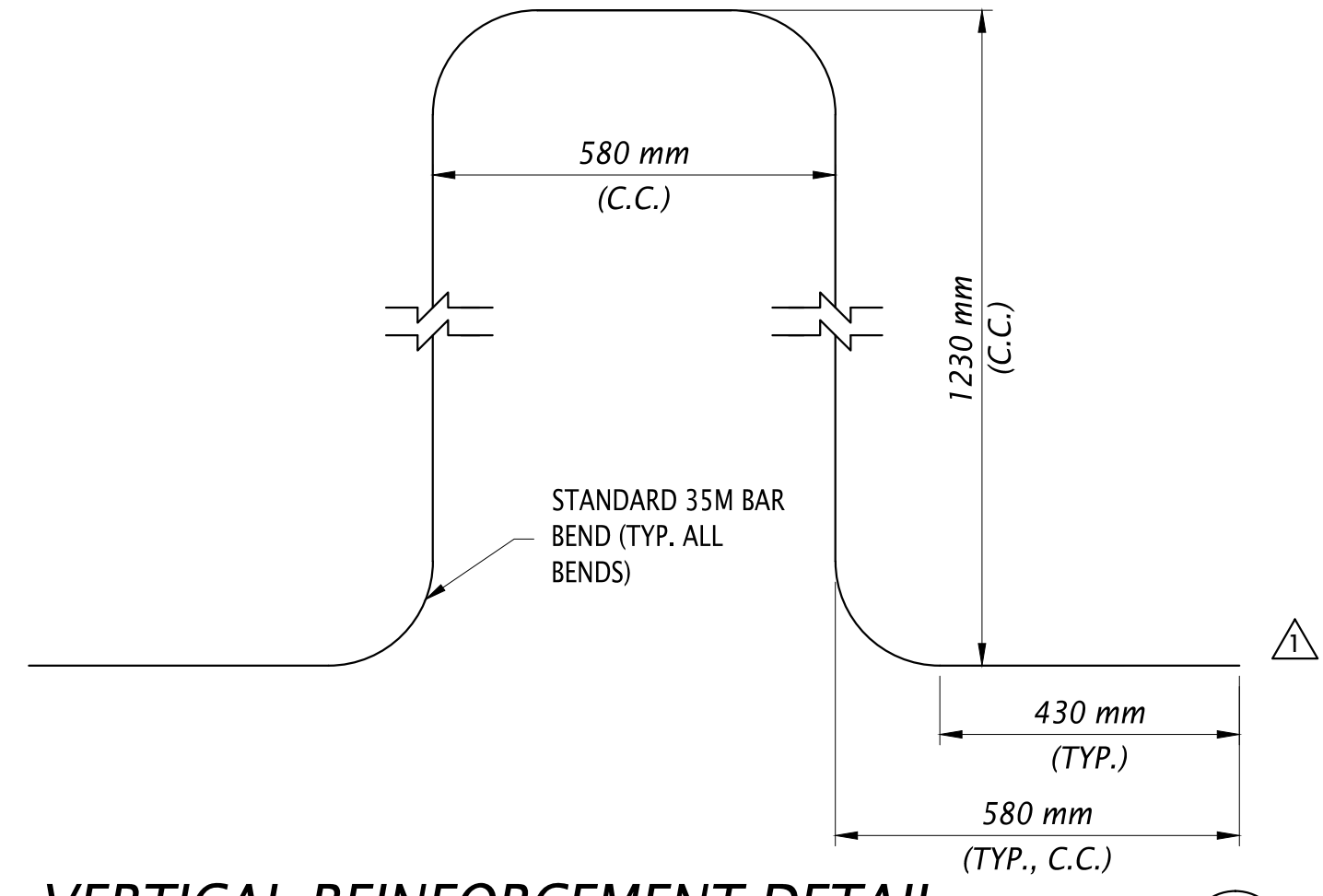


**FOUNDATION SECTION DETAIL**

SCALE: 1:25  
NOTE:

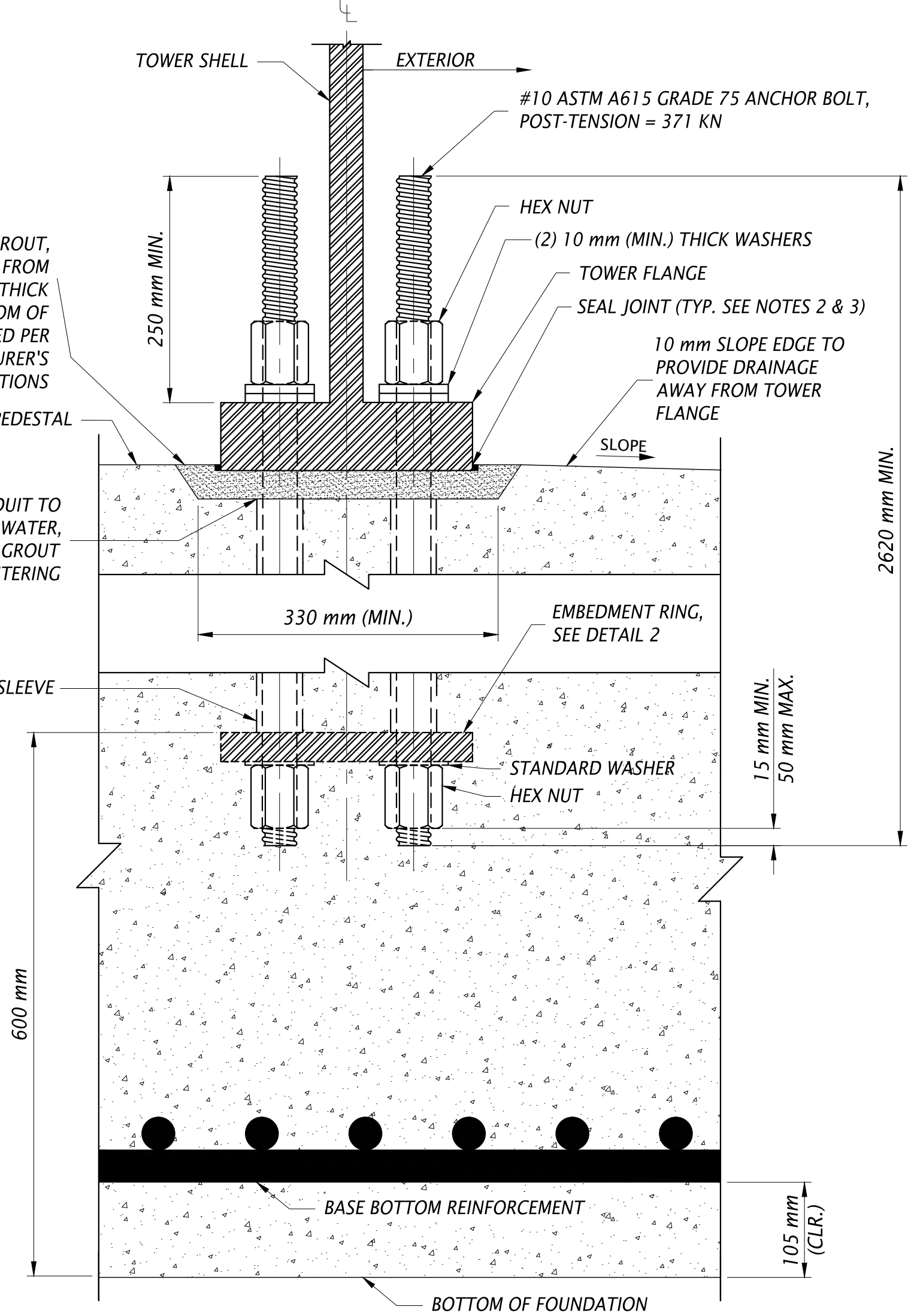
- ELECTRICAL CONDUITS SHOWN FOR REFERENCE ONLY. SEE ELECTRICAL DRAWINGS FOR EXACT LOCATIONS AND SIZES.
- FOR CONSOLIDATION OF FINAL LIFT OF BASE CONCRETE, SEE NOTE CM-11.A.



**VERTICAL REINFORCEMENT DETAIL**

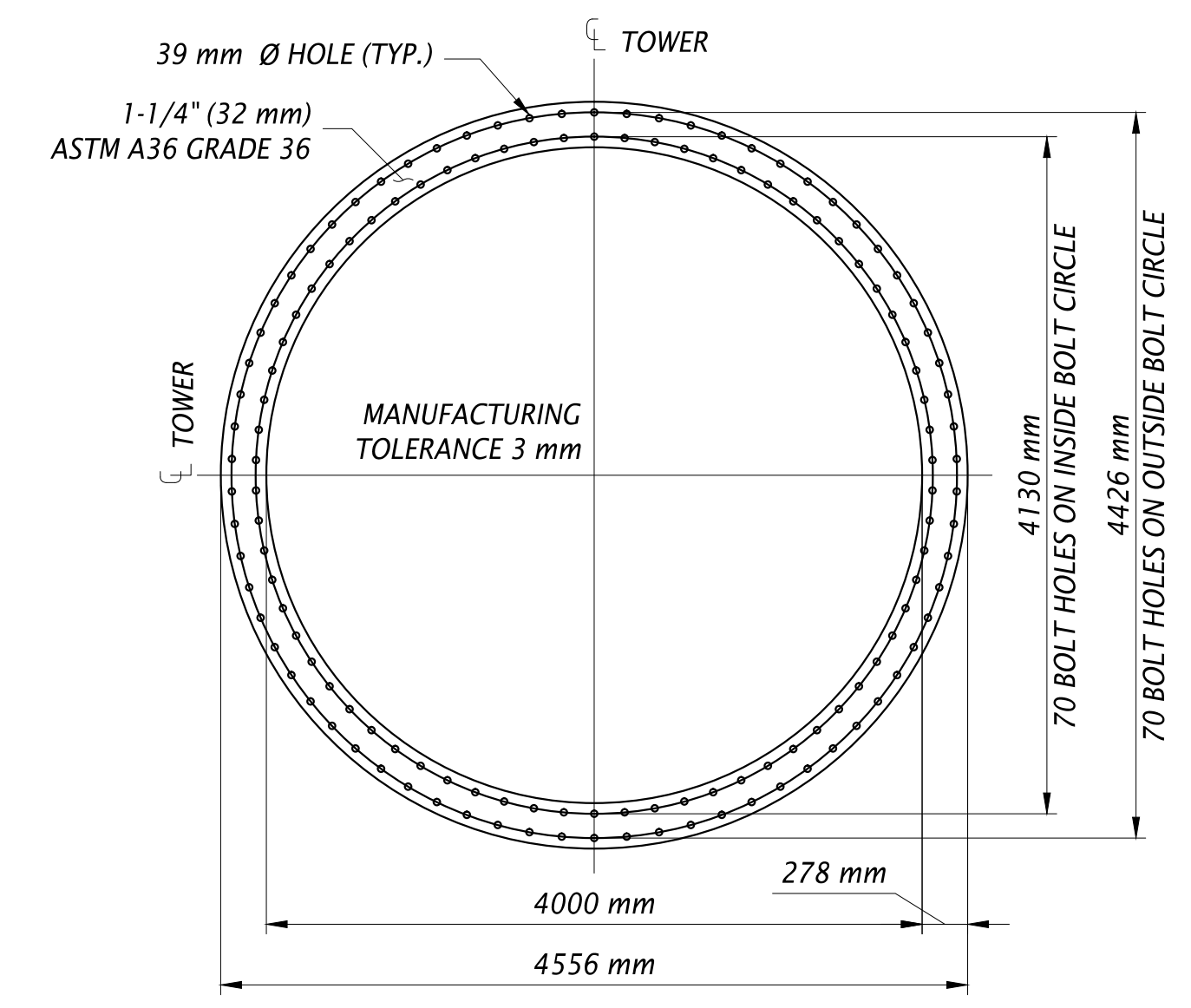
SCALE: 1:10

- ANCHOR BOLT ASSEMBLY NOTES:**
- PEDESTAL AND VERTICAL REINFORCEMENT NOT SHOWN FOR CLARITY.
  - FLANGE SHALL BE EMBEDDED INTO THE GROUT 6mm TO 15mm. A TEMPORARY SPACER SHALL BE USED ALONG THE INSIDE AND OUTSIDE OF THE FLANGE THAT SHALL BE REMOVED ONCE THE GROUT STIFFENS. THE GAP CREATED SHALL BE FILLED WITH A WEATHER-RESISTANT AND UV-RESISTANT SEALANT FLUSH WITH OR HIGHER THAN THE TOP OF THE GROUT TO PREVENT WATER FROM INFILTRATING THE JOINT.
  - BOTTOM OF TOWER FLANGE SHALL NOT BE INSTALLED ABOVE TOP OF CONCRETE.



**ANCHOR BOLT ASSEMBLY DETAIL**

SCALE: 1:5

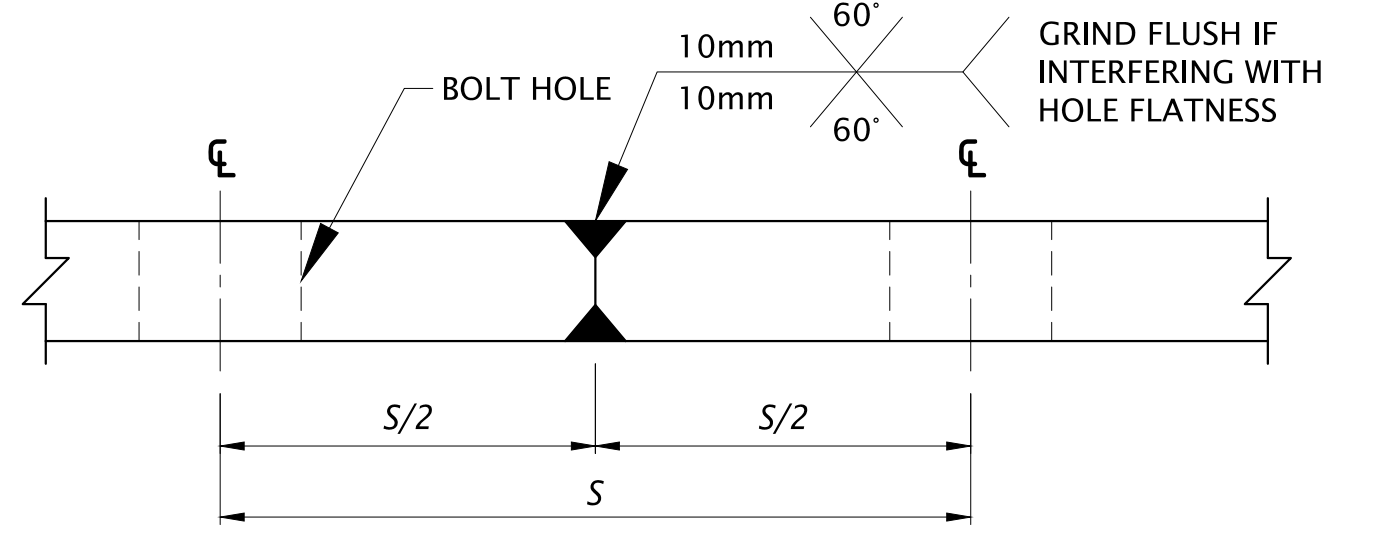


**EMBEDMENT RING DETAIL**

SCALE: 1:40

EMBEDMENT RING DETAIL NOTES:

- SEE DETAIL 5 FOR EMBEDMENT PLATE WELD DETAIL.
- TEMPLATE RING SHALL BE AS FOLLOWS:
  - THICKNESS: 40mm MIN.
  - MATERIAL: ASTM A36M GRADE 250 OR GRADE 300 OR ASTM A36 GRADE 36.
  - HOLE: MATCH EMBEDMENT RING SIZE, NUMBER, AND LOCATIONS.
  - BEVEL: MIN. 20 DEGREES.
  - WIDTH: REFER TO THE GROUT WIDTH SHOWN IN DETAIL 4.



**EMBEDMENT PLATE WELD DETAIL**

SCALE: NONE



**CWE Consultants, ULC**  
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**BOREA CONSTRUCTION**  
**JERICHO WIND PROJECT**  
**LAMBTON COUNTY,**  
**ONTARIO, CANADA**

GE 1.6-100 NAMTS 79.7m HH  
IEC TC IIIB GE 48.7 CWE/STW  
WIND TURBINE  
DETAILS SHEET  
18300mm DIA FOUNDATION

REV.	DATE	DESCRIPTION
2	4/4/2014	REVISION
1	3/26/2014	REVISION
0	12/6/2013	ISSUED FOR CONSTRUCTION

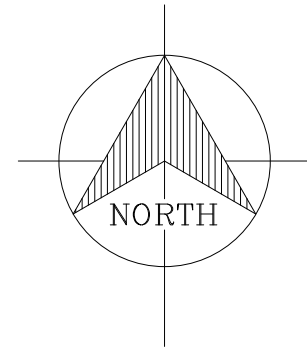
DESIGNED BY: L ZHOU  
CHECKED BY: G WU

PROJECT #: 130107

FILENAME: JERICHO DRAWING SET  
SCALE: AS SHOWN

SHEET: S-2 REV: 2

4/24/2014 10:29:35 AM



**PLAN NORTH**

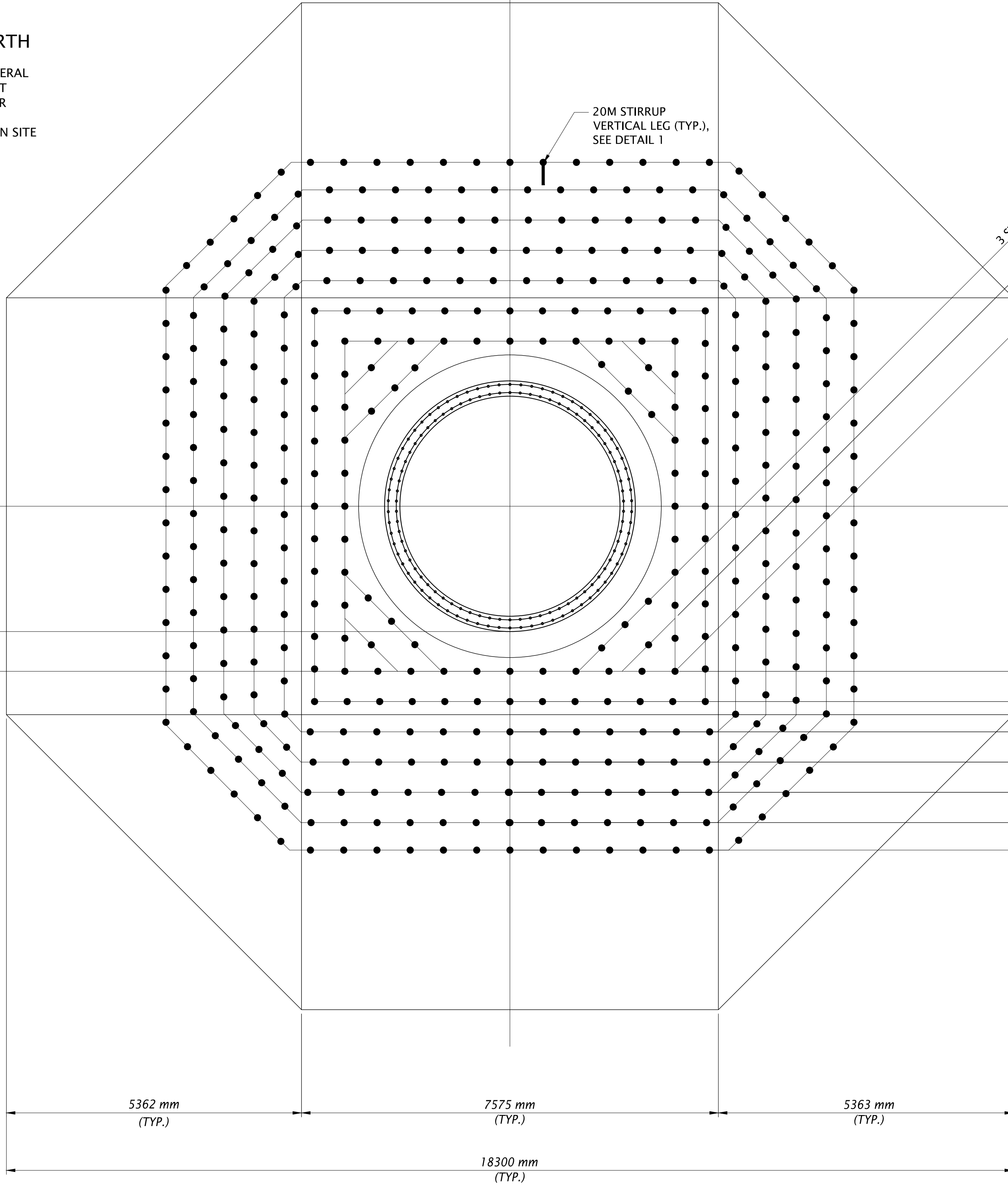
REFER TO GENERAL ARRANGEMENT DRAWINGS FOR FOUNDATION ALIGNMENT ON SITE

1

2

3

4



722 mm TO EDGE OF EMBED. RING

**FOUNDATION SHEAR STIRRUP PLAN**

SCALE: 1:50

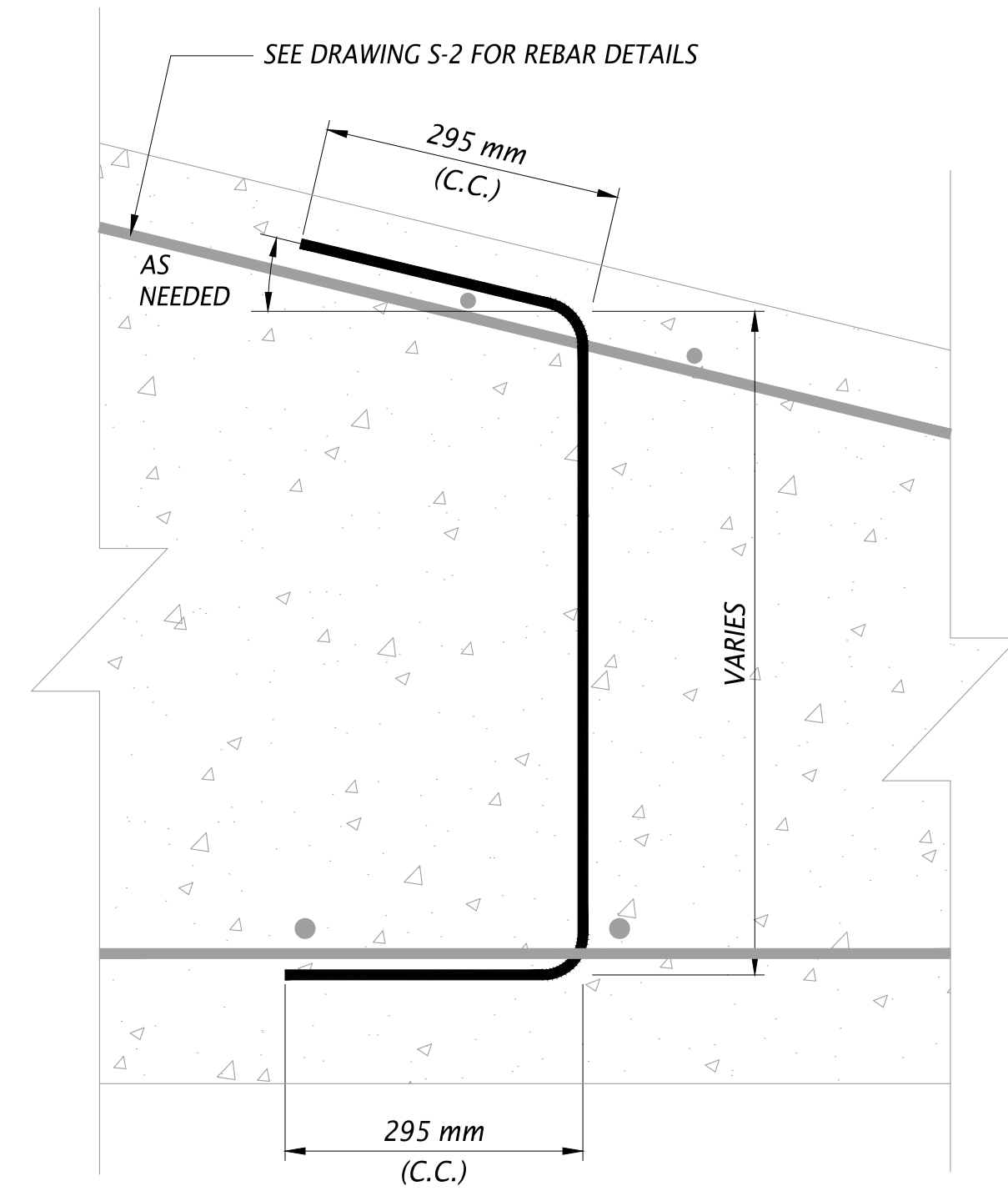
3 STIRRUPS @ 600 mm MAX SPACING THIS STRIP (TYP.)  
 1 STIRRUPS @ 600 mm MAX SPACING THIS STRIP (TYP.)

20M STIRRUP VERTICAL LEG (TYP.), SEE DETAIL 1

- 40 STIRRUPS @ 600 mm MAX SPACING THIS ROW (TYP.)
- 48 STIRRUPS @ 600 mm MAX SPACING THIS ROW (TYP.)
- 53 STIRRUPS @ 600 mm MAX SPACING THIS ROW (TYP.)
- 59 STIRRUPS @ 600 mm MAX SPACING THIS ROW (TYP.)
- 64 STIRRUPS @ 600 mm MAX SPACING THIS ROW (TYP.)
- 70 STIRRUPS @ 600 mm MAX SPACING THIS ROW (TYP.)
- 74 STIRRUPS @ 600 mm MAX SPACING THIS ROW (TYP.)

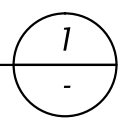
SPACING TOLERANCE IS +/-75 mm IN ANY DIRECTION

NOTE:  
 COORDINATE HEIGHT OF STIRRUP LEG WITH HEIGHT OF BASE TOP REINFORCEMENT MAT. (SEE PLAN AND DETAILS ON S-1 & S-2)



**STIRRUP DETAIL**

SCALE: 1:8



4/24/2014 10:29:37 AM

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C:\PROJECTS\BOREA CONSTRUCTION\6-PACK PROJECT\JERICHO WIND PROJECT (CANADA, GE 1.6-100 80M HH)\DRAWINGS\AUTOCAD\JERICHO DRAWING SET.DWG

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**BOREA CONSTRUCTION  
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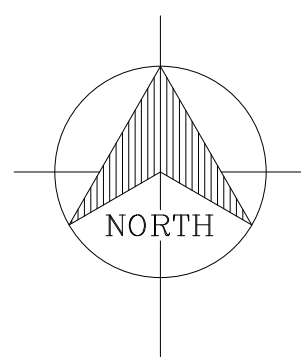
**LAMBTON COUNTY,  
 ONTARIO, CANADA**

GE 1.6-100 NAMTS 79.7m HH  
 IEC TC IIIB GE 48.7 CWE/STW  
 WIND TURBINE  
 SHEAR REINFORCEMENT  
 DETAILS SHEET

18300mm DIA FOUNDATION

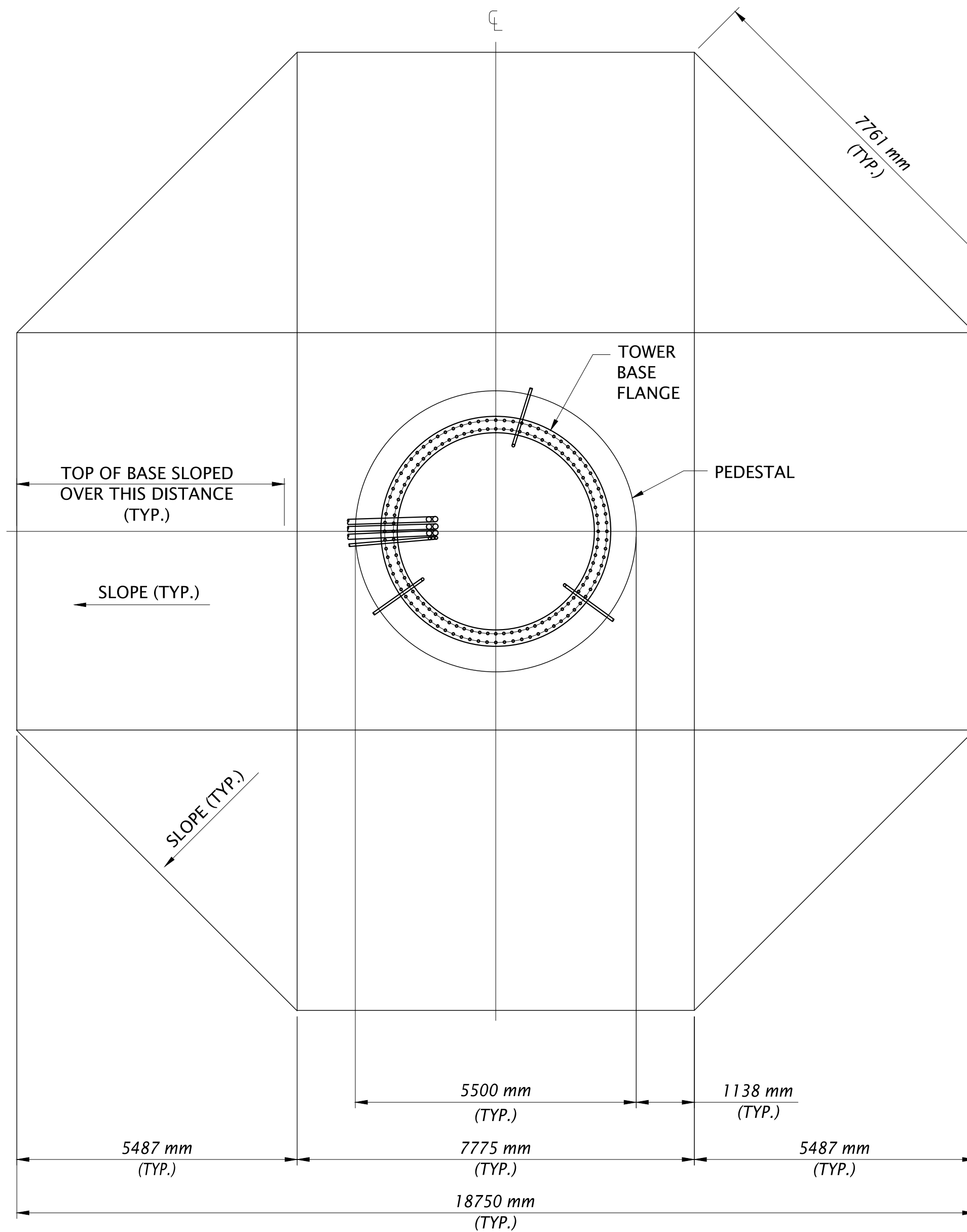
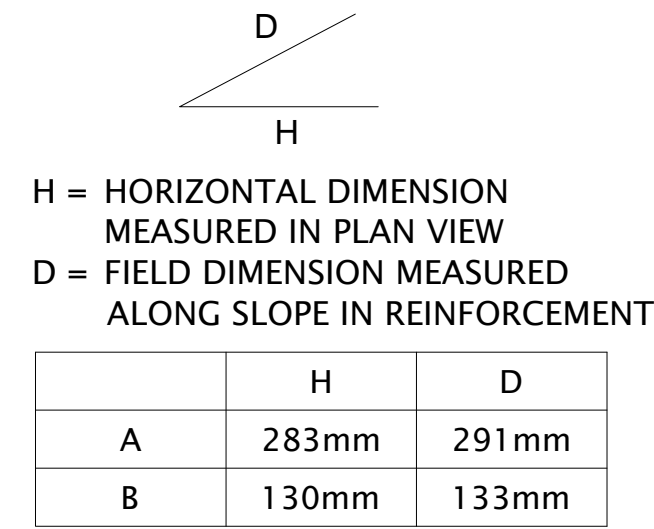
REV.	DATE	ISSUED FOR CONSTRUCTION	DESCRIPTION
0	12/6/2013		
DESIGNED BY		L ZHOU	
CHECKED BY		G WU	
PROJECT #		130107	
FILENAME: JERICHO DRAWING SET			
SCALE: AS SHOWN			
SHEET		REV.	
S-3		0	





**PLAN NORTH**

REFER TO GENERAL ARRANGEMENT DRAWINGS FOR FOUNDATION ALIGNMENT ON SITE

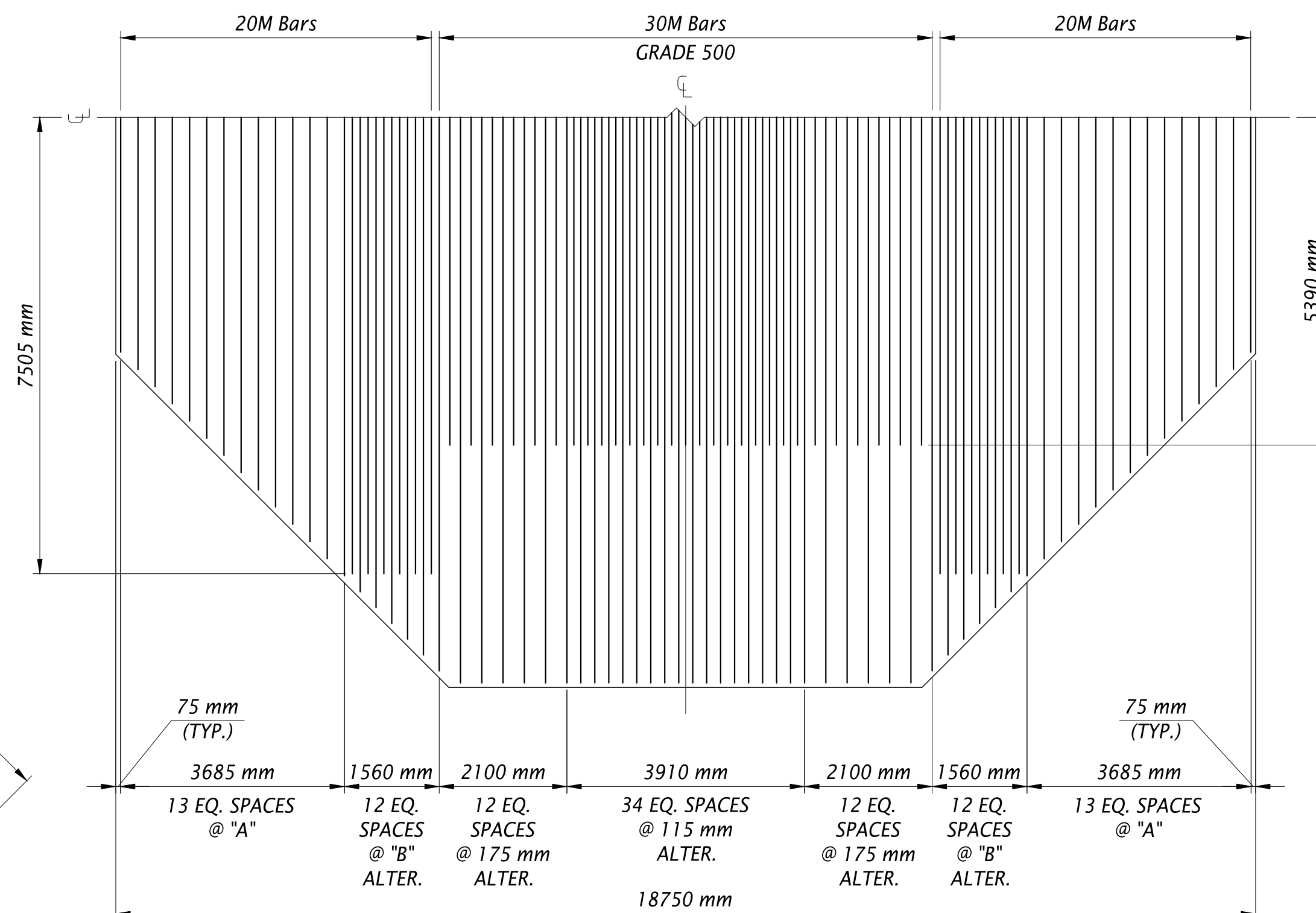


**FOUNDATION PLAN**

SCALE: 1:75

**NOTES:**

- ELECTRICAL CONDUIT SIZE, NUMBER, AND LOCATIONS MUST BE PROVIDED BY THE ELECTRICAL ENGINEER. FOR FINAL PLACEMENT AND REQUIREMENTS SEE ELECTRICAL DRAWINGS.

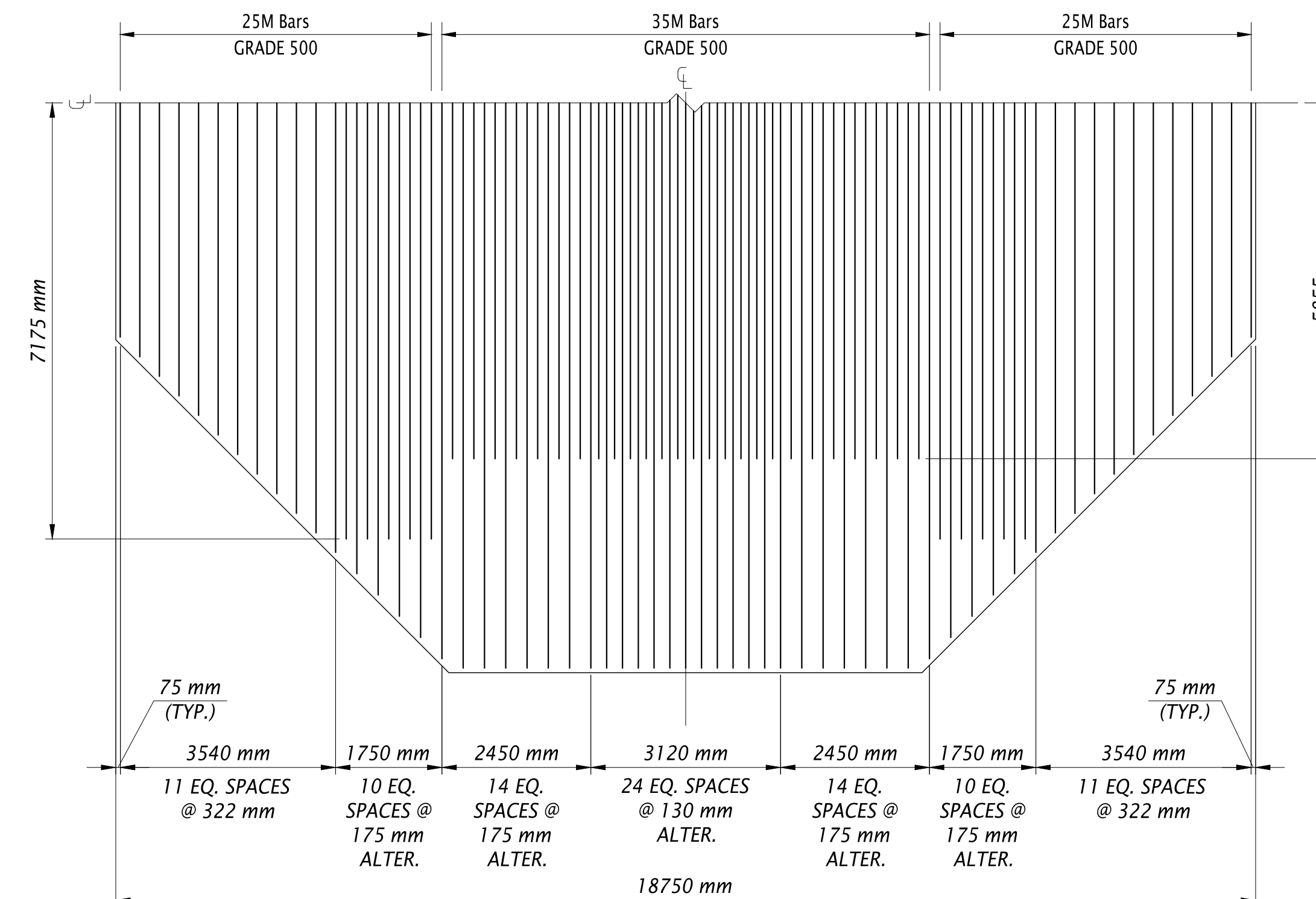


**BASE TOP REINFORCING PLAN**

SCALE: 1:75

**NOTES:**

- REINFORCEMENT LAYOUT AND SPACING SHOWN IN ONE DIRECTION ONLY FOR CLARITY. FINAL REINFORCEMENT SHALL BE PLACED EACH WAY.

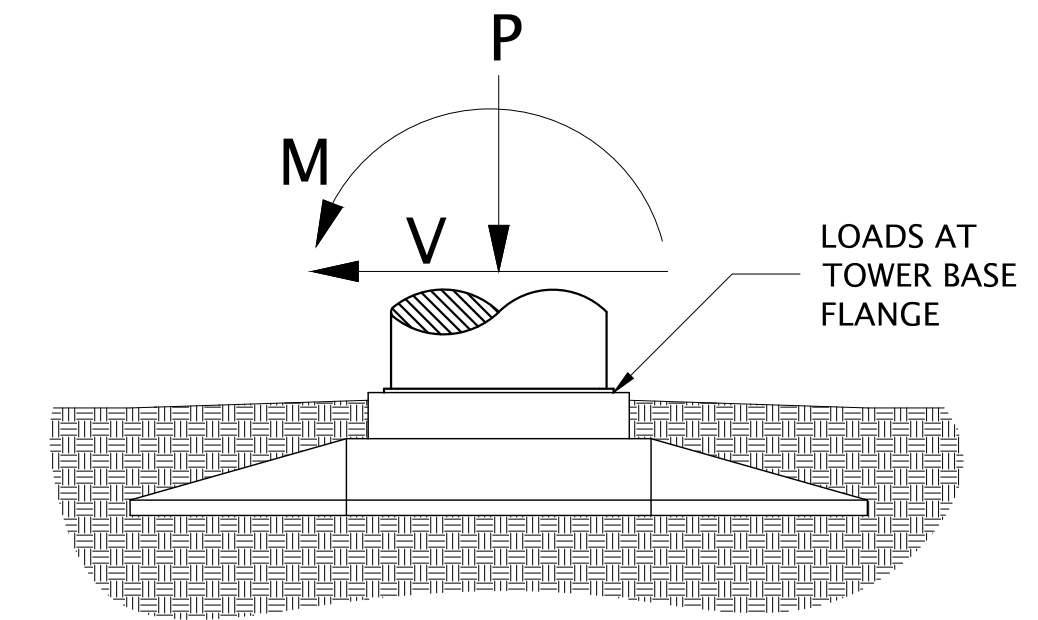


**BASE BOTTOM REINFORCING PLAN**

SCALE: 1:75

**NOTES:**

- REINFORCEMENT LAYOUT AND SPACING SHOWN IN ONE DIRECTION ONLY FOR CLARITY. FINAL REINFORCEMENT SHALL BE PLACED EACH WAY.



**FOUNDATION DESIGN LOADS**

SCALE: N.T.S.

**DESIGN CRITERIA**

- FOUNDATION DESIGN LOADS**  
EXTREME CHARACTERISTIC LOADS (UNFACTORED) LOCATED AT THE BOTTOM OF THE TOWER BASE FLANGE:  
P = 2,271 kN  
V = 671 kN  
M = 51,147 kN-m
- ESTIMATED STRUCTURAL MATERIAL QUANTITIES**
  - BASE CONCRETE: 294.4 m<sup>3</sup> (MIN.)
  - PEDESTAL CONCRETE: 28.5 m<sup>3</sup> (MIN.)
  - LEAN CONCRETE: 11.7 m<sup>3</sup> (MIN.)
  - STEEL REINFORCEMENT (GRADE 400): 10,300 Kg
  - STEEL REINFORCEMENT (GRADE 500): 28,200 Kg

NOTE: ESTIMATED MATERIAL QUANTITIES DO NOT INCLUDE ANY MATERIAL REQUIRED FOR INSTALLATION PURPOSES (STANDEES, DOBIES, ETC.)
- STRUCTURAL MATERIAL PROPERTIES**
  - BASE CONCRETE STRENGTH (28-DAY): 35 MPa
  - PEDESTAL CONCRETE STRENGTH (28-DAY): 35 MPa
  - LEAN CONCRETE STRENGTH (3-DAY): 14 MPa
  - GROUT STRENGTH (28-DAY): 60 MPa
  - STEEL REINFORCEMENT (CAN/CSA-G30.18): GRADE 400 (U.N.O.)
  - EMBEDMENT PLATE (ASTM A36): 1-1/4" (32 mm), GRADE 36 (250 MPa)
  - ANCHOR BOLTS: (ASTM A615): #10 GRADE 75
  - CONCRETE DENSITY RANGE: 22.8 TO 23.6 kN/m<sup>3</sup>
- GEOTECHNICAL CONDITIONS**
  - MIN. REQUIRED NET SLS BEARING CAPACITY: 90 KPa
  - MIN. REQUIRED NET ULS BEARING CAPACITY: 150 KPa
  - MIN. ALLOWABLE DISTANCE FROM TOP OF FINISHED GRADE TO GROUNDWATER: ≥ 0.5 m
  - MIN. COMPACTED DRY BACKFILL DENSITY: 14.9 kN/m<sup>3</sup>
  - MAX. COMPACTED WET BACKFILL DENSITY: 22.0 kN/m<sup>3</sup>

**ABBREVIATIONS**

B.O.	BOTTOM OF	N.T.S.	NOT TO SCALE
C.C.	CLEAR COVER	O.C.	ON CENTER
CL.	CENTER LINE	O.D.	OUTSIDE DIAMETER
CLR.	CLEAR	R	RADIUS
EL.	ELEVATION	SP.	SPACES
EQ.	EQUAL	T&B	TOP AND BOTTOM
E.W.	EACH WAY	T.O.C.	TOP OF CONCRETE
I.D.	INSIDE DIAMETER	TYP.	TYPICAL
MIN.	MINIMUM	U.N.O.	UNLESS NOTED OTHERWISE
MAX.	MAXIMUM	W/	WITH
NOM.	NOMINAL	Ø	DIAMETER

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WIND TURBINE  
PLAN SHEET  
18750mm DIA FOUNDATION

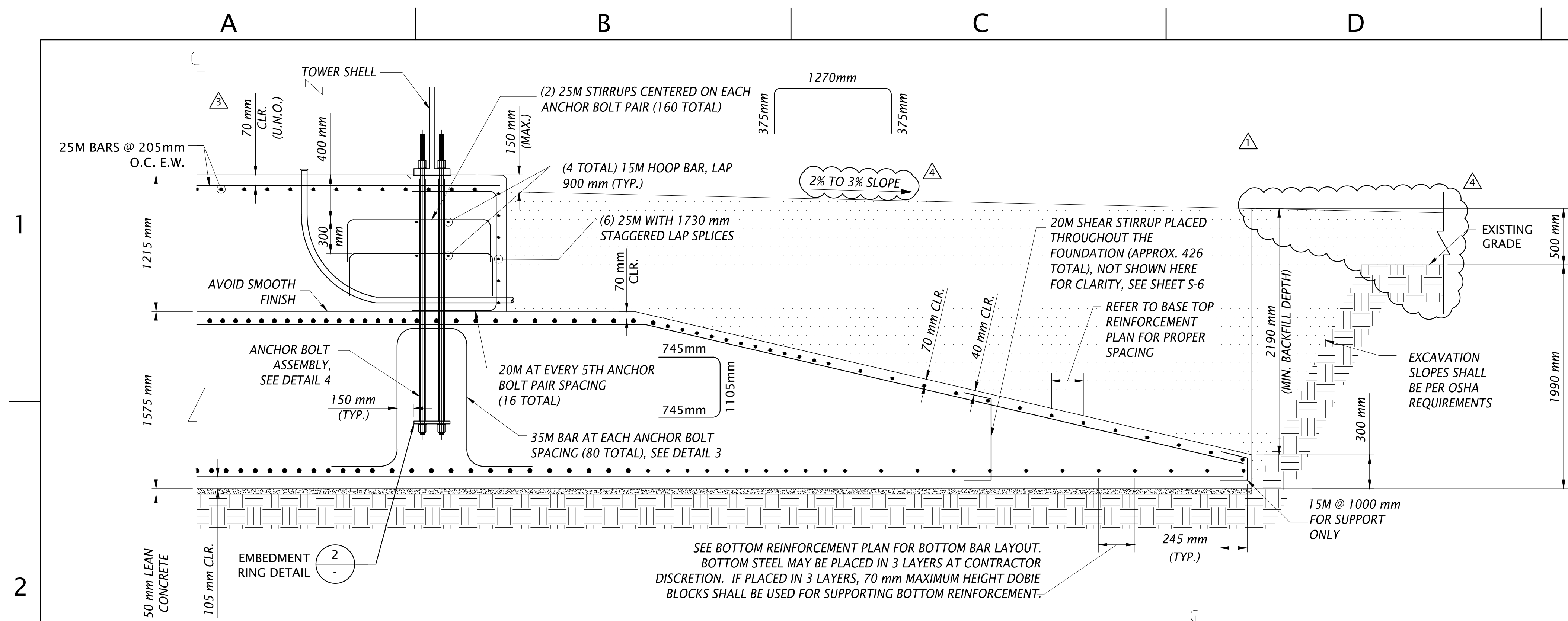
REV.	DATE	DESCRIPTION
0	12/6/2013	ISSUED FOR CONSTRUCTION

DESIGNED BY	L ZHOU
CHECKED BY	G WU

PROJECT #	130107
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FILENAME:	JERICHO DRAWING SET
SCALE:	AS SHOWN
SHEET	S-4
REV.	0

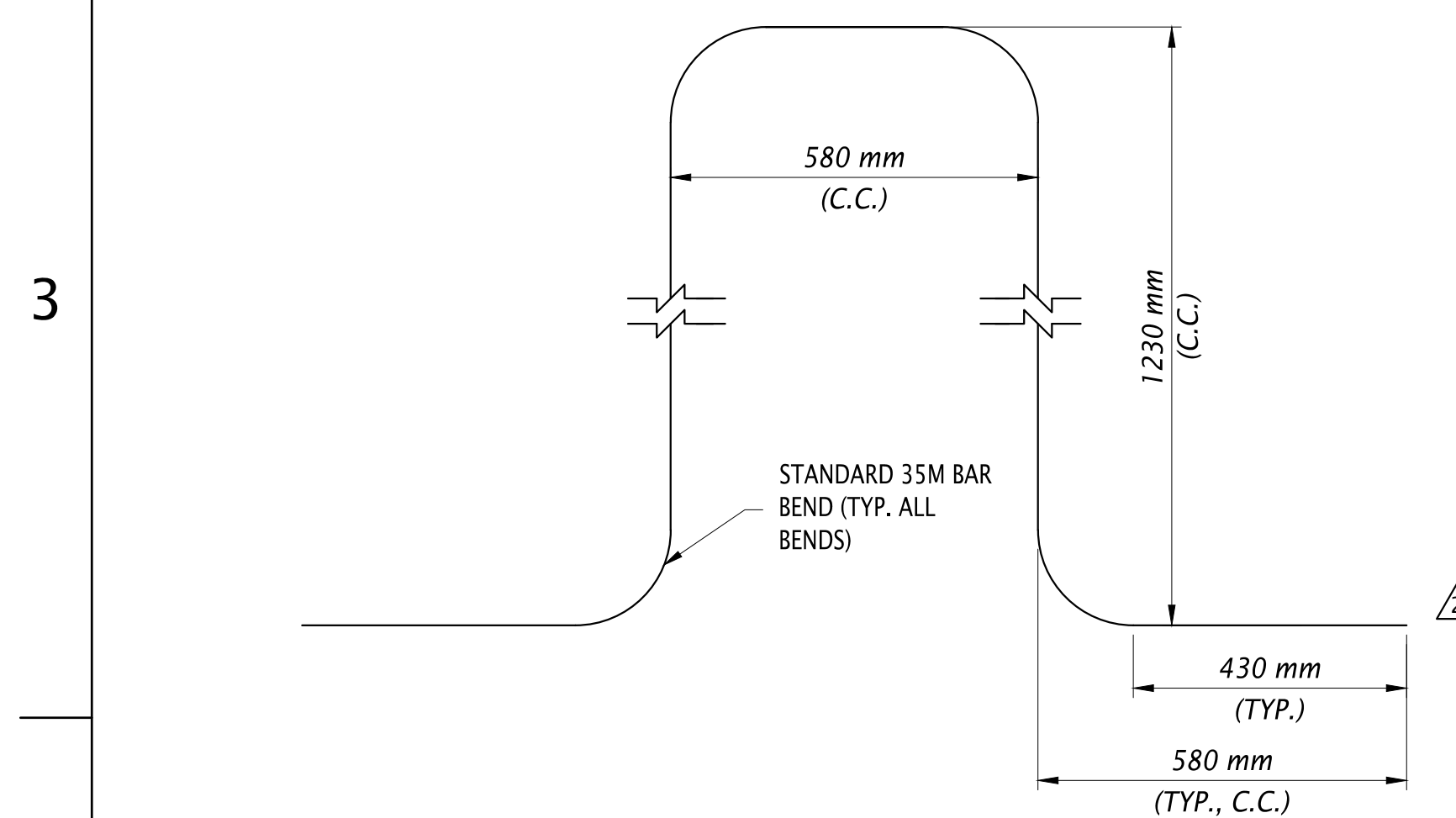




**FOUNDATION SECTION DETAIL**

SCALE: 1:25  
NOTE:

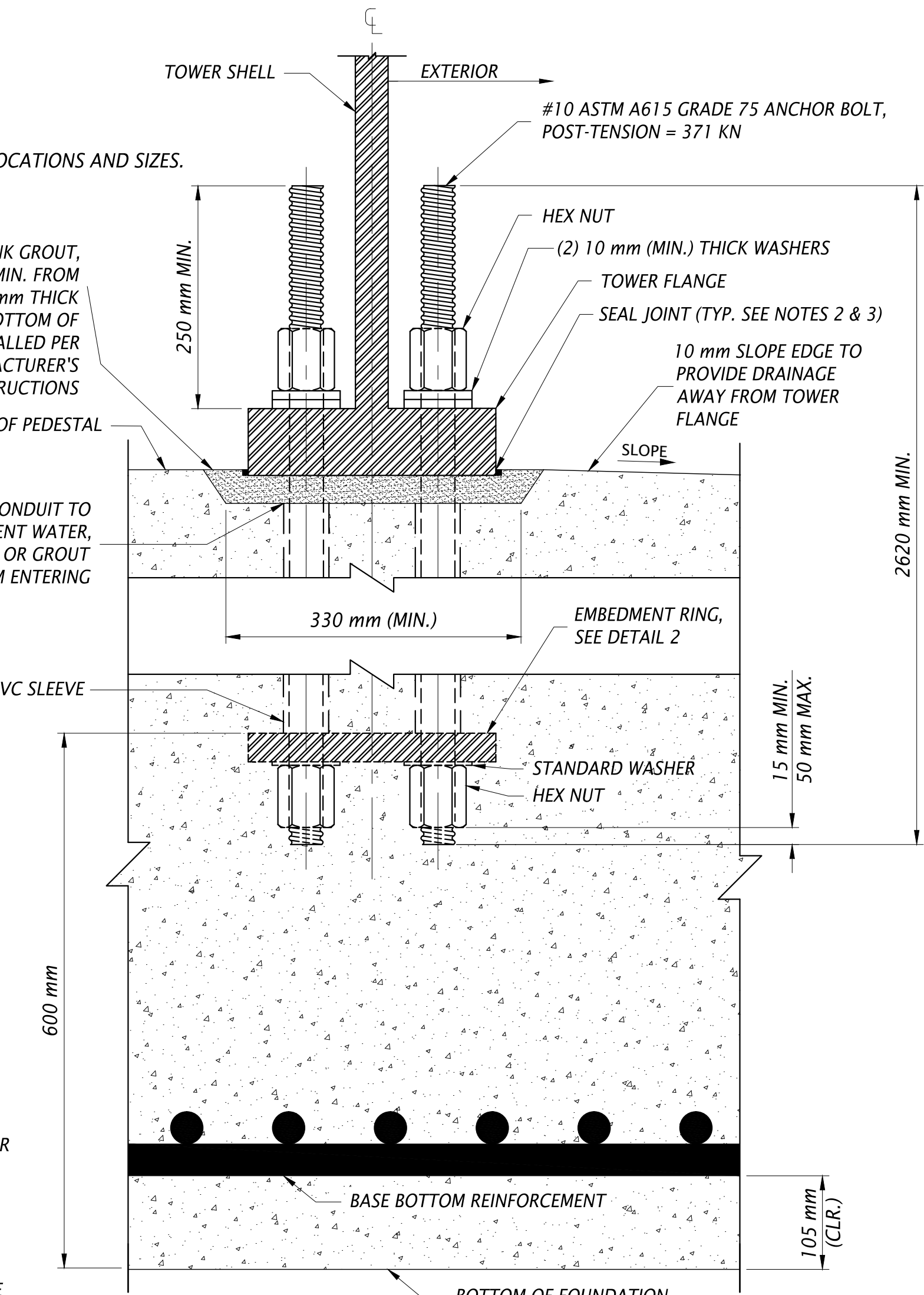
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**VERTICAL REINFORCEMENT DETAIL**

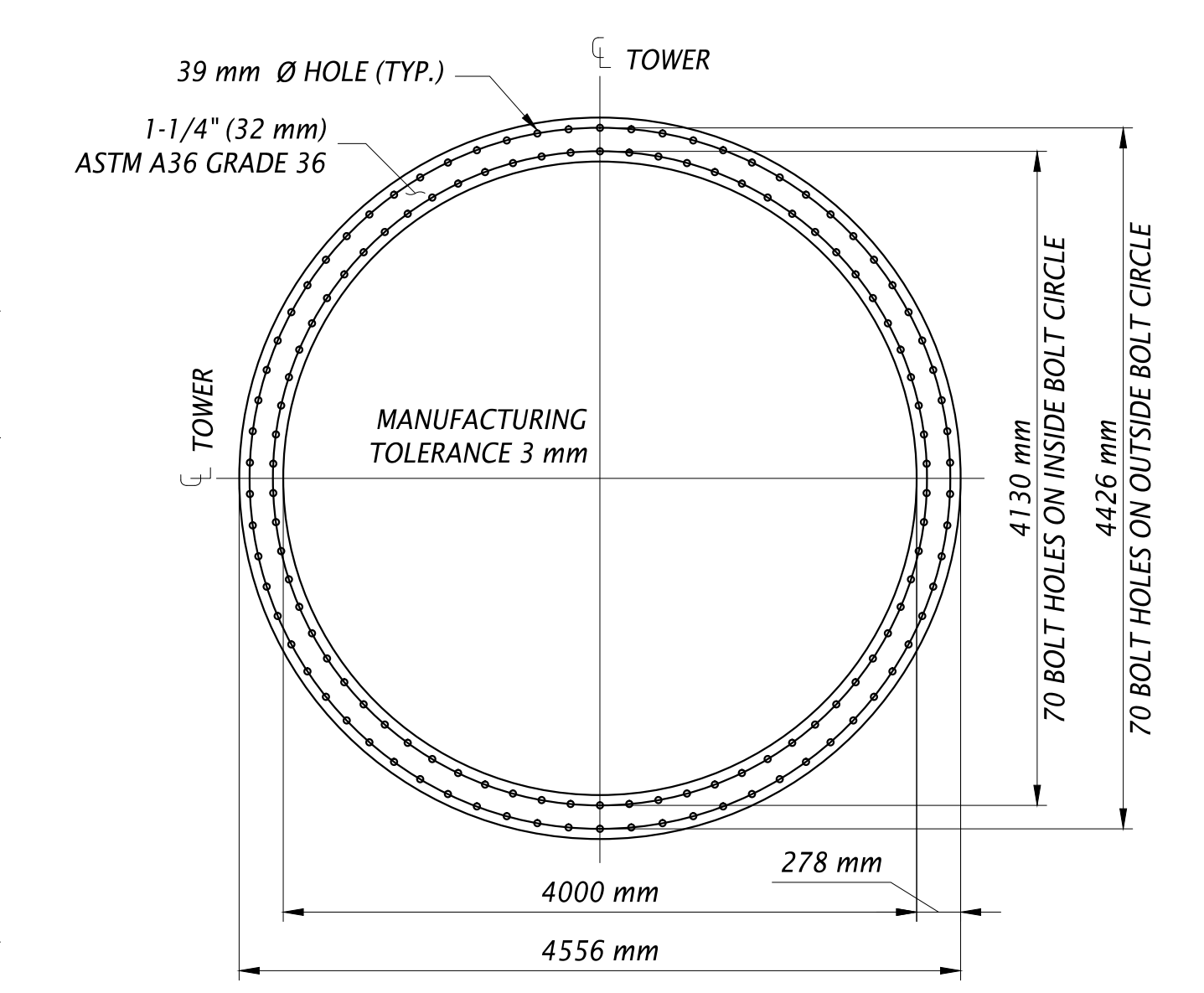
SCALE: 1:10

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**ANCHOR BOLT ASSEMBLY DETAIL**

SCALE: 1:5

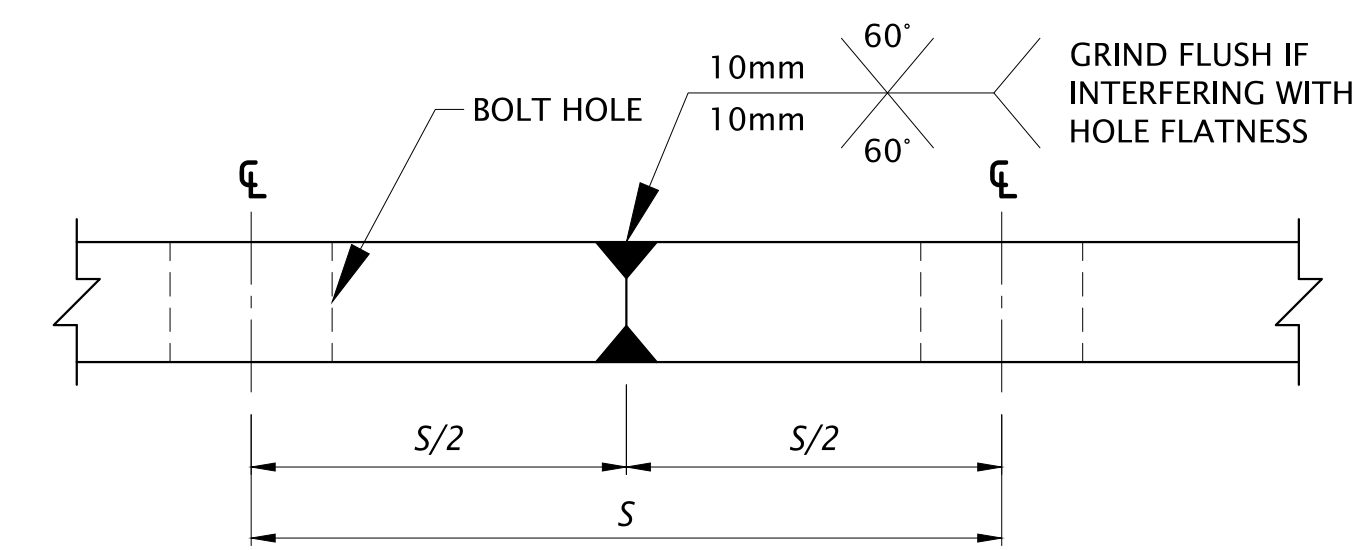


**EMBEDMENT RING DETAIL**

SCALE: 1:40

EMBEDMENT RING DETAIL NOTES:

- SEE DETAIL 5 FOR EMBEDMENT PLATE WELD DETAIL.
- TEMPLATE RING SHALL BE AS FOLLOWS:
  - THICKNESS: 40mm MIN.
  - MATERIAL: ASTM A36M GRADE 250 OR GRADE 300 OR ASTM A36 GRADE 36.
  - HOLE: MATCH EMBEDMENT RING SIZE, NUMBER, AND LOCATIONS.
  - BEVEL: MIN. 20 DEGREES.
  - WIDTH: REFER TO THE GROUT WIDTH SHOWN IN DETAIL 4.



**EMBEDMENT PLATE WELD DETAIL**

SCALE: NONE



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REV.	DATE	DESCRIPTION
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2	3/26/2014	REVISION
1	1/16/2014	REVISION
0	12/6/2013	ISSUED FOR CONSTRUCTION

DESIGNED BY: L ZHOU  
CHECKED BY: G WU

PROJECT #: 130107

FILENAME:  
JERICHO DRAWING SET

SCALE: AS SHOWN

SHEET: S-5  
REV: 4

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