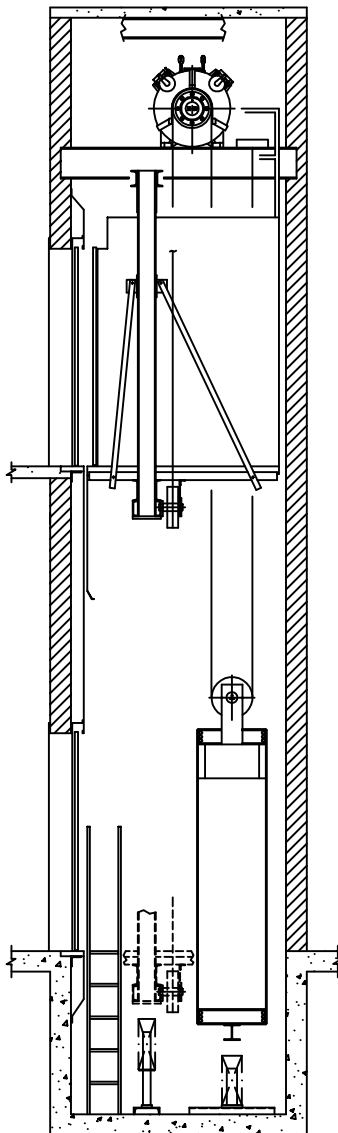
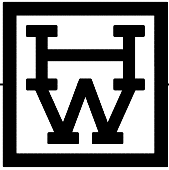


HOLLISTER-WHITNEY ELEVATOR CORP.

#1 HOLLISTER-WHITNEY PARKWAY
QUINCY, ILLINOIS 62305
PHONE: 217-222-0466
FAX: 217-222-0493
WEB: www.hollisterwhitney.com
EMAIL: info@hollisterwhitney.com

MACHINE-ROOM-LESS DESIGN GUIDE



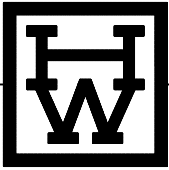


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#1 HOLLISTER-WHITNEY PARKWAY
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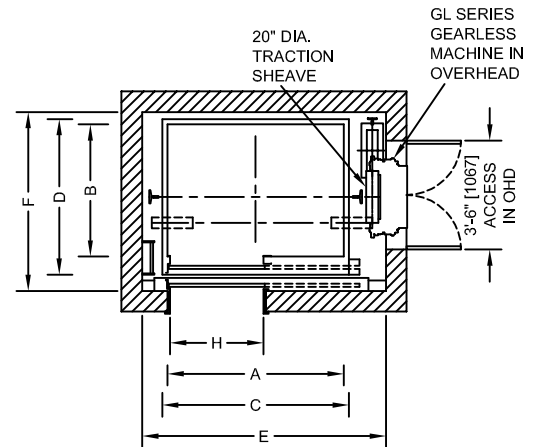
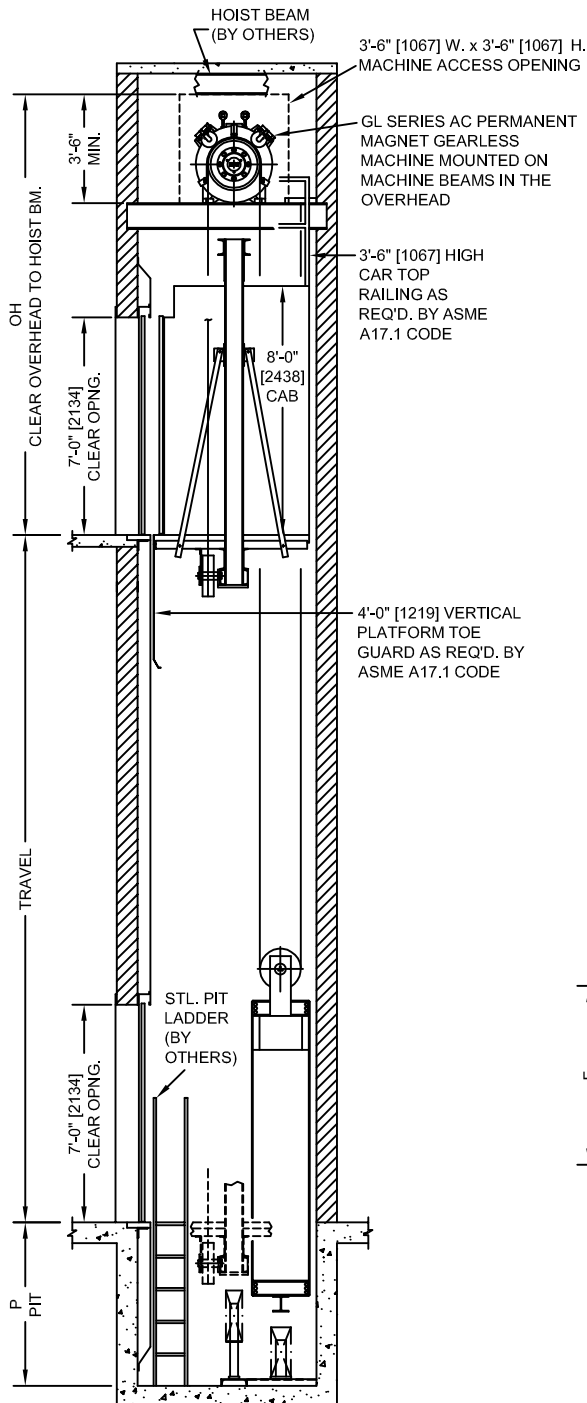
MRL DESIGN GUIDE - PLAN A1

PASSENGER APPLICATION FRONT OPENING, SIDE COUNTERWEIGHT 2:1 ROPED UNDERSLUNG CAR SHEAVES

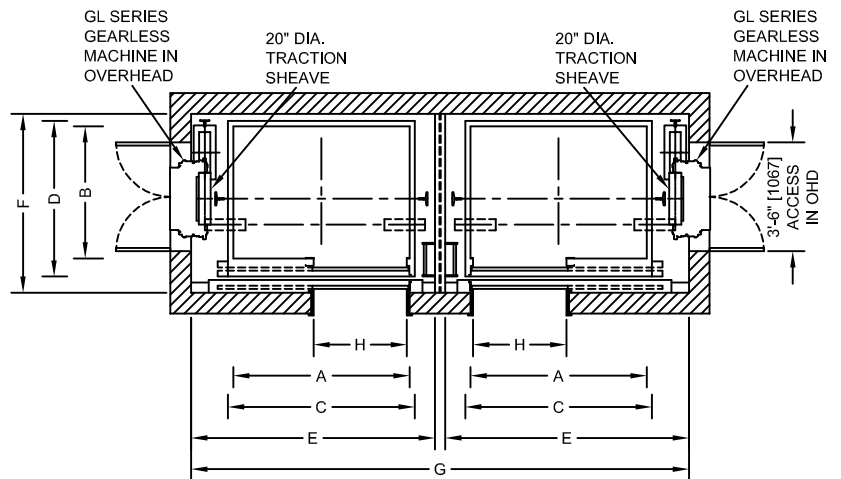
Standard Speeds: 150, 200, 350, 500 fpm [.75, 1.0, 1.75, 2.5 m/s]

Maximum Travel: 200'-0" [61 m]

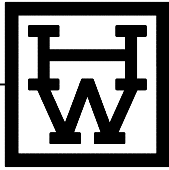
Maximum Stops: 20



**PASSENGER, SIMPLEX
FRONT OPENING
SIDE COUNTERWEIGHT**



**PASSENGER, DUPLEX
FRONT OPENING - SIDE COUNTERWEIGHT**



MRL DESIGN GUIDE - PLAN A1

PASSENGER APPLICATION FRONT OPENING, SIDE COUNTERWEIGHT 2:1 ROPED UNDERSLUNG CAR SHEAVES

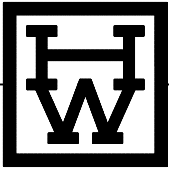
CAPACITY lb [kg]	MACHINE TRACTION SHEAVE DIA. In [mm]	H CLEAR OPENING WIDTH ft [mm]	OPENING TYPE (1)	MINIMUM CLEAR CAB INSIDE		PLATFORM SIZE		HOISTWAY SIZE (NON-SEISMIC)			HOISTWAY SIZE (SEISMIC ZONE 2)		
				A WIDTH ft [mm]	B DEPTH ft [mm]	C WIDTH ft [mm]	D DEPTH ft [mm]	E CLR. WIDTH ft [mm]	F CLR. DEPTH ft [mm]	G (DUPLEX) WALL TO WALL ft [mm]	E CLR. WIDTH ft [mm]	F CLR. DEPTH ft [mm]	G (DUPLEX) WALL TO WALL ft [mm]
2,000 [907]	20" [508]	3'-0" [914]	SSSO SSCO	5'-8" [1727]	4'-3" [1295]	6'-0" [1829]	5'-0" [1524]	7'-10" [2388]	5'-9" [1753]	16'-0" [4877]	8'-0" [2438]	5'-9" [1753]	16'-3" [4953]
2,500 [1134]	20" [508]	3'-6" [1067]	SSSO SSCO	6'-8" [2032]	4'-3" [1295]	7'-0" [2134]	5'-0" [1524]	8'-10" [2692]	5'-9" [1753]	18'-0" [5486]	9'-0" [2743]	5'-9" [1753]	18'-3" [5563]

CODE MINIMUM OVERHEAD WITH ADEQUATE PIT DEPTH								
CAPACITY lb [kg]	RESULTING PIT DEPTH (P)				MINIMUM OVERHEAD (OH)			
	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	500 fpm 2.5 m/s	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	500 fpm 2.5 m/s
2,000 [907]	7'-10" [2388]	8'-2" [2489]	8'-11" [2718]	10'-8" [3251]	13'-1" [3988]	13'-1" [3988]	13'-8" [4166]	14'-9" [4496]
2,500 [1134]	8'-10" [2692]	9'-5" [2870]	10'-2" [3099]	11'-11" [3632]	13'-1" [3988]	13'-1" [3988]	13'-8" [4166]	14'-9" [4496]
CODE MINIMUM PIT DEPTH WITH ADEQUATE OVERHEAD								
CAPACITY lb [kg]	MINIMUM PIT DEPTH (P)				RESULTING OVERHEAD (OH)			
	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	500 fpm 2.5 m/s	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	500 fpm 2.5 m/s
2,000 [907]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	6'-9" [2057]	15'-8" [4775]	16'-0" [4877]	16'-11" [5156]	18'-10" [5740]
2,500 [1134]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	6'-9" [2057]	16'-8" [5080]	17'-3" [5258]	18'-2" [5537]	20'-1" [6121]

Dimensions shown are based on standard sizes and capacities for typical building installations and should only be used for preliminary planning. Custom sizes for existing hoistways are also possible. Contact H-W for additional information before proceeding with construction or for assistance with special conditions such as cornerposts or occupied space below pits.

NOTES:

- Single speed side opening (SSSO) doors are available with left or right hand configuration.
- Outside platform dimensions are based on a nominal 2" [51mm] side wall thickness and 7" [178mm] door return thickness for single speed doors or 9" [229] door return thickness for two-speed doors.
- Interior cab dimensions may vary depending on the interior finishes. The platform and hoistway sizes should be increased accordingly for extra thick cab finishes.
- Additional hoistway size may be required for seismic zones 3 and 4.
- Buffer service platforms (by others) are required when pit depth exceeds 8'-6" [2590mm].
- OH dimensions are based on an 8'-0" [2438mm] cab height with a 7'-0" [2134mm] door. Taller cab and door heights can be accommodated with increased overhead.
- OH dimensions may be effected by tall counterweight frames due to heavy cab enclosure weights.
- Clear overhead is defined as the lowest point below any obstruction such as a hoist beam or the roof structure.
- A hoist beam (by others) is required for installation (by others).
- Hoistway dimensions are based on after pit waterproofing, with no plumb tolerance, and no occupied space below pit.
- Counterbalance of 50% required.
- Required equipment includes rail locking device, manual brake release, and remote reset / remote trip governor.
- Extra high strength independent wire rope core (IWRC) hoist ropes may be required.
- See page 22 for control room specifications.
- Passenger or Passenger/Class A loading classification only.



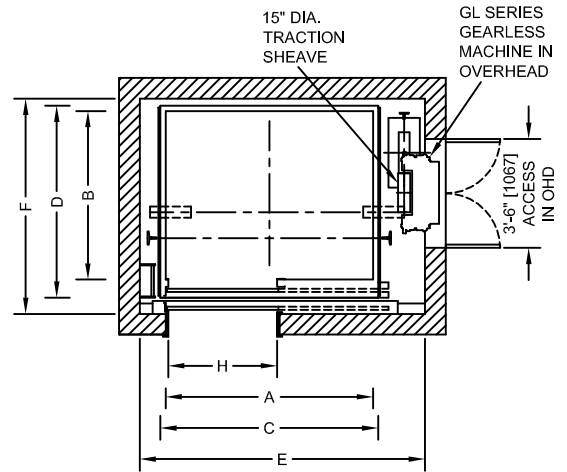
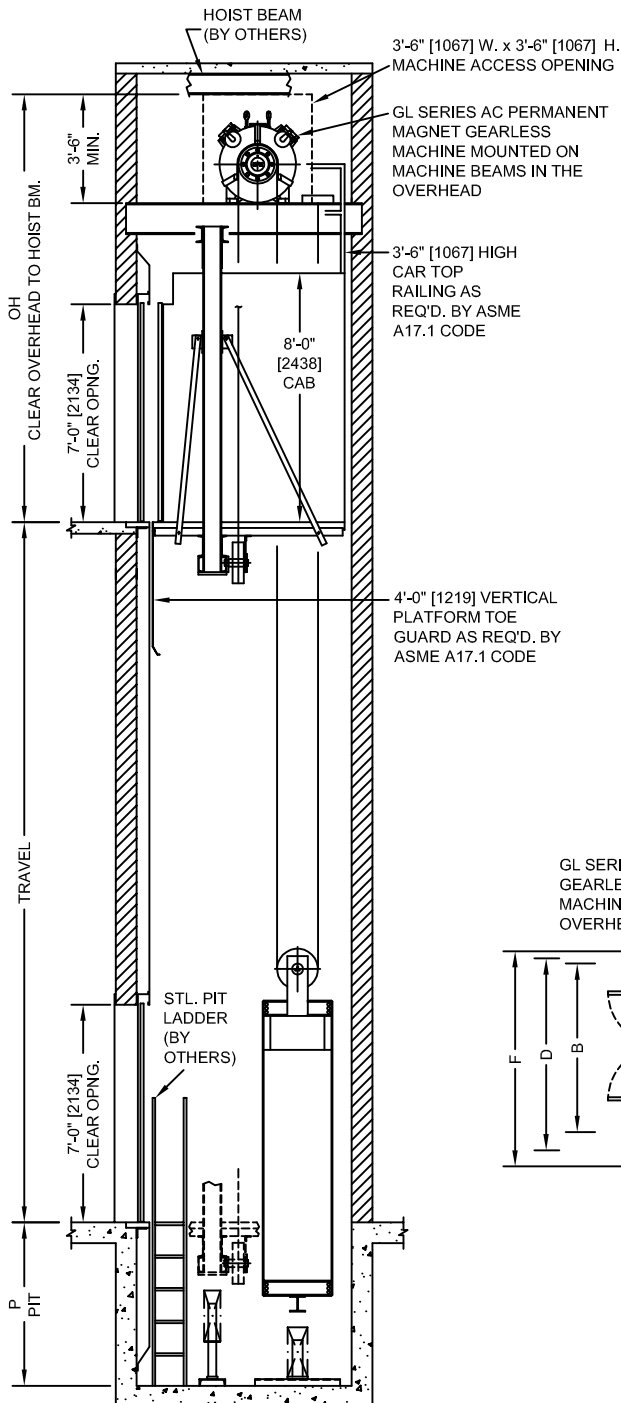
MRL DESIGN GUIDE - PLAN A2

PASSENGER APPLICATION FRONT OPENING, SIDE COUNTERWEIGHT 2:1 ROPED UNDERSLUNG CAR SHEAVES

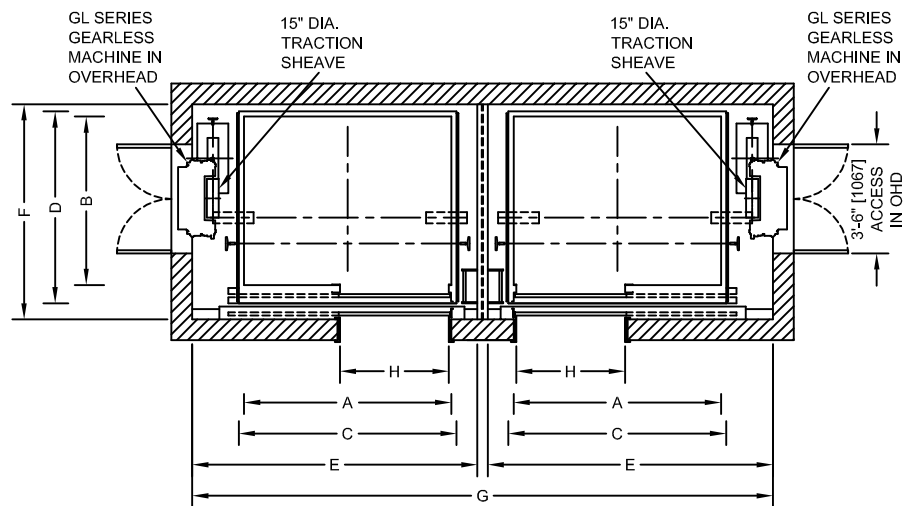
Standard Speeds: 150, 200, 350, 500 fpm [.75, 1.0, 1.75, 2.5 m/s]

Maximum Travel: 200'-0" [61 m]

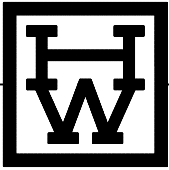
Maximum Stops: 20



**PASSENGER, SIMPLEX
FRONT OPENING
SIDE COUNTERWEIGHT**



**PASSENGER, DUPLEX
FRONT OPENING - SIDE COUNTERWEIGHT**



MRL DESIGN GUIDE - PLAN A2

PASSENGER APPLICATION FRONT OPENING, SIDE COUNTERWEIGHT 2:1 ROPED UNDERSLUNG CAR SHEAVES

CAPACITY lb [kg]	MACHINE TRACTION SHEAVE DIA. In [mm]	H CLEAR OPENING WIDTH ft [mm]	OPENING TYPE (1)	MINIMUM CLEAR CAB INSIDE		PLATFORM SIZE		HOISTWAY SIZE (NON-SEISMIC)			HOISTWAY SIZE (SEISMIC ZONE 2)		
				A WIDTH ft [mm]	B DEPTH ft [mm]	C WIDTH ft [mm]	D DEPTH ft [mm]	E CLR. WIDTH ft [mm]	F CLR. DEPTH ft [mm]	G (DUPLEX) WALL TO WALL ft [mm]	E CLR. WIDTH ft [mm]	F CLR. DEPTH ft [mm]	G (DUPLEX) WALL TO WALL ft [mm]
3,000 [1361]	15" [381]	3'-6" [1067]	SSSO SSCO	6'-8" [2032]	4'-9" [1448]	7'-0" [2134]	5'-6" [1676]	8'-10" [2692]	6'-6" [1981]	17'-11" [5461]	8'-11" [2718]	6'-6" [1981]	18'-2" [5537]
3,500 [1588]	15" [381]	3'-6" [1067]	SSSO SSCO	6'-8" [2032]	5'-5" [1651]	7'-0" [2134]	6'-2" [1880]	8'-10" [2692]	6'-11" [2108]	17'-11" [5461]	8'-11" [2718]	6'-11" [2108]	18'-2" [5537]
4,000 [1814]	15" [381]	4'-0" [1219]	SSSO SSCO	7'-8" [2337]	5'-5" [1651]	8'-0" [2438]	6'-2" [1880]	9'-10" [2997]	6'-11" [2108]	19'-11" [6071]	9'-11" [3023]	6'-11" [2108]	20'-2" [6147]

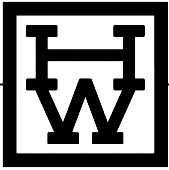
CODE MINIMUM OVERHEAD WITH ADEQUATE PIT DEPTH								
CAPACITY lb [kg]	RESULTING PIT DEPTH (P)				MINIMUM OVERHEAD (OH)			
	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	500 fpm 2.5 m/s	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	500 fpm 2.5 m/s
3,000 [1361]	8'-4" [2540]	8'-8" [2642]	9'-5" [2870]	11'-2" [3404]	13'-1" [3988]	13'-1" [3988]	13'-8" [4166]	14'-9" [4496]
3,500 [1588]	6'-9" [2057]	7'-1" [2159]	7'-10" [2388]	9'-7" [2921]	13'-1" [3988]	13'-1" [3988]	13'-8" [4166]	14'-9" [4496]
4,000 [1814]	7'-10" [2388]	8'-1" [2464]	8'-10" [2692]	NOT AVAILABLE	13'-1" [3988]	13'-1" [3988]	13'-8" [4166]	NOT AVAILABLE

CODE MINIMUM PIT DEPTH WITH ADEQUATE OVERHEAD								
CAPACITY lb [kg]	MINIMUM PIT DEPTH (P)				RESULTING OVERHEAD (OH)			
	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	500 fpm 2.5 m/s	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	500 fpm 2.5 m/s
3,000 [1361]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	6'-9" [2057]	16'-2" [4928]	16'-6" [5029]	17'-5" [5309]	19'-4" [5893]
3,500 [1588]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	6'-9" [2057]	14'-7" [4445]	14'-11" [4547]	15'-10" [4826]	17'-9" [5410]
4,000 [1814]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	NOT AVAILABLE	15'-8" [4775]	15'-11" [4851]	16'-10" [5131]	NOT AVAILABLE

Dimensions shown are based on standard sizes and capacities for typical building installations and should only be used for preliminary planning. Custom sizes for existing hoistways are also possible. Contact H-W for additional information before proceeding with construction or for assistance with special conditions such as cornerposts or occupied space below pits.

NOTES:

- Single speed side opening (SSSO) doors are available with left or right hand configuration.
- Outside platform dimensions are based on a nominal 2" [51mm] side wall thickness and 7" [178mm] door return thickness for single speed doors or 9" [229] door return thickness for two-speed doors.
- Interior cab dimensions may vary depending on the interior finishes. The platform and hoistway sizes should be increased accordingly for extra thick cab finishes.
- Additional hoistway size may be required for seismic zones 3 and 4.
- Buffer service platforms (by others) are required when pit depth exceeds 8'-6" [2590mm].
- OH dimensions are based on an 8'-0" [2438mm] cab height with a 7'-0" [2134mm] door. Taller cab and door heights can be accommodated with increased overhead.
- OH dimensions may be effected by tall counterweight frames due to heavy cab enclosure weights.
- Clear overhead is defined as the lowest point below any obstruction such as a hoist beam or the roof structure.
- A hoist beam (by others) is required for installation (by others).
- Hoistway dimensions are based on after pit waterproofing, with no plumb tolerance, and no occupied space below pit.
- Counterbalance of 50% required.
- Required equipment includes rail locking device, manual brake release, and remote reset / remote trip governor.
- Extra high strength independent wire rope core (IWRC) hoist ropes may be required.
- See page 22 for control room specifications.
- Passenger or Passenger/Class A loading classification only.



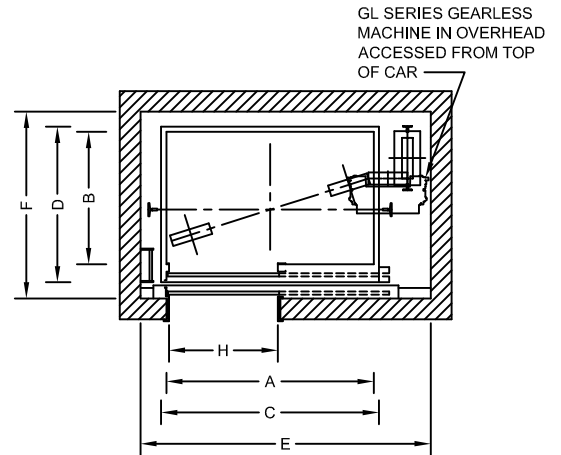
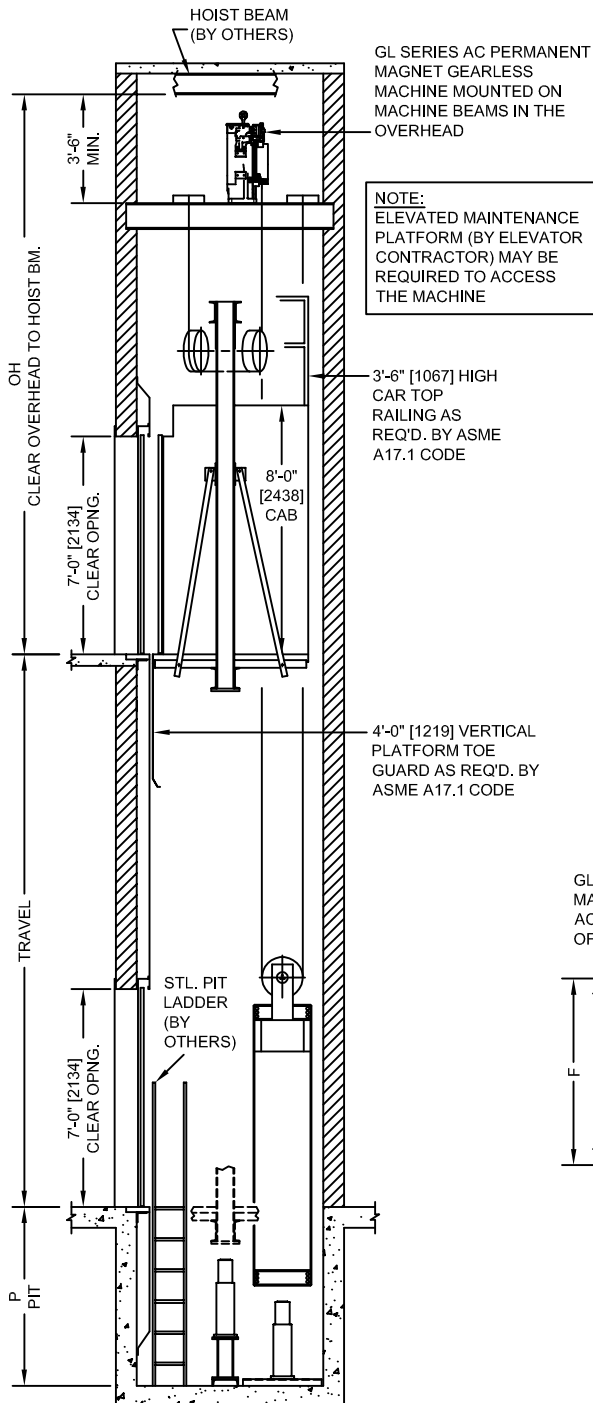
MRL DESIGN GUIDE - PLAN B

PASSENGER APPLICATION FRONT OPENING, SIDE COUNTERWEIGHT 2:1 ROPED OVERSLUNG CAR SHEAVES

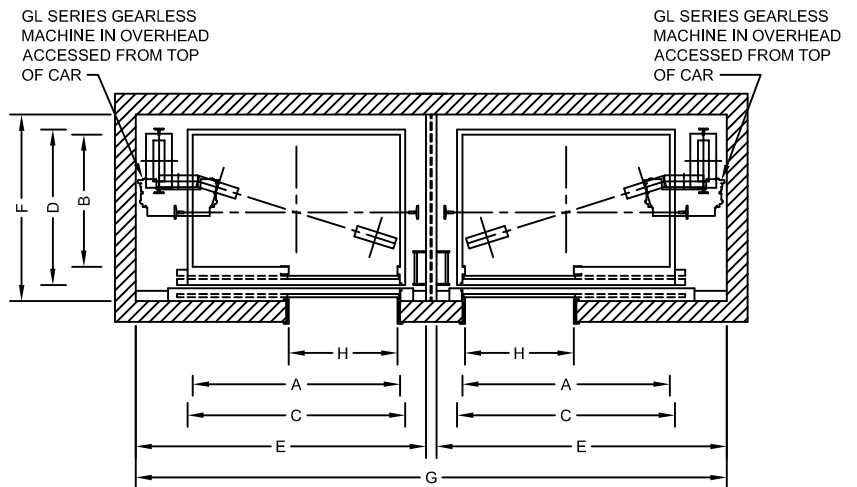
Standard Speeds: 150, 200, 350, 500 fpm [.75, 1.0, 1.75, 2.5 m/s]

Maximum Travel: 200'-0" [61 m]

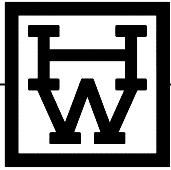
Maximum Stops: 20



**PASSENGER, SIMPLEX
FRONT OPENING
SIDE COUNTERWEIGHT**



**PASSENGER, DUPLEX
FRONT OPENING - SIDE COUNTERWEIGHT**



MRL DESIGN GUIDE - PLAN B

PASSENGER APPLICATION FRONT OPENING, SIDE COUNTERWEIGHT 2:1 ROPED OVERSLUNG CAR SHEAVES

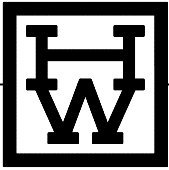
CAPACITY lb [kg]	MACHINE TRACTION SHEAVE DIA. In [mm]	H CLEAR OPENING WIDTH ft [mm]	OPENING TYPE (1)	MINIMUM CLEAR CAB INSIDE		PLATFORM SIZE		HOISTWAY SIZE (NON-SEISMIC)			HOISTWAY SIZE (SEISMIC ZONE 2)		
				A WIDTH ft [mm]	B DEPTH ft [mm]	C WIDTH ft [mm]	D DEPTH ft [mm]	E CLR. WIDTH ft [mm]	F CLR. DEPTH ft [mm]	G (DUPLEX) WALL TO WALL ft [mm]	E CLR. WIDTH ft [mm]	F CLR. DEPTH ft [mm]	G (DUPLEX) WALL TO WALL ft [mm]
2,000 [907]	15" [381]	3'-0" [914]	SSSO SSCO	5'-8" [1727]	4'-3" [1295]	6'-0" [1829]	5'-0" [1524]	8'-2" [2489]	5'-9" [1753]	16'-8" [5080]	8'-3" [2514]	5'-9" [1753]	16'-9" [5105]
2,500 [1134]	15" [381]	3'-6" [1067]	SSSO SSCO	6'-8" [2032]	4'-3" [1295]	7'-0" [2134]	5'-0" [1524]	9'-2" [2794]	5'-9" [1753]	18'-8" [5690]	9'-3" [2819]	5'-9" [1753]	18'-9" [5715]
3,000 [1361]	15" [381]	3'-6" [1067]	SSSO SSCO	6'-8" [2032]	4'-9" [1448]	7'-0" [2134]	5'-6" [1676]	9'-2" [2794]	6'-3" [1905]	18'-8" [5690]	9'-3" [2819]	6'-3" [1905]	18'-9" [5715]
3,500 [1588]	15" [381]	3'-6" [1067]	SSSO SSCO	6'-8" [2032]	5'-5" [1651]	7'-0" [2134]	6'-2" [1880]	9'-2" [2794]	6'-11" [2108]	18'-8" [5690]	9'-3" [2819]	6'-11" [2108]	18'-9" [5715]
4,000 [1814]	15" [381]	4'-0" [1219]	SSSO SSCO	7'-8" [2337]	5'-5" [1651]	8'-0" [2438]	6'-2" [1880]	10'-2" [3099]	6'-11" [2108]	20'-8" [6299]	10'-3" [3124]	6'-11" [2108]	20'-9" [6325]

CAPACITY lb [kg]	PIT DEPTH (P)				OVERHEAD (OH)			
	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	500 fpm 2.5 m/s	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	500 fpm 2.5 m/s
2,000 [907]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	6'-8" [2032]	18'-9" [5715]	18'-9" [5715]	19'-4" [5893]	20'-5" [6223]
2,500 [1134]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	6'-8" [2032]	18'-9" [5715]	18'-9" [5715]	19'-4" [5893]	20'-5" [6223]
3,000 [1361]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	6'-8" [2032]	18'-9" [5715]	18'-9" [5715]	19'-4" [5893]	20'-5" [6223]
3,500 [1588]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	6'-8" [2032]	18'-11" [5766]	18'-11" [5766]	19'-6" [5944]	20'-7" [6274]
4,000 [1814]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	NOT AVAILABLE	19'-3" [5867]	19'-3" [5867]	19'-10" [6045]	NOT AVAILABLE

Dimensions shown are based on standard sizes and capacities for typical building installations and should only be used for preliminary planning. Custom sizes for existing hoistways are also possible. Contact H-W for additional information before proceeding with construction or for assistance with special conditions such as cornerposts or occupied space below pits.

NOTES:

- Single speed side opening (SSSO) doors are available with left or right hand configuration.
- Outside platform dimensions are based on a nominal 2" [51mm] side wall thickness and 7" [178mm] door return thickness for single speed doors or 9" [229] door return thickness for two-speed doors.
- Interior cab dimensions may vary depending on the interior finishes. The platform and hoistway sizes should be increased accordingly for extra thick cab finishes.
- Additional hoistway size may be required for seismic zones 3 and 4.
- Buffer service platforms (by others) are required when pit depth exceeds 8'-6" [2590mm].
- OH dimensions are based on an 8'-0" [2438mm] cab height with a 7'-0" [2134mm] door. Taller cab and door heights can be accommodated with increased overhead.
- OH dimensions may be effected by tall counterweight frames due to heavy cab enclosure weights.
- Clear overhead is defined as the lowest point below any obstruction such as a hoist beam or the roof structure.
- A hoist beam (by others) is required for installation (by others).
- Hoistway dimensions are based on after pit waterproofing, with no plumb tolerance, and no occupied space below pit.
- Counterbalance of 50% required.
- Required equipment includes rail locking device, manual brake release, and remote reset / remote trip governor.
- Extra high strength independent wire rope core (IWRC) hoist ropes may be required.
- See page 22 for control room specifications.
- Passenger or Passenger/Class A loading classification only.



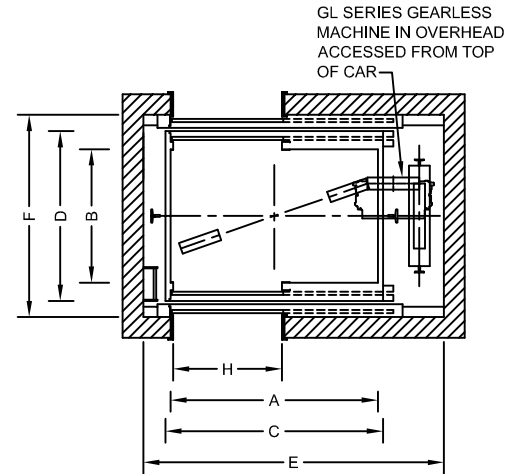
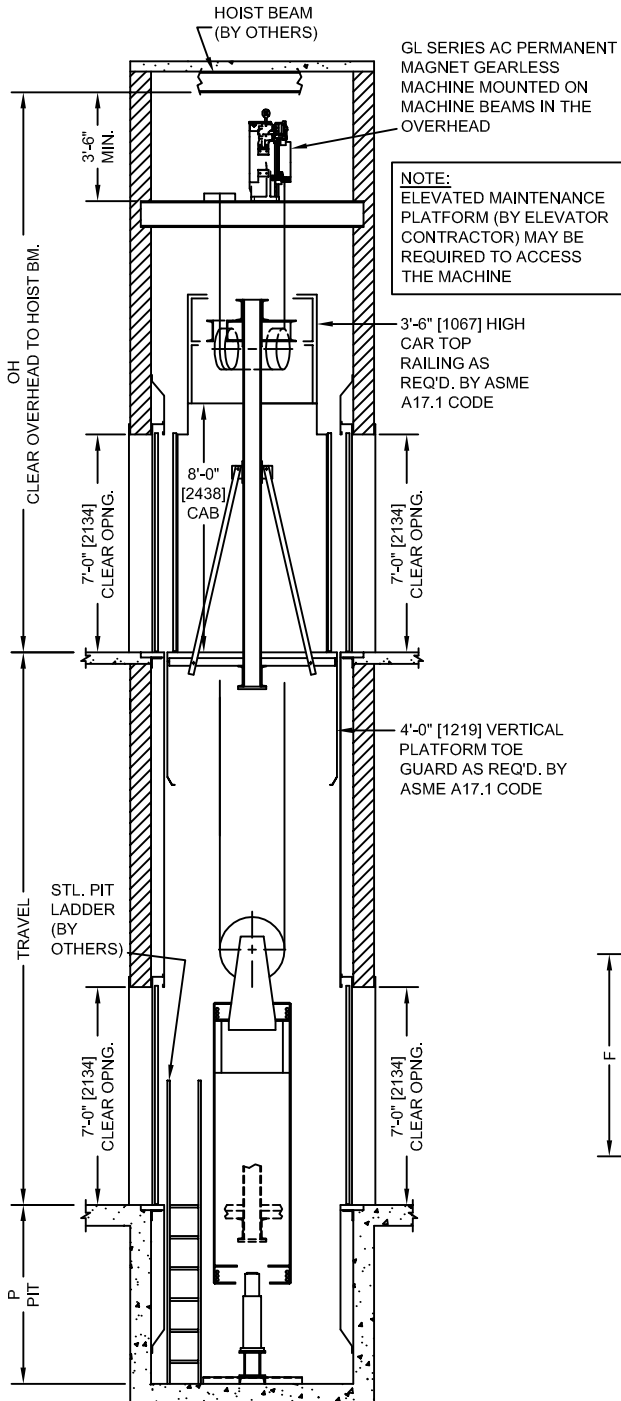
MRL DESIGN GUIDE - PLAN C

PASSENGER APPLICATION FRONT AND REAR OPENING, SIDE COUNTERWEIGHT 2:1 ROPED OVERSLUNG CAR SHEAVES

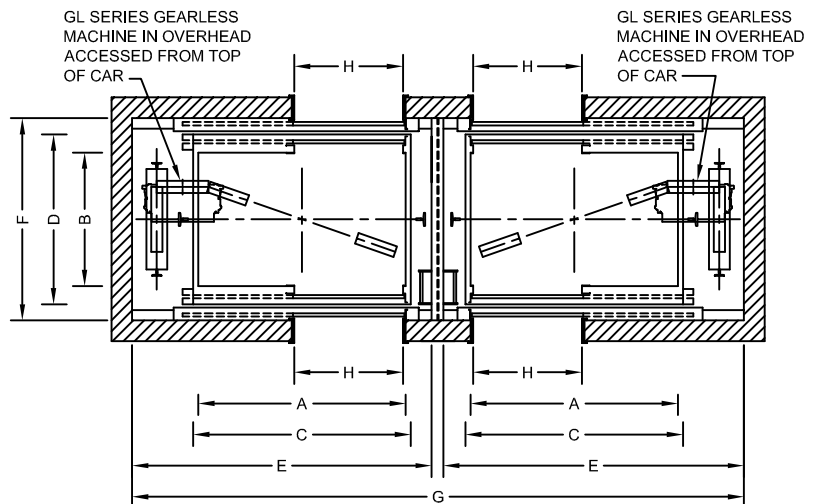
Standard Speeds: 150, 200, 350, 500 fpm [.75, 1.0, 1.75, 2.5 m/s]

Maximum Travel: 200'-0" [61 m]

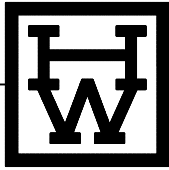
Maximum Stops: 20



**PASSENGER, SIMPLEX
FRONT & REAR OPENING
SIDE COUNTERWEIGHT**



**PASSENGER, DUPLEX
FRONT & REAR OPENING - SIDE COUNTERWEIGHT**



MRL DESIGN GUIDE - PLAN C

PASSENGER APPLICATION FRONT AND REAR OPENING, SIDE COUNTERWEIGHT 2:1 ROPED OVERSLUNG CAR SHEAVES

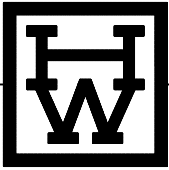
CAPACITY lb [kg]	MACHINE TRACTION SHEAVE DIA. In [mm]	H CLEAR OPENING WIDTH ft [mm]	OPENING TYPE (1)	MINIMUM CLEAR CAB INSIDE		PLATFORM SIZE		HOISTWAY SIZE (NON-SEISMIC)			HOISTWAY SIZE (SEISMIC ZONE 2)		
				A WIDTH ft [mm]	B DEPTH ft [mm]	C WIDTH ft [mm]	D DEPTH ft [mm]	E CLR. WIDTH ft [mm]	F CLR. DEPTH ft [mm]	G (DUPLEX) WALL TO WALL ft [mm]	E CLR. WIDTH ft [mm]	F CLR. DEPTH ft [mm]	G (DUPLEX) WALL TO WALL ft [mm]
2,000 [907]	15" [381]	3'-0" [914]	SSSO SSCO	5'-8" [1727]	4'-3 1/2" [1308]	6'-0" [1829]	5'-5 1/2" [1664]	8'-8" [2642]	6'-6" [1981]	17'-8" [5385]	8'-8" [2642]	6'-6" [1981]	17'-8" [5385]
2,500 [1134]	15" [381]	3'-6" [1067]	SSSO SSCO	6'-8" [2032]	4'-3 1/2" [1308]	7'-0" [2134]	5'-5 1/2" [1664]	9'-8" [2946]	6'-6" [1981]	19'-8" [5994]	9'-8" [2946]	6'-6" [1981]	19'-8" [5994]
3,000 [1361]	15" [381]	3'-6" [1067]	SSSO SSCO	6'-8" [2032]	4'-9 1/2" [1460]	7'-0" [2134]	5'-11 1/2" [1816]	9'-8" [2946]	7'-0" [2134]	19'-8" [5994]	9'-8" [2946]	7'-0" [2134]	19'-8" [5994]
3,500 [1588]	15" [381]	3'-6" [1067]	SSSO SSCO	6'-8" [2032]	5'-5 1/2" [1664]	7'-0" [2134]	6'-7 1/2" [2019]	9'-8" [2946]	7'-8" [2337]	19'-8" [5994]	9'-8" [2946]	7'-8" [2337]	19'-8" [5994]
4,000 [1814]	15" [381]	4'-0" [1219]	SSSO SSCO	7'-8" [2337]	5'-5 1/2" [1664]	8'-0" [2438]	6'-7 1/2" [2019]	10'-8" [3251]	7'-8" [2337]	21'-8" [6604]	10'-8" [3251]	7'-8" [2337]	21'-8" [6604]

CAPACITY lb [kg]	PIT DEPTH (P)				OVERHEAD (OH)			
	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	500 fpm 2.5 m/s	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	500 fpm 2.5 m/s
2,000 [907]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	6'-8" [2032]	18'-9" [5715]	18'-9" [5715]	19'-4" [5893]	20'-5" [6223]
2,500 [1134]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	6'-8" [2032]	18'-9" [5715]	18'-9" [5715]	19'-4" [5893]	20'-5" [6223]
3,000 [1361]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	6'-8" [2032]	18'-9" [5715]	18'-9" [5715]	19'-4" [5893]	20'-5" [6223]
3,500 [1588]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	6'-8" [2032]	18'-11" [5766]	18'-11" [5766]	19'-6" [5944]	20'-7" [6274]
4,000 [1814]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	NOT AVAILABLE	19'-3" [5867]	19'-3" [5867]	19'-10" [6045]	NOT AVAILABLE

Dimensions shown are based on standard sizes and capacities for typical building installations and should only be used for preliminary planning. Custom sizes for existing hoistways are also possible. Contact H-W for additional information before proceeding with construction or for assistance with special conditions such as cornerposts or occupied space below pits.

NOTES:

- Single speed side opening (SSSO) doors are available with left or right hand configuration.
- Outside platform dimensions are based on a nominal 2" [51mm] side wall thickness and 7" [178mm] door return thickness for single speed doors or 9" [229] door return thickness for two-speed doors.
- Interior cab dimensions may vary depending on the interior finishes. The platform and hoistway sizes should be increased accordingly for extra thick cab finishes.
- Additional hoistway size may be required for seismic zones 3 and 4.
- Buffer service platforms (by others) are required when pit depth exceeds 8'-6" [2590mm].
- OH dimensions are based on an 8'-0" [2438mm] cab height with a 7'-0" [2134mm] door. Taller cab and door heights can be accommodated with increased overhead.
- OH dimensions may be effected by tall counterweight frames due to heavy cab enclosure weights.
- Clear overhead is defined as the lowest point below any obstruction such as a hoist beam or the roof structure.
- A hoist beam (by others) is required for installation (by others).
- Hoistway dimensions are based on after pit waterproofing, with no plumb tolerance, and no occupied space below pit.
- Counterbalance of 50% required.
- Required equipment includes rail locking device, manual brake release, and remote reset / remote trip governor.
- Extra high strength independent wire rope core (IWRC) hoist ropes may be required.
- See page 22 for control room specifications.
- Passenger or Passenger/Class A loading classification only.



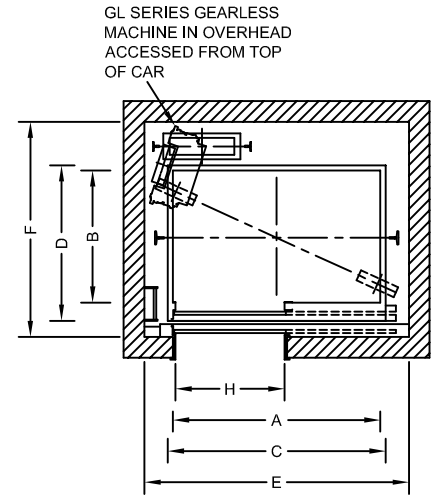
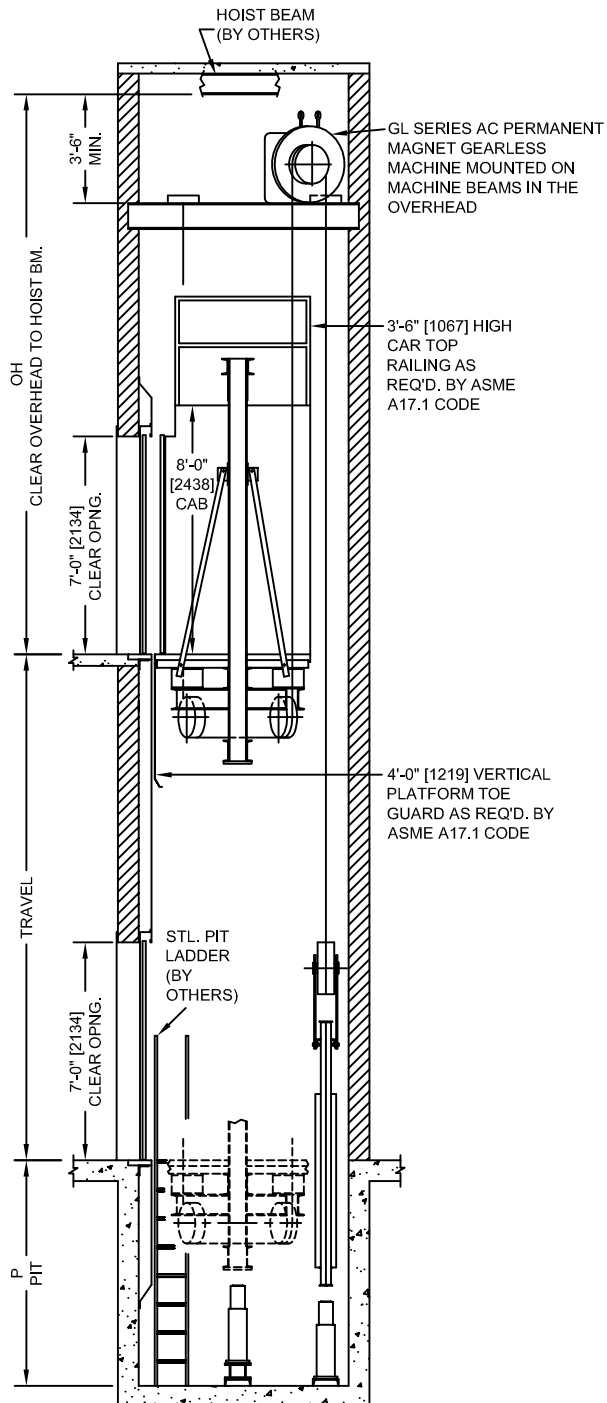
MRL DESIGN GUIDE - PLAN D

PASSENGER APPLICATION FRONT OPENING, REAR COUNTERWEIGHT 2:1 ROPED UNDERSLUNG CAR SHEAVES

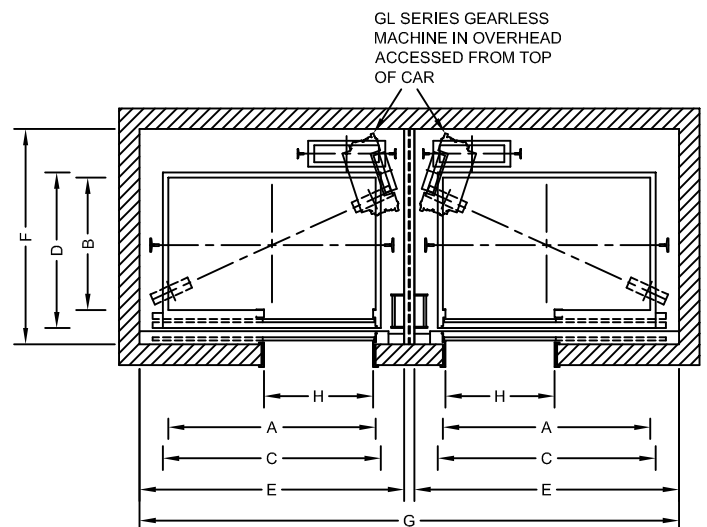
Standard Speeds: 150, 200, 350, 500 fpm [.75, 1.0, 1.75, 2.5 m/s]

Maximum Travel: 200'-0" [61 m]

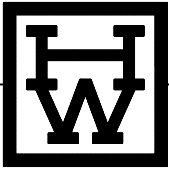
Maximum Stops: 20



**PASSENGER, SIMPLEX
FRONT OPENING
REAR COUNTERWEIGHT**



**PASSENGER, DUPLEX
FRONT OPENING - REAR COUNTERWEIGHT**



MRL DESIGN GUIDE - PLAN D

PASSENGER APPLICATION FRONT OPENING, REAR COUNTERWEIGHT 2:1 ROPED UNDERSLUNG CAR SHEAVES

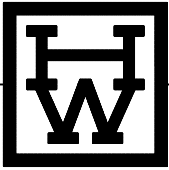
CAPACITY lb [kg]	MACHINE TRACTION SHEAVE DIA. In [mm]	H CLEAR OPENING WIDTH ft [mm]	OPENING TYPE (1)	MINIMUM CLEAR CAB INSIDE		PLATFORM SIZE		HOISTWAY SIZE (NON-SEISMIC)			HOISTWAY SIZE (SEISMIC ZONE 2)		
				A WIDTH ft [mm]	B DEPTH ft [mm]	C WIDTH ft [mm]	D DEPTH ft [mm]	E CLR. WIDTH ft [mm]	F CLR. DEPTH ft [mm]	G (DUPLEX) WALL TO WALL ft [mm]	E CLR. WIDTH ft [mm]	F CLR. DEPTH ft [mm]	G (DUPLEX) WALL TO WALL ft [mm]
2,000 [907]	15" [381]	3'-0" [914]	SSSO SSCO	5'-8" [1727]	4'-3" [1295]	6'-0" [1829]	5'-0" [1524]	7'-6" [2286]	6'-11" [2108]	15'-4" [4674]	7'-8" [2337]	6'-11" [2108]	15'-8" [4775]
2,500 [1134]	15" [381]	3'-6" [1067]	SSSO SSCO	6'-8" [2032]	4'-3" [1295]	7'-0" [2134]	5'-0" [1524]	8'-6" [2591]	6'-11" [2108]	17'-4" [5283]	8'-8" [2642]	6'-11" [2108]	17'-8" [5385]
3,000 [1361]	15" [381]	3'-6" [1067]	SSSO SSCO	6'-8" [2032]	4'-9" [1448]	7'-0" [2134]	5'-6" [1676]	8'-6" [2591]	7'-5" [2261]	17'-4" [5283]	8'-8" [2642]	7'-5" [2261]	17'-8" [5385]
3,500 [1588]	15" [381]	3'-6" [1067]	SSSO SSCO	6'-8" [2032]	5'-5" [1651]	7'-0" [2134]	6'-2" [1880]	8'-6" [2591]	8'-1" [2464]	17'-4" [5283]	8'-8" [2642]	8'-1" [2464]	17'-8" [5385]
4,000 [1814]	15" [381]	4'-0" [1219]	SSSO SSCO	7'-8" [2337]	5'-5" [1651]	8'-0" [2438]	6'-2" [1880]	9'-6" [2896]	8'-1" [2464]	19'-4" [5893]	9'-8" [2946]	8'-1" [2464]	19'-8" [5994]

CAPACITY lb [kg]	PIT DEPTH (P)				OVERHEAD (OH)			
	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	500 fpm 2.5 m/s	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	500 fpm 2.5 m/s
2,000 [907]	6'-8" [2032]	6'-8" [2032]	7'-4" [2235]	8'-8" [2642]	17'-5" [5309]	17'-5" [5309]	18'-0" [5486]	19'-1" [5817]
2,500 [1134]	6'-8" [2032]	6'-8" [2032]	7'-4" [2235]	8'-8" [2642]	17'-5" [5309]	17'-5" [5309]	18'-0" [5486]	19'-1" [5817]
3,000 [1361]	6'-8" [2032]	6'-8" [2032]	7'-4" [2235]	8'-8" [2642]	17'-7" [5359]	17'-7" [5359]	18'-2" [5537]	19'-3" [5867]
3,500 [1588]	6'-8" [2032]	6'-8" [2032]	7'-4" [2235]	8'-8" [2642]	17'-7" [5359]	17'-7" [5359]	18'-2" [5537]	19'-3" [5867]
4,000 [1814]	7'-2" [2184]	7'-2" [2184]	7'-10" [2388]	NOT AVAILABLE	17'-7" [5359]	17'-7" [5359]	18'-2" [5537]	NOT AVAILABLE

Dimensions shown are based on standard sizes and capacities for typical building installations and should only be used for preliminary planning. Custom sizes for existing hoistways are also possible. Contact H-W for additional information before proceeding with construction or for assistance with special conditions such as cornerposts or occupied space below pits.

NOTES:

- Single speed side opening (SSSO) doors are available with left or right hand configuration.
- Outside platform dimensions are based on a nominal 2" [51mm] side wall thickness and 7" [178mm] door return thickness for single speed doors or 9" [229] door return thickness for two-speed doors.
- Interior cab dimensions may vary depending on the interior finishes. The platform and hoistway sizes should be increased accordingly for extra thick cab finishes.
- Additional hoistway size may be required for seismic zones 3 and 4.
- Buffer service platforms (by others) are required when pit depth exceeds 8'-6" [2590mm].
- OH dimensions are based on an 8'-0" [2438mm] cab height with a 7'-0" [2134mm] door. Taller cab and door heights can be accommodated with increased overhead.
- OH dimensions may be effected by tall counterweight frames due to heavy cab enclosure weights.
- Clear overhead is defined as the lowest point below any obstruction such as a hoist beam or the roof structure.
- A hoist beam (by others) is required for installation (by others).
- Hoistway dimensions are based on after pit waterproofing, with no plumb tolerance, and no occupied space below pit.
- Counterbalance of 50% required.
- Required equipment includes rail locking device, manual brake release, and remote reset / remote trip governor.
- Extra high strength independent wire rope core (IWRC) hoist ropes may be required.
- See page 22 for control room specifications.
- Passenger or Passenger/Class A loading classification only.



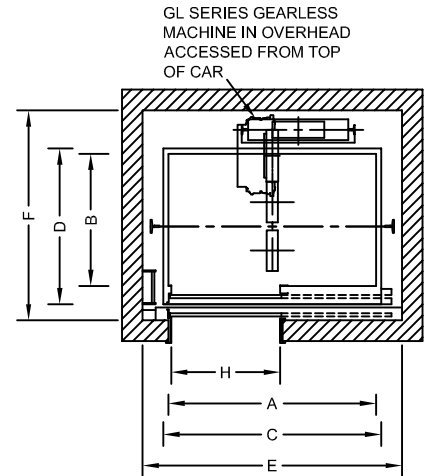
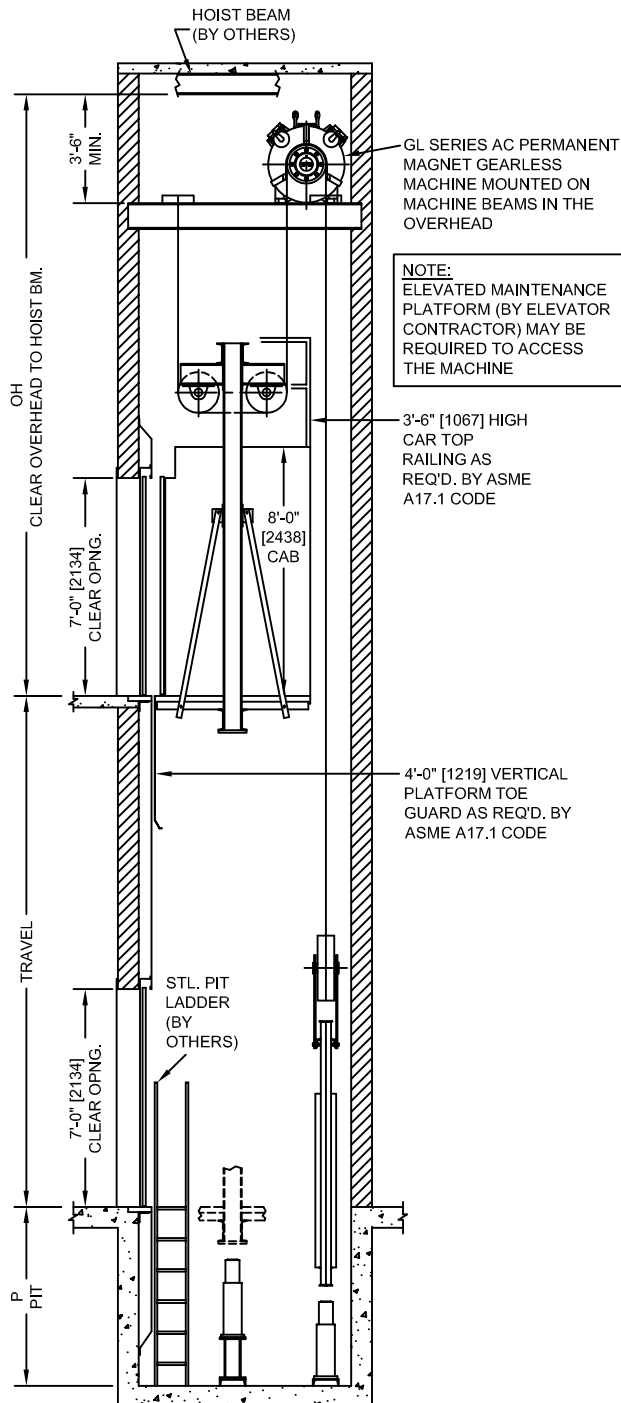
MRL DESIGN GUIDE - PLAN E

PASSENGER APPLICATION FRONT OPENING, REAR COUNTERWEIGHT 2:1 ROPED OVERSLUNG CAR SHEAVES

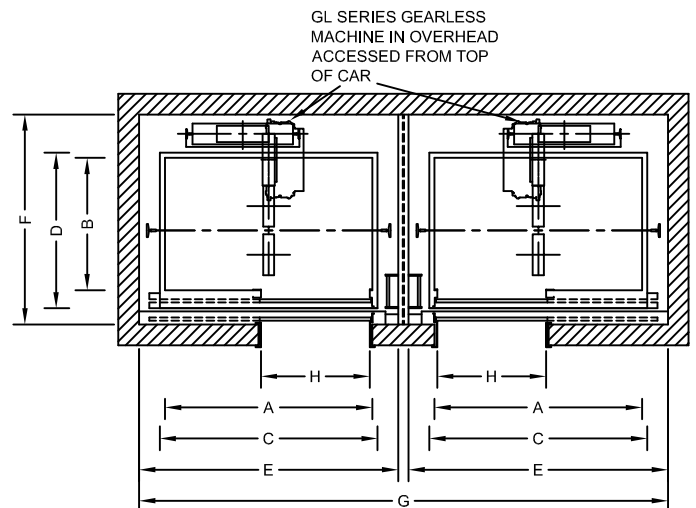
Standard Speeds: 150, 200, 350, 500 fpm [.75, 1.0, 1.75, 2.5 m/s]

Maximum Travel: 200'-0" [61 m]

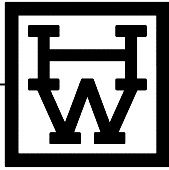
Maximum Stops: 20



**PASSENGER, SIMPLEX
FRONT OPENING
REAR COUNTERWEIGHT**



**PASSENGER, DUPLEX
FRONT OPENING - REAR COUNTERWEIGHT**



MRL DESIGN GUIDE - PLAN E

PASSENGER APPLICATION FRONT OPENING, REAR COUNTERWEIGHT 2:1 ROPED OVERSLUNG CAR SHEAVES

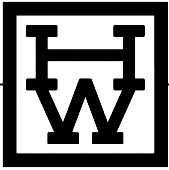
CAPACITY lb [kg]	MACHINE TRACTION SHEAVE DIA. In [mm]	H CLEAR OPENING WIDTH ft [mm]	OPENING TYPE (1)	MINIMUM CLEAR CAB INSIDE		PLATFORM SIZE		HOISTWAY SIZE (NON-SEISMIC)			HOISTWAY SIZE (SEISMIC ZONE 2)		
				A WIDTH ft [mm]	B DEPTH ft [mm]	C WIDTH ft [mm]	D DEPTH ft [mm]	E CLR. WIDTH ft [mm]	F CLR. DEPTH ft [mm]	G (DUPLEX) WALL TO WALL ft [mm]	E CLR. WIDTH ft [mm]	F CLR. DEPTH ft [mm]	G (DUPLEX) WALL TO WALL ft [mm]
2,000 [907]	20" [508]	3'-0" [914]	SSSO SSCO	5'-8" [1727]	4'-3" [1295]	6'-0" [1829]	5'-0" [1524]	7'-4" [2235]	6'-9" [2057]	15'-0" [4572]	7'-4" [2235]	6'-9" [2057]	15'-0" [4572]
2,500 [1134]	20" [508]	3'-6" [1067]	SSSO SSCO	6'-8" [2032]	4'-3" [1295]	7'-0" [2134]	5'-0" [1524]	8'-4" [2540]	6'-9" [2057]	17'-0" [5182]	8'-4" [2540]	6'-9" [2057]	17'-0" [5182]
3,000 [1361]	15" [381]	3'-6" [1067]	SSSO SSCO	6'-8" [2032]	4'-9" [1448]	7'-0" [2134]	5'-6" [1676]	8'-4" [2540]	7'-6" [2286]	17'-0" [5182]	8'-4" [2540]	7'-6" [2286]	17'-0" [5182]
3,500 [1588]	15" [381]	3'-6" [1067]	SSSO SSCO	6'-8" [2032]	5'-5" [1651]	7'-0" [2134]	6'-2" [1880]	8'-4" [2540]	8'-2" [2489]	17'-0" [5182]	8'-4" [2540]	8'-2" [2489]	17'-0" [5182]
4,000 [1814]	15" [381]	4'-0" [1219]	SSSO SSCO	7'-8" [2337]	5'-5" [1651]	8'-0" [2438]	6'-2" [1880]	9'-4" [2845]	8'-2" [2489]	19'-0" [5791]	9'-4" [2845]	8'-2" [2489]	19'-0" [5791]

CAPACITY lb [kg]	PIT DEPTH (P)				OVERHEAD (OH)			
	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	500 fpm 2.5 m/s	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	500 fpm 2.5 m/s
2,000 [907]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	6'-8" [2032]	18'-9" [5715]	18'-9" [5715]	19'-4" [5893]	20'-5" [6223]
2,500 [1134]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	6'-8" [2032]	18'-9" [5715]	18'-9" [5715]	19'-4" [5893]	20'-5" [6223]
3,000 [1361]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	6'-8" [2032]	18'-9" [5715]	18'-9" [5715]	19'-4" [5893]	20'-5" [6223]
3,500 [1588]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	6'-8" [2032]	18'-11" [5766]	18'-11" [5766]	19'-6" [5944]	20'-7" [6274]
4,000 [1814]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	NOT AVAILABLE	19'-3" [5867]	19'-3" [5867]	19'-10" [6045]	NOT AVAILABLE

Dimensions shown are based on standard sizes and capacities for typical building installations and should only be used for preliminary planning. Custom sizes for existing hoistways are also possible. Contact H-W for additional information before proceeding with construction or for assistance with special conditions such as cornerposts or occupied space below pits.

NOTES:

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- Buffer service platforms (by others) are required when pit depth exceeds 8'-6" [2590mm].
- OH dimensions are based on an 8'-0" [2438mm] cab height with a 7'-0" [2134mm] door. Taller cab and door heights can be accommodated with increased overhead.
- OH dimensions may be effected by by tall counterweight frames due to heavy cab enclosure weights.
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- A hoist beam (by others) is required for installation (by others).
- Hoistway dimensions are based on after pit waterproofing, with no plumb tolerance, and no occupied space below pit.
- Counterbalance of 50% required.
- Required equipment includes rail locking device, manual brake release, and remote reset / remote trip governor.
- Extra high strength independent wire rope core (IWRC) hoist ropes may be required.
- See page 22 for control room specifications.
- Passenger or Passenger/Class A loading classification only.



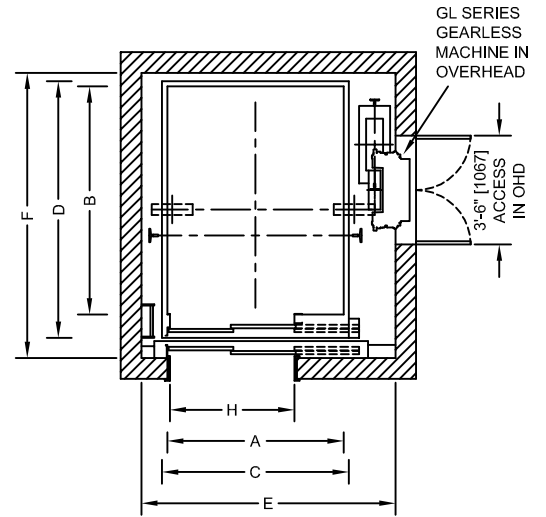
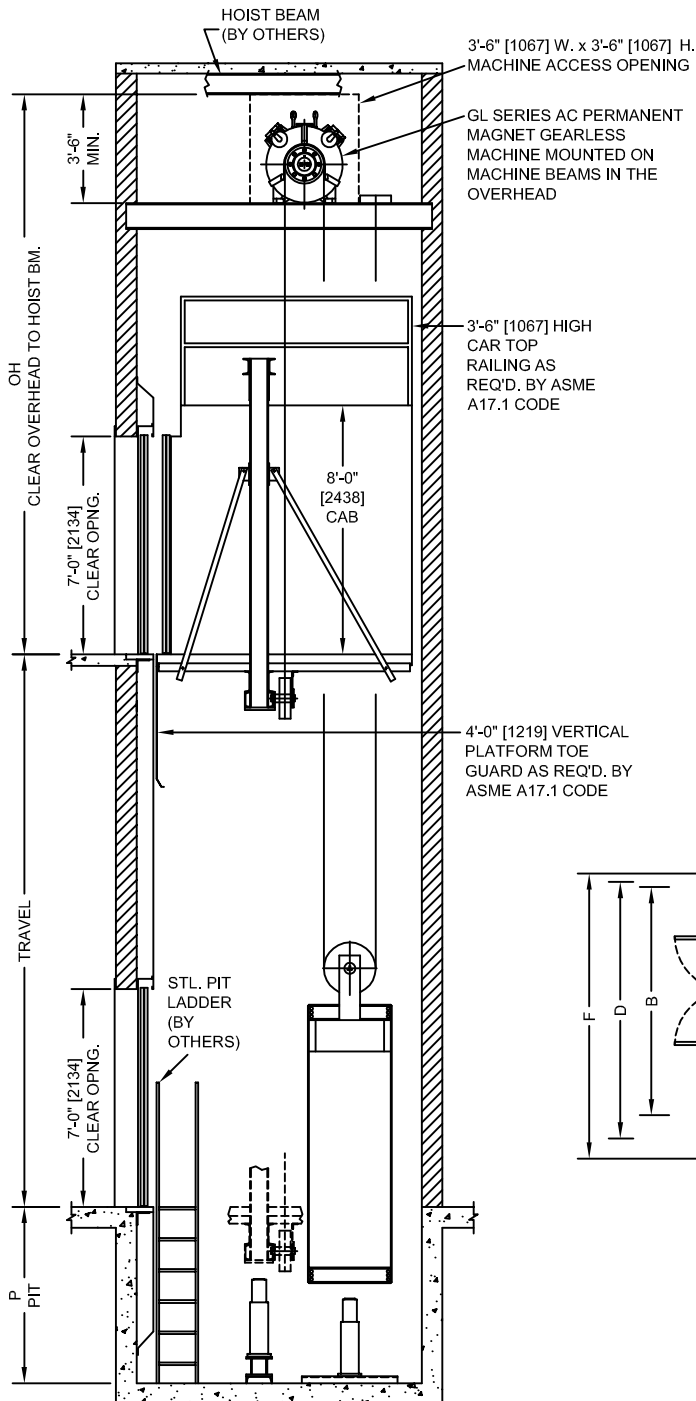
MRL DESIGN GUIDE - PLAN F

HOSPITAL / SERVICE APPLICATION FRONT OPENING 2:1 ROPED UNDERSLUNG CAR SHEAVES

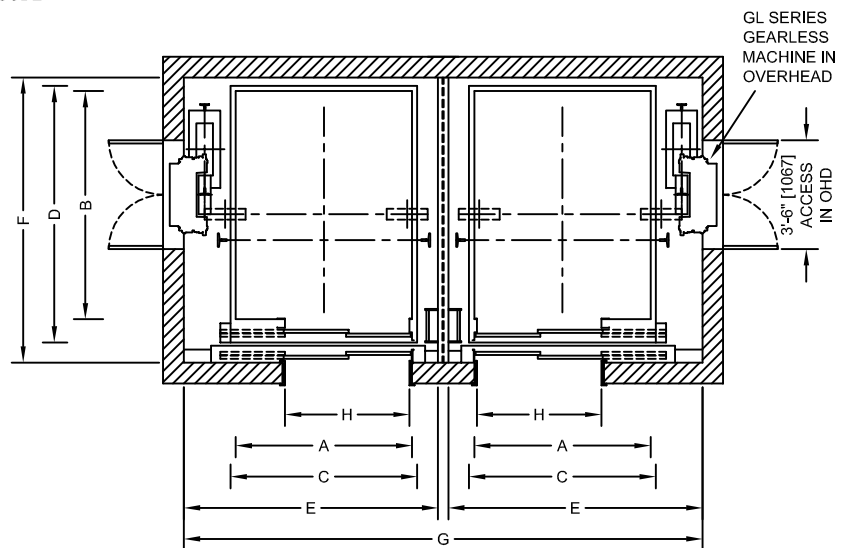
Standard Speeds: 150, 200, 350 fpm [.75, 1.0, 1.75 m/s]

Maximum Travel: 200'-0" [61 m]

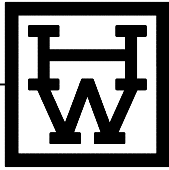
Maximum Stops: 20



**HOSPITAL / SERVICE, SIMPLEX
FRONT OPENING
SIDE COUNTERWEIGHT**



**HOSPITAL / SERVICE, DUPLEX
FRONT OPENING - SIDE COUNTERWEIGHT**



MRL DESIGN GUIDE - PLAN F

HOSPITAL / SERVICE APPLICATION FRONT OPENING 2:1 ROPED UNDERSLUNG CAR SHEAVES

CAPACITY lb [kg]	MACHINE TRACTION SHEAVE DIA. In [mm]	H CLEAR OPENING WIDTH ft [mm]	OPENING TYPE (1)	MINIMUM CLEAR CAB INSIDE		PLATFORM SIZE		HOISTWAY SIZE (NON-SEISMIC)			HOISTWAY SIZE (SEISMIC ZONE 2)		
				A WIDTH ft [mm]	B DEPTH ft [mm]	C WIDTH ft [mm]	D DEPTH ft [mm]	E CLR. WIDTH ft [mm]	F CLR. DEPTH ft [mm]	G (DUPLEX) WALL TO WALL ft [mm]	E CLR. WIDTH ft [mm]	F CLR. DEPTH ft [mm]	G (DUPLEX) WALL TO WALL ft [mm]
4,000 [1814]	15" [381]	4'-0" [1219]	2SSO	5'-8" [1727]	7'-4" [2235]	6'-0" [1829]	8'-3" [2515]	8'-2" [2489]	9'-2" [2794]	16'-8" [5080]	8'-2" [2489]	9'-2" [2794]	16'-8" [5080]
4,500 [2041]	15" [381]	4'-0" [1219]	2SSO	5'-8" [1727]	7'-10" [2388]	6'-0" [1829]	8'-9" [2667]	8'-2" [2489]	9'-8" [2946]	16'-8" [5080]	8'-2" [2489]	9'-8" [2946]	16'-8" [5080]
5,000 [2268]	15" [381]	4'-0" [1219]	2SSO	5'-8" [1727]	8'-6" [2591]	6'-0" [1829]	9'-5" [2870]	8'-2" [2489]	10'-4" [3150]	16'-8" [5080]	8'-2" [2489]	10'-4" [3150]	16'-8" [5080]

CODE MINIMUM OVERHD. WITH ADEQUATE PIT DEPTH

CAPACITY lb [kg]	RESULTING PIT DEPTH (P)			MINIMUM OVERHEAD (OH)		
	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s
4,000 [1814]	6'-1" [1854]	6'-4" [1930]	7'-1" [2159]	13'-1" [3988]	13'-1" [3988]	13'-8" [4166]
4,500 [2041]	6'-5" [1956]	6'-8" [2032]	7'-5" [2261]	13'-1" [3988]	13'-1" [3988]	13'-8" [4166]
5,000 [2268]	6'-11" [2108]	7'-2" [2184]	7'-11" [2413]	13'-1" [3988]	13'-1" [3988]	13'-8" [4166]

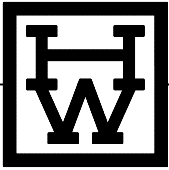
CODE MINIMUM PIT DEPTH WITH ADEQUATE OVERHD.

CAPACITY lb [kg]	MINIMUM PIT DEPTH (P)			RESULTING OVERHEAD (OH)		
	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s
4,000 [1814]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	13'-11" [4242]	14'-2" [4318]	15'-1" [4597]
4,500 [2041]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	14'-3" [4343]	14'-6" [4420]	15'-5" [4699]
5,000 [2268]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	14'-9" [4496]	15'-0" [4572]	15'-11" [4851]

Dimensions shown are based on standard sizes and capacities for typical building installations and should only be used for preliminary planning. Custom sizes for existing hoistways are also possible. Contact H-W for additional information before proceeding with construction or for assistance with special conditions such as cornerposts or occupied space below pits.

NOTES:

- Two speed side opening (2SSO) doors are available with left or right hand configuration.
- Outside platform dimensions are based on a nominal 2" [51mm] side wall thickness and 7" [178mm] door return thickness for single speed doors or 9" [229] door return thickness for two-speed doors.
- Interior cab dimensions may vary depending on the interior finishes. The platform and hoistway sizes should be increased accordingly for extra thick cab finishes.
- Additional hoistway size may be required for seismic zones 3 and 4.
- Buffer service platforms (by others) are required when pit depth exceeds 8'-6" [2590mm].
- OH dimensions are based on an 8'-0" [2438mm] cab height with a 7'-0" [2134mm] door. Taller cab and door heights can be accommodated with increased overhead.
- OH dimensions may be effected by tall counterweight frames due to heavy cab enclosure weights.
- Clear overhead is defined as the lowest point below any obstruction such as a hoist beam or the roof structure.
- A hoist beam (by others) is required for installation (by others).
- Hoistway dimensions are based on after pit waterproofing, with no plumb tolerance, and no occupied space below pit.
- Counterbalance of 50% required.
- Required equipment includes rail locking device, manual brake release, and remote reset / remote trip governor.
- Extra high strength independent wire rope core (IWRC) hoist ropes may be required.
- See page 22 for control room specifications.
- Passenger or Passenger/Class A loading classification only.



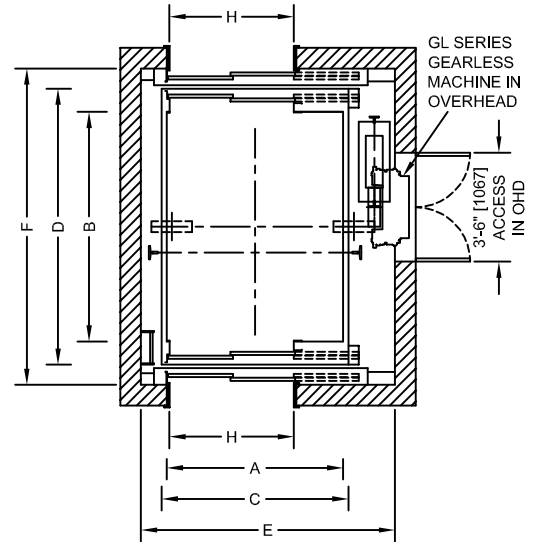
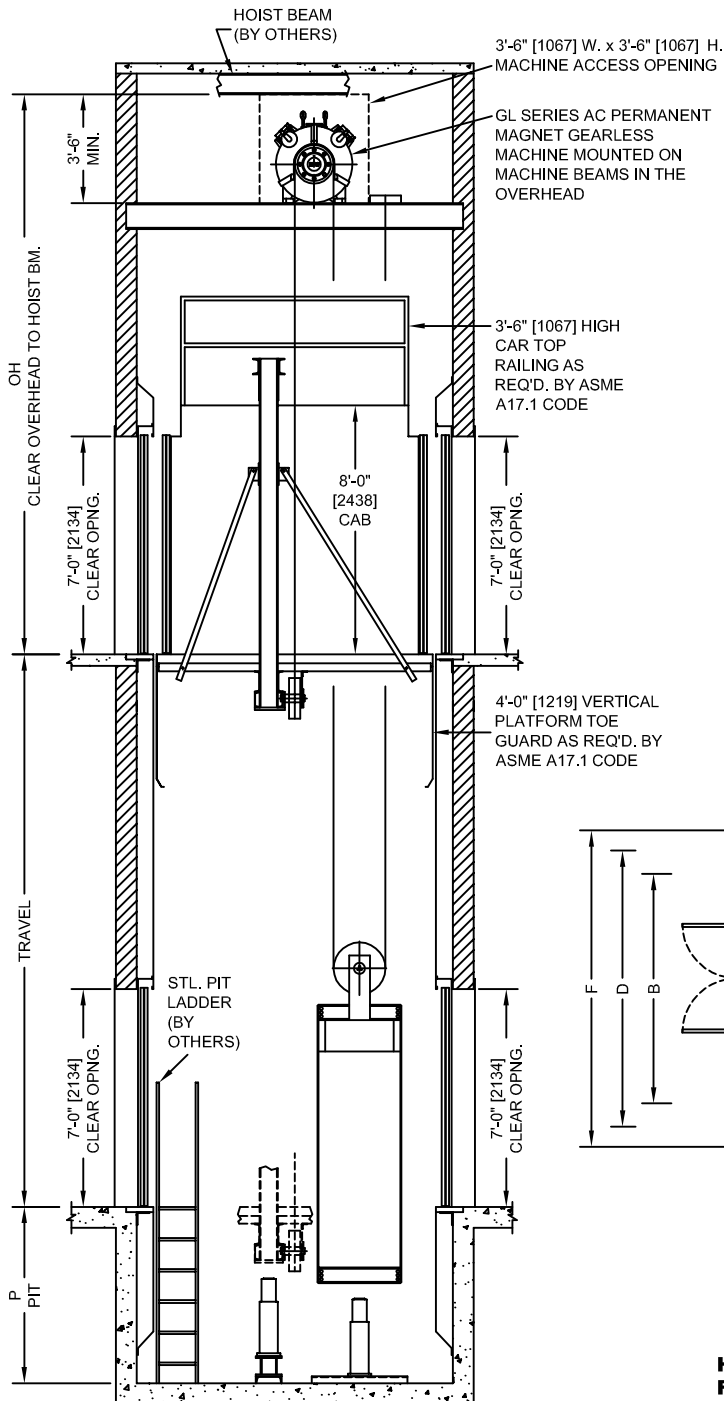
MRL DESIGN GUIDE - PLAN G

HOSPITAL / SERVICE APPLICATION FRONT AND REAR OPENING 2:1 ROPED UNDERSLUNG CAR SHEAVES

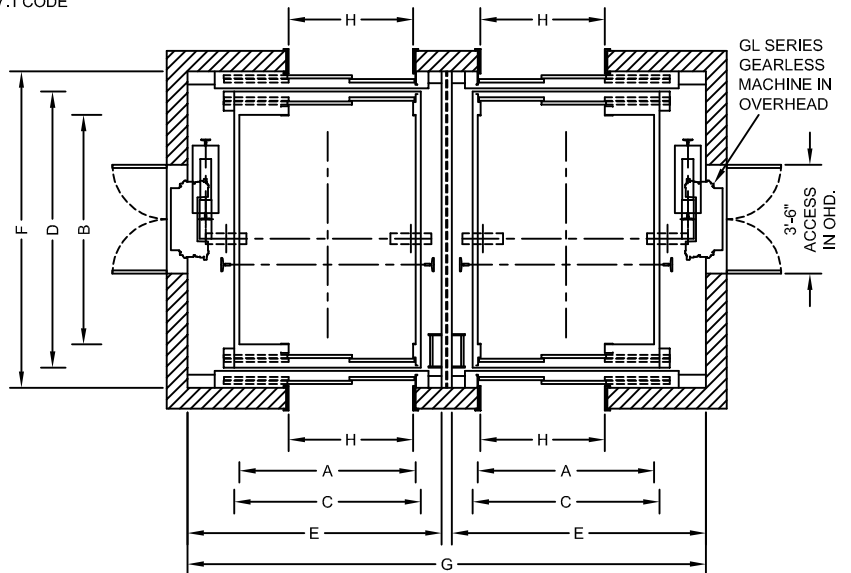
Standard Speeds: 150, 200, 350 fpm [.75, 1.0, 1.75 m/s]

Maximum Travel: 200'-0" [61 m]

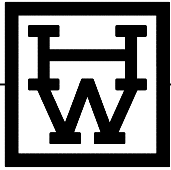
Maximum Stops: 20



**HOSPITAL / SERVICE, SIMPLEX
FRONT & REAR OPENING
SIDE COUNTERWEIGHT**



**HOSPITAL / SERVICE, DUPLEX
FRONT AND REAR OPENING - SIDE COUNTERWEIGHT**



MRL DESIGN GUIDE - PLAN G

HOSPITAL / SERVICE APPLICATION FRONT AND REAR OPENING 2:1 ROPED UNDERSLUNG CAR SHEAVES

CAPACITY lb [kg]	MACHINE TRACTION SHEAVE DIA. In [mm]	H CLEAR OPENING WIDTH ft [mm]	OPENING TYPE (1)	MINIMUM CLEAR CAB INSIDE		PLATFORM SIZE		HOISTWAY SIZE (NON-SEISMIC)			HOISTWAY SIZE (SEISMIC ZONE 2)		
				A WIDTH ft [mm]	B DEPTH ft [mm]	C WIDTH ft [mm]	D DEPTH ft [mm]	E CLR. WIDTH ft [mm]	F CLR. DEPTH ft [mm]	G (DUPLEX) WALL TO WALL ft [mm]	E CLR. WIDTH ft [mm]	F CLR. DEPTH ft [mm]	G (DUPLEX) WALL TO WALL ft [mm]
4,000 [1814]	15" [381]	4'-0" [1219]	2SSO	5'-8" [1727]	7'-4 1/2" [2248]	6'-0" [1829]	8'-10 1/2" [2705]	8'-2" [2489]	10'-2" [3099]	16'-8" [5080]	8'-2" [2489]	10'-2" [3099]	16'-8" [5080]
4,500 [2041]	15" [381]	4'-0" [1219]	2SSO	5'-8" [1727]	7'-10 1/2" [2400]	6'-0" [1829]	9'-4 1/2" [2858]	8'-2" [2489]	10'-8" [3251]	16'-8" [5080]	8'-2" [2489]	10'-8" [3251]	16'-8" [5080]
5,000 [2268]	15" [381]	4'-0" [1219]	2SSO	5'-8" [1727]	8'-6 1/2" [2604]	6'-0" [1829]	10'-0 1/2" [3061]	8'-2" [2489]	11'-4" [3454]	16'-8" [5080]	8'-2" [2489]	11'-4" [3454]	16'-8" [5080]

CODE MINIMUM OVERHD. WITH ADEQUATE PIT DEPTH

CAPACITY lb [kg]	RESULTING PIT DEPTH (P)			MINIMUM OVERHEAD (OH)		
	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s
4,000 [1814]	6'-3" [1905]	6'-6" [1981]	7'-3" [2210]	13'-1" [3988]	13'-1" [3988]	13'-8" [4166]
4,500 [2041]	6'-6" [1981]	6'-10" [2083]	7'-7" [2311]	13'-1" [3988]	13'-1" [3988]	13'-8" [4166]
5,000 [2268]	7'-0" [2134]	7'-3" [2210]	8'-0" [2438]	13'-1" [3988]	13'-1" [3988]	13'-8" [4166]

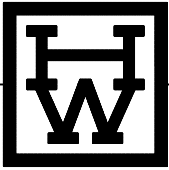
CODE MINIMUM PIT DEPTH WITH ADEQUATE OVERHD.

CAPACITY lb [kg]	MINIMUM PIT DEPTH (P)			RESULTING OVERHEAD (OH)		
	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s
4,000 [1814]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	14'-1" [4293]	14'-4" [4369]	15'-3" [4648]
4,500 [2041]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	14'-4" [4369]	14'-8" [4470]	15'-7" [4750]
5,000 [2268]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	14'-10" [4521]	15'-1" [4597]	16'-0" [4877]

Dimensions shown are based on standard sizes and capacities for typical building installations and should only be used for preliminary planning. Custom sizes for existing hoistways are also possible. Contact H-W for additional information before proceeding with construction or for assistance with special conditions such as cornerposts or occupied space below pits.

NOTES:

- Two speed side opening (2SSO) doors are available with left or right hand configuration.
- Outside platform dimensions are based on a nominal 2" [51mm] side wall thickness and 7" [178mm] door return thickness for single speed doors or 9" [229] door return thickness for two-speed doors.
- Interior cab dimensions may vary depending on the interior finishes. The platform and hoistway sizes should be increased accordingly for extra thick cab finishes.
- Additional hoistway size may be required for seismic zones 3 and 4.
- Buffer service platforms (by others) are required when pit depth exceeds 8'-6" [2590mm].
- OH dimensions are based on an 8'-0" [2438mm] cab height with a 7'-0" [2134mm] door. Taller cab and door heights can be accommodated with increased overhead.
- OH dimensions may be effected by tall counterweight frames due to heavy cab enclosure weights.
- Clear overhead is defined as the lowest point below any obstruction such as a hoist beam or the roof structure.
- A hoist beam (by others) is required for installation (by others).
- Hoistway dimensions are based on after pit waterproofing, with no plumb tolerance, and no occupied space below pit.
- Counterbalance of 50% required.
- Required equipment includes rail locking device, manual brake release, and remote reset / remote trip governor.
- Extra high strength independent wire rope core (IWRC) hoist ropes may be required.
- See page 22 for control room specifications.
- Passenger or Passenger/Class A loading classification only.



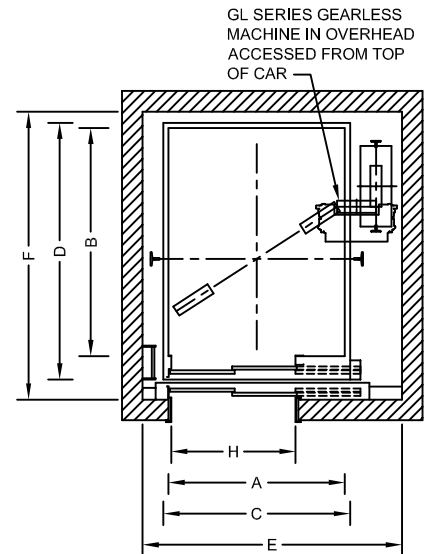
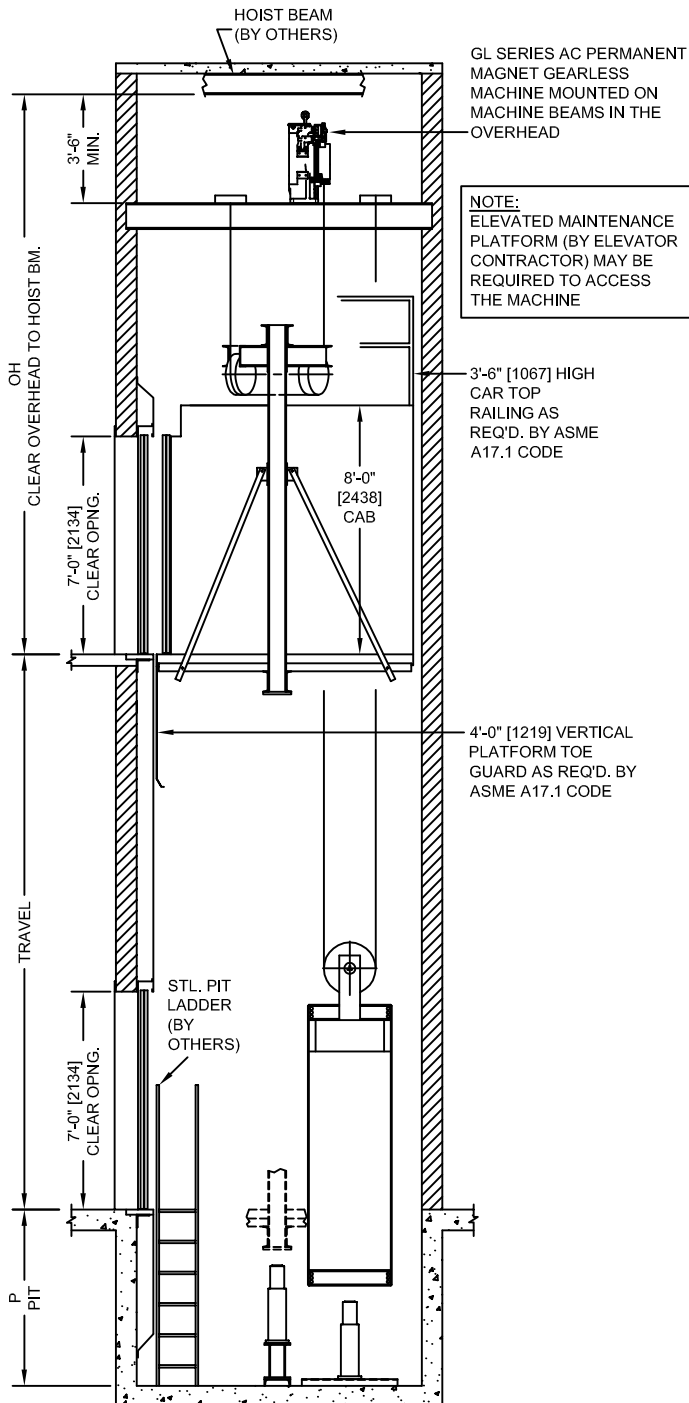
MRL DESIGN GUIDE - PLAN H

HOSPITAL / SERVICE APPLICATION FRONT OPENING 2:1 ROPED OVERSLUNG CAR SHEAVES

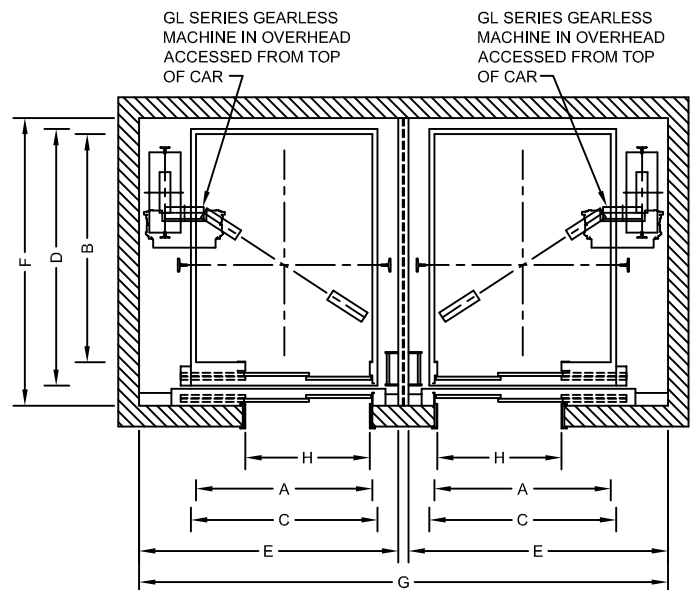
Standard Speeds: 150, 200, 350 fpm [.75, 1.0, 1.75 m/s]

Maximum Travel: 200'-0" [61 m]

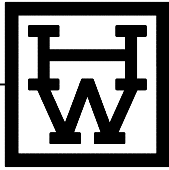
Maximum Stops: 20



**HOSPITAL / SERVICE, SIMPLEX
FRONT OPENING
SIDE COUNTERWEIGHT**



**HOSPITAL / SERVICE, DUPLEX
FRONT OPENING - SIDE COUNTERWEIGHT**



MRL DESIGN GUIDE - PLAN H

HOSPITAL / SERVICE APPLICATION FRONT OPENING 2:1 ROPED OVERSLUNG CAR SHEAVES

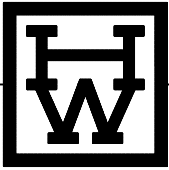
CAPACITY lb [kg]	MACHINE TRACTION SHEAVE DIA. In [mm]	H CLEAR OPENING WIDTH ft [mm]	OPENING TYPE (1)	MINIMUM CLEAR CAB INSIDE		PLATFORM SIZE		HOISTWAY SIZE (NON-SEISMIC)			HOISTWAY SIZE (SEISMIC ZONE 2)		
				A WIDTH ft [mm]	B DEPTH ft [mm]	C WIDTH ft [mm]	D DEPTH ft [mm]	E CLR. WIDTH ft [mm]	F CLR. DEPTH ft [mm]	G (DUPLEX) WALL TO WALL ft [mm]	E CLR. WIDTH ft [mm]	F CLR. DEPTH ft [mm]	G (DUPLEX) WALL TO WALL ft [mm]
4,000 [1814]	15" [381]	4'-0" [1219]	2SSO	5'-8" [1727]	7'-4" [2235]	6'-0" [1829]	8'-3" [2515]	8'-4" [2540]	9'-2" [2794]	17'-0" [5182]	8'-4" [2540]	9'-2" [2794]	17'-0" [5182]
4,500 [2041]	15" [381]	4'-0" [1219]	2SSO	5'-8" [1727]	7'-10" [2388]	6'-0" [1829]	8'-9" [2667]	8'-4" [2540]	9'-8" [2946]	17'-0" [5182]	8'-4" [2540]	9'-8" [2946]	17'-0" [5182]
5,000 [2268]	15" [381]	4'-0" [1219]	2SSO	5'-8" [1727]	8'-6" [2591]	6'-0" [1829]	9'-5" [2870]	8'-4" [2540]	10'-4" [3150]	17'-0" [5182]	8'-4" [2540]	10'-4" [3150]	17'-0" [5182]

CAPACITY lb [kg]	PIT DEPTH (P)			OVERHEAD (OH)		
	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s
4,000 [1814]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	18'-5" [5613]	18'-5" [5613]	19'-0" [5791]
4,500 [2041]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	18'-5" [5613]	18'-5" [5613]	19'-0" [5791]
5,000 [2268]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	18'-9" [5715]	18'-9" [5715]	19'-4" [5893]

Dimensions shown are based on standard sizes and capacities for typical building installations and should only be used for preliminary planning. Custom sizes for existing hoistways are also possible. Contact H-W for additional information before proceeding with construction or for assistance with special conditions such as cornerposts or occupied space below pits.

NOTES:

1. Two speed side opening (2SSO) doors are available with left or right hand configuration.
2. Outside platform dimensions are based on a nominal 2" [51mm] side wall thickness and 7" [178mm] door return thickness for single speed doors or 9" [229] door return thickness for two-speed doors.
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9. A hoist beam (by others) is required for installation (by others).
10. Hoistway dimensions are based on after pit waterproofing, with no plumb tolerance, and no occupied space below pit.
11. Counterbalance of 50% required.
12. Required equipment includes rail locking device, manual brake release, and remote reset / remote trip governor.
13. Extra high strength independent wire rope core (IWRC) hoist ropes may be required.
14. See page 22 for control room specifications.
15. Passenger or Passenger/Class A loading classification only.



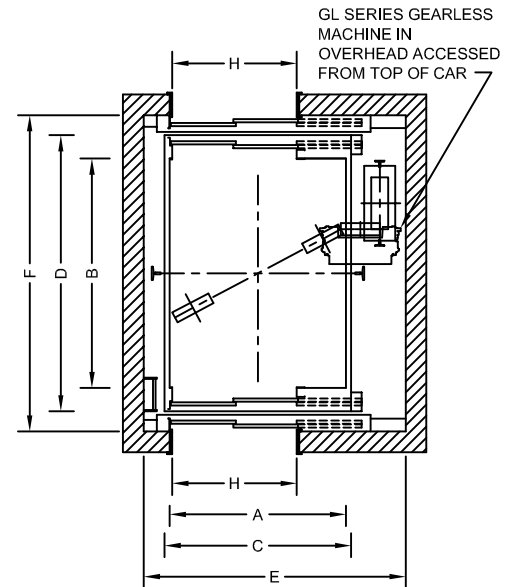
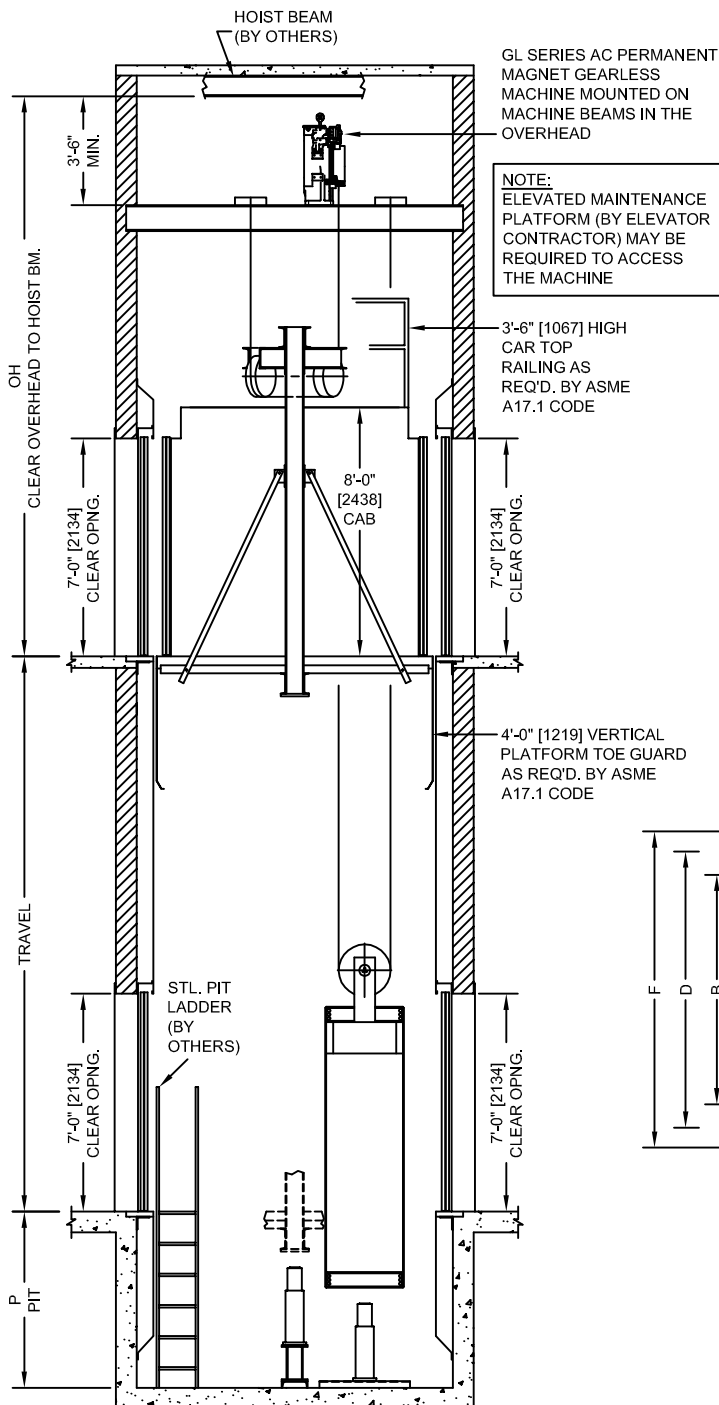
MRL DESIGN GUIDE - PLAN I

HOSPITAL / SERVICE APPLICATION FRONT AND REAR OPENING 2:1 ROPED OVERSLUNG CAR SHEAVES

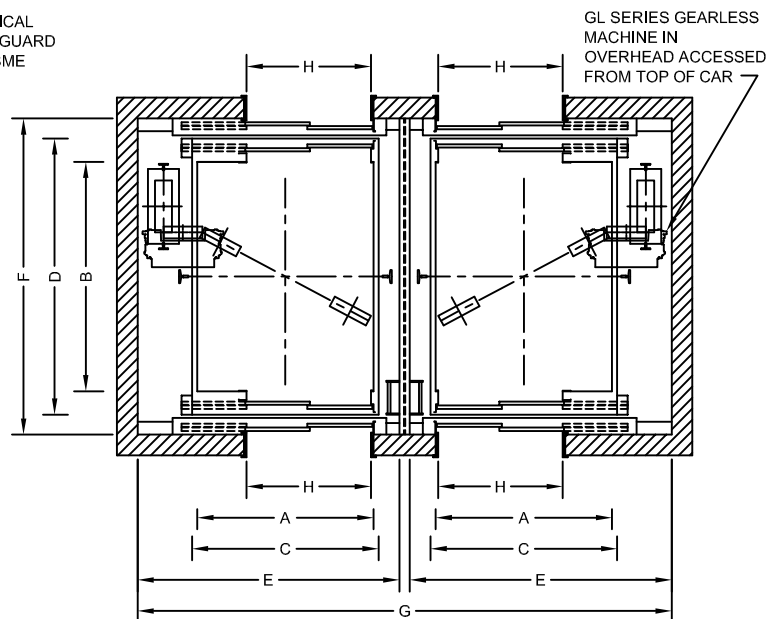
Standard Speeds: 150, 200, 350 fpm [.75, 1.0, 1.75 m/s]

Maximum Travel: 200'-0" [61 m]

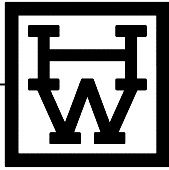
Maximum Stops: 20



**HOSPITAL / SERVICE, SIMPLEX
FRONT & REAR OPENING
SIDE COUNTERWEIGHT**



**HOSPITAL / SERVICE, DUPLEX
FRONT AND REAR OPENING - SIDE COUNTERWEIGHT**



MRL DESIGN GUIDE - PLAN I

HOSPITAL / SERVICE APPLICATION FRONT AND REAR OPENING 2:1 ROPED OVERSLUNG CAR SHEAVES

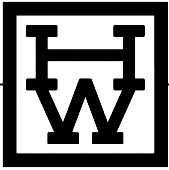
CAPACITY lb [kg]	MACHINE TRACTION SHEAVE DIA. In [mm]	H CLEAR OPENING WIDTH ft [mm]	OPENING TYPE (1)	MINIMUM CLEAR CAB INSIDE		PLATFORM SIZE		HOISTWAY SIZE (NON-SEISMIC)			HOISTWAY SIZE (SEISMIC ZONE 2)		
				A WIDTH ft [mm]	B DEPTH ft [mm]	C WIDTH ft [mm]	D DEPTH ft [mm]	E CLR. WIDTH ft [mm]	F CLR. DEPTH ft [mm]	G (DUPLEX) WALL TO WALL ft [mm]	E CLR. WIDTH ft [mm]	F CLR. DEPTH ft [mm]	G (DUPLEX) WALL TO WALL ft [mm]
4,000 [1814]	15" [381]	4'-0" [1219]	2SSO	5'-8" [1727]	7'-4 1/2" [2248]	6'-0" [1829]	8'-10 1/2" [2705]	8'-5" [2565]	10'-2" [3099]	17'-2" [5232]	8'-5" [2565]	10'-2" [3099]	17'-2" [5232]
4,500 [2041]	15" [381]	4'-0" [1219]	2SSO	5'-8" [1727]	7'-10 1/2" [2400]	6'-0" [1829]	9'-4 1/2" [2858]	8'-5" [2565]	10'-8" [3251]	17'-2" [5232]	8'-5" [2565]	10'-8" [3251]	17'-2" [5232]
5,000 [2268]	15" [381]	4'-0" [1219]	2SSO	5'-8" [1727]	8'-6 1/2" [2604]	6'-0" [1829]	10'-0 1/2" [3061]	8'-5" [2565]	11'-4" [3454]	17'-2" [5232]	8'-5" [2565]	11'-4" [3454]	17'-2" [5232]

CAPACITY lb [kg]	PIT DEPTH (P)			OVERHEAD (OH)		
	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s	150 fpm .75 m/s	200 fpm 1.0 m/s	350 fpm 1.75 m/s
4,000 [1814]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	18'-5" [5613]	18'-5" [5613]	19'-0" [5791]
4,500 [2041]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	18'-5" [5613]	18'-5" [5613]	19'-0" [5791]
5,000 [2268]	5'-3" [1600]	5'-3" [1600]	5'-8" [1727]	18'-9" [5715]	18'-9" [5715]	19'-4" [5893]

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13. Extra high strength independent wire rope core (IWRC) hoist ropes may be required.
14. See page 22 for control room specifications.
15. Passenger or Passenger/Class A loading classification only.



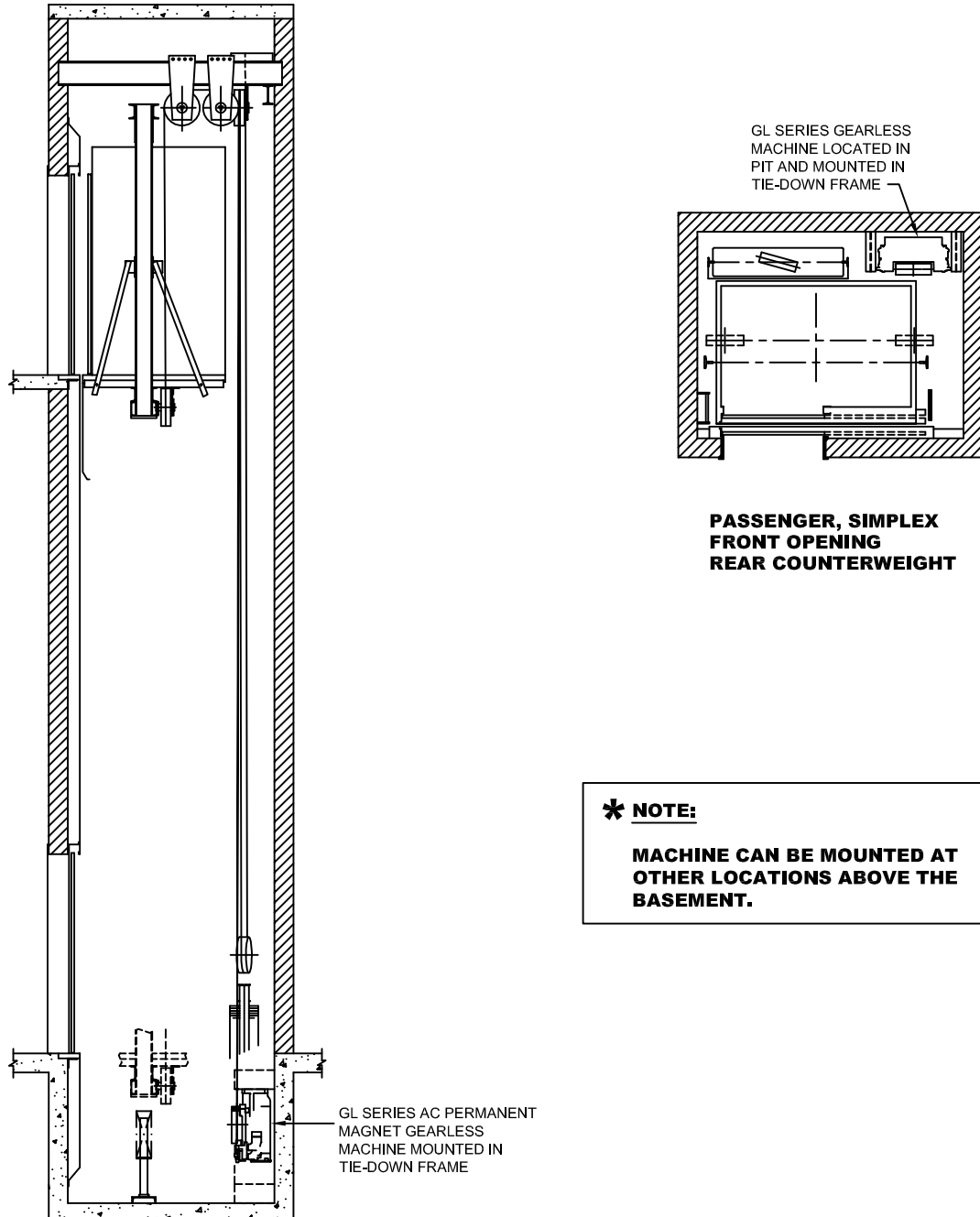
MRL DESIGN GUIDE - BASEMENT APPLICATIONS *

PASSENGER APPLICATION FRONT OPENING, REAR COUNTERWEIGHT GEARLESS AC PERMANENT MAGNET MACHINE IN BASEMENT 2:1 ROPED UNDERSLUNG CAR SHEAVES

Standard Speeds: 150, 200, 350, 500 fpm [.75, 1.0, 1.75, 2.5 m/s]

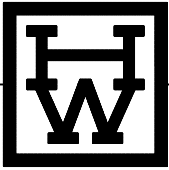
Maximum Travel: 200'-0" [61 m]

Maximum Stops: 20

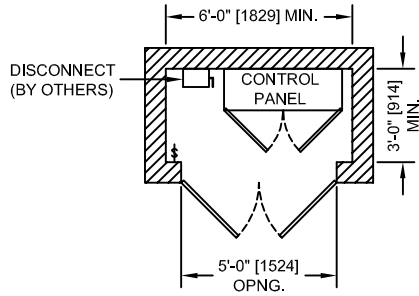


*** NOTE:**

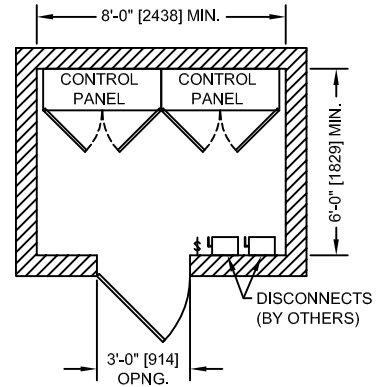
MACHINE CAN BE MOUNTED AT OTHER LOCATIONS ABOVE THE BASEMENT.



MRL DESIGN GUIDE - CONTROL ROOMS



CONTROL ROOM - SIMPLEX



CONTROL ROOM - DUPLEX

CONTROL EQUIPMENT:

GAL GALAXY CONTROLLER
45-1/2" W. x 16"D. x 67" H. [1156 W. x 406 D. x 1702 H

ENVIRONMENT:

35° F to 110° F ambient
12,000 ft altitude
95% humidity

ROOM HEIGHT:

7'-6" [2286] MIN. CEILING HEIGHT

ROOM LOCATION:

PREFERRED LOCATION OF CONTROL ROOM IS ADJACENT TO THE HOISTWAY, BUT IT MAY BE LOCATED REMOTELY. CONTACT GAL MANUFACTURING CORP FOR SPECIFIC INFORMATION AND DISTANCE RESTRICTIONS.

NOTE:

The control room sizes shown above are based on the minimum space requirement for the G.A.L. Galaxy controller only. Additional equipment may be required depending on the specific job requirements and the control room would then need to be enlarged accordingly. Other control manufacturers may have different space requirements.

DISCLAIMER:

HOLLISTER-WHITNEY RESERVES THE RIGHT TO MAKE CHANGES AT ANY TIME TO THE INFORMATION CONTAINED IN THIS GUIDE WITHOUT PRIOR NOTICE.

**HOLLISTER-WHITNEY ELEVATOR CORP.
#1 HOLLISTER-WHITNEY PARKWAY
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WEB: www.hollisterwhitney.com
EMAIL: info@hollisterwhitney.com**