



**CITY OF CALLAWAY
GORE PARK SITEWORK
BID NO.: LS2022-05**

ADDENDUM #2

Date Issued: March 2, 2022

This addendum is being released to address the following revisions:

- 1. Voltage for the MUSCO Control and Monitoring System has been changed from 480 single phase to 480 3 phase.**

A handwritten signature in blue ink, appearing to read "Janice L. Peters", is written over a horizontal line.

Janice L. Peters, City Clerk

This Addendum must be acknowledged and included with the bid packet submission.

Signature

Company Name

Date



Control System Summary

Project Specific Notes:

Security voltage is 480v 1p.

Project Information

Project #: 142130
 Project Name: Callaway Gore Park
 Date: 02/25/22
 Project Engineer: Curt Lamberson
 Sales Representative: Danny Sheldon
 Control System Type: Control-Link™ Control and Monitoring System
 Communication Type: PowerLine-ST
 Scan: 142130C
 Document ID: 142130P1V1-0225105318
 Distribution Panel Location or ID: Service 1 (Panel MDP)
 Total # of Distribution Panel Locations for Project: 1
 Design Voltage/Hertz/Phase: 480/60/3
 Control Voltage: 120

Equipment Listing

DESCRIPTION	APPROXIMATE SIZE	QTY	SIZE (AMPS)
1. Control and Monitoring Cabinet	24 X 72	21	30 AMP
2. Control and Monitoring Cabinet	24 X 72	5	
Total Contactors			
Total Off/On/Auto Switches:			

Materials Checklist

Contractor/Customer Supplied:

- A dedicated control circuit must be supplied per distribution panel location
 - If the control voltage is NOT available, a control transformer is required
- Electrical distribution panel to provide overcurrent protection for circuits
 - HID rated or D-curve circuit breaker sized per full load amps on Circuit Summary by Zone Chart
- Wiring
 - See chart on page 2 for wiring requirements
 - Equipment grounding conductor and splices must be insulated (per circuit)
 - Lightning ground protection (per pole), if not Musco supplied
- Electrical conduit wireway system
 - Entrance hubs rated NEMA 4, must be die-cast zinc, PVC, or copper-free die-cast aluminum
- Mounting hardware for cabinets
- Breaker lock-on device to prevent unauthorized power interruption to control power and powerline connection (if present)
- Anti-corrosion compound to apply to ends of wire, if necessary

Call Control-Link Central™ operations center at 877/347-3319 to schedule activation of the control system upon completion of the installation.

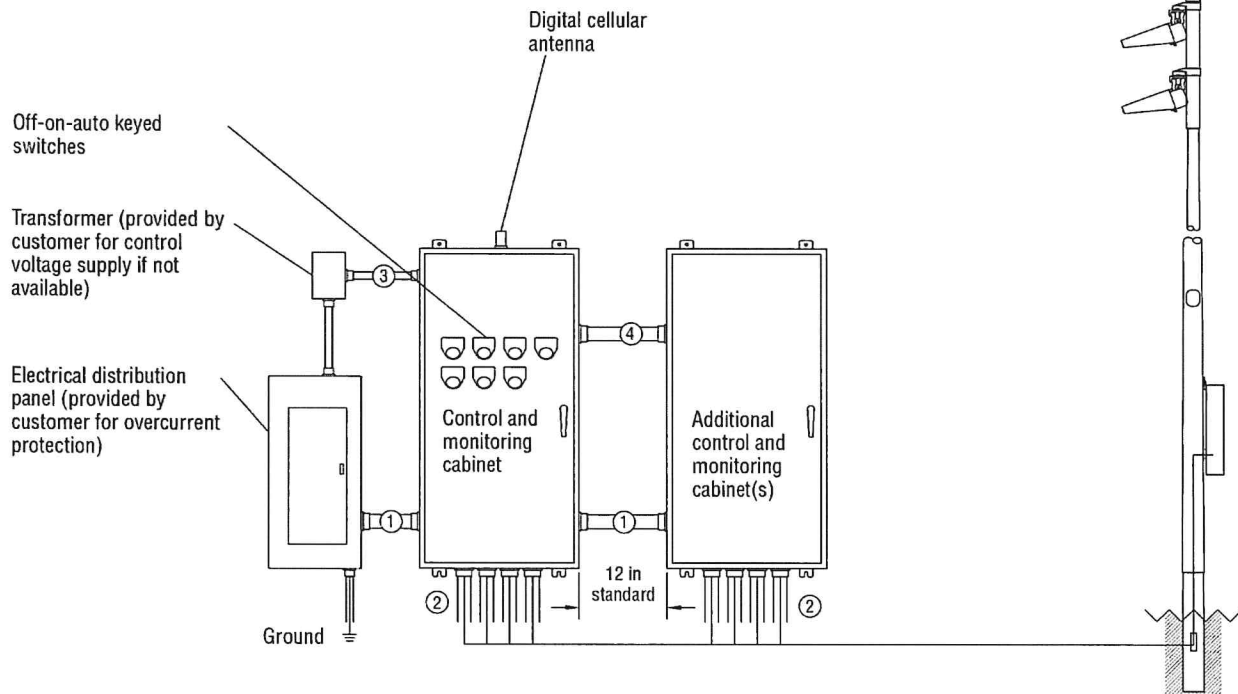
Note: Activation may take up to 1 1/2 hours.

IMPORTANT NOTES

1. Please confirm that the design voltage listed above is accurate for this facility. Design voltage/phase is defined as the voltage/phase being connected and utilized at each lighting pole's electrical components enclosure disconnect. Inaccurate design voltage/phase can result in additional costs and delays. Contact your Musco sales representative to confirm this item.
2. In a 3 phase design, all 3 phases are to be run to each pole. When a 3 phase design is used Musco's single phase luminaires come pre-wired to utilize all 3 phases across the entire facility.
3. One contactor is required for each pole. When a pole has multiple circuits, one contactor is required for each circuit. All contactors are 100% rated for the published continuous load. All contactors are 3 pole.
4. If the lighting system will be fed from more than one distribution location, additional equipment may be required. Contact your Musco sales representative.
5. A single control circuit must be supplied per control system.
6. Size overcurrent devices using the full load amps column of the Circuit Summary By Zone chart- Minimum power factor is 0.9.

NOTE: Refer to Installation Instructions for more details on equipment information and the installation requirements.

Control-Link® Control and Monitoring System



Conduit ID	Description	# of Wires	Wire (AWG)	Conduit (in)	Max. Wire Length (ft)	MUSCO Supplied	Notes
1	Line power to contactors, and equipment grounding conductor	*A	*B	*C	N/A	No	A-E
2	Load power to lighting circuits, and equipment grounding conductor	*A	*B	*C	N/A	No	A-E
3	Control power (dedicated, 20A)	3	12	*C	N/A	No	C,E
4	Control harnesses	*F	12	2	*F	Yes	C,E,F

* Notes:

- A. See voltage and phasing per the notes on cover page.
- B. Calculate per load and voltage drop.
- C. All conduit diameters should be per code unless otherwise specified to allow for connector size.
- D. Equipment grounding conductor and any splices must be insulated.
- E. Refer to control and monitoring system installation instructions for more details on equipment information and the installation requirements.
- F. Harness is provided in 8-ft length.

R60-101-00_B

IMPORTANT: Control wires (3,4) must be in separate conduit from line and load power wires (1, 2).



Control System Summary

Callaway Gore Park / 142130 - 142130C
Service 1 (Panel MDP) - Page 3 of 5

SWITCHING SCHEDULE

Field/Zone Description	Zones
Softball	1
Football	2
Basketball	3
Tennis	3
Practice	4
Security	5

CONTROL POWER CONSUMPTION	
120V Single Phase	
VA loading of Musco Supplied Equipment	INRUSH: 5718.0
	SEALED: 621.8

CIRCUIT SUMMARY BY ZONE

POLE	CIRCUIT DESCRIPTION	# OF FIXTURES	# OF DRIVERS	*FULL LOAD AMPS	CONTACTOR SIZE (AMPS)	CONTACTOR ID	ZONE
A1	Softball	3	3	5.3	30	C1	1
A2	Softball	3	3	5.3	30	C2	1
B1	Softball	6	6	10.5	30	C3	1
B2	Softball	6	6	10.5	30	C4	1
F1	Football	7	7	11.8	30	C5	2
F2	Football	7	7	11.8	30	C6	2
F3	Football	7	7	11.8	30	C7	2
F4	Football	7	7	11.8	30	C8	2
BT1	Basketball	2	1	2.6	30	C9	3
BT2	Basketball	2	1	2.6	30	C10	3
BT3	Basketball	2	1	2.6	30	C11	3
BT4	Basketball	2	1	2.6	30	C12	3
P1	Practice	2	2	5.3	30	C13	4
P2	Practice	2	2	5.3	30	C14	4
P3	Practice	2	2	5.3	30	C15	4
P4	Practice	2	2	5.3	30	C16	4
A1,A2,B1,B2	Security	4	4	1.2	30	C17	5
BT1,BT2,BT3,BT4	Security	4	4	1.2	30	C18	5
F1,F4	Security	2	2	0.6	30	C19	5
F2,F3	Security	2	2	0.6	30	C20	5
P1,P2,P3,P4	Security	4	4	1.2	30	C21	5

*Full Load Amps based on amps per driver.



Control System Summary

Callaway Gore Park / 142130 - 142130C
Service 1 (Panel MDP) - Page 4 of 5

PANEL SUMMARY						
CABINET #	CONTROL MODULE LOCATION	CONTACTOR ID	CIRCUIT DESCRIPTION	FULL LOAD AMPS	DISTRIBUTION PANEL ID (BY OTHERS)	CIRCUIT BREAKER POSITION (BY OTHERS)
1	1	C1	Pole A1	5.25		
1	1	C2	Pole A2	5.25		
1	1	C3	Pole B1	10.50		
1	1	C4	Pole B2	10.50		
1	1	C5	Pole F1	11.75		
1	1	C6	Pole F2	11.75		
1	1	C7	Pole F3	11.75		
1	1	C8	Pole F4	11.75		
1	1	C9	Pole BT1	2.56		
1	1	C10	Pole BT2	2.56		
1	1	C11	Pole BT3	2.56		
1	1	C12	Pole BT4	2.56		
2	1	C13	Pole P1	5.25		
2	1	C14	Pole P2	5.25		
2	1	C15	Pole P3	5.25		
2	1	C16	Pole P4	5.25		
2	1	C17	Pole A1,A2,B1,B2	1.20		
2	1	C18	Pole BT1,BT2,BT3,BT4	1.20		
2	1	C19	Pole F1,F4	0.60		
2	1	C20	Pole F2,F3	0.60		
2	1	C21	Pole P1,P2,P3,P4	1.20		

ZONE SCHEDULE				
ZONE	SELECTOR SWITCH	ZONE DESCRIPTION	CIRCUIT DESCRIPTION	
			POLE ID	CONTACTOR ID
Zone 1	1	Softball	A1	C1
			A2	C2
			B1	C3
			B2	C4
Zone 2	2	Football	F1	C5
			F2	C6
			F3	C7
			F4	C8
Zone 3	3	Basketball	BT1	C9
			BT2	C10
			BT3	C11
			BT4	C12
Zone 4	4	Practice	P1	C13
			P2	C14
			P3	C15
			P4	C16
Zone 5	5	Security	A1	C17
			A2	C17
			B1	C17
			B2	C17

CONTINUED ON NEXT PAGE



Control System Summary

Callaway Gore Park / 142130 - 142130C
 Service 1 (Panel MDP) - Page 5 of 5

ZONE SCHEDULE				
ZONE	SELECTOR SWITCH	ZONE DESCRIPTION	CIRCUIT DESCRIPTION	
			POLE ID	CONTACTOR ID
Zone 5	5	Security	BT1	C18
			BT2	C18
			BT3	C18
			BT4	C18
			F1	C19
			F4	C19
			F2	C20
			F3	C20
			P1	C21
			P2	C21
			P3	C21
			P4	C21