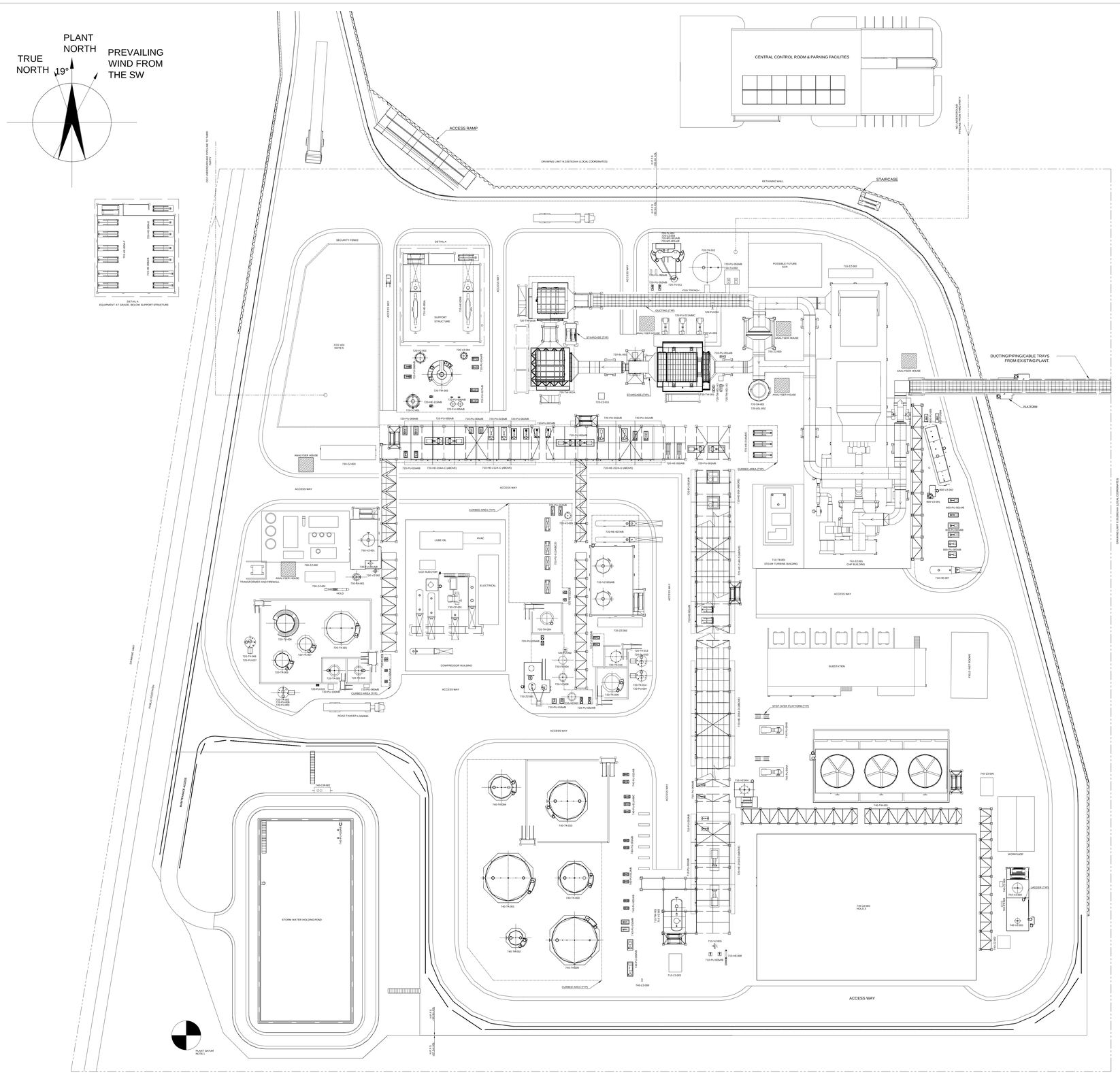

GENERAL NOTES
1. PLANT DATUM IS LOCATED AT: X=328707089mm, Y=361962579mm, Z=99900mm (WORLD - OSGB36/BRITISH NATIONAL GRID) X=100000mm, Y=100000mm, X=99900mm (LOCAL)
2. ALL DIMENSIONS IN MILIMETRES UNLESS OTHERWISE STATED
3. EQUIPMENT SPACING BASED ON WORLEY SID DOCUMENT NUMBER: MS-EP-STD-0040
4. FOR NOISE MODELLING INFORMATION REFER TO NOISE MODEL REPORT PRODUCED BY RSK.
5. CO2 AGI BY OTHERS

HOLDS
1. ALL EQUIPMENTS SIZES AND LOCATIONS
2. ALL BUILDING SIZES AND LOCATIONS
3. WATER TREATMENT PACKAGE AREA
4. MODULAR BUILD STUDY

LIST OF MAJOR EQUIPMENT AND SIZING INCLUDING MAXIMUM DIAMETERS AND MAXIMUM HEIGHTS AROUND EQUIPMENT TAGS TO SUPPORT PLANNING ASSESSMENT

EQUIP TAG	NAME	TRUE SIZE / DESIGN CRITERIA	EXTENDED SIZE INCLUDING APPURTENANCES FOR FOUNDATIONS, PLATFORMS, DUCTING AND PIPING MATERIALS
720-TW-001	QUENCHER	L=7.7m, W=7.7m, H=48m	L=12m, W=12m, H=65m H.P.F.S ELEVATION = EL. +99.9m HIGHEST ELEVATION = EL. +164.9m
720-TW-002A	ABSORBER	L=7.5m, W=7.5m, H=49m	L=12m, W=12m, H=60m H.P.F.S ELEVATION = EL. +99.9m HIGHEST ELEVATION = EL. +159.9m
720-TW-002B	TREATED GAS WASH TOWER	L= 6.7m, W= 6.7m, H =41m	L=12m, W=12m, H=50m H.P.F.S ELEVATION = EL. +99.9m HIGHEST ELEVATION = EL. +149.9m
720-TW-003	REGENERATOR	ID=5.2m,OD = 6m, H=46m [T/T]	OD=10m, H=70m H.P.F.S ELEVATION = EL. +99.9m HIGHEST ELEVATION = EL. +169.9m
720-SK-001	FLUE GAS STACK	ID=3m, OD=3.5m NO HIGHER THAN EXISTING STACK	OD=7.5m H.P.F.S ELEVATION = EL. +99.9m
730-CP-001	CO2 COMPRESSOR	60,100 kg/hr- DRY OF CO2 / UNIT (RATED) 9,960 kW MOTOR AND ASSOCIATED EQUIPMENT	BUILDING - L=40m, W=25m, H=20m H.P.F.S ELEVATION = EL. +99.9m HIGHEST ELEVATION = EL. +119.9m
N/A	PIPERACK	'L' SHAPED, MULTI-LEVEL PIPING AND CABLE TRAYS. PUMPS AND HEAT EXCHANGERS AT GRADE, AIR COOLERS LOCATED ON TOP. H = 24M	N/A
720-ZZ-003	GAS GAS HEATER	L=11m, W=6.5m, H=7m	N/A

EQUIPMENT LIST

EQUIP TAG	NAME
710-BL-001	FLUE GAS BLOWER
710-HE-007	HTF EVAPORATOR
710-HE-008	DUMP CONDENSER
710-HE-009	BLOWDOWN VESSEL COOLER
710-PU-002A/B	HP BOILER FEED WATER PUMPS
710-PU-003A/B	LP BOILER FEED WATER PUMPS
710-PU-004A/B	CONDENSATE RETURN PUMPS
710-PU-005A/B	BLOWDOWN VESSEL PUMP
710-VZ-002	BOILER FEED WATER VESSEL
710-VZ-003	BOILER BLOWDOWN VESSEL
710-VZ-004	CONDENSATE RETURN DRUM
710-TB-001	STEAM TURBINE GENERATOR
710-TW-001	DEAERATOR
710-ZZ-001	CHP PACKAGE
710-ZZ-002	BFW DOSING PACKAGE
710-ZZ-003	SODIUM BASED SOLUTION (SBS) INJECTION PACKAGE
720-VZ-001	REFLUX DRUM
720-VZ-002	STEAM CONDENSATE DRUM
720-VZ-003A/B	RECLAIMER DRUM
720-VZ-004	RECLAIMER STEAM CONDENSATE DRUM
720-VZ-005	RECLAIMED SOLVENT DRUM
720-VZ-006	PRECOAT FILTER WASH WATER DRUM
720-VZ-007	PRECOAT FILTER AIR RECEIVER
720-VH-001	QUENCHER FGD SECTION HYDROCYCLONE
720-TK-001	SOLVENT TANK
720-TK-002	SOLVENT SUMP TANK
720-TK-003	CAUSTIC SODA TANK
720-TK-004	RECLAIMED WASTE TANK
720-TK-005	WASH WATER TANK
720-TK-006	DILUTE WASH WATER TANK
720-TK-007	FRESH SOLVENT TANK
720-TK-008	STORAGE AREA SOLVENT SUMP TANK
720-TK-009	ACID WASH WATER TANK
720-TK-010	SULPHURIC ACID TANK
720-TK-011	SLAKED LIME SLURRY TANK
720-TK-012	QUENCHER FGD SECTION DRAIN TANK
720-TK-013	ACID WASH WATER SUMP TANK
720-TK-014	RECLAIMED WASTE SUMP TANK
720-TK-015	SOLVENT WASTE WATER STORAGE TANK
720-TL-001	SLAKED LIME SILO
720-TU-002	QUENCHER FGD SECTION AREA SUMP
720-FU-002	GUARD FILTER
720-FU-003	SOLVENT SUMP FILTER
720-FU-004	CARBON FILTER
720-TW-001-X3	SEAL AIR FAN
720-TW-001-X3	SEAL AIR HEATER
720-FU-005A/B	REFLUX CARBON FILTER
720-FU-006A/B	REFLUX GUARD FILTER
720-HE-001A/B	QUENCHER COOLER
720-HE-201A-D	QUENCHER AIR FIN COOLER
720-HE-002A/B	WASH WATER COOLER
720-HE-202A-D	WASH WATER AIR FIN COOLER
720-HE-003A-F	LEAN RICH EXCHANGER
720-HE-204A-C	REFLUX COOLER
720-HE-005A/B	REGENERATOR REBOILER
720-HE-206A-D	LEAN COOLER
720-HE-007A/B	RECLAIMER HEATER
720-HE-008A/B	UPPER SEMI-LEAN LEAN EXCHANGER
720-HE-009A-E	LOWER SEMI-LEAN LEAN EXCHANGER
720-HE-211A/B	RECLAIMED WASTE COOLER
720-HE-212A-C	RECLAIMER CONDENSER
720-HE-014A-C	INTERCOOLER
720-HE-214A-D	AIR FIN INTERCOOLER
720-HE-215A/B	STEAM CONDENSATE COOLER
720-BL-001	CCU FLUE GAS BLOWER
720-PU-001A/B	QUENCHER CIRCULATION PUMP
720-PU-002A/B	1ST WASH WATER PUMP
720-PU-003A/B	RICH PUMP
720-PU-004A/B	REFLUX DISTRIBUTION PUMP
720-PU-005A/B	LEAN PUMP
720-PU-006	SOLVENT SUMP PUMP
720-PU-007A/B	2ND WASH WATER PUMP
720-PU-008A/B	STEAM CONDENSATE PUMP
720-PU-009A/B	REFLUX CIRCULATION PUMP

EQUIPMENT LIST

EQUIP TAG	NAME
720-PU-010	RECLAIMER CAUSTIC SODA PUMP
720-PU-011A-D	RECLAIMED WASTE PUMP
720-PU-012A/B	RECLAIMED SOLVENT PUMP
720-PU-013A/B	RECLAIMER VACUUM PUMP
720-PU-014A/B	RECLAIMER STEAM CONDENSATE PUMP
720-PU-016A/B	INTERCOOLING PUMP
720-PU-017A/B	FILTRATION BOOSTER PUMP
720-PU-018A/B	PRECOAT FILTER WASH WATER PUMP
720-PU-019	SOLVENT UNLOADING PUMP
720-PU-021A-C	FLUE GAS PRETREATMENT PUMP
720-PU-023A/B	3RD WASH WATER PUMP
720-PU-024A/B	CO2 WASH WATER PUMP
720-PU-025A/B	RECLAIMED WASTE TRANSFER PUMP
720-PU-027	STORAGE AREA SOLVENT SUMP PUMP
720-PU-029A/B	SULPHURIC ACID MAKE-UP PUMP
720-PU-032A/B	ACID WASH WATER TRANSFER PUMP
720-PU-033	ACID WASH WATER SUMP PUMP
720-PU-034	RECLAIMED WASTE SUMP PUMP
720-PU-035A/B	SOLVENT WASTE WATER TRANSFER PUMP
720-PU-041A/B	WET ESP WASHING PUMP
720-PU-051A/B	QUENCHER FGD SECTION BLEED PUMP
720-PU-052A/B	SLAKED LIME SLURRY PUMP
720-PU-053A/B	QUENCHER FGD SECTION AREA SUMP PUMP
720-PU-054	QUENCHER FGD SECTION DRAIN TANK PUMP
720-PU-080A/B	SULPHURIC ACID PUMP TO WWTP
720-PU-090A/B	SLAKED LIME SLURRY PUMP TO WWTP
720-PU-100A/B	SBS CAUSTIC SODA PUMP
720-LEL-002	ELEVATOR FOR FLUE GAS STACK
720-MC-001A/B	SLAKED LIME CONVEYOR
720-MF-001A/B	SLAKED LIME FEEDER
720-ZZ-001	PRECOAT FILTRATION UNIT
720-ZZ-002	ACID WASH CONCENTRATOR
720-ZZ-004	SLAKED LIME SILO BAG FILTER
720-ZZ-011	ANTI-FOAM INJECTION UNIT
730-FU-001A/B	COALESCER FILTER
730-RA-001	O2 REMOVAL REACTOR
730-VZ-001	COMPRESSOR SUCTION SCRUBBER
730-VZ-002	H2 BUFFER DRUM
730-ZZ-001	H2 GENERATION UNIT
730-ZZ-002	DEHYDRATION UNIT
730-ZZ-003	CO2 METERING PACKAGE
740-CIR-002	INTERCEPTOR
740-TW-001	COOLING TOWER
740-TK-001	RAW WATER BUFFER TANK
740-TK-002	DEMINERALISED WATER TANK
740-TK-003	FLUE GAS CONDENSATE TANK
740-TK-004	RO REJECT TANK
740-TK-009	FIRE WATER TANK
740-TK-010	CCP EFFLUENT STORAGE TANK
740-PU-001A/B	RAW WATER BUFFER TANK PUMPS
740-PU-002A/B	DEMINERALISED WATER PUMP
740-PU-004A/B	COOLING WATER PUMPS
740-PU-009A/B	FIREWATER PUMPS
740-PU-010A/B	FIRE WATER JOCKEY PUMPS
740-PU-011A-C	CCP EFFLUENT PUMPS
740-PU-012A/B	FLUE GAS CONDENSATE FEED TO WWTP PUMPS
740-PU-013 A/B	RO AND UF REJECT TO DCC PUMPS
740-PU-016A/B	POND TRANSFER PUMPS
740-VZ-001	WET AIR RECEIVER
740-VZ-002	IA RECEIVER
740-ZZ-001	WASTEWATER TREATMENT PACKAGE
740-ZZ-002	INSTRUMENT AIR COMPRESSOR PACKAGE
740-ZZ-003	INSTRUMENT AIR DRYER PACKAGE
740-ZZ-004	NITROGEN GENERATION PACKAGE
740-ZZ-005	COOLING WATER CHEMICAL DOSING
740-ZZ-008	ELECTRO CHLORINATION PACKAGE
800-PU-001A/B	HTF CIRCULATION PUMP
800-PU-002A/B	HTF TO CLINKER GAS/HTF HEAT EXCHANGER FEED PUMPS
800-PU-003A/B	HTF TO PHT/HTF HEAT EXCHANGER FEED PUMPS
800-PU-004	HTF TRANSFER PUMP
800-PU-005	HTF COLLECTION SUMP DRAIN PUMP
800-VZ-001	HTF SUCTION DRUM
800-VZ-002	HTF COLLECTION SUMP

SCALE BAR 1:400
0M 5M 10M 15M 20M 25M 30M 35M 40M 45M 50M

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CUSTOMER	REF DRAWING No	REFERENCE DRAWING TITLE
E	09/07/24	ISSUED FOR INFORMATION (30% MODEL REVIEW)	RCEM			GH				
D	05/04/24	ISSUED FOR REVIEW	RCEM			MRJ				
C	15/03/24	ISSUED FOR INFORMATION	RCEM			MRJ				
B	12/01/24	ISSUED FOR INTER-DISCIPLINE CHECK	RCEM			MRJ			215000-00190-720-PR-LST-10001	MHI SIZED EQUIPMENT LIST (ISBL)
A	20/12/23	ISSUED FOR INFORMATION	RCEM		MRJ	MRJ			215000-00190-000-PR-LST-00009	WORLEY EQUIPMENT LIST

DocuSigned by: Kaan 056A837D092D4DE... — Signed by: Gary Hawkins 4E0FA0FB9F5048... — Signed by: Gary Hawkins 4E0FA0FB9F5048...

A0 SHEET SCALE 1:400
WORLEY PROJECT No 215000-00190

ENGINEERING AND PERMIT STAMPS (As Required)

CUSTOMER: Heidelberg Materials

DRG TITLE: HEIDELBERG MATERIALS PADESWOOD CARBON CAPTURE STORAGE PROJECT BLOCK PLAN

DRG No 215000-00190-000-PI-PLN-00002 REV E

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Worley_A0

PLOT DATE & TIME 9/7/2024 2:36:44 PM
SAVE DATE & TIME 8/7/2024 12:04:24 PM
USER NAME - rochelle.elderm@sara LOCATION C:\USERS\ROCHELLE.ELDER\PUSARA\WORLEY\HEIDELBERG MATERIALS PADESWOOD CARBON CAPTURE PLANT - 04 PIPING\3-DRAWINGS\FEED\1 CCS PLANT\BLOCK PLAN - LOWER - 000021 ISSUED\215000-00190-000-PI-PLN-00002_E.DWG