

EQUIPMENT NUMBER	EQUIPMENT DESCRIPTION
TOWERS	
107-CNT-T-101/D-103	CDHYORO COLUMN / CHDS FEED SURGE DRUM
107-CNT-T-201	CDHDS COLUMN
107-CNT-T-202	CDHDS RECYCLE GAS AMINE ABSORBER
107-CNT-T-203	H2S STRIPPER
107-CNT-T-301	NAPHTHA STABILIZER COLUMN

DRUMS	
107-CNT-D-101	CDHYORO FEED SURGE DRUM
107-CNT-D-102	CDHYORO REFLUX DRUM
107-CNT-D-104	CDHYORO RECYCLE GAS COMPRESSOR K.O. DRUM
107-CNT-D-105	HP CONDENSATE POT DRUM
107-CNT-D-201	CDHDS REFLUX DRUM
107-CNT-D-202	CDHDS COLD DRUM
107-CNT-D-203	CDHDS COLD SEPARATOR K.O. DRUM
107-CNT-D-204	CDHDS RECYCLE GAS AMINE ABSORBER K.O. DRUM
107-CNT-D-205	H2S STRIPPER REFLUX DRUM
107-CNT-D-206	CDHDS RECYCLE GAS COMPRESSOR K.O. DRUM
107-CNT-D-207	HP CONDENSATE POT DRUM
107-CNT-D-305	SOUR WATER ACCUMULATOR
107-CNT-D-701	FLARE K.O. DRUM
107-CNT-D-702	OILY WATER DRAIN DRUM
107-CNT-D-703	HP CONDENSATE FLASH DRUM
107-CNT-D-704	LP CONDENSATE FLASH DRUM
107-CNT-D-705	AMINE SUMP DRUM
107-SP-A213	FUEL GAS KNOCK OUT DRUM
107-CNT-D-301	POLISHING REACTOR EFFLUENT HOT DRUM
107-CNT-D-302	POLISHING REACTOR EFFLUENT COLD DRUM
107-CNT-D-303	NAPHTHA STABILIZER REFLUX DRUM
107-CNT-D-304	POLISHING REACTOR BOOSTER COMPRESSOR K.O. DRUM
107-CNT-D-306	HP CONDENSATE POT DRUM

EXCHANGERS	
107-CNT-E-101A/B	CDHYORO FEED PREHEATER
107-CNT-E-102	CDHYORO VAPOR TRIM COOLER
107-CNT-E-103	CDHYORO BOTTOMS REBOILER
107-CNT-E-104	CDHYORO SIDE REBOILER
107-CNT-E-105	LCN PRODUCT TRIM COOLER
107-CNT-E-107	HCN FEED PREHEATER
107-CNT-E-201A/B	CDHDS FEED/ CHDS OVERHEAD EXCHANGER
107-CNT-E-202	HP STEAM GENERATOR
107-CNT-E-203	CDHDS COLD SEPARATOR VENT COOLER
107-CNT-E-204	SOUR GAS TRIM CONDENSER
107-CNT-E-205	H2S STRIPPER REBOILER
107-CNT-E-305	STABILIZER HCN PRODUCT TRIM COOLER
107-CNT-E-301A/B	POLISHING REACTOR FEED/EFFLUENT EXCHANGERS
107-CNT-E-302	POLISHING REACTOR HP STEAM FEED HEATER
107-CNT-E-303	NAPHTHA STABILIZER VAPOR TRIM COOLER
107-CNT-E-304	NAPHTHA STABILIZER REBOILER
107-CNT-E-307	POLISHING REACTOR VAPOR TRIM COOLER
107-CNT-E-308	POLISHING REACTOR BOOSTER COMPRESSOR SPILLBACK COOLER

AIR COOLED EXCHANGERS	
107-CNT-AC-101 A/B/C	CDHYORO CONDENSER
107-CNT-AC-102	LCN PRODUCT AIR COOLER
107-CNT-AC-201	CDHDS NET OVERHEAD VAPOR COOLER
107-CNT-AC-202	H2S STRIPPER CONDENSER
107-CNT-AC-303	STABILIZER HCN PRODUCT COOLER
107-CNT-AC-701	AIR FIN STEAM CONDENSER
107-CNT-AC-301	POLISHING REACTOR HOT VAPOR CONDENSER
107-CNT-AC-302	NAPHTHA STABILIZER CONDENSER

FIRED HEATERS	
107-CNT-F-201	CDHDS REBOILER FURNACE

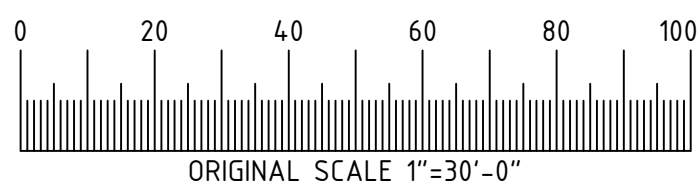
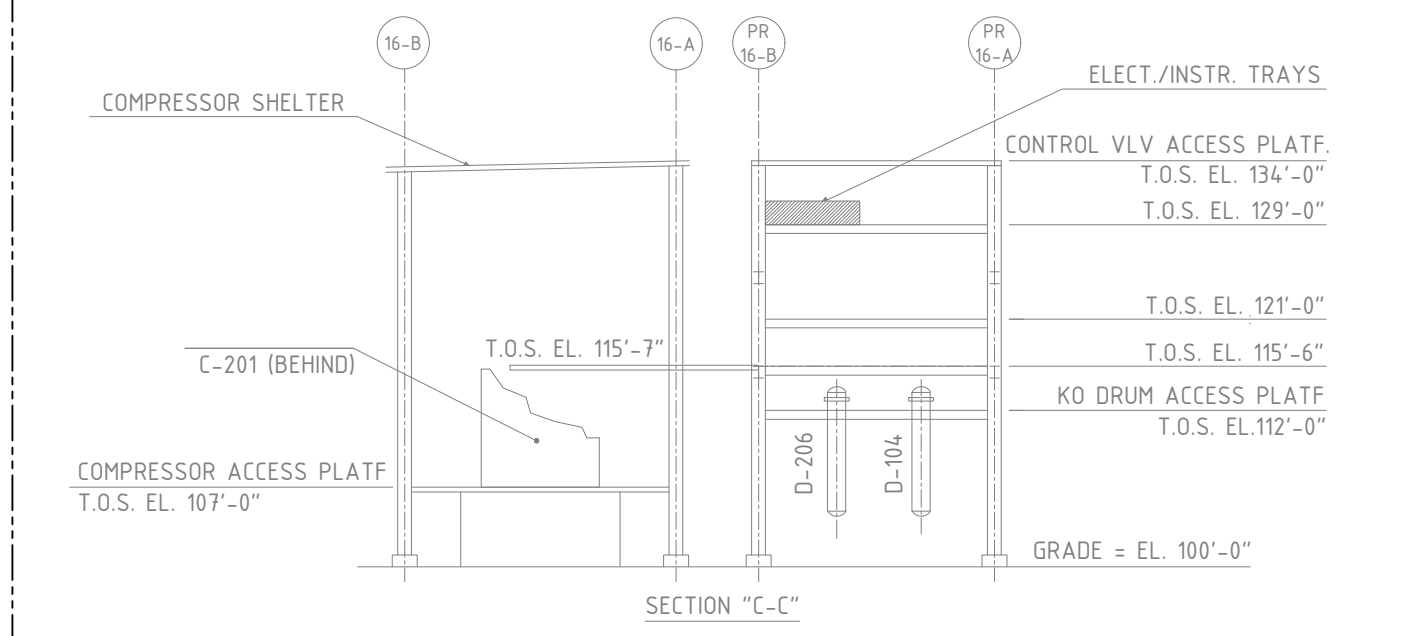
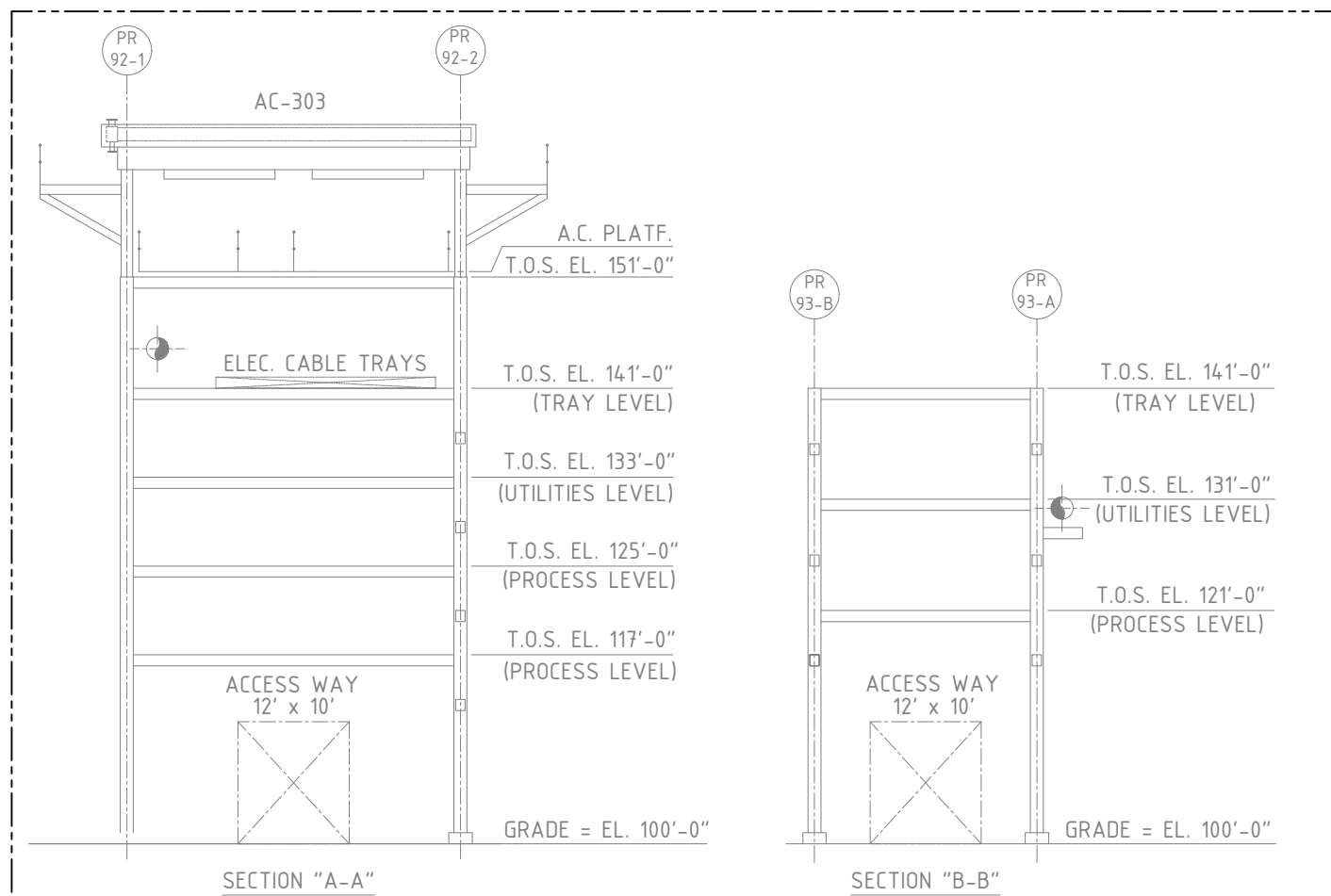
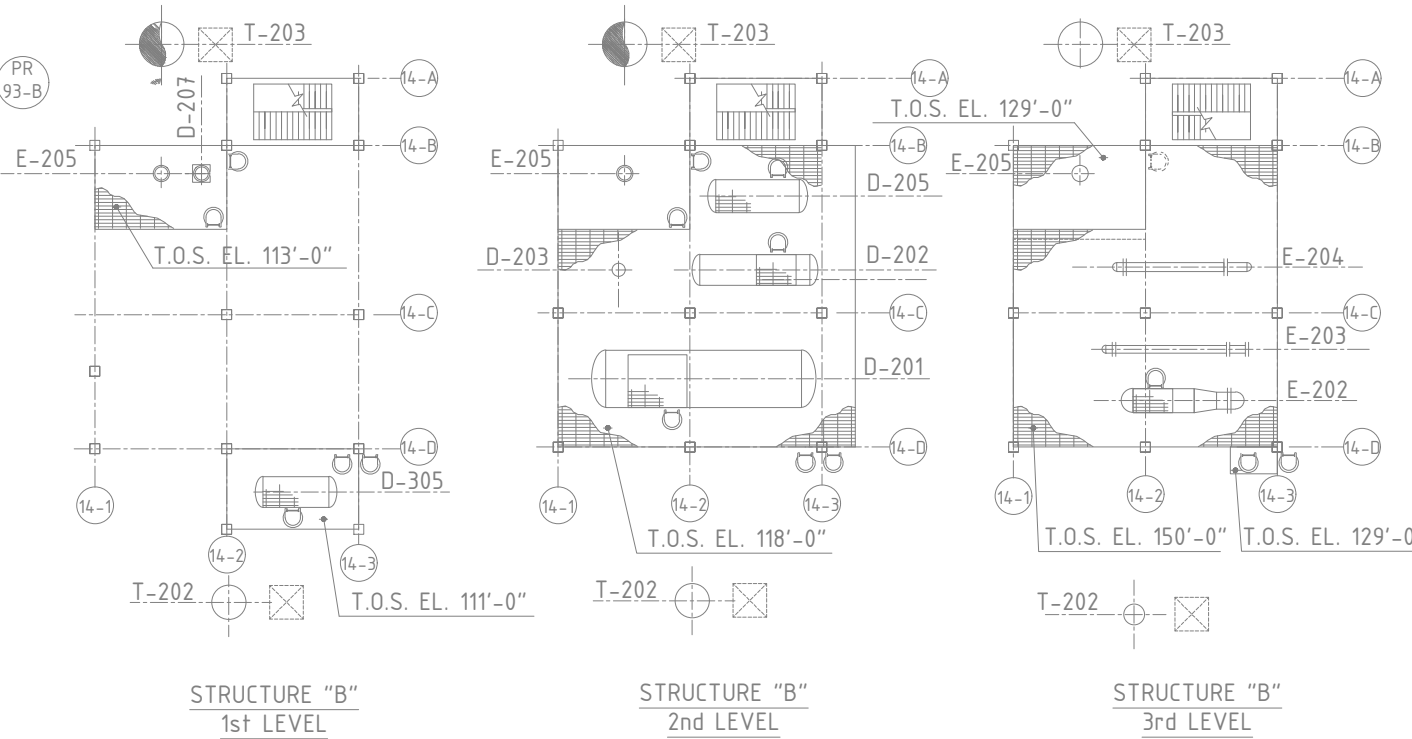
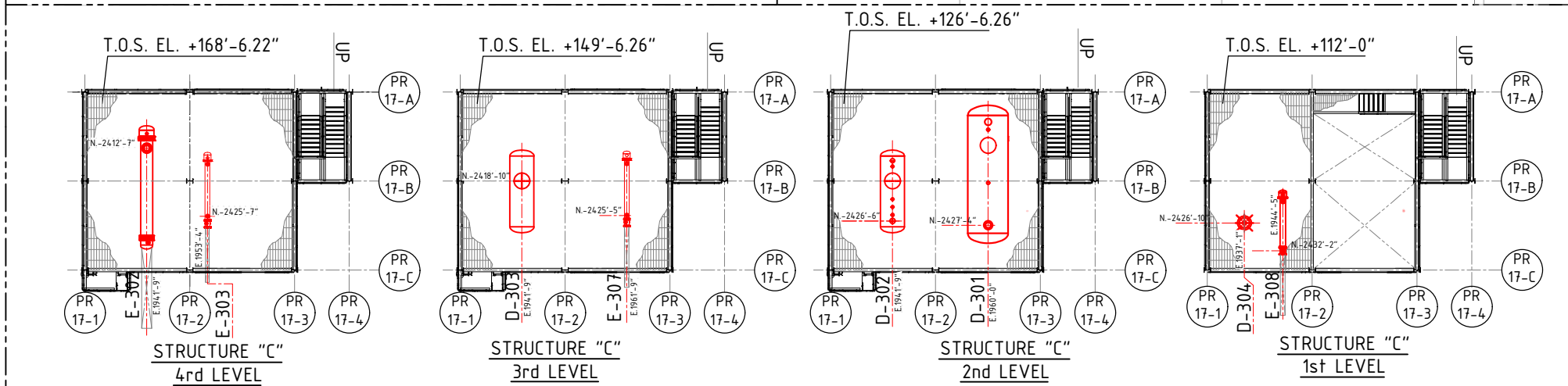
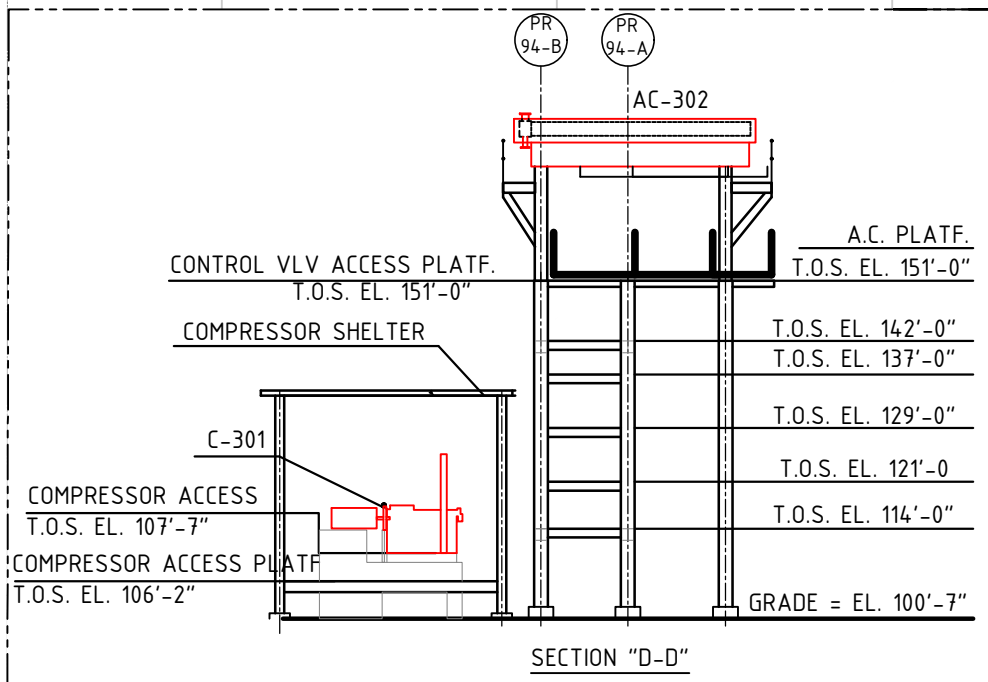
COMPRESSORS	
107-CNT-C-101	CDHYORO RECYCLE GAS COMPRESSOR
107-CNT-C-201	CDHDS RECYCLE GAS COMPRESSOR
107-CNT-C-301	POLISHING REACTOR BOOSTER COMPRESSOR
107-CNT-X-101	TEMPERED WATER CONSOLE
107-CNT-X-301	TEMPERED WATER CONSOLE

PUMPS	
107-CNT-P-101C/D	CDHYORO FEED PUMPS
107-CNT-P-102A/B	CDHYORO REFLUX PUMPS
107-CNT-P-103A/B	CDHYORO BOTTOMS PUMPS
107-CNT-P-202C/D	CDHDS REBOILER CIRCULATION PUMPS
107-CNT-P-203A/B	H2S STRIPPER REFLUX PUMPS
107-CNT-P-304A/B	SOUR WATER PUMPS
107-CNT-P-701A/B	FLARE PUMPS
107-CNT-P-702A	OILY DRAIN SUMP PUMP
107-CNT-P-702B	OILY DRAIN SUMP PUMP (WAREHOUSE SPARE)
107-CNT-P-703	PCSW FIRST FLUSH SUMP PUMP
107-CNT-P-704A/B	LP CONDENSATE PUMPS
107-CNT-P-705A/B	LEAN AMINE BOOSTER PUMPS
107-CNT-P-706	PCSW ENTRY SUMP PUMP
107-CNT-P-707A	AMINE SUMP DRUM PUMP
107-CNT-P-707B	AMINE SUMP DRUM PUMP (WAREHOUSE SPARE)
107-CNT-P-204A/B	POLISHING REACTOR FEED PUMPS
107-CNT-P-301A/B	NAPHTHA STABILIZER REFLUX PUMPS
107-CNT-P-303A/B	NAPHTHA STABILIZER BOTTOMS RECYCLE PUMPS

REACTOR	
107-CNT-R-301	POLISHING REACTOR
STRAINERS	
107-CNT-STR-101A/B	CDHYORO COLUMN REFLUX STRAINERS
107-CNT-STR-102A/B	CDHDS COLUMN FEED STRAINERS
107-CNT-STR-103A/B	NAPHTHA COLUMN FEED STRAINERS
107-CNT-STR-201A/B	CDHDS REFLUX STRAINERS

SUMPS	
107-CNT-AD-702	STORM WATER SUMP
107-CNT-AD-703	SOUR WATER SUMP
107-CNT-AD-704	AMINE DRAIN SUMP

PACKAGES	
107-CNT-PA-202	CDHDS INJECTION PACKAGE
SAH-001	ANALYZER HOUSE



D1	23/02/2024	APROBADO PARA DISEÑO (ACTUALIZACION) IDOM-3037737-22	SMA	JRR	NCM	JVA	 Referencia de Cartagena S.A.S.	VICEPRESIDENCIA DE DESARROLLO, PROYECTOS Y PERFORMANCE INGENIERIA BASICA PROYECTO MEJORAS EN UNIDAD DE DESTILACION REACTIVA U-107 PARA ESTABLECIMIENTO Y CUMPLIMIENTO DE 10 PPM AZULINE		
D	20/10/2023	APROBADO PARA DISEÑO IDOM-3037737-22	SMA	JRR	NCM	JHR				
A	18/09/2023	EMITIDO PARA COMENTARIOS DEL CLIENTE IDOM-3037737-22	SMA	JRR	NCM	JHR	PLOT PLANT			
P	24/08/2023	EMITIDO PARA COMENTARIOS INTERNOS IDOM-3037737-22	SMA	JRR	NCM	JHR				
REV	FECHA	DESCRIPCION	DIBUJO	DISEÑO	REVISO	APROBADO	Proyecto No./Project No.	Código EOP	Código EC	REV:
REVISIONES							3037737-22	GRC-107-MET-PL-000001	107-DG-P101-0001	D1



Cartagena Refinery
Expansion Project

UNIT PLOT PLAN

UNIT 107 FCC NAPHTHA HYDROTREATER

Refinería de Cartagena S.A.

166000

107-DG-P101-0001

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NOTES

- EQUIPMENT TAGS ARE PREFIXED BY "107-CNT-".
- HIGH POINT FINISH SURFACE IS 100'-0" PL=36'-4" MSL WITH REFERENCE TO CARTAGENA PLANT VERTICAL CONTROL SYSTEM.
- THE P-202 A/B PUMPS NEED TO VERIFY THEIR POWER AND DETERMINE IF THEY NEED TO BE CHANGED
- FOR THE DEVELOPMENT OF THE PLOT PLAN STAGE 2, THE PREMISE IS THE COMMITMENT OF ECOPETROL TO ADVANCE THE PERMITS WITH THE ENVIRONMENTAL AUTHORITY FOR THE CUT DOWN TREES REQUIRED FOR THE LOCATION OF THE EQUIPMENT THAT IS PART OF THE PROJECT.
- E-101A/B: TUBE BUNDLE AND CHANNEL TO BE REPLACED TO ACHIEVE HIGHER ABSORBED DUTY FOR REVAMP CONDITIONS
- E-201A/B: TUBE BUNDLE TO BE REPLACED TO ACHIEVE HIGHER ABSORBED DUTY FOR REVAMP CONDITIONS
- ROWS 5-6 CS FINNED TUBES FROM BOTTOM OF CONVECTION SECTION TO BE REPLACED WITH 11-13 CR-MO FINNED TUBES DUE TO HIGHER FIN TIP TEMPERATURE AND TWO EXTRA ROWS CS FINNED TO BE ADDED FOR INCREASING EFFICIENCY, ORIGINAL DESIGN INCLUDES PROVISIONS FOR INSTALLATION OF EXTRA ROWS

HOLDS

CONVENTIONS

- EQUIPMENT STAGE 1
- EQUIPMENT STAGE 2

REFERENCE DRAWINGS

000-DG-P101-0001
107-DG-P101-0002
107-DG-P101-0003

OVERALL PLOT PLAN
DESIGN AREA KEY PLAN
EQUIPMENT LOCATION
KEY PLAN

IDOM

NUMERO DE CONTRATO: 3037737

- 1. APROBADO PARA DISEÑO.
- 2. APROBADO CON COMENTARIOS, PUEDE PROCEDER SUJETO A LA INCORPORACION DE LOS CAMBIOS INDICADOS.
- 3. DEVUELTO Y REVISADO, NO PUEDE PROCEDER.
- 4. SOLID PARA INFORMACION.

FRMA:

FECHA: 23/02/2024