

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 of Material immediately to 818-376-6495 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 per the attached Delivery Ticket and confirm error of shipment and obtain signature of delivery truck operator confirming quantity of damaged and/or missing material.
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. Material bundles or stacks of materials with forklift, take care that the forks do not extend past the width of the pallet; add being lifted so as to not scrape or pierce.
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.

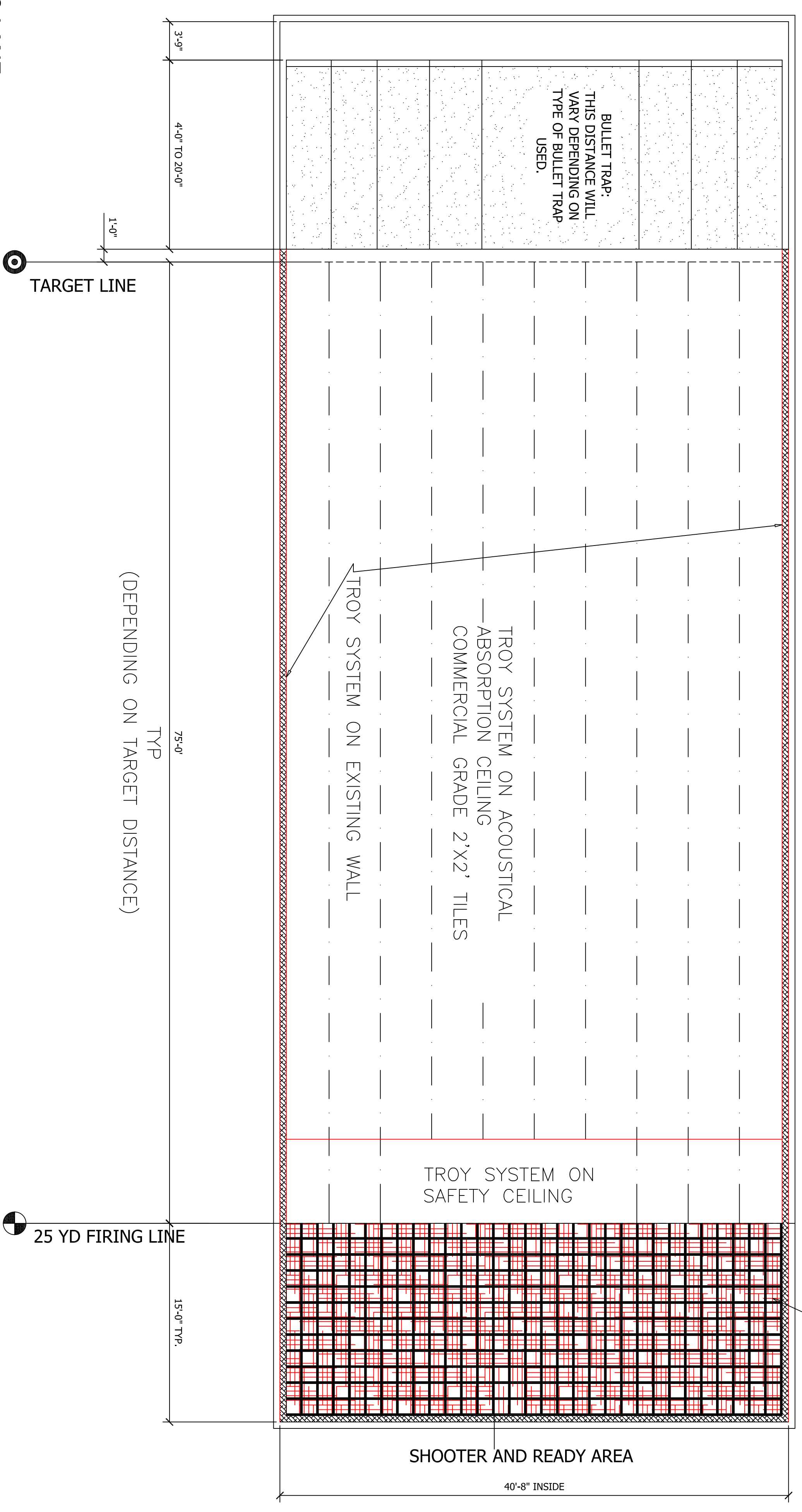
STORAGE

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 separate boards by hand for storage.
3. Do not unbundle Troy Wood 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 Wood Installation:
 - a. When Troy Wood is ready for application, stagger bundles around range as close as possible to the surface location of where the batts will be installed.
 - b. When Troy Board is ready for application, stagger bundles around range as close as possible to the surface location of where the batts will be installed.
 - c. When Troy Board is ready for application, stagger the pallets staggered around the range so they are as close as possible to the surface location where the board will be installed.
 - d. Once located, break the pallet straps on the bundle of stacked boards.
 - e. Be careful not to damage the board below when removing a top board from the pallet.
 - f. Remove only one board at a time.
 - g. Next, stack top board sideways, horizontally, to break the "sticky board" between stacks.
 - h. Next, stack top board vertically, vertically, to break the "sticky board" between stacks.
 - i. Next, stack top board vertically 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-FIXED POINT 10 LANE
 A-1 NOT TO SCALE



BULLET TRAP- THIS DISTANCE WILL VARY DEPENDING ON TYPE OF BULLET TRAP USED.

TROY SYSTEM ON ACOUSTICAL ABSORPTION CEILING COMMERCIAL GRADE 2'X2' TILES

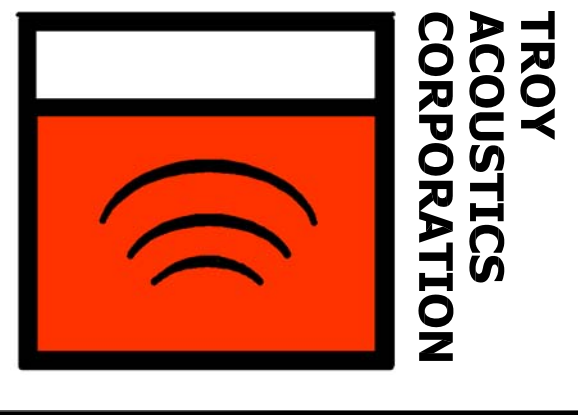
TROY SYSTEM ON EXISTING WALL

TROY SYSTEM ON SAFETY CEILING

TROY SYSTEM ON ACOUSTICAL ABSORPTION CEILING COMMERCIAL GRADE 2'X2' TILES

TYP (DEPENDING ON TARGET DISTANCE)

NOTICE OF PROPRIETARY & CONFIDENTIAL INFORMATION
 This drawing and the information contained herein is the sole property of Troy Acoustics Corporation and it is licensed and protected under U.S. Patent #5,661,273. Any use or reproduction in part or as a whole is strictly prohibited without the prior, written permission of Troy Acoustics Corporation. Contact: 800.987.3306 for more information.



The Acoustic Solution Specialists™
 WWW.TROY.SOUNDWALLS.COM
 2880 Sidney Lanier Drive
 Brunswick, GA 31525
 Tel: (818) 376.8490
 (800) 887.3306

RECOMMENDED GENERIC DRAWINGS
 FIXED POINT
 10 LANE RANGE

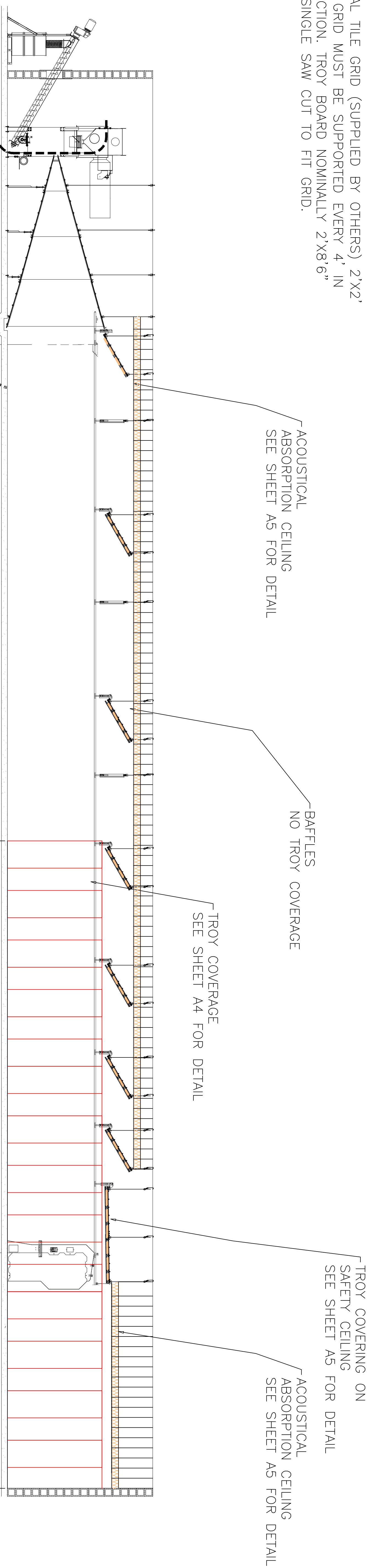
REVISIONS:

DRAWN BY- SLM
DATE- 05-29-13
SCALE- AS NOTED

FLOORPLAN

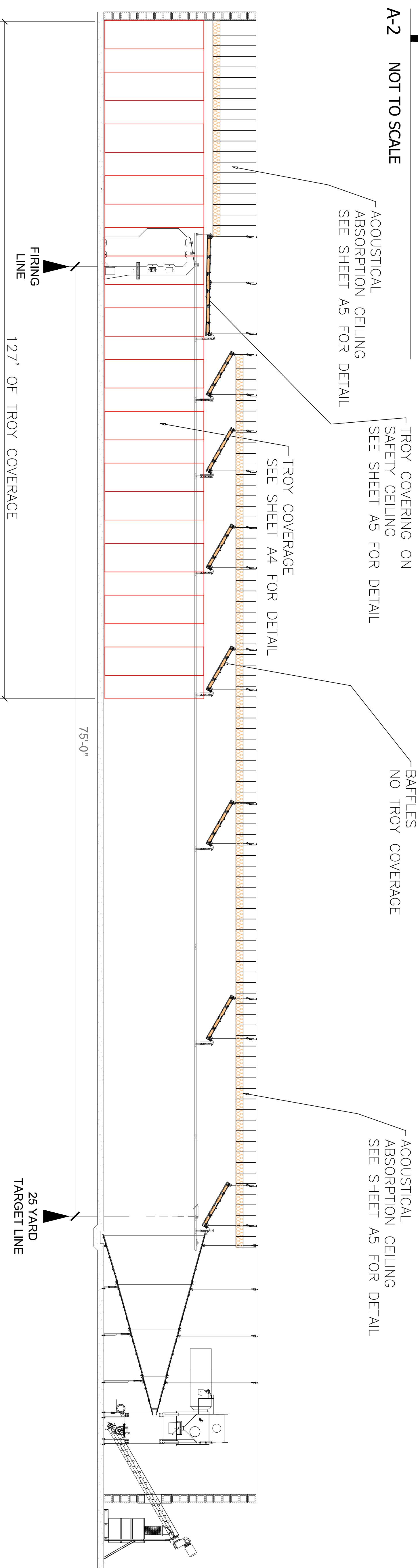
SHEET #
A-1
 1 OF 7

- NOTE:
1. NUMBER OF BAFFLE ROWS AND SPACING WILL VARY DEPENDING ON RANGE USAGE AND BAFFLE MANUFACTURER
 2. IF ISOLATING SOUND IT IS 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-FIXED RIGHT SIDE (TYPICAL)

A-2 NOT TO SCALE



2 ELEVATION-FIXED LEFT SIDE (TYPICAL)

A-2 NOT TO SCALE



TROY ACOUSTICS CORPORATION
 The Acoustic Solution Specialists™
 WWW.TROY-SOUNDWALLS.COM
 2580 Sidney Lanier Drive
 Brunswick, GA 31525

Tel: (818) 376.8490
 (800) 887.3306
 Fax: (818) 376.8495

**RECOMMENDED GENERIC DRAWINGS
 FIXED POINT
 10 LANE RANGE**

REVISIONS:	

DRAWN BY- SLM
DATE- 05-29-13
SCALE- AS NOTED

SECTIONS

SHEET #	A-2
2 OF 7	

NOTICE OF PROPRIETARY & CONFIDENTIAL INFORMATION
 This drawing and the information contained herein is the sole property of Troy Acoustics Corporation and it is licensed and protected under U.S. Patent #5,661,173. Any use or reproduction in part or as a whole is strictly prohibited without the prior, written permission of Troy Acoustics Corporation. Contact: 800.887.3306 for more information.



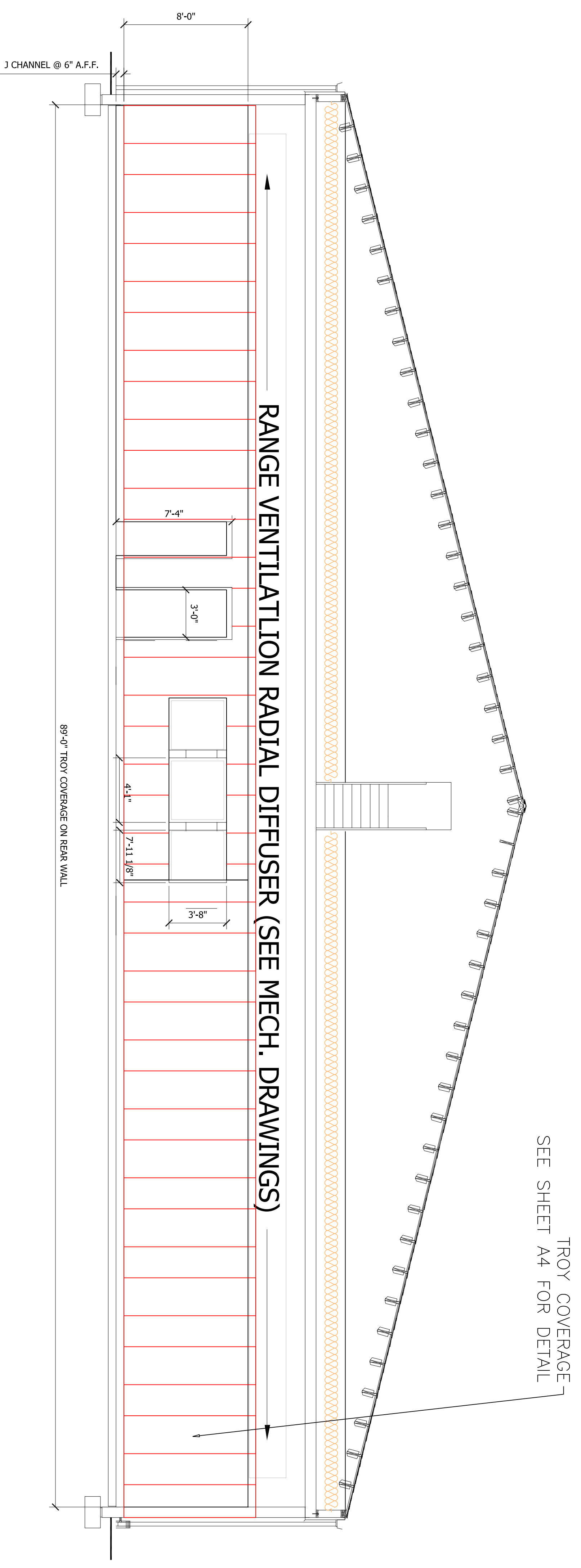
**RECOMMENDED GENERIC DRAWINGS
 FIXED POINT
 10 LANE RANGE**

REVISIONS:	

DRAWN BY- SLM
DATE- 05-29-13
SCALE- AS NOTED

**REAR WALL
 SECTIONS**

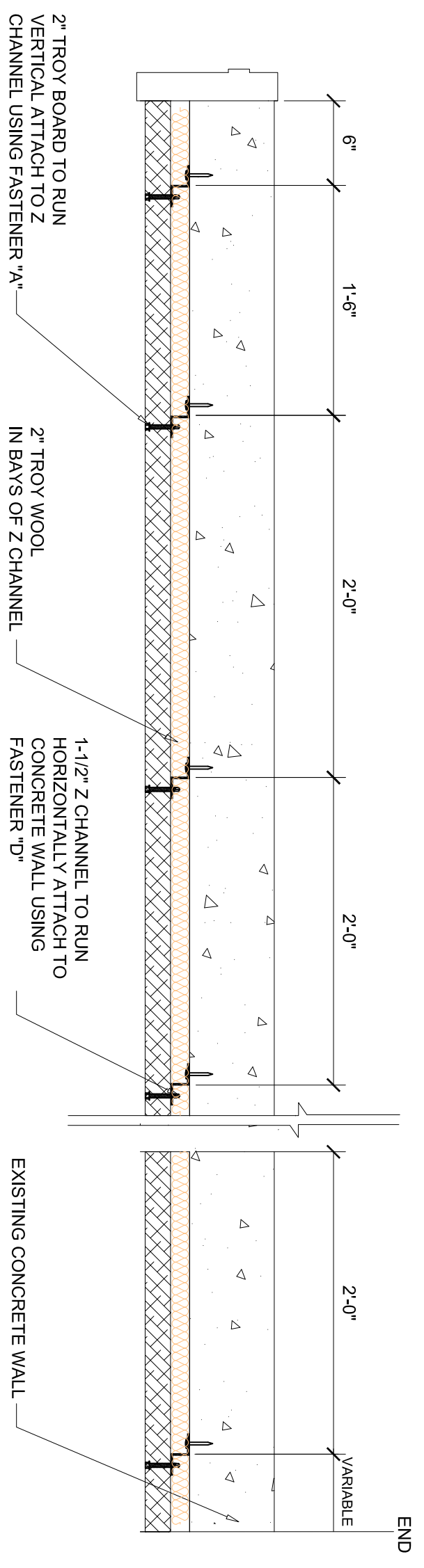
SHEET #
A-3
2 OF 7



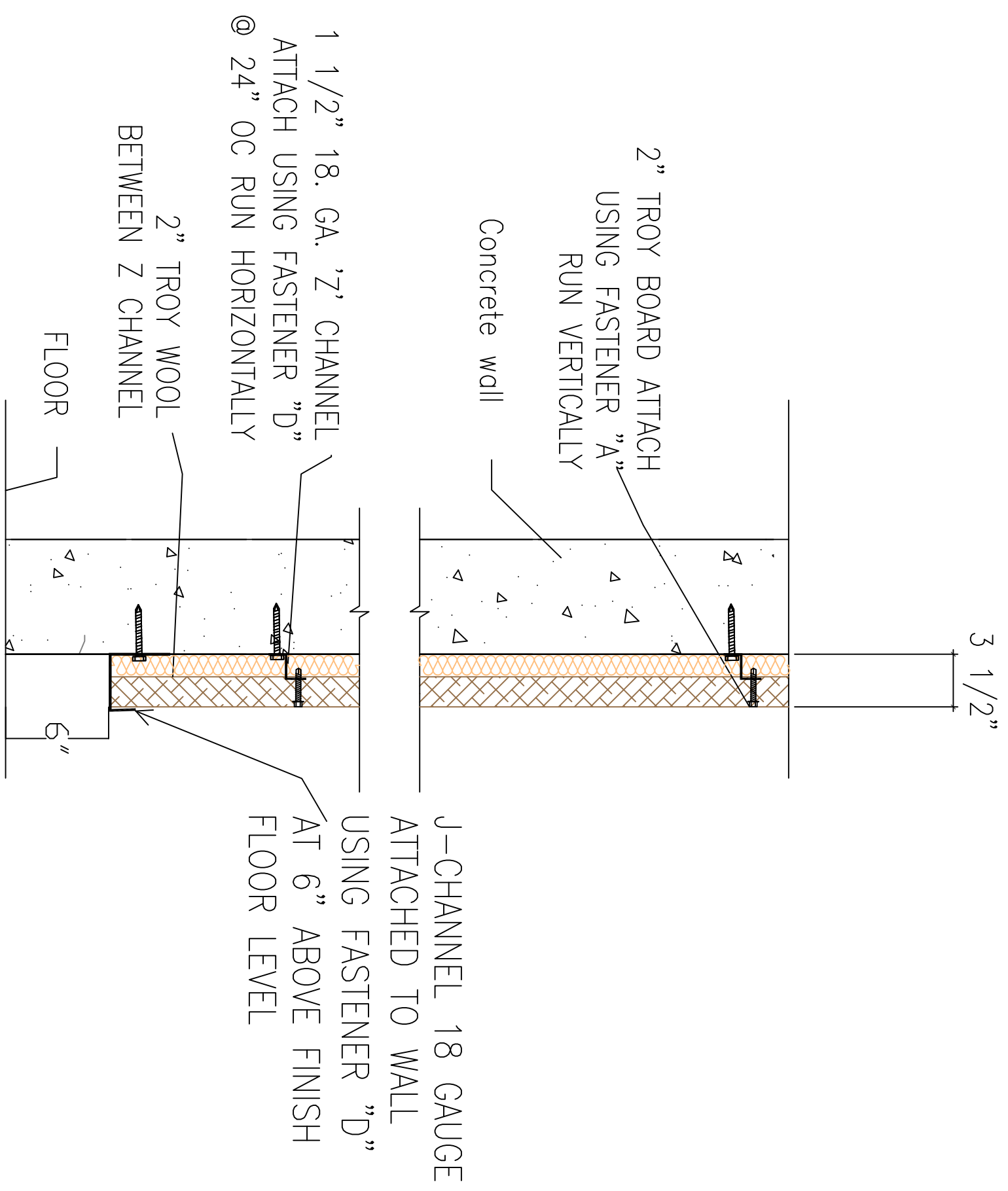
2 REAR WALL ELEVATION

A-2 SCALE: 1/8"=1'-0"

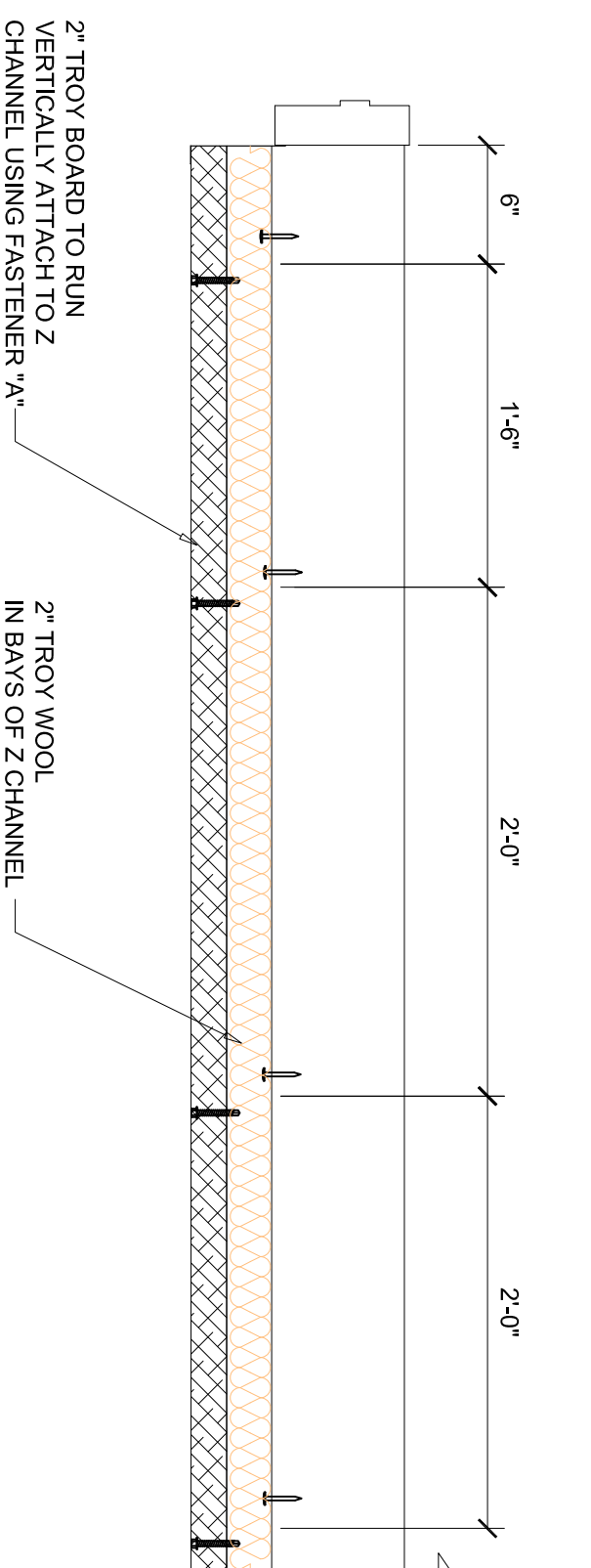
NOTICE OF PROPRIETARY & CONFIDENTIAL INFORMATION
 This drawing and the information contained herein is the sole property of Troy Acoustics Corporation and it is licensed and protected under U.S. Patent #5,661,273. Any use or reproduction in part or as a whole is strictly prohibited without the prior, written permission of Troy Acoustics Corporation. Contact: 800.887.3306 for more information.



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

NOTE:
IMPORTANT ISOLATION REQUIREMENTS: SINCE THESE DRAWINGS ARE BASED ON 1.3 SECONDS REVERBERATION TIME, THE COVERAGE SHOWN DOES NOT CONSIDER ISOLATION OF NOISE. AT A MINIMUM, ISOLATION REQUIRES THE ADDITION OF 5/8" GYPSUM INSTALLED DIRECTLY ONTO THE CONCRETE SIDEWALLS UNDER THE TROY SYSTEM. 6" OF TROY WOOL IS RECOMMENDED ON SIDEWALLS IN CRITICAL NOISE ABSORPTION AREAS. THE USE OF 6" METAL STUDS (TYPICALLY SUPPLIED BY OTHERS) IS RECOMMEND IN THIS SITUATION.

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.

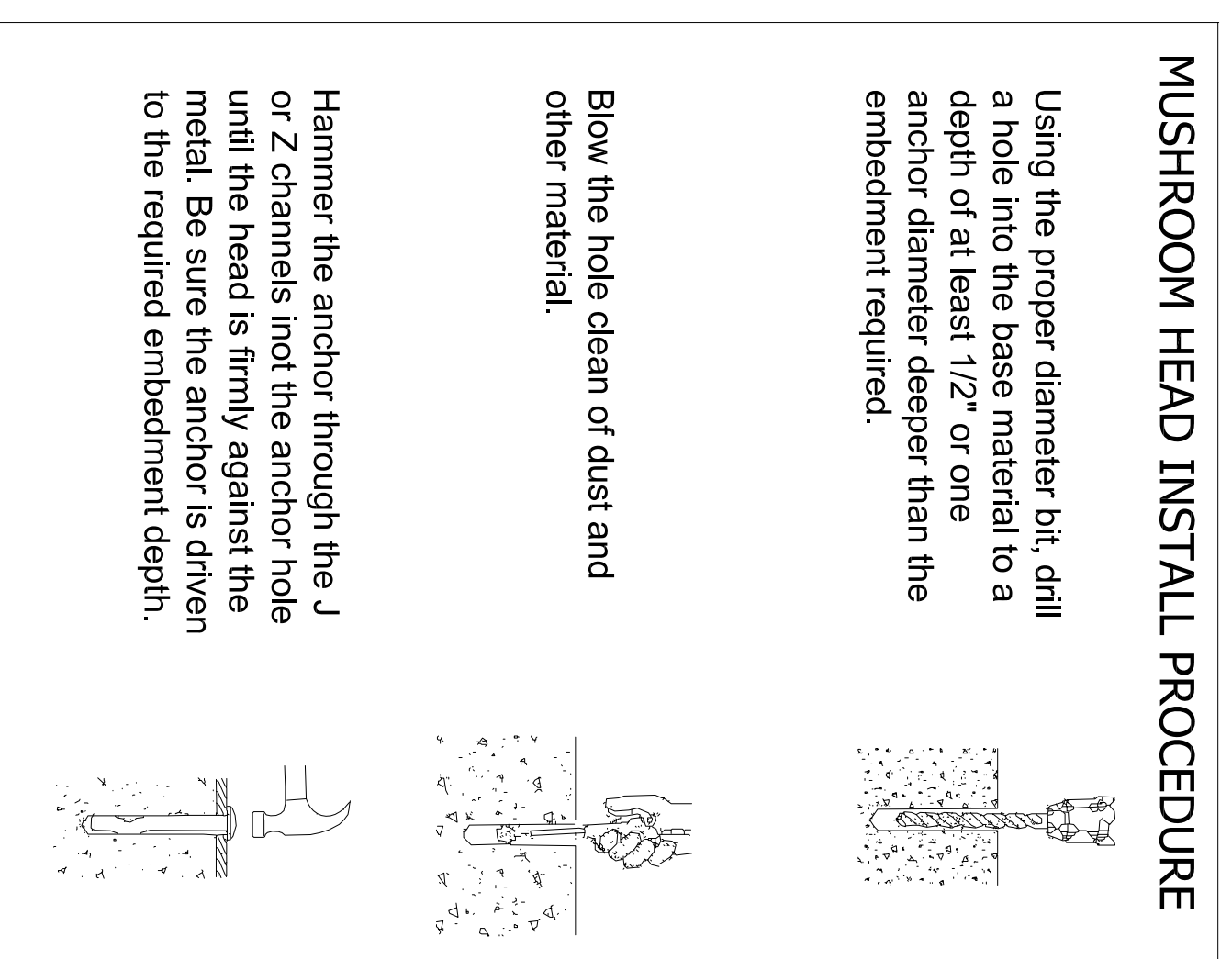
1. On the sidewalls and starting from left to right, lay out for the furring channel will run VERTICAL. Spacing for furring strips is 2' o.c. Start layout at 6" from floor, or start of treatment, for first furring channel. Then follow spacing of 2' o.c. Attachment of furring channel to wall is per detail 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" wide 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 plumb 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 not the anchor hole until the head is firmly against the metal. Be sure the anchor is driven to the required embedment depth.



FASTENERS

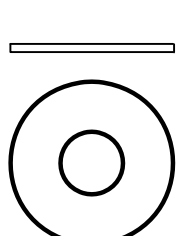
A #14 X 3 " SELF TAPPING HEX HEAD SCREW USED TO FASTEN BOARD TO Z-BAR

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
SO	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.

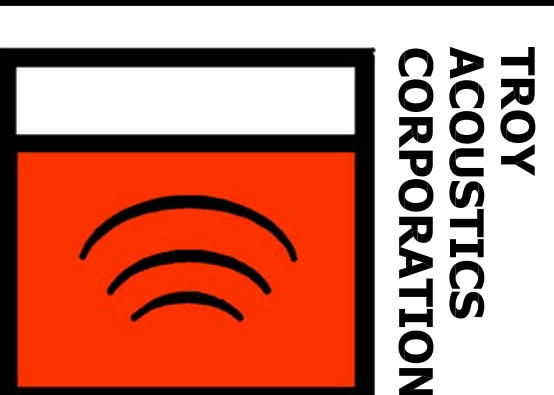
2" THICK TROY BOARD™ USED FOR WALLS.

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



The Acoustic Solution Specialists™
WWW.TROY.SOUNDWALLS.COM
2580 Sidney Lanier Drive
Brunswick, GA 31525
Tel: (818) 376.8490
(800) 887.3306
Fax: (818) 376.8495

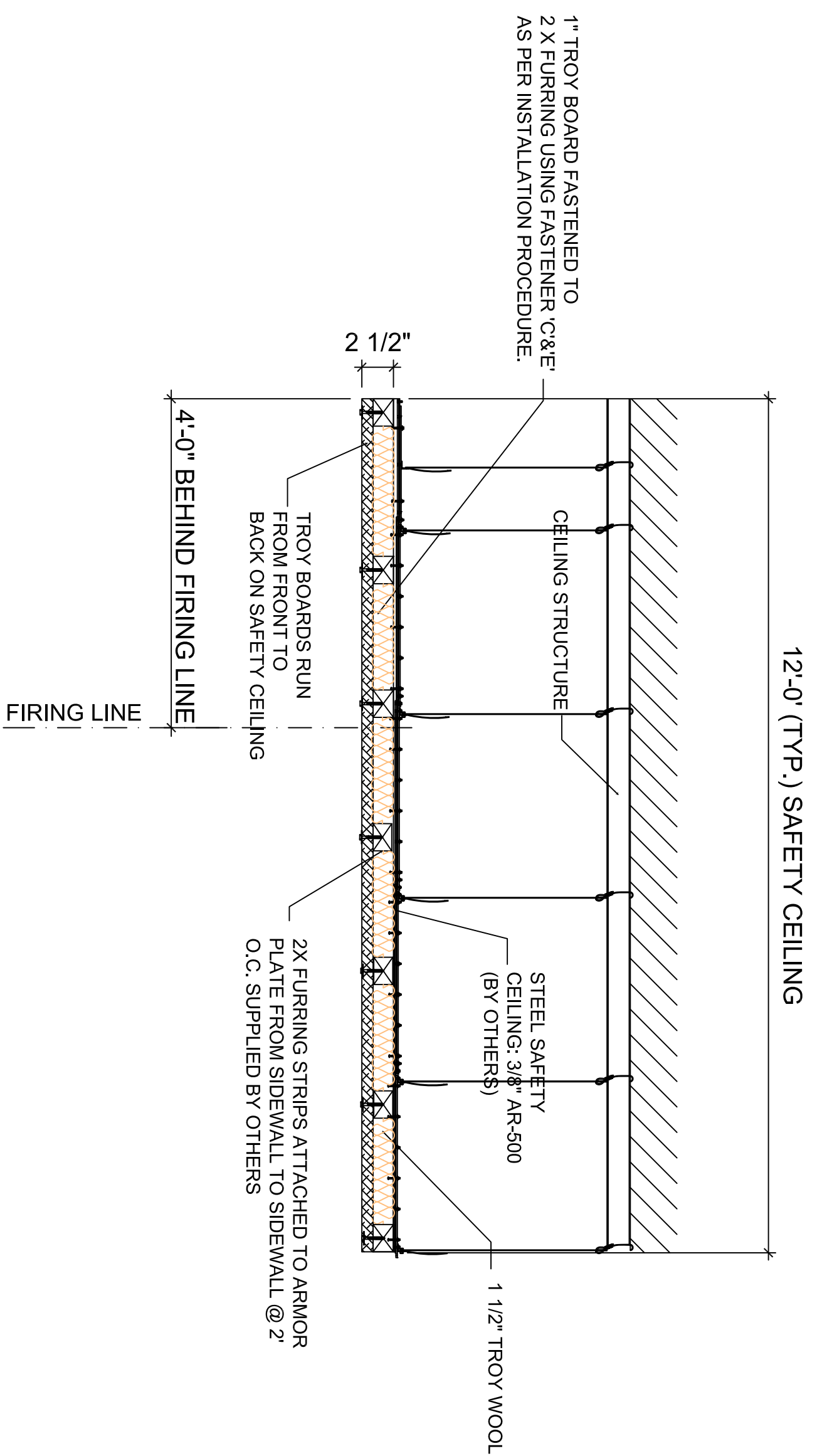
RECOMMENDED GENERIC DRAWINGS
FIXED POINT
10 LANE RANGE

REVISIONS:

DRAWN BY:- SLM
DATE- 05-29-13
SCALE- AS NOTED

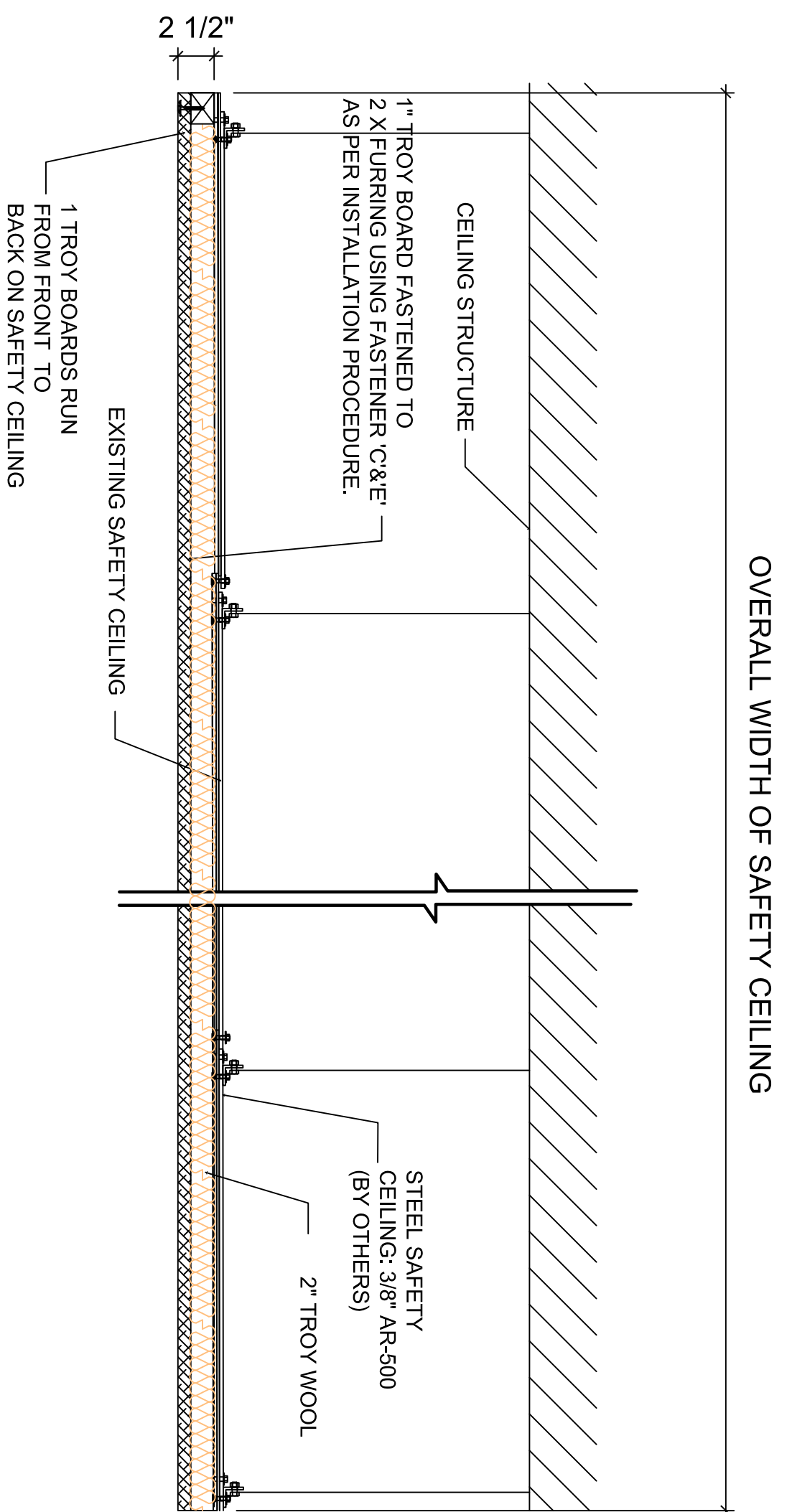
WALL DETAILS

SHEET #
A-4
4 OF 7



1
SAFETY CEILING DETAIL
(SIDE VIEW)

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

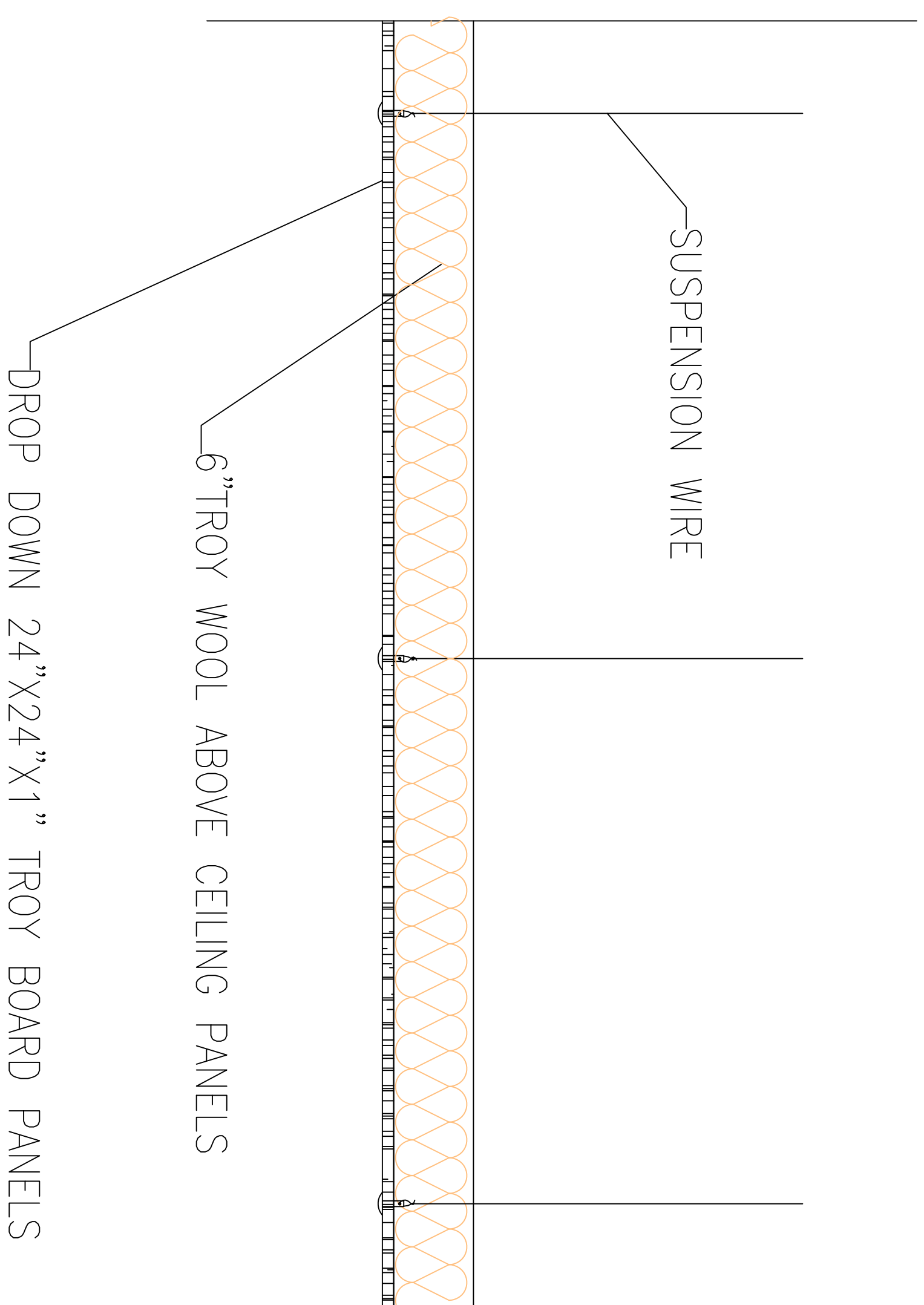


2
SAFETY CEILING DETAIL
(END VIEW)

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)**
- 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.
 - 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.
 - 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.

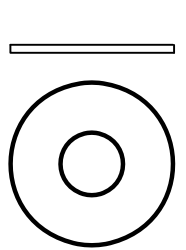


3
ACOUSTICAL ABSORPTION CEILING
STANDARD COMMERCIAL
GRADE 2X2 TILE

NOT TO SCALE

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.

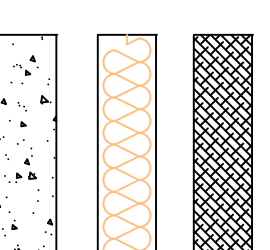
2" THICK TROY BOARD™ USED FOR WALLS.

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



The Acoustic Solution Specialists™
WWW.TROY/STANDARDWALLS.COM
2580 Sidney Lanier Drive
Brunswick, GA 31525
Tel: (818) 376 8490
(800) 887 3306
Fax: (818) 376 8495

RECOMMENDED GENERIC DRAWINGS
FIXED POINT
10 LANE RANGE

REVISIONS:

DRAWN BY- SLM
DATE- 05-29-13
SCALE- AS NOTED

**CEILING
DETAILS**

SHEET #

A-5

5 OF 7

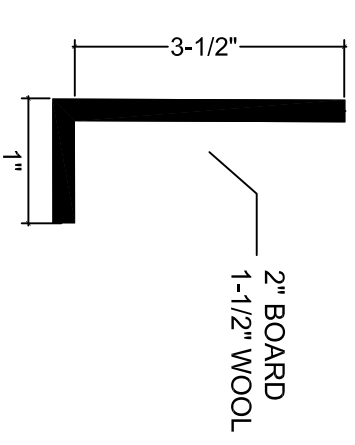


**RECOMMENDED GENERIC DRAWINGS
 FIXED POINT
 10 LANE RANGE**

REVISIONS:		

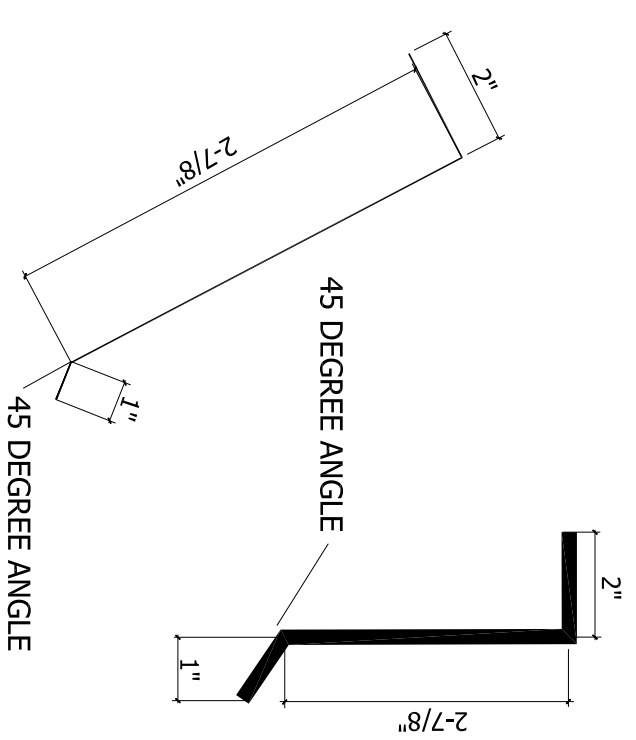
DRAWN BY- SLM	DATE- 05-29-13	SCALE- AS NOTED
---------------	----------------	-----------------

DETAILS



24 GAUGE GALVANIZED METAL PIECE 10' LENGTHS

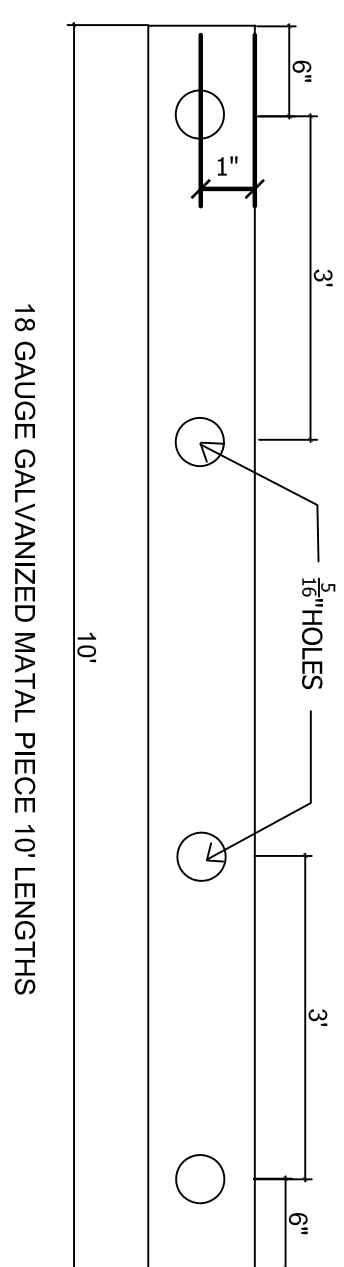
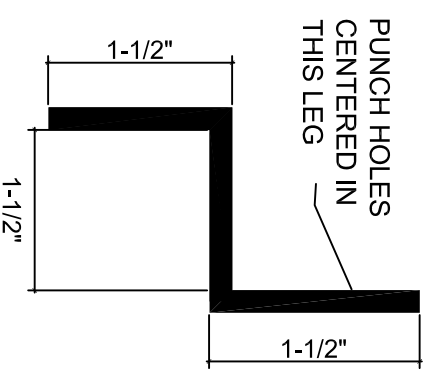
**3
 EDGE METAL DETAIL
 NOT TO SCALE**



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

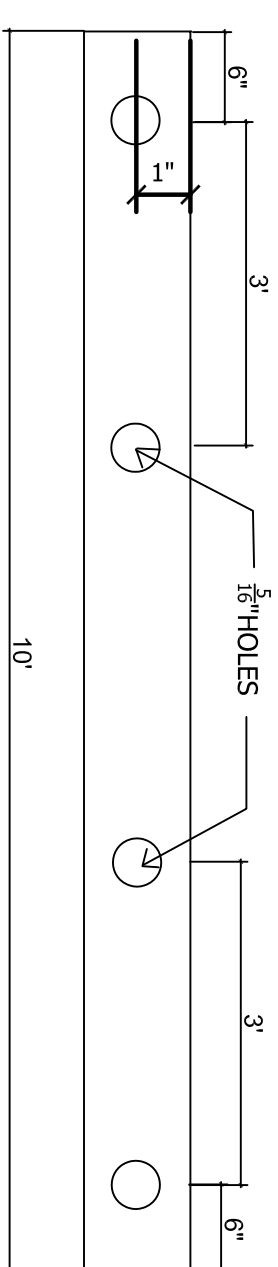
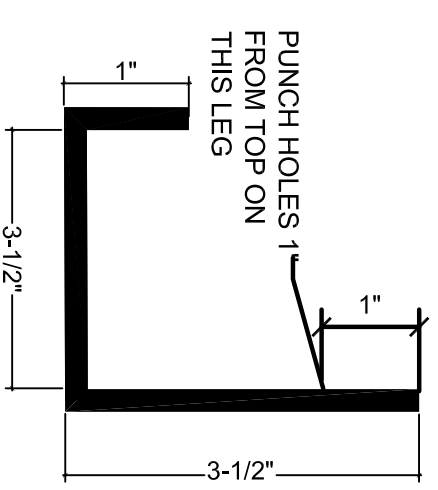
24 GAUGE GALVANIZED SHEET METAL EXTRUSIONS PIECE 10' LENGTHS

**4
 EDGE METAL DETAIL
 NOT TO SCALE**



18 GAUGE GALVANIZED METAL PIECE 10' LENGTHS

**1
 Z CHANNEL DETAIL
 NOT TO SCALE**

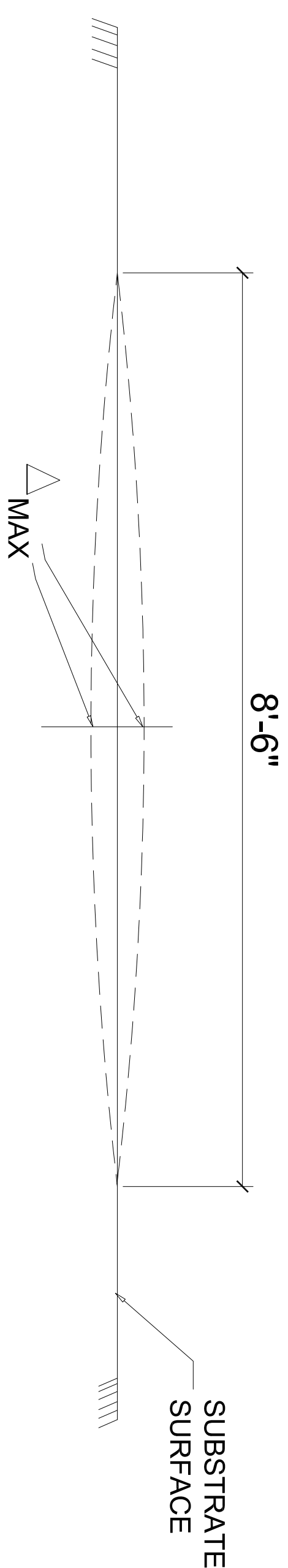


18 GAUGE GALVANIZED METAL PIECE 10' LENGTHS

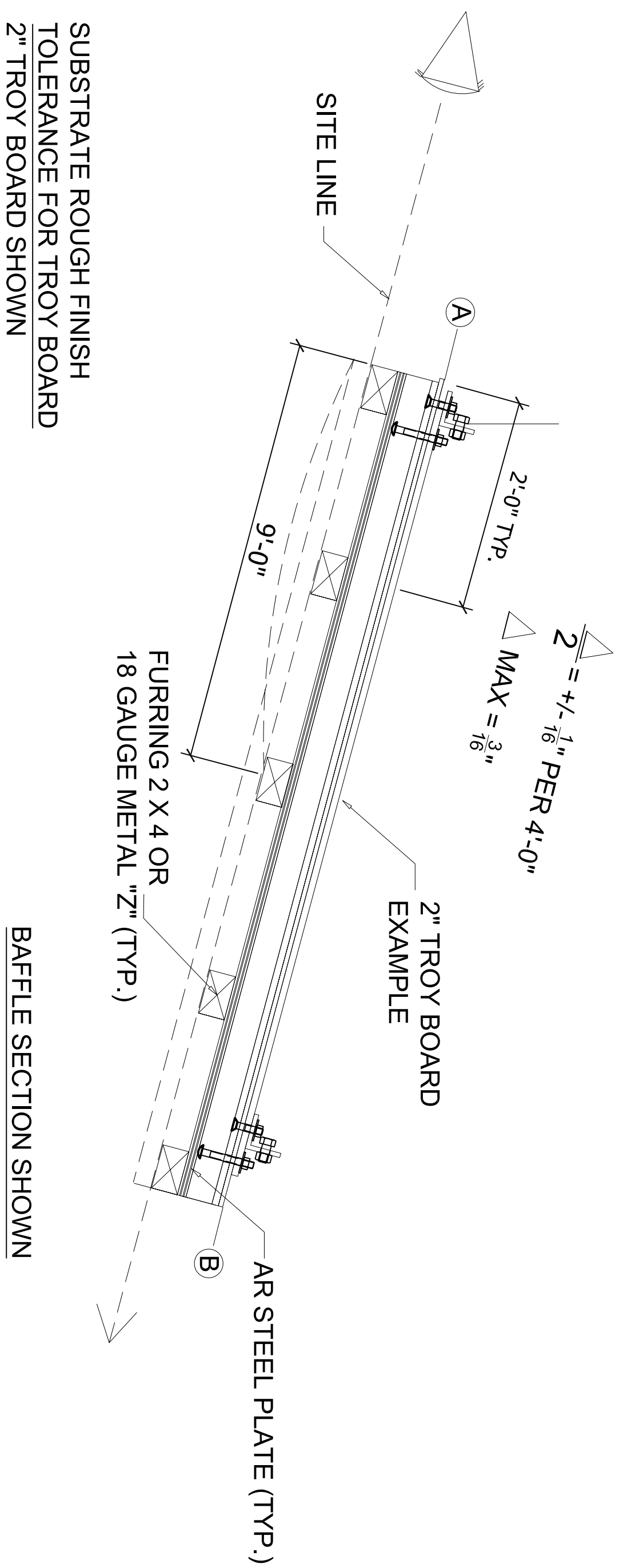
**2
 J CHANNEL DETAIL
 NOT TO SCALE**

NOTICE OF PROPRIETARY & CONFIDENTIAL INFORMATION
 This drawing and the information contained herein is the sole property of Troy Acoustics Corporation and is licensed and protected under U.S. Patent #6,561,273. Any use or reproduction in part or as a whole is strictly prohibited without the prior written permission of Troy Acoustics Corporation. Contact: 800.897.3396 for more information.

TROY BOARD TYPICAL SUBSTRATE
ROUGH FINISH TOLERANCES

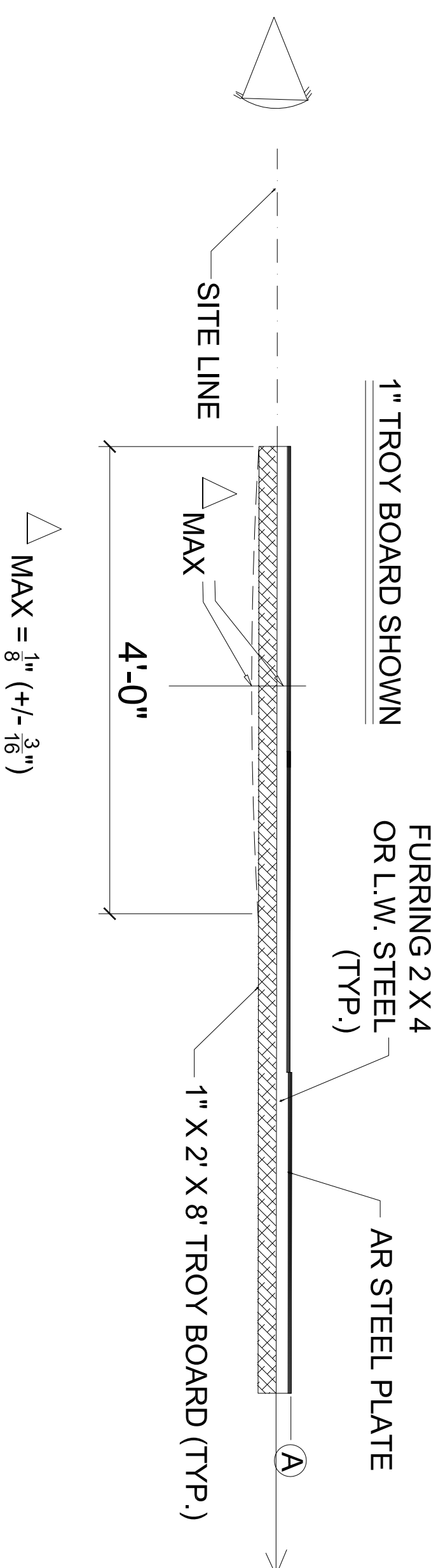


MAX = $\frac{3}{8}$ " : 8 FT (+/- $\frac{3}{16}$ " = $\frac{\Delta}{2}$) FOR 2" TROY BOARD
 = $\frac{1}{4}$ " : 8 FT (+/- $\frac{1}{8}$ " = $\frac{\Delta}{2}$) FOR 1" TROY BOARD



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

BAFFLE SECTION SHOWN



1 TOLERANCES
NOT TO SCALE

BAFFLE VIEW - ELEVATION PERSPECTIVE
FROM FIRING POSITION TOWARD TARGET

TROY
ACOUSTICS
CORPORATION



The Acoustic Solution Specialists™
 WWW.TROY.SOUNDWELLS.COM
 2580 Sidney Lanier Drive
 Brunswick, GA 31525
 Tel: (818) 376.8490
 (800) 887.3306
 Fax: (818) 376.8495

RECOMMENDED GENERIC DRAWINGS
 FIXED POINT
 10 LANE RANGE

REVISIONS:

DRAWN BY- SLM
DATE- 05-29-13
SCALE- AS NOTED

DETAILS

SHEET #
A-7
7 OF 7

NOTICE OF PROPRIETARY & CONFIDENTIAL INFORMATION
 This drawing and the information contained herein is the sole property of Troy Acoustics Corporation and it is licensed and protected under U.S. Patent #5,651,273. Any use or reproduction in part or as a whole is strictly prohibited without the prior, written permission of Troy Acoustics Corporation. Contact: 800.987.3306 for more information.