



LEGEND:

- FENCE
- PROPERTY SETBACK
- PROPERTY LINE
- EXIST. SPOT ELEV. X 68.73'
- EXIST. CONTOUR 60'
- PROP. SPOT ELEV. +69.65
- PROP. CONTOUR 317'
- B.C. BOTTOM OF CURB
- C.B. CATCH BASIN
- H.P. HIGH POINT
- T.W. TOP OF WALL
- B.W. BOTTOM OF WALL
- W.M. WATERBOUND MACADAM
- T.C. TOP OF CURB
- EX. EXISTING
- HH. HANDHOLE
- HW. HEADWALL
- MH. ELECTRICAL MANHOLE
- O.S. OUTLET STRUCTURE
- R.A. RIP-RAP APRON
- S.M. STORM MANHOLE
- B.M. BENCH MARK
- TEST PIT
- YARD STONE
- RIP RAP
- GRASS PAVERS
- CONCRETE MANHOLE APRON
- DRAINAGE FLOW DIRECTION

CALL BEFORE YOU DIG!
 NEW JERSEY LAW REQUIRES 3 BUSINESS DAYS FOR A MARK OUT. BEGIN DIGGING WITHIN 10 BUSINESS DAYS. TICKET EXPIRES IN 45 BUSINESS DAYS. NEW JERSEY ONE CALL
 1-800-272-1000

PLAN
 SCALE: 1" = 20'-0"

- NOTES:**
- FOR BASIN BOTTOM, PROVIDE 6" LAYER OF SAND (K5 SAND, 15% FINES, MIN. PERMEABILITY RATE 20"/HR). THE SAND MUST BE CERTIFIED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW JERSEY. SEE NOTE 33 ON DWG. 760761 FOR ADDITIONAL CONSTRUCTION REQUIREMENTS.
 - STORMWATER BASIN TEST PITS ARE AS PROVIDED BY MELICK-TULLY & ASSOCIATES, A DIVISION OF OZA DATED 3/31/2020-4/1/2020 FOR LAWSIDE SUBSTATION EXPANSION.
 - INTERCEPT AND CONNECT EXISTING SITE UNDERDRAIN LINES WITH NEW 8" SCH. 40 PVC PIPE HEADER AS SHOWN ON PROFILE ON DRAWING 760773. PROVIDE WATERTIGHT FITTINGS, AS NEEDED, TO TRANSITION EXISTING UNDERDRAIN LINES TO NEW PIPE HEADER. ROUTE 8" PIPE TO NEW 2" DIA. ADS PIPE SUMP/BALL VALVE. PROVIDE 8" SCH. 40 PVC OUTLET TO HEADWALL/RIP-RAP APRON AS SHOWN.
 - DOOR STOOPS ARE AT EL. 68.00' ADJACENT TO BUILDING AND SLOPE 1/4"/FT. AWAY FROM BUILDING.

REFERENCE DRAWINGS:

1. FENCE AND DRIVEWAYS PLAN	DWG. 760760
2. SITE DETAILS SHEET 1	DWG. 760761
3. SITE DETAILS SHEET 2	DWG. 760762
4. SITE DETAILS SHEET 3	DWG. 760763
5. DRAINAGE AND GRADING PLAN	DWG. 760764
6. DRAINAGE DETAILS SHEET 1	DWG. 760765
7. DRAINAGE DETAILS SHEET 2	DWG. 760766
8. DRAINAGE PIPE PROFILES SHEET 1 OF 2	DWG. 760773
9. DRAINAGE PIPE PROFILES SHEET 2 OF 2	DWG. 760774
10. REMOVAL PLAN	DWG. 760772
11. GIS/CONTROL BUILDING SOUTH AND WEST ELEVATIONS	DWG. 760767
12. GIS/CONTROL BUILDING NORTH AND EAST ELEVATIONS	DWG. 760768
13. 69KV GIS BUILDING GIS HALL FIRST FLOOR PLAN	DWG. 738075
14. 69KV GIS BUILDING CONTROL ROOM SECOND FLOOR PLAN	DWG. 740555
15. SOIL EROSION AND SEDIMENT CONTROL PLAN	DWG. 760769
16. SOIL EROSION AND SEDIMENT CONTROL NOTES	DWG. 760770
17. SOIL EROSION AND SEDIMENT CONTROL NOTES & DETAILS	DWG. 760771
18. KEY PLAN (ELECTRICAL)	DWG. 740554
19. ULTIMATE LIGHTING DISTRIBUTION PLAN	DWG. 268720
20. LED LIGHTING DESIGN, FIXTURE SCHEDULES & DETAILS	DWG. 760806

LIST OF DRAWINGS FOR DRAINAGE SYSTEM DETAILS

COMPONENT	DRAWING NUMBER
HEADWALLS	760765
RIP-RAP APRONS	760765
STORM MANHOLE	760765
UNDERDRAINS	760765
PIPE BEDDING	760766
OUTLET STRUCTURE	760766
RIP-RAP SPILLWAY	760766

NOTE:
 A. FOR A LIST OF DRAWINGS FOR SITE DETAILS SEE FENCE, DRIVEWAYS AND GRADING PLAN DWG. 760760.

EXCAVATION NOTES:

- THE PRESENCE OF HANDS (E.G., ELECTRICAL DUCT BANKS, GAS LINES, ETC.) MAY ONLY BE SHOWN ON OTHER DISCIPLINE DRAWINGS.
- CONTRACTOR MUST COMPLY WITH THE TRENCHING AND EXCAVATION REQUIREMENTS OF OSHA 29 CFR 1926.650-652. EXCAVATIONS GREATER THAN 5 FEET IN DEPTH SHALL HAVE THEIR SIDES SLOPED PER OSHA REQUIREMENTS.

NOT FOR CONSTRUCTION

Sargent & Lundy
 ANY MODIFICATION OR ADDITION TO THIS DRAWING BY ANY ORGANIZATION OTHER THAN SARGENT & LUNDY IS NOT THE RESPONSIBILITY OF SARGENT & LUNDY
 PROJ. No. 13739-103



SYSTEM CODE: Z140
 AREA ELEV.: 642Z
GENERAL NOTES
 USE PRINTS OF LATEST REVISION ONLY. DO NOT SCALE - USE DIMENSIONS ONLY. FOR LIST OF REFERENCE DRAWINGS SEE DRAWING NO THIS SHEET.
 THIS DRAWING SUPERSEDES NONE.
 THIS DRAWING IS SHEET NO 1 OF 1 SHEETS.

EUGENE R. PORZIO
 N.J. PROFESSIONAL ENGINEER
 L.I.C. NO. 34431
 C.O.A. 24GA2791100

STORM DRAIN (SD) SCHEDULE

PIPE	SIZE	TYPE	INV. UPSTREAM	INV. DOWNSTREAM	LENGTH (FT)	SLOPE (FT/FT)	NOTES
SD-1	6" DIA.	SCH. 40 PERF. PVC	65.00'	62.88'	106.0'	0.0200	PIPE CAP AT UPSTREAM END
SD-2	15" DIA.	CLASS III R.C.P.	58.32'	57.86'	46.0'	0.0100	
SD-3	15" DIA.	CLASS III R.C.P.	57.76'	56.78'	98.0'	0.0100	
SD-4	15" DIA.	CLASS III R.C.P.	56.68'	55.00'	21.0'	0.0800	HEADWALL AT OUTLET
SD-5	6" DIA.	SCH. 40 PERF. PVC	67.50'	63.26'	213.5'	0.0199	PIPE CAP AT UPSTREAM END
SD-6	8" DIA.	SCH. 40 PERF. PVC	65.63'	64.07'	78.0'	0.0200	PIPE CAP AT UPSTREAM END
SD-7	15" DIA.	CLASS III R.C.P.	62.49'	62.20'	28.5'	0.0102	
SD-8	15" DIA.	CLASS III R.C.P.	62.10'	60.97'	112.8'	0.0100	
SD-9	15" DIA.	CLASS III R.C.P.	60.87'	60.09'	79.0'	0.0100	
SD-10	15" DIA.	CLASS III R.C.P.	59.99'	59.65'	34.3'	0.0100	
SD-11	15" DIA.	CLASS III R.C.P.	58.00'	55.00'	54.2'	0.0554	HEADWALL AT OUTLET
SD-12	15" DIA.	CLASS III R.C.P.	53.72'	53.50'	13.5'	0.0012	OUTLET STRUCTURE AT INLET; HEADWALL AT OUTLET
SD-13	6" DIA.	SCH. 40 PERF. PVC	66.00'	63.56'	122.0'	0.0200	PIPE CAP AT UPSTREAM END
SD-14	15" DIA.	CLASS III R.C.P.	61.29'	60.97'	29.8'	0.0107	
SD-15	8" DIA.	SCH. 40 PVC					SEE DWG. 760773

STORM STRUCTURE SCHEDULE

NO.	RIM ELEV.	INV. IN	INV. OUT	DEPTH '0"	STATION NORTHING	COORDINATES EASTING
SM-1	68.19'	62.88'	58.32'	10.16'	N0+25.00'	W1+62.25'
SM-2	68.60'	57.86'	57.76'	11.13'	N0+57.92'	W1+30.70'
SM-3	68.44'	56.78'	56.68'	11.96'	N0+57.92'	W0+30.33'
SM-4	66.90'	63.26'	62.49'	4.70'	S1+43.92'	E1+63.50'
SM-5	66.80'	62.20'	62.10'	4.99'	S1+11.42'	E1+63.50'
SM-6	66.80'	60.97'	60.87'	6.22'	N0+05.42'	E1+63.50'
SM-7	67.83'	60.09'	59.99'	8.13'	N0+21.58'	E0+85.50'
SM-8	68.25'	59.65'	58.00'	10.54'	N0+21.58'	E0+43.25'
SM-9	66.80'	-	61.29'	5.80'	N0+39.17'	E1+63.50'
HW-1	-	-	55.00'	-	N0+81.42'	W0+21.75'
HW-2	-	-	55.00'	-	N0+81.75'	E0+43.25'
HW-3	-	-	53.50'	-	N1+22.50'	E0+53.58'
HW-4	-	-	53.50'	-	N0+89.38'	W1+31.29'
O.S.-1	-	-	55.00'	-	N1+08.00'	E0+53.58'

NOTE: COORDINATES TO STORM MANHOLES AND OUTLET STRUCTURE ARE CENTERLINE OF STRUCTURE. COORDINATES TO HEADWALLS ARE TO BACK BOTTOM CENTER OF THE HEADWALL.

NOTE: CONCRETE STORM PIPE TO HAVE EITHER RUBBER GASKET OR BUTYL TAPE JOINTS AND BE WRAPPED WITH MORTAR AND FABRIC ON THE OUTSIDE.

CONSTRUCTION NOTES:

1. ALL WORK DONE BY CONTRACTOR/INSTALLER PURSUANT TO THIS DRAWING SHALL: (A) CONFORM TO THE GOVERNING CONTRACT DOCUMENTS; (B) BE PERFORMED EXCLUSIVELY BY ITS TRAINED, COMPETENT PERSONNEL OR, WHERE PERMITTED, THAT OF ITS SUBCONTRACTOR(S); AND (C) COMPLY WITH ALL APPLICABLE SAFETY LAWS, REGULATIONS, PROGRAMS AND PRACTICES TO ENSURE THE SAFETY OF ALL PEOPLE LOCATED ON THE WORK SITE, INCLUDING THE CONTRACTOR'S/INSTALLER'S PERSONNEL (OR THAT OF ITS SUBCONTRACTOR(S)) PERFORMING THE WORK.
 2. CONTRACTOR/INSTALLER SHALL TAKE ALL APPROPRIATE PRECAUTIONS TO ENSURE THE SAFETY OF ALL PEOPLE LOCATED ON THE WORK SITE, INCLUDING CONTRACTOR'S/INSTALLER'S PERSONNEL (OR THAT OF ITS SUBCONTRACTOR(S)) PERFORMING THE WORK.

NO	DATE	DESCRIPTION	DWN	CHKD	EXD	APD

REVISION
LAWNSIDE SUBSTATION
69/13KV SUBSTATION
DRAINAGE AND GRADING PLAN

PLAN CIVIL/ENVR

PSEG
 PUBLIC SERVICE ELECTRIC AND GAS COMPANY
 ELECTRIC DELIVERY COMPANY - ASSET RELIABILITY, NEWARK N.J.

DRAWN BY: I. INTJL... CHECKED BY: E. PORZIO... SCALE: 1"=20'-0"
 DATE: 02/24/20... EXAMINED BY: ...
 WBS/SD 5-920921-0101-1... APPROVED BY: ...

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