

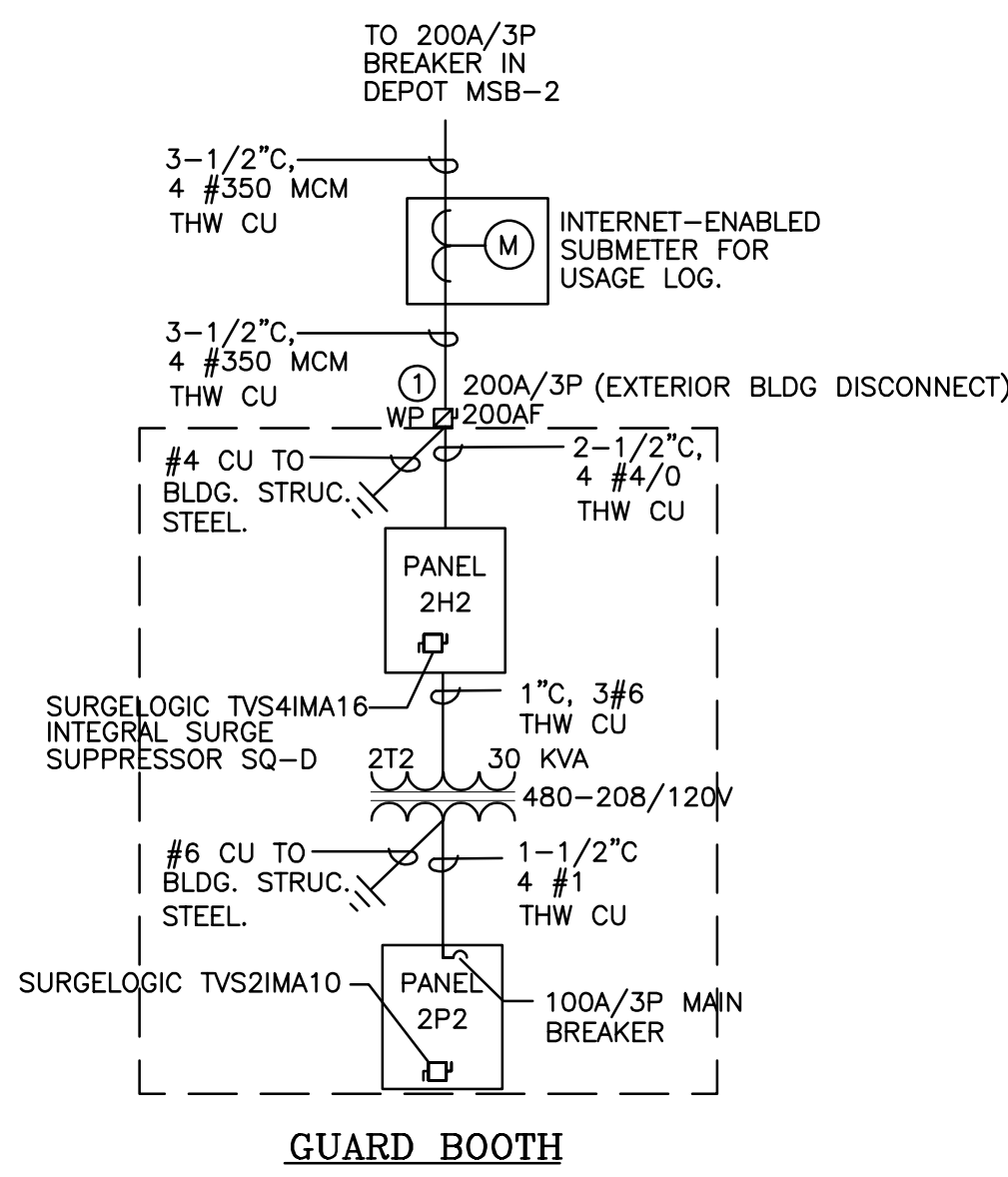


City of Aurora Building Division  
Project: **Panel Revisions**  
Address: **26200 E. 64th Ave.**  
Occupancy Group: **B**  
Construction Type: **VB**  
RSN: **1504463**  
Permit: **20-1900422**

Revisions only: Call for inspections  
under original permit,  
#19-1739030-CM

Only highlighted or clouded  
revisions are approved on this  
review. All previous comments  
apply.

The rating of all series rated panels shall be  
marked on the panels. Provide manufacturers  
information and cut sheets onsite and available  
during field inspections per 2017 NEC 240.86



## ONE LINE DIAGRAM

NO SCALE

### ONE LINE DIAGRAM NOTES:

- PROVIDE PAD LOCK AND KEY COVER FOR WP FUSED DISCONNECT.  
PROVIDE LAMACOID LABEL "BUILDING MAIN DISCONNECT SWITCH".

### PLAN NOTES:

- E.C. TO VERIFY EXACT LOCATION OF EQUIPMENT AND COORDINATE WITH  
VENDOR'S SHOP DRAWING AND G.C. PRIOR TO ROUGH IN.
- PROVIDE 2-COMPARTMENT J-BOX (FOR POWER AND DATA) AS REQUIRED.

|                                                                                                             |       |             |       |      |     |      |           |      |             |
|-------------------------------------------------------------------------------------------------------------|-------|-------------|-------|------|-----|------|-----------|------|-------------|
| PANEL: 2H2<br>480 / 277 VOLTS<br>225 A CU BUS M.L.O.<br>TOP FEED<br>PROVIDE LABEL PER NEC 110.22<br>12/1/20 |       |             |       |      |     |      |           |      |             |
| 3 PHASE<br>SURFACE MOUNT<br>4 WIRE<br>22000 SERIES A.I.C. MIN.<br>SQ-D NF POWERLINK<br>12/1/20              |       |             |       |      |     |      |           |      |             |
| CIRCUIT USE                                                                                                 | A     | PHASE (KVA) | C     | BKR. | NO. | NO.  | BKR.      | A    | PHASE (KVA) |
| SPARE                                                                                                       |       |             |       | 20/1 | 1   | 2    | 20/1      | 2.67 |             |
| SPARE                                                                                                       |       |             |       | 20/1 | 3   | 4    | 20/1      |      |             |
| SPARE                                                                                                       |       |             |       | 20/1 | 5   | 6    | 20/1      | 2.67 | 2.67        |
| SPARE                                                                                                       |       |             |       | 20/1 | 7   | 8    | 20/1      | 2.67 |             |
| SPARE                                                                                                       |       |             |       | 20/1 | 9   | 10   | 20/1      | 1.06 |             |
| SPARE                                                                                                       |       |             |       | 20/1 | 11  | 12   |           |      |             |
| SPARE                                                                                                       |       |             |       | 20/1 | 13  | 14   | 20/1      | 1.00 |             |
| SPARE                                                                                                       |       |             |       | 20/1 | 15  | 16   |           |      |             |
| SPARE                                                                                                       |       |             |       | 20/1 | 17  | 18   |           |      |             |
| AC-35 (GUARD BOOTH)                                                                                         | 6.90  | 6.90        |       | 35/3 | 21  | 22   | 20/1      | 0.77 | 0.77        |
| SPACE                                                                                                       |       |             |       | 23   | 24  |      |           |      |             |
| SPACE                                                                                                       |       |             |       | 25   | 26  |      |           |      |             |
| SPACE                                                                                                       |       |             |       | 27   | 28  |      |           |      |             |
| SPACE                                                                                                       |       |             |       | 29   | 30  |      |           |      |             |
| SPACE                                                                                                       |       |             |       | 31   | 32  |      |           |      |             |
| SPACE                                                                                                       |       |             |       | 33   | 34  |      |           |      |             |
| SPACE                                                                                                       |       |             |       | 35   | 36  |      |           |      |             |
| SPACE                                                                                                       |       |             |       | 37   | 38  |      |           |      |             |
| SUBFEED 2T2 & 2P2                                                                                           | 10.00 | 10.00       |       | 45/3 | 39  | 40   |           |      |             |
|                                                                                                             |       |             |       | 41   | 42  |      |           |      |             |
| TOTAL PHASE A (KVA)                                                                                         | 16.90 |             |       |      |     |      | 24.01 KVA | 7.11 |             |
| TOTAL PHASE B (KVA)                                                                                         |       | 16.90       |       |      |     |      | 21.4 KVA  | 4.50 |             |
| TOTAL PHASE C (KVA)                                                                                         |       |             | 16.90 |      |     |      | 19.57 KVA | 2.67 |             |
| TOTAL CONNECTED LOAD                                                                                        |       |             |       |      |     |      | 64.98 KVA | 78 A |             |
| PANEL: 2P2<br>480 / 277 VOLTS<br>100 A CU BUS W/ 100A/3P MAIN BKR<br>TOP FEED<br>12/1/20                    |       |             |       |      |     |      |           |      |             |
| 3 PHASE<br>SURFACE MOUNT<br>4 WIRE<br>22000 A.I.C. MIN.<br>SQ-D NF<br>12/1/20                               |       |             |       |      |     |      |           |      |             |
| CIRCUIT USE                                                                                                 | A     | PHASE (KVA) | C     | BKR. | NO. | NO.  | BKR.      | A    | PHASE (KVA) |
| RECEPTACLE                                                                                                  | 0.54  | 0.54        |       | 20/1 | 1   | 2    | 20/1      | 0.50 |             |
| RECEPTACLE                                                                                                  |       |             | 0.54  | 20/1 | 3   | 4    | 20/1      |      |             |
| RECEPTACLE                                                                                                  | 0.18  |             |       | 20/1 | 5   | 6    | 20/1      | 0.20 |             |
| RECEPTACLE                                                                                                  |       | 0.18        |       | 20/1 | 7   | 8    | 20/1      |      |             |
| RECEPTACLE                                                                                                  |       |             | 0.18  | 20/1 | 9   | 10   | 20/1      |      |             |
| RECEPTACLE                                                                                                  | 0.54  |             |       | 20/1 | 11  | 12   | 30/2      | 1.11 |             |
| RECEPTACLE                                                                                                  |       | 0.36        |       | 20/1 | 13  | 14   |           | 1.11 |             |
| RECEPTACLE                                                                                                  |       |             | 1.56  | 20/1 | 15  | 16   | 30/2      | 1.11 |             |
| WATER HEATER                                                                                                |       |             |       | 20/1 | 17  | 18   |           | 1.11 |             |
| SPARE                                                                                                       |       |             |       | 20/1 | 19  | 20   | 20/1      | 0.20 |             |
| SPARE                                                                                                       |       |             |       | 20/1 | 21  | 22   |           |      |             |
| TV RECEPTACLE                                                                                               |       |             | 0.50  | 20/1 | 23  | 24   | 20/1      |      |             |
| RECEPTACLE                                                                                                  | 0.54  |             |       | 20/1 | 25  | 26   | 20/1      | 1.00 |             |
| RECEPTACLE                                                                                                  |       | 0.54        |       | 20/1 | 27  | 28   | 20/1      | 1.00 |             |
| RECEPTACLE                                                                                                  |       |             | 0.54  | 20/1 | 29  | 30   | 20/1      |      |             |
| RECEPTACLE                                                                                                  | 0.18  |             |       | 20/1 | 31  | 32   |           |      |             |
| RECEPTACLE                                                                                                  |       | 0.18        |       | 20/1 | 33  | 34   |           |      |             |
| SPACE                                                                                                       |       |             |       | 35   | 36  | 20/1 |           | 0.54 |             |
| SPACE                                                                                                       |       |             |       | 37   | 38  | 30/1 |           | 2.40 |             |
| SPACE                                                                                                       |       |             |       | 39   | 40  | 30/1 |           | 2.10 |             |
| SPACE                                                                                                       |       |             |       | 41   | 42  | 20/1 |           | 0.54 |             |
| TOTAL PHASE A (KVA)                                                                                         | 1.98  |             |       |      |     |      | 7.19 KVA  | 5.21 |             |
| TOTAL PHASE B (KVA)                                                                                         |       | 1.80        |       |      |     |      | 6.19 KVA  | 4.39 |             |
| TOTAL PHASE C (KVA)                                                                                         |       |             | 3.32  |      |     |      | 7.82 KVA  | 4.50 |             |
| TOTAL CONNECTED LOAD                                                                                        |       |             |       |      |     |      | 21.2 KVA  | 58 A |             |
| * PROVIDE LOCK-IN DEVICE, MARK "LEAVE ON".                                                                  |       |             |       |      |     |      |           |      |             |

### SHORT CIRCUIT CALCULATION

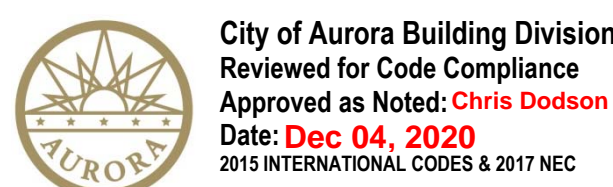
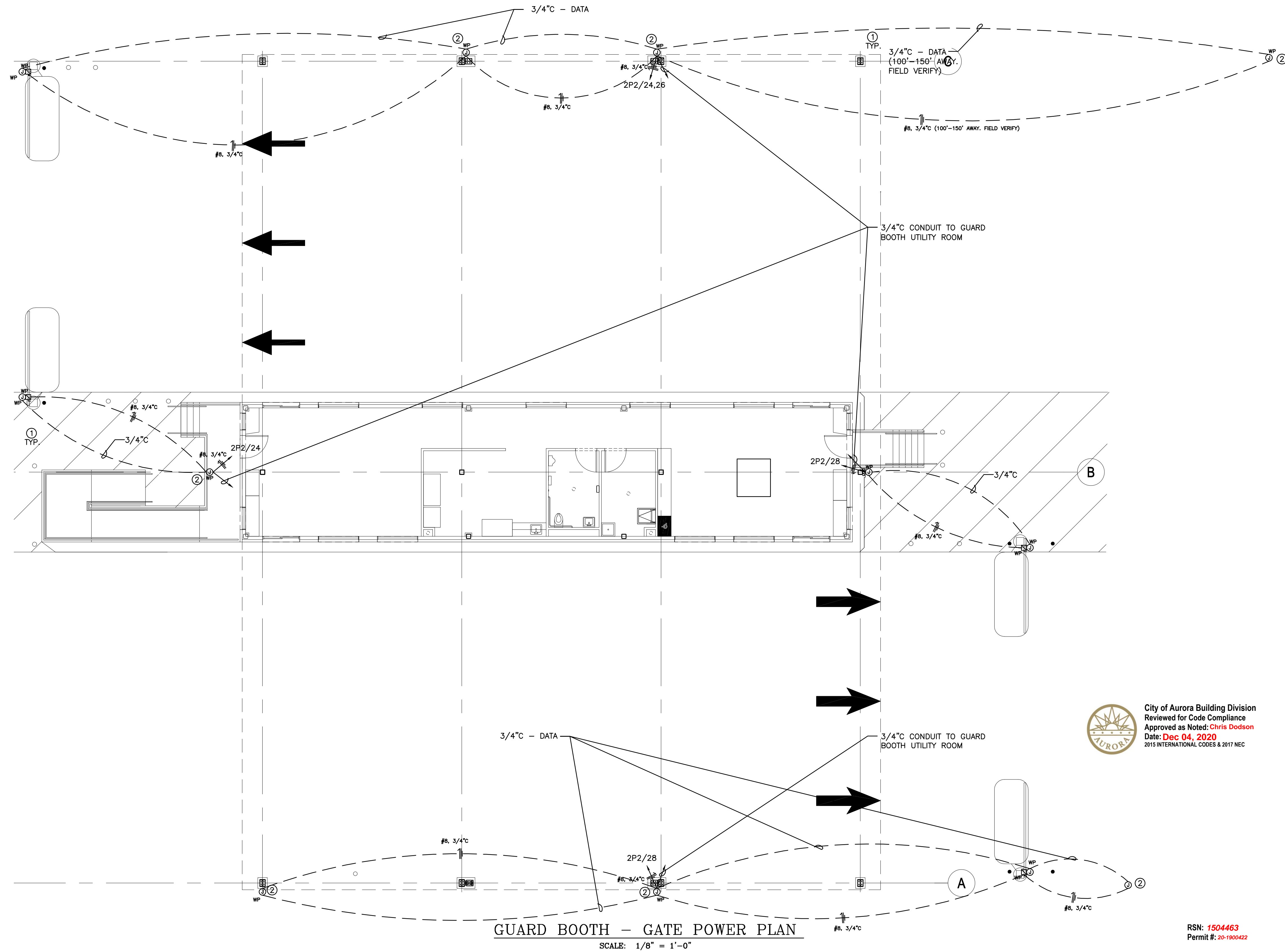
FAULT CURRENT AT SERVICE CONNECTION POINT = 4,320A  
MOTORS CONTRIBUTED FAULT CURRENT AT MSB1 = 13,097A  
MOTORS CONTRIBUTED FAULT CURRENT AT MSB2 = 3,644A

|                    |                  |        |        |       |
|--------------------|------------------|--------|--------|-------|
| PANEL              | PRI XFMR #1 & #2 | MSB2   | 2H2    | 2P2   |
| VOLTAGE            | 13,200           | 480    | 480    | 208   |
| PHASE              | 3                | 3      | 3      | 3     |
| START SCC          | 4,320            | 54,533 | 56,437 | 1,528 |
| FEEDER LENGTH (FT) |                  | 47     | 285    | 5     |
| FEEDER SET         |                  |        |        |       |
| PARALLEL           | 1                | 10     | 1      | 1     |
| WIRE SIZE          | 3/0              | 600    | 350    | 1     |
| WIRE CONSTANT      | 13,923           | 28,033 | 22,736 | 7,493 |

|                  |       |         |        |        |
|------------------|-------|---------|--------|--------|
| CALCULATION      |       |         |        |        |
| PHASE CONSTANT   | 1.73  | 1.73    | 1.73   | 1.73   |
| F                | 0.04  | 0.03    | 2.55   | 0.01   |
| M                | 0.96  | 0.97    | 0.28   | 0.99   |
| SCC END          | 4,138 | 56,437  | 15,898 | 1,515  |
| PANEL AIC RATING |       | 100,000 | 22,000 | 10,000 |
|                  |       | FULL    | SERIES | FULL   |

|             |              |        |
|-------------|--------------|--------|
| XFMR        | XFMR #1 & #2 | 272    |
| PRI VOLT    | 13,200       | 480    |
| SEC VOLT    | 480          | 208    |
| PHASE       | 3            | 3      |
| XFMR KVA    | 5,000        | 30     |
| XFMR %Z     | 5.75         | 5.2    |
| PRIMARY SCC | 4,138        | 14,221 |

|                |        |       |
|----------------|--------|-------|
| CALCULATION    |        |       |
| PHASE CONSTANT | 1.73   | 1.73  |
| F              | 1.09   | 20.47 |
| M              | 0.48   | 0.05  |
| SCC END        | 54,533 | 1,528 |



RSN: **1504463**  
Permit #: **20-1900422**

Code violations that are found during  
inspection are required to be corrected.  
Permit issuance does not grant approval  
of a code violation.

## GUARD BOOTH PANEL SCHEDULE AND ONE LINE DIAGRAM

PROJECT NO: 19-176

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ARCHITECT REFERENCE NO: 18-5378-01

ISSUE DATE: AUGUST 9, 2019

REVISION DATE: JULY 16, 2020

CHECKED: ANT

DRAWN: HN

E-2

GUARD BOOTH

T.E., Inc.  
830 N. RIVERSIDE DRIVE  
SUITE #200  
RENTON, WA 98057  
PHONE: 425-970-3753  
FAX: 425-970-3756

26200 E. 64TH AVENUE  
AURORA, CO 80019

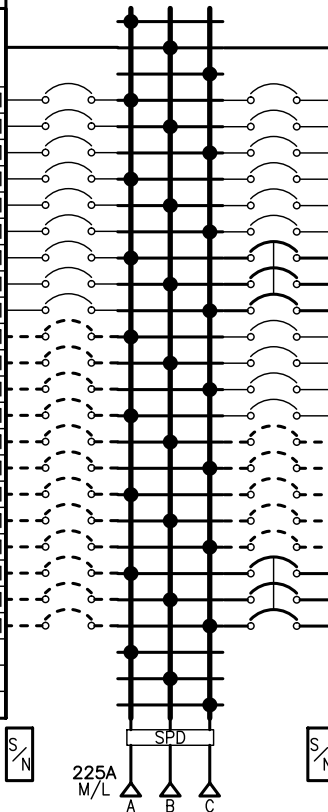


|                         |          |
|-------------------------|----------|
| PLANNING SUBMITTAL      | 06/09/19 |
| ISSUED FOR PERMIT       | 10/28/19 |
| ISSUED FOR BID          | 11/14/19 |
| ISSUED FOR CONSTRUCTION | 03/05/20 |
| PERMIT MODIFICATION #1  | 06/17/20 |
| PERMIT REVISION #1      | 07/19/20 |



| REV | DESCRIPTION | BY  | DATE | --- | --- | --- | --- |
|-----|-------------|-----|------|-----|-----|-----|-----|
| --- | ---         | --- | ---  | --- | --- | --- | --- |

| CKT NO | ACCESSORIES        | TYPE   | RATING AMP/P |  | RATING AMP/P | TYPE   | ACCESSORIES        | CKT NO |
|--------|--------------------|--------|--------------|--|--------------|--------|--------------------|--------|
|        | POWER SUPPLY       |        |              |  |              |        | CONTROLLER         |        |
| 1      |                    | EDB    | 20/1         |  | 20/1         | EDB    |                    | 2      |
| 3      |                    | EDB    | 20/1         |  | 20/1         | EDB    |                    | 4      |
| 5      |                    | EDB    | 20/1         |  | 20/1         | EDB    |                    | 6      |
| 7      |                    | EDB    | 20/1         |  | 20/1         | EDB    |                    | 8      |
| 9      |                    | EDB    | 20/1         |  | 20/1         | EDB    |                    | 10     |
| 11     |                    | EDB    | 20/1         |  | 20/1         | EDB    |                    | 12     |
| 13     |                    | EDB    | 20/1         |  |              |        |                    | 14     |
| 15     |                    | EDB    | 20/1         |  | 15/3         | EDB    |                    | 16     |
| 17     |                    | EDB    | 20/1         |  |              |        |                    | 18     |
| 19     | PREPARED SPACE     | ECB-G3 | 20/1         |  | 20/1         | ECB-G3 |                    | 20     |
| 21     | PREPARED SPACE     | ECB-G3 | 20/1         |  | 20/1         | EDB    |                    | 22     |
| 23     | PREPARED SPACE     | ECB-G3 | 20/1         |  | 20/1         | EDB    |                    | 24     |
| 25     | PREPARED SPACE     | ECB-G3 | 20/1         |  | 20/1         | EDB    | HLO Fixed Off/On   | 26     |
| 27     | PREPARED SPACE     | ECB-G3 | 20/1         |  | 20/1         | ECB-G3 | PREPARED SPACE     | 28     |
| 29     | PREPARED SPACE     | ECB-G3 | 20/1         |  | 20/1         | ECB-G3 | PREPARED SPACE     | 30     |
| 31     | PREPARED SPACE     | ECB-G3 | 20/1         |  | 20/1         | ECB-G3 | PREPARED SPACE     | 32     |
| 33     | PREPARED SPACE     | ECB-G3 | 20/1         |  | 20/1         | ECB-G3 | PREPARED SPACE     | 34     |
| 35     | PREPARED SPACE     | ECB-G3 | 20/1         |  | 20/1         | ECB-G3 | PREPARED SPACE     | 36     |
| 37     | PREPARED SPACE     | ECB-G3 | 20/1         |  |              |        |                    | 38     |
| 39     | PREPARED SPACE     | ECB-G3 | 20/1         |  | 45/3         | EDB    |                    | 40     |
| 41     | PREPARED SPACE     | ECB-G3 | 20/1         |  |              |        |                    | 42     |
| 43     | BLANK - NOT USABLE |        |              |  |              |        | BLANK - NOT USABLE | 44     |
| 45     | BLANK - NOT USABLE |        |              |  |              |        | BLANK - NOT USABLE | 46     |
| 47     | BLANK - NOT USABLE |        |              |  |              |        | BLANK - NOT USABLE | 48     |



## PHYSICAL DATA

ENCLOSURE Type 1

Surface with Door  
FRONT CAT#: NC62S  
BOX CAT#: MH62

### DIMENSIONS:

62"(1575mm)Hx20"(508mm)Wx5.75"(146mm)D

### WIRE BENDING SPACE:

TOP - 5"(127)mm  
BOTTOM - 13.25"(337)mm  
SIDE - 4.1"(104)mm

PBA: PBA550T

POWERLINK DWG# 5210, 5211, 5212, 5213

BUSSING: 250A RATED COPPER BUS  
Silver/Tin Plated

### OPTIONAL FEATURES:

POWERLINK NF3500G4 Master  
AVAILABLE CONTROL BUS CONNECTION: 6  
CONTROL BUS LEFT 21 CKT & RIGHT 21 CKT  
(Continued on next page.)

## ELECTRICAL DATA

SYSTEM: 480Y/277V 3Ph 4W 60Hz  
System Ampacity: 225A  
18kA SYMS. SCCR  
Series Rated w/ DG

MAIN. MAIN LUGS : 225A

Bottom FEED

INCOMING CONDUCTORS(S) PER NEC, CEC, NOM:

Wire Bending Space:

Phase Lugs: 1 - #6 - 350 kcmil

-----BRANCH SUMMATION-----

|                    |                       |
|--------------------|-----------------------|
| 17 - 20A/1P EDB    | 17 - 20A/1P-PS ECB-G3 |
| 1 - 15A/3P EDB     | 1 - 20A/1P ECB-G3     |
| 1 - 20A/1P EDB HPL | 1 - 45A/3P EDB        |

RSN: 1504463

Permit #: 20-1900422

|                 |                                  |                        |                           |
|-----------------|----------------------------------|------------------------|---------------------------|
| JOB NAME:       | Costco Aurora, CO Depot - Costco | EQUIPMENT DESIGNATION: | 2H8 (Dry)                 |
| JOB LOCATION:   | AURORA CO                        | EQUIPMENT TYPE:        | NE (Circuit Breaker Type) |
| DRAWN BY:       | CAD                              | DRAWING TYPE:          | ONE LINE DIAGRAM          |
| ENGR:           |                                  |                        |                           |
| DATE:           | December 30 2019                 |                        |                           |
| DRAWING STATUS: | RECORD                           | DWG# 042671088-034-01  | PG 1 OF 2 REV -           |



| REV | DESCRIPTION | BY  | DATE        | — | ---- | --- | ---/---/--- |
|-----|-------------|-----|-------------|---|------|-----|-------------|
| —   | ----        | --- | ---/---/--- | — | ---- | --- | ---/---/--- |

# PHYSICAL DATA CONTINUED

CONNECTOR CABLE

42 CIRCUIT RULE APPLIES

NF Gen3 Power Supply 277VAC

Copper GROUND BAR

GROUP USER PLACEMENT

COPPER SOLID NEUTRAL

SPD DRY CONTACTS

SPD SURGE COUNTER

SPD PEAK SURGE RATING/PHASE: 160kA

SPD LINE TO GRD PROTECT

---STANDARD EQUIPMENT NAMEPLATE---

Engraved as Follows


LINE 1: 2H8

COLOR: White Surface / Black Letters

SIZE: 3.50" Wide x 1.00" High (Std)

TYPE: Plastic/Adhesive – Screw-on

RSN: **1504463**Permit #: **20-1900422**

|                 |                                 |                                                                                       |                           |
|-----------------|---------------------------------|---------------------------------------------------------------------------------------|---------------------------|
| JOB NAME:       | Costco Aurora,CO Depot – Costco | EQUIPMENT DESIGNATION:                                                                | 2H8 (Dry)                 |
| JOB LOCATION:   | AURORA CO                       | EQUIPMENT TYPE:                                                                       | NF (Circuit Breaker Type) |
| DRAWN BY:       | CAD                             | DRAWING TYPE:                                                                         | ONE LINE DIAGRAM          |
| ENGR:           |                                 |  |                           |
| DATE:           | December 30 2019                |                                                                                       |                           |
| DRAWING STATUS: | RECORD                          | DWG#                                                                                  | 042671088-034-01          |
|                 |                                 | PG 2                                                                                  | OF 2                      |
|                 |                                 | REV                                                                                   | —                         |