



ST. CHARLES  
SINCE 1834

## AGENDA ITEM EXECUTIVE SUMMARY

Title:	Recommendation to Approve Professional Services and Change Order No. 1 for Exterior Lighting Project Related to the Municipal Building Construction Project at a cost not to exceed \$157,291.00
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Presenter:	Peter Suhr
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*Please check appropriate box:*

X	Government Operations 09.03.13		Government Services
	Planning & Development		City Council
	Public Hearing		

Estimated Cost:	\$157,291	Budgeted:	YES	X	NO	
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If NO, please explain how item will be funded:

**Executive Summary:**

The existing exterior lighting system, at the Municipal Building, includes a series of metal halide flood lights that are mounted around the building. These lights shine back towards the building to provide a consistent “flood” of light on the surfaces of the building. Some of these flood lights are located at ground level and others are mounted on the roof of the building.

Considering the age and condition of the existing lighting system, energy efficiency opportunities and sequencing of the current construction project, staff felt it was appropriate to investigate a new lighting solution for the Municipal Building. In addition, staff discovered that the current “flood” type lighting is not consistent with the history of the structure. Therefore, staff has recently met with the project architects, construction management team and lighting design specialist to discuss alternative lighting options.

The lighting alternative that has been presented to the Historic Commission and has received their COA includes a solution that represents a concept that is similar to how the lights were originally projected on the Zook Municipal Building in 1940. This includes a departure of the “flood” light concept and replacement with linear lights, directional floods, linear grazing lights and landscape lights. In addition, the proposed lighting solution includes new LED technology which increases energy efficiencies from the existing metal halide fixtures.

Because of the energy efficiencies related to the new LED technology, staff is also seeking and has verbal approval of a \$100,000 grant from IMEA to help fund the total cost of the project. After the grant is realized, total project costs to the City will be about \$57,291.

**Attachments:** *(please list)*

Professional Services Proposal – Prairie Forge Group dated July 23, 2013  
 Change Order Request No. 1 – Prairie Forge Group dated August 22, 2013  
 Certificate of Authorization (COA) – Historic Commission

**Recommendation / Suggested Action** *(briefly explain):*

Recommendation to Approve Professional Services and Change Order No. 1 for Exterior Lighting Project Related to the Municipal Building Construction Project at a cost not to exceed \$157,291.00.

*For office use only:*

*Agenda Item Number: 6a*



200 CARDINAL DRIVE, SUITE 100 | SAINT CHARLES, IL 60175  
P 630.221.0571 | F 630.221.0116 | PRAIRIEFORGEGROUP.COM

July 23, 2013

Pete Suhr, Assistant Director of Public Works  
City of St. Charles  
200 Devereaux Way  
St. Charles, IL 60174

Re: Letter of Proposal – Architectural and Construction Management Services  
1940 Municipal Center Exterior Lighting Improvements  
City of St. Charles, IL  
Project No. 2011-033

Dear Peter:

We at Prairie Forge Group (PFG) are excited about the additional opportunity to work with you and your staff on the Municipal Campus Facilities. We are confident that our team will provide the necessary professional architectural/engineering required for the exterior lighting improvements to the municipal campus.

#### **BACKGROUND**

The City of St. Charles has requested a proposal for architectural/engineering lighting modifications to enhance the existing 1940 Municipal Center Building. The scope of work for the exterior lighting includes the tower, canopy, and west façade of the building, and the adjacent flower beds and east exit. PFG has retained KJWW as a lighting design consultant and engineer to provide the required services in order for PFG to price this work. PFG will provide overall coordination of the lighting consultant and the electrical engineering for this additional services scope of work.

This design and engineering work is intended to be bid by PFG as a separate package in order for the City to review and approve the final cost and scope of these lighting improvements. The total budget for the work is not to exceed \$150,000 and is intended to include all design, engineering, and construction work costs. PFG will provide the overall coordination of the new lighting construction work with the current roofing and other exterior improvements under a separate proposal for added services once the bidding is completed and approval is authorized by the City of Saint Charles.

#### **ARCHITECTURAL / ENGINEERING SCOPE OF SERVICES**

We shall provide the architectural/engineering services for the related architectural and electrical engineering of the project throughout the Basic Service Phases of the work as follows:

1. Design Phase Services: Design Phase services shall be defined per the KJWW proposal, dated June 5, 2013.

Electrical Engineering services and documentation, including signed and stamped engineered submission

PFG Architectural staff will provide coordination and will attend Historic Preservation Committee, Lighting Design, and Owner meetings.

**ARCHITECTURAL / ENGINEERING FEES**

The fee for Basic Architectural / Engineering Services as outlined shall be a lump sum fee of \$23,600.

Services not included in the above Basic Services include:

1. As-built CAD drawings; as-built drawings, marked up by hand, will be provided by trade contractors.
2. Design or Engineering, associated with the relocation of any low voltage electrical and mechanical systems. These could include, phone, computer, intercom, paging, security, audio/visual, HVAC, RTU's and associated ductwork and other such roof mounted systems.
3. Any additional designs and bidding of alternates
4. LEED Design Services, LEED certification or submission documentation
5. Design or engineering services for the relocation of Owner staff
6. Additional historic preservation consultation services, other than attending HPC meetings

Services provided by the Owner include:

1. Electrical Drawings of the existing municipal buildings
2. Access to the roof areas for PFG staff during design and construction phase services

Any other additional services authorized by the City of Saint Charles may be provided on an hourly basis from the rate table below.

**RATE TABLE 2013/2014**

Principal.....	\$ 125.00/Hour
Director of Architecture.....	\$ 125.00/Hour
Project Manager .....	\$ 115.00/Hour
Project Architect .....	\$ 110.00/Hour
Cost Estimator.....	\$ 85.00/Hour
CAD Technician .....	\$ 75.00/Hour
Clerical .....	\$ 55.00/Hour
Structural Engineer.....	\$ 115.00/Hour
Structural Technician.....	\$ 85.00/Hour

In additional to our professional services listed above, we shall also invoice the City of Saint Charles for our reimbursable expenses. Reimbursable expenses include project related expenses such as vehicle mileage, tolls, printing and photocopying, photography, renderings, telephone and fax, electronic documentation transfer, postage/messenger/overnight shipping, permits, project related supplies, etc.

We shall invoice the City of Saint Charles on a monthly basis throughout the project. Payment is due within thirty (30) days of receipt and approval of our invoice. Late fees shall be accessed per Section 2 of the Illinois Interest Act.

**SCHEDULE**

We are available to start this project immediately upon your authorization to proceed.

If you are in agreement with the terms and conditions of this Letter of Agreement, please sign and date below, and return one copy to our office. Upon receipt of the signed proposal, we shall finalize our agreement with KJWW and begin the coordination of the work immediately.

**GENERAL PROVISIONS**

1. Payments shall be made to PFG for services and reimbursable expenses on a monthly basis, and payment is due within thirty (30) days of your receipt of each invoice.

We truly appreciate and are excited about this opportunity to be of service to City of St. Charles. If you are in agreement with the terms of this proposal, please sign and return one copy to our office. As discussed we are able to start this project immediately upon your authorization. If you have any question please don't hesitate to call us.

Cordially,



xc: Steven J. Vasilion / Prairie Forge Group  
Rob M. Ezerins / Prairie Forge Group  
David V. Stermetz / Prairie Forge Group

APPROVED:

\_\_\_\_\_  
Authorized Signature – City of St. Charles

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name and Title

# Prairie Forge Group

300 Cardinal Drive  
Suite 160  
Saint Charles, IL 60175

Phone: 630 344-1077  
Fax: 630 221-0118

## CHANGE ORDER REQUEST No. 00001

**TITLE:** Exterior Lighting Improvements

**DATE:** 8/22/2013

**PROJECT:** SC Muni Campus Ext. Improvements

**JOB:** 211033

**TO:** Attn: Peter J. Suhr  
City of Saint Charles  
200 Devereaux Way  
Saint Charles, IL 60174

**CONTRACT NO:** 1

**RE: To: From: Number:**

### DESCRIPTION OF PROPOSAL

Provide all labor, materials and equipment to replace exterior lighting at municipal center as indicated on drawings. This work includes Alternates No. One through No Three.

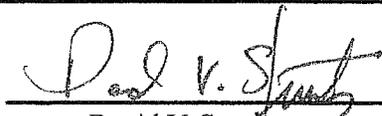
The cost for this work shall be an add to the Total Project Cost.

Item	Description	Stock#	Quantity	Units	Unit Price	Tax Rate	Tax Amount	Net Amount
00001	Mascal Electric is to provide all labor, materials and equipment to replace exterior lighting at municipal center as indicated on drawings. This work includes Alternates No. One through No Three.		1.000		\$117,075.00	0.00%	\$0.00	\$117,075.00
00002	Prairie Forge Group mark-up		1.000		\$9,366.00	0.00%	\$0.00	\$9,366.00
00003	Prairie Forge Group General Conditions		1.000		\$7,250.00	0.00%	\$0.00	\$7,250.00

**Unit Cost:** \$133,691.00  
**Unit Tax:** \$0.00  
**Total:** \$133,691.00

### APPROVAL:

By: \_\_\_\_\_  
Peter J. Suhr

By:   
David V. Sternietz

Date: \_\_\_\_\_

Date: 8/22/2013

APPLICATION FOR  
CERTIFICATE OF APPROPRIATENESS (COA)



COMMUNITY DEVELOPMENT/PLANNING DIVISION

PHONE: (630) 377-4443 FAX: (630) 377-4062

APPLICATION INFORMATION

Permit #: 13 - 16590 Date Submitted: 7/17/13 COA # 13 - 17

Address of Property: 2 E. Main St.

Applicant: City of St. Charles

Use of Property:  Commercial, business name: \_\_\_\_\_

Residential  Other: \_\_\_\_\_

Type of Work (Check All That Apply):

- Exterior Alteration/Repair
  - Windows
  - Doors
  - Siding - Type: \_\_\_\_\_
  - Masonry Repair
  - Other \_\_\_\_\_
- Awnings/Signs
- New Construction
  - Primary Structure
  - Additions
  - Deck/Porch
  - Garage/Outbuilding
- Other \_\_\_\_\_
- Demolition
  - Primary Structure
  - Garage/Outbuilding
  - Other \_\_\_\_\_
- Relocation of Building

DESCRIPTION OF WORK PROPOSED

Exterior lighting program shown in attached documents.  
LED lights to be 3000K.

COA APPROVAL

The St. Charles Historic Preservation Commission hereby issues a Certificate of Appropriateness (COA) authorizing the issuance of a building permit for the proposed work described herein, in accordance with the plans and approval conditions attached hereto.

Steve Amundt  
Chairman of the St. Charles Historic Preservation Commission

08/07/2013  
Date

**CONDITIONS OF COA APPROVAL**

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

**APPLICANT SIGNATURE**

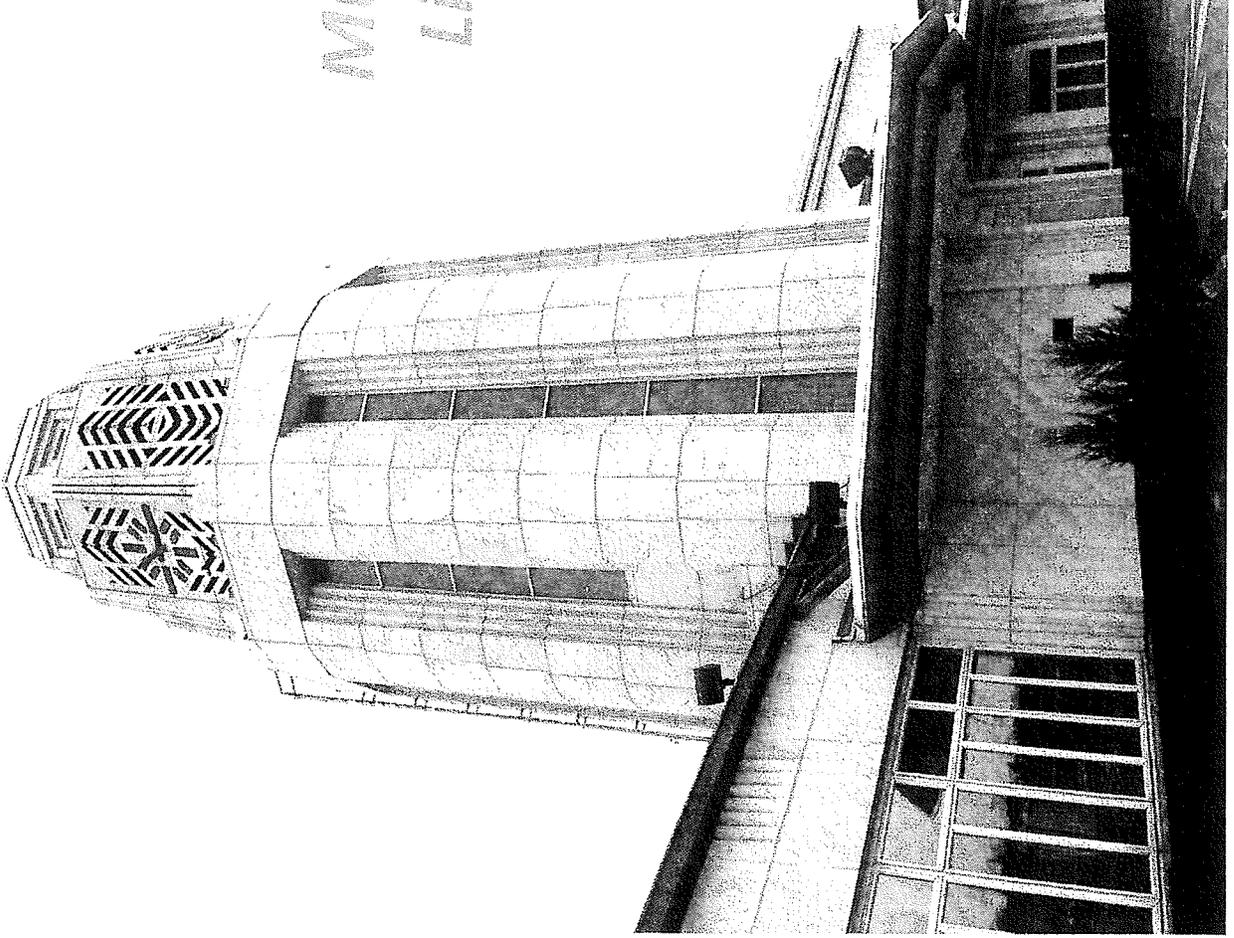
*Please Note: Applicant must comply with the above conditions for COA to remain valid.*

In consideration of this application and attached plans, specifications and conditions being made a part thereof, I/we will conform to all of the regulations set forth in the City of St. Charles, Illinois Codes and Ordinances.

I/we further agree that all work will be in accordance with the plans, specifications and conditions which accompany this application, except for such changes as may be required by the Building Official.

\_\_\_\_\_  
Owner/Authorized Agent Signature

\_\_\_\_\_  
Date



*St. Charles  
Municipal Building  
Lighting Concept*



**Shanna Olson, LC**  
Senior Lighting Designer

*St. Charles  
Municipal Building  
Lighting Concept*

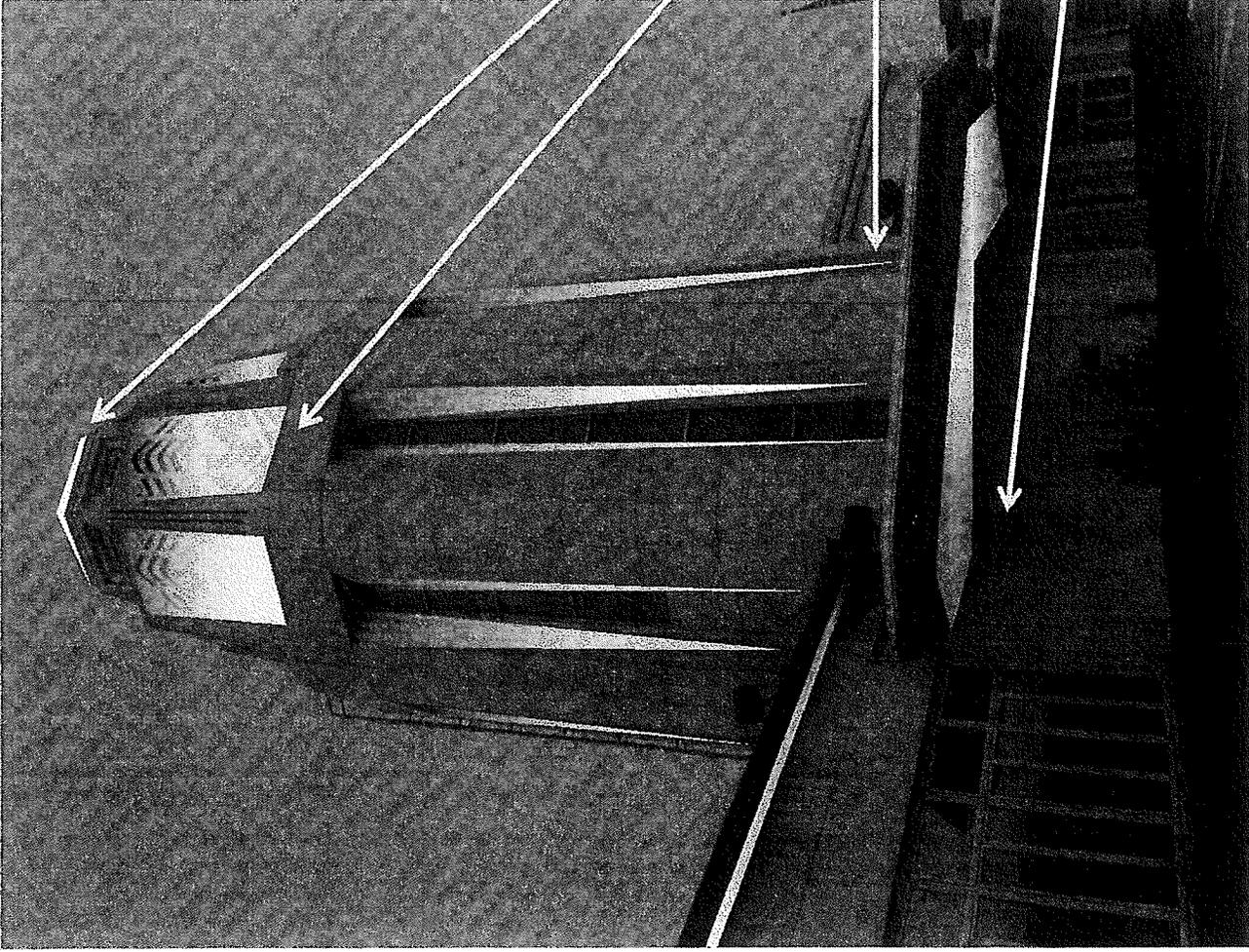
**Concept: to provide a compositional Hierarchy that accentuates the architecture while creating balance**

**Existing lighting in dome to remain**

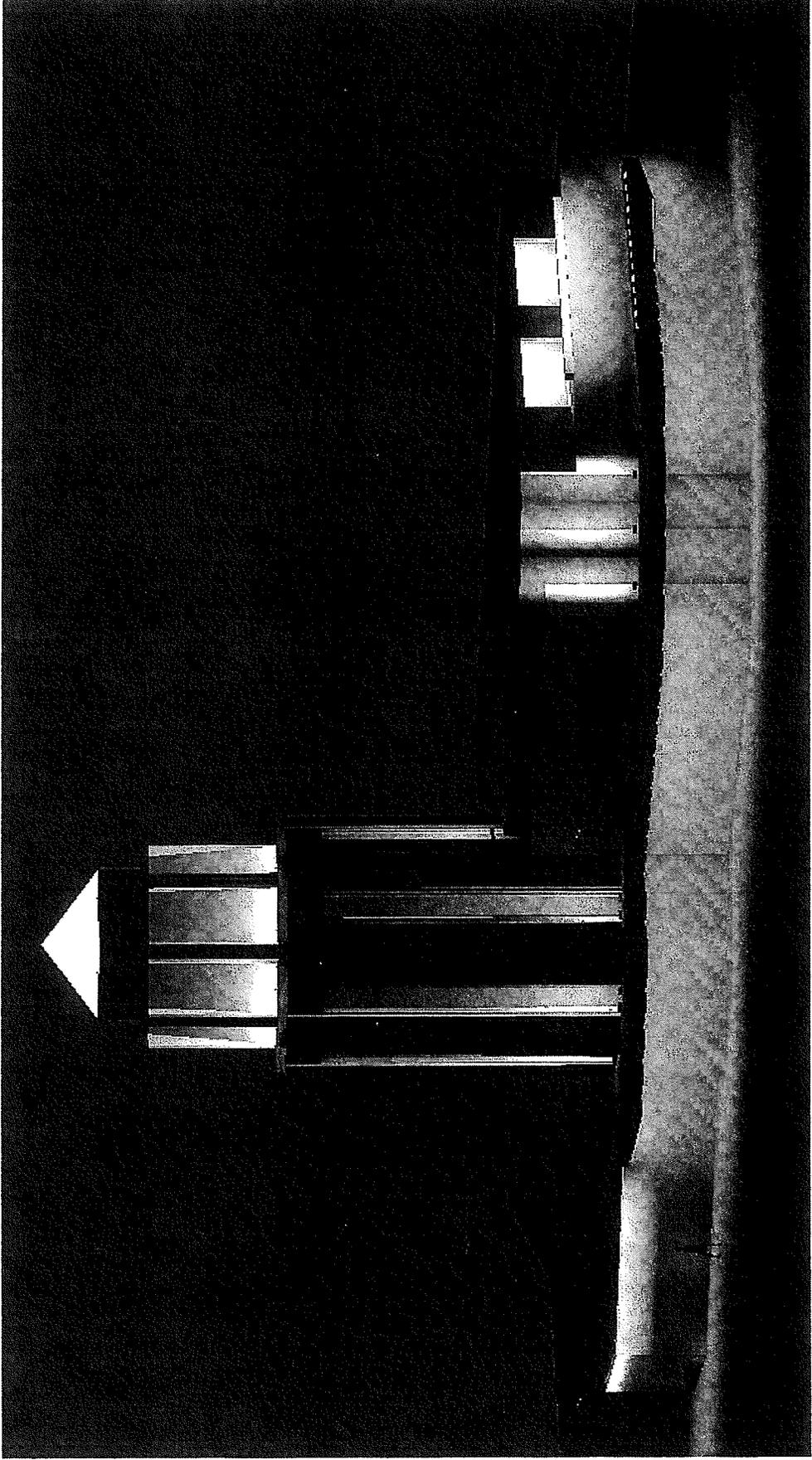
**Linear grazing luminaire to accentuate and punch architectural relief**

**Directional spots with tight 7° beam spread to highlight the fluting and create interest**

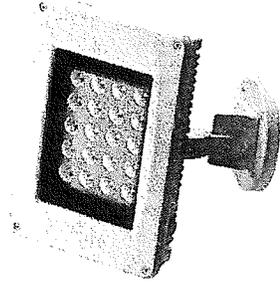
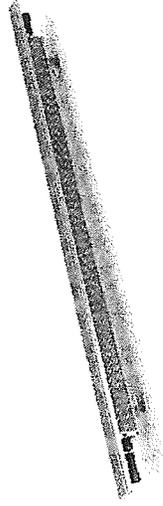
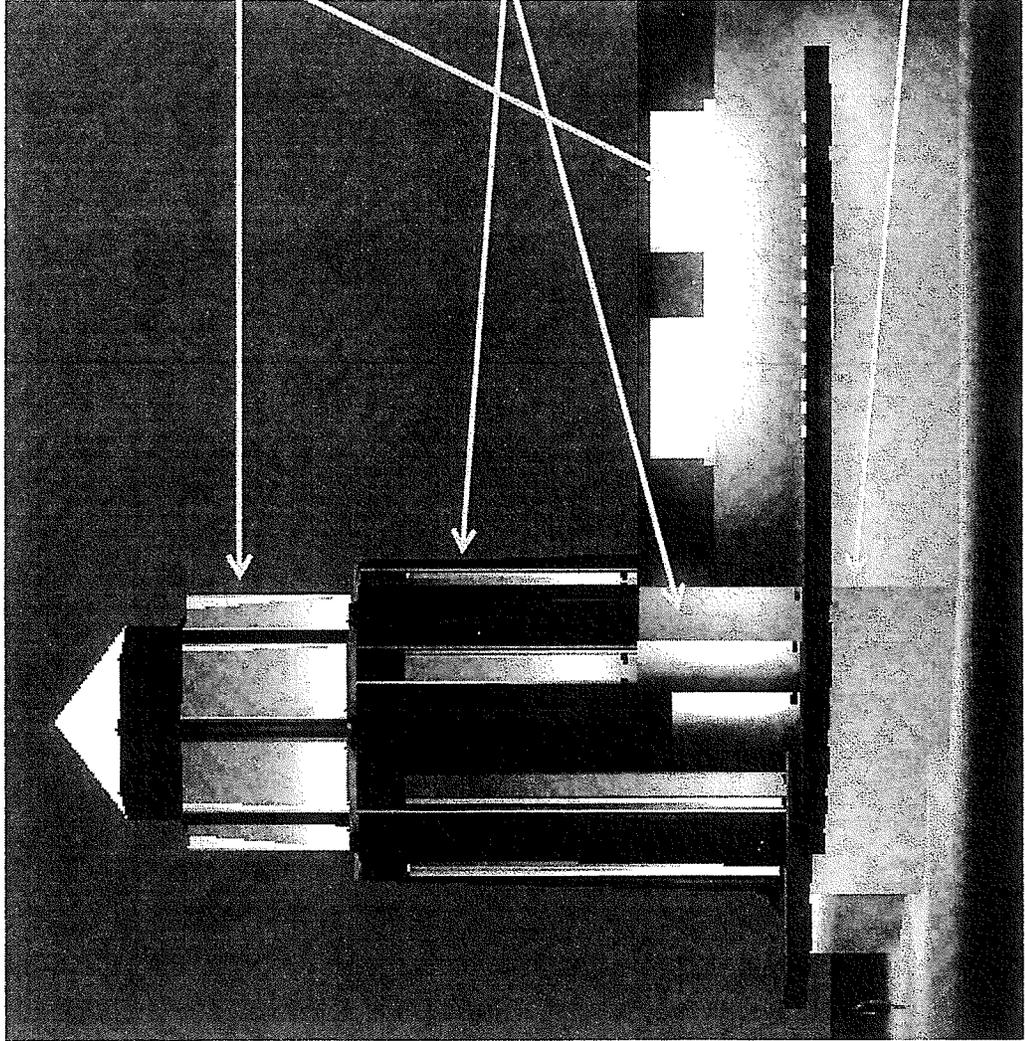
**Hidden linear lighting to subtly add balance and illuminate the lower plane of the building**



*St. Charles Municipal Building  
Lighting Design*

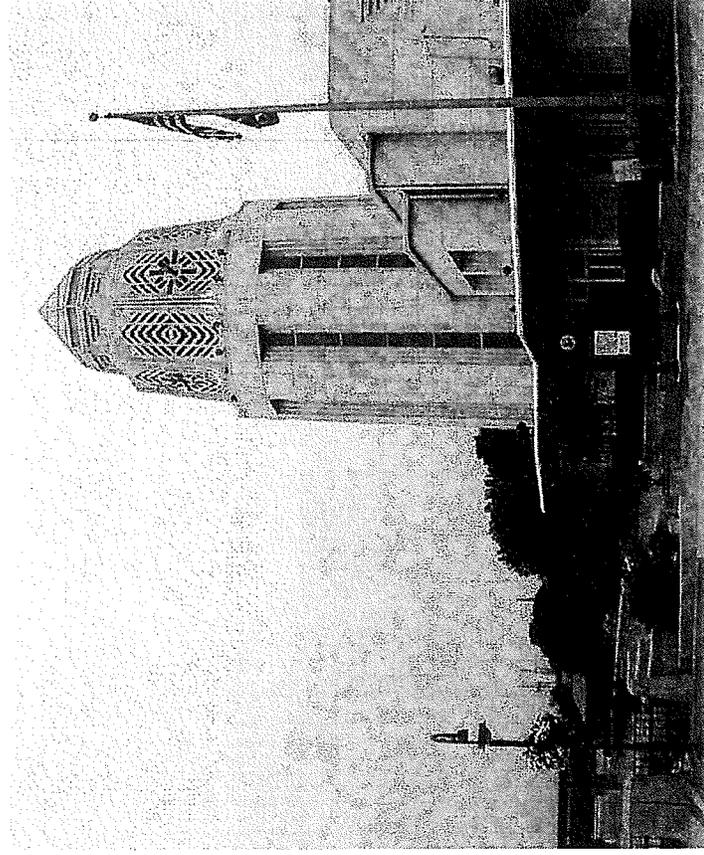


# St. Charles Municipal Building Lighting Design



# *St. Charles Municipal Building*

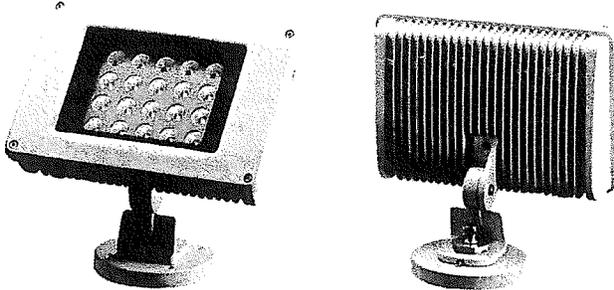
## *Additional Lighting Options and Concepts*



- **Add wall mount luminaires to East Entrance**
- **Add Landscape lighting in flower beds adjacent to entrance**
- **Color changing LED at top to allow for seasonal tones or shows.**
- **Illuminating diagonal shafts in lieu of fluted columns.**
- **Energy Code Note: IECC 2012 exempts lighting to highlight features of registered historic buildings**

Client:	
Project:	
Type:	
Order Code:	
Quantity:	

## DynaFlood HO



**DynaFlood HO** is a high powered flood fixture designed for exterior illumination and outdoor signage. It's integral power supply is universal voltage and can be dimmed via ELV or TRIAC. The head pivots 180° to help you get the exact angle needed for your application.

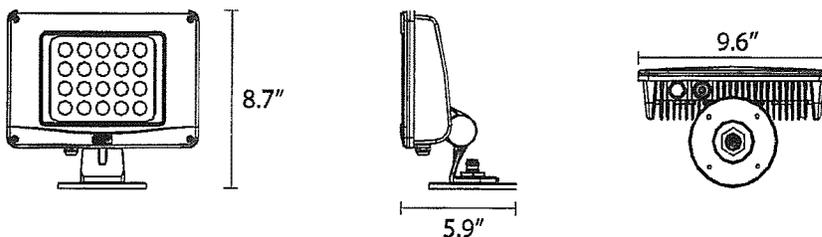
### SPECIFICATIONS

<b>Color Temperature</b>	2700k, 3000K, 3500K, 4000k
<b>Beam Angle</b>	7° Standard, 20°, 40°, 10° x 60°, 70° via LSF Filter
<b>Drive Current</b>	500ma
<b>Power Consumption</b>	50W
<b>Total Lumens</b>	2455 @ 4000K, 7°
<b>Efficacy (lm/W)</b>	49
<b>CRI</b>	79
<b>Lumen Maintenance</b>	70% @ 50,000 hours
<b>Housing</b>	Die Cast Aluminum
<b>Operating Temperature</b>	-40°F to 122°F (-40°C to 50°C)
<b>Operating Voltage</b>	90-135VAC / 200-300VAC
<b>Dimming</b>	ELV, TRIAC
<b>Fixture Connections</b>	2 Conductor, Bare Wire Leads
<b>Rating</b>	IP 66, Wet Location
<b>Warranty</b>	5 Years
<b>Weight</b>	6 lbs (2.7 kg)
<b>Dimensions</b>	W 9.6" x H 13.9" x D 5.9" (245 mm x 221 mm x 149.5mm)

#### Certifications



### DIMENSIONS



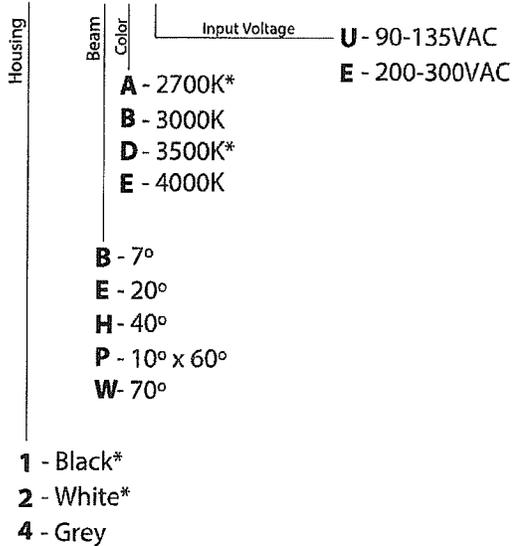


# DynaFlood HO

Client:	
Project:	
Type:	
Order Code:	
Quantity:	

## ORDER CODES \*special order

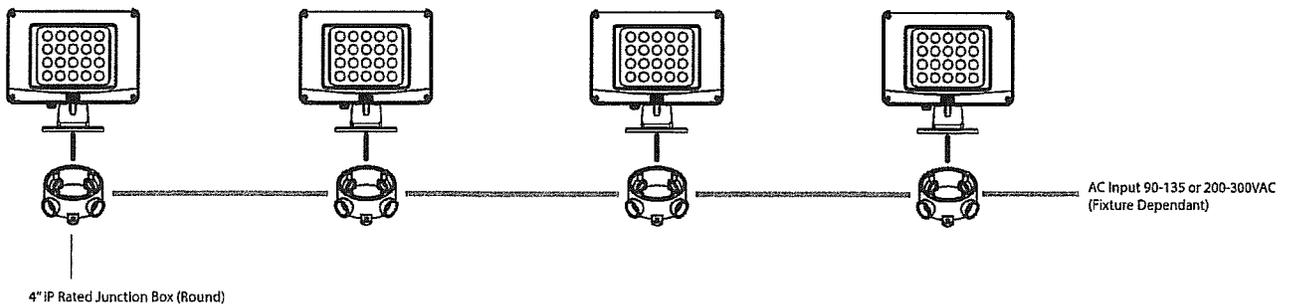
### DFB.1 1.A



## RELATED COMPONENTS

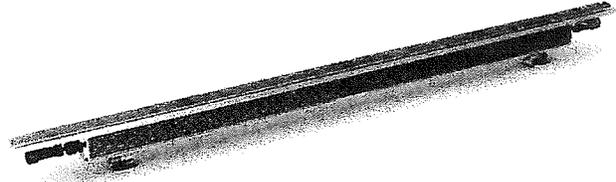
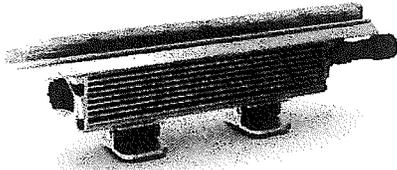
TBD	Dyna Flood Extender Bar 6"
TBD	Dyna Flood Extender Bar 12"
TBD	Dyna Flood Extender Bar 36"

## WIRING



Client:	
Project:	
Type:	
Order Code:	
Quantity:	

## DynaGraze Exterior



The **DynaGraze Exterior** is a high power, white LED, outdoor linear fixture. Available in 1' and 4' sections, it offers smooth linear dimming with ELV modules and 1-100% with most commercially available TRIAC dimmer. Featuring class-leading output, robust housing, LSF filter options, and a glare shield, it is the perfect option for any structure that calls for outdoor linear grazing

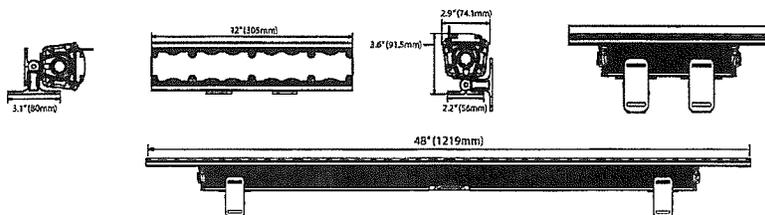
### SPECIFICATIONS

<b>Color Temperature</b>	2,700K, 3000K, 3500K, 4000K
<b>Beam Angle</b>	10°, 40°, 10° x 60°, 30° x 60°
<b>Max Fixture Runs</b>	40' @ 120VAC / 80' @ 240VAC+
<b>Power Consumption</b>	20w (1') / 80w (4')
<b>Total Lumens</b>	834 (1') @ 2700k - (10x60) / 4,570 (4') @ 4000k - (30x60)
<b>Efficacy (lm/W)</b>	34 @ 2700k / 38 @ 3000k, 41 @ 3500k, 50 @ 4000k
<b>CRI</b>	87 @ 4000K
<b>Lumen Maintenance</b>	70% @ 50,000 Hours
<b>Finish</b>	Anodized Brushed Aluminum
<b>Housing</b>	Aluminum; Polycarbonate Lens
<b>Operating &amp; Storage Temp</b>	-40°F to 122°F (-40°C to 50°C)
<b>Operating Voltage</b>	95-130VAC, 200-300VAC
<b>Dimming</b>	ELV or TRIAC
<b>Fixture Connectors</b>	Integral, 3 Pin Male & Female Connector
<b>Rating</b>	IP 66, Wet Location
<b>Warranty</b>	3 Years
<b>Weight</b>	1' 3 lbs (1.4 kg) 4' 12 lbs (5.4 kg)
<b>Dimensions</b>	W 2.9" x H 3.6" x L 12"/ 48" (74.1 mm x 91.5 mm x 305 mm / 1,220 mm)

### Certifications



### DIMENSIONS



# DynaGraze Exterior

Client:	
Project:	
Type:	
Order Code:	
Quantity:	

## ORDER CODES

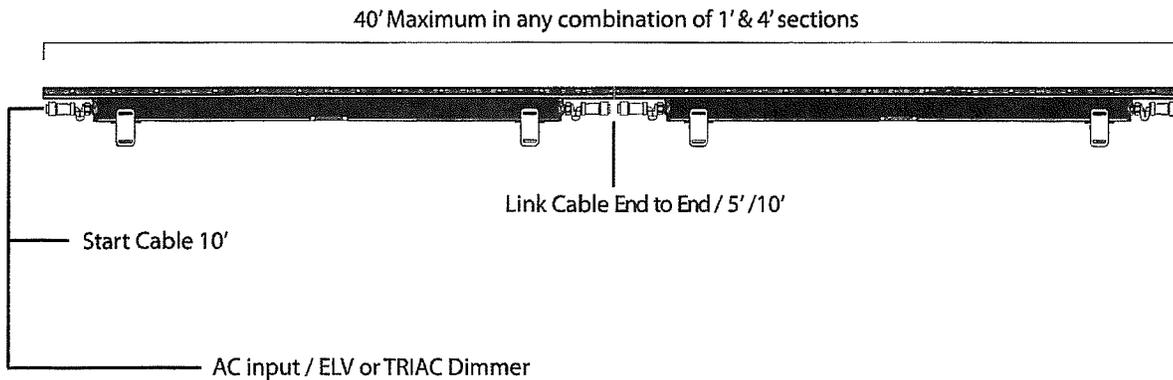
**DGB . 141 . \_\_\_\_\_ U**

LENGTH	COLOR
A - 1'	A - 2700K
D - 4'	B - 3000K
BEAM	D - 3500K
	E - 4000K
	B - 10°
	H - 40°
	P - 10° x 60°
	Q - 30° x 60°

## RELATED COMPONENTS

<b>CA-CBF-03050</b>	Start Cable for DynaGraze Exterior 10'
<b>CA-CBL-00000</b>	Link Cable for DynaGraze Exterior, End to End
<b>CA-CBL-00305</b>	Link Cable for DynaGraze Exterior, 1'
<b>CA-CBL-00150</b>	Link Cable for DynaGraze Exterior 5'
<b>CA-CBL-03050</b>	Link Cable for DynaGraze Exterior 10'
<b>TBD</b>	Extender Bar for DynaGraze Exterior, 6"
<b>TBD</b>	Extender Bar for DynaGraze Exterior 12"
<b>TBD</b>	Extender Bar for DynaGraze Exterior 36"

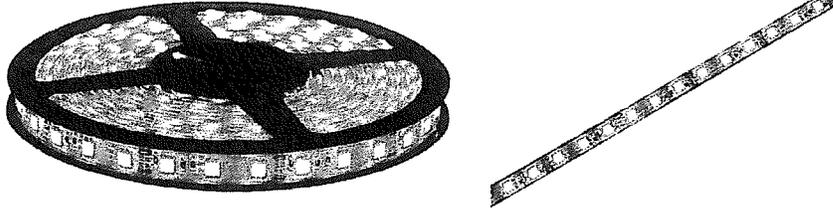
## WIRING





# Flex II HO

Client:	
Project:	
Type:	
Order Code:	
Quantity:	



**Flex II HO** is a thin and flexible LED circuit strip, mounted inside a silicone, weatherproof housing. It can be cut every two inches to create the exact length needed for your specific application. The combination of it's high output and low profile allows for a wide variety of cove, millwork, signage, and many other applications.

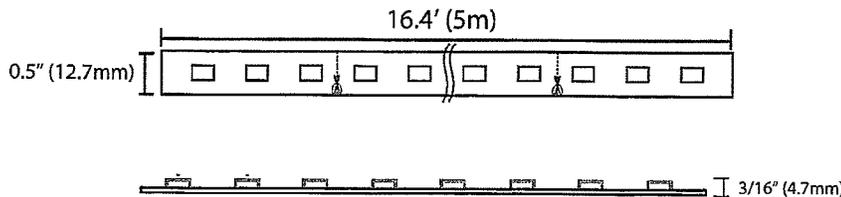
## SPECIFICATIONS

<b>Color Temperature</b>	2700K, 3000K, 4000K, 6000K
<b>Beam Angle</b>	120°
<b>Max Fixture Runs</b>	16.4 ft, 5m (1 Spool)
<b>Power Consumption</b>	50W / 3W Per Foot
<b>Lumens Per Foot</b>	127.8 @ 3000K, 134.1 @ 6000K
<b>Efficacy (lm/W)</b>	42.6 @ 3000K, 44.7 @ 6000K
<b>CRI</b>	67 @ 3000K, 81 @ 6000K
<b>Cut &amp; Solder Joints</b>	Located Every 2"
<b>Housing</b>	Flexible Silicone Jacket
<b>Operating Temperature</b>	-40°F to 122°F (-40°C to 50°C)
<b>Operating Voltage</b>	12VDC
<b>Dimming</b>	TRIAC via M Series Transformers + Compatible LVM Dimmer
<b>Fixture Connectors</b>	5mm Plug With Bare Wire Adaptor Included
<b>Rating</b>	IP 68, Wet Location / Submersible Up To 3' (1m)
<b>Warranty</b>	3 Years
<b>Weight</b>	1 lbs (0.5 kg)
<b>Dimensions</b>	W 0.5" x H 0.18" x L 16.4' (12.7 mm x 4.7 mm x 5000mm)

### Certifications



## DIMENSIONS



# Flex II HO

Client:	
Project:	
Type:	
Order Code:	
Quantity:	

## ORDER CODES

**FLEX2H** : Flex II High Output 16.4 ft (5m) Spool

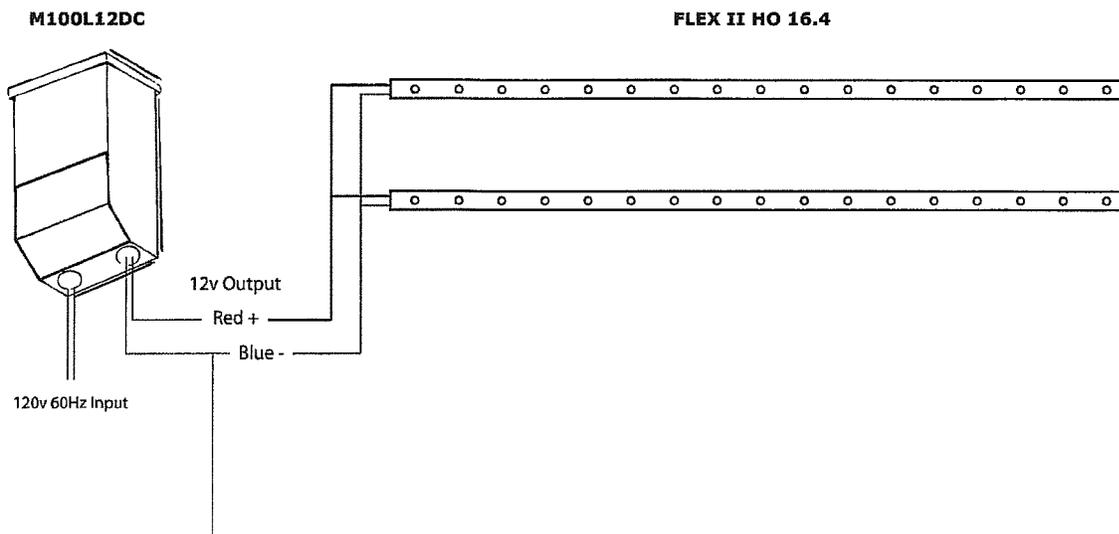
- 2 - 2700K
- 3 - 3000K
- 4 - 4000K
- 6 - 6000K

## RELATED COMPONENTS

<b>M60L12DC</b>	12VDC 60W Dimmable Transformer, 120V AC Input / 1 Spool Maximum
<b>M100L12DC</b>	12VDC 100W Dimmable Transformer, 120V AC Input / 2 Spool Maximum
<b>M150L12DC</b>	12VDC 150W Dimmable Transformer, 120V AC Input / 3 Spool Maximum
<b>FLX999</b>	Aluminum Flex Channel 4'

*Compatible dimmer list for M Series transformers can be found at [www.acclaimlighting.com](http://www.acclaimlighting.com)*

## WIRING (M Series Dimmable Transformers)



Maximum 25' with 18/2 solid cable or higher, to be provided by others.