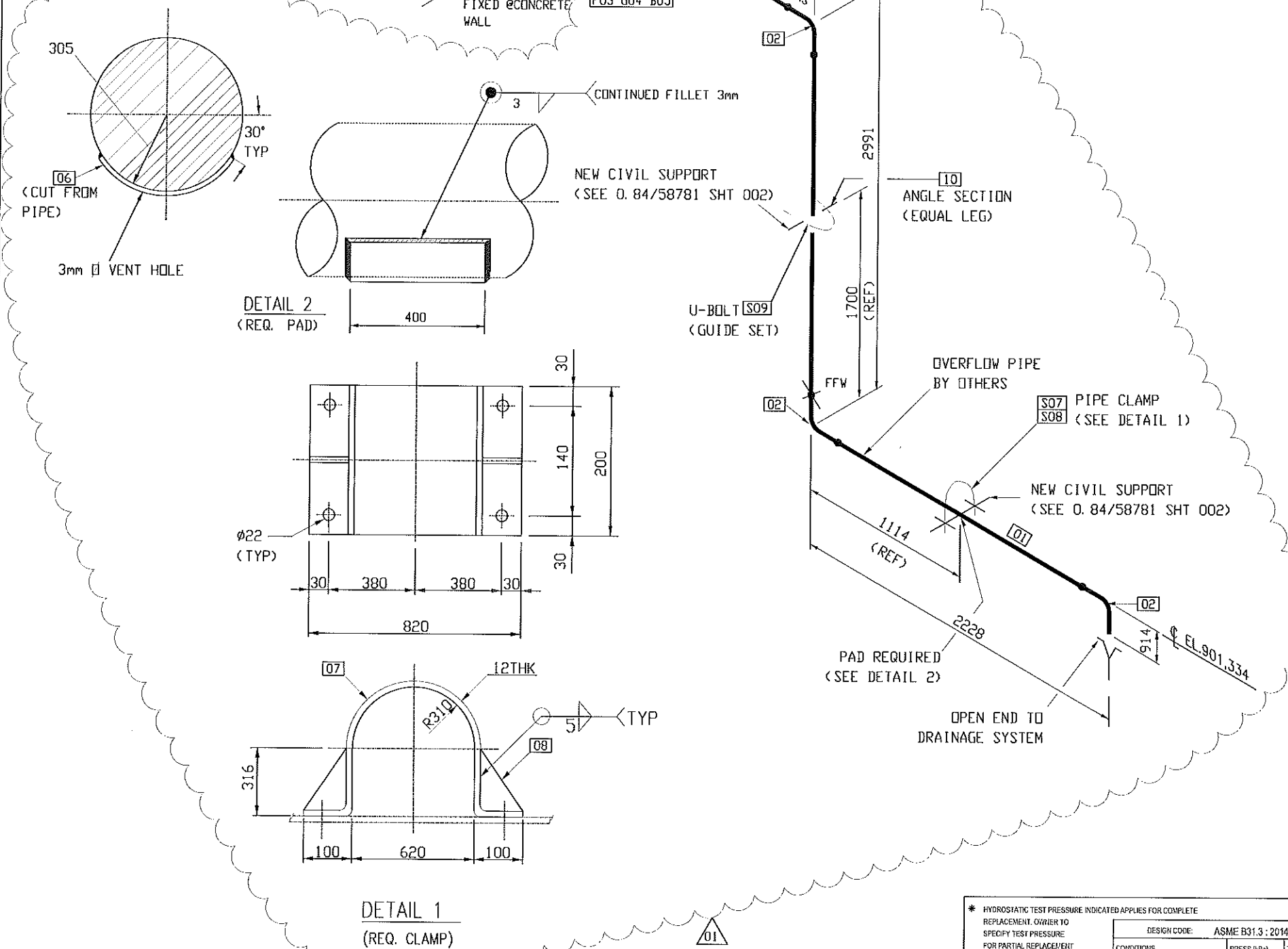
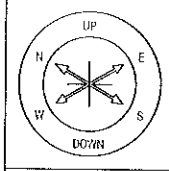




| LEGEND |                 |     |                 |
|--------|-----------------|-----|-----------------|
| AG     | -ABOVE GRADE    | RF  | -RAISED FACE    |
| BE     | -BEVELLED END   | SCH | -SCHEDULE       |
| BF     | -BOTTOM FLAT    | SO  | -SLIP ON        |
| BOP    | -BOTTOM OF PIPE | LR  | -LONG RADIUS    |
| DRG    | -DRAWING        | STL | -STEEL          |
| FFW    | -FIELD FIT WELD | WT  | -WALL THICKNESS |
|        |                 | FW  | -FIELD WELD     |
|        |                 | FLG | -FLANGE         |
|        |                 | WN  | -WELDING NECK   |
|        |                 | PS  | -PIPE SUPPORT   |

|                                                                                                                                |           |                           |             |
|--------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------|-------------|
| * HYDROSTATIC TEST PRESSURE INDICATED APPLIES FOR COMPLETE REPLACEMENT. OWNER TO SPECIFY TEST PRESSURE FOR PARTIAL REPLACEMENT |           |                           |             |
| DESIGN CODE: ASME B31.3 : 2014                                                                                                 |           |                           |             |
| LINE CLASS:                                                                                                                    | CB-01     | DESIGN                    | 600 kPa (g) |
| LINE COMMODITY:                                                                                                                | RAW WATER | OPERATING                 | ATM kPa (g) |
| INSULATION:                                                                                                                    | NONE      | HYDROSTATIC TEST PRESSURE | 900 kPa     |

|                                                                                                                                                                                                                                                                                                                       |                   |                   |            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|------------|
| FIRING DESIGNER DECLARATION                                                                                                                                                                                                                                                                                           |                   |                   |            |
| I, THE UNDERSIGNED, BEING EXPERIENCED AND COMPETENT IN THE APPLICABLE FIELD OF PIPING DESIGN AS REQUIRED BY SANS 347 ANNEX B, DECLARE THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, THIS REVISION OF THE DESIGN IS COMPLETE, ACCURATE AND COMPLIES WITH THE REQUIREMENTS OF THE APPLICABLE HEALTH AND SAFETY STANDARD. |                   |                   |            |
| DESIGN CODE:                                                                                                                                                                                                                                                                                                          | ASME B31.3 : 2014 | PR. ENG/PR. TECH  | A. PILLAY  |
| CONFORMANCE:                                                                                                                                                                                                                                                                                                          | SANS 347: 2012    | REGISTRATION NO.  | 20130203   |
| HAZARD CATEGORY:                                                                                                                                                                                                                                                                                                      | SEP               | REGISTRATION BODY | ECSA       |
| CONFORMITY ASSESSMENT MODULE                                                                                                                                                                                                                                                                                          | N/A               | DATE              | 01-07-2019 |

| MATERIAL LIST |     |          |                                        |      |
|---------------|-----|----------|----------------------------------------|------|
| ITEM No.      | QTY | SIZE     | DESCRIPTION                            | REV. |
| 01            | 3m  | 2"       | PIPE 609.6 x 6mm ERW SANS 719 GR B     | 01   |
| 02            | 3   | 2"       | ELL 90 DEG LR 4.501 SCH 10 A234 WPB    | 01   |
| 03            | 2   | 2"       | FLANGE 50 CL 150 RF STL A105           | 01   |
| 04            | 1   | 2"       | GASKET CL 150 SS SPIRAL WOUND GRAPHITE | 01   |
| 05            | 20  | 11x150mm | STUD BOLT A193 B7 W/A194 GR 2H NUTS    | 01   |

| PIPE SUPPORT MATERIAL |    |           |                                        |    |
|-----------------------|----|-----------|----------------------------------------|----|
| 06                    | 1m | 2"        | PIPE 609.6 x 6mm ERW SANS 719 GR B     | 01 |
| 07                    | -- | 150x12x16 | CARBON STEEL PLATE, ASTM-A36           | 01 |
| 08                    | -- | 100x12x6  | CARBON STEEL PLATE, ASTM-A36           | 01 |
| 09                    | 1  | 100mm     | U-BOLT (CARBON STEEL)                  | 01 |
| 10                    | -- | 150x75x10 | CARBON STEEL, ASTM-A36 (ANGLE SECTION) | 01 |

- GENERAL NOTES:
1. F.W. - DENOTES FIELD FIT WELD PLUS 150mm FOR SITE ADJUSTMENT.
  2. ALL DIMENSIONS ARE IN MILLIMETERS(mm), UNLESS OTHERWISE STATED.
  3. WELDING REQUIREMENTS AS PER ESKOM STANDARD. 240-106628253
  4. CORROSION PROTECTION AS PER ESKOM STANDARD. 240-106365693
  5. PAINTING REQUIREMENTS AS PER ESKOM STANDARD. 240-145581571

|                                                                |     |      |          |
|----------------------------------------------------------------|-----|------|----------|
| 08/07/2019 APPROVE FOR CONSTRUCTION                            |     |      |          |
| D.O.                                                           | REV | DATE | REVISION |
| AUTHORISED FOR ESKOM BY: J. MATHEBULA 01-07-2019               |     |      |          |
| CLASSIFICATION D00228 - ISOMETRIC PBS PATH GAC                 |     |      |          |
| MEDUPI POWER STATION WTP CLARIFIER RAW WATER OVERFLOW PIPELINE |     |      |          |
| ESKOM DRAWING NO 0.84/61041                                    |     |      |          |
| SHT 002 REV 01                                                 |     |      |          |