

PHASE III ATHLETIC FIELD IMPROVEMENTS  
CLAUDIUS CROZET PARK, INC.  
MINOR SITE PLAN AMENDMENT

WHITEHALL DISTRICT  
ALBEMARLE COUNTY, VIRGINIA



VICINITY MAP  
SCALE: 1" = 2000'

GENERAL NOTES

- OWNER:
- CLAUDIUS CROZET PARK, INC.  
BOX 171  
CROZET, VA 22932
- ENGINEER:
- COLLINS ENGINEERING  
200 GARRETT ST, SUITE K  
CHARLOTTESVILLE, VA 22902  
(434)293-3719
- TAX MAP NO.:
- 56A2-01-72 & 72A
- EXISTING ZONING:
- RA, RURAL AREAS. SEE ALBEMARLE COUNTY PLANNING DEPARTMENT LETTER FOR APPROVED SPECIAL USE PERMIT SP-95-43.
- PROJECT AREA:
- 10.73 AC. 56A2-01-72  
11.67 AC. 65A2-01-72A  
22.40 AC.
- PROPERTY SURVEY:
- BY KIRK HUGHES & ASSOCIATES  
LAND SURVEYORS AND PLANNERS  
220 EAST HIGH STREET  
CHARLOTTESVILLE, VA 22902
- VERTICAL DATUM:
- THE TEMPORARY BENCHMARK IS A NAIL SET IN A UTILITY POLE AS SHOWN ON THE DRAWINGS. ASSUMED ELEVATION=500.00'.
- HORIZONTAL DATUM:
- MAGNETIC NORTH AS SHOW ON A PLAT OF JOHN MCNAIR AND ASSOCIATES, DATED AUGUST 24, 1958, AND RECORDED BY D.B. 343, PG. 382A.
- WATERSHED:
- PROJECT SITE IS LOCATED WITHIN THE SOUTH RIVANNA WATER RIVERSHED.
- STEEP SLOPES:
- THERE ARE NO EXISTING STEEP SLOPES ON THE PROJECT SITE.
- OFFSITE DISTURBANCE:
- NONE



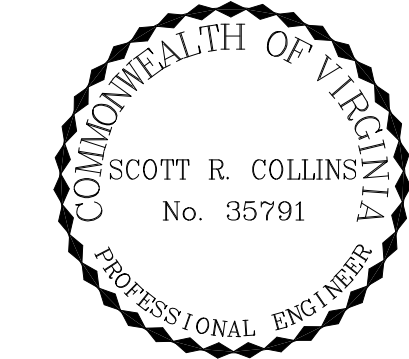
AMENDED BY:  
COLLINS ENGINEERING  
200 GARRETT STREET, SUITE K  
CHARLOTTESVILLE, VIRGINIA 22902  
434.293.3719  
scott@collins-engineering.com

| PLAN SHEET LIST |                  |
|-----------------|------------------|
| Sheet Number    | Sheet Title      |
| 1               | COVER SHEET      |
| 2               | LIGHTING PLAN    |
| 3               | LIGHTING DETAILS |

MINOR SITE PLAN AMENDMENT  
PROPOSED CHANGES:

1

LIGHTING PLAN FOR THE BASEBALL FIELD



REVISIONS

| REVISION DESCRIPTION | DATE     |
|----------------------|----------|
| INITIAL SUBMITTAL    | 10/15/18 |
|                      |          |
|                      |          |
|                      |          |
|                      |          |
|                      |          |

COLLINS ENGINEERING

200 GARRETT STREET, SUITE K-CHARLOTTESVILLE, VA 22902 -434.293.3719

PROJECT  
PHASE III ATHLETIC FIELD IMPROVEMENTS - CLAUDIUS CROZET PARK, INC  
MINOR SITE PLAN AMENDMENT

SHEET  
COVER

|                   |
|-------------------|
| JOB NO.<br>142112 |
| SCALE<br>N/A      |
| SHEET NO.<br>1    |

NOVEMBER 12, 2001 - MINOR SITE PLAN AMENDMENT SUBMISSION  
DECEMBER 21, 2001 - REVISION PER COUNTY COMMENTS  
DECEMBER 30, 2001 - BID DOCUMENTS  
FEBRUARY 5, 2002 - APPROVED BY COUNTY  
OCTOBER 15, 2015 - MINOR SITE PLAN AMENDMENT - LIGHTING

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TMP56-57B3  
GLENBROOK LLC  
R-6 ZONING  
DB.5039 PG.71

NOTE: BASE DRAWING/EXISTING CONDITIONS  
PROVIDED BY WATERSTREET STUDIO



## REVISIONS

REVISION DESCRIPTION  
INITIAL SUBMITTAL

DATE  
10/15/18

**COLLINS ENGINEERING**  
200 GARRETT STREET, SUITE K-CHARLOTTESVILLE, VA 22902-434.293.3719

PROJECT  
PHASE III ATHLETIC FIELD IMPROVEMENTS - CLAUDIUS CROZET PARK, INC  
MINOR SITE PLAN AMENDMENT

LIGHTING STUDY

JOB NO.  
142112  
SCALE  
1"=30'  
SHEET NO.  
2

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Claudius Crozet Park Baseball  
Crozet,VA

Lighting System

| Pole / Fixture Summary |     |      |     |        |          |         |
|------------------------|-----|------|-----|--------|----------|---------|
| Pole                   | Loc | Fixt | Qty | Height | Load     | Circuit |
| A1-A2                  | 70' | 15'  | 1   | 1      | 0.58 kW  | A       |
| B1-B2                  | 70' | 15'  | 3   | 3      | 3.45 kW  | A       |
| B1-B2                  | 70' | 15'  | 2   | 2      | 1.15 kW  | A       |
| B1-B2                  | 70' | 15'  | 5   | 5      | 5.75 kW  | A       |
| 4                      |     |      | 22  |        | 21.85 kW |         |

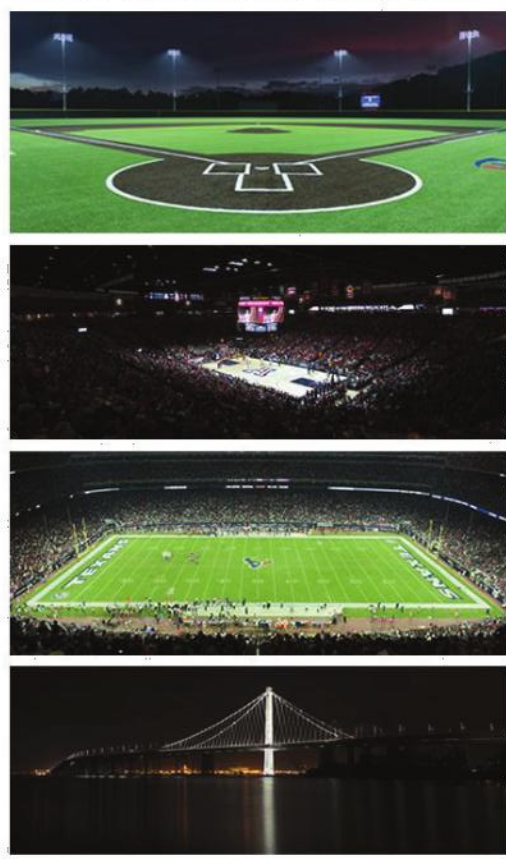
| Circuit Summary |             |          |             |
|-----------------|-------------|----------|-------------|
| Circuit         | Description | Load     | Fixture Qty |
| A               | Softball    | 21.85 kW | 22          |

| Fixture Type Summary |                    |         |         |         |         |         |
|----------------------|--------------------|---------|---------|---------|---------|---------|
| Type                 | Source             | Wattage | Lumens  | L90     | L80     | L70     |
| TLC-BT-575           | LED 5700K - 75 CRI | 570W    | 52,000  | >81,000 | >81,000 | >81,000 |
| TLC-LED-1150         | LED 5700K - 75 CRI | 1150W   | 121,000 | >81,000 | >81,000 | >81,000 |
| Quantity             |                    |         |         |         |         |         |

Light Level Summary

| Calculation Grid Summary |                                 |      |     |       |         |          |
|--------------------------|---------------------------------|------|-----|-------|---------|----------|
| Grid Name                | Calculation Metric              | Avg  | Min | Max   | Avg/Min | Circuits |
| Property Line            | Horizontal                      | 0.01 | 0   | 0.17  | 0.00    | A        |
| Property Line            | Max Candela (by Fixture)        | 1071 | 0   | 25672 | 0.00    | A        |
| Property Line            | Max Vertical Illuminance Metric | 0.02 | 0   | 0.43  | 0.00    | A        |
| Softball (Infield)       | Horizontal Illuminance          | 53.2 | 35  | 66    | 1.85    | A        |
| Softball (Outfield)      | Horizontal Illuminance          | 51.8 | 18  | 41    | 2.23    | A        |

From Hometown to Professional



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PROJECT SUMMARY

Claudius Crozet Park Baseball  
Crozet,VA

| GRID SUMMARY |                               |
|--------------|-------------------------------|
| Name:        | Softball                      |
| Size:        | 200'/200'/200' - basepath 60' |
| Spacing:     | 20.0' x 20.0'                 |
| Height:      | 3.0' above grade              |

| ILLUMINATION SUMMARY                                          |                         |
|---------------------------------------------------------------|-------------------------|
| MAINTAINED HORIZONTAL FOOTCANDLES                             |                         |
| Guaranteed Average:                                           | Infield Outfield        |
| Scan Average:                                                 | 53.20 31.77             |
| Maximum:                                                      | 66 41                   |
| Minimum:                                                      | 35 18                   |
| Avg / Min:                                                    | 1.50 1.73               |
| Guaranteed Max / Min:                                         | 2 3.5                   |
| Max / Min:                                                    | 1.85 2.23               |
| UG (adjacent pts):                                            | 1.24 1.38               |
| CU:                                                           | 0.66                    |
| No. of Points:                                                | 25 73                   |
| LUMINAIRE INFORMATION                                         |                         |
| Color / CRI:                                                  | 5700K - 75 CRI          |
| Luminaire Output:                                             | 52,000 / 121,000 lumens |
| No. of Luminaires:                                            | 22                      |
| Total Load:                                                   | 21.85 kW                |
| Lumen Maintenance                                             |                         |
| Luminaire Type                                                | L90 hrs L80 hrs L70 hrs |
| TLC-BT-575                                                    | >81,000 >81,000 >81,000 |
| TLC-LED-1150                                                  | >81,000 >81,000 >81,000 |
| Reported per TIA-21-1.1. See luminaire datasheet for details. |                         |

**Guaranteed Performance:** The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

**Field Measurements:** Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

**Electrical System Requirements:** Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

**Installation Requirements:** Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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ILLUMINATION SUMMARY

| EQUIPMENT LIST FOR AREAS SHOWN |          |      |                 |                 |                |     |     |       |     |
|--------------------------------|----------|------|-----------------|-----------------|----------------|-----|-----|-------|-----|
| QTY                            | LOCATION | BASE | GRADE ELEVATION | MOUNTING HEIGHT | LUMINAIRE TYPE | QTY | HSR | OTHER | QTY |
| 2                              | A1-A2    | 70'  | -               | 15'             | TLC-BT-575     | 1   | 1   | 0     | 0   |
| 2                              | B1-B2    | 70'  | -               | 15'             | TLC-LED-1150   | 3   | 3   | 0     | 0   |
| 2                              | B1-B2    | 70'  | -               | 15'             | TLC-BT-575     | 2   | 2   | 0     | 0   |
| 2                              | B1-B2    | 70'  | -               | 15'             | TLC-LED-1150   | 5   | 5   | 0     | 0   |
| 4                              | TOTALS   |      |                 |                 |                |     |     |       |     |



ENGINEERED DESIGN By: Jared Brown • File #152006A • 24-Sep-18

Claudius Crozet Park Baseball  
Crozet,VA

| GRID SUMMARY |                  |
|--------------|------------------|
| Name:        | Property Line    |
| Spacing:     | 30.0'            |
| Height:      | 3.0' above grade |

| ILLUMINATION SUMMARY                                          |                         |
|---------------------------------------------------------------|-------------------------|
| MAINTAINED HORIZONTAL FOOTCANDLES                             |                         |
| Scan Average:                                                 | 0.0076                  |
| Maximum:                                                      | 0.03                    |
| Minimum:                                                      | 0.00                    |
| No. of Points:                                                | 109                     |
| LUMINAIRE INFORMATION                                         |                         |
| Color / CRI:                                                  | 5700K - 75 CRI          |
| Luminaire Output:                                             | 52,000 / 121,000 lumens |
| No. of Luminaires:                                            | 22                      |
| Total Load:                                                   | 21.85 kW                |
| Lumen Maintenance                                             |                         |
| Luminaire Type                                                | L90 hrs L80 hrs L70 hrs |
| TLC-BT-575                                                    | >81,000 >81,000 >81,000 |
| TLC-LED-1150                                                  | >81,000 >81,000 >81,000 |
| Reported per TIA-21-1.1. See luminaire datasheet for details. |                         |

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**Electrical System Requirements:** Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

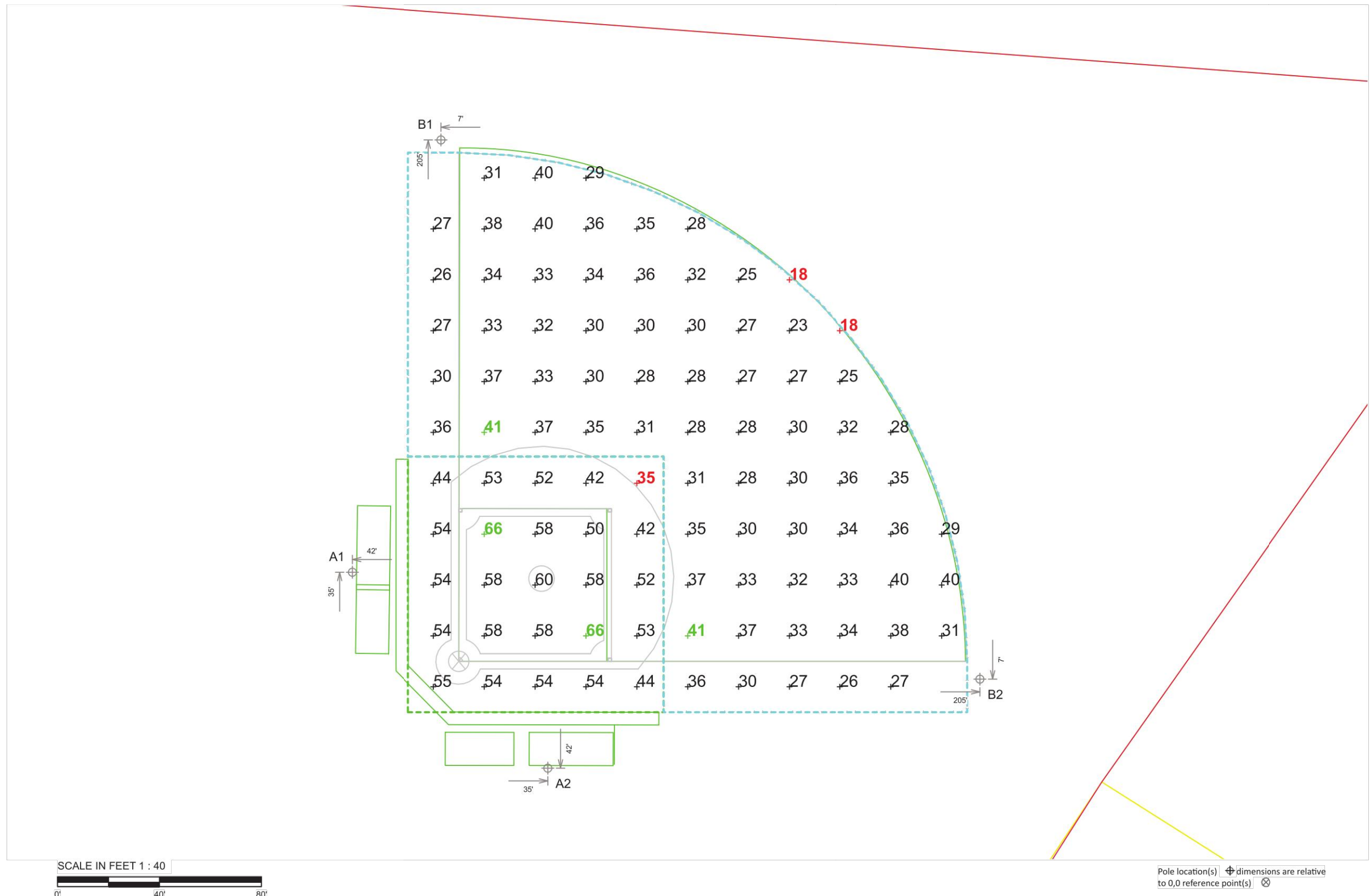
**Installation Requirements:** Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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ILLUMINATION SUMMARY

| EQUIPMENT LIST FOR AREAS SHOWN |          |      |                 |                 |                |     |     |       |     |
|--------------------------------|----------|------|-----------------|-----------------|----------------|-----|-----|-------|-----|
| QTY                            | LOCATION | BASE | GRADE ELEVATION | MOUNTING HEIGHT | LUMINAIRE TYPE | QTY | HSR | OTHER | QTY |
| 2                              | A1-A2    | 70'  | -               | 15'             | TLC-BT-575     | 1   | 1   | 0     | 0   |
| 2                              | B1-B2    | 70'  | -               | 15'             | TLC-LED-1150   | 3   | 3   | 0     | 0   |
| 2                              | B1-B2    | 70'  | -               | 15'             | TLC-BT-575     | 2   | 2   | 0     | 0   |
| 2                              | B1-B2    | 70'  | -               | 15'             | TLC-LED-1150   | 5   | 5   | 0     | 0   |
| 4                              | TOTALS   |      |                 |                 |                |     |     |       |     |



ENGINEERED DESIGN By: Jared Brown • File #152006A • 24-Sep-18



ENGINEERED DESIGN By: Jared Brown • File #152006A • 24-Sep-18

Claudius Crozet Park Baseball  
Crozet,VA

| EQUIPMENT LAYOUT                                                                                                                                         |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| INCLUDES:                                                                                                                                                |  |
| - Softball                                                                                                                                               |  |
| Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.                            |  |
| Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations. |  |

| EQUIPMENT LIST FOR AREAS SHOWN |          |      |                 |                 |                |     |     |       |     |
|--------------------------------|----------|------|-----------------|-----------------|----------------|-----|-----|-------|-----|
| QTY                            | LOCATION | BASE | GRADE ELEVATION | MOUNTING HEIGHT | LUMINAIRE TYPE | QTY | HSR | OTHER | QTY |
| 2                              | A1-A2    | 70'  | -               | 15'             | TLC-BT-575     | 1   | 1   | 0     | 0   |
| 2                              | B1-B2    | 70'  | -               | 15'             | TLC-LED-1150   | 3   | 3   | 0     | 0   |
| 2                              | B1-B2    | 70'  | -               | 15'             | TLC-BT-575     | 2   | 2   | 0     | 0   |
| 2                              | B1-B2    | 70'  | -               | 15'             | TLC-LED-1150   | 5   | 5   | 0     | 0   |
| 4                              | TOTALS   |      |                 |                 |                |     |     |       |     |

| SINGLE LUMINAIRE AMPERAGE DRAW CHART            |     |     |     |     |                             |     |     |     |     |
|-------------------------------------------------|-----|-----|-----|-----|-----------------------------|-----|-----|-----|-----|
| Ballast Specifications (Wattage in parentheses) |     |     |     |     | Line Amperage Per Luminaire |     |     |     |     |
| Single Phase Voltage                            | 208 | 220 | 240 | 277 | 347                         | 380 | 480 |     |     |
| TLC-BT-575                                      | 8.2 | 8.2 | 8.2 | 8.2 | 8.2                         | 8.2 | 8.2 | 8.2 | 8.2 |
| TLC-LED-1150                                    | 6.8 | 6.3 | 5.9 | 5.1 | 4.1                         | 3.7 | 3.0 |     |     |



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EQUIPMENT LAYOUT

REVISIONS

| DATE     | REVISION DESCRIPTION |
|----------|----------------------|
| 10/15/18 | INITIAL SUBMITTAL    |

COLLINS ENGINEERING

200 GARRETT STREET, SUITE K-CHARLOTTESVILLE, VA 22902 -434.293.3719  
PHASE III ATHLETIC FIELD IMPROVEMENTS - CLAUDIUS CROZET PARK, INC  
MINOR SITE PLAN AMENDMENT

LIGHTING DETAILS

JOB NO.  
142112  
SCALE  
N.T.S.  
SHEET NO.  
3