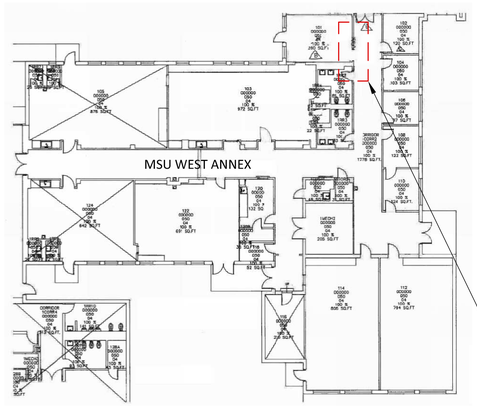


KEY PLAN

NORTH

PROCEDURE:

1. INSTALL SHORING TO SUPPORT ROOF LOAD ON EITHER SIDE OF WALL
2. SAWCUT ⅜" THICK JOINT, OUTSIDE FACE OF BRICK AND CMU TO INSTALL L4x4x ¼" BOTH SIDES
3. INSTALL L2x2x3/16" BRACE ANGLES TO NEW L4x4x¼"
4. BREAK OUT BLOCK
5. INSTALL NEW HSS6x6x¼" BEAM AND NEW HSS6x4x¾" COLUMNS
6. PROVIDE 300 LB PRELOAD AT EACH COLUMN TO ASSURE POSITIVE SUPPORT.
7. REMOVE SHORING AND BRACE ANGLES

GENERAL NOTES

1. THE WORK SHOWN HEREIN IS FOR THE INSTALLATION OF AN ENLARGED OPENING IN A EXISTING MASONRY WALL AT WHAT IS CALLED THE WEST ANNEX TO MIDWESTERN STATE UNIVERSITY IN WICHITA FALLS, TEXAS. AN EXISTING DOOR IS TO BE REMOVED AND THE WALL OPENING IS TO BE INCREASED TO 8'-0" IN WIDTH. THE WORK WILL INCLUDE SHORING THE EXISTING CMU & BRICK WALL AND INSTALLING A NEW HEADER BEAM. THE SCOPE OF WORK BY GTO ENGINEERING SERVICES IS LIMITED TO THE DESIGN OF THE NEW HEADER BEAM INSTALLATION.
2. CONTRACTOR IS TO CONSULT WITH OWNER ON THE LATEST BUILDING LAYOUT AND WALL OPENING LOCATION. CONTRACTOR SHALL VERIFY ALL DETAILS AND DIMENSIONS AGAINST ACTUAL FIELD CONDITIONS. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
3. WHERE UNUSUAL CONDITIONS ARE UNCOVERED IN THE COURSE OF WORK OR THE CONTRACTOR REQUIRES ADDITIONAL DIRECTION TO PERFORM HIS WORK, THE ENGINEER WILL BE CONSULTED FOR REVIEW OF THE CONDITIONS AND FOR ADDITIONAL DIRECTION AS APPROPRIATE.
4. THE ENGINEER IS TO BE CONTACTED TO REVIEW AND APPROVE FINAL INSTALLATION PRIOR TO CONCEALMENT WITH WALL AND CEILING FINISHES.
5. WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING CODES
   - INTERNATIONAL BUILDING CODE - LATEST MSU ADOPTED EDITION
   - THE AMERICAN INSTITUTE FOR STEEL CONSTRUCTION "STEEL CONSTRUCTION MANUAL"
   - AMERICAN WELDING SOCIETY "D1.1 - STRUCTURAL WELDING CODE"
6. THE CONTRACTOR IS TO ABIDE BY ALL OSHA, FEDERAL, STATE AND MUNICIPAL CONSTRUCTION STANDARDS AND SAFETY PRACTICES. IN PARTICULAR, ALL SAFETY PRACTICES OF MSU.

STEEL FABRICATION

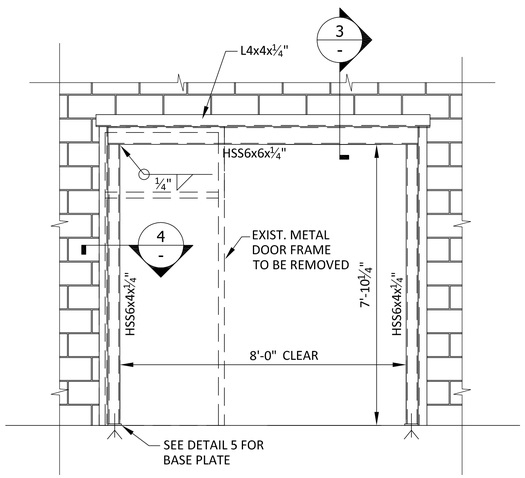
1. ALL STRUCTURAL STEEL SHALL CONFORM TO AISC SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS, LATEST EDITION.
2. WIDE FLANGE SHAPES AND WT SHAPES SHALL CONFORM TO ASTM A992. ALL OTHER STRUCTURAL ROLLED SHAPES, BARS AND FLAT PLATES SHALL CONFORM TO ASTM A36.
3. ALL STRUCTURAL STEEL TUBING DESIGNATED AS HSS SHALL CONFORM TO ASTM SPECIFICATION A500 GRADE B, FY = 46 KSI.
4. WHERE ADDITIONAL DETAILING IS NECESSARY THE CONTRACTOR IS TO CONSULT WITH THE STRUCTURAL ENGINEER.
5. ALL WELDING SHALL BE DONE ACCORDING TO AWS D1.1, "STRUCTURAL WELDING CODE - STEEL", LATEST EDITION. WELDING ELECTRODES SHALL CONFORM TO AWS 5.1 (E-70XX) SERIES ELECTRODES, UNLESS NOTED OTHERWISE.
6. STRENGTH WELDS WILL BE ¼" FILLET WELDS, UNLESS NOTED OTHERWISE. ALL WELDED JOINTS SHALL BE SEAL WELDED USING ⅛" FILLETS. PROVIDE BEVELED WELDS AT TUBING CONNECTIONS AS APPROPRIATE.
7. ALL WELDS ARE SUBJECT TO INSPECTION BY THE STRUCTURAL ENGINEER.
8. ALL WELDERS SHALL PROVIDE EVIDENCE OF PASSING THE A.W.S. STANDARD QUALIFICATION TESTS.
9. ALL WELDS SHALL DEVELOP THE FULL STRENGTH OF THE LESSER MEMBER WITHIN THE CONNECTION.
10. ANCHOR BOLTS SHALL BE ASTM SPECIFICATION A307.
11. ALL SHARP AND BROKEN EDGES OF STEEL PLATE AND FRAMING SHALL BE GROUND SMOOTH AND RADIUSED TO PREVENT SHARP AND JAGGED EDGES FROM POSSIBLE PUNCTURE OR LACERATIONS.
12. ALL STRUCTURAL STEEL SHALL RECEIVE ONE SHOP COAT OF RUST INHIBITIVE PRIMER. AFTER ERECTION, ALL WELD SCARS AND ABRASIONS SHALL BE TOUCH-UP PAINTED WITH PRIMER. A FINISH COAT OF ENAMEL SHALL BE APPLIED PER THE OWNER'S SPECIFICATIONS.

ADHESIVE ANCHORS

1. EPOXY FOR ANCHOR BOLTS INTO EXISTING CONCRETE SHALL BE HILTI HIT-HY 200 EPOXY ADHESIVE PER MANUFACTURER'S SPECIFICATIONS.

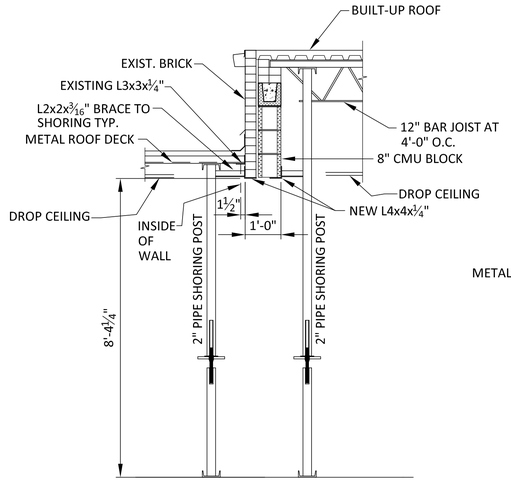
MASONRY (AS REQUIRED)

1. ALL MASONRY MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS ACI. 530/ASCE 5-/TMS 402.
2. ALL MASONRY SHALL BE IN ACCORDANCE WITH BUZZI UNICEM SPECIFICATION 04050 FOR CONCRETE MASONRY UNIT CONSTRUCTION.
3. CONCRETE MASONRY UNITS SHALL BE MEDIUM WEIGHT HOLLOW UNITS CONFORMING TO ASTM C90, GRADE N, WITH MINIMUM AVERAGE NET COMPRESSIVE STRENGTH OF 1900 PSI. GROUTED CMU ASSEMBLY SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 1500 PSI. MASONRY UNITS SHALL BE SAMPLED AND TESTED IN ACCORDANCE WITH ASTM C140.
4. MORTAR SHALL CONFORM TO ASTM C270, TYPE S, WITH A MINIMUM COMPRESSIVE STRENGTH OF 1800 PSI @ 28 DAYS.
5. ALL MASONRY CELLS CONTAINING REINFORCEMENT STEEL SHALL BE FULLY FILLED WITH GROUT.
6. GROUT SHALL CONFORM TO ASTM C476, WITH A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI @ 28 DAYS AS DETERMINED BY ASTM C1019.
7. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
8. ALL MASONRY WALLS SHALL BE CONSTRUCTED IN RUNNING BOND PATTERN. MASONRY BED AND HEAD MORTAR JOINTS SHALL BE 3/8" THICK. BED JOINTS OF THE STARTING COURSE SHALL BE NO LESS THAN A ¼" AND NO GREATER THAN ¾" THICK.
9. MASONRY CONSTRUCTION SHALL CONFORM TO THE ERECTION TOLERANCES AS SPECIFIED IN ACI 530/ ASCE 5.
10. LAP REINFORCING BARS 48 BAR DIAMETERS.
11. HORIZONTAL JOINT REINFORCEMENT SHALL BE HOHMANN & BARNARD (FORMERLY DUR-O-WAL) 120 TRUSS-MESH EXTRA HEAVY (3/16" SIDE RODS WITH 9 GA. CROSS RODS) HOT-DIPPED GALVANIZED (1.5 oz. PER SQ. FT.) SHALL BE PLACED AT 16" ON CENTER VERTICALLY.

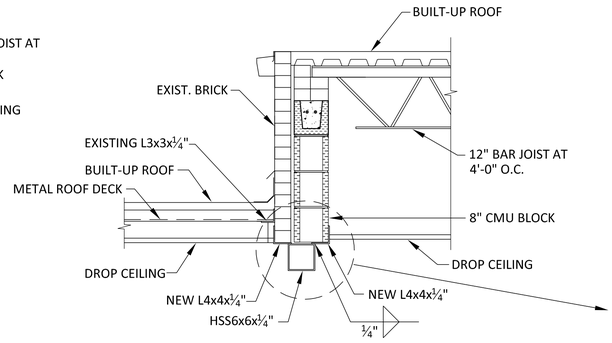


CONFIRM SLAB THICKNESS TO BE A MINIMUM OF 6" THICK AT BASE PLATE

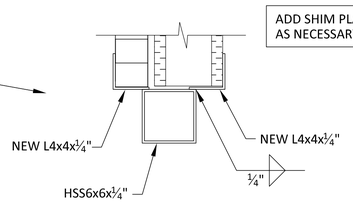
FINISHED CMU WALL OPENING — 1 / -
SCALE: 1/2"= 1'-0"

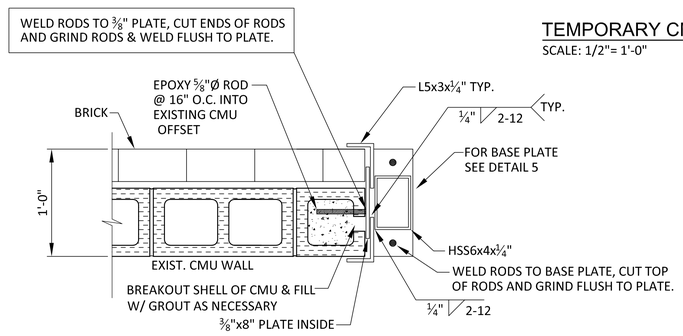


TEMPORARY CMU WALL SHORING SECTION — 2 / -
SCALE: 1/2"= 1'-0"

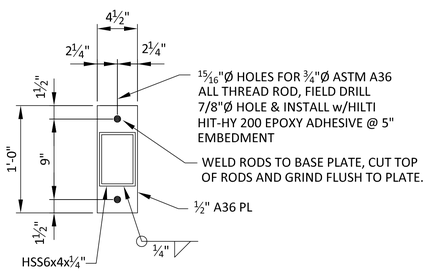


FINISHED CMU WALL SECTION — 3 / -
SCALE: 1/2"= 1'-0"





COLUMN TO CMU TIE DETAIL — 4 / -
SCALE: 1½"= 1'-0"



BASE PLATE DETAIL — 5 / -
SCALE: 1½"= 1'-0"

The seal appearing on this document was authorized by Bradley D. Shinpaugh, P.E. - Registration 111704 on November 18, 2016. Alteration of a sealed document without proper notification to the responsible engineer is an offense under the Texas Engineering Practice Act.

This authorization is for Revision 0 only.

LETTER	DATE	DESCRIPTION	REV.BY	CHK.BY
SUPERSEDES				

GTO ENGINEERING SERVICES
2406 KELL BLVD. * WICHITA FALLS * TEXAS

STATE OF TEXAS — BRADLEY D. SHINPAUGH — 111704 — LICENSED PROFESSIONAL ENGINEER
11/18/16
GTO ENGINEERING SERVICES
FIRM REGISTRATION NO. F-4316

MIDWESTERN STATE UNIVERSITY
TAFT BLVD., WICHITA FALLS, TEXAS

WEST ANNEX CMU WALL OPENING NOTES, SECTIONS & DETAILS

DRAWN BY	DATE	DRAWING NUMBER	REVISION	SHEET NO.
BDS	11/18/16	169086	0	1
CHECKED BY	SCALE			
GTO	NOTED			