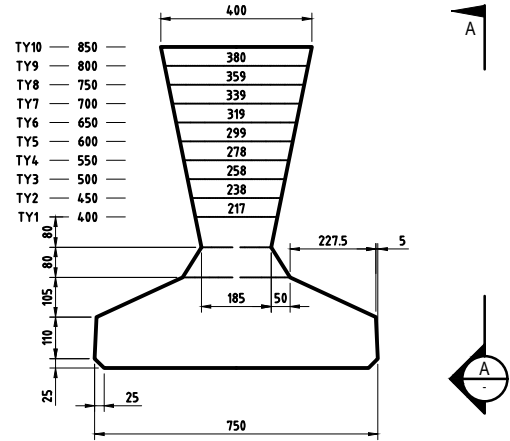
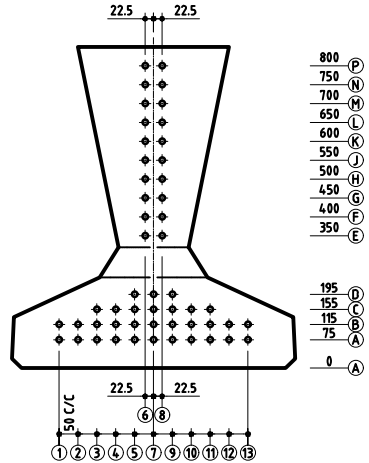
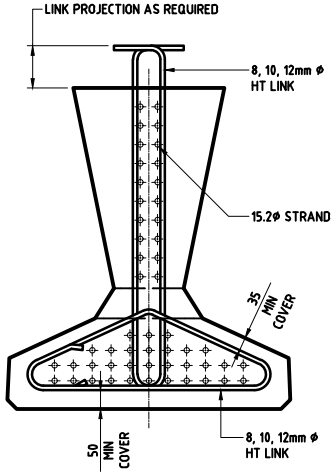




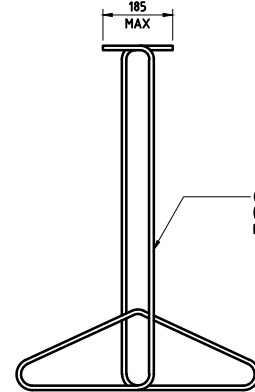
TY BEAM SECTION  
SCALE 1:10



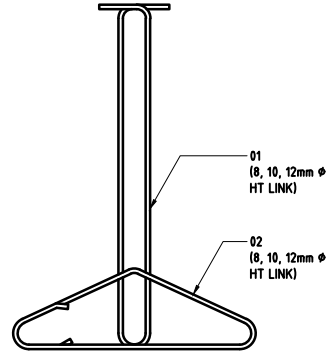
PRESTRESSING STRANDS  
SCALE 1:10



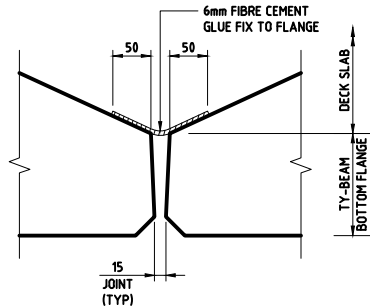
REINFORCEMENT  
SCALE 1:10



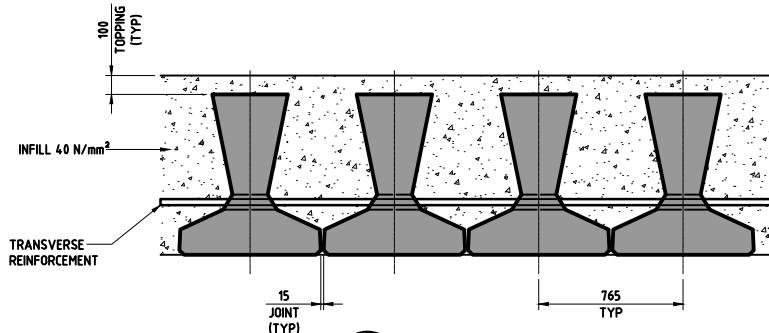
ONE PIECE LINK  
SCALE 1:10



TWO PIECE LINK  
SCALE 1:10

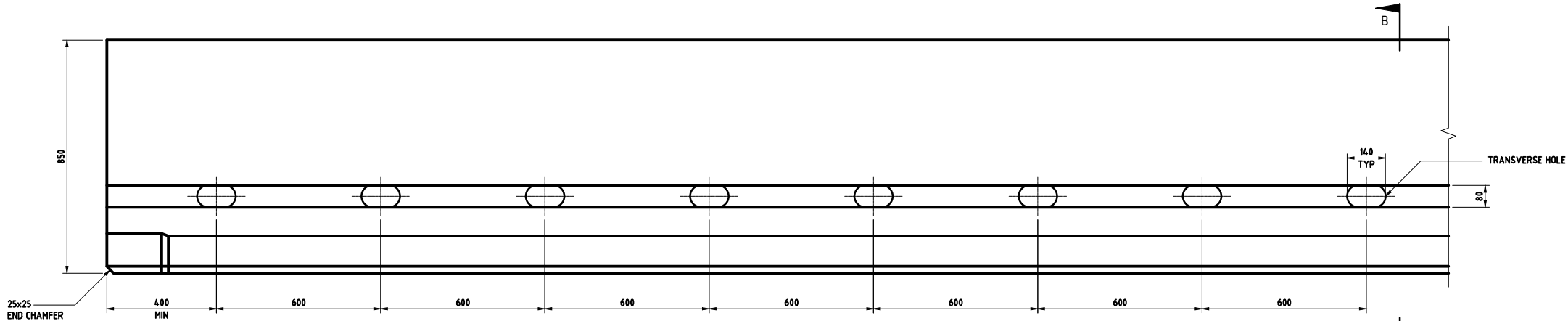


SEALING DETAILS  
JOINTS BETWEEN TY BEAMS  
(TO PREVENT LOSS OF CONCRETE AT DECK POUR)  
SCALE 1:5

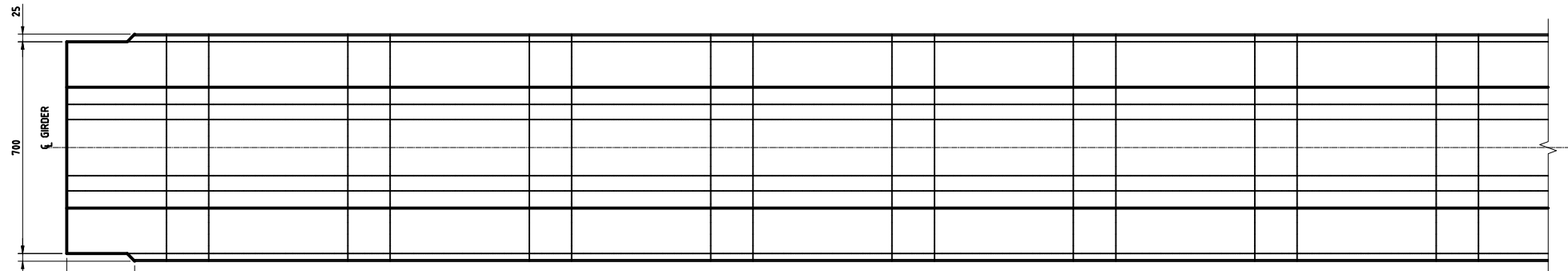


SECTION B  
SCALE 1:20

| SECTION PROPERTIES |                     |            |            |                              |         |                             |                             |
|--------------------|---------------------|------------|------------|------------------------------|---------|-----------------------------|-----------------------------|
| SECTION NO         | INDICATIVE SPAN (m) | DEPTH (mm) | AREA (mm²) | I (x10 <sup>10</sup> ) (mm⁴) | Yb (mm) | Zt (mm³ x 10 <sup>6</sup> ) | Zb (mm³ x 10 <sup>6</sup> ) |
| TY1                | 4-8                 | 400        | 188663     | 19.579                       | 146     | 7.71                        | 13.41                       |
| TY2                | 7-9                 | 450        | 200046     | 27.998                       | 161     | 9.69                        | 17.39                       |
| TY3                | 8-10                | 500        | 212444     | 39.528                       | 180     | 12.35                       | 21.96                       |
| TY4                | 9-11                | 550        | 225858     | 54.620                       | 200     | 15.61                       | 27.31                       |
| TY5                | 10-12               | 600        | 240288     | 73.724                       | 223     | 19.55                       | 33.06                       |
| TY6                | 11-13               | 650        | 255733     | 97.244                       | 247     | 24.13                       | 39.37                       |
| TY7                | 12-14               | 700        | 272194     | 125.635                      | 273     | 29.42                       | 46.02                       |
| TY8                | 13-15               | 750        | 289671     | 159.240                      | 300     | 35.39                       | 53.08                       |
| TY9                | 14-16               | 800        | 308163     | 198.486                      | 329     | 42.14                       | 60.33                       |
| TY10               | 15-17               | 850        | 327671     | 243.726                      | 358     | 49.54                       | 68.08                       |



ELEVATION A  
SCALE 1:10



PLAN  
SCALE 1:10

- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
  2. INDICATIVE SPAN RANGE SHOWN IS FOR SIMPLY SUPPORTED CONDITIONS. DESIGNERS ARE TO CONSIDER ECONOMISING THE BEAMS IN CONTINUOUS CONSTRUCTION.
  3. MINIMUM 28DAY COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 55MPa (CUBE).
  4. MINIMUM COMPRESSIVE STRENGTH OF CONCRETE TRANSFER TO BE 40MPa (CUBE).
  5. MINIMUM CONCRETE COVER TO REINFORCEMENT IS AS SHOWN ON THE DRAWING.
  6. REINFORCEMENT TO BE DEFORMED ROUND STEEL BARS TYPE 2 GRADE 500 COMPLYING WITH REQUIREMENTS OF BS 4449 AND CUT AND BENT IN ACCORDANCE WITH BS 8666.
  7. REINFORCEMENT SHOWN IS INDICATIVE. DESIGN DRAWINGS SHALL BE PREPARED AND DESIGNERS SHALL PROVIDE THE BAR DIAMETERS REQUIRED BY THE DESIGN.
  8. STRANDS SHALL BE IN ACCORDANCE WITH EXW DESIGN CRITERIA, UNLESS OTHERWISE AGREED WITH ASHGHAL.
  9. MAXIMUM JACKING FORCE (% OF GUTS) = 75%

|      |            |                             |          |
|------|------------|-----------------------------|----------|
| Rev. | Date       | Revision Details            | Appd.    |
| 1    | 23/10/2013 | REVISED LOGO AND DWG NUMBER | I. FLYNN |

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قطر تستحق الأفضل  
Qatar Deserves The Best

**PA**  
PROJECTS AFFAIRS

QCS Section: 5 (CONCRETE)  
PART 1 (GENERAL)

Drawing Title: TY - BEAMS

Approved: I. FLYNN  
Date: OCTOBER 2013  
Drawing Number: SD 5-1-111

Sheet No: 1 OF 1  
Scale: AS SHOWN @ A1  
Revision: 1