210700-026
November 9, 2023

Peter Stith, AICP
Planning Manager
Department of Planning & Sustainability
City Hall, 3rd Floor
1 Junkins Avenue
Portsmouth, NH 03801

Re: Lonza Biologics – Proposed Industrial Development
Traffic Peer Review Response 2
Supplemental PB Submission – Amended Site Plan Review Application

Dear Peter,

On behalf of Lonza Biologics, Inc. (Lonza), we are pleased to submit one (1) set of hard copies and one electronic file (.pdf) of the following revised information to support a request to the Planning Board for a recommendation for approval to the Pease Development Authority (PDA) for Amended Site Plan Review for the above referenced project originally submitted on September 22, 2022:

On behalf of Port Harbor Land, LLC (owner/applicant), we are pleased to submit the following revised information to support a request for a Site Review Permit and Technical Advisory Committee Meeting, for the above referenced project originally submitted on September 27, 2023:

- One (1) full size & one (1) half size copy of the Site Plan Set, last revised November 9, 2023
- Traffic Third Party Review Documents
    - TEC Traffic Peer Review Letter, dated October 3, 2023;
    - Traffic Peer Review Comment Response Letter 1, dated October 24, 2023;
    - TEC Traffic Peer Review Letter, dated November 8, 2023

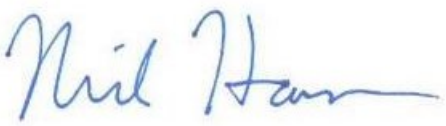
In response to the third-party review of the previously submitted Traffic Impact Study in a letter dated October 3, 2023, and the subsequent letter dated November 8, 2023, Tighe & Bond is providing the enclosed plan set to address comments 20 through 24 of the October 3rd letter as described in the enclosed response letter dated October 24, 2023. The enclosed revised plans have been updated from the package submitted on September 27, 2023, as follows:

- A central sidewalk has been added through the 150 space parking area connecting to the currently proposed sidewalk. (Sheet C-165)
- A second trash compactor has been added to the site adjacent to the Utility Building. Truck turning was studied to confirm access. (Sheet C-166)
- Pedestrian warning signs have been added to the plans as recommended. (Sheets C-165, C-167 & C-502)
- Crosswalk Striping detail has been revised to note an 8’ width. (Sheet C-502)

An updated submission package has been uploaded to the City's online permitting site and hard copy has been hand delivered to the Planning Department. We look forward to meeting with the Planning Board on November 16, 2023. If you have any questions or need any additional information, please contact Neil Hansen by phone at (603) 294-9213 or by email at nahansen@tighebond.com.

Sincerely,

TIGHE & BOND, INC.



Neil A. Hansen, PE
Project Manager

Colter J. Krzcuik, EIT
Staff Engineer

Copy: Lonza Biologics (via email)
Pease Development Authority

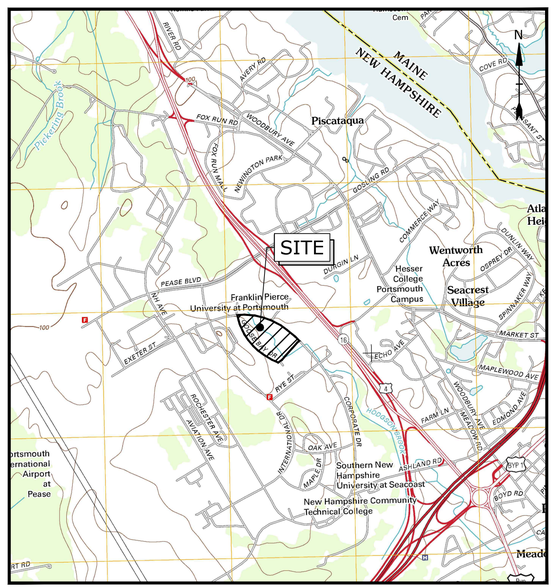
J:\L\L0700 Lonza Biologics Expansion was 1576F\026_Project Albacore\Report_Evaluations\Applications\City of Portsmouth\20231109_PB Submission 2\L-0700-026 Supplemental 20231109.docx

PROPOSED INDUSTRIAL DEVELOPMENT

70 & 80 CORPORATE DRIVE
PORTSMOUTH, NEW HAMPSHIRE
PROJECT NO: L-0700-13
APRIL 3, 2018
LAST REVISED: NOVEMBER 9, 2023

PLAN SET INDEX		
SHEET TITLE	# OF SHEETS	LAST REVISED
COVER SHEET	1	11/9/2023
SHEET INDEX	1	11/9/2023
EXISTING CONDITIONS & SUBDIVISION PLANS COVER SHEET	1	11/2/2021
EXISTING CONDITIONS & SUBDIVISION PLANS	6	11/2/2021
MASTER PLAN COVER SHEET	1	11/9/2023
MASTER PLAN SET	19	11/9/2023
PHASE 2 COVER SHEET	1	11/9/2023
PHASE 2 PLAN SET	27	11/9/2023
DETAILS COVER SHEET	1	11/9/2023
EROSION CONTROL NOTES & DETAILS SHEETS	12	11/9/2023

LIST OF PERMITS		
LOCAL	STATUS	DATE
SITE PLAN REVIEW PERMIT	APPROVED	1/17/2019
AMENDED SITE PLAN REVIEW PERMIT	PENDING	
STATE		
NHDES - ALTERATION OF TERRAIN PERMIT	ISSUED: AOT-1498	10/02/2018
NHDES - WETLANDS PERMIT	ISSUED: #2018-01731	12/21/2018
FEDERAL		
PHASE 1A - EPA - NPDES CGP	ISSUED: NHR1001EU	2/24/2022
PHASE 1B - EPA - NPDES CGP	ISSUED:NHR1001SK	7/21/2023
	ISSUED:NHR1001SL	7/24/2023



LOCATION MAP
SCALE: 1" = 2,000'

LESSOR:	PEASE DEVELOPMENT AUTHORITY 55 INTERNATIONAL DRIVE PORTSMOUTH, NEW HAMPSHIRE 03801
APPLICANT/OWNER:	LONZA BIOLOGICS 101 INTERNATIONAL DRIVE PORTSMOUTH, NH 03801
CIVIL ENGINEER:	Tighe&Bond 177 CORPORATE DRIVE PORTSMOUTH, NEW HAMPSHIRE 03801
SURVEYOR:	DOUCET SURVEY, INC. 102 KENT PLACE NEWMARKET, NEW HAMPSHIRE 03857
WETLAND SCIENTIST:	GOVE ENVIRONMENTAL SERVICES, INC. 8 CONTINENTAL DRIVE, UNIT H EXETER, NEW HAMPSHIRE 03833

STATE OF NEW HAMPSHIRE - PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER
11/9/23

STATE OF NEW HAMPSHIRE - NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER
11/09/2023

PLANNING BOARD SUBMISSION
COMPLETE SET 70 SHEETS

EXISTING CONDITIONS & SUBDIVISION PLANS SHEET INDEX

SHEET NO.	SHEET TITLE	LAST REVISED
	COVER SHEET	11/2/2021
1 of 4	EXISTING CONDITIONS PLAN	08/16/2018
2 of 4	EXISTING CONDITIONS PLAN	08/16/2018
3 of 4	EXISTING CONDITIONS PLAN	08/16/2018
4 of 4	EXISTING CONDITIONS PLAN	08/16/2018
1 of 2	SUBDIVISION PLAN	11/2/2021
2 of 2	SUBDIVISION PLAN	11/2/2021

MASTER PLAN SET SHEET INDEX

SHEET NO.	SHEET TITLE	LAST REVISED
	MASTER PLAN SET COVER SHEET	11/9/2023
C-101	DEMOLITION PLAN	9/27/2023
C-102	DEMOLITION PLAN	11/9/2023
C-103	DEMOLITION PLAN	11/9/2023
C-104	OVERALL SITE PLAN	9/27/2023
C-105	SITE PLAN	11/9/2023
C-106	SITE PLAN	11/9/2023
C-107	SITE PLAN	11/9/2023
C-108	GRADING, DRAINAGE & EROSION CONTROL PLAN	11/9/2023
C-109	GRADING, DRAINAGE & EROSION CONTROL PLAN	11/9/2023
C-110	GRADING, DRAINAGE & EROSION CONTROL PLAN	11/9/2023
C-111	UTILITIES PLAN	9/27/2023
C-112	UTILITIES PLAN	11/9/2023
C-113	UTILITIES PLAN	11/9/2023
C-114	LANDSCAPE PLAN	9/27/2023
C-115	LANDSCAPE PLAN	11/9/2023
C-116	LANDSCAPE PLAN	11/9/2023
C-117	PHOTOMETRIC LIGHTING PLAN	9/27/2023
C-118	PHOTOMETRIC LIGHTING PLAN	9/27/2023
C-119	PHOTOMETRIC LIGHTING PLAN	9/27/2023

PHASE 2 PLAN SET SHEET INDEX

SHEET NO.	SHEET TITLE	LAST REVISED
	PHASE 2 PLAN SET COVER SHEET	11/9/2023
C-161	PHASE 2 DEMOLITION PLAN	9/27/2023
C-162	PHASE 2 DEMOLITION PLAN	11/9/2023
C-163	PHASE 2 DEMOLITION PLAN	11/9/2023
C-163.1	PHASE 2 PRE-CONSTRUCTION LAYOUT PLAN	11/9/2023
C-164	PHASE 2 OVERALL SITE PLAN	11/9/2023
C-165	PHASE 2 SITE PLAN	11/9/2023
C-166	PHASE 2 SITE PLAN	11/9/2023
C-167	PHASE 2 SITE PLAN	11/9/2023
C-168	PHASE 2 GRADING, DRAINAGE & EROSION CONTROL PLAN	11/9/2023
C-169	PHASE 2 GRADING, DRAINAGE & EROSION CONTROL PLAN	11/9/2023
C-170	PHASE 2 GRADING, DRAINAGE & EROSION CONTROL PLAN	11/9/2023
C-171	PHASE 2 UTILITIES PLAN	11/9/2023
C-172	PHASE 2 UTILITIES PLAN	11/9/2023
C-173	PHASE 2 UTILITIES PLAN	11/9/2023
C-174	PHASE 2 LANDSCAPE PLAN	11/9/2023
C-175	PHASE 2 LANDSCAPE PLAN	11/9/2023
C-176	PHASE 2 LANDSCAPE PLAN	11/9/2023
C-177	PHASE 2 PHOTOMETRIC LIGHTING PLAN	11/9/2023
C-178	PHASE 2 PHOTOMETRIC LIGHTING PLAN	11/9/2023
C-179	PHASE 2 PHOTOMETRIC LIGHTING PLAN	9/27/2023
8-046-1-1110	FIRST FLOOR PLAN - CUB	8/24/2023
8-046-1-2002	BUILDING ELEVATIONS (E-W) - CUB	8/24/2023
8-046-1-2003	BUILDING ELEVATIONS (N-S) - CUB	9/18/2023
8-070-1-1110	FIRST FLOOR PLAN - BL1	8/24/2023
8-070-1-2001	OVERALL BUILDINGS ELEVATIONS	7/12/2023
8-070-1-2002	BUILDING ELEVATIONS (E-W) - BL1	8/24/2023
8-070-1-2003	BUILDING ELEVATIONS (N-S) - BL1	8/24/2023

DETAILS SHEET INDEX

SHEET NO.	SHEET TITLE	LAST REVISED
	DETAILS COVER SHEET	11/9/2023
C-501	EROSION CONTROL NOTES & DETAILS SHEET	9/27/2023
C-502	DETAILS SHEET	11/9/2023
C-503	DETAILS SHEET	11/9/2023
C-504	DETAILS SHEET	9/27/2023
C-505	DETAILS SHEET	9/27/2023
C-506	DETAILS SHEET	9/27/2023
C-507	DETAILS SHEET	9/27/2023
C-508	DETAILS SHEET	9/27/2023
C-509	DETAILS SHEET	11/9/2023
C-510	DETAILS SHEET	9/27/2023
C-511	DETAILS SHEET	9/27/2023
C-512	DETAILS SHEET	9/27/2023

Tighe&Bond

STATE OF NEW HAMPSHIRE - PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER -
11/9/23

STATE OF NEW HAMPSHIRE - NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER -
11/09/2023

Proposed Industrial Development

Lonza Biologics

Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
N	11/9/2023	Revised P.B. Submission
M	9/27/2023	P.B. Submission
L	9/1/2022	Issued for Construction
K	5/27/2022	Issued for Bid
J	5/23/2022	Third Party Rev. Comments
I	4/26/2022	Revised PB Stipulations

PROJECT NO:	L-0700-013
DATE:	04/03/2018
FILE:	L-0700-026-C-COVR.dwg
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

SHEET INDEX

SCALE: AS SHOWN

C-100

EXISTING CONDITIONS & SUBDIVISION PLANS

APRIL 3, 2018

REVISED: NOVEMBER 2, 2021

LIST OF DRAWINGS		
SHEET NO.	SHEET TITLE	LAST REVISED
	COVER SHEET	11/2/2021
1 of 4	EXISTING CONDITIONS PLAN	11/2/2021
2 of 4	EXISTING CONDITIONS PLAN	08/16/2018
3 of 4	EXISTING CONDITIONS PLAN	08/16/2018
4 of 4	EXISTING CONDITIONS PLAN	08/16/2018
1 of 2	SUBDIVISION PLAN	11/2/2021
2 of 2	SUBDIVISION PLAN	11/2/2021

COMPLETE SET 7 SHEETS

DRAINAGE STRUCTURE TABLE			
CB #1013	CBR #1324	CB #1461	CB #1732
RIM ELEV.=68.4'	RIM ELEV.=55.7'	RIM ELEV.=57.9'	RIM ELEV.=39.1'
(1019) 18" HDPE INV.=64.4'	(A) 12" RCP INV.=52.3'	(1460) 12" RCP INV.=53.2'	(1695) 10" RCP INV.=37.3'
(A) 18" HDPE INV.=64.4'	(1325) 12" RCP INV.=51.9'		
	(1305) 15" RCP INV.=51.9'	CB #1478	CBR #1733
CB #1019	(B) 22" RCP INV.=51.7'	RIM ELEV.=54.2'	RIM ELEV.=39.1'
RIM ELEV.=68.5'		(1515) 12" RCP INV.=47.2'	STRUCTURE DAMAGED
(A) 18" HDPE INV.=65.1'	CB #1325		
(1013) 18" HDPE INV.=64.7'	RIM ELEV.=55.7'	CB #1484	DMH #1755
	(1399) 15" RCP INV.=51.9'	RIM ELEV.=49.0'	RIM ELEV.=42'
CB #1088	(1324) 12" RCP INV.=51.8'	BROKEN GRATE – NOT OPENED	(A) 24" RCP INV.=37.2'
RIM ELEV.=66.6'			(B) 24" RCP INV.=37.1'
(A) 6" HDPE INV.=62.0'	DMH #1338	CB #1504	
(1111) 12" RCP INV.=61.6'	RIM ELEV.=57.7'	RIM ELEV.=48.9'	CB #1756
(1095) 12" RCP INV.=61.6'	(SUMP)=49.9' (LARGE VAULT)	(A) 12" RCP INV.=42.7'	RIM ELEV.=42.5'
		(1484) 12" RCP INV.=42.6'	(1769) 12" RCP INV.=39.2'
DMH #1095	CB #1345		
RIM ELEV.=65.2'	RIM ELEV.=58.1'	CB #1515	CB #1769
(1088) 12" RCP INV.=60.0'	(1420) 12" RCP INV.=53.9'	RIM ELEV.=54.1'	RIM ELEV.=42.5'
(1137) 12" RCP INV.=59.7'		BROKEN GRATE – NOT OPENED	(1756) 12" RCP INV.=38.1'
	CB #1381		(A) 12" RCP INV.=33.5'
CB #1111	RIM ELEV.=57.2'	CB #1542	
RIM ELEV.=66.8'	(1212) 15" RCP INV.=54.3'	RIM ELEV.=44.4'	CB #1935
(1088) 12" RCP INV.=61.9'	(1311) 15" RCP INV.=54.4'	(1651) 12" RCP INV.=41.0'	RIM ELEV.=49.7'
			NOT OPENED – SILT SOCK
CB #1137	CB #1399	CB #1570	
RIM ELEV.=60.7'	RIM ELEV.=55.5'	RIM ELEV.=40.7'	CB #2031
(1095) 12" RCP INV.=57.3'	(1325) 15" RCP INV.=52.3'	(A) 18" RCP INV.=36.2'	RIM ELEV.=59.0'
(1285) 15" RCP INV.=56.8'		(B) 18" RCP INV.=36.2'	NOT OPENED – SILT SOCK
(1141) 15" RCP INV.=56.8'	DMH #1401		
	RIM ELEV.=58.3'	CB #1572	DMH #2142
DMH #1141	NOT OPENED – OFF SITE	RIM ELEV.=42.2'	RIM ELEV.=62.8'
RIM ELEV.=61.1'		(1611) 12" RCP INV.=38.2'	(A) 24" HDPE INV.=58.2'
(1300) 12" RCP INV.=57.2'	DMH #1408		(B) 24" HDPE INV.=56.8'
(1137) 15" RCP INV.=56.9'	RIM ELEV.=56.8'	CB #1580	
(1147) 15" RCP INV.=56.6'	NOT OPENED – OFF SITE	RIM ELEV.=41.7'	CB #2152
(A) 15" RCP INV.=56.4'		(1586) 15" RCP INV.=36.8'	RIM ELEV.=64.3'
(B) 18" ASB INV.=56.3'	CB #1420		NOT OPENED – SILT SOCK
	RIM ELEV.=58.1'	CB #1586	
CB #1147	(1345) 12" RCP INV.=54.4'	RIM ELEV.=41.9'	DMH #2153
RIM ELEV.=61.5'	(1421) 12" HDPE INV.=54.1'	(1580) 15" RCP INV.=36.4'	RIM ELEV.=64.5'
(A) 15" RCP INV.=57.2'		(A) 15" RCP INV.=36.6'	(SUMP) INV.=53.9'
(1141) 15" RCP INV.=57.1'	DMH #1421		FULL OF WATER
	RIM ELEV.=57.4'	CB #1611	
CB #1183	(1420) 12" RCP INV.=54.3'	RIM ELEV.=42.4'	CB #2170
RIM ELEV.=60.1'	SUMP=53.4' (FULL OF SILT)	(1572) 12" RCP INV.=37.8'	RIM ELEV.=65.7'
(1212) 15" RCP INV.=55.7'		(A) 12" RCP INV.=37.5'	NOT OPENED – SILT SOCK
	DMH #1438		
CB #1212	RIM ELEV.=50.2'	CB #1651	CB #2246
RIM ELEV.=57.5'	(A) 12" RCP INV.=44.6'	RIM ELEV.=44.6'	RIM ELEV.=65.5'
(1183) 15" RCP INV.=54.8'	(1439) 12" RCP INV.=44.6'	(1542) 12" RCP INV.=39.5'	NOT OPENED – SILT SOCK
(1381) 15" RCP INV.=54.6'	(B) UNK. CMP INV.=42.9'	(A) 12" RCP INV.=39.5'	
	(C) UNK. CMP INV.=42.9'		CBR #2327
CB #1285		CB #1678	RIM ELEV.=40.2'
RIM ELEV.=60.7'	CBR #1439	RIM ELEV.=39.2'	(A) 12" RCP INV.=38.3'
(1137) 15" RCP INV.=57.0'	RIM ELEV.=47.4'	(TOP OF WATER) INV.=36.5'	
	(1438) 12" RCP INV.=45.2'	(A) 12" RCP INV.=35.4'	CBR #2329
CBR #1305			RIM ELEV.=47.4'
RIM ELEV.=56.7'	CBR #1444	CB #1685	(A) 12" RCP INV.=42.0'
(1311) 12" RCP INV.=52.8'	RIM ELEV.=48.3'	RIM ELEV.=39.2'	SILT=41.9'
(A) 15" RCP INV.=52.7'	12" HDPE INV.=46.4'	(TOP OF WATER) INV.=36.6'	
(1324) 15" RCP INV.=52.7'	(SUMP) INV.=42.8'	(2330) 12" RCP INV.=36.4'	DMH #2330
			RIM ELEV.=40.4'
CB #1311	CB #1456	DMH #1695	(1685) 12" RCP INV.=36.5'
RIM ELEV.=57.1'	RIM ELEV.=58.1'	RIM ELEV.=42.8'	(A) 12" RCP INV.=36.3'
(1381) 15" RCP INV.=53.4'	(1460) 12" RCP INV.=52.5'	(1732) 10" RCP INV.=36.4'	(B) 15" RCP INV.=36.1'
(1305) 12" RCP INV.=53.0'		(A) 48" RCP INV.=35.9'	
	DMH #1460	(B) NOT MEASURED	DMH #2336
	RIM ELEV.=58'	(RECESSED – LARGE VAULT)	RIM ELEV.=39.7'
	(1461) 12" RCP INV.=51.6'		(A) 18" RCP INV.=36.1'
	(1456) 12" RCP INV.=51.5'		(B) 24" RCP INV.=35.4'
	(A) 15" RCP INV.=50.7'		

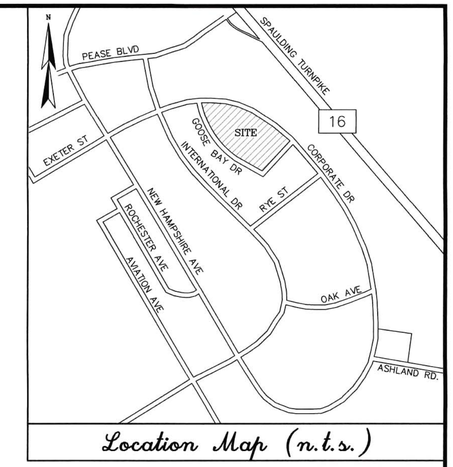
SEWER STRUCTURE TABLE		
SMH #1062	SMH #1551	
RIM ELEV.=69.8'	RIM ELEV.=43.6'	
(A) 6" CLAY INV.=63.9'	(A) 8" PVC INV.=35.6'	
(B) 6" CLAY INV.=63.7'	(B) 12" UNK. INV.=34.2'	
(1067) 8" CLAY INV.=62.6'	(C) 12" UNK. INV.=34.1'	
SMH #1067	SMH #1691	
RIM ELEV.=68.6'	RIM ELEV.=39.9'	
(1062) 8" CLAY INV.=60.4'	(1784) UNK. INV.=34.2'	
(2242) 8" UNK. INV.=60.3'	(1722) UNK. INV.=34.1'	
SMH #1078	SMH #1722	
RIM ELEV.=69.0'	RIM ELEV.=41.1'	
COULD NOT OPEN	(A) 6" CLAY INV.=33.2'	
	(1691) UNK. CLAY INV.=33.1'	
SMH #1123		
RIM ELEV.=64'	SMH #1784	
(1295) 8" PVC INV.=55.8'	RIM ELEV.=41.1'	
	(1921) 10" UNK. INV.=35.4'	
SMH #1169	(1691) 10" UNK. INV.=35.5'	
RIM ELEV.=65.2'		
(1184) 15" STEEL INV.=53.8'	SMH #1921	
(A) 15" STEEL INV.=53.8'	RIM ELEV.=44.8'	
	(1953) UNK. INV.=37'	
SMH #1184	(1784) UNK. INV.=36.9'	
RIM ELEV.=60.4'		
(1296) 8" CLAY INV.=54.2'	SMH #1953	
(1217) 15" STEEL INV.=52.7'	RIM ELEV.=50.1'	
(1169) 15" STEEL INV.=52.7'	(A) 6" CLAY INV.=42.4'	
	(2080) UNK. INV.=42.2'	
SMH #1217	(1921) UNK. INV.=42.2'	
RIM ELEV.=57.9'		
(1184) 15" STEEL INV.=52.3'	SMH #2080	
(1400) 15" STEEL INV.=52.2'	RIM ELEV.=57.9'	
	(A) 8" UNK. INV.=50.1'	
SMH #1296	2187) 8" UNK. INV.=50.1'	
RIM ELEV.=63.7'	(1953) 8" UNK. INV.=49.9'	
(1123) 8" PVC INV.=55.5'		
(2326) 8" UNK. INV.=55.0'	SMH #2187	
(1184) 8" UNK. INV.=55.0'	RIM ELEV.=63'	
	(A) 6" PVC INV.=54.9'	
SMH #1400	(2242) 8" PVC INV.=54.9'	
RIM ELEV.=55.6'	(2080) 8" PVC INV.=54.9'	
(1217) 15" ASB INV.=49.3'		
(1415) 15" ASB INV.=49.3'	SMH #2242	
	RIM ELEV.=65.0'	
SMH #1415	(1067) 8" CLAY INV.=56.8'	
RIM ELEV.=57.9'	(2187) 8" CLAY INV.=57.0'	
(A) 12" PVC INV.=48.3'		
(1400) 18" UNK. INV.=47.9'	SMH #2326	
(1450) 18" PVC INV.=48.0'	RIM ELEV.=68.1'	
	(1078) 8" PVC INV.=62.2'	
SMH #1450	(1296) 8" ASB INV.=62.1'	
RIM ELEV.=60.5'		
(1415) 18" PVC INV.=47.6'	SMH #2328	
(1459) 18" PVC INV.=47.5'	RIM ELEV.=43.1'	
	(1551) 12" UNK INV.=32.3'	
SMH #1459	(A) 18" UNK INV.=32.3'	
RIM ELEV.=58.8'		
(A) 8" PVC INV.=48.4'		
(1450) 18" PVC INV.=47.1'		
(B) 18" PVC INV.=47.1'		

REFERENCE PLANS:

1. "R.O.W. WORKSHEET, CORPORATE DRIVE PREPARED FOR PEASE DEVELOPMENT AUTHORITY" DATED DEC. 21, 1992 BY RICHARD D. BARTLETT & ASSOCIATES, INC. SHEETS 1 AND 2.
2. "PEASE A.F.B. / PORTSMOUTH, N.H. REPAVE BASE STREETS, PORTSMOUTH AVE, ROCKINGHAM AVE." DATED 7 DEC 82 BY STRATETIC AIR COMMAND CIVIL ENGINEERING. SHEET 4 OF 5
3. "PORTSMOUTH AIR FORCE BASE, PORTSMOUTH, N.H. ROADS AND STORAGE AREA FY–56" DATED DEC 1955 BY WHITMAN & HOWARD ENGINEERS. INDEX PAGE AND SHEETS 2 – 5 OF 11.
4. "PEASE INTERNATIONAL TRADEPORT SUBDIVISION PLAT, INTERNATIONAL DRIVE LOTS BC11–001 & BC11–002, PORTSMOUTH, N.H." DATED FEBRUARY 5, 1993 BY RICHARD D. BARTLETT & ASSOCIATES INC. R.C.R.D. PLAN #D22536.
5. "SUBDIVISION PLAN OF LAND FOR REDHOOK ALE BREWERY, INC. CORPORATE DRIVE, COUNTY OF ROCKINGHAM, PORTSMOUTH, N.H." DATED DECEMBER 10, 1994 BY RICHARD P. MILLETTE AND ASSOCIATES. R.C.R.D. PLAN #D–23978.
6. "ALTA/ACSM LAND TITLE SURVEY FOR RESPORT, LLC, ONE INTERNATIONAL DRIVE, COUNTY OF ROCKINGHAM, PORTSMOUTH, N.H." DATED FEBRUARY 27, 1998 BY MILLETTE, SPRAGUE & COLWELL, INC. R.C.R.D. PLAN #D–26125.
7. "FRANKLIN PIERCE COLLEGE, PEASE INTERNATIONAL TRADEPORT, 73 CORPORATE DRIVE, PORTSMOUTH, NH" DATED JANUARY 15, 1998 BY RONALD R. BURD. R.C.R.D. PLAN #D–26427.
8. "SUBDIVISION PLAN FOR LAND LEASED BY PEASE DEVELOPMENT AUTHORITY & KNOWN AS #119 INTERNATIONAL DRIVE LOCATED AT PEASE INTERNATIONAL TRADEPORT, PORTSMOUTH, N.H." DATED MARCH 1, 2000 BY KNIGHT HILL LAND SURVEYING SERVICES, INC. R.C.R.D. PLAN #D–28059.
9. "SUBDIVISION PLAT PREPARED FOR 80 CORPORATE DRIVE LLC C/O BOULOS PROPERTY MANAGEMENT, LOCATION CORPORATE & GOOSE BAY DRIVES, PEASE INTERNATIONAL TRADEPORT – PORTSMOUTH, NH" DATED APRIL 11, 2000 BY FWS LAND SURVEYING P.L.L.C. R.C.R.D. PLAN #D–28447.
10. "LEASE LINE REVISION PLAN FOR LONZA BIOLOGICS, INC. 101 INTERNATIONAL DRIVE, PORTSMOUTH, NEW HAMPSHIRE" DATED FEB. 5, 2001 BY DOUCET SURVEY, INC. R.C.R.D. PLAN #D–28955.
11. "LEASE LINE REVISION PLAN FOR LONZA BIOLOGICS, INC. 101 INTERNATIONAL DRIVE, PORTSMOUTH, NEW HAMPSHIRE" DATED SEPT. 17, 2001 BY DOUCET SURVEY, INC. R.C.R.D. PLAN #D–29538.
12. "SUBDIVISION PLAN OF LAND OF PEASE DEVELOPMENT AUTHORITY TO BE LEASED TO NORTHEAST REHABILITATION (A PORTION OF TAX MAP 303, LOT 6) 105 & 121 CORPORATE DRIVE, PEASE TRADEPORT, PORTSMOUTH, NEW HAMPSHIRE" DATED NOV. 5, 2008 BY DOUCET SURVEY, INC. R.C.R.D. PLAN #D–35869.
13. "CONDOMINIUM SITE & FLOOR PLAN PREPARED FOR PIONEER NEW HAMPSHIRE, LLC, LAND OF PEASE DEVELOPMENT AUTHORITY, TAX MAP PARCEL 305–3 (108, 110, 112 & 114 CORPORATE DRIVE) PORTSMOUTH, NEW HAMPSHIRE" DATED APRIL 12, 2013 BY FIELDSTONE LAND CONSULTANTS, PLLC. SHEET 1 OF 5. R.C.R.D. PLAN #D–37765.
14. "SUBDIVISION PLAN FOR PEASE DEVELOPMENT AUTHORITY, (TAX MAP 303, LOT 4) 67 CORPORATE DRIVE, PEASE TRADEPORT, PORTSMOUTH NEW HAMPSHIRE" DATED MAY 29, 2009 BY DOUCET SURVEY, INC. (NOT RECORDED)
15. "EXISTING CONDITIONS, BUILDING A, 80 CORPORATE DRIVE AND BUILDING B, 70 CORPORATE DRIVE, PORTSMOUTH, NH" DATED 4/14/2000 AND REVISED 6/05/2000 BY OPECHEE CONSTRUCTION CORPORATION. (NOT RECORDED)

LEGEND

———	EXISTING LEASE/R.O.W. LINES
——— O ——— O ———	CHAIN LINK FENCE
——— OHW ———	OVERHEAD WIRES
——— S ———	SEWER LINE
——— D ———	DRAIN LINE
——— G ———	GAS LINE
——— W ———	WATER LINE
——— E ———	UNDERGROUND ELECTRIC LINE
——— XS ———	SEWER LINE PER REF. PLAN #15
——— XD ———	DRAIN LINE PER REF. PLAN #15
——— XG ———	GAS LINE PER REF. PLAN #15
——— XW ———	WATER LINE PER REF. PLAN #15
——— 100 ———	MAJOR CONTOUR LINE
——— 98 ———	MINOR CONTOUR LINE
	TREE LINE
— · · — · · —	EDGE OF WETLAND (SEE NOTE #6)
	HISS LINE (SEE NOTE #6)
	UTILITY POLE
	SIGN
	GRANITE BOUND FOUND
	DRILL HOLE FOUND
	IRON PIPE/ROD FOUND
	4"X4" GRANITE BOUND TO BE SET
	5/8" REBAR W/ ID CAP TO BE SET
	BOLLARD
	FIRE HYDRANT
	WATER GATE VALVE
	GAS GATE VALVE
	PAD MOUNTED TRANSFORMER
	ELECTRIC BOX
	TELEPHONE BOX
	UTILITY BOX
	CABLE BOX
	CATCH BASIN
	CATCH BASIN
	CATCH BASIN
	DRAIN MANHOLE
	FLARED END SECTION
	ELECTRIC MANHOLE
	TELEPHONE MANHOLE
	SEWER MANHOLE
	CLEANOUT
	CATCH BASIN PER REF. PLAN #15
	DRAIN MANHOLE PER REF. PLAN #15
	SEWER MANHOLE PER REF. PLAN #15
	HAND HOLE
	WETLAND AREA
	CONIFEROUS TREE
	DECIDUOUS TREE
	CONCRETE
	RIP RAP
	GRAVEL AREA
	LEDGE OUTCROP
BND. FND.	BOUND FOUND
D.H.F.	DRILL HOLE FOUND
EP	EDGE OF PAVEMENT
SWL	SINGLE WHITE LINE
DYL	DOUBLE YELLOW LINE
VGC	VERTICAL GRANITE CURB
	HISS SOIL TYPE



Location Map (n.t.s.)

NOTES:

1. REFERENCE: TAX MAP 305, LOT 1 PHYSICAL ADDRESS: 70 CORPORATE DRIVE TAX MAP 305, LOT 2 PHYSICAL ADDRESS: 80 CORPORATE DRIVE
2. TOTAL PARCEL AREA: TAX MAP 305, LOT 1: 443,578 SQ. FT. OR 10.183 AC. TAX MAP 305, LOT 2: 604,273 SQ. FT. OR 13.872 AC. TOTAL AREA: 1,047,851 SQ. FT. OR 24.055 AC.
3. OWNER OF RECORD: TAX MAP 305, LOTS 1 & 2 PEASE DEVELOPMENT AUTHORITY 55 INTERNATIONAL DRIVE PORTSMOUTH, NEW HAMPSHIRE 03801 R.C.R.D. BOOK 4227, PAGE 001
4. ZONE: AIRPORT, BUSINESS & COMMERCIAL (ABC)
5. FIELD SURVEY PERFORMED BY J.M.L., E.J.S., J.P.E., J.F.K., AND N.J.M. DURING NOVEMBER 2015 USING A TRIMBLE R8 SURVEY GRADE GPS UNIT AND A TRIMBLE S6 ROBOTIC TOTAL STATION WITH A TRIMBLE TSC3 DATA COLLECTOR.
6. JURISDICTIONAL WETLANDS DELINEATED BY GOVE ENVIRONMENTAL SERVICES, INC. DURING FALL 2014 IN ACCORDANCE WITH 1987 CORPS OF ENGINEERS WETLANDS DELINEATIONS MANUAL, TECHNICAL REPORT Y–87–1. HISS/SITE SPECIFIC SOILS MAPPING COMPLETED BY GOVE ENVIRONMENTAL SERVICES DURING DECEMBER 2015.
7. FLOOD HAZARD ZONE: "X", PER FIRM MAP #33015C0260E, DATED MAY 17, 2005.
8. HORIZONTAL DATUM BASED ON NH STATE PLANE 2800(NAD83/86) PER REFERENCE PLANS #10, #11, & #12.
9. VERTICAL DATUM IS BASED ON NGVD29 PER REFERENCE PLANS #10, #11, & #12.
10. PROPER FIELD PROCEDURES WERE FOLLOWED IN ORDER TO GENERATE CONTOURS AT 2' INTERVALS. ANY MODIFICATION OF THIS INTERVAL WILL DIMINISH THE INTEGRITY OF THE DATA, AND DOUCET SURVEY, INC. WILL NOT BE RESPONSIBLE FOR ANY SUCH ALTERATION PERFORMED BY THE USER.
11. UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON OBSERVABLE PHYSICAL EVIDENCE AND PAINT MARKS FOUND ON–SITE. THE SITE WAS NOT MARKED FOR THE PURPOSES OF THIS SURVEY. SOME UTILITIES ARE SHOWN PER REFERENCE PLANS AS NOTED IN THE LEGEND.
12. THE ACCURACY OF MEASURED UTILITY INVERTS AND PIPE SIZES/TYPES IS SUBJECT TO NUMEROUS FIELD CONDITIONS, INCLUDING; THE ABILITY TO MAKE VISUAL OBSERVATIONS, DIRECT ACCESS TO THE VARIOUS ELEMENTS, MANHOLE CONFIGURATION, ETC.
13. THE INTENT OF THIS PLAN IS TO SHOW THE LOCATION OF BOUNDARIES IN ACCORDANCE WITH AND IN RELATION TO THE CURRENT LEGAL DESCRIPTION, AND IS NOT AN ATTEMPT TO DEFINE UNWRITTEN RIGHTS, DETERMINE THE EXTENT OF OWNERSHIP, OR DEFINE THE LIMITS OF TITLE.
14. TAX MAP 305, LOTS 1 & 2 ARE EITHER SUBJECT TO OR IN BENEFIT OF, BUT NOT LIMITED TO, THE FOLLOWING EASEMENTS/RIGHTS OF RECORD:
    - 14.A. 50' WIDE ACCESS EASEMENT FOR THE BENEFIT OF LOT 305–2 (SHOWN PER REFERENCE PLAN #9)
    - 14.B. APPROXIMATE LOCATION OF 20' WIDE LICENSE TO THE CITY OF PORTSMOUTH FOR THE PURPOSES OF MAINTAINING A DRAINAGE LINE. (SHOWN PER REFERENCE PLAN #9)
15. FINAL MONUMENTATION MAY BE DIFFERENT THAN THE PROPOSED MONUMENTATION SHOWN HEREON, DUE TO THE FACT THAT SITE CONDITIONS WILL DICTATE THE ACTUAL LOCATION AND TYPE OF MONUMENTS INSTALLED IN THE FIELD. PLEASE REFER TO EITHER THE "MONUMENTATION LOCATION PLAN" TO BE RECORDED OR CONTACT DOUCET SURVEY, INC. FOR CLARIFICATION OF MONUMENTS SET. (A RECORDED PLAN WILL BE PRODUCED AT THE DISCRETION OF DOUCET SURVEY, INC.).

PURSUANT TO RSA 676:18, III:

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I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000."

L.L.S. #964

8-16-18
DATE

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STATE OF NEW HAMPSHIRE LICENSED LAND SURVEYOR NO. 964 JEFFREY A. GOLDKNOPF SIGNATURE

NO.	DATE	DESCRIPTION	BY
2	8/16/18	MOD. DRAINAGE	J.A.G.
		MOD. SOIL TYPES PER G.E.S.	
1	8/3/16	GENERAL EDITS AND	J.A.G.
		ADDED WETLANDS BUFFER	

NOTE:
ALL ELECTRIC, GAS, TEL. WATER, SEWER AND DRAIN SERVICES ARE SHOWN IN SCHEMATIC FASHION. THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN ON THIS SITE USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG–SAFE AT 1–888–DIG–SAFE.

STATE OF NEW HAMPSHIRE LUKE D. HURLEY 8/16/18 NO. 965 CERTIFIED SOIL SCIENTIST

STATE OF NEW HAMPSHIRE LUKE D. HURLEY 8/14/18 No. 232 CERTIFIED WETLAND SCIENTIST

EXISTING CONDITIONS PLAN
FOR
TIGHE & BOND AND LONZA
LAND OF
PEASE DEVELOPMENT AUTHORITY
(TAX MAP 305, LOTS 1 & 2)
GOOSE BAY DRIVE & CORPORATE DRIVE
PORTSMOUTH, NEW HAMPSHIRE

DRAWN BY:	K.C.W.	DATE:	DEC. 23, 2015
CHECKED BY:	J.A.G.	DRAWING NO.:	4375A
JOB NO.:	4375	SHEET	1 OF 4

DOUCET SURVEY INC
Serving Your Professional Surveying & Mapping Needs
102 Kent Place, Newmarket, NH 03857 (603) 659–6560
10 Storer Street (Riverview Suite) Kennebunk, ME (207) 502–7005
http://www.doucetsurvey.com

FILE NAME: C:\Users\JeffL\appdata\local\temp\AcPublish_8524\4375A.dwg LAYOUT NAME: DSI 22x34 (1) PLOTTED: Thursday, August 16, 2018 – 3:18pm

TAX MAP 303, LOT 2-1
OPROCK PORTSMOUTH INTL FEE LLC
C/O OCEAN PROPERTIES LTD
1000 MARKET ST SUITE 300
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 4831, PAGE 2677

TAX MAP 303, LOT 2-2
RESPORT LLC
1000 MARKET ST BLDG 1 STE 300
PORTSMOUTH, NH 03801

TAX MAP 305, LOT 7
PEASE DEVELOPMENT AUTHORITY
55 INTERNATIONAL DRIVE
PORTSMOUTH, NEW HAMPSHIRE 03801

TAX MAP 305, LOT 7-1
UNIVERSITY SYSTEM OF NEW HAMPSHIRE
COLLEGE FOR LIFELONG LEARNING
51 INTERNATIONAL DRIVE
PORTSMOUTH, NH 03801

TAX MAP 305, LOT 7-1
CITY OF PORTSMOUTH
1 JUNKINS AVE
PORTSMOUTH, NH 03801

TAX MAP 305, LOT 6
LONZA BIOLOGICS INC.
101 INTERNATIONAL DRIVE
PORTSMOUTH, NH 03801

TAX MAP 303, LOT 3
RED HOOK BREWERY INC
C/O WIDMER BROTHERS BREWING CO
929 NORTH RUSSELL ST.
PORTLAND, OR 97227

NHSPCP(NAD83/2011)

TBM 4375A
"X" CUT BOLT OVER MAIN
ELEV.=69.27'

305-1
443,578 Sq. Ft.
10.18 Acres

L=623.87'
R=1420.00'
CB=N34°46'41"W
CHORD=618.86'
Δ=25°10'21"

L=60.50'
R=35.00'
CB=N34°16'57"E
CHORD=53.24'
Δ=99°01'56"

L=60.72'
R=500.00'
CB=N18°42'46"W
CHORD=60.69'
Δ=6°57'30"

L=910.09'
R=1540.26'
CB=S79°16'27"E
CHORD=896.91'
Δ=33°51'16"

N22°11'13"W
200.00'

25' WETLAND BUFFER (TYP.)
(FOR WETLANDS OVER 10,000 SQ.FT.)

20' LICENSE FOR DRAINAGE
(SEE NOTE #14B)

MATCH LINE SHEET 2
MATCH LINE SHEET 3

GOOSE BAY DRIVE
(60' R.O.W. PER REF. PLAN #3)

CORPORATE DRIVE
(100' R.O.W. PER REF. PLAN #1)

GOOSE BAY RD

915B
313C
313B
546B/P

SOIL IDENTIFICATION LEGEND

SYMBOL	SOIL TAXONOMIC NAME, SLOPE RATING
89C	CHATFIELD, 8 TO 15 PERCENT SLOPES
313B	DEERFIELD, 0 TO 8 PERCENT SLOPES
313C	DEERFIELD, 8 TO 15 PERCENT SLOPES
915B	DEERFIELD VARIANT, 0 TO 8 PERCENT SLOPES
546B/P	WALPOLE POORLY DRAINED, 0 TO 8 PERCENT SLOPES
799B	UDORTHENTS URBAN LAND, 0 TO 8 PERCENT SLOPES
799E	UDORTHENTS URBAN LAND, >25 PERCENT SLOPES

STATE OF NEW HAMPSHIRE
LUKE D. HURLEY
8/16/18
No. 088
CERTIFIED SOIL SCIENTIST

STATE OF NEW HAMPSHIRE
LUKE D. HURLEY
8/20/18
No. 232
CERTIFIED WETLAND SCIENTIST

STATE OF NEW HAMPSHIRE
No. 964
JEFFREY A. GOLDKNOPF
LAND SURVEYOR
SIGNATURE

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Jeffrey A. Goldknopf L.L.S. #964
8-16-18 DATE

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GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

NO.	DATE	DESCRIPTION	BY
2	8/16/18	MOD. DRAINAGE	J.A.G.
		MOD. SOIL TYPES PER G.E.S.	
1	8/3/16	GENERAL EDITS AND	J.A.G.
		ADDED WETLANDS BUFFER	

NOTE:
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EXISTING CONDITIONS PLAN
FOR
TIGHE & BOND AND LONZA
LAND OF
PEASE DEVELOPMENT AUTHORITY
(TAX MAP 305, LOTS 1 & 2)
GOOSE BAY DRIVE & CORPORATE DRIVE
PORTSMOUTH, NEW HAMPSHIRE

DRAWN BY:	K.C.W.	DATE:	DEC. 23, 2015
CHECKED BY:	J.A.G.	DRAWING NO.:	4375A
JOB NO.:	4375	SHEET	2 OF 4

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MATCH LINE SHEET 2

MATCH LINE SHEET 3

MATCH LINE SHEET 3

MATCH LINE SHEET 4

TAX MAP 305, LOT 6
LONZA BIOLOGICS INC.
101 INTERNATIONAL DRIVE
PORTSMOUTH, NH 03801

TAX MAP 303, LOT 4
PEASE DEVELOPMENT AUTHORITY
55 INTERNATIONAL DRIVE
PORTSMOUTH, NEW HAMPSHIRE 03801

TAX MAP 303, LOT 7
PEASE REHAB LLC
C/O NORTHEAST REHAB
70 BUTLER ST.
SALEM, NH 03079

305-1
443,578 Sq. Ft.
10.183 Acres

L=623.87'
R=1420.00'
CB=N34°46'41"W
CHORD=618.86'
Δ=25°10'21"

L=338.74'
R=1420.00'
CB=N54°11'54"W
CHORD=337.94'
Δ=13°40'04"

L=391.06'
R=825.00'
CB=N35°06'29"E
CHORD=387.41'
Δ=27°09'32"

L=149.63'
R=1540.26'
CB=S59°33'50"E
CHORD=149.57'
Δ=5°33'58"

N48°41'15"E
239.83'

N21°31'44"E
164.25'

S56°46'15"E
176.00'

TBM 4375B
"X" CUT BOLT OVER MAIN
ELEV.=62.94'

20' LICENSE FOR DRAINAGE
(SEE NOTE #14B)

50' ACCESS EASEMENT
(SEE NOTE #14A)

LEASE LINE PER
REF. PLAN #9

GOOSE BAY DRIVE
(60' R.O.W. PER REF. PLAN #9)

CORPORATE DRIVE
(100' R.O.W. PER REF. PLAN #1)

799B/cbade
~ DIRT PARKING AREA ~

799E/cbade

915B

313B

313C

546B/P

CB #1019
CB #1013
SMH #1062
SMH #1067
CB #2170
CB #2246
DMH #2153
CB #2152
SMH #2242
SMH #2187
DMH #2142
CB #2031
SMH #2080
CONC. PAD W/
TRANSFORMER
6' CHAIN LINK FENCE
(TYP.)
PILE OF LARGE CONCRETE BLOCKS
PILE OF FILL
2x10" HDPE
SET VERTICAL
10" HDPE INV.=50.7'
8" HDPE INV.=50.1'
CB #1439
DMH #1438
25' WETLAND BUFFER (TYP.)
(FOR WETLANDS OVER 10,000 SQ.FT.)
SMH #1415
CB #1420
CB #1345
DMH #1421
SMH #1450
SMH #1459
CB #1456
DMH #1460
CB #1461
CB #1515
CB #1478
15" DIP INV.=61.1'
15" DIP INV.=61.1'

NO.	DATE	DESCRIPTION	BY
2	8/16/18	MOD. DRAINAGE	J.A.G.
		MOD. SOIL TYPES PER G.E.S.	
1	8/3/16	GENERAL EDITS AND	J.A.G.
		ADDED WETLANDS BUFFER	

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GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

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No. 964
JEFFREY A. GOLDKNOPF
LICENSED LAND SURVEYOR
SIGNATURE

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JEFFREY A. GOLDKNOPF L.L.S. #964

8-16-18 DATE

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LUKE D. HURLEY
8/20/18
No. 009
CERTIFIED SOIL SCIENTIST

STATE OF NEW HAMPSHIRE
LUKE D. HURLEY
8/20/18
No. 232
CERTIFIED WETLAND SCIENTIST

EXISTING CONDITIONS PLAN
FOR
TIGHE & BOND AND LONZA
LAND OF
PEASE DEVELOPMENT AUTHORITY
(TAX MAP 305, LOTS 1 & 2)
GOOSE BAY DRIVE & CORPORATE DRIVE
PORTSMOUTH, NEW HAMPSHIRE

DRAWN BY: K.C.W.	DATE: DEC. 23, 2015
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JOB NO.: 4375	SHEET 3 OF 4

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MATCH LINE SHEET 3

MATCH LINE SHEET 4

CONC. PAD W/ TRANSFORMER

799B/cbade

6" CHAIN LINK FENCE (TYP.)

GOOSE BAY DRIVE (60' R.O.W. PER REF. PLAN #9)

N81°01'56"W 229.15'

TRAILER

915B

546B/P

313B

89C

305-2
604,273 Sq. Ft.
13.872 Acres

LEDGE OUTCROP

25' WETLAND BUFFER (TYP.)
(FOR WETLANDS OVER 10,000 SQ.FT.)

20' LICENSE FOR DRAINAGE
(SEE NOTE #18)

6T

6" PVC

4" PVC

CB #1935

SMH #1953

L=181.41'
R=1752.84'
CB=N58°03'47"W
CHORD=181.33'
Δ=5°55'47"

CONC. PAD W/ TRANSFORMER

12T W/ CONDUIT

2x12" HDPE SET VERTICAL

12" HDPE INV.=43.6'

L=75.52'
R=50.06'
CB=S81°41'02"W
CHORD=68.56'
Δ=86°26'09"

5/8" REBAR FOUND DOWN 1"

TAX MAP 305, LOT 6
LONZA BIOLOGICS INC.
101 INTERNATIONAL DR
PORTSMOUTH, NH
03801

TAX MAP 305, LOT 4
119 INTERNATIONAL DRIVE LLC
CO-OWNER: KEYBANK REAL ESTATE CAPITAL
ATTN: TAX DEPT
11501 OUTLOOK SUITE 300
OVERLAND PARK, KS 66211

5/8" REBAR FOUND FLUSH

TBM 4375D
"X" CUT BOLT OVER MAIN
ELEV.=47.67'

SMH #1921

SMH #1784

CB #1769

CB #1756

DMH #1755

252.97'
S38°27'58"W

433.19'
S42°06'02"W

CB #1685

DMH #2330

SMH #1691

DMH #1695

CB #1733

15" RCP INV.=38.1'

CB #1732

CB #1678

DMH #2336

42"x29" ARCH CMP INV.=35.3'
42"x29" ARCH CMP INV.=35.4'
42"x29" ARCH CMP INV.=35.2'
15" RCP INV.=35.6'
24" RCP INV.=35.1'

TAX MAP 305, LOT 3-1
PIONEER NEW HAMPSHIRE LLC
340 CENTRAL AVE STE 202
DOVER, NH 03820
R.C.R.D. BOOK 3571, PAGE 1559

TAX MAP 305, LOT 3-2
PIONEER NEW HAMPSHIRE LLC
340 CENTRAL AVE STE 202
DOVER, NH 03820
R.C.R.D. BOOK 3571, PAGE 1559

TAX MAP 305, LOT 3-3
PIONEER NEW HAMPSHIRE LLC
340 CENTRAL AVE STE 202
DOVER, NH 03820
R.C.R.D. BOOK 3571, PAGE 1559

TAX MAP 305, LOT 3-4
NEXTERA ENERGY SEABROOK LLC
700 UNIVERSE BOULEVARD PSX/JB
JUNO BEACH, FL 33408
R.C.R.D. BOOK 5454, PAGE 2321

CB #1444

12" HDPE INV.=45.7'

TBM 4375C
"X" CUT BOLT OVER MAIN
ELEV.=47.97'

L=473.28'
R=2450.00'
CB=S51°14'49"E
CHORD=472.54'
Δ=11°04'05"

CB #1504

CB #1484

CB #2329

CB #1651

CB #1542

SMH #1551

CB #2328

CB #2327

CB #1611

CB #1572

CB #1570

CB #1580

CB #1586

4" X 4" GRANITE BOUND FOUND W/ D.H. UP 8"

15" RCP INV.=35.5'

6' x 2' CONCRETE BOX CULVERT

0" RCP INV.=35.8'

CORPORATE DRIVE (100' R.O.W. PER REF. PLAN #1)

5/8" REBAR FOUND W/ "DSI LLS 937" CAP, DOWN 2"

TAX MAP 303, LOT 7
PEASE REHAB LLC
C/O NORTHEAST REHAB
70 BUTLER ST.
SALEM, NH 03079

TAX MAP 303, LOT 8
PEASE DEVELOPMENT AUTHORITY
55 INTERNATIONAL DRIVE
PORTSMOUTH, NEW HAMPSHIRE 03801

NAD83 (2011) NEW HAMPSHIRE STATE PLANE

STATE OF NEW HAMPSHIRE
No. 964
JEFFREY A. GOLDKNOPF
LICENSED LAND SURVEYOR
SIGNATURE

PURSUANT TO RSA 676:18, III:

I CERTIFY THAT THIS SURVEY PLAT IS NOT A SUBDIVISION PURSUANT TO THIS TITLE AND THAT THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW WAYS ARE SHOWN.

I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000."

L.L.S. #964

8-16-18
DATE

THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.

STATE OF NEW HAMPSHIRE
LUKE D. HORESY
8/16/18
NO. 088
CERTIFIED SOIL SCIENTIST

STATE OF NEW HAMPSHIRE
LUKE D. HURLEY
8/20/18
No. 232
CERTIFIED WETLAND SCIENTIST

EXISTING CONDITIONS PLAN
FOR
TIGHE & BOND AND LONZA
LAND OF
PEASE DEVELOPMENT AUTHORITY
(TAX MAP 305, LOTS 1 & 2)
GOOSE BAY DRIVE & CORPORATE DRIVE
PORTSMOUTH, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY
2	8/16/18	MOD. DRAINAGE	J.A.G.
		MOD. SOIL TYPES PER G.E.S.	
1	8/3/16	GENERAL EDITS AND	J.A.G.
		ADDED WETLANDS BUFFER	

NOTE:
ALL ELECTRIC, GAS, TEL WATER, SEWER AND DRAIN SERVICES ARE SHOWN IN SCHEMATIC FASHION; THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN ON THIS SITE USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.

GRAPHIC SCALE
40 0 20 40 80 160
(IN FEET)
1 inch = 40 ft.

DRAWN BY:	K.C.W.
CHECKED BY:	J.A.G.
JOB NO.:	4375
DATE:	DEC. 23, 2015
DRAWING NO.:	4375A
SHEET	4 OF 4

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10 Storer Street (Riverview Suite) Kennebunk, ME (207) 502-7005
http://www.doucetsurvey.com

FILE NAME: C:\Users\Jeff\Appdata\Local\Temp\AcPublish_8524\4375A.dwg LAYOUT NAME: DSI 22X34 (4) PLOTTED: Thursday, August 16, 2018 - 3:18pm

D - 43132 01/18/2022 02:28:41 PM
Register of Deeds, Rockingham County
Cathy Ann Searcy

PLAN NUMBER 43132 SHEET 001.PTR - 6/29/2023 - 16:33

TAX MAP 303, LOT 4
WENTWORTH–DOUGLASS HOSPITAL
399 REVOLUTION DR SUITE 1345
SOMERVILLE, MA 02145
R.C.R.D. BOOK 6042, PAGE 140

TAX MAP 303, LOT 7
PEASE REHAB LLC
C/O NORTHEAST REHAB
70 BUTLER ST.
SALEM, NH 03079

TAX MAP 303, LOT 8
WENTWORTH–DOUGLASS HOSPITAL
399 REVOLUTION DR SUITE 1345
SOMERVILLE, MA 02145
R.C.R.D. BOOK 6042, PAGE 140

TAX MAP 303, LOT 3
RED HOOK BREWERY INC
C/O WIDMER BROTHERS BREWING CO
929 NORTH RUSSELL ST.
PORTLAND, OR 97227

5/8" REBAR DOWN 1" W/CAP BURD ENGINEERING
5/8" REBAR DOWN 1" W/CAP BURD ENGINEERING
5/8" REBAR FLUSH W/CAP BURD ENGINEERING
5/8" REBAR DOWN 2" W/CAP DSI LLS 937
4" X 4" GRAN. BND. FND. W/ D.H. UP 8"

DOUCET SURVEY
SEE NOTE 8

LOCATION MAP (n.t.s.)
NEWINGTON
PEASE BLVD.
SITE
SPAULDING TPKE.
INTERNATIONAL DR.
NEW HAMPSHIRE AVE.
AVIATION AVE.
PORTSMOUTH

TAX MAP 303, LOT 2
OPROCK PORTSMOUTH INTL FEE
1 INTERNATIONAL DRIVE
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 4831, PAGE 2674

TAX MAP 303, LOT 2–1
HAPPY DREAMS LLC
1 INTERNATIONAL DRIVE
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 5733, PAGE 1090

CORPORATE DRIVE
(100' R.O.W. PER REF. PLANS 1 & 21)

6" X 6" CONC. BND. FND. W/DISK DOWN 1"

RELOCATED LICENSE FOR DRAINAGE
52,145 Sq. Ft.
1.20 Acres

50' ACCESS EASEMENT TO BE RELEASED

RAILROAD SPIKE SET FLUSH IN PAVEMENT

~20' LICENSE FOR DRAINAGE TO BE RELOCATED~

EXISTING LEASE AREA
TAX MAP 305 LOT 2
443,578 Sq. Ft.
10.18 Acres

EXISTING LEASE AREA
TAX MAP 305 LOT 1
604,273 Sq. Ft.
13.87 Acres

TAX MAP 305, LOT 3–1
PIONEER NEW HAMPSHIRE LLC
340 CENTRAL AVE STE 202
DOVER, NH 03820
R.C.R.D. BOOK 3571, PAGE 1559

TAX MAP 305, LOT 3–2
PIONEER NEW HAMPSHIRE LLC
340 CENTRAL AVE STE 202
DOVER, NH 03820
R.C.R.D. BOOK 3571, PAGE 1559

TAX MAP 305, LOT 3–3
PIONEER NEW HAMPSHIRE LLC
340 CENTRAL AVE STE 202
DOVER, NH 03820
R.C.R.D. BOOK 3571, PAGE 1559

TAX MAP 305, LOT 3–4
NEXTERA ENERGY SEABROOK LLC
700 UNIVERSE BOULEVARD PSX/JB
JUNO BEACH, FL 33408
R.C.R.D. BOOK 5454, PAGE 2321

GOOSE BAY DRIVE
(60' R.O.W. PER REF. PLAN 21)

5/8" REBAR FLUSH W/ID CAP 826 HASKELL

TAX MAP 303, LOT 1
BARNPORT LLC
C/O PATRICK WALSH
1000 MARKET STREET
PORTSMOUTH, NH 03801

NO EASEMENT FOUND OR PROVIDED FOR BURIED GAS LINE

6" X 6" CONC. BND. FND. W/ D.H. DOWN 20"

PROPOSED ADDITION TO TAX MAP 305, LOTS 5 & 6 (PORTION OF TAX MAP 305 LOT 7)
115,795 Sq. Ft.
2.66 Acres

GOOSE BAY DRIVE
(60' R.O.W. PER REF. PLAN 21)

EXISTING PORTION OF GOOSE BAY DRIVE TO BE DISCONTINUED (SEE NOTE 14)
102,266 Sq. Ft.
2.35 Acres

PROPOSED OVERALL LEASE AREA
TAX MAP 305 LOT 6
2,005,102 Sq. Ft.
46.03 Acres

TO BECOME PART OF GOOSE BAY DRIVE
5,521 Sq. Ft.
0.13 Acres

APRX. WATER LINE LOCATION (PER REF. PLAN 19)

PROPOSED WATER LINE EASEMENT
17,042 Sq. Ft.
0.39 Acres

5/8" REBAR FND. FLUSH

480.24'
N30°49'24"W

6" X 6" CONC. BND. FND. W/ D.H. DOWN 12"

BUILDING

229.41'
N30°49'24"W

TAX MAP 305, LOT 7
PEASE DEVELOPMENT AUTHORITY
71 INTERNATIONAL DRIVE
PORTSMOUTH, NH 03801

CONC. RET WALL

DRAINAGE EASEMENT (PER REF. PLAN 10)

6" X 6" CONC. BND. FND. W/ D.H. FLUSH
6" X 6" CONC. BND. FND. W/DISK FLUSH

TAX MAP 302, LOT 2
30 INTERNATIONAL DR LLC
39 FREETOWN RD UNIT 1
RAYMOND, NH 03077

CENTERLINE 15' WIDE DRAINAGE EASEMENT (PER REF. PLAN 10)

BUILDING

EXISTING LEASE AREA
TAX MAP 305 LOTS 5 & 6
744,710 Sq. Ft.
17.10 Acres

TAX MAP 305, LOT 4–1
119 INTERNATIONAL DRIVE LLC
C/O CP MANAGEMENT INC.
11 COURT STREET
EXETER, NH 03833

TAX MAP 305, LOT 4–2
119 INTERNATIONAL DRIVE LLC
C/O CP MANAGEMENT INC.
11 COURT STREET
EXETER, NH 03833

TAX MAP 305, LOT 4–3
PORTSMOUTH NH I SGF LLC
1 NORTH WACKER SUITE 4025
CHICAGO, IL 60606
R.C.R.D. BOOK 6259, PAGE 2828

6" X 6" CONC. BND. FND. (NO D.H.) DOWN 12"

1–3/4" I.P.F. UP 12"

REBAR UP 12" W/ID CAP KNIGHTHILL SURVEYING

5/8" REBAR DOWN 1" W/ID CAP KNIGHT HILL

INTERNATIONAL DRIVE
(100' R.O.W. PER REF. PLAN 21)

REBAR FLUSH W/ID CAP KNIGHTHILL SURVEYING

5/8" REBAR DOWN 4" W/CAP 824

RRSF

TAX MAP 306, LOT 6
CASTLEROCK LLC
C/O KANE MANAGEMENT GROUP
210 COMMERCE WAY SUITE 300
PORTSMOUTH, NH 03801

TAX MAP 306, LOT 3
75 NEW HAMPSHIRE AVENUE LLC
C/O CP MANAGEMENT
11 COURT STREET SUITE 100,
EXETER, NH 03833

TAX MAP 306, LOT 3–1A
PM 75 NH LLC
75 NEW HAMPSHIRE AVE SUITE 100
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 5035, PAGE 1832

TAX MAP 306, LOT 3–1B
75 NEW HAMPSHIRE AVENUE LLC
C/O CP MANAGEMENT
11 COURT STREET SUITE 100
EXETER, NH 03833
R.C.R.D. BOOK 5649, PAGE 1

TAX MAP 306, LOT 3–2A
75 NEW HAMPSHIRE AVENUE LLC
C/O CP MANAGEMENT
11 COURT STREET SUITE 100
EXETER, NH 03833
R.C.R.D. BOOK 5679, PAGE 1

TAX MAP 306, LOT 3–3
75 NEW HAMPSHIRE AVENUE LLC
C/O CP MANAGEMENT
11 COURT STREET SUITE 100,
EXETER, NH 03833

TAX MAP 306, LOT 3–4
HORNE 101 LLC
11 COURT STREET SUITE 100
EXETER, NH 03833
R.C.R.D. BOOK 5065, PAGE 82

TAX MAP 306, LOT 3–5
85 NH AVE LLC
1 NEW HAMPSHIRE AVE
PORTSMOUTH, NH 03801
R.C.R.D. BOOK 5862, PAGE 1498

TAX MAP 306, LOT 3–6
75 NEW HAMPSHIRE AVENUE LLC
C/O CP MANAGEMENT
11 COURT STREET SUITE 100,
EXETER, NH 03833

TAX MAP 306, LOT 2–1
100 INTERNATIONAL DRIVE LLC
C/O CP MANAGEMENT INC
11 COURT STREET SUITE 100,
EXETER, NH 03833

TAX MAP 306, LOT 2–2
TWO INTERNATIONAL GROUP LLC
C/O CP MANAGEMENT INC
11 COURT STREET SUITE 100,
EXETER, NH 03833

LEGEND

———	LEASE LINE
—·—·—	PROPOSED LEASE LINE
– – – –	PROPOSED EASEMENT/LICENSE
– – – –	LEASE/ROW/EASEMENT/LICENSE LINE TO BE ABANDONED
— — —	APPROXIMATE ABUTTERS LOT LINE
— — —	EASEMENT LINE
□	BOUND FOUND
◉	DRILL HOLE FOUND
○	IRON PIPE/ROD FOUND
TYP.	TYPICAL
GRAN.	GRANITE
CONC.	CONCRETE
BND. FND.	BOUND FOUND
D.H.F.	DRILL HOLE FOUND
I.P.F.	IRON PIPE FOUND
■	4"X4" GRANITE BOUND SET FLUSH (10/28/2021)
●	5/8" REBAR W/ ID CAP SET FLUSH (10/28/2021)

100 0 100 200
SCALE: 1 INCH = 100 FT.

SUBDIVISION PLAN
LAND OF
PEASE DEVELOPMENT AUTHORITY
LEASED TO
LONZA BIOLOGICS, INC.
OF
TAX MAP 305 LOTS 1, 2, 5, 6, & 7
AND
GOOSE BAY DRIVE
INTERNATIONAL DRIVE - CORPORATE DRIVE
GOOSE BAY DRIVE
PORTSMOUTH, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY
1	11/02/21	ADDED MONUMENTS SET	J.A.G.

STATE OF NEW HAMPSHIRE No. 964 JEFFREY A. GOLDKNOPF LICENSED LAND SURVEYOR SIGNATURE

DRAWN BY:	W.D.C.	DATE:	JUNE 21, 2021
CHECKED BY:	J.A.G.	DRAWING NO.:	6228B
JOB NO.:	6228	SHEET	1 OF 2

I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000.

L.L.S. #964
6-21-2021 DATE

THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.

APPROVED BY:
PEASE DEVELOPMENT AUTHORITY — DATE 12/16/21
CITY OF PORTSMOUTH PLANNING BOARD — DATE 12/22/2021

D-43132 Sheet 1 of 2

DOUCET SURVEY LLC
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FILE NAME: T:\PROJECTS\6228 CSD\DWG\6228 LLA (SUBMISSION PLAN (SHEET 1).dwg LAYOUT NAME: 8.5x11 SUBDIVISION PLAN (SHEET 1) PLOTTED: Tuesday, December 14, 2021 - 4:01pm

D - 43132 01/18/2022 02:28:41 PM
Register of Deeds, Rockingham County
Carolyn Ann Seaney

NOTES:

1. REFERENCE: TAX MAP 305, LOTS 5 & 6
PHYSICAL ADDRESS: 101 INTERNATIONAL DRIVE
TAX MAP 305, LOTS 1 & 2
PHYSICAL ADDRESS: 70 CORPORATE DRIVE
TAX MAP 305, LOT 7
PHYSICAL ADDRESS: 71 INTERNATIONAL DRIVE

2. PROPOSED LEASE AREA: TAX MAP 305, LOT 6: 1,889,305 SQ. FT. OR 4

3. OWNER OF RECORD: PEASE DEVELOPMENT AUTHORITY
55 INTERNATIONAL DRIVE
PORTSMOUTH, NEW HAMPSHIRE 03801
R.C.R.D. BOOK 4227, PAGE 001

4. LESSEE OF RECORD: TAX MAP 305. LOTS 5 & 6
LONZA BIOLOGICS, INC.
101 INTERNATIONAL DRIVE
PORTSMOUTH, NEW HAMPSHIRE 03801
R.C.R.D. BOOK 3015, PAGE 2559
(LEASE EXTENSIONS AND MODIFICATIONS
HAVE NOT BEEN RECORDED, BUT HAVE
BEEN PROVIDED BY THE LESSEE)
SEE REFERENCE PLAN 10

5. ZONE: AIRPORT, BUSINESS, AND COMMERCIAL (ABC)
DIMENSIONAL REQUIREMENTS:

MINIMUM LOT AREA	217,800 sq.ft. OR 5.0 AC.
MINIMUM STREET FRONTAGE	200 ft.
FRONT YARD SETBACK	70 ft.
SIDE SETBACK	30 ft.
REAR SETBACK	50 ft.
MINIMUM OPEN SPACE	25 %

MAXIMUM STRUCTURE HEIGHT SHALL NOT EXCEED FAA CRITERIA

WETLAND BUFFER 25 ft. (PER PDA REGULATIONS: WETLANDS LESS THAN 1/4 ACRE DO NOT HAVE A BUFFER)

ZONING INFORMATION LISTED HEREON WAS PROVIDED BY TIGHE & BOND. ADDITIONAL REGULATIONS APPLY, AND REFERENCE IS HEREBY MADE TO THE EFFECTIVE ZONING ORDINANCE. THE LAND OWNER IS RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE MUNICIPAL, STATE, AND FEDERAL REGULATIONS.

6. FIELD SURVEY PERFORMED BY B.T. & J.C.M. DURING MARCH 2018 USING A TRIMBLE S6 ROBOTIC TOTAL STATION WITH A TRIMBLE TSC3 DATA COLLECTOR. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS.

7. FLOOD HAZARD ZONE: "X", PER FIRM MAP #33015C0260F, MAP REVISED JANUARY 29, 2021.

8. HORIZONTAL DATUM BASED ON NH STATE PLANE 2800(NAD83/86) PER REFERENCE PLANS 10, 11, & 12.

9. THE INTENT OF THIS PLAN IS TO SHOW THE LOCATION OF BOUNDARIES IN ACCORDANCE WITH AND IN RELATION TO THE CURRENT LEGAL DESCRIPTION, AND IS NOT AN ATTEMPT TO DEFINE UNWRITTEN RIGHTS, DETERMINE THE EXTENT OF OWNERSHIP, OR DEFINE THE LIMITS OF TITLE.

10. TAX MAP 305, LOTS 1 & 2 ARE EITHER SUBJECT TO OR IN BENEFIT OF, BUT NOT LIMITED TO, THE FOLLOWING EASEMENTS/RIGHTS OF RECORD:
10.A. 50' WIDE ACCESS EASEMENT FOR THE BENEFIT OF LOT 305-2. (SHOWN PER REFERENCE PLAN 9)
10.B. APPROXIMATE LOCATION OF 20' WIDE LICENSE TO THE CITY OF PORTSMOUTH FOR THE PURPOSES OF MAINTAINING A DRAINAGE LINE. (SHOWN PER REFERENCE PLAN 9)

11. TAX MAP 305, LOTS 5 & 6 ARE EITHER SUBJECT TO OR IN BENEFIT OF, BUT NOT LIMITED TO, THE FOLLOWING EASEMENTS/RIGHTS OF RECORD:
11.A. 15' WIDE DRAINAGE EASEMENT. (SHOWN PER REFERENCE PLAN 10)
11.B. DRAINAGE EASEMENT. (SHOWN PER REFERENCE PLAN 10)

12. FINAL MONUMENTATION MAY BE DIFFERENT THAN THE PROPOSED MONUMENTATION SHOWN HEREON, DUE TO THE FACT THAT SITE CONDITIONS WILL DICTATE THE ACTUAL LOCATION AND TYPE OF MONUMENTS INSTALLED IN THE FIELD. PLEASE REFER TO EITHER THE "MONUMENTATION LOCATION PLAN" TO BE RECORDED OR CONTACT DOUCET SURVEY, INC. FOR CLARIFICATION OF MONUMENTS SET. (A RECORDED PLAN WILL BE PRODUCED AT THE DISCRETION OF DOUCET SURVEY, INC.).

13. IMPROVEMENTS SHOWN HEREON ARE APPROXIMATE.

14. REGARDING THE PORTION GOOSE BAY DRIVE TO BECOME PART OF THE PROPOSED LEA AREA:
14.A. THE PEASE DEVELOPMENT AUTHORITY REPORTS THAT THE OWNERSHIP UNDERLYING ADWAYS WITHIN THE TRADEPORT REMAINS VESTED IN THE PEASE DEVELOPMENT AUTHORITY.
14.B. THE PEASE DEVELOPMENT AUTHORITY REPORTS THAT THERE ARE UNDERL T UTILITY EASEMENTS ON LANDS IN THEIR OWNERSHIP. THIS MAY INCLUDE, BUT BURIED OR OVERHEAD ELECTRIC, TELECOMMUNICATIONS, GAS, WATER, AND SEW

15. THE APPLICANT WILL BE REQUESTING THE FOLLOWING WAIVER FROM T BOARD REGARDING SECTION IV.3.I. CUL-DE-SACS:
15.A. MAXIMUM LENGTH OF CUL-DE-SAC OF 500'
15.B. MINIMUM RADIUS OF CUL-DE-SAC PAVEMENT OF 50'

REFERENCE PLANS:

1. "R.O.W. WORKSHEET, CORPORATE DRIVE PREPARED FOR PEASE DEVELOPMENT AUTHORITY" DATED DEC. 21, 1992 BY RICHARD D. BARTLETT & ASSOCIATES, INC. SHEETS 1 AND 2. (NOT RECORDED)
2. "PEASE A.F.B. / PORTSMOUTH, N.H. REPAVE BASE STREETS, PORTSMOUTH AVE, ROCKINGHAM AVE." DATED 7 DEC 82 BY STRATETIC AIR COMMAND CIVIL ENGINEERING. SHEET 4 OF 5. (NOT RECORDED)
3. "PORTSMOUTH AIR FORCE BASE, PORTSMOUTH, N.H. ROADS AND STORAGE AREA FY-56" DATED DEC 1955 BY WHITMAN & HOWARD ENGINEERS. INDEX PAGE AND SHEETS 2 - 5 OF 11. (NOT RECORDED)
4. "PEASE INTERNATIONAL TRADEPORT SUBDIVISION PLAT, INTERNATIONAL DRIVE LOTS BC11-001 & BC11-002, PORTSMOUTH, N.H." DATED FEBRUARY 5, 1993 BY RICHARD D. BARTLETT & ASSOCIATES INC. R.C.R.D. PLAN D-22536.
5. "SUBDIVISION PLAN OF LAND FOR REDHOOK ALE BREWERY, INC. CORPORATE DRIVE, COUNTY OF ROCKINGHAM, PORTSMOUTH, N.H." DATED DECEMBER 10, 1994 BY RICHARD P. MILLETTE AND ASSOCIATES. R.C.R.D. PLAN D-23978.
6. "ALTA/ACSM LAND TITLE SURVEY FOR RESPORT, LLC, ONE INTERNATIONAL DRIVE, COUNTY OF ROCKINGHAM, PORTSMOUTH, N.H." DATED FEBRUARY 27, 1998 BY MILLETTE, SPRAGUE & COLWELL, INC. R.C.R.D. PLAN D-26125.
7. "FRANKLIN PIERCE COLLEGE, PEASE INTERNATIONAL TRADEPORT, 73 CORPORATE DRIVE, PORTSMOUTH, NH" DATED JANUARY 15, 1998 BY RONALD R. BURD. R.C.R.D. PLAN D-26427.
8. "SUBDIVISION PLAN FOR LAND LEASED BY PEASE DEVELOPMENT AUTHORITY & KNOWN AS 119 INTERNATIONAL DRIVE LOCATED AT PEASE INTERNATIONAL TRADEPORT, PORTSMOUTH, N.H." DATED MARCH 1, 2000 BY KNIGHT HILL LAND SURVEYING SERVICES, INC. R.C.R.D. PLAN D-28059.
9. "SUBDIVISION PLAT PREPARED FOR 80 CORPORATE DRIVE LLC C/O BOULOS PROPERTY MANAGEMENT, LOCATION CORPORATE & GOOSE BAY DRIVES, PEASE INTERNATIONAL TRADEPORT - PORTSMOUTH, NH" DATED APRIL 11, 2000 BY FWS LAND SURVEYING P.L.L.C. R.C.R.D. PLAN D-28447.
10. "LEASE LINE REVISION PLAN FOR LONZA BIOLOGICS, INC. 101 INTERNATIONAL DRIVE, PORTSMOUTH, NEW HAMPSHIRE" DATED SEPT. 17, 2001 BY DOUCET SURVEY, INC. R.C.R.D. PLAN D-29538.
11. "SUBDIVISION PLAN OF LAND OF PEASE DEVELOPMENT AUTHORITY TO BE LEASED TO NORTHEAST REHABILITATION (A PORTION OF TAX MAP 303, LOT 6) 105 & 121 CORPORATE DRIVE, PEASE TRADEPORT, PORTSMOUTH, NEW HAMPSHIRE" DATED NOV. 5, 2008 BY DOUCET SURVEY, INC. R.C.R.D. PLAN D-35869.
12. "CONDOMINIUM SITE & FLOOR PLAN PREPARED FOR PIONEER NEW HAMPSHIRE, LLC, LAND OF PEASE DEVELOPMENT AUTHORITY, TAX MAP PARCEL 305-3 (108, 110, 112 & 114 CORPORATE DRIVE) PORTSMOUTH, NEW HAMPSHIRE" DATED APRIL 12, 2013 BY FIELDSTONE LAND CONSULTANTS, PLLC. SHEET 1 OF 5. R.C.R.D. PLAN D-37765.
13. "SUBDIVISION PLAN FOR PEASE DEVELOPMENT AUTHORITY, (TAX MAP 303, LOT 4) 67 CORPORATE DRIVE, PEASE TRADEPORT, PORTSMOUTH NEW HAMPSHIRE" DATED MAY 29, 2009 BY DOUCET SURVEY, INC. (NOT RECORDED)
14. "EXISTING CONDITIONS, BUILDING A, 80 CORPORATE DRIVE AND BUILDING B, 70 CORPORATE DRIVE, PORTSMOUTH, NH" DATED 4/14/2000 AND REVISED 6/05/2000 BY OPECHEE CONSTRUCTION CORPORATION. (NOT RECORDED)
15. "EXISTING CONDITIONS PLAN FOR TIGHE & BOND AND LONZA, LAND OF PEASE DEVELOPMENT AUTHORITY, (TAX MAP 305, LOTS 1 & 2), GOOSE BAY DRIVE & CORPORATE DRIVE, PORTSMOUTH, NEW HAMPSHIRE" DATED DECEMBER 23, 2015 BY DOUCET SURVEY, INC. (NOT RECORDED)
16. "119 INTERNATIONAL DRIVE CONDOMINIUM, CONDOMINIUM SITE PLAN, FOR PROPERTY OWNED BY PEASE DEVELOPMENT AUTHORITY, LEASED TO 119 INTERNATIONAL DRIVE, LLC, KNOWN AS PORTSMOUTH TAX MAP 305, LOT 4, PORTSMOUTH, NH" DATED OCT. 10, 2017 BY KNIGHT HILL LAND SURVEYING SERVICES, INC. R.C.R.D. PLAN 40449
17. "ALTA/NSPS LAND TITLE SURVEY FOR 130 INTERNATIONAL DRIVE, LLC AND PEASE DEVELOPMENT AUTHORITY, 130 INTERNATIONAL DRIVE, PORTSMOUTH, NH" DATED JULY 2017 AND REVISED THROUGH 8/9/17 BY DOUCET SURVEY, INC. (NOT RECORDED)
18. "ALTA/ACSM LAND TITLE SURVEY FOR 100 INTERNATIONAL DRIVE, LLC, 100 INTERNATIONAL DRIVE, PEASE INTERNATIONAL TRADEPORT, PORTSMOUTH, NH" DATED MARCH 30, 2006 BY DOUCET SURVEY, INC. (NOT RECORDED)
19. "CITY OF PORTSMOUTH, NEW HAMPSHIRE, FOR CONSTRUCTION, CORPORATE DRIVE AND GOOSE BAY DRIVE SEWER IMPROVEMENTS" DATED JULY 28, 2017 BY UNDERWOOD ENGINEERS, INC. (NOT RECORDED)
20. "SUBDIVISION PLAN FOR LONZA BIOLOGICS, INC. AND THE PEASE DEVELOPMENT AUTHORITY OF TAX MAP 305, LOTS 1, 2, 5 & 6 AND GOOSE BAY DRIVE, INTERNATIONAL DRIVE - CORPORATE DRIVE - GOOSE BAY DRIVE, PORTSMOUTH, NEW HAMPSHIRE" DATED APRIL 16, 2018 BY DOUCET SURVEY, INC (NOT RECORDED)
21. "APPENDIX VI, MUNICIPAL SERVICES AGREEMENT BETWEEN CITY OF PORTSMOUTH, TOWN OF NEWINGTON AND PEASE DEVELOPMENT AUTHORITY" EFFECTIVE AS OF JULY 1, 1998 (ROADWAY WIDTHS) (NOT RECORDED)
22. "THIRD AMENDED SITE/FLOOR PLAN ADDENDUM FOR 75 NEW HAMPSHIRE CONDOMINIUM SHOWING BUILDING 5 - UNIT 6 - LIMITED COMMON AREA" DATED JULY 2019 BY KNIGHT HILL LAND SURVEYING SERVICES, INC. R.C.R.D. PLAN D-41611
23. "LEASE LINE DISCONTINUANCE & EXISTING BUILDING UPDATE PLAN, 25, 29 RETAIL CONDOMINIUM" DATED DECEMBER 2018 AND REVISED JULY 20, 2017 BY KNIGHT HILL LAND SURVEYING SERVICES. R.C.R.D. PLAN D-40388
24. "SUBDIVISION PLAN AT 30 INTERNATIONAL DRIVE AT PEASE INTERNATIONAL TRADEPORT, PORTSMOUTH, NEW HAMPSHIRE" DATED JANUARY 1997 BY CLD CONSULTING ENGINEERS & SURVEYORS R.C.R.D. PLAN D-25370
25. "LEASE LINE REVISION FOR BARNPORT, LLC AND PEASE DEVELOPMENT AUTHORITY, 27 INTERNATIONAL DRIVE, PORTSMOUTH, NEW HAMPSHIRE" DATED APRIL 11, 2000 BY DOUCET SURVEY, INC. R.C.R.D. PLAN D-28254

LINE TABLE		
LINE	BEARING	DISTANCE
L1	S45°42'46"E	50.48'
L2	S34°54'07"W	60.00'
L3	S38°27'58"W	58.32'
L4	N19°46'25"W	11.01'
L5	N83°06'54"W	66.09'
L6	N67°48'03"W	196.60'
L7	S22°03'02"W	14.87'
L8	S33°35'17"W	57.08'
L9	S42°06'02"W	43.59'
L10	N55°44'33"W	33.55'
L11	N67°48'03"W	122.22'
L12	N22°11'57"E	10.00'
L13	N19°52'39"W	313.89'
L14	N27°09'05"W	222.06'
L15	N33°51'22"W	175.26'
L16	N40°07'36"W	107.83'
L17	N43°37'13"W	99.98'

LINE TABLE		
LINE	BEARING	DISTANCE
L18	N49°42'47"W	102.16'
L19	N54°07'45"W	195.64'
L20	N59°11'41"W	116.15'
L21	N61°40'21"W	179.46'
L22	N58°20'21"W	187.76'
L23	S34°54'07"W	10.02'
L24	N58°20'21"W	186.91'
L25	N61°40'21"W	179.39'
L26	N59°11'41"W	116.81'
L27	N54°07'45"W	196.47'
L28	N49°42'47"W	103.08'
L29	N43°37'13"W	100.81'
L30	N40°07'36"W	108.68'
L31	N33°51'22"W	176.39'
L32	N27°09'05"W	223.29'
L33	N19°52'39"W	316.47'
L34	S34°54'07"W	32.65'

CURVE TABLE					
CURVE	ARC LENGTH	RADIUS	DELTA ANGLE	CHORD BEARING	CHORD LENGTH
C1	152.83'	63.00'	138°59'47"	S61°54'24"W	118.02'
C2	75.52'	50.06'	86°26'09"	S81°41'02"W	68.56'
C3	181.41'	1752.84'	5°55'47"	N58°03'47"W	181.33'
C4	338.74'	1420.00'	13°40'04"	S54°11'54"E	337.94'
C5	623.87'	1420.00'	25°10'21"	S34°46'41"E	618.86'
C6	60.72'	500.00'	6°57'30"	S18°42'46"E	60.69'
C7	60.50'	35.00'	99°01'56"	S34°16'57"W	53.24'
C8	466.96'	1540.26'	17°22'14"	N87°30'58"W	465.18'
C9	23.43'	1540.26'	0°52'17"	N78°23'43"W	23.43'
C10	300.24'	1540.26'	11°10'07"	N62°21'55"W	299.77'
C11	237.27'	2450.00'	5°32'56"	N54°00'23"W	237.18'
C12	153.95'	170.00'	51°53'06"	N7°38'44"E	148.74'
C13	117.72'	130.00'	51°53'06"	N7°38'44"E	113.74'
C14	91.22'	130.00'	40°12'15"	N38°23'56"W	89.36'
C15	175.20'	1692.80'	5°55'47"	N58°03'47"W	175.12'
C16	942.18'	1480.00'	36°28'30"	S42°47'41"E	926.35'
C17	61.10'	1480.00'	2°21'56"	N23°22'29"W	61.10'
C18	115.23'	560.00'	11°47'23"	N16°17'50"W	115.03'
C19	18.12'	3710.06'	0°16'48"	S80°54'45"W	18.12'
C20	10.19'	3710.06'	0°09'26"	N81°07'52"E	10.19'
C21	298.54'	3710.06'	4°36'38"	N78°05'40"E	298.46'
C22	54.86'	3710.06'	0°50'50"	N80°49'24"E	54.86'
C23	68.59'	1540.26'	2°33'06"	N82°31'22"E	68.59'
C24	910.09'	1540.26'	33°51'16"	S79°16'27"E	896.91'
C25	149.63'	1540.26'	5°33'58"	S59°33'50"E	149.57'
C26	473.28'	2450.00'	11°04'05"	S51°14'49"E	472.54'
C27	24.14'	3710.06'	0°22'22"	N80°35'10"E	24.14'

SUBDIVISION PLAN
LAND OF
PEASE DEVELOPMENT AUTHORITY
LEASED TO
LONZA BIOLOGICS, INC.
OF
TAX MAP 305 LOTS 1, 2, 5, 6, & 7
AND
GOOSE BAY DRIVE
INTERNATIONAL DRIVE - CORPORATE DRIVE
GOOSE BAY DRIVE
PORTSMOUTH, NEW HAMPSHIRE

NO.	DATE	DESCRIPTION	BY
1	11/02/21	ADDED MONUMENTS SET	J.A.G.

DRAWN BY:	W.D.C.	DATE:	JUNE 21, 2021
CHECKED BY:	J.A.G.	DRAWING NO.:	6228B
JOB NO.:	6228	SHEET	2 OF 2

APPROVED BY:

PEASE DEVELOPMENT AUTHORITY — DATE 12/16/21

CITY OF PORTSMOUTH PLANNING BOARD — DATE 12/22/2021

I CERTIFY THAT THIS SURVEY AND PLAN WERE PREPARED BY ME OR BY THOSE UNDER MY DIRECT SUPERVISION AND FALLS UNDER THE URBAN SURVEY CLASSIFICATION OF THE NH CODE OF ADMINISTRATIVE RULES OF THE BOARD OF LICENSURE FOR LAND SURVEYORS. I CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. RANDOM TRAVERSE SURVEY BY TOTAL STATION, WITH A PRECISION GREATER THAN 1:15,000.

STATE OF NEW HAMPSHIRE — No. 964 — JEFFREY A. GOLDKNOPF — LICENSED LAND SURVEYOR — SIGNATURE

L.L.S. #964

6-21-2021 DATE

THE CERTIFICATIONS SHOWN HEREON ARE INTENDED TO MEET REGISTRY OF DEED REQUIREMENTS AND ARE NOT A CERTIFICATION TO TITLE OR OWNERSHIP OF PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE ACCORDING TO CURRENT TOWN ASSESSORS RECORDS.

DOUCET SURVEY LLC
Serving Your Professional Surveying & Mapping Needs
102 Kent Place, Newmarket, NH 03857 (603) 659-6560
Offices in Bedford & Keene, NH and Kennebunk, ME
http://www.doucetsurvey.com

D-43132 sheet 2 of 2

MASTER PLAN SET

APRIL 3, 2018

REVISED: NOVEMBER 9, 2023

LIST OF DRAWINGS		
SHEET NO.	SHEET TITLE	LAST REVISED
	MASTER PLAN SET COVER SHEET	11/9/2023
C-101	DEMOLITION PLAN	9/27/2023
C-102	DEMOLITION PLAN	11/9/2023
C-103	DEMOLITION PLAN	11/9/2023
C-104	OVERALL SITE PLAN	9/27/2023
C-105	SITE PLAN	11/9/2023
C-106	SITE PLAN	11/9/2023
C-107	SITE PLAN	11/9/2023
C-108	GRADING, DRAINAGE & EROSION CONTROL PLAN	11/9/2023
C-109	GRADING, DRAINAGE & EROSION CONTROL PLAN	11/9/2023
C-110	GRADING, DRAINAGE & EROSION CONTROL PLAN	11/9/2023
C-111	UTILITIES PLAN	9/27/2023
C-112	UTILITIES PLAN	11/9/2023
C-113	UTILITIES PLAN	11/9/2023
C-114	LANDSCAPE PLAN	9/27/2023
C-115	LANDSCAPE PLAN	11/9/2023
C-116	LANDSCAPE PLAN	11/9/2023
C-117	PHOTOMETRIC LIGHTING PLAN	9/27/2023
C-118	PHOTOMETRIC LIGHTING PLAN	9/27/2023
C-119	PHOTOMETRIC LIGHTING PLAN	9/27/2023

STATE OF NEW HAMPSHIRE
PATRICK CRIMMINS
No. 12378
LICENSED
PROFESSIONAL ENGINEER
11/9/23

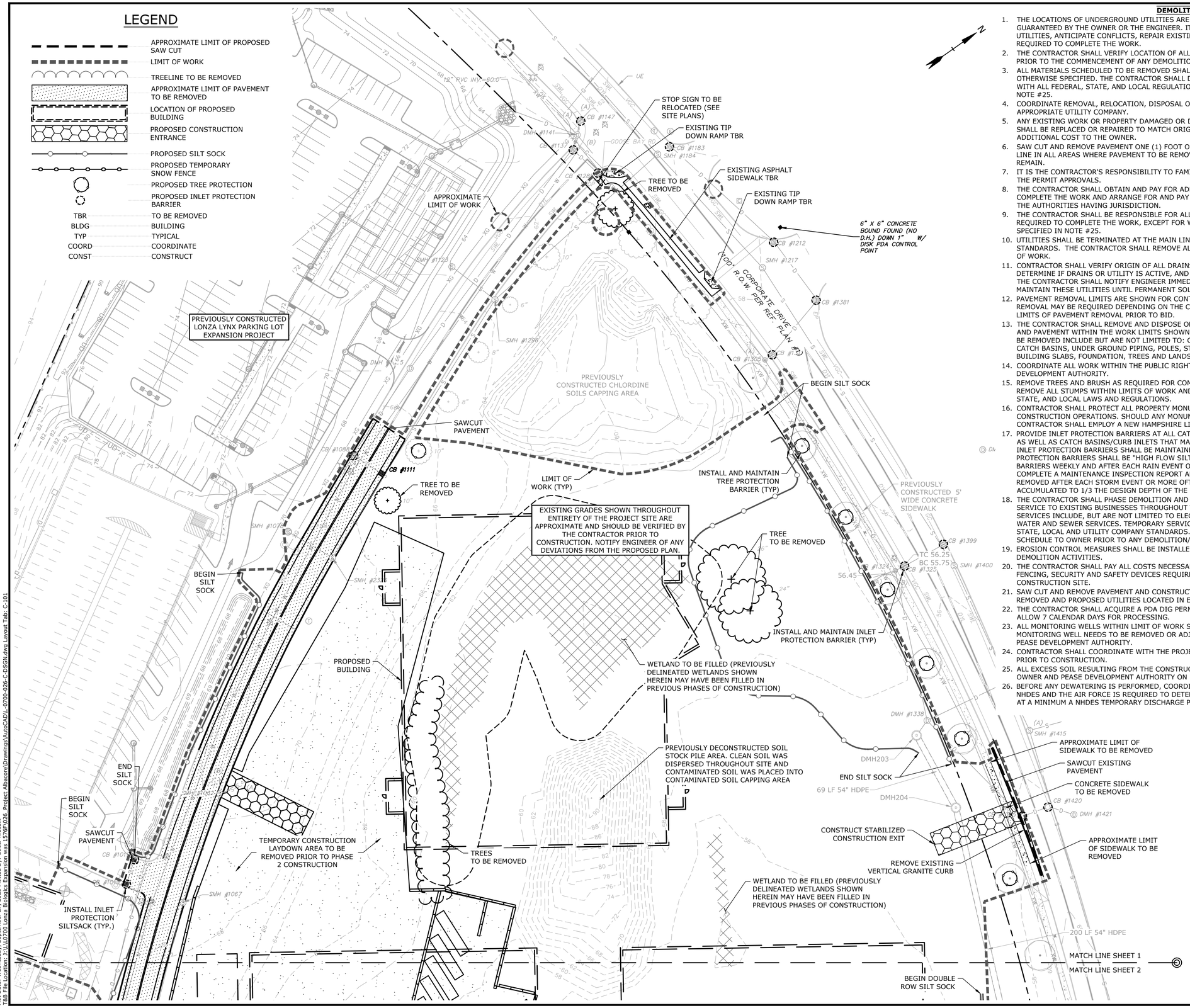
STATE OF NEW HAMPSHIRE
NEIL A. HANSEN
No. 15227
LICENSED
PROFESSIONAL ENGINEER
11/09/2023

COMPLETE SET 20 SHEETS

LEGEND

- APPROXIMATE LIMIT OF PROPOSED SAW CUT
- LIMIT OF WORK
- TREELINE TO BE REMOVED
- APPROXIMATE LIMIT OF PAVEMENT TO BE REMOVED
- LOCATION OF PROPOSED BUILDING
- PROPOSED CONSTRUCTION ENTRANCE
- PROPOSED SILT SOCK
- PROPOSED TEMPORARY SNOW FENCE
- PROPOSED TREE PROTECTION
- PROPOSED INLET PROTECTION BARRIER

TBR	TO BE REMOVED
BLDG	BUILDING
TYP	TYPICAL
COORD	COORDINATE
CONST	CONSTRUCT



DEMOLITION NOTES:

1. THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK.
2. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES. CALL DIG SAFE AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION/CONSTRUCTION ACTIVITIES.
3. ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES AND CODES EXCEPT AS SPECIFIED IN NOTE #25.
4. COORDINATE REMOVAL, RELOCATION, DISPOSAL OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
5. ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION/ DEMOLITION ACTIVITIES SHALL BE REPLACED OR REPAIRED TO MATCH ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
6. SAW CUT AND REMOVE PAVEMENT ONE (1) FOOT OFF PROPOSED EDGE OF PAVEMENT OR EXISTING CURB LINE IN ALL AREAS WHERE PAVEMENT TO BE REMOVED ABUTS EXISTING PAVEMENT OR CONCRETE TO REMAIN.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE CONDITIONS OF ALL OF THE PERMIT APPROVALS.
8. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ADDITIONAL PERMITS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK AND ARRANGE FOR AND PAY FOR NECESSARY INSPECTIONS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION AND OFF-SITE DISPOSAL OF MATERIALS REQUIRED TO COMPLETE THE WORK, EXCEPT FOR WORK NOTED TO BE COMPLETED BY OTHERS AND AS SPECIFIED IN NOTE #25.
10. UTILITIES SHALL BE TERMINATED AT THE MAIN LINE PER UTILITY COMPANY AND THE CITY OF PORTSMOUTH STANDARDS. THE CONTRACTOR SHALL REMOVE ALL ABANDONED UTILITIES LOCATED WITHIN THE LIMITS OF WORK.
11. CONTRACTOR SHALL VERIFY ORIGIN OF ALL DRAINS AND UTILITIES PRIOR TO REMOVAL/TERMINATION TO DETERMINE IF DRAINS OR UTILITY IS ACTIVE, AND SERVICES ANY ON OR OFF-SITE STRUCTURE TO REMAIN. THE CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY SUCH UTILITY FOUND AND SHALL MAINTAIN THESE UTILITIES UNTIL PERMANENT SOLUTION IS IN PLACE.
12. PAVEMENT REMOVAL LIMITS ARE SHOWN FOR CONTRACTOR'S CONVENIENCE. ADDITIONAL PAVEMENT REMOVAL MAY BE REQUIRED DEPENDING ON THE CONTRACTOR'S OPERATION. CONTRACTOR TO VERIFY FULL LIMITS OF PAVEMENT REMOVAL PRIOR TO BID.
13. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, CONCRETE PADS, UTILITIES AND PAVEMENT WITHIN THE WORK LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO REMAIN. ITEMS TO BE REMOVED INCLUDE BUT ARE NOT LIMITED TO: CONCRETE, PAVEMENT, CURBS, LIGHTING, MANHOLES, CATCH BASINS, UNDER GROUND PIPING, POLES, STAIRS, SIGNS, FENCES, RAMPS, WALLS, BOLLARDS, BUILDING SLABS, FOUNDATION, TREES AND LANDSCAPING.
14. COORDINATE ALL WORK WITHIN THE PUBLIC RIGHT OF WAYS WITH THE CITY OF PORTSMOUTH AND PEASE DEVELOPMENT AUTHORITY.
15. REMOVE TREES AND BRUSH AS REQUIRED FOR COMPLETION OF WORK. CONTRACTOR SHALL GRUB AND REMOVE ALL STUMPS WITHIN LIMITS OF WORK AND DISPOSE OF OFF SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.
16. CONTRACTOR SHALL PROTECT ALL PROPERTY MONUMENTATION THROUGHOUT DEMOLITION AND CONSTRUCTION OPERATIONS. SHOULD ANY MONUMENTATION BE DISTURBED BY BY THE CONTRACTOR, THE CONTRACTOR SHALL EMPLOY A NEW HAMPSHIRE LICENSED SURVEYOR TO REPLACE DISTURBED MONUMENTS.
17. PROVIDE INLET PROTECTION BARRIERS AT ALL CATCH BASINS/CURB INLETS WITHIN CONSTRUCTION LIMITS AS WELL AS CATCH BASINS/CURB INLETS THAT MAY RECEIVE RUNOFF FROM CONSTRUCTION ACTIVITIES. INLET PROTECTION BARRIERS SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT. INLET PROTECTION BARRIERS SHALL BE "HIGH FLOW SILT SACK" BY ACF ENVIRONMENTAL OR EQUAL. INSPECT BARRIERS WEEKLY AND AFTER EACH RAIN EVENT OF 0.25 INCHES OR GREATER. CONTRACTOR SHALL COMPLETE A MAINTENANCE INSPECTION REPORT AFTER EACH INSPECTION. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED OR SEDIMENT HAS ACCUMULATED TO 1/3 THE DESIGN DEPTH OF THE BARRIER.
18. THE CONTRACTOR SHALL PHASE DEMOLITION AND CONSTRUCTION AS REQUIRED TO PROVIDE CONTINUOUS SERVICE TO EXISTING BUSINESSES THROUGHOUT THE CONSTRUCTION PERIOD. EXISTING BUSINESS SERVICES INCLUDE, BUT ARE NOT LIMITED TO ELECTRICAL, COMMUNICATION, FIRE PROTECTION, DOMESTIC WATER AND SEWER SERVICES. TEMPORARY SERVICES, IF REQUIRED, SHALL COMPLY WITH ALL FEDERAL, STATE, LOCAL AND UTILITY COMPANY STANDARDS. CONTRACTOR SHALL PROVIDE DETAILED CONSTRUCTION SCHEDULE TO OWNER PRIOR TO ANY DEMOLITION/CONSTRUCTION ACTIVITIES.
19. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION ACTIVITIES.
20. THE CONTRACTOR SHALL PAY ALL COSTS NECESSARY FOR TEMPORARY PARTITIONING, BARRICADING, FENCING, SECURITY AND SAFETY DEVICES REQUIRED FOR THE MAINTENANCE OF A CLEAN AND SAFE CONSTRUCTION SITE.
21. SAW CUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL UTILITIES TO BE REMOVED AND PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN.
22. THE CONTRACTOR SHALL ACQUIRE A PDA DIG PERMIT BEFORE ANY EARTH DISTURBANCE CAN TAKE PLACE. ALLOW 7 CALENDAR DAYS FOR PROCESSING.
23. ALL MONITORING WELLS WITHIN LIMIT OF WORK SHALL BE PROTECTED DURING CONSTRUCTION. IF ANY MONITORING WELL NEEDS TO BE REMOVED OR ADJUSTED THIS WORK SHALL BE COORDINATED WITH THE PEASE DEVELOPMENT AUTHORITY.
24. CONTRACTOR SHALL COORDINATE WITH THE PROJECT SURVEYOR FOR BENCHMARK AND CONTROL POINTS PRIOR TO CONSTRUCTION.
25. ALL EXCESS SOIL RESULTING FROM THE CONSTRUCTION SHALL REMAIN ON SITE. COORDINATE WITH OWNER AND PEASE DEVELOPMENT AUTHORITY ON FINAL LOCATION OF EXCESS MATERIALS.
26. BEFORE ANY DEWATERING IS PERFORMED, COORDINATION BETWEEN THE OWNER, CONTRACTOR, PDA, NHDES AND THE AIR FORCE IS REQUIRED TO DETERMINE PROPER PROCEDURES AND PERMITTING REQUIRED. AT A MINIMUM A NHDES TEMPORARY DISCHARGE PERMIT IS REQUIRED.

Tighe&Bond

STATE OF NEW HAMPSHIRE – NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER
9/27/2023

STATE OF NEW HAMPSHIRE – PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER
9/27/2023

SCALE IN FEET
0 40' 80'
GRAPHIC SCALE

Proposed Industrial Development

Lonza Biologics

Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
M	9/27/2023	P.B. Submission
L	7/17/2023	Amended Site Plan Review
K	5/5/2023	Phase 1B Issued for Bid
J	3/15/2023	Phase 1B Issued for Preliminary Pricing
I	1/9/2023	Admin. Approval Submission
H	12/10/2021	Planning Board Stipulation
G	8/19/2019	Admin. Approval Submission
F	11/6/2018	P.B. Submission

PROJECT NO:	L-0700-013
DATE:	04/03/2018
FILE:	L-0700-026-C-DSGN.dwg
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

DEMOLITION PLAN

SCALE: AS SHOWN

C-101

Last Save Date: September 27, 2023 1:36 PM By: CKRZCUIK
Plot Date: September 27, 2023 1:36 PM By: CKRZCUIK
T&B File Location: J:\LL\0700 Lonza Biologics Expansion was 1576\026 Project Albacore\Drawings\AutoCAD\L-0700-026-C-DSGN.dwg Layout Tab: C-101

END SILT SOCK
BEGIN SILT SOCK
SAWCUT PAVEMENT
INSTALL INLET PROTECTION SILTSACK (TYP.)
TEMPORARY CONSTRUCTION LAYDOWN AREA TO BE REMOVED PRIOR TO PHASE 2 CONSTRUCTION
TREES TO BE REMOVED
PREVIOUSLY DECONSTRUCTED SOIL STOCK PILE AREA. CLEAN SOIL WAS DISPERSED THROUGHOUT SITE AND CONTAMINATED SOIL WAS PLACED INTO CONTAMINATED SOIL CAPPING AREA
WETLAND TO BE FILLED (PREVIOUSLY DELINEATED WETLANDS SHOWN HEREIN MAY HAVE BEEN FILLED IN PREVIOUS PHASES OF CONSTRUCTION)
PROPOSED BUILDING
APPROXIMATE LIMIT OF 15" RCP PIPE TBR (CONTRACTOR TO FIELD VERIFY LOCATION AND INVERT PRIOR TO CONSTRUCTION)
CB #2246 TBR
APPROXIMATE LOCATION OF EXISTING 15" RCP PIPE TBR (CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION)
373 LF 15" HDPE TBR
PDMH206 TBR
48 LF 15" HDPE TBR
EXISTING CONSTRUCTION LAYDOWN AREA TO BE REMOVED
EXISTING RIPRAP TO BE REMOVED AND SAVED FOR REUSED IN THE PROPOSED SEDIMENT BASINS
EXISTING JERSEY BARRIERS TBR (TYP, BY OTHERS)
FES102 INV.=52.0' TBR
APPROXIMATE LIMIT OF EXISTING COMMON BORROW STOCKPILE TO BE REUSED ONSITE IF DEEMED TO BE SUITABLE FILL
APPROXIMATE LIMIT OF EXISTING LOAM STOCKPILE TO BE REUSED
LIMIT OF RIPRAP TO BE REMOVED
TREE TO BE REMOVED
APPROXIMATE LIMIT OF PAVEMENT TO BE REMOVED
EXISTING CULVERT TO BE REMOVED
2x10" HDPE SET VERTICAL TBR
10" HDPE INV.=50.7' TBR
EXISTING RIPRAP TO BE REMOVED AND SAVED FOR REUSED IN THE PROPOSED SEDIMENT BASINS
EXISTING GRADES SHOWN THROUGHOUT ENTIRETY OF THE PROJECT SITE ARE APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DEVIATIONS FROM THE PROPOSED PLAN.
8" HDPE INV.=50.1' TBR
2x10" HDPE SET VERTICAL TBR
45 LF 8" CCFRPM @ 0.022
34 LF 18" CCFRPM @ 0.029
EXISTING SEWER TBR
UTILITY POLE AND OVERHEAD WIRE TO BE REMOVED (COORD WITH UTILITY COMPANY)
CONTRACTOR TO PROTECT EXISTING TRANSFORMER
TREE TO BE REMOVED
TREES TO BE REMOVED
EXISTING RIPRAP TO BE REMOVED AND SAVED FOR REUSED IN THE PROPOSED SEDIMENT BASINS
DMH203
END SILT SOCK
69 LF 54" HDPE
DMH204
CONSTRUCT STABILIZED CONSTRUCTION EXIT
REMOVE EXISTING VERTICAL GRANITE CURB
APPROXIMATE LIMIT OF SIDEWALK TO BE REMOVED
SAWCUT EXISTING PAVEMENT
CONCRETE SIDEWALK TO BE REMOVED
APPROXIMATE LIMIT OF SIDEWALK TO BE REMOVED
200 LF 54" HDPE
MATCH LINE SHEET 1
MATCH LINE SHEET 2
BEGIN DOUBLE ROW SILT SOCK
PREVIOUSLY CONSTRUCTED TIP DOWN RAMP AND DETECTABLE WARNING PANEL
5/8" REBAR FOUND W/ "BURD ENGINEERING" CAP, DOWN 1"
FES103 INV.=50.25' 19 LF 15" HDPE S=0.021
CORPORATE DRIVE (100' R.O.W. PER REF. PLAN #1)
PREVIOUSLY DAYLIGHTED HODGSON BROOK
PREVIOUSLY CONSTRUCTED 5' WIDE CONCRETE SIDEWALK
LIMIT OF WORK (TYP.)
INSTALL AND MAINTAIN INLET PROTECTION BARRIER (TYP)
MATCH LINE SHEET 2
MATCH LINE SHEET 3

SEE SHEET C-101 FOR LEGEND AND DEMOLITION NOTES

Tighe&Bond

PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER
STATE OF NEW HAMPSHIRE
11/9/23

NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER
STATE OF NEW HAMPSHIRE
11/09/2023

SCALE IN FEET
0 40' 80'
GRAPHIC SCALE

Proposed Industrial Development

Lonza Biologics

Portsmouth, New Hampshire

MARK	DATE	DESCRIPTION
N	11/9/2023	Revised P.B. Submission
M	9/27/2023	P.B. Submission
L	9/1/2022	Issued for Construction
K	5/27/2022	Issued for Bid
J	5/23/2022	Third Party Rev. Comments
I	4/26/2022	Revised PB Stipulations

PROJECT NO:	L-0700-013
DATE:	04/03/2018
FILE:	L-0700-026-C-DSGN.dwg
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

DEMOLITION PLAN

SCALE: AS SHOWN

C-102

Last Save Date: November 9, 2023 11:02 AM By: NAHANSEN
Plot Date: Thursday, November 9, 2023 11:03 AM By: Neil Hansen
T&B File Location: J:\L\L0700 Lonza Biologics Expansion wks 1576F\026_Project Albacore\Drawings\AutoCAD\L-0700-026-C-DSGN.dwg Layout Tab: C-102

EXISTING SEWER TBR
UTILITY POLE AND OVERHEAD WIRE TO BE REMOVED (COORD WITH UTILITY COMPANY)
CONTRACTOR TO PROTECT EXISTING TRANSFORMER
TREE TO BE REMOVED
TREES TO BE REMOVED
EXISTING RIPRAP TO BE REMOVED AND SAVED FOR REUSED IN THE PROPOSED SEDIMENT BASINS
MATCH LINE SHEET 2
MATCH LINE SHEET 3
PROPOSED BUILDING
TREES TO BE REMOVED
PROPOSED BUILDING
EXISTING SEWER TBR
WETLAND TO BE FILLED (PREVIOUSLY DELINEATED WETLANDS SHOWN HEREIN MAY HAVE BEEN FILLED IN PREVIOUS PHASES OF CONSTRUCTION)
TRANSFORMER PAD TO BE REMOVED (COORD WITH UTILITY COMPANY)
UTILITY POLE AND OVERHEAD WIRE TO BE REMOVED (COORD WITH UTILITY COMPANY)
CB #1444
TBR
EXISTING CULVERT TO BE REMOVED
12" HDPE INV.=45.7'
TBR
TREES TO BE REMOVED
TREE TO BE REMOVED
EXISTING RIPRAP TO BE REMOVED
BEGIN SILT SOCK
LIMIT OF TREES TO BE REMOVED
LIMIT OF WETLANDS TO BE FILLED
LIMIT OF WORK (TYP.)
EXISTING BOLLARDS TBR
EXISTING CONSTRUCTION LAYDOWN AREA TO BE REMOVED
END SILT SOCK
UTILITY POLE AND OVERHEAD WIRE TO BE REMOVED (COORD WITH UTILITY COMPANY)
12" W/ CONDUIT
LIMIT OF WETLANDS THAT HAVE BEEN PREVIOUSLY FILLED IN A PRIOR PHASE OF CONSTRUCTION
END TEMPORARY SNOW FENCE
CONSTRUCT TEMPORARY SNOW FENCE
SAWCUT PAVEMENT
2x12" HDPE SEE VERTICAL
TBR
12" HDPE INV.=43.6'
TBR
END SILT SOCK
TREES TO BE REMOVED
EXISTING GRADES SHOWN THROUGHOUT ENTIRETY OF THE PROJECT SITE ARE APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DEVIATIONS FROM THE PROPOSED PLAN.
5/8" REBAR FOUND DOWN 1"
BEGIN DOUBLE ROW SILT SOCK
APPROXIMATE LIMIT OF WORK (TYP)
APPROXIMATE LIMIT OF PAVEMENT TO BE REMOVED
BEGIN TEMPORARY SNOW FENCE
PREVIOUSLY DAYLIGHTED HODGSON BROOK
5/8" REBAR FOUND FLUSH
SAWCUT PAVEMENT
INSTALL AND MAINTAIN INLET PROTECTION BARRIER (TYP)
EXISTING CONCRETE TIP DOWN RAMP AND SIDEWALK TO BE REMOVED
APPROXIMATE LIMIT OF PAVEMENT TO BE REMOVED
SAWCUT PAVEMENT
4" X 4" GRANITE BOUND FOUND W/ D.H. UP 8"
APPROXIMATE LIMIT OF SIDEWALK TO BE REMOVED
PREVIOUSLY CONSTRUCTED 5' WIDE CONCRETE SIDEWALK
APPROXIMATE LIMIT OF SIDEWALK TO BE REMOVED
5/8" REBAR FOUND W/ "DSI LLS 937" CAP, DOWN 2"
SAWCUT PAVEMENT
6' x 2' CONCRETE BOX CULVERT
CORPORATE DRIVE (100' R.O.W. PER REF. PLAN #1)
GOOSE BAY DRIVE (60' R.O.W. PER REF. PLAN #9)

SEE SHEET C-101 FOR LEGEND AND DEMOLITION NOTES

Tighe&Bond

STATE OF NEW HAMPSHIRE – PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER
11/9/23

STATE OF NEW HAMPSHIRE – NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER
11/09/2023

SCALE IN FEET
0 40' 80'
GRAPHIC SCALE

Proposed Industrial Development

Lonza Biologics

Portsmouth, New Hampshire

MARK	DATE	DESCRIPTION
N	11/9/2023	Revised P.B. Submission
M	9/27/2023	P.B. Submission
L	9/1/2022	Issued for Construction
K	5/27/2022	Issued for Bid
J	5/23/2022	Third Party Rev. Comments
I	4/26/2022	Revised PB Stipulations

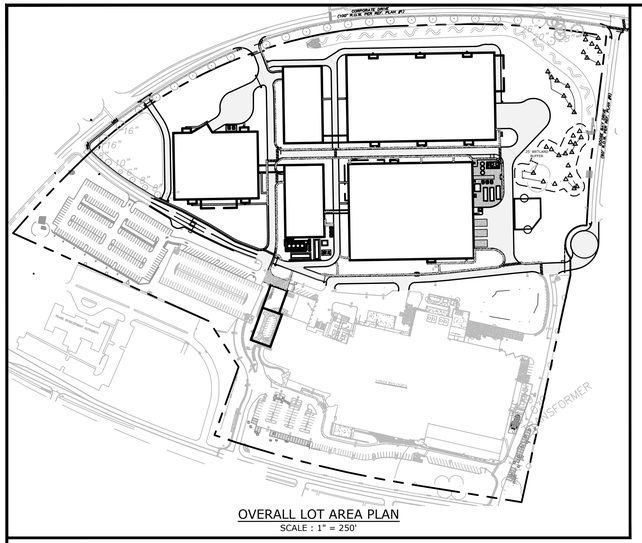
PROJECT NO: L-0700-013
DATE: 04/03/2018
FILE: L-0700-026-C-DSGN.dwg
DRAWN BY: CJK
CHECKED: NAH
APPROVED: PMC

DEMOLITION PLAN

SCALE: AS SHOWN

C-103

Last Save Date: November 9, 2023 11:03 AM By: NAHANSEN
Plot Date: Thursday, November 9, 2023 Plotted By: Neil A. Hansen
T&B File Location: J:\L\L0700 Lonza Biologics Expansion was 1576F\026. Project Albacore\Drawings\AutoCAD\L-0700-026-C-DSGN.dwg Layout Tab: C-103



OVERALL LOT AREA PLAN
SCALE : 1" = 250'

SITE DATA

LOCATION: TAX MAP 305, LOTS 1 & 2 — 70 & 80 CORPORATE DRIVE, PORTSMOUTH, NH
TAX MAP 305, LOT 6 — 101 INTERNATIONAL DRIVE, PORTSMOUTH, NH

ZONING DISTRICT: AIRPORT, BUSINESS & COMMERCIAL (ABC)

DIMENSIONAL REQUIREMENTS:

	REQUIRED	PROVIDED
MINIMUM LOT AREA:	5 AC	43.4± AC
MINIMUM STREET FRONTAGE:	200 FT	1,038 FT
MINIMUM FRONT YARD SETBACK:	70 FT	70 FT
SIDE SETBACK	30 FT	30 FT
REAR SETBACK	50 FT	51 FT
MINIMUM OPEN SPACE	25 %	43.3± %

MAXIMUM STRUCTURE HEIGHT SHALL NOT EXCEED FAA CRITERIA.

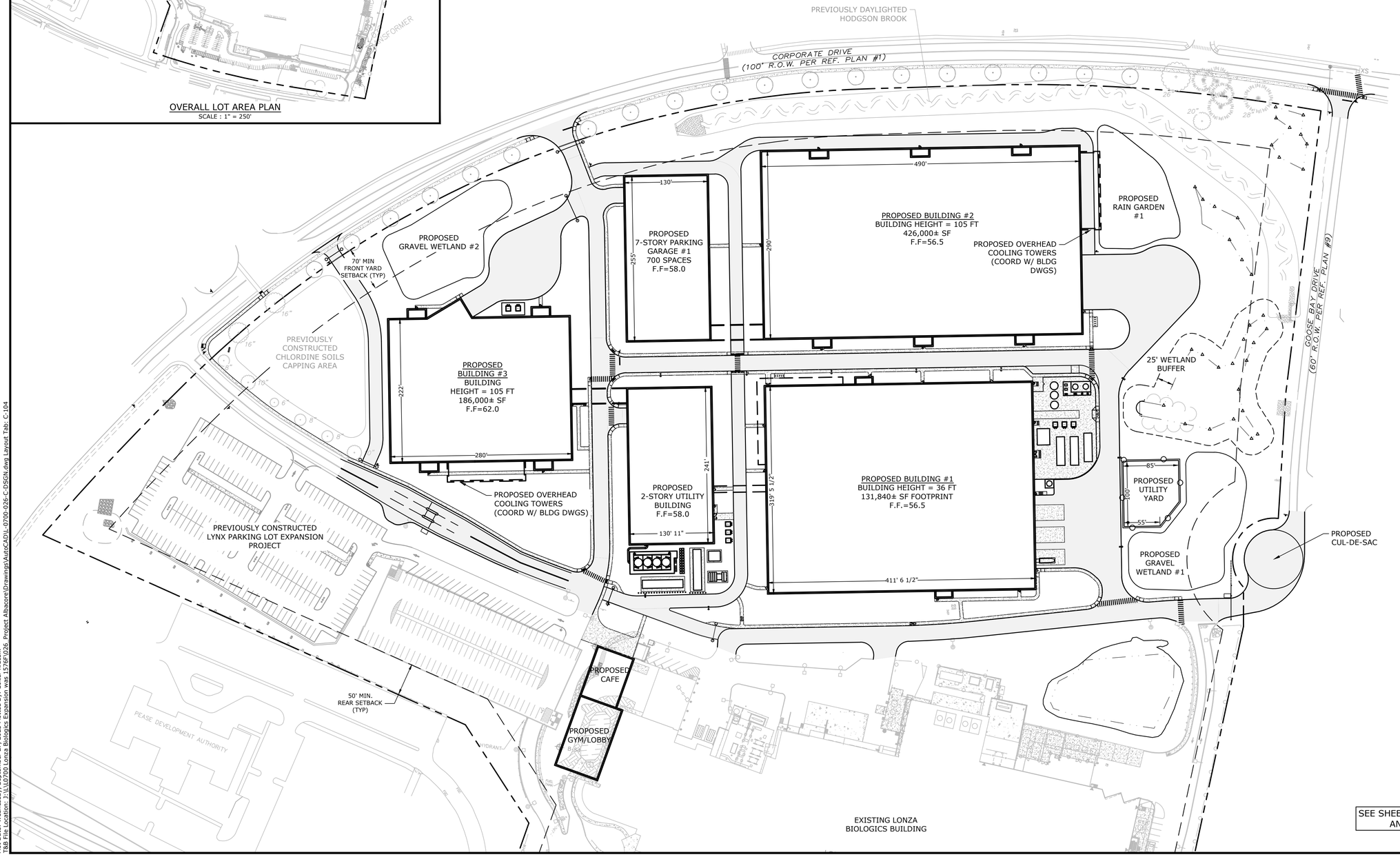
PARKING REQUIREMENTS:

REQUIRED PARKING
2 SPACES PER 3 EMPLOYEES ON LARGEST SHIFT

990 EXISTING EMPLOYEES	660 SPACES
1000 ANTICIPATED EMPLOYEES	666 SPACES
TOTAL REQUIRED:	1,326 SPACES

PARKING PROVIDED

EXISTING SPACES:	801 SPACES
PROPOSED PARKING GARAGE #1:	700 SPACES
TOTAL:	1,501 SPACES



N

Tighe&Bond

STATE OF NEW HAMPSHIRE
NEIL A. HANSEN
No. 15227
LICENSED PROFESSIONAL ENGINEER
9/27/2023

STATE OF NEW HAMPSHIRE
PATRICK CRIMMINS
No. 12378
LICENSED PROFESSIONAL ENGINEER
9/27/2023

SCALE IN FEET
0 80' 160'
GRAPHIC SCALE

Proposed Industrial Development

Lonza Biologics

Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
M	9/27/2023	P.B. Submission
L	7/17/2023	Amended Site Plan Review
K	5/5/2023	Phase 1B Issued for Bid
J	3/15/2023	Phase 1B Issued for Preliminary Pricing
I	1/9/2023	Admin. Approval Submission
H	12/10/2021	Planning Board Stipulation
G	8/19/2019	Admin. Approval Submission
F	11/6/2018	P.B. Submission

PROJECT NO:	L-0700-013
DATE:	04/03/2018
FILE:	L-0700-026-C-DSGN.dwg
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

MASTER SITE PLAN

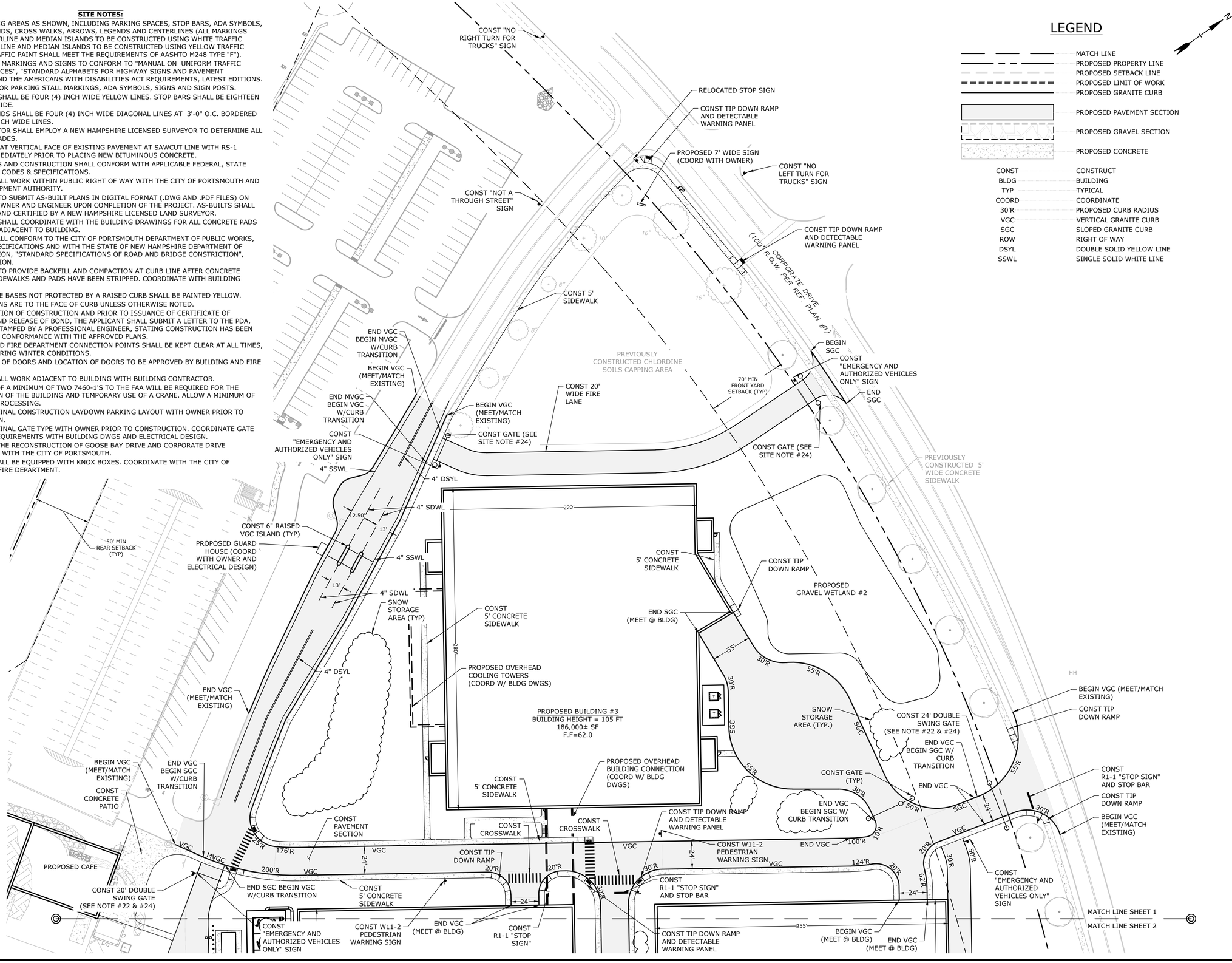
SCALE: AS SHOWN

C-104

Last Save Date: September 27, 2023 1:36 PM By: CKRZCUIK
Plot Date: Wednesday, September 27, 2023 Plotted By: CKRZCUIK
T&B File Location: J:\L\L0700 Lonza Biologics Expansion was 1576F\026_Project Albacore\Drawings\AutoCAD\L-0700-026-C-DSGN.dwg Layout Tab: C-104

SITE NOTES:

1. STRIPE PARKING AREAS AS SHOWN, INCLUDING PARKING SPACES, STOP BARS, ADA SYMBOLS, PAINTED ISLANDS, CROSS WALKS, ARROWS, LEGENDS AND CENTERLINES (ALL MARKINGS EXCEPT CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING WHITE TRAFFIC PAINT. CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING YELLOW TRAFFIC PAINT. ALL TRAFFIC PAINT SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F").
2. ALL PAVEMENT MARKINGS AND SIGNS TO CONFORM TO "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS", AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS, LATEST EDITIONS.
3. SEE DETAILS FOR PARKING STALL MARKINGS, ADA SYMBOLS, SIGNS AND SIGN POSTS.
4. CENTERLINES SHALL BE FOUR (4) INCH WIDE YELLOW LINES. STOP BARS SHALL BE EIGHTEEN (18) INCHES WIDE.
5. PAINTED ISLANDS SHALL BE FOUR (4) INCH WIDE DIAGONAL LINES AT 3'-0" O.C. BORDERED BY FOUR (4) INCH WIDE LINES.
6. THE CONTRACTOR SHALL EMPLOY A NEW HAMPSHIRE LICENSED SURVEYOR TO DETERMINE ALL LINES AND GRADES.
7. CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAWCUT LINE WITH RS-1 EMULSION IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
8. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE AND/OR TOWN CODES & SPECIFICATIONS.
9. COORDINATE ALL WORK WITHIN PUBLIC RIGHT OF WAY WITH THE CITY OF PORTSMOUTH AND PEASE DEVELOPMENT AUTHORITY.
10. CONTRACTOR TO SUBMIT AS-BUILT PLANS IN DIGITAL FORMAT (.DWG AND .PDF FILES) ON DISK TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR.
11. CONTRACTOR SHALL COORDINATE WITH THE BUILDING DRAWINGS FOR ALL CONCRETE PADS & SIDEWALKS ADJACENT TO BUILDING.
12. ALL WORK SHALL CONFORM TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS AND WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, "STANDARD SPECIFICATIONS OF ROAD AND BRIDGE CONSTRICTION", CURRENT EDITION.
13. CONTRACTOR TO PROVIDE BACKFILL AND COMPACTION AT CURB LINE AFTER CONCRETE FORMS FOR SIDEWALKS AND PADS HAVE BEEN STRIPPED. COORDINATE WITH BUILDING CONTRACTOR.
14. ALL LIGHT POLE BASES NOT PROTECTED BY A RAISED CURB SHALL BE PAINTED YELLOW.
15. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
16. UPON COMPLETION OF CONSTRUCTION AND PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY AND RELEASE OF BOND, THE APPLICANT SHALL SUBMIT A LETTER TO THE PDA, SIGNED AND STAMPED BY A PROFESSIONAL ENGINEER, STATING CONSTRUCTION HAS BEEN COMPLETED IN CONFORMANCE WITH THE APPROVED PLANS.
17. FIRE LANES AND FIRE DEPARTMENT CONNECTION POINTS SHALL BE KEPT CLEAR AT ALL TIMES, INCLUDING DURING WINTER CONDITIONS.
18. FINAL NUMBER OF DOORS AND LOCATION OF DOORS TO BE APPROVED BY BUILDING AND FIRE DEPARTMENTS.
19. COORDINATE ALL WORK ADJACENT TO BUILDING WITH BUILDING CONTRACTOR.
20. SUBMISSION OF A MINIMUM OF TWO 7460-1'S TO THE FAA WILL BE REQUIRED FOR THE CONSTRUCTION OF THE BUILDING AND TEMPORARY USE OF A CRANE. ALLOW A MINIMUM OF 45 DAYS FOR PROCESSING.
21. COORDINATE FINAL CONSTRUCTION LAYDOWN PARKING LAYOUT WITH OWNER PRIOR TO CONSTRUCTION.
22. COORDINATE FINAL GATE TYPE WITH OWNER PRIOR TO CONSTRUCTION. COORDINATE GATE ELECTRICAL REQUIREMENTS WITH BUILDING DWGS AND ELECTRICAL DESIGN.
23. COORDINATE THE RECONSTRUCTION OF GOOSE BAY DRIVE AND CORPORATE DRIVE INTERSECTION WITH THE CITY OF PORTSMOUTH.
24. ALL GATES SHALL BE EQUIPPED WITH KNOX BOXES. COORDINATE WITH THE CITY OF PORTSMOUTH FIRE DEPARTMENT.



LEGEND

- MATCH LINE
- PROPOSED PROPERTY LINE
- PROPOSED SETBACK LINE
- PROPOSED LIMIT OF WORK
- PROPOSED GRANITE CURB
- PROPOSED PAVEMENT SECTION
- PROPOSED GRAVEL SECTION
- PROPOSED CONCRETE

CONST	CONSTRUCT
BLDG	BUILDING
TYP	TYPICAL
COORD	COORDINATE
30'R	PROPOSED CURB RADIUS
VGC	VERTICAL GRANITE CURB
SGC	SLOPED GRANITE CURB
ROW	RIGHT OF WAY
DSYL	DOUBLE SOLID YELLOW LINE
SSWL	SINGLE SOLID WHITE LINE

Tighe&Bond

STATE OF NEW HAMPSHIRE – PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER
11/9/23

STATE OF NEW HAMPSHIRE – NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER
11/09/2023

SCALE IN FEET
0 40' 80'
GRAPHIC SCALE

Proposed Industrial Development

Lonza Biologics

Portsmouth, New Hampshire

MARK	DATE	DESCRIPTION
N	11/9/2023	Revised P.B. Submission
M	9/27/2023	P.B. Submission
L	9/1/2022	Issued for Construction
K	5/27/2022	Issued for Bid
J	5/23/2022	Third Party Rev. Comments
I	4/26/2022	Revised PB Stipulations

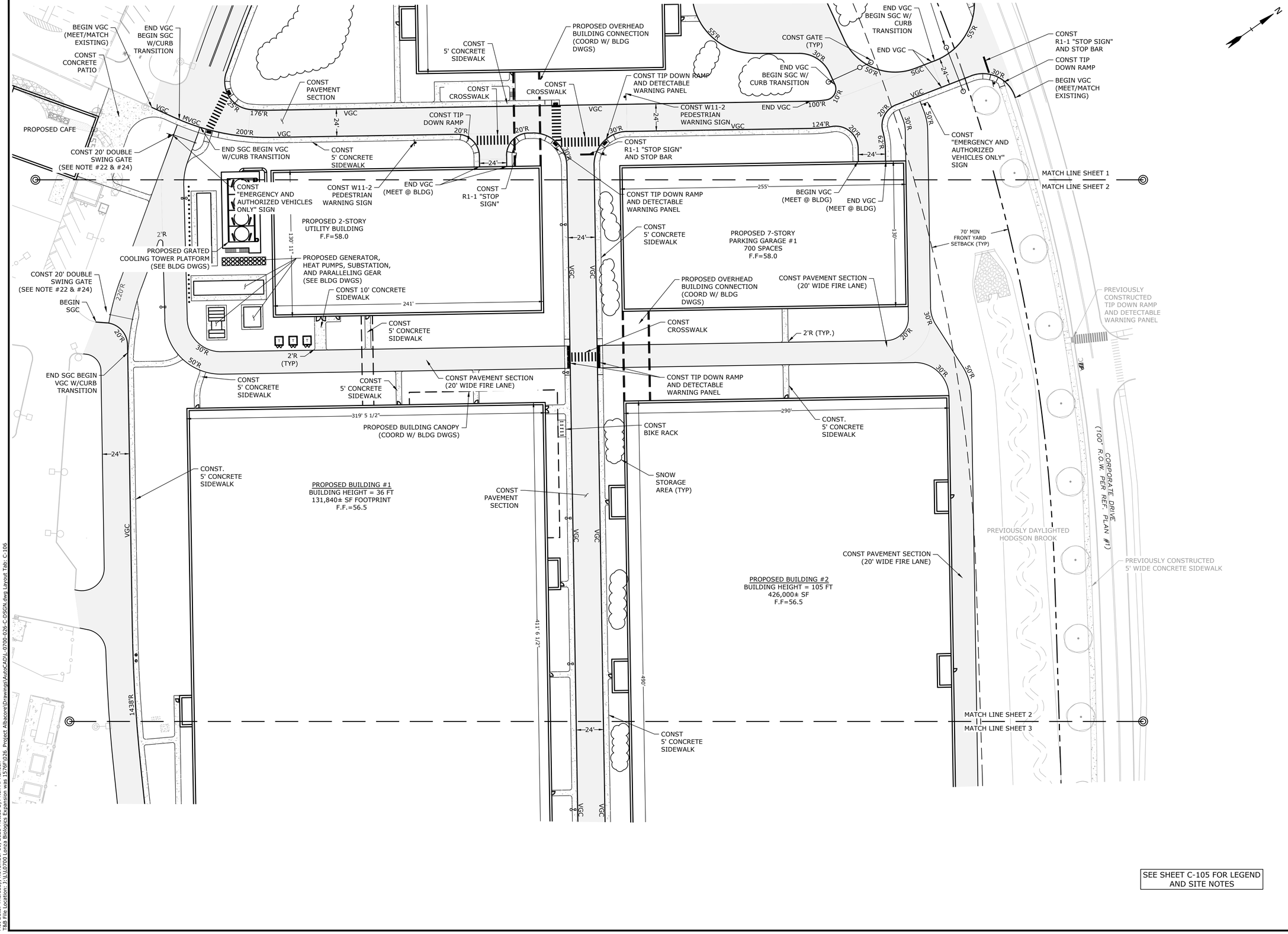
PROJECT NO:	L-0700-013
DATE:	04/03/2018
FILE:	L-0700-026-C-DSGN.dwg
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

SITE PLAN

SCALE: AS SHOWN

C-105

Last Save Date: November 9, 2023 11:03 AM By: NAHANSEN
Plot Date: November 09, 2023 11:03 AM By: Neil A. Hansen
T&B File Location: J:\LL\L0700 Lonza Biologics Expansion was 1576F\026. Project Albacore\Drawings\AutoCad\L-0700-026-C-DSGN.dwg Layout Tab: C-105



Last Save Date: November 9, 2023 11:03 AM By: NAHANSEN
Plot Date: Thursday, November 09, 2023 Plotted By: Neil A. Hansen
T&B File Location: J:\LL\L0700 Lonza Biologics Expansion was 15756\026. Project Albacore\Drawings\AutoCAD\L-0700-026-C-DSGN.dwg Layout Tab: C-106

Tighe&Bond

PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER STATE OF NEW HAMPSHIRE
11/9/23

NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER STATE OF NEW HAMPSHIRE
11/09/2023

SCALE IN FEET
0 40' 80'
GRAPHIC SCALE

Proposed Industrial Development

Lonza Biologics

Portsmouth,
New Hampshire

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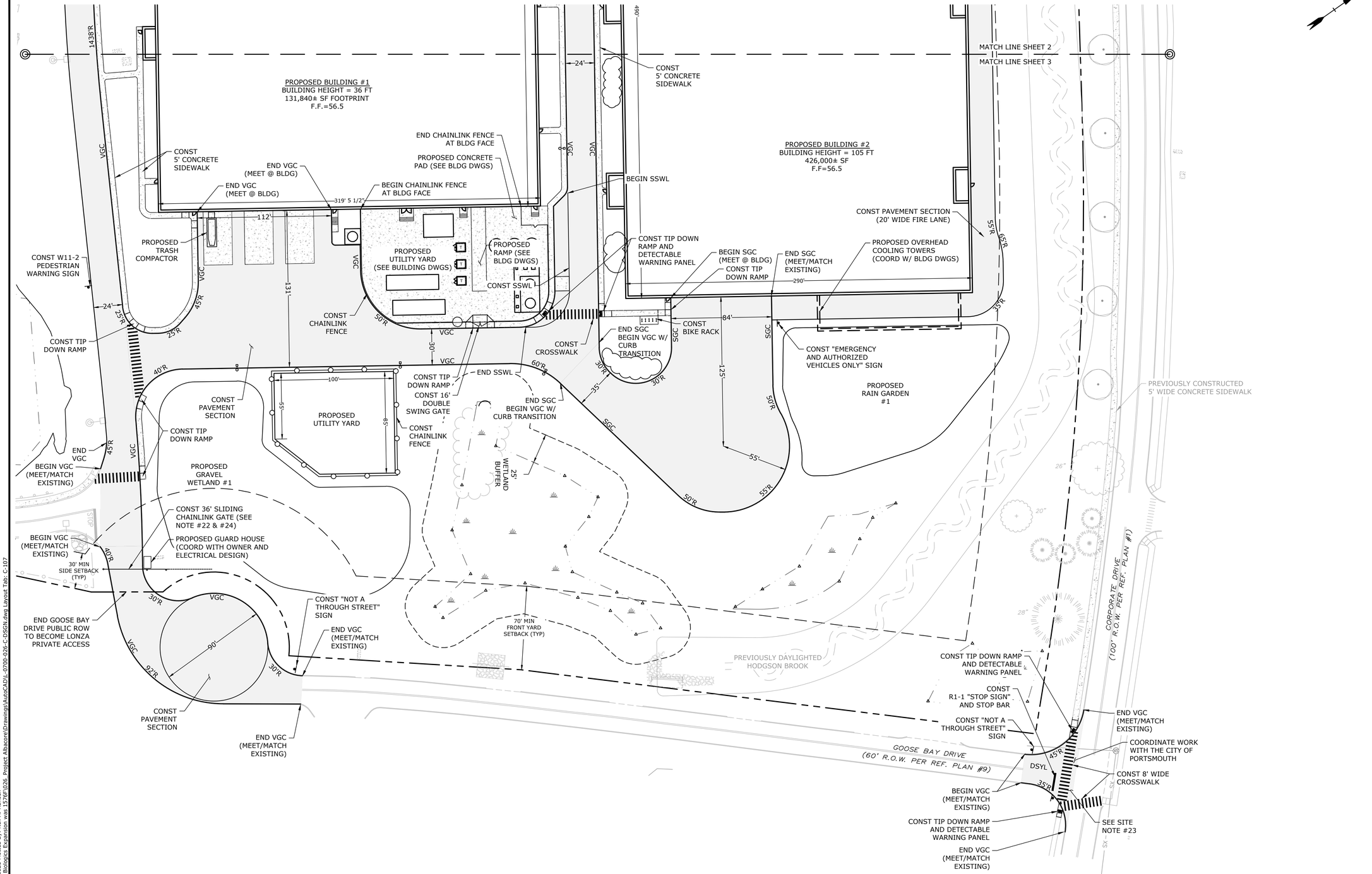
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

SITE PLAN

SCALE: AS SHOWN

C-106



SEE SHEET C-105 FOR LEGEND AND SITE NOTES

Tighe&Bond

STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – PATRICK CRIMMINS No. 12378 LICENSED
11/9/23

STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – NEIL A. HANSEN No. 15227 LICENSED
11/09/2023

SCALE IN FEET
0 40' 80'
GRAPHIC SCALE

Proposed Industrial Development

Lonza Biologics

Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
N	11/9/2023	Revised P.B. Submission
M	9/27/2023	P.B. Submission
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PROJECT NO:	L-0700-013
DATE:	04/03/2018
FILE:	L-0700-026-C-DSGN.dwg
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

SITE PLAN

SCALE: AS SHOWN

C-107

Last Save Date: November 9, 2023 11:03 AM By: NAHANSEN
Plot Date: Thursday, November 09, 2023 Plotted By: Neil Hansen
T&B File Location: I:\L\L0700 Lonza Biologics Expansion was 1576F\026 Project Albacore\Drawings\AutoCAD\L-0700-026-C-DSGN.dwg Layout Tab: C-107

PCB100
RIM=49.50
INV.IN=43.95 NE
INV.OUT=43.85 SW

PCB101
RIM=50.30
INV.OUT=45.70 W

PCB102
RIM=51.20
INV.OUT=47.50 SW

PCB103
RIM=54.00
INV.IN=49.80 NE
INV.IN=49.00 NW
INV.OUT=48.90 SE

PCB104
RIM=54.00
INV.OUT=49.80 SW

PCB105
RIM=57.00
INV.IN=50.95 NE
INV.IN=50.95 NW
INV.OUT=50.85 SE

PCB106
RIM=57.00
INV.IN=51.15 NE
INV.OUT=51.05 SW

PCB107
RIM=56.00
INV.IN=51.80 NE
INV.IN=51.80 NW
INV.IN=51.80 SW
INV.OUT=51.70 SE

PCB108
RIM=56.00
INV.OUT=51.95 SW

PCB109
RIM=56.00
INV.OUT=52.00 SE

PCB110
RIM=49.40
INV.IN=44.50 W
INV.OUT=44.40 E

PCB112
RIM=49.30
INV.IN=43.25 SW
INV.OUT=43.15 NE

PCB113
RIM=42.85
INV.OUT=38.20 S

PCB204
RIM=66.75
INV.OUT=61.65 W

PCB205
RIM=53.60
INV.IN=46.55 SW
INV.OUT=46.45 NE

PCB206
RIM=53.60
INV.OUT=46.65 NE

PCB207
RIM=49.30
INV.OUT=43.35 NE

PCB300
RIM=55.25
INV.OUT=51.50 SW

PCB301
RIM=56.00
INV.IN=51.65 SE
INV.OUT=51.55 NW

PCB302
RIM=56.00
INV.OUT=51.75 NW

PCB303
RIM=56.65
INV.IN=51.80 E
INV.OUT=51.70 W

PCB304
RIM=56.65
INV.OUT=51.90 W

PCB305
RIM=55.65
INV.OUT=51.65 E

PCB306
RIM=53.50
INV.OUT=49.50 NE

PCB307
RIM=52.25
INV.OUT=48.25 E

PCB308
RIM=50.60
INV.OUT=46.60 N

PDMH100
RIM=50.55
INV.IN=44.00 W
INV.IN=43.20 NE
INV.OUT=43.20 SE

PDMH101
RIM=50.65
INV.IN=45.50 NW
INV.IN=45.50 E
INV.OUT=45.40 SW

PDMH102
RIM=51.99
INV.IN=46.00 NW
INV.IN=47.00 NE
INV.OUT=45.90 SE

PDMH103
RIM=54.95
INV.IN=47.00 NW
INV.IN=49.20 SW
INV.OUT=46.90 SE

PDMH104
RIM=56.55
INV.IN=49.40 NW
INV.IN=51.60 SW
INV.OUT=48.50 SE

PDMH105
RIM=55.38
INV.IN=47.00 NW
INV.IN=50.65 SW
INV.OUT=49.30 SE

PDMH106
RIM=54.55
INV.IN=46.20 NW
INV.IN=46.30 SW
INV.IN=49.35 NE
INV.OUT=46.10 SE

PDMH109
RIM=61.50
INV.IN=48.35 NW
INV.IN=51.25 NE
INV.OUT=48.25 SE

PDMH110
RIM=61.75
INV.IN=48.70 NW
INV.IN=48.70 NE
INV.OUT=48.60 SE

PDMH111
RIM=53.94
INV.IN=50.05 NE
INV.IN=53.70 SE
INV.IN=51.50 E
INV.OUT=49.95 SW

PDMH112
RIM=56.44
INV.IN=49.75 NE
INV.IN=51.85 NW
INV.OUT=49.65 SW

PDMH113
RIM=63.00
INV.IN=52.95 SW
INV.OUT=51.30 SE

PDMH114
RIM=53.80
INV.IN=46.50 NW
INV.OUT=46.40 SE

PDMH115
RIM=59.50
INV.IN=52.55 SW
INV.IN=52.55 SE
INV.OUT=52.45 NE

PDMH116
RIM=56.40
INV.IN=47.05 NW
INV.IN=53.00 NE
INV.IN=49.25 N
INV.IN=51.10 NE
INV.OUT=46.95 SE

PDMH200
RIM=56.55
INV.IN=50.85 SE
INV.IN=50.85 E
INV.IN=50.85 SW
INV.OUT=50.75 NW

PDMH300
RIM=56.00
INV.IN=51.30 SE
INV.IN=51.30 S
INV.IN=51.30 NE
INV.OUT=51.20 NW

PDMH301
RIM=60.25
INV.IN=53.35 SW
INV.OUT=53.25 N

PDMH302
RIM=54.45
INV.IN=50.65 SW
INV.IN=50.65 W
INV.OUT=50.55 SE

PDMH303
RIM=53.60
INV.IN=49.45 SW
INV.IN=49.45 NW
INV.OUT=49.35 SE

PDMH304
RIM=55.00
INV.IN=48.65 NW
INV.IN=48.65 SW
INV.OUT=48.55 SE

PDMH305
RIM=51.42
INV.IN=46.70 NW
INV.IN=47.00 W
INV.OUT=46.60 S

PDMH306
RIM=51.50
INV.IN=46.30 S
INV.IN=46.30 NW
INV.OUT=46.20 NE

POS101
RIM=47.00
INV.OUT=41.35 E

POS200
RIM=56.50
INV.OUT=49.85 E

POS300
RIM=47.15
INV.OUT=42.42 E

PYD100
RIM=54.77
INV.IN=52.00 NW
INV.IN=50.35 NE
INV.OUT=50.25 SW

PYD101
RIM=52.77
INV.IN=49.30 NE
INV.IN=50.00 NW
INV.OUT=49.20 SW

PYD102
RIM=55.50
INV.IN=47.70 NW
INV.OUT=47.60 SE

PYD103
RIM=51.25
INV.IN=45.65 NW
INV.OUT=45.55 E

PYD104
RIM=59.00
INV.OUT=52.65 NE

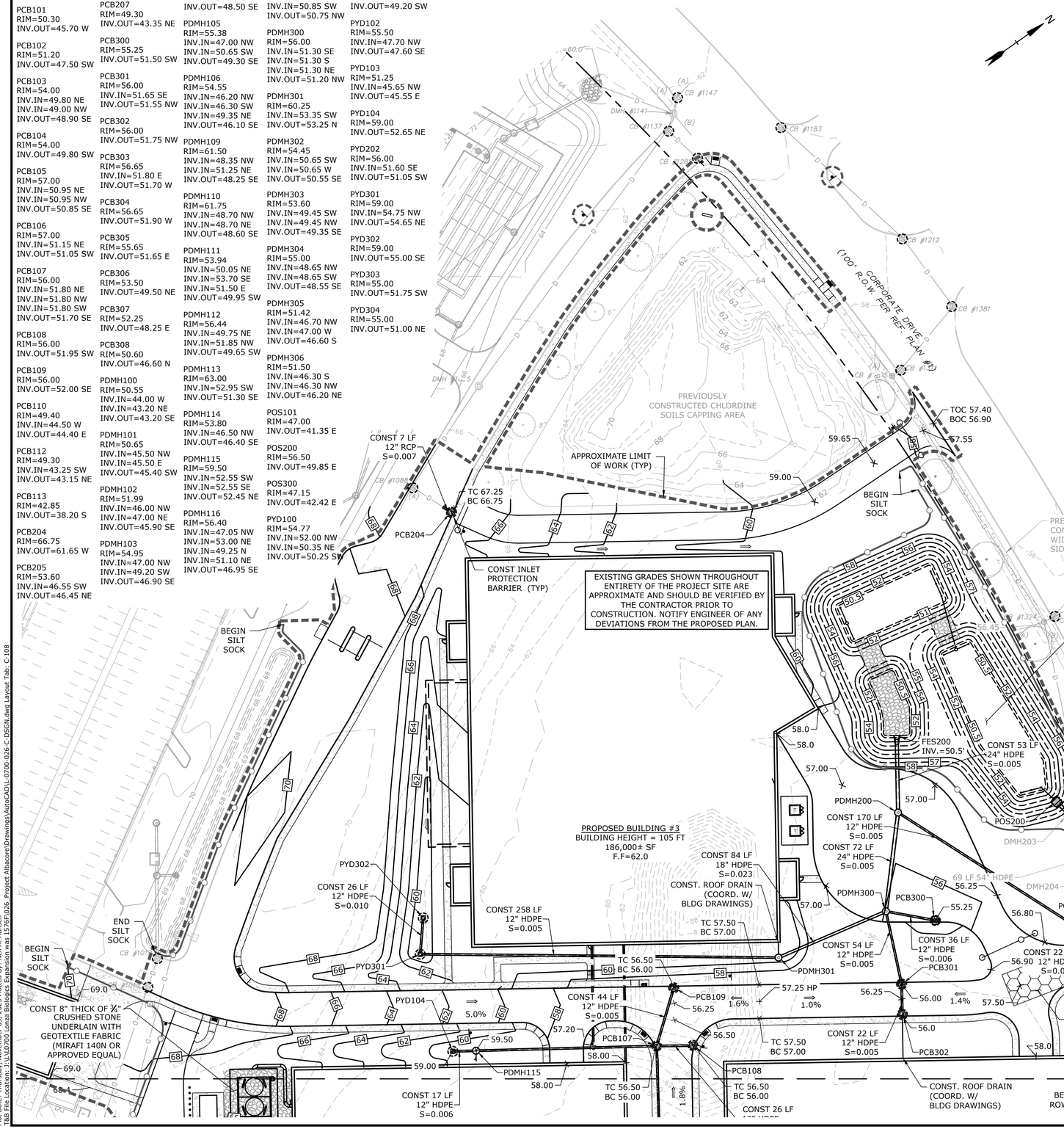
PYD202
RIM=56.00
INV.IN=51.60 SE
INV.OUT=51.05 SW

PYD301
RIM=59.00
INV.IN=54.75 NW
INV.OUT=54.65 NE

PYD302
RIM=59.00
INV.OUT=55.00 SE

PYD303
RIM=55.00
INV.OUT=51.75 SW

PYD304
RIM=55.00
INV.OUT=51.00 NE



GRADING AND DRAINAGE NOTES:

1. COMPACTION REQUIREMENTS:

BELOW PAVED OR CONCRETE AREAS	95%
TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL	95%
BELOW LOAM AND SEED AREAS	90%

* ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557, METHOD C FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM D-1556 OR ASTM-2922.

2. ALL STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE (HANCOR HI-Q, ADS N-12 OR APPROVED EQUAL), UNLESS OTHERWISE SPECIFIED.
3. SEE UTILITIES PLAN FOR ALL SITE UTILITY INFORMATION.
4. ADJUST ALL MANHOLES, CATCHBASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
5. CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE AND LAWN AREAS FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCES, EXITS, RAMPS AND LOADING DOCK AREAS ADJACENT TO THE BUILDING.
6. CONTRACTOR SHALL THOROUGHLY CLEAN ALL CATCHBASINS AND DRAIN LINES, WITHIN THE LIMIT OF WORK, OF SEDIMENT IMMEDIATELY UPON COMPLETION OF CONSTRUCTION.
7. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES.
8. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED FERTILIZER AND MULCH.
9. ALL STORM DRAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NHDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION.
10. ALL PROPOSED CATCHBASINS SHALL BE EQUIPPED WITH OIL/GAS SEPARATOR HOODS AND 4' SUMPS.
11. CONTRACTOR TO SUBMIT AS-BUILT PLANS IN DIGITAL FORMAT (.DWG AND .PDF FILES) ON DISK TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR.
12. CONTRACTOR SHALL COORDINATE WITH THE PROJECT SURVEYOR FOR BENCHMARK AND CONTROL POINTS PRIOR TO CONSTRUCTION.
13. ALL WORK SHALL CONFORM TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS, AND WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, "STANDARD SPECIFICATIONS OF ROAD AND BRIDGE CONSTRUCTION", CURRENT EDITION.
14. PER COORDINATION WITH THE PDA, GROUNDWATER DISCHARGE FROM THE PROPOSED FOUNDATION DRAIN AND UNDER-SLAB DRAIN OF BUILDING 1 AND THE CENTRAL UTILITY BUILDING WILL BE CONNECTED TO THE ONSITE DRAINAGE SYSTEM. IF TREATMENT OF THE GROUNDWATER DISCHARGE IS DETERMINED TO BE REQUIRED DURING THE BUILDING PERMITTING PROCESS AND RE-INFILTRATION IS NOT PERMITTED, A CARBON FILTRATION SYSTEM WILL BE NEEDED.

EROSION CONTROL NOTES:

1. INSTALL EROSION CONTROL BARRIERS AS SHOWN AS FIRST ORDER OF WORK.
2. SEE GENERAL EROSION CONTROL NOTES ON DETAIL SHEETS.
3. PROVIDE INLET PROTECTION AROUND ALL EXISTING AND PROPOSED CATCHBASIN INLETS WITHIN THE WORK LIMITS. MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED.
4. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
5. INSPECT INLET PROTECTION AND SILT FENCES DAILY AND AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY OF FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE FILTER HEIGHT.
6. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED, FERTILIZER AND MULCH.
7. CONSTRUCT EXCELSIOR MAT ON ALL SLOPES STEEPER THAN 3:1.
8. PRIOR TO ANY WORK OR SOIL DISTURBANCE COMMENCING ON THE SUBJECT PROPERTY, INCLUDING MOVING OF EARTH, THE APPLICANT SHALL INSTALL ALL EROSION AND SILTATION MITIGATION AND CONTROL MEASURES AS REQUIRED BY STATE AND LOCAL PERMITS AND APPROVALS.
9. CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST AND WIND EROSION THROUGHOUT THE CONSTRUCTION PERIOD. DUST CONTROL MEASURES SHALL INCLUDE, BUT NOT LIMITED TO, SPRINKLING WATER ON UNSTABLE SOILS SUBJECT TO ARID CONDITIONS.
10. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION AND FINAL STABALIZATION.
11. ALL CATCHBASIN SUMPS AND PIPING SHALL BE THOROUGHLY CLEANED TO REMOVE ALL SEDIMENT AND DEBRIS AFTER THE PROJECT HAS BEEN PAVED.
12. TEMPORARY SOIL STOCKPILE SHALL BE SURROUNDED BY SILT FENCE AND SHALL BE STABILIZED BY TEMPORARY EROSION CONTROL SEEDING. STOCKPILE AREAS TO BE LOCATED AS FAR AS POSSIBLE FROM THE DELINEATED EDGE OF WETLAND.
13. SAFETY FENCING SHALL BE PROVIDED AROUND STOCKPILES OVER 10 FT.
14. CONCRETE TRUCKS WILL BE REQUIRED TO WASH OUT (IF NECESSARY) SHOOTS ONLY WITHIN AREAS WHERE CONCRETE HAS BEEN PLACED. NO OTHER WASH OUT WILL BE ALLOWED.

LEGEND

- MATCH LINE
- PROPOSED PROPERTY LINE
- PROPOSED CONTOUR LINE
- PROPOSED DRAIN LINE (TYP)
- PROPOSED SILT SOCK
- INLET PROTECTION SILT SACK
- PROPOSED CATCHBASIN
- PROPOSED DOUBLE GRATE CATCHBASIN
- PROPOSED DRAIN MANHOLE

CONST	CONSTRUCT
BLDG	BUILDING
TYP	TYPICAL
COORD	COORDINATE
RD	ROOF DRAIN
VIF	VERIFY IN FIELD
TC	TOP OF CURB
BC	BOTTOM OF CURB

Tighe&Bond

STATE OF NEW HAMPSHIRE – PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER
11/9/23

STATE OF NEW HAMPSHIRE – NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER
11/09/2023

SCALE IN FEET
0 40' 80'
GRAPHIC SCALE

Proposed Industrial Development

Lonza Biologics

Portsmouth, New Hampshire

MARK	DATE	DESCRIPTION
N	11/9/2023	Revised P.B. Submission
M	9/27/2023	P.B. Submission
L	9/1/2022	Issued for Construction
K	5/27/2022	Issued for Bid
J	5/23/2022	Third Party Rev. Comments
I	4/26/2022	Revised PB Stipulations

PROJECT NO:	L-0700-013
DATE:	04/03/2018
FILE:	L-0700-026-C-DSGN.dwg
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

GRADING, DRAINAGE & EROSION CONTROL PLAN

SCALE: AS SHOWN

C-108

Last Save Date: November-9, 2023 11:03 AM By: NAHANSEN
Plot Date: November-9, 2023 11:03 AM By: Neil Hansen
T&B File Location: J:\LL\0700 Lonza Biologics Expansion was 15726F\026_Project Albacore\Drawings\AutoCAD\L-0700-026-C-DSGN.dwg Layout Tab: C-108

PROPOSED BUILDING #3
BUILDING HEIGHT = 105 FT
186,000± SF
F.F=62.0

PROPOSED 2-STORY
CENTRAL UTILITY
BUILDING
F.F=58.0

PROPOSED 7-STORY
PARKING GARAGE #1
700 SPACES
F.F=58.0

PROPOSED BUILDING #1
BUILDING HEIGHT = 36 FT
131,840± SF FOOTPRINT
F.F.=56.5

PROPOSED BUILDING #2
BUILDING HEIGHT = 105 FT
426,000± SF
F.F=56.5

EXISTING GRADES SHOWN THROUGHOUT ENTIRETY OF THE PROJECT SITE ARE APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DEVIATIONS FROM THE PROPOSED PLAN.

SEE SHEET C-108 FOR LEGEND GRADING, DRAINAGE & EROSION CONTROL NOTES, & DRAINAGE STRUCTURE TABLE

MATCH LINE SHEET 1
MATCH LINE SHEET 2
MATCH LINE SHEET 2
MATCH LINE SHEET 3

(100' R.O.W. PER REF. PLAN #1)

SCALE IN FEET
0 40' 80'
GRAPHIC SCALE

Tighe&Bond

STATE OF NEW HAMPSHIRE
PATRICK CRIMMINS
No. 12378
LICENSED PROFESSIONAL ENGINEER
11/9/23

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GRADING, DRAINAGE & EROSION CONTROL PLAN

SCALE: AS SHOWN

C-109

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Print Date: Thursday, November 09, 2023 11:03 AM By: Neil A. Hansen
T&B File Location: J:\LL\L0700 Lonza Biologics Expansion was 1576F\026. Project Albacore\Drawings\AutoCAD\L-0700-026-C-DSGN.dwg Layout Tab: C-109

PDMH116
56.40
56.50
56.90
(COORD W/ BLDG DRAWINGS)
TC 56.45
BC 55.95
56.40
CONST 151 LF
24" HDPE
S=0.005
CONST 13 LF
6" HDPE
S=0.019
CONST 6" ROOF DRAIN
INV = 49.60
(COORD W/ BLDG DRAWINGS)
CONST 80 LF
24" HDPE
S=0.006
PDMH106
53.70
PROPOSED BUILDING #1
BUILDING HEIGHT = 36 FT
131,840± SF FOOTPRINT
F.F.=56.5
TC 56.00
BC 55.50
TC 56.00
BC 55.50
55.75 HP
CONST 21 LF
10" HDPE
S=0.019
CONST 10" ROOF DRAIN
INV = 49.60
(COORD W/
BLDG DRAWINGS)
CONST 94 LF
24" HDPE
S=0.004
PDMH103
54.95
1.75%
PDMH114
53.80
EXISTING GRADES SHOWN THROUGHOUT ENTIRETY OF THE PROJECT SITE ARE APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DEVIATIONS FROM THE PROPOSED PLAN.
PROPOSED BUILDING #2
BUILDING HEIGHT = 105 FT
426,000± SF
F.F=56.5
55.00
MATCH LINE SHEET 2
MATCH LINE SHEET 3
CONST 271 LF
18" HDPE
S=0.007
CB #1484
CB #1504
CB #2329
CONST 91 LF
24" HDPE
S=0.004
PDMH102
5' DIAMETER
CONST. 6" HDPE
PERFORATED
UNDERDRAIN (TYP.)
CONST 28 LF
12" HDPE
S=0.045
52.35
PCB307
PCB206
CONST 22 LF
12" HDPE
S=0.005
PCB205
TC 53.00
BC 52.50
TC 53.00
BC 52.50
1.8%
6.5%
TC 52.00
BC 51.50
TC 51.60
BC 51.10
CONST 39 LF
12" HDPE
S=0.013
CONST. RIPRAP
APRON W1=5.0' W2=27.0'
L=23' D50=8" D=16"
CONST 25 LF
24" HDPE
S=0.064
CONST. ROOF DRAIN
(COORD. W/
BLDG DRAWINGS)
TC 51.70
BC 51.20
PCB102
52.5
52.5
52.5
FES301
INV.=45.0'
CONST 28 LF
12" HDPE
S=0.005
TC 52.00
BC 51.50
PYD103
51.25
CONST 61 LF
24" HDPE
S=0.017
CONST 112 LF
30" HDPE
S=0.006
2.0%
CONST 163 LF
30" HDPE
S=0.009
TC 52.20
BC 51.70
1.0%
CONST 44 LF
24" HDPE
S=0.009
PCB110
5' DIAMETER
1.35%
CONST 9 LF
30" HDPE
S=0.044
PDMH100
6' DIAMETER
TC 49.90
BC 49.40
PCB100
DOUBLE GRATE 1.5%
5' DIAMETER
1.0%
50.65
PCB101
PDMH305
CONST. RIPRAP
APRON W1=6.0' W2=29.0'
L=23' D50=6" D=15"
BEGIN SILT SOCK
49.00
TC 50.00
BC 49.50
CONST 14 LF
36" HDPE
S=0.007
PDMH101
5' DIAMETER
TC 51.60
BC 51.10
52.0
2.6%
TC 50.80
BC 50.30
CONST 31 LF
18" HDPE
S=0.039
1.5%
PROPOSED
RAIN GARDEN #1
(SEE SHEET C-509)
POS300
CONST 57 LF
12" HDPE
S=0.005
PREVIOUSLY CONSTRUCTED
5' WIDE CONCRETE SIDEWALK
CONST 23 LF
12" HDPE
S=0.004
49.30
FES100
INV.=43.0'
PDMH306
FES300
INV.=45.0'
FES302
INV.=42.15'
CB #1655
CB #1542
PCB207
49.30
PCB112
CONST 53 LF
12" HDPE
S=0.006
50.6
PCB308
51.4
51.65
CONST 33 LF
12" HDPE
S=0.006
CONST. EROSION
CONTROL BLANKET APRON.
REPLACE DISTURBED
STREAM VEGETATION
CONST 30 LF
12" HDPE
S=0.005
FES101
INV=43.0'
25' WETLAND BUFFER
51.4
51.4
CONST. EROSION
CONTROL BLANKET
SPILLWAY
END
SILT
SOCK
CONST RIPRAP SPILLWAY
ELEV.=46.50',
W=15', L=15'
CONST GRAVEL
WETLAND #1
(SEE SHEET C-507)
CONST 33 LF
18" HDPE
S=0.005
APPROXIMATE LIMIT
OF WORK (TYP)
47.00
46.75
POS101
CORPORATE DRIVE
(100' R.O.W. PER REF. PLAN #1)
TC 47.00
BC 46.50
TC 47.00
BC 46.50
47.00
CONSTRUCT HW100
18" WING HEADWALL (SEE
DETAIL ON SHEET C-510)
INV=41.20'
CONST HEADWALL RIPRAP
APRON W=34' L=29'
D50=12" D=27"
END SILT SOCK
CB #1733
PREVIOUSLY DAYLIGHTED
HODGSON BROOK
PCB113
CB #1769
42.85
PREVIOUSLY
CONSTRUCTED
OVERFLOW WEIR
DMH #2330
CB #1685
CB #2327
CB #1572
CB #1570
REPLACE CB FRAME AND GRATE
WITH MANHOLE COVER,
ADJUSTED TO PROPOSED FINISH
ELEVATION
END DOUBLE
ROW SILT SOCK
DMH PB
RIM=44.4
DMH #1755
CB #1678
DMH #2336
GOOSE BAY DRIVE
(60' R.O.W. PER REF. PLAN #9)
42"x29" ARCH CMP INV.=35.3'
42"x29" ARCH CMP INV.=35.4'
42"x29" ARCH CMP INV.=35.2'
15" RCP INV.=35.6'
24" RCP INV.=35.1'
15" RCP INV.=35.5'
CB #1586
CB #1580
0" RCP INV.=35.8'

SEE SHEET C-108 FOR LEGEND GRADING, DRAINAGE & EROSION CONTROL NOTES, & DRAINAGE STRUCTURE TABLE

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Tighe&Bond

STATE OF NEW HAMPSHIRE
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SCALE IN FEET
0 40' 80'
GRAPHIC SCALE

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GRADING, DRAINAGE & EROSION CONTROL PLAN

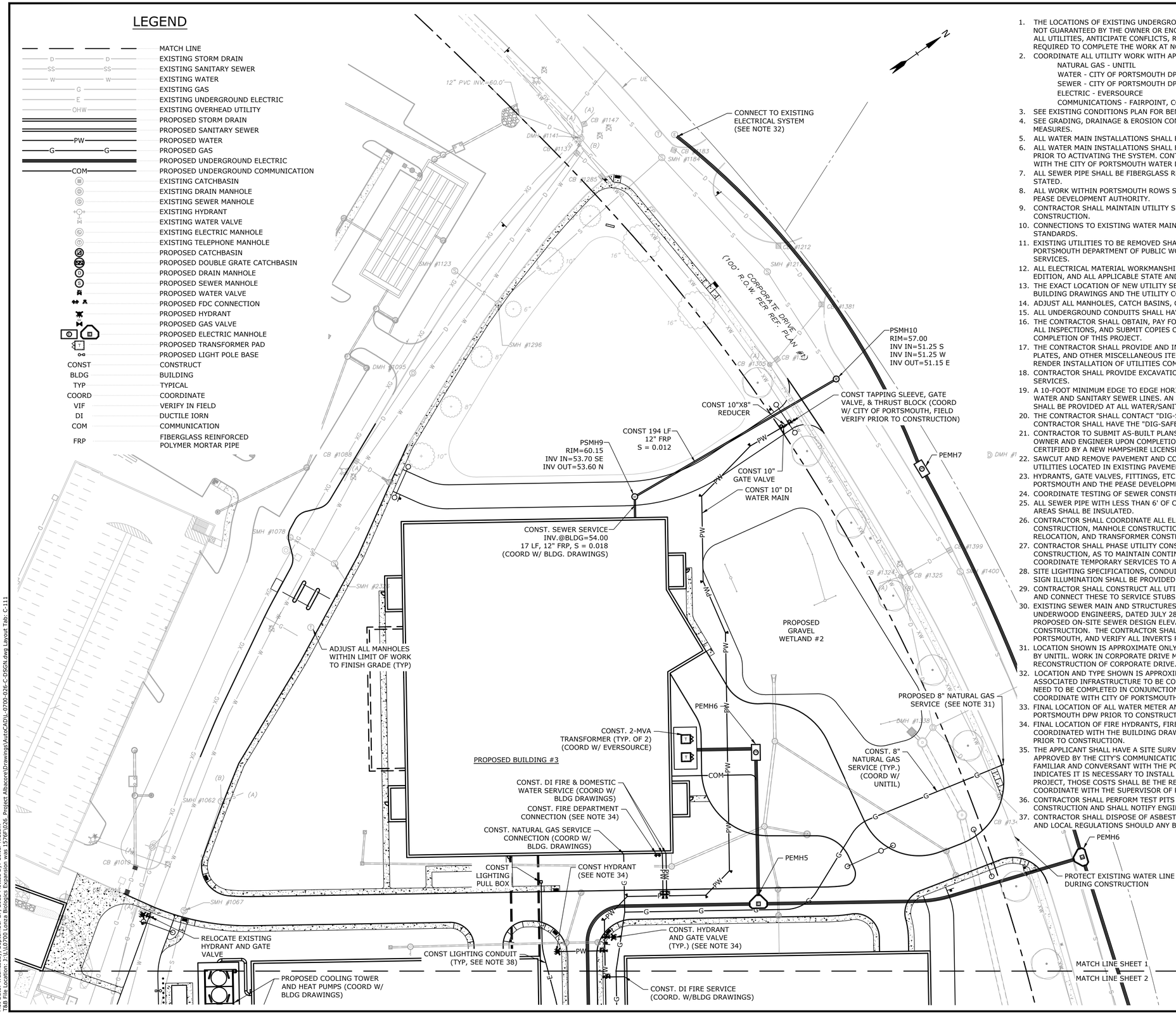
SCALE: AS SHOWN

C-110

LEGEND

- MATCH LINE
- EXISTING STORM DRAIN (D)
- EXISTING SANITARY SEWER (SS)
- EXISTING WATER (W)
- EXISTING GAS (G)
- EXISTING UNDERGROUND ELECTRIC (E)
- EXISTING OVERHEAD UTILITY (OHW)
- PROPOSED STORM DRAIN
- PROPOSED SANITARY SEWER
- PROPOSED WATER (PW)
- PROPOSED GAS (G)
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED UNDERGROUND COMMUNICATION (COM)
- EXISTING CATCHBASIN
- EXISTING DRAIN MANHOLE
- EXISTING SEWER MANHOLE
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING ELECTRIC MANHOLE
- EXISTING TELEPHONE MANHOLE
- PROPOSED CATCHBASIN
- PROPOSED DOUBLE GRATE CATCHBASIN
- PROPOSED DRAIN MANHOLE
- PROPOSED SEWER MANHOLE
- PROPOSED WATER VALVE
- PROPOSED FDC CONNECTION
- PROPOSED HYDRANT
- PROPOSED GAS VALVE
- PROPOSED ELECTRIC MANHOLE
- PROPOSED TRANSFORMER PAD
- PROPOSED LIGHT POLE BASE

CONST	CONSTRUCT
BLDG	BUILDING
TYP	TYPICAL
COORD	COORDINATE
VIF	VERIFY IN FIELD
DI	DUCTILE IORN
COM	COMMUNICATION
FRP	FIBERGLASS REINFORCED POLYMER MORTAR PIPE



UTILITY NOTES:

1. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES, AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER.
2. COORDINATE ALL UTILITY WORK WITH APPROPRIATE UTILITY COMPANY.
   - NATURAL GAS - UNITIL
   - WATER - CITY OF PORTSMOUTH DPW
   - SEWER - CITY OF PORTSMOUTH DPW
   - ELECTRIC - EVERSOURCE
   - COMMUNICATIONS - FAIRPOINT, COMCAST, FIRSTLIGHT
3. SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION.
4. SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR PROPOSED GRADING AND EROSION CONTROL MEASURES.
5. ALL WATER MAIN INSTALLATIONS SHALL BE CLASS 52, CEMENT LINED DUCTILE IRON PIPE.
6. ALL WATER MAIN INSTALLATIONS SHALL BE PRESSURE TESTED AND CHLORINATED AFTER CONSTRUCTION PRIOR TO ACTIVATING THE SYSTEM. CONTRACTOR SHALL COORDINATE CHLORINATION AND TESTING WITH THE CITY OF PORTSMOUTH WATER DEPARTMENT.
7. ALL SEWER PIPE SHALL BE FIBERGLASS REINFORCED POLYMER MORTAR (FRP) PIPE UNLESS OTHERWISE STATED.
8. ALL WORK WITHIN PORTSMOUTH ROWS SHALL BE COORDINATED WITH CITY OF PORTSMOUTH AND THE PEASE DEVELOPMENT AUTHORITY.
9. CONTRACTOR SHALL MAINTAIN UTILITY SERVICES TO ABUTTING PROPERTIES THROUGHOUT CONSTRUCTION.
10. CONNECTIONS TO EXISTING WATER MAIN SHALL BE CONSTRUCTED TO CITY OF PORTSMOUTH STANDARDS.
11. EXISTING UTILITIES TO BE REMOVED SHALL BE CAPPED AT THE MAIN AND MEET THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS STANDARDS FOR CAPPING OF WATER AND SEWER SERVICES.
12. ALL ELECTRICAL MATERIAL WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, LATEST EDITION, AND ALL APPLICABLE STATE AND LOCAL CODES.
13. THE EXACT LOCATION OF NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE BUILDING DRAWINGS AND THE UTILITY COMPANIES.
14. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
15. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
16. THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO THE OWNER PRIOR TO THE COMPLETION OF THIS PROJECT.
17. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL.
18. CONTRACTOR SHALL PROVIDE EXCAVATION, BEDDING, BACKFILL AND COMPACTION FOR NATURAL GAS SERVICES.
19. A 10-FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18-INCH MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER/SANITARY SEWER CROSSINGS.
20. THE CONTRACTOR SHALL CONTACT "DIG-SAFE" 72 HOURS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL HAVE THE "DIG-SAFE" NUMBER ON SITE AT ALL TIMES.
21. CONTRACTOR TO SUBMIT AS-BUILT PLANS IN DIGITAL FORMAT (.DWG AND .PDF FILES) ON DISK TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR.
22. SAWCUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN.
23. HYDRANTS, GATE VALVES, FITTINGS, ETC. SHALL MEET THE REQUIREMENTS OF THE CITY OF PORTSMOUTH AND THE PEASE DEVELOPMENT AUTHORITY.
24. COORDINATE TESTING OF SEWER CONSTRUCTION WITH THE CITY OF PORTSMOUTH.
25. ALL SEWER PIPE WITH LESS THAN 6' OF COVER IN PAVED AREAS OR LESS THAN 4' OF COVER IN UNPAVED AREAS SHALL BE INSULATED.
26. CONTRACTOR SHALL COORDINATE ALL ELECTRIC WORK INCLUDING BUT NOT LIMITED TO: CONDUIT CONSTRUCTION, MANHOLE CONSTRUCTION, UTILITY POLE CONSTRUCTION, OVERHEAD WIRE RELOCATION, AND TRANSFORMER CONSTRUCTION WITH POWER COMPANY.
27. CONTRACTOR SHALL PHASE UTILITY CONSTRUCTION, PARTICULARLY WATER MAIN AND GAS MAIN CONSTRUCTION, AS TO MAINTAIN CONTINUOUS SERVICE TO ABUTTING PROPERTIES. CONTRACTOR SHALL COORDINATE TEMPORARY SERVICES TO ABUTTERS WITH THE UTILITY COMPANY AND AFFECTED ABUTTER.
28. SITE LIGHTING SPECIFICATIONS, CONDUIT LAYOUT AND CIRCUITRY FOR PROPOSED SITE LIGHTING AND SIGN ILLUMINATION SHALL BE PROVIDED BY THE PROJECT ELECTRICAL ENGINEER.
29. CONTRACTOR SHALL CONSTRUCT ALL UTILITIES AND DRAINS TO WITHIN 10' OF THE FOUNDATION WALLS AND CONNECT THESE TO SERVICE STUBS FROM THE BUILDING.
30. EXISTING SEWER MAIN AND STRUCTURES IN GOOSE BAY DRIVE ARE BASED ON A PROPOSED DESIGN BY UNDERWOOD ENGINEERS, DATED JULY 28, 2017, AND WAS CONSTRUCTED IN SUMMER 2018. THE PROPOSED ON-SITE SEWER DESIGN ELEVATIONS ARE BASED ON THE UNDERWOOD PLAN DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE SEWER CONSTRUCTION WITH THE CITY OF PORTSMOUTH, AND VERIFY ALL INVERTS PRIOR TO CONSTRUCTION.
31. LOCATION SHOWN IS APPROXIMATE ONLY. FINAL DESIGN OF NATURAL GAS SERVICE TO BE COMPLETED BY UNITIL. WORK IN CORPORATE DRIVE MAY NEED TO BE COMPLETED IN CONJUNCTION WITH FUTURE RECONSTRUCTION OF CORPORATE DRIVE. COORDINATE WITH CITY OF PORTSMOUTH AND UNITIL.
32. LOCATION AND TYPE SHOWN IS APPROXIMATE ONLY. FINAL DESIGN OF ELECTRIC SERVICE AND ASSOCIATED INFRASTRUCTURE TO BE COMPLETED BY EVERSOURCE. WORK IN CORPORATE DRIVE MAY NEED TO BE COMPLETED IN CONJUNCTION WITH FUTURE RECONSTRUCTION OF CORPORATE DRIVE. COORDINATE WITH CITY OF PORTSMOUTH AND EVERSOURCE.
33. FINAL LOCATION OF ALL WATER METER AND VALVES SHALL BE COORDINATED WITH THE CITY OF PORTSMOUTH DPW PRIOR TO CONSTRUCTION.
34. FINAL LOCATION OF FIRE HYDRANTS, FIRE DEPARTMENT CONNECTIONS AND DRY STAND PIPES WILL BE COORDINATED WITH THE BUILDING DRAWINGS AND APPROVED BY THE PORTSMOUTH FIRE DEPARTMENT PRIOR TO CONSTRUCTION.
35. THE APPLICANT SHALL HAVE A SITE SURVEY CONDUCTED BY A RADIO COMMUNICATIONS CARRIER APPROVED BY THE CITY'S COMMUNICATIONS DIVISION. THE RADIO COMMUNICATIONS CARRIER MUST BE FAMILIAR AND CONVERSANT WITH THE POLICE AND RADIO CONFIGURATION. IF THE SITE SURVEY INDICATES IT IS NECESSARY TO INSTALL A SIGNAL REPEATER EITHER ON OR NEAR THE PROPOSED PROJECT, THOSE COSTS SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER. THE OWNER SHALL COORDINATE WITH THE SUPERVISOR OF RADIO COMMUNICATIONS FOR THE CITY.
36. CONTRACTOR SHALL PERFORM TEST PITS TO VERIFY INVERT ELEVATIONS IN FIELD PRIOR TO CONSTRUCTION AND SHALL NOTIFY ENGINEER IF ELEVATION DIFFERS FROM PLAN.
37. CONTRACTOR SHALL DISPOSE OF ASBESTOS CEMENT PIPES IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS SHOULD ANY BE FOUND DURING CONSTRUCTION.

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STATE OF NEW HAMPSHIRE – NEIL A. HANSEN No. 15227 – PROFESSIONAL ENGINEER – LICENSED
9/27/2023

STATE OF NEW HAMPSHIRE – PATRICK CRIMMINS No. 12378 – PROFESSIONAL ENGINEER – LICENSED
9/27/2023

SCALE IN FEET
0 40' 80'
GRAPHIC SCALE

Proposed Industrial Development

Lonza Biologics

Portsmouth,
New Hampshire

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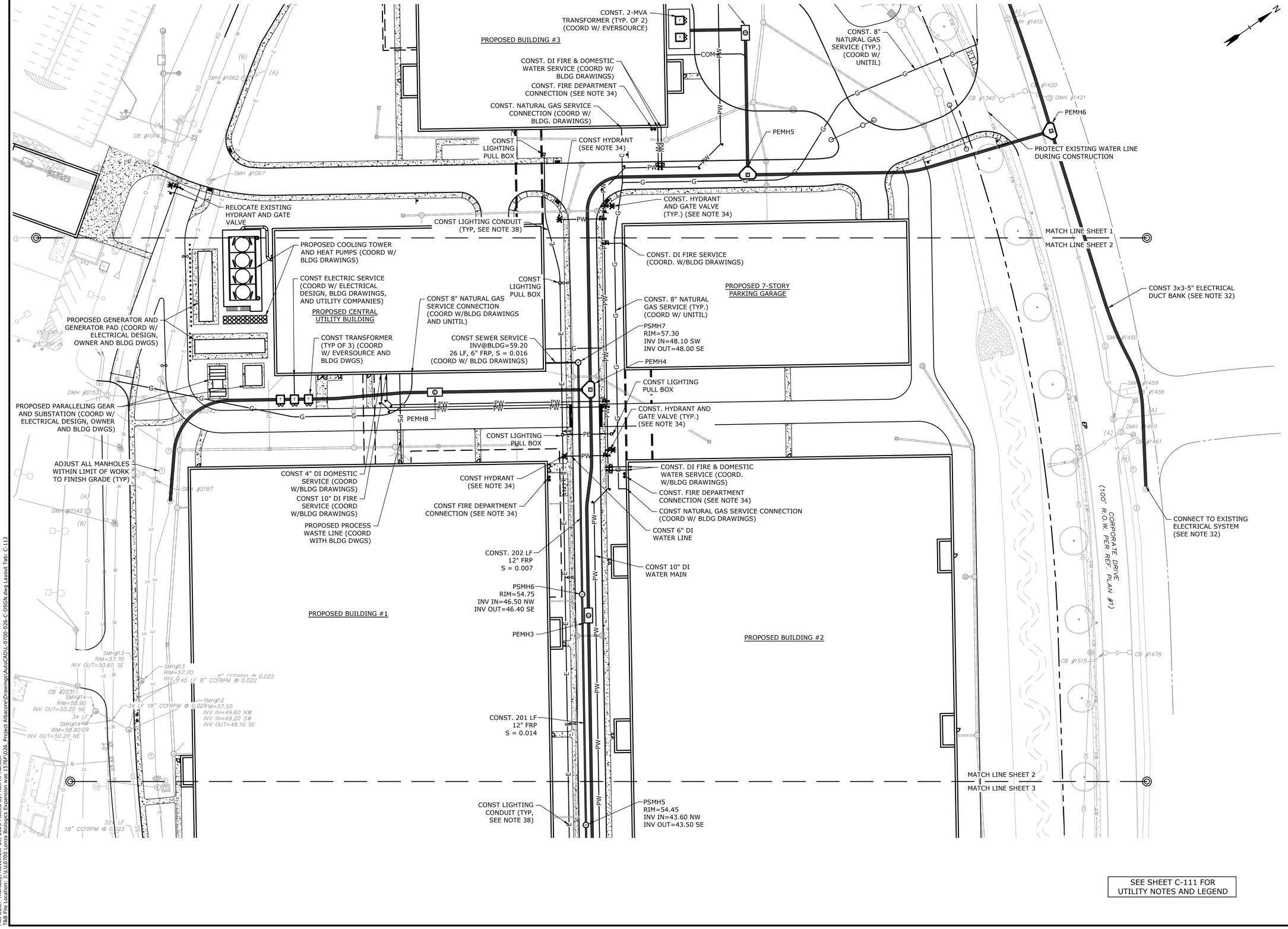
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

UTILITIES PLAN

SCALE: AS SHOWN

C-111

Last Save Date: September 27, 2023 1:36 PM By: CKRZCIUK
Plot Date: September 27, 2023 1:37 PM By: CKRZCIUK
T&B File Location: J:\LU\0700 Lonza Biologics Expansion was 1576F\026 Project Albacore\Drawings\AutoCAD\L-0700-026-C-DSGN.dwg Layout Tab: C-111



SEE SHEET C-111 FOR UTILITY NOTES AND LEGEND

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STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – PATRICK CRIMMINS No. 12378 LICENSED
11/9/23

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UTILITIES PLAN

SCALE: AS SHOWN

C-112

Last Save Date: November 9, 2023 11:03 AM By: NAHANSEN
Plot Date: Thursday, November 09, 2023 Plotted By: Neil A. Hansen
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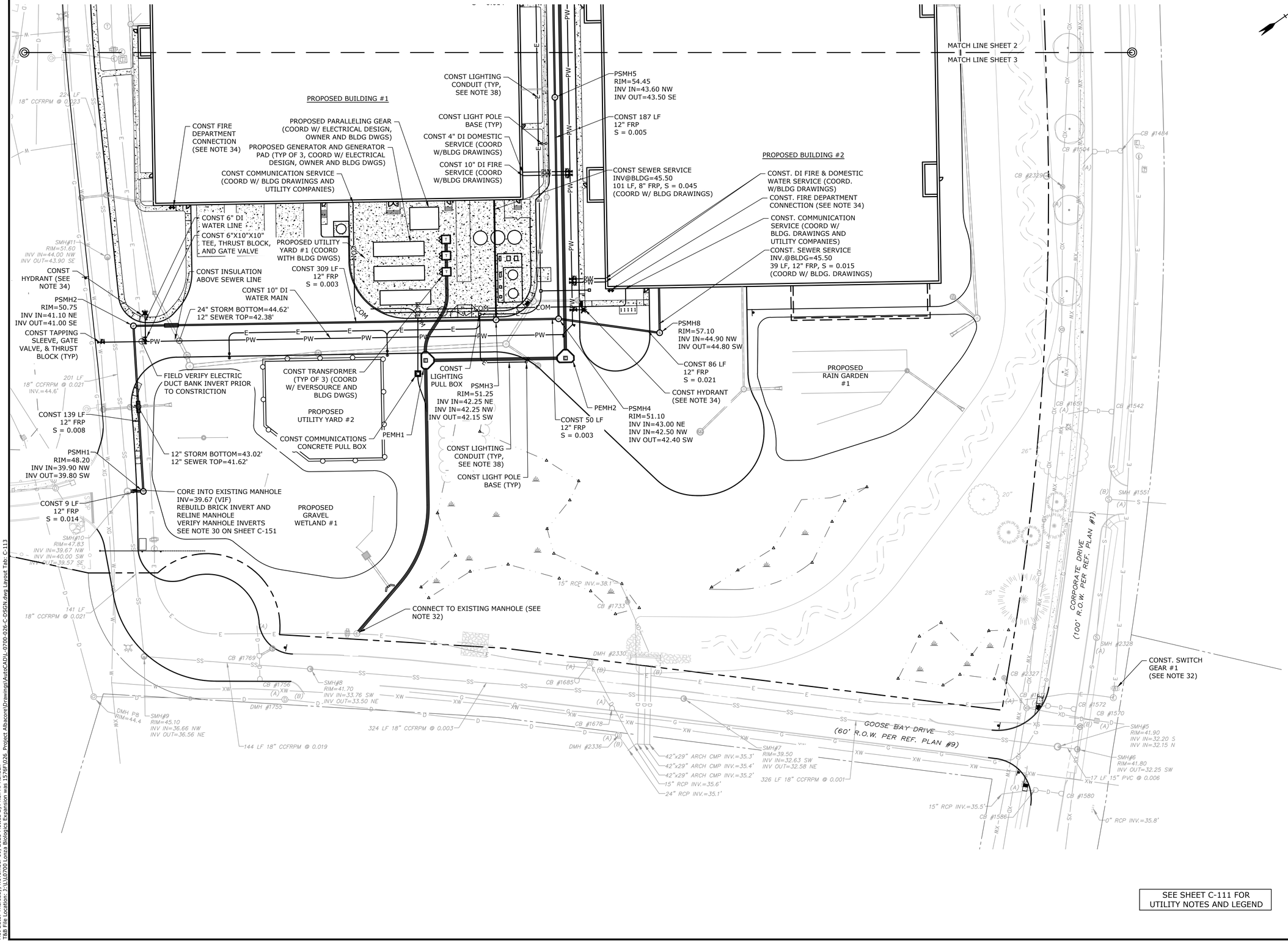

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STATE OF NEW HAMPSHIRE – PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER
11/9/23

STATE OF NEW HAMPSHIRE – NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER
11/09/2023

SCALE IN FEET
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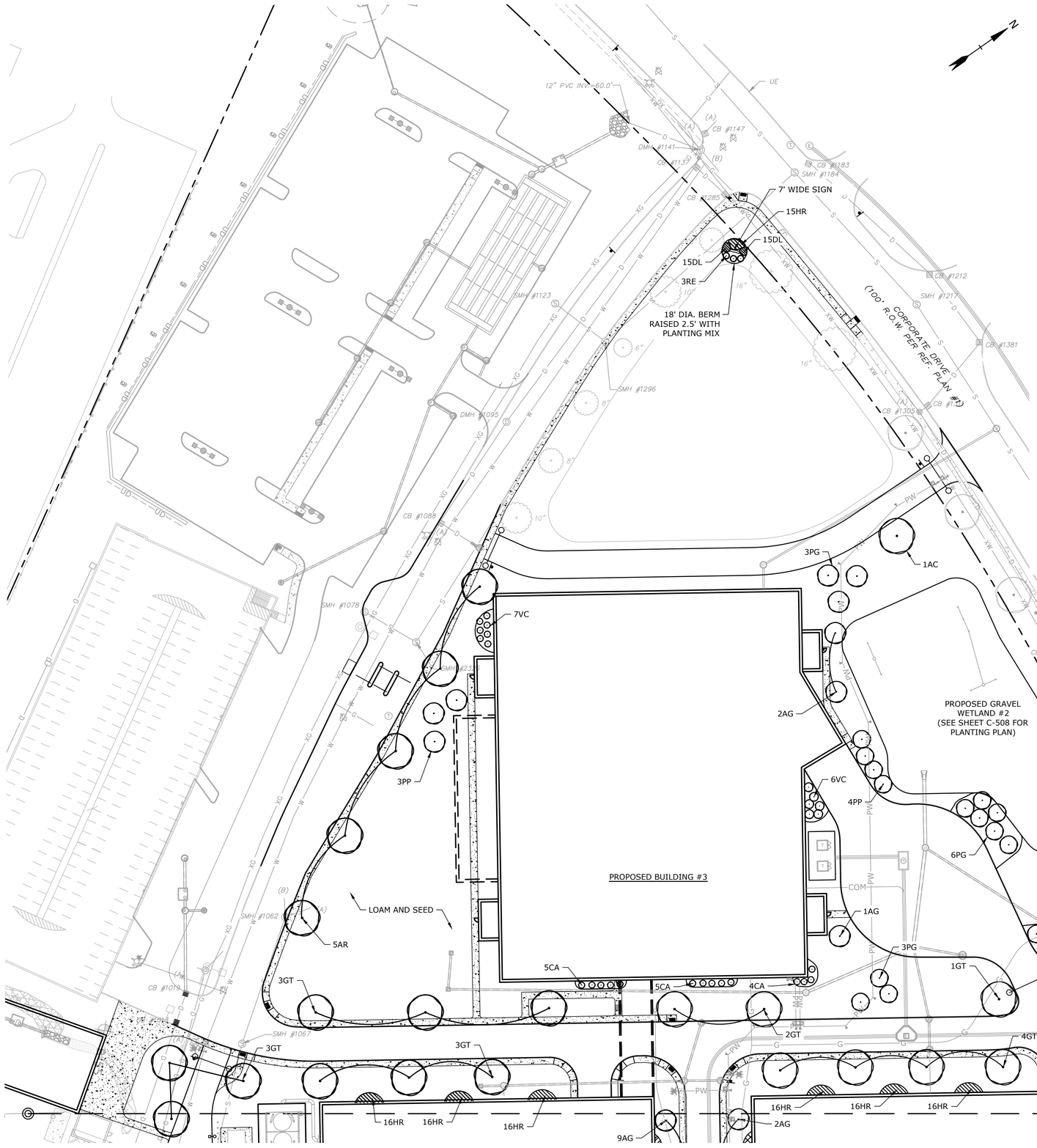
UTILITIES PLAN

SCALE: AS SHOWN

C-113



SEE SHEET C-116 FOR PLANT SCHEDULE

LANDSCAPE NOTES:

1. LANDSCAPE NOTES ON THIS PLAN APPLY ONLY TO THOSE PLANTINGS OUTSIDE OF THE HODGSON BROOK RESTORATION AREA. PLANTING REQUIREMENTS FOR THE HODGSON BROOK RESTORATION AREA CAN BE FOUND ON PLAN SHEETS C-701 THROUGH C-714 AND IN APPENDIX D OF THE TECHNICAL SPECIFICATIONS.
2. THE CONTRACTOR SHALL FURNISH AND PLANT ALL PLANTS IN QUANTITIES AS SHOWN ON THIS PLAN. NO SUBSTITUTIONS WILL BE PERMITTED UNLESS APPROVED BY OWNER. ALL PLANTS SHALL BE NURSERY GROWN.
3. ALL PLANTS SHALL BE NURSERY GROWN AND PLANTS AND WORKMANSHIP SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS, INCLUDING BUT NOT LIMITED TO SIZE, HEALTH, SHAPE, ETC., AND SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO ARRIVAL ON-SITE AND AFTER PLANTING.
4. PLANT STOCK SHALL BE GROWN WITHIN THE HARDINESS ZONES 4 THRU 7 ESTABLISHED BY THE PLANT HARDINESS ZONE MAP, MISCELLANEOUS PUBLICATIONS NO. 814, AGRICULTURAL RESEARCH SERVICE, UNITED STATES DEPARTMENT AGRICULTURE, LATEST REVISION.
5. PLANT MATERIAL SHALL BARE THE SAME RELATIONSHIP TO FINISHED GRADE AS TO THE ORIGINAL PLANTING GRADE PRIOR TO DIGGING.
6. THE NUMBER OF EACH INDIVIDUAL PLANT TYPE AND SIZE PROVIDED IN THE PLANT LIST OR ON THE PLAN IS FOR THE CONTRACTOR'S CONVENIENCE ONLY. IF A DISCREPANCY EXISTS BETWEEN THE NUMBER OF PLANTS ON THE LABEL AND THE NUMBER OF SYMBOLS SHOWN ON THE DRAWINGS, THE GREATER NUMBER SHALL APPLY.
7. NO SUBSTITUTION OF PLANT MATERIALS WILL BE ALLOWED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE.
8. THE CONTRACTOR SHALL LOCATE, VERIFY AND MARK ALL EXISTING AND NEWLY INSTALLED UNDERGROUND UTILITIES PRIOR TO ANY LAWN WORK OR PLANTING. ANY CONFLICTS WHICH MIGHT OCCUR BETWEEN PLANTING AND UTILITIES SHALL IMMEDIATELY BE REPORTED TO THE OWNER SO THAT ALTERNATE PLANTING LOCATIONS CAN BE DETERMINED.
9. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED, SHALL RECEIVE SIX (6) INCHES OF LOAM AND SEED. NO FILL SHALL BE PLACED IN ANY WETLAND AREA.
10. THREE (3) INCH BARK MULCH IS TO BE USED AROUND THE TREE AND SHRUB PLANTING AS SPECIFIED IN THE DETAILS. WHERE BARK MULCH IS TO BE USED IN A CURBED ISLAND THE BARK MULCH SHALL MEET THE TOP INSIDE EDGE OF THE CURB. ALL OTHER AREAS SHALL RECEIVE SIX (6) INCHES OF LOAM AND SEED.
11. LANDSCAPING SHALL BE LOCATED WITHIN 150 FT OF EXTERIOR HOSE ATTACHMENT OR SHALL BE PROVIDED WITH AN IRRIGATION SYSTEM.
12. SEE PLANTING DETAILS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
13. TREE STAKES SHALL REMAIN IN PLACE FOR NO LESS THAN 6 MONTHS AND NO MORE THAN 1 YEAR.
14. PLANTING SHALL BE COMPLETED FROM APRIL 15TH THROUGH OCTOBER 1ST. NO PLANTING DURING JULY AND AUGUST UNLESS SPECIAL PROVISIONS ARE MADE FOR DROUGHT.
15. PARKING AREA PLANTED ISLANDS TO HAVE MINIMUM OF 1'-0" TOPSOIL PLACED TO WITHIN 3 INCHES OF THE TOP OF CURB ELEVATION REMOVE ALL CONSTRUCTION DEBRIS BEFORE PLACING TOPSOIL.
16. TREES SHALL BE PRUNED IN ACCORDANCE WITH THE LATEST EDITION OF ANSI A300 'TREES, SHRUBS AND OTHER WOOD PLANT MAINTENANCE STANDARD PRACTICES.
17. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24 HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL BE WATERED WEEKLY, OR MORE OFTEN, IF NECESSARY DURING THE FIRST GROWING SEASON. LANDSCAPE CONTRACTOR SHALL COORDINATE WATERING SCHEDULE WITH OWNER DURING THE ONE (1) YEAR GUARANTEE PERIOD.
18. EXISTING TREES AND SHRUBS SHOWN ON THE PLAN ARE TO REMAIN UNDISTURBED. ALL EXISTING TREES AND SHRUBS SHOWN TO REMAIN ARE TO BE PROTECTED WITH A 4-FOOT SNOW FENCE PLACED AT THE DRIP LINE OF THE BRANCHES OR AT 8 FEET MINIMUM FROM THE TREE TRUNK. ANY EXISTING TREE OR SHRUB SHOWN TO REMAIN, WHICH IS REMOVED DURING CONSTRUCTION, SHALL BE REPLACED BY A TREE OF COMPARABLE SIZE AND SPECIES TREE OR SHRUB.
19. THE CONTRACTOR SHALL GUARANTEE ALL PLANTINGS TO BE IN GOOD HEALTHY, FLOURISHING AND ACCEPTABLE CONDITION FOR A PERIOD OF (1) YEAR BEGINNING AT THE DATE OF ACCEPTANCE OF SUBSTANTIAL COMPLETION. ALL GRASSES, TREES AND SHRUBS THAT, IN THE OPINION OF THE LANDSCAPE ARCHITECT, SHOW LESS THAN 80% HEALTHY GROWTH AT THE END OF ONE YEAR PERIOD SHALL BE REPLACED BY THE CONTRACTOR.
20. UPON EXPIRATION OF THE CONTRACTOR'S ONE YEAR GUARANTEE PERIOD, THE OWNER SHALL BE RESPONSIBLE FOR LANDSCAPE MAINTENANCE INCLUDING WATERING DURING PERIODS OF DROUGHT
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL PLANTING AND LAWNS AGAINST DAMAGE FROM ONGOING CONSTRUCTION. THIS PROTECTION SHALL BEGIN AT THE TIME THE PLANT IS INSTALLED AND CONTINUE UNTIL THE FORMAL ACCEPTANCE OF ALL THE PLANTINGS.
22. PRE-PURCHASE PLANT MATERIAL AND ARRANGE FOR DELIVERY TO MEET PROJECT SCHEDULE AS REQUIRED IT MAY BE NECESSARY TO PRE-DIG CERTAIN SPECIES WELL IN ADVANCE OF ACTUAL PLANTING DATES.

Tighe&Bond

STATE OF NEW HAMPSHIRE
NEIL A. HANSEN
No. 15227
LICENSED PROFESSIONAL ENGINEER
9/27/2023

STATE OF NEW HAMPSHIRE
PATRICK CRIMMINS
No. 12378
LICENSED PROFESSIONAL ENGINEER
9/27/2023

SCALE IN FEET
0 40' 80'
GRAPHIC SCALE

Proposed Industrial Development

Lonza Biologics

Portsmouth, New Hampshire

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DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

LANDSCAPE PLAN

SCALE: AS SHOWN

C-114

Last Save Date: September 27, 2023 1:36 PM By: CKRZCUIK
Plot Date: September 27, 2023 1:36 PM By: Christopher Krzcuik
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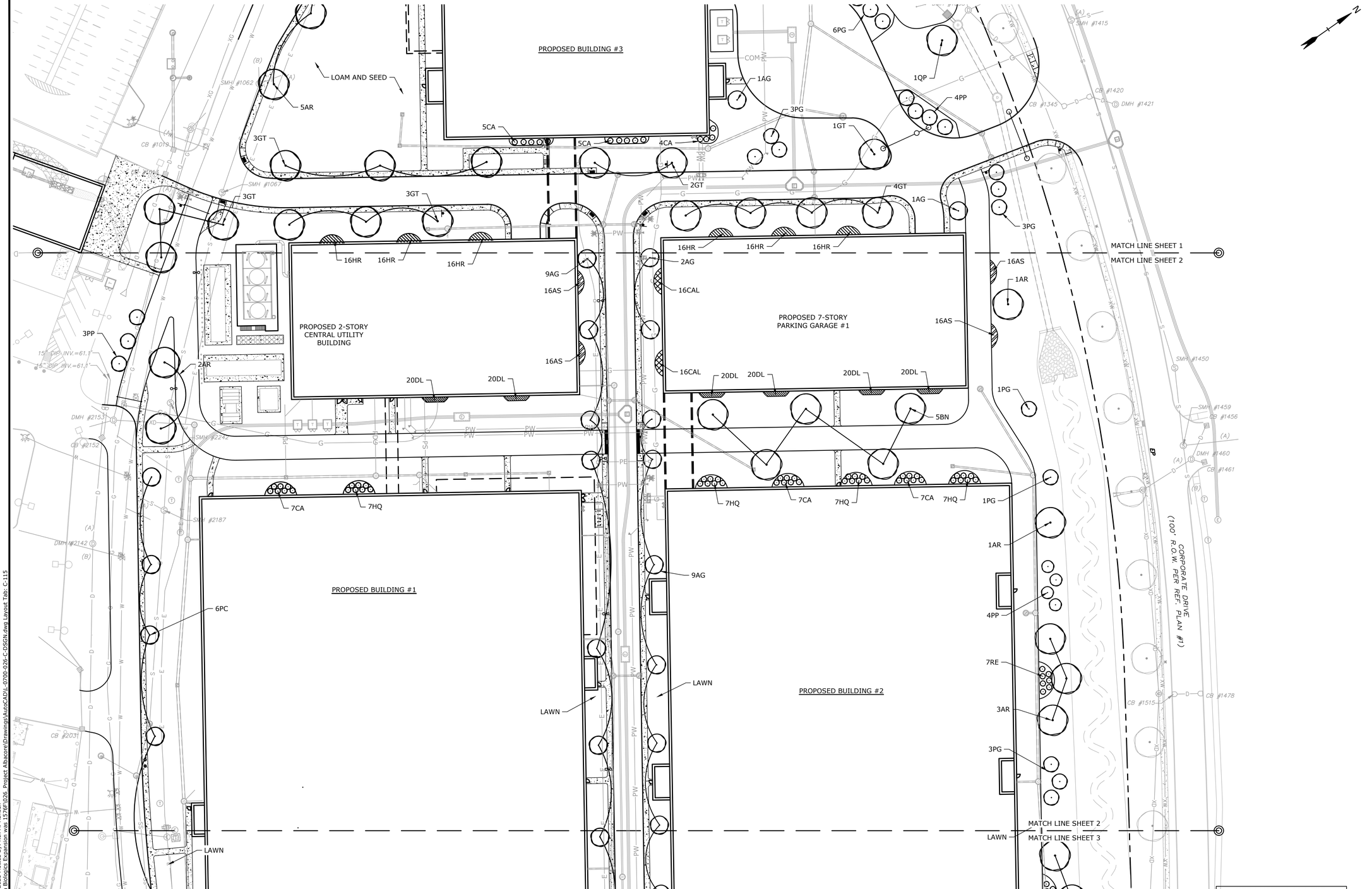

SEE SHEET C-114 FOR LANDSCAPING NOTES

SEE SHEET C-116 FOR PLANT SCHEDULE

Last Save Date: November-9, 2023 11:03 AM By: NAHANSEN
Plot Date: Thursday, November 09, 2023 Plotted By: Neil Hansen
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STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – PATRICK CRIMMINS No. 12378 LICENSED
11/9/23

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11/09/2023

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GRAPHIC SCALE

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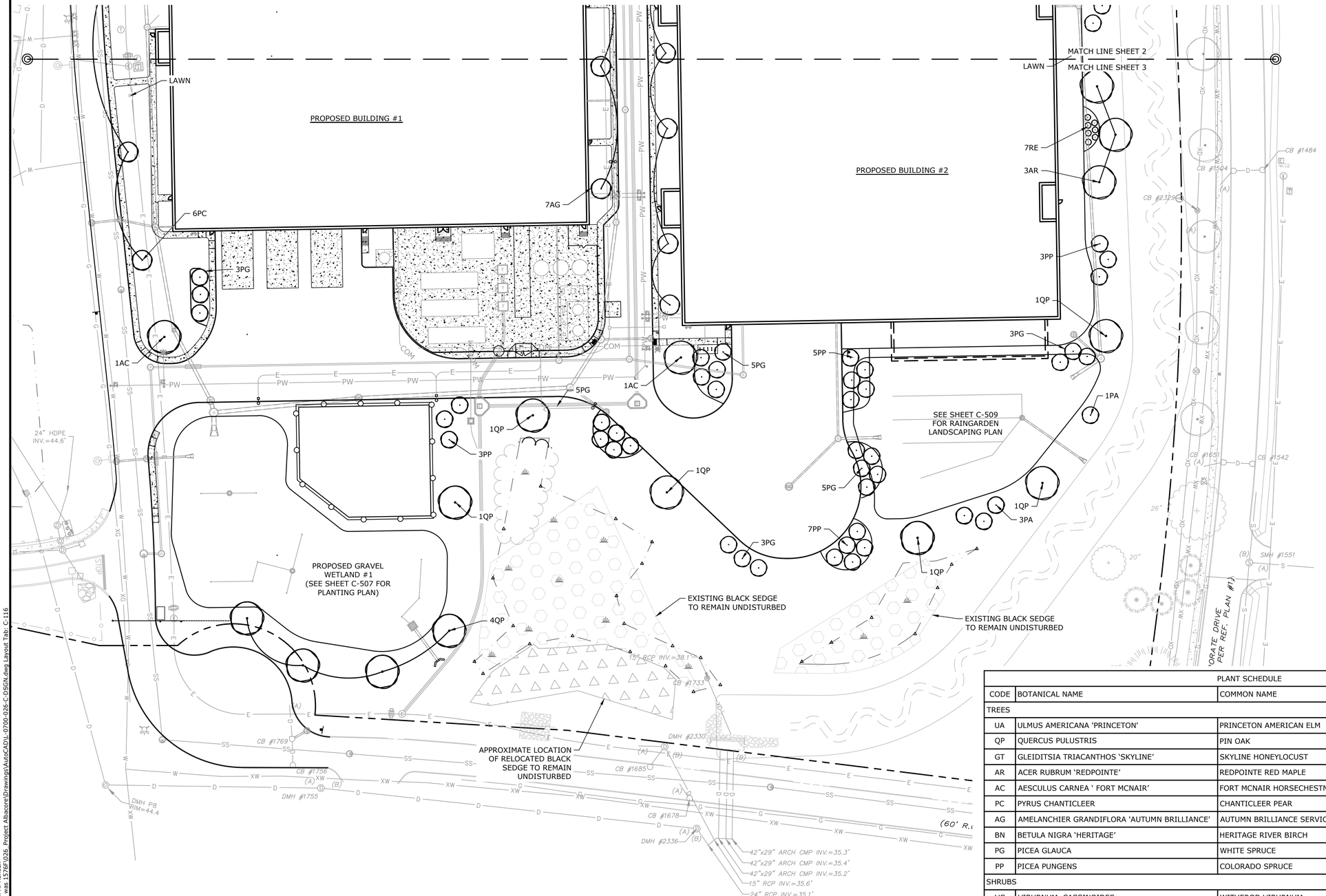
LANDSCAPE PLAN

SCALE: AS SHOWN

C-115



SEE SHEET C-114 FOR
LANDSCAPING NOTES

PLANT SCHEDULE				
CODE	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
TREES				
UA	ULMUS AMERICANA 'PRINCETON'	PRINCETON AMERICAN ELM	2½ - 3" CALIPER	B & B
QP	QUERCUS PULUSTRIS	PIN OAK	2½ - 3" CALIPER	B & B
GT	GLEIDITSIA TRIACANTHOS 'SKYLINE'	SKYLINE HONEYLOCUST	2½ - 3" CALIPER	B & B
AR	ACER RUBRUM 'REDPOINTE'	REDPOINTE RED MAPLE	2½ - 3" CALIPER	B & B
AC	AESCULUS CARNEA ' FORT MCNAIR'	FORT MCNAIR HORSECHESTNUT	2½ - 3" CALIPER	B & B
PC	PYRUS CHANTICLEER	CHANTICLEER PEAR	2 - 2½" CALIPER	B & B
AG	AMELANCHIER GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	2 - 2½" CALIPER	B & B (SINGLE STEM)
BN	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH	12 - 14' HT.	B & B (MULTISTEM)
PG	PICEA GLAUCA	WHITE SPRUCE	8 - 10' HT.	B & B
PP	PICEA PUNGENS	COLORADO SPRUCE	8 - 10' HT.	B & B
SHRUBS				
VC	VIBURNUM CASSINOIDES	WITHEROD VIBURNUM	2½ - 3' HT.	B & B
RE	RHODODENDRON 'ENGLISH ROSEUM'	ENGLISH ROSEUM RHODODENDRON	2½ - 3' HT.	B & B
CA	CLETHERA ALNIFOLIA	SUMMERSWEET CLETHERA	7 GALLON	CONTAINER
HQ	HYDRANGEA QUERCIFOLIA 'SNOW QUEEN'	SNOW QUEEN OAKLEAF HYDRANGEA	2½ - 3' HT.	B & B
GROUNDCOVERS & PERENNIALS				
DL	HEMEROCALLIS 'STELLA DORO'	STELLA DORO DAYLILY	2 GALLON	CONTAINER
HR	HOSTA 'ROYAL STANDARD'	ROYAL STANDARD HOSTA	2 GALLON	CONTAINER
AS	ASTILBE 'VISIONS IN PINK'	VISIONS IN PINK ASTILBE	2 GALLON	CONTAINER
CAL	CALAMAGROSTIS 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS	3 GALLON	CONTAINER

Tighe&Bond

STATE OF NEW HAMPSHIRE
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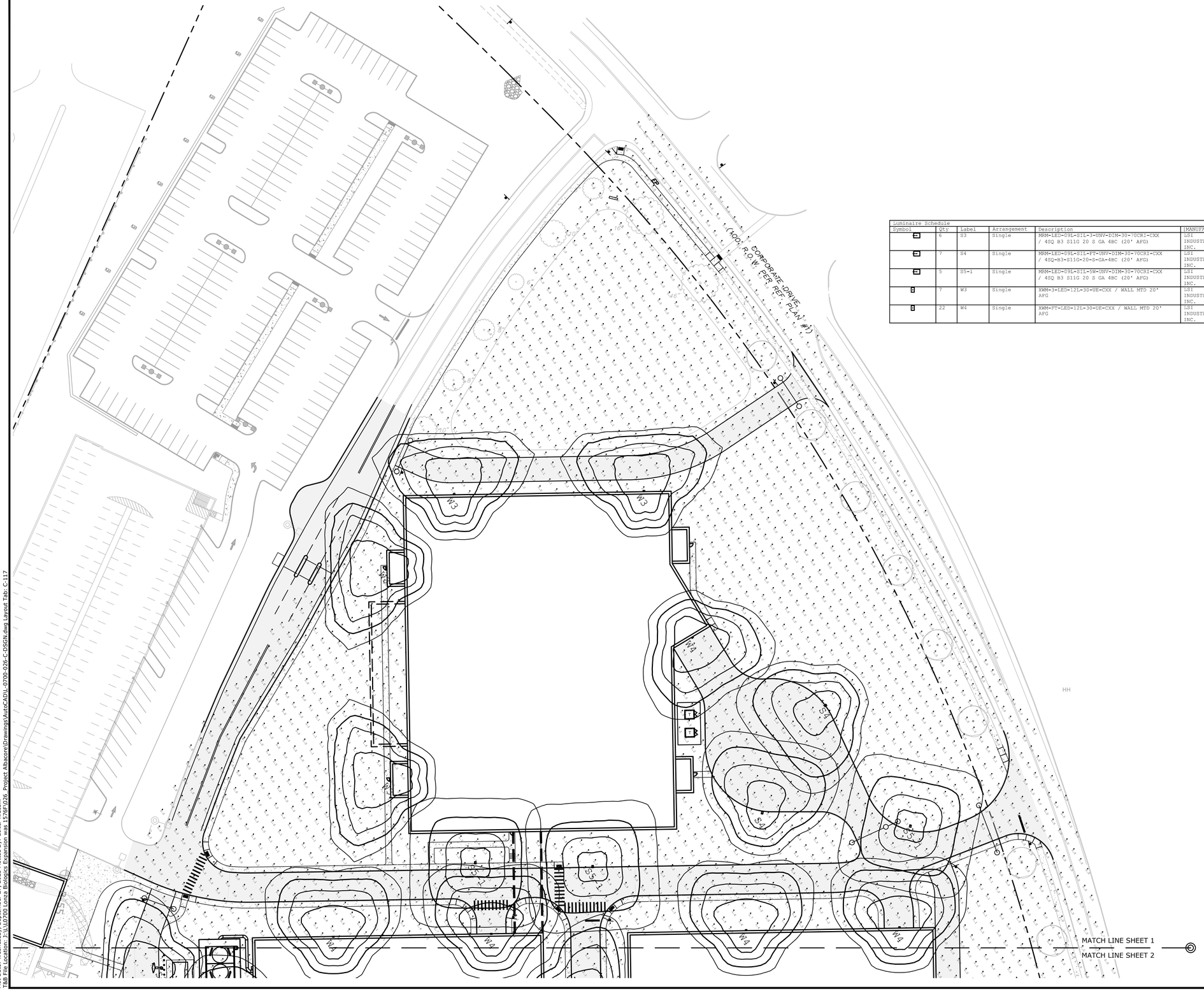

Luminaire Schedule					
Symbol	Qty	Label	Arrangement	Description	[MANUFAC]
	6	S3	Single	MRM-LED-09L-SIL-3-UNV-DIM-30-70CRI-CXX / 48Q B3 S11G 20 S GA 48C (20' AFG)	LSI INDUSTRIES, INC.
	7	S4	Single	MRM-LED-09L-SIL-FT-UNV-DIM-30-70CRI-CXX / 48Q-B3-S11G-20-S-GA-48C (20' AFG)	LSI INDUSTRIES, INC.
	5	S5-1	Single	MRM-LED-09L-SIL-5W-UNV-DIM-30-70CRI-CXX / 48Q B3 S11G 20 S GA 48C (20' AFG)	LSI INDUSTRIES, INC.
	7	W3	Single	XWM-3-LED-12L-30-UE-CXX / WALL MTD 20' AFG	LSI INDUSTRIES, INC.
	22	W4	Single	XWM-FT-LED-12L-30-UE-CXX / WALL MTD 20' AFG	LSI INDUSTRIES, INC.

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PHOTOMETRIC LIGHTING PLAN

SCALE: AS SHOWN

C-117

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Project Manager: Neil Hansen
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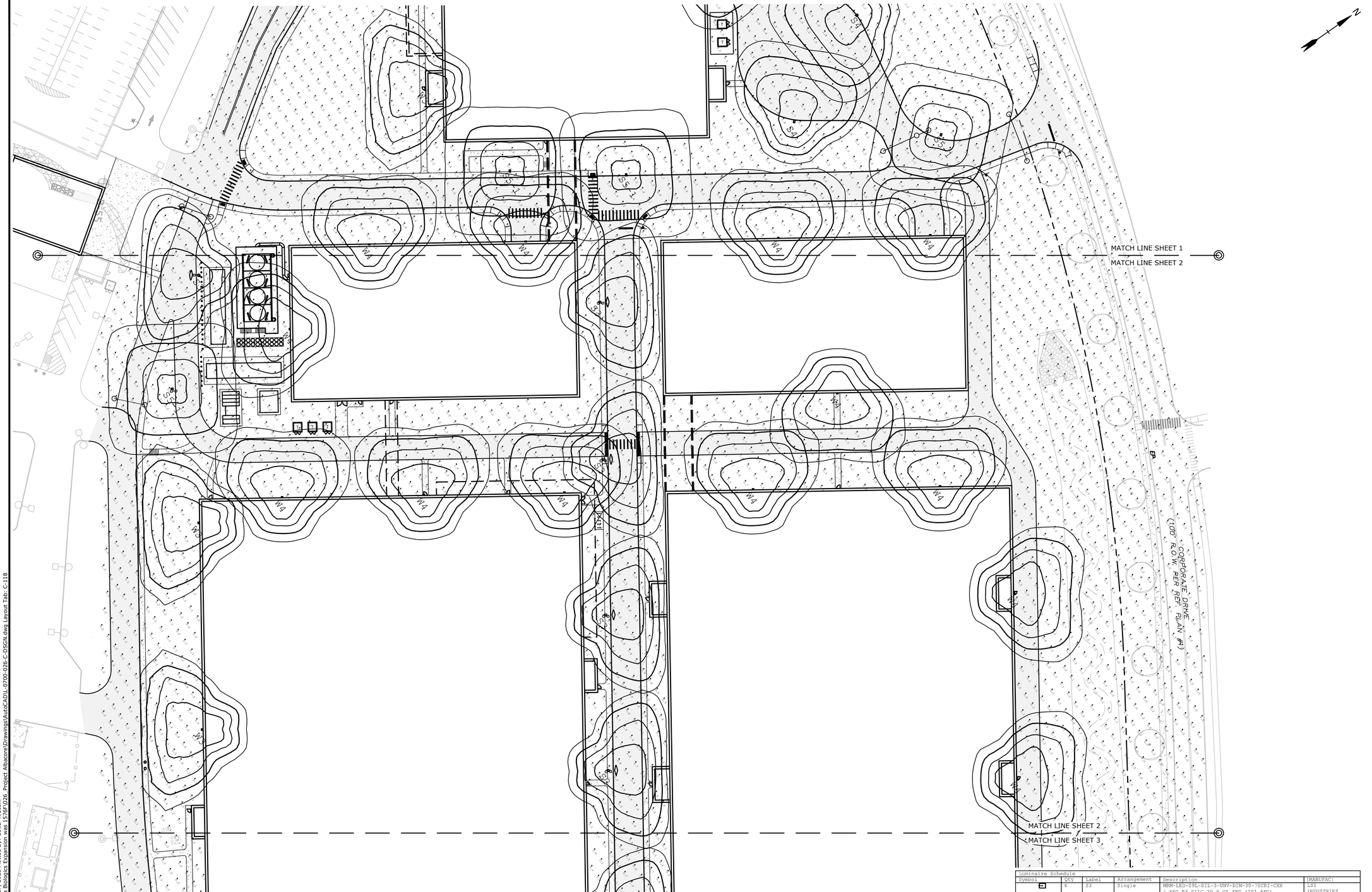

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	6	S3	Single	MRM-LED-09L-SIL-3-UNV-DIM-30-70CRI-CXX / 4SQ B3 S11G 20 S GA 4BC (20' AFG)	LSI INDUSTRIES, INC.
	7	S4	Single	MRM-LED-09L-SIL-FT-UNV-DIM-30-70CRI-CXX / 4SQ-B3-S11G-20-S-GA-4BC (20' AFG)	LSI INDUSTRIES, INC.
	5	S5-1	Single	MRM-LED-09L-SIL-5W-UNV-DIM-30-70CRI-CXX / 4SQ B3 S11G 20 S GA 4BC (20' AFG)	LSI INDUSTRIES, INC.
	7	W3	Single	XWM-3-LED-12L-30-UE-CXX / WALL MTD 20' AFG	LSI INDUSTRIES, INC.
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Tighe&Bond

STATE OF NEW HAMPSHIRE
NEIL A. HANSEN
No. 15227
LICENSED
PROFESSIONAL ENGINEER
9/27/2023

STATE OF NEW HAMPSHIRE
PATRICK CRIMMINS
No. 12378
LICENSED
PROFESSIONAL ENGINEER
9/27/2023

SCALE IN FEET
0 40' 80'
GRAPHIC SCALE

Proposed Industrial Development

Lonza Biologics

Portsmouth,
New Hampshire

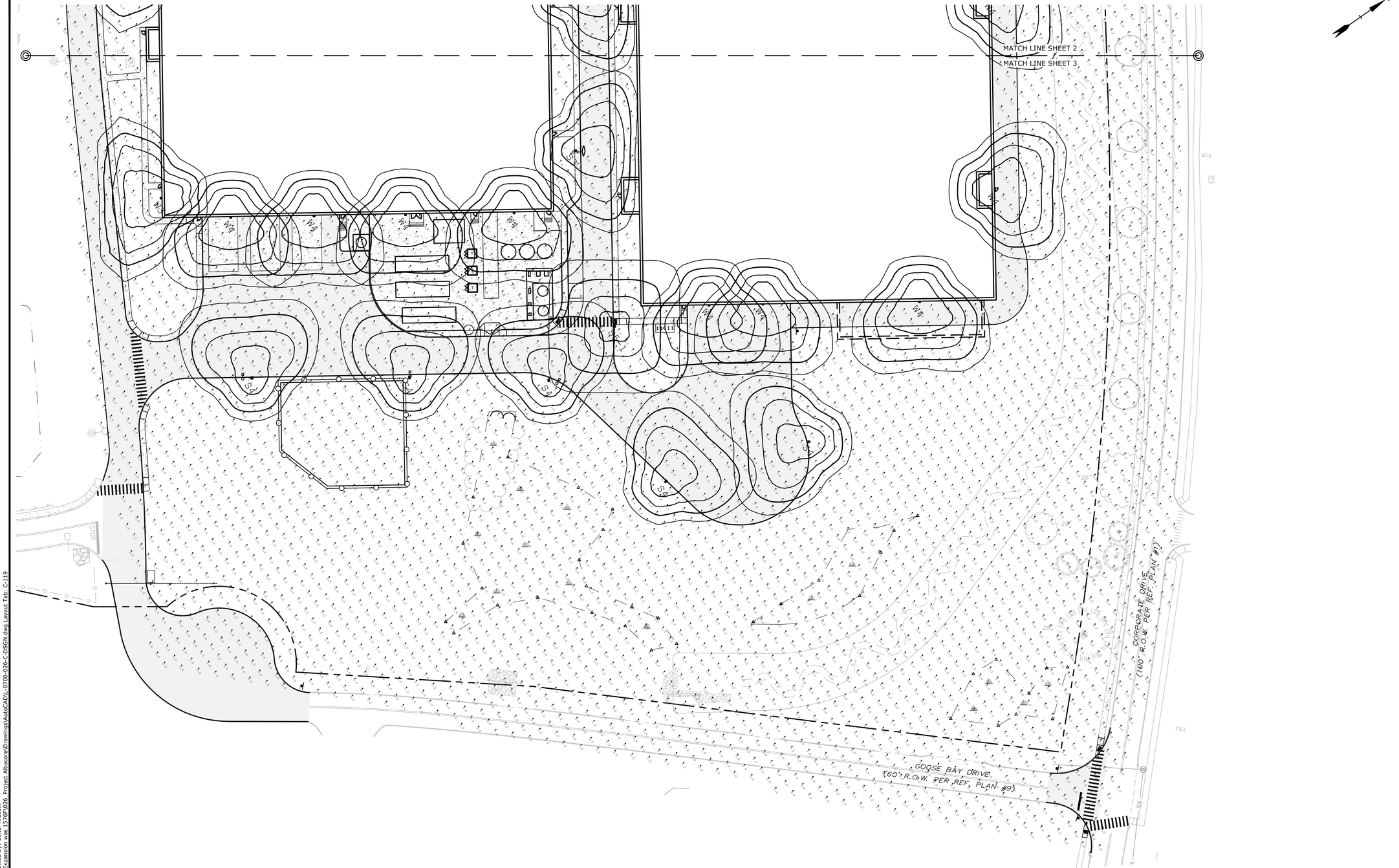
MARK	DATE	DESCRIPTION
M	9/27/2023	P.B. Submission
L	7/17/2023	Amended Site Plan Review
K	5/5/2023	Phase 1B Issued for Bid
J	3/15/2023	Phase 1B Issued for Preliminary Pricing
I	1/9/2023	Admin. Approval Submission
H	12/10/2021	Planning Board Stipulation
G	8/19/2019	Admin. Approval Submission
F	11/6/2018	P.B. Submission

PROJECT NO:	L-0700-013
DATE:	04/03/2018
FILE:	L-0700-026-C-DSGN.dwg
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

PHOTOMETRIC LIGHTING PLAN

SCALE: AS SHOWN

C-118



Luminaire Schedule					
Symbol	Qty	Label	Arrangement	Description	[MANUFAC]
	6	S3	Single	MRM-LED-09L-SIL-3-UNV-DIM-30-70CRI-CXX / 4SQ B3 S11G 20 S GA 4BC (20' AFG)	LSI INDUSTRIES, INC.
	7	S4	Single	MRM-LED-09L-SIL-FT-UNV-DIM-30-70CRI-CXX / 4SQ-B3-S11G-20-S-GA-4BC (20' AFG)	LSI INDUSTRIES, INC.
	5	S5-1	Single	MRM-LED-09L-SIL-5W-UNV-DIM-30-70CRI-CXX / 4SQ B3 S11G 20 S GA 4BC (20' AFG)	LSI INDUSTRIES, INC.
	7	W3	Single	XWM-3-LED-12L-30-UE-CXX / WALL MTD 20' AFG	LSI INDUSTRIES, INC.
	22	W4	Single	XWM-FT-LED-12L-30-UE-CXX / WALL MTD 20' AFG	LSI INDUSTRIES, INC.

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PHOTOMETRIC LIGHTING PLAN

SCALE: AS SHOWN

C-119

Last Save Date: September 27, 2023 1:36 PM By: CKRZCUJK
Plot Date: Wednesday, September 27, 2023 2:00 PM By: Chris Krzcuik
T&B File Location: J:\LL\L0700 Lonza Biologics Expansion was 1576F\026. Project Albacore\Drawings\AutoCAD\L-0700-026-C-DSGN.dwg Layout Tab: C-119

PHASE 2 PLAN SET

APRIL 3, 2018

REVISED: NOVEMBER 9, 2023

LIST OF DRAWINGS		
SHEET NO.	SHEET TITLE	LAST REVISED
	PHASE 2 PLAN SET COVER SHEET	11/9/2023
C-161	PHASE 2 DEMOLITION PLAN	9/27/2023
C-162	PHASE 2 DEMOLITION PLAN	11/9/2023
C-163	PHASE 2 DEMOLITION PLAN	11/9/2023
C-163.1	PHASE 2 PRE-CONSTRUCTION LAYOUT PLAN	11/9/2023
C-164	PHASE 2 OVERALL SITE PLAN	11/9/2023
C-165	PHASE 2 SITE PLAN	11/9/2023
C-166	PHASE 2 SITE PLAN	11/9/2023
C-167	PHASE 2 SITE PLAN	11/9/2023
C-168	PHASE 2 GRADING, DRAINAGE & EROSION CONTROL PLAN	11/9/2023
C-169	PHASE 2 GRADING, DRAINAGE & EROSION CONTROL PLAN	11/9/2023
C-170	PHASE 2 GRADING, DRAINAGE & EROSION CONTROL PLAN	11/9/2023
C-171	PHASE 2 UTILITIES PLAN	11/9/2023
C-172	PHASE 2 UTILITIES PLAN	11/9/2023
C-173	PHASE 2 UTILITIES PLAN	11/9/2023
C-174	PHASE 2 LANDSCAPE PLAN	11/9/2023
C-175	PHASE 2 LANDSCAPE PLAN	11/9/2023
C-176	PHASE 2 LANDSCAPE PLAN	11/9/2023
C-177	PHASE 2 PHOTOMETRIC LIGHTING PLAN	11/9/2023
C-178	PHASE 2 PHOTOMETRIC LIGHTING PLAN	11/9/2023
C-179	PHASE 2 PHOTOMETRIC LIGHTING PLAN	9/27/2023
8-046-1-1110	FIRST FLOOR PLAN - CUB	8/24/2023
8-046-1-2002	BUILDING ELEVATIONS (E-W) - CUB	8/24/2023
8-046-1-2003	BUILDING ELEVATIONS (N-S) - CUB	9/18/2023
8-070-1-1110	FIRST FLOOR PLAN - BL1	8/24/2023
8-070-1-2001	OVERALL BUILDINGS ELEVATIONS	7/12/2023
8-070-1-2002	BUILDING ELEVATIONS (E-W) - BL1	8/24/2023
8-070-1-2003	BUILDING ELEVATIONS (N-S) - BL1	8/24/2023

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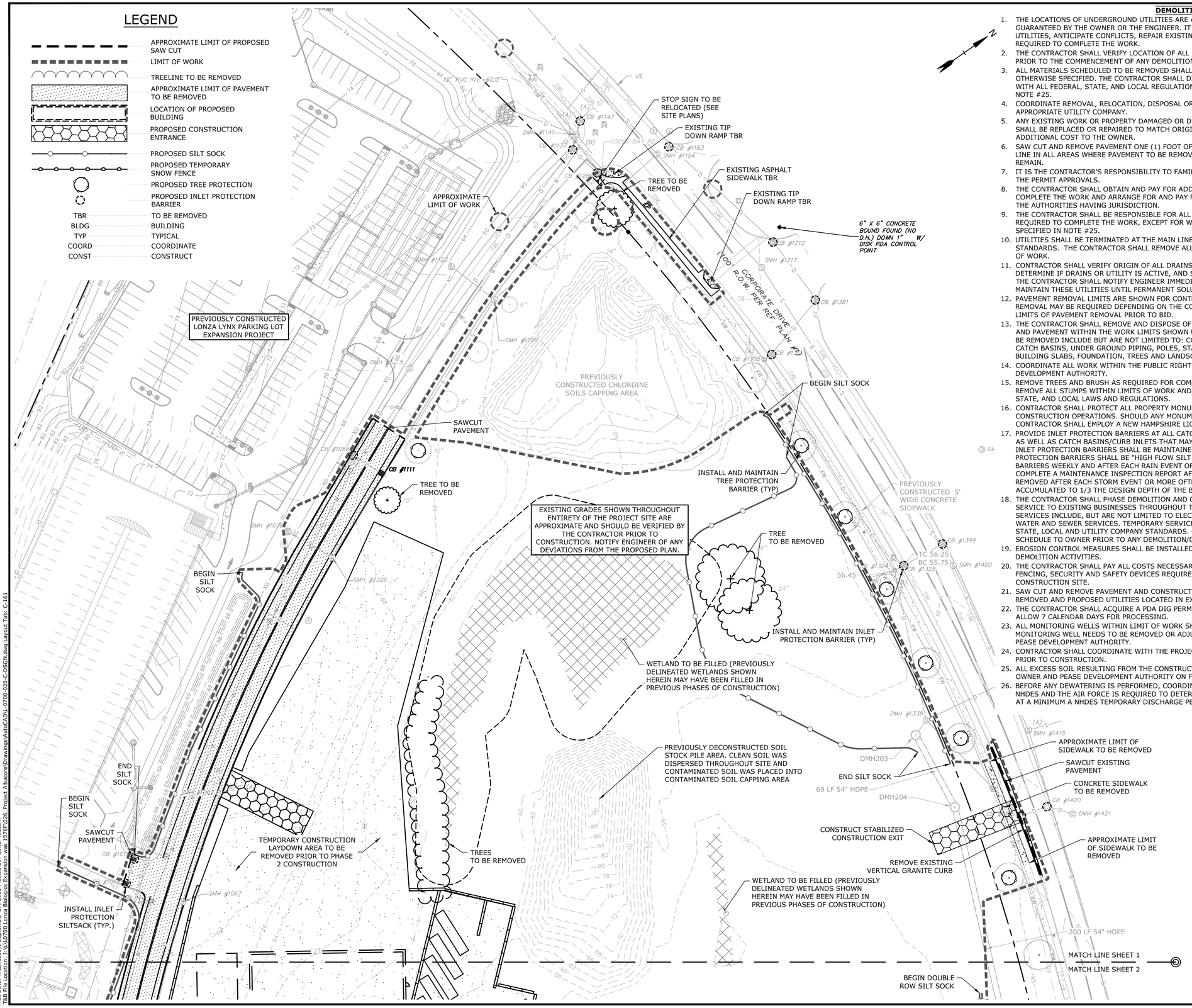
COMPLETE SET 28 SHEETS

LEGEND

- APPROXIMATE LIMIT OF PROPOSED SAW CUT
- LIMIT OF WORK
- TREELINE TO BE REMOVED
- APPROXIMATE LIMIT OF PAVEMENT TO BE REMOVED
- LOCATION OF PROPOSED BUILDING
- PROPOSED CONSTRUCTION ENTRANCE
- PROPOSED SILT SOCK
- PROPOSED TEMPORARY SNOW FENCE
- PROPOSED TREE PROTECTION
- PROPOSED INLET PROTECTION BARRIER

TBR	TO BE REMOVED
BLDG	BUILDING
TYP	TYPICAL
COORD	COORDINATE
CONST	CONSTRUCT



DEMOLITION NOTES:

1. THE LOCATIONS OF UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR THE ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK.
2. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES. CALL DIG SAFE AT LEAST 72 HOURS PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION/CONSTRUCTION ACTIVITIES.
3. ALL MATERIALS SCHEDULED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. THE CONTRACTOR SHALL DISPOSE OF ALL MATERIALS OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS, ORDINANCES AND CODES EXCEPT AS SPECIFIED IN NOTE #25.
4. COORDINATE REMOVAL, RELOCATION, DISPOSAL OR SALVAGE OF UTILITIES WITH THE OWNER AND APPROPRIATE UTILITY COMPANY.
5. ANY EXISTING WORK OR PROPERTY DAMAGED OR DISRUPTED BY CONSTRUCTION/ DEMOLITION ACTIVITIES SHALL BE REPLACED OR REPAIRED TO MATCH ORIGINAL EXISTING CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
6. SAW CUT AND REMOVE PAVEMENT ONE (1) FOOT OFF PROPOSED EDGE OF PAVEMENT OR EXISTING CURB LINE IN ALL AREAS WHERE PAVEMENT TO BE REMOVED ABUTS EXISTING PAVEMENT OR CONCRETE TO REMAIN.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE THEMSELVES WITH THE CONDITIONS OF ALL OF THE PERMIT APPROVALS.
8. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ADDITIONAL PERMITS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK AND ARRANGE FOR AND PAY FOR NECESSARY INSPECTIONS AND APPROVALS FROM THE AUTHORITIES HAVING JURISDICTION.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION AND OFF-SITE DISPOSAL OF MATERIALS REQUIRED TO COMPLETE THE WORK, EXCEPT FOR WORK NOTED TO BE COMPLETED BY OTHERS AND AS SPECIFIED IN NOTE #25.
10. UTILITIES SHALL BE TERMINATED AT THE MAIN LINE PER UTILITY COMPANY AND THE CITY OF PORTSMOUTH STANDARDS. THE CONTRACTOR SHALL REMOVE ALL ABANDONED UTILITIES LOCATED WITHIN THE LIMITS OF WORK.
11. CONTRACTOR SHALL VERIFY ORIGIN OF ALL DRAINS AND UTILITIES PRIOR TO REMOVAL/TERMINATION TO DETERMINE IF DRAINS OR UTILITY IS ACTIVE, AND SERVICES ANY ON OR OFF-SITE STRUCTURE TO REMAIN. THE CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY SUCH UTILITY FOUND AND SHALL MAINTAIN THESE UTILITIES UNTIL PERMANENT SOLUTION IS IN PLACE.
12. PAVEMENT REMOVAL LIMITS ARE SHOWN FOR CONTRACTOR'S CONVENIENCE. ADDITIONAL PAVEMENT REMOVAL MAY BE REQUIRED DEPENDING ON THE CONTRACTOR'S OPERATION. CONTRACTOR TO VERIFY FULL LIMITS OF PAVEMENT REMOVAL PRIOR TO BID.
13. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, CONCRETE PADS, UTILITIES AND PAVEMENT WITHIN THE WORK LIMITS SHOWN UNLESS SPECIFICALLY IDENTIFIED TO REMAIN. ITEMS TO BE REMOVED INCLUDE BUT ARE NOT LIMITED TO: CONCRETE, PAVEMENT, CURBS, LIGHTING, MANHOLES, CATCH BASINS, UNDER GROUND PIPING, POLES, STAIRS, SIGNS, FENCES, RAMPS, WALLS, BOLLARDS, BUILDING SLABS, FOUNDATION, TREES AND LANDSCAPING.
14. COORDINATE ALL WORK WITHIN THE PUBLIC RIGHT OF WAYS WITH THE CITY OF PORTSMOUTH AND PEASE DEVELOPMENT AUTHORITY.
15. REMOVE TREES AND BRUSH AS REQUIRED FOR COMPLETION OF WORK. CONTRACTOR SHALL GRUB AND REMOVE ALL STUMPS WITHIN LIMITS OF WORK AND DISPOSE OF OFF SITE IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.
16. CONTRACTOR SHALL PROTECT ALL PROPERTY MONUMENTATION THROUGHOUT DEMOLITION AND CONSTRUCTION OPERATIONS. SHOULD ANY MONUMENTATION BE DISTURBED BY BY THE CONTRACTOR, THE CONTRACTOR SHALL EMPLOY A NEW HAMPSHIRE LICENSED SURVEYOR TO REPLACE DISTURBED MONUMENTS.
17. PROVIDE INLET PROTECTION BARRIERS AT ALL CATCH BASINS/CURB INLETS WITHIN CONSTRUCTION LIMITS AS WELL AS CATCH BASINS/CURB INLETS THAT MAY RECEIVE RUNOFF FROM CONSTRUCTION ACTIVITIES. INLET PROTECTION BARRIERS SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT. INLET PROTECTION BARRIERS SHALL BE "HIGH FLOW SILT SACK" BY ACF ENVIRONMENTAL OR EQUAL. INSPECT BARRIERS WEEKLY AND AFTER EACH RAIN EVENT OF 0.25 INCHES OR GREATER. CONTRACTOR SHALL COMPLETE A MAINTENANCE INSPECTION REPORT AFTER EACH INSPECTION. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT OR MORE OFTEN IF THE FABRIC BECOMES CLOGGED OR SEDIMENT HAS ACCUMULATED TO 1/3 THE DESIGN DEPTH OF THE BARRIER.
18. THE CONTRACTOR SHALL PHASE DEMOLITION AND CONSTRUCTION AS REQUIRED TO PROVIDE CONTINUOUS SERVICE TO EXISTING BUSINESSES THROUGHOUT THE CONSTRUCTION PERIOD. EXISTING BUSINESS SERVICES INCLUDE, BUT ARE NOT LIMITED TO ELECTRICAL, COMMUNICATION, FIRE PROTECTION, DOMESTIC WATER AND SEWER SERVICES. TEMPORARY SERVICES, IF REQUIRED, SHALL COMPLY WITH ALL FEDERAL, STATE, LOCAL AND UTILITY COMPANY STANDARDS. CONTRACTOR SHALL PROVIDE DETAILED CONSTRUCTION SCHEDULE TO OWNER PRIOR TO ANY DEMOLITION/CONSTRUCTION ACTIVITIES.
19. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF ANY CLEARING OR DEMOLITION ACTIVITIES.
20. THE CONTRACTOR SHALL PAY ALL COSTS NECESSARY FOR TEMPORARY PARTITIONING, BARRICADING, FENCING, SECURITY AND SAFETY DEVICES REQUIRED FOR THE MAINTENANCE OF A CLEAN AND SAFE CONSTRUCTION SITE.
21. SAW CUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL UTILITIES TO BE REMOVED AND PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN.
22. THE CONTRACTOR SHALL ACQUIRE A PDA DIG PERMIT BEFORE ANY EARTH DISTURBANCE CAN TAKE PLACE. ALLOW 7 CALENDAR DAYS FOR PROCESSING.
23. ALL MONITORING WELLS WITHIN LIMIT OF WORK SHALL BE PROTECTED DURING CONSTRUCTION. IF ANY MONITORING WELL NEEDS TO BE REMOVED OR ADJUSTED THIS WORK SHALL BE COORDINATED WITH THE PEASE DEVELOPMENT AUTHORITY.
24. CONTRACTOR SHALL COORDINATE WITH THE PROJECT SURVEYOR FOR BENCHMARK AND CONTROL POINTS PRIOR TO CONSTRUCTION.
25. ALL EXCESS SOIL RESULTING FROM THE CONSTRUCTION SHALL REMAIN ON SITE. COORDINATE WITH OWNER AND PEASE DEVELOPMENT AUTHORITY ON FINAL LOCATION OF EXCESS MATERIALS.
26. BEFORE ANY DEWATERING IS PERFORMED, COORDINATION BETWEEN THE OWNER, CONTRACTOR, PDA, NHDES AND THE AIR FORCE IS REQUIRED TO DETERMINE PROPER PROCEDURES AND PERMITTING REQUIRED. AT A MINIMUM A NHDES TEMPORARY DISCHARGE PERMIT IS REQUIRED.

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GRAPHIC SCALE

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PHASE 2
DEMOLITION PLAN

SCALE: AS SHOWN

C-161

Last Save Date: September 27, 2023 1:36 PM By: CKRZCIUK
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END SILT SOCK
BEGIN SILT SOCK
SAWCUT PAVEMENT
INSTALL INLET PROTECTION SILTSACK (TYP.)
TEMPORARY CONSTRUCTION LAYDOWN AREA TO BE REMOVED PRIOR TO PHASE 2 CONSTRUCTION
TREES TO BE REMOVED
PREVIOUSLY DECONSTRUCTED SOIL STOCK PILE AREA. CLEAN SOIL WAS DISPERSED THROUGHOUT SITE AND CONTAMINATED SOIL WAS PLACED INTO CONTAMINATED SOIL CAPPING AREA
WETLAND TO BE FILLED (PREVIOUSLY DELINEATED WETLANDS SHOWN HEREIN MAY HAVE BEEN FILLED IN PREVIOUS PHASES OF CONSTRUCTION)
APPROXIMATE LIMIT OF 15" RCP PIPE TBR (CONTRACTOR TO FIELD VERIFY LOCATION AND INVERT PRIOR TO CONSTRUCTION)
CB #2246
APPROXIMATE LOCATION OF EXISTING 15" RCP PIPE TBR (CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION)
373 LF 15" HDPE TBR
PDMH206 TBR
48 LF 15" HDPE TBR
EXISTING CONSTRUCTION LAYDOWN AREA TO BE REMOVED
EXISTING RIPRAP TO BE REMOVED AND SAVED FOR REUSED IN THE PROPOSED SEDIMENT BASINS
EXISTING JERSEY BARRIERS TBR (TYP, BY OTHERS)
FES102 INV.=52.0' TBR
APPROXIMATE LIMIT OF EXISTING LOAM STOCKPILE TO BE REUSED
APPROXIMATE LIMIT OF EXISTING COMMON BORROW STOCKPILE TO BE REUSED ONSITE IF DEEMED TO BE SUITABLE FILL
2x10" HDPE SET VERTICAL TBR
10" HDPE INV.=50.7' TBR
LIMIT OF RIPRAP TO BE REMOVED
TREE TO BE REMOVED
EXISTING CULVERT TO BE REMOVED
EXISTING RIPRAP TO BE REMOVED AND SAVED FOR REUSED IN THE PROPOSED SEDIMENT BASINS
APPROXIMATE LIMIT OF PAVEMENT TO BE REMOVED
WETLAND TO BE FILLED (PREVIOUSLY DELINEATED WETLANDS SHOWN HEREIN MAY HAVE BEEN FILLED IN PREVIOUS PHASES OF CONSTRUCTION)
PROPOSED BUILDING
EXISTING GRADES SHOWN THROUGHOUT ENTIRETY OF THE PROJECT SITE ARE APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DEVIATIONS FROM THE PROPOSED PLAN.
EXISTING CULVERT TO BE REMOVED
8" HDPE INV.=50.1' TBR
2x10" HDPE SET VERTICAL TBR
45 LF 8" CCFRPM @ 0.022
34 LF 18" CCFRPM @ 0.029
SMH #1312 RIM=57.50 INV IN=49.60 NW INV IN=49.20 SW INV OUT=49.10 SE
SMH #1313 RIM=57.70 INV OUT=50.60 SE
CB #2031 SMH RIM=58.90 INV OUT=50.20 NE
SMH #2080
OHW
EXISTING SEWER TBR
UTILITY POLE AND OVERHEAD WIRE TO BE REMOVED (COORD WITH UTILITY COMPANY)
CONTRACTOR TO PROTECT EXISTING TRANSFORMER
TREE TO BE REMOVED
TREES TO BE REMOVED
EXISTING RIPRAP TO BE REMOVED AND SAVED FOR REUSED IN THE PROPOSED SEDIMENT BASINS
MATCH LINE SHEET 1
MATCH LINE SHEET 2
MATCH LINE SHEET 2
MATCH LINE SHEET 3
SEE SHEET C-161 FOR LEGEND AND DEMOLITION NOTES

DMH203
END SILT SOCK
69 LF 54" HDPE
DMH204
CONSTRUCT STABILIZED CONSTRUCTION EXIT
REMOVE EXISTING VERTICAL GRANITE CURB
APPROXIMATE LIMIT OF SIDEWALK TO BE REMOVED
SAWCUT EXISTING PAVEMENT
CONCRETE SIDEWALK TO BE REMOVED
APPROXIMATE LIMIT OF SIDEWALK TO BE REMOVED
200 LF 54" HDPE
BEGIN DOUBLE ROW SILT SOCK
PREVIOUSLY CONSTRUCTED TIP DOWN RAMP AND DETECTABLE WARNING PANEL
5/8" REBAR FOUND W/ "BURD ENGINEERING" CAP, DOWN 1"
FES103 INV.=50.25' 19 LF 15" HDPE S=0.021
PREVIOUSLY DAYLIGHTED HODGSON BROOK
PREVIOUSLY CONSTRUCTED 5' WIDE CONCRETE SIDEWALK
INSTALL AND MAINTAIN INLET PROTECTION BARRIER (TYP)
CORPORATE DRIVE (100' R.O.W. PER REF. PLAN #1)

SCALE IN FEET
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APPROVED: PMC

PHASE 2 DEMOLITION PLAN

SCALE: AS SHOWN

C-162

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Plot Date: Thursday, November 9, 2023 11:03 AM By: Neil A. Hansen
T&B File Location: J:\L\L0700 Lonza Biologics Expansion wks 1576F\026_Project Albacore\Drawings\AutoCAD\L-0700-026-C-DSGN.dwg Layout Tab: C-162

EXISTING SEWER TBR

UTILITY POLE AND OVERHEAD WIRE TO BE REMOVED (COORD WITH UTILITY COMPANY)

CONTRACTOR TO PROTECT EXISTING TRANSFORMER

TREE TO BE REMOVED

TREES TO BE REMOVED

EXISTING RIPRAP TO BE REMOVED AND SAVED FOR REUSED IN THE PROPOSED SEDIMENT BASINS

MATCH LINE SHEET 2
MATCH LINE SHEET 3

PROPOSED BUILDING

TREES TO BE REMOVED

EXISTING SEWER TBR

TRANSFORMER PAD TO BE REMOVED (COORD WITH UTILITY COMPANY)

UTILITY POLE AND OVERHEAD WIRE TO BE REMOVED (COORD WITH UTILITY COMPANY)

WETLAND TO BE FILLED (PREVIOUSLY DELINEATED WETLANDS SHOWN HEREIN MAY HAVE BEEN FILLED IN PREVIOUS PHASES OF CONSTRUCTION)

CB #1444
TBR

EXISTING CULVERT TO BE REMOVED

12" HDPE INV.=45.7'
TBR

EXISTING RIPRAP TO BE REMOVED

TREES TO BE REMOVED

TREE TO BE REMOVED

LIMIT OF TREES TO BE REMOVED

LIMIT OF WETLANDS TO BE FILLED

BEGIN SILT SOCK

EXISTING BOLLARDS TBR

EXISTING CONSTRUCTION LAYDOWN AREA TO BE REMOVED

END SILT SOCK

UTILITY POLE AND OVERHEAD WIRE TO BE REMOVED (COORD WITH UTILITY COMPANY)

12" W/ CONDUIT

SAWCUT PAVEMENT

2x12" HDPE SET VERTICAL
TBR

12" HDPE INV.=43.6'
TBR

END SILT SOCK

TREES TO BE REMOVED

LIMIT OF WETLANDS THAT HAVE BEEN PREVIOUSLY FILLED IN A PRIOR PHASE OF CONSTRUCTION

END TEMPORARY SNOW FENCE

CONSTRUCT TEMPORARY SNOW FENCE

EXISTING GRADES SHOWN THROUGHOUT ENTIRETY OF THE PROJECT SITE ARE APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DEVIATIONS FROM THE PROPOSED PLAN.

5/8" REBAR FOUND DOWN 1"

APPROXIMATE LIMIT OF WORK (TYP)

BEGIN DOUBLE ROW SILT SOCK

APPROXIMATE LIMIT OF PAVEMENT TO BE REMOVED

BEGIN TEMPORARY SNOW FENCE

PREVIOUSLY DAYLIGHTED HODGSON BROOK

5/8" REBAR FOUND FLUSH

SAWCUT PAVEMENT

INSTALL AND MAINTAIN INLET PROTECTION BARRIER (TYP)

GOOSE BAY DRIVE
(60' R.O.W. PER REF. PLAN #9)

CORPORATE DRIVE
(100' R.O.W. PER REF. PLAN #1)

EXISTING CONCRETE TIP DOWN RAMP AND SIDEWALK TO BE REMOVED

APPROXIMATE LIMIT OF PAVEMENT TO BE REMOVED

SAWCUT PAVEMENT

4" X 4" GRANITE BOUND FOUND W/ D.H. UP 8"

5/8" REBAR FOUND W/ "DSI LLS 937" CAP, DOWN 2"

APPROXIMATE LIMIT OF SIDEWALK TO BE REMOVED

SAWCUT PAVEMENT

APPROXIMATE LIMIT OF SIDEWALK TO BE REMOVED

PREVIOUSLY CONSTRUCTED 5' WIDE CONCRETE SIDEWALK

6' x 2' CONCRETE BOX CULVERT

SEE SHEET C-161 FOR LEGEND AND DEMOLITION NOTES

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PHASE 2
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SCALE: AS SHOWN

C-163

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CONST INLET PROTECTION BARRIER, MAINTAIN THROUGHOUT ENTIRETY OF CONSTRUCTION (TYP)

PREVIOUSLY DAYLIGHTED HODGSON BROOK

CONST STABILIZED CONSTRUCTION EXIT, MAINTAIN THROUGHOUT ENTIRETY OF CONSTRUCTION (TYP)

CORPORATE DRIVE (100' R.O.W. PER REF. PLAN #1)

CONST TREE PROTECTION BARRIER, MAINTAIN THROUGHOUT ENTIRETY OF CONSTRUCTION (TYP)

CONST SILT SOCK EROSION CONTROL, MAINTAIN THROUGHOUT ENTIRETY OF CONSTRUCTION (TYP)

PROPOSED CONSTRUCTION SEDIMENT BASIN

PROPOSED CONSTRUCTION SEDIMENT BASIN/GRAVEL WETLAND #2

PROPOSED SOIL STOCKPILE AREA (LOAM AND COMMON FILL SHALL BE STOCKPILED SEPARATELY)

PROPOSED GRAVEL CONSTRUCTION LAYDOWN AREA (CONSTRUCTION LAYDOWN AREA SHALL BE REMOVED AFTER SUBSTANTIAL COMPLETION OF PHASE 2 WORK, SEE LANDSCAPE PLAN FOR FINAL SURFACE TREATMENT)

CONST SNOW FENCE AROUND EXISTING WETLANDS TO REMAIN, MAINTAIN THROUGHOUT ENTIRETY OF CONSTRUCTION (TYP)

PREVIOUSLY CONSTRUCTED CHLORDINE SOILS CAPPING AREA

PROPOSED GRAVEL CONSTRUCTION LAYDOWN AREA

GOOSE BAY DRIVE R.O.W. PER REF. PLAN #9

CONST DOUBLE ROW SILT SOCK EROSION CONTROL, MAINTAIN THROUGHOUT ENTIRETY OF CONSTRUCTION (TYP)

PROPOSED SITE LAYOUT (SEE SITE PLANS)

APPROXIMATE LIMIT OF WORK (TYP)

PROPOSED BUILDING (TYP)

PROPOSED CONSTRUCTION SEDIMENT BASIN/ GRAVEL WETLAND #1

PEASE DEVELOPMENT AUTHORITY

SEE SHEET C-501 FOR EROSION CONTROL NOTES AND DETAILS

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Tighe&Bond

PATRICK CRIMMINS No. 12378 LICENSED EX STATE OF NEW HAMPSHIRE PROFESSIONAL ENGINEER
11/9/23

NEIL A. HANSEN No. 15227 LICENSED STATE OF NEW HAMPSHIRE PROFESSIONAL ENGINEER
11/09/2023

SCALE IN FEET
0 80' 160'
GRAPHIC SCALE

Proposed Industrial Development

Lonza Biologics

Portsmouth, New Hampshire

MARK	DATE	DESCRIPTION
N	11/9/2023	Revised P.B. Submission
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I	4/26/2022	Revised PB Stipulations

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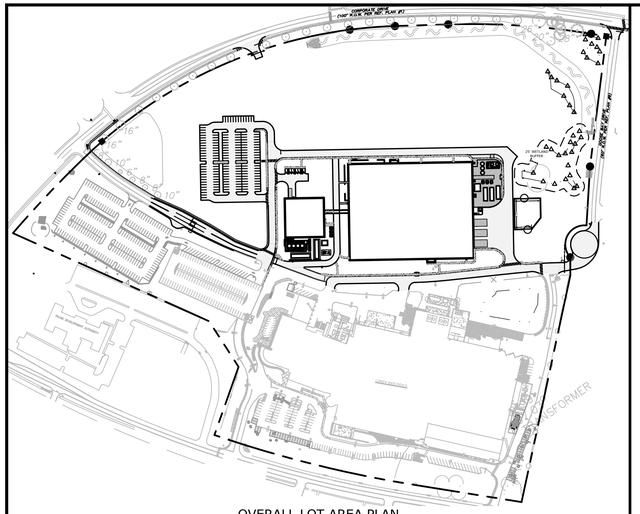
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

PHASE 2
PRE-CONSTRUCTION
LAYOUT PLAN

SCALE: AS SHOWN

C-163.1



OVERALL LOT AREA PLAN
SCALE : 1" = 250'

SITE DATA

LOCATION: TAX MAP 305, LOTS 1 & 2 — 70 & 80 CORPORATE DRIVE — PORTSMOUTH, NH
TAX MAP 305, LOT 6 — 101 INTERNATIONAL DRIVE — PORTSMOUTH, NH

ZONING DISTRICT: AIRPORT, BUSINESS & COMMERCIAL (ABC)

DIMENSIONAL REQUIREMENTS:

	REQUIRED	PROVIDED
MINIMUM LOT AREA:	5 AC	43.4± AC
MINIMUM STREET FRONTAGE:	200 FT	1,038 FT
MINIMUM FRONT YARD SETBACK:	70 FT	70 FT
SIDE SETBACK	30 FT	30 FT
REAR SETBACK	50 FT	51 FT
MINIMUM OPEN SPACE	25 %	59.9± %

MAXIMUM STRUCTURE HEIGHT SHALL NOT EXCEED FAA CRITERIA.

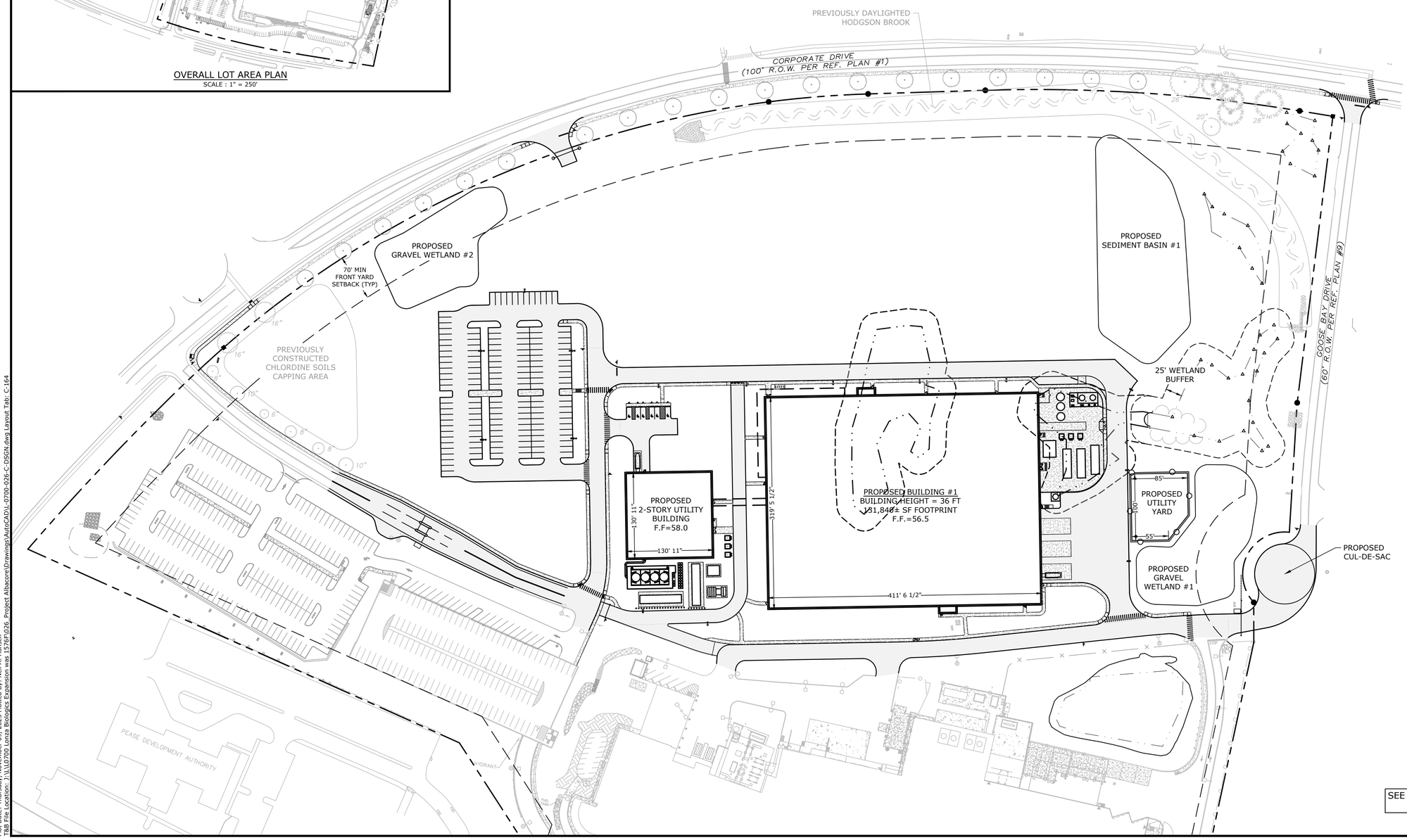
PARKING REQUIREMENTS:

REQUIRED PARKING
2 SPACES PER 3 EMPLOYEES ON LARGEST SHIFT

990 EXISTING EMPLOYEES	660 SPACES
180 ANTICIPATED EMPLOYEES	120 SPACES
TOTAL REQUIRED:	880 SPACES

PARKING PROVIDED

EXISTING SPACES:	801 SPACES
PROPOSED SURFACE PARKING:	156 SPACES
TOTAL:	957 SPACES



SEE SHEET C-165 FOR LEGEND AND SITE NOTES

Tighe&Bond

STATE OF NEW HAMPSHIRE – PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER
11/9/23

STATE OF NEW HAMPSHIRE – NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER
11/09/2023

SCALE IN FEET
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GRAPHIC SCALE

Proposed Industrial Development

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APPROVED:	PMC

PHASE 2 OVERALL SITE PLAN

SCALE: AS SHOWN

C-164

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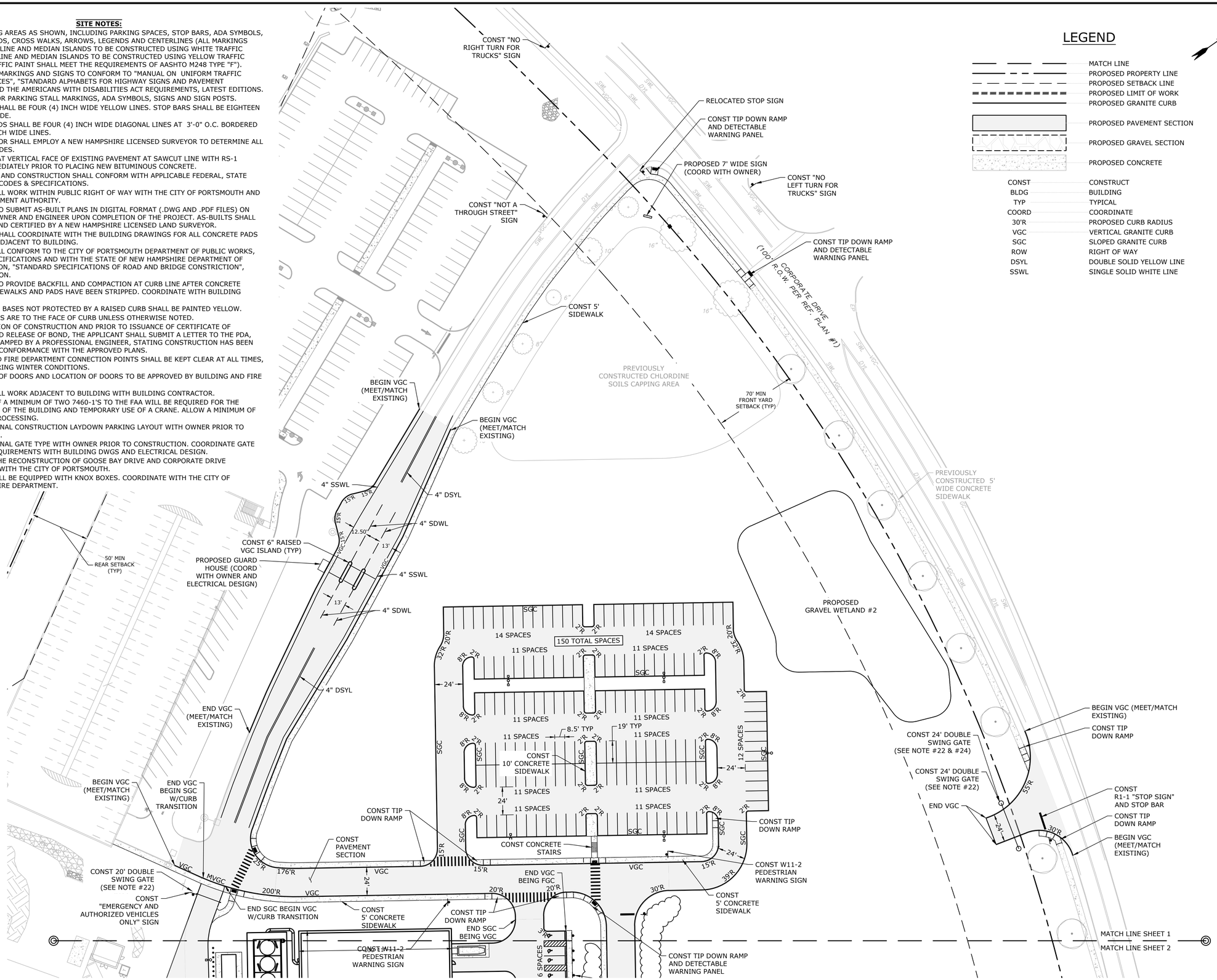
SITE NOTES:

1. STRIPE PARKING AREAS AS SHOWN, INCLUDING PARKING SPACES, STOP BARS, ADA SYMBOLS, PAINTED ISLANDS, CROSS WALKS, ARROWS, LEGENDS AND CENTERLINES (ALL MARKINGS EXCEPT CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING WHITE TRAFFIC PAINT. CENTERLINE AND MEDIAN ISLANDS TO BE CONSTRUCTED USING YELLOW TRAFFIC PAINT. ALL TRAFFIC PAINT SHALL MEET THE REQUIREMENTS OF AASHTO M248 TYPE "F").
2. ALL PAVEMENT MARKINGS AND SIGNS TO CONFORM TO "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS", AND THE AMERICANS WITH DISABILITIES ACT REQUIREMENTS, LATEST EDITIONS.
3. SEE DETAILS FOR PARKING STALL MARKINGS, ADA SYMBOLS, SIGNS AND SIGN POSTS.
4. CENTERLINES SHALL BE FOUR (4) INCH WIDE YELLOW LINES. STOP BARS SHALL BE EIGHTEEN (18) INCHES WIDE.
5. PAINTED ISLANDS SHALL BE FOUR (4) INCH WIDE DIAGONAL LINES AT 3'-0" O.C. BORDERED BY FOUR (4) INCH WIDE LINES.
6. THE CONTRACTOR SHALL EMPLOY A NEW HAMPSHIRE LICENSED SURVEYOR TO DETERMINE ALL LINES AND GRADES.
7. CLEAN AND COAT VERTICAL FACE OF EXISTING PAVEMENT AT SAWCUT LINE WITH RS-1 EMULSION IMMEDIATELY PRIOR TO PLACING NEW BITUMINOUS CONCRETE.
8. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE AND/OR TOWN CODES & SPECIFICATIONS.
9. COORDINATE ALL WORK WITHIN PUBLIC RIGHT OF WAY WITH THE CITY OF PORTSMOUTH AND PEASE DEVELOPMENT AUTHORITY.
10. CONTRACTOR TO SUBMIT AS-BUILT PLANS IN DIGITAL FORMAT (.DWG AND .PDF FILES) ON DISK TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR.
11. CONTRACTOR SHALL COORDINATE WITH THE BUILDING DRAWINGS FOR ALL CONCRETE PADS & SIDEWALKS ADJACENT TO BUILDING.
12. ALL WORK SHALL CONFORM TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS AND WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, "STANDARD SPECIFICATIONS OF ROAD AND BRIDGE CONSTRICTION", CURRENT EDITION.
13. CONTRACTOR TO PROVIDE BACKFILL AND COMPACTION AT CURB LINE AFTER CONCRETE FORMS FOR SIDEWALKS AND PADS HAVE BEEN STRIPPED. COORDINATE WITH BUILDING CONTRACTOR.
14. ALL LIGHT POLE BASES NOT PROTECTED BY A RAISED CURB SHALL BE PAINTED YELLOW.
15. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
16. UPON COMPLETION OF CONSTRUCTION AND PRIOR TO ISSUANCE OF CERTIFICATE OF OCCUPANCY AND RELEASE OF BOND, THE APPLICANT SHALL SUBMIT A LETTER TO THE PDA, SIGNED AND STAMPED BY A PROFESSIONAL ENGINEER, STATING CONSTRUCTION HAS BEEN COMPLETED IN CONFORMANCE WITH THE APPROVED PLANS.
17. FIRE LANES AND FIRE DEPARTMENT CONNECTION POINTS SHALL BE KEPT CLEAR AT ALL TIMES, INCLUDING DURING WINTER CONDITIONS.
18. FINAL NUMBER OF DOORS AND LOCATION OF DOORS TO BE APPROVED BY BUILDING AND FIRE DEPARTMENTS.
19. COORDINATE ALL WORK ADJACENT TO BUILDING WITH BUILDING CONTRACTOR.
20. SUBMISSION OF A MINIMUM OF TWO 7460-1'S TO THE FAA WILL BE REQUIRED FOR THE CONSTRUCTION OF THE BUILDING AND TEMPORARY USE OF A CRANE. ALLOW A MINIMUM OF 45 DAYS FOR PROCESSING.
21. COORDINATE FINAL CONSTRUCTION LAYDOWN PARKING LAYOUT WITH OWNER PRIOR TO CONSTRUCTION.
22. COORDINATE FINAL GATE TYPE WITH OWNER PRIOR TO CONSTRUCTION. COORDINATE GATE ELECTRICAL REQUIREMENTS WITH BUILDING DWGS AND ELECTRICAL DESIGN.
23. COORDINATE THE RECONSTRUCTION OF GOOSE BAY DRIVE AND CORPORATE DRIVE INTERSECTION WITH THE CITY OF PORTSMOUTH.
24. ALL GATES SHALL BE EQUIPPED WITH KNOX BOXES. COORDINATE WITH THE CITY OF PORTSMOUTH FIRE DEPARTMENT.



LEGEND

- MATCH LINE
- PROPOSED PROPERTY LINE
- PROPOSED SETBACK LINE
- PROPOSED LIMIT OF WORK
- PROPOSED GRANITE CURB
- PROPOSED PAVEMENT SECTION
- PROPOSED GRAVEL SECTION
- PROPOSED CONCRETE

CONST	CONSTRUCT
BLDG	BUILDING
TYP	TYPICAL
COORD	COORDINATE
30'R	PROPOSED CURB RADIUS
VGC	VERTICAL GRANITE CURB
SGC	SLOPED GRANITE CURB
ROW	RIGHT OF WAY
DSYL	DOUBLE SOLID YELLOW LINE
SSWL	SINGLE SOLID WHITE LINE

Tighe&Bond

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11/09/2023

SCALE IN FEET
0 40' 80'
GRAPHIC SCALE

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APPROVED:	PMC

PHASE 2
SITE PLAN

SCALE: AS SHOWN

C-165

Last Save Date: November 9, 2023 11:03 AM By: NAHANSEN
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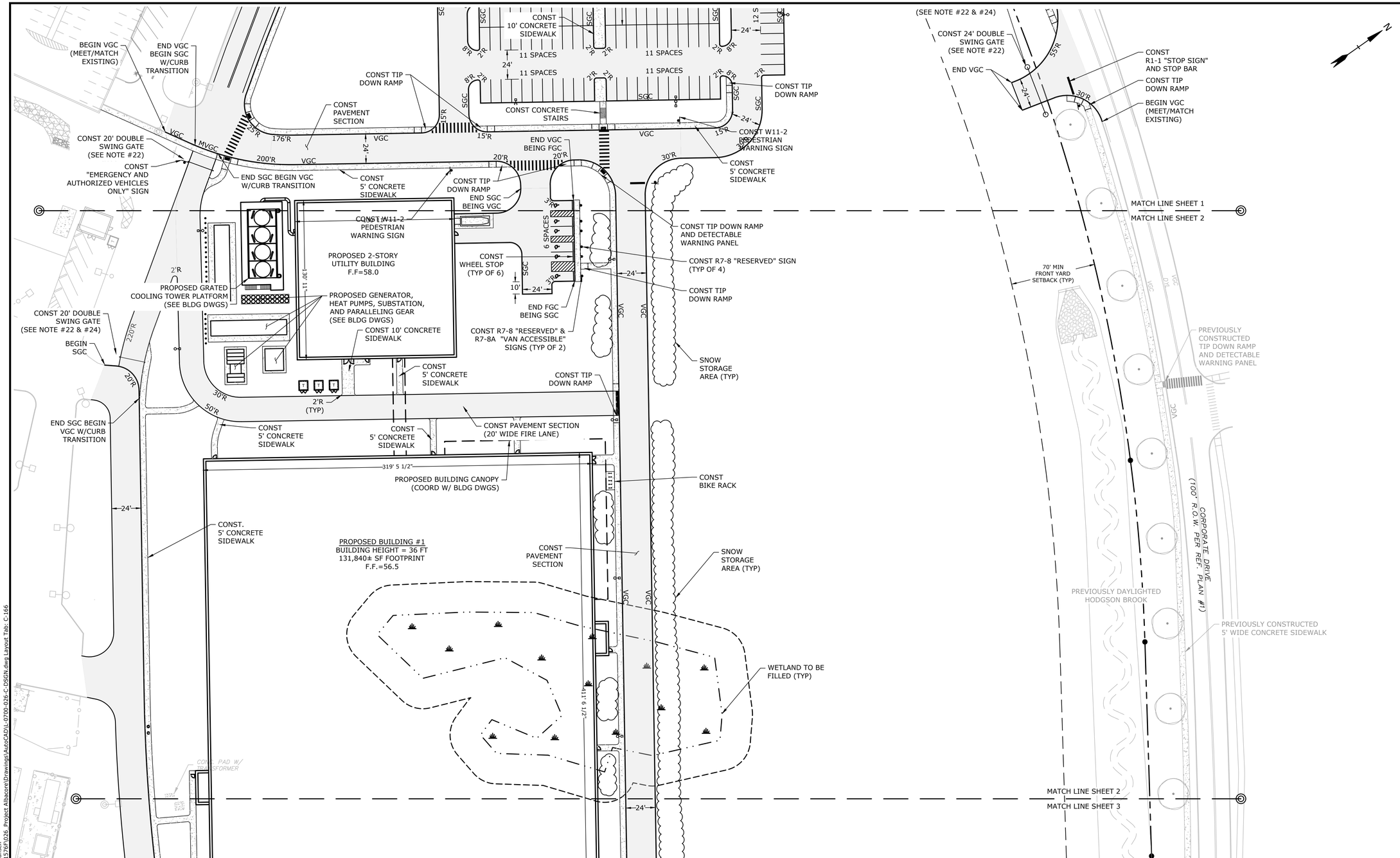

SEE SHEET C-165 FOR LEGEND AND SITE NOTES

Tighe&Bond

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PHASE 2 SITE PLAN

SCALE: AS SHOWN

C-166

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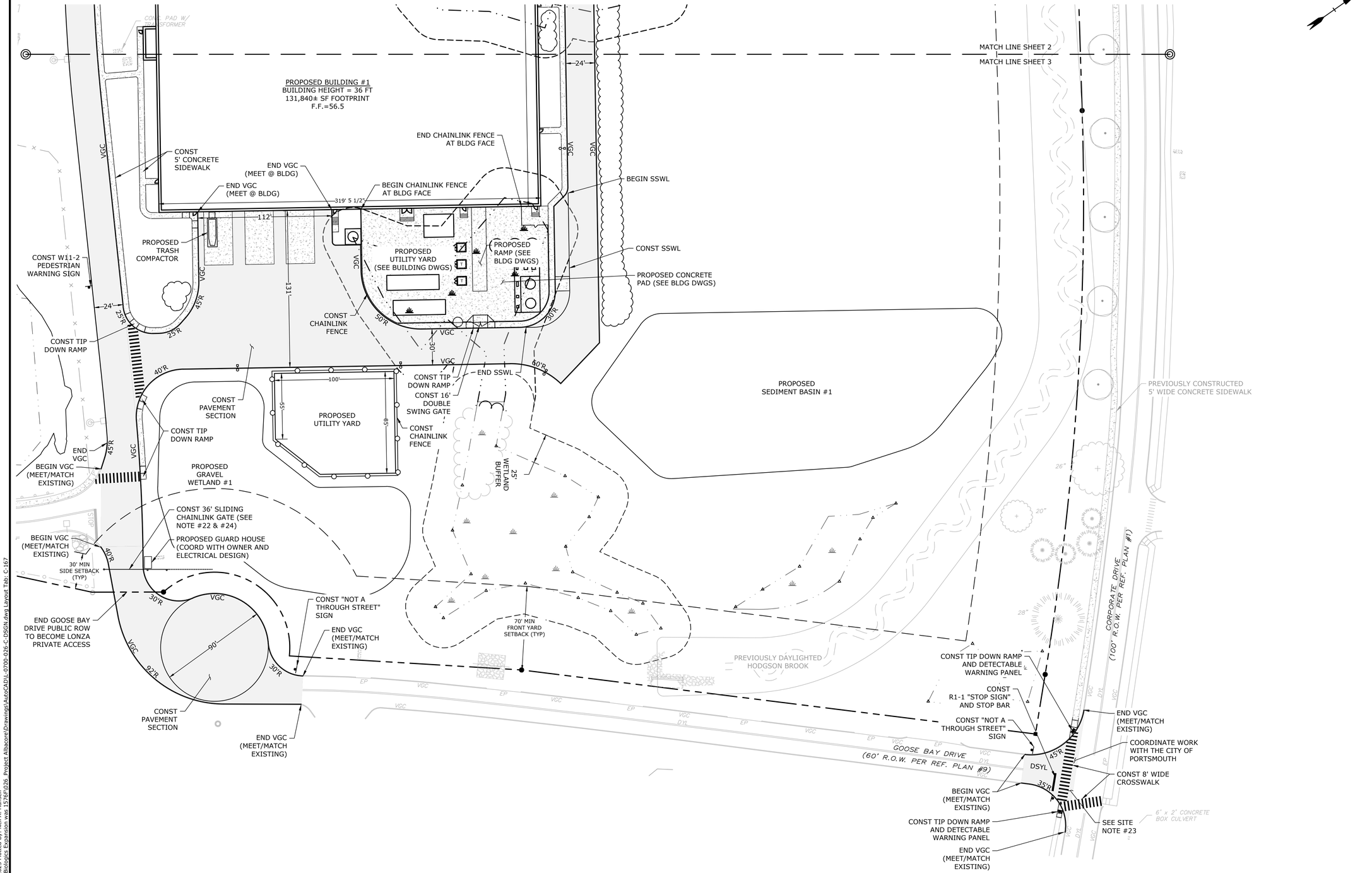

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PHASE 2
SITE PLAN

SCALE: AS SHOWN

C-167

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Plot Date: Thursday, November 09, 2023 Plotted By: Neil Hansen
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PCB100
RIM=49.50
INV.IN=43.95 NE
INV.OUT=43.85 SW

PCB101
RIM=50.30
INV.OUT=45.70 W

PCB102
RIM=51.20
INV.OUT=47.50 SW

PCB103
RIM=54.00
INV.IN=49.80 NE
INV.IN=49.00 NW
INV.OUT=48.90 SE

PCB104
RIM=54.00
INV.OUT=49.80 SW

PCB105
RIM=57.00
INV.IN=50.95 NE
INV.IN=50.95 NW
INV.OUT=50.85 SE

PCB106
RIM=57.00
INV.IN=51.15 NE
INV.OUT=51.05 SW

PCB107
RIM=56.00
INV.IN=51.80 NE
INV.IN=51.80 NW
INV.IN=51.80 SW
INV.OUT=51.70 SE

PCB108
RIM=56.00
INV.OUT=51.95 SW

PCB109
RIM=56.00
INV.OUT=52.00 SE

PCB110
RIM=49.40
INV.IN=44.50 W
INV.OUT=44.40 E

PCB111
RIM=56.80
INV.OUT=52.65 SE

PCB112
RIM=49.30
INV.IN=43.25 SW
INV.OUT=43.15 NE

PCB113
RIM=42.85
INV.OUT=38.20 S

PCB200
RIM=58.00
INV.IN=51.40 SW
INV.IN=51.40 NW
INV.OUT=51.30 NE

PCB201
RIM=57.50
INV.OUT=51.55 SE

PCB202
RIM=59.85
INV.IN=52.00 NW
INV.OUT=51.90 NE

PCB203
RIM=59.25
INV.OUT=52.40 SE

PCB204
RIM=66.75
INV.OUT=61.65 W

PCB205
RIM=53.60
INV.IN=46.55 SW
INV.OUT=46.45 NE

PCB206
RIM=53.60
INV.OUT=46.65 NE

PCB207
RIM=49.30
INV.OUT=43.35 NE

PDMH100
RIM=50.55
INV.IN=44.00 W
INV.IN=43.20 NE
INV.OUT=43.20 SE

PDMH101
RIM=50.65
INV.IN=45.50 NW
INV.IN=45.50 E
INV.OUT=45.40 SW

PDMH102
RIM=51.99
INV.IN=46.00 NW
INV.IN=47.00 NE
INV.OUT=45.90 SE

PDMH103
RIM=54.95
INV.IN=47.00 NW
INV.IN=49.20 SW
INV.OUT=46.90 SE

PDMH104
RIM=56.55
INV.IN=49.40 NW
INV.IN=51.60 SW
INV.OUT=48.50 SE

PDMH105
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INV.IN=50.65 SW
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PDMH106
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INV.OUT=46.10 SE

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INV.IN=51.25 NE
INV.OUT=48.25 SE

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INV.IN=48.70 NE
INV.OUT=48.60 SE

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INV.IN=53.70 SE
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INV.IN=51.85 NW
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PDMH113
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PDMH114
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INV.OUT=46.40 SE

PDMH115
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INV.IN=52.55 SW
INV.IN=52.55 SE
INV.OUT=52.45 NE

PDMH116
RIM=56.40
INV.IN=47.05 NW
INV.IN=53.00 NE
INV.IN=49.25 N
INV.IN=51.10 NE
INV.OUT=46.95 SE

PDMH200
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INV.IN=50.85 SE
INV.IN=50.85 E
INV.IN=50.85 SW
INV.OUT=50.75 NW

POS101
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INV.OUT=41.35 E

POS102
RIM=46.80
INV.OUT=42.75 S

POS200
RIM=56.50
INV.OUT=49.85 E

PYD100
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INV.IN=52.00 NW
INV.IN=50.35 NE
INV.OUT=50.25 SW

PYD101
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INV.OUT=49.20 SW

PYD102
RIM=55.50
INV.IN=47.70 NW
INV.OUT=47.60 SE

PYD103
RIM=51.25
INV.IN=45.65 NW
INV.OUT=45.55 E

PYD104
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INV.OUT=52.65 NE

PYD202
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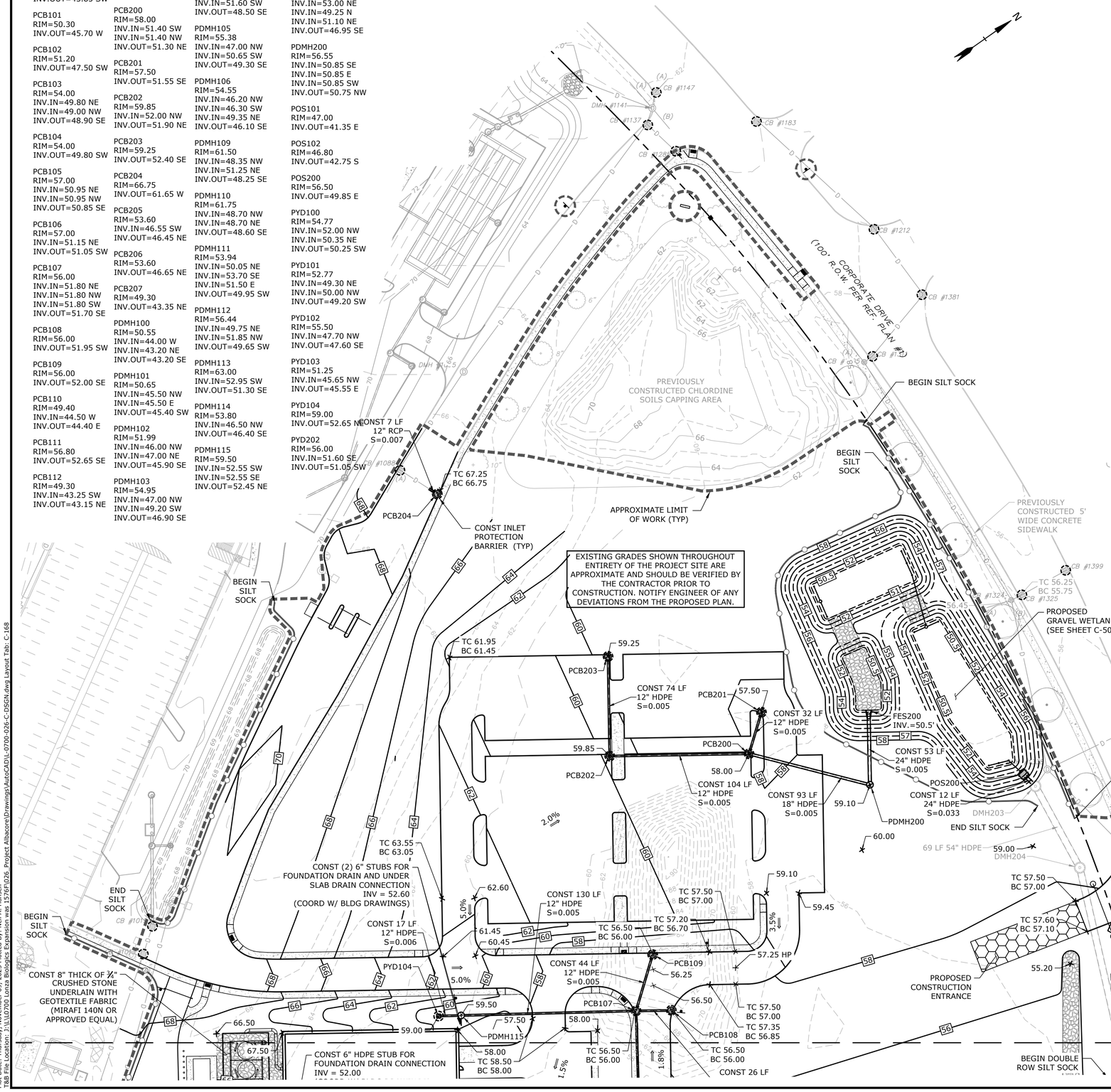
INV.IN=51.60 SE
INV.OUT=51.05 SW



GRADING AND DRAINAGE NOTES:

1. COMPACTION REQUIREMENTS:

BELOW PAVED OR CONCRETE AREAS	95%
TRENCH BEDDING MATERIAL AND SAND BLANKET BACKFILL	95%
BELOW LOAM AND SEED AREAS	90%

* ALL PERCENTAGES OF COMPACTION SHALL BE OF THE MAXIMUM DRY DENSITY AT THE OPTIMUM MOISTURE CONTENT AS DETERMINED AND CONTROLLED IN ACCORDANCE WITH ASTM D-1557, METHOD C FIELD DENSITY TESTS SHALL BE MADE IN ACCORDANCE WITH ASTM D-1556 OR ASTM-2922.

2. ALL STORM DRAINAGE PIPES SHALL BE HIGH DENSITY POLYETHYLENE (HANCOR HI-Q, ADS N-12 OR APPROVED EQUAL), UNLESS OTHERWISE SPECIFIED.
3. SEE UTILITIES PLAN FOR ALL SITE UTILITY INFORMATION.
4. ADJUST ALL MANHOLES, CATCHBASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
5. CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE AND LAWN AREAS FREE OF LOW SPOTS AND PONDING AREAS. CRITICAL AREAS INCLUDE BUILDING ENTRANCES, EXITS, RAMPS AND LOADING DOCK AREAS ADJACENT TO THE BUILDING.
6. CONTRACTOR SHALL THOROUGHLY CLEAN ALL CATCHBASINS AND DRAIN LINES, WITHIN THE LIMIT OF WORK, OF SEDIMENT IMMEDIATELY UPON COMPLETION OF CONSTRUCTION.
7. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES.
8. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED FERTILIZER AND MULCH.
9. ALL STORM DRAIN CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE NHDOT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST EDITION.
10. ALL PROPOSED CATCHBASINS SHALL BE EQUIPPED WITH OIL/GAS SEPARATOR HOODS AND 4' SUMPS.
11. CONTRACTOR TO SUBMIT AS-BUILT PLANS IN DIGITAL FORMAT (.DWG AND .PDF FILES) ON DISK TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR.
12. CONTRACTOR SHALL COORDINATE WITH THE PROJECT SURVEYOR FOR BENCHMARK AND CONTROL POINTS PRIOR TO CONSTRUCTION.
13. ALL WORK SHALL CONFORM TO THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS, STANDARD SPECIFICATIONS, AND WITH THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION, "STANDARD SPECIFICATIONS OF ROAD AND BRIDGE CONSTRUCTION", CURRENT EDITION.
14. PER COORDINATION WITH THE PDA, GROUNDWATER DISCHARGE FROM THE PROPOSED FOUNDATION DRAIN AND UNDER-SLAB DRAIN OF BUILDING 1 AND THE CENTRAL UTILITY BUILDING WILL BE CONNECTED TO THE ONSITE DRAINAGE SYSTEM. IF TREATMENT OF THE GROUNDWATER DISCHARGE IS DETERMINED TO BE REQUIRED DURING THE BUILDING PERMITTING PROCESS AND RE-INFILTRATION IS NOT PERMITTED, A CARBON FILTRATION SYSTEM WILL BE NEEDED.

EROSION CONTROL NOTES:

1. INSTALL EROSION CONTROL BARRIERS AS SHOWN AS FIRST ORDER OF WORK.
2. SEE GENERAL EROSION CONTROL NOTES ON DETAIL SHEETS.
3. PROVIDE INLET PROTECTION AROUND ALL EXISTING AND PROPOSED CATCHBASIN INLETS WITHIN THE WORK LIMITS. MAINTAIN FOR THE DURATION OF THE PROJECT UNTIL PAVEMENT HAS BEEN INSTALLED.
4. INSTALL STABILIZED CONSTRUCTION ENTRANCES.
5. INSPECT INLET PROTECTION AND SILT FENCES DAILY AND AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY OF FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE FILTER HEIGHT.
6. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED SHALL RECEIVE 6" LOAM, SEED, FERTILIZER AND MULCH.
7. CONSTRUCT EXCELSIOR MAT ON ALL SLOPES STEEPER THAN 3:1.
8. PRIOR TO ANY WORK OR SOIL DISTURBANCE COMMENCING ON THE SUBJECT PROPERTY, INCLUDING MOVING OF EARTH, THE APPLICANT SHALL INSTALL ALL EROSION AND SILTATION MITIGATION AND CONTROL MEASURES AS REQUIRED BY STATE AND LOCAL PERMITS AND APPROVALS.
9. CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST AND WIND EROSION THROUGHOUT THE CONSTRUCTION PERIOD. DUST CONTROL MEASURES SHALL INCLUDE, BUT NOT LIMITED TO, SPRINKLING WATER ON UNSTABLE SOILS SUBJECT TO ARID CONDITIONS.
10. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION AND FINAL STABALIZATION.
11. ALL CATCHBASIN SUMPS AND PIPING SHALL BE THOROUGHLY CLEANED TO REMOVE ALL SEDIMENT AND DEBRIS AFTER THE PROJECT HAS BEEN PAVED.
12. TEMPORARY SOIL STOCKPILE SHALL BE SURROUNDED BY SILT FENCE AND SHALL BE STABILIZED BY TEMPORARY EROSION CONTROL SEEDING. STOCKPILE AREAS TO BE LOCATED AS FAR AS POSSIBLE FROM THE DELINEATED EDGE OF WETLAND.
13. SAFETY FENCING SHALL BE PROVIDED AROUND STOCKPILES OVER 10 FT.
14. CONCRETE TRUCKS WILL BE REQUIRED TO WASH OUT (IF NECESSARY) SHOOTS ONLY WITHIN AREAS WHERE CONCRETE HAS BEEN PLACED. NO OTHER WASH OUT WILL BE ALLOWED.

LEGEND

- MATCH LINE
- PROPOSED PROPERTY LINE
- 56 PROPOSED CONTOUR LINE
- PROPOSED DRAIN LINE (TYP)
- PROPOSED SILT SOCK
- INLET PROTECTION SILT SACK
- PROPOSED CATCHBASIN
- PROPOSED DOUBLE GRATE CATCHBASIN
- PROPOSED DRAIN MANHOLE

CONST	CONSTRUCT
BLDG	BUILDING
TYP	TYPICAL
COORD	COORDINATE
RD	ROOF DRAIN
VIF	VERIFY IN FIELD
TC	TOP OF CURB
BC	BOTTOM OF CURB

Tighe&Bond

STATE OF NEW HAMPSHIRE – PATRICK CRIMMINS – No. 12378 – LICENSED PROFESSIONAL ENGINEER
11/9/23

STATE OF NEW HAMPSHIRE – NEIL A. HANSEN – No. 15227 – LICENSED PROFESSIONAL ENGINEER
11/09/2023

SCALE IN FEET
0 40' 80'
GRAPHIC SCALE

Proposed Industrial Development

Lonza Biologics

Portsmouth, New Hampshire

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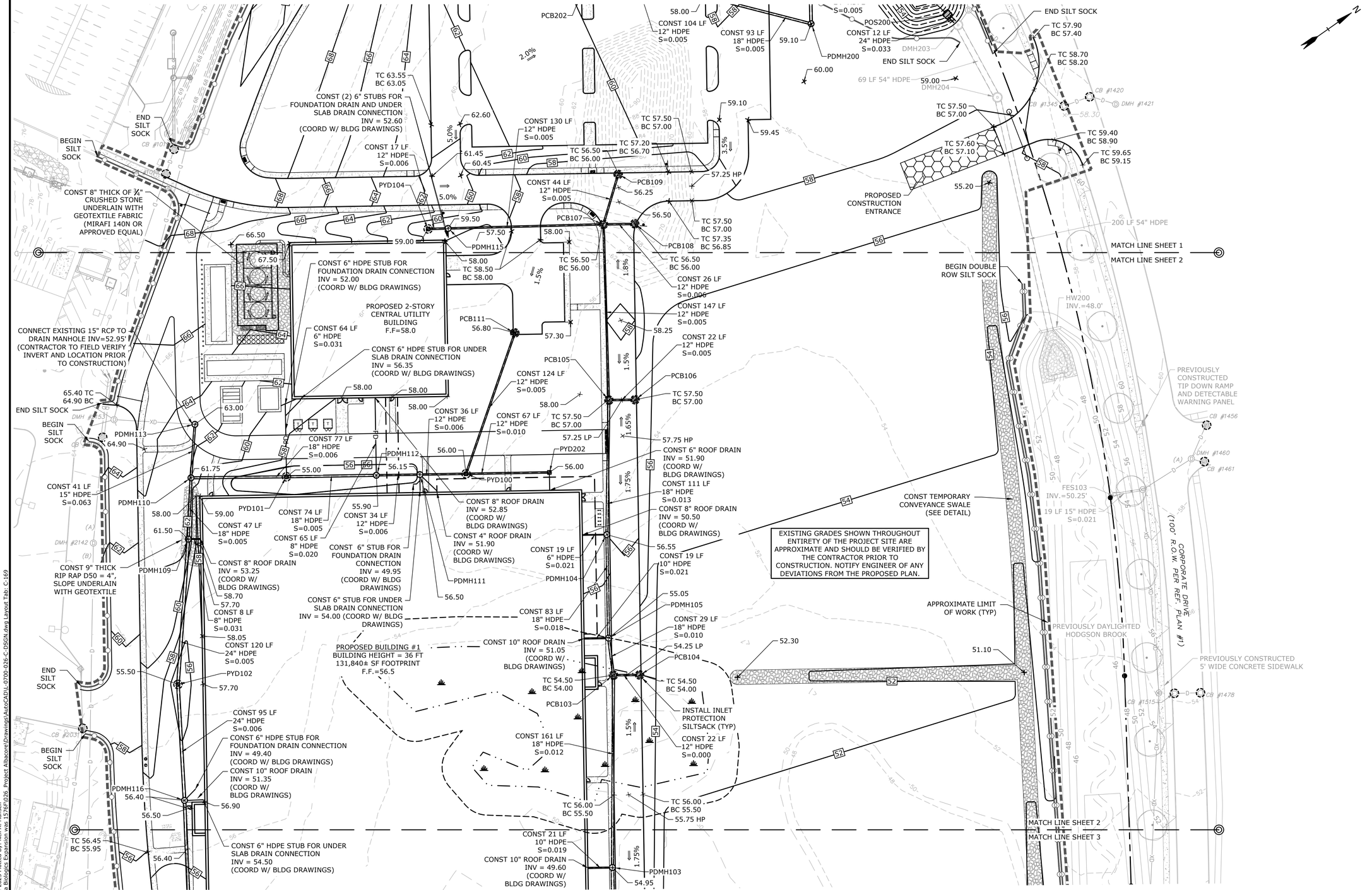
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

PHASE 2 GRADING, DRAINAGE & EROSION CONTROL PLAN

SCALE: AS SHOWN

C-168

Last Save Date: November 9, 2023 11:03 AM By: NAHANSEN
Plot Date: November 9, 2023 11:22 AM By: Neil Hansen
T&B File Location: J:\LL0700 Lonza Biologics Expansion was 1576F\026_Project Albacore\Drawings\AutoCAD\L-0700-026-C-DSGN.dwg Layout Tab: C-168



SEE SHEET C-168 FOR LEGEND GRADING, DRAINAGE & EROSION CONTROL NOTES, & DRAINAGE STRUCTURE TABLE

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STATE OF NEW HAMPSHIRE – PROFESSIONAL ENGINEER – PATRICK CRIMMINS No. 12378 LICENSED
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PHASE 2
GRADING, DRAINAGE & EROSION CONTROL PLAN

SCALE: AS SHOWN

C-169

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PDMH116
56.40
56.50
56.90
(COORD W/ BLDG DRAWINGS)
TC 56.45
BC 55.95
CONST 6" HDPE STUB FOR UNDER SLAB DRAIN CONNECTION INV = 54.50 (COORD W/ BLDG DRAWINGS)
56.40
CONST 151 LF 24" HDPE S=0.005
CONST 13 LF 6" HDPE S=0.019
CONST 6" ROOF DRAIN INV = 49.60 (COORD W/ BLDG DRAWINGS)
CONST 80 LF 24" HDPE S=0.006
PDMH106
53.70
PROPOSED BUILDING #1
BUILDING HEIGHT = 36 FT
131,840± SF FOOTPRINT
F.F.=56.5
TC 56.00
BC 55.50
TC 56.00
BC 55.50
55.75 HP
CONST 21 LF 10" HDPE S=0.019
CONST 10" ROOF DRAIN INV = 49.60 (COORD W/ BLDG DRAWINGS)
1.75%
PDMH103
54.95
CONST 94 LF 24" HDPE S=0.004
EXISTING GRADES SHOWN THROUGHOUT ENTIRETY OF THE PROJECT SITE ARE APPROXIMATE AND SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DEVIATIONS FROM THE PROPOSED PLAN.
MATCH LINE SHEET 2
MATCH LINE SHEET 3
PDMH114
53.80
56.50
56.50
56.50
56.50
56.30
CONST 91 LF 24" HDPE S=0.004
PDMH102 5' DIAMETER
CONST 39 LF 12" HDPE S=0.013
PCB206
CONST 22 LF 12" HDPE S=0.005
PCB205
CONST 28 LF 12" HDPE S=0.005
TC 53.00
BC 52.50
TC 53.00
BC 52.50
1.8%
TC 52.00
BC 51.50
6.5%
TC 51.60
BC 51.10
TC 51.70
BC 51.20
PCB102
CONST TEMPORARY CONVEYANCE SWALE (SEE DETAIL)
CONST 9" THICK RIP RAP D50 = 4", BASIN FLOOR UNDERLAIN WITH GEOTEXTILE (MIRAFI FW 700, OR APPROVED EQUAL)
TC 52.00
BC 51.50
PYD103
51.25
CONST 61 LF 24" HDPE S=0.017
CONST 163 LF 30" HDPE S=0.009
52.50
52.10
2.0%
CONST 112 LF 30" HDPE S=0.006
PCB110
5' DIAMETER
1.35%
CONST 9 LF 30" HDPE S=0.044
PDMH100
6' DIAMETER
BEGIN SILT SOCK
PCB100
DOUBLE GRATE
5' DIAMETER
1.5%
1.0%
TC 52.20
BC 51.70
50.65
CONST 44 LF 24" HDPE S=0.009
TC 51.20
BC 50.70
TC 49.90
BC 49.40
PDMH101
5' DIAMETER
TC 51.60
BC 51.10
PCB101
CONST TEMPORARY SEDIMENT BASIN UNDER DRAIN (SEE SHEET C-510)
2.0%
CONST TEMPORARY SEDIMENT BASIN #1 (SEE DETAIL)
49.00
TC 50.00
BC 49.50
CONST 14 LF 36" HDPE S=0.007
FES100
INV.=43.0'
CONST 23 LF 12" HDPE S=0.004
49.30
PCB207
49.30
PCB112
CONST 30 LF 12" HDPE S=0.005
TC 50.80
BC 50.30
48.50
POS102
48.50
48.50
PREVIOUSLY CONSTRUCTED 5' WIDE CONCRETE SIDEWALK
CB #1484
CB #1504
CB #2329
CB #1650
CB #1542
CONST 33 LF 12" HDPE S=0.006
TC 50.90
BC 50.40
25' WETLAND BUFFER
FES101
INV=43.0'
CONST RIPRAP SPILLWAY ELEV.=46.50', W=15', L=15'
CONST 68 LF 12" HDPE S=0.005
CONSTRUCT RIP RAP OVERFLOW SPILLWAY (SEE SHEET C-510)
CONST GRAVEL WETLAND #1 (SEE SHEET C-507)
CONST 33 LF 18" HDPE S=0.005
APPROXIMATE LIMIT OF WORK (TYP)
FES102
INV=42.40'
CONST RIPRAP APRON W1=3', W2=10' L=17' D50=6" D=14"
47.00
46.75
POS101
TC 47.00
BC 46.50
47.00
TC 47.00
BC 46.50
CONSTRUCT HW100 18" WING HEADWALL (SEE DETAIL ON SHEET C-510) INV=41.20'
CONST HEADWALL RIPRAP APRON W=34' L=29' D50=12" D=27"
END SILT SOCK
PCB113
42.85
CB #1769
CONST INLET PROTECTION BARRIER (TYP)
REPLACE CB FRAME AND GRATE WITH MANHOLE COVER, ADJUSTED TO PROPOSED FINISH ELEVATION
END DOUBLE ROW SILT SOCK
DMH P8
RIM=44.4
DMH #1755
PREVIOUSLY CONSTRUCTED OVERFLOW WEIR
PREVIOUSLY DAYLIGHTED HODGSON BROOK
CB #1735
CB #1685
CB #1678
DMH #2330
DMH #2336
42"x29" ARCH CMP INV.=35.3'
42"x29" ARCH CMP INV.=35.4'
42"x29" ARCH CMP INV.=35.2'
15" RCP INV.=35.6'
24" RCP INV.=35.1'
15" RCP INV.=38.1'
CORPORATE DRIVE (100' R.O.W. PER REF. PLAN #1)
GOOSE BAY DRIVE (60' R.O.W. PER REF. PLAN #9)
CB #2327
CB #1572
CB #1570
CB #1580
CB #1586
15" RCP INV.=35.5'
0" RCP INV.=35.8'

SEE SHEET C-168 FOR LEGEND GRADING, DRAINAGE & EROSION CONTROL NOTES, & DRAINAGE STRUCTURE TABLE

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11/9/23

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GRAPHIC SCALE

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Portsmouth, New Hampshire

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PHASE 2
GRADING, DRAINAGE & EROSION CONTROL PLAN

SCALE: AS SHOWN

C-170

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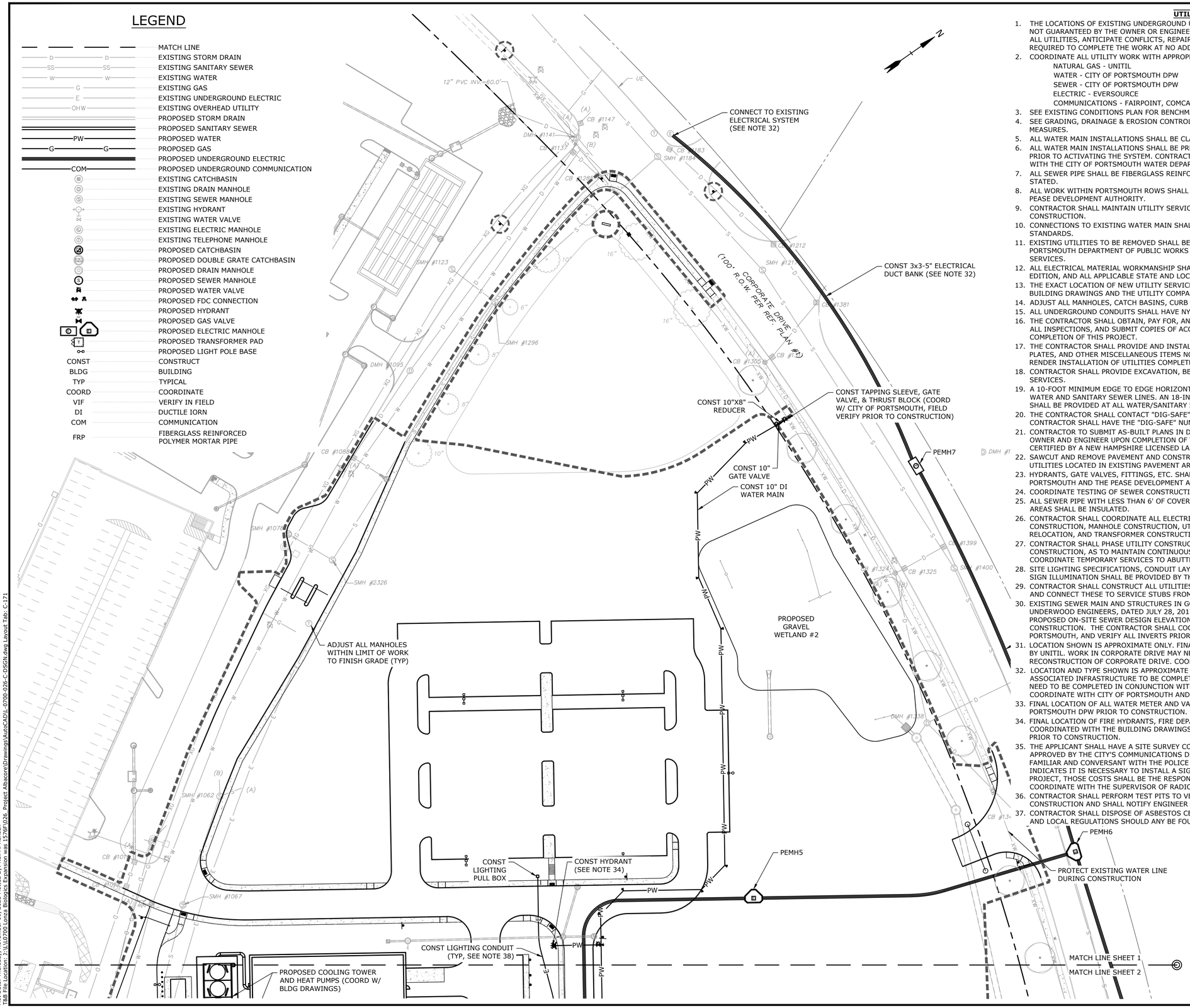
LEGEND

- MATCH LINE
- EXISTING STORM DRAIN
- EXISTING SANITARY SEWER
- EXISTING WATER
- EXISTING GAS
- EXISTING UNDERGROUND ELECTRIC
- EXISTING OVERHEAD UTILITY
- PROPOSED STORM DRAIN
- PROPOSED SANITARY SEWER
- PROPOSED WATER
- PROPOSED GAS
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED UNDERGROUND COMMUNICATION
- EXISTING CATCHBASIN
- EXISTING DRAIN MANHOLE
- EXISTING SEWER MANHOLE
- EXISTING HYDRANT
- EXISTING WATER VALVE
- EXISTING ELECTRIC MANHOLE
- EXISTING TELEPHONE MANHOLE
- PROPOSED CATCHBASIN
- PROPOSED DOUBLE GRATE CATCHBASIN
- PROPOSED DRAIN MANHOLE
- PROPOSED SEWER MANHOLE
- PROPOSED WATER VALVE
- PROPOSED FDC CONNECTION
- PROPOSED HYDRANT
- PROPOSED GAS VALVE
- PROPOSED ELECTRIC MANHOLE
- PROPOSED TRANSFORMER PAD
- PROPOSED LIGHT POLE BASE

CONST	CONSTRUCT
BLDG	BUILDING
TYP	TYPICAL
COORD	COORDINATE
VIF	VERIFY IN FIELD
DI	DUCTILE IORN
COM	COMMUNICATION
FRP	FIBERGLASS REINFORCED POLYMER MORTAR PIPE



UTILITY NOTES:

1. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND THE LOCATIONS ARE NOT GUARANTEED BY THE OWNER OR ENGINEER. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES, ANTICIPATE CONFLICTS, REPAIR EXISTING UTILITIES, AND RELOCATE EXISTING UTILITIES REQUIRED TO COMPLETE THE WORK AT NO ADDITIONAL COST TO THE OWNER.
2. COORDINATE ALL UTILITY WORK WITH APPROPRIATE UTILITY COMPANY.
   NATURAL GAS - UNITIL
   WATER - CITY OF PORTSMOUTH DPW
   SEWER - CITY OF PORTSMOUTH DPW
   ELECTRIC - EVERSOURCE
   COMMUNICATIONS - FAIRPOINT, COMCAST, FIRSTLIGHT
3. SEE EXISTING CONDITIONS PLAN FOR BENCHMARK INFORMATION.
4. SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR PROPOSED GRADING AND EROSION CONTROL MEASURES.
5. ALL WATER MAIN INSTALLATIONS SHALL BE CLASS 52, CEMENT LINED DUCTILE IRON PIPE.
6. ALL WATER MAIN INSTALLATIONS SHALL BE PRESSURE TESTED AND CHLORINATED AFTER CONSTRUCTION PRIOR TO ACTIVATING THE SYSTEM. CONTRACTOR SHALL COORDINATE CHLORINATION AND TESTING WITH THE CITY OF PORTSMOUTH WATER DEPARTMENT.
7. ALL SEWER PIPE SHALL BE FIBERGLASS REINFORCED POLYMER MORTAR (FRP) PIPE UNLESS OTHERWISE STATED.
8. ALL WORK WITHIN PORTSMOUTH ROWS SHALL BE COORDINATED WITH CITY OF PORTSMOUTH AND THE PEASE DEVELOPMENT AUTHORITY.
9. CONTRACTOR SHALL MAINTAIN UTILITY SERVICES TO ABUTTING PROPERTIES THROUGHOUT CONSTRUCTION.
10. CONNECTIONS TO EXISTING WATER MAIN SHALL BE CONSTRUCTED TO CITY OF PORTSMOUTH STANDARDS.
11. EXISTING UTILITIES TO BE REMOVED SHALL BE CAPPED AT THE MAIN AND MEET THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS STANDARDS FOR CAPPING OF WATER AND SEWER SERVICES.
12. ALL ELECTRICAL MATERIAL WORKMANSHIP SHALL CONFORM TO THE NATIONAL ELECTRIC CODE, LATEST EDITION, AND ALL APPLICABLE STATE AND LOCAL CODES.
13. THE EXACT LOCATION OF NEW UTILITY SERVICES AND CONNECTIONS SHALL BE COORDINATED WITH THE BUILDING DRAWINGS AND THE UTILITY COMPANIES.
14. ADJUST ALL MANHOLES, CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
15. ALL UNDERGROUND CONDUITS SHALL HAVE NYLON PULL ROPES TO FACILITATE PULLING CABLES.
16. THE CONTRACTOR SHALL OBTAIN, PAY FOR, AND COMPLY WITH ALL REQUIRED PERMITS, ARRANGE FOR ALL INSPECTIONS, AND SUBMIT COPIES OF ACCEPTANCE CERTIFICATES TO THE OWNER PRIOR TO THE COMPLETION OF THIS PROJECT.
17. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL MANHOLES, BOXES, FITTINGS, CONNECTORS, COVER PLATES, AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THESE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL.
18. CONTRACTOR SHALL PROVIDE EXCAVATION, BEDDING, BACKFILL AND COMPACTION FOR NATURAL GAS SERVICES.
19. A 10-FOOT MINIMUM EDGE TO EDGE HORIZONTAL SEPARATION SHALL BE PROVIDED BETWEEN ALL WATER AND SANITARY SEWER LINES. AN 18-INCH MINIMUM OUTSIDE TO OUTSIDE VERTICAL SEPARATION SHALL BE PROVIDED AT ALL WATER/SANITARY SEWER CROSSINGS.
20. THE CONTRACTOR SHALL CONTACT "DIG-SAFE" 72 HOURS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL HAVE THE "DIG-SAFE" NUMBER ON SITE AT ALL TIMES.
21. CONTRACTOR TO SUBMIT AS-BUILT PLANS IN DIGITAL FORMAT (.DWG AND .PDF FILES) ON DISK TO THE OWNER AND ENGINEER UPON COMPLETION OF THE PROJECT. AS-BUILTS SHALL BE PREPARED AND CERTIFIED BY A NEW HAMPSHIRE LICENSED LAND SURVEYOR.
22. SAWCUT AND REMOVE PAVEMENT AND CONSTRUCT PAVEMENT TRENCH PATCH FOR ALL PROPOSED UTILITIES LOCATED IN EXISTING PAVEMENT AREAS TO REMAIN.
23. HYDRANTS, GATE VALVES, FITTINGS, ETC. SHALL MEET THE REQUIREMENTS OF THE CITY OF PORTSMOUTH AND THE PEASE DEVELOPMENT AUTHORITY.
24. COORDINATE TESTING OF SEWER CONSTRUCTION WITH THE CITY OF PORTSMOUTH.
25. ALL SEWER PIPE WITH LESS THAN 6' OF COVER IN PAVED AREAS OR LESS THAN 4' OF COVER IN UNPAVED AREAS SHALL BE INSULATED.
26. CONTRACTOR SHALL COORDINATE ALL ELECTRIC WORK INCLUDING BUT NOT LIMITED TO: CONDUIT CONSTRUCTION, MANHOLE CONSTRUCTION, UTILITY POLE CONSTRUCTION, OVERHEAD WIRE RELOCATION, AND TRANSFORMER CONSTRUCTION WITH POWER COMPANY.
27. CONTRACTOR SHALL PHASE UTILITY CONSTRUCTION, PARTICULARLY WATER MAIN AND GAS MAIN CONSTRUCTION, AS TO MAINTAIN CONTINUOUS SERVICE TO ABUTTING PROPERTIES. CONTRACTOR SHALL COORDINATE TEMPORARY SERVICES TO ABUTTERS WITH THE UTILITY COMPANY AND AFFECTED ABUTTER.
28. SITE LIGHTING SPECIFICATIONS, CONDUIT LAYOUT AND CIRCUITRY FOR PROPOSED SITE LIGHTING AND SIGN ILLUMINATION SHALL BE PROVIDED BY THE PROJECT ELECTRICAL ENGINEER.
29. CONTRACTOR SHALL CONSTRUCT ALL UTILITIES AND DRAINS TO WITHIN 10' OF THE FOUNDATION WALLS AND CONNECT THESE TO SERVICE STUBS FROM THE BUILDING.
30. EXISTING SEWER MAIN AND STRUCTURES IN GOOSE BAY DRIVE ARE BASED ON A PROPOSED DESIGN BY UNDERWOOD ENGINEERS, DATED JULY 28, 2017, AND WAS CONSTRUCTED IN SUMMER 2018. THE PROPOSED ON-SITE SEWER DESIGN ELEVATIONS ARE BASED ON THE UNDERWOOD PLAN DURING CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE SEWER CONSTRUCTION WITH THE CITY OF PORTSMOUTH, AND VERIFY ALL INVERTS PRIOR TO CONSTRUCTION.
31. LOCATION SHOWN IS APPROXIMATE ONLY. FINAL DESIGN OF NATURAL GAS SERVICE TO BE COMPLETED BY UNITIL. WORK IN CORPORATE DRIVE MAY NEED TO BE COMPLETED IN CONJUNCTION WITH FUTURE RECONSTRUCTION OF CORPORATE DRIVE. COORDINATE WITH CITY OF PORTSMOUTH AND UNITIL.
32. LOCATION AND TYPE SHOWN IS APPROXIMATE ONLY. FINAL DESIGN OF ELECTRIC SERVICE AND ASSOCIATED INFRASTRUCTURE TO BE COMPLETED BY EVERSOURCE. WORK IN CORPORATE DRIVE MAY NEED TO BE COMPLETED IN CONJUNCTION WITH FUTURE RECONSTRUCTION OF CORPORATE DRIVE. COORDINATE WITH CITY OF PORTSMOUTH AND EVERSOURCE.
33. FINAL LOCATION OF ALL WATER METER AND VALVES SHALL BE COORDINATED WITH THE CITY OF PORTSMOUTH DPW PRIOR TO CONSTRUCTION.
34. FINAL LOCATION OF FIRE HYDRANTS, FIRE DEPARTMENT CONNECTIONS AND DRY STAND PIPES WILL BE COORDINATED WITH THE BUILDING DRAWINGS AND APPROVED BY THE PORTSMOUTH FIRE DEPARTMENT PRIOR TO CONSTRUCTION.
35. THE APPLICANT SHALL HAVE A SITE SURVEY CONDUCTED BY A RADIO COMMUNICATIONS CARRIER APPROVED BY THE CITY'S COMMUNICATIONS DIVISION. THE RADIO COMMUNICATIONS CARRIER MUST BE FAMILIAR AND CONVERSANT WITH THE POLICE AND RADIO CONFIGURATION. IF THE SITE SURVEY INDICATES IT IS NECESSARY TO INSTALL A SIGNAL REPEATER EITHER ON OR NEAR THE PROPOSED PROJECT, THOSE COSTS SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER. THE OWNER SHALL COORDINATE WITH THE SUPERVISOR OF RADIO COMMUNICATIONS FOR THE CITY.
36. CONTRACTOR SHALL PERFORM TEST PITS TO VERIFY INVERT ELEVATIONS IN FIELD PRIOR TO CONSTRUCTION AND SHALL NOTIFY ENGINEER IF ELEVATION DIFFERS FROM PLAN.
37. CONTRACTOR SHALL DISPOSE OF ASBESTOS CEMENT PIPES IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS SHOULD ANY BE FOUND DURING CONSTRUCTION.

Tighe&Bond

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PHASE 2
UTILITIES PLAN

SCALE: AS SHOWN

C-171

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CONST LIGHTING PULL BOX
CONST HYDRANT (SEE NOTE 34)
PEMH5
PEMH6
PROTECT EXISTING WATER LINE DURING CONSTRUCTION
CONST LIGHTING CONDUIT (TYP, SEE NOTE 38)
MATCH LINE SHEET 1
MATCH LINE SHEET 2
PROPOSED COOLING TOWER AND HEAT PUMPS (COORD W/ BLDG DRAWINGS)
CONST ELECTRIC SERVICE (COORD W/ ELECTRICAL DESIGN, BLDG DRAWINGS, AND UTILITY COMPANIES)
PROPOSED CENTRAL UTILITY BUILDING
CONST 8" NATURAL GAS SERVICE CONNECTION (COORD W/BLDG DRAWINGS AND UNITIL)
CONST TRANSFORMER (TYP OF 3) (COORD W/ EVERSOURCE AND BLDG DWGS)
CONST SEWER SERVICE INV@BLDG=51.00 138 LF, 6" FRP, S = 0.021 (COORD W/ BLDG DRAWINGS)
PSMH7 RIM=57.30 INV IN=48.10 SW INV OUT=48.00 SE
PEMH4
CONST LIGHTING PULL BOX
PROPOSED GENERATOR AND GENERATOR PAD (COORD W/ ELECTRICAL DESIGN, OWNER AND BLDG DWGS)
PROPOSED PARALLELING GEAR AND SUBSTATION (COORD W/ ELECTRICAL DESIGN, OWNER AND BLDG DWGS)
PEMH8
CONST LIGHTING PULL BOX
ADJUST ALL MANHOLES WITHIN LIMIT OF WORK TO FINISH GRADE (TYP)
CONST 4" DI DOMESTIC SERVICE (COORD W/BLDG DRAWINGS)
CONST 10" DI FIRE SERVICE (COORD W/BLDG DRAWINGS)
PROPOSED PROCESS WASTE LINE (COORD WITH BLDG DWGS)
CONST HYDRANT (SEE NOTE 34)
CONST FIRE DEPARTMENT CONNECTION (SEE NOTE 34)
CONST 6" DI WATER LINE
CONST. 202 LF 12" FRP S = 0.007
CONST 10" DI WATER MAIN
PSMH6 RIM=54.75 INV IN=46.50 NW INV OUT=46.40 SE
PROPOSED BUILDING #1
PEMH3
SMH#13 RIM=57.70 INV OUT=50.60 SE
45 LF 8" CCFRPM @ 0.022
CB #2031
SMH#11 RIM=58.90 INV OUT=50.20 NE
34 LF 18" CCFRPM @ 0.029
SMH#12 RIM=57.50 INV IN=49.60 NW INV IN=49.20 SW INV OUT=49.10 SE
CONST. 201 LF 12" FRP S = 0.014
CONST LIGHTING CONDUIT (TYP, SEE NOTE 38)
PSMH5 RIM=54.45 INV IN=43.60 NW INV OUT=43.50 SE
CONST 3x3-5" ELECTRICAL DUCT BANK (SEE NOTE 32)
CONNECT TO EXISTING ELECTRICAL SYSTEM (SEE NOTE 32)
CORPORATE DRIVE (100' R.O.W. PER REF. PLAN #1)
MATCH LINE SHEET 2
MATCH LINE SHEET 3
SEE SHEET C-171 FOR UTILITY NOTES AND LEGEND

SMH #1062
CB #1015
SMH #1067
SMH #2187
DMH #2142
DMH #1453
SMH #2122
SMH #1415
CB #1420
CB #1345
DMH #1421
SMH #1450
SMH #1459
CB #1456
DMH #1460
CB #1461
CB #1515
CB #1478

Tighe&Bond

PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER – STATE OF NEW HAMPSHIRE
11/9/23

NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER – STATE OF NEW HAMPSHIRE
11/09/2023

SCALE IN FEET
0 40' 80'
GRAPHIC SCALE

Proposed Industrial Development

Lonza Biologics

Portsmouth, New Hampshire

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CHECKED:	NAH
APPROVED:	PMC

PHASE 2
UTILITIES PLAN

SCALE: AS SHOWN

C-172

Last Save Date: November 9, 2023 11:10 AM By: NAHANSEN
Revit Date: Thursday, November 09, 2023 Revised By: Neil A. Hansen
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MATCH LINE SHEET 2

MATCH LINE SHEET 3

PROPOSED BUILDING #1

CONST FIRE DEPARTMENT CONNECTION (SEE NOTE 34)

PROPOSED PARALLELING GEAR (COORD W/ ELECTRICAL DESIGN, OWNER AND BLDG DWGS)

PROPOSED GENERATOR AND GENERATOR PAD (TYP OF 3, COORD W/ ELECTRICAL DESIGN, OWNER AND BLDG DWGS)

CONST COMMUNICATION SERVICE (COORD W/ BLDG DRAWINGS AND UTILITY COMPANIES)

CONST LIGHTING CONDUIT (TYP, SEE NOTE 38)

CONST LIGHT POLE BASE (TYP)

CONST 4" DI DOMESTIC SERVICE (COORD W/BLDG DRAWINGS)

CONST 10" DI FIRE SERVICE (COORD W/BLDG DRAWINGS)

PSMH5
RIM=54.45
INV IN=43.60 NW
INV OUT=43.50 SE

CONST 187 LF
12" FRP
S = 0.005

CONST SEWER SERVICE
INV@BLDG=45.50
101 LF, 8" FRP, S = 0.045
(COORD W/ BLDG DRAWINGS)

CONST 6" DI WATER LINE

CONST 6"X10"X10" TEE, THRUST BLOCK, AND GATE VALVE

PROPOSED UTILITY YARD #1 (COORD WITH BLDG DWGS)

CONST 309 LF
12" FRP
S = 0.003

CONST INSULATION ABOVE SEWER LINE

CONST 10" DI WATER MAIN

24" STORM BOTTOM=44.62'
12" SEWER TOP=42.38'

SMH#11
RIM=51.60
INV IN=44.00 NW
INV OUT=43.90 SE

CONST HYDRANT (SEE NOTE 34)

PSMH2
RIM=50.75
INV IN=41.10 NE
INV OUT=41.00 SE

CONST TAPPING SLEEVE, GATE VALVE, & THRUST BLOCK (TYP)

FIELD VERIFY ELECTRIC DUCT BANK INVERT PRIOR TO CONSTRICTION

CONST TRANSFORMER (TYP OF 3) (COORD W/ EVERSOURCE AND BLDG DWGS)

PROPOSED UTILITY YARD #2

CONST COMMUNICATIONS CONCRETE PULL BOX

CONST LIGHTING PULL BOX

PSMH3
RIM=51.25
INV IN=42.25 NE
INV IN=42.25 NW
INV OUT=42.15 SW

PEMH1

CONST HYDRANT (SEE NOTE 34)

PSMH4
RIM=51.10
INV IN=43.00 NE
INV IN=42.50 NW
INV OUT=42.40 SW

PROPOSED SEDIMENT BASIN #1

201 LF
18" CCFRPM @ 0.021
INV.=44.6'

CONST 139 LF
12" FRP
S = 0.008

PSMH1
RIM=48.20
INV IN=39.90 NW
INV OUT=39.80 SW

12" STORM BOTTOM=43.02'
12" SEWER TOP=41.62'

CORE INTO EXISTING MANHOLE
INV=39.67 (VIF)
REBUILD BRICK INVERT AND RELINE MANHOLE
VERIFY MANHOLE INVERTS
SEE NOTE 30 ON SHEET C-151

CONST 9 LF
12" FRP
S = 0.014

PROPOSED GRAVEL WETLAND #1

CONST LIGHTING CONDUIT (TYP, SEE NOTE 38)

CONST LIGHT POLE BASE (TYP)

SMH#10
RIM=47.83
INV IN=39.67 NW
INV IN=40.00 SW
INV OUT=39.57 SE

141 LF
18" CCFRPM @ 0.021

CONNECT TO EXISTING MANHOLE (SEE NOTE 32)

15" RCP INV.=38.1'

CB #1733

DMH #2330

CB #1769

SMH#8
RIM=41.70
INV IN=33.76 SW
INV OUT=33.50 NE

CB #1685

DMH #1755

DMH P8
RIM=44.4

SMH#9
RIM=45.10
INV IN=36.66 NW
INV OUT=36.56 NE

144 LF 18" CCFRPM @ 0.019

324 LF 18" CCFRPM @ 0.003

CB #1678

DMH #2336

SMH#7
RIM=39.50
INV IN=32.63 SW
INV OUT=32.58 NE

42"x29" ARCH CMP INV.=35.3'
42"x29" ARCH CMP INV.=35.4'
42"x29" ARCH CMP INV.=35.2'
15" RCP INV.=35.6'
24" RCP INV.=35.1'

326 LF 18" CCFRPM @ 0.001

GOOSE BAY DRIVE
(60' R.O.W. PER REF. PLAN #9)

CORPORATE DRIVE
(100' R.O.W. PER REF. PLAN #1)

CB #1484

CB #1504

CB #2329

CB #1651

CB #1542

SMH #1551

SMH #2328

CB #2327

CB #1572

CB #1570

SMH#5
RIM=41.90
INV IN=32.20 S
INV IN=32.15 N

SMH#6
RIM=41.80
INV OUT=32.25 SW

17 LF 15" PVC @ 0.006

CB #1580

15" RCP INV.=35.5'

CB #1586

0" RCP INV.=35.8'

SEE SHEET C-171 FOR UTILITY NOTES AND LEGEND

Tighe&Bond

STATE OF NEW HAMPSHIRE
PATRICK CRIMMINS
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Portsmouth,
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PHASE 2
UTILITIES PLAN

SCALE: AS SHOWN

C-173

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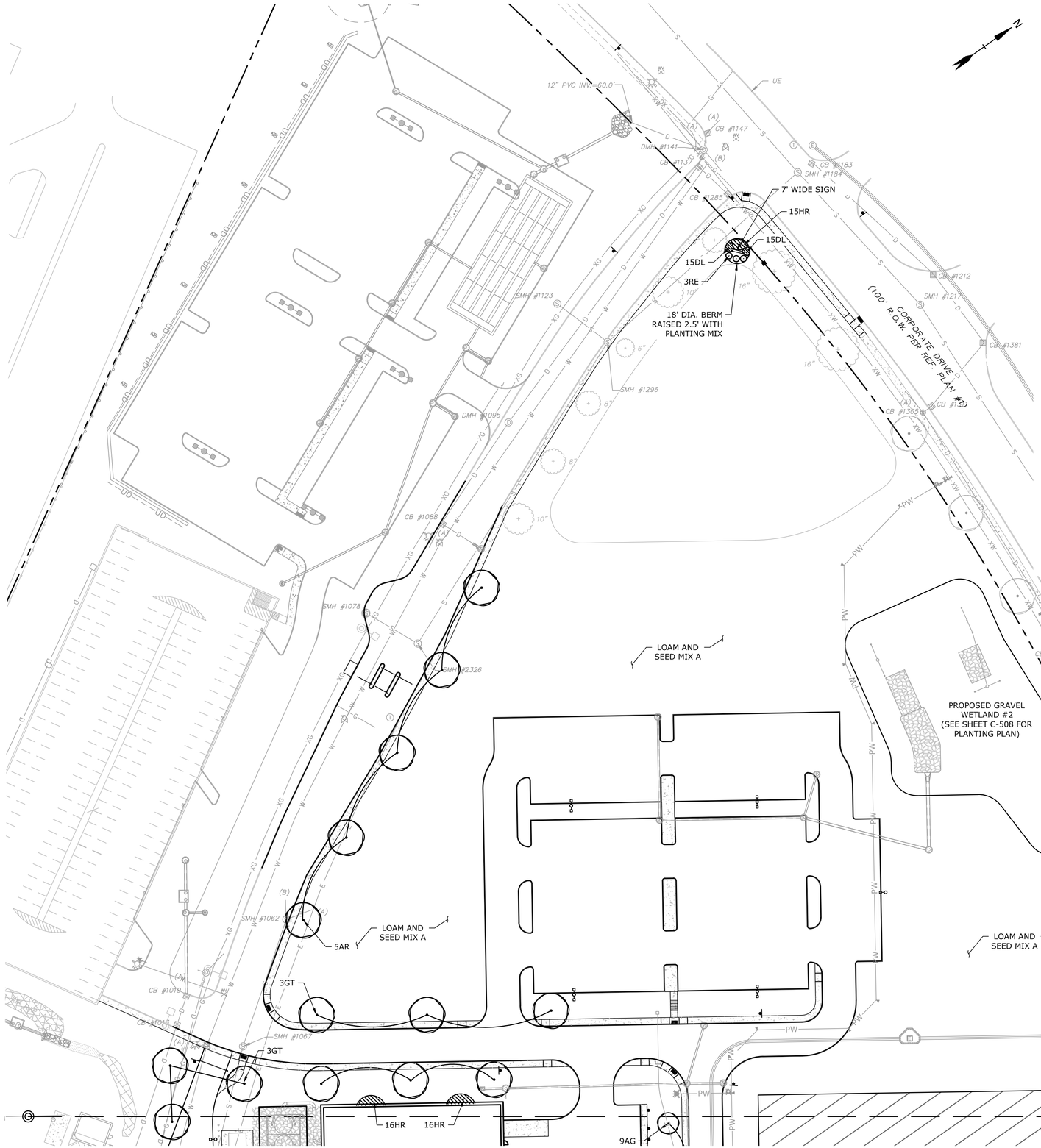

SEE SHEET C-176 FOR PLANT SCHEDULE

LANDSCAPE NOTES:

1. LANDSCAPE NOTES ON THIS PLAN APPLY ONLY TO THOSE PLANTINGS OUTSIDE OF THE HODGSON BROOK RESTORATION AREA. PLANTING REQUIREMENTS FOR THE HODGSON BROOK RESTORATION AREA CAN BE FOUND ON PLAN SHEETS C-701 THROUGH C-714 AND IN APPENDIX D OF THE TECHNICAL SPECIFICATIONS.
2. THE CONTRACTOR SHALL FURNISH AND PLANT ALL PLANTS IN QUANTITIES AS SHOWN ON THIS PLAN. NO SUBSTITUTIONS WILL BE PERMITTED UNLESS APPROVED BY OWNER. ALL PLANTS SHALL BE NURSERY GROWN.
3. ALL PLANTS SHALL BE NURSERY GROWN AND PLANTS AND WORKMANSHIP SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS, INCLUDING BUT NOT LIMITED TO SIZE, HEALTH, SHAPE, ETC., AND SHALL BE SUBJECT TO THE APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO ARRIVAL ON-SITE AND AFTER PLANTING.
4. PLANT STOCK SHALL BE GROWN WITHIN THE HARDINESS ZONES 4 THRU 7 ESTABLISHED BY THE PLANT HARDINESS ZONE MAP, MISCELLANEOUS PUBLICATIONS NO. 814, AGRICULTURAL RESEARCH SERVICE, UNITED STATES DEPARTMENT AGRICULTURE, LATEST REVISION.
5. PLANT MATERIAL SHALL BARE THE SAME RELATIONSHIP TO FINISHED GRADE AS TO THE ORIGINAL PLANTING GRADE PRIOR TO DIGGING.
6. THE NUMBER OF EACH INDIVIDUAL PLANT TYPE AND SIZE PROVIDED IN THE PLANT LIST OR ON THE PLAN IS FOR THE CONTRACTOR'S CONVENIENCE ONLY. IF A DISCREPANCY EXISTS BETWEEN THE NUMBER OF PLANTS ON THE LABEL AND THE NUMBER OF SYMBOLS SHOWN ON THE DRAWINGS, THE GREATER NUMBER SHALL APPLY.
7. NO SUBSTITUTION OF PLANT MATERIALS WILL BE ALLOWED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE.
8. THE CONTRACTOR SHALL LOCATE, VERIFY AND MARK ALL EXISTING AND NEWLY INSTALLED UNDERGROUND UTILITIES PRIOR TO ANY LAWN WORK OR PLANTING. ANY CONFLICTS WHICH MIGHT OCCUR BETWEEN PLANTING AND UTILITIES SHALL IMMEDIATELY BE REPORTED TO THE OWNER SO THAT ALTERNATE PLANTING LOCATIONS CAN BE DETERMINED.
9. ALL DISTURBED AREAS NOT TO BE PAVED OR OTHERWISE TREATED, SHALL RECEIVE SIX (6) INCHES OF LOAM AND SEED. NO FILL SHALL BE PLACED IN ANY WETLAND AREA.
10. THREE (3) INCH BARK MULCH IS TO BE USED AROUND THE TREE AND SHRUB PLANTING AS SPECIFIED IN THE DETAILS. WHERE BARK MULCH IS TO BE USED IN A CURBED ISLAND THE BARK MULCH SHALL MEET THE TOP INSIDE EDGE OF THE CURB. ALL OTHER AREAS SHALL RECEIVE SIX (6) INCHES OF LOAM AND SEED.
11. LANDSCAPING SHALL BE LOCATED WITHIN 150 FT OF EXTERIOR HOSE ATTACHMENT OR SHALL BE PROVIDED WITH AN IRRIGATION SYSTEM.
12. SEE PLANTING DETAILS AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
13. TREE STAKES SHALL REMAIN IN PLACE FOR NO LESS THAN 6 MONTHS AND NO MORE THAN 1 YEAR.
14. PLANTING SHALL BE COMPLETED FROM APRIL 15TH THROUGH OCTOBER 1ST. NO PLANTING DURING JULY AND AUGUST UNLESS SPECIAL PROVISIONS ARE MADE FOR DROUGHT.
15. PARKING AREA PLANTED ISLANDS TO HAVE MINIMUM OF 1'-0" TOPSOIL PLACED TO WITHIN 3 INCHES OF THE TOP OF CURB ELEVATION REMOVE ALL CONSTRUCTION DEBRIS BEFORE PLACING TOPSOIL.
16. TREES SHALL BE PRUNED IN ACCORDANCE WITH THE LATEST EDITION OF ANSI A300 'TREES, SHRUBS AND OTHER WOOD PLANT MAINTENANCE STANDARD PRACTICES.
17. ALL PLANTS SHALL BE WATERED THOROUGHLY TWICE DURING THE FIRST 24 HOUR PERIOD AFTER PLANTING. ALL PLANTS SHALL BE WATERED WEEKLY, OR MORE OFTEN, IF NECESSARY DURING THE FIRST GROWING SEASON. LANDSCAPE CONTRACTOR SHALL COORDINATE WATERING SCHEDULE WITH OWNER DURING THE ONE (1) YEAR GUARANTEE PERIOD.
18. EXISTING TREES AND SHRUBS SHOWN ON THE PLAN ARE TO REMAIN UNDISTURBED. ALL EXISTING TREES AND SHRUBS SHOWN TO REMAIN ARE TO BE PROTECTED WITH A 4-FOOT SNOW FENCE PLACED AT THE DRIP LINE OF THE BRANCHES OR AT 8 FEET MINIMUM FROM THE TREE TRUNK. ANY EXISTING TREE OR SHRUB SHOWN TO REMAIN, WHICH IS REMOVED DURING CONSTRUCTION, SHALL BE REPLACED BY A TREE OF COMPARABLE SIZE AND SPECIES TREE OR SHRUB.
19. THE CONTRACTOR SHALL GUARANTEE ALL PLANTINGS TO BE IN GOOD HEALTHY, FLOURISHING AND ACCEPTABLE CONDITION FOR A PERIOD OF (1) YEAR BEGINNING AT THE DATE OF ACCEPTANCE OF SUBSTANTIAL COMPLETION. ALL GRASSES, TREES AND SHRUBS THAT, IN THE OPINION OF THE LANDSCAPE ARCHITECT, SHOW LESS THAN 80% HEALTHY GROWTH AT THE END OF ONE YEAR PERIOD SHALL BE REPLACED BY THE CONTRACTOR.
20. UPON EXPIRATION OF THE CONTRACTOR'S ONE YEAR GUARANTEE PERIOD, THE OWNER SHALL BE RESPONSIBLE FOR LANDSCAPE MAINTENANCE INCLUDING WATERING DURING PERIODS OF DROUGHT
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL PLANTING AND LAWNS AGAINST DAMAGE FROM ONGOING CONSTRUCTION. THIS PROTECTION SHALL BEGIN AT THE TIME THE PLANT IS INSTALLED AND CONTINUE UNTIL THE FORMAL ACCEPTANCE OF ALL THE PLANTINGS.
22. PRE-PURCHASE PLANT MATERIAL AND ARRANGE FOR DELIVERY TO MEET PROJECT SCHEDULE AS REQUIRED IT MAY BE NECESSARY TO PRE-DIG CERTAIN SPECIES WELL IN ADVANCE OF ACTUAL PLANTING DATES.

Tighe&Bond

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11/9/23

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11/09/2023

SCALE IN FEET
0 40' 80'
GRAPHIC SCALE

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Lonza Biologics

Portsmouth,
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APPROVED:	PMC

PHASE 2
LANDSCAPE PLAN

SCALE: AS SHOWN

C-174

Last Save Date: November 9, 2023 11:03 AM By: NAHANSEN
Plot Date: November 09, 2023 11:03 AM By: Neil A. Hansen
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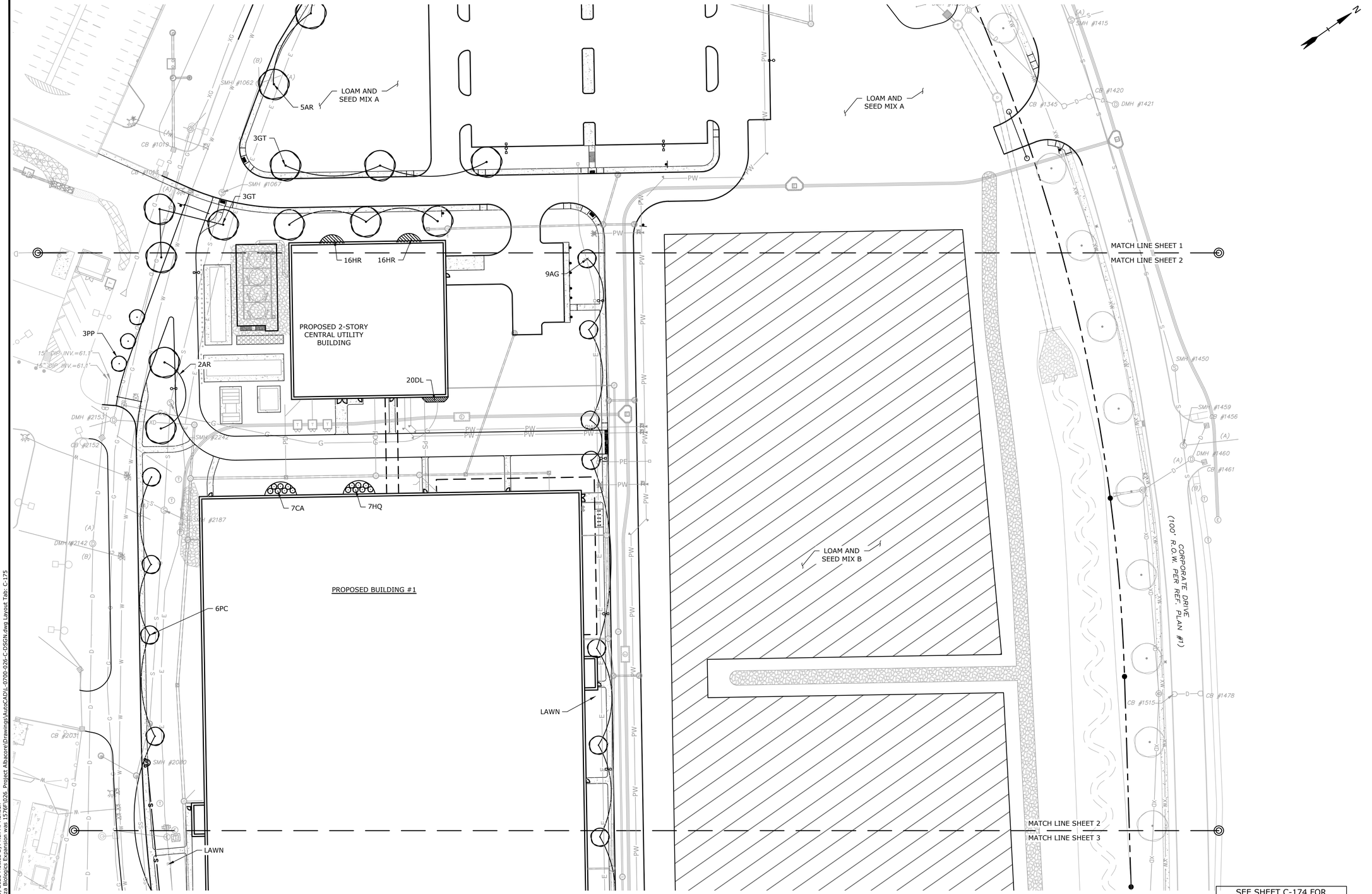

SEE SHEET C-174 FOR LANDSCAPING NOTES

SEE SHEET C-176 FOR PLANT SCHEDULE

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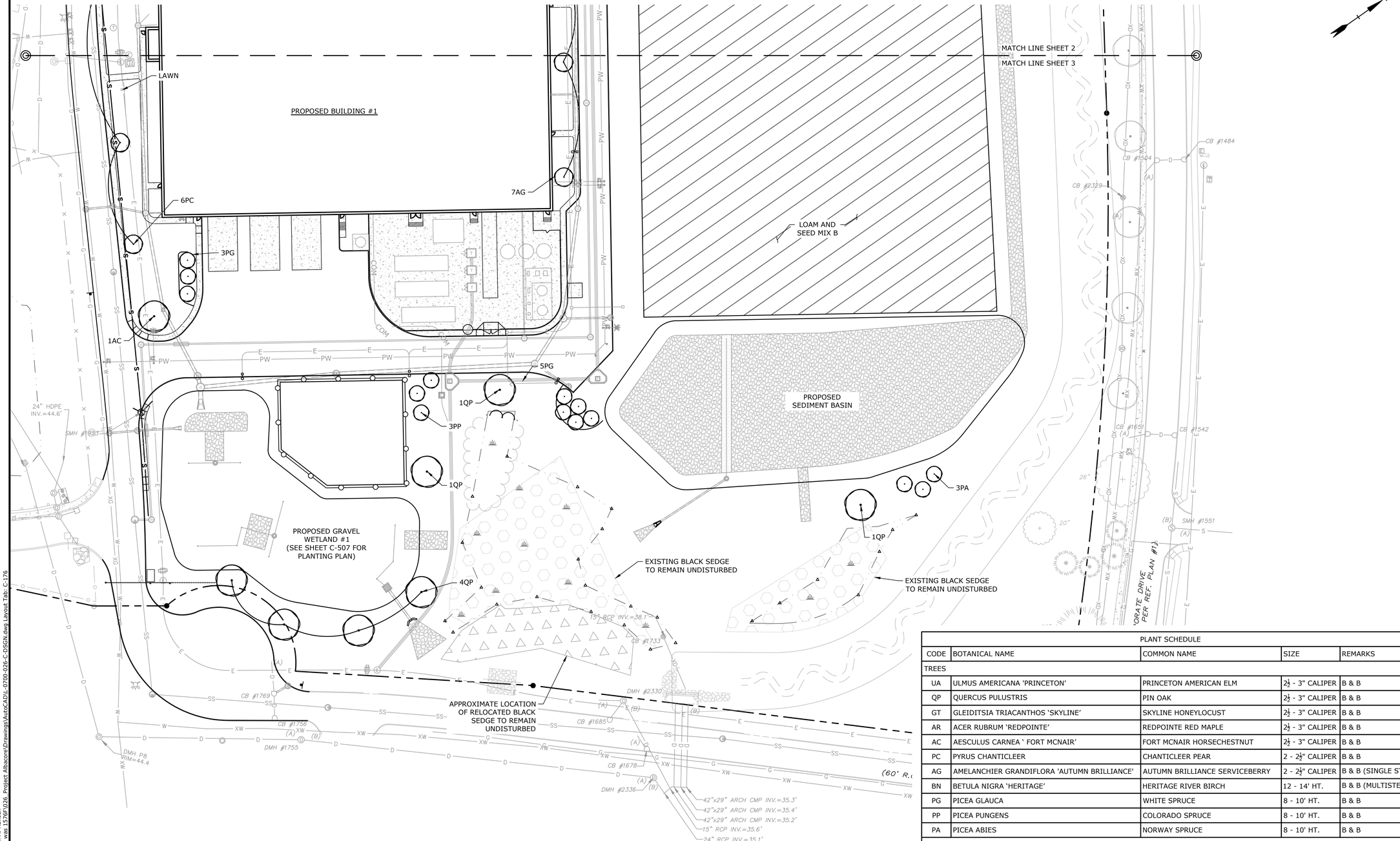
PHASE 2
LANDSCAPE PLAN

SCALE: AS SHOWN

C-175



SEED MIX NOTES

1. SEED MIX "A" SHALL CONTAIN THE FOLLOWING SEED REQUIREMENTS AND BE APPLIED AT A RATE OF 40LB/AC OR APPROVED EQUAL.

SEED MIX	% BY WEIGHT
"REBEL II" TALL FESCUE	70%
"PALMER" PERENNIAL RYEGRASS	20%
"BARON" KENTUCKEY BLUEGRASS	10%

2. SEED MIX "B" SHALL BE NEW ENGLAND CONSERVATION/WILDLIFE MIX OR APPROVED EQUAL APPLIED AT A RATE OF 25LB/AC.

SEE SHEET C-174 FOR LANDSCAPING NOTES

PLANT SCHEDULE

CODE	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
TREES				
UA	ULMUS AMERICANA 'PRINCETON'	PRINCETON AMERICAN ELM	2½ - 3" CALIPER	B & B
QP	QUERCUS PULUSTRIS	PIN OAK	2½ - 3" CALIPER	B & B
GT	GLEIDITSIA TRIACANTHOS 'SKYLINE'	SKYLINE HONEYLOCUST	2½ - 3" CALIPER	B & B
AR	ACER RUBRUM 'REDPOINTE'	REDPOINTE RED MAPLE	2½ - 3" CALIPER	B & B
AC	AESCULUS CARNEA ' FORT MCNAIR'	FORT MCNAIR HORSECHESTNUT	2½ - 3" CALIPER	B & B
PC	PYRUS CHANTICLEER	CHANTICLEER PEAR	2 - 2½" CALIPER	B & B
AG	AMELANCHIER GRANDIFLORA 'AUTUMN BRILLIANCE'	AUTUMN BRILLIANCE SERVICEBERRY	2 - 2½" CALIPER	B & B (SINGLE STEM)
BN	BETULA NIGRA 'HERITAGE'	HERITAGE RIVER BIRCH	12 - 14' HT.	B & B (MULTISTEM)
PG	PICEA GLAUCA	WHITE SPRUCE	8 - 10' HT.	B & B
PP	PICEA PUNGENS	COLORADO SPRUCE	8 - 10' HT.	B & B
PA	PICEA ABIES	NORWAY SPRUCE	8 - 10' HT.	B & B
SHRUBS				
VC	VIBURNUM CASSINOIDES	WITHEROD VIBURNUM	2½ - 3' HT.	B & B
RE	RHODODENDRON 'ENGLISH ROSEUM'	ENGLISH ROSEUM RHODODENDRON	2½ - 3' HT.	B & B
CA	CLETHERA ALNIFOLIA	SUMMERSWEET CLETHERA	7 GALLON	CONTAINER
HQ	HYDRANGEA QUERCIFOLIA 'SNOW QUEEN'	SNOW QUEEN OAKLEAF HYDRANGEA	2½ - 3' HT.	B & B
GROUNDCOVERS & PERENNIALS				
DL	HEMEROCALLIS 'STELLA DORO'	STELLA DORO DAYLILY	2 GALLON	CONTAINER
HR	HOSTA 'ROYAL STANDARD'	ROYAL STANDARD HOSTA	2 GALLON	CONTAINER
AS	ASTILBE 'VISIONS IN PINK'	VISIONS IN PINK ASTILBE	2 GALLON	CONTAINER
CAL	CALAMAGROSTIS 'KARL FOERSTER'	KARL FOERSTER FEATHER REED GRASS	3 GALLON	CONTAINER

Tighe&Bond

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PHASE 2
LANDSCAPE PLAN

SCALE: AS SHOWN

C-176

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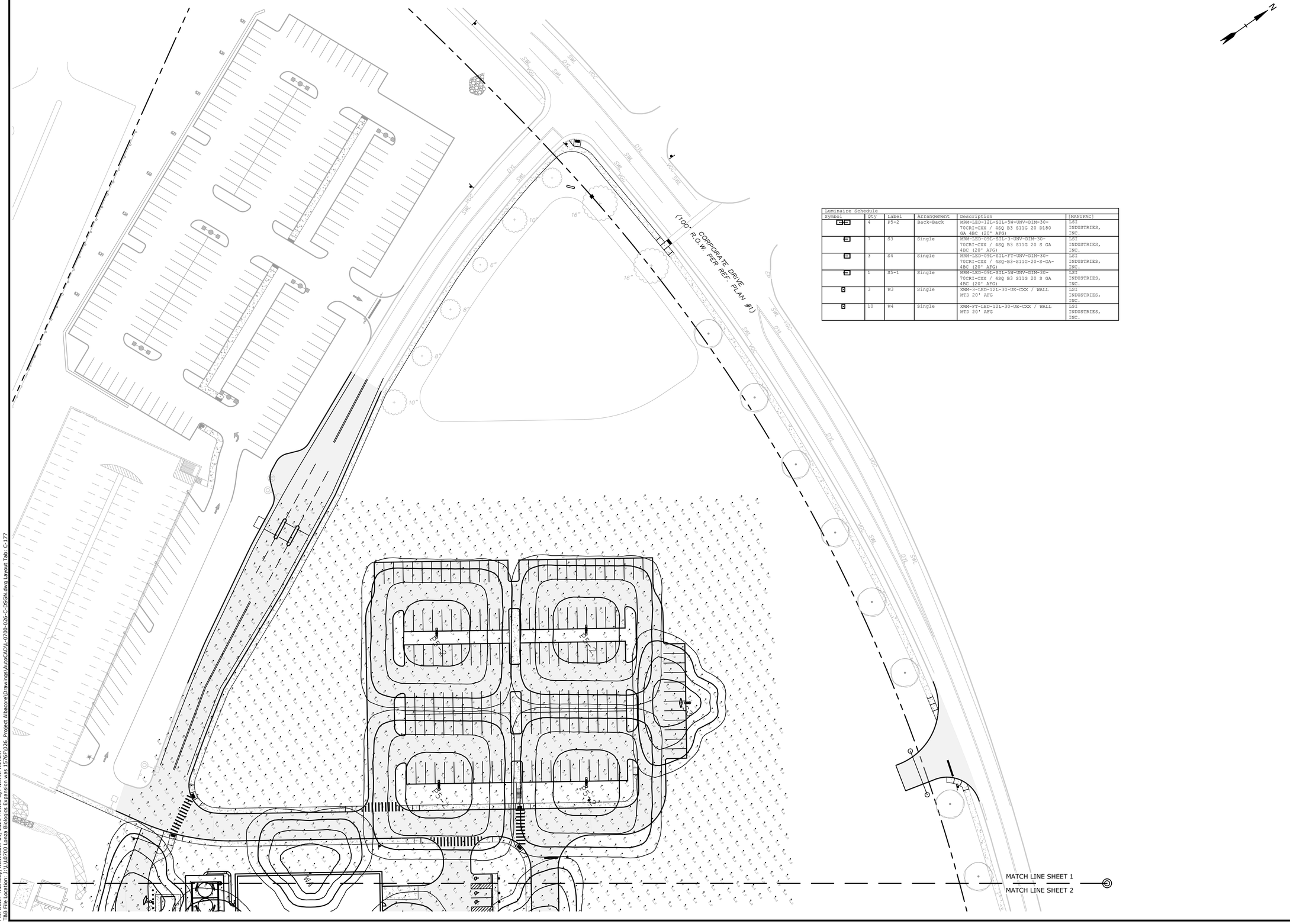

Luminaire Schedule

Symbol	Qty	Label	Arrangement	Description	[MANUFAC]
	4	P5-2	Back-Back	MRM-LED-12L-SIL-5W-UNV-DIM-30-70CRI-CXX / 48Q B3 S11G 20 D180 GA 4BC (20' AFG)	LSI INDUSTRIES, INC.
	7	S3	Single	MRM-LED-09L-SIL-3-UNV-DIM-30-70CRI-CXX / 48Q B3 S11G 20 S GA 4BC (20' AFG)	LSI INDUSTRIES, INC.
	3	S4	Single	MRM-LED-09L-SIL-FT-UNV-DIM-30-70CRI-CXX / 48Q-B3-S11G-20-S-GA-4BC (20' AFG)	LSI INDUSTRIES, INC.
	1	S5-1	Single	MRM-LED-09L-SIL-5W-UNV-DIM-30-70CRI-CXX / 48Q B3 S11G 20 S GA 4BC (20' AFG)	LSI INDUSTRIES, INC.
	3	W3	Single	XWM-3-LED-12L-30-UE-CXX / WALL MTD 20' AFG	LSI INDUSTRIES, INC.
	10	W4	Single	XWM-FT-LED-12L-30-UE-CXX / WALL MTD 20' AFG	LSI INDUSTRIES, INC.

Tighe&Bond

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PHASE 2 PHOTOMETRIC LIGHTING PLAN

SCALE: AS SHOWN

C-177

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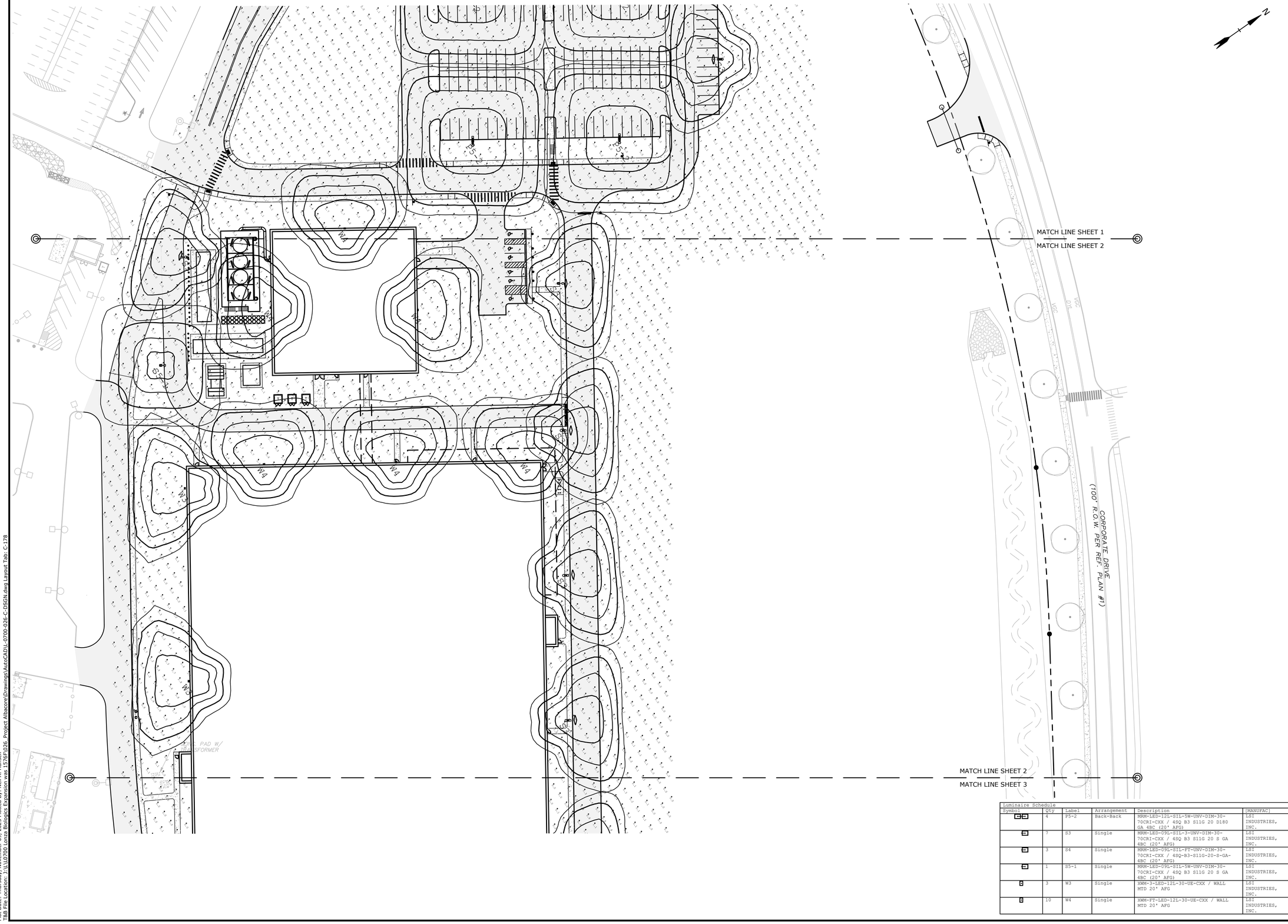


Luminaire Schedule					
Symbol	Qty	Label	Arrangement	Description	[MANUFAC]
	4	P5-2	Back-Back	MRM-LED-12L-SIL-5W-UNV-DIM-30-70CRI-CXX / 4SQ B3 S11G 20 D180 GA 4BC (20' AFG)	LSI INDUSTRIES, INC.
	7	S3	Single	MRM-LED-09L-SIL-3-UNV-DIM-30-70CRI-CXX / 4SQ B3 S11G 20 S GA 4BC (20' AFG)	LSI INDUSTRIES, INC.
	3	S4	Single	MRM-LED-09L-SIL-FT-UNV-DIM-30-70CRI-CXX / 4SQ-B3-S11G-20-S-GA-4BC (20' AFG)	LSI INDUSTRIES, INC.
	1	S5-1	Single	MRM-LED-09L-SIL-5W-UNV-DIM-30-70CRI-CXX / 4SQ B3 S11G 20 S GA 4BC (20' AFG)	LSI INDUSTRIES, INC.
	3	W3	Single	XWM-3-LED-12L-30-UE-CXX / WALL MTD 20' AFG	LSI INDUSTRIES, INC.
	10	W4	Single	XWM-FT-LED-12L-30-UE-CXX / WALL MTD 20' AFG	LSI INDUSTRIES, INC.

Tighe&Bond

STATE OF NEW HAMPSHIRE - PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER -
11/9/23

STATE OF NEW HAMPSHIRE - NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER -
11/09/2023

SCALE IN FEET
0 40' 80'
GRAPHIC SCALE

Proposed Industrial Development

Lonza Biologics

Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
N	11/9/2023	Revised P.B. Submission
M	9/27/2023	P.B. Submission
L	9/1/2022	Issued for Construction
K	5/27/2022	Issued for Bid
J	5/23/2022	Third Party Rev. Comments
I	4/26/2022	Revised PB Stipulations

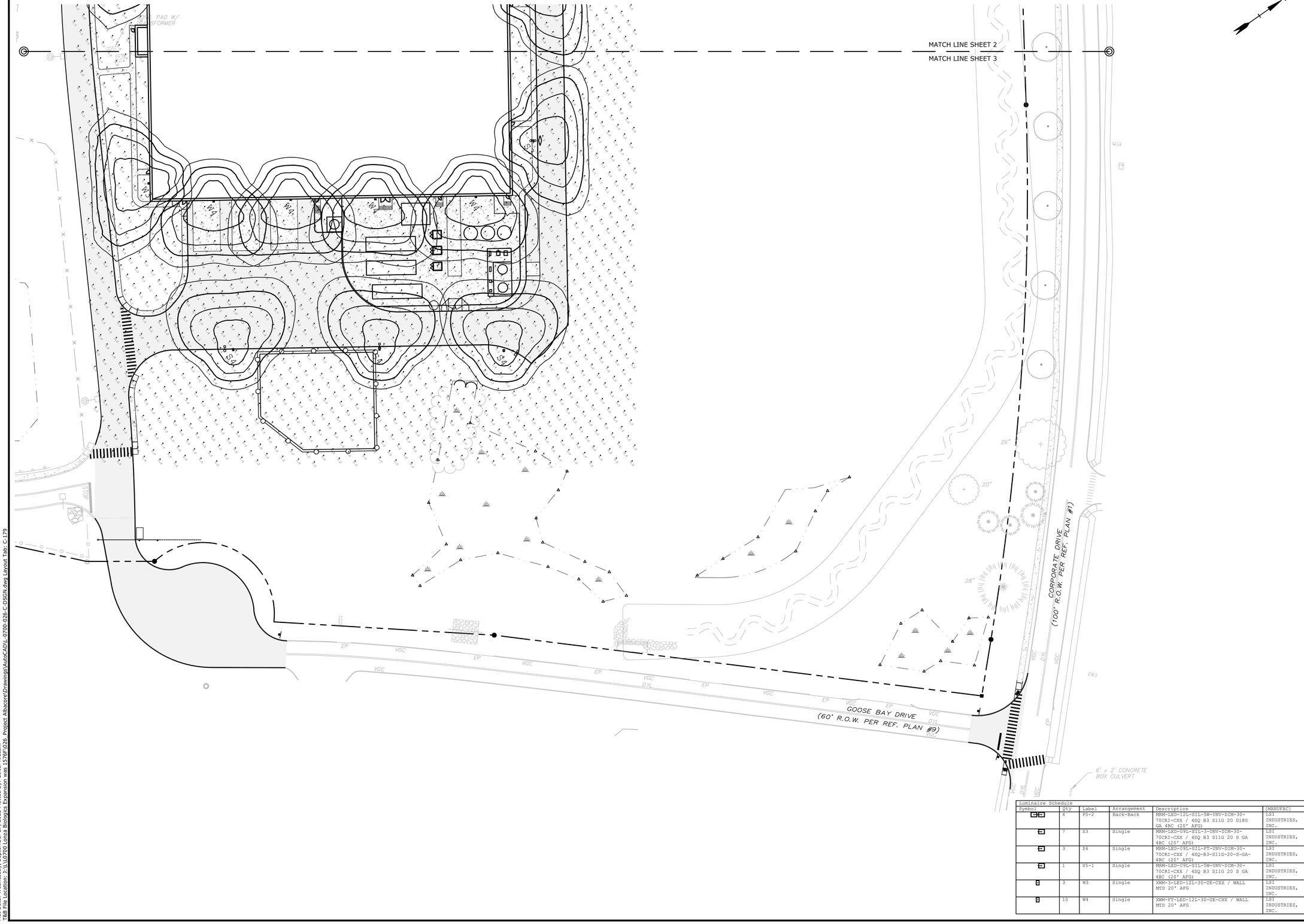
PROJECT NO:	L-0700-013
DATE:	04/03/2018
FILE:	L-0700-026-C-DSGN.dwg
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

PHASE 2 PHOTOMETRIC LIGHTING PLAN

SCALE: AS SHOWN

C-178

Last Save Date: November 9, 2023 11:03 AM By: NAHANSEN
Plot Date: Thursday, November 09, 2023 - 11:03am By: Neil Hansen
T&B File Location: J:\L\L0700 Lonza Biologics Expansion was 1576F\026_Project Albacore\Drawings\AutoCAD\L-0700-026-C-DSGN.dwg Layout Tab: C-178



Luminaire Schedule					
Symbol	Qty	Label	Arrangement	Description	[MANUFAC]
	4	P5-2	Back-Back	MRM-LED-12L-SIL-5W-UNV-DIM-30-70CRI-CXX / 48Q B3 B11G 20 D180 GA 4BC (20' AFG)	LSI INDUSTRIES, INC.
	7	S3	Single	MRM-LED-09L-SIL-3-UNV-DIM-30-70CRI-CXX / 48Q B3 B11G 20 S GA 4BC (20' AFG)	LSI INDUSTRIES, INC.
	3	S4	Single	MRM-LED-09L-SIL-FT-UNV-DIM-30-70CRI-CXX / 48Q-B3-B11G-20-S-GA-4BC (20' AFG)	LSI INDUSTRIES, INC.
	1	S5-1	Single	MRM-LED-09L-SIL-5W-UNV-DIM-30-70CRI-CXX / 48Q B3 B11G 20 S GA 4BC (20' AFG)	LSI INDUSTRIES, INC.
	3	W3	Single	XWM-3-LED-12L-30-UE-CXX / WALL MTD 20' AFG	LSI INDUSTRIES, INC.
	10	W4	Single	XWM-FT-LED-12L-30-UE-CXX / WALL MTD 20' AFG	LSI INDUSTRIES, INC.

Tighe&Bond

STATE OF NEW HAMPSHIRE
NEIL A. HANSEN
No. 15227
LICENSED PROFESSIONAL ENGINEER
9/27/2023

STATE OF NEW HAMPSHIRE
PATRICK CRIMMINS
No. 12378
LICENSED PROFESSIONAL ENGINEER
9/27/2023

SCALE IN FEET
0 40' 80'
GRAPHIC SCALE

Proposed Industrial Development

Lonza Biologics

Portsmouth,
New Hampshire

MARK	DATE	DESCRIPTION
M	9/27/2023	P.B. Submission
L	7/17/2023	Amended Site Plan Review
K	5/5/2023	Phase 1B Issued for Bid
J	3/15/2023	Phase 1B Issued for Preliminary Pricing
I	1/9/2023	Admin. Approval Submission
H	12/10/2021	Planning Board Stipulation
G	8/19/2019	Admin. Approval Submission
F	11/6/2018	P.B. Submission

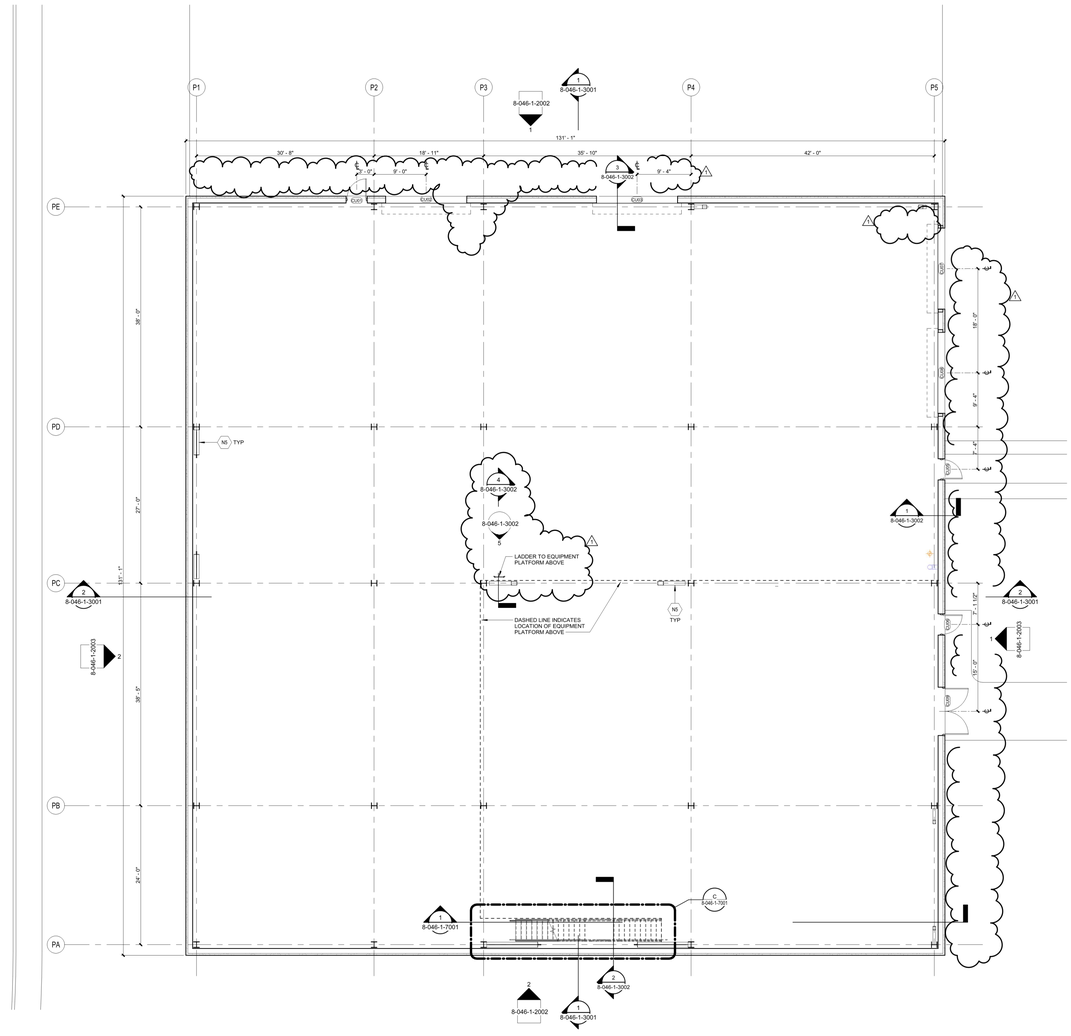
PROJECT NO:	L-0700-013
DATE:	04/03/2018
FILE:	L-0700-026-C-DSGN.dwg
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

PHASE 2 PHOTOMETRIC LIGHTING PLAN

SCALE: AS SHOWN

C-179

Last Save Date: September 27, 2023 1:36 PM By: CKRZCUIK
Plot Date: Wednesday, September 27, 2023 1:36 PM By: Chris Krzcuik
T&B File Location: J:\L\L0700 Lonza Biologics Expansion was 1576F\026 Project Albacore\Drawings\AutoCAD\L-0700-026-C-DSGN.dwg Layout Tab: C-179



A FIRST FLOOR PLAN - CUB
8-046-1-1110 1/8" = 1'-0"

NEW WORK SHEET NOTES

(#)

NS CROSS BRACING (TYP).

ISSUED FOR CONSTRUCTION

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IPS Professional Engineers and Architects, PC.

REVISION	DATE	DESCRIPTION	BY
A	15-MAR-23	DESIGN BUILD BID ISSUE (30% DD)	SnS
B	16-JUNE-23	CUB BID ISSUE (90% DD)	SnS
C	30-JUNE-23	PERMIT ISSUE	SnS
0	12-JULY-23	CONSTRUCTION ISSUE	SnS
1	24-AUG-23	BULLETIN NO. 1	SC

CLIENT

LONZA
ALBACORE PROJECT

SCALE
1" = 1'-0" 3/8" = 1'-0" 6" = 1'-0"
0 1/2" = 1'-0" 1/8" = 1'-0"
3/16" = 1'-0" 1/16" = 1'-0" 3" = 1'-0"
0 3/32" = 1'-0" 1/32" = 1'-0"
1 1/2" = 1'-0" 1/4" = 1'-0"
0 3/4" = 1'-0" 3" = 1'-0"

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XREF FILE(S)

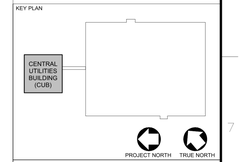
ENGINEER

ARCHITECT

DESIGNER

PARE

KEY PLAN



NOTE: APPLY SPRAYED-ON CEMENTITIOUS FIREPROOFING TO ALL STRUCTURAL FRAMING ELEMENTS (COLUMNS, CROSS BRACINGS AND BEAMS.)

Reserved for Master Stamp Block

SEAL

DATE: 24-AUG-23

Lonza
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101 International Drive
Portsmouth, NH USA
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www.lonza.com

DRAWING TITLE

FIRST FLOOR PLAN - CUB

Tags				Revision
Drawn By	Date Drawn	Project Number	P&ID Number	DWG Filename
AD		MAD23047.01		
Checked By	Date Checked	Scale	Drawing Number	
JMJ		AS NOTED	**8-046-1-1110**	1

8/24/2023 7:32:25 AM

Autodesk Docs://22435_23047_Lonza_Albacore/22435_ARCH_Lonza.rvt

LEGEND

IMP1 :

4" THICK INSULATED METAL PANELS TO HAVE MIN. R VALUE OF 33.5 COLOR: MATT PURPLE, R153 G148 B176, **15% TINT -** EMBOSSED EXTERIOR FINISH OF 22-GAUGE G-90 GALVANIZED STEEL WITH PVDF AND SMP ZINC EXTERIOR COATINGS

IMP2 :

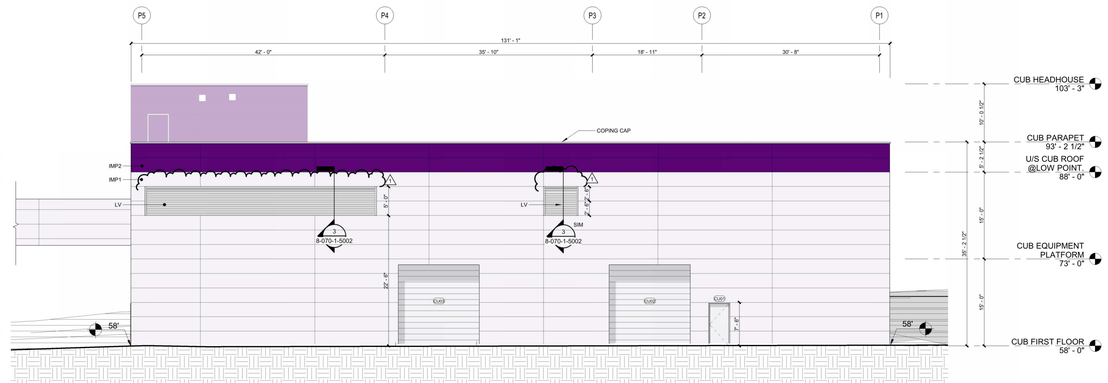
4" THICK INSULATED METAL PANELS TO HAVE MIN. R VALUE OF 33.5 COLOR: MATT PURPLE, R153 G148 B176, **150% TINT -** EMBOSSED EXTERIOR FINISH OF 22-GAUGE G-90 GALVANIZED STEEL WITH PVDF AND SMP ZINC EXTERIOR COATINGS

LV :

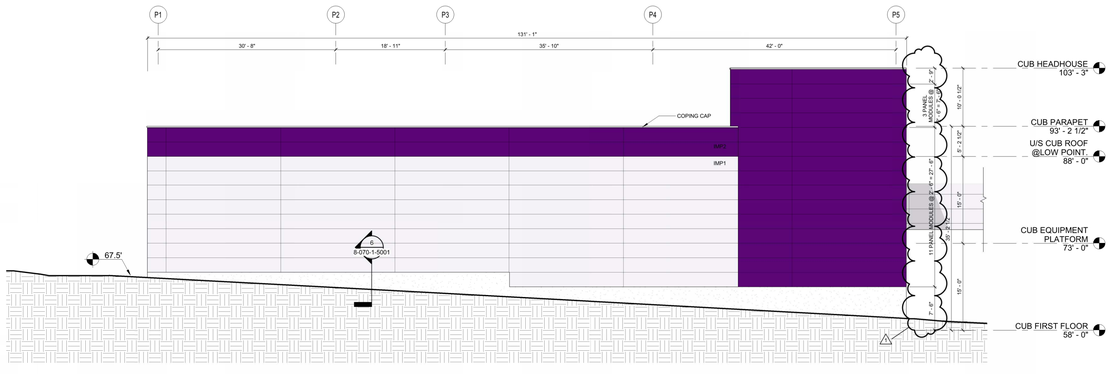
- 4" STORM-RESISTANT LOUVER - SEE SHEET 8-046-A-5002

GL1 :

1" THICK IMPACT RESISTANT INSULATED LAMINATED GLASS .OB: ¼" BLUE SOLARBAN 60 #2 SURFACE 1/2 INCH (W/90% ARGON FILL) INTERLAYER 1/4" CLEAR AS MANUFACTURED BY VITRO AMERICA OR APPROVED EQUAL . PRIOR FABRICATION AND INSTALLATION THE CONTRACTOR SHALL SUBMIT SAMPLES FOR ARCHITECT APPROVAL. U VALUE:0.25



1 EAST ELEVATION - CUB.
8-046-1-2002 1/8" = 1'-0"



2 WEST ELEVATION - CUB.
8-046-1-2002 1/8" = 1'-0"

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IPS Professional Engineers and Architects, PC.

REVISION	DATE	DESCRIPTION	BY
A	15-MAR-23	DESIGN BUILD BID ISSUE (30% DD)	SnS
B	16-JUNE-23	CUB BID ISSUE (90% DD)	SnS
C	30-JUNE-23	PERMIT ISSUE	SnS
0	12-JULY-23	CONSTRUCTION ISSUE	SnS
1	24-AUG-23	BULLETIN NO. 1	SC

CLIENT

LONZA
ALBACORE PROJECT

SCALE
1" = 1'-0" 3/8" = 1'-0" 6" = 1'-0"
0 1/2" = 1'-0" 1/8" = 1'-0"
3/16" = 1'-0" 1/16" = 1'-0" 3" = 1'-0"
0 3/32" = 1'-0" 1/32" = 1'-0"
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XREF FILE(S)

ENGINEER
ARCHITECT
DESIGNER

PARE

KEY PLAN
CENTRAL UTILITIES BUILDING (CUB)
PROJECT NORTH TRUE NORTH

Reserved for Master Stamp Block

SEAL
STEVEN M. FRANK No. 04187 STATE OF NEW YORK
DATE: 24-AUG-23

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F: 1 (603) 334-6242
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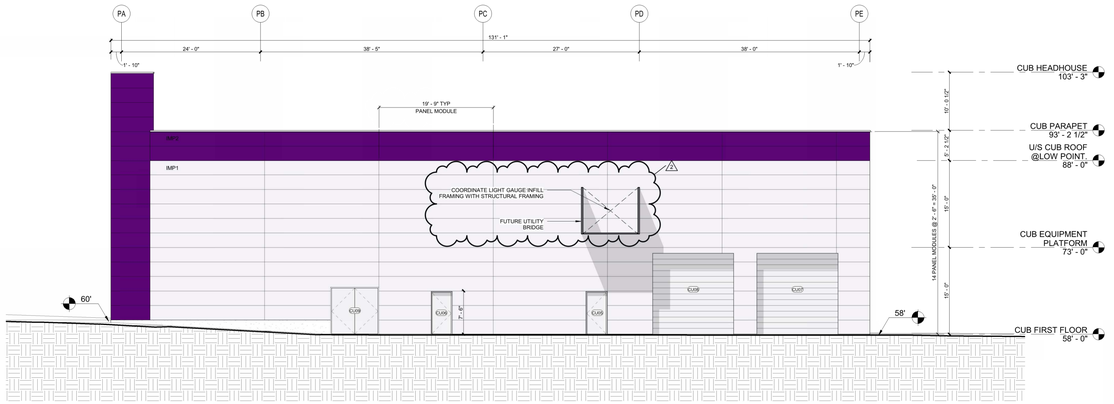
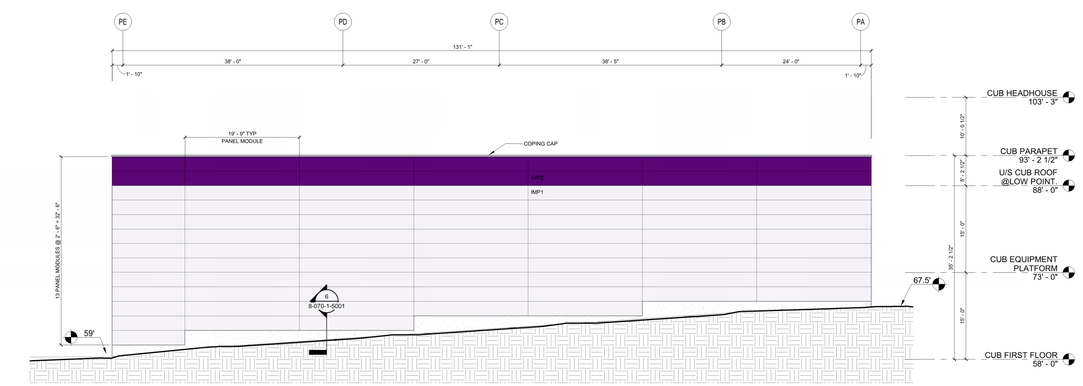
DRAWING TITLE
BUILDING ELEVATIONS - CUB

Tags			Revision
Drawn By	Date Drawn	Project Number	P&ID Number	DWG Filename	
AD		MAD23047.01			1
Checked By	Date Checked	Scale	Drawing Number	
JBMJ		AS NOTED	8-046-1-2002	



1 8-046-1-2003 SOUTH ELEVATION - CUB
1/8" = 1'-0"



2 8-046-1-2003 NORTH ELEVATION - CUB
1/8" = 1'-0"

LEGEND

IMP1 :

4" THICK INSULATED METAL PANELS TO HAVE MIN. R VALUE OF 33.5
COLOR: PURPLE, R245 G243 B248 (5% TINT OF R56 G5 B119)

IMP2 :

4" THICK INSULATED METAL PANELS TO HAVE MIN. R VALUE OF 33.5
COLOR: DEEP PURPLE, R56 G5 B119.

LV :

- 4" STORM-RESISTANT LOUVER - SEE SHEET 8-046-A-5002

GL1 :

1" THICK IMPACT RESISTANT INSULATED LAMINATED GLASS OB: ¼" BLUE SOLARBAN 70 XL SURFACE 1/2 INCH (W/90% ARGON FILL) INTERLAYER 1/4" CLEAR AS MANUFACTURED BY VITRO AMERICA OR APPROVED EQUAL. . PRIOR FABRICATION AND INSTALLATION THE CONTRACTOR SHALL SUBMIT SAMPLES FOR ARCHITECT APPROVAL. U VALUE:0.25

ISSUED FOR CONSTRUCTION

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Burlington, MA 01803
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FAX: (781) 848-5508
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REVISION	DATE	DESCRIPTION	BY
A	15-MAR-23	DESIGN BUILD BID ISSUE (30% DD)	SnS
B	16-JUNE-23	CUB BID ISSUE (90% DD)	SnS
C	30-JUNE-23	PERMIT ISSUE	SnS
D	10-JULY-23	ADDENDUM NO. 2	SnS
0	12-JULY-23	CONSTRUCTION ISSUE	SnS
1	24-AUG-23	BULLETIN NO. 1	SC
2	18-SEP-23	BULLETIN NO. 2	SC

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SCALE
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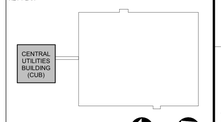
XREF FILE(S)

ENGINEER
ARCHITECT
DESIGNER

PARE

KEY PLAN



Reserved for Master Stamp Block

SEAL
JAMES B. MAY
FRANE
No. 04187
STATE OF NEW HAMPSHIRE
DATE: 18-SEP-23

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DRAWING TITLE
BUILDING ELEVATIONS - CUB

Drawn By	Date Drawn	Project Number	P&ID Number	DWG Filename	Tags	Revision
AD		MAD22435.01				2
Checked By	Date Checked	Scale	Drawing Number			
JBM		AS NOTED	8-046-1-2003			

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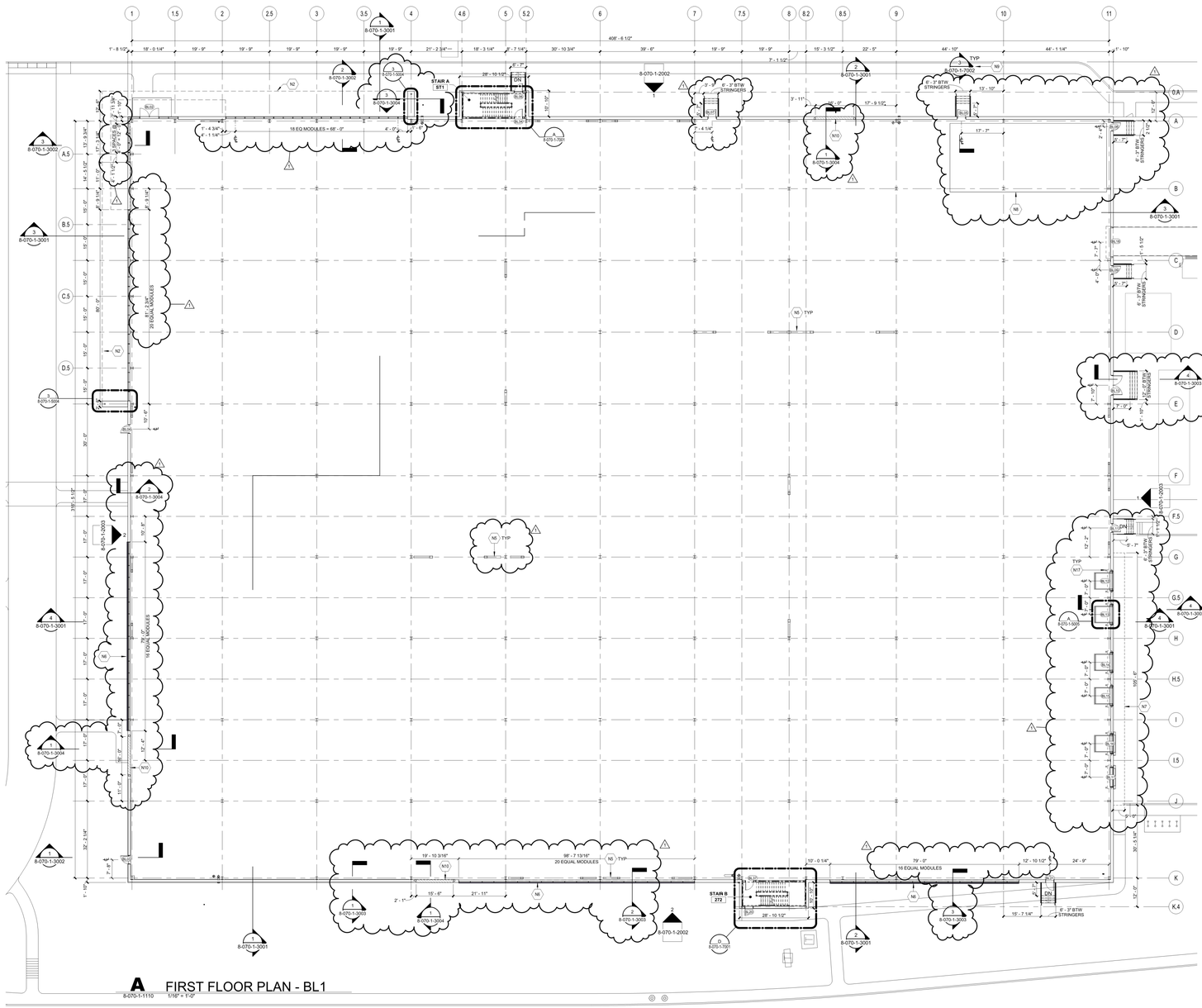

NEW WORK SHEET NOTES

#	
N2	UPPER CANOPY - REFER TO SHEET 8-070-A-5004.
N5	CROSS BRACING (TYP).
N6	FOR WINDOW DETAILS REFER TO ELEVATIONS AND SHEET 8-046-A-5001.
N7	LOADING DOCK CANOPY ABOVE - REFER TO SHEET 8-070-A-5005.
N8	BIOWASTE PIT, 22FT DEEP - REFER TO STRUCTURAL DRAWINGS FOR MORE INFORMATION.
N9	TYP. DETAIL FOR ALL EXTERIOR STAIRS.
N10	REMOVABLE PANELS.
N17	OVERFLOW ROOF SCUPPER.

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REVISION	DATE	DESCRIPTION	BY
A	15-MAR-23	DESIGN BUILD BID ISSUE (30% DD)	SnS
B	02-JUNE-23	BID ISSUE (90% DD)	SnS
C	30-JUNE-23	PERMIT ISSUE	SnS
D	10-JULY-23	ADDENDUM NO. 2	SnS
0	12-JULY-23	CONSTRUCTION ISSUE	SnS
1	24-AUG-23	BULLETIN NO. 1	SC

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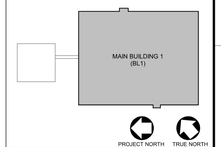
XREF FILE(S)

ENGINEER
ARCHITECT
DESIGNER

PARE

KEY PLAN



Reserved for Master Stamp Block

ISSUED FOR CONSTRUCTION

SEAL
R. FRANCIS No. 04187
STATE OF NEW HAMPSHIRE
DATE: 24-AUG-23

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Portsmouth, NH 03801
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F: 1 (603) 334-6262
www.lonza.com

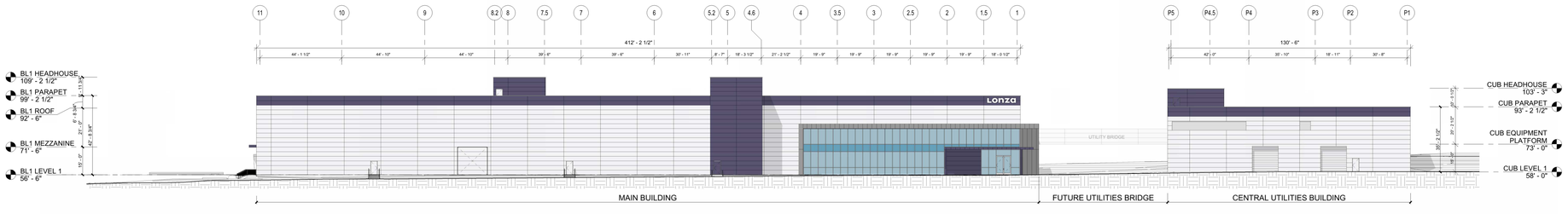
DRAWING TITLE
FIRST FLOOR PLAN - BL1

Tags | Revision

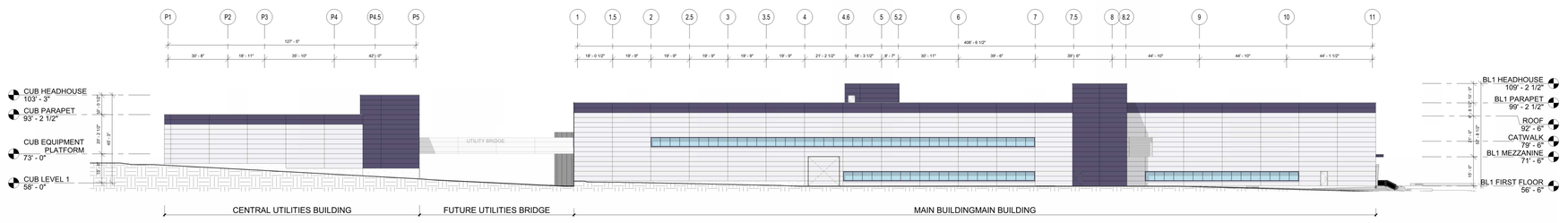
Drawn By	Date Drawn	Project Number	P&ID Number	DWG Filename
AD		MAD23047.01		
Checked By	Date Checked	Scale	Drawing Number	
JIMJ		AS NOTED	8-070-1-1110	1

8/24/2023 7:32:20 AM
Autodesk Docs://2425_23047_Lonza_Albacore/2425_ARCH_Lonza.rvt

NOTE: FOR THE ELEVATION'S DESCRIPTION REFER TO NEXT TWO SHEETS - 8-070-A-2002 AND 8-070-A-2003



1 EAST BUILDINGS ELEVATIONS
8-070-1-2001 3/64" = 1'-0"



2 WEST BUILDINGS ELEVATIONS
8-070-1-2001 3/64" = 1'-0"

ISSUED FOR CONSTRUCTION

Reserved for Master Stamp Block

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Burlington, MA 01803
PHONE: (603) 570-3650
FAX: (781) 848-5508
www.ipsdb.com
IPS Professional Engineers and Architects, PC.

REVISION	DATE	DESCRIPTION	BY
A	15-MAR-23	DESIGN BUILD BID ISSUE (30% DD)	SnS
B	02-JUNE-23	BID ISSUE (90% DD)	SnS
C	30-JUNE-23	PERMIT ISSUE	SnS
0	12-JULY-23	CONSTRUCTION ISSUE	SnS

CLIENT

LONZA ALBACORE PROJECT

SCALE

3/64" = 1'- 0"
0" 4' 16' 32' 64'

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XREF FILE(S)

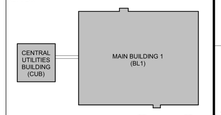
ENGINEER

ARCHITECT

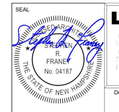
DESIGNER

PARE

KEY PLAN



SEAL



DATE: 12-07-2023

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DRAWING TITLE

OVERALL BUILDINGS ELEVATIONS

Tags			Revision
Drawn By	Date Drawn	Project Number	P&ID Number	DWG Filename	
AD		MAD23047.01			0
Checked By	Date Checked	Scale	Drawing Number	
JBMJ		3/64" = 1'-0"	8-070-1-2001	

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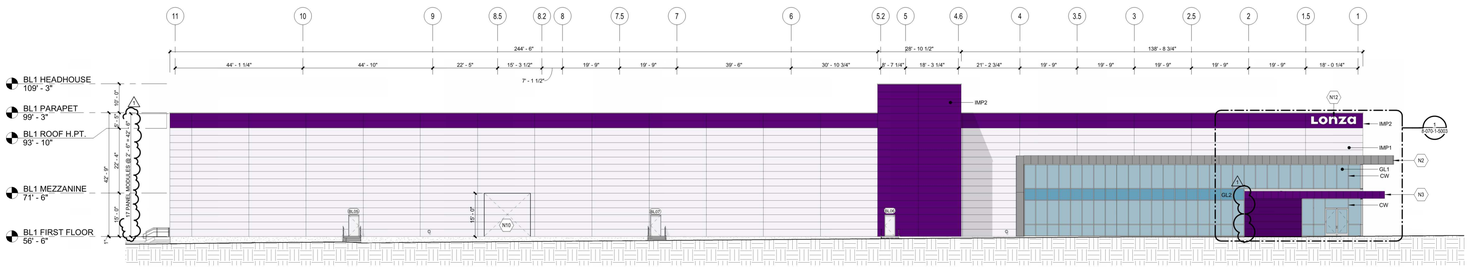
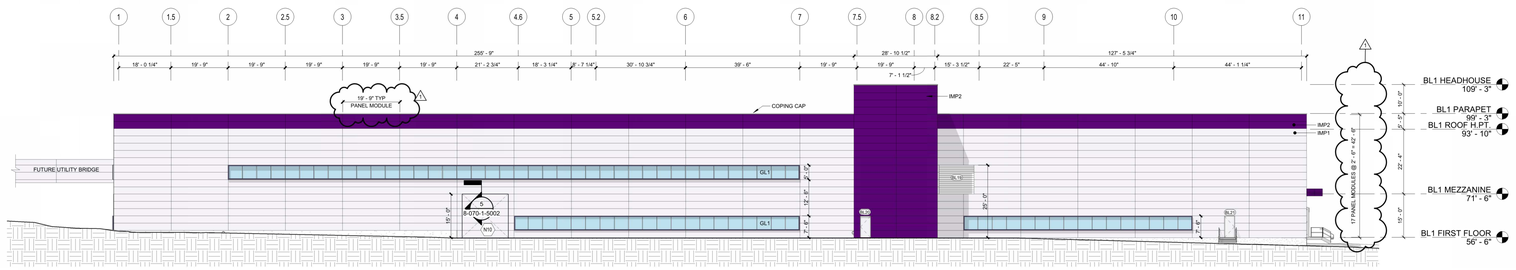


1 EAST ELEVATION - BL1
8-070-1-2002 1/16" = 1'-0"



2 WEST ELEVATION - BL1
8-070-1-2002 1/16" = 1'-0"

LEGEND

IMP1 :

4" THICK INSULATED METAL PANELS TO HAVE MIN. R VALUE OF 33.5
COLOR: PURPLE, R245 G243 B248 (5% TINT OF R56 G5 B119)

IMP2 :

4" THICK INSULATED METAL PANELS TO HAVE MIN. R VALUE OF 33.5
COLOR: DEEP PURPLE, R56 G5 B119.

CW :

THERMALLY BROKEN CURTAIN WALL SYSTEM EQUAL TO 1600 WALL SYSTEM 1 BY KAWNEER OR APPROVED EQUAL (HURRICANE IMPACT RESISTANT).

GL1 :

1" THICK IMPACT RESISTANT INSULATED LAMINATED GLASS OB: ¼" BLUE SOLARBAN 70 XL SURFACE 1/2 INCH (W/90% ARGON FILL) INTERLAYER 1/4" CLEAR AS MANUFACTURED BY VITRO AMERICA OR APPROVED EQUAL. PRIOR FABRICATION AND INSTALLATION THE CONTRACTOR SHALL SUBMIT SAMPLES FOR ARCHITECT APPROVAL. U VALUE:0.25

GL2 :

1" THICK IMPACT RESISTANT INSULATED (INSULATION & BACKPAN ARE REQUIRED) LAMINATED SPANDREL GLASS 3-1870 OB: ¼" SOLAR GRAY + 1/2 INCH (W/90% ARGON FILL) INTERLAYER 1/4" CLEAR AS MANUFACTURED BY VITRO AMERICA OR APPROVED EQUAL. PRIOR FABRICATION AND INSTALLATION THE CONTRACTOR SHALL SUBMIT SAMPLES FOR ARCHITECT APPROVAL.
U VALUE:0.25

ROOF: WHITE EPDM ROOF SYSTEM - R VALUE OF 44

NEW WORK SHEET NOTES

#	
N2	UPPER CANOPY - REFER TO SHEET 8-070-A-5004.
N3	LOWER CANOPY - REFER TO SHEET 8-070-A-5004.
N10	REMOVABLE PANELS.
N12	CLEAR FINISH, CORROSION-PROOF WHITE ALUMINUM SIGN .

Integrated Project Services
Engineering
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Comoliance
Consulting

30 Corporate Drive, Suite 130
Burlington, MA 01803
PHONE: (603) 570-3650
FAX: (781) 848-5508
www.ipsdb.com

IPS Professional Engineers and Architects, PC.

REVISION	DATE	DESCRIPTION	BY
A	15-MAR-23	DESIGN BUILD BID ISSUE (30% DD)	SnS
B	02-JUNE-23	BID ISSUE (90% DD)	SnS
C	30-JUNE-23	PERMIT ISSUE	SnS
D	10-JULY-23	ADDENDUM NO. 2	SnS
0	12-JULY-23	CONSTRUCTION ISSUE	SnS
1	24-AUG-23	BULLETIN NO. 1	SC

CLIENT

LONZA
ALBACORE PROJECT

SCALE
1" = 1'-0" 3/8" = 1'-0" 6" = 1'-0"
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3/16" = 1'-0" 3" = 1'-0" 1/16" = 1'-0"
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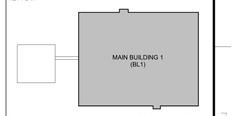
XREF FILE(S)

ENGINEER
ARCHITECT
DESIGNER

PARE

KEY PLAN



Reserved for Master Stamp Block

ISSUED FOR CONSTRUCTION

SEAL
STATE OF NEW HAMPSHIRE
SCOTT M. FRANCIS
No. 04187
DATE: 24-AUG-23

Lonza
Lonza Biologics, Inc.
101 International Drive
Portsmouth, NH USA
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F: 1 (603) 334-6240
www.lonza.com

DRAWING TITLE

BUILDING ELEVATIONS - BL1

Drawn By	Date Drawn	Project Number	P&ID Number	DWG Filename	Tags	Revision
AD		MAD23047.01				1
Checked By	Date Checked	Scale	Drawing Number			
JMJ		AS NOTED	8-070-1-2002			

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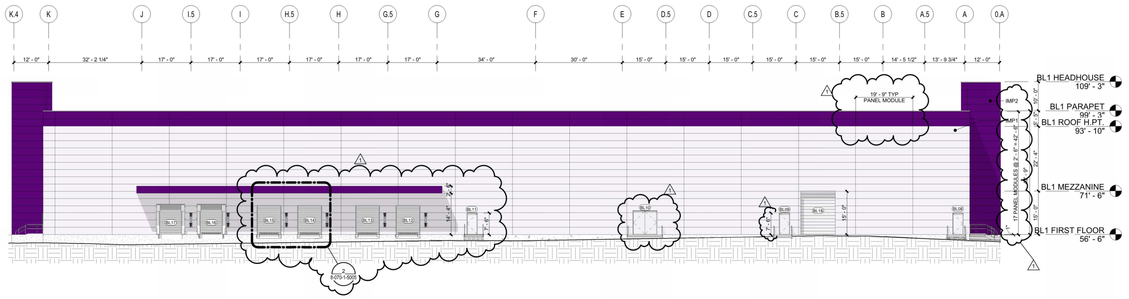
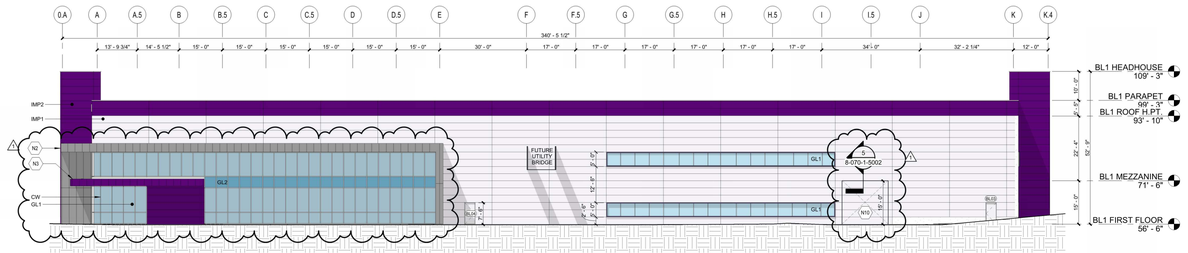


1 SOUTH ELEVATION - BL1.
8-070-1-2003 1/16" = 1'-0"



2 NORTH ELEVATION - BL1.
8-070-1-2003 1/16" = 1'-0"

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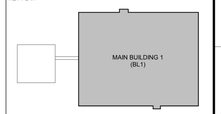
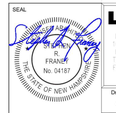
KEY PLAN



Reserved for Master Stamp Block

SEAL



DATE: 24-AUG-23

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DRAWING TITLE

BUILDING ELEVATIONS - BL1

Tags Revision

Drawn By	Date Drawn	Project Number	P&ID Number	DWG Filename	
AD		MAD23047.01			
Checked By	Date Checked	Scale	Drawing Number		1
JIMJ		AS NOTED	**8-070-1-2003**		

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DETAILS PLAN SET

APRIL 3, 2018

REVISED: NOVEMBER 9, 2023

LIST OF DRAWINGS		
SHEET NO.	SHEET TITLE	LAST REVISED
	DETAILS COVER SHEET	11/9/2023
C-501	EROSION CONTROL NOTES & DETAILS SHEET	9/27/2023
C-502	DETAILS SHEET	11/9/2023
C-503	DETAILS SHEET	11/9/2023
C-504	DETAILS SHEET	9/27/2023
C-505	DETAILS SHEET	9/27/2023
C-506	DETAILS SHEET	9/27/2023
C-507	DETAILS SHEET	9/27/2023
C-508	DETAILS SHEET	9/27/2023
C-509	DETAILS SHEET	11/9/2023
C-510	DETAILS SHEET	9/27/2023
C-511	DETAILS SHEET	9/27/2023
C-512	DETAILS SHEET	9/27/2023

STATE OF NEW HAMPSHIRE
PATRICK CRIMMINS
No. 12378
LICENSED
PROFESSIONAL ENGINEER
11/9/23

STATE OF NEW HAMPSHIRE
NEIL A. HANSEN
No. 15227
LICENSED
PROFESSIONAL ENGINEER
11/09/2023

COMPLETE SET 13 SHEETS

GENERAL PROJECT INFORMATION

PROJECT LESSOR:	PEASE DEVELOPMENT AUTHORITY 55 INTERNATIONAL DRIVE PORTSMOUTH, NH 03801
PROJECT OWNER/ APPLICANT:	LONZA BIOLOGICS 101 INTERNATIONAL DRIVE PORTSMOUTH, NH 03801
PROJECT ADDRESS:	70 & 80 CORPORATE DRIVE PORTSMOUTH, NH 03801
PROJECT LATITUDE:	43°-04'-59.0"N
PROJECT LONGITUDE:	71°-48'-09.7"W

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF THE EXPANSION OF LONZA BIOLOGICS, WHICH INCLUDES THE CONSTRUCTION OF 4 PROPOSED BUILDINGS, 1 PARKING GARAGE, AND ASSOCIATED SITE IMPROVEMENTS.

DISTURBED AREA

THE TOTAL AREA TO BE DISTURBED IS APPROXIMATELY 21.3 ACRES.

SOIL CHARACTERISTICS

BASED ON THE HIGH INTENSITY SOIL SURVEY PREPARED BY GOVE ENVIRONMENTAL SERVICES, INC. IN DECEMBER 2015, THE SITE SOILS VARY FROM WELL DRAINED TO VERY POORLY DRAINED AND PRIMARILY CONSIST OF SOMEWHAT POORLY DRAINED SOILS.

NAME OF RECEIVING WATERS

THE STORM WATER RUNOFF WILL ULTIMATELY DISCHARGE INTO HODGSON BROOK

CONSTRUCTION SEQUENCE OF MAJOR ACTIVITIES:

1. CUT AND CLEAR TREES.
2. CONSTRUCT TEMPORARY AND PERMANENT SEDIMENT, EROSION AND DETENTION CONTROL FACILITIES. EROSION, SEDIMENT AND DETENTION MEASURES SHALL BE INSTALLED PRIOR TO ANY EARTH MOVING OPERATIONS THAT WILL INFLUENCE STORMWATER RUNOFF SUCH AS:
   - NEW CONSTRUCTION
   - CONTROL OF DUST
   - NEARNESS OF CONSTRUCTION SITE TO RECEIVING WATERS
   - CONSTRUCTION DURING LATE WINTER AND EARLY SPRING
3. ALL PERMANENT DITCHES, SWALES, DETENTION, RETENTION AND SEDIMENTATION BASINS TO BE STABILIZED USING THE VEGETATIVE AND NON-STRUCTURAL BMPS PRIOR TO DIRECTING RUNOFF TO THEM.
4. CLEAR AND DISPOSE OF DEBRIS.
5. CONSTRUCT TEMPORARY CULVERTS AND DIVERSION CHANNELS AS REQUIRED.
6. GRADE AND GRAVEL ROADWAYS AND PARKING AREAS - ALL ROADS AND PARKING AREA SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
7. BEGIN PERMANENT AND TEMPORARY SEEDING AND MULCHING. ALL CUT AND FILL SLOPES SHALL BE SEEDED AND MULCHED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
8. DAILY, OR AS REQUIRED, CONSTRUCT TEMPORARY BERMS, DRAINS, DITCHES, PERIMETER EROSION CONTROL MEASURES, SEDIMENT TRAPS, ETC., MULCH AND SEED AS REQUIRED.
9. SEDIMENT TRAPS AND/OR BASINS SHALL BE USED AS NECESSARY TO CONTAIN RUNOFF UNTIL SOILS ARE STABILIZED.
10. FINISH PAVING ALL ROADWAYS AND PARKING LOTS.
11. INSPECT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES.
12. COMPLETE PERMANENT SEEDING AND LANDSCAPING.
13. REMOVE TRAPPED SEDIMENTS FROM COLLECTOR DEVICES AS APPROPRIATE AND THEN REMOVE TEMPORARY EROSION CONTROL MEASURES.

SPECIAL CONSTRUCTION NOTES:

1. THE CONSTRUCTION SEQUENCE MUST LIMIT THE DURATION AND AREA OF DISTURBANCE.
2. THE PROJECT IS TO BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.

EROSION CONTROL NOTES:

1. ALL EROSION CONTROL MEASURES AND PRACTICES SHALL CONFORM TO THE "NEW HAMPSHIRE STORMWATER MANUAL VOLUME 3: EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION" PREPARED BY THE NHDES.
2. PRIOR TO ANY WORK OR SOIL DISTURBANCE, CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR EROSION CONTROL MEASURES AS REQUIRED IN THE PROJECT MANUAL.
3. CONTRACTOR SHALL INSTALL TEMPORARY EROSION CONTROL BARRIERS, INCLUDING HAY BALES, SILT FENCES, MULCH BERMS, SILT SACKS AND SILT SOCKS AS SHOWN IN THESE DRAWINGS AS THE FIRST ORDER OF WORK.
4. SILT SACK INLET PROTECTION SHALL BE INSTALLED IN ALL EXISTING AND PROPOSED CATCH BASIN INLETS WITHIN THE WORK LIMITS AND BE MAINTAINED FOR THE DURATION OF THE PROJECT.
5. PERIMETER CONTROLS INCLUDING SILT FENCES, MULCH BERM, SILT SOCK, AND/OR HAY BALE BARRIERS SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT UNTIL NON-PAVED AREAS HAVE BEEN STABILIZED.
6. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF CONSTRUCTION.
7. ALL DISTURBED AREAS NOT OTHERWISE BEING TREATED SHALL RECEIVE 6" LOAM, SEED AND FERTILIZER.
8. INSPECT ALL INLET PROTECTION AND PERIMETER CONTROLS WEEKLY AND AFTER EACH RAIN STORM OF 0.25 INCH OR GREATER. REPAIR/MODIFY PROTECTION AS NECESSARY TO MAXIMIZE EFFICIENCY OF FILTER. REPLACE ALL FILTERS WHEN SEDIMENT IS 1/3 THE FILTER HEIGHT.
9. CONSTRUCT EROSION CONTROL BLANKETS ON ALL SLOPES STEEPER THAN 3:1.

STABILIZATION:

1. AN AREA SHALL BE CONSIDERED STABLE WHEN ONE OF THE FOLLOWING HAS OCCURRED:
   A. BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
   B. A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
   C. A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED;
   D. EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED.;
   E. IN AREAS TO BE PAVED, "STABLE" MEANS THAT BASE COURSE GRAVELS MEETING THE REQUIREMENTS OF NHDOT STANDARD FOR ROAD AND BRIDGE CONSTRUCTION, 2016, ITEM 304.2 HAVE BEEN INSTALLED.
2. WINTER STABILIZATION PRACTICES:
   A. ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS;
   B. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS;
   C. AFTER NOVEMBER 15, INCOMPLETE ROAD OR PARKING SURFACES, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL PER NHDOT ITEM 304.3, OR IF CONSTRUCTION IS TO CONTINUE THROUGH THE WINTER SEASON BE CLEARED OF ANY ACCUMULATED SNOW AFTER EACH STORM EVENT;
3. STABILIZATION SHALL BE INITIATED ON ALL LOAM STOCKPILES, AND DISTURBED AREAS, WHERE CONSTRUCTION ACTIVITY SHALL NOT OCCUR FOR MORE THAN TWENTY-ONE (21) CALENDAR DAYS BY THE FOURTEENTH (14TH) DAY AFTER CONSTRUCTION ACTIVITY HAS PERMANENTLY OR TEMPORARILY CEASED IN THAT AREA. STABILIZATION MEASURES TO BE USED INCLUDE:
   A. TEMPORARY SEEDING;
   B. MULCHING.
4. ALL AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.
5. WHEN CONSTRUCTION ACTIVITY PERMANENTLY OR TEMPORARILY CEASES WITHIN 100 FEET OF NEARBY SURFACE WATERS OR DELINEATED WETLANDS, THE AREA SHALL BE STABILIZED WITHIN SEVEN (7) DAYS OR PRIOR TO A RAIN EVENT. ONCE CONSTRUCTION ACTIVITY CEASES PERMANENTLY IN AN THESE AREAS, SILT FENCES, MULCH BERMS, HAY BALE BARRIERS AND ANY EARTH/DIKES SHALL BE REMOVED ONCE PERMANENT MEASURES ARE ESTABLISHED.
6. DURING CONSTRUCTION, RUNOFF WILL BE DIVERTED AROUND THE SITE WITH EARTH DIKES, PIPING OR STABILIZED CHANNELS WHERE POSSIBLE. SHEET RUNOFF FROM THE SITE WILL BE FILTERED THROUGH SILT FENCES, MULCH BERMS, HAY BALE BARRIERS, OR SILT SOCKS. ALL STORM DRAIN BASIN INLETS SHALL BE PROVIDED WITH FLARED END SECTIONS AND TRASH RACKS. THE SITE SHALL BE STABILIZED FOR THE WINTER BY NOVEMBER 15.

DUST CONTROL:

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTROL DUST THROUGHOUT THE CONSTRUCTION PERIOD.
2. DUST CONTROL METHODS SHALL INCLUDE, BUT BE NOT LIMITED TO SPRINKLING WATER ON EXPOSED AREAS, COVERING LOADED DUMP TRUCKS LEAVING THE SITE, AND TEMPORARY MULCHING.
3. DUST CONTROL MEASURES SHALL BE UTILIZED SO AS TO PREVENT THE MIGRATION OF DUST FROM THE SITE TO ABUTTING AREAS.

STOCKPILES:

1. LOCATE STOCKPILES A MINIMUM OF 50 FEET AWAY FROM CATCH BASINS, SWALES, AND CULVERTS.
2. ALL STOCKPILES SHOULD BE SURROUNDED WITH TEMPORARY EROSION CONTROL MEASURES PRIOR TO THE ONSET OF PRECIPITATION.
3. PERIMETER BARRIERS SHOULD BE MAINTAINED AT ALL TIMES, AND ADJUSTED AS NEEDED TO ACCOMMODATE THE DELIVERY AND REMOVAL OF MATERIALS FROM THE STOCKPILE. THE INTEGRITY OF THE BARRIER SHOULD BE INSPECTED AT THE END OF EACH WORKING DAY.
4. PROTECT ALL STOCKPILES FROM STORMWATER RUN-OFF USING TEMPORARY EROSION CONTROL MEASURES SUCH AS BERMS, SILT SOCK, OR OTHER APPROVED PRACTICE TO PREVENT MIGRATION OF MATERIAL BEYOND THE IMMEDIATE CONFINES OF THE STOCKPILES.

OFF SITE VEHICLE TRACKING:

1. THE CONTRACTOR SHALL CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE(S) PRIOR TO ANY EXCAVATION ACTIVITIES.

VEGETATION:

1. TEMPORARY GRASS COVER:
   A. SEEDBED PREPARATION:
      a. APPLY FERTILIZER AT THE RATE OF 600 POUNDS PER ACRE OF 10-10-10. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDE) AT A RATE OF THREE (3) TONS PER ACRE;
   B. SEEDING:
      a. UTILIZE ANNUAL RYE GRASS AT A RATE OF 40 LBS/ACRE;
      b. WHERE THE SOIL HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS, LOOSEN SOIL TO A DEPTH OF TWO (2) INCHES BEFORE APPLYING FERTILIZER, LIME AND SEED;
      c. APPLY SEED UNIFORMLY BY HAND, CYCLONE SEEDER, OR HYDROSEEDER (SLURRY INCLUDING SEED AND FERTILIZER). HYDROSEEDINGS, WHICH INCLUDE MULCH, MAY BE LEFT ON SOIL SURFACE. SEEDING RATES MUST BE INCREASED 10% WHEN HYDROSEEDING;
   C. MAINTENANCE:
      a. TEMPORARY SEEDING SHALL BE PERIODICALLY INSPECTED. AT A MINIMUM, 95% OF THE SOIL SURFACE SHOULD BE COVERED BY VEGETATION. IF ANY EVIDENCE OF EROSION OR SEDIMENTATION IS APPARENT, REPAIRS SHALL BE MADE AND OTHER TEMPORARY MEASURES USED IN THE INTERIM (MULCH, FILTER BARRIERS, CHECK DAMS, ETC.).
2. VEGETATIVE PRACTICE:
   A. FOR PERMANENT MEASURES AND PLANTINGS:
      a. LIMESTONE SHALL BE THOROUGHLY INCORPORATED INTO THE LOAM LAYER AT A RATE OF THREE (3) TONS PER ACRE IN ORDER TO PROVIDE A PH VALUE OF 5.5 TO 6.5;
      b. FERTILIZER SHALL BE SPREAD ON THE TOP LAYER OF LOAM AND WORKED INTO THE SURFACE. FERTILIZER APPLICATION RATE SHALL BE 800 POUNDS PER ACRE OF 10-20-20 FERTILIZER;
      c. SOIL CONDITIONERS AND FERTILIZER SHALL BE APPLIED AT THE RECOMMENDED RATES AND SHALL BE THOROUGHLY WORKED INTO THE LOAM. LOAM SHALL BE RAKED UNTIL THE SURFACE IS FINELY PULVERIZED, SMOOTH AND EVEN, AND THEN COMPACTED TO AN EVEN SURFACE CONFORMING TO THE REQUIRED LINES AND GRADES WITH APPROVED ROLLERS WEIGHING BETWEEN 4-1/2 POUNDS AND 5-1/2 POUNDS PER INCH OF WIDTH;
      d. SEED SHALL BE SOWN AT THE RATE SHOWN BELOW. SOWING SHALL BE DONE ON A CALM, DRY DAY, PREFERABLY BY MACHINE, BUT IF BY HAND, ONLY BY EXPERIENCED WORKMEN. IMMEDIATELY BEFORE SEEDING, THE SOIL SHALL BE LIGHTLY RAKED. ONE HALF THE SEED SHALL BE SOWN IN ONE DIRECTION AND THE OTHER HALF AT RIGHT ANGLES TO THE ORIGINAL DIRECTION. IT SHALL BE LIGHTLY RAKED INTO THE SOIL TO A DEPTH NOT OVER 1/4 INCH AND ROLLED WITH A HAND ROLLER WEIGHING NOT OVER 100 POUNDS PER LINEAR FOOT OF WIDTH;
      e. HAY MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING AS INDICATED ABOVE;
      f. THE SURFACE SHALL BE WATERED AND KEPT MOIST WITH A FINE SPRAY AS REQUIRED, WITHOUT WASHING AWAY THE SOIL, UNTIL THE GRASS IS WELL ESTABLISHED. ANY AREAS WHICH ARE NOT SATISFACTORILY COVERED WITH GRASS SHALL BE RESEEDED, AND ALL NOXIOUS WEEDS REMOVED;
      g. THE CONTRACTOR SHALL PROTECT AND MAINTAIN THE SEEDED AREAS UNTIL ACCEPTED;
      h. A GRASS SEED MIXTURE CONTAINING THE FOLLOWING SEED REQUIREMENTS SHALL BE APPLIED AT A RATE OF 40 LB/AC OR APPROVED EUQAL:

SEED MIX	APPLICATION RATE
"REBEL II" TALL FESCUE	70%
"PALMER" PERENNIAL RYEGRASS	20%
"BARON" KENTUCKEY BLUEGRASS	10%

      IN NO CASE SHALL THE WEED CONTENT EXCEED ONE (1) PERCENT BY WEIGHT. ALL SEED SHALL COMPLY WITH STATE AND FEDERAL SEED LAWS. SEEDING SHALL BE DONE NO LATER THAN SEPTEMBER 15. IN NO CASE SHALL SEEDING TAKE PLACE OVER SNOW.
3. DORMANT SEEDING (SEPTEMBER 15 TO FIRST SNOWFALL):
   A. FOLLOW PERMANENT MEASURES SLOPE, LIME, FERTILIZER AND GRADING REQUIREMENTS. APPLY SEED MIXTURE AT TWICE THE INDICATED RATE. APPLY MULCH AS INDICATED FOR PERMANENT MEASURES.

CONCRETE WASHOUT AREA:

1. THE CONCRETE DELIVERY TRUCKS SHALL, WHENEVER POSSIBLE, USE WASHOUT FACILITIES AT THEIR OWN PLANT OR DISPATCH FACILITY;
2. IF IT IS NECESSARY, SITE CONTRACTOR SHALL DESIGNATE SPECIFIC WASHOUT AREAS AND DESIGN FACILITIES TO HANDLE ANTICIPATED WASHOUT WATER;
3. CONTRACTOR SHALL LOCATE WASHOUT AREAS AT LEAST 150 FEET AWAY FROM STORM DRAINS, SWALES AND SURFACE WATERS OR DELINEATED WETLANDS;
4. INSPECT WASHOUT FACILITIES DAILY TO DETECT LEAKS OR TEARS AND TO IDENTIFY WHEN MATERIALS NEED TO BE REMOVED.

ALLOWABLE NON-STORMWATER DISCHARGES:

1. THE FOLLOWING ARE THE ONLY NON-STORMWATER DISCHARGES ALLOWED. ALL OTHER NON-STORMWATER DISCHARGES ARE PROHIBITED ON SITE:
   A. FIRE-FIGHTING ACTIVITIES;
   B. FIRE HYDRANT FLUSHING;
   C. WATERS USED TO WASH VEHICLES WHERE DETERGENTS ARE NOT USED;
   D. WATER USED TO CONTROL DUST;
   E. POTABLE WATER INCLUDING UNCONTAMINATED WATER LINE FLUSHING;
   F. ROUTINE EXTERNAL BUILDING WASH DOWN WHERE DETERGENTS ARE NOT USED;
   G. PAVEMENT WASH WATERS WHERE DETERGENTS ARE NOT USED;
   H. UNCONTAMINATED AIR CONDITIONING/COMPRESSOR CONDENSATION;
   I. UNCONTAMINATED GROUND WATER OR SPRING WATER;
   J. FOUNDATION OR FOOTING DRAINS WHICH ARE UNCONTAMINATED;
   K. LANDSCAPE IRRIGATION.

WASTE DISPOSAL:

1. WASTE MATERIAL:
   A. ALL WASTE MATERIALS SHALL BE COLLECTED AND STORED IN SECURELY LIDDED RECEPTACLES. ALL TRASH AND CONSTRUCTION DEBRIS FROM THE SITE SHALL BE DEPOSITED IN A DUMPSTER;
   B. NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE;
   C. ALL PERSONNEL SHALL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL BY THE SUPERINTENDENT.
2. HAZARDOUS WASTE:
   A. ALL HAZARDOUS WASTE MATERIALS SHALL BE DISPOSED OF IN THE MANNER SPECIFIED BY LOCAL OR STATE REGULATION OR BY THE MANUFACTURER;
   B. SITE PERSONNEL SHALL BE INSTRUCTED IN THESE PRACTICES BY THE SUPERINTENDENT.
3. SANITARY WASTE:
   A. ALL SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS A MINIMUM OF ONCE PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

SPILL PREVENTION:

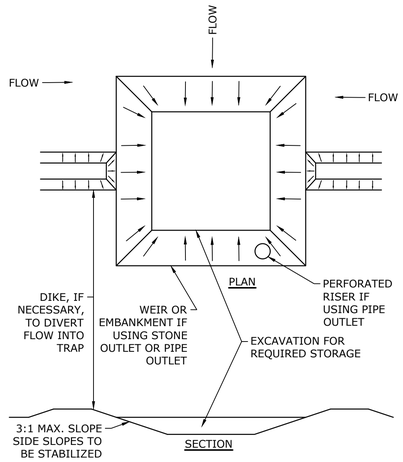
1. CONTRACTOR SHALL BE FAMILIAR WITH SPILL PREVENTION MEASURES REQUIRED BY LOCAL, STATE AND FEDERAL AGENCIES. AT A MINIMUM, CONTRACTOR SHALL FOLLOW THE BEST MANAGEMENT SPILL PREVENTION PRACTICES OUTLINED BELOW.
2. THE FOLLOWING ARE THE MATERIAL MANAGEMENT PRACTICES THAT SHALL BE USED TO REDUCE THE RISK OF SPILLS OR OTHER ACCIDENTAL EXPOSURE OF MATERIALS AND SUBSTANCES DURING CONSTRUCTION TO STORMWATER RUNOFF:
   A. GOOD HOUSEKEEPING - THE FOLLOWING GOOD HOUSEKEEPING PRACTICE SHALL BE FOLLOWED ON SITE DURING CONSTRUCTION:
      a. ONLY SUFFICIENT AMOUNTS OF PRODUCTS TO DO THE JOB SHALL BE STORED ON SITE;
      b. ALL MATERIALS STORED ON SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR PROPER (ORIGINAL IF POSSIBLE) CONTAINERS AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE;
      c. MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL SHALL BE FOLLOWED;
      d. THE SITE SUPERINTENDENT SHALL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS;
      e. SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER;
      f. WHENEVER POSSIBLE ALL OF A PRODUCT SHALL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
   B. HAZARDOUS PRODUCTS - THE FOLLOWING PRACTICES SHALL BE USED TO REDUCE THE RISKS ASSOCIATED WITH HAZARDOUS MATERIALS:
      g. PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS UNLESS THEY ARE NOT RESEALABLE;
      h. ORIGINAL LABELS AND MATERIAL SAFETY DATA SHALL BE RETAINED FOR IMPORTANT PRODUCT INFORMATION;
      i. SURPLUS PRODUCT THAT MUST BE DISPOSED OF SHALL BE DISCARDED ACCORDING TO THE MANUFACTURER'S RECOMMENDED METHODS OF DISPOSAL.
   C. PRODUCT SPECIFIC PRACTICES - THE FOLLOWING PRODUCT SPECIFIC PRACTICES SHALL BE FOLLOWED ON SITE:
      a. PETROLEUM PRODUCTS:
         - ALL ON SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND RECEIVE REGULAR PREVENTIVE MAINTENANCE TO REDUCE LEAKAGE;
         - PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED. ANY ASPHALT BASED SUBSTANCES USED ON SITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
      b. FERTILIZERS:
         - FERTILIZERS USED SHALL BE APPLIED ONLY IN THE MINIMUM AMOUNTS DIRECTED BY THE SPECIFICATIONS;
         - ONCE APPLIED FERTILIZER SHALL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORMWATER;
         - STORAGE SHALL BE IN A COVERED SHED OR ENCLOSED TRAILERS. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC BIN TO AVOID SPILLS.
      c. PAINTS:
         - ALL CONTAINERS SHALL BE TIGHTLY SEALED AND STORED WHEN NOT REQUIRED FOR USE;
         - EXCESS PAINT SHALL NOT BE DISCHARGED TO THE STORM SEWER SYSTEM;
         - EXCESS PAINT SHALL BE DISPOSED OF PROPERLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS OR STATE AND LOCAL REGULATIONS.
   D. SPILL CONTROL PRACTICES - IN ADDITION TO GOOD HOUSEKEEPING AND MATERIAL MANAGEMENT PRACTICES DISCUSSED IN THE PREVIOUS SECTION, THE FOLLOWING PRACTICES SHALL BE FOLLOWED FOR SPILL PREVENTION AND CLEANUP:
      a. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE CLEARLY POSTED AND SITE PERSONNEL SHALL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEANUP SUPPLIES;
      b. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS SHALL INCLUDE BUT NOT BE LIMITED TO BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOGGLES, KITTY LITTER, SAND, SAWDUST AND PLASTIC OR METAL TRASH CONTAINERS SPECIFICALLY FOR THIS PURPOSE;
      c. ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY;
      d. THE SPILL AREA SHALL BE KEPT WELL VENTILATED AND PERSONNEL SHALL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE;
      e. SPILLS OF TOXIC OR HAZARDOUS MATERIAL SHALL BE REPORTED TO THE APPROPRIATE LOCAL, STATE OR FEDERAL AGENCIES AS REQUIRED;
      f. THE SITE SUPERINTENDENT RESPONSIBLE FOR DAY-TO-DAY SITE OPERATIONS SHALL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR.
   E. VEHICLE FUELING AND MAINTENANCE PRACTICE:
      a. CONTRACTOR SHALL MAKE AN EFFORT TO PERFORM EQUIPTMENT/VEHICAL FUELING AND MAINTENANCE AT AN OFF-SITE FACILITY;
      b. CONTRACTOR SHALL PROVIDE AN ON-SITE FUELING AND MAINTENANCE AREA THAT IS CLEAN AND DRY;
      c. IF POSSIBLE THE CONTRACTOR SHALL KEEP AREA COVERED;
      d. CONTRACTOR SHALL KEEP A SPILL KIT AT THE FUELING AND MAINTENANCE AREA;
      e. CONTRACTOR SHALL REGULARLY INSPECT VEHICLES FOR LEAKS AND DAMAGE;
      f. CONTRACTOR SHALL USE DRIP PANS, DRIP CLOTHS, OR ABSORBENT PADS WHEN REPLACING SPENT FLUID.

EROSION CONTROL OBSERVATIONS AND MAINTENANCE PRACTICES

THIS PROJECT EXCEEDS ONE (1) ACRE OF DISTURBANCE AND THUS REQUIRES A SWPPP. THE SWPPP SHALL BE PREPARED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE FAMILIAR WITH THE SWPPP AND KEEP AN UPDATED COPY OF THE SWPPP ONSITE AT ALL TIMES.

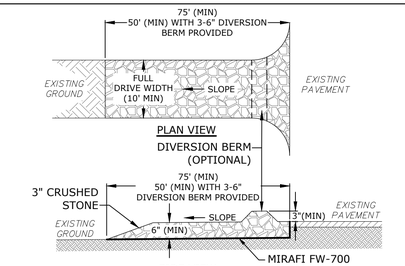
THE FOLLOWING REPRESENTS THE GENERAL OBSERVATION AND REPORTING PRACTICES THAT SHALL BE FOLLOWED AS PART OF THIS PROJECT:

1. OBSERVATIONS OF THE PROJECT FOR COMPLIANCE WITH THE SWPPP SHALL BE MADE BY THE CONTRACTOR AT LEAST ONCE A WEEK OR WITHIN 24 HOURS OF A STORM 0.25 INCHES OR GREATER;
2. AN OBSERVATION REPORT SHALL BE MADE AFTER EACH OBSERVATION AND DISTRIBUTED TO THE ENGINEER, THE OWNER, AND THE CONTRACTOR;
3. A REPRESENTATIVE OF THE SITE CONTRACTOR, SHALL BE RESPONSIBLE FOR MAINTENANCE AND REPAIR ACTIVITIES;
4. IF A REPAIR IS NECESSARY, IT SHALL BE INITIATED WITHIN 24 HOURS OF REPORT.



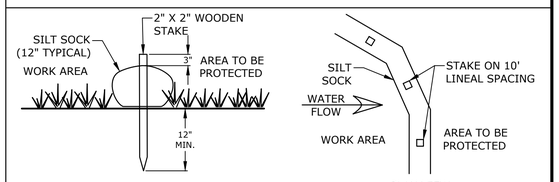
NOTES:
1. THE TRAP SHALL BE INSTALLED AS CLOSE TO THE DISTURBED AREA AS POSSIBLE.
2. THE MAXIMUM CONTRIBUTING AREA TO A SINGLE TRAP SHALL BE LESS THAN 5 ACRES.
3. THE MINIMUM VOLUME OF THE TRAP SHALL BE 3,600 CUBIC FEET OF STORAGE FOR EACH ACRE OF DRAINAGE AREA.
4. TRAP OUTLET SHALL BE MINIMUM OF ONE FOOT BELOW THE CREST OF THE TRAP.
5. TRAP SHALL DISCHARGE TO A STABILIZED AREA.
6. TRAP SHALL BE CLEANED WHEN 50 PERCENT OF THE ORIGINAL VOLUME IS FILLED.
7. MATERIALS REMOVED FROM THE TRAP SHALL BE PROPERLY DISPOSED OF AND STABILIZED.

SEDIMENT TRAP
NO SCALE



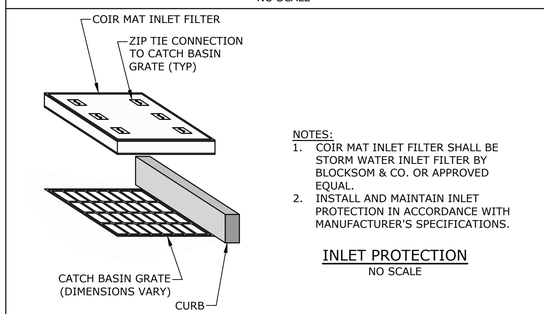
NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT FROM THE SITE. WHEN WASHING IS REQUIRED, IT SHALL BE DONE SO RUNOFF DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING STORM DRAINS, DITCHES, OR WATERWAYS

STABILIZED CONSTRUCTION ENTRANCE
NO SCALE



NOTES:
1. SILT SOCK SHALL BE SILT SOXX NATURAL ORIGINAL BY FILTREXX OR APPROVED EQUAL.
2. INSTALL SILT SOCK IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

SILT SOCK
NO SCALE



NOTES:
1. COIR MAT INLET FILTER SHALL BE STORM WATER INLET FILTER BY BLOCKSOM & CO. OR APPROVED EQUAL.
2. INSTALL AND MAINTAIN INLET PROTECTION IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

INLET PROTECTION
NO SCALE

Tighe&Bond

STATE OF NEW HAMPSHIRE — NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER — 9/27/2023

STATE OF NEW HAMPSHIRE — PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER — 9/27/2023

Proposed Industrial Development

Lonza Biologics

Portsmouth, New Hampshire

MARK	DATE	DESCRIPTION
M	9/27/2023	P.B. Submission
L	7/17/2023	Amended Site Plan Review
K	5/5/2023	Phase 1B Issued for Bid
J	3/15/2023	Phase 1B Issued for Preliminary Pricing
I	1/9/2023	Admin. Approval Submission
H	12/10/2021	Planning Board Stipulation
G	8/19/2019	Admin. Approval Submission
F	11/6/2018	P.B. Submission

PROJECT NO:	L-0700-013
DATE:	04/03/2018
FILE:	L-0700-026-C-DTLS.dwg
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

EROSION CONTROL NOTES & DETAILS SHEET

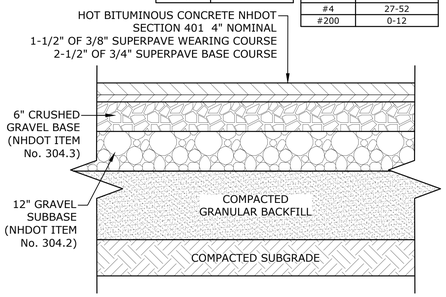
SCALE: AS SHOWN

C-501

Last Save Date: September 27, 2023 1:49 PM By: CKRZCUIK
Plot Date: September 27, 2023 1:50 PM By: Christopher Krzcuik
T&B File Location: J:\LG\0700 Lonza Biologics Expansion was 1576\026_Project Albacore\Drawings\AutoCAD\L-0700-026-C-DTLS.dwg Layout Tab: C-501

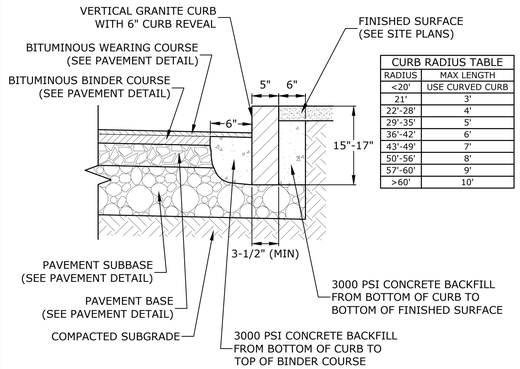
NHDOT ITEM No. 304.2 (GRAVEL)	
SIEVE SIZE	% PASSING
6"	100
#4	25-70
#200	0-12

NHDOT ITEM No. 304.3 (CRUSHED GRAVEL)	
SIEVE SIZE	% PASSING
3"	100
2"	95-100
1"	55-85
#4	27-52
#200	0-12



NOTES:
1. SEE SITE PLAN FOR PAVEMENT WIDTH AND LOCATION.
2. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
3. A TACK COAT SHALL BE PLACED ON TOP OF BINDER COURSE PAVEMENT PRIOR TO PLACING WEARING COURSE.
4. FINAL PAVEMENT DESIGN TO BE DETERMINED BY GEOTECHNICAL ENGINEER.
5. NHDOT ITEM No. 304.2 MAY BE SUBSTITUTED FOR NHDOT ITEM No. 304.4, IF NHDOT ITEM No. 304.2 CAN NOT BE ACQUIRED.

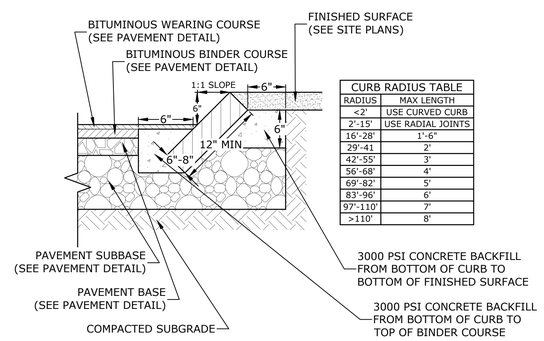
TYPICAL PAVEMENT SECTION
NO SCALE



CURB RADIUS TABLE	
RADIUS	MAX LENGTH
<20'	USE CURVED CURB
21'	3'
22'-28'	4'
29'-35'	5'
36'-42'	6'
43'-49'	7'
50'-56'	8'
57'-60'	9'
>60'	10'

NOTES:
1. SEE SITE PLAN(S) FOR LIMITS OF VERTICAL GRANITE CURB (VGC).
2. ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
3. MINIMUM LENGTH OF STRAIGHT CURB STONES = 3'
4. MAXIMUM LENGTH OF STRAIGHT CURB STONES = 10'
5. MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES (SEE TABLE).
6. ALL RADII 20 FEET AND SMALLER SHALL BE CONSTRUCTED USING CURVED SECTIONS.
7. JOINTS BETWEEN STONES SHALL HAVE A MAXIMUM SPACING OF 1/2" AND SHALL BE MORTARED.

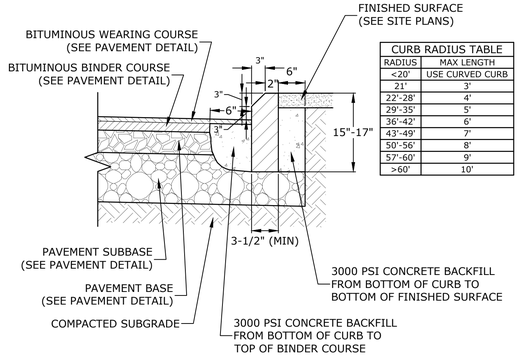
VERTICAL GRANITE CURB
NO SCALE



CURB RADIUS TABLE	
RADIUS	MAX LENGTH
<2'	USE CURVED CURB
2'-15'	USE RADIAL JOINTS
16'-28'	1'-6"
29'-41	2'
42'-55'	3'
56'-68'	4'
69'-82'	5'
83'-96'	6'
97'-110'	7'
>110'	8'

NOTES:
1. SEE SITE PLAN(S) FOR LIMITS OF VERTICAL GRANITE CURB (VGC).
2. ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
3. MINIMUM LENGTH OF STRAIGHT CURB STONES = 18"
4. MAXIMUM LENGTH OF STRAIGHT CURB STONES = 8'
5. MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES (SEE TABLE).
6. JOINTS BETWEEN STONES SHALL HAVE A MAXIMUM SPACING OF 1/2" AND SHALL BE MORTARED.

SLOPED GRANITE CURB
NO SCALE



CURB RADIUS TABLE	
RADIUS	MAX LENGTH
<20'	USE CURVED CURB
21'	3'
22'-28'	4'
29'-35'	5'
36'-42'	6'
43'-49'	7'
50'-56'	8'
57'-60'	9'
>60'	10'

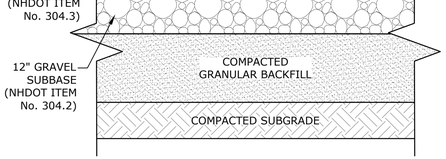
NOTES:
1. SEE SITE PLAN(S) FOR LIMITS OF MOUNTABLE VERTICAL GRANITE CURB (MVGC).
2. ADJOINING STONES SHALL HAVE THE SAME OR APPROXIMATELY THE SAME LENGTH.
3. MINIMUM LENGTH OF STRAIGHT CURB STONES = 3'
4. MAXIMUM LENGTH OF STRAIGHT CURB STONES = 10'
5. MAXIMUM LENGTH OF STRAIGHT CURB STONES LAID ON CURVES (SEE TABLE).
6. ALL RADII 20 FEET AND SMALLER SHALL BE CONSTRUCTED USING CURVED SECTIONS.
7. JOINTS BETWEEN STONES SHALL HAVE A MAXIMUM SPACING OF 1/2" AND SHALL BE MORTARED.

MOUNTABLE VERTICAL GRANITE CURB
NO SCALE

Tighe&Bond

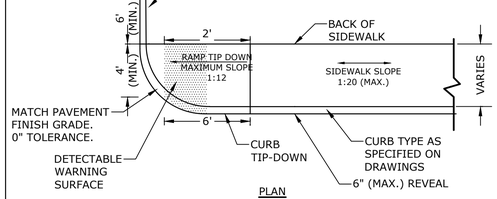
NHDOT ITEM No. 304.2 (GRAVEL)	
SIEVE SIZE	% PASSING
6"	100
#4	25-70
#200	0-12

NHDOT ITEM No. 304.3 (CRUSHED GRAVEL)	
SIEVE SIZE	% PASSING
3"	100
2"	95-100
1"	55-85
#4	27-52
#200	0-12



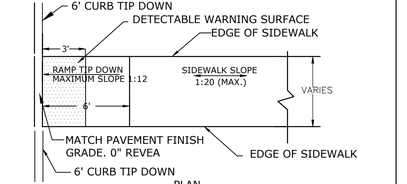
NOTES:
1. SEE SITE PLAN FOR GRAVEL WIDTH AND LOCATION.
2. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR PAVEMENT SLOPE AND CROSS-SLOPE.
3. GRAVEL PARKING AREA DESIGN TO BE DETERMINED BY GEOTECHNICAL ENGINEER.
4. NHDOT ITEM No. 304.2 MAY BE SUBSTITUTED FOR NHDOT ITEM No. 304.4, IF NHDOT ITEM No. 304.2 CAN NOT BE ACQUIRED.

GRAVEL PARKING AREA SECTION
NO SCALE



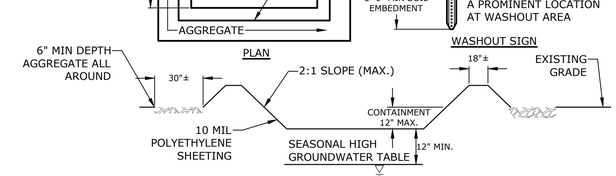
NOTES:
1. RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT AND LOCAL AND STATE REQUIREMENTS
2. PROVIDE 6" COMPACTED CRUSHED GRAVEL BASE BENEATH RAMPS.
3. DETECTABLE WARNING STRIP SHALL BE NEENAH R-4984-36B-R4984007 24" X 36" CAST IRON ADA PLATE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

CORNER TIP DOWN RAMP
NO SCALE



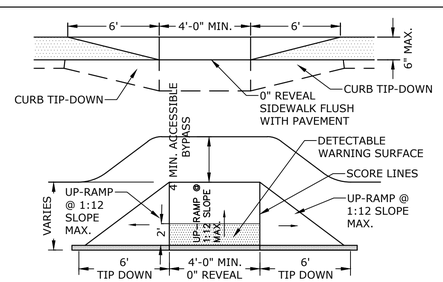
NOTES:
1. RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT AND LOCAL AND STATE REQUIREMENTS
2. PROVIDE 6" COMPACTED CRUSHED GRAVEL BASE BENEATH RAMPS.
3. DETECTABLE WARNING STRIP SHALL BE NEENAH R-4984-36B-R4984007 24" X 36" CAST IRON ADA PLATE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

SIDEWALK TIP-DOWN RAMP
NO SCALE



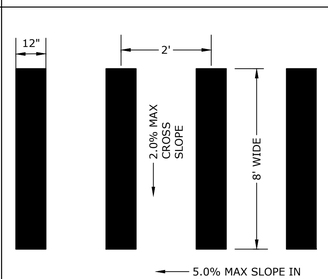
NOTES:
1. CONTAINMENT MUST BE STRUCTURALLY SOUND AND LEAK FREE AND CONTAIN ALL LIQUID WASTES.
2. CONTAINMENT DEVICES MUST BE OF SUFFICIENT QUANTITY OR VOLUME TO COMPLETELY CONTAIN THE LIQUID WASTES GENERATED.
3. WASHOUT MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED AND READY TO USE ONCE WASHOUT IS 75% FULL.
4. WASHOUT AREA(S) SHALL BE INSTALLED IN A LOCATION EASILY ACCESSIBLE BY CONCRETE TRUCKS.
5. ONE OR MORE AREAS MAY BE INSTALLED ON THE CONSTRUCTION SITE AND MAY BE RELOCATED AS CONSTRUCTION PROGRESSES.
6. AT LEAST WEEKLY REMOVE ACCUMULATION OF SAND AND AGGREGATE AND DISPOSE OF PROPERLY.

CONCRETE WASHOUT AREA
NO SCALE



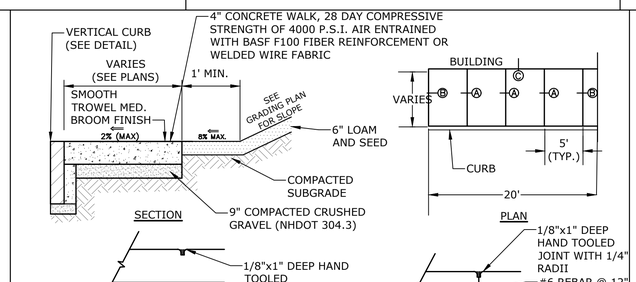
NOTES:
1. RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT AND LOCAL AND STATE REQUIREMENTS
2. PROVIDE 6" COMPACTED CRUSHED GRAVEL BASE BENEATH RAMPS
3. DETECTABLE WARNING STRIP SHALL BE ADA SOLUTIONS, INC. CAST IN PLACE RAMP. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

CONCRETE WHEELCHAIR ACCESSIBLE RAMP
NO SCALE

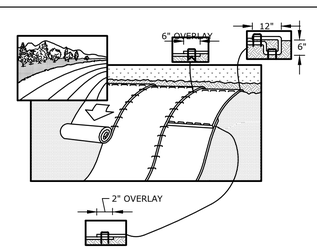


NOTE:
STRIPING SHALL BE CONSTRUCTED USING WHITE THERMO PLASTIC, REFLECTERIZED PAVEMENT MARKING MATERIAL MEETING THE REQUIREMENTS OF ASTM D 4505

CROSSWALK STRIPING
NO SCALE



CONCRETE SIDEWALK WITH GRANITE CURB
NO SCALE



NOTES:
1. EROSION CONTROL BLANKET SHALL BE AN ALL NATURAL PRODUCT WITH NO PHOTO DEGRADABLE COMPONENTS, NORTH AMERICAN GREEN SC150BN OR APPROVED EQUAL.
2. STAKES SHALL BE BIODEGRADABLE BIOSTAKES OR ALL NATURAL WOOD ECOSTAKES OR APPROVED EQUAL. THE LENGTH OF STAKES SHALL BE BASED OFF OF THE MANUFACTURERS RECOMMENDATION.
3. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, COMPOST AND SEED.
4. INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTION.

EROSION CONTROL BLANKET
NO SCALE

Proposed Industrial Development

Lonza Biologics

Portsmouth, New Hampshire

MARK	DATE	DESCRIPTION
N	11/9/2023	Revised P.B. Submission
M	9/27/2023	P.B. Submission
L	9/1/2022	Issued for Construction
K	5/27/2022	Issued for Bid
J	5/23/2022	Third Party Rev. Comments
I	4/26/2022	Revised PB Stipulations

PROJECT NO:	L-0700-013
DATE:	04/03/2018
FILE:	L-0700-026-C-DTLS.dwg
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

DETAILS SHEET

SCALE: AS SHOWN

C-502

Last Save Date: November 8, 2023 6:59 PM By: NAHANSEN
Plot Date: November 08, 2023 7:00 PM By: Neil Hansen
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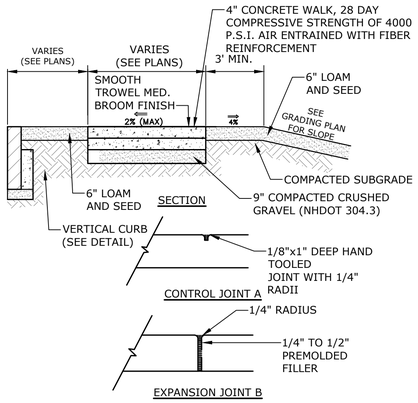
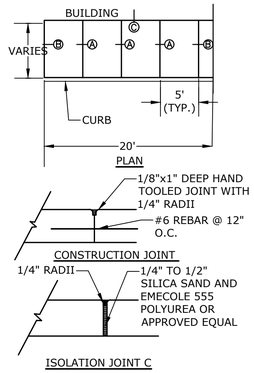
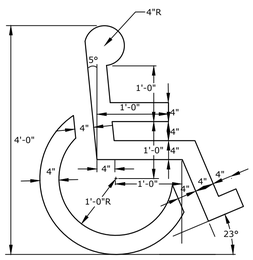




CONCRETE SIDEWALK WITH GRANITE CURB ALONG CORPORATE DRIVE

NO SCALE



NOTES:
1. SYMBOL SHALL BE CONSTRUCTED IN ALL ACCESSIBLE SPACES USING WHITE THERMOPLASTIC, REFLECTORIZED PAVEMENT PARKING MATERAL MEETING THE REQUIREMENTS OF ASTM D 4505.
2. SYMBOL SHALL BE CONSTRUCTED TO THE LATEST ADA, STATE AND LOCAL REQUIREMENTS.

ACCESSIBLE SYMBOL

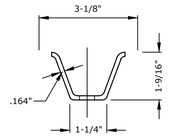
NO SCALE

W11-2
30" X 30"
BLACK ON YELLOW

R1-1
30" X 30"
WHITE ON RED

R7-8
12" X 18"
BLUE AND GREEN ON WHITE

R7-8P
18" X 9"
GREEN ON WHITE

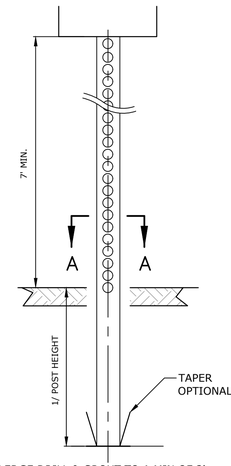


SECTION A-A

LENGTH: AS REQUIRED
WEIGHT PER LINEAR FOOT: 2.50 LBS (MIN.)
HOLES: 3/8" DIAMETER, 1" C-C FULL LENGTH
STEEL: SHALL CONFORM TO ASTM A-499 (GRADE 60) OR ASSTM A-576 (GRADE 1070 - 1080)

FINISH: SHALL BE PAINTED WITH TWO COATS OF AN APPROVED MEDIUM GREEN BAKED ON OR DRIED, PAINT OF WEATHER RESISTANT QUALITY. ALL FABRICATION SHALL BE COMPLETE BEFORE PAINTING.

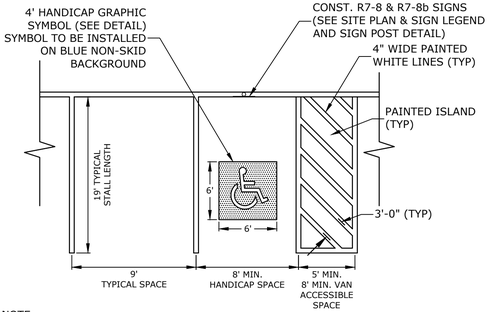
NOTE:
ALL SIGNS TO BE INSTALLED AS INDICATED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.



* IN LEDGE DRILL & GROUT TO A MIN OF 2'

SIGN LEGEND & SIGN POST

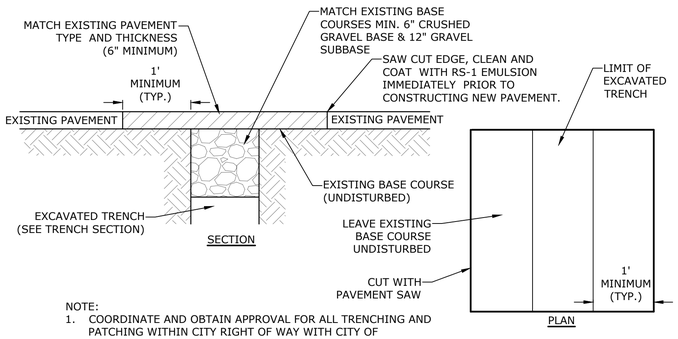
NO SCALE



NOTE:
1. ALL PAINT SHALL BE FAST DRYING TRAFFIC PAINT, MEETING THE REQUIREMENTS OF AASHTO M248-TYPE F. PAINT SHALL BE APPLIED AS SPECIFIED BY MANUFACTURER.
2. SYMBOLS & PARKING STALLS SHALL CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT AND LOCAL AND STATE REQUIREMENTS.
3. FINISH PAVEMENT GRADES AT ALL HANDICAP ACCESSIBLE STALLS AND PAINTED ACCESS AISLES SHALL NOT EXCEED 2% IN ANY DIRECTION.

STALL STRIPING-SINGLE STRIPE

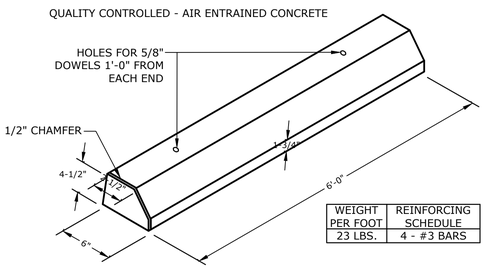
NO SCALE



NOTE:
1. COORDINATE AND OBTAIN APPROVAL FOR ALL TRENCHING AND PATCHING WITHIN CITY RIGHT OF WAY WITH CITY OF PORTSMOUTH DPW PRIOR TO COMMENCING WORK.

ROADWAY TRENCH PATCH

NO SCALE

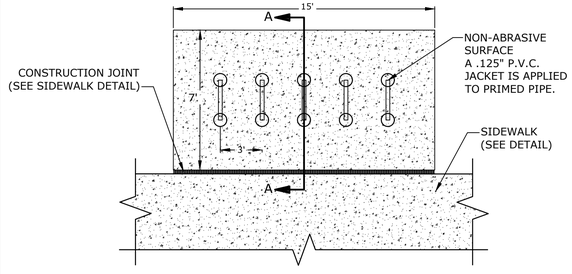


WEIGHT PER FOOT	REINFORCING SCHEDULE
23 LBS.	4 - #3 BARS

NOTE:
1. CURBING TO BE PINNED THROUGH ASPHALT PAVEMENT.

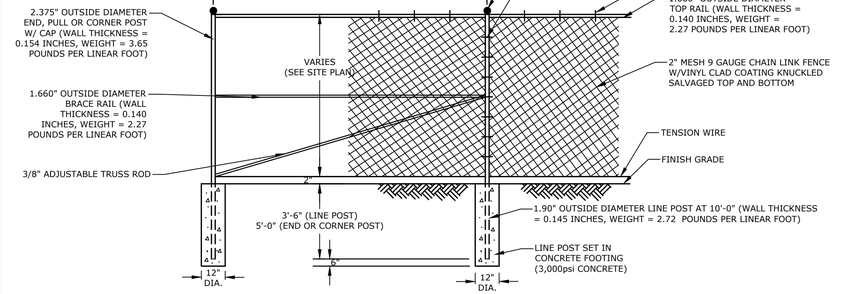
CONCRETE WHEEL STOP

NO SCALE



BIKE RACK

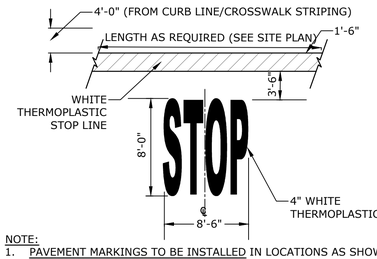
NO SCALE



NOTES:
1. CORNER POSTS SHALL BE USED AT SHARP BREAKS IN GRADE AND CHANGES IN HORIZONTAL ALIGNMENT OF 15' OR MORE.
2. POSTS, RAILS & BRACES SHALL BE TYPE I, SCHEDULE 40 BLACK VINYL COATED PIPE.
3. FABRIC TO BE BLACK VINYL COATED.
4. TIE WIRES SHALL BE 9 GAUGE GALVANIZED STEEL WIRE FOR ATTACHMENT OF FABRIC TO LINE POSTS.
5. TIE WIRES SHALL BE 13 GAUGE GALVANIZED STEEL WIRE FOR ATTACHMENT OF FABRIC TO RAILS AND BRACES.
6. HOG RING TIES SHALL BE 12- 1/2 GAUGE GALVANIZED STEEL WIRE FOR ATTACHMENT OF FABRIC TO TENSION WIRE.
7. COORDINATE FINAL CHAIN LINK FENCE DESIGN WITH BUILDING DRAWINGS AND UTILITY YARD CONCRETE SLAB DESIGN.

CHAIN LINK FENCE

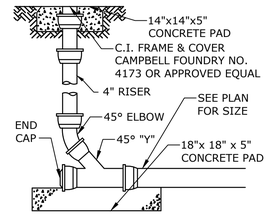
NO SCALE



NOTE:
1. PAVEMENT MARKINGS TO BE INSTALLED IN LOCATIONS AS SHOWN ON SITE PLAN.
2. STRIPING SHALL BE CONSTRUCTED USING WHITE THERMO PLASTIC, REFLECTERIZED PAVEMENT MARKING MATERIAL MEETING THE REQUIREMENTS OF ASTM D 4505

STOP BAR AND LEGEND

NO SCALE



CLEAN-OUT

NO SCALE

Tighe&Bond

STATE OF NEW HAMPSHIRE – PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER
11/9/23

STATE OF NEW HAMPSHIRE – NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER
11/09/2023

Proposed Industrial Development

Lonza Biologics

Portsmouth, New Hampshire

MARK	DATE	DESCRIPTION
N	11/9/2023	Revised P.B. Submission
M	9/27/2023	P.B. Submission
L	9/1/2022	Issued for Construction
K	5/27/2022	Issued for Bid
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PROJECT NO:	L-0700-013
DATE:	04/03/2018
FILE:	L-0700-026-C-DTLS.dwg
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

DETAILS SHEET

SCALE: AS SHOWN

C-503

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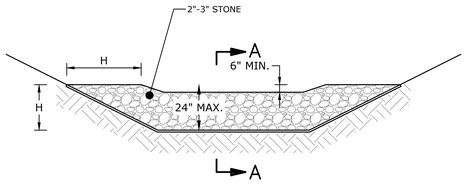
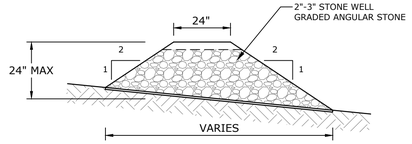
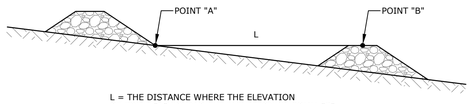


BERM STONE SIZE	
SIEVE DESIGNATION (US CUSTOMARY)	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
12 IN	100
6 IN	84-100
3 IN	68-83
1 IN	42-55
NO. 4	8-12



SECTION A-A

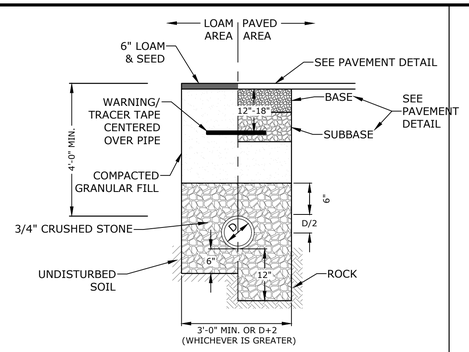


L = THE DISTANCE WHERE THE ELEVATION OF POINT "A" EQUALS THE ELEVATION OF POINT "B"

STONE CHECK DAM SPACING

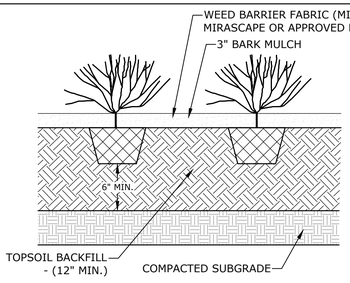
NOTES:
1. CHECK DAMS SHOULD BE INSTALLED BEFORE RUNOFF IS DIRECTED TO THE SWALE OR DRAINAGE DITCH.
2. THE MAXIMUM CONTRIBUTING DRAINAGE AREA TO THE DAM SHOULD BE LESS THAN ONE ACRE.
3. THE CHECK DAM SHOULD NOT BE USED IN A FLOWING STREAM.
4. CHECK DAMS SHOWN ON THE DRAWINGS SHALL BE LEFT IN PLACE PERMANENTLY.
5. CHECK DAMS INSTALLED AS PART OF TEMPORARY EROSION CONTROL MEASURE SHALL BE REMOVED ONCE THE SWALE OR DITCH HAS BEEN STABILIZED:
   a. IN TEMPORARY DITCHES AND SWALES, CHECK DAMS SHOULD BE REMOVED AND THE DITCH FILLED IN WHEN IT IS NO LONGER NEEDED
   b. IN PERMANENT STRUCTURES, CHECK DAMS SHOULD BE REMOVED WHEN PERMANENT LINING HAS BEEN ESTABLISHED. IF THE PERMANENT LINING IS VEGETATION, THEN THE CHECK DAM SHOULD BE RETAINED UNTIL THE GRASS HAS MATURED TO PROTECT THE DITCH OR SWALE. THE AREA BENEATH THE CHECK DAM MUST BE SEEDED AND MULCHED IMMEDIATELY AFTER REMOVAL.

STONE CHECK DAM
NO SCALE

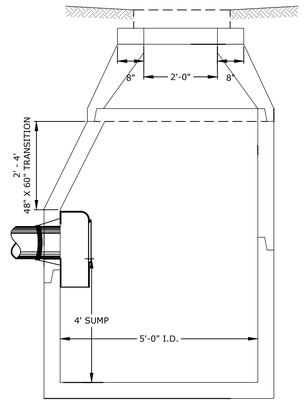


NOTE:
1. CRUSHED STONE BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 6" ABOVE TOP OF PIPE.
2. ALL UTILITIES SHALL BE INSTALLED PER THE INDIVIDUAL UTILITY COMPANY STANDARDS. COORDINATE ALL INSTALLATIONS WITH INDIVIDUAL UTILITY COMPANIES AND THE CITY OF PORTSMOUTH.

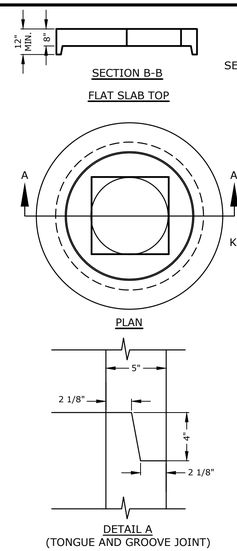
STORM DRAIN TRENCH
NO SCALE

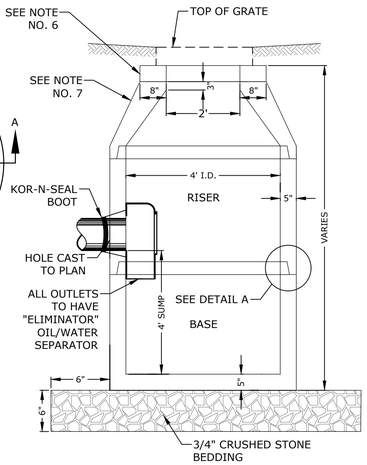


PERENNIAL PLANTING
NO SCALE



5' DIAMETER (SECTION A-A)
NO SCALE

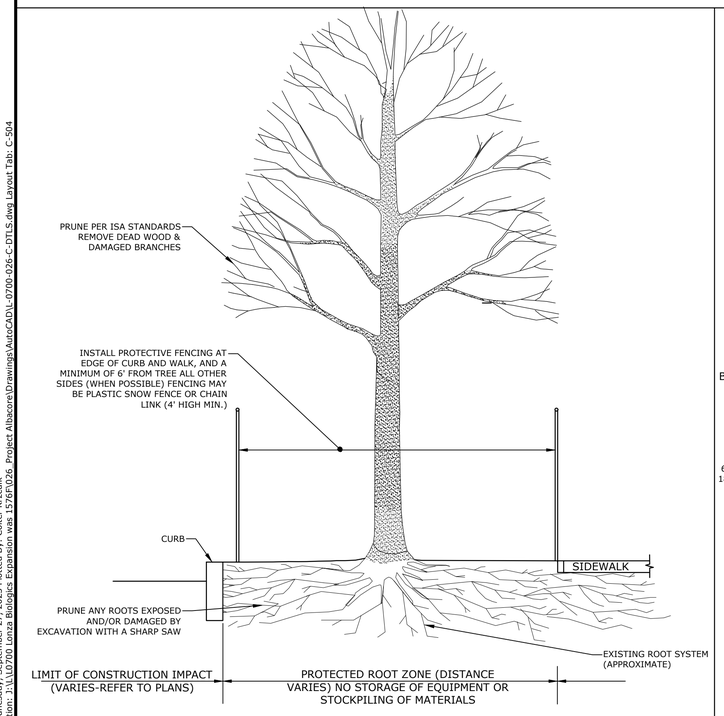




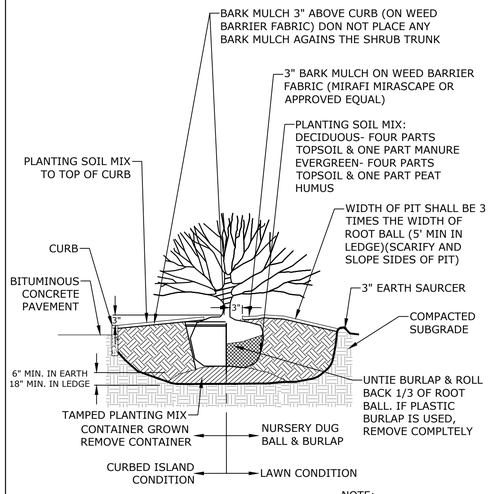
4' DIAMETER (SECTION A-A)
NO SCALE

NOTES:
1. ALL SECTIONS SHALL BE CONCRETE CLASS AA(4000 psi).
2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQ.IN. PER LINEAR FT. IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
3. THE TONGUE AND GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQ. IN. PER LINEAR FT.
4. RISERS OF 1', 2', 3' & 4' CAN BE USED TO REACH DESIRED DEPTH.
5. THE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.
6. FITTING FRAME TO GRADE MAY BE DONE WITH PREFABRICATED ADJUSTMENT RINGS OR CLAY BRICKS (2 COURSES MAX.).
7. CONE SECTIONS MAY BE EITHER CONCENTRIC OR ECCENTRIC, OR FLAT SLAB TOPS MAY BE USED WHERE PIPE WOULD OTHERWISE ENTER INTO THE CONE SECTION OF THE STRUCTURE AND WHERE PERMITTED.
8. PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
9. OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL OF STRUCTURE.
10. PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.
11. THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.
12. "ELIMINATOR" OIL/WATER SEPARATOR SHALL BE INSTALLED TIGHT TO INSIDE OF CATCHBASIN.

CATCH BASIN DETAIL
NO SCALE

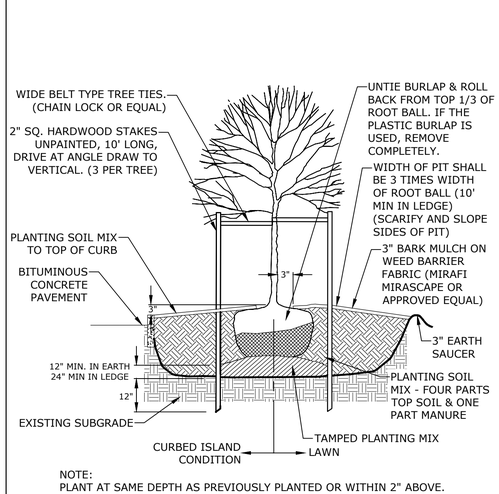


TREE PROTECTION FOR EXISTING TREE
NO SCALE



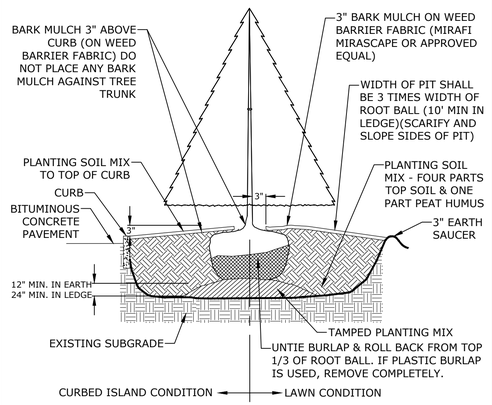
NOTE:
PLANT AT SAME DEPTH AS PREVIOUSLY PLANTED, OR WITHIN 2" ABOVE.

SHRUB PLANTING
NO SCALE



NOTE:
PLANT AT SAME DEPTH AS PREVIOUSLY PLANTED OR WITHIN 2" ABOVE.

DECIDUOUS TREE PLANTING
NO SCALE



NOTE:
PLANT AT SAME DEPTH AS PREVIOUSLY PLANTED IN NURSERY, OR WITHIN 2" ABOVE.

EVERGREEN TREE PLANTING
NO SCALE

Tighe&Bond

STATE OF NEW HAMPSHIRE – NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER – 9/27/2023

STATE OF NEW HAMPSHIRE – PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER – 9/27/2023

Proposed Industrial Development

Lonza Biologics

Portsmouth, New Hampshire

MARK	DATE	DESCRIPTION
M	9/27/2023	P.B. Submission
L	7/17/2023	Amended Site Plan Review
K	5/5/2023	Phase 1B Issued for Bid
J	3/15/2023	Phase 1B Issued for Preliminary Pricing
I	1/9/2023	Admin. Approval Submission
H	12/10/2021	Planning Board Stipulation
G	8/19/2019	Admin. Approval Submission
F	11/6/2018	P.B. Submission

PROJECT NO:	L-0700-013
DATE:	04/03/2018
FILE:	L-0700-026-C-DTLS.dwg
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

DETAILS SHEET

SCALE: AS SHOWN

C-504

Last Save Date: September 27, 2023 1:49 PM By: CKRZCIUK
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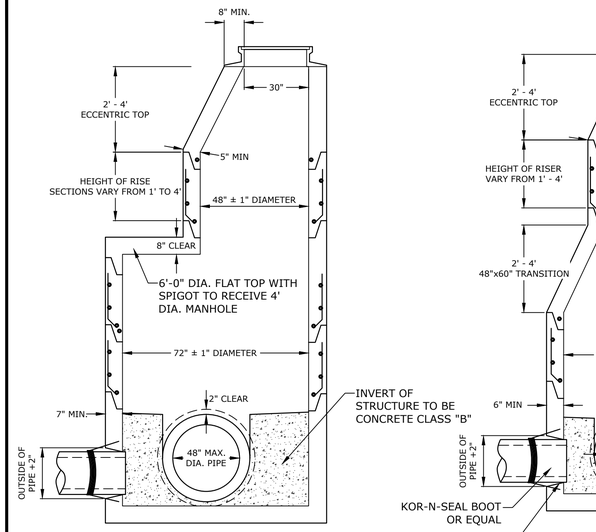
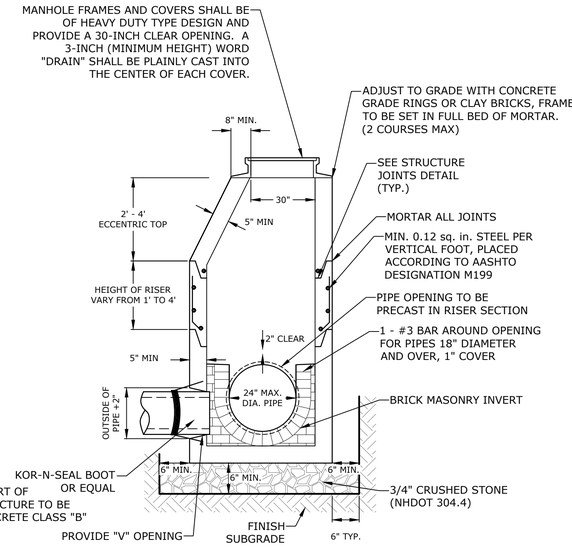


6' DIAMETER DRAIN MANHOLE
NO SCALE

5' DIAMETER DRAIN MANHOLE
NO SCALE

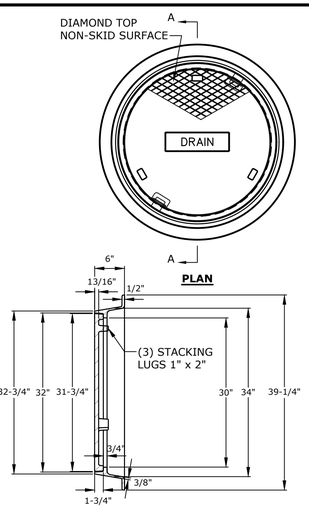


4' DIAMETER DRAIN MANHOLE
NO SCALE

NOTES:
1. ALL SECTIONS SHALL BE 4,000 PSI CONCRETE.
2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
3. THE TONGUE AND THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCHES PER LINEAR FOOT.
4. THE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.
5. CONSTRUCT CRUSHED STONE BEDDING AND BACKFILL UNDER (6" MINIMUM THICKNESS)
6. THE TONGUE AND GROOVE JOINT SHALL BE SEALED WITH ONE STRIP OF BUTYL RUBBER SEALANT.
7. PIPE ELEVATIONS SHOWN ON PLANS SHALL BE FIELD VERIFIED PRIOR TO PRECASTING.
8. OUTSIDE EDGES OF PIPES SHALL PROJECT NO MORE THAN 3" BEYOND INSIDE WALL OF STRUCTURE.
9. PRECAST SECTIONS SHALL HAVE A TONGUE AND GROOVE JOINT 4" HIGH AT AN 11° ANGLE CENTERED IN THE WIDTH OF THE WALL AND SHALL BE ASSEMBLED USING AN APPROVED FLEXIBLE SEALANT IN JOINTS.
10. ALL STRUCTURES WITH MULTIPLE PIPES SHALL HAVE A MINIMUM OF 12" OF INSIDE SURFACE BETWEEN HOLES, NO MORE THAN 75% OF A HORIZNTAL CROSS SECTION SHALL BE HOLES, AND THERE SHALL BE NO HOLES CLOSER THAN 3" TO JOINTS.

CORE HOLE SIZE				
PIPE SIZE	RCP CORE HOLE DIA.		PLASTIC CORE HOLE DIA.	
INCHES	INCHES	FEET	INCHES	FEET
6			7	0.6
12	18	1.5	18	1.5
15	22	1.8	20	1.7
18	26	2.2	24	2.0
24	34	2.8	32	2.7
30	42	3.5	42	3.5
36	48	4.0	48	4.0

DIAMETER	WALL THICKNESS (MIN.)	FLOOR THICKNESS (MIN.)
4'	5"	6"
5'	6"	8"
6'	7"	8"

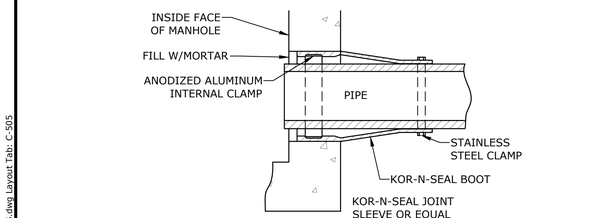


PLAN

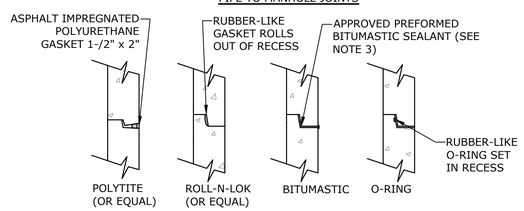
SECTION A-A

NOTES:
1. ALL DIMENSIONS ARE NOMINAL.
2. FRAMES USING NARROWER DIMENSIONS FOR THICKNESS ARE ALLOWED PROVIDED:
   A. THE FRAMES MEET OR EXCEED THE SPECIFIED LOAD RATING.
   B. THE INTERIOR PERIMETER (SEAT AREA) DIMENSIONS OF THE FRAMES REMAIN THE SAME TO ALLOW CONTINUED USE OF EXISTING GRATES/COVERS AS THE EXISTING FRAMES ALLOW, WITHOUT SHIMS OR OTHER MODIFICATIONS OR ACCOMMODATIONS.
   C. ALL OTHER PERTINENT REQUIREMENTS OF THE SPECIFICATIONS ARE MET.
3. LABEL TYPE OF MANHOLE WITH 3" HIGH LETTERS IN THE CENTER OF THE COVER.

DRAIN MANHOLE FRAME & COVER
NO SCALE



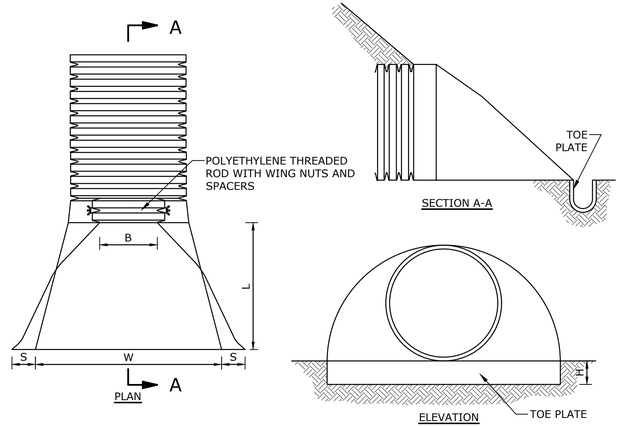
PIPE TO MANHOLE JOINTS



HORIZONTAL JOINTS

NOTES:
1. HORIZONTAL JOINTS BETWEEN THE SECTIONS OF PRECAST CONCRETE BARRELS SHALL BE PER CITY OF PORTSMOUTH DPW STANDARD AND SHALL BE SEALED FOR WATERTIGHTNESS USING A DOUBLE ROW ELASTOMERIC OR MASTIC-LIKE GASKET.
2. PIPE TO MANHOLE JOINTS SHALL BE PER CITY OF PORTSMOUTH STANDARD.
3. FOR BITUMASTIC TYPE JOINTS THE AMOUNT OF SEALANT SHALL BE SUFFICIENT TO FILL AT LEAST 75% OF THE JOINT CAVITY.
4. ALL GASKETS, SEALANTS, MORTAR, ETC. SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS.

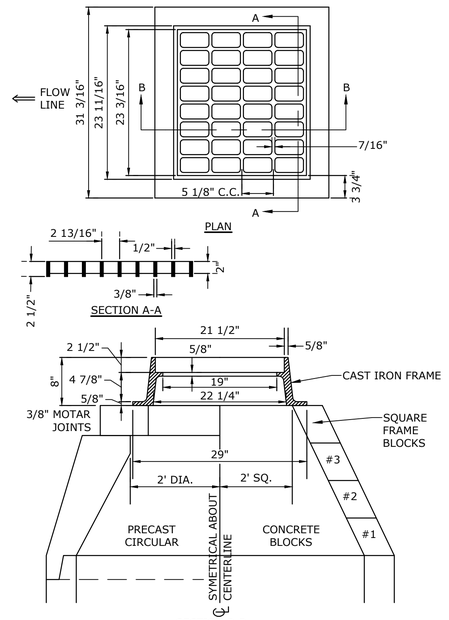
MANHOLE JOINTS
NO SCALE



PIPE DIA.	S	B	H	L	W
12"	6.5"	10"	6.5"	25"	29"
15"	6.5"	10"	6.5"	25"	29"
18"	7.5"	15"	6.5"	32"	35"
24"	7.5"	18"	6.5"	36"	45"
30"	7.5"	12"	8.6"	58"	63"
36"	7.5"	25"	8.6"	58"	63"

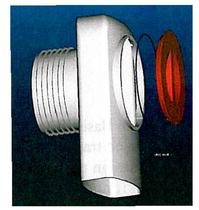
NOTE:
1. END SECTIONS MANUFACTURED BY ADVANCED DRAINAGE SYSTEMS, COLUMBUS, OHIO. END SECTIONS TO BE WELDED TO PIPE AS PER MANUFACTURER'S RECOMMENDATIONS.

HDPE END SECTION
NO SCALE



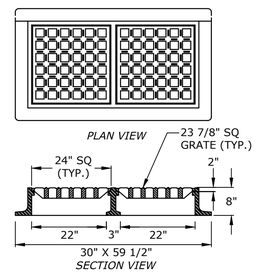
NOTE:
1. GRATE TO BE CAST IRON (NHDOT TYPE B)
2. FRAME AND GRATE TO BE MANUFACTURED IN THE USA

CATCH BASIN FRAME & GRATE
NO SCALE



NOTES:
1. ALL CATCH BASIN OUTLETS TO HAVE "ELIMINATOR" OIL AND FLOATING DEBRIS TRAP MANUFACTURED BY KLEANSTREAM (NO EQUAL)
2. INSTALL DEBRIS TRAP TIGHT TO INSIDE OF STRUCTURE.
3. 1/4" HOLE SHALL BE DRILLED IN TOP OF DEBRIS TRAP

"ELIMINATOR" OIL FLOATING DEBRIS TRAP
NO SCALE



FRAME: EJ FOUNDRY 5448Z
GRATE: EJ FOUNDRY 5520M5

AT DOUBLE CATCH BASINS

NOTES:
1. FRAME AND GRATES SHALL BE EJ FOUNDRY OR APPROVED EQUAL.
2. MATERIAL SHALL BE CLASS 30B GRAY IRON AND SHALL COMPLY WITH ALTEST ASTM A48.
3. FRAME AND GRATES SHALL BE HEAVY DUTY AND RATED FOR H-20 LOADING.
4. 3 FLANGE FRAMES TO BE USED WITH CURB INLET.

DOUBLE CATCHBASIN FRAME & GRATE
NO SCALE

Tighe&Bond

STATE OF NEW HAMPSHIRE
NEIL A. HANSEN
No. 15227
LICENSED PROFESSIONAL ENGINEER
9/27/2023

STATE OF NEW HAMPSHIRE
PATRICK CRIMMINS
No. 12378
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9/27/2023

Proposed Industrial Development

Lonza Biologics

Portsmouth,
New Hampshire

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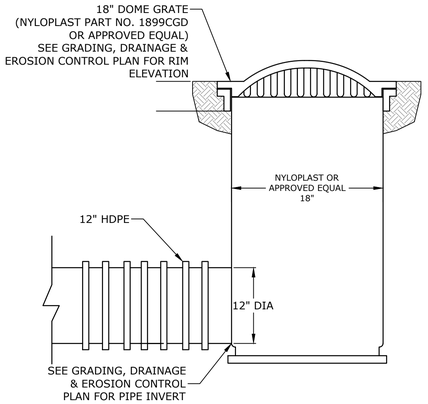
G	8/19/2019	Admin. Approval Submission
F	11/6/2018	P.B. Submission

PROJECT NO:	L-0700-013
DATE:	04/03/2018
FILE:	L-0700-026-C-DTLS.dwg
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

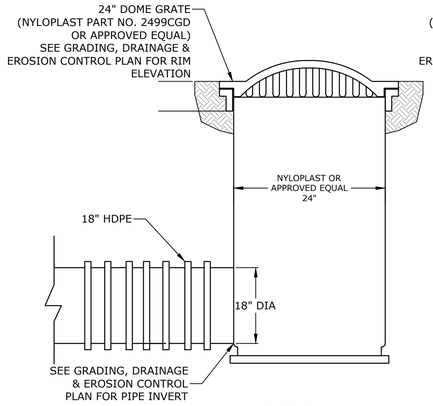
DETAILS SHEET

SCALE: AS SHOWN

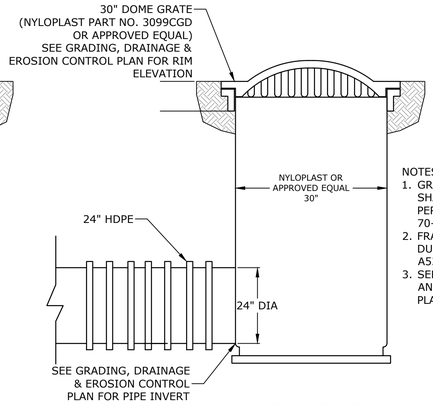
C-505



PYD100, PYD104, PYD104,PYD200, PYD201, PYD301, PYD302, PYD303, & PYD304
NO SCALE



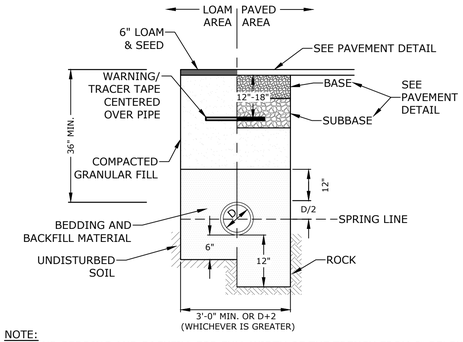
PYD101
NO SCALE



PYD102 & PYD103
NO SCALE

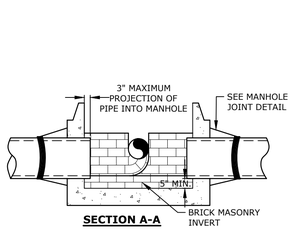
NOTES:
1. GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2. FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3. SEE GRADING, DRAINAGE AND EROSION CONTROL PLAN FOR LOCATION.

PROPOSED YARD DRAINS
NO SCALE

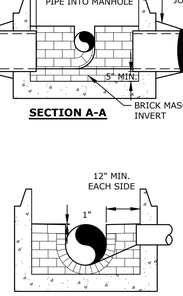


NOTE:
1. SAND BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 12" ABOVE TOP OF PIPE.
2. GAS SHALL BE INSTALLED PER UNITIL STANDARDS. COORDINATE ALL INSTALLATIONS WITH UNITIL AND THE CITY OF PORTSMOUTH.

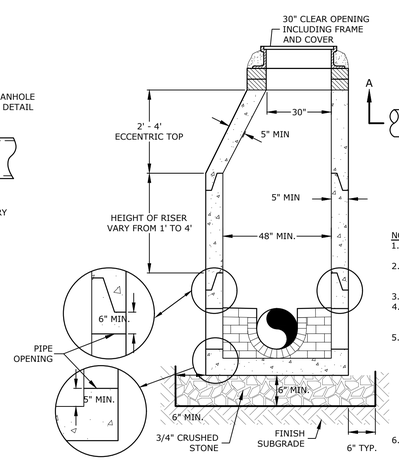
GAS TRENCH
NO SCALE



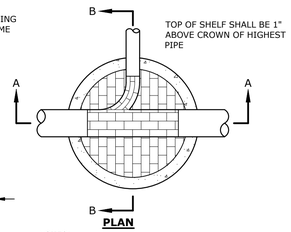
SECTION A-A



SECTION B-B

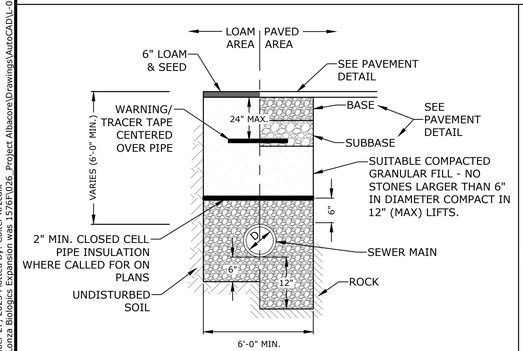


TYPICAL SECTION



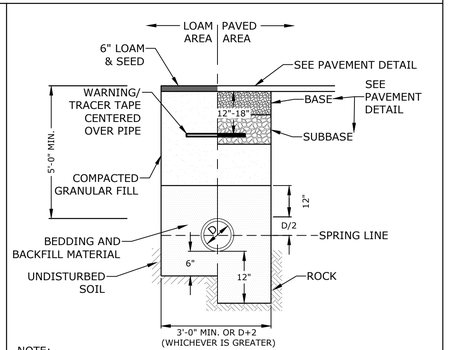
NOTES:
1. INVERT AND SHELF TO BE PLACED AFTER EACH LEAKAGE TEST.
2. CARE SHALL BE TAKEN TO INSURE THAT THE BRICK INVERT IS A SMOOTH CONTINUATION OF THE SEWER INVERT.
3. INVERT BRICKS SHALL BE LAID ON EDGE.
4. TWO (2) COATS OF BITUMINOUS WATERPROOF COATING SHALL BE APPLIED TO ENTIRE EXTERIOR OF MANHOLE.
5. FRAMES AND COVERS: MANHOLE FRAMES AND COVERS WITHIN CITY RIGHT OF WAY SHALL BE CITY STANDARD HINGE COVERS MANUFACTURED BY EJ. FRAMES AND COVERS WILL BE PURCHASED FROM THE CITY OF PORTSMOUTH DEPARTMENT OF PUBLIC WORKS. ALL OTHER MANHOLE FRAMES AND COVERS SHALL BE OF HEAVY DUTY DESIGN AND PROVIDE A 30-INCH CLEAR OPENING. A 3-INCH (MINIMUM HEIGHT) WORD "SEWER" SHALL BE PLAINLY CAST INTO THE CENTER OF EACH COVER.
6. HORIZONTAL JOINTS SHALL BE SEALED FOR WATER TIGHTNESS USING A DOUBLE ROW OF ELASTOMERIC OR MASTIC-LIKE SEALANT.
7. BARREL AND CONE SECTIONS SHALL BE PRECAST REINFORCED CONCRETE DESIGNED FOR H20 LOADING, AND CONFORMING TO ASTM C478-06.
8. INTERIOR OF SEWER MANHOLE SHALL BE LINED IN ACCORDANCE WITH SECTION 02952.

SEWER MANHOLE
NO SCALE



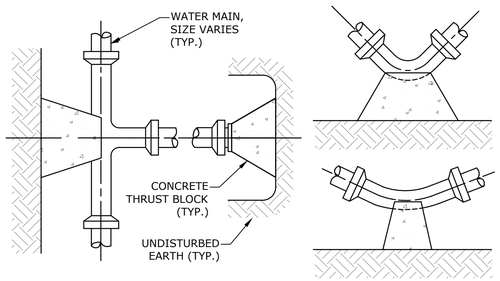
NOTE:
1. COORDINATE ALL INSTALLATIONS WITH THE CITY OF PORTSMOUTH.

SEWER TRENCH
NO SCALE



NOTE:
1. SAND BEDDING AND BACKFILL FOR FULL WIDTH OF THE TRENCH FROM 6" BELOW PIPE IN EARTH AND 12" BELOW PIPE IN ROCK UP TO 12" ABOVE TOP OF PIPE.
2. WATER MAIN SHALL BE INSTALLED PER CITY OF PORTSMOUTH STANDARDS. COORDINATE ALL INSTALLATIONS WITH THE CITY OF PORTSMOUTH.

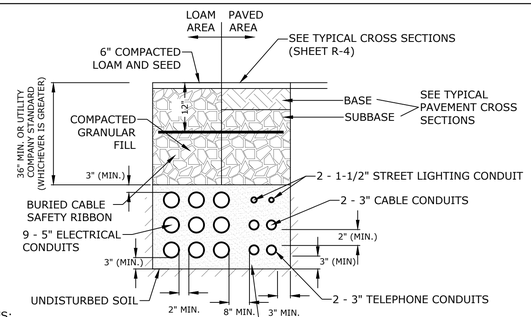
WATER TRENCH
NO SCALE



TEST PRESSURE = 200psi	SQUARE FEET OF CONCRETE THRUST BLOCKING BEARING ON UNDISTURBED MATERIAL					
	REACTION TYPE	PIPE SIZE				
		4"	6"	8"	10"	12"
	A 90°	0.89	2.19	3.82	11.14	17.24
	B 180°	0.65	1.55	2.78	8.38	12.00
	C 45°	0.48	1.19	2.12	6.02	9.32
	D 22-1/2°	0.25	0.60	1.06	3.08	4.74
	E 11-1/4°	0.13	0.30	0.54	1.54	2.38

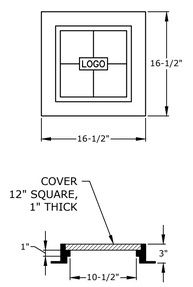
NOTES:
1. POUR THRUST BLOCKS AGAINST UNDISTURBED MATERIAL, WHERE TRENCH WALL HAS BEEN DISTURBED, EXCAVATE LOOSE MATERIAL AND EXTEND THRUST BLOCK TO UNDISTURBED MATERIAL. NO JOINTS SHALL BE COVERED WITH CONCRETE.
2. ON BENDS AND TEES, EXTEND THRUST BLOCKS FULL LENGTH OF FITTING.
3. PLACE BOARD IN FRONT OF ALL PLUGS BEFORE POURING THRUST BLOCKS.
4. WHERE M.J. PIPE IS USED, M.J. PLUG WITH RETAINER GLAND MAY BE SUBSTITUTED FOR END BLOCKINGS.
5. INSTALLATION AND STANDARD DIMENSIONAL REQUIREMENTS SHALL BE WITH TOWN OF EXETER WATER DEPARTMENT STANDARDS.

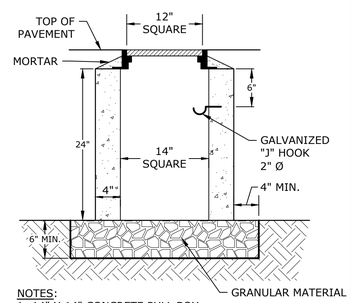
THRUST BLOCKING DETAIL
NO SCALE



NOTES:
1. NUMBER, MATERIAL, AND SIZE OF UTILITY CONDUITS TO BE DETERMINED BY LOCAL UTILITY OR AS SHOWN ON ELECTRICAL DRAWINGS. CONTRACTOR TO PROVIDE ONE SPARE CONDUIT FOR EACH UTILITY TO BUILDING.
2. DIMENSIONS SHOWN REPRESENT OWNERS MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS MAY BE GREATER BASED ON UTILITY COMPANY STANDARDS, BUT SHALL NOT BE LESS THAN THOSE SHOWN.
3. NO CONDUIT RUN SHALL EXCEED 360 DEGREES IN TOTAL BENDS.
4. A SUITABLE PULLING STRING, CAPABLE OF 200 POUNDS OF PULL, MUST BE INSTALLED IN THE CONDUIT BEFORE UTILITY COMPANY IS NOTIFIED TO INSTALL CABLE. THE STRING SHOULD BE BLOWN INTO THE CONDUIT AFTER THE RUN IS ASSEMBLED TO AVOID BONDING THE STRING TO THE CONDUIT.
5. UTILITY COMPANY MUST BE GIVEN THE OPPORTUNITY TO INSPECT THE CONDUIT PRIOR TO BACKFILL. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS SHOULD THE UTILITY COMPANY BE UNABLE TO INSTALL ITS CABLE IN A SUITABLE MANNER.
6. ALL CONDUIT INSTALLATIONS MUST CONFORM TO THE CURRENT EDITION OF THE NATIONAL ELECTRIC SAFETY CODE, STATE AND LOCAL CODES AND ORDINANCES, AND, WHERE APPLICABLE, THE NATIONAL ELECTRIC CODE.
7. ALL 90° SWEEPS WILL BE MADE USING RIGID GALVANIZED STEEL. SWEEPS WITH A 36 TO 48 INCH RADIUS.
8. SAND BEDDING TO BE REPLACED WITH CONCRETE ENCASEMENT WHERE COVER IS LESS THAN 3 FEET, WHEN LOCATED BELOW PAVEMENT, OR WHERE SHOWN ON THE UTILITIES PLAN. COORDINATE LIMITS OF CONCRETE ENCASEMENT WITH EVERSOURCE.

ELECTRICAL AND COMMUNICATION CONDUIT
NO SCALE





NOTES:
1. 14" X 14" CONCRETE PULL BOX, NHDOT ITEM 614.511

CONCRETE LIGHTING CONDUIT PULL BOX
NO SCALE

Tighe&Bond

STATE OF NEW HAMPSHIRE
NEIL A. HANSEN
No. 15227
LICENSED PROFESSIONAL ENGINEER
9/27/2023

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Proposed Industrial Development

Lonza Biologics

Portsmouth,
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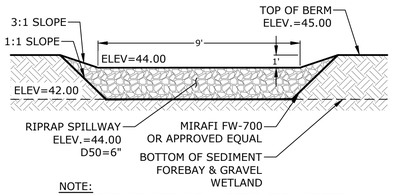
DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

DETAILS SHEET

SCALE: AS SHOWN

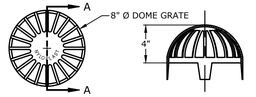
C-506

Last Save Date: September 27, 2023 1:40 PM By: CKRZCUIK
Plot Date: Wednesday, September 27, 2023 1:42 PM By: Christine Krzcuik
T&B File Location: J:\LL\L0700 Lonza Biologics Expansion was 1576\PD26 - Project Albacore\Drawings\AutoCAD\L-0700-026-C-DTLS.dwg Layout Tab: C-506



NOTE:
1. SEE GRAVEL WETLAND #1 DETAIL FOR LOCATION.

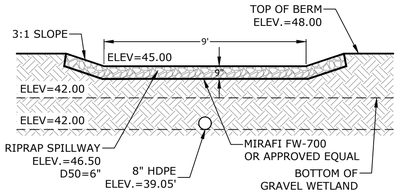
SEDIMENT FOREBAY RIPRAP SPILLWAY
NO SCALE



PLAN VIEW SECTION A-A

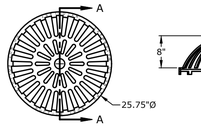
NOTE:
1. 8" DOME GRATE SHALL BE ADS NYLOPLAST, 8 IN DOME GRATE MODEL NUMBER 0899CGD, OR APPROVED EQUAL.

8" DOME GRATE DETAIL
NO SCALE



NOTE:
1. SEE GRAVEL WETLAND #1 DETAIL FOR LOCATION.

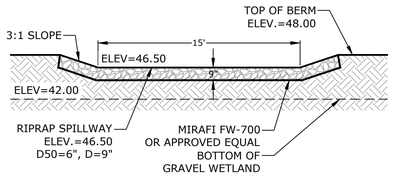
GRAVEL WETLAND #1 RIPRAP SPILLWAY
NO SCALE



PLAN VIEW SECTION A-A

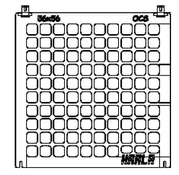
NOTE:
1. 24" DOME GRATE SHALL BE ADS NYLOPLAST, 24 IN DOME GRATE MODEL NUMBER 2499CGD, OR APPROVED EQUAL.

24" DOME GRATE DETAIL
NO SCALE



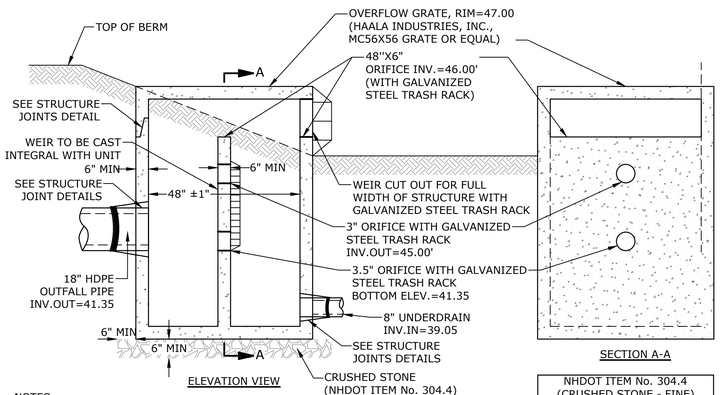
NOTE:
1. SEE GRAVEL WETLAND #1 DETAIL FOR LOCATION.

GRAVEL WETLAND #1 RIPRAP OVERFLOW SPILLWAY
NO SCALE



NOTES:
1. OUTLET STRUCTURE GRATE SHALL BE HAALA INDUSTRIES, INC. MC56X56 TOP MOUNT GRATE OR EQUAL.
2. GRATE TO BE SECURED TO CONCRETE STRUCTURE.

HAALA MC56X56 GRATE
NO SCALE



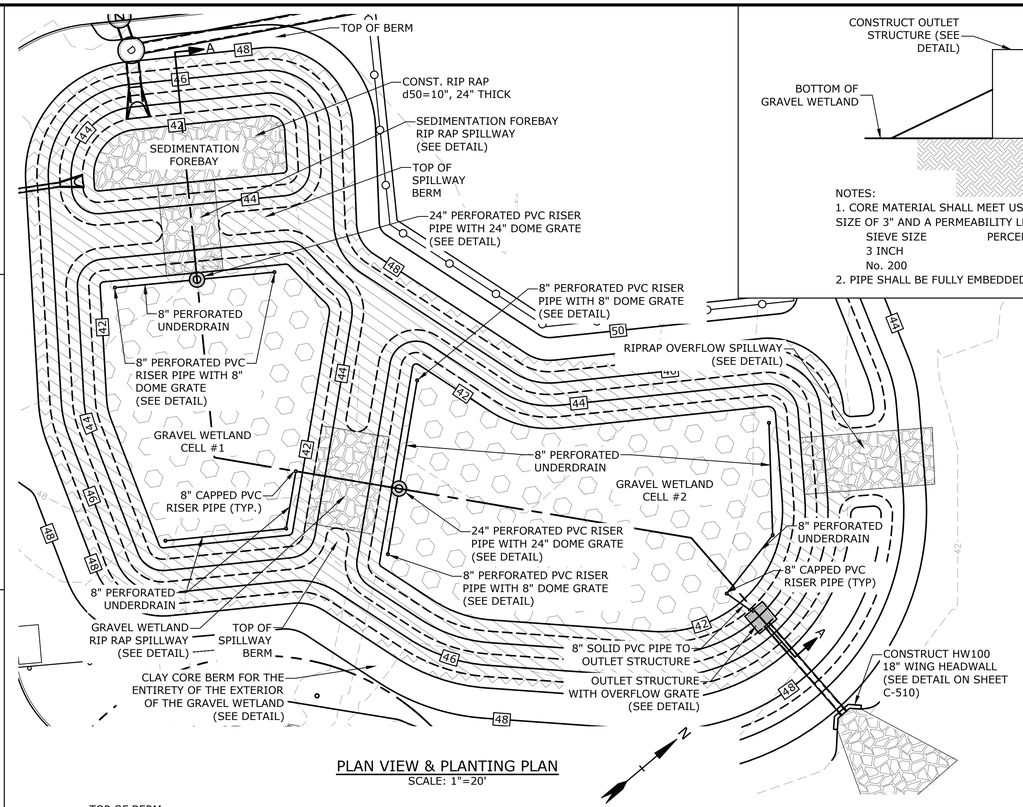
ELEVATION VIEW

SECTION A-A

NHDOT ITEM No. 304.4 (CRUSHED STONE - FINE)	
SIEVE SIZE	% PASSING
2"	100
1-1/2"	85-100
3/4"	45-75
#4	10-45
#200	0-5

NOTES:
1. ALL SECTIONS SHALL BE 4,000 PSI CONCRETE (TYPE II CEMENT).
2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER OF THE THIRDE WALL.
3. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCHES PER LINEAR FOOT.
4. THE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.
5. ALL JOINTS ON THE STRUCTURE AND PIPING SHALL BE WATERTIGHT.

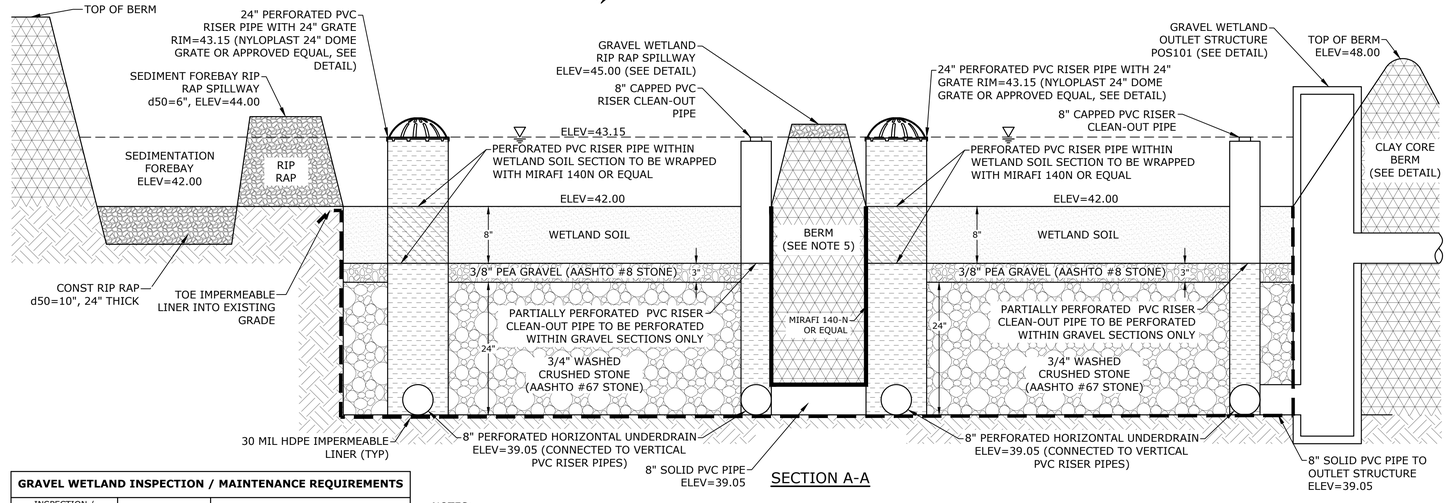
OUTLET STRUCTURE (POS101)
NO SCALE



PLAN VIEW & PLANTING PLAN
SCALE: 1"=20'

GRAVEL WETLAND PLANTING PLAN

	SPECIES	PLANT SIZE	QUANTITY/ SPACING
	NEW ENGLAND WETMIX, WETLAND SEED MIX OR EQUIVALENT		18 LB/ACRE
	NEW ENGLAND EROSION CONTROL/RESTORATION MIX OR EQUIVALENT		35 LB/ACRE
	"RED OSIER DOGWOOD" CORNUS SERICEA AND "SUMMERSWEET CLETHRA" CLETHRA ALNIFOLIA	2'-3'	8'-10' ON CENTER
	NEW ENGLAND EROSION CONTROL/RESTORATION MIX OR EQUIVALENT		35 LB/ACRE
	"SILKY DOGWOOD" CORNUS AMOMUM AND "HIGHBUSH BLUEBERRY" VACCINIUM CORYMBOSUM AND "WINTERBERRY" ILEX VERTICILLATA	2'-3'	8'-10' ON CENTER



SECTION A-A

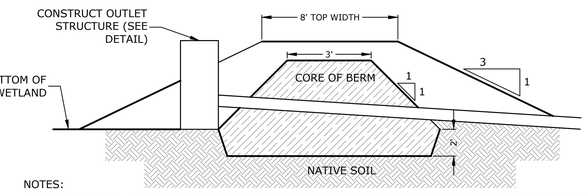
GRAVEL WETLAND INSPECTION / MAINTENANCE REQUIREMENTS		
INSPECTION / MAINTENANCE	FREQUENCY	ACTION
MONITOR TO ENSURE THAT GRAVEL WETLAND FUNCTIONS EFFECTIVELY AFTER STORMS	FOUR (4) TIMES ANNUALLY (QUARTERLY) AND AFTER ANY RAINFALL EVENT EXCEEDING 2.5" IN A 24-HR PERIOD	- TRASH AND DEBRIS TO BE REMOVED - ANY REQUIRED MAINTENANCE SHALL BE ADDRESSED - INSPECT SOIL AND REPAIR ERODED AREAS, ESPECIALLY ON SLOPES. - CHECK INLETS, OUTLETS, AND OVERFLOW SPILLWAY FOR BLOCKAGE, STRUCTURAL INTEGRITY AND EVIDENCE OF EROSION.
INSPECT VEGETATION	ANNUALLY	- INSPECT THE CONDITION OF ALL GRAVEL WETLAND VEGETATION - PRUNE BACK OVERGROWTH - REPLACE DEAD VEGETATION - REMOVE ANY INVASIVE SPECIES - COORDINATE WITH UNH STORMWATER CENTER FOR FURTHER VEGETATION MANAGEMENT GUIDELINES
INSPECT DRAWDOWN TIME - THE SYSTEM SHALL DRAWDOWN WITHIN 48-HOURS FOLLOWING A RAINFALL EVENT.	ANNUALLY	- HIRE QUALIFIED PROFESSIONAL TO ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE THE FILTRATION FUNCTION, INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE FILTER.

NOTES:
1. WETLAND SOIL SHALL BE A SANDY CLAY LOAM WITH A HYDRAULIC CONDUCTIVITY OF 0.1-0.01 FT/DAY. ORGANIC CONTENT SHALL BE GREATER THAN 15% BY VOLUME. CLAY CONTENT SHALL BE LESS THAN 15% BY VOLUME.
2. CONTRACTOR MAY REUSE EXISTING ON-SITE WETLAND SOILS. TESTING MUST BE PERFORMED BY THE CONTRACTOR PRIOR TO SOIL REUSE TO DETERMINE IF THE EXISTING WETLAND SOILS MEET THE CRITERIA LISTED IN NOTE 1. IF THE EXISTING SOILS DO NOT MEET THE CRITERIA OF WETLAND SOILS AS DEFINED IN NOTE 1 THEY MAY NOT BE REUSED.
3. PERFORATED PVC RISERS SHALL HAVE VERTICAL SLOTS CUT INTO PVC RISERS ABOVE GRADE MEASURING 3"x1/8".
4. GRAVEL WETLAND SOIL SHALL BE SEEDED WITH NEW ENGLAND EROSION CONTROL/RESTORATION MIX OR EQUIVALENT AT A RATE OF 35 LB/ACRE.
5. BERM MATERIAL SHALL CONSIST OF NATIVE SOIL OR COMMON FILL.
6. A PRE-INSTALL MEETING SHALL BE HELD WITH THE CONTRACTOR RESPONSIBLE FOR GRAVEL WETLAND CONSTRUCTION AND THE DESIGN ENGINEER.
7. GRAVEL WETLAND TREATMENT CELLS SHALL BE LINED WITH AN IMPERMEABLE LINER.
8. IT IS THE DESIGN ENGINEERS RECOMMENDATION THAT THE GRAVEL WETLAND BE CONSTRICTED IN THE DRY TO ACHIEVE THE ANTICIPATED TREATMENT QUALITY STANDARDS.
9. THE SLOPED SIDES OF THE GRAVEL WETLAND SHALL RECEIVE EROSION CONTROL MATTING. SEE DETAIL EROSION CONTROL BLANKET DETAIL.

GRAVEL WETLAND #1
NO SCALE

AASHTO #8 STONE (#8 to 3/8")	
SIEVE SIZE	% PASSING
1/2"	100
3/8"	85-100
#4	10-30
#8	0-10
#16	0-5

AASHTO #67 STONE (#4 to 3/4")	
SIEVE SIZE	% PASSING
1"	100
3/4"	90-100
3/8"	20-55
#4	0-10
#8	0-5



NOTES:
1. CORE MATERIAL SHALL MEET USGS CLASSIFICATION SC, SM, CL OR ML AND HAVE A MAXIMUM PARTICLE SIZE OF 3" AND A PERMEABILITY LESS THAN 0.000005 CM/S, AND MEET THE FOLLOWING GRADATION

SIEVE SIZE	PERCENT FINER BY WEIGHT
3 INCH	100
No. 200	50 -100.

2. PIPE SHALL BE FULLY EMBEDDED IN CORE TO ELIMINATE SEEPAGE

CLAY CORE BERM
NO SCALE

Tighe&Bond

STATE OF NEW HAMPSHIRE
NEIL A. HANSEN
No. 15227
LICENSED PROFESSIONAL ENGINEER
9/27/2023

STATE OF NEW HAMPSHIRE
PATRICK CRIMMINS
No. 12378
LICENSED PROFESSIONAL ENGINEER
9/27/2023

Proposed Industrial Development

Lonza Biologics

Portsmouth, New Hampshire

MARK	DATE	DESCRIPTION
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L	7/17/2023	Amended Site Plan Review
K	5/5/2023	Phase 1B Issued for Bid
J	3/15/2023	Phase 1B Issued for Preliminary Pricing
I	1/9/2023	Admin. Approval Submission
H	12/10/2021	Planning Board Stipulation
G	8/19/2019	Admin. Approval Submission
F	11/6/2018	P.B. Submission

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DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

DETAILS SHEETS

SCALE: AS SHOWN

C-507

Last Save Date: September 27, 2023 1:49 PM By: CKRZCUIK
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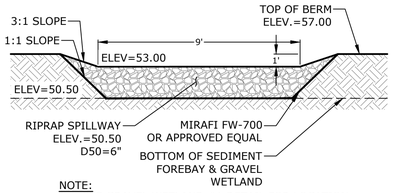
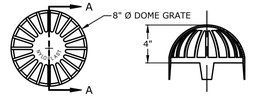


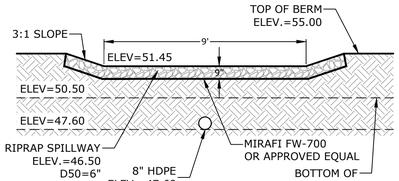
NOTE:
1. SEE GRAVEL WETLAND #1 DETAIL FOR LOCATION.

SEDIMENT FOREBAY RIPRAP SPILLWAY
NO SCALE



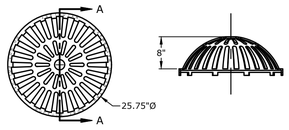
NOTE:
1. 8" DOME GRATE SHALL BE ADS NYLOPLAST, 8 IN DOME GRATE MODEL NUMBER 0899CGD, OR APPROVED EQUAL.

8" DOME GRATE DETAIL
NO SCALE



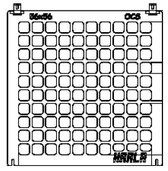
NOTE:
1. SEE GRAVEL WETLAND #1 DETAIL FOR LOCATION.

GRAVEL WETLAND #2 RIPRAP SPILLWAY
NO SCALE



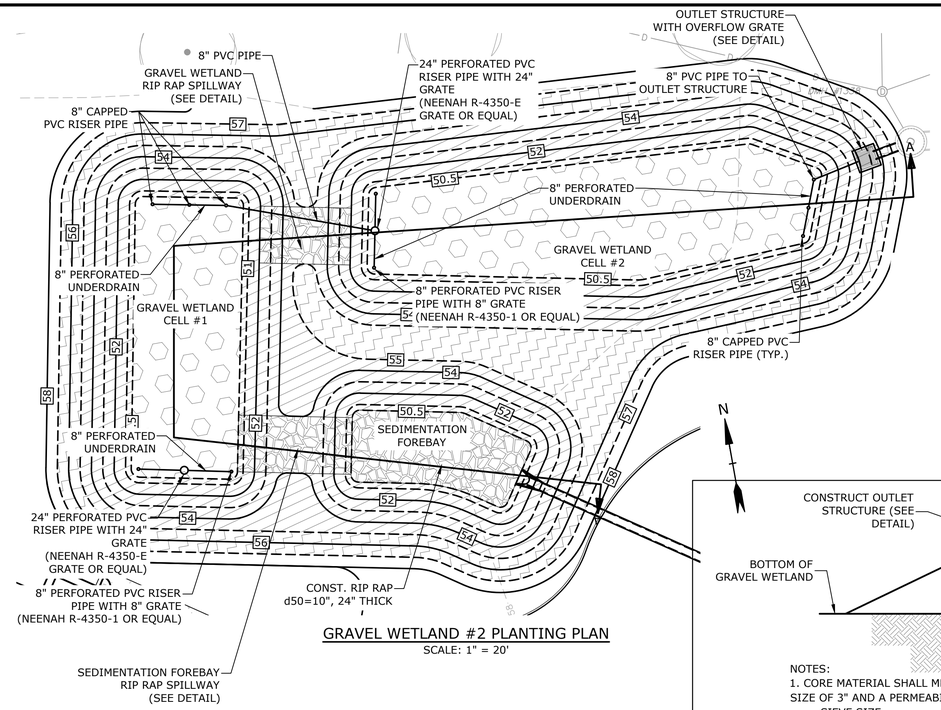
NOTE:
1. 24" DOME GRATE SHALL BE ADS NYLOPLAST, 24 IN DOME GRATE MODEL NUMBER 2499CGD, OR APPROVED EQUAL.

24" DOME GRATE DETAIL
NO SCALE



NOTES:
1. OUTLET STRUCTURE GRATE SHALL BE HAALA INDUSTRIES, INC. MC56X56 TOP MOUNT GRATE OR EQUAL.
2. GRATE TO BE SECURED TO CONCRETE STRUCTURE.

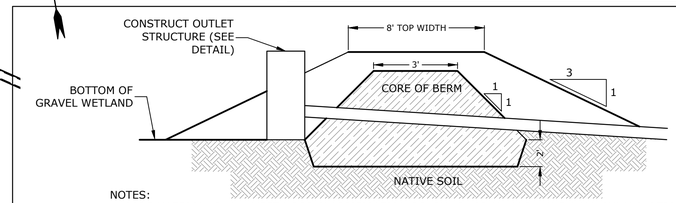
HAALA MC56X56 GRATE
NO SCALE



GRAVEL WETLAND #2 PLANTING PLAN
SCALE: 1" = 20'

GRAVEL WETLAND PLANTING PLAN

	SPECIES	PLANT SIZE	QUANTITY/ SPACING
	NEW ENGLAND WETMIX, WETLAND SEED MIX OR EQUIVALENT		18 LB/ACRE
	NEW ENGLAND EROSION CONTROL/RESTORATION MIX OR EQUIVALENT		35 LB/ACRE
	"RED OSIER DOGWOOD" CORNUS SERICEA AND "SUMMERSWEET CLETHRA" CLETHRA ALNIFOLIA	2'-3'	8'-10' ON CENTER
	NEW ENGLAND EROSION CONTROL/RESTORATION MIX OR EQUIVALENT		35 LB/ACRE
	"SILKY DOGWOOD" CORNUS AMOMUM AND "HIGHBUSH BLUEBERRY" VACCINIUM CORYMBOSUM AND "WINTERBERRY" ILEX VERTICILLATA	2'-3'	8'-10' ON CENTER

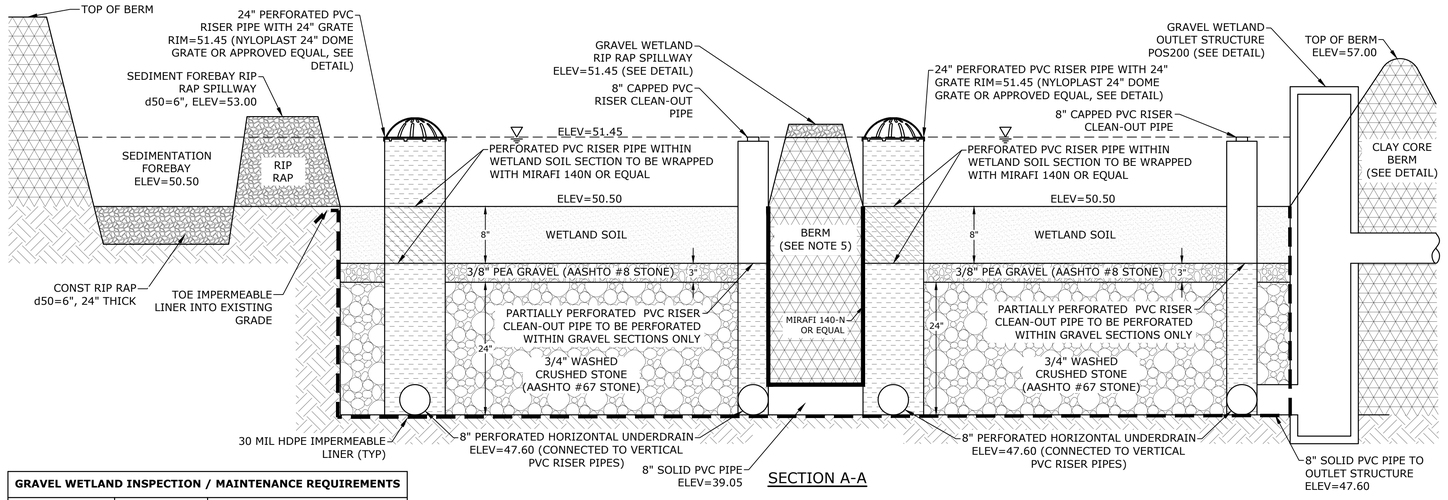


NOTES:
1. CORE MATERIAL SHALL MEET USGS CLASSIFICATION SC, SM, CL OR ML AND HAVE A MAXIMUM PARTICLE SIZE OF 3" AND A PERMEABILITY LESS THAN 0.000005 CM/S, AND MEET THE FOLLOWING GRADATION

SIEVE SIZE	PERCENT FINER BY WEIGHT
3 INCH	100
No. 200	50 -100.

2. PIPE SHALL BE FULLY EMBEDDED IN CORE TO ELIMINATE SEEPAGE

CLAY CORE BERM
NO SCALE



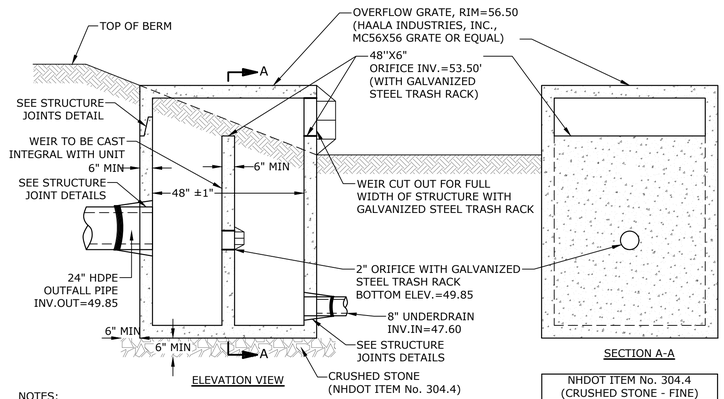
SECTION A-A

NOTES:
1. WETLAND SOIL SHALL BE A SANDY CLAY LOAM WITH A HYDRAULIC CONDUCTIVITY OF 0.1-0.01 FT/DAY. ORGANIC CONTENT SHALL BE GREATER THAN 15% BY VOLUME. CLAY CONTENT SHALL BE LESS THAN 15% BY VOLUME.
2. CONTRACTOR MAY REUSE EXISTING ON-SITE WETLAND SOILS. TESTING MUST BE PERFORMED BY THE CONTRACTOR PRIOR TO SOIL REUSE TO DETERMINE IF THE EXISTING WETLAND SOILS MEET THE CRITERIA LISTED IN NOTE 1. IF THE EXISTING SOILS DO NOT MEET THE CRITERIA OF WETLAND SOILS AS DEFINED IN NOTE 1 THEY MAY NOT BE REUSED.
3. PERFORATED PVC RISERS SHALL HAVE VERTICAL SLOTS CUT INTO PVC RISERS ABOVE GRADE MEASURING 3"x1/8".
4. GRAVEL WETLAND SOIL SHALL BE SEEDED WITH NEW ENGLAND EROSION CONTROL/RESTORATION MIX OR EQUIVALENT AT A RATE OF 35 LB/ACRE.
5. BERM MATERIAL SHALL CONSIST OF NATIVE SOIL OR COMMON FILL.
6. A PRE-INSTALL MEETING SHALL BE HELD WITH THE CONTRACTOR RESPONSIBLE FOR GRAVEL WETLAND CONSTRUCTION AND THE DESIGN ENGINEER.
7. GRAVEL WETLAND TREATMENT CELLS SHALL BE LINED WITH AN IMPERMEABLE LINER.
8. IT IS THE DESIGN ENGINEERS RECOMMENDATION THAT THE GRAVEL WETLAND BE CONSTRICTED IN THE DRY TO ACHIEVE THE ANTICIPATED TREATMENT QUALITY STANDARDS.
9. THE SLOPED SIDES OF THE GRAVEL WETLAND SHALL RECEIVE EROSION CONTROL MATTING. SEE DETAIL EROSION CONTROL BLANKET DETAIL.

GRAVEL WETLAND #2
NO SCALE

AASHTO #8 STONE (#8 to 3/8")	
SIEVE SIZE	% PASSING
1/2"	100
3/8"	85-100
#4	10-30
#8	0-10
#16	0-5

AASHTO #67 STONE (#4 to 3/4")	
SIEVE SIZE	% PASSING
1"	100
3/4"	90-100
3/8"	20-55
#4	0-10
#8	0-5



ELEVATION VIEW

SECTION A-A

NHDOT ITEM No. 304.4 (CRUSHED STONE - FINE)	
SIEVE SIZE	% PASSING
2"	100
1-1/2"	85-100
3/4"	45-75
#4	10-45
#200	0-5

NOTES:
1. ALL SECTIONS SHALL BE 4,000 PSI CONCRETE (TYPE II CEMENT).
2. CIRCUMFERENTIAL REINFORCEMENT SHALL BE 0.12 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER OF THE THIRDE WALL.
3. THE TONGUE OR THE GROOVE OF THE JOINT SHALL CONTAIN ONE LINE OF CIRCUMFERENTIAL REINFORCEMENT EQUAL TO 0.12 SQUARE INCHES PER LINEAR FOOT.
4. THE STRUCTURES SHALL BE DESIGNED FOR H20 LOADING.
5. ALL JOINTS ON THE STRUCTURE AND PIPING SHALL BE WATERTIGHT.

OUTLET STRUCTURE (POS200)
NO SCALE

GRAVEL WETLAND INSPECTION / MAINTENANCE REQUIREMENTS

INSPECTION / MAINTENANCE	FREQUENCY	ACTION
MONITOR TO ENSURE THAT GRAVEL WETLAND FUNCTIONS EFFECTIVELY AFTER STORMS	FOUR (4) TIMES ANNUALLY (QUARTERLY) AND AFTER ANY RAINFALL EVENT EXCEEDING 2.5" IN A 24-HR PERIOD	- TRASH AND DEBRIS TO BE REMOVED - ANY REQUIRED MAINTENANCE SHALL BE ADDRESSED - INSPECT SOIL AND REPAIR ERODED AREAS, ESPECIALLY ON SLOPES. - CHECK INLETS, OUTLETS, AND OVERFLOW SPILLWAY FOR BLOCKAGE, STRUCTURAL INTEGRITY AND EVIDENCE OF EROSION.
INSPECT VEGETATION	ANNUALLY	- INSPECT THE CONDITION OF ALL GRAVEL WETLAND VEGETATION - PRUNE BACK OVERGROWTH - REPLACE DEAD VEGETATION - REMOVE ANY INVASIVE SPECIES - COORDINATE WITH UNH STORMWATER CENTER FOR FURTHER VEGETATION MANAGEMENT GUIDELINES
INSPECT DRAWDOWN TIME - THE SYSTEM SHALL DRAWDOWN WITHIN 48-HOURS FOLLOWING A RAINFALL EVENT.	ANNUALLY	- HIRE QUALIFIED PROFESSIONAL TO ASSESS THE CONDITION OF THE FACILITY TO DETERMINE MEASURES REQUIRED TO RESTORE THE FILTRATION FUNCTION, INCLUDING BUT NOT LIMITED TO REMOVAL OF ACCUMULATED SEDIMENTS OR RECONSTRUCTION OF THE FILTER.

Tighe&Bond

NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER STATE OF NEW HAMPSHIRE
9/27/2023

PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER STATE OF NEW HAMPSHIRE
9/27/2023

Proposed Industrial Development

Lonza Biologics

Portsmouth, New Hampshire

MARK	DATE	DESCRIPTION
M	9/27/2023	P.B. Submission
L	7/17/2023	Amended Site Plan Review
K	5/5/2023	Phase 1B Issued for Bid
J	3/15/2023	Phase 1B Issued for Preliminary Pricing
I	1/9/2023	Admin. Approval Submission
H	12/10/2021	Planning Board Stipulation
G	8/19/2019	Admin. Approval Submission
F	11/6/2018	P.B. Submission

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DRAWN BY: CJK
CHECKED: NAH
APPROVED: PMC

DETAILS SHEETS

SCALE: AS SHOWN

C-508

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Plot Date: September 27, 2023 1:49 PM By: CKRZCIUK
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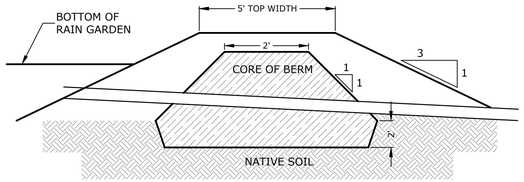
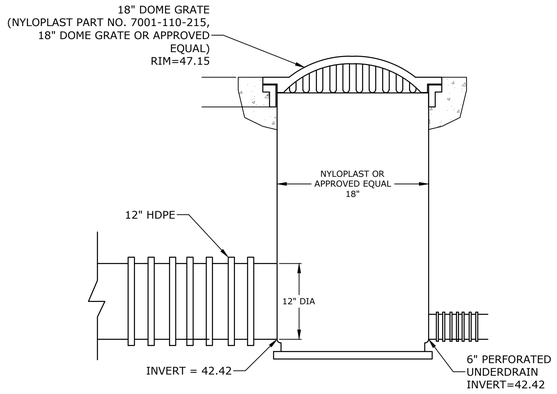


NOTES:
1. CORE MATERIAL SHALL MEET USGS CLASSIFICATION SC, SM, CL OR ML AND HAVE A MAXIMUM PARTICLE SIZE OF 3" AND A PERMEABILITY LESS THAN 0.000005 CM/S, AND MEET THE FOLLOWING GRADATION

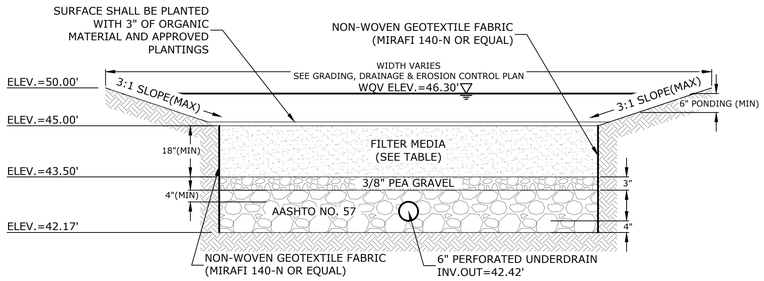
SIEVE SIZE	PERCENT FINER BY WEIGHT
3 INCH	100
No. 200	50 -100.

2. PIPE SHALL BE FULLY EMBEDDED IN CORE TO ELIMINATE SEEPAGE

CLAY CORE BERM
NO SCALE



OUTLET STRUCTURE DETAIL (POS300)
NO SCALE



SECTION VIEW

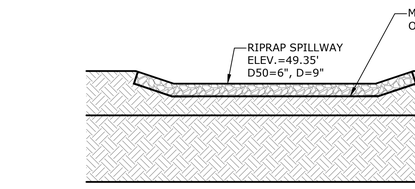
FILTER MEDIA COMPOSITION:

COMPONENT MATERIAL	PERCENT OF MIXTURE BY VOLUME	GRADATION OF MATERIAL SIEVE NO.	PERCENT PASSING
ASTM C-33 CONCRETE SAND	50-55	SEE NOTE #5	
LOAMY SAND TOPSOIL	20-30	200	15-25
MODERATELY FINE SHREDDED BARK OR WOOD FIBER MULCH	20-30	200	5 MAX.

NOTES:
1. RAIN GARDENS SHALL NOT BE PLACED INTO SERVICE UNTIL THE PRACTICE HAS BEEN PLANTED AND ITS CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.
2. DO NOT TRAFFIC EXPOSED SOIL SURFACES WITH CONSTRUCTION EQUIPMENT. CONTRACTOR SHALL KEEP ALL EXCAVATION EQUIPMENT OUTSIDE OF THE LIMIT OF THE RAIN GARDEN.
3. SEE GRADING, DRAINAGE & EROSION CONTROL PLAN FOR LOCATIONS, LAYOUTS, AND ELEVATIONS.
4. THE SAND PORTION OF THE FILTER MEDIA SHALL MEET THE FOLLOWING GRADATION (ASTM C-33):

SIEVE SIZE	PERCENT PASSING
3/8"	100
#4	95-100
#8	80-100
#16	50-85
#30	25-60
#50	5-30
#100	0-10

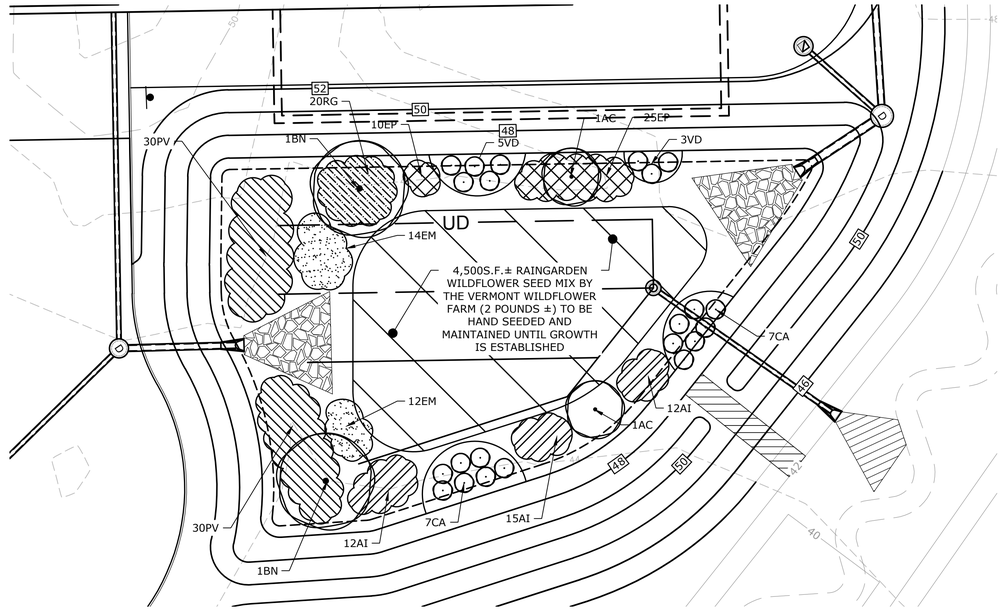
RAIN GARDEN
NO SCALE



NOTE:
SEE GRADING, DRAINAGE & EROSION CONTROL PLANS, SHEET C-110, FOR LOCATIONS AND ELEVATIONS.

RIPRAP OVERFLOW SPILLWAY
NO SCALE

RAINGARDEN PLANT SCHEDULE				
CODE	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
TREES				
BN	BETULA NIGRA	RIVER BIRCH	12 - 14' HT	B & B (CLUMP)
AC	AMELANCHIER CANADENSIS	SHADBLOW SERVICEBERRY	6 - 7' HT	B & B (CLUMP)
SHRUBS				
VD	VIBURNUM DENTATUM	ARROWWOOD VIBURNUM	5 GALLON	CONTAINER
CA	CLETHRA ALNIFOLIA	SUMMERSWEET CLETHERA	5 GALLON	CONTAINER
PERENNIALS				
PV	PANICUM VIRGATUM 'SHENANDOAH'	SHENANDOAH SWITCH GRASS	3 GALLON	CONTAINER
EM	EUPATORIUM MACULATUM	JOE PYE WEED	2 GALLON	CONTAINER
AI	ASCLEPIAS INCARNATA	MARSH MILKWEED	2 GALLON	CONTAINER
RG	RUDBECKIA 'GOLDSTURM'	GOLDSTURM BLACKEYED SUSAN	1 GALLON	CONTAINER
EP	ECHINACEA 'PURPUREA'	PURPLE CONEFLOWER	1 GALLON	CONTAINER



RAIN GARDEN PLANTING PLAN
SCALE: 1" = 20'

Tighe&Bond

STATE OF NEW HAMPSHIRE - PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER
11/9/23

STATE OF NEW HAMPSHIRE - NEIL A. HANSEN No. 15227 LICENSED PROFESSIONAL ENGINEER
11/09/2023

Proposed Industrial Development

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Portsmouth,
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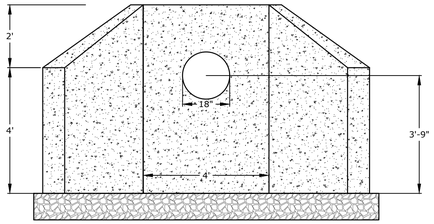
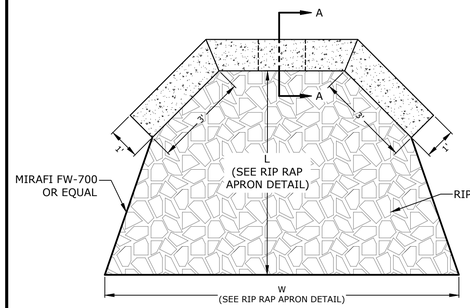
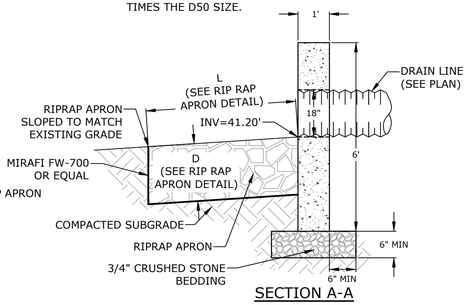


ELEVATION VIEW

NOTES:
1. HEADWALL SHALL BE 5,000 PSI CONCRETE.
2. HEADWALL REINFORCEMENT SHALL BE 0.18 SQUARE INCHES PER LINEAR FOOT IN ALL SECTIONS AND SHALL BE PLACED IN THE CENTER THIRD OF THE WALL.
3. SEE GRADING, DRAINAGE, & EROSION CONTROL PLAN FOR STONE SIZE AND APRON DIMENSIONS.
4. STONE SHALL CONSIST OF SUB-ANGULAR FIELD STONE OR ROUGH UNHEWN QUARRY STONE OF APPROXIMATELY RECTANGULAR SHAPE. FLAT OR ROUND ROCKS ARE NOT ACCEPTABLE. THE STONE SHALL BE HARD AND OF SUCH QUALITY THAT IT WILL NOT DISINTEGRATE ON EXPOSURE TO WATER OR WEATHERING, BE CHEMICALLY STABLE AND IT SHALL BE SUITABLE IN ALL OTHER RESPECTS FOR THE PURPOSE INTENDED. THE BULK SPECIFIC GRAVITY (SATURATED SURFACE-DRY BASIS) OF THE INDIVIDUAL STONES SHALL BE AT LEAST 2.5.
5. THE STONE SHALL BE COMPOSED OF A WELL-GRADED MIXTURE DOWN TO THE ONE-INCH SIZE PARTICLE SUCH THAT 50 PERCENT OF THE MIXTURE BY WEIGHT SHALL BE LARGER THAN THE D50 SIZE SPECIFIED. A WELL-GRADED MIXTURE IS DEFINED AS A MIXTURE COMPOSED PRIMARILY OF THE LARGER STONE SIZE BUT WITH A SUFFICIENT MIXTURE OF OTHER SIZES TO FILL THE PROGRESSIVELY SMALLER VOIDS BETWEEN THE STONES. THE DIAMETER OF THE LARGEST STONE SIZE IN SUCH A MIXTURE SHALL BE 1.5 TIMES THE D50 SIZE.

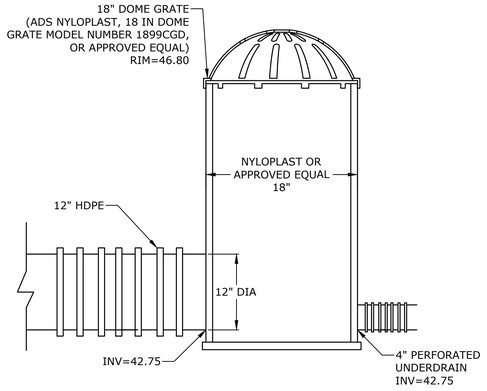


PLAN VIEW

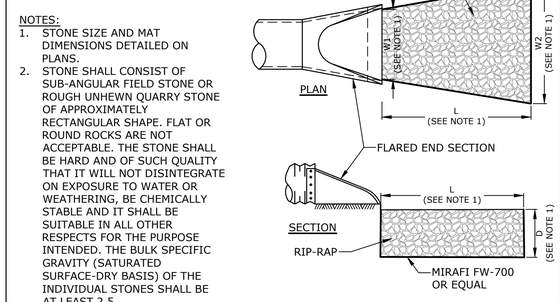


SECTION A-A

PRECAST CONCRETE HEADWALL WITH WING WALLS (HW100)
NO SCALE

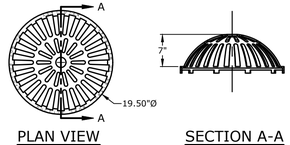


OUTLET STRUCTURE DETAIL (POS102)
NO SCALE



NOTES:
1. STONE SIZE AND MAT DIMENSIONS DETAILED ON PLANS.
2. STONE SHALL CONSIST OF SUB-ANGULAR FIELD STONE OR ROUGH UNHEWN QUARRY STONE OF APPROXIMATELY RECTANGULAR SHAPE. FLAT OR ROUND ROCKS ARE NOT ACCEPTABLE. THE STONE SHALL BE HARD AND OF SUCH QUALITY THAT IT WILL NOT DISINTEGRATE ON EXPOSURE TO WATER OR WEATHERING, BE CHEMICALLY STABLE AND IT SHALL BE SUITABLE IN ALL OTHER RESPECTS FOR THE PURPOSE INTENDED. THE BULK SPECIFIC GRAVITY (SATURATED SURFACE-DRY BASIS) OF THE INDIVIDUAL STONES SHALL BE AT LEAST 2.5.
3. THE STONE SHALL BE COMPOSED OF A WELL-GRADED MIXTURE DOWN TO THE ONE-INCH SIZE PARTICLE SUCH THAT 50 PERCENT OF THE MIXTURE BY WEIGHT SHALL BE LARGER THAN THE D50 SIZE SPECIFIED. A WELL-GRADED MIXTURE IS DEFINED AS A MIXTURE COMPOSED PRIMARILY OF THE LARGER STONE SIZE BUT WITH A SUFFICIENT MIXTURE OF OTHER SIZES TO FILL THE PROGRESSIVELY SMALLER VOIDS BETWEEN THE STONES. THE DIAMETER OF THE LARGEST STONE SIZE IN SUCH A MIXTURE SHALL BE 1.5 TIMES THE D50 SIZE.

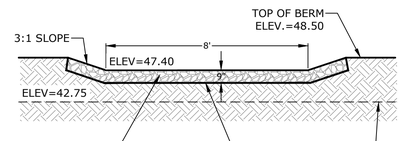
RIP-RAP APRON DETAIL
NO SCALE



PLAN VIEW SECTION A-A

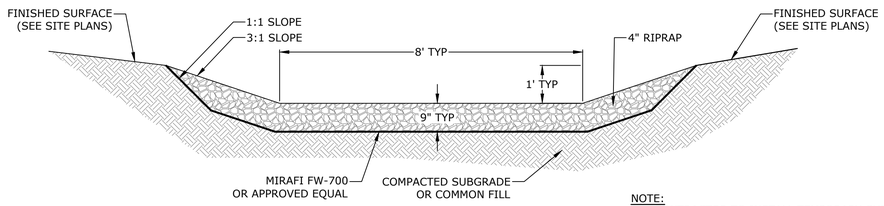
NOTE:
1. 18" DOME GRATE SHALL BE ADS NYLOPLAST, 18 IN DOME GRATE MODEL NUMBER 1899CGD, OR APPROVED EQUAL.

18" DOME GRATE DETAIL
NO SCALE



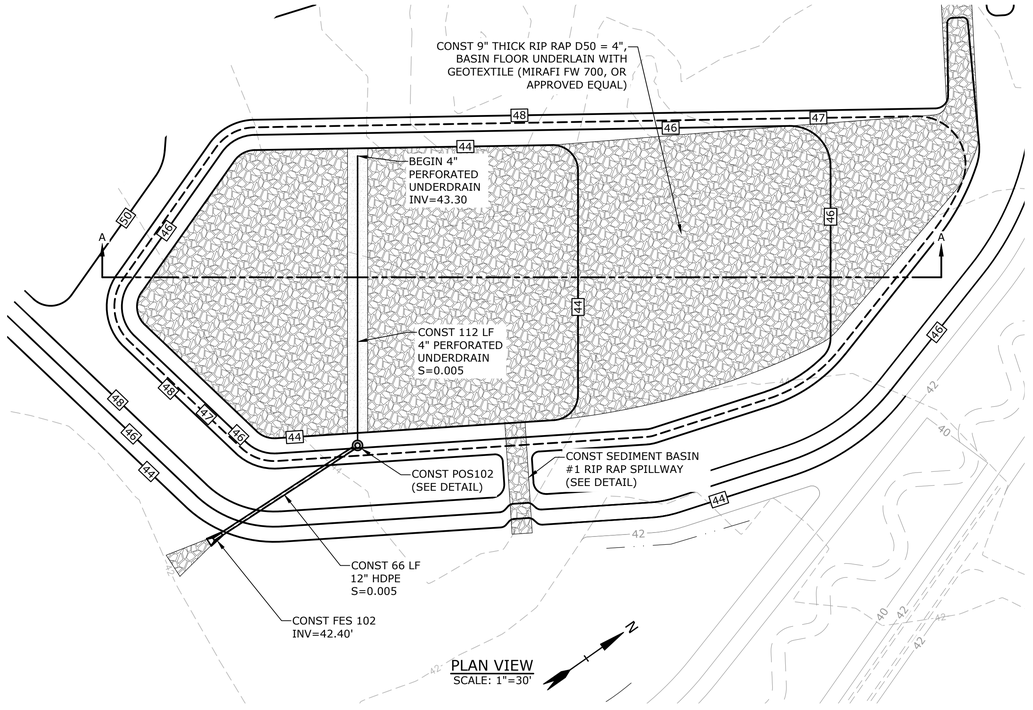
NOTE:
1. SEE SEDIMENT BASIN #1 DETAIL FOR LOCATION.

SEDIMENT BASIN #1 RIPRAP SPILLWAY
NO SCALE

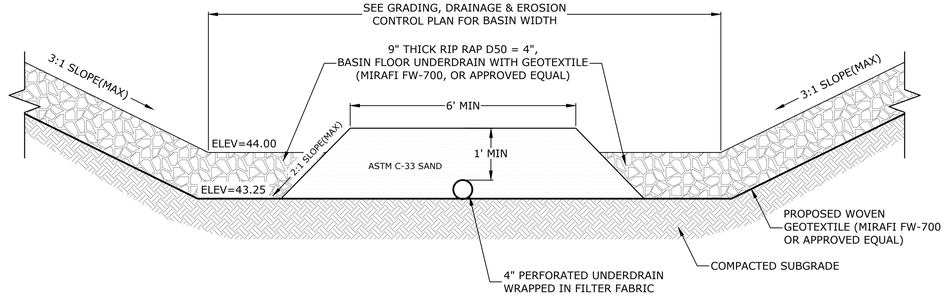


TEMPORARY CONVEYANCE SWALE
NO SCALE

NOTE:
1. CONTRACTOR TO INSTALL TEMPORARY CHECK DAMS AS NEEDED IN ACCORDANCE WITH NHDES REGULATIONS.



PLAN VIEW
SCALE: 1"=30'



SECTION A-A

NOTES:
1. UNDERDRAIN SAND SHALL BE ASTM C-33 CONCRETE SAND.
2. 4" PERFORATED UNDERDRAIN SHALL BE ADS SB2 LEACH BED PIPE OR APPROVED EQUAL.

TEMPORARY SEDIMENT BASIN 1
NO SCALE

Tighe&Bond

STATE OF NEW HAMPSHIRE · NEIL A. HANSEN No. 15227 · LICENSED PROFESSIONAL ENGINEER ·
9/27/2023

STATE OF NEW HAMPSHIRE · PATRICK CRIMMINS No. 12378 · LICENSED PROFESSIONAL ENGINEER ·
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Lonza Biologics

Portsmouth,
New Hampshire

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DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

DETAILS SHEETS

SCALE: AS SHOWN

C-510

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Plot Date: Wednesday, September 27, 2023 1:48 PM By: Christine Krzciuk
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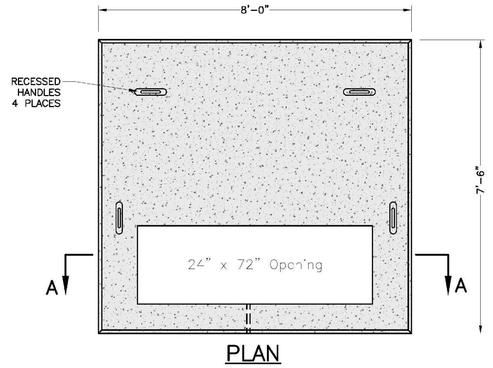
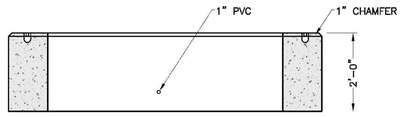


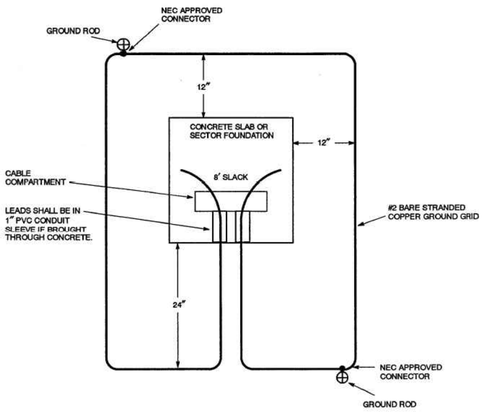
PLAN



SECTION A–A

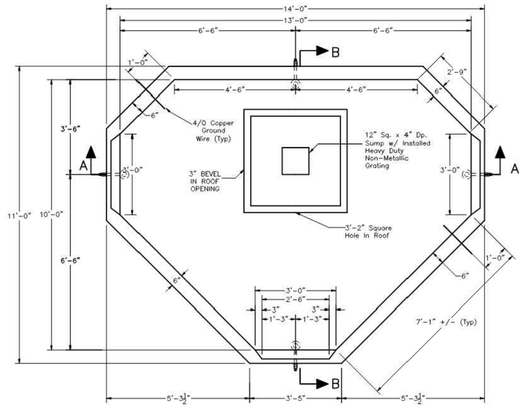
NOTES:
1. DIMENSIONS SHOWN REPRESENT TYPICAL REQUIREMENTS. MANHOLE LOCATIONS AND REQUIREMENTS SHALL BE COORDINATED WITH EVERSOURCE PRIOR TO CONSTRUCTION
2. CONCRETE MINIMUM STRENGTH - 4,000 PSI @ 28 DAYS
3. STEEL REINFORCEMENT - ASTM A615, GRADE 60
4. PAD MEETS OR EXCEEDS EVERSOURCE SPECIFICATIONS
5. TRANSFORMER PAD SHALL BE REVIEWED AND APPROVED BY EVERSOURCE PRIOR TO CONSTRUCTION.

TRANSFORMER PAD DETAIL
NO SCALE

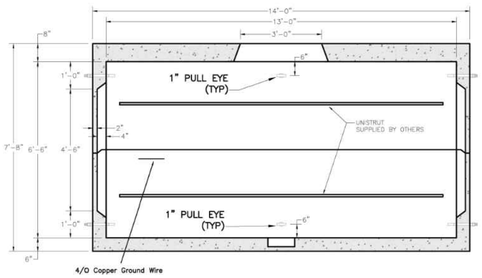


NOTES:
1. THE GROUND GRID SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR AND IS TO BE BURIED AT LEAST 12 INCHES BELOW GRADE. EIGHT FEET OF EXTRA WIRE FOR EACH GROUND GRID LEG SHALL BE LEFT EXPOSED IN THE CABLE COMPARTMENT TO ALLOW FOR THE CONNECTION TO THE TRANSFORMER. THE TWO 8-FOOT GROUND RODS MAY BE EITHER GALVANIZED STEEL OR COPPERWELD AND THEY SHALL BE CONNECTED TO THE GRID WITH NEC APPROVED CONNECTORS.

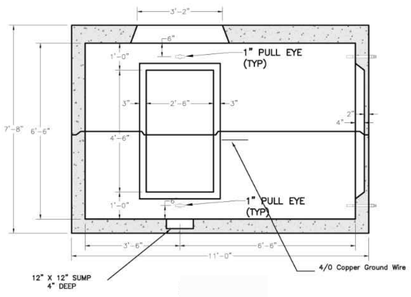
TYPICAL PAD-MOUNTED EQUIPMENT GROUNDING GRID DETAIL
NO SCALE



PLAN



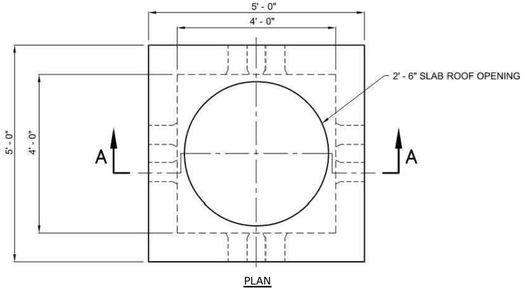
SECTION A-A



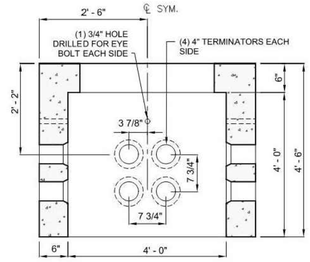
SECTION B-B

NOTES:
1. DIMENSIONS SHOWN REPRESENT TYPICAL REQUIREMENTS. MANHOLE LOCATIONS AND REQUIREMENTS SHALL BE COORDINATED WITH EVERSOURCE PRIOR TO CONSTRUCTION
2. CONCRETE MINIMUM STRENGTH - 5,000 PSI @ 28 DAYS
3. STEEL REINFORCEMENT - ASTM A615, GRADE 60
4. MINIMUM STEEL COVER - 1 INCH
5. DESIGN LOADING - AASHTO HS20-44
6. EXTERIOR COATING PROVIDED
7. ELECTRIC MANHOLE SHALL BE REVIEWED AND APPROVED BY EVERSOURCE PRIOR TO CONSTRUCTION.

3-WAY ELECTRIC MANHOLE
NO SCALE



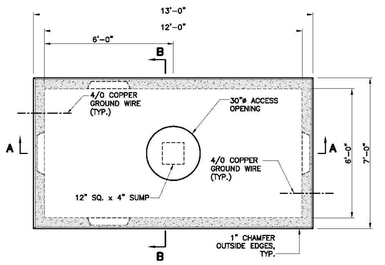
PLAN



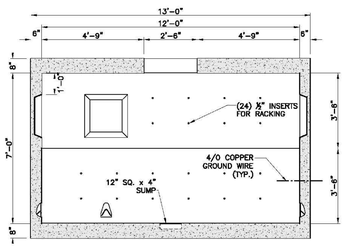
SECTION A-A

NOTES:
1. DIMENSIONS SHOWN REPRESENT TYPICAL REQUIREMENTS. HAND HOLE LOCATIONS AND REQUIREMENTS SHALL BE COORDINATED WITH THE UTILITY COMPANY TO CONSTRUCTION.
2. CONCRETE MINIMUM STRENGTH - 5,000 PSI @ 28 DAYS
3. STEEL REINFORCEMENT - ASTM A615, GRADE 60
4. HAND HOLE SHALL BE REVIEWED AND APPROVED BY THE UTILITY COMPANY PRIOR TO CONSTRUCTION.

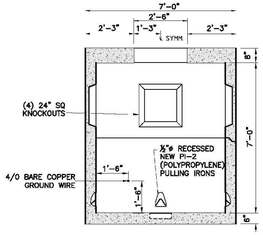
COMMUNICATIONS HAND HOLE DETAIL
NO SCALE



PLAN

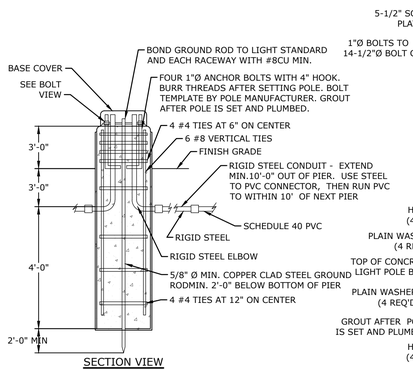


NOTES:
1. DIMENSIONS SHOWN REPRESENT TYPICAL REQUIREMENTS. MANHOLE LOCATIONS AND REQUIREMENTS SHALL BE COORDINATED WITH EVERSOURCE PRIOR TO CONSTRUCTION
2. CONCRETE MINIMUM STRENGTH - 5,000 PSI @ 28 DAYS
3. STEEL REINFORCEMENT - ASTM A615, GRADE 60
4. MINIMUM STEEL COVER - 1 INCH
5. DESIGN LOADING - AASHTO HS20-44
6. EXTERIOR COATING PROVIDED
7. ELECTRIC MANHOLE SHALL BE REVIEWED AND APPROVED BY EVERSOURCE PRIOR TO CONSTRUCTION.

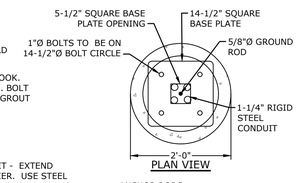


SECTION B-B

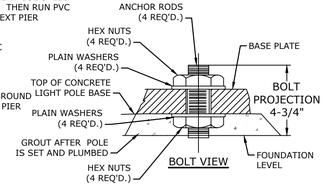
TYPICAL ELECTRIC MANHOLE
NO SCALE



SECTION VIEW



PLAN VIEW



BOLT VIEW

NOTES:
1. PAINT BASE SAFETY YELLOW (UNLESS PROTECTED BY CURBED ISLAND).
2. CONCRETE TO BE CLASS A, 4000 PSI, AIR ENTRAINED STEEL TO BE 60 KSI
3. REFER TO ELECTRICAL PLANS FOR WIRING DETAILS.
4. LIGHT POLE BASE DETAIL FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL, TO INCLUDE PERFORMANCE SPECIFICATIONS, CALCULATIONS AND NH LICENSED STRUCTURAL ENGINEER'S STAMP FOR LIGHT POLE FOUNDATION.

TYPICAL LIGHT POLE BASE
NO SCALE

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9/27/2023

STATE OF NEW HAMPSHIRE - PATRICK CRIMMINS No. 12378 LICENSED PROFESSIONAL ENGINEER
9/27/2023

Proposed Industrial Development

Lonza Biologics

Portsmouth, New Hampshire

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DRAWN BY:	CJK
CHECKED:	NAH
APPROVED:	PMC

DETAILS SHEETS

SCALE: AS SHOWN

C-511

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Plot Date: Wednesday, September 27, 2023 Plotted By: CKRZCIUK
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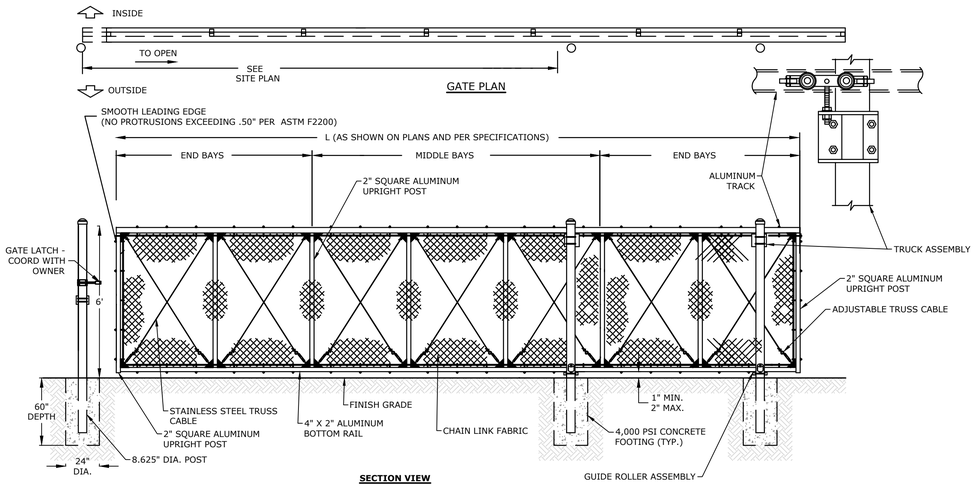
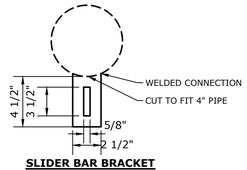


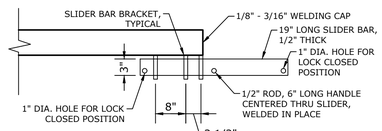
SECTION VIEW

NOTES:
1. ALL GATE FRAMES SHALL BE A MINIMUM 1.90" NOMINAL (ROUND) OR 2.00" NOMINAL (SQUARE). GATE FRAMES SHALL BE OF WELDED CONSTRUCTION OR SHALL BE ASSEMBLED USING HEAVY FITTINGS. AT CONTRACTOR'S OPTION A WELDED HORIZONTAL BRACE MAY BE USED IN LIEU OF TRUSS RODS TO BRACE ALL-WELDED GATE FRAMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER RIGID CONSTRUCTION OF ALL GATES SUPPLIED.
2. CONTRACTOR TO VERIFY REQUIRED NUMBER OF GUIDE ROLLERS WITH MANUFACTURER PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL VERIFY CANTILEVER POST SPACING WITH MANUFACTURER PRIOR TO CONSTRUCTION TO ENSURE SMOOTH OPERATION.

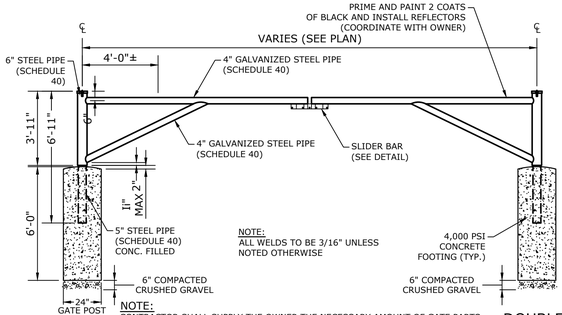
CANTILEVERED SLIDING GATE
NO SCALE



SLIDER BAR BRACKET

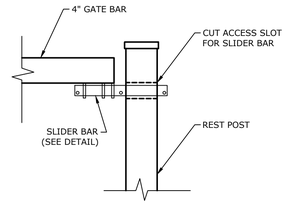


SLIDER BAR

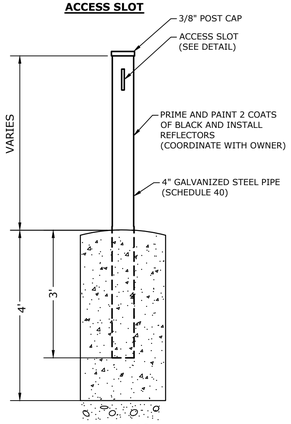


NOTE:
CONTRACTOR SHALL SUPPLY THE OWNER THE NECESSARY AMOUNT OF GATE PARTS AND ACCESSORIES FOR THE INTENDED PROPER FUNCTIONALITY OF THE GATE AND SLIDER BAR LATCH AS SHOWN ON THE PLANS AT SOLE DISCRETION OF THE OWNER.

DOUBLE SWING GATE
NO SCALE



ACCESS SLOT



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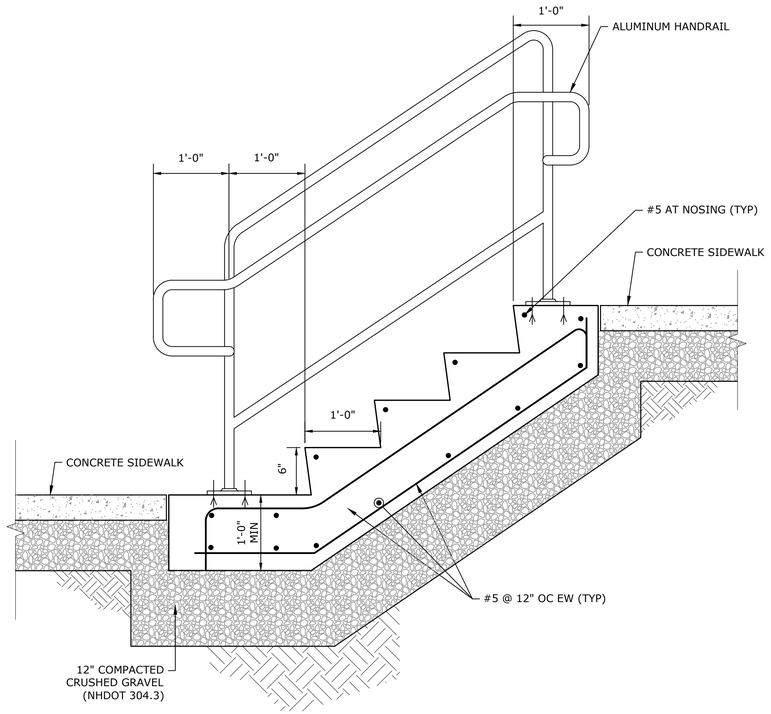
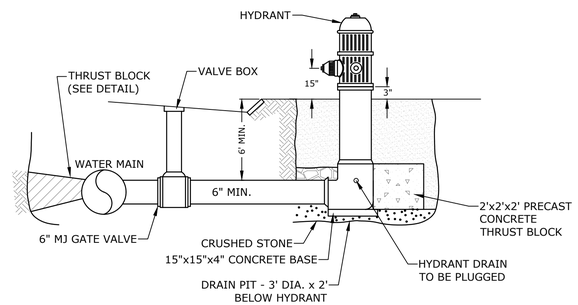


CONCRETE STAIRS AND HANDRAIL
NO SCALE



NOTES:
1. HYDRANT TO BE KENNEDY TYPE K-81, RIGHT OPEN (NO EQUAL). COORDINATE WITH CITY OF PORTSMOUTH WATER DEPARTMENT AND CITY OF PORTSMOUTH FIRE DEPARTMENT.
2. PAINT HYDRANT IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS AFTER INSTALLATION AND TESTING.

FIRE HYDRANT
NO SCALE

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SCALE: AS SHOWN

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Peter M. Stith, AICP
Planning Manager
City of Portsmouth
Planning & Sustainability Department
1 Junkins Avenue
Portsmouth, NH 03801

October 3, 2023

Ref. T1399

Re: Proposed Lonza Biologics Expansion
Traffic Engineering Peer Review

Dear Mr. Stith:

On behalf of the City of Portsmouth, TEC, Inc. (TEC) has reviewed documents as part of the traffic engineering peer review for the proposed expansion of the Lonza Biologics, Inc. ("the Applicant") manufacturing campus along Corporate Drive in Portsmouth ("the Project"). The Project consists of constructing approximately 800,000 square feet of gross floor area supporting manufacturing, utility, and office space needs; and a new parking structure on a mainly undeveloped parcel as part of the Applicant's master plan. A portion of the Project was previously permitted and approved by the Planning Board in January 2019 with several conditions. The proposed expansion proposal includes one new full-access driveway that will utilize the former Goose Bay Drive right-of-way. The following documents were considered as part of our review:

- *Transportation Impact Assessment – Lonza Biologics*; prepared by Tighe & Bond, dated July 17, 2023;
- *Site Plans – Proposed Industrial Development – 70 & 80 Corporate Drive*, Portsmouth, NH; prepared by Tighe & Bond, dated July 17, 2023; and
- Other project related correspondence.

TEC completed a review of the Applicant's documents on behalf of the City of Portsmouth and provides the following transportation-related comments that we compiled during our review.

Traffic Impact Assessment

1. The Traffic Impact and Access Study (TIAS) prepared by Tighe & Bond (T&B) included the intersections that provide key access to the Project site and following supplemental intersections within the study area as requested by the Planning Board in Condition 2.11:
    - Gosling Road/ Spaulding Turnpike Intersection
    - International Drive/Corporate Drive/Manchester Square Intersection
    - International Drive/Pease Blvd Intersection
    - New Hampshire Ave/International Dr./Corporate Dr./Durham St. Intersection
    - Corporate Drive/Grafton Drive Intersection
    - NH 33/ Grafton Drive Intersection

    TEC concurs with the Applicant's expanded study area. *No response required.*

2. Traffic volume counts, including Turning Movement Counts (TMCs) and Automatic Traffic Recorder (ATR) data, were conducted at the study area intersections in February 2022 and March 2023. The recorded volumes for both periods were found to be below the peak monthly conditions based on historical traffic-volume data obtained from NHDOT records, and therefore T&B applied an appropriate adjustment factor. The data was also further adjusted to reflect a COVID adjustment factor of 16% to 53% based on current NHDOT protocols. We believe these adjustments will result in a *highly conservative* assessment of the future No-Build scenario (without the influence of the trips associated with the Project). *No response required*.

3. The weekday morning and weekday evening peak "commuter" hours were studied to determine the project's overall effect on the roadway. TEC concurs that these selected time periods are appropriate as the peak hours of the industrial development typically overlap with the peak hours of the adjacent street system. We understand that the Applicant currently manages their employee shift times to avoid the actual peak traffic hours. *No response required*.

4. The TIA presents motor vehicle crash data for each study area intersection. The crash data indicates the number, type, and severity of crashes at the study area intersections between 2019 and 2021 obtained from the City of Portsmouth Police Department. The TIA summarizes the general crash statistics. Given the influence of the pandemic, the data from 2020 and 2021 may not provide the most accurate data given the depressed traffic volumes during that time. However, given the data compiled for 2019, TEC concurs with the crash analysis methodology and findings based on the compiled data. *No response required.*

5. The background growth rate of 1.0 percent per year was applied to the 2022/2023 existing volumes to generate the 2025 and 2035 future year volumes per NHDOT guidelines. The traffic projections also included estimated trips associated with other remaining development parcels in the Pease Development Authority (PDA) master plan, including 100 New Hampshire Avenue. Given the COVID adjustments noted in Comment #2, the ambient traffic growth and other background trips, TEC believes the traffic projections are highly conservative. *No response required.*

6. The Project's trip generation calculations for the proposed expansion of 800,000 square feet were based on the estimated 1,020 new employees and a prorated relationship to the traffic that was generated by the 1,139 existing employees as of 2018. This estimate of new trips may be based on the older data for the Lonza site during a time when they had a predominant in-person work environment. The T&B trip projections however fall well below the calculations based on the ITE *Trip Generation Manual, 11th Edition,* Land Use Codes (LUCs) 110 (General Light Industrial) and 140 (Manufacturing) when using floor area as the independent variable. This may be the result of the Applicant's proactive management of the employee shift times. If the shift times overlap with the actual peak hours for the adjacent street system, the Applicant's traffic impacts will be greater. The Planning Board should consider a condition of approval that mandates that the Applicant maintains shift times that do not overlap with the documented morning and evening peak hours for Corporate Drive and International Drive unless otherwise approved by the Board after considering updated traffic data and trip generation information. TEC further recommends that the Board request a daily traffic count for the proposed site access point to better understand the hourly distribution of traffic over the course of several weekdays.

7. The TIA included a distribution analysis for the new trips that was based on the zip code data for the current Lonza employees' place of residence. Given the significant number of new employees, TEC recommends that the Applicant perform a supplemental sensitivity analysis using U.S. Census data and limited travel time runs to confirm the percentage of traffic that is expected to use each gateway to the Pease Tradeport.

8. The Build traffic volumes were grown to 2025 and 2035 to cover an opening year and 10-year planning horizon from time of data collection (2022/2023). TEC concurs with this methodology as these scenarios align with NHDOT Transportation Impact Assessment (TIA) Guidelines. *No response required.*

9. Although the projections may be conservative, TEC generally concurs with the results of the capacity and queue analysis provided as part of the TIA utilizing Highway Capacity Manual (HCM) 6th Edition methodology for the study area intersections. The 2035 Build condition shows some concerning levels of service with high delays for certain traffic movements that are acutely related to the commuter traffic into Pease Tradeport in the morning and departing in the late afternoon and evening peak hours.

10. The Applicant should provide a queue analysis for the proposed driveway gate system to ensure that entering traffic will not queue onto Corporate Drive.

11. The TIA documents substantial delays for the exiting employee traffic during the evening peak hour within the single departure lane. The Applicant should consider separate left- and right-turn lanes at the driveway intersection with Corporate Drive.

12. TEC recommends that the Applicant coordinate with PDA to perform supplemental all-way stop control (AWSC) and traffic signal warrant analysis for the following intersections:

    a. Corporate Drive at Grafton Road

    b. International Drive at New Hampshire Avenue / Durham Street

    c. International Drive / Corporate Drive (for the 2025 Opening Build condition)

13. The TIA states that the intersection of International Drive / Corporate Drive is programmed for NHDOT funding for intersection reconstruction and signalization within the State's 10-year plan. Depending on the actual timing of the project, the Applicant should coordinate with PDA and consider measures for the temporary signalization of this intersection. This should be closely coordinated with a potential condition of approval related to the Applicant's responsibility to provide updated traffic data following the occupancy of Building 1 (and other subsequent buildings) and assess the actual delays and queuing for this key gateway intersection.

14. The intersection of Greenland Road (Route 33) / Grafton Road, a State-controlled intersection, is currently overcapacity for different traffic movements during the peak hours. Although TEC does not believe that direct physical mitigation is warranted for the Applicant at this intersection, the City and PDA should work with NHDOT to identify long-range improvements to add capacity to this intersection.

15. Based on the results of the capacity and warrant analyses listed above, the Applicant should coordinate with PDA and other applicants within Pease Tradeport to develop a fair-share cost assessment for mitigation measures based on the number of new trips.

16. Corporate Drive currently accommodates an exclusive left-turn lane for the Residence Inn and Redhook Way that traverses the opening for Goose Bay Drive (site driveway). The

Applicant should review the potential for lane use changes within Corporate Drive that may consider an exclusive left-turn lane for Lonza's entering traffic. Any planned improvements should consider an enhanced pedestrian crossing between the Lonza site and the existing COAST bus stop on the opposite side of Corporate Drive in the vicinity of Redhook Way, including a new bus shelter to provide additional accommodations for existing and future transit riders.

17. The TIA does not include any parking occupancy data for the existing Lonza site and does not provide an analysis of the proposed parking supply in relation to the projected number of employees in Phase 2 and the Site Master Plan. The supply may indeed be appropriate based on the number of employees on each shift but should be confirmed with a reasonable level of parking analysis in relation to the zoning requirements.

18. The Applicant should coordinate with the City, PDA, and COAST to review the current ridership along Bus Route 42 related to the Lonza facility and identify opportunities for coordinated service schedules and potential bus route changes for Route 13 (Dover) and Route 14 (Rochester) to further reduce single-occupancy vehicle trips for several PDA employers.

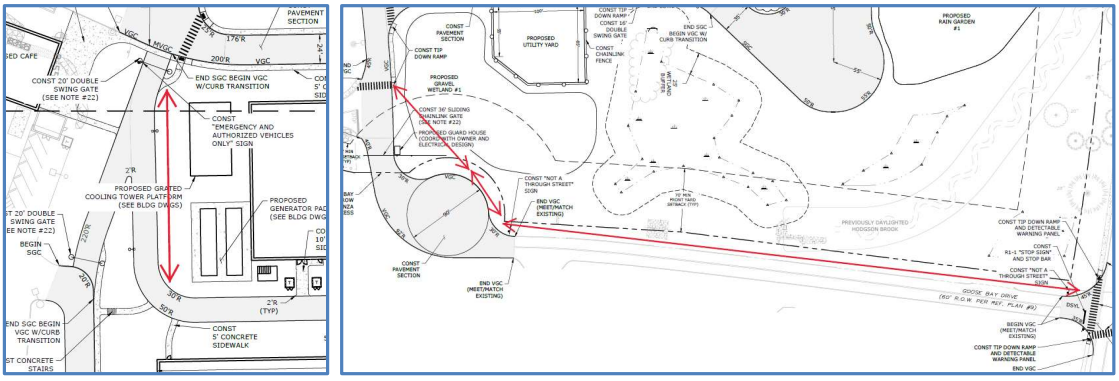
Site Plans

19. The site plan currently depicts enclosed truck and trailer staging for deliveries. The Applicant should confirm that they do not require any exterior trailer parking as none is currently shown. TEC recommends that the Board considers a condition that prohibits exterior trailer storage in areas that are not specifically identified on the plan.

20. One trash compactor is located near the southerly corner of Building #1. The Applicant should confirm that they do not need additional exterior dumpsters for each building and confirm the truck circulation for any newly proposed locations.

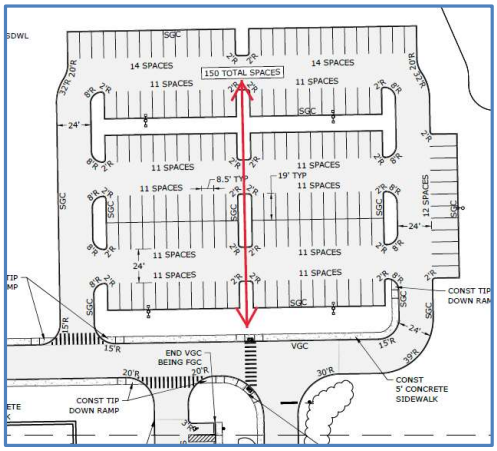
21. The plans should include additional details for the signs and striping for the gated access points to the site. This may include additional roadway striping at the end of the Goose Bay Drive cul de sac to delineate the transition to the proposed private way.

22. TEC recommends the construction of additional sections of on-site sidewalks within the Phase 2 area to provide a sidewalk circuit for employees that desire to walk during breaks without unnecessarily traversing the busier on-site driveway aisles. This may include a new sidewalk along the northwesterly edge of Goose Bay Drive to connect to the recently constructed sidewalk along Corporate Drive and another segment south of the proposed 3-story utility building (shown in red below).



23. Pedestrian warning signs should be provided at the major on-site crosswalks that would cross the major routes to and from the existing and proposed parking structures. The crosswalk widths should be noted on the plans and in the construction details.

24. The 150-stall surface parking for Phase 2 should include a defined sidewalk connection from the outlying parking aisle to the currently proposed sidewalk. This could be considered within a wider landscape island in the middle of the parking lot as shown below.



25. One proposed bike rack is depicted near the southerly corner of Building #2 in the Site Master Plan. The Applicant should consider additional bike racks at the major entrances to the proposed buildings, such as Building #1 in Phase 2, and covered bicycle parking on the ground floor of the proposed 700-stall parking structure in the site master plan.

Please do not hesitate to contact me if you have any questions concerning our peer review at 603-601-8154. Thank you for your consideration.

Sincerely,
TEC, Inc.
*"**T**he **E**ngineering **C**orporation"*

Kevin R. Dandrade, P.E., PTOE
Principal

210700-026
October 24, 2023

Peter Stith, AICP
Planning Manager
Department of Planning & Sustainability
City Hall, 3rd Floor
1 Junkins Avenue
Portsmouth, NH 03801

Re: **Lonza Biologics Proposed Expansion**
Traffic Peer Review Response 1

Dear Mr. Stith:

Tighe & Bond has prepared this letter in response to peer review comments on the subject project received from The Engineering Corp (TEC) in a letter dated October 3, 2023. For ease of review, TEC comments are repeated herein in *italics*, followed by our response for each in **bold**. Comment responses are provided herein for comments on the Traffic Impact Study (TIS); responses to site plan comments will be provided under separate cover.

Traffic Impact Assessment Comments

Comments 1 through 5 were informational, and no response is required.

Comment 6: *The Project's trip generation calculations for the proposed expansion of 800,000 square feet were based on the estimated 1,020 new employees and a prorated relationship to the traffic that was generated by the 1,139 existing employees as of 2018. This estimate of new trips may be based on the older data for the Lonza site during a time when they had a predominant in-person work environment. The T&B trip projections however fall well below the calculations based on the ITE Trip Generation Manual, 11th Edition, Land Use Codes (LUCs) 110 (General Light Industrial) and 140 (Manufacturing) when using floor area as the independent variable. This may be the result of the Applicant's proactive management of the employee shift times. If the shift times overlap with the actual peak hours for the adjacent street system, the Applicant's traffic impacts will be greater. The Planning Board should consider a condition of approval that mandates that the Applicant maintains shift times that do not overlap with the documented morning and evening peak hours for Corporate Drive and International Drive unless otherwise approved by the Board after considering updated traffic data and trip generation information. TEC further recommends that the Board request a daily traffic count for the proposed site access point to better understand the hourly distribution of traffic over the course of several weekdays.*

Response: **Site-specific data was utilized in the trip generation estimate in lieu of ITE data based on the specialized use of the proposed building. It is generally desirable to utilize site-specific data if available. It is important to note that Lonza continues to operate under a hybrid work policy, averaging over 60% employees working in the office on work days between June 2023 and October 2023. The trip generation estimate was based on existing employee data assuming**

a fully occupied building and did not account for the current hybrid work policy. In addition, no trip reduction credit was taken for future employees working from home. As noted in the Traffic Study, "trip generation is based on the peak hour of the generator and applied to the peak hour of the study area network, which also results in a conservative approach". Based on these assumptions, the proposed trip generation represents a conservative estimate of predicted site trips.

Employee parking garage badge swipes obtained from October 10 to 12, 2023, indicate approximately half of existing employees arrive prior to the current peak hour, which begins at 7:15 AM. Therefore, while there may be some amount of overlap between proposed arriving site trips and the network peak hour, much of the site traffic is estimated to arrive prior to the 7:00 to 9:00 AM period.

Comment 7: *The TIA included a distribution analysis for the new trips that was based on the zip code data for the current Lonza employees' place of residence. Given the significant number of new employees, TEC recommends that the Applicant perform a supplemental sensitivity analysis using U.S. Census data and limited travel time runs to confirm the percentage of traffic that is expected to use each gateway to the Pease Tradeport.*

Response: **Employee zip code data was used as a basis for the trip distribution following a request by the City of Portsmouth Technical Advisory Committee (TAC) during the previous Lonza Master Planning effort. While site-specific employee zip code data may provide a more realistic estimate of travel patterns, U.S. Census data was also reviewed as part of a sensitivity analysis. The comparison shows minor deviations in estimated travel patterns with a slightly higher proportion of traffic (80%) traveling toward Gosling Road and the Spaulding Turnpike interchange, amounting to an increase of 6 trips during the weekday morning peak hour and 14 trips during the weekday afternoon peak hour. The minor changes in traffic volumes are not expected to significantly impact traffic operations beyond what was presented in the TIS.**

Travel times to/ from the major interchanges (I-95 and Spaulding Turnpike) were accounted for when developing the trip distribution. Based on existing travel patterns, it is anticipated that the majority of site traffic from the south will access the site via Spaulding Turnpike. However, the regional trip distribution does recognize 15% of traffic to/ from the south on I-95 will utilize Route 33, while 10% will utilize Spaulding Turnpike.

Comment 9: *Although the projections may be conservative, TEC generally concurs with the results of the capacity and queue analysis provided as part of the TIA utilizing Highway Capacity Manual (HCM) 6th Edition methodology for the study area intersections. The 2035 Build condition shows some concerning levels of service with high delays for certain traffic movements that are acutely related to the commuter traffic into Pease Tradeport in the morning and departing in the late afternoon and evening peak hours.*

Response: **No response required.**

Comment 10: *The Applicant should provide a queue analysis for the proposed driveway gate system to ensure that entering traffic will not queue onto Corporate Drive.*

Response: **The proposed gate system location was determined based on a queueing analysis at the proposed location that was previously conducted during the master planning effort. Based on the analysis, a third reversible lane was added to accommodate queues. It is important to note that this analysis was based on a higher number of proposed employees than what is currently proposed. Therefore, the available storage along Goose Bay Drive between Corporate Drive and the proposed gate system is in excess of what is required for the proposed future trips.**

Comment 11: *The TIA documents substantial delays for the exiting employee traffic during the evening peak hour within the single departure lane. The Applicant should consider separate left- and right-turn lanes at the driveway intersection with Corporate Drive.*

Response: **The vehicle delays estimated on Goose Bay Drive during the weekday afternoon peak hour are largely due to the high volume of left-turning vehicles onto Corporate Drive. A sensitivity analysis indicates long delays will continue even if dedicated left- and right-turn lanes are added. In addition, any widening of Goose Bay Drive is not possible due to the previously capped soils on the northeast side of the roadway as well as the proximity of the recently constructed parking lot adjacent to the existing parking garage.**

Comment 12: *TEC recommends that the Applicant coordinate with PDA to perform supplemental all-way stop control (AWSC) and traffic signal warrant analysis for the following intersections:*

a. *Corporate Drive at Grafton Road*
b. *International Drive at New Hampshire Avenue / Durham Street*
c. *International Drive / Corporate Drive (for the 2025 Opening Build condition)*

Response: **Please see enclosed PDA letter.**

Comment 13: *The TIA states that the intersection of International Drive / Corporate Drive is programmed for NHDOT funding for intersection reconstruction and signalization within the State's 10-year plan. Depending on the actual timing of the project, the Applicant should coordinate with PDA and consider measures for the temporary signalization of this intersection. This should be closely coordinated with a potential condition of approval related to the Applicant's responsibility to provide updated traffic data following the occupancy of Building 1 (and other subsequent buildings) and assess the actual delays and queuing for this key gateway intersection.*

Response: **Please see enclosed PDA letter.**

Comment 14: *The intersection of Greenland Road (Route 33) / Grafton Road, a State-controlled intersection, is currently overcapacity for different traffic movements during the peak hours. Although TEC does not believe that direct physical mitigation is warranted for the Applicant at this intersection,*

the City and PDA should work with NHDOT to identify long-range improvements to add capacity to this intersection.

Response: **No response required. Please see enclosed PDA letter.**

Comment 15: *Based on the results of the capacity and warrant analyses listed above, the Applicant should coordinate with PDA and other applicants within Pease Tradeport to develop a fair-share cost assessment for mitigation measures based on the number of new trips.*

Response: **Please see enclosed PDA letter.**

Comment 16: *Corporate Drive currently accommodates an exclusive left-turn lane for the Residence Inn and Redhook Way that traverses the opening for Goose Bay Drive (site driveway). The Applicant should review the potential for lane use changes within Corporate Drive that may consider an exclusive left-turn lane for Lonza's entering traffic. Any planned improvements should consider an enhanced pedestrian crossing between the Lonza site and the existing COAST bus stop on the opposite side of Corporate Drive in the vicinity of Redhook Way, including a new bus shelter to provide additional accommodations for existing and future transit riders.*

Response: **Based on the trip distribution, it is anticipated the majority of site generated traffic will enter Goose Bay Drive from the west, therefore a westbound exclusive left-turn lane would not be warranted. In addition, the exclusive eastbound left-turn lane is necessary to provide access to the Residence Inn and Red Hook Way. The Applicant will be adding a new sidewalk connection between the Lonza site and the existing bus stop location on Corporate Drive to improve access for transit users.**

Comment 17: *The TIA does not include any parking occupancy data for the existing Lonza site and does not provide an analysis of the proposed parking supply in relation to the projected number of employees in Phase 2 and the Site Master Plan. The supply may indeed be appropriate based on the number of employees on each shift but should be confirmed with a reasonable level of parking analysis in relation to the zoning requirements.*

Response: **The parking requirement for this site is 2 spaces per 3 employees during the largest shift based on the current PDA Land Use Controls. Based on this requirement and the existing and proposed employee counts, 1,326 spaces are required. 1,501 spaces will be provided as part of the project (801 existing parking spaces plus 700 proposed garage parking spaces) as indicated on Sheet C-104. The parking requirement for Phase 2 of the project is 880 spaces where 957 spaces will be provided (801 existing parking spaces plus 150 surface parking spaces) as indicated on Sheet C-164.**

Comment 18: *The Applicant should coordinate with the City, PDA, and COAST to review the current ridership along Bus Route 42 related to the Lonza facility and identify opportunities for coordinated service schedules and potential bus route changes for Route 13 (Dover) and Route 14 (Rochester) to further reduce single-occupancy vehicle trips for several PDA employers.*

Response: **The Applicant does not believe that the burden of coordinating with COAST to reconfigure their service routes or schedule should be placed on a single end user or tied to a specific planning approval.**

This would need to be a larger discussion involving the PDA and multiple other businesses at the Tradeport. However, the applicant is willing to be a participant in that discussion with COAST.

Site Plan Comments

Comment 19: *The site plan currently depicts enclosed truck and trailer staging for deliveries. The Applicant should confirm that they do not require any exterior trailer parking as none is currently shown. TEC recommends that the Board considers a condition that prohibits exterior trailer storage in areas that are not specifically identified on the plan.*

Response: **The Applicant does not require any exterior trailer parking. The loading docks will be used for active loading and unloading.**

Comment 20: *One trash compactor is located near the southerly corner of Building #1. The Applicant should confirm that they do not need additional exterior dumpsters for each building and confirm the truck circulation for any newly proposed locations.*

Response: **A second trash compactor has been added to the site adjacent to the Utility Building. Truck turning was studied to confirm access.**

Comment 21: *The plans should include additional details for the signs and striping for the gated access points to the site. This may include additional roadway striping at the end of the Goose Bay Drive cul-de-sac to delineate the transition to the proposed private way.*

Response: **The site plans include proposed striping and signage for traffic circulation, including directional signage for truck traffic and not a through street signage prior to the gated/fenced entrances to the site. A turnaround area has been located prior to the gates on the northern entrance and the cul-de-sac will allow for vehicles to turn around prior to the security gate at the southern entrance. The applicant is open to reviewing and considering any other specific recommendations.**

Comment 22: *TEC recommends the construction of additional sections of on-site sidewalks within the Phase 2 area to provide a sidewalk circuit for employees that desire to walk during breaks without unnecessarily traversing the busier on-site driveway aisles. This may include a new sidewalk along the northwesterly edge of Goose Bay Drive to connect to the recently constructed sidewalk along Corporate Drive and another segment south of the proposed 3-story utility building (shown in red below).*

Response: **The area to the west of the utility building is designed to be a multipurpose area to allow for pedestrian circulation and emergency fire access between the two buildings. A sidewalk connection along Goose Bay Drive to Corporate Drive was not included in the design for a couple of reasons. As that is the main entrance for all truck traffic to the site the applicant does not want to encourage their employees to be walking around an active delivery area. Additionally, the gated access at the cul-de-sac is a sliding chain link gate that does not have pedestrian access. For the current phase of work there will be full pedestrian access on the northern half of the site, and future phases of work will provide**

access to Corporate Drive away from the truck delivery access route.

Comment 23: *Pedestrian warning signs should be provided at the major on-site crosswalks that would cross the major routes to and from the existing and proposed parking structures. The crosswalk widths should be noted on the plans and in the construction details.*

Response: **Pedestrian warning signs will be added to the plans as recommended. Crosswalk Striping detail will be revised to note an 8' width.**

Comment 24: *The 150-stall surface parking for Phase 2 should include a defined sidewalk connection from the outlying parking aisle to the currently proposed sidewalk. This could be considered within a wider landscape island in the middle of the parking lot as shown below.*

Response: **A central sidewalk will be added through the 150 space parking area connecting to the currently proposed sidewalk.**

Comment 25: *One proposed bike rack is depicted near the southerly corner of Building #2 in the Site Master Plan. The Applicant should consider additional bike racks at the major entrances to the proposed buildings, such as Building #1 in Phase 2, and covered bicycle parking on the ground floor of the proposed 700-stall parking structure in the site master plan.*

Response: **The is a proposed bike rack near the entrance of Building 1 and near the southern corner of building 2. Adding space for bike storage with the future proposed parking garage will be considered once the design of that structure begins.**

Please contact us if you have any questions or comments on the responses above.

Sincerely,

TIGHE & BOND, INC.

Greg Lucas, PE (MA, NH), PTOE, RSP1
Senior Project Manager

Neil A. Hansen, PE
Project Manager

Enclosures: PDA TEC Peer Review Response Letter, dated October 24, 2023

Copy: Lonza
Pease Development Authority

J:\L\L0700 Lonza Biologics Expansion was 1576F\026_Project Albacore\Report_Evaluations\Traffic Study\Peer Review 1 (October 2023)\2023-10-24 Traffic Peer Review Response Letter 1.docx

PEASE
INTERNATIONAL
DEVELOPMENT
AUTHORITY

55 International Drive Portsmouth, NH 03801

October 24, 2023

Peter Stith, AICP
Planning Manager
Department of Planning & Sustainability
City of Portsmouth, NH
1 Junkins Avenue
Portsmouth, NH 03801

Re: Lonza Phase 2 Planning Board Application
TEC Peer Review of Traffic Impact Assessment

Dear Mr. Stith:

The Engineering Corp (TEC) peer review of the proposed Lonza Biologics Phase 2 Expansion Traffic Impact Assessment (TIA) dated October 3, 2023 has recommended the applicant coordinate with Pease Development Authority (PDA) on a number of transportation related topics. I am writing to provide information that will hopefully provide some clarity to assist the Planning Board with making the most informed recommendation to the PDA Board regarding this application. The specific comments are addressed as follows:

TEC Comment # 12: TEC recommends that the applicant coordinate with PDA to perform supplemental all-way stop control (AWSC) and traffic signal warrant analysis for the following intersections:

a. *Corporate Drive at Grafton Road*
b. *International Drive at New Hampshire Avenue / Durham Street*
c. *International Drive / Corporate Drive (for the 2025 Opening Build condition)*

PDA Response: Vanasse Hagen Brustlin, Inc. (VHB), PDA's on call transportation engineer, performed vehicle counts in 2016, as a supplement to the Pease Transportation Master Plan Update of 2010, when it was determined that the intersections of Corporate Dr/Grafton Rd and International Dr/New Hampshire Ave/Durham St met the warrants for a signal. The International Dr/Corporate Dr/Manchester Sq intersection did not meet the signal warrant at that time. Given traffic has yet to return to pre-pandemic levels, the PDA remains confident in that analysis, but notes that the intersection in question is currently under an AWSC.

TEC Comment # 13: The TIA states that the intersection of International Drive / Corporate Drive is programmed for NHDOT funding for intersection reconstruction and signalization within the State's 10-year plan. Depending on the actual timing of the project, the applicant should coordinate with PDA and consider measures for the temporary signalization of this intersection. This should be closely coordinated with a potential condition of approval related to the Applicants responsibility to provide updated traffic data following the occupancy of Building 1 (and other subsequent buildings) and assess the actual delays and queuing for this key gateway intersection.

PDA Response: As stated in the response to comment #12, the International Dr/Corporate Dr/Manchester Sq intersection did not meet the signal warrant in the analysis performed in 2016. Since that time, the pandemic has reduced traffic on the Tradeport due to remote work policies instituted by employers located on the Tradeport. In addition, the 2023 peak hour volumes at this intersection remain below the 2016 volumes. As such, a signal is unnecessary until it is warranted based on the data.

TEC comment # 14: The intersection of Greenland Road (Route 33) / Grafton Road, a State-controlled intersection, is currently overcapacity for different traffic movements during the peak hours. Although TEC does not believe that direct physical mitigation is warranted for the Applicant at this intersection, the City and PDA should work with NHDOT to identify long-range Improvements to add capacity to this intersection.

PDA response: As stated, this intersection is a state-controlled intersection under the sole jurisdiction of the NHDOT. As such, PDA has no jurisdiction with respect to improvements at this intersection. To the extent PDA is able share Tradeport data or information helpful to the City of Portsmouth or NHDOT regarding this intersection, it will do so. Furthermore, it is important to note that traffic on Route 33 is related to many factors. According to the TIA, of the 1439 vehicles that were counted passing through this intersection, heading north or east bound, during the weekday morning peak hour, only 337, or less than 25%, turned into Pease. 1,102 vehicles continued through the intersection towards I-95 North and the City of Portsmouth.

TEC Comment # 15: Based on the results of the capacity and warrant analyses listed above, the applicant should coordinate with PDA and other applicants within Pease Tradeport to develop a fair-share cost assessment for mitigation measures based on the number of new trips.

PDA response: The PDA Board of Directors, as the governing body of the PDA under state law, has considered this policy recommendation in the past, but has decided to fund intersection improvements on the Tradeport itself. Based on traffic studies it has undertaken, PDA has currently secured three grants though NHDOT for intersection improvements at New Hampshire Ave/Pease Blvd, Corporate Dr/International Dr/Manchester Sq, and Grafton Rd / Pease Golf Course. Furthermore, PDA continues to plan for improvements at four additional intersections VHB has identified as priorities in PDA's Capital Improvement Plan.

Sincerely,

Michael R. Mates, P.E.
Director of Engineering

cc: Peter Britz, City of Portsmouth (VIA Email)
Neil Hanson, Tighe & Bond, Inc. (VIA Email)
Luke St. Pierre, Lonza, (VIA Email)

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TheEngineeringCorp.com
Create | Design | Innovate

Peter M. Stith, AICP
Planning Manager
City of Portsmouth
Planning & Sustainability Department
1 Junkins Avenue
Portsmouth, NH 03801

November 8, 2023

Ref. T1399

Re: Proposed Lonza Biologics Expansion
Traffic Engineering Peer Review #2

Dear Mr. Stith:

On behalf of the City of Portsmouth, TEC, Inc. (TEC) reviewed follow-up documentation as part of our firm's traffic engineering peer review for the proposed expansion of the Lonza Biologics, Inc. ("the Applicant") manufacturing campus along Corporate Drive in Portsmouth ("the Project"). TEC reviewed the following document as part of our follow-up review:

- *Lonza Biologics Proposed Expansion – Traffic Peer Review Response 1*; prepared by Tighe & Bond and dated October 24, 2023.

TEC completed a review of the Applicant's documents on behalf of the City of Portsmouth and provides the following transportation-related considerations as part of our review.

Traffic Impact Assessment

The Applicant's team provided helpful responses to our prior written comments related to the preparation of future traffic volumes in Pease Tradeport and its access points, both for background traffic volumes and the methodology for the estimate of new trips to be generated by the proposed expansion. They also provided a letter from the Pease International Development Authority (PDA) regarding their opinion of the current and future traffic operating conditions within their jurisdiction with references to their 2010 Master Plan Update.

TEC continues to encourage the Applicant and PDA, as the entity with jurisdiction over the roadway infrastructure, to assess the post-COVID and/or post-occupancy traffic data collection, traffic signal warrant analyses, and capacity analyses for the following intersections following substantial occupancy (>75%) of the Phase 2 building:

- International Drive / Corporate Drive / Manchester Square
- International Drive / New Hampshire Avenue / Durham Street
- Corporate Drive / Grafton Road

We believe this will provide more accurate information about the PDA's future transportation needs and the timing and phasing of their planned infrastructure improvements as part of any updated PDA Master Plan documents.

Site Plans

The Applicant and their team responded to TEC's comments to indicate their on-site operational needs and preferences related to traffic, pedestrian, loading, and parking accommodations. TEC recommends that the Planning Department staff review plan updates to ensure that TEC's comments 20 through 24 have been reasonably incorporated into the Applicant's next site plan revision. See Tighe & Bond's letter for the Applicant's detailed responses.

Please do not hesitate to contact me if you have any questions concerning our peer review at 603-601-8154. Thank you for your consideration.

Sincerely,
TEC, Inc.
*"**T**he **E**ngineering **C**orporation"*

Kevin R. Dandrade, P.E., PTOE
Principal