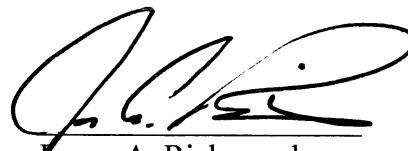


SUPPLEMENT FOR
METRO AVIATION, INC.
OPTIONAL EQUIPMENT INSTALLATIONS
SUPPLEMENTAL TYPE CERTIFICATE NO. SR09405RC
P/N 145M-OPT

1. GENERAL

This supplement shall be attached to the EC145 Flight Manual (Section 9) when any of the following equipment items have been installed in accordance with **STC SR09405RC**.

Equipment Designation	Part No.	Effectively
Junction Box	145M-110	ALL
Window Accessory Bar Mount	145M-129	ALL
Accessory Bar Mounts	145M-130, 131, 132	ALL
Portable Oxygen Mount, LH and RH	145M-140, 141	ALL
Portable Oxygen Mount	145M-160	ALL
Cabin Lighting	145M-164	ALL
Aft Cargo Lighting	145M-167	ALL
Zoll Mount	145M-176	ALL
Supplemental Strobe Lights	145M-180	ALL
Side Flood Light	145M-182	ALL
Tail Flood Light	145M-183	ALL
Auxiliary Lighting	145M-185	ALL
Pro Paq Mount	145M-190	ALL
Controllable Searchlight	145M-195	ALL
Medical Equipment Rack Mount, <u>LH and RH</u>	145M-551, 552	ALL
Primary and Secondary IV Rail	145M-810, 811	ALL



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LIST OF EFFECTIVE PAGES

Note; Remove and dispose of superceded pages, insert the latest revision pages.

Rev. No.	Date	Section	Reason	Highlights
IR		ALL	Initial Release	FAA Approved 16 Apr 2004
A		1-6	Added Side Flood and Tail Flood Light	
B		1-	Added individual equipment items from EMS STC #SR09403RC	
C	12/9/10	<u>1</u>	Added 145M-552 Medical Equipment Rack Mount RH.	
		<u>2</u>	Changed 145M-167-2 was 145M-167-EO-1 Rev A & Updated Verbiage; Increased 145M-129 Weight Placard from 16 lbs to 20 lbs, from 20 lbs to 25 lbs and added 12 lbs & 20 lbs placard for S/N 9040 & 9044; Added 145M-130, 145M-552 Weight Placard, Added note for item c & d. Added Mount P/Ns to d, f, & k.	
		<u>7</u>	Updated Verbiage for 145M-129, 145M-131/132, 145M-167, 145M-176, 145M-190, 145M-551/552, Added 145M-130.	
		<u>8</u>	Updated 145M-110, 145M-129, 145M-167, 145M-190, 145M-810, 145M-811; Added 145M-552 and Updated figures pages 14-20.	

LOG OF REVISIONS

<u>Revision</u>	<u>FAA approved</u>	<u>Name</u>
IR	16 April 2004	Mittag
A	7 Feb 2006	Gant
B	22 Dec 2008	Gant
C	15 Mar 2011	Richmond

2. LIMITATIONS

- a) During Night or in IMC flight conditions, the lights may cause reflections, which may affect the pilot. The strobe lights must be switched off per placard instructions in Para. 2.5.
- b) For night flight only, installation of ECD optional “Fabric Glare shield” PN B251M4001051, LH and B251M4002051, RH, or equivalent, is required with the installation of the following kits;
 - 145M-180 Supplementary Strobe Lights
 - 145M-185 Auxiliary Lighting
 - 145M-195 Controllable Searchlight
- c) For night flight only, installation of ECD option “NVG Blackout Curtain” PN B2524-003-10 (Fixed Parts) and B2524-003-20 (Detachable Parts), is required with the installation of the following kits;
 - 145M-164 Cabin Lighting
 - 145M-167-1 Aft Cargo Lighting (White) or
 - 145M-167-2 Aft Cargo Lighting (Green).

Note: Unless aircraft is equipped with the American Eurocopter STC SR09304RC/D or **unless the aft cabin has been demonstrated to be NVG compliant and all carry-on equipment has also been demonstrated not to cause interference when Night Vision goggles are in use by flight crew.**
- d) For kit 145M-182 Side Flood Light and kit 145M-183 Tail Flood Light, use is restricted to ground use only.

2.1 CONFIGURATION REQUIREMENTS

None

2.2 MASS AND CENTER OF GRAVITY LIMITATIONS

No changes in the basic Flight Manual data.

2.3 PLACARDS AND DECALS

Unless otherwise noted all placard and/or decals are black w/white letters and weight limits determined at installation.

a) For Window Accessory Bar Mount P/N 145M-129:

(STA 5305)

(STA 4562)

BAR MOUNT NOT TO
EXCEED 12 LBS

BAR MOUNT NOT TO
EXCEED 20 LBS

(for S/N 9040 & 9044 only) (for S/N 9040 & 9044 only)

or (STA 5305)

BAR MOUNT NOT TO
EXCEED 20 LBS

(Supersedes 16 lbs limit)

or (STA 4562)

BAR MOUNT NOT TO
EXCEED 25 LBS

(Supersedes 20 lbs limit)

Location: Installed adjacent to Window Accessory Bar Mount.

b) For Accessory Bar Mount P/N 145M-130:

ACCESSORY BAR LOAD LIMIT
3 LBS MAX

or

ACCESSORY BAR LOAD LIMIT
17 LBS MAX

Location: Installed adjacent to Accessory Bar Mount.

c) For Accessory Bar Mount P/N 145M-131:

ACCESSORY BAR LOAD LIMIT
6 LBS MAX

Location: Installed adjacent to Accessory Bar Mount.

d) **For Accessory Bar Mount P/N 145M-132:**

BAR MOUNT NOT TO
EXCEED 16 LBS

Location: Installed on Accessory Bar Mount P/N 145M-1320-1.

Note:

Item "c" and "d" are removable mounting provisions for medical equipment.

e) **For Portable Oxygen Mount P/N 145M-140, 145M-141 and 145M-160:**

"D" size cylinder only. All cylinders installed in this mount must meet the requirements of CFR 49 parts 171, 172 and 173 except 173.24 (a) (l).

Location: In full view of med crew.

f) **For Zoll Mount P/N 145M-176:**

UNIT MUST BE SECURED DURING
ALL PHASES OF FLIGHT

Location: Installed on Zoll Mount, P/N 135M-1760-2 in full view of crew.

g) **For Strobe Light Kit PN 145M-180:**

WARNING
TURN OFF STROBE LIGHTS WHEN
TAXIING IN VICINITY OF OTHER
AIRCRAFT, OR DURING FLIGHT
THROUGH CLOUD, FOG OR HAZE.
STANDARD POSITION LIGHTS TO BE ON
FOR ALL NIGHT OPERATION

(black w/silver letters)

h) **For Side Flood Light kit PN 145M-182:**

SIDE FLOOD LIGHTS
FOR GROUND USE ONLY

Location: Install in full view of pilot.

i) **For Side Flood Light Kit P/N 145M-182 and Tail Flood Light Kit P/N 145M-183:**

SIDE & TAIL FLOOD LIGHTS
FOR GROUND USE ONLY

Location: Instrument Panel, in full view of the pilot.

j) **For Tail Flood Light Kit P/N 145M-183:**

TAIL FLOOD LIGHTS
FOR GROUND USE ONLY

Location: Instrument Panel, in full view of the pilot.

k) **For Pro Paq Mount P/N 145M-190:**

UNIT MUST BE SECURED DURING
ALL PHASES OF FLIGHT

Location: Installed on Pro Paq Mount, P/N 135M-1900-1 in full view of crew.

l) **For Controllable Searchlight kit PN 145M-195:**

CAUTION
EXTENSION OF THE LANDING AND
SEARCHLIGHT ABOVE 70 KNOTS IS NOT
RECOMMENDED

- m) **For Medical Equipment Rack P/N 145M-551/552:**
(STA 4562)

MAX ALLOWABLE EQUIPMENT
WEIGHT 40 LBS

Location: Install in plain view.

- n) **For Secondary IV Rail 145M-810 and Primary IV Rail 145M-811:**

MAX WEIGHT NOT TO
EXCEED 5 LBS

Location: Install adjacent to each IV Rail on ceiling panel.

3. **EMERGENCY AND MALFUNCTION PROCEDURES**

No changes in the basic Flight Manual data.

4. **NORMAL PROCEDURES**

No changes in the basic Flight Manual data.

5. **PERFORMANCE DATA**

No changes in the basic Flight Manual data.

6. **MASS AND BALANCE**

Removal or installation of any system described herein requires recalculation of aircraft weight and balance.

7. **SYSTEMS DESCRIPTION**

- a) **145M-110 Junction Box**

The Junction Box is located in the R/H sidewall, and is the central location for electrical distribution.

b) 145M-129 Window Accessory Bar Mount

The Window Accessory Bar Mounts “manufactured from extruded aluminum” can be located in the RH large cabin window or the RH/LH small cabin windows. The mounts support various medical equipment secured to the window accessory Bar Mount with easily removable mounts.

c) 145M-131/132 Accessory Bar Mounts

The Accessory Bar Mounts designed to adapt certain pieces of lightweight equipment to the 145M-129 Window Accessory Bar Mount, and 145M-551/552 Medical Equipment Rack.

d) 145M-140/141 Portable Oxygen Mounts

The Portable Oxygen Mounts can be located on the right hand and/or left hand clamshell door for a “D” size bottle. Mounts are to store the bottles only, and should not be used for dispensing.

e) **145M-160 Portable Oxygen Mount**

The Portable Oxygen Mount can be located aft of the pilot seat for a “D” size bottle. Mount is to store the bottle only, and is not to be used for dispensing.

f) **145M-164 Cabin Lighting**

The Cabin Lighting System consists of two banks of LED lights, one in the LH overhead and one in the RH cabin overhead, individually controlled to increase the light available to cabin passengers over the standard system. A HI or LOW intensity can be selected. The lights are also switchable from White to Blue. Power is from a 2 amp CB labeled “TASK LTS” in the aft junction box.

g) **145M-167 Aft Cargo Lighting**

A single dome light is added to the underside of the avionics mount shelf to illuminate the ground and aft cargo area. This light is controlled from the aft position adjacent to the light or from a switch located in the forward cabin area. The circuit breaker is located in the pilot overhead panel. Light is powered by a 1 amp CB labeled “LOAD LT” located in the aft junction box. With the addition of the GREEN/WHITE option (145M-167-2), the light switches to NVG friendly GREEN with the pilot selection of NVG mod on the basic aircraft.

h) **145M-176 Zoll Mount**

The Zoll Mount designed specifically for the Zoll CCT defibrillator/monitor (not to exceed 7.7 lbs) can be located on the medical equipment storage panel 145M-550, or the window medical equipment racks 145M-551/552, not to exceed the storage panel or equipment rack “max equipment weight limits”.

i) **145M-180 Supplemental Strobe Light System**

The Supplemental Strobe Light System consists of a switch in the overhead console labeled “STROBES”, a combination strobe and position light assembly mounted in each end of the horizontal stabilizer replacing the factory installed position lights, a power supply mounted on the center line of the tail boom in the area aft of the horizontal stabilizer and a circuit breaker located in the overhead console. The system is activated by the switch in the overhead and should not be used during flight in fog or clouds or when use of the system may interfere with the pilot's vision. The position light system control is unchanged. System is powered by a 5 amp CB labeled “STROBE LTS” located in the cockpit overhead panel.

j) **145M-182 Side Flood Light System**

The side flood light system consists of 2 PAR 36 size flood lights mounted to engine oil cooler structure, left and right. Holes are cut in the left and right transmission cowling to

allow the flood lights to shine on and illuminate the ground area to increase ground operation safety. They are for ground use only and should be off when in flight. Control of the lights is by a switch in the cockpit overhead switch panel.

k) **145M-183 Tail Flood Light**

The system consists of a single PAR 36 size flood light in a housing mounted on the aft engine cowls. The light illuminates the Tail Rotor providing increased safety during ground operations. It is for ground use only and should be off when in flight. Control of the light is by a switch in the cockpit overhead switch panel.

l) **145M-185 Auxiliary Lighting**

The auxiliary lighting system consists of 2 ea. PAR 36 lights secured to the AFT cross tube below the belly of the aircraft, a circuit breaker, a relay and a collective mounted on-off switch (existing). To activate the lights, the pilot activates the collective mounted switch labeled "AUX LGTS".

m) **145M-190 Pro-Paq Mount**

The Pro-Paq Mount designed specifically for the Pro-Paq vital signs monitor (in several variations not to exceed 18 lbs) can be located on the medical equipment storage panel, 145M-550 or the window medical equipment racks 145M-551/552, or the window accessory bar mounts 145M-129, not to exceed the storage panel or equipment rack, or accessory bar mount "max equipment weight limits".

n) **145M-195 Controllable Searchlight**

The Controllable searchlight system consists of a 850,000 candle power search light and collective mounted switches (existing) for on-off, stow and azimuth and elevation control. The search light is powered by one 25 amp CB labeled "L/S PWR" on the Aux Shed buss in the cabin and one .2 amp CB labeled "L/S LIGHT CONTROL" located in the cockpit overhead panel.

The controllable search light is mounted in forward belly (chin panel) and is operated by the activation of the collective mounted switches. There are two switches, one toggle switch for on and off. One "Chinese hat" switch for elevation and azimuth control. This allows the pilot to better perform reconnaissance of a landing area at night.

The light is stowed by pressing down on the Chinese hat switch for approx. 15 seconds or sufficient time to allow the light to stow.

o) **145M-130 Accessory Bar Mount**

The Accessory Bar Mount installed on the medical equipment storage panel and used to support various medical equipment, not to exceed the storage panel “max equipment weight limits”.

p) **145M-551/552 Medical Equipment Rack**

The Medical Equipment Racks “manufactured from extruded aluminum” installed in the LH or RH large cabin window by means of 4 quick connections that attach to the airframe structure. The racks support various medical equipment secured to the rack with easily removable mounts. The 145M-551 LH Medical Equipment Rack (Standard) or the 145M-552 RH Medical Equipment Rack; can be, installed in addition or separately.

r) **145M-810/811 IV Rails**

The primary and secondary IV rails provide a convenient location for the medical crew to hang IV solutions. The rails provide a positive catch for the solution bags, not allowing them to drop in flight.

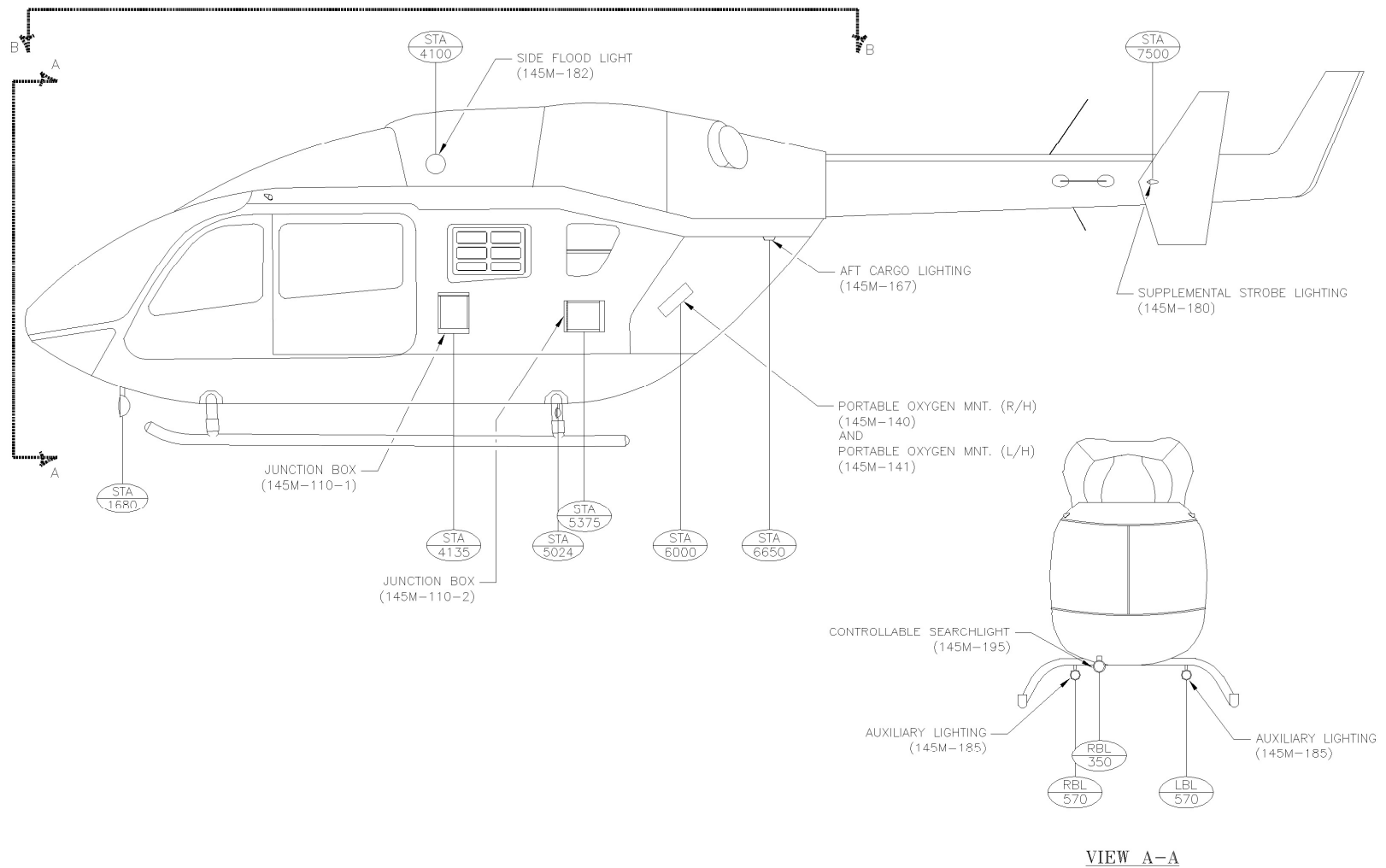
8. EQUIPMENT INSTALLATION WEIGHT AND BALANCE

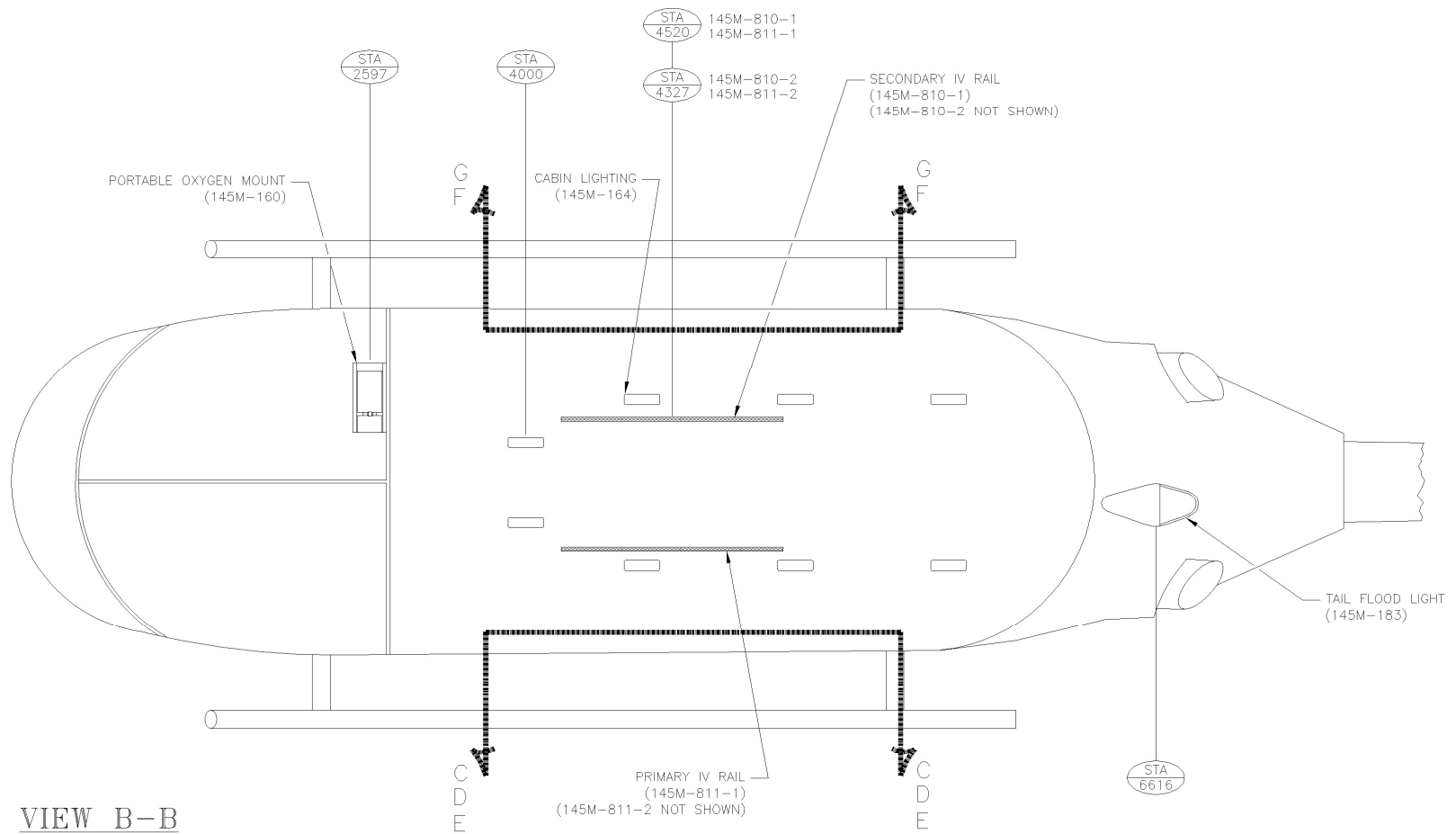
INSTALLED THE FOLLOWING OPTIONAL EQUIPMENT IN ACCORDANCE WITH DRAWING LIST DL145M-OPT:

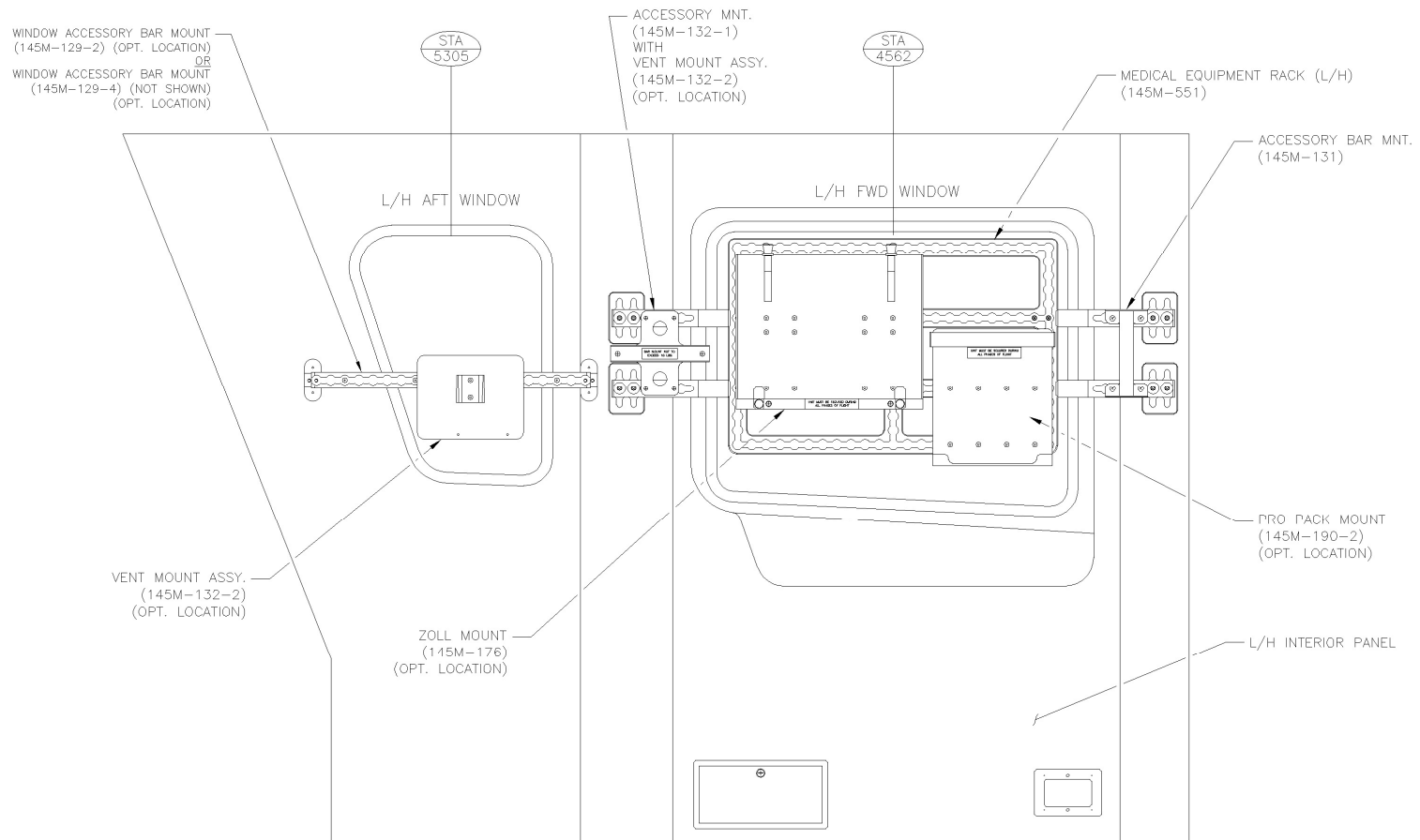
Item	Description	Wt. lbs (kg)	Arm In (MM)	Mom In (MM)
1)	145M-110-1 JUNCTION BOX	6.0 (2.72)	162.80 (4135)	976.8 (11247.2)
	145M-110-2 JUNCTION BOX	6.0 (2.72)	211.61 (5375)	976.8 (11247.2)
2)	145M-129-1 WINDOW BAR MOUNT	2.6 (1.18)	179.6 (4562)	466.96(11860.8)
	145M-129-2 WINDOW BAR MOUNT	1.6 (0.73)	208.86 (5305)	334.18 (8488.17)
	145M-129-3 WINDOW BAR MOUNT	2.6 (1.18)	179.6 (4562)	466.96 (11860.8)
	145M-129-4 WINDOW BAR MOUNT	1.6 (0.73)	208.86 (5305)	334.18 (8488.17)
3)	145M-130-1 ACCESSORY BAR MOUNT	2.3 (1.04)		
	145M-130-2 ACCESSORY BAR MOUNT	2.3 (1.04)		
4)	145M-131 ACCESSORY BAR MOUNT	0.4 (0.18)		
5)	145M-132-1 ACCESSORY BAR MOUNT	1.0 (0.45)		
	145M-132-2 ACCESSORY BAR MOUNT	1.0 (0.45)		
6)	145M-140 D CYLINDER STORAGE	1.0 (0.45)	236.2 (6000)	236.2 (2700)
7)	145M-141 D CYLINDER STORAGE	1.0 (0.45)	236.2 (6000)	236.2 (2700)
8)	145M-160 D CYLINDER STORAGE	1.0 (0.45)	102.24 (2597)	102.24 (1168.65)
9)	145M-164 CABIN LIGHTING	4.0 (1.81)	157.48 (4000)	629.92 (7240)
10)	145M-167-1 AFT CARGO LIGHT (White)	0.5 (0.23)	261.8 (6650)	130.9 (1529)
	145M-167-2 AFT CARGO LIGHT (Green)	0.5 (0.23)	261.8 (6650)	130.9 (1529)
11)	145M-176-1 ZOLL CCT MOUNT	4.3 (1.95)		
	145M-176-2 ZOLL CCT MOUNT	4.3 (1.95)		
12)	145M-180 SUPPLEMENTAL STROBE LIGHTS	1.25 (0.57)	295.28 (7500)	369.1 (4275)
13)	145M-182-1 SIDE FLOOD LIGHT	1.25 (0.57)	161.42 (4100)	201.78 (2337)
	145M-182-2 SIDE FLOOD LIGHT	1.25 (0.57)	161.42 (4100)	201.78 (2337)

<u>Item</u>	<u>Description</u>	<u>Wt. lbs (kg)</u>	<u>Arm In (MM)</u>	<u>Mom In (MM)</u>
14)	LIGHT 145M-183 TAIL FLOOD	1.3 (0.59)	260.5 (6616)	338.65 (3903)
15)	LIGHT 145M-185 AUXILIARY LIGHTING	3.0 (1.36)	197.8 (5024)	593.4 (6832.64)
16)	145M-190-1 PRO PAQ MOUNT 145M-190-2 PRO PAQ MOUNT 145M-190-3 PRO PAQ MOUNT	1.2 (0.54) 1.2 (0.54) 1.2 (0.54)		
17)	145M-195 CONTROLLABLE SEARCHLIGHT	4.0 (1.81)	66.14 (1680)	264.56 (3040.8)
18)	145M-551 MED EQUIP RACK (Fixed)	2.9 (1.32)	179.6 (4562)	520 (5890)
	145M-551 MED EQUIP RACK (Rem)	8.4 (3.80)	179.6 (4562)	1508 (17337)
19)	145M-552 MED EQUIP RACK (Fixed)	2.9 (1.32)	179.6 (4562)	520 (5890)
	145M-552 MED EQUIP RACK (Rem)	8.4 / (3.80)	179.6 (4562)	1508 (17337)
20)	145M-810-1 SECONDARY IV RAILS	1.2 (0.54)	177.97 (4520)	237.4 (2713.5)
	145M-810-2 SECONDARY IV RAILS	1.0 (0.45)	170.35 (4327)	237.4 (2713.5)
21)	145M-811-1 PRIMARY IV RAILS	1.2 (0.54)	177.97 (4520)	237.4 (2713.5)
	145M-811-2 PRIMARY IV RAILS	1.0 (0.45)	170.35 (4327)	237.4 (2713.5)

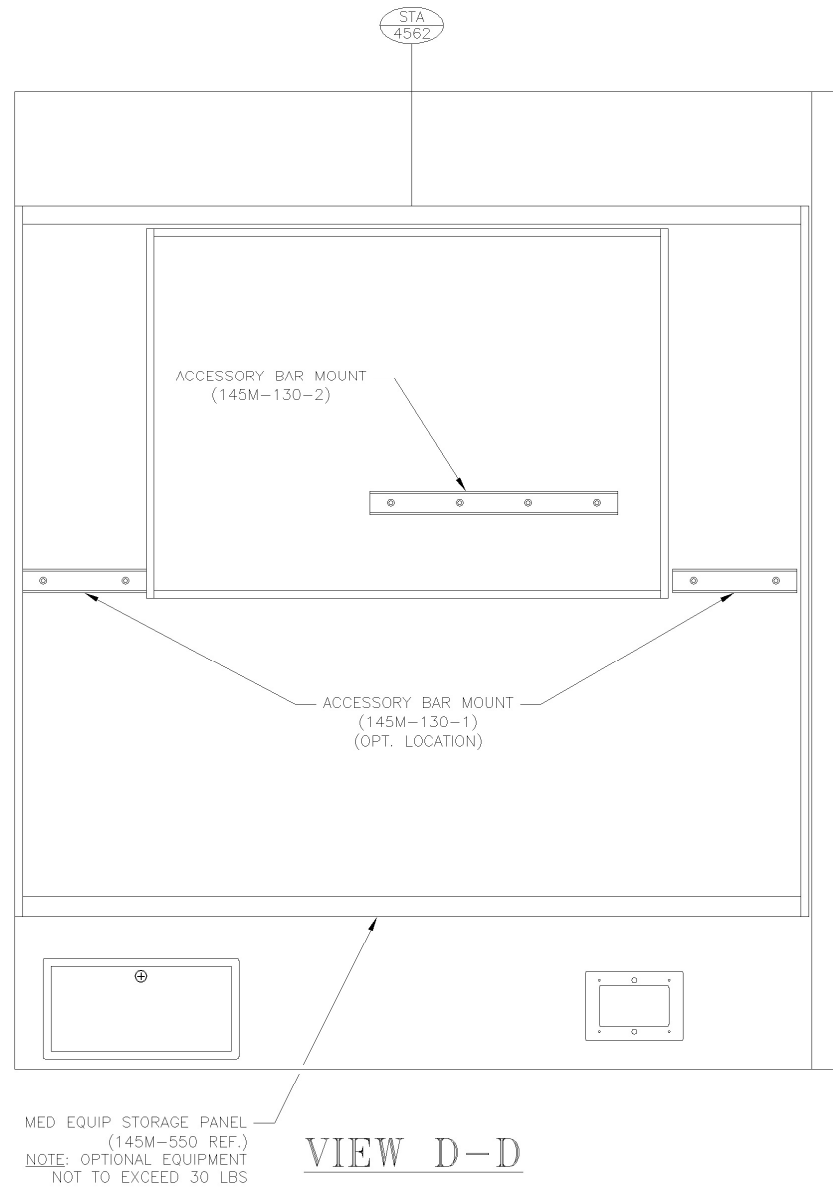
ABOVE WEIGHTS ARE ESTIMATED FOR REMOVAL AND INSTALLATION. AN ACTUAL WEIGHING OF THE INSTALLED OR REMOVED EQUIPMENT IS REQUIRED.

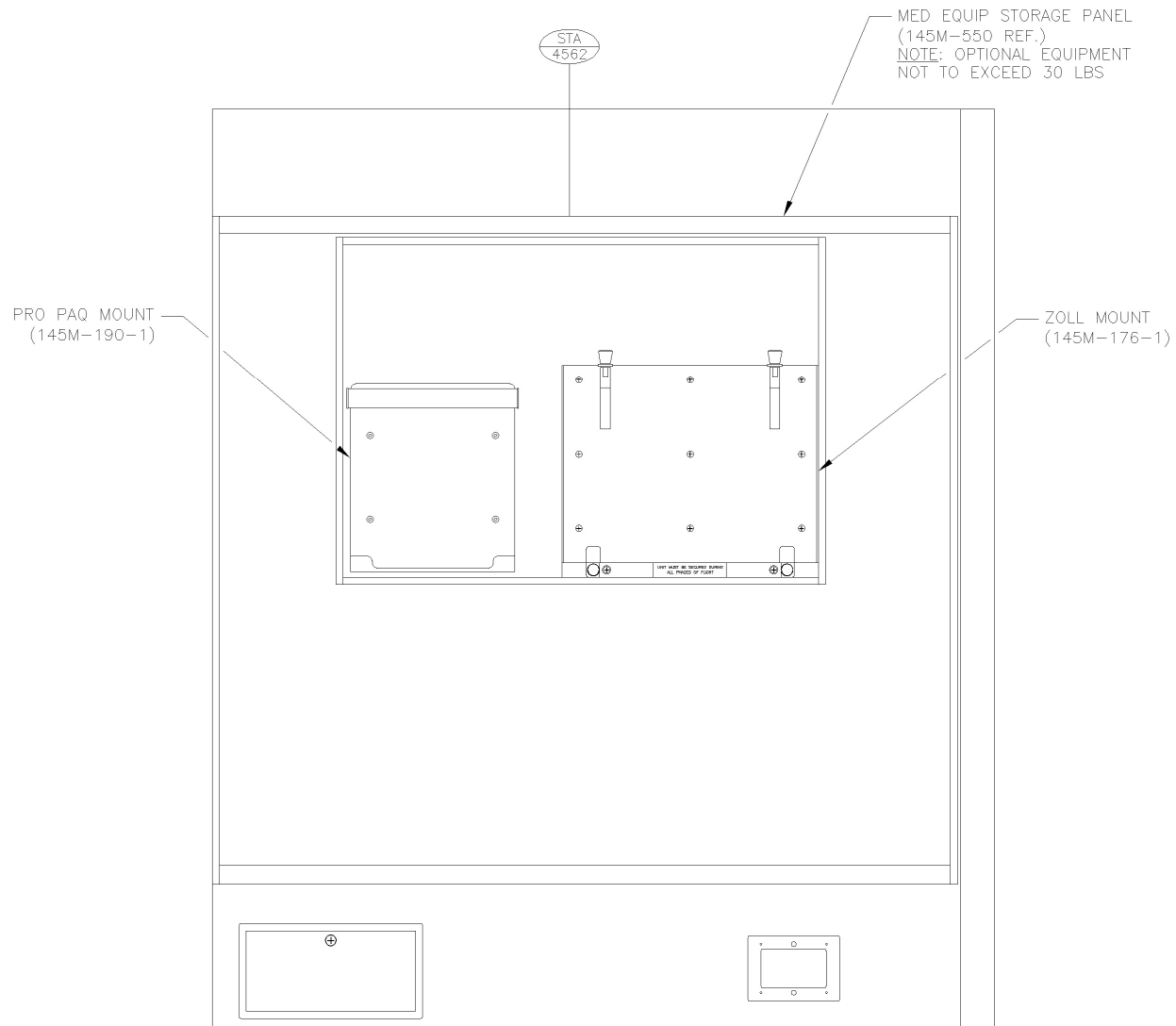




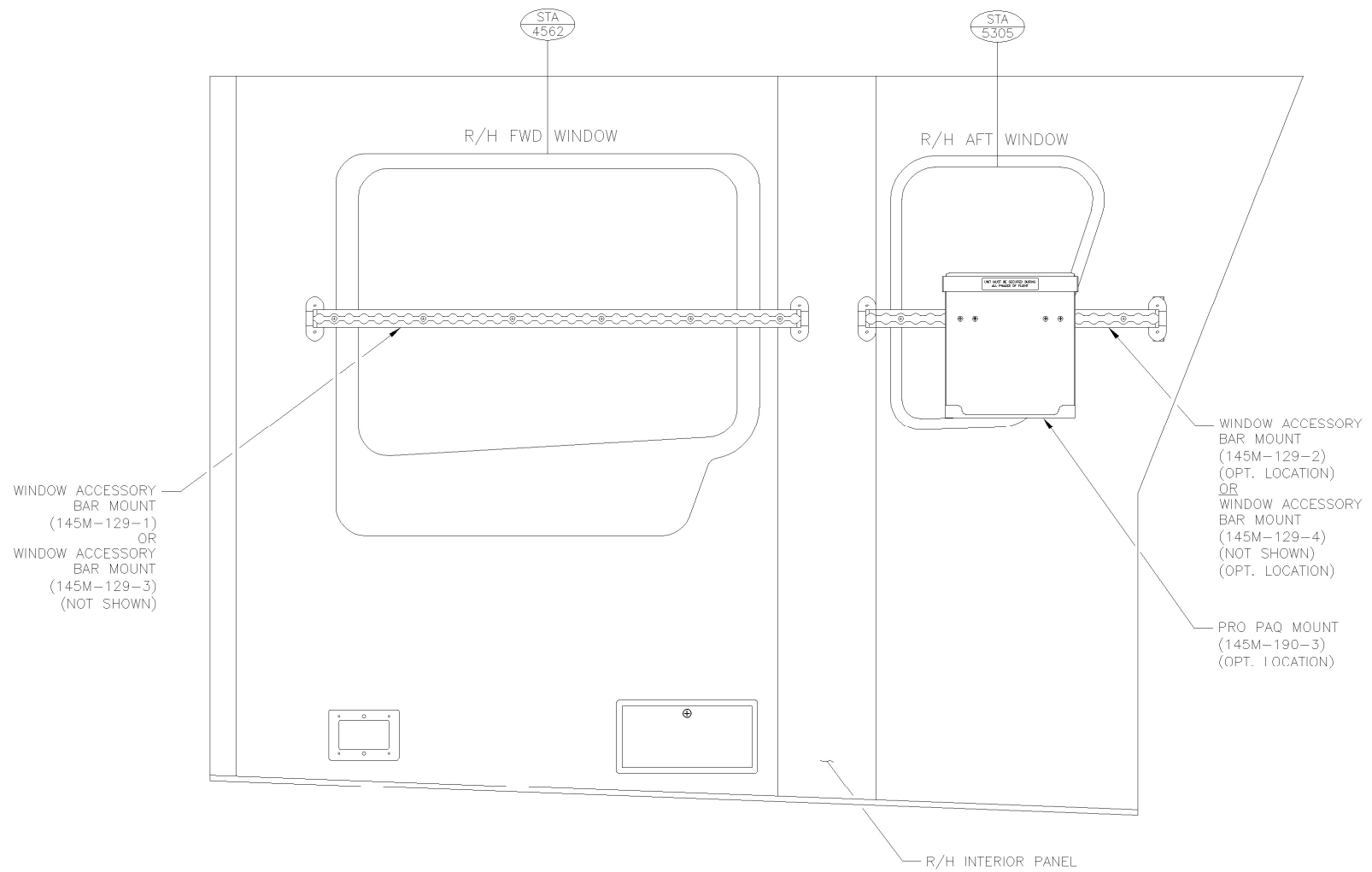


VIEW C-C

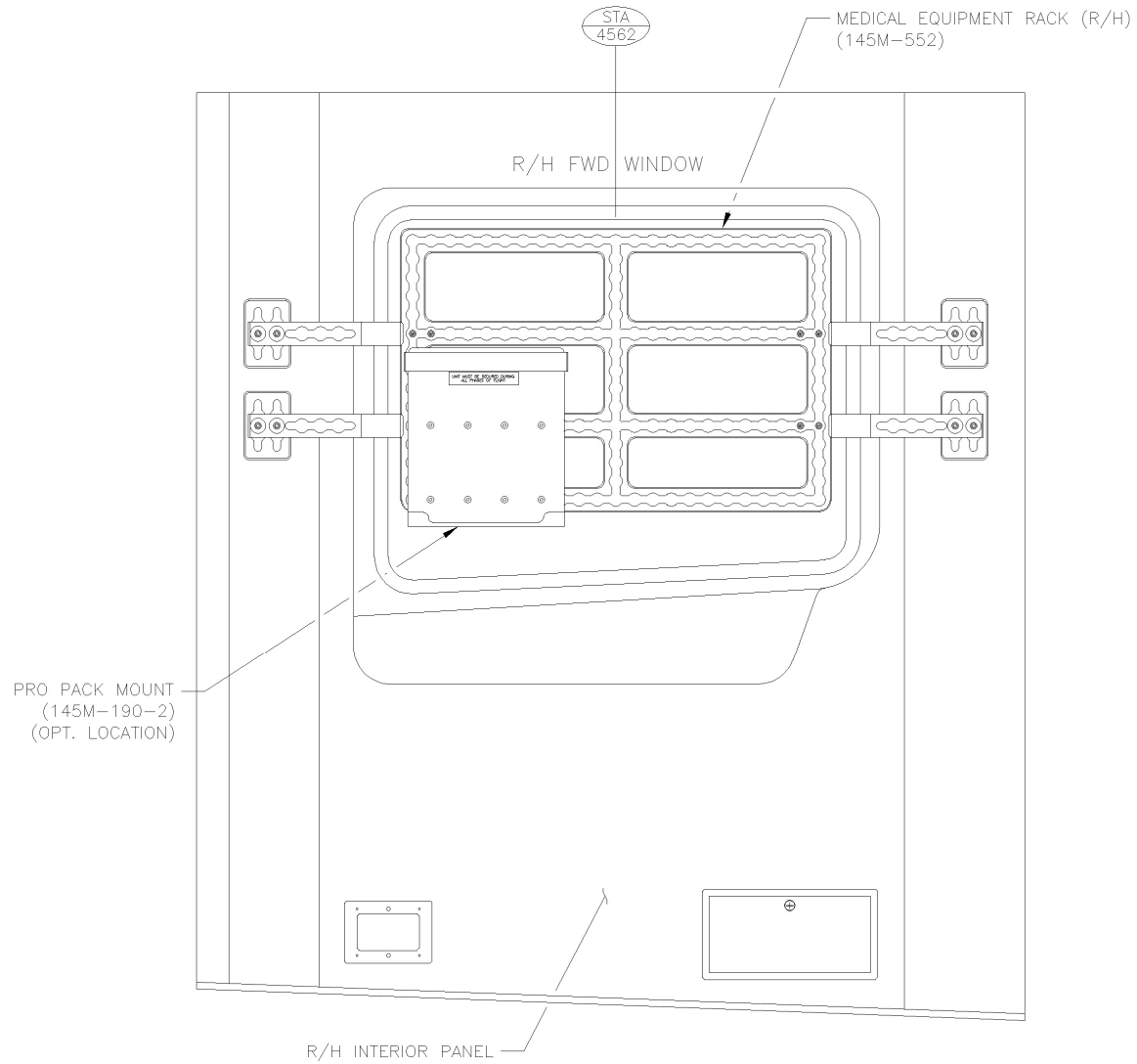




VIEW E-E



VIEW F-F



VIEW G-G