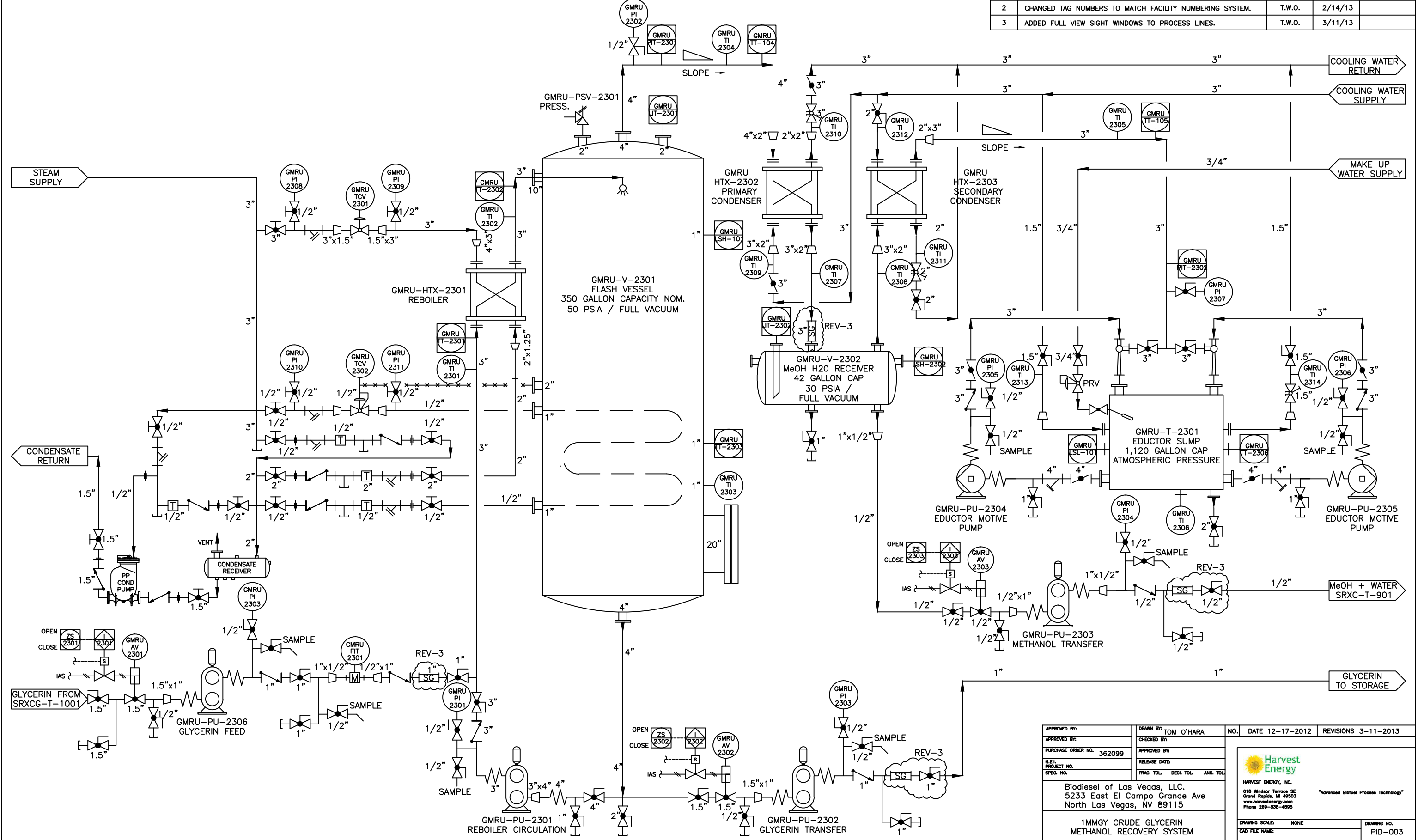


GMRU-V-2301 FLASH VESSEL SIZE: 30"ODx116" T/T CAPACITY: 350 GAL MAWP: 50 PSIA / FV @ 450°F MDMT: -20°F @ 50 PSIA MAT: C.S.	GMRU-V-2302 METHANOL + WATER RECEIVER SIZE: 16"ODx48" T/T CAPACITY: 42 GAL MAWP: 50 PSIA / FV @ 450°F MDMT: -20°F @ 50 PSIA MAT: C.S.	GMRU-T-2301 EDUCTOR SLUMP TANK SIZE: 60"INx80"INx72"IN CAPACITY: 1,120 GAL MAWP: ATMOSPHERIC MDMT: MAT: C.S.	GMRU-HTX-2301 REBOILER TYPE: SHELL & TUBE MAWP: 150 PSIG @ 375°F MDMT: 107°F @ 150 PSIG DUTY: 3,562.6 MBTU/HR AREA: 65.5 SF	GMRU-HTX-2302 PRIMARY CONDENSER TYPE: PLATE & FRAME MAWP: 150 PSIG @ 338°F MDMT: 32°F @ 150 PSIG DUTY: 589.7 MBTU/HR AREA: 70.1 SF	GMRU-HTX-2303 SECONDARY CONDENSER TYPE: PLATE & FRAME MAWP: 150 PSIG @ 338°F MDMT: 32°F @ 150 PSIG DUTY: 179.1 MBTU/HR AREA: 15.8 SF	GMRU-PU-2301 REBOILER CIRCULATION PUMP TYPE: POS. DISPLACEMENT FLOW: 130 GPM AP: 75 PSIG MAX. MOTOR: 15 HP, 1800 RPM MATERIAL: C.I.	GMRU-PU-2302 GLYCERIN TRANSFER PUMP TYPE: POS. DISPLACEMENT FLOW: 1-8 GPM AP: 150 PSIG MAX. MOTOR: 1.5 HP, 1200 RPM MATERIAL: C.I.	GMRU-PU-2303 METHANOL TRANSFER PUMP TYPE: POS. DISPLACEMENT FLOW: 5 GPM AP: 100 PSIG MAX. MOTOR: 1 HP, 1800 RPM MATERIAL: C.I.	GMRU-PU-2304 EDUCTOR MOTIVE PUMP TYPE: CENTRIFUGAL FLOW: 264 GPM HEAD: 94' TDH MOTOR: 15 HP, 3450 RPM MATERIAL: C.I.	GMRU-PU-2305 EDUCTOR MOTIVE PUMP TYPE: CENTRIFUGAL FLOW: 264 GPM HEAD: 94' TDH MOTOR: 15 HP, 3450 RPM MATERIAL: C.I.	GMRU-PU-2306 GLYCERIN TRANSFER PUMP TYPE: POS. DISPLACEMENT FLOW: 1-8 GPM AP: 150 PSIG MAX. MOTOR: 1.5 HP, 1200 RPM MATERIAL: C.I.
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REVISIONS				
REV	DESCRIPTION	BY	DATE	APPROVED
0	INITIAL RELEASE FOR APPROVAL.	T.W.O.	11/20/12	
1	ADDED GLYCERIN FEED PUMP & FT, ADDED PP COND PUMP.	T.W.O.	1/22/13	
2	CHANGED TAG NUMBERS TO MATCH FACILITY NUMBERING SYSTEM.	T.W.O.	2/14/13	
3	ADDED FULL VIEW SIGHT WINDOWS TO PROCESS LINES.	T.W.O.	3/11/13	



APPROVED BY:	DRAWN BY: TOM O'HARA	NO.	DATE 12-17-2012	REVISIONS 3-11-2013
APPROVED BY:	CHECKED BY:			
PURCHASE ORDER NO. 362099	APPROVED BY:			
H.E.I. PROJECT NO.	RELEASE DATE:			
SPEC. NO.	FRAC. TOL. DECL. TOL. ANG. TOL.			
Biodiesel of Las Vegas, LLC. 5233 East El Campo Grande Ave North Las Vegas, NV 89115				
1MMGY CRUDE GLYCERIN METHANOL RECOVERY SYSTEM				
HARVEST ENERGY, INC. 618 Windsor Terrace SE Grand Rapids, MI 49503 www.harvestenergy.com Phone 269-839-4595				"Advanced Biofuel Process Technology"
DRAWING SCALE: NONE		DRAWING NO. PID-003		
C&D FILE NAME:				