

MINISTRY OF HOUSING  
VILLA 250 M2



OMNI BLOCK  
MASTER MANUAL - VERSION 2.5

TABLE OF CONTENTS

FOOTING DETAIL	01 - 04
BLOCK SHAPES	05
FIRST COURSE STEM WALLS	06 - 09
SECOND COURSE STEM WALLS	10 - 13
STEM WALLS WITH EMBEDS	14 - 17
GROUND FLOOR WALLS WITH EMBEDS	18 - 25
FIRST FLOOR WALLS WITH EMBEDS	26 - 33
STRUCTURAL DETAILS	31 - 315
FOUNDATION PLANS	316 - 319
STAIRCASE DESIGN DETAILS	320 - 328
ENGINEER'S HAMBRO REVIEW STAMP	329 - 331

DATE: 02-22-17  
 REVISION: 04-30-17

PAGE: A

TABLE OF CONTENTS  
 VERSION 2.5



**DISCLAIMER**

THE INFORMATION PRESENTED IN THIS MANUAL IS TO ASSIST PROFESSIONAL BUILDERS, ARCHITECTS, DESIGNERS, AND ENGINEERS IN THE UNDERSTANDING OF THE OMNI BLOCK INSULATED CONCRETE BLOCK SYSTEM. WHILE THE MATERIAL IS PRESENTED IN GOOD FAITH AND BELIEVED TO BE RELIABLE, IT DOES NOT CONSTITUTE A PART OF, OR TERMS AND CONDITIONS OF SALE. NO ENGINEERING DATA, DESIGN INFORMATION OR OTHER MATERIAL CONTAINED HEREIN SHALL BE DEEMED TO CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, THAT SAID INFORMATION IS CORRECT OR THAT THE PRODUCTS DESCRIBED ARE FIT FOR A PARTICULAR PURPOSE OR DESIGN APPLICATION.

**PREVAILING CODE**

THE INFORMATION PRESENTED IN THIS MANUAL IS NOT INTENDED TO SUPERSEDE ANY LOCAL, REGIONAL, NATIONAL, OR INTERNATIONAL BUILDING CODES. ALL INFORMATION SHOULD BE EXAMINED INDIVIDUALLY AND WHOLLY TO DETERMINE WHETHER THE PROCEDURAL SUGGESTIONS CONTAINED HEREIN COMPLY WITH THE PREVAILING BUILDING CODE.

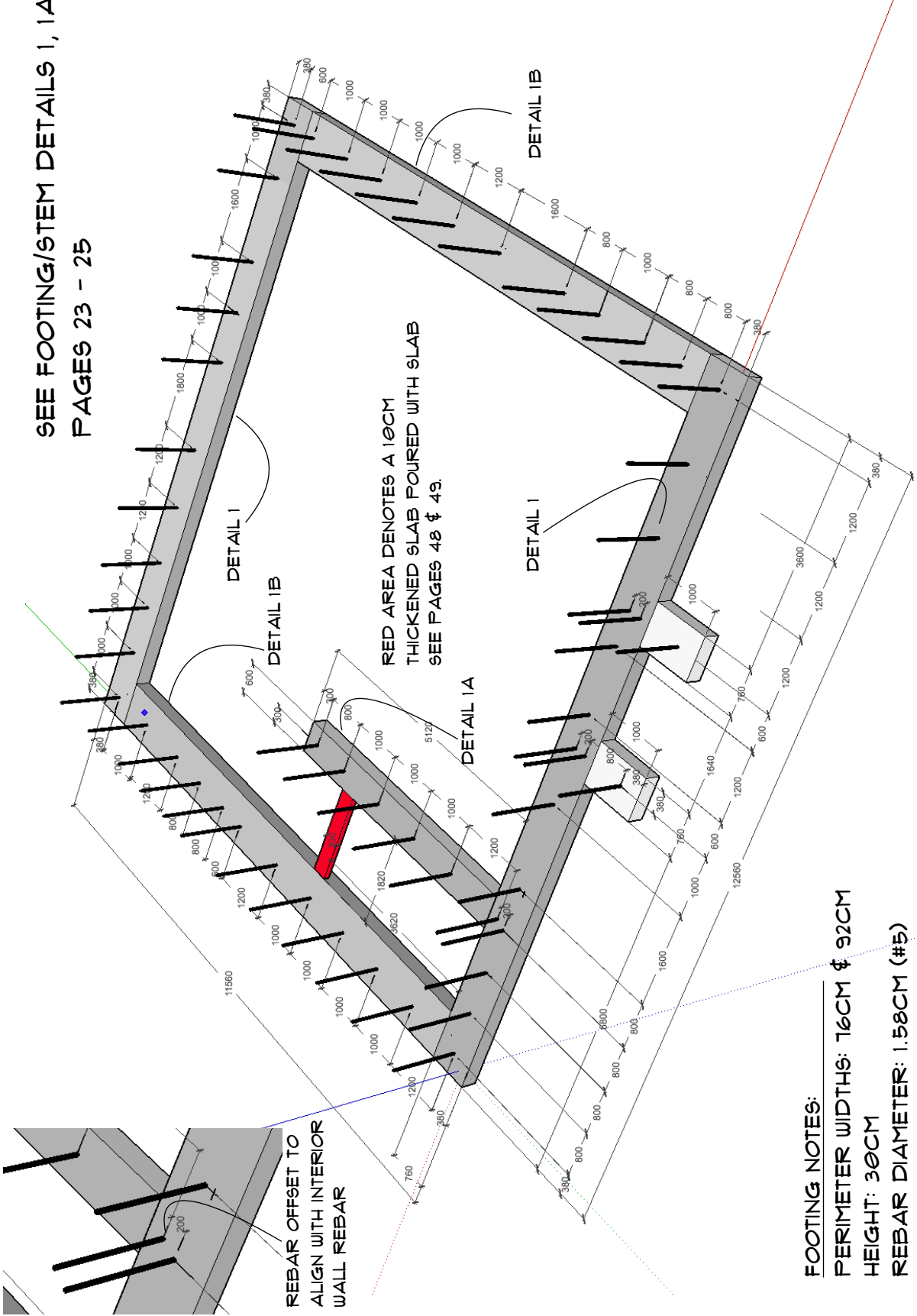
DATE: 02-22-17  
REVISION:

PAGE: B

DISCLAIMER  
VERSION 2.5



SEE FOOTING/STEM DETAILS 1, 1A, & 1B  
 PAGES 23 - 25



RED AREA DENOTES A 10CM THICKENED SLAB Poured WITH SLAB SEE PAGES 48 & 49.

REBAR OFFSET TO ALIGN WITH INTERIOR WALL REBAR

**FOOTING NOTES:**  
 PERIMETER WIDTHS: 76CM & 92CM  
 HEIGHT: 30CM  
 REBAR DIAMETER: 1.58CM (#5)  
 REBAR HEIGHT: 105CM MIN. ABOVE TOP OF FOOTING



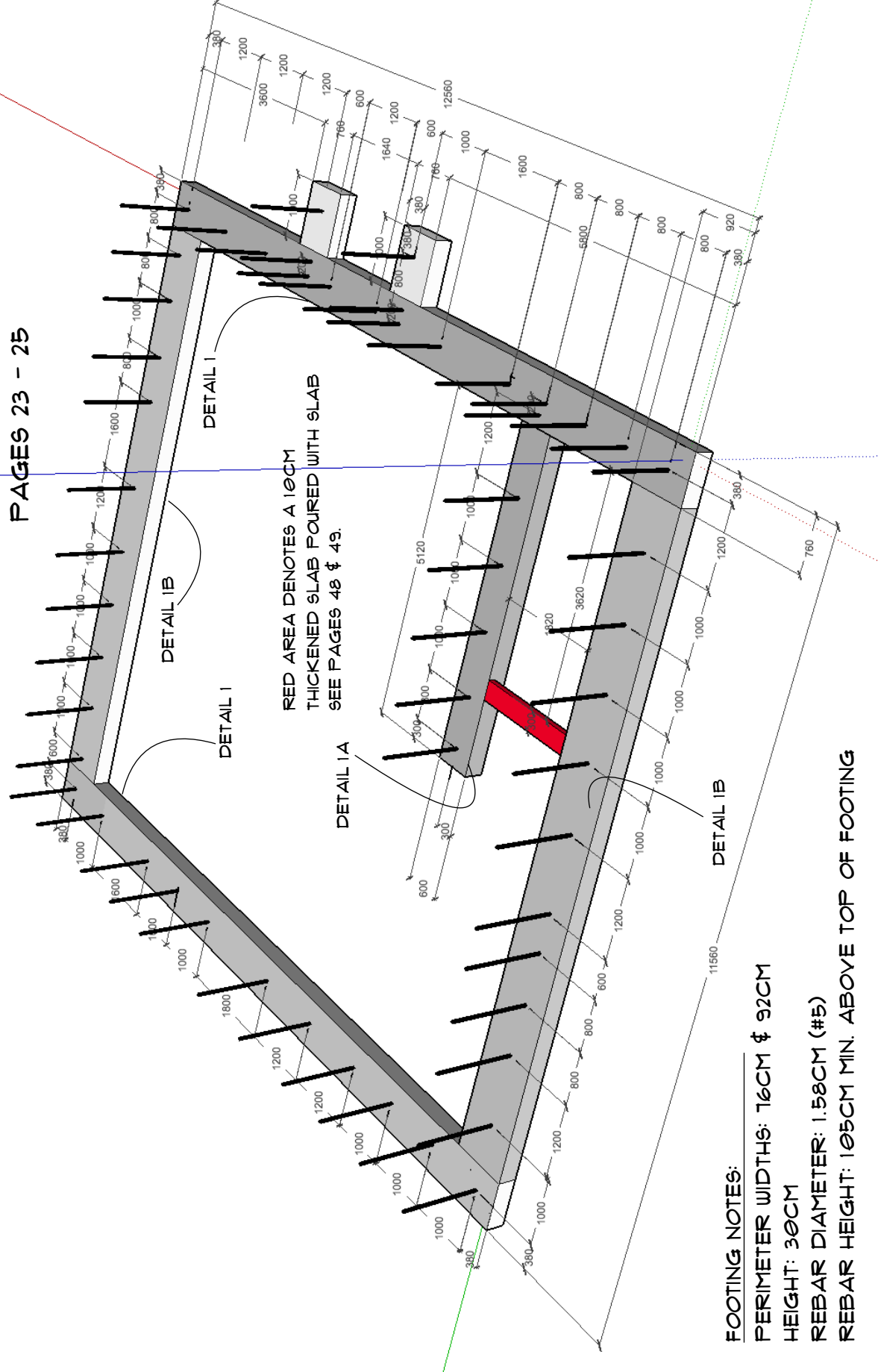
MOH 250  
 FOOTING - FRONT

PAGE: 01

DATE: 10/02/2016  
 REVISION: 01/12/17



SEE FOOTING/STEM DETAILS 1, 1A, & 1B  
 PAGES 23 - 25



RED AREA DENOTES A 10CM THICKENED SLAB Poured WITH SLAB SEE PAGES 48 & 49.

**FOOTING NOTES:**  
 PERIMETER WIDTHS: 76CM & 92CM  
 HEIGHT: 30CM  
 REBAR DIAMETER: 1.58CM (#5)  
 REBAR HEIGHT: 105CM MIN. ABOVE TOP OF FOOTING

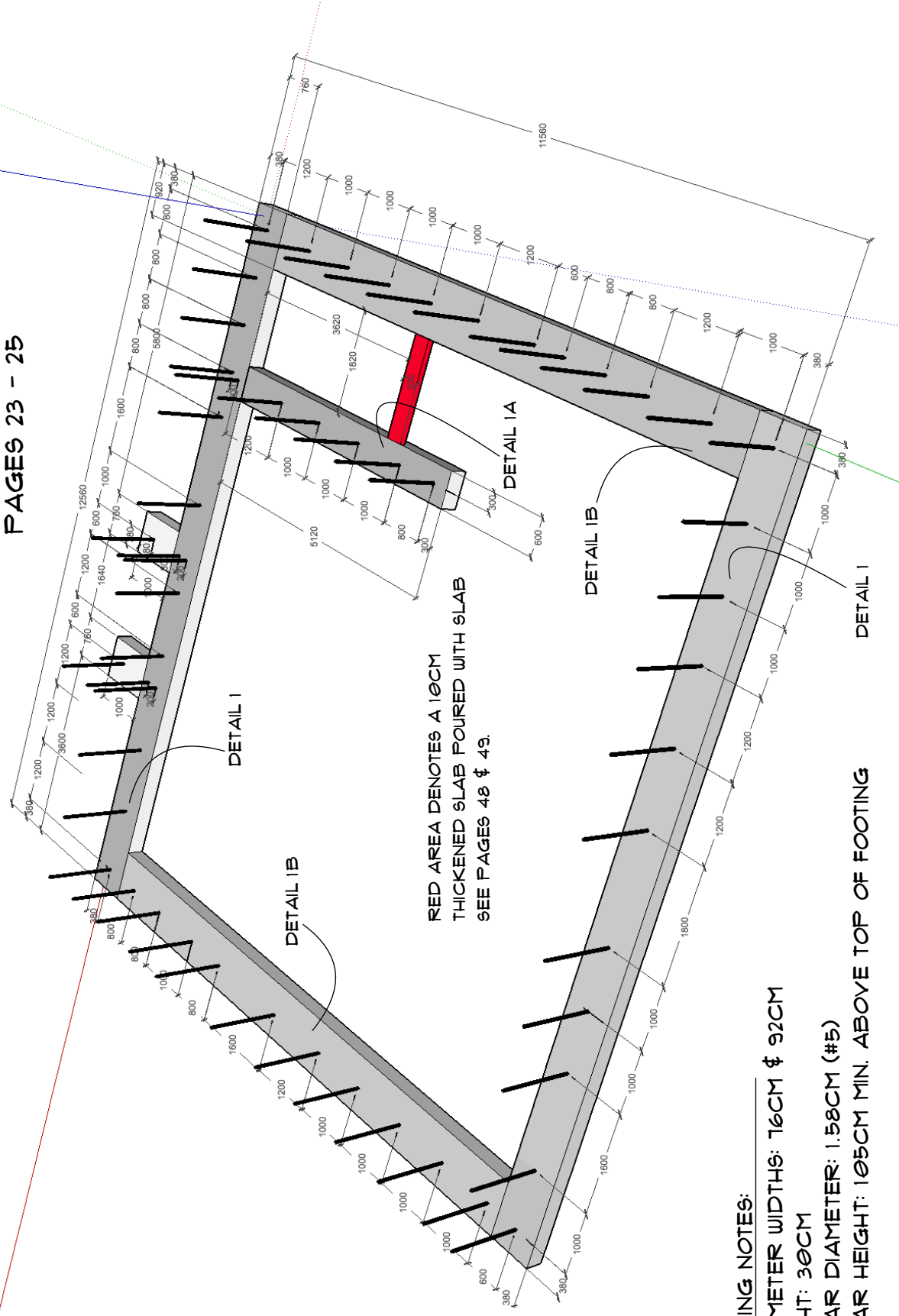


MOH 250  
 FOOTING - LEFT

PAGE: 02

DATE: 10/02/2016  
 REVISION: 01/12/17

SEE FOOTING/STEM DETAILS 1, 1A, & 1B  
 PAGES 23 - 25



RED AREA DENOTES A 10CM THICKENED SLAB POURED WITH SLAB SEE PAGES 48 & 49.

**FOOTING NOTES:**  
 PERIMETER WIDTHS: 16CM & 92CM  
 HEIGHT: 30CM  
 REBAR DIAMETER: 1.58CM (#5)  
 REBAR HEIGHT: 105CM MIN. ABOVE TOP OF FOOTING

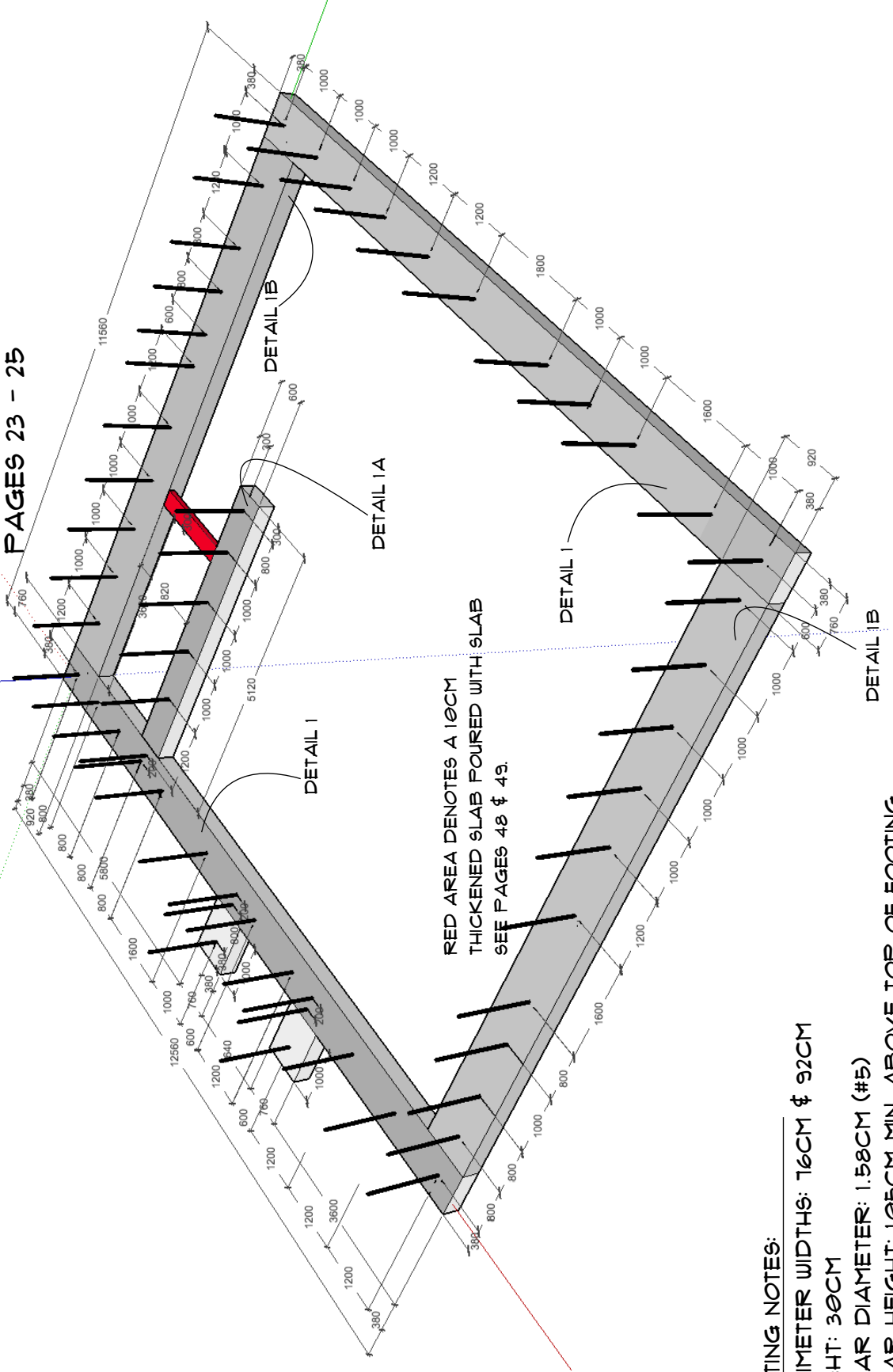


MOH 250  
 FOOTING - REAR

PAGE: 03

DATE: 10/02/2016  
 REVISION: 01/12/17

SEE FOOTING/STEM DETAILS 1, 1A, & 1B  
 PAGES 23 - 25



RED AREA DENOTES A 10CM THICKENED SLAB POURED WITH SLAB SEE PAGES 48 & 49.

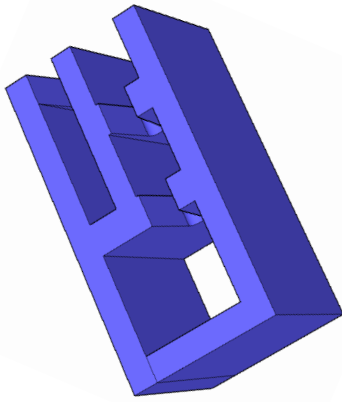
**FOOTING NOTES:**  
 PERIMETER WIDTHS: 16CM & 92CM  
 HEIGHT: 30CM  
 REBAR DIAMETER: 1.58CM (#5)  
 REBAR HEIGHT: 105CM MIN. ABOVE TOP OF FOOTING



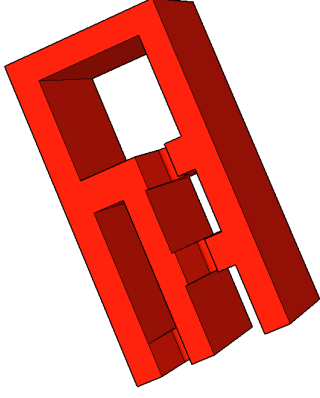
MOH 250  
 FOOTING - RIGHT

PAGE: 04

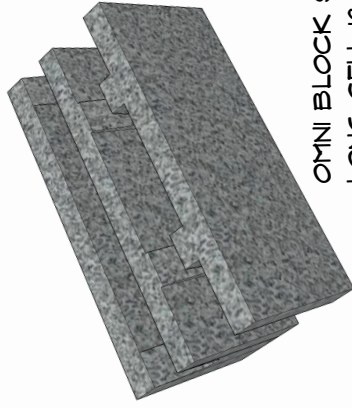
DATE: 10/02/2016  
 REVISION: 01/12/17



OMNI BLOCK LEFT CORNER / JAMB -  
LONG CELL IS ALWAYS PLACED TO  
THE EXTERIOR SIDE OF THE BUILDING  
SO THE CORNER OR JAMB IS ON THE  
LEFT SIDE

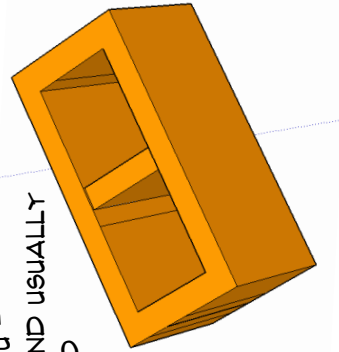


OMNI BLOCK RIGHT CORNER / JAMB -  
LONG CELL IS ALWAYS PLACED TO  
THE EXTERIOR SIDE OF THE BUILDING  
SO THE CORNER OR JAMB IS ON THE  
RIGHT SIDE

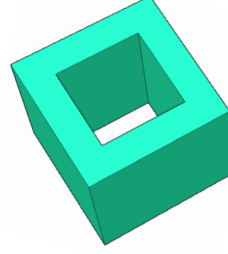


OMNI BLOCK STRETCHER -  
LONG CELL IS ALWAYS  
PLACED TO THE EXTERIOR  
SIDE OF THE BUILDING

STANDARD CMU -  
UNINSULATED AND USUALLY  
FULLY GROUTED



STANDARD HALF CMU -  
USED AT ALL OPENINGS  
UNINSULATED AND USUALLY  
FULLY GROUTED



DATE: 10/02/2016  
REVISION:

PAGE: 05

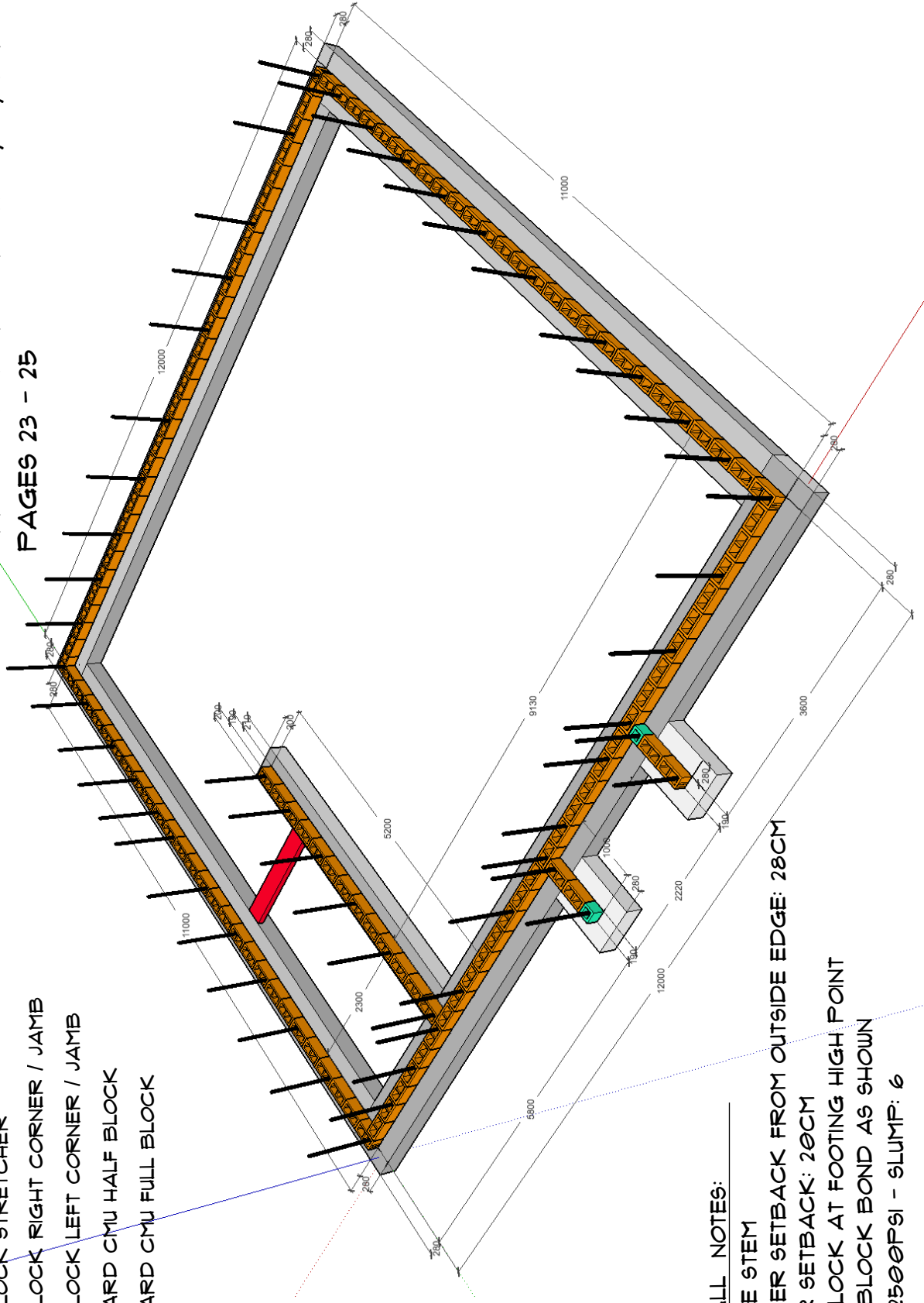
BLOCK SHAPES



**COLOR CODE:**

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

SEE FOOTING/STEM DETAILS 1, 1A, & 1B  
PAGES 23 - 25



**STEM WALL NOTES:**

- 2 COURSE STEM
- PERIMETER SETBACK FROM OUTSIDE EDGE: 28CM
- INTERIOR SETBACK: 20CM
- BEGIN BLOCK AT FOOTING HIGH POINT
- FOLLOW BLOCK BOND AS SHOWN
- GROUT: 2500PSI - SLUMP: 6

DATE: 10/02/2016  
REVISION: 01/12/17

PAGE: 06

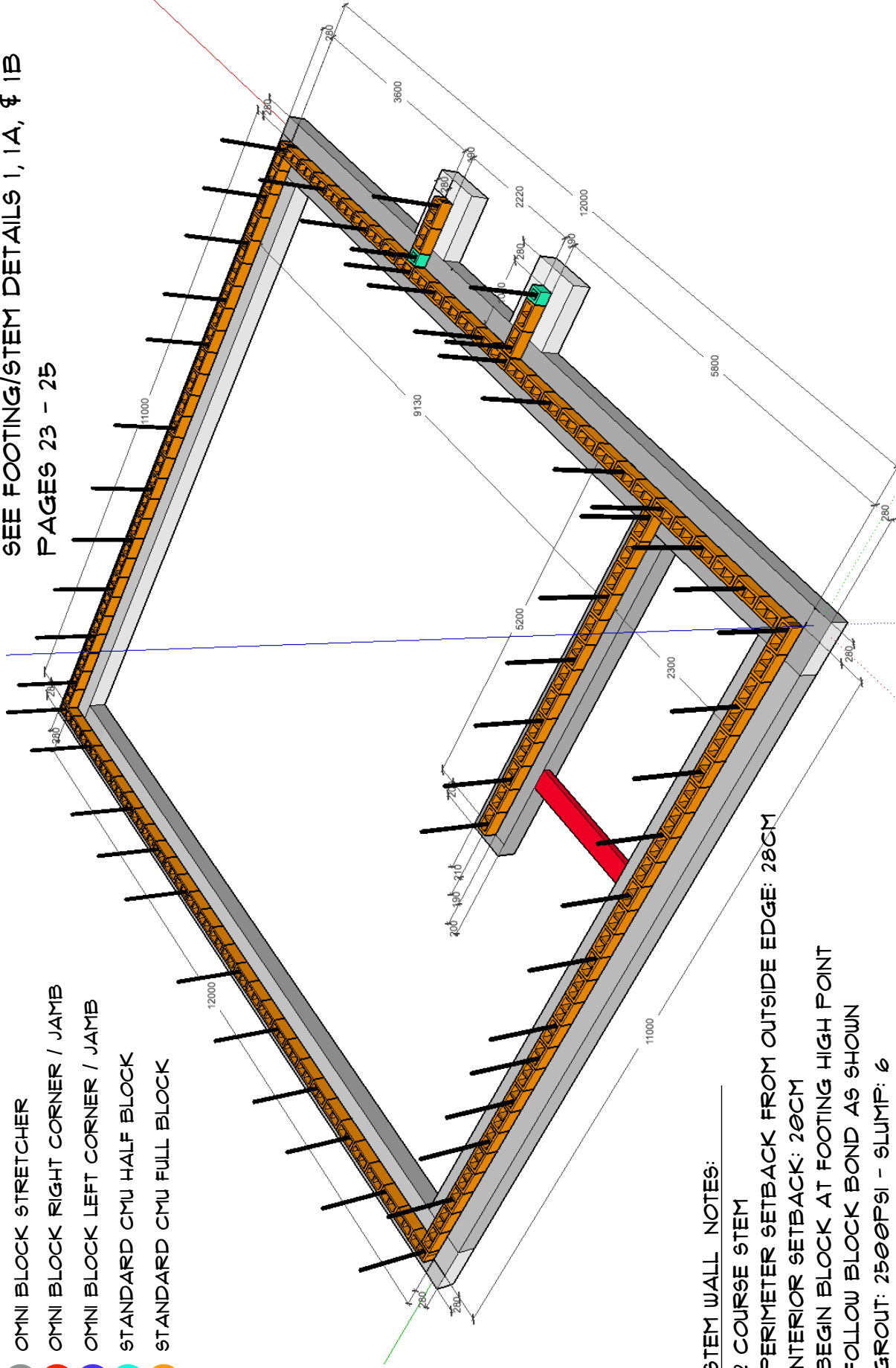
MOH 250  
FIRST COURSE STEM - FRONT



**COLOR CODE:**

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

SEE FOOTING/STEM DETAILS 1, 1A, & 1B  
PAGES 23 - 25



**STEM WALL NOTES:**

- 2 COURSE STEM
- PERIMETER SETBACK FROM OUTSIDE EDGE: 28CM
- INTERIOR SETBACK: 20CM
- BEGIN BLOCK AT FOOTING HIGH POINT
- FOLLOW BLOCK BOND AS SHOWN
- GROUT: 2500PSI - SLUMP: 6



MOH 250  
FIRST COURSE STEM - LEFT

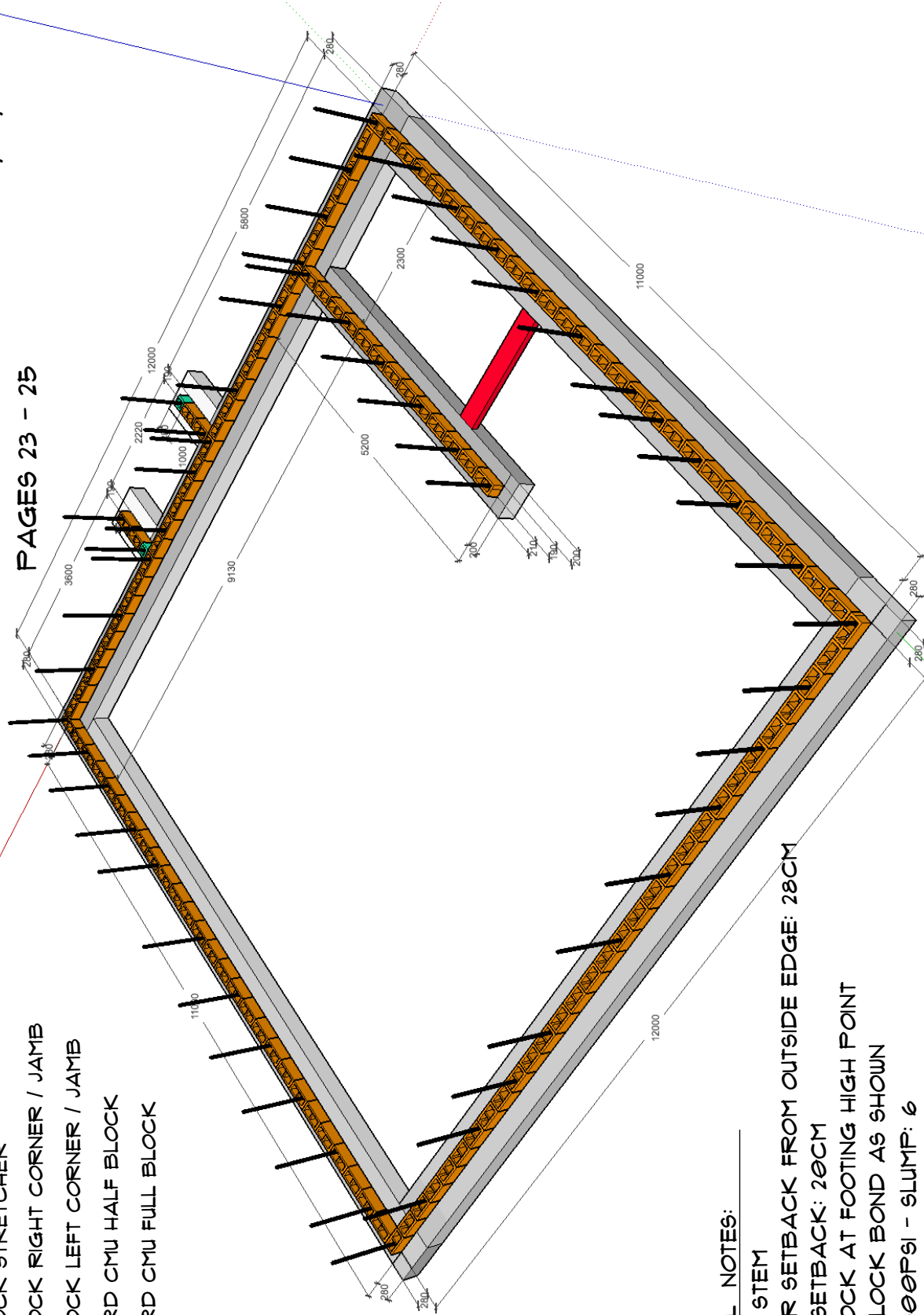
DATE: 10/02/2016 PAGE: 01  
REVISION: 01/12/17



COLOR CODE:

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

SEE FOOTING/STEM DETAILS 1, 1A, & 1B  
PAGES 23 - 25



STEM WALL NOTES:

- 2 COURSE STEM
- PERIMETER SETBACK FROM OUTSIDE EDGE: 28CM
- INTERIOR SETBACK: 20CM
- BEGIN BLOCK AT FOOTING HIGH POINT
- FOLLOW BLOCK BOND AS SHOWN
- GROUT: 2500PSI - SLUMP: 6

DATE: 10/02/2016

REVISION: 01/12/17

MOH 250

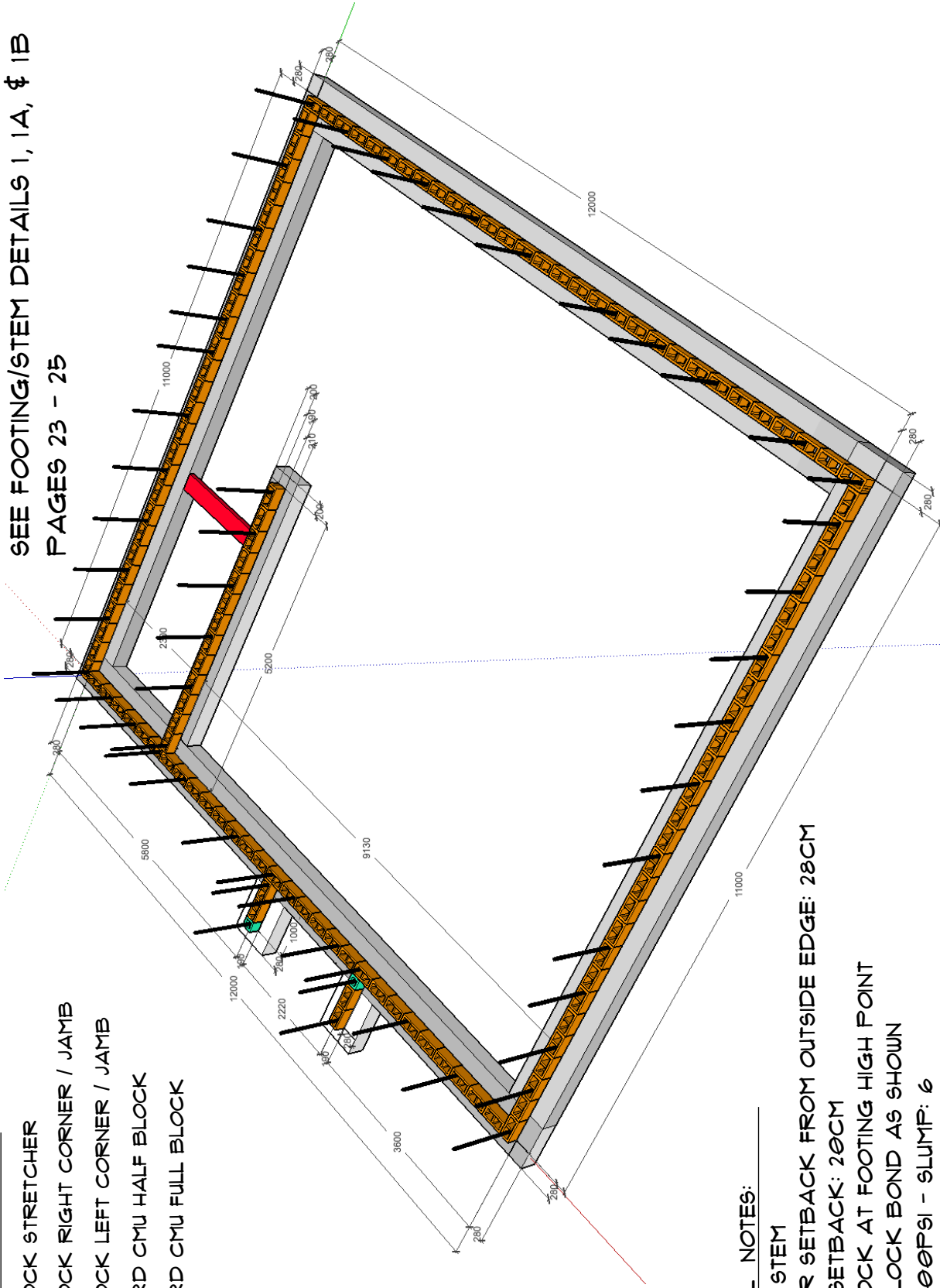
FIRST COURSE STEM - REAR



**COLOR CODE:**

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

SEE FOOTING/STEM DETAILS 1, 1A, & 1B  
PAGES 23 - 25



**STEM WALL NOTES:**

- 2 COURSE STEM
- PERIMETER SETBACK FROM OUTSIDE EDGE: 28CM
- INTERIOR SETBACK: 20CM
- BEGIN BLOCK AT FOOTING HIGH POINT
- FOLLOW BLOCK BOND AS SHOWN
- GROUT: 2500PSI - SLUMP: 6



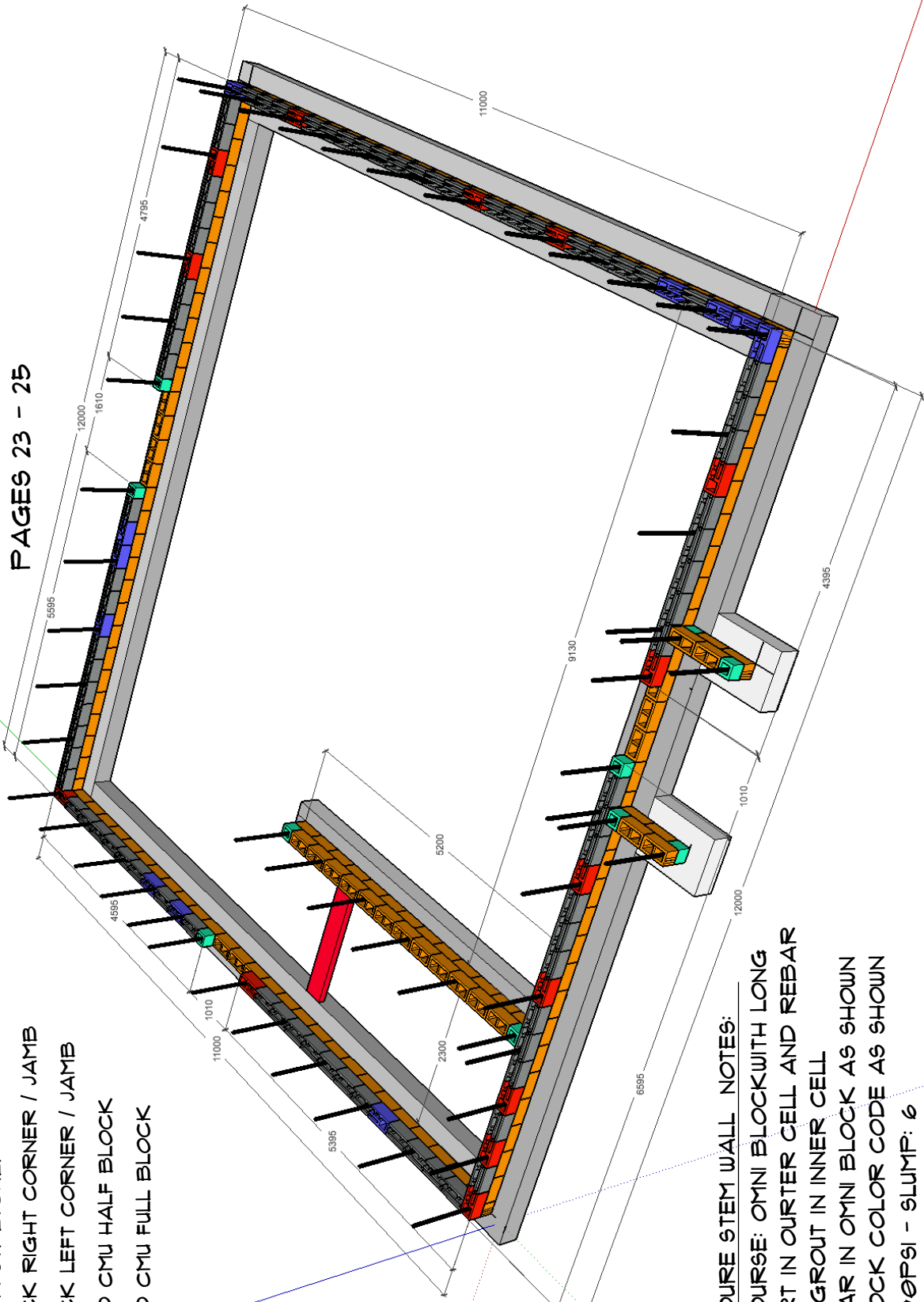
MOH 250  
FIRST COURSE STEM - RIGHT

DATE: 10/02/2016 PAGE: 09  
REVISION: 01/12/17

**COLOR CODE:**

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

SEE FOOTING/STEM DETAILS 1, 1A, & 1B  
PAGES 23 - 25



**SECOND COURSE STEM WALL NOTES:**  
**SECOND COURSE: OMNI BLOCK WITH LONG**  
**INSERT IN OUTER CELL AND REBAR**  
**AND GROUT IN INNER CELL**  
**ALIGN REBAR IN OMNI BLOCK AS SHOWN**  
**FOLLOW BLOCK COLOR CODE AS SHOWN**  
**GROUT: 2500PSI - SLUMP: 6**

DATE: 10/02/2016  
REVISION: 01/12/17

PAGE: 10

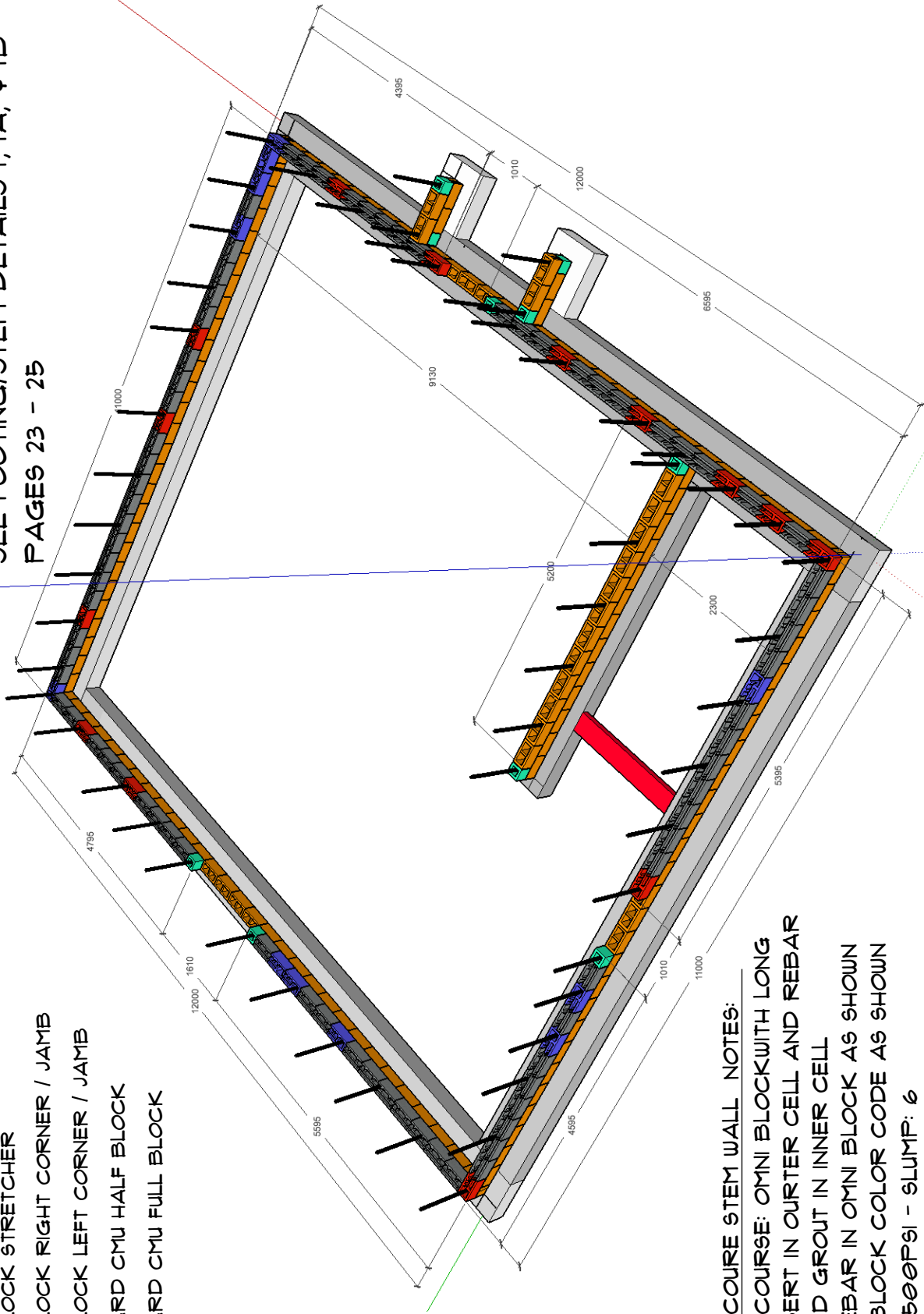
MOH 250  
SECOND COURSE STEM - FRONT



**COLOR CODE:**

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

SEE FOOTING/STEM DETAILS 1, 1A, & 1B  
PAGES 23 - 25



**SECOND COURSE STEM WALL NOTES:**  
**SECOND COURSE: OMNI BLOCK WITH LONG**  
**INSERT IN OUTER CELL AND REBAR**  
**AND GROUT IN INNER CELL**  
**ALIGN REBAR IN OMNI BLOCK AS SHOWN**  
**FOLLOW BLOCK COLOR CODE AS SHOWN**  
**GROUT: 2500PSI - SLUMP: 6**

DATE: 10/02/2016  
REVISION: 01/12/17

PAGE: 11

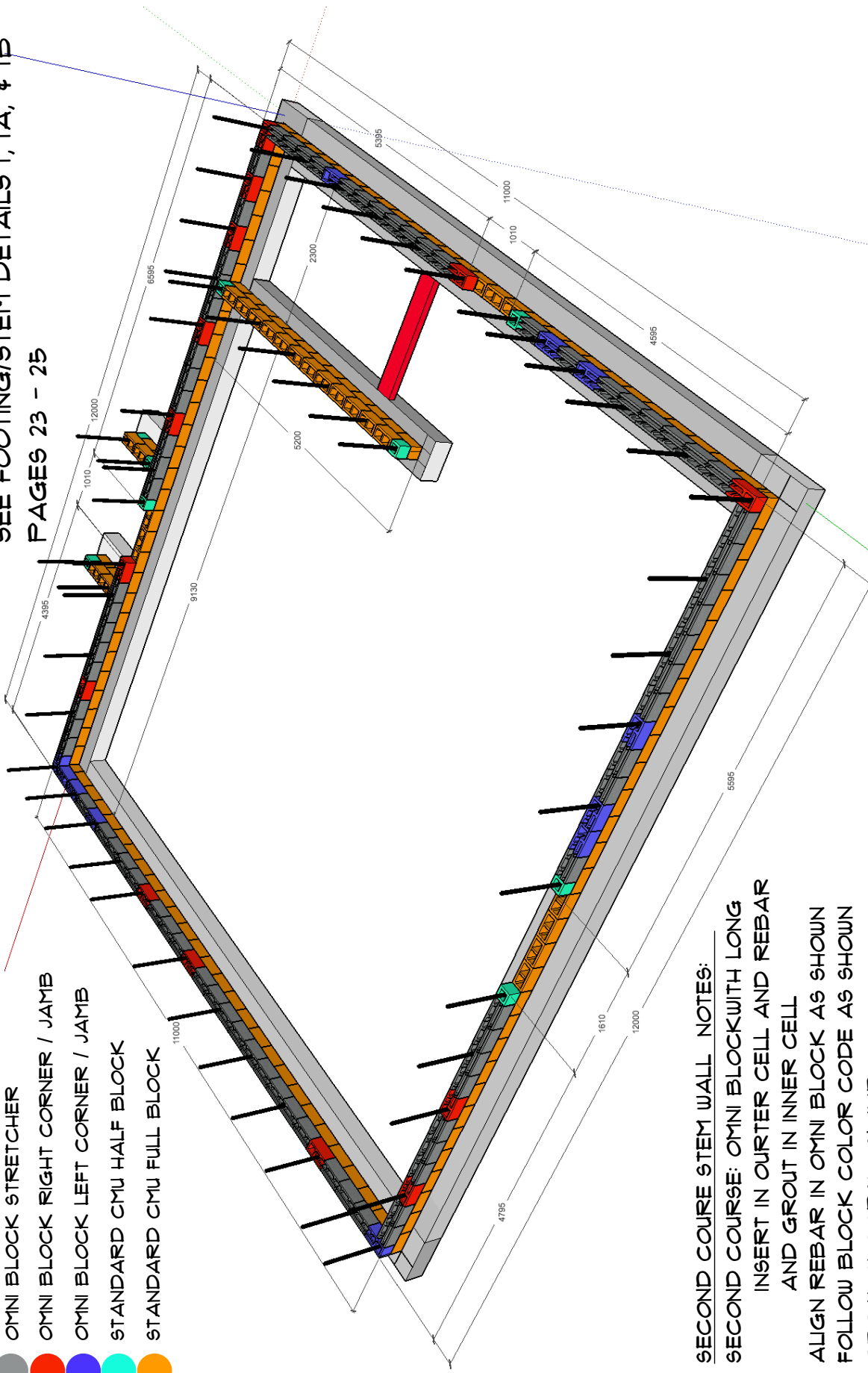
MOH 250  
SECOND COURSE STEM - LEFT



**COLOR CODE:**

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

SEE FOOTING/STEM DETAILS 1, 1A, & 1B  
PAGES 23 - 25



**SECOND COURSE STEM WALL NOTES:**  
**SECOND COURSE: OMNI BLOCK WITH LONG**  
**INSERT IN OUTER CELL AND REBAR**  
**AND GROUT IN INNER CELL**  
**ALIGN REBAR IN OMNI BLOCK AS SHOWN**  
**FOLLOW BLOCK COLOR CODE AS SHOWN**  
**GROUT: 2500PSI - SLUMP: 6**

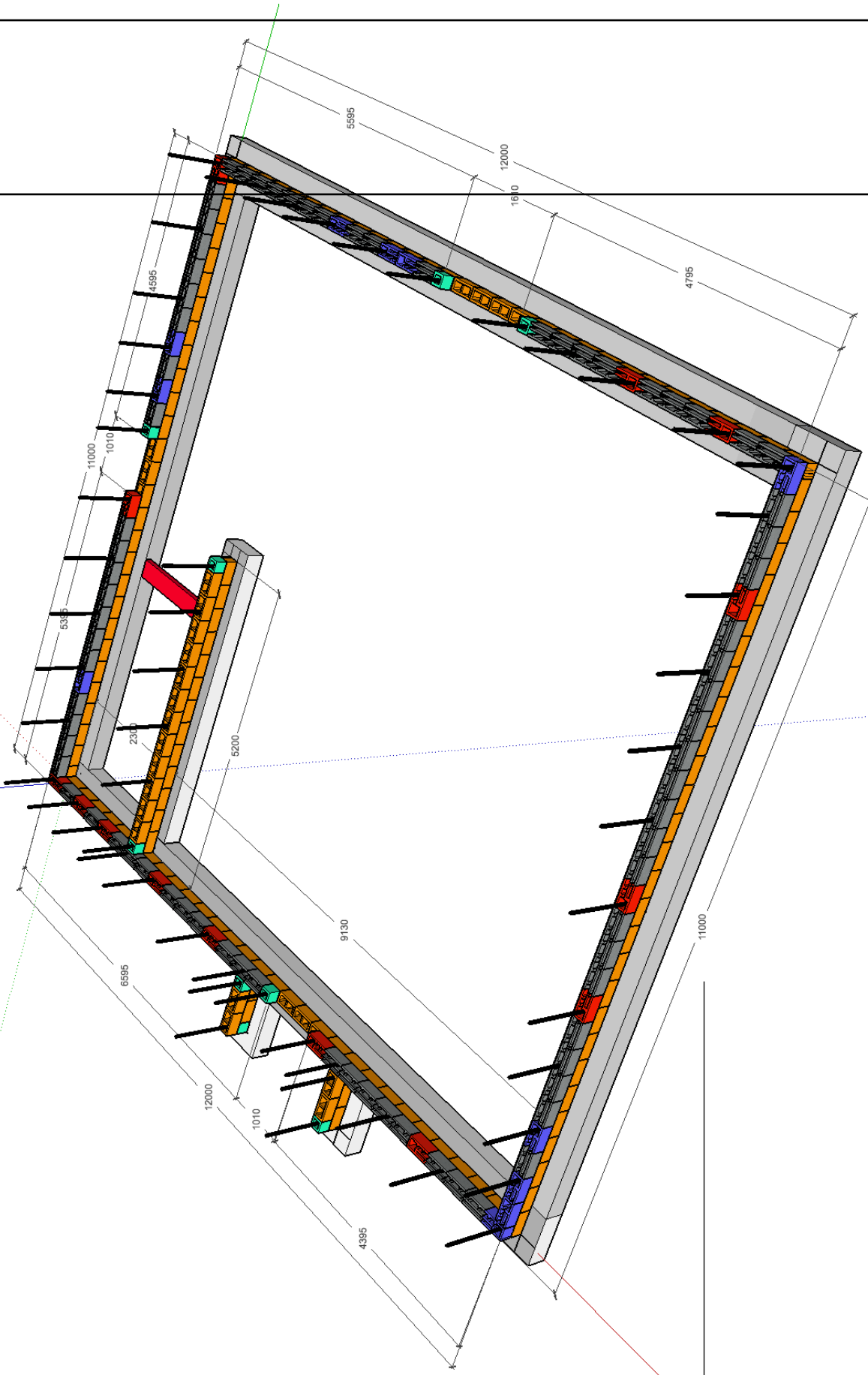
DATE: 10/02/2016  
REVISION: 01/12/17

PAGE: 12

MOH 250  
SECOND COURSE STEM - REAR





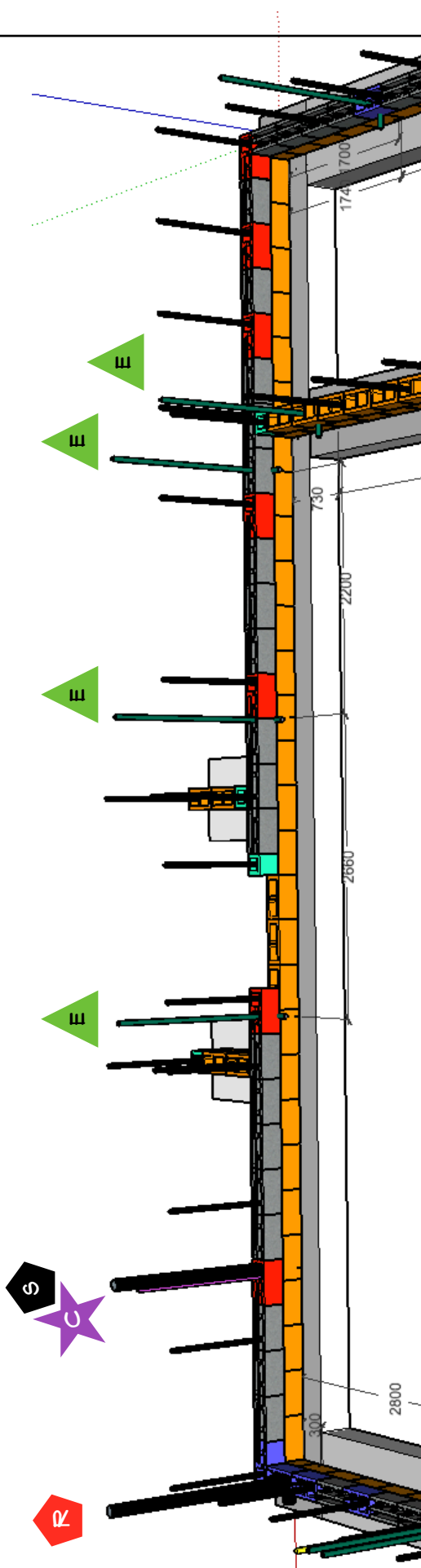


MOH 250










PAGE: 13

DATE: 10/02/2016





**EMBED SYMBOLS:**

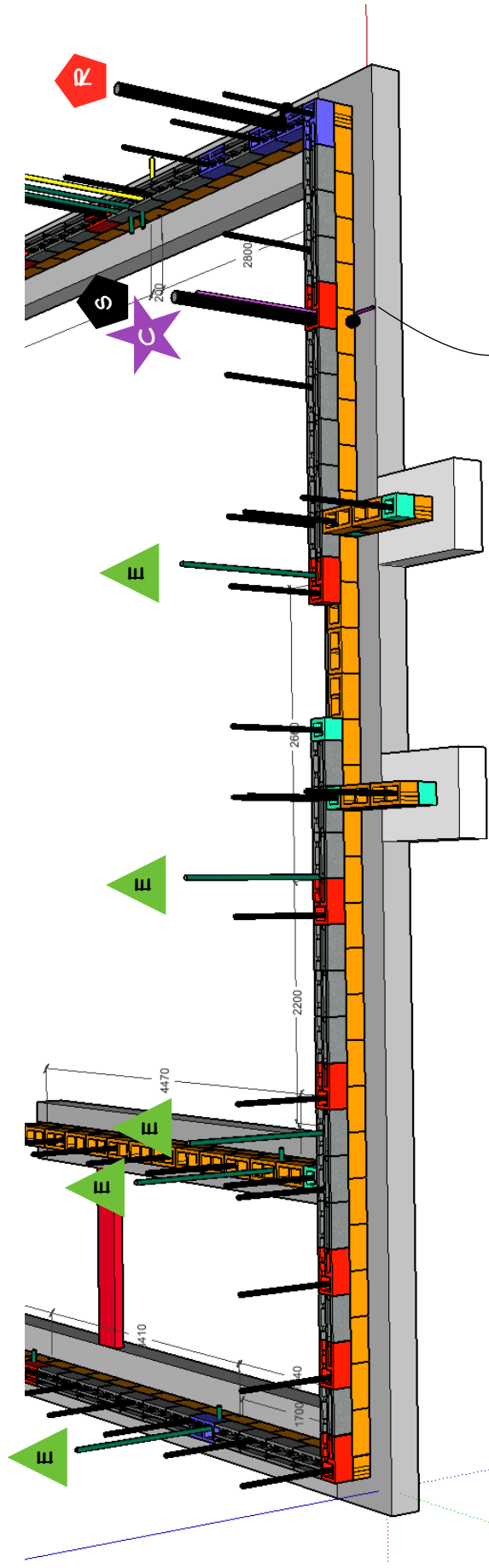
-  COLD WATER PIPE
-  ELECTRICAL - INTERIOR
-  HOT WATER PIPE
-  AC DRAIN PIPE
-  LY LOW VOLTAGE
-  F FREON LINE
-  SEWER PIPE
-  E ELECTRICAL - EXTERIOR
-  R ROOF DRAIN PIPE

DATE: 10/02/2016  
 REVISION: 41/14/17

PAGE: 14A

MOH 250  
 STEM EMBEDS - FRONT INTERIOR





**EMBED SYMBOLS:**

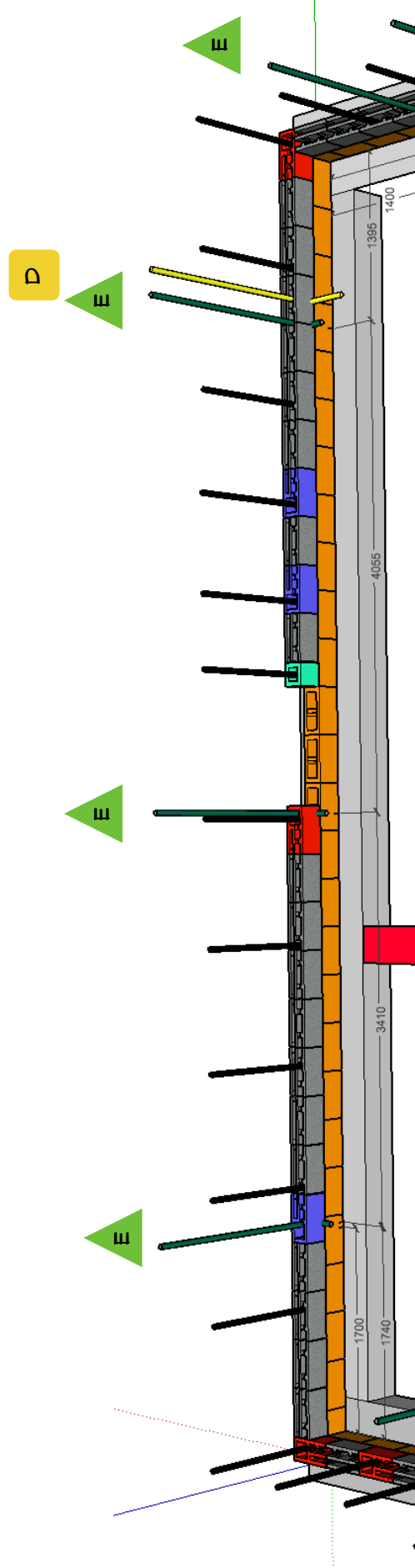
- COLD WATER PIPE
- AC DRAIN PIPE
- SEWER PIPE
- ELECTRICAL - INTERIOR
- LOW VOLTAGE
- ELECTRICAL - EXTERIOR
- HOT WATER PIPE
- FREON LINE
- ROOF DRAIN PIPE

DATE: 10/02/2016  
 REVISION: 41/14/17

PAGE: 14B

MOH 250  
 STEM EMBEDS - FRONT EXTERIOR





**EMBED SYMBOLS:**

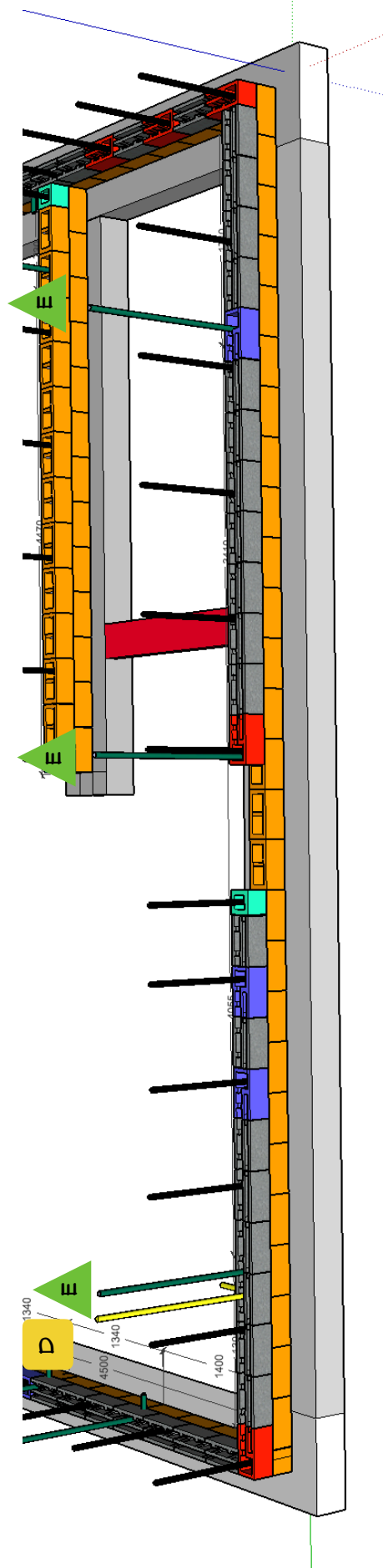
- ★ COLD WATER PIPE
- ▲ ELECTRICAL - INTERIOR
- ◆ HOT WATER PIPE
- AC DRAIN PIPE
- LOW VOLTAGE
- FREON LINE
- ⬥ SEWER PIPE
- ▲ ELECTRICAL - EXTERIOR
- ⬥ ROOF DRAIN PIPE

DATE: 10/02/2016  
 REVISION: 04/14/17

PAGE: 15A

MOH 250  
 STEM EMBEDS - LEFT INTERIOR





**EMBED SYMBOLS:**

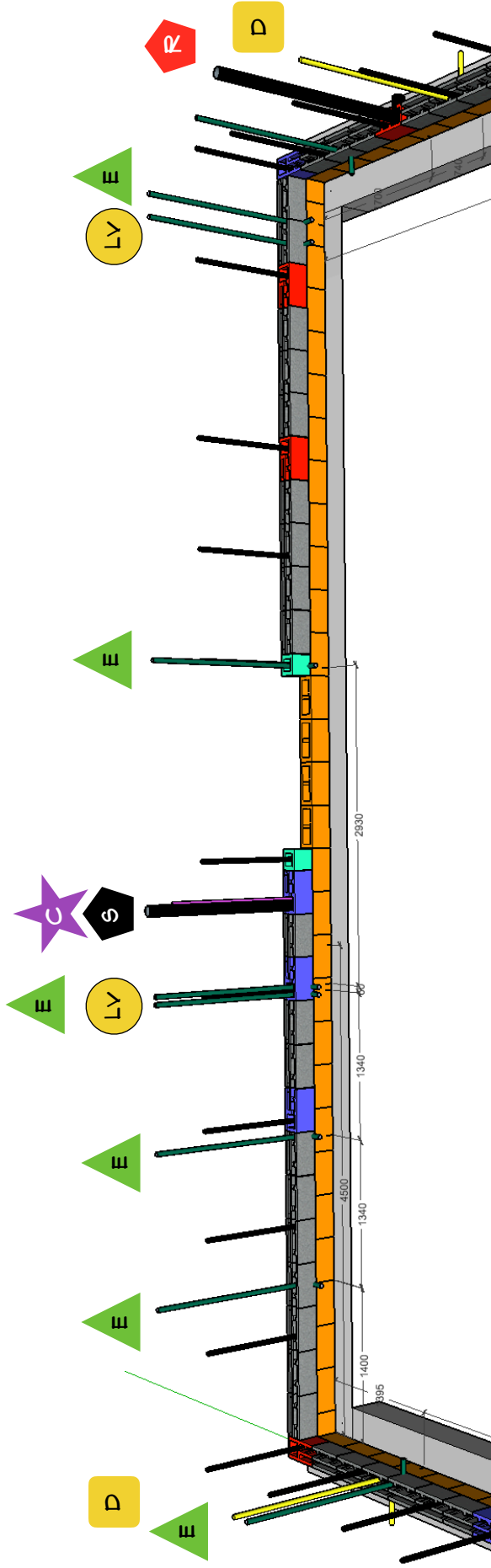
- ★ COLD WATER PIPE
- ▲ ELECTRICAL - INTERIOR
- H HOT WATER PIPE
- D AC DRAIN PIPE
- LY LOW VOLTAGE
- F FREON LINE
- S SEWER PIPE
- E ELECTRICAL - EXTERIOR
- R ROOF DRAIN PIPE

DATE: 04/14/17  
REVISION:

PAGE: 15B

MOH 250  
STEM EMBEDS - LEFT EXTERIOR





**EMBED SYMBOLS:**

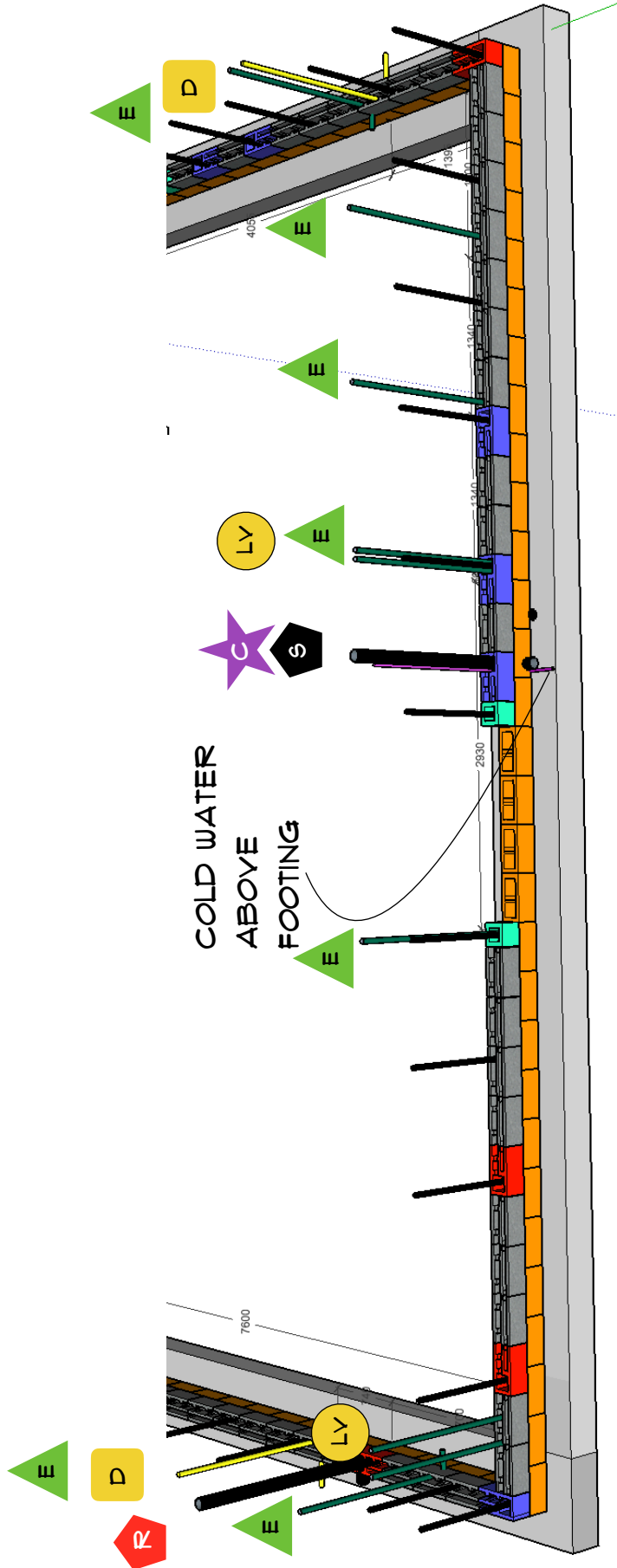
- COLD WATER PIPE
- AC DRAIN PIPE
- SEWER PIPE
- ELECTRICAL - INTERIOR
- LOW VOLTAGE
- ELECTRICAL - EXTERIOR
- HOT WATER PIPE
- FREON LINE
- ROOF DRAIN PIPE

DATE: 10/02/2016  
 REVISION: 04/14/17

PAGE: 16A

MOH 250  
 STEM EMBEDS - REAR INTERIOR





**EMBED SYMBOLS:**

- ★ COLD WATER PIPE
- ▲ ELECTRICAL - INTERIOR
- ◆ HOT WATER PIPE
- AC DRAIN PIPE
- LY LOW VOLTAGE
- FREON LINE
- SEWER PIPE
- ▲ ELECTRICAL - EXTERIOR
- ROOF DRAIN PIPE

DATE: 04/14/2017

PAGE: 16B

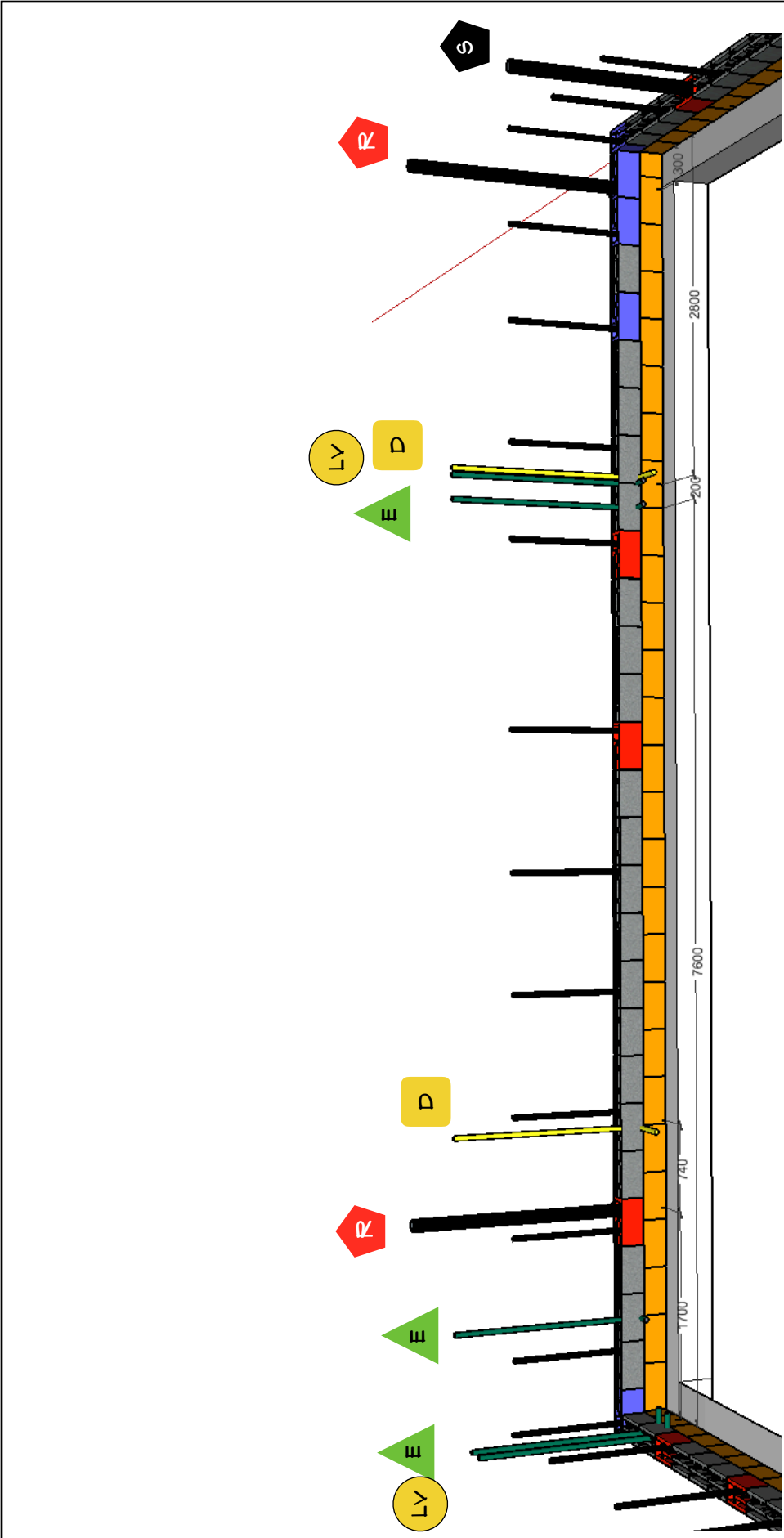
MOH 250

REVISION:

STEM EMBEDS - REAR EXTERIOR



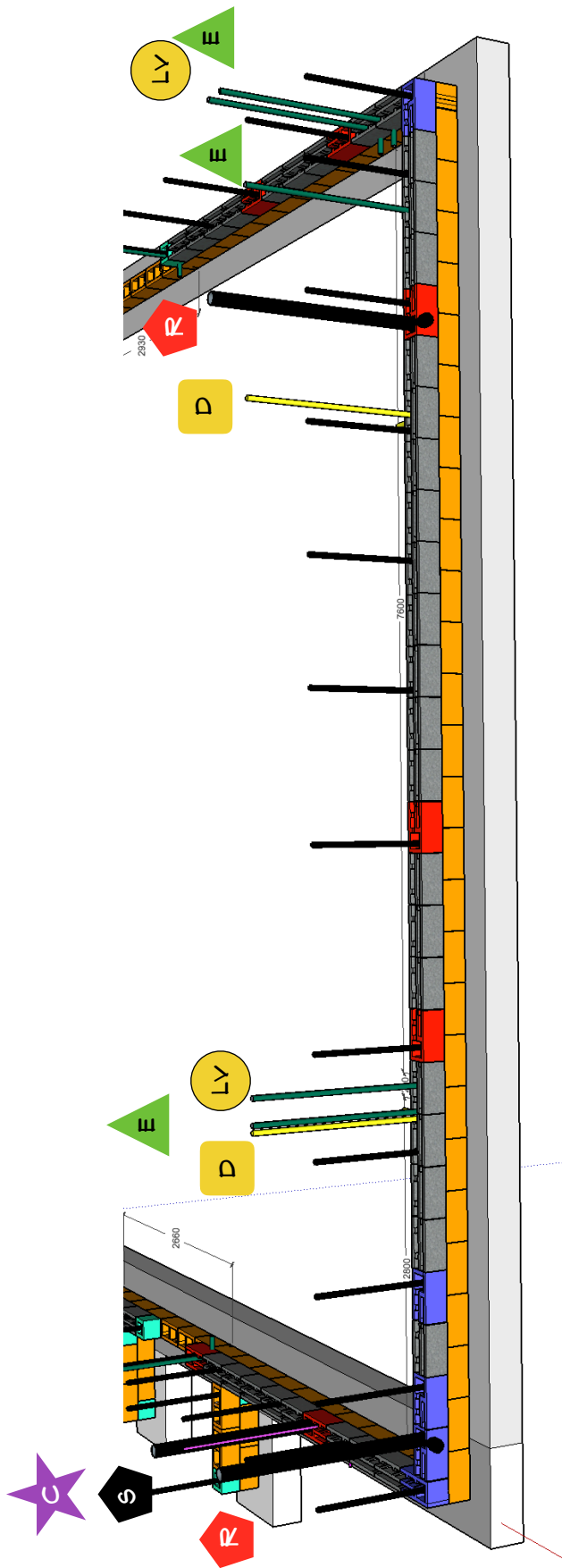




**EMBED SYMBOLS:**

- COLD WATER PIPE
- ELECTRICAL - INTERIOR
- HOT WATER PIPE
- AC DRAIN PIPE
- LY LOW VOLTAGE
- F FREON LINE
- SEWER PIPE
- E ELECTRICAL - EXTERIOR
- R ROOF DRAIN PIPE
- S

DATE: 10/02/2016 REVISION: 04/14/17	MOH 250 STEM EMBEDS - RIGHT INTERIOR	 AN INSULATED CONCRETE BLOCK
--	---	---------------------------------



**EMBED SYMBOLS:**

- C COLD WATER PIPE
- S SEWER PIPE
- D AC DRAIN PIPE
- E ELECTRICAL - INTERIOR
- LY LOW VOLTAGE
- H HOT WATER PIPE
- F FREON LINE
- R ROOF DRAIN PIPE
- E ELECTRICAL - EXTERIOR

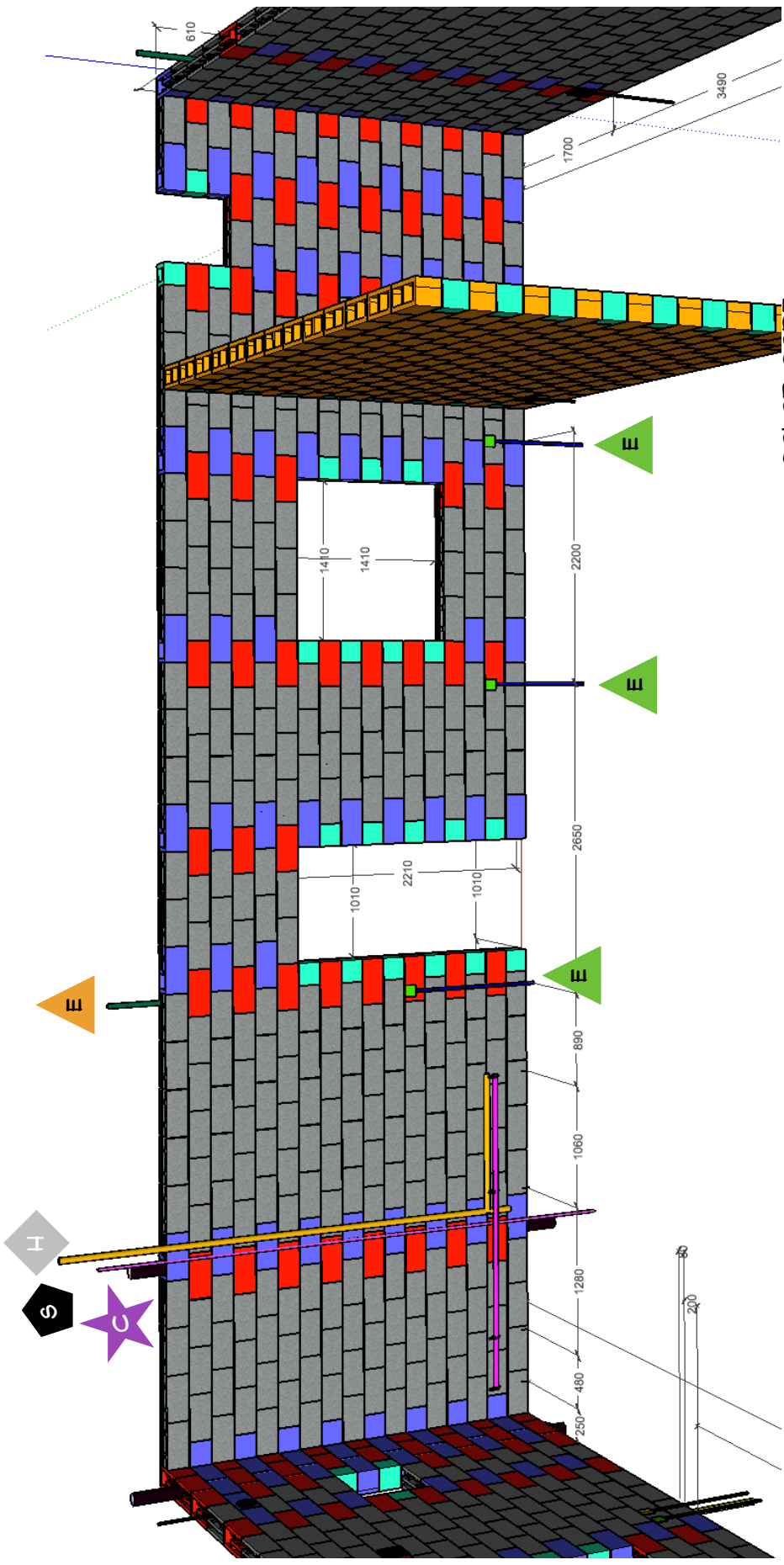
DATE: 04/14/2017  
 REVISION:

PAGE: 1TB

MOH 250  
 STEM EMBEDS - RIGHT EXTERIOR



SEE PAGES 14A - 11B FOR EMBED SYMBOLS



COLOR CODE:

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

GROUND FLOOR NOTES:

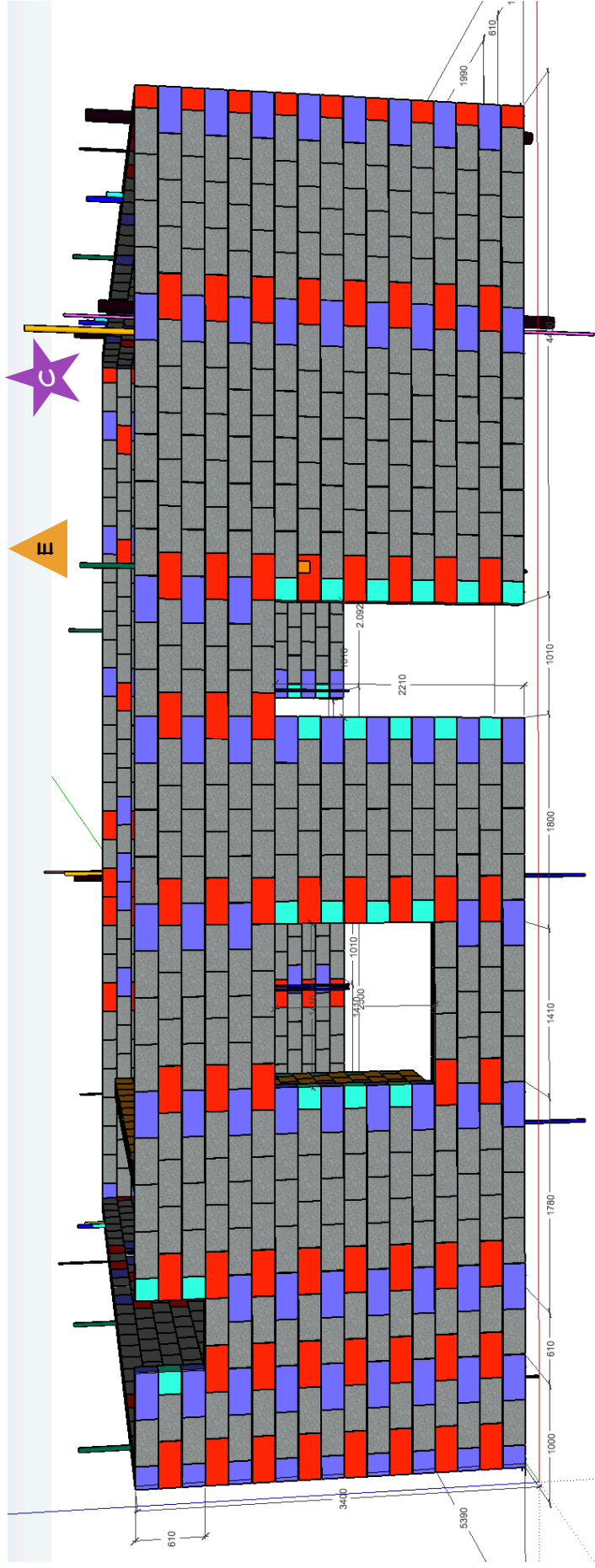
- FIRST LIFT 17 COURSES
- TALL WALL GROUT - CLEAN-OUT AT BOTTOM REQUIRED
- TOP-OF-GROUND FLOOR WALLBOND BEAM: SEE PAGES 55, 58, & 59
- ALL OPENINGS OVERSIZED 1CM (MORTAR JOINT)



MOH 250  
GROUND FLOOR WITH EMBEDS  
FRONT - INTERIOR

DATE: 10/02/2016  
REVISION: 04/12/17  
PAGE: 18

SEE PAGES 14A - 17B FOR EMBED SYMBOLS



COLOR CODE:

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

GROUND FLOOR NOTES:

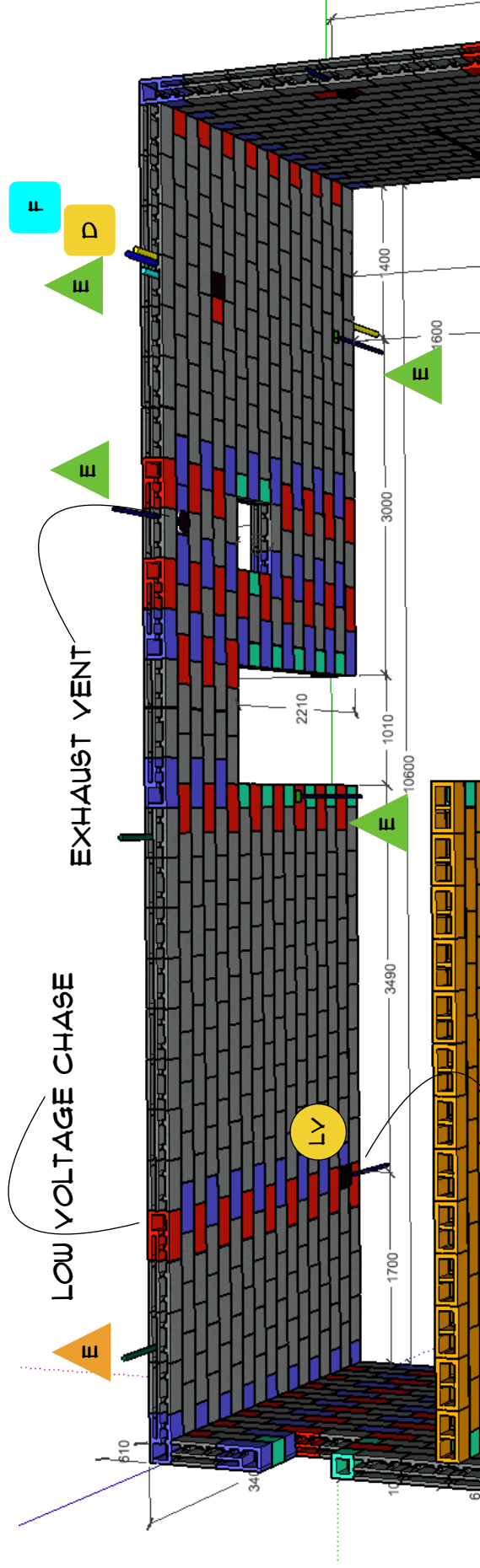
- FIRST LIFT 17 COURSES
- TALL WALL GROUT - CLEAN-OUT AT BOTTOM REQUIRED
- TOP-OF-GROUND FLOOR WALLBOND BEAM: SEE PAGES 55, 58, & 59
- ALL OPENINGS OVERSIZED 1CM (MORTAR JOINT)

DATE: 10/02/2016  
 REVISION: 4/12/17

MOH 250  
 GROUND FLOOR WITH EMBEDS  
 FRONT - EXTERIOR



SEE PAGES 14A - 11B FOR EMBED SYMBOLS



COLOR CODE:

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

GROUND FLOOR NOTES:

- FIRST LIFT 17 COURSES
- TALL WALL GROUT - CLEAN-OUT AT BOTTOM REQUIRED
- TOP-OF-GROUND FLOOR WALLBOND BEAM: SEE PAGES 55, 58, & 59
- ALL OPENINGS OVERSIZED 1CM (MORTAR JOINT)



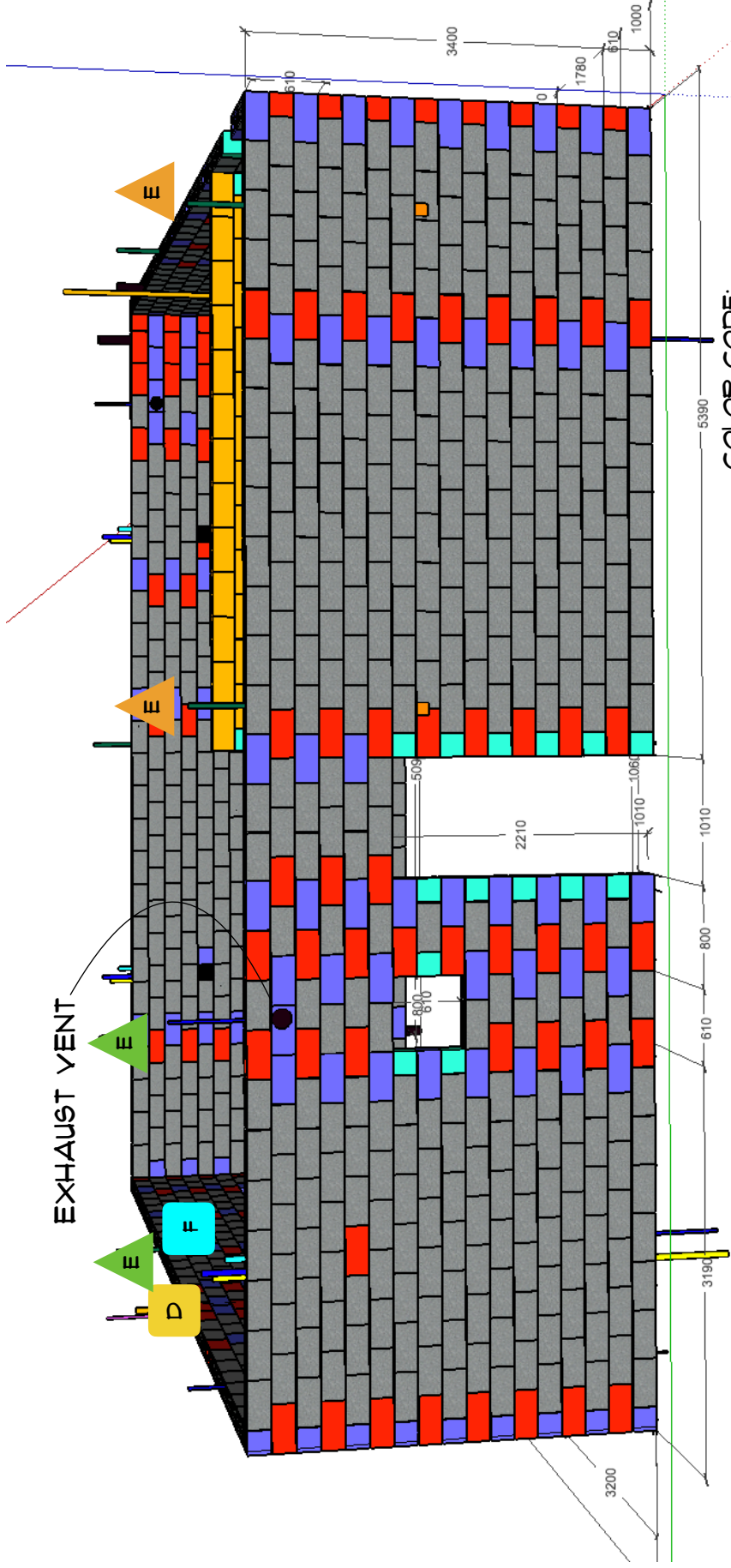
MOH 250  
GROUND FLOOR WITH EMBEDS  
LEFT - INTERIOR

PAGE: 20

DATE: 10/02/2016  
REVISION: 04/12/17



SEE PAGES 14A - 17B FOR EMBED SYMBOLS



GROUND FLOOR NOTES:

FIRST LIFT 17 COURSES

TALL WALL GROUT - CLEAN-OUT AT BOTTOM REQUIRED

TOP-OF-GROUND FLOOR WALLBOND BEAM: SEE PAGES 55, 58, & 59

ALL OPENINGS OVERSIZED 1CM (MORTAR JOINT)

DATE: 10/02/2016

PAGE: 21

REVISION: 04/12/17

MOH 250

GROUND FLOOR WITH EMBEDS

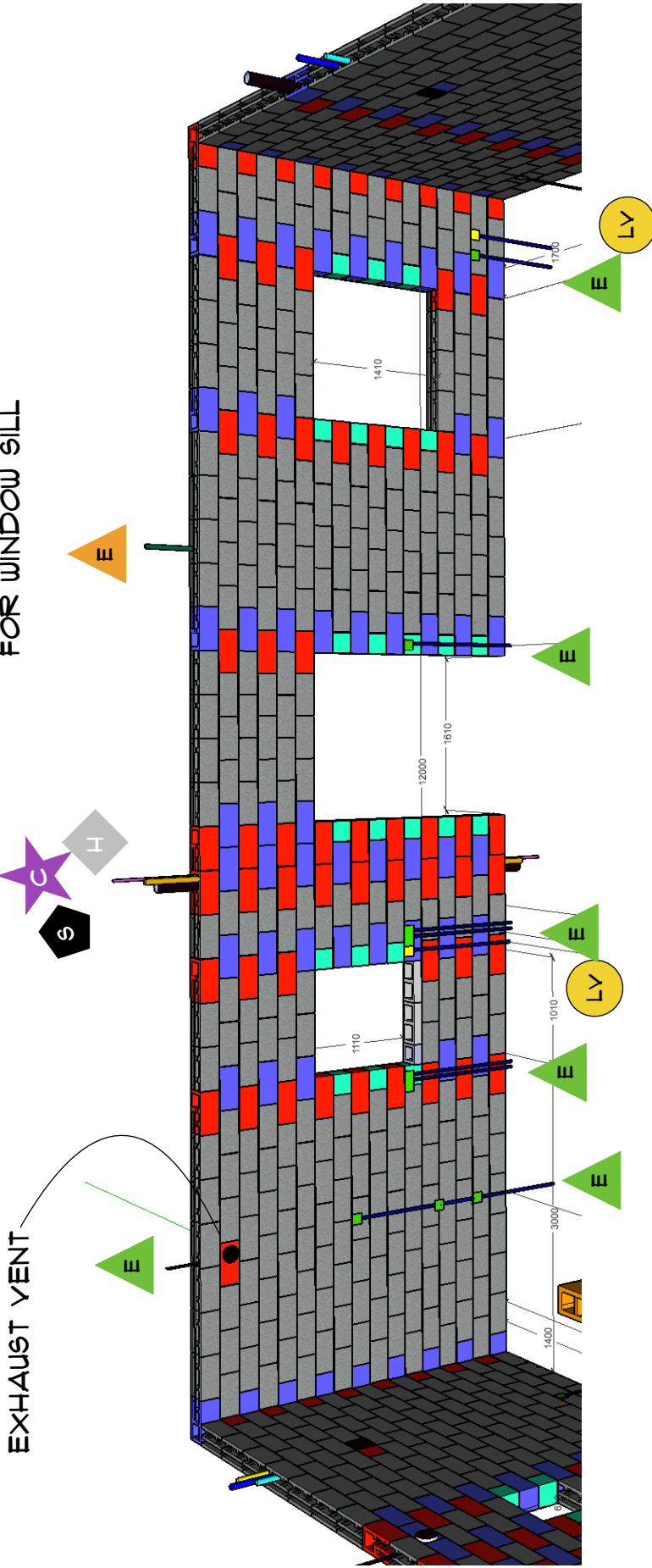
LEFT - EXTERIOR





SEE PAGES 14A - 11B FOR EMBED SYMBOLS

CUT STANDARD CMU  
HORIZONTALLY IN HALF  
FOR WINDOW SILL



COLOR CODE:

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

GROUND FLOOR NOTES:

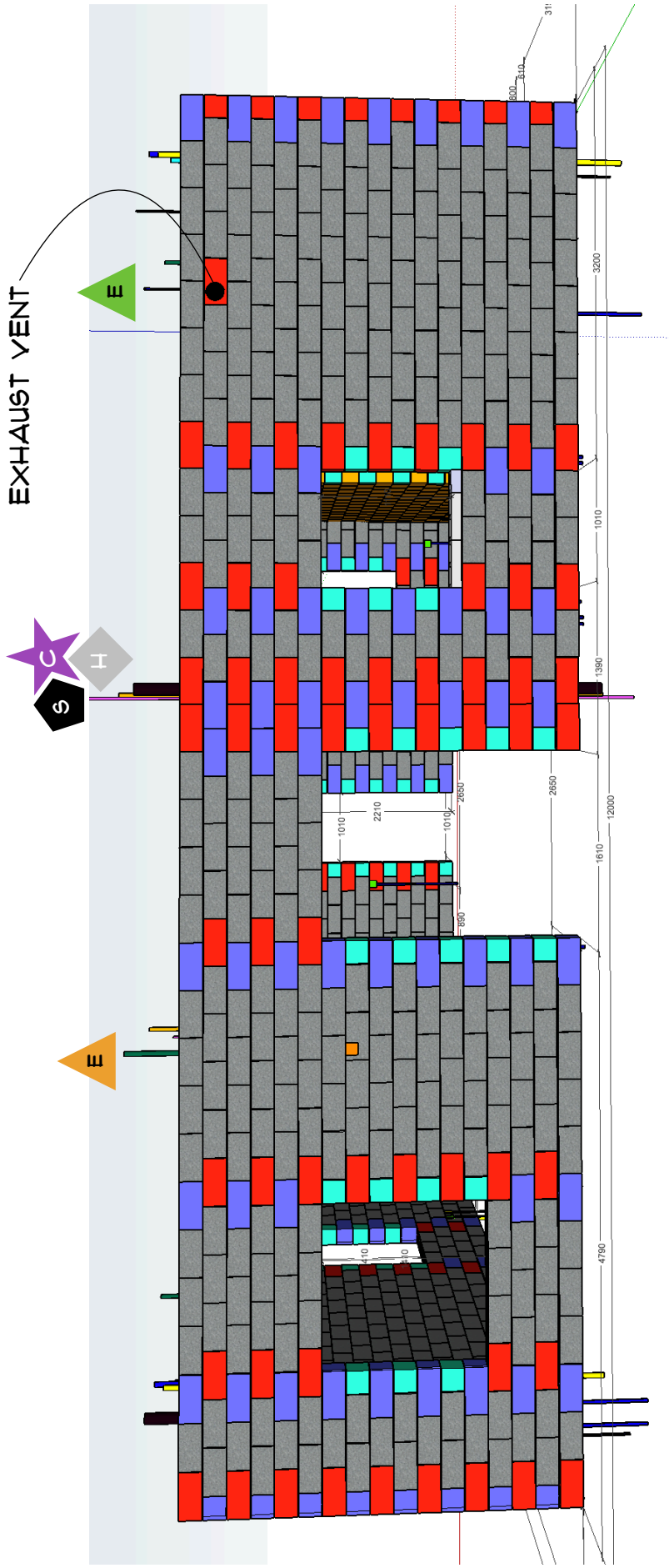
- FIRST LIFT 17 COURSES
- TALL WALL GROUT - CLEAN-OUT AT BOTTOM REQUIRED
- TOP-OF-GROUND FLOOR WALLBOND BEAM: SEE PAGES 55, 58, & 59
- ALL OPENINGS OVERSIZED 1CM (MORTAR JOINT)

DATE: 10/02/2016  
REVISION: 04/12/17

MOH 250  
GROUND FLOOR WITH EMBEDS  
REAR - INTERIOR



SEE PAGES 14A - 17B FOR EMBED SYMBOLS



COLOR CODE:

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

GROUND FLOOR NOTES:

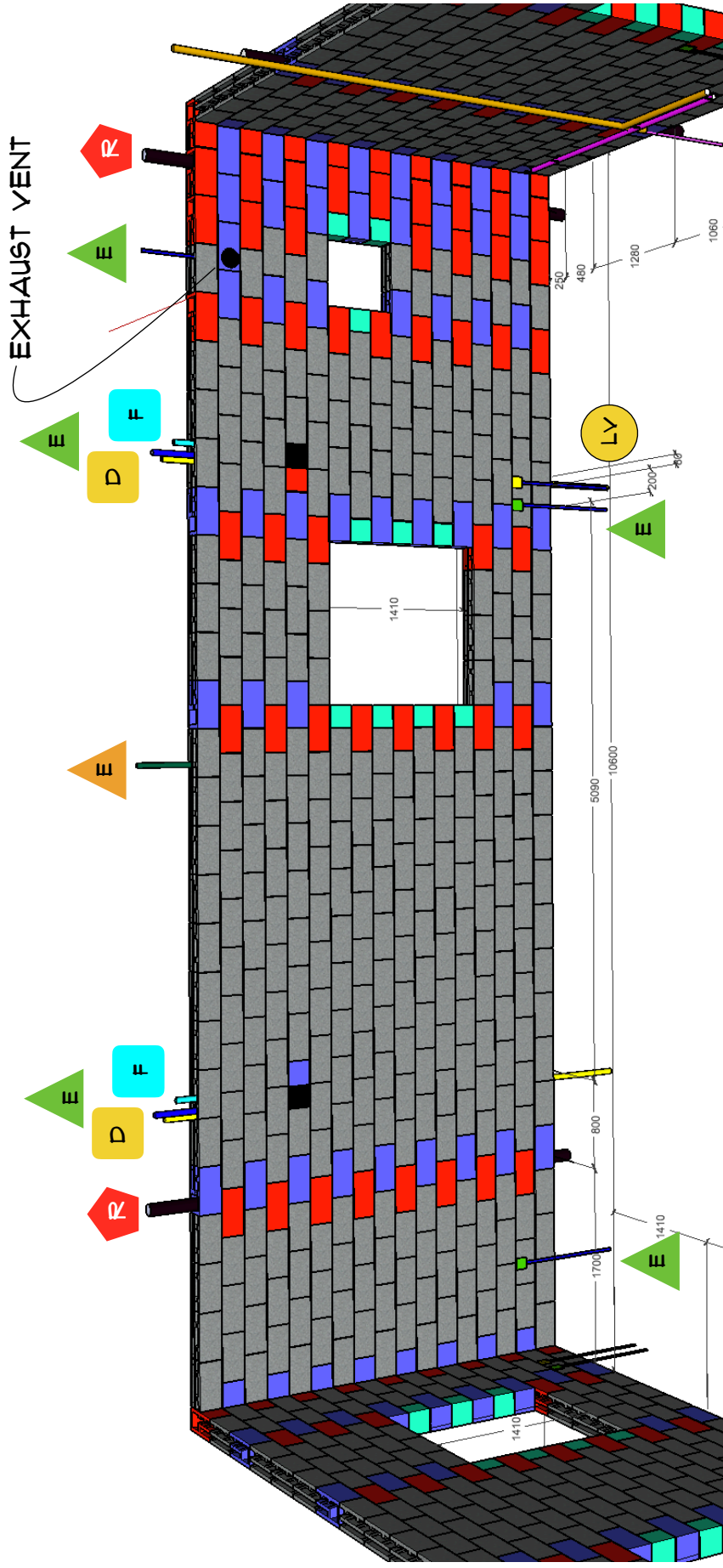
- FIRST LIFT 17 COURSES
- TALL WALL GROUT - CLEAN-OUT AT BOTTOM REQUIRED
- TOP-OF-GROUND FLOOR WALLBOND BEAM: SEE PAGES 55, 58, & 59
- ALL OPENINGS OVERSIZED 1CM (MORTAR JOINT)

DATE: 10/02/2016  
 REVISION: 04/12/17

MOH 250  
 GROUND FLOOR WITH EMBEDS  
 REAR - EXTERIOR



SEE PAGES 14A - 17B FOR EMBED SYMBOLS



COLOR CODE:

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

GROUND FLOOR NOTES:

- FIRST LIFT 17 COURSES
- TALL WALL GROUT - CLEAN-OUT AT BOTTOM REQUIRED
- TOP-OF-GROUND FLOOR WALLBOND BEAM: SEE PAGES 55, 58, & 59
- ALL OPENINGS OVERSIZED 1CM (MORTAR JOINT)



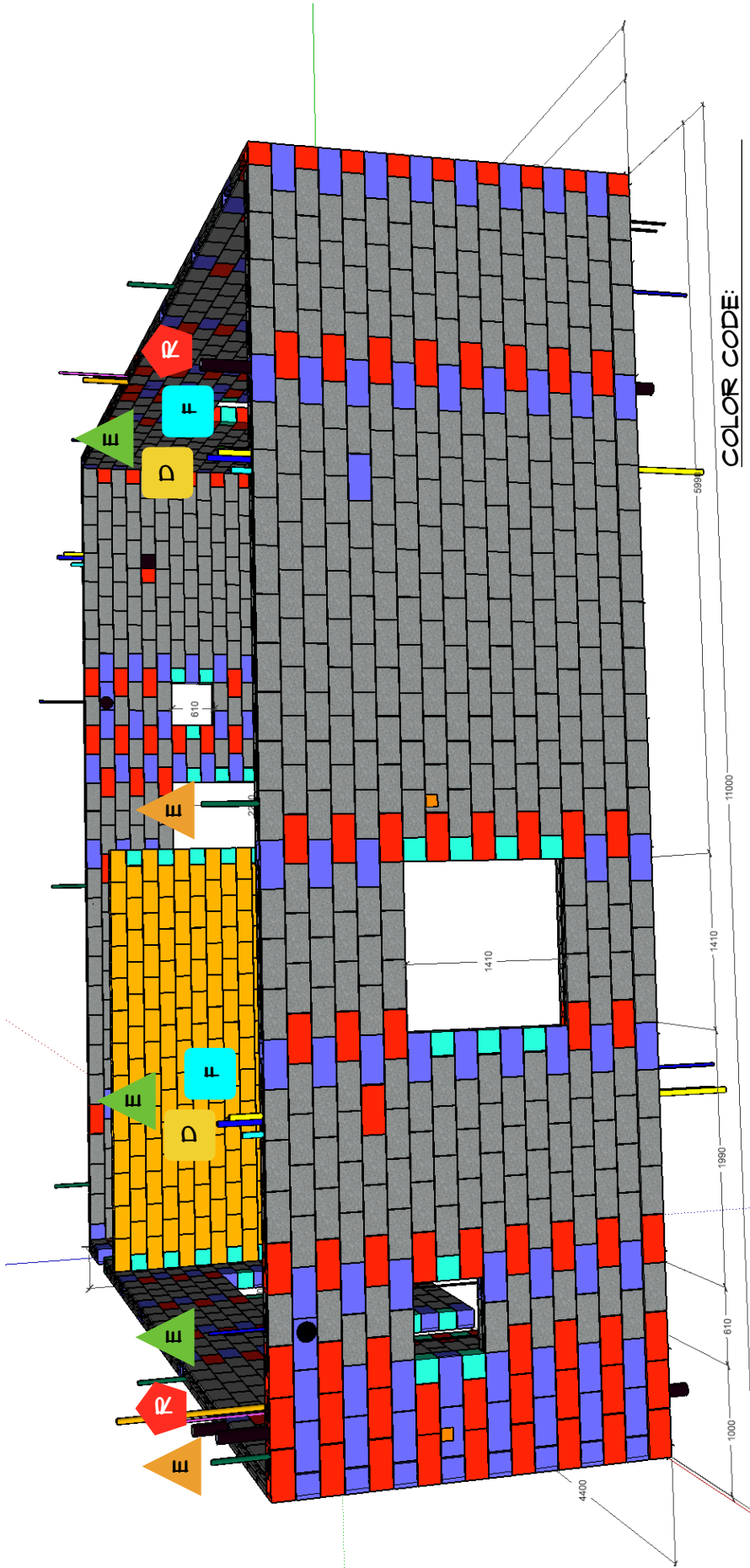
MOH 250  
GROUND FLOOR WITH EMBEDS  
RIGHT - INTERIOR

DATE: 10/02/2016  
REVISION: 04/12/17

PAGE: 24



SEE PAGES 14A - 17B FOR EMBED SYMBOLS



COLOR CODE:

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

GROUND FLOOR NOTES:

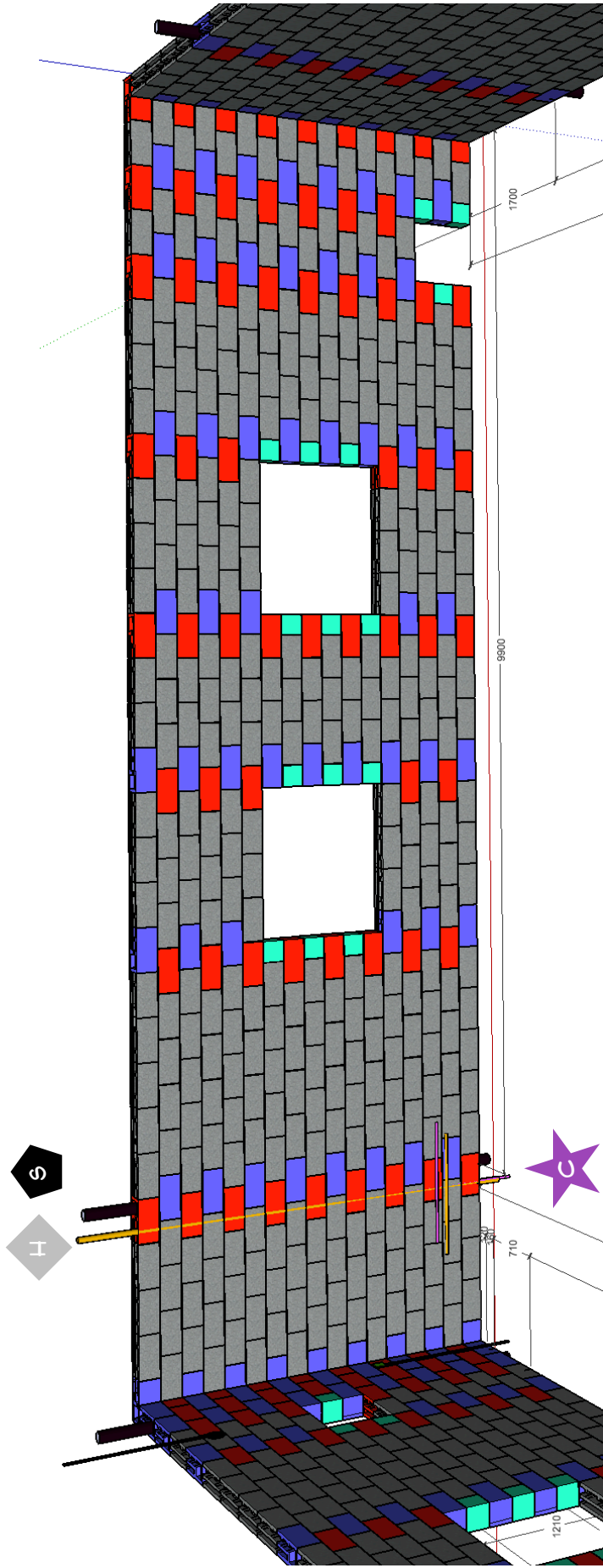
- FIRST LIFT 17 COURSES
- TALL WALL GROUT - CLEAN-OUT AT BOTTOM REQUIRED
- TOP-OF-GROUND FLOOR WALLBOND BEAM: SEE PAGES 55, 58, & 59
- ALL OPENINGS OVERSIZED 1CM (MORTAR JOINT)



MOH 250  
GROUND FLOOR WITH EMBEDS  
RIGHT - EXTERIOR

DATE: 10/02/2016  
PAGE: 25  
REVISION: 04/12/17

SEE PAGES 14A - 17B FOR EMBED SYMBOLS



COLOR CODE:

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

FIRST FLOOR NOTES:

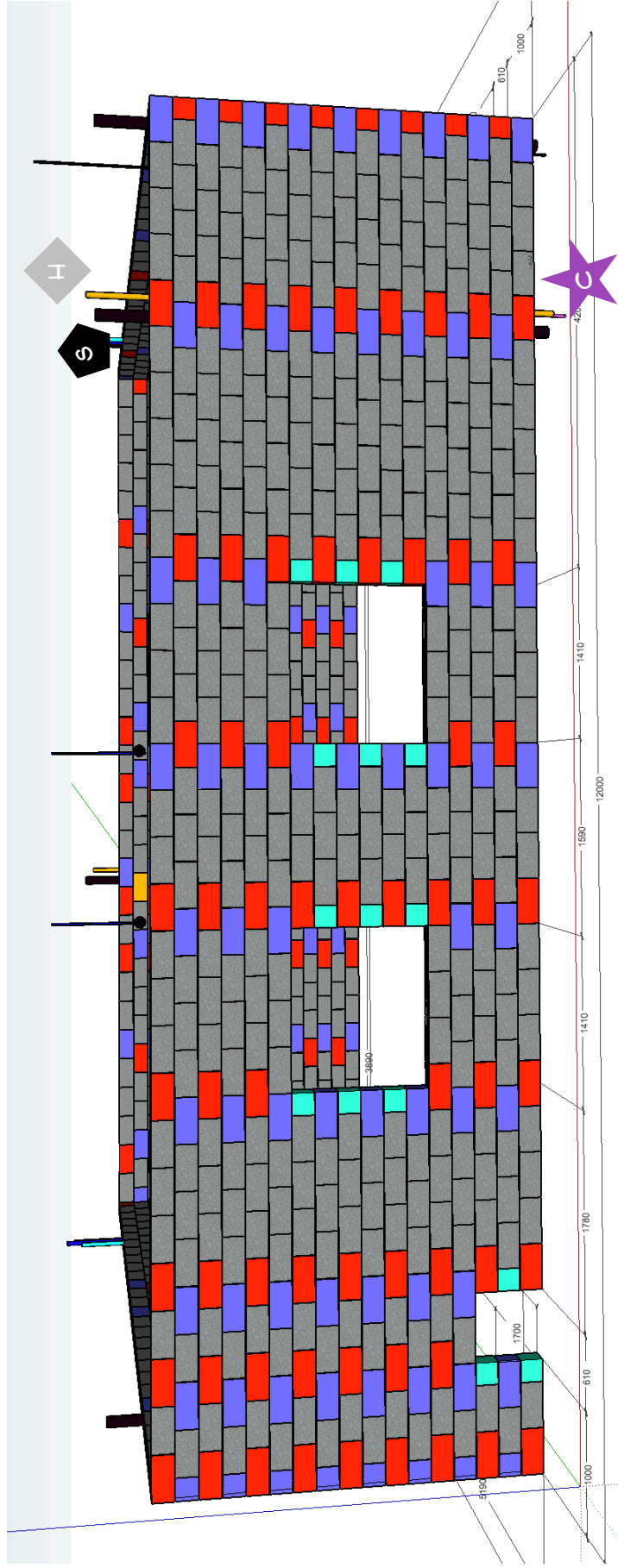
- FIRST LIFT 17 COURSES
- TALL WALL GROUT - CLEAN-OUT AT BOTTOM REQUIRED
- TOP-OF-FIRST FLOOR WALLBOND BEAM: SEE PAGES 55, 58, & 59
- ALL OPENINGS OVERSIZED ICM (MORTAR JOINT)

DATE: 02/20/17  
 REVISION: 04/12/17

MOH 250  
 FIRST FLOOR WITH EMBEDS  
 FRONT - INTERIOR



SEE PAGES 14A - 17B FOR EMBED SYMBOLS



COLOR CODE:

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

FIRST FLOOR NOTES:

- FIRST LIFT 17 COURSES
- TALL WALL GROUT - CLEAN-OUT AT BOTTOM REQUIRED
- TOP-OF-FIRST FLOOR WALLBOND BEAM: SEE PAGES 55, 58, & 59
- ALL OPENINGS OVERSIZED ICM (MORTAR JOINT)



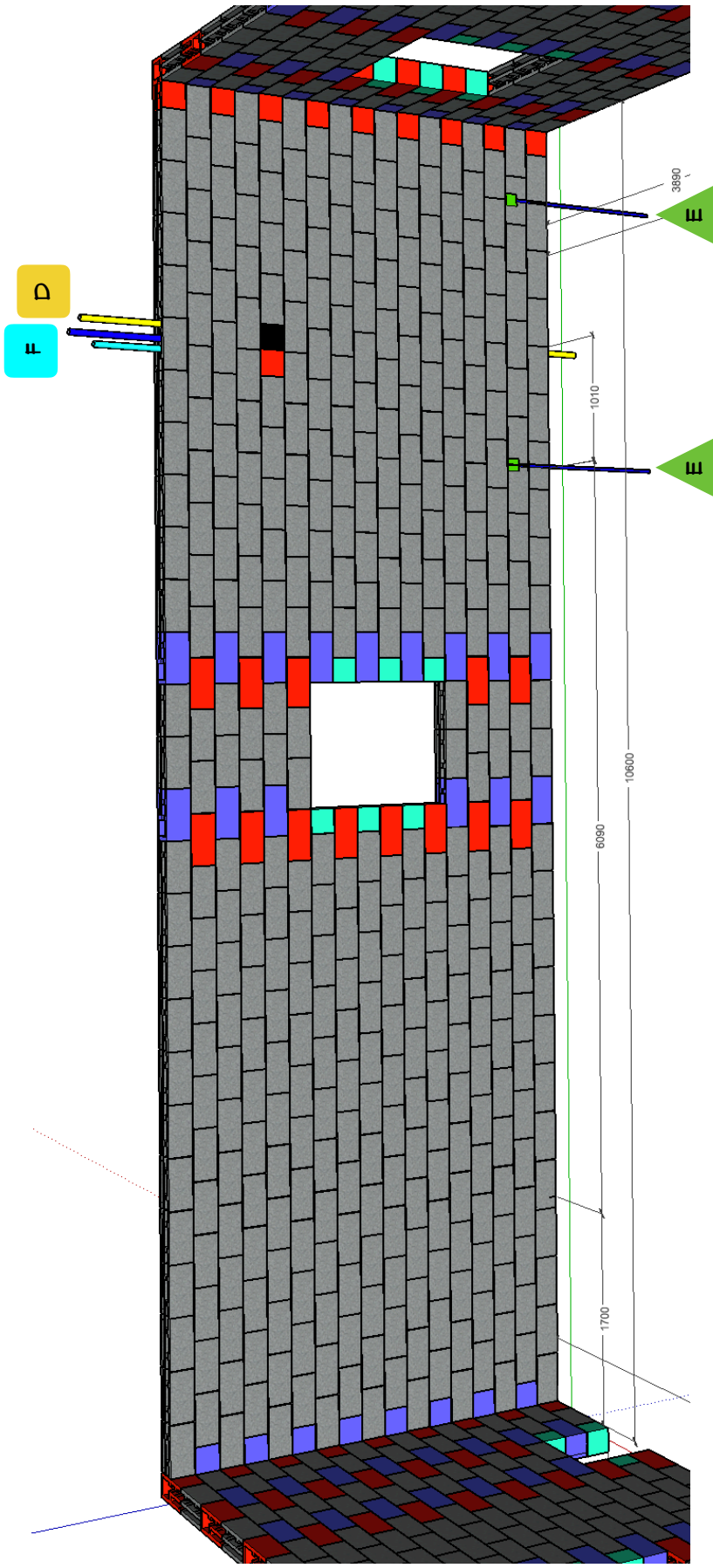
MOH 250  
 FIRST FLOOR WITH EMBEDS  
 FRONT - EXTERIOR

PAGE: 27

DATE: 02/20/17  
 REVISION: 04/12/17



SEE PAGES 14A - 11B FOR EMBED SYMBOLS



**COLOR CODE:**

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

**FIRST FLOOR NOTES:**  
 FIRST LIFT 17 COURSES  
 TALL WALL GROUT - CLEAN-OUT AT BOTTOM REQUIRED  
 TOP-OF-FIRST FLOOR WALLBOND BEAM: SEE PAGES 55, 58, & 59  
 ALL OPENINGS OVERSIZED ICM (MORTAR JOINT)

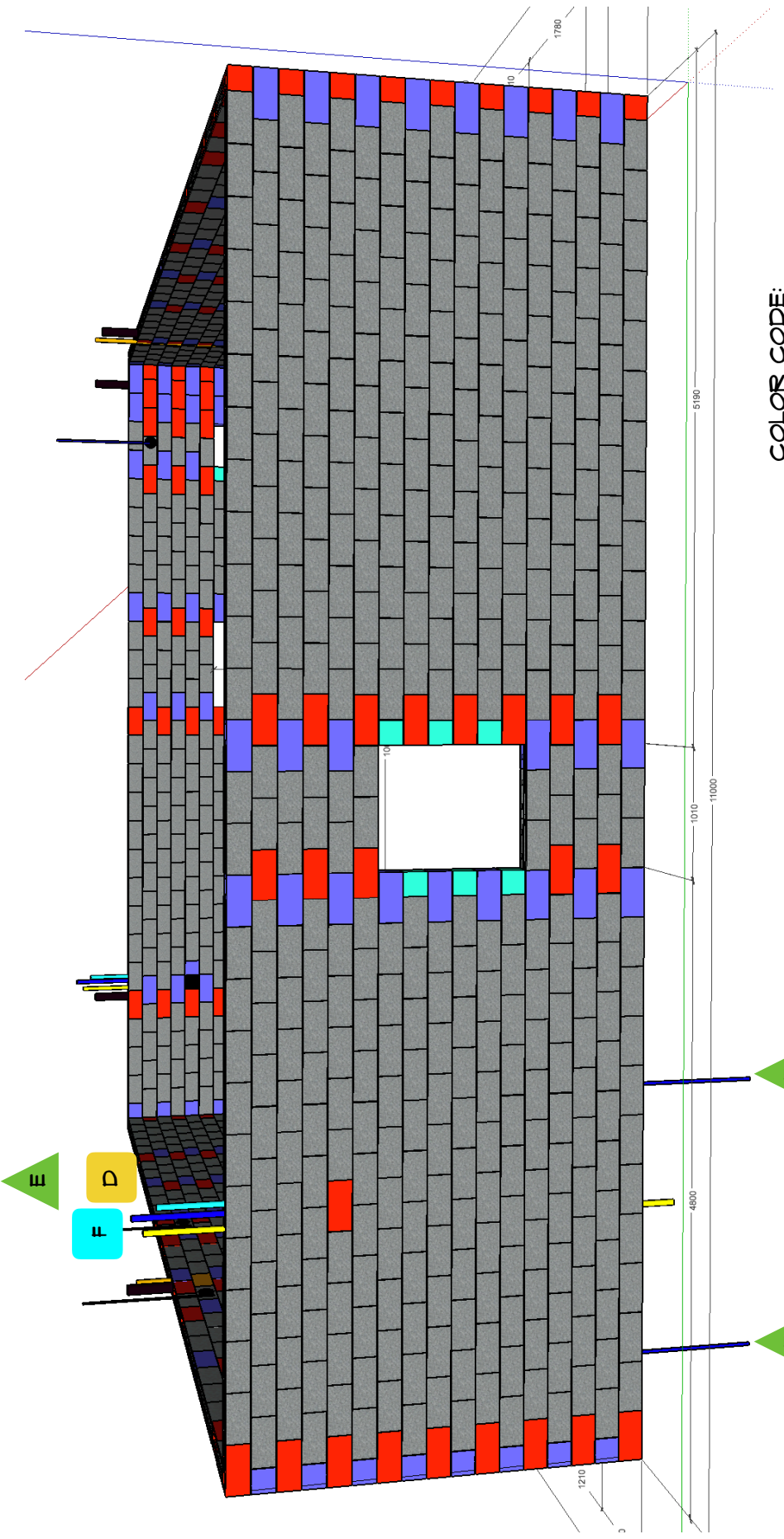


MOH 250  
 FIRST FLOOR WITH EMBEDS  
 LEFT - INTERIOR

PAGE: 28

DATE: 02/20/17  
 REVISION: 04/12/17

SEE PAGES 14A - 17B FOR EMBED SYMBOLS



COLOR CODE:

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

FIRST FLOOR NOTES:  
 FIRST LIFT 17 COURSES  
 TALL WALL GROUT - CLEAN-OUT AT BOTTOM REQUIRED  
 TOP-OF-FIRST FLOOR WALLBOND BEAM: SEE PAGES 55, 58, & 59  
 ALL OPENINGS OVERSIZED ICM (MORTAR JOINT)

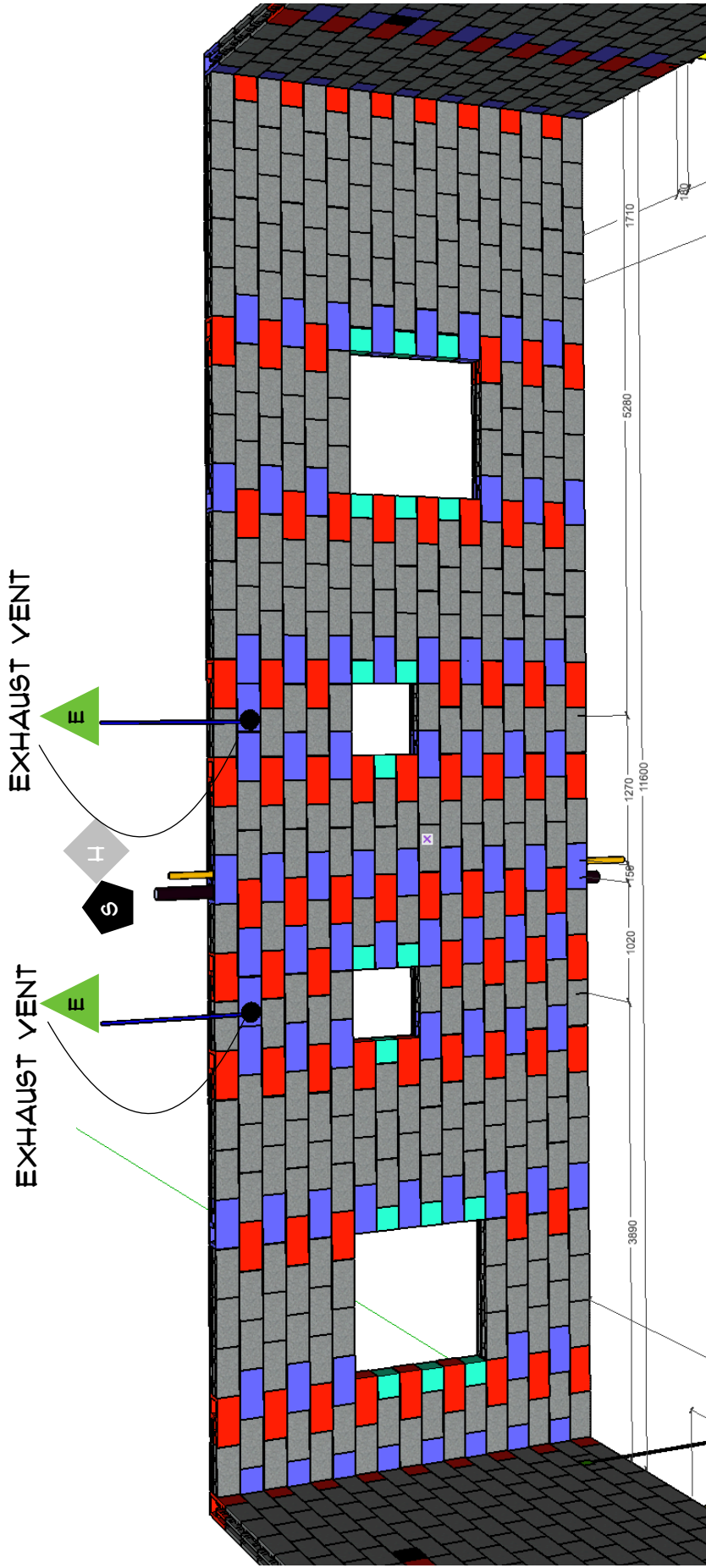


MOH 250  
 FIRST FLOOR WITH EMBEDS  
 LEFT - EXTERIOR

DATE: 02/20/17  
 REVISION:  
 PAGE: 29



SEE PAGES 14A - 11B FOR EMBED SYMBOLS



COLOR CODE:

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

FIRST FLOOR NOTES:

- FIRST LIFT 17 COURSES
- TALL WALL GROUT - CLEAN-OUT AT BOTTOM REQUIRED
- TOP-OF-FIRST FLOOR WALLBOND BEAM: SEE PAGES 55, 58, & 59
- ALL OPENINGS OVERSIZED 1CM (MORTAR JOINT)

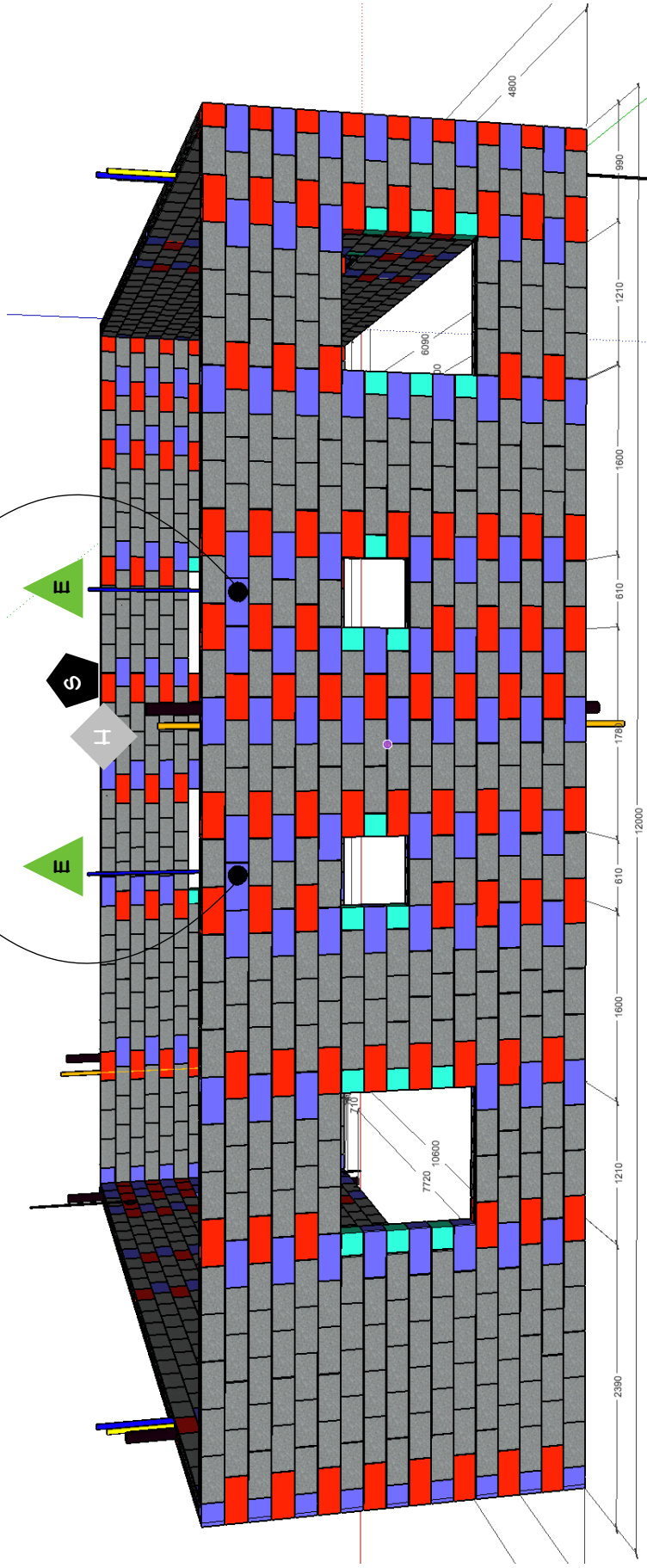
DATE: 02/20/17  
 REVISION: 04/12/17

MOH 250  
 FIRST FLOOR WITH EMBEDS  
 REAR - INTERIOR



SEE PAGES 14A - 17B FOR EMBED SYMBOLS

EXHAUST VENT EXHAUST VENT



**COLOR CODE:**

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

**FIRST FLOOR NOTES:**

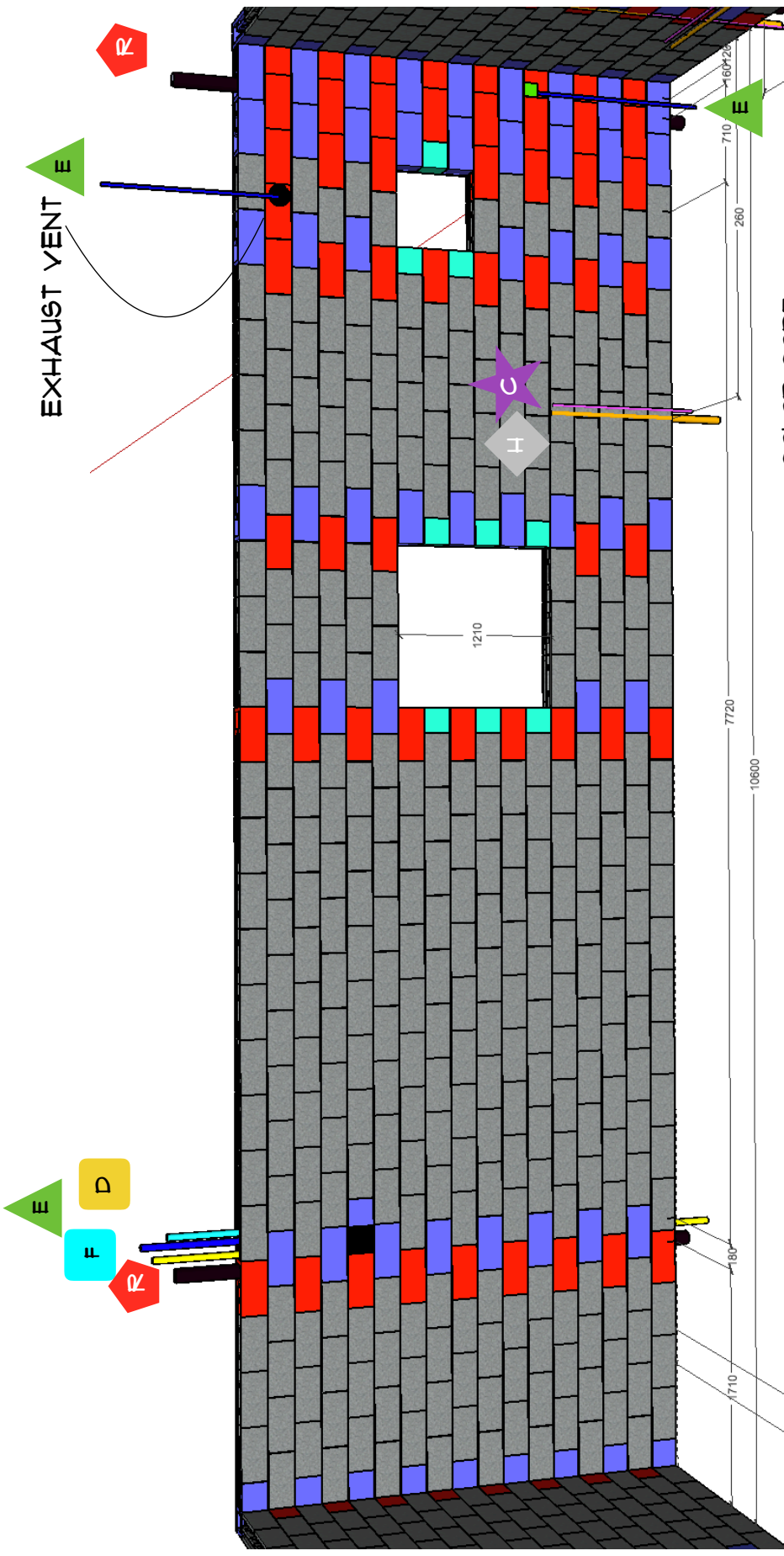
- FIRST LIFT 17 COURSES
- TALL WALL GROUT - CLEAN-OUT AT BOTTOM REQUIRED
- TOP-OF-FIRST FLOOR WALLBOND BEAM: SEE PAGES 55, 58, & 59
- ALL OPENINGS OVERSIZED ICM (MORTAR JOINT)



MOH 250  
 FIRST FLOOR WITH EMBEDS  
 REAR - EXTERIOR

DATE: 02/20/17  
 REVISION: 04/12/17  
 PAGE: 31

SEE PAGES 14A - 17B FOR EMBED SYMBOLS



**COLOR CODE:**

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

**FIRST FLOOR NOTES:**

- FIRST LIFT 17 COURSES
- TALL WALL GROUT - CLEAN-OUT AT BOTTOM REQUIRED
- TOP-OF-FIRST FLOOR WALLBOND BEAM: SEE PAGES 55, 58, & 59
- ALL OPENINGS OVERSIZED ICM (MORTAR JOINT)



MOH 250  
 FIRST FLOOR WITH EMBEDS  
 RIGHT - INTERIOR

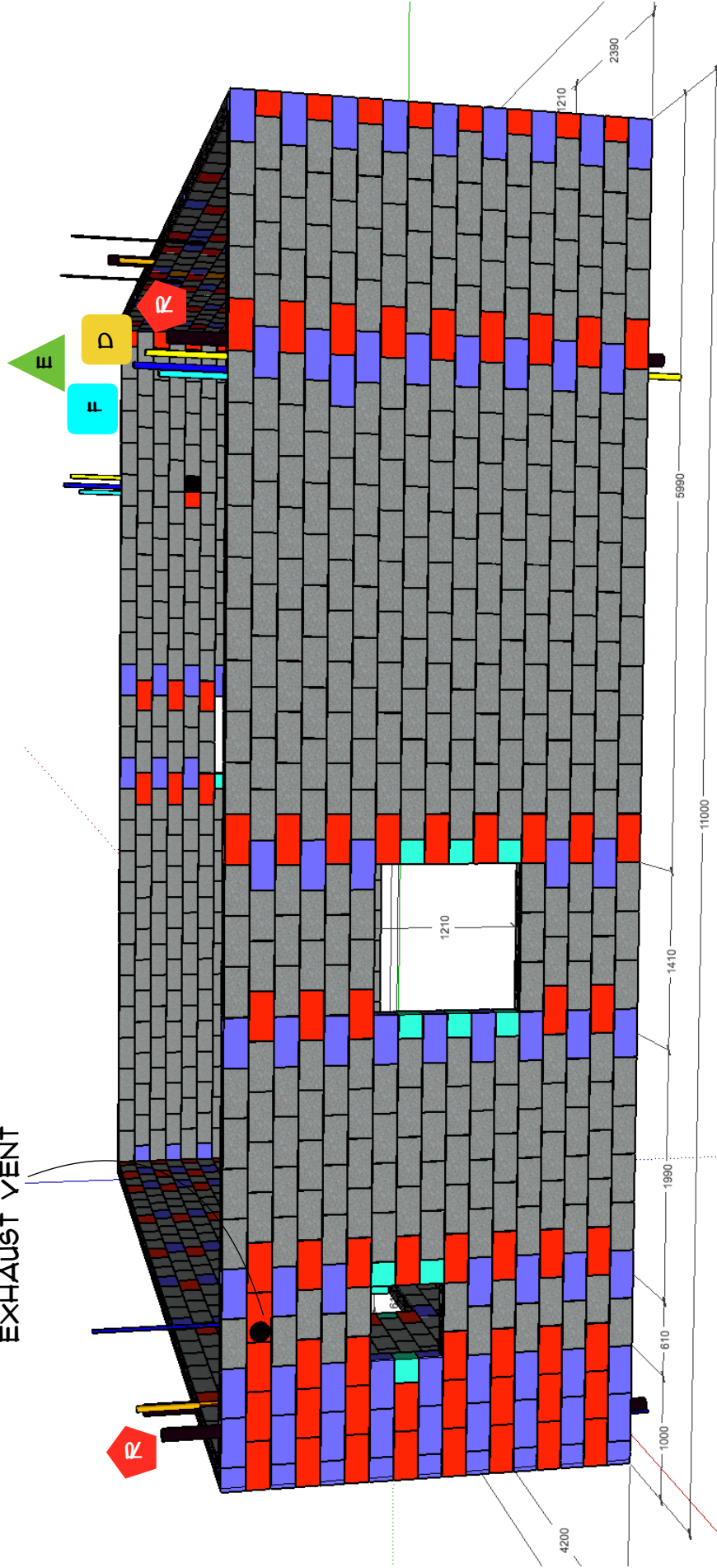
DATE: 02/20/17  
 REVISION: 04/12/17

PAGE: 32



SEE PAGES 14A - 17B FOR EMBED SYMBOLS

EXHAUST VENT



COLOR CODE:

- OMNI BLOCK STRETCHER
- OMNI BLOCK RIGHT CORNER / JAMB
- OMNI BLOCK LEFT CORNER / JAMB
- STANDARD CMU HALF BLOCK
- STANDARD CMU FULL BLOCK

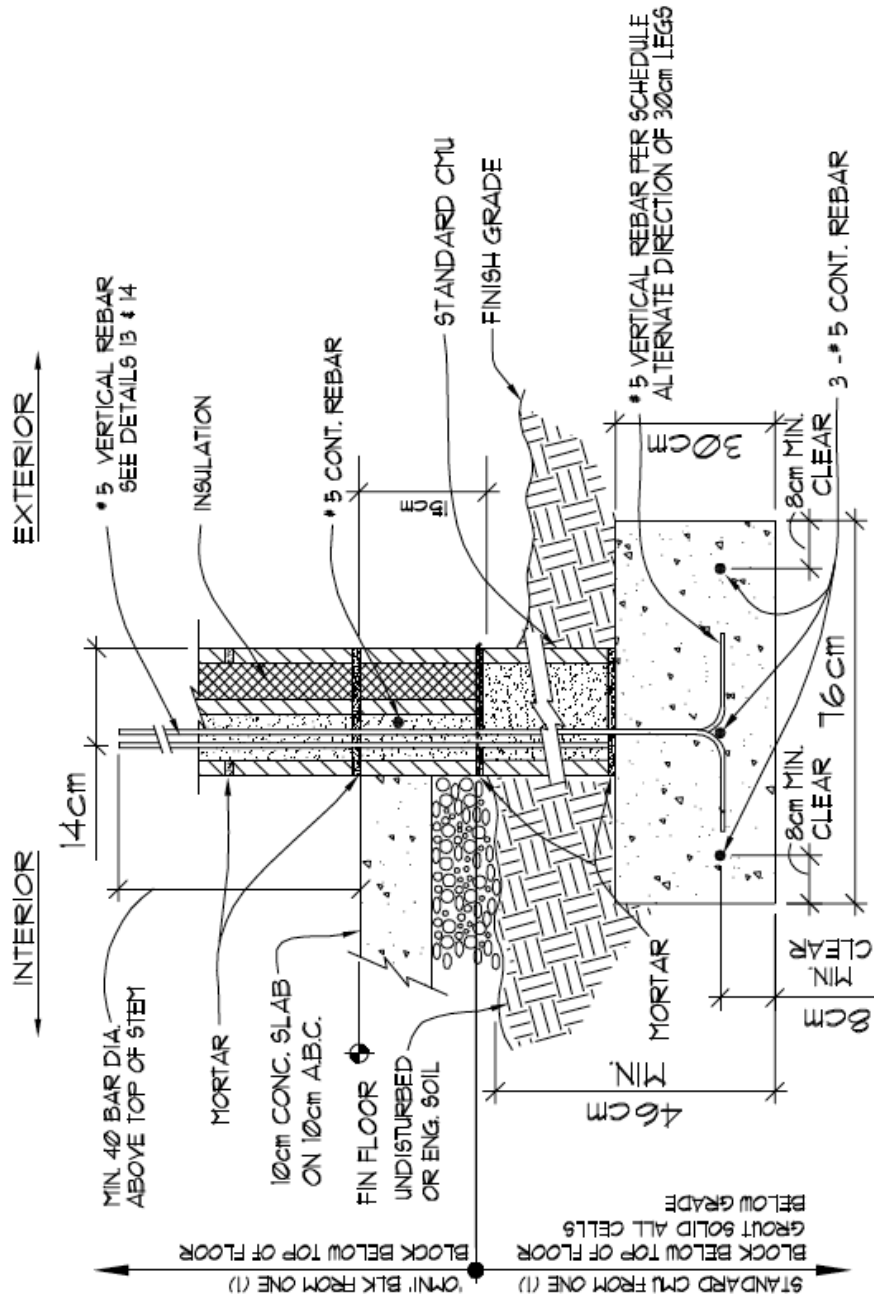
FIRST FLOOR NOTES:

- FIRST LIFT 17 COURSES
- TALL WALL GROUT - CLEAN-OUT AT BOTTOM REQUIRED
- TOP-OF-FIRST FLOOR WALLBOND BEAM: SEE PAGES 55, 58, & 59
- ALL OPENINGS OVERSIZED ICM (MORTAR JOINT)



MOH 250  
 FIRST FLOOR WITH EMBEDS  
 RIGHT - EXTERIOR

DATE: 02/20/17  
 REVISION: 04/12/17  
 PAGE: 33



FOOTINGS: ALL BEARING FOOTINGS SHALL BEAR 46cm (MIN) BELOW TOP OF UNDISTURBED SOIL or TOP OF ENGINEER-CERTIFIED COMPACTED SOIL

1 EXTERIOR WALL FOOTING - CMU STEM

SCALE: NTS



EXPIRES 9/30/2017

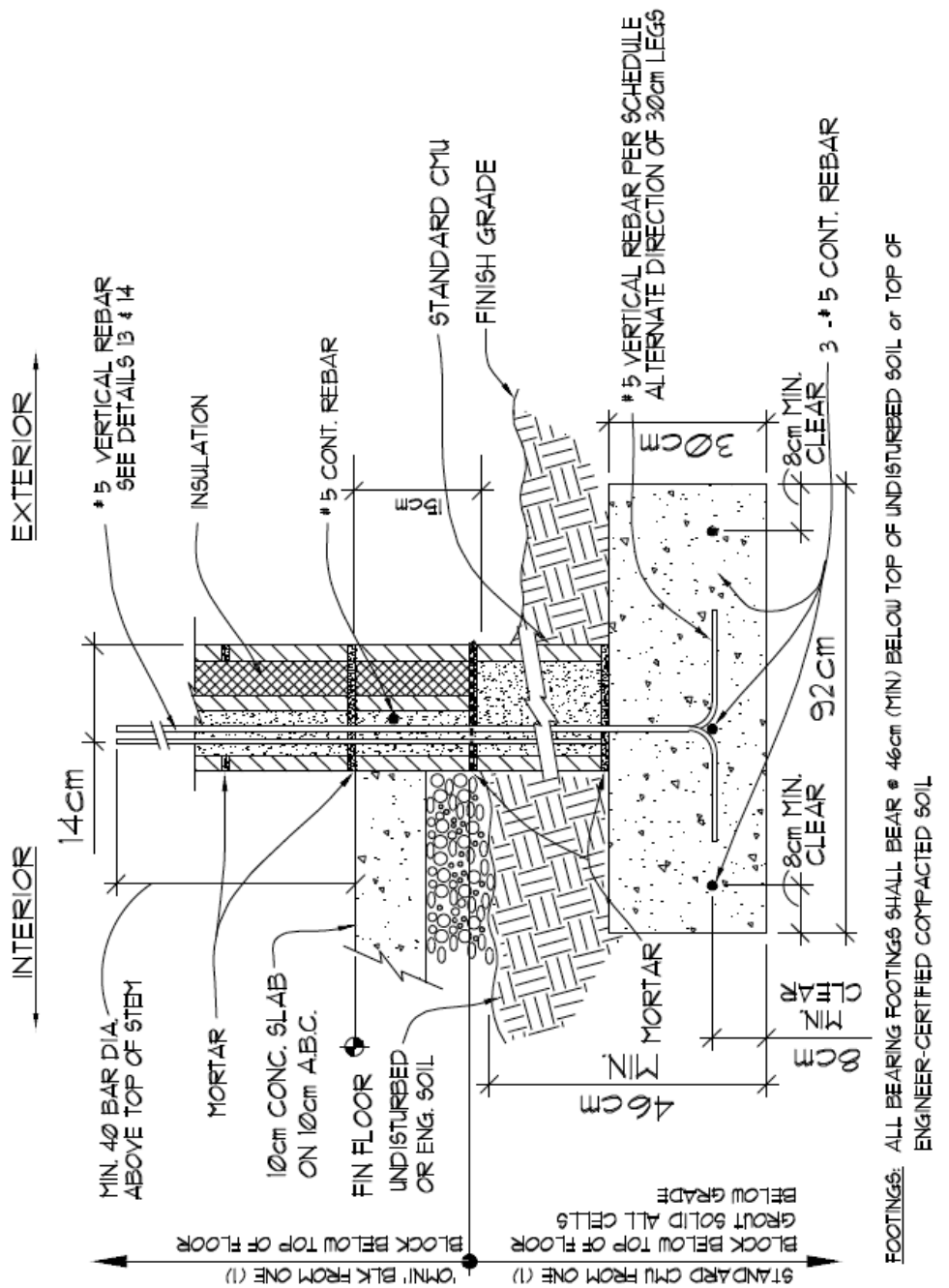


MOH 250  
DETAIL 1  
DESIGN DETAILS

PAGE: 51

DATE: 11/08/2016  
REVISION 02/22/17:





INTERIOR ←

← EXTERIOR



1B

EXTERIOR WALL FOOTING - CMU STEM

SCALE: NTS

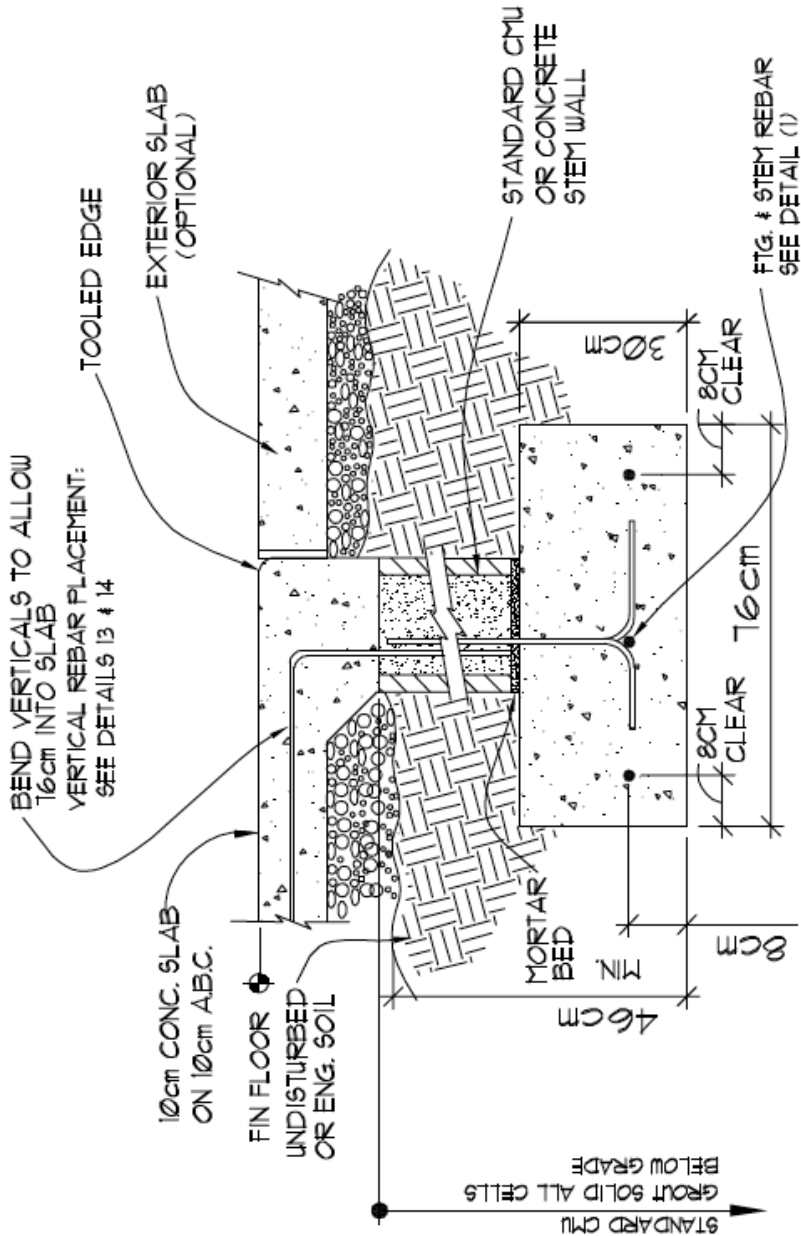


MOH 250  
 DETAIL 1B  
 DESIGN DETAILS

PAGE: 93

DATE: 11/08/2016  
 REVISION 02/22/17:





FOOTINGS: ALL BEARING FOOTINGS SHALL BEAR @ 46cm (MIN) BELOW TOP OF UNDISTURBED SOIL or TOP OF ENGINEER-CERTIFIED COMPACTED SOIL

2 DEPRESSED STEM @ DOOR OPENING

SCALE: NTS



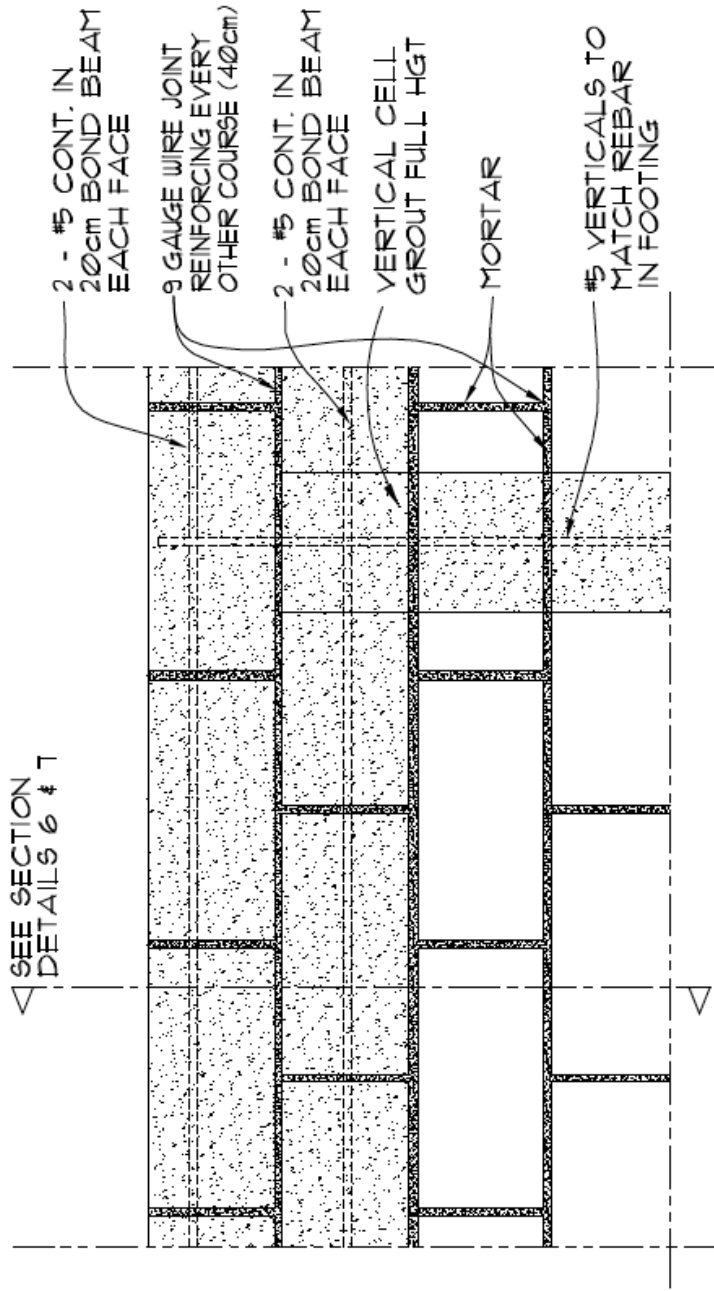
EXPIRES 9/30/2017



MOH 250  
DETAIL 2  
DESIGN DETAILS

PAGE: 54

DATE: 11/08/2016  
REVISION 02/22/17:



3 TYPICAL TOP OF WALL CROSS- SECTION

SCALE: NTS



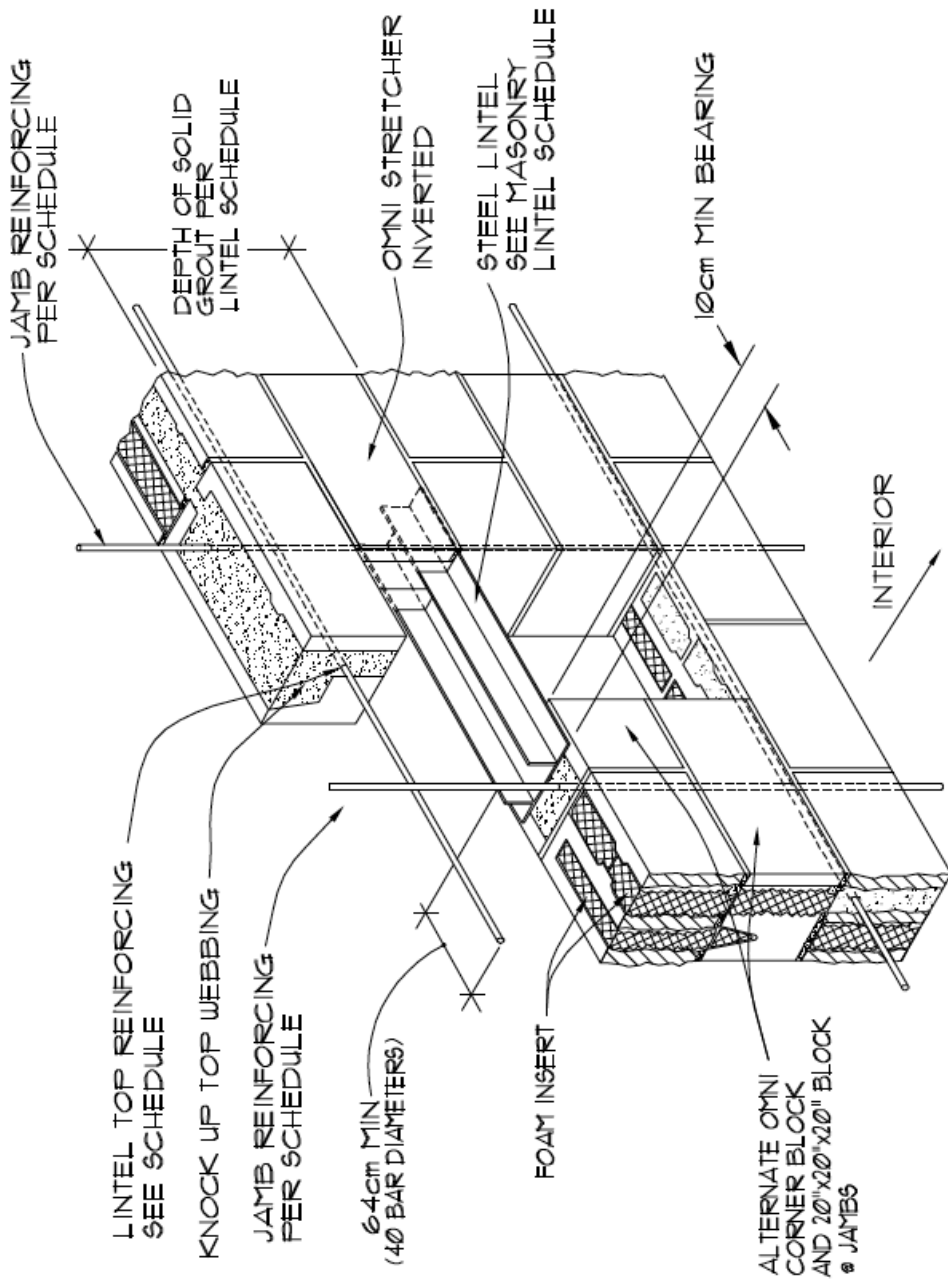
EXPIRES 9/30/2017



MOH 250  
DETAIL 3  
DESIGN DETAILS

PAGE: 55

DATE: 11/08/2016  
REVISION 02/22/17:



4 WINDOW / DOOR LINTEL DETAIL

SCALE: NTS



EXPIRES 9/30/2017



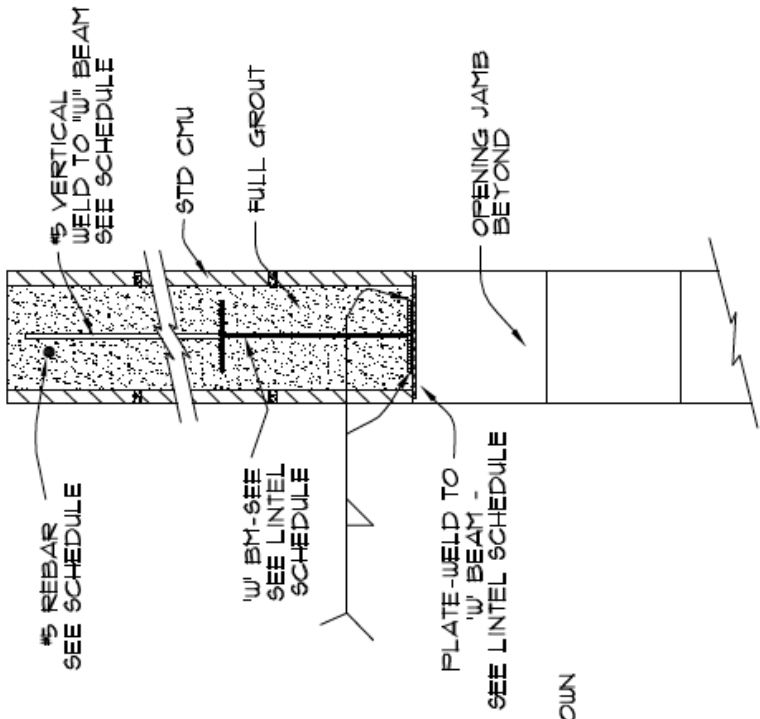
MOH 250  
DETAIL 4  
DESIGN DETAILS

PAGE: 56

DATE: 11/08/2016  
REVISION 02/22/17:

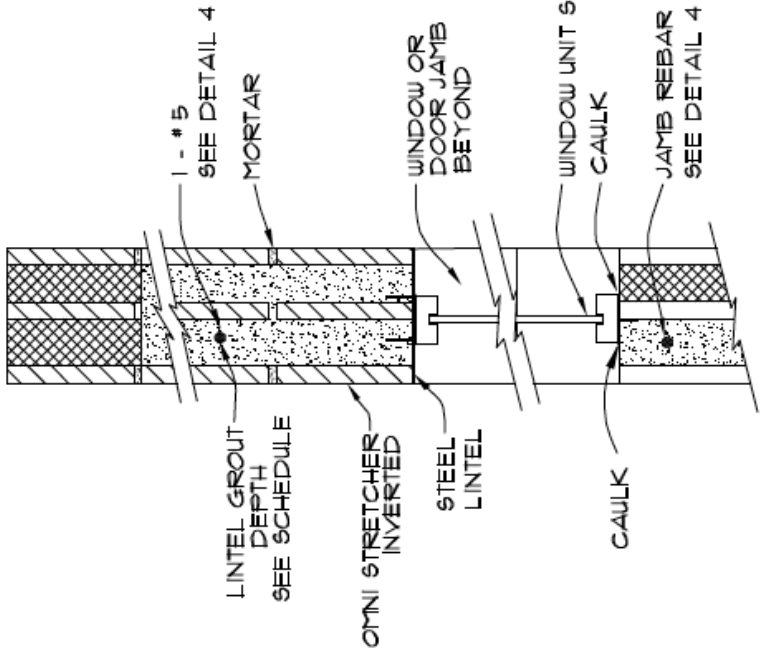
INTERIOR →

→ EXTERIOR



INTERIOR →

→ EXTERIOR



5A 'W' BEAM (WHEN USED)  
SCALE: NTS

5 TYPICAL LINTEL  
SCALE: NTS



EXPIRES 9/30/2017

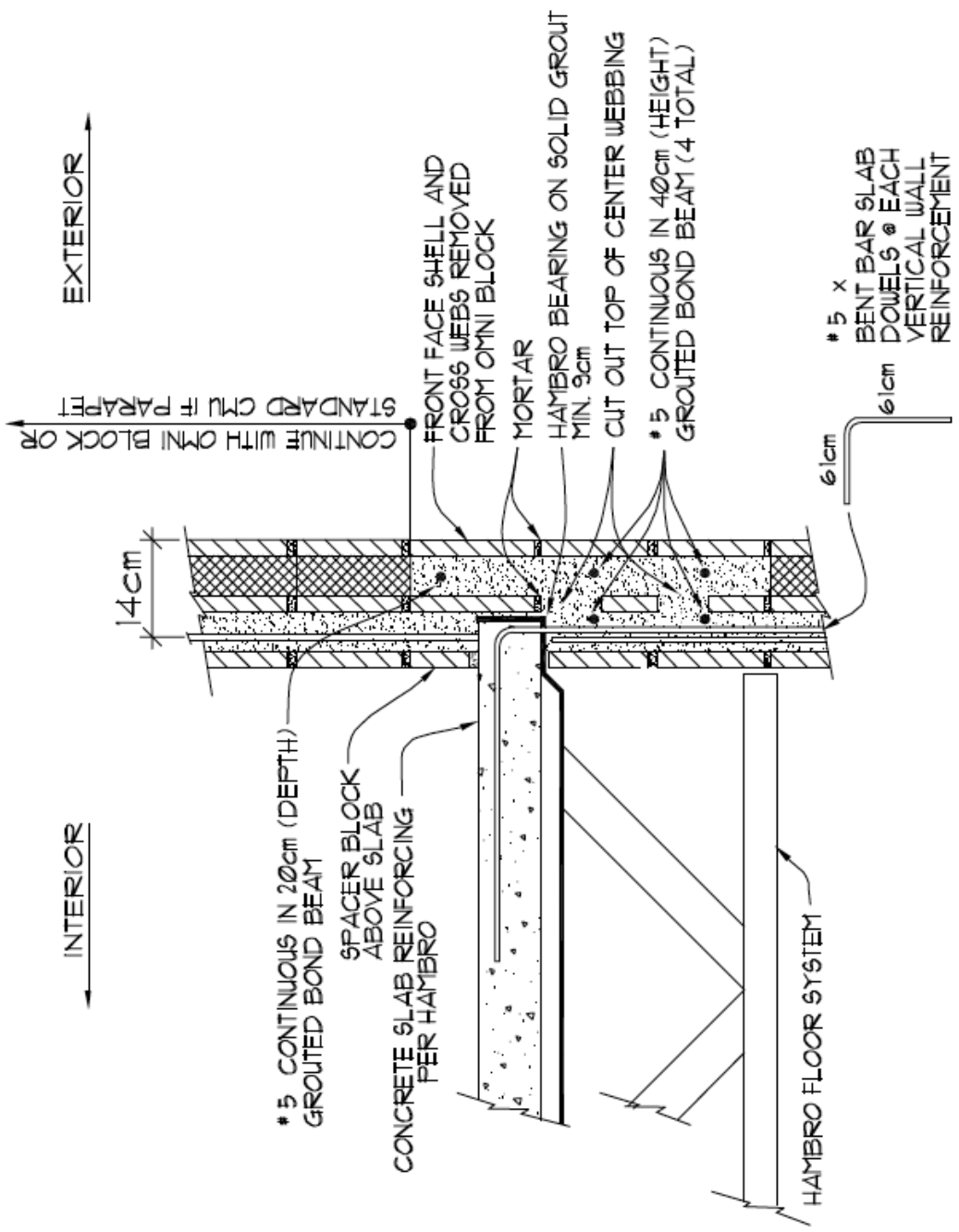


MOH 250  
DETAIL 5 AND 5A  
DESIGN DETAILS

PAGE: 57

DATE: 11/08/2016  
REVISION 02/22/17:

FOR HAMBRO:  
 ROOF LIVE LOAD = 20 PSF  
 ROOF DEAD LOAD = 80 PSF  
 FLOOR LIVE LOAD = 40 PSF  
 FLOOR DEAD LOAD = 15 PSF  
 FLOOR PARTITION LIVE LOAD = 221 PSF (FOR MASONRY PARTITION WALLS AT FLOORS)



6 LOAD BEARING HAMBRO JOIST  
 SCALE: NTS



EXPIRES 9/30/2017



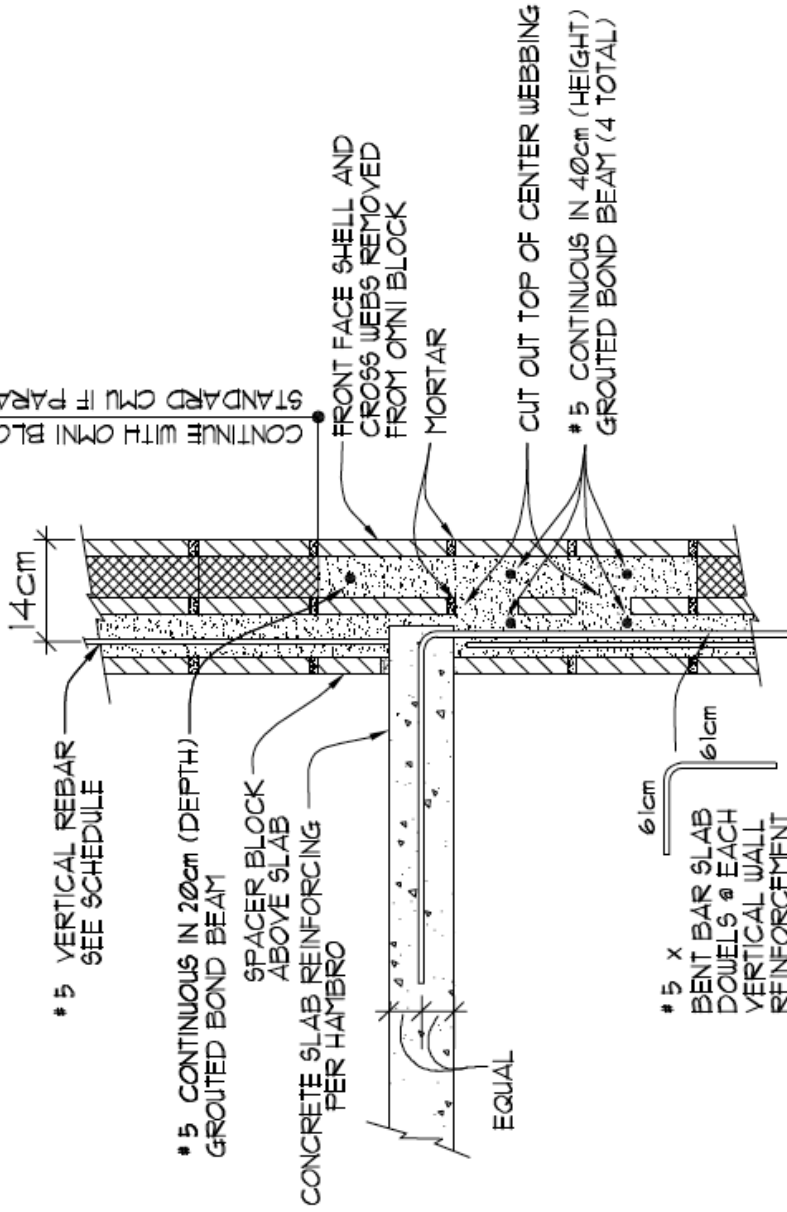
MOH 250  
 DETAIL 6  
 DESIGN DETAILS

DATE: 11/08/2016  
 REVISION 02/22/17:  
 PAGE: 58



INTERIOR →

← EXTERIOR



① LOAD BEARING HAMBRO JOIST  
SCALE: NT6



EXPIRES 9/30/2017



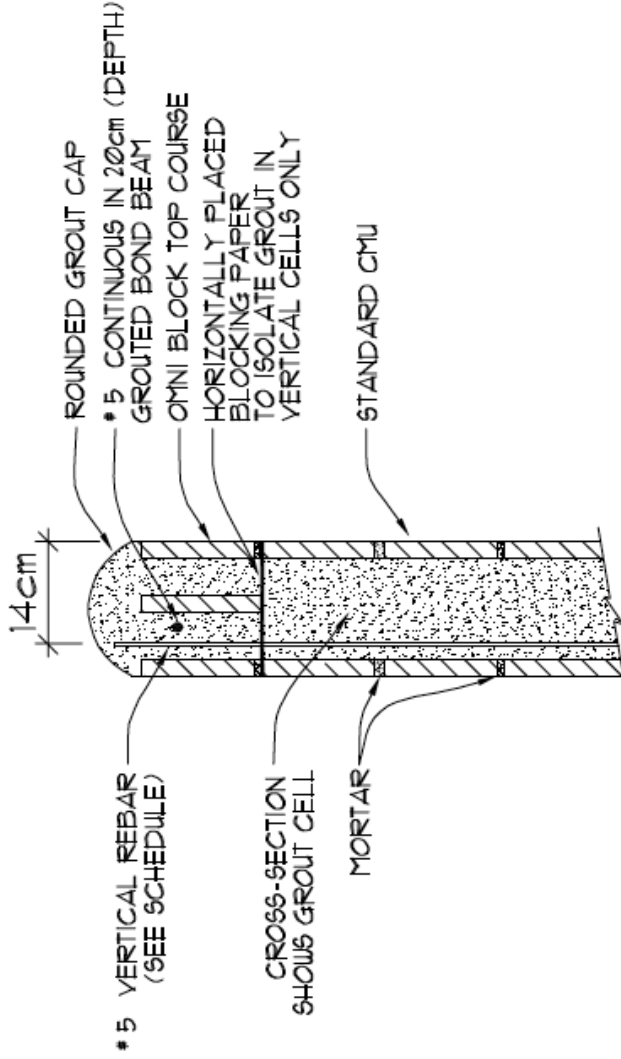
MOH 250  
DETAIL 1  
DESIGN DETAILS

DATE: 11/08/2016  
REVISION 02/22/17:  
PAGE: 99



INTERIOR →

← EXTERIOR



8  
PARAPET

SCALE: NTS

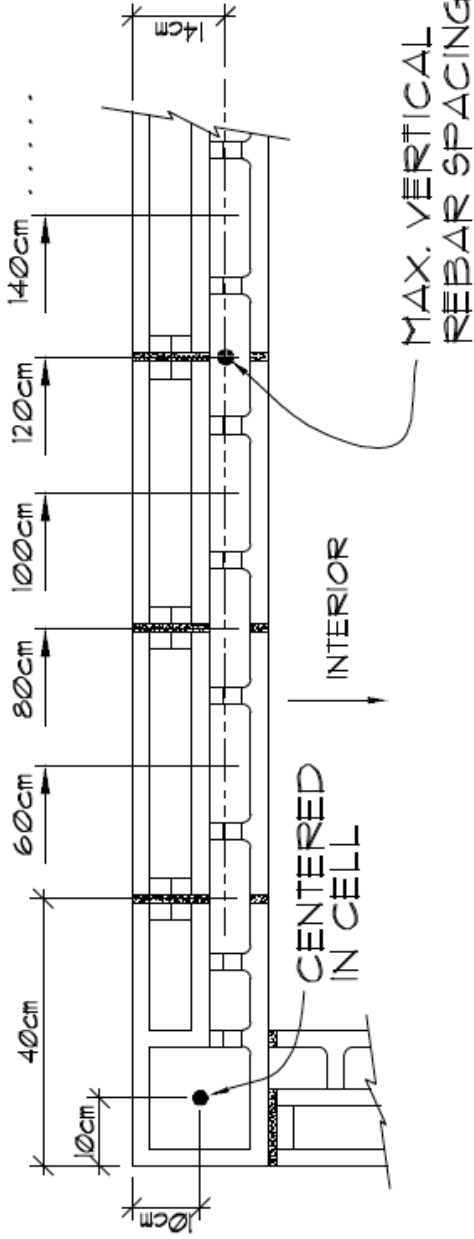


EXPIRES 9/30/2017



MOH 250  
DETAIL 8  
DESIGN DETAILS

DATE: 11/08/2016  
REVISION 02/22/17:  
PAGE: 910



VERTICAL REBAR MAY BE PLACED IN ANY CELL AS ILLUSTRATED ABOVE

13 VERTICAL REBAR PLACEMENT - STANDARD WALL SCALE: NTS



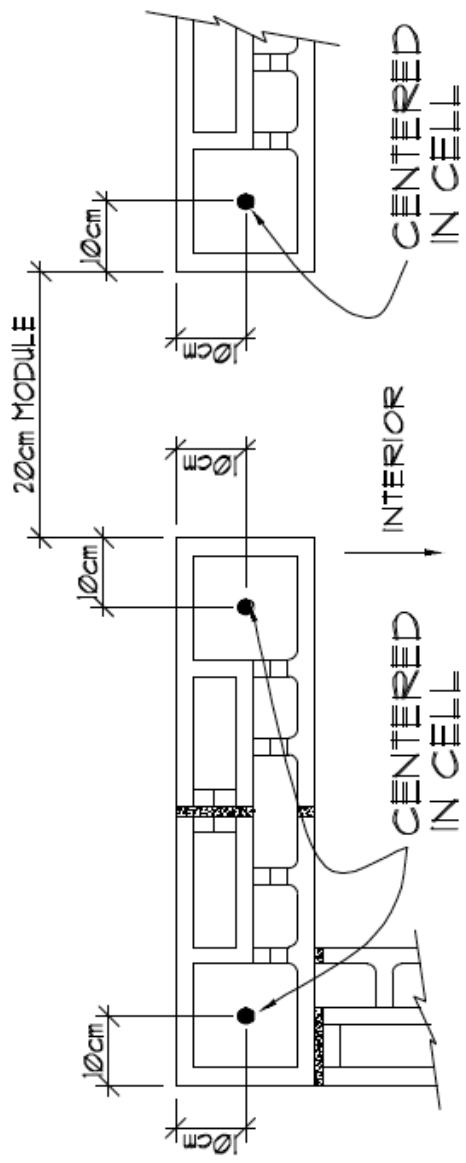
EXPIRES 9/30/2017



MOH 250  
DETAIL 13  
DESIGN DETAILS

PAGE: 511

DATE: 11/08/2016  
REVISION 02/22/17:



14

REBAR PLACEMENT AT WINDOW & DOOR OPENINGS

SCALE: NTS



EXPIRES 9/30/2017



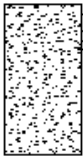



MOH 250  
DETAIL 14  
DESIGN DETAILS

PAGE: 512

DATE: 11/08/2016  
REVISION 02/22/17:

**LEGEND:**

	CONCRETE
	CMU MEMBRANE
	GROUT
	FOAM

15 LEGEND

SCALE: NTS



MOH 250  
DETAIL 15  
DESIGN DETAILS

PAGE: 513

DATE: 11/08/2016  
REVISION 02/22/17:

# JOB SPECIFICATIONS

GRADE OF STEEL: 40 GROUT: 2000 psi MORTAR: T

ALL ABOVE ITEMS ARE "OR EQUAL"



EXPIRES 9/30/2017



EXTERIOR WALL FOOTING REINFORCEMENT SCHEDULE				
FOOTING WIDTH	FOOTING HEIGHT	CONTINUOUS HORIZONTAL STEEL		
		QUANTITY	SIZE	CLEARANCE
76cm ± 32CM	30cm	3	#5	8cm
SEE DETAILS 1 & 1B				

FOOTING WIDTH	FOOTING HEIGHT	CONTINUOUS VERTICAL STEEL		
		QUANTITY	SIZE	SPACING
76cm	30cm	1	#5	120cm MAX
SEE DETAILS 13 & 14				

INTERIOR WALL FOOTING REINFORCEMENT SCHEDULE				
FOOTING WIDTH	HGT SLAB TOP TO FOOTING BOTTOM	CONTINUOUS HORIZONTAL STEEL		
		QUANTITY	SIZE	CLEARANCE
60cm	61cm	2	#5	8cm
SEE DETAIL 1A				
FOOTING WIDTH	FOOTING HEIGHT	CONTINUOUS VERTICAL STEEL		
		QUANTITY	SIZE	SPACING
60cm	61cm	1	#5	120cm MAX
SEE DETAILS 13 & 14				

TOP OF STEM REINFORCEMENT SCHEDULE				
WALL HEIGHT	GROUT HEIGHT	CONTINUOUS HORIZONTAL STEEL		
		QUANTITY	SIZE	LOCATION
60cm	20cm	1	#5	INSIDE FACE
SEE DETAIL 1 OR 1A				

TOP OF WALL REINFORCEMENT SCHEDULE				
WALL HEIGHT	GROUT DEPTH	CONTINUOUS HORIZONTAL STEEL		
		QUANTITY	SIZE	LOCATION
3400cm	40cm	4	#5	EACH FACE
SEE DETAIL 6 & 7				

TOP OF PARAPET REINFORCEMENT SCHEDULE				
WALL HEIGHT	GROUT DEPTH	CONTINUOUS HORIZONTAL STEEL		
		QUANTITY	SIZE	LOCATION
1000cm	20cm	1	#5	INSIDE FACE
SEE DETAIL 8				

OMNI BLOCK MASONRY LINTEL SCHEDULE		
MARK	STEEL LINTEL KSI A36	MINIMUM SOLID GROUT DEPTH
ML1	OL 20-40 W/ #5	40cm
ML2	OL 20-60 W/ #5	60cm
ML3	OL 20-80 W/ #5	80cm
ML4	OL 20-100 W/ #5	100cm
ML5	OL 20-120 W/ #5	120cm

16

OMNI BLOCK ENGINEERING TABLES

SCALE: NTS

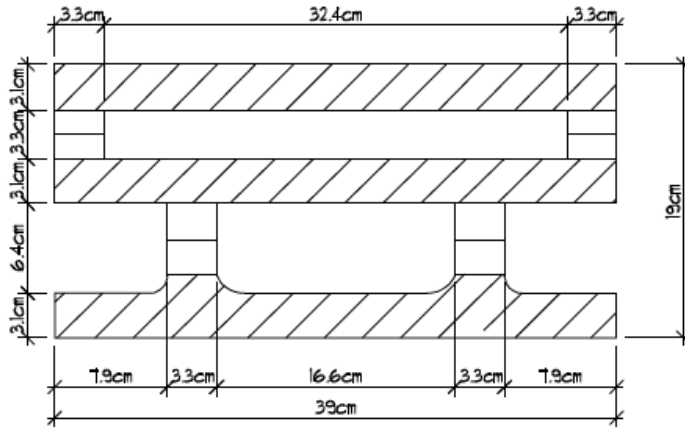
MOH 250  
DETAIL 16  
DESIGN DETAILS

PAGE: 514

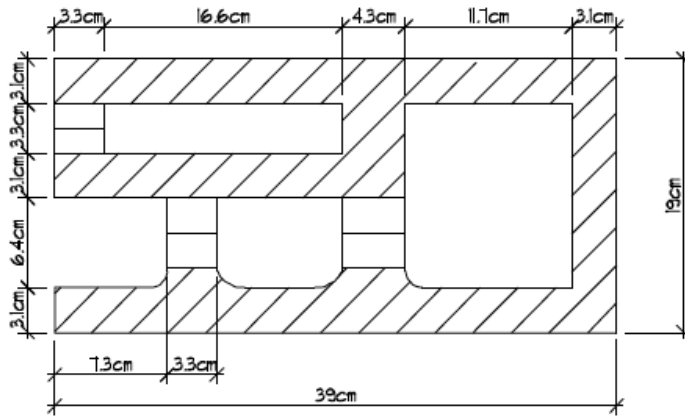
DATE: 11/08/2016  
REVISION 02/22/17:



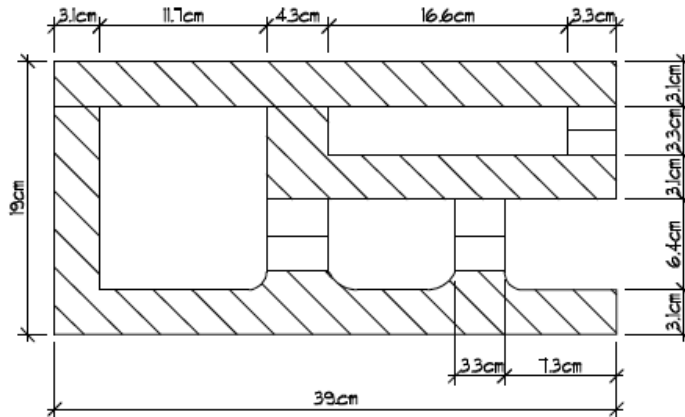
EXPIRES 9/30/2017



STRETCHER



RIGHT CORNER BLOCK



LEFT CORNER BLOCK

MOH 250  
 DETAIL 17  
 DESIGN DETAILS

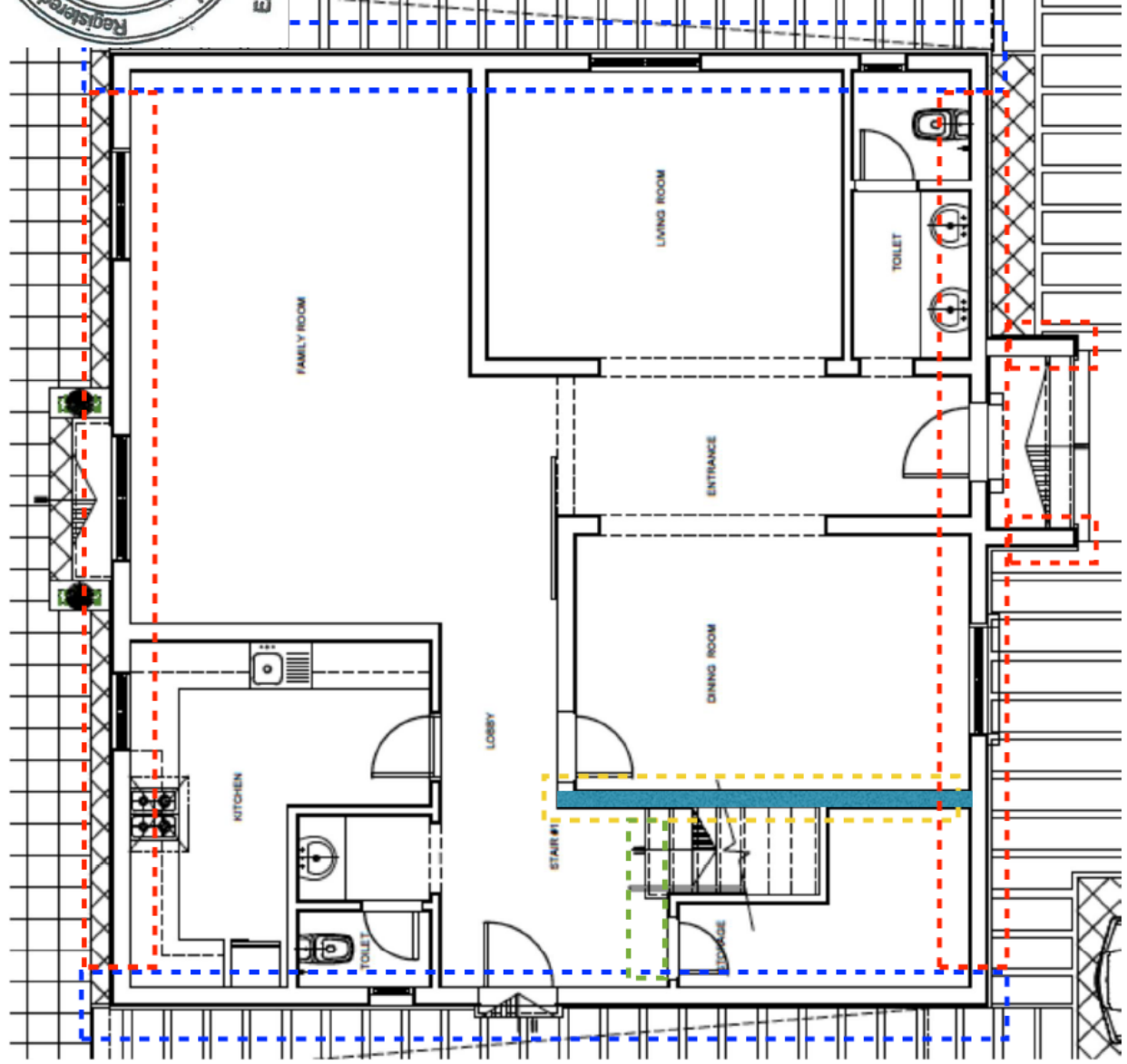
PAGE: 515

DATE: 11/08/2016  
 REVISION 02/22/17:





EXPIRES 9/30/2017



- STRUCTURAL NOTES:**
- 1) ALL LOAD BEARING WALLS ARE 20CM OMNI BLOCK OR EQUAL WITH #5 VERTICAL EVERY 120CM O/C.
  - 2) AT EACH FLOOR LEVEL 4 #5 PER DETAILS 6 & 7.
  - 3) STANDARD LADDER ROD @ 40CM O/C.
  - 4) AT TOP-OF-PARAPET #5 CONTINUOUS.
  - 5) AT ALL WALL ENDS, CORNERS, INTERSECTIONS, AND EACH SIDE OF ALL OPENINGS PROVIDE #5 VERTICAL.
  - 6) SEE STAIRCASE CROSS-SECTION DETAILS.
  - 7) CODE DOES NOT REQUIRE SLAB REINFORCEMENT - USE #3 @ 18" O/C BOTH DIRECTIONS OR W1.4 X 1.4 20CM WELDED WIRE FABRIC GRID.

- DETAIL 1
- DETAIL 1A
- DETAIL 1B
- DETAIL G - STAIRCASE
- LOAD BEARING WALL



MOH 250  
 FOUNDATION PLAN  
 ENGINEERING SPECIFICATION

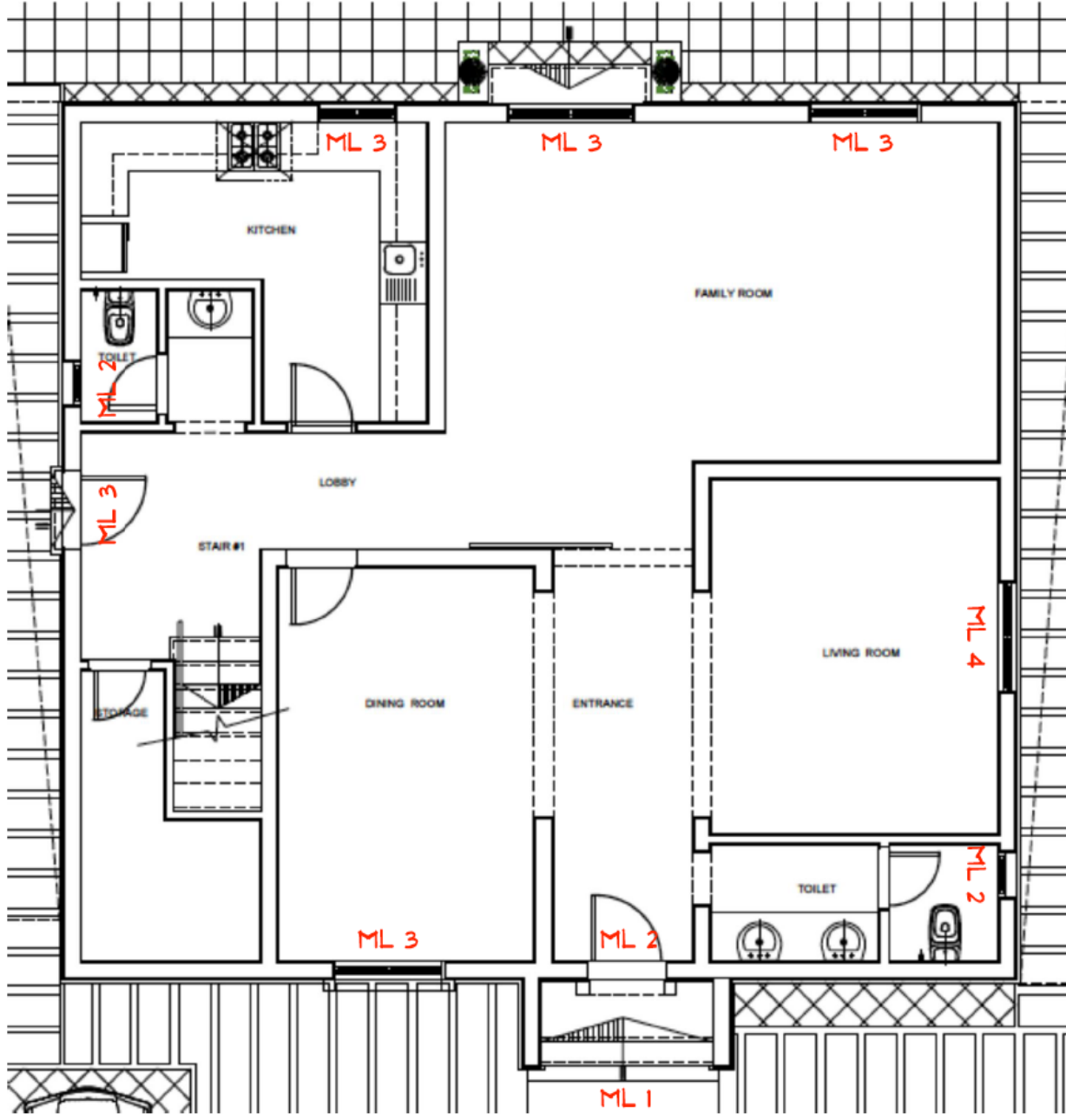
DATE: 11/08/2016  
 REVISION 02/22/17:  
 PAGE: 5/16

STRUCTURAL NOTES:

- 1) ALL LOAD BEARING WALLS ARE 20CM OMNI BLOCK OR EQUAL WITH #5 VERTICAL EVERY 120CM O/C.
- 2) AT EACH FLOOR LEVEL 4 #5 PER DETAILS 6 & 7.
- 3) STANDARD LADDER ROD @ 40CM O/C.
- 4) AT TOP-OF-PARAPET #5 CONTINUOUS.
- 5) AT ALL WALL ENDS, CORNERS, INTERSECTIONS, AND EACH SIDE OF ALL OPENINGS PROVIDE #5 VERTICAL.
- 6) SEE STAIRCASE CROSS-SECTION DETAILS.
- 7) CODE DOES NOT REQUIRE SLAB REINFORCEMENT - USE #3 @ 18" O/C BOTH DIRECTIONS OR W1.4 X 1.4 20CM WELDED WIRE FABRIC GRID.



EXPIRES 9/30/2017



PAGE: 517

DATE: 11/08/2016  
REVISION 02/22/17:

MOH 250  
GROUND FLOOR LINTEL SCHEDULE  
ENG SPECIFICATION - DETAIL 16

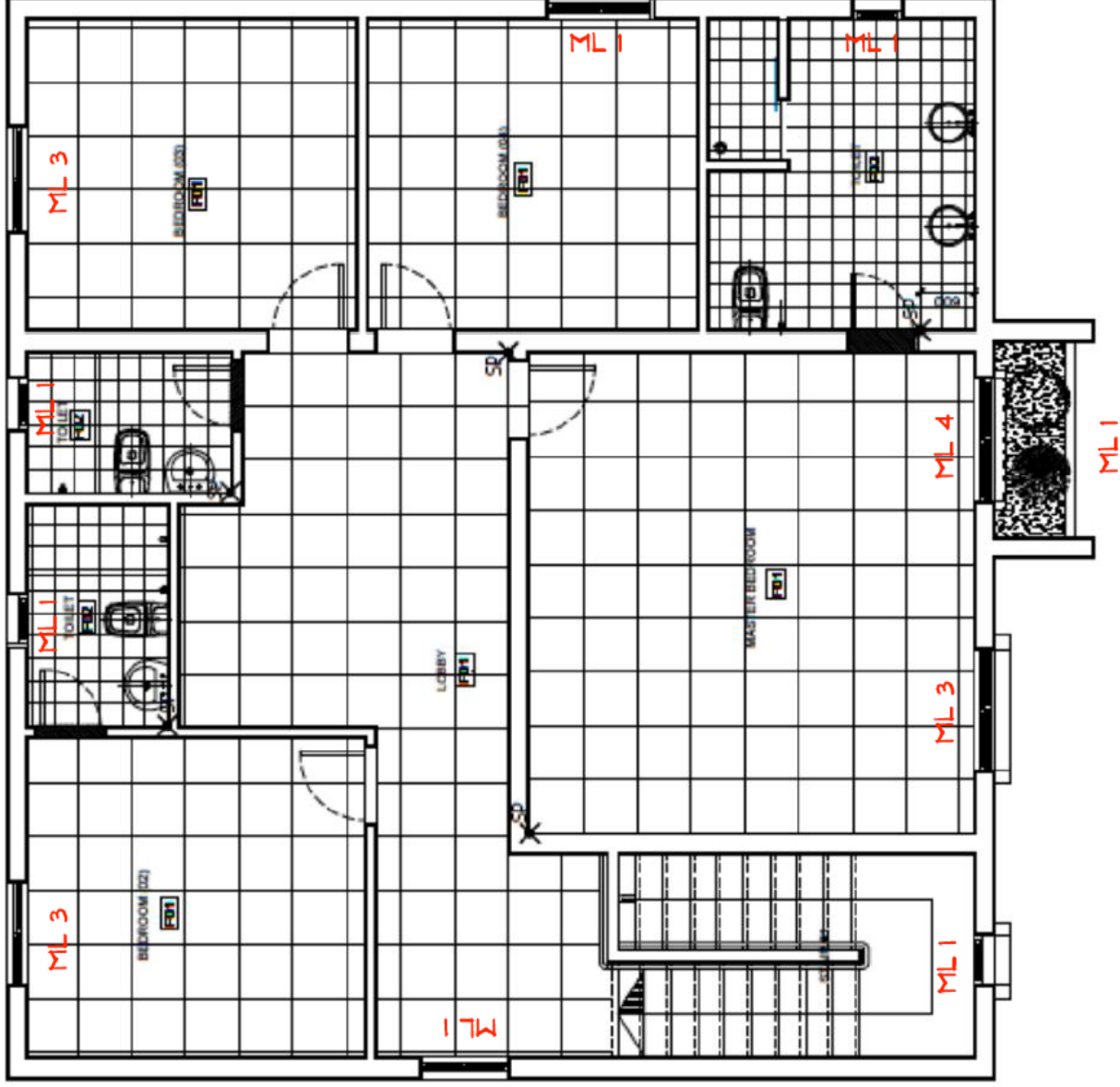


STRUCTURAL NOTES:

- 1) ALL LOAD BEARING WALLS ARE 20CM OMNI BLOCK OR EQUAL WITH #5 VERTICAL EVERY 120CM O/C.
- 2) AT EACH FLOOR LEVEL 4 #5 PER DETAILS 6 & 7.
- 3) STANDARD LADDER ROD @ 40CM O/C.
- 4) AT TOP-OF-PARAPET #5 CONTINUOUS.
- 5) AT ALL WALL ENDS, CORNERS, INTERSECTIONS, AND EACH SIDE OF ALL OPENINGS PROVIDE #5 VERTICAL.
- 6) SEE STAIRCASE CROSS-SECTION DETAILS.
- 7) CODE DOES NOT REQUIRE SLAB REINFORCEMENT - USE #3 @ 18" O/C BOTH DIRECTIONS OR W1.4 X 1.4 20CM WELDED WIRE FABRIC GRID.



EXPIRES 9/30/2017



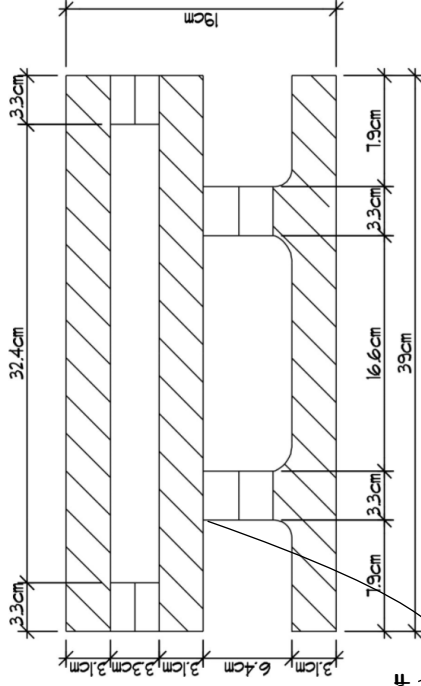
MOH 250

FIRST FLOOR LINTEL SCHEDULE  
ENG SPECIFICATION - DETAIL 16



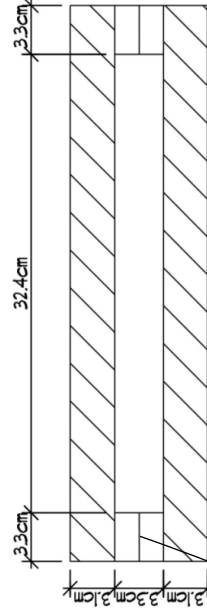
DATE: 11/08/2016  
REVISION 02/22/17:

PAGE: 518



STRETCHER

SAW CUT BOTH CROSS WEBS OF THE INTERIOR SIDE OF THE STRETCHER BLOCK DELETING THE FRONT FACE SHELL.



MODIFIED STRETCHER

HORIZONTAL REBAR PLACED ABOVE BOTH END V-SHAPED CROSS WEBS

PLAN VIEW

DATE: 1/31/17  
REVISION:

PAGE: S19

MOH 250  
MODIFIED STRETCHER  
SEE DETAIL 6 & 7

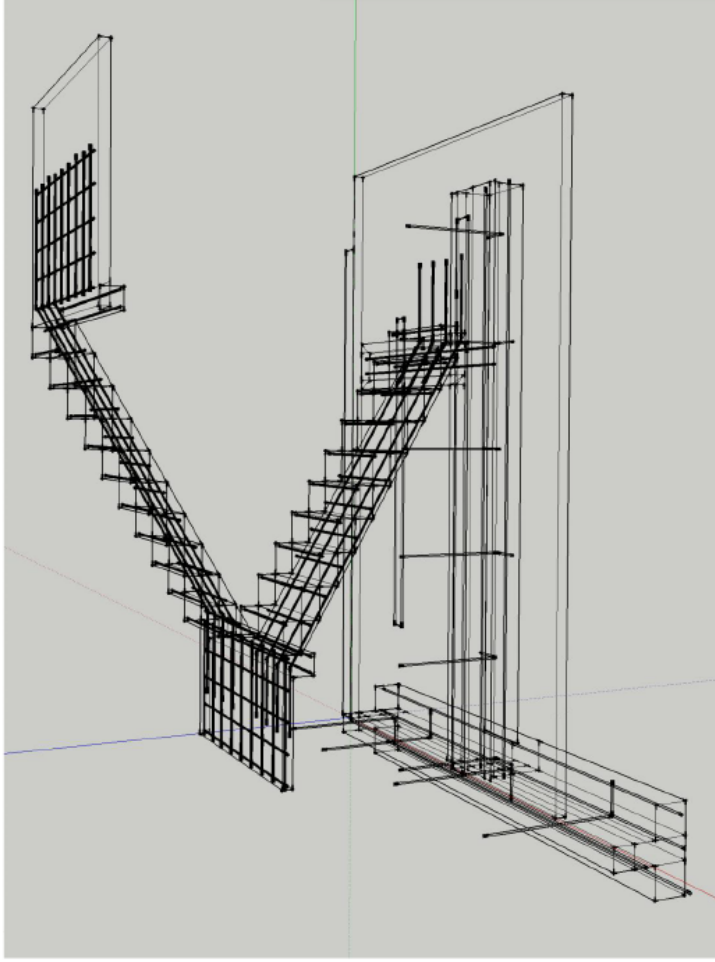




EXPIRES 9/30/2017



EXPIRES 9/30/2017



DATE: 11/08/2016  
REVISION 02/22/17:

PAGE: 520

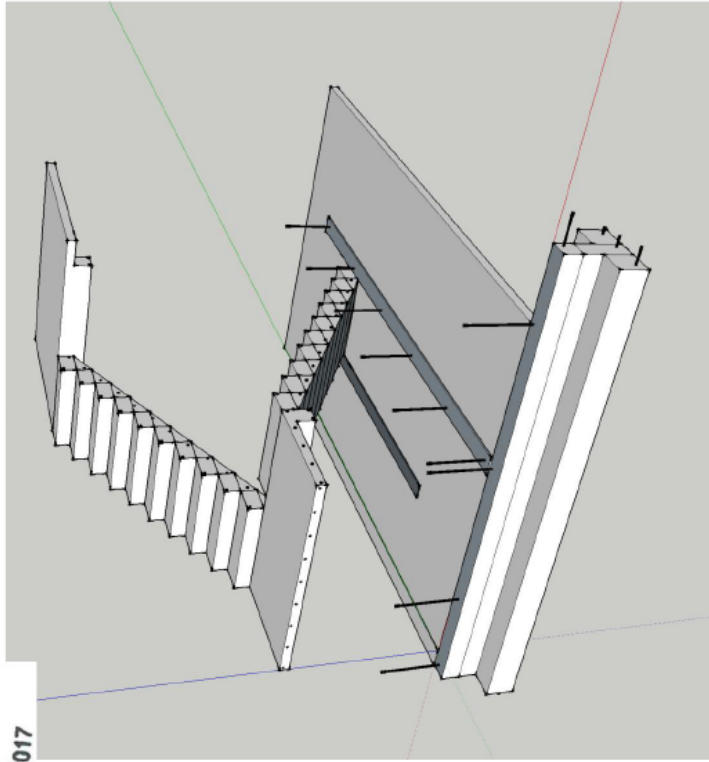
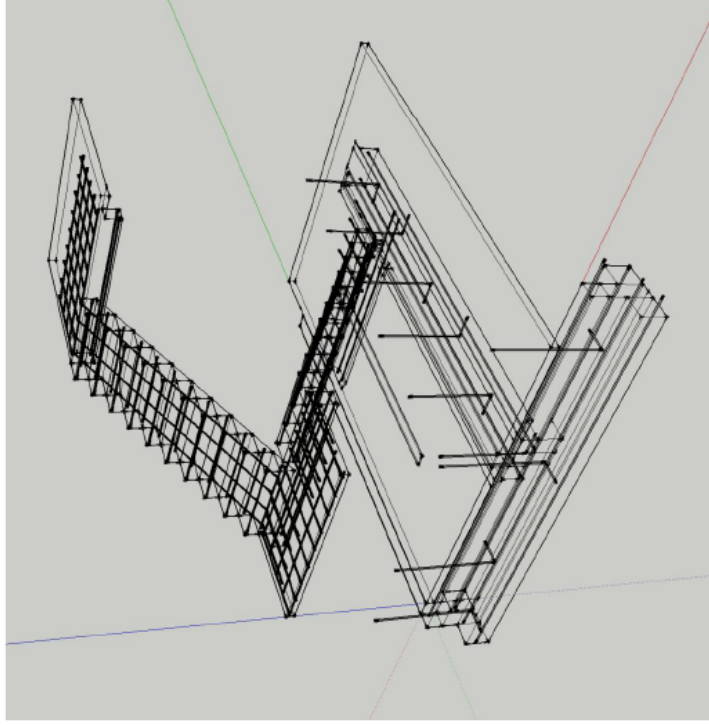
MOH 250  
STAIRCASE ISOMETRIC 1  
RIGHT VIEW







EXPIRES 9/30/2017



MOH 250  
STAIRCASE ISOMETRIC 2  
RIGHT VIEW

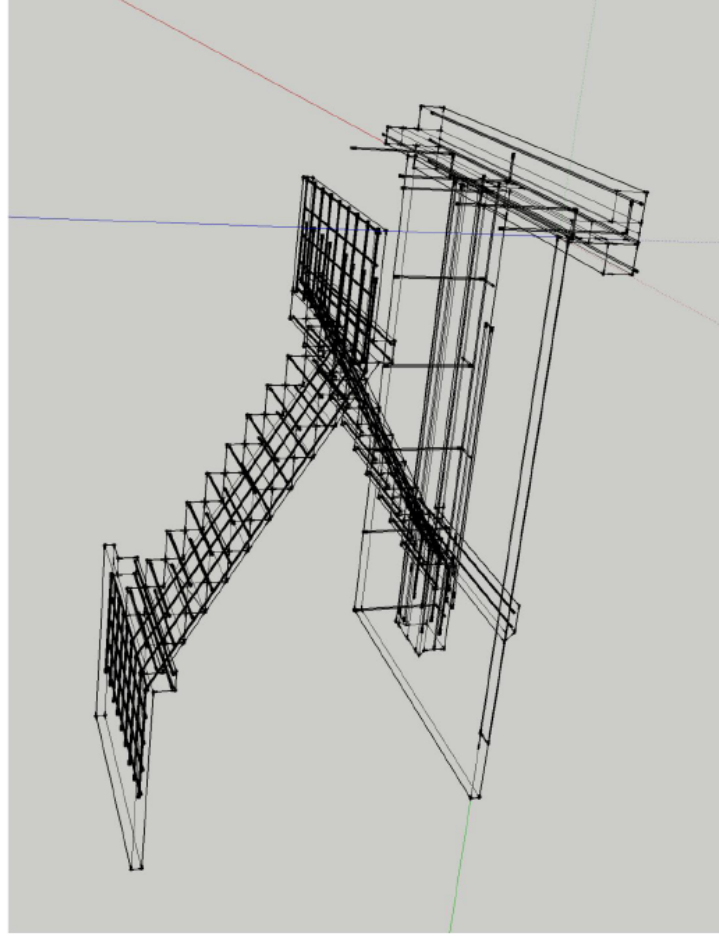
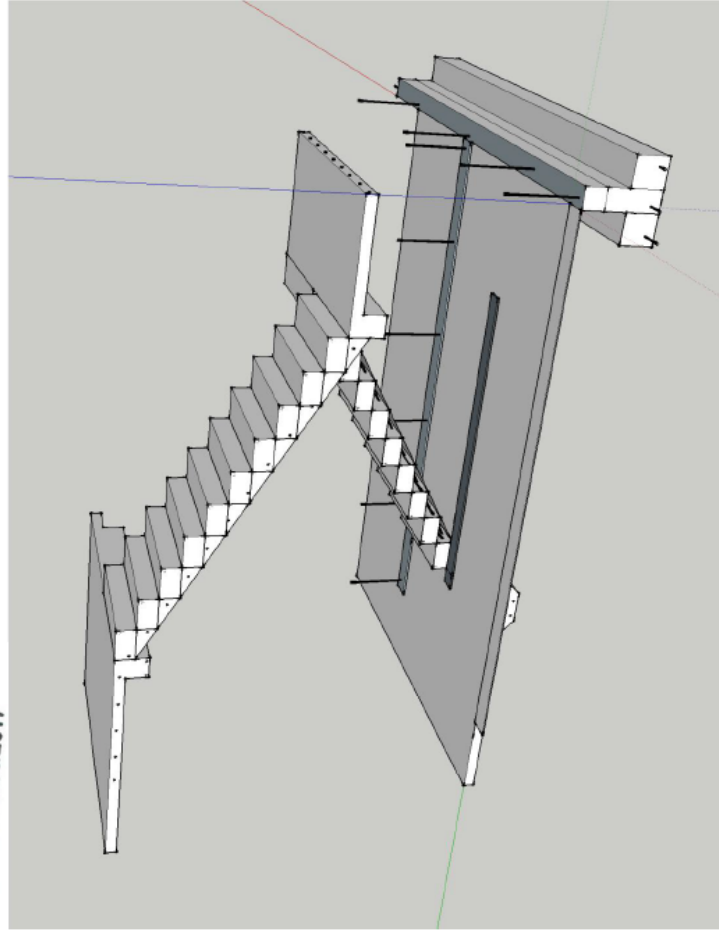
PAGE: 521

DATE: 11/08/2016  
REVISION 02/22/17:





EXPIRES 9/30/2017

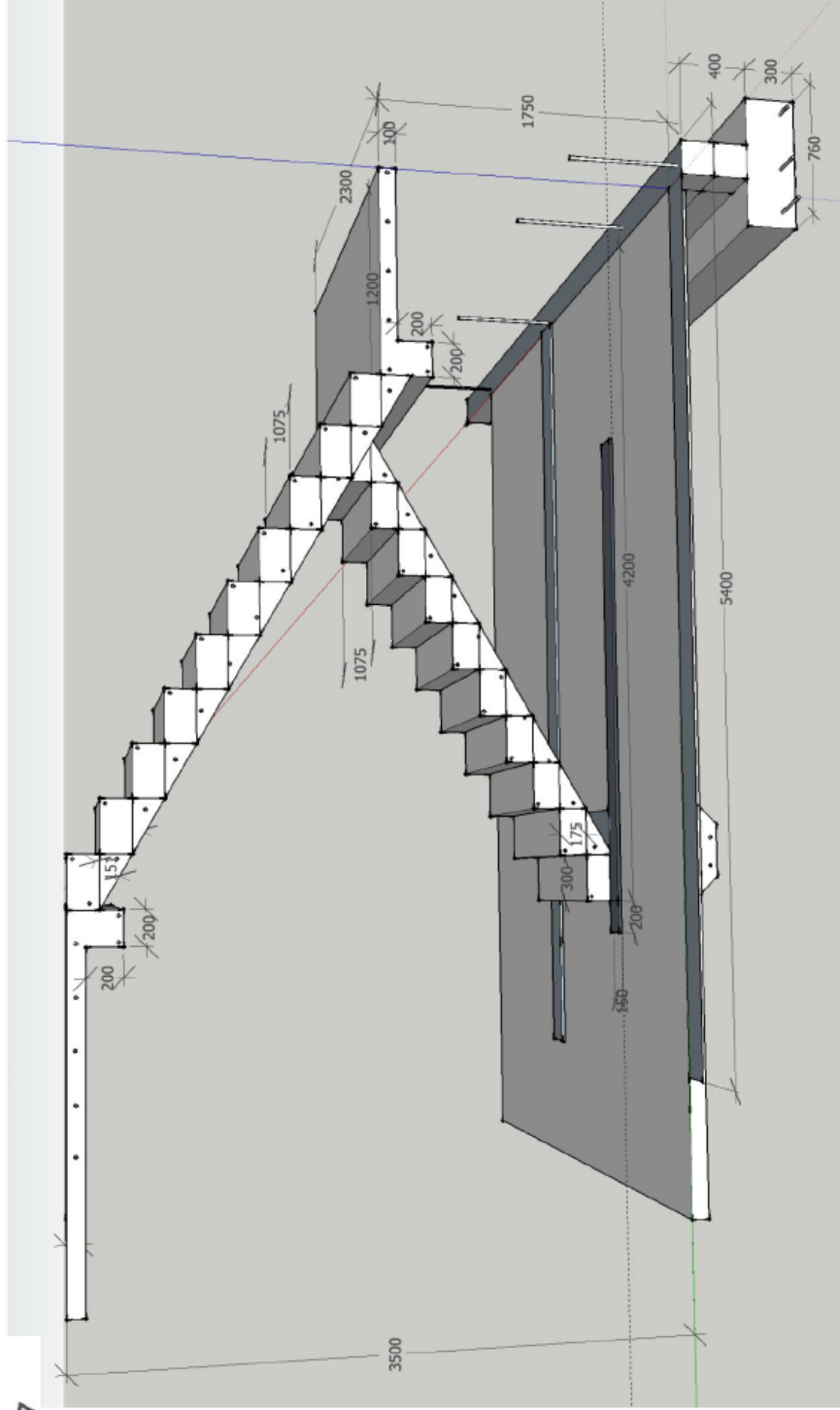


DATE: 11/08/2016  
REVISION 02/22/17:

PAGE: 522

MOH 250  
STAIRCASE ISOMETRIC 3  
LEFT VIEW





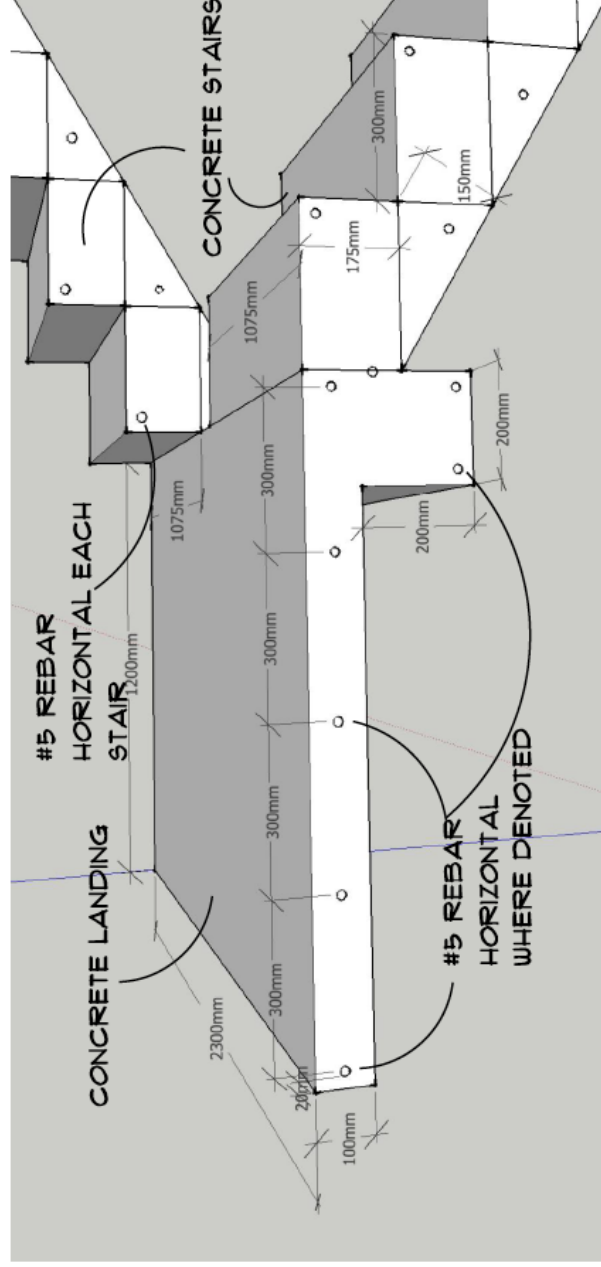
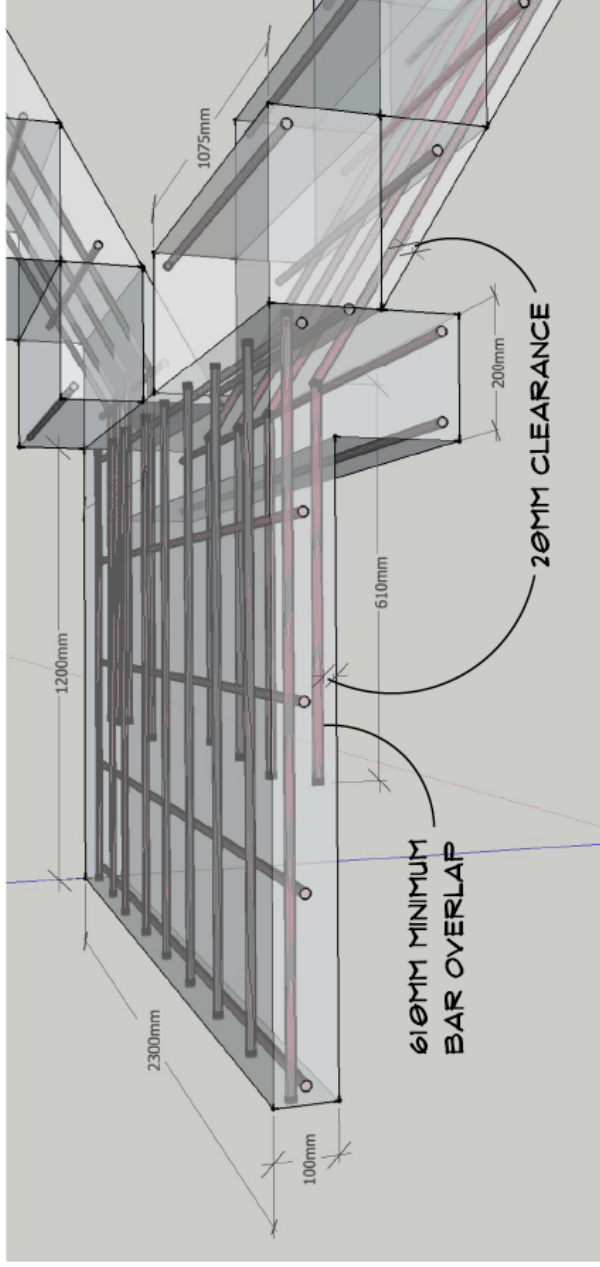
MOH 250  
 STAIRCASE ISOMETRIC 4  
 LEFT VIEW

PAGE: 523

DATE: 11/08/2016  
 REVISION 02/22/17:



EXPIRES 9/30/2017



**STAIR NOTES:**

- ALL REBAR #5
- ALL REBAR MUST HAVE 2ØMM CLEARANCE WITHIN CONCRETE EDGE
- MINIMUM REBAR OVER LAP 6ØMM AT ANY SPLICE
- REBAR SPACED 3ØMM MAXIMUM AT BOTH DIRECTIONS
- EACH TREAD IS 3ØMM
- EACH RISER IS 175MM
- STAIRCASE CONCRETE 25ØØ PSI

MOH 25Ø  
STAIRCASE  
DETAIL D

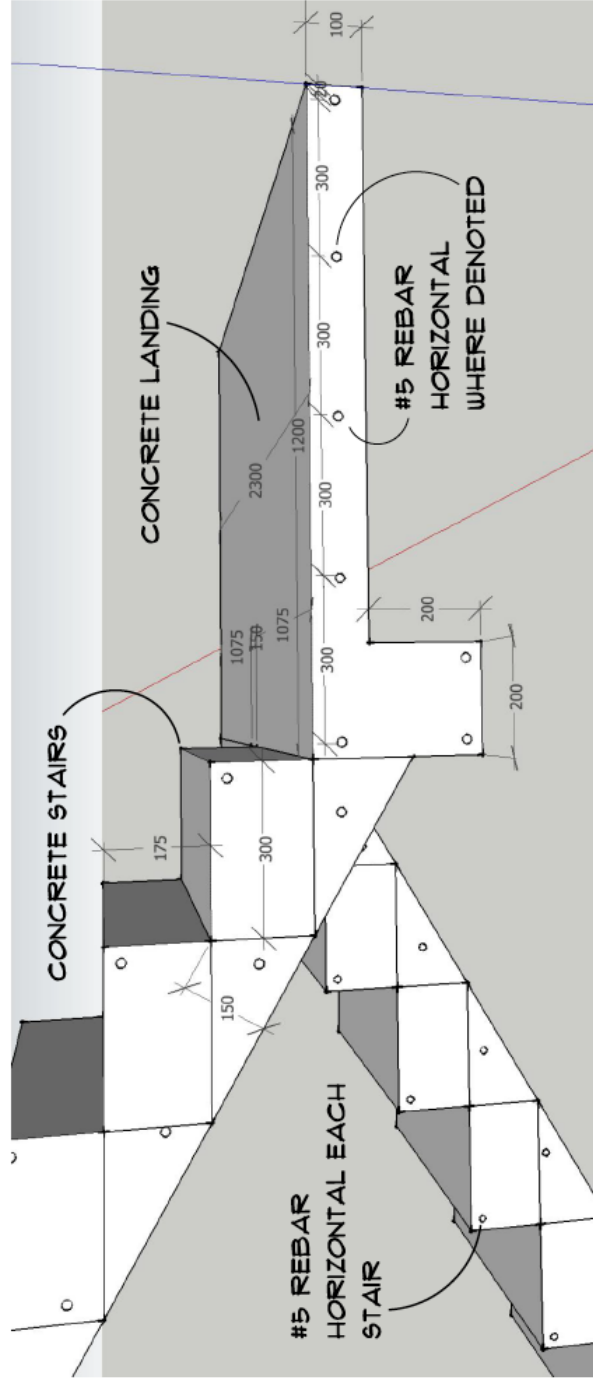
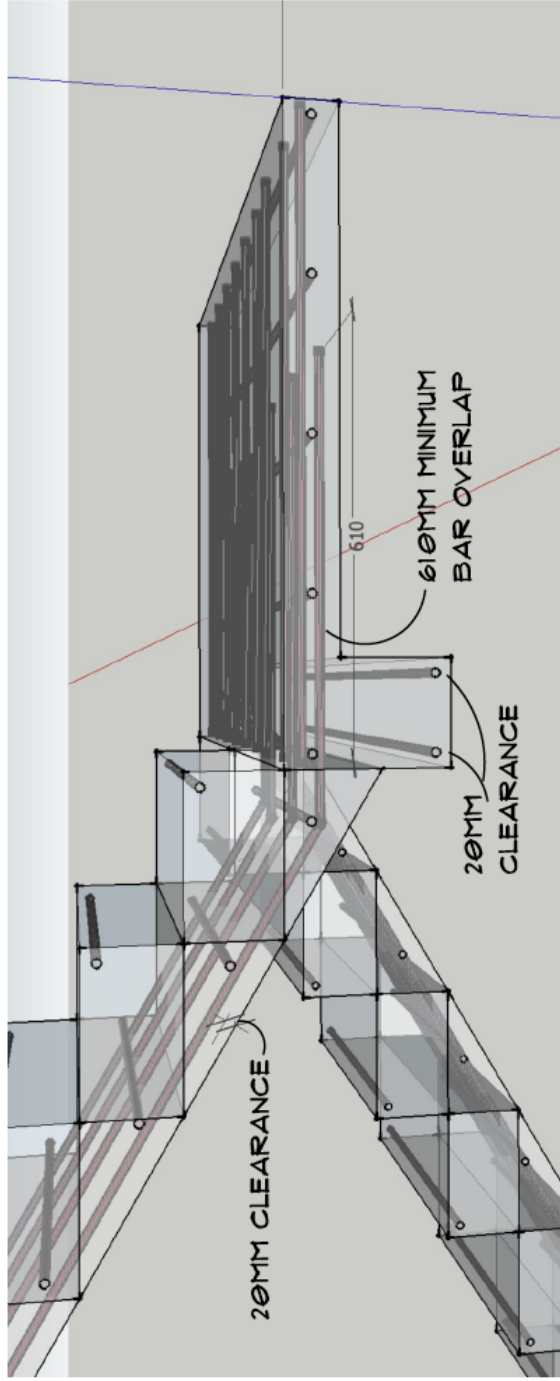
PAGE: 924

DATE: 11/08/2016  
REVISION 02/22/17:





EXPIRES 9/30/2017



**STAIR NOTES:**

- ALL REBAR #5
- ALL REBAR MUST HAVE 20MM CLEARANCE WITHIN CONCRETE EDGE AT ANY SPLICE AT BOTH DIRECTIONS
- REBAR SPACED 300MM MAXIMUM
- EACH TREAD IS 300MM
- EACH RISER IS 175MM
- STAIRCASE CONCRETE 2500 PSI

MOH 250  
STAIRCASE  
DETAIL E

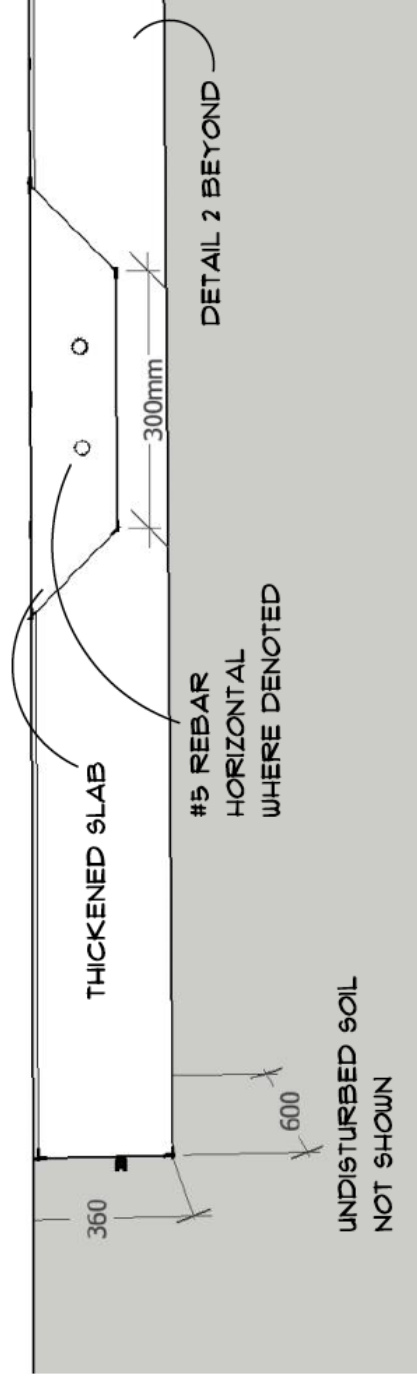
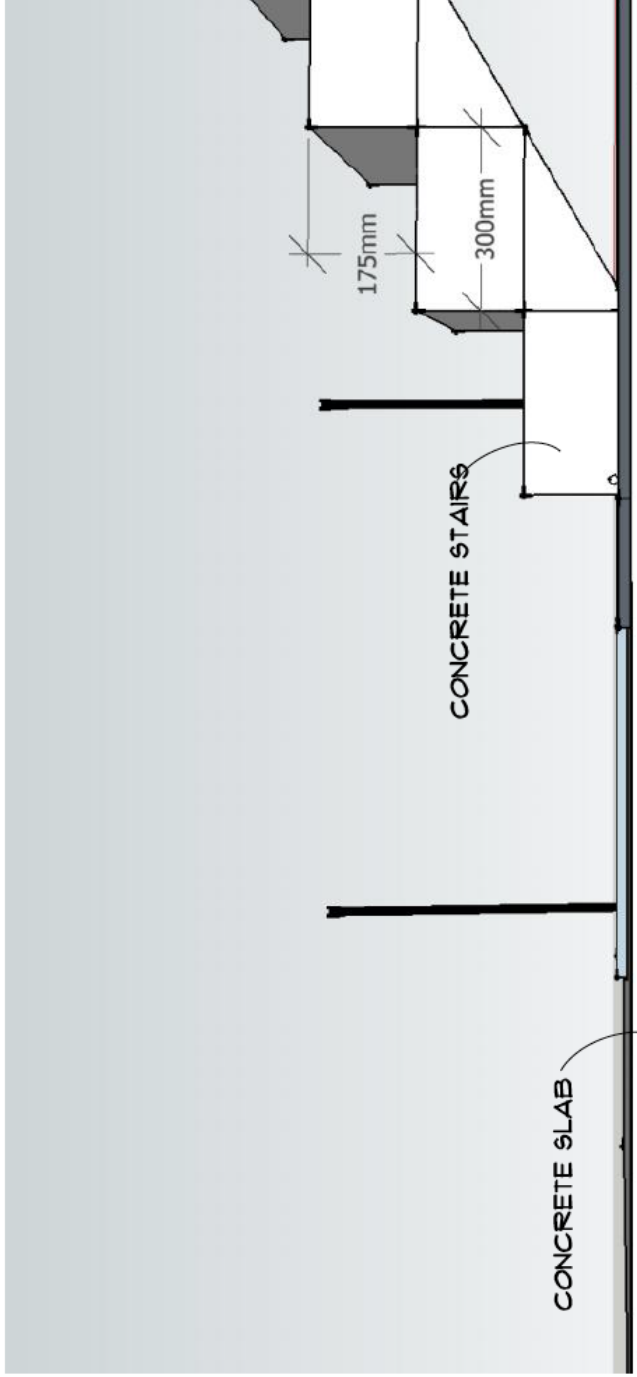
PAGE: 525

DATE: 11/08/2016  
REVISION 02/22/17:





EXPIRES 9/30/2017



**STAIR NOTES:**

- ALL REBAR #5
- ALL REBAR MUST HAVE 20MM CLEARANCE WITHIN CONCRETE EDGE
- MINIMUM REBAR OVER LAP 610MM AT ANY SPLICE
- REBAR SPACED 300MM MAXIMUM AT BOTH DIRECTIONS
- EACH TREAD IS 300MM
- EACH RISER IS 175MM
- STAIRCASE CONCRETE 2500 PSI



MOH 250  
STAIRCASE  
DETAIL G VIEW 1

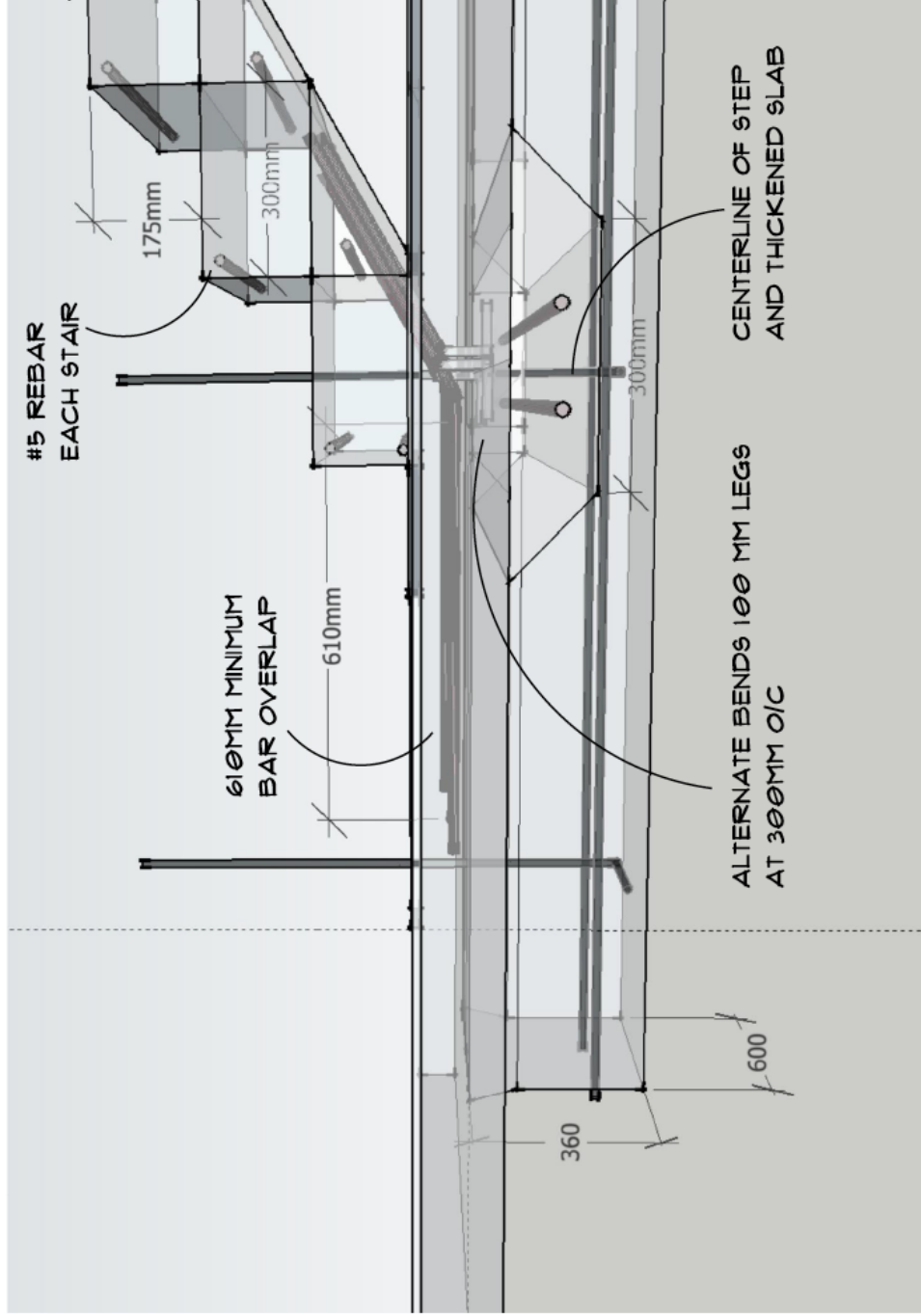
PAGE: 526

DATE: 11/08/2016  
REVISION 02/22/17:





EXPIRES 9/30/2017



**STAIR NOTES:**

- ALL REBAR #5
- ALL REBAR MUST HAVE 20MM CLEARANCE WITHIN CONCRETE EDGE
- MINIMUM REBAR OVER LAP 610MM AT ANY SPLICE
- REBAR SPACED 300MM MAXIMUM AT BOTH DIRECTIONS
- EACH TREAD IS 300MM
- EACH RISER IS 175MM
- STAIRCASE CONCRETE 2500 PSI

MOH 250  
STAIRCASE  
DETAIL G VIEW 2

PAGE: 527

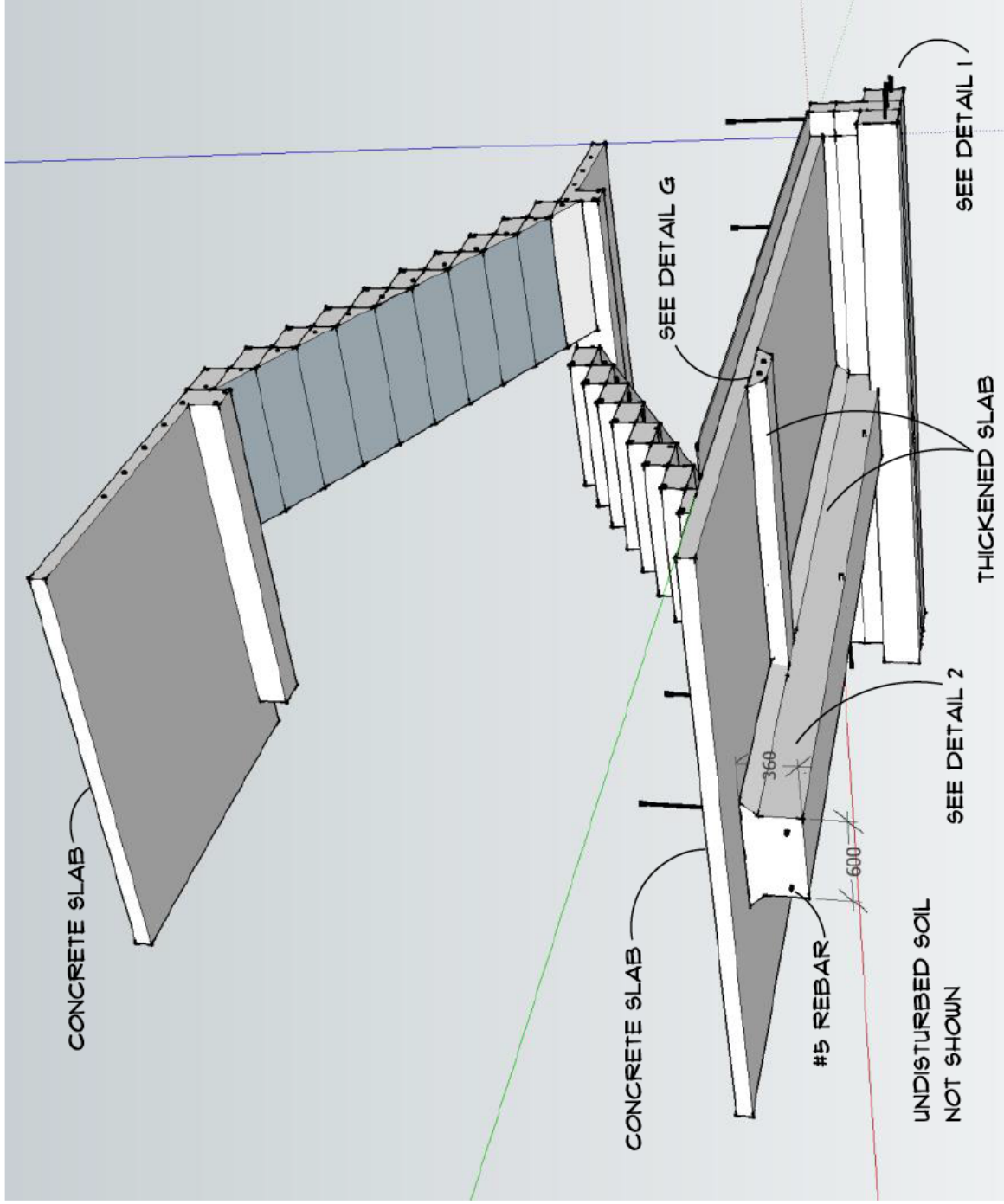
DATE: 11/08/2016  
REVISION 02/22/17:







EXPIRES 9/30/2017



**STAIR NOTES:**

- ALL REBAR #5
- ALL REBAR MUST HAVE 20MM CLEARANCE WITHIN CONCRETE EDGE
- MINIMUM REBAR OVER LAP 610MM AT ANY SPLICE
- REBAR SPACED 300MM MAXIMUM AT BOTH DIRECTIONS
- EACH TREAD IS 300MM
- EACH RISER IS 175MM
- STAIRCASE CONCRETE 2500 PSI

DATE: 11/08/2016  
 REVISION 02/22/17:

PAGE: 528

MOH 250  
 STAIRCASE ISOMETRIC 5  
 SEE DETAIL 2



**REJECTED**  
**REVISIONS AS SUBMITTED**  
**REVISIONS AS CORRECTED**  
**REVISIONS AS RESUBMITTED**  
**REVISIONS AS SUBMITTED**

Connections or comments made on the shop drawings do not relieve the contractor from compliance with contract documents. This review is for general compliance with the information contained within the contract documents only. The contractor is responsible for confirming all quantities and dimensions, selecting fabrication processes and techniques of construction, coordination with other trades and performing the work in a safe and satisfactory manner.

**BRUCE E. DEMAREE, P.E.**  
**DATE 4/14/17 BY J. Kizer**

MAXIMUM - ROLL BARS - SPACING

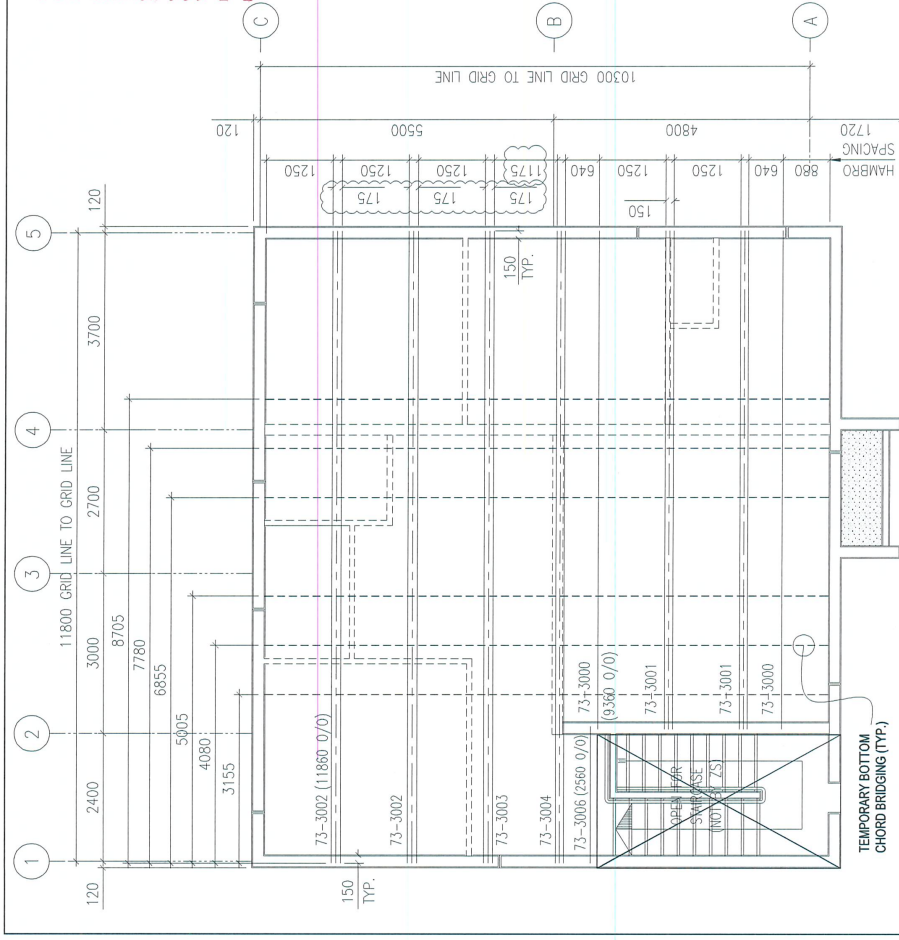
SLAB THICKNESS	ROLL BARS SPACING
64 to 89 (2' 1 1/2" to 3' 1 1/2")	5.33 C/C (21" C/C)
95 to 102 (3' 3/4" to 4')	5.33 C/C ** (21" C/C)
108 to 152 (4' 1/4" to 6')	3.56 C/C (14" C/C)
158 & MORE (6' 1/4" & MORE)	1.78 C/C (7" C/C)

\*\* PLYWOOD 1/2" IF IT IS LESS THAN 1/2". USE THE SPACING 14 C/C

FIRST FLOOR LOAD TABLE

Live Load	= 1.92 KN/m <sup>2</sup>
Dead Load	= 3.60 KN/m <sup>2</sup> + SW
Collateral load	= 0.00 KN/m <sup>2</sup>
Finishing load	= 0.00 KN/m <sup>2</sup>
Total Load	= 5.52 KN/m <sup>2</sup> + SW
Partition Load:	11.40 Kn/m

NOTES:  
 SW - SELF WEIGHT OF HAMBROS.  
 REVISIONS IN THE LOADS MENTIONED ABOVE ARE THE RESPONSIBILITY OF HAMBROS. (ANY ADDITIONAL LOAD IS SUBJECT TO MODIFICATION & PRICE CHANGE)



FIRST FLOOR PLAN - [AREA-01]

IMPORTANT NOTE:  
 1) RIGID MASONRY WALL ACCORDING TO THE STRUCTURAL DRAWINGS (NOT BY ZS).  
 2) REFER TO STRUCTURAL DRAWINGS FOR ALL DETAILS REGARDING THE SLAB/WALL CONNECTION.

GENERAL NOTES:  
 1. 73-300X - DENOTES HAMBRO JOIST MARK  
 2. ..... - DENOTES TEMPORARY BOTTOM CHORD BRIDGING  
 3. ALL PART MARKS REPRESENTS D500 SINGLE HAMBRO JOIST UNO.  
 4. DENOTES DOUBLE HAMBRO JOIST (73-3001,3002,3003,3004)

REACTIONS (KN)

HAMBRO MARK	LEFT		RIGHT	
	V1	V2	V1	V2
73-3000	33	44	88	94
73-3001	52	88	92	102
73-3002	92	102	76	74
73-3003	102	74	16	16
73-3004	76	74		
73-3006	16	16		

GENERAL NOTES

- No construction load shall be placed within a bay until 4 consecutive joist have been laterally braced with all roll bars and form boards in position.
- CAUTION - bundles of plywood should not be placed on joist system, but rather on supporting walls or beams.
- Construction joists shall not be made parallel to and 150 mm within of top chord.
- Installation shall be in accordance with the Manufacturer's instructions and with the latest HAMBRO ERECTION MANUAL, BROCHURE and drawing ED-0580.
- All top chord Z-sections must face the same direction for proper installation of plywood forms. Mesh shall extend 100 mm minimum over bearing members.
- In areas where slab is thickened, roll bar spacing shall be decreased accordingly.

DESIGN NOTES

- THE DESIGN OF THE COMPONENTS SHOWN ON THESE DRAWINGS IS IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL BUILDING CODE, 1994 EDITION, SUBSECTION 4.3.4.
- HAMBRO ACCEPTS RESPONSIBILITY ONLY FOR THE DESIGN, FABRICATION AND PERFORMANCE OF THE COMPONENTS SHOWN ON THESE DRAWINGS. HAMBRO IS NOT RESPONSIBLE FOR ANY ERRORS, OMISSIONS OR DAMAGES INCURRED IN THE ERECTION OF THE COMPONENTS SHOWN ON THESE DRAWINGS. NOR FOR INSPECTION OF ERECTED COMPONENTS TO ASCERTAIN SAME.
- ADJUST INSULATION  
 -direction of TOP CHORD: It is necessary that all top chord Z-sections face the same direction for proper installation of plywood forms. Mesh shall extend 100 mm minimum over bearing members. In areas where slab is thickened, roll bar spacing shall be decreased accordingly.
- beaming : It is important to make sure that the joist shoes are placed properly on the supporting walls or beams. The joists should be centered so there is equal bearing for the shoes. The minimum bearing on masonry and wood support is 3' 1/2". The minimum bearing on structural steel is 2' 1/2", unless noted otherwise.  
 REDUCED BEARING COULD PRESENT A SAFETY HAZARD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION OF TOP HAMBRO JOIST. EACH JOIST SHALL BE ADEQUATELY BRACED WITH THE ROLLBAR BEFORE THE NEXT JOIST IS ESTABLISHED.

THESE DRAWINGS ARE NOT FOR CONSTRUCTION  
 SUBMITTAL FOR APPROVAL  
 APPROVED AS IS  
 APPROVED AS NOTED  
 IN ORDER TO SUBMIT THIS PROJECT TO THE ARCHITECT FOR REVIEW AND APPROVAL ON THE BASIS OF CONTRACT DOCUMENTS.  
 REVISIONS:  
 1. 13.04.17  
 2. 13.04.17  
 3. 13.04.17  
 4. 13.04.17  
 5. 13.04.17  
 6. 13.04.17  
 7. 13.04.17  
 8. 13.04.17  
 9. 13.04.17  
 10. 13.04.17  
 11. 13.04.17  
 12. 13.04.17  
 13. 13.04.17  
 14. 13.04.17  
 15. 13.04.17  
 16. 13.04.17  
 17. 13.04.17  
 18. 13.04.17  
 19. 13.04.17  
 20. 13.04.17  
 21. 13.04.17  
 22. 13.04.17  
 23. 13.04.17  
 24. 13.04.17  
 25. 13.04.17  
 26. 13.04.17  
 27. 13.04.17  
 28. 13.04.17  
 29. 13.04.17  
 30. 13.04.17  
 31. 13.04.17  
 32. 13.04.17  
 33. 13.04.17  
 34. 13.04.17  
 35. 13.04.17  
 36. 13.04.17  
 37. 13.04.17  
 38. 13.04.17  
 39. 13.04.17  
 40. 13.04.17  
 41. 13.04.17  
 42. 13.04.17  
 43. 13.04.17  
 44. 13.04.17  
 45. 13.04.17  
 46. 13.04.17  
 47. 13.04.17  
 48. 13.04.17  
 49. 13.04.17  
 50. 13.04.17  
 51. 13.04.17  
 52. 13.04.17  
 53. 13.04.17  
 54. 13.04.17  
 55. 13.04.17  
 56. 13.04.17  
 57. 13.04.17  
 58. 13.04.17  
 59. 13.04.17  
 60. 13.04.17  
 61. 13.04.17  
 62. 13.04.17  
 63. 13.04.17  
 64. 13.04.17  
 65. 13.04.17  
 66. 13.04.17  
 67. 13.04.17  
 68. 13.04.17  
 69. 13.04.17  
 70. 13.04.17  
 71. 13.04.17  
 72. 13.04.17  
 73. 13.04.17  
 74. 13.04.17  
 75. 13.04.17  
 76. 13.04.17  
 77. 13.04.17  
 78. 13.04.17  
 79. 13.04.17  
 80. 13.04.17  
 81. 13.04.17  
 82. 13.04.17  
 83. 13.04.17  
 84. 13.04.17  
 85. 13.04.17  
 86. 13.04.17  
 87. 13.04.17  
 88. 13.04.17  
 89. 13.04.17  
 90. 13.04.17  
 91. 13.04.17  
 92. 13.04.17  
 93. 13.04.17  
 94. 13.04.17  
 95. 13.04.17  
 96. 13.04.17  
 97. 13.04.17  
 98. 13.04.17  
 99. 13.04.17  
 100. 13.04.17

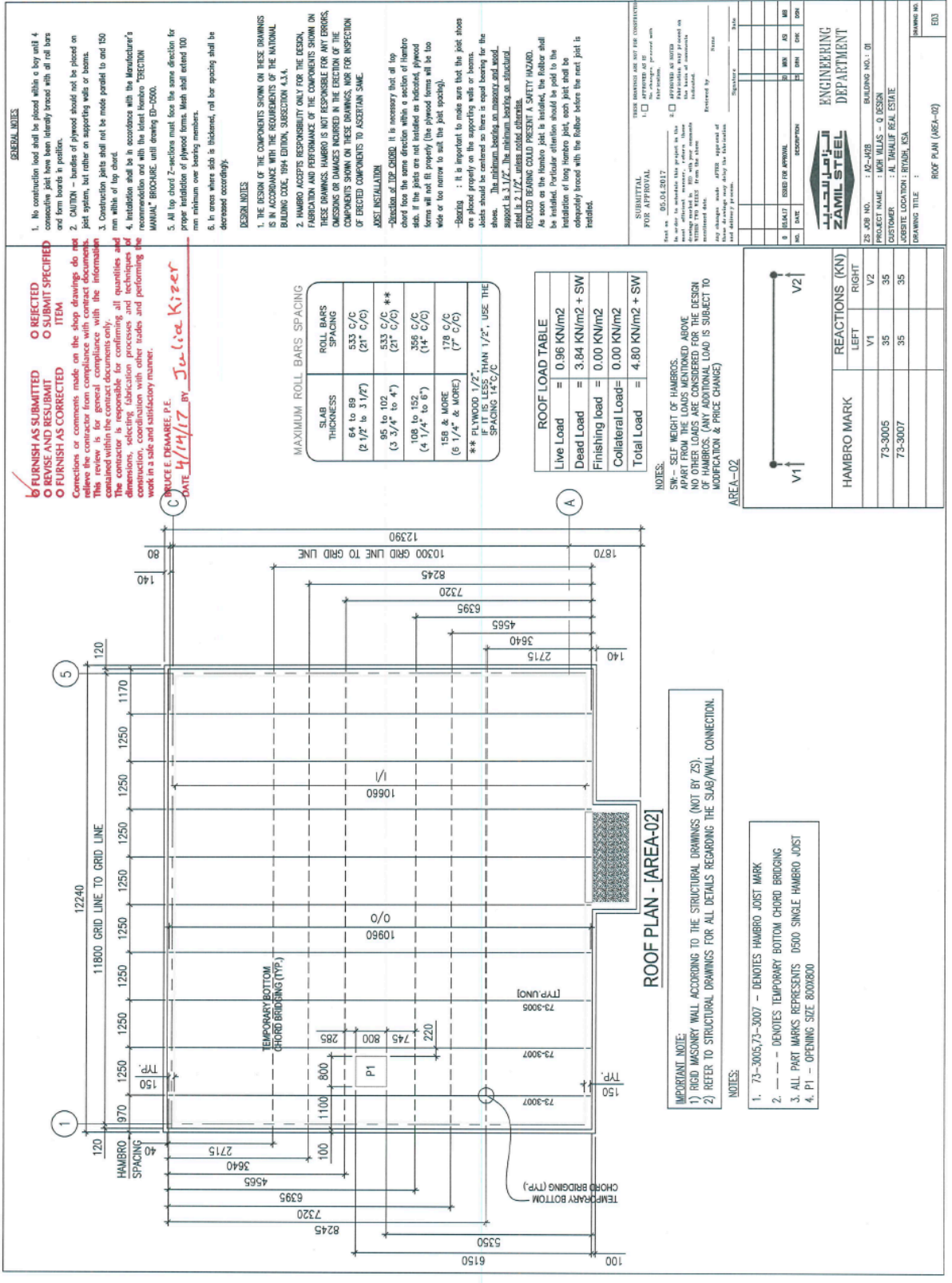
ZAMIL STEEL ENGINEERING DEPARTMENT

PROJECT NO. : ZJ-4528 BUILDING NO. : 01  
 PROJECT NAME : BOK HILLS - 0 DESIGN  
 CUSTOMER : AL DAMUL REAL ESTATE  
 OFFICE LOCATION : BRADIS, KSA  
 DRAWING TITLE : FIRST FLOOR PLAN (AREA-01)  
 DRAWING NO. : E02



MOH 250  
REVIEW STAMP OF HAMBRO  
PAGE 2

DATE: 04/30/2017  
REVISION:





- FURNISH AS SUBMITTED
- REJECT
- REVISE AND RESUBMIT
- SUBMIT SPECIFIED ITEM
- FURNISH AS CORRECTED

Corrections or comments made on the shop drawings do not relieve the contractor from compliance with contract documents. This review is for general compliance with the information contained within the contract documents only. The contractor is responsible for confirming all quantities and dimensions, selecting fabrication processes and techniques of construction, coordination with other trades and performing the work in a safe and satisfactory manner.

BRUCE E. DEMAREE, P.E.  
 DATE 4/14/17 BY Julia Kizer

**Design Calculations**  
 Ver 98.06

ZS Job No. A2-J428 Building 01  
 Revision 01 Dated 04-04-17

**Q Design**

P.O.Box: 301176  
 Job site: Riyadh, 11372  
 Kingdom Of Saudi Arabia  
 Phone: +966-11-4640897  
 Fax: +966-11-2160487

Project Name MOH- Villas – Q Design  
 Building Name MOH- Villas – Q Design

The Total No. Of Pages In This Document Are 56

Revision "0" of this Job Was

Designed By HAM  
 Checked By MIB  
 Date 01/03/17



MOH 250  
 REVIEW STAMP OF HAMBRO  
 CALCULATIONS

PAGE: 531

DATE: 04/30/2017  
 REVISION: