

RFP 23-22 Construction and Commissioning of the Peterborough Organics Facility

Telecommunication Specification for the Compost Control System

DESCRIPTION

General

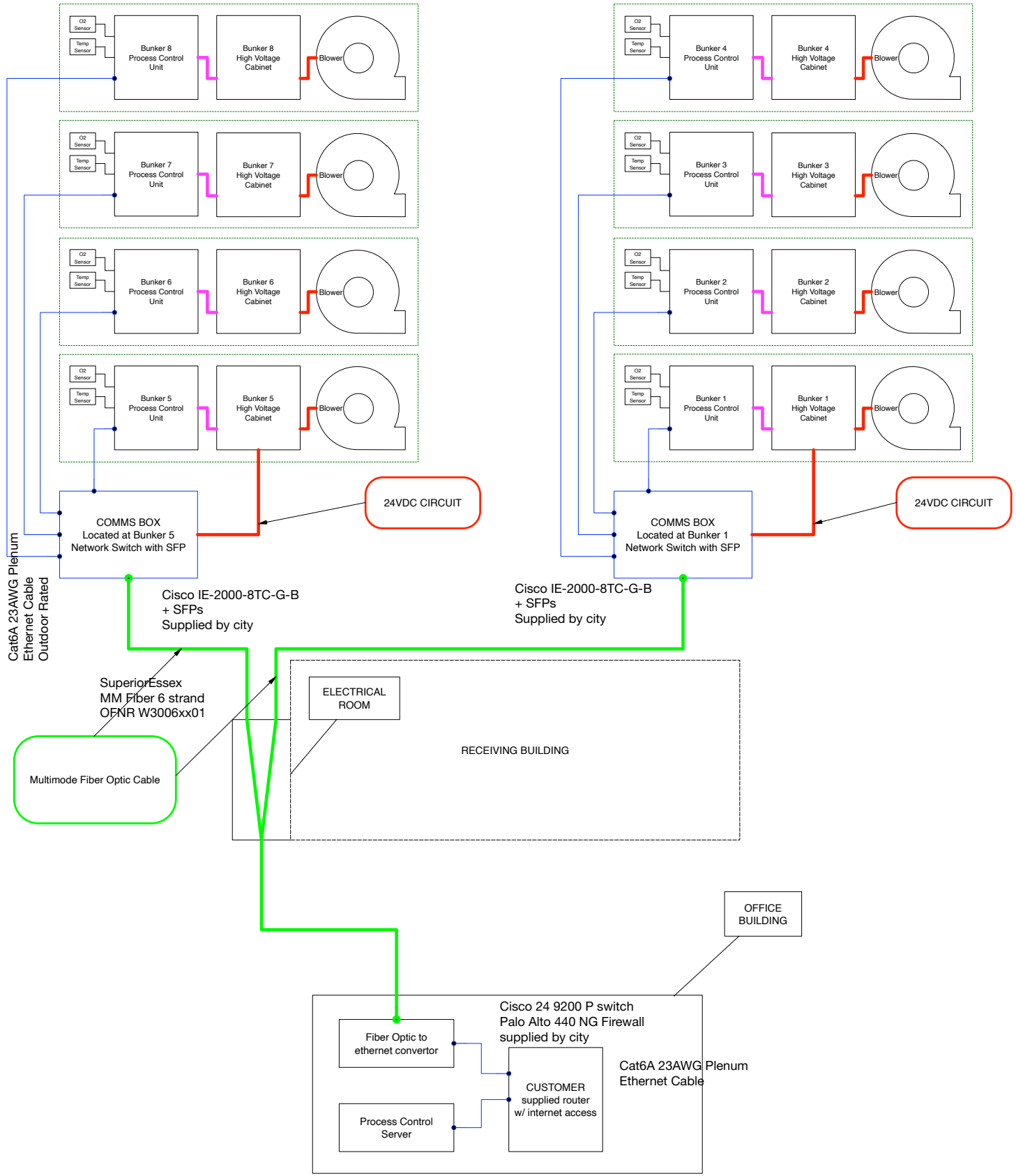
1. These specifications shall be read and used in conjunction with the attached diagram **Updated Peterborough Riser** and the associated **Composting Equipment Responsibility Matrix (Section 2 Instrumentation and Controls – Compost Control Systems (CCS))**.

Scope

2. Supply, installation and testing of telecommunications cabling systems for bunker monitoring including all terminations. The scope shall also include the installation of related equipment supplied by the City
3. Cabling from individual bunkers (1 -4) to Comms box located at Bunker 1 and from individual bunkers (5-8) and Comms box located at Bunker 5 shall be Cat6A 23AWG Plenum Ethernet Cable Outdoor Rated. 1 Comms box is required at each bunker to allow for lockout/maintenance/troubleshooting without shutting down communications to all bunkers.
4. Cabling from the Comms boxes located at Bunker 1 and Bunker 5 to the Office Building shall be SuperiorEssex MM Fibre 6 strand OFNR W3006xx01. Multimode Fiber Optic Cable.
5. LC Terminations required for fibre optics. LC to LC
6. The scope includes the installation of the following equipment provided by the City:
 - Process Control Units and High Voltage Cabinets
 - Comms boxes and Network Switches
 - Server and Server Rack
 - CCS Test Bench

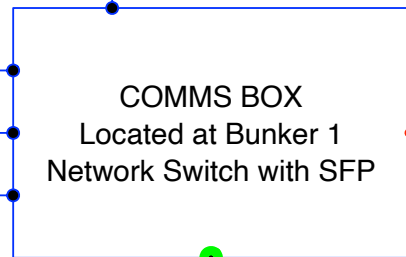
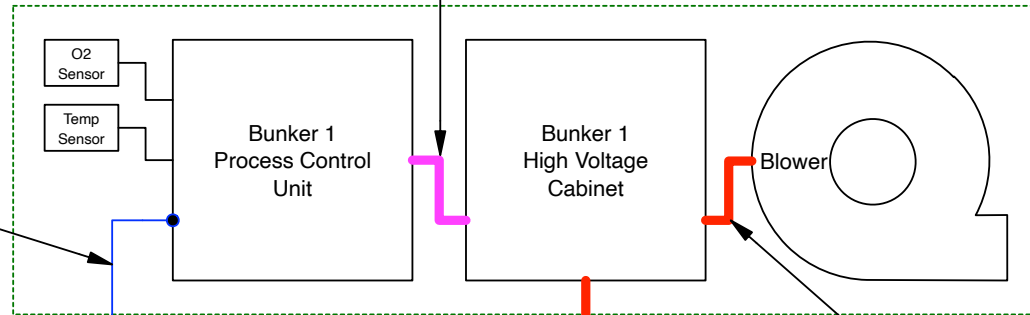
Testing and Certification

1. Upon completion of the installations the cabling systems shall be tested and a report shall be submitted that certifies all connections have been tested and are within tolerances.



Connections from High Voltage Cabinet to Process Control Unit to be made by CONTRACTOR
8 - conductors:
[24VDC power,
24V Battery,
E-stop,
Motor Relay]

CAT6
Terminated CAT6 to be provided by CONTRACTOR



MULTIMODE FIBER OPTIC
Terminated MM Fiber to be provided by CONTRACTOR

24VDC
Connection from existing 24VDC power supply to COMMS BOX to be provided by CONTRACTOR

600V
Connection from motor starter (inside High Voltage Cab) to blower to be provided by CONTRACTOR