

ABBREVIATIONS

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

SYMBOLS

L	ANGLE	△	DELTA
C	CHANNEL	⊕	SQUARE FEET
PL	PLATE	#	NUMBER or POUND
⊕	CENTER LINE	&	AND
∅	DIAMETER or ROUND	@	AT
◆	WORK POINT OR ELEV BENCH MARK		

	NUMBER FOR DETAILS		LETTER
	SHEET ON WHICH DETAIL OCCURS		SHEET ON WHICH SECTION OCCURS

	NUMBER FOR DETAIL		ROOM NUMBER
	LETTER FOR SECTION		
	REF		
	SHEET NUMBER		
	SHEET WHERE REFERENCED FROM		

	REVISED AREA CLOUDED
	REVISION

	COLUMN LINES
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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:
 - PLACEMENT OF COMPACTED FILL.
 - PLACEMENT OF CONCRETE AND REINFORCING STEEL AND ANCHOR BOLTS.
 - EXPANSION TYPE CONCRETE ANCHORS.
 - FIELD WELDING.
 - INSTALLATION OF HIGH STRENGTH BOLTS.
- THE CONSTRUCTION SHALL COMPLY WITH REQUIREMENTS OF THE BUILDING CODE.
- ALL STRUCTURAL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE JOB SPECIFICATIONS AND STANDARDS.
- FOR TYPICAL DETAILS SEE DRAWINGS BT-S-602 THROUGH BT-S-603.
- 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 DRAWINGS FOR SLOPES AND ELECTRICAL DRAWINGS FOR GROUNDING.
- FOR BUILDING COLUMN LOCATION COORDINATES SEE CIVIL DRAWINGS.

FOUNDATIONS

- FOUNDATION AND SOIL REQUIREMENTS ARE BASED ON SOIL REPORT BY DAMES AND MOORE; REPORT NO. 177-004-0016 DATED: FEBRUARY 10, 1993.

CONCRETE

- ALL CONCRETE MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF DIVISION 3 (CONCRETE) OF THE SPECIFICATIONS. (REGULAR WEIGHT AND LIGHT WEIGHT)
- STRUCTURAL CONCRETE SHALL HAVE AN ULTIMATE COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS UNLESS OTHERWISE NOTED. ALL CONCRETE SHALL BE REGULAR WEIGHT CONCRETE UNLESS OTHERWISE NOTED.
- ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615 GRADE 60 (UNLESS OTHERWISE NOTED). SPLICES AND HOOKS SHALL CONFORM TO ACI 318-89. SPLICES SHALL BE CLASS B UNLESS OTHERWISE NOTED. MINIMUM LAP SHALL BE 30 DIAMETERS. STIRRUP AND TIE HOOKS SHALL HAVE 135-DEGREE BENDS.
- LOCATION OF ALL CONSTRUCTION JOINTS OR OTHER TYPES OF JOINTS, OTHER THAN SPECIFIED, SHALL BE APPROVED BY THE CONSTRUCTION MANAGER BEFORE PLACING.
- MINIMUM CONCRETE COVER PROVIDED FOR REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE SPECIFICATION.
- ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS AND OTHER INSERTS SHALL BE WELL SECURED IN POSITION AND INSPECTED BY QUALIFIED INSPECTOR PRIOR TO PLACING CONCRETE.
- EXISTING PAVEMENT SHALL BE SAW CUT AND BROKEN OUT TO CLEAN, STRAIGHT EDGES OF DEMOLITION AREAS.
- EXPOSED EDGES OF CONCRETE SHALL HAVE A 3/4" CHAMFER UNLESS OTHERWISE NOTED ON DRAWINGS.
- EXCAVATING AND BACKFILLING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
- CONSTRUCTION JOINTS SHALL BE CLEANED AND ROUGHENED TO 1/4" AMPLITUDE.
- PROVIDE REINFORCEMENT IN WALLS AT CORNER AND INTERSECTIONS AS PER DETAIL BT-S-602

ANCHOR BOLTS

- FOR ANCHOR BOLT DETAILS SEE DRAWING BT-S-603

SCOPE OF WORK

CONCRETE WORK FOR MID STATION 'B' AND END STATION 'B' AS FOLLOWS:
 A. ALL FOUNDATIONS, STRIP FOOTING AND 30 INCHES THICK EQUIPMENT FOUNDATION.
 B. ALL ANCHOR BOLTS AND DOWELS.
 C. SLAB ON GRADE.

MATERIALS LEGEND

	STEEL (LARGE SCALE SECTION)		SPAN DIRECTION
	CONCRETE		WELDED WIRE FABRIC
	CONCRETE MASONRY UNIT		EARTH
	FLOOR OPENING		STRUCTURAL BACKFILL
	GRATING		

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REVISIONS							
	0	1-22-99	MEI	--	--	MDW	ISSUED FOR AS BUILT
	A	4-19-96	MCS	KS	BP		CHANGE ORDER #4
DRAWING NO.		DATE	BY	CHKD	ENGR	PROJ	DESCRIPTION

DRAWN	MCS
CHECKED	
ENGINEER	
PROJ	

AS-BUILT DRAWINGS

PARSONS
 100 WEST WALNUT STREET
 PASADENA, CALIFORNIA

LIGO
 CALIFORNIA INSTITUTE OF TECHNOLOGY
 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

LASER INTERFEROMETER
 GRAVITATIONAL-WAVE OBSERVATORY
 BTE SITework & FABRICATION - HANFORD, WA

TITLE	SCALE	CONTRACT NUMBER	PROJECT NUMBER
STRUCTURAL GENERAL NOTES, ABBREVIATIONS & LEGEND	NONE	PP150969	8094
	SHEET NUMBER		REVISIONS
	BT-S-601		