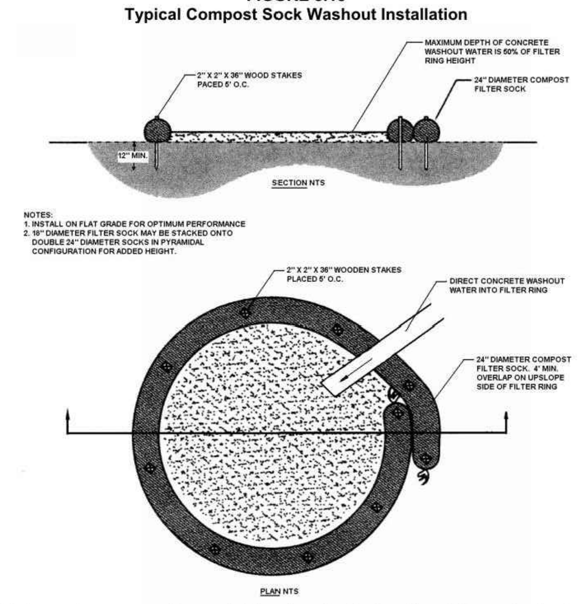
NOTE: SEEDING SHOULD TAKE PLACE BETWEEN THE MONTHS OF APRIL AND OCTOBER.

TABLE 11.6
Mulch Application Rates

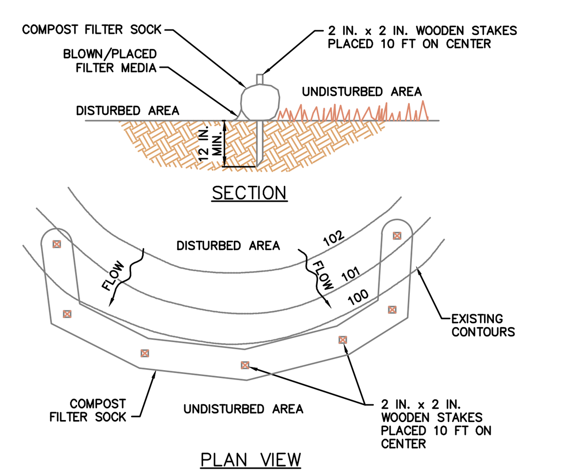
Mulch Type	Application Rate (Min.) Per Acre	Per 1,000 sq. ft.	Per 1,000 sq. yd.	Notes
Straw	3 tons	140 lb.	1,240 lb.	Either wheat or oat straw, free of weeds, not chopped or finely broken
Hay	3 tons	140 lb.	1,240 lb.	Timothy, mixed clover and timothy or other native forage grasses
Wood Chips	4 - 6 tons	185 - 275 lb.	1,650 - 2,500 lb.	May prevent germination of grasses and legumes
Hydromulch	1 ton	47 lb.	415	See limitations above

NOTE: HIGHLIGHTED MULCH IS PREFERRED METHOD OF STABILIZATION.

FIGURE 3.18
Typical Compost Sock Washout Installation



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



NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL. USE SPECIFIED SOCK FABRIC ON TABLE 4.1 (THIS SHEET).

COMPOST FILTER SOCK FILL MATERIAL SHALL BE TESTED AND THE RESULTS REPORTED TO LEHIGH COUNTY CONSERVATION DISTRICT.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

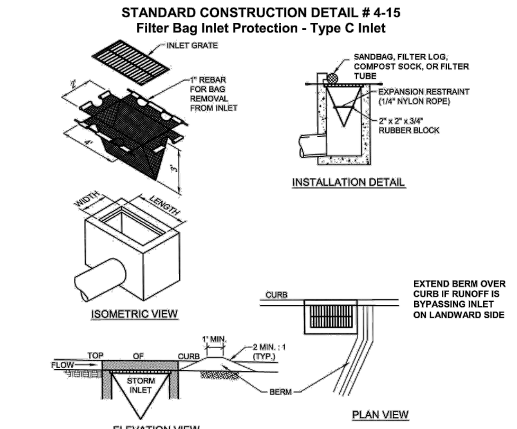
COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK
NOT TO SCALE

STANDARD CONSTRUCTION DETAIL # 4-15
Filter Bag Inlet Protection - Type C Inlet



Adapted from PennDOT RC-70, 2008 Edition

Maximum drainage area = ½ acre.

Inlet protection shall not be required for inlet tributary to sediment basin or trap. Berms shall be required for all installations.

Rolled earthen berm shall be maintained until roadway is stoned. Road subbase berm shall be maintained until roadway is paved. Six inch minimum height asphalt berm shall be maintained until roadway surface receives final coat.

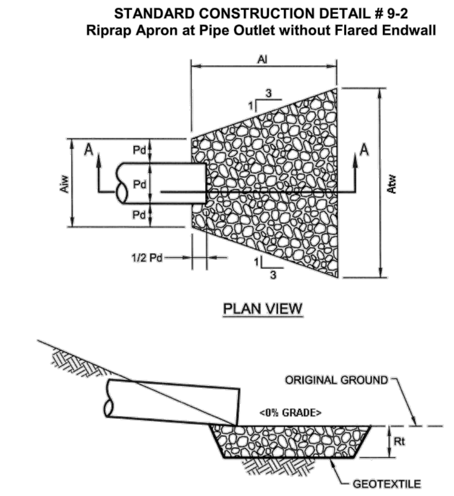
At a minimum, the fabric shall have a minimum grab tensile strength of 120 lbs, a minimum burst strength of 200 psi, and a minimum trapezoidal tear strength of 50 lbs. Filter bags shall be capable of trapping all particles not passing a No. 40 Sieve.

Inlet filter bags shall be inspected on a weekly basis and after each runoff event. Bags shall be emptied and rinsed or replaced when half full or when flow capacity has been reduced so as to cause flooding or bypassing of the inlet. Damaged or clogged bags shall be replaced. A supply shall be maintained on site for replacement of bags. All needed repairs shall be initiated immediately after the inspection. Dispose of accumulated sediment as well as all used bags according to the plan notes.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

363-2134-008 / March 31, 2012 / Page 98

STANDARD CONSTRUCTION DETAIL # 9-2
Riprap Apron at Pipe Outlet without Flared Endwall



Adapted from USDOT, FHA HEC-14

NOTE: This table is intentionally blank and should be filled in by the plan preparer.

OUTLET NO.	PIPE DIA Pd (IN)	RIPRAP SIZE (R-__)	RIPRAP THICK. Rt (IN)	APRON LENGTH Al (FT)	APRON INITIAL WIDTH Aiw (FT)	APRON TERMINAL WIDTH Atw (FT)
FES 1	6	3	6	3.0	1.5	4.5

All aprons shall be constructed to the dimensions shown. Terminal widths shall be adjusted as necessary to match receiving channels.

All aprons shall be inspected at least weekly and after each runoff event. Displaced riprap within the apron shall be replaced immediately.

Extend riprap on back side of apron to at least ½ depth of pipe on both sides to prevent scour around the pipe.

363-2134-008 / March 31, 2012 / Page 235

SOIL AMENDMENTS/RESTORATION:

CONSTRUCTION SEQUENCE:

1. ALL CONSTRUCTION SHOULD BE COMPLETED AND STABILIZED BEFORE BEGINNING SOIL RESTORATION.

COMPOST SOIL AMENDMENT INSTALLATION:

1. SPREAD 2-3 INCHES OF APPROVED COMPOST ON EXISTING SOIL OR PLACED TOPSOIL. TILL ADDED SOIL INTO EXISTING SOIL WITH A ROTARY TILLER THAT IS SET TO A DEPTH OF 6 INCHES. ADD AN ADDITIONSL4 INCHES OF APPROVED COMPOST TO BRING THE AREA UP TO GRADE.
2. AFTER PERMANENT PLANTING/SEEDING, 2-3 INCHES OF COMPOST BLANKET WILL BE APPLIED TO ALL AREAS NOT PROTECTED BY GRASS OR OTHER PLANTS.

COMPOST MATERIAL SPECIFICATIONS

COMPOST SHALL BE A WELL DECOMPOSED, WEED FREE ORGANIC MATTER DERIVED FROM AGRICULTURAL, FOOD, STUMP GRINDINGS, AND YARD OR WOOD/BARK ORGANIC MATTER SOURCE. THE COMPOST MUST BE AEROBICALLY COMPOSTED AT A PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP), BUREAU OF WASTE MANAGEMENT PERMITTED SITE. THE COMPOST SHALL POSSESS NO OBJECTIONABLE ODORS AND SHOULD BE REASONABLY FREE (<1% BY DRY WEIGHT) OF MAN-MADE FOREIGN MATTER. THE COMPOST PRODUCT SHALL NOT RESEMBLE THE RAW MATERIAL FROM WHICH IT WAS DERIVED. WOOD AND BARK CHIPS, GROUND CONSTRUCTION DEBRIS OR REPROCESSED WOOD PRODUCTS WILL NOT BE ACCEPTABLE AS THE ORGANIC COMPONENT OF THE MIX.

THE FINAL, RESULTING COMPOST SOIL AMENDMENT MUST MEET ALL OF THE MANDATORY CRITERIA IN TABLE 4.

THE PHYSICAL PARAMETERS OF THE COMPOST SHOULD COMPLY WITH THE STANDARDS OF TABLE 4.2.

TABLE 4.2
COMPOST STANDARDS

Organic Matter Content	25% – 100% (dry weight basis)
Organic Portion	Fibrous and Elongated
pH	5.5 – 8.5
Moisture Content	30% – 60%
Particle Size	30–50% pass through 3/8" sieve
Soluble Salt Concentration	5.0 dS maximum

Table 4. Adsorbed Mass of Nutrients and Metals in Unvegetated Plot Runoff From 30-Minute, High-Intensity (100-mm/hr.) Rainstorm

Element	Compost Treatments: Biosolids	Yardwaste	Bioindustrial Compost	Conventional Treatments: Compacted Subsoil	Topsoil
	Geometric Mean (mg)				
Chromium	0.01[b]	<0.01[a]	<0.01[b]	0.92[c]	0.76[c]
Copper	0.02[b]	<0.01[a]	0.01[b]	1.03[c]	0.66[c]
Nickel	<0.01[b]	<0.01[a]	<0.01[b]	0.96[c]	0.67[c]
Lead	0.01[b]	<0.01[a]	<0.01[b]	1.82[c]	0.95[c]
Zinc	0.10[b]	<0.01[a]	0.03[b]	6.55[c]	3.99[c]
Nitrogen	0.47[b]	<0.01[a]	0.09[a,b]	266.65[c]	211.87[c]
Phosphorus	0.45[b]	<0.01[a]	0.09[a,b]	36.47[c]	29.07[c]
Potassium	0.17[b]	<0.01[a]	0.09[a,b]	103.94[c]	71.57[c]

Means within the same row with different letter designations are significantly different ($p<0.05$).

Highest | Medium | Lowest

SOIL TYPE

THE FOLLOWING SOIL TYPE(S) MAY BE PRESENT ON THE PROJECT SITE ACCORDING TO THE SOIL SURVEY FOR NORTHAMPTON COUNTY OF 1974 PREPARED BY THE UNITED STATES DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE.

UoB, URBAN LAND-DUFFIELD SERIES, 2 TO 6 PERCENT SLOPES (ENTIRE SITE)

SOIL TYPE LIMITATIONS

1. MODERATE POTENTIAL FOR SINKHOLE DEVELOPMENT
2. SUSCEPTIBLE TO PIPING AND SEEPING
3. SHALLOW DEPTH TO BEDROCK IN THE FORM OF WEATHERED LIMESTONE PINNACLES IN ISOLATED LOCATIONS

RESOLUTIONS TO SOIL TYPE LIMITATIONS

1. CONSTRUCTION ACTIVITIES WILL BE SEQUENCED IN SUCH A WAY AS TO PREVENT THE DEVELOPMENT OF LOW SPOTS AND STANDING WATER.
2. THE CONTRACTOR SHALL EXCAVATE UNSUITABLE SOIL TO A SUFFICIENT DEPTH AND REPLACE SAME WITH SUITABLE MATERIAL, AS DIRECTED BY PROJECT ENGINEER.
3. THE CONTRACTOR SHALL EXCAVATE ROCK BY MEANS OF PNEUMATIC HAMMERING OR RIPPING TO A SUFFICIENT DEPTH (MINIMUM TWO (2) FEET BELOW THE BOTTOM ELEVATION OF INFILTRATION FACILITIES) AND REPLACE SAME WITH SUITABLE MATERIAL, AS DIRECTED BY PROJECT ENGINEER.
4. THE CONTRACTOR SHALL DEWATER OR OTHERWISE MAINTAIN ALL EXCAVATIONS AND TRENCHES FREE OF WATER FOR THE DURATION OF THE PROJECT.
5. THE CONTRACTOR SHALL REPAIR SINKHOLES IMMEDIATELY UPON DISCOVERY IN ACCORDANCE WITH THE SINKHOLE REPAIR DETAIL ON THE PLAN OR AS DIRECTED BY THE PROJECT ENGINEER.

TOPSOIL APPLICATION

GRADED AREAS SHOULD BE SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES TO PERMIT BONDING OF THE TOPSOIL TO THE SURFACE AREAS AND TO PROVIDE A ROUGHENED SURFACE TO PREVENT TOPSOIL FROM SLIDING DOWN SLOPE.

TOPSOIL SHOULD BE UNIFORMLY DISTRIBUTED ACROSS THE DISTURBED AREA TO A DEPTH OF 4 TO 8 INCHES MINIMUM
- 2 INCHES ON FILL OUT SLOPES. SPREADING SHOULD BE DONE IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL PREPARATION OR TILLAGE. IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOIL PLACEMENT SHOULD BE CORRECTED IN ORDER TO PREVENT FORMATION OF DEPRESSIONS UNLESS SUCH DEPRESSIONS ARE PART OF THE PCSM PLAN.

TOPSOIL SHOULD NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION. COMPACTED SOILS SHOULD BE SCARIFIED 6 TO 12 INCHES ALONG CONTOUR WHEREVER POSSIBLE PRIOR TO SEEDING.

TABLE 11.1
Cubic Yards of Topsoil Required for Application to Various Depths

Depth (in)	Per 1,000 Square Feet	Per Acre
1	3.1	134
2	6.2	268
3	9.3	403
4	12.4	537
5	15.5	672
6	18.6	806
7	21.7	940
8	24.8	1,074

Adapted from VA DSWC

CLEAN FILL

CLEAN FILL IS DEFINED AS UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE).

CLEAN FILL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS ON TABLES FP-1a AND FP-1b FOUND IN THE DEP POLICY "MANAGEMENT OF FILL".

ANY PERSON PLACING CLEAN FILL THAT HAS BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE MUST USE FOR FP-001 TO CERTIFY THE ORIGIN OF THE FILL MATERIAL AND THE RESULTS OF THE ANALYTICAL TESTING TO QUALIFY THE MATERIAL AS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE OWNER OF THE PROPERTY RECEIVING THE FILL AND MUST BE KEPT ON SITE AND MADE AVAILABLE UPON REQUEST BE DEP OR AUTHORIZED CONSERVATION DISTRICT. FAILURE TO PRODUCE THE FORM UPON REQUEST MAY RESULT IN THE REVOKING, SUSPENSION OR TERMINATION OF YOUR PERMIT COVERAGE.

ENVIRONMENTAL DUE DILIGENCE

ENVIRONMENTAL DUE DILIGENCE INCLUDES THE INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS.

ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL ME HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF THE DEP POLICY "MANAGEMENT OF FILL".

FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE DEP MUNICIPAL OR RESIDUAL WASTE REGULATIONS BASED ON 25Pa. CODE CHAPTERS 287 RESIDUAL WASTE MANAGEMENT OR 271 MUNICIPAL WASTE MANAGEMENT, WHICHEVER IS APPLICABLE.

RECYCLING AND DISPOSAL OF MATERIALS

OPERATOR/PERMITTEE SHALL INSURE THAT PROPER MECHANISMS ARE IN PLACE TO CONTROL WASTE MATERIALS. CONSTRUCTION WASTES INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, ETC. THAT COULD ADVERSELY IMPACT WATER QUALITY. MEASURES SHOULD BE PLANNED AND IMPLEMENTED FOR HOUSEKEEPING, MATERIALS MANAGEMENT, AND LITTER CONTROL. WHEREVER POSSIBLE, RECYCLING OF EXCESS MATERIALS IS PREFERRED, RATHER THAN DISPOSAL. OFF-SITE TRANSPORT OF MATERIALS REQUIRES THAT THE RECEIVING FACILITY HAVE IT'S OWN APPROVED, ACTIVE PERMIT TO RECEIVE SUCH MATERIALS.

CHAPTER 93 STREAM CLASSIFICATION:

THE RECEIVING WATERS FOR THIS PROJECT IS NANCY RUN WHICH HAS A PADEP CHAPTER 93 DESIGNATED USE OF COLD-WATER FISHES/MIGRATORY FISHES (CWF/MF).

MAINTENANCE PROGRAM

PROPER IMPLEMENTATION OF THIS PLAN REQUIRES MAINTENANCE OF THE PROPOSED ESC MEASURES, AS FOLLOWS, UNLESS MORE STRINGENT REQUIREMENTS ARE DISCUSSED ON THE LAND DEVELOPMENT PLANS.

ROCK CONSTRUCTION ENTRANCE - THE STRUCTURE'S THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSION BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL MUST BE MAINTAINED ON THE SITE FOR THIS PURPOSE. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PUBLIC ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE.

COMPOST FILTER SOCKS - SEDIMENT MUST BE REMOVED WHERE ACCUMULATIONS REACH ½ THE ABOVE GROUND HEIGHT OF THE STRUCTURE. REPAIR ALL UNDERCUTTING OR EROSION OF THE TOE ANCHOR IMMEDIATELY WITH COMPACTED BACKFILL MATERIALS. ANY COMPOST FILTER SOCKS WHICH HAVE BEEN UNDERMINED OR TOPPED, MUST BE REPAIRED BY THE END OF THE WORK DAY. SEDIMENT DEPOSITS MUST SPREAD ACROSS THE SITE AS FILL, WHEN SUITABLE OR TRANSPORTED OFF-SITE FOR PROPER DISPOSAL.

TEMPORARY STABILIZATION - ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED FOR FOUR OR MORE DAYS AND WHICH WILL REMAIN EXPOSED SHALL BE STABILIZED IMMEDIATELY. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE RECOMMENDED RATES.

UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION CONTROLS MUST BE MAINTAINED. MAINTENANCE MUST INCLUDE INSPECTION OF ALL ESC MEASURES AFTER EACH RUNOFF EVENT AND ON A MINIMUM OF A WEEKLY BASIS. ALL PREVENTION AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, RE-GRADING, RESEEDING, AND RE-MULCHING, MUST BE PERFORMED WITHIN 24 HOURS OF OBSERVANCE. SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE INCAPABLE OF ADEQUATELY REMOVING SEDIMENT FROM ON-SITE FLOWS PRIOR TO DISCHARGE, OR OF STABILIZING THE SURFACES INVOLVED, ADDITIONAL MEASURES MUST BE IMPLEMENTED TO ELIMINATE ALL SUCH PROBLEMS.

SEQUENCE OF CONSTRUCTION

1. ALL EROSION AND SEDIMENTATION CONTROLS MUST BE CONSTRUCTED, STABILIZED AND FUNCTIONAL BEFORE DISTURBANCE OF SITE COMMENCES.
2. STONES, MUD, DIRT AND/OR CONSTRUCTION DEBRIS MUST BE REMOVED FROM ALL ROADWAYS AND DRIVEWAYS IMMEDIATELY UPON OBSERVATION BY THE CONTRACTOR. UNDER NO CIRCUMSTANCES WILL STONES, MUD, DEBRIS, ETC. BE ALLOWED TO REMAIN ON ROAD SURFACES FOR ANY PERIOD OF TIME. IT IS THE CONTRACTOR'S RESPONSIBILITY TO TAKE ANY ACTIONS NECESSARY TO REMOVE ANY AND ALL OF THESE ITEMS FROM ROAD SURFACES IMMEDIATELY UPON NOTICE, OR UPON BEING DIRECTED TO DO SO, REGARDLESS OF WHETHER OR NOT CONTRACTOR BELIEVES IT IS HIS RESPONSIBILITY. FAILURE TO COMPLY WITH THIS REQUIREMENT IS A VIOLATION AND COULD RESULT IN WORK STOPPAGE, PENALTIES, VIOLATION NOTICES OR OTHER REMEDIES.
3. INSTALL ROCK CONSTRUCTION ENTRANCE.
4. INSTALL COMPOST FILTER SOCKS.
5. INSTALL UNDERGROUND UTILITIES. IMMEDIATELY STABILIZE DISTURBED AREAS.
6. CONSTRUCT ROADWAYS AND PAVED AREAS TO BASE COURSE IMMEDIATELY STABILIZE SURROUNDING AREA.
7. CONSTRUCT BUILDING. IMMEDIATELY STABILIZE DISTURBED AREAS.
8. CONSTRUCT STORMWATER BMP. IMMEDIATELY STABILIZE DISTURBED AREAS.
9. PROVIDE FINISH COURSE OF ASPHALT. IMMEDIATELY STABILIZE EXPOSED AREAS.
10. FINISH GRADING DISTURBED AREAS AND PERMANENTLY SEED AND STABILIZE ALL EXPOSED LAWN AREAS.
11. AFTER FINAL SITE STABILIZATION IS ACHIEVED, TEMPORARY EROSION AND SEDIMENT CONTROLS MUST BE REMOVED. THE STANDARD FOR A STABILIZED, EROSION RESISTANT PERENNIAL VEGETATIVE COVER WILL BE A UNIFORM COVERAGE OR DENSITY OF 70% ACROSS THE DISTURBED AREA. AREAS DISTURBED DURING REMOVAL OF THE CONTROL.
12. ALL DISTURBED AREAS MUST BE SEEDED, SODDED, AND/OR PLANTED OR OTHERWISE PROTECTED FROM EROSION WITHIN SIXTY (60) DAYS OF GROUND BREAKING AND SHALL BE WATERED, TENDERED, AND MAINTAINED UNTIL GROWTH IS WELL ESTABLISHED.
13. SHOULD CONSTRUCTION ACTIVITY CEASE AT ANY POINT, FOR A PERIOD OF 4-DAYS OR LONGER, THE CONTRACTOR SHALL TEMPORARILY STABILIZE ALL DISTURBED.

STANDARD EROSION AND SEDIMENT CONTROL PLAN NOTES

1) ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
2) AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, THE PCSM PLAN PREPARER, THE LICENSED PROFESSIONAL RESPONSIBLE FOR OVERSIGHT OF CRITICAL STAGES OF IMPLEMENTATION OF THE PCSM PLAN, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING.
3) AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
4) ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
5) AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
6) CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
7) AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
8) TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAP(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
9) IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
10) ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THIS SITE.
11) ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
12) THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
13) ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS. ALL PUMPING OF SEDIMENT LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER NON-DISTURBED AREAS.
14) VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM THE LOT ONTO ANY STREET. VEHICLES AND EQUIPMENT MAY ONLY ENTER AND EXIT THE CONSTRUCTION SITE VIA A STABILIZED ROCK CONSTRUCTION ENTRANCE.
15) UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. THE OPERATOR WILL MAINTAIN AND MAKE AVAILABLE TO NORTHAMPTON COUNTY CONSERVATION DISTRICT COMPLETE, WRITTEN INSPECTION LOGS OF ALL THOSE INSPECTIONS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, RE-GRADING, RE-SEEDING, RE-MULCHING AND RE-NETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
16) A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
17) SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
18) ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOOD PLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED, OR PLACED IN TOPSOIL STOCKPILES.
19) AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES – 6 TO 12 INCHES ON COMPACTED SOILS – PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUT SLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
20) ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
21) ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
22) FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
23) FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
24) FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
25) SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
26) ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
27) IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUB-AREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR OTHER PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.
28) PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR MOTHER MOVEMENTS.
29) EROSION AND SEDIMENT BMPS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMPS. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
30) UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPS.
31) AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPS. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID RE-VEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
32) UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
33) FAILURE TO CORRECTLY INSTALL E&S BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO $10,000 PER DAY IN CIVIL PENALTIES, UP TO $10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO $25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.
34) IN THE EVENT OF SINKHOLE DISCOVERY A PROFESSIONAL GEOLOGIST OR ENGINEER WILL BE CONTACTED CONCERNING MITIGATION. ADDITIONALLY, THE COUNTY CONSERVATION DISTRICT WILL BE MADE AWARE OF THE SINKHOLE DISCOVERY IMMEDIATELY.
35) THE OPERATOR SHALL ASSURE THAT THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED.
36) THE CONTRACTOR IS ADVISED TO BECOME THOROUGHLY FAMILIAR WITH THE PROVISIONS OF THE APPENDIX 64, EROSION CONTROL RULES AND REGULATIONS, TITLE 25, PART 1, DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C, PROTECTION OF NATURAL RESOURCES, ARTICLE III, WATER RESOURCES, CHAPTER 102, EROSION CONTROL.
37) THE E&S CONTROL PLAN MAPPING MUST DISPLAY A PA ONE CALL SYSTEM INCORPORATED SYMBOL INCLUDING THE SITE IDENTIFICATION NUMBER. (THIS IS A NUMBERED SYMBOL NOT A NOTE.)
38) AT STREAM CROSSINGS, 50' BUFFER AREAS SHOULD BE MAINTAINED. ON BUFFERS, CLEARING, SOD DISTURBANCES, EXCAVATION, AND EQUIPMENT TRAFFIC SHOULD BE MINIMIZED. ACTIVITIES SUCH AS STACKING LOGS, BURNING CLEARED BRUSH, DISCHARGING RAINWATER FROM TRENCHES, WELDING PIPE SECTIONS, REFUELING AND MAINTAINING EQUIPMENT SHOULD BE ACCOMPLISHED OUTSIDE OF BUFFERS.
39) ALL WETLANDS MUST BE DELINEATED AND PROTECTED WITH ORANGE SAFETY FENCE PRIOR TO ANY EARTHMOVING ACTIVITY.
40) STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN

OPTIONAL NOTES

41) CONCRETE WASH WATER SHALL BE HANDLED IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. IN NO CASE SHALL IT BE ALLOWED TO ENTER ANY SURFACE WATERS OR GROUNDWATER SYSTEMS.
42) ALL CHANNELS SHALL BE KEPT FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTES.
43) UNDERGROUND UTILITIES CUTTING THROUGH ANY ACTIVE CHANNEL SHALL BE IMMEDIATELY BACKFILLED AND THE CHANNEL RESTORED TO ITS ORIGINAL CROSS-SECTION AND PROTECTIVE LINING. ANY BASE FLOW WITHIN THE CHANNEL SHALL BE CONVEYED PAST THE WORK AREA IN THE MANNER DESCRIBED IN THIS PLAN UNTIL SUCH RESTORATION IS COMPLETE.
44) CHANNELS HAVING RIP-RAP, RENO MATTRESS, OR GABION LININGS MUST BE SUFFICIENTLY OVER-EXCAVATED SO THAT THE DESIGN DIMENSIONS WILL BE PROVIDED AFTER PLACEMENT OF THE PROTECTIVE LINING.
45) SEDIMENT BASINS AND/OR TRAPS SHALL BE KEPT FREE OF ALL CONSTRUCTION WASTE, WASH WATER, AND OTHER DEBRIS HAVING POTENTIAL TO CLOG THE BASIN/TRAP OUTLET STRUCTURES AND/OR POLLUTE THE SURFACE WATERS.
46) SEDIMENT BASINS SHALL BE PROTECTED FROM UNAUTHORIZED ACTS BY THIRD PARTIES.
47) BAFFLES MUST BE INSTALLED TO ALLOW BASIN MAINTENANCE AND CLEAN OUT.
48) ANY DAMAGE THAT OCCURS IN WHOLE OR IN PART AS A RESULT OF BASIN OR TRAP DISCHARGE SHALL BE IMMEDIATELY REPAIRED BY THE PERMITTEE IN A PERMANENT MANNER SATISFACTORY TO THE MUNICIPALITY, LOCAL CONSERVATION DISTRICT, AND THE OWNER OF THE DAMAGED PROPERTY.
49) UPON REQUEST, THE APPLICANT OR HIS CONTRACTOR SHALL PROVIDE AN AS-BUILT (RECORD DRAWING) FOR ANY SEDIMENT BASIN OR TRAP TO THE MUNICIPAL INSPECTOR, LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
50) EROSION CONTROL BLANKETING SHALL BE INSTALLED ON ALL SLOPES 3H:1V OR STEEPER, WITHIN 50 FEET OF A SURFACE WATER AND ON ALL OTHER DISTURBED AREAS SPECIFIED ON THE PLAN MAPS AND/OR DETAIL SHEETS.
51) FILL MATERIAL FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS. THE EMBANKMENT SHALL BE COMPACTED IN MAXIMUM 8 LAYERED LIFTS AT 95 % DENSITY.

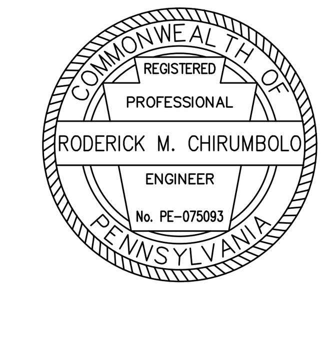
LAND USE

THE PROPERTY IS VACANT.
FOR THE PAST 5 YEARS THE PROPERTY HAS BEEN A VACANT RESIDENTIAL LOT.
FOR THE PAST 50-YEARS THE PROPERTY HAS BEEN A VACANT RESIDENTIAL LOT.

THERMAL IMPACTS

THE PROPOSED PROJECT INCLUDES THE DESIGN OF AN INFILTRATION BED, WHICH WILL PROMOTE GROUNDWATER RECHARGE AND MINIMIZE INCREASED STORMWATER TEMPERATURES, THUS MINIMIZING THERMAL IMPACTS RECEIVING WATER BODY. DURING CONSTRUCTION, STORMWATER WILL BE DIRECTED TOWARDS COMPOST FILTER SOCKS AND ALLOWED TO RUNOFF NATURALLY. SOME TEMPERATURE DIFFERENTIAL MAY TAKE PLACE BUT WILL BE INSIGNIFICANT AND FOR A SHORT PERIOD OF TIME.

Rev.	Date	Comment	Init.
1	05/11/22	PER TOWNSHIP AND NCCD COMMENTS	RC



RODERICK M. CHIRUMBOLO
PE–075093

BOLO ENGINEERING, LLC
CIVIL & CONSULTING ENGINEERS
4340 CREEK ROAD
ALLENTOWN, PA 18104
(610) 297-2868
rmcengineer@hotmail.com

Title: BLAKE STREET APARTMENTS
BLAKE STREET AND NORMAN STREET
CITY OF BETHLEHEM, PA

EROSION AND SEDIMENTATION CONTROL NOTES AND DETAILS

Date: NOVEMBER 19, 2021

AS NOTED | Project No.21059

Sheet No. ES2 (2 OF 2)