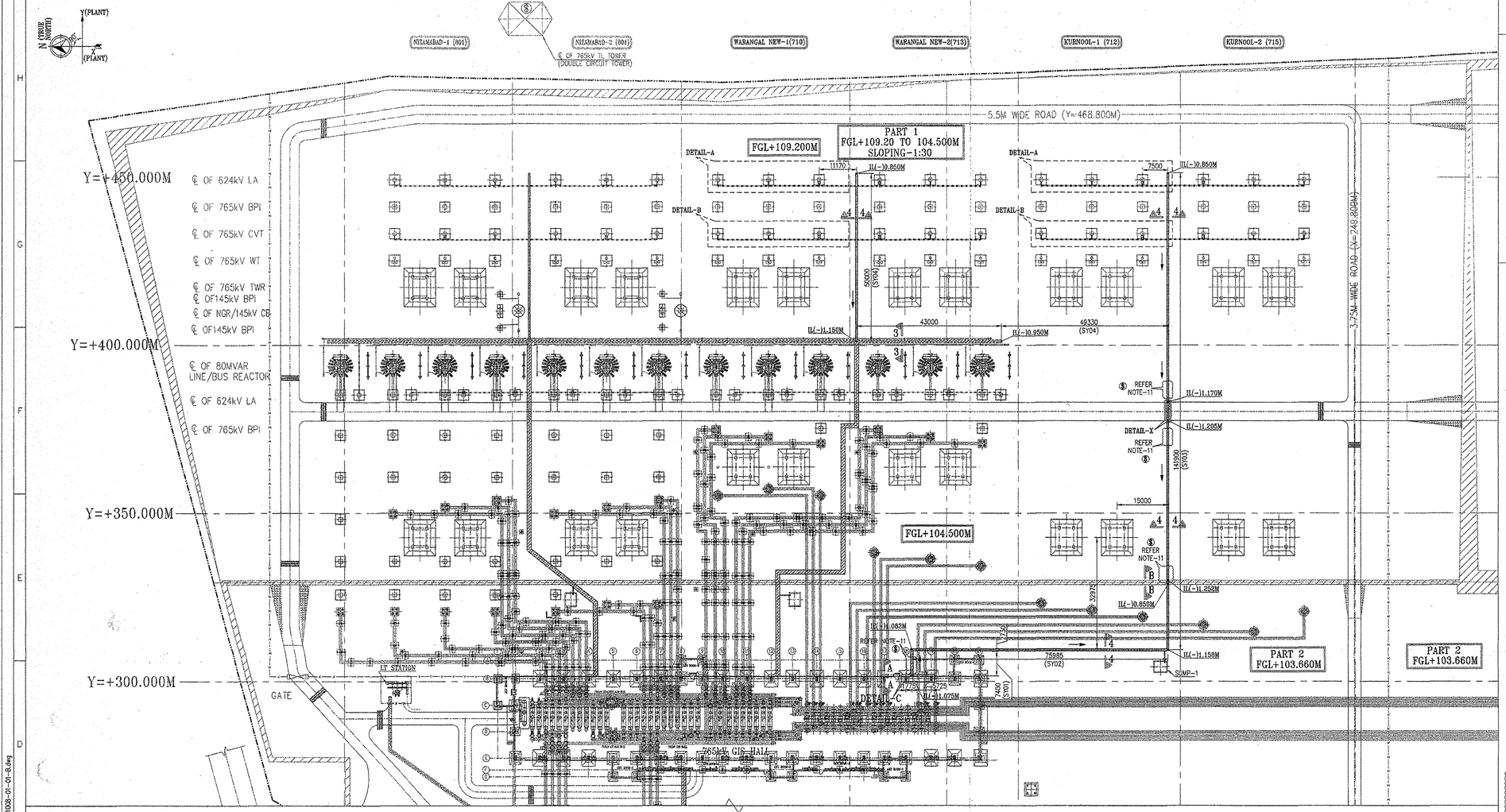
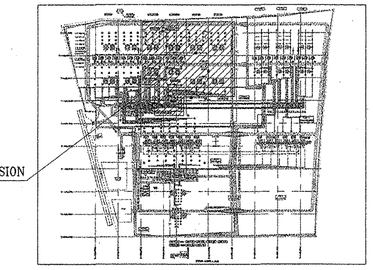
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OVERALL LAYOUT – PLAN



LEGEND:-

- PRESENT SCOPE
- FUTURE / NOT IN SCOPE OF WORK/EXISTING
- PROPOSED CABLE TRENCH
- 100MM DIA PVC PIPE SLEEVE
- 75MM DIA PVC PIPE SLEEVE
- 50MM DIA PVC PIPE SLEEVE
- SLOPE
- BRICK
- TRENCH SLOPE DIRECTION

L&T REFERENCE DRAWINGS:-

1. 765/400kV HYDERABAD (NEW) GIS SUBSTATION – OVERALL EQUIPMENT LAYOUT PLAN & SECTION, DWG NO: 015052-E-IS-SY-EL-1001
2. 765/400kV HYDERABAD (NEW) GIS SUBSTATION – LAYOUT OF TOWERS, FOUNDATION, ROAD & FENCE, DWG NO: 015052-C-IS-SY-FL-1010
3. 765/400kV HYDERABAD (NEW) GIS SUBSTATION – 765kV GIS BUILDING CABLE TRENCH LAYOUT, DWG NO: 015052-E-IS-08-CL-1018
4. 765/400kV HYDERABAD (EXT) GIS SUBSTATION – OVERALL FOUNDATION,LAYOUT, DWG NO: 017129-C-IS-HY-FL-1001
5. 765/400kV HYDERABAD (EXT) GIS SUBSTATION – OVERALL EQUIPMENT LAYOUT PLAN & SECTION, DWG NO: 017129-E-IS-SY-EL-1001
6. 765/400kV HYDERABAD (EXT) GIS SUBSTATION – GIS BUILDING CABLE TRENCH & TRAY LAYOUT, DWG NO: 017129-E-IS-HY-CL-1007

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS AND LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
2. PVC PIPES SHALL BE CLASS 4 OF IS4985 & BURIED AT A DEPTH OF 250mm BELOW FGL WITH NECESSARY SLOPE.
3. LIGHTING CABLE SHALL BE DIRECTLY BURIED WHEREVER THERE IS NO NEARBY CABLE TRENCH AVAILABLE.
4. POWER & CONTROL CABLES SHALL BE LAID IN SEPARATE TIERS IN CABLE TRENCH. POWER CABLES SHALL BE LAID IN TOP SINGLE LAYER & CONTROL CABLES SHALL BE LAID IN BOTTOM DOUBLE LAYER INSIDE THE CABLE TRENCH.
5. AFTER LAYING CABLES, THE END OF PIPES SHALL BE SUITABLY SEALED AT SITE TO PREVENT INGRESS OF WATER INSIDE THE PIPES.
6. SIZE OF THE PIPES & CONDUITS SHALL BE SELECTED BASED ON 40% FILL CRITERION.ADDITIONAL PIPES IF REQUIRED FOR THIS CRITERIA, SHALL BE PROVIDED BY L&T.
7. OPTICAL FIBRE CABLES FOR SAS SYSTEM SHALL RUN THROUGH GI PIPE OF SUITABLE SIZE INSIDE THE CABLE TRENCH WITH SUITABLE GI BENDS AS REQUIRED.
8. CABLE TRENCH SECTIONS & CROSSINGS OF ROAD SHALL BE AS PER POWER GRID STANDARD DRAWING. DRAWING NO: C/ENGG/STD/2016/RCT/01 (DETAIL-X SHALL BE AS PER "CABLE TRENCH SECTION 2-2 CROSSING ROAD")
9. CABLE TRENCH ROUTE IS INDICATIVE ONLY. MINOR ADJUSTMENTS SHALL BE CARRIED OUT DURING CONSTRUCTION TO SUIT SITE CONDITION IN CONSULTATION WITH SITE.
10. SEPARATE PIPES SHALL BE PROVIDED FOR POWER & CONTROL CABLE.
11. (S)THERE ARE EXISTING DRAINS WHICH NEEDS TO BE MODIFIED FOR THE NEW CABLE TRENCH. SEPARATE CIVIL DRAWING WILL BE SUBMITTED FOR THE SAME.
12. (B)MODULAR MULTI DIAMETER FIRE CABLE SEALING SYSTEM CONSISTS OF FRAMES, BLOCKS AND ACCESSORIES SHALL BE SHOWN IN SEPARATE VENDOR DRAWING.
13. A SLOPE OF 1:250 (MIN.) SHALL BE GIVEN IN THE DIRECTION PERPENDICULAR TO THE RUN OF THE TRENCH FOR ALL SECTIONS.
14. A SLOPE OF 1:1000 (MIN.) SHALL BE GIVEN ALONG RUN OF THE CABLE TRENCH FOR ALL SECTIONS, UNLESS NOTED OTHERWISE.
15. IL DENOTES INVERT LEVEL & IL(–) 0.600M CORRESPONDS TO FGL.
16. CABLE FROM CVT/LA JB (TOP) ON SUPPORT STRUCTURE SHALL BE DONE THROUGH PERFORATED TYPE CABLE TRAY.
17. OPTICAL FIBERS FOR SAS SYSTEM SHALL RUN THROUGH 50mm GI PIPE INSIDE CABLE TRENCH.

BOQ FOR CABLE TRENCH SUPPORTS & ACCESSORIES:-

SL. NO.	DESCRIPTION	UNIT	ACTUAL QTY
1	50mm DIA PVC PIPE, CLASS-4	M	20
2	75mm DIA PVC PIPE, CLASS-4	M	165
3	100mm DIA PVC PIPE, CLASS-4	M	100
4	50x6mm MS EARTH FLAT (FOR CABLE TRENCH EARTHING)	M	276
5	50x50x6mm CABLE SUPPORT ANGLE (MS)	MT	1.4
6	110x50x6mm MS PLATE FOR CABLE TRENCH	MT	0.1
7	100mm WIDE x 75mm HIGH (2mm THK) GI PERFORATED CABLE TRAY	M	60
8	50mm DIA GI CONDUIT FOR FIBER OPTIC CABLE SAS SYSTEM	M	275

=> Qty. for reference only.

CABLE TRENCH DETAILS:-

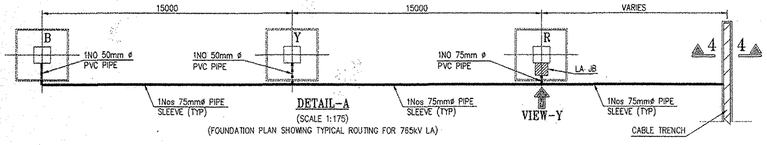
SL. NO.	TRENCH TYPE	TRENCH NUMBER	UNIT	ROUTE LENGTH
1	SECTION 4-4	SY-01 TO SY-04	M	276

Cat-I

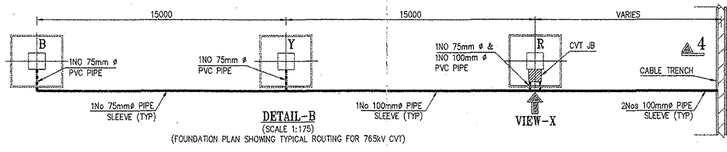
Approved / Released for Fabrication/ Construction.
B. Approved/Released for Fabrication/ Construction Subject to Incorporation of Comments/Modification as Noted / Revised Drawing Required.
III To be Resubmitted for Approval after Incorporating the Comments.
IV For Information & Records.
V. Not approved.

Power Grid Corporation of India Ltd.
(Engg. Deptt. / SCD Testing Division, Hyderabad)

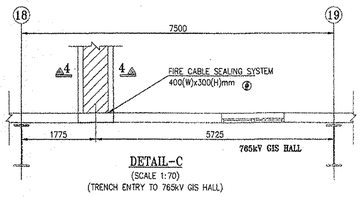
04/06/18



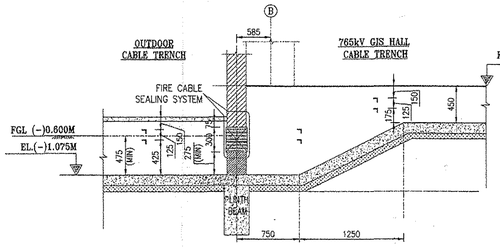
(FOUNDATION PLAN SHOWING TYPICAL ROUTING FOR 765kV LA)



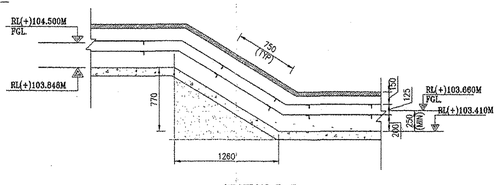
(FOUNDATION PLAN SHOWING TYPICAL ROUTING FOR 765kV CVT)



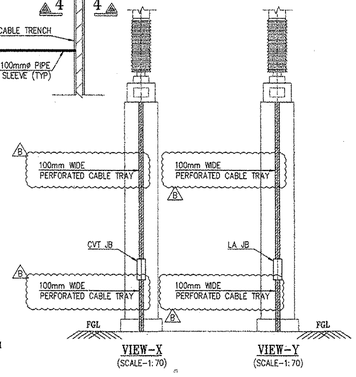
DETAIL-C
(SCALE 1:70)
(TRENCH ENTRY TO 765kV GIS HALL)



SECTION A–A
(SCALE 1:40)
(TYPICAL FOR OUTDOOR ENTRY ARRANGEMENT)



SECTION B–B
(SCALE 1:35)



VIEW–X (SCALE–1:70)
VIEW–Y (SCALE–1:70)

REV.NO.	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED
B	NOA REVISED AS PER PGCIL LETTER DATED:18.02.2018	APV 05.03.18	GD 05.03.18	MNA 05.03.18	GS 05.03.18
A	ISSUED FOR APPROVAL	APV 29.08.17	UMN 29.08.17	RAAJ 30.08.17	SKW 30.08.17

REVISIONS

HYOSUNG CORPORATION

L&T Construction
Power Transmission & Distribution

CLIENT: POWER GRID CORPORATION OF INDIA LIMITED (A GOVERNMENT OF INDIA ENTERPRISE)

CONSULTANT :

PROJECT : SUBSTATION PACKAGE SS-01 FOR A) EXTENSION OF 765kV HYDERABAD (GIS) SUBSTATION, B) EXTENSION OF 765kV KURNOOL (AIS) SUBSTATION & EXTENSION OF 400kV WARANGAL (AIS) SUBSTATION WORKS ASSOCIATED WITH ADDITIONAL INTER-REGIONAL AC LINK FOR IMPORT INTO SOUTHERN REGION
LOA NO. :CC-CS/708-SR1/SS-3539/3/G11/NOA-II/7208 & NOA Ref No:-CC-CS/708-SR1/SS-3539/3/G11/NOA-III/7209

SUPPLIER / CONTRACTOR : L&T CONSTRUCTION

JOB No. : 017129-E-IS

	NAME	SIGN	DATE
DSGN	APV	APV	29.08.17
DRWN	UMN	UMN	29.08.17
CHKD	RAAJ	RAAJ	30.08.17
APPD	SKW	SKW	30.08.17

TITLE : 765/~~400~~kV HYDERABAD (MAHESWARAM) GIS SUBSTATION Extn. OVERALL CABLE TRENCH LAYOUT

SCALE 1: 700

PROJECTION

CHECKED BY	SIGN	DATE
ARCHITECTURE	-	-
CIVIL&STRUCTURAL		5/5/18
PLUMBING&SANITARY	-	-
MECHANICAL		
ELECTRICAL	-	-
INSTRUMENTATION	-	-

DRG. No. 0 1 7 1 2 9 – E – I S – H Y – C L – 1 0 0 8

SHEET 01 OF 01

SIZE A1 REV. B

RELEASED FOR ☐ PRELIMINARY ☐ TENDER ☐ INFORMATION ☑ APPROVAL ☐ CONSTRUCTION

\\Infodatacenter\HYD_KURNOOL_WARANGAL_Extn\1. Electrical Engineering\1.Engineering drawings\Hyderabad\03. Outdoor Cable Trench\01. Working\REV B\017129-E-IS-HY-CL-1008-01-01-B.dwg