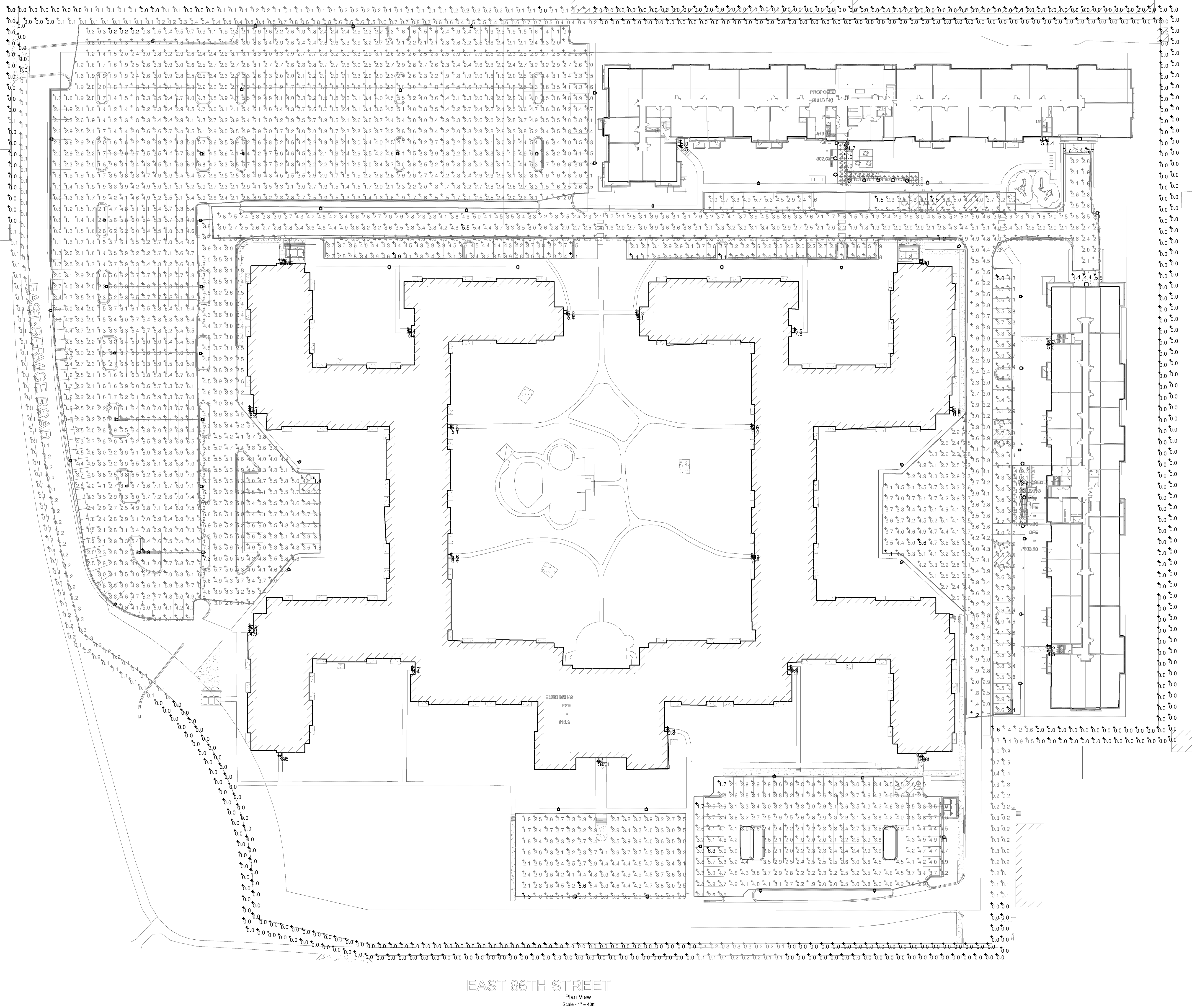


CASE #PL2020-69



LIGHTING PLAN APPROVED  
CITY OF BLOOMINGTON  
NMJ  
06/17/2020

1  
SITE INITIAL  
PHOTOMETRIC PLAN  
1" = 40'-0"

NOT FOR CONSTRUCTION - FOR REFERENCE ONLY 6/17/2020

URBANWORKS

SOLO APARTMENTS

1916, 1926 E 86th St, Bloomington, MN 55425

© URBANWORKS ARCHITECTURE LLC, 2019  
901 NORTH THIRD STREET, SUITE 145, MINNEAPOLIS, MN 55401

CONSULTANT

**STEEN**  
ENGINEERING

763-585-6742  
763-585-4757 fax  
Email: steen@steeneng.com

5430 Douglas Drive North  
Minneapolis, MN 55429

PRELIMINARY

NOT FOR CONSTRUCTION

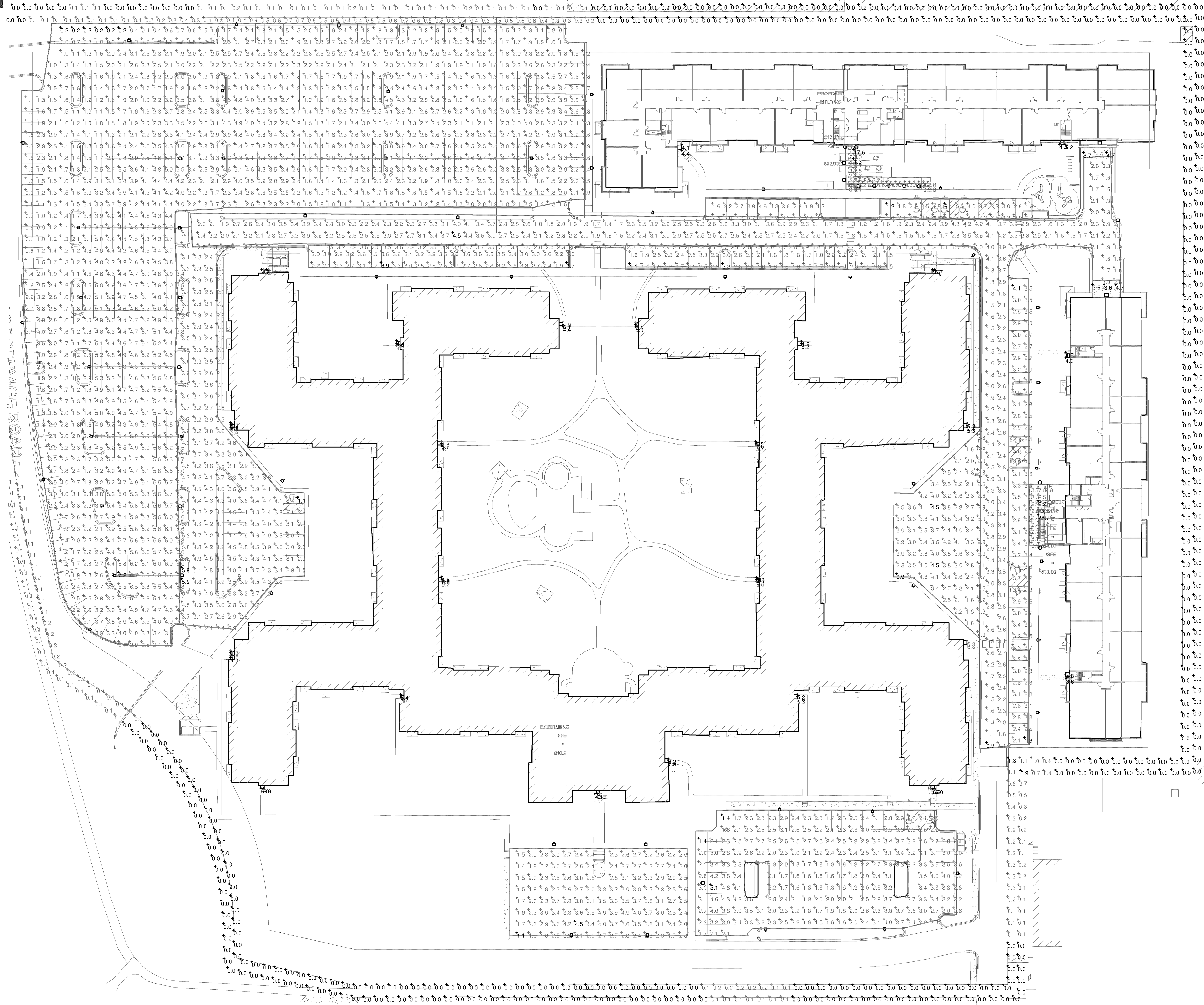
REVISIONS

| DATE      | PROJECT # | PHASE | DRAWN BY | CHECKED BY |
|-----------|-----------|-------|----------|------------|
| 6/17/2020 | UWA202001 | PHASE | JM       | JM         |

SITE  
PHOTOMETRIC  
PLAN

E101

CASE #PL2020-69



EAST 86TH STREET  
Plan View  
Scale: 1" = 40'

LIGHTING PLAN APPROVED  
CITY OF BLOOMINGTON  
NMJ  
06/17/2020

SITE MAINTAINED  
PHOTOMETRIC PLAN  
1" = 40'-0"

1

NOT FOR CONSTRUCTION – FOR REFERENCE ONLY 6/17/2020

Solo APARTMENTS

1918, 1926 E 86th St, Bloomington, MN 55425

URBANWORKS

© URBANWORKS ARCHITECTURE LLC, 2019  
501 NORTH THIRD STREET, SUITE 145, MINNEAPOLIS, MN 55401

CONSULTANT

**STEEN ENGINEERING**

763-585-6742  
763-585-4757 fax  
Email: steen@steeneng.com  
5430 Douglas Drive North  
Minneapolis, MN 55429

PRELIMINARY

NOT FOR CONSTRUCTION

REVISIONS

| NO. | DATE      | DESCRIPTION      |
|-----|-----------|------------------|
| 1   | 6/17/2020 | PHOTOMETRIC PLAN |

DATE: 6/17/2020  
PROJECT #: UWA202001  
PHASE: PHASE  
DRAWN BY: JM  
CHECKED BY: JM

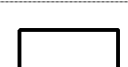
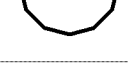
SITE  
PHOTOMETRIC  
PLAN

CASE #PL2020-69

LIGHTING PLAN APPROVED



INITIAL FIXTURE SCHEDULE

| Schedule                                                                          |       |          |                    |                           |                                                             |                                                  |              |                 |                   |         |                 |
|-----------------------------------------------------------------------------------|-------|----------|--------------------|---------------------------|-------------------------------------------------------------|--------------------------------------------------|--------------|-----------------|-------------------|---------|-----------------|
| Symbol                                                                            | Label | Quantity | Manufacturer       | Catalog Number            | Description                                                 | Lamp                                             | Number Lamps | Lumens Per Lamp | Light Loss Factor | Wattage | Mounting Height |
|  | CC    | 4        | PRESCOLITE         | LF6LEDG4 6LFLED7G430KFL35 | 6inch LiteFrame, Remote Phosphor 3000K, Narrow distribution | 1 - Philips Fortimo LED DLM 2000 21W/830 UL Gen4 | 1            | 1867            | 1                 | 26      | 10'             |
|  | DD    | 9        | SPAULDING LIGHTING | TMR-12LU-3K-XX            | ROUND LED BOLLARD w/ SPECULAR ALUMINUM HEAT-SINK            | 12 - NICHIA LEDs                                 | 1            | 966             | 1                 | 29.6    | 3'              |
|  | EE    | 24       | HUBBELL OUTDOOR    | LNC2-12LU-4K-4            | LNC2, 12 LED, 4000K, TYPE 4                                 | 12- NICHIA 4K LEDS                               | 1            | 2711            | 1                 | 28.3    | 7'              |
|  | EE1   | 2        | HUBBELL OUTDOOR    | LNC2-18LU-4K-4            | LNC2, 18 LED, 4000K, TYPE 4                                 | 18- NICHIA 4K LEDS                               | 1            | 3997            | 1                 | 44.8    | 10'             |
|  | FF    | 0        | WAC LIGHTING       | DS-WE05-S35S-WT           | Surface-mounted Luminaires                                  |                                                  | 1            | 2348            | 1                 | 24.6797 | 7'              |
|  | AA    | 3        | Beacon Products    | VP-L-80L-180-4K7-2-BC     | LARGE VIPER                                                 | X-70-CRI                                         | 1            | 13708           | 1                 | 181.3   |                 |
|  | AA1   | 30       | Beacon Products    | VP-L-80L-180-4K7-3-BC     | LARGE VIPER                                                 | X-70-CRI                                         | 1            | 13107           | 1                 | 181.3   |                 |
|  | AA2   | 19       | Beacon Products    | VP-L-80L-180-4K7-4        | LARGE VIPER                                                 | X-70-CRI DATA SHOWN IS ABSOLUTE                  | 1            | 22168           | 1                 | 181.3   |                 |
|  | AA3   | 7        | Beacon Products    | VP-L-80L-180-4K7-5W       | LARGE VIPER                                                 | X-70-CRI DATA SHOWN IS ABSOLUTE                  | 1            | 21688           | 1                 | 181.3   |                 |

MAINTAINED FIXTURE SCHEDULE

| Schedule                                                                            |       |          |                    |                              |                                                             |                                                  |              |                 |                   |         |                 |
|-------------------------------------------------------------------------------------|-------|----------|--------------------|------------------------------|-------------------------------------------------------------|--------------------------------------------------|--------------|-----------------|-------------------|---------|-----------------|
| Symbol                                                                              | Label | Quantity | Manufacturer       | Catalog Number               | Description                                                 | Lamp                                             | Number Lamps | Lumens Per Lamp | Light Loss Factor | Wattage | Mounting Height |
|  | CC    | 4        | PRESCOLITE         | LF6LEDG4<br>6LFLED7G430KFL35 | 6inch LiteFrame, Remote Phosphor 3000K, Narrow distribution | 1 - Philips Fortimo LED DLM 2000 21W/830 UL Gen4 | 1            | 1867            | 0.81              | 26      | 10'             |
|  | DD    | 9        | SPAULDING LIGHTING | TMR-12LU-3K-XX               | ROUND LED BOLLARD w/ SPECULAR AMUMINUM HEAT-SINK            | 12 - NICHIA LEDs                                 | 1            | 966             | 0.81              | 29.6    | 3'              |
|  | EE    | 24       | HUBBELL OUTDOOR    | LNC2-12LU-4K-4               | LNC2, 12 LED, 4000K, TYPE 4                                 | 12- NICHIA 4K LEDS                               | 1            | 2711            | 0.81              | 28.3    | 7'              |
|  | EE1   | 2        | HUBBELL OUTDOOR    | LNC2-18LU-4K-4               | LNC2, 18 LED, 4000K, TYPE 4                                 | 18- NICHIA 4K LEDS                               | 1            | 3997            | 0.81              | 44.8    | 10'             |
|  | FF    | 0        | WAC LIGHTING       | DS-WE05-S35S-WT              | Surface-mounted Luminaires                                  |                                                  | 1            | 2348            | 0.81              | 24.6797 | 7'              |
|  | AA    | 3        | Beacon Products    | VP-L-80L-180-4K7-2-BC        | LARGE VIPER                                                 | X-70-CRI                                         | 1            | 13708           | 0.81              | 181.3   |                 |
|  | AA1   | 30       | Beacon Products    | VP-L-80L-180-4K7-3-BC        | LARGE VIPER                                                 | X-70-CRI                                         | 1            | 13107           | 0.81              | 181.3   |                 |
|  | AA2   | 19       | Beacon Products    | VP-L-80L-180-4K7-4           | LARGE VIPER                                                 | X-70-CRI DATA SHOWN IS ABSOLUTE                  | 1            | 22168           | 0.81              | 181.3   |                 |
|  | AA3   | 7        | Beacon Products    | VP-L-80L-180-4K7-5W          | LARGE VIPER                                                 | X-70-CRI DATA SHOWN IS ABSOLUTE                  | 1            | 21688           | 0.81              | 181.3   |                 |

INITIAL STATISTICS

| Statistics                      |        |        |         |        |         |         |
|---------------------------------|--------|--------|---------|--------|---------|---------|
| Description                     | Symbol | Avg    | Max     | Min    | Max/Min | Avg/Min |
| 10' Beyond Property Line        | +      | 0.0 fc | 1.1 fc  | 0.0 fc | N/A     | N/A     |
| Building A Entrance             | +      | 7.1 fc | 31.7 fc | 2.8 fc | 11.3:1  | 2.5:1   |
| Building A Garage Door          | +      | 4.9 fc | 5.9 fc  | 4.4 fc | 1.3:1   | 1.1:1   |
| Building A Parking              | +      | 3.7 fc | 5.0 fc  | 2.4 fc | 2.1:1   | 1.5:1   |
| Building A Side Door A (3')     | +      | 5.1 fc | 5.2 fc  | 5.0 fc | 1.0:1   | 1.0:1   |
| Building A Side Door B (3')     | +      | 5.8 fc | 7.2 fc  | 4.5 fc | 1.6:1   | 1.3:1   |
| Building B Entrance             | +      | 5.8 fc | 21.7 fc | 1.6 fc | 13.6:1  | 3.6:1   |
| Building B Garage Door          | +      | 5.2 fc | 5.7 fc  | 4.6 fc | 1.2:1   | 1.1:1   |
| Building B Parking              | +      | 4.0 fc | 7.5 fc  | 1.5 fc | 5.0:1   | 2.7:1   |
| Building B Side Door A (3')     | +      | 5.3 fc | 5.5 fc  | 5.0 fc | 1.1:1   | 1.1:1   |
| Building B Side Door B (3')     | +      | 5.9 fc | 6.4 fc  | 5.3 fc | 1.2:1   | 1.1:1   |
| Existing Building East Parking  | +      | 3.7 fc | 5.6 fc  | 1.1 fc | 5.1:1   | 3.4:1   |
| Existing Building Entrance (3') | +      | 6.2 fc | 7.5 fc  | 4.9 fc | 1.5:1   | 1.3:1   |
| Existing Building Entrance (3') | +      | 8.0 fc | 9.4 fc  | 6.7 fc | 1.4:1   | 1.2:1   |
| Existing Building Entrance (3') | +      | 8.7 fc | 9.8 fc  | 7.6 fc | 1.3:1   | 1.1:1   |
| Existing Building Entrance (3') | +      | 7.0 fc | 8.6 fc  | 6.1 fc | 1.4:1   | 1.1:1   |
| Existing Building Entrance (3') | +      | 6.3 fc | 7.6 fc  | 5.3 fc | 1.4:1   | 1.2:1   |
| Existing Building Entrance (3') | +      | 7.3 fc | 8.8 fc  | 6.5 fc | 1.4:1   | 1.1:1   |
| Existing Building Entrance (3') | +      | 6.5 fc | 7.6 fc  | 5.5 fc | 1.4:1   | 1.2:1   |
| Existing Building Entrance (3') | +      | 7.0 fc | 8.7 fc  | 6.1 fc | 1.4:1   | 1.1:1   |
| Existing Building Entrance (3') | +      | 6.8 fc | 7.1 fc  | 6.6 fc | 1.1:1   | 1.0:1   |
| Existing Building Entrance (3') | +      | 7.1 fc | 8.7 fc  | 5.6 fc | 1.6:1   | 1.3:1   |
| Existing Building Entrance (3') | +      | 7.8 fc | 7.8 fc  | 7.8 fc | 1.0:1   | 1.0:1   |
| Existing Building Entrance (3') | +      | 7.4 fc | 9.4 fc  | 6.4 fc | 1.5:1   | 1.2:1   |
| Existing Building Entrance (3') | +      | 6.7 fc | 8.0 fc  | 5.1 fc | 1.6:1   | 1.3:1   |
| Existing Building Entrance (3') | +      | 8.0 fc | 8.6 fc  | 7.4 fc | 1.2:1   | 1.1:1   |
| Existing Building Entrance (3') | +      | 6.7 fc | 8.2 fc  | 5.6 fc | 1.5:1   | 1.2:1   |
| Existing Building Entrance (3') | +      | 7.7 fc | 8.9 fc  | 6.5 fc | 1.4:1   | 1.2:1   |
| Existing Building Entrance (3') | +      | 6.0 fc | 7.0 fc  | 5.1 fc | 1.4:1   | 1.2:1   |
| Existing Building Entrance (3') | +      | 6.3 fc | 7.6 fc  | 5.4 fc | 1.4:1   | 1.2:1   |
| Existing Building Entrance (3') | +      | 6.2 fc | 7.3 fc  | 5.4 fc | 1.4:1   | 1.1:1   |
| Existing Building Entrance (3') | +      | 7.1 fc | 8.8 fc  | 5.7 fc | 1.5:1   | 1.2:1   |
| Existing Building Parking       | +      | 3.7 fc | 4.9 fc  | 2.1 fc | 2.3:1   | 1.8:1   |
| Existing Building Parking       | +      | 2.6 fc | 4.1 fc  | 1.4 fc | 2.9:1   | 1.9:1   |
| Existing Building South Parking | +      | 3.4 fc | 5.6 fc  | 1.3 fc | 4.3:1   | 2.6:1   |
| Existing Building West Parking  | +      | 4.4 fc | 7.3 fc  | 1.4 fc | 5.2:1   | 3.1:1   |
| Main Parking                    | +      | 3.6 fc | 8.9 fc  | 0.2 fc | 44.5:1  | 18.0:1  |
| Property Line                   | +      | 0.1 fc | 1.6 fc  | 0.0 fc | N/A     | N/A     |
| Roadway                         | +      | 3.1 fc | 5.5 fc  | 1.2 fc | 4.6:1   | 2.6:1   |
| South Parking                   | +      | 3.3 fc | 6.3 fc  | 1.7 fc | 3.7:1   | 1.9:1   |

MAINTAINED STATISTICS

| Statistics                      |        |        |         |        |         |         |
|---------------------------------|--------|--------|---------|--------|---------|---------|
| Description                     | Symbol | Avg    | Max     | Min    | Max/Min | Avg/Min |
| 10' Beyond Property Line        | +      | 0.0 fc | 0.9 fc  | 0.0 fc | N/A     | N/A     |
| Building A Entrance             | +      | 5.7 fc | 25.7 fc | 2.2 fc | 11.7:1  | 2.6:1   |
| Building A Garage Door          | +      | 4.0 fc | 4.7 fc  | 3.6 fc | 1.3:1   | 1.1:1   |
| Building A Parking              | +      | 3.0 fc | 4.1 fc  | 1.9 fc | 2.2:1   | 1.6:1   |
| Building A Side Door A (3')     | +      | 4.1 fc | 4.2 fc  | 4.0 fc | 1.1:1   | 1.0:1   |
| Building A Side Door B (3')     | +      | 4.7 fc | 5.8 fc  | 3.6 fc | 1.6:1   | 1.3:1   |
| Building B Entrance             | +      | 4.7 fc | 17.6 fc | 1.3 fc | 13.5:1  | 3.6:1   |
| Building B Garage Door          | +      | 4.2 fc | 4.7 fc  | 3.7 fc | 1.3:1   | 1.1:1   |
| Building B Parking              | +      | 3.2 fc | 6.1 fc  | 1.2 fc | 5.1:1   | 2.7:1   |
| Building B Side Door A (3')     | +      | 4.3 fc | 4.4 fc  | 4.1 fc | 1.1:1   | 1.0:1   |
| Building B Side Door B (3')     | +      | 4.8 fc | 5.2 fc  | 4.3 fc | 1.2:1   | 1.1:1   |
| Existing Building East Parking  | +      | 3.0 fc | 4.5 fc  | 0.9 fc | 5.0:1   | 3.3:1   |
| Existing Building Entrance (3') | +      | 5.0 fc | 6.1 fc  | 4.0 fc | 1.5:1   | 1.3:1   |
| Existing Building Entrance (3') | +      | 6.5 fc | 7.6 fc  | 5.4 fc | 1.4:1   | 1.2:1   |
| Existing Building Entrance (3') | +      | 7.0 fc | 7.9 fc  | 6.2 fc | 1.3:1   | 1.1:1   |
| Existing Building Entrance (3') | +      | 5.7 fc | 6.9 fc  | 5.0 fc | 1.4:1   | 1.1:1   |
| Existing Building Entrance (3') | +      | 5.2 fc | 6.2 fc  | 4.3 fc | 1.4:1   | 1.2:1   |
| Existing Building Entrance (3') | +      | 5.9 fc | 7.1 fc  | 5.3 fc | 1.3:1   | 1.1:1   |
| Existing Building Entrance (3') | +      | 5.3 fc | 6.2 fc  | 4.5 fc | 1.4:1   | 1.2:1   |
| Existing Building Entrance (3') | +      | 5.7 fc | 7.1 fc  | 5.0 fc | 1.4:1   | 1.1:1   |
| Existing Building Entrance (3') | +      | 5.5 fc | 5.7 fc  | 5.3 fc | 1.1:1   | 1.0:1   |
| Existing Building Entrance (3') | +      | 5.7 fc | 7.0 fc  | 4.5 fc | 1.6:1   | 1.3:1   |
| Existing Building Entrance (3') | +      | 6.3 fc | 6.3 fc  | 6.3 fc | 1.0:1   | 1.0:1   |
| Existing Building Entrance (3') | +      | 6.0 fc | 7.6 fc  | 5.2 fc | 1.5:1   | 1.2:1   |
| Existing Building Entrance (3') | +      | 5.5 fc | 6.5 fc  | 4.1 fc | 1.6:1   | 1.3:1   |
| Existing Building Entrance (3') | +      | 6.5 fc | 6.9 fc  | 6.0 fc | 1.2:1   | 1.1:1   |
| Existing Building Entrance (3') | +      | 5.5 fc | 6.6 fc  | 4.6 fc | 1.4:1   | 1.2:1   |
| Existing Building Entrance (3') | +      | 6.3 fc | 7.2 fc  | 5.3 fc | 1.4:1   | 1.2:1   |
| Existing Building Entrance (3') | +      | 4.9 fc | 5.7 fc  | 4.1 fc | 1.4:1   | 1.2:1   |
| Existing Building Entrance (3') | +      | 5.1 fc | 6.1 fc  | 4.4 fc | 1.4:1   | 1.2:1   |
| Existing Building Entrance (3') | +      | 5.0 fc | 5.9 fc  | 4.4 fc | 1.3:1   | 1.1:1   |
| Existing Building Entrance (3') | +      | 5.7 fc | 7.1 fc  | 4.6 fc | 1.5:1   | 1.2:1   |
| Existing Building Parking       | +      | 3.0 fc | 3.9 fc  | 1.7 fc | 2.3:1   | 1.8:1   |
| Existing Building Parking       | +      | 2.1 fc | 3.3 fc  | 1.1 fc | 3.0:1   | 1.9:1   |
| Existing Building South Parking | +      | 2.8 fc | 4.5 fc  | 1.1 fc | 4.1:1   | 2.5:1   |
| Existing Building West Parking  | +      | 3.6 fc | 5.9 fc  | 1.1 fc | 5.4:1   | 3.3:1   |
| Main Parking                    | +      | 2.9 fc | 7.2 fc  | 0.2 fc | 36.0:1  | 14.5:1  |
| Property Line                   | +      | 0.1 fc | 1.3 fc  | 0.0 fc | N/A     | N/A     |
| Roadway                         | +      | 2.5 fc | 4.5 fc  | 0.9 fc | 5.0:1   | 2.8:1   |
| South Parking                   | +      | 2.7 fc | 5.1 fc  | 1.4 fc | 3.6:1   | 1.9:1   |

Solo APARTMENTS  
1916, 1926 E 8th St, Bloomington, MN 55425

URBANWORKS

© URBANWORKS ARCHITECTURE LLC, 2019  
801 NORTH THIRD STREET, SUITE 145, MINNEAPOLIS, MN 55401

CONSULTANT

STEEN  
ENGINEERING

763-585-6742  
763-585-6757 fax  
Email: steen@steeneng.com  
5430 Douglas Drive North  
Minneapolis, MN 55429

PRELIMINARY

NOT FOR  
CONSTRUCTION

REVISIONS

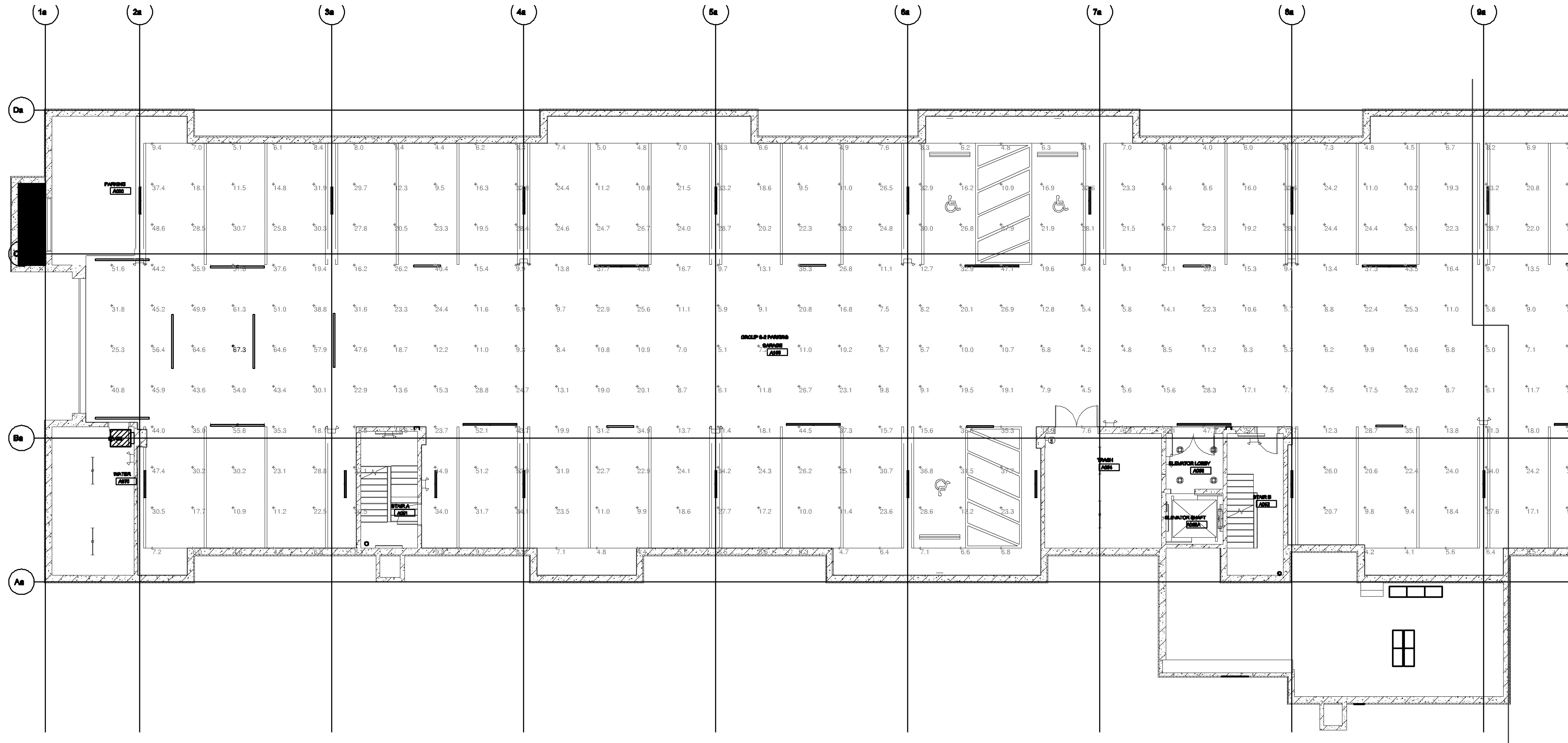
DATE: 6/17/2020  
PROJECT # UWA202001  
PHASE PHASE  
DRAWN BY JM  
CHECKED BY JM

SITE  
PHOTOMETRIC  
PLAN

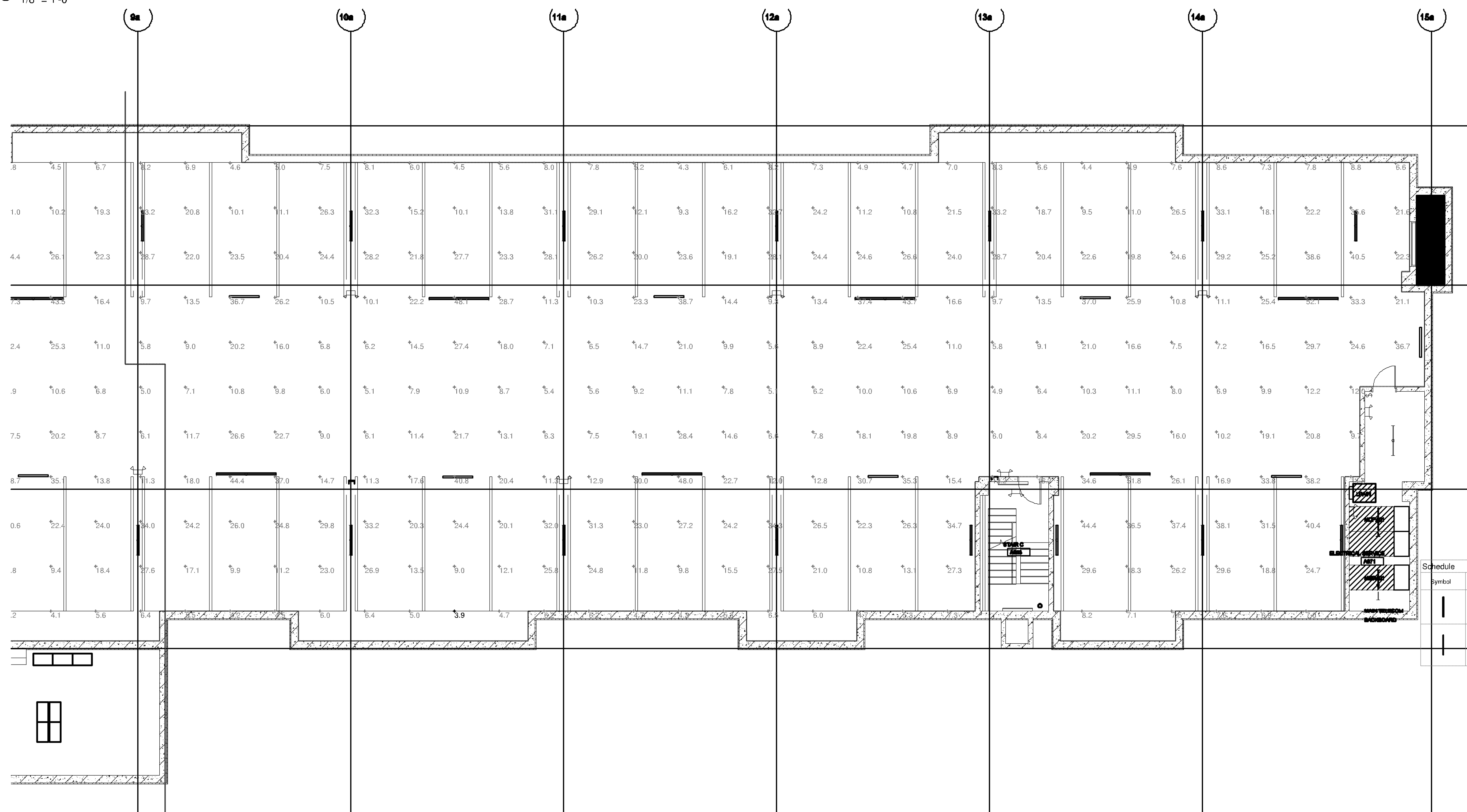
E103

NOT FOR CONSTRUCTION – FOR REFERENCE ONLY 6/17/2020





1. BUILDING A SUBLEVEL 1 AREA 1 PHOTOMETRIC PLAN - INITIAL  
1/8" = 1'-0"



2. BUILDING A SUBLEVEL 1 AREA 2 PHOTOMETRIC PLAN - INITIAL  
1/8" = 1'-0"

CASE #PL2020-69

LIGHTING PLAN APPROVED  
CITY OF BLOOMINGTON  
NMJ  
06/17/2020

| Symbol | Label | Quantity | Manufacturer      | Catalog Number    | Description                                                                                                                                          | Lamp | Number Lamps | Filename             | Lumens Per Lamp | Light Loss Factor | Wattage |
|--------|-------|----------|-------------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------|----------------------|-----------------|-------------------|---------|
| Q      |       | 43       | COLUMBIA LIGHTING | MPS4-3DUL-FW-EDU  | Narrow LED, Surface Narrow Strip Light 4ft with frosted linear internal lens. Data Scaled from Test# 17.02946                                        |      |              | MPS4-3DUL-FW-EDU.lvs | 7912            | 1                 | 66.9    |
| Q1     |       | 19       | COLUMBIA LIGHTING | MPS8-39LHE-FW-EDU | MultiPurpose Linear, Surface Narrow Strip Light 8ft with frosted linear printed lens. Data Scaled from Test# 09165, 09166 Scaled from Test# 17.03020 |      | 1            | Type Q1.lvs          | 10600           | 1                 | 82      |

| Statistics       |        |         |         |        |         |         |
|------------------|--------|---------|---------|--------|---------|---------|
| Description      | Symbol | Avg     | Max     | Min    | Max/Min | Avg/Min |
| Building A Group | +      | 18.0 fc | 67.3 fc | 3.9 fc | 17.3:1  | 4.9:1   |

SOLO APARTMENTS

1918, 1926 E 8th St. Bloomington, MN 55405

URBANWORKS

© URBANWORKS ARCHITECTURE LLC, 2019  
901 NORTH THIRD STREET, SUITE 145, MINNEAPOLIS, MN 55401

CONSULTANT

**STEEN**  
ENGINEERING  
763-585-6742  
763-585-4757 fax  
Email: steen@steeneng.com  
5430 Douglas Drive North  
Minneapolis, MN 55429

PRELIMINARY

NOT FOR  
CONSTRUCTION

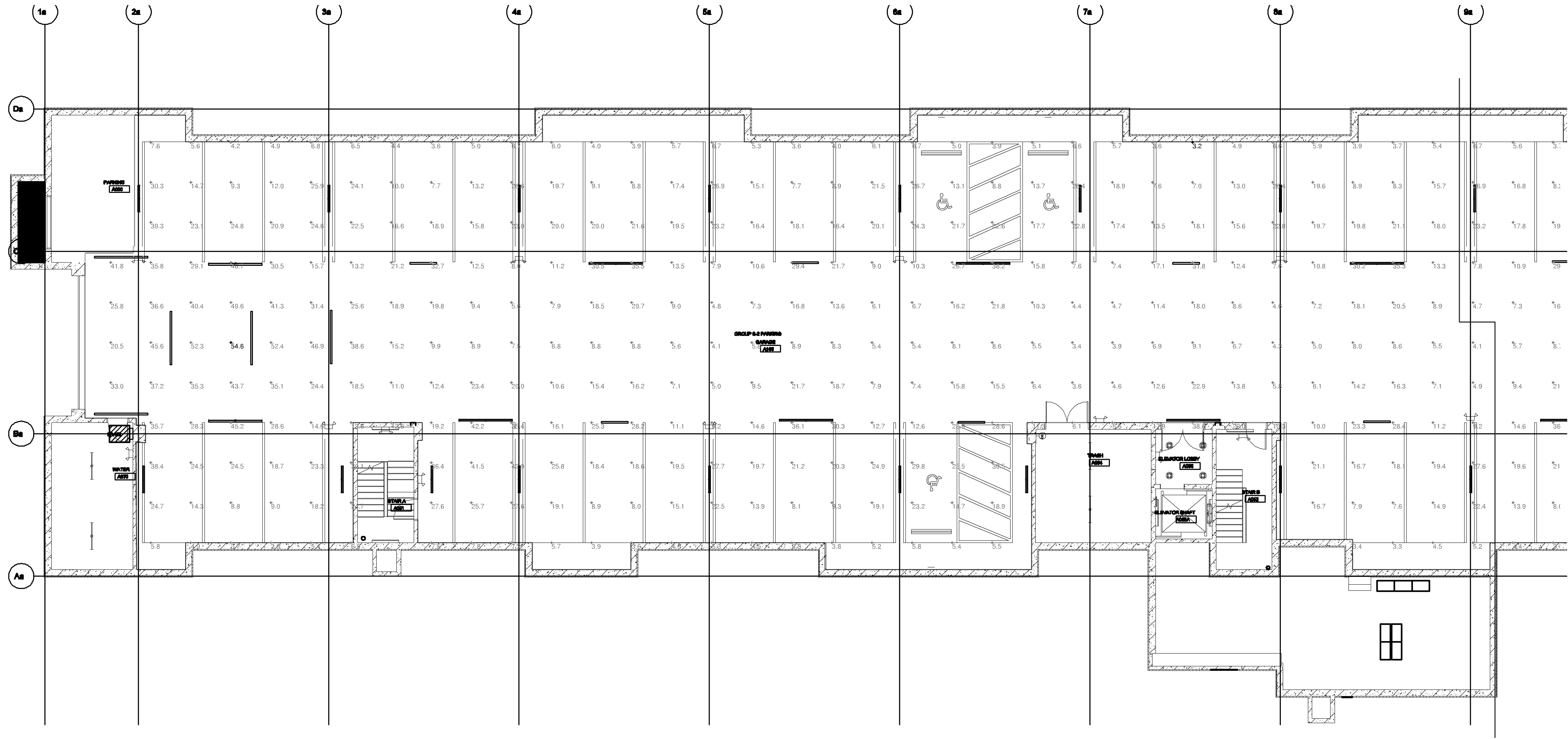
REVISIONS

DATE: 06/17/2020  
PROJECT # UWA202001  
PHASE PHASE  
DRAWN BY JM  
CHECKED BY JM

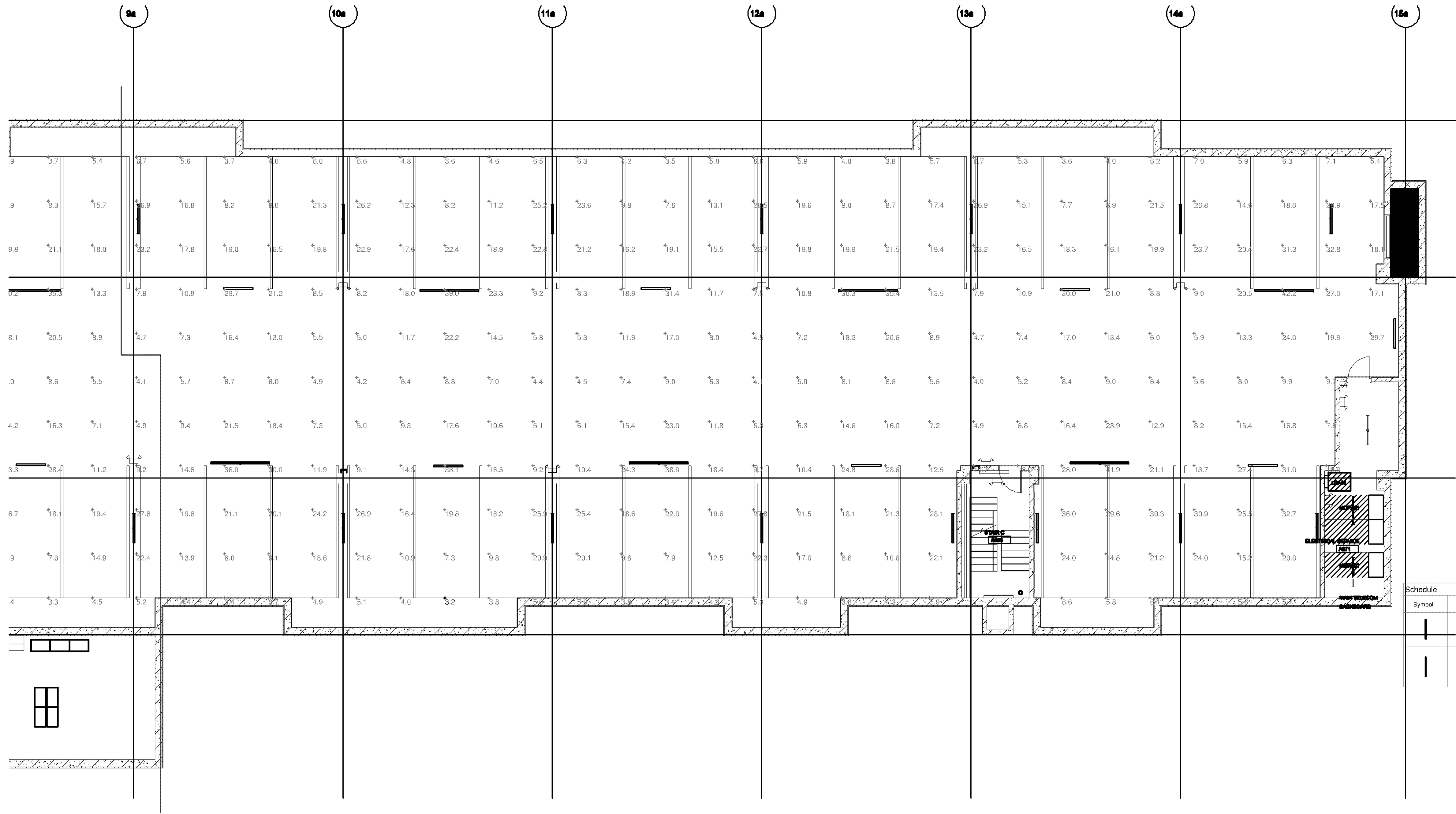
BUILDING A  
GARAGE  
PHOTOMETRICS -  
INITIAL

E105

NOT FOR CONSTRUCTION - FOR REFERENCE ONLY 6/17/2020



1 BUILDING A SUBLEVEL 1 AREA 1 PHOTOMETRIC PLAN - MAINTAINED  
1/8" = 1'-0"



2 BUILDING A SUBLEVEL 1 AREA 2 PHOTOMETRIC PLAN - MAINTAINED  
1/8" = 1'-0"

CASE #PL2020-69

LIGHTING PLAN APPROVED  
NMJ  
06/17/2020

| Symbol | Label | Quantity | Manufacturer      | Catalog Number    | Description                                                                                                     | Lamp | Number Lamps | Footcandle      | Lumens Per Footcandle | Light Loss Factor | Wattage |
|--------|-------|----------|-------------------|-------------------|-----------------------------------------------------------------------------------------------------------------|------|--------------|-----------------|-----------------------|-------------------|---------|
| Q      |       | 43       | COLUMBIA LIGHTING | MPS4-35X-FW-EDU   | Narrow LED, Surface Narrow Beam Light with frosted linear prismatic lens Data Scaled from Test 17-0304          |      | 1            | MPS4-35X-FW-EDU | 7812                  | 0.81              | 66.9    |
| Q1     |       | 19       | COLUMBIA LIGHTING | MPS9-35HLE-FW-EDU | MultiPurpose Linear, Surface Narrow Beam Light with frosted linear prismatic lens Data Scaled from Test 17-0303 |      | 1            | Type Q1         | 10900                 | 0.81              | 82      |

| Statistics        |        |         |         |        |         |         |
|-------------------|--------|---------|---------|--------|---------|---------|
| Description       | Symbol | Avg     | Max     | Min    | Max/Min | Avg/Min |
| Building A Garage | +      | 15.4 fc | 54.6 fc | 3.2 fc | 17.1:1  | 4.8:1   |

Solo APARTMENTS  
1918, 1926 E 8th St. Bloomington, MN 55405

URBANWORKS

CONSULTANT  
**STEEN ENGINEERING**  
763-585-6742  
763-585-4757 fax  
Email: steen@steeneng.com  
5430 Douglas Drive North  
Minneapolis, MN 55429

PRELIMINARY  
NOT FOR CONSTRUCTION

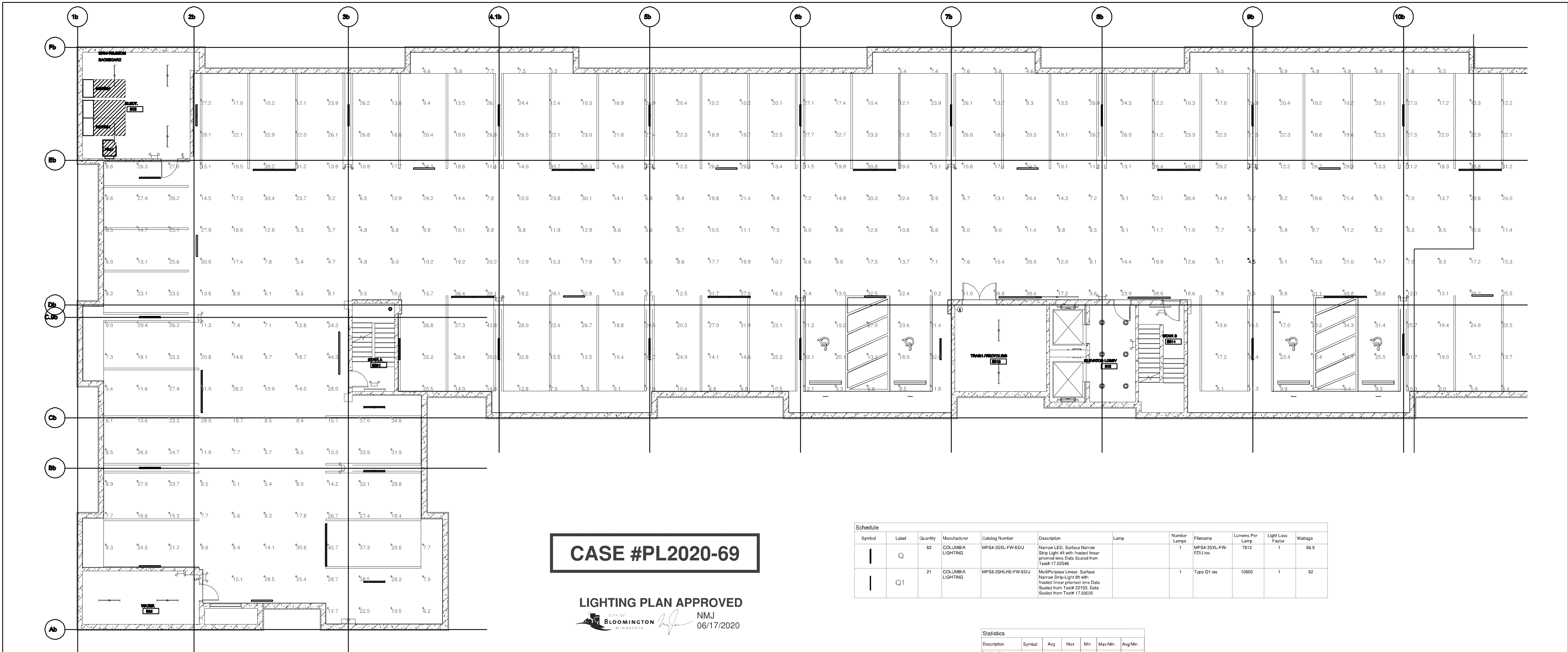
REVISIONS

DATE PROJECT # UWA202001  
PHASE PHASE  
DRAWN BY JM  
CHECKED BY JM

BUILDING A  
GARAGE  
PHOTOMETRICS -  
MAINTAINED

E106

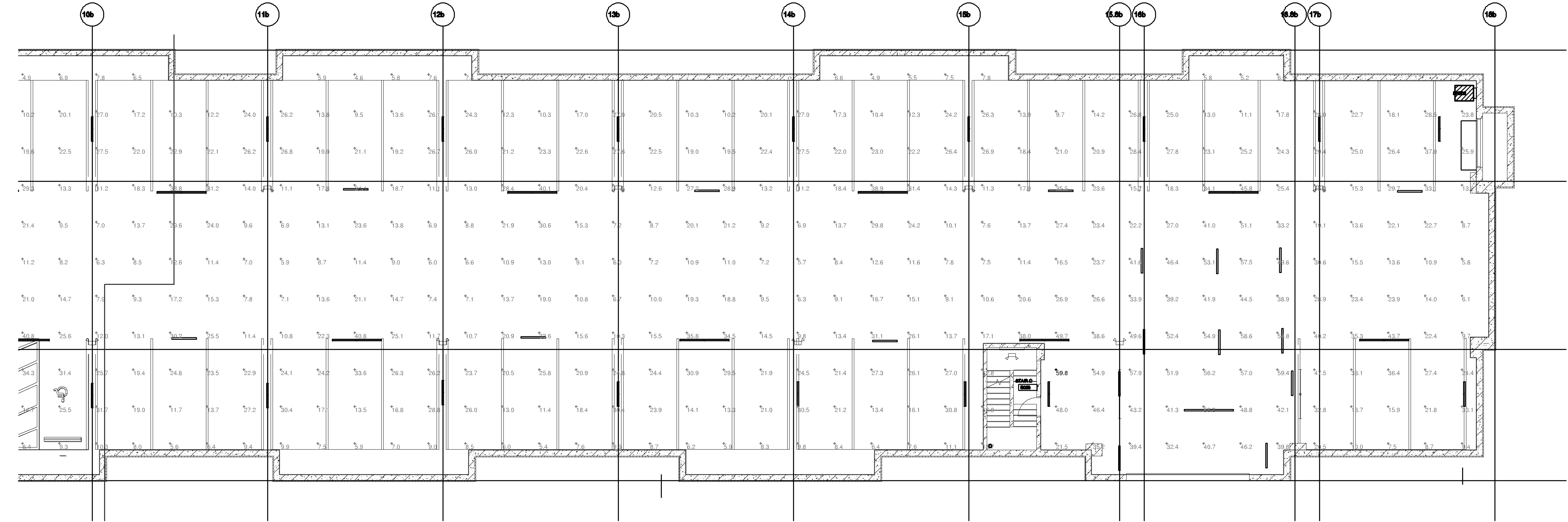
NOT FOR CONSTRUCTION - FOR REFERENCE ONLY 6/17/2020



| Schedule |       |          |                   |                  |                                                                                                                                                      |      |              |                     |                 |                   |
|----------|-------|----------|-------------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------|---------------------|-----------------|-------------------|
| Symbol   | Label | Quantity | Manufacturer      | Catalog Number   | Description                                                                                                                                          | Lamp | Number Lamps | Filename            | Lumens Per Lamp | Light Loss Factor |
|          | Q     | 63       | COLUMBIA LIGHTING | MP54-35XL-FW-EDU | Narrow LED, Surface Narrow Strip Light 4ft with frosted linear prismatic lens Data Scaled from Test# 17.0544                                         |      | 1            | MP54-35XL-FW-EDU-ls | 7812            | 1                 |
|          | Q1    | 21       | COLUMBIA LIGHTING | MP58-39LH-FW-EDU | MultiPurpose Linear, Surface Narrow Strip Light 8ft with frosted linear prismatic lens Data Scaled from Test# 22.183, Data Scaled from Test# 17.0544 |      | 1            | Type Q1-ls          | 10600           | 1                 |

| Statistics        |        |         |         |        |         |         |
|-------------------|--------|---------|---------|--------|---------|---------|
| Description       | Symbol | Avg     | Max     | Min    | Max/Min | Avg/Min |
| Building B Garage | +      | 15.1 fc | 59.6 fc | 4.5 fc | 13.3:1  | 4.2:1   |

1. BUILDING B SUBLEVEL 1 AREA 1 PHOTOMETRIC PLAN - INITIAL  
1/8" = 1'-0"



2. BUILDING B SUBLEVEL 1 AREA 2 PHOTOMETRIC PLAN - INITIAL  
1/8" = 1'-0"

NOT FOR CONSTRUCTION - FOR REFERENCE ONLY 6/17/2020

URBANWORKS

1916, 1926 E 8th St. Bloomington, MN 55425

STEEN ENGINEERING

763-585-6742  
763-585-4757 fax  
Email: steen@steeneng.com  
5430 Douglas Drive North  
Minneapolis, MN 55429

CONSULTANT

PRELIMINARY

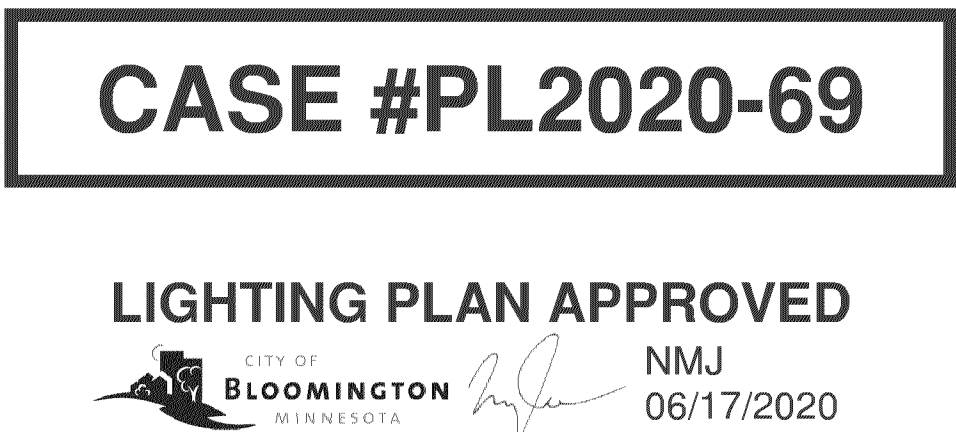
NOT FOR CONSTRUCTION

REVISIONS

DATE: 6/17/2020  
PROJECT # UWA202001  
PHASE PHASE  
DRAWN BY JM  
CHECKED BY JM

BUILDING B GARAGE PHOTOMETRICS - INITIAL

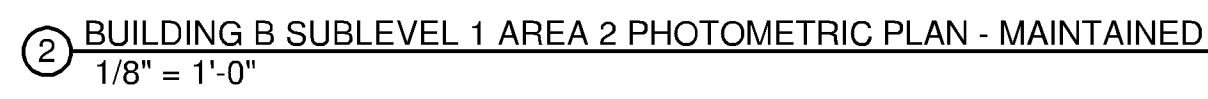
E107



| Schedule |       |          |                   |                   |                                                                                                                                                  |      |              |                      |                 |                   |         |
|----------|-------|----------|-------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------|----------------------|-----------------|-------------------|---------|
| Symbol   | Label | Quantity | Manufacturer      | Catalog Number    | Description                                                                                                                                      | Lamp | Number Lamps | Filename             | Lumens Per Lamp | Light Loss Factor | Wattage |
| 1        | Q     | 63       | COLUMBIA LIGHTING | MP84-35XL-FW-EDU  | Narrow LED, Surface Narrow Strip Light 4x with frosted linear primed lens Data Scaled from Test# 17.02546                                        |      | 1            | MP84-35XL-FW-EDU.xls | 7912            | 0.81              | 66.9    |
|          | Q1    | 21       | COLUMBIA LIGHTING | MP89-39LHE-FW-EDU | MultiPurpose Linear, Surface Narrow Strip Light 6x with frosted linear primed lens Data Scaled from Test# 20103, Data Scaled from Test# 17.02620 |      | 1            | Type Q1.xls          | 10600           | 0.81              | 82      |

| Statistics        |                                                                                       |         |         |        |         |         |
|-------------------|---------------------------------------------------------------------------------------|---------|---------|--------|---------|---------|
| Description       | Symbol                                                                                | Avg     | Max     | Min    | Max/Min | Avg/Min |
| Building B Garage |  | 15.5 tc | 48.5 tc | 3.6 tc | 13.5:1  | 4.3:1   |

① BUILDING B SUBLEVEL 1 AREA 1 PHOTOMETRIC PLAN - MAINTAINED  
1/8" = 1'-0"



**NOT FOR CONSTRUCTION - FOR REFERENCE ONLY 6/17/2020**

**SoLo APARTMENTS**  
1916, 1926 E 86th St, Bloomington, MN 55425

1916, 1926 E 86th St, Bloomington, MN 55425

© URBANWORKS ARCHITECTURE LLC, 2019

© URBANWORKS ARCHITECTURE LLC, 2019

URBANWORKS

CONSULTANT

STEEN  
ENGINEERING

763-585-6742  
763-585-6757 fax  
Email: [steen@steeneng.com](mailto:steen@steeneng.com)  
5430 Douglas Drive North  
Minneapolis, MN 55429

PRELIMINARY

NOT FOR  
CONSTRUCTION

## REVISIONS

|            |            |
|------------|------------|
| DATE       | ##/##/#### |
| PROJECT #  | UWA202001  |
| PHASE      | PHASE      |
| DRAWN BY   | JM         |
| CHECKED BY | JM         |

**BUILDING B  
GARAGE  
PHOTOMETRICS -  
MAINTAINED**

**E108**

