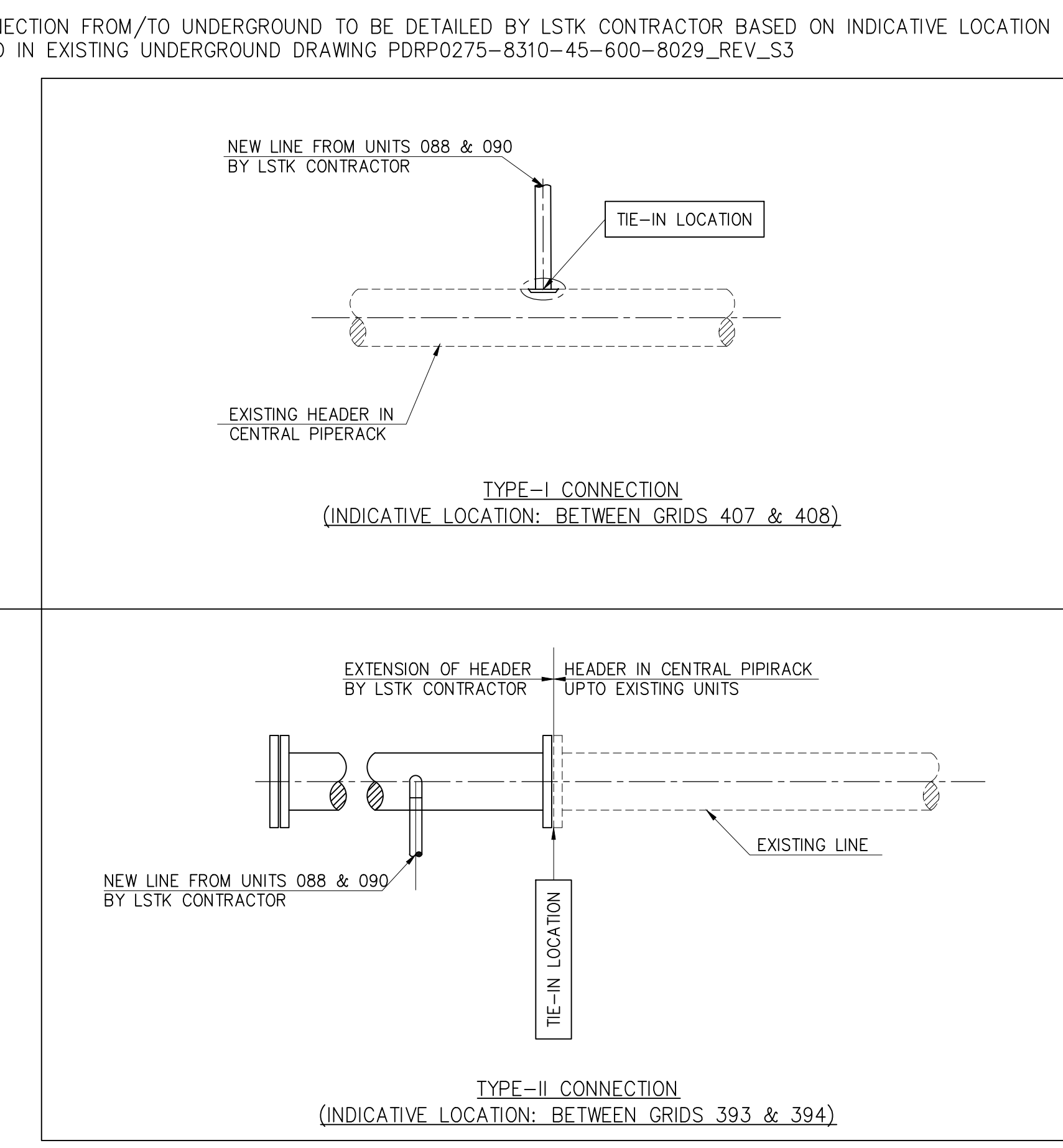
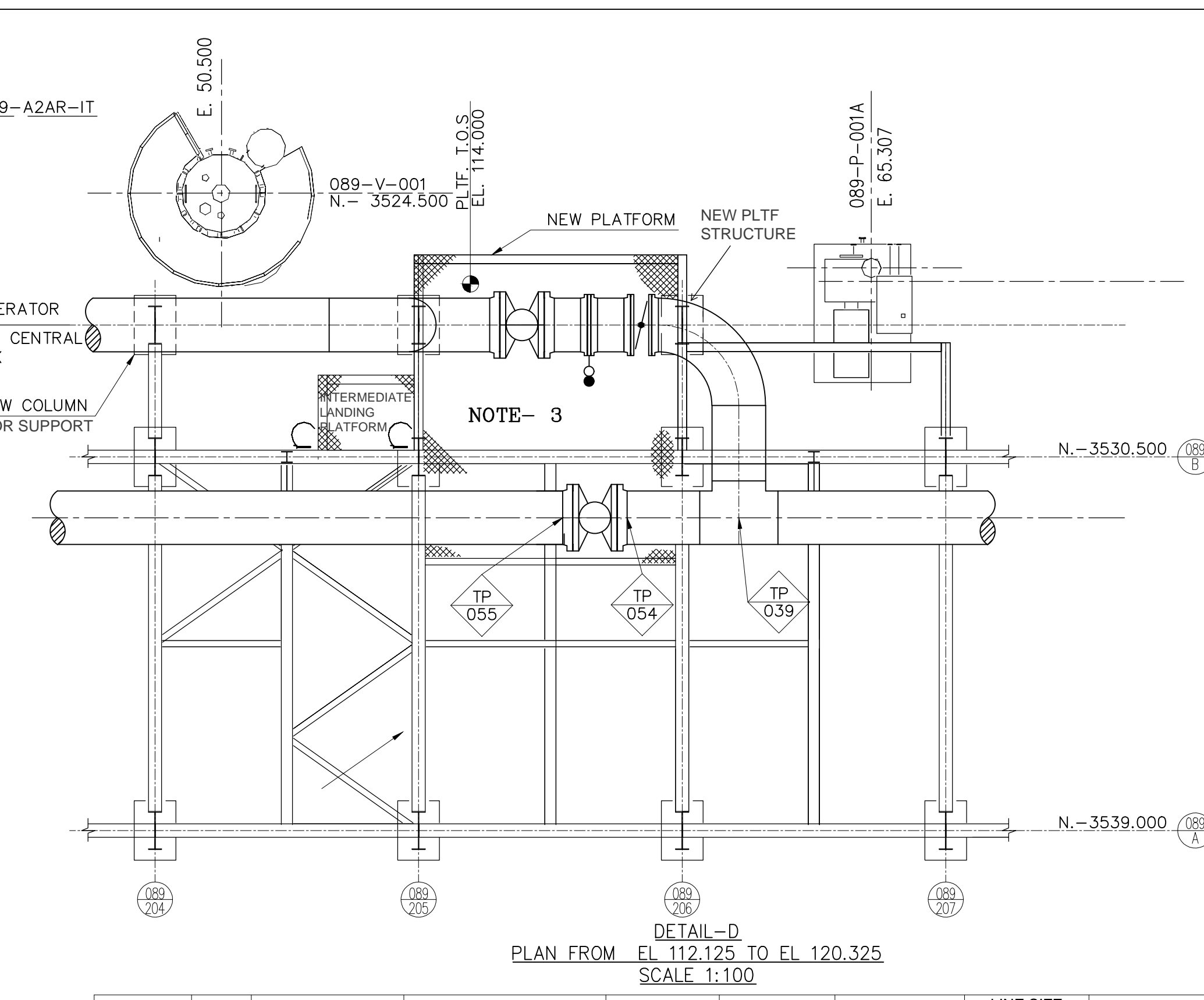


NOTE:
Design, Supply & Installation of "Instrument Air supply" piping with isolation valve for the operation of On/Off valves (which are to be mounted on tie-in lines) are in the scope of CONTRACTOR. CONTRACTOR to take the branch tapping from nearby existing instrument air supply header/sub-headers.

	TYPE	TIE - IN NUMBER	LINE NUMBER	UNIT	FROM	TO	SERVICE	LINE SIZE (INCH)	REMARKS
PROCESS LINES	I	088-02-004	250-P-211-8006-ALIA-NV	HEADER	UNIT 088	FSD S2 GAS	3	10	
		088-02-002	80-P-211-8002-80AR-NI	HEADER	UNIT 088	SOUR WATER FROM KOO PUMPS 008-P-001/002	3	10	
		088-02-008	150-P-211-0103-A2AF-IT	UNIT 088	HEADER	LIQUID SULFUR	6	6	
		088-02-011	50-AP-212-8016-ALIA-NI	HEADER	UNIT 088	PLANT AIR	2	2	
		088-02-013	80-WVS-212-8018-AZAW-NI	HEADER	UNIT 088	SERVICE WATER	3	3	
		088-02-014	80-WDK-212-8019-S1RW-NI	HEADER	UNIT 088	POTABLE WATER	3	3	
		088-02-018	80-WB-212-8023-82AS-HF	UNIT 088	HP BW	HP BW	6	6	
		088-02-019	150-WB-212-8024-D2AS-HF	HEADER	UNIT 088	HP BW	6	6	
		088-02-020	80-AI-212-8025-S0RA-NI	HEADER	UNIT 088	INSTRUMENT AIR	3	3	
		088-02-026	250-CL-212-8031-AZAS-PP	HEADER	UNIT 088	LP CONDENSATE	10	10	
UTILITY LINES		090-02-028	50-AP-212-8053-ALIA-NI	UNIT 090	PLANT	PLANT	3	3	
		090-02-029	80-WVS-212-8505-AZAW-NI	HEADER	UNIT 090	SERVICE WATER	3	3	
		090-02-030	80-WDK-212-8506-S1RW-NI	HEADER	UNIT 090	POTABLE WATER	3	3	
		090-02-033	150-WB-212-8510-D2AS-HF	HEADER	UNIT 090	HP BW	6	6	
		090-02-034	100-AI-212-8511-S0RA-NI	UNIT 090	INSTRUMENT AIR	3	3		
		090-02-037	200-FAG-212-8515-A2AF-IT	HEADER	UNIT 090	FUEL GAS SUPPLY	8	8	
		088-02-016	150-SH-212-8021-D1AS-HF	UNIT 088	HEADER	SUPERHEATED HP STEAM	6	6	
		088-02-021	100-CL-212-8026-AZAS-HF	UNIT 088	HEADER	LP CONDENSATE	4	4	
		090-02-022	150-FAG-212-8027-A2AF-IT	UNIT 090	HEADER	ACROLEIN	8	8	
		090-02-031	250-SH-212-8507-D1AS-HF	UNIT 090	HEADER	HP STEAM	10	10	
		090-02-036	800-FAG-212-8513-A2AF-IT	UNIT 090	HEADER	AG FLARE	24	24	
		090-02-038	250-CL-212-8516-AZAS-PP	UNIT 090	HEADER	LP CONDENSATE	10	10	
		088-02-043	150-WVC-212-8055-AZAW-NI	UNIT 088	HEADER	COOLING WATER SUPPLY	10	10	**
		088-02-044	150-WCR-212-8036-AZAW-NI	UNIT 088	HEADER	COOLING WATER RETURN	20	20	**



	TYPE	TIE - IN NUMBER	LINE NUMBER	FROM	TO	SERVICE	LINE SIZE (INCH)	REMARKS
PROCESS LINES	II	08B-TP-001	900-P-211-800Q-A2AQ-IT	HEADER	UNIT 088	AMINE ACID GAS	36	
		08B-TP-003	500-P-211-800Q3-A2AQ-IT	HEADER	UNIT 088	SWs ACID GAS	28	
		08B-TP-007	250-P-211-8011-A2AF-JH	UNIT 088	HEADER	SULFUR PIP VAPOUR	10	
		08B-TP-010	1100-PA-211-8001-A2AP-AH	UNIT 088	UNIT 088	COMBUSTION AIR	44	
		08B-TP-027	100-P-211-8501-A2AR-IT	UNIT 088	UNIT 088	VENT GAS	4	
		08B-TP-005	1200-P-211-8007-A2AP-IT	UNIT 088	HEADER	SRU TAIL GAS FROM FINAL CONDENSER	48	
		08B-TP-006	1200-P-211-8009-A2AP-IT	UNIT 088	HEADER	SRU TAIL GAS DIVERSION	48	
		08B-TP-009	200-P-211-8014-A2AF-JH	UNIT 088	HEADER	DEGASSING CONTACTOR OVER HEAD	8	
		08B-TP-012	200-N-212-8017-A1AA-NI	HEADER	UNIT 088	NITROGEN	8	
		UTILITY LINES	II	08B-TP-015	300-SH-212-8020-A1AS-IH	UNIT 088	HEADER	SATURATED HP STEAM
08B-TP-020	50-BD-212-8028-A2AS-PP			UNIT 088	UNIT 088	HP BLOW DOWN	2	
08B-TP-024	100-BD-212-8029-D2AS-PP			HEADER	UNIT 088	HP BLOW DOWN	4	
08B-TP-025	150-FG-212-8030-A2AD-IT			HEADER	UNIT 088	FUEL GAS SUPPLY	6	
08B-TP-017	600-SL-212-8022-A1AS-IH			UNIT 088	HEADER	LP STEAM	24	



	TYPE	TIE - IN NUMBER	LINE NUMBER	FROM	TO	SERVICE	LINE SIZE (INCH)	REMARKS
PROCESS LINES	III	089-TP-039	1200-P-089-8519-A2AL-NI	UNIT 089	UNIT 090	TAIL GAS	48	
		089-TP-040	400-P-089-8520-A2AR-IT	UNIT 089	UNIT 090	TAIL GAS	16	
		089-TP-041	80-P-089-8521-A2AL-NI	UNIT 089	UNIT 090	VENT GAS	3	
		089-TP-042	80-P-089-8522-A2AL-NI	UNIT 089	UNIT 090	VENT GAS	3	
		089-TP-051 & 052	400-P-089-8523-A2AR-IT	UNIT 089	UNIT 090	TAIL GAS	16	
		089-TP-053 & 054	1200-P-089-8524-A2AL-NI	UNIT 089	UNIT 089	TAIL GAS	48	
		089-TP-055 & 056	80-P-089-8525-A2AL-NI	UNIT 089	UNIT 089	VENT GAS	3	
		089-TP-057 & 058	80-P-089-8526-A2AL-NI	UNIT 089	UNIT 089	VENT GAS	3	

TYPE III - TIE-IN POINTS INVOLVE MODIFICATION OF EXISTING LINES AND ADDITION OF NEW LINES AS SHOWN IN P&ID

GENERAL NOTES:

- UNLESS OTHERWISE STATED, ALL DIMENSIONS ARE IN MILLIMETERS, ELEVATIONS AND CO-ORDINATES ARE IN METERS.
- HIGH POINT OF PAVING (LO-110.300M IS EQUAL TO 4.360M ABOVE LMS.(INDIAN MEAN SEA LEVEL)).
- CONTRACTOR SHALL PROVIDE ELEVATION, POSITION, SIZE & NUMBER OF THE INS-/INS, WIDTH & LEVELS OF PIPE/RACK IS INDICATIVE. ACTUAL CONDITION AT SITE SHALL BE STUDIED BY LSTK CONTRACTOR. FURTHER DEVELOPMENT, MODIFICATION AND FINALIZATION IS IN LSTK CONTRACTOR SCOPE.
- FIREWATER, CRWS AND OWS LINES WITHIN & SURROUNDING LSTK CONTRACTOR PROPERTY POINTS TO BE MAINTAINED BY CONTRACTOR. CONNECTING SUCH LINES TO NEARBY EXISTING HEADERS SHALL ALSO BE IN THE SCOPE OF LSTK CONTRACTOR.
- FOR THE LAYOUT OF THE PIPES, CONTRACTOR SHALL SHOW HERE REFER FOR CORRESPONDING P&IDs FOR DETAILS.
- REFER FIREWATER NETWORK LAYOUT FOR THE SCOPE LIMIT OF CONTRACTOR.
- FOR SCOPE LIMIT OF ELECTRICAL, INSTRUMENT AND CIVIL, REFER RESPECTIVE DISCIPLINE DRAWINGS.
- FOR THE PLANNED SHUTDOWN OF THE ACTIVITIES DURING THE PLANNED SHUTDOWN WINDOW PROVIDED BY O&C, IF HOT TAPPING IS REQUIRED, SAME IS IN THE SCOPE OF LSTK CONTRACTOR.

NOTES:

- NEW CANTILEVER ARRANGEMENT AND ADDITIONAL LEVEL IN PIPE/RACK, IF REQUIRED, IS IN THE SCOPE OF LSTK CONTRACTOR. SAME SHALL BE IN THE SCOPE OF PROJECT DELIVERABLES.
- LOCATION, ELEVATIONS AND DIMENSION OF EXISTING CENTRAL PIPE RACK, BATTERY LINES, PIPERACK, STORM WATER DRAIN, OWS PIT AND CATCH TRENCHES/TRAYS ARE INDICATIVE AND TO BE VALIDATED AND MODIFIED BY CONTRACTOR DURING DETAIL ENGINEERING.
- MODIFICATION AND REINFORCEMENT OF EXISTING PIPE/RACK, ADDITION OF NEW CANTILEVER, LADDER, SCAFFOLDING AND SUPPORT STRUCTURE FOR THE SAME, IF IN ARRANGEMENT SHOWN IN DETAIL IS IN THE SCOPE OF LSTK CONTRACTOR. HOWEVER, THE ARRANGEMENT SHOWN IN DETAIL IS INDICATIVE AND CONTRACTOR SHALL OPTIMIZE THE DESIGN.

REFERENCE DOCUMENTS / DRAWINGS

DRAWING NO.	DRAWING TITLE
080555C-000-DW-0051-001	OVERALL SITE PLAN
	INTERCONNECTING PIPE RACKS PLOT PLAN
PDRP4240-275-8230-01-211-0012	
PDRP4220-271-8230-01-085-0001	AREA PLOT PLAN SRU UNITS 085, 086, 087 & 089
	PIPING GENERAL ARRANGEMENT DRAWING AREA : RFSC
PDRP4240-275-8230-51-211-0419 TO 0448	
	PIPING GENERAL ARRANGEMENT DRAWING FOR UNIT 089
PDRP0271-8230-51-089-1001 TO 1085	

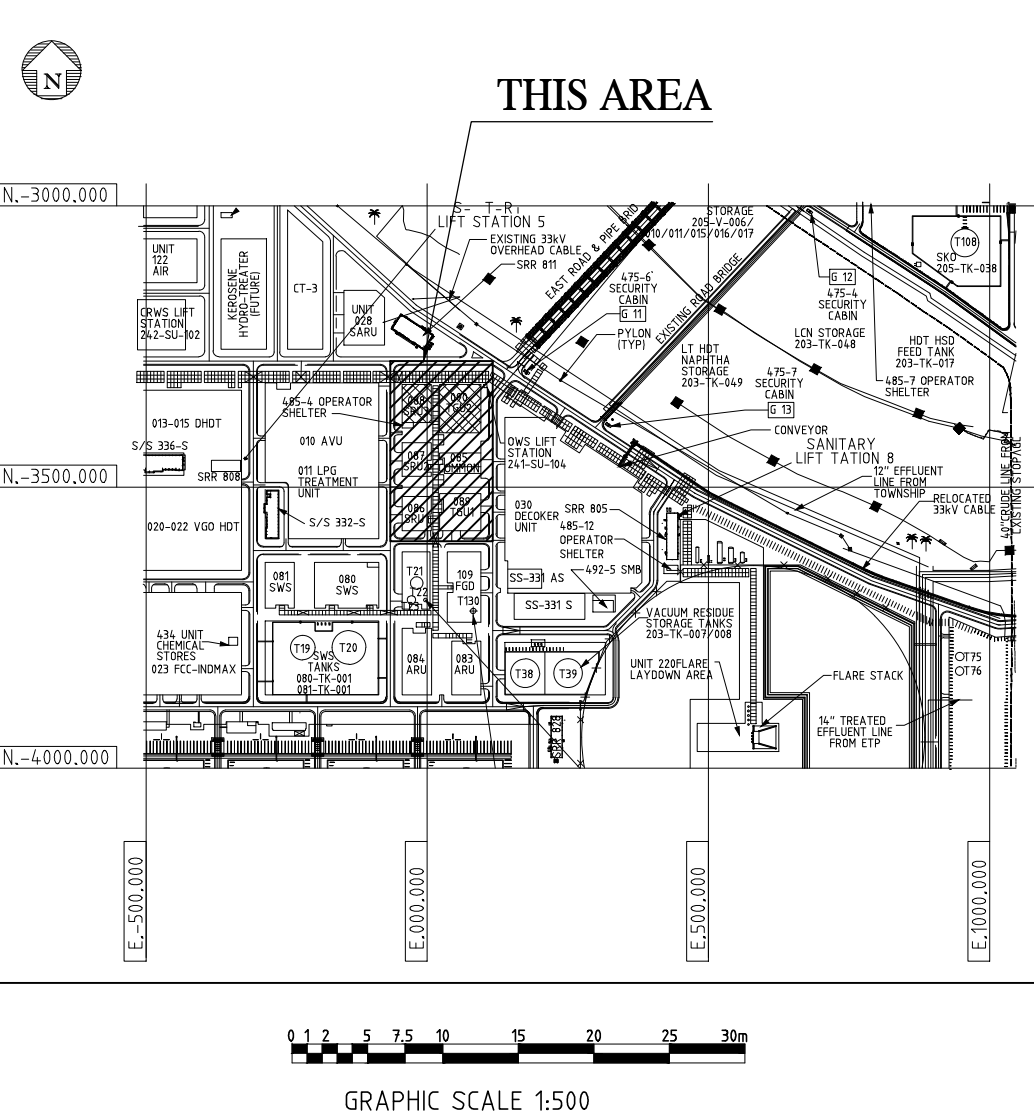
LEGENDS:

	SHELTER
	GRATING
AG	ABOVE GROUND
UG	UNDER GROUND
TS	TECHNOLOGICAL STRUCTURE
EL	ELEVATION
PR	PIPE RACK
F.S.	FIXED SADDLE
PLT	PLATFORM
HPH	HIGH POINT PAVING
RL	REDUCED LEVEL
MSL	MEAN SEA LEVEL
CL	CENTER LINE
FGL	FINISHED GRADE LEVEL
TOS	TOP OF STEEL
NTS	NOT TO SCALE
PH	PUMP HOUSE
	PAVING

TO BE REFERRED ONLY FOR ABOVE GROUND
PIPING TIE-IN DETAILS

NOT TO BE USED AS PLOT PLAN

KEYPLAN



C	20/07/2020	ISSUED FOR DESIGN	SMM	SL	Ti / SL	JMC
B	31/01/2020	ISSUED FOR DESIGN	SMM	SL	Ti / SL	JMC
A	30/12/2019	ISSUED FOR DESIGN	SMM	SL	Ti / SL	JMC
Rev	Date DD-MM-YYYY	Description of Issue	Written by	Checked by	Approved by	Authorized by

DOCUMENT CATEGORY (USE "X" MARK)	DOCUMENT REVIEW STATUS (BY CLIENT)
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☐ APPROVAL
☐ REVIEW
☒ INFORMATION

PROJECT _____

STANDBY SRU & ADDITIONAL TANKS

IOCL PARADIP REFINERY, ODISHA, INDIA

OWNER _____



INDIAN OIL CORPORATION LTD.

PMC

 **TechnipFMC**

CONFIDENTIAL, NOT TO DISCLOSE WITHOUT AUTHORISATION

TITLE

PIPING TIE-IN DRAWING
SRU-3, WHB & INCINERATOR AREA
(UNIT -088 & 090) SOUTH OF CREEK

DRAWING NO.						PAGE	REV.
SCALE	080557C	088	DW	0052	001	1	C
1:500	PROJECT	UNIT	DOC. TYPE	MAT. CODE	SER. NO.		