



span
wire
playbook



CHICAGO, ILLINOIS
Maggie Daley Park

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Request for Quote (RFQ) Checklist

Project details:

- Project name
- Project location
- Quantities
- Anchor bolts included

Finishes:

- Galvanized/Anodized
- Finish paint
 - Ral (#) number
 - Specification available
- Satin brushed (aluminum)
- Special warranty

Special requirements:

- Dedicated shipping
- Multiple site drop-offs
- Extended pricing
- Inspections

Design criteria:

- Design code specified
 - (default to AASHTO 2015)
- Wind speed
- Other special requirements
 - Deflection
 - DOT jurisdiction

Preferred pole characteristics:

- Material
- Shape
- Height

To scale overhead layout of wiring strongly preferred:

- **Note:** Each end of span must be at the same elevation

Span characteristics:

- Length
- Sag of wire
- Weight of wire and support cable

- Tethered
- Angle between spans

Loading on the wires:

- String lights (cut sheet preferred)
 - Bulb size
 - Bulb spacing
- Banner
 - Length x width
 - Weight per foot
 - Location of banner center
- Other attachments (cut sheets preferred)
 - Size
 - Weight
 - Location

Preferred wire attachment style:

- Eyebolt



- "D" plate



- Clamp



- Additional options available
 - Please include attachment details

Additional loading on the poles:

- Size
- Weight
- Location
- Orientation
- Mounting requirements

Visual needs:

- Marketing illustration
 - Best for concept
 - 3D visual rendering
 - Not as structurally detailed
- Structural drawing/submittal
 - Best for final approvals
 - 2D detailed structural drawing

How Different Options Affect Design:

Preferred pole characteristics:

Material

- Aluminum
 - Light weight
 - Corrosion resistant
 - Variable taper options
- Steel
 - High strength
 - Smaller footprint
 - Less deflection

Shape

- Tapered round
 - Fluting available
 - Greatest flexibility and strength
 - Variable taper options
- Straight round
- Tapered square
- Straight square

Height

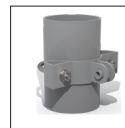
- The higher the attachment height, the more load is imparted onto the pole.

To scale overhead layout of wiring strongly preferred:

- This will answer many of the questions that are required for design.
- This will limit confusion on complicated layouts.

Preferred wire attachment style:

- Eyebolt
 - Most common for commercial applications
- "D" plate
 - Most common for high tension values
- Clamp
 - Most common for traffic signal applications
- Additional options available
 - Please include attachment details



Span characteristics (each span):

- Length
 - Longer spans = more loading
- Sag of wire
 - Less sag = exponentially more loading
- Tethered
 - The inclusion will nearly double the loading
- Angle between spans
 - Less angle = more loading



CHICAGO, ILLINOIS
Wrigley Field Commercial Area

Wrigley Field Commerical Area: Chicago, Illinois



In preparation for the Chicago Cubs’ 2017 season, Wrigley Field was looking for custom-shaped light poles to decorate its new plaza area just outside the stadium.

The plaza was to feature three different size custom steel poles, which would resemble the I-beams used on the stadium structures. The poles needed to be strong enough to mount light fixtures, speakers, screens and cameras.

In order to imitate the shape and ensure structural soundness, Valmont® welded together square-shaped tubes and angle irons. Because of the unique character, Valmont placed the hand hole for electrical equipment at the side of a longer square tube, making it possible to hide all wiring inside the pole. Custom-made arms provided a platform for light fixtures and banners. Finally, Valmont’s V-PRO finish system with a 5-year warranty enhanced the resistance of the poles against the varying Chicago climate.

Due to the efficient manufacturing capabilities at Valmont the customer's concept became a reality.

Project Specifications:

- 16 custom steel area lighting and pedestrian poles up to 30 feet high
- Custom light fixture arms and banner arms
- Color-changing LED light fixtures
- Stainless steel hardware
- Dark brown V-PRO finish system with 5-year warranty

Downtown Arts District: Mason City, Iowa



After receiving a grant for enhancing its aging streetscape, Mason City, IA partnered with Valmont® to create a set of highly engineered street lighting poles.

Determined to attract more people downtown, Mason City envisioned a meeting place where pedestrians could come together to enjoy cafés, restaurants and shopping venues. The poles had to mesh with the surroundings and help with the revitalization of the area.

Steel was used as the main pole material to achieve a thinner and stronger pole design, and banners were made of cloth instead of metal to reduce the load on the poles. Additionally, the selection of break-away banner arms reduced loading, which brought the project within budget. An aluminum shroud was also added to provide a sleek finish for the pole arms. By balancing the client’s desires and resources correctly, Valmont was able to achieve the required aesthetics by augmenting the look of a standard product.

As a result of Valmont’s commitment to turning client concepts to reality, 55 elegant and budget-friendly poles were delivered to Mason City on schedule.

Project Specifications:

- 55 soft square non-tapered steel light poles
- Custom luminaire arms
- Break-away banner arms
- Welded tabs for connecting spans between poles
- Custom aluminum shroud for improved aesthetics
- Light pole base nut covers
- Zinc-rich epoxy powder protective coating





NASHVILLE, TENNESSEE
5th Avenue of the Arts

Single Span for Banner Design Inputs:

Design criteria:

- 90mph
- AASHTO 2013

Span characteristics (each span):

- Length
 - 30'
- Sag of wire
 - 1.5' (5%) sag
- Tethered
 - Check has the same 1.5' sag
- Attachment height(s)
 - Top wire at 24'
 - Tether wire at 20'

Loading on the wires:

- Banner
 - Length x width: 20' wide X 4' high
 - Weight per foot: 3 lbs. per foot of banner
 - Location of banner center: centered on the span

Preferred wire attachment style:

- Eyebolt

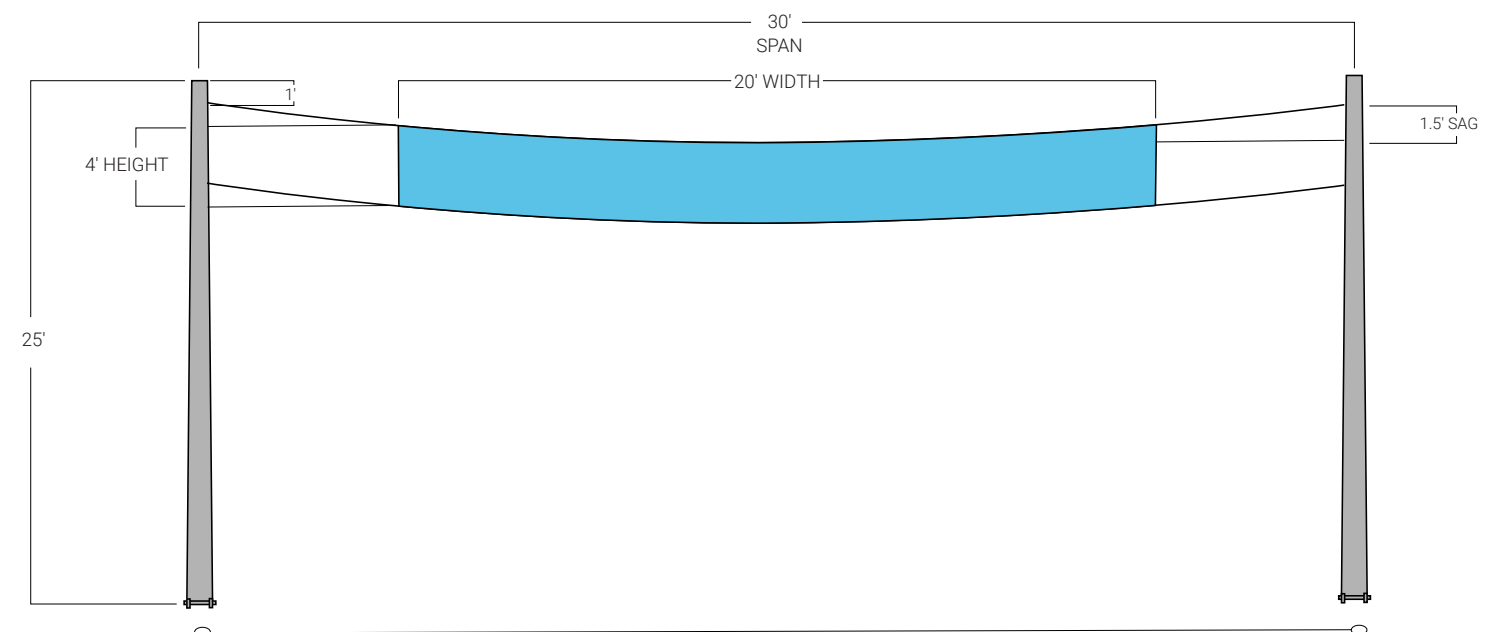
Additional loading on the poles:

- No additional loading on the pole

Pole size:

- 13" base outside diameter
- Seven gauge steel

(4) 1.75" anchor bolts



Triple Span for String Lights Design Inputs:

Design criteria:

- 140mph
- AASHTO 2013

Span characteristics (each span):

- Length
 - Span A = 30'
 - Span B = 43'
 - Span C = 30'
- Sag of wire
 - Span A = 3%
 - Span B = 3%
 - Span C = 3%
- Tethered
 - None
- Angle between spans
 - Span A-B = 45 degrees
 - Span B-C = 45 degrees
- Attachment height(s)
 - 24' attachment height

Loading on the wires:

- String lights (cut sheet preferred)
 - Bulb size: 3" globes
 - Bulb spacing: 12" spacing center-to-center

Preferred wire attachment style:

- Eyebolt

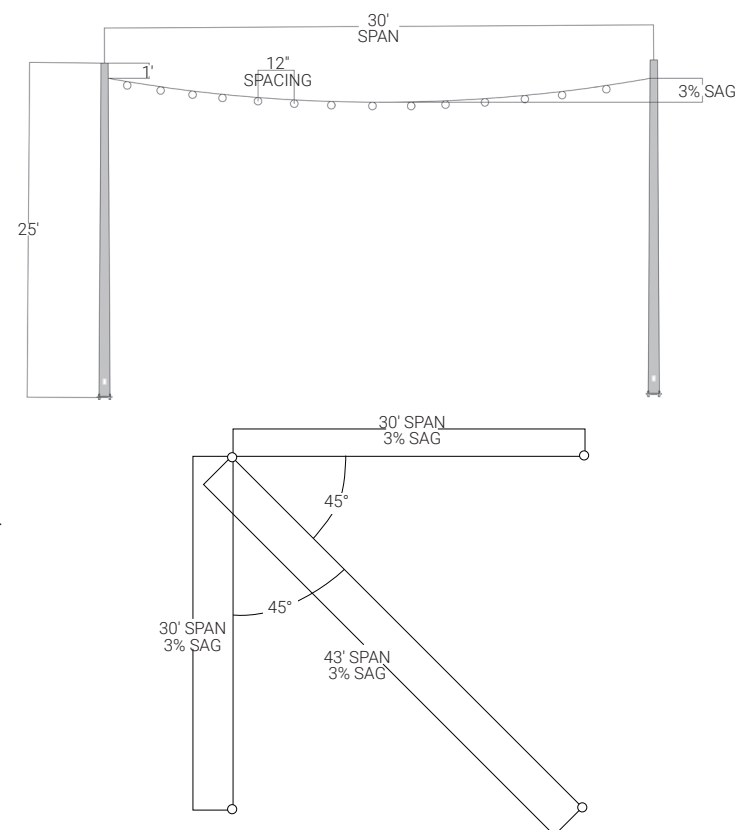
Additional loading on the poles:

- Top mounted fixture
 - 3 sq. ft. EPA
 - 25 lbs.
 - Mounted on a 2" pole top

Pole size:

- 9" base outside diameter
- 11 gauge material

(4) 1.00" anchor bolts



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