

D	Project Name	BOXBOROUGH MICROBIOME THERAPIES CDMO PLANT EXPANSION I			PEC Activity Diagram	
	Industry Code	13 Pharmaceutical & Biotech		Project Type	Plant Expansion	
	TIV (USD)	50,000,000				
	SIC Code	2836 Biological Products, Except Diagnostic Substances		Sector	Final Formulation (Oral, Solid, Parenteral, Topical, etc.)	
	SIC Product	2836*0013 Biological and allied products: antitoxins, bacterins, vaccines, viruses, excec				
	Status	Active	Last Update	08-Mar-2022	Initial Release	10-Mar-2021
	Environmental	Air (A) Water (W)		Construction Labor Preference	Union, Non-Union	
				Operations Labor Preference	Union, Non-Union	
	Square Footage	Existing Sq. Ft. 130,000 Sq. Ft.				
		Retrofitted/Renovated Sq. Ft. 50,000 Sq. Ft.				
Plant Owner	Arranta Bio LLC		Plant Parent	Recipharm AB		
Plant Name	Boxborough Microbiome Therapies CDMO		Unit Name			
Plant ID	3451123		Phone	+1 508 962 9668		
Location	1414 Massachusetts Avenue		Zone/County	MA*01, Middlesex		
City/State	Boxborough, Massachusetts 01719 U.S.A.					
Project Responsibility	Project Company		Project Contact			
Project Manager	Arranta Bio LLC 650 Pleasant Street Watertown, Massachusetts 02472 U.S.A.		Rich Quinby Vice President Engineering & Facilities [Tel.] +1 508 962 9668 / [Alt.] +1 617 487 3270 (Mobile) [E-Mail] rich.quinby@arrantabio.com ; [LinkedIn] rich-quinby-a6720a7			
Project Executive	Arranta Bio LLC 650 Pleasant Street Watertown, Massachusetts 02472 U.S.A.		David Stevens President & Chief Operating Officer [Tel.] +1 508 962 9668 / [Alt.] +1 781 249 3830 (Mobile) [E-Mail] david.stevens@arrantabio.com ; [LinkedIn] davecstevens			
A&E	DPS Engineering Limited 959 Concord Street, #100 Framingham, Massachusetts 01701 U.S.A.		Jeffrey Kent Project Engineer [Tel.] +1 508 861 3747 / [Alt.] +1 617 512 0533 [E-Mail] jeff.kent@dpsgroupglobal.com ; [LinkedIn] jeffrey-kent-11216223			
C/M	The Cardinal Group 120 Presidential Way, Suite 100 Woburn, Massachusetts 01801 U.S.A.		Michael Sullivan Director of Project Management [Tel.] +1 617 799 6987 / [Alt.] +1 781 389 9971 (Mobile) [E-Mail] msullivan@cardinalgroupusa.com			
PEC® Timing	P1		PEC® Activity Detailed Design			
Project Probability	Medium (70-80%)					
Scope	Arranta Bio LLC with DPS Engineering Limited with The Cardinal Group performs Detailed Design for Microbiome Therapies CDMO Plant Expansion Phase II. DETAILS: Within an approximately 290,000 sqft building (co-tenant with Vibalogics, Projects #300644731 and #300648397), as Phase II of a multi-phase project (Phase I #300677872), renovate and fit-up an additional approximately 50,000 sqft of an eventual 130,000 sqft of leased space, and equip with modular equipment for the contract production and R&D of microbiome therapies. REQUIRES: Building Modifications, Temperature and Humidity Controls, Fire and Security System, Ultrafiltration Equipment, Purification Equipment, Suspension Tanks, Laboratory Stations, Sterile Filtration Equipment, Modular Cleanrooms (ISO 5-8/Class 100-100,000), Controls (PLC/DCS), Single-Use Bioreactors (Up to 2,000 Liter), Fermenters (1,000L), Water-For-Injection Loops/System (WFI), Lyophilization Equipment, Purification Equipment, Glove Boxes, Laboratory Automation, Laboratory Information Management System (LIMS), Analytical Equipment, Data Recorders, Centrifuges, Autoclaves, Compressors (Air), Clean Steam Generators, Secondary Packaging and Labeling Equipment, Checkweighers, Bar Coding/Scanning/Labeling Equipment, Visual Inspection System, Conveyors (Belt), Water Purification System Tie-Ins, Industrial Gas Supply and Storage Tie-Ins, Refrigeration, Freezers, Laboratory/Hygienic Piping. ENVIRONMENTAL: (A) HEPA Filtration System, Fume Hoods; (W) Pre-Wastewater Treatment System Tie-Ins.					
Schedule	Arranta Bio LLC with DPS Engineering Limited and The Cardinal Group continues with Detailed Design through 3Q22 (Sep). Upon completion of Phase I, final corporate approvals and favorable market conditions, Arranta with Project Team releases any remaining Equipment RFQs plus Subcontractor Bid Documents 4Q22 (Oct)-3Q23. Tentative Construction Kick-Off 4Q22 (Nov). Estimated Phase II Project Completion 4Q23 (Oct).					
Details	Mar-2022 Project continues with Detailed Design					
Project Milestones	AFE 202209	Sub Bid Doc 202210	Completion 31-Oct-2023	Precision YEAR		
	Equip RFQ 202210	Kick-Off 202211	Kickoff Slippage 6 Months	Duration 12 Months		
Engineering			Instrumentation Mechanical Structural			
Contracting	Electrical	Environmental HVAC	Process Equip			
Project Key Needs			Control Room			
	Instrumentation Electrical	Mechanical HVAC	Valves			
	Piping/Fittings Insulation/Coatings	Environmental				

Batch
Process

Material Handling

Matter Phase
Energy
Buy
Sell

Liquid

Solid

Plant Standard Contacts

Functional/Actual Title	Contact Name/E-mail	Telephone/On-site	QC Date/LinkedIn ID
Plant Manager	Rich Quinby	[Phn.] +1 508 962 9668 / [Alt.] +1 617 487 3270 (Mobile)	Mar-2022
Vice President Engineering & Facilities	rich.quinby@arrantabio.com	No	rich-quinby-a6720a7

Historical Reports

Project Name	Report Date	TIV	Phase
BOXBOROUGH MICROBIOME THERAPIES CDMO PLANT EXPANSION PHASE II	10-Mar-2021	50,000,000 USD	Detailed Design (P1 - 09)
BOXBOROUGH MICROBIOME THERAPIES CDMO PLANT EXPANSION PHASE II	08-Mar-2022	50,000,000 USD	Detailed Design (P1 - 09)