



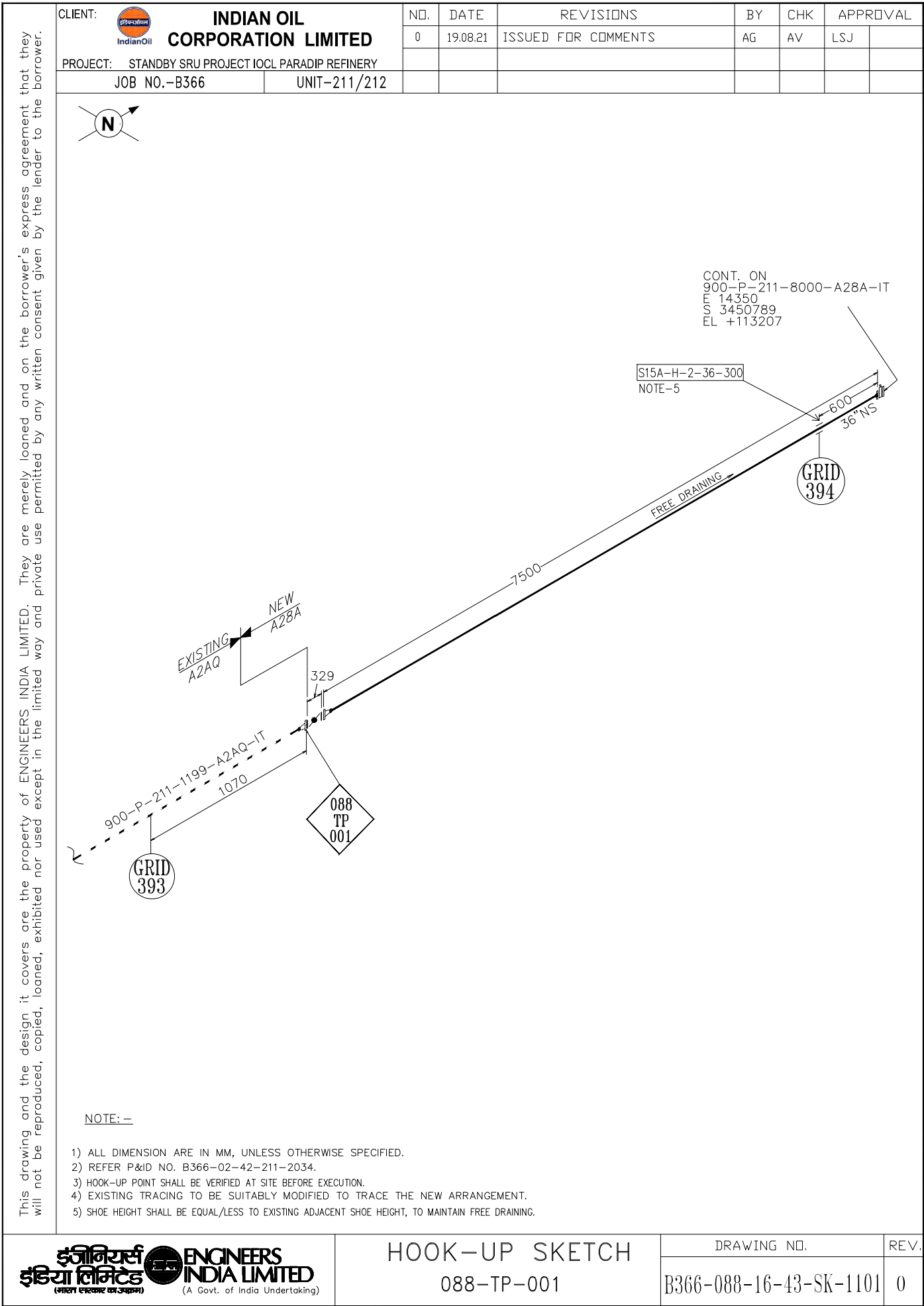


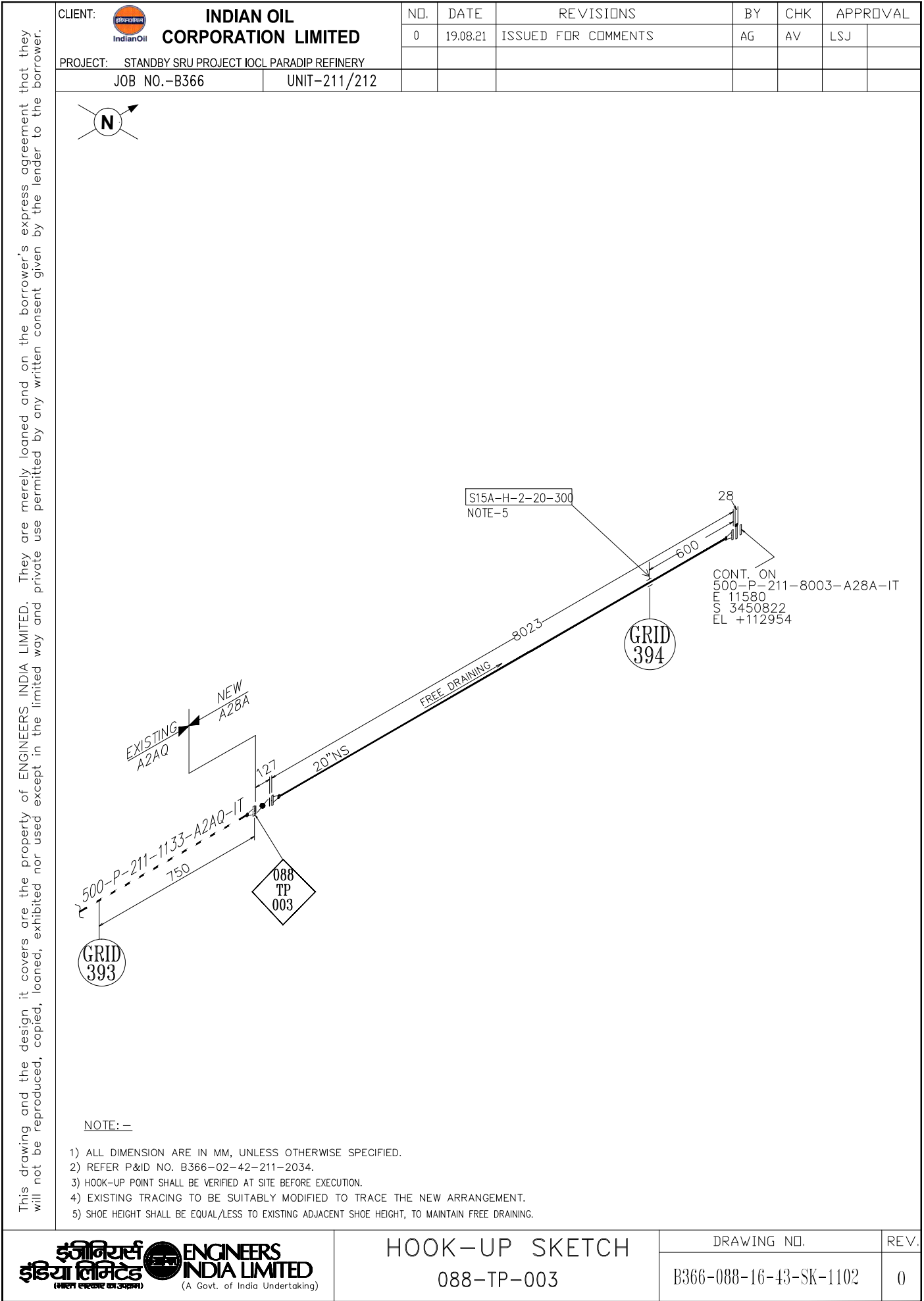
DOCUMENT CATEGORY		DOCUMENT REVIEW STATUS (BY CLIENT)					
(USE "X" MARK)\ <input checked="" type="checkbox"/> APPROVAL <input type="checkbox"/> REVIEW <input type="checkbox"/> INFORMATION							
0	20.08.2021	ISSUED FOR COMMENTS	AG	AV	LSJ		
REV	DATE	DETAILS OF REVISION	PREPARED	CHECKED	APPROVED		
CLIENT	 IndianOil	INDIAN OIL CORPORATION LIMITED PARADIP REFINERY PROJECT PARADIP ODISHA					
CONSULTANT			TECHNIP ENERGIES				
PROJECT	525 TPD STANDBY SRU PROJECT IOCL PARADIP REFINERY, ODISHA, INDIA						
ESC							
	BHEL Hyderabad		NAME	SIGN	DATE		
		DRN					
		CHD					
DEPT. PE&SD.	CODE 450						
The information on this document is the property of BHARAT HEAVY ELECTRICALS LIMITED, It must not be used directly or indirectly in any way detrimental to the interest of the company		TITLE- TIE-IN DRAWINGS					
		BHEL/EIL DRG NO.- B366-088-16-43-SK-1001					REV
		CUST. DRG NO.- 080557C-26899053-PIP-A2301-001					0
		SHT NO.- 1 of 45		NO. OF SHT.- 45			

TIE-IN INDEX			
S.NO.	TIE-IN SKETCH DWG NO.	TIE - IN NO.	REMARKS
1	B366-088-16-43-SK-1101	088-TP-001	
2	B366-088-16-43-SK-1102	088-TP-003	
3	B366-088-16-43-SK-1103	088-TP-010	
4	B366-088-16-43-SK-1104	088-TP-004	
5	B366-088-16-43-SK-1105	090-TP-027	
6	B366-088-16-43-SK-1106	089-TP-039	HOLD
7	B366-088-16-43-SK-1106	089-TP-053	HOLD
8	B366-088-16-43-SK-1106	089-TP-054	HOLD
9	B366-088-16-43-SK-1107	089-TP-040	
10	B366-088-16-43-SK-1107	089-TP-051	
11	B366-088-16-43-SK-1107	089-TP-052	
12	B366-088-16-43-SK-1108	089-TP-041	
13	B366-088-16-43-SK-1108	089-TP-055	
14	B366-088-16-43-SK-1108	089-TP-056	
15	B366-088-16-43-SK-1109	089-TP-042	
16	B366-088-16-43-SK-1109	089-TP-057	
17	B366-088-16-43-SK-1109	089-TP-058	
18	B366-088-16-43-SK-1114	089-TP-071	
19	B366-088-16-43-SK-1114	089-TP-073	
20	B366-088-16-43-SK-1115	089-TP-074	
21	B366-088-16-43-SK-1115	089-TP-076	
22	B366-088-16-43-SK-1116	089-TP-079	
23	B366-088-16-43-SK-1116	089-TP-080	
24	B366-088-16-43-SK-1201	088-TP-002	
25	B366-088-16-43-SK-1202	088-TP-005	
26	B366-088-16-43-SK-1203	088-TP-006	
27	B366-088-16-43-SK-1204	088-TP-007	
28	B366-088-16-43-SK-1205	088-TP-008	
29	B366-088-16-43-SK-1206	088-TP-009	
30	B366-088-16-43-SK-1301	088-TP-011	
31	B366-088-16-43-SK-1302	088-TP-012	
32	B366-088-16-43-SK-1303	088-TP-013	
33	B366-088-16-43-SK-1304	088-TP-014	
34	B366-088-16-43-SK-1305	088-TP-018	
35	B366-088-16-43-SK-1306	088-TP-019	HEADER SIZE (10" OR 8") TO BE CONFIRMED AT SITE.
36	B366-088-16-43-SK-1307	088-TP-020	
37	B366-088-16-43-SK-1308	088-TP-023	
38	B366-088-16-43-SK-1309	088-TP-024	
39	B366-088-16-43-SK-1310	088-TP-025	
40	B366-088-16-43-SK-1311	088-TP-026	
41	B366-088-16-43-SK-1312	090-TP-028	
42	B366-088-16-43-SK-1313	090-TP-029	
43	B366-088-16-43-SK-1314	090-TP-030	
44	B366-088-16-43-SK-1315	090-TP-033	HEADER SIZE (10" OR 8") TO BE CONFIRMED AT SITE.
45	B366-088-16-43-SK-1316	090-TP-034	
46	B366-088-16-43-SK-1317	090-TP-037	
47	B366-088-16-43-SK-1318	088-TP-043	HOLD
48	B366-088-16-43-SK-1319	088-TP-XX1	HOLD
49	B366-088-16-43-SK-1320	090-TP-XX2	HOLD
50	B366-088-16-43-SK-1330	086-TP-XXX	DETAILS OF TIE-IN TO BE CONFIRMED BY PROCESS
51	B366-088-16-43-SK-1330	087-TP-XXX	DETAILS OF TIE-IN TO BE CONFIRMED BY PROCESS
52	B366-088-16-43-SK-1330	089-TP-XXX	DETAILS OF TIE-IN TO BE CONFIRMED BY PROCESS
53	B366-088-16-43-SK-1330	212-TP-101	DETAILS OF TIE-IN TO BE CONFIRMED BY PROCESS
54	B366-088-16-43-SK-1401	088-TP-015	
55	B366-088-16-43-SK-1402	088-TP-016	
56	B366-088-16-43-SK-1403	088-TP-017	
57	B366-088-16-43-SK-1404	088-TP-021	
58	B366-088-16-43-SK-1405	088-TP-022	
59	B366-088-16-43-SK-1406	090-TP-031	
60	B366-088-16-43-SK-1407	090-TP-036	
61	B366-088-16-43-SK-1408	090-TP-038	
62	B366-088-16-43-SK-1409	088-TP-044	HOLD


#### NOTES

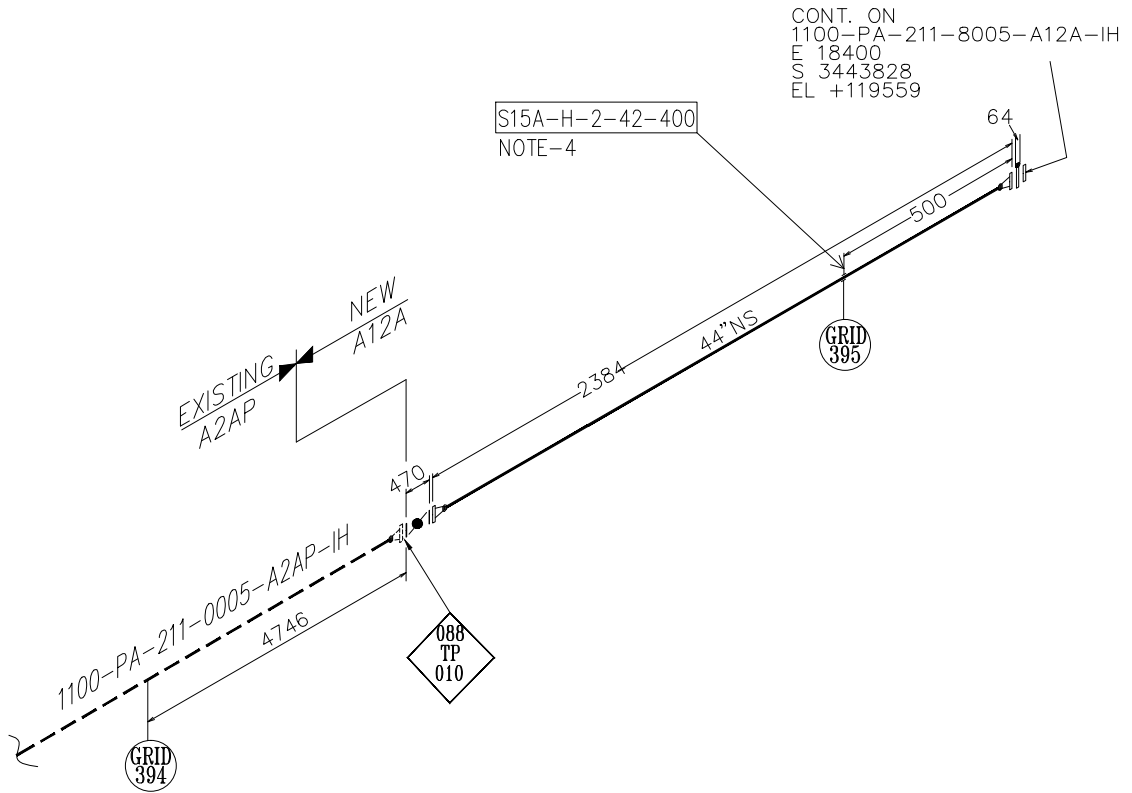
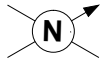
- 1 Insulation to be considered as per the P&ID.
- 2 No condensate recovery from Steam tracing/jacketing/CT envisaged in OSBL & existing Unit.
- 3 For Tie-in 089-TP-039/040, 088-TP-022, 090-TP-031/036, structural member required.





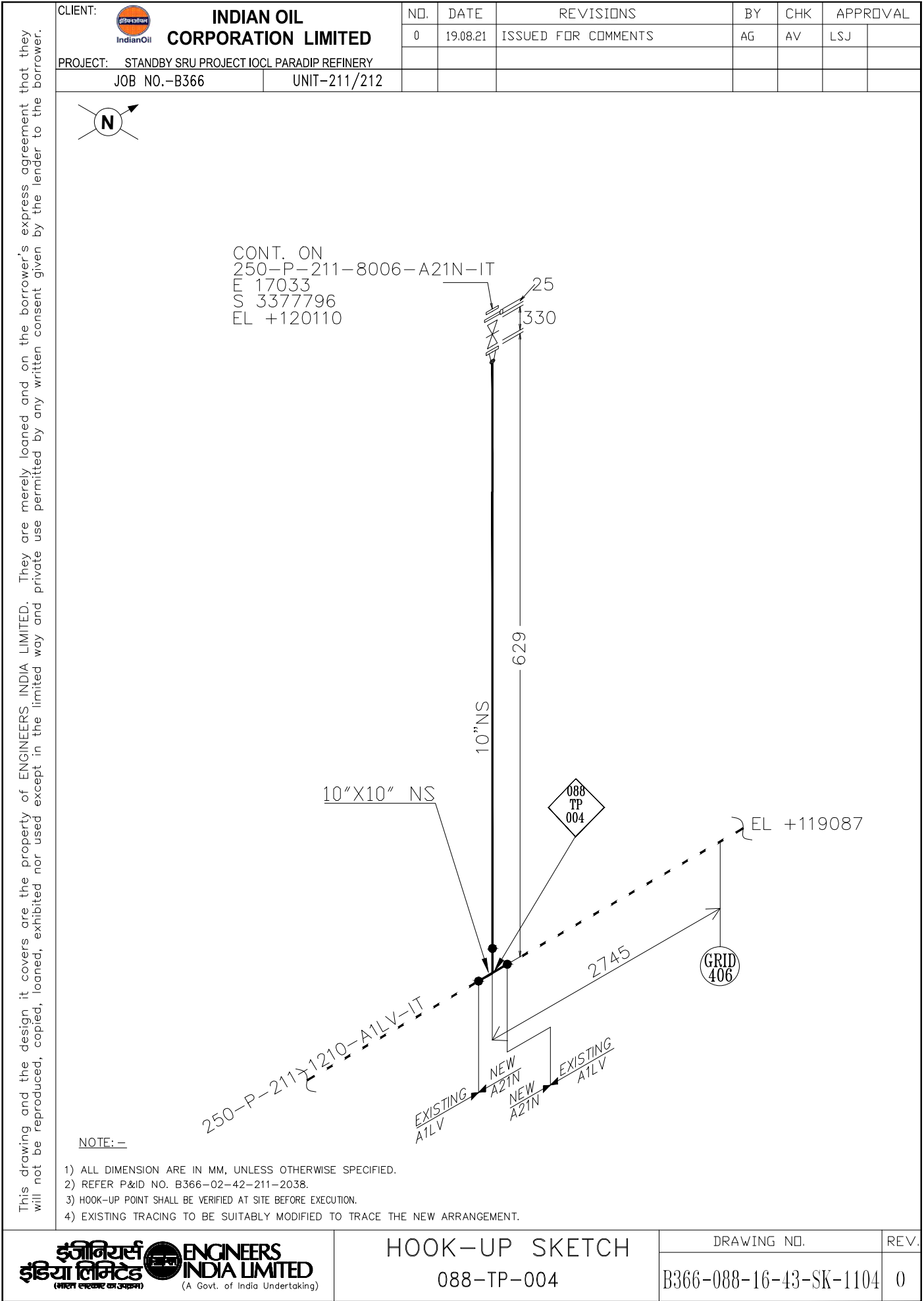
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CLIENT:  <b>INDIAN OIL CORPORATION LIMITED</b>	NO.	DATE	REVISIONS	BY	CHK	APPROVAL	
	0	19.08.21	ISSUED FOR COMMENTS	AG	AV	LSJ	
PROJECT: STANDBY SRU PROJECT IOCL PARADIP REFINERY							
JOB NO.-B366	UNIT-211/212						



NOTE: —

- 1) ALL DIMENSION ARE IN MM, UNLESS OTHERWISE SPECIFIED.
- 2) REFER P&ID NO. B366-02-42-211-2036.
- 3) HOOK-UP POINT SHALL BE VERIFIED AT SITE BEFORE EXECUTION.
- 4) SHOE HEIGHT SHALL BE EQUAL TO EXISTING ADJACENT SHOE HEIGHT.



CLIENT:INDIAN OILCORPORATION LIMITED

PROJECT:STANDBY SRU PROJECT IOCL PARADIP REFINERY

JOB NO.-B366UNIT-211/212

NO.0

DATE19.08.21

REVISIONS

ISSUED FOR COMMENTS

BYAG

CHKAV

APPROVALLSJ

090TP027

1033

228

10

100-P-211-1212-A2AR-IT

EXISTING A2AR

NEW A28A

GRID 393

CONT. ON  
100-P-211-8501-A28A-IT-B  
E 19120  
S 3458499  
EL +112732

NOTE: -

1) ALL DIMENSION ARE IN MM, UNLESS OTHERWISE SPECIFIED.

2) REFER P&ID NO. B366-02-42-211-2036.

3) HOOK-UP POINT SHALL BE VERIFIED AT SITE BEFORE EXECUTION.

4) EXISTING TRACING TO BE SUITABLY MODIFIED TO TRACE THE NEW ARRANGEMENT.

ENGINEERS INDIA LIMITED

HOOK-UP SKETCH

090-TP-027

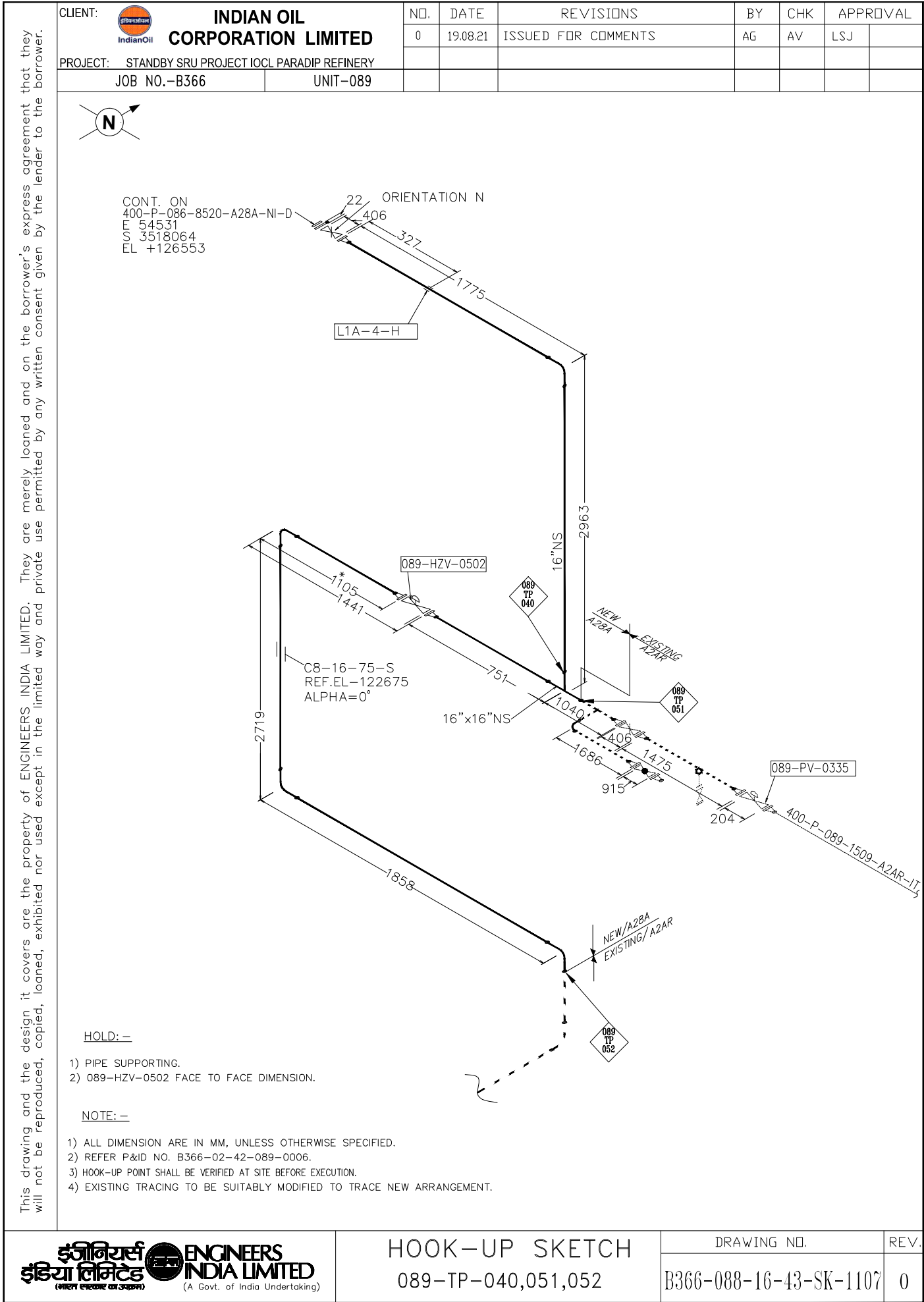
DRAWING NO.

B366-088-16-43-SK-1105

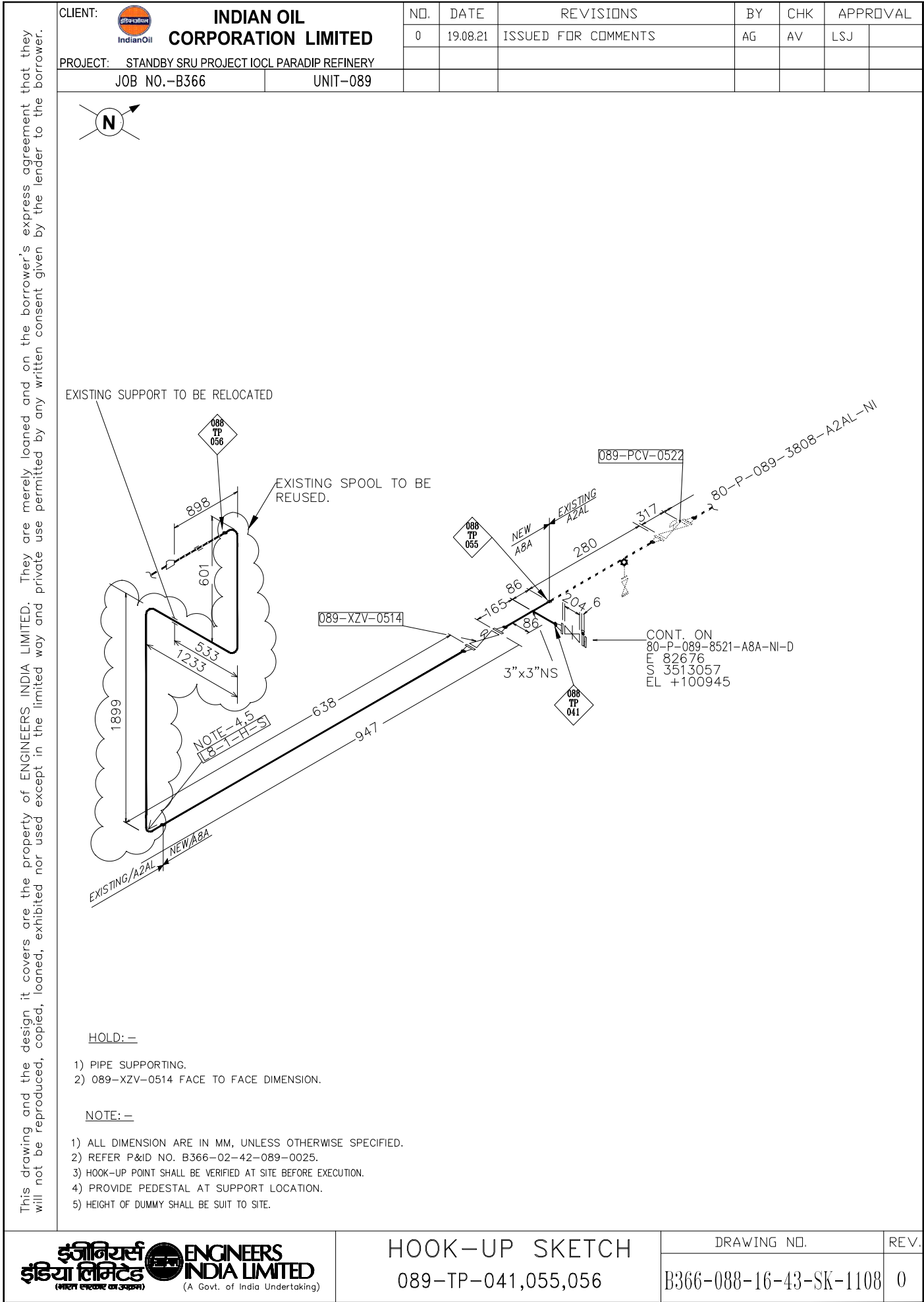
REV.


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CLIENT:  <b>INDIAN OIL CORPORATION LIMITED</b>	NO.	DATE	REVISIONS	BY	CHK	APPROVAL	
	0	19.08.21	ISSUED FOR COMMENTS	AG	AV	LSJ	
PROJECT: STANDBY SRU PROJECT IOCL PARADIP REFINERY							
JOB NO.-B366		UNIT-089					




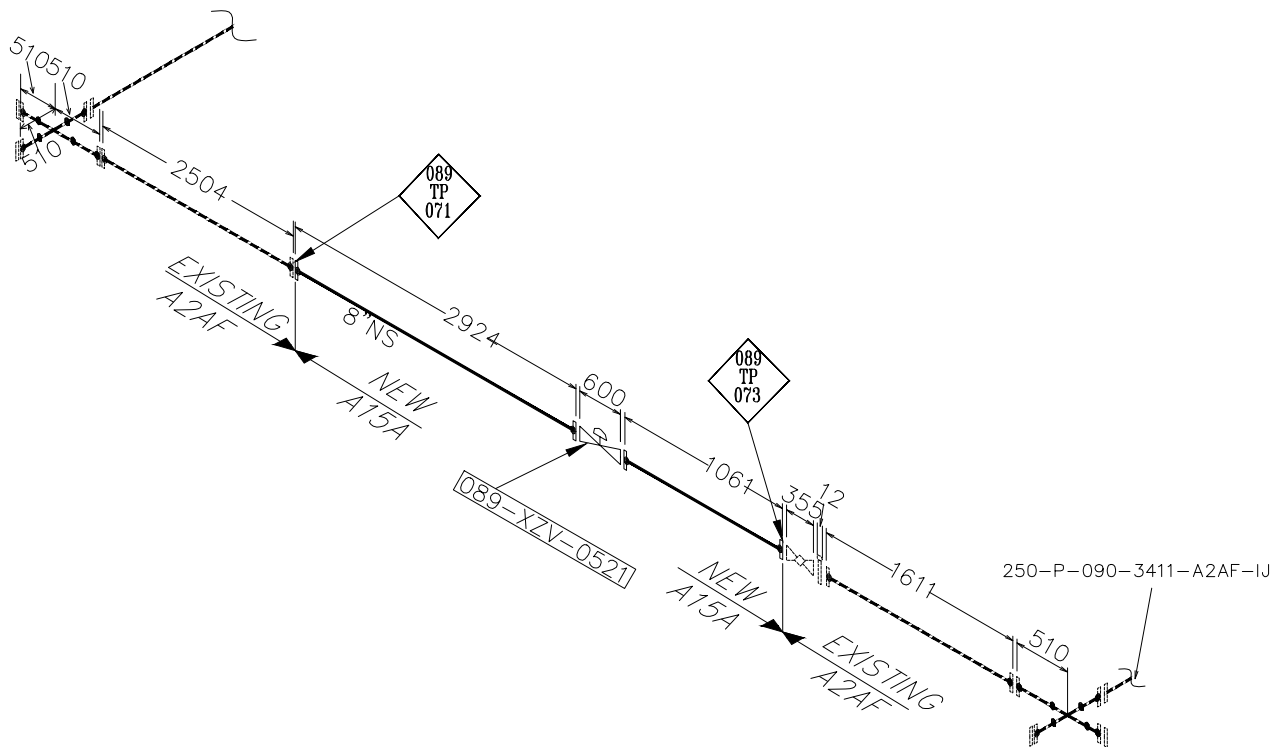
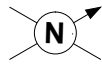
- 1) PIPE SUPPORTING.
- 2) 089-XZV-0506 FACE TO FACE DIMENSION.

NOTE: —

- 1) ALL DIMENSION ARE IN MM, UNLESS OTHERWISE SPECIFIED.
- 2) REFER P&I NO. B366-02-42-089-0026.
- 3) HOOK-UP POINT SHALL BE VERIFIED AT SITE BEFORE EXECUTION.
- 4) PROVIDE PEDESTAL AT SUPPORT LOCATION.
- 5) HEIGHT OF DUMMY SHALL BE SUIT TO SITE.

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	0	19.08.21	ISSUED FOR COMMENTS	AG	AV	LSJ	
PROJECT: STANDBY SRU PROJECT IOCL PARADIP REFINERY							
JOB NO.-B366		UNIT-089					

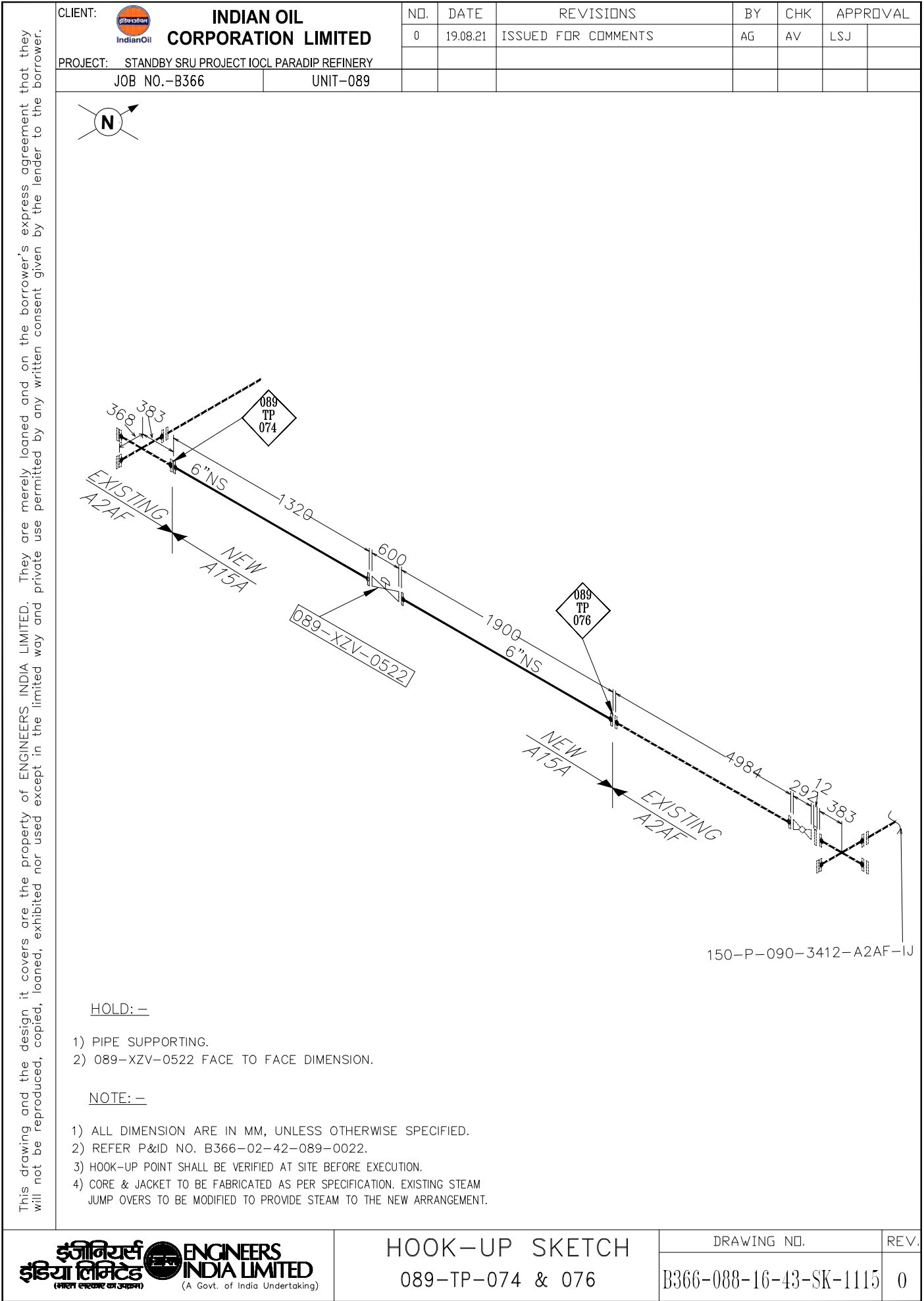


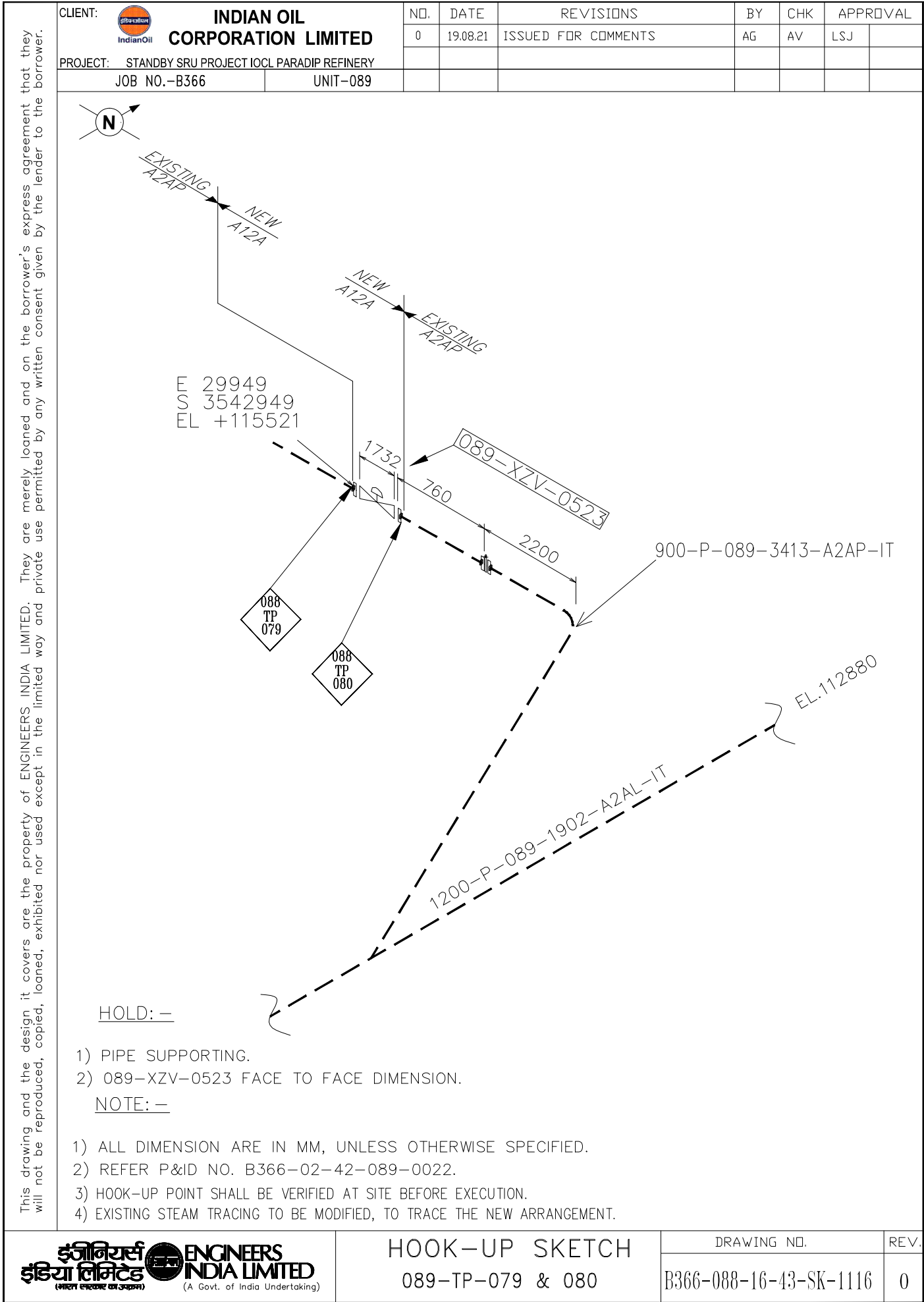
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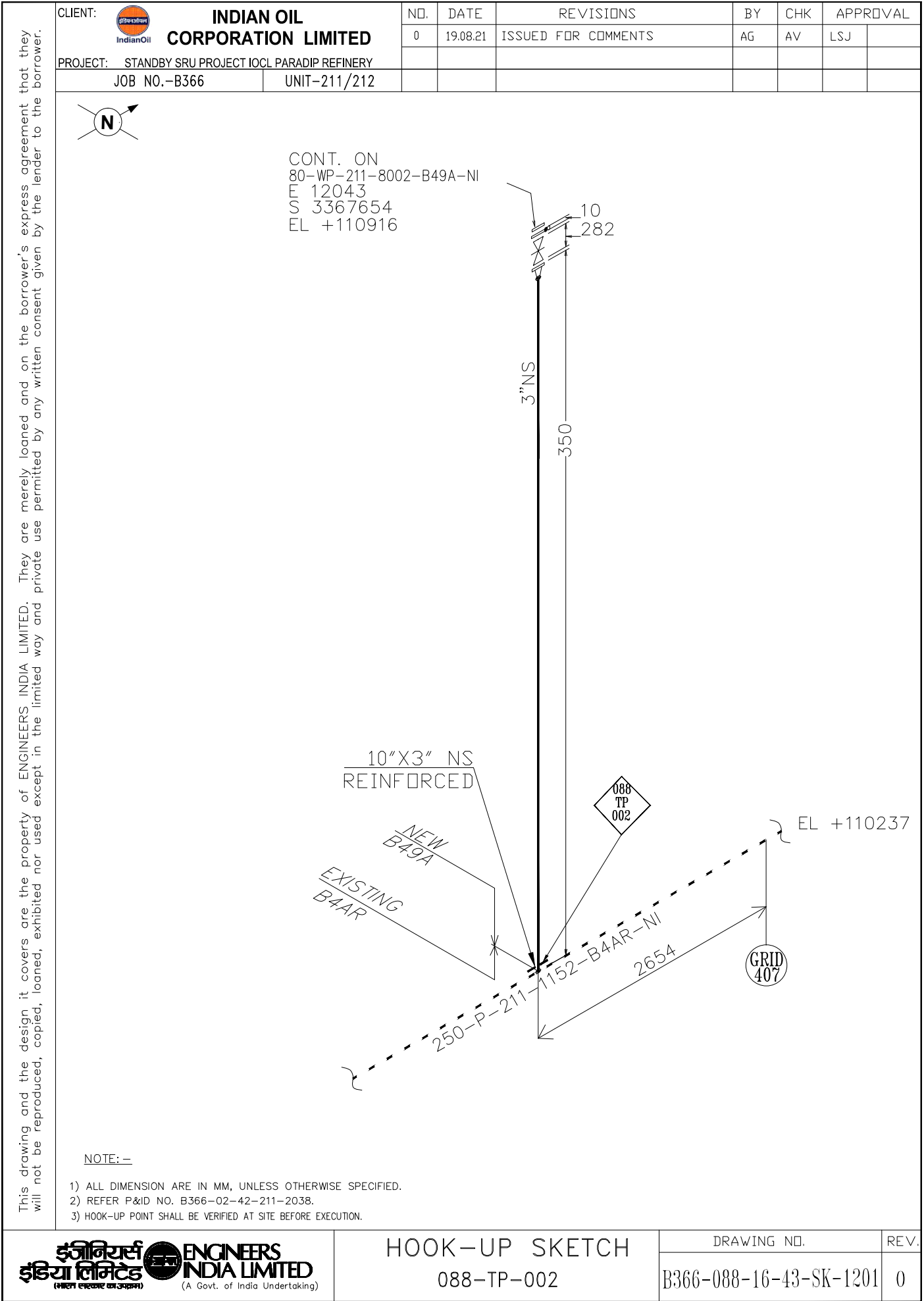
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- 2) 089-XZV-0521 FACE TO FACE DIMENSION.

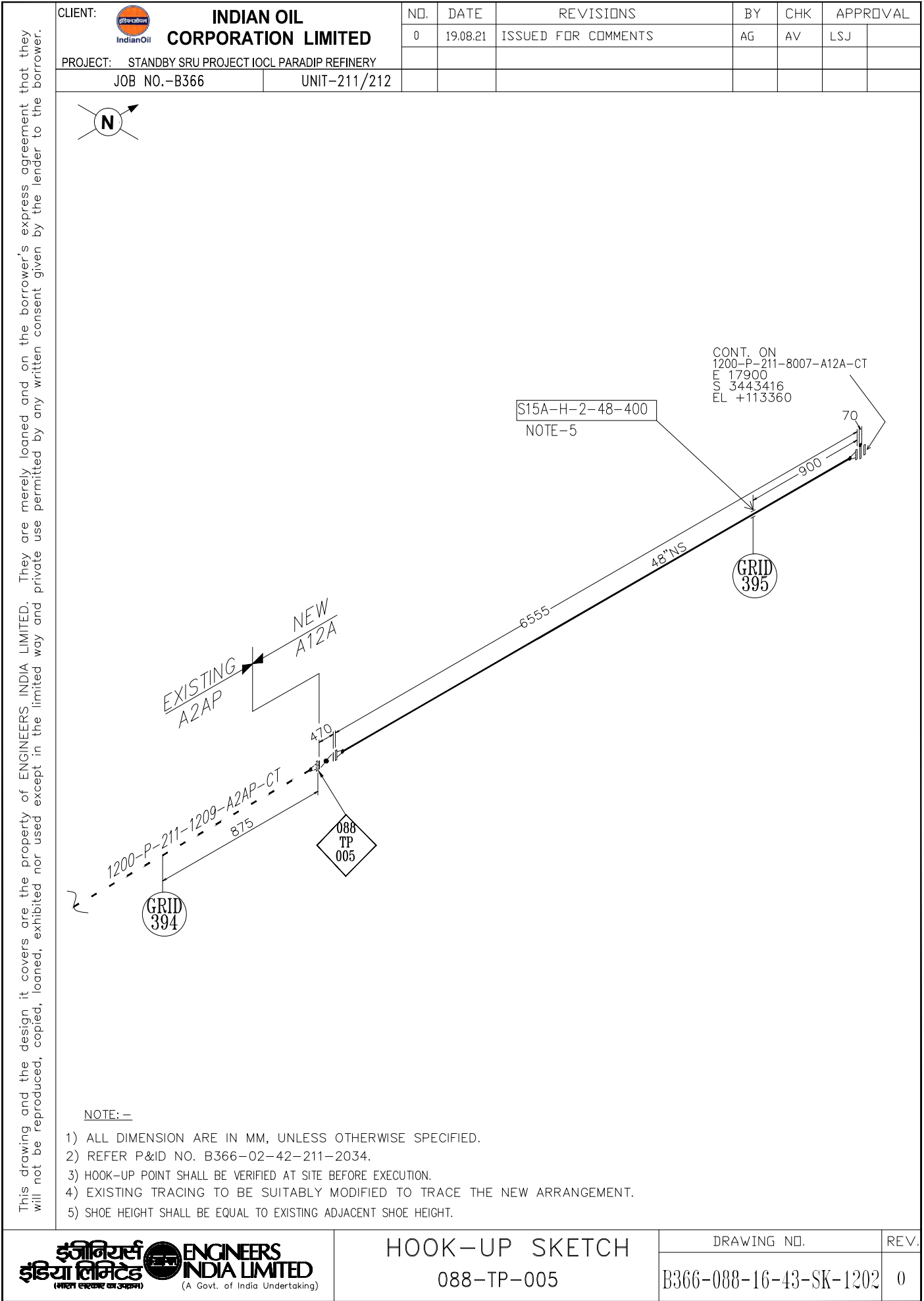
NOTE: —

- 1) ALL DIMENSION ARE IN MM, UNLESS OTHERWISE SPECIFIED.
- 2) REFER P&ID NO. B366-02-42-089-0022.
- 3) HOOK-UP POINT SHALL BE VERIFIED AT SITE BEFORE EXECUTION.
- 4) CORE & JACKET TO BE FABRICATED AS PER SPECIFICATION. EXISTING STEAM JUMP OVERS TO BE MODIFIED TO PROVIDE STEAM TO THE NEW ARRANGEMENT.




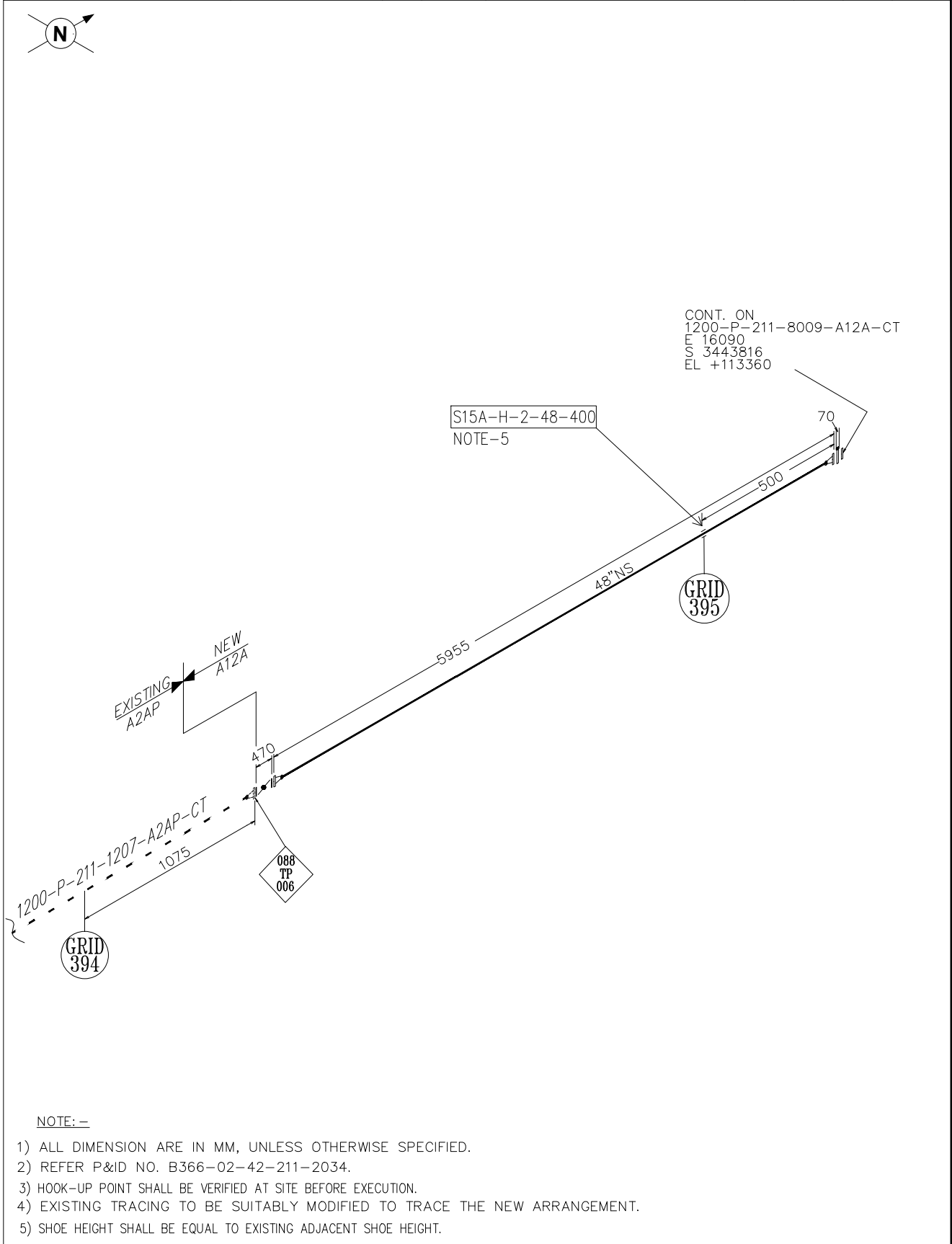







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CLIENT:  <b>INDIAN OIL CORPORATION LIMITED</b>	NO.	DATE	REVISIONS	BY	CHK	APPROVAL	
	0	19.08.21	ISSUED FOR COMMENTS	AG	AV	LSJ	
PROJECT: STANDBY SRU PROJECT IOCL PARADIP REFINERY							
JOB NO.-B366		UNIT-211/212					





CLIENT:



INDIAN OIL  
CORPORATION LIMITED

PROJECT:

STANDBY SRU PROJECT IOCL PARADIP REFINERY

JOB NO.-B366

UNIT-211/212

NO.

0

DATE

19.08.21

REVISIONS

ISSUED FOR COMMENTS

BY

AJ

CHK

AV

APPROVAL

LSJ

088  
TP  
007

20

356

EXISTING  
A2AF

NEW  
A15A

250-P-211-1206-A2AF-IJ

4375

CONT. ON  
250-P-211-8011-A15A-IJ  
E 8399  
S 3455036  
EL +113894

GRID  
393

NOTE: —


1) ALL DIMENSION ARE IN MM, UNLESS OTHERWISE SPECIFIED.

2) REFER P&ID NO. B366-02-42-211-2034.

3) HOOK-UP POINT AND EXISTING MATCHING FLANGE DIMENSION SHALL BE VERIFIED AT SITE BEFORE EXECUTION.

4) JUMP OVER FOR NEW VALVE JACKETING SHALL BE EXTENDED FROM EXISTING JACKET.

इंजीनियर्स  
इंडिया लिमिटेड



ENGINEERS  
INDIA LIMITED

(भारत सरकार का उपक्रम)  
(A Govt. of India Undertaking)

HOOK-UP SKETCH

088-TP-007

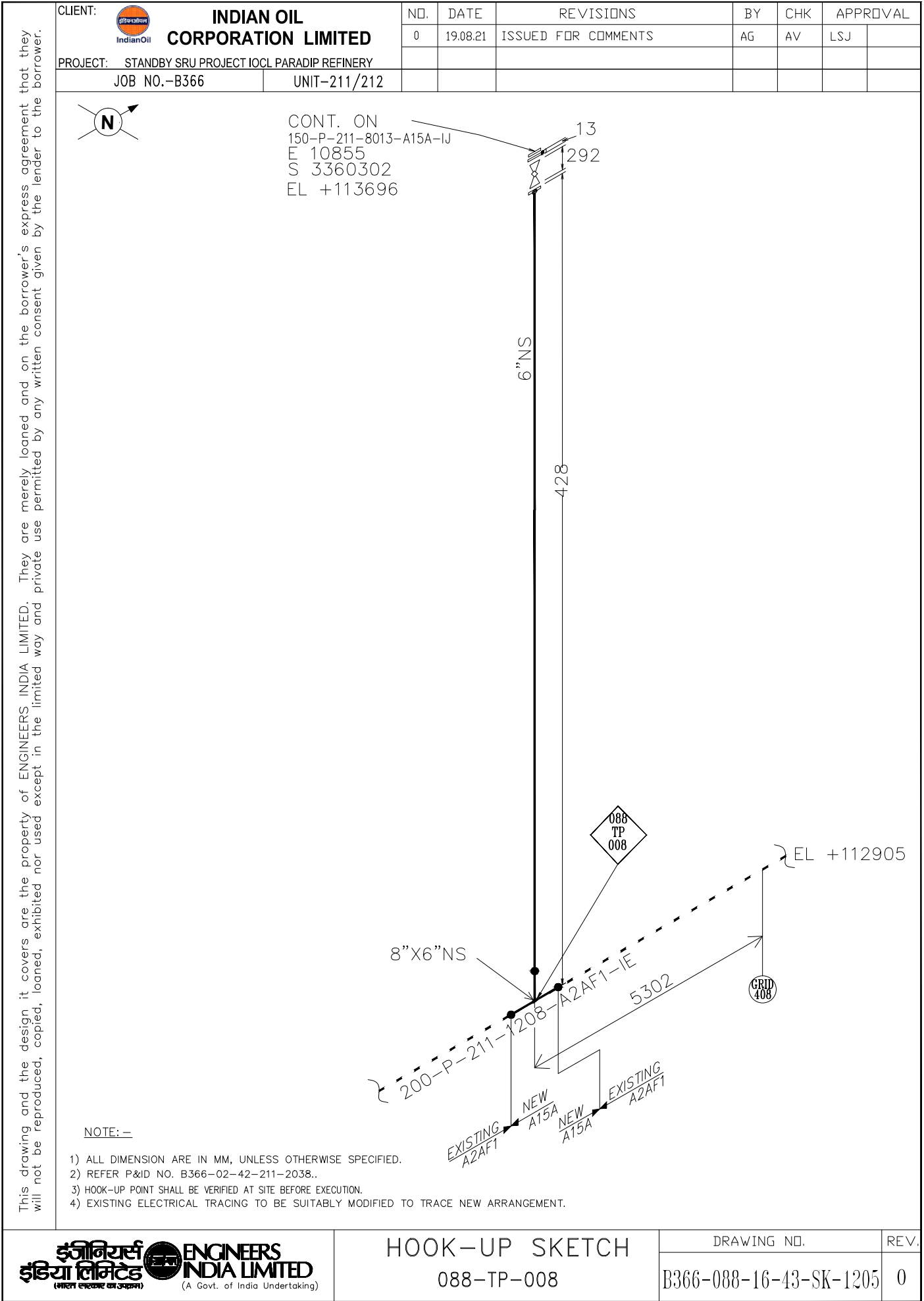
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B366-088-16-43-SK-1204


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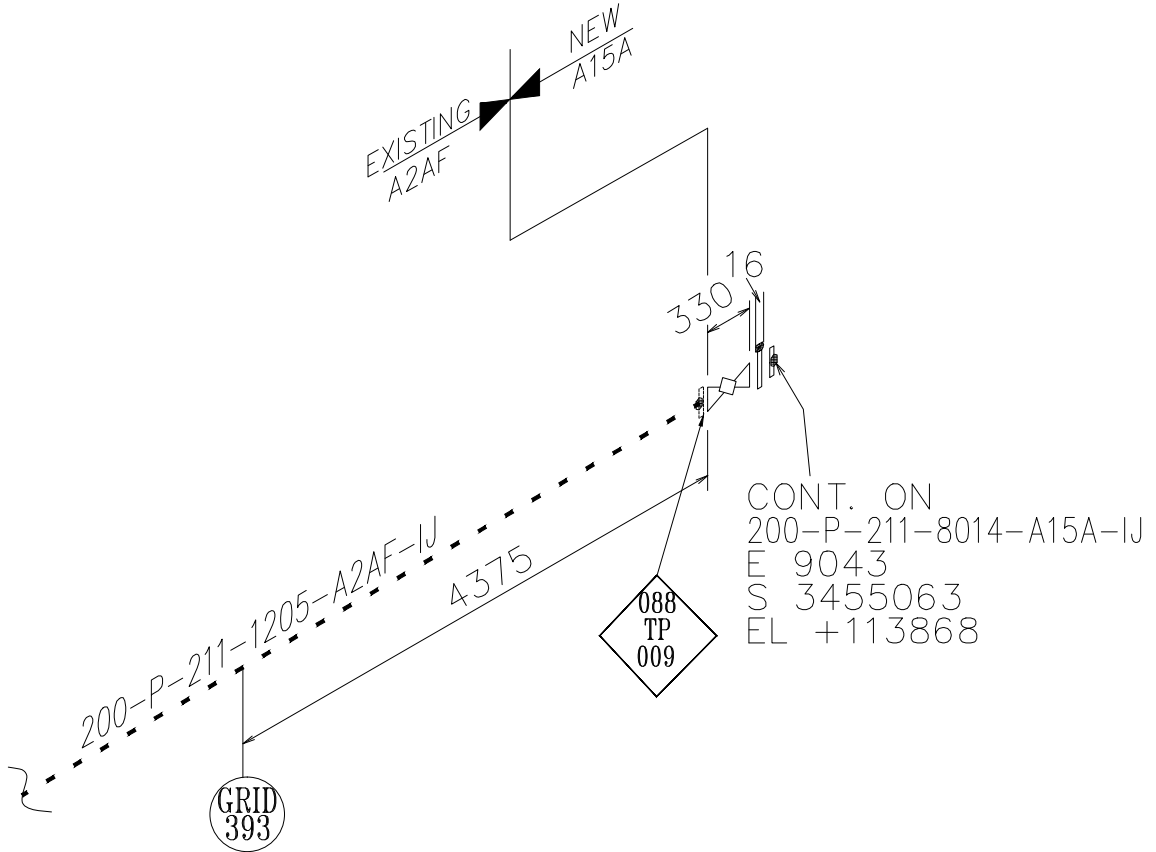
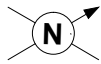
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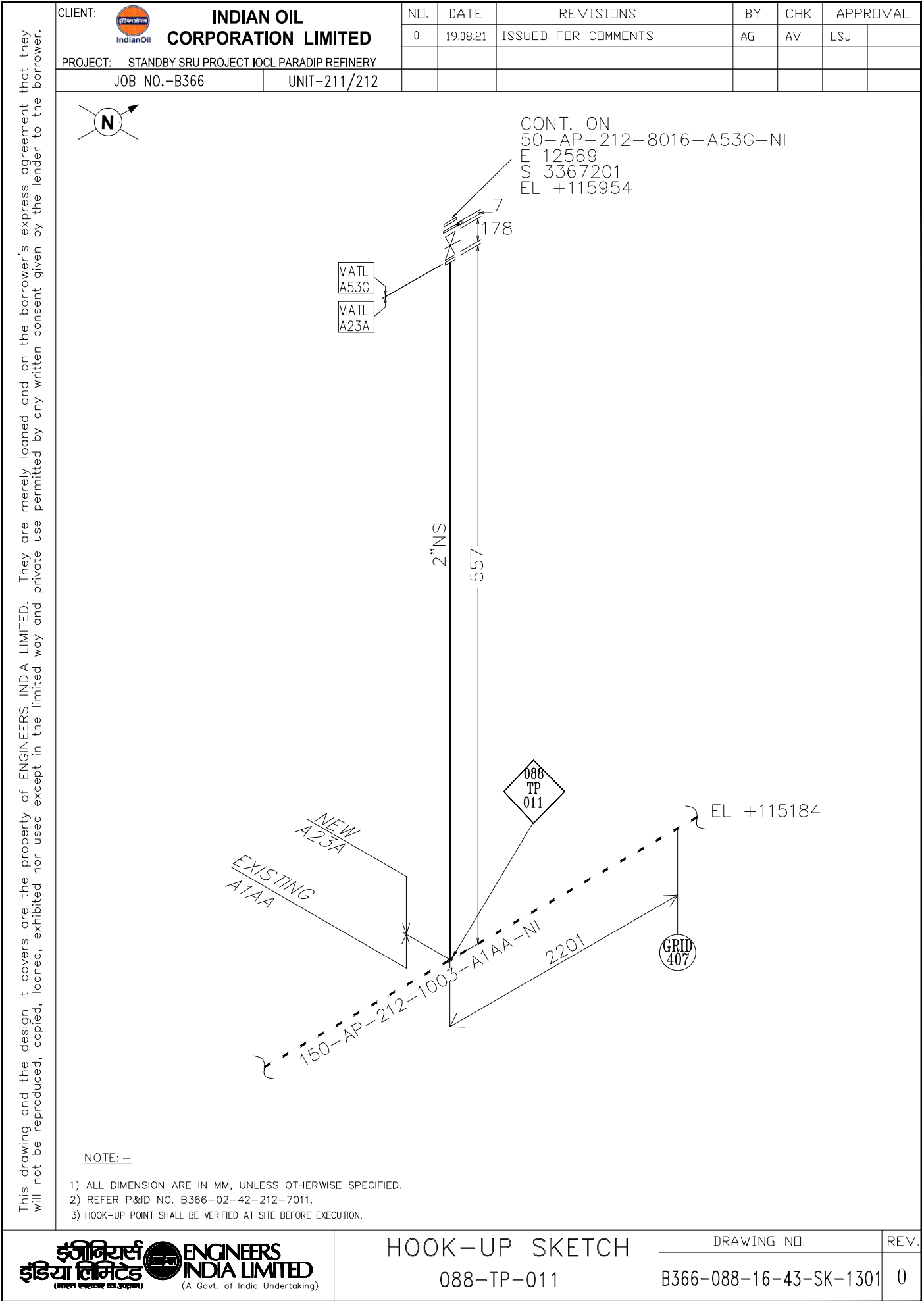
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CLIENT:  <b>INDIAN OIL CORPORATION LIMITED</b>	NO.	DATE	REVISIONS	BY	CHK	APPROVAL	
	0	19.08.21	ISSUED FOR COMMENTS	AG	AV	LSJ	
PROJECT: STANDBY SRU PROJECT IOCL PARADIP REFINERY							
JOB NO.-B366		UNIT-211/212					



NOTE:—

- 1) ALL DIMENSION ARE IN MM, UNLESS OTHERWISE SPECIFIED.
- 2) REFER P&ID NO. B366-02-42-211-2034.
- 3) HOOK-UP POINT AND EXISTING MATCHING FLANGE DIMENSION SHALL BE VERIFIED AT SITE BEFORE EXECUTION.
- 4) JUMP OVER FOR NEW VALVE JACKETING SHALL BE EXTENDED FROM EXISTING JACKET.

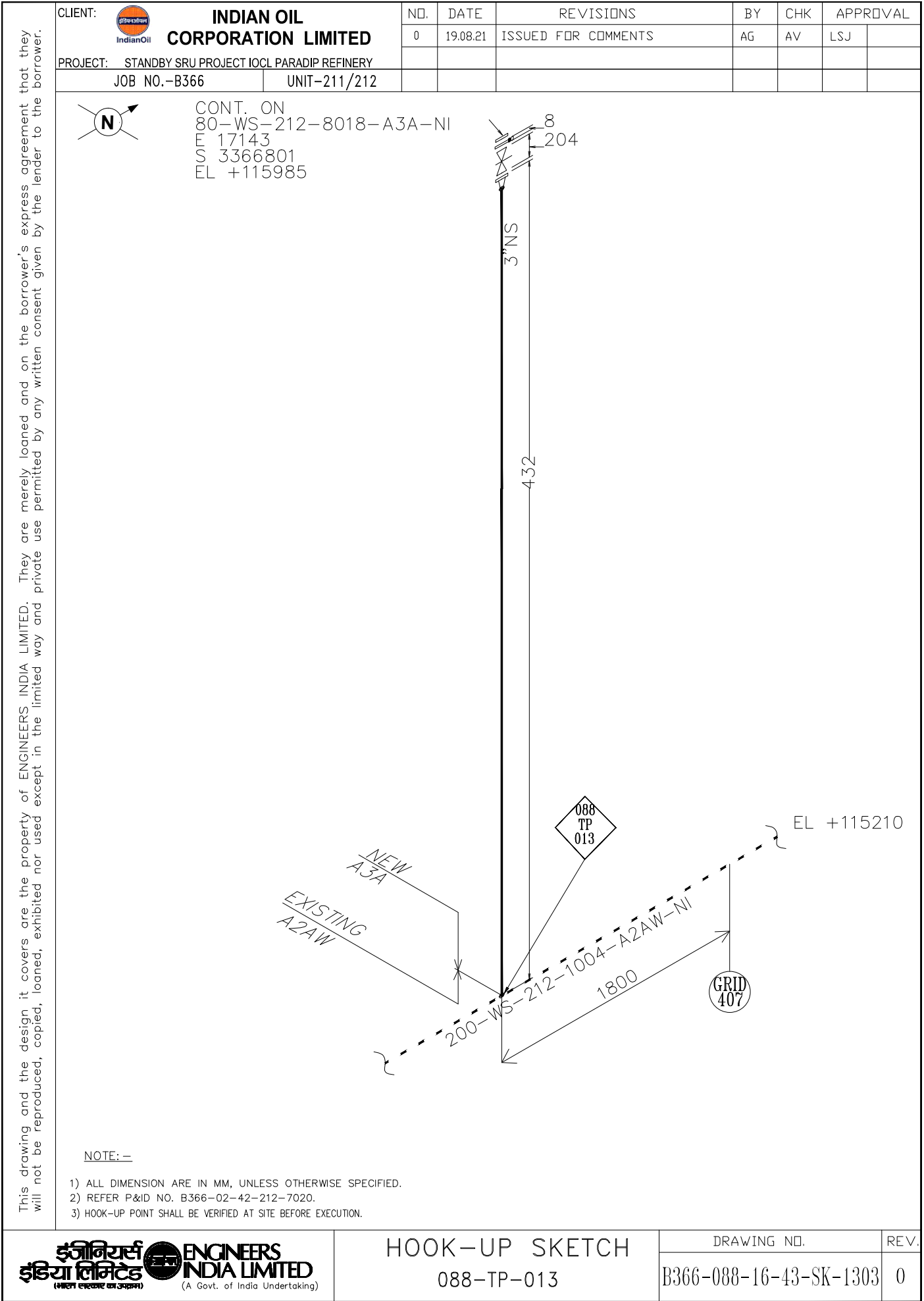


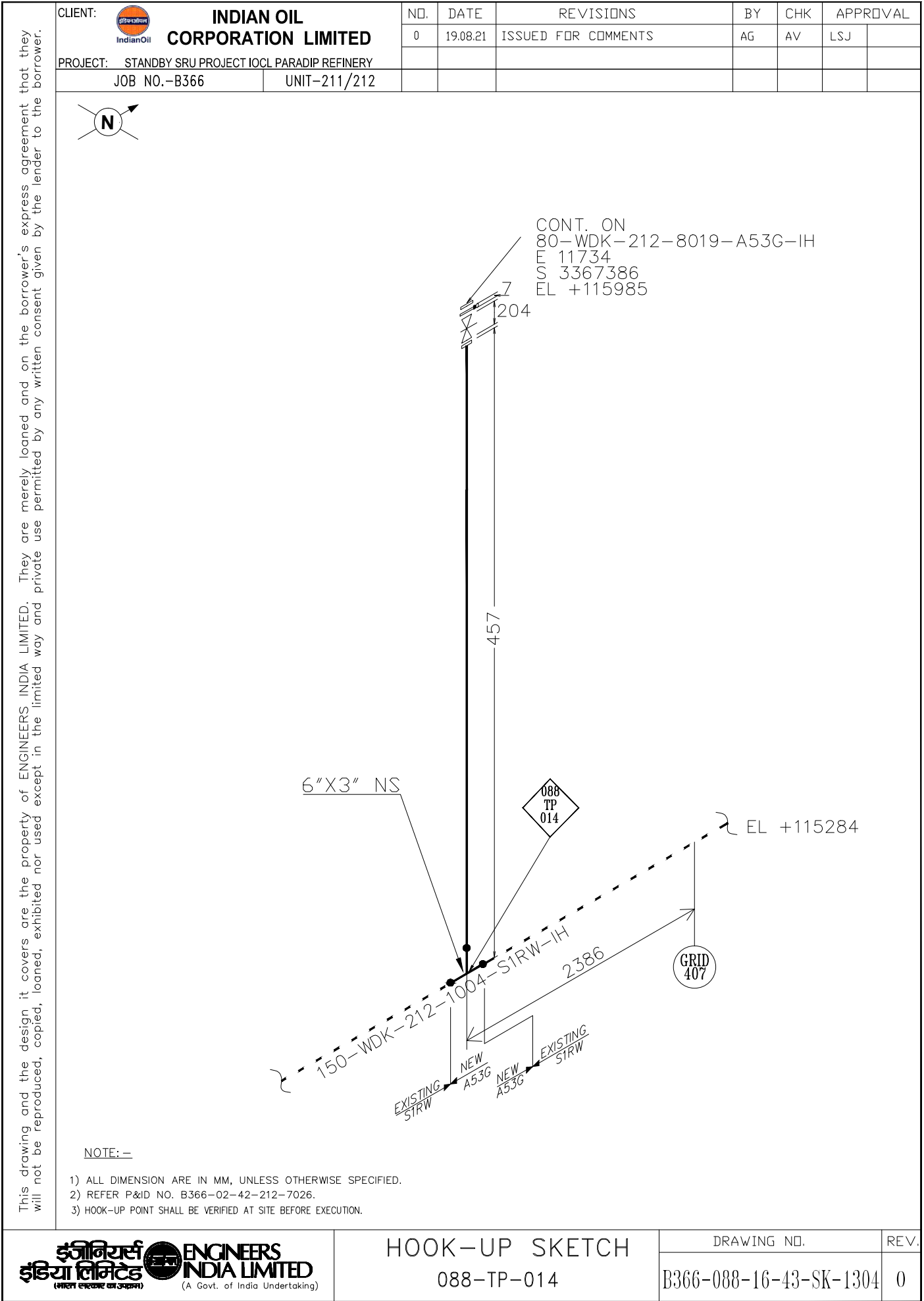
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	PROJECT: STANDBY SRU PROJECT IOCL PARADIP REFINERY						
JOB NO.-B366	UNIT-211/212						

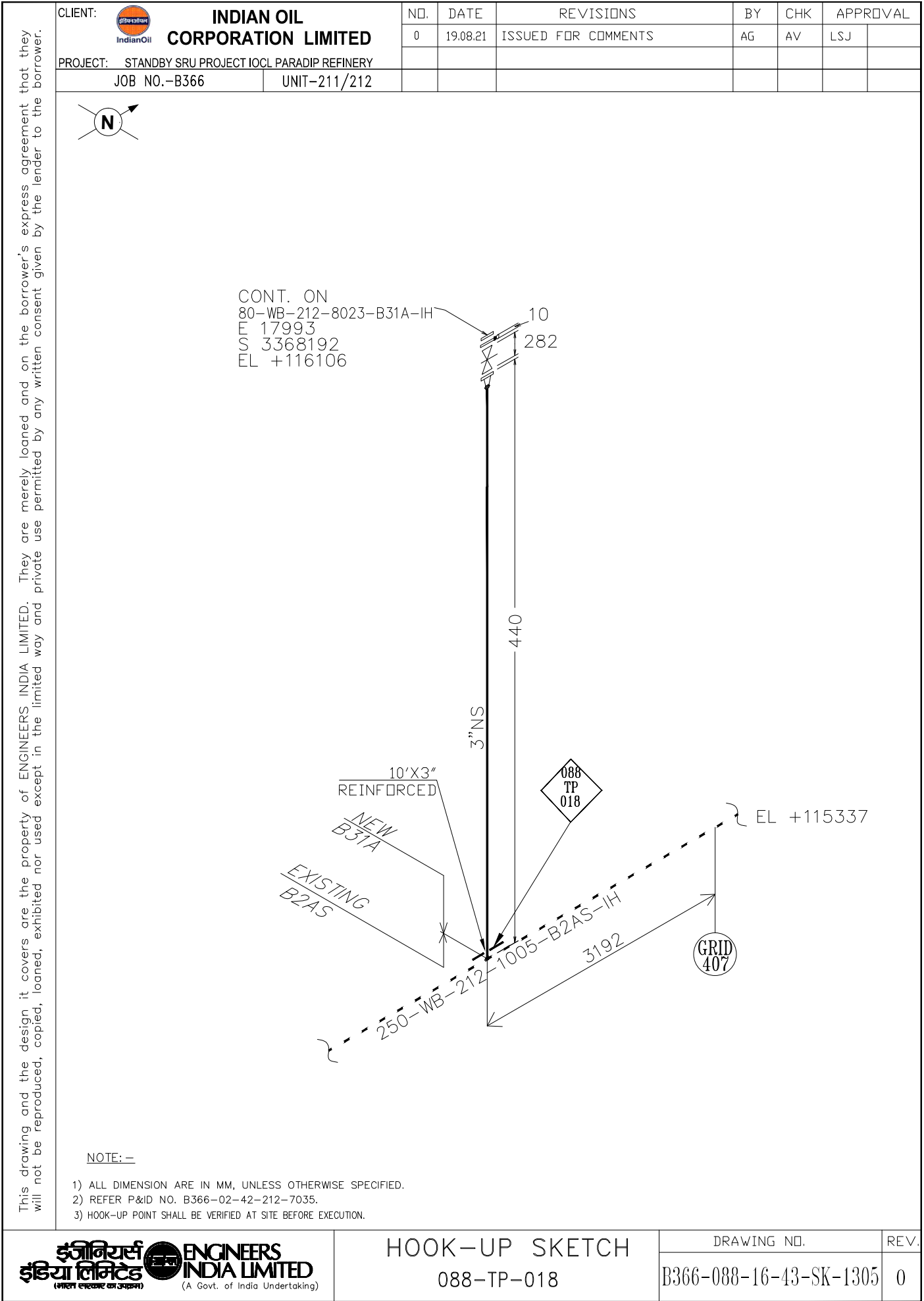


- इंजीनियर्स  
इंडिया लिमिटेड**  
(भारत सरकार का उपक्रम)
-  **ENGINEERS  
INDIA LIMITED**  
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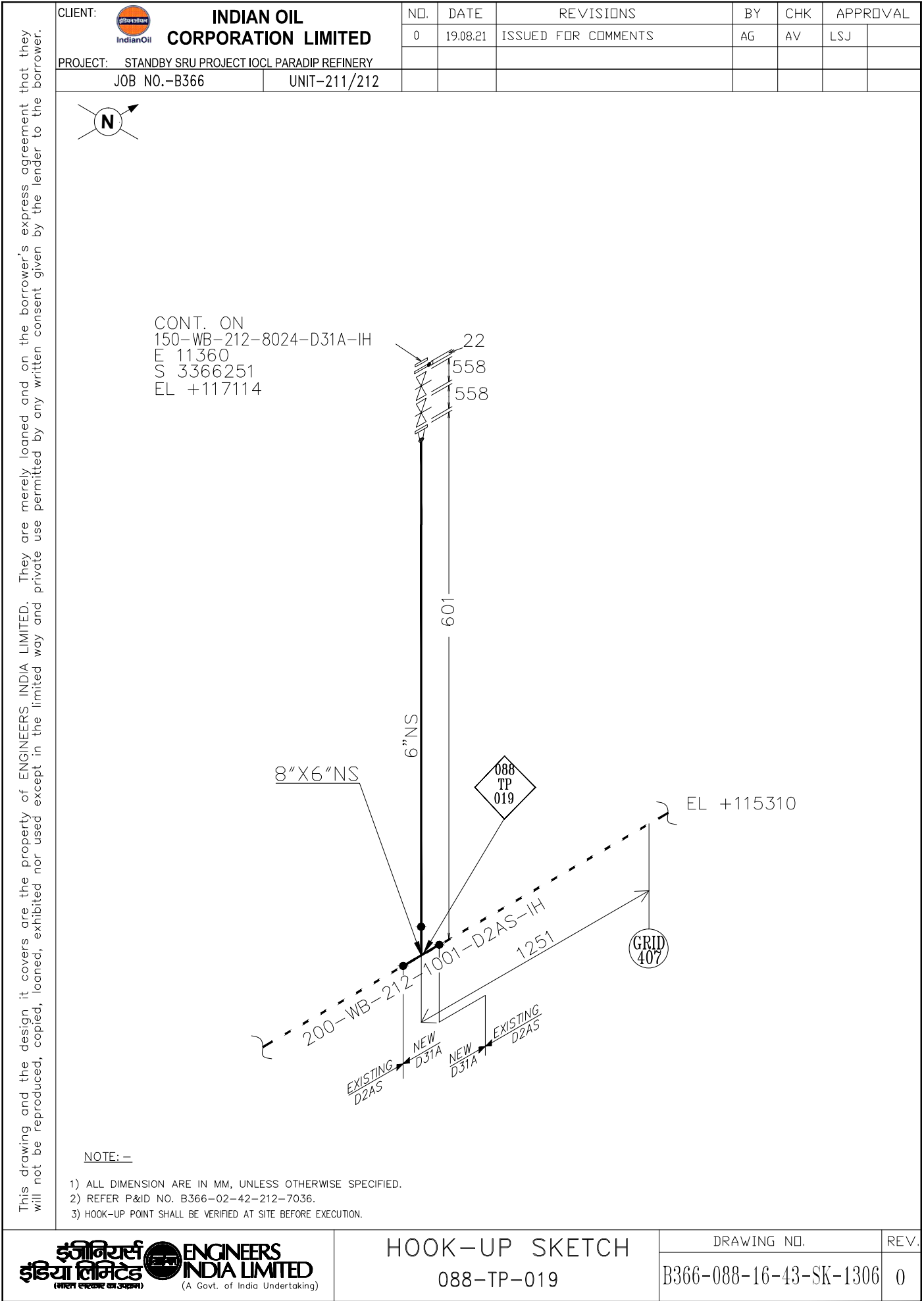
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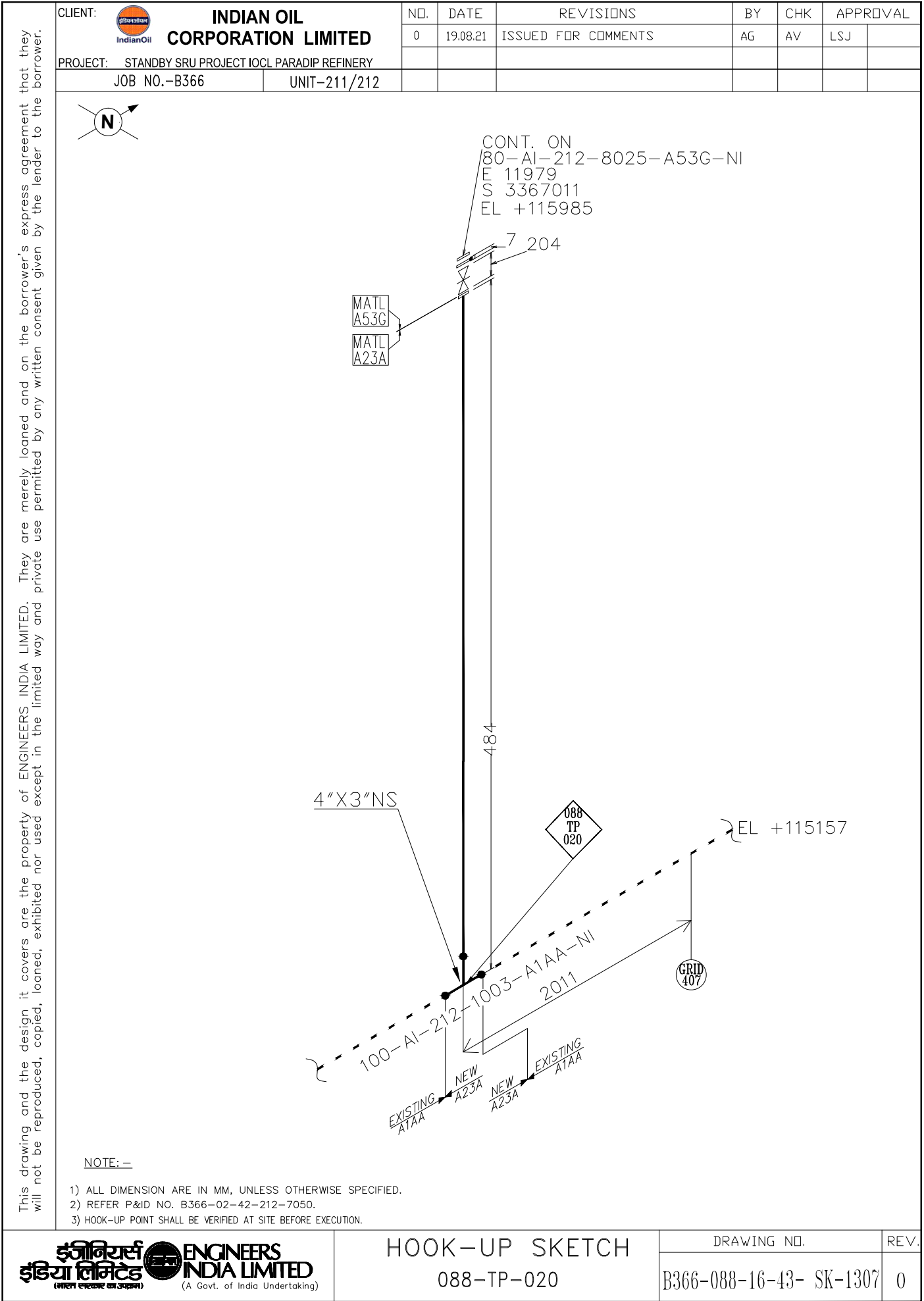













CLIENT:  <b>INDIAN OIL CORPORATION LIMITED</b>	NO.	DATE	REVISIONS	BY	CHK	APPROVAL	
	0	19.08.21	ISSUED FOR COMMENTS	AG	AV	LSJ	
	PROJECT: STANDBY SRU PROJECT IOCL PARADIP REFINERY						
JOB NO.-B366	UNIT-211/212						



- 1) ALL DIMENSION ARE IN MM, UNLESS OTHERWISE SPECIFIED.
- 2) REFER P&ID NO. B366-02-42-212-7063.
- 3) HOOK-UP POINT SHALL BE VERIFIED AT SITE BEFORE EXECUTION.

CLIENT:

IndianOil

INDIAN OIL CORPORATION LIMITED

PROJECT: STANDBY SRU PROJECT IOCL PARADIP REFINERY

JOB NO.-B366

UNIT-211/212

NO.

DATE

REVISIONS

BY

CHK

APPROVAL

0

19.08.21

ISSUED FOR COMMENTS

AG

AV

LSJ

100-BD-212-1009-D2AS-PP

EXISTING D2AS

NEW D31A

16

432

725

GRID 393

088 TP 024

CONT. ON  
100-BD-212-6302-D31A-PP  
E 16200  
S 3458577  
EL +115157

NOTE: -

1) ALL DIMENSION ARE IN MM, UNLESS OTHERWISE SPECIFIED.

2) REFER P&ID NO. B366-02-42-212-7063.

3) HOOK-UP POINT SHALL BE VERIFIED AT SITE BEFORE EXECUTION.

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ENGINEERS INDIA LIMITED

(भारत सरकार का उपक्रम)

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HOOK-UP SKETCH

088-TP-024


DRAWING NO.

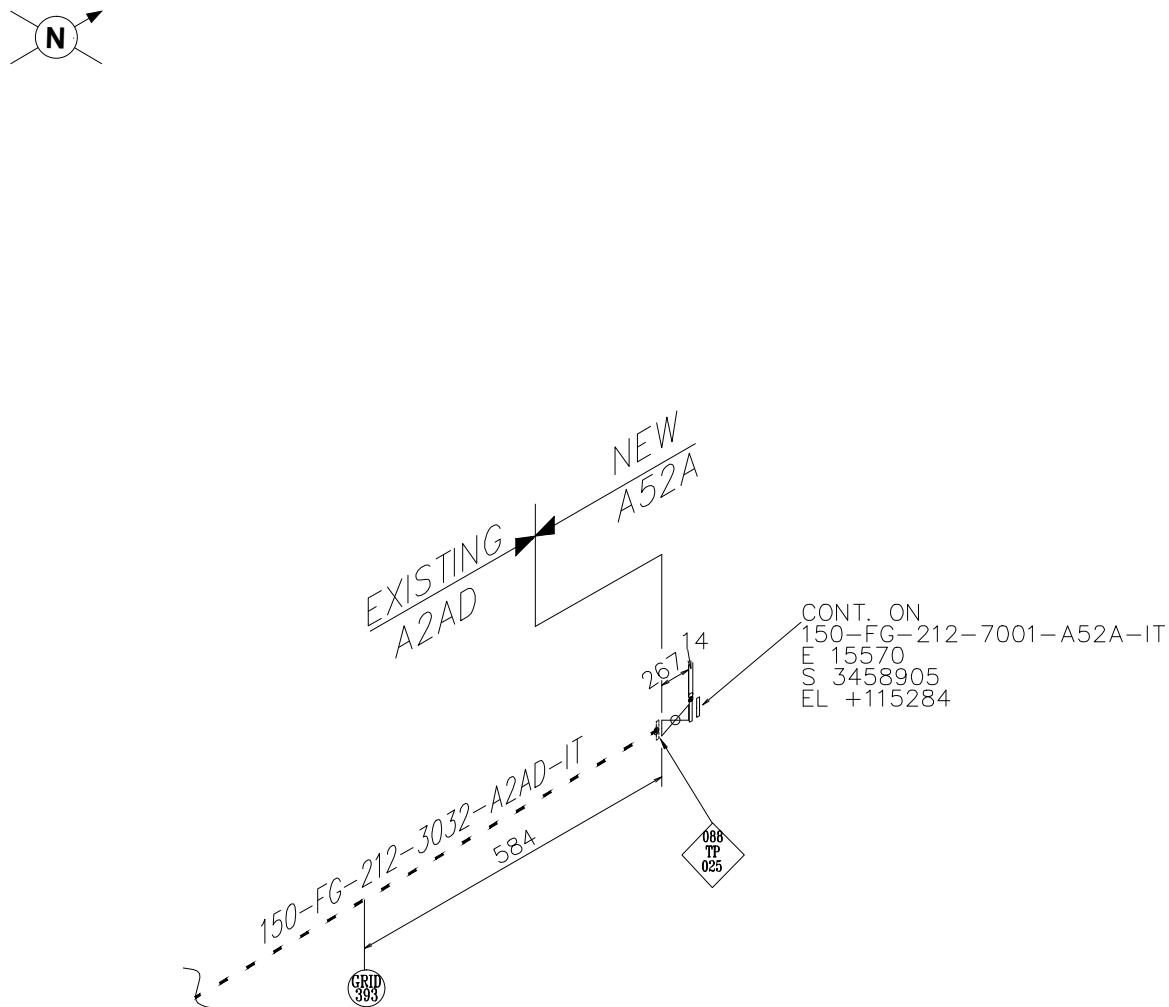
B366-088-16-43-SK-1309

REV.

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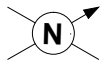
CLIENT:  <b>INDIAN OIL CORPORATION LIMITED</b>	NO.	DATE	REVISIONS	BY	CHK	APPROVAL	
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	PROJECT: <u>STANDBY SRU PROJECT IOCL PARADIP REFINERY</u>						
JOB NO.-B366	UNIT-211/212						



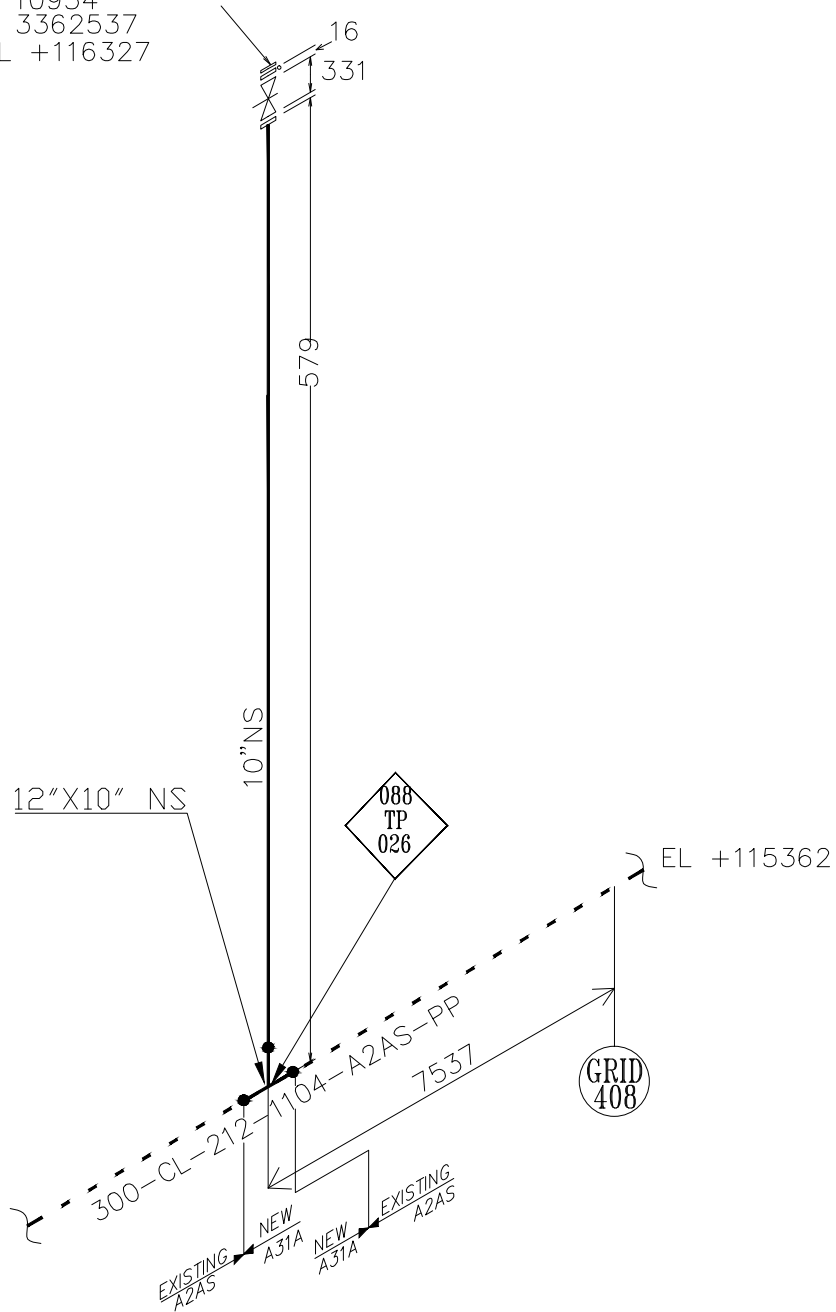
- 1) ALL DIMENSION ARE IN MM, UNLESS OTHERWISE SPECIFIED.
- 2) REFER P&ID NO. B366-02-42-212-7070.
- 3) HOOK-UP POINT SHALL BE VERIFIED AT SITE BEFORE EXECUTION.
- 4) EXISTING TRACING TO BE SUITABLY MODIFIED TO TRACE NEW ARRANGEMENT.

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	0	19.08.21	ISSUED FOR COMMENTS	AG	AV	LSJ	
PROJECT: STANDBY SRU PROJECT IOCL PARADIP REFINERY							
JOB NO.-B366		UNIT-211/212					

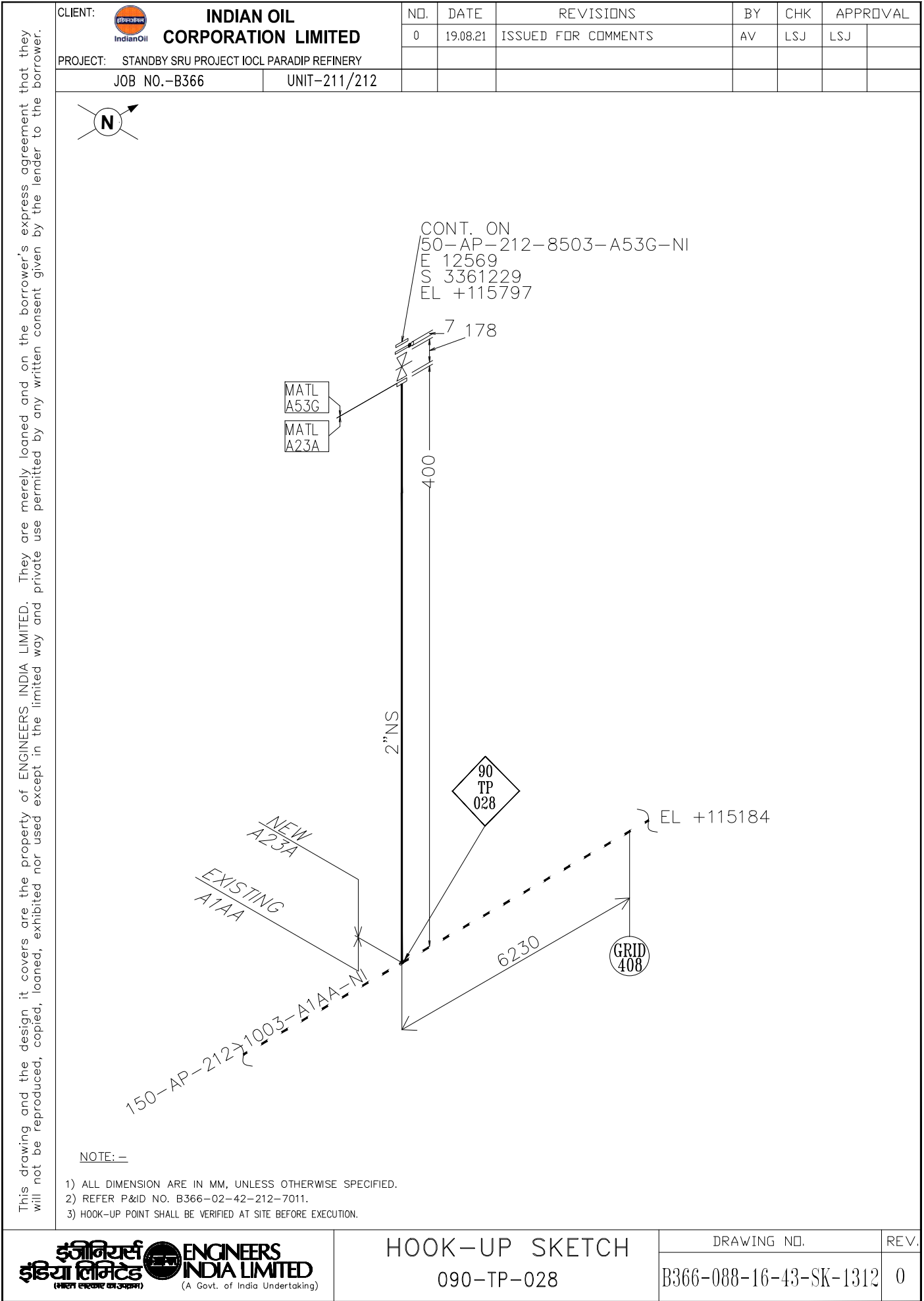


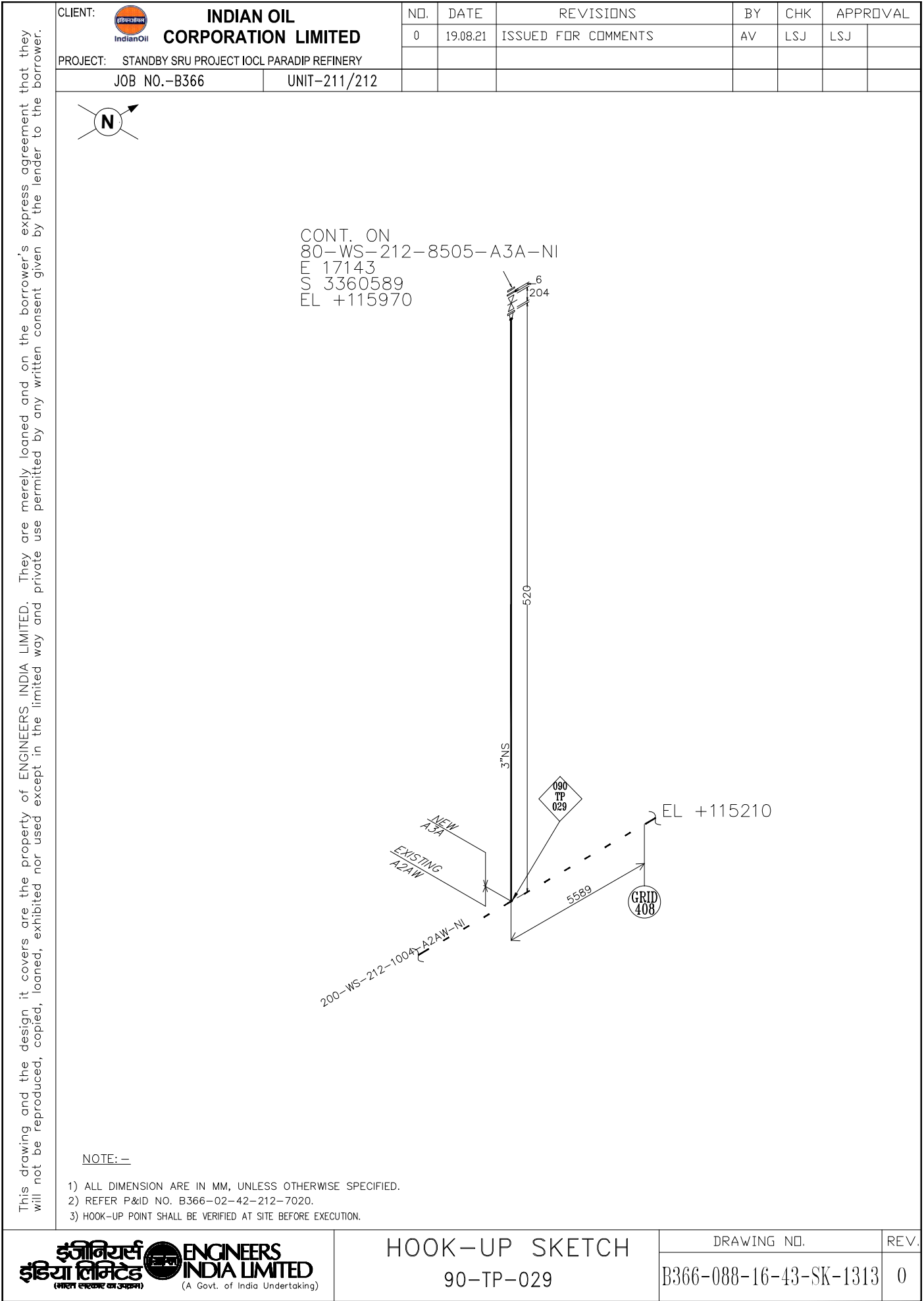
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S 3362537  
EL +116327




NOTE: -

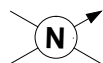
- 1) ALL DIMENSION ARE IN MM, UNLESS OTHERWISE SPECIFIED.
- 2) REFER P&ID NO. B366-02-42-212-7072.
- 3) HOOK-UP POINT SHALL BE VERIFIED AT SITE BEFORE EXECUTION.



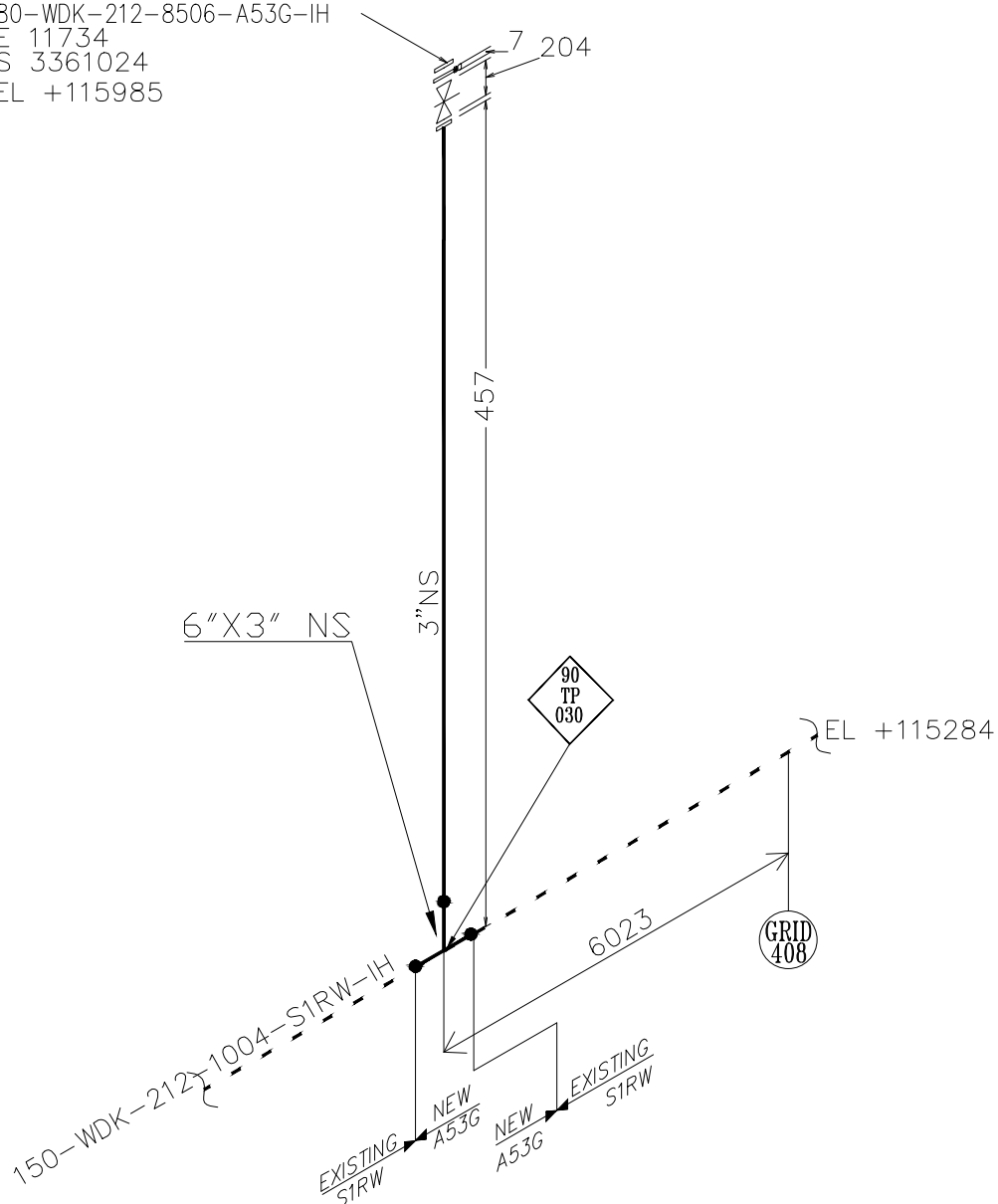




CLIENT:	 <b>INDIAN OIL CORPORATION LIMITED</b>	NO.	DATE	REVISIONS	BY	CHK	APPROVAL	
		0	19.08.21	ISSUED FOR COMMENTS	AV	LSJ	LSJ	
PROJECT:	STANDBY SRU PROJECT IOCL PARADIP REFINERY							
	JOB NO.-B366	UNIT-211/212						

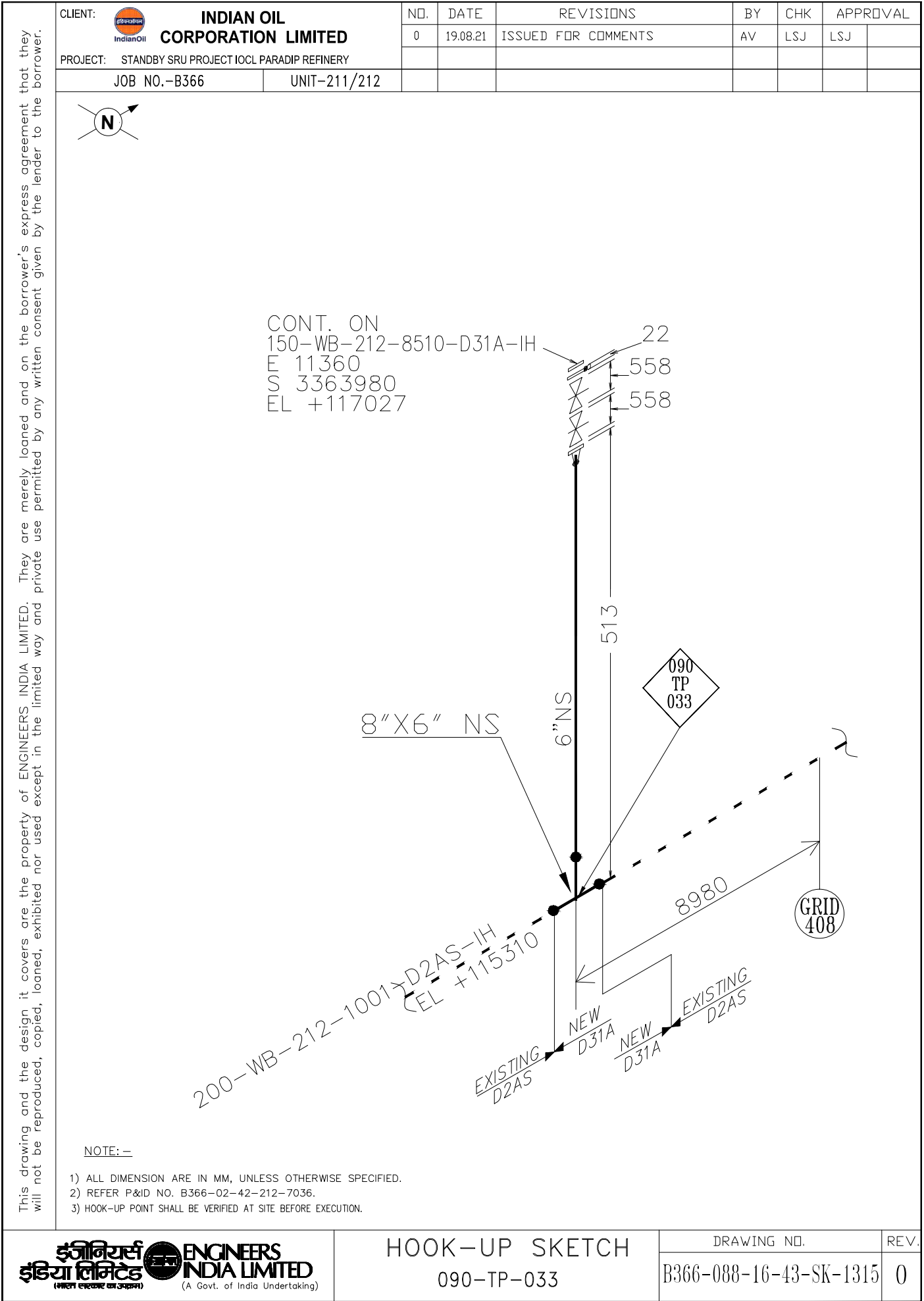



CONT. ON  
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S 3361024  
EL +115985

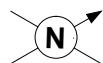


NOTE: —

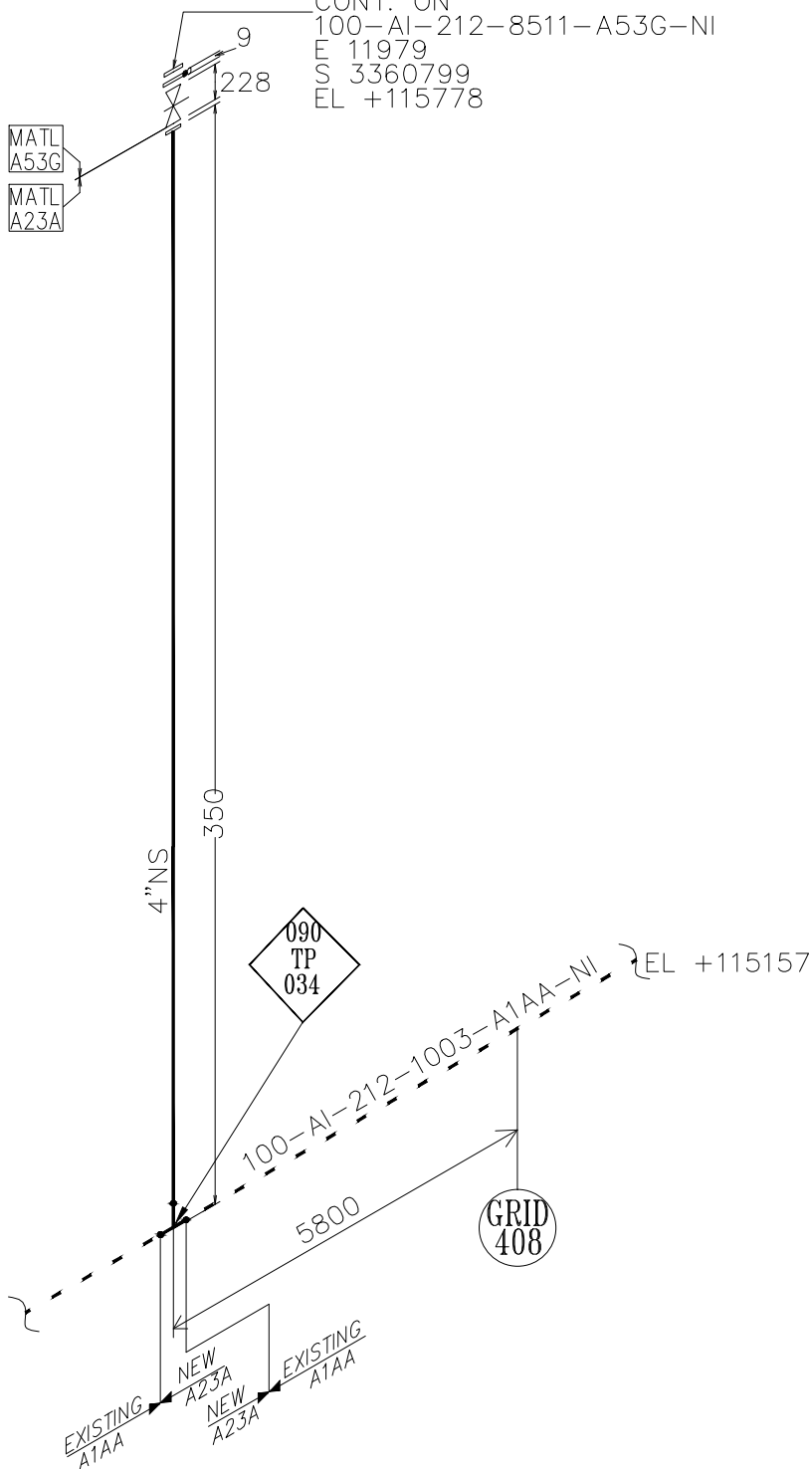
- 1) ALL DIMENSION ARE IN MM, UNLESS OTHERWISE SPECIFIED.
- 2) REFER P&ID NO. B366-02-42-212-7026.
- 3) HOOK-UP POINT SHALL BE VERIFIED AT SITE BEFORE EXECUTION.



CLIENT:  <b>INDIAN OIL CORPORATION LIMITED</b>	NO.	DATE	REVISIONS	BY	CHK	APPROVAL	
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PROJECT: STANDBY SRU PROJECT IOCL PARADIP REFINERY							
JOB NO.-B366	UNIT-211/212						

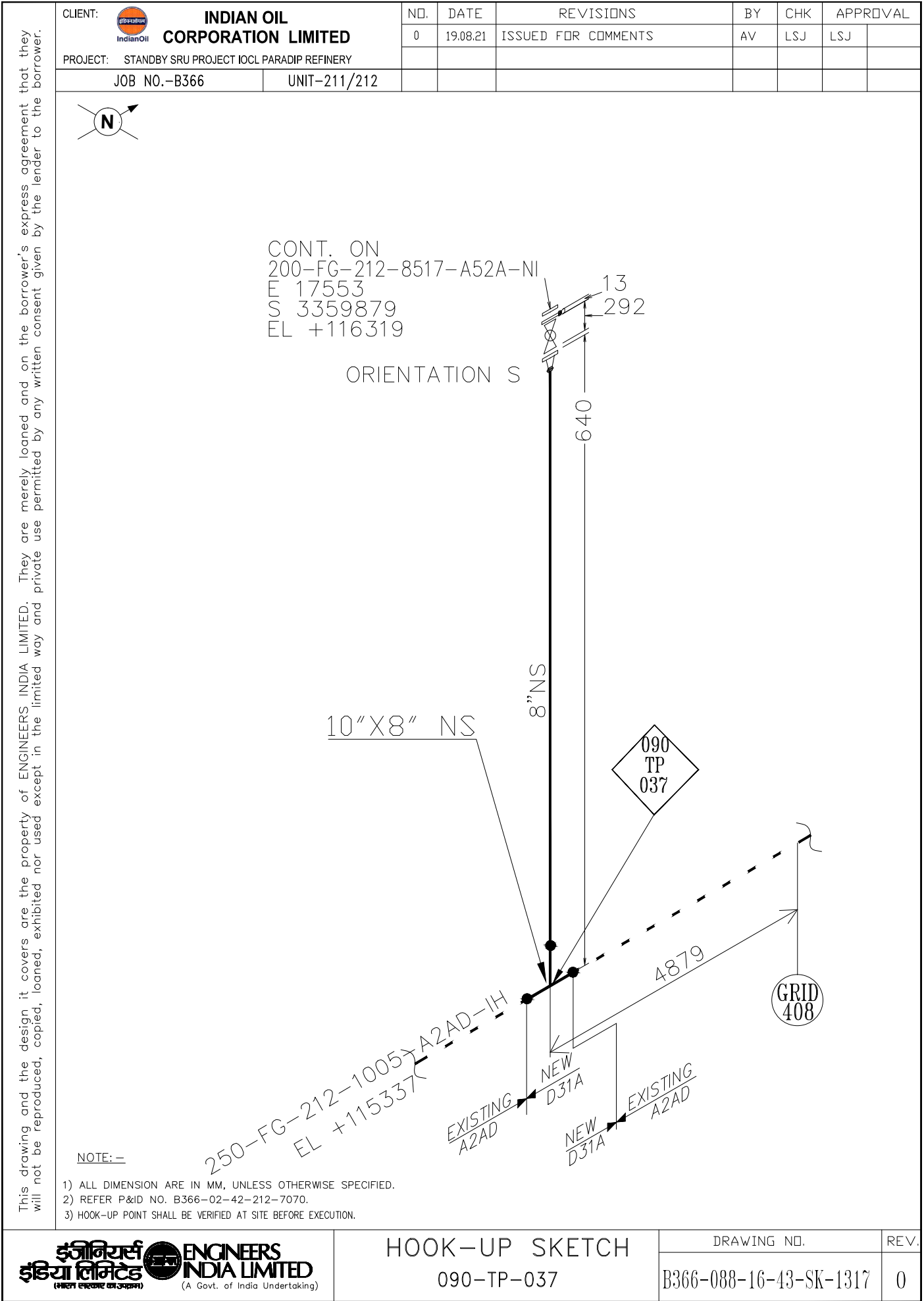


CONT. ON  
100-AI-212-8511-A53G-NI  
E 11979  
S 3360799  
EL +115778




NOTE: -

- 1) ALL DIMENSION ARE IN MM, UNLESS OTHERWISE SPECIFIED.
- 2) REFER P&ID NO. B366-02-42-212-7050.
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CLIENT:



INDIAN OIL  
CORPORATION LIMITED

PROJECT: STANDBY SRU PROJECT IOCL PARADIP REFINERY

JOB NO.-B366UNIT-211/212

NO.	DATE	REVISIONS	BY	CHK	APPROVAL
0	19.08.21	ISSUED FOR COMMENTS	AG	AV	LSJ

N

1.5"NS

200

560

088  
TP  
XXX

24"X1.5"NS  
SOCKOLET

600-SL-212-1009-A1AS-IH


EL +119255

NOTE:-

1) ALL DIMENSION ARE IN MM, UNLESS OTHERWISE SPECIFIED.

2) HOOK-UP POINT SHALL BE VERIFIED AT SITE BEFORE EXECUTION.

इंजीनियर्स  
इंडिया लिमिटेड



ENGINEERS  
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(भारत सरकार का उपक्रम)

(A Govt. of India Undertaking)

HOOK-UP SKETCH

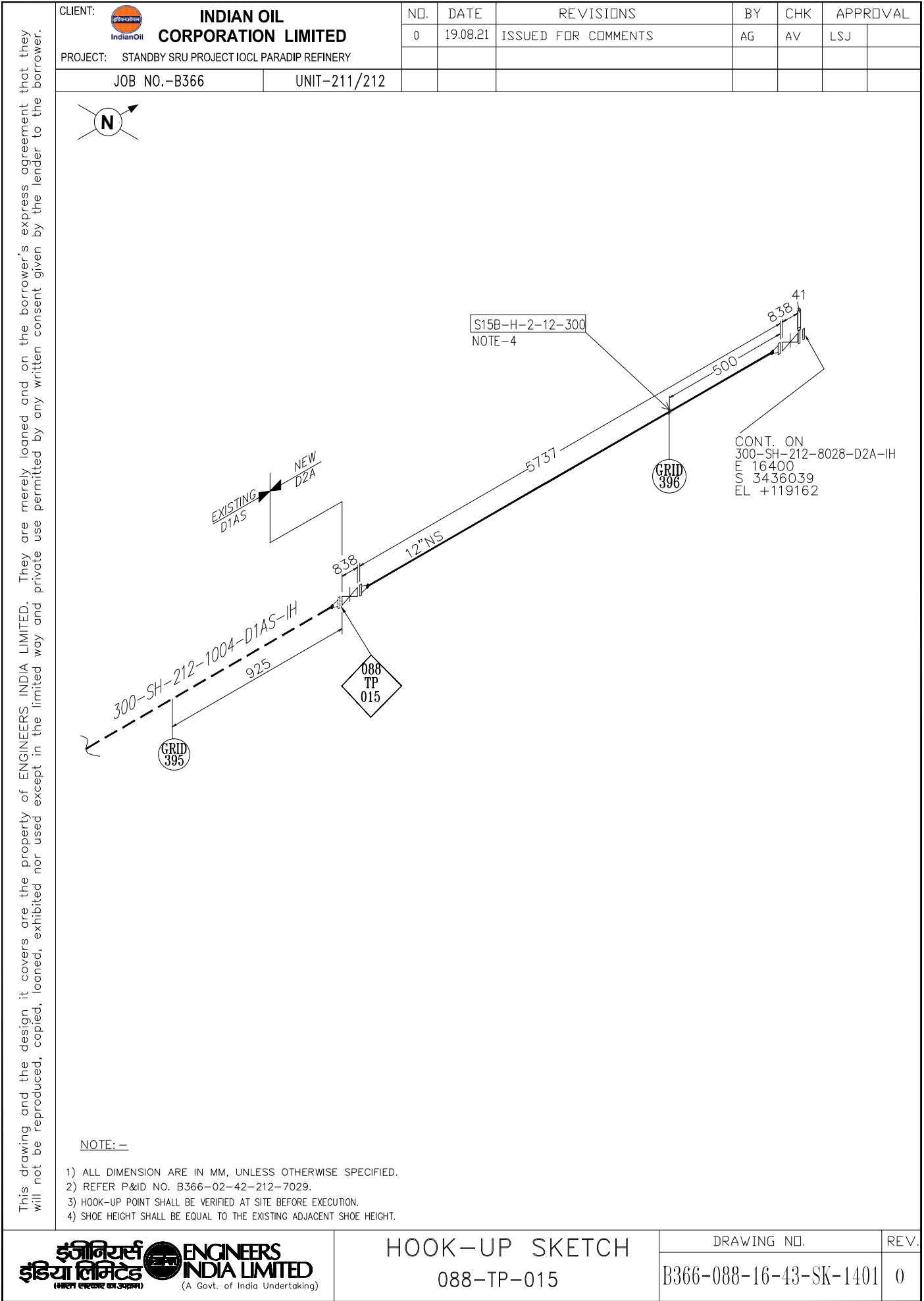
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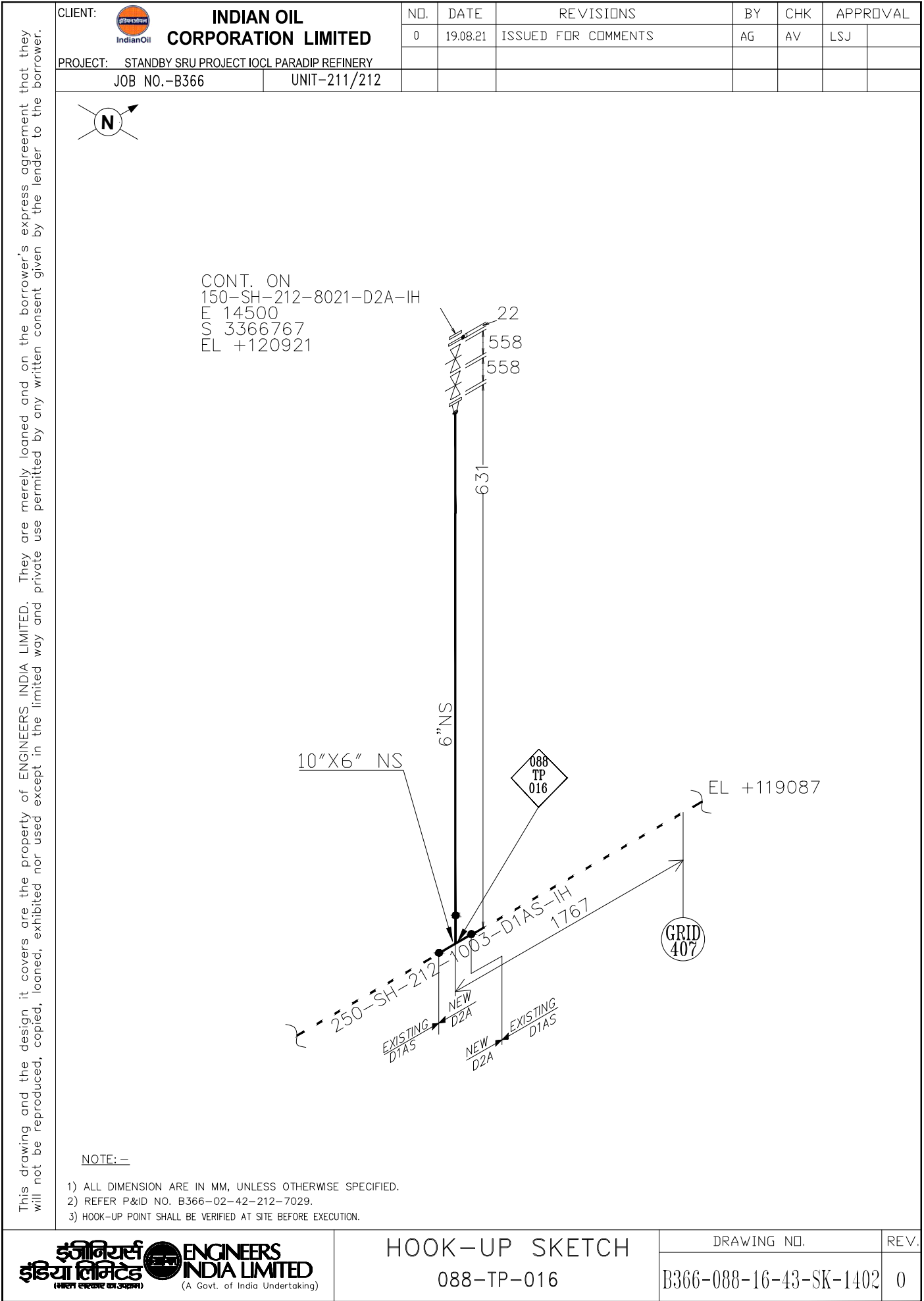
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B366-088-16-43-SK-1330

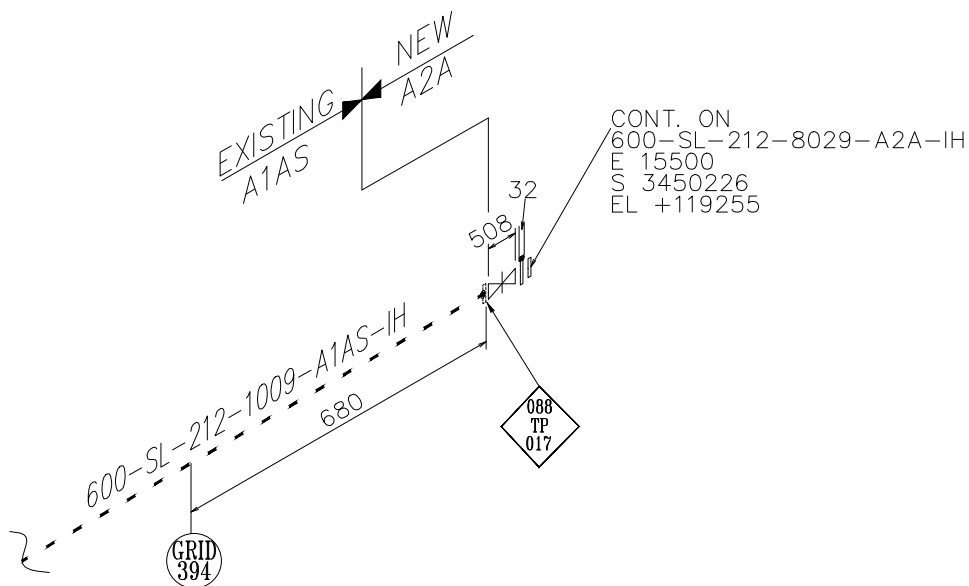
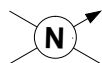
REV.

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CLIENT:  <b>INDIAN OIL CORPORATION LIMITED</b> PROJECT: <b>STANDBY SRU PROJECT IOCL PARADIP REFINERY</b>	<b>JOB NO.-B366</b>		<b>UNIT-211/212</b>		NO.	DATE	REVISIONS	BY	CHK	APPROVAL	
					0	19.08.21	ISSUED FOR COMMENTS	AG	AV	LSJ	



- 1) ALL DIMENSION ARE IN MM, UNLESS OTHERWISE SPECIFIED.
- 2) REFER P&ID NO. B366-02-42-212-7032.
- 3) HOOK-UP POINT SHALL BE VERIFIED AT SITE BEFORE EXECUTION.

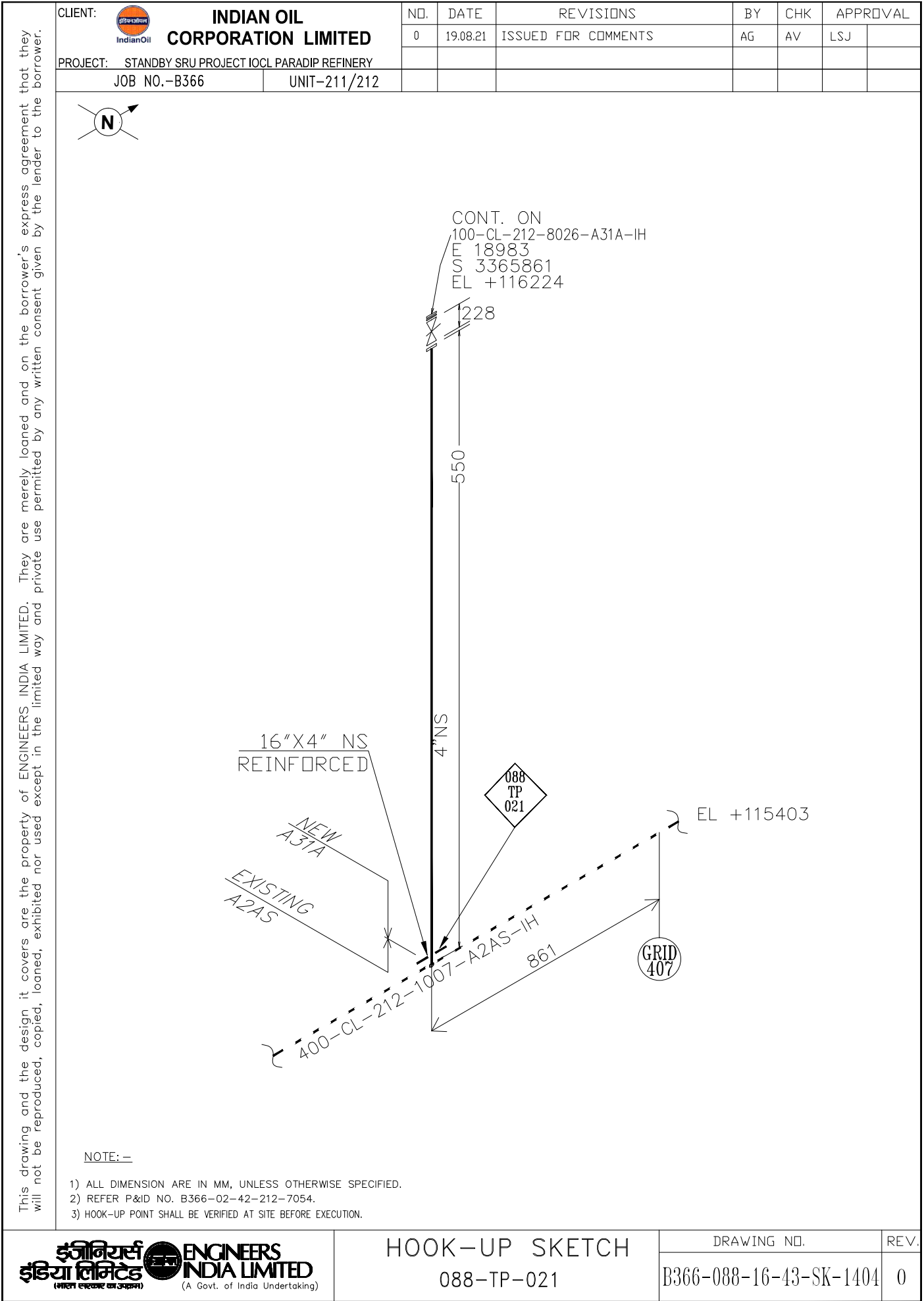
HOOK-UP SKETCH  
088-TP-017

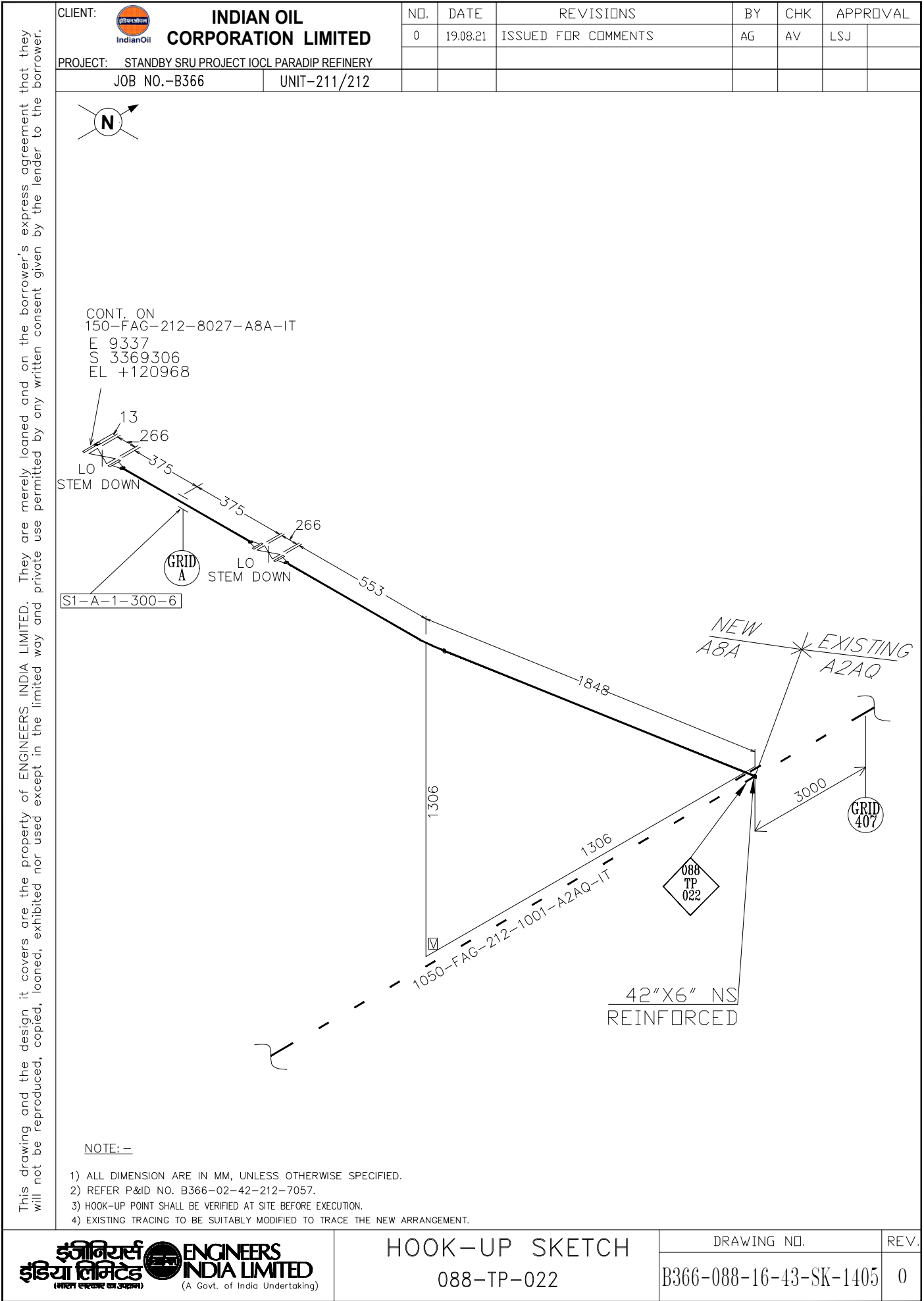
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B366-088-16-43-SK-1403


REV.

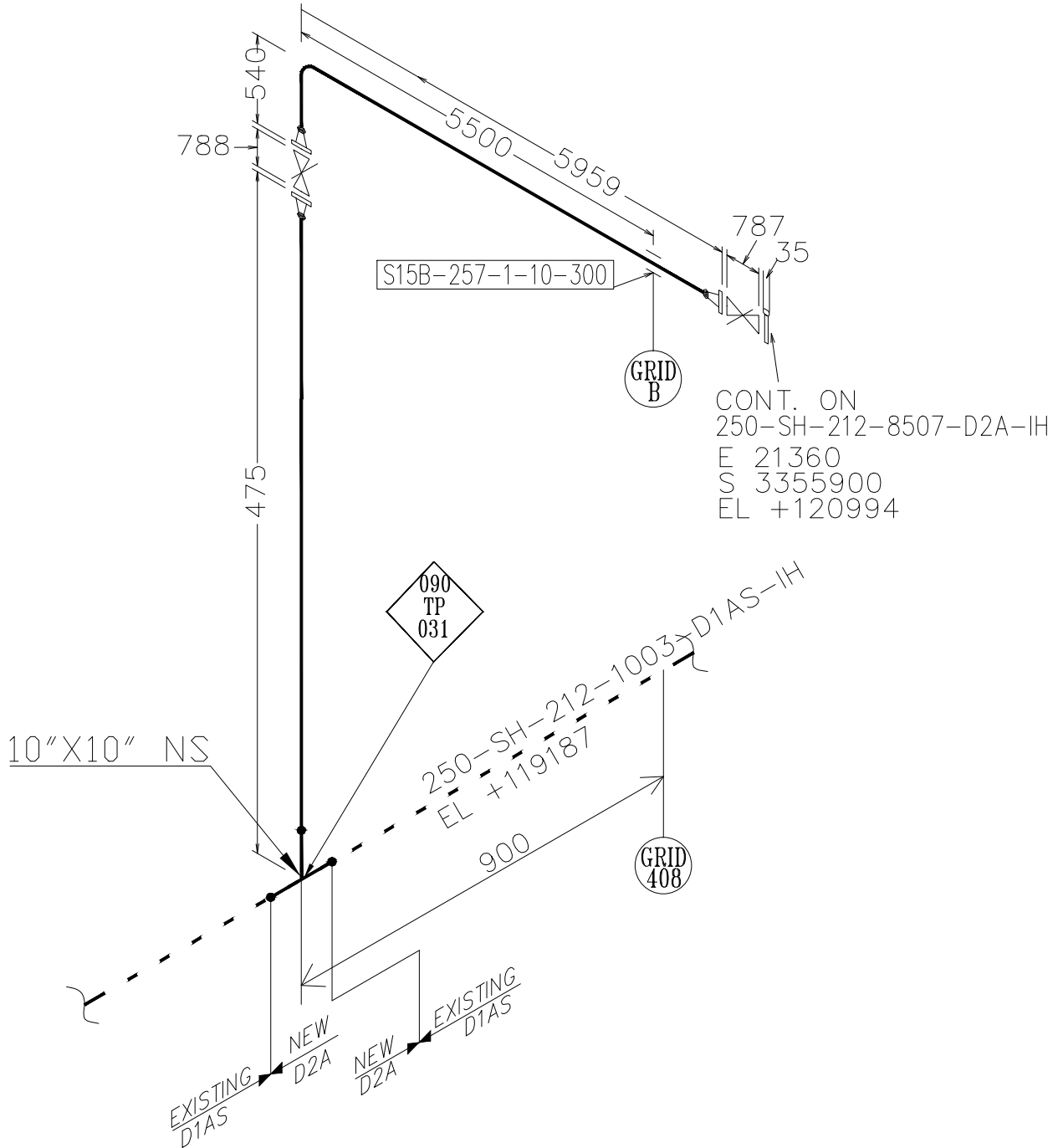
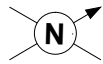






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	0	19.08.21	ISSUED FOR COMMENTS	AV	LSJ	LSJ	
PROJECT: STANDBY SRU PROJECT IOCL PARADIP REFINERY							
JOB NO.-B366		UNIT-211/212					



NOTE: —

- 1) ALL DIMENSION ARE IN MM, UNLESS OTHERWISE SPECIFIED.
- 2) REFER P&ID NO. B366-02-42-212-7029.
- 3) HOOK-UP POINT SHALL BE VERIFIED AT SITE BEFORE EXECUTION.

