



MODUS OPERANDI FOR LAUNCHING OF STEEL GIRDERS FOR PROPOSED AIR-CONCOURSE AT NELLORE RAILWAY STATION . GIRDER WEIGHT 10.5 MT FOR 22.90M LENGTH FROM PF1 TO PF2&3 (07 -NUMBERS) AND 12.83 MT FOR 28M LENGTH FROM PF2&3 TO PF4 (07

2. ONE NUMBER CRANE OF CAPACITY **200 MT** WILL BE USED. STAGE - I - LAUNCHING OF STEEL GIRDERS FOR THE SPAN BETWEEN PF 4 & PF 2&3

PRELIMINARY WORKS 1. FOR LAUNCHING OF AIR CONCOURSE GIRDER PF .NO-4 AND ROAD5 WILL BE PARTLY SUSPENDED FOR 4 DAYS

2. 350 m LENGTH OF PF NO-4 (GDR END) WILL BE AVAILABLE FOR OPERATION OF DEMO TRAINS ON ROAD-5. 3. PART SUSPENSION OF PF-04 AND ROAD-5 PRIOR TO ONE DAY OF TRAFFIC CUM POWER BLOCK FOR POSITIONING THE CRANE FOR

4. CRANE WILL BE KEPT IN POSITION AS NEAR AS POSSIBLE TO AIR CONCOURSE TOWARDS GUDUR END. 5. LEVELING FOR PLACEMENT OF CRANE WILL BE DONE ON PF-04.

6. SEVEN (7) GIRDERS WILL BE ASSEMBLED AND KEPT NEAR THE CRANE ARM.

7. ONE CRANE WILL BE MADE AVAILABLE AS A SPARE AT PAR WITH WORKING CRANE CAPACITY. 8. TEMPORARY ENGINEERING SIGNALS WILL BE PROVIDED FOR ROAD NO 3,4&5.

9. TESTING THE CRANE FOR LIFTING CAPACITY (AT 75% RATED LOAD). 10. CRANE SLINGS WILL BE CHECKED PRIOR TO USE.

STAGE A1: FIRST BLOCK (1ST-DAY): LAUNCHING OF GIRDERS 7 & 6 AS INDICATED IN GAD. 1. AFTER OBTAINING TRAFFIC CUM POWER BLOCK ON ROAD -3 , 4 & 5 FOR FOUR (4) HOURS. THE OHE WIRES TO BE LOWERED. 2. AFTER ENSURING PROPER FASTENING TO SLING HOOK, GIRDER G-7 WILL BE LIFTED AND KEPT IN POSITION ON COLUMN PEDESTAL -7 AND THE ERECTED GIRDER G-7 WILL BE PROTECTED WITH 'A' FRAME. GIRDER G-7 WILL BE HOLD IN POSITION WITH CRANE AND HOLDING DOWN BOLTS TO BE GROUTED WITH EPOXY GROUT. AFTER SETTING OF EPOXY GROUT, NUTS TO BE FIXED ON BOTH ENDS, THEN SLING OF CRANE WILL BE REMOVED.

ERECTED GIRDER G-6 WILL BE HOLD IN POSITION WITH CRANE AND HOLDING DOWN BOLTS TO BE GROUTED WITH EPOXY GROUT. 4. AFTER SETTING OF EPOXY GROUT, NUTS TO BE FIXED ON BOTH ENDS, THEN SLING OF THE CRANE WILL BE REMOVED. 5. REQUIRED BRACINGS WILL BE FIXED BETWEEN GIRDER 6 & 7 STAGE A2: SECOND BLOCK (2ND - DAY): LAUNCHING OF GIRDERS 5, 4 &3 AS INDICATED IN GAD.

FASTENING OF SLING HOOK IS PROVIDED FOR GIRDER 6 AND IT WILL BE PLACED IN POSITION FOR COLUMN PEDESTAL-06 AND THE

. AFTER OBTAINING TRAFFIC CUM POWER BLOCK ON ROAD-3, 4&5 FOR FOUR HOURS, THE OHE WIRES TO BE LOWERED.

G-5 WILL BE HOLD IN POSITION WITH CRANE AND HOLDING DOWN BOLTS TO BE GROUTED WITH EPOXY GROUT AFTER SETTING OF EPOXY GROUT, NUTS TO BE FIXED ON BOTH ENDS, THEN SLING OF THE CRANE WILL BE REMOVED. 3. REQUIRED BRACINGS WILL BE MADE BETWEEN GIRDER 6 & 5. 4. FASTENING OF SLING HOOK IS PROVIDED FOR GIRDER 4 AND IT WILL BE PLACED IN POSITION FOR COLUMN PEDESTAL-04 AND THE

ERECTED GIRDER G-4 WILL BE HOLD IN POSITION WITH CRANE AND HOLDING DOWN BOLTS TO BE GROUTED WITH EPOXY GROUT. AFTER SETTING OF EPOXY GROUT, NUTS TO BE FIXED ON BOTH ENDS, THEN SLING OF THE CRANE WILL BE REMOVED. 5. REQUIRED BRACINGS WILL BE FIXED BETWEEN GIRDER 5 & 4. 6. FASTENING OF SLING HOOK IS PROVIDED FOR GIRDER 3 AND IT WILL BE PLACED IN POSITION FOR COLUMN PEDESTAL-03 AND THE

ERECTED GIRDER G-3 WILL BE HOLD IN POSITION WITH CRANE AND HOLDING DOWN BOLTS TO BE GROUTED WITH EPOXY GROUT AFTER SETTING OF EPOXY GROUT, NUTS TO BE FIXED ON BOTH ENDS, THEN SLING OF THE CRANE WILL BE REMOVED AND WILL BE REFRACTED BACK. 7. REQUIRED BRACINGS WILL BE FIXED BETWEEN GIRDER 4 & 3.

STAGE A3: THIRD BLOCK(3RD - DAY): LAUNCHING OF GIRDER 2 & 1 AS INDICATED IN GAD. 1. AFTER OBTAINING TRAFFIC CUM POWER BLOCK ON ROAD-3, 4&5 FOR FOUR HOURS, THE OHE WIRES TO BE LOWERED. 2. FASTENING OF SLING HOOK IS PROVIDED FOR GIRDER 2 AND IT WILL BE PLACED IN POSITION FOR COLUMN PEDESTAL -02 AND. THE ERECTED GIRDER G-2 WILL BE HOLD IN POSITION WITH CRANE AND HOLDING DOWN BOLTS TO BE GROUTED WITH EPOXY GROUT

AFTER SETTING OF EPOXY GROUT, NUTS TO BE FIXED ON BOTH ENDS, THEN SLING OF THE CRANE WILL BE REMOVED. 3. REQUIRED BRACINGS WILL BE MADE BETWEEN GIRDER 3 & 2. 4. FASTENING OF SLING HOOK IS PROVIDED FOR GIRDER 1 AND IT WILL BE PLACED IN POSITION FOR -01 COLUMN PEDESTAL AND THE ERECTED GIRDER G-1 WILL BE HOLD IN POSITION WITH CRANE AND HOLDING DOWN BOLTS TO BE GROUTED WITH EPOXY GROUT.

6. REQUIRED BRACINGS WILL BE FIXED BETWEEN GIRDER 2 & 1. CLOSING WORKS (4TH DAY) 1. AFTER FINISHING 3 BLOCKS AS ABOVE CRANE WILL BE REMOVED FROM PF- 4 AND ENSURING ALL CLEARANCES AND SAFETY MEASURES ON PF 4 AND R-5 WILL BE CERTIFIED FOR TRAFFIC

SHIFTING OF CRANE (5TH DAY) THE CRANE WILL BE MOVED TO WEST SIDE OF STATION i.e., PF-01 OF NELLORE STATION.

(6TH DAY) - PLACEMENT OF THE CRANE OUTSIDE THE PF 1 1. CRANE WILL BE KEPT IN POSITION AS NEAR AS POSSIBLE TO AIR CONCOURSE TOWARDS GUDUR END.

2. LEVELLING FOR PLACEMENT OF CRANE WILL BE DONE ON OUT SIDE OF PF01. 3. SEVEN (7) GIRDERS WILL BE ASSEMBLED AND KEPT NEAR THE CRANE ARM.

4. ONE CRANE WILL BE MADE AVAILABLE AS A SPARE AT PAR WITH WORKING CRANE CAPACITY. 5. TEMPORARY ENGINEERING SIGNALS WILL BE PROVIDED FOR ROAD NO 1&2. 6. TESTING THE CRANE FOR LIFTING CAPACITY (AT 75% RATED LOAD).

7. CRANE SLINGS WILL BE CHECKED PRIOR TO USE. 2. STAGE B1 (7TH DAY): LAUNCHING OF GIRDERS 7&6

1. AFTER OBTAINING TRAFFIC CUM POWER BLOCK ON ROAD -1&2 FOR FOUR (4) HOURS. THE OHE WIRES TO BE LOWERED. AFTER ENSURING PROPER FASTENING TO SLING HOOK GIRDER G-7 WILL BE LIFTED AND KEPT IN POSITION ON PIER 7 AND THE ERECTED

BE GROUTED WITH EPOXY GROUT. AFTER SETTING OF EPOXY GROUT, NUTS TO BE FIXED ON BOTH ENDS, THEN SLING OF CRANE WILL 3. FASTENING OF SLING HOOK IS PROVIDED FOR GIRDER 6 AND IT WILL BE PLACED IN POSITION FOR COLUMN PEDESTAL -06 AND THE ERECTED GIRDER G-6 WILL BE HOLD IN POSITION WITH CRANE AND HOLDING DOWN BOLTS TO BE GROUTED WITH EPOXY GROUT AFTER SETTING OF EPOXY GROUT, NUTS TO BE FIXED ON BOTH ENDS, THEN SLING OF THE CRANE WILL BE REMOVED AND REFRACTED

GIRDER G-7 WILL BE PROTECTED WITH A FRAME. GIRDER G-7 WILL BE HOLD IN POSITION WITH CRANE AND HOLDING DOWN BOLTS TO

4. REQUIRED BRACINGS WILL BE FIXED BETWEEN GIRDER 6 & 7

STAGE B2 (8TH DAY) LAUNCHING OF GIRDERS 5, 4 & 3 AS INDICATED IN GAD. 1. AFTER OBTAINING TRAFFIC CUM POWER BLOCK ON ROAD -1&2 FOR FOUR (4) HOURS. THE OHE WIRES TO BE LOWERED. 2. FASTENING OF SLING HOOK IS PROVIDED FOR GIRDER 5 AND IT WILL BE PLACED IN POSITION FOR PIER-05 AND THE ERECTED GIRDER G-5 WILL BE HOLD IN POSITION WITH CRANE AND HOLDING DOWN BOLTS TO BE GROUTED WITH EPOXY GROUT. AFTER SETTING OF

EPOXY GROUT, NUTS TO BE FIXED ON BOTH ENDS, THEN SLING OF THE CRANE WILL BE REMOVED. REQUIRED BRACINGS WILL BE MADE BETWEEN GIRDER 6 & 5. FASTENING OF SLING HOOK IS PROVIDED FOR GIRDER 4 AND IT WILL BE PLACED IN POSITION FOR COLUMN PEDESTAL -04 AND THE

AFTER SETTING OF EPOXY GROUT. NUTS TO BE FIXED ON BOTH ENDS, THEN SLING OF THE CRANE WILL BE REMOVED AND WILL BE 6. REQUIRED BRACINGS WILL BE MADE BETWEEN GIRDER 5 & 4. 6. FASTENING OF SLING HOOK IS PROVIDED FOR GIRDER 3 AND IT WILL BE PLACED IN POSITION FOR PIER-03 AND THE ERECTED GIRDER

ERECTED GIRDER G-4 WILL BE HOLD IN POSITION WITH CRANE AND HOLDING DOWN BOLTS TO BE GROUTED WITH EPOXY GROUT

G-3 WILL BE HOLD IN POSITION WITH CRANE AND HOLDING DOWN BOLTS TO BE GROUTED WITH EPOXY GROUT AFTER SETTING OF EPOXY GROUT, NUTS TO BE FIXED ON BOTH ENDS, THEN SLING OF THE CRANE WILL BE REMOVED. STAGE B3 (9TH DAY) LAUNCHING OF GIRDERS 2 & 1

. AFTER OBTAINING TRAFFIC CUM POWER BLOCK ON ROAD -1&2 FOR FOUR (4) HOURS. THE OHE WIRES TO BE LOWERED. . FASTENING OF SLING HOOK IS PROVIDED FOR GIRDER 2 AND IT WILL BE PLACED IN POSITION FOR COLUMN PEDESTAL -02 AND THE ERECTED GIRDER G-2 WILL BE HOLD IN POSITION WITH CRANE AND HOLDING DOWN BOLTS TO BE GROUTED WITH EPOXY GROUT AFTER SETTING OF EPOXY GROUT NUTS TO BE FIXED ON BOTH ENDS, THEN SLING OF THE CRANE WILL BE REMOVED. REQUIRED BRACINGS WILL BE MADE BETWEEN GIRDER 3 & 2.

4. FASTENING OF SLING HOOK IS PROVIDED FOR GIRDER 1 AND IT WILL BE PLACED IN POSITION FOR PIER-01 AND THE ERECTED GIRDER G-1 WILL BE HOLD IN POSITION WITH CRANE AND HOLDING DOWN BOLTS TO BE GROUTED WITH EPOXY GROUT. 5. AFTER SETTING OF EPOXY GROUT, NUTS TO BE FIXED ON BOTH ENDS, THEN SLING OF THE CRANE WILL BE REMOVED. 6. REQUIRED BRACINGS WILL BE FIXED BETWEEN GIRDER 2 & 1.

MODUS OPERANDI FOR CASTING OF RCC DECK SLAB:

HELP OF PULLEYS.

TRESPASS OF ANY LIVING BEINGS.

. UNDER TRAFFIC & POWER BLOCK, ALL CROSS BRACINGS WILL BE FIXED AND SACRIFICIAL SHUTTERING SHEET WILL BE 2. PLACE THE REINFORCEMENT ON THE SACRIFICIAL SHUTTERING SHEET OF THE APPROVED THICKNESS IN THE GANGWAY OF AIR CONCOURSE AS PER THE APPROVED STRUCTURAL DRAWING. 3. CONCRETING OF GANGWAY SLAB OF AIR CONCOURSE TO BE DONE AS PER THE DESIGN MIX AND ALLOWED TO SET IT 4. ON COMPLETION OF FLOORING, VERTICAL COLUMNS, TRUSSES, PURLINS & ROOF SHEETING WILL BE FIXED WITH THE

1. Girder weight 10.5 MT for 22.90m Length (07 Numbers) and 12.83 MT for 28m Length (07 Numbers). 2. PCE SANCTION SHOULD BE OBTAINED FOR ERECTION OF STEEL GIRDERS OVER RAILWAY TRACK. 3. ALL DIMENSIONS ARE IN MILLIMETERS OTHERWISE SPECIFIED.

4. CLEAR THE INFRINGEMENTS AS TREES, POLES, STRUCTURE etc. FOR THE ASSEMBLY OF GIRDERS AND WORKING AND MOVEMENT OF CRANES. 5. LEVEL AND CONSOLIDATE THE GROUND FOR EASY MOVEMENT OF CRANES AND WORKING OF CRANES & ASSEMBLY OF GIRDERS AS PER 6. FILL THE REQUIRED SPACE AND CONSOLIDATE THE GROUND AND PLATFORM SURFACE TO AVOID SETTLEMENT OF CRANES DURING WORKING

AND MOVEMENT OF CRANES. . TRACK TO BE PROTECTED AND IN ACCORDANCE WITH PARA 807 AND 808 OF IRPWM DURING THE BLOCK PERIOD.

8. INSTRUCTIONS AS ISSUED BY RAILWAYS BOARD "SPECIAL CONDITIONS OF WORKING OF ROAD CRANES CIRCULATED VIDE LETTER NO.2015/CE-IV/RUB/206 DATED 15/02/2016 SHALL BE ENSURED. 9. CRANE WORKING FOR ERECTION OF GIRDERS OVER RAILWAY TRACK TO BE DONE ONLY DURING TRAFFIC BLOCK AND POWER BLOCK. 10. CLEARANCES FROM RAILWAY TRACK TO BE MAINTAINED IN ACCORDANCE WITH INDIAN RAILWAY SCHEDULE OF DIMENSION FOR BROAD GAUGE. 11. CRANE WORKING SHALL BE DONE WHEN ALL OUTRIGGERS ARE FULLY EXTENDED & PROPPED ON FIRM COMPACTED GROUND.

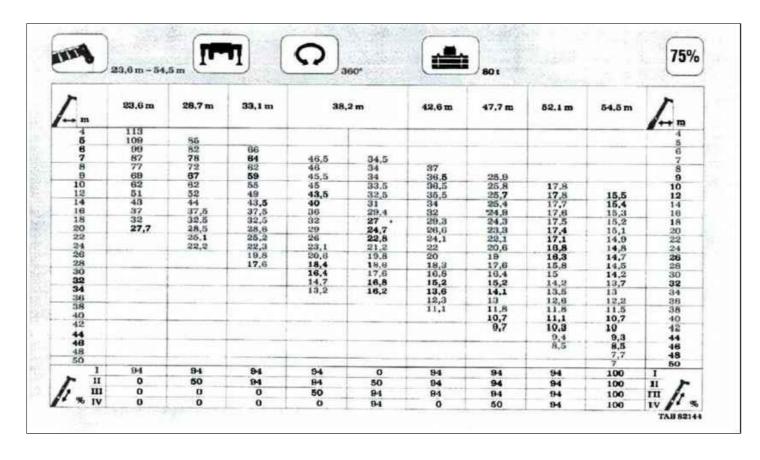
13. FLOOD LIGHT ARRANGEMENT TO BE PROVIDED AT SITE IF THE WORK IS DONE DURING THE NIGHT. 14. SAFETY HELMET AND BELTS OF SUITABLE QUALITY SHALL BE USED AT SITE FOR ALL WORKERS AND SUPERVISORS. 15. CAPACITY OF CRANE AT MAXIMUM WORKING RADIUS, BOOM LENGTH AND RATED COUNTERWEIGHT SHOULD BE MORE THAN 1.5 TIMES OF

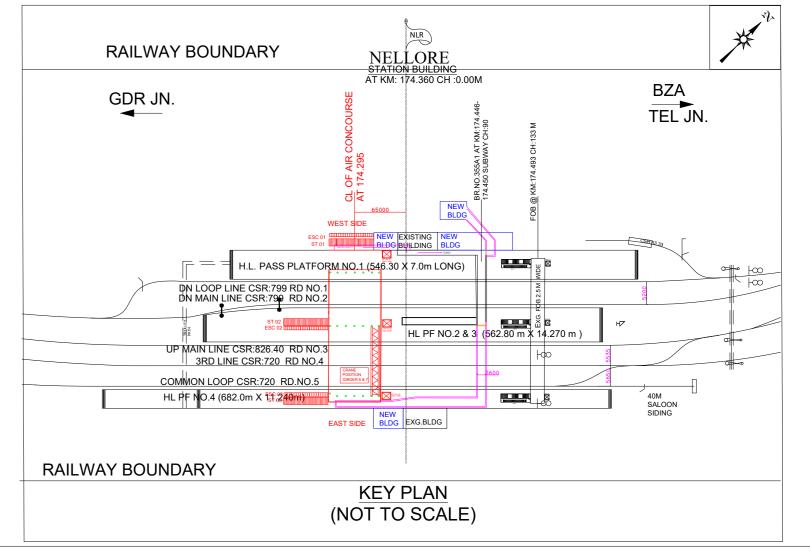
16. DAMAGED PORTION OF PLATFORM WHERE CRANE IS WORKING SHALL BE RESTORED TO ITS ORIGINAL. 17. CAUTION ORDER OF 30kmph WILL BE IMPOSED DURING THE PLACING OF STEEL GIRDERS OVER RAILWAY TRACK WHERE TRAFFIC BLOCK IS NOT

18. SUFFICIENT CRIB ARRANGEMENT SHOULD BE PLACED BELOW STACK OF GIRDERS TO SHIFT THEM SIDE WARDS ACCORDINGLY. 19. CAPACITY OF WIRE ROPE SLINGS SHOULD BE AS PER IS 2266.

20. CRANES, SLING ROPES & SHACKLES SHOULD BE TESTED BEFORE BLOCK AND CERTIFICATE SHALL BE ISSUED BY COMPETENT AUTHORITY OF CONSTRUCTION & DIVISION. THE WHOLE WORKING OF LAUNCHING SHALL BE DONE UNDER THE PERSONAL SUPERVISION OF CONSTRUCTION 21. BOOM OF CRANE WILL BE RETRACTED BACK BEFORE CLEARING THE BLOCK.

22. CRANE LOAD CHART DULY SIGNED BY EXECUTIVE AGENCY SHALL BE ATTACHED ALONG WITH LAUNCHING SCHEME. 23. PROPPING SHOULD BE DONE DURING BLOCK PERIOD. MINOR SANCTION SHALL BE OBTAINED FROM PCE.





CRANE CAPACITY OF 200 MT

SPAN 1 (PLATFORM 01 TO 02)

OPERATING RADIUS IN 10 M - 12 M 14 M - 16 M

18 M - 20 M

3. Girder length = 22.00 m

4. Girder weight = 10.08 MT

SPAN 2 (PLATFORM 03 TO 04):

2. Boom length = 14.00 m

3. Girder length = 28.00 m

06 M - 07 M 87.00 MT 08 M - 09 M 69.00 MT 10 M - 12 M

BOOM LENGTH:

23.60 M

51.00 MT

37.00 MT

27.70 MT

Approved GAD No. CAO/C/D/ST/27/2023.

Approved Structural details of Girders of Air Concourse i) Drg No. CAO/C/D/ST/459/2023.
ii) Drg No. CAO/C/D/ST/461/2023.
iii) Drg No. CAO/C/D/ST/462/2023.

SIGNATURE BLOCK

		T
CBE/HQ	PRADEEP GUPTA	
DY.CE/BR/D/HQ	C.NAGARAJU	
AXEN/BR/D/HQ	P. SRINIVAS	
SSE/DESIGNS	MITHUN KUMAR SINGH	
CE-C-III-SC	M.V.S.RAMA RAJU	VENKATA SITA RAMA RAJU MANTENA Digitall signed by VENKATA SITA RAMA RAJU MANTEN Date:2023.12.01 18:25:06 +05'30'
DYCE-C-DESIGN-HQ	K.M.SHEYAZUDEEN	KANUL MOHAMMED SHEYAZUDEEN Digitally signed by KANUL MOHAMMED SHEYAZUDEEN Date:2023.12.01 18:12:50 +05'30'
AXEN-C-DESIGN-II-HQ	M.SRIDHAR RAO	MADEDHI SRIDHAR RAO Digitally signed by MADEDHI SRIDHAR RAO Date:2023.12.01 18:10:43 +05'30'
JE-C-DESIGNS	UMESH CHENI	CHENI UMESH Digitally signed by CHENI UMESH Date:2023.12.01 18:06:00 +05'30'
DRM/BZA	NARENDRA A PATIL	NARENDRA A PATIL Digitally signed by NARENDRA A PATIL Date:2023.11.30 17:39:51 +05'30'
Sr.DOM/BZA	D.NARENDRA VARMA	D NARENDRA VARMA Digitally signed by D NARENDRA VARMA Date:2023.11.28 12:35:16 +05'30'
Sr.DEE/TRD/BZA	J.SEKHAR BABU	JUJJAVARAPU SEKHAR BABU Digitally signed by JUJJAVARAPU SEKHAR BABI Date:2023.11.22 16:31:41 +05'30'
Sr.DEN/S/BZA	K.D.S. KRISHNA	DURGA SAI KRISHNA KOTIPALLI Digitally signed by DURGA SAI KRISHNA KOTIPALLI Date:2023.11.23 15:55:06 +05'30'
DYCEE/C/BZA	B.NARESH	NARESH BANDLA Digitally signed by NARESH BANDLA Date:2023.11.22 09:29:34 +05'30'
DYCE/C/TPTY	R.UPENDRA KUMAR	R UPENDRA KUMAR Digitally signed by R UPENDRA KUMAR Date:2023.10.16 13:34:05 +05'30'
AXEN/C/TPTY	N.S. SRINIVASA RAO	N SATYASRINIVASA RAO Digitally signed by N SATYASRINIVASA RAO Date:2023.10.16 13:33:17 +05'30'
JE-C-DRG-TPTY	L.SHEKAR	SHEKAR LAKAVATH Digitally signed by SHEKAR LAKAVATH Date:2023.10.16 13:22:43 +05'30'



SOUTH CENTRAL RAILWAY

STATION: NELLORE RAILWAY STATION_DIVISION: VIJAYAWADA NAME OF WORK:

TITLE: MAJOR UPGRADATION OF RAILWAY STATION AT NELLORE

LAUNCHING OF SCHEME FOR LAUNCHING OF GIRDERS OF AIR CONCOURSE(36 M WIDE) OVER PF No.1 - PF No.2-3 & PF No.2-3 - PF No.4 IN NELLORE YARD.

SCALE: NOT TO SCALE

DRAWING No. CAO/C/D/ST/901-2023