

SCOPE OF WORK

1. REMOVE EXISTING MARGINAL & TRANSITIONAL WHARF GALVANIZED AND POLYETHYLENE WATER PIPING TO EXTENTS INDICATED ON DESIGN DRAWINGS COMPLETE WITH ALL HOSE BIBBS, DOCK CONNECTIONS, PIPE SUPPORTS AND FASTENERS. REMOVE RANGERS FROM TOP OF PIPE RAIL AND GRIND SURFACE SMOOTH TO MATCH SURROUNDING AREA.
2. ALL DEMOLISHED COMPONENTS SHALL BE REMOVED FROM SITE.
3. PROVIDE NEW WATER PIPING TO SERVE MARGINAL & TRANSITIONAL WHARF COMPLETE WITH HOSE BIBBS, DOCK CONNECTIONS AND LOW POINT DRAIN VALVES AS INDICATED ON DESIGN DRAWINGS AND WHERE REQUIRED.
4. DURING CONSTRUCTION KEEP AN ACCURATE RECORD OF ALL DEVIATIONS BETWEEN THE WORK SHOWN ON THE DESIGN DRAWINGS AND THAT WHICH IS INSTALLED. PROVIDE AS-BUILT DRAWINGS TO REFLECT THE ACTUAL INSTALLED CONFIGURATION AND SUBMIT TO THE DESIGN ENGINEER.
5. PROVIDE SYSTEM DEMONSTRATION AND OPERATION AND MAINTENANCE MANUALS FOR ALL EQUIPMENT.

PROVIDE STAINLESS STEEL NICKON LOCK NUT C/W STAINLESS STEEL WASHER. WASHER SHALL HAVE A .32mm O.D.

EXISTING DOCK RAMP ALUMINUM 45S RAIL

PROVIDE .254 ALUMINUM TUBE AND STITCH WELD TO EXISTING DOCK RAMP RAIL

PROVIDE 12x STAINLESS STEEL SUPPORT HOOK PARTION OF SUPPORT.

NEW 19mm STAINLESS STEEL FLEX HOSE

PROVIDE 19mm STAINLESS STEEL FLEX HOSE C/W MNPT THREADED CONNECTIONS. FOR REQUIREMENTS REFER TO EQUIPMENT LIST ON DRAWING M2

NOTES:
1. WHARF CONSTRUCTION SHOWN IS FOR GENERAL DETAIL. PURPOSES ONLY. REFER TO STRUCTURAL DRAWINGS FOR SPECIFIC WHARF REHABILITATION DETAILS.
2. PROVIDE TWO (2) STAINLESS STEEL GEAR CLAMPS FOR EACH POLYETHYLENE PIPING CONNECTION. REFER TO EQUIPMENT LIST FOR CLAMP REQUIREMENTS.

PROVIDE SUPPORT HOOK FOR NEW WATER PIPING TO ENLARGED DETAILED FOR REQUIREMENTS.

PROVIDE TWO PIECE ANTI CORROSION TYPE PIPE CLAMP C/W STAINLESS STEEL FASTENERS AND FASTEN TO CHANNEL AS INDICATED. DO NOT FASTEN PIPE IN A MANNER TO ALLOW FOR MOVEMENT. REFER TO EQUIPMENT LIST ON WHARF -RENOVATION PLAN ON DRAWING M2.

ROUTE WATER PIPING UNDER DOCK RAMP AS INDICATED. KEEP PIPING TIGHT TO U/S OF DOCK RAMP TO FACILITATE ACCESS TO DRAIN VALVE. FIELD DETERMINE PIPING ELEVATION TO ALLOW FOR DRAIN VALVE MOVEMENT FROM LOW TO HIGH WATER LEVEL.

PROVIDE STAINLESS STEEL CHANNEL UTILITY SUPPORT AND FASTEN TO SIDE OF WHARF WITH STAINLESS STEEL FASTENERS

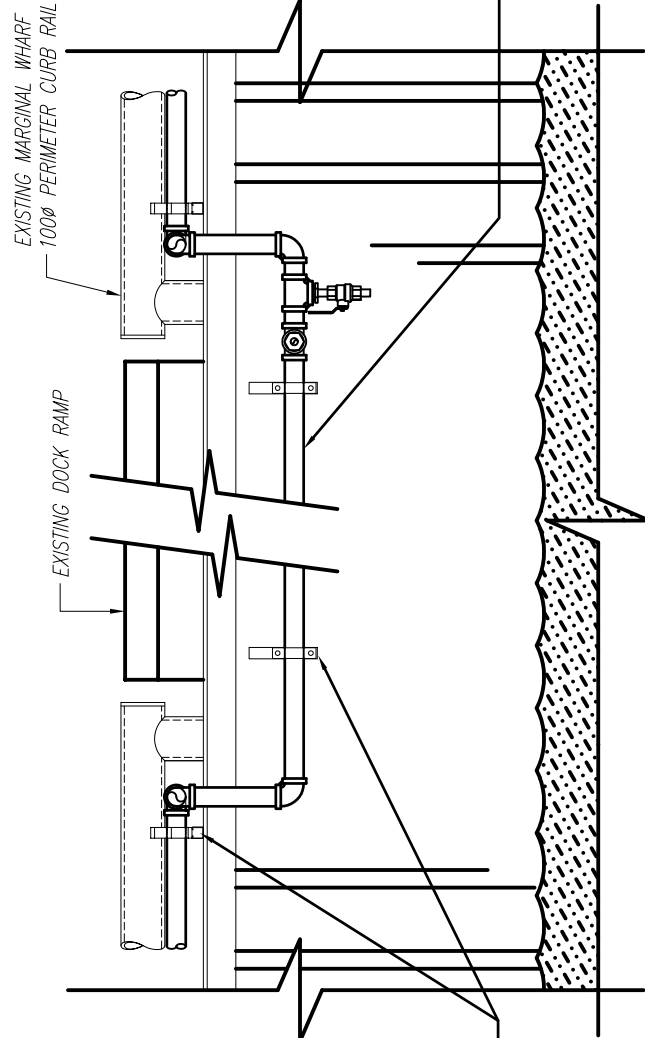
PROVIDE 50x50x50mm TEE C/W 50x18mm STAINLESS STEEL PIPE CLAMP C/W STAINLESS STEEL BALL VALVE FOR DOCK WATER CONNECTION. INSTALL AS INDICATED TO ALLOW FOR VALVE ACCESS FROM DOCK RAMP.

PROVIDE 50x50x50mm TEE C/W 50x12mm STAINLESS STEEL PIPE CLAMP C/W STAINLESS STEEL BALL VALVE FOR DOCK WATER CONNECTION. INSTALL AS INDICATED TO ALLOW FOR VALVE ACCESS FROM DOCK RAMP.

1 DETAIL - TYPICAL DOCK WATER CONNECTION

M2 SCALE: 1:20

PROVIDE TWO PIECE ANTI CORROSION TYPE PIPE CLAMP C/W STAINLESS STEEL FASTENERS AND FASTEN TO CHANNEL AS INDICATED. DO NOT FASTEN PIPE IN A MANNER TO ALLOW FOR MOVEMENT. REFER TO EQUIPMENT LIST ON WHARF -RENOVATION PLAN ON DRAWING M2.



ROUTE WATER PIPING UNDER DOCK RAMP AS INDICATED. KEEP PIPING TIGHT TO U/S OF DOCK RAMP TO FACILITATE ACCESS TO DRAIN VALVE. FIELD DETERMINE PIPING ELEVATION TO ALLOW FOR DRAIN VALVE MOVEMENT FROM LOW TO HIGH WATER LEVEL.

E SECTION - TYPICAL DOCK WATER CONNECTION

M2 SCALE: 1:20

REFER TO STRUCTURAL DWGS FOR TIMBER CURB AND ELECTRICAL DWGS. FOR CHANNEL UTILITIES SUPPORT

REFER TO ELECTRICAL DRAWINGS FOR POWER CABLING

PROVIDE TWO PIECE ANTI CORROSION TYPE PIPE CLAMP C/W STAINLESS STEEL FASTENERS AND FASTEN TO CHANNEL AS INDICATED. REFER TO DRAWING M2 FOR TYPE & LOCATION. REFER TO MANUFACTURERS DRAWING M3 FOR CLAMP SPECIFICATIONS.

PROVIDE TWO PIECE ANTI CORROSION TYPE PIPE CLAMP C/W STAINLESS STEEL FASTENERS AND FASTEN TO CHANNEL AS INDICATED. REFER TO DRAWING M2 FOR TYPE & LOCATION. REFER TO MANUFACTURERS DRAWING M3 FOR CLAMP SPECIFICATIONS.

FASTEN MOUNTING STRUT TO EXISTING SHEET PILING CAP USING HILTI X-LL-P8 FASTENERS 5/8" LONG. INSTALLATION SPECIFICATIONS.

PROVIDE TWO PIECE ANTI CORROSION TYPE PIPE CLAMP C/W STAINLESS STEEL FASTENERS AND FASTEN TO CHANNEL AS INDICATED. REFER TO DRAWING M2 FOR TYPE & LOCATION. REFER TO MANUFACTURERS DRAWING M3 FOR CLAMP SPECIFICATIONS.

FASTEN MOUNTING STRUT TO EXISTING SHEET PILING CAP USING HILTI X-LL-P8 FASTENERS 5/8" LONG. INSTALLATION SPECIFICATIONS.

NOTE:
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A SECTION - TRANSITIONAL WHARF

M1 SCALE: 1:20

NOTE:
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B SECTION - MARGINAL WHARF

M2 SCALE: 1:20

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C SECTION - MARGINAL WHARF

M2 SCALE: 1:20

NOTE:
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D SECTION - FUEL STORAGE COMPOUND

M2 SCALE: 1:20

MECHANICAL SPECIFICATIONS

GENERAL

1. PROVIDE ALL LABOUR, MATERIAL, EQUIPMENT, FEES, PERMITS AND INSPECTIONS BY OUTSIDE AGENCIES AND CHARGES TO PERFORM ALL OPERATIONS FOR THE COMPLETE INSTALLATION OF THE PLUMBING SYSTEMS AS INDICATED.
2. ALL MATERIALS AND INSTALLATION IS TO COMPLY WITH THE MANITOBA BUILDING CODE, NFPA REGULATIONS, MANITOBA FIRE CODE, GAS UTILIZATION CODE, BUILDING STANDARDS FOR THE ENGINEERING STANDARDS.
3. REMOVE ALL WASTE MATERIALS AND CLEAN UP TO OWNER'S SATISFACTION. AT THE END OF CONDITION, CLEAN THE EQUIPMENT AND TOUCH UP FINISH TO RESTORE TO "AS NEW"
4. PROVIDE ALL NECESSARY HANGERS AND SUPPORT STEEL FOR YOUR WORK. TOUCH UP PAINT ALL END OF HANGER RODS AND UNSTRUT SUPPORTS WITH GALVANIZED PAINT.
5. BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED BY YOUR WORK.
6. PROVIDE SHOP DRAWINGS FOR MAJOR EQUIPMENT COMPONENTS FOR REVIEW BY THE ENGINEER.
7. SCOPE OF WORK IS INTENDED TO BE A GENERAL SUMMARY OF THE WORK AND IS NOT ALL ASSOCIATED STRUCTURAL AND ELECTRICAL DRAWINGS.

PLUMBING

1. WATER PIPING TO BE SCHEDULE 40 STAINLESS STEEL PIPING TO ASTM A312 GRADE TP 304. NPS 50mm and UNDER TO BE SWEDED. PIPE FITTINGS TO BE CLASS 150# TO ASTM A351 GRADE 304, NPS 50mm and UNDER TO BE SWEDED.
2. FLEXIBLE WATER PIPING SERVING DOCKS TO BE CROSS LINKED POLYETHYLENE TUBING AND FITTINGS TO CAN/CSA-B137.5
3. BALL VALVES: FULL PORT, STAINLESS STEEL BODY AND BALL, M.A. STEWART AND SONS LTD. G-SERIES OR APPROVED EQUAL.
4. ALL HOSE BIBBS TO BE COMPLETE WITH VACUUM BREAKER.
5. ALL CONNECTIONS TO EXISTING DIAMETER WATER SYSTEM AND NEW BRANCH LINES, DOCK CONNECTIONS AND HOSE BIBBS ARE TO BE COMPLETE WITH BALL VALVES.
6. FLUSH, RINSE AND TEST WATER SYSTEM WITH POTABLE WATER AS PER REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.

18x-90° STAINLESS STEEL ELBOW (TYPICAL OF 2)

18x STAINLESS STEEL NIPPLE (TYPICAL OF 3)

VACUUM BREAKER. REFER TO EQUIPMENT LIST FOR REQUIREMENTS

STAINLESS STEEL BALL VALVE. REFER TO EQUIPMENT LIST FOR REQUIREMENTS

50x19mm STAINLESS STEEL HEX REDUCING BUSHING

PROVIDE 50x50x50mm TEE AND CONNECT HOSE BIBBS TO NEW 50x40mm BRANCH WATER PIPING

*-EDGE OF HOSE BIBB ASSEMBLY SHALL NOT EXTEND BEYOND EDGE OF WHARF. TURN HOSE BIBB 90° TO MAKE PARALLEL WITH WHARF. SHOWN PERPENDICULAR FOR CLARITY.

2 DETAIL -TYPICAL HOSE BIBB ASSEMBLY WITH PIPE STYLE CURB RAIL

M2 SCALE: 1:5

FASTEN MOUNTING STRUT TO EXISTING SHEET PILING CAP USING HILTI X-LL-P8 FASTENERS 5/8" LONG. REFER TO MANUFACTURERS INSTALLATION SPECIFICATIONS.

PROVIDE TWO PIECE ANTI CORROSION TYPE PIPE CLAMP C/W STAINLESS STEEL FASTENERS AND FASTEN TO CHANNEL AS INDICATED. REFER TO DRAWING M2 FOR TYPE & LOCATION. REFER TO MANUFACTURERS DRAWING M3 FOR CLAMP SPECIFICATIONS.

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NOTE:
CONTAINMENT CONSTRUCTION SHOWN IS FOR GENERAL DETAIL PURPOSES ONLY.

D SECTION - FUEL STORAGE COMPOUND

M2 SCALE: 1:20

EQUIPMENT LIST

C1 WATER PIPING CLAMP
STAUFF USA MODEL 6-060.3-PPH HEAVY SERIES SMOOTH INSIDE SURFACE CLAMP BODY WITHOUT TENSION CLEARANCE SUPPLIED COMPLETE WITH TYPE H TYPE-1/2" HILTI HSE-3 HEAVY DUTY EXPANSION ANCHORS 3" LONG. REFER TO MANUFACTURERS INSTALLATION SPECIFICATIONS.

C2 WATER PIPING CLAMP
STAUFF USA MODEL 6-060.3-PP HEAVY SERIES PROFILED INSIDE SURFACE CLAMP BODY WITH TENSION CLEARANCE SUPPLIED COMPLETE WITH PROFILED DESIGN TYPE-1/2" HILTI HSE-3 HEAVY DUTY EXPANSION ANCHORS 3" LONG. REFER TO MANUFACTURERS INSTALLATION SPECIFICATIONS.

BV BALL VALVE
M.A. STEWART AND SONS LTD G-SERIES MODEL G2E INVESTMENT CAST FULL PORT BALL VALVE SUPPLIED COMPLETE WITH 316 STAINLESS STEEL (SS) BODY AND 316 STAINLESS STEEL BALL. BALL VALVE IS SUPPLIED WITH 316 STAINLESS STEEL GASKET AND SEAT, NPT CONNECTIONS. REFER TO DESIGN DRAWINGS FOR SIZES.

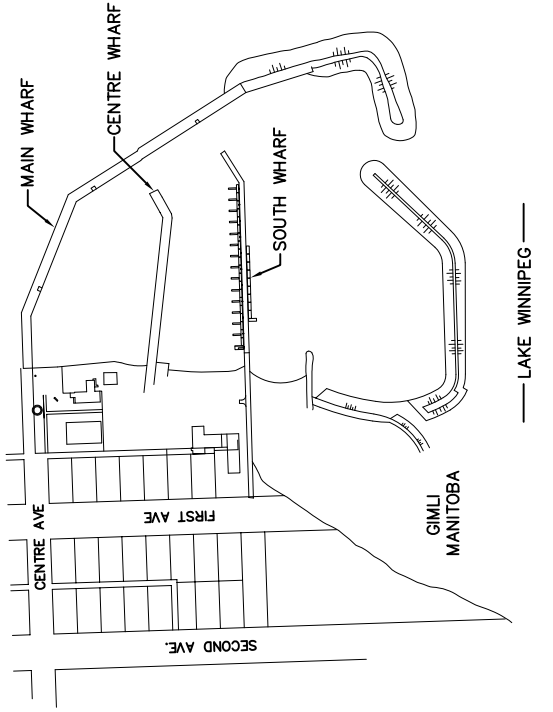
VACUUM BREAKER
COMPLETE WITH BRASS BODY WITH CHROME FINISH, STAINLESS STEEL WORKING THREADS HOSE CONNECTION, DISC, FREEZE RELIEF FEATURE, 19mm

FLEX CONNECTOR
SENIOR FLEXCON FLEX CONNECTOR SUPPLIED COMPLETE WITH 321 ANNUULAR STANDARD PITCH STAINLESS STEEL HOSE. 304 STAINLESS STEEL SINGLE BRAIDED STEEL SCHEDULE 40 MALE NPT NIPPLE CONNECTIONS. 460mm LONG. REFER TO DESIGN DRAWINGS FOR SIZES.

BARBED HOSE CONNECTION
BARBED HOSE CONNECTION SUPPLIED COMPLETE WITH 316 STAINLESS CONSTRUCTION, 19mm

GEAR CLAMP
TRIDON 87M SERIES STAINLESS STEEL MARINE GRADE GEAR CLAMP SUPPLIED COMPLETE WITH 316 STAINLESS STEEL BODY AND 316 SS HOUSING. 19mm WIDE LINE/SOLID 316 SS BAND AND 316 SS HOUSING. SIZE TO SUIT CONNECTION REQUIREMENTS. PROVIDE TWO (2) CLAMPS PER CONNECTION.

FLEX HOSE FOR DOCK CONNECTION
FLEXHOAT INDUSTRIES MODEL T91 19mm STAINLESS STEEL BRAIDED CONVULATED PTFE HOSE SUPPLIED COMPLETE WITH -54°C TO 204°C TEMPERATURE RANGE. 65mm BEND RADIUS AND 316 STAINLESS STEEL 19mm MNPT CONNECTIONS WITH HEX GRIP COL. FIELD VERIFY LENGTH REQUIRED TO ALLOW FOR FULL DOCK HORIZONTAL MOTION AND HIGH/LOW WATER LEVEL CHANGE.



KEY PLAN

SCALE: N.T.S.

0	ISSUED FOR CONSTRUCTION	2016/03/31
B	ISSUED FOR 99% REVIEW	2016/03/31
A	ISSUED FOR 66% REVIEW	2016/02/19
revision	description	date
Do not scale drawings. Verify all dimensions and conditions on site and immediately notify the engineer of all discrepancies.		

A	Detail No.
B	No. du détail
C	drawing no. - where detail required
	dessin no. - où détail exigé
	drawing no. - where detailed
	dessin no. - où détaillé

Project title titre du projet	GIMLI
MANITOBA	
MARGINAL AND TRANSITIONAL WHARF	
WHARF REHABILITATION	

drawing title titre du dessin	MARGINAL AND TRANSITIONAL WHARF SECTIONS, DETAILS, NOTES, SCOPE OF WORK, & EQUIPMENT LIST
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drawn by dessiné par	DANNY FEDUN
designed by conçu par	

approved by approuvé par	DAVE SHALLEY
tender soumission	SMALL CRAFT HARBOURS

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project no. no. du projet	
drawing no. dessiné no.	M-3

