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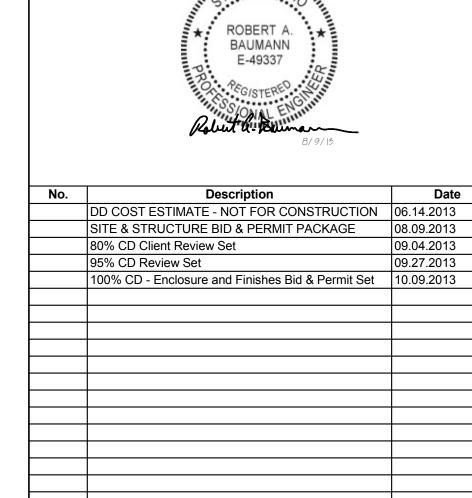
Drawing Title

EXTERIOR DETAILS

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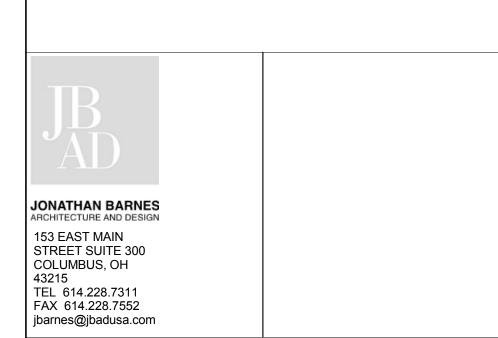


The Contractor shall check all dimensions of the work and shall report discrepancies to the Architect before proceeding.

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Columbus
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Whitehall Branch

Drawing Title

COVER SHEET

S0.01

6/14/13							
ıs shown			Project Number 12100				
	PM	JC		Des	Dr		

STRUCTURAL ENGINEERING

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			<u>ABBREVIATIONS</u>						> A					
AB	Anchor Bolt	FOW	Face of Wall	P/C	Precast Concrete									11
ADD'L	Additional	FS	Far Side	PAF	Powder Actuated Fastener(s)									11
ADJ AFF	Adjacent Above Finished Floor	FT FTG	Feet, Foot Footing	PLF PLWD	Pounds per Linear Foot Plywood									
ANC	Anchor	GA	Gage	PNL	Panel									
APPRO		GALV	Galvanized	PREL	Preliminary									
ARCH B, BOT	Architect (ural) Bottom	GC GEN	General Contractor General	Proj Psi	Project Pounds per Square Inch									6
B, BOT B PL	Base Plate	GR	Grade	PSF	Pounds per Square Foot									6
BLDG	Building	GRND	Ground	PSL	Parallel Strand Lumber				CTR	I ICTI IR	DAI FNIC	SINEERIN	I <i>C</i> .	
BLK	Block	GRTG	Grating	QTY	Quantity				311	IOC I ON	IAL LINC		IU	W
BLK'G BM	Blocking Beam	H,HORIZ HD	Horizontal Headed	RD REF	Roof Drain Reference									* *
BRG	Bearing	HK	Hook	REINF	Reinforce (ing) (ed)									
BRK	Brick	HS	High-Strength	REQ	Require (ments)									
BS BSMT	Both Sides	HVAC	Heating Ventilating	req'd Rev	Required									
BTWN	Basement Between	ID	Air Conditioning Inside Diameter (Dimension)	REV RF	Revise (ion), (ed) Roof									
СВ	Concrete Beam	ĬF	Inside Face	RM	Room									
c/c	Center-to-Center	IN IN	Inch	RTU	Roof Top Unit									
CE CJ	Continuous End Control Joint	INT IT	Interior, Intermediate Joint	SC SC	South Slip-critical									
CLR	Clear	JST	Joist	SCHED	Schedule									
CMU	Concrete Masonry Units	K	Kip (1000 pounds)	SECT	Section									
COL	Column	KSF	Kips per Square Foot	SHT	Sheet									SC
CONC CONN	Concrete	LAT LBS, #	Lateral Pounds	SIM	Similar									
CONST	Connect (ion) Construct (ion)	LD3, # LL	Live Load	SP	Slope(d) Space(s) (ed)									SC
CONT	Continuous (ation)	LLH	Long Leg Horizontal	SPEC	Specification (s)									
CONTR		LLV	Long Leg Vertical	SPL	Splice									 SC
CTR CW	Center Curtain Wall	LNTL LOC	Lintel Location	SQ SS	Square Stainless Steel									
CY	Cubic Yards	LSH	Long Side Horizontal	SSL	Short Slotted Holes									S 1
DA	Drilled Anchor	LSL	Long Slotted Holes	STA	Station									
DBL	Double	LSV	Long Side Vertical	STD	Standard									51
DBLS	Double Ties Discontinuous End	LVL LW	Laminated Veneer Lumber	STIFF STL	Stiffener Steel									
DE DET	Detail Detail	MAS	Long Way Masonry	STRUCT	Structure (al)									52
DIA,ø	Diameter	MAT'L	Material	SVC	Service									C
DIAG	Diagonal	MAX	Maximum	SW	Short Way									SZ
DIM	Dimension Dead Load	MBR MECH	Member Mechanical	SYM	Symmetrical Top									SZ
DL DR	Distribution Rib	MEZZ	Mezzanine	T/	Top Top of									[32
DWG	Drawing	MFR	Manufacture (r)	T&B	Top and Bottom									Sł
DWL	Dowel	MIN	Minimum	TEMP	Temperature, Temporary									Jr
E-, EX	East FG Existing	MISC MO	Miscellaneous Masonry Opening	THD THK	Threaded Thick (ness)									Sk
EA	Each	MPH	Miles per Hour	TOS	Top of Steel									
EE	Each End	MTL	Metal	TOSL	Top of Slab									Sk
EF	Each Face	N	North	TOT	Total									<u> </u>
EJ EL	Expansion Joint Elevation	N/A NF	Not Applicable Near Face	TYP UN	Typical Unless Noted									
ELEV	Elevator	NIC	Not In Contract	UNO	Unless Noted Otherwise									_
EMBED	Embedded (ment)	NO, #	Number	V, VERT	Vertical									
ENGR	Engineer	NOM	Nominal	W w/	West									
EOS EQ	Edge of Slab Equal	NS NSH	Near Side Normal Slotted Holes	W/ W/C	With Water/Cement Ratio									
ES	Each Side	NTS	Not to Scale	W/O	Without									
EW	Each Way	OC	On Center (s)	WD	Wood									
exp ext	Expansion Exterior	OD OF	Outside Diameter	WL WP	Wind Load									
FAB	From Adjacent Beam		Outside Face Out-to-Out	WF	Work (ing) Point Weight									
FABR	Fabricate (or)	o/o OPNG	Opening	WWR	Welded Wire Reinforcing									
FD	Floor Drain	OPP	Opposite (Hand)	XS	Extra Strong									₹
FFE FIN	Finished Floor Elevation Finished	OPT ORIG OSB OSL	Opening Opposite (Hand) Optional Original Oriented Strand Board	XXS CL	Double Extra Strong Centerline									3 #2
FL	Full Length	OSB	Oriented Strand Board	PL	Plate									
FLR	Floor	OSL	Out Standing Leg	#/FT	Pounds per Lineal Foot									
FND	Foundation	OVHD	Overhead											
FOM FOS	Face of Masonry Face of Sheathing	OVS	Oversize Round Holes											
FOV	Face of Veneer													
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3D BULDING VIEW

4. ROOF SNOW LOAD: GROUND SNOW LOAD (Pg) 20 PSF - 1.0 SNOW EXPOSURE FACTOR (Ce) IMPORTANCE FACTOR (Is) - 1.1 THERMAL FACTOR (Ct) - 1.0 FLAT ROOF SNOW LOAD (Pf) - 22 PSF

5. WIND LOAD: BASIC WIND SPEED IMPORTANCE FACTOR (IW) EXPOSURE CATEGORY INTERNAL PRESSURE COEFFICIENT(G Cpi)

- 90 MPH

- EXPOSURE C

- 1.15

- ±0.18 6. SEISMIC LOAD: OCCUPANCY CATEGORY - 1.25 IMPORTANCE FACTOR (Ie) MAPPED SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD (Ss) - 0.145 - 0.058 MAPPED SPECTRAL RESPONSE ACCELERATION AT ONE-SECOND PERIOD (S1) SITE CLASS SPECTRAL RESPONSE COEFFICIENT AT SHORT PERIOD (SDs) SPECTRAL RESPONSE COEFFICIENT AT ONE-SECOND PERIOD (SD1) - 0.093 SEISMIC DESIGN CATEGORY DESIGN BASE SHEAR - 40K SEISMIC RESPONSE COEFFICIENT (Cs)

BASIC SEISMIC FORCE RESISTING SYSTEM: H-STRUCTURAL STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE (R=3, Cd=3) A9-ORDINARY REINFORCED MASONRY SHEAR WALLS (R=2, Cd=1 3/4) DESIGN BY EQUIVALENT LATERAL FORCE PROCEDURE

MECHANICAL FRAMING LOADS, OPENINGS, AND STRUCTURE IN ANY WAY RELATED TO MECHANICAL REQUIREMENTS ARE SHOWN FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL OBTAIN APPROVAL OF MECHANICAL AND OTHER TRADES BEFORE PROCEEDING WITH SUCH PORTION OF THE WORK. EXCESS COST RELATED TO VARIATION IN MECHANICAL REQUIREMENTS TO BE BORNE BY MECHANICAL CONTRACTOR. COORDINATE SIZE AND LOCATION OF ALL OPENINGS WITH THE MECHANICAL DRAWINGS.

8. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE [DEMOLITION PROCEDURES,] ERECTION PROCEDURES AND SEQUENCES AND TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES THE ADDITION OF WHATEVER TEMPORARY BRACING, GUYS, OR TIE-DOWNS WHICH MIGHT BE NECESSARY. SUCH MATERIAL SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER COMPLETION OF THE PROJECT.

9. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL PHASES OF CONSTRUCTION.

10. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CONDITIONS RELATING TO EXISTING CONSTRUCTION AND EXISTING SERVICE ON THE SITE.

11. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS OF COLUMNS, WALLS, OPENINGS ETC. WITH THE ARCHITECTURAL DRAWINGS PRIOR TO PROCEEDING WITH THE WORK.

033000S REINFORCED CONCRETE

1. SPECIFICATIONS AND STANDARDS:

ALL CONCRETE WORK, DETAILING, FABRICATION AND PLACING OF BARS AND CONCRETE SHALL BE GOVERNED BY THE APPLICABLE VERSION OF:

A. ACI 117, ACI 301, ACI 315, AND ACI 318

B. CRSI RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS.

C. ACI 306 AND ACI 305 FOR WINTER AND HOT WEATHER CONCRETING, RESPECTIVELY.

THE CONTRACTOR SHALL AT ALL TIMES HAVE A COPY OF THE RELEVANT SPECIFICATIONS QUOTED ABOVE ON THE SITE AND THE SUPERVISORY PERSONNEL SHALL BE THOROUGHLY FAMILIAR WITH THE CONTENTS THEREOF. 2. CONTINGENCIES:

A. LEAN CONCRETE UNDER FOUNDATIONS FOR EARTH FILL DUE TO ACCIDENTAL OVER EXCAVATION OR SOFT SPOTS. 3. CONCRETE REQUIREMENTS AND LOCATION IN JOB:

SPECIAL **REQUIREMENTS** FOOTINGS, WALLS, PIERS 3000 PSI EXTERIOR CONCRETE 4000 PSI 5% ±1% AIR CONTENT INTERIOR SLABS-ON-GRADE 3500 PSI MASONRY GROUT 3000 PSI 7" Slump 3/8" MAX. AGG. EARTH FILL 1500 PSI NO TESTS

SUBMIT CONCRETE MIXES FOR APPROVAL IN ACCORDANCE WITH ACI 301 BEFORE PLACING ANY CONCRETE

4. REINFORCING REQUIREMENTS:

A. BARS: ASTM A615, A616, A617 - GRADE 60 B. WELDED WIRE REINFORCING: ASTM A185.

5. FOOTINGS:

A. DOWELS IN FOOTINGS TO MATCH VERTICAL REINFORCING IN CONCRETE WALLS, COLUMNS OR PIERS. DOWELS IN FOOTING FOR MASONRY WALLS ARE NOT REQUIRED UNLESS SPECIFICALLY SHOWN ON THE STRUCTURAL DETAILS.

B. BEND ALL BARS 24 DIAMETERS AROUND CORNERS OF FOOTINGS. BARS AT THE INSIDE FACE OF THE CORNER SHALL BE CONTINUED ACROSS TO THE OUTSIDE AND THEN BENT. 6. MISCELLANEOUS:

A. IF NO OTHER REINFORCING IS SHOWN IN A SLAB ON GRADE, PROVIDE 6x6-W1.4x W1.4 WWR AT MID-THICKNESS OF SLAB. B. LAP WELDED WIRE REINFORCING 1 SPACE + 2" AT ALL EDGES AND ENDS OF SHEET.

C. DO NOT BACKFILL AGAINST FOUNDATION WALLS UNTIL BOTH ADJACENT FLOOR SLABS ARE IN PLACE OR WHERE FILL IS ON BOTH SIDES OF A WALL, BRING THE FILL UP UNIFORMLY.

D. CONSTRUCTION JOINTS PERMITTED ONLY WHERE SHOWN OR AS APPROVED BY THE STRUCTURAL ENGINEER. E. PROVIDE ONE #4x3'-0" DIAGONAL REINFORCING BAR AT MID-DEPTH OF SLAB AT ALL RE-ENTRANT CORNERS OF

SLABS ON GRADE.

042000 - CONCRETE UNIT MASONRY

1. COMPRESSIVE STRENGTH OF MASONRY (f'm) 1500 PSI, DETERMINED BY UNIT STRENGTH OR PRISM METHOD. 2. MASONRY MATERIALS:

A. HOLLOW AND SOLID LOAD BEARING CONCRETE MASONRY UNITS - ASTM C90 - NORMAL WEIGHT.

3. MORTAR: A. CONCRETE UNIT MASONRY WALLS - ASTM C270 TYPE S.

9. POST-INSTALLED ADHESIVE ANCHORS:

4. COARSE MASONRY GROUT: SEE REINFORCED CONCRETE GENERAL NOTES. MASONRY REINFORCEMENT:

A. HORIZONTAL JOINT REINFORCEMENT: 9 GA DEFORMED WIRE, LADDER TYPE REINFORCEMENT

 IN EVERY SECOND BLOCK COURSE, FULL HEIGHT, AND WHERE SHOWN ON DRAWINGS. 2. IN FIRST BED JOINT ABOVE AND BELOW OPENINGS EXTENDING 24" BEYOND OPENING. LAP REINFORCEMENT A FULL WIDTH AT CORNERS AND INTERSECTIONS.

BEARING POINTS: A. BEAMS: 3 COURSES x 24" WIDE SOLID OR GROUTED SOLID MASONRY.

B. JOISTS & LINTELS: 2 COURSES x 16" WIDE SOLID OR GROUTED SOLID MASONRY.

7. REINFORCED MASONRY:

A. INSTALL REINFORCING BARS IN LOCATIONS SHOWN. LAP SPLICE REINFORCING 48 BAR DIAMETERS UNLESS NOTED B. GROUT BLOCK WITH COARSE MASONRY GROUT VIBRATED IN PLACE TO FILL ALL VOIDS AND INTERSTICES. FOLLOW RECOMMENDATIONS OF NCMA TEK NO. 3-2.

8. POST-INSTALLED SLEEVE ANCHORS: ONE PIECE WRAP AROUND EXPANSION SLEEVE. THE ENTIRE ANCHOR SHALL BE CARBON STEEL MEETING THE

FOLLOWING REQUIREMENTS. ANCHOR SIZE MINIMUM EMBEDMENT PULLOUT (LBS) 1/4" DIAMETER 3/8" DIAMETER 1 1/4" 650 1/2" DIAMETER 2 1/4" 5/8" DIAMETER 1250 3/4" DIAMETER 3 1/2" 1900

LOADS INDICATED ABOVE ARE SERVICE LOADS IN POUNDS FOR SLEEVE ANCHORS IN CONCRETE MASONRY CONSTRUCTION. ANCHORS TO BE INSTALLED IN FULLY GROUTED CELLS.

EMBED IN EPOXY RESIN ADHESIVE. THE ENTIRE ANCHOR SHALL BE ASTM A36 CARBON STEEL MEETING THE FOLLOWING REQUIREMENTS:

ANCHOR SIZE PULLOUT(LBS.) SHEAR(LBS) 3/8" DIAMETER 1550 1050 3 1/2" 1/2" DIAMETER 1750 1900 4 1/4" 5/8" DIAMETER 2000 2250

3/4" DIAMETER 3700 2000 LOADS INDICATED ABOVE ARE SERVICE LOADS FOR STEEL ANCHORS IN CONCRETE MASONRY CONSTRUCTION.

ANCHORS TO BE INSTALLED IN FULLY GROUTED CELLS.

 SPECIFICATIONS AND STANDARDS: UNLESS SPECIFICALLY SHOWN OTHERWISE, DESIGN, FABRICATION AND ERECTION SHALL BE GOVERNED BY

A. ANSI/AISC 360 - SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS. ASD B. AISC 341 SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS, INCLUDING SUPPLEMENT 1.

. AISC 303 - CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES.

SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.

. AWS STANDARD WELDING SYMBOLS. AWS D1.1 STRUCTURAL WELDING CODE - STEEL. WELDING SHALL BE PERFORMED ONLY BY OPERATORS QUALIFIED, BY THE AWS STANDARD QUALIFICATION PROCEDURE, TO PERFORM THE PARTICULAR TYPE OF WORK REQUIRED.

2. TESTING: A. WELDS: NON_DESTRUCTIVE TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY ON ALL CRITICAL WELDS AND ON 25% OF NONCRITICAL WELDS. INADEQUATE WELDS SHALL BE STRENGTHENED OR CUT OUT AND REPLACED AS DIRECTED. CRITICAL WELDS SHALL BE DEFINED AS ALL FULL PENETRATION WELDS, ALL WELDS IN MOMENT CONNECTIONS AND AS NOTED AS CRITICAL WELDS ON THE STRUCTURAL DETAILS.

B. STRUCTURAL STEEL: PROVIDE MILL REPORTS FOR PROPERLY IDENTIFIED MATERIALS ON REQUEST. C. A325 AND A490 BOLTS: PROVIDE BOLT INSPECTION AS DETAILED IN SECTION 9 OF SPECIFICATIONS FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS.

3. MATERIALS: A. "W" SHAPES: ASTM A992 Fy = 50 KSI.

B. CHANNELS: ASTM A36.

C. ANGLES, PLATES AND BARS: ASTM A36. D. STRUCTURAL PIPES: ASTM A53 GR B.

RECTANGULAR HOLLOW STRUCTURAL SECTIONS: ASTM A500 GR B, Fy = 46 KSI.

ROUND HOLLOW STRUCTURAL SECTIONS: ASTM A500, GR.B, Fy = 42 KSI. G. WELDING ELECTRODES: AWS A5.1 OR A5.5 SERIES E70.

H. BOLTS: ASTM A325. ANCHOR RODS: ASTM F1554 GR.36.

J. PAINT AND PROTECTION - NONE EXCEPT AS NOTED BELOW:

INTERIOR MEMBERS EXPOSED TO VIEW IN THE FINISHED STRUCTURE - PRIME COAT, TOUCH UP AFTER ERECTION. $2.\;\;$ Members exposed to weather in finished structure, shelf angles and lintels in exterior walls -GALVANIZED PER ASTM A123 AFTER FABRICATION.

K. SHRINKAGE-RESISTANT GROUT: ASTM C1107, NON-METALLIC AGGREGATE, NON-CORROSIVE, NON-STAINING.

4. LINTELS: A. LINTELS FOR EXTERIOR WALL OPENINGS - HOT DIPPED GALVANIZED.

B. 8" BEARING EACH SIDE OF OPENINGS UNLESS NOTED. C. UNLESS SHOWN OTHERWISE, PROVIDE 1 ANGLE FOR EACH 4" WALL THICKNESS AS FOLLOWS:

MASONRY OPENING ANGLE SIZE 3'-6" OR LESS L 3 1/2x3 1/2x1/4 3'-7" TO 5'-0" L 4x3 1/2x1/4 LLV 5'-1" TO 8'-0" L 5x3 1/2x5/16 LLV 8'-1" TO 10'-0" L 6x3 1/2x5/16 LLV

5. CONNECTION REQUIREMENTS: A. DESIGN CONNECTIONS FOR VERTICAL REACTIONS SHOWN ON DRAWINGS OR FOR FULL CAPACITY OF MEMBER WHERE

NO REACTION IS SHOWN. B. DESIGN MOMENT BEAM CONNECTIONS FOR VALUES SHOWN OR FOR FULL MOMENT CAPACITY OF MEMBER.

CONNECTIONS SHOWN AND DETAILED ON THE DRAWINGS MAY BE REDESIGNED BY THE STRUCTURAL STEEL CONTRACTOR FOR EQUAL FORCES PROVIDED THE SAME ARRANGEMENT OF MEMBERS IS USED AND THE OVERALL SIZE OF THE CONNECTION DOES NOT EXCEED THAT OF THE CONNECTION DETAILED.

D. OBTAIN APPROVAL FROM STRUCTURAL ENGINEER FOR TYPES OF CONNECTIONS BEFORE FABRICATION. E. ALL BOLTED CONNECTIONS TO BE SHEAR/BEARING TYPE WITH BOLTS IN THE SNUG TIGHT CONDITION UNLESS NOTED

OTHERWISE. 6. MISCELLANEOUS REQUIREMENTS:

A. PROVIDE HOLES FOR OTHERS. IF SECTION IS WEAKENED BY MORE THAN 15% BY AN OPENING NOT SHOWN ON THE DRAWINGS, OBTAIN PRIOR APPROVAL. B. STEEL FRAMING FOR OPENINGS FOR, SUPPORTING OR CONNECTING TO MECHANICAL OR OTHER EQUIPMENT IS SHOWN

FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL COORDINATE SIZES AND LOCATIONS WITH MECHANICAL AND OTHER REQUIREMENTS BEFORE PROCEEDING WITH THE WORK. CONTRACTOR SHALL COORDINATE SIZES AND LOCATIONS OF STEEL ANGLE FRAMES FOR OPENINGS THAT ARE SHOWN ON THE MECHANICAL AND ARCHITECTURAL DRAWINGS. C. STEEL BELOW GRADE TO BE PROTECTED BY A MINIMUM OF 3" OF CONCRETE OR 4" OF MASONRY.

D. 1/4" THICK SETTING PLATES FOR ALL BEAMS BEARING ON MASONRY OR CONCRETE WHICH DO NOT REQUIRE A BEARING PLATE. ANCHOR THE SETTING PLATE TO THE WALL W/ TWO -1/2"x6" HEADED STUDS.

052100 - STEEL JOIST FRAMING

1. DESIGN, MANUFACTURING, AND ERECTION: ACCORDING TO THE STANDARD SPECIFICATIONS, LOAD TABLES & WEIGHT TABLES FOR STEEL JOISTS & JOIST GIRDERS ADOPTED BY THE STEEL JOIST INSTITUTE

STEEL JOISTS OF THE SAME DEPTH AND CHORD DESIGNATION SHALL HAVE MEMBER SIZES OF UNIFORM CONSISTENCY

3. PAINT ALL JOISTS WITH MANUFACTURERS STANDARD SHOP PRIMER EXCEPT THAT BLACK ASPHALT NOT PERMITTED. PROVIDE ADDITIONAL WEB MEMBERS AS REQUIRED AT CONCENTRATED LOADS THAT DO NOT OCCUR AT PANEL POINTS 5. BRIDGING:

A. ANCHOR ALL BRIDGING TO INTERSECTING WALLS AND BEAMS UNLESS OTHERWISE SHOWN

B. BRIDGING QUANTITY AND SPACING AS REQUIRED BY SJI. CONNECTIONS TO SUPPORTING STEEL

A. WELDING - 2" OF 1/8" FILLET EA. SIDE FOR K AND KCS JOISTS.

B. BOLTING - (2) 1/2" DIAMETER A307 FOR K AND KCS JOISTS. C. BOLT JOISTS AT OR NEAREST TO COLUMNS.

D. EXTEND BOTTOM CHORD OF JOISTS IN LINE WITH COLUMNS TO STABILIZER PLATES ON COLUMNS OR BEAMS.

PROVIDE MATCHING HEIGHT SEATS ON JOISTS THAT HAVE COMMON BEARING.

8. ADJACENT JOISTS OF THE SAME DEPTH ARE TO HAVE WEB MEMBERS IN LINE TO PERMIT PASSAGE OF MECHANICAL DUCTS.

053100 - STEEL DECKING

1. SPECIFICATIONS AND STANDARDS:

A. DESIGN FABRICATION AND ERECTION OF STEEL DECK SHALL BE GOVERNED BY THE LATEST EDITION OF THE AMERICAN IRON AND STEEL INSTITUTE, SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS.

B. PROPERTIES OF THE STRUCTURAL STEEL DECK SHALL BE COMPUTED IN ACCORDANCE WITH THE REFERENCE STANDARD. THE PROPERTIES SHALL BE PUBLISHED IN THE MANUFACTURER'S CATALOG.

2. AWS STANDARD WELDING SYMBOLS.

O. AWS D1.3 SPECIFICATIONS FOR WELDING SHEET STEEL IN STRUCTURES.

. WELDING SHALL BE PERFORMED ONLY BY OPERATORS QUALIFIED, BY THE AWS STANDARD QUALIFICATION PROCEDURE, TO PERFORM THE PARTICULAR TYPE OF WORK REQUIRED.

. MATERIALS: A. GALVANIZED STEEL DECK: ASTM A653 STRUCTURAL QUALITY GRADE 33 WITH COATING DESIGNATION G60.

B. WELDING ELECTRODES: AWS A5.1, A5.5 OR A5.18 SERIES E60. 3. ERECTION AND CONNECTIONS:

A. MINIMUM BEARING: 2 INCHES UNLESS OTHERWISE SHOWN.

B. ANCHOR STEEL DECK TO STEEL SUPPORTING MEMBERS WITH 5/8" DIAMETER PUDDLE WELDS AT A MAXIMUM

AVERAGE SPACING OF 12 INCHES UNLESS SHOWN OTHERWISE. C. FOR DECK SPANS GREATER THAN FIVE FEET, SIDE LAP FASTENERS SHALL BE SPACED AT INTERVALS NOT EXCEEDING 18 INCHES, UNLESS NOTED, USING #10 SCREWS, 5/8" DIAMETER PUDDLE WELDS, OR 1" LONG FILLET WELDS.

4. OPENINGS IN STEEL DECK. A. OPENINGS CUT IN THE STEEL DECK SHALL BE REINFORCED OR SHALL BE SUPPORTED ON STEEL ANGLE FRAMES.

COORDINATE SIZES AND LOCATIONS WITH THE MECHANICAL AND ARCHITECTURAL DRAWINGS.

B. OPENINGS IN STEEL DECK EQUAL TO OR LESS THAN 12"x12" SHALL BE REINFORCED WITH A 24"x24" - 16 GAGE PLATE

SCREWED OR WELDED TO THE DECK RIBS ON ALL SIDES OF THE OPENING. C. OPENINGS IN ROOF DECK GREATER THAN 12"x12" SHALL BE SUPPORTED ON STEEL ANGLE FRAMES. 054000 COLD-FORMED METAL FRAMING

 SPECIFICATIONS AND STANDARDS: A. STRUCTURAL PROPERTIES OF COLD-FORMED METAL FRAMING SHALL BE COMPUTED IN ACCORDANCE WITH

IN THE MANUFACTURERS CATALOG. B. WELDING SHALL BE PERFORMED ONLY BY QUALIFIED OPERATORS USING PROPER EQUIPMENT FOR THE PARTICULAR

AISI "SPECIFICATIONS FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS" AND SHALL BE PUBLISHED

TYPE OF WORK REQUIRED. C. AWS STANDARD WELDING SYMBOL.

D. AWS D1.3 SPECIFICATION FOR WELDING SHEET STEEL IN STRUCTURES.

2. MATERIALS: A. MEMBERS 54 MILS AND HEAVIER: ASTM A1003, GRADE 50, TYPE H. B. MEMBERS 43 MILS AND LIGHTER: ASTM A1003, GRADE 33, TYPE H.

C. TRACK AND BRIDGING MATERIALS: ASTM A1003, GRADE 33, TYPE H. D. FRAMING SHALL BE GALVANIZED PER ASTM A653, G60. E. WELDING ELECTRODES: AWS A5.1, A5.5 OR A5.18 SERIES E60.

3. CONNECTIONS: A. CUT FRAMING COMPONENTS TO FIT SQUARELY AGAINST ABUTTING MEMBERS AND HOLD FIRMLY IN POSITION UNTIL

PROPERLY FASTENED. B. PANELS SHALL BE SQUARE AND BRACED AGAINST RACKING.

WIRE TYING OF STRUCTURAL FRAMING COMPONENTS IS NOT PERMITTED). COMPONENTS SHALL BE FASTENED TOGETHER WITH A MINIMUM OF 2-#8 SCREWS OR AS SHOWN ON THE DRAWINGS.

4. MISCELLANEOUS REQUIREMENTS:

A. ATTACH TRACK TO THE FLOOR AND OVERHEAD STRUCTURE AS NOTED. 3. SEAT STUDS SQUARELY TO THE FLOOR AND OVERHEAD TRACK AND CONNECT AS NOTED.

. SPLICES IN STRUCTURAL FRAMING MEMBERS ARE NOT PERMITTED WITHOUT APPROVAL OF THE STRUCTURAL ENGINEER. D. DO NOT ALLOW AXIAL LOADS TO STUDS UNTIL ALL BRIDGING, CONNECTIONS, AND ATTACHMENT OF COLLATERAL

MATERIALS ARE COMPLETE. E. ATTACH V-BAR BRIDGING TO BOTH FLANGES OF WALL STUDS. SPACE BRIDGING AT 4'-0"c/c OR IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

F. ATTACH V-BAR BRIDGING TO BOTH FLANGES OF JOISTS. ATTACH SOLID BRIDGING BETWEEN JOISTS AFTER EVERY 10'-0" LENGTH OF V-BAR BRIDGING. SPACE BRIDGING IN ACCORDANCE WITH THE FOLLOWING PROVISIONS. <u>BRIDGING</u>

7'-0" OR LESS NONE 7'-1" TO 14'-0" ONE ROW AT MIDSPAN. 14'-1" TO 20'-0" TWO ROWS AT THIRD POINTS.

20'-1" TO 26'-0" THREE ROWS AT QUARTER POINTS. G. SOLID BLOCKING OR BANDING IS REQUIRED AT JOIST BEARINGS ROBERT A. BAUMANN E-49337

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DD COST ESTIMATE - NOT FOR CONSTRUCTION 06.14.2013 SITE & STRUCTURE BID & PERMIT PACKAGE 80% CD Client Review Set 109.04.2013 95% CD Review Set 09.27.2013 100% CD - Enclosure and Finishes Bid & Permit Set 10.09.2013 0.09.2013



Project Title

Columbus Metropolitan Library Whitehall Branch

GENERAL NOTES

6/14/13

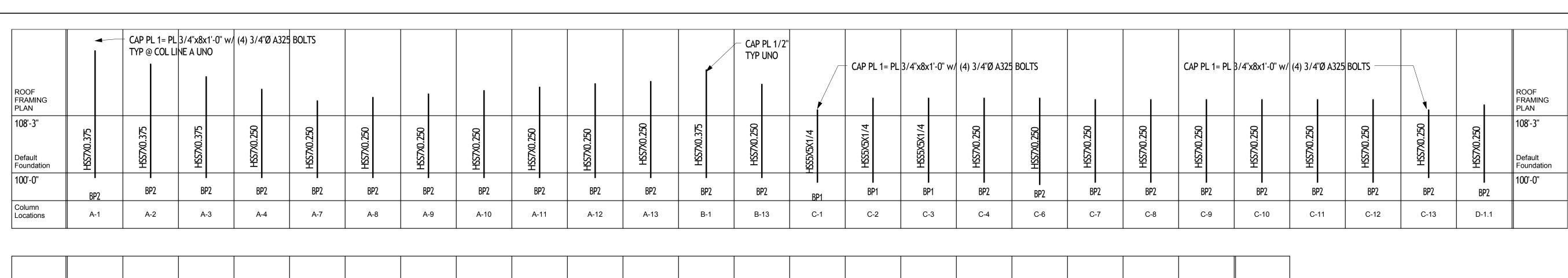


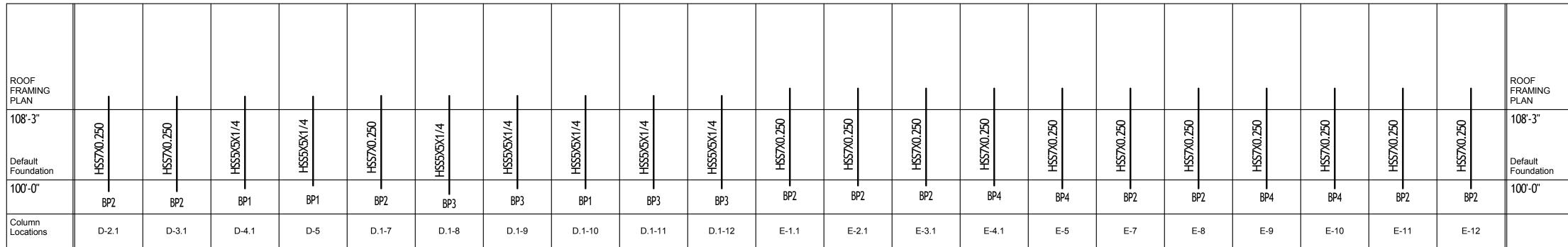
RUCTURAL ENGINEERING

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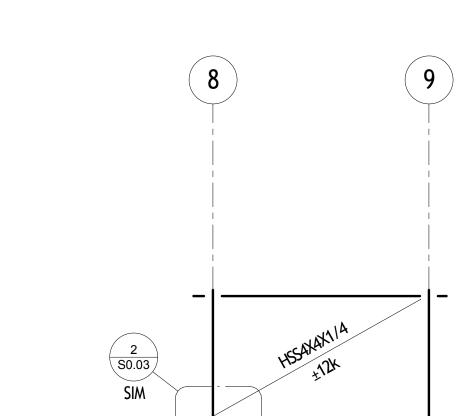
Project Number 12100

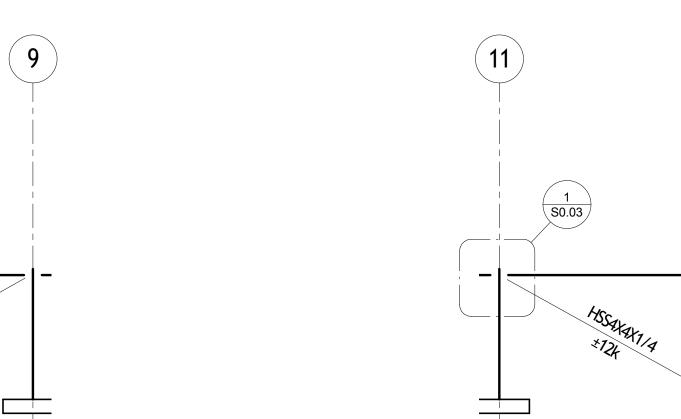


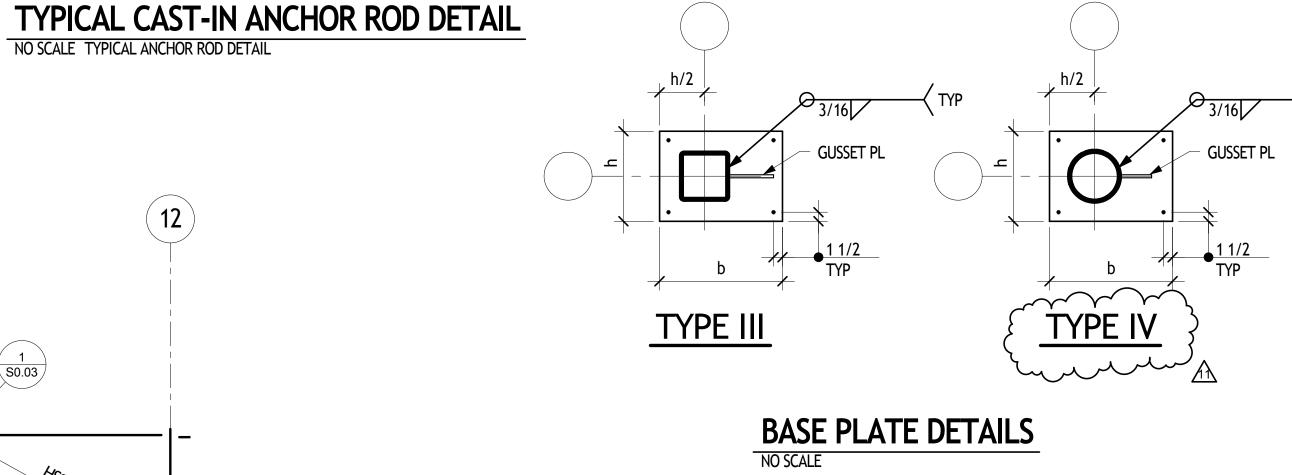


COLUMN SCHEDULE

	BASE I	PLATE SCHEDULE	
	BASE PLATE SIZE (h		
MARK	x b)	ANCHOR BOLTS	BASE PLATE TYPE
BP1	3/4"x11"x0'-11"	(4) 3/4" DIA x 0'-9"	TYPE II
BP2	3/4"x13"x1'-1"	(4) 3/4" DIA x 0'-9"	TYPE I
BP3	3/4"x11"x1'-1"	(4) 3/4" DIA x 0'-9"	TYPE III
BP4	3/4"x13"x1'-3"	(4) 3/4" DIA x 1'-4"	TYPE IV

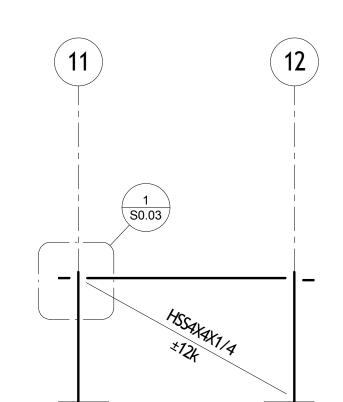






TYPE I

1 1/2 TYP



WASHER

ANCHOR -ROD

L = ANCHOR ROD EMBEDMENT
 TYPICAL ANCHOR ROD DESIGNATION
__"ØxL A. ROD

CONTRACTOR COORDINATE

REQ'D PROJECTION

- CONCRETE SURFACE

FOOTING SCHEDULE - WALL FOOTINGS							
	SIZE						
TYPE	WIDTH	LENGTH	THICKNESS	REINFORCING	REMARKS		
20	2'-0"	CONT	1'-0"	(2)#5 CONT B			
			Λ				
	FOOTII	ng schedule Size	: - ISOLATED F	FOOTINGS 🙆	7		
TYPE	FOOTII WIDTH		: - ISOLATED F	REINFORCING	\ \ REMARKS		
TYPE 40		SIZE					
	WIDTH	SIZE LENGTH	THICKNESS	REINFORCING			

			,
LINTEL SCHEDU	JLE		
SIZE	BRC	G/REMARKS	
L3 1/2x3 1/2x1/4			
L4x3 1/2x1/4 LLV			
L5x3 1/2x5/16 LDV			7
L6X3 1/2X3/8			
	SIZE L3 1/2x3 1/2x1/4 L4x3 1/2x1/4 LLV L5x3 1/2x5/16 LLW	L3 1/2x3 1/2x1/4 L4x3 1/2x1/4 LLV L5x3 1/2x5/16 LLV	SIZE BRG/REMARKS L3 1/2x3 1/2x1/4 L4x3 1/2x1/4 LLV L5x3 1/2x5/16 LLV

- 1. A2-ON-PLAN IMDICATES 24L's 3-1/2x3 1/2x1/4,

 (A3) INDICATES 3-L's 3 1/2x3 1/2x1/4, ETC.

 2. LLV ON ANGLES UNLESS NOTED.

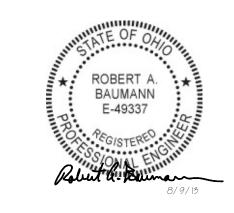
 3. UNLESS NOTED, WELDS FOR PLATE ON BOTTOM OF BEAM FLANGE 1/3/16 3-12

 4. BEAR ALL LINTELS ON SOLID OR GROUTED BLOCK, SEE GENERAL NOTES ON SHEET SO 02
- SEE GENERAL NOTES ON SHEET S0.02. 5. ALL LINTELS HAVE A MIN. OF 8" BEARING, UNLESS NOTED. 6. SEE ARCH. DRAWINGS FOR VERTICAL LOCATION OF LINTELS. 7. SEE GENERAL NOTES ON SO.02 FOR LINTELS NOT COVERED BY LINTEL SCHEDULE.

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No.	Description	Date
	DD COST ESTIMATE - NOT FOR CONSTRUCTION	06.14.2013
	SITE & STRUCTURE BID & PERMIT PACKAGE	08.09.2013
	80% CD Client Review Set	09.04.2013
	95% CD Review Set	09.27.2013
	100% CD - Enclosure and Finishes Bid & Permit Set	10.09.2013
6	CB 03	10.24.2013
11	CB 06	01.17.2014



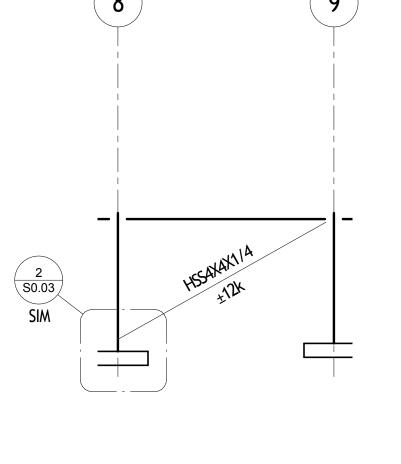
Columbus Metropolitan Library Whitehall Branch

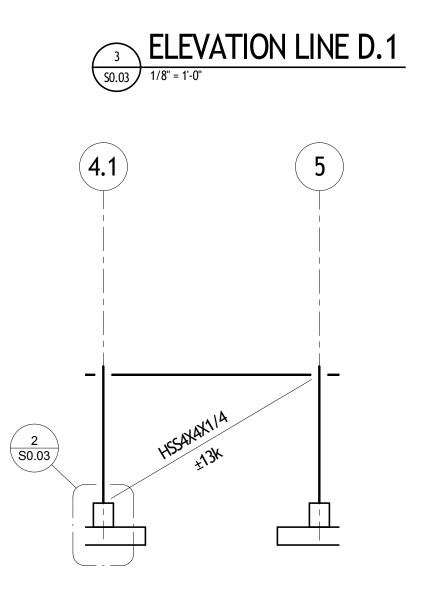
SCHEDULES

Date		Sheet Number
6/14	1/13	
Scale	Project Number	
as shown	12100	S0.03

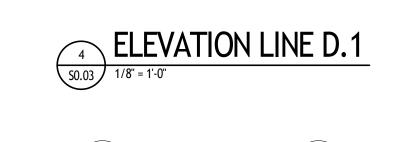
Drawing Title

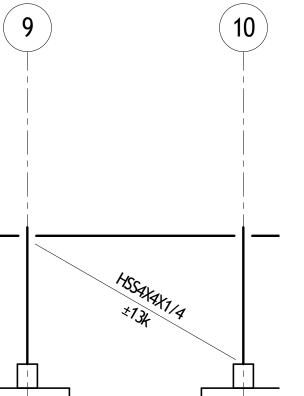
DETAIL S0.03 3/4" = 1'-0"
DETAIL S0.03 3/4" = 1'-0"











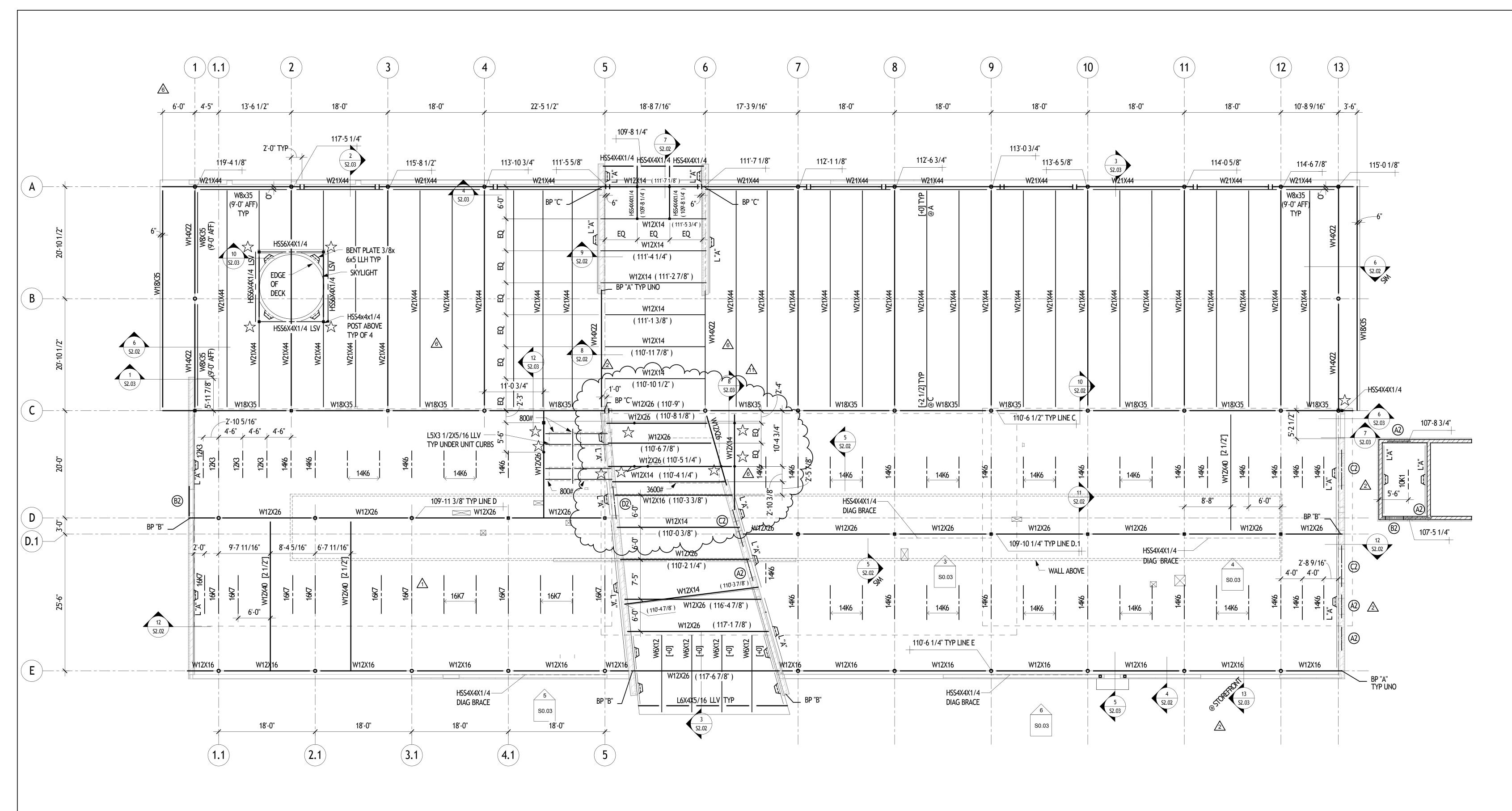
6 **ELEVATION LINE E**50.03 1/8" = 1'-0"

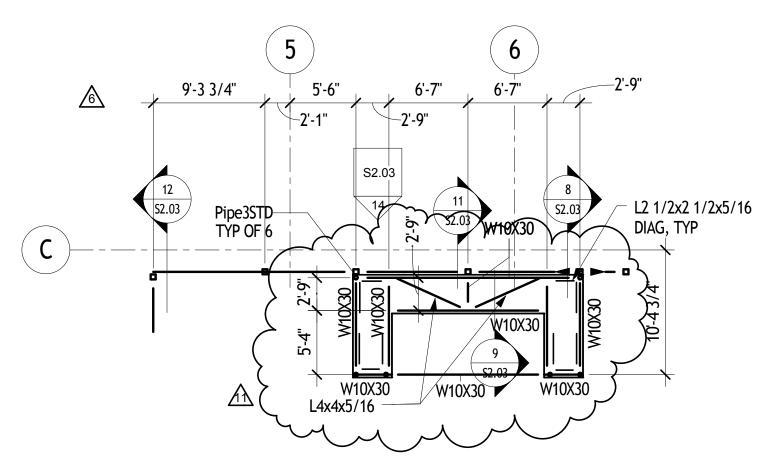
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1 1/2 TYP

TYPE II





BEARING PL SCHEDULE					
PLATE-MARK	PLATE-SIZE	PLATE-ANCHOR			
BP "A"	3/8"x6"x7"	(2) 1/2"Øx6" HEADED STUDS			
BP "B"	1/2"x6"x8"	(2) 1/2"Øx6" HEADED STUDS			
BP "C"	3/4"x6"x9"	(2) 1/2"Øx6" HEADED STUDS			

NOTES: LONG DIMENSION IS PERPENDICULAR TO BEAM

PLATFORM FRAMING PLAN 1/8" = 1'-0" NORTH

- TOP OF STEEL ELEVATION 114'-8 3/8".
 PLATFORM CONSTRUCTION: GALVANIZED STEEL BAR GRATING WITH 1 1/4"x3/16"
- BEARING BARS @ 1 3/16"c/c AND 1/4" CROSS BARS AT 4"c/c.
- GALVANIZE ALL STEEL ABOVE ROOF.
 COORDINATE DIMENSIONS WITH MECHANICAL AND ARCHITECUTURAL DRAWINGS.

AND ARCHITECTURAL REQUIREMENTS. FRAMES ARE REQUIRED AT ROOF DRAINS. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR

ROOF FRAMING PLAN

1. DESIGN LIVE LOADS: ROOF SNOW LOAD BASED ON 20 PSF GROUND SNOW LOAD.

AREA 1 (FIELD) - 8 PSF AREA 2 (EDGE) - 25 PSF AREA 3 (CORNER) 25 PSF 4. JOIST BRIDGING - PROVIDE TOP AND BOTTOM CHORD BRIDGING AS REQUIRED BY SJI.

-INDICATES BEAM SHEAR SPLICE.

-INDICATES COLUMN ABOVE.

3. JOIST SUPPLIER TO DESIGN FOR THE FOLLOWING NET UPLIFT PRESSURES (ASD). DIMENSION "a" EQUALS 6 FT.

JOISTS ARE UNIFORMLY SPACED BETWEEN ADJACENT COLUMNS, BEAMS OR WALLS UNLESS NOTED OTHERWISE.
 REFERENCES: GENERAL STRUCTURAL NOTES - S0.02; COLUMN SCHEDULE - S0.03; LINTEL SCHEDULE - S0.03.

-INDICATES TOP OF STEEL AND JOIST BEARING ELEVATION.

-INDICATES LINTEL TYPE. SEE SCHEDULE ON SHEET S0.03.

-INDICATES TOP OF STEEL ELEVATION RELATIVE TO SUPPORTING

2. ROOF CONSTRUCTION: 1 1/2"x20 GAGE WIDE RIB GALVANIZED METAL DECK.

SEE ASCE 7 FOR DIAGRAMS OF VARIOUS ROOF PROFILES.

MEMBER.

1/8" = 1'-0"

7. SYMBOL LEGEND:

L "A" -INDICATES DECK ANGLE L6x4x5/16 w/ 3/4"Ø POST INSTALLED EXP ANCHORS @ 1'-4"" c/c
IN GROUTED CMU. HOLD ANCHOR 12" FROM EDGE OF CMU WALL.

NUMBERS AND LOCATIONS. SEE DETAILS 1 / S2.02 & 2 / S2.02

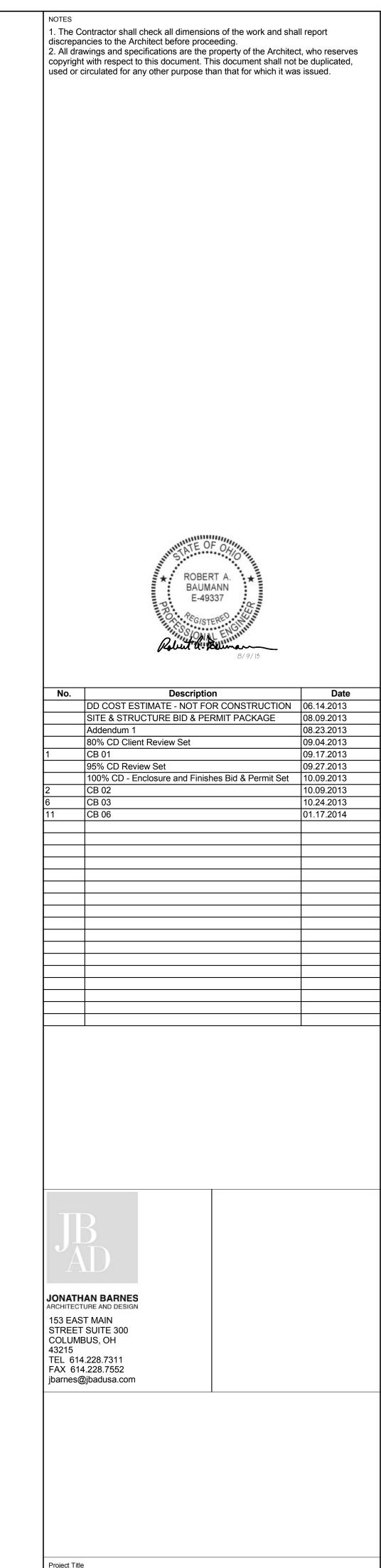
-INDICATES FRAMED OPENING - PROVIDE FRAME USING L's 31/2x31/2x1/4 - 4 SIDES. CONTRACTOR COORDINATE OPENING SIZES WITH MECHANICAL

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Metropolitan Library
Whitehall Branch

Drawing Title

ROOF FRAMING PLAN

ite					Sheet Number		
6/14/13							
cale			Project Number				
as shown			12100			S1.02	
nC PN	Л	JC		Des	Dr		

