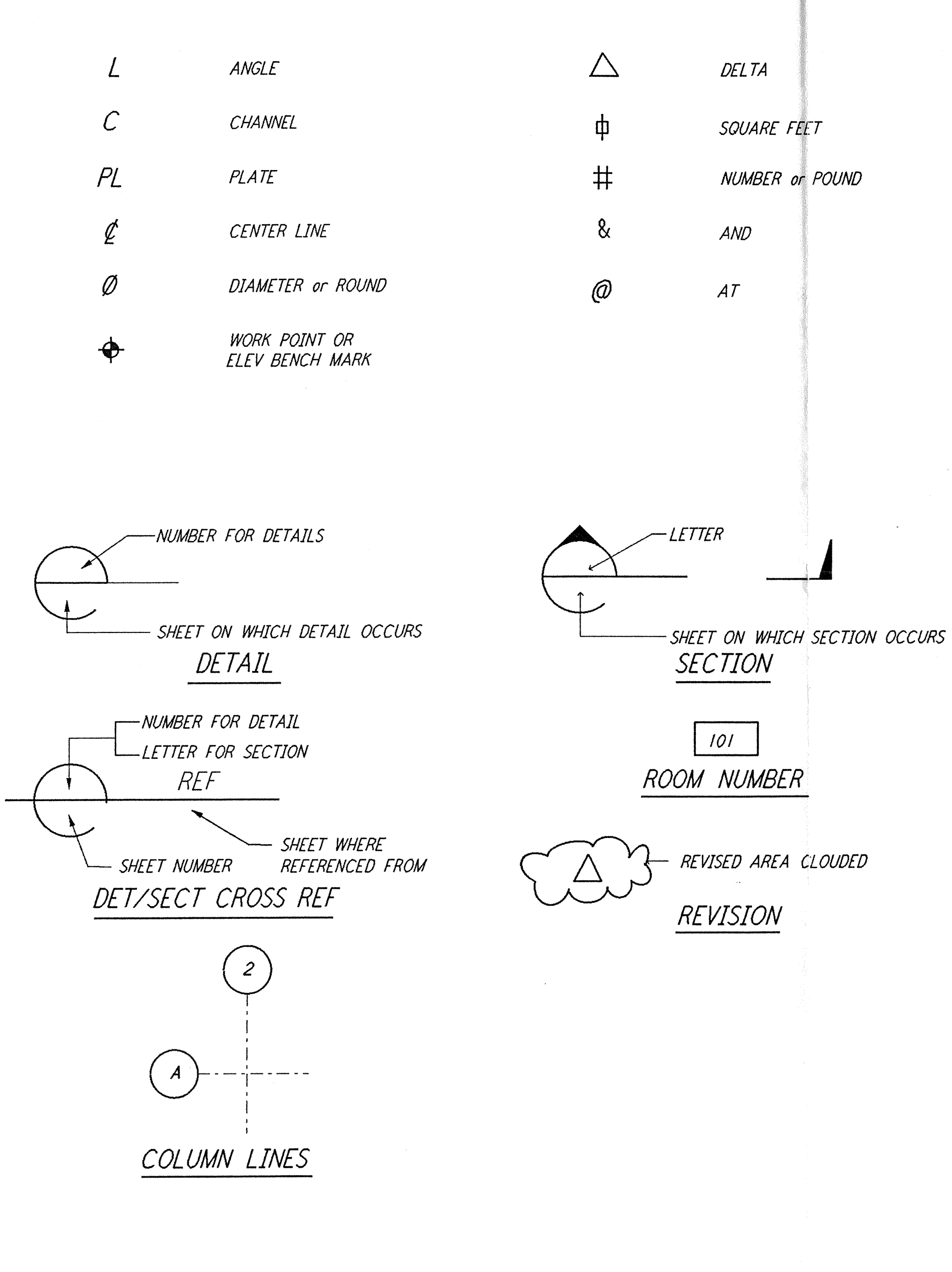


ABBREVIATIONS

AB	ANCHOR BOLT	MAX	MAXIMUM
ACI	AMERICAN CONCRETE INSTITUTE	MB	MACHINE BOLT
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	MECH	MECHANICAL
APPROX	APPROXIMATE	MEZ	MEZZANINE
ARCH	ARCHITECTURAL	MFR	MANUFACTURER
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	MIN	MINIMUM
AWS	AMERICAN WELDING SOCIETY	MISC	MISCELLANEOUS
		MPH	MILES PER HOUR
B/B	BACK TO BACK	NS	NEAR SIDE
B/P	BASE PLATE	NTS	NOT TO SCALE
BM	BEAM		
BOF	BOTTOM OF FOOTING	OC	ON CENTER
BOS	BOTTOM OF STEEL BRACING	OD	OUTSIDE DIAMETER
BRCG		OH	OPPOSITE HAND
		OP	OPENING
C	CAMBER	OPP	OPPOSITE
CC OR C/C	CENTER TO CENTER	OSB	OPERATIONS SUPPORT BUILDING
CG	CENTER OF GRAVITY	OTO	OUT TO OUT
CJ	CONSTRUCTION JOINT		
CLG	CEILING	PCF	POUNDS PER CUBIC FOOT
CLR	CLEAR	PL	PLATE
CMU	CONCRETE MASONRY UNIT	PSF	POUNDS PER SQUARE FOOT
COL	COLUMN	PSI	POUNDS PER SQUARE INCH
CONC	CONCRETE	PT	POINT
CONT	CONTINUOUS		
CU	CUBIC	R	RADIUS
		RD	ROOF DRAIN
DET	DETAIL	REF	REFERENCE
DIAG	DIAGONAL	REIN	REINFORCING STEEL
DIM	DIMENSION	REQD	REQUIRED
DL	DEAD LOAD	REV	REVISE OR REVISION
DO	DITTO		
DWG	DRAWING	SCHED	SCHEDULE
DWL	DOWEL	SECT	SECTION
		SHT	SHEET
EA	EACH	SHT	SHEET
EF	EACH FACE	SIM	SIMILAR
EL	ELEVATION	SLV	SHORT LEG VERTICAL
ENCL	ENCLOSURE	SPA	SPACED
ENGR	ENGINEER	ST STL	STAINLESS STEEL
EQ	EQUIVALENT	STD	STANDARD
EQUIP	EQUIPMENT	STIF	STIFFENER
ETC	ETCETERA	SYM	SYMMETRICAL
EW	EACH WAY		
EXIST	EXISTING	T&B	TOP AND BOTTOM THICKNESS
		THK	THICKNESS
FD	FLOOR DRAIN	TOC	TOP OF CONCRETE
FDN	FOUNDATION	TOP	TOP OF FOOTING
FIN	FINISH	TOS	TOP OF STEEL
FLR	FLOOR	TOW	TOP OF WALL
FLSHG	FLASHING	TYP	TYPICAL
FOC	FACE OF CONCRETE	UON	UNLESS OTHERWISE NOTED
FRMG	FRAMING	VERT	VERTICAL
FS	FAR SIDE		
FT	FOOT, FEET	GA	GAUGE
FTG	FOOTING	GALV	GALVANIZED
		GR	GRADE
GA	GAUGE	HORIZ	HORIZONTAL
GALV	GALVANIZED	HP	HIGH POINT
GR	GRADE	HR	HANDRAIL
		HSB	HIGH STRENGTH BOLT
HP	HORIZONTAL	ID	INSIDE DIAMETER
HP	HIGH POINT	IN	INCH
HR	HANDRAIL	INFO	INFORMATION
HSB	HIGH STRENGTH BOLT	INSUL	INSULATION
		JST	JOIST
		JT	JOINT
		LB	POUND
		LG	LENGTH
		LL	LONG LEG
		LLH	LONG LEG HORIZONTAL
		LLV	LONG LEG VERTICAL
		LVEA	LASER AND VACUUM EQUIPMENT AREA
		LWC	LIGHT WEIGHT CONCRETE

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SYMBOLS



NOTES

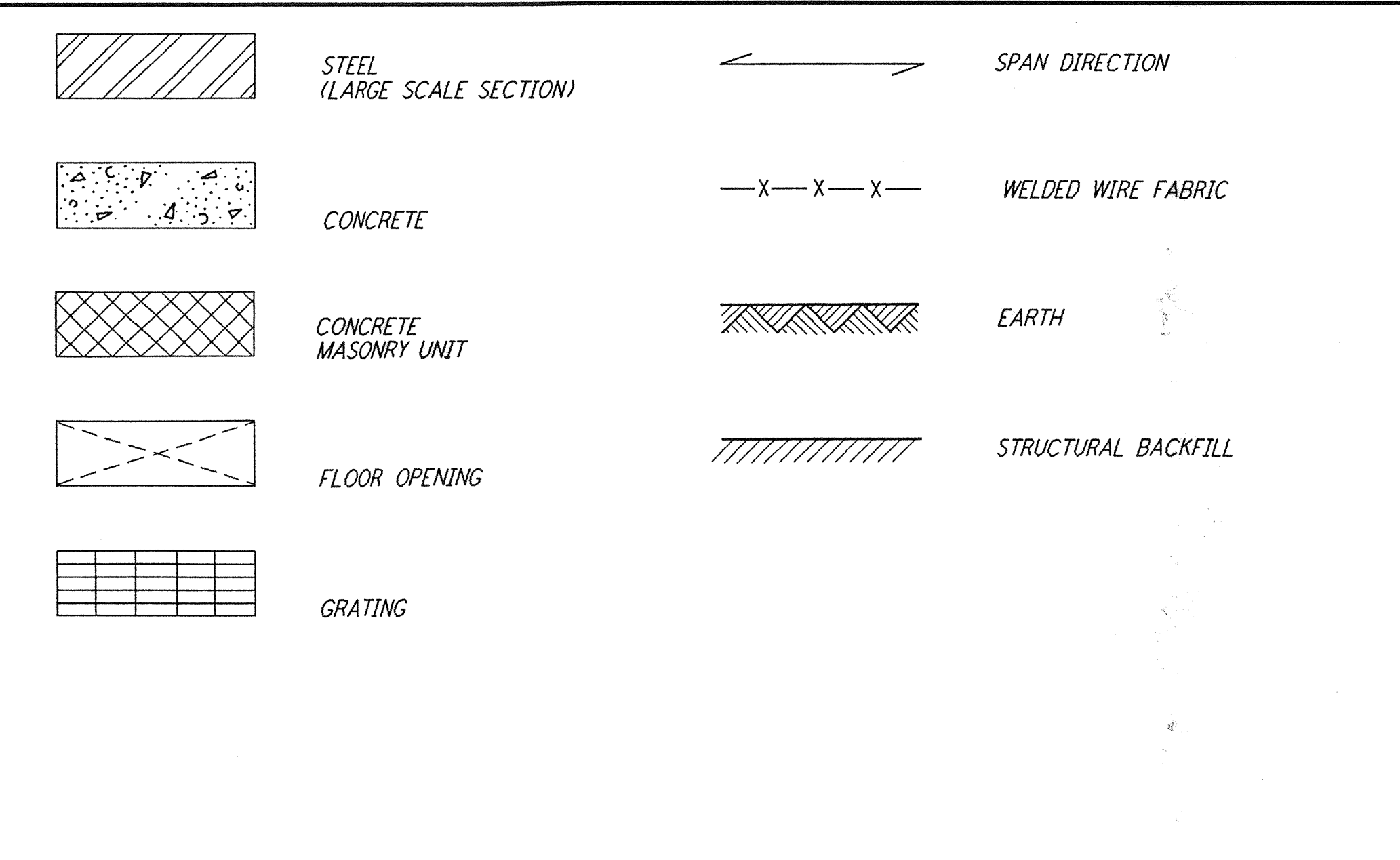
- ### FOUNDATIONS
- FOUNDATION AND SOIL REQUIREMENTS ARE BASED ON SOIL REPORT BY DAMES AND MOORE; REPORT NO. 177-004-0016 DATED: FEBRUARY 10, 1993.
- ### STRUCTURAL STEEL
- THE DESIGN, FABRICATION AND ERECTION OF ALL STRUCTURAL STEEL SHALL CONFORM TO AISC "MANUAL OF STEEL CONSTRUCTION" AND WITH THE SPECIFICATIONS. STRUCTURAL STEEL SHAPES & PLATES SHALL CONFORM TO ASTM A36 UNLESS OTHERWISE NOTED ON PLAN.
 - PROVIDE FILLERS AT SPLICES OF PARTS HAVING MORE THAN 1/8" DIFFERENCE IN THICKNESS.
 - ALL BEARING STIFFENER PLATES SHALL HAVE A CLOSE BEARING AGAINST THE INNER SURFACES OF BOTH FLANGES.
- ### CONNECTIONS
- PLATE FOR BOLTED SHEAR PLATE CONNECTIONS SHALL BE THE SAME THICKNESS AS THE BEAM WEB WITH A MINIMUM THICKNESS OF 3/8" UNLESS OTHERWISE NOTED. DIAGONAL GUSSET PLATE CONNECTIONS SHALL HAVE A MINIMUM THICKNESS OF 3/8" UNLESS OTHERWISE NOTED. AND THE NET AREA THROUGH THE BOLTS HOLES SHALL DEVELOP TOTAL SHEAR CAPACITY OF THE BOLTS. ALL CONNECTIONS SHALL HAVE A MINIMUM OF TWO BOLTS. LOAD INDICATOR WASHERS SHALL BE USED WITH ALL ASTM A325SC BOLTS.
 - ALL BOLTS SHALL BE ASTM A325SC, CLASS A, UNLESS OTHERWISE NOTED. 3/8" Ø BOLTS SHALL BE USED FOR MID & END STATION, OSB BUILDING AND MAINTENANCE BUILDING AND 1/2" Ø BOLTS SHALL BE USED FOR CORNER LVEA BUILDING, UNLESS OTHERWISE NOTED.
 - ALL STIFFENERS SHALL HAVE A MINIMUM THICKNESS OF 3/8", UNLESS OTHERWISE NOTED.
 - GIRT CONNECTIONS SHALL HAVE A MINIMUM OF 2-3/8" Ø ASTM A307 BOLTS.
- ### WELDING
- ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF AWS D1.1-90 STRUCTURAL WELDING CODE AND THE SPECIFICATION.
 - ALL WELDING PROCEDURE SPECIFICATIONS AND WELDING PROCEDURE QUALIFICATIONS, WELDERS, AND WELDING OPERATORS SHALL BE FULLY QUALIFIED IN ACCORDANCE WITH AWS D1.1-90.
 - LENGTHS OF WELDS SHOWN ARE EFFECTIVE LENGTHS AS SPECIFIED IN AISC SPECIFICATIONS, WHERE LENGTH OF WELD IS NOT SHOWN, IT SHALL BE FULL LENGTH OF JOINT. ALL BUTT WELDS SHALL BE FULL PENETRATION WELDS, UNLESS OTHERWISE NOTED.
 - ALL WELDING ELECTRODES SHALL BE E70XX.
 - WITH REFERENCE TO MINIMUM SIZE OF FILLET WELD REQUIREMENTS IN SECTION 1.17 OF AISC SPECIFICATIONS, MINIMUM SIZE OF FILLET WELDS WHEN NOT SPECIFIED ON WELD SYMBOLS SHALL BE AS FOLLOWS:
 1/4" WELD FOR MATERIAL THICKNESS UP TO AND INCLUDING 3/8"
 3/8" WELD FOR MATERIAL THICKNESS OVER 3/8" TO 1 1/2"
 - WELDING PROCEDURES AND SEQUENCES SHALL BE PLANNED TO MINIMIZE WELD SHRINKAGE THAT COULD RESULT IN LAMELLAR TEARING, AND APPROVED BY OWNER'S REPRESENTATIVE.
 - GRIND SMOOTH WELDED JOINTS WHERE FLUSH SURFACE IS REQUIRED.
- ### ANCHOR BOLTS
- FOR ANCHOR BOLT DETAILS SEE DRAWING WA-S-003
- ### MASONRY
- WALLS SHALL BE LOAD BEARING REGULAR WEIGHT HOLLOW CONCRETE MASONRY UNITS WITH ALL CELLS GROUTED SOLID (UON), ACCORDING TO THE SPECIFICATIONS.
 - THE MORTAR SHALL BE CEMENT-LIME TYPE 'S' WITH A COMPRESSIVE STRENGTH OF 1800 PSI AT 28 DAYS, CONSISTING OF ONE PART OF CEMENT 1/4 TO 1/2 PART OF HYDRATED LIME OR LIME PUTTY AND DAMP LOOSE AGGREGATE 2 1/2 TO 3 TIMES THE SUM OF VOLUMES OF CEMENT AND LIME. THE GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS.
 - THE MINIMUM CLEAR DISTANCE BETWEEN PARALLEL BARS SHALL BE THE BARS DIAMETER, BUT NOT LESS THAN 1".
 - MINIMUM LAP OF REINFORCING STEEL SHALL BE 40 DIAMETERS, BUT NOT LESS THAN 2'-0".
 - IF WORK STOPPED FOR ONE HOUR OR MORE, PROVIDE A HORIZONTAL CONSTRUCTION JOINT BY STOPPING THE GROUT 1/2" MINIMUM BELOW THE TOP OF MORTAR OR MASONRY.

NOTES

INSPECTIONS AND APPROVALS

- ### GENERAL
- PROFESSIONAL SOILS ENGINEER REGISTERED IN THE STATE OF WASHINGTON SHALL INSPECT AND APPROVE ALL FOOTING EXCAVATIONS PRIOR TO PLACING CONCRETE ACCORDING TO SECTION 2200 OF THE SPECIFICATION.
 - CONTINUOUS INSPECTION BY AN INSPECTOR, APPROVED BY THE DEPARTMENT OF BUILDING AND SAFETY SHALL BE PROVIDED FOR THE FOLLOWING FIELD WORK:
 A) PLACEMENT OF COMPACTED FILL.
 B) PLACEMENT OF CONCRETE AND REINFORCING STEEL AND ANCHOR BOLTS.
 C) EXPANSION TYPE CONCRETE ANCHORS.
 D) FIELD WELDING
 E) INSTALLATION OF HIGH STRENGTH BOLTS
 - FIELD WELDERS AND WELDING OPERATORS SHALL BE FULLY QUALIFIED IN ACCORDANCE WITH AWS D1.1 AND BE APPROVED BY THE DEPARTMENT OF BUILDING AND SAFETY.
 - THE CONSTRUCTION SHALL COMPLY WITH REQUIREMENTS OF THE BUILDING CODE.
- ### GENERAL
- ALL STRUCTURAL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE JOB SPECIFICATIONS AND STANDARDS.
 - ALL SHOP DRAWINGS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER OF RECORD PRIOR TO FABRICATION.
 - NO HOLES OTHER THAN THOSE SPECIFICALLY DETAILED, SHALL BE ALLOWED THROUGH STRUCTURAL STEEL MEMBERS. NO CUTTING OR BURNING OF STEEL SHALL BE PERMITTED WITHOUT APPROVAL OF THE ENGINEER OF RECORD.
 - PAINTING AND SHOP PRIMING WHERE REQUIRE SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
 - FOR TYPICAL DETAILS SEE DRAWINGS WA-S-002 THROUGH WA-S-009.
 - CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AND SHORING AS REQUIRED TO MAINTAIN THE ALIGNMENT OF BUILDING AND RETAINING WALLS UNTIL ALL CONNECTIONS ARE COMPLETED AND SLAB AND WALLS CONSTRUCTED.
 - PRIOR TO PLACING FOUNDATIONS & SLABS, REFER TO UNDERDRAIN SYSTEM DRAWINGS, ARCHITECTURAL DWGS FOR SLOPES & ELECTRICAL DWGS FOR GROUNDING.
 - FOR BUILDING COLUMN LOCATION COORDINATES SEE CIVIL DWGS.

MATERIALS LEGEND



NO.	DATE	BY	CHKD	ENGR	PROJ	DESCRIPTION
B	4-19-96	MCS	009	PH	TDM	FINAL DESIGN REVIEW & BID
A	10-31-95					PRELIMINARY DESIGN REVIEW

DRAWN	MCS
CHECKED	
ENGINEER	
PROJ	

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SITE NO. 1 - HANFORD, WASHINGTON

TITLE	SCALE	CONTRACT NUMBER	PROJECT NUMBER
STRUCTURAL GENERAL NOTES, ABBREVIATIONS & LEGEND	NONE	PP150969	8094
SHEET NUMBER	WA-S-001		

Rev Number	Date	By	Checked	Approved
4/19/96				
3/9				
2/19/96				
1/1				
1/1				
1/1				