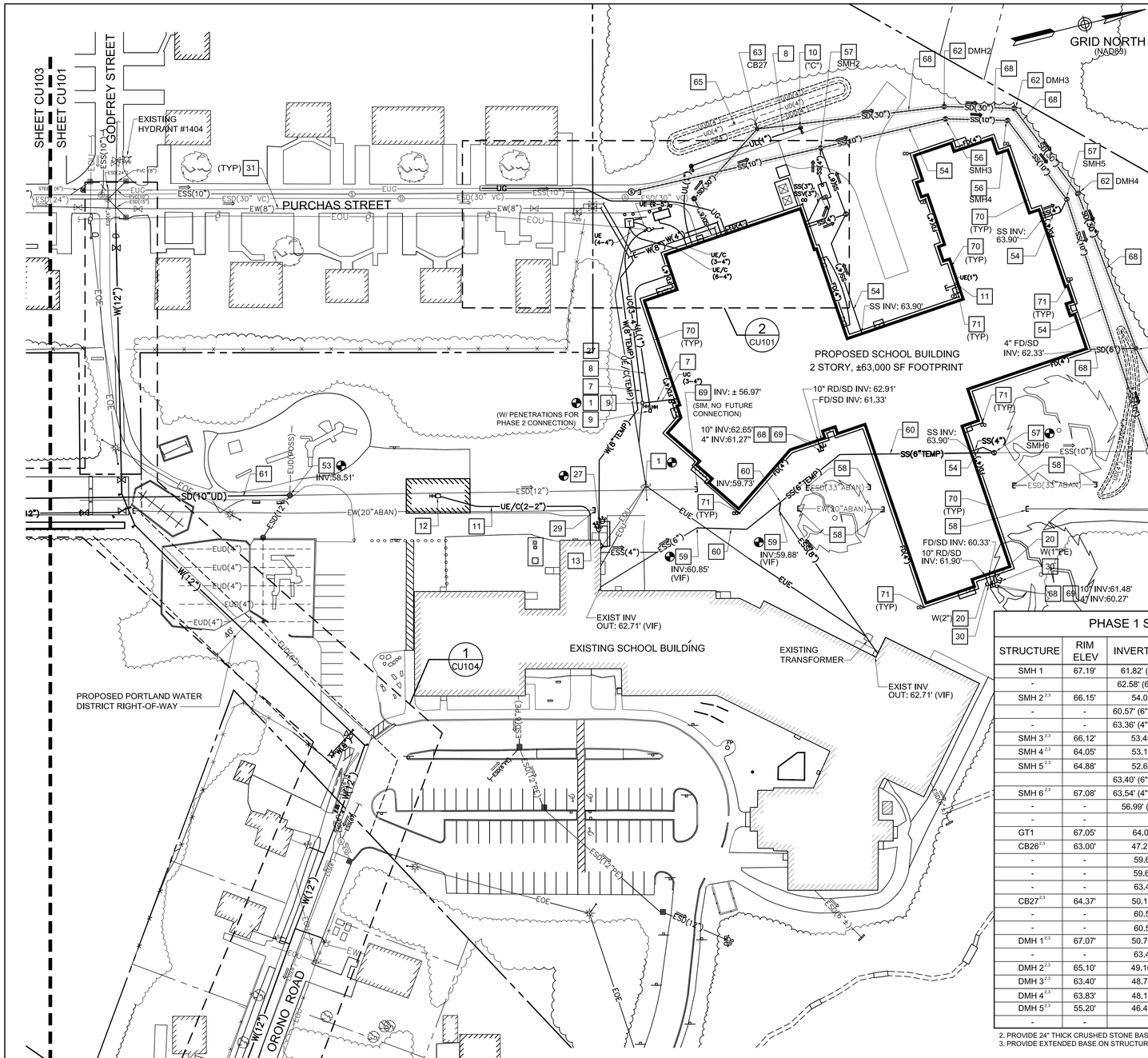
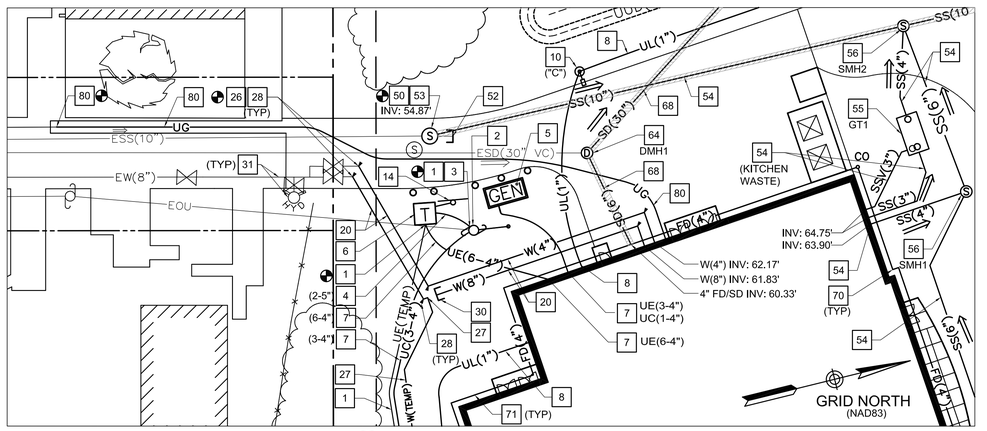


1 CU101 NORTH UTILITY PLAN-PHASE 1
SCALE: 1"=40'



2 CU101 SERVICE ENTRANCE UTILITY PLAN-PHASE 1
SCALE: 1"=20'

KEYNOTES: (THIS SHEET ONLY.)

ELECTRIC/COMMUNICATIONS

1. TEMPORARY ELECTRIC AND COMMUNICATIONS LINES (AS INDICATED WITH KEYNOTE). PROVIDE TRENCH FOR DIRECT-BURIED ELECTRIC AND COMMUNICATION LINES WITH 36" MIN COVER. BACKFILL TRENCH ONCE WIRING HAS BEEN INSTALLED. WIRING AND CONNECTIONS BY CMP, FAIRPOINT COMMUNICATIONS, AND TIME WARNER CABLE (SPECTRUM). SEE NOTIFICATION NOTES, SHEET C-001.
2. UTILITY POLE (BY CMP). CONNECTIONS FOR OVERHEAD ELECTRIC/COMMUNICATIONS WIRES BY CMP, FAIRPOINT COMMUNICATIONS AND SPECTRUM. COORDINATE INSTALLATION WITH UTILITY PROVIDERS. SEE NOTIFICATION NOTES, SHEET C-001
3. MULTIPLE CONDUIT RISERS ON UTILITY POLE WITH STANDARD CMP STANDOFF BRACKETS IN ACCORDANCE WITH ILLUSTRATION NO. 28 OF THE CMP "HANDBOOK OF STANDARD REQUIREMENTS FOR ELECTRIC SERVICE AND METER INSTALLATIONS." PROVIDE ALL MATERIALS AND INSTALL FIRST SECTION TO ± 6' ABOVE GRADE (REMAINING INSTALLATION AND CONNECTIONS PERFORMED BY CMP).
4. ELECTRIC SERVICE (PRIMARY), IN CONDUIT TRENCH (WIRING AND METER BY CMP). SEE DETAIL 3/C-508
5. STANDBY EMERGENCY GENERATOR ON REINFORCED CONCRETE PAD. SEE SHEET ES101 AND DETAIL 3/C-505.
6. CONCRETE TRANSFORMER PAD. TRANSFORMER INSTALLATION AND WIRING FROM TRANSFORMER TO UTILITY POLE BY CMP. COORDINATE INSTALLATION WITH CMP. SEE DETAIL 7/C-508.
7. UNDERGROUND ELECTRIC (SECONDARY)/COMMUNICATIONS LINE IN CONDUIT TRENCH. SEE DETAIL 2/C-508.
8. UNDERGROUND LIGHTING LINE IN CONDUIT TRENCH. SEE DETAIL 2/C-508.
9. HANDHOLE. PROVIDE PENETRATIONS FOR PHASE 2 CONNECTIONS. SEE DETAIL 4/C-508.
10. LIGHT POLE ON PRECAST CONCRETE BASE (TYPE AS INDICATED). SEE DETAIL 6/C-505.
11. UNDERGROUND CONDUIT IN CONDUIT TRENCH (WIRING BY OWNER - NOT IN CONTRACT). SEE DETAIL 2/C-508
12. ELECTRIC/COMMUNICATIONS HANDHOLE FOR PORTABLE CLASSROOM. PROVIDE SWEEPS INSIDE HANDHOLE (WIRING BY OWNER - NOT IN CONTRACT). SEE DETAIL 4/C-508
13. ABOVE-GRADE CONDUIT PENETRATION INTO BOILER ROOM.
14. METER PEDESTAL. SEE DETAIL 5/C-507
15 - 19. NOT USED THIS SHEET.

WATER

20. WATER LINE IN PIPE TRENCH. PROVIDE 3' SEPARATION BETWEEN DOMESTIC AND FIRE PROTECTION SERVICES IN SAME TRENCH. SEE DETAIL 1/C-507.
21 - 25. NOT USED THIS SHEET.
26. CONNECT WATER LINES TO EXISTING 4" AND 8" STUBS. PROVIDE TEMPORARY BLOW OFF ON EACH LINE FOR TESTING AND INSPECTION. COORDINATE INSTALLATION WITH PWD. SEE NOTIFICATION NOTES, SHEET C-001.
27. TEMPORARY WATER LINE IN PIPE TRENCH. CONNECT TEMPORARY LINE TO PERMANENT WATER LINE FROM PURCHAS STREET ONCE ARCHITECT AND PORTLAND WATER DISTRICT HAVE APPROVED REMOVAL OF THE OVER LAND TEMPORARY LINE. CONNECT TEMPORARY LINE TO END OF PERMANENT LINE WITH RESTRAINED MECHANICAL JOINT COUPLING IN ACCORDANCE WITH PORTLAND WATER DISTRICT REQUIREMENTS.
28. JOINT RESTRAINT. SEE DETAIL 5/C-506.
29. CAP EXISTING WATER LINE AND ABANDON IN PLACE. CAP ENDS OF WATER LINE TO REMAIN IN ACCORDANCE WITH PORTLAND WATER DISTRICT'S WRITTEN REQUIREMENTS. SEE NOTIFICATION NOTES SHEET C-001.
30. CAP WATER LINE FOR PHASE 2 CONNECTION TO WATER LINE.
31. REPLACEMENT OF EXISTING WATER LINE AND APPURTENANCES AND INSTALLATION OF NEW HYDRANT AND VALVES IN PURCHAS STREET TO BE PROVIDED BY PORTLAND WATER DISTRICT AND ARE NOT IN CONTRACT UNLESS INDICATED OTHERWISE. COORDINATE TIMING OF PHASE 1 WATER LINE WORK TO COINCIDE WITH THIS WATER LINE WORK.
32 - 49. NOT USED THIS SHEET.

SANITARY SEWER/STORM DRAINAGE (SEE ALSO CG101)

50. EXISTING SEWER MANHOLE. REMOVE FRAME AND COVER AND RESET RIM TO ELEVATION 66.00'
EXISTING RIM ELEVATION: 65.37'
CENTERLINE OF EXISTING CHANNEL: 54.87'
51. EXISTING SEWER MANHOLE.
EXISTING RIM ELEVATION: 60.75'
INVERT IN: 51.4'
INVERT OUT: 51.3'
52. PLUG EXISTING MANHOLE PENETRATION WITH NON-SHRINK GROUT.
53. CORE HOLE IN EXISTING MANHOLE/CATCH BASIN (INVERT ELEVATION AS INDICATED). SEE DETAIL 3/C-507
54. SANITARY SEWER LINE IN PIPE TRENCH. PROVIDE CRUSHED STONE BASE IN SOFT SUBGRADE AREAS (APPROXIMATE LOCATIONS INDICATED WITH ▨). SEE DETAIL 1/C-507.
55. GREASE TRAP. SEE SANITARY STRUCTURE SCHEDULE, THIS SHEET. SEE DETAIL 1/C-508
56. SEWER MANHOLE. SEE SANITARY STRUCTURE SCHEDULE, THIS SHEET. SEE DETAIL 2/C-507
57. DROP MANHOLE. SEE SANITARY STRUCTURE SCHEDULE, THIS SHEET. SEE DETAIL 4/C-507
58. FILL EXISTING SANITARY SEWER/STORM DRAIN LINE WITH PUMPED GROUT (FLOWABLE FILL). CAP/PLUG ENDS OF LINE TO REMAIN AND ABANDON IN PLACE IN ACCORDANCE WITH CITY OF PORTLAND'S WRITTEN REQUIREMENTS. SEE NOTIFICATION NOTES, SHEET C-001.
59. CONNECT TO EXISTING SANITARY SEWER LINES WITH SHIELDED FLEXIBLE COUPLING. (INVERT ELEVATION AS INDICATED). SEE DETAIL 3/C-507 (SIM).
60. TEMPORARY SEWER LINE IN PIPE TRENCH. SEE DETAIL 1/C-507. PROVIDE PIPE MATERIAL MEETING THE CITY OF PORTLAND'S WRITTEN REQUIREMENTS.
61. PERFORATED STORM DRAIN LINE IN PIPE TRENCH. SEE DETAIL 1/C-507.
62. DRAIN MANHOLE. SEE STRUCTURE SCHEDULE, THIS SHEET AND DETAIL 2/C-507.
63. CATCH BASIN. SEE STRUCTURE SCHEDULE, THIS SHEET AND DETAIL 1/C-509.
64. CONNECT TO EXISTING STORM DRAIN LINE (LINE SIZE AND TYPE AS INDICATED) WITH DRAIN MANHOLE. SEE DRAINAGE STRUCTURE SCHEDULE, THIS SHEET AND DETAIL 3/C-507.
65. STORMWATER TREATMENT AREA (GRASSED UNDERDRAINED SOIL FILTER). SEE SHEET CG101 AND DETAIL 1/C-510.
66 - 67. NOT USED THIS SHEET.
68. STORM DRAIN LINE IN PIPE TRENCH, PROVIDE CRUSHED STONE BASE IN SOFT SUBGRADE AREAS (APPROXIMATE LOCATIONS INDICATED WITH ▨). SEE DETAIL 1/C-507
69. CAP STORM DRAIN LINE FOR FUTURE CONNECTION TO STORM DRAIN SYSTEM (PHASE 2). INVERT ELEVATION AS NOTED.
70. FOUNDATION DRAIN. LOCATION INDICATED IS SCHEMATIC ONLY. SEE SHEETS SB101, SB501, AND SB502 AND DETAIL 6/C-508.
71. FOUNDATION DRAIN CLEANOUT. SEE DETAIL 5/C-508.
72 - 79. NOT USED THIS SHEET.

GAS

80. GAS LINE IN PIPE TRENCH, PROVIDE TRENCH EXCAVATION AND RE-FILL ONLY. INSTALLATION OF GAS PIPING, CONNECTIONS TO EXISTING GAS MAIN AND GAS METER ON BUILDING AND ALL REQUIRED TESTING TO BE PERFORMED BY UNITIL. SEE NOTIFICATION NOTES, SHEET C-001 AND DETAIL 1/C-507.

PHASE 1 SANITARY/STORM DRAIN STRUCTURE SCHEDULE

STRUCTURE	RIM ELEV	INVERT IN (SIZE)	INVERT OUT (SIZE)	REMARKS
SMH 1	67.19'	61.82' (6", EAST)	61.72' (6")	RIM 2" ABOVE FINISHED GRADE
-		62.58' (6", SOUTH)		
SMH 2 [2,3]	66.15'	54.08' (10")	53.98" (10")	DROP MANHOLE (DROPS FROM SMH1, GT1)
-	-	60.57" (6"), 54.41' (6")	-	FROM SMH1
-	-	63.36' (4"), 54.58' (4")	-	FROM GT1
SMH 3 [2,3]	66.12'	53.45' (10")	53,35' (10")	RIM 2" ABOVE FINISHED GRADE
SMH 4 [2,3]	64.05'	53.10' (10")	53.00' (10")	RIM 2" ABOVE FINISHED GRADE
SMH 5 [2,3]	64.88'	52.60' (10")	52.50' (10")	RIM 2" ABOVE FINISHED GRADE
		63.40' (6"), 52.93' (6")		DROP MANHOLE. (DROPS FROM SS OUT AT BLDG)
SMH 6 [2,3]	67.08'	63.54' (4"), 52.09' (4")	51.99' (10")	DROP MANHOLE. (DROPS FROM SS OUT AT BLDG)
-	-	56.99' (6" TEMP)	-	RIM 2" ABOVE FINISHED GRADE. VERIFY INV OUT
-	-	-	-	IN FIELD (INV IN SHALL BE 0.1' ABOVE INV OUT).
GT1	67.05'	64.08' (4")	63.91' (4")	COORDINATE INV OUT W/ GREASE TRAP SELECTED
CB26 [2,3]	63.00'	47.25' (30")	47.15' (30")	INV FROM DMH4
-	-	59.67' (4")	-	PROVIDE BALL VALVE ON OUTLET
-	-	59.67' (4")	49.06' (30")	OUTER DRAINS
-	-	63.48' (6")	48.63' (30")	FOUNDATION DRAIN WITH BACKWATER VALVE
CB27 [2,3]	64.37'	50.16' (30")	50.06' (30")	INV FROM DMH1
-	-	60.56' (4")	-	PROVIDE BALL VALVE ON OUTLET
-	-	60.56' (4")	-	OUTER DRAINS
DMH 1 [2,3]	67.07'	50.70' (30")	50.60 ' (30")	CONNECT TO EXISTING 30" PIPE
-	-	63.48' (6")	-	FOUNDATION DRAIN WITH BACKWATER VALVE
DMH 2 [2,3]	65.10'	49.16' (30")	49.06' (30")	
DMH 3 [2,3]	63.40'	48.73' (30")	48.63' (30")	RIM 2" ABOVE FINISHED GRADE
DMH 4 [2,3]	63.83'	48.13' (30")	48.03' (30")	RIM 2" ABOVE FINISHED GRADE
DMH 5 [2,3]	55.20'	46.49' (30")	46.39' (30")	RIM 2" ABOVE FINISHED GRADE.
-	-	-	-	CONNECT TO EXISTING 30" PIPE

2. PROVIDE 24" THICK CRUSHED STONE BASE IN LIEU OF 6" THICK CRUSHED STONE BASE. SEE DETAILS 2/C-507 AND 1/C-509.
3. PROVIDE EXTENDED BASE ON STRUCTURE FOR FLOTATION RESISTANCE. SEE DETAILS 2/C-507 AND 1/C-509.

NOTES:

1. SEE SHEETS CD101 AND CD102 FOR EXISTING SEWER AND DRAINAGE STRUCTURE INFORMATION.
2. SEE SHEET CG101 FOR ADDITIONAL STORM DRAINAGE AND GRADING INFORMATION.
3. SEE SHEET CU104 FOR ADDITIONAL WORK ASSOCIATED WITH WATER MAIN INSTALLATION.

GRAPHIC SCALES

1"=40' (40' 20' 0 40' 80')

1"=20' (20' 10' 0 20' 40')

CHECK GRAPHIC SCALES BEFORE USING

NO.	DATE	DESCRIPTION	BY
		REVISIONS	

DRAWN BY: JSD
CHECKED BY: JLG
NO.
DATE: 03/17/17

JONAH DeWATERS No 13273 LICENSED PROFESSIONAL ENGINEER STATE OF MAINE 3/17/17

STATE OF MAINE PUBLIC SCHOOL PROJECT

TITLE: PORTLAND PUBLIC SCHOOLS
NEW FRED P. HALL ELEMENTARY SCHOOL
LOCATION: 23 ORONO ROAD, PORTLAND, ME

TITLE THIS DWG.: NORTH UTILITY PLAN-PHASE 1

DRAWING NO.: CU101
SHEET NO.: 38 OF 312

OAK POINT ASSOCIATES
ARCHITECTURE • ENGINEERING • PLANNING
231 Main Street, Biddeford, Maine 04005 207.283.0193

C:\dfile\21602.08-CU101.dwg 3/17/2017 2:33:16 PM EDT