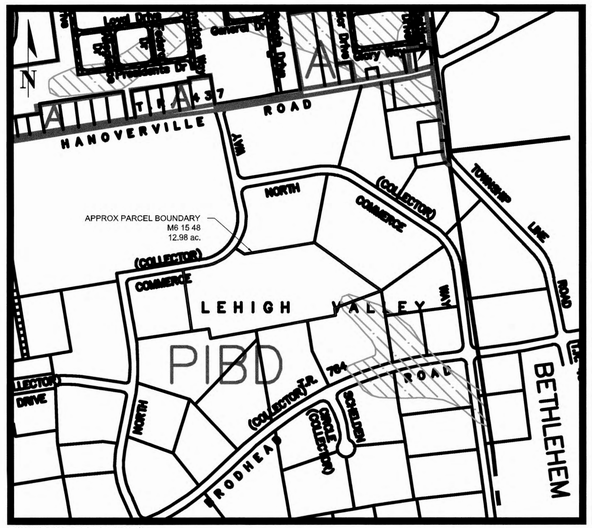
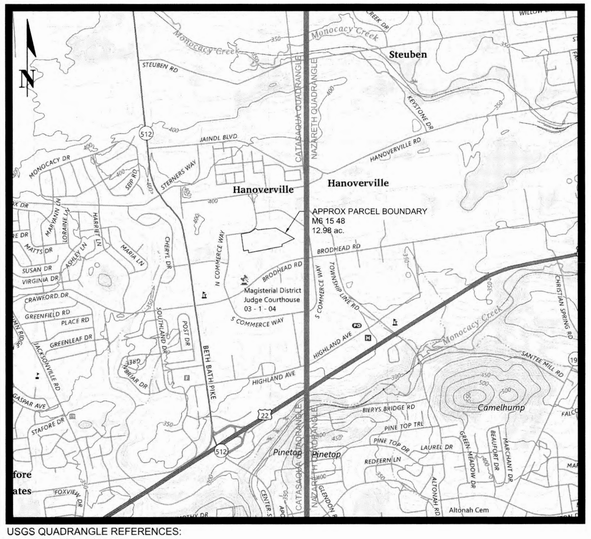
ICAD SERVICES, INC.

AMENDED SITE PLAN
FOR
FEDEX PARKING LOT IMPROVEMENTS
MAP M6, B 15, L 48, HANOVER TOWNSHIP
NORTHAMPTON COUNTY, PENNSYLVANIA



ZONING MAP REFERENCES:
"ZONING MAP FOR HANOVER TOWNSHIP, NORTHAMPTON COUNTY, PENNSYLVANIA"
PREPARED BY HANOVER ENGINEERING ASSOCIATES, INC. LAST REVISED NOVEMBER 23, 2022

ZONING MAP
1" = 500'



USGS QUADRANGLE REFERENCES:
CATASAUQA, PA (2023)
NAZARETH, PA (2023)

USGS MAP
1" = 2,000'

DRAWING LIST

		REVISION
G-001	COVER SHEET	----
G-002	GENERAL NOTES & LEGEND	----
C-001	EXISTING CONDITIONS PLAN	----
C-002	DEMOLITION PLAN	----
C-003	SITE PLAN	----
C-004	GRADING & DRAINAGE PLAN	----
C-005	UTILITY PLAN	----
C-006	SIGNAGE PLAN	----
C-007	CONSTRUCTION DETAILS	----
C-008	CONSTRUCTION DETAILS	----
C-101	EROSION CONTROL PLAN	----
C-102	EROSION CONTROL NOTES	----
C-103	EROSION CONTROL DETAILS	----

RECEIVED
JUL 22 2026
HANOVER TOWNSHIP

RECEIVED
JUL 22 2026
HANOVER ENGINEERING

PROPOSED PERVIOUS COVER CALCULATIONS

DESCRIPTION	PERVIOUS AREA (SF)
LANDSCAPED PARKING ISLAND AREA	- 1,938
NEW CONCRETE AREA	- 1,951
NEW PERVIOUS AREA	+ 4,045
TOTAL	+ 156

THE PROPOSED IMPROVEMENTS RESULT IN A 156 SF INCREASE IN PERVIOUS COVER.

ZONING DATA TABULATION
HANOVER TOWNSHIP
§ 185-35 REGULATIONS APPLICABLE TO PIBD PLANNED INDUSTRIAL/BUSINESS DISTRICT

	REQUIRED	EXISTING	PROPOSED	COMMENTS
MINIMUM LOT AREA (ac)	3.0	12.98	12.98	NO CHANGE
MINIMUM LOT WIDTH (ft)	225	1,087.4	1,087.4	NO CHANGE
MAX BUILDING COVERAGE (%)	70	20	20	NO CHANGE
MAX LOT COVERAGE (%)	70	53.95	53.97	COMPLIANT
MAXIMUM BUILDING HEIGHT (ft)	45	<45	<45	NO CHANGE
MAXIMUM BUILDING STORIES (st)	4	<4	<4	NO CHANGE
FRONT YARD SETBACK (ft)	50	98.1	98.1	NO CHANGE
SIDE YARD, ONE (ft)	20	215.29	215.29	NO CHANGE
SIDE YARD, BOTH COMBINED (ft)	80[1]	580.49	580.49	NO CHANGE
SIDE YARD, PARKING SETBACK (ft)	20	37.1	37.1	NO CHANGE
REAR YARD (ft)	40[1]	170.8	170.8	NO CHANGE
REAR YARD, PARKING SETBACK (ft)	20	39.8	39.8	NO CHANGE

[1] A TWENTY-FOOT PARKING SETBACK SHALL BE REQUIRED FOR SIDE AND REAR YARD SETBACKS. REQUIREMENT MET.

HANOVER TOWNSHIP PARKING CALCULATIONS
§ 185-17 OFF-STREET PARKING REGULATIONS

USE	REQUIRED	EXISTING	PROPOSED	COMMENTS
WAREHOUSE SPACE	0.1 SP / 100 SF x 103,821 SF = 103.82 SP = 104 SP 1 SP / EMPLOYEE x 100 EMPLOYEES = 100 SP	-	-	-
PROFESSIONAL OFFICES W/ RETAIL	0.7 SP / 100SF x 9,315 SF = 65.21 SP = 66 SP	-	-	-
TOTAL	270 SPACES	355	241	-

JULY 17, 2026

CP ENGINEERS

2013 SANDY DRIVE
SUITE 101
STATE COLLEGE, PA 16803

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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
FRANCIS R. ZGODA
ENGINEER
PENNSYLVANIA

FRANCIS R. ZGODA
PROFESSIONAL ENGINEER
COMMONWEALTH OF PENNSYLVANIA
LIC. NO. PE 085379

AMENDED SITE PLAN
FOR
FEDEX PARKING LOT IMPROVEMENTS
MAP M6, B 15, L 48, HANOVER TOWNSHIP
NORTHAMPTON COUNTY, PENNSYLVANIA

CP-206
G-001 COVER SHEET

CP Engineers Dave.Clark M:\Clients\ICAD Services\CP-206- FedEx- Bethlehem Parking Upgrade\Drawings\Current\General\Cover.dwg Fri, Jul 17, 2026 - 5:11pm

GENERAL NOTES

1. VERIFY ALL DIMENSIONS AND LOCATIONS IN THE FIELD.
2. DO NOT SCALE THESE DRAWINGS.
3. BRING DISCREPANCIES TO THE ATTENTION OF THE ENGINEER PRIOR TO START OF CONSTRUCTION.
4. ALL SYMBOLS SHOWN ON SYMBOL LISTS MAY NOT BE USED.
5. ALL SHOWN IS NEW UNLESS NOTED OTHERWISE.
6. ALL PENETRATIONS OF WALLS, PARTITIONS, CHASES, SHAFTS, FLOORS AND ROOFS SHALL BE COMPLETELY SEALED. PENETRATIONS THROUGH FIRE-RATED WALLS AND FLOORS SHALL BE SEALED TO PROVIDE A RATING EQUAL TO OR GREATER THAN THAT OF THE WALL OR FLOOR PENETRATED.
7. ALTERNATE MANUFACTURERS SHALL COMPLY WITH ALL BASIS OF DESIGN PERFORMANCE AND SYSTEM DESIGN REQUIREMENTS.
8. THE FINISHED WORK SHALL BE FIRM, WELL ANCHORED, IN TRUE ALIGNMENT, PLUMB, LEVEL, WITH SMOOTH, CLEAN, UNIFORM APPEARANCE WITHOUT WAVES, DISTORTIONS, HOLES, MARKS, CRACKS, STAINS OR DISCOLORATION. JOINTS SHALL BE CLOSE FITTING, NEAT AND WELL SCRIBED. THE FINISH SHALL NOT PRESENT HAZARDOUS, UNSAFE CORNERS. ALL WORK SHALL HAVE THE PROVISION FOR EXPANSION, CONTRACTION AND SHRINKAGE AS NECESSARY TO PREVENT CRACKS, BUCKLING AND WARPING DUE TO TEMPERATURE AND HUMIDITY CONDITIONS.
9. UNLESS OTHERWISE SPECIFICALLY MENTIONED, ALL ANCHORS, BOLTS, SCREWS, FITTINGS, FILLER, HARDWARE, ACCESSORIES, TRIM AND OTHER PARTS REQUIRED FOR, OR IN CONNECTION WITH, AN ITEM OR MATERIAL TO MAKE A COMPLETE, SERVICEABLE, FINISHED AND FIRST QUALITY INSTALLATION SHALL BE FURNISHED AND INSTALLED AS PART OF THE ITEM OR MATERIAL, WHETHER CALLED FOR OR NOT.
10. ALL THREADED ROD USED TO SUPPORT TRAPEZE, EQUIPMENT, STRUT, OR OTHER COMPONENTS WHERE THE THREADED END OF THE ROD IS EXPOSED SHALL BE TRIMMED TO WITHIN AN INCH OF THE SUPPORTED ITEM AND SHALL BE FINISHED OFF WITH AN ACORN NUT AND LOCK NUT. THREADED ROD INSTALLED FOR A SPECIAL PURPOSE WHEREBY THIS FINISHING METHOD WOULD NOT BE ACCEPTABLE SHALL BE COORDINATED WITH THE MECHANICAL ENGINEER.
11. EQUIPMENT, CONDUIT, PIPING OR OTHER INSTALLED COMPONENTS MAY NOT BE SUPPORTED FROM WOODEN STRUCTURES. PROVIDE CONDUIT, PIPING, DUCTWORK, AND EQUIPMENT SUPPORTS FROM STRUCTURAL STEEL, MASONRY WALLS, OR INDEPENDENT STRUCTURAL SUPPORTS FROM FLOOR. PROVIDE SUPPORTS AT CODE OR MANUFACTURER REQUIRED INTERVALS OR AS SPECIFIED, WHICHEVER IS MORE STRINGENT.

LEGEND

EXISTING		PROPOSED
	STRUCTURE, PRINCIPAL	
	STRUCTURE, ACCESSORY	
	PUBLIC RIGHT-OF-WAY	
	PROPERTY BOUNDARY, PRINCIPAL	
	PROPERTY BOUNDARY, ADJACENT	
	EASEMENT	
	EDGE OF PAVEMENT	
	CURB	
X X X X X	FENCE, CHAIN-LINK	X X X X X
	FENCE, WOOD	
	GUIDE RAIL, METAL	
	GUIDE RAIL, WOOD	
W W	WATER MAIN	W W
S S	SANITARY SEWER	S S
	SANITARY VACUUM SEWER	VS VS
	SANITARY FORCE MAIN	FM FM
OH W	OVERHEAD WIRES	OH W
E E	UNDERGROUND ELECTRIC LINE	E E
T T	UNDERGROUND TELECOM. LINE	T T
	DRAINAGE PIPE	
A B E	DRAINAGE INLETS	A B E
	LIMIT OF DISTURBANCE	
	SEDIMENT CONTROL BARRIER	
	TREE LINE / EDGE OF WOODS	
	WETLAND BOUNDARY W/ FLAGS	
	TOPOGRAPHIC CONTOURS	
000	INDEX	000
000	INTERMEDIATE	000
X 000.00	SPOT ELEVATION	X 000.00
	DEMO	

NATURAL GAS MODIFICATION NOTES

CODES, OWNERSHIP & COORDINATION

1. PERFORM ALL WORK IN ACCORDANCE WITH THE ADOPTED FUEL GAS CODE (IFGC/IRC), NFPA 54 (NATIONAL FUEL GAS CODE), LOCAL UTILITY STANDARDS, AND AHJ AMENDMENTS. THE FUEL GAS CODE APPLIES FROM THE POINT OF DELIVERY (OUTLET OF THE METER/SERVICE REGULATOR) TO ALL BUILDING PIPING, APPLIANCES AND ACCESSORIES.
2. COORDINATE METER RELOCATION WITH THE GAS UTILITY. UTILITY DETERMINES FINAL METER SET LOCATION AND OWNS SERVICE EQUIPMENT UPSTREAM OF THE POINT OF DELIVERY; CUSTOMER-OWNED WORK BEGINS AT/AFTER THE METER OUTLET.
3. OBTAIN REQUIRED PERMITS; SCHEDULE UTILITY SHUTDOWNS AND CUTOVER ACTIVITIES; NOTIFY AFFECTED USERS PRIOR TO SERVICE INTERRUPTION PER NFPA 54.

METER SET LOCATION & CLEARANCES

4. PREFERRED LOCATION: OUTDOORS, PROTECTED, AND READILY ACCESSIBLE. MAINTAIN MINIMUM WORKING CLEARANCE 3 FT IN FRONT OF THE METER AND SEPARATION FROM ELECTRIC SERVICE EQUIPMENT; COMPLY WITH UTILITY SITING RULES.
5. MAINTAIN CLEARANCES TO OPENINGS AND SOURCES OF IGNITION: UTILITY PREFERENCE 10 FT (MINIMUM 3 FT IF 10 FT NOT PRACTICAL); DO NOT LOCATE BENEATH EXHAUSTS THAT DRIP CONDENSATE ONTO THE ASSEMBLY.
6. WHERE METERS ARE NEAR VEHICLE TRAFFIC, PROVIDE BARRIERS/BOLLARDS TO PROTECT FROM PHYSICAL DAMAGE PER UTILITY GUIDANCE.

UNDERGROUND GAS SERVICE – MATERIALS & INSTALLATION

7. UNDERGROUND NONMETALLIC GAS PIPING SHALL BE PE (HDPE) CONFORMING TO ASTM D2513; INSTALL WITH APPROVED TRANSITION FITTINGS AND FACTORY-ASSEMBLED ANODELESS RISER PER ASTM F1973 AT BUILDING ENTRY.
8. MINIMUM BURIAL DEPTH: 12 IN BELOW GRADE FOR UNDERGROUND GAS PIPING UNLESS OTHERWISE REQUIRED BY AHJ/UTILITY OR SITE CONDITIONS (DEEPER UNDER DRIVES/ROW AS DIRECTED).
9. PROVIDE TRACER WIRE ALONG THE ENTIRE RUN OF NONMETALLIC PIPING; TERMINATE AND MAKE ACCESSIBLE AT EACH END. MINIMUM #18 AWG INSULATED, DIRECT-BURY CONDUCTOR; MANY UTILITIES REQUIRE #14 AWG COPPER CLAD STEEL FOR HDD/PLOWED INSTALLATIONS.
10. BACKFILL WITH CLEAN, NON-CORROSIVE MATERIAL PER UTILITY/AHJ REQUIREMENTS; PROTECT PIPING FROM PHYSICAL DAMAGE. CALL 811 BEFORE ANY EXCAVATION.

BUILDING ENTRY & RISER

11. TERMINATE PE PIPING ONLY AT A LISTED FACTORY ANODELESS RISER; ABOVE GRADE PIPING SHALL BE STEEL AND BONDED/GROUNDED PER CODE AND UTILITY PRACTICE.
12. WHERE PIPING PASSES THROUGH EXTERIOR WALLS, PROTECT AGAINST CORROSION (COATING/WRAPPING OR SLEEVE WITH SEALED ANNULUS).
13. PROVIDE DIELECTRIC ISOLATION WHERE DISSIMILAR METALS JOIN (E.G., COPPER-TO-STEEL) USING LISTED DIELECTRIC UNIONS PER ASSE 1079 OR APPROVED FITTINGS TO MITIGATE GALVANIC CORROSION.

INDOOR PIPING, SUPPORTS & VALVES

14. ABOVE-GROUND BUILDING PIPING SHALL BE STEEL (ASTM A53 OR AS SPECIFIED) INSTALLED PER IFGC/NFPA 54. SUPPORT HORIZONTAL STEEL PIPING AT INTERVALS NOT EXCEEDING IFGC TABLE 415.1 (E.G., 1/2 IN: 6 FT; 3/4–1 IN: 8 FT; 1-1/4 IN AND LARGER: 10 FT; VERTICAL: AT EVERY FLOOR).
15. PROVIDE A FULL-PORT MANUAL SHUTOFF VALVE AT THE BUILDING GAS ENTRY AND AT EACH APPLIANCE; SEDIMENT TRAPS WHERE REQUIRED BY CODE/MANUFACTURER.
16. PROTECT EXPOSED PIPING FROM PHYSICAL DAMAGE; LOCATE AND GUARD PIPING TO AVOID LAWN EQUIPMENT, VEHICULAR IMPACT, AND SIMILAR HAZARDS.
17. NEW NATURAL GAS PIPE RISER INSIDE BUILDING TO BE RELOCATED LEFTWARD AGAINST THE ADJACENT COLUMN; SECURE TO COLUMN. EXTEND PIPING BELOW CEILING AND RECONNECT TO EXISTING NATURAL GAS PIPING SYSTEM.

REGULATORS & VENTING (WHERE APPLICABLE)

18. INSTALL LINE/APPLIANCE REGULATORS PER LISTING AND MANUFACTURER INSTRUCTIONS. VENT THE ATMOSPHERIC SIDE TO OUTDOORS UNLESS THE DEVICE IS LISTED FOR USE WITH A VENT-LIMITING MEANS; SIZE AND ROUTE VENTS PER MANUFACTURER AND NFPA 54.
19. VENT TERMINATIONS: DESIGN TO PREVENT WATER/INSECT ENTRY; TERMINATE AT LEAST 3 FT FROM ANY POSSIBLE SOURCE OF IGNITION; ELEVATE ABOVE EXPECTED FLOOD/SNOW LEVELS OR USE ANTI-FLOOD BREATHER FITTINGS.
20. DO NOT MANIFOLD REGULATOR VENTS UNLESS SPECIFICALLY PERMITTED FOR CERTAIN LISTED DESIGNS; DO NOT TERMINATE INTO POSITIVE-PRESSURE COMBUSTION CHAMBERS.

PRESSURE TESTING, LEAK CHECK & PURGING

21. BEFORE CONNECTING APPLIANCES, PRESSURE TEST COMPLETED PIPING SECTIONS PER IFGC/NFPA 54: TEST PRESSURE ≥ 1.5× THE PROPOSED MAXIMUM WORKING PRESSURE AND NOT LESS THAN 3 PSIG; MEASURE WITH A CALIBRATED DEVICE/MANOMETER. TEST WITH AIR OR INERT GAS; OXYGEN IS PROHIBITED.
22. HOLD TIME AND PROCEDURE SHALL MEET AHJ REQUIREMENTS; MANY JURISDICTIONS MANDATE A MINIMUM 10 MINUTE HOLD WITH NO PERCEPTIBLE DROP.
23. AFTER TEST AND PRIOR TO PLACING IN SERVICE, PERFORM A LEAK CHECK; THEN PURGE THE PIPING PER NFPA 54 CHAPTER 8 USING APPROVED METHODS. CONTROL IGNITION SOURCES AND ENSURE ELECTRICAL CONTINUITY PRIOR TO ALTERATION OF METALLIC PIPING.

RECONNECTION & COMMISSIONING

24. EXTEND AND RECONNECT NEW BUILDING PIPING TO EXISTING PIPING USING COMPATIBLE FITTINGS; VERIFY SYSTEM OPERATING PRESSURES (E.G., LOW PRESSURE ~7–14 IN. W.C. OR 2 PSIG SYSTEMS WITH APPLIANCE REGULATORS) PER EQUIPMENT LISTINGS AND UTILITY SERVICE.
25. VERIFY APPLIANCE COMBUSTION AIR, VENTING CLEARANCES AND TERMINATIONS PER NFPA 54/IFGC AND MANUFACTURER INSTRUCTIONS BEFORE RELIGHTING/COMMISSIONING.

RECORDS & AS BUILTS

26. PROVIDE UPDATED AS BUILT DRAWINGS INDICATING NEW METER LOCATION, UNDERGROUND PIPE ROUTING/DEPTHS, RISER LOCATION, TRACER WIRE ENDPOINTS, AND REGULATOR VENT TERMINATION(S). SUBMIT PRESSURE TEST AND LEAK CHECK DOCUMENTATION TO THE AHJ/UTILITY AS REQUIRED.

No.	DATE	DESCRIPTION	BY	CKD.

LETTER REVISIONS ARE NOT TO BE USED FOR CONSTRUCTION

DESIGN D.A.C. | DRAWN M.B. | CHECKED D.A.C.

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL FRANCIS R. ZGODA ENGINEER
FRANCIS R. ZGODA
PROFESSIONAL ENGINEER
COMMONWEALTH OF PENNSYLVANIA
LIC. NO. PE085379

CP ENGINEERS
CP ENGINEERS
2013 SANDY DRIVE
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STATE COLLEGE, PA 16803
(814) 753-4249
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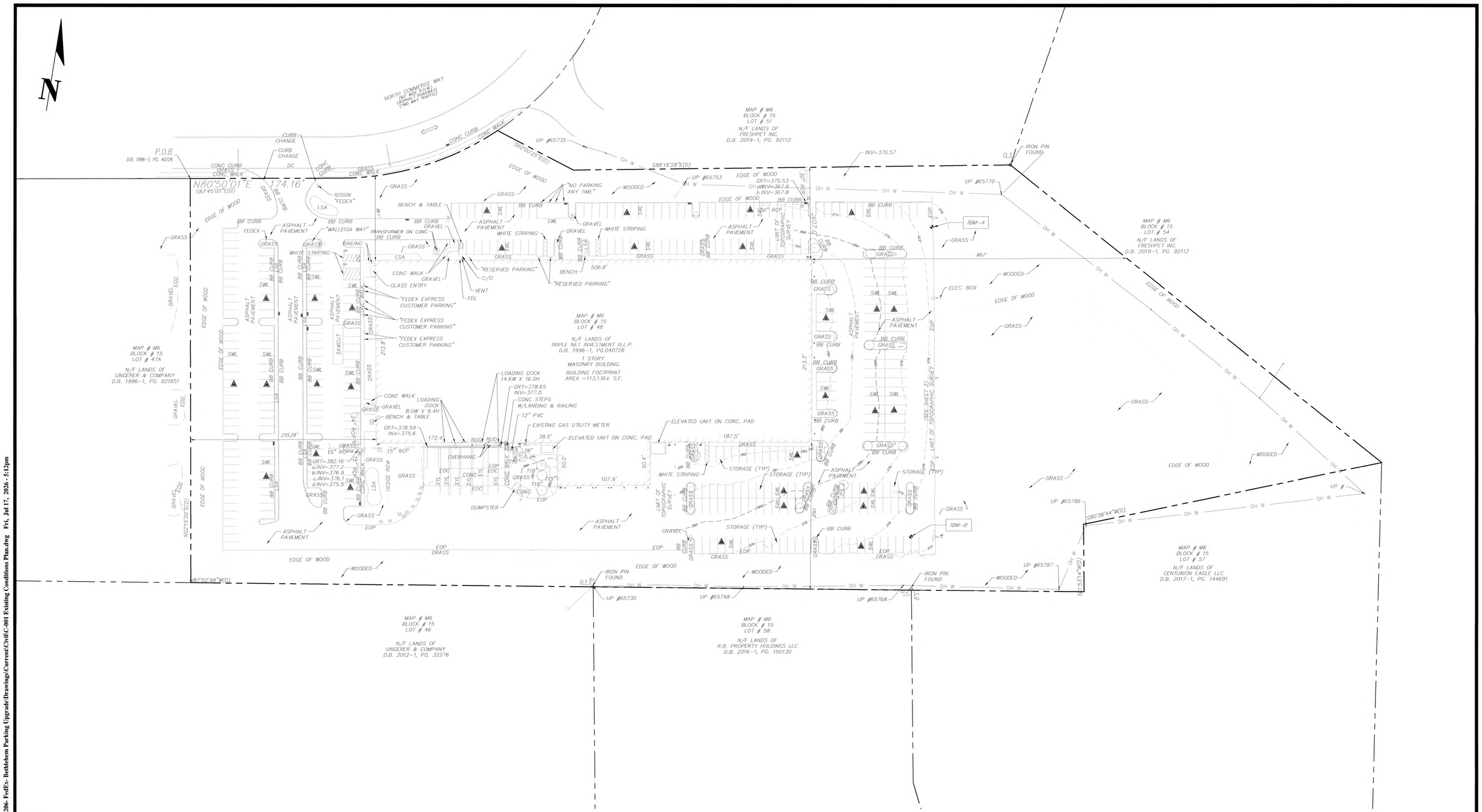
GENERAL NOTES & LEGEND

FEDEX PARKING LOT IMPROVEMENTS
ICAD SERVICES, INC.
MAP M6, B 15, L 48, HANOVER TOWNSHIP
NORTHAMPTON COUNTY, PENNSYLVANIA

JOB No.: CP–206
DATE: 07–17–26
SHEET G-002

CP Engineers Dave.Clark M:\Clients\ICAD Services\CP-206- FedEx- Bethlehem Parking Upgrade\Drawings\Current\General\G-002 General Notes & Legend.dwg Fri, Jul 17, 2026 - 5:11pm



NOTES:

1. PROPERTY BOUNDARY LIMITS AND EXISTING CONDITIONS ARE BASED ON A CERTAIN DRAWING TITLED "BOUNDARY & PARTIAL TOPOGRAPHIC SURVEY, APN #M6-15-48-0214, 126 NORTH COMMERCE WAY, HANOVER TOWNSHIP, NORTHAMPTON COUNTY, COMMONWEALTH OF PENNSYLVANIA" PREPARED BY CONTROL POINT ASSOCIATES, INC., SIGNED AND SEALED BY JAMES D. SENS, P.L.S., DATED NOVEMBER 26, 2025.
2. PLEASE REFER TO THE SURVEY PREPARED BY CONTROL POINT ASSOCIATES, INC. FOR ADDITIONAL NOTES REGARDING THE PREPARED SURVEY.
3. 2019 USGS QL2 LIDAR: PA NORTH CENTRAL UTILIZED FOR SUPPLEMENTAL TOPOGRAPHY NEAR SOUTHWEST CORNER OF THE EXISTING BUILDING.

50 0 50 100 150

SCALE: 1" = 50'

No.	DATE	DESCRIPTION	BY	CKD.

LETTER REVISIONS ARE NOT TO BE USED FOR CONSTRUCTION

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL FRANCIS R. ZGODA ENGINEER PE085379

FRANCIS R. ZGODA
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EXISTING CONDITIONS PLAN

FEDEX PARKING LOT IMPROVEMENTS
ICAD SERVICES, INC.
MAP M6, B 15, L 48, HANOVER TOWNSHIP
NORTHAMPTON COUNTY, PENNSYLVANIA

JOB No.: CP-206
DATE: 07-17-26
SHEET C-001

CP Engineers Dave.Clark M:\Clients\ICAD Services\CP-206- FedEx- Bethlehem Parking Upgrade\Drawings\Current\Civil\C-001 Existing Conditions Plan.dwg Fri, Jul 17, 2026 - 5:12pm

P.O.B.
D.B. 1996-1, PG. 40726

N80°50'01"E 174.16
S87°45'00"E(D)

CONC CURB
GRASS
CONC WALK
CURB CHANGE
DC
EDGE OF WOOD
BB CURB
IDSIGN "FEDEX"
LSA
FEDEX
ASPHALT PAVEMENT
"WALLEISA WAY"
RAILING
WHITE STRIPING
"FEDEX EXPRESS CUSTOMER PARKING"
GLASS ENTRY
CONC. WALK
SAWCUT
212.8'
BENCH & TABLE
24" RCP
15" RCP
215.29'
GRT=382.16
a.INV=377.2
b.INV=376.9
c.INV=376.1
d.INV=375.5
HEDGE ROW
EOP
N02°15'50"E(D)
ASPHALT PAVEMENT
SIX (6) EXISTING PARKING SPACES
ASPHALT AND CURBING TO BE REMOVED
FOURTEEN (14) EXISTING PARKING SPACES
ASPHALT AND PARTIAL CURBING TO BE REMOVED
N87°02'48"W(D)
WOODED
MAP # M6
BLOCK # 15
LOT # 47A
N/F LANDS OF
UNGERER & COMPANY
D.B. 1996-1, PG. 021651
GRAVEL
EOG

S60°00'25"E(D)
UP #65735
OH W
S88°18'28"E(D)
FRESHPET INC.
D.B. 2019-1, PG. 92112
30" RCP
EDGE OF WOOD
GRT=375.53
a.INV=367.9
b.INV=367.8
INV=370.57
UP #65753
UP #65770
"NO PARKING ANY TIME"
WOODED
FOUR (4) EXISTING PARKING SPACES
ASPHALT AND CURBING TO BE REMOVED
TRANSFORMER ON CONC
GRAVEL
WHITE STRIPING
"RESERVED PARKING"
C/O
FDL
VENT
CONC WALK
BENCH
506.8'
LIMIT OF TOPOGRAPHIC SURVEY
1071.0'
TBM-A
ELEC. BOX
EOP
365.3'
213.3'
MAP # M6
BLOCK # 15
LOT # 48
N/F LANDS OF
TRIPLE NET INVESTMENT III,L.P.
D.B. 1996-1, PG.040726
1 STORY
MASONRY BUILDING.
BUILDING FOOTPRINT
AREA =113,136± S.F.
EXISTING TREE (TYP.)
TO BE REMOVED AND STUMP TO BE GRINDED
(TYP. FOR X)
(SEE SHEET 2)
LOADING DOCK
8.0W X 9.4H
LOADING DOCK
14.6W X 16.0H
GRT=378.65
INV=377.0
GRT=378.59
INV=375.6
CONC STEPS W/LANDING & RAILING
12" PVC
EXISTING GAS UTILITY METER
TO BE RELOCATED
ELEVATED UNIT ON CONC. PAD
38.0'
172.4'
RUD
OVERHANG
T18"
T15"
107.9'
50.0'
CONC.
DUMPSTER
EXISTING CONCRETE PAD AND DUMPSTER
CONCRETE PAD TO BE REMOVED AND DUMPSTER TO BE RELOCATED
EXISTING LANDSCAPED ISLAND
CURBING AND TOPSOIL TO BE REMOVED (TYP.)
FIFTEEN (15) EXISTING PARKING SPACES
STRIPING TO BE REMOVED
EXISTING LIGHT POLE
TO BE REMOVED AND SALVAGED
50.4'
187.5'
STORAGE (TYP)
WHITE STRIPING
TO BE REMOVED
SEVENTEEN (17) EXISTING PARKING SPACES
STRIPING TO BE REMOVED
TWENTY SEVEN (27) EXISTING PARKING SPACES
STRIPING TO BE REMOVED
FIFTEEN (15) EXISTING PARKING SPACES
STRIPING TO BE REMOVED
EXISTING LIGHT POLE
TO BE REMOVED AND SALVAGED
FOURTEEN (14) EXISTING PARKING SPACES
STRIPING TO BE REMOVED
IRON PIN FOUND
UP #65730
UP #65748
UP #65768
0.1'
0.2'
TBM-B

30 0 30 60 90
SCALE: 1" = 30'

No.	DATE	DESCRIPTION	BY	CKD.

LETTER REVISIONS ARE NOT TO BE USED FOR CONSTRUCTION

DESIGN D.A.C.
DRAWN M.B.
CHECKED D.A.C.

FedEx

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER FRANCIS R. ZGODA 032082 E

FRANCIS R. ZGODA
PROFESSIONAL ENGINEER
COMMONWEALTH OF PENNSYLVANIA
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CP ENGINEERS
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2013 SANDY DRIVE
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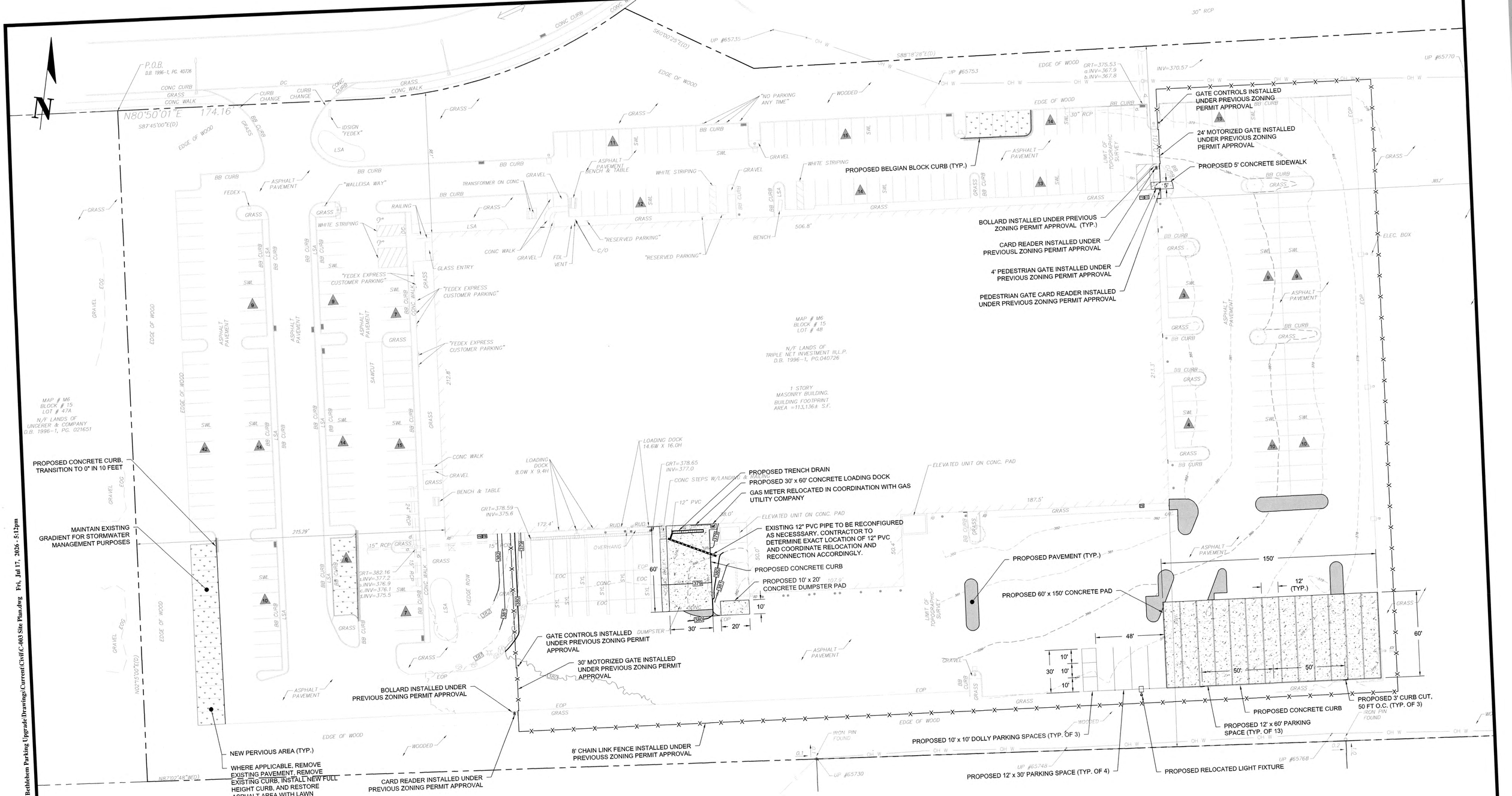
DEMOLITION PLAN

FEDEX PARKING LOT IMPROVEMENTS
ICAD SERVICES, INC.
MAP M6, B 15, L 48, HANOVER TOWNSHIP
NORTHAMPTON COUNTY, PENNSYLVANIA

JOB No.: CP-206
DATE: 07-17-26
SHEET C-002

CP Engineers Dave.Clark M:\Clients\ICAD Services\CP-206- FedEx- Bethlehem Parking Upgrade\Drawings\Current\Civil\C-002 Demolition Plan.dwg Fri, Jul 17, 2026 - 5:11pm



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No.	DATE	DESCRIPTION	BY	CKD.

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CHECKED D.A.C.

FedEx

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
FRANCIS R. ZGODA
PROFESSIONAL ENGINEER
COMMONWEALTH OF PENNSYLVANIA
LIC. NO. PE085379

CP ENGINEERS
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2013 SANDY DRIVE
SUITE 101
STATE COLLEGE, PA 16803
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SITE PLAN

FEDEX PARKING LOT IMPROVEMENTS
ICAD SERVICES, INC.
MAP M6, B 15, L 48, HANOVER TOWNSHIP
NORTHAMPTON COUNTY, PENNSYLVANIA

JOB No.: CP-206
DATE: 07-17-26
SHEET C-003

CP Engineers Dave.Clark M:\Clients\ICAD Services\CP-206- FedEx- Bethlehem Parking Upgrade\Drawings\Current\CivilC-004 Grading & Drainage Plan.dwg Fri, Jul 17, 2026 - 5:12pm

P.O.B.
D.B. 1996-1, PG. 40726

N80°50'01"E 174.16'
S87°45'00"E(D)

FRESHPET INC.
D.B. 2019-1, PG. 92112

S80°00'25"E(D)

S88°18'28"E(D)

UP #65735

UP #65753

UP #65770

UP #65730

UP #65748

UP #65768

IRON PIN FOUND

N02°15'50"E(D)

N87°02'48"W(D)

MAP # M6
BLOCK # 15
LOT # 47A
N/F LANDS OF
UNGERER & COMPANY
D.B. 1996-1, PG. 021651

MAP # M6
BLOCK # 15
LOT # 48
N/F LANDS OF
TRIPLE NET INVESTMENT III,LLP.
D.B. 1996-1, PG.040726

1 STORY
MASONRY BUILDING.
BUILDING FOOTPRINT
AREA =113,136± S.F.

"NO PARKING ANY TIME"

"WALLEISA WAY"

"FEDEX EXPRESS CUSTOMER PARKING"

"RESERVED PARKING"

PROPOSED TRENCH DRAIN
GRATE: 378.65
INV OUT: 377.20

EXISTING 12" PVC PIPE TO BE RECONFIGURED AS NECESSARY TO ALLOW FOR LOADING DOCK CONCRETE SLAB INSTALLATION

ELEVATED UNIT ON CONC. PAD

LOADING DOCK
14.6W X 16.0H

LOADING DOCK
8.0W X 9.4H

GRT=378.65
INV=377.0

GRT=378.59
INV=375.6

GRT=382.16
a.INV=377.2
b.INV=376.9
c.INV=376.1
d.INV=375.5

GRT=375.53
a.INV=367.9
b.INV=367.8

INV=370.57

30" RCP

15" RCP

12" PVC

LIMIT OF TOPOGRAPHIC SURVEY

DUMPSTER

ELEC. BOX

30 0 30 60 90

SCALE: 1" = 30'

No.	DATE	DESCRIPTION	BY	CKD.

LETTER REVISIONS ARE NOT TO BE USED FOR CONSTRUCTION

DESIGN D.A.C.
DRAWN M.B.
CHECKED D.A.C.

FRANCIS R. ZGODA
PROFESSIONAL ENGINEER
COMMONWEALTH OF PENNSYLVANIA
LIC. NO. PE085379

CP ENGINEERS
2013 SANDY DRIVE
SUITE 101
STATE COLLEGE, PA 16803
(814) 753-4249
CPENGINEERS.COM

GRADING & DRAINAGE PLAN

FEDEX PARKING LOT IMPROVEMENTS
ICAD SERVICES, INC.
MAP M6, B 15, L 48, HANOVER TOWNSHIP
NORTHAMPTON COUNTY, PENNSYLVANIA

JOB No.: CP-206
DATE: 07-17-26
SHEET C-004

CP Engineers Dave.Clark M:\Clients\ICAD Services\CP-206- FedEx- Bethlehem Parking Upgrade\Drawings\Current\Civil\C-005 Utility Plan.dwg Fri, Jul 17, 2026 - 5:12pm

N

P.O.B.
D.B. 1996-1, PG. 40726

N80°50'01"E 174.16'
S87°45'00"E(D)

FRESHPET INC.
D.B. 2019-1, PG. 92112

S60°00'25"E(D)

S88°18'28"E(D)

N87°02'48"W(D)

N02°15'04"E(D)

MAP # M6
BLOCK # 15
LOT # 47A
N/F LANDS OF
UNGERER & COMPANY
D.B. 1996-1, PG. 021651

MAP # M6
BLOCK # 15
LOT # 48
N/F LANDS OF
TRIPLE NET INVESTMENT III,L.P.
D.B. 1996-1, PG.040726

1 STORY
MASONRY BUILDING.
BUILDING FOOTPRINT
AREA =113,136± S.F.

506.8'

212.8'

215.29'

172.4'

107.9'

187.5'

50.4'

50.0'

38.0'

21'-3"

PROPOSED UNDERGROUND ELECTRICAL & CONDUIT. SEE ELECTRICAL DRAWINGS FOR SIZE, LOCATION, & TRENCH DETAILS.

PROPOSED OUTDOOR RATED PULLBOX. SEE ELECTRICAL DRAWINGS FOR SIZE, LOCATION, & DETAILS.

PROPOSED OUTDOOR RATED PULLBOX. SEE ELECTRICAL DRAWINGS FOR SIZE, LOCATION, & DETAILS.

PROPOSED UNDERGROUND GAS SERVICE PIPING EXTENSION TO RELOCATED GAS METER TO BE INSTALLED BY GAS UTILITY COMPANY. REFER TO NATURAL GAS MODIFICATION NOTES ON DRAWING C-002 FOR ADDITIONAL INFORMATION.

PROPOSED UNDERGROUND ELECTRICAL. SEE ELECTRICAL DRAWINGS FOR SIZE, LOCATION, & TRENCH DETAILS.

PROPOSED UNDERGROUND ELECTRICAL. SEE ELECTRICAL DRAWINGS FOR SIZE, LOCATION, & TRENCH DETAILS.

PROPOSED UNDERGROUND ELECTRICAL & CONDUIT. SEE ELECTRICAL DRAWINGS FOR SIZE, LOCATION, & TRENCH DETAILS.

30 0 30 60 90
SCALE: 1" = 30'

No.	DATE	DESCRIPTION	BY	CKD.

LETTER REVISIONS ARE NOT TO BE USED FOR CONSTRUCTION

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DRAWN M.B.
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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER FRANCIS R. ZGODA PE085379

FRANCIS R. ZGODA
PROFESSIONAL ENGINEER
COMMONWEALTH OF PENNSYLVANIA
LIC. NO. PE085379

CP ENGINEERS
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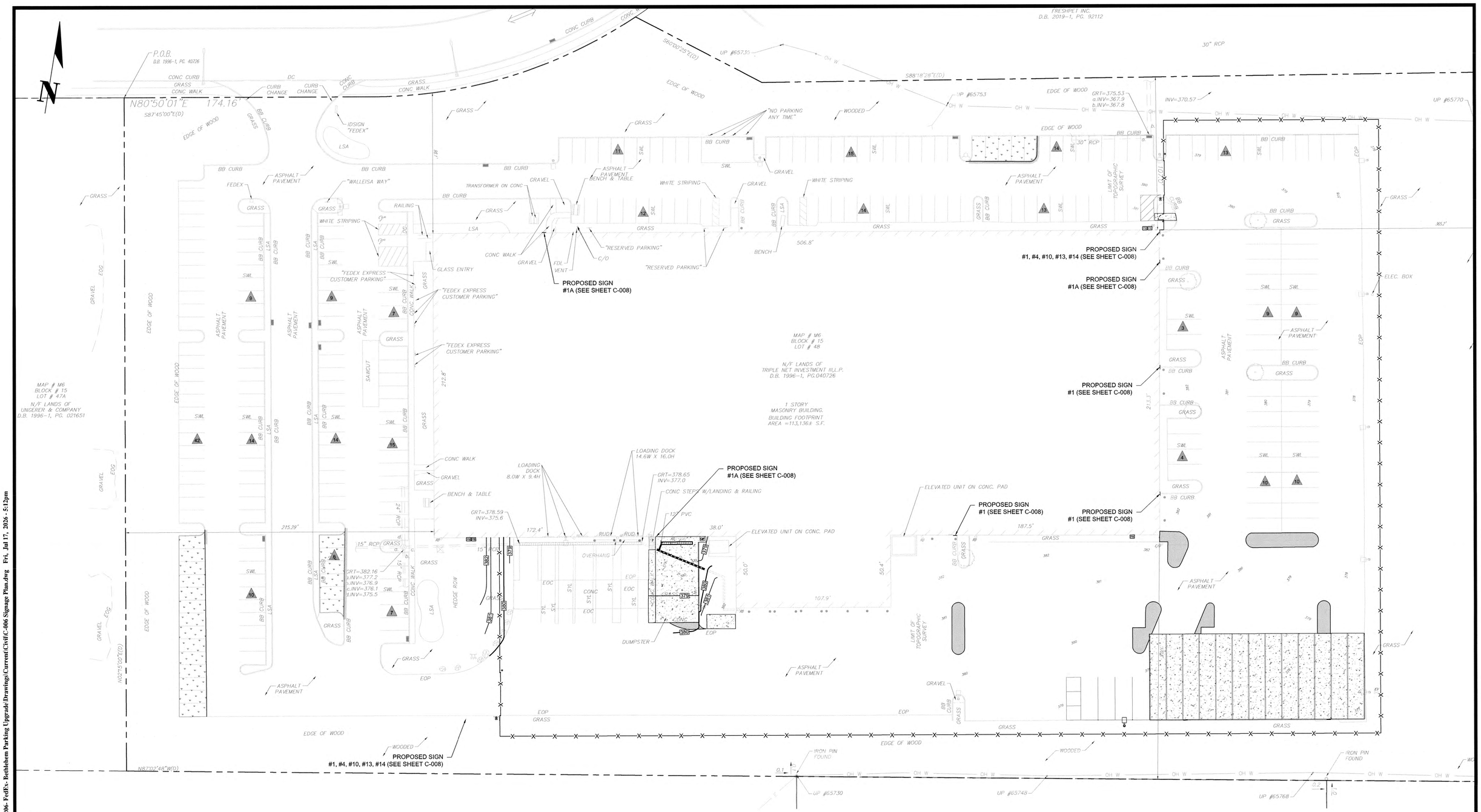
STATE COLLEGE, PA 16803
(814) 753-4249
CPENGINEERS.COM

UTILITY PLAN

FEDEX PARKING LOT IMPROVEMENTS
ICAD SERVICES, INC.
MAP M6, B 15, L 48, HANOVER TOWNSHIP
NORTHAMPTON COUNTY, PENNSYLVANIA

JOB No.: CP-206
DATE: 07-17-26
SHEET C-005



NOTES:

1. REFER TO SHEET C-008 FOR ADDITIONAL INFORMATION REGARDING PROPOSED SIGNAGE.

30 0 30 60 90

SCALE: 1" = 30'

No.	DATE	DESCRIPTION	BY	CKD.

LETTER REVISIONS ARE NOT TO BE USED FOR CONSTRUCTION

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DRAWN M.B.
CHECKED D.A.C.

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER
FRANCIS R. ZGODA
PROFESSIONAL ENGINEER
COMMONWEALTH OF PENNSYLVANIA
LIC. NO. PE085379

CP ENGINEERS
2013 SANDY DRIVE
SUITE 101
STATE COLLEGE, PA 16803
(814) 753-4249
CPENGINEERS.COM

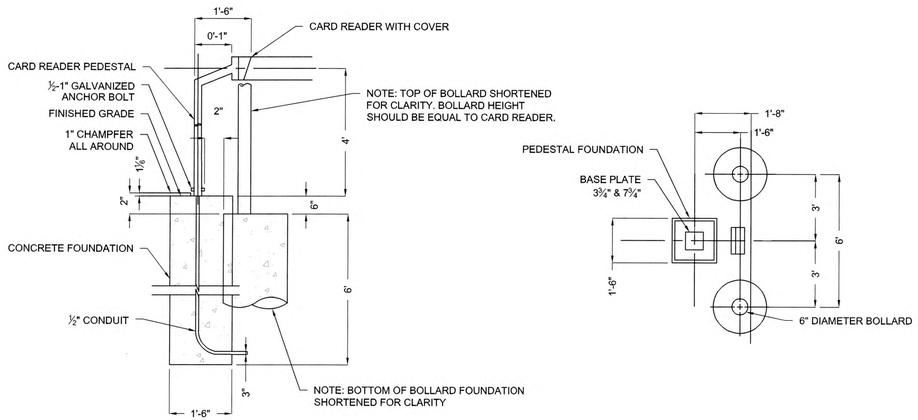
SIGNAGE PLAN

FEDEX PARKING LOT IMPROVEMENTS

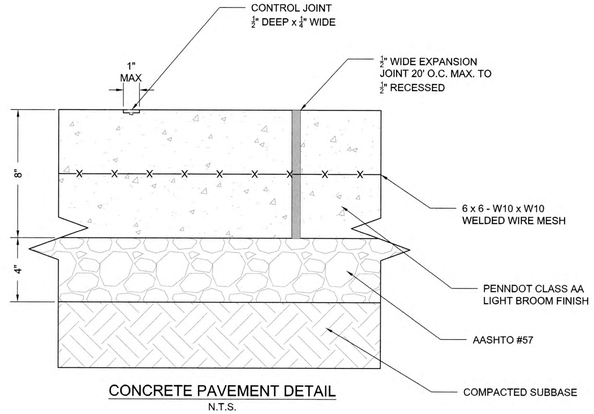
ICAD SERVICES, INC.
MAP M6, B 15, L 48, HANOVER TOWNSHIP
NORTHAMPTON COUNTY, PENNSYLVANIA

JOB No.: CP-206
DATE: 07-17-26
SHEET C-006

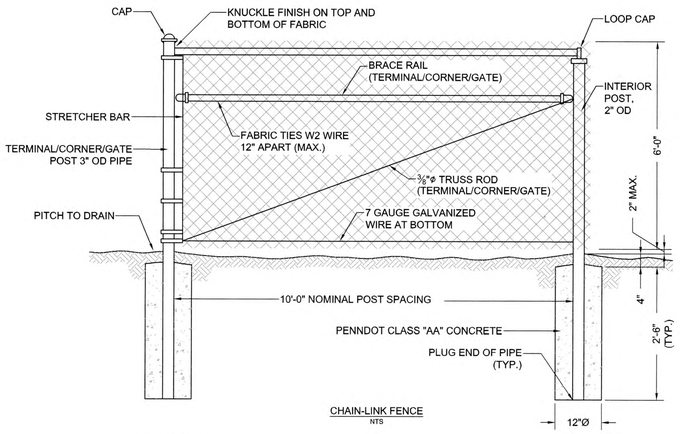
CP Engineers Dave.Clark M:\Clients\ICAD Services\CP-206- FedEx- Bethlehem Parking Upgrade\Drawings\Current\Civil\C-006 Signage Plan.dwg Fri, Jul 17, 2026 - 5:12pm



GATE ENTRY ACCESS
N.T.S.



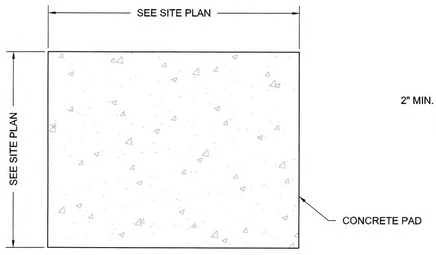
CONCRETE PAVEMENT DETAIL
N.T.S.



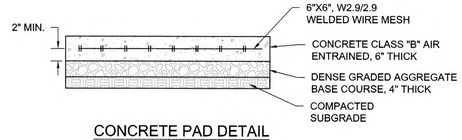
CHAIN-LINK FENCE
NTS

FENCE NOTES:

1. CHAIN - LINK FENCE FABRIC, POSTS, RAILS, TIES, BANDS, BARS, RODS,AND OTHER FITTINGS AND HARDWARE SHALL CONFORM TO AASHTO M181.
2. POSTS
   TERMINAL, CORNER & GATE 3" OD .203" WALL
   LINE POSTS 2" OD .154" WALL
   TOP OR BRACE RAIL 1⅝" OD .140" WALL+
3. SHAPES OTHER THAN ROUND MAY NOT BE USED.
4. POSTS AND RAILS SHALL BE VINYL COATED-BLACK. FABRIC SHALL BE 9-GAUGE CORE WIRE, MESH WITH VINYL COATING - BLACK.
5. THE DEPTH OF CONCRETE FOOTINGS IN SOLID ROCK MAY BE REDUCED TO ONE FOOT BELOW THE TOP OF ROCK AND THE DIAMETER OF THE HOLE IN ROCK MAY BE REDUCED TO 3½"
6. BRACE BANDS AND STRETCHER BAR BANDS SHALL BE FURNISHED WITH ⅝" DIA. CARRIAGE BOLTS AND ELASTIC STOP NUTS. 7 GAUGE GALVANIZED WIRE IS TO BE USED ALONG BOTTOM OF FENCE.

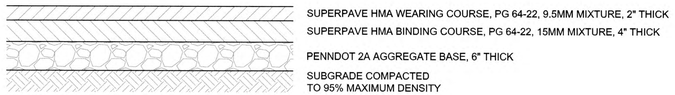


PLAN
N.T.S.



CONCRETE PAD DETAIL
N.T.S.

TRASH ENCLOSURE/REFUSE AREA DETAIL
N.T.S.



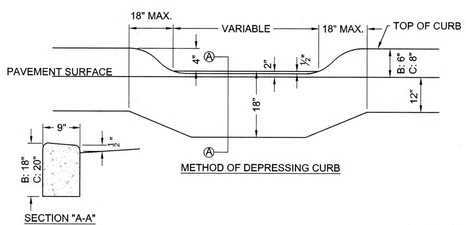
NOTES:

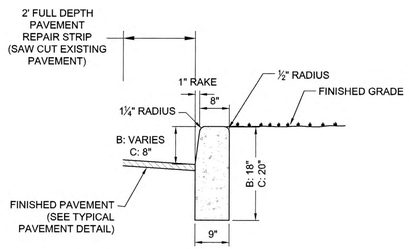
1. TACK COAT SHALL BE PLACE BETWEEN ASPHALT SURFACE AND BASE COURSES AND ALONG SAWCUTS OF ALL EXISTING PAVEMENT.
2. FULL DEPTH REPAIR SHALL CONSIST OF THE REMOVAL OF UNSUITABLE ROADWAY BASE MATERIAL OF WHATEVER NATURE ENCOUNTERED TO A DEPTH OF AT LEAST 10" UNCOVERED AFTER MILLING OR VISIBLE PRIOR TO MILLING OR RESURFACING AND THE INSTALLATION OF AT LEAST 4" HOT MIX ASPHALT BASE COURSE AND 6" DGA.. THE PERIMETER OF THE REPAIR SHALL BE SAWCUT.

TYPICAL PAVEMENT & FULL DEPTH REPAIR DETAIL
NTS

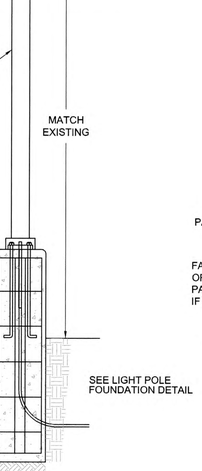
CONCRETE VERTICAL CURB NOTES:

1. B REFERS TO BOROUGH CURB REQUIREMENTS. C REFERS TO COUNTY CURB REQUIREMENTS.
2. TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20' APART AND SHALL BE FILLED WITH PREFORMED BITUMINOUS IMPREGNATED FIBER JOINT FILLER, COMPLYING WITH THE REQUIREMENTS OF A.A.S.H.O. SPEC. M-213, RECESSED 1/4" IN FROM THE FRONT FACE AND TOP OF CURB. PRIOR TO PLACEMENT OF HMA SURFACE COURSE POLYMERIZED JOINT COMPOUND SHALL BE APPLIED IN ACCORDANCE WITH SECTION 403.03.02 OF THE NJDOT TECHNICAL SPECIFICATIONS.

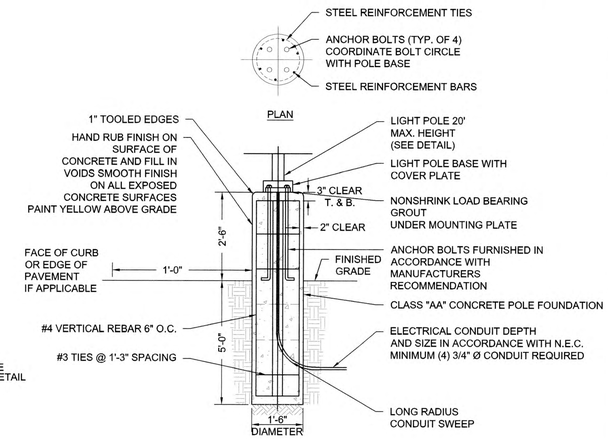




CONCRETE VERTICAL CURB
NTS



LIGHT POLE & BASE
N.T.S.



LIGHT POLE FOUNDATION DETAIL
N.T.S.

No.	DATE	DESCRIPTION	BY	CKD.

LETTER REVISIONS ARE NOT TO BE USED FOR CONSTRUCTION

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DRAWN M.B.
CHECKED D.A.C.

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER FRANCIS R. ZGODA PE085379

FRANCIS R. ZGODA
PROFESSIONAL ENGINEER
COMMONWEALTH OF PENNSYLVANIA
LIC. NO. PE085379

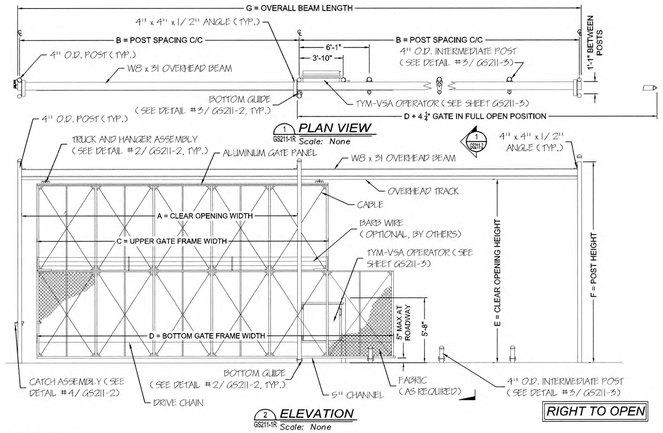
CP ENGINEERS
CP ENGINEERS
2013 SANDY DRIVE
SUITE 101
STATE COLLEGE, PA 16803
(814) 753-4249
CPENGINEERS.COM

CONSTRUCTION DETAILS

FEDEX PARKING LOT IMPROVEMENTS
ICAD SERVICES, INC.
MAP M6, B 15, L 48, HANOVER TOWNSHIP
NORTHAMPTON COUNTY, PENNSYLVANIA

JOB No.: CP-206
DATE: 07-17-26
SHEET C-007

CP Engineers Dave.Clark M:\Clients\ICAD Services\CP-206- FedEx- Bethlehem Parking Upgrade\Drawing\Current\Civil\C-007 Construction Details.dwg Fri, Jul 17, 2026 - 5:12pm



*A: SEE NOTE 3.
** E: CONTACT MANUFACTURER FOR HEIGHTS GREATER THAN 16'.

CRITICAL DIMENSION CHART

A*	CLEAR OPENING	UPTO40'	F	POST HEIGHT	E + 1'-6"
B	POST SPACING C/C	A + 4"	G	OVERALL BEAM LENGTH	A x 2 + 1'-0"
C	UPPER GATE FRAME WIDTH	A + 1'-4"			
D	BOTTOM GATE FRAME WIDTH	A + 5' MIN.			
E**	CLEAR OPENING HEIGHT	UP TO 16'			

NOTES:
1. GATE FRAME SHALL CONFORM TO ASTM 1184 FOR A TYPE I CLASS II UNIT.
2. GATE IS MILL FINISH.
3. DEPENDING ON CLEAR OPENING WIDTH AN APPROPRIATE "W" BEAM WILL BE USED. FOR CLEAR OPENING WIDTHS GREATER THAN 40' (UP TO 53') AND ENGINEERED BEAM WILL BE UTILIZED.

SIGN ID	DESCRIPTION	QUANTITY
1	RESTRICTED AREA AUTHORIZED VEHICLES AND PERSONNEL ONLY INDIVIDUALS MUST ENSURE GATES/DOORS ARE CLOSED VISIBLE ID BADGE REQUIRED UNBADGED INDIVIDUALS MUST BE CHALLENGED REFERENCE: PENN GLOBAL (IBIS SIGNS) PART NO. AAS -23-01 (30" x 36")	6
1A	RESTRICTED AREA AUTHORIZED PERSONNEL ONLY INDIVIDUALS MUST ENSURE DOORS ARE CLOSED BEFORE PROCEEDING VISIBLE FEDEX ID BADGE REQUIRED UNBADGED INDIVIDUALS MUST BE CHALLENGED REFERENCE: PENN GLOBAL (IBIS SIGNS) PART NO. AAS -23-02 (12" x 18")	3
2	NO TRESPASSING REFERENCE: TAPCO PART NO. 373-04409 (12" x 18") PENN GLOBAL (IBIS SIGNS) PART NO. LD 661 (12" x 18") (FOR PERIMETER FENCE) INSTALL AT 100'-0" INTERVALS	XX ; AS REQUIRED
3	ALL VISITORS MUST REPORT TO OFFICE REFERENCE: TAPCO PART NO. 373-01632 (18" x 18") PENN GLOBAL (IBIS SIGNS) PART NO. STS-SL-005 (18" x 24")	0
4	STOP SIGN – STANDARD REFERENCE: TAPCO PART NO. 373-01632 (24" x 24") PENN GLOBAL (IBIS SIGNS) PART NO. STS-SS-001 (24" x 24")	0
5	SPEED LIMIT 10 MPH REFERENCE: TAPCO PART NO. 373-04730 (18" x 24") PENN GLOBAL (IBIS SIGNS) PART NO. STS-SL-005 (18" x 24")	0
6	ADA ACCESSIBILITY REFERENCE: TAPCO PART NO. 373-00081D9-6 (12" x 18") PENN GLOBAL (IBIS SIGNS) PART NO. STS-HP-006 (12" x 18") PC ALUMINUM W/VINYL GRAPHIC (SEE NOTE #5)	0
7	VAN ACCESSIBILITY REFERENCE: TAPCO PART NO. 373-04828 (12" x 6") PENN GLOBAL (IBIS SIGNS) PART NO. STS-VA-009 (12" x 6") (SEE NOTE #5)	0
8	MOTORCYCLE PARKING ONLY REFERENCE: TAPCO PART NO. 373-05906 (12" x 18") PENN GLOBAL (IBIS SIGNS) PART NO. STS-MPO-010 (12" x 18")	0
9	FEDEX FACILITY ADDRESS – 36"H x 60"W x 72" OAH (MIN.) REFERENCE: BLAIR PART NO. XD411E COORDINATE WITH AUTHORITY HAVING JURISDICTION	0
10	NO ENGINE IDLING REFERENCE: TAPCO PART NO. 152377 (20" x 24") PENN GLOBAL (IBIS SIGNS) PART NO. OP-790EXTERIOR (21" x 24")	1
11	BLINKING SOLAR POWERED PEDESTRIAN CROSSING REFERENCE: TAPCO PART NO. 107041K-FXG	0
12	15 MINUTE PARKING PACKAGE PICK-UP ONLY REFERENCE: TAPCO PART NO. 152376 (21" x 24") PENN GLOBAL (IBIS SIGNS) PART NO. D432-15M (21" x 24")	0
13	HEADLIGHTS ON 24/7 REFERENCE: TAPCO PART NO. 134578 (21" x 24") PENN GLOBAL (IBIS SIGNS) PART NO. 21x24-HL247 (21" x 24")	2
14	CELL PHONE & EAR BUD USE PROHIBITED REFERENCE: TAPCO PART NO. 134579 (21" x 24") PENN GLOBAL (IBIS SIGNS) PART NO. 21x24-CPEB (21" x 24")	2
15	SHIP CENTER ENTRANCE EXTERIOR BUILDING MOUNTED, ABOVE CANOPY (REFER A-1) REFERENCE: BLAIR PART NO. XE163E	0
16	CUSTOMER PARKING REFERENCE: TAPCO PART NO. 152290 (21" x 24") PENN GLOBAL (IBIS SIGNS) PART NO. D430 (21" x 24")	0
17	AUTHORIZED PARKING REFERENCE: TAPCO PART NO. 152289 (21" x 24") PENN GLOBAL (IBIS SIGNS) PART NO. D432-AP (21" x 24")	0

SIGNAGE TABLE
N.T.S.

NOTES:

1. SEE SHEET C-006 FOR PROPOSED SIGNAGE LOCATIONS.

No.	DATE	DESCRIPTION	BY	CKD.

LETTER REVISIONS ARE NOT TO BE USED FOR CONSTRUCTION

DESIGN D.A.C.
DRAWN M.B.
CHECKED D.A.C.

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL FRANCIS R. ZGODA ENGINEER
FRANCIS R. ZGODA
PROFESSIONAL ENGINEER
COMMONWEALTH OF PENNSYLVANIA
LIC. NO. PE085379

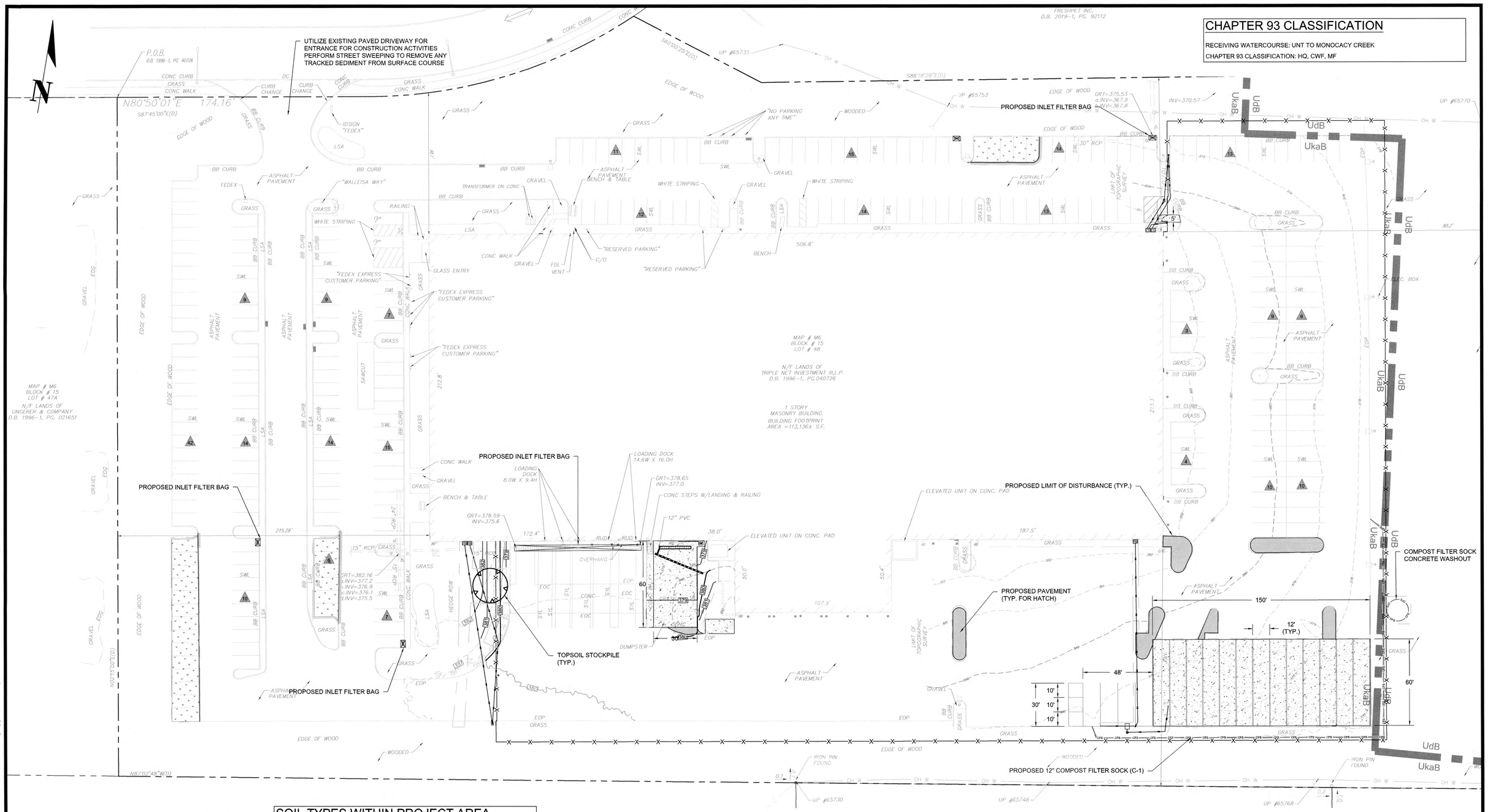
CP ENGINEERS
2013 SANDY DRIVE
SUITE 101
STATE COLLEGE, PA 16803
(814) 753-4249
CPENGINEERS.COM

CONSTRUCTION DETAILS

FEDEX PARKING LOT IMPROVEMENTS
ICAD SERVICES, INC.
MAP M6, B 15, L 48, HANOVER TOWNSHIP
NORTHAMPTON COUNTY, PENNSYLVANIA

JOB No.: CP-206
DATE: 07-17-26
SHEET C-008

CP Engineers Dave.Clark M:\Clients\ICAD Services\CP-206- FedEx- Bethlehem Parking Upgrade\Drawings\Current\Civil\C-008 Construction Details.dwg Fri, Jul 17, 2026 - 5:11pm



SOIL TYPES WITHIN PROJECT AREA

SOIL TYPE	AVG. SLOPE	HYDROLOGIC SOIL GROUP
UdB UDORTHENTS, LIMESTONE	0 - 8	D
UkaB URBAN LAND	0 - 8	-

811 Know what's below call before you dig. 1-800-242-1776 (Outside of Pennsylvania)

PENNSYLVANIA ONE CALL SYSTEM INC. 1-800-242-1776 STOP CALL BEFORE YOU DIG!

No.	DATE	DESCRIPTION	BY	CKD.

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DESIGN D.A.C.
DRAWN S.H.B.
CHECKED D.A.C.

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER FRANCIS R. ZGODA

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PROFESSIONAL ENGINEER
COMMONWEALTH OF PENNSYLVANIA
LIC. NO. PE085379

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2013 SANDY DRIVE
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EROSION CONTROL PLAN

FEDEX PARKING LOT IMPROVEMENTS
ICAD SERVICES, INC.
MAP M6, B 15, L 48, HANOVER TOWNSHIP
NORTHAMPTON COUNTY, PENNSYLVANIA

JOB No.: CP-206
DATE: 07-17-26
SHEET C-101

CP Engineers Dave.Clark M:\Clients\ICAD Services\CP-206- FedEx- Bethlehem Parking Upgrade\Drawings\Current\Civil\C-101 Erosion Control Plan.dwg Fri, Jul 17, 2026 - 5:12pm

EROSION AND SEDIMENTATION CONTROL GENERAL 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 PRECONSTRUCTION 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 MAPS(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 THE 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.
14. VEHICLES AND EQUIPMENT MAY NEITHER ENTER DIRECTLY NOR EXIT DIRECTLY FROM LOTS (SPECIFY LOT NUMBERS) ONTO (SPECIFY ROAD NAMES) .
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. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING 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.
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 OUTSLOPES 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 SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR 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 OTHER MOVEMENTS.
29. 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 REVEGETATION 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 PENNSYLVANIA 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.

EROSION AND SEDIMENTATION CONTROL OPTIONAL NOTES

1. 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.
2. 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.
3. 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.
4. CHANNELS HAVING RIPRAP, RENO MATTRESS, OR GABION LININGS MUST BE SUFFICIENTLY OVER-EXCAVATED SO THAT THE DESIGN DIMENSIONS WILL BE PROVIDED AFTER PLACEMENT OF THE PROTECTIVE LINING.
5. 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.
6. SEDIMENT BASINS SHALL BE PROTECTED FROM UNAUTHORIZED ACTS BY THIRD PARTIES. 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.
7. 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.
8. 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.
9. 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 TO 12 INCH LAYERED LIFTS AT 95% DENSITY.

EROSION AND SEDIMENTATION CONTROL NOTES

PROJECT SEQUENCE

ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE LIMITED TO ONLY THOSE AREAS DESCRIBED IN EACH STAGE.

PRE-CONSTRUCTION

AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICALS, THE EROSION AND SEDIMENTATION CONTROL PLAN PREPARER, AND A REPRESENTATIVE OF THE NORTHAMPTON COUNTY CONSERVATION DISTRICT TO AN ON-SITE PRE-CONSTRUCTION MEETING. ALSO, AT LEAST 3 BUSINESS DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM, INC. AT 1-800-242-1776 FOR BURIED UTILITY LOCATIONS.

STAGING OF EARTH MOVING ACTIVITIES

1. AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 811 FOR BURIED UTILITY LOCATIONS.
2. FIELD-MARK LIMITS OF DISTURBANCE AND ENVIRONMENTALLY SENSITIVE AREAS.
3. UTILIZE EXISTING PAVED DRIVEWAY FOR SITE CONSTRUCTION ACCESS. CONTINUOUSLY MONITOR DRIVEWAY FOR SEDIMENT BEING TRACKED ONTO PAVED AREAS, IF SEDIMENT IS OBSERVED ON PAVED WAYS, STREETSWEEP AREAS.
4. INSTALL PERIMETER BMPs AS SHOWN ON THE PLANS AND INLET FILTER BAGS AT ALL INLETS DOWNSTREAM OF AREAS PROPOSED TO BE DISTURBED.
5. REMOVE EXISTING PAVED AREAS PROPOSED TO REVERT TO PERVIOUS COVER, FOLLOWING PAVEMENT/IMPERVIOUS COVER REMOVAL, TOPSOIL AND SEED AREAS.
6. EXCAVATE TO ROUGH GRADES FOR CONCRETE/ASPHALT PLACEMENT. INSTALL CONCRETE & ASPHALT.
7. ESTABLISH FINAL CHANNEL GRADES AND STABILIZE THE SITE WITH SEEDING, MULCHING, AND EROSION CONTROL BLANKETS, WITH REINFORCED MATTING INSTALLED ON STEEP SLOPES OR CONCENTRATED FLOW AREAS.
8. UPON THE COMPLETE STABILIZATION OF THE SITE, REMOVE THE TEMPORARY DAMS, BYPASS PUMPING SYSTEM, AND EROSION AND SEDIMENT CONTROLS. TEMPORARY BMPS CAN ONLY BE REMOVED ONCE A UNIFORM 70% VEGETATIVE COVER HAS BEEN ESTABLISHED.

SITE BMPs

COMPOST FILTER SOCK: SILT SOCKS SHALL BE PROVIDED TO TREAT WATER LEAVING THE SITE AND TO PREVENT SEDIMENT LADEN RUNOFF FROM EXITING THE PROPERTY.

CONCRETE WASHOUT: INSTALL CONCRETE WASHOUT FOR THE CLEANING OF CHUTES, MIXERS, AND HOPPERS OF THE DELIVERY VEHICLE.

SILT FENCE: SILT FENCE SHALL BE UTILIZED AROUND SOIL TOPSOILE STOCKPILE AREAS.

FILTER BAG INLET PROTECTION: FILTER BAGS SHALL BE INSTALLED AT ALL INLETS DOWNSTREAM OF AREAS PROPOSED TO HAVE SOIL DISTURBANCE.

EROSION CONTROL BLANKETS (IF NECESSARY): EROSION CONTROL BLANKETS SHOULD BE USED IN AREAS WHERE RUNOFF MAY BECOME CONCENTRATED BEFORE VEGETATIVE STABILIZATION HAS BECOME ESTABLISHED OR ON SLOPES GREATER THAN 3H:1V OR GREATER.

MAINTENANCE:

ALL BMPs SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH MEASURABLE RAINFALL EVENT. ANY BMPs THAT HAVE FAILED SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

ROCK CONSTRUCTION ENTRANCE SHALL BE MONITORED FOR SILTATION AND CLOGGING. A SUPPLY OF SUITABLE STONE SHALL BE KEPT ON SITE TO MAINTAIN THE PROPER DIMENSIONS AND THICKNESS FOR THIS BMP. ANY SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE AT THE END OF EACH DAY.

SILT SOCK SEDIMENT MUST BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE SOCK. ANY SECTION OF A SILT FENCE WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REINFORCED WITH AN ADDITIONAL LAYER OF SILT FENCE.

EROSION CONTROL BLANKETS (IF USED) SHALL BE INSPECTED AFTER EVERY RAIN EVENT AND MONITORED FOR SHEET OR RILL EROSION WHICH MAY OCCUR BENEATH THE BLANKET. ANY AREAS OF EROSION SHALL BE CAREFULLY REPAIRED AND RESEEDED.

VEGETATIVE STABILIZATION THAT HAS NOT GROWN PROPERLY OR HAS GULLIES DEVELOPING SHALL BE REGRADED TO THE PROPER CONTOURS, RESEEDED, AND REMULCHED. EROSION CONTROL BLANKETS SHALL BE INSTALLED WHERE EROSION IS OCCURRING. MULCHING THAT BEEN DISPLACED BY WIND OR WATER SHALL BE REPLACED AND ANCHORED BY CRIMPING, BY TACK, BINDING AGENTS OR NETTING.

STONE SURFACES THAT DEVELOP GULLIES SHALL BE RE-GRADED AND COMPACTED.

UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMPs MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION BMPs AFTER EACH MEASURABLE RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMPs FAIL TO FUNCTION OR PERFORM AS EXPECTED, REPLACEMENT BMPs OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.

RECYCLING AND DISPOSAL

THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT OF ENVIRONMENTAL PROTECTION'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE.

FOR OFF-SITE DISPOSAL AREAS, AN EROSION AND SEDIMENT CONTROL PLAN SHALL BE PREPARED AND DEVELOPED BY THE CONTRACTOR'S ENGINEER. SAID PLAN SHALL BE APPROVED BY THE NORTHAMPTON COUNTY CONSERVATION DISTRICT (OR OTHER APPROVING CONSERVATION DISTRICT IF OUTSIDE OF THAT COUNTY) AND SHALL BE IMPLEMENTED FOR ALL SPOIL AND BORROW AREAS, REGARDLESS OF THEIR LOCATION.

GENERAL NOTES - ALL PHASES:

STABILIZATION: UPON COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY, THE OPERATOR SHALL STABILIZE IMMEDIATELY THE DISTURBED AREAS TO PROTECT FROM ACCELERATED EROSION.

UNFORESEEN CIRCUMSTANCES: IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATED BEST MANAGEMENT PRACTICES TO ELIMINATE THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.

REVISIONS: BEFORE INITIATING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN OR REVISIONS TO OTHER PLANS WHICH MAY AFFECT THE EFFECTIVENESS OF THE APPROVED E&S CONTROL PLAN, THE OPERATOR MUST RECEIVE APPROVAL FOR THE REVISIONS FROM THE NORTHAMPTON COUNTY COUNTY CONSERVATION DISTRICT.

FINAL STABILIZATION: AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM OF 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING OR OTHER MOVEMENTS.

LIMIT-OF-DISTURBANCE

THE LIMIT OF EARTH DISTURBANCE OF THE PROJECT IS APPROXIMATELY 0.51 ACRES.

GRADING AND SEEDING NOTES

1. REMOVE TOPSOIL FROM EXCAVATION AREAS AND PLACE ON TOPSOIL STOCKPILE.
2. EXCAVATE AND REMOVE AND SURPLUS MATERIAL. BRING AREAS TO SUBGRADE.
3. DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN 20 DAYS, NOT SUBJECT TO CONSTRUCTION TRAFFIC, AND/OR ARE A POTENTIAL EROSION PROBLEM, SHALL BE TEMPORARILY SEEDED AS FOLLOWS:

   TEMPORARY STABILIZATION
   LIME: ONE (1) TON/ACRE
   FERTILIZER: 5-5-5 COMPOSITION, 1,000 LBS/ACRE
   SEED SPECIES: ANNUAL RYEGRASS @ 40 LBS/ACRE

4. REPLACE TOPSOIL AND SEED OR SOD ALL EXPOSED AREAS WITH PERMANENT SPECIES. MULCH (AT 3 TONS PER ACRE) SHALL BE USED AS NECESSARY FOR PROTECTION UNTIL SEEDING IS ESTABLISHED. PERMANENT SEEDING SPECIFICATIONS ARE AS FOLLOWS:

   PERMANENT STABILIZATION
   LIME: ONE (1) TON/ACRE
   FERTILIZER: 10-10-10 COMPOSITION, 500 LBS/ACRE
   SEED SPECIES: FINE FESCUE & KENTUCKY BLUEGRASS
   % PURE LIVE SEED - 76% FINE FESCUE
   % PURE LIVE SEED - 64% KENTUCKY BLUEGRASS
   APPLICATION RATE 100 LBS/ACRE
   FINAL DATES FOR SEEDING - TO BE DETERMINED

5. MULCH COVER MUST BE MAINTAINED ON ALL EXPOSED GROUND THROUGHOUT THE NON-GERMINATION SEASON OR UNTIL THE SITE IS STABILIZED WITH A PERMANENT ESTABLISHMENT OF VEGETATIVE COVER.

TABLE 11.3
PLANT TOLERANCES OF SOIL LIMITATION FACTORS

SPECIES	GROWTH HABITAT[1]	TOLERATES				MINIMUM SEED SPECIFICATIONS[2]				
		WET SOIL	DRY SITE	LOW FERTILITY	ACID SOIL (pH 5-5.5)[2]	PURITY (%)	READY GERM (%)	HARD SEED (%)	TOTAL GERM (%)	SEEDS/lb (1,000s)
WARM-SEASON GRASSES										
DEERTONGUE	BUNCH	YES	YES	YES	YES	95	75		75	250
WEEPING LOVEGRASS	BUNCH	NO	YES	YES	YES	97	75		75	1,500
SWITCHGRASS[4]	BUNCH	YES	YES	YES	YES		(60 PLS)			390
BIG BLUESTEM	BUNCH	NO	YES	YES	YES		(60 PLS)			150
COOL-SEASON GRASSES										
TALL FESCUE	BUNCH	YES	NO	YES	NO	95	80		80	227
REDTOP	SOD	YES	YES	YES	YES	92	80		80	5,000
FINE FESCUES	SOD	NO	NO	YES	NO	95	80		80	400
PERENNIAL RYEGRASS	BUNCH	YES	NO	NO	NO	95	85		85	227
ANNUAL RYEGRASS	BUNCH	YES	NO	NO	YES	95	85		85	227
KENTUCKY BLUEGRASS	SOD	NO	NO	NO	NO	85	75		75	2,200
REED CANARYGRASS	SOD	YES	YES	YES	NO	95	70		70	520
ORCHARDGRASS	BUNCH	YES	YES	YES	YES	95	80		80	654
TIMOTHY	BUNCH	YES	NO	YES	YES	95	80		80	1,230
SMOOTH BROMEGRASS	SOD	NO	YES	YES	NO	95	80		80	136
LEGUMES[5]										
CROWNVETCH	SOD	NO	YES	YES	NO	98	40	30	65	120
BIRDSFOOT TREFOIL[6]	BUNCH	YES	NO	YES	YES	98	60	20	80	400
FLATPEA	SOD	NO	NO	YES	NO	98	55	20	75	10
SERECIA LESPEDEZA	BUNCH	NO	YES	YES	YES	98	60	20	80	335
CEREALS										
WINTER WHEAT	BUNCH	NO	NO	NO	NO	98	85		85	15
WINTER RYE	BUNCH	NO	NO	YES	YES	98	85		85	18
SPRING OATS	BUNCH	NO	NO	NO	NO	98	85		85	13
SUNDANGRASS	BUNCH	NO	YES	NO	NO	98	85		85	55
JAPANESE MILLET	BUNCH	YES	NO	YES	YES	98	80		80	155

1 GROWTH HABIT REFERS TO THE ABILITY OF THE SPECIES TO EITHER FORM A DENSE SOD BY VEGETATIVE MEANS (STOLONS, RHIZOMES, OR ROOTS) OR REMAIN IN A BUNCH OR SINGLE PLANT FORM. IF SEEDED HEAVILY ENOUGH, EVEN BUNCH FORMERS CAN PRODUCE A VERY DENSE STAND. THIS IS SOMETIMES CALLED A SOD, BUT NOT IN THE SENSE OF A SOD FORMED BY VEGETATIVE MEANS.

2 ONCE ESTABLISHED, PLANTS MAY GROW AT A SOMEWHAT LOWER PH, BUT COVER GENERALLY IS ONLY ADEQUATE AT PH 6.0 OR ABOVE.

3 *MINIMUM SEED LOTS ARE TRULY MINIMUM, AND SEED LOTS TO BE USED FOR REVEGETATION PURPOSES SHOULD EQUAL OR EXCEED THESE STANDARDS.* THUS, DEERTONGUE GRASS SHOULD GERMINATE 75% OR BETTER. CROWNVETCH SHOULD HAVE AT LEAST 40% READILY GERMINABLE SEED AND 30% HARD SEED. COMMONLY, SEED LOTS ARE AVAILABLE THAT EQUAL OR EXCEED MINIMUM SPECIFICATIONS. REMEMBER THAT DISTURBED SITES ARE ADVERSE FOR PLANT ESTABLISHMENT. READY GERMINATION REFERS TO SEED THAT GERMINATES DURING THE PERIOD OF THE GERMINATION TEST AND THAT WOULD BE EXPECTED, IF CONDITIONS ARE FAVORABLE, TO GERMINATE RAPIDLY WHEN PLANTED. THE OPPOSITE OF READY GERMINATION IS DORMANT SEED, OF WHICH HARD SEED IS ONE TYPE.

4 SWITCHGRASS SEED IS SOLD ONLY ON THE BASIS OF PLS.

5 NEED SPECIFIC LEGUME INOCULANT. INOCULANT SUITABLE FOR GARDEN PEAS AND SWEETPEAS USUALLY IS SATISFACTORY FOR FLATPEA.

6 BIRDSFOOT TREFOIL IS ADAPTED OVER THE ENTIRE STATE, EXCEPT IN THE EXTREME SOUTHEAST WHERE CROWN AND ROOT ROTS MAY INJURE STANDS.

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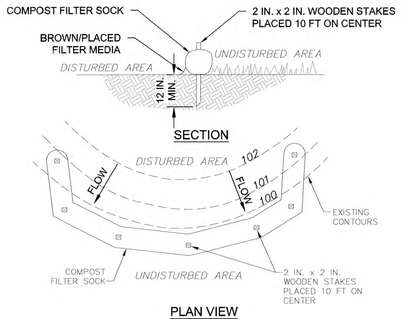
TABLE 11.4
RECOMMENDED SEED MIXTURES

MIXTURE NUMBER	SPECIES	SEEDING RATE - PURE LIVE SEED [1]	
		MOST SITES	ADVERSE SITES
1 [2]	SPRING OATS (SPRING), OR	64	96
	ANNUAL RYEGRASS (SPRING OR FALL), OR	10	15
	WINTER WHEAT (FALL), OR	90	120
	WINTER RYE (FALL)	56	112
2 [3]	TALL FESCUE, OR	60	75
	FINE FESCUE, OR	35	40
	KENTUCKY BLUEGRASS, PLUS	25	30
	REDTOP[4], OR	3	3
	PERENNIAL RYEGRASS	15	20
3	BIRDSFOOT TREFOIL, PLUS	6	10
	TALL FESCUE	30	35
4	BIRDSFOOT TREFOIL, PLUS	6	10
	REED CANARYGRASS	10	15
5	CROWNVETCH, PLUS	10	15
	TALL FESCUE, OR	20	25
	PERENNIAL RYEGRASS	20	25
6 [3,5]	CROWNVETCH, PLUS	10	15
	ANNUAL RYEGRASS	20	25
7 [5]	BIRDSFOOT TREFOIL, PLUS	6



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.

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.

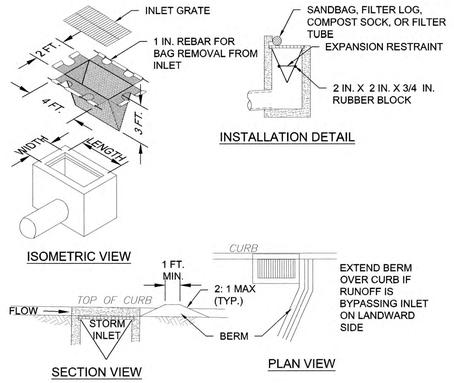
ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

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



NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

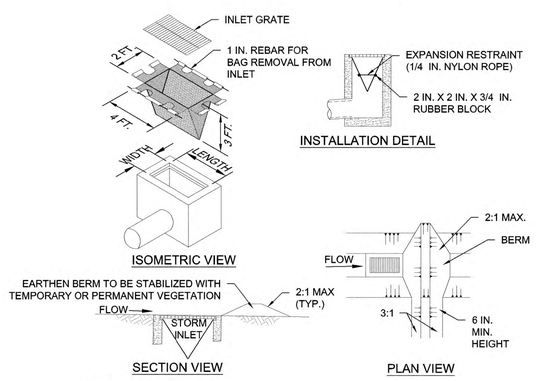
INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

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.

STANDARD CONSTRUCTION DETAIL #4-15
FILTER BAG INLET PROTECTION- TYPE C INLET
NOT TO SCALE



NOTES:

MAXIMUM DRAINAGE AREA = 1/2 ACRE.

INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

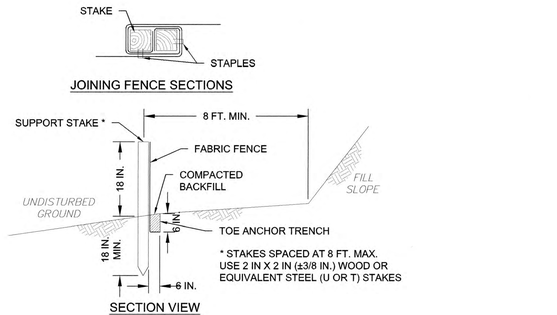
ROLLED EARTHEN BERM IN ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.

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 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.

STANDARD CONSTRUCTION DETAIL #4-16
FILTER BAG INLET PROTECTION - TYPE M INLET
NOT TO SCALE



NOTES:

FABRIC SHALL HAVE THE MINIMUM PROPERTIES AS SHOWN IN TABLE 4.3 OF THE PA DEP EROSION CONTROL MANUAL.

FABRIC WIDTH SHALL BE 30 IN. MINIMUM. STAKES SHALL BE HARDWOOD OR EQUIVALENT STEEL (U OR T) STAKES.

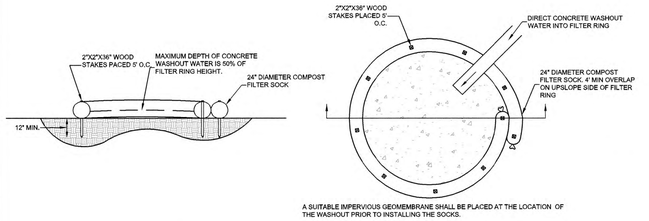
SILT FENCE SHALL BE PLACED AT LEVEL EXISTING GRADE. BOTH ENDS OF THE FENCE SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT.

SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH HALF THE ABOVE GROUND HEIGHT OF THE FENCE.

ANY SECTION OF SILT FENCE WHICH HAS BEEN UNDERMINED OR TOPPED SHALL BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET (STANDARD CONSTRUCTION DETAIL # 4-6).

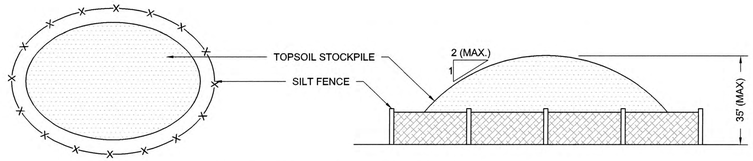
FENCE SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN TRIBUTARY AREA IS PERMANENTLY STABILIZED.

STANDARD CONSTRUCTION DETAIL #4-7
STANDARD SILT FENCE (18" HIGH)
NOT TO SCALE



NOTES:
1. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE
2. 18" DIAMETER FILTER STOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN A PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.

TYPICAL COMPOST SOCK WASHOUT INSTALLATION
NOT TO SCALE



SILT FENCE MUST BE PLACED AROUND THE PERIMETER OF ALL STOCKPILES. IMMEDIATELY APPLY TEMPORARY SEEDING TO ALL STOCKPILES.

TOPSOIL STOCKPILE AREA DETAIL
NOT TO SCALE

No.	DATE	DESCRIPTION	BY	CKD.

LETTER REVISIONS ARE NOT TO BE USED FOR CONSTRUCTION

DESIGN D.A.C.
DRAWN S.H.B.
CHECKED D.A.C.

FRANCIS R. ZGODA
REGISTERED PROFESSIONAL ENGINEER
PROFESSIONAL ENGINEER
COMMONWEALTH OF PENNSYLVANIA
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ENGINEERS, ARCHITECTURE & ENVIRONMENTAL SERVICES

EROSION CONTROL DETAILS

FEDEX PARKING LOT IMPROVEMENTS
ICAD SERVICES, INC.
MAP M6, B 15, L 48, HANOVER TOWNSHIP
NORTHAMPTON COUNTY, PENNSYLVANIA

JOB No.: CP-206
DATE: 07-17-26
SHEET C-103

CP Engineers Dave.Clark M:\Clients\ICAD Services\CP-206- FedEx- Bethlehem Parking Upgrade\Drawings\Current\Civil\C-103 Erosion Control Details.dwg Fri, Jul 17, 2026 - 5:11pm