

**REQUEST FOR EXPRESSION OF INTEREST FOR PROVISION OF ANCHOR BOLTS FOR ABOVE GROUND
INSTALLATION (AGI)**

REFERENCE NO.: CPP-PROC-UG-064-1214

China Petroleum Pipeline Engineering Co., Ltd. (hereinafter abbreviated as CPP) as Pipeline, Feederline & Above Ground Installation Contractor for the East African Crude Oil Pipeline (EACOP) Project invites experienced and reputable Contractors to express their interest in providing [**Anchor Bolts for AGI**] to the EACOP Project.

The EACOP Project involves the construction and operation of an underground and cross-border pipeline to transport crude oil for export to international markets. The pipeline will run from Kabaale, Hoima District in Uganda to the Chongoleani peninsula near Tanga in Tanzania. The length of the pipeline is 1,443 km, of which 296 km will be in Uganda.

BRIEF DESCRIPTION OF THE SCOPE OF THE SERVICES:

- ♦ **Anchor Bolts** (including Bolts, nuts, gaskets)

MINIMUM REQUIREMENTS:

Companies or organizations expressing their interest are invited to document their request with:

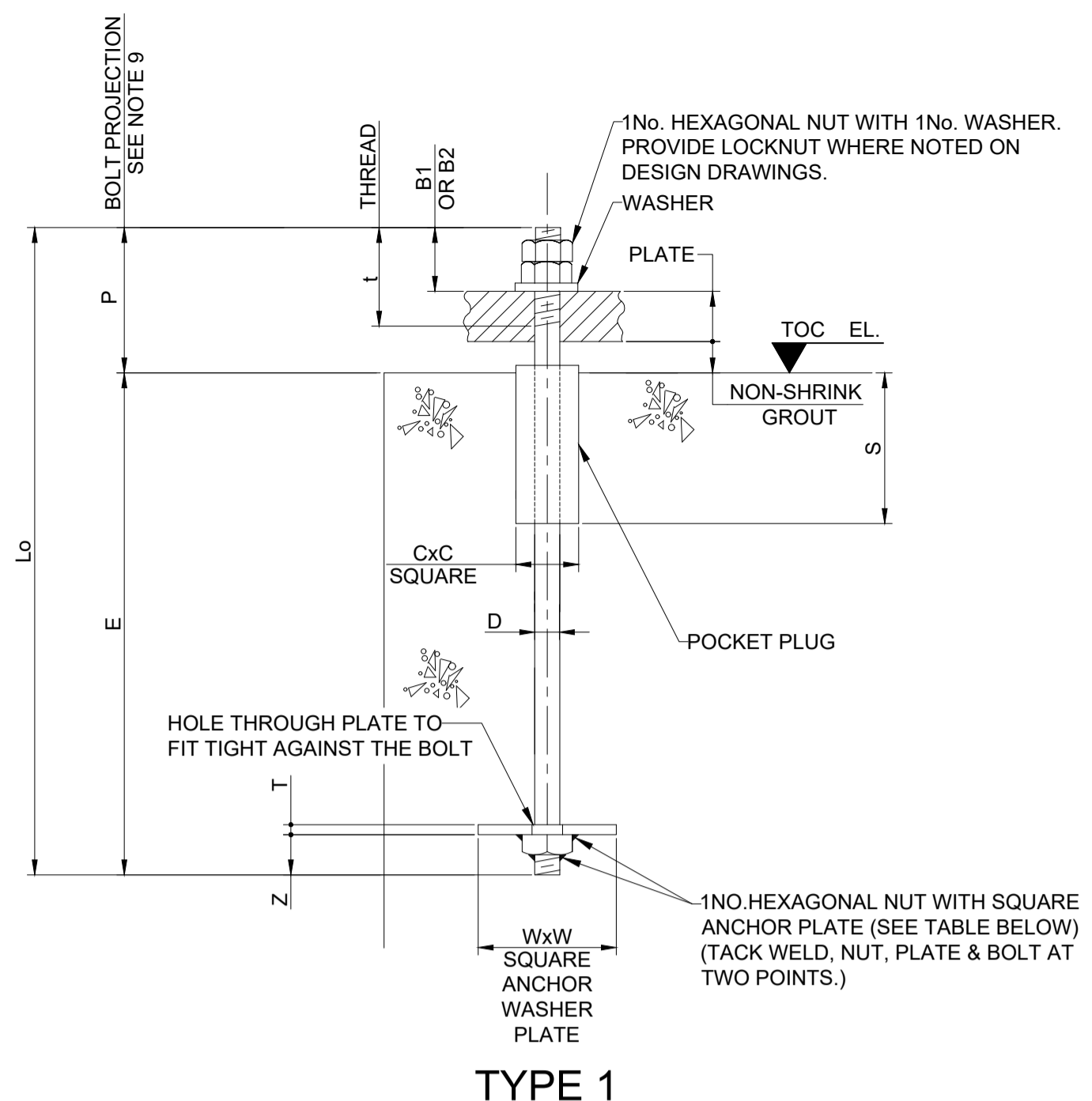
- Proof of business registration and business license for Uganda and Profile of Supplier.
- Proof of registration with the Uganda Tax Revenue Authority, including TIN Certificate.
- Proof of registration with the PAU National Supplier Database (NSD) for Uganda.
- Compliance with the Petroleum Midstream National Content Regulation # 34, 2016 for Uganda.
- Filling the Key personnel list with CV(Appendix1) and Equipment list of production and inspection (Appendix2) in requested format.
- Please provide similar experience within last three years (relevant supply contracts, acceptance reports and other supporting documents should be attached), the experience shall include at least one experience of Anchor Bolts. Format refer to Appendix 3.
- Copy of certificates of ISO 9001, ISO 45001, ISO 14001 or equivalent of them.
- Tax Clearance Certificate for the latest year available and Audit report for the last three years.
- Technical requirements shall meet our relevant technical requirements documents refer to Appendix 4. (Supplier's response shall be included in their documents submitted)

Companies which have the ability, capacity, and resources to implement the activities listed above should express their interest by sending together with the documents stated in the above section through an email to **supplierdata@cpptz.com** (Max. Email Size: 20 MBs, all documents must be submitted in the English language) on or before **24:00 hours East African Time (EAT), on 14th January 2024**. The subject of the email should be **"EOI for CPP-PROC-UG-064-1214-COMPANY NAME"**. CPP reserves the right not to consider companies that submit an incorrect email subject and the incorrect format of Appendix 1, 2 and 3.

The format of the required documents and relevant technical requirements which are mentioned in Minimum Requirements should be downloaded from EACOP's website

(<https://eacop.com/opportunities-by-main-construction-contractors/china-petroleum-pipeline-engineering-co-ltd/>).

Note: CPP will review and assess the documents provided by companies that have expressed interest in accordance with this EOI and conduct evaluations based on internal criteria to determine which companies will be included in the list of pre-qualified companies. Only the pre-qualified companies will receive, by signing a Non-Disclosure Agreement (NDA), an invitation to bid as a continuation of the call for tender process. CPP reserves the right at its sole discretion to make the decision.



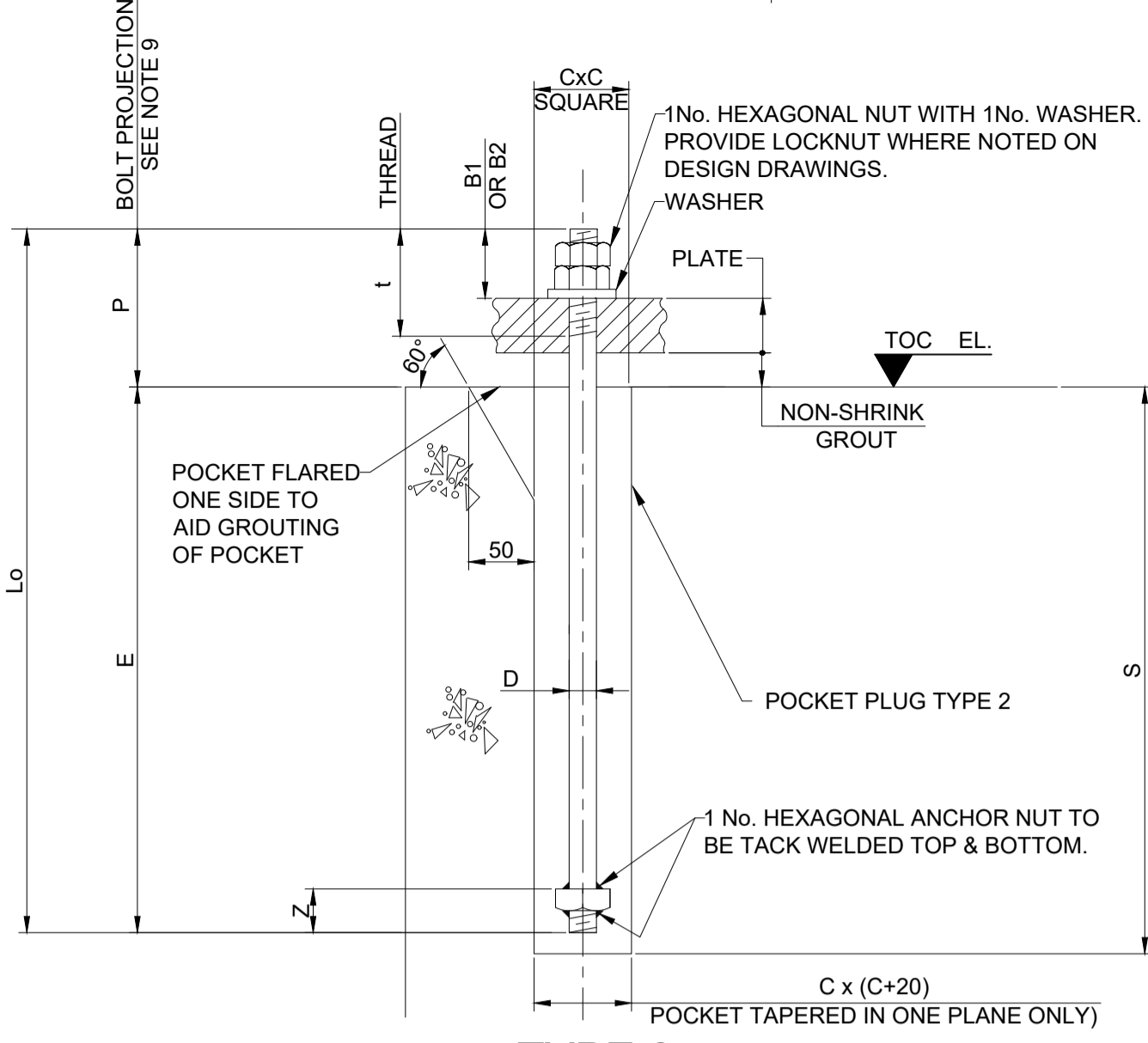
TYPE 1

| BOLT TYPE 1 | BOLT DIMENSIONS | | | | | | | | POCKET DIMENSIONS | | ANCHOR PLATE DIMENSIONS | |
|-------------|-------------------|---------------|----------------------|------------|-----|------------|-------------------------|-------------------------------|-------------------|-----|-------------------------|-----|
| | BOLT DIA (mm) (D) | EMBEDMENT (E) | BOLT LENGTH (Lo) (*) | THREAD (Z) | (t) | (B1) 1 NUT | (B2) 1 NUT & 1 LOCK NUT | MAX BASE PLATE THICKNESS (mm) | (C) | (S) | (W) | (T) |
| M16 | 16 | 350 | 450 | 25 | 80 | 25 | 40 | 20 | 75 | 200 | 60 | 20 |
| M20 | 20 | 400 | 525 | 30 | 90 | 30 | 50 | 25 | 75 | 200 | 65 | 20 |
| M24 | 24 | 450 | 600 | 35 | 115 | 35 | 60 | 30 | 75 | 250 | 70 | 20 |
| M30 | 30 | 575 | 725 | 45 | 120 | 40 | 65 | 35 | 75 | 250 | 85 | 25 |
| M36 | 36 | 650 | 825 | 55 | 140 | 50 | 80 | 40 | 100 | 300 | 105 | 25 |
| M42 | 42 | 750 | 925 | 65 | 145 | 60 | 95 | 40 | 100 | 300 | 140 | 30 |

(*) BOLT LENGTHS (Lo) ARE STANDARD UNLESS OTHERWISE NOTED ON CONCRETE DETAIL DRAWINGS

BOLT PROJECTION = GROUT THICKNESS + PLATE THICKNESS + B1 or B2 (SEE NOTE 9)

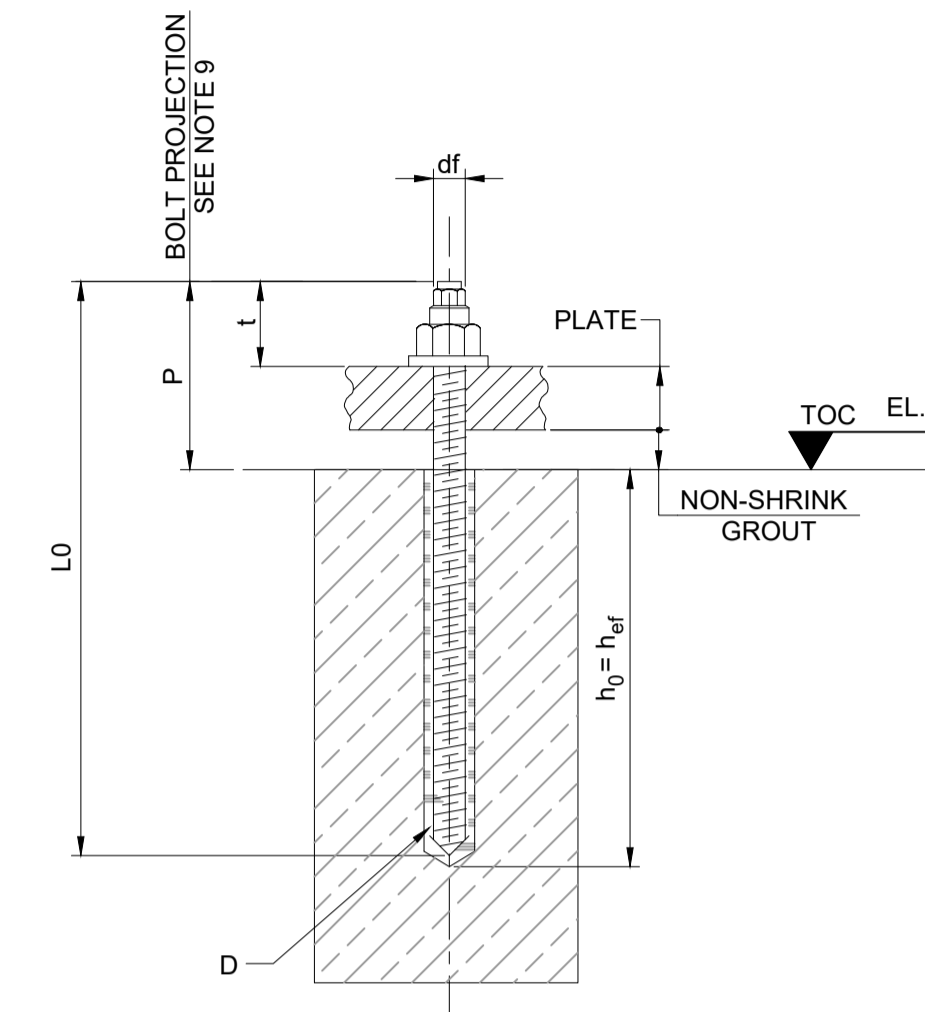
BOLT LENGTH (Lo) AND THREAD (t) ARE SUITABLE FOR GROUT THICKNESS UPTO 40mm



TYPE 2

| BOLT TYPE 2 (**) | BOLT DIMENSIONS | | | | | | | | POCKET DIMENSIONS | |
|------------------|-------------------|---------------|------------------|------------|-----|------------|-------------------------|-------------------------------|-------------------|-----|
| | BOLT DIA (mm) (D) | EMBEDMENT (E) | BOLT LENGTH (Lo) | THREAD (Z) | (t) | (B1) 1 NUT | (B2) 1 NUT & 1 LOCK NUT | MAX BASE PLATE THICKNESS (mm) | (C) | (S) |
| M12 | 12 | 275 | 375 | 25 | 75 | 20 | 35 | 20 | 100 | 300 |
| M16 | 16 | 275 | 400 | 25 | 90 | 25 | 40 | 20 | 100 | 300 |

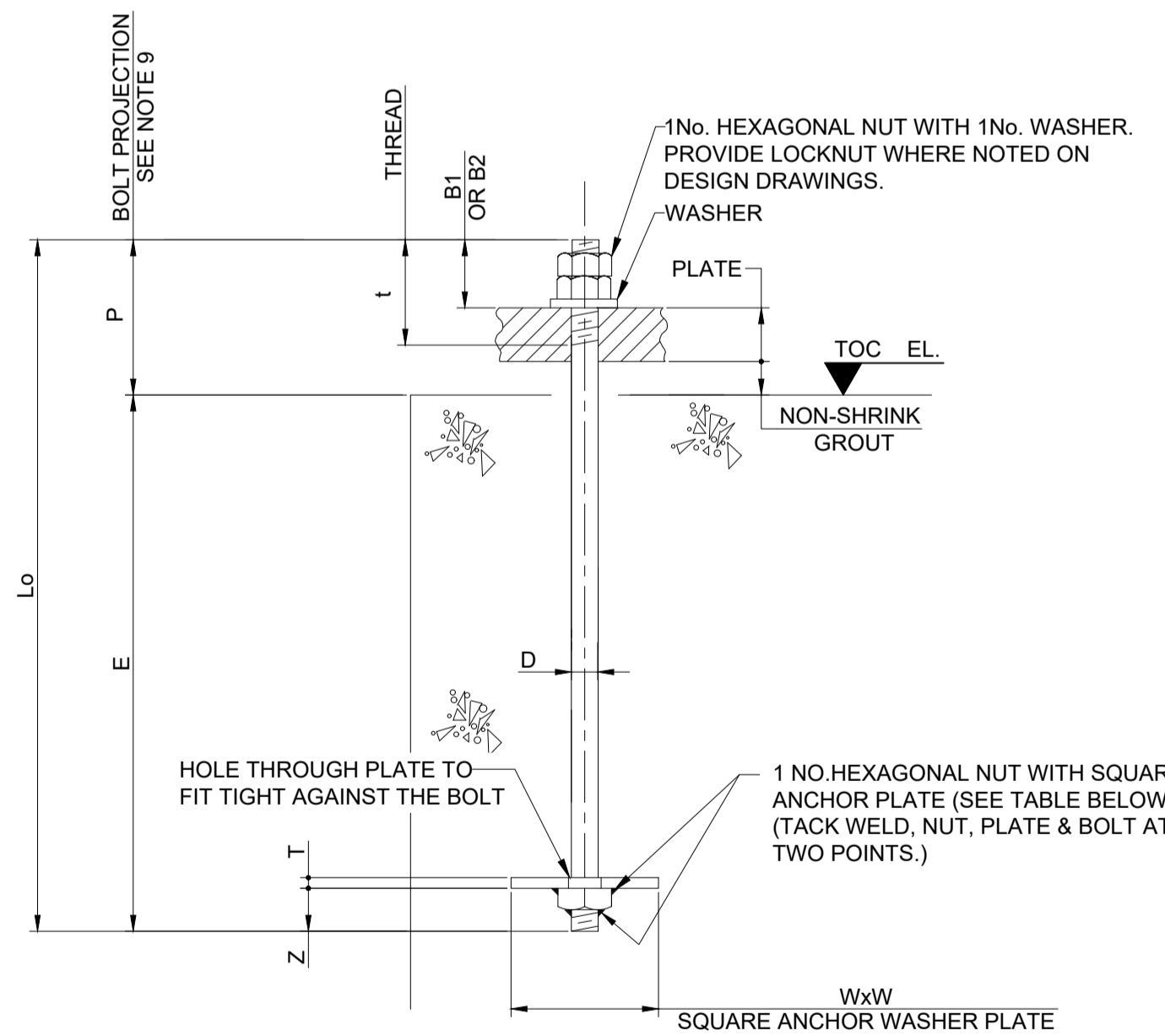
(**) TYPE 2 HOLDING DOWN BOLTS SHALL BE USED FOR STRUCTURES AND EQUIPMENT NOT SUBJECT TO SIGNIFICANT TENSION LOADS
BOLT LENGTH (Lo) AND THREAD (t) ARE SUITABLE FOR GROUT THICKNESS UPTO 40mm



TYPE 3

| BOLT TYPE 3 POST DRILLED ANCHOR BOLT (b) | BOLT DIA (mm) (D) | BOLT TYPE-HILTI | INJECTION MORTAR - HILTI | BOLT DIMENSIONS | | | MAXIMUM DIAMETER OF THE CLEARANCE HOLE IN THE FIXTURE df (mm) |
|--|-------------------|-----------------|--------------------------|--|------------------------------------|------------------------|---|
| | | | | EMBEDMENT LENGTH BELOW TOC (h0=hef) (mm) | BOLT PROJECTION ABOVE TOC 'P' (mm) | BOLT LENGTH L0(a) (mm) | |
| M16 | 16 | HAS-U 8.8 - HDG | HIT-HY-200-A | 100 | 90 | 190 | 18 |
| M20 | 20 | HAS-U 8.8 - HDG | HIT-HY-200-A | 165 | 95 | 260 | 22 |
| M24 | 24 | HAS-U 8.8 - HDG | HIT-HY-200-A | 200 | 100 | 300 | 26 |

- BOLT LENGTHS (L0) ARE STANDARD UNLESS OTHERWISE NOTED ON CONCRETE DETAIL DRAWINGS
BOLT PROJECTION, P = GROUT THICKNESS + PLATE THICKNESS + t.
- PROVIDE 2 NUTS AND 1 WASHER FOR ANCHOR BOLTS SUBJECTED TO UPLIFT OR VIBRATION WHERE NOTED ON DESIGN DRAWINGS.
- t = 1.5 x D FOR 1 NUT AND WASHER AND FOR 1 LOCK NUT, AN ADDITIONAL NUT HEIGHT OF 13mm, 16mm AND 19mm HAS BEEN CONSIDERED FOR M16, M20 AND M24.
- BOLT PROJECTION IS SUITABLE FOR 25 MM THK GROUT + 25 MM THK PLATE + t (INCLUDING LOCK NUT).



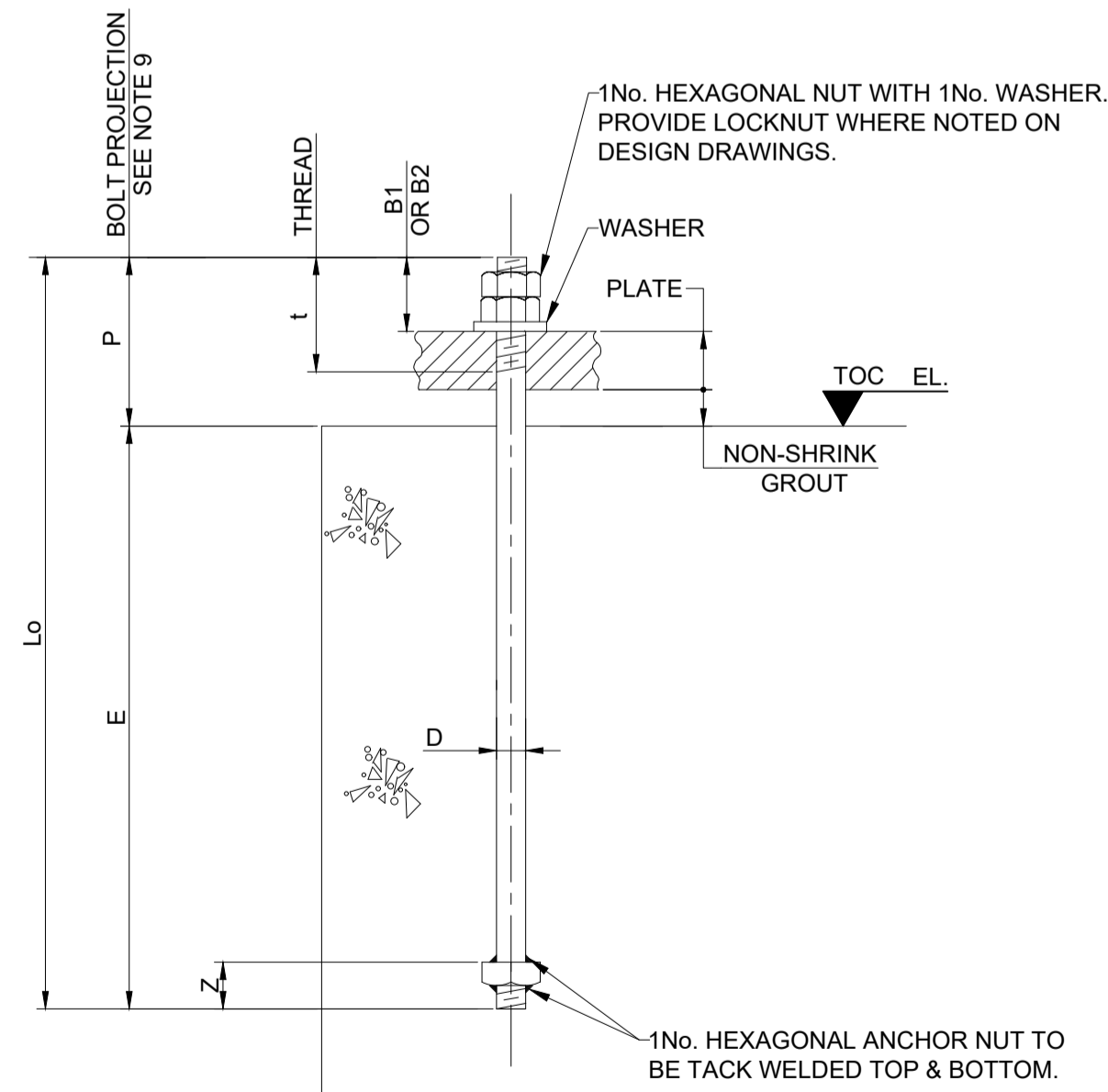
TYPE 1A

| BOLT TYPE 1A | BOLT DIMENSIONS | | | | | | | | ANCHOR PLATE DIMENSIONS | | |
|--------------|-------------------|---------------|----------------------|------------|-----|------------|-------------------------|-------------------------------|-------------------------|-----|----|
| | BOLT DIA (mm) (D) | EMBEDMENT (E) | BOLT LENGTH (Lo) (*) | THREAD (Z) | (t) | (B1) 1 NUT | (B2) 1 NUT & 1 LOCK NUT | MAX BASE PLATE THICKNESS (mm) | (C) | (S) | |
| M16 | 16 | 350 | 450 | 25 | 80 | 25 | 40 | 20 | - | 60 | 20 |
| M20 | 20 | 400 | 525 | 30 | 90 | 30 | 50 | 25 | - | 65 | 20 |
| M24 | 24 | 450 | 600 | 35 | 115 | 35 | 60 | 30 | - | 70 | 20 |
| M30 | 30 | 575 | 725 | 45 | 120 | 40 | 65 | 35 | - | 85 | 25 |
| M36 | 36 | 650 | 825 | 55 | 140 | 50 | 80 | 40 | - | 105 | 25 |
| M42 | 42 | 750 | 925 | 65 | 145 | 60 | 95 | 40 | - | 140 | 30 |

(*) BOLT LENGTHS (Lo) ARE STANDARD UNLESS OTHERWISE NOTED ON CONCRETE DETAIL DRAWINGS

BOLT PROJECTION = GROUT THICKNESS + PLATE THICKNESS + B1 or B2 (SEE NOTE 9)

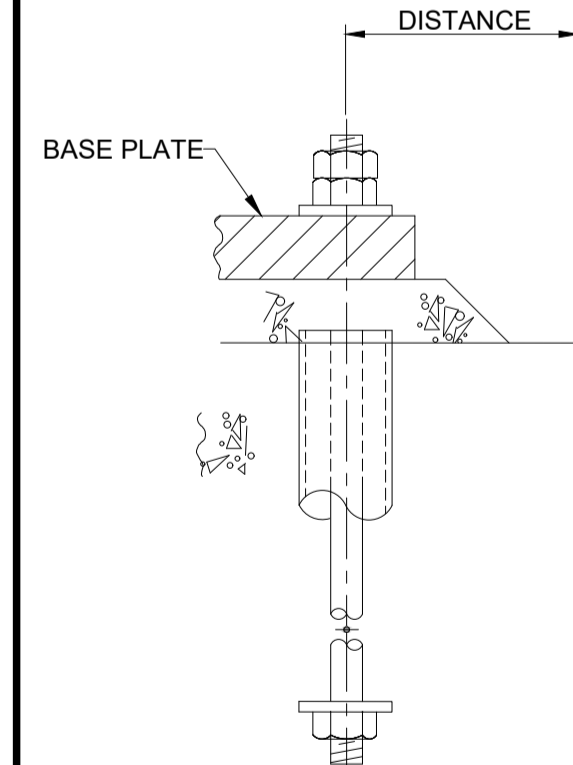
BOLT LENGTH (Lo) AND THREAD (t) ARE SUITABLE FOR GROUT THICKNESS UPTO 40mm



TYPE 2A

| BOLT TYPE 2A (**) | BOLT DIMENSIONS | | | | | | | | POCKET DIMENSIONS | |
|-------------------|-------------------|---------------|------------------|------------|-----|------------|-------------------------|-------------------------------|-------------------|-----|
| | BOLT DIA (mm) (D) | EMBEDMENT (E) | BOLT LENGTH (Lo) | THREAD (Z) | (t) | (B1) 1 NUT | (B2) 1 NUT & 1 LOCK NUT | MAX BASE PLATE THICKNESS (mm) | (C) | (S) |
| M12 | 12 | 275 | 375 | 25 | 75 | 20 | 35 | 20 | - | - |
| M16 | 16 | 275 | 400 | 25 | 90 | 25 | 40 | 20 | - | - |

(**) TYPE 2 HOLDING DOWN BOLTS SHALL BE USED FOR STRUCTURES AND EQUIPMENT NOT SUBJECT TO SIGNIFICANT TENSION LOADS
BOLT LENGTH (Lo) AND THREAD (t) ARE SUITABLE FOR GROUT THICKNESS UPTO 40mm



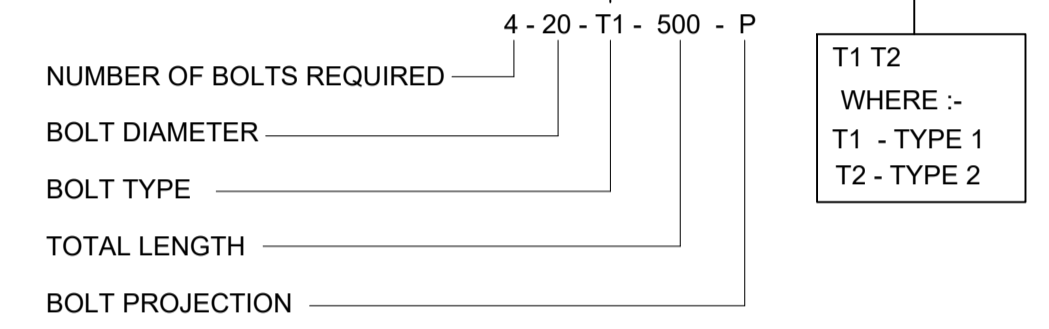
MINIMUM EDGE DISTANCE

THE MIN. DISTANCE FROM THE EDGE OF THE FOUNDATION TO THE CENTER LINE OF THE BOLT SHALL BE AS FOLLOWS :
UP TO INCLUDING : 12mm DIA = 120mm
16mm DIA = 120mm
20mm DIA = 120mm
24mm DIA = 150mm
30mm DIA = 180mm
36mm DIA = 220mm
42mm DIA = 260mm

A MINIMUM EDGE DISTANCE OF 150mm IS REQUIRED FOR VIBRATING EQUIPMENT / MACHINERY FOUNDATIONS.

NOTES:

- FOR CONCRETE GENERAL NOTES, ABBREVIATIONS & LEGEND SEE DRAWING NO UT-MID-60-WPR2-231500.
- REFER TO ONSHORE STRUCTURAL STEEL FABRICATION & ERECTION SPECIFICATION UT-MID-60-WPR2-230007.
- REFER TO ONSHORE REINFORCED CONCRETE SPECIFICATION UT-MID-60-WPR2-230006.
- ALL BOLTS, NUTS, WASHERS, AND PLATES SHALL BE IN ACCORDANCE WITH STRUCTURAL STEEL FABRICATION & ERECTION SPECIFICATION UT-MID-60-WPR2-230007 AND STEELWORK GENERAL NOTES UT-MID-60-WPR2-231561.
- ALL BOLTS SHALL BE HELD FIRM IN POSITION DURING CONCRETE PLACEMENT BY MEANS OF AN ADEQUATE TEMPLATE. PLEASE MAKE SURE PROPER TEMPLATE CAGE SHALL BE USED. SLEEVES/PLUGS SHALL BE MAINTAINED CENTRALLY AROUND BOLT BY FIXING TO TEMPLATE.
- NO CONCRETE SHALL BE POURED, UNTIL ALL BOLTS HAVE BEEN CHECKED FOR TRUE ELEVATION AND VERTICAL ALIGNMENT. FOR TOLERANCES REFER TO ONSHORE REINFORCED CONCRETE SPECIFICATION UT-MID-60-WPR2-230006.
- PLUGS & INSERTS SHALL BE COMPLETELY REMOVED, AND POCKETS THOROUGHLY CLEARED PRIOR TO GROUTING.
- THE EXPOSED THREAD AND NUT OF THE ANCHOR BOLTS SHALL BE WRAPPED IN 'DENZO' OR OTHER APPROVED PROTECTIVE TAPE. THIS TAPE SHALL BE MAINTAINED INTACT UNTIL THE EQUIPMENT OR STRUCTURE IS PLACED IN POSITION. BOLT SLEEVES AND POCKETS SHALL BE CLEARED OUT PRIOR TO LOCATION OF EQUIPMENT AND SUBSEQUENT GROUTING.
- FOR ACTUAL BOLT PROJECTION, SEE RELEVANT FOUNDATION DESIGN DRAWINGS.
- ALL GROUTING SURFACES SHALL BE FREE FROM GREASE OR OTHER CONTAMINANTS AFFECTING THE BOND STRENGTH.
- ANCHOR BOLTS SHALL NOT BE LESS THAN M20 FOR MAIN STRUCTURES AND EQUIPMENT.
- REINFORCEMENT SHALL NOT BE CUT TO ALLOW INSTALLATION OF ANCHOR BOLTS. RELOCATION OF REINFORCEMENT SHALL BE TO THE ENGINEERS APPROVAL.
- ALL ANCHOR BOLTS SHALL BE TIGHTENED TO THE SNUG TIGHT CONDITION AS A MINIMUM.
- THE FOUNDATION BOLT DESIGNATION SHALL BE INDICATED AS FOLLOWS:-



NOTE: ONE NUT AND ONE WASHER SUPPLIED WITH EACH BOLT, EXCEPT BOLTS SUPPLIED WITH TWO NUTS WHICH WILL BE INDICATED IN THE FOUNDATION DRAWINGS.

- REFER TO TYPICAL BASE PLATE DRAWING UT-MID-60-WPR2-231573 FOR BASE PLATE DETAILS AND ANCHOR BOLT SPACING.
- ALL ANCHOR BOLTS, NUTS & WASHERS SHALL BE HOT DIPPED SPUN GALVANIZED IN ACCORDANCE WITH PROJECT SPECIFICATIONS.
- UNLESS SPECIFIED OTHERWISE ON DRAWINGS, ALL POST-DRILLED ANCHOR BOLTS SHALL BE HILTI HAS-U 8.8 (HDG) THREADED ROD WITH HIT-HY 200-A INJECTION MORTAR SYSTEM (OR EQUIVALENT APPROVAL).
- POST - DRILLED ANCHORS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS.
- THE ENGINEER IS RESPONSIBLE FOR ASSESSING THE CONNECTION FOR THE APPLIED LOADS WHEN SPECIFYING A DETAIL, WITH A BESPOKE DETAIL TO BE USED IN SITUATIONS WHERE THE TYPICAL DETAIL IS NOT SUITABLE.
- UNLESS SPECIFIED OTHERWISE ON DRAWINGS, ALL ANCHOR BOLTS SHALL BE GRADE 8.8.
- FOR BASE PLATE AND GROUT THICKNESS, OTHER THAN THOSE INDICATED, CHECK THAT PROJECTION & THREAD LENGTH ARE SUFFICIENT.

| Rev. | Date | Step | Revision Description | Iss. | Check. | Appr. |
|------|-----------|------|---------------------------|------|--------|-------|
| 01 | 24-MAY-23 | AFC | ACCEPTED FOR CONSTRUCTION | DKR | SPI | SSG |
| 00 | 12-JAN-22 | IFR | ISSUED FOR REVIEW | NME | CWS | SSG |

Affiliate: EAST AFRICAN CRUDE OIL PIPELINE | Site: MID | Project Phase: DE | EACOP Project | Worley energy | chemicals | resources

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Affiliate: Site: MID | Project Phase: DE

TYPICAL DRAWING
CONCRETE ANCHOR BOLT DETAILS

| | | | | | | | |
|---------------------|-----------------------|------------|-----|---------|--------|---------|-----|
| Discipline: | CIV | Doc. Type: | TYP | Sector: | 60 | System: | N/A |
| Company Doc. N°: | UT-MID-60-WPR2-231501 | Class: | 2 | Scale: | NTS | | |
| Contractor Doc. N°: | | Format: | A1 | Folio: | 1 of 1 | | |