CONCRETE SYMBOLS

- CHANGE OF SLAB ELEVATION
- SLOPING SLAB
- CHANGE OF SLAB THICKNESS
- LIMIT OF MEMBER OR SPAN MARK
- DIRECTION OF SPAN
- OPENING
- CONTROL JOINT LOCATION IN CONCRETE WALLS
- INTENTIONALLY ROUGHENED CONSTRUCTION JOINT TO 1/4" AMPLITUDE
- FORM-SAVER
- REBAR
- MECHANICAL COUPLER REBAR SPLICE
- REBAR TERMINATOR
- SELF-EXPANDING WATERSTOP
- PVC WATERSTOP
- WELDED WIRE FABRIC
- COLUMN CONTINUES
- COLUMN TERMINATED

CONNECTORS

CONNECTOR	SECTION	END/ALT VIEW
CAST-IN ANCHOR ROD		
POST-INSTALLED MECHANICAL ANCHOR		
POST INSTALLED ADHESIVE ANCHOR		
HEADED STUD		
BOLT		

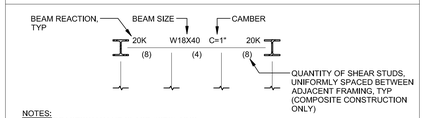
MASONRY MEMBERS

- CMU BLOCK
- CMU BOND BEAM (FULLY GROUTED)
- CMU LINTEL (FULLY GROUTED)
- SINGLE REINFORCEMENT (FULLY GROUT REINFORCED CELLS) — EQ, EQ
- DOUBLE REINFORCEMENT (FULLY GROUT REINFORCED CELLS) — EQ, EQ, EQ

STRUCTURAL DRAWINGS ABBREVIATIONS

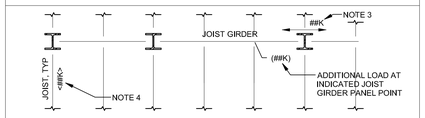
A/E	ARCHITECT/ENGINEER
ACI	AMERICAN CONCRETE INSTITUTE
ACP	AUGER CAST PILE
ADDL	ADDITIONAL
ADJ	ADJACENT
AGGR	AGGREGATE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	APPROXIMATE
AR	ANCHOR ROD
ARCH	ARCHITECTURAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
BI	BOTTOM OF
BAL	BALANCE
BD	BOARD
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BOTT	BOTTOM
BRG	BEARING
BRKT	BRACKET
BTWN	BETWEEN
C	STANDARD CHANNEL
CANT	CANTILEVER
CC	CENTER TO CENTER
CF	COLD FORMED
CG	CENTER OF GRAVITY
CIP	CAST-IN-PLACE
CJ	CONTROL JOINT OR CONSTRUCTION JOINT
CJP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLR	CLEARANCE, CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CTR	CENTER
CTRD	CENTERED
CU FT	CUBIC FEET
CU IN	CUBIC INCH
CYD	CUBIC YARD
CW	CONCRETE WALL
DBL	DOUBLE
DEG	DEGREE
DEMO	DEMOLITION, DEMOLISH
DEPT	DEPARTMENT
DET	DETAIL
DIA	DIAMETER
DIAG	DIAGONAL
DIAPH	DIAPHRAGM
DIM	DIMENSION
DN	DOWN
DO	DITTO
DP	DRILLED PIER OR DEEP
DWG	DRAWING
DWL	DOWELS
EA	EACH
EF	EACH FACE
EJ	EXPANSION JOINT
EL, ELEV	ELEVATION
ELEC	ELECTRICAL
ENCL	ENCLOSURE
ENGR	ENGINEER
EOD	EDGE OF DECK
EOJ	EDGE OF JOIST
EOS	EDGE OF SLAB
EQ	EQUAL
EQPT	EQUIPMENT
ES	EACH SIDE
EW	EACH WAY
EX	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FAB	FROM ADJACENT BEAM
FD	FLOOR DRAIN
FDN	FOUNDATION
FIN	FINISH
FLG	FLANGE
FLR	FLOOR
FS	FOOTING STEP
FT	FEET
FTG	FOOTING
FTGD	FOOTING DRAIN
FV	FIELD VERIFY
GA	GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GRND	GROUND
GT	GIRDER TRUSS
HAS, HS	HEADED ANCHOR STUD
HK	HOOK
HORIZ	HORIZONTAL
HP	HIGH POINT
HS	HOLLOW STRUCTURAL SECTION
HT	HIP TRUSS
HVAC	HEATING, VENTILATION, AIR CONDITIONING
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN	INCH
INCL	INCLUDE
INFO	INFORMATION
INSUL	INSULATION
INT	INTERIOR
J/BRG	JOIST BEARING
JST	JOIST
JT	JOINT
KB	KNEE BRACE
KIP, K	1,000 POUNDS
KO	KNOCK-OUT
KSI	KIPS PER SQUARE INCH
L	ANGLE OR LENGTH
LAB	LABRATORY
LB	POUND
LF	LINEAL FOOT
LIN	LINEAL, LINEAR
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONGIT	LONGITUDINAL
LP	LOW POINT
LSLT	LONG SLOTTED HOLE
LTWT	LIGHT WEIGHT
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MC	MISCELLANEOUS CHANNEL
MECH	MECHANICAL
MEMB	MEMBRANE
MEP	MECHANICAL/ ELECTRICAL/ PLUMBING
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MULT	MULTIPLE
N/A	NOT APPLICABLE
NO	NUMBER
NOM	NOMINAL
NS	NEAR SIDE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OFD	OVERFLOW DRAIN
OH	OVERHEAD
OPNG	OPENING
OPP	OPPOSITE
OPPHD	OPPOSITE HAND
ORIG	ORIGINAL
OVS	OVERSIZED HOLE
P	PIER
PC	PIER CAP OR PRECAST
PERIM	PERIMETER
PERM	PERMANENT
PERP	PERPENDICULAR
PJP	PARTIAL JOINT PENETRATION
PL	PLATE
PLF	POUNDS PER LINEAL FOOT
PLYWD	PLYWOOD
PREFAB	PREFABRICATED
PREL	PRELIMINARY
PREP	PREPARATION, PREPARE
PROJ	PROJECTION
PS	PRESTRESSED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSL	PARALLEL STRAND LUMBER
PT	POST-TENSIONED
R	RADIUS
RD	ROOF DRAIN
REF	REFERENCE
REINF	REINFORCEMENT, REINFORCE
REQD	REQUIRED
RO	ROUGH OPENING
SCH	SCHEDULE
SECT	SECTION
SF	SQUARE FEET
SHT	SHEET
SIM	SIMILAR
SL	SLOPE
SL-DN	SLOPE DOWN
SL-UP	SLOPE UP
SOG	SLAB-ON-GRADE
SP	SHEET PILING
SPA	SPACES, SPACE
SPECS	SPECIFICATIONS
SQ	SQUARE
SS	STAINLESS STEEL
SSLT	SHORT SLOTTED HOLE
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STRUC	STRUCTURAL
SYM	SYMMETRICAL
T & B	TOP AND BOTTOM
T/	TOP OF
T/GB	TOP OF GRADE BEAM
TBS	MECHANICAL TENSION BUTT SPLICE
TEMP	TEMPERATURE
TF	TRENCH FOOTING
THRU	THROUGH
TRANS	TRANSVERSE
TYP	TYPICAL
UL	UNDERWRITERS' LABORATORY INC.
UNO	UNLESS NOTED OTHERWISE
UT	ULTRA-SONIC TEST
VERT	VERTICAL
W	WIDE FLANGE
W/	WITH
W/O	WITHOUT
WD	WOOD
WF	WALL FOOTING
WP	WORK POINT
WWF	WELDED WIRE FABRIC

BEAM LEGEND



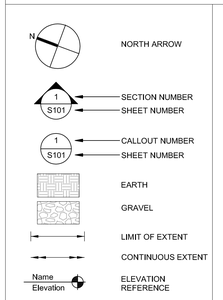
NOTES:
1) REACTION VALUE IS ASD (KIPS), UNO.
2) WHERE NO VALUE IS SHOWN, DESIGN CONNECTION FOR A MINIMUM REACTION OF 10 KIPS.
3) SPACE STUDS PER TYPICAL SHEAR STUD PLACEMENT DETAIL, MINIMUM NUMBER OF STUDS PER GENERAL NOTES.
4) "M" IN PLACE OF BEAM SHAPE INDICATES W10X12 WITH MINIMUM CONNECTION.
5) HSS IN PLACE OF SHAPE INDICATES HSS10X4X5/16, UNO.
6) BEAMS ARE PRIMARY MEMBERS FOR FIREPROOFING UNLESS NOTED AS SECONDARY.
7) POSITIVE CAMBER UPWARDS, NEGATIVE CAMBER DOWNWARDS. CAMBER SHOWN ON CANTILEVERS IS AT END OF CANTILEVER.

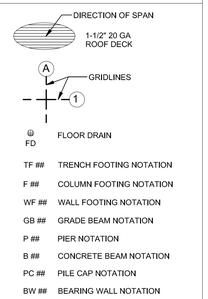
SUPPLEMENTAL LOAD LEGEND



NOTES:
1) LOAD IS ASD LIVE LOAD (KIPS), UNO.
2) LOAD IS IN ADDITION TO TYPICAL PANEL POINT LOADS, UNO.
3) LATERAL FORCE TO BE TRANSFERRED THROUGH SUPPORT BY CONNECTIONS, IN ADDITION TO VERTICAL REACTION FORCES. FORCE MAY ACT IN EITHER DIRECTION.
4) TOP CHORD AXIAL FORCE IN ADDITION TO CHORD FORCES PRODUCED BY VERTICAL LOADS. FORCE MAY BE EITHER COMPRESSION OR TENSION.

MISCELLANEOUS SYMBOLS





TF ## TRENCH FOOTING NOTATION
F ## COLUMN FOOTING NOTATION
WF ## WALL FOOTING NOTATION
GB ## GRADE BEAM NOTATION
P ## PIER NOTATION
B ## CONCRETE BEAM NOTATION
PC ## PILE CAP NOTATION
BW ## BEARING WALL NOTATION
SW ## SHEAR WALL NOTATION

100% CONSTRUCTION DOCUMENTS

Revisions:	Date

CONSULTANTS:

MARK A. VANDERLOOP REGISTERED NO. 10809552 STATE OF INDIANA PROFESSIONAL ENGINEER

ARCHITECT/ENGINEERS:

APOGEE Consulting Group, PA
www.acg-pa.com
Apogee Project # 2014 121
Raleigh, NC
Indianapolis, IN
Philadelphia, PA
Pittsburgh, PA
Virginia Beach, VA
Fort Collins, CO
(919) 858-7420

Civil / Structural Engineer
GUIDON DESIGN
905 N Capitol Avenue, STE 100
Indianapolis, IN 46205
Tel (317) 800-6388

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Office of Construction and Facilities Management
Department of Veterans Affairs

VA FORM 08-6231

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one eighth inch = one foot | one quarter inch = one foot | three eighths inch = one foot | one half inch = one foot | three quarters inch = one foot | one inch = one foot | one and one half inches = one foot | three inches = one foot