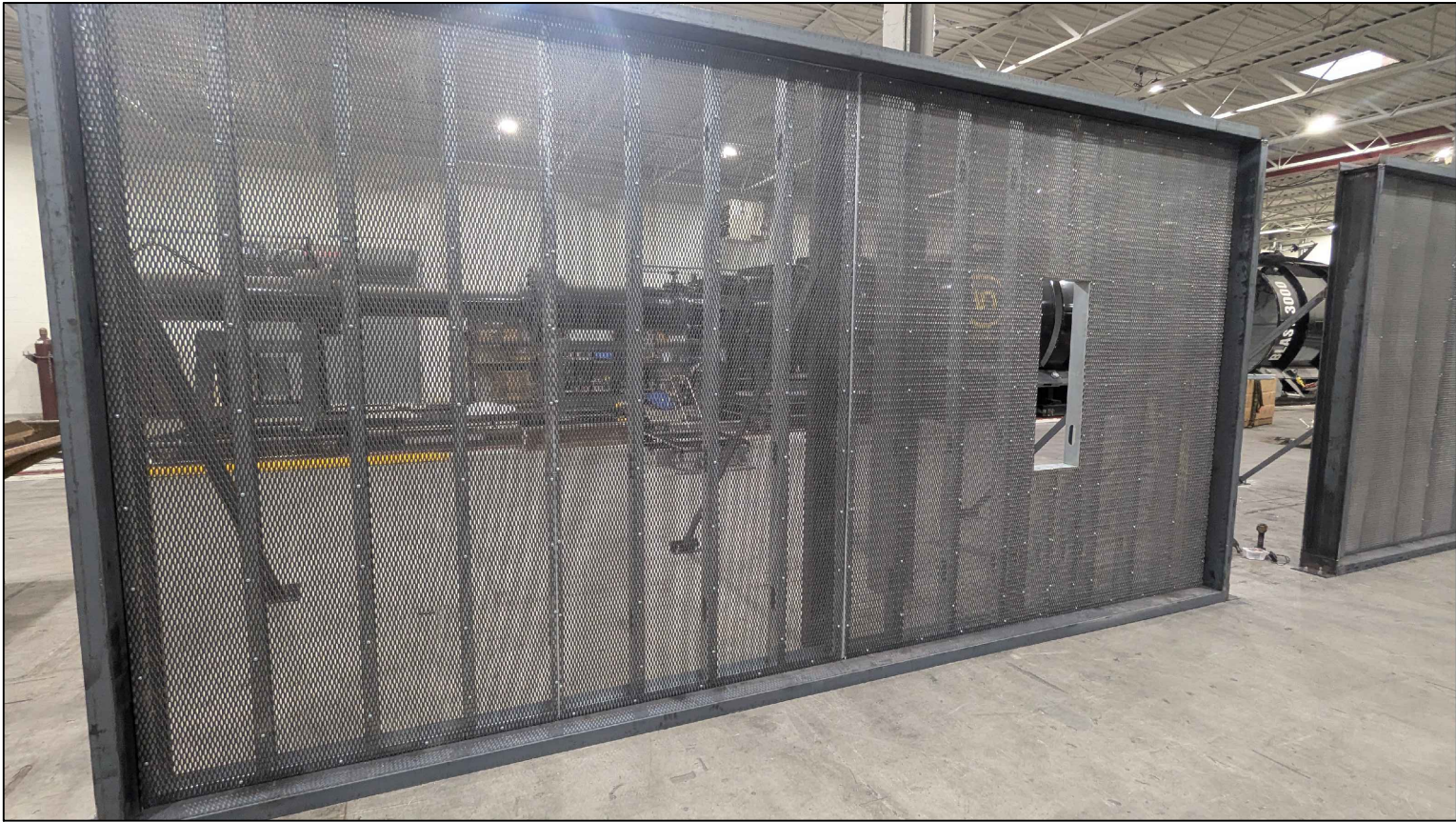




CLARKDIETRICH FORCED ENTRY BARRIER MESH TEST PROGRAM PER ASTM F2322

Intertek-ATI (Architectural Testing)
Blast & Ballistics Testing (Scott Gladfelter)
Project: **333748R0**
130 Derry Court, York, PA 17406

Test dates March 9 - 13, 2026 Revision 4/28/2026 - JME

Material List		Sourced
1	600S162-54 - 8ft- 0in long - 30 pcs	VIE
2	600T162-54 - 8ft- 0in long - 10 pcs	VIE
3	600S162-97 - 8ft- 0in long - 30 pcs	VIE
4	600T162-97 - 8ft- 0in long - 10 pcs	VIE
5	150U50-54 – 8ft-0in long – 16 pcs	VIE
6	LS545 – Clips -1 bucket (200 pcs)	ClipXpress
7	9Ga. Security Mesh – To be added to this order	OK – Vendor
13Ga. Security Mesh Already at the lab (do not order)		Lab

INSTALLATION INSTRUCTIONS (FEBM) ASSEMBLY CONSTRUCTION

FRAMING :

For Grade 4:

- Track: 600T162-54 (50ksi, CP60)
- Stud: 600S162-54 (50ksi, CP60) (Punched)
- Space 16 inches on center for Grade 4

For Grade 3:

- Track: 600T162-97 (50ksi, CP60)
- Stud: 600S162-97 (50ksi, CP60) (Punched)
- Space 12 inches on center for Grade 3

SCREWS:

For Grade 4:

- 1/4" Dia.-20 - 1-1/2 HEX TEK #5 - CFS Frame-to-structure
- #10-16 - 5/8" MTM Self Drilling screws - Stud-to-Track
- #10-12 - 3/4" Modified Truss Head Screws - Mesh-to-Stud/Track
- #10-16 - 1-1/2" Drilling Drywall Screw

For Grade 3:

- 1/4" Dia.-20 - 1-1/2 HEX TEK #5 - CFS Frame-to-structure
- #10-18 - 3/4" MTM Self Drilling screws - Stud-to-Track
- #10-16 - 1-1/4" Modified Truss Head Screws - Mesh-to-Stud/Track
- #10-16 - 1-1/2" Drilling Drywall Screw

FORCED ENTRY BARRIER MESH:

- 9 Ga Prototype Mesh (TBR - Grade 3)
- 13 Ga Prototype Mesh (TBR - Grade 4)

LAYOUT OF MESH

- FEBM panels may be installed with diamonds running in either direction. Barrier Mesh is produced to industry standards (EMMA) of (up to) -0 + 1/4" per foot tolerance in either direction of the mesh. Therefore, the mesh may not be perfectly square.
- FEBM's joints shall join by either staggering or butt joint diamonds.
- If the previous joining methods can't be employed, ClarkDietrich allows overlapping the mesh panel's joints, with proper fastening or wire-tying between framing at recommended spacing.

ATTACHMENT OF BARRIER MESH

- Use flat-head or truss-head screws with 7/16" diameter head size, to secure the FEBM panels to the studs at an even, or level plane. Modified Truss-Head Screws
- Steel stud fasteners shall be minimum 1-1/4" long flat head, bugle type, self-tapping screw long enough to penetrate the steel stud at least 3/8".
- Space the screws at 10" on-center vertically on framing members.
- Cut the FEBM with a hand held circular saw with abrasive or carbide tip blade; hand-held grinder with cutting wheel, cutting torch or heavy duty snips can be used.

GYPSUM BOARD FINISHING

Attached Gyp board to studs on top of FEBM system to cover and finish the wall with desired finish and decorating system per ASTM C840.



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West Chester, OH 45069
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Corporate Approvals		Date	Date	Date	Date
Greg Ralph - VP of Business Development					
Jimmy Rickett - VP of Operations					
Mary Albright - Manufacturing Engineering Mgr					
Ryan Reed - Category Manager-Core					

Revisions		3/17 Grade Achieved	4/28 - Rev. Screws used by Grade						
1									
2									
3									
4									
5									
6									
7									

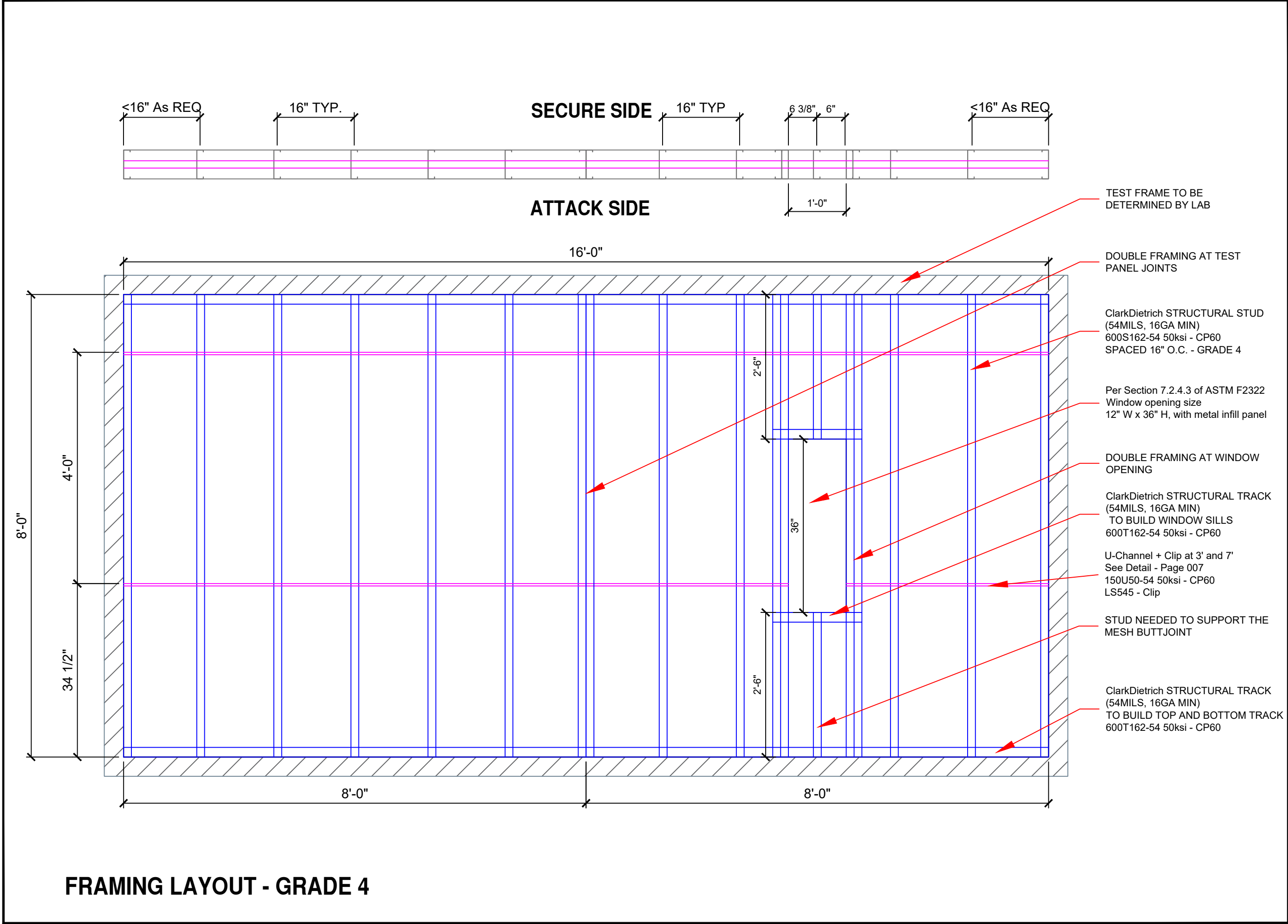
TOLERANCE AS BELOW UNLESS OTHERWISE NOTED	
4 PLACE DECIMAL	+/- .001
3 PLACE DECIMAL	+/- .005
2 PLACE DECIMAL	+/- .015
FRACTIONAL	1/16
ANGULAR	+/- 2°

Drawn By: JME	Reviewed By: CKL
Issue Date: 04/28/2026	Project No.: 333748R0

Sheet Title Force Entry BM Frame Layout

Sheet No. 000

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FRAMING LAYOUT - GRADE 4



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Corporate Approvals	
Date	
Greg Ralph - VP of Business Development	
Date	
Timmy Rickett - VP of Operations	
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Mary Albright - Manufacturing Engineering Mgr	
Date	
Ryan Reed - Category Manager-Core	

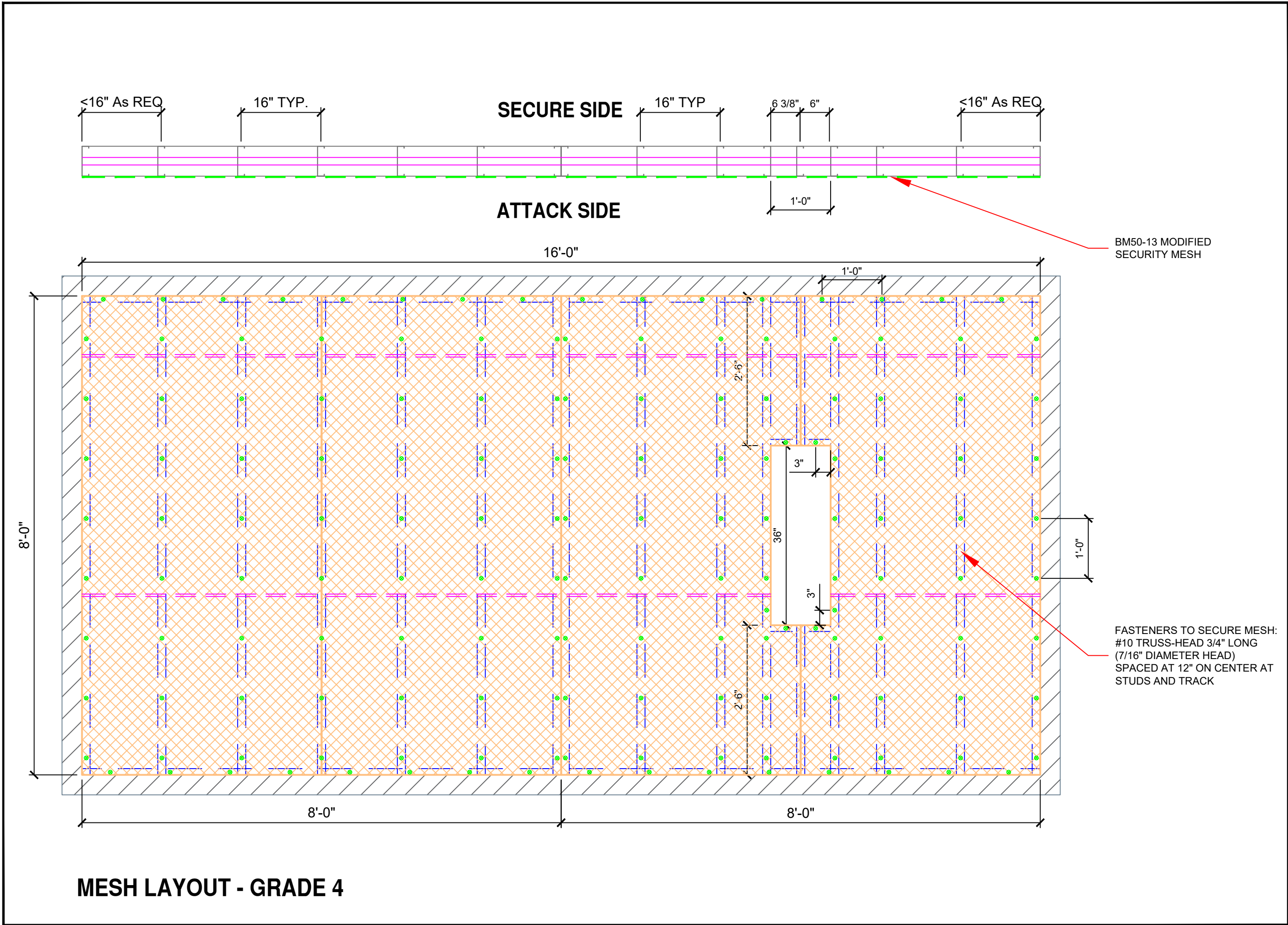
Revisions	
1	4/28 Rev Lowest CRC Dim
2	4/28 Rev Window Stud Spacing
3	
4	
5	
6	
7	
8	

TOLERANCE AS BELOW UNLESS OTHERWISE NOTED	
4 PLACE DECIMAL	+/- .001
3 PLACE DECIMAL	+/- .005
2 PLACE DECIMAL	+/- .015
FRACTIONAL	1/16
ANGULAR	+/- 2°

Drawn By:	Reviewed By:
JME	CKL
Issue Date:	Project No.:
04/28/2026	333748R0

Sheet Title
Force Entry BM Frame Layout
Sheet No.
001

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Timmy Rickett - VP of Operations	Date
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Ryan Reed - Category Manager-Core	Date

Revisions	
1	3/17 Window Screws
2	4/28 Window Frame Spacing
3	4/28 Mesh-Frame Screw Length
4	
5	
6	
7	

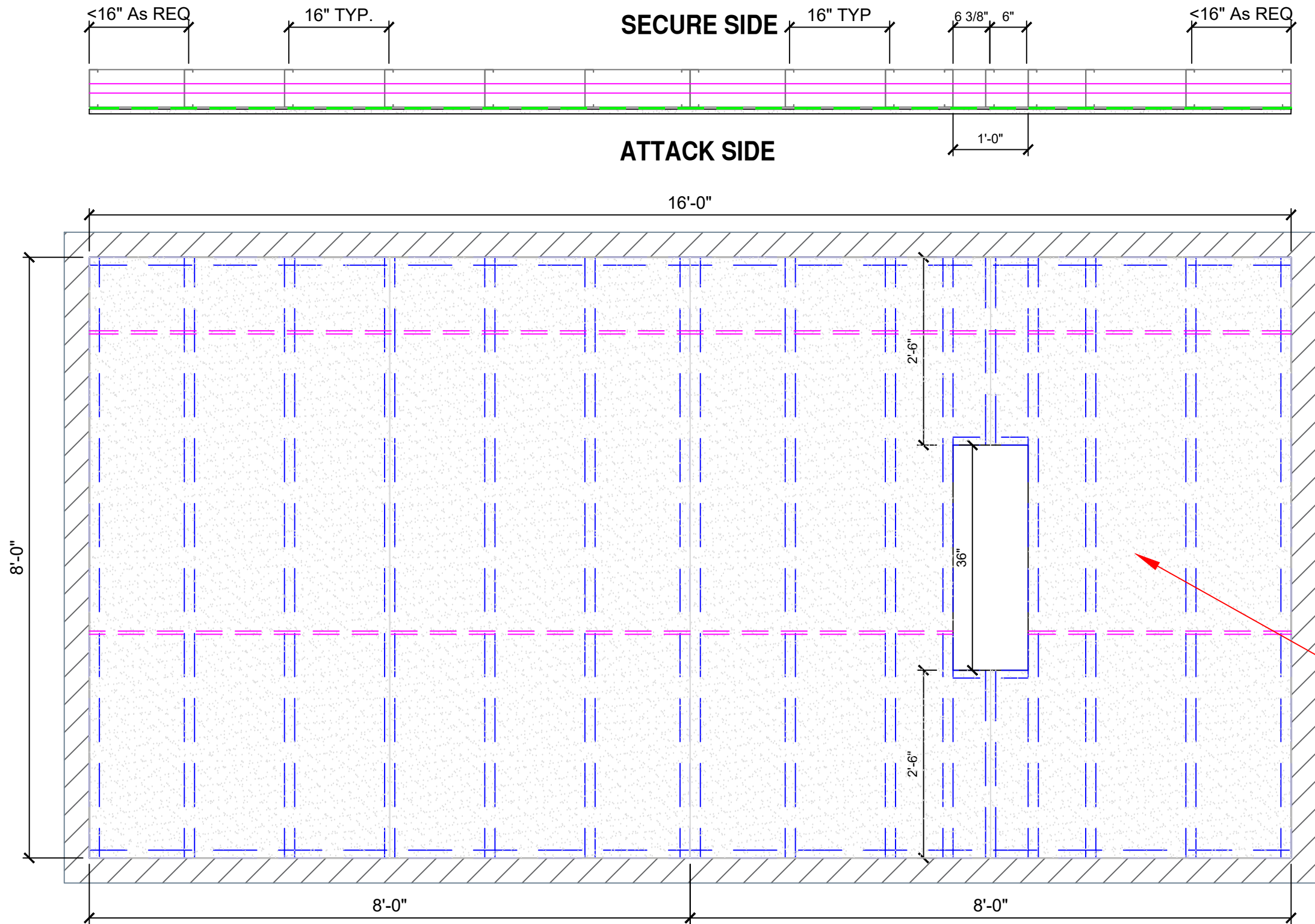
TOLERANCE AS BELOW UNLESS OTHERWISE NOTED	
4 PLACE DECIMAL	+/- .001
3 PLACE DECIMAL	+/- .005
2 PLACE DECIMAL	+/- .015
FRACTIONAL	1/16
ANGULAR	+/- 2°

Drawn By: JME	Reviewed By: CKL
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Sheet Title	
Force Entry BM Mesh Layout	

Sheet No.	
002	

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GYP BOARD LAYOUT - GRADE 4



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Mary Albright - Manufacturing Engineering Mgr	Date
Ryan Reed - Category Manager-Core	Date

Revisions	
1	4/28 Window Frame Spacing
2	
3	
4	
5	
6	
7	
8	

TOLERANCE AS BELOW UNLESS OTHERWISE NOTED

4 PLACE DECIMAL +/-. .001

3 PLACE DECIMAL +/-. .005

2 PLACE DECIMAL +/-. .015

FRACTIONAL 1/16

ANGULAR +/-. 2°

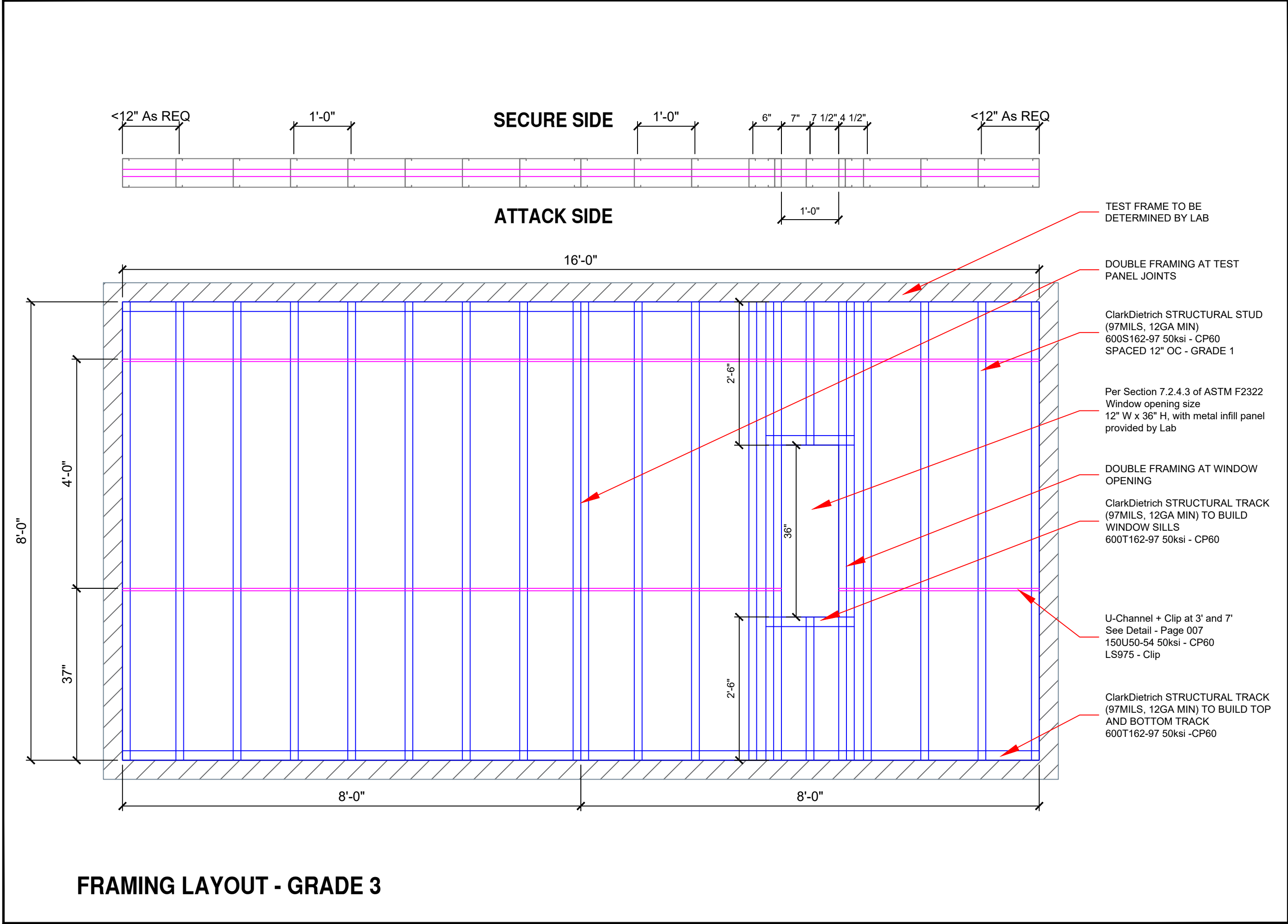
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Reviewed By: CKL
Project No.: 333748R0

Sheet Title
Force Entry BM
Mesh Layout

Sheet No.
003

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FRAMING LAYOUT - GRADE 3



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Corporate Approvals	
Date	
Date	
Date	
Date	
Greg Ralph - VP of Business Development	
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Mary Albright - Manufacturing Engineering Mgr	
Ryan Reed - Category Manager-Core	

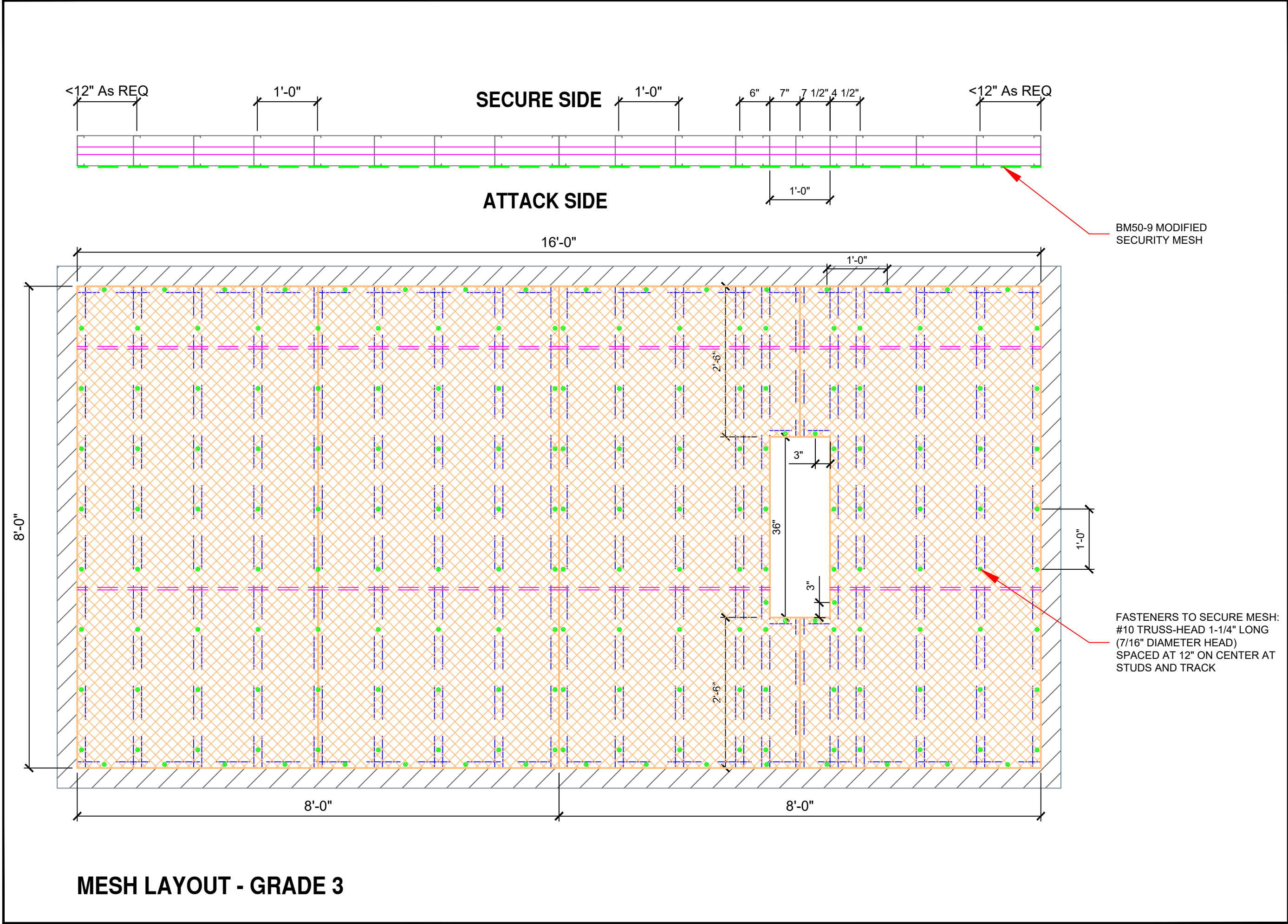
Revisions	
1	3/17 Grade Achieved
2	4/28 Window Frame Spacing
3	4/28 CRC Height identified
4	
5	
6	
7	
8	

TOLERANCE AS BELOW UNLESS OTHERWISE NOTED	
4 PLACE DECIMAL	+/- .001
3 PLACE DECIMAL	+/- .005
2 PLACE DECIMAL	+/- .015
FRACTIONAL	1/16
ANGULAR	+/- 2°

Drawn By: JME	Reviewed By: CKL
Issue Date: 04/28/2026	Project No.: 333748R0

Sheet Title
Force Entry BM Frame Layout
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004

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Ryan Reed - Category Manager-Core	Date

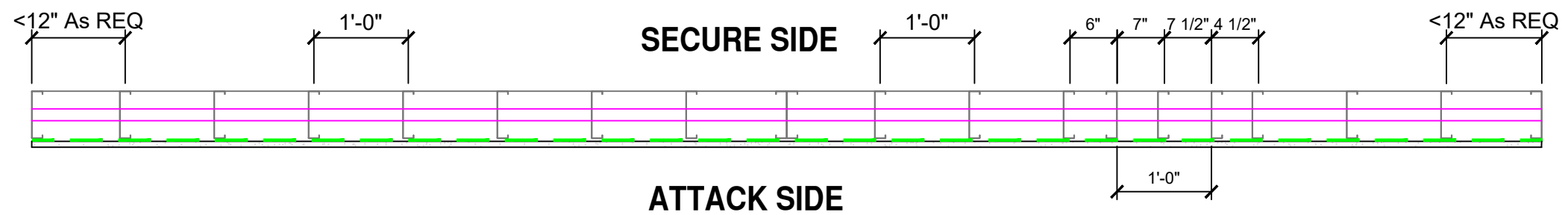
Revisions	
1	3/17 Grade Achieved
2	3/17 Window screws
3	4/28 Window Frame Spacing
4	4/28 Mesh to Stud Screw correction
5	
6	
7	

TOLERANCE AS BELOW UNLESS OTHERWISE NOTED	
4 PLACE DECIMAL	+/- .001
3 PLACE DECIMAL	+/- .005
2 PLACE DECIMAL	+/- .015
FRACTIONAL	1/16
ANGULAR	+/- 2°

Drawn By: JME	Reviewed By: CKL
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Sheet Title	
Force Entry BM Mesh Layout	
Sheet No.	
005	

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NOTE:
Special fasteners will have to be used
to attached Gyp board on 97Mil studs

RECOMMENDED SCREW SPACING
VERTICAL SPACING OF SCREWS
TO FRAMING AT 12" O.C.

(SPACING MAY BE INCREASED
BASED ON MESH DIAMOND
LAYOUT)

#10 TRUSS HEAD SCREW
3/4" LONG - GRADE 4

#10 TRUSS-HEAD SCREW
1-1/4" LONG - GRADE 3

SECURE SIDE

ATTACK SIDE

ClarkDietrich CEILING TRACK
GRADE 3
(97MILS, 12GA MIN)
600T162-97 50ksi - CP60

GRADE 4
(54MILS, 16GA MIN)
600T200-54 50ksi - CP60

BARRIER SCREW
7/16" DIA. HEAD

GYPSUM WALLBOARD

ClarkDietrich STRUCTURAL STUD

(97MILS, 12GA MIN)
600S162-97 50ksi - CP60
SPACED 12" OC - GRADE 3

(54MILS, 16GA MIN)
600S162-54 50ksi - CP60
SPACED 16" OC - GRADE 4

BARRIER MESH

ClarkDietrich FLOOR TRACK
GRADE 3
(97MILS, 12GA MIN)
600T162-97 50ksi - CP60

GRADE 4
(54MILS, 16GA MIN)
600T162-54 50ksi - CP60

600S162-54 OR -97

DOUBLE STICH
STUD-TO-TRACK CONNECTION

600T162-54 OR -97

TYPICAL CRC SPLICE:
PIECE OF CRC, 12" LONG, INVERTED
INSTALL OVER CENTER OF SPLICE
USING (3) #10-16 SCREWS ON EACH
SIDE OF SPLICE

"OFF MODULE" STUD, JAMB OR POST

TYPICAL CRC TERMINATION:
EXTEND CHANNEL INTO PUNCH-OUT
ATTACH W/ CONNECTOR
L545 54MIL (16ga) USING (4) #10-16 SCREWS
or #10-18 SCREWS (to connect 97MIL STUDS)

ClarkDietrich SwiftClips™
LS545-54mi(16GA) AT EACH STUD ATTACHED TO CRC
USING (4) #10-18 SCREWS

ClarkDietrich 150U50-54 (50ksi) CRC

ClarkDietrich JAMB,
see detail below

ClarkDietrich
BUILDING SYSTEM
SUPPORT CLIP W/ SCREWS
AS REQUIRED

JAMB BUILT - TRACK
600S162-54 OR -97
600T162-54 OR -97
600S162-54 OR -97

TOP VIEW



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Ryan Reed - Category Manager-Core	Date

Revisions	
3/17 - Result to Grades (section)	1
4/28 Notes to match other sheets	2
	3
	4
	5
	6
	7

TOLERANCE AS BELOW UNLESS OTHERWISE NOTED	
4 PLACE DECIMAL	+/- .001
3 PLACE DECIMAL	+/- .005
2 PLACE DECIMAL	+/- .015
FRACTIONAL	1/16
ANGULAR	+/- 2°

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Sheet Title
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Mesh Layout

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007

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