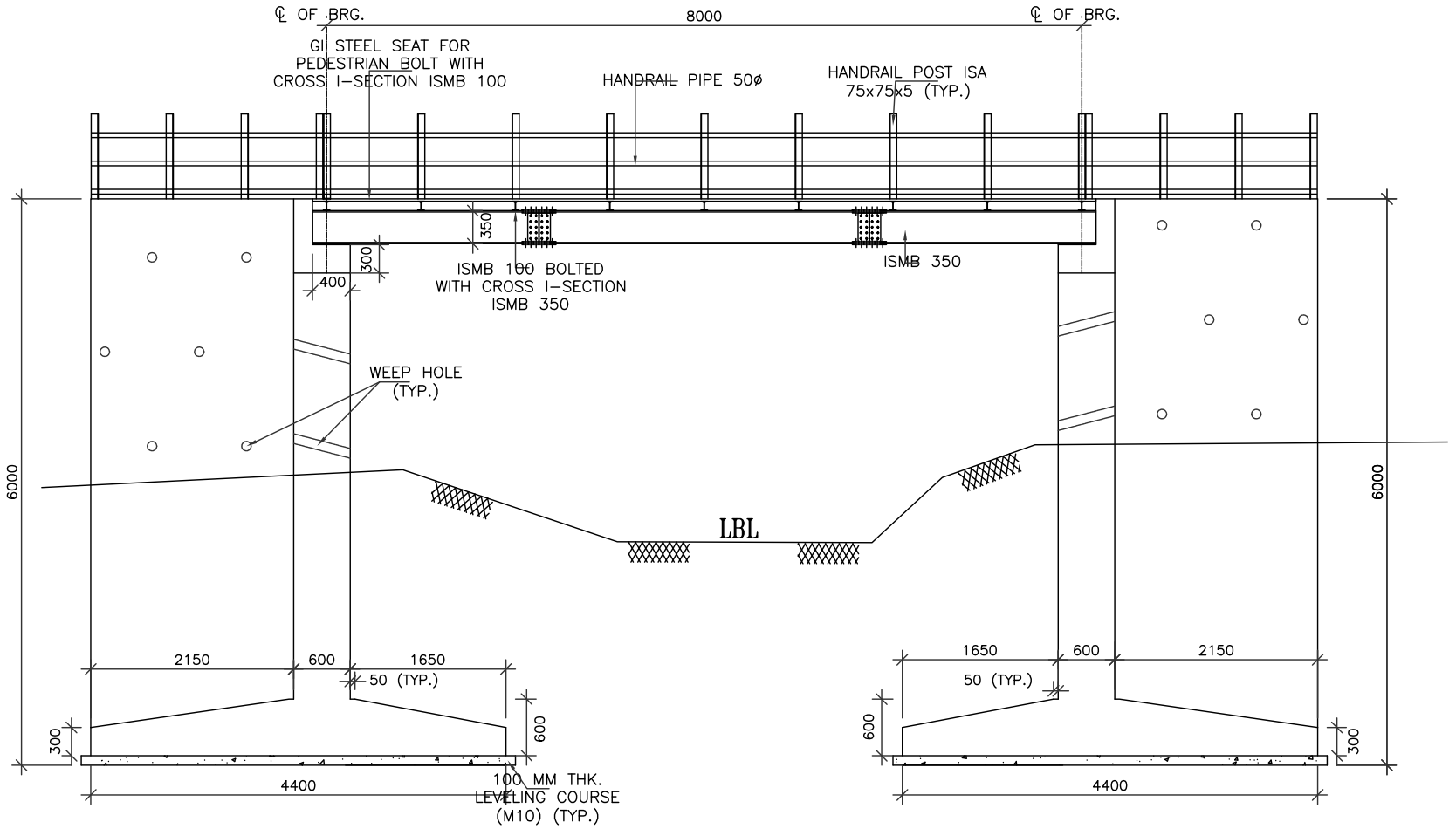
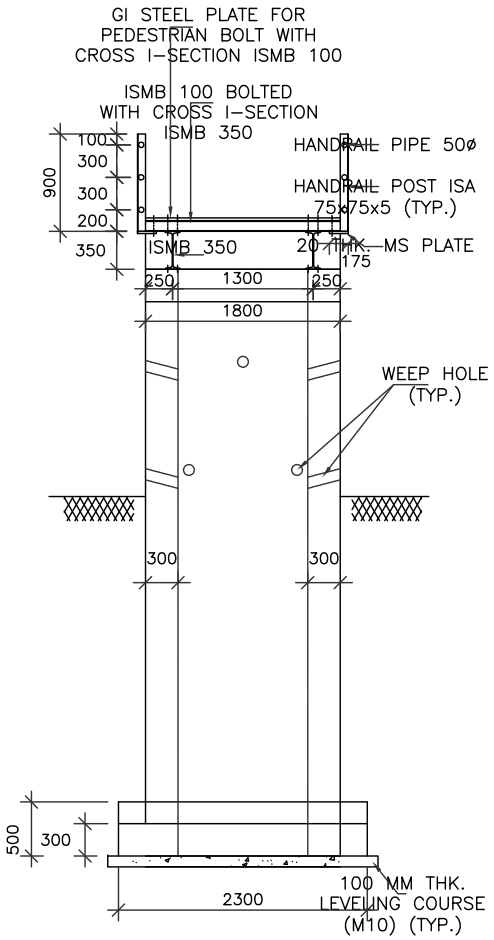


SECTIONAL ELEVATION

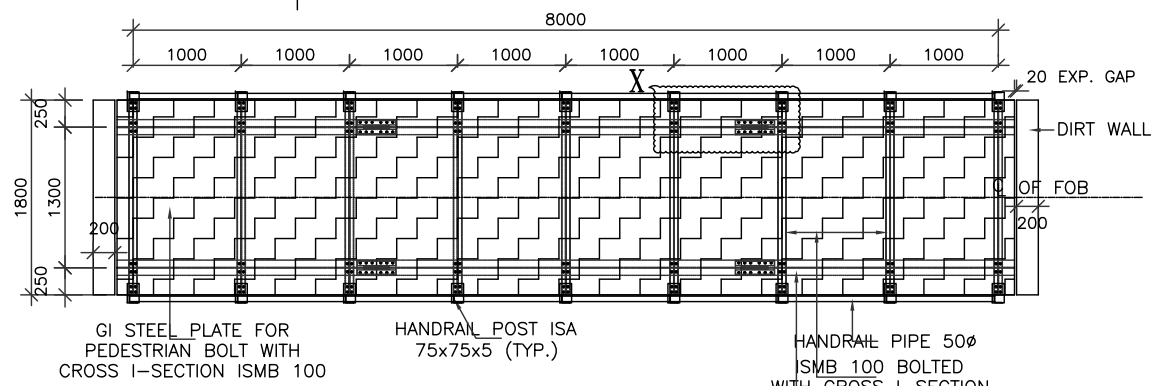
(SCALE-1:50)



SECTION A-A

NOTE:-

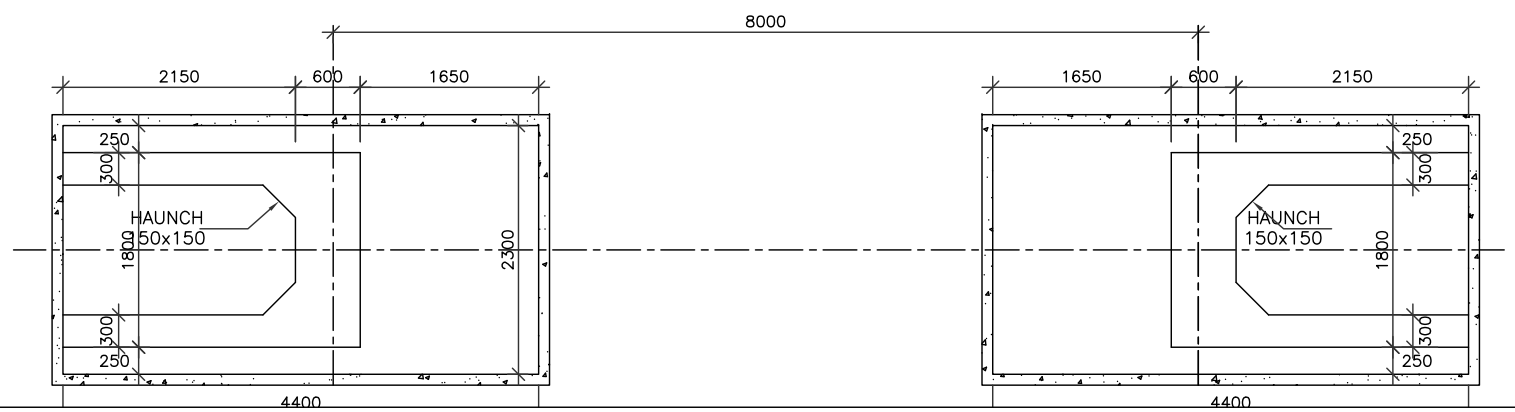
1. ALL STRUCTURAL STEEL SHALL CONFORM TO IS:2062, E-350 (Fe-490) C-QUALITY.
2. ALL WELDING SHALL CONFORM TO IS:816 & IS:1024.
3. STEEL WASHER SHALL BE PROVIDED AT ALL BOLTS LOCATIONS
4. ALL WELDING SHALL BE 8mm THICK FILLET WELD.
5. ALL WELDING & ITS TESTING SHALL BE AS PER RELEVANT CODES MENTIONED IN IRC:24-2001.
6. WELDING IS MAINLY PROPOSED TO BE DONE AT FABRICATION YARD ONLY.
7. FILLER TYPE EXPANSION JOINTS OF PROVEN QUALITY SHALL BE PROVIDED IN TERMS OF MODIFIED INTERIM SPECIFICATIONS IN ANNEXURE-I TO MORTH CIRCULAR NO. RW/NH-34059/1/6-S&R DATED 30.11.2000. THE MATERIAL SPECIFICATIONS OF THE FILLER JOINTS SHALL BE IN ACCORDANCE WITH SECTION 2605 OF MORTH SPECIFICATIONS FOR ROAD AND BRIDGE WORKS, FOURTH REVISION.



PLAN AT DECK LEVEL

DETAIL-X

(SCALE-1:20)



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SAKET NAGAR, BHOPAL (M.P)
Tel/Fax : 0755-4236317
E-mail :- hec bhopal@rediffmail.com

NAME OF WORK

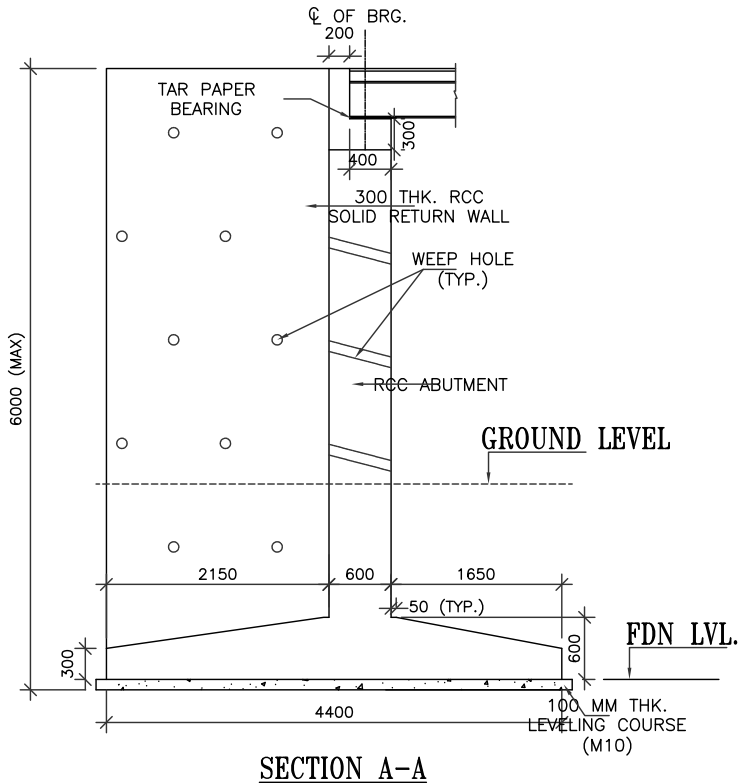
CONSULTANCY SERVICES FOR PREPERATION OF DETAIL PROJECT REPORT OF CRITICAL INFRASTRUCTURE IN ARUNACHAL PRADESH
SH: FOOT TRACKS ,PATROL ROUTES & FSB

DRAWN BY	P.D	
DESIGN BY	Y.B	
APPROVED BY	S.G	

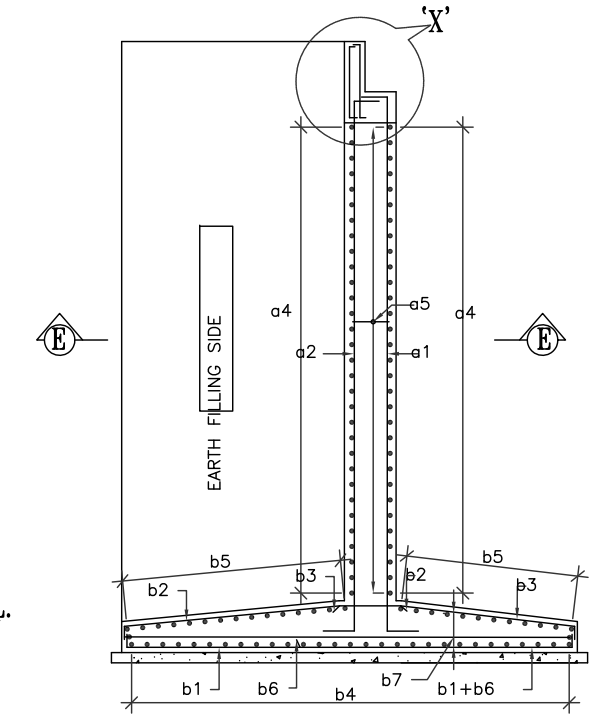
REVISION : R0
SHEET:
DEC : 2019
SIZE : A3

TITLE:- GENERAL ARRANGEMENT DRAWING OF RENFORCEMENT 8.0M

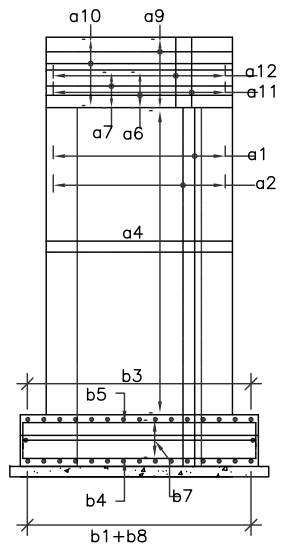
DRAWING NO : HEC/CPWD/AP/FOOT TRACK/01



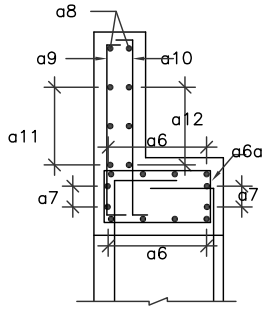
SECTION A-A
(SCALE-1:50)



SECTION C-C
(SCALE-1:50)



SECTION D-D
(SCALE-1:50)

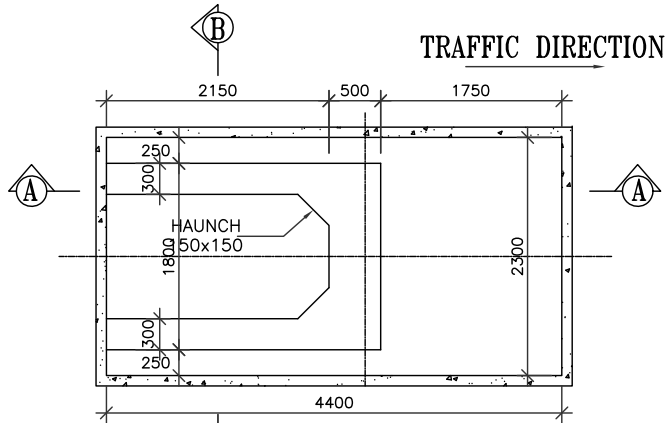


DETAIL-X
REIN.DETAIL OF DIRT WALL
(SCALE-1:20)

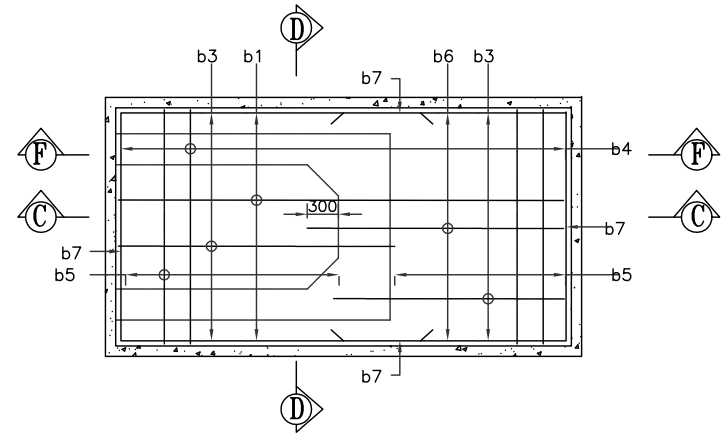
REINFORCEMENT SCHEDULE

ABUTMENT SHAFT CAP & DIRT WALL			
S.NO.	BAR MARKED.	DESCRIPTION	SHAPE
1	a1	12 ϕ @ 125 c/c	300
2	a2	25 ϕ @ 125 c/c	300 / 300
3	a3	12 ϕ @ 175c/c	300
4	a4	12 ϕ @ 150c/c	
5	a5	8 ϕ @ 300c/c	LINK HORZ. STANDERED
6	a6	10 ϕ 4 NOS. TOP & BOTTOM	150
7	a6a	2L-12 ϕ @ 150c/c	
8	a7	10 ϕ @ 150c/c	300
9	a8	12 ϕ -2 NOS.	
10	a9	12 ϕ @ 125c/c	100
11	a10	10 ϕ @ 125c/c	100
12	a11	8 ϕ @ 150c/c	100
13	a12	8 ϕ @ 150c/c	100

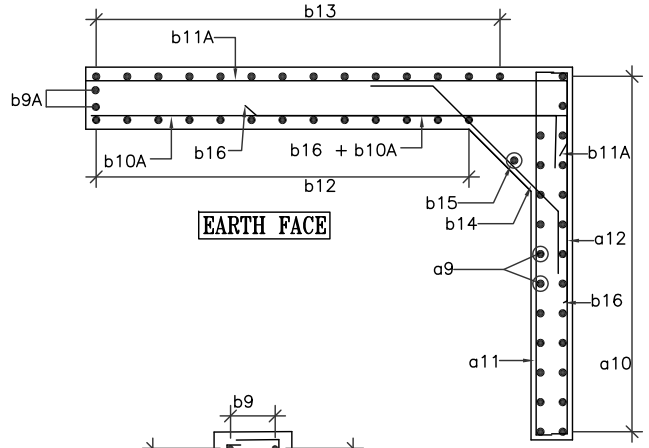
FOOTING REINF.			
S.NO.	BAR MARKED.	DESCRIPTION	SHAPE
1	b1	16 ϕ @ 200 c/c	150
2	b2	16 ϕ @ 100 c/c	150
3	b3	16 ϕ @ 100 c/c	150
4	b4	12 ϕ @ 150c/c	150
5	b5	10 ϕ @ 150c/c	150
6	b6	16 ϕ @ 200 c/c	150
7	b7	12 ϕ @ 200c/c	LV.
8	b8	8 ϕ @ 250c/c (ALONG TRANSVERSE) 8 ϕ @ 300c/c (ALONG LONGITUDINAL)	LV.
RETURN WALL			
9	b9	12 ϕ - 2 NOS.	
10	b9A	16 ϕ - 2 NOS.	300
10	b10	12 ϕ @ 150c/c	150 500
11	b10A	12 ϕ @ 150c/c	150 500
12	b11	10 ϕ @ 150c/c	150 400
13	b11A	10 ϕ @ 150c/c	300 400
14	b12	12 ϕ @ 150c/c	150 300
15	b13	10 ϕ @ 150c/c	150 300
16	b14	10 ϕ @ 150c/c	150 150
17	b15	10 ϕ - 2 NOS.	
18	b16	16 ϕ @ 150c/c	

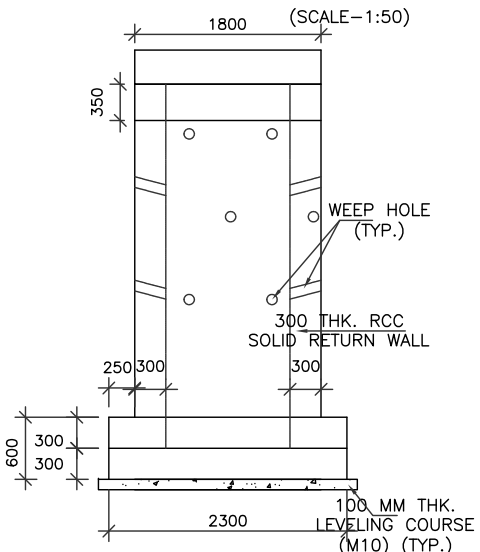


PLAN AT FOOTING TOP LEVEL
(SCALE-1:50)

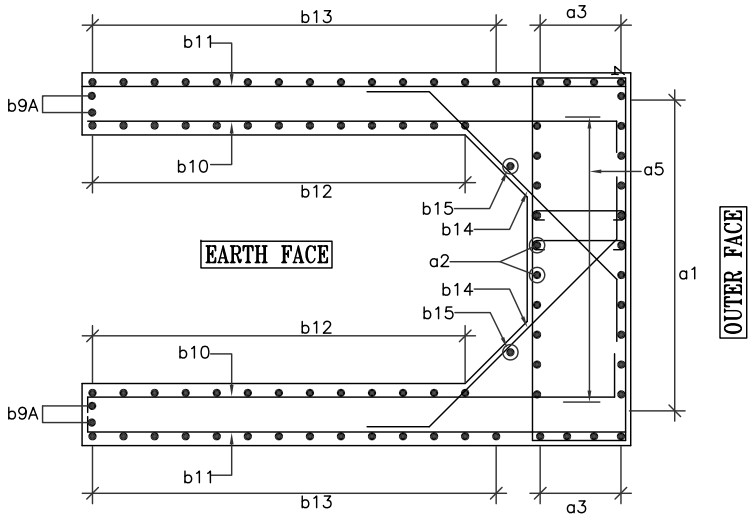


REINF. PLAN OF ABUTMENT FOUNDATION
(ABUTMENT SHAFT REINF. NOT SHOWN FOR CLARITY)
(SCALE-1:50)

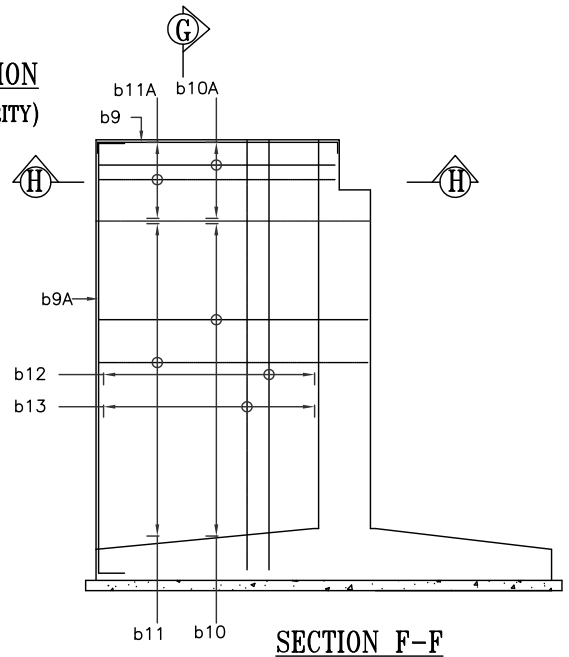




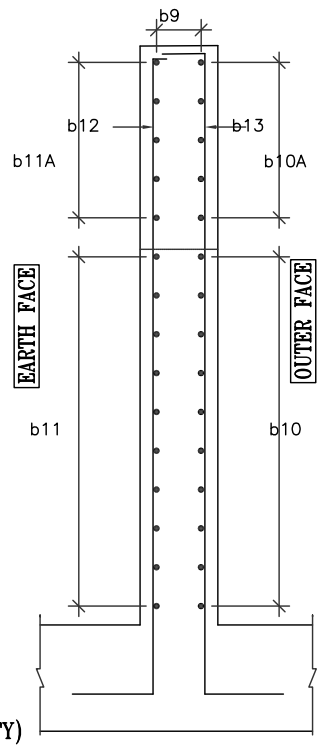
SECTION B-B
(SCALE-1:50)



SECTION E-E
(SCALE-1:25)



SECTION F-F
(FOUNDATION REINF. NOT SHOWN FOR CLARITY)
(SCALE-1:50)



SECTION G-G
(SCALE-1:20)

SECTION H-H
(SCALE-1:25)

NOTE:-

1. CONCRETE SHALL BE DESIGN MX WITH MINIMUM 20 DAYS CHARACTERISTIC STRENGTH OF 35 Mpa FOR ALL COMPONENTS.
2. 100 MM DIA WEEP HOLES SPACED AT 1000mm c/c BOTH HORIZONTZLLY AND VERTICALLY SHALL BE PROVIDED 150 mm ABOVE GROUND LEVEL IN A STAGGERED MANNER IN VERTICALLY WALL AS SHOWN WEEP HOLES TO BE PROVIDED AS PER SPECIFICATION.
3. BACK FILLING BEHIND ABUTMENT SHALL CONSIST OF SELECTED EARTH CONFORMING TO APPENDIX:6 OF IRC:78-2014 HAVING PROPERTIES C=0, $\phi \geq 35°$, $\delta = 22.5°$ & $\gamma d = 20$ KN/m^3.
4. THE REINFORCING BARS SHALL BE OF THERMO MECHANICALLY TREATED (TMT) (GRADE DESIGNATION Fe-500D) CONFORMING TO IS:1786 STANDARDS.
5. MINIMUM CLEAR COVER TO OUTER MOST REINFORCEMENT SHALL BE AS UNDER:-
   a. FOUNDATION - 75MM
   b. SHAFT DIRT WALL & RETURN WALL - 50MM
   c. DIRT WALL & CAP - 40MM
6. MAXIMUM LAP LENGTH SHALL BE 72 TIMES OF BAR TO BE LAPPED.
7. MINIMUM LAP LENGTH OF REINFORCEMENT FOR FAVOURABLE CONDITION SHALL BE AS UNDER:
   CONCRETE GRADE - M-30 - 56 x DIA OF BAR
   CONCRETE GRADE - M-35 - 51 x DIA OF BAR
   CONCRETE GRADE - M-40 - 48 x DIA OF BAR
   CONCRETE GRADE - M-45 - 45 x DIA OF BAR
8. SAFE BEARING CAPACITY ASSUMED IN DESIGN AT PROPOSED FOUNDING LEVEL IS 16 t/m^2. THIS SHALL BE ASCERTAINED BEFORE EXECUTION OF WORK AT SITE.

CLIENT

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Tel/Fax : 0755-4236317
E-mail :- hec bhopal@rediffmail.com

NAME OF WORK

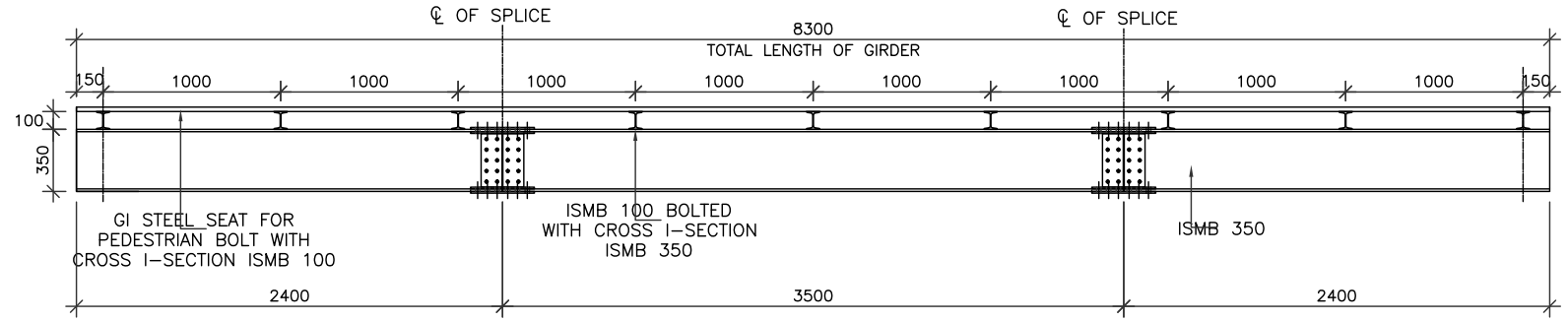
CONSULTANCY SERVICES FOR PREPERATION OF DETAIL PROJECT REPORT OF CRITICAL INFRASTRUCTURE IN ARUNACHAL PRADESH
SH: FOOT TRACKS ,PATROL ROUTES & FSB

DRAWN BY	P.D	
DESIGN BY	Y.B	
APPROVED BY	S.G	

REVISION : R0
SHEET:
DEC : 2019
SIZE : A3

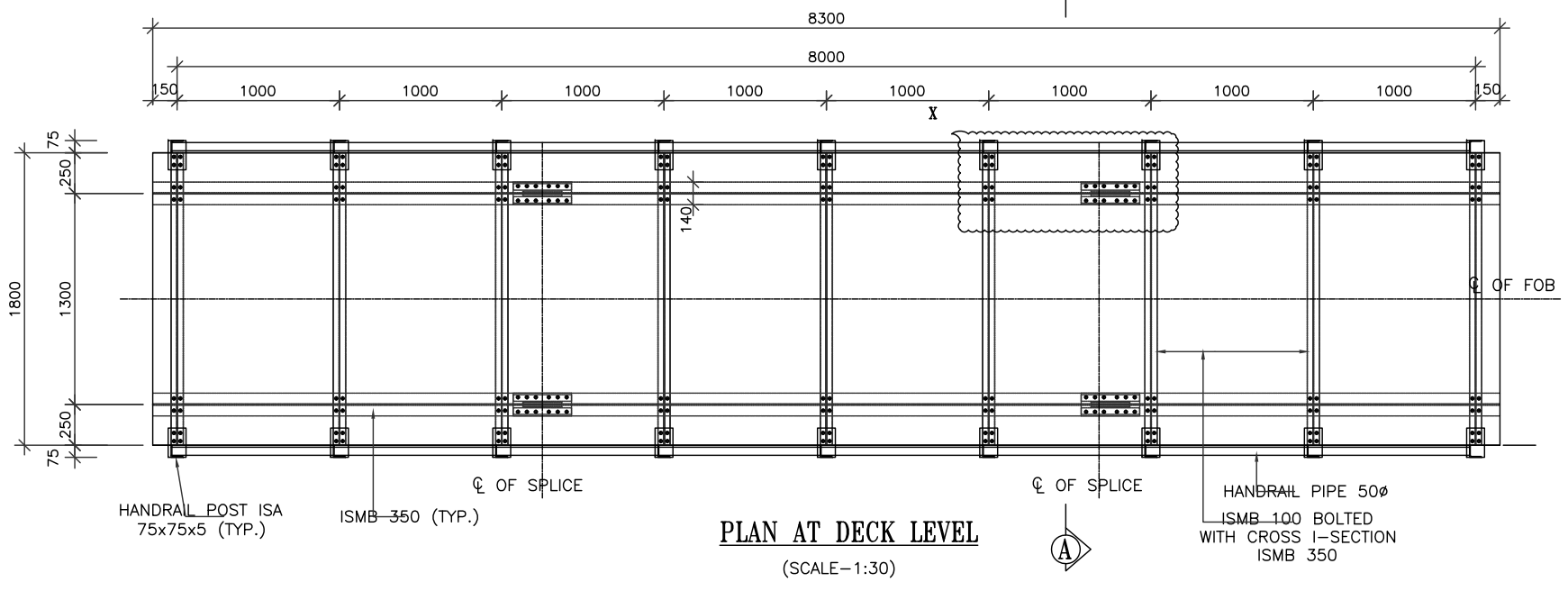
TITLE:-
GENERAL ARRANGEMENT DRAWING OF RENFORCEMENT 8.0M

DRAWING NO : HEC/CPWD/AP/FOOT TRACK/02



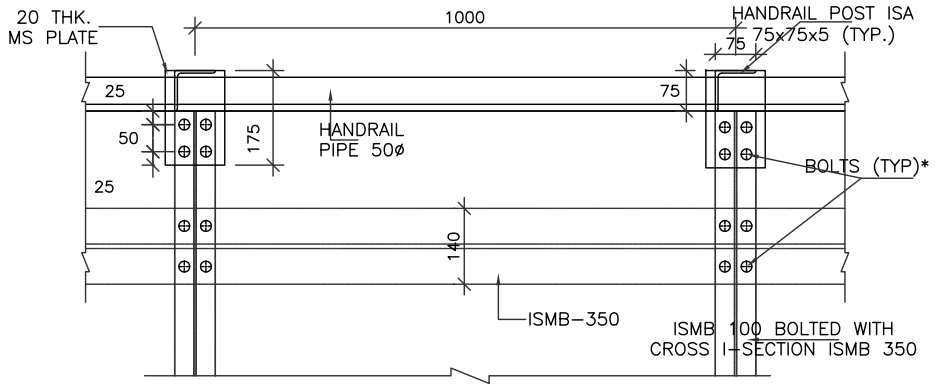
SECTIONAL ELEVATION

(SCALE-1:30)



PLAN AT DECK LEVEL

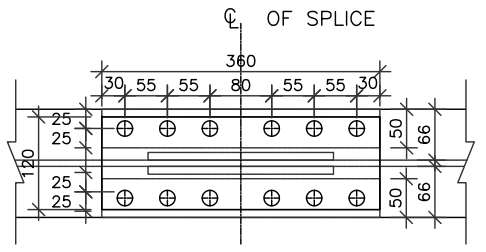
(SCALE-1:30)



DETAIL-X

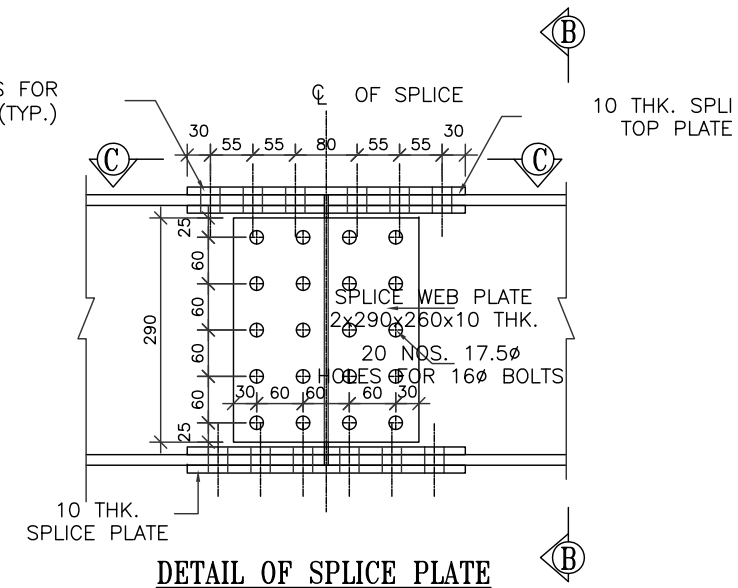
(SCALE-1:10)

HOLE ARE TENTATIVE SAME SHALL BE
ED BY CONSTRUCTION AFENCY



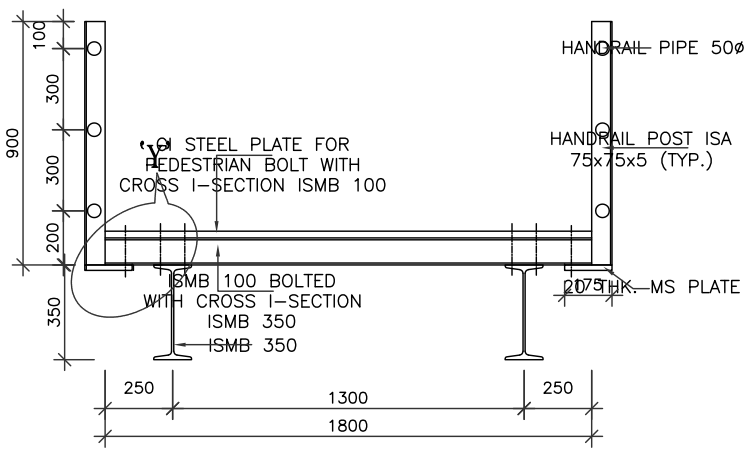
SECTION C-C

(SCALE-1:7)



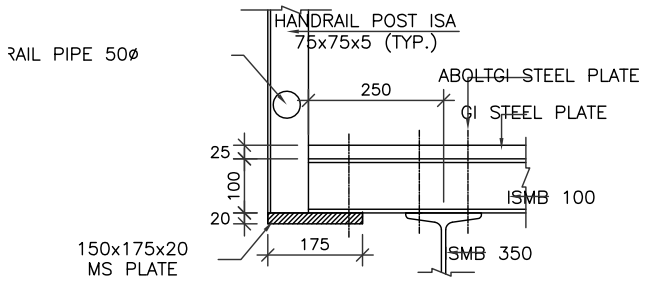
DETAIL OF SPLICE PLATE

(SCALE-1:7)



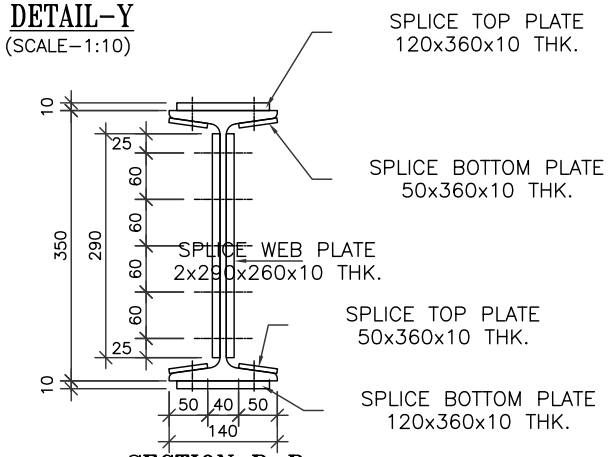
SECTION A-A

(SCALE-1:20)



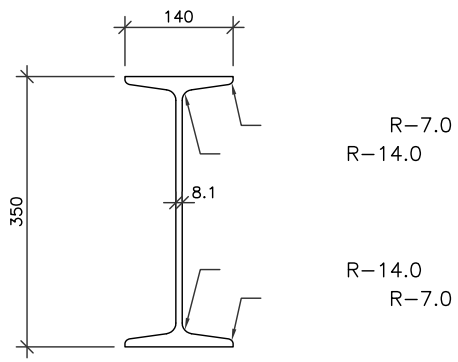
DETAIL-Y

(SCALE-1:10)



SECTION B-B

(SCALE-1:7)



TYPICAL SECTION ISMB-350

(SCALE-1:7)

NOTE:-

1. ALL STRUCTURAL STEEL SHALL CONFORM TO IS:2062, E-250 (Fe-410) C-QUALITY.
2. ALL WELDING SHALL CONFORM TO IS:816 & IS:1024.
3. STEEL WASHER SHALL BE PROVIDED AT ALL BOLTS LOCATIONS
4. ALL WELDING SHALL BE 8mm THICK FILLET WELD.
5. ALL WELDING & ITS TESTING SHALL BE AS PER RELEVANT CODES MENTIONED IN IRC:24-2001.
6. WELDING IS MAINLY PROPOSED TO BE DONE AT FABRICATION YARD ONLY.

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SAKET NAGAR, BHOPAL (M.P)
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NAME OF WORK

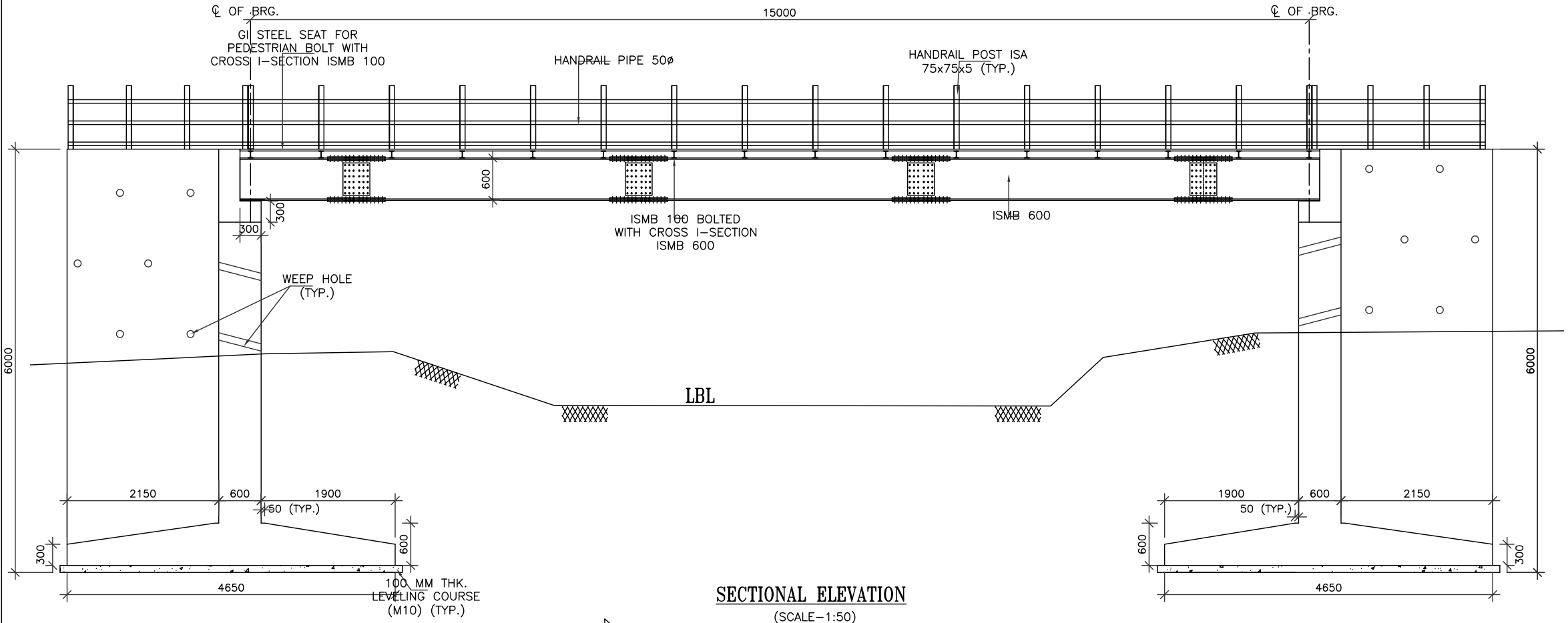
CONSULTANCY SERVICES FOR PREPERATION OF DETAIL PROJECT REPORT OF CRITICAL INFRASTRUCTURE IN ARUNACHAL PRADESH
SH: FOOT TRACKS ,PATROL ROUTES & FSB

DRAWN BY	P.D	
DESIGN BY	Y.B	
APPROVED BY	S.G	

REVISION : R0
SHEET:
DEC : 2019
SIZE : A3

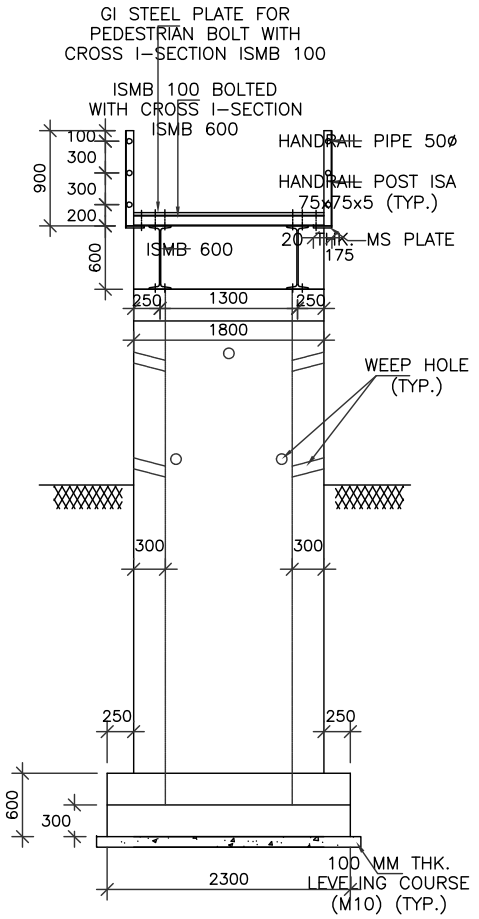
TITLE:-
GENERAL ARRANGEMENT DRAWING OF RENFORCEMENT 8.0M

DRAWING NO : HEC/CPWD/AP/FOOT TRACK/03

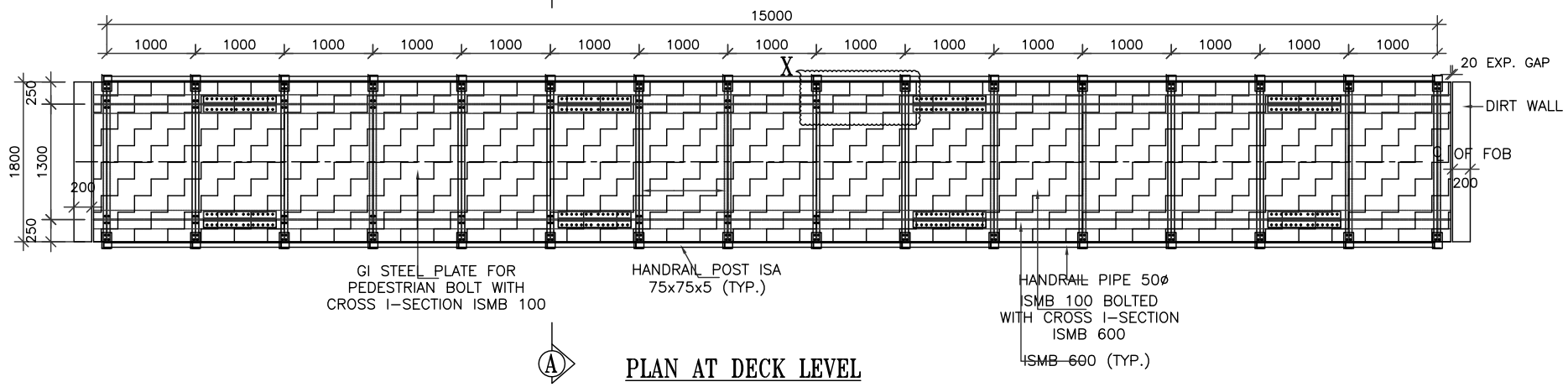


SECTIONAL ELEVATION

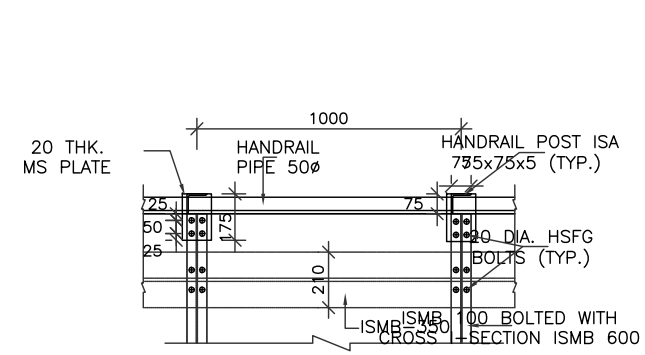
(SCALE–1:50)



SECTION A–A

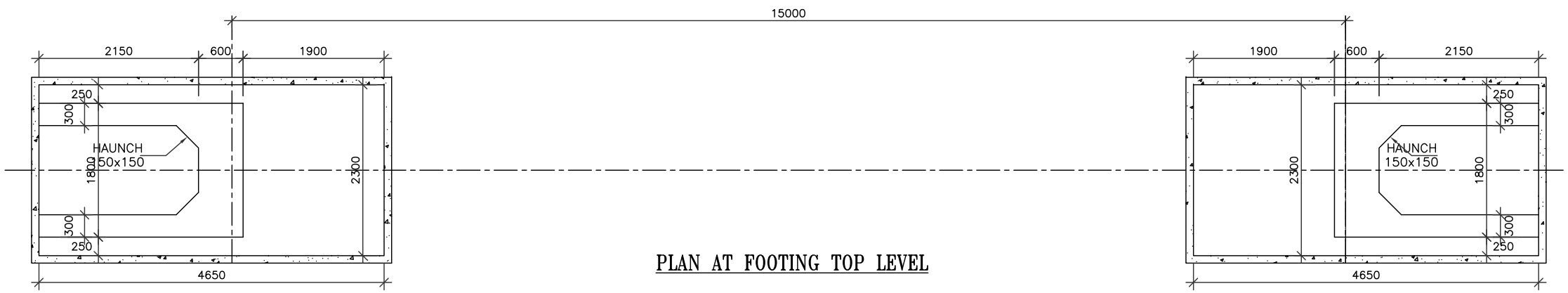


PLAN AT DECK LEVEL



DETAIL–X

(SCALE–1:20)



PLAN AT FOOTING TOP LEVEL

NOTE:-

1. ALL STRUCTURAL STEEL SHALL CONFORM TO IS:2062, E–350 (Fe–490) C–QUALITY.
2. ALL WELDING SHALL CONFORM TO IS:816 & IS:1024.
3. STEEL WASHER SHALL BE PROVIDED AT ALL BOLTS LOCATIONS
4. ALL WELDING SHALL BE 8mm THICK FILLET WELD.
5. ALL WELDING & ITS TESTING SHALL BE AS PER RELEVANT CODES MENTIONED IN IRC:24–2001.
6. WELDING IS MAINLY PROPOSED TO BE DONE AT FABRICATION YARD ONLY.
7. FILLER TYPE EXPANSION JOINTS OF PROVEN QUALITY SHALL BE PROVIDED IN TERMS OF MODIFIED INTERIM SPECIFICATIONS IN ANNEXURE–I TO MORTH CIRCULAR NO. RW/NH–34059/1/6–S&R DATED 30.11.2000. THE MATERIAL SPECIFICATIONS OF THE FILLER JOINTS SHALL BE IN ACCORDANCE WITH SECTION 2605 OF MORTH SPECIFICATIONS FOR ROAD AND BRIDGE WORKS, FOURTH REVISION.

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NAME OF WORK

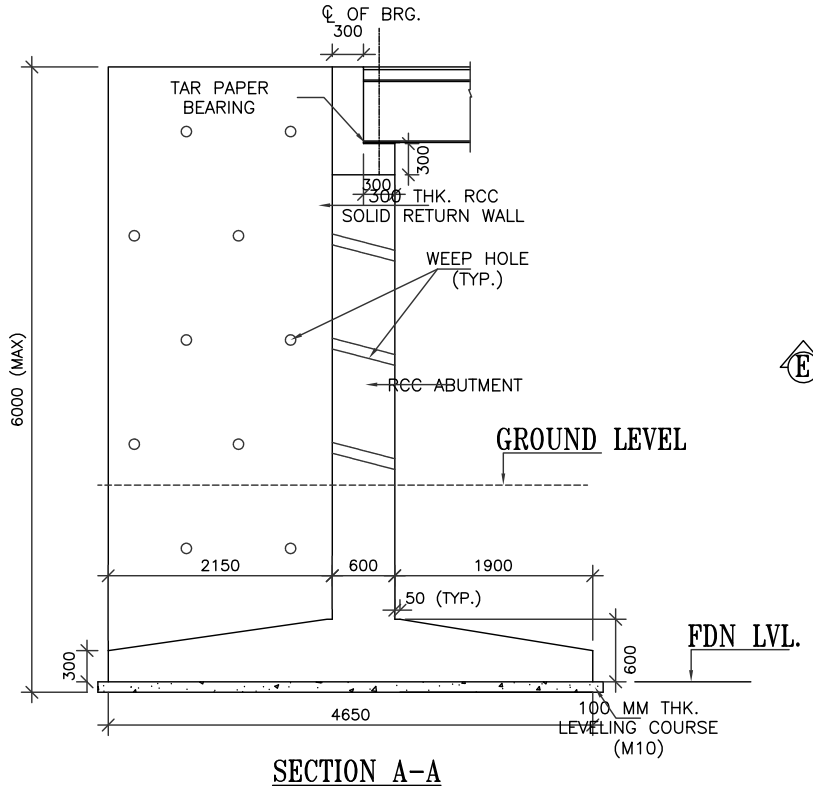
CONSULTANCY SERVICES FOR PREPERATION OF DETAIL PROJECT REPORT OF CRITICAL INFRASTRUCTURE IN ARUNACHAL PRADESH
SH: FOOT TRACKS ,PATROL ROUTES & FSB

DRAWN BY	P.D	
DESIGN BY	Y.B	
APPROVED BY	S.G	

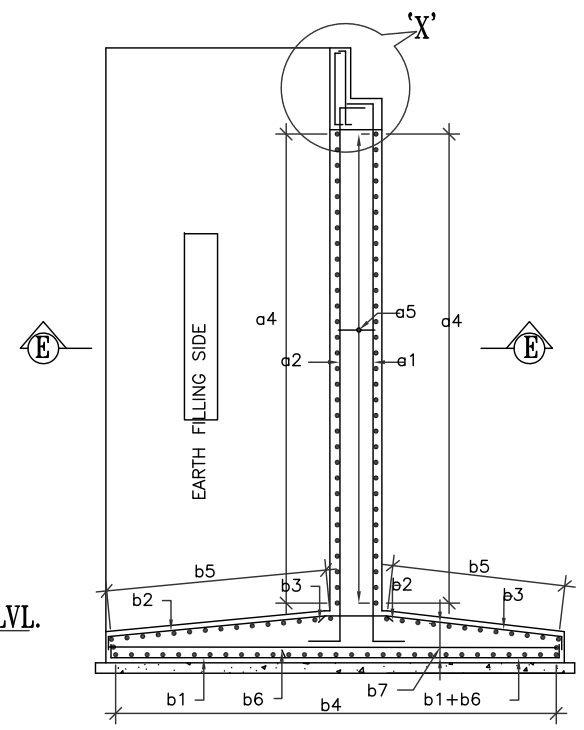
REVISION : R0
SHEET:
DEC : 2019
SIZE : A3

TITLE:- GENERAL ARRANGEMENT DRAWING OF RENFORCEMENT 15.0M

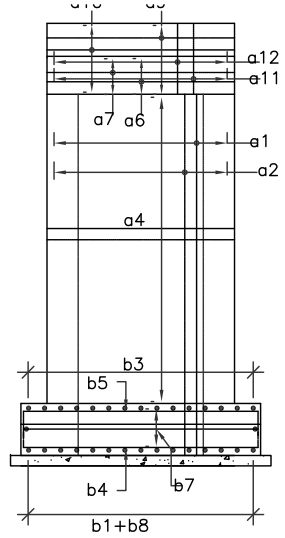
DRAWING NO : HEC/CPWD/AP/FOOT TRACK/03



SECTION A-A
(SCALE-1:50)



SECTION C-C
(SCALE-1:50)



SECTION D-D
(SCALE-1:50)

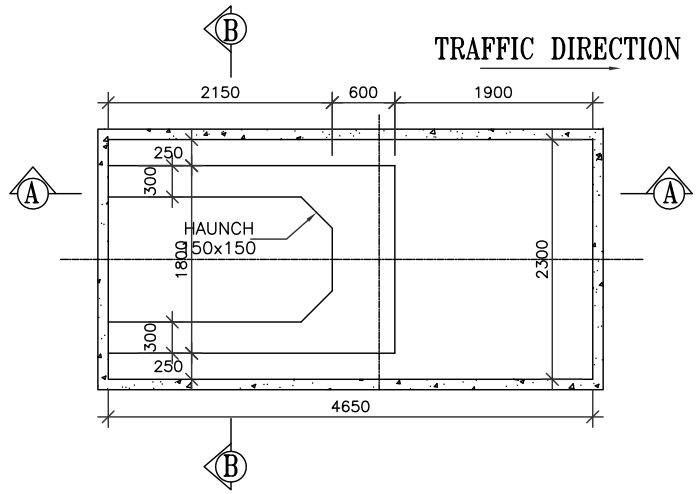
REINFORCEMENT SCHEDULE

ABUTMENT SHAFT CAP & DIRT WALL

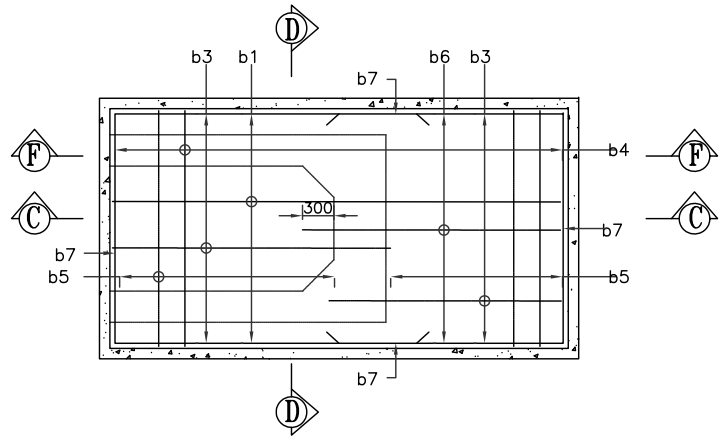
S.NO.	BAR MARKED.	DESCRIPTION	SHAPE
1	a1	12 ϕ @ 125 c/c	300
2	a2	25 ϕ @ 125 c/c	300 / 500
3	a3	16 ϕ @ 175c/c	LV.
4	a4	12 ϕ @ 150c/c	
5	a5	8 ϕ @ 300c/c	LINK HORZ. STANDERED
6	a6	10 ϕ 4 NOS. TOP & BOTTOM	150
7	a6a	2L-12 ϕ @ 150c/c	
8	a7	10 ϕ @ 125c/c	300
9	a8	12 ϕ -2 NOS.	
10	a9	12 ϕ @ 125c/c	300
11	a10	8 ϕ @ 125c/c	300
12	a11	8 ϕ @ 150c/c	100
13	a12	8 ϕ @ 150c/c	100

FOOTING REINF.

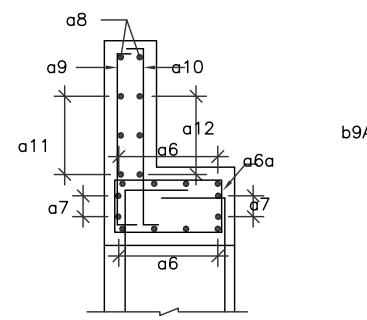
S.NO.	BAR MARKED.	DESCRIPTION	SHAPE
1	b1	20 ϕ @ 200 c/c	150
2	b2	16 ϕ @ 100 c/c	150
3	b3	16 ϕ @ 100 c/c	150
4	b4	12 ϕ @ 200c/c	150
5	b5	12 ϕ @ 200c/c	150
6	b6	16 ϕ @ 200 c/c	150
7	b7	12 ϕ @ 200c/c	LV.
8	b8	8 ϕ @ 200c/c (ALONG TRANSVERSE) 8 ϕ @ 400c/c (ALONG LONGITUDINAL)	LV.
RETURN WALL			
9	b9	12 ϕ - 2 NOS.	
10	b9A	16 ϕ - 2 NOS.	300
10	b10	12 ϕ @ 150c/c	150 / 500
11	b10A	12 ϕ @ 150c/c	150 / 500
12	b11	10 ϕ @ 150c/c	150 / 400
13	b11A	10 ϕ @ 150c/c	300 / 400
14	b12	12 ϕ @ 150c/c	150 / 300
15	b13	10 ϕ @ 150c/c	150 / 300
16	b14	10 ϕ @ 150c/c	150 / 150
17	b15	10 ϕ - 2 NOS.	
18	b16	16 ϕ @ 150c/c	



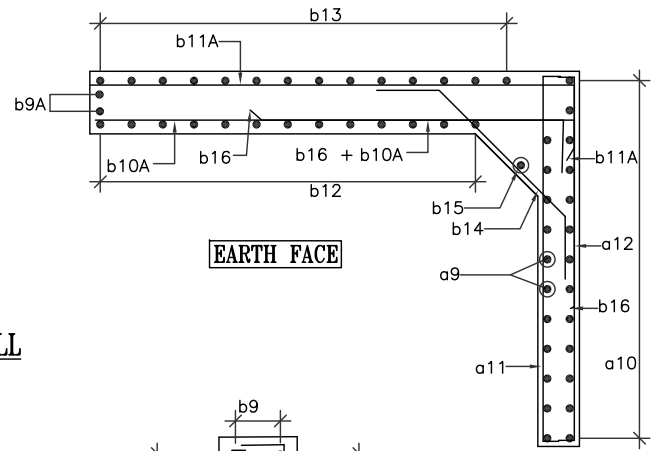
PLAN AT FOOTING TOP LEVEL
(SCALE-1:50)



REINF. PLAN OF ABUTMENT FOUNDATION
(ABUTMENT SHAFT REINF. NOT SHOWN FOR CLARITY)
(SCALE-1:50)

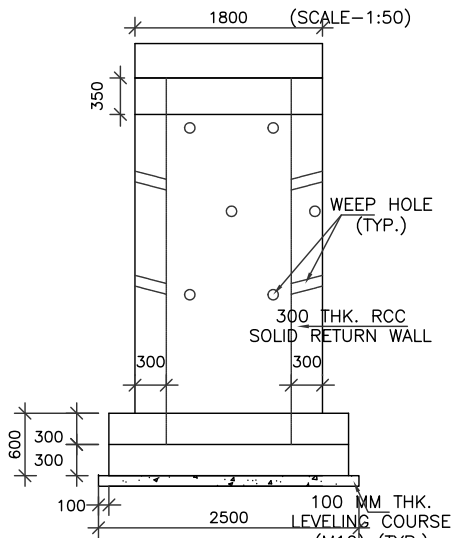


DETAIL-X
REIN.DETAIL OF DIRT WALL
(SCALE-1:20)

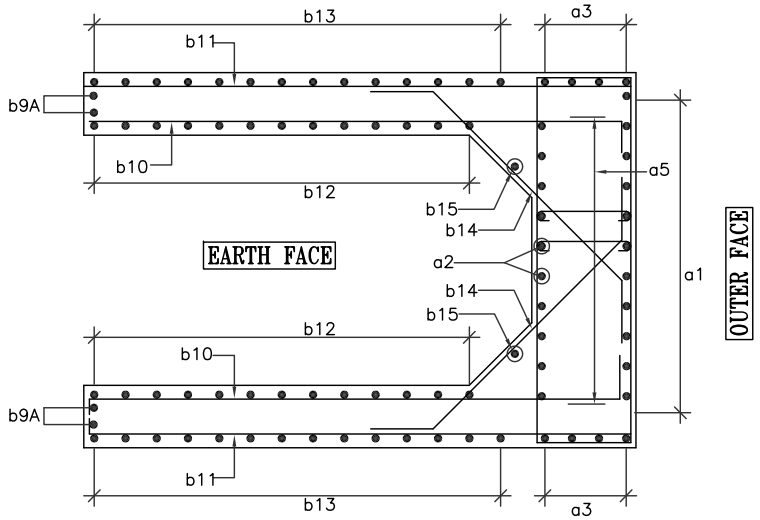


EARTH FACE

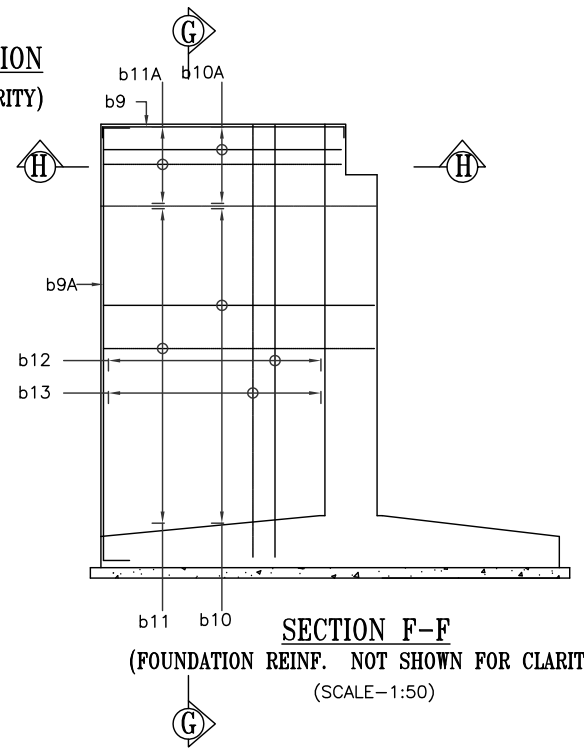
SECTION H-H
(SCALE-1:25)



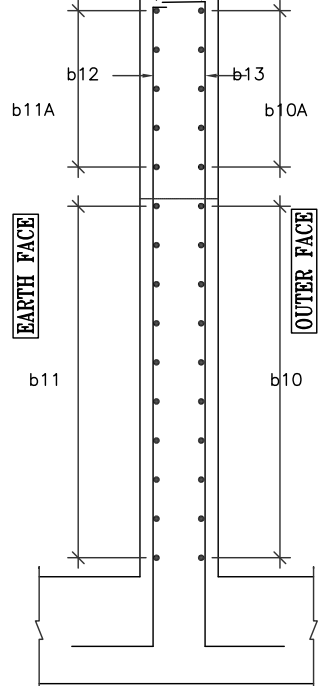
SECTION B-B
(SCALE-1:50)



SECTION E-E
(SCALE-1:25)



SECTION F-F
(FOUNDATION REINF. NOT SHOWN FOR CLARITY)
(SCALE-1:50)



SECTION G-G
(SCALE-1:20)

NOTE:-

1. CONCRETE SHALL BE DESIGN MX WITH MINIMUM 20 DAYS CHARACTERISTIC STRENGTH OF 35 Mpa FOR ALL COMPONENTS.
2. 100 MM DIA WEEP HOLES SPACED AT 1000mm c/c BOTH HORIZONTZLLY AND VERTICALLY SHALL BE PROVIDED 150 mm ABOVE GROUND LEVEL IN A STAGGERED MANNER IN VERTICALLY WALL AS SHOWN WEEP HOLES TO BE PROVIDED AS PER SPECIFICATION.
3. BACK FILLING BEHIND ABUTMENT SHALL CONSIST OF SELECTED EARTH CONFORMING TO APPENDIX:6 OF IRC:78-2014 HAVING PROPERTIES C=0, $\phi \geq 35°$, δ=22.5° & γd =20 KN/m³.
4. THE REINFORCING BARS SHALL BE OF THERMO MECHANICALLY TREATED (TMT) (GRADE DESIGNATION Fe-500D) CONFORMING TO IS:1786 STANDARDS.
5. MINIMUM CLEAR COVER TO OUTER MOST REINFORCEMENT SHALL BE AS UNDER:-
   a. FOUNDATION - 75MM
   b. SHAFT DIRT WALL & RETURN WALL - 50MM
   c. DIRT WALL & CAP - 40MM
6. MAXIMUM LAP LENGTH SHALL BE 72 TIMES OF BAR TO BE LAPPED.
7. MINIMUM LAP LENGTH OF REINFORCEMENT FOR FAVOURABLE CONDITION SHALL BE AS UNDER:
   CONCRETE GRADE - M-30 - 56 x DIA OF BAR
   CONCRETE GRADE - M-35 - 51 x DIA OF BAR
   CONCRETE GRADE - M-40 - 48 x DIA OF BAR
   CONCRETE GRADE - M-45 - 45 x DIA OF BAR
8. SAFE BEARING CAPACITY ASSUMED IN DESIGN AT PROPOSED FOUNDING LEVEL IS 16 t/m². THIS SHALL BE ASCERTAINED BEFORE EXECUTION OF WORK AT SITE.

CLIENT

CENTRAL PUBLIC WORKS DEPARTMENT

HIGHWAY ENGINEERING CONSULTANT

HEAD OFFICE

JM -89/C, BEHIND PANCHWATI MARKET
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E-mail :- hec bhopal@rediffmail.com

NAME OF WORK

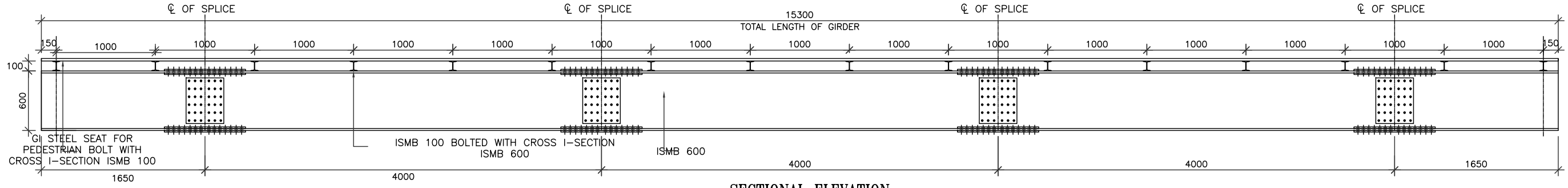
CONSULTANCY SERVICES FOR PREPERATION OF DETAIL PROJECT REPORT OF CRITICAL INFRASTRUCTURE IN ARUNACHAL PRADESH
SH: FOOT TRACKS ,PATROL ROUTES & FSB

DRAWN BY	P.D	
DESIGN BY	Y.B	
APPROVED BY	S.G	

REVISION : R0
SHEET:
DEC : 2019
SIZE : A3

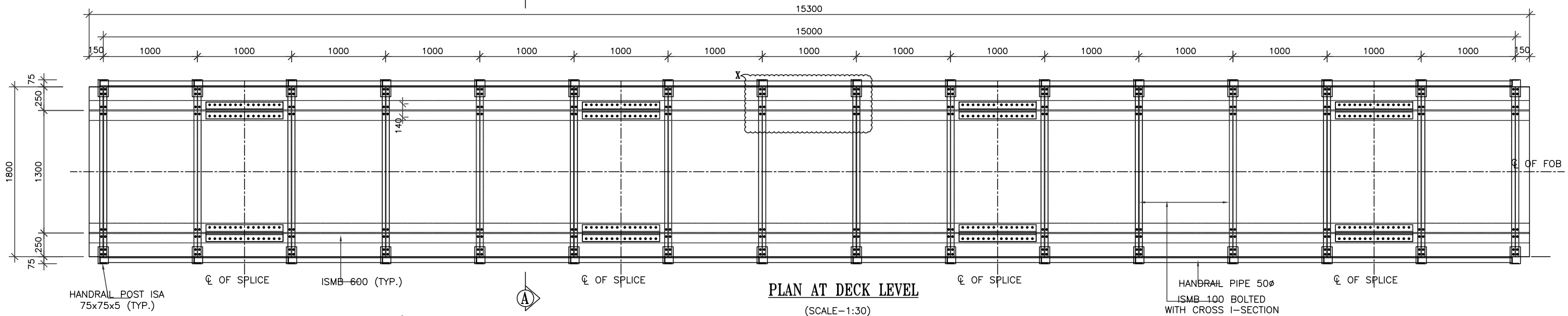
TITLE:- GENERAL ARRANGEMENT DRAWING OF RENFORCEMENT 15.0M

DRAWING NO : HEC/CPWD/AP/FOOT TRACK/03



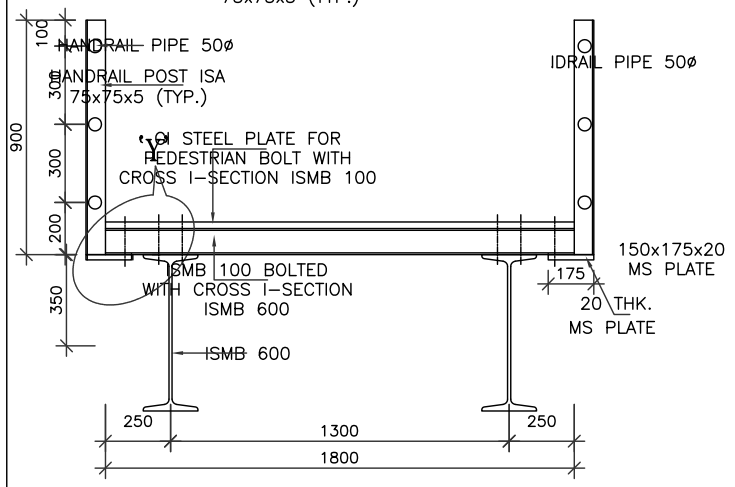
SECTIONAL ELEVATION

(SCALE–1:30)



PLAN AT DECK LEVEL

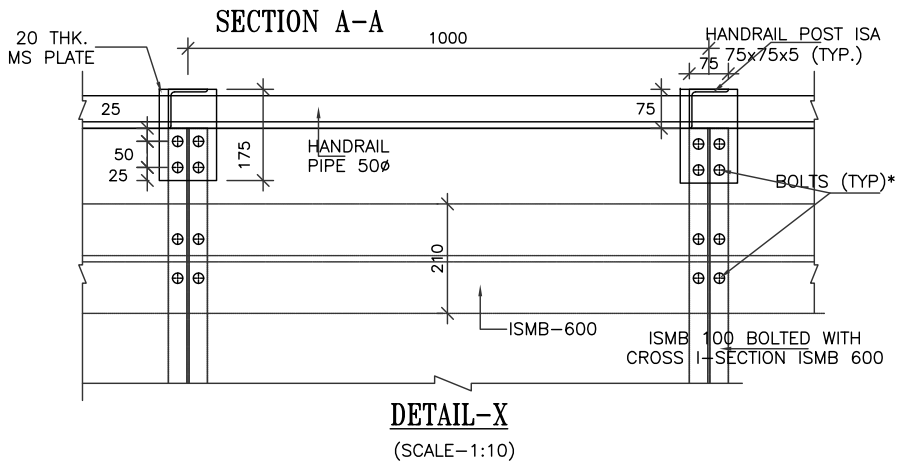
(SCALE–1:30)



SECTION A–A

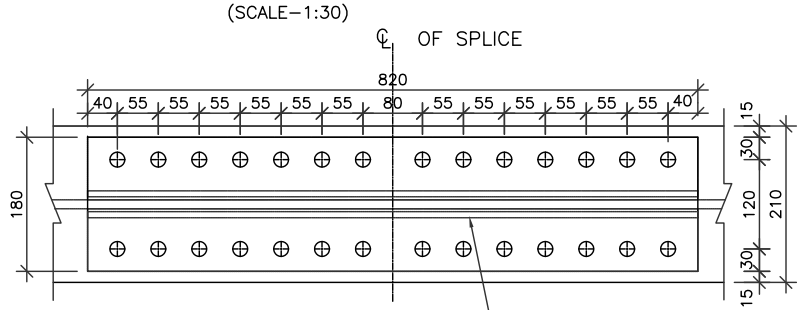
DETAIL–Y

(SCALE–1:10)



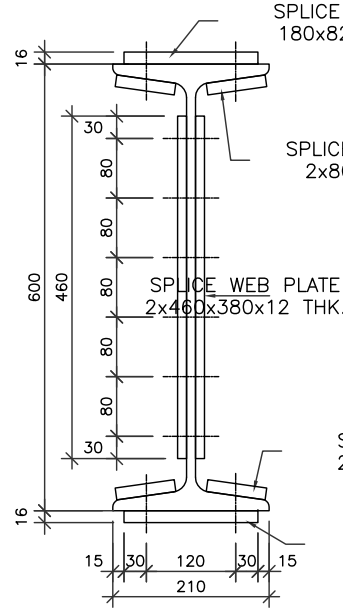
DETAIL–X

(SCALE–1:10)



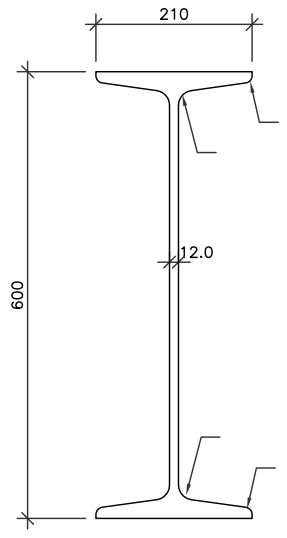
SECTION C–C

(SCALE–1:7)



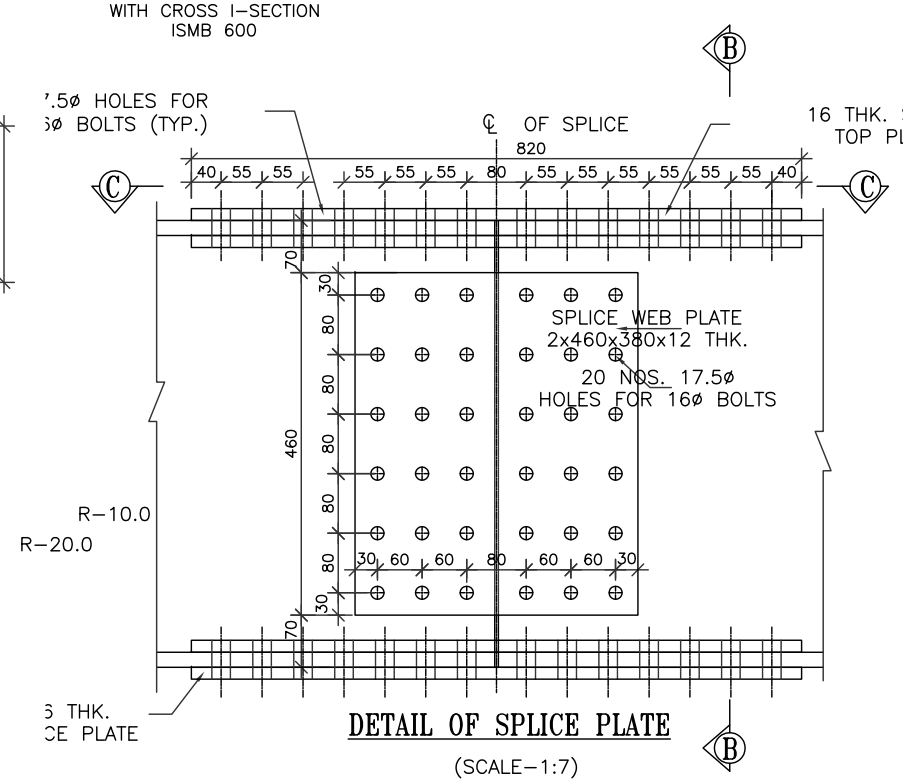
SECTION B–B

(SCALE–1:7)



TYPICAL SECTION ISMB–600

(SCALE–1:7)



DETAIL OF SPLICE PLATE

(SCALE–1:7)

NOTE:-

1. ALL STRUCTURAL STEEL SHALL CONFORM TO IS:2062, E–250 (Fe–410) C–QUALITY.
2. ALL WELDING SHALL CONFORM TO IS:816 & IS:1024.
3. STEEL WASHER SHALL BE PROVIDED AT ALL BOLTS LOCATIONS
4. ALL WELDING SHALL BE 8mm THICK FILLET WELD.
5. ALL WELDING & ITS TESTING SHALL BE AS PER RELEVANT CODES MENTIONED IN IRC:24–2010.
6. WELDING IS MAINLY PROPOSED TO BE DONE AT FABRICATION YARD ONLY.

E TENTATIVE SAME SHALL BE
ONSTRUCTION AFENCY

CLIENT

CENTRAL PUBLIC WORKS DEPARTMENT

HIGHWAY ENGINEERING CONSULTANT
HEAD OFFICE
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Tel/Fax : 0755-4236317
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NAME OF WORK

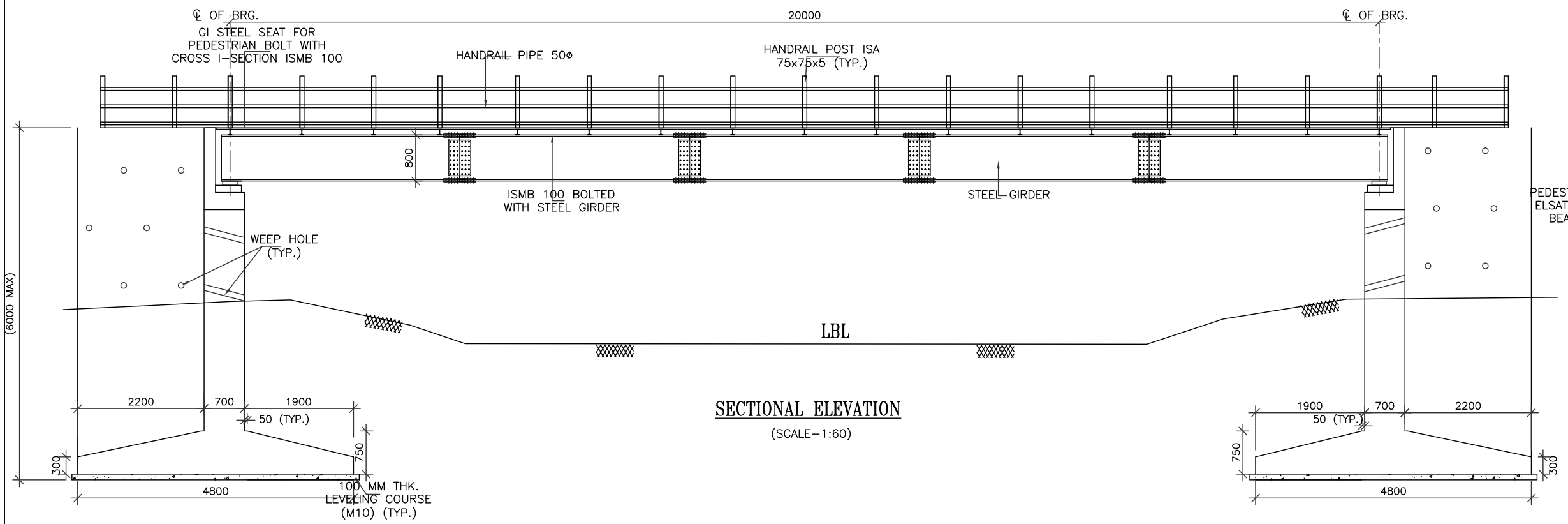
CONSULTANCY SERVICES FOR PREPERATION OF DETAIL PROJECT REPORT OF CRITICAL INFRASTRUCTURE IN ARUNACHAL PRADESH
SH: FOOT TRACKS ,PATROL ROUTES & FSB

DRAWN BY	P.D	
DESIGN BY	Y.B	
APPROVED BY	S.G	

REVISION : R0
SHEET:
DEC : 2019
SIZE : A3

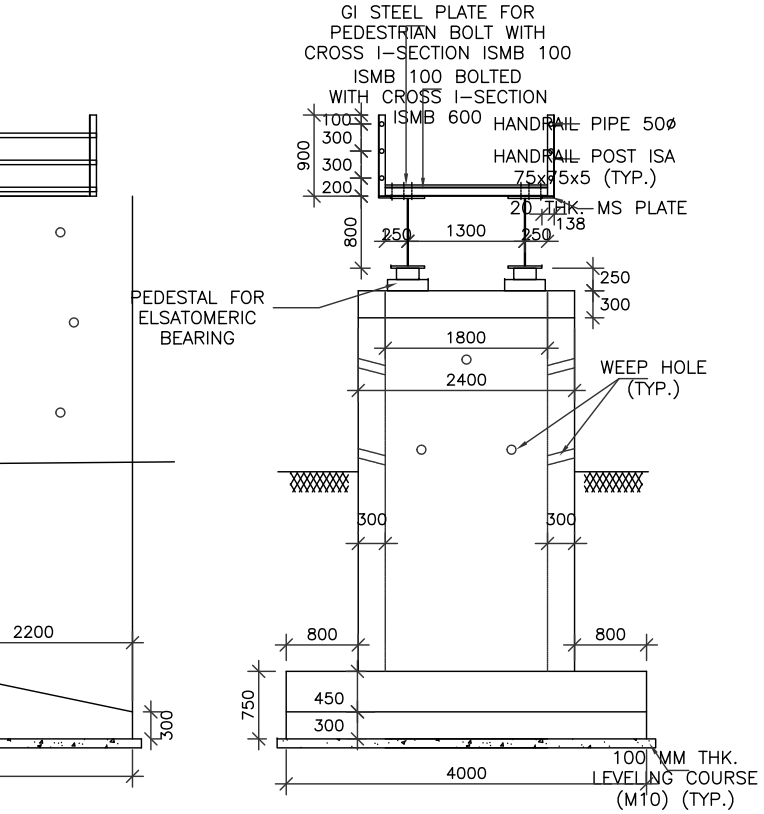
TITLE:- GENERAL ARRANGEMENT DRAWING OF RENFORCEMENT 15.0M

DRAWING NO : HEC/CPWD/AP/FOOT TRACK/03



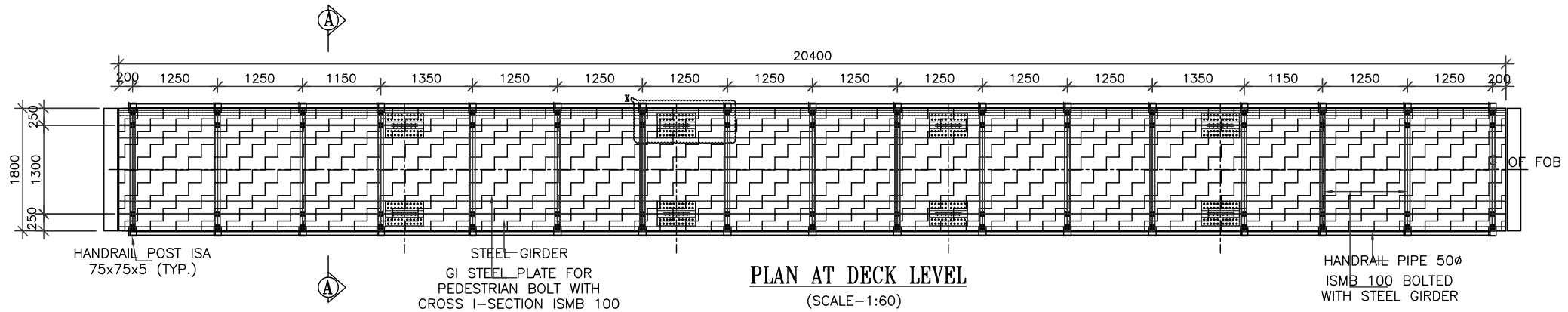
SECTIONAL ELEVATION

(SCALE-1:60)



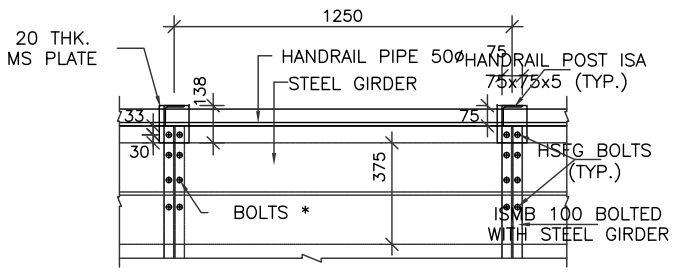
SECTION A-A

(SCALE-1:60)



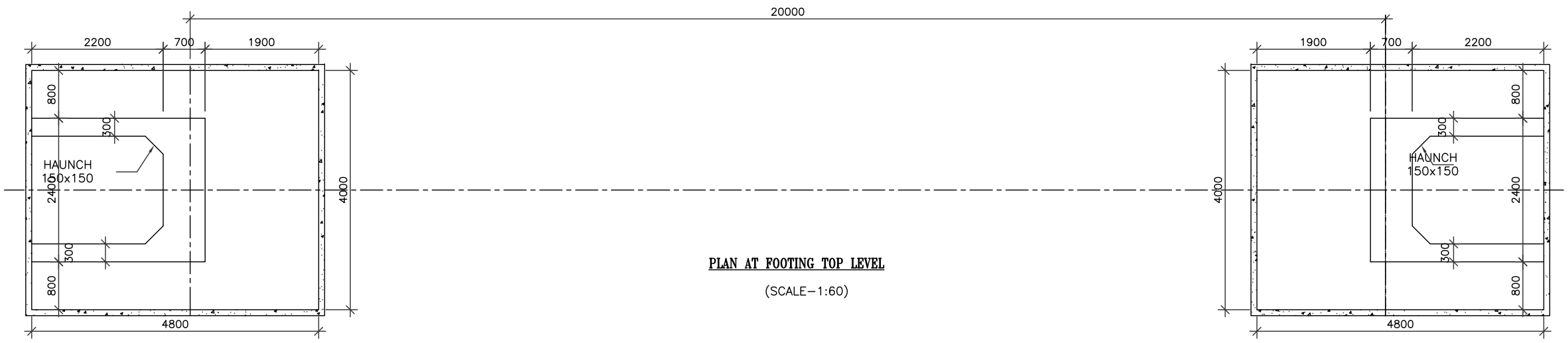
PLAN AT DECK LEVEL

(SCALE-1:60)



DETAIL-X

(SCALE-1:20)



PLAN AT FOOTING TOP LEVEL

(SCALE-1:60)

NOTE:-

1. ALL STRUCTURAL STEEL SHALL CONFORM TO IS:2062, E-350 (Fe-490) C-QUALITY.
2. ALL WELDING SHALL CONFORM TO IS:816 & IS:1024.
3. STEEL WASHER SHALL BE PROVIDED AT ALL BOLTS LOCATIONS
4. ALL WELDING SHALL BE 8mm THICK FILLET WELD.
5. ALL WELDING & ITS TESTING SHALL BE AS PER RELEVANT CODES MENTIONED IN IRC:24-2001.
6. WELDING IS MAINLY PROPOSED TO BE DONE AT FABRICATION YARD ONLY.

CLIENT

CENTRAL PUBLIC WORKS DEPARTMENT

HIGHWAY ENGINEERING CONSULTANT

HEAD OFFICE

JM -89/C, BEHIND PANCHWATI MARKET
SAKET NAGAR, BHOPAL (M.P)
Tel/Fax : 0755-4236317
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NAME OF WORK

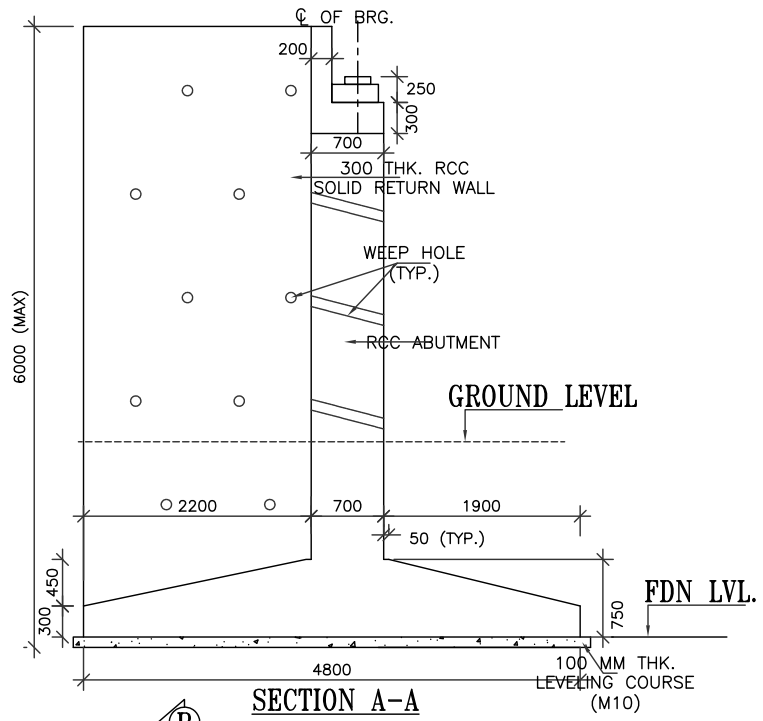
CONSULTANCY SERVICES FOR PREPERATION OF DETAIL PROJECT REPORT OF CRITICAL INFRASTRUCTURE IN ARUNACHAL PRADESH
SH: FOOT TRACKS ,PATROL ROUTES & FSB

DRAWN BY	P.D	
DESIGN BY	Y.B	
APPROVED BY	S.G	

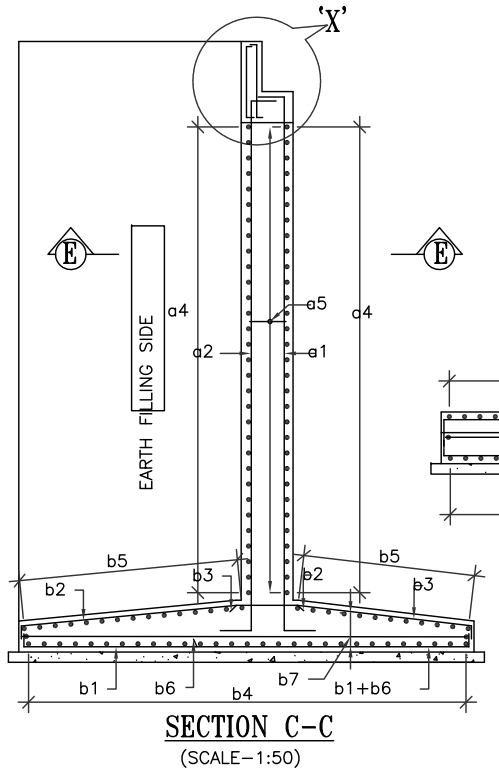
REVISION : R0
SHEET:
DEC : 2019
SIZE : A3

TITLE:- GENERAL ARRANGEMENT DRAWING OF RENFORCEMENT 20.0M

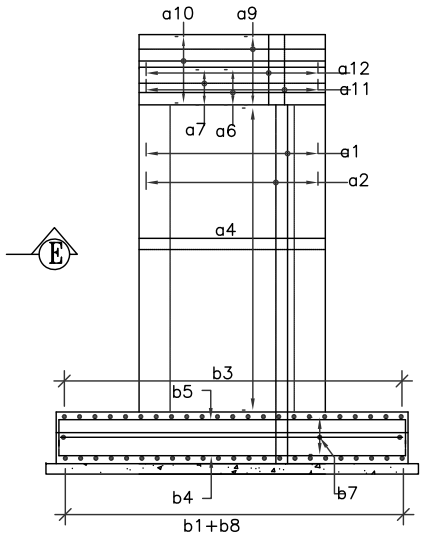
DRAWING NO : HEC/CPWD/AP/FOOT TRACK/03



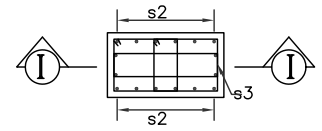
SECTION A-A
(SCALE-1:50)



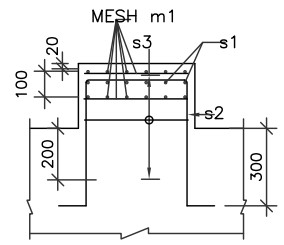
SECTION C-C
(SCALE-1:50)



SECTION D-D
(SCALE-1:50)



(SCALE-1:20)



SECTION I-I
(REINF. SHOWING IN PEDESTAL)
(SCALE-1:20)

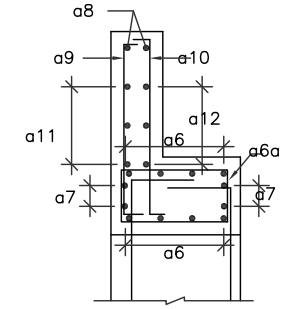
REINFORCEMENT SCHEDULE

ABUTMENT SHAFT CAP & DIRT WALL

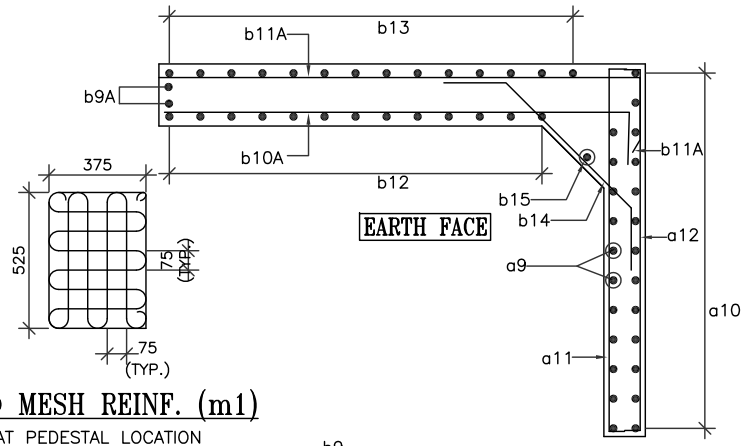
S.NO.	BAR MARKED.	DESCRIPTION	SHAPE
1	a1	16 ϕ @ 125 c/c	300
2	a2	32 ϕ @ 125 c/c	300 / 500
3	a3	12 ϕ @ 175c/c	LV.
4	a4	12 ϕ @ 100c/c	
5	a5	8 ϕ @ 300c/c	LINK HORZ. STANDERED
6	a6	12 ϕ @ 125c/c	150
7	a6a	2L-12 ϕ @ 150c/c	
8	a7	10 ϕ @ 125c/c	300
9	a8	12 ϕ -2 NOS.	
10	a9	12 ϕ @ 150c/c	300
11	a10	10 ϕ @ 150c/c	300
12	a11	8 ϕ @ 150c/c	100
13	a12	8 ϕ @ 150c/c	100

FOOTING REINF.

S.NO.	BAR MARKED.	DESCRIPTION	SHAPE
1	b1	20 ϕ @ 200 c/c	150
2	b2	16 ϕ @ 100 c/c	150
3	b3	12 ϕ @ 100 c/c	150
4	b4	16 ϕ @ 100c/c	150
5	b5	12 ϕ @ 150c/c	150
6	b6	16 ϕ @ 200 c/c	150
7	b7	12 ϕ @ 200c/c	LV.
8	b8	8 ϕ @ 100c/c (ALONG TRANSVERSE) 8 ϕ @ 400c/c (ALONG LONGITUDINAL)	LV.
RETURN WALL			
9	b9A	12 ϕ - 2 NOS.	
10	b9	16 ϕ - 2 NOS.	300
10	b10	12 ϕ @ 150c/c	150 / 500
11	b10A	12 ϕ @ 150c/c	150 / 400
12	b11	10 ϕ @ 150c/c	300 / 400
13	b11A	10 ϕ @ 150c/c	150 / 300
14	b12	12 ϕ @ 150c/c	150 / 300
15	b13	10 ϕ @ 150c/c	150 / 150
16	b14	10 ϕ @ 150c/c	
17	b15	10 ϕ - 2 NOS.	
18	s1	12 ϕ @ 150 c/c	150
19	s2	12 ϕ @ 150 c/c	150
20	s3	10 ϕ @ 125 c/c	
21	s4	10 ϕ @ 125 c/c	
22	s5	10 ϕ @ 125 c/c	300

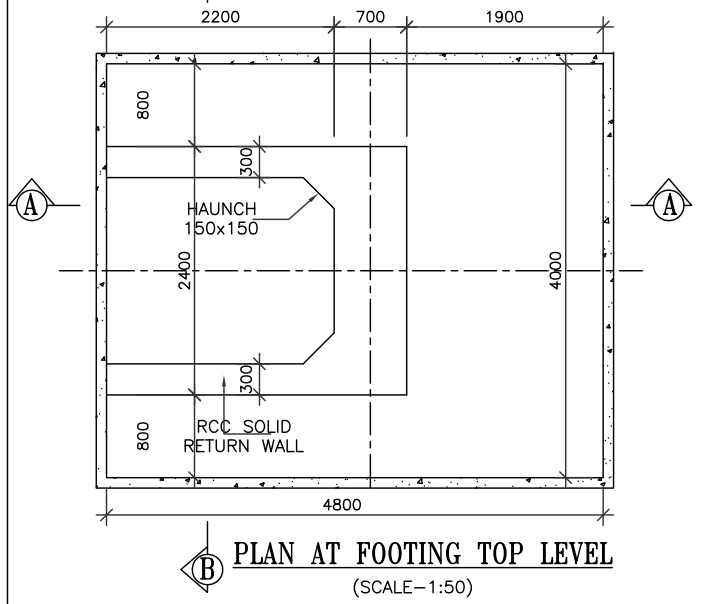


DETAIL-X
REIN.DETAIL OF DIRT WALL
(SCALE-1:20)



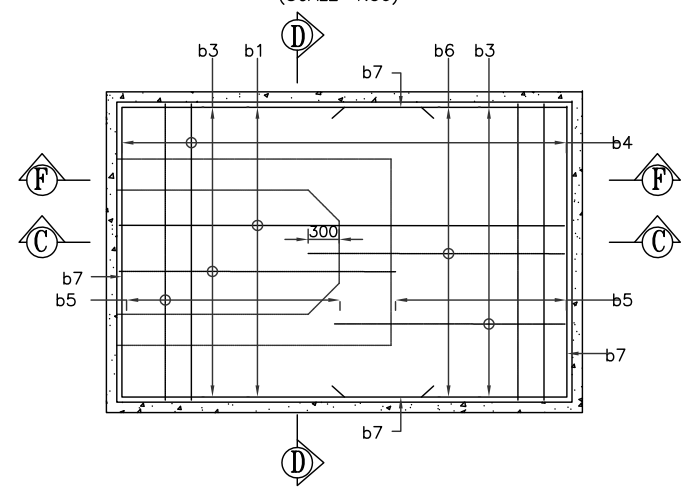
8 ø MESH REINF. (m1)
AT PEDESTAL LOCATION
(SCALE-1:20)

SECTION H-H
(SCALE-1:25)

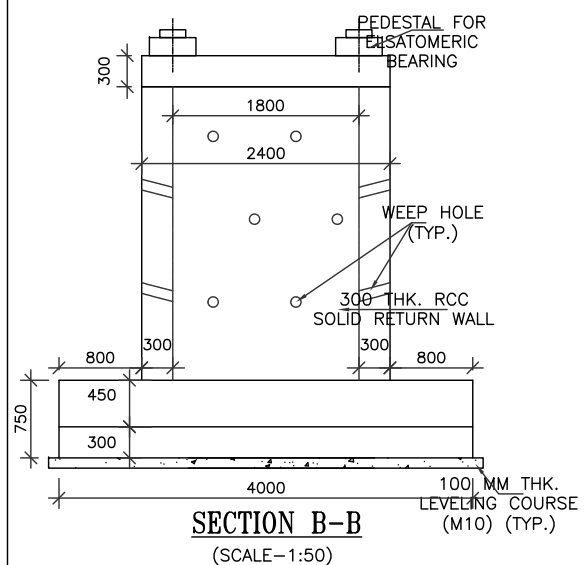


PLAN AT FOOTING TOP LEVEL
(SCALE-1:50)

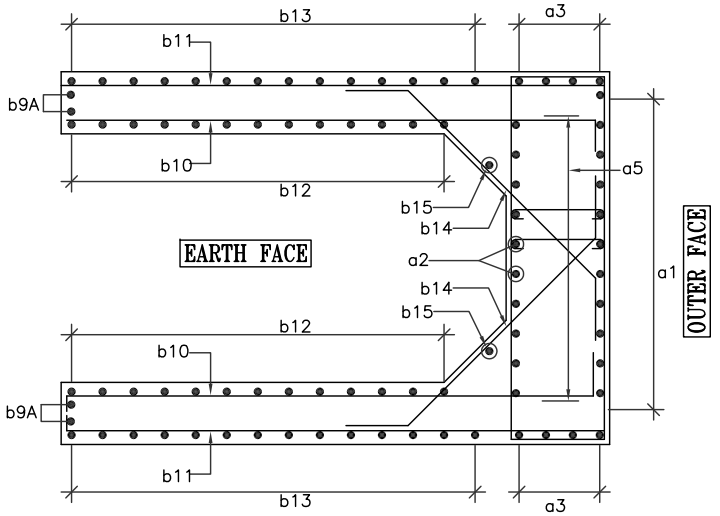
TRAFFIC DIRECTION



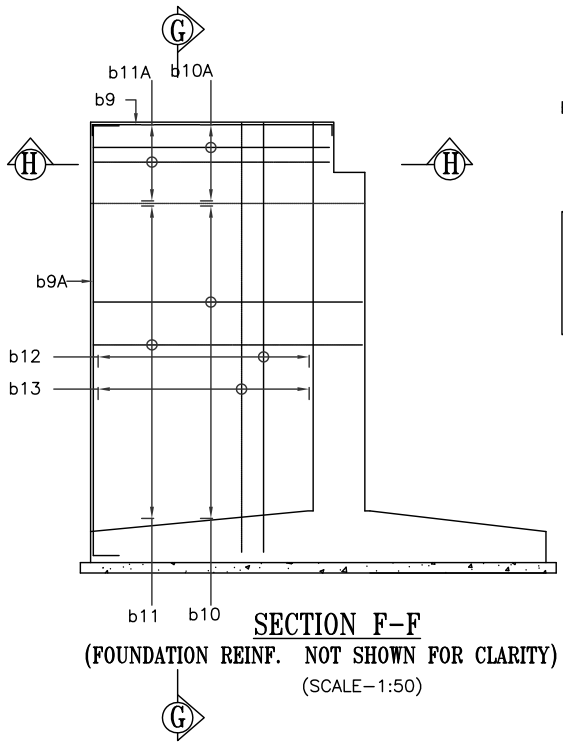
REINF. PLAN OF ABUTMENT FOUNDATION
(ABUTMENT SHAFT REINF. NOT SHOWN FOR CLARITY)
(SCALE-1:50)



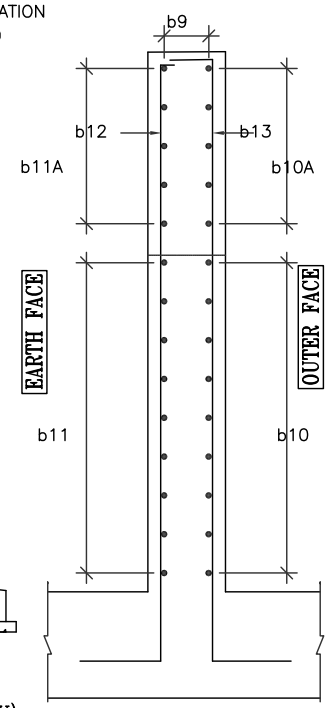
SECTION B-B
(SCALE-1:50)



SECTION E-E
(SCALE-1:25)



SECTION F-F
(FOUNDATION REINF. NOT SHOWN FOR CLARITY)
(SCALE-1:50)



SECTION G-G
(SCALE-1:20)

NOTE:-

1. CONCRETE SHALL BE DESIGN MX WITH MINIMUM 20 DAYS CHARACTERISTIC STRENGTH OF 35 Mpa FOR ALL COMPONENTS.
2. 100 MM DIA WEEP HOLES SPACED AT 1000mm c/c BOTH HORIZONTZLLY AND VERTICALLY SHALL BE PROVIDED 150 mm ABOVE GROUND LEVEL IN A STAGGERED MANNER IN VERTICALLY WALL AS SHOWN WEEP HOLES TO BE PROVIDED AS PER SPECIFICATION.
3. BACK FILLING BEHIND ABUTMENT SHALL CONSIST OF SELECTED EARTH CONFORMING TO APPENDIX:6 OF IRC:78-2014 HAVING PROPERTIES C=0, $\phi \geq 35°$, δ=22.5° & γd =20 KN/m^3.
4. THE REINFORCING BARS SHALL BE OF THERMO MECHANICALLY TREATED (TMT) (GRADE DESIGNATION Fe-500D) CONFORMING TO IS:1786 STANDARDS.
5. MINIMUM CLEAR COVER TO OUTER MOST REINFORCEMENT SHALL BE AS UNDER:-
   a. FOUNDATION - 75MM
   b. SHAFT DIRT WALL & RETURN WALL - 50MM
   c. DIRT WALL & CAP - 40MM
6. MAXIMUM LAP LENGTH SHALL BE 72 TIMES OF BAR TO BE LAPPED.
7. MINIMUM LAP LENGTH OF REINFORCEMENT FOR FAVOURABLE CONDITION SHALL BE AS UNDER:
   CONCRETE GRADE - M-30 - 56 x DIA OF BAR
   CONCRETE GRADE - M-35 - 51 x DIA OF BAR
   CONCRETE GRADE - M-40 - 48 x DIA OF BAR
   CONCRETE GRADE - M-45 - 45 x DIA OF BAR
8. HOOK AND OVERLAPS TO BE STANDARD DIMENSION.
9. THE MAXIMUM PRESSURE COMING BENEATH FOUNDATION IS 16t/m².

CLIENT

CENTRAL PUBLIC WORKS DEPARTMENT

HIGHWAY ENGINEERING CONSULTANT
HEAD OFFICE
JM -89/C, BEHIND PANCHWATI MARKET
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NAME OF WORK

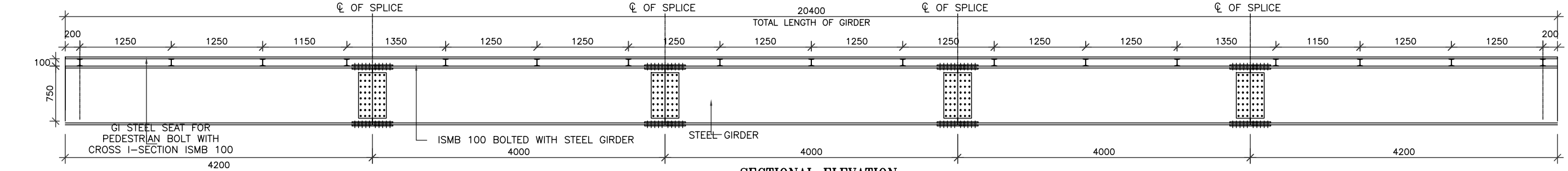
CONSULTANCY SERVICES FOR PREPERATION OF DETAIL PROJECT REPORT OF CRITICAL INFRASTRUCTURE IN ARUNACHAL PRADESH
SH: FOOT TRACKS ,PATROL ROUTES & FSB

DRAWN BY	P.D	
DESIGN BY	Y.B	
APPROVED BY	S.G	

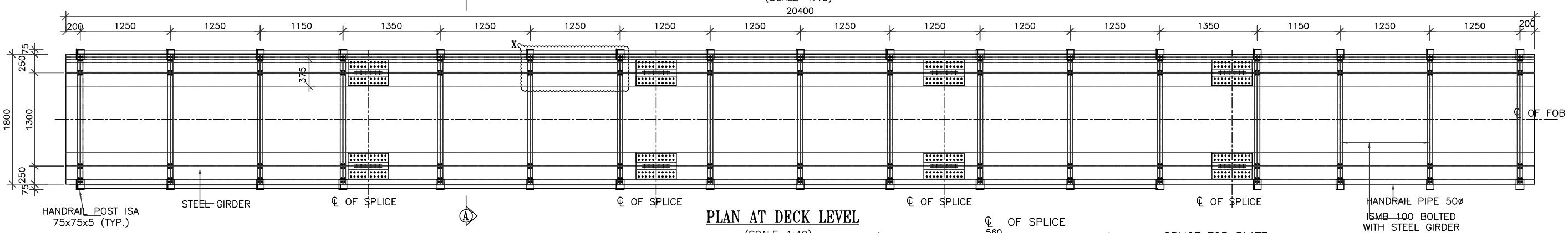
REVISION : R0
SHEET:
DEC : 2019
SIZE : A3

TITLE:-
GENERAL ARRANGEMENT DRAWING OF RENFORCEMENT 20.0M

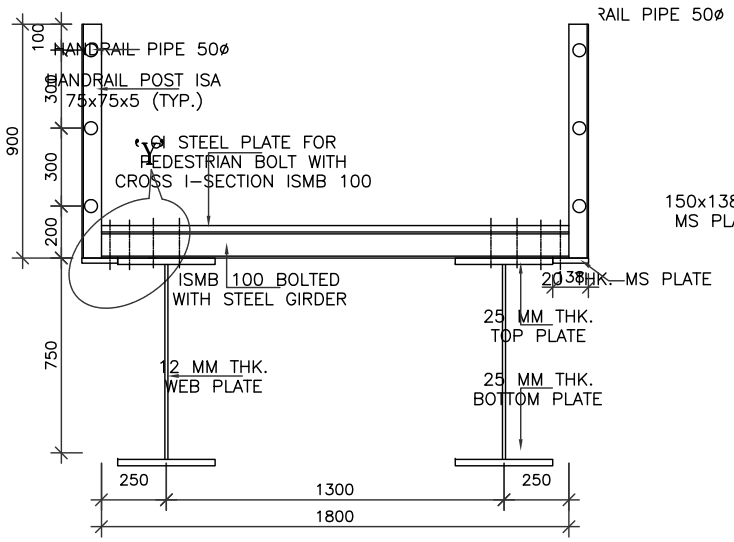
DRAWING NO : HEC/CPWD/AP/FOOT TRACK/03



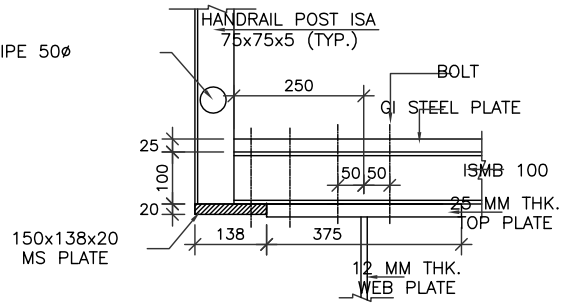
SECTIONAL ELEVATION
(SCALE–1:40)



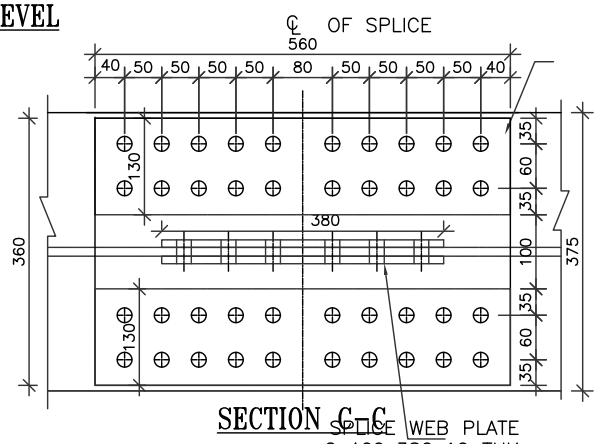
PLAN AT DECK LEVEL
(SCALE–1:40)



SECTION A–A
(SCALE–1:20)



DETAIL–Y
(SCALE–1:10)

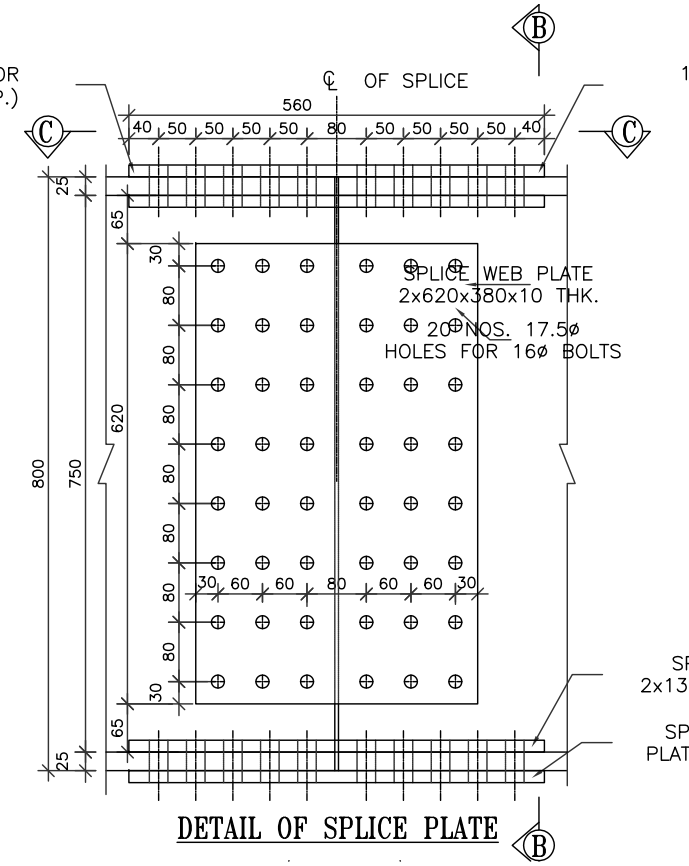


SECTION C–C
(SCALE–1:7)

SPLICE TOP PLATE 360x360x16 THK.

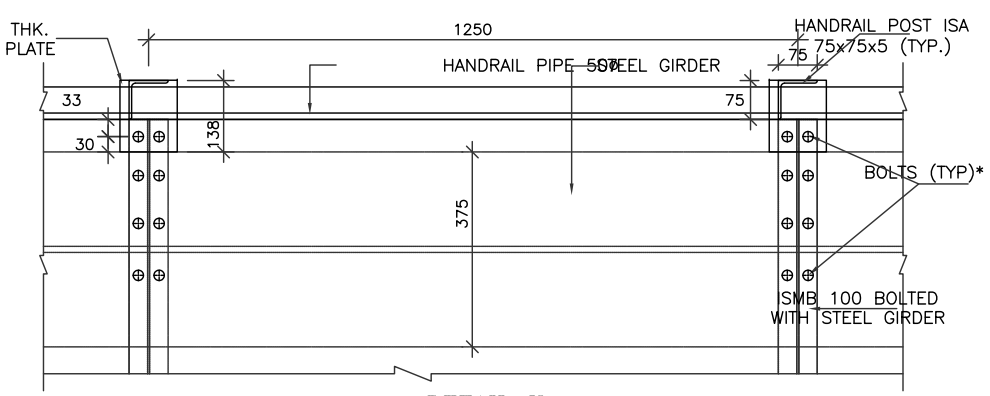
SPLICE WEB PLATE 2x460x380x10 THK.

, CLASS
:G BOLT
HOLES FOR
)LTS (TYP.)



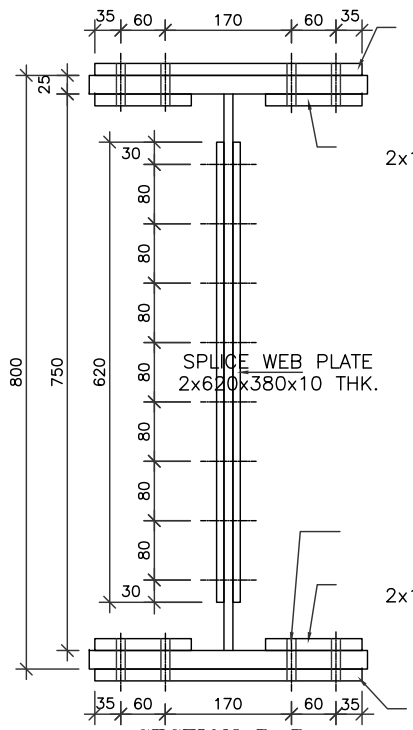
16 THK. SP
TOP PLAT

DETAIL OF SPLICE PLATE

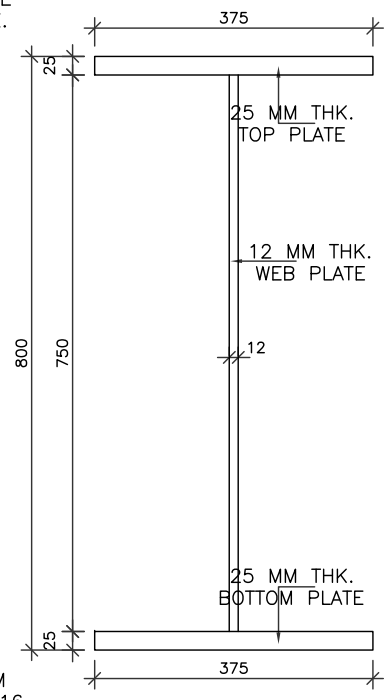


DETAIL–X
(SCALE–1:10)

'S SHOWN HOLE ARE TENTATIVE SAME SHALL BE FINALIZED BY CONSTRUCTION AFENCY



SECTION B–B
(SCALE–1:7)



TYPICAL SECTION STEEL GIRDER
(SCALE–1:7)

NOTE:-

1. ALL STRUCTURAL STEEL SHALL CONFORM TO IS:2062, E–250 (Fe–410) C–QUALITY.
2. ALL WELDING SHALL CONFORM TO IS:816 & IS:1024.
3. STEEL WASHER SHALL BE PROVIDED AT ALL BOLTS LOCATIONS
4. ALL WELDING SHALL BE 8mm THICK FILLET WELD.
5. ALL WELDING & ITS TESTING SHALL BE AS PER RELEVANT CODES MENTIONED IN IRC:24–2010.
6. WELDING IS MAINLY PROPOSED TO BE DONE AT FABRICATION YARD ONLY.

CLIENT

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REVISION : R0
SHEET:
DEC : 2019
SIZE : A3

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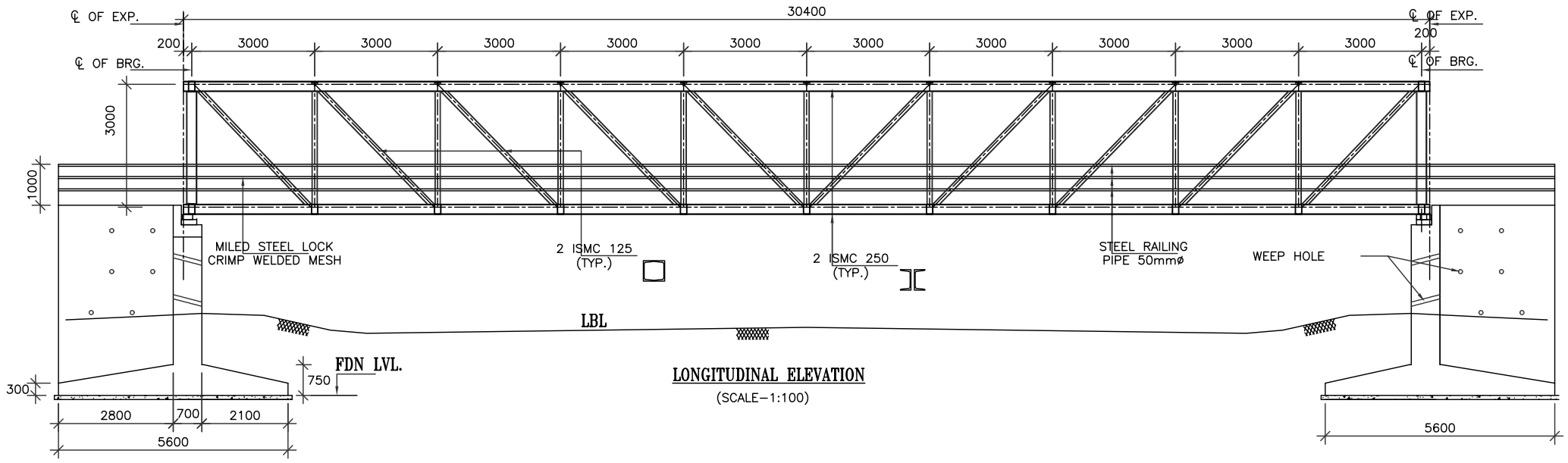
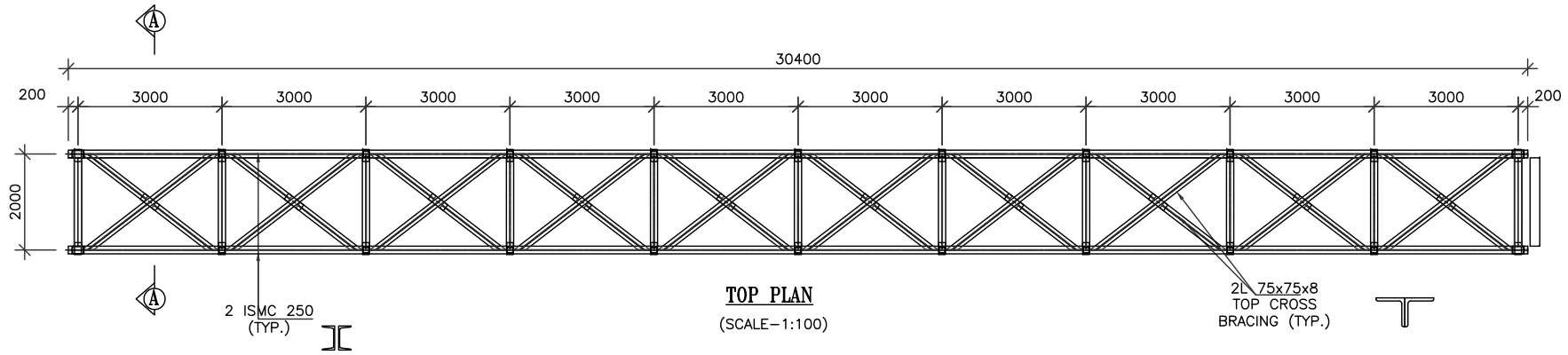


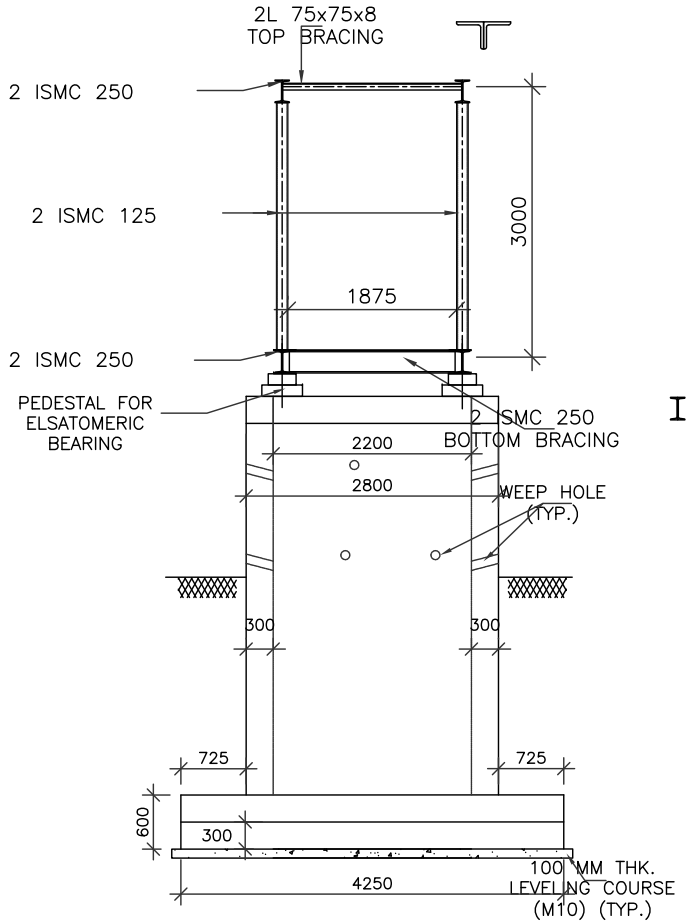
LONGITUDINAL ELEVATION

(SCALE–1:100)



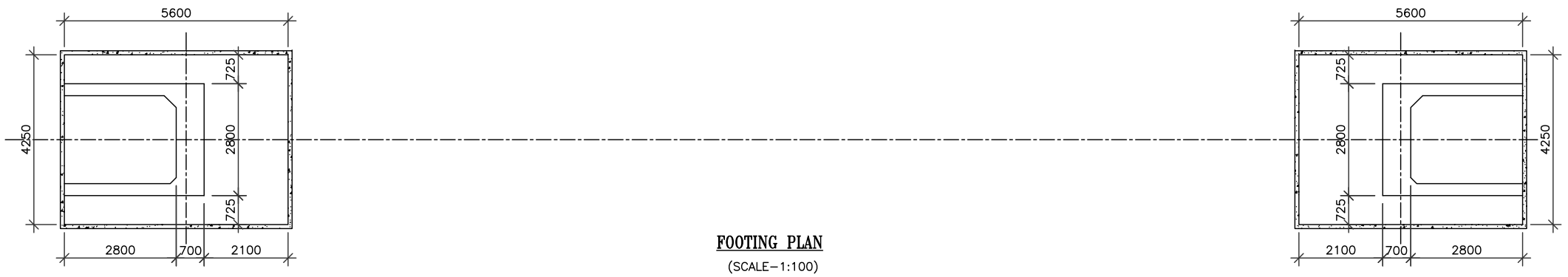
TOP PLAN

(SCALE–1:100)



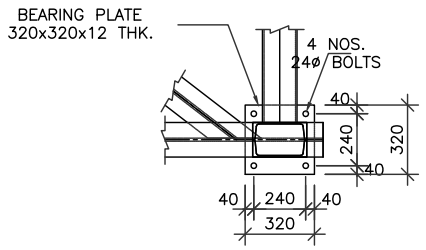
SECTION A-A

(SCALE–1:60)



FOOTING PLAN

(SCALE–1:100)



DETAIL OF BEARING PLATE

(SCALE–1:25)

NOTES:-

1. ALL STRUCTURAL SECTION SHALL BE MS TO IS 2062.
2. ALL STEEL SECTION SHALL RECEME 0.2 PRIMER COATS OF RED CODE ZINC CHROMATE CONFORMING TO IS 2074.
3. TWO COATS OF SYNTHETIC ENAMEL PAINT CONFORMING TO IS 2932.
4. TOP OF THE BASE PLATE AND BOTTOM OF COLUMN MACHINED.
5. ALL WELDS CONFORMING COLUMN TO BE BASE PLATE ARE 8mm NORMAL SIZE.
6. END CONNECTION ROLLED BEAMS AND CHANNEL SHALL BE DESIGNED FOR MINIMUM OF 60% OF THEIR SHEAR CAPACITY & BUILT UP BEAMS FOR 80% OF THEIR SHEAR CAPACITY IN ADDITION TO AXIAL LOAD.
7. ALL WELD ARE 6mm THICK FILLET WELD UNLESS NOTED OTHERWISE.
8. THIS DRG. IN ONLY GAD.
9. THE DETAILS OF CONNECTION OF THE TRUSS SHALL BE DESIGNED SCHEME OF FABRICATION TRANSPORTATION AND ERECTION AT SITE.

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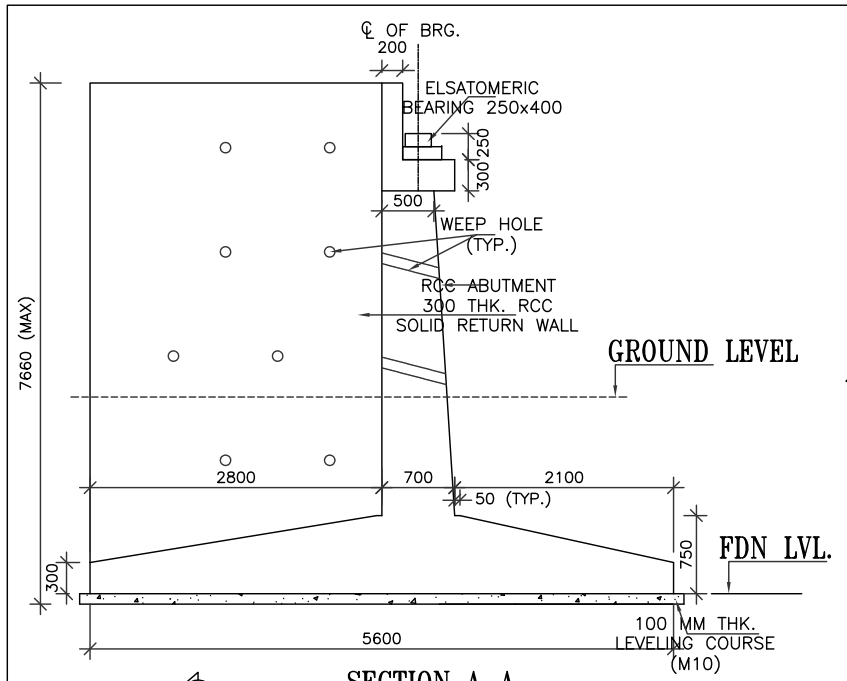
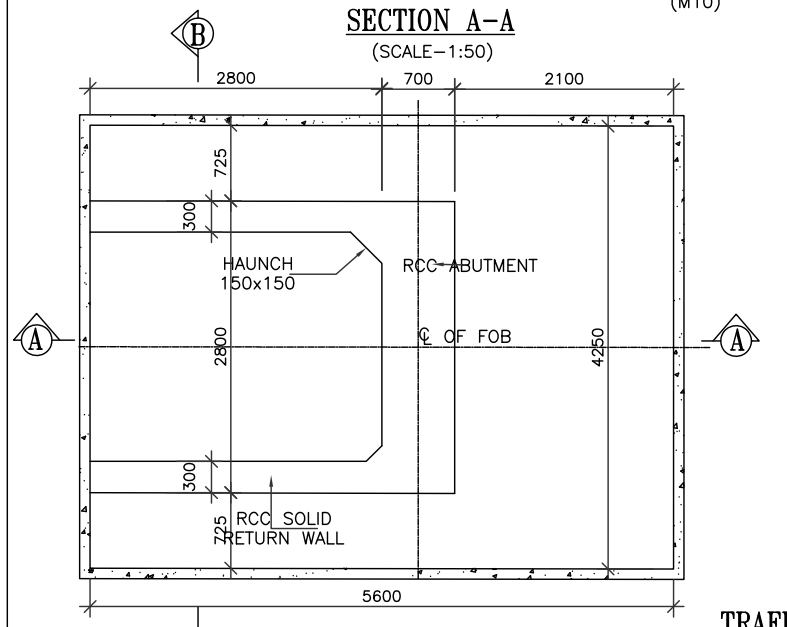
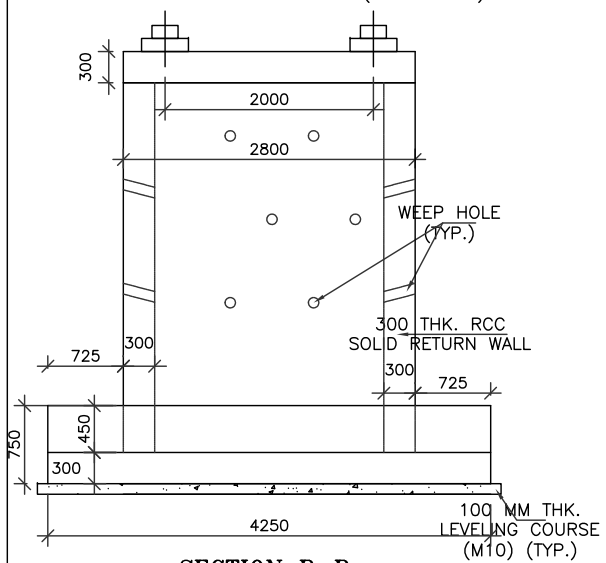


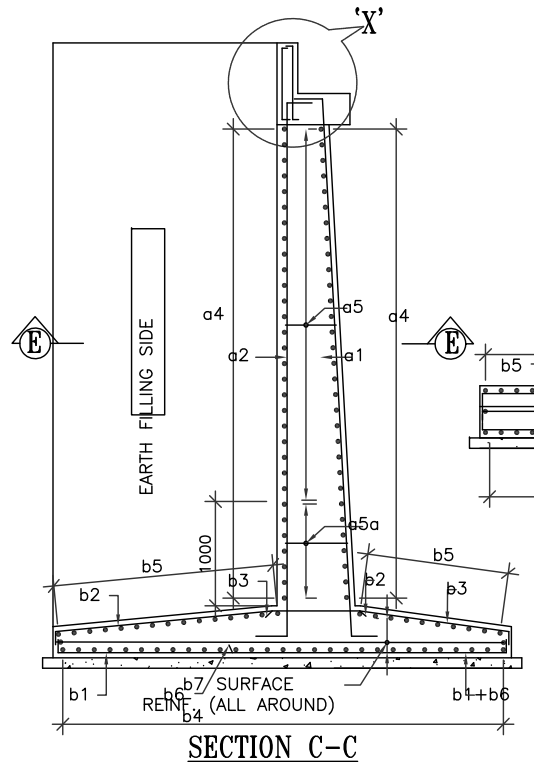
SECTION A-A
(SCALE-1:50)



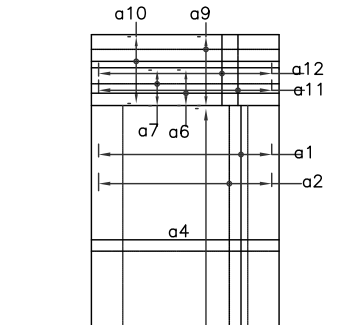
B PLAN AT FOOTING TOP LEVEL
(SCALE-1:50)



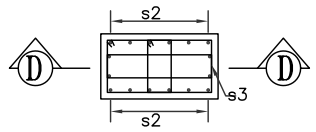
SECTION B-B
(SCALE-1:50)



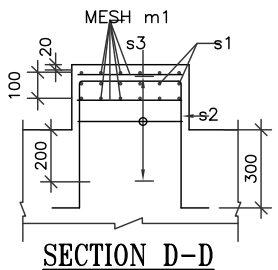
SECTION C-C
(SCALE-1:50)



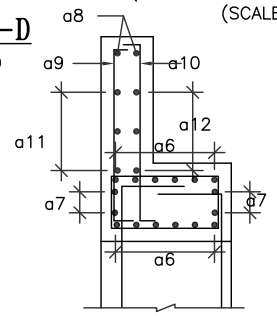
SECTION D-D
(SCALE-1:50)



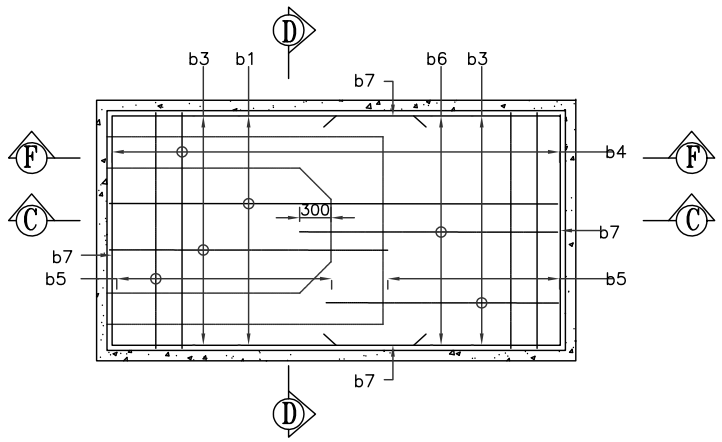
(SCALE-1:20)



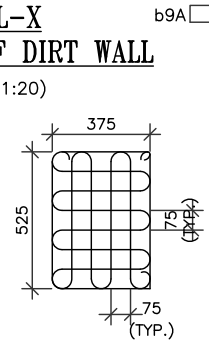
SECTION D-D
(REINF. SHOWING IN PEDESTAL)
(SCALE-1:20)



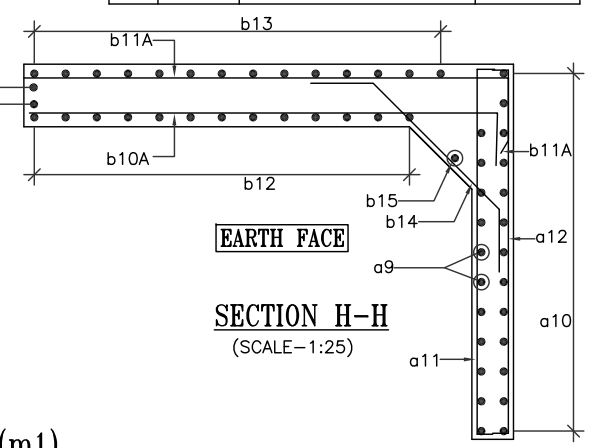
DETAIL-X
REIN.DETAIL OF DIRT WALL
(SCALE-1:20)



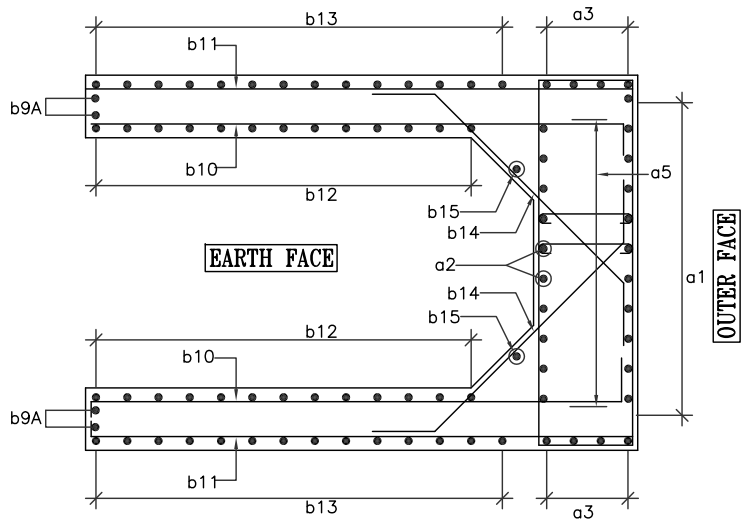
TRAFFIC DIRECTION PLAN OF ABUTMENT FOUNDATION
(ABUTMENT SHAFT REINF. NOT SHOWN FOR CLARITY)
(SCALE-1:50)



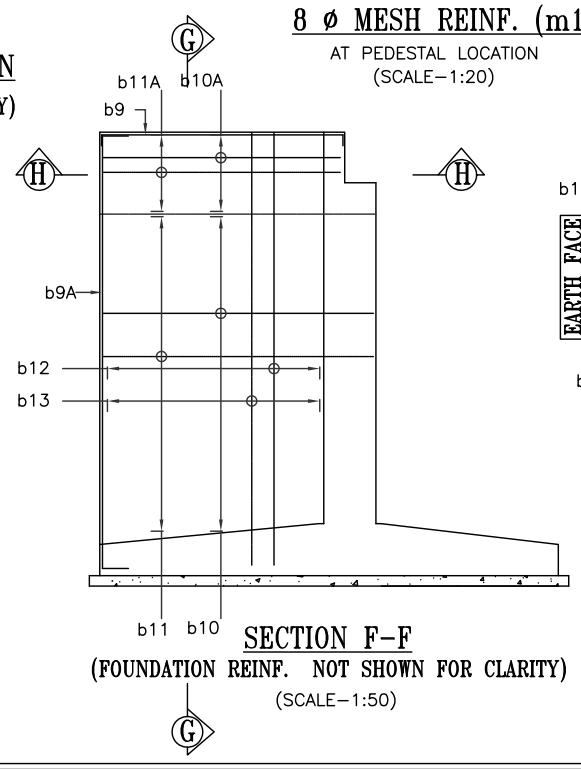
8 ø MESH REINF. (m1)
AT PEDESTAL LOCATION
(SCALE-1:20)



SECTION H-H
(SCALE-1:25)



SECTION E-E
(SCALE-1:25)



SECTION F-F
(FOUNDATION REINF. NOT SHOWN FOR CLARITY)
(SCALE-1:50)

SECTION G-G
(SCALE-1:20)

REINFORCEMENT SCHEDULE

ABUTMENT SHAFT CAP & DIRT WALL			
S.NO.	BAR MARKED.	DESCRIPTION	SHAPE
1	a1	16 ϕ @ 125 c/c	300
2	a2	32 ϕ @ 125 c/c	300, 500
3	a3	16 ϕ @ 175c/c	LV.
4	a4	16 ϕ @ 150c/c	
5	a5	8 ϕ @ 300c/c	LINK HORZ. STANDERED
6	a5a	12 ϕ @ 150c/c	HORZ. STAGGERED
7	a6	10 ϕ 6 NOS. (TOP & BOTTOM)	150
8	a6a	2L-12 ϕ @ 125 c/c	
9	a7	10 ϕ @ 125c/c	300
10	a8	12 ϕ -2 NOS.	
11	a9	10 ϕ @ 125c/c	300
12	a10	8 ϕ @ 125c/c	300
13	a11	8 ϕ @ 150c/c	100
14	a12	8 ϕ @ 150c/c	100

FOOTING REINF.			
S.NO.	BAR MARKED.	DESCRIPTION	SHAPE
1	b1	20 ϕ @ 200 c/c	150
2	b2	16 ϕ @ 200 c/c	150, 300, 500
3	b3	16 ϕ @ 200 c/c	150, LV.
4	b4	16 ϕ @ 150c/c	150
5	b5	12 ϕ @ 150c/c	150
6	b6	20 ϕ @ 200 c/c	150
7	b7	12 ϕ @ 200c/c	LV.
RETURN WALL			
8	b9	16 ϕ - 2 NOS.	300
9	b9A	12 ϕ - 2 NOS.	
10	b10	16 ϕ @ 150c/c	150, 500
11	b10A	12 ϕ @ 150c/c	150, 500
12	b11	10 ϕ @ 150c/c	150, 400
13	b11A	10 ϕ @ 150c/c	300, 400
14	b12	16 ϕ @ 125c/c (ALT. PLACED @ 175c/c)	150, 300
15	b13	10 ϕ @ 125c/c	150, 300
16	b14	10 ϕ @ 150c/c	150, 150
17	b15	10 ϕ - 2 NOS.	
18	s1	12 ϕ @ 150 c/c	150
19	s2	12 ϕ @ 150 c/c	150
20	s3	10 ϕ @ 125 c/c	
21	s4	10 ϕ @ 125 c/c	
22	s5	10 ϕ @ 125 c/c	300

NOTE:-

1. CONCRETE SHALL BE DESIGN MX WITH MINIMUM 20 DAYS CHARACTERISTIC STRENGTH OF 35 Mpa FOR ALL COMPONENTS.
2. 100 MM DIA WEEP HOLES SPACED AT 1000mm c/c BOTH HORIZONTZLLY AND VERTICALLY SHALL BE PROVIDED 150 mm ABOVE GROUND LEVEL IN A STAGGERED MANNER IN VERTICALLY WALL AS SHOWN WEEP HOLES TO BE PROVIDED AS PER SPECIFICATION.
3. BACK FILLING BEHIND ABUTMENT SHALL CONSIST OF SELECTED EARTH CONFORMING TO APPENDIX:6 OF IRC:78-2014 HAVING PROPERTIES C=0, $\phi \geq 35°$, $\delta = 22.5°$ & $\gamma d = 20$ KN/m^3.
4. THE REINFORCING BARS SHALL BE OF THERMO MECHANICALLY TREATED (TMT) (GRADE DESIGNATION Fe-500D) CONFORMING TO IS:1786 STANDARDS.
5. MINIMUM CLEAR COVER TO OUTER MOST REINFORCEMENT SHALL BE AS UNDER:-
   a. FOUNDATION - 75MM
   b. SHAFT DIRT WALL & RETURN WALL - 50MM
   c. DIRT WALL & CAP - 40MM
6. MAXIMUM LAP LENGTH SHALL BE 72 TIMES OF BAR TO BE LAPPED.
7. MINIMUM LAP LENGTH OF REINFORCEMENT FOR FAVOURABLE CONDITION SHALL BE AS UNDER:
   CONCRETE GRADE - M-30 - 56 x DIA OF BAR
   CONCRETE GRADE - M-35 - 51 x DIA OF BAR
   CONCRETE GRADE - M-40 - 48 x DIA OF BAR
   CONCRETE GRADE - M-45 - 45 x DIA OF BAR
8. HOOK AND OVERLAPS TO BE STANDARD DIMENSION.
9. THE MAXIMUM PRESSURE COMING BENEATH FOUNDATION IS 20 t/M^2

LEGEND:-

TOP BAR/OUTER FACE
BOTTOM BAR/EARTH FACE
LV. LENGTH VARIES

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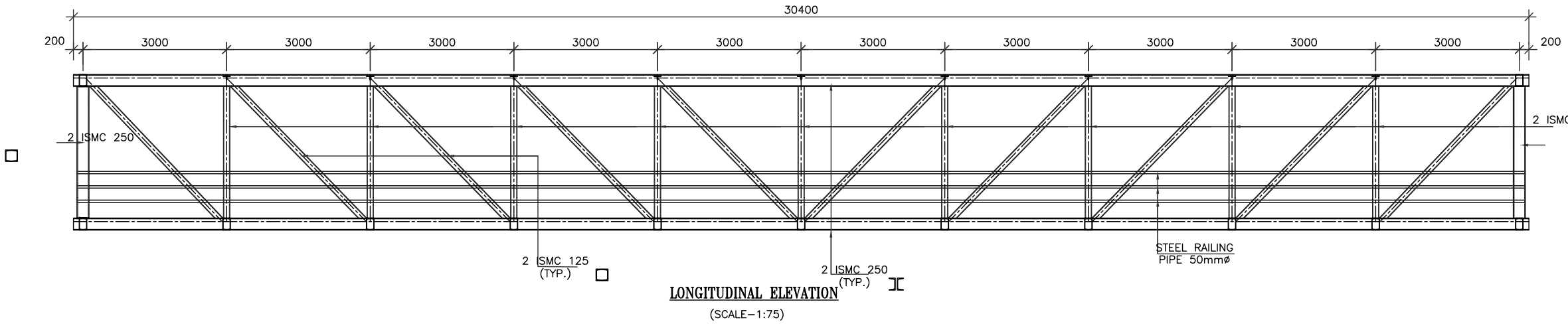
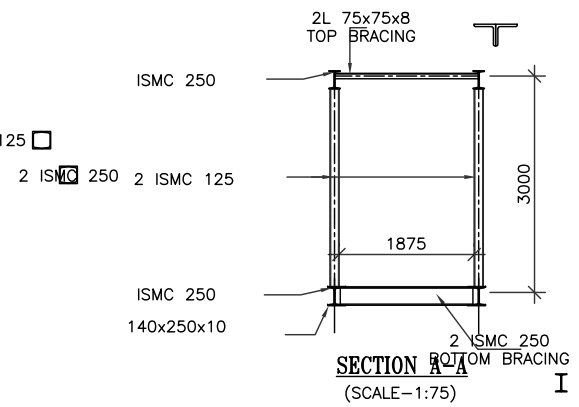


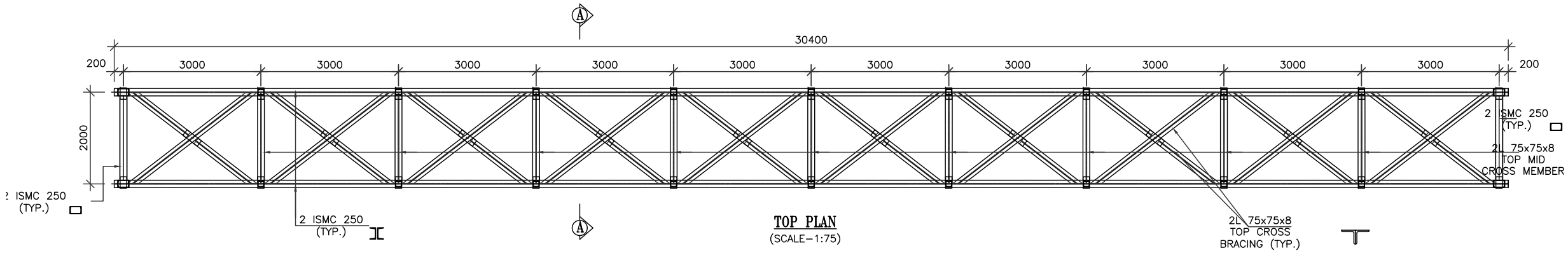
LONGITUDINAL ELEVATION

(SCALE–1:75)



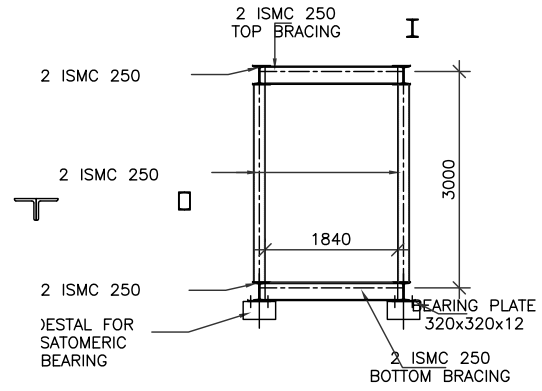
SECTION A-A

(SCALE–1:75)



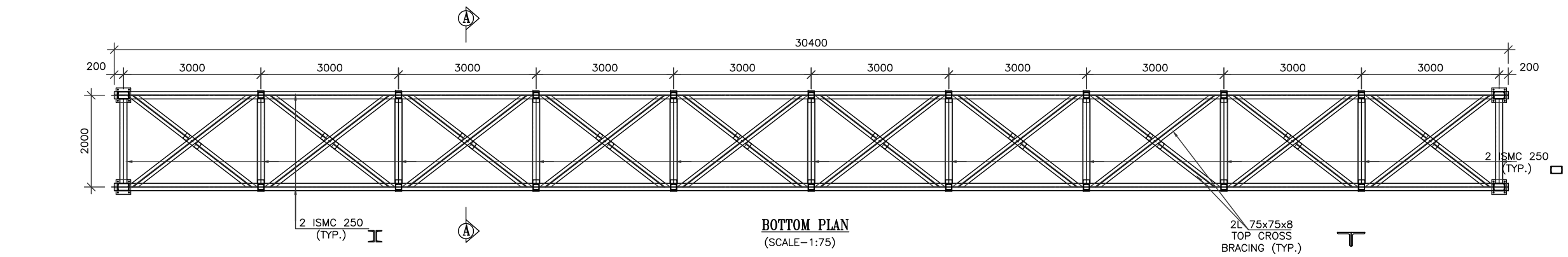
TOP PLAN

(SCALE–1:75)



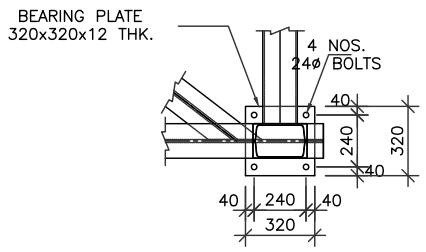
END CROSS SECTION

(SCALE–1:75)



BOTTOM PLAN

(SCALE–1:75)



DETAIL OF BEARING PLATE

(SCALE–1:25)

NOTES:-

1. ALL STRUCTURAL SECTION SHALL BE MS TO IS 2062.
2. ALL STEEL SECTION SHALL RECEME 0.2 PRIMER COATS OF RED CODE ZINC CHROMATE CONFORMING TO IS 2074.
3. TWO COATS OF SYNTHETIC ENAMEL PAINT CONFORMING TO IS 2932.
4. TOP OF THE BASE PLATE AND BOTTOM OF COLUMN MACHINED.
5. ALL WELDS CONFORMING COLUMN TO BE BASE PLATE ARE 8mm NORMAL SIZE.
6. END CONNECTION ROLLED BEAMS AND CHANNEL SHALL BE DESIGNED FOR MINIMUM OF 60% OF THEIR SHEAR CAPACITY & BUILT UP BEAMS FOR 80% OF THEIR SHEAR CAPACITY IN ADDITION TO AXIAL LOAD.
7. ALL WELD ARE 6mm THICK FILLET WELD UNLESS NOTED OTHERWISE.
8. THE DETAILS OF CONNECTION OF THE TRUSS SHALL BE DESIGNED SCHEME OF FABRICATION TRANSPORTATION AND ERECTION AT SITE.

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HIGHWAY ENGINEERING CONSULTANT

HEAD OFFICE

JM -89/C, BEHIND PANCHWATI MARKET
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NAME OF WORK

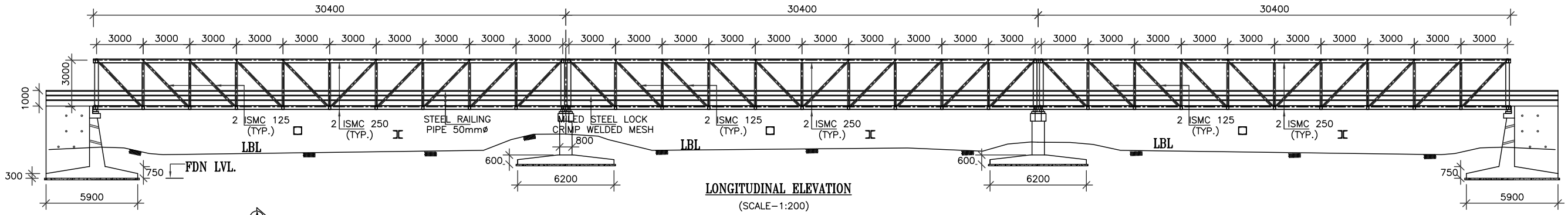
CONSULTANCY SERVICES FOR PREPERATION OF DETAIL PROJECT REPORT OF CRITICAL INFRASTRUCTURE IN ARUNACHAL PRADESH
SH: FOOT TRACKS ,PATROL ROUTES & FSB

DRAWN BY	P.D	
DESIGN BY	Y.B	
APPROVED BY	S.G	

REVISION : R0
SHEET:
DEC : 2019
SIZE : A3

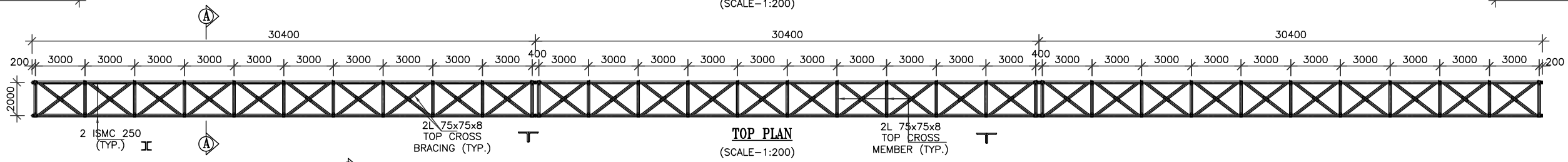
TITLE:-
GENERAL ARRANGEMENT DRAWING OF RENFORCEMENT 30.0M

DRAWING NO : HEC/CPWD/AP/FOOT TRACK/03



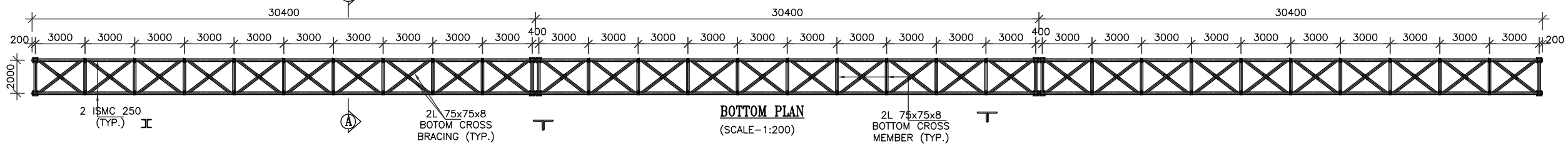
LONGITUDINAL ELEVATION

(SCALE–1:200)



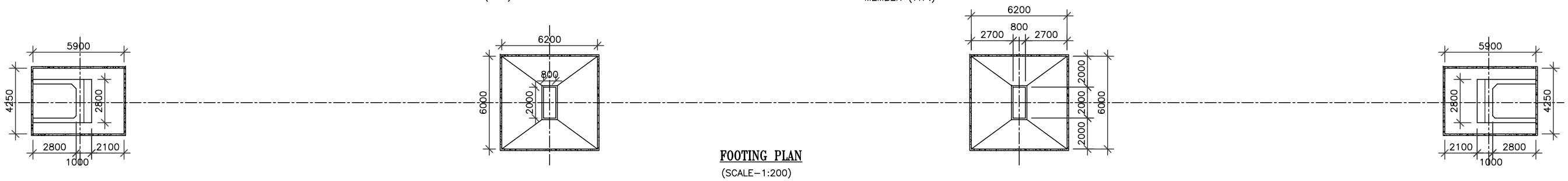
TOP PLAN

(SCALE–1:200)



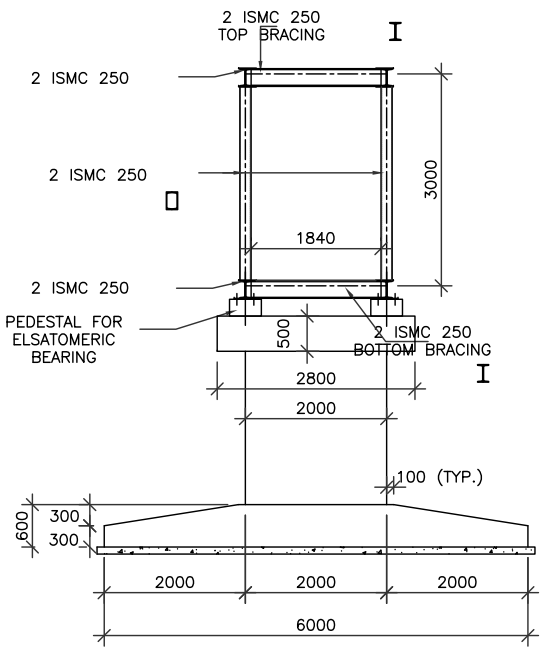
BOTTOM PLAN

(SCALE–1:200)



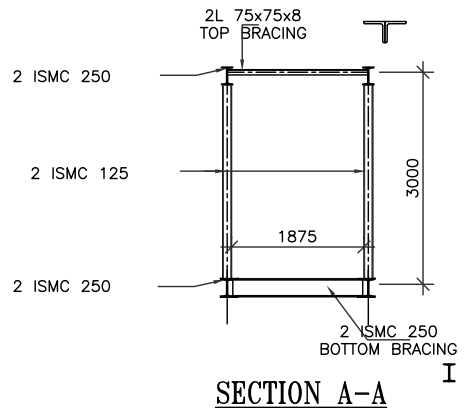
FOOTING PLAN

(SCALE–1:200)



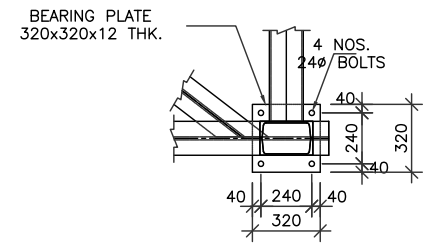
END CROSS SECTION

(SCALE–1:75)



SECTION A–A

(SCALE–1:75)



DETAIL OF BEARING PLATE

(SCALE–1:25)

NOTES:-

1. ALL STRUCTURAL SECTION SHALL BE MS TO IS 2062.
2. ALL STEEL SECTION SHALL RECEME 0.2 PRIMER COATS OF RED CODE ZINC CHROMATE CONFORMING TO IS 2074.
3. TWO COATS OF SYNTHETIC ENAMEL PAINT CONFORMING TO IS 2932.
4. TOP OF THE BASE PLATE AND BOTTOM OF COLUMN MACHINED.
5. ALL WELDS CONFORMING COLUMN TO BE BASE PLATE ARE 8mm NORMAL SIZE.
6. END CONNECTION ROLLED BEAMS AND CHANNEL SHALL BE DESIGNED FOR MINIMUM OF 60% OF THEIR SHEAR CAPACITY & BUILT UP BEAMS FOR 80% OF THEIR SHEAR CAPACITY IN ADDITION TO AXIAL LOAD.
7. ALL WELD ARE 6mm THICK FILLET WELD UNLESS NOTED OTHERWISE.
8. THIS DRG. IN ONLY GAD.
9. THE DETAILS OF CONNECTION OF THE TRUSS SHALL BE DESIGNED SCHEME OF FABRICATION TRANSPORTATION AND ERECTION AT SITE.

CLIENT

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NAME OF WORK

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SH: FOOT TRACKS ,PATROL ROUTES & FSB

DRAWN BY	P.D	
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REVISION : R0
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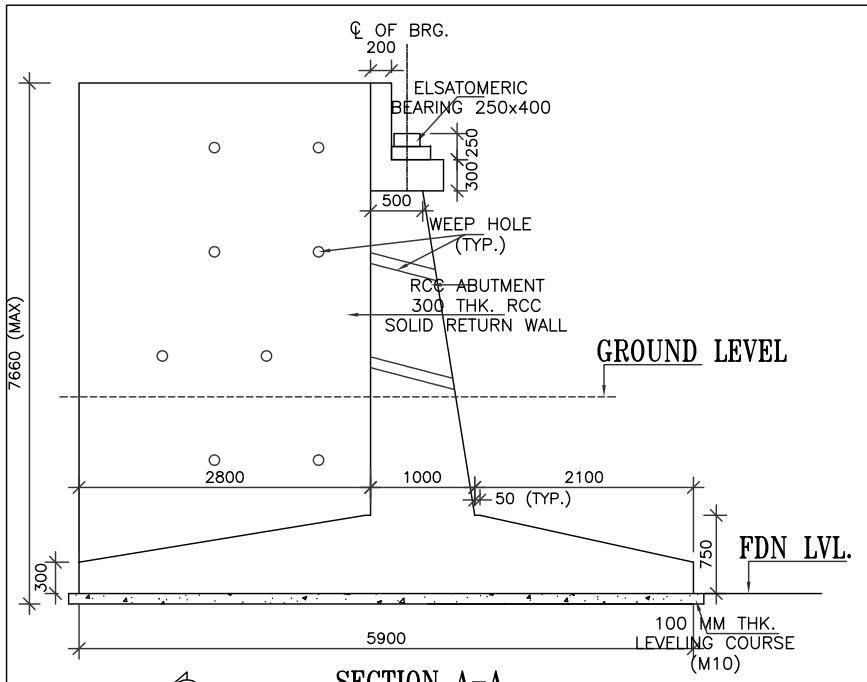
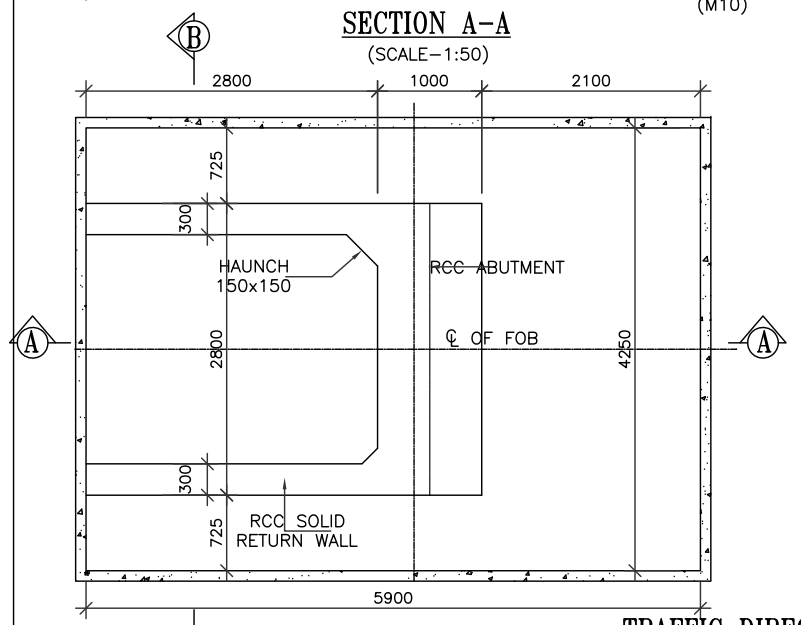
GENERAL ARRANGEMENT DRAWING OF RENFORCEMENT 90.0M

DRAWING NO : HEC/CPWD/AP/FOOT TRACK/03

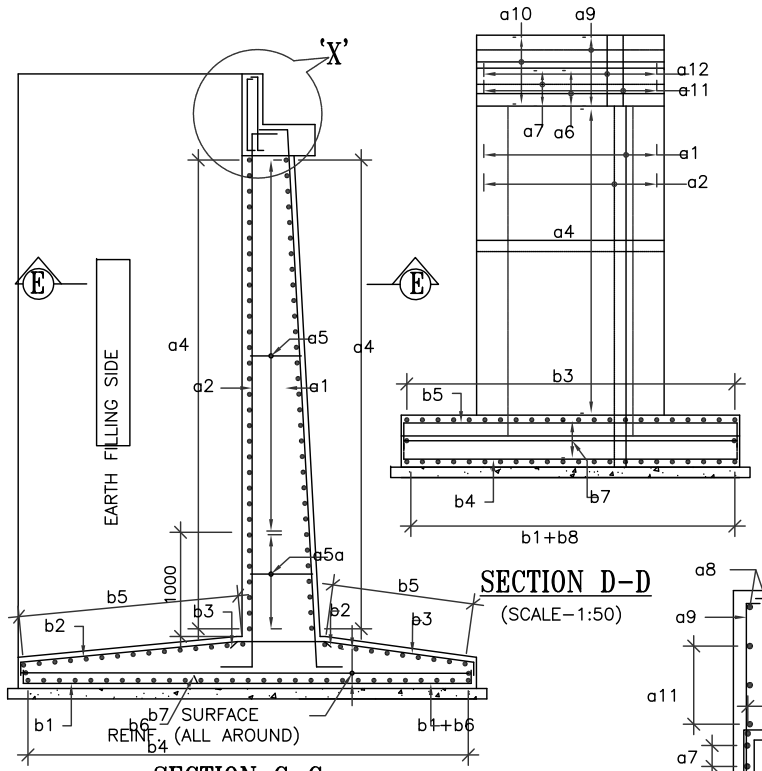


SECTION A-A
(SCALE-1:50)

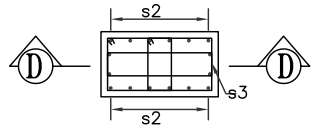


B PLAN AT FOOTING TOP LEVEL
(SCALE-1:50)

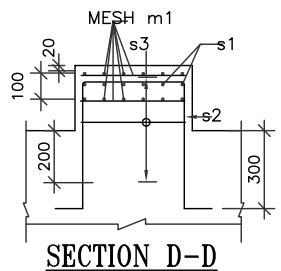
TRAFFIC DIRECTION



SECTION C-C
(SCALE-1:50)

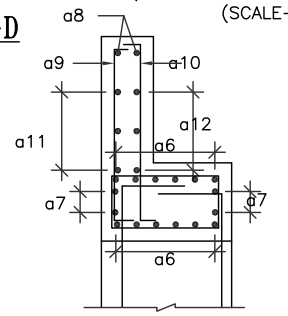


(SCALE-1:20)

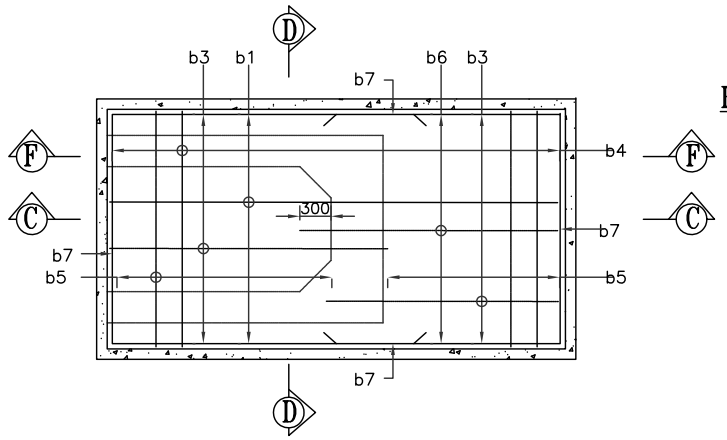


SECTION D-D
(REINF. SHOWING IN PEDESTAL)
(SCALE-1:20)

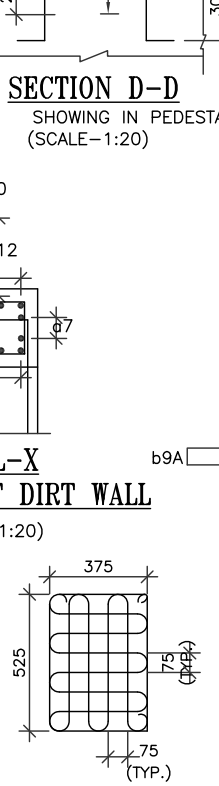
SECTION D-D
(SCALE-1:50)



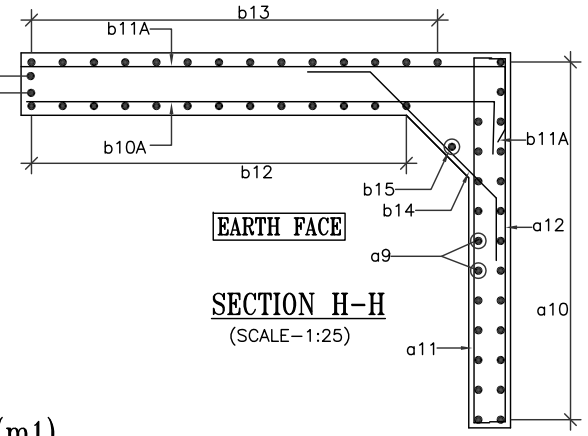
DETAIL-X
REIN.DETAIL OF DIRT WALL
(SCALE-1:20)



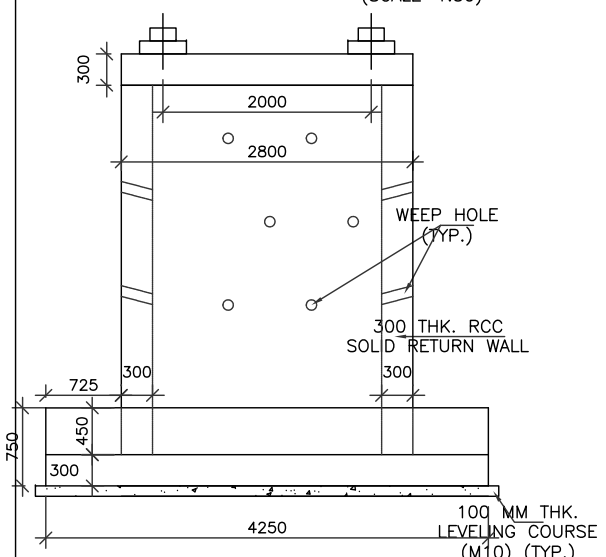
REINF. PLAN OF ABUTMENT FOUNDATION
(ABUTMENT SHAFT REINF. NOT SHOWN FOR CLARITY)
(SCALE-1:50)



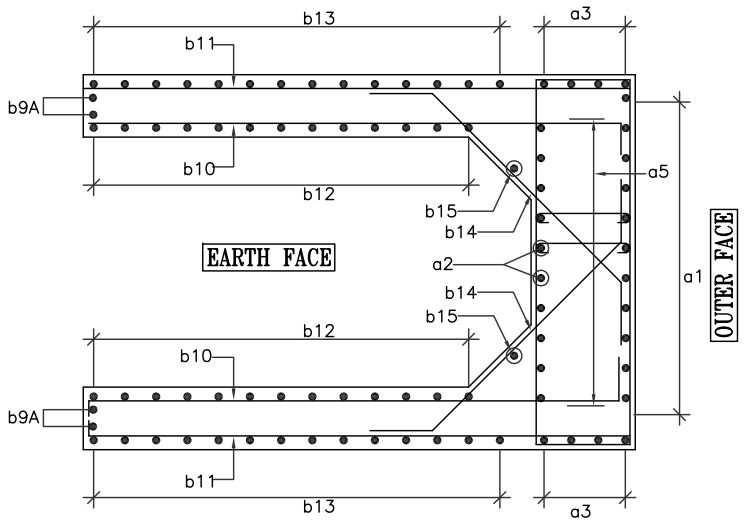
8 ø MESH REINF. (m1)
AT PEDESTAL LOCATION
(SCALE-1:20)



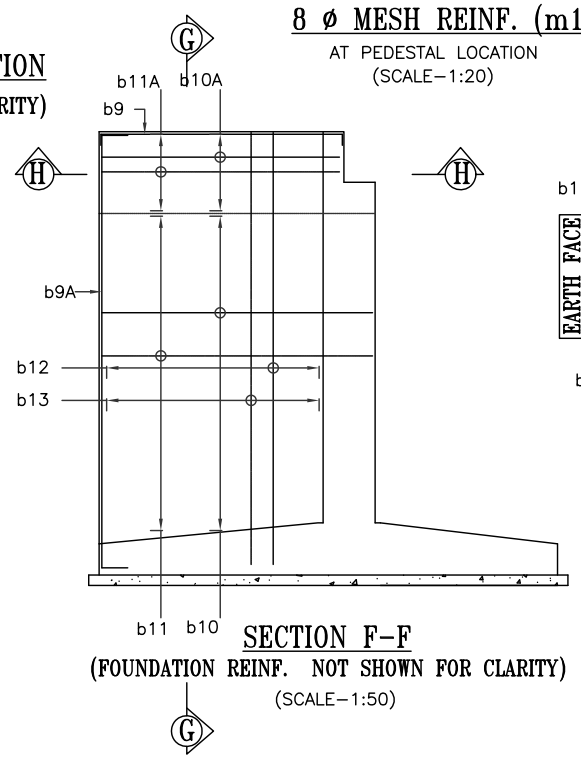
SECTION H-H
(SCALE-1:25)



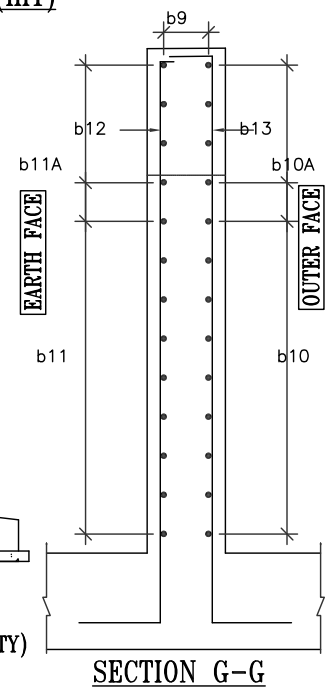
SECTION B-B
(SCALE-1:50)



SECTION E-E
(SCALE-1:25)



SECTION F-F
(FOUNDATION REINF. NOT SHOWN FOR CLARITY)
(SCALE-1:50)



SECTION G-G
(SCALE-1:20)

REINFORCEMENT SCHEDULE

ABUTMENT SHAFT CAP & DIRT WALL

S.NO.	BAR MARKED.	DESCRIPTION	SHAPE
1	a1	16 ϕ @ 125 c/c	300
2	a2	32 ϕ @ 125 c/c	300, 500
3	a3	16 ϕ @ 175c/c	LV.
4	a4	16 ϕ @ 150c/c	
5	a5	8 ϕ @ 300c/c	LINK HORZ. STANDERED
6	a5a	12ϕ @ 150c/c	HORZ. STAGGERED
7	a6	10 ϕ 6 NOS. (TOP & BOTTOM)	150
8	a6a	2L-12 ϕ @ 125 c/c	
9	a7	10 ϕ @ 125c/c	300
10	a8	12 ϕ -2 NOS.	
11	a9	10 ϕ @ 125c/c	300
12	a10	8 ϕ @ 125c/c	300
13	a11	8 ϕ @ 150c/c	100
14	a12	8 ϕ @ 150c/c	100

FOOTING REINF.			
S.NO.	BAR MARKED.	DESCRIPTION	SHAPE
1	b1	20 ϕ @ 200 c/c	150
2	b2	16 ϕ @ 200 c/c	150
3	b3	16 ϕ @ 200 c/c	150
4	b4	16 ϕ @ 150c/c	150
5	b5	12 ϕ @ 150c/c	150
6	b6	20 ϕ @ 200 c/c	150
7	b7	12 ϕ @ 200c/c	LV.
RETURN WALL			
8	b9	16 ϕ - 2 NOS.	300
9	b9A	12 ϕ - 2 NOS.	
10	b10	16 ϕ @ 150c/c	150, 500
11	b10A	12 ϕ @ 150c/c	150, 500
12	b11	10 ϕ @ 150c/c	150, 400
13	b11A	10 ϕ @ 150c/c	300, 400
14	b12	16 ϕ @ 125c/c (ALT. PLACED @ 175c/c)	150, 300
15	b13	10 ϕ @ 125c/c	150, 300
16	b14	10 ϕ @ 150c/c	150, 150
17	b15	10 ϕ - 2 NOS.	
18	s1	12 ϕ @ 150 c/c	150
19	s2	12 ϕ @ 150 c/c	150
20	s3	10 ϕ @ 125 c/c	
21	s4	10 ϕ @ 125 c/c	
22	s5	10 ϕ @ 125 c/c	300

NOTE:-

1. CONCRETE SHALL BE DESIGN MX WITH MINIMUM 20 DAYS CHARACTERISTIC STRENGTH OF 35 Mpa FOR ALL COMPONENTS.
2. 100 MM DIA WEEP HOLES SPACED AT 1000mm c/c BOTH HORIZONTZLLY AND VERTICALLY SHALL BE PROVIDED 150 mm ABOVE GROUND LEVEL IN A STAGGERED MANNER IN VERTICALLY WALL AS SHOWN WEEP HOLES TO BE PROVIDED AS PER SPECIFICATION.
3. BACK FILLING BEHIND ABUTMENT SHALL CONSIST OF SELECTED EARTH CONFORMING TO APPENDIX:6 OF IRC:78-2014 HAVING PROPERTIES C=0, ø≥ 35°, δ=22.5° & γd =20 KN/m³.
4. THE REINFORCING BARS SHALL BE OF THERMO MECHANICALLY TREATED (TMT) (GRADE DESIGNATION Fe-500D) CONFORMING TO IS:1786 STANDARDS.
5. MINIMUM CLEAR COVER TO OUTER MOST REINFORCEMENT SHALL BE AS UNDER:-
   a. FOUNDATION - 75MM
   b. SHAFT DIRT WALL & RETURN WALL - 50MM
   c. DIRT WALL & CAP - 40MM
6. MAXIMUM LAP LENGTH SHALL BE 72 TIMES OF BAR TO BE LAPPED.
7. MINIMUM LAP LENGTH OF REINFORCEMENT FOR FAVOURABLE CONDITION SHALL BE AS UNDER:
   CONCRETE GRADE - M-30 - 56 x DIA OF BAR
   CONCRETE GRADE - M-35 - 51 x DIA OF BAR
   CONCRETE GRADE - M-40 - 48 x DIA OF BAR
   CONCRETE GRADE - M-45 - 45 x DIA OF BAR
8. HOOK AND OVERLAPS TO BE STANDARD DIMENSION.
9. THE MAXIMUM PRESSURE COMING BENEATH FOUNDATION IS 20 t/M²

LEGEND:-

——— TOP BAR/OUTER FACE
——— BOTTOM BAR/EARTH FACE
LV. LENGTH VARIES

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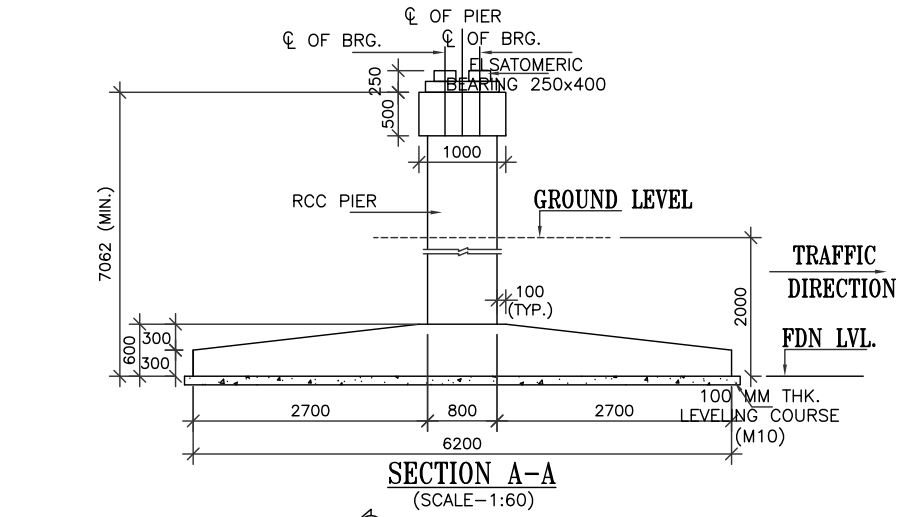
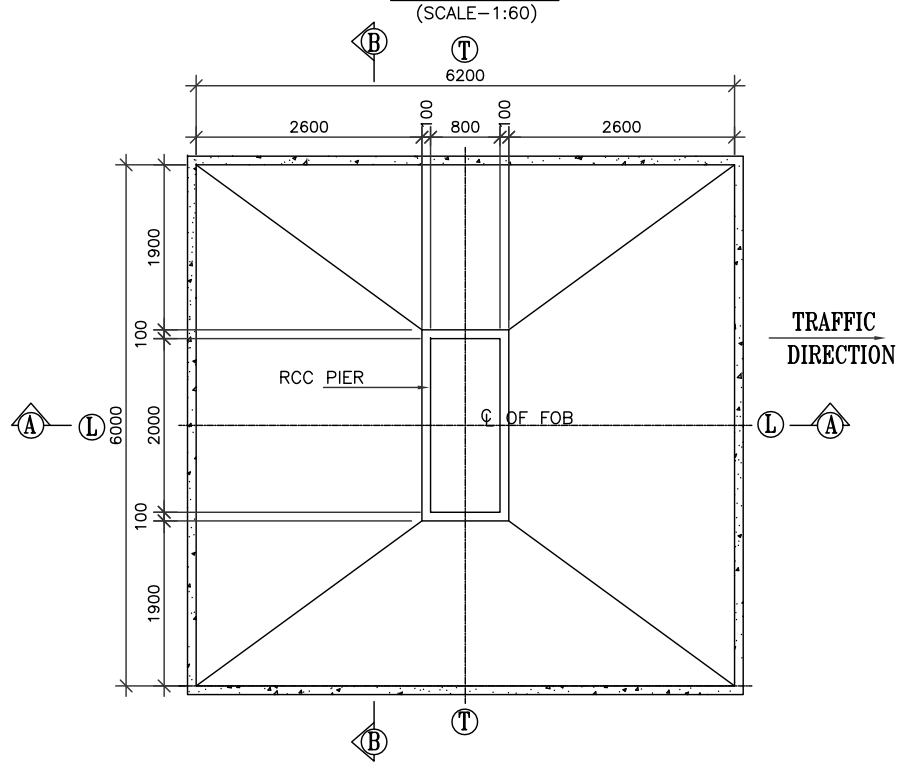
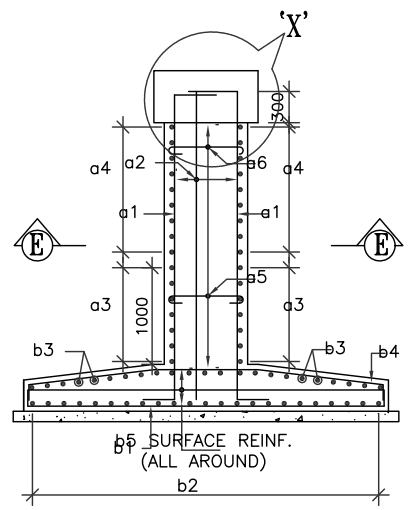


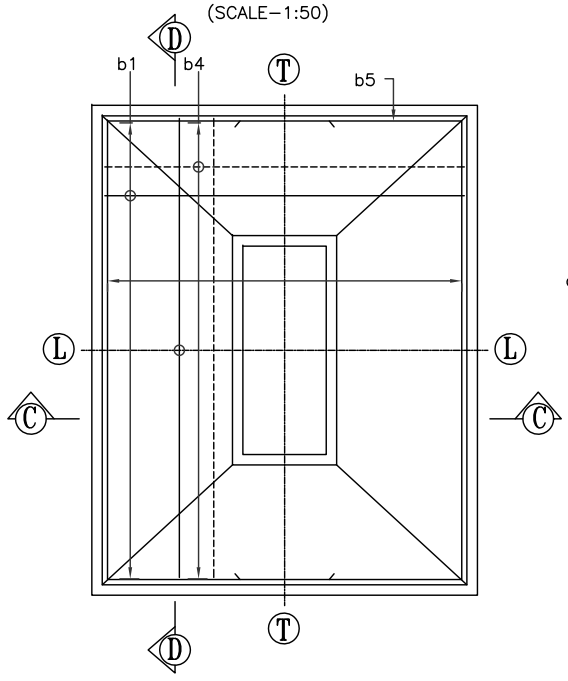
SECTION A-A
(SCALE-1:60)



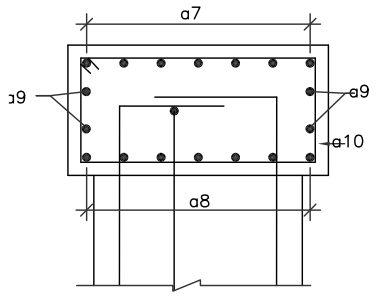
PLAN AT FOOTING TOP LEVEL
(SCALE-1:60)



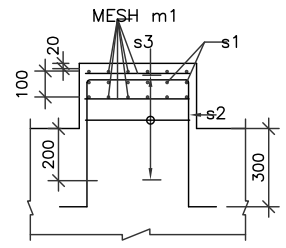
SECTION C-C
(SCALE-1:50)



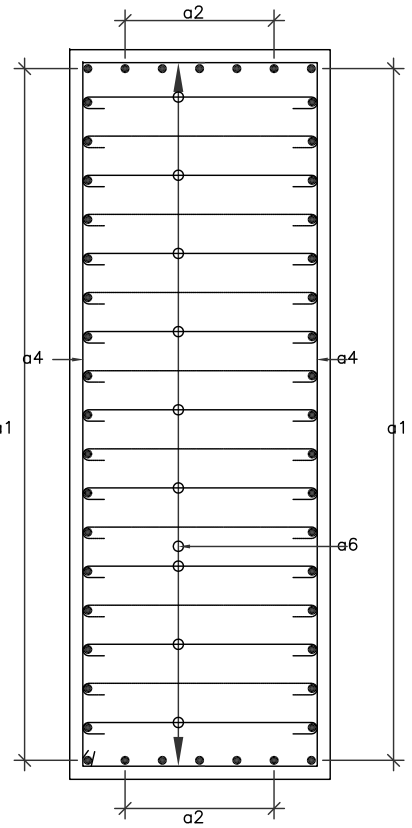
REINF. PLAN OF PIER FOUNDATION
(PIER SHAFT REINF. NOT SHOWN FOR CLARITY)
(SCALE-1:50)



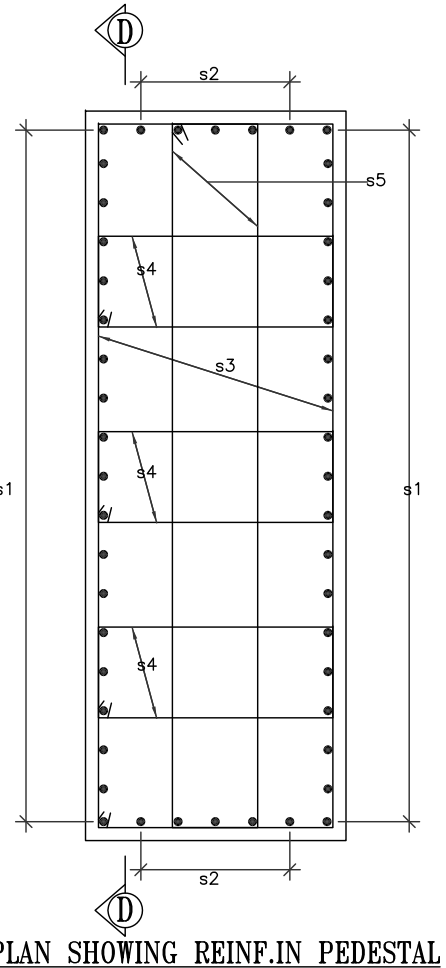
DETAIL-X
REINF. DETAILS OF PIER CAP
(SCALE-1:20)



SECTION D-D
(REINF. SHOWING IN PEDESTAL)
(SCALE-1:20)



SECTION E-E
(SCALE-1:20)



PLAN SHOWING REINF.IN PEDESTAL
(SCALE-1:20)

REINFORCEMENT SCHEDULE

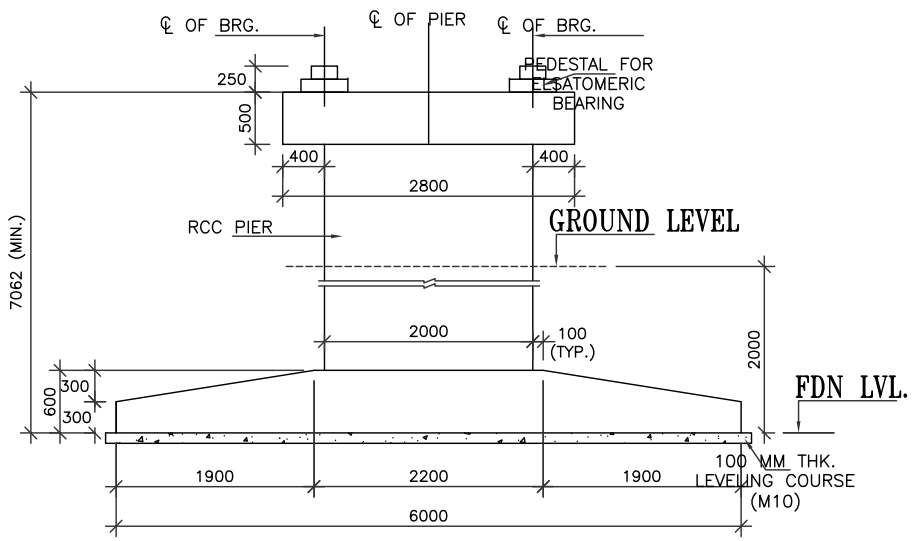
PIER SHAFT, CAP

S.NO.	BAR MARKED.	DESCRIPTION	SHAPE
1	a1	22 ϕ 12 NOS.	500 300
2	a2	25 ϕ – 5 NOS.	500 300
3	a3	12 ϕ @ 100c/c	
4	a4	10 ϕ @ 150c/c	
5	a5	8 ϕ @ LINK (HOR. STAGGERED) @100 c/c	
6	a6	8 ϕ @ LINK (HOR. STAGGERED) @150 c/c	
7	a7	16 ϕ – 8 NOS.	300
8	a8	12 ϕ –8 NOS.	300
9	a9	10 ϕ –2 NOS.	
10	a10	10 ϕ @ 125c/c	

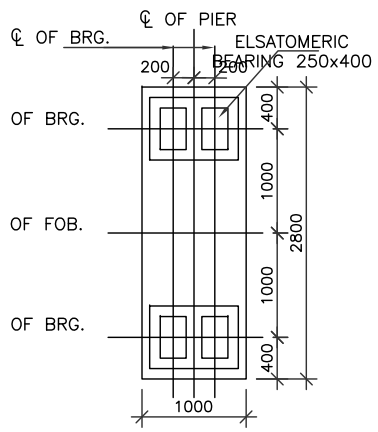
REINFORCEMENT SCHEDULE

FOOTING REINF.

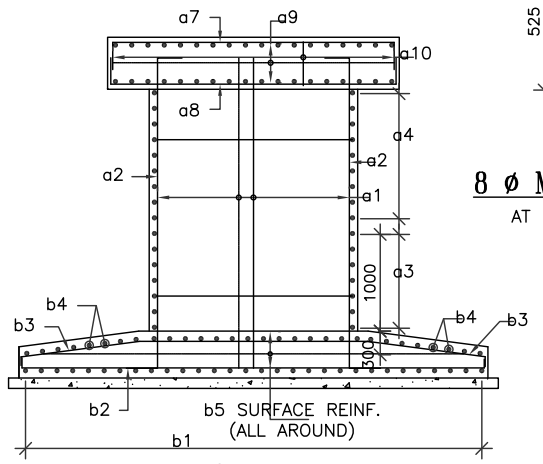
S.NO.	BAR MARKED.	DESCRIPTION	SHAPE
1	b1	20 ϕ @ 100 c/c	150
2	b2	20 ϕ @ 150 c/c	150
3	b3	12 ϕ @ 150c/c	150
4	b4	12 ϕ @ 150c/c	LV
5	b5	10 ϕ @ 200c/c	LV
6	s1	12 ϕ @ 150 c/c	150
7	s2	12 ϕ @ 150 c/c	150
8	s3	10 ϕ @ 125 c/c	
9	s4	10 ϕ @ 125 c/c	
10	s5	10 ϕ @ 125 c/c	300



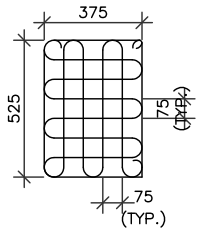
SECTION B-B
(SCALE-1:50)



PIER CAP PLAN
(SCALE-1:50)



SECTION D-D
(SCALE-1:50)



8 ø MESH REINF. (m1)
AT PEDESTAL LOCATION
(SCALE-1:20)

NOTE:-

1. CONCRETE SHALL BE DESIGN MX WITH MINIMUM 28 DAYS CHARACTERISTIC STRENGTH OF 35 Mpa FOR ALL COMPONENTS.
2. THE REINFORCING BARS SHALL BE H.Y.S.D/THERMO MECHANICALLY TREATED (TMT) (GRADE DESIGNATION Fe–500D) CONFORMING TO IS:1786 STANDARDS.
3. MINIMUM CLEAR COVER TO OUTER MOST REINFORCEMENT SHALL BE AS UNDER:–
   a. FOUNDATION – 75MM
   b. SHAFT DIRT WALL & RETURN WALL – 50MM
   c. DIRT WALL & CAP – 40MM
4. MAXIMUM LAP LENGTH SHALL BE 72 TIMES OF BAR TO BE LAPPED.
5. MINIMUM LAP LENGTH OF REINFORCEMENT FOR FAVOURABLE CONDITION SHALL BE AS UNDER:
   CONCRETE GRADE – M–30 – 56 x DIA OF BAR
   CONCRETE GRADE – M–35 – 51 x DIA OF BAR
   CONCRETE GRADE – M–40 – 48 x DIA OF BAR
   CONCRETE GRADE – M–45 – 45 x DIA OF BAR
6. HOOK AND OVERLAPS TO BE STANDARD DIMENSION.
7. THE MAXIMUM PRESSURE COMING BENEATH FOUNDATION IS 16 t/M²

LEGEND:-

——— TOP BAR/OUTER FACE
——— BOTTOM BAR/EARTH FACE
LV. LENGTH VARIES

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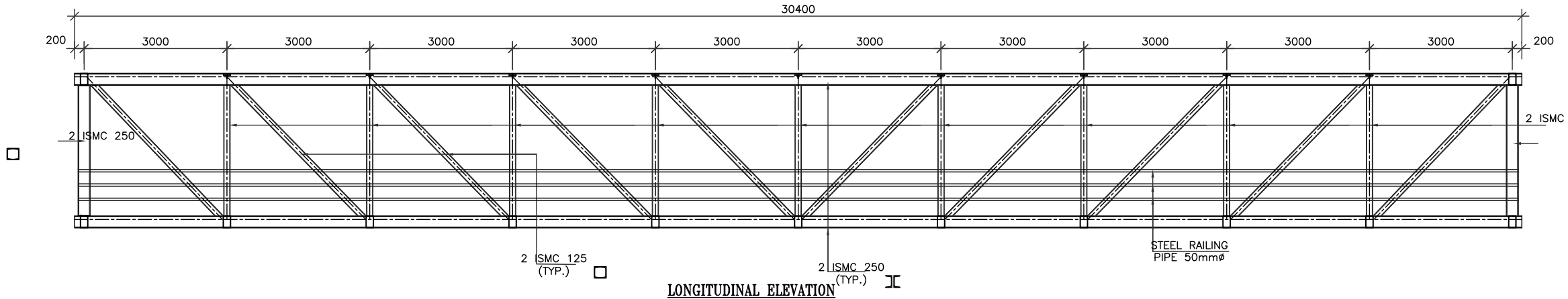
CONSULTANCY SERVICES FOR PREPERATION OF DETAIL PROJECT REPORT OF CRITICAL INFRASTRUCTURE IN ARUNACHAL PRADESH
SH: FOOT TRACKS ,PATROL ROUTES & FSB

DRAWN BY	P.D	
DESIGN BY	Y.B	
APPROVED BY	S.G	

REVISION : R0
SHEET:
DEC : 2019
SIZE : A3

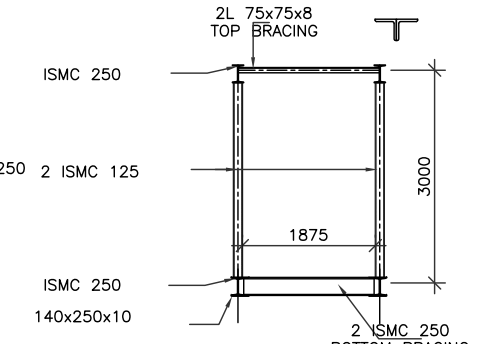
TITLE:- GENERAL ARRANGEMENT DRAWING OF RENFORCEMENT 90.0M

DRAWING NO : HEC/CPWD/AP/FOOT TRACK/03



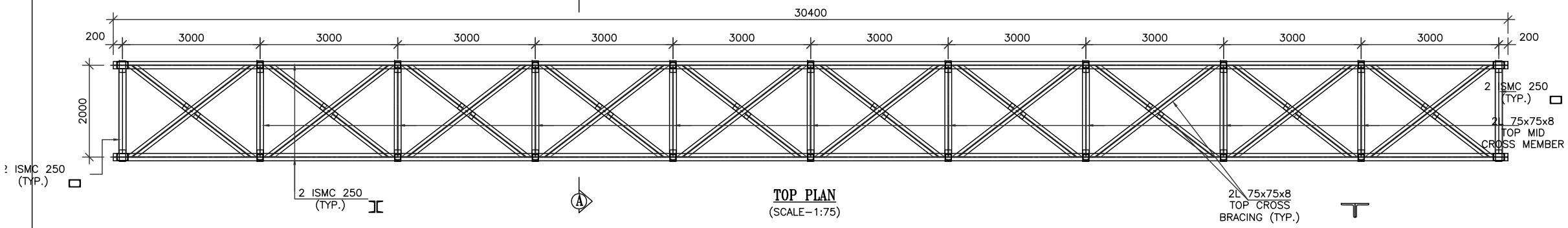
LONGITUDINAL ELEVATION

(SCALE–1:75)



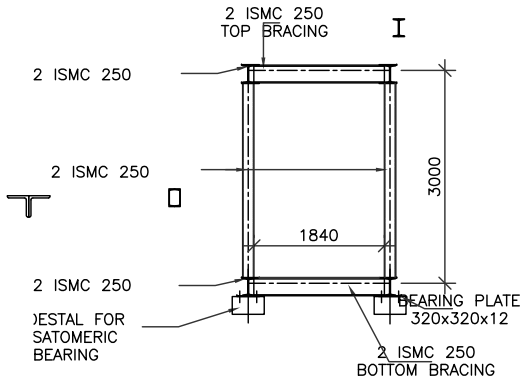
SECTION A-A

(SCALE–1:75)



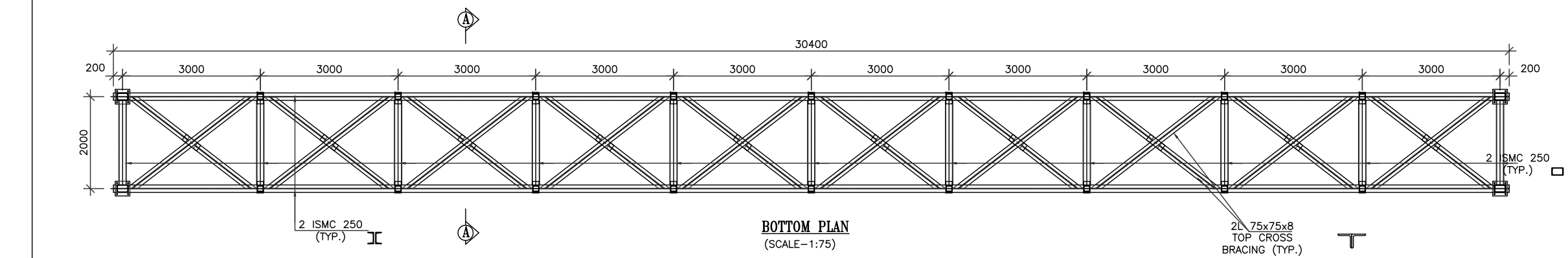
TOP PLAN

(SCALE–1:75)



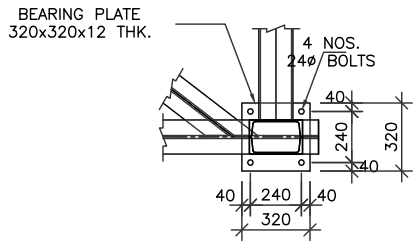
END CROSS SECTION

(SCALE–1:75)



BOTTOM PLAN

(SCALE–1:75)



DETAIL OF BEARING PLATE

(SCALE–1:25)

NOTES:-

1. ALL STRUCTURAL SECTION SHALL BE MS TO IS 2062.
2. ALL STEEL SECTION SHALL RECEME 0.2 PRIMER COATS OF RED CODE ZINC CHROMATE CONFORMING TO IS 2074.
3. TWO COATS OF SYNTHETIC ENAMEL PAINT CONFORMING TO IS 2932.
4. TOP OF THE BASE PLATE AND BOTTOM OF COLUMN MACHINED.
5. ALL WELDS CONFORMING COLUMN TO BE BASE PLATE ARE 8mm NORMAL SIZE.
6. END CONNECTION ROLLED BEAMS AND CHANNEL SHALL BE DESIGNED FOR MINIMUM OF 60% OF THEIR SHEAR CAPACITY & BUILT UP BEAMS FOR 80% OF THEIR SHEAR CAPACITY IN ADDITION TO AXIAL LOAD.
7. ALL WELD ARE 6mm THICK FILLET WELD UNLESS NOTED OTHERWISE.
8. THE DETAILS OF CONNECTION OF THE TRUSS SHALL BE DESIGNED SCHEME OF FABRICATION TRANSPORTATION AND ERECTION AT SITE.

CLIENT

CENTRAL PUBLIC WORKS DEPARTMENT

HIGHWAY ENGINEERING CONSULTANT

HEAD OFFICE

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NAME OF WORK

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