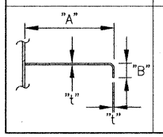
STRUCTURAL SYMBOLS LIST

SYMBOL	DESCRIPTION
	WATERTIGHT BULKHEAD OR DECK
	NON–TIGHT BULKHEAD
	STIFFENER ON FAR SIDE
VL	VERTICAL LADDER
	FLANGE PLATE AxBxt NOTE:FLANGE MAY BE FABRICATED BY BENDING THE PLATE OR BY WELDING THE FLANGE TO THE WEB.

LIST OF ABBREVIATIONS

ABL	ABOVE BASELINE	OD	OUTSIDE DIAMETER
AL	ALUMINUM	OFE	OWNER FURNISHED EQUIPMENT
ABS	AMERICAN BUREAU OF SHIPPING	P	PORT
AFT	AFTER	P/S	PORT/STARBOARD SYMMETRIC ABOUT CENTERLINE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	PCF	POUNDS PER CUBIC FOOT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	PL	PLATE
AWS	AMERICAN WELDING SOCIETY	PLCS	PLACES
BHD	BULKHEAD	PLTG	PLATING
BRKT	BRACKET	PSF	POUNDS PER SQUARE FOOT
BTM	BOTTOM	PSI	POUNDS PER SQUARE INCH
CJP	COMPLETE JOINT PENETRATION	PTO	POWER TAKE–OFF
℄	CENTERLINE	QAWT	QUICK ACTING WATERTIGHT
CO	CUTOUT	QAWTMH	QUICK ACTING WATERTIGHT MANHOLE
C.O.	CLEAR OPENING	R	RADIUS
DBLR	DOUBLER	RFOB	REAR (AFT) FACE OF (ENGINE) BLOCK
DISCH	DISCHARGE	RECT	RECTANGULAR
DET	DETAIL	REF	REFERENCE
DIA	DIAMETER	SAE	SOCIETY OF AUTOMOTIVE ENGINEERS
DK	DECK	SCH	SCHEDULE
DN	DOWN	SIM	SIMILAR
DO	DITTO (REPEAT PREVIOUS SCANTLING)	SS	STAINLESS STEEL
DWG	DRAWING	ST	SQUARE OR RECTANGULAR TUBING
DWL	DESIGN WATER LINE	STBD	STARBOARD
FB	FLAT BAR	STIF	STIFFENER
FDN	FOUNDATION	SWE	SUPPLIED WITH EQUIPMENT
FLG PL	FLANGE PLATE	TK	TANK
FR	FRAME	THK	THICK
F.S.	FAR SIDE	THKNS	THICKNESS
FS	FLOAT SWITCH	THRU	THROUGH
FWD	FORWARD	TYP	TYPICAL
GR	GRADE	TRVS	TRANSVERSE
HLA	HIGH LEVEL ALARM	UNO	UNLESS NOTED OTHERWISE
IWO	IN WAY OF	VL	VERTICAL LADDER
KIPS	THOUSAND POUNDS	WT	WATERTIGHT
KSI	THOUSAND POUNDS PER SQUARE INCH	WTRTT	WATERTIGHT
L	STEEL ANGLE	W/	WITH
LEN	LENGTH		
LKG	LOOKING		
LONG	LONGITUDINAL		
MH	MANHOLE		
NC	NORMALLY CLOSED (VALVE)		
NPS SCH	NATIONAL PIPE STANDARDS SCHEDULE		
NPS	NATIONAL PIPE STANDARDS		
NPT	TAPER PIPE THREAD		
NWT	NON–WATERTIGHT		

STRUCTURAL STEEL SPECIFICATIONS

1. MATERIALS

WIDE FLANGE/ WT SHAPES	ASTM A992
SHAPES, PLATES, CHANNELS, AND BARS	ASTM A36 OR ASTM A572 GR 50
ANGLES	ASTM A36
STRUCTURAL TUBING	ASTM A500 GR B
PIPE	ASTM A53 GR B
BOLTS / SCREWS	ASTM F593, TYPE 316 STAINLESS STEEL, UNO
NUTS	ASTM F594, TYPE 316 STAINLESS STEEL, UNO
WASHERS	ASTM F844, WIDE SERIES, MAX THICKNESS, TYPE 316 STAINLESS STEEL, UNO
WELD ELECTRODES	E70XX, 70KSI, LOW HYDROGEN, UNO

2. WELDING
   - A. SEE SPECIFICATION FOR GENERAL WELDING AND WELD INSPECTION REQUIREMENTS
   - B. WHERE WELDS ARE NOT SHOWN, THE CONNECTION SHALL DEVELOP THE FULL CAPACITY OF THE MEMBERS BEING CONNECTED AND SHALL COMPLY WITH REF 4.
3. FINISHING

   EDGES OF ALL OPENINGS AND CUTOUTS SHALL BE SMOOTH AND FREE OF ANY BURRS, GOUGES, NICKS, OR SHARP EDGES.

GENERAL NOTES

1. THE REQUIREMENTS INDICATED ON THIS SHEET ARE INTENDED AS A BASIC SUMMARY OF THE MATERIAL AND CONSTRUCTION REQUIREMENTS FOR THE PROJECT. ADDITIONAL, MORE STRINGENT REQUIREMENTS ARE GIVEN IN THE PROJECT SPECIFICATIONS.
2. GRIND SMOOTH ALL SHARP CORNERS AND ROUGH EDGES LIABLE TO CAUSE INJURY TO PEOPLE OR DAMAGE TO EQUIPMENT.
3. LIMBER AND VENT HOLES SHALL BE PROVIDED IN NON–TIGHT STRUCTURE TO PREVENT ACCUMULATION AND RETENTION OF LIQUIDS AND TO INSURE THEIR FREE FLOW TO DRAINS AND SUCTION PIPES. SUFFICIENT DRAIN HOLES SHALL BE PROVIDED IN BOTTOM STRUCTURE TO ENSURE DRAINAGE OF EACH BAY.
4. EXCEPT WHERE STEEL THICKNESS IS REFERENCED BY DOUBLE LINES, THE DIMENSIONS SHOWN ARE MOLDED DIMENSIONS.
5. ALL SNIPES AT ENDS OF STIFFENERS SHALL BE 45 DEGREES.
6. VERTICAL LADDERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAIL ON SHEET 45.

REFERENCES

1. AMERICAN BUREAU OF SHIPPING (ABS), "RULES FOR BUILDING AND CLASSING STEEL VESSELS FOR SERVICES ON RIVERS & INTRACOASTAL WATERWAYS", 2007.
2. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC), MANUAL OF STEEL CONSTRUCTION, ALLOWABLE STRESS DESIGN, THIRTEENTH EDITION, 2005.
3. AMERICAN WELDING SOCIETY (AWS)D1.1, 2006, STRUCTURAL WELDING CODE–STEEL
4. ABS "RULES FOR MATERIALS AND WELDING", 2008.

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FILE NAME =	USER NAME =	DESIGNED – A. WINKLEY	REVISED –
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	PLOT DATE =	DATE – 7/19/2011	REVISED –

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IDOT BRUSSELS FERRY
STRUCTURAL GENERAL NOTES - PUSHBOAT

SCALE: NTS | SHEET NO. OF SHEETS | STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
304	21–3	JERSEY	47	3
		CONTRACT NO. 76D29		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		