

GENERAL NOTES:

1. GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON THE PLANS, PRIOR TO COMMENCING WORK.
2. COORDINATE STRUCTURAL REPAIR DETAILS & DIMENSIONS WITH RELATED REQUIREMENTS ON OTHER DRAWINGS.
3. THE ARCHITECT WILL INTERPRET THE INTENT OF THE DOCUMENTS IN CASE OF A POSSIBLE CONFLICT OR DISCREPANCY BETWEEN STRUCTURAL AND OTHER DISCIPLINES.
4. DETAILS NOTED AS "TYPICAL" OR "TYP." SHALL APPLY IN ALL CASES WHETHER OR NOT SPECIFICALLY REFERENCED.
5. WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC).
6. FOUNDATION DESIGN IS BASED UPON MINIMUM REQUIREMENTS OF THE 2018 IBC, AS NOTED IN TABLE 1804.2
ALLOWABLE SOIL BEARING: 1,000 PSF
PASSIVE PRESSURE: 100 PCF
LATERAL SLIDING RESISTANCE: 130 PSF
FOUNDATION SHALL BE PLACED ON FIRM UNDISTURBED EARTH.
7. MATERIAL REQUIREMENTS:
 - A. CAST-IN-PLACE CONCRETE
 1. ALL WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE'S RECOMMENDATIONS FOUND WITHIN ACI 318 (LATEST EDITION)
 2. ALL CONCRETE SHALL ATTAIN THE FOLLOWING MINIMUM STRENGTH AT 28 DAYS:

CONCRETE FOOTINGS	2,000 PSI
CONCRETE BLOCK GROUT	4,000 PSI, QUICKCRETE MIX #1001

NO SPECIAL INSPECTION REQUIRED
 3. PORTLAND CEMENT SHALL CONFORM TO ASTM C150, TYPE I OR II.
 4. AGGREGATE FOR HARDROCK CONCRETE SHALL CONFORM TO ASTM C33 AND BE NON-REACTIVE.
 5. CONCRETE COVERAGE OVER REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:

CONCRETE POURED DIRECTLY AGAINST EARTH.....	3"
ALL OTHER LOCATIONS.....	1 1/2"
 - B. ISOKERN BLOCK:
ICC ESR-2316
 - C. MASONRY NOTES:
ASTM C90 GRADE N-1 (NORMAL WEIGHT)
NO SPECIAL INSPECTION REQUIRED (f'm = 1,500 PSI)
GROUT: f'c = 2,000 PSI
MORTAR: f'c = 1,800 PSI

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB.
2. ALL CELLS TO BE FILLED WITH GROUT.
3. REINFORCEMENT TO BE SPLICED 40 DIAMETERS, MINIMUM.
4. REINFORCEMENT SHALL BE ACCURATELY SPLICED AND SECURED SO THAT IT WILL NOT BE DISPLACED. ALL CONCRETE SHALL BE PROPERLY CONSOLIDATED DURING PLACEMENT. ALL REINFORCING STEEL & EMBEDDED ITEMS SHALL BE SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF CONCRETE.
5. GROUT SHALL BE WELL RODDED TO INSURE A GOOD CONTACT WITH REINFORCEMENT AN TO ELIMINATE ROCK POCKETS AND VOIDS. THE CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS FOR MIXING, PLACING, FINISHING, CURING AND PROTECTING CONCRETE DURING UNFAVORABLE WEATHER CONDITIONS.
- D. REINFORCING STEEL:
 1. ALL REINFORCING STEEL SHALL BE PLACED IN CONFORMANCE WITH THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE;" (ACI 318 LATEST), AND THE "MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION" (LATEST EDITION) BY THE C.R.S.I.
 2. REINFORCING BARS SHALL CONFORM TO THE FOLLOWING ASTM RATING AND GRADE TYPE FOR THE BAR SIZE LISTED.

#4 BARS & SMALLER.....	ASTM A615 GRADE 40
ALL OTHER BARS.....	ASTM A615, GRADE 60
WELDED REINFORCEMENT.....	ASTM A706, GRADE 60
 3. WELDING OF REINFORCEMENT SHALL BE WITH E90XX LOW-HYDROGEN ELECTRODES IN CONFORMANCE WITH "RECOMMENDED PRACTICES FOR WELDING REINFORCING STEEL, ETC., AMERICAN WELDING SOCIETY, AWS D1.4 (LATEST EDITION).
 4. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
 5. SPLICE REINFORCEMENT, AS SHOWN ON THE DRAWINGS, UNLESS NOTED AS CONTINUOUS LAP ALL CONTINUOUS HORIZONTAL REINFORCEMENT MIN OF 40 TIMES BAR DIAMETER.
 6. ALL BARS SHALL BE MARKED SO THEIR IDENTIFICATION CAN BE MADE WHEN THE FINAL IN-PLACE INSPECTION IS MADE.
- E. GROUT:

f'c =	4,000 PSI, QUICKCRETE CONCRETE MIX #1001
-------	--
- F. FASTENERS:
SIMPSON STRONGTIE INC. OR APPROVED EQUAL USP CONNECTORS.
- G. SCREW ANCHORS:

3/8" X 1 1/2"	A. RAMSET/REDHEAD TAPCON ANCHORS (ICC Report No. ESR-1671, LARR #24953)
	B. SIMPSON TITEN SCREW ANCHORS (ICC ESR-1056, LARR #25560)
- H. FACTORY BUILT (METAL) CHIMNEY:
 1. ECOSTEEL OR ECOSTEEL+ CLASS A METAL CHIMNEY ARE THE ONLY CHIMNEY TO BE USED WITH THE ISOKERN MAGNUM+ SERIES
 2. CHIMNEY'S ARE LIMITED TO A MAX. HEIGHT OF 60 FEET AND A MIN. HEIGHT OF 18 FEET, EXCEPT THAT WHERE OFFSETS ARE USED, THE MIN. HEIGHT IS 21 FEET.
 3. USE SPARK ARRESTOR

ADDITIONAL REQUIREMENTS

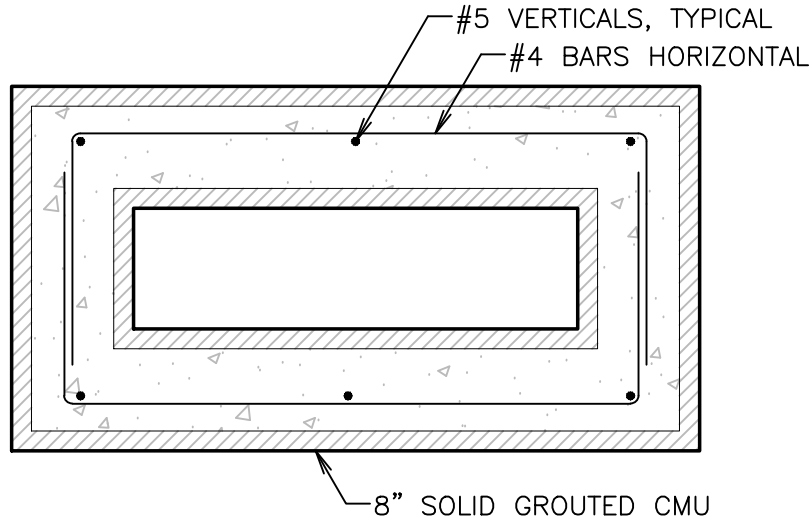
1. CLEARANCE TO COMBUSTIBLE MATERIALS SHALL BE AS REQUIRED BY IBC 2111.11 & 2113.19.
2. CROSS SECTIONAL AREA OF CHIMNEY FLUE MUST COMPLY WITH IBC 2113.16.
3. HEIGHT AND TERMINATION OF CHIMNEY WILL EXTEND ABOVE ROOF AND HIGHEST ELEVATION OF ANY PART OF BUILDING AS SHOWN IN IBC 2113.9
4. CLEANOUTS SHALL BE IN ACCORDANCE WITH IBC 2113.18
5. PROVIDE AN APPROVED SPARK ARRESTOR PER IBC 2113.9.1
6. ALL WORK SHALL BE DONE IN COMPLIANCE WITH CHAPTER 21 OF THE 2018 IBC.

VENEER REQUIREMENTS

STONE VENEER: STONE VENEER UNITS NOT EXCEEDING 10 INCHES IN THICKNESS SHALL BE ANCHORED DIRECTLY TO ISOKERN FACES WITH ANCHOR TIES THAT SHALL NOT LESS THAN 0.109 INCH MIN GALVANIZED WIRE, OR APPROVED EQUAL, FORMED BEYOND 1" MIN THE BASE OF THE BACKING. THE LEGS OF THE LOOPS SHALL BE NOT LESS THAN 6 INCHES IN LENGTH BENT AT RIGHT ANGLES AND LAID IN THE MORTAR JOINT, AND SPACED SO THAT THE EYES OR LOOPS ARE 12 INCHES MAXIMUM ON CENTER IN BOTH DIRECTIONS. BE PROVIDED NOT LESS THAN A 0.109 INCH MIN GALVANIZED WIRE TIE, OR APPROVED EQUAL, THREADED THROUGH THE EXPOSED LOOPS FOR EVERY 2 SQUARE FEET OF STONE VENEER. THIS TIE SHALL BE A LOOP HAVING LEGS NOT LESS THAN 15 INCHES IN LENGTH BENT SO THAT IT WILL LIE IN THE STONE VENEER MORTAR JOINT. THE LAST 2 INCHES OF EACH WIRE LEG SHALL HAVE A RIGHT-ANGLE BEND. ONE-INCH MINIMUM THICKNESS OF CEMENT GROUT SHALL BE PLACED BETWEEN THE BACKING AND THE STONE VENEER.

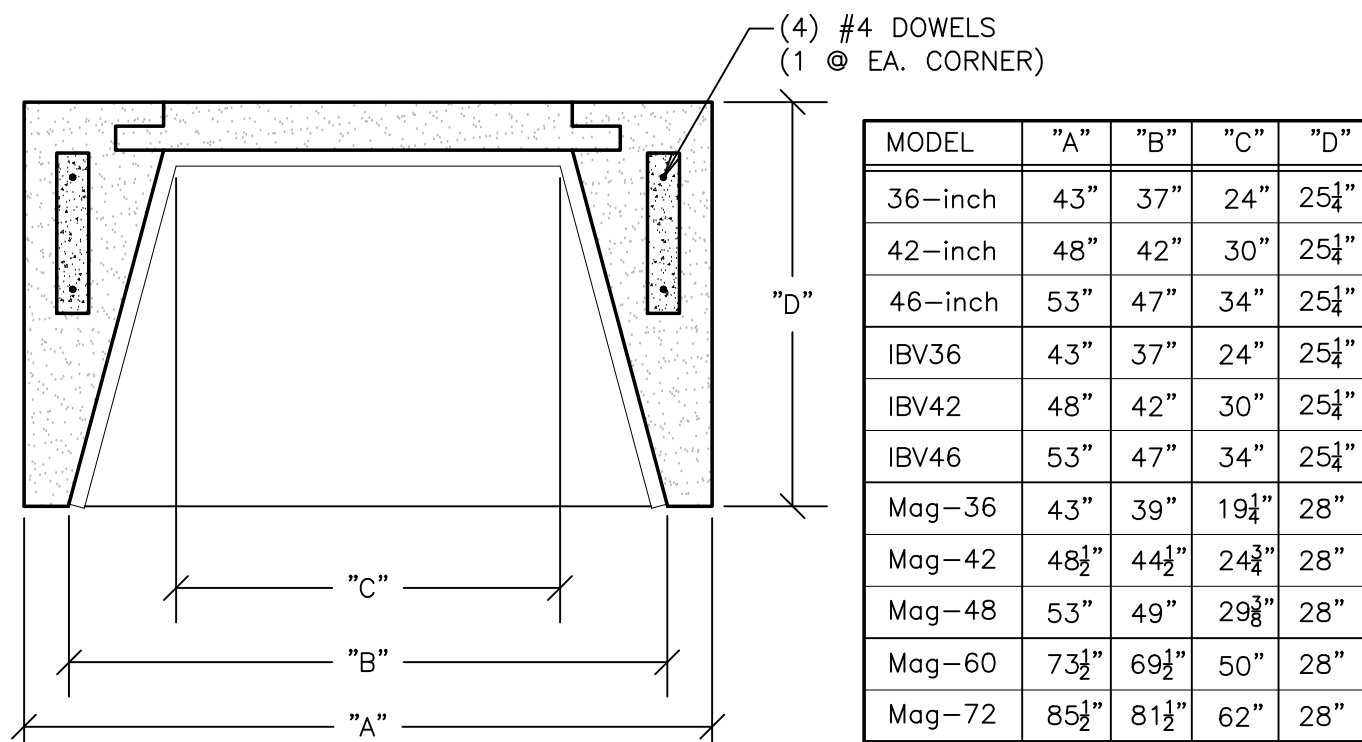
SLAB-TYPE VENEER: SLAB TYPE VENEER UNITS NOT EXCEEDING 2 INCHES IN THICKNESS SHALL BE ANCHORED DIRECTLY TO THE ISOKERN UNITS. FOR UNITS OF MARBLE, TRAVERTINE, GRANITE OR OTHER STONE UNITS OF SLAB FORM TIES OF CORROSION RESISTANT DOWELS IN DRILLED HOLES SHALL BE LOCATED IN THE MIDDLE THIRD OF THE EDGE OF THE UNITS, SPACED A MAXIMUM OF 24 INCHES APART AROUND THE PERIPHERY OF EACH UNIT WITH NOT LESS THAN FOUR TIES PER VENEER UNIT. UNITS SHALL NOT EXCEED 20 SQUARE FEET IN AREA. IF THE DOWELS ARE NOT TIGHT FITTING, THE HOLES SHALL BE DRILLED NOT MORE THAN 0.063 IN LARGER IN DIAMETER THAN THE DOWEL, WITH THE HOLE COUNTERSUNK TO A DIAMETER AND DEPTH EQUAL TO TWICE THE DIAMETER OF THE DOWEL IN ORDER TO PROVIDE A TIGHT FITTING KEY OF CEMENT MORTAR AT THE DOWEL LOCATIONS WHEN THE MORTAR IN THE JOINT HAS SET. VENEER TIES SHALL BE CORROSION RESISTANT METAL, CAPABLE OF RESISTING, IN TENSION AND COMPRESSION, A FORCE EQUAL TO TWO TIMES THE WEIGHT OF THE ATTACHED VENEER. IF MADE OF SHEET METAL VENEER TIES SHALL BE NOT SMALLER IN AREA THAN 0.0336 BY 1 INCH OR, IF MADE OF WIRE, NOT SMALLER IN DIAMETER THAN 0.1483 INCH WIRE.

ADHERED VENEER: ADHERED MASONRY VENEER SHALL COMPLY WITH THE APPLICABLE REQUIREMENTS IN SECTION 1405.9.1 OF IBC AND SECTIONS 6.1 AND 6.3 OF ACI 530/ASCE 5/ TMS 402.



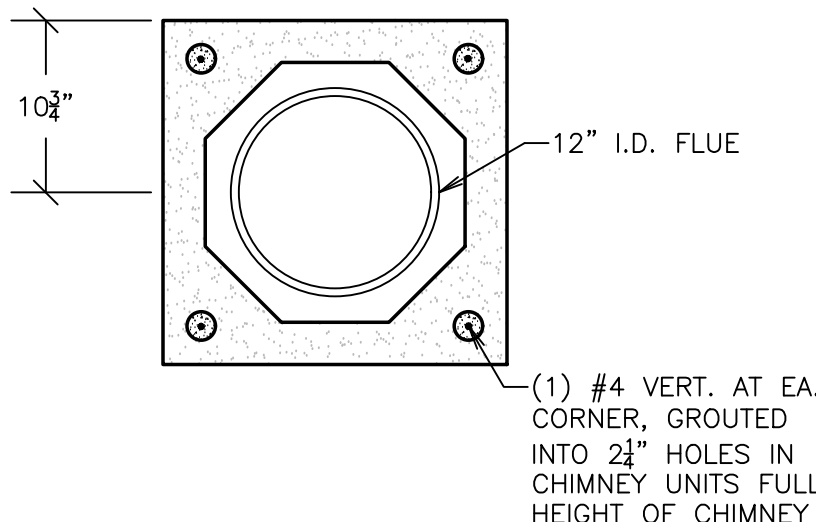
CROSS SECTION AT CMU BASE

SCALE: 1" = 1'-0" 2



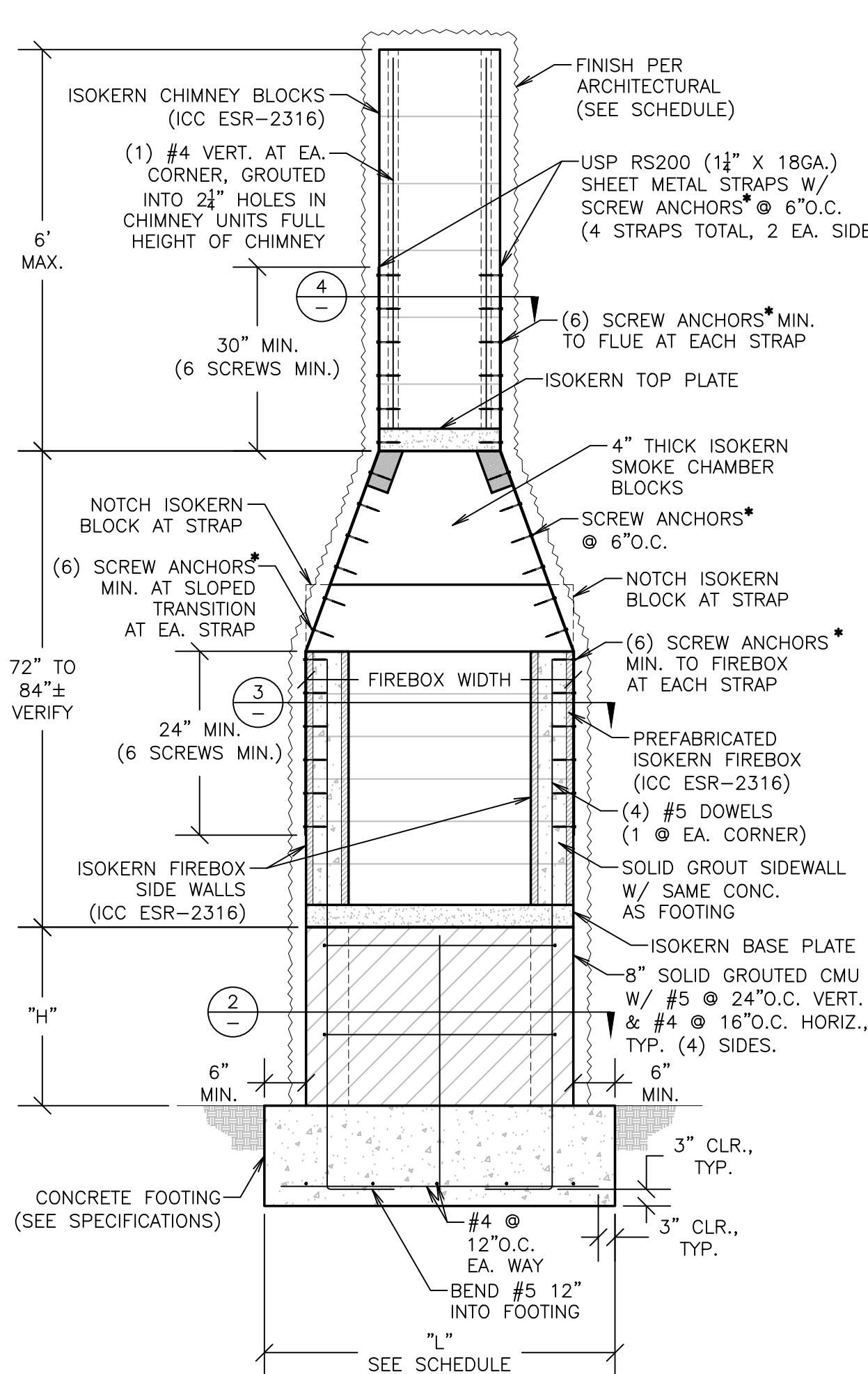
CROSS SECTION AT FIREBOX

SCALE: 1" = 1'-0" 3



CROSS SECTION AT FLUE

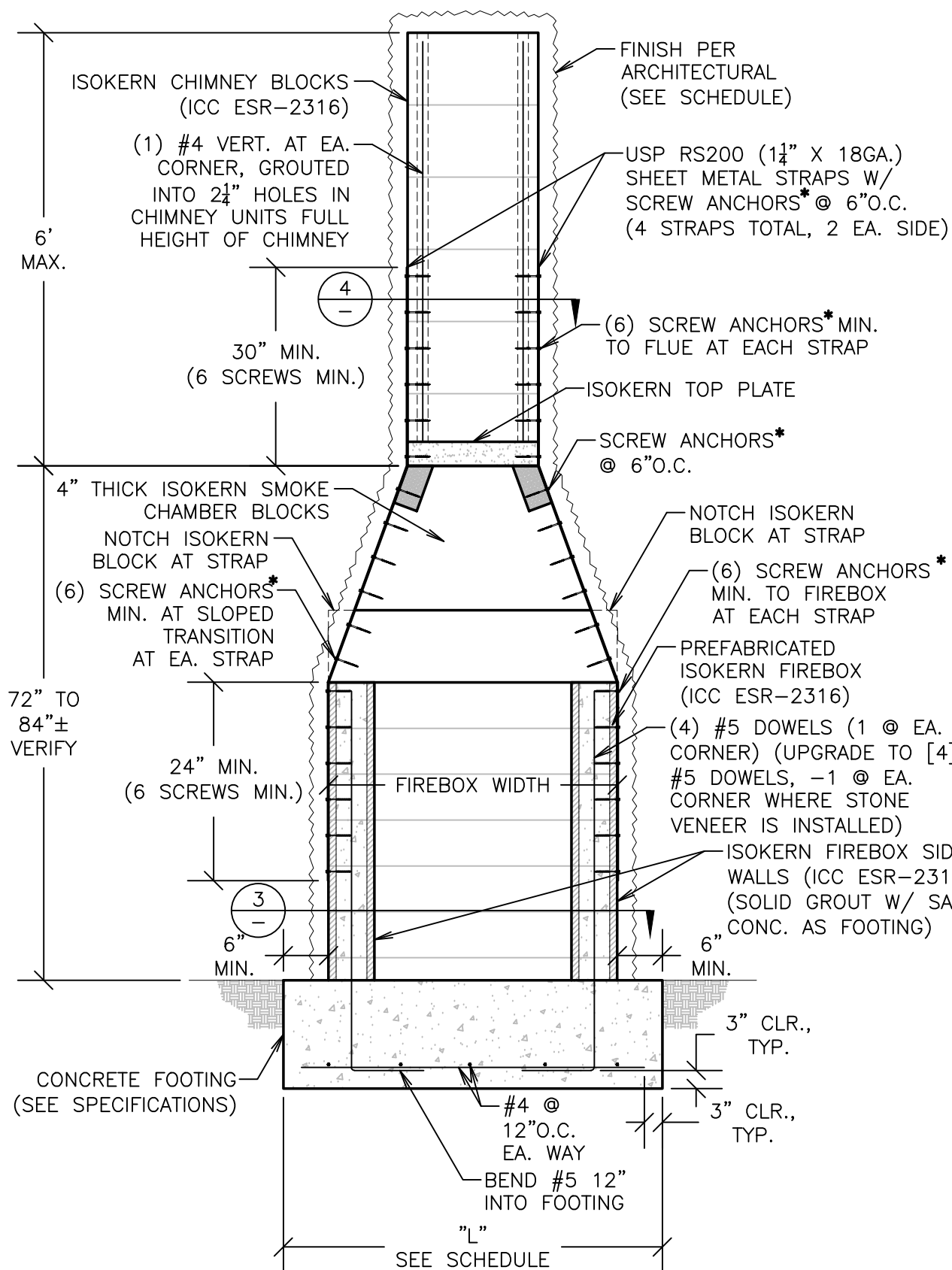
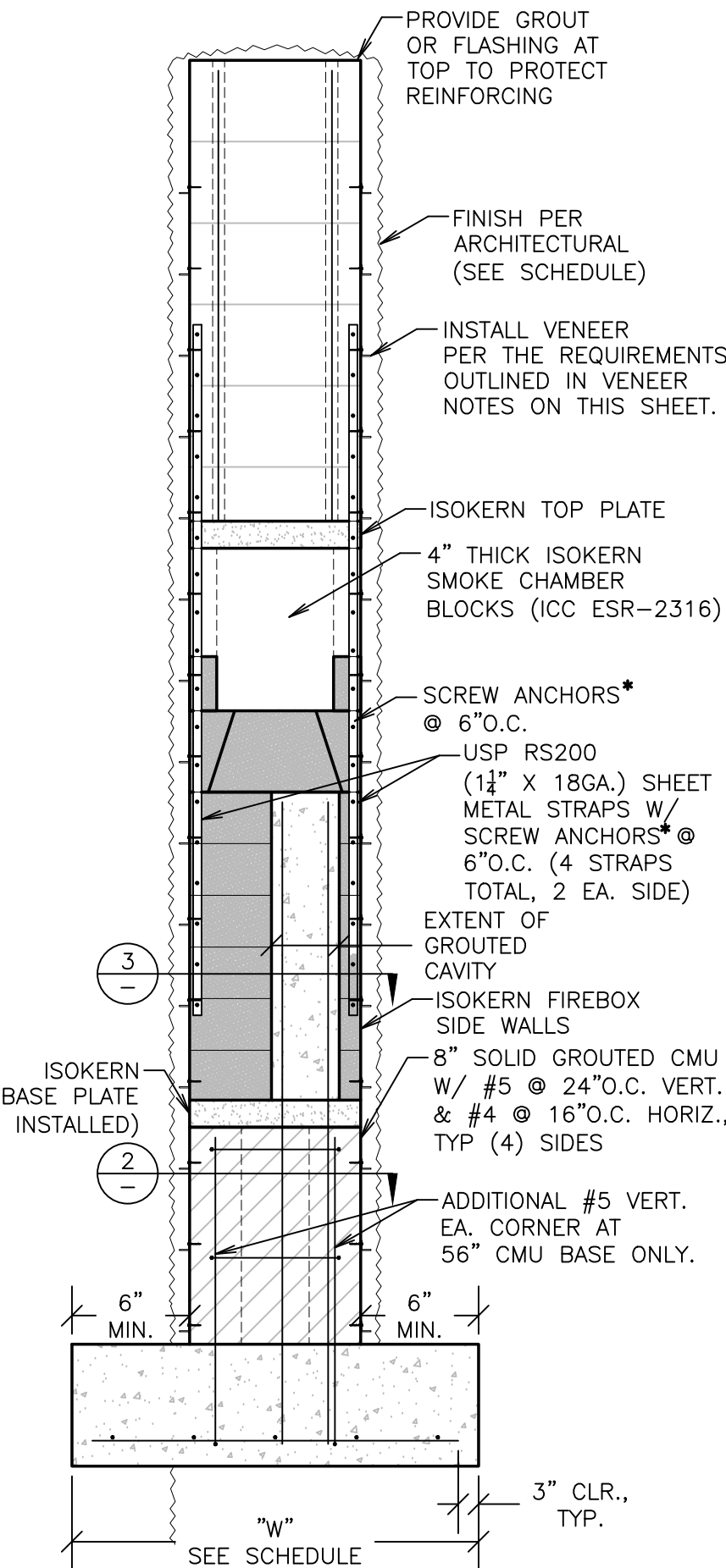
SCALE: 1" = 1'-0" 4



FOOTING SCHEDULE				
FINISH ARCH'L	WT	"H"	"W"	"L" (MIN.)
STUCCO	10 PSF	16" MAX. 32" MAX. 56" MAX.	4'-6" 5'-0" 6'-0"	5'-0" 5'-3" 6'-6"
1" BRICK VENEER	10 PSF	16" MAX. 32" MAX. 56" MAX.	4'-8" 5'-0" 6'-3"	5'-0" 5'-3" 6'-9"
4" BRICK	38 PSF	16" MAX. 32" MAX. 56" MAX.	5'-3" 5'-8" 6'-6"	5'-9" 6'-3" 6'-8"
STONE	55 PSF	16" MAX. 32" MAX. 56" MAX.	6'-0" 6'-3" 6'-9"	6'-6" 6'-9" 7'-6"

*SCREW ANCHORS SHALL BE 3/8" X 1 1/2" SCREWS

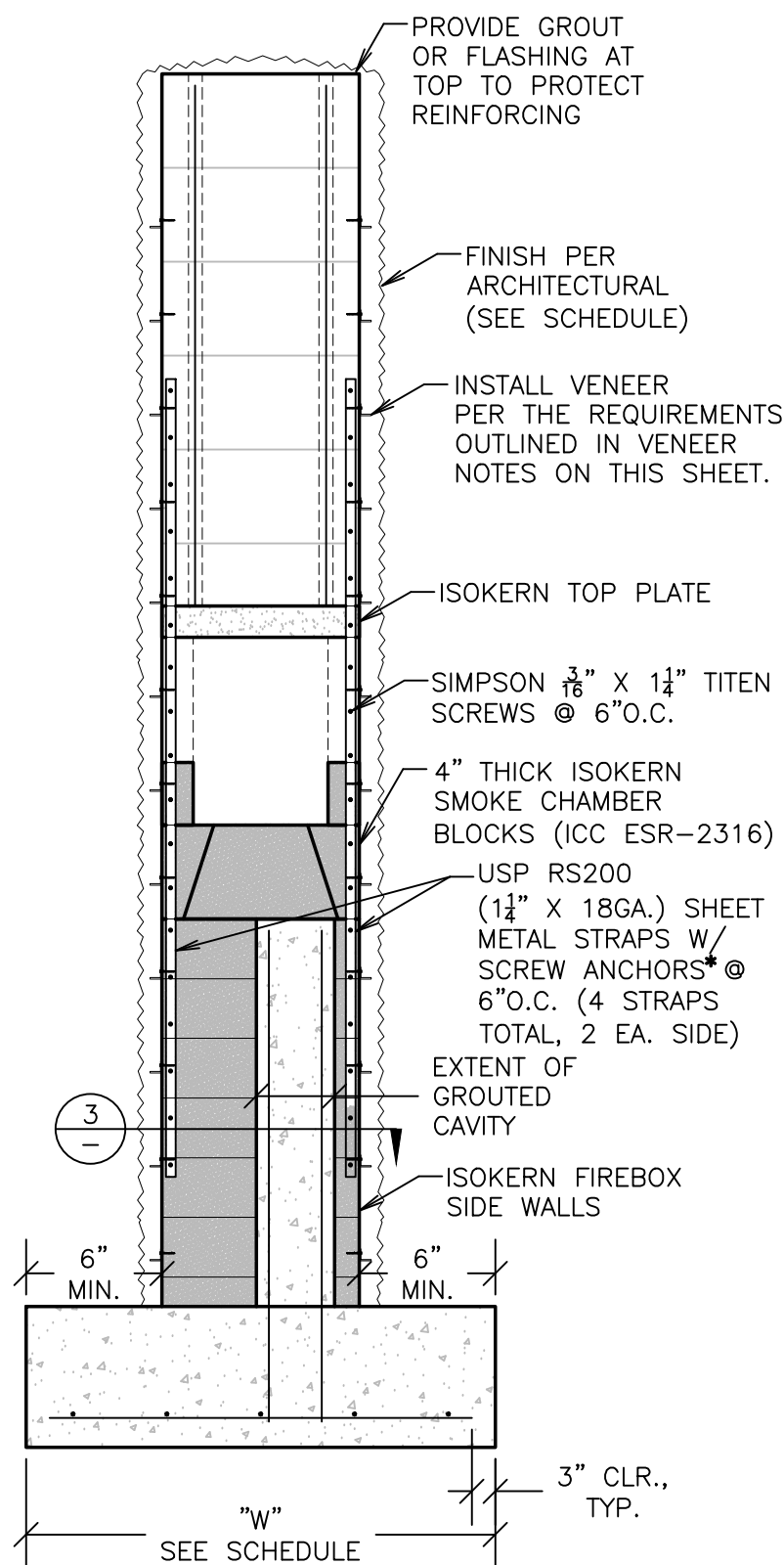
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GENERAL NOTES

OUTDOOR FIREPLACE INSTALLATION WITH RAISED HEARTH

SCALE: 1/2" = 1'-0" 14

TYPICAL OUTDOOR FIREPLACE INSTALLATION

SCALE: 1/2" = 1'-0" 16



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Stamp



Apr 26, 2022



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Project Name / Address

ISOKERN FIREPLACE SYSTEMS

EXTERIOR FIREBOX with ISOKERN FLUE

Project Name / Address

PROJECT TITLE

Street Address
City, State

FOR CONSTRUCTION

Revision	Description	Date

Project Number: 01-1491

Project Engineer: J. VINCI, S.E.

Checked By: JRV

Drawn By: JWB

Scale: AS NOTED

Date: 00-00-2020

Sheet Number

EX-S1

Sheet ___ Of ___

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ICC ESR-2316
 - MASONRY NOTES:

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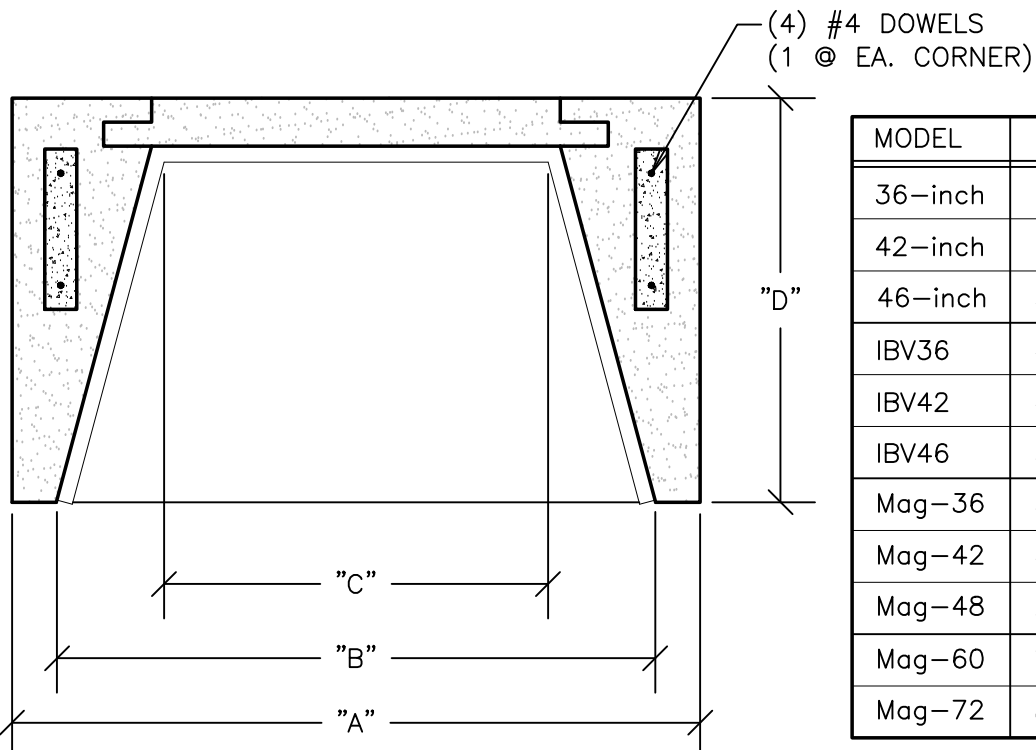
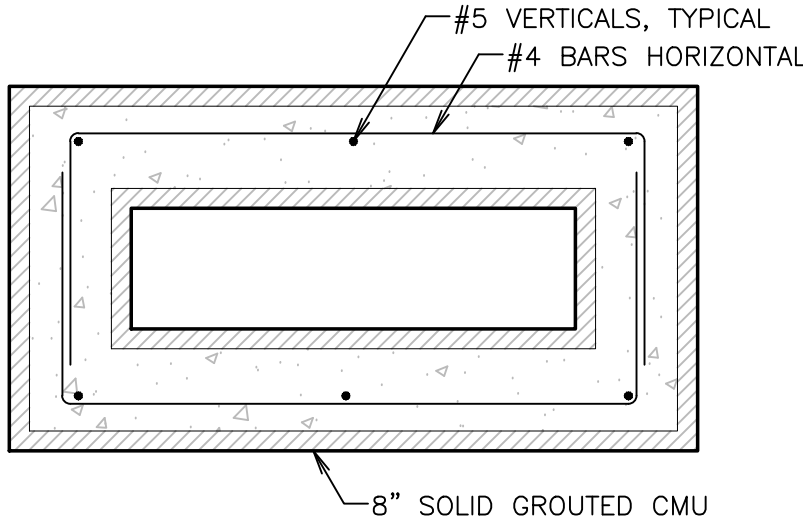
f'c = 4,000 PSI, QUICKCRETE CONCRETE MIX #1001

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 - WATER CEMENT RATIO SHALL BE LESS THAN 0.60 AT GROUT.
 - FASTENERS: SIMPSON STRONGTIE INC. OR APPROVED EQUAL USP CONNECTORS.
 - SCREW ANCHORS:

¾" x 1½"
A. RAMSET/REDHEAD TAPCON ANCHORS (ICC Report No. ESR-1671, LARR #24953)
B. SIMPSON TITEN SCREW ANCHORS (ICC ESR-1056, LARR #25560)
 - FACTORY BUILT (METAL) CHIMNEY:
 - ECOSTEEL OR ECOSTEEL+ CLASS A METAL CHIMNEY ARE THE ONLY CHIMNEY TO BE USED WITH THE ISOKERN MAGNUM+ SERIES
 - CHIMNEY'S ARE LIMITED TO A MAX. HEIGHT OF 60 FEET AND A MIN. HEIGHT OF 18 FEET, EXCEPT THAT WHERE OFFSETS ARE USED, THE MIN. HEIGHT IS 21 FEET.
 - USE SPARK ARRESTOR

ADDITIONAL REQUIREMENTS

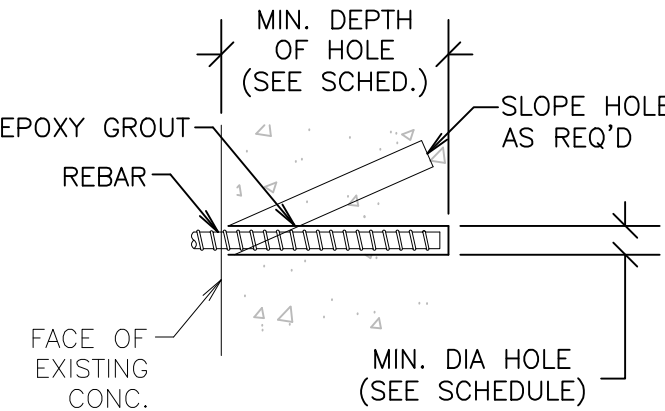
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- CLEANOUTS SHALL BE IN ACCORDANCE WITH IBC 2113.18
- PROVIDE AN APPROVED SPARK ARRESTOR PER IBC 2113.9.1
- ALL WORK SHALL BE DONE IN COMPLIANCE WITH CHAPTER 21 OF THE 2018 IBC.



MODEL	"A"	"B"	"C"	"D"
36-inch	43"	37"	24"	25½"
42-inch	48"	42"	30"	25½"
46-inch	53"	47"	34"	25½"
IBV36	43"	37"	24"	25½"
IBV42	48"	42"	30"	25½"
IBV46	53"	47"	34"	25½"
Mag-36	43"	39"	19½"	28"
Mag-42	48½"	44½"	24½"	28"
Mag-48	53"	49"	29½"	28"
Mag-60	73½"	69½"	50"	28"
Mag-72	85½"	81½"	62"	28"

- PROCEDURE
- DRILL HOLE OF PROPER DIAMETER AND DEPTH USING A CARBIDE TIPPED DRILL OR CORING BIT. AVOID ANY EXISTING REINFORCING STEEL BY RELOCATING HOLE SLIGHTLY.
 - CLEAN HOLE THOROUGHLY BY AIR PRESSURE.
 - MAKE SURE THAT HOLE IS DRY AND CLEAN BEFORE GROUTING.
 - PLACE EPOXY GROUT IN HOLE w/ CAULKING GUN OR SIMILAR EQUIPMENT STARTING AT BOTTOM, FILL HOLE APPROX. ¾ FULL.
 - COAT DOWEL WITH SAME EPOXY GROUT AND INSERT INTO HOLE, FORCING MATERIAL AROUND THE SIDES OF THE BAR AND COMPLETELY FILLING ALL VOIDS.
 - PROVIDE SUPPORT FOR DOWEL BY TYING TO REBAR OR OTHER ELEMENT UNTIL GROUT HAS CURED.
 - EPOXY GROUT IN CMU SHALL BE SIMPSON SET EPOXY TIE (ESR 1772, LARR 25279), HILTI HIT-HY 150 MAX (ESR 1967, LARR 25881), AC100+ GOLD BY DEWALT (ESR 3200, LARR 26049)
 - EPOXY GROUT IN CONCRETE SHALL BE HIT-RE 500-SD BY HILTI CORP. (ESR 2322, LARR 25700), SIMPSON SET-XP (ESR-2508, LARR 03151) OR PURE110+ BY DEWALT (ICC ESR 3298, LARR 26035)
 - SPECIAL INSPECTION REQUIRED

- SPECIAL INSPECTION IS REQUIRED FOR THE INSTALLATION OF EPOXY ADHESIVE ANCHORS. A REPORT SHALL BE GIVEN TO THE BUILDING INSPECTOR AT FRAMING INSPECTION.



BAR SIZE	ROD SIZE	BIT DIAM.	MIN. DEPTH
#3	—	1/2"	4"
#4	1/2"	5/8"	5"
#5	5/8"	3/4"	6"
#6	3/4"	7/8"	7"
—	7/8"	1"	8"
—	1"	1-1/8"	9"

CROSS SECTION AT CMU BASE

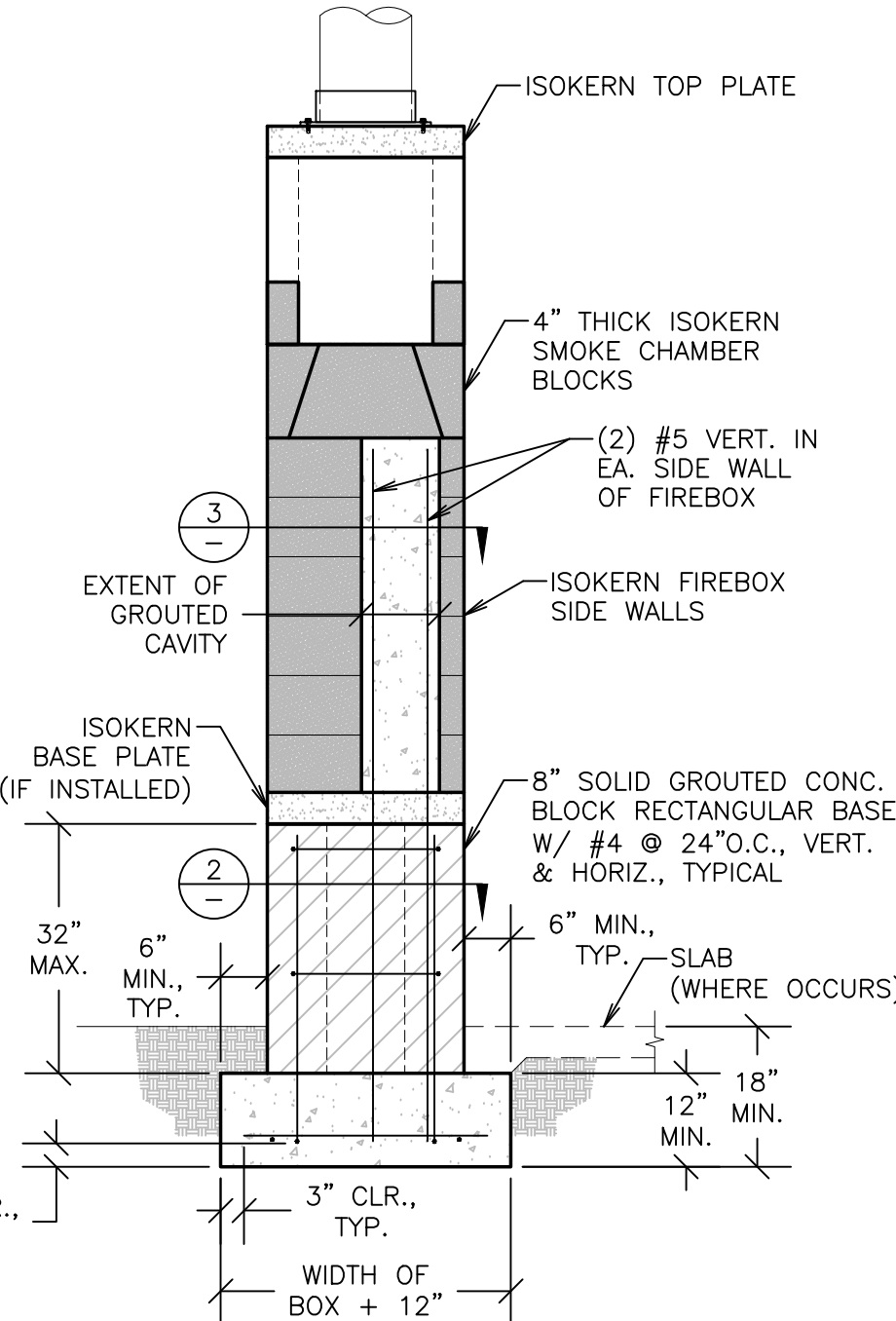
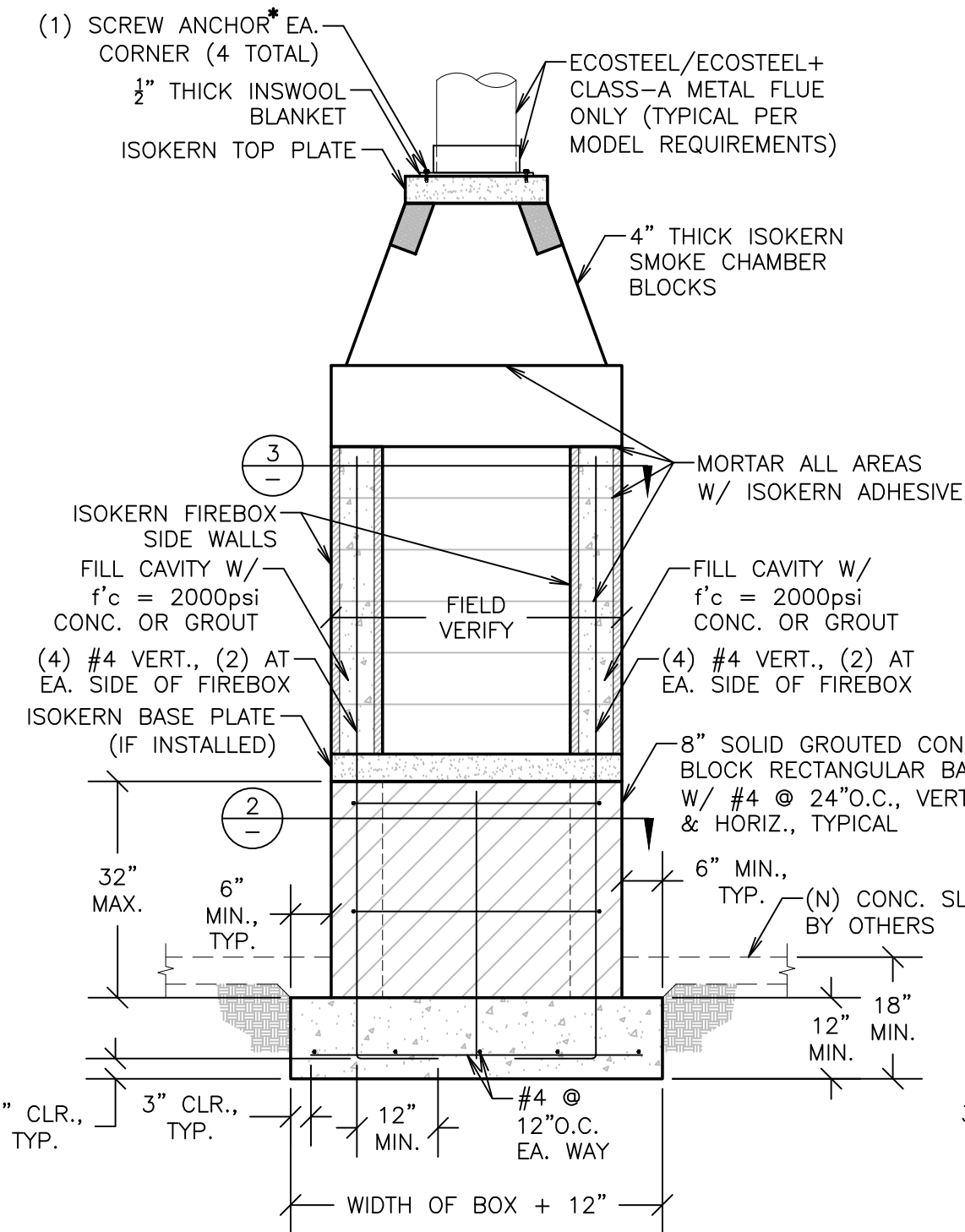
SCALE: 1" = 1'-0" 2

CROSS SECTION AT FIREBOX

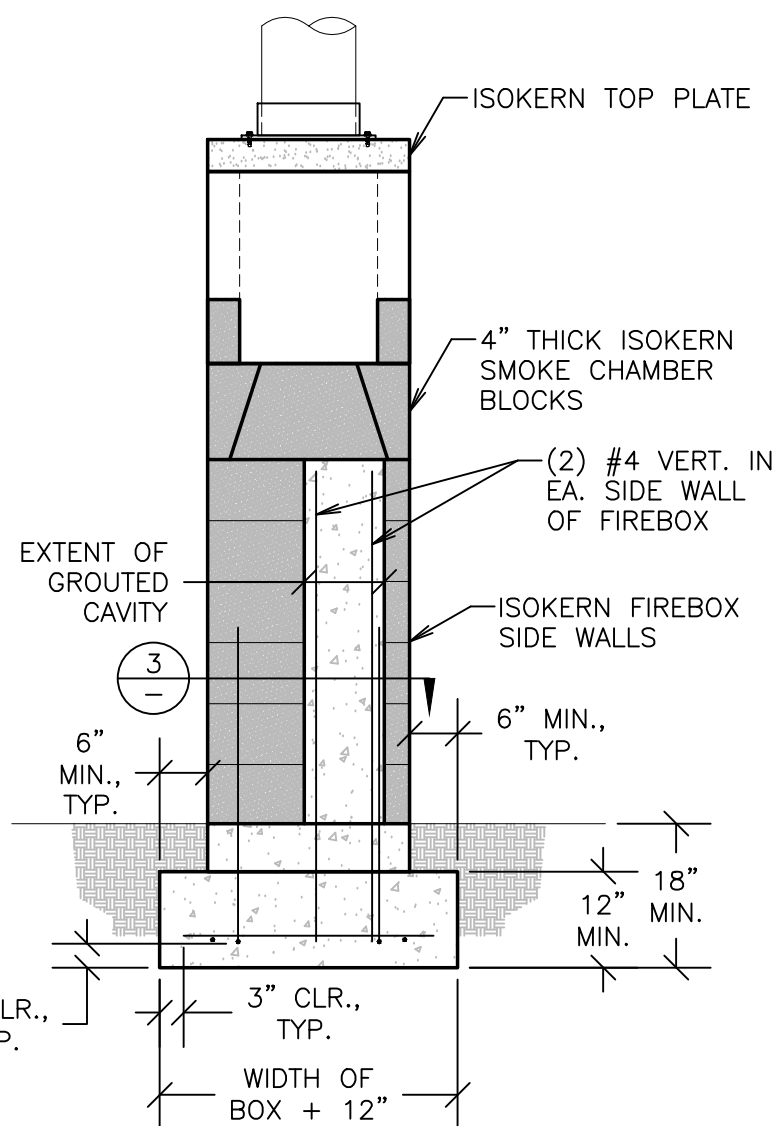
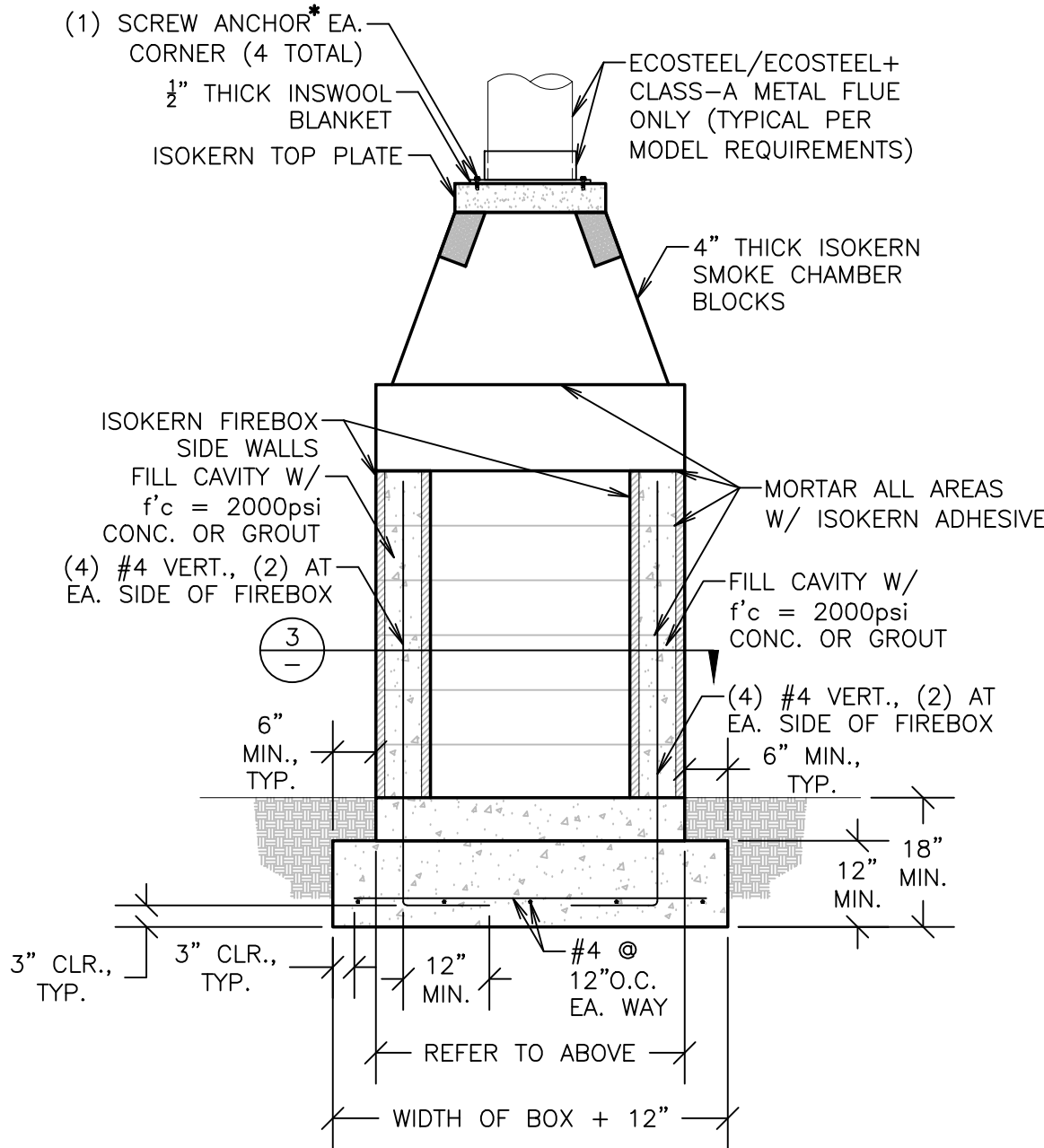
SCALE: 1" = 1'-0" 3

TYPICAL EPOXY GROUTED DOWEL

4



- *SCREW ANCHORS SHALL BE ¾" x 1½" SCREWS
- RAMSET/REDHEAD TAPCON ANCHORS (ICC REPORT NO. ESR-1671, LARR #24953)
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GENERAL NOTES

FIREBOX ON RAISED CMU HEARTH

SCALE: 1/2" = 1'-0" 14

FIREBOX ON GRADE

SCALE: 1/2" = 1'-0" 16



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Apr 26, 2022



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Project Name / Address

ISOKERN FIREPLACE SYSTEMS
EXTERIOR FIREBOX with METAL FLUE

Project Name / Address

PROJECT TITLE

Street Address
City, State

FOR CONSTRUCTION

Revision	Description	Date

- Project Number: 01-1491
- Project Engineer: J. VINCI, S.E.
- Checked By: JRV
- Drawn By: JWB
- Scale: AS NOTED
- Date: 00-00-2020

Sheet Number

EX-S2

Sheet __ Of __

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ALLOWABLE SOIL BEARING: 1,000 PSF
PASSIVE PRESSURE: 100 PCF
LATERAL SLIDING RESISTANCE: 130 PSF
FOUNDATION SHALL BE PLACED ON FIRM UNDISTURBED EARTH.
- MATERIAL REQUIREMENTS:
 - CAST-IN-PLACE CONCRETE
 - ALL WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE'S RECOMMENDATIONS FOUND WITHIN ACI 318 (LATEST EDITION).
 - ALL CONCRETE SHALL ATTAIN THE FOLLOWING MINIMUM STRENGTH AT 28 DAYS:

CONCRETE FOOTINGS	2,000 PSI
ISOKERN BLOCK GROUT	4,000 PSI, QUICKCRETE MIX #1001

NO SPECIAL INSPECTION REQUIRED
 - PORTLAND CEMENT SHALL CONFORM TO ASTM C150, TYPE I OR II.
 - AGGREGATE FOR HARDROCK CONCRETE SHALL CONFORM TO ASTM C33 AND BE NON-REACTIVE.
 - CONCRETE COVERAGE OVER REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:

CONCRETE POURED DIRECTLY AGAINST EARTH.....	3"
ALL OTHER LOCATIONS.....	1½"
 - ISOKERN BLOCK:

ICC ESR-2316
 - MASONRY NOTES:

ASTM C90 GRADE N-1 (NORMAL WEIGHT)
NO SPECIAL INSPECTION REQUIRED (f'm = 1,500 PSI)
GROUT: f'c = 2,000 PSI
MORTAR: f'c = 1,800 PSI

 - THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB.
 - ALL CELLS TO BE FILLED WITH GROUT.
 - REINFORCEMENT TO BE SPLICED 40 DIAMETERS, MINIMUM.
 - REINFORCEMENT SHALL BE ACCURATELY SPLICED AND SECURED SO THAT IT WILL NOT BE DISPLACED. ALL CONCRETE SHALL BE PROPERLY CONSOLIDATED DURING PLACEMENT. ALL REINFORCING STEEL & EMBEDDED ITEMS SHALL BE SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF CONCRETE.
 - GROUT SHALL BE WELL RODDED TO INSURE A GOOD CONTACT WITH REINFORCEMENT AN TO ELIMINATE ROCK POCKETS AND VOIDS. THE CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS FOR MIXING, PLACING, FINISHING, CURING AND PROTECTING CONCRETE DURING UNFAVORABLE WEATHER CONDITIONS.
 - REINFORCING STEEL:
 - ALL REINFORCING STEEL SHALL BE PLACED IN CONFORMANCE WITH THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," (ACI 318 LATEST), AND THE "MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION" (LATEST EDITION) BY THE C.R.S.I.
 - REINFORCING BARS SHALL CONFORM TO THE FOLLOWING ASTM RATING AND GRADE TYPE FOR THE BAR SIZE LISTED.

#4 BARS & SMALLER.....	ASTM A615 GRADE 40
ALL OTHER BARS.....	ASTM A615, GRADE 60
WELDED REINFORCEMENT.....	ASTM A706, GRADE 60
 - WELDING OF REINFORCEMENT SHALL BE WITH E90XX LOW-HYDROGEN ELECTRODES IN CONFORMANCE WITH "RECOMMENDED PRACTICES FOR WELDING REINFORCING STEEL, ETC., AMERICAN WELDING SOCIETY, AWS D1.4 (LATEST EDITION).
 - ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
 - SPLICE REINFORCEMENT, AS SHOWN ON THE DRAWINGS, UNLESS NOTED AS CONTINUOUS LAP ALL CONTINUOUS HORIZONTAL REINFORCEMENT MIN OF 40 TIMES BAR DIAMETER.
 - ALL BARS SHALL BE MARKED SO THEIR IDENTIFICATION CAN BE MADE WHEN THE FINAL IN-PLACE INSPECTION IS MADE.
 - GROUT:

f'c = 4,000 PSI, QUICKCRETE CONCRETE MIX #1001

 - PORTLAND CEMENT SHALL CONFORM TO ASTM C150, TYPE I OR II.
 - AGGREGATE FOR GROUT SHALL CONFORM TO ASTM C33 AND BE NON-REACTION
 - WATER CEMENT RATIO SHALL BE LESS THAN 0.60 AT GROUT.
 - FASTENERS: SIMPSON STRONGTIE INC. OR APPROVED EQUAL USP CONNECTORS.
 - SCREW ANCHORS:

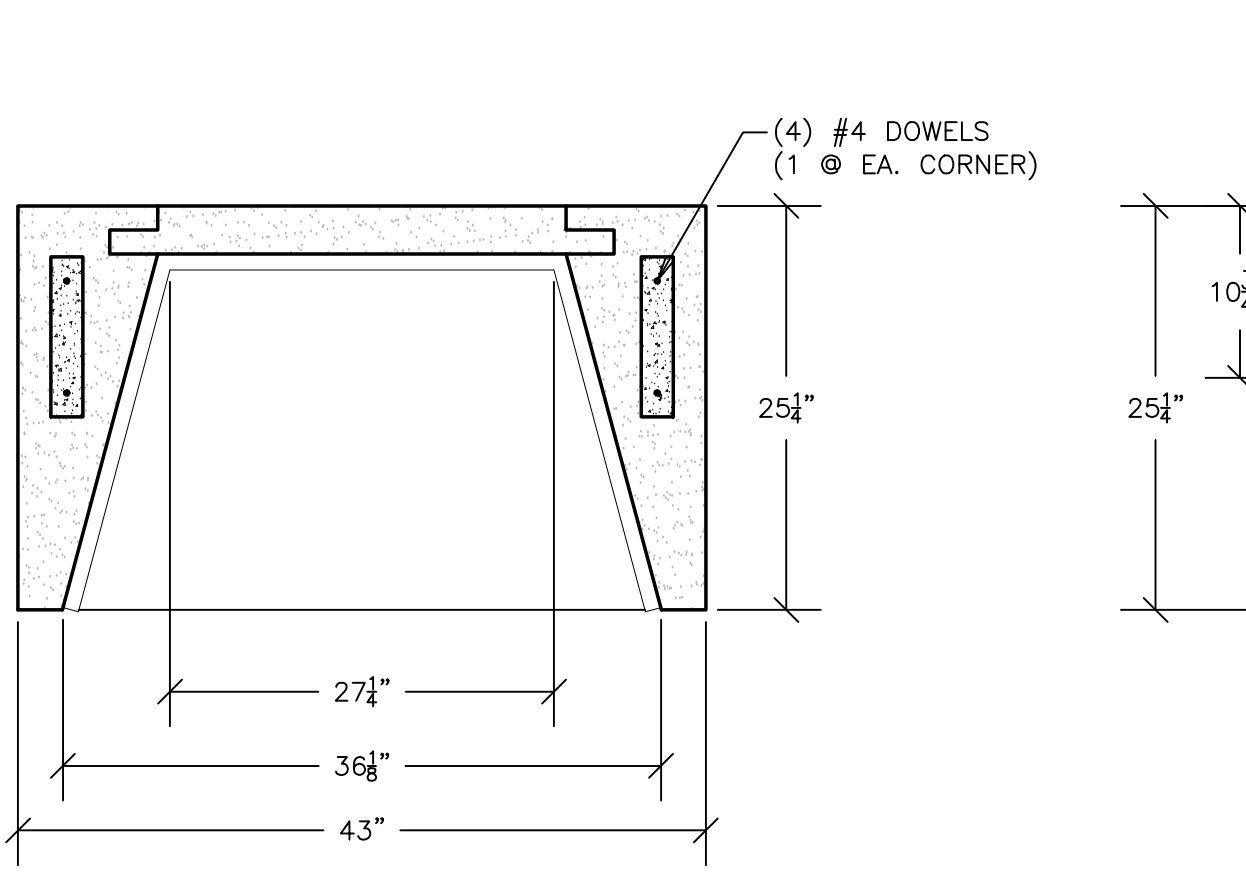
⅝" X 1½"

A. RAMSET/REDHEAD TAPCON ANCHORS (ICC Report No. ESR-1671, LARR #24953)

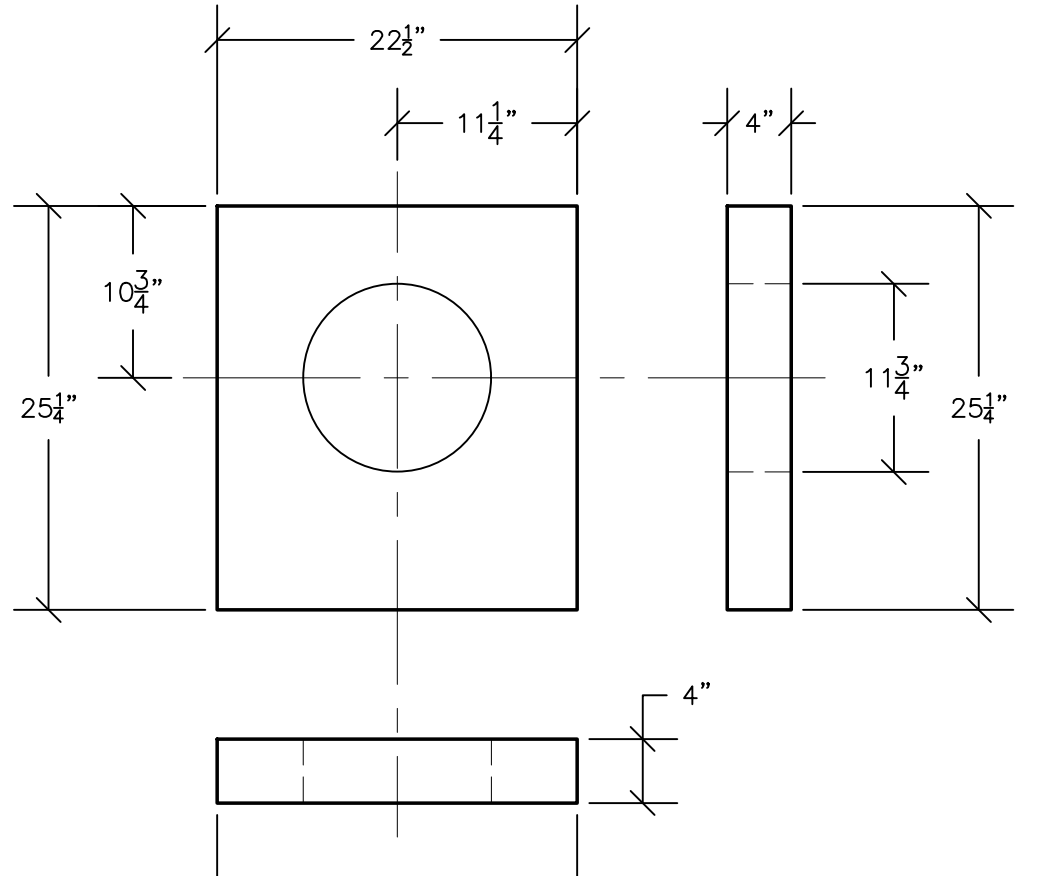
B. SIMPSON TITEN SCREW ANCHORS (ICC ESR-1056, LARR #25560)
 - FACTORY BUILT (METAL) CHIMNEY:
 - ECOSTEEL OR ECOSTEEL+ CLASS A METAL CHIMNEY ARE THE ONLY CHIMNEY TO BE USED WITH THE ISOKERN MAGNUM+ SERIES
 - CHIMNEY'S ARE LIMITED TO A MAX. HEIGHT OF 60 FEET AND A MIN. HEIGHT OF 18 FEET, EXCEPT THAT WHERE OFFSETS ARE USED, THE MIN. HEIGHT IS 21 FEET.
 - USE SPARK ARRESTOR

ADDITIONAL REQUIREMENTS

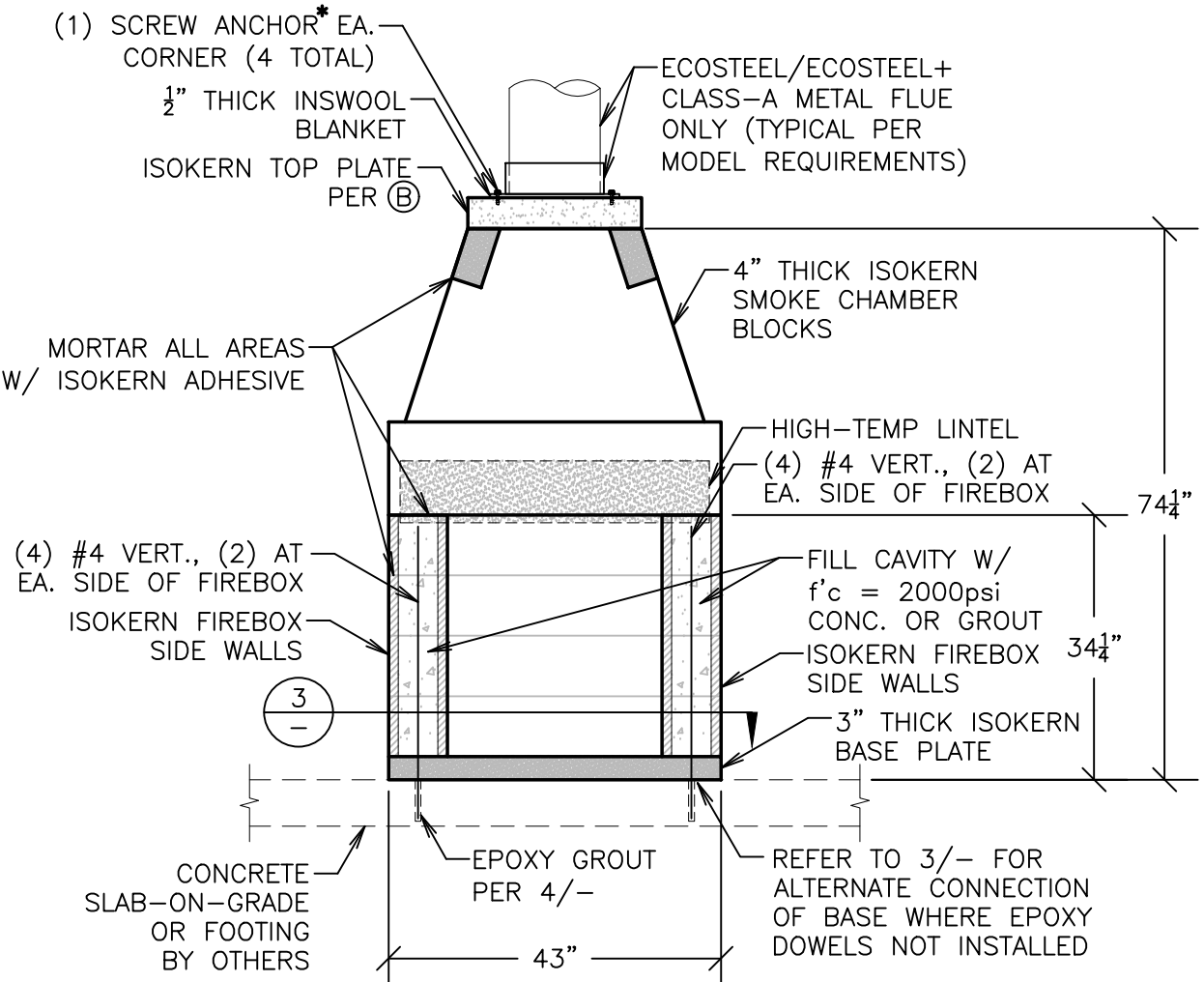
- CLEARANCE TO COMBUSTIBLE MATERIALS SHALL BE AS REQUIRED BY IBC 2111.11 & 2113.19.
- CROSS SECTIONAL AREA OF CHIMNEY FLUE MUST COMPLY WITH IBC 2113.16.
- HEIGHT AND TERMINATION OF CHIMNEY WILL EXTEND ABOVE ROOF AND HIGHEST ELEVATION OF ANY PART OF BUILDING AS SHOWN IN IBC 2113.9
- CLEANOUTS SHALL BE IN ACCORDANCE WITH IBC 2113.18
- PROVIDE AN APPROVED SPARK ARRESTOR PER IBC 2113.9.1
- ALL WORK SHALL BE DONE IN COMPLIANCE WITH CHAPTER 21 OF THE 2018 IBC.



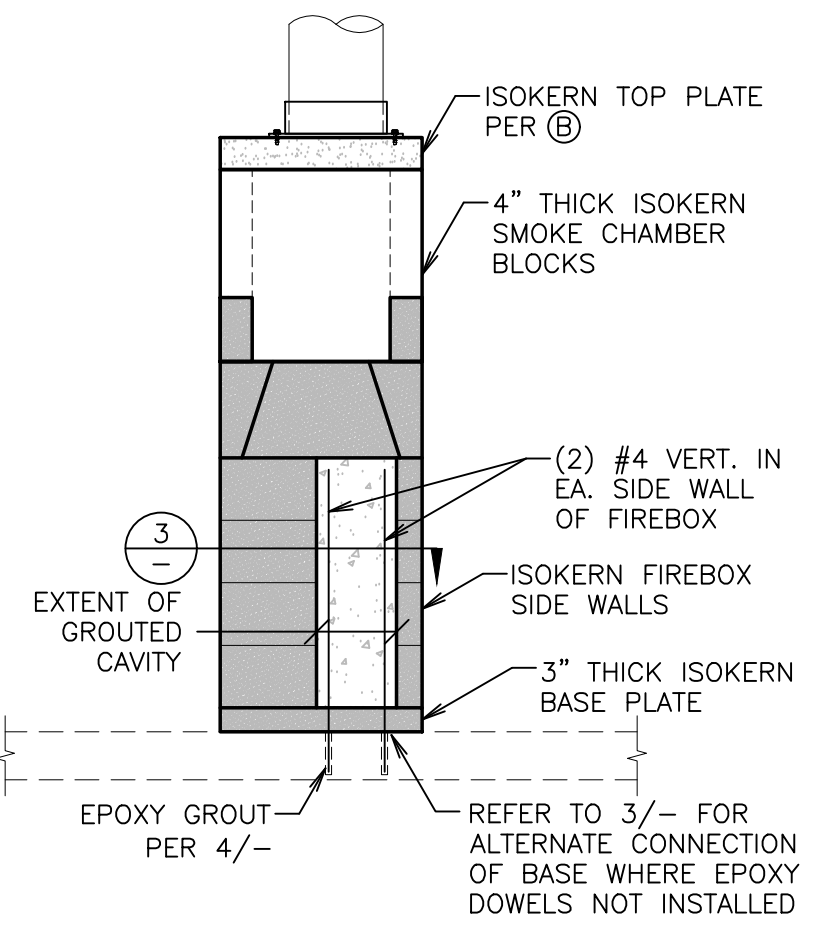
A SECTION AT FIREBOX
SCALE: 1" = 1'-0"



B DETAIL OF TOP PLATE
SCALE: 1" = 1'-0"



C FRONT ELEVATION OF FIREBOX

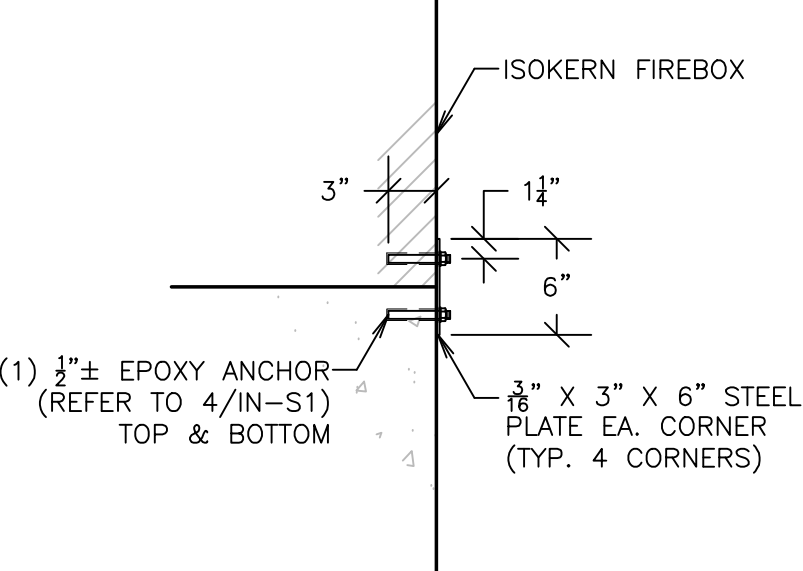
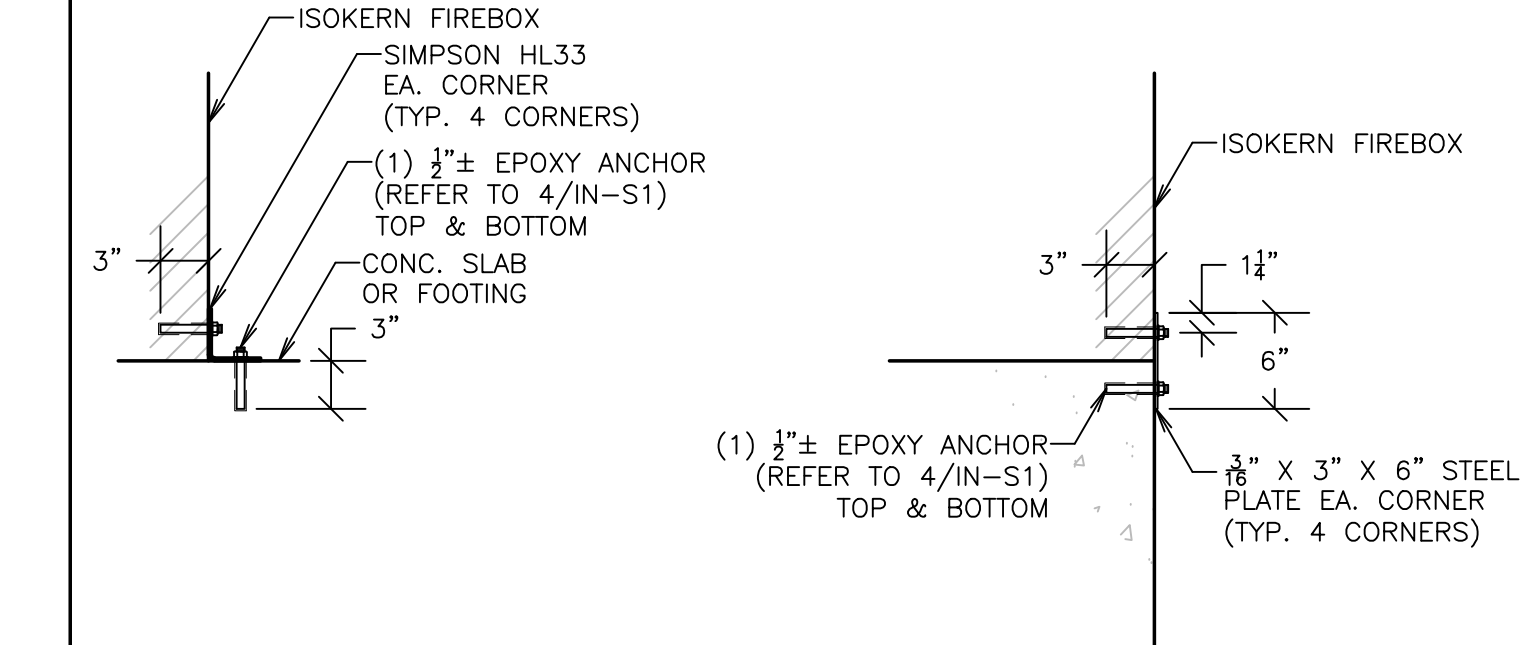


D SIDE ELEVATION OF FIREBOX

- *SCREW ANCHORS SHALL BE ⅝" X 1½" SCREWS
- RAMSET/REDHEAD TAPCON ANCHORS (ICC REPORT NO. ESR-1671, LARR #24953)
 - SIMPSON TITEN SCREW ANCHORS (ICC ESR-1056, LARR #25560)

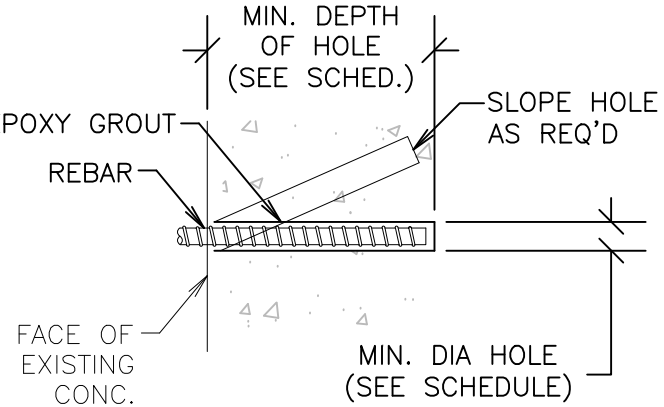
A OPTION 1

B OPTION 2



- PROCEDURE
- DRILL HOLE OF PROPER DIAMETER AND DEPTH USING A CARBIDE TIPPED DRILL OR CORING BIT. AVOID ANY EXISTING REINFORCING STEEL BY RELOCATING HOLE SLIGHTLY.
 - CLEAN HOLE THOROUGHLY BY AIR PRESSURE.
 - MAKE SURE THAT HOLE IS DRY AND CLEAN BEFORE GROUTING.
 - PLACE EPOXY GROUT IN HOLE w/ CAULKING GUN OR SIMILAR EQUIPMENT STARTING AT BOTTOM, FILL HOLE APPROX. 3/4 FULL.
 - COAT DOWEL WITH SAME EPOXY GROUT AND INSERT INTO HOLE, FORCING MATERIAL AROUND THE SIDES OF THE BAR AND COMPLETELY FILLING ALL VOIDS.
 - PROVIDE SUPPORT FOR DOWEL BY TYING TO REBAR OR OTHER ELEMENT UNTIL GROUT HAS CURED.
 - EPOXY GROUT IN CMU SHALL BE SIMPSON SET EPOXY TIE (ESR 1772, LARR 25279), HILTI HIT-HY 150 MAX (ESR 1967, LARR 25881), AC100+ GOLD BY DEWALT (ESR 3200, LARR 26049)
 - EPOXY GROUT IN CONCRETE SHALL BE HIT-RE 500-SD BY HILTI CORP. (ESR 2322, LARR 25700), SIMPSON SET-XP (ESR-2508, LARR 03151) OR PURE110+ BY DEWALT (ICC ESR 3298, LARR 26035)
 - SPECIAL INSPECTION REQUIRED

- SPECIAL INSPECTION IS REQUIRED FOR THE INSTALLATION OF EPOXY ADHESIVE ANCHORS. A REPORT SHALL BE GIVEN TO THE BUILDING INSPECTOR AT FRAMING INSPECTION.



BAR SIZE	ROD SIZE	BIT DIAM.	MIN. DEPTH
#3	-	1/2"	4"
#4	1/2"	5/8"	5"
#5	5/8"	3/4"	6"
#6	3/4"	7/8"	7"
-	7/8"	1"	8"
-	1"	1-1/8"	9"

36" IBV FIREBOX ON SLAB-ON-GRADE

SCALE: 1/2" = 1'-0" 14

46" IBV FIREBOX ON SLAB-ON-GRADE

SCALE: 1/2" = 1'-0" 16

GENERAL NOTES

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JACKSONVILLE, FLORIDA 32256
TEL (904) 363-3417
FAX (904) 363-3408
www.isokern.net

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VINCI & ASSOCIATES
Structural Engineers
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Apr 26, 2022

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Project Name / Address

ISOKERN FIREPLACE SYSTEMS
IBV FIREBOX on SLAB FOUNDATION

Project Name / Address

PROJECT TITLE

Street Address
City, State

FOR CONSTRUCTION

Revision	Description	Date

- Project Number: 01-1491
- Project Engineer: J. VINCI, S.E.
- Checked By: JRV
- Drawn By: JWB
- Scale: AS NOTED
- Date: 00-00-2020

Sheet Number

IBV-S1

Sheet __ Of __

GENERAL NOTES:

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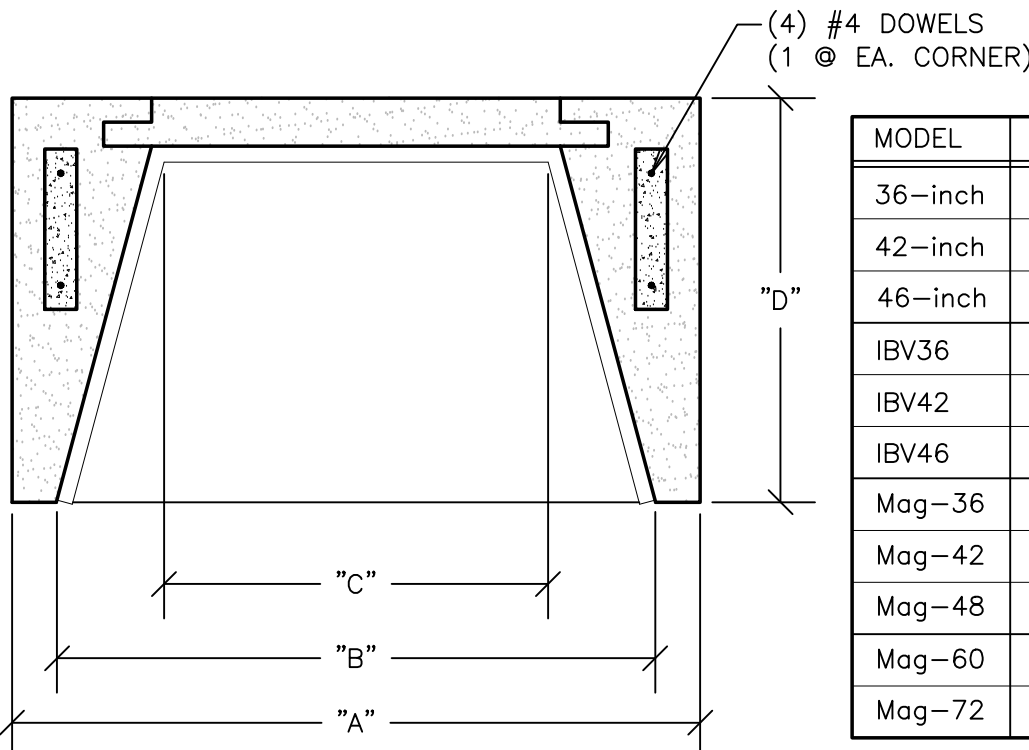
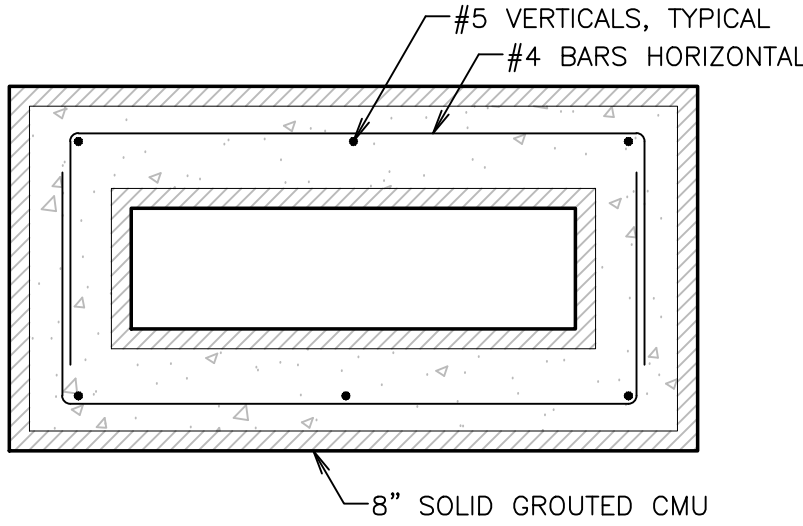
⅝" X 1½"

A. RAMSET/REDHEAD TAPCON ANCHORS (ICC Report No. ESR-1671, LARR #24953)

B. SIMPSON TITEN SCREW ANCHORS (ICC ESR-1056, LARR #25560)
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 - USE SPARK ARRESTOR

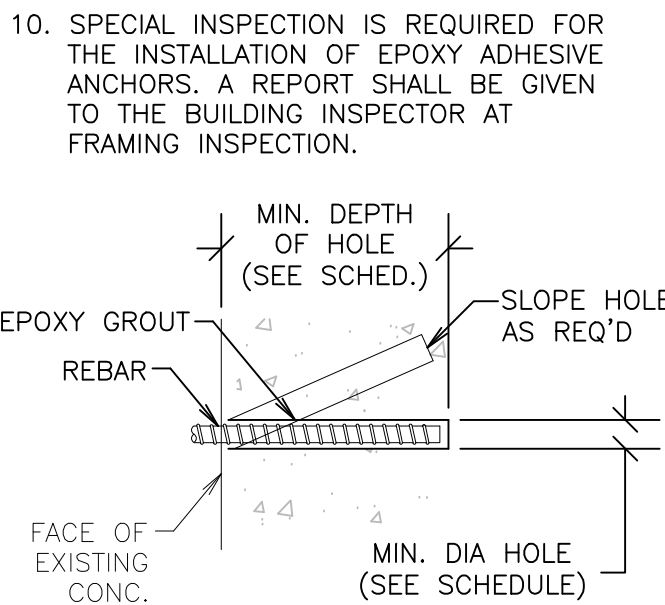
ADDITIONAL REQUIREMENTS

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MODEL	"A"	"B"	"C"	"D"
36-inch	43"	37"	24"	25½"
42-inch	48"	42"	30"	25½"
46-inch	53"	47"	34"	25½"
IBV36	43"	37"	24"	25½"
IBV42	48"	42"	30"	25½"
IBV46	53"	47"	34"	25½"
Mag-36	43"	39"	19½"	28"
Mag-42	48½"	44½"	24½"	28"
Mag-48	53"	49"	29½"	28"
Mag-60	73½"	69½"	50"	28"
Mag-72	85½"	81½"	62"	28"

- PROCEDURE
- DRILL HOLE OF PROPER DIAMETER AND DEPTH USING A CARBIDE TIPPED DRILL OR CORING BIT. AVOID ANY EXISTING REINFORCING STEEL BY RELOCATING HOLE SLIGHTLY.
 - CLEAN HOLE THOROUGHLY BY AIR PRESSURE.
 - MAKE SURE THAT HOLE IS DRY AND CLEAN BEFORE GROUTING.
 - PLACE EPOXY GROUT IN HOLE w/ CAULKING GUN OR SIMILAR EQUIPMENT STARTING AT BOTTOM, FILL HOLE APPROX. ¾ FULL.
 - COAT DOWEL WITH SAME EPOXY GROUT AND INSERT INTO HOLE, FORCING MATERIAL AROUND THE SIDES OF THE BAR AND COMPLETELY FILLING ALL VOIDS.
 - PROVIDE SUPPORT FOR DOWEL BY TYING TO REBAR OR OTHER ELEMENT UNTIL GROUT HAS CURED.
 - EPOXY GROUT IN CMU SHALL BE SIMPSON SET EPOXY TIE (ESR 1772, LARR 25279), HILTI HIT-HY 150 MAX (ESR 1967, LARR 25881), AC100+ GOLD BY DEWALT (ESR 3200, LARR 26049)
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 - SPECIAL INSPECTION REQUIRED



BAR SIZE	ROD SIZE	BIT	DIAM.	MIN. DEPTH
#3	-	1/2"	4"	
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#6	3/4"	7/8"	7"	
-	7/8"	1"	8"	
-	1"	1-1/8"	9"	

CROSS SECTION AT CMU BASE

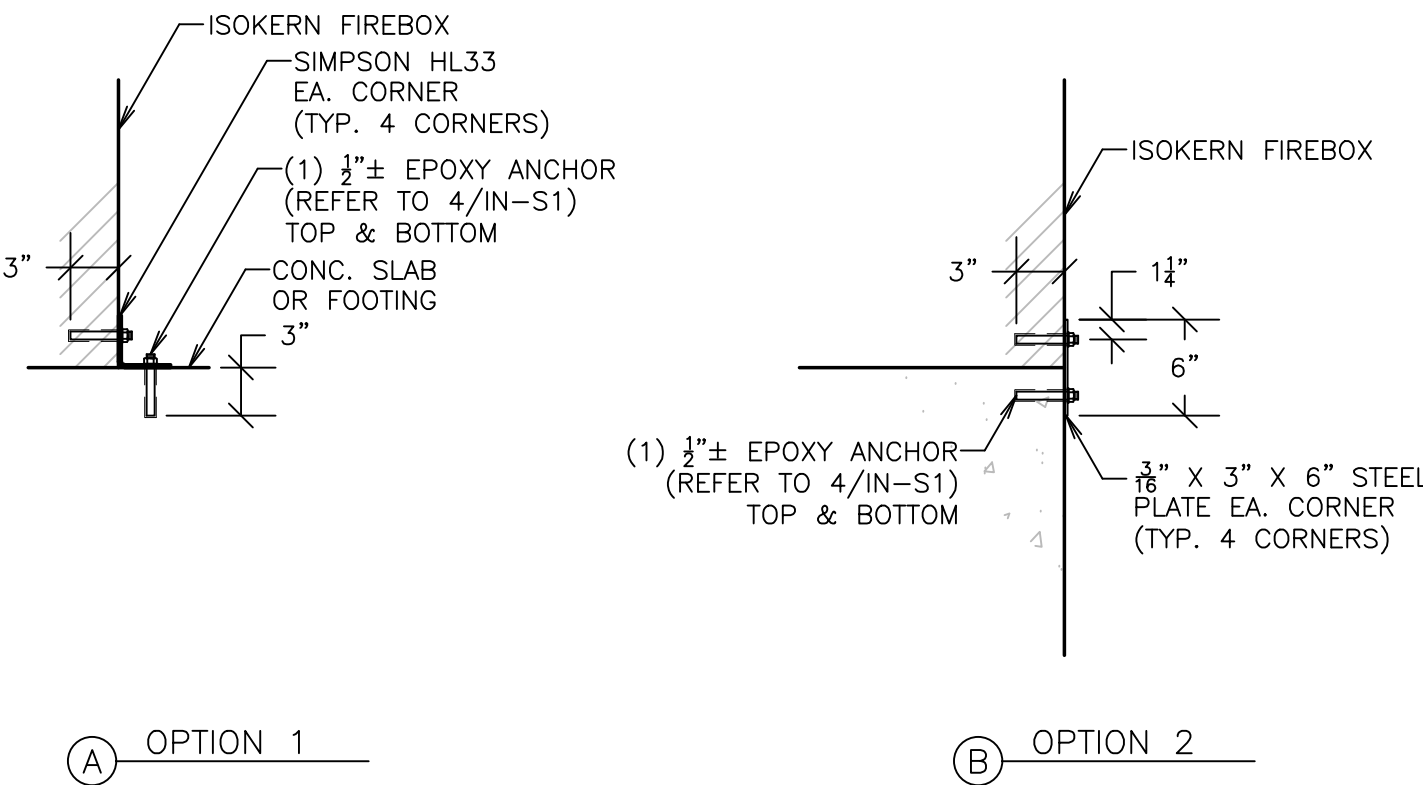
SCALE: 1" = 1'-0" 2

CROSS SECTION AT FIREBOX

SCALE: 1" = 1'-0" 3

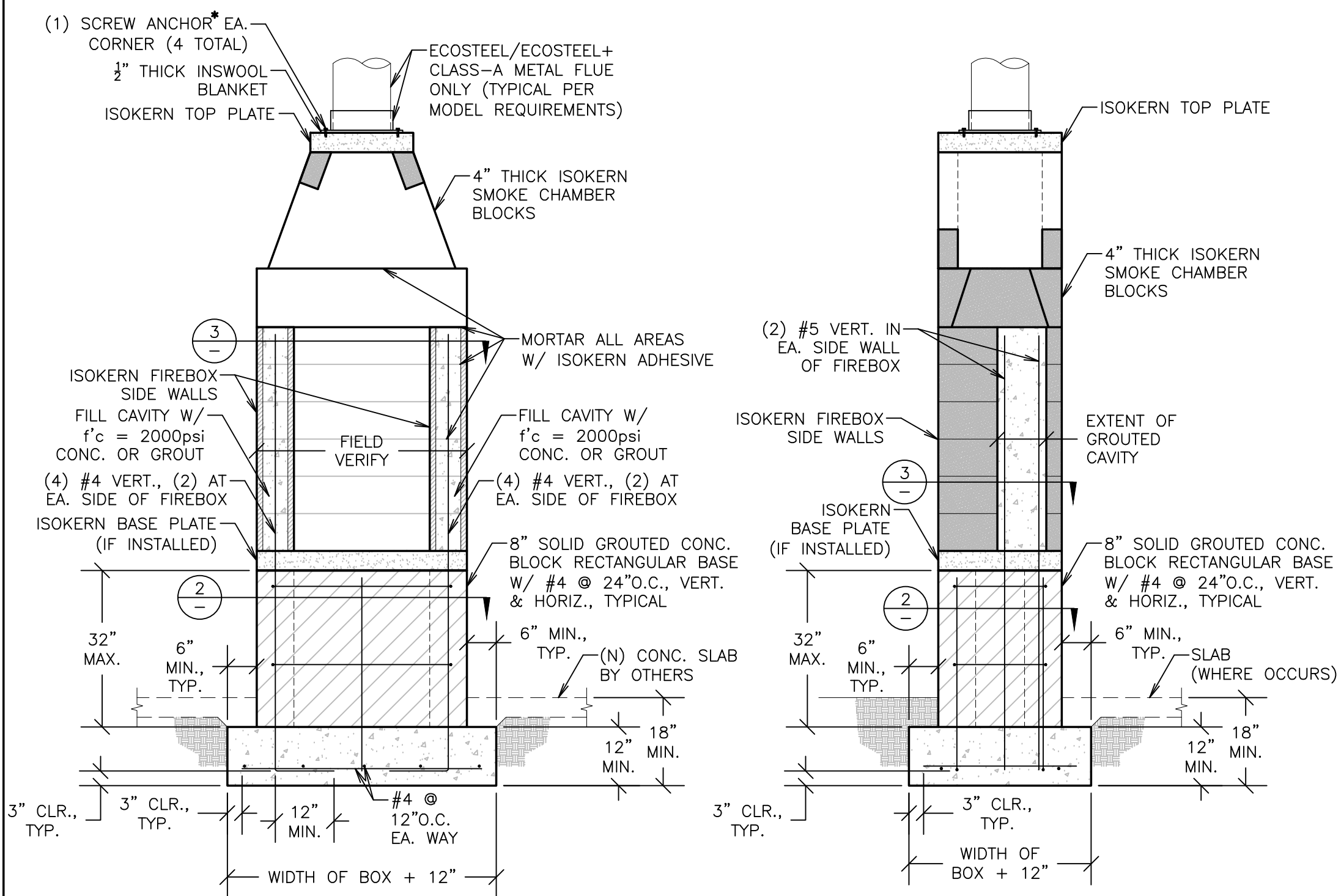
TYPICAL EPOXY GROUTED DOWEL

4

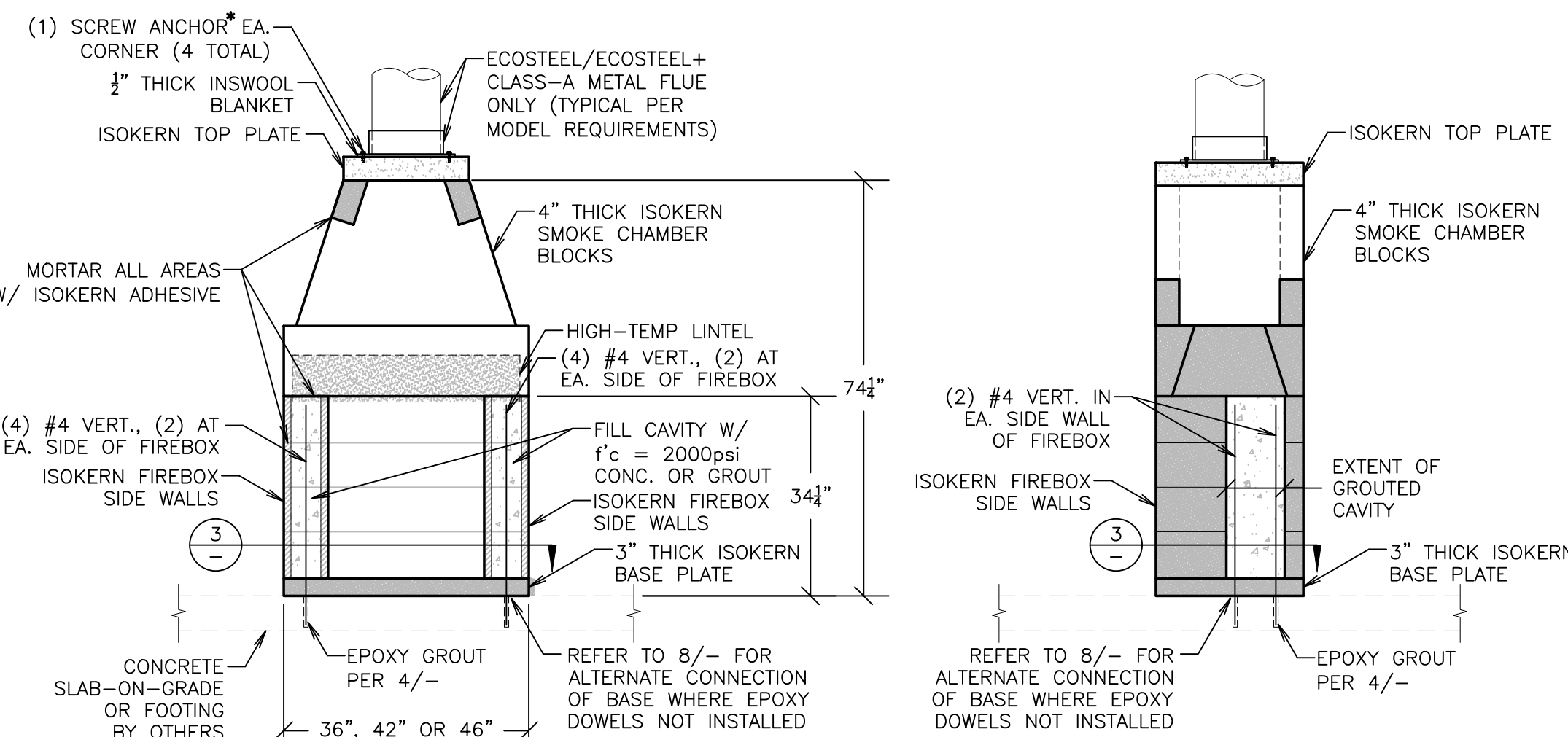


ALTERNATE CONNECTION OF BASE OF ISOKERN BOX

SCALE: 1" = 1'-0" 8



- *SCREW ANCHORS SHALL BE ⅝" X 1½" SCREWS
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GENERAL NOTES

INTERIOR FIREBOX ON RAISED CMU HEARTH

SCALE: 1/2" = 1'-0" 14

INTERIOR FIREBOX ON SLAB-ON-GRADE

SCALE: 1/2" = 1'-0" 16

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Apr 26, 2022

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Project Name / Address

ISOKERN FIREPLACE SYSTEMS
INTERIOR FIREBOX on SLAB FOUNDATION

Project Name / Address

PROJECT TITLE
Street Address
City, State

FOR CONSTRUCTION

Revision	Description	Date

- Project Number: 01-1491
- Project Engineer: J. VINCI, S.E.
- Checked By: JRV
- Drawn By: JWB
- Scale: AS NOTED
- Date: 00-00-2020

Sheet Number

IN-S1

Sheet __ Of __

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 - ALL REINFORCING STEEL SHALL BE PLACED IN CONFORMANCE WITH THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," (ACI 318 LATEST), AND THE "MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION" (LATEST EDITION) BY THE C.R.S.I.
 - REINFORCING BARS SHALL CONFORM TO THE FOLLOWING ASTM RATING AND GRADE TYPE FOR THE BAR SIZE LISTED.

#4 BARS & SMALLER.....	ASTM A615 GRADE 40
ALL OTHER BARS.....	ASTM A615, GRADE 60
WELDED REINFORCEMENT.....	ASTM A706, GRADE 60
 - WELDING OF REINFORCEMENT SHALL BE WITH E90XX LOW-HYDROGEN ELECTRODES IN CONFORMANCE WITH "RECOMMENDED PRACTICES FOR WELDING REINFORCING STEEL, ETC., AMERICAN WELDING SOCIETY, AWS D1.4 (LATEST EDITION).
 - ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
 - SPLICE REINFORCEMENT, AS SHOWN ON THE DRAWINGS, UNLESS NOTED AS CONTINUOUS LAP ALL CONTINUOUS HORIZONTAL REINFORCEMENT MIN OF 40 TIMES BAR DIAMETER.
 - ALL BARS SHALL BE MARKED SO THEIR IDENTIFICATION CAN BE MADE WHEN THE FINAL IN-PLACE INSPECTION IS MADE.
- GROUT:

f'c = 4,000 PSI, QUICKCRETE CONCRETE MIX #1001

 - PORTLAND CEMENT SHALL CONFORM TO ASTM C150, TYPE I OR II.
 - AGGREGATE FOR GROUT SHALL CONFORM TO ASTM C33 AND BE NON-REACTION
 - WATER CEMENT RATIO SHALL BE LESS THAN 0.60 AT GROUT.
- FASTENERS: SIMPSON STRONGTIE INC. OR APPROVED EQUAL USP CONNECTORS.
- SCREW ANCHORS:

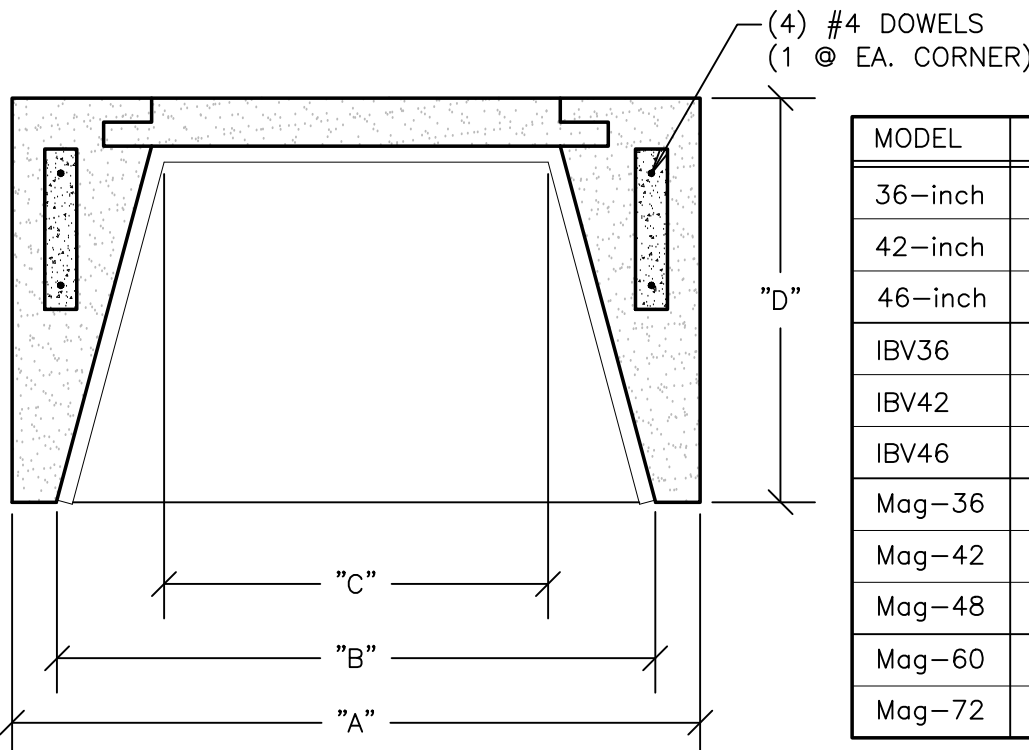
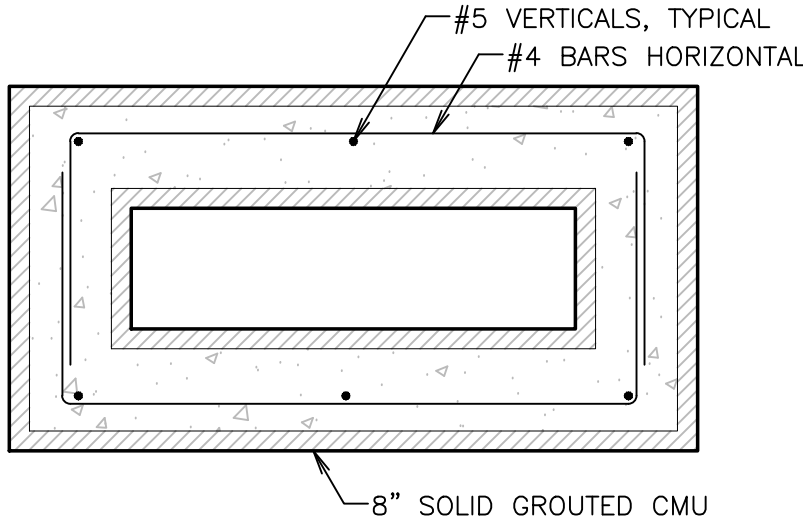
⅝" X 1½"

A. RAMSET/REDHEAD TAPCON ANCHORS (ICC Report No. ESR-1671, LARR #24953)

B. SIMPSON TITEN SCREW ANCHORS (ICC ESR-1056, LARR #25560)
- FACORY BUILT (METAL) CHIMNEY:
 - ECOSTEEL OR ECOSTEEL+ CLASS A METAL CHIMNEY ARE THE ONLY CHIMNEY TO BE USED WITH THE ISOKERN MAGNUM+ SERIES
 - CHIMNEY'S ARE LIMITED TO A MAX. HEIGHT OF 60 FEET AND A MIN. HEIGHT OF 18 FEET, EXCEPT THAT WHERE OFFSETS ARE USED, THE MIN. HEIGHT IS 21 FEET.
 - USE SPARK ARRESTOR

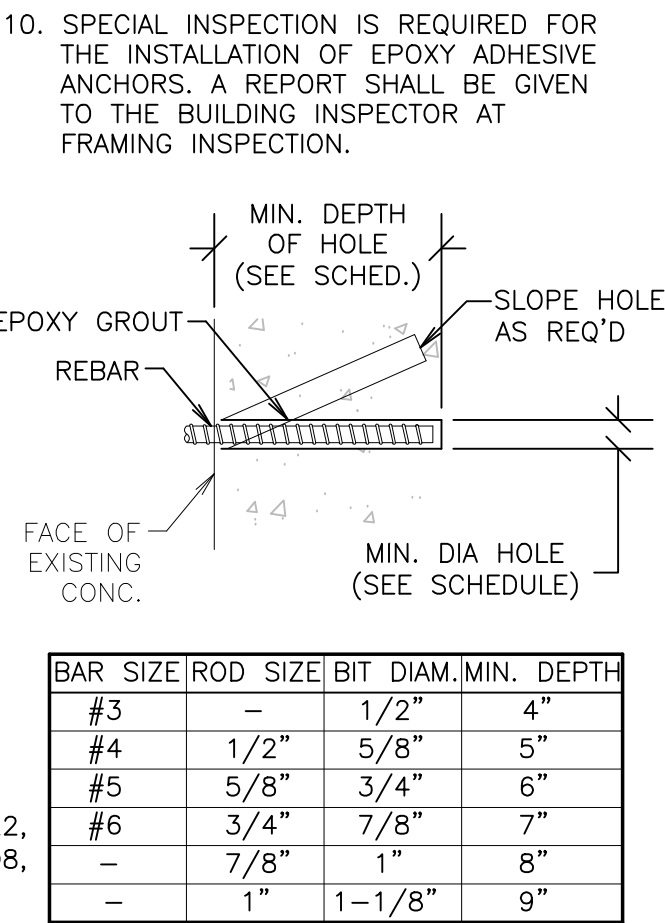
ADDITIONAL REQUIREMENTS

- CLEARANCE TO COMBUSTIBLE MATERIALS SHALL BE AS REQUIRED BY IBC 2111.11 & 2113.19.
- CROSS SECTIONAL AREA OF CHIMNEY FLUE MUST COMPLY WITH IBC 2113.16.
- HEIGHT AND TERMINATION OF CHIMNEY WILL EXTEND ABOVE ROOF AND HIGHEST ELEVATION OF ANY PART OF BUILDING AS SHOWN IN IBC 2113.9
- CLEANOUTS SHALL BE IN ACCORDANCE WITH IBC 2113.18
- PROVIDE AN APPROVED SPARK ARRESTOR PER IBC 2113.9.1
- ALL WORK SHALL BE DONE IN COMPLIANCE WITH CHAPTER 21 OF THE 2018 IBC.



MODEL	"A"	"B"	"C"	"D"
36-inch	43"	37"	24"	25½"
42-inch	48"	42"	30"	25½"
46-inch	53"	47"	34"	25½"
IBV36	43"	37"	24"	25½"
IBV42	48"	42"	30"	25½"
IBV46	53"	47"	34"	25½"
Mag-36	43"	39"	19½"	28"
Mag-42	48½"	44½"	24½"	28"
Mag-48	53"	49"	29½"	28"
Mag-60	73½"	69½"	50"	28"
Mag-72	85½"	81½"	62"	28"

- PROCEDURE
- DRILL HOLE OF PROPER DIAMETER AND DEPTH USING A CARBIDE TIPPED DRILL OR CORING BIT. AVOID ANY EXISTING REINFORCING STEEL BY RELOCATING HOLE SLIGHTLY.
 - CLEAN HOLE THOROUGHLY BY AIR PRESSURE.
 - MAKE SURE THAT HOLE IS DRY AND CLEAN BEFORE GROUTING.
 - PLACE EPOXY GROUT IN HOLE w/ CAULKING GUN OR SIMILAR EQUIPMENT STARTING AT BOTTOM, FILL HOLE APPROX. ¾ FULL.
 - COAT DOWEL WITH SAME EPOXY GROUT AND INSERT INTO HOLE, FORCING MATERIAL AROUND THE SIDES OF THE BAR AND COMPLETELY FILLING ALL VOIDS.
 - PROVIDE SUPPORT FOR DOWEL BY TYING TO REBAR OR OTHER ELEMENT UNTIL GROUT HAS CURED.
 - EPOXY GROUT IN CMU SHALL BE SIMPSON SET EPOXY TIE (ESR 1772, LARR 25279), HILTI HIT-HY 150 MAX (ESR 1967, LARR 25881), AC100+ GOLD BY DEWALT (ESR 3200, LARR 26049)
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 - SPECIAL INSPECTION REQUIRED



BAR SIZE	ROD SIZE	BIT	DIAM.	MIN. DEPTH
#3	-	1/2"	4"	
#4	1/2"	5/8"	5"	
#5	5/8"	3/4"	6"	
#6	3/4"	7/8"	7"	
-	7/8"	1"	8"	
-	1"	1-1/8"	9"	

CROSS SECTION AT CMU BASE

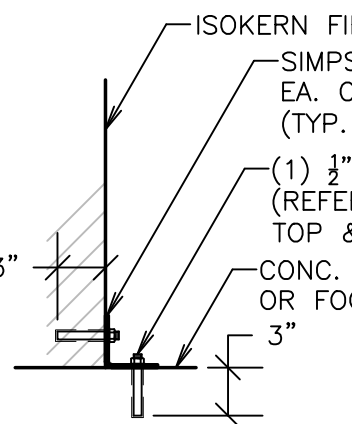
SCALE: 1" = 1'-0" 2

CROSS SECTION AT FIREBOX

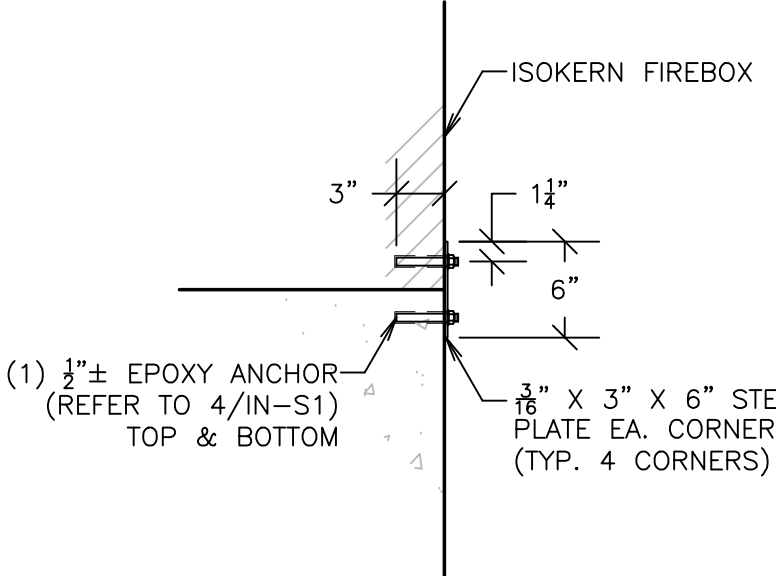
SCALE: 1" = 1'-0" 3

TYPICAL EPOXY GROUTED DOWEL

4



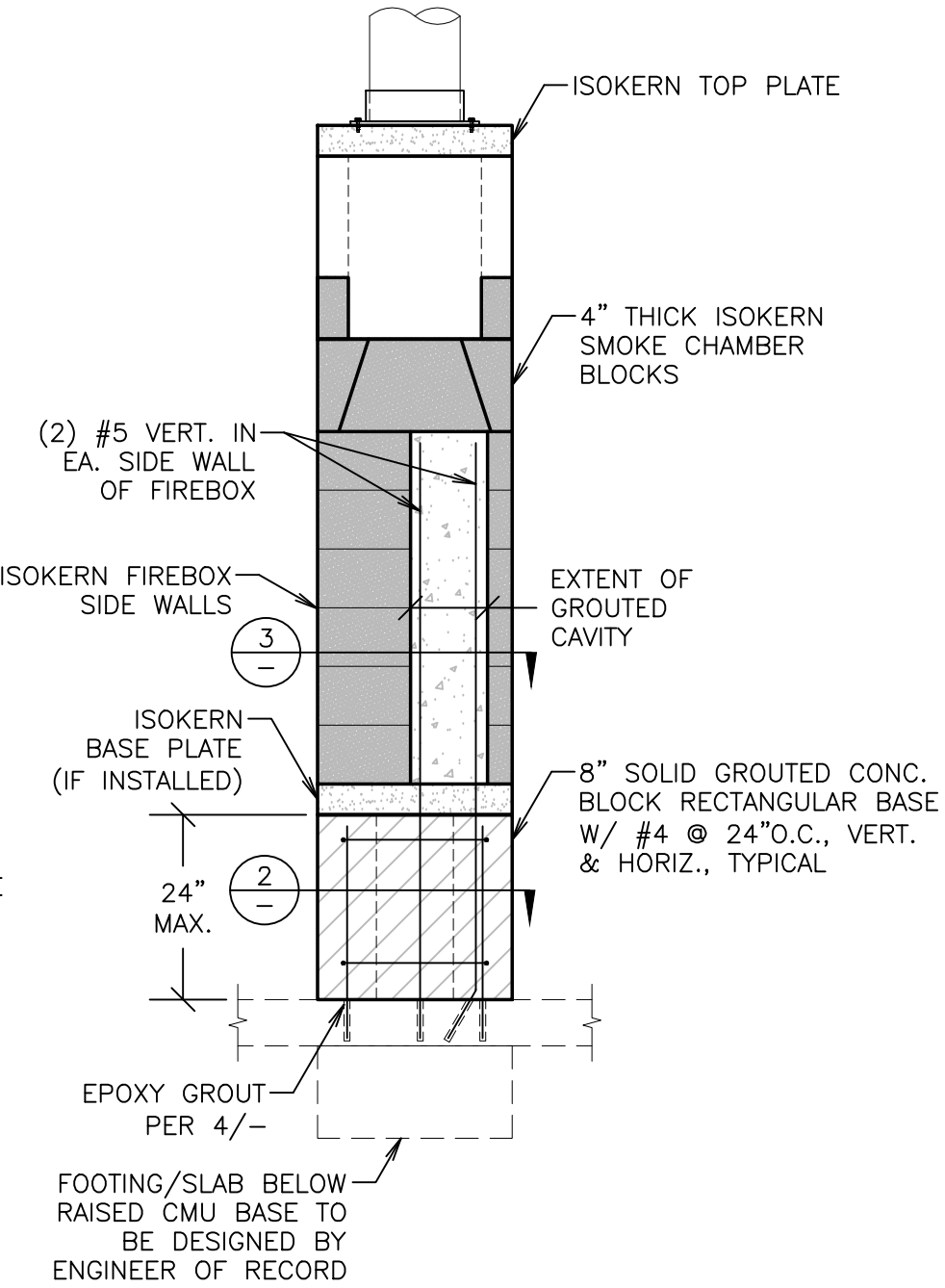
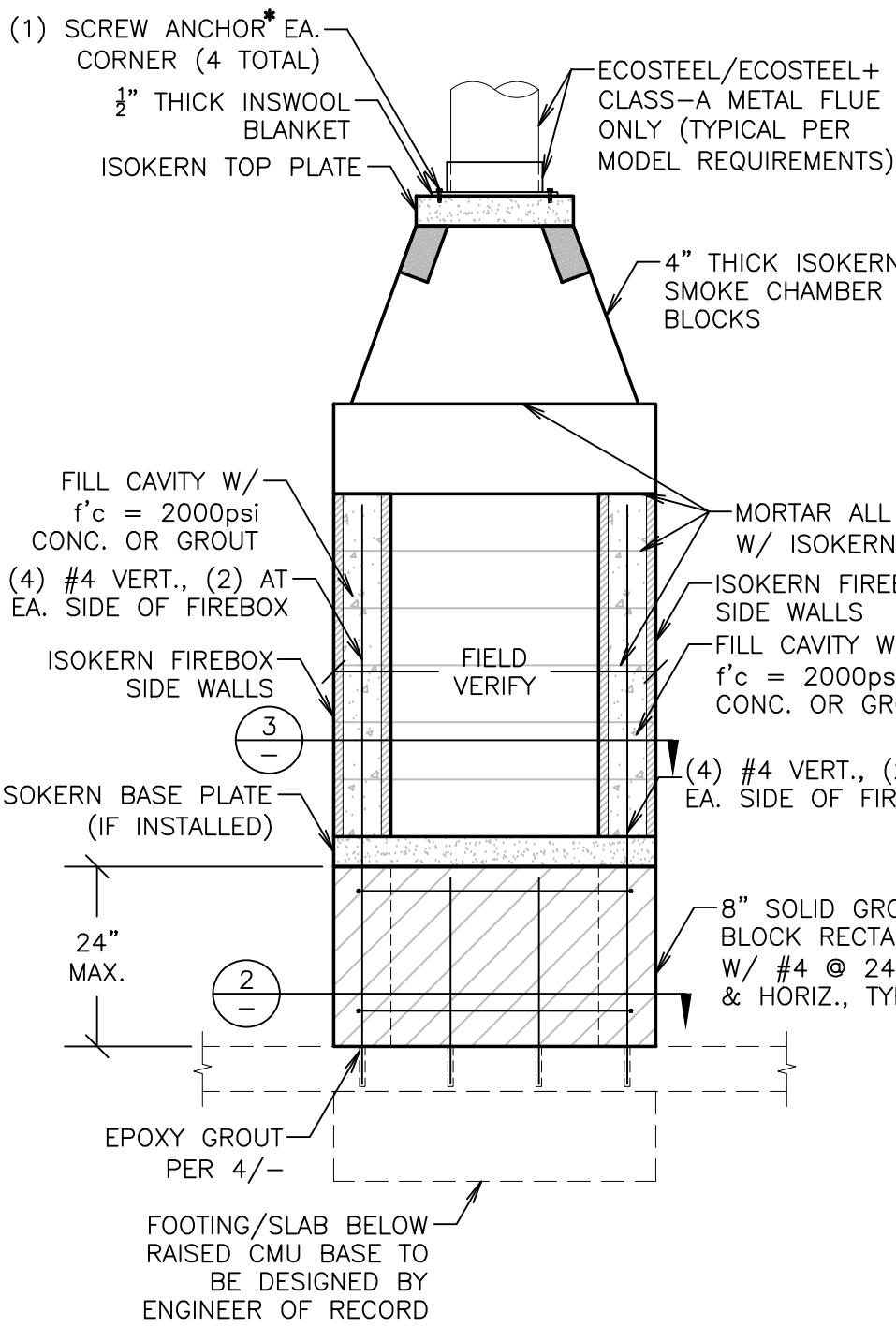
A OPTION 1



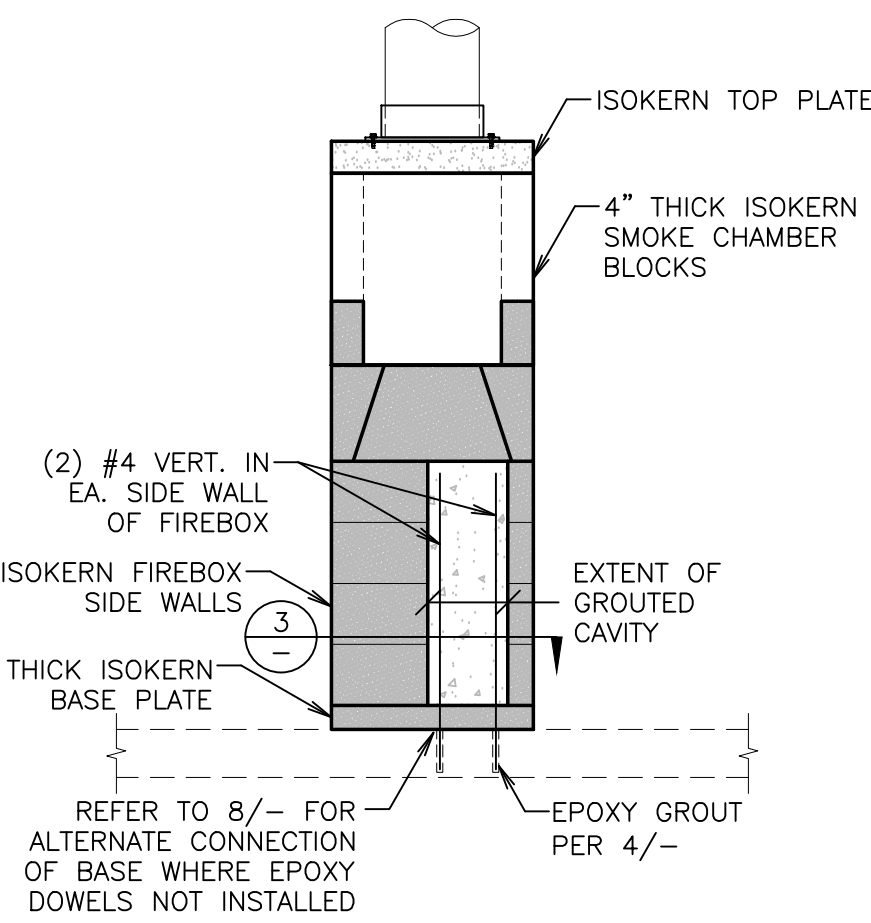
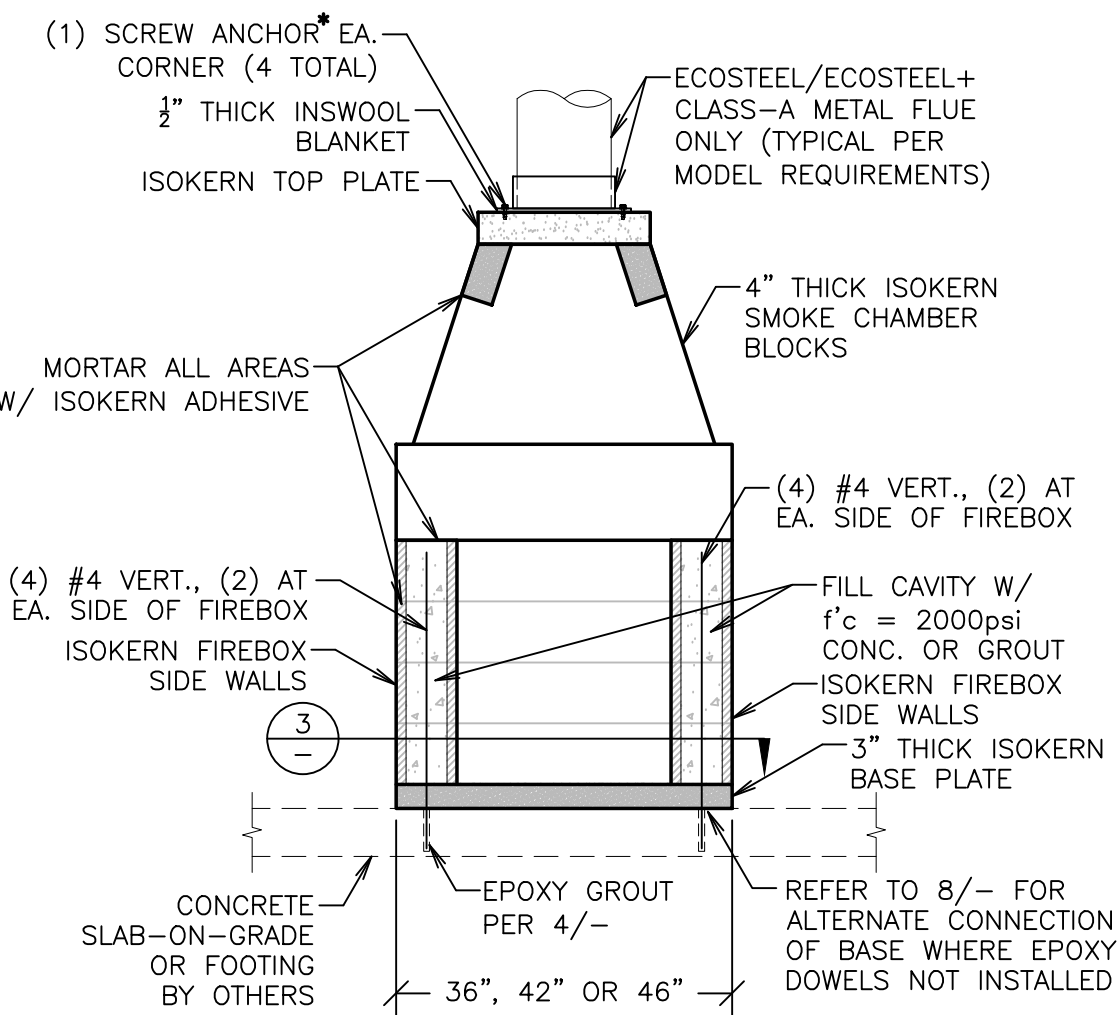
B OPTION 2

ALTERNATE CONNECTION OF BASE OF ISOKERN BOX

SCALE: 1" = 1'-0" 8



- *SCREW ANCHORS SHALL BE ⅝" X 1½" SCREWS
- RAMSET/REDHEAD TAPCON ANCHORS (ICC REPORT NO. ESR-1671, LARR #24953)
 - SIMPSON TITEN SCREW ANCHORS (ICC ESR-1056, LARR #25560)



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GENERAL NOTES

INTERIOR FIREBOX ON RAISED CMU HEARTH

SCALE: 1/2" = 1'-0" 14

INTERIOR FIREBOX ON SLAB-ON-GRADE

SCALE: 1/2" = 1'-0" 16

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JACKSONVILLE, FLORIDA 32256
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Project Name / Address

ISOKERN FIREPLACE SYSTEMS
INTERIOR FIREBOX on SLAB FOUNDATION

Project Name / Address

PROJECT TITLE
Street Address
City, State

FOR CONSTRUCTION

Revision	Description	Date

- ☐ Project Number: 01-1491
- ☐ Project Engineer: J. VINCI, S.E.
- ☐ Checked By: JRV
- ☐ Drawn By: JWB
- ☐ Scale: AS NOTED
- ☐ Date: 00-00-2020

Sheet Number

IN-S2

Sheet __ Of __

GENERAL NOTES:

- GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON THE PLANS, PRIOR TO COMMENCING WORK.
- COORDINATE STRUCTURAL REPAIR DETAILS & DIMENSIONS WITH RELATED REQUIREMENTS ON OTHER DRAWINGS.
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ALLOWABLE SOIL BEARING: 1,000 PSF
PASSIVE PRESSURE: 100 PCF
LATERAL SLIDING RESISTANCE: 130 PSF
FOUNDATION SHALL BE PLACED ON FIRM UNDISTURBED EARTH.
- MATERIAL REQUIREMENTS:
 - CAST-IN-PLACE CONCRETE
 - ALL WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE'S RECOMMENDATIONS FOUND WITHIN ACI 318 (LATEST EDITION).
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CONCRETE FOOTINGS	2,000 PSI
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 - CONCRETE COVERAGE OVER REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:

CONCRETE POURED DIRECTLY AGAINST EARTH.....	3"
ALL OTHER LOCATIONS.....	1½"
 - ISOKERN BLOCK:
ICC ESR-2316
 - MASONRY NOTES:

ASTM C90 GRADE N-1 (NORMAL WEIGHT)
NO SPECIAL INSPECTION REQUIRED (f'm = 1,500 PSI)
GROUT: f'c = 2,000 PSI
MORTAR: f'c = 1,800 PSI

 - THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB.
 - ALL CELLS TO BE FILLED WITH GROUT.
 - REINFORCEMENT TO BE SPLICED 40 DIAMETERS, MINIMUM.
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f'c = 4,000 PSI, QUICKCRETE CONCRETE MIX #1001
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 - FASTENERS: SIMPSON STRONGTIE INC. OR APPROVED EQUAL USP CONNECTORS.
 - SCREW ANCHORS:

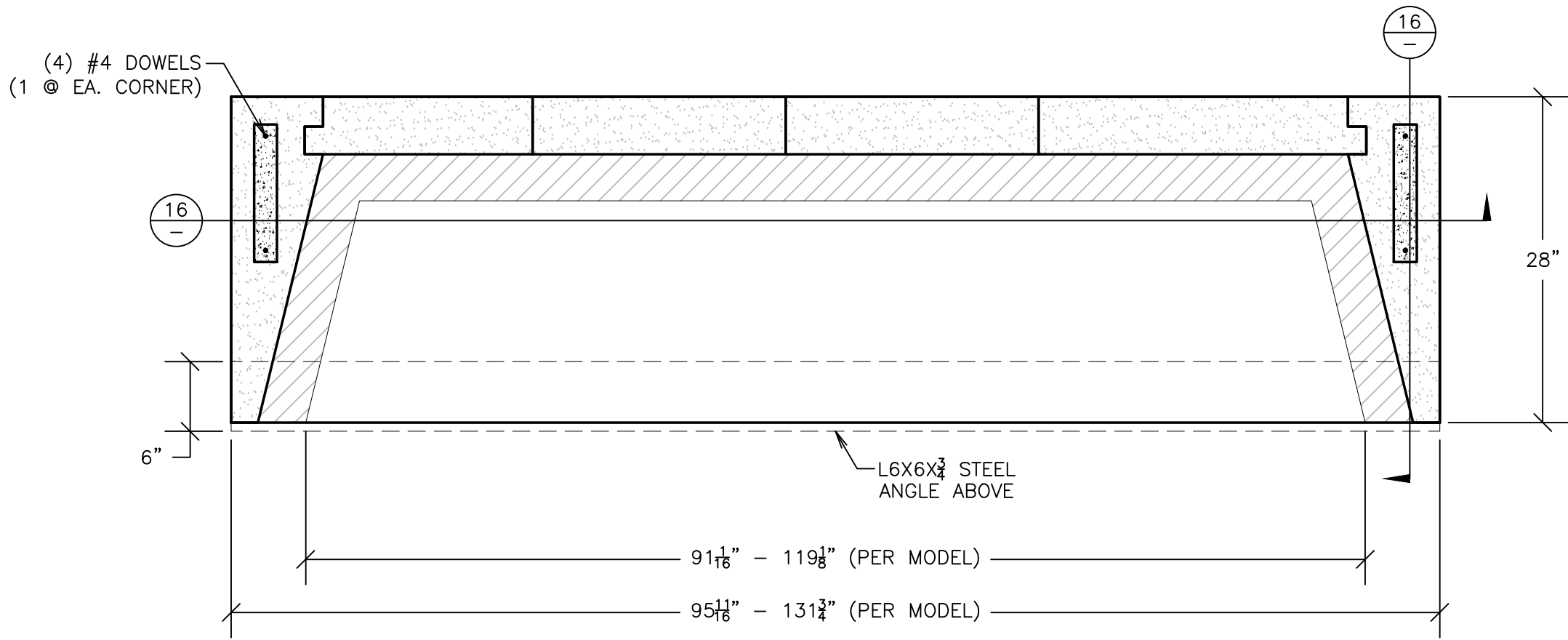
¾" X 1½"
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GENERAL NOTES

CUSTOM INTERIOR FIREBOX

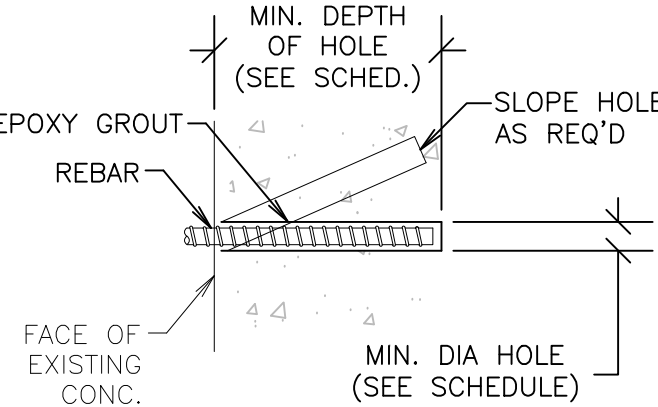


CROSS SECTION AT BASE

SCALE: 1" = 1'-0" 3

- PROCEDURE
- DRILL HOLE OF PROPER DIAMETER AND DEPTH USING A CARBIDE TIPPED DRILL OR CORING BIT. AVOID ANY EXISTING REINFORCING STEEL BY RELOCATING HOLE SLIGHTLY.
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 - SPECIAL INSPECTION REQUIRED

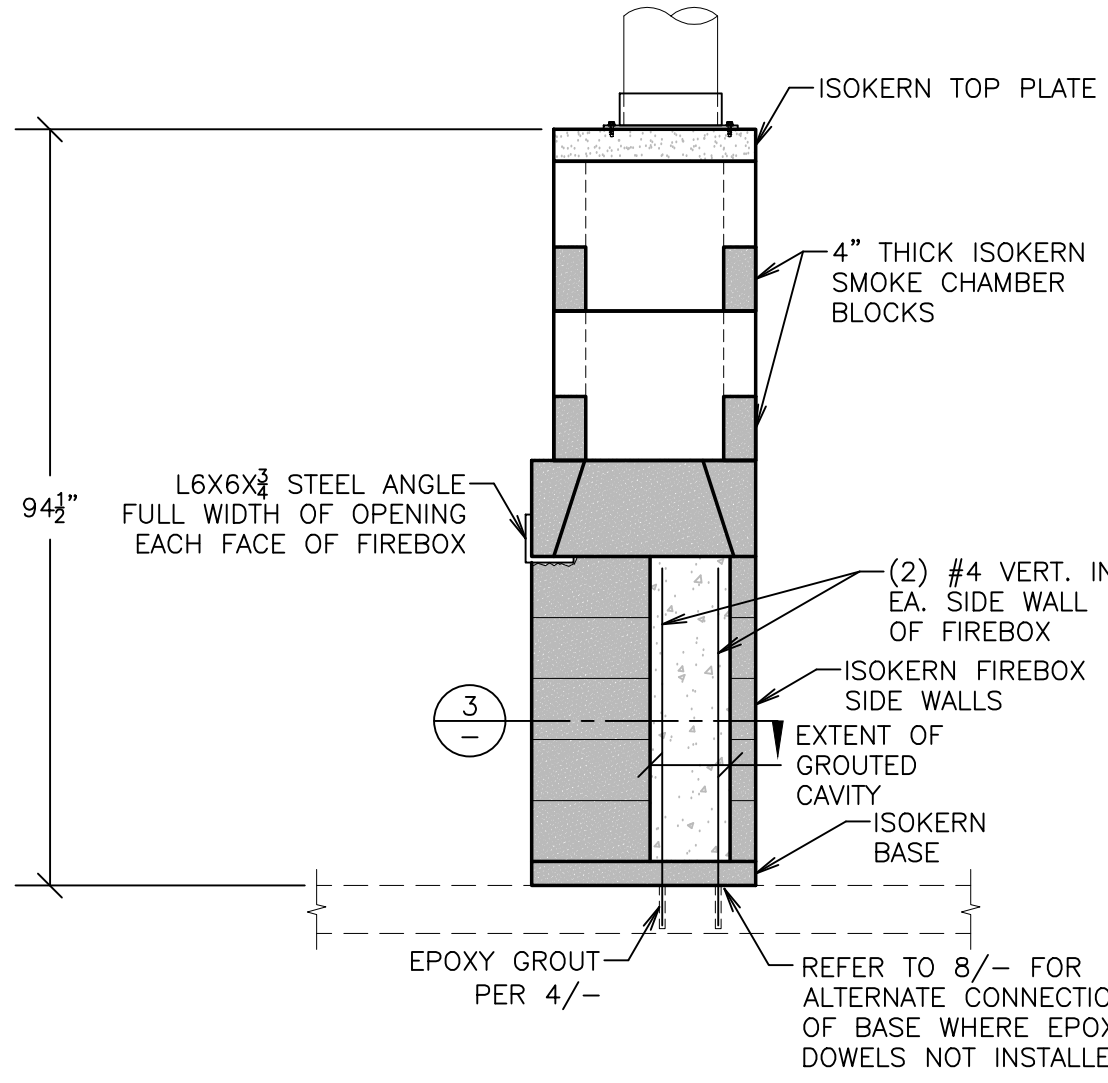
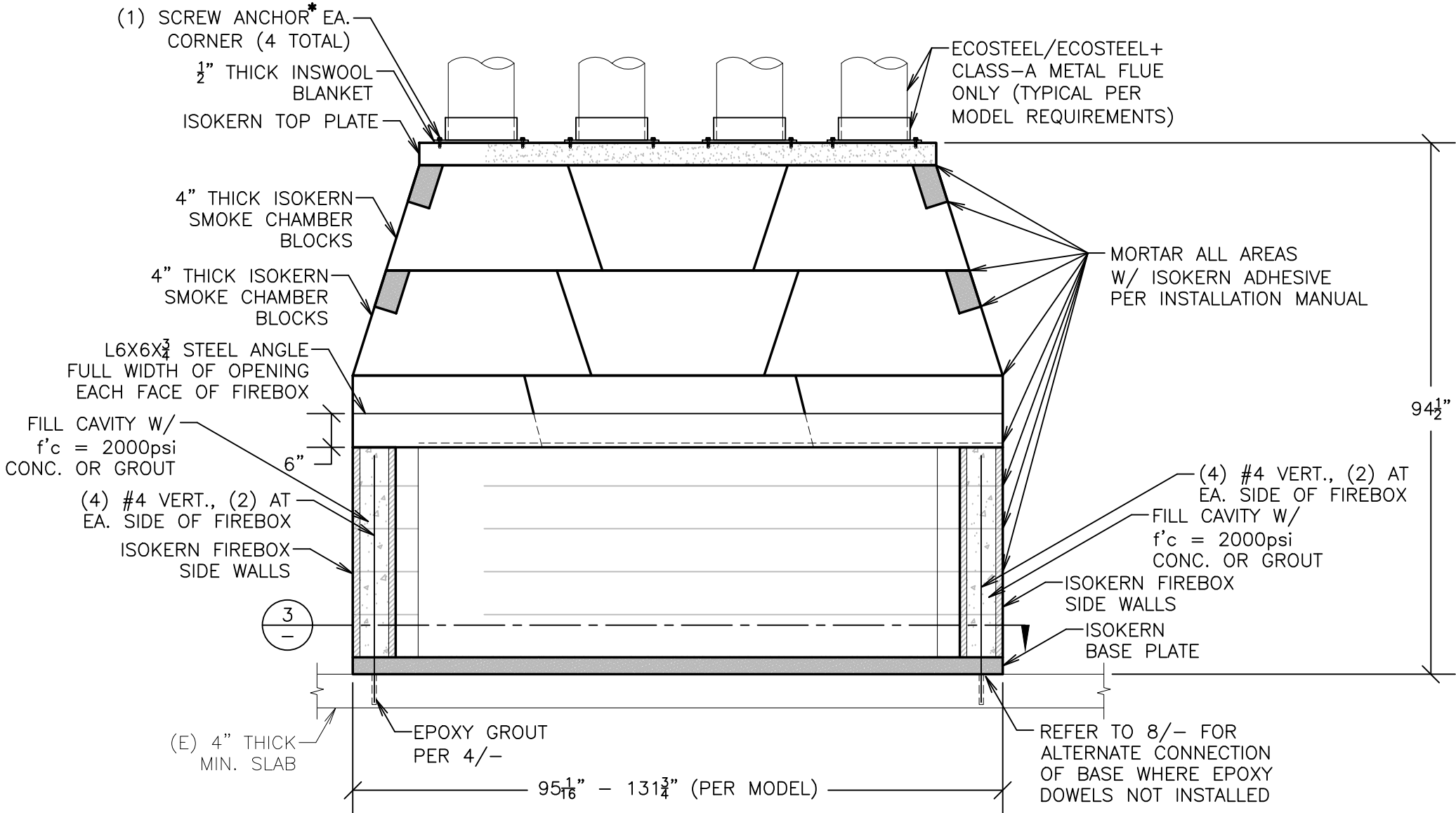
- SPECIAL INSPECTION IS REQUIRED FOR THE INSTALLATION OF EPOXY ADHESIVE ANCHORS. A REPORT SHALL BE GIVEN TO THE BUILDING INSPECTOR AT FRAMING INSPECTION.



BAR SIZE	ROD SIZE	BIT	DIAM.	MIN. DEPTH
#3	-	1/2"	4"	
#4	1/2"	5/8"	5"	
#5	5/8"	3/4"	6"	
#6	3/4"	7/8"	7"	
-	7/8"	1"	8"	
-	1"	1-1/8"	9"	

TYPICAL EPOXY GROUTED DOWEL

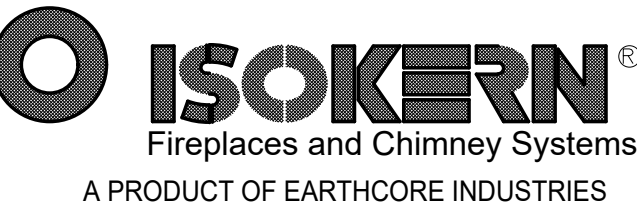
4



*SCREW ANCHORS SHALL BE ¾" X 1½" SCREWS

- RAMSET/REDHEAD TAPCON ANCHORS (ICC REPORT NO. ESR-1671, LARR #24953)
- SIMPSON TITEN SCREW ANCHORS (ICC ESR-1056, LARR #25560)

SCALE: 1/2" = 1'-0" 16



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Apr 26, 2022



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Project Name / Address

ISOKERN FIREPLACE SYSTEMS

INTERIOR FIREBOX with METAL FLUE

Project Name / Address

PROJECT TITLE

Street Address
City, State

FOR CONSTRUCTION

Revision	Description	Date

- Project Number: 01-1491
- Project Engineer: J. VINCI, S.E.
- Checked By: JRV
- Drawn By: JWB
- Scale: AS NOTED
- Date: 00-00-2020

Sheet Number

IN-S3

Sheet __ Of __

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 3. PORTLAND CEMENT SHALL CONFORM TO ASTM C150, TYPE I OR II.
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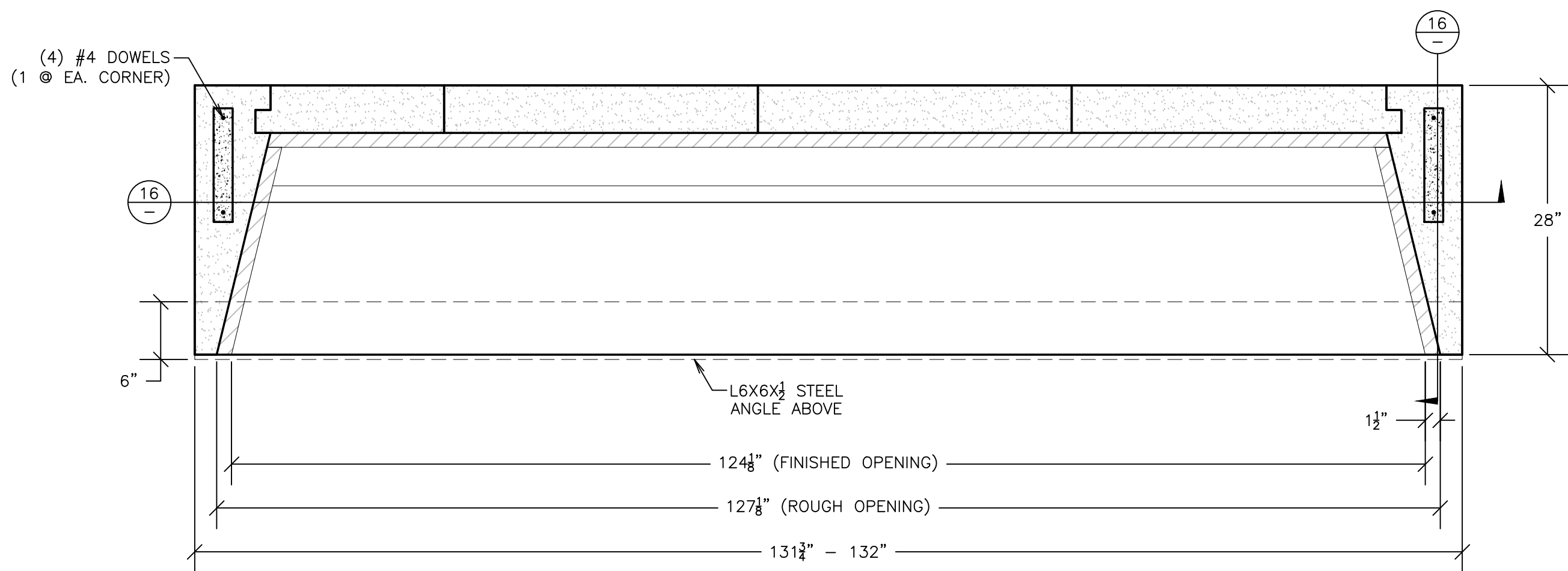
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 - F. FASTENERS: SIMPSON STRONGTIE INC. OR APPROVED EQUAL USP CONNECTORS.
 - G. SCREW ANCHORS:

⅝" X 1½"
A. RAMSET/REDHEAD TAPCON ANCHORS (ICC Report No. ESR-1671, LARR #24953)
B. SIMPSON TITEN SCREW ANCHORS (ICC ESR-1056, LARR #25560)
 - H. FACTORY BUILT (METAL) CHIMNEY:
 1. ECOSTEEL OR ECOSTEEL+ CLASS A METAL CHIMNEY ARE THE ONLY CHIMNEY TO BE USED WITH THE ISOKERN MAGNUM+ SERIES
 2. CHIMNEY'S ARE LIMITED TO A MAX. HEIGHT OF 60 FEET AND A MIN. HEIGHT OF 18 FEET, EXCEPT THAT WHERE OFFSETS ARE USED, THE MIN. HEIGHT IS 21 FEET.
 3. USE SPARK ARRESTOR

ADDITIONAL REQUIREMENTS

1. CLEARANCE TO COMBUSTIBLE MATERIALS SHALL BE AS REQUIRED BY IBC 2111.11 & 2113.19.
2. CROSS SECTIONAL AREA OF CHIMNEY FLUE MUST COMPLY WITH IBC 2113.16.
3. HEIGHT AND TERMINATION OF CHIMNEY WILL EXTEND ABOVE ROOF AND HIGHEST ELEVATION OF ANY PART OF BUILDING AS SHOWN IN IBC 2113.9
4. CLEANOUTS SHALL BE IN ACCORDANCE WITH IBC 2113.18
5. PROVIDE AN APPROVED SPARK ARRESTOR PER IBC 2113.9.1
6. ALL WORK SHALL BE DONE IN COMPLIANCE WITH CHAPTER 21 OF THE 2018 IBC.



CROSS SECTION AT MAGNUM BASE

SCALE: 1" = 1'-0" 3

PROCEDURE

1. DRILL HOLE OF PROPER DIAMETER AND DEPTH USING A CARBIDE TIPPED DRILL OR CORING BIT. AVOID ANY EXISTING REINFORCING STEEL BY RELOCATING HOLE SLIGHTLY.
2. CLEAN HOLE THOROUGHLY BY AIR PRESSURE.
3. MAKE SURE THAT HOLE IS DRY AND CLEAN BEFORE GROUTING.
4. PLACE EPOXY GROUT IN HOLE w/ CAULKING GUN OR SIMILAR EQUIPMENT STARTING AT BOTTOM, FILL HOLE APPROX. ¾ FULL.
5. COAT DOWEL WITH SAME EPOXY GROUT AND INSERT INTO HOLE, FORCING MATERIAL AROUND THE SIDES OF THE BAR AND COMPLETELY FILLING ALL VOIDS.
6. PROVIDE SUPPORT FOR DOWEL BY TYING TO REBAR OR OTHER ELEMENT UNTIL GROUT HAS CURED.
7. EPOXY GROUT IN CMU SHALL BE SIMPSON SET EPOXY TIE (ESR 1772, LARR 25279), HILTI HIT-HY 150 MAX (ESR 1967, LARR 25881), AC100+ GOLD BY DEWALT (ESR 3200, LARR 26049)
8. EPOXY GROUT IN CONCRETE SHALL BE HIT-RE 500-SD BY HILTI CORP. (ESR 2322, LARR 25700), SIMPSON SET-XP (ESR-2508, LARR 03151) OR PURE110+ BY DEWALT (ICC ESR 3298, LARR 26035)
9. SPECIAL INSPECTION REQUIRED
10. SPECIAL INSPECTION IS REQUIRED FOR THE INSTALLATION OF EPOXY ADHESIVE ANCHORS. A REPORT SHALL BE GIVEN TO THE BUILDING INSPECTOR AT FRAMING INSPECTION.

MIN. DEPTH OF HOLE (SEE SCHED.)

SLOPE HOLE AS REQ'D

EPOXY GROUT

REBAR

FACE OF EXISTING CONC.

MIN. DIA HOLE (SEE SCHEDULE)

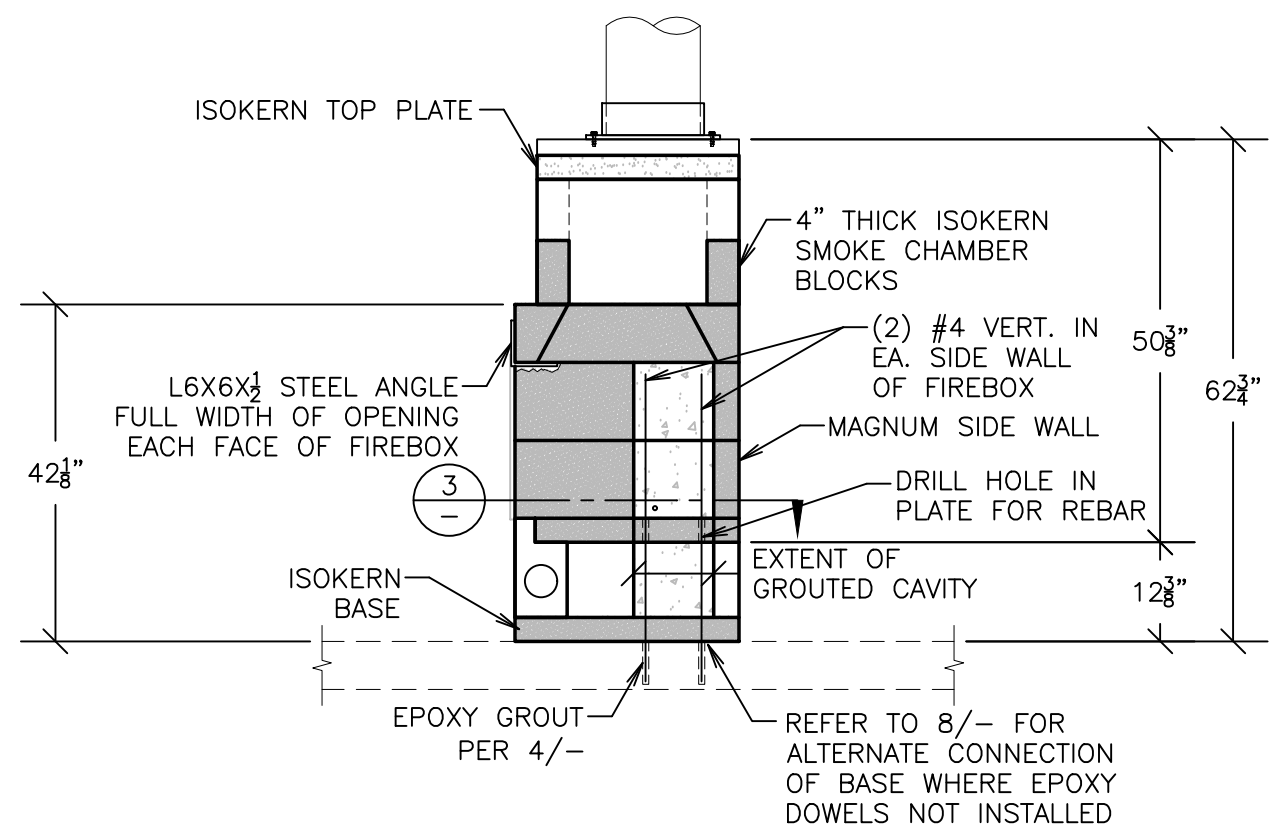
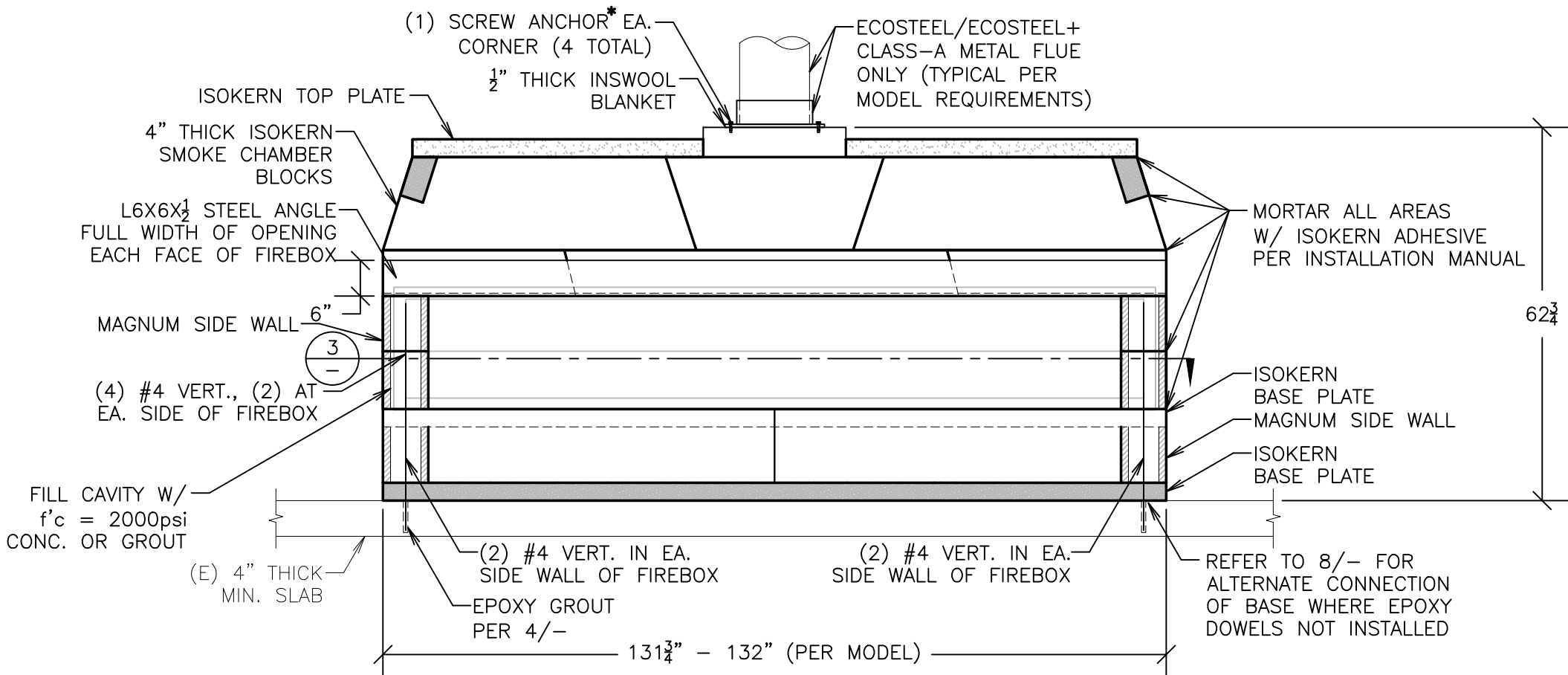
BAR SIZE	ROD SIZE	BIT DIA.	MIN. DEPTH
#3	-	1/2"	4"
#4	1/2"	5/8"	5"
#5	5/8"	3/4"	6"
#6	3/4"	7/8"	7"
-	7/8"	1"	8"
-	1"	1-1/8"	9"

TYPICAL EPOXY GROUTED DOWEL

4

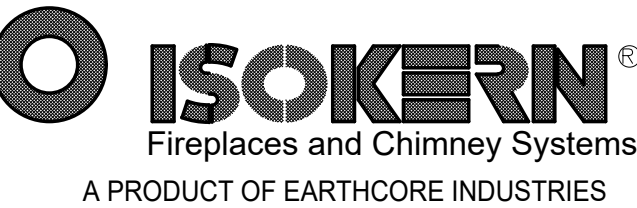
CUSTOM INTERIOR FIREBOX

SCALE: 1/2" = 1'-0" 16



*SCREW ANCHORS SHALL BE ⅝" X 1½" SCREWS

- RAMSET/REDHEAD TAPCON ANCHORS (ICC REPORT NO. ESR-1671, LARR #24953)
- SIMPSON TITEN SCREW ANCHORS (ICC ESR-1056, LARR #25560)



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Project Name / Address

ISOKERN FIREPLACE SYSTEMS
INTERIOR FIREBOX with METAL FLUE

Project Name / Address

PROJECT TITLE

Street Address
City, State

FOR CONSTRUCTION

Revision	Description	Date

- Project Number: 01-1491
- Project Engineer: J. VINCI, S.E.
- Checked By: JRV
- Drawn By: JWB
- Scale: AS NOTED
- Date: 00-00-2020

Sheet Number

IN-S4

Sheet __ Of __

GENERAL NOTES:

- GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON THE PLANS, PRIOR TO COMMENCING WORK.
- COORDINATE STRUCTURAL REPAIR DETAILS & DIMENSIONS WITH RELATED REQUIREMENTS ON OTHER DRAWINGS.
- THE ARCHITECT WILL INTERPRET THE INTENT OF THE DOCUMENTS IN CASE OF A POSSIBLE CONFLICT OR DISCREPANCY BETWEEN STRUCTURAL AND OTHER DISCIPLINES.
- DETAILS NOTED AS "TYPICAL" OR "TYP." SHALL APPLY IN ALL CASES WHETHER OR NOT SPECIFICALLY REFERENCED.
- WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE 2018 EDITION OF THE INTERNATIONAL BUILDING CODE (IBC).
- FOUNDATION DESIGN IS BASED UPON MINIMUM REQUIREMENTS OF THE 2018 IBC, AS NOTED IN TABLE 1804.2
ALLOWABLE SOIL BEARING: 1,000 PSF
PASSIVE PRESSURE: 100 PCF
LATERAL SLIDING RESISTANCE: 130 PSF
FOUNDATION SHALL BE PLACED ON FIRM UNDISTURBED EARTH.
- MATERIAL REQUIREMENTS:
 - CAST-IN-PLACE CONCRETE
 - ALL WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE'S RECOMMENDATIONS FOUND WITHIN ACI 318 (LATEST EDITION).
 - ALL CONCRETE SHALL ATTAIN THE FOLLOWING MINIMUM STRENGTH AT 28 DAYS:

CONCRETE FOOTINGS	2,000 PSI
ISOKERN BLOCK GROUT	4,000 PSI, QUICKCRETE MIX #1001

NO SPECIAL INSPECTION REQUIRED
 - PORTLAND CEMENT SHALL CONFORM TO ASTM C150, TYPE I OR II.
 - AGGREGATE FOR HARDROCK CONCRETE SHALL CONFORM TO ASTM C33 AND BE NON-REACTIVE.
 - CONCRETE COVERAGE OVER REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:

CONCRETE POURED DIRECTLY AGAINST EARTH.....	3"
ALL OTHER LOCATIONS.....	1½"
 - ISOKERN BLOCK:
ICC ESR-2316
 - MASONRY NOTES:
ASTM C90 GRADE N-1 (NORMAL WEIGHT)
NO SPECIAL INSPECTION REQUIRED (f'm = 1,500 PSI)
GROUT: f'c = 2,000 PSI
MORTAR: f'c = 1,800 PSI
 - THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB.
 - ALL CELLS TO BE FILLED WITH GROUT.
 - REINFORCEMENT TO BE SPLICED 40 DIAMETERS, MINIMUM.
 - REINFORCEMENT SHALL BE ACCURATELY SPLICED AND SECURED SO THAT IT WILL NOT BE DISPLACED. ALL CONCRETE SHALL BE PROPERLY CONSOLIDATED DURING PLACEMENT. ALL REINFORCING STEEL & EMBEDDED ITEMS SHALL BE SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF CONCRETE.
 - GROUT SHALL BE WELL RODDED TO INSURE A GOOD CONTACT WITH REINFORCEMENT AN TO ELIMINATE ROCK POCKETS AND VOIDS. THE CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS FOR MIXING, PLACING, FINISHING, CURING AND PROTECTING CONCRETE DURING UNFAVORABLE WEATHER CONDITIONS.
- REINFORCING STEEL:
 - ALL REINFORCING STEEL SHALL BE PLACED IN CONFORMANCE WITH THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," (ACI 318 LATEST), AND THE "MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION" (LATEST EDITION) BY THE C.R.S.I.
 - REINFORCING BARS SHALL CONFORM TO THE FOLLOWING ASTM RATING AND GRADE TYPE FOR THE BAR SIZE LISTED.

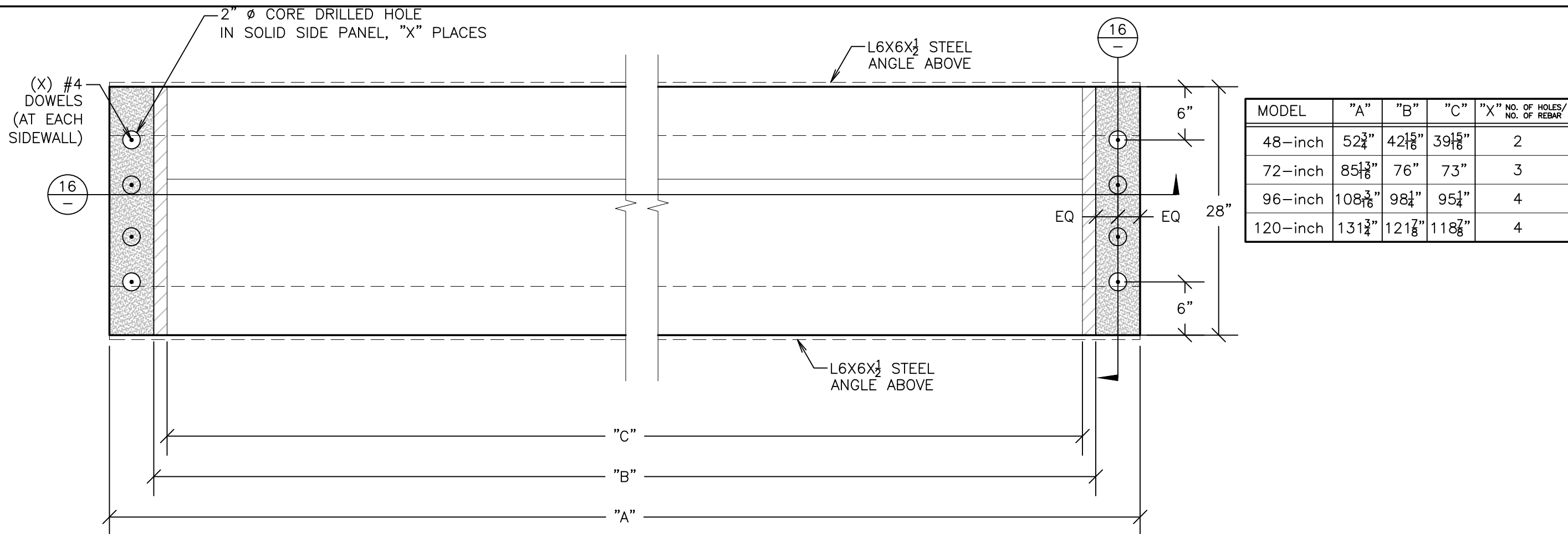
#4 BARS & SMALLER.....	ASTM A615 GRADE 40
ALL OTHER BARS.....	ASTM A615, GRADE 60
WELDED REINFORCEMENT.....	ASTM A706, GRADE 60
 - WELDING OF REINFORCEMENT SHALL BE WITH E90XX LOW-HYDROGEN ELECTRODES IN CONFORMANCE WITH "RECOMMENDED PRACTICES FOR WELDING REINFORCING STEEL, ETC., AMERICAN WELDING SOCIETY, AWS D1.4 (LATEST EDITION).
 - ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
 - SPLICE REINFORCEMENT, AS SHOWN ON THE DRAWINGS, UNLESS NOTED AS CONTINUOUS LAP ALL CONTINUOUS HORIZONTAL REINFORCEMENT MIN OF 40 TIMES BAR DIAMETER.
 - ALL BARS SHALL BE MARKED SO THEIR IDENTIFICATION CAN BE MADE WHEN THE FINAL IN-PLACE INSPECTION IS MADE.
- GROUT:
f'c = 4,000 PSI, QUICKCRETE CONCRETE MIX #1001
 - PORTLAND CEMENT SHALL CONFORM TO ASTM C150, TYPE I OR II.
 - AGGREGATE FOR GROUT SHALL CONFORM TO ASTM C33 AND BE NON-REACTION
 - WATER CEMENT RATIO SHALL BE LESS THAN 0.60 AT GROUT.
- FASTENERS: SIMPSON STRONGTIE INC. OR APPROVED EQUAL USP CONNECTORS.
- SCREW ANCHORS:

⅝" X 1½"
A. RAMSET/REDHEAD TAPCON ANCHORS (ICC Report No. ESR-1671, LARR #24953)
B. SIMPSON TITEN SCREW ANCHORS (ICC ESR-1056, LARR #25560)
- FACORY BUILT (METAL) CHIMNEY:
 - ECOSTEEL OR ECOSTEEL+ CLASS A METAL CHIMNEY ARE THE ONLY CHIMNEY TO BE USED WITH THE ISOKERN MAGNUM+ SERIES
 - CHIMNEY'S ARE LIMITED TO A MAX. HEIGHT OF 60 FEET AND A MIN. HEIGHT OF 18 FEET, EXCEPT THAT WHERE OFFSETS ARE USED, THE MIN. HEIGHT IS 21 FEET.
 - USE SPARK ARRESTOR
- STRUCTURAL STEEL
A. ALL STRUCTURAL STEEL SHALL COMPLY WITH ASTM A36, TYP U.N.O.

ADDITIONAL REQUIREMENTS

- CLEARANCE TO COMBUSTIBLE MATERIALS SHALL BE AS REQUIRED BY IBC 2111.11 & 2113.19.
- CROSS SECTIONAL AREA OF CHIMNEY FLUE MUST COMPLY WITH IBC 2113.16.
- HEIGHT AND TERMINATION OF CHIMNEY WILL EXTEND ABOVE ROOF AND HIGHEST ELEVATION OF ANY PART OF BUILDING AS SHOWN IN IBC 2113.9
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GENERAL NOTES

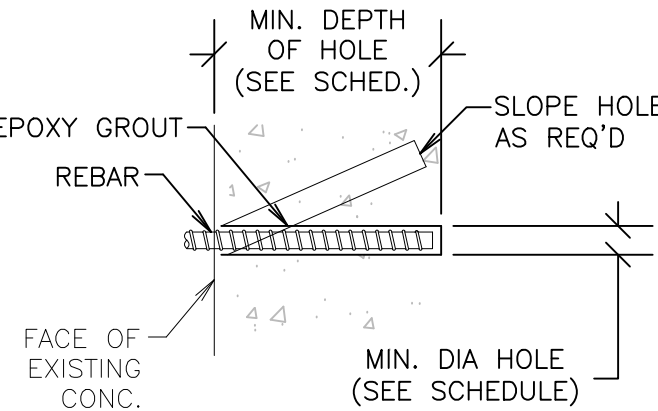


CROSS SECTION AT MAGNUM BASE

SCALE: 1" = 1'-0" 3

- PROCEDURE
- DRILL HOLE OF PROPER DIAMETER AND DEPTH USING A CARBIDE TIPPED DRILL OR CORING BIT. AVOID ANY EXISTING REINFORCING STEEL BY RELOCATING HOLE SLIGHTLY.
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 - EPOXY GROUT IN CMU SHALL BE SIMPSON SET EPOXY TIE (ESR 1772, LARR 25279), HILTI HIT-HY 150 MAX (ESR 1967, LARR 25881), AC100+ GOLD BY DEWALT (ESR 3200, LARR 26049)
 - EPOXY GROUT IN CONCRETE SHALL BE HIT-RE 500-SD BY HILTI CORP. (ESR 2322, LARR 25700), SIMPSON SET-XP (ESR-2508, LARR 03151) OR PURE110+ BY DEWALT (ICC ESR 3298, LARR 26035)
 - SPECIAL INSPECTION REQUIRED

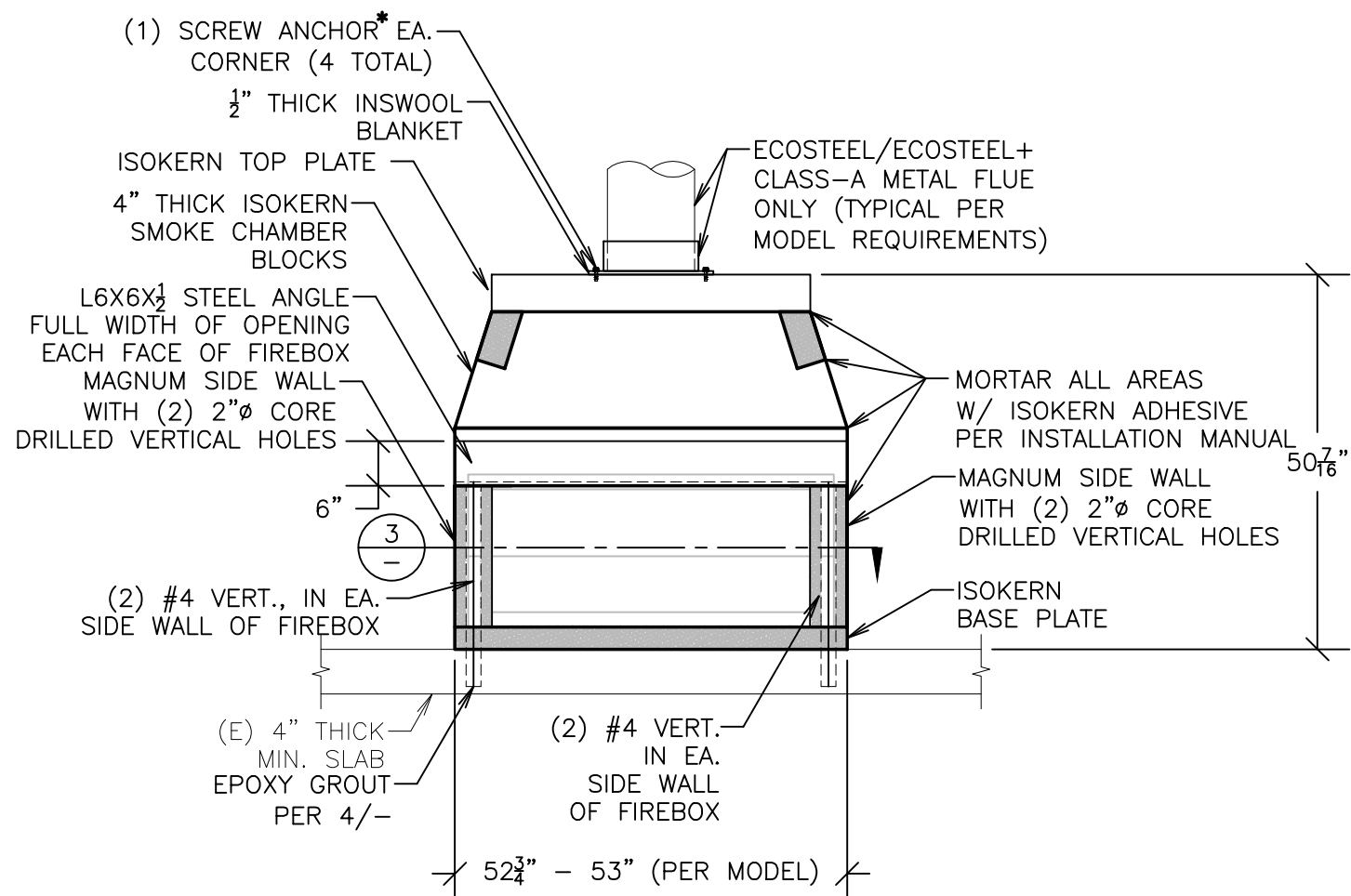
- SPECIAL INSPECTION IS REQUIRED FOR THE INSTALLATION OF EPOXY ADHESIVE ANCHORS. A REPORT SHALL BE GIVEN TO THE BUILDING INSPECTOR AT FRAMING INSPECTION.



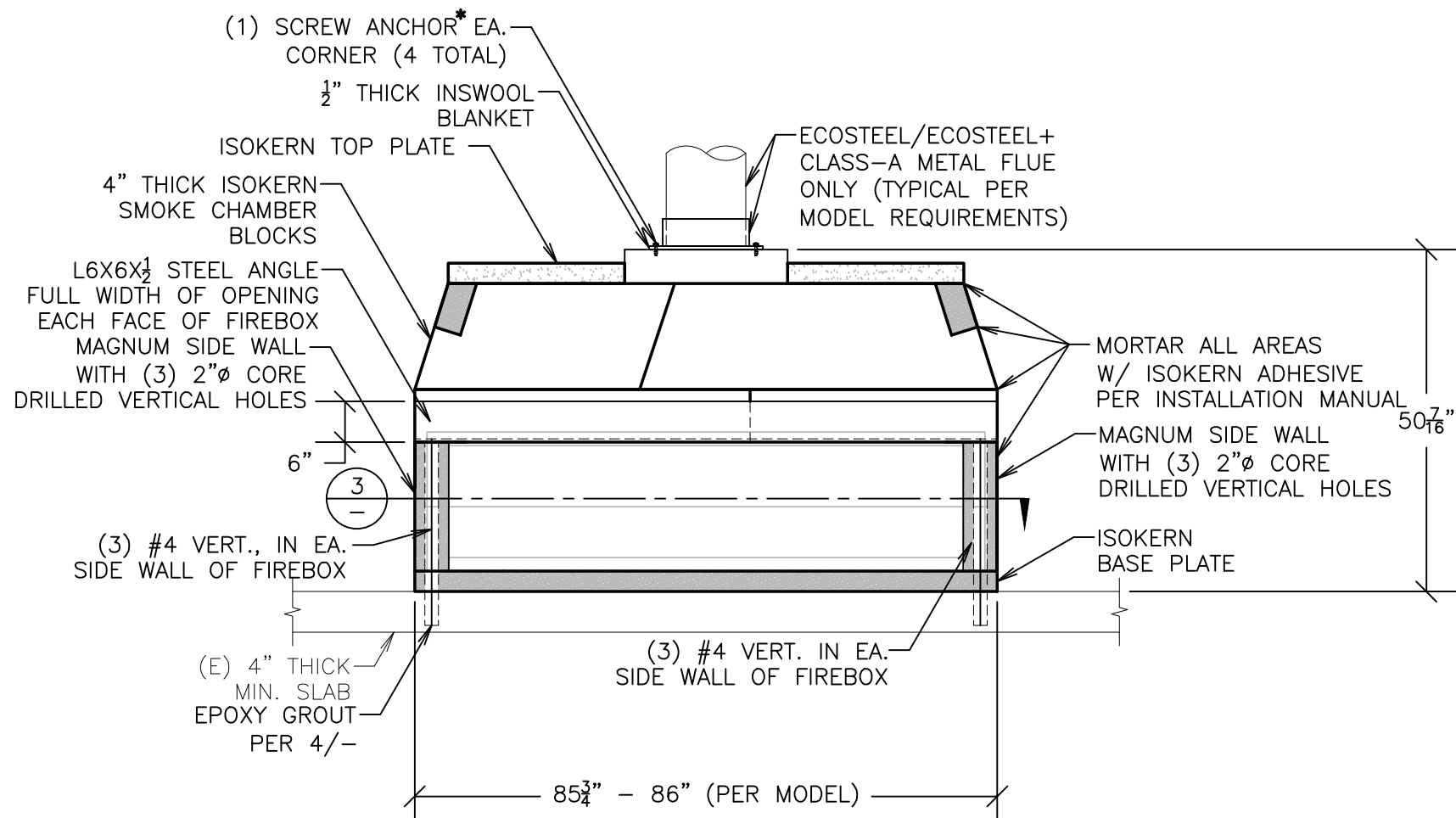
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#4	1/2"	5/8"	5"
#5	5/8"	3/4"	6"
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-	1"	1-1/8"	9"

TYPICAL EPOXY GROUTED DOWEL

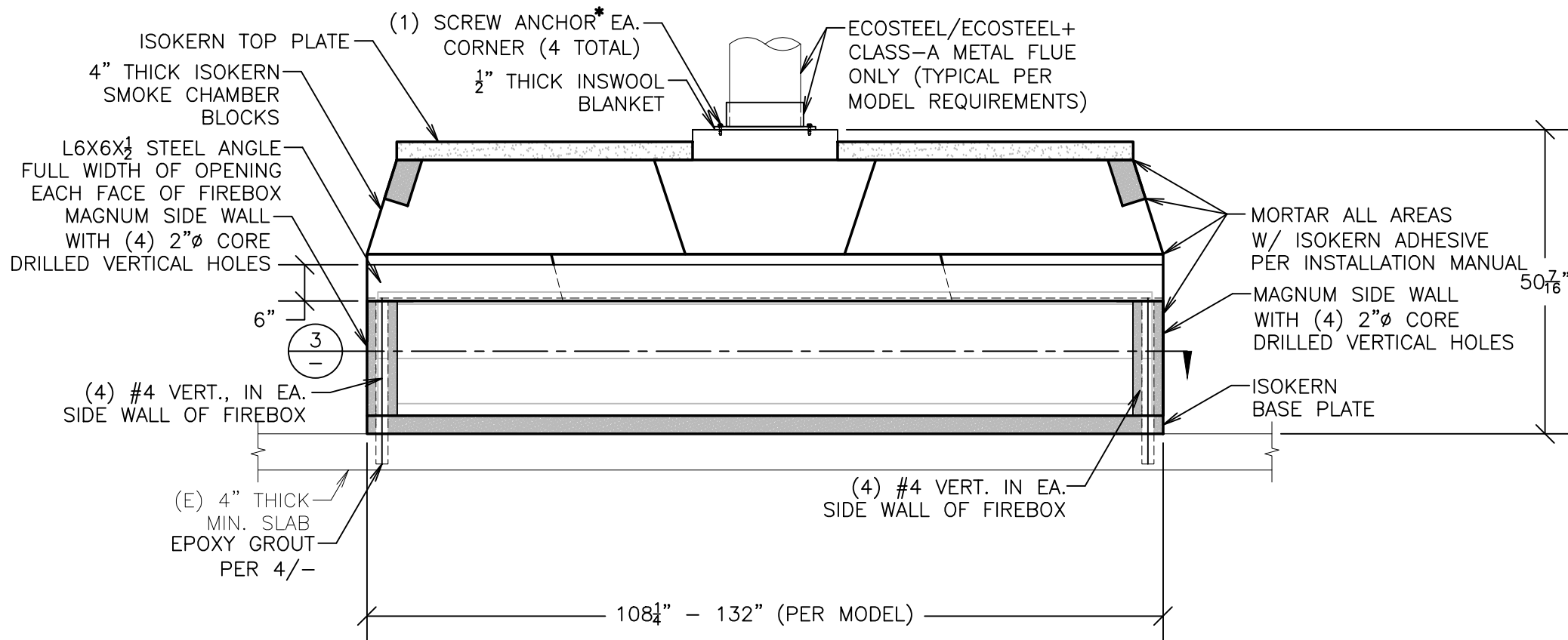
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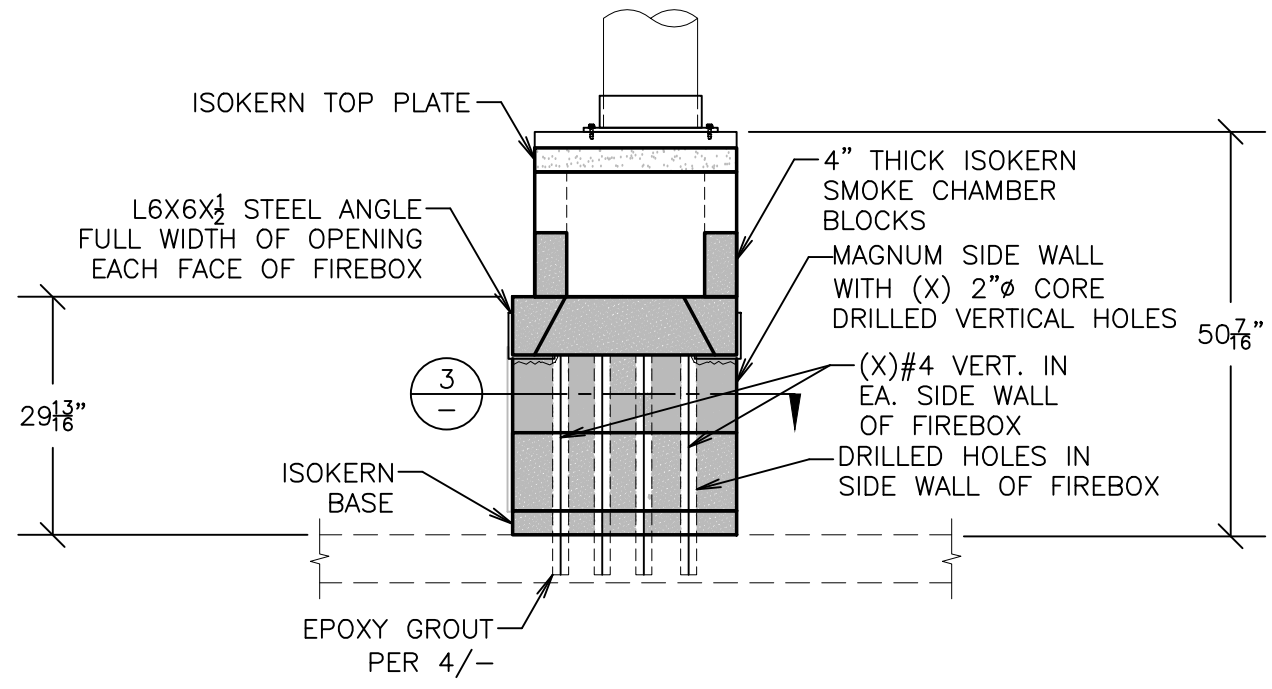
FRONT ELEVATION OF FIREBOX: 48" MODEL



FRONT ELEVATION OF FIREBOX: 72" MODEL



FRONT ELEVATION OF FIREBOX: 96" & 120" MODEL

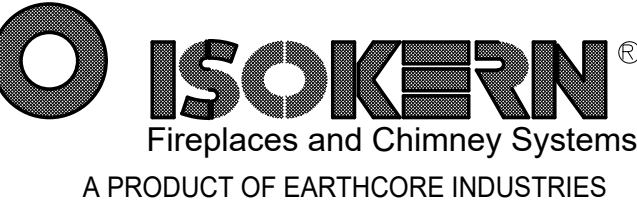


SIDE ELEVATION OF FIREBOX

*SCREW ANCHORS SHALL BE ⅝" X 1½" SCREWS

- RAMSET/REDHEAD TAPCON ANCHORS (ICC REPORT NO. ESR-1671, LARR #24953)
- SIMPSON TITEN SCREW ANCHORS (ICC ESR-1056, LARR #25560)

SCALE: 1/2" = 1'-0" 16



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Project Name / Address

ISOKERN FIREPLACE SYSTEMS
INTERIOR FIREBOX with METAL FLUE

Project Name / Address

PROJECT TITLE

Street Address
City, State

FOR CONSTRUCTION

Revision	Description	Date

- Project Number: 01-1491
- Project Engineer: J. VINCI, S.E.
- Checked By: JRV
- Drawn By: JWB
- Scale: AS NOTED
- Date: 00-00-2020

Sheet Number

IN-S5

Sheet __ Of __

GENERAL NOTES:

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- MATERIAL REQUIREMENTS:
 - ISOKERN BLOCK:

ICC ESR-2316
 - GROUT:

$f'c = 4,000$ PSI, QUICKCRETE CONCRETE MIX #1001
 - PORTLAND CEMENT SHALL CONFORM TO ASTM C150, TYPE I OR II.
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 - WATER CEMENT RATIO SHALL BE LESS THAN 0.60 AT GROUT.
 - FASTENERS:

SIMPSON STRONGTIE INC. OR APPROVED EQUAL USP CONNECTORS.
 - SCREW ANCHORS:

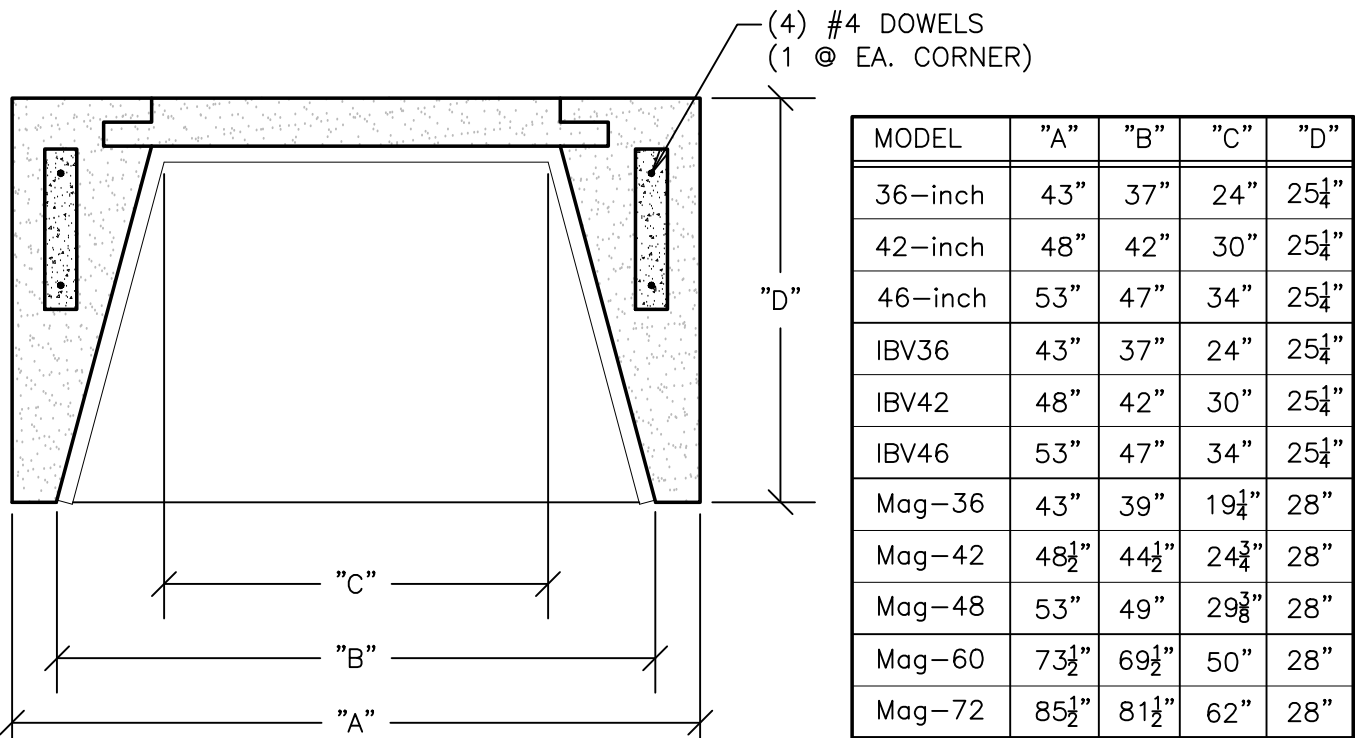
$\frac{3}{8}$ " X $1\frac{1}{2}$ "
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 - USE SPARK ARRESTOR

STRUCTURAL STEEL

- STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH "THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" (AISC LATEST EDITION)
- ALL STRUCTURAL STEEL SHAPES AND PLATES SHALL CONFORM TO ASTM A36, WITH A MINIMUM YIELD STRESS OF 36 KSI.
- ALL BOLTS AND THREADED RODS SHALL CONFORM TO ASTM A 307, GRADE A, UNLESS NOTED OTHERWISE. ALL THREADED RODS SHALL BE ZINC-PLATED.
- ALL WELDING OF STRUCTURAL STEEL SHALL BE PERFORMED WITH E70XX ELECTRODES CONFORMING TO AWS D1.1 (LATEST EDITION)
- ALL WELDERS SHALL BE CERTIFIED BY THE CITY OF LOS ANGELES FOR WELDING OF STRUCTURAL STEEL, OR REINFORCING STEEL, AS APPLICABLE BY AWS STANDARDS.
- ALL FABRICATORS SHALL BE CERTIFIED BY THE CITY OF LOS ANGELES.
- ALL FIELD WELDING & ALL MULTI-PASS WELDS SHALL HAVE CONTINUOUS INSPECTION.
- ALL STEEL TUBING SHALL CONFORM TO ASTM A 500, GRADE B, WITH A MINIMUM YIELD STRENGTH OF 46 KSI
- ALL STEEL SHALL BE PRIMED AND PAINTED, EXCEPT STEEL SURFACES ENCASED IN CONCRETE SHALL BE LEFT UNPAINTED.
- VERIFY ALL DIMENSIONS & CONDITIONS AT THE SITE PRIOR TO FABRICATION OF STEEL.

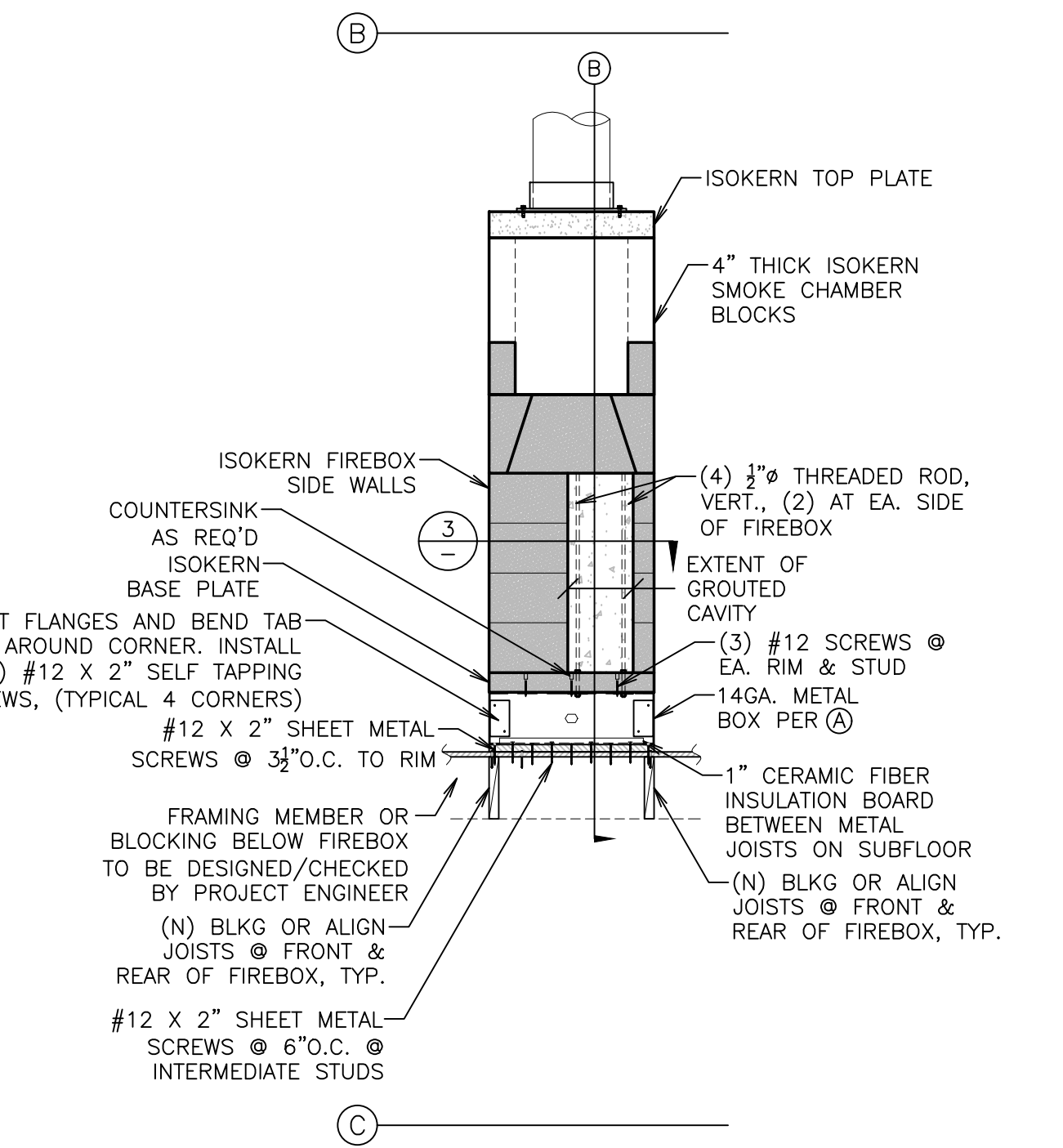
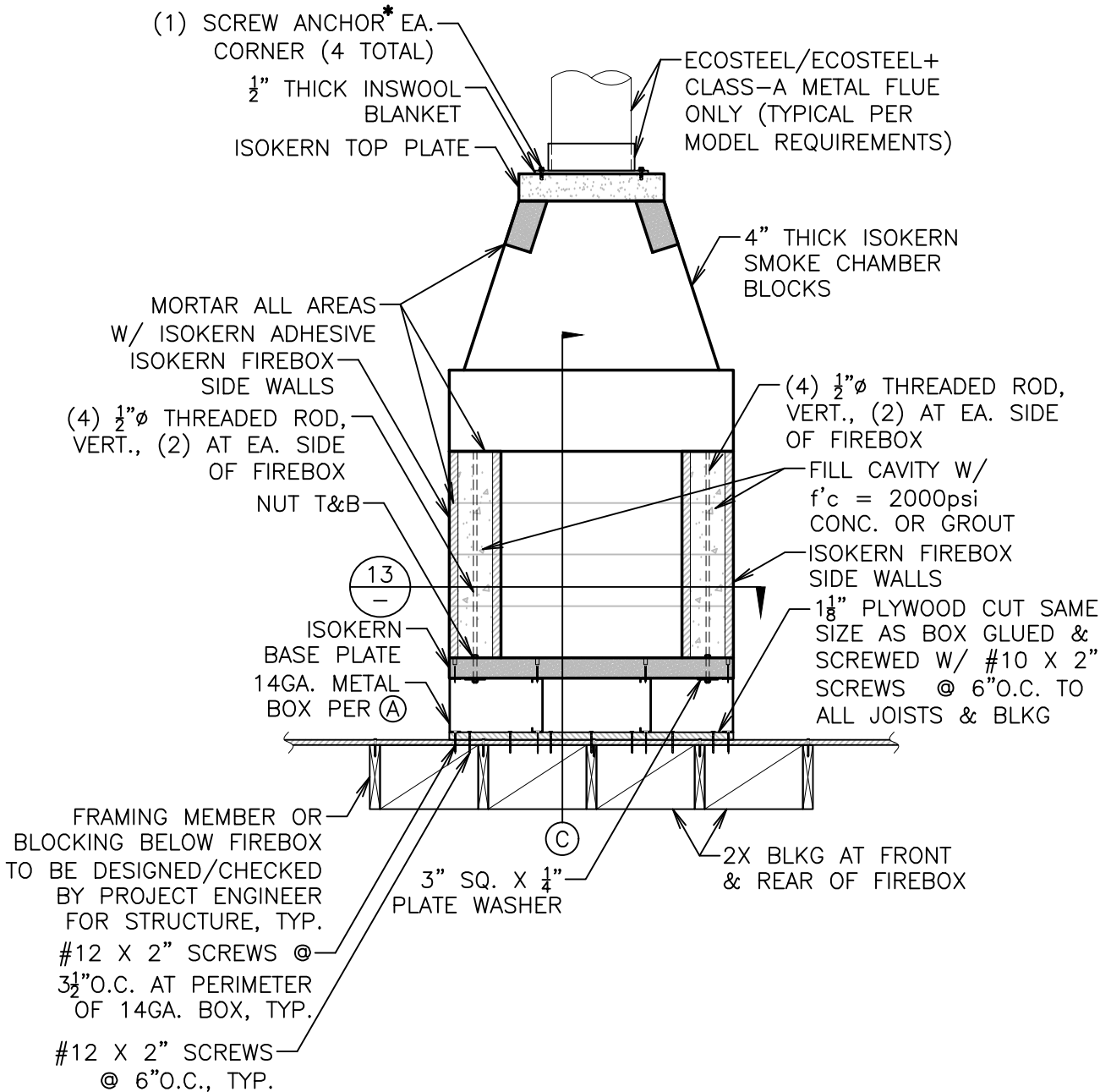
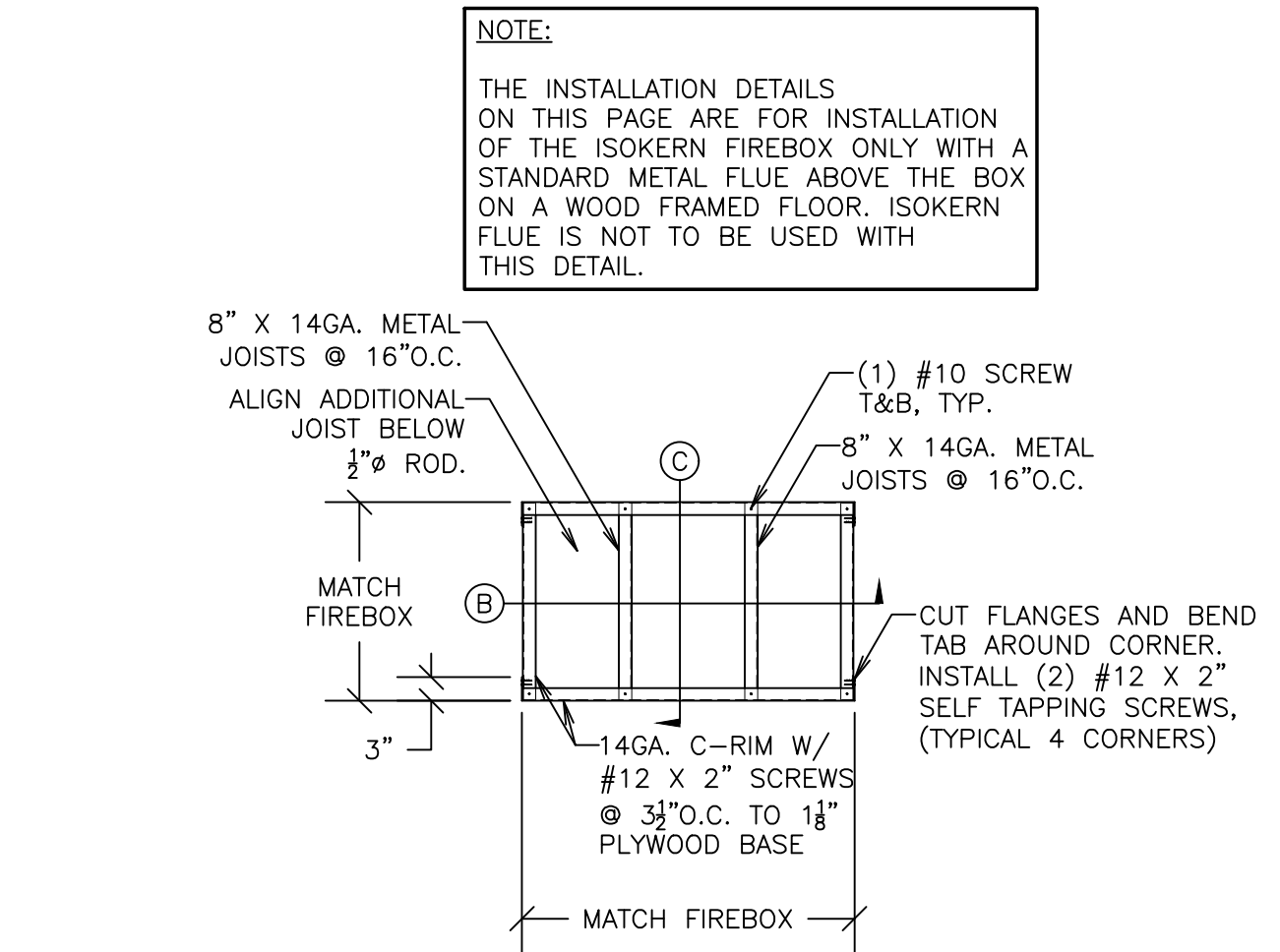
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- ALL WORK SHALL BE DONE IN COMPLIANCE WITH CHAPTER 21 OF THE 2018 IBC.



CROSS SECTION AT FIREBOX

SCALE: 1" = 1'-0" 3



- *SCREW ANCHORS SHALL BE $\frac{3}{8}$ " X $1\frac{1}{2}$ " SCREWS
- RAMSET/REDHEAD TAPCON ANCHORS (ICC REPORT NO. ESR-1671, LARR #24953)
 - SIMPSON TITEN SCREW ANCHORS (ICC ESR-1056, LARR #25560)

GENERAL NOTES

FIREBOX ON RAISED METAL BOX

SCALE: 1/2" = 1'-0" 16



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Project Name / Address

ISOKERN FIREPLACE SYSTEMS
ISOKERN on RAISED METAL BOX

Project Name / Address

PROJECT TITLE

Street Address
City, State

FOR CONSTRUCTION

Revision	Description	Date

- ☐ Project Number: 01-1491
- ☐ Project Engineer: J. VINCI, S.E.
- ☐ Checked By: JRV
- ☐ Drawn By: JWB
- ☐ Scale: AS NOTED
- ☐ Date: 00-00-2020

Sheet Number

IN-W2

Sheet __ Of __