## GENERAL NOTES

1. AIC RATINGS ARE ESTIMATED BASED ON AVAILABLE DATA DURING DESIGN. CONTRACTOR TO VERIFY AVAILABLE FAULT CURRENT WITH UTILITY.
2. FAULT CURRENT, ARC FLASH, AND COORDINATION STUDY SHALL BE PERFORMED BY A THIRD PARTY ONCE EXACT PANEL PLACEMENT AND DISTANCES ARE DETERMINED. REFER TO SPECIFICATIONS SECTION 26 0573 FOR MORE INFORMATION.
3. PROVIDE A MINIMUM OF 10 SPARE 1P20A BREAKERS FOR EACH 120V SUB-PANEL.
4. NEW PANEL 'MDPA' SHALL BE REPLACED IN ITS EXISTING LOCATION. PANEL DESIGN BASED ON THE FOLLOWING:

   SQUARE D I-LINE PANELBOARD
   208Y/120V 3PH 4W, 1200A BUS, 1000A MLO.
   ENCLOSURE: HC4259DB
   BOX: TYPE 1 59H 42W
   COVER: HCW59TSD
5. RECONNECT THE NEW PANEL 'MDPA' TO THE EXISTING 1000A BREAKER IN THE EXISTING 'MDP'. EXISTING FEEDERS MAY BE REUSED WHERE IN SERVICEABLE CONDITION. PROVIDE NEW FEEDERS, CONDUIT, AND ANY OTHER ITEMS REQUIRED TO CONNECT THE NEW PANEL.
6. RECONNECT ALL EXISTING PANELS PREVIOUSLY SERVED FROM THE OLD PANEL 'MDPA' TO THE NEW PANEL 'MDPA'. EXISTING FEEDERS MAY BE REUSED WHERE IN SERVICABLE CONDITION. PROVIDE NEW BREAKERS AS INDICATED. PROVIDE NEW FEEDERS, CONDUIT, AND ANY OTHER ITEMS REQUIRED TO RECONNECT THE PANELS.

## EXISTING LOAD ANALYSIS

EXISTING MDP LOAD ANALYSIS:

PEAK LOAD AS REPORTED BY OG&E FOR THE YEAR 2020: 253A/PHASE

253A*1.25 (PER NEC 220.87) = 316.25A/PHASE

+DESIGN LOAD FROM NEW ADDITION = ~332A

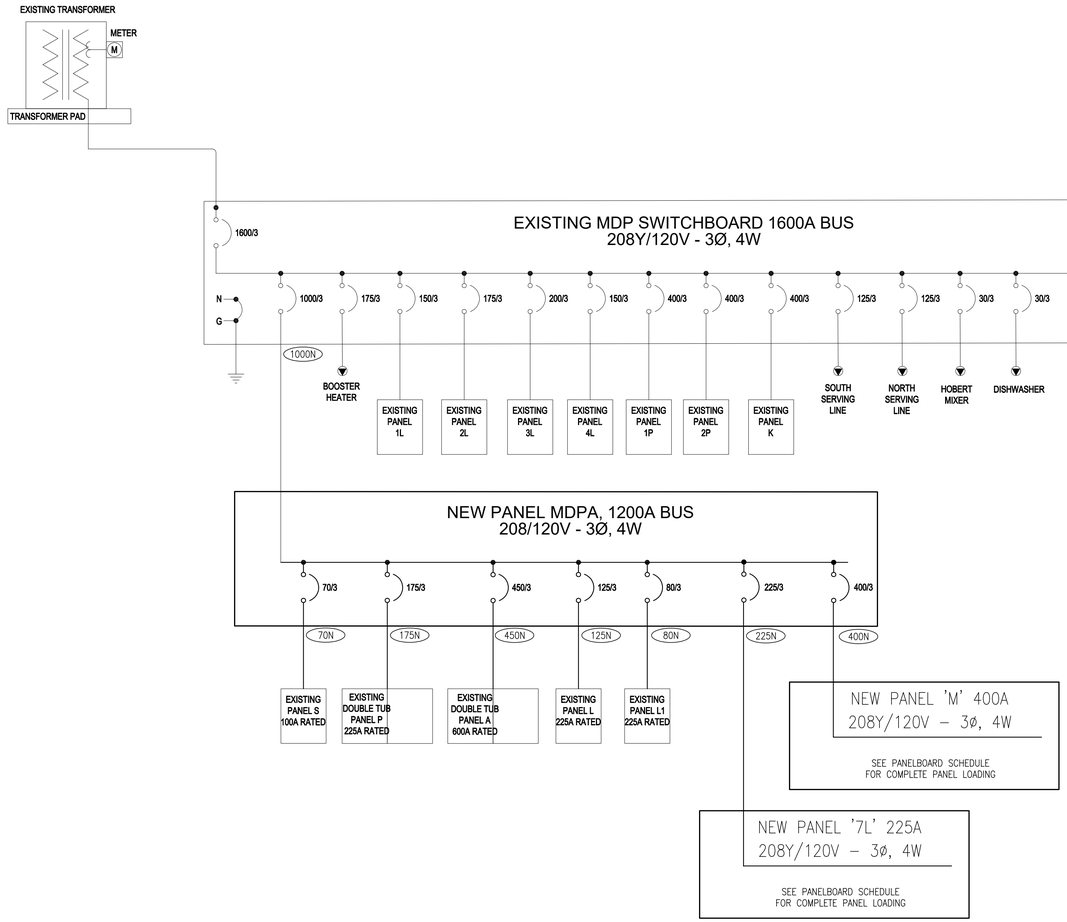
=> ~~648.25MAX ON THE EXISTING 1600A MDP.~~

## FEEDER SCHEDULE

| AMPS | CONDUIT SIZE 4W | CONDUIT SIZE 3W | PHASE CONDUCTORS | EQUIPMENT GROUND CONDUCTOR |
|---|---|---|---|---|
| 20 | 3/4" | 3/4" | #12 | #12 |
| 25 | 3/4" | 3/4" | #10 | #10 |
| 30 | 3/4" | 3/4" | #10 | #10 |
| 35 | 1" | 3/4" | #8 | #10 |
| 40 | 1" | 3/4" | #8 | #10 |
| 45 | 1" | 1" | #6 | #10 |
| 50 | 1" | 1" | #6 | #10 |
| 60 | 1 1/4" | 1 1/4" | #4 | #10 |
| 70 | 1 1/4" | 1 1/4" | #4 | #8 |
| 80 | 1 1/4" | 1 1/4" | #3 | #8 |
| 90 | 1 1/2" | 1 1/4" | #2 | #8 |
| 100 | 1 1/2" | 1 1/4" | #2 | #8 |
| 110 | 2" | 1 1/2" | #1 | #6 |
| 125 | 2" | 1 1/2" | #1 | #6 |
| 150 | 2" | 1 1/2" | #1/0 | #6 |
| 175 | 2" | 2" | #2/0 | #6 |
| 200 | 2" | 2" | #3/0 | #6 |
| 225 | 2 1/2" | 2" | #4/0 | #4 |
| 250 | 3" | 2 1/2" | 250 kcmil | #4 |
| 300 | 3" | 3" | 350 kcmil | #4 |
| 350 | 3 1/2" | 3" | 500 kcmil | #3 |
| 400 | (2) 2" | (2) 2" | 2 SETS OF #3/0 | #3 |
| 450 | (2) 2 1/2" | (2) 2" | 2 SETS OF #4/0 | #2 |
| 500 | (2) 2 1/2" | (2) 2 1/2" | 2 SETS OF 250 kcmil | #2 |
| 600 | (2) 3" | (2) 3" | 2 SETS OF 350 kcmil | #1 |
| 700 | (2) 3 1/2" | (2) 3" | 2 SETS OF 500 kcmil | #1/0 |
| 800 | (3) 3" | (3) 2 1/2" | 3 SETS OF 300 kcmil | #1/0 |
| 900 | (3) 3 1/2" | (3) 3" | 3 SETS OF 400 kcmil | #2/0 |
| 1000 | (3) 3 1/2" | (3) 3" | 3 SETS OF 500 kcmil | #2/0 |
| 1200 | (4) 3" | (4) 3" | 4 SETS OF 350 kcmil | #3/0 |
| 1600 | (5) 3 1/2" | (5) 3" | 5 SETS OF 500 kcmil | #4/0 |
| 1800 | (6) 3 1/2" | (6) 3" | 6 SETS OF 400 kcmil | 250 kcmil |
| 2000 | (6) 3 1/2" | (6) 3" | 6 SETS OF 500 kcmil | 250 kcmil |
| 2500 | (7) 3 1/2" | (7) 3" | 7 SETS OF 500 kcmil | 350 kcmil |

**NOTES:**

1. FEEDER SIZES ARE ON THE PLAN WHERE 60 REFERS TO A 60A FEEDER WITHOUT NEUTRAL AND 60N REFERS TO A 60A FEEDER WITH NEUTRAL.
2. SOME FEEDER SIZES DO NOT MATCH BREAKER SIZE DUE TO UP-SIZING OF THE FEEDER FOR VOLTAGE DROP.
3. CONDUITS ARE SIZED PER NEC TABLES FOR THHN/THWN AND MAY BE UPSIZED FOR EASE OF PULLING OR DOWNSIZED AS ALLOWED PER NEC FOR CONDUIT TYPE(S) BEING INSTALLED.
4. ALL CONDUCTORS 100A AND LESS ARE SIZED PER 60 DEGREE LUGS, EC MAY SIZE CONDUCTORS FOR ACTUAL RATING OF LUGS PER NEC.




**1** ELECTRICAL ONE-LINE DIAGRAM - NEW
NO SCALE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SEPTEMBER 2021
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