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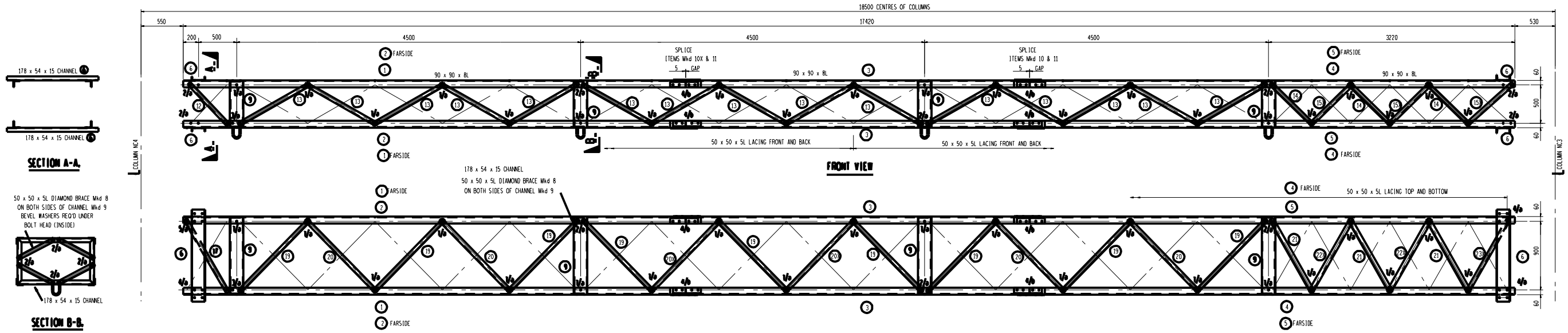


FRONT VIEW

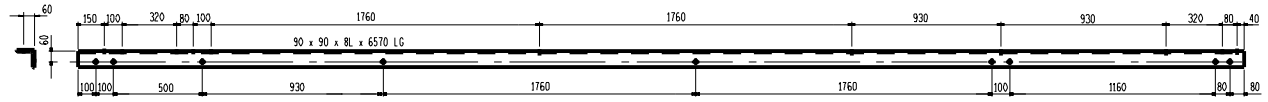
SECTION A-A.

SECTION B-B.

TOP VIEW

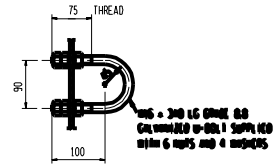
BEAM ASSEMBLY DETAILS

1:20



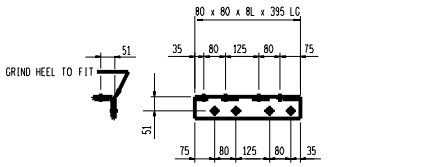
2 - MAIN ANGLES REQ'D AS DRAWN Mkd 1

1:5



M16 SHACKLE BOLT - 4 NO OFF REQ'D

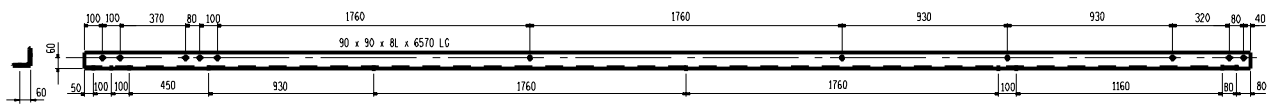
1:5



4 - SPLICE ANGLES REQ'D AS DRAWN Mkd 10

4 - SPLICE ANGLES REQ'D TO OPPOSITE HAND Mkd 10X

1:10



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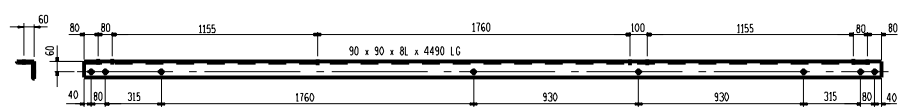
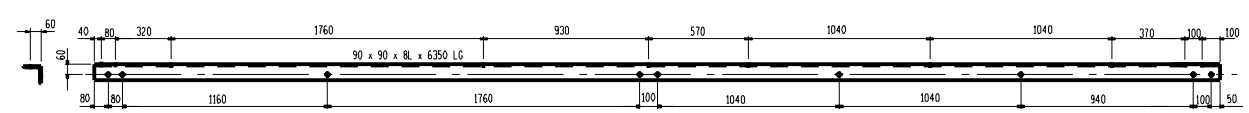
1:5



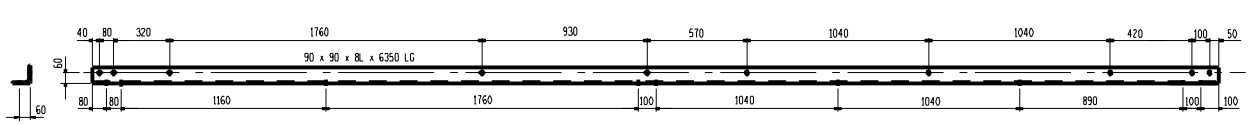
4 - MAIN ANGLES REQ'D AS DRAWN Mkd 3

1:5



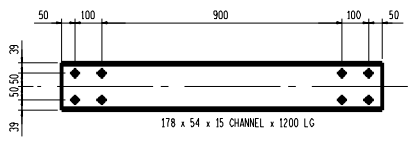
2 - MAIN ANGLES REQ'D AS DRAWN Mkd 4

1:5



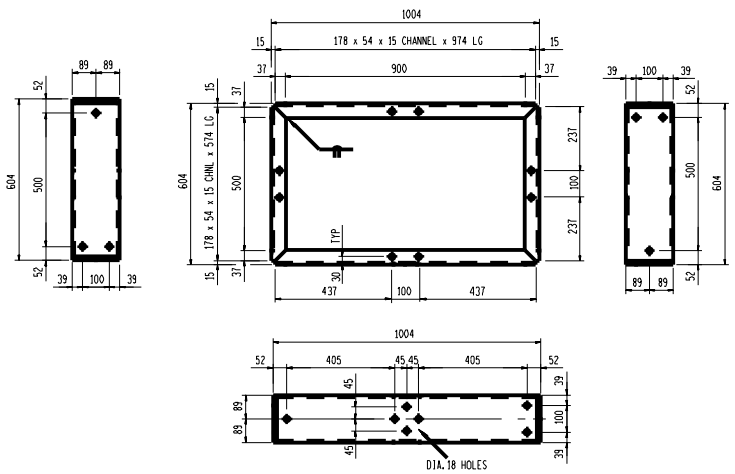
2 - MAIN ANGLES REQ'D AS DRAWN Mkd 5

1:5



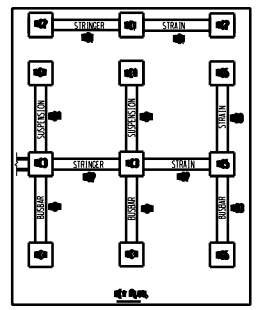
4 - BRACKET REQ'D AS DRAWN AND NOTED Mkd 6

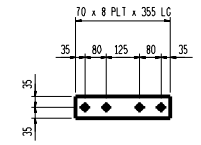
1:10



4 - ATTACHMENT MEMBERS REQ'D AS DRAWN Mkd 9

1:10

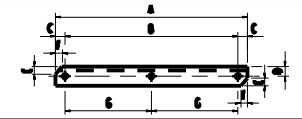




16 - SPLICE PLATES REQ'D AS DRAWN Mkd 11

1:10

LACING / BRACING SCHEDULE



units	NO OFF	SIZE	A	B	C	D	E	F
17.	2.	50.0.50.0.5.	1510.	1005.	32.	20.	...	...
13.	28.	50.0.50.0.5.	1005.	1004.	32.	20.	...	...
14.	6.	50.0.50.0.5.	1105.	1271.	32.	20.	...	...
15R	6.	50.0.50.0.5.	1105.	1271.	32.	20.	5.	5.
17.	2.	50.0.50.0.5.	1107.	1520.	32.	20.	...	...
19.	10.	50.0.50.0.5.	1372.	1220.	32.	20.	...	...
20.	6.	50.0.50.0.5.	1372.	1220.	32.	20.	5.	5.
20R	2.	50.0.50.0.5.	...	...	...	...	...	...
21.	6.	50.0.50.0.5.	1107.	1520.	32.	20.	...	...
22R	2.	50.0.50.0.5.	1103.	1520.	32.	20.	5.	5.
23R	2.	50.0.50.0.5.	1073.	1295.	32.	20.	5.	5.
...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...
...	...	BRACING	A	B	C	D	E	...
0.	29.	50.0.50.0.5.	540.	496.	32.	20.	220.	...
...	...	...	...	...	...	...	...	...

* DENOTES OPPOSITE TO WHICH DETAIL ABOVE.

MASS OF STEELWORK (BOLTS EXCLUDED)	...1496 kg
NO.OFF GRADE 8.8 M-BOLTS	1...
NO.OFF GRADE 8.8 BOLTS	207.

BOLT SCHEDULE

SUSPENSION GRADE 8.8			
marks	TYPE	NO OFF	LENGTH
.A.	M16	210	45.
.B.	M16	60.	50.
...	...	...	...
...	...	...	...
40 MM LEVEL WASHERS REQ'D.			

NOTES ON BOLTS:
1) BOLTS TO BE SUPPLIED with nut and washer.
2) BOLTS DRILLED with HEAD TO INSIDE REQUIRED.
3) WASHER TO BE PLACED UNDER nut.
4) ALL BOLTS TO BE GALVANIZED.
5) BOLT POSITIONS INDICATED THUS NO OFF/mark eg.4/a
6) TIGHTENING TORQUE = 100 Nm

NOTES

UNLESS OTHERWISE NOTED :
1) DIMENSIONED SHOWN ARE FOR ONE BEAM ONLY.
2) ALL SURFACTION, STEEL TO BE GRADE 300W.
3) ALL STEELWORK TO BE HOT DIP GALVANIZED TO S.A.B.S. 763.
4) ALL HOLES TO BE 18 DIAMETER DRILL.
5) OPEN HOLES AND SLOTTED BOLTS INDICATED THUS: + ⊥⊥.
6) THE CONTRACTOR SHALL SUPPLY ALL NUTS, BOLTS, WASHERS, ETC, REQUIRED FOR ERECTION.
7) ALL PORTIONS OF WELDED JOINTS, NOT SEALED BY SURFACTION, WELD, SHALL BE SEAL WELDED.
8) ALL MARKS TO BE STAMPED ONTO STEELWORK AND SHALL BE CLEARLY LEGIBLE AFTER GALVANIZING.
9) ALL MARKS TO BE PREFIXED : ...JPP.....
10) LIMITATIONS OF GENERAL USAGE :
THESE STRUCTURES HAVE BEEN DESIGNED TO SAFELY WITHSTAND THE FOLLOWING LOADING CONDITIONS:
a) CONDUCTOR SUSPENSION LOAD OF 4.5kN PER PHASE
b) WIND LOADS RESULTING FROM A FREE STREAM VELOCITY PRESSURE q=0.65 kPa AS DEFINED IN CLAUSE 4.5.3 OF SANS 0160-1989. THIS DESIGN PRESSURE IS APPLICABLE FOR REGION CATEGORY 2 LOCATIONS THROUGHOUT SOUTH AFRICA, WITH THE EXCEPTION OF THE AREA BOUNDED BY THE SIGNS OF UPINGTON, KIMBERLEY, COLESBERG AND LADYSMITH INCLUSIVE. WHERE THE STRUCTURES ARE TO BE LOCATED WITHIN THIS AREA, OR ANYWHERE WITHIN SOUTH AFRICA AT A REGION CATEGORY 1 LOCATION i.e. IN A SEVERELY EXPOSED LOCATION, APPROVAL TO USE THESE STRUCTURES MUST BE OBTAINED FROM ESKOM'S CIVIL ENGINEERING DIVISION.

REV	AUTH MAC	DATE DATUM	REVISION/REVISIES INDEX REF/REGISTER	BY DEAR	CHKD MACS	REFERENCE DRAWINGS VERWYSINGSTEKENINGE
2	MA	03/07	ADDITIONS.	MA	MA	
1	MA	02/07	ADDITIONS AND DELETIONS.	MA	MA	0-54/3910...1
0			FIRST ISSUE / EERSTE UITREIKING			0-54/3910...0
DRAWN GETEKEN						
CHKD MACS	M.C.A.					
APPROVED GOEDGEKEUR	M.C.A.					
SCALE SKAAL	AS SHOWN					

ESKOM

275 kv YARD STEELWORK

ASSEMBLY AND DETAILS OF BUSBAR SUSPENSION BRACKET

TYPE: BB4

DRAWING NO. 0-54/3910...2

THIS DRAWING HAS BEEN CREATED ON A C.A.D. SYSTEM. ANY AMENDMENT MUST BE EFFECTED ON THE SAME SYSTEM. C.A.D. REFERENCE No. 000_00/0000000 - REV 01.