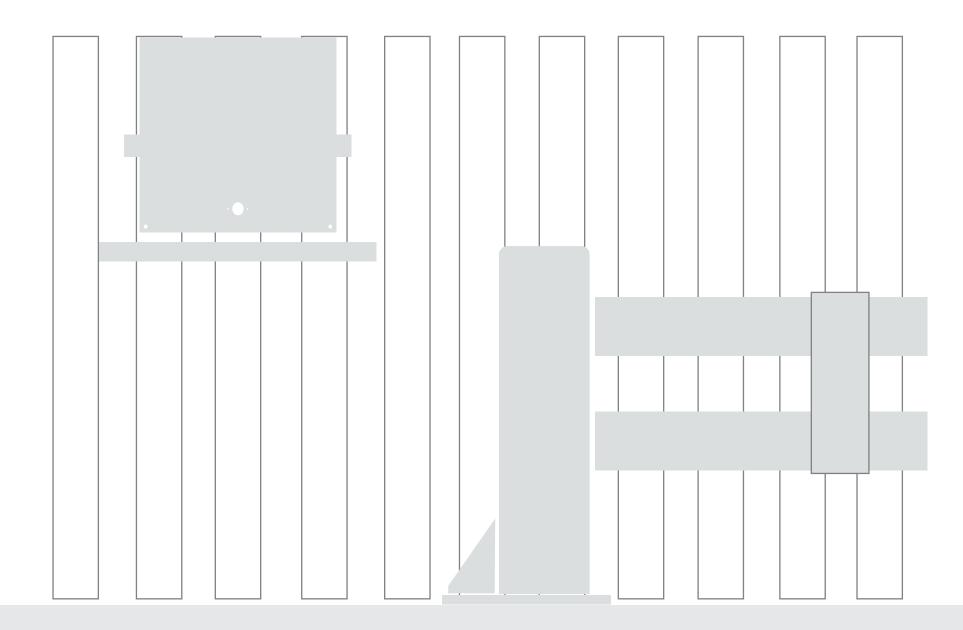


StrongSlide[™] M50



Installation Instructions



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Safety Requirements

A DANGER

Refer to UL 325, ASTM F2200, and SlideDriver operation manual for complete safety information. Failure to follow the instructions and safety information may result in death or serious injury.

The StrongSlide automatic vehicular gate system is designed for UL 325 Usage Class IV installations only. A SlideDriver installed on a StrongSlide gate is restricted to Usage Class IV only.

It is the responsibility of the system designer and/or installer to ensure any safety or operational issues have been addressed.*

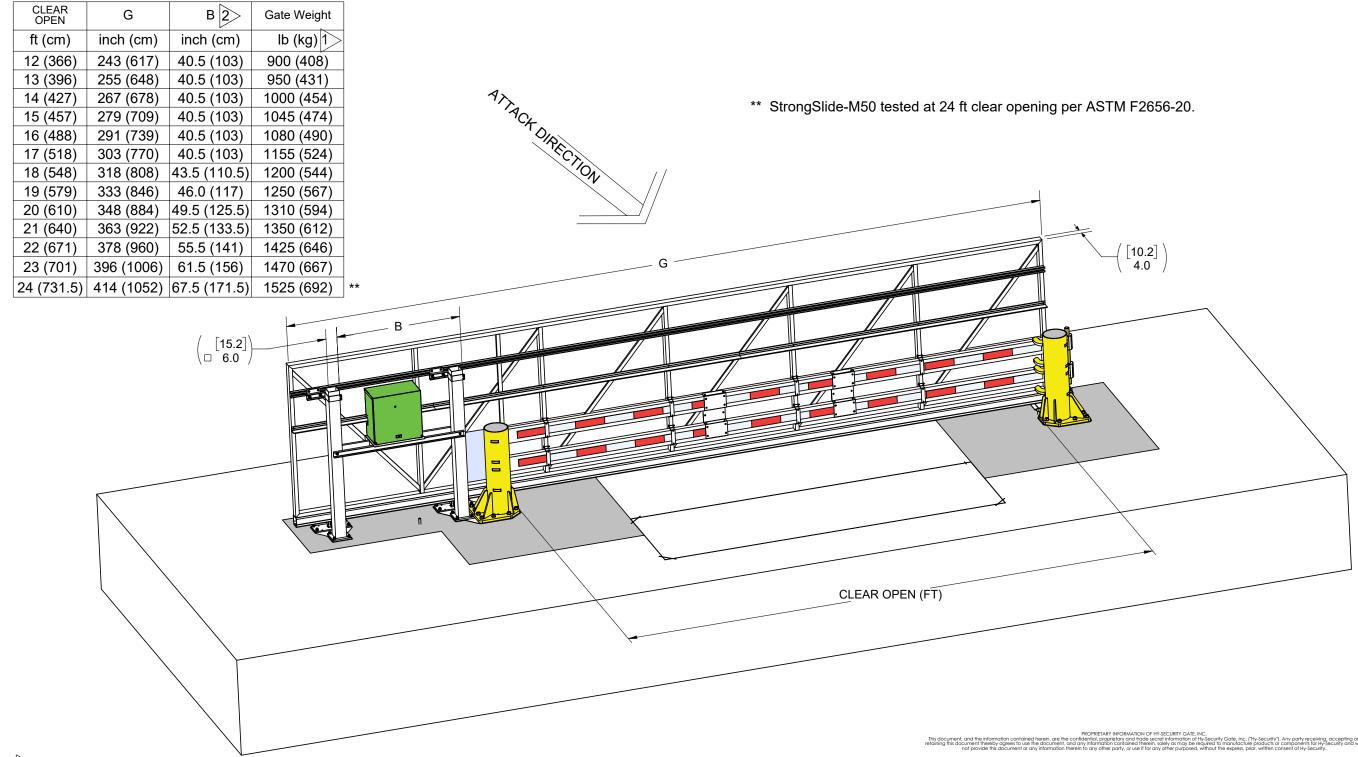
*Disclaimer: All gate installations using HySecurity vehicular gate operators must comply with UL325 and ASTM F2200 safety standards in addition to any local area codes and standards. Site, gate hardware, usage class, and other conditions will dictate the use of additional safety designs and components. All safety related warnings and notices in this document, and any diagrams, drawings, photographs and similar content should not be considered guidance on how to make your particular site safe and code compliant. It is the responsibility of the gate system designer, installer and owner to assess appropriate safety design considerations, correct implementation and ongoing maintenance of any system.



StrongSlide M50: Plan Site Design

FULL ASSEMBLY VIEW:

Note: Determine roadway width and plan for additional clearances to install StrongSlide.



GATE WEIGHT IS FRAME AND ARRESTOR ASSEMBLY ONLY. SEE SITE SPECIFIC DRAWING FOR TOTAL GATE WEIGHT WITH INFILL MATERIAL.

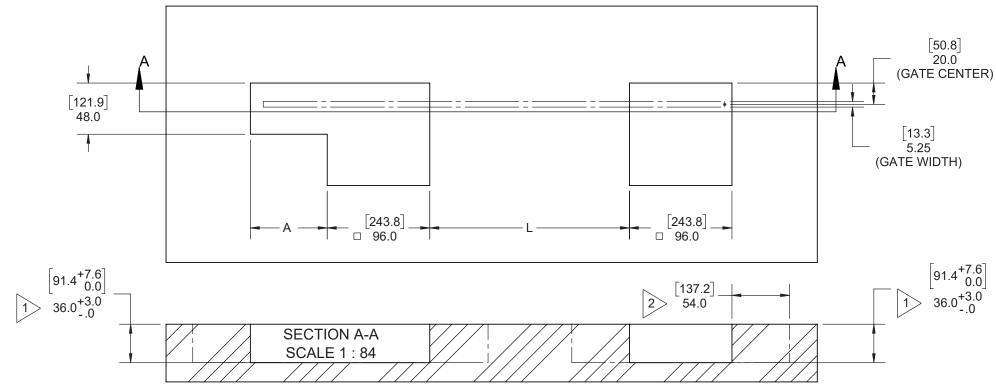
SEE SITE SPECIFIC DRAWING FOR CONFIRMATION OF SPAN BETWEEN POSTS. HEAVY NON-STANDARD GATES MAY REQUIRE A WIDER DISTANCE.

StrongSlide M50: Prepare Foundation

FOUNDATION PREPERATION

CLEAR OPEN	FOUNDATOIN SPAN'L'	A 5
ft (cm)	inch (cm)	inch (cm)
12 (366)	43.0 (109)	45.0 (114.5)
13 (396)	55.0 (140)	45.0 (114.5)
14 (427)	67.0 (170)	45.0 (114.5)
15 (457)	79.0 (200.5)	45.0 (114.5)
16 (488)	91.0 (231)	45.0 (114.5)
17 (518)	103.0 (261.5)	45.0 (114.5)
18 (548)	115.0 (292)	48.0 (122)
19 (579)	127.0 (322.5)	51.0 (129.5)
20 (610)	139.0 (353)	54.0 (137)
21 (640)	151.0 (383.5)	57.0 (145)
22 (671)	163.0 (414)	60.0 (152.5)
23 (701)	175.0 (444.5)	66.0 (167.5)
24 (731.5)	187.0 (475)	72.0 (183)

** StrongSlide-M50 tested at 24 ft clear opening per ASTM F2656-20.

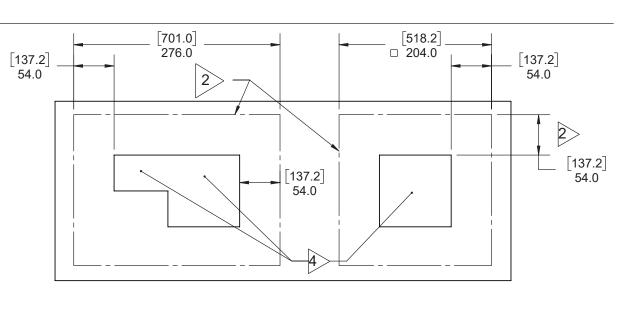


NOTES:

- > PER ASTM F2656 SECTION 7.2.2, "Soil shall be low-cohesive, well-graded crushed stone or broken gravel of a particle size distribution comparable to Table 3" "Soil shall have a depth equal to the bottom of the foundation and width equal to 1.5 times the foundation depth behind the barrier"
 - Foundation depth is 36" (91.4cm), therefore all specified perimeter soil must match this 36" (91.4cm) depth Width of specified soil must be 54" (137.2cm) to each side of the foundation. (36" * 1.5 = 54")
- 2. The low-cohesive soil shall be compacted to a density of not less than 90% maximum dry density in accordance with Test Methods D1556 and D6938 and AASHTO Method of Test T099 and meet Table 3 for gradation.
- 3. ASTM F2656 Table 3:

TABLE 3 Recommended Soll Foundation Material (from AASHTO M147-65)

\	,
Sieve Size, mm [in.]	Mass % Passing
50.0 [2]	100
25.0 [1]	75-95
9.5 [3/8]	40-75
4.75 [No. 4]	30-60
2.00 [No. 10]	20-45
0.425 [No. 40]	15-30
0.075 [No. 200]	5-20





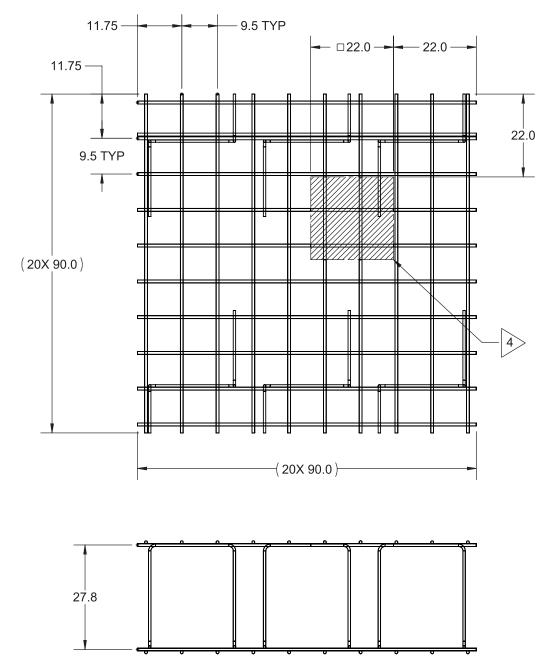
5.> SEE SITE SPECIFIC DRAWING FOR CONFIRMATION OF SPAN BETWEEN POSTS. HEAVY NON-STANDARD GATES MAY REQUIRE A WIDER DISTANCE. This document, and the information contained herein, are the confidential, proprietary and trade secret information of H-Security Gate, Inc. ("Hy-Security"). Any party receiving, accepting or retaining this document thereby agrees to use the document, and any information contained therein, solely as may be required to manufacture products or components for Hy-Security and will not provide this document or any information therein to any other party, or use if for any other purposed, without the express, price, within control of Hy-Security.

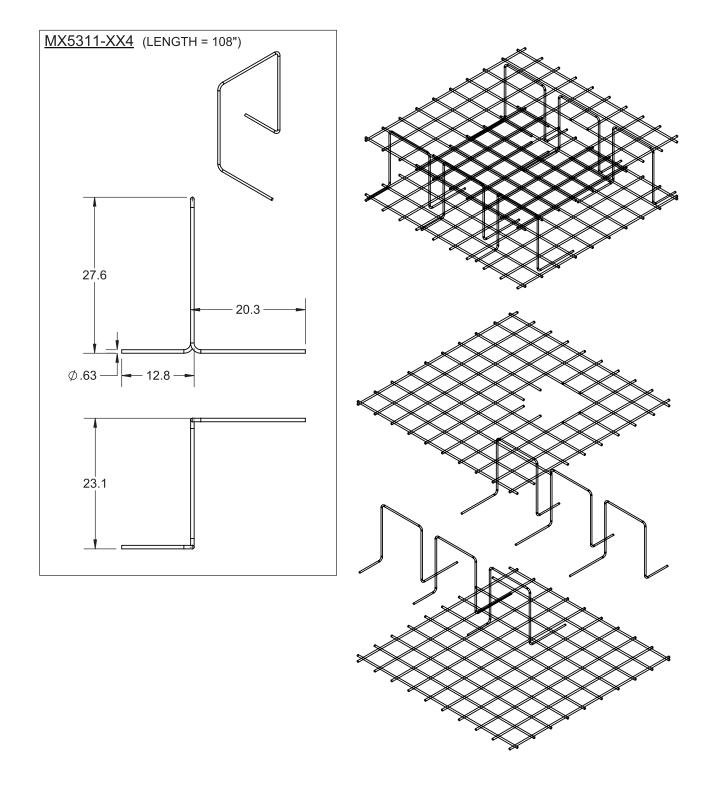
StrongSlide M50: Assemble Rebar

ITEM	PART NO.	DESCRIPTION	
2	MX5311-XX5	REBAR, #6(3/4"), ASTM A615, GRADE 60, L=90"	40
3	MX5311-XX4	REBAR, #5(5/8"), ASTM A615, GRADE 60, L=106"	6

MX5311-01 (M50 REBAR)

{Weight: 525 lbs}





NOTES:

- 1. WIRE TIE CONNECT 50% OF ALL REBAR INTERSECTIONS TO FORM TOP & BOTTOM MAT STRUCTURE.
- 2. EVENLY SPACE 9 REBAR CHAIRS AND WIRE TIE LEGS TO BOTTOM MAT.
- 3. PLACE TOP MAT ON TOP OF REBAR CHAIR HEADS. WIRE TIE IN 3 PLACES PER CHAIR.
- CUT AREA FOR ANCHOR TEMPLATE. TOP REBAR LEVEL ONLY.

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Note: Rebar and lumber not included.

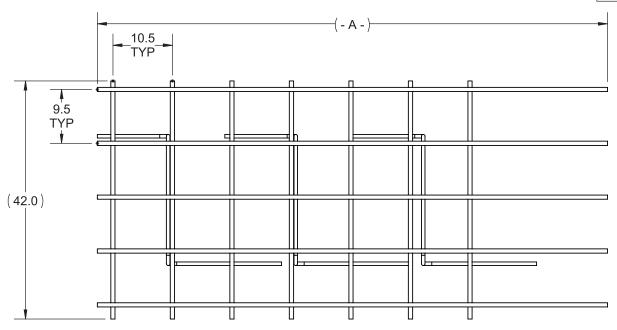
StrongSlide M50: Assemble Rebar

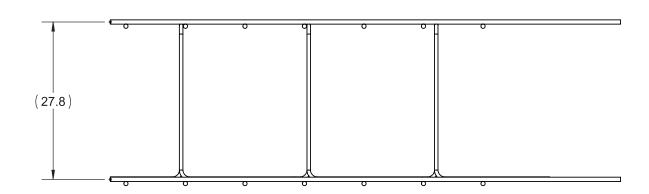
ITEM	PART NO.	DESCRIPTION	QTY.
2	MX5311-XX4	REBAR, #5(5/8"), ASTM A615, GRADE 60, L=106"	SEE TABLE
3	MX5311-XX5	REBAR, #6(3/4"), ASTM A615, GRADE 60, L = 90	10
4	MX5311-XX7	REBAR, #6(3/4"), ASTM A615, GRADE 60, L=42"	SEE TABLE

2

GATE CLEAR OPEN (FT)	MX5311-XX5 - A - DIMENSION	MX5311-XX4 CHAIR - QTY	MX5311-XX7 SHORT - QTY
12-17	63	2	8
18	66	2	8
19	69	2	10
20	72	2	10
21	75	2	10
22	78	2	12
23	84	3	12
24	90	3	14

MX5311-02 (EXTENSION-GATE POST MNT.) {Weight: 220 lbs} (24' CLEAR OPEN SHOWN)





MX5311-XX5-MX5311-XX7 MX5311-XX4

NOTES:

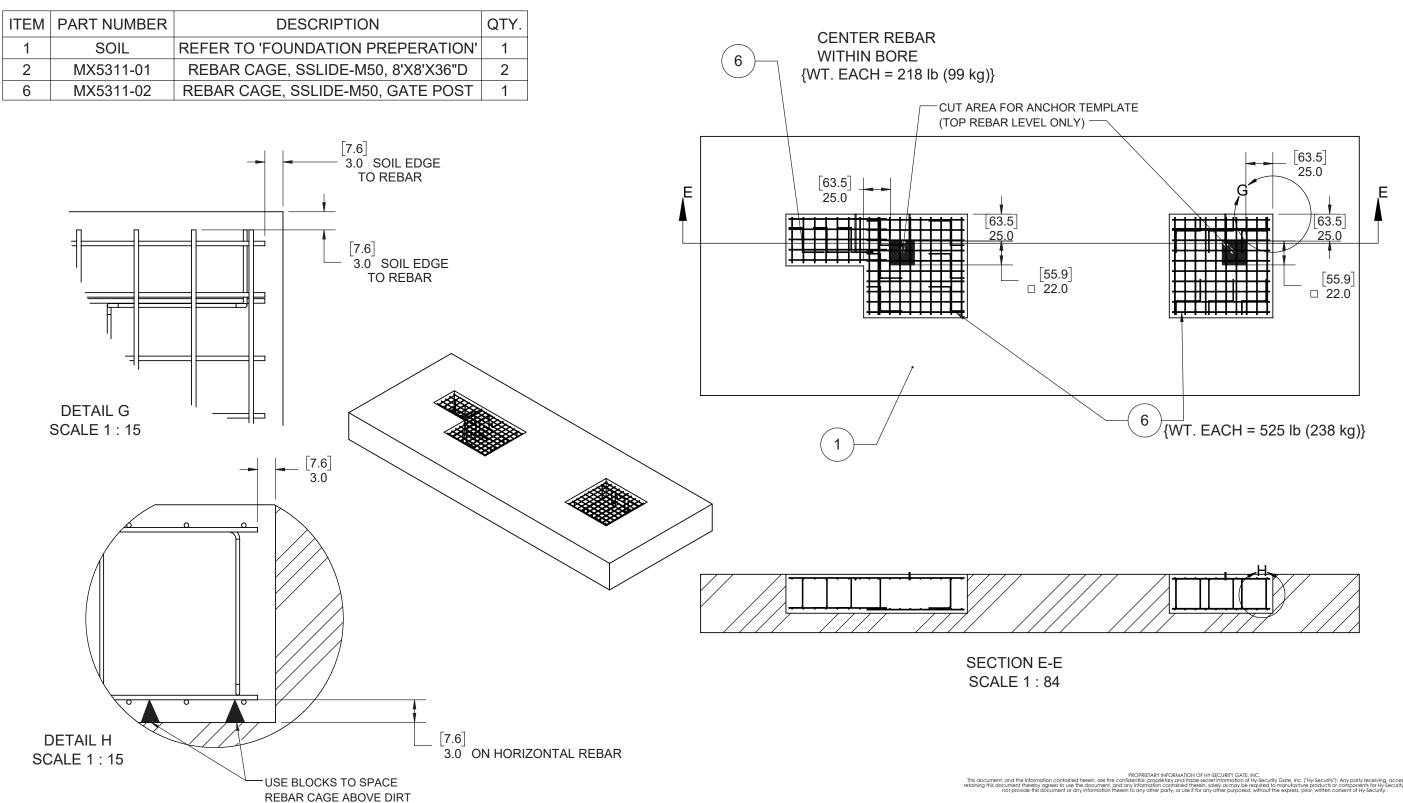
- 1. WIRE TIE CONNECT 50% OF ALL REBAR INTERSECTIONS TO FORM TOP & BOTTOM MAT STRUCTURE.
- 2. NUMBER OF CHAIRS & SHORT SECTIONS VARY PER CLEAR OPENING.
- 3. EVENLY SPACE REBAR CHAIRS AND WIRE TIE LEGS TO BOTTOM MAT.
- 4. PLACE TOP MAT ON TOP OF REBAR CHAIR HEADS. WIRE TIE IN 3 PLACES PER CHAIR.

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Note: Rebar and lumber not included.

StrongSlide M50: Install Rebar

ASSEMBLY, SET AND ALIGN REBAR



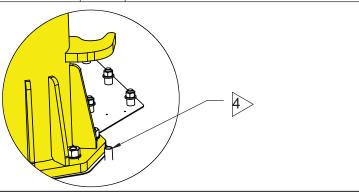
NOTES:

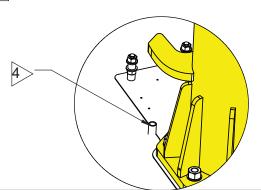
1. REFER TO DRAWING MX5311 FOR REBAR CAGE CONSTRUCTION DETAILS.

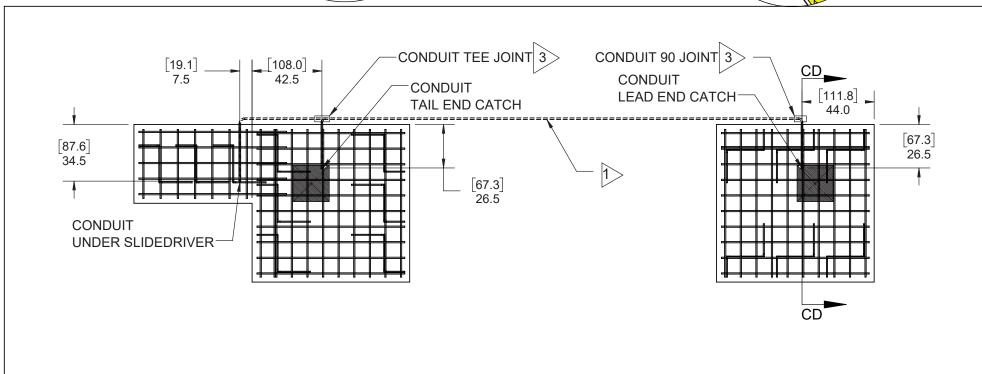
StrongSlide M50: Install Conduit in Rebar

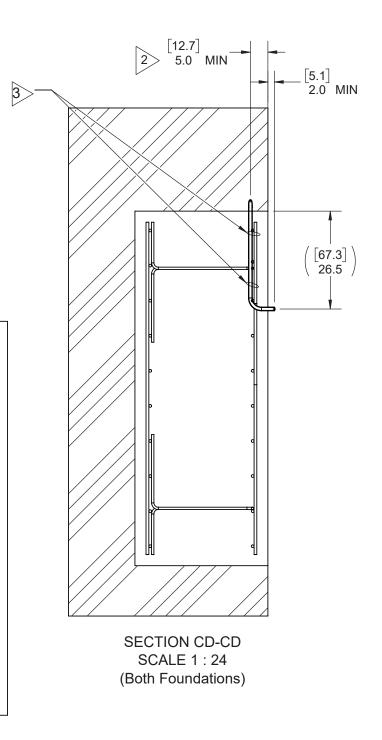
ADD CONDUIT FOR PHOTO EYE, EDGE, OR SIGNAL LIGHT

ITEM	PART NUMBER	DESCRIPTION	QTY.	LOCATION
1	MX5390-XX5	CONDUIT, 3/4", SCH.40	2	ARRESTOR TO EDGE
2	MX5390-XX6	CONDUIT, 3/4", SCH.40	1	SPAN BETWEEN FOUNDATIONS
3	MX5390-XX7	CONDUIT, 3/4", SCH.40	1	OPERATOR TO TAIL END POST







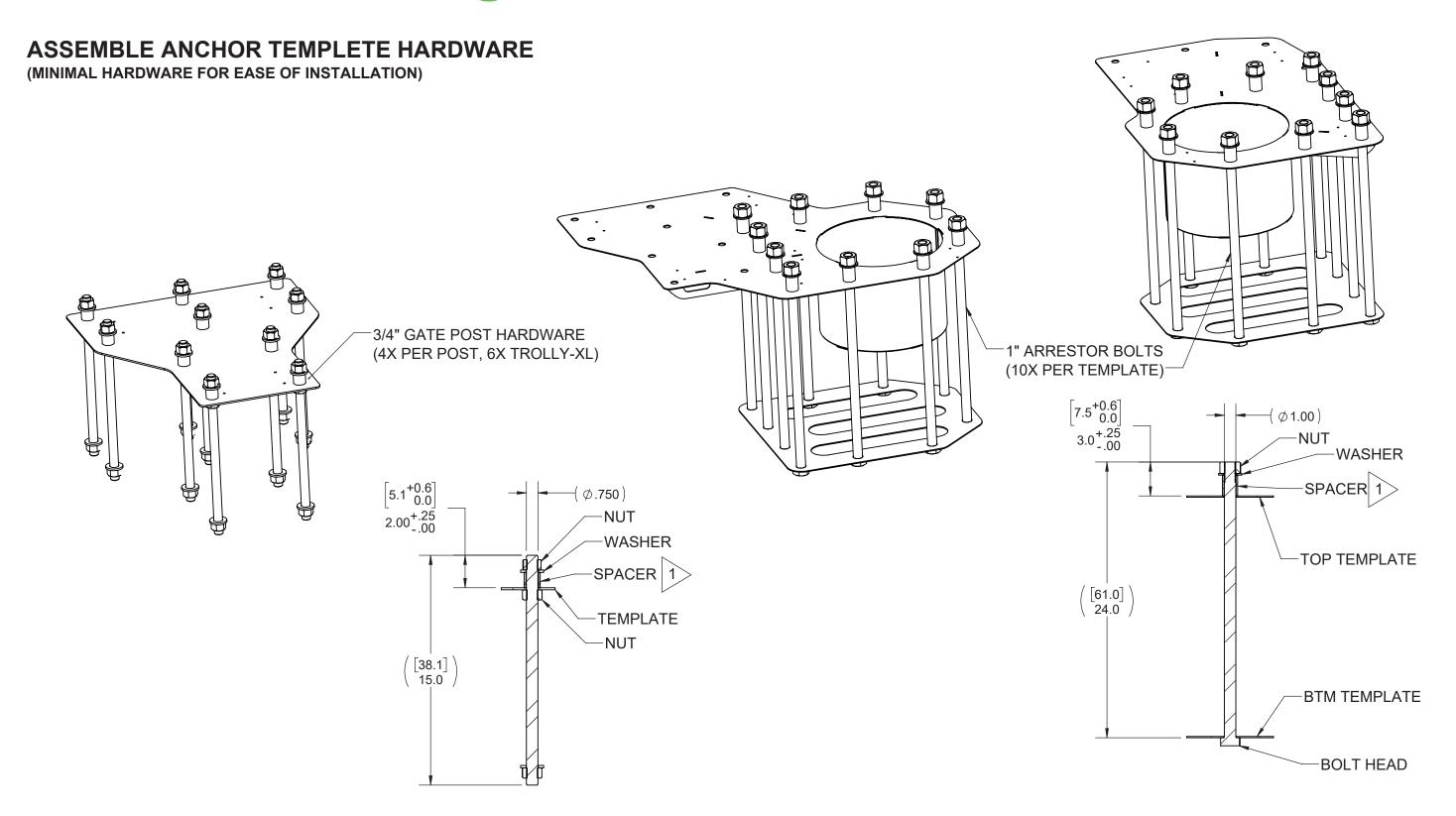


NOTES:

- 1> RUN CONDUIT BETWEEN FOUNDATION BLOCKS JUST OUTSIDE OF THE CONCRETE.
- USE TEE & 90 JOINTS TO CONNECT WITH CONDUIT STUBS RUNNING PERPENDICULAR FROM THE ARRESTOR POSTS.
- POSITION CONDUIT RUNS FROM THE ARRESTOR BELOW THE TOP ROW OF REBAR OR ~ 5.0" BELOW CONCRETE SURFACE. WIRE TIE CONDUIT TO REBAR TO HOLD POISTION DURING CONCRETE POUR.
- REFERENCE: CONDUIT LOCATIONS AT BASE OF THE ARRESTOR POSTS.

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StrongSlide M50: Pre-Assemble Anchors



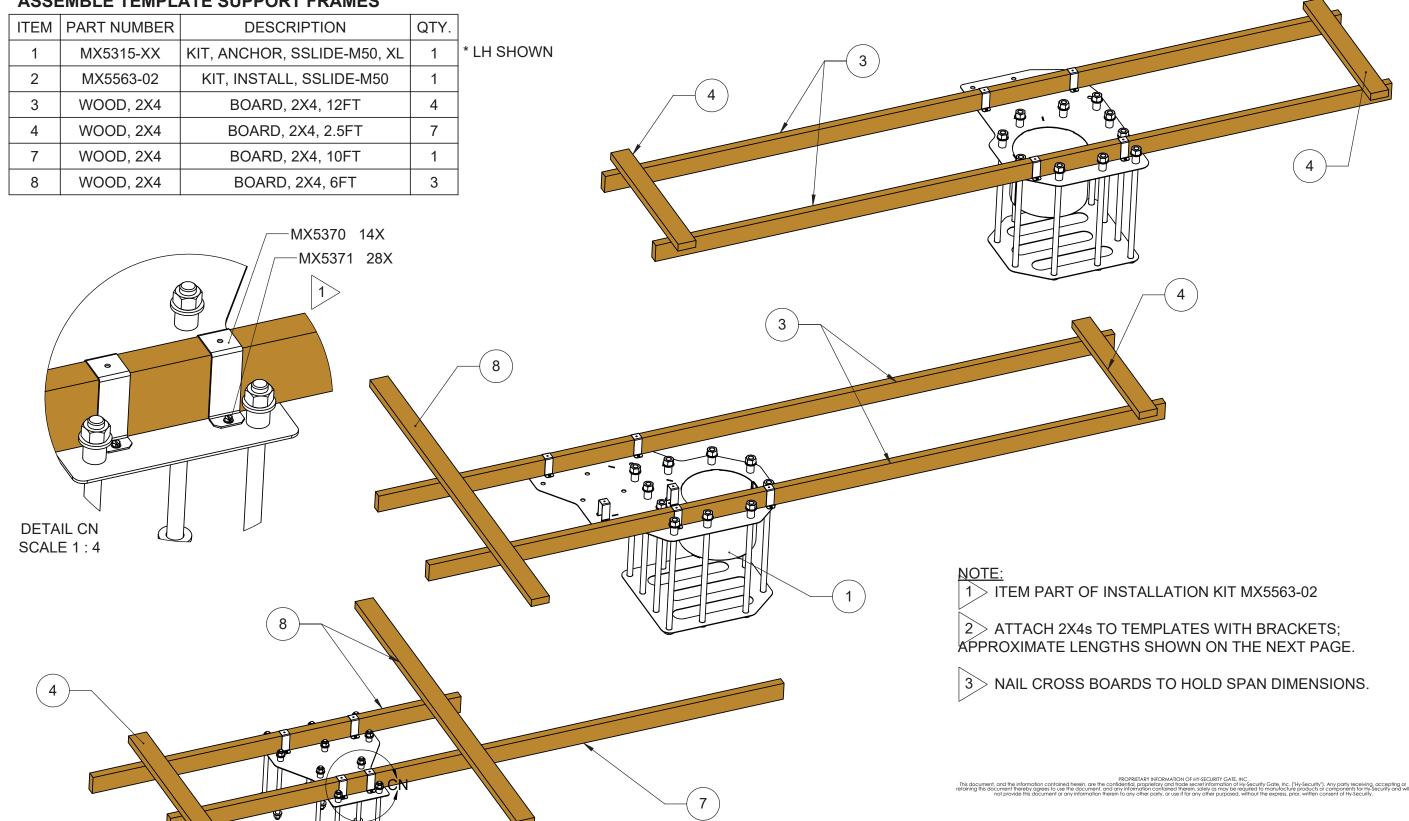
NOTES:

- 1. PLACE SPACERS AT ALL ANCHORS IN POSITIONS AS SHOWN. SPACERS INCLUDED IN KIT MX5563-02.
- 2. SEE ANCHOR ASSEMBLY KIT MX5315-XX FOR HARDWARE DETAILS.

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StrongSlide M50: Assemble Anchor Supports

ASSEMBLE TEMPLATE SUPPORT FRAMES



Note: Rebar and lumber not included.

StrongSlide M50: Locate Anchors

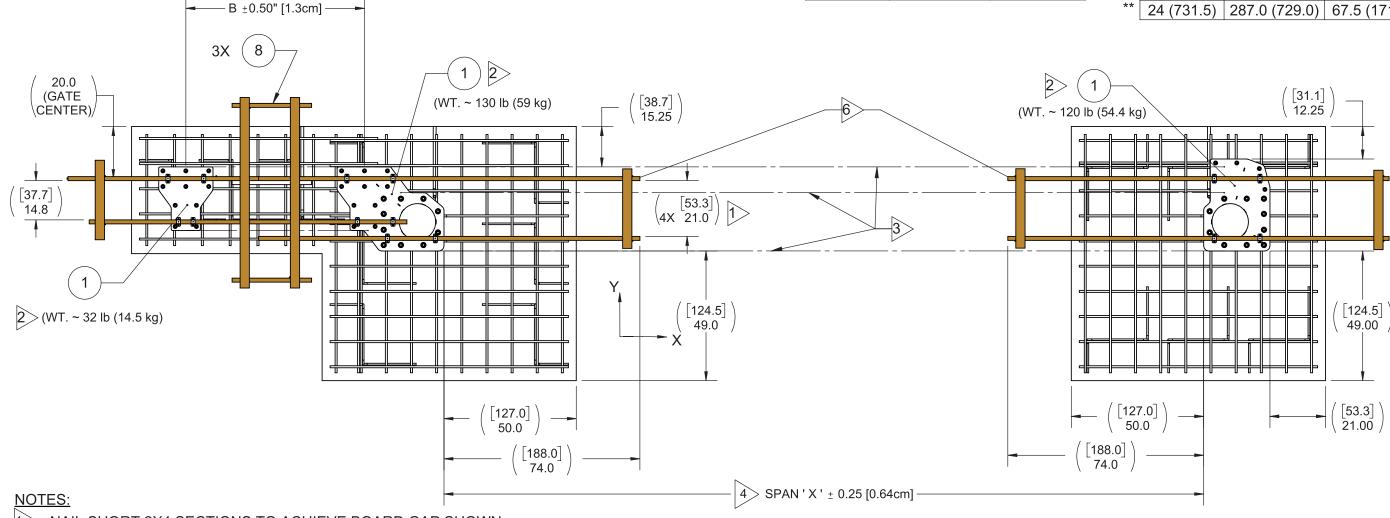
PLACE AND ALIGN TEMPLATE FRAMEWORK WITHIN FOUNDATION & REBAR

ITEM	PART NO.	DESCRIPTION	QTY.	
1	MX5645-XX	KIT, ANCHOR, SSLIDE-M50	1	*
8	WOOD, 2X4	BOARD, 2X4, 2.5FT	3	
15	WOOD, 2X4	BOARD, 2X4, 6FT	3	

* LH SHOWN

CLEAR OPEN	SPAN'X'	В
ft (cm)	inch (cm)	inch (cm)
12 (366)	143.0 (363.2)	40.5 (103)
13 (396)	155.0 (393.7)	40.5 (103)
14 (427)	167.0 (424.2)	40.5 (103)
15 (457)	179.0 (454.7)	40.5 (103)
16 (488)	191.0 (485.1)	40.5 (103)
17 (518)	203.0 (515.6)	40.5 (103)

CLEAR OPEN	SPAN'X'	В
ft (cm)	inch (cm)	inch (cm)
18 (548)	215.0 (546.1)	43.5 (110.5)
19 (579)	227.0 (576.6)	46.0 (117)
20 (610)	239.0 (607.1)	49.5 (125.5)
21 (640)	251.0 (637.5)	52.5 (133.5)
22 (671)	263.0 (668.0)	55.5 (141)
23 (701)	275.0 (698.5)	61.5 (156)
24 (731.5)	287.0 (729.0)	67.5 (171.5)



- 1.> NAIL SHORT 2X4 SECTIONS TO ACHIEVE BOARD GAP SHOWN.
- 2. USE A LEVEL TOOL TO VERIFY ALL TEMPLATE SURFACES ARE LEVEL. SHIM BETWEEN BOARDS AND SOIL TO ACHIEVE LEVEL ACROSS ALL SPANS.
- 3. USE STRING LINE TO ALIGN Y AXIS POINTS BETWEEN TEMPLATES. IF OFF MORE +/- 0.25"(0.64cm), THERE MAY BE POTENTIAL INTERFERENCE ISSUES WITH GATE AND ARRESTOR SYSTEMS.
- 4.> MEASURE DISTANCE AT TEMPLATE EDGE TO VERIFY X AXIS SPAN.
- 5. DRIVE REBAR INTO SOIL NEXT TO 2X4s TO SECURE POSITIONS DURING CONCRETE POUR.
- 6.> THIS 2X4 INDICATES THE CENTER OF THE GATE TRACK WHICH MEASURES 5.25"(13.3mm) WIDE.

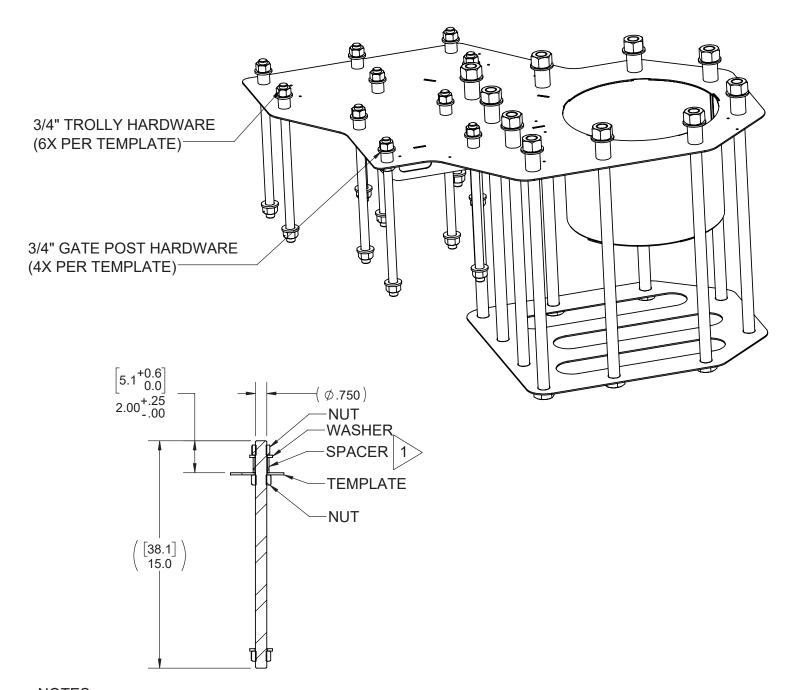
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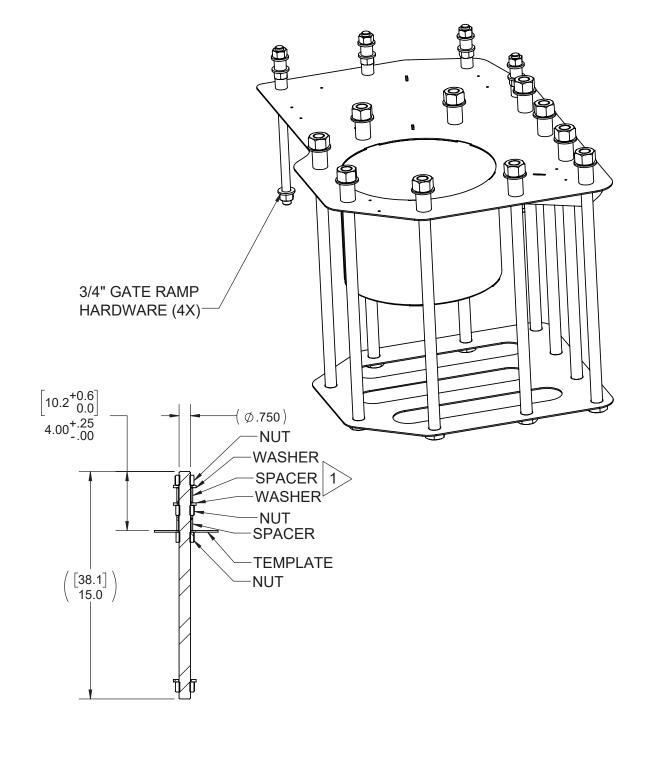
^{**} StrongSlide-M50 to be quoted and tested at 24ft clear opening per ASTM F2656-20

StrongSlide M50: Finish Anchor Assemblies

ASSEMBLE ANCHOR TEMPLETE HARDWARE

- INSTALL REMAINING HARDWARE.
- MAY REQUIRE ADJUSTING REBAR POSITIONS.





NOTES:

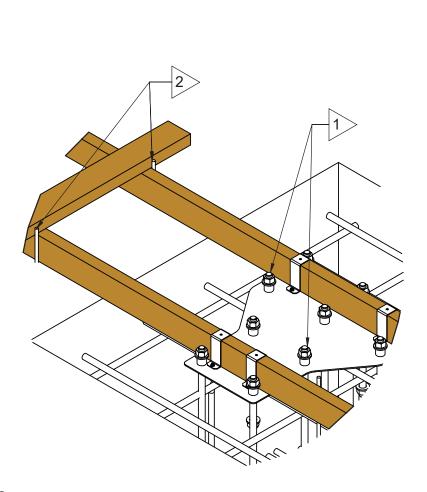
- 1. PLACE SPACERS AT ALL ANCHORS IN POSITIONS AS SHOWN. SPACERS INCLUDED IN KIT MX5563-02.
- 2. SEE ANCHOR ASSEMBLY KIT MX5315-XX FOR HARDWARE DETAILS.

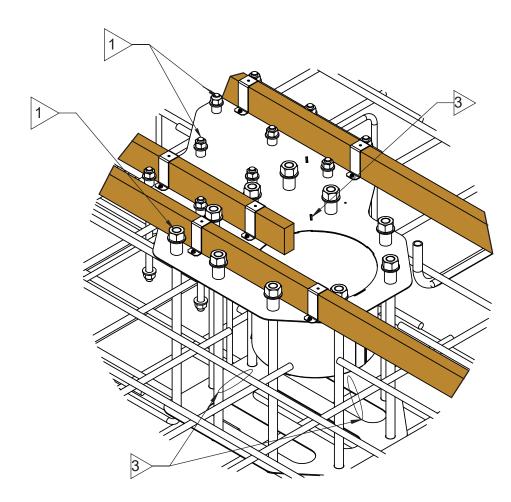
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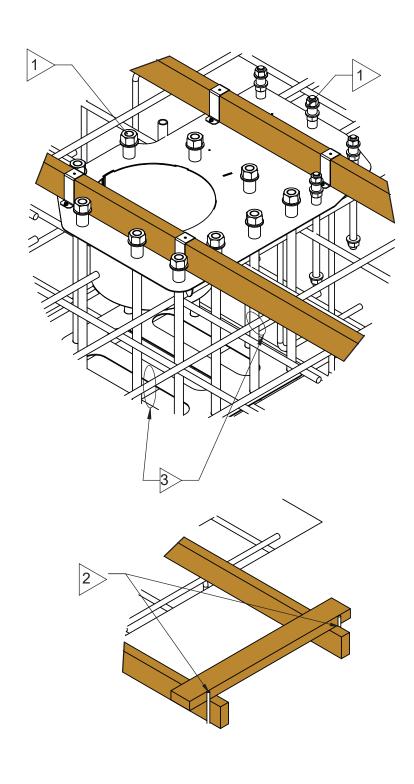
StrongSlide M50: Secure Anchors and Supports

SECURE TEMPLATE ASSEMBLIES TO REBAR

ITEM	PART NUMBER	DESCRIPTION	QTY.
3	Rebar_#3	REBAR, #3(3/8"), 12"L	12





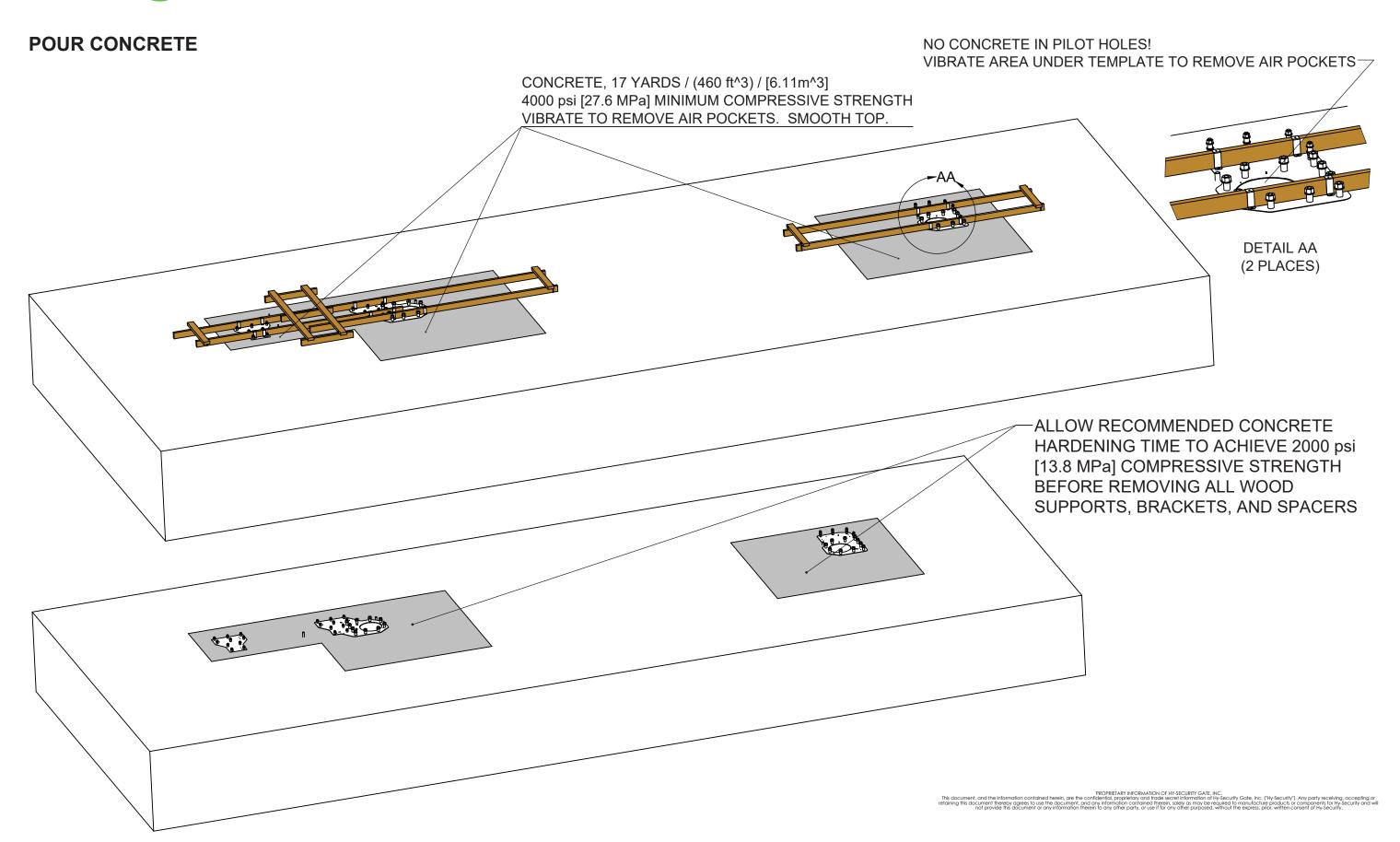


NOTES:

- 1. REFER TO PAGE 5 & 8 TO VERIFY ALL SPACER AND HARDWARE ORIENTATIONS & HEIGHTS.
 - 1. MAY REQUIRE ADJUSTING REBAR POSITIONS.
- 2.> DRIVE REBAR INTO SOIL NEXT TO 2X4s TO SECURE POSITIONS DURING CONCRETE POUR.
- 3. WIRE LOWER ANCHOR TEMPLATE AND UPPER TEMPLATE GUSSETS TO REBAR TO PREVENT LIFTING DURING CONCRETE POUR.

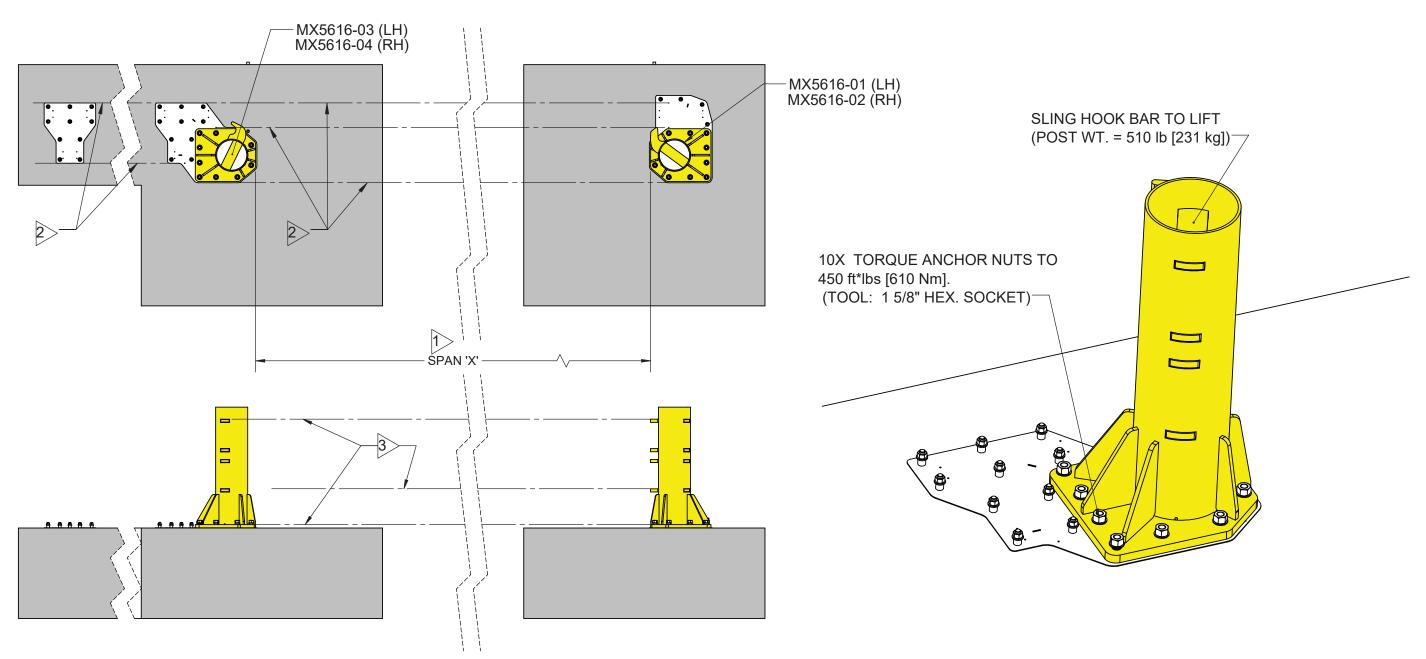
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StrongSlide M50: Pour Concrete



StrongSlide M50: Install Arrestor Posts

SET ARRESTOR POSTS AND ALIGN



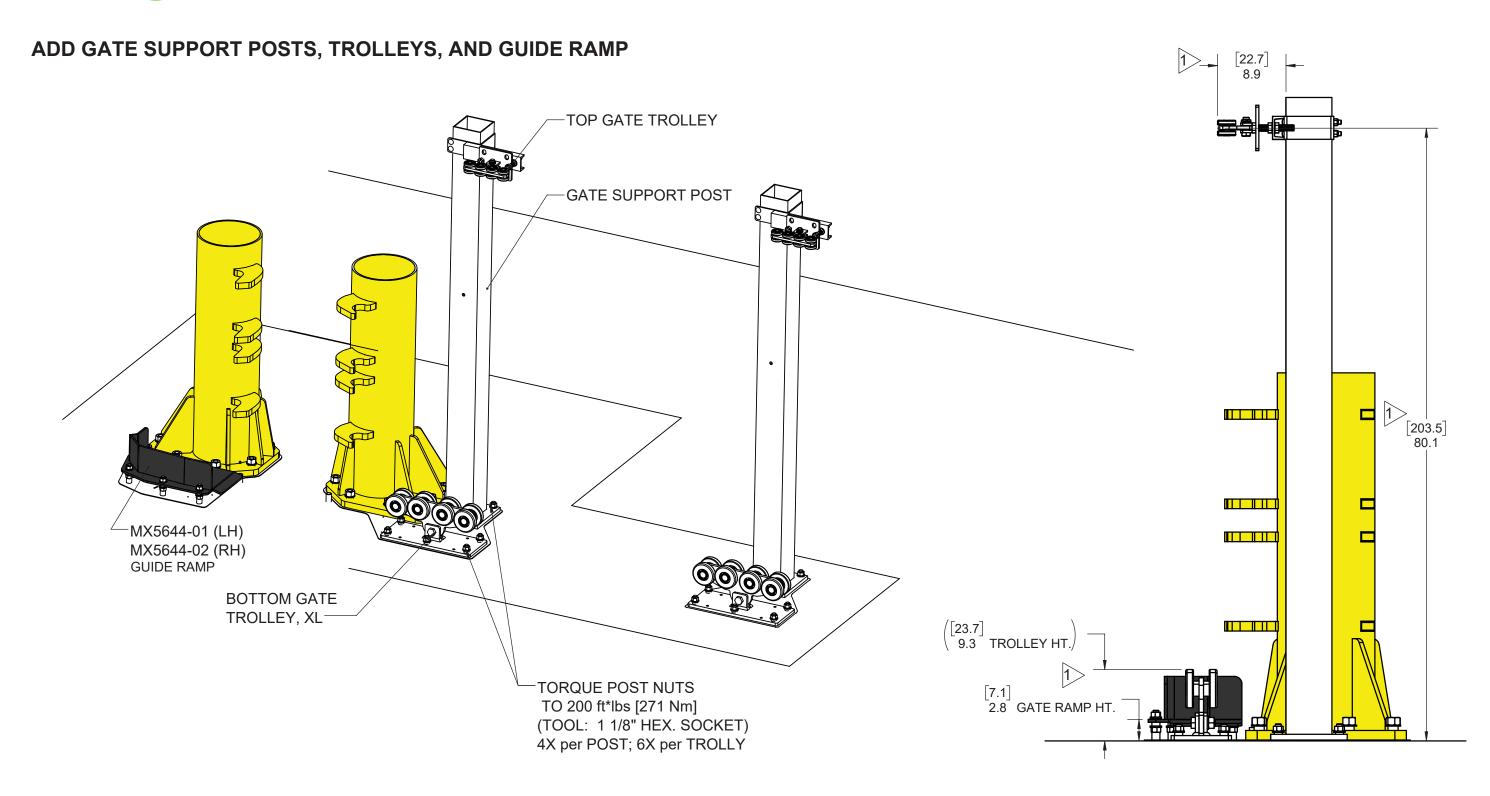
NOTES:

- 1.> VERIFY SPAN DISTANCE WITH VALUE ON PAGE 11
- 2. VERIFY Y-AXIS ALIGNMENT POINTS, IF OFF MORE +/- 0.25" [0.64cm], THERE MAY BE POTENTIAL INTERFERENCE ISSUES WITH GATE AND ARRESTOR SYSTEMS.
- $3.>\,$ USE A LEVEL TOOL TO VERIFY ALL BASEPLATE AND HOOKS ARE LEVEL AND PARALLEL.
 - 1. SHIM BETWEEN BASEPLATE AND TEMPLATES ONLY IF REQUIRED.
 - 2. GROUT ANY GAPS RESULTING FROM THE SHIMMING.

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StrongSlide M50: Install Gate Supports

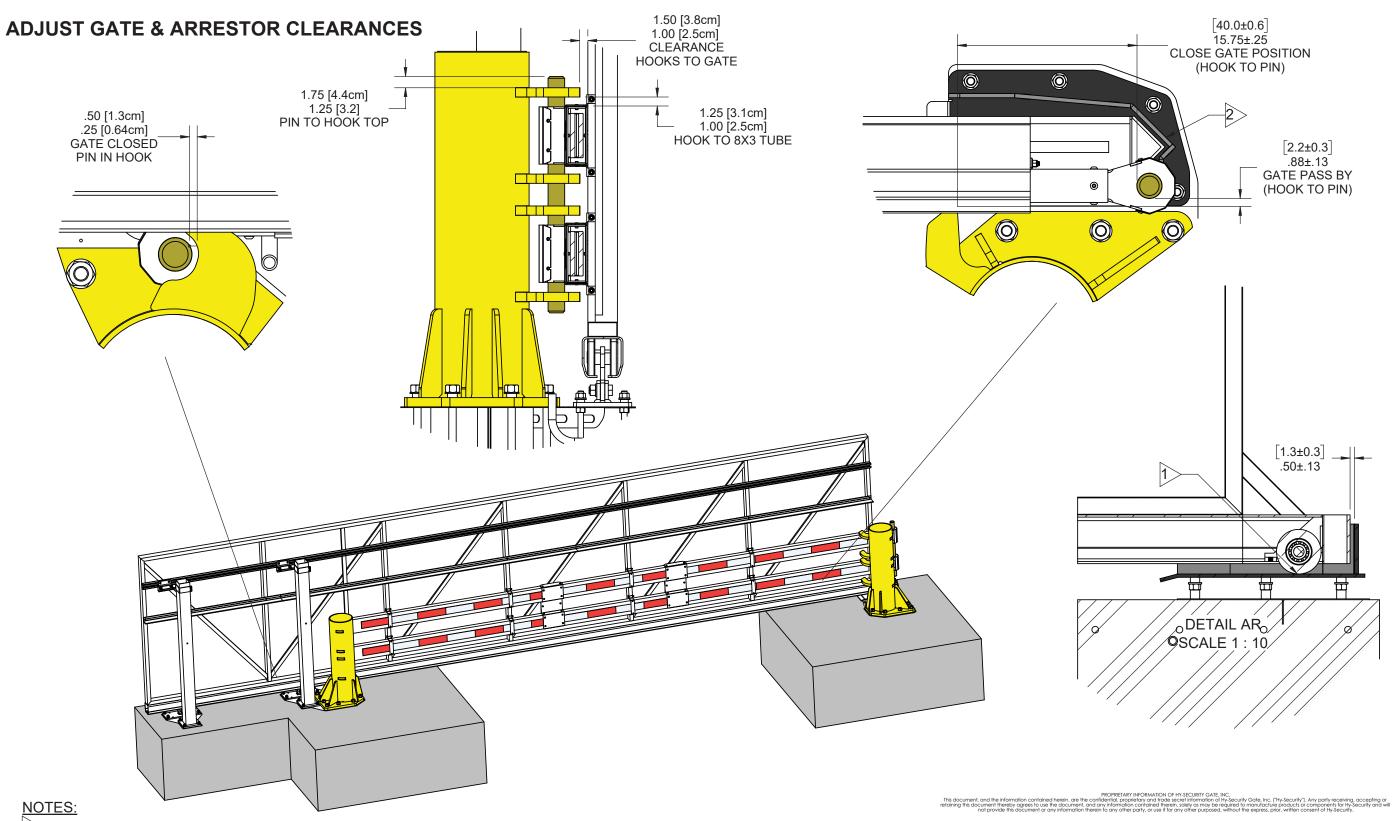


NOTES:

1. DIMENSIONS ARE RECOMMENDED INTIAL SETTINGS. MAY REQUIRE ADJUSTMENT UPON GATE INSTALLATION.

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StrongSlide M50: Adjust Clearances



- 1. ADJUST GATE TROLLEYS UP/DOWN TO ASSURE LIGHT GATE WHEEL CONTACT WITH GATE RAMP.
- 2. ADJUST GATE TROLLEY SIDE-SIDE TO ASSURE CLEARANCE WITH GATE RAMP SIDES.
- 3. REFER TO GATE ASSEMBLY DRAWING MX5462-01-XX FOR TOTAL GATE WEIGHT.

StrongSlide M50: Fill Arrestor Posts

ADD GROUT & CONCRETE TO ARRESTOR POSTS

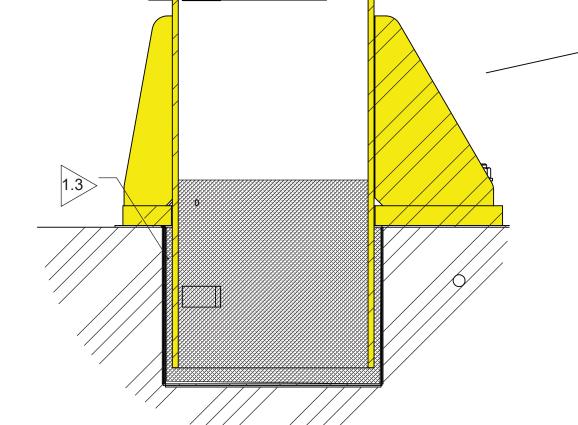
NOTES:

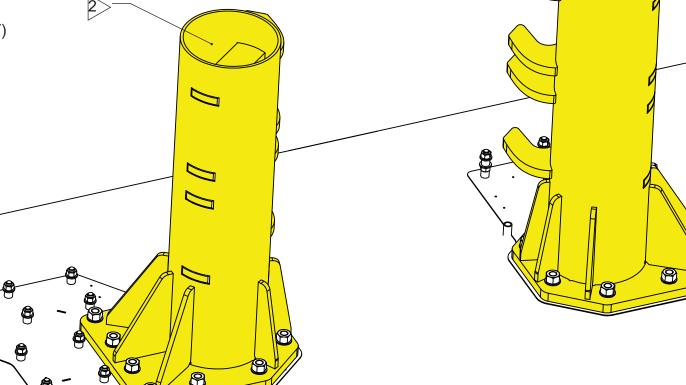
- 1. NON-SHRINK GROUT TO BE MIXED FOR "FLOWABLE" PROPERTIES.
 - 1. MINIMUM COMPRESSION STRENGTH OF 4,000PSI
 - 2. REFERENCE: SAKRETE NON-SHRINK CONSTRUCTION GROUT
 - 1. 50 LBS BAG = 0.45 cu.ft. (1.75 BAGS / {0.78 ft^3} / [0.02 m^3] PER POST)
 - 3> USE VIBRATION TOOL TO MOVE GROUT INTO GAP BETWEEN POST AND TEMPLATE BORE.

FILL POSTS WITH LOW SHRINK CONCRETE.

- 1. MINIMUM COMPRESSION STRENGTH OF 4,000PSI [27.6 MPa]
- 2. REFERENCE: SAKRETE CRACK RESISTANT FIBER REINFORCED CONCRETE MIX
- 1. 50 LBS BAG = 0.38 cu.ft. (8.25 BAGS / {3.14 ft^3} / [0.09 m^3] PER POST)
- 3. CONCRETE CAN BE ADDED BEFORE GROUT IS CURED.
- 4. USE VIBRATION TOOL TO REMOVE ALL AIR POCKETS IN CONCRETE

STEP 1: FILL PILOT AREA WITH GROUT





STEP 2: FILL POSTS WITH CONCRETE.

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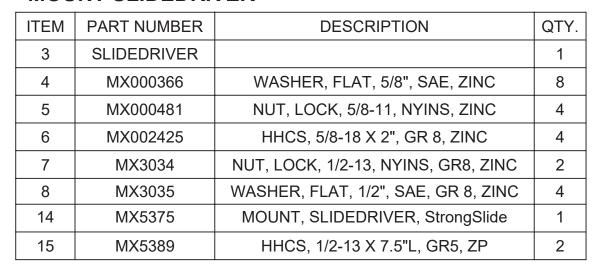
STEP 3: LEVEL AND SMOOTH CONCRTE ON

ARRESTOR POST TOP

StrongSlide M50: Mount SlideDriver

MOUNT SLIDEDRIVER

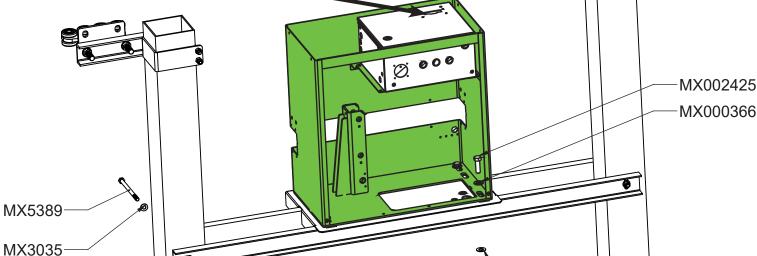
NOTES:



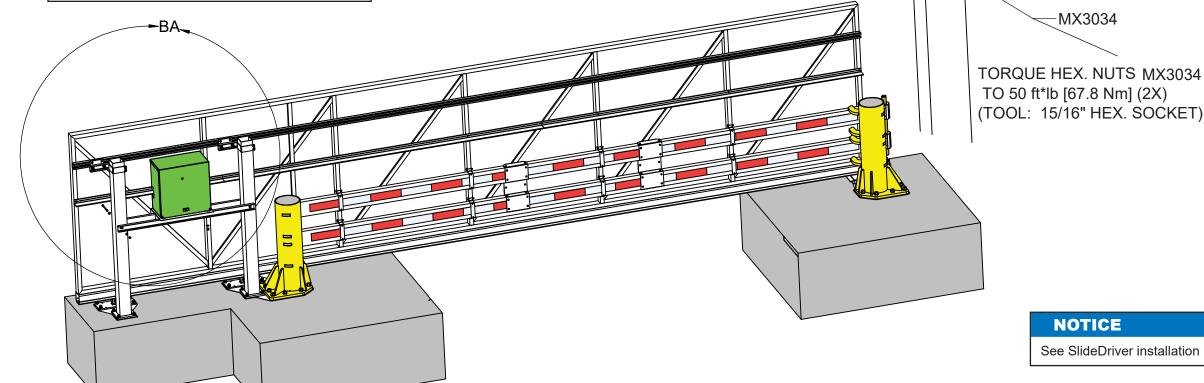
CAUTION SlideDriver operators are heavy. Use proper lifting techniques when installing the SlideDriver operator.

To avoid interference with the upper trolley track, disassemble the lid hinge on the electrical box for full access.

NOTICE



DANGER Ensure all entrapment zones are protected per UL 325, ASTM F2200, and local codes and standards.



NOTICE

MX3035

-MX3034

See SlideDriver installation instructions to complete SlideDriver installation.

-MX000366 -MX000481

TORQUE HEX. NUTS MX000481

TO 100 ft*lbs [136 Nm] (5X)

(TOOL: 15/16" HEX. SOCKET)

- ATTACH SLIDEDRIVER MOUNTING PLATFORM TO POSTS WITH 1/2" HARDWARE.
- ATTACH SLIIDEDRIVER OPERATOR TO PLATFROM WITH 5/8" HARDWARE.
- POSITION SLIDEDRIVER RELATIVE TO GATE AND DRIVE RAIL PER OPERATOR MANUAL. SPEC.

StrongSlide M50: Mount Panels and Signs

MOUNT SAFETY PANELS AND MARKERS 8X MX001265 QTY. PART NO. **DESCRIPTION** MX5615-MX5464 PANEL, ACCESS RESTRICT 1 2 23 MX5615 PANEL, PINCH PROTECT, M50 MX5486 8 24 HHDS, 1/4" X 3/4"L, SS MX001265 16 26 WIRE TIE, 24.2" X 0.30", BLACK 27 MX5592 MARKER, END OF ROADWAY, MUTCD 8X MX001265 MX5615 -MX5486 2X -MX5592 MX5464 4X MX5486

^{1.} ATTACH ROAD MARKER(S) TO PUBLIC SIDE OF GATE. 1 PER GATE < 16'; 2 PER GATE > = 16' [488cm].

ADD PINCH PROTECT PANELS TO LOCATIONS SHOWN.

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