Webster University

Two (2) - Gen2™ Underslung Elevator Systems
635607, 635608

Elevator Approval

Submitted By:
Otis Elevator Company
8240 Brentwood Industrial Dr.
Brentwood, Missouri 63144

Prepared By:
Mike Mosella
Phone: 314-244-0325
email: michael.mosella@otis.com

Project Address:
470 East Lockwood Ave.
Saint Louis, Missouri 63119

Owner:
Webster University
470 E. Lockwood
Webster Groves, Missouri 63119
314-246-8025

Architect:
Cannon Design
1100 Clark Ave.
Saint Louis, Missouri 63119
314-241-6250

General Contractor:
Paric Construction
1001 Boardwalk Springs Place Suite 220
O Fallon, Missouri 63119
636-561-9577

One (1) Electronic Set of Approvals Submitted
~ Return one (1) electronic set to Otis
Retain one (1) set on job site
Disburse sets to the: General Contractor, Architect, Owner...

7/19/2016
Date Submitted

Approval Signature

8/2/2016
Required Return Date

Date Returned

Critical Construction Information

Customer:
Paric Construction
1001 Boardwalk Springs Place Suite 220
O Fallon, Missouri

Project:
Webster University
470 East Lockwood Ave.
Saint Louis, Missouri 63119

Invoicing Information

Please advise as to the date invoices must reach your office each month to be processed in a timely manner.

Invoices are due on the _____ of each month.

Job Site Information

Name of Superintendent: _____ Phone _____

Driving Directions

_____

Please Provide the Following Dates:

Date you would llke elevator material delivered: _____

Date of elevator installation completion: _____

Changes to delivery dates must be made twelve (12) weeks prior to the material delivery dates shown above. Delivery date changes requested with less than twelve weeks' notice may result in additional costs. Consult your Otis Representative.

Job-site must be ready for installation when material is delivered (see below for details). If the site is not ready when material arrives, the material needs to be placed inside the building in a dry, safe area. Contractor must provide roll-able access to move material from the truck into the building, provide a forklift and an operator to move material at no cost to Otis. If the material cannot be stored inside the building, you will be required to pay for additional handling and/or storage until the building is ready. If the material is not stored in a dry, safe place, or outside exposed to the elements, Otis is not liable for any damages to the material, and you will be required to pay for any necessary repairs or replacements. Material is not allowed to be stored outside of the building, under tarps.

Provide sufficient on-site refuse containers for the proper disposal of packaging material. Should sufficient refuse containers not be provided, packaging material shall become the responsibility of the owner.

If Otis is directed in writing to install equipment early, and building is exposed to the weather, there is a possibility of rust forming on the equipment. If fireproofing is applied, there is a possibility it will adhere to our equipment. Should clean-up be required for either fireproofing or rust formation, it will be charged to the General Contractor.

The Following Must Be Provided, by Others, Prior to Otis Manning the Job-Site	
1	3-Phase Power and Disconnect per Confirmation of Power Form
2	Hoistway, Pit, and Machine Room Dry & Clean
3	Storage Space Close to Elevators, With Roll-Able Access
4	Inserts and Fastenings Provided per Our Approval Package
5	Freestanding Removable Barricades
6	OSHA Approved Fall Protection at the Top of the Hoistway is in Place

We are pleased you have selected Otis Elevators for your upcoming project.
In order for on time installation of your equipment, please provide the information and requirements requested above.

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Signature:

Confirmation Of Power for Elevator Systems

Customer:
Paric Construction
1001 Boardwalk Springs Place Suite 220
O Fallon, Missouri 63368

Project:
Webster University
470 East Lockwood Ave.
Saint Louis, Missouri 63119

Submitted By:
Otis Elevator Company
8240 Brentwood Industrial Dr.
Phone: 314-244-0325
Fax: 860-660-8703
email:

Manufacture will not be started until the owner or the owner's representative signs and returns this form to Otis Elevator Company.

This form must be completed, signed and returned by: ..... to meet the scheduled completion date of: .....

Part A POWER CONFIRMATION

The power supply requirements are as indicated below.
You are requested to verify (or correct) this information and confirm its accuracy by your signature in the space provided.
Should a change in the information provided subsequently occur, immediate notification of the change is necessary.

	1	**480** volts, Three Phase, 60 hertz, and a separate equipment-grounding conductor Ref: ANSI/NFPA 70 Note: Grounding at points other than system neutral is not permitted. The Three Phase electrical system for the elevators must contain balanced phase voltages when referenced to system neutral.
	2	Car lighting: 125 volt, single-phase, 15 ampere, 60 hertz dedicated branch circuit
X	3	Please check here, if elevator is to be supplied with emergency power from a standby source. See Emergency (Standby) Power Requirements section of this document."

Voltage variations for power supplies to be within ± 10% of nominal supply voltage indicated in item (1) above.
Frequency variations to be within ±2 Hertz.
If voltage or frequency variation does not fall within these limits, please give details.

The above power-supply characteristics are confirmed:

SIGNED BY: ..... DATE: .....

Part B POWER CONFIRMATION (See ANSI/NFPA 70)

The power supply requirements are as indicated below. You are requested to verify (or correct) this information and confirm its accuracy by your signature in the space provided.
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The elevator system power total harmonic distortion is less than 5% and the power factor is 95% or greater.
Additional electrical requirements are listed on the next page.

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Signature:

Confirmation Of Power for Elevator Systems

The AC line current data below are based on the power supply information provided in Part A, item 1, on the previous page.

CONTRACT	GROUP	ELEVATOR	PRODUCT	DUTY	SPEED	Elevator Running Full Load Up*	
						CURRENT RATING**	ACCELERATING CURRENT
635607	Group 1	#2	Gen2 Underslung	4500	200	22	28
635608	Group 2	#1	Gen2 Underslung	3500	200	18	22

* REFER TO ANSI/NFPA 70, SECTION 620-13

** (For Code Versions Prior to 1996 Refer to Section 620-14)

Elevator controller terminations for Three Phase wiring are rated for 75° C. Refer to ANSI/NFPA 70, Section 110-14

Elevators supplied to this document are rated at 10,000 Amps RMS Symmetrical Short Circuit Current (SCCR).

Elevator Feeder Short Circuit protection provided by others shall limit the Available Short Circuit (ASCC) in the machine room to 10,000 Amps maximum symmetrical RMS.

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Signature:

Confirmation Of Power for Gen2™ Elevator Systems

To assist you in providing proper electric service, items required by others are listed below:

Gen2™ ELECTRICAL REQUIREMENTS

Elevator Management System (EMS) - a dedicated 125 volt 20 ampere single-phase power supply with SPST disconnect switch or circuit breaker with duplex outlets in the machine room, and at any location where a Security Station and/or Fire Station is furnished.

Remote Elevator Monitoring (REM) – a dedicated 125 volt, 15 ampere single-phase power supply with SPST disconnect switch or circuit breaker.

Prior to the start of installation provide a permanent, Three Phase electrical-feeder system with a separate equipment-grounding conductor terminating in the control room/space, located per Otis layout.

Feeder grounding conductors sized according to elevator current characteristics as shown on the Otis Confirmation of Power Supply form.

Feeder grounding conductors must be copper.

A fused disconnect switch or circuit breaker (not acceptable in all areas) capable of being locked in the open position, for each elevator perNational Electrical Code (ANSI/NFPA 70) with feeder or branch wiring to controller per National Electrical Code [NEC 620-51] and [620-61(D)], and [620-62] .

The disconnecting means required by National Electrical Code shall be provided with all associated wiring and conduit to the controller. Size of main contacts to suit elevator power characteristics.

Fuses are to be current limiting class RK1 or equivalent, see section B for elevator equipment SCCR. Circuit breakers are to have current limiting characteristics equivalent to class RK1 fuses, see section B for elevator equipment SCCR. Fuses or circuit breakers are to be time delay to cover the full load up accelerating current as listed in Section B above.

Feeder conductors and associated wiring to the controller to be sized to limit wiring voltage drop to 5% maximum when delivering elevator full load up accelerating current. In addition, when Automatic Recovery Operation (ARO) is specified, the mainline fused disconnect switch or circuit breaker shall be equipped with two auxiliary contacts that are positively opened when the mainline disconnect is in the OFF position.

Provide a dedicated 125 volt, 15 ampere single-phase branch circuit, with a fused disconnect switch or circuit breaker. This disconnect or breaker shall be capable of being locked in the open position and located per the Otis layout. This branch circuit supplies the car lights, car top receptacle, auxiliary lighting power source and ventilation on each car in compliance with the National Electrical Code [NEC620-53].

All 125 volt, 15 or 20 ampere single-phase receptacles installed in pits, machine spaces, control room(s)/space(s) shall be of the ground-fault circuit-interrupter type (GFCI). A dedicated single-phase receptacle supplying a permanently installed pit sump pump shall not require GFCI protection.

Provide electric power for lights, tools, welding, hoisting, etc. during installation with sufficient power for starting, testing and adjusting the elevator.

The building power system used to operate the elevator(s) shall be capable of supplying non linear loads and be capable of absorbing the regenerated power contained in the table in the section “ELEVATOR REGENERATIVE POWER REQUIREMENTS” to comply with ASME A17.1/CSA B44 Rule 2.26.10 and Rule 2.27.2.5. The information contained in the table is to be used to determine regenerative power absorption capability for the building normal power distribution system.

Automatic Recovery Unit- Is Provided

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Signature:

Confirmation Of Power for Elevator Systems

ELEVATOR REGENERATIVE POWER REQUIREMENTS

The regenerated power complies with IEEE 1547

CONTRACT	GROUP	ELEVATOR	FULL LOAD DOWN			
			RUNNING		STOPPING	
			amps	kW	amps	kW
635607	Group 1	#2	17	12	19	14
635608	Group 2	#1	14	10	15	11

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Signature:

Confirmation Of Power for Elevator Systems

EMERGENCY (STANDBY) POWER REQUIREMENTS - IF PROVIDED

A power transfer switch to monitor both normal and standby power conditions and to perform the transfer from one to the other. Switch to have an inhibit function which will delay the completion of the transfer to normal and/or standby power by an adjustable period of 0 - 5 seconds. Switch to have a phase monitor feature that will prohibit the transfer of power between "live" sources unless the sources are in phase with each other.

Note: The building Emergency (Standby Power) Generator system, used to supply the elevator(s), shall be capable of supplying non-linear loads.

When more than one elevator is subject to the same standby power system and the standby power system is not large enough to run all elevators at once, the transfer switch must include one set of normally closed dry contacts that open when the switch is in the standby power position.

A 125 volt, 15 ampere, single phase car light supply.

Elevator Controlls will be programed to allow only one elevator (#2) to operate when emergency generator is supplying power.

COMMUNICATION REQUIREMENTS

Telephone instrument or means within the car for communication or signaling to an accessible point outside the hoistway, a central exchange system, or approved emergency service, is required.

Separate 125 volt, 15 ampere single-phase power supply with fused SPST disconnect switch or circuit breaker with duplex outlet, in the machine room, located as required for inter-communicating system power supply. Circuit to be arranged for feeding from the building standby or emergency lighting supply if provided. Conduit and wiring for remotely located inter-communicating stations (in Engineer's office, etc.)

Provide one (1) dedicated outside analog telephone line, per elevator car, terminated at the elevator controller.
The telephone line must meet the following requirements:

Loop Current:	Min 20mA, Max 120mA	Nominal AC Line Impedence:	600 Ohms
Line Voltage:	On Hook – Min 15Vdc, Max 56.5Vdc	Loop Current:	Min 40Vac(rms), Max 150Vac(rms)
	Off Hook- Min 8.75Vdc	Ring Frequency:	15-68 Hz

Elevator #2 has card reader provisions included.

SMOKE DETECTOR REQUIREMENTS

Provide smoke detectors, as required, with wiring from the sensing devices to the controller(s) designated by Otis.

I For each group of elevators, provide a normally closed contact representing the smoke detector at the designated return landing.

II For each group of elevators, provide a normally closed contact representing all smoke detectors located in lobbies and hoistways, but not the smoke detector at the designated return landing (see above) or the smoke detectors as described in a) below:

a) If a smoke detector is located in the hoistway at or below the lower of the two recall landings, it shall be wired to activate the same normally closed contact as the smoke detector located in the lobby at the lower of the two landings.

b) If machine rooms are located at the designated return landing, the smoke detectors, located therein, shall be wired to activate the same normally closed contact as the smoke detector at the designated landing.

III a) For a single elevator, or group of elevators having one common machine room and one common hoistway, provided one additional normally closed contact representing all machine room and hoistway smoke detectors.

b) If the group contains more than one hoistway, and hoistway smoke detectors are installed, or if the group has more than on machine room, provided one normally closed contact for each elevator. The contact is to represent the smoke detector in the machine room for that particular elevator, and any smoke detectors in the hoistway containing that particular elevator.

SPRINKLER REQUIREMENTS

If sprinklers are installed in the hoistway, machine room, or machinery spaces, a means to automatically disconnect the main line power supply, of the affected elevator, prior to the application of water. Smoke detectors shall not be used to activate sprinklers in the hoistways, machine rooms, or machinery spaces or to disconnect the main line power supply

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Signature:

Confirmation Of Power for Elevator Systems

HEATING, VENTILATION, AIR CONDITIONING REQUIREMENTS

Elevators With Separate Control and Machine Spaces

The control room(s)/space(s) shall be maintained at a temperature between 32 F (0 C) and 104 F (40 C) to be measured 6 feet (1830 mm) above the floor and 1 foot (305 mm) out from the front center of the car controller(s). Relative humidity is not to exceed 95% non-condensing. Provide ventilation to suit Otis heat release amounts as shown in the table below. Local codes may require higher temperature ranges and higher ventilation levels. Please check with your local code authority for the exact requirements in your area.
If your control room(s)/space(s) temperatures exceed these requirements, contact your local Otis sales representative for assistance.

CONTRACT	GROUP	ELEVATOR	DUTY	PRODUCT	HEAT RELEASE PER CAR (BTU/HR)
Control Space					
635607	Group 1	#2	4500	Gen2 Underslung	3500
635608	Group 2	#1	3500	Gen2 Underslung	2800
Machine Space					
635607	Group 1	#2	4500	Gen2 Underslung	2400
635608	Group 2	#1	3500	Gen2 Underslung	2600

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Signature:

ELEVATOR HOISTWAY APPROVAL DATA

Sprinkled Hoistway - If a sprinkler system is installed in the hoistway, weatherproof (NEMA4-Traction only) equipment and wiring will be provided, in the pit by Otis, to comply with ASME A17.1 102.2 (c) 5 (a) & (b).

PRODUCT CONFIRMATION

Please sign the attached approval layout, in the space provided,
confirming the dimensions, opening arrangement, coordination notes, etc., shown therein.

Firefighter's Service Operation (Required by ASME A17.1)

We will provide phase I & II control provisions. You must provide the Phase I designated floor designation (egress) that the elevator will return to in event of fire, as well as an alternate floor designation which the elevator will park at in the event that the fire is at the designated landing. The egress landing is the floor level that occupants of the building will exit at in case of fire.

Designated Phase 1 Stop: 2

Alternate Phase 1 Stop: 1

Main Egress Designated Stop/Opening: 2 may differ from Designated Phase 1 stop

The above landing designations are confirmed:

SIGNED: DATE:

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Hoistway Information- Part 2

635607 #2 Landings, Floor Heights, and Finishes

Front	Rises	Door	Frame	Sill
4	0 ft	Brushed Stainless	Brushed Stainless	Aluminum
3	15 ft 4 in	Brushed Stainless	Brushed Stainless	Aluminum
2	15 ft 4 in	Brushed Stainless	Brushed Stainless	Aluminum
1	14 ft	Brushed Stainless	Brushed Stainless	Aluminum
LL	14 ft	Brushed Stainless	Brushed Stainless	Aluminum

Overhead	12 ft 11 in
Rise	58 ft 8 in
Pit	5 ft

635608 #1 Landings, Floor Heights, and Finishes

Front	Rises	Door	Frame	Sill
4	0 ft	Brushed Stainless	Brushed Stainless	Aluminum
3	15 ft 4 in	Brushed Stainless	Brushed Stainless	Aluminum
2	15 ft 4 in	Brushed Stainless	Brushed Stainless	Aluminum
1	14 ft	Brushed Stainless	Brushed Stainless	Aluminum

Overhead	12 ft 11 in
Rise	44 ft 8 in
Pit	5 ft

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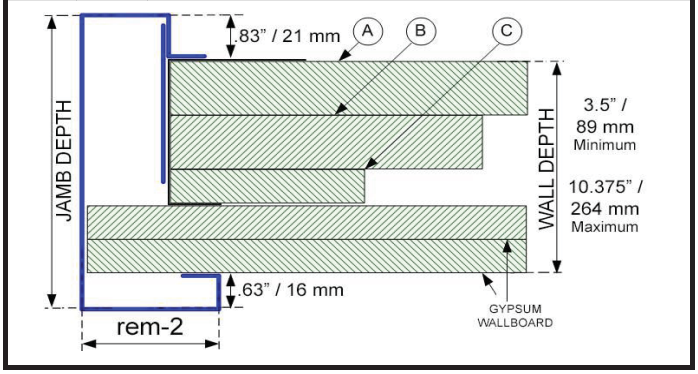
Drywall Entrance Arrangments

D1 X — 2 Hour Rated Wall
Max Allowable Jamb Depth = 12” (304.8 mm)



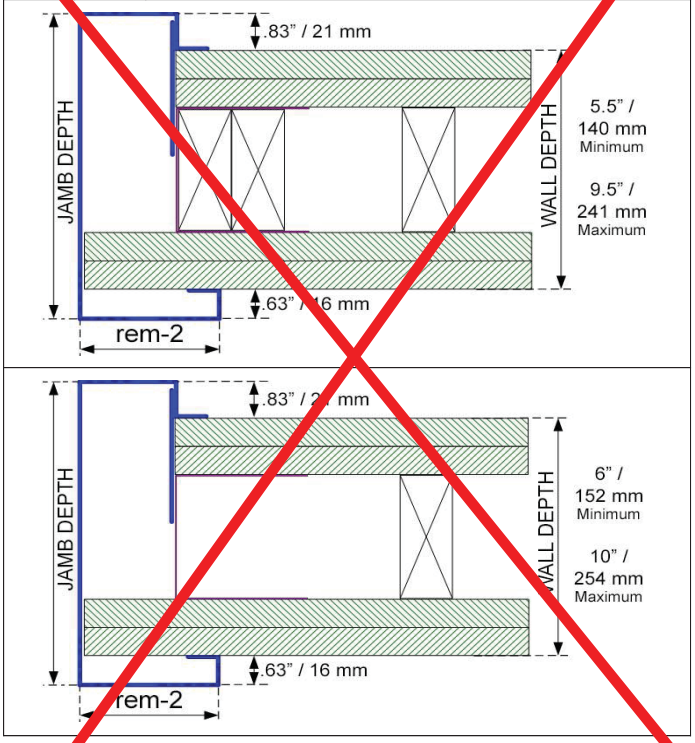
A- 1” (25.4 mm) thick shaftwall liner

B- 1” (25.4 mm) thick x 12” wide (304.8 mm) full height shaftwall liner filler

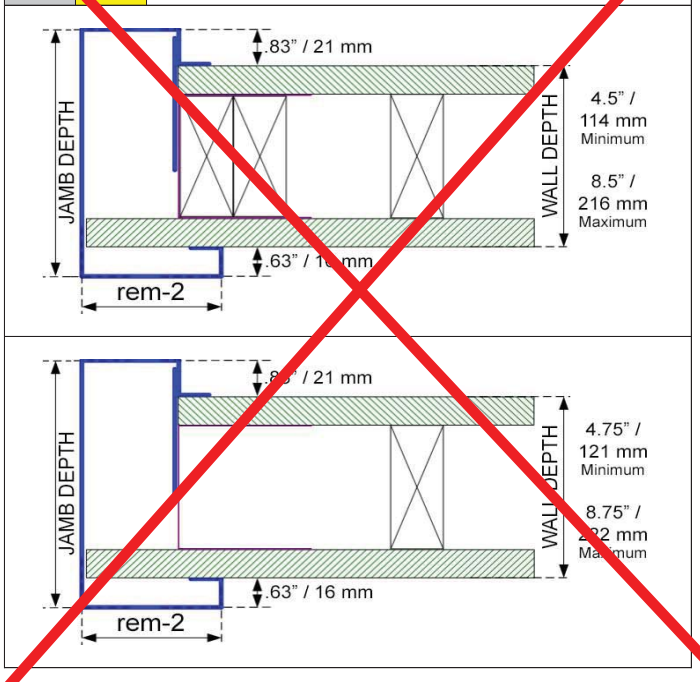
C- 1/2” (12.7 mm) thick x 6” wide (152.4 mm) full height gypsum wallboard shims

Items B & C are only needed when entrance height is greater than 7 feet.

D2 — 2 Hour Rated Wall
Max Allowable Jamb Depth = 12” (304.8 mm)



D3 — 1 Hour Rated Wall
Max Allowable Jamb Depth = 12” (304.8 mm)



1 All frames are bolted. Frame heads project 1/4” (6mm) beyond front face of side jamb.

2 All jamb faces (head and sides) are 2 7/8” (73 mm) with an option of 2” (50.8 mm) if wall mounted fixtures are used.

3 Site guards are painted black.

4 Arrangements D1 and D2 have a one and a half (1½) hour fire protection rating. Arrangement D3 has a one hour fire protection rating.

5 Gypsum Wallborad Thickness: 1/2” (12.7 mm) or 5/8” (15.9 mm)

6 Embossed handicapped plates measuring 4” x 4” (102 mm x 102 mm) are applied to both jambs of each entrance at appropriate height. Characters are 2” (51 mm) high and raised with adjacent Braille.

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Drywall Entrance Arrangment Dimensions

635607 #2

Landing	M1 WALL THICKNESS	D2 - 'W' WALL THICKNESS	D3 - 'W' WALL THICKNESS	STUD wood/metal	STUD size
4	G4 - 5 1/4"			METAL CH	4" CH
3	G4 - 5 1/4"			METAL CH	4" CH
2	G4 - 5 1/4"			METAL CH	4" CH
1	G4 - 5 1/4"			METAL CH	4" CH
LL					

635608 #1

Landing	M1 WALL THICKNESS	D2 - 'W' WALL THICKNESS	D3 - 'W' WALL THICKNESS	STUD wood/metal	STUD size
4	G4 - 5 1/4"			METAL CH	4" CH
3	G4 - 5 1/4"			METAL CH	4" CH
2	G4 - 5 1/4"			METAL CH	4" CH
1	G4 - 5 1/4"			METAL CH	4" CH

OTIS: @ ELEVATOR 2 - PROVIDE STAINLESS STEEL TRIM AT DOOR FRAME AS INDICATED ON DETAILS 15 AND 19 ON SHEET A0551

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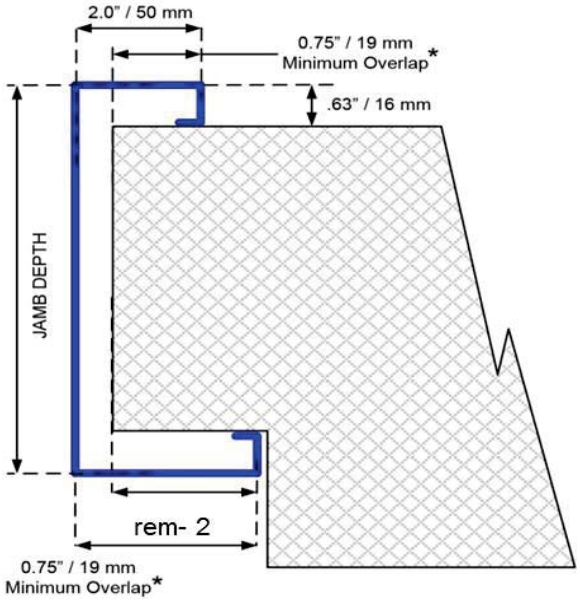
Signature:

Masonry Entrance Arrangments

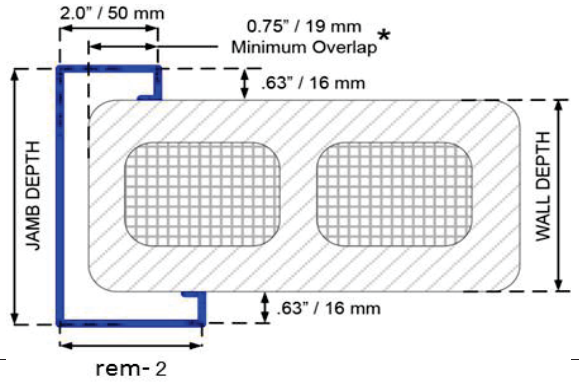
M1

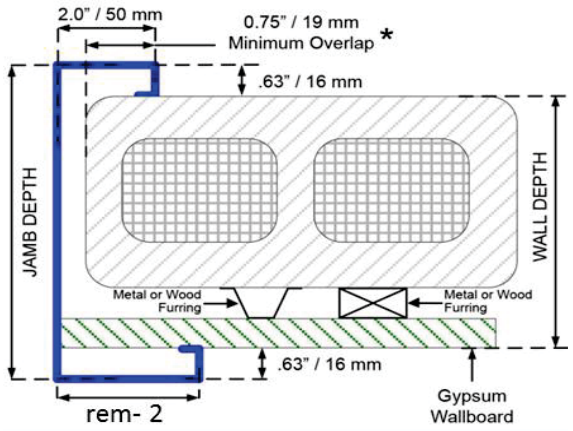
2 Hour Rated Wall
Recessed frame in masonry wall
Max Allowable Jamb Depth = 20” (508 mm)



M2

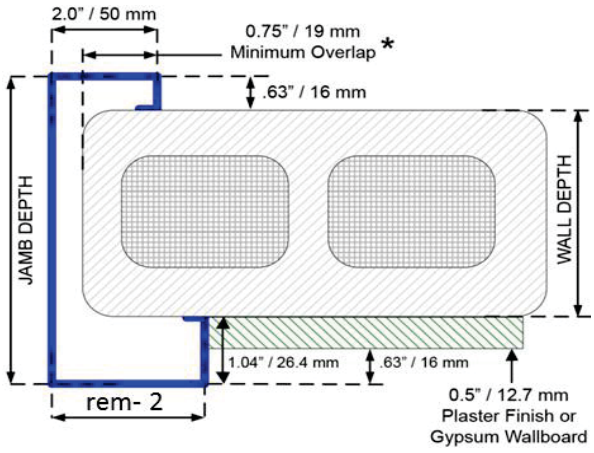
2 Hour Rated Wall
Max Allowable Jamb Depth = 20” (508 mm)





M3

2 Hour Rated Wall
Max Allowable Jamb Depth = 20” (508 mm)



Please select one arrangement for Level: LL

1 In order to maintain the UL rating, the wall shall penetrate the jamb by a minimum of 20mm.

2 All jamb faces (head and sides) are 2 7/8” (73 mm) with an option of 2” (50.8 mm) if wall mounted fixtures are used.

3 All frames are bolted. Frame heads project 1/4” (6mm) beyond front face of side jamb.

4 Site guards are painted black.

5 The wire anchors should always be used with masonry construction.

6 Embossed handicapped plates measuring 4” x 4” (102 mm x 102 mm) are applied to both jambs of each entrance at appropriate height. Characters are 2” (51 mm) high and raised with adjacent Braille.

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Signature:

Masonry Entrance Arrangment Dimensions

635607 #2

Landing	M1 WALL THICKNESS	M1 FRAME DEPTH	M2 WALL THICKNESS	M3 WALL THICKNESS
4				
3				
2				
1				
LL				
	?	?	?	?

Please indicate proper thickness for appropriate arrangement.

8" NOMINAL CMU - 7 5/8"

635608 #1

Landing	M1 WALL THICKNESS	M1 FRAME DEPTH	M2 WALL THICKNESS	M3 WALL THICKNESS
4				
3				
2				
1				

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Signature:

Elevator Cab Information

GC TO IDENTIFY FLOORING DEPTH PRIOR TO FABRICATION

635607 #2

General Cab Data

Cab Type	Steel Shell
Type of Service	Service
Glass Back	Not Selected
Top & Bottom Base	Brushed Stainless
Cab Height	7 ft 9 in
Clear Inside Cab Height	7 ft 3-3/8 in
Cab Width	5 ft 6-3/4 in
Cab Depth	7 ft 11-1/2 in
Floor Recess	1 1/4 in
Exhaust Fan	1 Speed Fan
Fascia & Return	Brushed Stainless
When inside the cab, facing the car front, what hour on a clock face is North?	

Panels

Vertical Side Panels	5
Vertical Rear Panels	3
Panel Finish	Brushed Stainless

Doors and Entrances

Entrance Array	Front Only
Door Type	Two-Speed, Single Slide
Car Door	Brushed Stainless
Threshold	Aluminum
Entrance Height	7 ft
Entrance Width	4 ft

Car Fixture Data

Car Operating Panel	1 Standard Swing
Operating Panel Finish	Brushed Stainless
Position/Direction Indicator	Blue, 2 digit

Locked Firefighter Panel	Yes
Locked Service Cabinet	No
Certificate Frame	No
Alarm in C.O.P	Yes
No Smoking Label	Yes
In-Car Lantern	

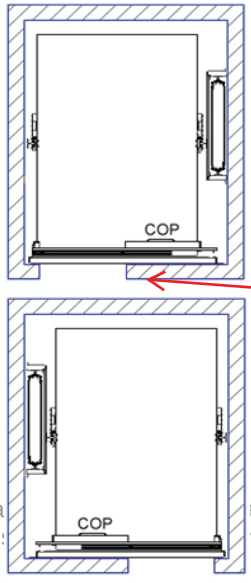
Ceiling

Ceiling Type	Dropped Metal
Lighting Array	9 LED Lights
Ceiling Finish	Brushed Stainless

Please Choose Door Hand

X

Left



Hall Buttons and Lantern will be located on this side.

Right

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Signature:

Elevator Cab Information

PREVIOUS COMMENTS
NOT ADDRESSED

635608 #1

General Cab Data

Cab Type	Black Steel With Cutouts
Type of Service	Passenger
Glass Back	Not Selected
Top & Bottom Base	Brushed Stainless
Cab Height	7 ft 9 in
Clear Inside Cab Height	7 ft 3-3/8 in
Cab Width	6 ft 6-3/4 in
Cab Depth	5 ft 6-1/8 in
Floor Recess	1 1/4 in
Exhaust Fan	1 Speed Fan
Fascia & Return	Brushed Stainless
When inside the cab, facing the car front, what hour on a clock face is North?	

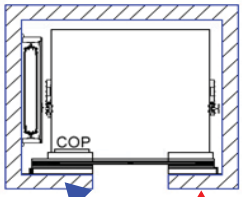
Panels

Vertical Side Panels	
Panel Finish	**Formica Finnish Oak 118-58**

Doors and Entrances

Entrance Array	Front Only
Door Type	Center Opening
Car Door	Brushed Stainless
Threshold	Aluminum
Entrance Height	7 ft
Entrance Width	3 ft 6

Center Opening Door



Hall Buttons and Lantern will be located on this side.

PER PREVIOUS MARK-UP LOCATE HALL BUTTONS AND AND LANTERN THIS SIDE

Car Fixture Data

Car Operating Panel	1 Standard Swing
Operating Panel Finish	Brushed Stainless
Position/Direction Indicator	Blue, 2 digit

Locked Firefighter Panel	Yes
Locked Service Cabinet	No
Certificate Frame	No
Alarm in C.O.P	Yes
No Smoking Label	Yes
In-Car Lantern	

Ceiling

Ceiling Type	Dropped Metal
Lighting Array	6 LED Lights
Ceiling Finish	Brushed Stainless

This document contains confidential proprietary pricing and other information of Otis Elevator Company and is intended for the recipient only. Any distribution or copying of this information without the consent of Otis Elevator Company is strictly prohibited.

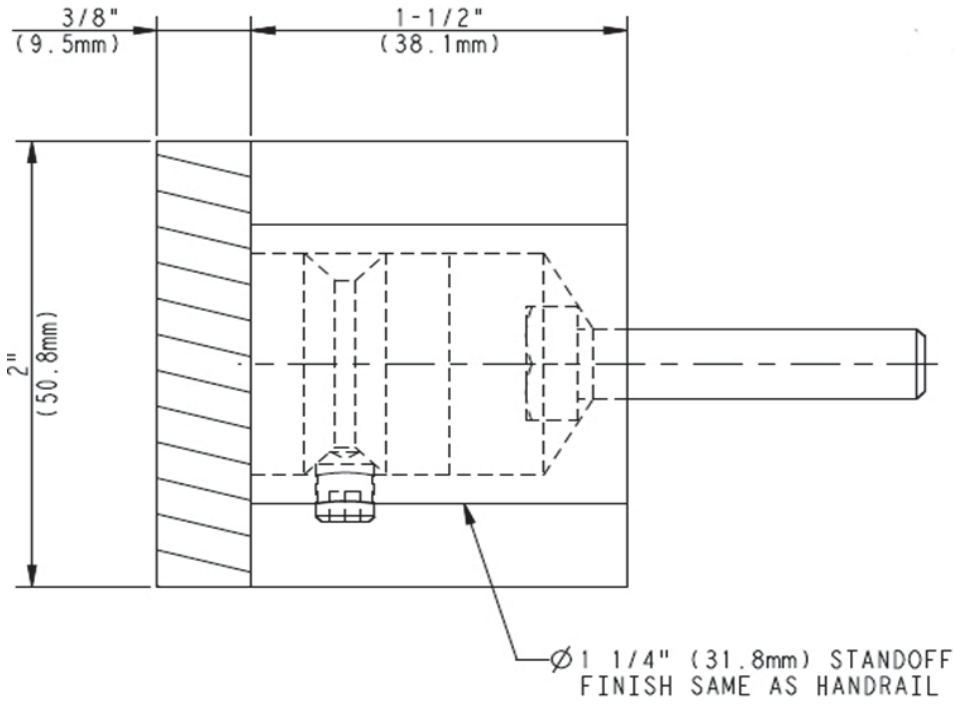
Signature:

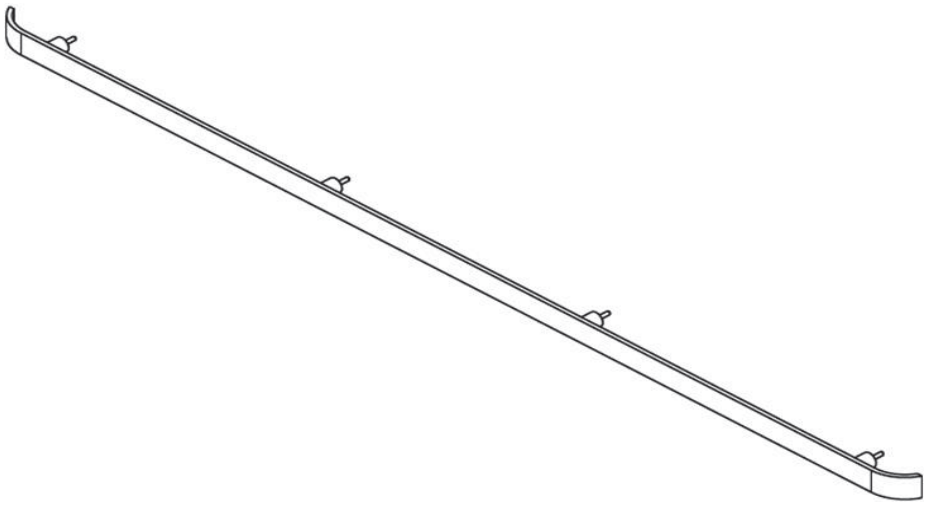
Elevator Handrails

#2 & #1 -- 635607-608 ~~635607 #2~~

Hand Rails

Handrail Array	Side and Rear
Hand Rail Type	DH-155 Square with Standoffs
Handrail Finish	Brushed Stainless





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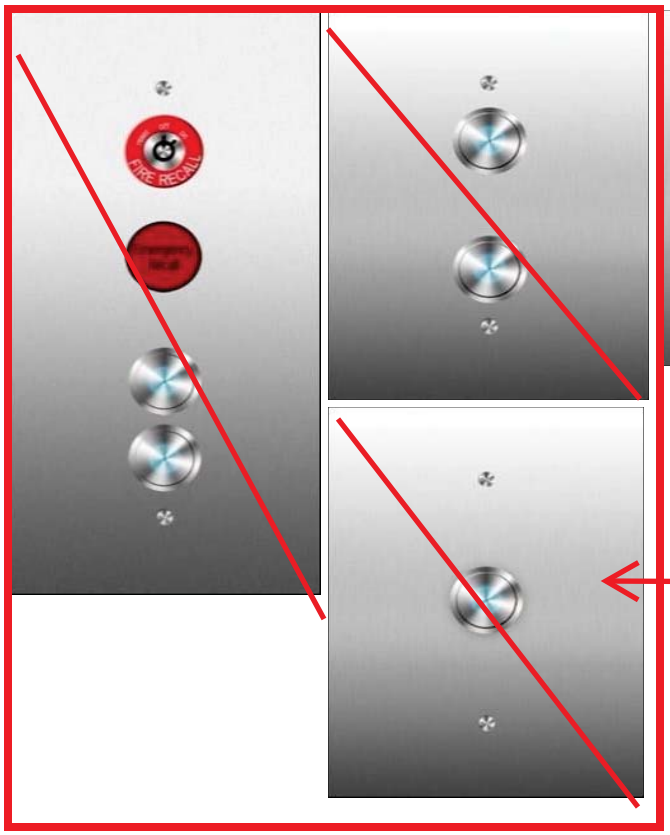
Signature:

Elevator Hall Fixtures

#2 & #1 -- 635607-608 ~~#2- 635607~~

Brushed Stainless, Mounted in the Wall, Flat, Vandal Resistant Buttons with a Blue LED



BUTTON OK

STANDARD PLATE OK AS SHOWN ON FLOOR LL ONLY.

Buttons Front	LL, 1, 2, 3 and 4
LanternsFront	LL, 1, 2, 3 and 4

FLOOR 1,2,3, AND 4: CM/GC COORDINATE TO PROVIDE CORRECT BACK BOX, BUTTON LOCATIONS AND CUSTOME PLATE TRIM SHOWN ON ELEVATION 17/A0551 AND SHEET EG 111.

FLOOR LL ON UNIT #2 ONLY.

LOCATE BUTTONS AND LANTERNS PER 17/A0551 AND SHEET EG 11.

Elevator 1: jamb mount lanterns

Elevator Communication Failure Feature

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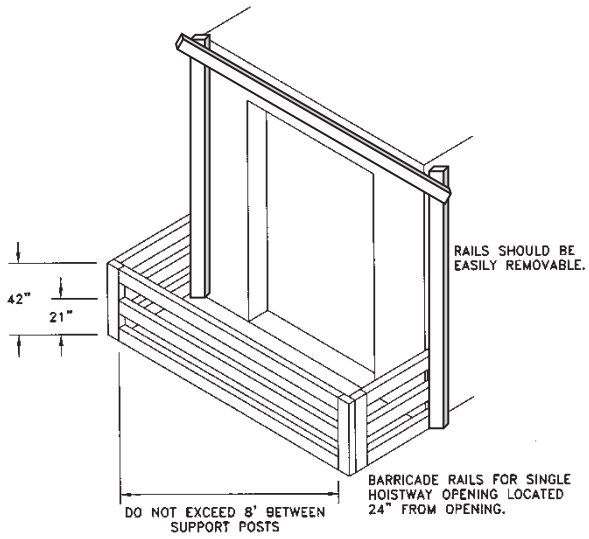
Signature:



Barricades Must Meet OSHA Minimum Requirements

- 42” high
- Have center board and kick board
- Must withstand 200 lbs. of side pressure

Otis Requirements

- Installed by others, maintained by Otis
- Free-standing, removable barricades
- Barricade should span only one rough opening
- Typical 2”x4” timber construction (minimum)

Contractor's Pre-Inspection Checklist

July 19, 2016

Webster University
Contracts - 635607-608

- In order to help us meet your schedule; the following items NOT marked 'Complete' must be completed prior to Otis re-manning the job. Please initial the non-completed items when they have been completed, and fax the form to the Otis Construction Superintendent.
- Before these elevators can be complete and ready for inspection by the state or local inspector, all requirements of the ASME/ANSI A17.1 elevator code and local building codes must be met. This includes completion of work that must be performed by other trades.

Item	Complete	Initial	Description
1	☐		Pit shall be so designed as to prevent entry of ground water into the pit. Drains connected directly to sewers shall not be installed in elevator pits. Sump pump recesses must have metal covers or grills. (2.2.2)
2	☐		Metal pit ladder is to extend from the pit floor upward, not less than 48" above the bottom landing floor level, per Otis shop drawings and/or Otis instructions. (2.2.4.2)
3	☐		Hall fixtures must be blocked in, or mounted complete.
4	☐		Door frames are to be sealed in order to meet code. Any holes. in the elevator hoistway and machine room, must be patched.
5	☐		Grout under and in front all sills. Grout in and around elevator machine beams.
6	☐		Lockable 120V disconnects, must be installed, per power confirmation.
7	☐		Top of hoistway and machine room shall have a fire rating in accordance with local elevator codes. (2.1.1.1)
8	☐		Walls and ceiling shall be finished for mounting of hall fixtures and smoke detectors.
9	☐		Lockable fused disconnect switch, installed in machine room, with feeder wires to elevator controller, all piped in accordance with N.E.C. electrical code, and grounded. Switch must be in sight of elevator machine and shall be the type that cannot be engaged with door open. Disconnect should be equipped with micro switch when ERU units are being furnished. (2.26.4) (NEC 620.91-C) Examples of ERU auxiliary contacts - Square D - #EK300-2, I.T.E. - SC-3, West. Elec. - EK-1
10	☐		Smoke detectors maybe required in each elevator lobby, hoistway, and machine room. Check w/ local code authority.(2.27.3.2) Furnish normally closed fire system contacts, to the elevator controller, as per power confirmation.
11	☐		Pit light and ground fault receptacle (with cover and guard) mounted 12" off pit floor on rear wall and switch to be located adjacent to pit ladder piped in accordance with local code. (If front and rear opening, contact Otis representative). (2.2.5)
12	☐		Telephone in elevator cab, must be connected to a 24-hour maintained location. (It should be wired and, upon entry into the machine room, piped to the elevator controller). (2.27.1)
13	☐		Elevator floor covering complete.
14	☐		Only elevator equipment is allowed in an elevator machine room and hoistway (no access panels). If a sprinkler system is required, contact local code authority. (2.7.2.1)
15	☐		Machine room doors shall be self-closing, self-locking, and rated per machine room construction. (2.7.3.4)
16	☐		Machine room to be vented, to maintain temperature between 60º to 100º F for hydraulics; between 60º to 90º for traction. Ventilation can be natural or mechanical.(2.7.5.2)
17	☐		All machine rooms must have ground fault receptacle and permanent lighting, and must be equipped with a fire extinguisher. (2.7.5.1, 8.6.1.6.5)
18	☐		Hoistway walls shall be flush on hoistway sides. Any ledges over 4" shall be provided with a beveled angle of not less than 75º. (2.1.6.2)
19	☐		Spaces containing machines, control equipment, sheaves and other machinery shall be enclosed with fire-resistive enclosures. Enclosures and access doors thereto shall have a fire-resistance rating at least equal to that required for the hoistway enclosure. (2.1.1)

- Per our agreement, it is Otis' responsibility to arrange for this inspection and to pay the required fee. We ask you to ensure that all "work by others" has been completed prior to our agreed-upon date for inspection.
- If the elevator installation does not pass inspection due to uncompleted work by others, we would expect all additional costs associated with a re-inspection to be the responsibility of others. The total charge for the re-inspection will be a minimum of $ 5,000.00.

Otis Construction Superintendent:_____ Fax:_____

Form Prepared By: Date: General Contractor: Date:

_____ _____ _____ _____

WM TAO & ASSOCIATES
CONSULTING ENGINEERS

Shop Drawing Submittal Review

Transmitted To: Cannon Design

Date: August 2, 2016

Attention: stl-cac@cannondesign.com

Contact Person / WTA Field Inspector: Patrick Garner

Project Name: Webster University-**ISB**

Reviewed by: Bill Shaw
Tom Becker (FG)

Project No. WT 14127.01
FG 235-001

☐ UPS ☐ Courier ☒ **Email**

Copies	No.	Description
1 PDF	142100E01A	Submittal No.'s:
		(Cannon #14 2100-006) - (Paric #15051-0154) – (FG #None)
		• Elevator Shop Drawings REV 1 - **Resubmittal**
		Confirmation of Power for Elevator Systems - Resubmittal

Submittal Review Comments

Reviewed only for comments made in original submittal 142100 E01 (14 2100-006).

Elevator controls shall be programmed to allow only one elevator (#2) to operate when emergency generator is supplying power.

c: **Kelvin Patel**
Kpatel@cannondesign.com

☒ ***Reviewed** ☐ Furnish as Noted

Corrections or comments made on shop drawings during this review do not relieve contractor from compliance with requirements of drawings and specifications. This check is only for review of general conformance with the design concept of project and general compliance with information given in contract documents. Contractor is responsible for: confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating his work with that of all other trades; and performing his work in a safe and satisfactory manner.

WTASHOP - RE: WT 14127.01 - Webster ISB - 14 2100-006 REV002

From: Tom Becker <tomb@faithgroupllc.com>
To: WTASHOP <wtashop@wmtao.com>
Date: 8/1/2016 9:24 AM
Subject: RE: WT 14127.01 - Webster ISB - 14 2100-006 REV002
Cc: "Bill Shaw (bshaw@wmtao.com)" <bshaw@wmtao.com>, Patrick Garner <pgarner...

Sara,
We reviewed the elevator submittal and have no comments.
Thanks
Tom

From: WTASHOP [wtashop@wmtao.com]
Sent: Tuesday, July 26, 2016 12:20 PM
To: Tom Becker <tomb@faithgroupllc.com>; Bill Shaw <bshaw@wmtao.com>; Patrick Garner <pgarner@wmtao.com>
Subject: Fwd: WT 14127.01 - Webster ISB - 14 2100-006 REV002

Tom & Bill, for your review.

Thanks.

ENSURE YOUR SUBMITTALS ARE BEING PROCESSED!!! **Please include wtashop@wmtao.com, *Sara Trout*, in all of your shop drawing correspondence in order to expedite & track. *Thank you.***

Sara Trout
Shop Drawing Coordinator

WM TAO & ASSOCIATES CONSULTING ENGINEERS

7955 Manchester Road, Suite 125
St. Louis, MO 63143-2711
Direct: 314-884-7645
Office: 314-884-7600
wtashop@wmtao.com

WTASHOP - Webster ISB - 14 2100-006 REV002

From: STL-CAC <STL-CAC@CANNONDESIGN.COM>
To: 'Patrick Garner' <pgarner@wmtao.com>, WTASHOP <wtashop@wmtao.com>
Date: 7/25/2016 11:07 AM
Subject: Webster ISB - 14 2100-006 ~~REV002~~ **REV001**
Cc: "Patel, Kelvin" <kpatel@CANNONDESIGN.COM>, "Grossman, Lynn" <lgrossman@C...
Attachments: 142100-006 Elevator shop drawings and product data REV 1.pdf

Attached for review.

Melissa Pirtle
Construction Admin
CANNONDESIGN
1100 Clark Ave
St. Louis, Missouri 63102
T 314.425.8797 • M
cannondesign.com

CANNONDESIGN

SUBMITTAL IDENTIFICATION SHEET

To be completed by Contractor/CM

WEBSTER UNIVERSITY ISB
PROJECT NAME

8274 BIG BEND BLVD
ADDRESS

NUMBER

WEBSTER UNIVERSITY
OWNER

CANNON DESIGN
ARCHITECT / ENGINEER

DEVIN D GATES
SUBMITTED BY

142100-006
CONTRACTOR / CM SUBMITTAL NO.

CANNON DESIGN SUBMITTAL NO.

DRAWING / DETAIL REFERENCE

142100
SPECIFICATION SECTION / PARAGRAPH

Otis
MANUFACTURER / SUPPLIER

ITEM / PRODUCT ID

REQUIRED DATE

PRIORITY

○ CRITICAL

ITEM BEING SUBMITTED (check only one)

- ◉ Shop Drawings
- ○ Samples (_____ copies)
- ○ LEED Submittal
- ○ Certification / Qualifications
- ○ Record Documents
- ○ Product Data
- ○ Coordination Drawing
- ○ Calculations
- ○ Schedules
- ○ O&M Manuals
- ○ Other _____

ITEM BEING SUBMITTED FOR (check only one)

◉ Action ○ Information Only ○ Record

REMARKS OR DEVIATIONS

CONTRACTOR / CM CERTIFICATION
(SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)

PARIC

PARIC CORPORATION
SUBMITTAL STAMP

THIS SHOP DRAWING HAS BEEN REVIEWED BY PARIC CORPORATION

Subcontractor remains responsible for dimensions, quantities, coordination with other trades and compliance with contract documents.

By:
Devin D. Gates

DEVIN D GATES — 071816
REVIEWED BY — DATE

To be completed by Reviewer

14 2100-006 ~~REV002~~ **REV001**
CANNON DESIGN SUBMITTAL NUMBER

7/25/16
RECEIVED DATE

- ○ A. No Exceptions Taken
  No further review of submittal is required.
- ◉ B. Make Corrections Noted
  Incorporate corrections in work; resubmission is not required.
- ○ C. Revise and Resubmit
  Revise as noted, and resubmit for review.
- ○ D. Rejected
  Submittal is not in compliance with Contract Documents; provide new submittal.
- ○ E. For Record / Information Only
  Submittal was reviewed for Record / Information purposes only.
- ○ F. Not Required for Review
  Submittal is not required by Contract Documents and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be affected thereby. This review is null and void if submittal deviates from contract documents and does not indicate or note deviations.

A/E COMMENTS ○ See attached sheet(s) for additional comments

NOTE: NOT ALL COMMENTS WERE PICKED UP FROM PREVIOUS REVIEW NEW COMMENTS ARE IN BLUE.

Lynn Grossman — Digitally signed by Lynn Grossman DN: C=US, E=lgrossman@cannondesign.com, O=CannonDesign, CN=Lynn Grossman Date: 2016.08.03 12:07:01-05'00' — 08.03.2016
REVIEWED BY — DATE

PARIC
EXPERIENCE. EXCELLENCE.
77 Westport Plaza
Suite 250
St. Louis, MO 63146

TRANSMITTAL

No. 15051-0154

Paric Corporation

PROJECT: 15051-Webster University Interdisciplinary Science Building

DATE: 07/22/2016

TO: Cannon Design
1100 Clark Ave
St Louis MO 63102

RE: Elevator shop drawings REV 1

ATTN: Kelvin Patel

JOB: 15051

WE ARE SENDING:	SUBMITTED FOR:	ACTION TAKEN:
☐ Shop Drawings	☑ Approval	☑ Approved as Submitted
☐ Letter	☐ Your Use	☐ Approved as Noted
☐ Prints	☐ As Requested	☐ Returned After Loan
☐ Change Order	☐ Review and Comment	☐ Resubmit
☐ Plans		☐ Submit
☐ Samples	**SENT VIA:**	☐ Returned
☐ Specifications	☐ Attached	☐ Returned for Corrections
☐ Other:	☐ Separate Cover Via:	☐ Due Date:

Item	*Package*	*Code*	*Rev.*	*Copies*	*Date*	*Description*	*Status*
Submittal		142100-006	1		07/22/2016	Elevator shop drawings REV 1	Approved as Noted

NOTES:

CC:

Signed: _____
Devin Gates