



Bharat Heavy Electricals Limited
Material Management Division,
Transmission Business Group,
5th Floor, Advant Navis IT Business Park,
Plot No. 7, Sector-142, Expressway Noida, Noida-201305
Distt. Gautam Budh Nagar (U.P.)
Phones: 0120-6748487

Subject- Corrigendum-3

DATE: 16.11.2016

1. Project : **PGCIL BHUJ AND BANASKANTHA**
2. Equipment / Item : **CCTV/VMS**
3. Enquiry No. / Date : **276E204 , Dtd. 17-10-2016**

With reference to the above tenders, kindly note the corrigendum in enquiry for following.

- (1) Clarification on specification
- (2) Amendment in 765 kV trenchlayout applicable rev -1
- (3) Amendment in 400 kV trenchlayout applicable rev -1
- (4) Amendment in plan layout bhuj applicable rev -2
- (5) Extension of due date of submission and opening of tender upto one week ie upto 23.11.2016 upto 2.00 PM

Opening of the tender shall be at 2:30 PM on same day.

Bhagchand Kumawat
Mgr (TBMM)

NIT no 29839, Enquiry no 276E204, dtd 17/10/2016 for VISUAL MONITORING SYSTEM/CCTV VISUAL MONITORING SYSTEM FOR PGCIL BHUJ AND BANASKANTHA PROJECT

S.No.	Vendor's Query	BHEL Clarification
1	Please confirm we have to cover only Present scope. If Only present scope so please highlight area which we have to cover by VMS.	There is no future scope under this enquiry.
2	Any LM Towers present in substation then please highlight in drawings.	2 numbers TLM has been shown near X=0 line. Pl refer 765kV Revised trench layout.
3	Please confirm only underground cables are laid thorough GI conduits and left cables(power & fiber) through PVC Pipe.	Please refer technical specifications. Special purpose cable are to be laid in GI conduit all along the length. Remaining cables may be laid directly in cable trench. or in PVC Pipe conduit between cable trench to equipments. PVC Pipe shall be free supplied by BHEL.
4	Please confirm We have to cover LT yard or not	Yes, Please refer revised PLAN Layout showing LT Yard opposite to (middle) 765kV Transformer

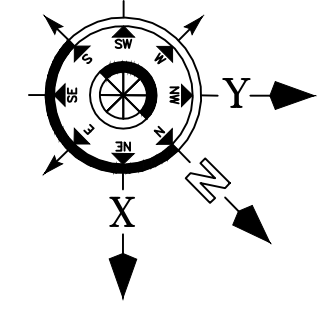
Remark - Following drawings has been updated and attached

1. PLAN Layout

2. 765kV Trench Layout

3. 400kV Trench Layout

FIRST ANGLE PROJECTION (ALL DIMENSIONS ARE IN MM.)



NOTES :-

- ALL DIMENSIONS ARE IN MM.
- THE LOCATION OF CABLE TRENCHES MARKED IN THIS DWG MAY BE SLIGHTLY MODIFIED TO SUIT SITE CONDITIONS.
- OPENINGS FOR TAKING OUT PVC PIPES TO EQUIPMENTS SHALL BE PROVIDED IN CABLE TRENCHES.
- OPENING OF SIZE SUITABLE TO DIA. 50/110 PIPE SHALL BE PROVIDED BELOW TOP CABLE SUPPORT.
- BMB = INDICATES BAY MARSHALLING BOX.
- BMBs SHALL BE PLACED IN THE LOCATION SHOWN. EXACT COORDINATES TO BE SUITABLY DECIDED AT SITE.
- CABLES SHALL BE LAID IN MULTILAYER ON CABLE SUPPORT (ANGLES)
- CABLE SUPPORT SHALL BE PROVIDED AT EVERY 0.75m INTERVAL.
- INSERTS MUST BE EMBEDDED AT EVERY 0.75m INTERVAL FOR FIXING CABLE SUPPORT.
- AUXILIARY POWER CABLES SHALL BE LAID IN TOP TIERS AND CONTROL CABLES IN BOTTOM TIERS, AS PER TECHNICAL SPECIFICATION.
- BURIED CABLEING SHALL BE DONE AS PER SPECIFICATION (INSTALLATION OF CABLES).
- BURIED CABLES FOR LIGHTING PURPOSE SHALL BE AS PER LIGHTING LAYOUT.
- LOCATION OF CABLE TRENCHES INSIDE CONTROL ROOM SHALL BE SHOWN SEPARATELY.
- EARTH CONDUCTOR 50x6 MS FLAT TO BE WELDED ON THE CABLE SUPPORT BEFORE INSTALLATION OF CABLES.
- CABLES CROSSING ROAD/RAIL TRACK SHALL BE LAID IN BOX CULVERT.
- FOR POWER & CONTROL SEPARATE PIPES SHALL BE USED CONSIDERING 60% VOID FOR EACH PIPE I.E., 40% FILLING CRITERIA.
- PLACEMENT OF AC MK KIOSK AND ITS CABLE TRENCH IS TENTATIVE. EXACT COORDINATES TO BE SUITABLY DECIDED AT SITE.
- INDICATES CABLES LAID IN PVC PIPES OF 50/110mm OUTER DIA AT DEPTH OF 300mm (Max.)
- CABLE TRENCH SHALL RUN IN PVC PIPES.
- MARKED THUS (v) INDICATES CABLE ENTRY/EXIT FROM EQUIPMENT.
- ALL OTHER DETAILS PERTAINING TO CIVIL WORKS SHALL BE REFLECTED IN THE RESPECTIVE CIVIL DRAWINGS.
- PVC PIPES SHALL BE SECURELY FIXED AT BOTH ENDS, EITHER EMBEDDED IN CONCRETE OR PROPERLY CLAMPED.
- AFTER LAYING THE CABLES THE ENDS OF PIPES SHALL BE FULLY SEALED TO PREVENT INGRESS OF WATER INSIDE THE PIPE.
- CONTROL CABLES & POWER CABLES MUST BE LAID IN SEPARATE PVC PIPES.
- CABLE TRENCH SHALL BE PROVIDED ON MARSHALLING BOX SIDE OF EQUIPMENT.
- THE PURPOSE OF TRENCH LAYOUT DRAWING IS FOR USE AS FOLLOWS:
 - TO BE USED AS CIVIL INPUT FOR CABLE TRENCHES.
 - FOR ERECTION OF CABLE RACKS AT SITE.
 - FOR CABLE LAYING AND ROUTING AT SITE.
- CABLE RACK AND SUPPORTS SHALL BE PAINTED AFTER INSTALLATION WITH 2 COATS OF METEL PRIMER (COMPRISING OF RED OXIDE & ZINC CHROMATE IN A SYNTHETIC MEDIUM) FOLLOWED BY TWO FINISHING COAT OF ALUMINIUM PAINT.
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- SUITABLE PULL OUT BOX SHALL BE PROVIDED IF REQUIRED WHERE CABLE SHALL BE LAID IN PVC PIPE.
- LONGITUDINAL SLOPE IN CABLE TRENCH SHALL BE TYPICALLY 1:500.
- INDICATE PIPE CULVERT.
- RACK ASSEMBLIES FOR CABLE TRENCHES SHALL BE PROVIDED ON THE FACE OF TRENCH WALL MARKED THUS.
- FOR ALL CIVIL WORKS EXECUTION POWER GRID APPROVED/RELEASED DRGS SHALL BE FOLLOWED.
- UNDERGROUND LAYING OF FIBER OPTIC CABLE SHALL BE DONE IN GI PIPE.

REFERENCE DWG :-

DWG. NO.	TITLE
TB-3-384-510-001B R01	SINGLE LINE DIAGRAM 765/400KV BANASKANTHA S/S
TB-384-510-002	ELECTRICAL LAYOUT PLAN FOR 765/400KV BANASKANTHA S/S
TB-384-607-601	765KV FOUNDATION LAYOUT FOR BANASKANTHA

COMPUTER DRG. PATH NAME :

REF. DRG. NO.

SIGN. & DATE

INVENTORY NO.

PVC PIPES : CLASS IV (AS PER IS:4985)			
S.NO	FROM	TO	FOR TREAT AND LAYING EQUIPMENT
1.	TRENCH	JB (OUT/CT)	1
2.	JB (OUT/CT)	EAIRY PILE OF OUT / CT	1
3.	TRENCH	LOC OF CB	2
4.	TRENCH	NEAR BY BUS BAR	1
5.	TRENCH	400KV ISO/ISO	1
6.	TRENCH	400KV ISO/ISO	1
7.	TRENCH	400KV ISO/ISO	1
8.	TRENCH	400KV ISO/ISO	1
9.	TRENCH	400KV ISO/ISO	1
10.	TRENCH	400KV ISO/ISO	1
11.	TRENCH	400KV ISO/ISO	1
12.	TRENCH	400KV ISO/ISO	1
13.	TRENCH	400KV ISO/ISO	1
14.	TRENCH	400KV ISO/ISO	1
15.	TRENCH	400KV ISO/ISO	1

TABLE-1			
QUANTITY OF VPO BOX PIPE FOR ROAD CROSSING			
S.NO	ASIAN CD	01 NO.	01 NO.
TR-2-2			
TR-3-3			

PVC PIPES : CLASS IV (AS PER IS:4985)			
S.NO	FROM	TO	FOR 60/25KV EQUIPMENTS
1.	TRENCH	JB (OUT/CT)	1
2.	JB (OUT/CT)	EAIRY PILE OF PT / CT	1
3.	TRENCH	LOC OF CB	1
4.	TRENCH	ISO MOMB	1

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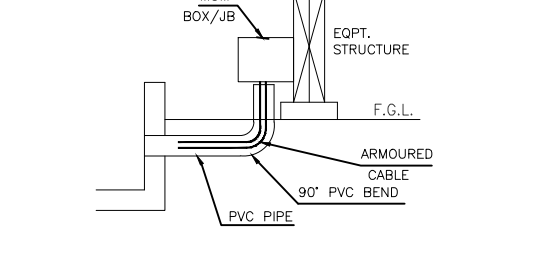
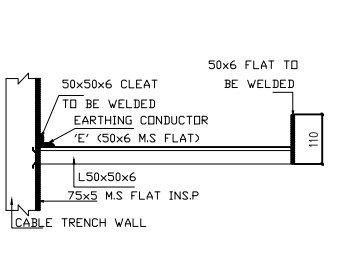
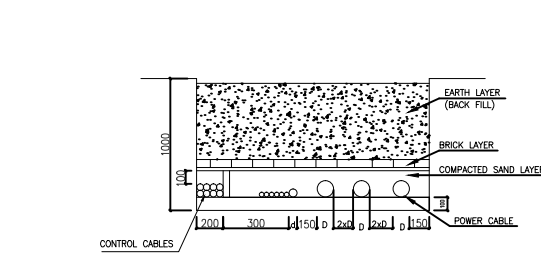
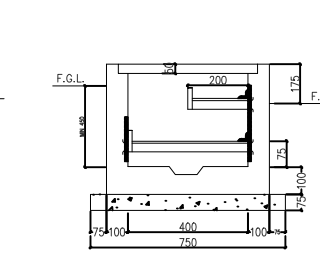
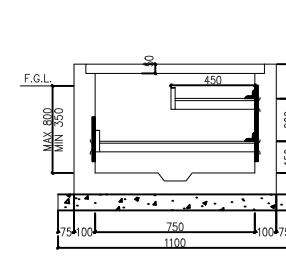
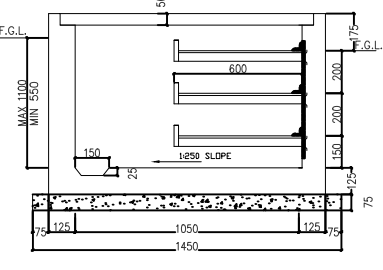
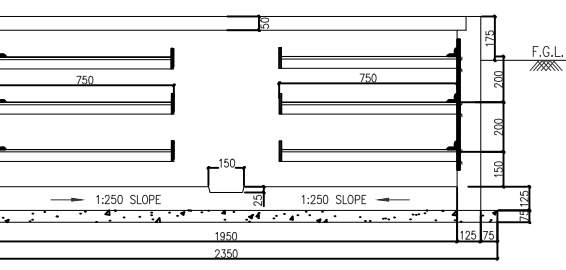
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ADDITIONAL INFORMATION
W.D.No.AA 11035 , PROJECT CODE - 384

STATUS OF DRAWING

POWER GRID CORPORATION OF INDIA LTD

NAME OF PROJECT :-
SS02 for Construction of 765/400/220KV Banaskantha S/S and Extension of 400KV Sankhar (GETCO) S/S with Green Energy Corridors : Inter-State Transmission Scheme (ISTS) - Part B
NOA NO.- CC-CS/483-WR2/SS-2803/11/G8/NOA-II/5507 & 5508 Dtd 01 Sep2015

DISTRIBUTION OF PRINTS

REV.	DATE	ALTERED	SV/KK	-SD-	REMARKS	DATE
01	11.08.16	CHECKED	SK	-SD-	APPROVED AS	03.03.16

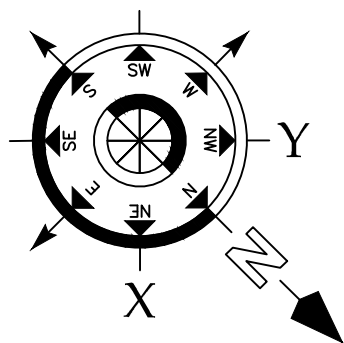
REVISOR'S NAME / SIGN. :
Bharat Heavy Electricals Ltd. TRANSMISSION PROJECTS DIVISION

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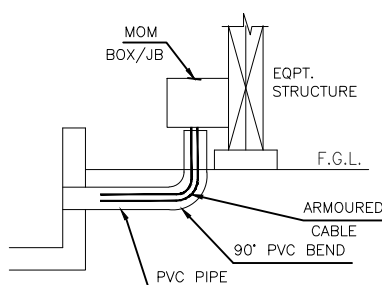
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WG. NO.	TITLE
FB-3-384-510-001B R01	SINGLE LINE DIAGRAM 765/400KV BANASKANTHA S/S
FB-384-510-002	ELECTRICAL LAYOUT PLAN FOR 765/400KV BANASKANTHA S/S
FB-384-607-601	765KV FOUNDATION LAYOUT FOR BANASKANTHA
FB-384-607-602	400KV FOUNDATION LAYOUT FOR BANASKANTHA



DETAIL SHOWING ROUTING OF
CABLE INSIDE PVC PIPE CABLE
TRENCH TO EQUIPMENT

ADDITIONAL INFORMATION W.No.AA 11035 , PROJECT CODE - 384		ग्राहक/परिचालन का नाम NAME OF CUSTOMER		POWER GRID CORPORATION OF INDIA LTD			
STATUS OF DRAWING		NAME OF PROJECT		S202 for Construction of 765/400/220KV Bankantha S/S and Extension of 400KV Sankhari (CETCO) S/S with Green Energy Corridors : Inter-Station Transmission Scheme (ISTS) - Part B NOA NO.- CC-CS/483-WR2/SS-2803/11/G8/NOA-II/5507 & 5508 Dtd 01 Sep 2015			
DISTRIBUTION OF PRINTS		 भारत हेवी इलेक्ट्रिकल्स लिमिटेड भारतीयाभियान परियोजना विभाग BHARAT HEAVY ELECTRICALS LTD. TRANSMISSION PROJECTS DIVISION		कक्षा/कक्षा नाम / NAME वर्ग / SIGN. दि. / DATE		जे.आर. जे.आर. चेक चेक एंगी एंगी	
REV.	DATE	ALTERED	SV/JK	-SD-	डिजाइन	डिजाइन	
01	10.08.16	CHECKED	SK	-SD-	अनुपात	अनुपात	
ZONE		APPROVED	AS	-SD-	कार्ड कोड	कार्ड कोड	
REVISED AS PER PGCL COMMENTS. INVERT LEVEL OF CABLE TRENCH ALSO ADDED.				 उल्लेख / SCALE		कार्ड कोड CARD CODE	
शीटिंग/TITLE CABLE TRENCH LAYOUT - 400KV YARD BANASKANHA SUB STATION				ड्राईंग/DR. /DRAWING NO. TB-384-510-008		पुनः/REV. 01	
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