

STANDARD ABBREVIATIONS

AC	air conditioning	KO	knockout
ACUST	acoustical	LAM	laminated
AD	adjustable	LAV	lavatory
AFF	above finish floor	LH	left hand
ALT	alternate	LL	live load
ALUM	aluminum	LLH	long leg horizontal
ANCH	anchor, anchorage	LLV	long leg vertical
ARCH	architect/architectural	LTN	light weight
BD	board	MB	markerboard
BIT	bituminous	MAS	masonry
BLDG	building	MAX	maximum
BLK	block	MECH	mechanic/mechanical
BLKG	blocking	MET	metal
BM	bench mark	MH	manhole
BOTT	bottom	MIN	minimum
BRG	bearing	MISC	miscellaneous
BSMT	basement	MO	masonry opening
		MCGJ	masonry control joint
C/C	center to center	MT	metal threshold
CAB	cabinet	MULL	mullion
CB	chalkboard/catch basin		
CEM	cement	NIC	not in contract
CER	ceramic	NO	number
CF	cubic foot	NOM	nominal
CHWR	chilled water return	NRC	noise reduction coefficient
CHWS	chilled water supply	NTS	not to scale
CI	cast iron		
CJ	control joint	O/O	out to out
CLS	ceiling	OA	overall
CMU	concrete masonry unit	OC	on center
CO	clean out	OD	outside diameter
COL	column	OPG	opening
CONC	concrete	OPP	opposite
CONSTR	construction	PCF	pounds per cubic foot
CONT	continuous (continuing)	PLAS	plaster
CONTR	contract/contractor	+	plus or minus
CONV	convector	PLF	pounds per lineal foot
CRS	course(s)	PSF	pounds per square foot
CT	ceramic tile	PSI	pounds per square inch
CJH	cabinet unit ventilator	PART	partition
CN	domestic cold water	PVC	polyvinyl chloride
CY	cubic yard	PMT	pavement
°	degree	R	riser/radius
DET	detail	RA	return air
DF	drinking fountain	RD	roof drain
DIAG	diagonal	RE	reference
DIA or Ø	diameter	REF	refrigerator
DIM	dimension	REIN	reinforce(d)/reinforcing
DIV	division	RES	resilient
DP	dampproofing	REV	revision(s)/revised
DS	downspout	RH	right hand
DWG	drawing	RM	room
		RO	rough opening
EA	each	ROW	right of way
EIFS	exterior insulation finish system	RUM	roof sump
		RWC	rainwater conductor
ELEC	electric/electrical	SAN	sanitary
EQ	equal	SD	storm drain
EQUIP	equipment	SECT	section
EWC	electric water cooler	SHT	sheet
EXIST	existing	SIM	similar
EXH	exhaust	SPEC	specification(s)
EXT	exterior	SQ	square
FA	fire alarm	SS	service sink
FAL	fresh air intake	SST	stainless steel
FD	floor drain	STL	steel
FE	fire extinguisher	STD	standard
FEC	fire extinguisher cabinet	SUSP	suspended
FIN	finish(ed)	SYM	symmetry/symmetrical
FL	floor(ing)		
FOUND	foundation	T&G	tongue/groove
FTR	fin tube radiation	T	tread
FTG	footing	TB	tackboard
		TEL	telephone
G	gas	TERR	terrazzo
GA	gauge/gauge	THR	threshold
GC	general contractor	TV	television
GI	galvanized iron	TYP	typical
GL	glass/glazing		
GST	glazed structural tile	UH	unit heater
GALV	galvanized	UR	urinal
		UV	unit ventilator
HB	hose bibb	V	vent
HDM	hardware	VERT	vertical
HM	hollow metal		
HORIZ	horizontal	W	width/wide
HGT	height	W	with
HTG	heating	WC	water closet
HVAC	heating/ventilating/air conditioning	WD	wood
HW	domestic hot water	WH	water heater
HWHR	hot water heating return	WI	wrought iron
HWHS	hot water heating supply	W/W	wall to wall
HWHR	domestic hot water return	W/W	welded wire reinforcement
ID	inside dimension		
INT	interior		
INV	invert		

HATCHING PATTERN KEY

BRICK	CONC BLOCK	RIGID INSUL	BATT INSUL	ACOUST TILE
CONCRETE	ASPHALT	METAL	FINISH WOOD	GYP BOARD
EARTH	SAND	GRAVEL	LUMBER	PLYWOOD

SYMBOLS KEY

	NORTH ARROW
	NEW ELEVATION POINT
	EXISTING ELEVATION POINT
	ELEVATION TARGET
	COLUMN NUMBER
	COLUMN CENTERLINE
	BUILDING SECTION
	WALL SECTION
	DETAIL BUBBLE
	ROOM NUMBER
	DOOR NUMBER
	WINDOW NUMBER
	INTERIOR ELEVATION
	DEMOLITION NOTE

DEVELOPMENT DATA

APPLICABLE CODES & ORDINANCES
 MICHIGAN BUILDING CODE 2009
 MICHIGAN ELECTRIC CODE - 2011
 OAKLAND COUNTY DRAIN COMMISSION

BUILDING AREA
 EXISTING GROSS = (1478) SF
 ADDITION GROSS = (998) SF
 TOTAL = (2476) SF

BUILDING USE
 EXISTING (STORAGE) S2
 ADDITION (STORAGE) S2

BUILDING CONSTRUCTION TYPE
 (VB)

OCCUPANCY
 1/500 = 4 OCCUPANTS

FIRE SUPPRESSION
 NON SPRINKLED

HEATING AND COOLING
 NONE

CITY OF ROCHESTER HILLS

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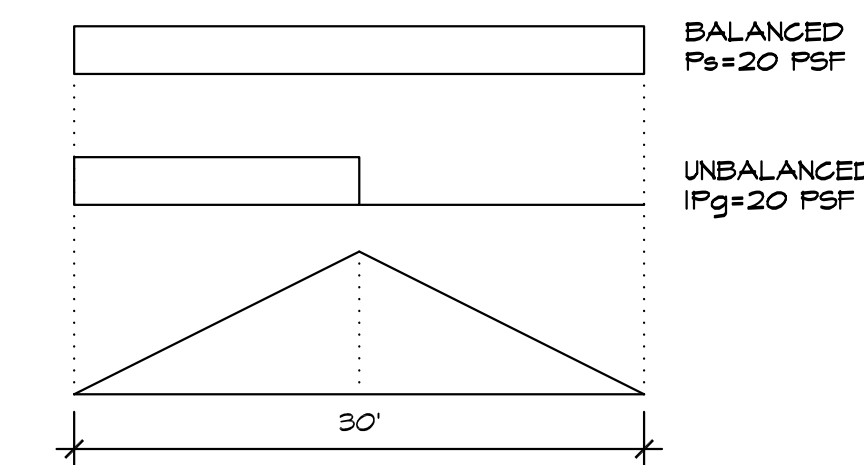
ADDITION TO: SPENCER PARK STORAGE BUILDING

3701 JOHN R. ROCHESTER HILLS, MI 48304

INDEX OF DRAWINGS

G001	TITLE SHEET
G002	TYPICAL STRUCTURAL NOTES
G003	TYPICAL STRUCTURAL DETAILS
C101	SITE PLAN
A101	FOUNDATION PLAN, FLOOR PLAN, FRAMING PLAN AND ELECTRICAL PLAN
A102	EXTERIOR ELEVATIONS AND WALL SECTIONS

TRUSS SNOW LOADING



STRUCTURAL LOADS

ROOF LOADING

GROUND SNOW LOAD P _g =	25 PSF
FLAT ROOF SNOW LOAD P _f =	20 PSF
SNOW EXPOSURE FACTOR C _e =	1.0
SNOW THERMAL FACTOR C _t =	1.1
SNOW IMPORTANCE FACTOR I _s =	1.0
WIND LOAD HORIZONTAL =	14 PSF

DEAD LOAD =

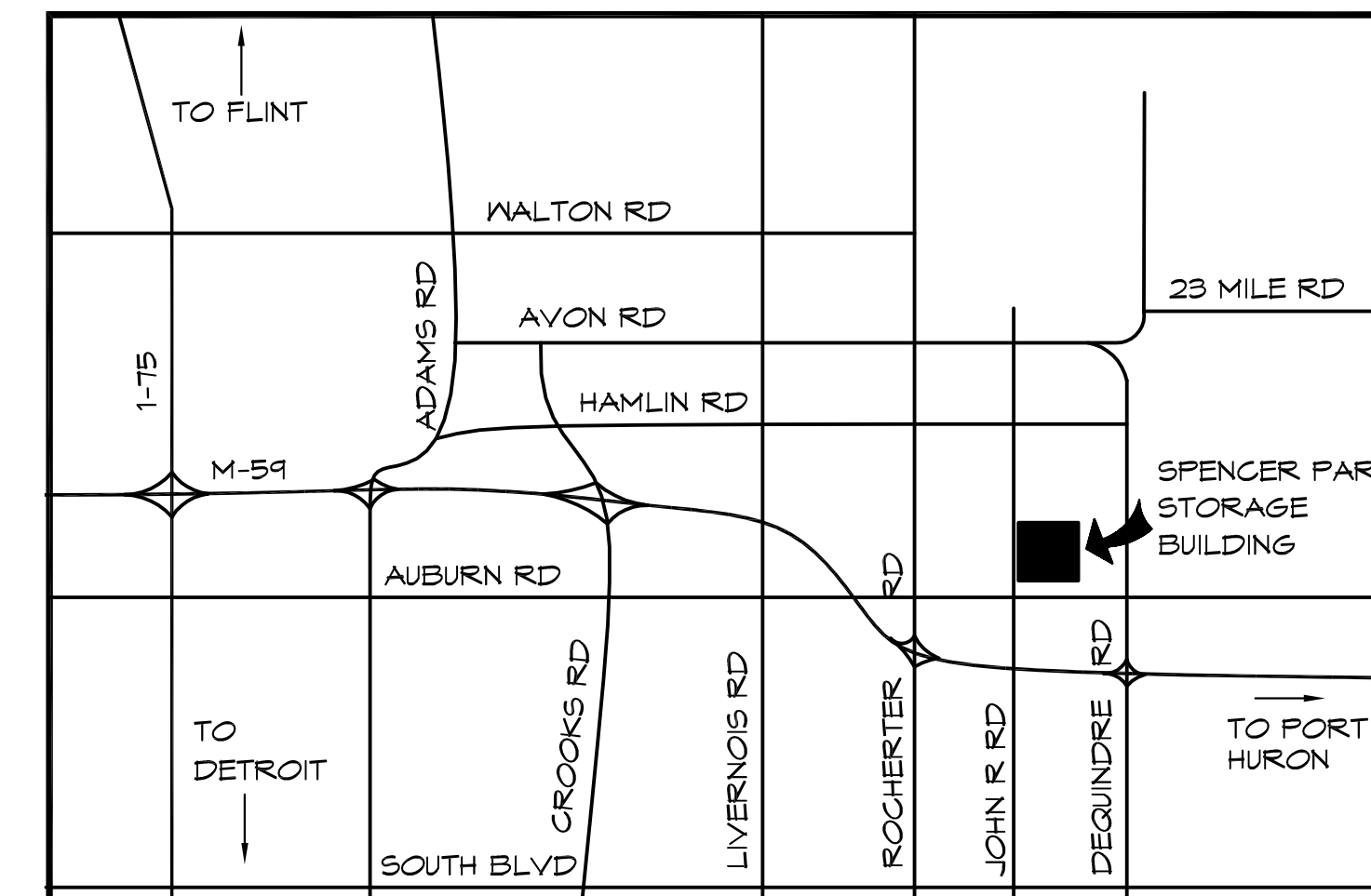
WOOD TRUSSES	5 PSF
PLYWOOD DECK	3 PSF
CEILING/LIGHTS	5 PSF
MISC	5 PSF
TOTAL DEAD LOAD	18 PSF

WIND LOADING

MAIN WIND RESISTING SYSTEM =	14 PSF
ROOF UPLIFT (DOORS OPEN) =	20 PSF

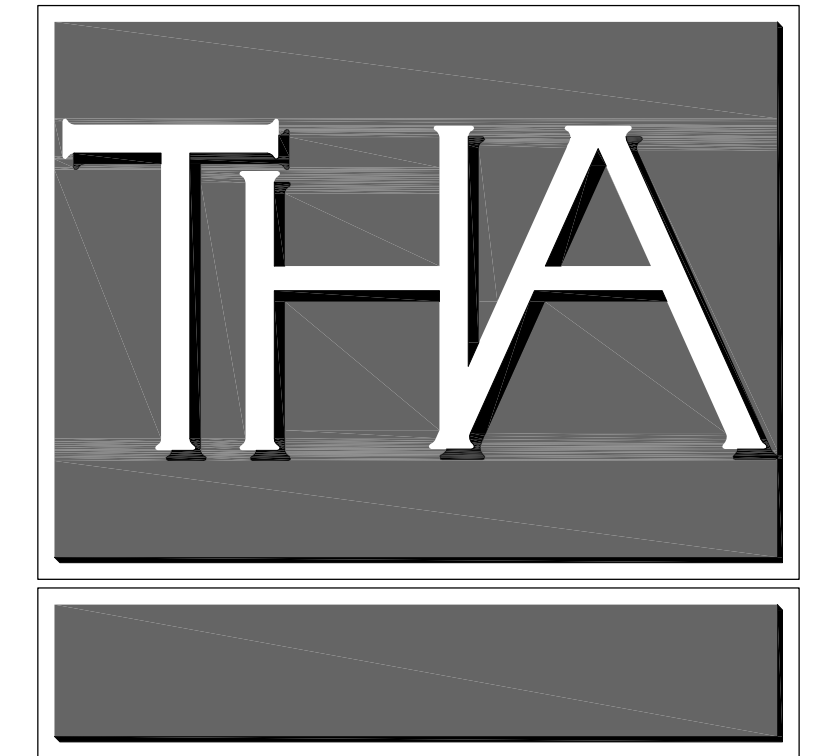
SEISMIC LOADING

SEISMIC USE GROUP CATEGORY =	II
SITE CLASSIFICATION =	D
SPECTRAL RESPONSE ACCELERATION S _{ms} =	.16g
SPECTRAL RESPONSE ACCELERATION S _{m1} =	.076g
DESIGN SPECTRAL RESPONSE S _{ds} =	.107g
DESIGN SPECTRAL RESPONSE S _{d1} =	.064g
BASIC SEISMIC-FORCE RESISTING SYSTEM ANALYSIS PROCEDURE (CATEGORY A)	OTHER SIMPLIFIED
SEISMIC DESIGN CATEGORY =	A
MINIMUM LATERAL FORCE F = 0.01 x W =	4.5K (W = 454K)



LOCATION MAP

NO SCALE



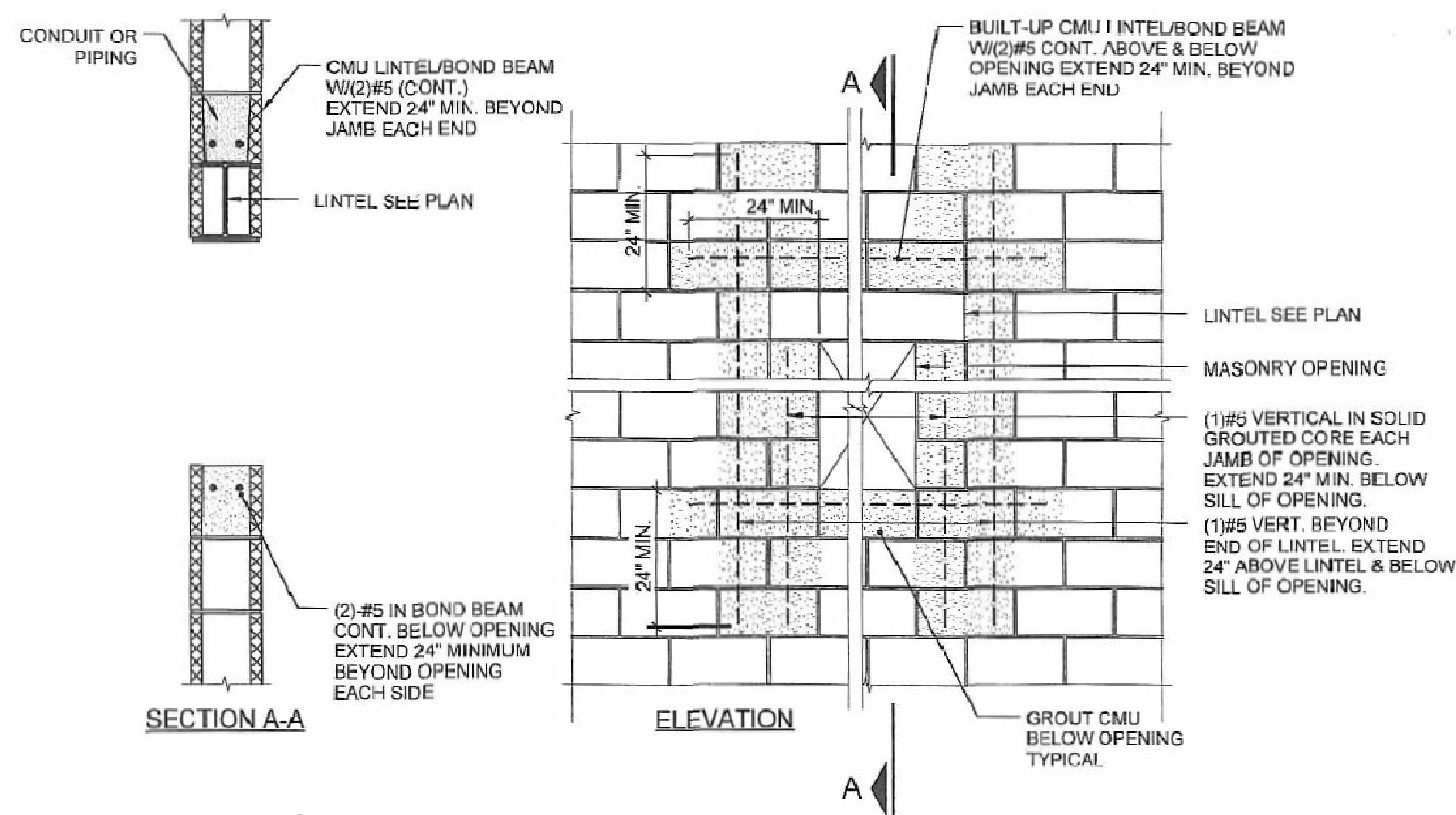
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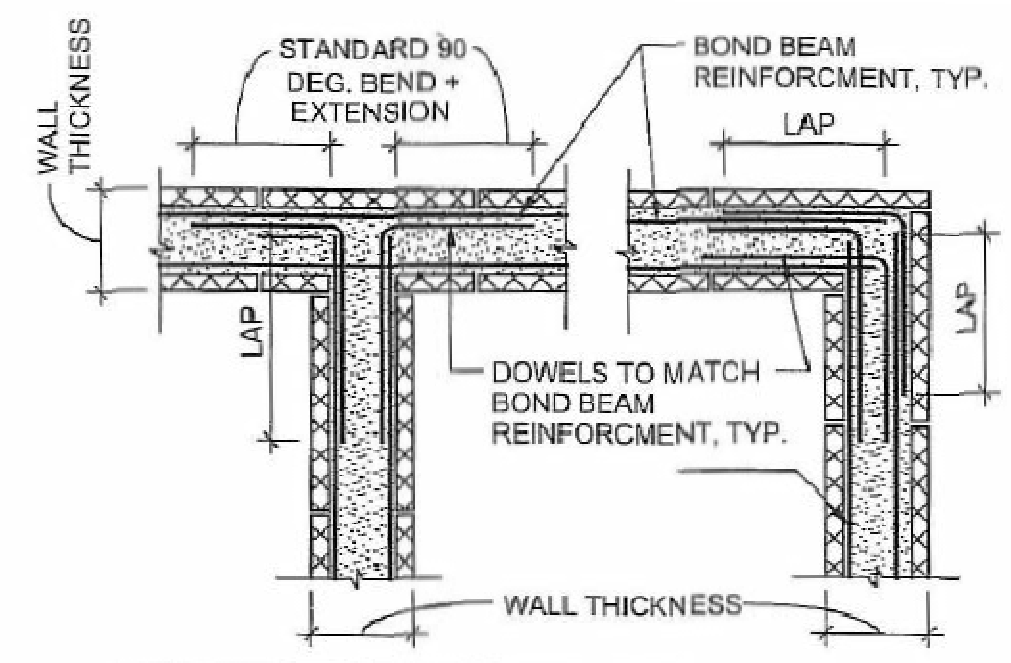
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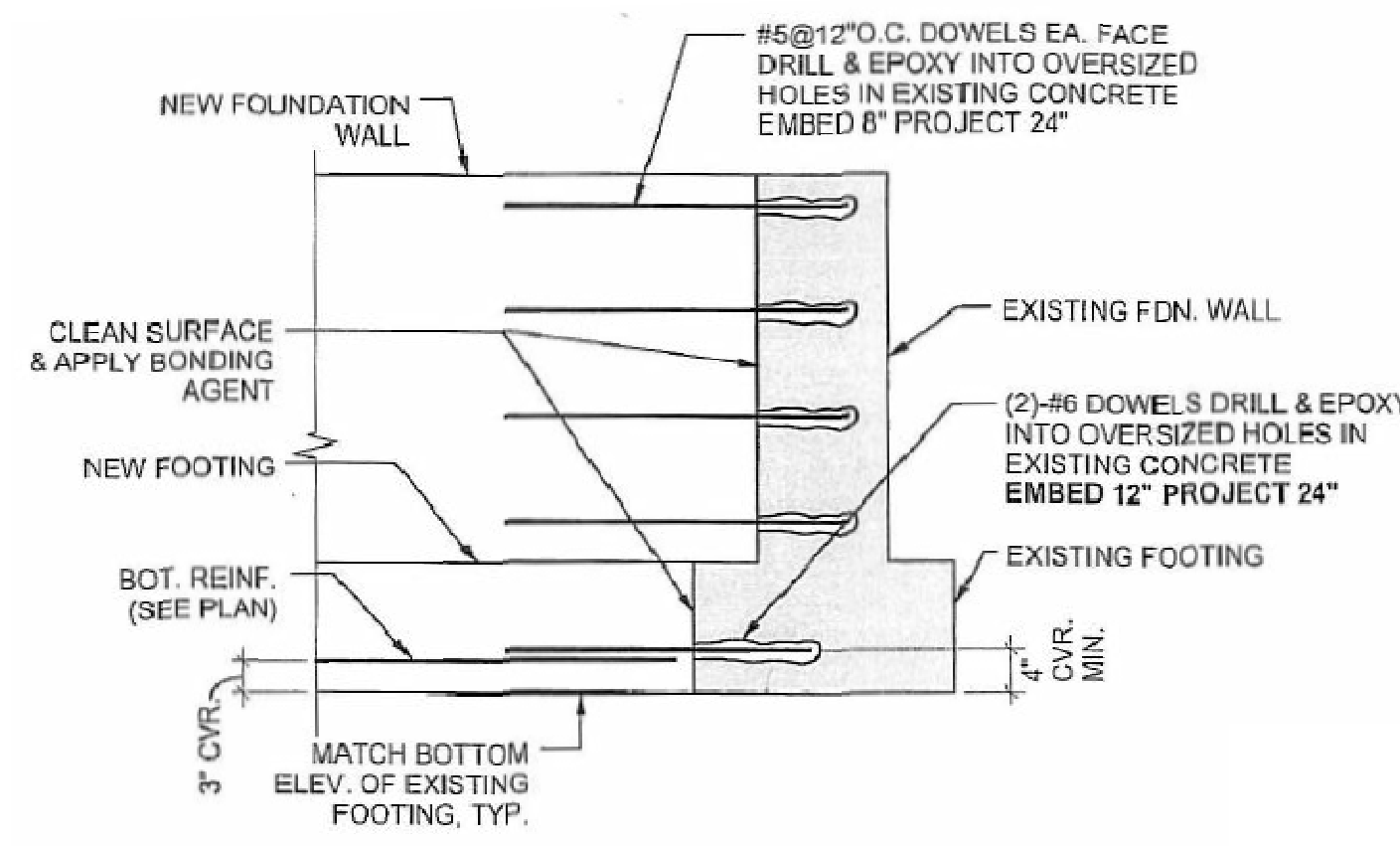
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NO.	REVISIONS / SUBMISSIONS	DATE
SEAL	DRAWN EHD	PROJECT NO. 13-104
	CHECKED MLB	CAD FILE NO. G001
	REVIEWED JSH	DRAWING NO. G001
	DATE 12-20-2013	SHEET NO. 1 OF 6
	SCALE FULL	



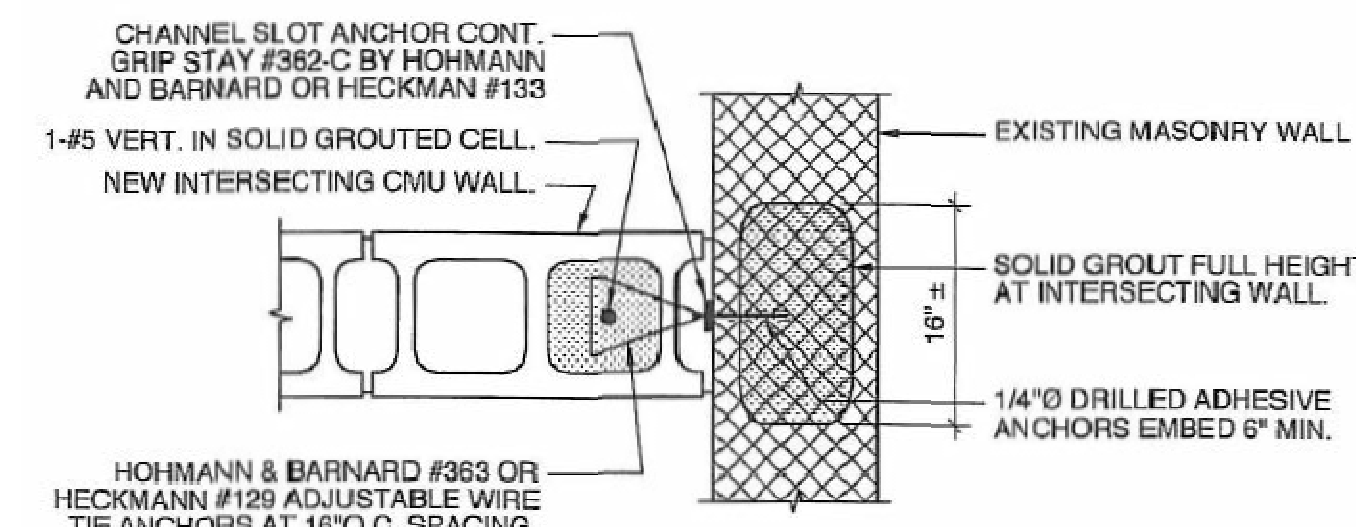
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6003
Typical Reinforcing Around Opening in Masonry Wall
NOT TO SCALE



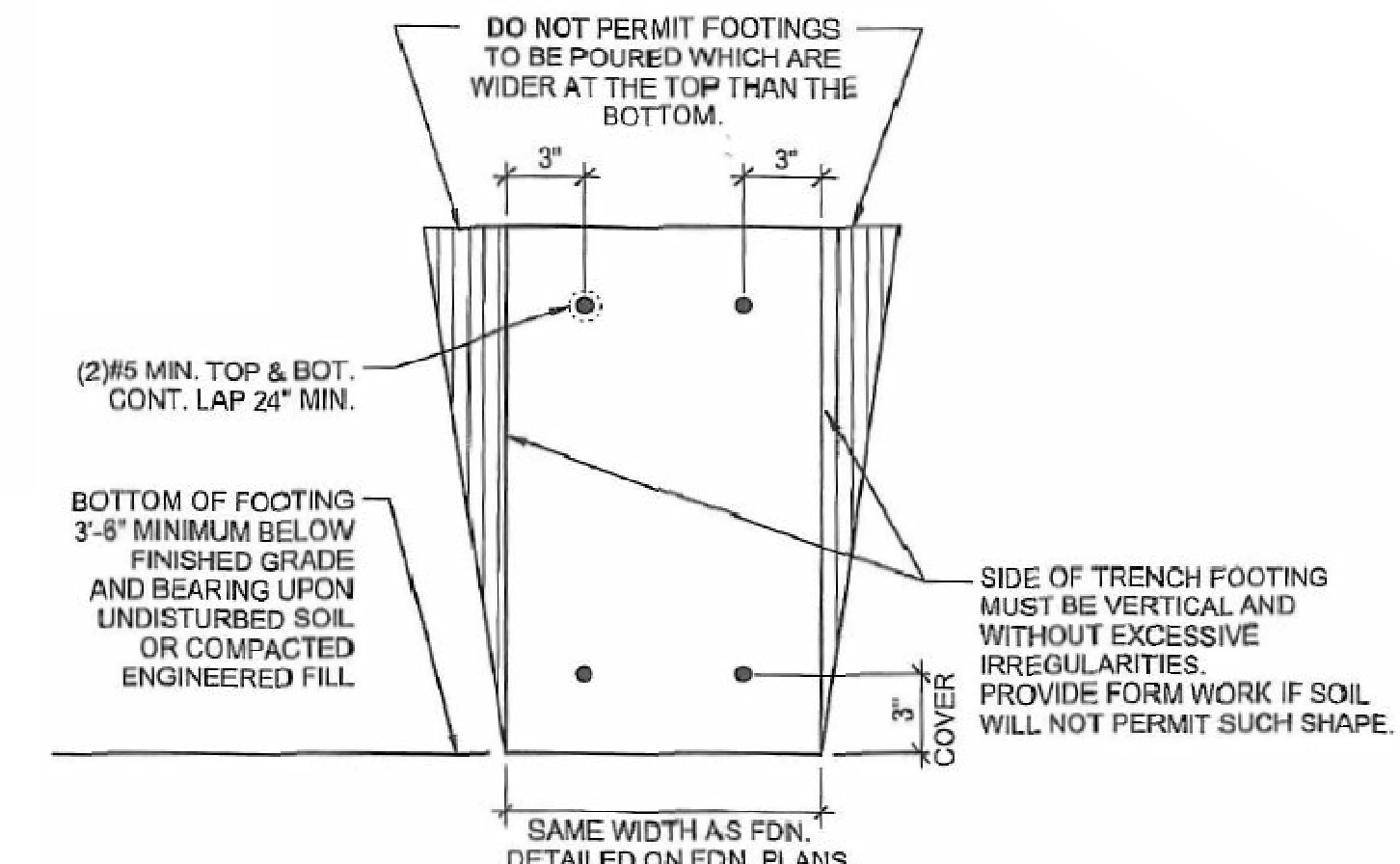
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6003
Typical Detail at Corners and Intersections of Bond Beams
NOT TO SCALE



3
6003
Typical Detail Joint New to Existing Footing
NO SCALE

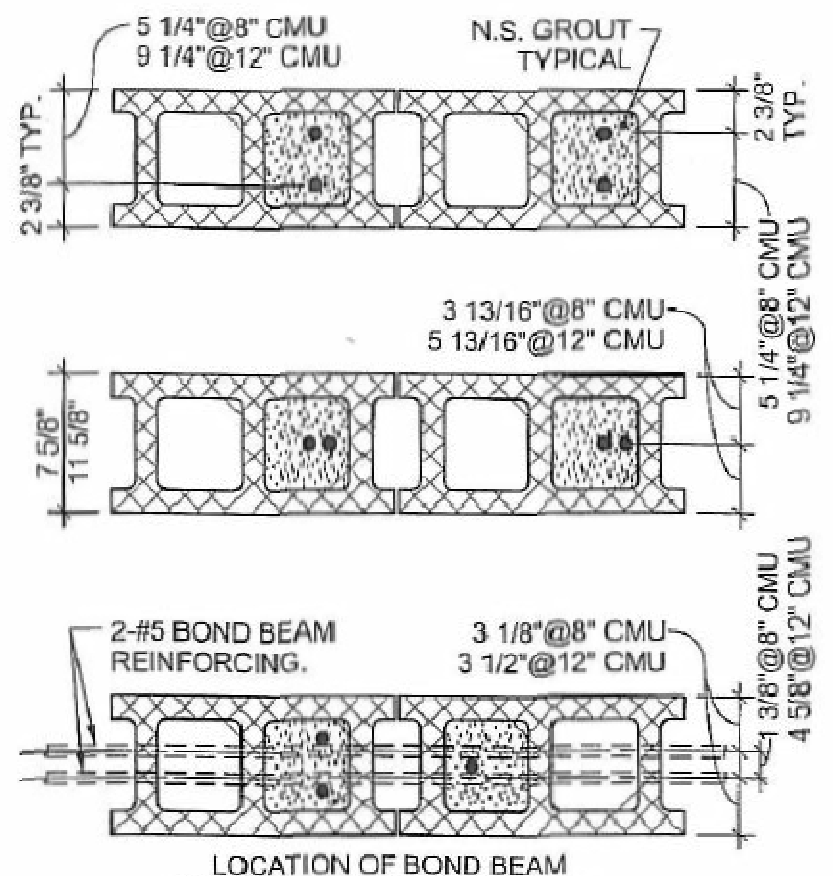


4
6003
Typical Plan Detail at New masonry Wall Intersecting Existing Wall.
NOT TO SCALE



NOTE: THE USE OF TRENCH FOUNDATIONS WILL ONLY BE PERMITTED IF SOIL CONDITIONS ARE SUCH THAT VERTICAL SIDES OF EXCAVATIONS CAN BE MAINTAINED. FOUNDATIONS WITH IRREGULAR SIDES OR WITH TOP WIDER THAN BOTTOM ARE NOT TO BE USED.

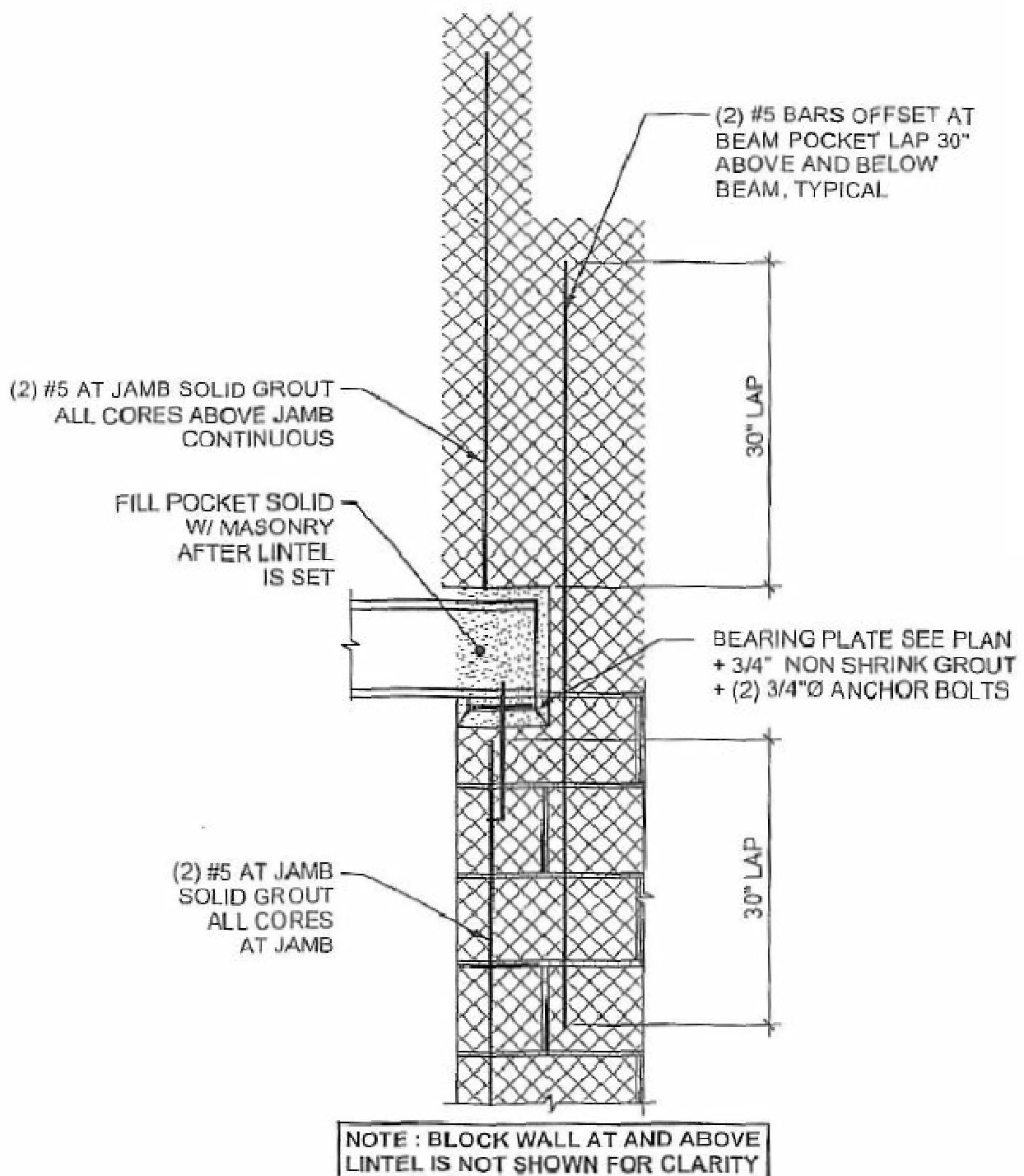
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6003
Trench Footing
NOT TO SCALE



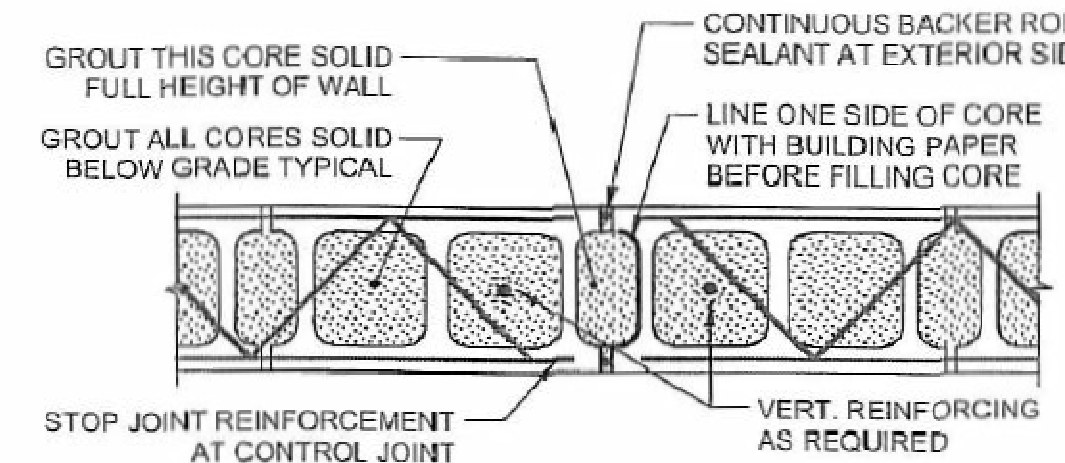
NOTES ON REINFORCING OF 8" & 12" CMU WALLS:

1. ALL CMU WALLS SHALL BE NORMAL WEIGHT CMU AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 1700 PSI.
2. LAP SPLICES WILL BE REQUIRED FOR CONSTRUCTABILITY BUT ARE NOT SHOWN FOR CLARITY. LAPS IN VERTICAL BARS AT #5 BARS SHALL BE 30" IN LENGTH. LAPS IN VERTICAL BARS AT #4 BARS SHALL BE 24" IN LENGTH. LAP SPLICES IN VERTICAL BARS ARE TO BE MADE BY PLACING BARS SIDE BY SIDE WITHIN CORES SO DISTANCE FROM FACE OF CMU TO CENTER OF BAR IS MAINTAINED.
3. BOND BEAM BARS ARE TO BE CONTINUOUS WITH CORNER BARS LAPPED 24" MINIMUM.
4. SHADING ON DRAWINGS REPRESENTS SOLID GROUTING.

6
6003
Typical Reinforcing for 8" & 12" CMU Walls
NOT TO SCALE

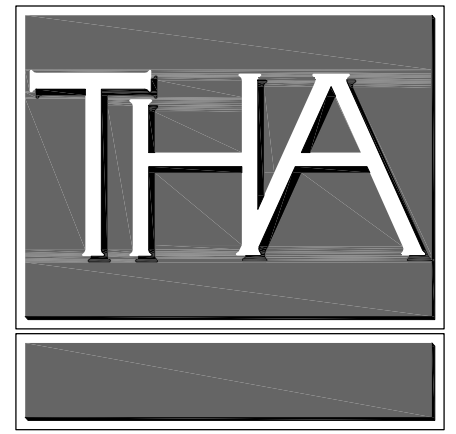


7
6003
Typical Lintel Bearing at Masonry Wall
NO SCALE



8
6003
Typical Masonry Wall Control Joint
NO SCALE UNLESS NOTED OTHERWISE ON THE DRAWINGS

NO.	REVISIONS / SUBMISSIONS	DATE



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ROCHESTER HILLS, MICHIGAN

DRAWING TITLE
TYPICAL STRUCTURAL DETAILS

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	CHECKED MLB	CAD FILE NO. 6002
	REVIEWED JSH	DRAWING NO. 6003
	DATE 12-20-2013	SHEET NO. 3 OF 6
	SCALE FULL	