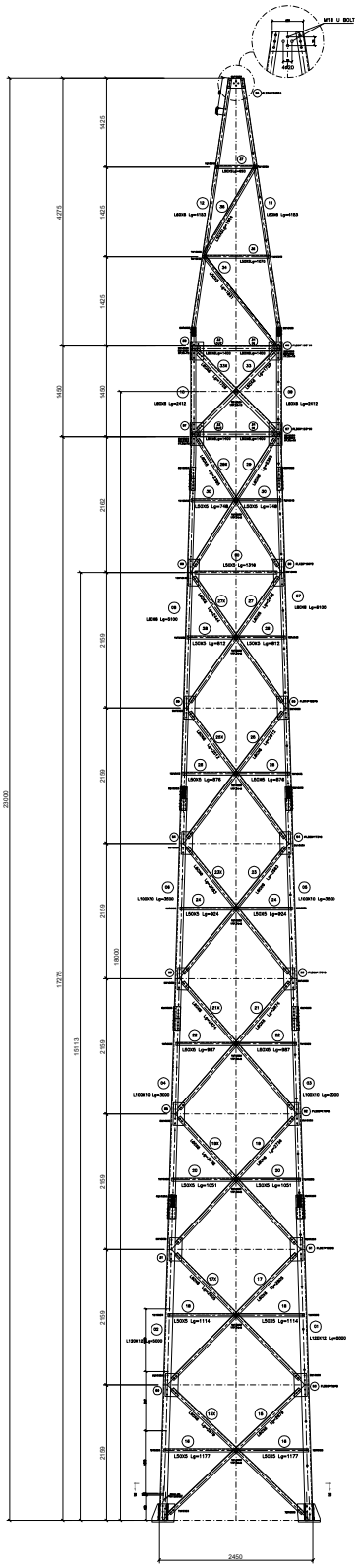
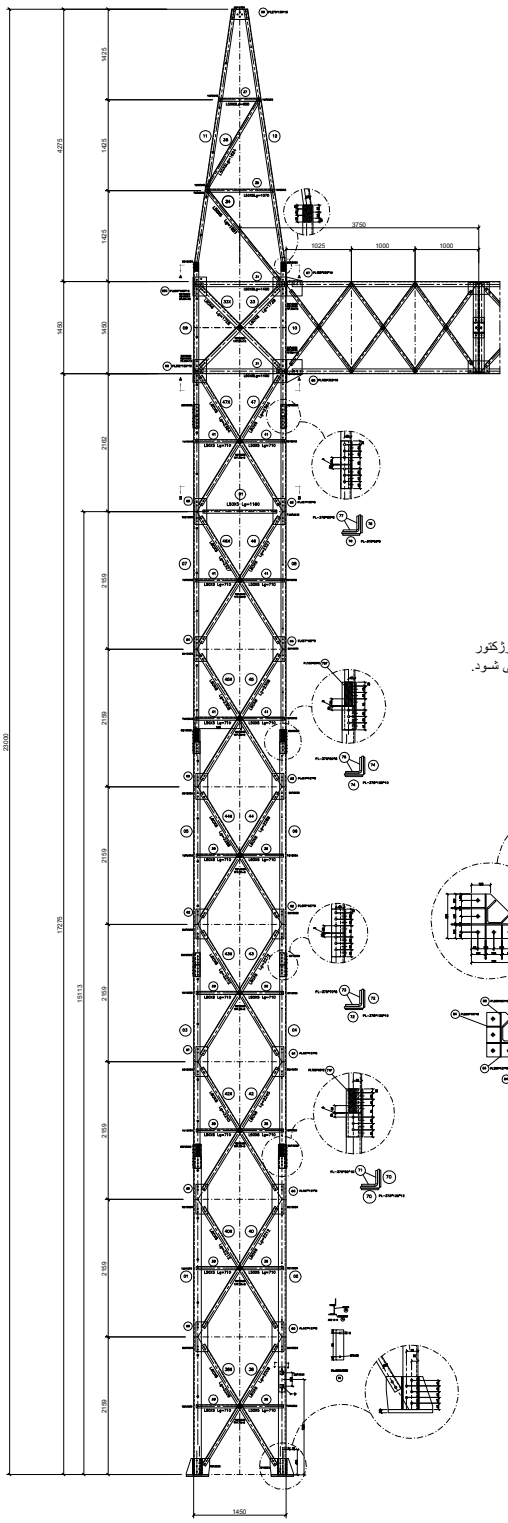
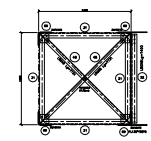


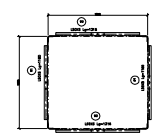
SIDE VIEW



FRONT VIEW

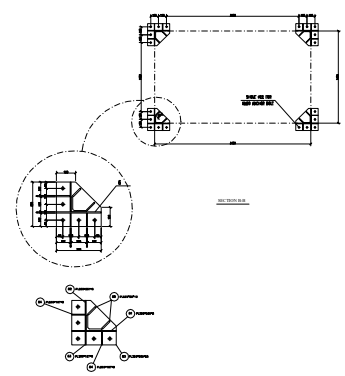


SECTION A-A



SECTION B-B

توجه: پلیت روشنایی بعدا مطابق کاتالوگ پرژکتور سفارش ساخت و به محل پست حمل می شود.



SECTION B-B

NOTES

1- ALL DIMENTION ARE IN mm.

2- ALL DIMENTIONS AND DISTANSES SHALL BE CHECKED BY MANUFACTORERAND WORK-SHOP DWG. SHOULD BE BASED ON CHECKED VALUE.

3-CUTTING THE FLANGS ARE NOT ACCEPTABLE.

4- LEG DISTANCES AT BASE OF GANTRY ARE FROM BACK TO BACK OF LEG ANGLES.

5- "S" IS SHIELDWIRE ATTACHMENT POINT TO COLUMN OF GANTRY.

6- USE BOLT M16 GRADE 8.8 ,Fu=8000 kg/cm2 & Fy=6400 kg/cm2 FOR CONECTIONS.

7- NUMBER OF BOLTS IN OTHER CONNECTIONS THAT ARE NOT SHOWN IN THIS DRAWING ARE 1*M16 (HOLE ø18 FOR M16).

8- S.S :SINGLE SHEAR D.S : DOUBLE SHEAR

9- FOR EACH BOLT: A NUT, A WASHER AND A STANDARD SPRING WASHER ARE NEEDED.

MATERIAL	TYPE	YIELD STRESS kg/cm²	STANDARD
STEEL	ST 37-2	2400	DIN 17100
BOLT	8.8	6400	DIN 933&931
NUT & WASHER	NUT	FLAT WASHER	SPRING WASHER
	DIN 934	DIN 125	DIN 128B
COVERING:	HOT-DIP GALVANIZED ASTM A123(FOR STEEL) & A153(FOR BOLT,NUT,WASHER)		

REV.	VERIFIED BY:	DATE:	DESCRIPTION
02		05/02/21	
01		04/12/07	
00		04/09/24	

CLIENT: MINISTRY OF ENERGY, TRANSMISSION & DISTRIBUTION

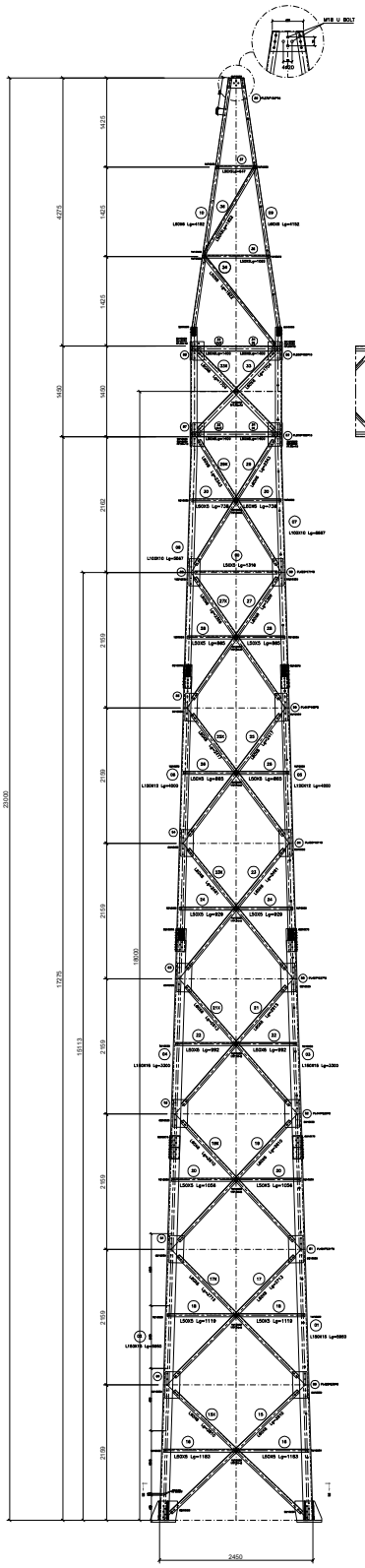
CONSULTING ENGINEERS: MOMIRAN CONSULTING ENGINEERS

PROJECT: ANAMIS 230/63KV SUBSTATION

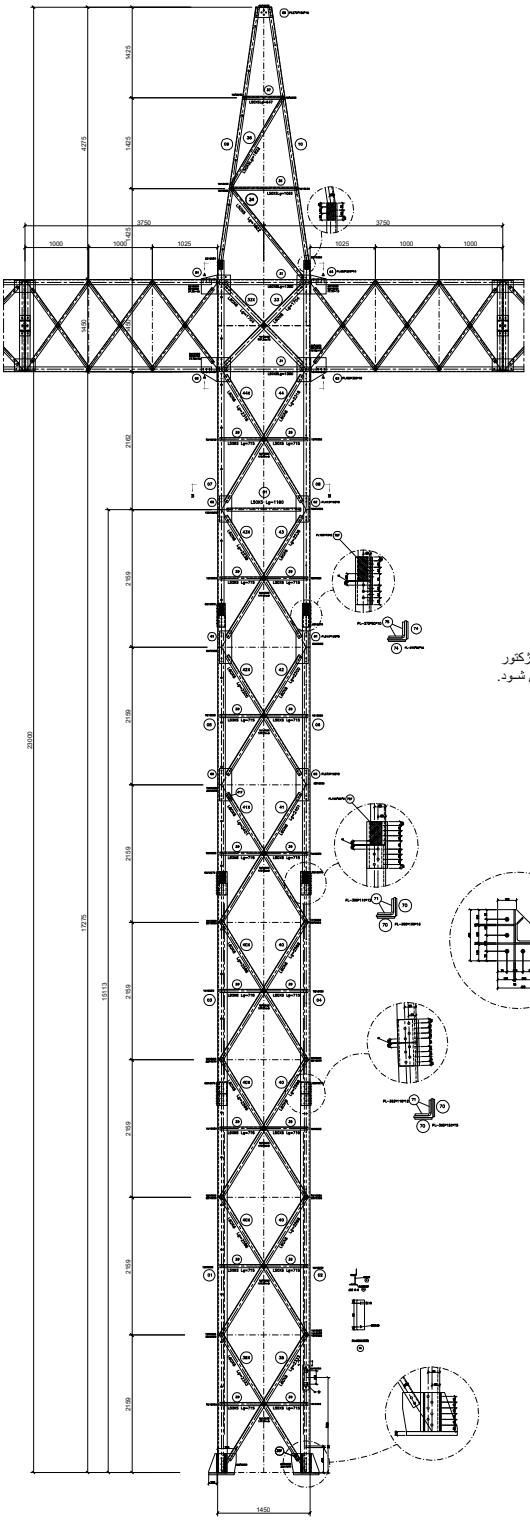
TITLE: STEEL STRUCTURE FOR COLUMN TYPE "2SCG1"

	NAME	PROJECT CODE:	COMPUTER NO. :
DESIGNED:	–	–	–
DRAWN:	–		
CHECKED:	Z.KN	SCALE: –	SIZE: A1
APPROVED:	–		DRAWING NO. : –

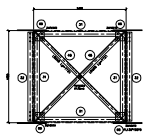
NO : 16



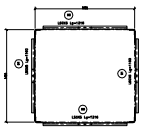
SIDE VIEW



FRONT VIEW

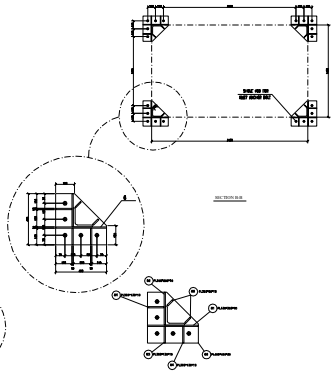


SECTION A-A



SECTION B-B

توجه: پلیـــت روشـــنایی بعـدا مطـابق کاتـــالوگ پـــرژکتور
ســفارش ساخت و بـه محل پســت حمل می شود.



SECTION B-B

NOTES

1- ALL DIMENTION ARE IN mm.

2- ALL DIMENTIONS AND DISTANSES SHALL BE CHECKED BY MANUFACTORERAND WORK-SHOP DWG. SHOULD BE BASED ON CHECKED VALUE.

3-CUTTING THE FLANGS ARE NOT ACCEPTABLE.

4- LEG DISTANCES AT BASE OF GANTRY ARE FROM BACK TO BACK OF LEG ANGLES.

5- "S" IS SHIELDWIRE ATTACHMENT POINT TO COLUMN OF GANTRY.

6- USE BOLT M16 GRADE 8.8 ,Fu=8000 kg/cm2 & Fy=6400 kg/cm2 FOR CONECTIONS.

7- NUMBER OF BOLTS IN OTHER CONNECTIONS THAT ARE NOT SHOWN IN THIS DRAWING ARE 1*M16 (HOLE 18 FOR M16).

8- S.S :SINGLE SHEAR D.S : DOUBLE SHEAR

9- FOR EACH BOLT: A NUT, A WASHER AND A STANDARD SPRING WASHER ARE NEEDED.

MATERIAL	TYPE	YIELD STRESS kg/cm²	STANDARD
STEEL	ST 37-2	2400	DIN 17100
BOLT	8.8	6400	DIN 933&931
NUT & WASHER	NUT	FLAT WASHER	SPRING WASHER
	DIN 934	DIN 125	DIN 128B
COVERING	HOT-DIP GALVANIZED ASTM A123(FOR STEEL) & A153(FOR BOLT,NUT,WASHER)		

NO : 2

REV.	VERIFIED BY:	DATE:	DESCRIPTION
02		05/02/21	
01		04/12/07	
00		04/09/24	

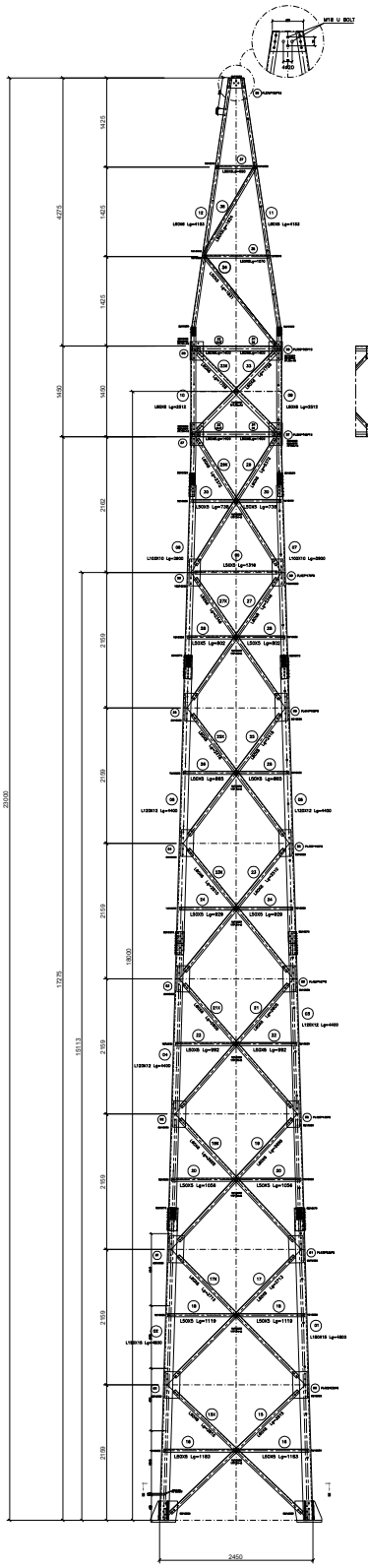
CLIENT: IRANIAN FARAB ELECTRIC POWER DISTRIBUTION MANAGEMENT CO.

PROJECT: ANAMIS 230/63KV SUBSTATION

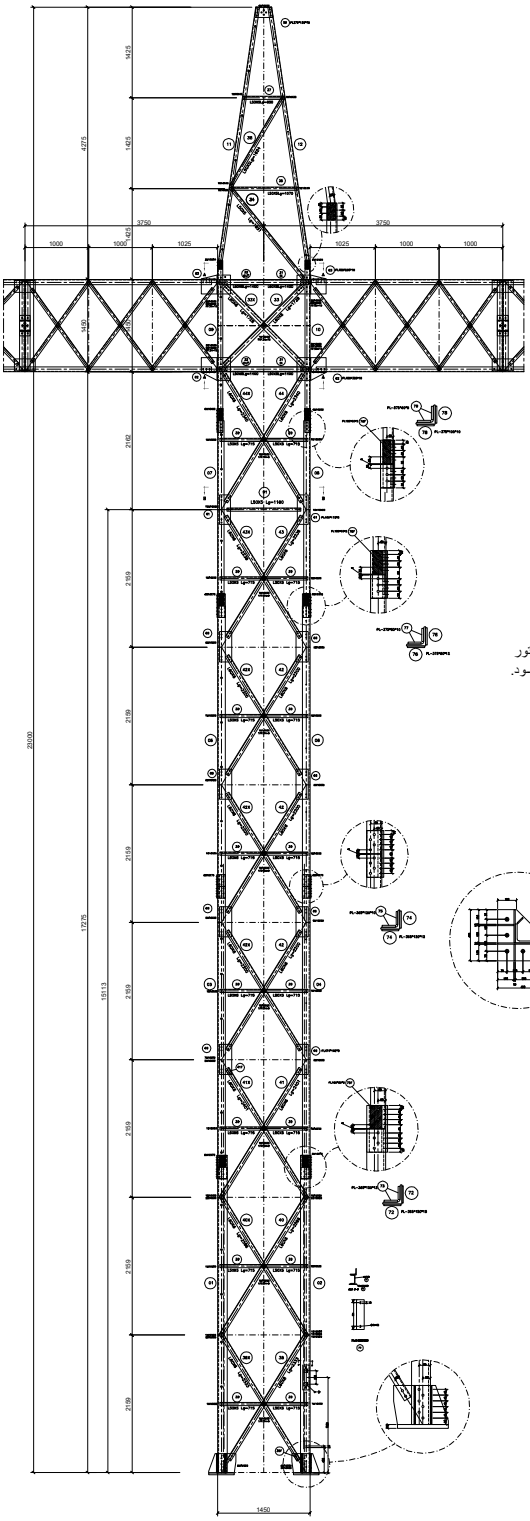
CONSULTING ENGINEERS: MOMRAN CONSULTING ENGINEERS

TITLE: STEEL STRUCTURE FOR COLUMN TYPE "2SC02"

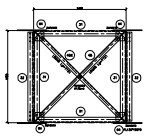
	NAME	PROJECT CODE:	COMPUTER NO. :
DESIGNED:	--	--	--
DRAWN:	--		
CHECKED:	Z.KH	SCALE:	SIZE: A1
APPROVED:	--	-	DRAWING NO. : -



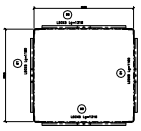
SIDE VIEW



FRONT VIEW

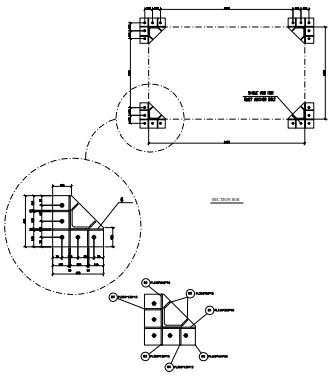


SECTION A-A



SECTION B-B

توجه: پلیت روشنایی بعدا مطابق کاتالوگ پرژکتور سفارش ساخت و به محل پست حمل می شود.



SECTION B-B

NOTES

1- ALL DIMENTION ARE IN mm.

2- ALL DIMENTIONS AND DISTANSES SHALL BE CHECKED BY MANUFACTORERAND WORK-SHOP DWG. SHOULD BE BASED ON CHECKED VALUE.

3-CUTTING THE FLANGS ARE NOT ACCEPTABLE.

4- LEG DISTANCES AT BASE OF GANTRY ARE FROM BACK TO BACK OF LEG ANGLES.

5- "S" IS SHIELDWIRE ATTACHMENT POINT TO COLUMN OF GANTRY.

6- USE BOLT M16 GRADE 8.8 ,Fu=8000 kg/cm2 & Fy=6400 kg/cm2 FOR CONECTIONS.

7- NUMBER OF BOLTS IN OTHER CONNECTIONS THAT ARE NOT SHOWN IN THIS DRAWING ARE 1*M16 (HOLE ø18 FOR M16).

8- S.S :SINGLE SHEAR D.S : DOUBLE SHEAR

9- FOR EACH BOLT: A NUT, A WASHER AND A STANDARD SPRING WASHER ARE NEEDED.

MATERIAL	TYPE	YIELD STRESS kg/cm²	STANDARD
STEEL	ST 37-2	2400	DIN 17100
BOLT	8.8	6400	DIN 933&931
NUT & WASHER	NUT	FLAT WASHER	SPRING WASHER
	DIN 934	DIN 125	DIN 128B
COVERING:	HOT-DIP GALVANIZED ASTM A123(FOR STEEL) & A153(FOR BOLT,NUT,WASHER)		

REV.	VERIFIED BY:	DATE:	DESCRIPTION
02		05/02/21	
01		04/12/07	
00		04/09/24	

CLIENT: MINISTRY OF ENERGY, TRANSMISSION & DISTRIBUTION

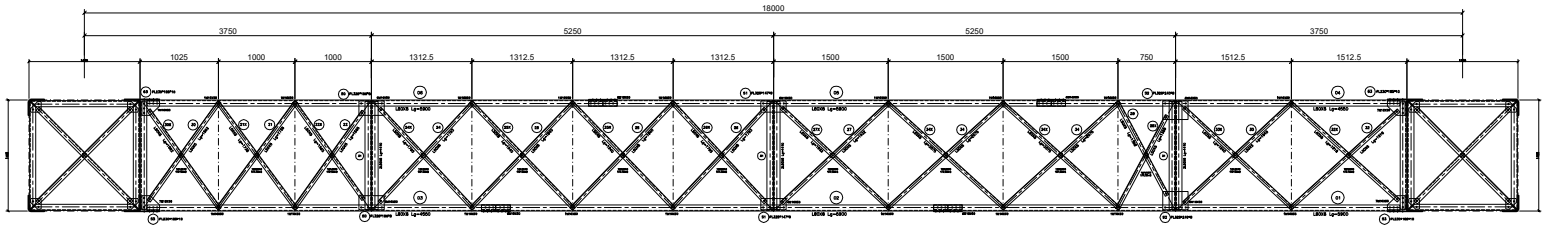
CONSULTING ENGINEERS: MOMIRAN CONSULTING ENGINEERS

PROJECT: ANAMIS 230/63KV SUBSTATION

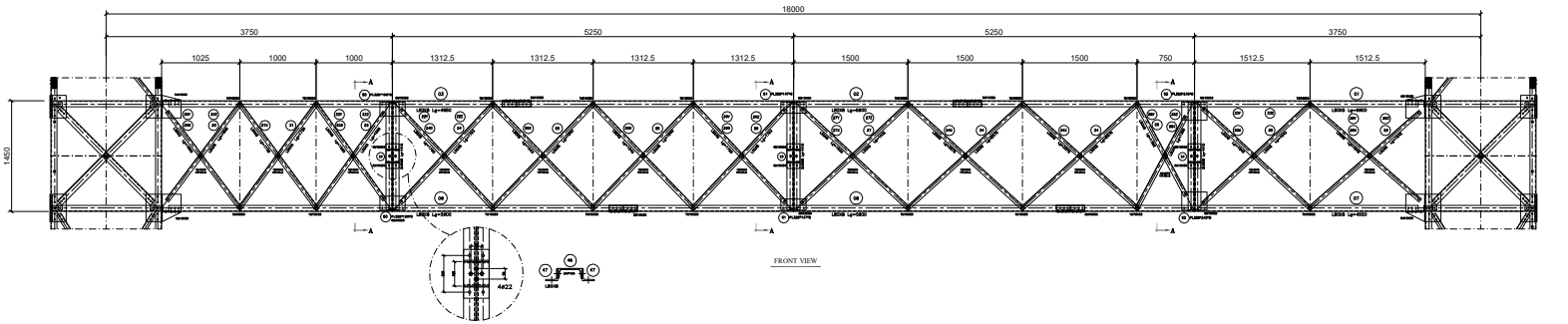
TITLE: STEEL STRUCTURE FOR COLUMN TYPE "2SCG3"

	NAME	PROJECT CODE:	COMPUTER NO. :
DESIGNED:	–	–	–
DRAWN:	–		
CHECKED:	Z.KN	SCALE: –	SIZE: A1	DRAWING NO. : –
APPROVED:	–		

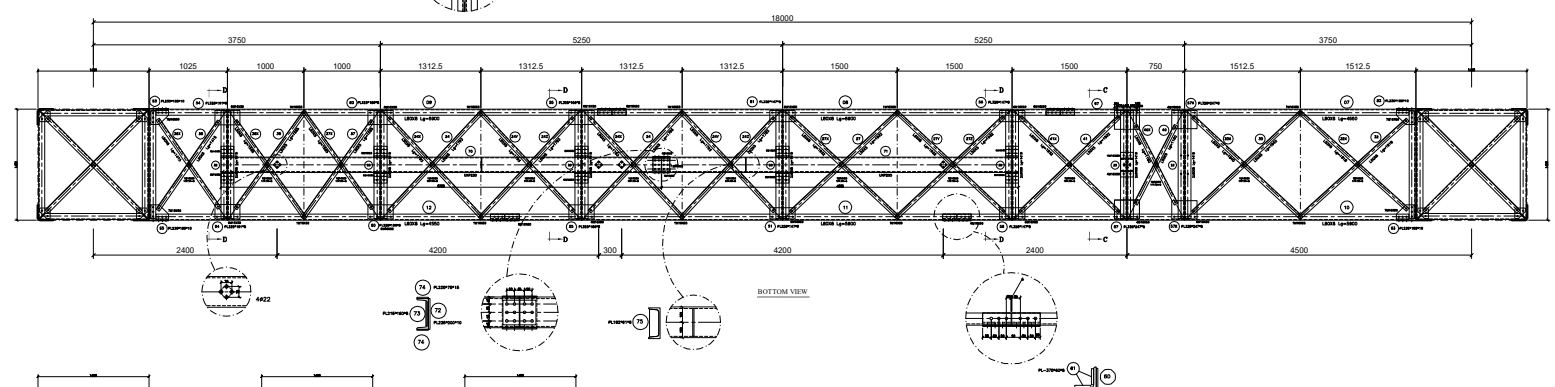
NO : 6



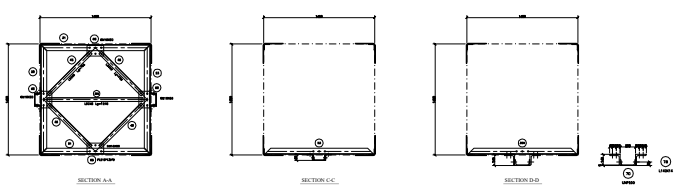
TOP VIEW



FRONT VIEW



BOTTOM VIEW



SECTION A-A

SECTION C-C

SECTION D-D

NO : 4

NOTES

1- ALL DIMENTION ARE IN mm.

2- ALL DIMENTIONS AND DISTANSES SHALL BE CHECKED BY MANUFACTORERAND WORK-SHOP DWG. SHOULD BE BASED ON CHECKED VALUE.

3-CUTTING THE FLANGS ARE NOT ACCEPTABLE.

4- LEG DISTANCES AT BASE OF GANTRY ARE FROM BACK TO BACK OF LEG ANGLES.

5- "S" IS SHIELDWIRE ATTACHMENT POINT TO COLUMN OF GANTRY.

6- USE BOLT M16 GRADE 8.8 ,Fu=8000 kg/cm2 & Fy=6400 kg/cm2 FOR CONECTIONS.

7- NUMBER OF BOLTS IN OTHER CONNECTIONS THAT ARE NOT SHOWN IN THIS DRAWING ARE 1*M16 (HOLE ø18 FOR M16).

8- S.S :SINGLE SHEAR D.S : DOUBLE SHEAR

9- FOR EACH BOLT: A NUT, A WASHER AND A STANDARD SPRING WASHER ARE NEEDED.

MATERIAL	TYPE	YIELD STRESS kg/cm2	STANDARD
STEEL	ST 37-2	2400	DIN 17100
BOLT	8.8	6400	DIN 933&931
NUT & WASHER	NUT	FLAT WASHER	SPRING WASHER
	DIN 934	DIN 125	DIN 128B
COVERING: HOT-DIP GALVANIZED ASTM A123(FOR STEEL) & A153(FOR BOLT,NUT,WASHER)			

REV.	VERIFIED BY:	DATE:	DESCRIPTION
02		05/02/21	
01		04/12/07	
00		04/09/24	

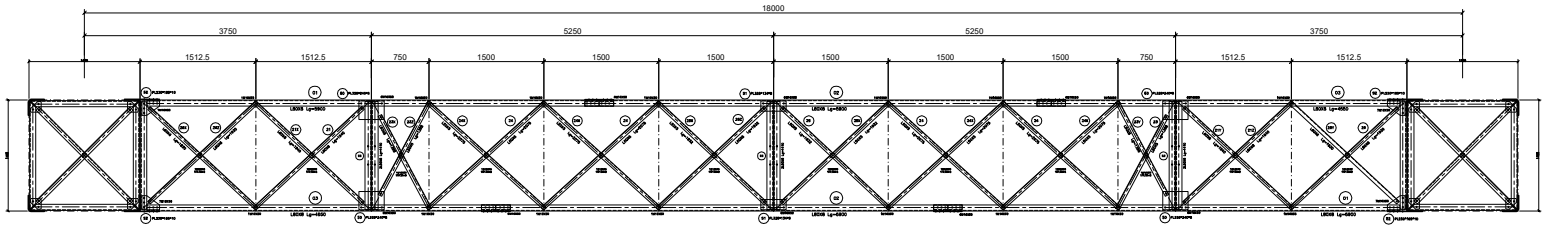
CLIENT: DESIGNING DEPARTMENT ELECTRICAL

CONSULTING ENGINEERS: MONIRAN CONSULTING ENGINEERS

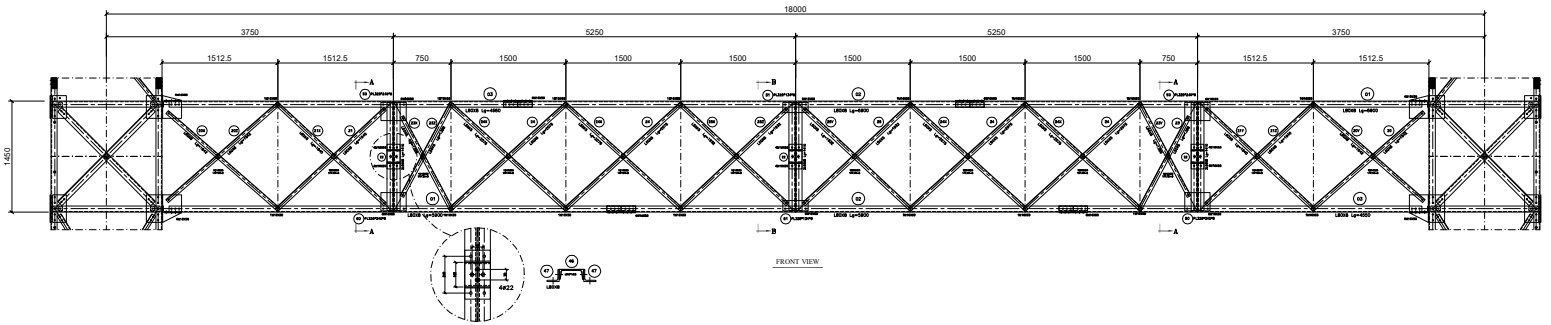
PROJECT: ANAMIS 230/63KV SUBSTATION

TITLE: STEEL STRUCTURE FOR COLUMN TYPE "2SBG1"

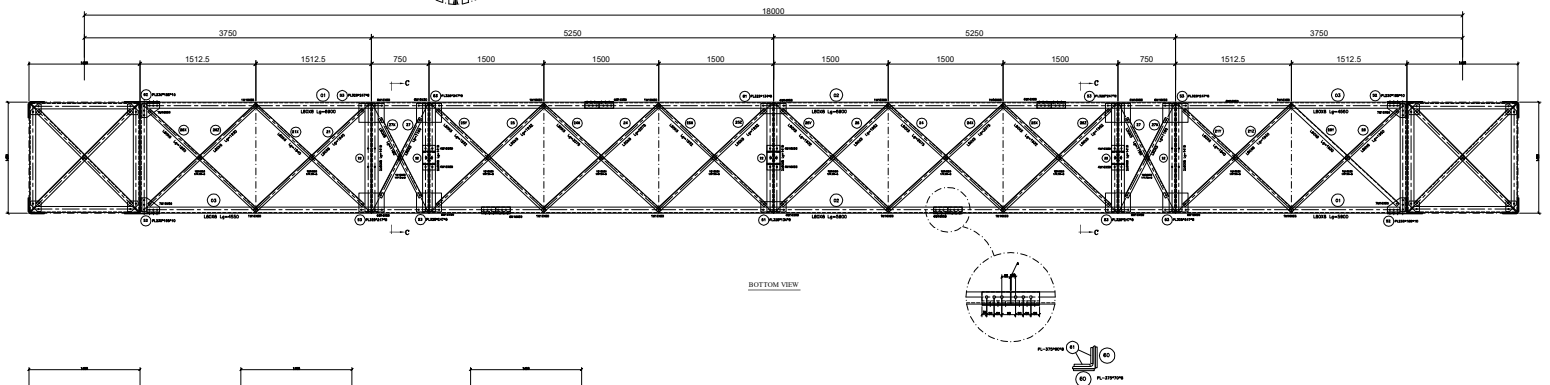
	NAME	PROJECT CODE:	COMPUTER NO. :
DESIGNED:	–	–	–
DRAWN:	–		
CHECKED:	Z.KH	SCALE: –	SIZE: A1
APPROVED:	–		DRAWING NO. : –



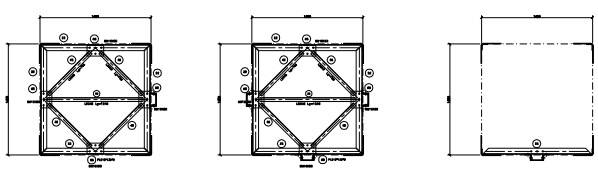
TOP VIEW



FRONT VIEW



BOTTOM VIEW



SECTION A-A

SECTION B-B

SECTION C-C

NOTES

1- ALL DIMENTION ARE IN mm.

2- ALL DIMENTIONS AND DISTANSES SHALL BE CHECKED BY MANUFACTORERAND WORK-SHOP DWG. SHOULD BE BASED ON CHECKED VALUE.

3-CUTTING THE FLANGS ARE NOT ACCEPTABLE.

4- LEG DISTANCES AT BASE OF GANTRY ARE FROM BACK TO BACK OF LEG ANGLES.

5- "S" IS SHIELDWIRE ATTACHMENT POINT TO COLUMN OF GANTRY.

6- USE BOLT M16 GRADE 8.8 ,Fu=8000 kg/cm2 & Fy=6400 kg/cm2 FOR CONECTIONS.

7- NUMBER OF BOLTS IN OTHER CONNECTIONS THAT ARE NOT SHOWN IN THIS DRAWING ARE 1*M16 (HOLE ø18 FOR M16).

8- S.S :SINGLE SHEAR D.S : DOUBLE SHEAR

9- FOR EACH BOLT: A NUT, A WASHER AND A STANDARD SPRING WASHER ARE NEEDED.

MATERIAL	TYPE	YIELD STRESS kg/cm^2	STANDARD
STEEL	ST 37-2	2400	DIN 17100
BOLT	8.8	6400	DIN 933&931
NUT & WASHER	NUT	FLAT WASHER	SPRING WASHER
	DIN 934	DIN 125	DIN 128B
COVERING: HOT-DIP GALVANIZED ASTM A123(FOR STEEL) & A153(FOR BOLT,NUT,WASHER)			

REV.	VERIFIED BY:	DATE:	DESCRIPTION
02		05/02/21	
01		04/12/07	
00		04/09/24	

CLIENT: TECHNICAL DEPARTMENT ELECTRICAL

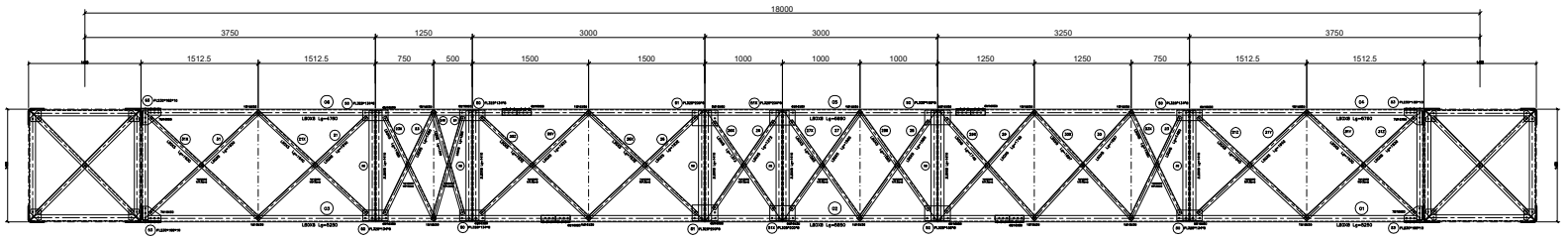
CONSULTING ENGINEERS: MONIRAN CONSULTING ENGINEERS

PROJECT: ANAMIS 230/63KV SUBSTATION

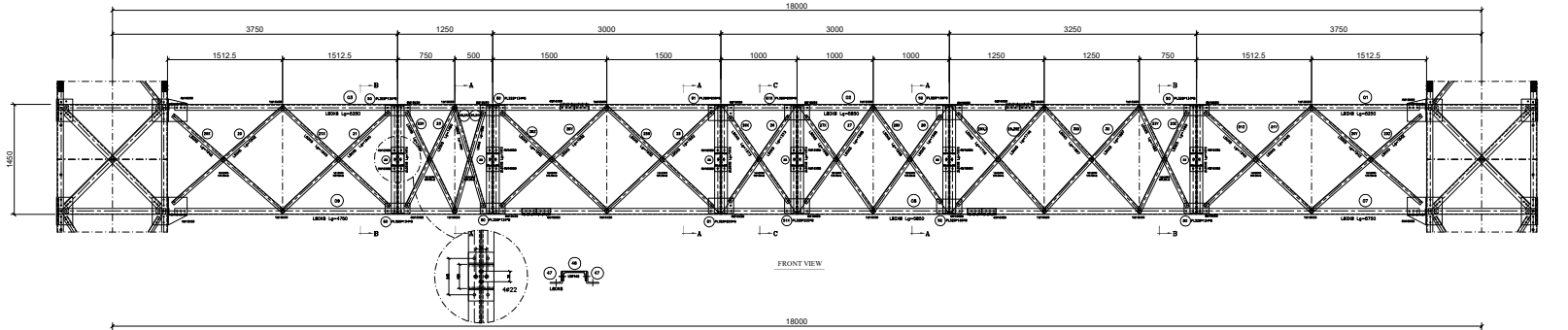
TITLE: STEEL STRUCTURE FOR COLUMN TYPE "2SBG2"

	NAME	PROJECT CODE:	COMPUTER NO. :
DESIGNED:	–	–	–
DRAWN:	–		
CHECKED:	Z.KH	SCALE: –	SIZE: A1
APPROVED:	–		DRAWING NO. : –

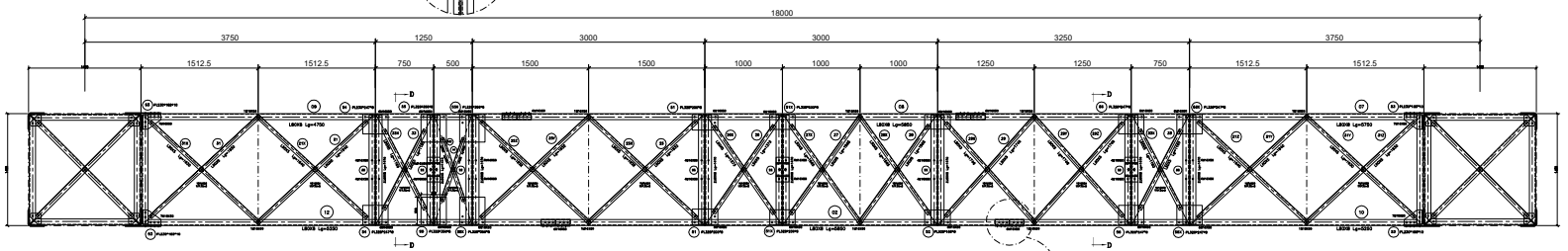
NO : 9



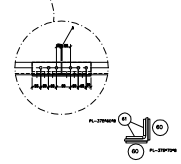
TOP VIEW

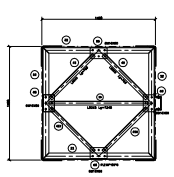


FRONT VIEW

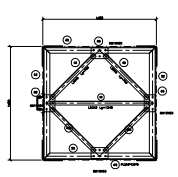


BOTTOM VIEW

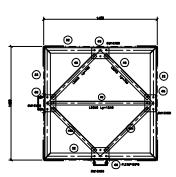




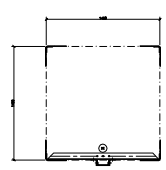
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

NO : 1

NOTES

1- ALL DIMENTION ARE IN mm.

2- ALL DIMENTIONS AND DISTANSES SHALL BE CHECKED BY MANUFACTORERAND WORK-SHOP DWG. SHOULD BE BASED ON CHECKED VALUE.

3-CUTTING THE FLANGS ARE NOT ACCEPTABLE.

4- LEG DISTANCES AT BASE OF GANTRY ARE FROM BACK TO BACK OF LEG ANGLES.

5- "S" IS SHIELDWIRE ATTACHMENT POINT TO COLUMN OF GANTRY.

6- USE BOLT M16 GRADE 8.8 ,Fu=8000 kg/cm2 & Fy=6400 kg/cm2 FOR CONECTIONS.

7- NUMBER OF BOLTS IN OTHER CONNECTIONS THAT ARE NOT SHOWN IN THIS DRAWING ARE 1*M16 (HOLE #18 FOR M16).

8- S.S :SINGLE SHEAR D.S : DOUBLE SHEAR

9- FOR EACH BOLT: A NUT, A WASHER AND A STANDARD SPRING WASHER ARE NEEDED.

MATERIAL	TYPE	YIELD STRESS kg/cm²	STANDARD
STEEL	ST 37-2	2400	DIN 17100
BOLT	8.8	6400	DIN 933&931
NUT & WASHER	NUT	FLAT WASHER	SPRING WASHER
	DIN 934	DIN 125	DIN 128B
COVERING:	HOT-DIP GALVANIZED ASTM A123(FOR STEEL) & A153(FOR BOLT,NUT,WASHER)		

REV.	VERIFIED BY:	DATE:	DESCRIPTION
02		05/02/21	
01		04/12/07	
00		04/09/24	

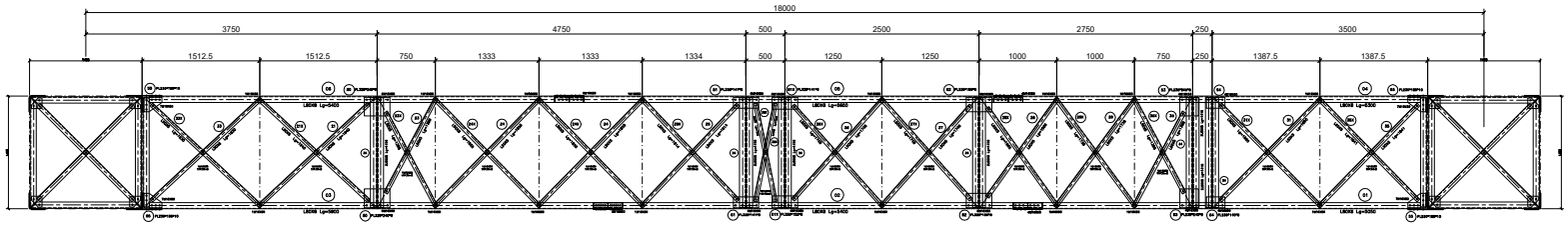
CLIENT: MOMBASA AIR SERVICE ELECTRIC CO

CONSULTING ENGINEERS: MOMBAN CONSULTING ENGINEERS

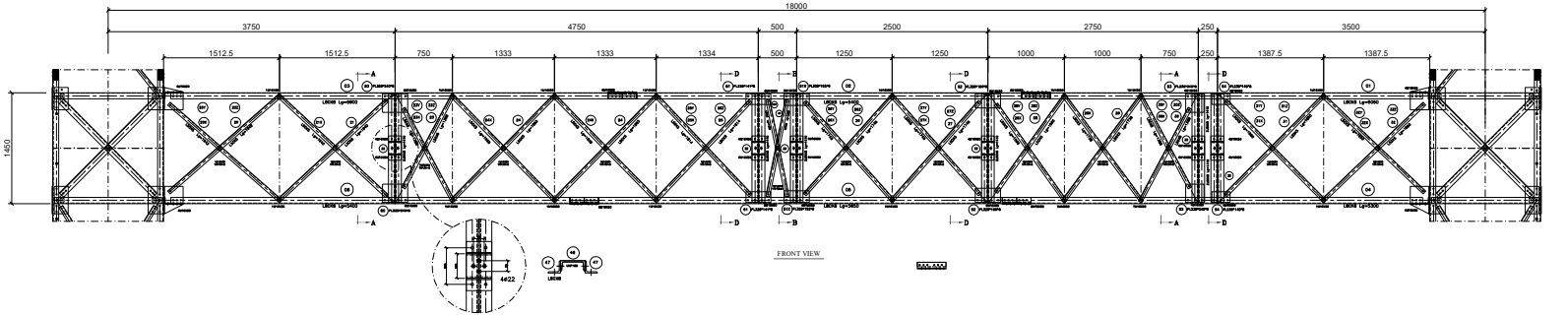
PROJECT: ANAMIS 230/63KV SUBSTATION

TITLE: STEEL STRUCTURE FOR COLUMN TYPE "2SBG3"

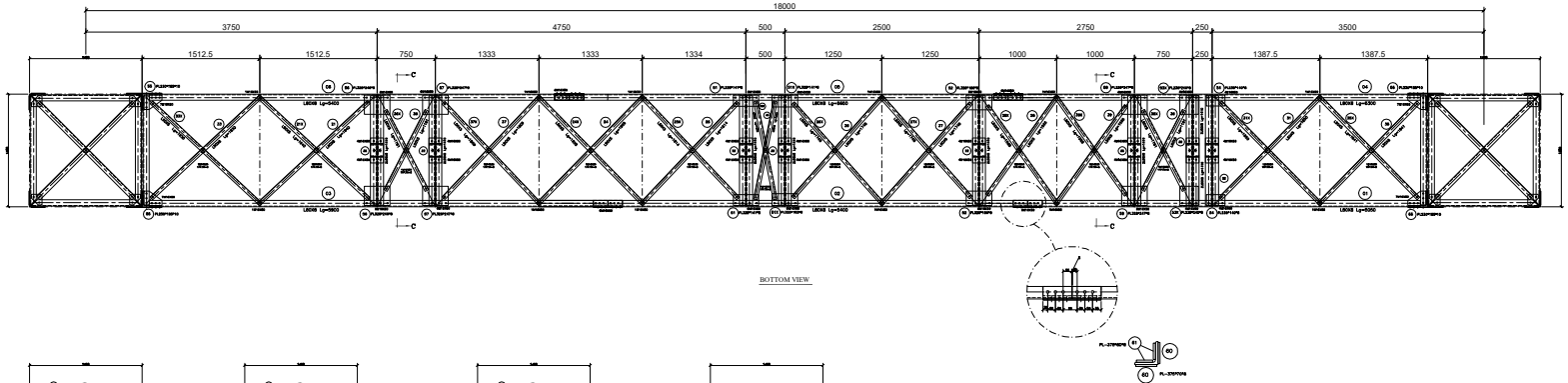
	NAME	PROJECT CODE:	COMPUTER NO. :
DESIGNED:	–	–	–
DRAWN:	–		
CHECKED:	Z.KH	SCALE: – SIZE: A1	DRAWING NO. : –
APPROVED:	–		



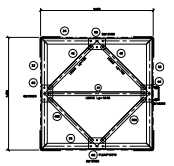
TOP VIEW



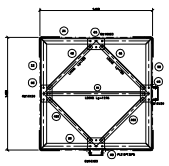
FRONT VIEW



BOTTOM VIEW



SECTION A-A



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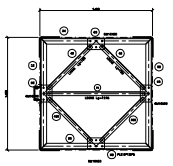
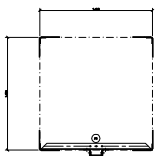


SECTION D-D



SECTION C-C

NO : 1

NOTES

1- ALL DIMENTION ARE IN mm.

2- ALL DIMENTIONS AND DISTANSES SHALL BE CHECKED BY MANUFACTORERAND WORK-SHOP DWG. SHOULD BE BASED ON CHECKED VALUE.

3-CUTTING THE FLANGS ARE NOT ACCEPTABLE.

4- LEG DISTANCES AT BASE OF GANTRY ARE FROM BACK TO BACK OF LEG ANGLES.

5- "y" IS SHEILDWIRE ATTACHMENT POINT TO COLUMN OF GANTRY.

6- USE BOLT M16 GRADE 8.8 Fu=8000 kg/cm2 & Fy=6400 kg/cm2 FOR CONECTIONS.

7- NUMBER OF BOLTS IN OTHER CONNECTIONS THAT ARE NOT SHOWN IN THIS DRAWING ARE 1*M16 (HOLE ø18 FOR M16).

8- S.S :SINGLE SHEAR D.S : DOUBLE SHEAR

9- FOR EACH BOLT: A NUT, A WASHER AND A STANDARD SPRING WASHER ARE NEEDED.

MATERIAL	TYPE	YIELD STRESS kg/cm²	STANDARD
STEEL	ST 37-2	2400	DIN 17100
BOLT	8.8	6400	DIN 933&931
NUT & WASHER	NUT	FLAT WASHER	SPRING WASHER
	DIN 934	DIN 125	DIN 128B
COVERING:	HOT-DIP GALVANIZED ASTM A123(FOR STEEL) & A153(FOR BOLT,NUT,WASHER)		

REV.	VERIFIED BY:	DATE:	DESCRIPTION
02		05/02/21	
01		04/12/07	
00		04/09/24	

CLIENT:

CONSULTING ENGINEERS: MONIRAN CONSULTING ENGINEERS

PROJECT: ANAMIS 230/63KV SUBSTATION

TITLE: STEEL STRUCTURE FOR COLUMN TYPE "2SBC4"

	NAME
DESIGNED:	--
DRAWN:	--
CHECKED:	Z.KH
APPROVED:	--

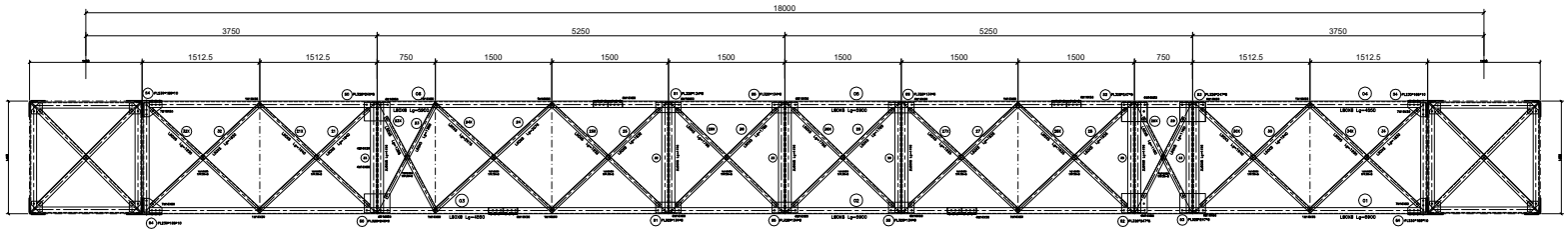
PROJECT CODE: --

SCALE: --

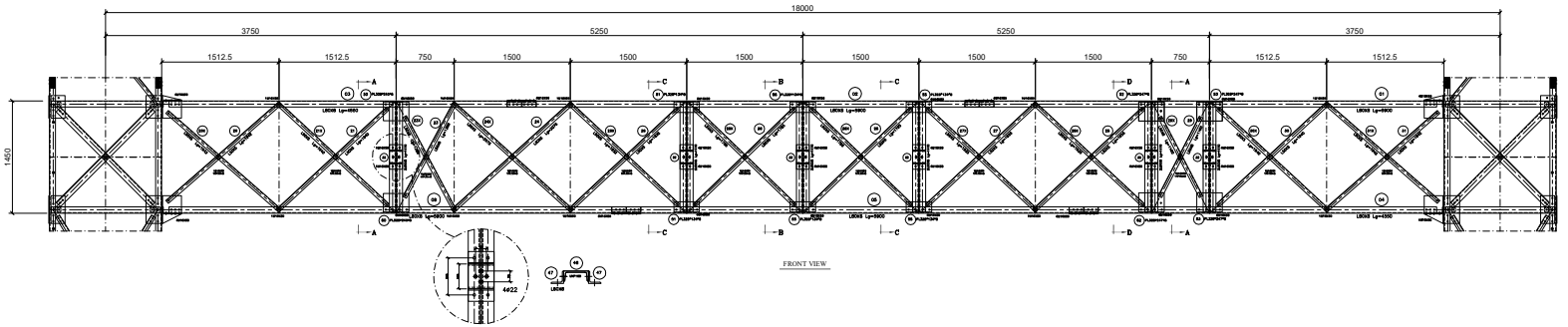
SIZE: A1

COMPUTER NO. : --

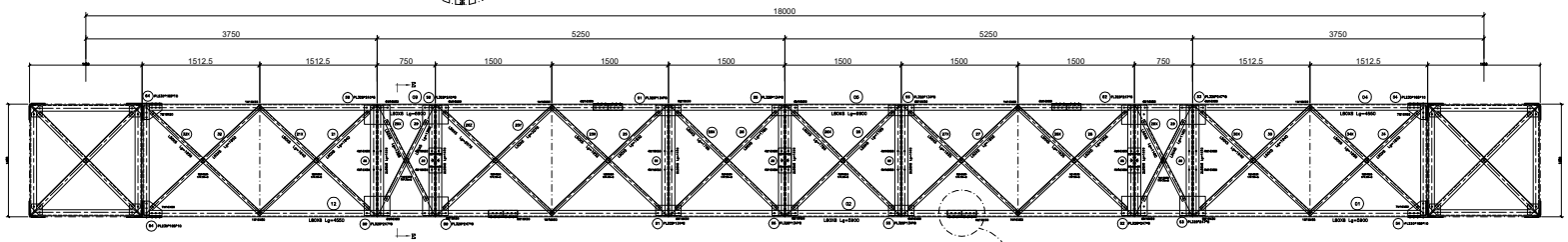
DRAWING NO. : --



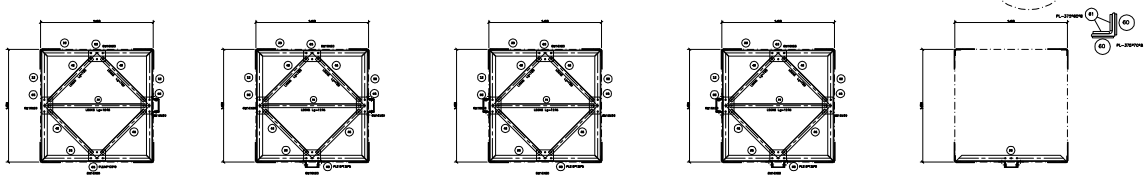
TOP VIEW



FRONT VIEW



BOTTOM VIEW



SECTION A-A SECTION B-B SECTION C-C SECTION D-D SECTION E-E

NOTES

1- ALL DIMENTION ARE IN mm.

2- ALL DIMENTIONS AND DISTANSES SHALL BE CHECKED BY MANUFACTORERAND WORK-SHOP DWG. SHOULD BE BASED ON CHECKED VALUE.

3-CUTTING THE FLANGS ARE NOT ACCEPTABLE.

4- LEG DISTANCES AT BASE OF GANTRY ARE FROM BACK TO BACK OF LEG ANGLES.

5- "S" IS SHIELDWIRE ATTACHMENT POINT TO COLUMN OF GANTRY.

6- USE BOLT M16 GRADE 8.8 Fu=8000 kg/cm2 & Fy=6400 kg/cm2 FOR CONECTIONS.

7- NUMBER OF BOLTS IN OTHER CONNECTIONS THAT ARE NOT SHOWN IN THIS DRAWING ARE 1*M16 (HOLE ø18 FOR M16).

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MATERIAL	TYPE	YIELD STRESS kg/cm²	STANDARD
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BOLT	8.8	6400	DIN 933&931
NUT & WASHER	NUT	FLAT WASHER	SPRING WASHER
	DIN 934	DIN 125	DIN 128B
COVERING:	HOT-DIP GALVANIZED ASTM A123(FOR STEEL) & A153(FOR BOLT,NUT,WASHER)		

NO : 1

REV.	VERIFIED BY:	DATE:	DESCRIPTION
01		04/12/07	
00		04/09/24	

CLIENT:

CONSULTING ENGINEERS: MONIRAN CONSULTING ENGINEERS

PROJECT: ANAMIS 230/63KV SUBSTATION

TITLE: STEEL STRUCTURE FOR COLUMN TYPE "2SBGS"

	NAME
DESIGNED:	–
DRAWN:	–
CHECKED:	Z.KH
APPROVED:	–

PROJECT CODE: –

SCALE: –

SIZE: A1

COMPUTER NO. : –

DRAWING NO. : –