beams.							bottom from fre	of all exter ezing prior	ior foo r to po	otings must be ouring foundation	42" mi ons.	nimum below gra			
provide provide masonry non-bea	L-bar d reinfo	owels to rcing bar alls, dowe	founda lap sch	ing pe tion at nedule be dril	all vertion all vertion an S-00 led and	cal bar loca 2. at locat 2. at locat	o.c.). ations. la ions of in to thicker	p vertic iterior, ned slat	al leg per o at the	foundat verified footings enginee	ions to bea by a geote to bear or pred fill	ar on s echnic n suita	soil having a m al engineer be able natural sar ing fill shall be	inimun fore pla nds and remov	n bearing capacity acement of footing d clays, or on con ed from below the
contract Safe-Se	ors opti t syster	ion. emb m with H	ed dow T HY 2	els 6" 200 inje	into slab	and secul	re using	the HIL	TI	replace and slal	d with com	pacte	d engineered fi with recomme	ill. pre	pare subgrade be
position cores be couplers	vertica elow gra s can be	l bars pe ade. in lie e provide	r MS-14 eu of Iap d that h	4/S-00 oping i nave a	2. solid reinforcir tensile	grout all re ng bars, re capacity of	inforced inforcing 125% th	cores a bar spl ie tensil	ind all ice le	provide frost blo architec	frost block	s at a h boti	Il exterior swing tom of adjacen	g door t footin	s per detail FN-04 g. coordinate dim
capacity all CMU	of the door ja	reinforcir ambs, wi	ng bar b ndow ja	peing s ambs,	spliced. and all (	CMU cores	below b	eam or	lintel	typical t	op of footi	ng ele	vation = 99'-4"	, unles	s noted otherwise
bearing bar.	locatioi	15 410 10		u grou			ar#5 ven		liorcing			dimen	sions		
verify to	p of CN	1U eleva	ions wi	th arcl	nitecture					label	width	len	gth thickness	5	reinforcem
label	wall	vertica	l reinfoi	rceme	nt		not	96		F-20	20"	со	nt. 42"	(2)	) #5 bars continue
	wiath	size	spacir	ng po	osition		not			F-20a	20"	со	nt. 12"	se	e detail 7-S301
MW-12	12"	#5	48	ce	ntered	exterior v	valls (24'	high)		F-32	32"	со	nt. 18"	se	e detail 5-S301
MW-12A	12"	#6	32	ce	ntered	exterior s	hear wa	ll (24' hi	gh)	F-3x3	3'-0"	3'-	0" 42"	(3)	) #5 bars each wa
MW-8	8"	#5	48	ce	ntered	interior w	alls & sc	reen wa	all rened	F-3.5x3.5	3'-6"	3'-	6" 42"	(3)	) #5 bars each wa
						slab at in	terior wa	lls)	.5.150	F-4.5x4.5	4'-6"	4'-	6" 42"	(4)	) #5 bars each wa
			I							F-5x5	5'-0"	5'-	0" 42"	(5)	) #5 bars each wa
mason	ry linte	l schedu	le							F-5.5x5.5	5'-6"	5'-	6" 42"	(5)	) #5 bars each wa
extend I	lintel re	inforcing	12" mir	n. bey	ond eacl	n end of op	pening								
continuo	ously so	olid grout	full hei	ight of	lintel (no	o cold joint	s permitt	ed)		base pl	ate and a	nchor	bolt schedule	e	
oponing				linto			hearing		homatia	for base	e plate and	anch	or bolt convent	tions, s	ee typical detail {
width	lab	el thick	iness (	depth	reinfo	orcement	length		section	for base 3/4" thic	e plates no k plate an	t desig d (4)	gnated in plan, 1" dia. anchor b	use ty polts	pical detail ST-01
up to 3'-4	" ML·	-1 1	2"	8"	(1) #4 b	ar, bottom	8"			label	plate siz thickne	e & ss	anchor roo	ds	d
									12" CMU						-
															•
3'-5" to 6'-	4" ML·	-2 1	2"	16"	(1) #5 b	ar, bottom	8"			BP-1	10"x14"x	:3/4"	(4) 3/4" di ASTM F1554	a. gr. 36	
									12" CMU				embed 12	2"	
									X						
S-5" to 10.	-0" MI .	3 1	2"	16"	(2) #5 h	ar bottom	8"								<b>**</b>
-5 10 10		-5	~	10	(2) #3 0	ar, bottom			12" ★ N CMU						- <u></u>
up to 5'-4	" ML·	-4 8	5"	8"	(1) #4 b	ar, bottom	8"						(4) 3/4" di	a.	
									12" CMU	BP-2	10"x14"x	:3/4"	ASTM F1554 embed 12	gr. 36 <u>2</u> "	
		•	•				•	-							=
masoni	ry pier	schedul	е												
position	vertica	l reinford	ement	per de	etail MS-	14/S-002									I AA
notch bl	lock we	bs as re	quired t	o ensi	ure close	e ties enclo	se vertic	al reinfo	orcement						· · · ·
label	wie	pier size	e angth	auant	ver reinfor	tical cement	ing	close reinforc	e tie sement						= _4
CMUP-1	12		32"	2 2		5 8"	#	3	8"						
CMUP-2	12	2"	40"	2	#	5 8"	#	3	8"	BP-3	10"x14"x	:3/4"	(4) 3/4" di ASTM F1554 embed 12	ia. gr. 36 <u>2</u> "	
al															
single-p	plate sh	iear con	nection	n sche	aule										
at locationshear co	ons who	ere infill l on can be	eams f e used a	irame at the	into gird fabricato	er beams o or's option.	or colum	ris a sin	igie-plate						
either S	TD or S	SL holes	are pe	ermitte	d.										
see typic	cal deta	ail ST-22	/S-002 f	for sin	gle-plate	conventic	ons.								l
		# of			shear pl	ate	C	capacitv	/ [kips]	metal r	oof deck s	sched	ule		
beam designati	on A	3/4" dia 325-N bo	olts le	enath	thickne	ss weld	A.S	SD	LRFD	all roof	deck to be	G60 (	galvanized, mir	nimum	(G90 where perr
W8 W1	0	2	5	1/2"	1/4"	3/16	16		24.5	weld &	fastener o	attern:			
	.	2		<u>~</u>		0,10			27.5	• 5/8"	puddle we	lds (s	upport fastener	rs): 36/	4 pattern

heem	# 01		sileal plate	5	Capaci	y [kips]
designation	A325-N bolts	length	thickness	weld size	ASD	LRF
W8, W10	2	5 1/2"	1/4"	3/16	16.3	24.5
W12, W14	3	8 1/2"	1/4"	3/16	25.6	38.3
W16	4	11 1/2"	1/4"	3/16	34.8	52.2
W18, W21	5	14 1/2"	5/16"	1/4	53.0	79.5
W24	6	17 1/2"	3/8"	1/4	63.6	95.4
W27	7	20 1/2"	7/16"	5/16	74.2	111
W30	8	23 1/2"	7/16"	5/16	84.8	127
W33	9	26 1/2"	7/16"	5/16	95.4	143

• #10 TEK screws (sidelap fasteners): 3 fasteners per span
@ building perimeter: welds @ 36/7 or 6" o.c.
provide additional attachment as required to resist roof uplift.

net wind uplift = 5 psf, except for a 10'-0" wide band around the has a 10 psf net wind uplift.
provide 5/16" thick edge angle around entire perimeter of deck splice perimeter angle according to typical detail ST-08/S-002

denotes span direction of metal deck

label	depth	ga
MD-1	1 1/2"	2
MD-2	1"	2

footing schedule

see foundation typical details on S-002 for more information.

masonry wall schedule

see typical detail MS-04/S-002 for control joints in masonry walls and detail MS-06/S-002 for bond beams. continue vertical reinforcement through bond

SC	HE	וח:	н	FS

#### ADS, REFERENCES, AND MATERIALS

SCHEDULES	TESTING AND SUBMITTALS	LOADS, RI	EFERENCES, AND MATERIA
	INSPECTION of STRUCTURAL ELEMENTS	THIS BUILDING HAS BEE	N DESIGNED PER THE REQUIREMENTS OF
ation. low grade. protect soil	The contractor shall coordinate owner paid, independent inspections meeting all applicable requirements of IBC Section 1704 and AISC 360-10, Chapter N. All inspections shall be documented with written reports and a final report; submitted to the owner and	DESIGN LOADS:	
capacity of 3000 psf,	building official.	wind basic wind speed	V = 90 mph
on compacted elow the new footings and	Steel - IBC1704.3 and AISC 360-10, Chapter N Conformance criteria shall be construction documents and applicable standards	Importance factor adjustment factor	B lw = 1.0 1.0
rade below foundations the geotechnical engineer. il FN-04/S-002. bottom of	of ASTM for specified materials as well as requirements of AISC and AWS. Welding inspectors to be qualified per AWS D1.1. Special inspection per Table 1704.3 (IBC)	component and claddin highest pressure	g pnet30 = 15.4 psf (may be reduced if calculated by a P.E. for specific location)
	Special inspection per lables N5.4-1, N5.4-2, and N5.4-3, Tables N5.6-1, N5.6-2, and N5.6-3, and Table N6.1 (AISC 360-10)	snow ground snow importance factor	Pg = 20 psf Is = 1.0
herwise on plan	Concrete - IBC1704.4 Conformance criteria shall be construction documents and applicable standards of ASTM for specified materials as well as requirements of ACI.	exposure factor thermal factor flat roof snow load drift snow load	Ce = 1.0 Ct = 1.0 Pf = 20 psf mapped on plan
forcement	Special inspection per Table 1704.4 (no exceptions granted)	seismic seismic use group seismic importance fact	Group II for le = 1.0
continuous, top & bottom	Masonry - IBC1704.5	site classification of soil 1.0 second spectral res	D ponse S1 = 5% Fv = 2 4
S301	Conformance criteria shall be construction documents and applicable standards of ASTM for specified materials as well as requirements of ACI and NCMA.	0.2 second spectral res	S1S = 8% ponse Ss = 13%
each way, bottom	Occupancy Catagory I, II, or III: Level 1 Special Inspection per Table 1704.5.1	seismic design category	SDS = 14% B
each way, bottom	Occupancy Catagory IV:	seismic-resisting system	n ordinary reinforced masonry shear walls cient Cs = 0.067
each way, bottom	Level 2 Special Inspection per Table 1704.5.5	response modification fa analysis procedure use	actor $R = 2.0$ d equivalent lateral force procedure
each way, bottom	Soils - IBC1704.7 Conformance criteria shall be construction documents and recommendations of	design base shear All loads are subject to modificat	V = 240 kips ion per requirements of ASCE-7
	the project soil report		
	Special inspections per Table 1704.7	All work shall conform to the requ	uirements of the most recent version of the
detail ST-01/S-002. il ST-01/S-002 with	SUBMITTALS	following referenced standards:	
	Approval of shop drawings by sdi does not authorize deviations from nor omissions of the requirements of the construction documents, unless	Concrete ACI 301	
detail ╃── 10" ━━╃	specifically indicated on the reviewed shop drawings with a note by sdi. Any deivations or ommissions from the construction documents must be specifically brought to sdi's attention in a format other than the shop drawings for review before approval.	ACI 318: Bui Con ACI SP 66: A Portland Cer Concrete	Iding Code Requirements for Structural ncrete and Commentary ACI Detailing Manual ment Association "Design and Control of Mixtures"
	The following items related to the building structural system are to be submitted to the architect in accordance with the requirements of the project specifications: Concrete mix designs	Masonry ACI 530/AS ACI 530.1/A NCMA TEK 3	CE 5 ISCE 6 3-4B: "Bracing Concrete Masonry Walls
	Reinforcing bar shop drawings Steel joists shop drawings	Brick BIA "Techni	cal Notes on Brick Construction"
* + + 6" +	Structural steel shop drawings Structural steel connection calculations (signed and sealed) Stair shop drawings (signed and sealed)	Steel AISC 360-10	): Specification for Structural Steel Buildings
<u>1 1/2"</u>	Welder certifications for shop and field welders Steel deck shop drawings	Welding American We	elding Society AWS D1.1/D1.1M
<b>≁</b> 10" <del>−</del>	Cold-formed metal connection calculations (signed and sealed) Masonry vertical and horizontal reinforcing bar shop drawings	Metal Deck Steel Deck In	nstitute Specifications
	Masonry dowel layout (foundation to wall dowels) provided by the mason to the foundation contractor prior to foundation installation All inspection reports as pertaining to items listed above	Soils Report Not Provided	1
		MATERIALS	
	ELECTRONIC FILES	SOIL: Soil supporting foundations	2000 psf minimum allowable brg. capacity
* * 5" *	sdi cannot ensure the accuracy or appropriate use of electronic data. Electronic files (when requested) are provided for convenience only, and do not supersede requirements of construction documents or field conditions.	CONCRETE: Concrete foundations	4000 psi at 28 days
<sup>\_</sup> 1 1/2"		Interior normal weight slab	4000 psi at 28 days
<i>≠</i> −− 10" −− <i>≠</i>		Interior light weight slab	4000 psi at 28 days (120 pcf max.)
		Exterior slab	$3500 \text{ psi at } 28 \text{ days}, 6\% \pm 1\% \text{ air entr.}$
		and walls (including foundation walls)	
		Exterior columns, piers and walls (including	4000 psi at 28 days, 6%±1% air entr.
AF # 5" #		foundation walls) Beinforcing bar	ASTM A615 (grade 60)
1 1/2"		Welded wire fabric	ASTM A185 flat sheets
		Synthetic fiber reinforcing	ASTM C1116 (Tuf-Strand SF by Euclid or equal)
re permanently exposed to		MASONRY: CMU	ASTM C90 normal weight (net compressive strength f'm = 2000 psi, minimum unit strength = 2800 psi)
r opor		Brick (clay masonry)	ASTM C62 & C216
r span		Rebar positioners	(net compressive strength = 1000 psi) Corelock rebar positioner by Wire-Bond.
uplift. bund the perimeter which			No. 376 rebar positioner by Heckmann Building Products or #RB rebar positioner by Hohmann&Barnard, Inc. or equal
of deck for edge support. /S-002		nebal splice connectors	Hohmann&Barnard, Inc. or equal
		Mortar below grade	ASTM C270, Type M
type		Mortar brick	ASTM C270, Type N
В		Grout in CMU cores	ASTM C476 (3000 psi at 28 days)
E		STEEL:	
		W-shapes Channels, Angles, Plates HSS Round HSS Rectangular, Square Structural steel pipe	ASTM A992 - Fy=50 ksi ASTM A36 - Fy=36 ksi ASTM A500 Type B - Fy = 42 ksi ASTM A500 Type B - Fy = 46 ksi ASTM A53 - Type E or S, grade B, Fy = 35 ksi
		Structural steel bolts	ASTM A325-N
		Washers	ASTM F436 hardened washer
		Welding electrodes (E-70 series)	ASTM A233
		Steel roof deck	ASTM A653-94 Structural Quality
		Steel composite floor deck	ASTM A653-94 Structural Quality grade 33 or ASTM A611 grade 33, G-60 galvanized
		Grout below plates Anchor bolts	Non-shrink, non-metallic (5000 psi) ASTM F1554 threaded rods
		Epoxy bolts: Epoxy Bods	Hilti HIT HY 200 Injection Adhesive Hilti HIT-7

Headed steel studs

Hilti HIT HY 200 Injection Adhesive Hilti HIT-Z

ASTM A108-Grade 1010-1020, welded in accordance with chapter 7 of ANSI/AWS D1

and dead loads.

#### **PROCEDURAL NOTES**

The structural integrity of the building, as shown in the construction documents, is stable only in its completed form and dependent upon completion according to plans and specifications. Temporary supports required for stability during all intermediate stages of construction shall be designed, furnished, and installed by the contractor. The Contractor is responsible for construction analysis and erection procedure including design and erection of falsework, temporary bracing, etc. The temporary supports shall account for all forces, including but not limited to forces from gravity, earth, wind, and unbalanced forces due to construction sequence. Structural members are not self-bracing and shall be shored and/or braced by the contractor as necessary until stabilized by virtue of

Field measure and verify all dimensions and elevations before fabrication.

GENERAL

CONCRETE

MASONRY

member

required

AWS D1.3.

the project.

be painted

STEEL

completed connections.

Basement walls shall not be backfilled until the basement slab and the first floor slab at the top of the wall are in place and are cured. FOUNDATIONS The slab on grade shall rest on a minimum of 4" of granular fill, compacted to at least 95% of the maximum density as defined by the ASTM D1557 Modified Proctor Test.

All footings shall bear on undisturbed soil, having a minimum safe bearing capacity as noted in the Materials section on this sheet. The Testing and Inspection Agency shall verify soil bearing capacity at each footing prior to installation of footing. Notify engineer of any variation from anticipated bearing capacity for appropriate redesign or lowering of footing.

The bottoms of all exterior footings shall be 3'-6" minimum below finished grade. If the building will be under construction during freezing weather, all interior foundations shall be depressed 3'-6" below construction grade for frost protection. If such additional footing depth will cause undermining of adjacent existing footings or structures, provide appropriate shoring, bracing or underpinning as required or leave footing elevation as designed and provide continued protection and heat to prevent formation of frost below footing and adjacent to footing. The contractor shall safeguard and protect all excavations and adjacent structures, pavements, and utilities. All excavations shall be kept free of water. The contractor is responsible for the design, installation, maintenance, and removal of all shoring, bracing, and dewatering that is required to properly construct the foundations and protect adjacent structures, pavements and utilities.

No concrete shall be placed until concrete design mixes have been submitted to and have been approved by the engineer. No calcium chloride shall be added to the concrete. Provide air-entrainment ( $6\% \pm 1\%$ ) for concrete exposed to weather. WWF in slabs to be supported on chairs and bolsters. For all slabs where not otherwise specified, use 6x6- W1.4 x W1.4 W.W.F.

Masonry walls are to be adequately braced during construction until floor and wall systems are complete. See "Standard Practice for Bracing Masonry Walls Under Construction" by the Council for Masonry Wall Bracing, and also NCMA TEK 3-4B "Bracing Concrete Masonry Walls During Construction" for recommendations regarding bracing. Bracing shall be designed by the contractor and sealed by a PE licensed in the the state that has jurisdiction over the project.

Place ladder type horizontal joint reinforcing with preformed lapped corner reinforcing at 16" c/c vertically in all masonry walls U.O.N. Joint reinforcing shall be galvanized and have side wires of 9 gage minimum conforming to ASTM A-82 U.O.N.

The discontinuous ends of all masonry walls shall be solidly grouted a minimum of 8" or one block cell and reinforced for their full height with one #5 bar unless otherwise noted At grouted cells lifts of grout shall be keyed 4" into the course of masonry below.

All CMU bond beams to have (2) #4 bars continuous. Provide (2) #4 L-bars at every corner, lapped 3'-0" w/ continuous bars.

Vertical control joints in CMU walls to have a minimum 3/8" gap and shall be located by the architect, but shall not be more than 20'-0" o.c. Brick ties shall be galvanized adjustable 2-piece wire ties of not less than 9 gage, and shall be spaced @ 16" o.c. vertically and horizontally Where masonry meets structural members subject to vertical deflection, provide allowance for vertical movement of L/240 of structural

METAL DECK Unless otherwise noted, all metal deck has been designed to be continuous over 2 spans minimum, and shall bear at least 2" on steel supports. For one span conditions, the contractor shall provide shoring as required, or furnish higher gage deck as required to support all the applicable loads. Contractor shall submit alternate for approval.

Provide reinforcing channels, standard closures, cant strips, sump pans, finish strips, pour stops and other accessories as required for a properly finished job, even if not specifically shown on the drawings. Provide bearing angles welded to columns to support metal deck as

Fasten steel deck units to structural supports using Hex washer head Tek screws or arc spot welds according to manufacturer's specifications and in conformance with the Steel Deck Institute's Specification section 4.4.

Arc spot welds (puddle welds) to supports shall have a diameter of 5/8" minimum, or an elongated weld of 3/8" minimum width and 3/4" minimum length. Weld metal shall penetrate all layers of deck material at end laps and have adequate fusion to the supporting members. Welding shall be done in accordance with the American Welding Society Standard "Specification for Welding Sheet Steel in Structures",

Where steel connections are not fully detailed on the design drawings (with all requirements for bolts, plates, welds, dimensions, etc., shown) connections shall be designed by the steel contractor under the supervision of a P.E. licensed in the state that has jurisdiction over

Where typical, or incomplete connections are shown on the design drawings, those details shall be used as a basis for connection design to be completed by the contractor. Alternate connections designed by the steel contractor will be provided if required design forces cannot be achieved by the typical or example connection, or if authorization to alter the detail is provided by the design engineer.

Where connection forces are indicated on the drawings, provide connections designed to resist the forces shown.

Where connection forces are not indicated on the drawings, provide connections designed to resist forces as follows: For shear connections in non-composite members, design connections to resist 50% of the total allowable

uniform load shown in the tables in part 3 of the AISC Manual of Steel Construction.

For shear connections in composite members, design connections to resist 75% of the total allowable uniform load shown in the tables in part 3 of the AISC Manual of Steel Construction.

For moment connections, design connections to resist 100% of moment capacity of the member.

All fully tensioned A325 bolts shall have washers beneath the turned element. All fully tensioned A490 bolts shall have washers beneath both nut and head.

All welds shall be provided as shown in the structural details unless thicker weld is required due to material thicknesses. Where weld is not detailed, welds shall be designed a licensed engineer retained by the contractor to meet connection capacity requirements listed above. Weld sizes shall be increased as needed to meet the following minimum weld size requirements based on the smaller material thickness of the pieces of steel being welded together:

minimum fillet weld size (provide material thickness larger weld if required for stress) 1/4" and under 1/8" 3/16" over 1/4" to 1/2 1/4"

5/16" over 3/4"

f penetrations through webs of steel beams will be required, contractor to notify engineer of record.

See architecture for miscellaneous and non-structural steel.

All angles, W-sections, HSS-sections, and plates acting as lintels to support exterior masonry or stone to be galvanized. All interior lintels to STEEL JOISTS

Provide and install bridging in accordance with Steel Joists Institute's standard. All ends of bridging lines terminating at masonry walls shall be anchored thereto in accordance with the manufacturer's recommendations. Where bridging does not terminate at a masonry wall, the first and second bays from the end of the bridging to be diagonal X-bridging. Manufacturer to provide additional bridging as required to satisfy SJI uplift requirements.

Where steel joists support movable partitions, joist manufacturer shall design joist for a maximum live/snow load deflection of the smaller of 1/2" and L/360.

Joist manufacturer shall limit joist deflection due to live/snow load to L/360.

The ends of steel joists shall bear a minimum distance of 2 1/2 inches over steel supports and 4 inches over all other supports. The ends shall be fastened by bolting and/or welding.

Erection of joists and joist bridging shall conform to all requirements of OSHA and joist manufacturer.

#### **COLD-FORMED STEEL FRAMING**

Load-bearing and wind resisting cold-formed steel framing members and all connections between cold-formed members and to supporting structure are to be designed by contractor under the supervisions of an engineer licensed in the state that has jurisdiction over the project to meet code required wind, show and dead loads. Exterior cold-formed stud walls to be 16 gage studs, minimum. Wall framing shall be spaced at not more than 16" o.c., and shall be designed for all code prescribed loads with a maximum lateral deflection of L/720 for stone or masonry back-up and L/360 for other materials. Where cold-formed members attach to structural members subject to vertical deflection, provide allowance for vertical movement of the greater of 3/4" or L/240 of structural member

METAL PANEL SYSTEMS

Metal panels, supporting members and all connections within metal panel system and to supporting structure are to be designed by contractor under the supervision of an engineer licensed in the state that has jurisdiction over the project to meet code required wind, snow

IACK DEMMER AUTOMOTIVE GROUP

prepared for:





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DEMMER

project title

## QUICKLAN 37410

MICHIGAN AVE. WAYNE, MI

sheet title



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ssuea	date
Ride & Permite	12/20/2013
	12/20/2013
Bids & Permits	02/07/2014



#### FOUNDATIONS AND STEEL SUBMITTED AND PERMITTED UNDER SEPARATE APPLICATION

over 1/2" to 3/4"

#### STEEL DETAILS









MW-8 —

S-301 MW-12ftg F-3.5x3.5 – S-301 CMUP-2  $\overline{1}$ ftg F-20 ftg F-5x5 — MW-12 — CMUP-1 ----- 🗲 CMUP-2ftg F-5.5x5.5 — CMUP-2 — E-301 CMUP-2 ftg F-20

ftg F-5x5 -

MW-12-

ftg F-3x3 —



foundation plan

prepared for:



prepared by:



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project number

# 13002

<u>drawn</u>	USA
approved	USA
issued	date
Bids & Permits	12/20/2013

02/07/2014

Bids & Permits



slab-on-grade notes

office area slab-on-grade = 4" thick reinforced with 6x6 W2.9xW2.9 WWF slabs with vehicle traffic = 6" thick reinforced w/ (2) layers of 6x6-W2.9xW2.9 WWF

place slabs on a 10 mil vapor barrier, on compacted granular fill. all subgrade below slab to be prepared in accordance with recommendations from the geotechnical engineer. footings to bear only on native undisturbed soil. typical top of slab elevation = 100'-0". coordinate slab slope with architecture. contractor shall submit control joint layout for architect's approval.

see slab typical details on S-002 for more information.





roof framing plan

prepared for:



prepared by:





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02/07/2014

Bids & Permits



roof framing plan notes

deck bearing elevations are noted on the plans

coordinate size and locations of all mechanical openings with mechanical and architectural drawings

dead load:20 psfsnow load:20 psf (based on 25 psf ground snow) + drift per ASCE-7roof live load:20 psf (not applied with snow load)mechanical/etc.:5 psf

MD-X\_ denotes metal deck designation and span direction. see schedule on sheet S-001

#### steel joist notes

for joists in line with columns, bolt in place prior to erecting remaining joists. provide joist seats to accommodate roof slope:

K and LH-series joist seat depth = 5" space joist bridging evenly where possible. coordinate w/ mechanical.

joist manufacturer shall provide joist camber such that under self weight + 12 plf (roof deck weight after installation) the joist is level. limit joist deflection due to live/snow load to L/360.

joist manufacturer to design joists and bridging to resist net wind uplift of 10 psf. provide bottom chord uplift bridging at first panel point of all joists.

joist manufacturer to design connections of joist to supporting steel. provide x-bridging in first 2 bays at ends of all bridging. all joists spanning 40' and longer to have row of bolted bridging to be in place prior to slackening of hoist

verify all dimensions with architecture.

reinforce joists per JS-05/S-002 for concentrated load occurring at locations other than panel points. see ST-07 and ST-11/S-002 for support framing for roof hatch, sump and exhaust

see JS-05/S-002 for joist reinforcement at frame bearing locations. steel framed building is laterally supported by masonry walls and must be secured prior to attachment to CMU.





prepared for:



prepared by:



**UNDER THE SUN** ARCHITECTURAL LLC

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notice

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DEMMER

QUICKLANE

37410

MICHIGAN AVE.

WAYNE, MI





## DETAILS



drawn	USA
approved	USA
s s u e d	date
Bids & Permits	12/20/2013
Bids & Permits	02/07/2014





prepared for:

IACK