NOTE:
COMMERCIAL TILE GRID (SUPPLIED BY OTHERS) 2'X2' OR 2'X4'. GRID MUST BE SUPPORTED EVERY 4' IN EACH DIRECTION. TROY BOARD NOMINALLY 2'X8'6" MUST BE SINGLE SAW CUT TO FIT GRID.

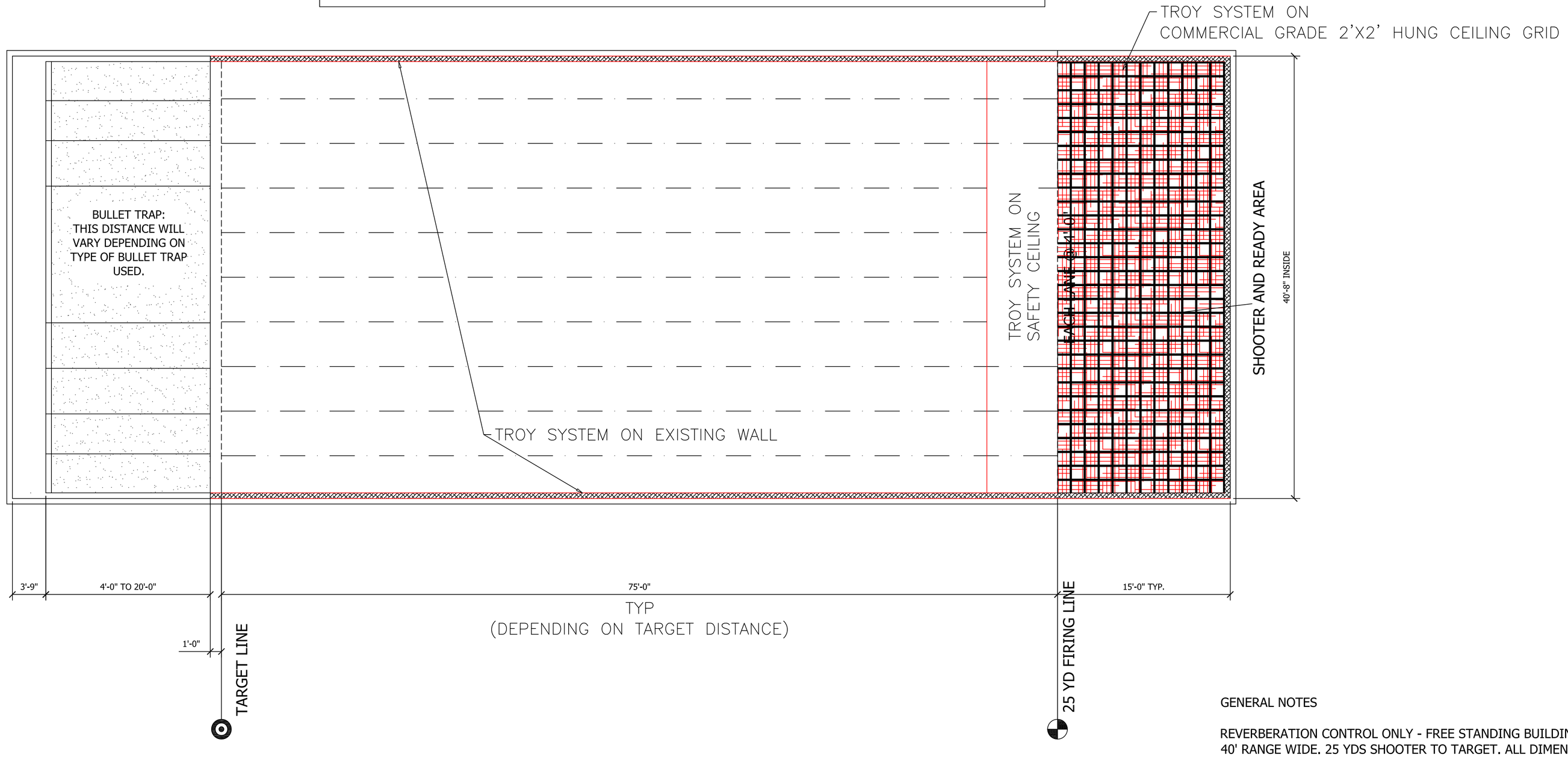
TROY SYSTEM™
MATERIAL IN THE FIELD MANAGEMENT INSTRUCTIONS

DELIVERY INSTRUCTIONS
1. Customers representative is responsible for receiving material, and shall sign Troy Acoustics Delivery Ticket, confirm and inventory the material on trailer is equal to that listed on the bill of lading and Troy Acoustics Delivery Ticket and confirm the material is received intact and undamaged in full quantity before material is grounded at delivery site. Customer shall fax a signed Delivery Ticket and signed Bill or Material immediately to 818-376-8495 upon receipt of shipment to delivery site.
2. If materials are delivered damaged or short of full Delivery Ticket and bill of lading, the customer representative shall immediately contact Troy Acoustics Operations personnel before unloading material, confirm error of shipment and obtain signature of delivery truck operator confirming quantity of damaged and/or missing material, and take pictures of material damaged.
3. If materials are site grounded and later found to be damaged or short of bill of lading count, replacement material and replacement delivery costs shall be the responsibility of others or Customer.

TRUCK UNLOADING
1. Do not unload Troy Board material by hand from truck.
2. When unloading or moving pallets of materials with forklift, take care that the forks do not extend past the width of the pallet skid being lifted so as to not scrape or pierce material bundled or stacked on adjacent pallets.
3. Use extreme caution to not hit, scrape or dent the sides or corners of the Troy Board as this damages the material surface and finished appearance.

STORAGE
1. Store all materials in a safe, secure and protected staging or storage area covered in a protective barrier from the elements of weather.
2. Do not unbundle Troy Boards and move or re-palletize boards by hand for storage.
3. Do not unbundled Troy Wool until it is staged near its installation location. Material is shipped in compressed wrap and the individual batts will spread apart when opened.

FIELD HANDLING
1. Wear hand protection
2. Allow for two field workers when handling full-size boards.
3. Troy Wool Installation:
   a. When Troy Wool is ready for application, stagger bundles around range as close as possible to the surface location of where the batts will be installed.
   b. Open bundle warp with a >1/2" utility knife. 1 bundle = 3 bales = 42 batts
   c. Spray adhesive enough to cover one batt square surface of wool and install wool
4. Troy Board Installation:
   a. When Troy Board is ready for application, stack the pallets staggered around the range so they are as close as possible to the surface location where the board will be installed.
   b. Once located, break the pallet straps on the bundle of stacked boards.
   c. Be careful not damage the board below when removing a top board from the pallet.
   d. Remove only one board at a time.
   e. First, slide top board sideways, horizontally, to break the "sticky bond" between sheets.
   f. Next, secure on long edge of board with one hand on top of horizontal sheet on stack below and with other hand, lift opposite long-edge so board rests vertically on edge on stack board stacked below.
   g. Lift sheet vertically and rotate as needed, keeping board vertically oriented and place on wall.



1 FLOOR PLAN-TACTICAL POINT 10 LANE RANGE
A-1 NTS

NRC .95 REVERBERATION TIME 1.25 SECONDS
REVERBERATION ONLY
(NOT ISOLATION)

GENERAL NOTES

REVERBERATION CONTROL ONLY - FREE STANDING BUILDING
40' RANGE WIDE. 25 YDS SHOOTER TO TARGET. ALL DIMENSIONS ARE APPROXIMATE AND WILL VARY ACCORDING TO TYPE OF BULLET TRAP USED.

ALL VERTICAL WALLS COVERED WITH 2" TROY BOARD.

ALL DIMENSIONS ARE SUBJECT TO CHANGE.

TROY ACOUSTICS CORPORATION
The Acoustic Solution Specialists™
www.troysoundwalls.com
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Brunswick, GA 31525
Tel. (818) 376.8490
(800) 897.3306
Fax. (818) 376.8495

RECOMMENDED GENERIC DRAWINGS
TACTICAL
10 LANE RANGE

REVISIONS:

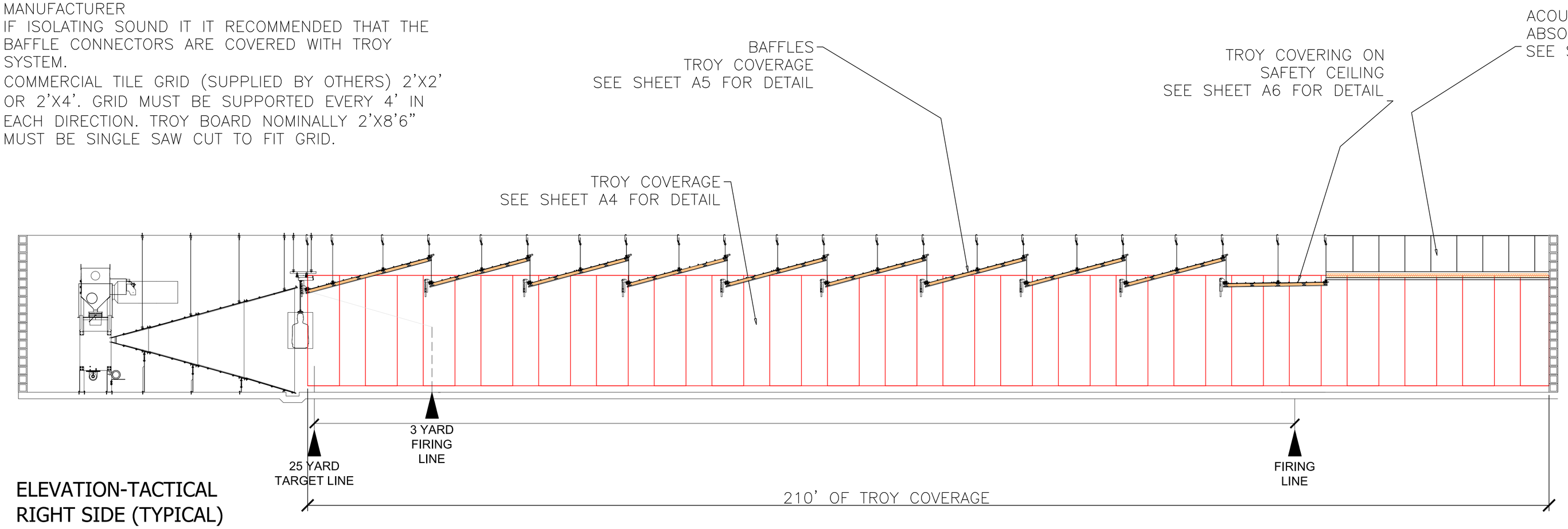
DRAWN BY - SLM
DATE- 5-29-13
SCALE- AS NOTED

FLOORPLAN

SHEET #
A-1
1 OF 8

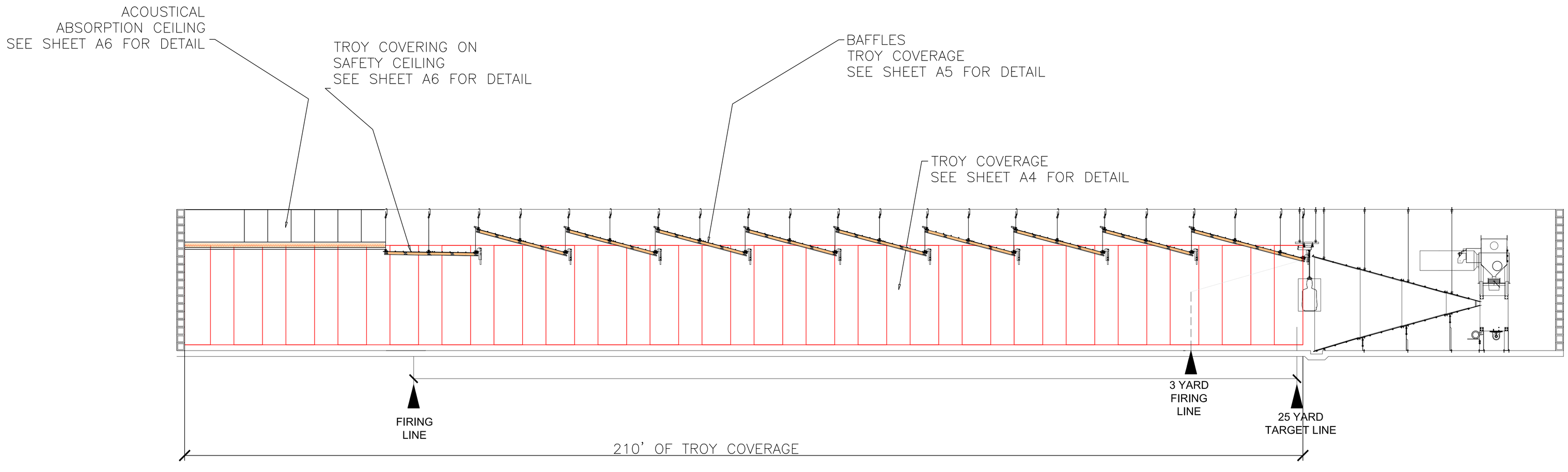
NOTE:

1. NUMBER OF BAFFLE ROWS AND SPACING WILL VARY DEPENDING ON RANGE USAGE AND BAFFLE MANUFACTURER
2. IF ISOLATING SOUND IT IT RECOMMENDED THAT THE BAFFLE CONNECTORS ARE COVERED WITH TROY SYSTEM.
3. COMMERCIAL TILE GRID (SUPPLIED BY OTHERS) 2'X2' OR 2'X4'. GRID MUST BE SUPPORTED EVERY 4' IN EACH DIRECTION. TROY BOARD NOMINALLY 2'X8'6" MUST BE SINGLE SAW CUT TO FIT GRID.



1 ELEVATION-TACTICAL
RIGHT SIDE (TYPICAL)

A-2 NTS



2 ELEVATION-TACTICAL
LEFT SIDE (TYPICAL)

A-2 NTS

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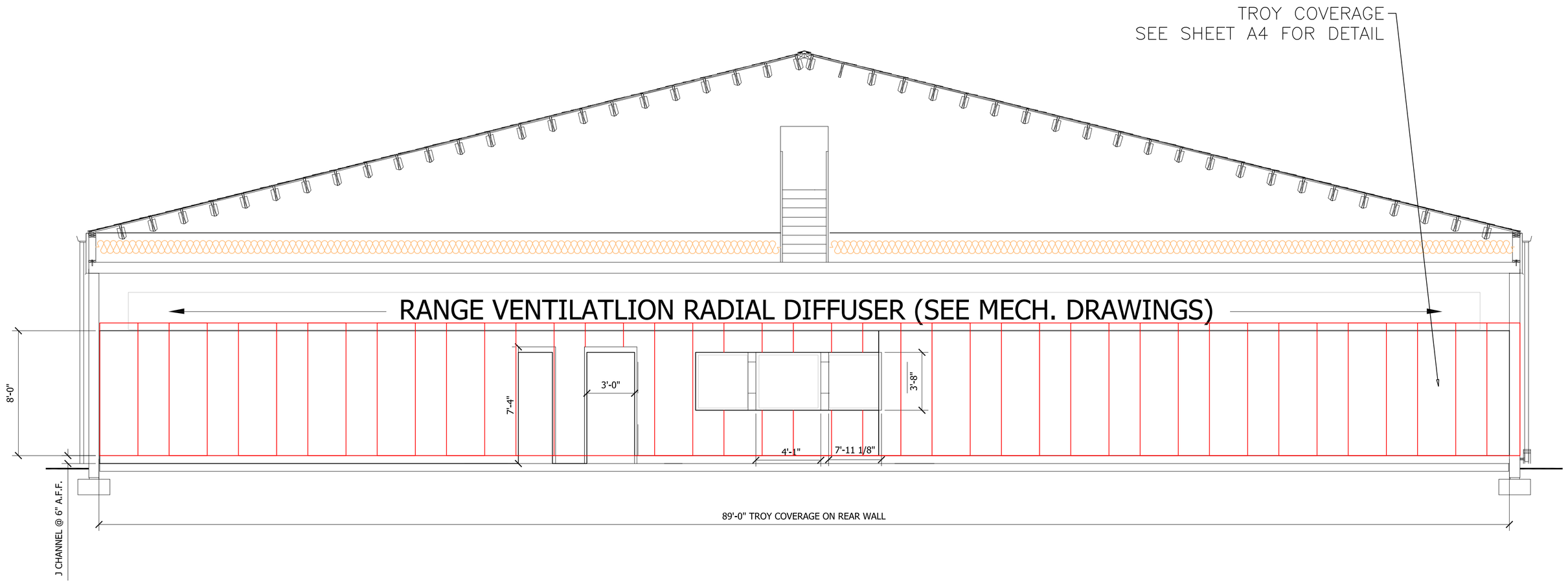
RECOMMENDED GENERIC DRAWINGS
TACTICAL
10 LANE RANGE

REVISIONS:

DRAWN BY- SLM
DATE- 5-29-13
SCALE- AS NOTED

SECTIONS

SHEET #
A-2
2 OF 8



2 REAR WALL ELEVATION

A-2 NTS

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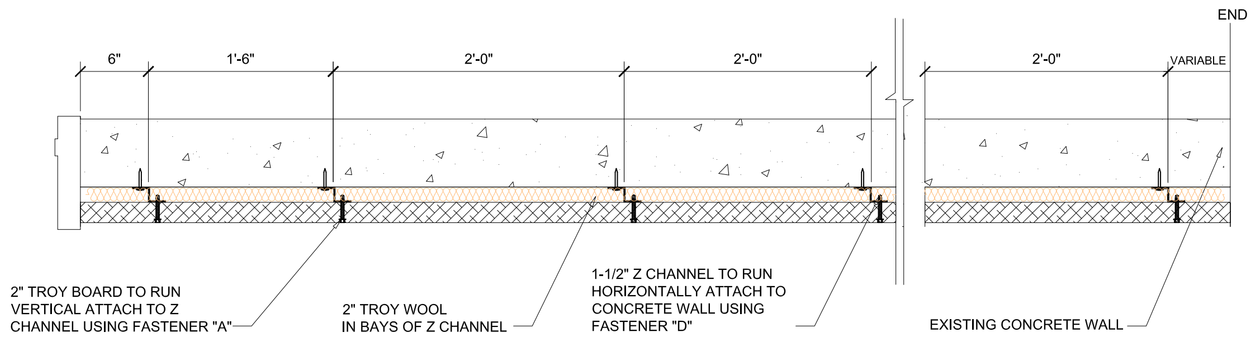
RECOMMENDED GENERIC DRAWINGS
TACTICAL
10 LANE RANGE

REVISIONS:

DRAWN BY- SLM
DATE- 5-29-13
SCALE- AS NOTED

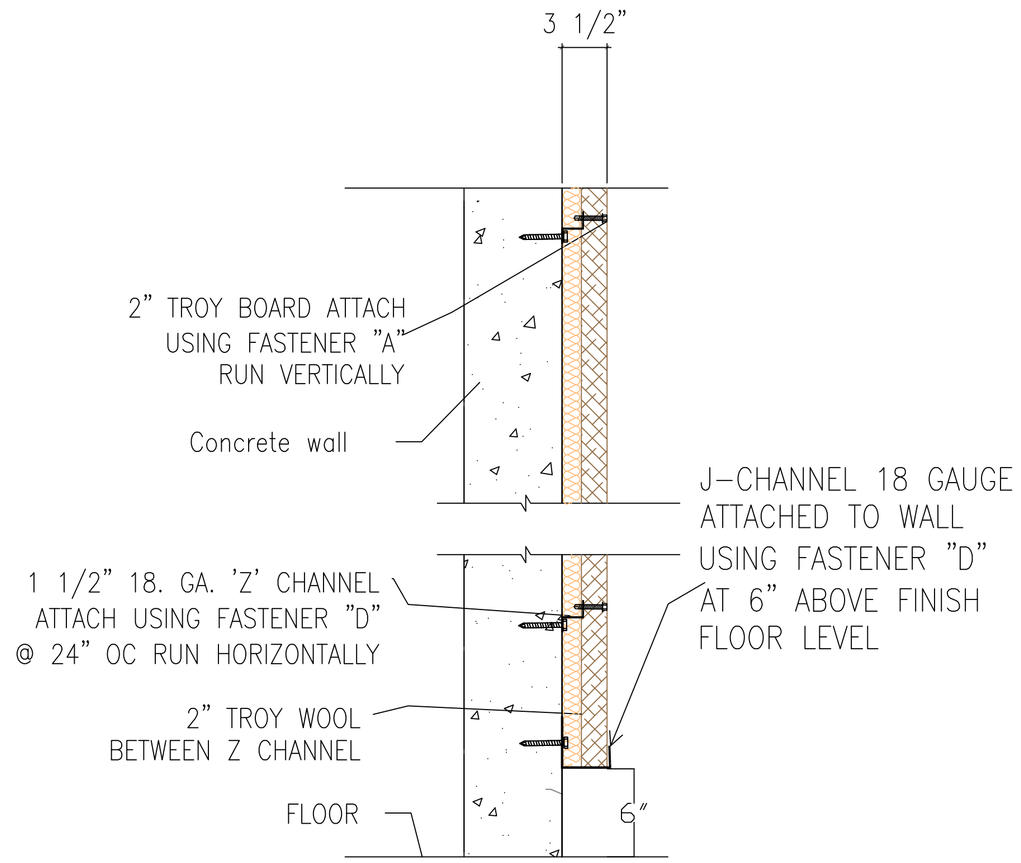
REAR WALL SECTION

SHEET #
A-3
3 OF 8



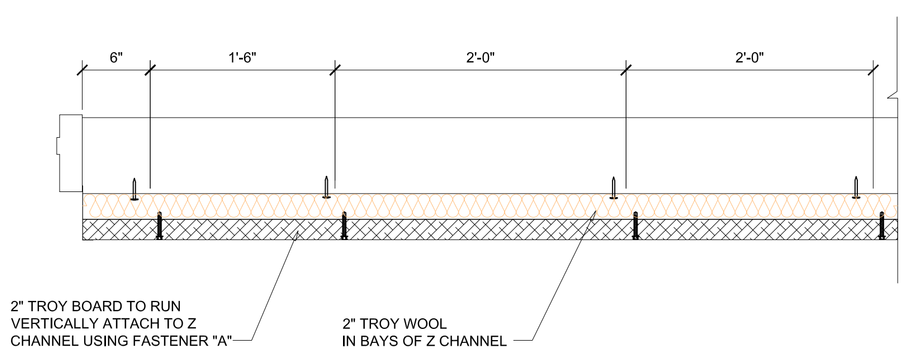
1 SIDEWALL DETAIL - TOP VIEW

A-4 NOT TO SCALE



2 WALL SECTION

A-4 NOT TO SCALE



3 REAR WALL DETAIL - TOP VIEW

A-4 NOT TO SCALE

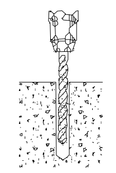
Wall Install Procedure (Troy Board HORIZONTAL finish)

* Note if "J-channel" is called out, it should be installed before furring channels in the same method.

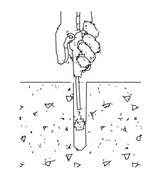
1. On the sidewalls and starting from left to right, lay out for the furring channel will run VERTICAL. Spacing for furring strips is 2' o.c. Start layout at 6" from floor, or start of treatment, for first furring channel. Then follow spacing of 2' o.c. Attachment of furring channel to wall is per detail provided. The furring channels are attached to all walls to be covered with Troy System.
2. Attachment of 2" Troy Wool to wall surface using a spray adhesive (3M-90 or equal). The spray adhesive is to hold the Troy Wool in place until the Troy Board material is attached. The 2' width of the Troy Wool should fit snug in the bays of the furring channel. Use a 10" serrated bread knife to cut the Troy Wool. Cover entire designated surface with Troy Wool.
3. Start layout of Troy Board perpendicular to furring channel. Start the first course with the end (2' width side) of Troy Board flush against wall and the top side of Troy Board MUST BE LEVEL. DO NOT RELY ON FLOOR TO BE LEVEL. All cuts will be on floor side, thus leaving factory side for second course to set upon. DO NOT INSTALL CUT SIDE UP. Using the supplied Troy Board fasteners, attach Troy Board to furring strips with fasteners every 11.8" per Troy Board. Troy Board is a finish acoustic material. Make sure joints are tight. Troy Board is to be installed without edges damaged. Troy Board may be cut using a circular saw, hand saw, or reciprocating saw type. The Troy Board is manufactured with Portland cement; thereby dust will be created when using a circular saw.
4. The Troy Board material is 8'-6" long and WILL NOT fall on lay out of the furring strips. Therefore, attach two (2) additional furring strips, no longer than 8" ea, to wall surface located at end of Troy Board. These furring channels will keep the Troy Board flat and even from end to end. Spacing of furring channels at end of Troy Boards are to be at least 12" apart from each other, with 4" under the Troy Board just installed, and the other 4" is for the attachment of the next Troy Board.
5. Continue installation of Troy Board material as per plans and details. In same manner cut in around angled baffles. The piece should be of a triangle shape. This shape to be cut out of a Troy Board in one piece. The triangular shaped piece is to be attached to the furring strips with the smaller point located to the lowest baffle point and the larger portion of the triangular shape to finish flush and plum with the baffle or safety ceiling to its left.

MUSHROOM HEAD INSTALL PROCEDURE

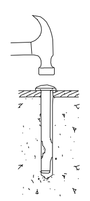
Using the proper diameter bit, drill a hole into the base material to a depth of at least 1/2" or one anchor diameter deeper than the embedment required.



Blow the hole clean of dust and other material.

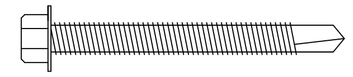


Hammer the anchor through the J or Z channels inot the anchor hole until the head is firmly against the metal. Be sure the anchor is driven to the required embedment depth.

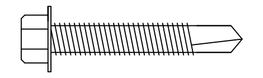


FASTENERS

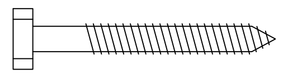
A #14 X 3 " SELF TAPPING HEX HEAD SCREW USED TO FASTEN BOARD TO Z-BAR



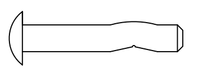
B #14 X 2 " SELF TAPPING HEX HEAD SCREW USED TO FASTEN BOARD TO Z-BAR



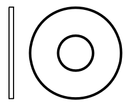
C 1/4" X 2" LAG SCREW USED FOR CEILING APPLICATIONS



D 1/4" X 1 1/2" MUSHROOM HEAD SPIKE USED TO FASTEN Z-BAR, J CHANNEL & CLIPS TO CONCRETE STRUCTURE



E FENDER WASHER USED FOR CEILING APPLICATIONS



ABBREVIATIONS

AB	ANCHOR BOLT
AFF	ABOVE FINISHED FLOOR
BLKG	BLOCKING
CMU	CONCRETE MASONRY UNIT
(E)	EXISTING
GA	GAUGE
(N)	NEW
NTS	NOT TO SCALE
OC	ON CENTER
SQ	SQUARE
STAGG	STAGGERED
TB	TROY BOARD™
TBD	TO BE DETERMINED
TW	TROY WOOL™
TYP	TYPICAL
W/	WITH

GENERAL NOTES

ALL CONDUITS, JUNCTION BOXES, ELECTRICAL BOXES AND PANELS ARE TO BE SURFACED MOUNTED TO THE TROY SYSTEM™. NO CUT OUTS FOR THESE TO BE PERFORMED. (U.O.N)

SCREWS USED TO FASTEN TROY BOARD™ ARE TO LIE FLUSH WITH THE PANEL.

PAINT INSTRUCTIONS: USE AN AIRLESS SPRAYER WITH ACRYLIC LATEX BASE PAINT (2 - 3 COATS MAX). DO NOT FILL IN VOIDS.

INSTALLATION OF PANELS SHOULD BEGIN WITH A 2'-0" X 8'-6" PANEL ON THE BOTTOM INSIDE CORNER OF WALL CONTINUING DOWN THE END OF RANGE.

2" THICK TROY BOARD™ USED FOR WALLS.

1" THICK TROY BOARD™ USED FOR BAFFLES AND CEILING UNLESS OTHERWISE NOTED.

Z-CHANNELS ON BAFFLES RUN LONGITUDINALLY (UP AND DOWN RANGE). TROY BOARD™ WILL RUN ACROSS (LEFT TO RIGHT).

MATERIALS

TROY BOARD™

TROY WOOL™

CONCRETE/CMU

TROY ACOUSTICS CORPORATION

The Acoustic Solution Specialists™

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RECOMMENDED GENERIC DRAWINGS
TACTICAL
10 LANE RANGE

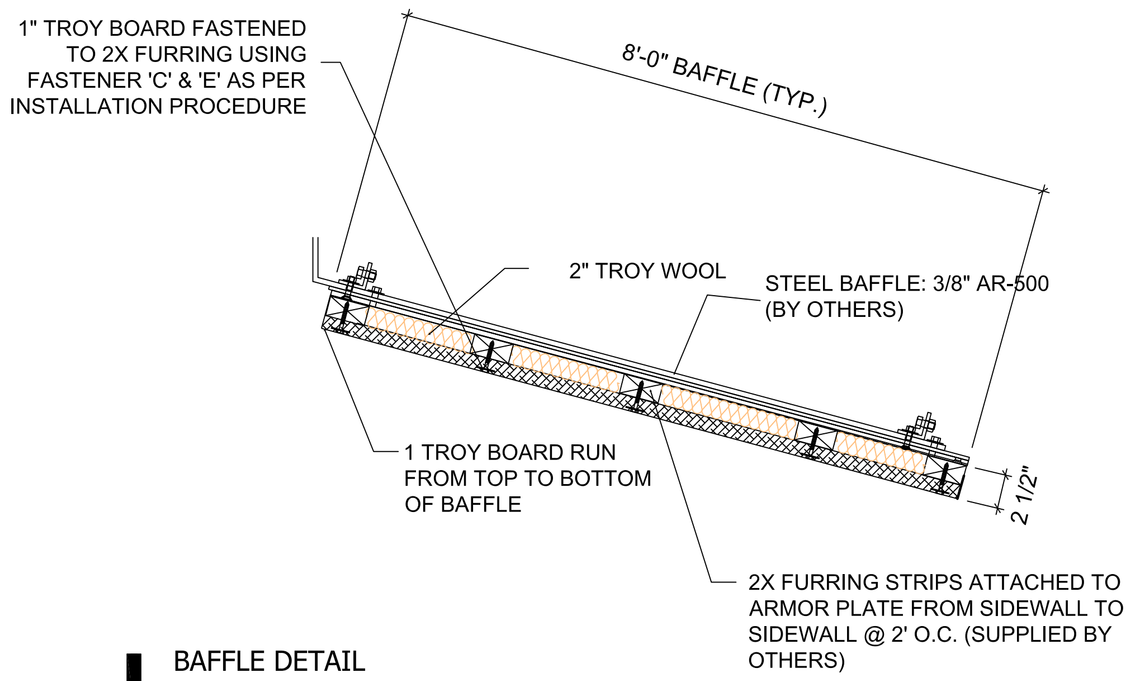
REVISIONS:

DRAWN BY- SLM | DATE- 5-29-13 | SCALE- AS NOTED

WALL DETAILS

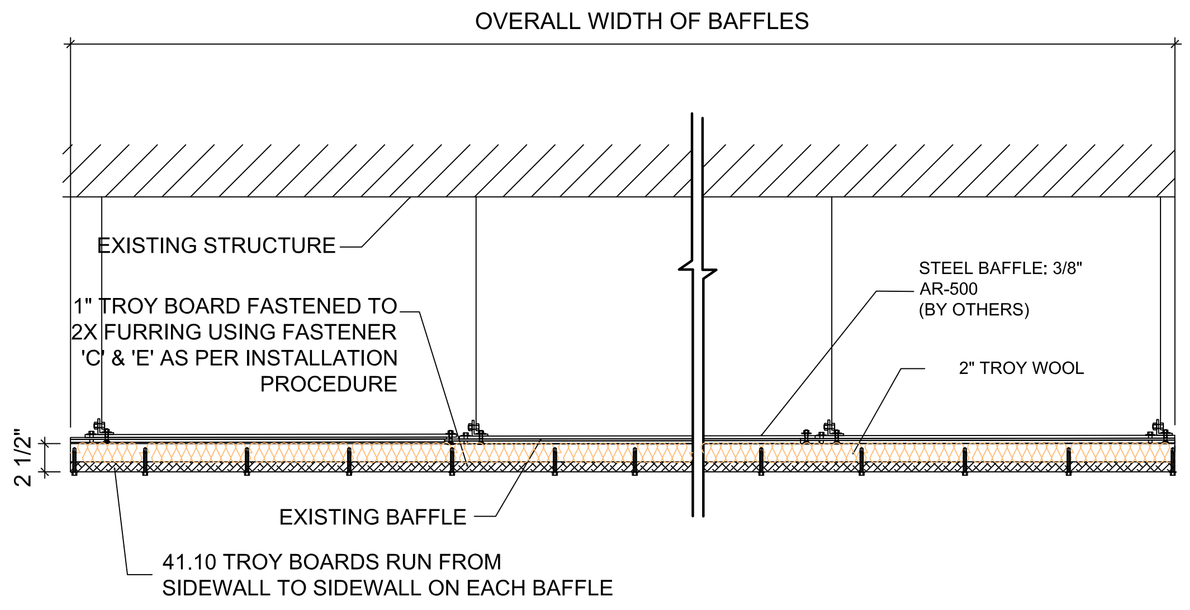
SHEET #

A-4



1 BAFFLE DETAIL (SIDE VIEW)

NTS



2 BAFFLE DETAIL (TOP EDGE VIEW)

NOT TO SCALE

Baffle Install Procedure (with furring supplied by Troy Acoustics)

1. Attach 2" Troy Wool to underside of baffle using a spray adhesive (3M-90 or equal) to hold TROY Wool until TROY Board material is installed. Use a 10" serrated bread knife to cut the Troy Wool to fit snug in the bays of the furring channels.

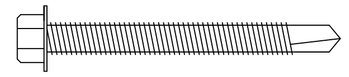
2. Install layout of Troy Board perpendicular to furring channels with 2' width end flush against wall. Use GALVANIZED fasteners(10 per board) as supplied. Troy Board should be installed in a running bond method with the second course started with a half board.

3. The Troy Board is a finished acoustic material which can be cut with carbide saw or hand saw. Make sure joints are tight.

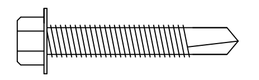
4. Dust resulting from sawing is portland cement and wood fibers. Masks or respirators should be used.

FASTENERS

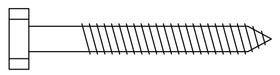
A #14 X 3 " SELF TAPPING HEX HEAD SCREW USED TO FASTEN BOARD TO Z-BAR



B #14 X 2 " SELF TAPPING HEX HEAD SCREW USED TO FASTEN BOARD TO Z-BAR

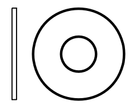


C 1/4" X 2" LAG SCREW USED FOR CEILING APPLICATIONS



D 1/4" X 1 1/2" MUSHROOM HEAD SPIKE USED TO FASTEN Z-BAR, J CHANNEL & CLIPS TO CONCRETE STRUCTURE

E FENDER WASHER USED FOR CEILING APPLICATIONS



ABBREVIATIONS

AB	ANCHOR BOLT
AFF	ABOVE FINISHED FLOOR
BLKG	BLOCKING
CMU	CONCRETE MASONRY UNIT
(E)	EXISTING
GA	GAUGE
(N)	NEW
NTS	NOT TO SCALE
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STAGG	STAGGERED
TB	TROY BOARD™
TBD	TO BE DETERMINED
TW	TROY WOOL™
TYP	TYPICAL
W/	WITH

GENERAL NOTES

ALL CONDUITS, JUNCTION BOXES, ELECTRICAL BOXES AND PANELS ARE TO BE SURFACED MOUNTED TO THE TROY SYSTEM™. NO CUT OUTS FOR THESE TO BE PERFORMED. (U.O.N)

SCREWS USED TO FASTEN TROY BOARD™ ARE TO LIE FLUSH WITH THE PANEL.

PAINT INSTRUCTIONS: USE AN AIRLESS SPRAYER WITH ACRYLIC LATEX BASE PAINT (2 - 3 COATS MAX). DO NOT FILL IN VOIDS.

INSTALLATION OF PANELS SHOULD BEGIN WITH A 2'-0" X 8'-6" PANEL ON THE BOTTOM INSIDE CORNER OF WALL CONTINUING DOWN THE END OF RANGE.

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RECOMMENDED GENERIC DRAWINGS
TACTICAL
10 LANE RANGE

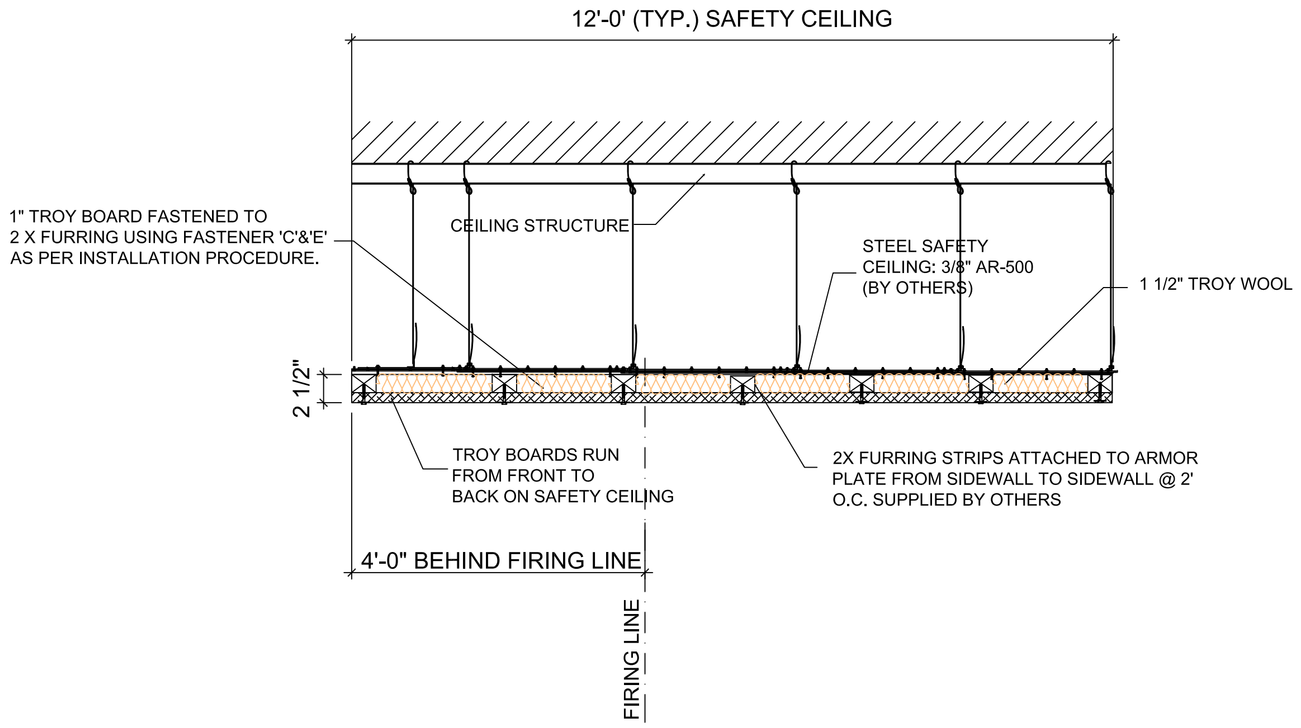
REVISIONS:

DRAWN BY- SLM | DATE- 5-29-13 | SCALE- AS NOTED

BAFFLE DETAILS

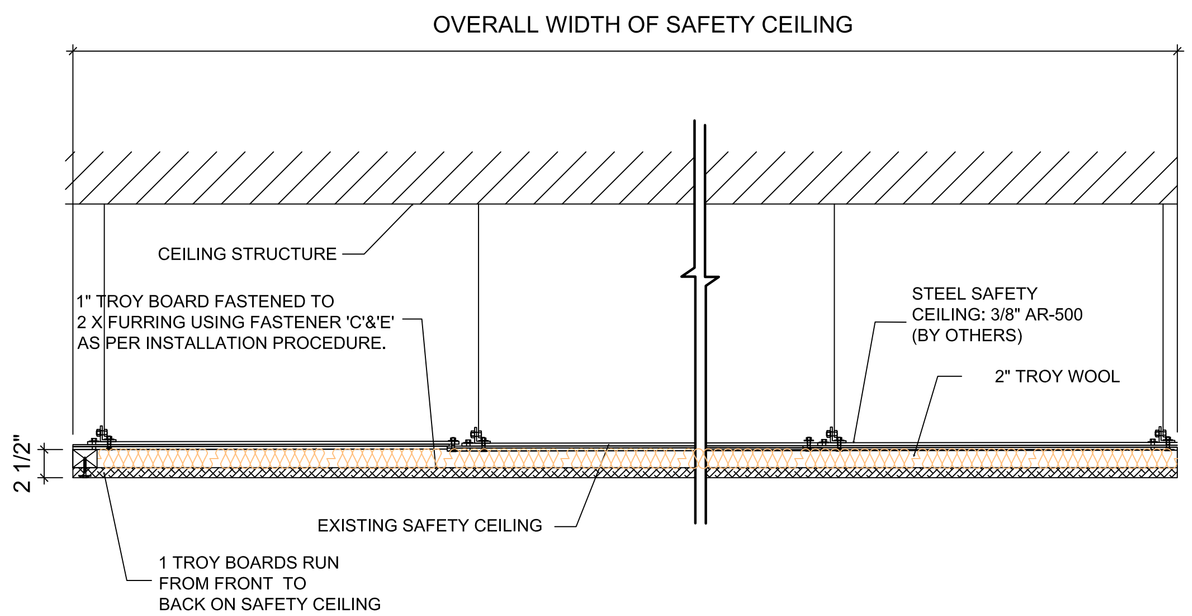
SHEET #

A-5



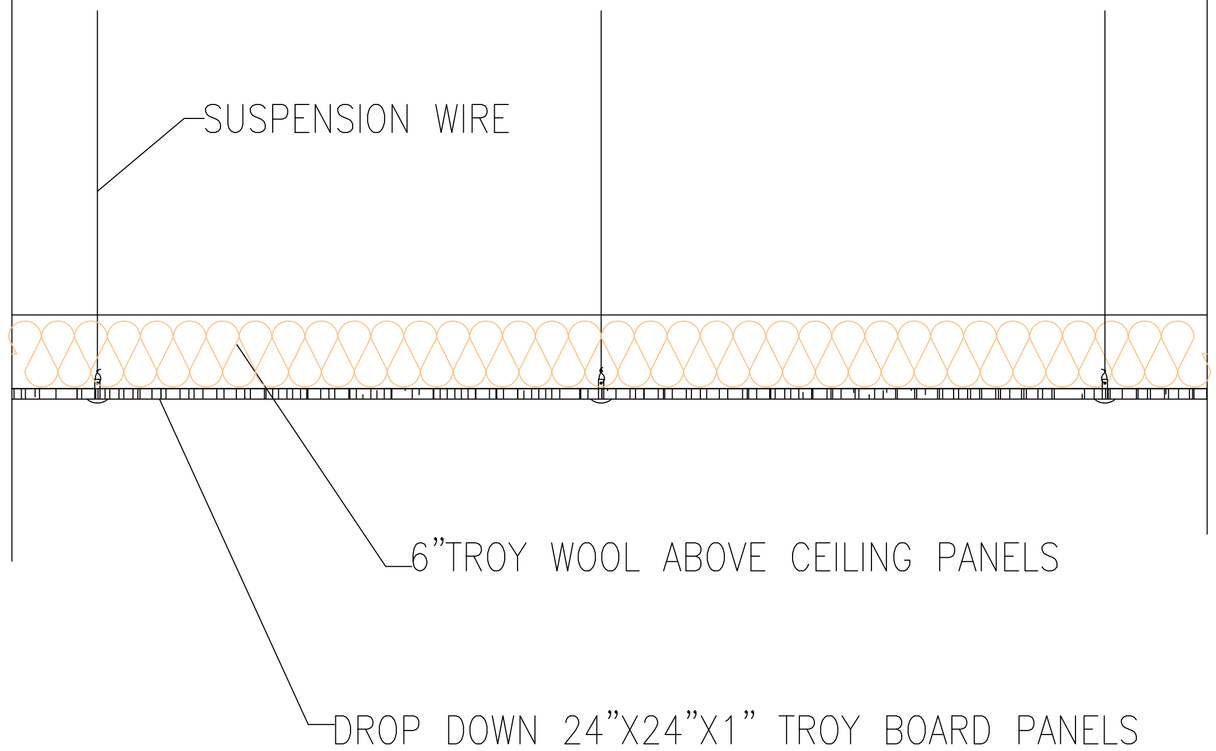
1 SAFETY CEILING DETAIL (SIDE VIEW)

SCALE: 1/4' = 1'-0"



2 SAFETY CEILING DETAIL (END VIEW)

NOT TO SCALE



3 ACOUSTICAL ABSORPTION CEILING STANDARD COMMERCIAL GRADE 2X2 TILE

NOT TO SCALE

NOTE:
COMMERCIAL TILE GRID (SUPPLIED BY OTHERS) 2'X2' OR 2'X4'. GRID MUST BE SUPPORTED EVERY 4' IN EACH DIRECTION. TROY BOARD NOMINALLY 2'X8'6" MUST BE SINGLE SAW CUT TO FIT GRID.

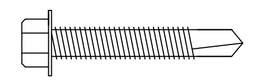
Safety Ceiling Install Procedure (with furring supplied by Troy Acoustics)

1. Attachment of 2" Troy Wool to ceiling surface using a spray adhesive (3M-90 or equal). The spray adhesive is to hold the Troy Wool in place until the Troy Board material is attached. The 2' width of the Troy Wool should fit snug in the bays of the furring channel. Use a 10" serrated bread knife to cut the Troy Wool. Cover entire designated surface with Troy Wool.
2. Start layout of Troy Board perpendicular to furring channel. Start the first course with the end (2' width side) of Troy Board flush against wall. Using the supplies Troy Board fasteners, attach Troy Board to furring strips with a minimum of 8 fasteners per Troy Board. Troy Board is a finish acoustic material. Make sure joints are tight. Troy Board is to be installed in a staggered seam method. i.e. As you start with the first course with a full sheet, the second course will start of with a half sheet. The pattern should look like masonry blocks once completed. Troy Board may be cut using a circular saw, hand saw, or reciprocating saw type. The Troy Board is manufactured with Portland cement; thereby dust will be created when using a circular saw.
3. The Troy Board material is 8'-6" long and WILL NOT fall on lay out of the furring strips. Therefore, attach two (2) additional furring strips, no longer than 8" ea, to ceiling surface located at end of Troy Board. These furring channels will keep the Troy Board flat and even from end to end. Spacing of furring channels at end of Troy Boards are to be at least 12" apart from each other, with 4" under the Troy Board just installed, and the other 4" is for the attachment of the next Troy Board.

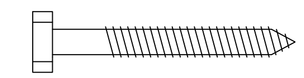
FASTENERS

A #14 X 3 " SELF TAPPING HEX HEAD SCREW USED TO FASTEN BOARD TO Z-BAR

B #14 X 2 " SELF TAPPING HEX HEAD SCREW USED TO FASTEN BOARD TO Z-BAR

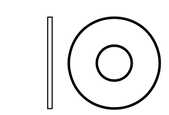


C 1/4" X 2" LAG SCREW USED FOR CEILING APPLICATIONS



D 1/4" X 1 1/2" MUSHROOM HEAD SPIKE USED TO FASTEN Z-BAR, J CHANNEL & CLIPS TO CONCRETE STRUCTURE

E FENDER WASHER USED FOR CEILING APPLICATIONS



ABBREVIATIONS

AB	ANCHOR BOLT
AFF	ABOVE FINISHED FLOOR
BLKG	BLOCKING
CMU	CONCRETE MASONRY UNIT
(E)	EXISTING
GA	GAUGE
(N)	NEW
NTS	NOT TO SCALE
OC	ON CENTER
SQ	SQUARE
STAGG	STAGGERED
TB	TROY BOARD™
TBD	TO BE DETERMINED
TW	TROY WOOL™
TYP	TYPICAL
W/	WITH

GENERAL NOTES

ALL CONDUITS, JUNCTION BOXES, ELECTRICAL BOXES AND PANELS ARE TO BE SURFACED MOUNTED TO THE TROY SYSTEM™. NO CUT OUTS FOR THESE TO BE PERFORMED. (U.O.N)

SCREWS USED TO FASTEN TROY BOARD™ ARE TO LIE FLUSH WITH THE PANEL.

PAINT INSTRUCTIONS: USE AN AIRLESS SPRAYER WITH ACRYLIC LATEX BASE PAINT (2 - 3 COATS MAX). DO NOT FILL IN VOIDS.

INSTALLATION OF PANELS SHOULD BEGIN WITH A 2'-0" X 8'-6" PANEL ON THE BOTTOM INSIDE CORNER OF WALL CONTINUING DOWN THE END OF RANGE.

2" THICK TROY BOARD™ USED FOR WALLS.

1" THICK TROY BOARD™ USED FOR BAFFLES AND CEILING UNLESS OTHERWISE NOTED.

Z-CHANNELS ON BAFFLES RUN LONGITUDINALLY (UP AND DOWN RANGE). TROY BOARD™ WILL RUN ACROSS (LEFT TO RIGHT).

MATERIALS

TROY BOARD™

TROY WOOL™

CONCRETE/CMU

TROY ACOUSTICS CORPORATION

The Acoustic Solution Specialists™

www.troysoundwalls.com
2580 Sidney Lanier Drive
Brunswick, GA 31525

Tel. (818) 376.8490
(800) 897.3306
Fax. (818) 376.8495

RECOMMENDED GENERIC DRAWINGS
TACTICAL
10 LANE RANGE

REVISIONS:

DRAWN BY- SLM | DATE- 5-29-13 | SCALE- AS NOTED

CEILING DETAILS

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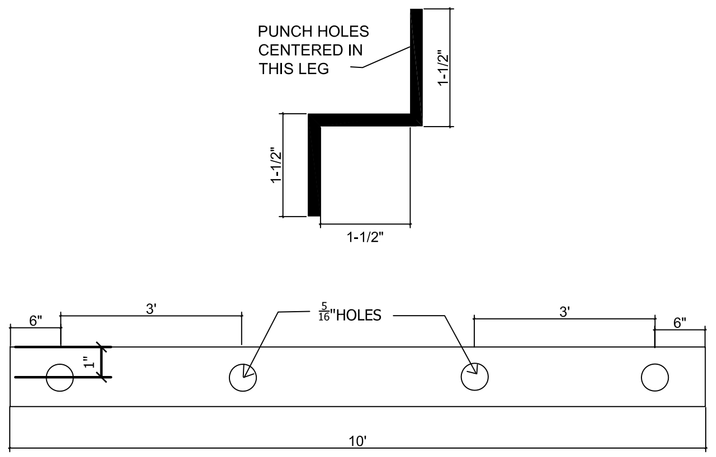
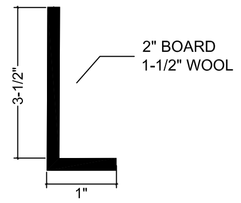


18 GAUGE GALVANIZED MATAL PIECE 10' LENGTHS

1 Z CHANNEL DETAIL

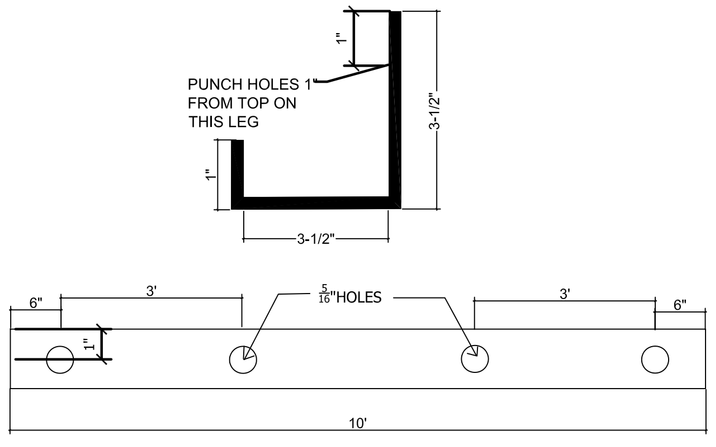
NOT TO SCALE



24 GAUGE GALVANIZED METAL PIECE 10' LENGTHS

3 EDGE METAL DETAIL

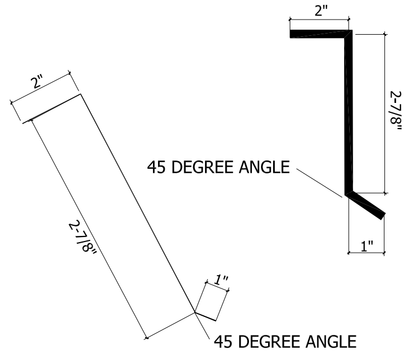
NOT TO SCALE



18 GUAGE GALVANZIED METAL PIECE 10' LENGTHS

2 J CHANNEL DETAIL

NOT TO SCALE



NOTE:
ATTACH DRIP EDGE TO BAFFLE USING CONSTRUCTION ADHESIVE - USED IN EXTERIOR RANGES ONLY
(SUPPLIED BY OTHERS)

24 GUAGE GALVANIZED SHEET METAL EXTRUSIONS PIECE 10' LENGTHS

4 EDGE METAL DETAIL

NOT TO SCALE

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SCALE- AS NOTED

DETAILS

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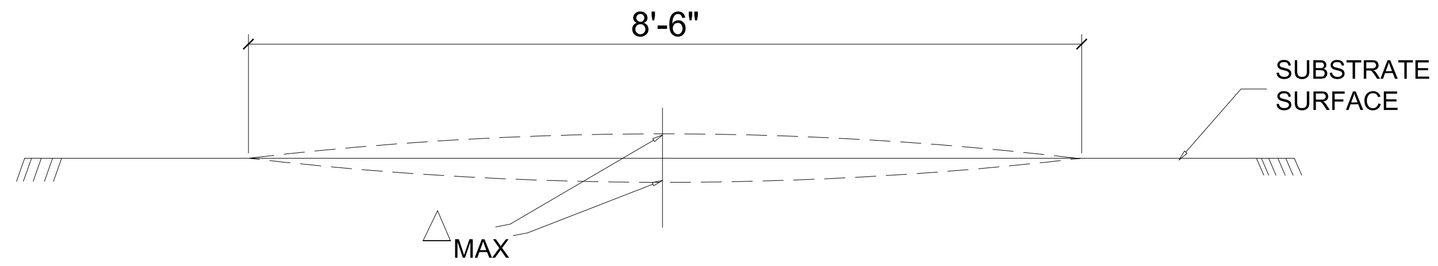
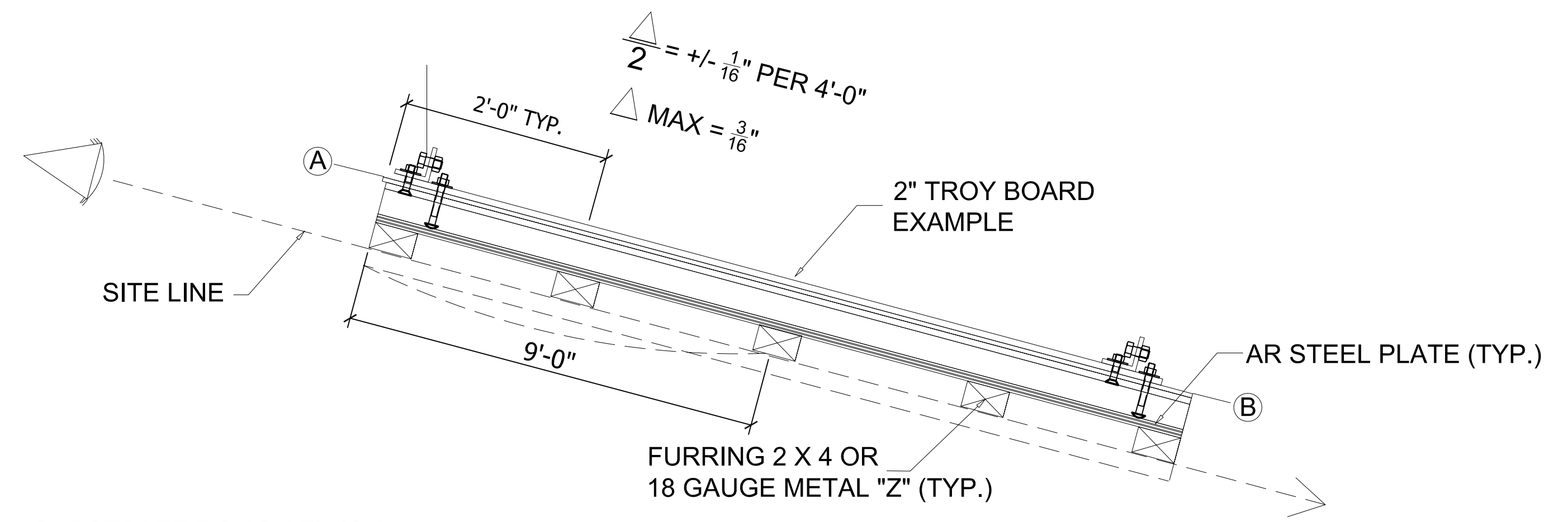
TROY BOARD TYPICAL SUBSTRATE
ROUGH FINISH TOLERANCES



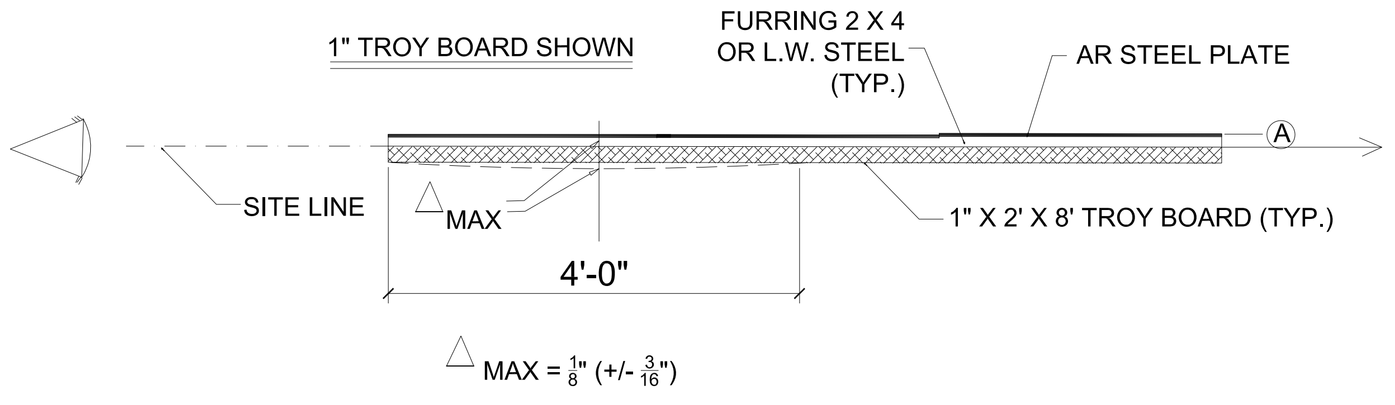
△ MAX = $\frac{3}{8}$":8 FT (+/- $\frac{3}{16}$" = $\frac{\triangle}{2}$) FOR 2" TROY BOARD

= $\frac{1}{4}$":8 FT (+/- $\frac{1}{8}$" = $\frac{\triangle}{2}$) FOR 1" TROY BOARD



SUBSTRATE ROUGH FINISH
TOLERANCE FOR TROY BOARD
2" TROY BOARD SHOWN

BAFFLE SECTION SHOWN



1 TOLERANCES
NOT TO SCALE

BAFFLE VIEW - ELEVATION PERSCPECTIVE
FROM FIRING POSITION TOWARD TARGET

IF SHEET IS LESS THAN (22" x 34") IT IS A REDUCED PRINT, SCALE REDUCED ACCORDINGLY

PDFs NOT REPRODUCED TO SCALE, DO NOT ATTEMPT TO SCALE DIMENSIONS FROM THESE DRAWINGS

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