

GENERAL

- THIS BUILDING HAS BEEN DESIGNED AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MICHIGAN BUILDING CODE, 2012 EDITION
- DESIGN LOADS
 - A. INTERIOR NON-LOAD BEARING PARTITION WALLS = 5 PSF (MBC TABLE 1607.1)
- THE ARCHITECTURAL DRAWINGS SHALL BE WORKED WITH THE STRUCTURAL DRAWINGS. SOME STRUCTURAL INFORMATION HAS BEEN INCORPORATED IN THE ARCHITECTURAL DRAWINGS.
- THE STRUCTURE SHALL BE CONSIDERED TO BE IN AN UNSTABLE CONDITION UNTIL ALL WALL AND ROOF STRUCTURES ARE COMPLETED. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING FOR STABILITY AND TO RESIST LATERAL LOADS DURING ERECTION.
- ALL NON-LOAD BEARING WALLS SHALL BE CONSTRUCTED TO ALLOW FOR THE VERTICAL DEFLECTION OF THE STRUCTURE ABOVE.

FOUNDATION

- FOUNDATIONS ARE DESIGNED FOR A MAXIMUM ALLOWABLE BEARING CAPACITY OF 2,000 PSF. FOUNDATIONS SHALL BEAR ON NATURAL CLAY UNDISTURBED SOIL OR ENGINEERED FILL PROPERLY PLACED UPON THESE CLAY SOILS.
- CONTRACTORS SHALL BE AWARE OF AND VERIFY LOCATION OF ALL UNDERGROUND UTILITIES, TANKS, ETC. DUE CARE SHALL BE EXERCISED DURING EXCAVATION SO THAT EXISTING UTILITIES ARE NOT DAMAGED.

CONCRETE

- THE FOLLOWING CODES GOVERN THE DESIGN, DETAILING, FABRICATION AND CONSTRUCTION OF ALL REINFORCED CONCRETE
 - A. BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-11)
- ALL CONCRETE 28 DAY COMPRESSIVE STRENGTH SHALL BE AS FOLLOWS:
 - FOOTINGS & PIERS 3000 PSI
 - SLAB ON GRADE 4000 PSI
- BEFORE PLACING CONCRETE REFER TO ARCHITECTURAL, MECHANICAL & ELECTRICAL DRAWINGS FOR LOCATIONS OF PIPE SLEEVES, EMBEDDED ITEMS, OPENINGS, EQUIPMENT PADS, ELECTRICAL CONDUITS, RECESSES, DRAINS, ETC. ALL OPENINGS FOR PIPE, CONDUITS, ETC. SHALL BE SLEEVED. MINIMUM SLEEVE SPACING SHALL BE 3 SLEEVE DIAMETERS.
- ALL DEFORMED BAR REINFORCEMENT SHALL BE ASTM A615, GRADE 60.
- ALL DEFORMED BAR REINFORCING SHALL BE SPLICED A MINIMUM OF 32 BAR DIAMETERS.
- ALL WELDED WIRE FABRIC SHALL BE ASTM A-185 SHEETS SHALL BE LAPPED A MINIMUM OF WIRE SPACING + 2".
- PROVIDE RIGHT CORNER BARS W/ STD LAP @ CORNER OF ALL CONC. WALLS. LAP W/ TYPICAL WALL REINFORCING. SIZE OF BAR TO MATCH TYPICAL HORIZONTAL REINFORCING.
- CONTRACTOR TO PROVIDE VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION PER 2012 MBC CODE TABLE 1705.3

CONCRETE MASONRY

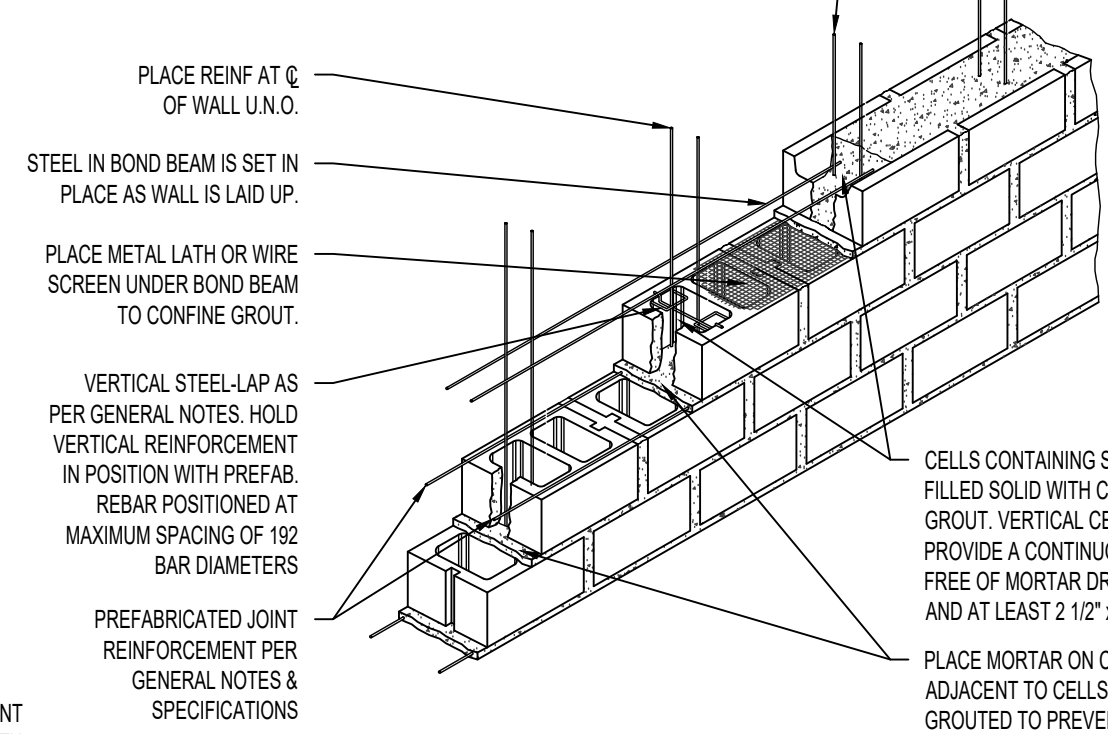
- THE FOLLOWING CODES GOVERN THE DESIGN, DETAILING & CONSTRUCTION OF ALL MASONRY:
 - A. BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530-11)
 - B. SPECIFICATIONS FOR MASONRY STRUCTURES (ACI 530.1-11)
- ALL MASONRY SHALL HAVE A COMPRESSIVE STRENGTH, $f_m = 2,500$ PSI.
- ALL MORTAR FOR LOAD BEARING AND EXTERIOR CONCRETE MASONRY SHALL BE TYPE S, ABOVE GRADE AND TYPE M BELOW GRADE PROPORTIONED BY VOLUME ACCORDING TO ASTM C-270.
- ALL GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI, AND SHALL BE PROPORTIONED BY VOLUME ACCORDING TO ASTM C-476.

- ALL CONCRETE MASONRY UNITS SHALL BE ASTM C-90 GRADE N, TYPE I UNITS MEDIUM WEIGHT UNLESS NOTED OTHERWISE. REFER TO ARCHITECTURAL DRAWINGS FOR FURTHER DETAILS WITH REGARD TO FACE FINISH.
- ALL MASONRY WALLS SHALL HAVE HORIZONTAL JOINT REINFORCEMENT (LADDER TYPE) AT 16" O.C. PROVIDE PREFABRICATED CORNER PIECES AT ALL CORNERS & INTERSECTIONS OF WALLS.
- ALL DEFORMED BAR REINFORCING SHALL BE ASTM A-615 GRADE 60. LAP SPLICES IN WALLS SHALL BE A MINIMUM OF 48 BAR DIAMETERS, UNLESS NOTED OTHERWISE.
- REINFORCE ALL MASONRY WALLS AS SHOWN ON SCHEDULE AND DETAILS. PLACE BAR ON CENTERLINE OF WALL IN FULLY GROUTED CELL. FULL HEIGHT OF THE WALL. LAP REINFORCEMENT WITH TYPICAL FOOTING DOWEL. SEE WALL SECTION FOR DOWELS REQUIREMENTS.
- SEE ARCHITECTURAL DRAWINGS FOR MASONRY JOINT LOCATIONS.

STRUCTURAL STEEL

- THE FOLLOWING CODE SHALL GOVERN THE DETAILING, FABRICATION & ERECTION OF ALL STEEL:
 - A. MANUAL OF STEEL CONSTRUCTION, 14TH EDITION (AMERICAN INSTITUTE OF STEEL CONSTRUCTION)
- WIDE FLANGE SHAPES ——— ASTM A-992, $F_y = 50$ KSI
STEEL PLATE, ANGLES ——— ASTM A-36
- ALL WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AMERICAN WELDING SOCIETY (AWS) D1.1-15 STRUCTURAL WELDING CODE. E70XX ELECTRODES SHALL BE USED FOR WELDED SHOP & FIELD CONNECTIONS.
- ALL FIELD CONNECTIONS SHALL BE BOLTED UNLESS NOTED OTHERWISE. FIELD WELDING IS NOT ALLOWED EXCEPT WHERE SPECIFICALLY INDICATED OR APPROVED.
- ALL GROUT PADS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI IN 7 DAYS.
- PROVIDE AND HAVE IN PLACE ADEQUATE LATERAL BRACING & VERTICAL SUPPORTS FOR THE SAFE ERECTION AND TRUE ALIGNMENT OF THE STRUCTURAL STEEL. THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR THE SAFE ERECTION & TEMPORARY BRACING OF STRUCTURAL STEEL.
- VERIFY NUMBER AND SIZE OF OPENINGS IN ROOF, WALLS, AND FLOOR WITH ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. SEE STRUCTURAL DRAWINGS AND SPECIFICATIONS, FOR STRUCTURAL REQUIREMENTS. VERIFY ALL DETAILS & INFORMATION WITH THE APPROPRIATE CONTRACTOR.
- WELD ALL STEEL BEAMS TO BEARING PLATES W/ 5/16x 4" LONG FILLET WELD, EACH SIDE OF BEAM U.N.O.

NOTE: BETWEEN GROUT POURS, A HORIZONTAL CONSTRUCTION JOINT SHALL BE FORMED BY STOPPING ALL WYTHES AT THE SAME ELEVATION AND WITH GROUT STOPPING A MINIMUM OF 1 1/2" BELOW A MORTAR JOINT, EXCEPT AT TOP OF WALL

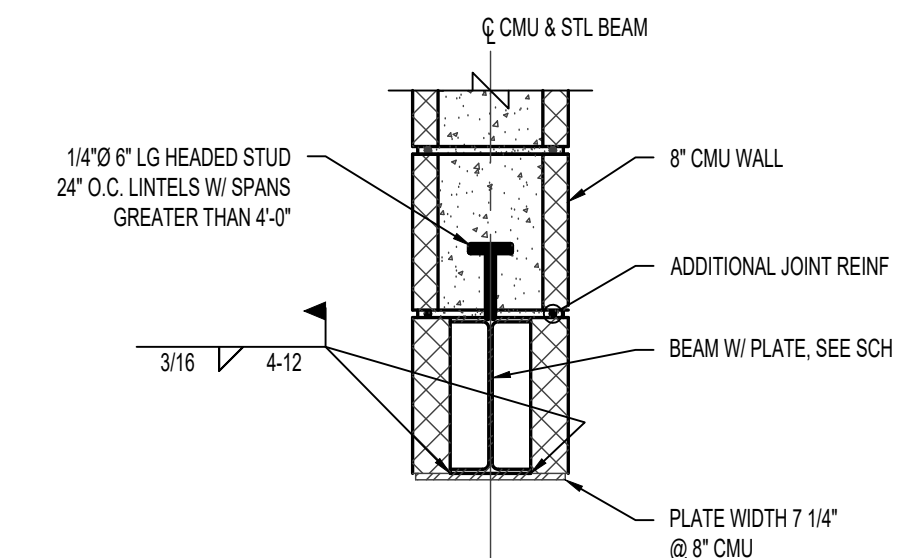


**LOW LIFT-GROUTING TECHNIQUE
GROUT IS PLACED IN LIFT UP TO 5'-0"**

SCALE: NOT TO SCALE

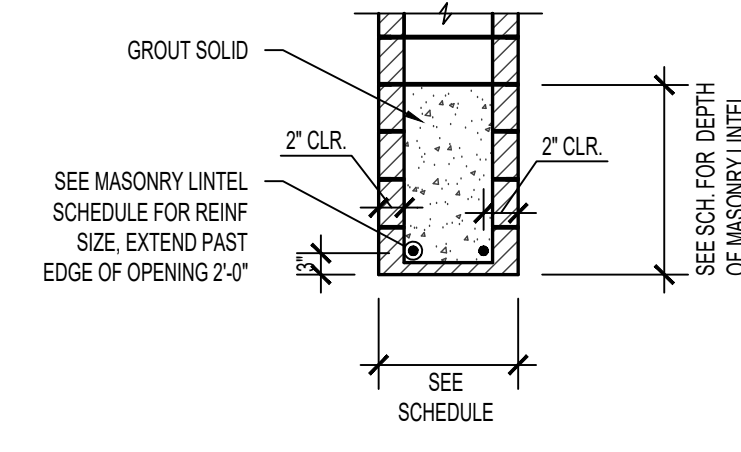
MASONRY CONTROL JOINT DETAIL (MCJ)

SCALE: NONE



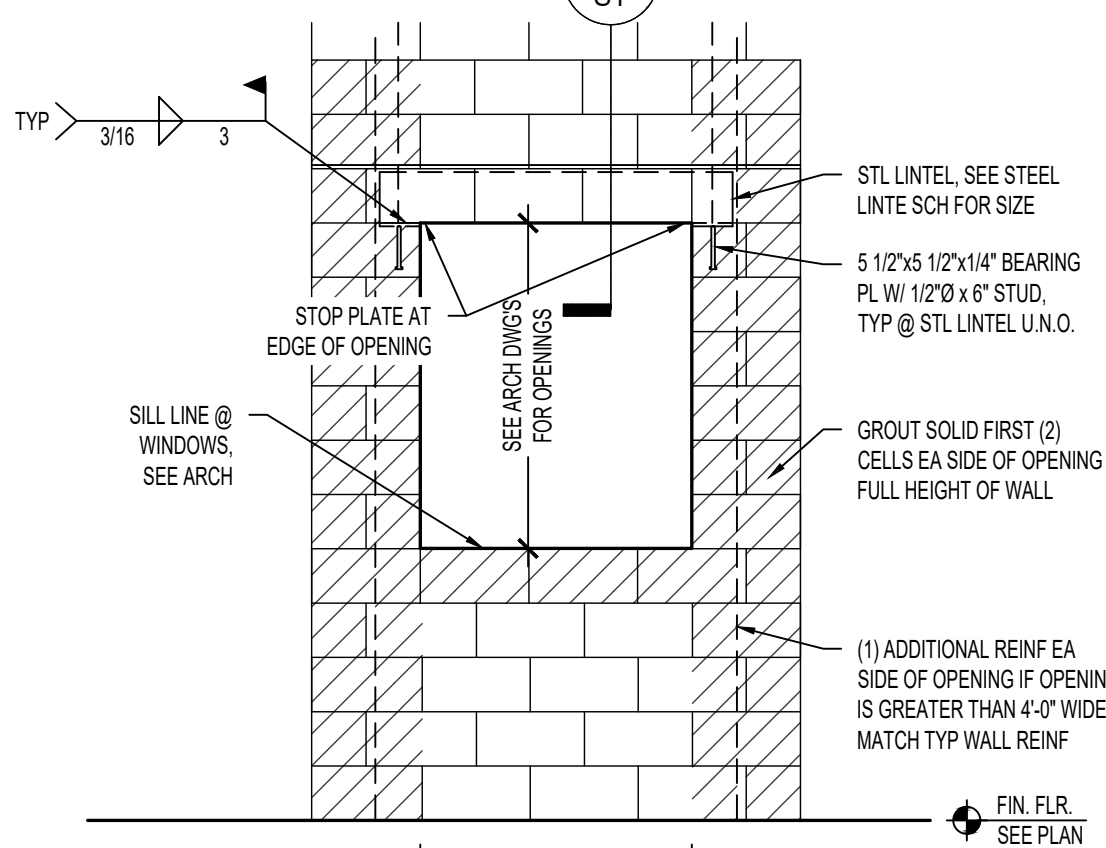
TYP. STL. LINTEL SECTION

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



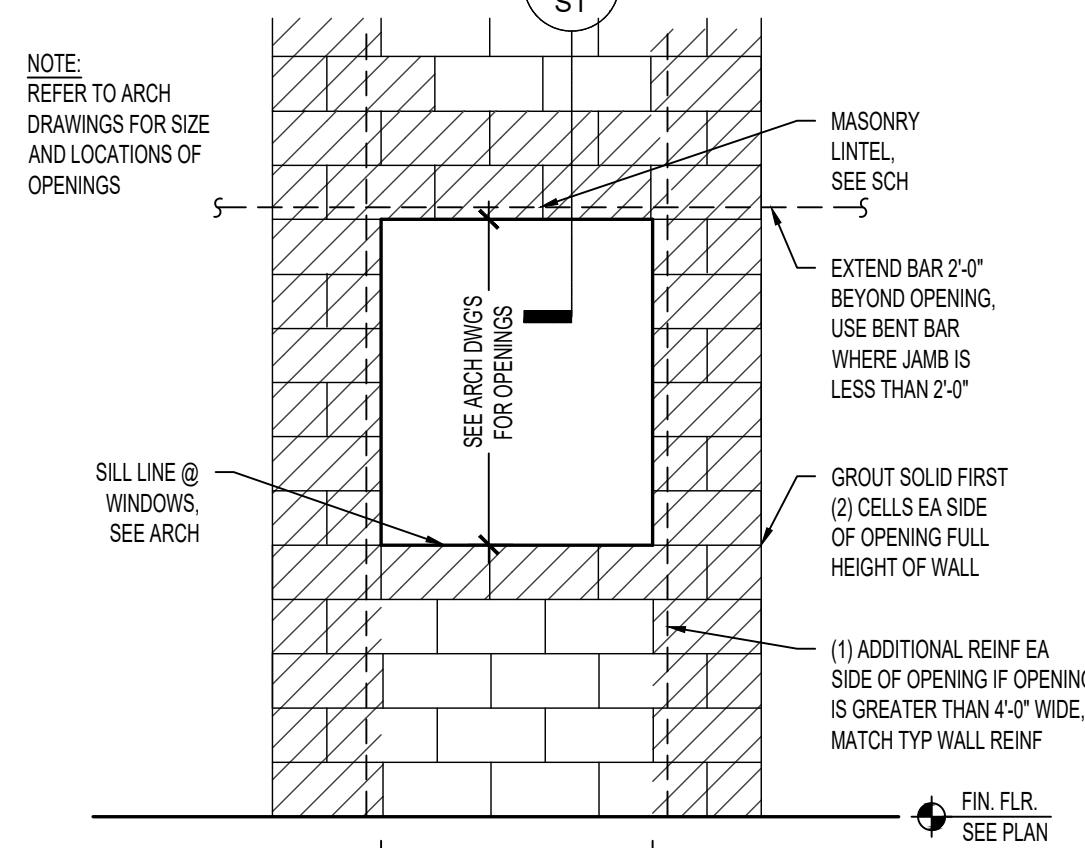
TYP. MASONRY LINTEL SECTION

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



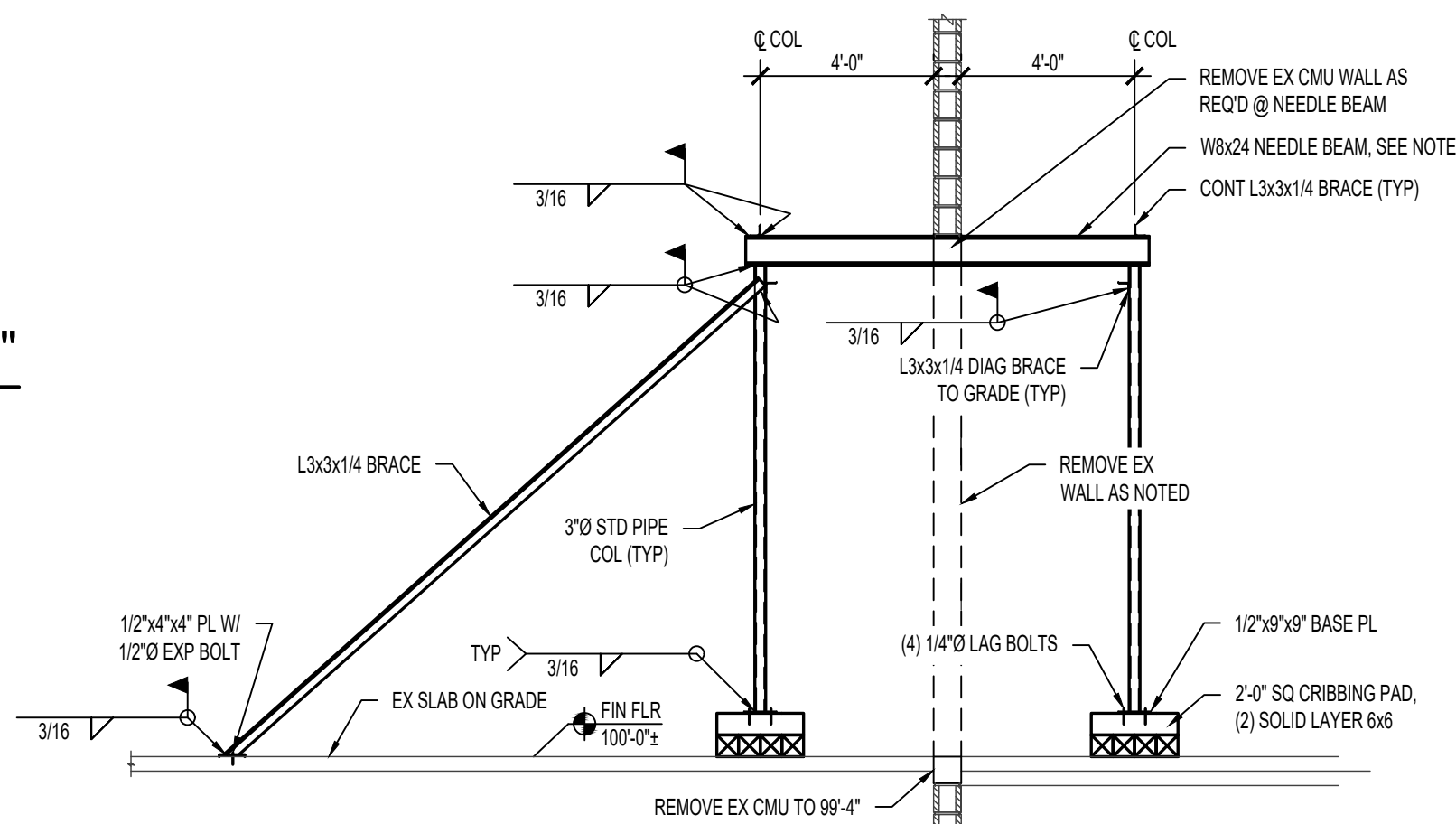
**TYP MASONRY OPENING
DETAIL (STL LINTEL)**

SCALE: NOT TO SCALE



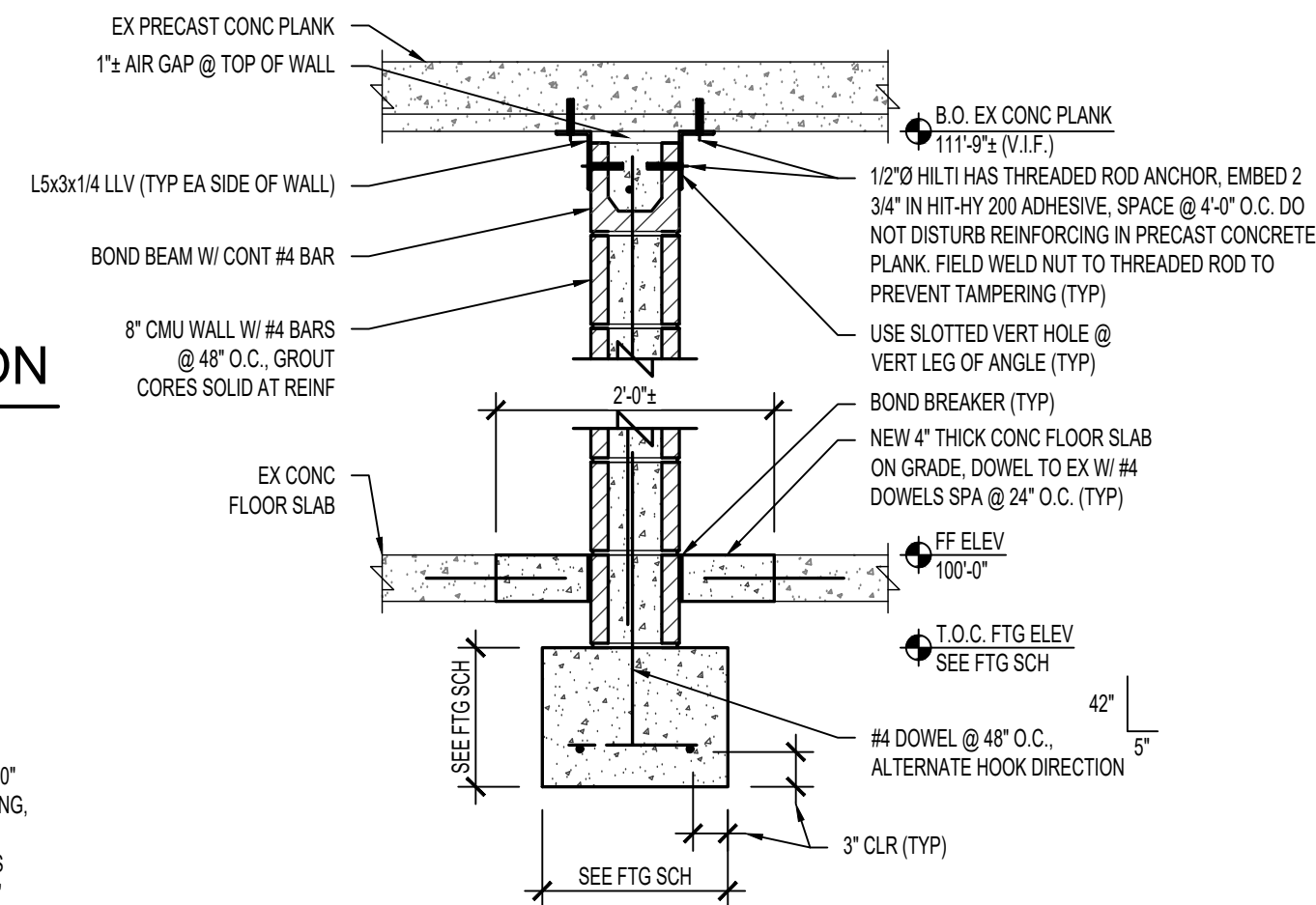
**TYP MASONRY OPENING
DETAIL (MASONRY LINTEL)**

SCALE: NOT TO SCALE



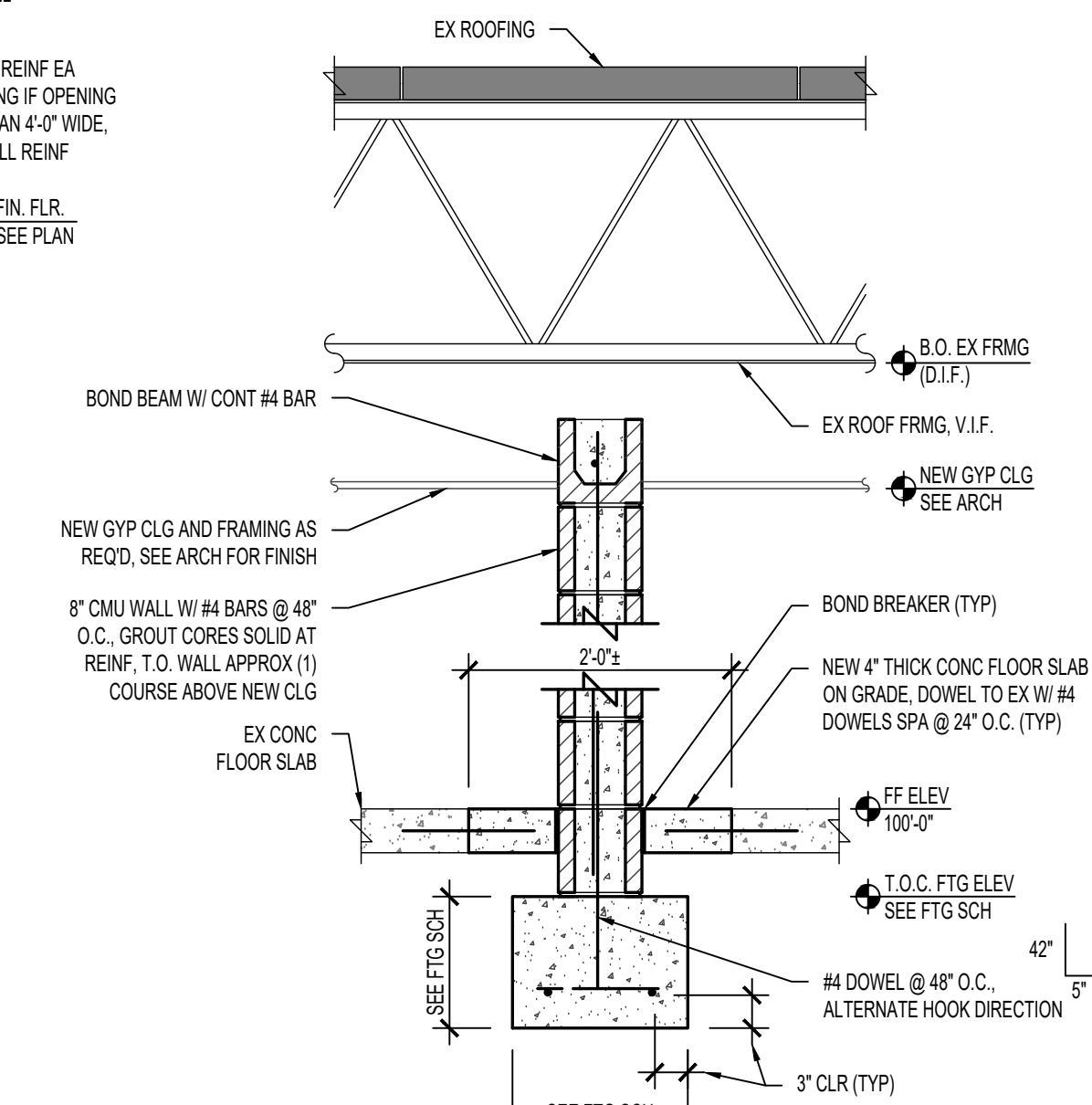
NEEDLE BEAM SHORING SECTION

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



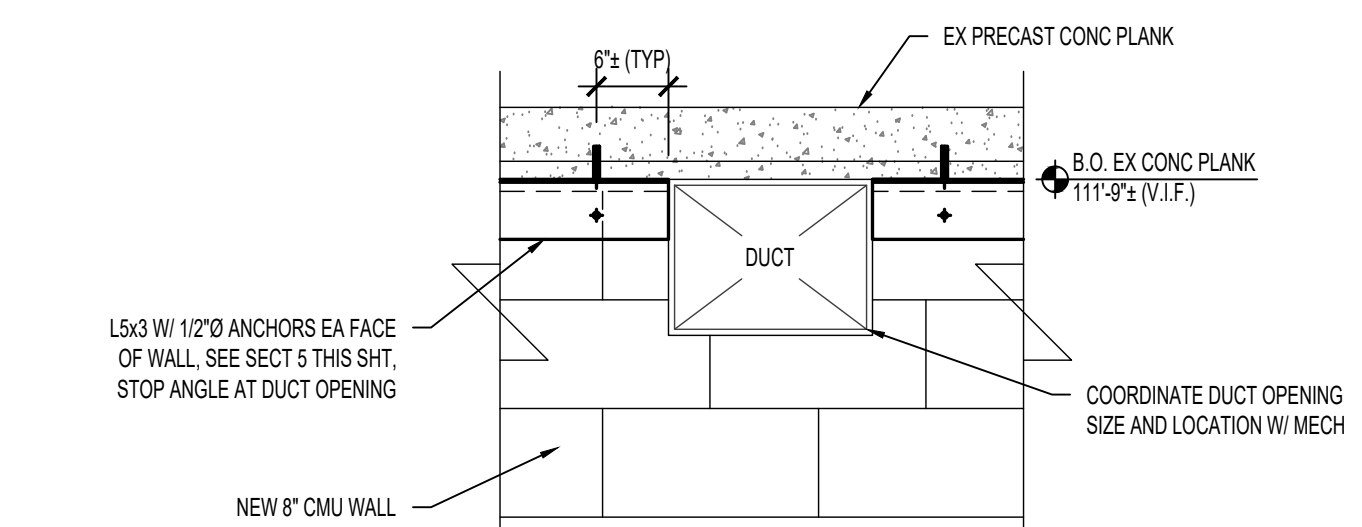
SECTION 5

SCALE: 3/4" = 1'-0"



SECTION 9

SCALE: 3/4" = 1'-0"



SECTION 10

SCALE: 3/4" = 1'-0"

THIS MATERIAL IS THE EXCLUSIVE PROPERTY OF SNYDER & STALEY CONSULTING ENGINEERS, P.L.C. AND CANNOT BE REPRODUCED, COPIED, OR USED IN ANY MANNER WITHOUT WRITTEN CONSENT OF SNYDER & STALEY CONSULTING ENGINEERS.

SNYDER & STALEY ENGINEERING, P.L.C.

CONSULTING ENGINEERS
3085 BAY ROAD, SUITE 6
SAGINAW, MI 48603
PH: (989) 797-1710 FX: (989) 797-1715



PROJECT TITLE:
**CLARE COUNTY JAIL MODIFICATIONS
KLM BUILDING DESIGNS
HARRISON, MI**

GENERAL NOTES,
SECTIONS

SHEET TITLE:

ISSUED FOR

10/23/17 CONSTRUCTION

PROJECT NUMBER:
17-797-199

DATE: 10/23/2017

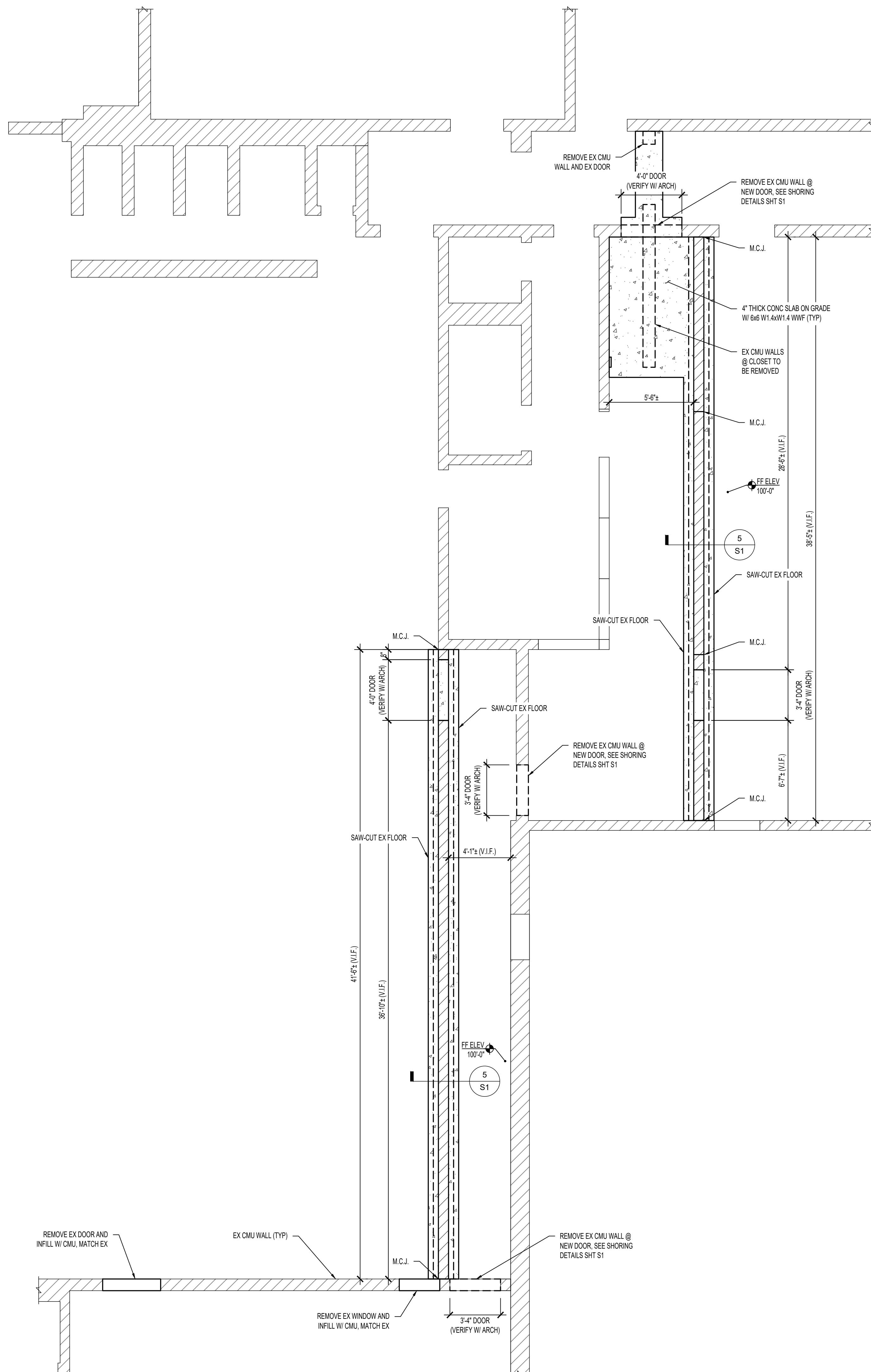
DRAWN BY: JPS

CHK'D BY: JWQ

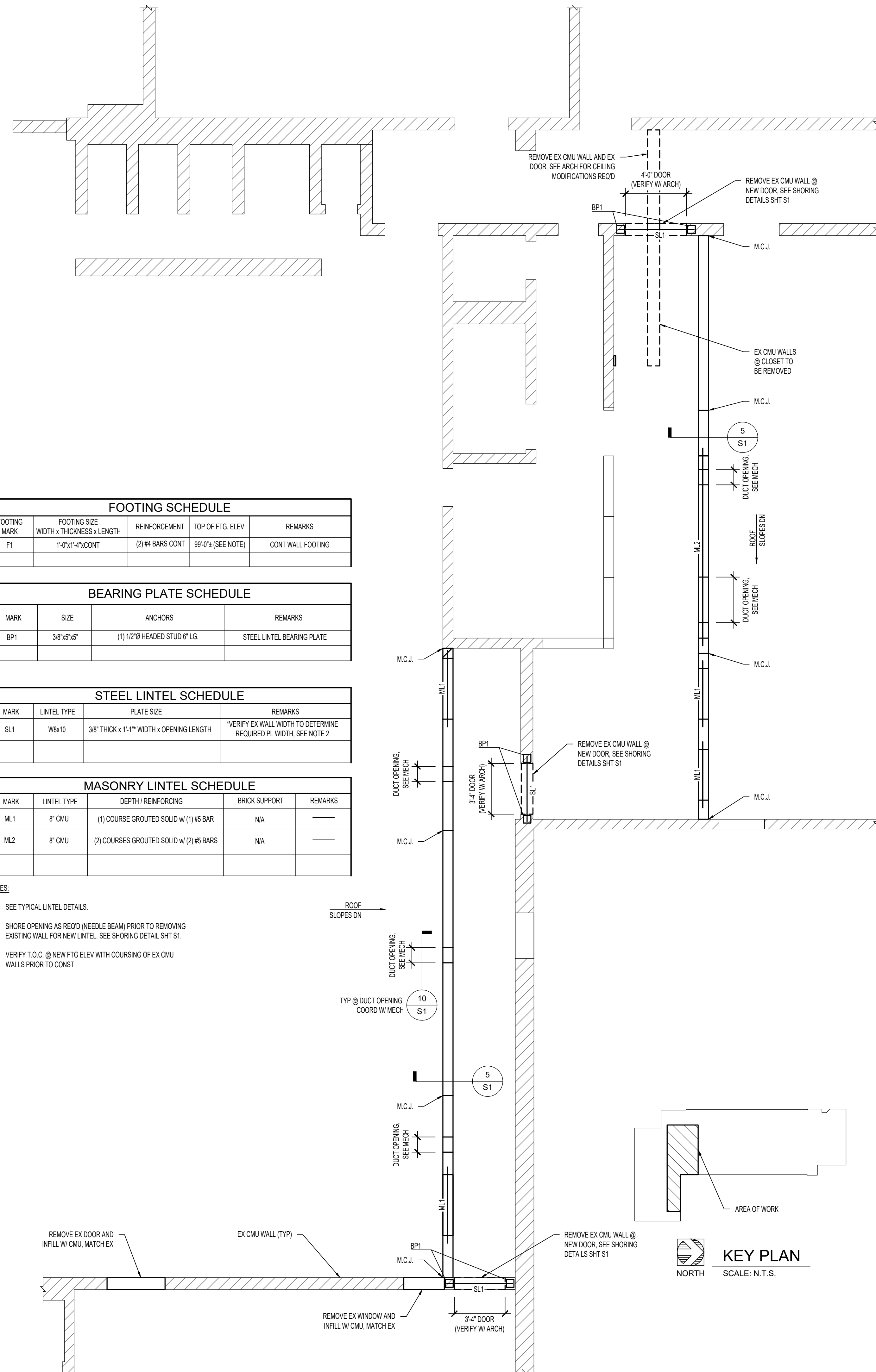
SHEET NUMBER:

S1

SHT 1 OF 4



OPTION A - PARTIAL FLOOR PLAN
SCALE: 1/4" = 1'-0"



OPTION A - PARTIAL ROOF PLAN
SCALE: 1/4" = 1'-0"

FOOTING SCHEDULE				
FOOTING MARK	FOOTING SIZE WIDTH x THICKNESS x LENGTH	REINFORCEMENT	TOP OF FTG. ELEV	REMARKS
F1	1'-0"x1'-4"xCONT	(2) #4 BARS CONT	99'-0" ± (SEE NOTE)	CONT WALL FOOTING

BEARING PLATE SCHEDULE			
MARK	SIZE	ANCHORS	REMARKS
BP1	3/8"x5"x5"	(1) 1/2" HEADED STUD 6" LG.	STEEL LINTEL BEARING PLATE

STEEL LINTEL SCHEDULE			
MARK	LINTEL TYPE	PLATE SIZE	REMARKS
SL1	W8x10	3/8" THICK x 1'-1 1/2" WIDTH x OPENING LENGTH	*VERIFY EX WALL WIDTH TO DETERMINE REQUIRED PL WIDTH, SEE NOTE 2

MASONRY LINTEL SCHEDULE				
MARK	LINTEL TYPE	DEPTH / REINFORCING	BRICK SUPPORT	REMARKS
ML1	8" CMU	(1) COURSE GROUTED SOLID w/ (1) #5 BAR	N/A	
ML2	8" CMU	(2) COURSES GROUTED SOLID w/ (2) #5 BARS	N/A	

NOTES:

- SEE TYPICAL LINTEL DETAILS.
- SHORE OPENING AS REQ'D (NEEDLE BEAM) PRIOR TO REMOVING EXISTING WALL FOR NEW LINTEL. SEE SHORING DETAIL SHT S1.
- VERIFY T.O.C. @ NEW FTG ELEV WITH COURSING OF EX CMU WALLS PRIOR TO CONST

THIS MATERIAL IS THE EXCLUSIVE PROPERTY OF SNYDER & STALEY CONSULTING ENGINEERS, P.L.C. AND CANNOT BE REPRODUCED, COPIED, OR USED IN ANY MANNER WITHOUT WRITTEN CONSENT OF SNYDER & STALEY CONSULTING ENGINEERS.

SNYDER & STALEY ENGINEERING, P.L.C.
CONSULTING ENGINEERS
3085 BAY ROAD, SUITE 6
SAGINAW, MI 48603
PH: (989) 797-1710 FX: (989) 797-1715

PROJECT TITLE:
**CLARE COUNTY JAIL MODIFICATIONS
KLM BUILDING DESIGNS
HARRISON, MI**

SHEET TITLE:
**OPTION A: PARTIAL FLOOR PLAN
PARTIAL ROOF PLAN**

ISSUED FOR

10/23/17 CONSTRUCTION

PROJECT NUMBER:
17-797-199

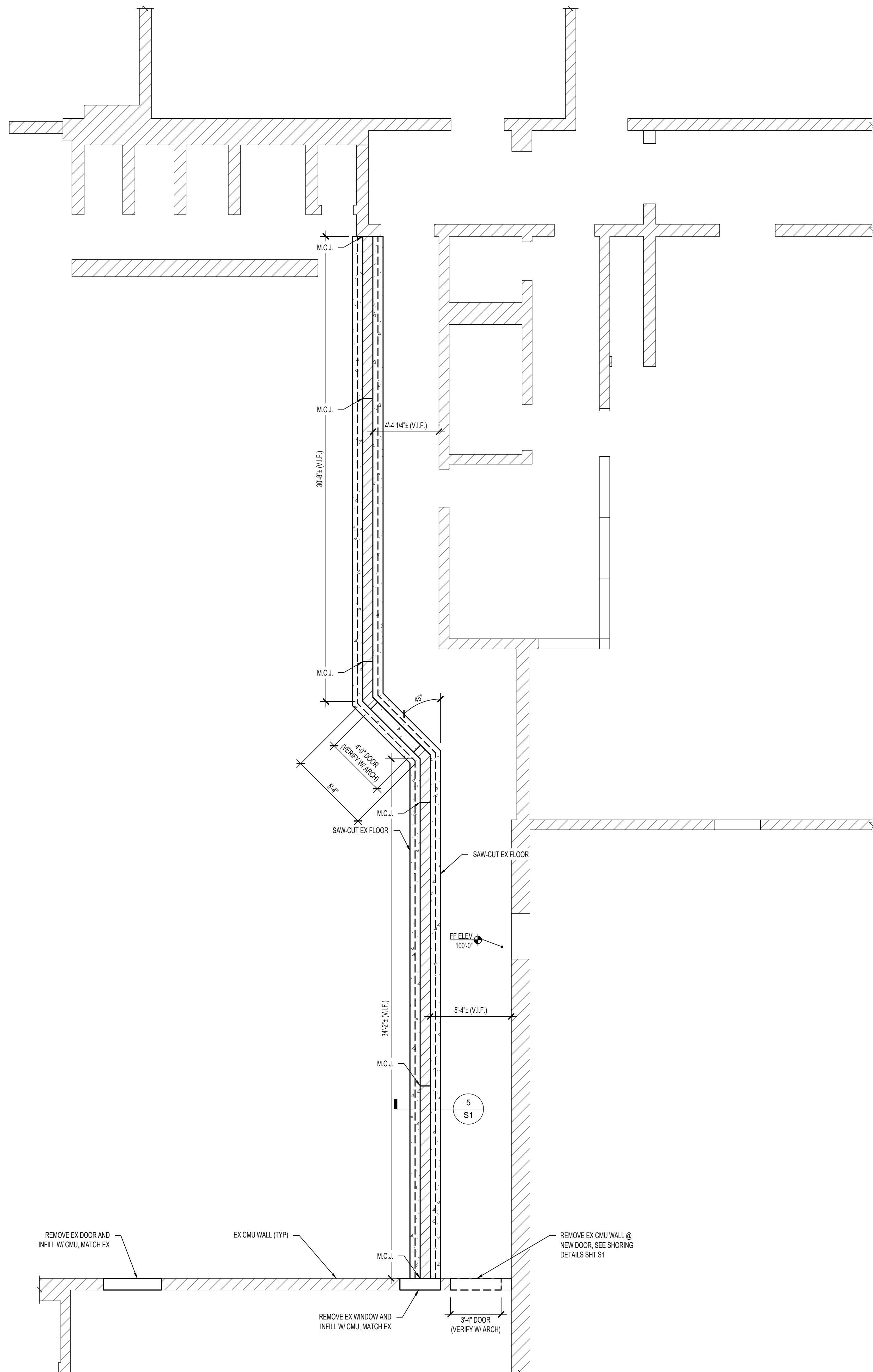
DATE: 10/23/2017

DRAWN BY: JPS

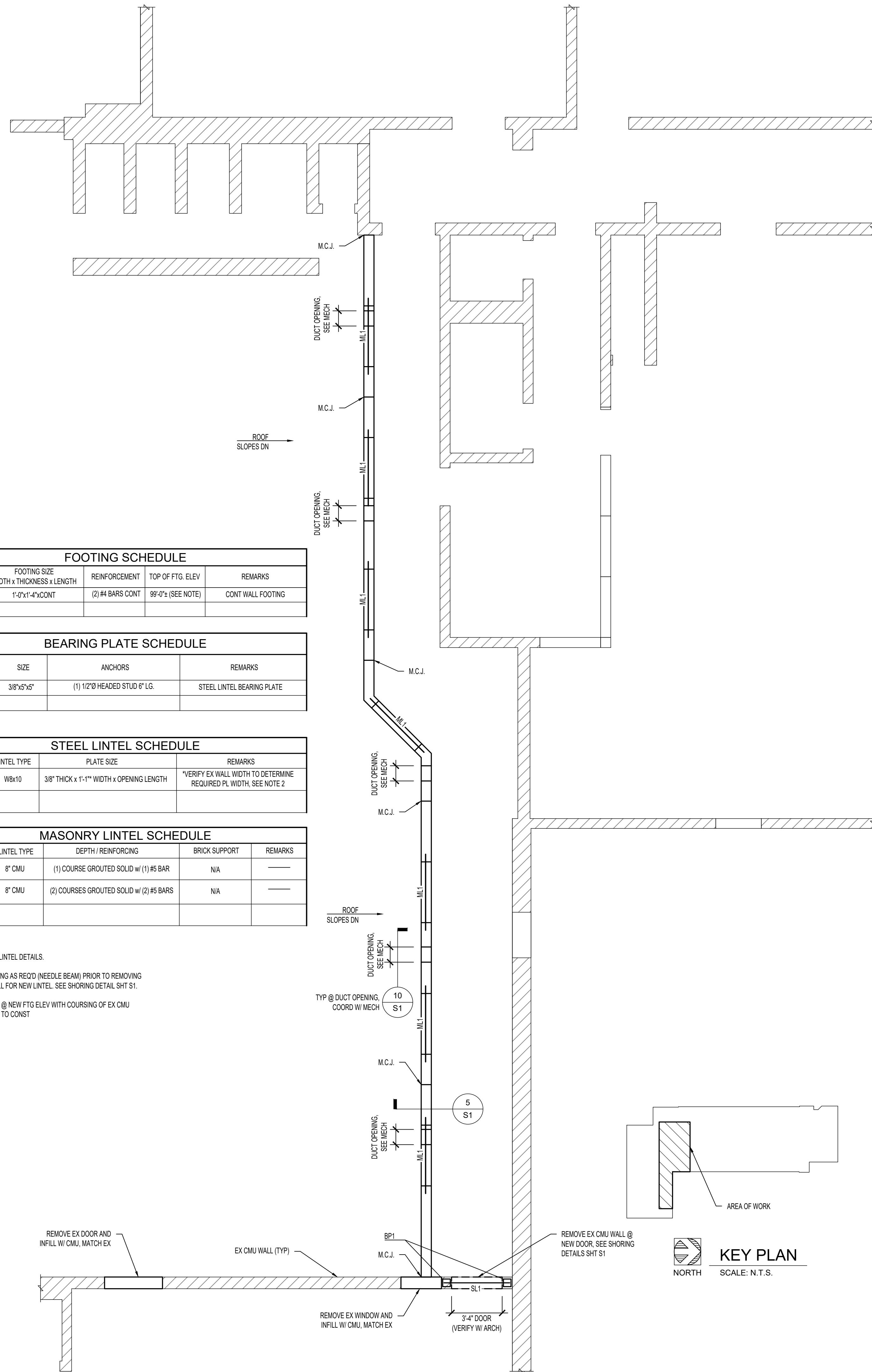
CHK'D BY: JWQ

SHEET NUMBER:
S3

SHT 3 OF 4



OPTION B - PARTIAL FLOOR PLAN
 NORTH SCALE: 1/4" = 1'-0"



OPTION B - PARTIAL ROOF PLAN
 NORTH SCALE: 1/4" = 1'-0"

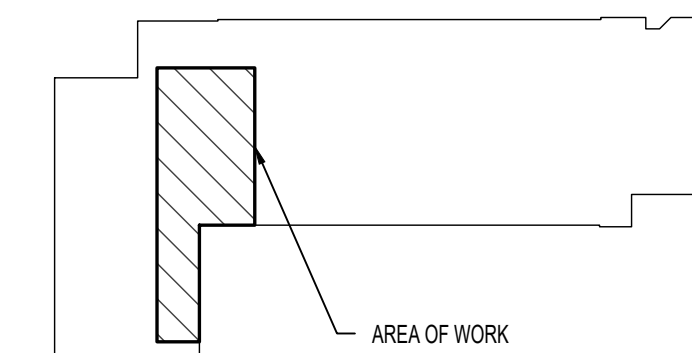
FOOTING SCHEDULE				
FOOTING MARK	FOOTING SIZE WIDTH x THICKNESS x LENGTH	REINFORCEMENT	TOP OF FTG. ELEV	REMARKS
F1	1'-0"x1'-4"xCONT	(2) #4 BARS CONT	99'-0"± (SEE NOTE)	CONT WALL FOOTING

BEARING PLATE SCHEDULE			
MARK	SIZE	ANCHORS	REMARKS
BP1	3/8"x5"x5'	(1) 1/2"Ø HEADED STUD 6" LG	STEEL LINTEL BEARING PLATE

STEEL LINTEL SCHEDULE			
MARK	LINTEL TYPE	PLATE SIZE	REMARKS
SL1	W8x10	3/8" THICK x 1'-11" WIDTH x OPENING LENGTH	*VERIFY EX WALL WIDTH TO DETERMINE REQUIRED PL WIDTH, SEE NOTE 2

MASONRY LINTEL SCHEDULE				
MARK	LINTEL TYPE	DEPTH / REINFORCING	BRICK SUPPORT	REMARKS
ML1	8" CMU	(1) COURSE GROUTED SOLID w/ (1) #5 BAR	N/A	---
ML2	8" CMU	(2) COURSES GROUTED SOLID w/ (2) #5 BARS	N/A	---

- NOTES:
- SEE TYPICAL LINTEL DETAILS.
 - SHORE OPENING AS REQ'D (NEEDLE BEAM) PRIOR TO REMOVING EXISTING WALL FOR NEW LINTEL. SEE SHORING DETAIL SHT S1.
 - VERIFY T.O.C. @ NEW FTG ELEV WITH COURSING OF EX CMU WALLS PRIOR TO CONST.



KEY PLAN
 NORTH SCALE: N.T.S.

THIS MATERIAL IS THE EXCLUSIVE PROPERTY OF SNYDER & STALEY CONSULTING ENGINEERS, P.L.C. AND CANNOT BE REPRODUCED, COPIED, OR USED IN ANY MANNER WITHOUT WRITTEN CONSENT OF SNYDER & STALEY CONSULTING ENGINEERS.

SNYDER & STALEY ENGINEERING, P.L.C.
 CONSULTING ENGINEERS
 3085 BAY ROAD, SUITE 6
 SAGINAW, MI 48603
 PH: (989) 797-1710 FX: (989) 797-1715

PROJECT TITLE:
**CLARE COUNTY JAIL MODIFICATIONS
 KLM BUILDING DESIGNS
 HARRISON, MI**

SHEET TITLE:
**OPTION B:
 PARTIAL FLOOR PLAN
 PARTIAL ROOF PLAN**

ISSUED FOR

10/23/17 CONSTRUCTION

PROJECT NUMBER:
17-797-199

DATE: 10/23/2017

DRAWN BY: JPS

CHK'D BY: JWQ

SHEET NUMBER:
S4

SHT 4 OF 4