WARD 17 CITY OF BETHLEHEM NORTHAMPTON COUNTY PENNSYLVANIA

Record Notes

1. SHEETZ, INC. IS THE DEVELOPER FOR THE PROJECT.

- 2. THE LOT SHOWN IS SUBJECT TO ALL EASEMENTS VISIBLE, OR ON RECORD, OR AS REQUIRED BY A UTILITY TO SERVE SAID LOT AT SUCH TIME AS THE UTILITY IS INSTALLED.
- 3. ALL PUBLIC IMPROVEMENTS IN THIS PROJECT SHALL BE CONSTRUCTED TO THE STANDARDS OF THE CITY OF BETHLEHEM, THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION AND THE APPROPRIATE PUBLIC UTILITY AUTHORITIES, UNLESS SAID IMPROVEMENTS ARE APPROVED
- 4. EXISTING UTILITY POLES REQUIRED TO BE RELOCATED FOR CONSTRUCTION OF IMPROVEMENTS SHALL BE RELOCATED IN ACCORDANCE WITH ALL UTILITY COMPANY, CITY AND PENNDOT REGULATIONS AND SPECIFICATIONS. 5. IN ACCORDANCE WITH THE NATIONAL FLOOD INSURANCE PROGRAM, FIRM (FLOOD INSURANCE RATE MAP), FOR THE CITY OF BETHLEHEM, NORTHAMPTON COUNTY, COMMUNITY PANEL NUMBERS 42095C0326D, EFFECTIVE DATE JULY 16, 2014, THE PROJECT SITE IS LOCATED IN
- THE ZONE "X" AREA OF MINIMAL FLOOD HAZARD. 6. SINKHOLE REPAIRS AND CLOSURES SHALL BE COMPLETED IN ACCORDANCE WITH THE DETAILS PROVIDED ON THE PROJECT DRAWINGS.
- 7. THE SANITARY SEWER LATERALS ARE PROPOSED TO BE PRIVATELY OWNED. 8. NO UTILITY WILL BE ACCEPTED BY THE CITY WITH A STRUCTURE OR REMNANT THEREOF ON TOP OF THE UTILITY. NO STRUCTURE SHOULD BE CONSTRUCTED OVER ANOTHER UTILITY.
- 9. ALL ELECTRICAL WORK WILL REQUIRE AN ELECTRICAL PERMIT AND A "PPL" JOB REQUEST NUMBER. DEVELOPER MUST FOLLOW CITY OF BETHLEHEM'S REQUIREMENTS FOR PARKING LOT AREA LIGHTING. POLE HEIGHTS MAY NOT BE GREATER THAN 25 FEET. ANY ARTIFICIAL LIGHT MUST NOT INFRINGE ON ADJACENT PROPERTY. ALL LIGHT FIXTURES SHALL HAVE A CUT OFF DESIGN THAT AIMS LIGHT DIRECTLY DOWNWARD.
- 10. AT THE TIME OF ANY FUTURE EXPANSION THE DESIGNER SHALL VERIFY AND PROVIDE ANY FEATURES NECESSARY TO ASSURE THAT THE DOWNSTREAM STORM SYSTEM HAS ADEQUATE CONVEYANCE CAPACITY AND MEETS CITY OF BETHLEHEM STANDARDS.
- 11. THE OWNER SHALL INSTALL KNOX BOX FOR CITY OF BETHLEHEM FIRE DEPARTMENT ACCESS.
- 12. THE SUBJECT PARCEL WAS PREVIOUSLY DEVELOPED AS THE BETHLEHEM STEEL AND PRIOR TO THE SUBDIVISION THE PROPERTY WAS SLAG AND SHALL BE CONSIDERED IMPERVIOUS AREA. THUS, NO NEW IMPERVIOUS COVERAGE IS PROPOSED.
- 13. PROPOSED MONUMENT SIGN LOCATION AND SIZE SHALL CONFORM WITH THE CITY'S ZONING ORDINANCE AND LVIP COVENANTS AND WILL REQUIRE A PERMIT FROM THE CITY PRIOR TO CONSTRUCTION.
- 14. ANY CHANGE IN THE LOCATION OF THE FIRE DEPARTMENT CONNECTION (FDC) SHALL BE APPROVED BY THE CITY OF BETHLEHEM FIRE DEPARTMENT

BY SUBMISSION OF THESE PLANS THE ENGINEER ON RECORD CERTIFIES THAT THESE PLANS ARE IN COMPLETE CONFORMANCE WITH

DRAWINGS SHALL BE IN FORM OF MYLAR COPY. THE ENGINEER OF RECORD SHALL CERTIFY(I.E. P.E. STAMPED AND SIGNED) THAT THE RECORD DRAWINGS COMPLY SUBSTANTIALLY WITH THE APPROVED PLAN AND THAT THEY CONFORM TO INDUSTRY STANDARDS. ALL

PRESENTED ON THE TWENTY-FOUR (24) INCH BY THIRTY-SIX (36) INCH SHEETS. THE DIGITAL MAP SHALL BE AUTOCAD COMPATIBLE.

IN ORDER TO MAINTAIN CONTINUITY BETWEEN PLAN REVISIONS, ANY CHANGES TO A PREVIOUS PLAN SUBMISSION SHALL BE FLAGGED WITH A TRIANGLE. ANY CHANGES NOT FLAGGED MAY BE CONSIDERED NOT APPROVED. FLAGGED CHANGES SHALL BE REFERENCED

ACCURATE AS-BUILT PLANS SHALL BE KEPT UP TO DATE DURING THE CONSTRUCTION PROCESS. AT THE COMPLETION OF THE PROJECT, RECORD DRAWINGS SHALL BE DEVELOPED 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 (PENNSYLVANIA SOUTH, FIPS ZONE 3702) AND THE DIGITAL FILE SHALL BE IN STATE PLANE FEET COORDINATES AS APPLICABLE. THE HARD COPY OF THE RECORD

DIGITAL FILES SHALL RESIDE ON PC COMPATIBLE CD ROM CONTAINING THE DIGITAL REPRESENTATION OF THE FINAL PLAN AS

1. THE MAINTENANCE OF STORM WATER FACILITIES NOT DEDICATED TO AND ACCEPTED BY THE CITY, SHALL BE THE OWNER'S

AT LEAST AN ANNUAL SCHEDULE TO ENSURE THAT ANY NECESSARY CORRECTIVE WORK IS PERFORMED IN A TIMELY MANNER.

RESPONSIBILITY. THE OWNER'S DEED, AND THE DEED TO ANY SUBSEQUENT OWNER, SHALL NOTE THAT THE OWNER SHALL ACCEPT

2. THE DRAINAGE EASEMENT PROVIDES FOR THE FLOW OF STORMWATER ACROSS LOTS, AND MAY NOT BE ALTERED WITHOUT THE

DRAINAGE EASEMENTS AREAS WITHOUT SUFFICIENT PROVISION FOR THE PASSAGE OF STORMWATER, AND ANY SUCH PROPOSED

ALL PUBLIC INLETS SHOULD HAVE INLET MARKERS. THE DESIGN OF THE INLET MARKERS SHALL BE APPROVED BY THE CITY

THE MAINTENANCE RESPONSIBILITIES. THE CITY OF BETHLEHEM SHALL BE PERMITTED TO INSPECT THE STORM WATER FACILITIES ON

WRITTEN PERMISSION OF THE CITY ENGINEER. NO OBSTRUCTIONS SUCH AS PLANTING BERMS OR FENCES MAY BE INSTALLED IN THE

PRIOR TO ANY WORK WITHIN THE RIGHT-OF-WAY, PERMITS MUST BE OBTAINED FROM CITY ENGINEERING OFFICE.

ALL LAYERS INCLUDED IN THE DIGITAL MAPS SHALL BE THE STANDARDIZED LAYERS PREPARED AND UTILIZED BY THE CITY OF

BETHLEHEM TO ENSURE COMPATIBILITY WITH THE CITY'S EXISTING CADD STANDARDS AND AS DESCRIBED IN APPENDIX A OF THE

THE CITY OF BETHLEHEM STORM WATER MANAGEMENT ORDINANCE.

CITY'S SUBDIVISION AND LAND DEVELOPMENT ORDINANCE.

TO THE APPROPRIATE REVISION DATE IN THE REVISION BLOCK.

PROVISION SHALL BE APPROVED IN WRITING BY THE CITY ENGINEER.

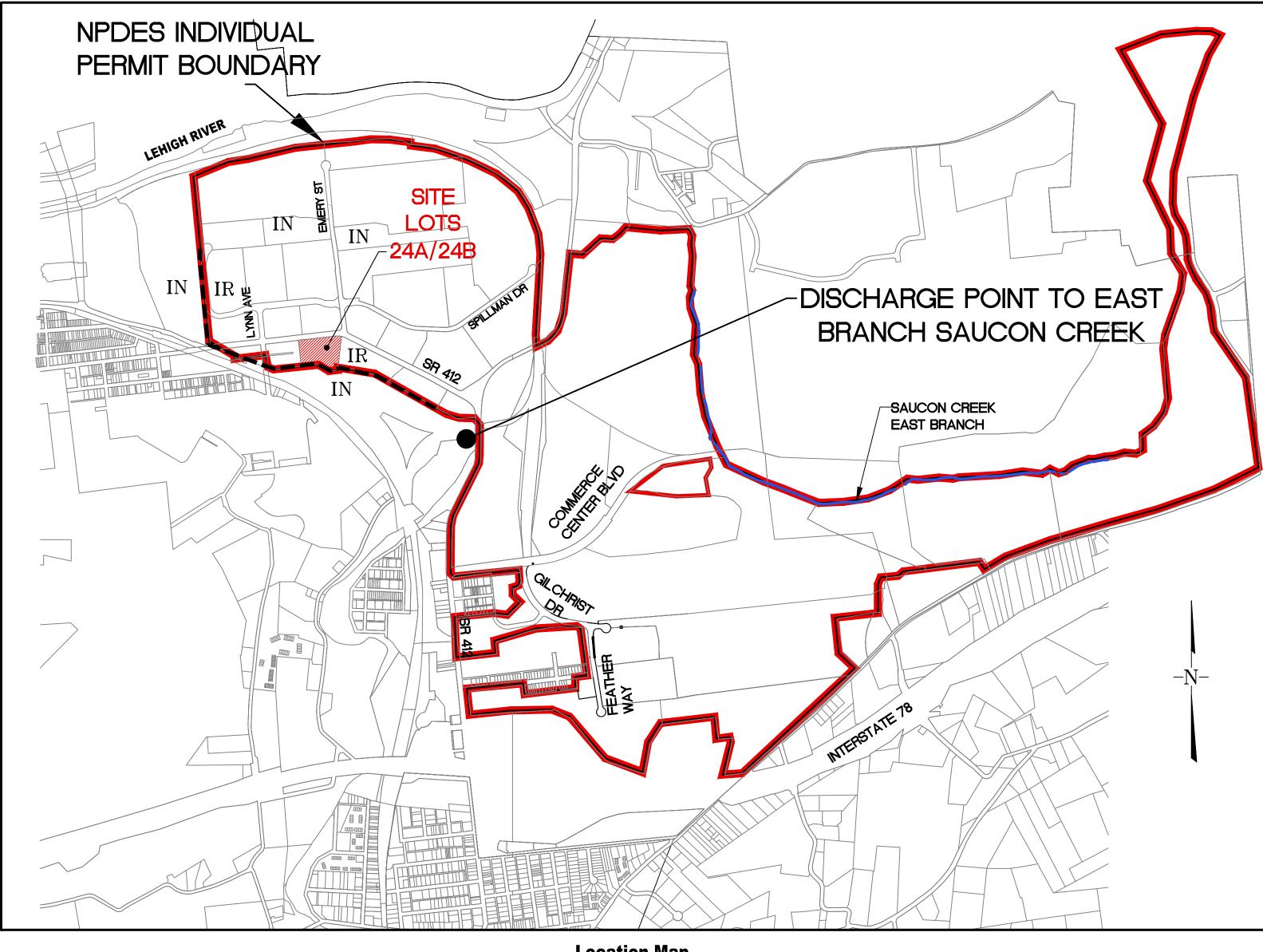
THE BUILDING FOOTPRINT SHALL BE VERIFIED WITH THE ARCHITECT PRIOR TO STAKEOUT

Revisions Note

Inlet Marker Note

Building Stakeout Note

Engineering Permits Note



	PARCELS: P7 - 10	8 - 1-24 (LOT 24A) 8 6 - 1-24D (LOT 24B) 7	2,598 S.F./1.90 ACRES	
	WARD:	/ = 1-24D (LOT 24B) /	17	
	TAX MAP REFERENCED: DEED REFERENCED:	MAP P	7, BLOCK 10, LOT 1-24 AN 2004-1-209584	ID 1-24D
	ZONING DISTRICT:	ı	R (INDUSTRIAL REDEVELOPM	ENT)
	EXISTING USE:		VACANT LOT	•
	PROPOSED USE: WATER: SEWER:	CONVENIEN	CE STORE—GAS STATION (PE PUBLIC PUBLIC	ERMITTED BY SPECIAL EXCEPTI
		REQUIRED/ALLOWED IR DISTRICT	ALLOWED BY LVIP COVENANTS	LOTS 24A/24B
	MINIMUM DEVELOPMENT AREA:	20,000 S.F.	·	61,134 S.F./3.70 AC. (GROSS) 515 S.F./0.01 AC.(NORTH RC 666 S.F./0.02 AC.(SOUTH RC 9,953 S.F./3.67 AC.(NET)
2	MINIMUM LOT WIDTH:	60 FT.	N/A	450 FT.
<u> </u>	MAXIMUM BUILDING COVERAGE:	90%	50%	2.73%
	MAXIMUM BUILDING HEIGHT: IMPERVIOUS COVERAGE	200 FT 90%	N/A 70%	26 FT. 60.0 %
	SETBACKS:			(96,795 S.F.)
	FRONT YARD:	10 FT	40 FT	50 FT.(412)/198 FT. (EME
	REAR YARD: SIDE YARD:	20 FT 20 FT	15 FT 15 FT	163.9 FT. 217.3 FT
	PARKING SETBACKS:	2011	13 11	217.5 11
	FRONT YARD:	10 FT	25 FT	★ 10.6 FT
	REAR YARD:	20 FT	10 FT	N/A(ACCESS RD.)
	SIDE YARD:	10 FT	10 FT	N/A(ACCESS RD.)
	PARKING REQUIREMENTS: MINIMUM SIZE:	9' X 18'	9' X 19'	10' X 20'
	SPACES REQUIRED:			
2	INDOOR RETAIL: RESTAURANT COMPONENT:	4 SPACES PER 1,000 S.F. OF 1 SPACE PER 4 SEATS		1,000×4=25 46/4=12
	TOTAL SPACES REQUIRED:	2 37 SPACES		
	ACCESSIBLE PARKING:	2 SPACES (BO	TH MARKED AS VAN ACCES	SIBLE) 2 SPACES
	TOTAL SPACES PROVIDED:			55 SPACES
	BICYCLE PARKING	2 SPACES (5% (OF 37) 2 MINIMUM	2 SPACES
	BUILDING COVERAGE:	6,139 SF.	· , =	=

*LVIP BUILDING COMMITTEE GRANTED RELIEF TO ALLOW THE

Land Development Plans

* 1 COVER SHEET - (RECORD PLAN 1 OF 2) * 2 RECORD PLAN (2 OF 2)

SWORN AND SUBSCRIBED TO BEFORE ME THIS ___ DAY OF _____, ____

REVIEWED BY THE LEHIGH VALLEY PLANNING COMMISSION FOR LEHIGH AND NORTHAMPTON COUNTIES.

THIS PLAN WAS RECORDED IN THE OFFICE OF THE RECORDER OF

BEING DULY SWORN ACCORDING TO LAW, AND ACTING IN MY CAPACITY AS

PEACEFUL POSSESSION OF SAID CORPORATION AND THAT THERE ARE NO

SWORN AND SUBSCRIBED TO BEFORE ME THIS ___ DAY OF _____, ____

BEING DULY SWORN ACCORDING TO LAW, AND ACTING IN MY CAPACITY AS

PEACEFUL POSSESSION OF SAID CORPORATION AND THAT THERE ARE NO

THE TRUE AND LAWFUL OWNER OF PROPERTY KNOWN AS _____

THE TRUE AND LAWFUL OWNER OF PROPERTY KNOWN AS _____

__ DEPOSE AND SAY THAT THE ABOVE NAMED CORPORATION IS

; THAT THE ABOVE DESCRIBED PROPERTY IS IN THE

CORPORATION NAME

CORPORATION

CORPORATION OFFICIAL

NOTARY PUBLIC

CORPORATION NAME

CORPORATION

CORPORATION OFFICIAL

NOTARY PUBLIC

_ DEPOSE AND SAY THAT THE ABOVE NAMED CORPORATION IS

___; THAT THE ABOVE DESCRIBED PROPERTY IS IN THE

LVPC STAFF PERSON RESPONSIBLE FOR REVIEW

DEEDS FOR NORTHAMPTON COUNTY, ON_____

PLAN BOOK_____, PAGE_____.

COMMONWEALTH OF PENNSYLVANIA

LIENS PENDING AFFECTING THE TITLE THEREOF

Owner Signature:

COUNTY OF NORTHAMPTON

MY COMMISSION EXPIRES ON _

COUNTY OF NORTHAMPTON

SHEETZ

Developer/Applicant Signature:

LIENS PENDING AFFECTING THE TITLE THEREOF.

MY COMMISSION EXPIRES ON ____

COMMONWEALTH OF PENNSYLVANIA

APPROVED THIS PLAN OF THE PROPERTY LOT 24A/24B, LVIP VII LOCATED IN NORTHAMPTON COUNTY AS SHOWN HEREIN.

- 3 EXISTING FEATURES PLAN
- 4 DEMOLITION PLAN
- 5 GRADING & UTILITY PLAN
- 6 CURB GRADE PLAN
- 7 PROFILE PLAN
- 8 PROFILE PLAN 9 LANDSCAPE PLAN AND DETAILS
- 10 LIGHTING PLAN AND DETAILS * 11 POST CONSTRUCTION STORMWATER MANAGEMENT PLAN
- 12 POST CONSTRUCTION STORMWATER MANAGEMENT DETAILS
- 13 EROSION & SEDIMENTATION CONTROL PLAN
- 14 EROSION & SEDIMENTATION CONTROL DETAIL SHEET 15 EROSION & SEDIMENTATION CONTROL DETAIL SHEET
- 16 CONSTRUCTION DETAIL SHEET 17 CONSTRUCTION DETAIL SHEET
- 18 CONSTRUCTION DETAIL SHEET SHEETZ SPECIFIC DETAILS
- 19 CONSTRUCTION DETAIL SHEET SHEETZ SPECIFIC DETAILS 20 CONSTRUCTION DETAIL SHEET - SHEETZ SPECIFIC DETAILS

Statement of Intent

TO CONSOLIDATE LOTS 24A AND 24B OF THE LVIP VII SUBDIVISION AND CONSTRUCT A CONVENIENCE STORE WITH A DRIVE—THRU SERVICE USE IN CONJUNCTION WITH SHEETZ

WITH A GAS STATION WITH ASSOCIATED PARKING AND INFRASTRUCTURE.

21 CONSTRUCTION DETAIL SHEET - SHEETZ SPECIFIC DETAILS

* DENOTES PLAN TO BE RECORDED **Supplemental Plans**

VEHICLE MOVEMENT EXHIBIT - 1 OF 1 FIRE TRUCK MOVEMENT EXHIBIT - 1 OF

Plan Preparer



Bethlehem Office 252 Brodhead Road, Suite 100 P:610.691.5644 Bethlehem, PA 18017-8944 F:610.691.6968

HanoverEng.com

Developer/ Applicant

CONTACT - STEVEN LYNCHA, P.E.

Owner LVIP, INC 1720 SPILLMAN DRIVE 5700 SIXTH AVENUE BETHLEHEM, PA 18015 ALTOONA, PA 16602 PHONE 610.866.4600 PHONE 814-933-7655

ZONING HEARING BOARD DECISION

1. THE PROPOSED GAS STATION MEETS ALL SPECIFIC REQUIREMENTS OF

2. THE PROPOSED DRIVE-THRU MEETS ALL SPECIFIC REQUIREMENTS OF

3. APPLICANT PRESENTED CLEAR AND CONVINCING EVIDENCE THAT IT

MEETS THE GENERAL REQUIREMENTS OF ZONING ORDINANCE SEC.

DATE OF ZONING HEARING: OCTOBER 26, 2022
DATE OF WRITTEN DECISION: DECEMBER 9, 2022

ZONING ORDINANCE SEC. 1322(v).

ZONING ORDINANCE SEC. 1322(s).

APPROVED BY A VOTE OF 3-0.

CONCLUSION OF LAW

Site Address

1780 EAST 4TH STREET BETHLEHEM, PA 18015

202215144398 EXCAVATION

"CALL BEFORE YOU DIG" PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN

PROJECT / SERIAL NUMBERS/ EXCAVATION-DEMOLITION / TYPE OF ONE CALL / DATE / ADDRESS / NEAREST INT. / TOWNSHIP / COUNTY

DESIGN STAGE - STOP CALL BETHLEHEM CITY(QX) PPL ELECTRIC(PID) PENNSYLVANIA ONE CALL SYSTEM, INC. SERVICE ELECTRIC CABLE TV INC(SET) 1-800-242-1776 UGI UTILITIES LEHIGH HAZLETON(UJ) THIS PROJECT'S DESIGNER INQUIRY NO. FIRSTLIGHT FIBER(ION) VERIZON(YI) 20221514398

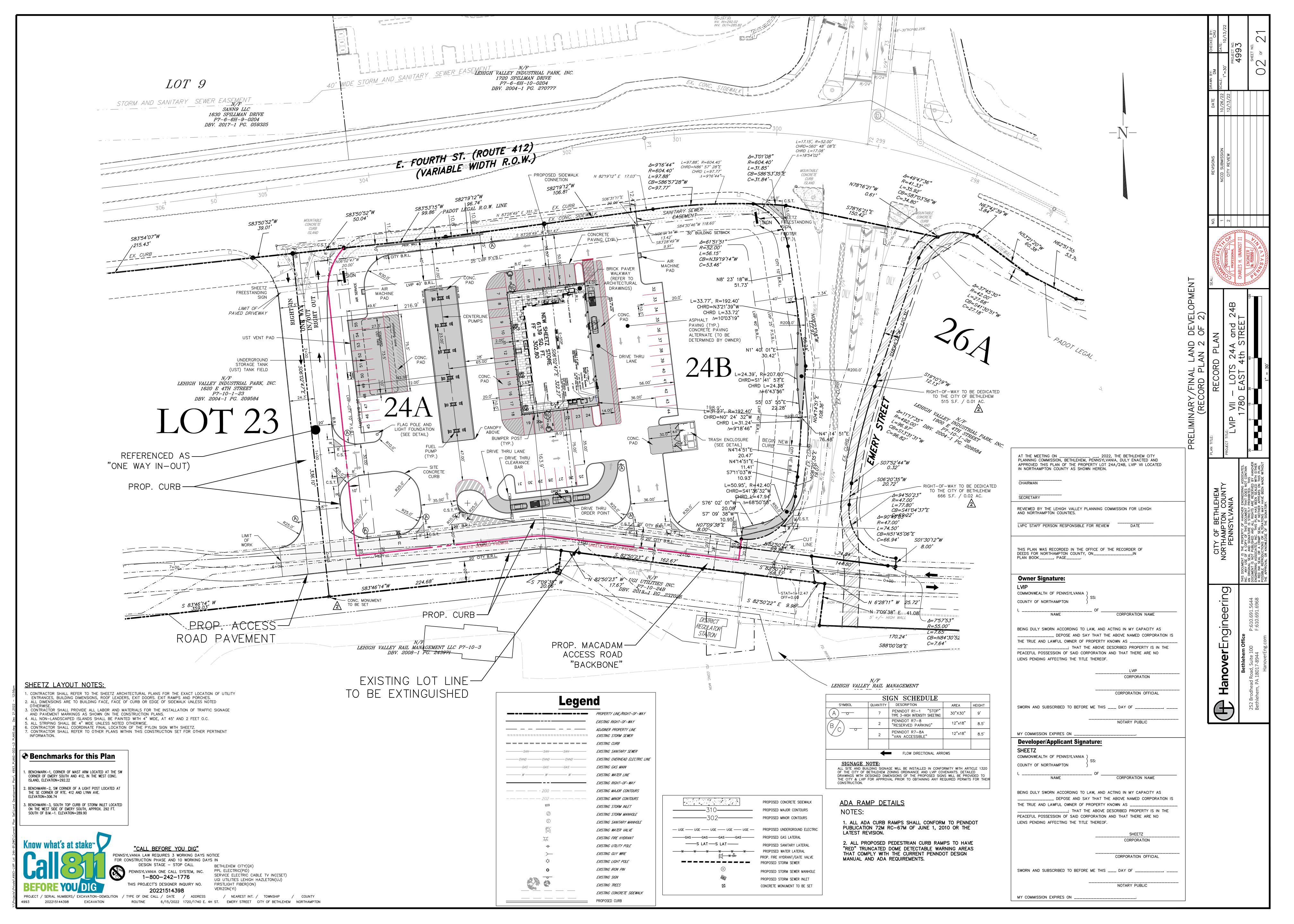
ROUTINE 6/15/2022 1720/1740 E. 4H ST. EMERY STREET CITY OF BETHLEHEM NORTHAMPTON

BENCHMARK-1, CORNER OF MAST ARM LOCATED AT THE SW CORNER OF EMERY SOUTH AND 412, IN THE WEST CONC. ISLAND, ELEVATION=292.22 . BENCHMARK-2, SW CORNER OF A LIGHT POST LOCATED AT THE SE CORNER OF RTE. 412 AND LYNN AVE.

. BENCHMARK-3, SOUTH TOP CURB OF STORM INLET LOCATED ON THE WEST SIDE OF EMERY SOUTH, APPROX. 292 FT. SOUTH OF B.M.-1. ELEVATION=289.90

Benchmarks for this Plan

PAVING AREA TO ENCROACH INTO THE REQUIRED FRONT YARD SETBACK WITHIN THEIR CONSTRAINTS.





Soil Type UkaD Urban land, 0 to 8 percent slopes

◆ Benchmarks for this Plan

 BENCHMARK-1, CORNER OF MAST ARM LOCATED AT THE SW CORNER OF EMERY SOUTH AND 412, IN THE WEST CONC. ISLAND, ELEVATION=292.22 2. BENCHMARK-2, SW CORNER OF A LIGHT POST LOCATED AT THE SE CORNER OF RTE. 412 AND LYNN AVE. ELEVATION=306.74 3. BENCHMARK-3, SOUTH TOP CURB OF STORM INLET LOCATED ON THE WEST SIDE OF EMERY SOUTH, APPROX. 292 FT. SOUTH OF B.M.-1. ELEVATION=289.90



PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PENNSYLVANIA ONE CALL SYSTEM, INC.

1-800-242-1776

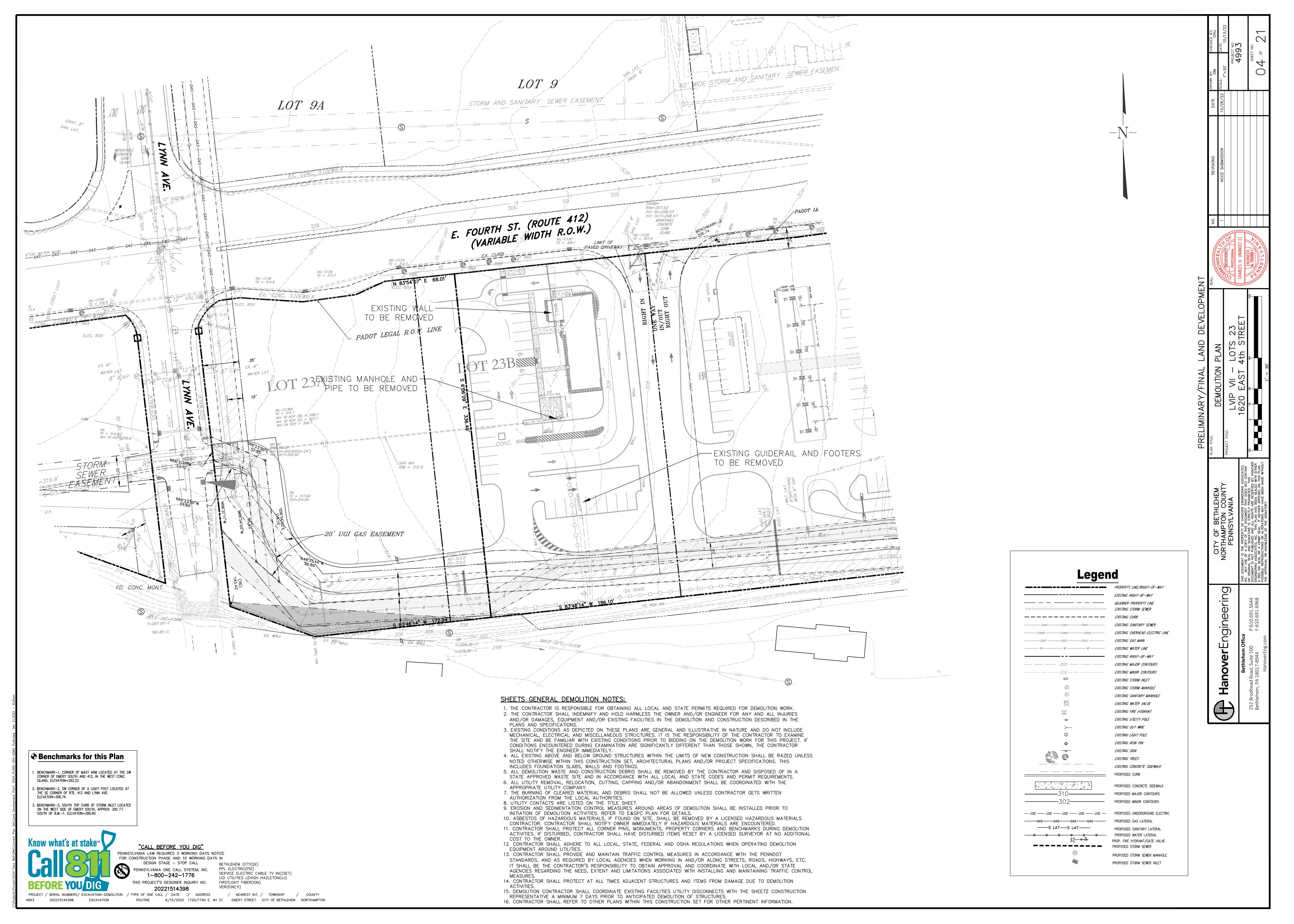
BETHLEHEM CITY(QX)

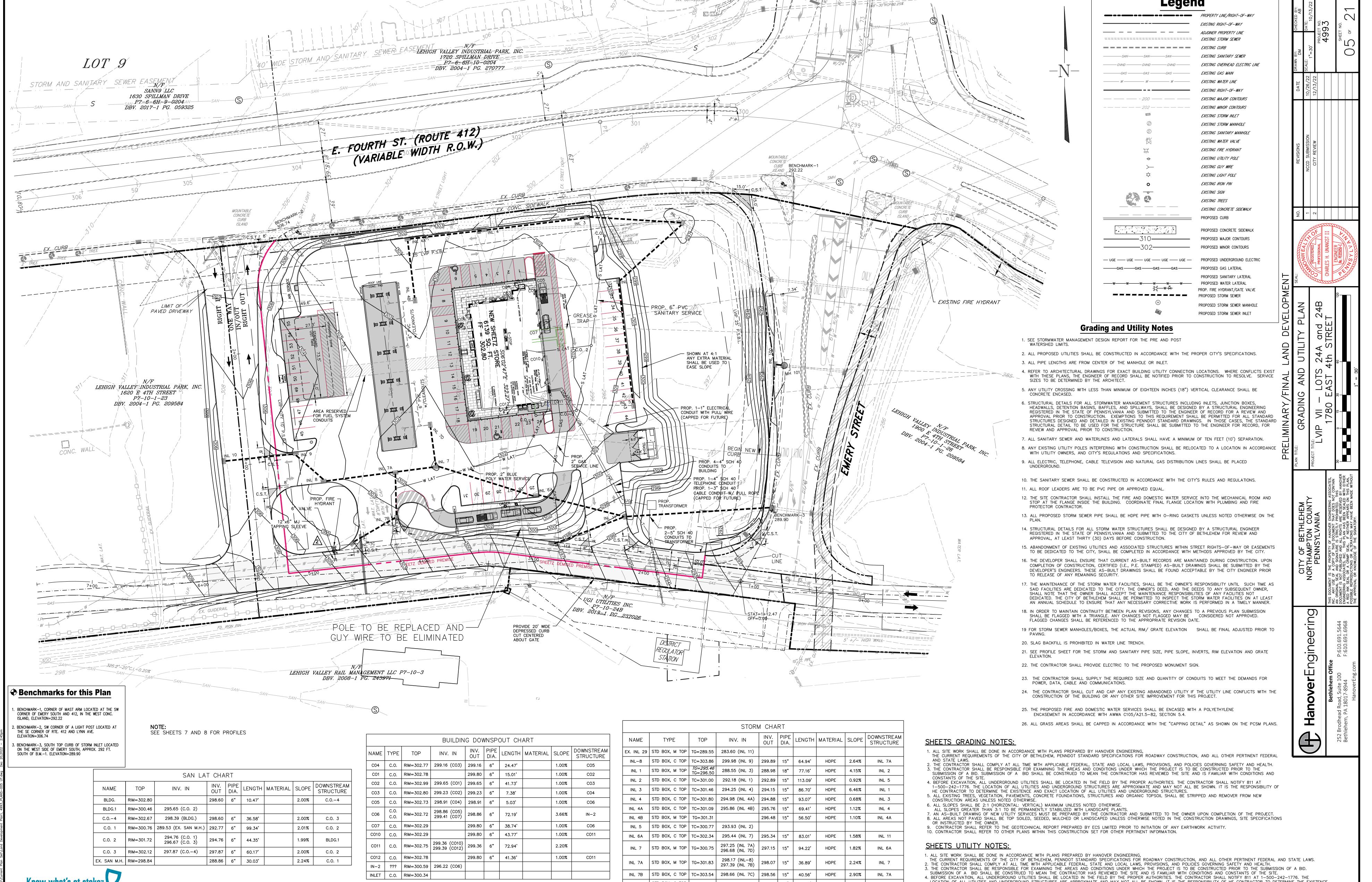
PPL ELECTRIC(PID)

SERVICE ELECTRIC CABLE TV INC(SET)

UGI UTILITIES LEHIGH HAZLETON(UJ) DESIGN STAGE - STOP CALL THIS PROJECT'S DESIGNER INQUIRY NO. FIRSTLIGHT FIBER(ION)

20221514398 PROJECT / SERIAL NUMBERS/ EXCAVATION-DEMOLITION / TYPE OF ONE CALL / DATE / ADDRESS / NEAREST INT. / TOWNSHIP / COUNTY ROUTINE 6/15/2022 1720/1740 E. 4H ST. EMERY STREET CITY OF BETHLEHEM NORTHAMPTON 4993 202215144398 EXCAVATION





Know what's at stake™ **L**

202215144398 EXCAVATION

"CALL BEFORE YOU DIG" PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN

DESIGN STAGE - STOP CALL PPL ELECTRIC(PID) PENNSYLVANIA ONE CALL SYSTEM, INC. SERVICE ELECTRIC CABLE TV INC(SET) 1-800-242-1776 UGI UTILITIES LEHIGH HAZLETON(UJ)

THIS PROJECT'S DESIGNER INQUIRY NO. FIRSTLIGHT FIBER(ION)

VERIZON(YI) 20221514398 PROJECT / SERIAL NUMBERS/ EXCAVATION-DEMOLITION / TYPE OF ONE CALL / DATE / ADDRESS / NEAREST INT. / TOWNSHIP / COUNTY ROUTINE 6/15/2022 1720/1740 E. 4H ST. EMERY STREET CITY OF BETHLEHEM NORTHAMPTON

			, ,							l I 1	INL 1	STD BOX, M TOP	1G=295.46	288.55
CO1	c.o.	RIM=302.78		299.80	6"	15.01'		1.00%	CO2	<u> </u>	IINL I		TG=296.50	
CO2	C.O.	RIM=302.99	299.65 (CO1)	299.65	6"	41.73'		1.00%	CO3		NL 2	STD BOX, C TOP	TC=301.00	292.18
C03	C.O.	RIM=302.80	299.23 (CO2)	299.23	6"	7.38'		1.00%	C04		NL 3	STD BOX, C TOP	TC=301.46	294.25
C05	C.O.	RIM=302.73	298.91 (C04)	298.91	6"	5.03'		1.00%	C06	l II	NL 4	STD BOX, C TOP	TC=301.80	294.98
		11111-002.70		230.31		3.03		1.00%	000		NL 4A	STD BOX, C TOP	TC=301.09	295.86
C06	C.O. C.O.	RIM=302.72	298.86 (CO5) 299.41 (CO7)	298.86	6"	72.19'		3.66%	IN-2	IN IN	NL 4B	STD BOX, M TOP	TG=301.31	
C07	C.O.	RIM=302.29		299.80	6"	38.74'		1.00%	CO6		NL 5	STD BOX, C TOP	TC=300.77	293.93
CO10	C.O.	RIM=302.29		299.80	6"	43.77'		1.00%	CO11] IN	NL 6A	STD BOX, C TOP	TC=302.34	295.44
CO11	C.O.	RIM=302.75	299.36 (CO10) 299.39 (CO12)	299.36	6"	72.94'		2.20%			NL 7	STD BOX, M TOP	TG=300.75	297.25 296.68
CO12	c.o.	RIM=302.78		299.80	6"	41.36'		1.00%	CO11					298.17
IN-2	???	RIM=300.59	296.22 (CO6)								NL 7A	STD BOX, M TOP	TG=301.83	297.39
INLET	C.O.	RIM=300.34								IN IN	NL 7B	STD BOX, C TOP	TC=303.54	298.66
		•				•	•			IN	NL 7C	STD BOX, C TOP	TC=304.51	
										IN	NL 7D	STD BOX, M TOP	TG=301.47	
										l l	NL 9	STD BOX, C TOP	TC=304.84	300.96
										IN	NL 10	STD BOX, C TOP	TC=305.48	
											NI 11	STD BOX C TOP	TC-20713	290.61

300.43 | 15" | 47.37' HDPE | 3.74% | INL 7B 297.92 | 15" | 38.35' HDPE | 3.23% | 96 (INL 10) | 300.87 | 15" | 37.25' HDPE 2.37%

INL 7 INL-8 302.33 | 15" | 66.06' HDPE | 2.07% | INL 9 INL 11 STD BOX, C TOP TC=297.13 293.27 (INL 6A) (INL 11-A) 290.51 | 15" | 132.87' HDPE 5.20% EX. INL 28 INL 11-A | STD BOX, C TOP | TC=297.60 291.93 | 15" | 70.90' HDPE 1.86% INL 11 283.24 | 15" | 7.00' INL 100 | STD BOX, C TOP | TC=288.23 RCP 2.00%

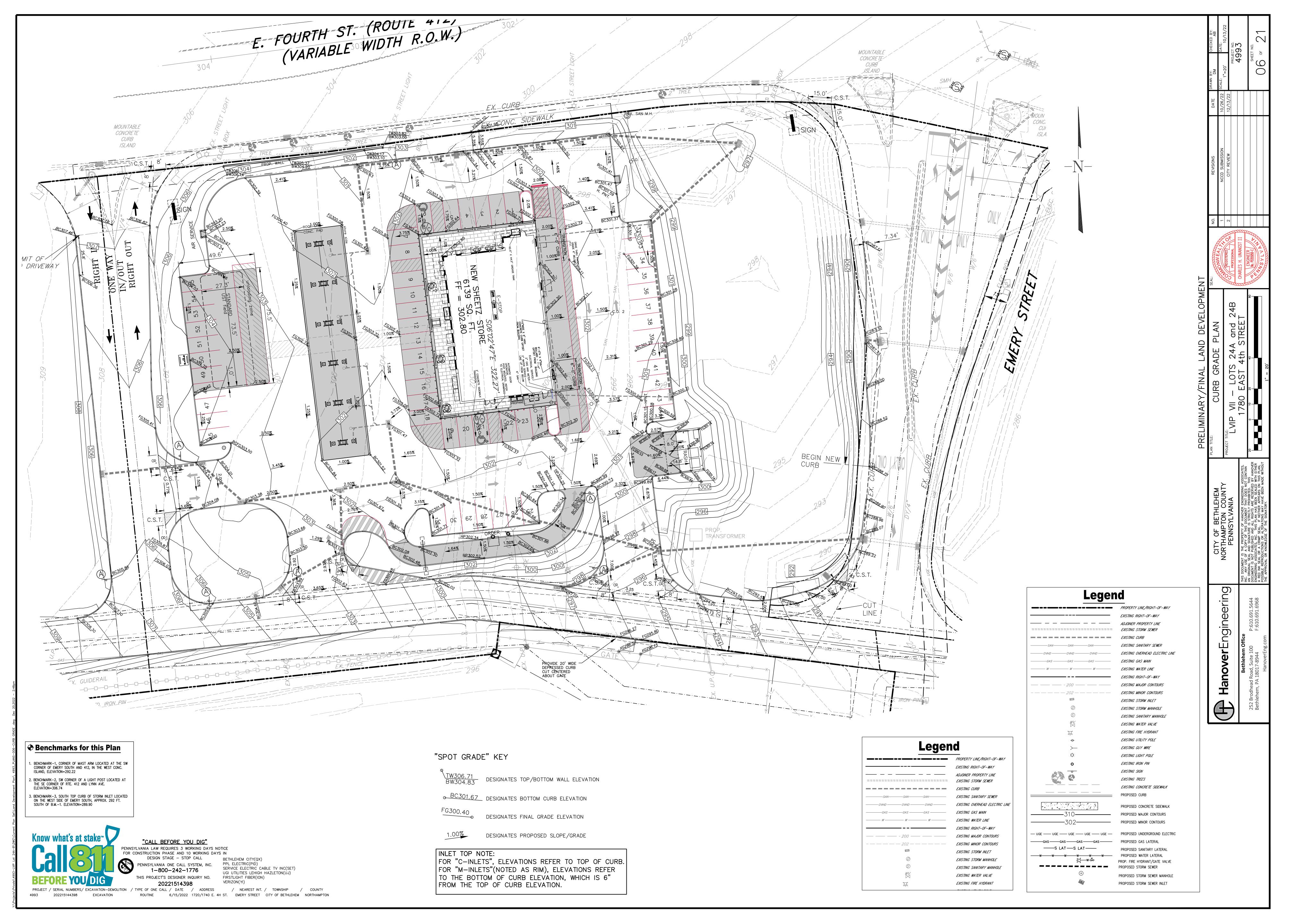
LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES ARE APPROXIMATE AND MAY NOT ALL BE SHOWN. IT IS THE RESPONSIBILITY OF HE CONTRACTOR TO DETERMINE THE EXISTENCE AND EXACT LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES. 5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BID AND PERFORM ALL UTILITY WORK IN COMPLIANCE TO ALL APPLICABLE AND STATE CODES AND REGULATIONS.

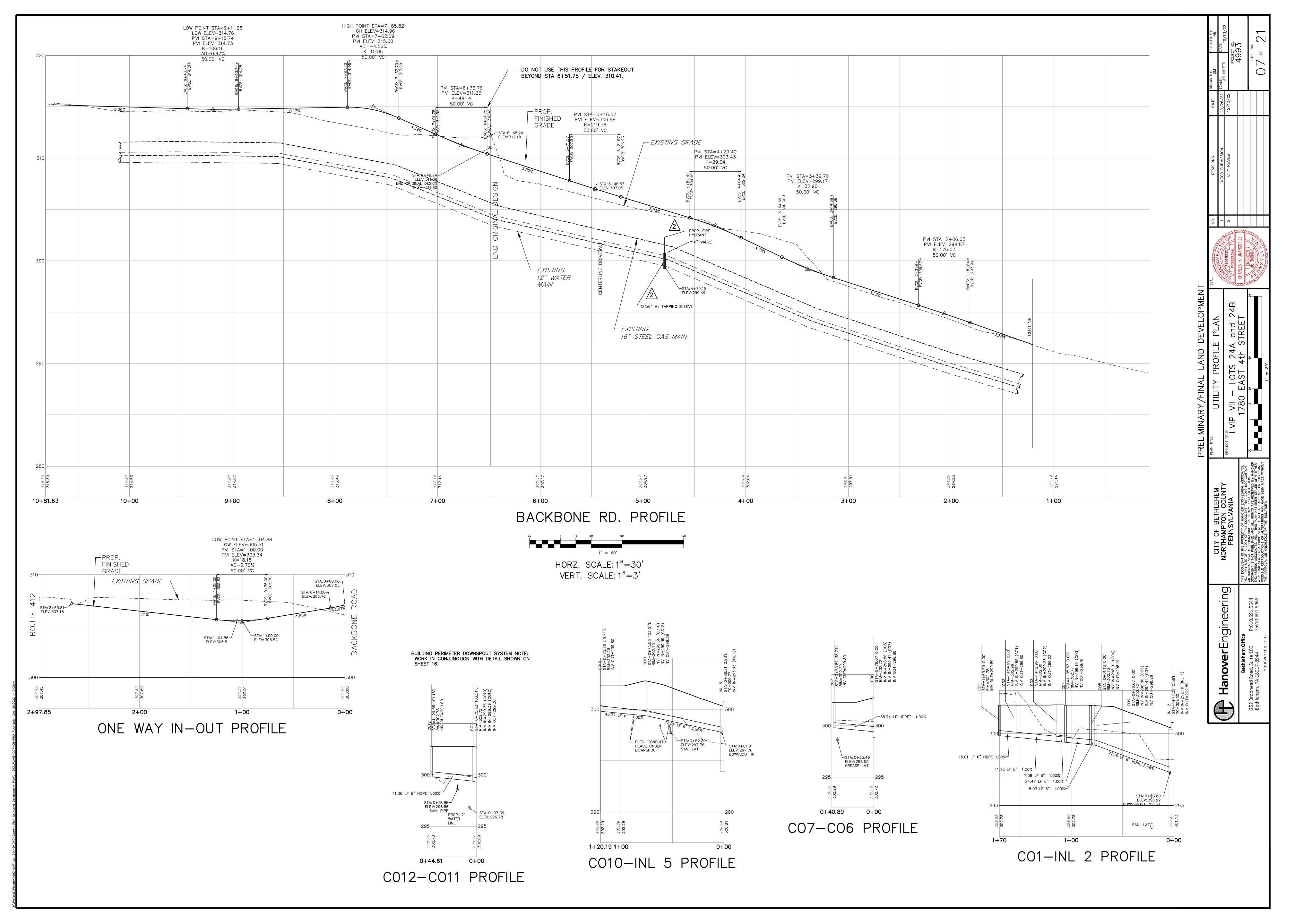
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES ASSOCIATED WITH THE INSTALLATION, INSPECTING, TESTING AND FINAL ACCEPTANCE OF ALL PROPOSED UTILITIES CONSTRUCTION. 7.CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY ON THE ADDITION, REMOVAL AND/OR RELOCATION OF UTILITY POLES AND THE EXTENSION OF ALL PROPOSED UTILITIES TO SHEETZ STORE 8. ALL UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE RESPECTIVE UTILITY COMPANY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE ALL UTILITIES ARE INSTALLED CORRECTLY TO MEET PROJECT REQUIREMENTS WHETHER PERFORMED BY THE CONTRACTOR OR NOT.

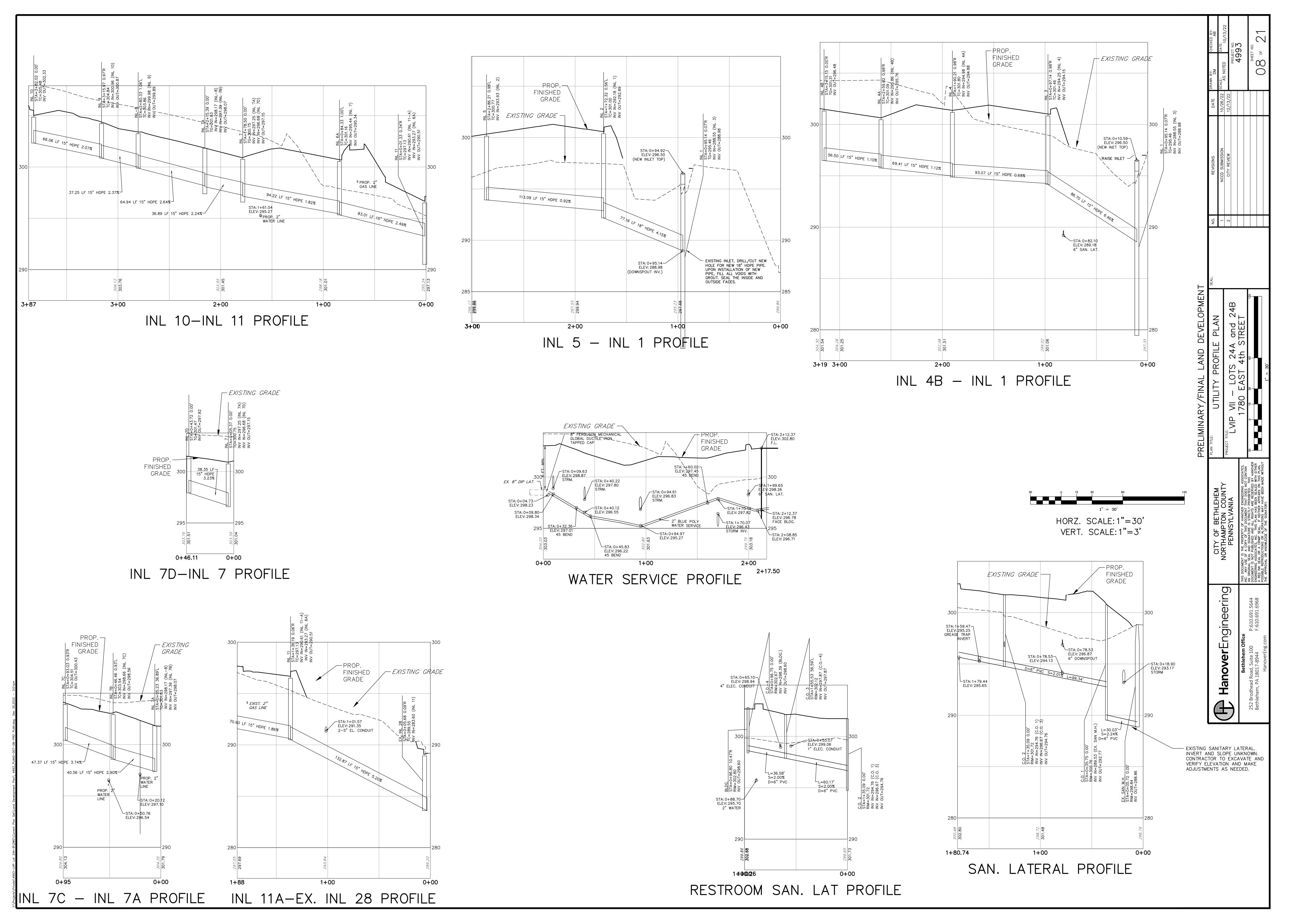
O. UTILITY COMPANIES AND CONTACTS ARE LISTED ON PLANS 11. CONDUIT LOCATIONS TO PYLON SIGNS AND SITE LIGHT POLES TO BE COORDINATED WITH SHEETZ SUPERINTENDENT. 12. CONTRACTOR SHALL CONFORM WITH SHEETZ SUPERINTENDENT ON LOCATION AND SIZE OF THE GREASE TRAP. GREASE TRAP SHALL BE PROVIDED WITH "T" PIPE IN OUTFLOW CHAMBER. ALL SANITARY SEWER PIPE SHALL BE SDR-35 PVC UNLESS OTHERWISE NOTED. 13. CONTRACTOR SHALL COORDINATE WITH SHEETZ ON CONDUIT ROUTE TO STORE FROM THE TRANSFORMER AND/OR SERVICE UTILITY POLE FOR TELEPHONE AND ELECTRICAL SERVICE.

9. AN AS-BUILT DRAWING OF NEW UTILITY SERVICES MUST BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE OWNER UPON COMPLETION OF THE PROJECT.

- MH 101 TO REPLACE EX. INLET 26 INV. IN=283.10/INV. OUT=283.00







		<u>PLANTING S</u>	CHEDUL	<u>E</u>	
YMBOL	BOTANICAL NAME	COMMON NAME	QTY.	SIZE	REMARKS
		LARGE DECIDU	OUS TREES	5	
AR	ACER RUBRUM "FRANKSRED"	RED SUNSET RED MAPLE	4		B&B PARKING LOT TREE CREDIT(2 TREES)
TCS	TILIA CORDATA GREENSPIRE	GREENSPIRE LINDEN	5	3.5" CAL MIN. @ 6" ABOVE GRADE	B&B STREET TREES
TC	TILIA CORDATA GREENSPIRE	GREENSPIRE LINDEN	5	3.5" CAL MIN. @ 6" ABOVE GRADE	B&B PARKING LOT TREE
QR	QUERCUS RUBRUM	RED OAK	4	3" CAL MIN. @ 6" ABOVE GRADE	B&B LANDSCAPE CREDIT (4 TREES)
AS	ACER SACCHARUM "COLUMNARE"	COLUMNAR SUGAR MAPLE	5	3" CAL MIN. @ 6" ABOVE GRADE	B&B LANDSCAPE CREDIT (5 TREES)
		TOTAL LARGE DECIDUO	US TREES	= 23	
		SMALL FLOWER	RING TREES	3	
PS	PRUNUS SERRITELLA "ROSY CLOUD"	ROSY CLOUD CHERRY	6	2" CAL MIN.	B&B LANDSCAPE CREDIT (5 TREES)
		TOTAL SMALL FLOWER	ING TREES	= 6	
		EVERGREEN	TREES		
JG	JUNIPERUS CHINENSIS GLAUCA	COLUMNARIS GLAUCA JUNIPER	19	7' HGT. MIN.	B&B
		TOTAL EVERGREEN	TREES =	19	
		SHRUE	3S		
ΑZ	AZALEA KURUME "DELAWARE VALLEY"	DELAWARE VALLEY AZALEA	20	18" HGT.	B&B, WHITE FLOWERING
AK	AZALEA KURUME "HINO CRIMSON"	HINO CRIMSON AZALEA	16	18" HGT.	B&B, PINK FLOWERING
JH	JUNIPERUS HOR. "WILTONI"	BLUE RUG JUNIPER	172	12"-18" SPD.	NO. 3 CONTAINER
JC	JUNIPERUS CONFERTA "BLUE PACIFIC"	BLUE PACIFIC JUNIPER	146	12"-18" SPD.	NO. 3 CONTAINER
IC	ILEX CRENATA "HETZII"	LARGE CONVEXED LEAVED HOLLY	10	18" SPD.	B&B
			364		
SITE D. Total L		acres (161,172 sq. ft.)	<u>NT.</u>		
SUMMA	RY OF LANDSCAPE REQU	REMENTS			
• Sec	Bethlehem — Zoning <u>c. 1318.23 — Buffer Yards</u> c. 1319.02.J.1 — Street Ti		ct area zo	oned IR	
	Required: One (1) tree	for every 50' street fr		·	12-EAST 4TH STREET)
• <u>Sec</u> o	*Proposed trees <u>: 1319.02.J.2 — Parking</u>	for every 15 outdoor	·		5/15)

City of Bethlehem — SALDO • Sec. 1349.08 (a)(4)(5) — Plant Species Selection

o <u>Required</u>: Diversity of plant types

o <u>Proposed</u>: Variety of species in all categories of plant selections. • Sec. 1349.08.f (1) — Off—street Parking and Loading Areas o Required: 10% of Parking/Loading areas = 6,654 sq. ft. (65,591 x 10%)

o Proposed: 2,250 sq. ft. landscape islands 2,400 sq. ft. landscape credits 2,410 sq. ft. landscape beds

LVIP Protective Covenants (Sec. 305.8.a) • Proposed Use: Convenience Store/Gas Station (Non-Industrial Use)

• Project Acreage: 3.70 acres • Required Deciduous Trees: 3.7 ac. x 7 = 26 trees Proposed Deciduous Trees: 29 trees

• Required Evergreen Trees: 3.7 ac. X 5 = 19 TREES • Proposed Evergreen Trees: 19 trees

LANDSCAPE AREA TABULATION LANDSCAPE ISLANDS 2,250 sq. ft. • LANDSCAPE BEDS 2,410 sq. ft. • DECIDUOUS TREES 9 TREES @ 200 sq. ft. 1,800 sq. ft. • FLOWERING TREES

PROPOSED AREA: 7,060 sq. ft. 6,654 sq. ft. REQUIRED AREA:

6 TREES @ 100 SQ. FT. 600 Sq. Ft.

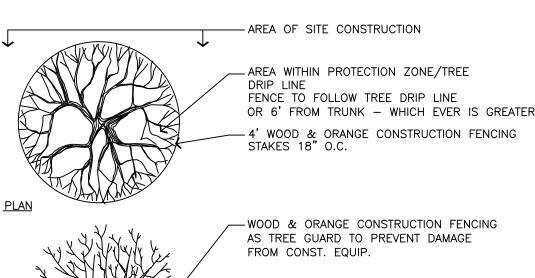
LANDSCAPE PLAN REQUIREMENTS

LANDSCAPE PROJECT AREA-161,172 S.F./3.70 AC. EXISTING IMPERVIOUS WITHIN PROJECT AREA-0 S.F./O AC. PROPOSED IMPERVIOUS WITHIN PROJECT AREA-96,795 S.F./2.22 AC. PROPOSED IMPERVIOUS AREAS: -

BUILDINGS-

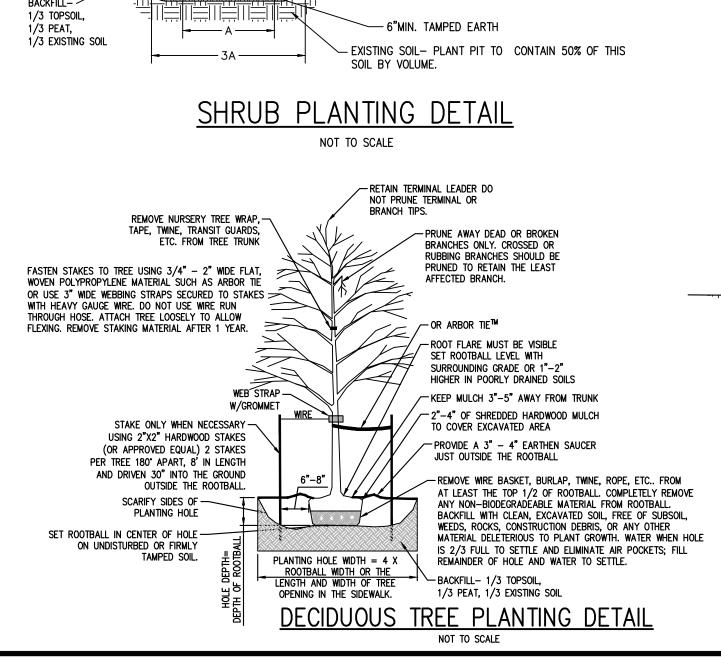
2,222 SF. SIDEWALKS-PARKING AND DRIVEWAYS (WITH TRASH ENCL.)-

PROPOSED BUILDING COVER WITHIN AREA OF CONSTRUCTION = 2.73%



AS TREE GUARD TO PREVENT DAMAGE FROM CONST. EQUIP. -TREE DRIP LINE/TREE PROTECTION ZONE - AREA WITHIN TREE PROTECTION ZONE TO REMAIN UNDISTURBED DURING CONSTRUCTION — 4' WOOD & ORANGE CONSTRUCTION FENCING

TREE PROTECTION DURING SITE CONSTRUCTION



NOTE: SHRUBS SHALL BE SELECTIVELY PRUNED TO COMPENSATE FOR ROOT LOSS. MAINTAIN NATURAL FORM. (TYPICAL FOR DECIDUOUS &

— TOPSOIL BACKFILL/PLANT PIT

PLASTIC WRAPPING TO BE ENTIRELY REMOVED.

NOTE- CONTAINER PLANTS TO HAVE OUTER

CUT AND REMOVE BURLAP FROM TOP 1/3 OF BALL.

- WEED CONTROL FABRIC (BEDS AND PLANTERS)

EVERGREEN TREES).

— 2" MULCH ---EARTH SAUCER

FINISHED GRADE

ROOTS GENTLY LOOSENED.

MOUNTABLE

CONCRETE

ORIVEWAY

RIAL PARK,

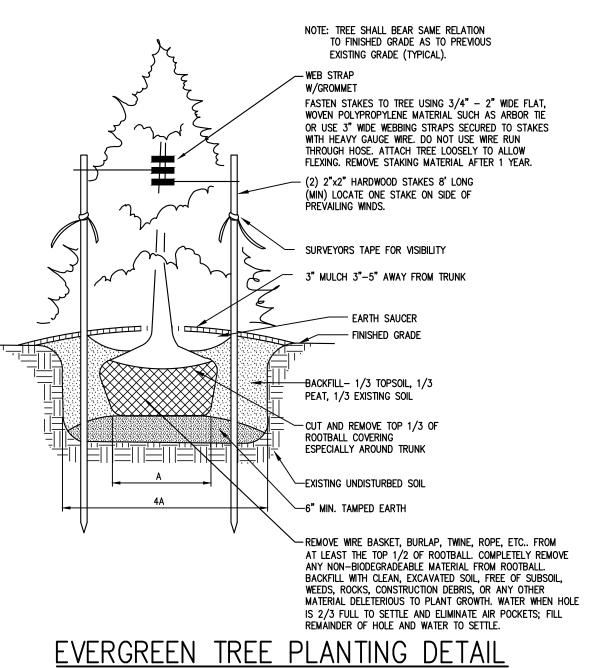
20' MIN. (VARIABLE

PERMANENT UGI KASAMENT) INSTRUMENT NO. 2012(19940)

D.B.V. 2012-1, PG. 100551

JULÝ 2, 2012/L

-23 'G. 209584



NOT TO SCALE

_PERMANENT UTILITY

(PPL, UGI, VERIZON) EASEMENT

(50' MIN. – VARIABLE WIDTH)

INSTRUMENT NO. 2012015564 D.B.V. 2012-1, PG. 116620 MAY 22, 2012

E. FOURTH ST. (ROUTE 412)

(VARIABLE WIDTH R.O.W.)

NOTE: ANY EXISTING STREET TREE ALONG 412 THAT IS DEAD OR DECLINING SHALL BE REMOVED AND REPLACED

10VE

2" TREE

UGI UTILITIES INC.

P7-10-24B

DISTRICT

REGULATORE

STATION

TXISTING CITY OF BETHLEHEM WATERLINE EASEMENT

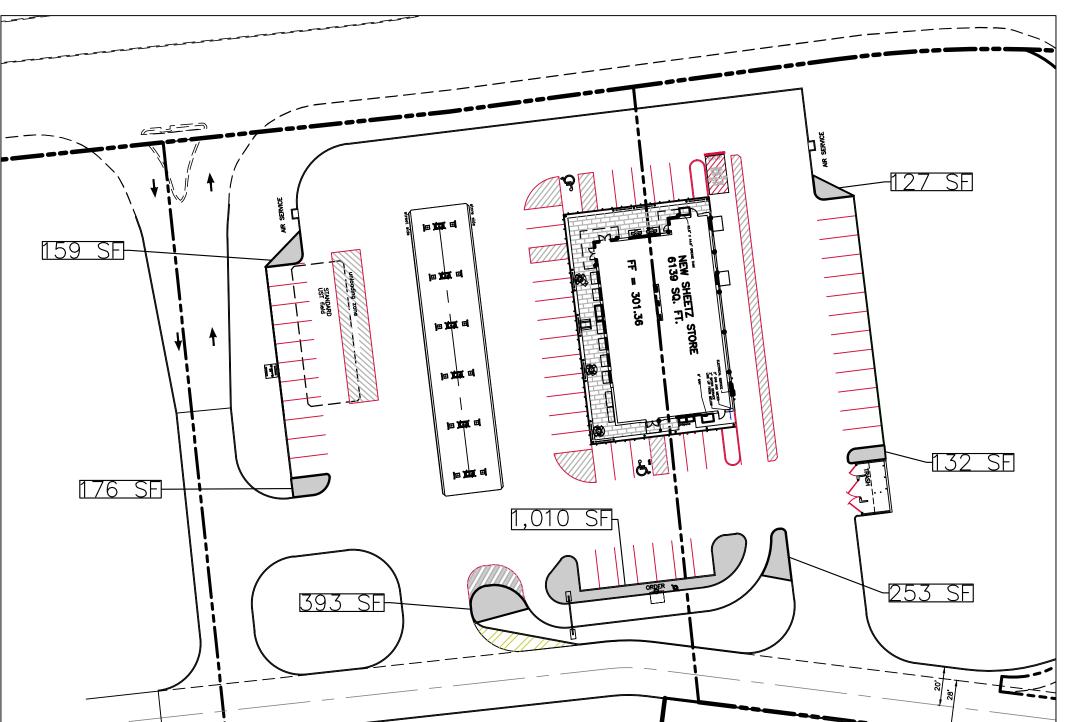
COUNTY RECODER OF DEEDS IN

BOOK: 2015-1, PAGE: 69405

AS RECORDED IN THE NORTHAMPTON

~~~ P7-10-3

PADOT LEGAL R.O.W. LINE



5' +/- HIGH WALL \_

SHRUB IN A PUBLIC AREA.

NO PERSON SHALL KNOWINGLY PERMIT ELECTRIC WIRES TO COME IN CONTACT WITH TREES OR SHRUBS IN ANY PUBLIC AREAS UNLESS PROTECTED BY APPROVED METHODS.

NO PERSON SHALL ATTACH ANY ELECTRICAL INSULATION TO ANY TREE OR SHRUB IN A PUBLIC AREA OR SHALL EXCAVATE ANY DITCHES, TUNNELS OR TRENCHES, OR LAY ANY DRIVE WITHIN A RADIUS OF TEN FEET FROM ANY TREE OR SHRUB IN A PUBLIC AREA WITHOUT FIRST OBTAINING PERMISSION FROM THE DIRECTOR. DURING BUILDING OPERATIONS, THE BUILDER SHALL ERECT SUITABLE PROTECTIVE BARRIERS AROUND TREES OR SHRUBS IN PUBLIC AREAS APT TO BE INJURED.
WHENEVER THE DIRECTOR DETERMINES IT IS NECESSARY TO MOVE, PROTECT OR CUT OFF THE ELECTRICITY FROM SERVICE WIRES SO HE CAN SAFELY AND PROPERLY DO HIS WORK, HE SHALL SERVE WRITTEN NOTICE ON THE OWNERS OF SUCH WIRES AND SUCH OWNERS SHALL COMPLY WITH SUCH ORDERS WITHIN TWENTY-FOUR HOURS AFTER THE SERVICE OF SUCH NOTICE.

NO PERSON SHALL PLACE SALT, BRINE, OIL OR OTHER SUBSTANCES INJURIOUS TO PLANT GROWTH IN ANY
PLACE IN SUCH A MANNER AS TO INJURE ANY TREE OR SHRUB IN A PUBLIC AREA. NO PERSON SHALL BUILD ANY FIRE OR STATION ANY TAR KETTI F. ROAD ROLLER OR OTHER ENGINE IN SUCH A MANNER THAT THE HEAT VAPORS OR FUMES THEREFROM MAY INJURE ANY TREE OR SHRUB GROWING IN ANY

 NO PERSON SHALL BREAK, INJURE, MUTILATE, KILL OR DESTROY ANY TREE OR SHRUB, OR PERMIT ANY FIRE TO BURN WHERE SUCH FIRE WILL INJURE ANY PORTION OF ANY TREE OR SHRUB IN ANY PUBLIC AREA OF THE CITY. NO PERSON SHALL KNOWINGLY PERMIT ANY LEAK TO EXIST IN ANY GAS PIPE WITHIN THE ROOT ZONE OF ANY

NO PERSON SHALL PERMIT ANY TOXIC CHEMICAL TO SEEP, DRAIN OR BE EMPTIED ON OR ABOUT ANY TREE OR

10. NO PERSON IS PERMITTED TO LAY ANY SIDEWALK ALONG OR TO OPEN, CONSTRUCT, CURB OR PAVE ANY STREET OR DO ANY LIKE ACT SO AS TO INTERFERE WITH OR DO INJURY TO ANY TREE OR SHRUB IN A PUBLIC AREA WITHOUT THE CONSENT OF THE DIRECTOR. MANNER AS NOT TO DAMAGE OR DESTROY ANY TREE, SHRUB OR PLANT IN ANY PUBLIC AREA.

12. WHERE IN AUTHORIZED EXCAVATIONS IT BECOMES NECESSARY TO EXPOSE OR CUT ROOTS MORE THAN ONE INCH IN DIAMETER, IT SHALL BE THE DUTY OF THE CONTRACTOR TO PROTECT SUCH ROOTS UNDER ADVICE FROM THE

PROTECTION OF TREES AND SHRUBS

#### **GENERAL PLANTING NOTES:**

MOUNTABLE CONCRETE

C.S. F.A

LANDSCAPE

TREE OR SHRUB IN A PUBLIC AREA.

THE CONTRACTOR MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES AND FACILITIES PRIOR TO BEGINNING CONSTRUCTION. CALL PENNSYLVANIA ONE CALL 1-800-242-1776. THE CONTRACTOR SHALL LAYOUT AND REVIEW ALL PLANT MATERIAL AND PLANT LOCATIONS WITH ARCHITECT OR OWNER PRIOR TO INSTALLATION. SUBSTITUTE SPECIES CAN BE SELECTED FROM THE CITY OF BETHLEHEM "STREET TREE SELECTION AND CARE GUIDE".SUBSTITUTE TREES SHALL BE APPROVED BY THE CITY FORESTER. FIELD CONDITIONS MAY DICTATE MINOR ADJUSTMENTS TO THE LOCATION OF PLANT MATERIAL. BEFORE MAJOR ADJUSTMENTS OF PLANT LOCATIONS OCCUR, THE CONTRACTOR SHALL NOTIFY THE OWNER OR THE SUBSTITUTIONS: WHEN PLANTS OF A SPECIFIED TYPE OR SIZE ARE NOT AVAILABLE WITHIN A REASONABLE DISTANCE, SUBSTITUTIONS MAY BE MADE UPON REQUEST BY THE CONTRACTOR, IF APPROVED BY THE OWNER OR THEIR REPRESENTATIVE. THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING OF ANY PLANT MATERIALS THAT HE FEELS WILL NOT BE AVAILABLE, PRIOR TO SUBMITTING A BID ON THIS PROJECT. IF A BID IS RECEIVED WITHOUT SUCH QUALIFICATION, IT WILL BE ASSUMED NO SUCH SUBSTITUTIONS WILL BE

ALL AREAS DISTURBED DURING PLANTING ACTIVITY SHALL BE REESTABLISHED AS PERMANENT LAWN WITH THE SPECIFIED SEED MIX AS SUPPLIED BY NORTHAMPTON SEED COMPANY; 55% CREEPING RED FESCUE 40% FINE LEAFED PERENNIAL RYEGRASS 5% KENTUCKY BLUEGRASS

% EQUALS PROPORTION BY WEIGHT SEED AT A RATE OF SIX POUNDS PER 1,000 SQUARE FEET AS SUPPLIED BY NORTHAMPTON SEED COMPANY OR APPROVED EQUAL. ALL TREE AND SHRUB GROUPINGS MAY BE COMPLETELY ENCOMPASSED WITHIN ONE LARGE MULCH BED AT EACH PLANT GROUPING LOCATION. THE MULCH BED SHALL TYPICALLY EXTEND MINIMALLY 2' - 0" PAST THE

PLANTS WITH BROKEN ROOT BALLS OR EXCESSIVE DAMAGE TO THE CROWN SHALL BE REPLACED PRIOR TO

MULCH FOR TREES, SHRUBS, AND GROUNDCOVER SHALL BE DOUBLE SHREDDED, HARDWOOD BARK MULCH; DARK BROWN IN COLOR; AGED AT LEAST ONE YEAR, AND CLEAN AND FREE OF WEEDS. AFTER INSTALLATION, A PROTECTIVE MULCH SHALL BE APPLIED TO ALL PLANTS TO PREVENT MOISTURE LOSS KEEP MULCH 2-3" AWAY FROM THE TRUNK OF THE TREE THE CONTRACTOR SHALL APPLY A PRE-EMERGENT WEED KILLER, PREEN (OR APPROVED EQUAL), TO TOPSOIL

PRIOR TO MULCHING ACTIVITIES. WATER ACTIVATE IF NECESSARY. TREES IN LEAF WHEN PLANTED SHALL BE TREATED WITH ANTI-DESICCANT SUCH AS WILT-PROOF. PREPARATION OF PLANTING SOIL: BEFORE MIXING, CLEAN TOPSOIL OF ROOTS, VEGETATION, STONES, CLAY LUMPS, AND OTHER EXTRANEOUS MATERIALS HARMFUL TO PLANT GROWTH. PLANTING SOIL FOR TREES, SHRUBS, AND GROUND COVER SHALL BE A MIXTURE BY VOLUME OF THE FOLLOWING:

50% ORGANIC MATTER 16. THE CONTRACTOR IS RESPONSIBLE FOR ANY ADJUSTMENTS TO SOIL PH, FERTILITY, AND/OR DRAINAGE CONDITIONS NECESSARY TO ENSURE PROPER GROWING CONDITIONS FOR PROPOSED PLANTINGS. THE CONTRACTOR IS RESPONSIBLE FOR WATERING, WEEDING, FERTILIZING, AND MAINTAINING ALL NEWLY PLANTED PLANTINGS FOR A PERIOD OF THIRTY DAYS AFTER PLANTING. A WATER SOURCE IS AVAILABLE ON

ALL PLANT MATERIAL SHALL BE OF LARGEST SIZE AND BLOOM POTENTIAL AVAILABLE TO BE OBTAINED BY 19. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF PLANT MATERIAL AT THE APPROPRIATE TIME OF 20. ALL NEW PLANT MATERIAL SHALL BE WARRANTED FOR A PERIOD OF 18 MONTHS FROM DATE OF FINAL

ALL PLANTS SHALL BE IN ACCORDANCE WITH THE AMERICAN STANDARD FOR NURSERY STOCK, LATEST 23. FOUNDATION PLANTING BEDS AND ENTRY WAY LANDSCAPING MAY BE DESIGNED AT THE DISCRETION OF THE 24. ALL TREES AND SHRUBBERY SHALL BE OF STANDARD NURSERY STOCK FREE OF DISEASE AND INSECT 25. PLANTING MATERIAL SHALL BE BALLED AND BURLAPED STOCK. CUT BURLAP AROUND THE ROOT BALL AND

ALL PLANTS SHALL BE LOCATED TO AVOID PLACEMENT WITHIN SWALE CENTERLINES.

ALL PLANTINGS SHALL INCORPORATE A PEAT MOSS MIXTURE. SHOULD ON-SITE TOPSOIL BE OF INSUFFICIENT VOLUME FOR TREE, SHRUB AND LAWN PLANTING, TOPSOIL SHALL BE IMPORTED TO THE SITE OR EXISTING SITE SOILS AMENDED TO PROVIDE FOR ADEQUATE GROWING MEDIUM DEPTHS. 28. THE FOUNDATION PLAN PLANTINGS SHALL BE PLANTED TO PROVIDE AT LEAST 24" OF CLEARANCE FROM THE

THE FOUNDATION PLANTINGS SHALL CONSIST OF DROUGHT RESISTANT SHRUBS, PERFANIALS AND SEASONAL

#### **GENERAL CITY LANDSCAPING NOTES:**

FOLD IT DOWN AT LEAST 1/2 WAY.

1. NO SOIL DISTURBANCE OR COMPACTION, CONSTRUCTION MATERIALS, TRAFFIC, BURIAL PITS, TRENCHING OR OTHER LAND DISTURBANCE IS ALLOWED IN THE TREE PROTECTION ZONE UNLESS INDICATED ON THE PLAN.

2. TREE PROTECTION BARRICADES MUST BE INSTALLED PRIOR TO ANY DESTRUCTION AND/OR 3. THE ROOT PROTECTION ZONE SHALL BE THE AREA ENCOMPASSED BY A CIRCLE WITH A RADIUS EXTENDING 1.25 FT. FROM THE TRUNK OF THE TREE FOR EVERY INCH DBH (DIAMETER AT BREAST HEIGHT) OF THE TREE. 4. VIOLATIONS OF TREE PROTECTION REQUIREMENTS ARE SUBJECT TO PENALTY PER CITY

ORDINANCE.
5. ALL TREES ON PUBLIC PROPERTY ARE PROTECTED BY ORDINANCE: NO PRUNING, ROOT PRUNING OF ROOTS OVER ONE INCH IN DIAMETER, AND/OR TREE REMOVAL IS TO BE PERFORMED WITHOUT A PERMIT AND WORK MUST BE PERFORMED BY A CITY LICENSED

6. ALL PLANT MATERIALS ARE TO CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION, AMERICAN NURSERY AND LANDSCAPE ASSOCIATION. 7. STREET AND PARKING LOT TREES SHALL BE A MINIMUM OF 14' IN HEIGHT AND HAVE A SINGLE STRAIGHT TRUNK WITH THE FIRST LATERAL BRANCH AT 7' ABOVE THE ROOT BALL. TREES WITH AN UPRIGHT BRANCHING HABIT, SUCH AS ZELKOVA, MAY HAVE THE FIRST

LATERAL BRANCH AT 6' ABOVE THE ROOT BALL.

8. ALL LANDSCAPING SHALL CONFORM TO THE CURRENT EDITION OF THE ARBORICULTURAL SPECIFICATIONS AND STANDARDS OF PRACTICE OF THE CITY OF

9. A ROOT CONTROL SYSTEM IS REQUIRED WHEN INSTALLING STREET TREES. THE ROOT BARRIER SHALL BE OF THE BIO-BARRIER TYPE AND A MINIMUM OF EIGHTEEN (18") INCHES WIDE. ANY SUBSTITUTION SHALL BE APPROVED BY THE CITY FORESTER. THE ROOT-CONTROL SYSTEM IS TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. TREE OPENINGS IN THE SIDEWALK SHALL HAVE THE BIO-BARRIER INSTALLED ALONG THE FACE OF THE TREE OPENING WHICH IS PARALLEL TO THE STREET AND CLOSEST TO THE PROPERTY LINE, OVERLAPPING THE NEAREST TWO CORNERS BY APPROXIMATELY FOUR (4") INCHES. WHERE TREES ARE TO BE PLANTED IN A PARKWAY OR PLANTING STRIP BETWEEN CURB AND SIDEWALK, THE BARRIER SHALL BE INSTALLED ALONG THE SIDEWALK EDGE CLOSEST TO THE CURB AND CENTERED ON THE ROOT SOURCE. THE LENGTH OF THE BARRIER SHALL BE A MINIMUM LENGTH EQUAL TO THE SPREAD OF THE TREE CANOPY AT MATURITY PLUS TEN (10') FEET.

#### <u> INDERGROUND CONDUIT NOTE</u>

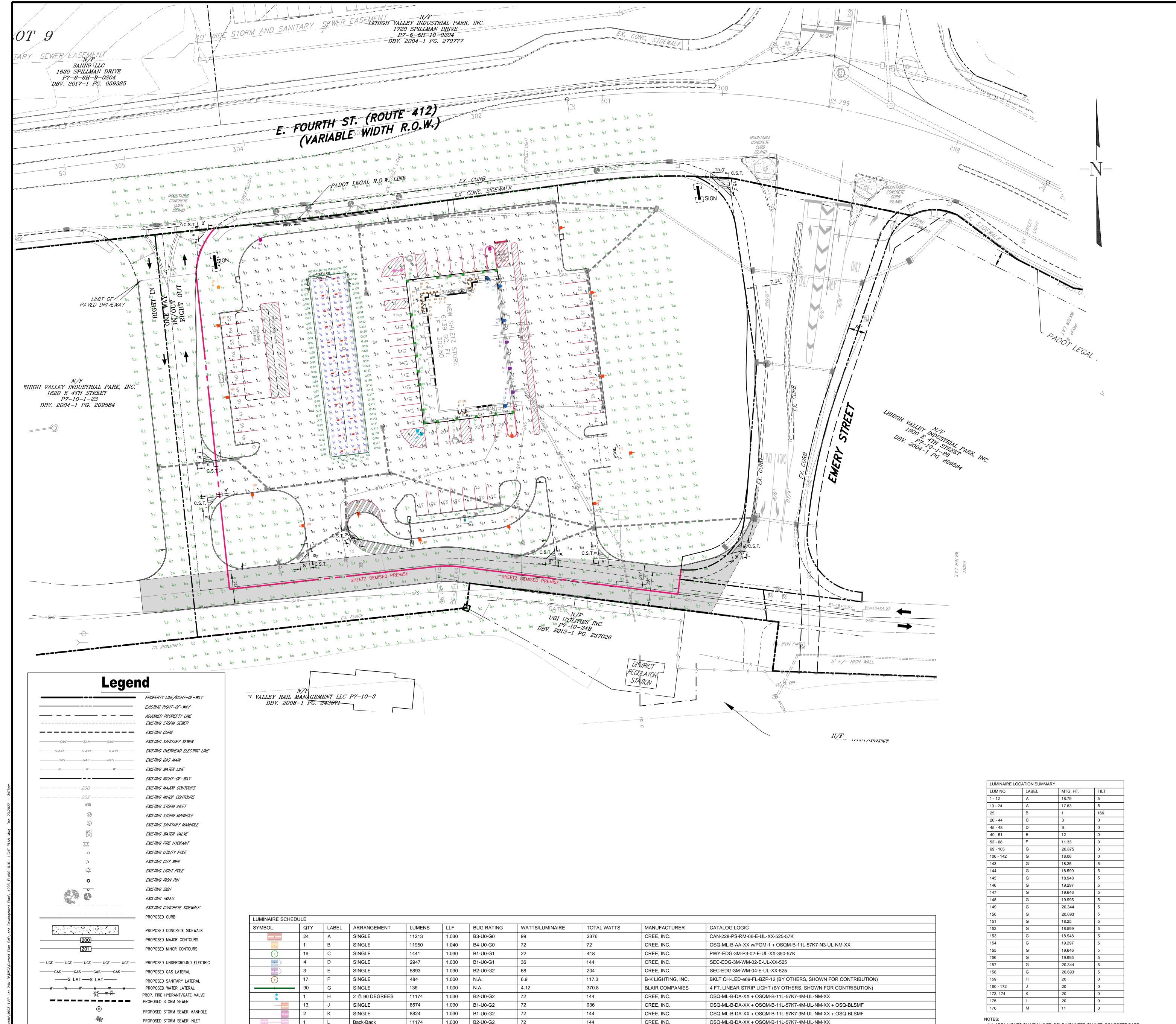
THE CONTRACTOR SHALL EXERCISE EXTREME CARE WHEN CUTTING IN THE DRIVEWAY APRONS TO AVOID DAMAGE TO UNDERGROUND POWER LINES. IF DAMAGED, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR, MOVE, OR READJUST ANY CONDUIT OR POWER FEEDS.

### EXISTING TREE NOTE

1. NO EXISTING TREES GREATER THAN 8" IN DIAMETER ARE ANTICIPATED TO BE REMOVED FOR THIS PROJECT. ALL THE EXISTING VEGETATION ON—SITE ARE NOT IN GOOD CONDITION AND ARE

LANDSCAPE ISLANDS 2,250 S.F.

LANDSCAPING AREAS EXHIBIT



CREE, INC.

CREE, INC.

OSQ-ML-B-DA-XX + OSQM-B-11L-57K7-4M-UL-NM-XX

BXCT9020&/CAN-228-SL-RM-06-E-UL-XX-700 (BRIGHT RED FINISH, ORDERED SEPARATELY)

Back-Back

SINGLE

1.030

1.030

B2-U0-G2

B3-U0-G1

**Light Pole Footing Notes** 

COMPACTED FILL

1.ALL FILL SHALL BE PLACED ON VIRGIN SOIL THAT DOES NOT CONTAIN ANY ORGANIC MATTER. BEFORE PROCEEDING WITH ANY FILLING OPERATIONS, STRIP ALL TOPSOIL AND COMPACT THE EXISTING MATERIAL WITH A HEAVY VIBRATORY COMPACTOR MAKING A MINIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557. 2.COMPACT FILL AND BACKFILL IN MAXIMUM 12" LAYERS (LOOSE) TO AT LEAST 95 PERCENT MAXIMUM MODIFIED DENSITY (ASTM D-155) UNDER THE SUPERVISION OF A TESTING LABORATORY APPROVED BY THE

ARCHITECT/ENGINEER, AND PAID FOR BY THE GENERAL CONSTRUCTION

**FOUNDATION** 

1.ALL FOOTINGS SHALL BEAR UPON UNDISTURBED SOIL HAVING MINIMUM BEARING CAPACITY OF 1.50 TONS PER SQUARE FOOT (3.00 KSF). THIS REQUIRED BEARING CAPACITY TO BE VERIFIED IN FIELD DURING EXCAVATION. IF ANY UNUSUAL CONDITION IS REVEALED. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY. FOUNDATION DESIGN WILL BE MODIFIED IF REQUIRED BY SUCH A SITUATION.

2.BACKFILLING SHALL BE DONE CAREFULLY WITH SMALL COMPACTION EQUIPMENT AFTER TEMPORARY BRACES AND SUPPORTS ARE PROVIDED. NO TRUCK OR BULLDOZER, ETC. SHALL BE ALLOWED CLOSER THAN SIX (6) FEET TO ANY

3.ALL FOOTINGS SHALL BE ADEQUATELY PROTECTED TO PREVENT HEAVING AND/OR MOVEMENT DUE TO FROST UNTIL AFTER BACKFILL/PAVING OPERATIONS.

#### SOILS NOTES

1.FOOTING DESIGN BASED ON ASSUMED MAXIMUM ALLOWABLE SOILS BEARING CAPACITY OF 2,000 PSF. CONTRACTOR RESPONSIBLE TO VERIFY ADEQUACY OF ASSUMED BEARING CAPACITY PRIOR TO CONSTRUCTION. ENGINEER TO BE NOTIFIED IF INCONSISTENCIES EXIST.

2.SUBGRADE TO BE FREE OF ORGANICS AND BE SUITABLE COMPACTED MATERIAL. **CONCRETE NOTES** 

1.CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS WITH A MINIMUM CEMENT CONTENT OF 600 POUNDS PER CUBIC YARD 2.ALL CONCRETE SHALL HAVE A SLUMP OF NO GREATER THAN 4: TO WITHIN A TOLERANCE OF 1.0".

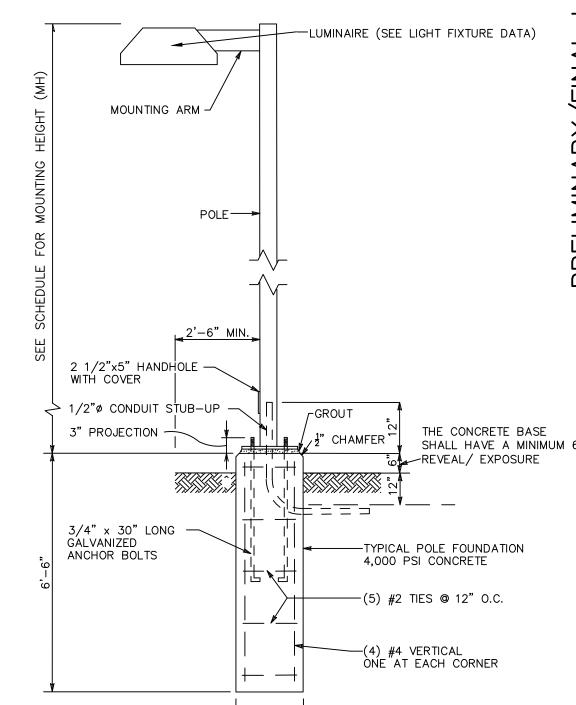
3.ALL EXPOSED CONCRETE SHALL BE AIR-ENTRAINED 6 PERCENT (WITHIN 1 PERCENT TOLERANCE) CONFORMING TO ASTM C260. 4.REINFORCING STEEL BARS SHALL BE A MINIMUM ASTM A615, GRADE 60, AND SHALL BE FIELD WIRED IN PLACE. ALL FRAMEWORK AND PLACEMENT CONCRETE SHALL COMPLY WITH GOOD

CONSTRUCTION PRACTICES AND BE IN ACCORDANCE WITH ALL LOCAL GOVERNING

CODES AND REGULATIONS AS WELL AS THE ACI AND UNIFORM BUILDING CODE.

1. PRICING CAN BE OBTAINED THROUGH ILLUMINATIONS, INC. CONTACT AARON BROWN AT 610-325-2220 2. ALL PROPOSED LIGHT SOURCES SHALL BE PROPERLY DIFFUSED WITH A TRANSLUCENT OR SIMILAR COVER TO PREVENT EXPOSED BULBS FROM BEING DIRECTLY VISIBLE FROM THE ABUTTING STREET OR ADJACENT

3. ALL PROPOSED LIGHT SOURCES SHALL BE SHIELDED AROUND THE LIGHT SOURCE TO PREVENT SPILLAGE ONTO ADJACENT ROADWAYS.



**Typical Area Light Detail** 

- ALL AREA LIGHTS ON NEW 17 FT. POLE MOUNTED ON 3 FT. CONCRETE BASE

499 499

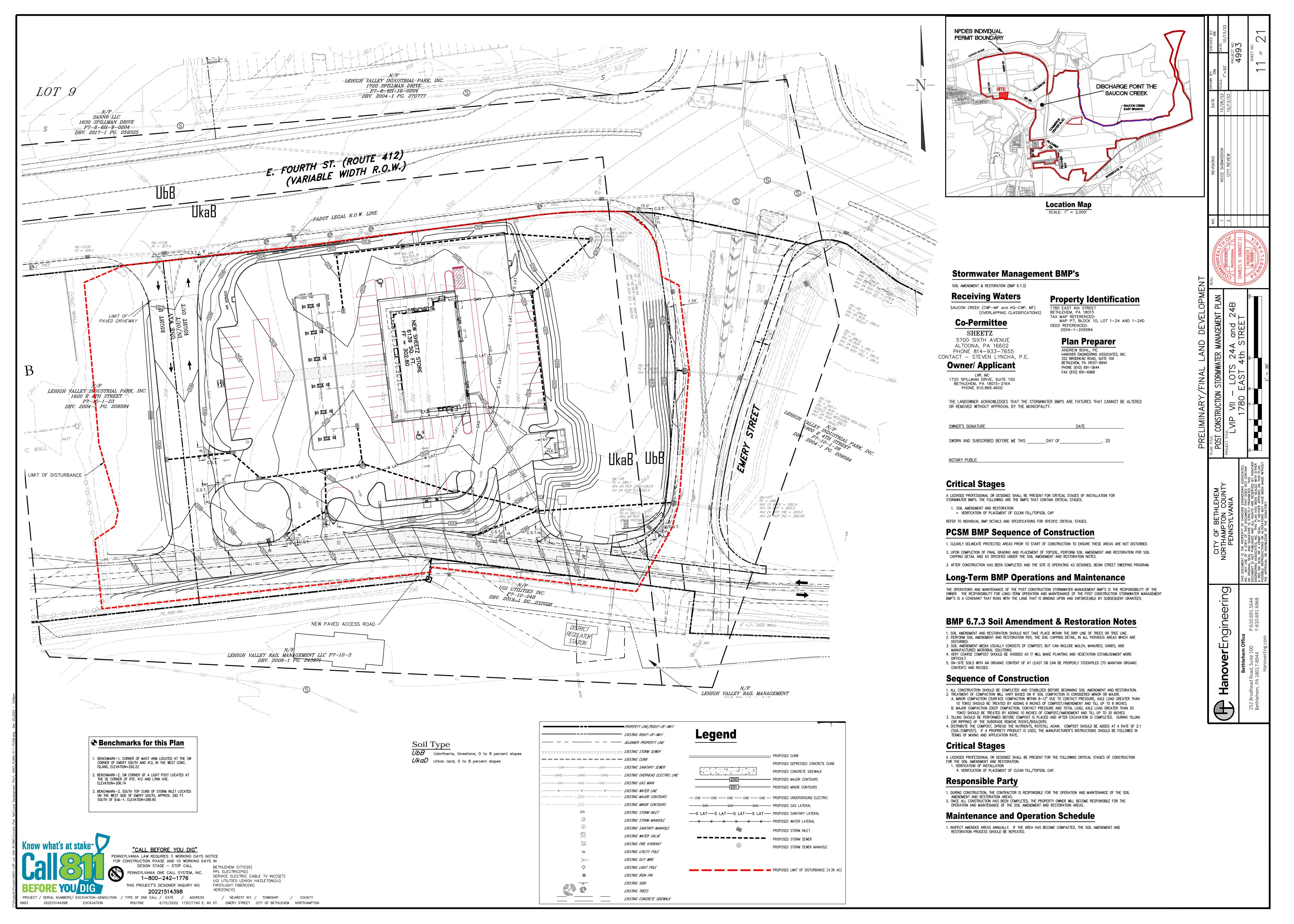
—1'-4" SQUARE OR 1'-6" DIAMETER

1340 Kemper Meadow Dr, Forest Park, OH 45240 513-574-9500 | redleonard.com

| FOOTCANDLE LEVELS CALCULATED AT GRADE USING INITIAL LUMEN VALUES |       |      |     |         |         |
|------------------------------------------------------------------|-------|------|-----|---------|---------|
| LABEL                                                            | AVG   | MAX  | MIN | AVG/MIN | MAX/MIN |
| SITE PAVED AREA                                                  | 3.80  | 31.8 | 0.6 | 6.33    | 53.00   |
| UNDEFINED                                                        | 0.37  | 15.7 | 0.0 | N.A.    | N.A.    |
| UNDER CANOPY                                                     | 39.25 | 53   | 22  | 1.78    | 2.41    |

LIGHTING PREPARED BY

| FOOTCANDLE LEVELS CALCULATED AT G | RADE USING | INITIAL LUME | N VALUES |         |         |
|-----------------------------------|------------|--------------|----------|---------|---------|
| LABEL                             | AVG        | MAX          | MIN      | AVG/MIN | MAX/MIN |
| SITE PAVED AREA                   | 3.80       | 31.8         | 0.6      | 6.33    | 53.00   |
| UNDEFINED                         | 0.37       | 15.7         | 0.0      | N.A.    | N.A.    |
| UNDER CANOPY                      | 39.25      | 53           | 22       | 1.78    | 2.41    |

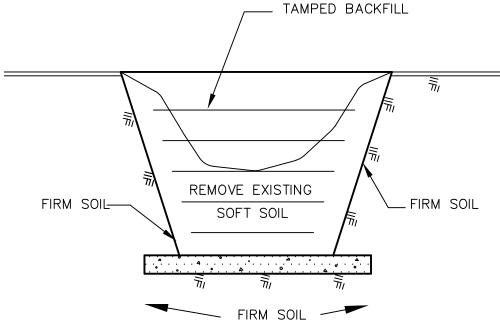


## SOIL CAPPING DETAIL (FOR USE IN UNSUITABLE SOIL AREAS TO BE

LANDSCAPED/SEEDED) NOT TO SCALE

## **Soil Amendment Note**

ALL PERVIOUS AREAS WHICH ARE DISTURBED SHALL BE CONSIDERED AMENDED SOILS.



#### SINKHOLE IN SOIL

- EXCAVATE DOWN TO ROCK TO SINKHOLE THROAT OR TO A DEPTH OF
  15 FEET BELOW GRADE, WHICHEVER OCCURS FIRST.
  IF ROCK IS ENCOUNTERED WITHIN 10 FEET, STOP EXCAVATION.
  THE LIMIT OF EXCAVATION SHALL BE DETERMINED BY THE ENGINEER.
  GENERALLY, A ZONE OF SOFT, IN-FILL MATERIAL WILL BE FOUND WHICH
  COVERS MOST OF THE BOTTOM OF THE EXCAVATION. COVER THIS FIRM SOIL FOUR (4) FEET OF CONCRETE EXTENDING AT LEAST 1 FOOT INTO FIRM SOIL. IF THE SOFT ZONE IS LARGE (+3FT.), REINFORCING STEEL SHOULD BE INCLUDED WITHIN THE CONCRETE CAP WITH 1" DIAMETER REBAR AT 24" ON CENTER EACH WAY. THE LIMIT OF CONCRETE SHOULD BE DETERMINED BY THE
- 3. AFTER CONCRETE HAS SET OVERNIGHT, BACKFILL HOLE WITH RELATIVELY IMPERMEABLE CLAY SOIL. COMPACT SOIL IN 6" LIFTS WITH A POWER TAMPER OR RAMMER. THE TOP THREE (3) FEET SHALL BE BACKFILLED WITH 2RC CRUSHED AGGREGATE.

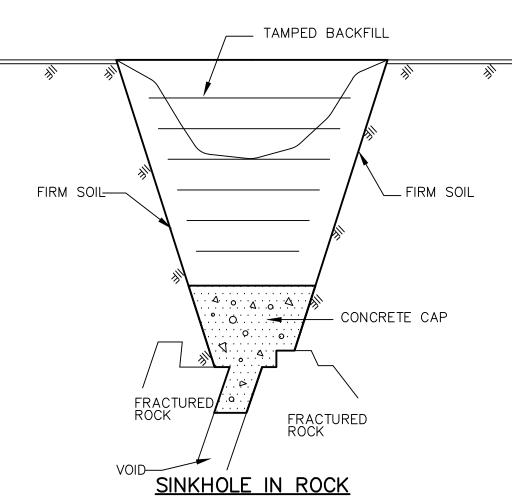
  BACKFILL HOLE ABOVE EXISTING GRADE TO DIVERT SURFACE WATER.

  WHEN SINKHOLE IS UNDER A PROPOSED UTILITY. CONCRETE IS TO

  BE SET 6" BELOW THE UTILITY TO ALLOW FOR A STONE BEDDING.

THE ENGINEER.

#### SINKHOLE REPAIR DETAILS $N \cdot T \cdot S$



- 1. EXCAVATE DOWN TO ROCK TO SINKHOLE THROAT OR TO A DEPTH OF 15 FEET BELOW GRADE, WHICHEVER OCCURS FIRST.
- 2. IF ROCK IS ENCOUNTERED, EXPOSE THE ROCK SURFACE AND INSTALL HIGH SUMP CEMENT INTO VOIDS AND CREVICES UNTIL VOIDS ARE FILLED AND A CAP COVERS THE AREA. THE LIMIT OF EXCAVATION AND CONCRETE SHALL BE DETERMINED BY THE ENGINEER.

  3. AFTER CONCRETE HAS SET OVERNIGHT, BACKFILL HOLE WITH RELATIVELY IMPERMEABLE CLAY SOIL. COMPACT SOIL IN 6" LIFTS WITH A POWER TAMPER OR RAMMER. THE TOP THREE (3) FEET SHALL BE BACK FILLED WITH 2RC CRUSHED AGGREGATE.

  4. BACKFILL HOLE ABOVE EXISTING GRADE TO DIVERT SURFACE WATER.
- 5. WHEN SINKHOLE IS UNDER A PROPOSED UTILITY. CONCRETE IS TO BE SET 6" BELOW THE UTILITY TO ALLOW FOR A STONE BEDDING.

Date: May 09, 2018

**Ernst Conservation Seeds** 8884 Mercer Pike Meadville, PA 16335 (800) 873-3321 Fax (814) 336-5191 www.ernstseed.com

## Eastern Ecotype Native Grass Mix - ERNMX-177

**Botanical Name** Big Bluestem, Albany Pine Bush-NY Ecotype 35.00 % Andropogon gerardii, Albany Pine Bush-NY Ecotype Indiangrass, New England 2 Ecotype 30.00 % Sorghastrum nutans, New England 2 Ecotype 20.00 % Panicum virgatum, 'Shelter' Switchgrass, 'Shelter' 15.00 % Elymus virginicus, PA Ecotype Virginia Wildrye, PA Ecotype Mix Price/lb Bulk: \$10.72 100.00 %

Seeding Rate: 10-15 lb per acre, or 1/2 lb per 1,000 sq ft

A mix of native warm and cool season grasses for wildlife habitat. Mix formulations are subject to change without notice depending on the availability of existing and new products. While the formula may change, the guiding philosophy and function of the mix will

### **SOIL LIMITATIONS**

| LIMITATIONS                                         | RESOLUTIONS                                                  |
|-----------------------------------------------------|--------------------------------------------------------------|
| CUTBANKS CAVE                                       | LAYBACK SLOPES                                               |
| CORROSIVE TO CONCRETE/STEEL                         | CATHODIC PROTECTION AND/OR CORROSION RESISTANT               |
| DEPTH TO SATURATED ZONE (SEASONAL HIGH WATER TABLE) | KNOW DEPTH TO SATURATION ZONE AND AVOID                      |
| HYDRIC / HYDRIC INCLUSIONS                          | AVOID                                                        |
| LOW STRENGTH / LANDSLIDE PRONE                      | LAYBACK SLOPES — DESIGN FOR CONDITION                        |
| SLOW PERCOLATIONS                                   | DRAINAGE DITCH                                               |
| PIPING                                              | TEMPORARILY LOWER GROUND WATER TABLE OR PROVIDE FILTERS      |
| FROST ACTION                                        | LOWER FOOTINGS BELOW FROST DEPTHS, PROVIDE POSITIVE SUBGRADE |
| SHRINK - SWELL                                      | AVOID USE OF HIGHLY PLASTIC CLAYS IN BUILDING AREA           |
| POTENTIAL SINKHOLE                                  | PLUG OR MITIGATE KNOWN SINKHOLES, PROVIDE POSITIVE SURFACE   |
| DROUGHTY                                            | APPLY COMPOST IF MOISTURE RETENTION IS REQUIRED              |
| EASILY ERODABLE                                     | TAKE EXTRA CARE IN IMPLEMENTATION OF ESPC PLAN               |
| FLOODING                                            | USE PUMPED WATER FILTER BAG OR AVOID                         |
| POOR SOURCE OF TOPSOIL                              | IMPORT TOPSOIL                                               |
| PONDING                                             | USE PUMPED WATER FILTER BAG OR AVOID                         |

|            |                |                               | STORM                                | Л СНА       | RT           |                |          |       |                         |
|------------|----------------|-------------------------------|--------------------------------------|-------------|--------------|----------------|----------|-------|-------------------------|
| NAME       | TYPE           | TOP                           | INV. IN                              | INV.<br>OUT | PIPE<br>DIA. | LENGTH         | MATERIAL | SLOPE | DOWNSTREAM<br>STRUCTURE |
| EX. INL 29 | STD BOX, M TOP | TG=289.55                     | 283.60 (INL 11)                      |             |              |                |          |       |                         |
| INL-8      | STD BOX, C TOP | TC=303.86                     | 299.98 (INL 9)                       | 299.89      | 15"          | 64.94'         | HDPE     | 2.64% | INL 7A                  |
| INL 1      | STD BOX, M TOP | <i>TG=295.46</i><br>TG=296.50 | 288.55 (INL 3)                       | 288.98      | 18"          | 77.16'         | HDPE     | 4.15% | INL 2                   |
| INL 2      | STD BOX, C TOP | TC=301.00                     | 292.18 (INL 1)                       | 292.89      | 15"          | 113.09'        | HDPE     | 0.92% | INL 5                   |
| INL 3      | STD BOX, C TOP | TC=301.46                     | 294.25 (INL 4)                       | 294.15      | 15"          | 86.70'         | HDPE     | 6.46% | INL 1                   |
| INL 4      | STD BOX, C TOP | TC=301.80                     | 294.98 (INL 4A)                      | 294.88      | 15"          | 93.07          | HDPE     | 0.68% | INL 3                   |
| INL 4A     | STD BOX, C TOP | TC=301.09                     | 295.86 (INL 4B)                      | 295.76      | 15"          | 69.41'         | HDPE     | 1.12% | INL 4                   |
| INL 4B     | STD BOX, M TOP | TG=301.31                     |                                      | 296.48      | 15"          | 56.50'         | HDPE     | 1.10% | INL 4A                  |
| INL 5      | STD BOX, C TOP | TC=300.77                     | 293.93 (INL 2)                       |             |              |                |          |       |                         |
| INL 6A     | STD BOX, C TOP | TC=302.34                     | 295.44 (INL 7)                       | 295.34      | 15"          | 83.01'         | HDPE     | 1.58% | INL 11                  |
| INL 7      | STD BOX, M TOP | TG=300.75                     | 297.25 (INL 7A)<br>296.68 (INL 7D)   | 297.15      | 15"          | 94.22'         | HDPE     | 1.82% | INL 6A                  |
| INL 7A     | STD BOX, M TOP | TG=301.83                     | 298.17 (INL-8)<br>297.39 (INL 7B)    | 298.07      | 15"          | 36.89'         | HDPE     | 2.24% | INL 7                   |
| INL 7B     | STD BOX, C TOP | TC=303.54                     | 298.66 (INL 7C)                      | 298.56      | 15"          | 40.56          | HDPE     | 2.90% | INL 7A                  |
| INL 7C     | STD BOX, C TOP | TC=304.51                     |                                      | 300.43      | 15"          | 47.37 <b>'</b> | HDPE     | 3.74% | INL 7B                  |
| INL 7D     | STD BOX, M TOP | TG=301.47                     |                                      | 297.92      | 15"          | 38.35'         | HDPE     | 3.23% | INL 7                   |
| INL 9      | STD BOX, C TOP | TC=304.84                     | 300.96 (INL 10)                      | 300.87      | 15"          | 37.25'         | HDPE     | 2.37% | INL-8                   |
| INL 10     | STD BOX, C TOP | TC=305.48                     |                                      | 302.33      | 15"          | 66.06'         | HDPE     | 2.07% | INL 9                   |
| INL 11     | STD BOX, C TOP | TC=297.13                     | 290.61 (INL 11-A)<br>293.27 (INL 6A) | 290.51      | 15"          | 132.87'        | HDPE     | 5.20% | EX. INL 28              |
| INL 11-A   | STD BOX, C TOP | TC=297.60                     |                                      | 291.93      | 15"          | 70.90'         | HDPE     | 1.86% | INL 11                  |
| INL 100    | STD BOX, C TOP | TC=288.23                     |                                      | 283.24      | 15"          | 7.00'          | RCP      | 2.00% | MH 101                  |

MH 101 TO REPLACE EX. INLET 26 INV. IN=283.10/INV. OUT=283.00

### **PCSM Standard Notes:**

#### <u>GENERAL</u>

THE MAINTENANCE OF THE STORMWATER FACILITIES ARE THE RESPONSIBILITY OF THE PROPERTY OWNER. THE OWNER'S DEED AND THE DEEDS TO ANY SUBSEQUENT OWNER, SHALL NOTE THAT THE OWNER SHALL ACCEPT THE MAINTENANCE RESPONSIBILITIES OF ANY FACILITIES NOT DEDICATED. THE MUNICIPALITY SHALI BE PERMITTED TO INSPECT THE STORMWATER FACILITIES ON, AT LEAST, AN ANNUAL SCHEDULE TO ENSURE THAT ANY NECESSARY CORRECTIVE WORK IS PERFORMED IN A TIMELY MANNER.

ANY REVISIONS TO THE PCSM PLAN WILL REQUIRE CONSERVATION DISTRICT APPROVAL

#### PERMIT TERMINATION

UPON PERMANENT STABILIZATION OF THE EARTH DISTURBANCE ACTIVITY UNDER \$102.22(a)(2) (RELATING TO PERMANENT STABILIZATION), AND INSTALLATION OF BMPS IN ACCORDANCE WITH AN APPROVED PLAN PREPARED AND IMPLEMENTED IN ACCORDANCE WITH \$102.4 AND \$102.8 (RELATING TO EROSION AND SEDIMENT CONTROL REQUIREMENTS; AND PCSM REQUIREMENTS), THE PERMITTEE OR CO-PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION TO THE DEPARTMENT OR CONSERVATION DISTRICT.

- THE NOTICE OF TERMINATION MUST INCLUDE:
- (1) THE FACILITY NAME, ADDRESS AND LOCATION. (2) THE OPERATOR NAME AND ADDRESS.
- (3) THE PERMIT NUMBER.
- (4) THE REASON FOR PERMIT TERMINATION. (5) IDENTIFICATION OF THE PERSONS WHO HAVE AGREED TO AND WILL BE RESPONSIBLE FOR
- LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPS IN ACCORDANCE WITH §102.8(m) AND PROOF OF COMPLIANCE WITH \$102.8(m)(2).

#### PCSM REQUIREMENTS

PCSM REPORTING AND RECORDKEEPING: THE PCSM PLAN, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

LICENSED PROFESSIONAL OVERSIGHT OF CRITICAL STAGES: A LICENSED PROFESSIONAL OR A DESIGNEE SHALL BE PRESENT ONSITE AND BE RESPONSIBLE DURING CRITICAL STAGES OF IMPLEMENTATION OF THE APPROVED PCSM PLAN. THE CRITICAL STAGES MAY INCLUDE THE INSTALLATION OF UNDERGROUND TREATMENT OR STORAGE BMPS, STRUCTURALLY ENGINEERED BMPS, OR OTHER BMPS AS DEEMED APPROPRIATE BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

FINAL CERTIFICATION: THE PERMITTEE SHALL INCLUDE WITH THE NOTICE OF TERMINATION "RECORD DRAWINGS" WITH A FINAL CERTIFICATION STATEMENT FROM A LICENSED PROFESSIONAL, WHICH READS AS FOLLOWS: "I (NAME) DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 18 PA.C.S.A. §4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THE ACCOMPANYING RECORD DRAWINGS ACCURATELY REFLECT THE AS-BUILT CONDITIONS, ARE TRUE AND CORRECT, AND ARE IN CONFORMANCE WITH CHAPTER 102 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE PROJECT SITE WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PCSM PLAN, ALL APPROVED PLAN CHANGES AND ACCEPTED CONSTRUCTION PRACTICES."

(1) THE PERMITTEE SHALL RETAIN A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED

(2) THE PERMITTEE SHALL PROVIDE A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN TO THE PERSON IDENTIFIED IN THIS SECTION AS BEING RESPONSIBLE FOR THE LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPS.

#### PCSM LONG TERM OPERATIONS AND MAINTENANCE REQUIREMENTS

UNTIL THE PERMITTEE OR CO-PERMITTEE HAS RECEIVED WRITTEN APPROVAL OF A NOTICE OF TERMINATION, THE PERMITTEE OR CO-PERMITTEE WILL REMAIN RESPONSIBLE FOR COMPLIANCE WITH THE PERMIT TERMS AND CONDITIONS INCLUDING LONG-TERM OPERATION AND MAINTENANCE FOR ALL PCSM BMPS ON THE PROJECT SITE AND IS RESPONSIBLE FOR VIOLATIONS OCCURRING ON THE PROJECT SITE. THE DEPARTMENT OR CONSERVATION DISTRICT WILL CONDUCT A FINAL INSPECTION AND APPROVE OR DENY THE NOTICE OF TERMINATION WITHIN 30 DAYS.

THE PERMITTEE OR CO-PERMITTEE SHALL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPS UNLESS A DIFFERENT PERSON IS IDENTIFIED IN THE NOTICE OF TERMINATION AND HAS AGREED TO LONG-TERM OPERATION AND MAINTENANCE OF PCSM BMPS.

FOR ANY PROPERTY CONTAINING A PCSM BMP, THE PERMITTEE OR CO-PERMITTEE SHALL RECORD AN INSTRUMENT WITH THE RECORDER OF DEEDS WHICH WILL ASSURE DISCLOSURE OF THE PCSM BMP AND THE RELATED OBLIGATIONS IN THE ORDINARY COURSE OF A TITLE SEARCH OF THE SUBJECT PROPERTY. THE RECORDED INSTRUMENT MUST IDENTIFY THE PCSM BMP, PROVIDE FOR NECESSARY ACCESS RELATED TO LONG-TERM OPERATION AND MAINTENANCE FOR PCSM BMPS AND PROVIDE NOTICE THAT THE RESPONSIBILITY FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP IS A COVENANT THAT RUNS WITH THE LAND THAT IS BINDING UPON AND ENFORCEABLE BY SUBSEQUENT GRANTEES, AND PROVIDE PROOF OF FILING WITH THE NOTICE OF TERMINATION UNDER \$102.7(b)(5) RELATING TO PERMIT TERMINATION.

THE PERSON RESPONSIBLE FOR PERFORMING LONG-TERM OPERATION AND MAINTENANCE MAY ENTER INTO AN AGREEMENT WITH ANOTHER PERSON INCLUDING A CONSERVATION DISTRICT, NONPROFIT ORGANIZATION, MUNICIPALITY, AUTHORITY, PRIVATE CORPORATION OR OTHER PERSON, TO TRANSFER THE RESPONSIBILITY FOR PCSM BMPS OR TO PERFORM LONG-TERM OPERATION AND MAINTENANCE AND PROVIDE NOTICE THEREOF TO THE DEPARTMENT.

A PERMITTEE OR CO-PERMITTEE THAT FAILS TO TRANSFER LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP OR OTHERWISE FAILS TO COMPLY WITH THIS REQUIREMENT SHALL REMAIN JOINTLY AND SEVERALLY RESPONSIBLE WITH THE LANDOWNER FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMPS LOCATED ON THE PROPERTY.

## RECYCLING AND DISPOSAL OF MATERIALS

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH, AND TO INFORM HIS WORKERS OF ALL LOCAL, STATE, AND FEDERAL ENVIRONMENTAL REGULATIONS REGARDING THE CONDUCT OF WORK AND HANDLING OF MATERIALS ON THE PROJECT, AND TO PERFORM ALL ACTIVITIES IN ACCORDANCE WITH THOSE REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING EMERGENCY RESPONSE PLANS FOR ANY HAZARDOUS OR POLLUTING MATERIALS USED IN THE WORK.

ALL RUBBISH OR WASTE MATERIALS PRODUCED BY CONTRACTOR'S WORKERS SHALL BE PROTECTED FROM DISSEMINATION BY WIND, RAIN, OR ANIMALS, AND SHALL BE LEGALLY DISPOSED OF REGULARLY. ANY CONSTRUCTION DEBRIS OR OTHER UNSUITABLE MATERIALS TRAPPED BY SILT BARRIER FACILITIES SHALL BE SEPARATED FROM SOIL MATERIALS AND DISPOSED OF IN A LAWFUL

SEDIMENT WHICH HAS BEEN TRAPPED BY SILT BARRIER FACILITIES MUST BE REMOVED AND STOCKPILED OR REDISTRIBUTED ON THE PROJECT SITE. SEDIMENT WHICH COLLECTS TO THE SPECIFIED CLEAN-OUT ELEVATION IN THE BOTTOM OF STORMWATER MANAGEMENT PONDS, OR THE SPECIFIED ELEVATIONS IN SEDIMENT TRAPS, MUST BE REMOVED AND STOCKPILED OR REDISTRIBUTED AND STABILIZED ON THE PROJECT SITE.

WASHING OF FILTER STONE AND RE-DISTRIBUTION OF WET SEDIMENT FROM BASINS, TRAPS OR OTHER FACILITIES SHALL BE ONLY PERMITTED UPHILL OF AN EFFECTIVE SEDIMENT FILTER FACILITY. SILT LADEN RUNOFF SHALL NOT BE ALLOWED TO FLOW DIRECTLY TO UNPROTECTED CATCH BASINS, PONDS, ADJACENT PROPERTIES, ROADS, STREAMS OR WETLANDS. IF THE CONTRACTOR EXPECTS TO RECYCLE OR DISPOSE OF ANY SOIL OR ROCK MATERIAL TO LOCATIONS OTHER THAN THE PROJECT AREA FOR WHICH THIS PLAN AND NARRATIVE HAVE BEEN PREPARED. THE CONTRACTOR SHALL ARRANGE FOR PREPARATION AND SUBMITTAL TO THE APPROPRIATE COUNTY CONSERVATION DISTRICT OF EROSION AND SEDIMENT CONTROL PLANS FOR ALL SUCH OFF-PROJECT AREAS PRIOR TO COMMENCEMENT OF WORK.



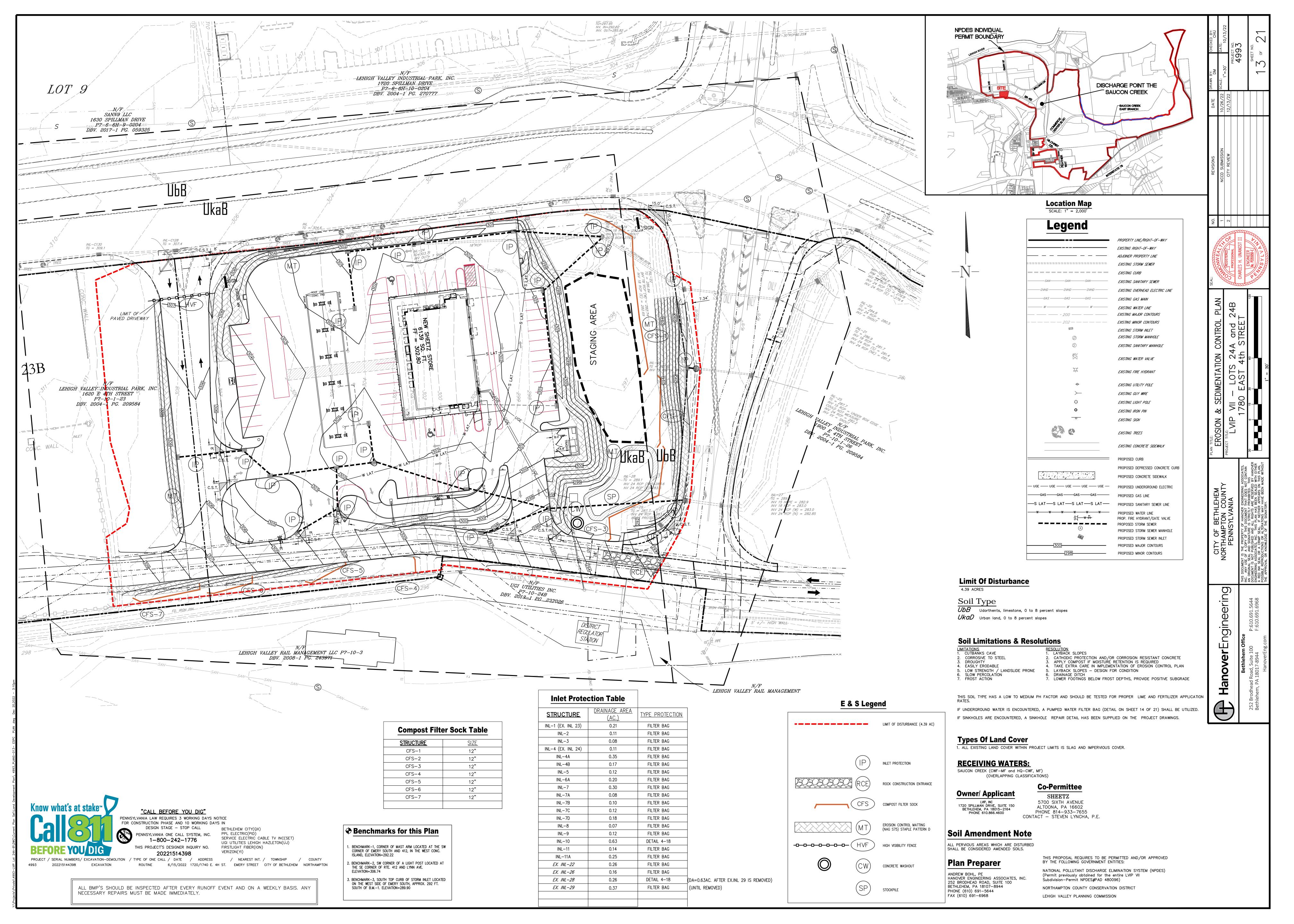
"CALL BEFORE YOU DIG" PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN

DESIGN STAGE - STOP CALL PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 THIS PROJECT'S DESIGNER INQUIRY NO. FIRSTLIGHT FIBER(ION) 20221514398

BETHLEHEM CITY(QX) PPL ELECTRIC(PID) SERVICE ELECTRIC CABLE TV INC(SET) UGI UTILITIES LEHIGH HAZLETON(UJ) VERIZON(YI)

ROUTINE 6/15/2022 1720/1740 E. 4H ST. EMERY STREET CITY OF BETHLEHEM NORTHAMPTON

PROJECT / SERIAL NUMBERS / EXCAVATION - DEMOLITION / TYPE OF ONE CALL / DATE / ADDRESS / NEAREST INT. / TOWNSHIP / COUNTY



### Standard Erosion And Sediment Control Plan Notes

- . 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
- . 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. . 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.
- . AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL. :. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF IE 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. . 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.
- . 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. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL FROSION AND SEDIMENT BMPS AFTER FACH 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. 15. 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. 16. 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.
- 17. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS. 18. 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
- 19. 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.
- 20. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS. 21. 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. 22. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
- 23. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES. 24. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
- 25. 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
- 26. 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.
- 7. 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. 28. 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 29. 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
- 30. 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
- 31. 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

REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING

32. 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 PENNSYLVANIÁ 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.

#### OPTIONAL NOTES

- THE FOLLOWING NOTES SHOULD BE ADDED TO PLAN DRAWINGS AS APPLICABLE.
- 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. . 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. 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 CHALL BE CONVEYED PAST THE WORK AREA IN THE MANNER DESCRIBED IN THIS PLAN UNTIL SUCH RESTORATION IS
- 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.
- . 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.
- . SEDIMENT TRAPS 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
- 8. 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. 9. 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.
- 10. FILL MATERIAL FOR EMBANKMENTS SHALL BE FREE OF ROOTS, OR OTHER WOODY VEGETATION, ORGANIC MATERIAL, LARGE STONES, AND OTHER OBJECTIONABLE MATERIALS.

SYNTHETIC BINDERS, OR CHEMICAL BINDERS MAY BE USED AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH PROVIDED

SUFFICIENT DOCUMENTATION IS PROVIDED TO SHOW THEY ARE NON-TOXIC TO NATIVE PLANT AND ANIMAL SPECIES. MULCH ON SLOPES OF 8% OR STEEPER SHOULD BE HELD IN PLACE WITH NETTING. LIGHTWEIGHT PLASTIC, FIBER, OR PAPER NETS MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. SHREDDED PAPER HYDROMULCH SHOULD NOT BE USED ON SLOPES STEEPER THAN 5%. WOOD FIBER HYDROMULCH MAY BE APPLIED ON STEEPER SLOPES PROVIDED A TACKIFIER IS USED. THE APPLICATION RATE OF HYDROMULCH SHOULD BE 2,000 LB./ACRE AT A MINIMUM. MULCH APPLICATION RATES

| MODELL VILLEY |          |                    |                   |                                                                           |  |  |  |
|---------------|----------|--------------------|-------------------|---------------------------------------------------------------------------|--|--|--|
| MULCH TYPE    |          | APPLICATION RATE ( | NOTES             |                                                                           |  |  |  |
| MULCH TIFE    | PER ACRE | PER 1,000 SQ. FT.  | PER 1,000 SQ. YD. | NOILS                                                                     |  |  |  |
| STRAW         | 3 TONS   | 140 LB.            | 1,240 LB.         | EITHER WHEAT OR OAT STRAW, FREE OF WEEDS, NOT<br>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                            |  |  |  |
| HYDRO MULCH   | 1 TON    | 47 LB.             | 415               | SEE LIMITATIONS ABOVE                                                     |  |  |  |

#### **Assurance Of Design Performance** THE SPECIFICATIONS AND REQUIREMENTS OF THE PROJECT PLANS.

ACCEPTABLE CONSTRUCTION CRITERIA FOR THIS PROJECT.

DURING SITE DEVELOPMENT CONSTRUCTION, ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL FACILITIES MUST BE CHECKED BY THE SITE CONTRACTOR AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ANY DAMAGE TO THE FACILITIES MUST BE REPAIRED IMMEDIATELY. ANY LOST SOIL MATERIAL SHALL BE RECOVERED. IF POSSIBLE, WASHED OUT LAWN OR SLOPE AREAS MUST HAVE TOPSOIL REPLACED AND THEN MUST BE RE-SEEDED AND MULCHED.

IF, FOR ANY REASON, THE DESIGNED FACILITIES OR MEASURES DO NOT PROVIDE THE NECESSARY PROTECTION, THE CONTRACTOR SHALL ADJUST THE FROSION CONTROL MEASURES AND SEDIMENT CONTROL MEASURES TO ACHIEVE A COMPLETE NON-ERODED STABILIZED SITE CONDITION.

AFTER THE CITY'S FINAL ACCEPTANCE OF SITE WORK CONSTRUCTION AND STABILIZATION BY THE CONTRACTOR, THE GROUND SURFACE AND ALL DRAINAGE FACILITIES LOCATED ON PRIVATE PROPERTY MUST BE MAINTAINED BY THE OWNER OF THE PROPERTY.

#### Temporary Stabilization & **Permanent Stabilization**

- 1. HAY OR STRAW MULCH MUST BE APPLIED AT 3.0 TONS PER ACRE.
- 2. MULCH WITH MULCH CONTROL NETTING OR EROSION CONTROL BLANKETS MUST BE INSTALLED ON ALL SLOPES 3:1 AND STEEPER."
- 3. STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.

#### 102.4(B)(5)(X) "A MAINTENANCE PROGRAM WHICH PROVIDES FOR INSPECTION OF BMPS ON A WEEKLY BASIS AND AFTER EACH MEASURABLE RAINFALL EVENT, INCLUDING THE REPAIR OF THE BMPS TO ENSURE EFFECTIVE AND EFFICIENT OPERATION."

- 4. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. 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 EROSION AND SEDIMENT CONTROL BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED. E&SPCPM P168
- 5. SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED, OR

#### 102.4(B)(5)(XI) "PROCEDURES WHICH ENSURE THAT THE PROPER MEASURES FOR THE RECYCLING OR DISPOSAL OF MATERIALS ASSOCIATED WITH OR FROM THE PROJECT SITE WILL BE UNDERTAKEN IN ACCORDANCE WITH THIS TITLE."

- 6. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THE SITE."
- 7. SOIL/ROCK DISPOSAL AREAS SHOULD BE ADDRESSED IN THE NARRATIVE AND ON THE DRAWINGS WITH APPROPRIATE BMPS (E.G. THE OPERATOR SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED. APPROVED BY THE CONSERVATION DISTRICT AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL PROPOSED SOIL/ROCK SPOIL AND BORROW AREAS ON OR OFFSITE.).

#### REFER TO NARRATIVE FOR PENN DOT PUBL. 408 DATA Temporary Seeding

PLACED IN TOPSOIL STOCKPILES.

ALL DISTURBED EARTH SURFACES OR TOPSOIL STOCKPILES WHICH ARE TO REMAIN LONGER THAN FOUR (4) DAYS SHALL BE STABILIZED AND

| SEEDED WITH A CONTRACTO   | R'S MIX AS STATED BELOW: |                 |             |
|---------------------------|--------------------------|-----------------|-------------|
|                           |                          | <u>PER</u>      | <u>PER</u>  |
| <u>DATE</u>               | TYPE OF MIXTURE          | <u>1,000 SF</u> | <u>ACRE</u> |
| MARCH 1 TO JUNE 15        | ANNUAL RYEGRASS - 100%   | 1.0 LB.         | 40 LB.      |
| JUNE 15 TO AUG. 15        | SUDANGRASS - 100%        | 1.0 LB.         | 40 LB.      |
| AUG. 15 TO SEPT. 15       | ANNUAL RYEGRASS - 100%   | 0.7 LB.         | 30 LB.      |
| MARCH 1 TO AUG. 15        |                          |                 |             |
| AUG. 15 TO OCT. 15        | WINTER WHEAT - 100%      | 4.1 LB.         | 180 LB.     |
| OCT. 15 TO MARCH 1        | HAY OR STRAW MULCH       |                 | 3.0 TONS    |
| LIME AND FERTILIZER AND M | MULCH SPECIFICATIONS     |                 |             |

- TEMPORARY SEEDING -- APPLY ONE TON OF LIME PER ACRE AND - FERTILIZER 50-50-50 PER ACRE - MULCH, HAY OR STRAW - 3 TONS PER ACRE STRAW MULCH SHALL BE APPLIED IN LONG STRANDS,
- NOT CHOPPED OR FINELY BROKEN. A. FORMULA "B" - PRIMARILY KENTUCKY BLUEGRASS & CREEPING RED OR CHEWINGS FESCUE, SPREAD AT A SEEDING RATE OF 42 LB. PER 1000 SQ. YDS. SPREAD FORMULA "B" FROM MARCH 15 TO JUNE 1 OR FROM AUGUST 1 TO OCTOBER 15.
- B. FORMULA "C"- CROWNVETCH AND ANNUAL RYEGRASS (45% 55%) SPREAD AT A RATE OF 12 LB. PER 1000 SQ. YDS. ON ALL SLOPES 2 HORIŽONTAL TO 1 VERTICAL OR STEEPER. SPREAD FORMULA "C" RYEGRASS PORTION FROM MARCH 1 TO OCTOBER 15 AND CROWNVETCH PORTION ANYTIME EXCEPT SEPTEMBER AND OCTOBER.
- C. FORMULA "W"—MIXTURE OF TALL FESCUE, BIRDSFOOT TREFOIL, AND REDTOP, SPREAD AT A SEEDING RATE OF 15 LB. PER 1000 SQ. YDS. ON THE DETENTION POND. SPREAD THIS FORMULA FROM APRIL 1 TO JUNE 15 OR FROM AUGUST 16 TO SEPTEMBER 15.
- D. ALTERNATE SEED MIXES, BASED ON SECTION IX OF THE "PENN STATE AGRONOMY GUIDE". MAY BE USED ONLY IF APPROVED IN WRITING IN ADVANCE OF PLACEMENT.

## SLURRY APPLICATIONS MUST INCLUDE A STRAW MULCH BINDER. AT A RATE OF 3.0 TONS PER

Note:

Permanent Seeding - immediately upon final grading of any PHASE OR SECTION, TOPSOIL SHALL BE BROUGHT BACK OVER THE DISTURBED AREAS WHICH ARE NOT TO BE PAVED OR BUILT UPON. THIS TOPSOIL SHALL BE SPREAD TO A SMOOTH FINISH GRADE WITH A MINIMUM DEPTH OF SIX (6) INCHES. THE TOPSOIL SHALL THEN BE:

- A. RAKED FREE OF STONES;
- B. LIMED AND FERTILIZED AS NECESSARY; C. PLANTED WITH GRASS OR OTHER SPECIFIED SEED;
- D. MULCHED OR MATTED TO PROTECT THE SEED FROM DRYNESS AND EROSION (STRAW OR HAY AT 1,240 LB. PER 1,000 SQ. YD.).
- IT IS RECOMMENDED THAT THE CONTRACTOR TAKE SOIL SAMPLES TO ENSURE THE PROPOSED SEED MIXTURE WILL PROVIDE ADEQUATE COVER. PERMANENT SEEDING SHALL BE UNDERTAKEN IN ACCORDANCE WITH PENNDOT, FORM 408 SPECIFICATIONS AS FOLLOWS:
- A. PENNDOT FORMULA "B" (PRIMARILY KENTUCKY BLUEGRASS AND CREEPING RED OR CHEWING FESCUE) SPREAD AT A RATE OF 21 POUNDS PER 1.000 SQUARE YARDS. OR OTHER SEED MIX APPROVED FOR THE AREA. SPREAD FORMULA "B" FROM MARCH 15 TO JUNE 1, OR FROM AUGUST 1 TO OCTOBER 15.
- B. ALTERNATE SEED MIXES, BASED ON SECTION IX OF THE "PENN STATE AGRONOMY GUIDE", MAY BE USED ONLY IF APPROVED IN WRITING IN ADVANCE OF PLACEMENT BY THE PROJECT ENGINEER AND THE LOCAL COUNTY CONSERVATION DISTRICT.

#### Lime And Fertilizer Specifications

#### PULVERIZED AGR. LIMESTONE, 800 LBS. PER 1,000 S.Y. ANALYSIS COMMERCIAL 10-20-20, 140 LBS. PER 1,000 S.Y. UREAFORM FERTILIZER 38-0-0, 50 LBS. PER 1,000 S.Y. IBDUFERTILIZER 31-0-0, 61 LBS. PER 1,000 S.Y.

MULCH OR APPLY HAY AT 1,240 LBS. PER 1,000 S.Y. TO SEEDED AREAS TO PROTECT THE SEED FROM DRYNESS AND EROSION.

#### Location Of Measures And Facilities

THE REQUIRED LOCATIONS OF THE PERMANENT CONTROL MEASURES WILL BE DETERMINED BY THE ENGINEER DURING/AFTER CONSTRUCTION AND WILL BE INSTALLED TO STABILIZE THE PROJECT AS PART OF THE CONTRACTOR'S RESPONSIBILITY.

#### Dimensioned Details Of The Facilities

ALL ITEMS TO BE USED IN THIS PROJECT SHALL BE CONSTRUCTED TO PREVAILING STANDARDS. DETAILS OF SPECIAL EROSION CONTROL FACILITIES, I.E. THE FILTER FABRIC, INLET PROTECTION, ETC., ARE NOTED ON THE PROJECT PLANS.

102.5(B)(8) MAINTENANCE OF CONTROL FACILITIES

## Disposal Of Materials From The Control

SEDIMENT WHICH HAS BEEN TRAPPED BY SILT BARRIER FACILITIES MUST BE REMOVED AND STOCKPILED OR REDISTRIBUTED ON THE PROJECT SITE. ALL CONSTRUCTION DEBRIS OR OTHER UNSUITABLE MATERIALS SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF IN A LAWFUL MANNER. WASHING OF FILTER STONE AND REDISTRIBUTION OF WET SEDIMENT SHALL BE ONLY PERMITTED UPHILL OF AN EFFECTIVE SEDIMENT FILTER FACILITY. SILT LADEN RUN-OFF SHALL NOT BE ALLOWED TO FLOW DIRECTLY TO UNPROTECTED INLETS, BASINS, ADJACENT PROPERTIES, ROADWAYS, OR WETLANDS. ALL SILT BARRIER FACILITIES MUST BE CHECKED FOR CAPACITY AND PROPER FUNCTION WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL ALL UPSTREAM AREAS HAVE A UNIFORM PERENNIAL VEGETATIVE COVER OF OVER SEVENTY (70) PERCENT.

RECYCLING AND/OR DISPOSAL OF MATERIALS ASSOCIATED WITH OR FROM THE PROJECT SITE MUST BE ACCORDANCE WITH PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

#### Recycling And Disposal Of Materials IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO BE FAMILIAR WITH, AND TO INFORM HIS WORKERS

OF ALL LOCAL, STATE, AND FEDERAL ENVIRONMENTAL REGULATIONS REGARDING THE CONDUCT OF WORK AND HANDLING OF MATERIALS ON THE PROJECT, AND TO PERFORM ALL ACTIVITIES IN ACCORDANCE WITH THOSE REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING EMERGENCY RESPONSE PLANS FOR ANY HAZARDOUS OR POLLUTING MATERIALS USED IN THE WORK. ALL RUBBISH OR WASTE MATERIALS PRODUCED BY CONTRACTOR'S WORKERS SHALL BE PROTECTED FROM DISSEMINATION BY WIND, RAIN, OR ANIMALS, AND SHALL BE LEGALLY DISPOSED OF REGULARLY ANY CONSTRUCTION DEBRIS OR OTHER UNSUITABLE MATERIALS TRAPPED BY SILT BARRIER FACILITIES SHALL BE SEPARATED FROM SOIL MATERIALS AND DISPOSED OF IN A LAWFUL MANNER.

SEDIMENT WHICH HAS BEEN TRAPPED BY SILT BARRIER FACILITIES MUST BE REMOVED AND STOCKPILED OR REDISTRIBUTED ON THE PROJECT SITE. SEDIMENT WHICH COLLECTS TO THE SPECIFIED CLEAN-OUT ELEVATION IN THE BOTTOM OF STORMWATER MANAGEMENT PONDS, OR THE SPECIFIED ELEVATIONS IN SEDIMENT TRAPS, MUST BE REMOVED AND STOCKPILED OR REDISTRIBUTED AND STABILIZED ON THE WASHING OF FILTER STONE AND RE-DISTRIBUTION OF WET SEDIMENT FROM BASINS, TRAPS OR OTHER

FACILITIES SHALL BE ONLY PERMITTED UPHILL OF AN EFFECTIVE SEDIMENT FILTER FACILITY. SILT LADEN

RUNOFF SHALL NOT BE ALLOWED TO FLOW DIRECTLY TO UNPROTECTED CATCH BASINS, PONDS,

IF THE CONTRACTOR EXPECTS TO RECYCLE OR DISPOSE OF ANY SOIL OR ROCK MATERIAL TO LOCATIONS OTHER THAN THE PROJECT AREA FOR WHICH THIS PLAN AND NARRATIVE HAVE BEEN PREPARED, THE CONTRACTOR SHALL ARRANGE FOR PREPARATION AND SUBMITTAL TO THE APPROPRIATE COUNTY CONSERVATION DISTRICT OF EROSION AND SEDIMENT CONTROL PLANS FOR ALL SUCH OFF-PROJECT AREAS PRIOR TO COMMENCEMENT OF WORK.

### Anticipated Project Specific Waste

SEDIMENT TRAPPED BY EROSION CONTROL BMPS PLANT WASTE CREATED DURING CLEARANCE OF SITE

ADJACENT PROPERTIES, ROADS, STREAMS OR WETLANDS.

ALL WASTE IS TO BE RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION.

### SEQUENCE OF CONSTRUCTION

C.PA-ONE-CALL: 1-800-242-1776

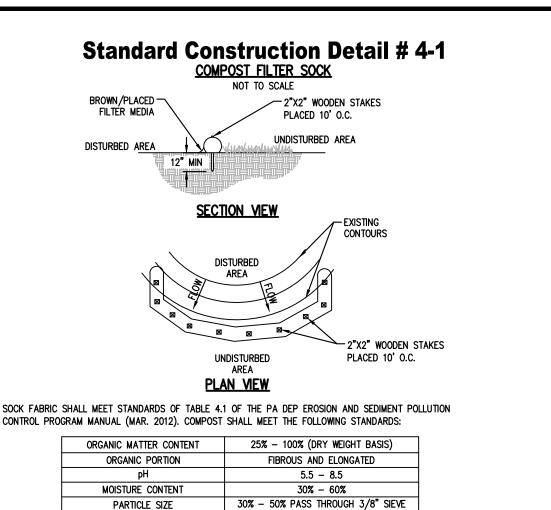
- 1. SCHEDULE A PRE-CONSTRUCTION CONFERENCE AND PROVIDE AT LEAST SEVEN (7) WORKING DAYS' NOTICE TO THE FOLLOWING AGENCIES PRIOR TO COMMENCEMENT OF SITE GRADING WORK: A. PROJECT ENGINEER: 610-691-5644 B.NORTHAMPTON COUNTY CONSERVATION DISTRICT: 610-829-6276
- 2. THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER AT LEAST FORTY-EIGHT HOURS (48 HOURS) IN ADVANCE OF EROSION CONTROL FACILITIES COMPONENT INSTALLATIONS.
- 3. THE CONTRACTOR SHALL REFER TO THE POST CONSTRUCTION STORMWATER MANAGEMENTS PLANS FOR LOW IMPACT/NO COMPACTION TECHNIQUES FOR THE EXCAVATION AND PLACEMENT OF THE PROPOSED FILL MATERIALS.
- 4. PRIOR TO REMOVAL OF TOPSOIL, REFER TO THE ESPC PLAN SHEET FOR LOCATION OF SOIL STOCKPILES. TEMPORARY AND PERMANENT SEEDING SHALL BE IN ACCORDANCE WITH REQUIREMENTS LISTED AND AS NOTED IN THE PROJECT NARRATIVE AND AS LISTED ON THE ESPC PLAN SHEET. COMPOST FILTER SOCK SHALL BE INSTALLED DOWNSLOPE OF ALL TOPSOIL STOCKPILES. A. PRIOR TO ANY SEEDING AND LIME AND FERTILIZE APPLICATION, A SOIL TEST SHALL BE PERFORMED TO DETERMINE THE PH FACTOR. ADDITIONAL LIME AND FERTILIZER MAY BE REQUIRED.
- 5. DISTURBED AREAS SHALL NOT BE STRIPPED OF TOPSOIL FOR MORE THAN FOUR (4) DAYS WITHOUT TEMPORARY STABILIZATION.
- 6. PLACE ROCK CONSTRUCTION ENTRANCE AS SHOWN. ALL CONSTRUCTION TRAFFIC FOR THE SITE IS TO ENTER AT THIS LOCATION. ALTERNATE ENTRANCES ARE PROHIBITED, UNLESS APPROVED BY THE CONSERVATION DISTRICT.
- 7. INSTALL INLET PROTECTION AT ALL EXISTING INLETS ALONG EMERY STREET AND WITHIN THE LIMIT OF
- 8. INSTALL HIGH VISIBILITY FENCING AT EXISTING ENTRANCE OFF OF 412. IMMEDIATELY STABILIZE ALL DISTURBED
- 9. PLACE ALL COMPOST FILTER SOCKS CFS-1 THROUGH CFS-7 AS SHOWN ON SHEET 13 AND IMMEDIATELY STABILIZE ANY DISTURBED AREAS.

10. CLEAR AND GRUB ENTIRETY OF SITE WITHIN THE LIMIT OF DISTURBANCE PRIOR TO ANY EARTHMOVING ACTIVITIES.

11. CONSTRUCT BUILDING FOOTERS, UST'S (UNDERGROUND STORAGE TANKS) AND THE CANOPY.

REMOVE STOCKPILE OF SLAG AND FILL MATERIAL. REMOVE ALL WASTE MATERIALS.

- 12. ROUGH GRADE SITE INCLUDING RETAINING WALLS, PARKING AREAS, AND DRIVEWAYS. IMMEDIATELY STABILIZE DISTURBED AREAS. CONTINUE TO UTILIZE THE ROCK CONSTRUCTION ENTRANCE FOR THE ENTIRETY OF THE SITE
- 13. INSTALL STORM SEWER AFTER REMOVAL OF EXISTING INLETS AS SHOWN ON THE PLANS. PLACE INLET PROTECTION AS EACH INLET IS PLACED.
- 14. CONSTRUCT BUILDING AND CONNECT ROOF LEADERS TO PREVIOUSLY CONSTRUCTED STORM SEWER COLLECTION
- 15. INSTALL SITE UTILITIES INCLUDING SANITARY SEWER LATERAL, WATER SERVICE, GAS LATERAL, SITE LIGHTING, UNDERGROUND ELECTRIC AND COMMUNICATION LINES. IMMEDIATELY STABILIZE DISTURBED AREAS. IF STORMWATER FILLS IN EXCAVATION TRENCH, UTILIZE FILTER BAG TO REMOVE.
- 16. INSTALL ALL CONCRETE CURBING AND SIDEWALKS. ALL DISTURBANCE GENERATED DURING THE INSTALLATION OF THESE ITEMS SHOULD BE IMMEDIATELY STABILIZED.
- 17. PLACE SUBBASE STONE AGGREGATE FOR ALL AREAS TO BE PAVED.
- 18. FINISH PAVING ALL ASPHALT AREAS AND LINE STRIPE PARKING FACILITIES AND DRIVEWAYS.
- 19. INSTALL CAPPING MATERIAL AND PROPOSED LANDSCAPING. IMMEDIATELY STABILIZE ALL AREAS.
- 20. A VEGETATED AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OVER THE ENTIRE DISTURBED AREA AND/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.
- 21. NO SOIL IS TO BE HAULED OFF SITE WITHOUT SEPARATE EROSION AND SEDIMENTATION POLLUTION CONTROL PLAN REVIEWED BY THE DESIGN ENGINEER. A VEGETATED AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OVER THE ENTIRE DISTURBED AREA AND/OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING OR OTHER



#### **General Notes:**

1. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT (SEE FIGURE 4.1 OF THE PA DEP EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL, MAR. 2012). MAXIMUM SLOPE LENGTH ABOVE ANY SOCK SHALL NOT EXCEED THAT SHOWN OF FIGURE 4.2 OF THE PA DEP EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL (MAR. 2012). STAKES MAY BE INSTALLED

SOLUBLE SALT CONCENTRATION 5.0 dS/m (mmhos/cm) MAXIMUM

- IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS. . ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN. . 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 FILTER SOCK 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. TABLE 4.1

|                                                              | CC                    | OMPOST SOCK FABR         | IC MINIMUM SPECIFICA     | TIONS                                                                         |                                                           |
|--------------------------------------------------------------|-----------------------|--------------------------|--------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------|
| MATERIAL TYPE                                                | 3 mil HDPE            | 5 mil HDPE               | 5 mil HDPE               | MULTI-FILAMENT<br>POLYPROPYLENE<br>(MFPP)                                     | HEAVY DUTY<br>MULTI-FILAMENT<br>POLYPROPYLENE<br>(HDMFPP) |
| MATERIAL<br>CHARACTERISTICS                                  | PHOTO —<br>DEGRADABLE | PHOTO –<br>DEGRADABLE    | BIO – DEGRADABLE         | PHOTO –<br>DEGRADABLE                                                         | PHOTO —<br>DEGRADABLE                                     |
| SOCK DIAMETERS                                               | 12"<br>18"            | 12"<br>18"<br>24"<br>32" | 12"<br>18"<br>24"<br>32" | 12"<br>18"<br>24"<br>32"                                                      | 12"<br>18"<br>24"<br>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 %<br>ORIGINAL STRENGTH (ASTM<br>G-155) | 23% AT 1000<br>HR.    | 23% AT 1000<br>HR.       |                          | 100% AT 1000<br>HR.                                                           | 100% AT 1000<br>HR.                                       |
| MINIMUM FUNCTIONAL<br>LONGEVITY                              | 6 MONTHS              | 9 MONTHS                 | 6 MONTHS                 | 1 YEAR                                                                        | 2 YEARS                                                   |
|                                                              |                       | TWO-PLY                  | SYSTEMS                  |                                                                               |                                                           |
|                                                              |                       |                          |                          | HDPE BIAXIAL NET                                                              |                                                           |
| WHED OO                                                      | NITAININENT NETTNA    |                          |                          | CONTINUOUSLY WOUND                                                            |                                                           |
| INNER CO                                                     | NTAINMENT NETTING     |                          |                          | FUSION-WELD JUNCTURES                                                         |                                                           |
|                                                              |                       |                          | 3/-                      | 4" X 3/4" MAX. APERTURE                                                       | SIZE                                                      |
| OUTER                                                        | FILTRATION MESH       |                          |                          | MPOSITE POLYPROPYLENE FA<br>ER & NON-WOVEN FLEECE I<br>FUSED VIA NEEDLE PUNCH | MECHANICALLY                                              |
|                                                              |                       |                          |                          | 3/16" MAX. APERTURE SIZ                                                       | E                                                         |
| SOCK FABRICS COMPOSED OF                                     | BURLAP MAY BE U       | SED ON PROJECTS          | LASTING 6 MONTHS O       | R LESS.                                                                       |                                                           |

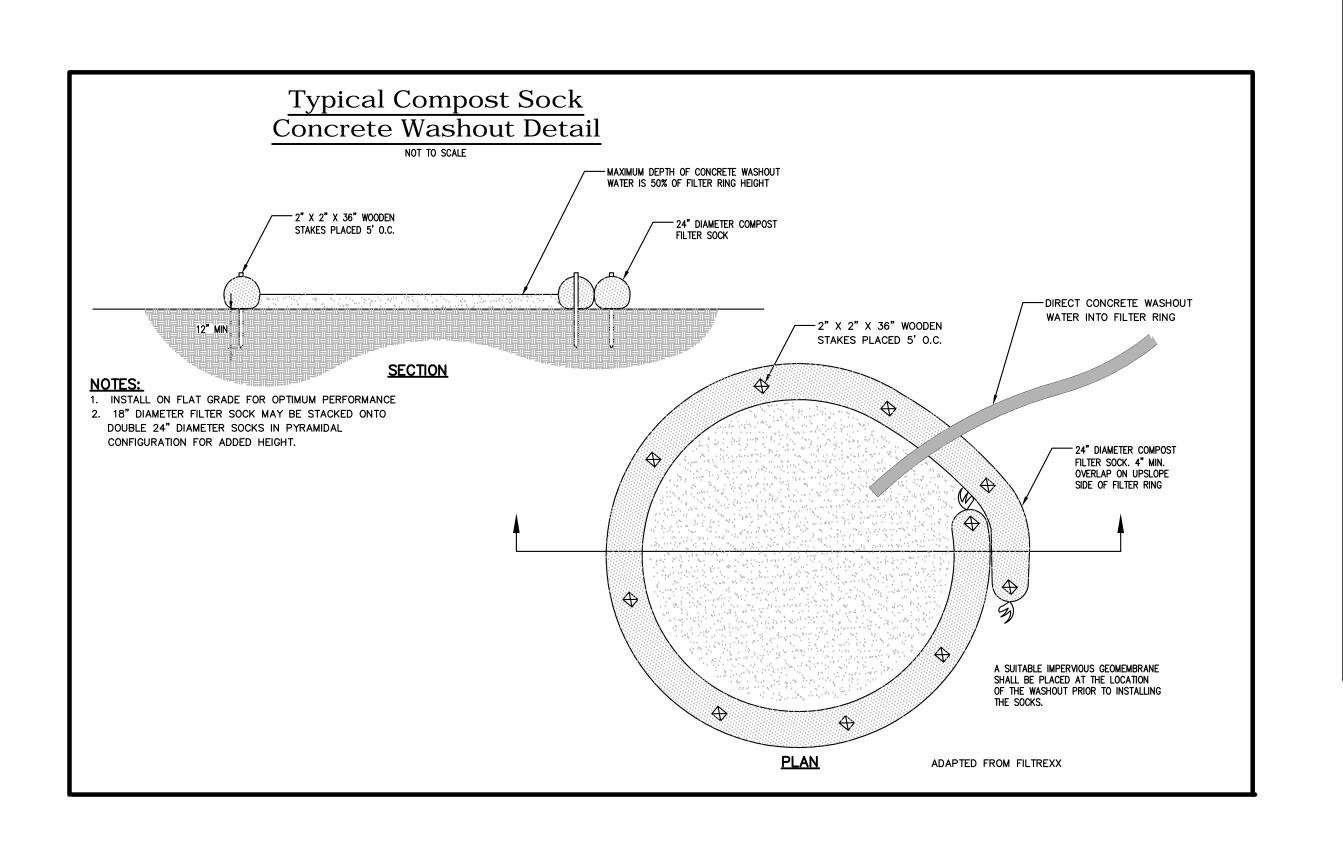
| TAB                        | BLE 4.2                           |
|----------------------------|-----------------------------------|
| COMPOS                     | T STANDARDS                       |
| ORGANIC MATTER CONTENT     | 25% - 100% (DRY WEIGHT BASIS)     |
| ORGANIC PORTION            | FIBROUS AND ELONGATED             |
| рН                         | 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       |
|                            |                                   |

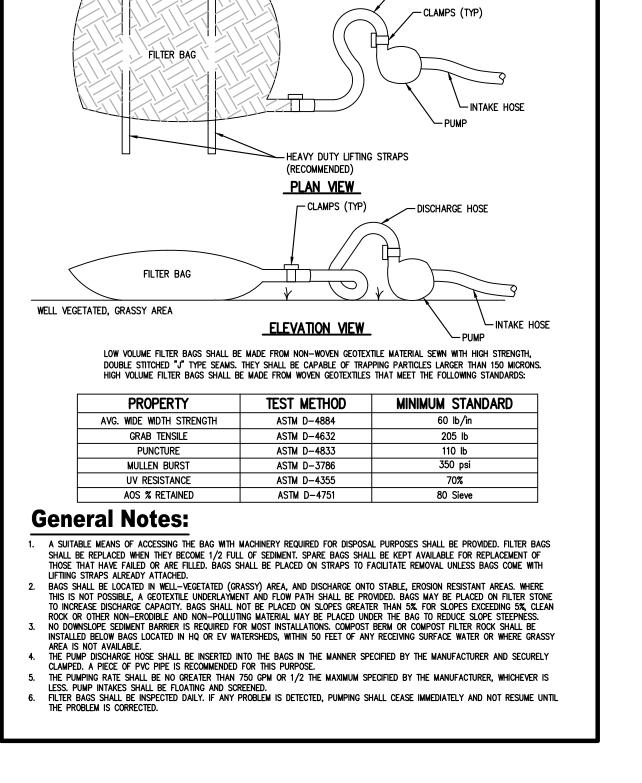
**Standard Construction Detail # 3-16** 

PUMPED WATER FILTER BAG

WELL VEGETATED, GRASSY AREA

## Topsoil Stockpile MULCH ON ALL SURFACES - FXISTING GROUND MAX. SLOPE = 8%FILTER FABRIC FENCE ON LOW SIDE AND AROUND BOTH ENDS OF STOCKPILE, WITH STONE FILTER AT LOW POINT(S). MAINTAIN AS SPECIFIED ON DETAILS. STOCKPILE TOPSOIL OR EXCAVATED SOIL MATERIAL AT LOCATIONS SHOWN FOR EACH HEIGHT AND SIDE SLOPES SHALL NOT EXCEED MAXIMUM VALUES SHOWN ON DETAIL. INSTALL FILTER FENCE PRIOR TO STOCKPILING OF MATERIAL. REPLACE ANY FENCE REMOVED FOR VEHICULAR ACCESS AFTER EACH WORK DAY. . APPLY A TEMPORARY SEED MIX AND MULCH WHEN PILE WILL REMAIN FOR 30 DAYS OR





ALL BMP'S SHOULD BE INSPECTED AFTER EVERY RUNOFF EVENT AND ON A WEEKLY BASIS. ANY NECESSARY REPAIRS MUST BE MADE IMMEDIATELY.

(1)

g.

**(**D)

| 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    |  |  |  |  |  |

#### **TABLE 11.2 Soil Amendment Application Rate Equivalents**

| . ada - 2200 Vilo      | Perma     | ment Seeding App  | lication Rate     |                                                                          |
|------------------------|-----------|-------------------|-------------------|--------------------------------------------------------------------------|
| Soil Amendment         | Per Acre  | Per 1,000 sq. ft. | Per 1,000 sq. yd. | Notes                                                                    |
| Agricultural lime      | 6 tons    | 240 lb.           | 2,480 lb.         | Or as per soil<br>test; may not be<br>required in<br>agricultural fields |
| 10-20-20<br>fertilizer | 1,000 lb. | 25 lb.            | 210 lb.           | Or as per soil<br>test; may not be<br>required in<br>agricultural fields |
|                        | Tempo     | orary Seeding App | lication Rate     |                                                                          |
| Agricultural lime      | 1 ton     | 40 lb.            | 410 lb.           | Typically not required for topsoil stockpiles                            |
| 10-10-10 fertilizer    | 500 lb.   | 12.5 lb.          | 100 lb.           | Typically not required for topsoil stockpiles                            |

NOTE: A compost blanket which meets the standards of this chapter may be substituted for the soil amendments shown in Table 11.2.

#### **TABLE 11.3** Plant Tolerances of Soil Limitation Factors

|                                |                              |             |             | Tolerates        |                                      |               | Minimum              | Seed Spe            | cificatio            | าร³                  |
|--------------------------------|------------------------------|-------------|-------------|------------------|--------------------------------------|---------------|----------------------|---------------------|----------------------|----------------------|
| Species                        | Growth<br>Habit <sup>1</sup> | Wet<br>Soil | Dry<br>Site | Low<br>Fertility | Acid Soil<br>(pH 5-5.5) <sup>2</sup> | Purity<br>(%) | Ready<br>Germ<br>(%) | Hard<br>Seed<br>(%) | Total<br>Germ<br>(%) | Seeds/lb<br>(1,000s) |
| Warm-Season Grass              | ses                          |             |             |                  | >                                    |               | 2.0                  | 2                   | *                    |                      |
| Deertongue                     | bunch                        | yes         | yes         | yes              | yes                                  | 95            | 75                   |                     | 75                   | 250                  |
| Weeping lovegrass              | bunch                        | no          | yes         | yes              | yes                                  | 97            | 75                   |                     | 75                   | 1,500                |
| Switchgrass⁴<br>Big bluestem   | bunch<br>bunch               | yes<br>no   | yes<br>yes  | yes<br>yes       | yes<br>yes                           |               | 1                    | PLS)<br>PLS)        |                      | 390<br>150           |
| Cool-Season Grass              | es                           |             |             |                  |                                      |               |                      |                     | 2                    |                      |
| 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          | yes              | no                                   | 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 <sup>5</sup>           |                              |             |             |                  | -                                    |               | -                    |                     |                      |                      |
| Crownvetch                     | sod                          | no          | yes         | yes              | no                                   | 98            | 40                   | 30                  | 65                   | 120                  |
| Birdsfoot trefoil <sup>6</sup> | bunch                        | yes         | no          | yes              | yes                                  | 98            | 60                   | 20                  | 80                   | 400                  |
| Flatpea                        | sod                          | no          | no          | yes              | yes                                  | 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                  |

- 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. Once established, plants may grow at a somewhat lower pH, but cover generally is only adequate at pH 6.0 or above.
- <sup>3</sup> 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.

- <sup>4</sup> Switchgrass seed is sold only on the basis of PLS. <sup>5</sup> Need specific legume inoculant. Inoculant suitable for garden peas and sweetpeas usually is satisfactory for flatpea. <sup>6</sup> Birdsfoot trefoil is adapted over the entire state, except in the extreme southeast where crown and
- Penn State, "Erosion Control and Conservation Plantings on Noncropland,"

root rots may injure stands.

**Seed Mixture** (Select one mixture) Variable drainage 1 plus 2 or 10 1 plus 2, 3, or 4

Recommended Seed Mixtures for Stabilizing Disturbed Areas

- Slopes and Banks (mowed Well-drained Slopes and Banks (grazed/hay) Well-drained Gullies and Eroded Areas Erosion Control Facilities (BMPs) Sod waterways, spillways, frequent water flow areas Drainage ditches 1 plus 2, 3, or 4 Shallow, less than 3 feet deep Deep, not mowed Pond banks, dikes, levees, dams, diversion channels, And occasional water flow areas Mowed areas 1 plus Non-mowed areas For hay or silage on diversion channels and occasional water flow areas Non-mowed areas Pure crownvetch<sup>3</sup> 1 plus 1 plus 5, 7, 8, 9, or 10 Well-drained 1 plus Variable drained Poorly drained Areas mowed several times per year 1 plus **Utility Right-of-way** 1 plus 5, 8, or 12<sup>1</sup> Well-drained 1 plus Variable drained Well-drained areas for grazing/hay Effluent Disposal Areas Sanitary Landfills Surface mines Spoils, mine wastes, fly ash, slag, settling basin
- 1. For seed mixtures 11 and 12, only use spring oats or weeping lovegrass (included in mix) as nurse crop. Contact the Pennsylvania Department of Transportation district roadside specialist for specific suggestions o treatment techniques and management practices. 3. Seed mixtures containing crown vetch should not be used in areas adjacent to wetlands or stream channels due to the invasive nature of this species.

Residues and other severely disturbed areas

Severely disturbed areas for grazing/hay

due to the invasive nature of this species.

(lime to soil test)

1 plus 3, 4, 5, 7, 8, 9, 11<sup>1</sup>, or 12<sup>1</sup>

### **Recommended Seed Mixtures for Stabilizing Disturbed Areas**

|                                                      | Nurse          | Seed Mixture                                           |
|------------------------------------------------------|----------------|--------------------------------------------------------|
| Site Condition                                       | Crop           | (Select one mixture)                                   |
| Slopes and Banks (not mowed)                         |                |                                                        |
| Well-drained                                         | 1 plus         | 3, 5, 8, or 12 <sup>1</sup>                            |
| Variable drainage                                    | 1 plus         | 3 or 7                                                 |
| Slopes and Banks (mowed)                             |                |                                                        |
| Well-drained                                         | 1 plus         | 2 or 10                                                |
| Slopes and Banks (grazed/hay)                        |                |                                                        |
| Well-drained                                         | 1 plus         | 2, 3, or 13                                            |
| Gullies and Eroded Areas                             | 1 plus         | 3, 5, 7, or 12 <sup>1</sup>                            |
| Erosion Control Facilities (BMPs)                    |                |                                                        |
| Sod waterways, spillways, frequent water flow areas  | 1 plus         | 2, 3, or 4                                             |
| Drainage ditches                                     | e grossos      | 10 00 00 00 00 00 00 00 00 00 00 00 00 0               |
| Shallow, less than 3 feet deep                       | 1 plus         | 2, 3, or 4                                             |
| Deep, not mowed                                      | 1 plus         | 5 or 7                                                 |
| Pond banks, dikes, levees, dams, diversion channels, | 1              | 753 5650 753                                           |
| And occasional water flow areas                      |                |                                                        |
| Mowed areas                                          | 1 plus         | 2 or 3                                                 |
| Non-mowed areas                                      | 1 plus         | 5 or 7                                                 |
| For hay or silage on diversion channels and          | 1              | 750 50005 750                                          |
| occasional water flow areas                          | 1 plus         | 3 or 13                                                |
| Highways <sup>2</sup>                                |                |                                                        |
| Non-mowed areas                                      |                |                                                        |
| Pure crownvetch <sup>3</sup>                         | 1 plus         | 5 or 6                                                 |
| Well-drained                                         | 1 plus         | 5, 7, 8, 9, or 10                                      |
| Variable drained                                     | 1 plus         | 3 or 7                                                 |
| Poorly drained                                       | 1 plus         | 3 or 4                                                 |
| Areas mowed several times per year                   | 1 plus         | 2, 3, or 10                                            |
| Utility Right-of-way                                 |                |                                                        |
| Well-drained                                         | 1 plus         | 5, 8, or 12 <sup>1</sup>                               |
| Variable drained                                     | 1 plus         | 3 or 7                                                 |
| Well-drained areas for grazing/hay                   | 1 plus         | 2, 3, or 13                                            |
| Effluent Disposal Areas                              | 1 plus         | 3 or 4                                                 |
| Sanitary Landfills                                   | 1 plus         | 3, 5, 7, 11 <sup>1</sup> , or 12 <sup>1</sup>          |
| Surface mines                                        | - O Lower Con- |                                                        |
| Spoils, mine wastes, fly ash, slag, settling basin   |                |                                                        |
| Residues and other severely disturbed areas          | 1 plus         | 3, 4, 5, 7, 8, 9, 11 <sup>1</sup> , or 12 <sup>1</sup> |
| (lime to soil test)                                  | 7.1            |                                                        |
| Severely disturbed areas for grazing/hay             | 1 plus         | 3 or 13                                                |

- treatment techniques and management practices. 3. Seed mixtures containing crown vetch should not be used in areas adjacent to wetlands or stream channels
- I. For seed mixtures 11 and 12, only use spring oats or weeping lovegrass (included in mix) as nurse crop. Contact the Pennsylvania Department of Transportation district roadside specialist for specific suggestions or

## **EROSION CONTROL BLANKET INSTALLATION** INSTALL BEGINNING OF ROLL IN 6" x 6" ANCHOR TRENCH, OVERLAPPED 4"(MIN.) AND STAPLED. STAPLE, BACKFILL AND STARTING AT TOP OF SLOPE, ROLL BLANKETS IN DIRECTION OF WATER FLOW PREPARE SEED BED (INCLUDING APPLICATION OF LIME, FERTILIZER, & SEED) PRIOR TO INSTALLATION OF REFER TO MANUFACTURER'S RECOMMENDED STAPLING PATTERN FOR STEEPNESS AND LENGTH OF SLOPE THE BLANKET SHOULD NOT BE OVERLAP BLANKET ENDS 6" (MIN.) WITH THE UPSLOPE BLANKET STRETCHED; IT MUST MAINTAIN GOOD SOIL CONTACT. OVERLAYING THE DOWNSLOPE BLANKET (SHINGLE STYLE). STAPLE **General Notes:**

**Standard Construction Detail # 11-1** 

1. SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.

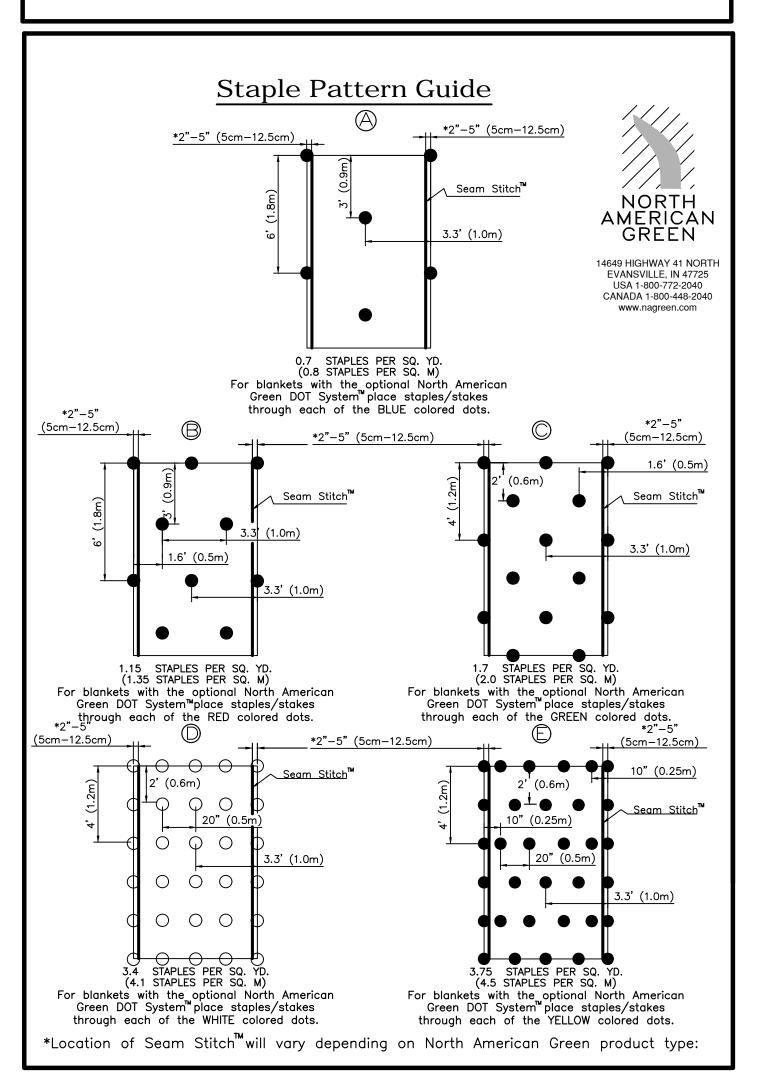
2. PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

3. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS. BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET

LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.

5. THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS

ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

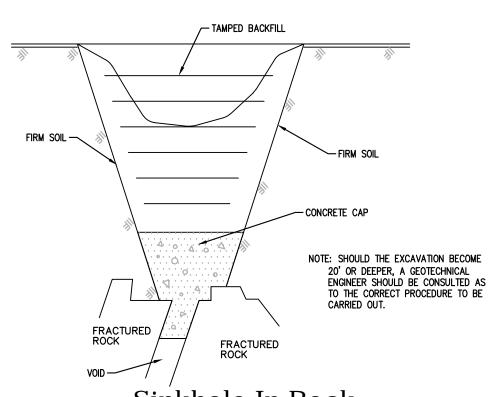


# 2A DGA 4"-6" Ø AGGREGATE 12"-18"ø ROCKS Sinkhole In Soil

1. THE REPAIR TECHNIQUES AS DESCRIBED BELOW ARE SUITABLE ONLY IF THE SINKHOLE IS LOCATED IN AN OPEN AREA. IF THE SINKHOLE IS LOCATED UNDER OR NEAR A STRUCTURE OR A BUILDING, COMPACTION GROUTING MAY BE NECESSARY FOR REMEDIATION, AS DETERMINED BY A GEOTECHNICAL ENGINEER LICENSED IN THE

2. EXCAVATE DOWN TO ROCK TO SINKHOLE THROAT OR TO A DEPTH OF 15 FEET BELOW GRADE, WHICHEVER 3. IF ROCK IS ENCOUNTERED WITHIN 10 FEET, STOP EXCAVATION. THE LIMIT OF EXCAVATION SHALL BE DETERMINED BY THE GEOTECHNICAL ENGINEER. GENERALLY, A ZONE OF SOFT, IN-FILL MATERIAL WILL BE FOUND WHICH COVERS MOST OF THE BOTTOM OF THE EXCAVATION. COVER THIS AREA WITH A GRADED ROCK FILTER AS SHOWN

4. BACKFILL HOLE WITH RELATIVELY IMPERMEABLE CLAY SOIL. COMPACT SOIL IN 6" LIFTS WITH A POWER TAMPER OR RAMMER TO AT LEAST 95% OF THE STANDARD PROCTOR. 5. BACKFILL HOLE ABOVE EXISTING GRADE TO DIVERT SURFACE WATER.

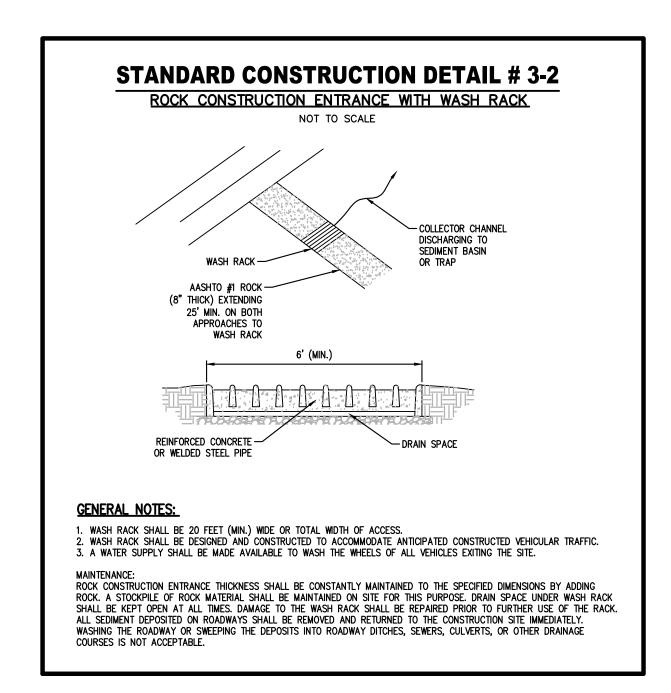


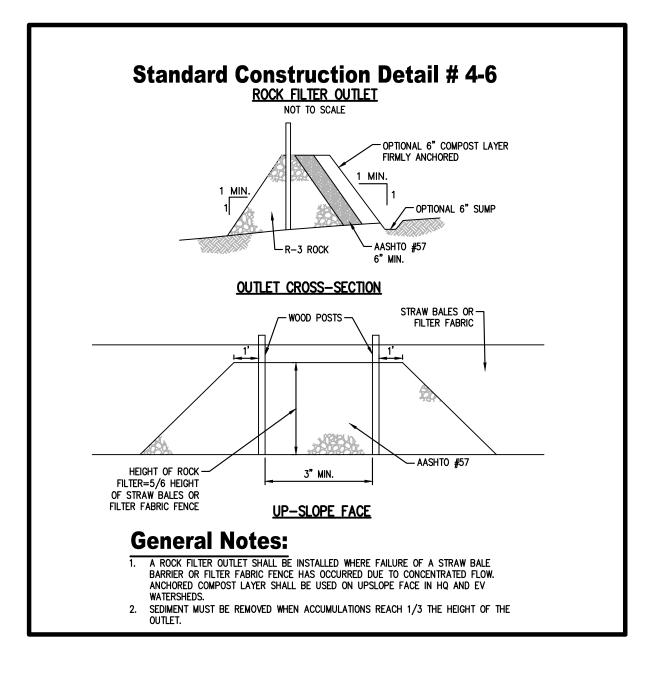
Sinkhole In Rock

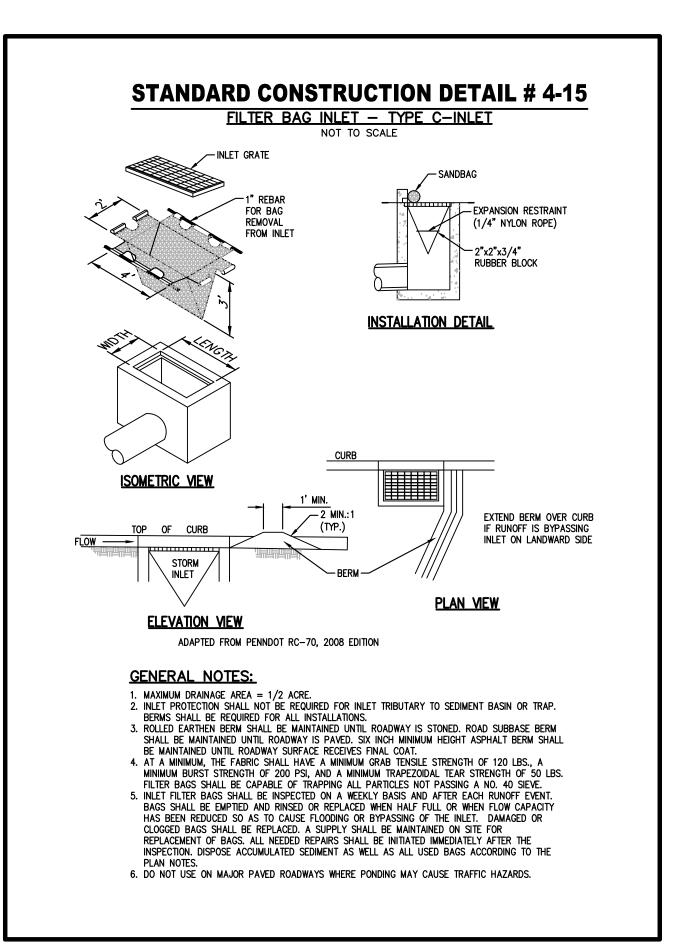
- 1. THE REPAIR TECHNIQUES AS DESCRIBED BELOW ARE SUITABLE ONLY IF THE SINKHOLE IS LOCATED IN AN OPEN AREA. IF THE SINKHOLE IS LOCATED UNDER OR NEAR A STRUCTURE OR A BUILDING, COMPACTION GROUTING MAY BE NECESSARY FOR REMEDIATION, AS DETERMINED BY A GEOTECHNICAL ENGINEER LICENSED IN THE
- COMMONWEALTH OF PENNSYLVANIA. 2. EXCAVATE DOWN TO BEDROCK OR TO THE SINKHOLE THROAT .
- 3. EXPOSE THE ROCK SURFACE BY WASHING THE AREA WITH A SMALL HOSE WATER SPRAY AND INSTALL HIGHSUMP CEMENT INTO VOIDS AND CREVICES UNTIL VOIDS ARE FILLED AND A CAP COVERS THE AREA. THE LIMIT OF
- EXCAVATION AND CONCRETE SHALL BE DETERMINED BY THE ENGINEER. 4. AFTER CONCRETE HAS SET OVERNIGHT, BACKFILL HOLE WITH RELATIVELY IMPERMEABLE CLAY SOIL. COMPACT SOIL IN 6" LIFTS WITH A POWER TAMPER OR RAMMER TO AT LEAST 95% OF THE STANDARD PROCTOR. THE TOP

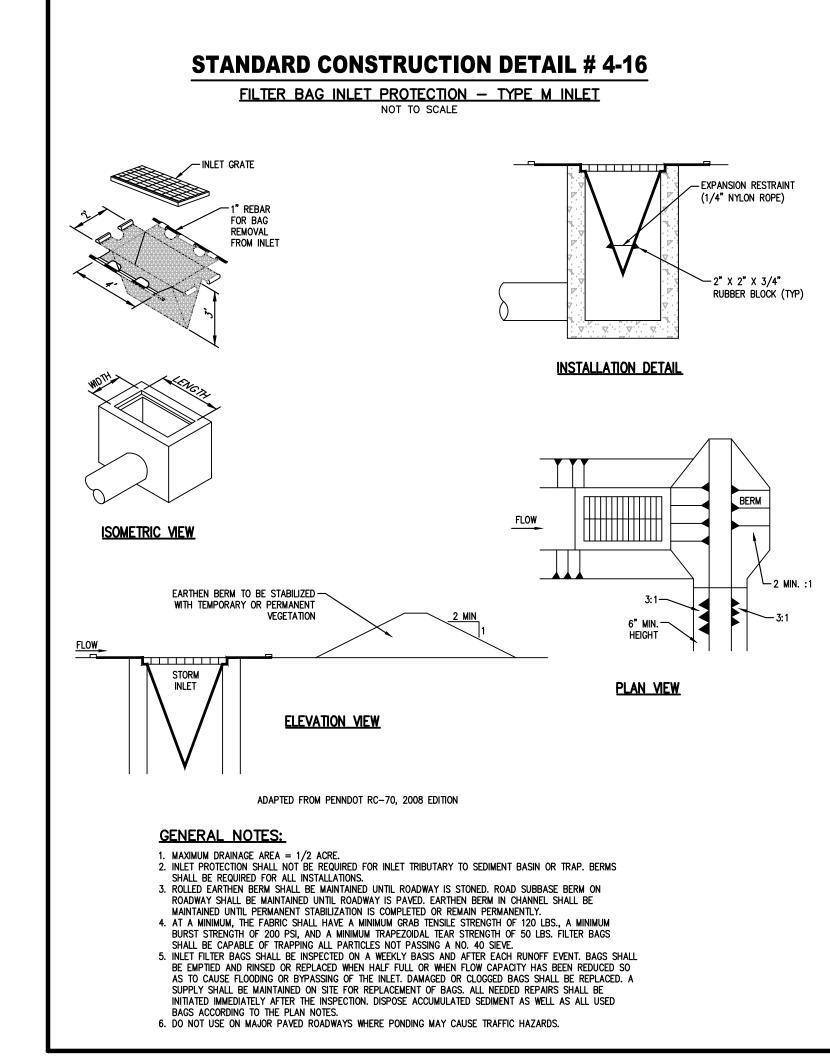
6. WHEN SINKHOLE IS UNDER A PROPOSED UTILITY. CONCRETE IS TO BE SET 6" BELOW THE UTILITY TO ALLOW FOR

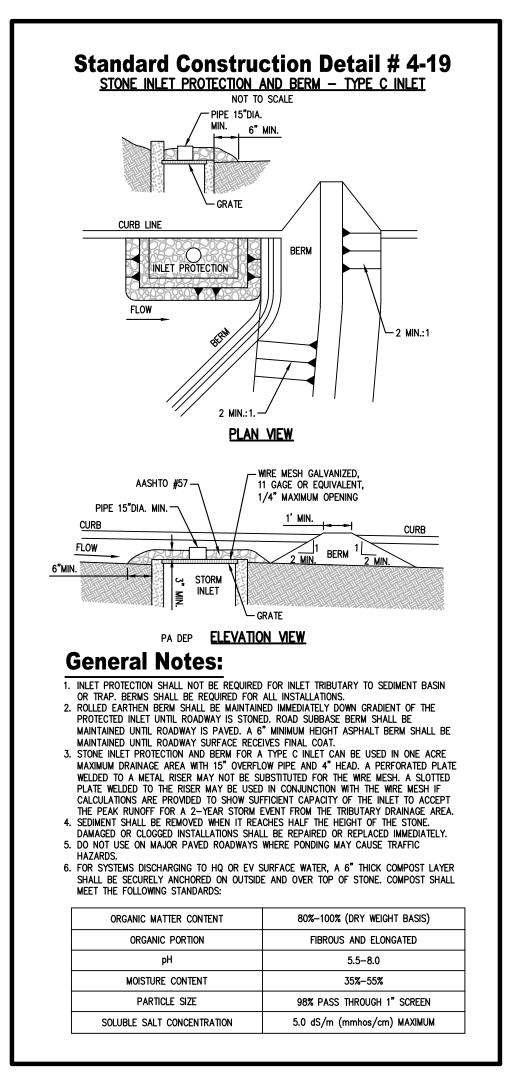
THREE(3) FEET SHALL BE BACKFILLED WITH 2RC CRUSHED AGGREGATE. 5. BACKFILL HOLE ABOVE EXISTING GRADE TO DIVERT SURFACE WATER.



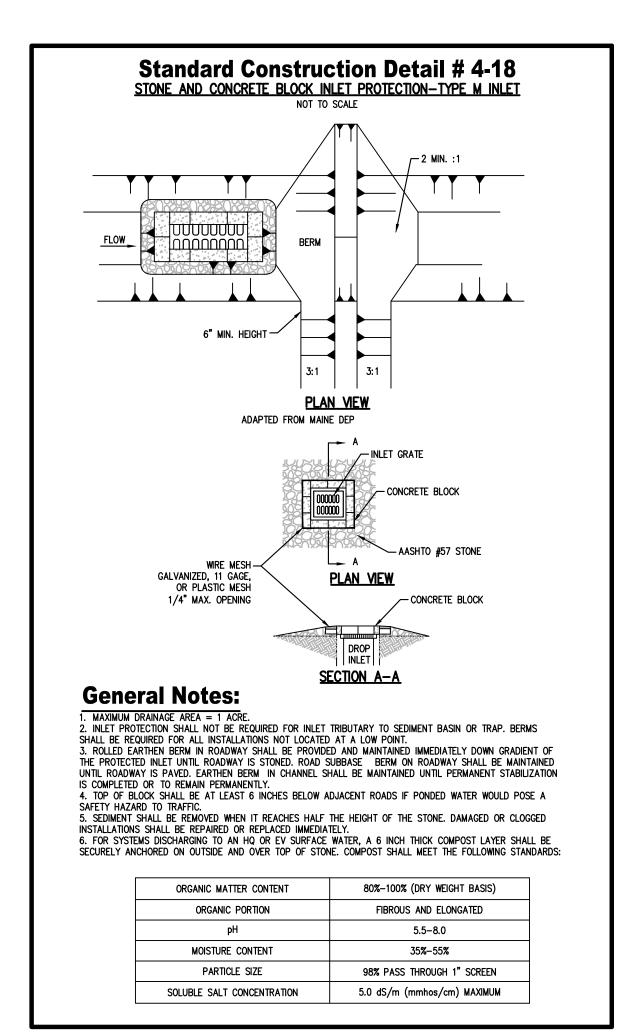






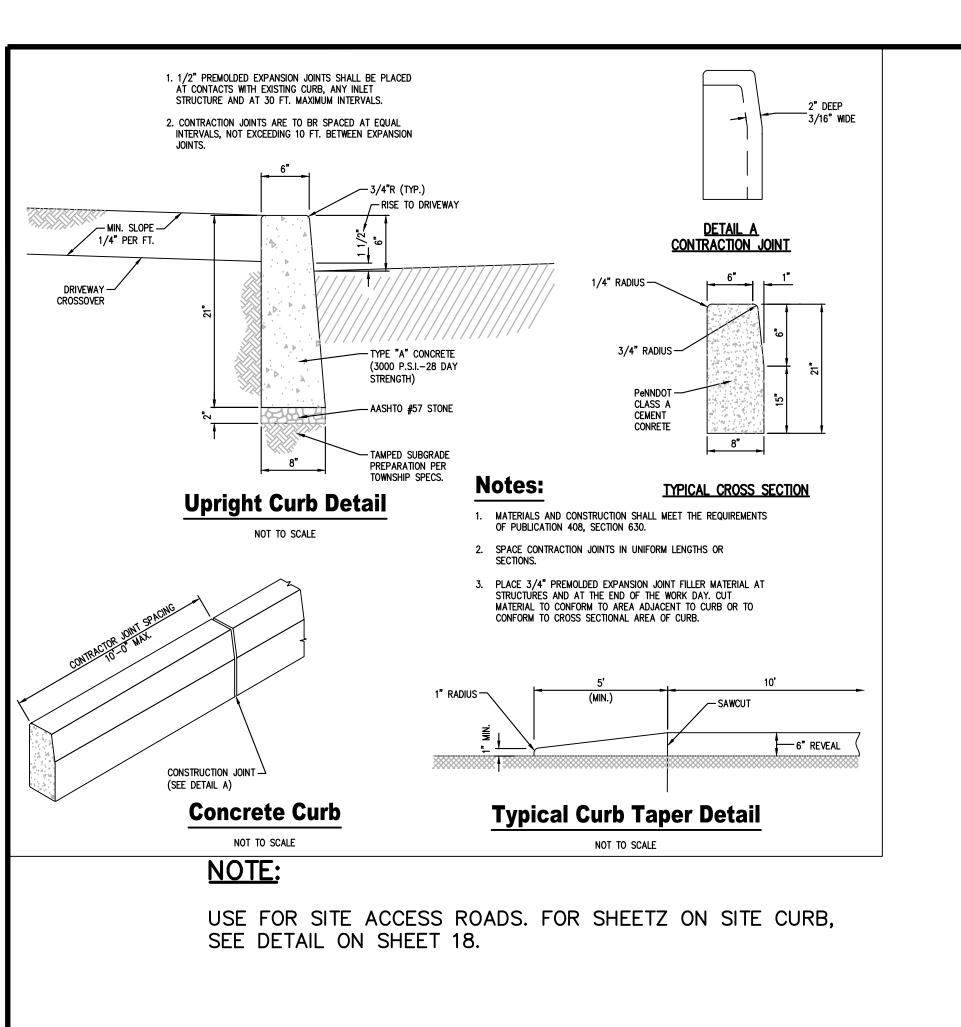


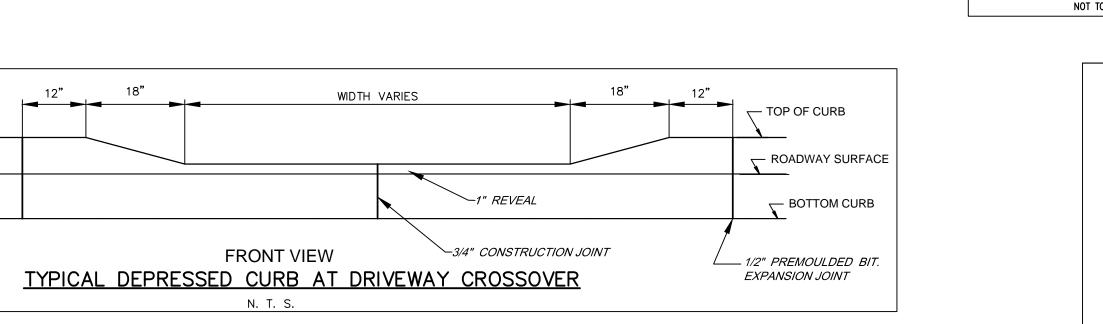


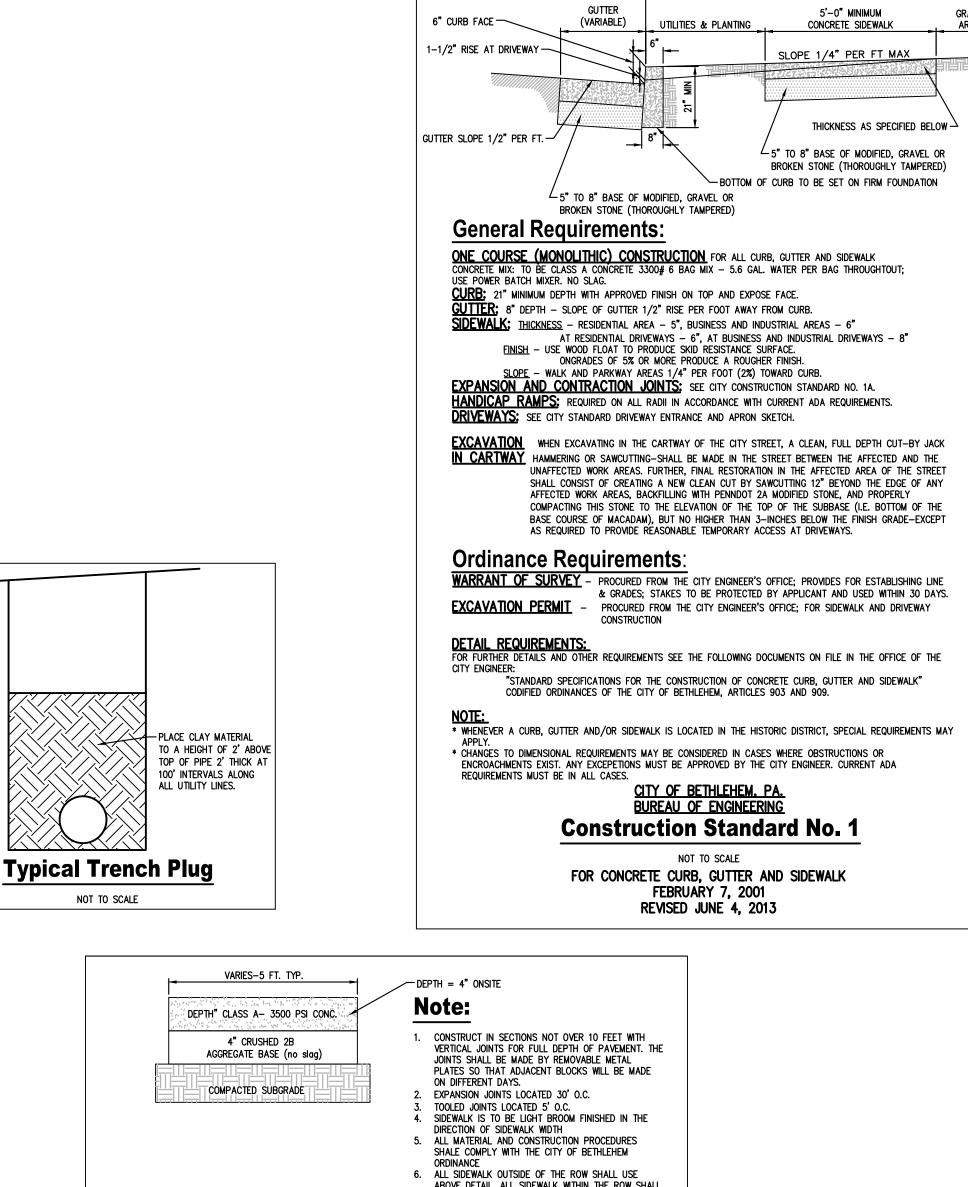


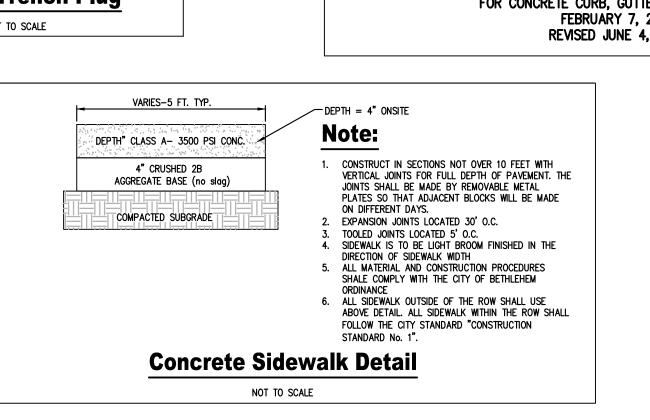
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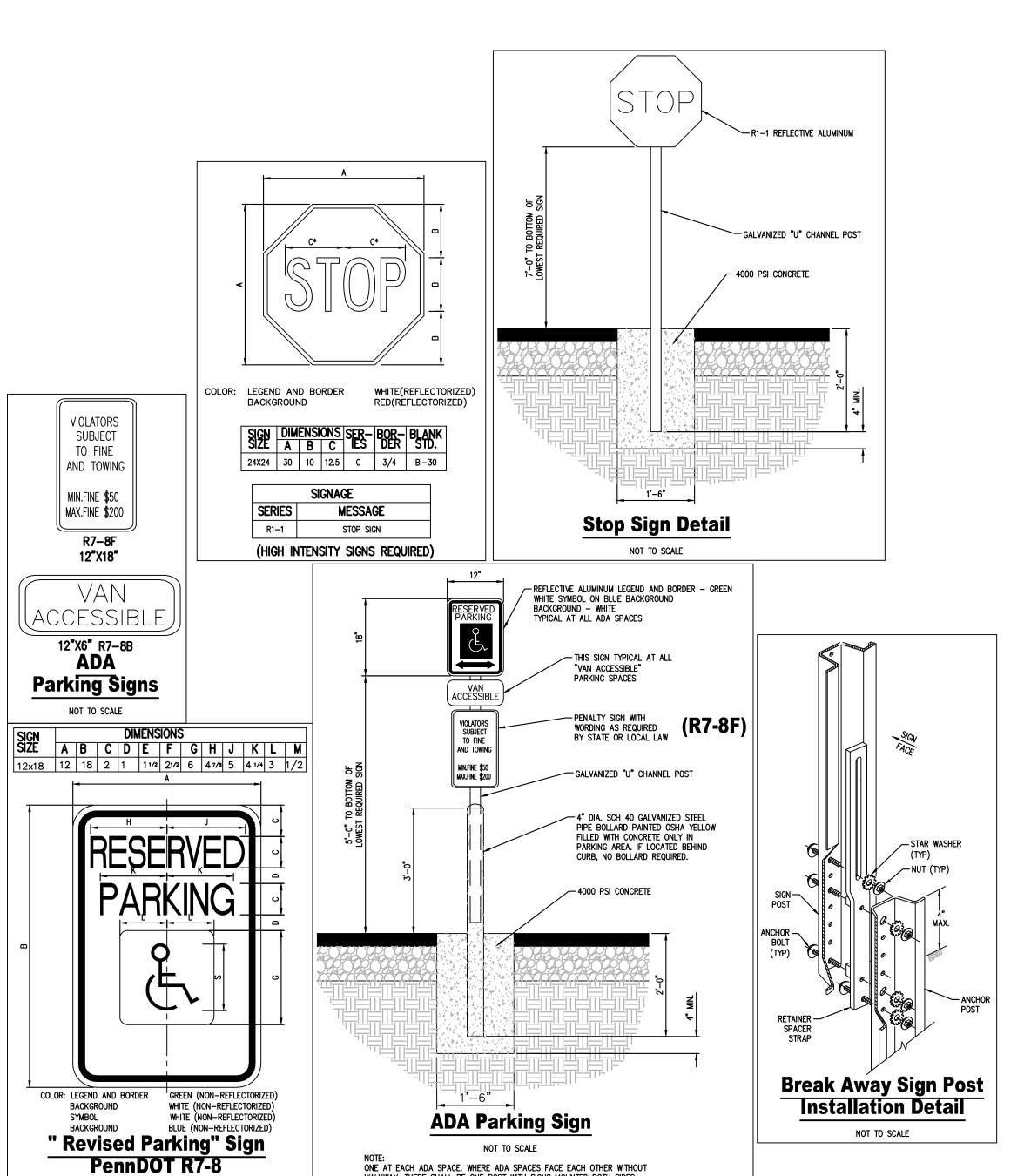






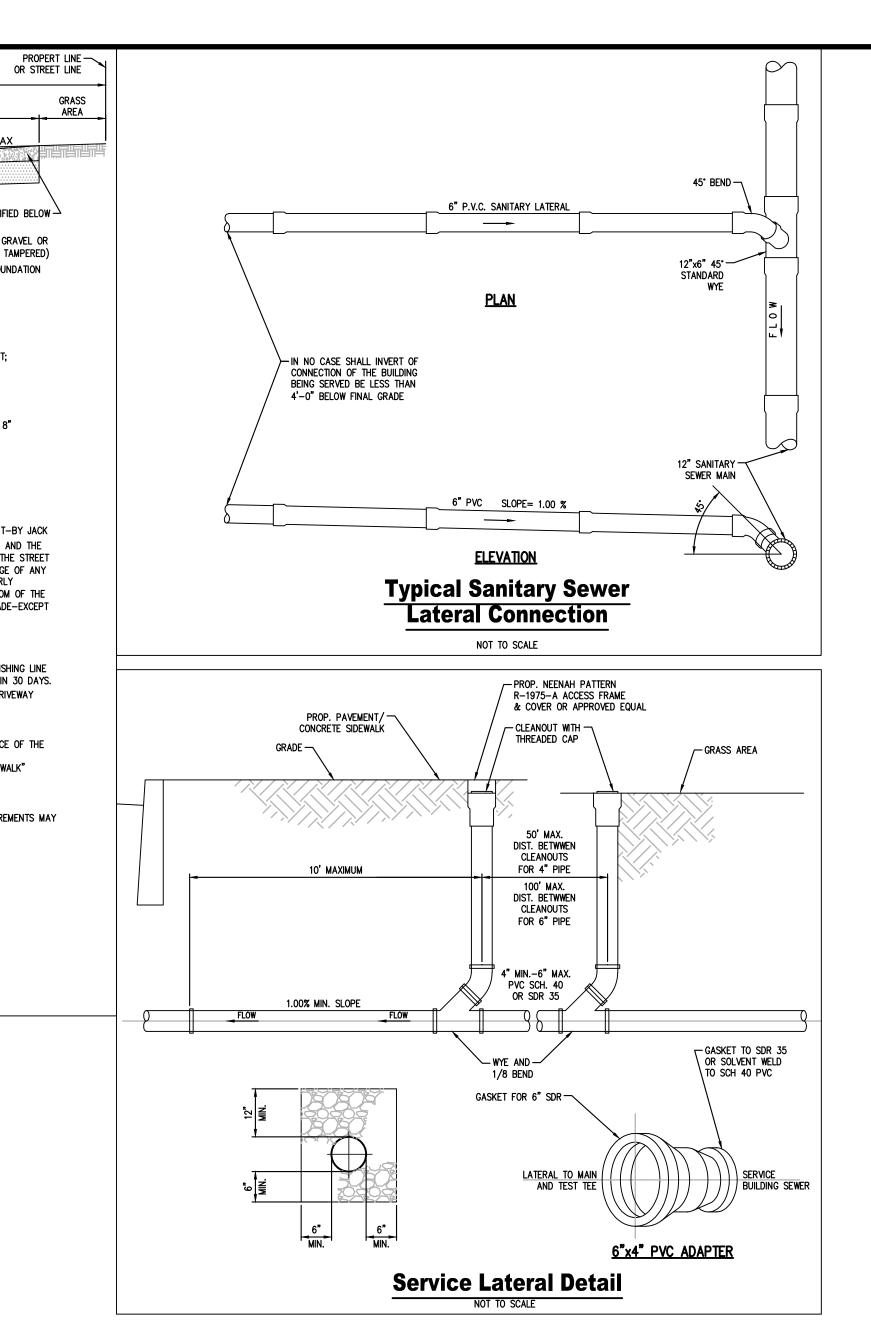


TO BE USED OUTSIDE OF THE "DEMISE" PREMISE LINE OF SHEETZ



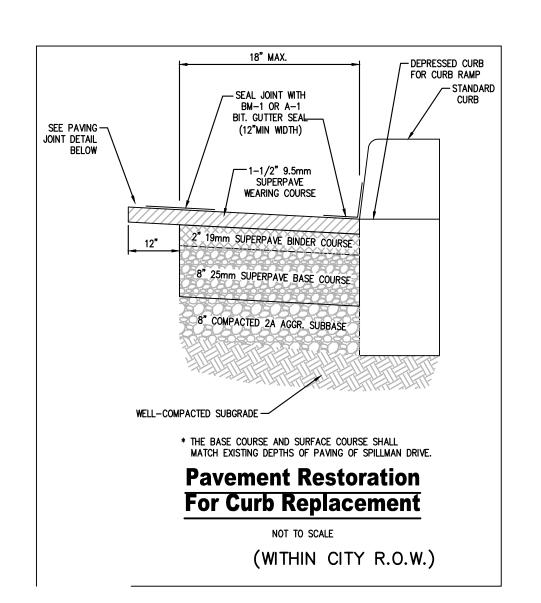
WALKWAY, THERE SHALL BE ONE POST WITH SIGNS MOUNTED BOTH SIDES.

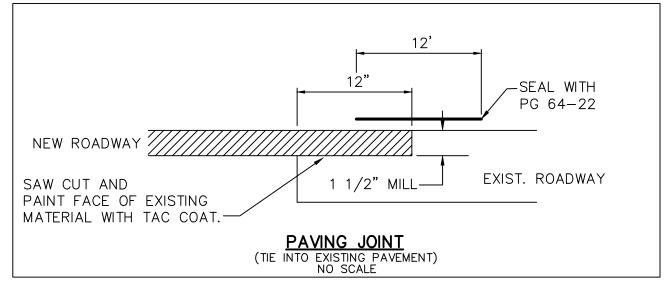
NOT TO SCALE

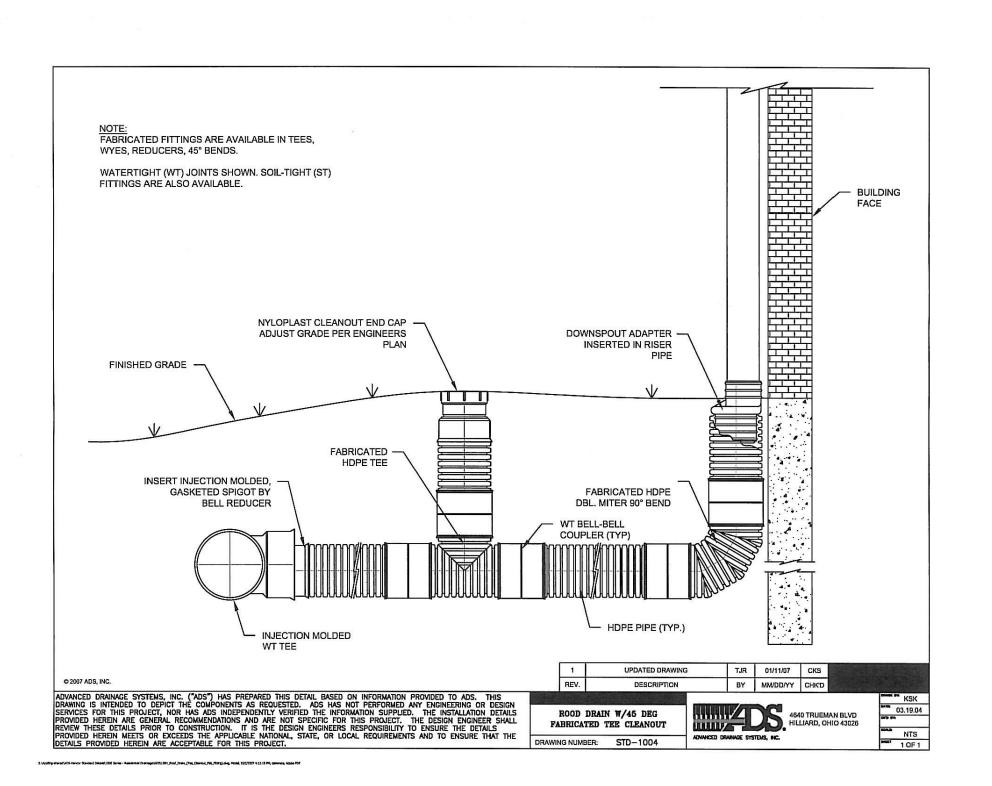


## **Dumpster Enclosure & Gate Details**

SEE SHEET 20 OF 21 FOR SHEETZ DETAIL



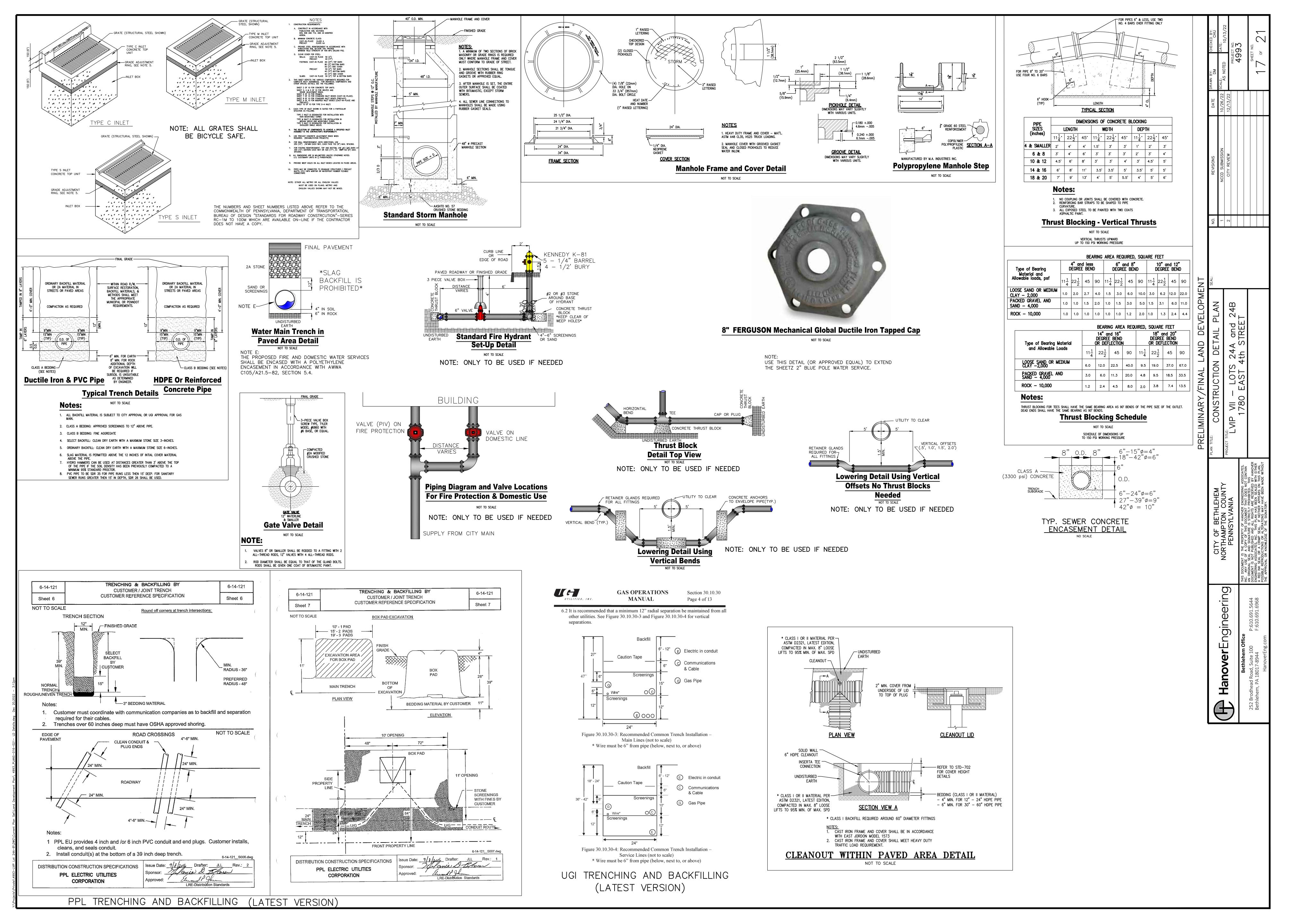


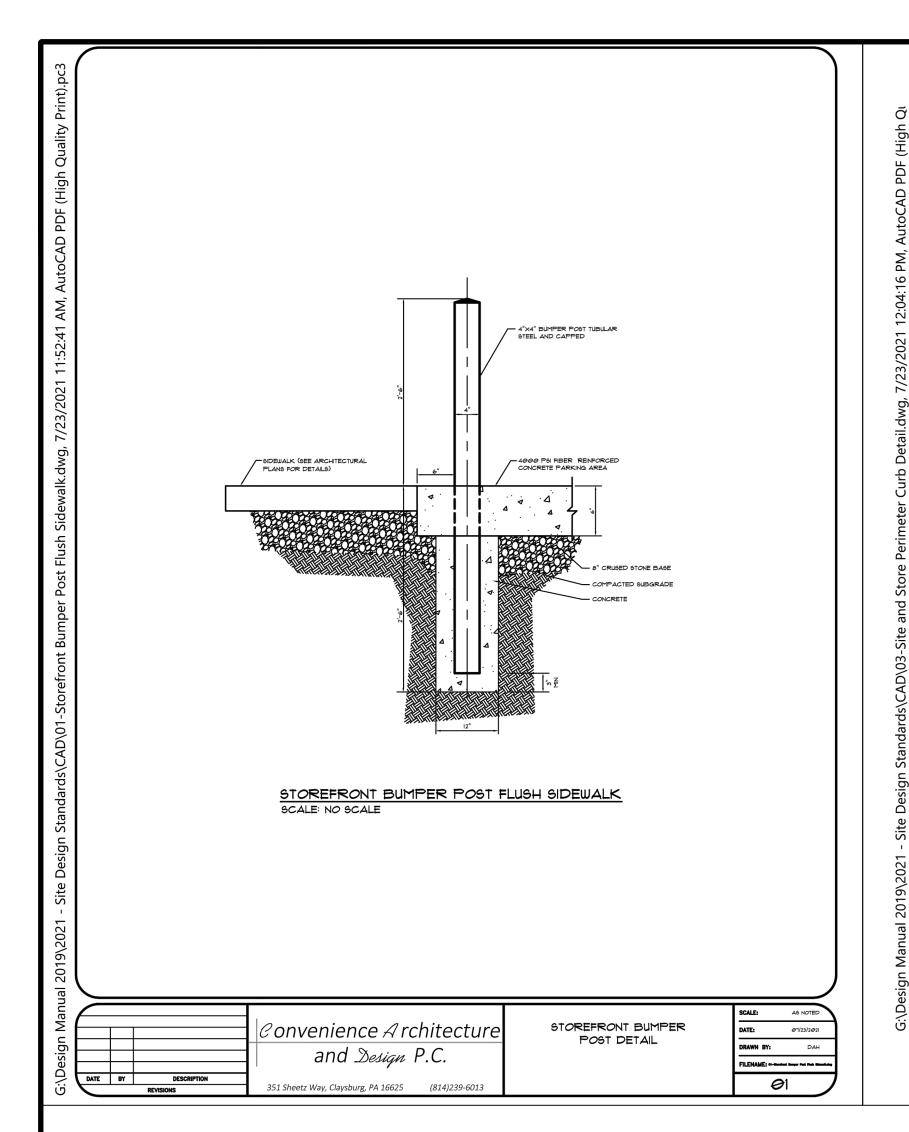


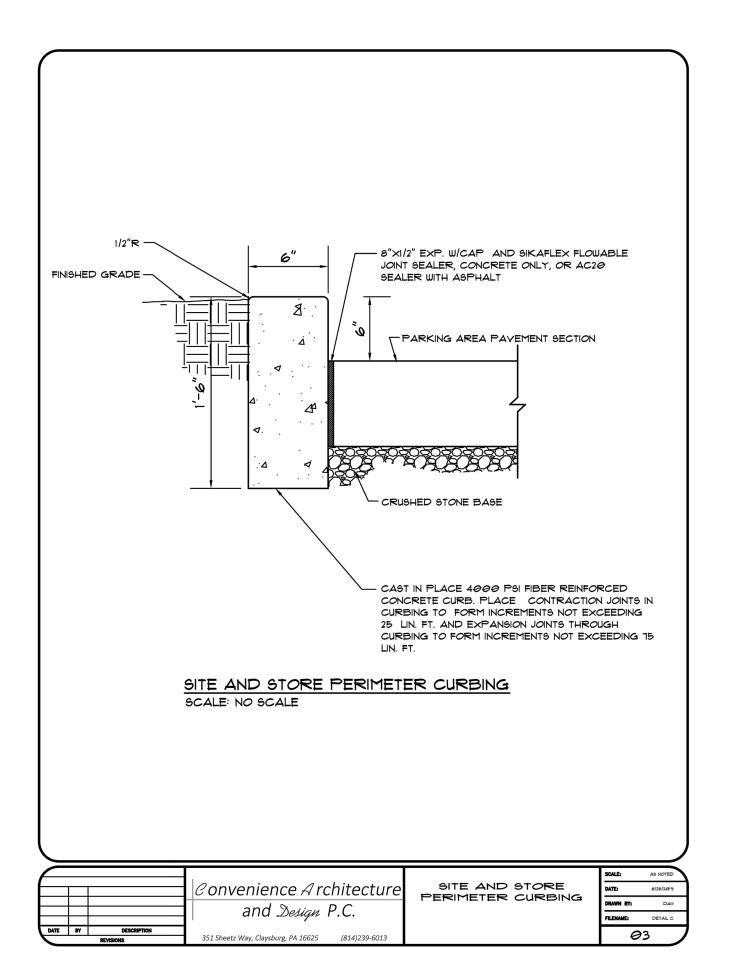
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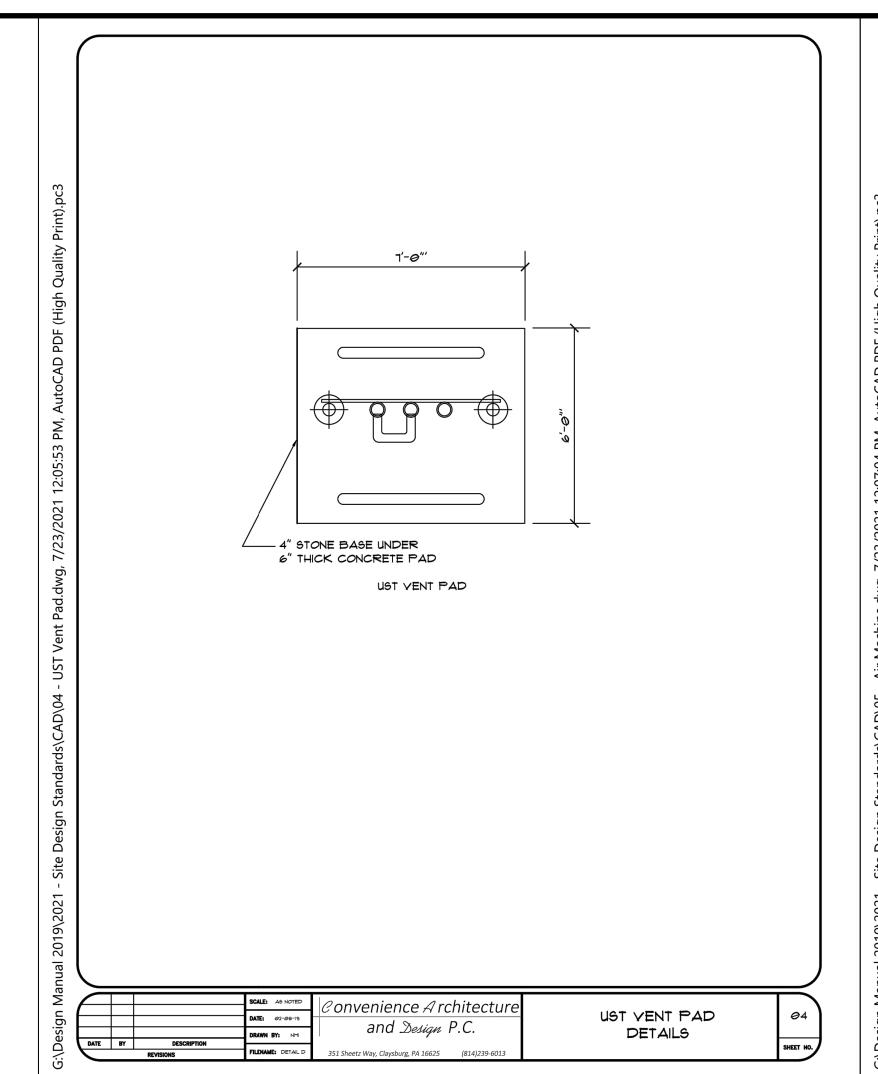
ALL MATERIAL AND FITTINGS SHALL BE APPROVED BY THE OWNER IN WRITING PRIOR TO ANY INSTALLATION.

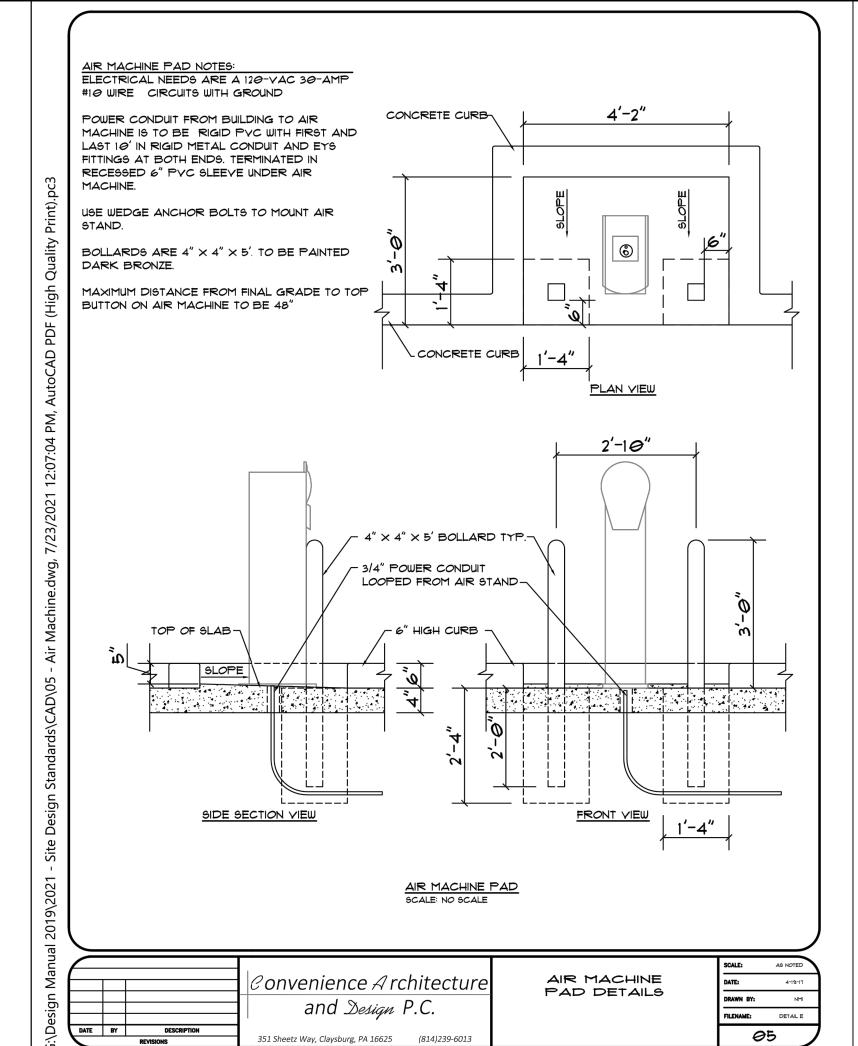
| NO. REVISIONS                        | 1 NCCD SUBMISSION | 2 CITY REVIEW  |          |                                                    |                                                                                                 |                                                                                                            |                                                                                                         |                                |
|--------------------------------------|-------------------|----------------|----------|----------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------|
| SEAL: NO                             |                   |                |          |                                                    |                                                                                                 |                                                                                                            |                                                                                                         |                                |
| PLAN TITLE: CONSTRUCTION DETAIL PLAN | <u>.</u>          | PROJECT TITLE: | LVIP VII | 1780 FAST 4th STRFFT                               |                                                                                                 |                                                                                                            |                                                                                                         |                                |
| CITY OF BETHI FHFM                   | Ω                 | DENINCY (ANIA  |          | IS THE PROPERTY OF HANOVER ENGINEERING ASSOCIATES, | OF A COPY OF THIS DOCUMENT THAT DOES NOT CONTAIN SAL AND SIGNATURE IS STRICTLY PROHIBITED. THIS | VOT PUBLISHED AND ALL RIGHTS ARE RESERVED BY HANOVER SSOCIATES, INC. THIS PLAN HAS BEEN SEALED WITH EITHER | LOR A CRIMP SEAL. IF NEITHER APPEARS ON THIS PLAN, COLICTIONS OR A TERATIONS MAY HAVE BEEN MADE WITHOUT | OR KNOWLEDGE OF THE SIGNATORY. |

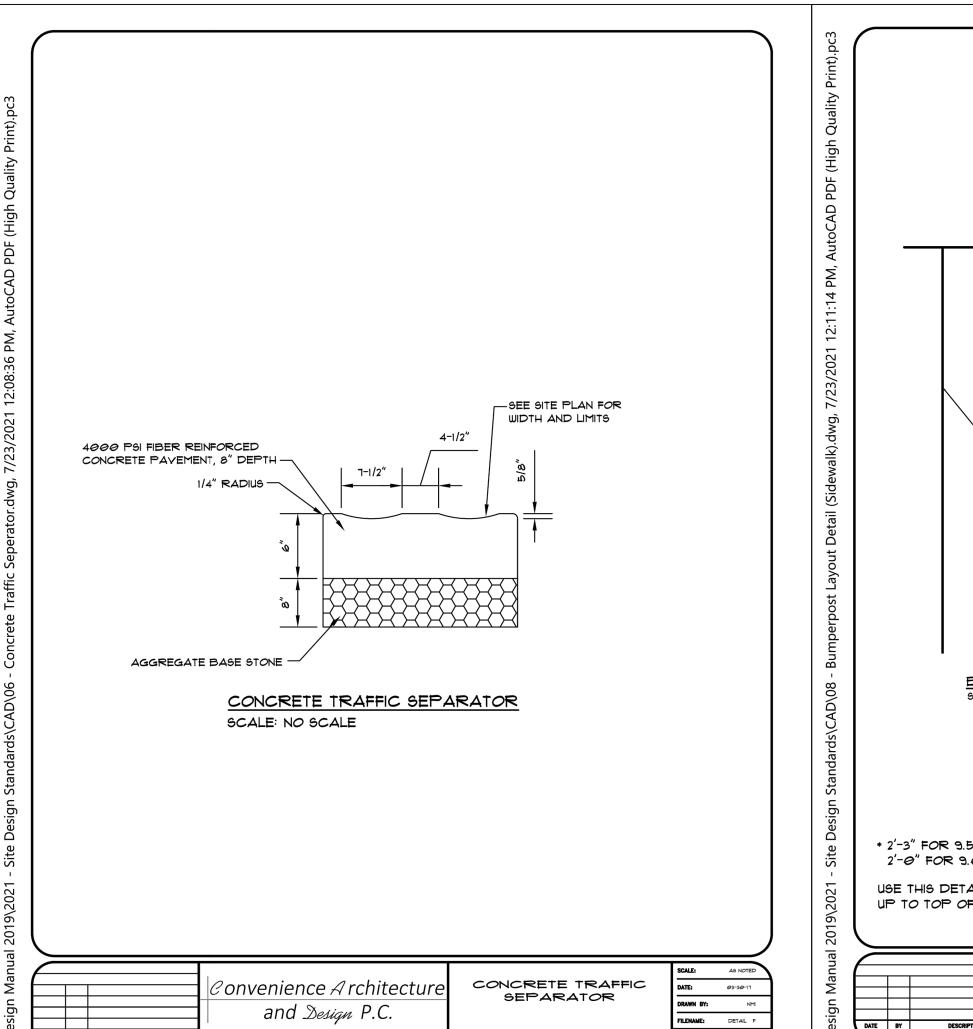




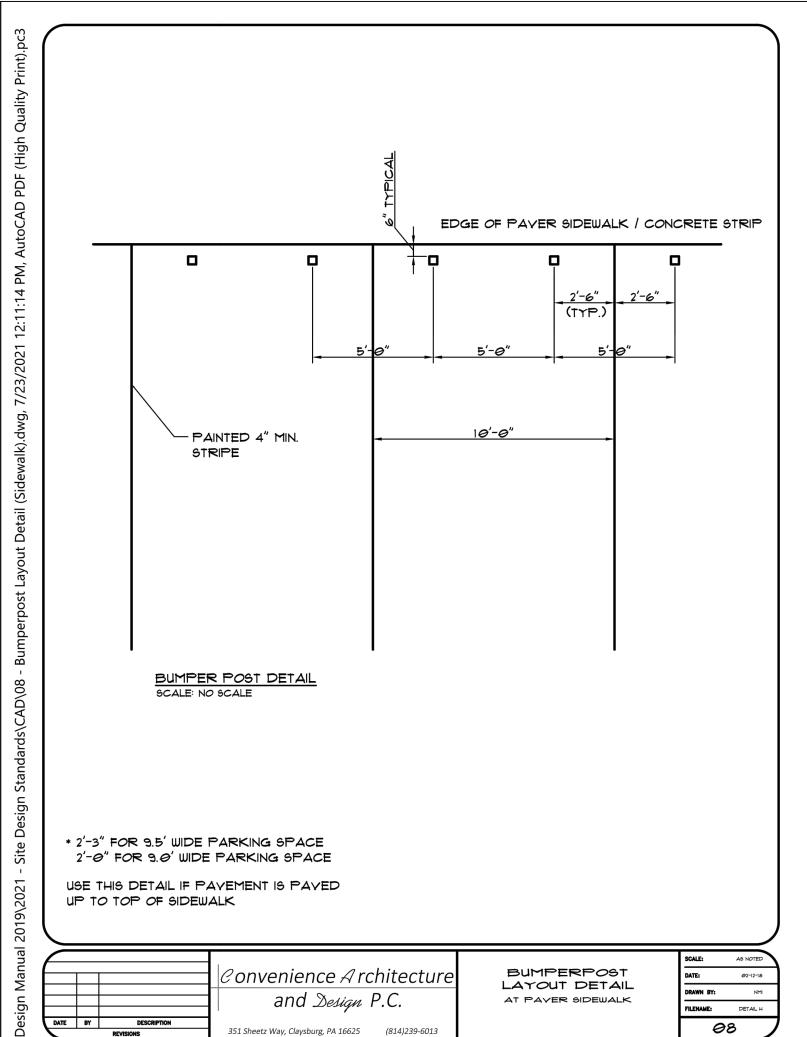




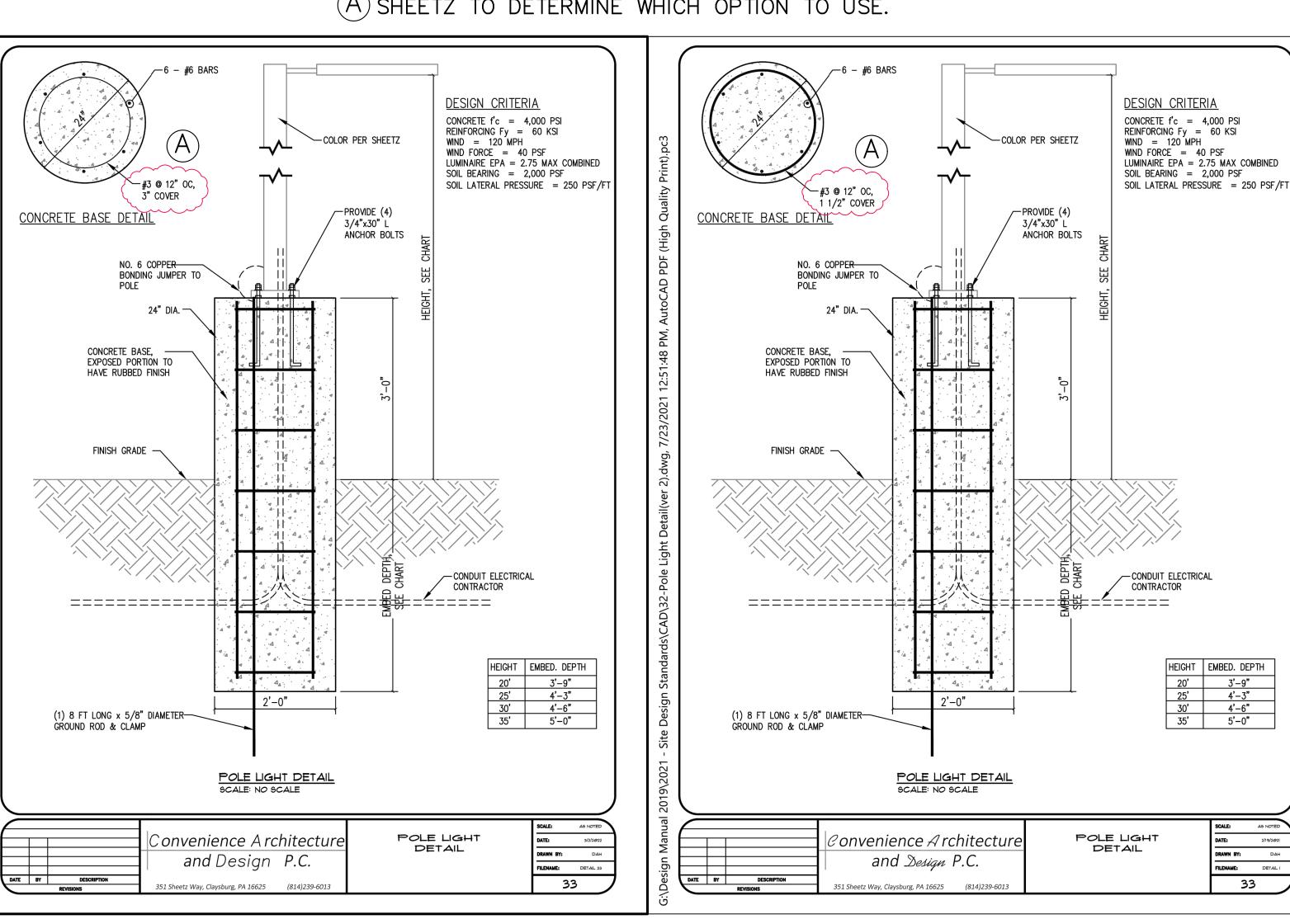




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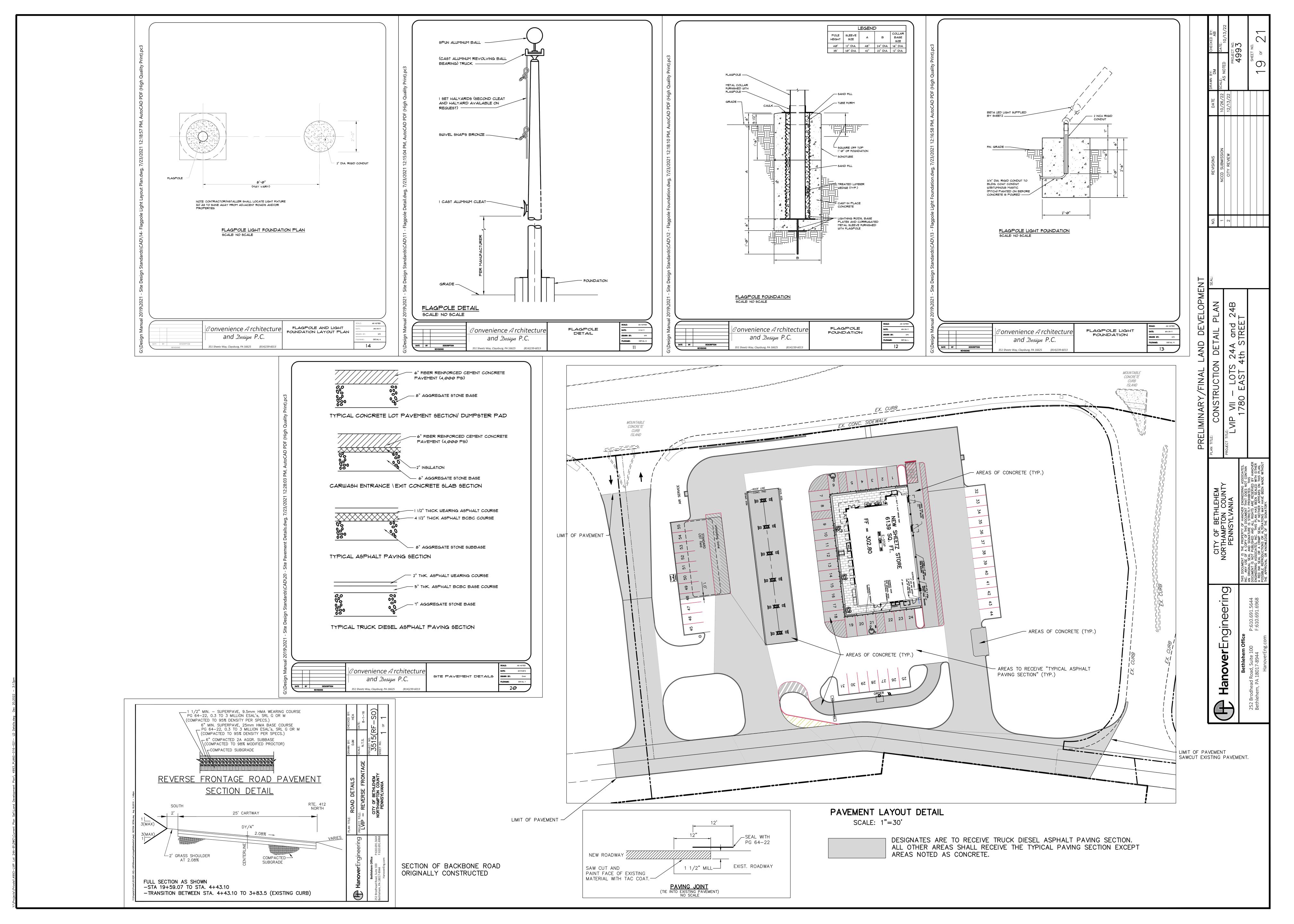
## A SHEETZ TO DETERMINE WHICH OPTION TO USE.

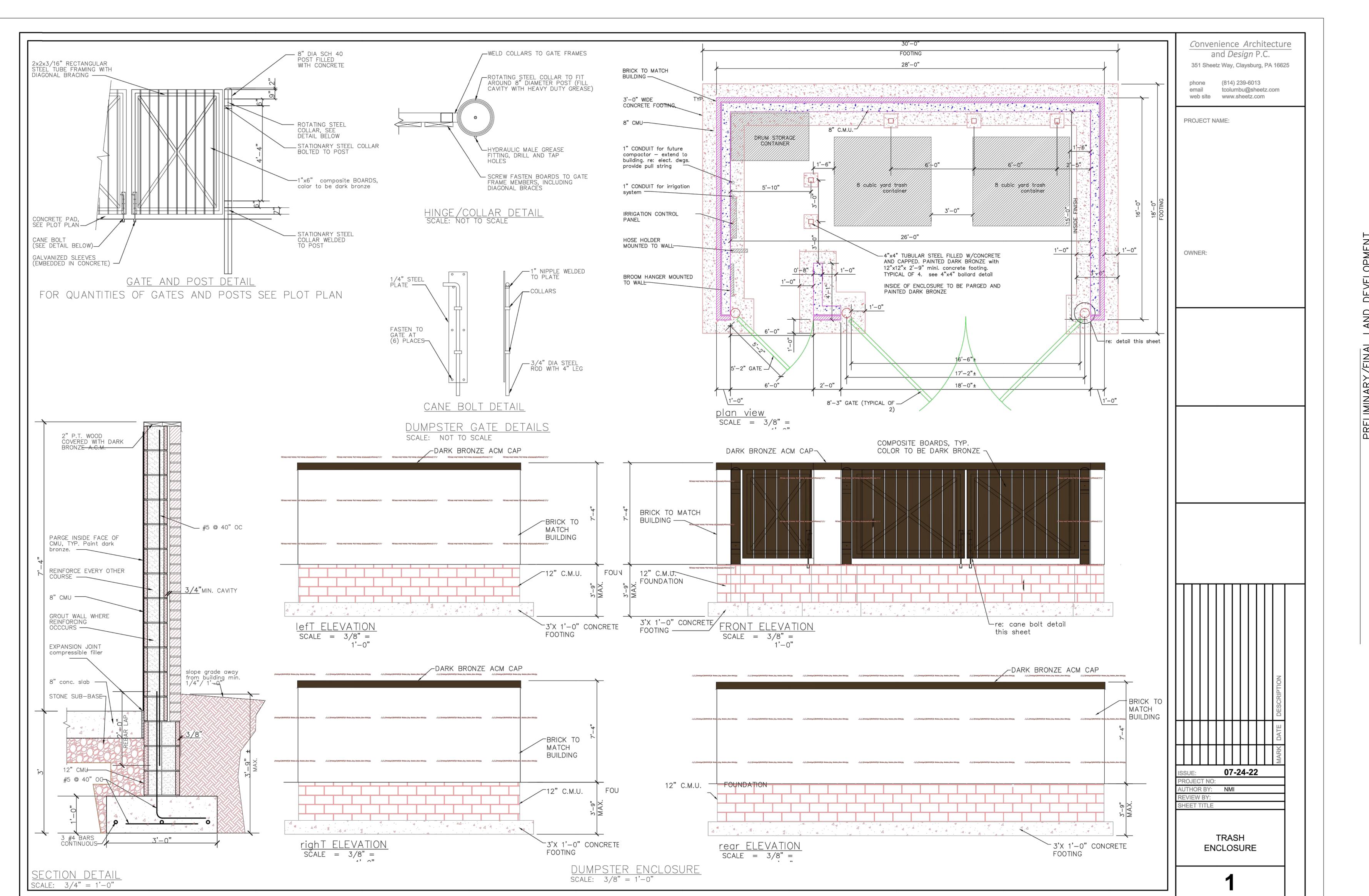


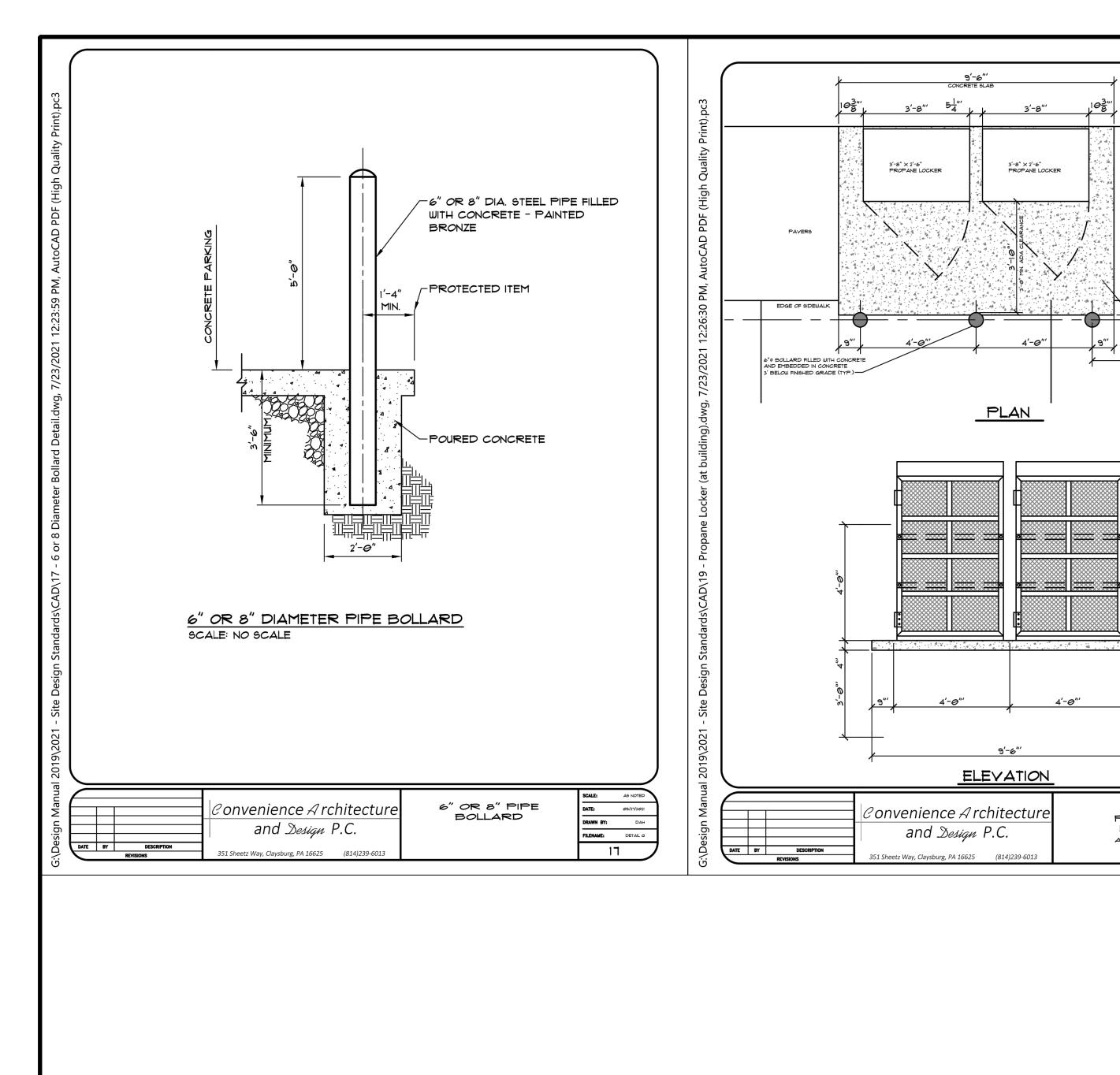
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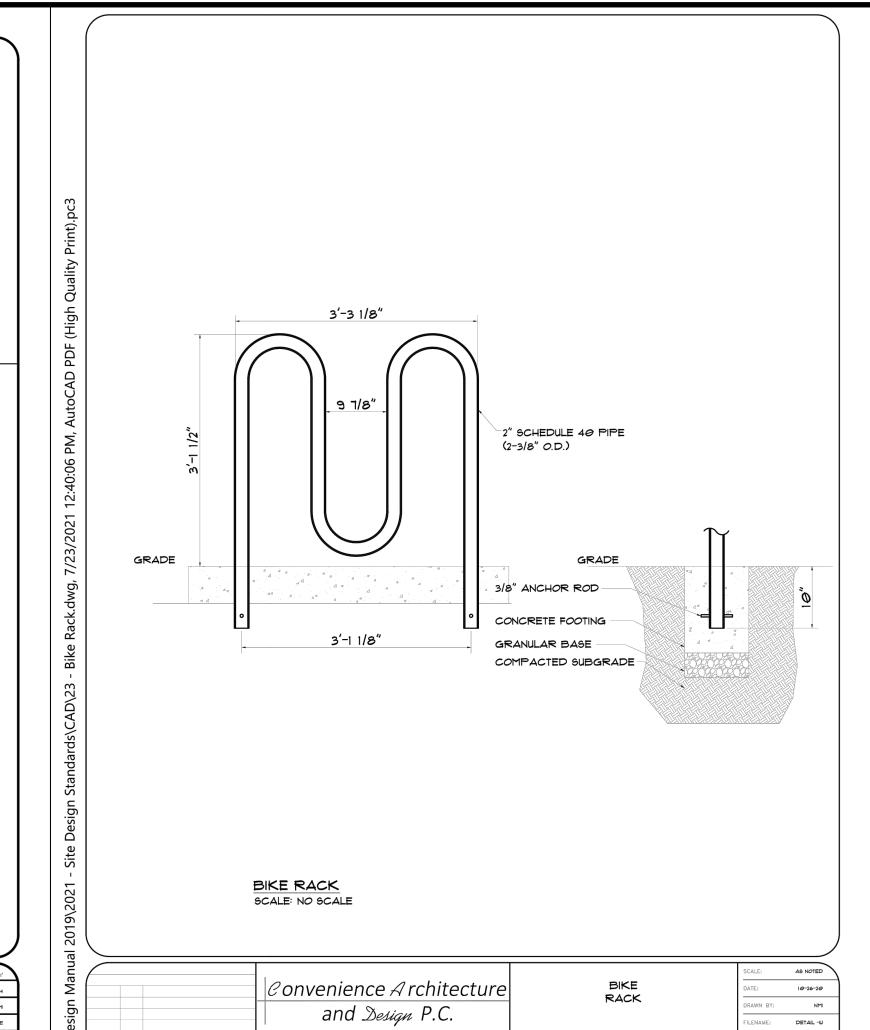
DATE BY DESCRIPTION
REVISIONS

FOR REFERENCE, MAY NOT BE NEEDED



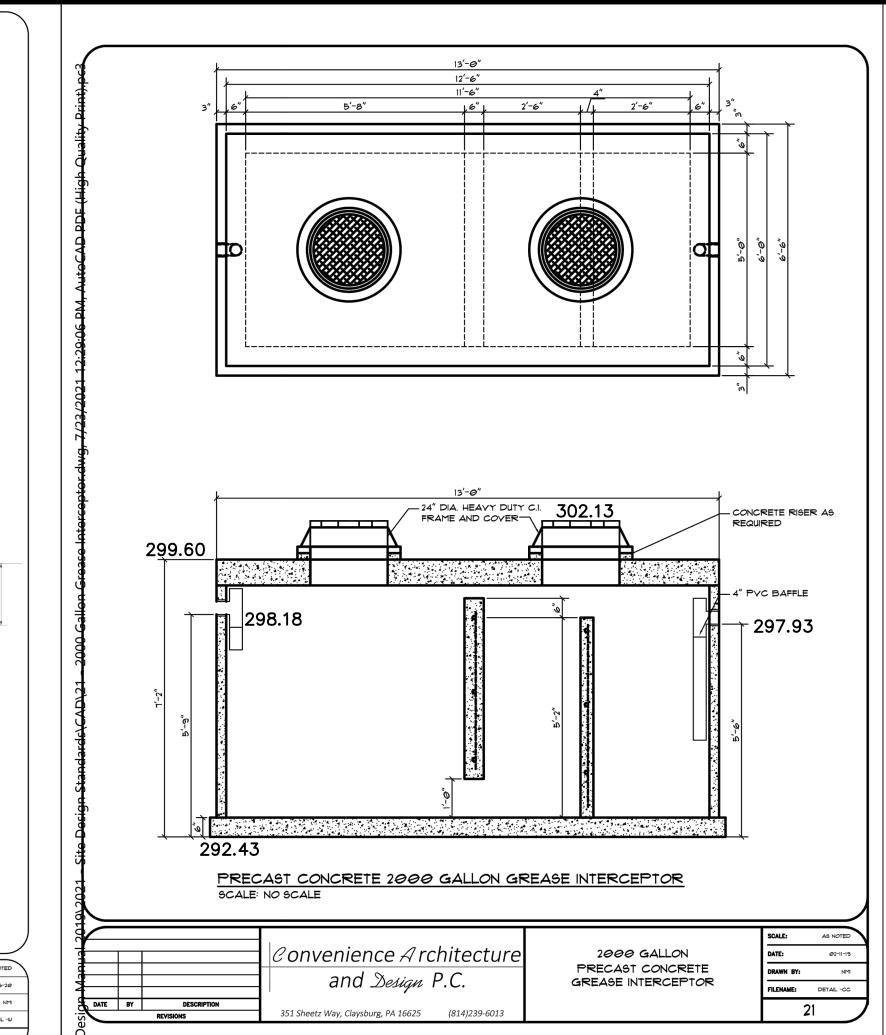


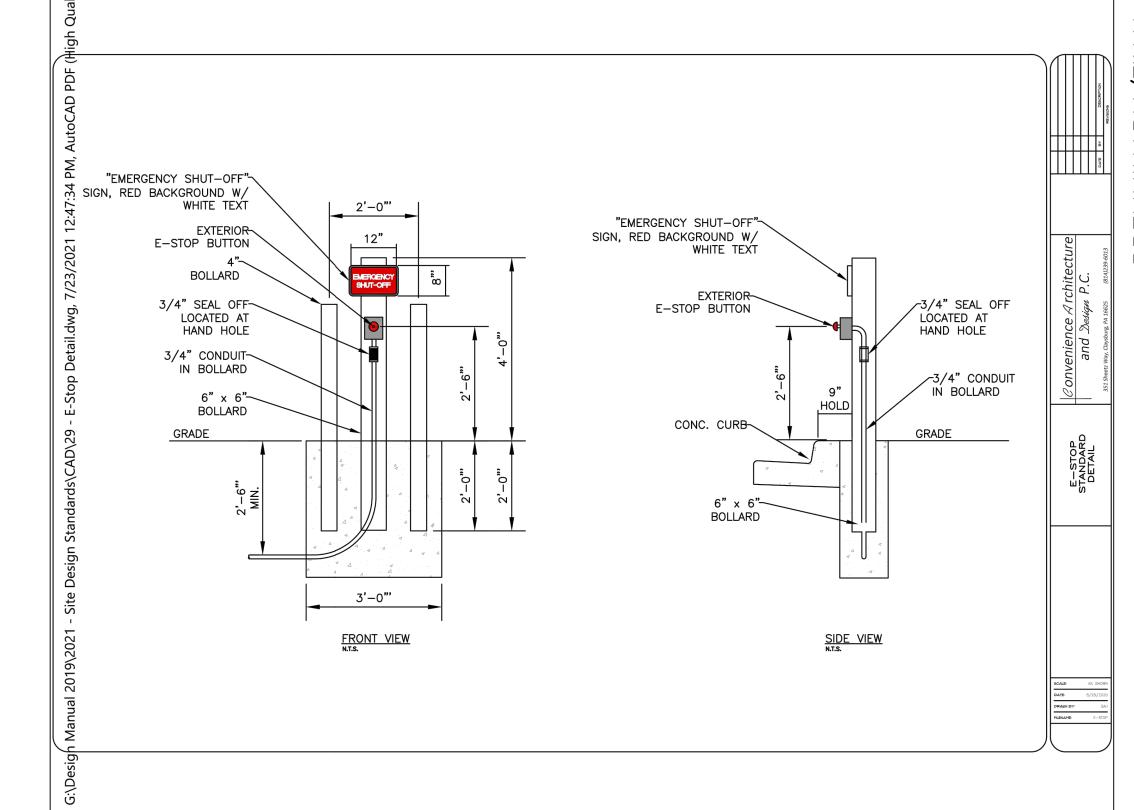


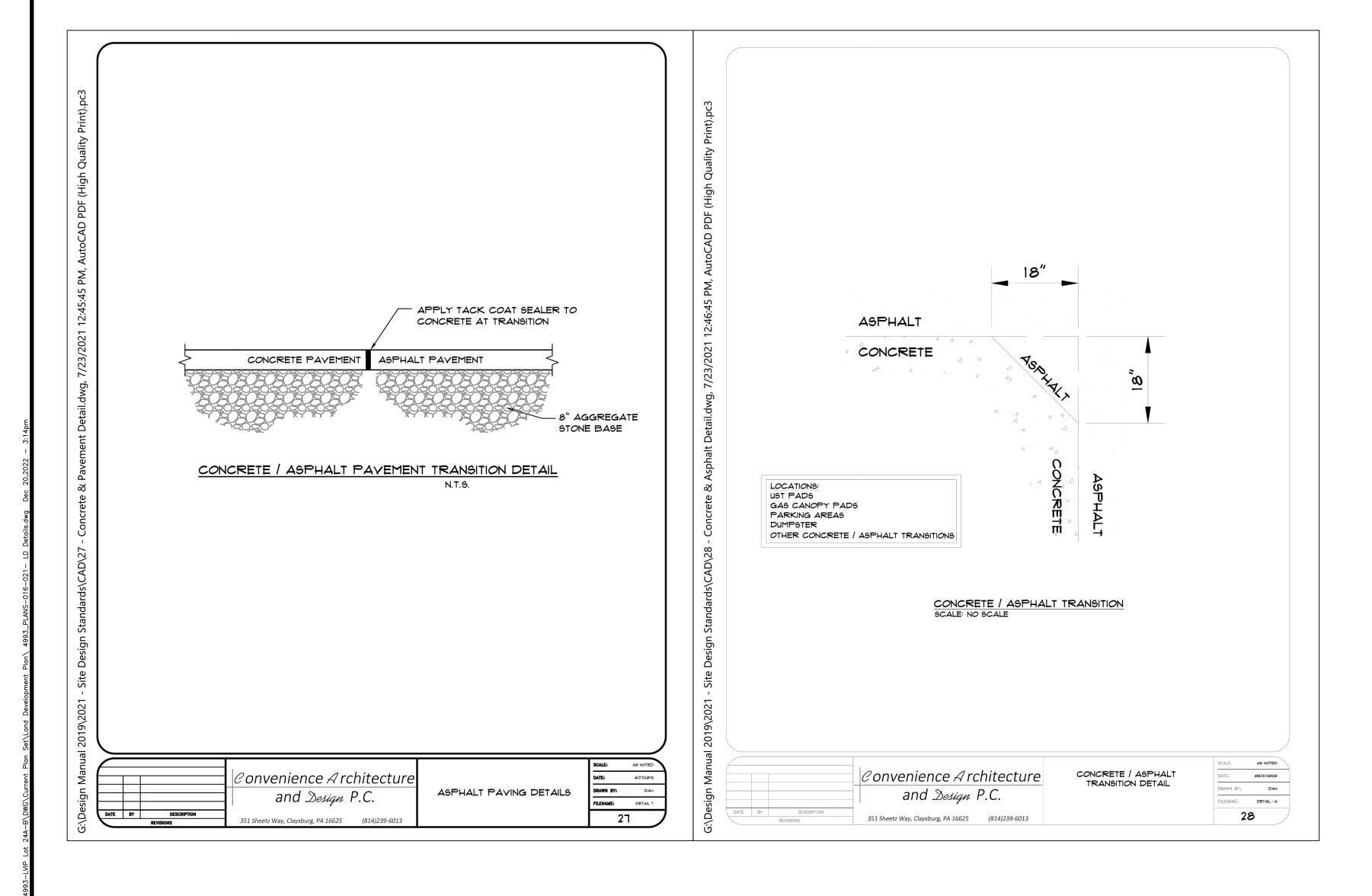


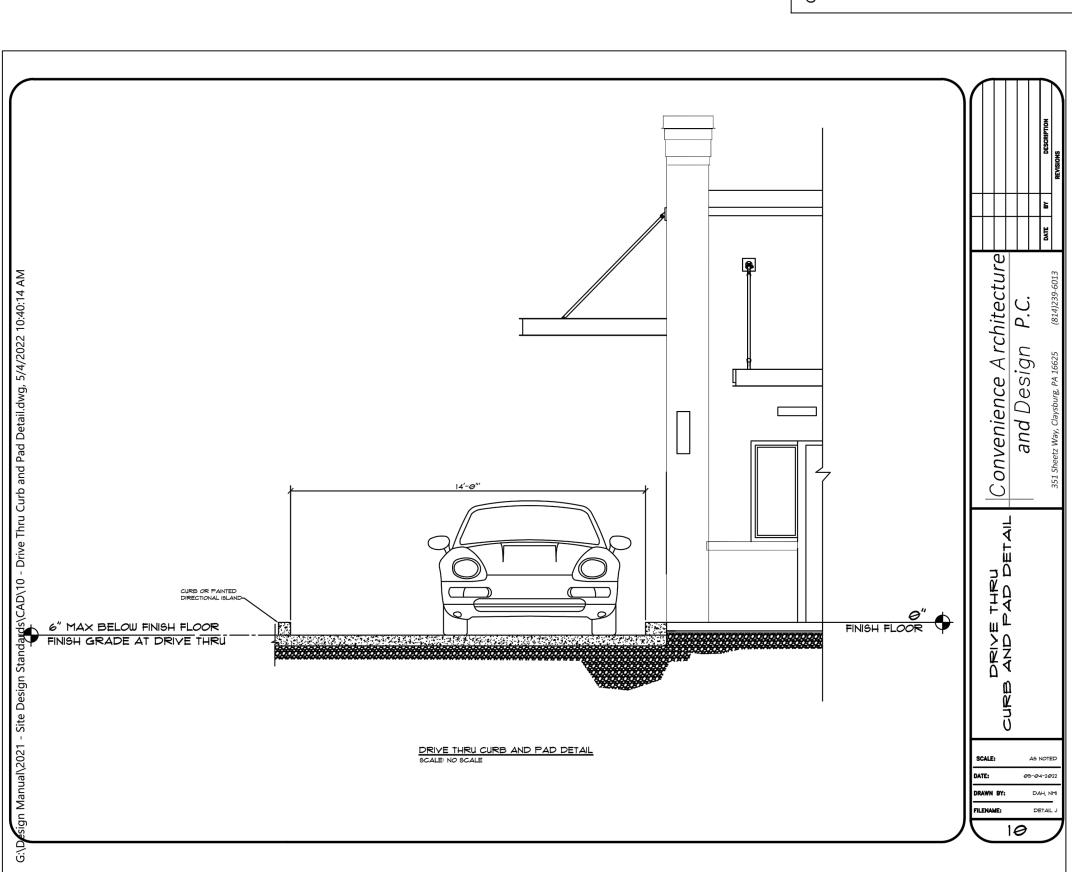
PROPANE Locker

AT BUILDING









|                                                                                        |                                                                                                                                                                                                                                                                  | PLAN TITLE: CONSTRUCTIO        |
|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
|                                                                                        | PENNSYLVANIA                                                                                                                                                                                                                                                     | PROJECT TITLE:  LVIP VII - LOT |
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