





K. SINGH & ASSOCIATES, INC.

Engineers, Scientists and Environmental Management Consultant

# O'Donnell Park Parking Structure Façade Improvements

Project Update - Design Development









## **Base Bid**

- Exposed Structure
- Minimal Treatment

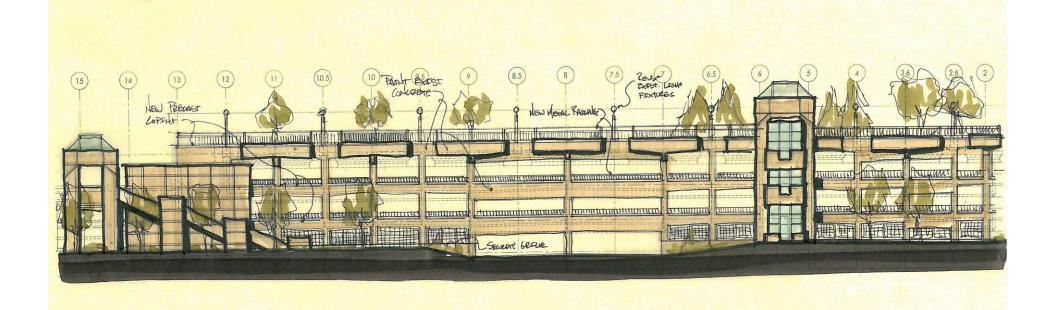
# Add-Alternate

Metal Panel



## Initial Concept – Exposed Structure

Concept Sketch







- Patch Concrete
- Cemetitious Finish System
- Precast Coping at Plaza Level
- Metal Coping at Parapets
- Metal Guardrail at Plaza Level
- Vehicular Barrier Cable System
- Security Grille at Lincoln Mem. Dr.
- Reinstall Existing Lighting

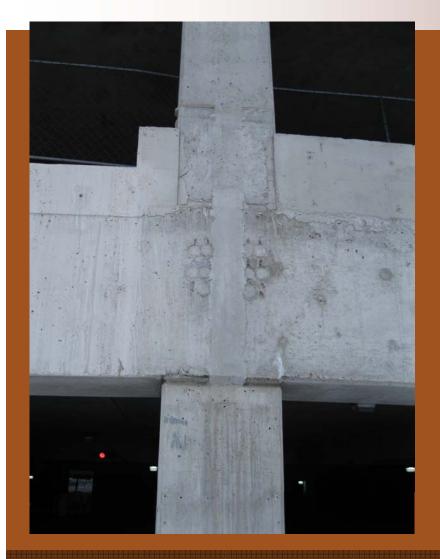
Concept Perspective



# Direct Applied Finish System

- Concrete Substrate Preparation
  - Patch and repair deteriorated concrete
  - Remove fins, grind down formwork remnants
  - Fill voids, honeycombs, and cracking
  - Apply bonding agent bonds new concrete to existing
- Finish System (STO, Dryvit, etc.)
  - Base Coat levels out surface imperfections
  - Top Coat with fiberglass mesh to provide tensile strength
  - Finish Coat Textured coating with integral color

**Existing Concrete Conditions** 





O'Donnell Park Parking Structure Façade Improvements

**Existing Concrete Conditions** 





Stucco Concept

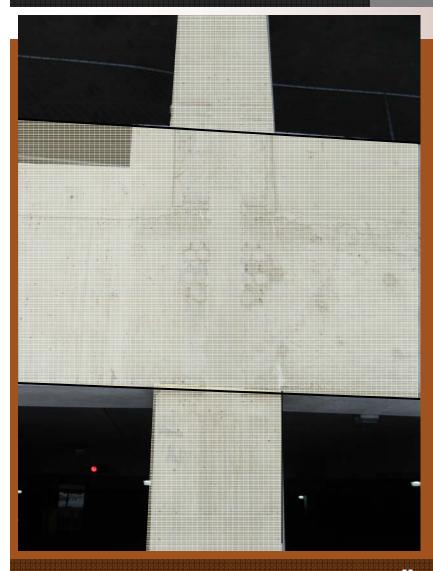


Spandrel Face

Parapet Face

•Beam Returns

Corbels



Stucco Concept



Overlook Soffits



## **Maintenance Considerations**

- Textured surface captures dirt pressure wash as needed
- Limited ability to accommodate deflection repair cracking as needed
- Anticipated Life Cycle of approximately 10 years system will require re-surfacing / repainting
- Application is weather dependant
- 3 year limited materials warranty





## Add-Alt. - Metal Panel

- Minimal Concrete Patching
- Aluminum Perforated Metal Panel System
- Glazing System at Entry
- Precast Coping at Plaza Level
- Metal Guardrail at Plaza Level
- Vehicular Barrier Cable System
- Security Grille at Lincoln Mem. Dr.
- Reinstall Existing Lighting

# **Metal Panel System**

- Concrete Substrate Preparation
  - Patch and repair deteriorated concrete
- Metal Panel System (Dri-Design)
  - Perforated Aluminum Panels on Aluminum Framing attached to existing concrete structure with stainless steel brackets
  - Solid Aluminum Panels on Galvanized CFMF at Overlooks
  - Dri-Design headquarters in Holland, MI panels are fabricated and finished in Wausau, WI.
  - Panels have 20% combined Recycled Content
  - Painted Finish

Color Options - Dark Bronze



Color Options - White Powder Coated



Metal Panel Examples





## **Maintenance Considerations**

- Aluminum Panels and Frames require minimal maintenance pressure wash as needed
- Modular System allows broken panels to be removed
- Painted 20 year finish warranty

## **Construction Budget**

		Cost
		\$538,443.00
Phase I - Façade Remo		

#### Phase II - Façade Improvements

#### **Base Bid - Exposed Structure**

	Unit Cost	Area	
Concrete Patching	\$150.00	1,500 SF	\$225,000.00
Cementitious Finish	\$25.00	15,719 SF	\$392,975.00
Weather Protection		LS	\$75,000.00
Precast Coping	\$45.00	1,115 LF	\$50,175.00
Metal Coping	\$30.00	818 LF	\$24,540.00
Metal Guardrail	\$135.00	1,087 LF	\$146,745.00
Vehicle Barrier	\$125.00	957 LF	\$119,625.00
Security Grille	\$65.00	2,958 SF	\$192,270.00
Reinstall Lighting	\$6,000.00	14 EA	\$84,000.00
		Total:	\$1,310,330.00

#### Phase I & II Total: \$1,848,773.00

**Estimated** 

#### **Add Alternate - Metal Panel**

Perforated Panel	\$32.00	9,660 SF	\$309,120.00
Aluminum Framing	\$26.00	9,660 SF	\$251,160.00
Solid Panel	\$32.00	9,196 SF	\$294,272.00
Galvanized Framing	\$10.00	9,196 SF	\$91,960.00
Foundation for Entry Glazing	\$12,000.00	3 EA	\$36,000.00
Entry Glazing	\$100.00	2,176 SF	\$217,600.00
Entry Framing	\$40.00	2,176 SF	\$87,040.00
Concrete Patching	\$150.00	500 SF	\$75,000.00
Precast Coping	\$45.00	1,115 LF	\$50,175.00
Metal Guardrail	\$135.00	1,087 LF	\$146,745.00
Vehicle Barrier	\$125.00	957 LF	\$119,625.00
Security Grille	\$65.00	2,958 SF	\$192,270.00
Reinstall Lighting	\$6,000.00	14 EA	\$84,000.00

Total: \$1,954,967.00

Phase I & II Total: \$2,493,410.00





Department of Parks, Recreation and Culture
O'DONNELL PARK: PARKING STRUCTURE FAÇADE IMPROVEMENTS
MILWAUKEE COUNTY DEPARTMENT OF TRANSPORTATION & PUBLIC WORKS

February 7, 2011

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