DESIGN FILE: I:\ligo\site\ce\wac002.dgz

ABBREVIATIONS

AC	ASPHALTIC CONCRETE	MAX	MAXIMUM
AGGR	AGGREGATE	MH	MANHOLE
APPROX	APPROXIMATELY	MIN	MINIMUM
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	MON	MONUMENT
AVG	AVERAGE		
		N	NORTH
BC	BEGIN CURVE	NIC	NOT IN CONTRACT
BDY	BOUNDARY	NTS	NOT TO SCALE
BLDG	BUILDING		
BM	BENCH MARK	OC	ON CENTER
BOP	BOTTOM OF PIPE	OD	OUTSIDE DIAMETER
BRG	BEARING		
BVC	BEGIN VERTICAL CURVE		
		PC	POINT OF CURVE
		PCT, %	PERCENT
CB	CATCH BASIN	PI	POINT OF INTERSECTION
C	COMMUNICATION	PIV	POST INDICATOR VALVE
C TO C	CENTER TO CENTER	PIVC	POINT OF INTERSECTION, VERTICAL CURVE
CF	CURB FACE	POC	POINT OF CONNECTION
CJ	CONSTRUCTION JOINT	POVC	POINT ON VERTICAL CURVE
CL, ℄	CENTERLINE	PSI	POUND-FORCE PER SQUARE INCH
CLR	CLEAR	PT	POINT OF TANGENCY
CMP	CORRUGATED METAL PIPE	PVC	POLYVINYL CHLORIDE
CO	CLEANOUT, CONDUIT ONLY, CONTRACTION JOINT	PVMT	PAVEMENT
		PW	POTABLE WATER
COL	COLUMN		
CONC	CONCRETE	R	RADIUS,
CONSTR	CONSTRUCTION		RIDGE
CONT	CONTINUATION	RAD	RADIAL
CP	CONCRETE PIPE	RCP	REINFORCED-CONCRETE PIPE
CPB	COMMUNICATIONS PULLBOX	RD	ROAD
CS	CARBON STEEL	RDCR	REDUCER
CU FT	CUBIC FEET	REF	REFERENCE
CULV	CULVERT	REINF	REINFORCEMENT
CWR	CHILLED WATER RETURN	REQD	REQUIRED
CWS	CHILLED WATER SUPPLY	REV	REVISION
CY	CUBIC YARD	RG	ROUGH GRADE
		R/W	RIGHT-OF-WAY
Δ	DELTA = ANGLE		
D	DUCT	S	SLOPE,
DEG	DEGREE		SOUTH
DET	DETAIL	SCH, SCHED	SCHEDULE
DI	DUCTILE IRON	SD	STORM DRAIN
DIA, Ø	DIAMETER	SG	SUBGRADE
DL	DRAIN LINE	SHT	SHEET
DWG	DRAWING	SIM	SIMILAR
		SQ FT, SF	SQUARE FOOT
E	EAST,	SS	SANITARY SEWER
	ELECTRICAL	STA	STATION
EA	EACH	STD	STANDARD
EC	END CURVE	STL	STEEL
EDB	ELECTRICAL DUCT BANK	SW	SIDEWALK
EJ	EXPANSION JOINT		
EL, ELEV	ELEVATION (HEIGHT)	T	TANGENT,
ELEC	ELECTRICAL		TELEPHONE
ELL	ELBOW	TC	TOP OF CURB
EMH	ELECTRICAL MANHOLE	TEL	TELEPHONE
EPB	ELECTRICAL PULLBOX	TG	TOP OF GRATE
EV	ELECTRICAL VAULT	TOC	TOP OF CONCRETE
EVC	END VERTICAL CURVE	TOP	TOP OF PIPE
EW	EACH WAY	TOPO	TOPOGRAPHY
EXIST, EX	EXISTING	TW	TOP OF WALL
		TYP	TYPICAL
FH	FIRE HYDRANT		
FIN	FINISH	UG	UNDERGROUND
FIN FL	FINISH FLOOR	UON	UNLESS OTHERWISE NOTED
FG	FINISH GRADE		
FL	FLOOR, FLOW LINE	VC	VERTICAL CURVE
		VCP	VITRIFIED CLAY PIPE
FLG	FLANGE	VERT	VERTICAL
FOF	FACE OF FLANGE	VOL	VOLUME
FS	FINISH SURFACE		
FT	FOOT, FEET		
FTG	FOOTING	W	WEST,
FW	FIRE WATER		WATER
		W/	WITH
		W/O	WITHOUT
GALV	GALVANIZED	WSDOT	WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
GA	GAGE		
GB	GRADE BREAK	WW	WASTE WATER
GPM	GALLONS PER MINUTE	WWF	WELDED WIRE FABRIC
GR	GRADE		
GVL	GRAVEL		
		XFMR	TRANSFORMER
HORIZ	HORIZONTAL		
HP	HIGH POINT	YD	YARD
ID	INSIDE DIAMETER		
IN	INCH		
INCL	INCLUDE		
INTSCT	INTERSECTION		
INV	INVERT		
JB	JUNCTION BOX		
JT	JOINT		
L	LENGTH		
LB	POUND		

LEGEND

EXISTING	NEW	DESCRIPTION
		CENTERLINE, ℄
		BUILDING OR STRUCTURE
		FENCE LINE
		ROAD
		ASPHALT CONCRETE PAVING
		MULTIPLE BITUMINOUS SURFACE
		CONCRETE
		DIRECTION OF SHEET FLOW
		FLOWLINE
CO	CO	CLEANOUT
DL	DL	DRAIN LINE
PW	PW	POTABLE WATER
E	E	ELECTRICAL
E	EDB	ELECTRICAL DUCT BANK
SD	SD	STORM DRAIN
SS	SS	SANITARY SEWER
T	T	TELEPHONE
W	W	WATER
	FW	FIRE WATER
	CWS	CHILLED WATER SUPPLY
	CWR	CHILLED WATER RETURN
	C	COMMUNICATIONS
		FIRE HYDRANT
		GATE VALVE
		MANHOLE
		STORM DRAIN CATCH BASIN
		CULVERT
PP	PP	POWER POLE
GP	GP	GUARD POST
		PLUG OR CAP
(530)	530	INDEX CONTOUR LINE
		INTERMEDIATE CONTOUR LINE
TOP / TOE	TOP / TOE	CUT/FILL SLOPE
(531.00) FG	531.00 FG	FINISH GRADE ELEVATION
(532.50) FS	532.50 FS	FINISH SURFACE ELEVATION
(533.65) FL	533.65 FL	FLOW LINE ELEVATION
(531.50) TC	531.50 TC	TOP OF CURB
(537.00) TW	537.00 TW	TOP OF WALL
(531.00) INV	531.00 INV	INVERT ELEVATION
(531.00) RG	531.00 RG	ROUGH GRADE ELEVATION

SECTION LETTER / DRAWING ON WHICH SECTION IS SHOWN — SECTION CUT

DETAIL OR ASSEMBLY NUMBER / DRAWING ON WHICH DETAIL IS SHOWN — DETAIL INDICATION

DETAIL OR ASSEMBLY NUMBER / REF — DRAWINGS FROM WHICH DETAIL IS SHOWN / DRAWING ON WHICH DETAIL IS DRAWN — DETAIL TITLE

PROFILE NUMBER / DRAWING ON WHICH PROFILE IS SHOWN — PROFILE

REVISION TRIANGLE & NUMBER ON FACE OF DRAWING — REVISION CLOUD

GENERAL NOTES

1. THE TOPOGRAPHY WITHIN THE PROPERTY LINES, WAS GENERATED BY COMPUTER METHODS FROM A SURVEY PERFORMED BY J-U-B ENGINEERS, INC., KENNEWICK, WASHINGTON, DATED SEPTEMBER 23, 1993.
2. HORIZONTAL AND VERTICAL DATUMS ARE ALSO FROM THE J-U-B- ENGINEERS, INC. SURVEY, AND ARE AS FOLLOWS:

   HORIZONTAL DATUM: THE COORDINATE GRID SYSTEM ORIGINATES AT THE VERTEX POINT IN 410990.1636, E 1915712.5766) AND IS CONSIDERED COINCIDENT WITH STATE PLANE COORDINATES AT THAT POINT AND ALSO INDICATED AS STATION 0+00.00 FOR EITHER BEAM TUBE ARM. REFERENCE STATE PLANE IS WASHINGTON STATE PLANE LAMBERT SOUTH ZONE NAD 83/91

   VERTICAL DATUM: NAVD 88 BENCH MARK "McKINLEY"

   (AVG LAT. 46°27'25.68") GRID FACTOR 0.999917130
   (AVG ELEV. 532.80) SEA LEVEL FACTOR 0.999974515

   COMBINED PROJECT SCALE FACTOR = 0.999891645

   STATE PLANE 999.891645' = 1000.000' MEASURED GROUND.

   VERTEX 0 ELEVATION = 537.29' PROJECT DATUM
3. STRAIGHT GRADE BETWEEN SPOT ELEVATIONS, UNLESS OTHERWISE SHOWN ON PLANS.
4. NOTES RELATING TO A SPECIFIC DRAWING WILL BE FOUND ON THE DRAWING FOR WHICH THEY ARE APPLICABLE.
5. DIMENSIONS, ELEVATIONS AND LOCATION OF EXISTING UTILITIES, STRUCTURES, OR GRADING ARE TO BE VERIFIED PRIOR TO START OF CONSTRUCTION BY CONTRACTOR. ANY DISCREPANCY WITH THE DRAWINGS SHALL BE BROUGHT IMMEDIATELY TO THE ATTENTION OF THE CONSTRUCTION MANAGER. ANY ADDITIONAL WORK PERFORMED BY THE CONTRACTOR DUE TO HIS FAILURE TO VERIFY AND SO ADVISE, SHALL BE COMPLETELY AT HIS OWN COST AND AT NO COST TO THE INSTITUTE.
6. AN EXISTING 6" WATERLINE IS LOCATED ALONG THE WEST SIDE OF THE SOUTHWEST ARM, WHICH BEGINS AT A WELL PUMP POINT NEAR THE SOUTHWEST END STATION AND TERMINATES AT A POND LOCATED ADJACENT TO THE CORNER STATION PAD ON THE SOUTHWEST SIDE. EXACT LOCATION AND ALIGNMENT SHALL BE VERIFIED IN THE FIELD. APPROXIMATE ALIGNMENT OF WATERLINE IS SHOWN ON SHEETS WA-C-031 THRU WA-C-040. SEE DETAIL 7, SHEET WA-C-055.
7. FINISHED SURFACES SHALL BE SLOPED UNIFORMLY FROM HIGH POINTS, RIDGE LINES, AND AROUND FOUNDATIONS TO FLOW LINES AND AREA DRAINS UNLESS INDICATED OTHERWISE.
8. STORM DRAIN, SANITARY SEWER, AND UTILITY LINES SHALL BE SLOPED AT A UNIFORM GRADE BETWEEN INVERT ELEVATIONS.
9. BORING SUMMARIES ARE FROM A FOUNDATIONS INVESTIGATION CONDUCTED BY DAMES AND MOORE. A COPY OF THE REPORT IS ON FILE WITH THE CLIENT.
10. ALL UNDERGROUND PIPES SHALL BE PROPERLY PROTECTED DURING CONSTRUCTION FROM HEAVY MOVING EQUIPMENT.
11. WELL PUMP AT SOUTHWEST END STATION SHALL BE ENCLOSED WITH A 7'x9'x8' HIGH PREFABRICATED SHELTER WITH STANDARD DOOR, ANCHORED TO A NEW 6" THICK CONCRETE SLAB, PER CONTRACTOR DESIGN.
12. ALL NEW SIDE SLOPES 3 (HORIZONTAL) : 1 (VERTICAL) OR STEEPER SHALL HAVE A MINIMUM 3 INCHES OF SLOPE PROTECTION MATERIAL.
13. ALL UNPAVED FLAT SURFACES, ROADS OR FUTURE PAVED AREAS SHALL CONTINUALLY HAVE DUST CONTROL DURING THE COMPLETE CONTRUCTION PERIOD, UNTIL PAVED OR BITUMINOUS SURFACE TREATED.
14. THE LIGO VERTEX POINT IS DEFINED AS THE INTERSECTION OF THE BEAM TUBE CENTERLINES OR THE (0,0,0) POINT EQUIVALENT TO (NORTH, EAST, ELEVATION) PROJECT COORDINATES DEFINED IN NOTE 2 ABOVE.

STANDARD PLANS

TO THE EXTENT REFERENCED, THE FOLLOWING WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD PLANS FOR ROAD, BRIDGES AND MUNICIPAL CONSTRUCTION SHALL BE CONSIDERED PART OF THE CONSTRUCTION DOCUMENTS:

PLAN	TITLE	LAST DATE
B-19	HYDRANT SETTING TYPE A & B	10/3/83
C-1	BEAM GUARDRAIL (W BEAM), SHEET 1 OF 2	6/4/93
C-1	BEAM GUARDRAIL (W BEAM), SHEET 2 OF 2	6/4/93
C-2p	GUARDRAIL PLACEMENT	6/19/92
C-7	BEAM GUARDRAIL TERMINAL SECTION (DESIGN G)	1/21/85
H-5c	PAVEMENT MARKINGS	7/17/81
H-6	SURVEY MONUMENTS	7/17/81
L-2	CHAIN LINK FENCE, SHEET 1 OF 2	5/24/91
L-2	CHAIN LINK FENCE, SHEET 2 OF 2	5/24/91
L-3	CHAIN LINK GATES	1/21/85
L-6	ACCESS CONTROL GATE	1/21/85

LIGO-D960197-01-O

REFERENCES

DRAWING NO.	DESCRIPTION

REVISIONS

NO.	DATE	BY	CHKD	ENGR	PROJ	DESCRIPTION
1	5/15/98	WRB	CB	SS	DV	ISSUED FOR AS-BUILT

FOR CONSTRUCTION		
DRAWN	WRB	9/28/95
CHECKED	ML	7/9/96
ENGINEER	JB	7/9/96
PROJ	MDW	7/9/96

AS-BUILT DRAWINGS

PARSONS
100 WEST WALNUT STREET
PASADENA, CALIFORNIA

LIGO
CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

LASER INTERFEROMETER GRAVITATIONAL-WAVE OBSERVATORY
SITE NO. 1 - HANFORD, WASHINGTON

TITLE: CIVIL GENERAL NOTES, LEGEND & ABBREVIATIONS

SCALE	CONTRACT NUMBER	PROJECT NUMBER
NONE	PP150969	8094

SHEET NUMBER: WA-C-002 REVISIONS: 1

LIGOWAF3.BDR

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