

TABLE 1: EZIPIER UPLIFT CAPACITY P_{uplift}

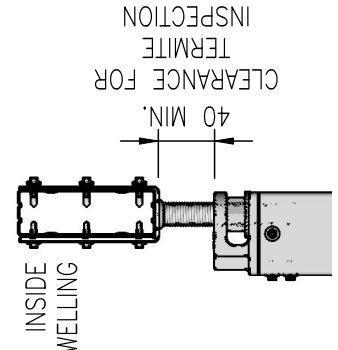
| LOCATION | | A | B |
|----------------------|----------------------|------------------------------|---------------|
| WEB 0.8BMT LOAD (kN) | WEB 1.0BMT LOAD (kN) | FASTENER QTY | FASTENER QTY |
| 18.0 | 18.0 | 12 x 14g TEKS | 4 x 12g TEKS |
| 24.9 | 27.0 | 12 x 14g TEKS | 6 x 12g TEKS |
| 24.9 | 34.8 | 12 x 14g TEKS | 8 x 12g TEKS |
| 35.8 | 44.6 | 12 x 14g TEKS + 1 x M10 BOLT | 12 x 12g TEKS |

BOXSPAN LEGEND:

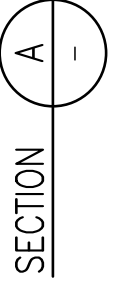
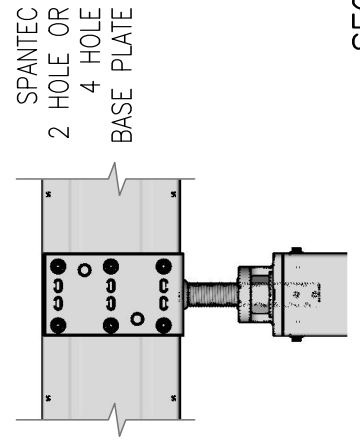
WEB 0.8BMT = B100-16, B150-16, B200-16, B250-16
 WEB 1.0BMT = B150-20, B200-20, B250-20

GENERAL NOTES:

- THIS DRAWING SHOWS A BOXSPAN MONOPLANE FLOOR, IT IS ASSUMED THE FLOOR SUPPORTED BY THE PIERS IS FULLY BRACED AND THE LOADS SUPPORTED ARE DEAD LOADS, LIVE LOADS AND WIND UPLIFT ONLY.
- THE NOMINAL CONNECTION SHOWN IS THE MINIMUM CONNECTION THAT SHOULD BE USED. A COMPETANT PERSON SHOULD CHECK THE DESIGN FOR UPLIFT TO SUIT THE ACTUAL SITE CONDITIONS.
- THE ADJUSTABLE HEAD AND BASE PLATE ARE MADE FROM DUCTILE CAST IRON WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 400MPa CONFORMING TO AS1831 (ISO1083) AND HOT DIPPED GALVANISED TO 500gsm (GRAMS PER SQUARE METER).
- FOR PROTECTIVE COATING SYSTEMS REFER TO: NCC VOLUME 2, NASH STANDARD RESIDENTIAL AND LOW-RISE STEEL FRAMING PART 2: DESIGN SOLUTIONS, AS/NZS 4680 HOT-DIP ZINC COATINGS ON FABRICATED FERROUS ARTICLES, AS/NZS 4792 HOLLOW SECTIONS PRODUCED BY WELDING PRE-GALVANIZED STEEL STRIP.
- BASE PLATE MUST BE SELECTED TO SUIT THE APPLIED LOADS, SEE DRAWING P14 FOR THE 2 AND 4 HOLE BASE PLATE CAPACITIES OR VISIT OUR WEBSITE www.spantec.com.au



TERMITE INSPECTION POINT AND PIERHEAD PREFERRED ORIENTATION
 TERMITE INSPECTION SATISFIES NCC REQUIREMENTS BY PROVISION OF A CLEAR INSPECTION POINT.



NOTE:
 BASE PLATE ORIENTATION IS PARALLEL TO BEARER.

TABLE 2: EZIPIER DOWNWARD CAPACITY P_{down}
 (MAX. FFL 2700mm)

| PIER HEAD | PIER SHS SIZE (mm) | MAX. DOWN LOAD (kN) |
|-----------|--------------------|---------------------|
| 75UPH | 75x75x2.0 | 45.0 |
| 90UPH | 90x90x2.0 | 55.0 |
| 89UPH | 89x89x3.5 | 110.0 |

EZIPIER DOWNWARD CAPACITY NOTES

- THE CAPACITY OF PIERHEAD IS BASED ON THE STRENGTH OF THE WHOLE PIER ASSEMBLY.
- THE ULTIMATE DOWNWARD LOAD CAPACITY OF THE PIER IS BASED ON A MAXIMUM FFL OF 2700mm (FINISHED FLOOR LEVEL), FOR FLOOR HEIGHTS ABOVE 2700mm THE PIER CAPACITY MUST BE CHECKED BY A COMPETANT PERSON. EZIPIER CAN BE SUPPLIED WITH A 2 OR 4 HOLE BASE PLATE.
- PIER SHS MIN. STEEL GRADE 350MPg TO AS1163.
- THE CAPACITIES IN THE TABLES ARE CALCULATED USING AUSTRALIAN LOADING CODE AS1170 AND AS4600.

STRUCTURAL DESIGN CERTIFICATION

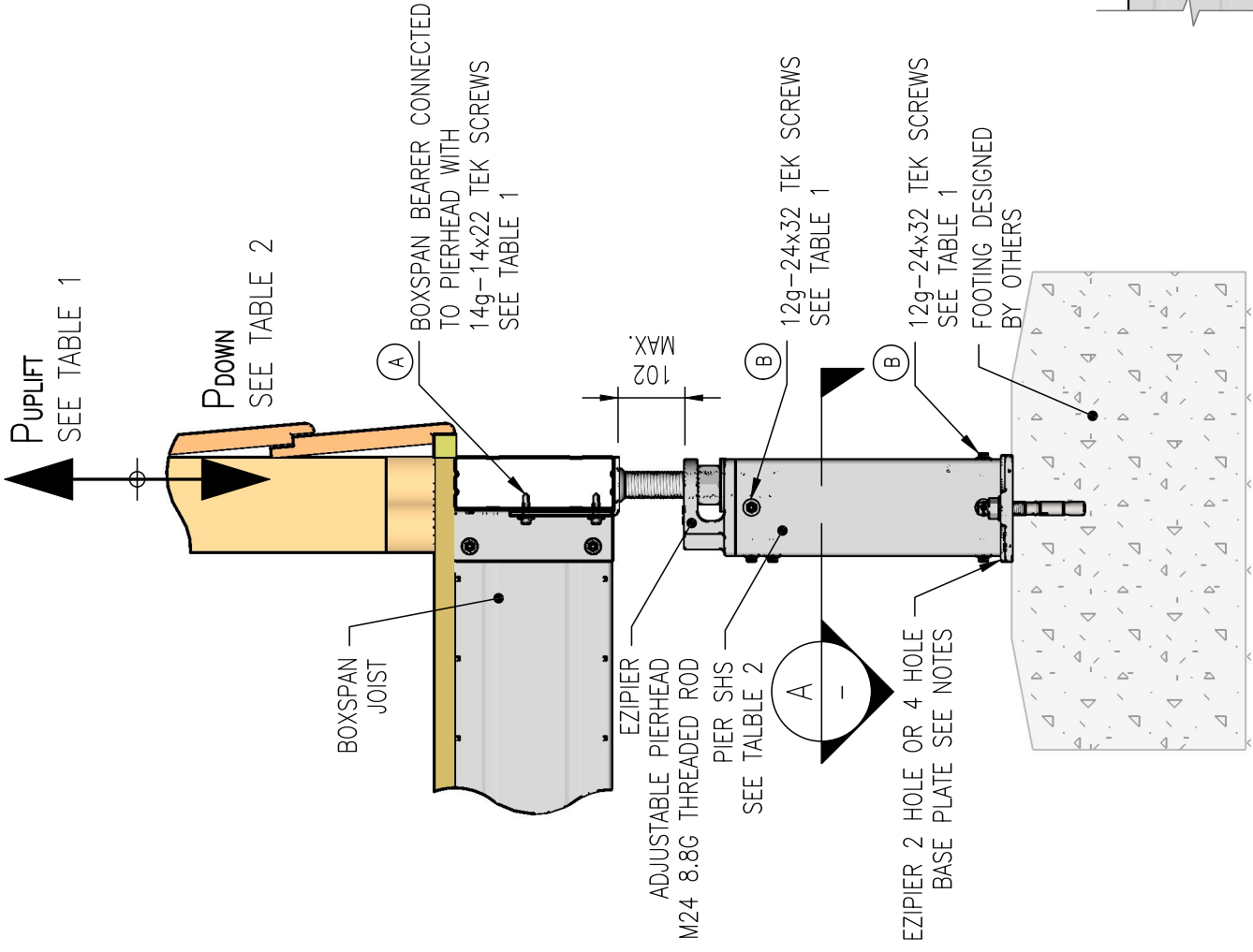
ACN 639-248-114

REF. # 3333
 DATE: 18/09/2024

SIGNATURE
 HA NGUYEN
 BE(Hons) PRD MIEAust CPEng NER 4188792
 PE0001349 (VIC), RPEQ24385 (QLD), TAS 727649808

| | | | | | | | | |
|--|--|--|---|---|---------------------------|-------------------|-------------|------------------------|
| SPANTEC SYSTEMS Pty Ltd ABN 56 053 584 384 17 Drapers Road, Braemar, NSW, 2575 PO Box 81, Mittagong, NSW, 2575, Australia Phone: 02 4860 1000 Fax: 02 4872 1616 www.spantec.com.au COPYRIGHT: THIS DRAWING REMAINS THE PROPERTY OF SPANTEC SYSTEMS PTY. LTD. AND MAY NOT BE ALTERED IN ANY WAY WITHOUT SPANTEC SYSTEMS PTY. LTD. WRITTEN CONSENT. | | DESCRIPTION CERTIFICATION STAMP CHANGED BASE PROTECTOR REMOVED | DRN. DATE M.R. 23/08/22 M.R. 11/09/24 | DESCRIPTION EZIPIER ADJUSTABLE "U" PIERHEAD ASSEMBLY BOXSPAN CONNECTION DETAILS | DRAWING NUMBER: P04-01 | REVISION F | | |
| REV. E F | DESCRIPTION CERTIFICATION STAMP CHANGED BASE PROTECTOR REMOVED | DRN. DATE M.R. 23/08/22 M.R. 11/09/24 | DESCRIPTION EZIPIER ADJUSTABLE "U" PIERHEAD ASSEMBLY BOXSPAN CONNECTION DETAILS | DRAWING NUMBER: P04-01 | REVISION F | SCALE @ A3 NTS | DRAWN AP | DATE DRAWN 15/11/20 |

P_{UPLIFT}
SEE TABLE 1



EZIPIER END ELEVATION
(MONOPLANE FLOOR SHOWN)

TABLE 1: EZIPIER UPLIFT CAPACITY P_{uplift}

| TEK "A" QTY | TEK "B" QTY | WEB 0.8MT LOAD (kN) | WEB 1.0MT LOAD (kN) |
|-------------|-------------|---------------------|---------------------|
| 6 | 4 | 12.7 | 17.7 |

BOXSPAN LEGEND:
WEB 0.8BMT = B100-16, B150-16, B200-16
WEB 1.0BMT = B150-20, B200-20, B250-20

GENERAL NOTES:

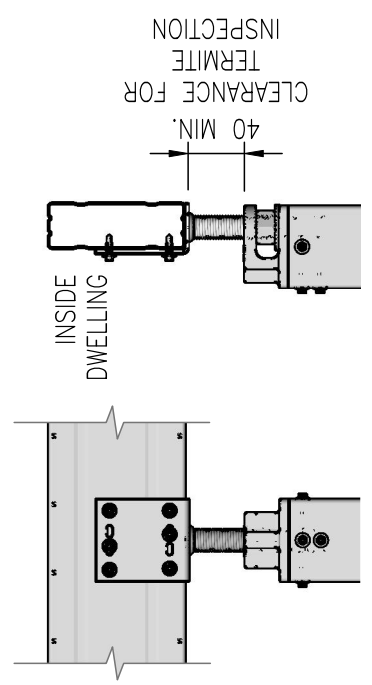
- THIS DRAWING SHOWS A BOXSPAN MONOPLANE FLOOR, IT IS ASSUMED THE FLOOR SUPPORTED BY THE PIERS IS FULLY BRACED AND THE LOADS SUPPORTED ARE DEAD LOADS, LIVE LOADS AND WIND UPLIFT ONLY.
- THE NOMINAL CONNECTION SHOWN IS THE MINIMUM CONNECTION THAT SHOULD BE USED. A COMPETANT PERSON SHOULD CHECK THE DESIGN FOR UPLIFT TO SUIT THE ACTUAL SITE CONDITIONS.
- THE ADJUSTABLE HEAD AND BASE PLATE ARE MADE FROM DUCTILE CAST IRON WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 400MPa CONFORMING TO AS1831 (ISO1083) AND HOT DIPPED GALVANISED TO 500gsm (GRAMS PER SQUARE METER).
- FOR PROTECTIVE COATING SYSTEMS REFER TO: NCC VOLUME 2, NASH STANDARD RESIDENTIAL AND LOW-RISE STEEL FRAMING PART 2: DESIGN SOLUTIONS, AS/NZS 4680 HOT-DIP ZINC COATINGS ON FABRICATED FERROUS ARTICLES, AS/NZS 4792 HOLLOW SECTIONS PRODUCED BY WELDING PRE-GALVANIZED STEEL STRIP.
- BASE PLATE MUST BE SELECTED TO SUIT THE APPLIED LOADS, SEE DRAWING P14 FOR THE 2 AND 4 HOLE BASE PLATE CAPACITIES OR VISIT OUR WEBSITE www.spantec.com.au

TABLE 2: EZIPIER DOWNWARD CAPACITY P_{down}
(MAX. FFL 2700mm)

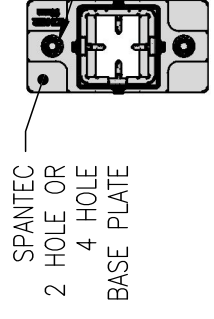
| PIER HEAD | PIER SHS SIZE (mm) | MAX. DOWN LOAD (kN) |
|-----------|--------------------|---------------------|
| 75LPH | 75x75x2.0 | 45.0 |
| 90LPH | 90x90x2.0 | 55.0 |
| 89LPH | 89x89x3.5 | 110.0 |

EZIPIER DOWNWARD CAPACITY NOTES

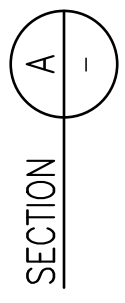
- THE CAPACITY OF PIERHEAD IS BASED ON THE STRENGTH OF THE WHOLE PIER ASSEMBLY AND IT IS ASSUMED THE PIER IS CENTRICALLY LOADED, IF THE PIER IS ESSENTRICALLY LOADED THEN REDUCE THE VALUES IN THE TABLE ABOVE BY 25%.
- THE ULTIMATE DOWNWARD LOAD CAPACITY OF THE PIER IS BASED ON A MAXIMUM FFL OF 2700mm (FINISHED FLOOR LEVEL), FOR FLOOR HEIGHTS ABOVE 2700mm THE PIER CAPACITY MUST BE CHECKED BY A COMPETANT PERSON.
- PIER SHS MIN. STEEL GRADE 350MPa TO AS1163.
- THE CAPACITIES IN THE TABLES ARE CALCULATED USING AUSTRALIAN LOADING CODE AS1170 AND AS4600. IF A HIGHER CAPACITY IS NEEDED USE A "U" PIER HEAD.



TERMITE INSPECTION POINT AND PIERHEAD PREFERRED ORIENTATION
TERMITE INSPECTION SATISFIES NCC REQUIREMENTS BY PROVISION OF A CLEAR INSPECTION POINT.



NOMINAL CONNECTION
2/M12x100 LG GALV.
WEDGE ANCHORS IN 110mm DEEP HOLE WITH 60mm MIN. EMBEDMENT (AFTER TIGHTENING) IN N25 CONCRETE.



NOTE:
BASE PLATE ORIENTATION IS PARALLEL TO BEARER.

STRUCTURAL DESIGN CERTIFICATION

ACN 639-248-114

REF. # 3333
DATE: 18/09/2024

SIGNATURE
HA NGUYEN
BE(HONS) PRD MIEAust CPENG NER 4188792
PE0001349 (VIC), RPEQ24385 (QLD), TAS 727649808

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| REV. | DESCRIPTION | DRN. | DATE |
|------|-----------------------------|------|----------|
| E | CERTIFICATION STAMP CHANGED | M.R. | 23/08/22 |
| F | BASE PROTECTOR REMOVED | M.R. | 11/09/24 |

DESCRIPTION
**EZIPIER ADJUSTABLE "L" PIERHEAD ASSEMBLY
BOXSPAN CONNECTION DETAILS**

DRAWING NUMBER:
P04-03

SCALE @ A3
NTS

DRAWN
AP

DATE DRAWN
15/11/20

| REVISION | DATE | DRAWN |
|----------|----------|-------|
| F | 15/11/20 | AP |

TABLE 1: EZIPIER UPLIFT CAPACITY P_{uplift}

| LOCATION | | A | B |
|----------------------|----------------------|------------------------------|---------------|
| WEB 0.8BMT LOAD (kN) | WEB 1.0BMT LOAD (kN) | FASTENER QTY | FASTENER QTY |
| 18.0 | 18.0 | 12 x 14g TEKS | 4 x 12g TEKS |
| 24.9 | 27.0 | 12 x 14g TEKS | 6 x 12g TEKS |
| 24.9 | 34.8 | 12 x 14g TEKS | 8 x 12g TEKS |
| 35.8 | 44.6 | 12 x 14g TEKS + 1 x M10 BOLT | 12 x 12g TEKS |

BOXSPAN LEGEND:

WEB 0.8BMT = B100-16, B150-16, B200-16, B200-16
 WEB 1.0BMT = B150-20, B200-20, B250-20, B250-20

GENERAL NOTES:

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- THE NOMINAL CONNECTION SHOWN IS THE MINIMUM CONNECTION THAT SHOULD BE USED. A COMPETANT PERSON SHOULD CHECK THE DESIGN FOR UPLIFT TO SUIT THE ACTUAL SITE CONDITIONS.
- THE ADJUSTABLE HEAD AND BASE PLATE ARE MADE FROM DUCTILE CAST IRON WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 400MPg CONFORMING TO AS1831-2007 (ISO1083) AND HOT DIPPED GALVANISED TO 450gsm (GRAMS PER SQUARE METER).
- FOR PROTECTIVE COATING SYSTEMS REFER TO: NCC VOLUME 2, NASH STANDARD RESIDENTIAL AND LOW-RISE STEEL FRAMING PART 2: DESIGN SOLUTIONS, AS/NZS 4680 HOT-DIP ZINC COATINGS ON FABRICATED FERROUS ARTICLES, AS/NZS 4792 HOLLOW SECTIONS PRODUCED BY WELDING PRE-GALVANIZED STEEL STRIP. BASE PLATE MUST BE SELECTED TO SUIT THE APPLIED LOADS, SEE DRAWING P14 FOR THE 2 AND 4 HOLE BASE PLATE CAPACITIES OR VISIT OUR WEBSITE www.spantec.com.au
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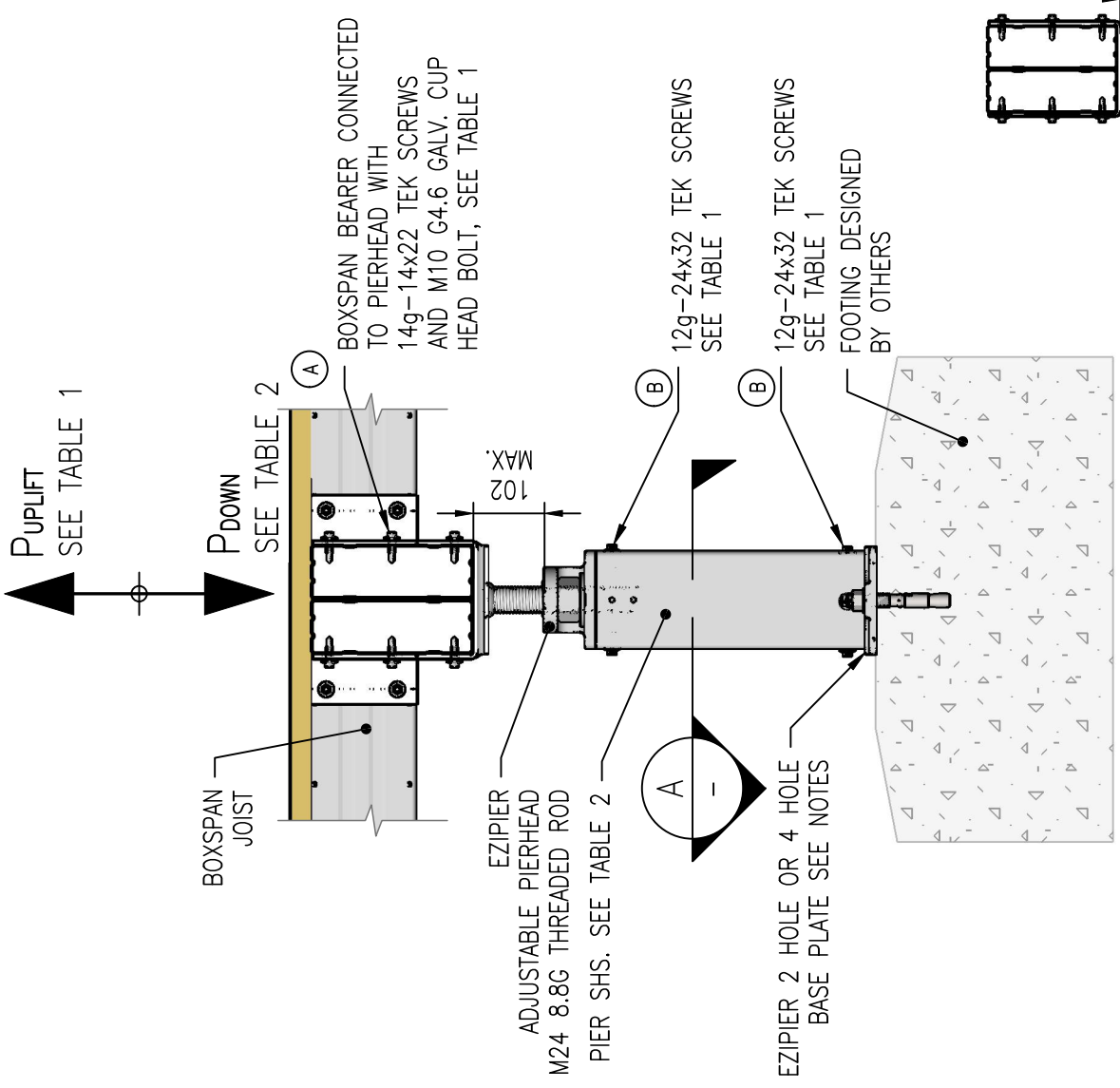
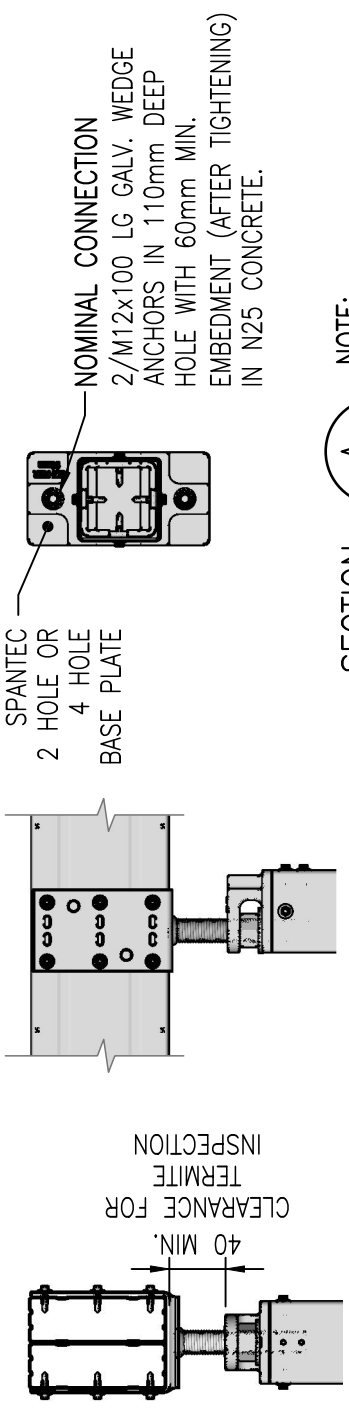


TABLE 2: EZIPIER DOWNWARD CAPACITY P_{down}
(MAX. FFL 2700mm)

| PIER HEAD | PIER SHS SIZE (mm) | MAX. DOWN LOAD (kN) |
|-----------|--------------------|---------------------|
| 75LPH | 75x75x2.0 | 45.0 |
| 90LPH | 90x90x2.0 | 55.0 |
| 89LPH | 89x89x3.5 | 110.0 |

EZIPIER DOWNWARD CAPACITY NOTES

- THE CAPACITY OF PIERHEAD IS BASED ON THE STRENGTH OF THE WHOLE PIER ASSEMBLY.
- THE ULTIMATE DOWNWARD LOAD CAPACITY OF THE PIER IS BASED ON A MAXIMUM FFL OF 2700 (FINISHED FLOOR LEVEL), FOR FLOOR HEIGHTS ABOVE 2700 THE PIER CAPACITY MUST BE CHECKED BY A COMPETANT PERSON.
- EZIPIER CAN BE SUPPLIED WITH A 2 OR 4 HOLE BASE PLATE.
- PIER SHS MIN. STEEL GRADE 350MPg TO AS1163.
- THE CAPACITIES IN THE TABLES ARE CALCULATED USING AUSTRALIAN LOADING CODE AS1170 AND AS4600.



STRUCTURAL DESIGN CERTIFICATION

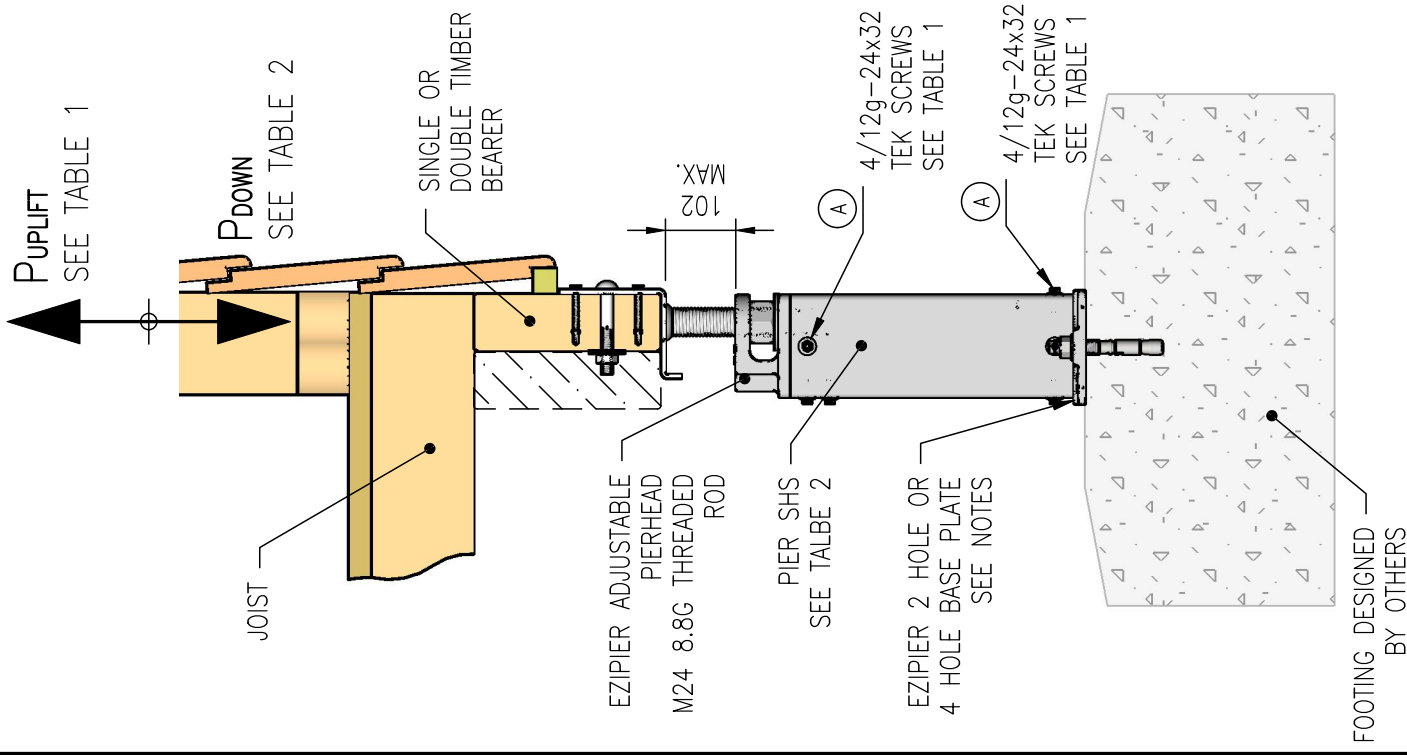
HALINA ENGINEERS
ACN 639-248-114

REF. # 3333
DATE: 18/09/2024

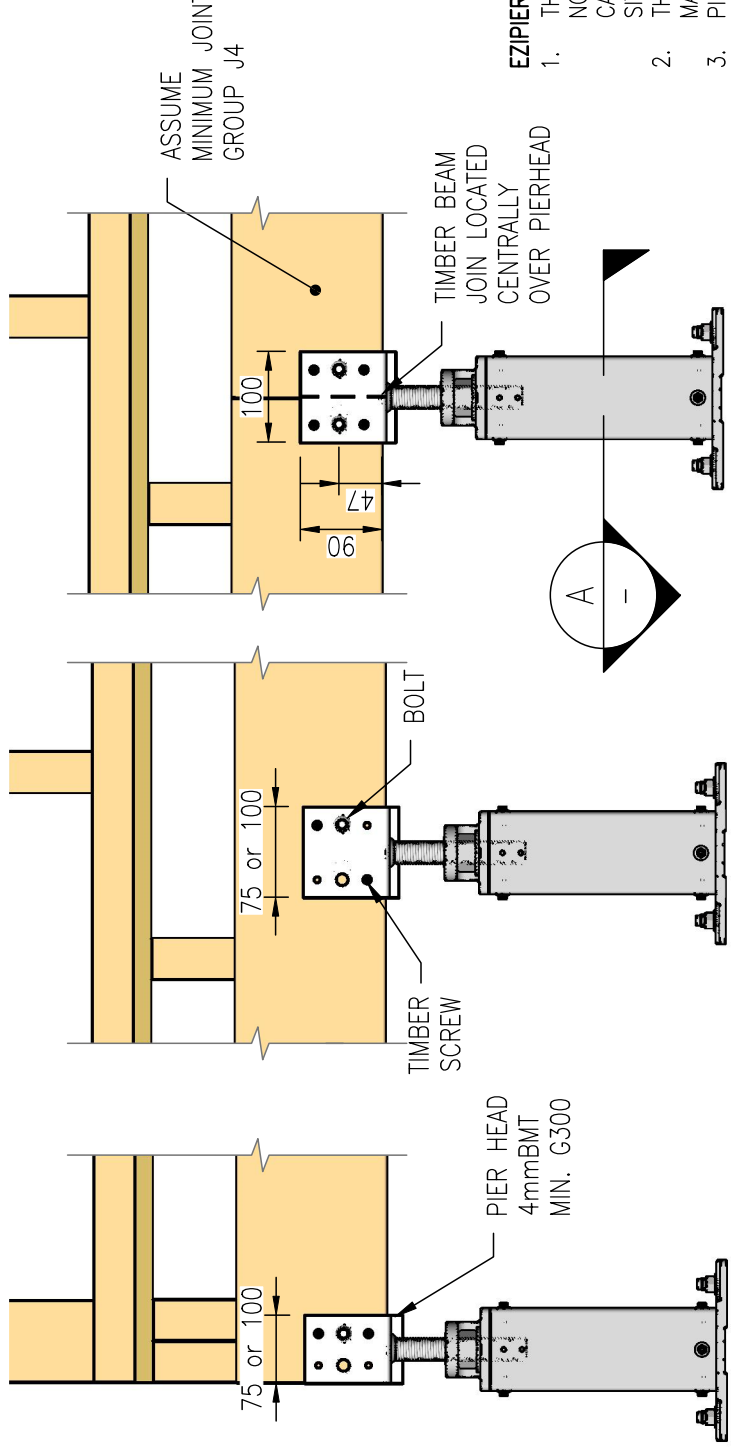
SIGNATURE: *[Signature]*
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BE(Hons) PRD MIEAust CPEng NER 4188792
PE0001349 (VIC), RPEQ24385 (QLD), TAS 727649808

| | | | | | |
|--|--|---|---|---|---|
| <p>SPANTEC™ SPANTEC SYSTEMS Pty Ltd ABN 56 053 584 384 17 Drapers Road, Braemar, NSW, 2575 PO Box 81, Mittagong, NSW, 2575, Australia Phone: 02 4860 1000 Fax: 02 4872 1616 www.spantec.com.au</p> <p><small>COPYRIGHT: THIS DRAWING REMAINS THE PROPERTY OF SPANTEC SYSTEMS PTY. LTD. AND MAY NOT BE ALTERED IN ANY WAY WITHOUT SPANTEC SYSTEMS PTY. LTD. WRITTEN CONSENT.</small></p> | <p>REV. DESCRIPTION</p> <p>A FIRST ISSUE</p> <p>B BASE PROTECTOR REMOVED</p> | <p>DRN. DATE</p> <p>M.R. 9/12/22</p> <p>M.R. 11/09/24</p> | <p>DESCRIPTION</p> <p>EZIPIER ADJUSTABLE "U" DOUBLE STEEL PIERHEAD ASSEMBLY</p> <p>BOXSPAN CONNECTION DETAILS</p> | <p>DRAWING NUMBER:</p> <p>P04-04</p> <p>SCALE @ A3 NTS</p> | <p>REVISION</p> <p>B</p> <p>DRAWN MR</p> <p>DATE DRAWN 9/12/22</p> |
|--|--|---|---|---|---|

NOMINAL PIERHEAD/BEARER CONNECTION
 TIMBER MGP10 BEARERS USE 1/M10 G4.6 GALVANISED CUP HEAD BOLT PLUS 2/14g GALVANISED SCREWS 50 MIN. LENGTH EQUATES TO 13.7kN UPLIFT RESISTANCE. THIS ACTUAL LOAD MUST BE CALCULATED BY A COMPETANT PERSON TO SUIT THE ACTUAL SITE CONDITIONS.



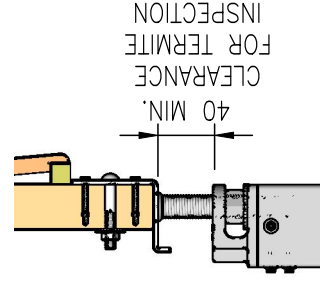
EZIPIER END ELEVATION



**END SPAN CONNECTION
75 OR 100 LONG PIERHEAD**

**INTERNAL SPAN CONNECTION
75 OR 100 LONG PIERHEAD**

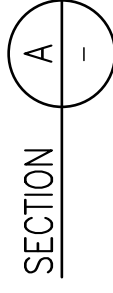
**JOINT CONNECTION
100 LONG PIERHEAD**



NOMINAL CONNECTION
 2/M12x100 LG GALV. WEDGE ANCHORS IN 110mm DEEP HOLE WITH 60mm MIN. EMBEDMENT (AFTER TIGHTENING) IN N25 CONCRETE.

TERMITE INSPECTION POINT AND PIERHEAD PREFERRED ORIENTATION

TERMITE INSPECTION SATISFIES NCC REQUIREMENTS BY PROVISION OF A CLEAR INSPECTION POINT.



NOTE:
 BASE PLATE ORIENTATION IS PARALLEL TO BEARER.

TABLE 1: EZIPIER UPLIFT CAPACITY P_{uplift}

| TEK "A" QTY | MAX. UP LOAD (kN) |
|-------------|-------------------|
| 4 | 17.3 |
| 6 | 26.0 |

EZIPIER UPLIFT CAPACITY NOTES

1. THE UPLIFT LOAD ON THE BEAM/PIERHEAD CONNECTION HAS NOT BEEN TAKEN INTO ACCOUNT AND THIS LOAD MUST BE CALCULATED BY A COMPETANT PERSON TO SUIT THE ACTUAL SITE CONDITIONS.
2. THE ULTIMATE UPLIFT LOAD CAPACITY FOR THE TWO MASONRY ANCHORS AS SPECIFIED BELOW IS 26.4kN. PIER SHS MIN. STEEL GRADE 350 MPa TO AS1163.
3. THE CAPACITIES IN THE TABLES ARE CALCULATED USING AUSTRALIAN LOADING CODE AS1170 AND AS4600.

TABLE 2: EZIPIER DOWNWARD CAPACITY P_{down}
(MAX. FFL 2700mm)

| PIER HEAD | PIER SHS SIZE (mm) | MAX. DOWN LOAD (kN) |
|-----------|--------------------|---------------------|
| 75LPH | 75x75x2.0 | 45.0 |
| 90LPH | 90x90x2.0 | 55.0 |
| 89LPH | 89x89x3.5 | 110.0 |

EZIPIER DOWNWARD CAPACITY NOTES

1. THE CAPACITY OF PIERHEAD IS BASED ON THE STRENGTH OF THE WHOLE PIER ASSEMBLY AND IT IS ASSUMED THE PIER IS CENTRICALLY LOADED; IF THE PIER IS ESSENICALLY LOADED THEN REDUCE THE VALUES IN THE TABLE ABOVE BY 25%.
2. THE ULTIMATE DOWNWARD LOAD CAPACITY OF THE PIER IS BASED ON A MAXIMUM FFL 2700mm (FINISHED FLOOR LEVEL), FOR FLOOR HEIGHTS ABOVE 2700mm THE PIER CAPACITY MUST BE CHECKED BY A COMPETANT PERSON.

GENERAL NOTES:

1. THIS DRAWING SHOWS A TIMBER FLOOR FRAME, IT IS ASSUMED THE FLOOR SUPPORTED BY THE PIERS IS FULLY BRACED AND THE LOADS SUPPORTED ARE DEAD LOADS, LIVE LOADS AND WIND UPLIFT ONLY.
2. THIS PIERHEAD IS TO BE INSTALLED TO THE FLOOR BEAM MANUFACTURERS RECOMMENDED BEARING, BLOCKING AND BRACING SPECIFICATIONS.
3. THE UPLIFT LOAD ON THE BEAM/PIERHEAD CONNECTION HAS NOT BEEN TAKEN INTO ACCOUNT AND THIS LOAD MUST BE CALCULATED BY A COMPETANT PERSON TO SUIT THE ACTUAL SITE CONDITIONS.
4. THE PIER/FOOTING CONNECTION DETAIL IS VALID FOR SPANTEC PRODUCTS ONLY. IF OTHER PRODUCTS ARE USED THE LOAD CAPACITIES ARE NOT GUARANTEED. SEEK ADVICE FROM A COMPETANT PERSON FOR YOUR SPECIFIC ARRANGEMENT AND LOADING.
5. THE ADJUSTABLE HEAD AND BASE PLATE ARE MADE FROM DUCTILE CAST IRON WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 400MPa CONFORMING TO AS1831 (ISO1083) AND HOT DIPPED GALVANISED TO 500gsm (GRAMS PER SQUARE METER).
6. FOR PROTECTIVE COATING SYSTEMS REFER TO: NCC VOLUME 2, NASH STANDARD RESIDENTIAL AND LOW-RISE STEEL FRAMING PART 2: DESIGN SOLUTIONS, AS/NZS 4680 HOT-DIP ZINC COATINGS ON FABRICATED FERROUS ARTICLES, AS/NZS 4792 HOLLOW SECTIONS PRODUCED BY WELDING PRE-GALVANIZED STEEL STRIP.
7. BASE PLATE MUST BE SELECTED TO SUIT THE APPLIED LOADS, SEE DRAWING P14 FOR THE 2 AND 4 HOLE BASE PLATE CAPACITIES OR VISIT OUR WEBSITE www.spantec.com.au

STRUCTURAL DESIGN CERTIFICATION

HALINA ENGINEERS
 ACN 639-248-114

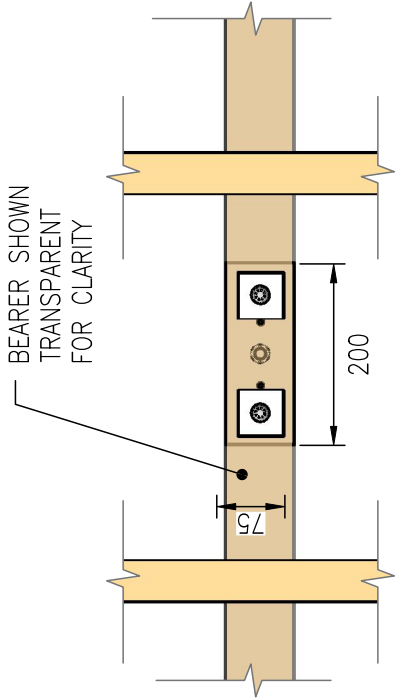
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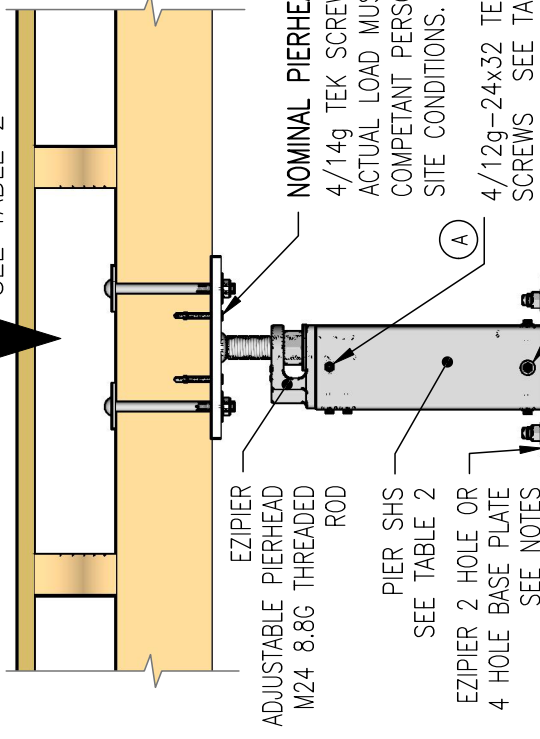
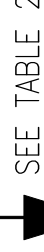
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| REV. | DESCRIPTION | DRN. | DATE |
| F | PIER HEAD CONNECTION CALCULATION BY OTHERS | M.R. | 19/6/22 |
| G | BASE PROTECTOR REMOVED | M.R. | 11/09/24 |
| DESCRIPTION | | EZIPIER ADJUSTABLE "L" PIERHEAD ASSEMBLY TIMBER CONNECTION DETAILS | |
| DRAWING NUMBER: | | P06 | |
| SCALE @ A3 | DRAWN | REVISION: | DATE DRAWN |
| 0.5 | AP | G | 5/08/19 |

GENERAL NOTES:

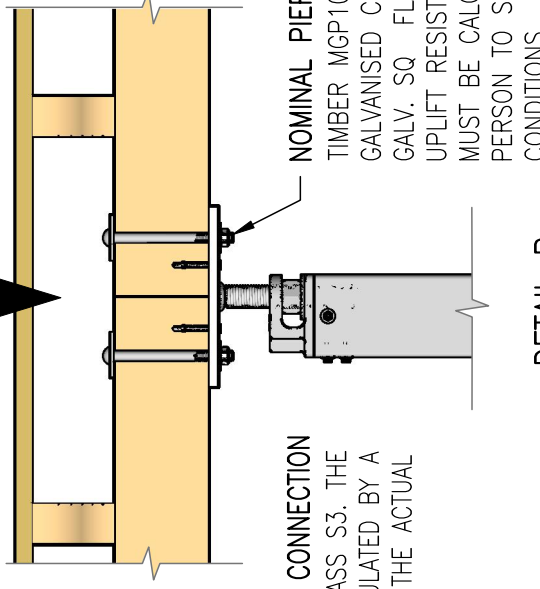
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- THIS PIERHEAD IS TO BE INSTALLED TO THE FLOOR BEAM MANUFACTURERS RECOMMENDED BEARING, BLOCKING AND BRACING SPECIFICATIONS.
- THE UPLIFT LOAD ON THE BEAM/PIERHEAD CONNECTION HAS NOT BEEN TAKEN INTO ACCOUNT AND THIS LOAD MUST BE CALCULATED BY A COMPETANT PERSON TO SUIT THE ACTUAL SITE CONDITIONS.
- THE PIER/FOOTING CONNECTION DETAIL IS VALID FOR SPANTEC PRODUCTS ONLY. IF OTHER PRODUCTS ARE USED THE LOAD CAPACITIES ARE NOT GUARANTEED. SEEK ADVICE FROM A COMPETANT PERSON FOR YOUR SPECIFIC ARRANGEMENT AND LOADING.
- THE PIERHEAD IS CAPABLE OF TRANSMITTING 18 kN OF HORIZONTAL WIND FORCE INTO THE SUBFLOOR BRACING.
- THE ADJUSTABLE HEAD AND BASE PLATE ARE MADE FROM DUCTILE CAST IRON WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 400MPa CONFORMING TO AS1831 (ISO1083) AND HOT DIPPED GALVANISED TO 500gsm (GRAMS PER SQUARE METER).
- FOR PROTECTIVE COATING SYSTEMS REFER TO: NCC VOLUME 2, NASH STANDARD RESIDENTIAL AND LOW-RISE STEEL FRAMING PART 2: DESIGN SOLUTIONS, AS/NZS 4680 HOT-DIP ZINC COATINGS ON FABRICATED FERROUS ARTICLES, AS/NZS 4792 HOLLOW SECTIONS PRODUCED BY WELDING PRE-GALVANIZED STEEL STRIP.
- BASE PLATE MUST BE SELECTED TO SUIT THE APPLIED LOADS, SEE DRAWING P14 FOR THE 2 AND 4 HOLE BASE PLATE CAPACITIES OR VISIT OUR WEBSITE www.spantec.com.au.



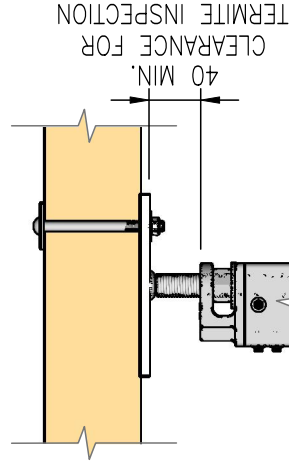
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TIMBER BEARER CONTINUOUS SPAN



DETAIL A
TIMBER BEARER CONTINUOUS SPAN



DETAIL B
BEARER JOIN OVER PIER



TERMITE INSPECTION POINT AND PIERHEAD PREFERRED ORIENTATION
TERMITE INSPECTION SATISFIES NCC REQUIREMENTS BY PROVISION OF A CLEAR INSPECTION POINT.

| TEK "A" QTY | MAX. UP LOAD (kN) |
|-------------|-------------------|
| 4 | 17.3 |
| 6 | 26.0 |
| 8 | 34.6 |

EZIPIER UPLIFT CAPACITY NOTES

- THE UPLIFT LOAD ON THE BEAM/PIERHEAD CONNECTION HAS NOT BEEN TAKEN INTO ACCOUNT AND THIS LOAD MUST BE CALCULATED BY A COMPETANT PERSON TO SUIT THE ACTUAL SITE CONDITIONS.
- THE ULTIMATE UPLIFT LOAD CAPACITY FOR THE TWO MASONRY ANCHORS AS SPECIFIED BELOW IS 26.4kN.
- PIER SHS MIN. STEEL GRADE 350 MPa TO AS1163.
- THE CAPACITIES IN THE TABLES ARE CALCULATED USING AUSTRALIAN LOADING CODE AS1170 AND AS4600.

| PIER HEAD | PIER SHS SIZE (mm) | MAX. DOWN LOAD (kN) |
|-----------|--------------------|---------------------|
| 75TPH | 75x75x2.0 | 45.0 |
| 90TPH | 90x90x2.0 | 55.0 |
| 89TPH | 89x89x3.5 | 110.0 |

EZIPIER DOWNWARD CAPACITY NOTES

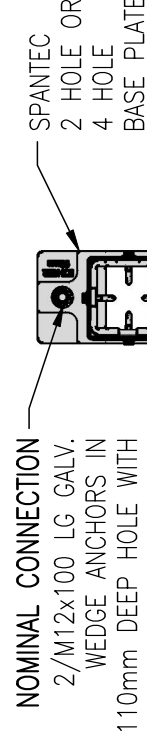
- THE CAPACITY OF PIERHEAD IS BASED ON THE STRENGTH OF THE WHOLE PIER ASSEMBLY AND IT IS ASSUMED THE PIER IS CENTRICALLY LOADED, IF THE PIER IS ESSENTIALLY LOADED THEN REDUCE THE VALUES IN THE TABLE ABOVE BY 25%.
- THE ULTIMATE DOWNWARD LOAD CAPACITY OF THE PIER IS BASED ON A MAXIMUM FFL 2700mm (FINISHED FLOOR LEVEL), FOR FLOOR HEIGHTS ABOVE 2700mm THE PIER CAPACITY MUST BE CHECKED BY A COMPETANT PERSON.

STRUCTURAL DESIGN CERTIFICATION

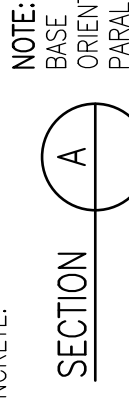


REF. # 3333
DATE: 18/09/2024

SIGNATURE
HA NGUYEN
BE(HONS) PRD MIEAust CPEng NER 4188792
PE0001349 (VIC), RPEQ24385 (QLD), TAS 727649808



NOMINAL CONNECTION
2/M12x100 LG GALV. WEDGE ANCHORS IN 110mm DEEP HOLE WITH 60mm MIN. EMBEDMENT (AFTER TIGHTENING) IN N25 CONCRETE.

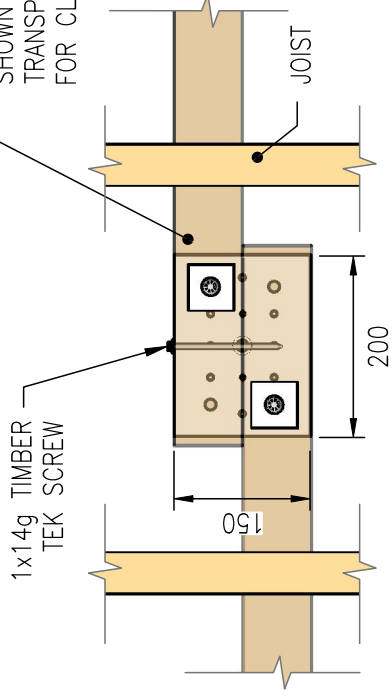


NOTE:
BASE PLATE ORIENTATION IS PARALLEL TO BEARER.

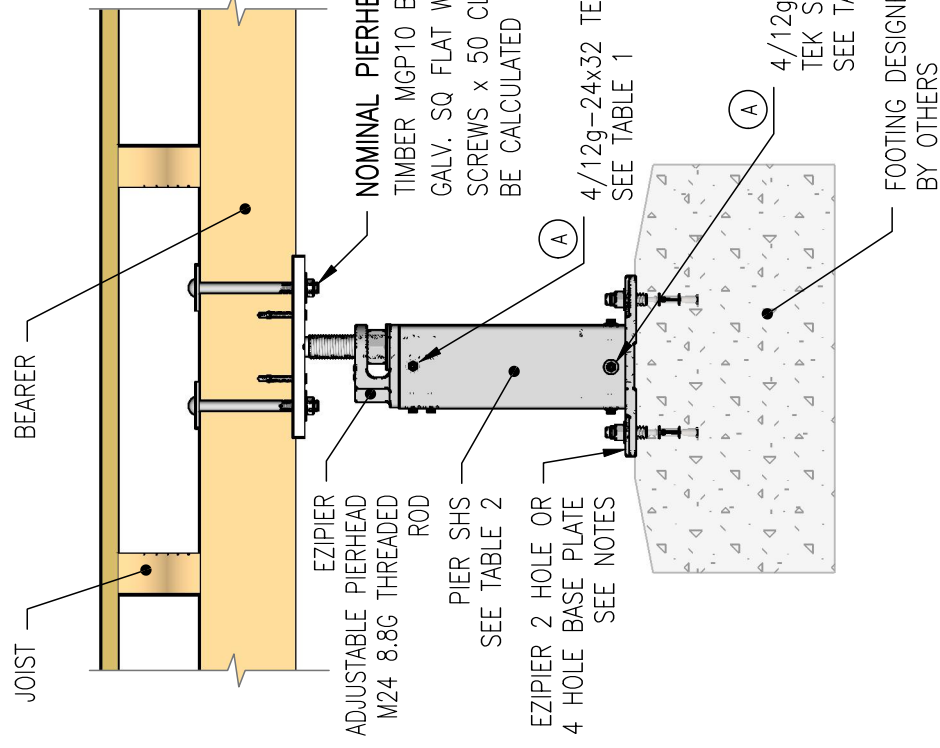
SECTION A

| REV. | DESCRIPTION | DRN. | DATE | DESCRIPTION | REVISION NUMBER: | SCALE | DRAWN | DATE DRAWN |
|------|-----------------------------|------|----------|--|------------------|-------|-------|------------|
| E | CERTIFICATION STAMP CHANGED | M.R. | 19/6/22 | EZIPIER ADJUSTABLE "T" PIERHEAD ASSEMBLY TIMBER CONNECTION DETAILS SIZE 75 x 200 | P10 | 0.5 | AP | 5/08/19 |
| F | BASE PROTECTOR REMOVED | M.R. | 11/09/24 | | | | | |
| | | | | | | | | |

LAPPED BEARER SHOWN TRANSPARENT FOR CLARITY



PLAN
CONTINUOUS LAPPED BEARERS



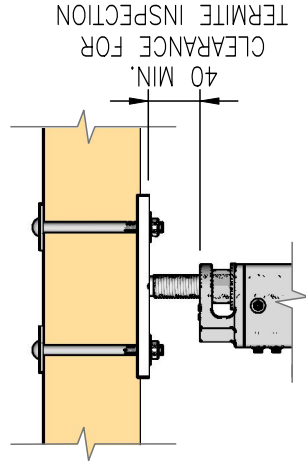
DETAIL A
TIMBER BEARER LAPPED JOIN

GENERAL NOTES:

- THIS DRAWING SHOWS A TIMBER FLOOR FRAME, IT IS ASSUMED THE FLOOR SUPPORTED BY THE PIERS IS FULLY BRACED AND THE LOADS SUPPORTED ARE DEAD LOADS, LIVE LOADS AND WIND UPLIFT ONLY.
- THIS PIERHEAD IS TO BE INSTALLED TO THE FLOOR BEAM MANUFACTURERS RECOMMENDED BEARING, BLOCKING AND BRACING SPECIFICATIONS.
- THE UPLIFT LOAD ON THE BEAM/PIERHEAD CONNECTION HAS NOT BEEN TAKEN INTO ACCOUNT AND THIS LOAD MUST BE CALCULATED BY A COMPETANT PERSON TO SUIT THE ACTUAL SITE CONDITIONS.
- THE PIER/FOOTING CONNECTION DETAIL IS VALID FOR SPANTEC PRODUCTS ONLY. IF OTHER PRODUCTS ARE USED THE LOAD CAPACITIES ARE NOT GUARANTEED. SEEK ADVICE FROM A COMPETANT PERSON FOR YOUR SPECIFIC ARRANGEMENT AND LOADING.
- THE PIERHEAD IS CAPABLE OF TRANSMITTING 18 kN OF HORIZONTAL WIND FORCE INTO THE SUBFLOOR BRACING.
- THE ADJUSTABLE HEAD AND BASE PLATE ARE MADE FROM DUCTILE CAST IRON WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 400MPa CONFORMING TO AS1831 (ISO1083) AND HOT DIPPED GALVANISED TO 500gsm (GRAMS PER SQUARE METER).
- FOR PROTECTIVE COATING SYSTEMS REFER TO: NCC VOLUME 2, NASH STANDARD RESIDENTIAL AND LOW-RISE STEEL FRAMING PART 2: DESIGN SOLUTIONS, AS/NZS 4680 HOT-DIP ZINC COATINGS ON FABRICATED FERROUS ARTICLES, AS/NZS 4792 HOLLOW SECTIONS PRODUCED BY WELDING PRE-GALVANIZED STEEL STRIP.
- BASE PLATE MUST BE SELECTED TO SUIT THE APPLIED LOADS, SEE DRAWING P14 FOR THE 2 AND 4 HOLE BASE PLATE CAPACITIES OR VISIT OUR WEBSITE www.spantec.com.au.

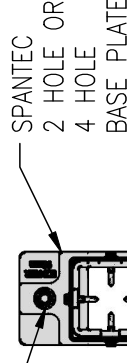
NOMINAL PIERHEAD/BEARER CONNECTION

TIMBER MGP10 BEARERS USE 2/M10 G4.6 GALVANISED CUP HEAD BOLTS AND 50x5 GALV. SQ FLAT WASHER EQUATES TO 33kN UPLIFT RESISTANCE. OR 4/14g TEK SCREWS x 50 CLASS S3 (CAN BE USED IF NO UPLIFT). THIS ACTUAL LOAD MUST BE CALCULATED BY A COMPETANT PERSON TO SUIT THE ACTUAL SITE CONDITIONS.

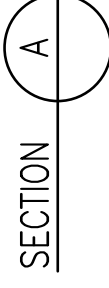


TERMITE INSPECTION POINT AND PIERHEAD PREFERRED ORIENTATION
TERMITE INSPECTION SATISFIES NCC REQUIREMENTS BY PROVISION OF A CLEAR INSPECTION POINT.

NOMINAL CONNECTION
2/M12x100 LG GALV. WEDGE ANCHORS IN 110mm DEEP HOLE WITH 60mm MIN. EMBEDMENT (AFTER TIGHTENING) IN N25 CONCRETE.



NOTE:
BASE PLATE ORIENTATION IS PARALLEL TO BEARER.



SECTION A

END ELEVATION

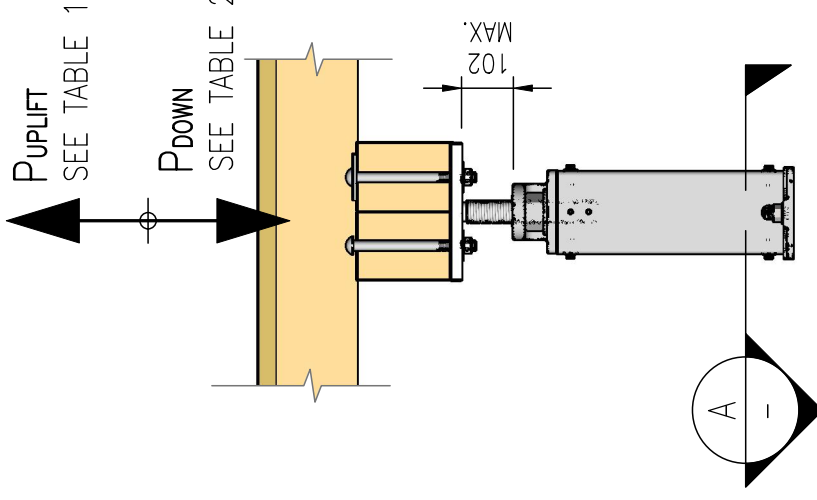


TABLE 1: EZIPIER UPLIFT CAPACITY P_{uplift}

| TEK "A" QTY | MAX. UP LOAD (kN) |
|-------------|-------------------|
| 4 | 17.3 |
| 6 | 26.0 |
| 8 | 34.6 |

EZIPIER UPLIFT CAPACITY NOTES

- THE UPLIFT LOAD ON THE BEAM/PIERHEAD CONNECTION HAS NOT BEEN TAKEN INTO ACCOUNT AND THIS LOAD MUST BE CALCULATED BY A COMPETANT PERSON TO SUIT THE ACTUAL SITE CONDITIONS.
- THE ULTIMATE UPLIFT LOAD CAPACITY FOR THE TWO MASONRY ANCHORS AS SPECIFIED BELOW IS 26.4kN. PIER SHS MIN. STEEL GRADE 350 MPa TO AS1163.
- THE CAPACITIES IN THE TABLES ARE CALCULATED USING AUSTRALIAN LOADING CODE AS1170 AND AS4600.

TABLE 2: EZIPIER DOWNWARD CAPACITY P_{down}
(MAX. FFL 2700mm)

| PIER HEAD | PIER SHS SIZE (mm) | MAX. DOWN LOAD (kN) |
|-----------|--------------------|---------------------|
| 75TPH | 75x75x2.0 | 45.0 |
| 90TPH | 90x90x2.0 | 55.0 |
| 89TPH | 89x89x3.5 | 110.0 |

EZIPIER DOWNWARD CAPACITY NOTES

- THE CAPACITY OF PIERHEAD IS BASED ON THE STRENGTH OF THE WHOLE PIER ASSEMBLY AND IT IS ASSUMED THE PIER IS CENTRICALLY LOADED, IF THE PIER IS ESSENICALLY LOADED THEN REDUCE THE VALUES IN THE TABLE ABOVE BY 25%.
- THE ULTIMATE DOWNWARD LOAD CAPACITY OF THE PIER IS BASED ON A MAXIMUM FFL 2700mm (FINISHED FLOOR LEVEL), FOR FLOOR HEIGHTS ABOVE 2700mm THE PIER CAPACITY MUST BE CHECKED BY A COMPETANT PERSON.

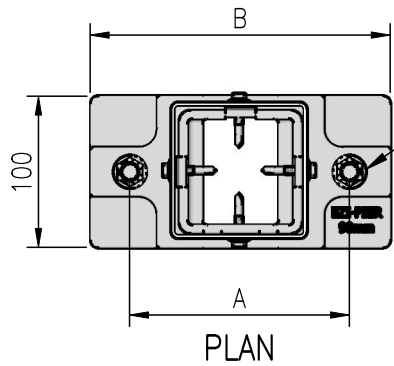
STRUCTURAL DESIGN CERTIFICATION

HALINA ENGINEERS
ACN 639-248-114

REF. # 3333
DATE: 18/09/2024

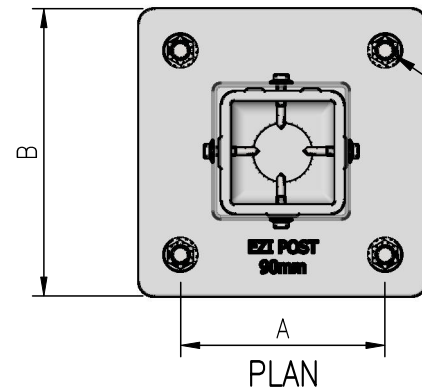
SIGNATURE
HA NGUYEN
BE(HONS) PRD MIEAust CPENG NER 4188792
PE0001349 (VIC), RPEQ24385 (QLD), TAS 727649808

| | | | | | | | | | | | | | | | | | | |
|--|-----------------------------|--|----------|-----------------------------|------|------|---|------------------------|------|---------|--|--|------|----------|---|--|---|-----------------------|
| <p>SPANTEC™ SPANTEC SYSTEMS Pty Ltd ABN 56 053 584 384 17 Drapers Road, Braemar, NSW, 2575 PO Box 81, Mittagong, NSW, 2575, Australia Phone: 02 4860 1000 Fax: 02 4872 1616 www.spantec.com.au</p> <p><small>COPYRIGHT: THIS DRAWING REMAINS THE PROPERTY OF SPANTEC SYSTEMS PTY. LTD. AND MAY NOT BE ALTERED IN ANY WAY WITHOUT SPANTEC SYSTEMS PTY. LTD. WRITTEN CONSENT.</small></p> | | <p>REV. DESCRIPTION</p> <table border="1"> <tr> <td>E</td> <td>CERTIFICATION STAMP CHANGED</td> <td>DRN.</td> <td>DATE</td> </tr> <tr> <td>F</td> <td>BASE PROTECTOR REMOVED</td> <td>M.R.</td> <td>19/6/22</td> </tr> <tr> <td></td> <td></td> <td>M.R.</td> <td>11/09/24</td> </tr> </table> | E | CERTIFICATION STAMP CHANGED | DRN. | DATE | F | BASE PROTECTOR REMOVED | M.R. | 19/6/22 | | | M.R. | 11/09/24 | <p>DESCRIPTION</p> <p>EZIPIER ADJUSTABLE "T" PIERHEAD ASSEMBLY TIMBER CONNECTION DETAILS SIZE 150 x 200</p> | <p>DRAWING NUMBER: P11</p> <p>SCALE @ A3 0.5</p> | <p>DRAWN AP</p> <p>DATE DRAWN 5/08/19</p> | <p>REVISION F</p> |
| E | CERTIFICATION STAMP CHANGED | DRN. | DATE | | | | | | | | | | | | | | | |
| F | BASE PROTECTOR REMOVED | M.R. | 19/6/22 | | | | | | | | | | | | | | | |
| | | M.R. | 11/09/24 | | | | | | | | | | | | | | | |



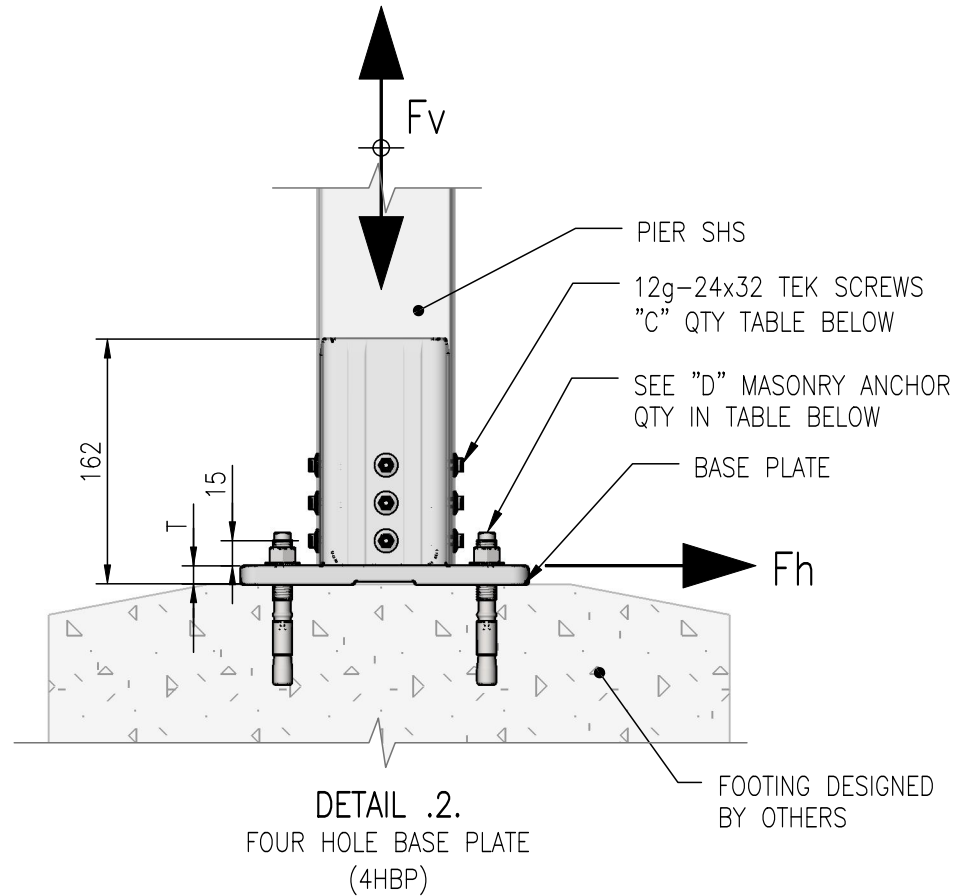
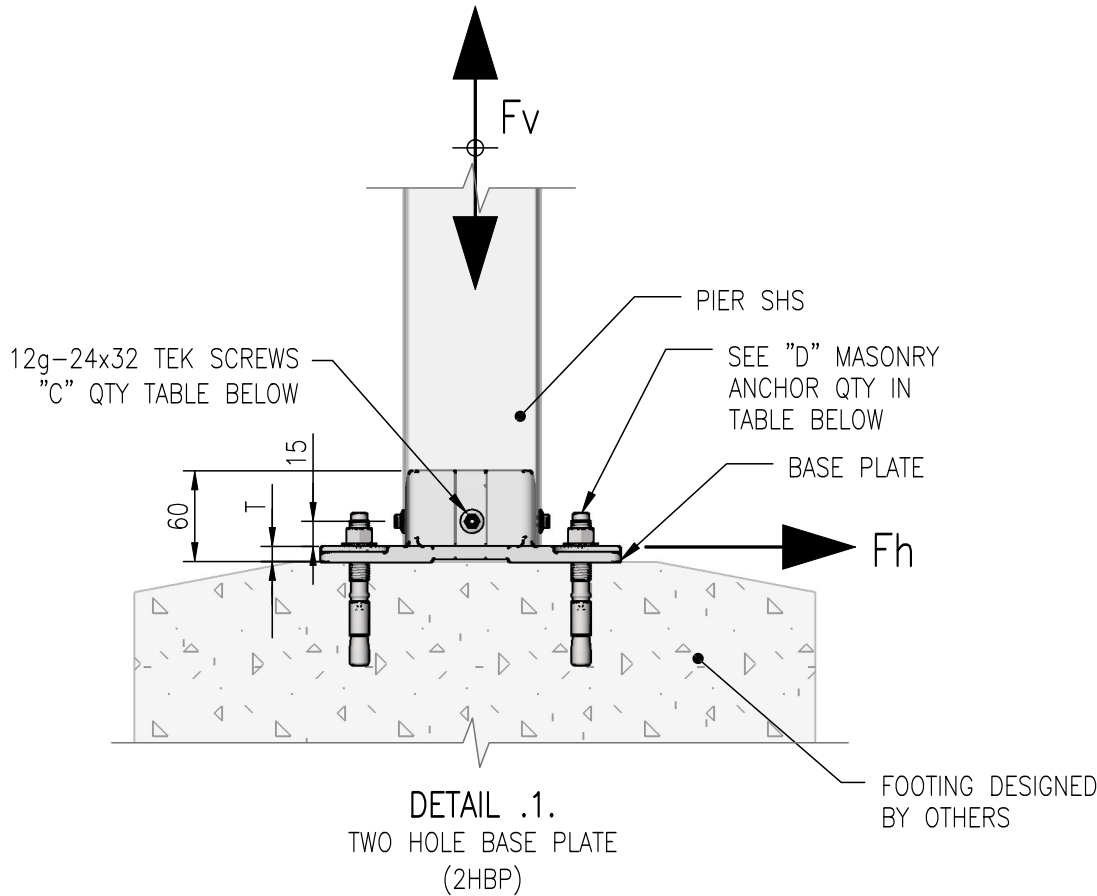
NOMINAL CONNECTION
2/M12x100 LG GALV. WEDGE ANCHORS IN 110mm DEEP HOLE WITH 60mm MIN. EMBEDMENT (AFTER TIGHTENING) IN N25 CONCRETE.

PLAN



NOMINAL CONNECTION
4/M12x100 LG GALV. WEDGE ANCHORS IN 110mm DEEP HOLE WITH 60mm MIN. EMBEDMENT (AFTER TIGHTENING) IN N25 CONCRETE.

PLAN



| BASE PLATE ULTIMATE CAPACITIES (FOR M12x100LG MASONRY ANCHORS) | | | | | | | | | |
|--|------------|----------|------------|-------|------|------|------|-------|-------|
| BASE PLATE | POST SIZE | Fv Up kN | Fv Down kN | Fh kN | A mm | B mm | T mm | C QTY | D QTY |
| 2HBP | 75x2.0 SHS | 17.3 | 45 | 42 | 146 | 198 | 10 | 4 | 2 |
| | 90x2.0 SHS | 17.3 | 55 | 42 | 146 | 198 | 10 | 4 | |
| | 89x3.5 SHS | 32.0 | 110 | 42 | 146 | 198 | 10 | 4 | |
| | 90x2.0 SHS | 33.6 | 55 | 42 | 146 | 198 | 10 | 8 | |
| | 89x3.5 SHS | 33.6 | 110 | 42 | 146 | 198 | 10 | 5 | |
| 4HBP | 75x2.0 SHS | 45.0 | 45 | 84 | 115 | 155 | 12 | 10 | 4 |
| | 90x2.0 SHS | 45.0 | 55 | 84 | 135 | 190 | 12 | 10 | |
| | 90x2.0 SHS | 54.0 | 55 | 84 | 135 | 190 | 12 | 12 | |
| | 90x2.0 SHS | 67.2 | 55 | 84 | 135 | 190 | 12 | 15 | |
| | 89x3.5 SHS | 67.2 | 110 | 84 | 135 | 190 | 12 | 9 | |

DESIGN NOTES

- THE FORCES IN THE TABLE ARE BASED ON VERTICAL LOADING ONLY. THIS DESIGN DOES NOT TAKE INTO ACCOUNT LOADS FROM HORIZONTAL WIND AND SUBFLOOR BRACING ATTACHED TO THESE PIERS.
- THE TABLE LISTS ULTIMATE VERTICAL LOAD CAPACITIES FOR THE 2 AND 4 HOLE BASE PLATES (EXCLUDES ANCHORS AND FOOTING DESIGN) AND ARE FOR USE IN NORMAL WIND ONLY AND NOT FOR CYCLONIC WIND CONDITIONS. IT IS ASSUMED THAT THE SUPPORTED FLOOR HAS SUBFLOOR BRACING TO TAKE THE HORIZONTAL WIND.
- THE ANCHORS USED IN THESE CALCULATIONS ARE THE NOMINAL CONNECTION LISTED ABOVE, THE LISTED CAPACITIES REQUIRE A MIN. 100mm EDGE DISTANCE AND THESE LISTED VALUES CAN BE IMPROVED BY USING STRONGER MASONRY ANCHORS.
- THE FOLLOWING STANDARDS HAVE BEEN USED IN THE CALCULATIONS: AS4100, AS1170.1, AS4055, AS4600, AS3600.
- THE POSTS USED IN CONJUNCTION WITH THE 2 AND 4 HOLE BASE PLATES HAVE A MINIMUM STEEL GRADE OF G350 TO AS1163. THE ULTIMATE DOWNWARD LOAD CAPACITY OF THE BASE PLATE/SHS IS BASED ON A MAXIMUM FFL 2700mm (FINISHED FLOOR LEVEL), FOR FLOOR HEIGHTS ABOVE 2700mm THE PIER CAPACITY MUST BE CHECKED BY A COMPETANT PERSON.
- THE BASE PLATE IS MADE FROM DUCTILE CAST IRON WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 400M MPA CONFORMING TO AS1831 (ISO1083) AND HOT DIPPED GALVANISED TO 500 GSM (GRAMS PER SQUARE METER)
- CONCRETE USED IN THE CALCULATIONS IS BASED ON A MIN. COMPRESSIVE STRENGTH F'_c OF 25MPa.
- THE TABLES GIVE THE MAXIMUM VERTICAL FORCE DOWN/UP AND MAXIMUM HORIZONTAL FORCE. THE LOADS ARE NOT ALL CONCURRENT I.E. THE MAXIMUM UPLIFT IS NOT AT THE MAXIMUM HORIZONTAL FORCE. THE ACTUAL LOADS SHOULD BE COMBINED AND THE FASTENERS AND MEMBERS RE-CHECKED FOR THE COMBINED FORCES BY A COMPETANT PERSON.
- THE MOMENT CAPACITY OF THE BASE PLATE IS NOT STATED. IF THERE ARE MOMENTS ON THE PIERS THEN THE DESIGN ENGINEER SHOULD CONFIRM THE PIER AND ITS CONNECTIONS CAN RESIST THE FORCES.
- THE SUPPORTING FOOTING SHOULD BE SIZED BY THE DESIGN ENGINEER BASED ON THE LOADS AND SOIL TYPE ACCORDING TO THE STANDARD AS2870.
- SEE DRAWINGS P04-01, P04-03 & P06 FOR PIERHEAD AND PIER SHS DETAILS OR VISIT OUR WEBSITE www.spantec.com.au

| | | | |
|------|---------------------------|------|----------|
| D | BASE PROTECTOR REMOVED | MR | 11/09/24 |
| C | UPLIFT CAPACITIES UPDATED | MR | 19/08/22 |
| REV. | DESCRIPTION | DRN. | DATE |

STRUCTURAL DESIGN CERTIFICATION

HALINA ENGINEERS
ACN 639-248-114

REF. # 3333
DATE: 18/09/2024

SIGNATURE *[Signature]*

HA NGUYEN
BE(Hons) PhD MIEAust CPEng NER 4188792
PE0001349 (VIC), RPEQ24385 (QLD), TAS 727649808

SPANTEC™ 17 Drapers Road, Braemar, NSW, 2575
PO Box 81, Mittagong, NSW, 2575, Australia
Phone: 02 4860 1000 Fax: 02 4872 1616

SPANTEC SYSTEMS Pty Ltd ABN 56 053 584 384 www.spantec.com.au

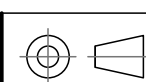
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DESCRIPTION
EZIPIER 2 AND 4 HOLE BASE PLATES
ULTIMATE CAPACITIES WITHOUT HORIZONTAL LOAD

DRAWING NO.

P14

SCALE @ A3
NTS



DRAWN
MR

REVISION

D

DATE DRAWN
17/11/22

P_{UPLIFT}
SEE TABLE 1

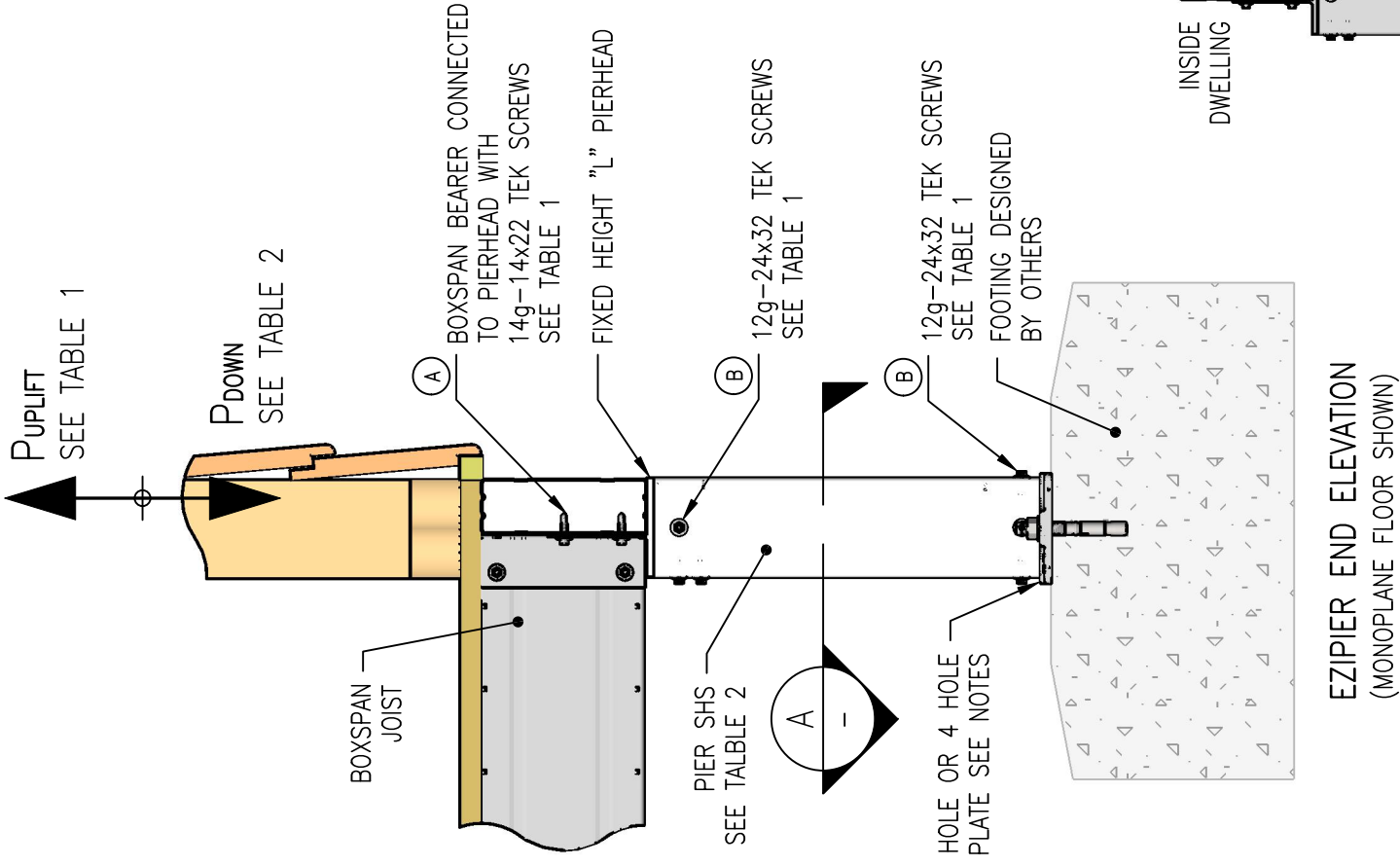


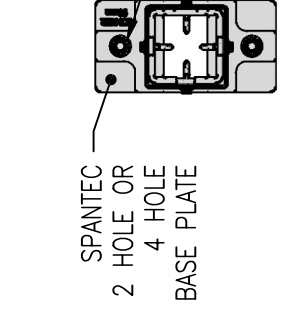
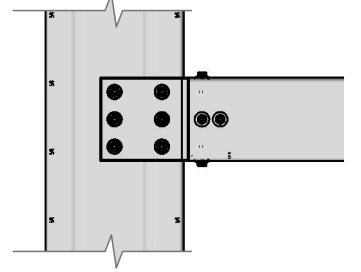
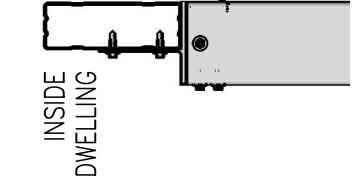
TABLE 1: EZIPIER UPLIFT CAPACITY P_{uplift}

| TEK "A" QTY | TEK "B" QTY | WEB 0.8MT LOAD (kN) | WEB 1.0MT LOAD (kN) |
|-------------|-------------|---------------------|---------------------|
| 6 | 4 | 12.7 | 17.7 |

BOXSPAN LEGEND:
 WEB 0.8BMT = B100-16, B150-16, B200-16
 WEB 1.0BMT = B150-20, B200-20, B250-20

GENERAL NOTES:

- THIS DRAWING SHOWS A BOXSPAN MONOPLANE FLOOR. IT IS ASSUMED THE FLOOR SUPPORTED BY THE PIERS IS FULLY BRACED AND THE LOADS SUPPORTED ARE DEAD LOADS, LIVE LOADS AND WIND UPLIFT ONLY.
- THE NOMINAL CONNECTION SHOWN IS THE MINIMUM CONNECTION THAT SHOULD BE USED. A COMPETANT PERSON SHOULD CHECK THE DESIGN FOR UPLIFT TO SUIT THE ACTUAL SITE CONDITIONS.
- THE FIXED HEAD IS MADE FROM MILD STEEL 300MP_a, THE BASE PLATE IS MADE FROM DUCTILE CAST IRON WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 400MP_a CONFORMING TO AS1831 (ISO1083) AND HOT DIPPED GALVANISED TO 500gsm (GRAMS PER SQUARE METER). FOR PROTECTIVE COATING SYSTEMS REFER TO: NCC VOLUME 2, NASH STANDARD RESIDENTIAL AND LOW-RISE STEEL FRAMING PART 2: DESIGN SOLUTIONS, AS/NZS 4680 HOT-DIP ZINC COATINGS ON FABRICATED FERROUS ARTICLES, AS/NZS 4792 HOLLOW SECTIONS PRODUCED BY WELDING PRE-GALVANIZED STEEL STRIP.
- BASE PLATE MUST BE SELECTED TO SUIT THE APPLIED LOADS, SEE DRAWING P14 FOR THE 2 AND 4 HOLE BASE PLATE CAPACITIES OR VISIT OUR WEBSITE www.spantec.com.au
- THE TERMITE INSPECTION POINT IS THE OUTSIDE FACES OF THE SHS POST. USE TERMITE RESISTANT FILLER TO FILL THE GAP BETWEEN THE PIER HEAD AND THE SHS. THIS FORCES THE TERMITES OUT OF THE SHS AT THE BASE PLATE REQUIRING THEM TO BUILD THEIR MUD CAVERNS UP THE OUTSIDE OF THE SHS POST.



TERMITE INSPECTION POINT AND PIERHEAD PREFERRED ORIENTATION
 TERMITE INSPECTION SATISFIES NCC REQUIREMENTS BY PROVISION OF A CLEAR INSPECTION POINT.

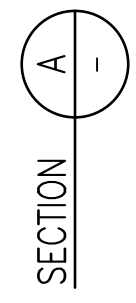


TABLE 2: EZIPIER DOWNWARD CAPACITY P_{down}
(MAX. FFL 2700mm)

| PIER HEAD | PIER SHS SIZE (mm) | MAX. DOWN LOAD (kN) |
|-----------|--------------------|---------------------|
| 75FPH | 75x75x2.0 | 45.0 |
| 90FPH | 90x90x2.0 | 55.0 |
| 89FPH | 89x89x3.5 | 110.0 |

EZIPIER DOWNWARD CAPACITY NOTES

- THE CAPACITY OF PIERHEAD IS BASED ON THE STRENGTH OF THE WHOLE PIER ASSEMBLY AND IT IS ASSUMED THE PIER IS CENTRICALLY LOADED, IF THE PIER IS ESSENTIALLY LOADED THEN REDUCE THE VALUES IN THE TABLE ABOVE BY 25%. THE ULTIMATE DOWNWARD LOAD CAPACITY OF THE PIER IS BASED ON A MAXIMUM FFL OF 2700mm, FOR FLOOR HEIGHTS ABOVE 2700mm THE PIER CAPACITY MUST BE CHECKED BY A COMPETANT PERSON.
- PIER SHS MIN. STEEL GRADE 350MP_a TO AS1163.
- THE CAPACITIES IN THE TABLES ARE CALCULATED USING AUSTRALIAN LOADING CODE AS1170 AND AS4600. IF A HIGHER CAPACITY IS NEEDED USE A "U" PIER HEAD.

| REV. | DESCRIPTION | DRN. | DATE |
|------|-----------------------------|------|----------|
| A | CERTIFICATION STAMP CHANGED | M.R. | 23/08/22 |
| B | BASE PROTECTOR REMOVED | M.R. | 11/09/24 |

DESCRIPTION
EZIPIER FIXED HEIGHT "L" PIERHEAD ASSEMBLY BOXSPAN CONNECTION DETAILS

| | |
|-------------------------------|------------------------|
| DRAWING NUMBER: P20 | REVISION: B |
| SCALE @ A3 NTS | DRAWN MR |
| | DATE DRAWN 15/11/20 |

STRUCTURAL DESIGN CERTIFICATION

HALINA ENGINEERS
 ACN 639-248-114

REF. # 3333
 DATE: 18/09/2024

SIGNATURE
 HA NGUYEN
 BE(HONS) PRD MIEAust CPEng NER 4188792
 PE0001349 (VIC), RPEQ24385 (QLD), TAS 727649808

P_{UPLIFT}
SEE TABLE 1

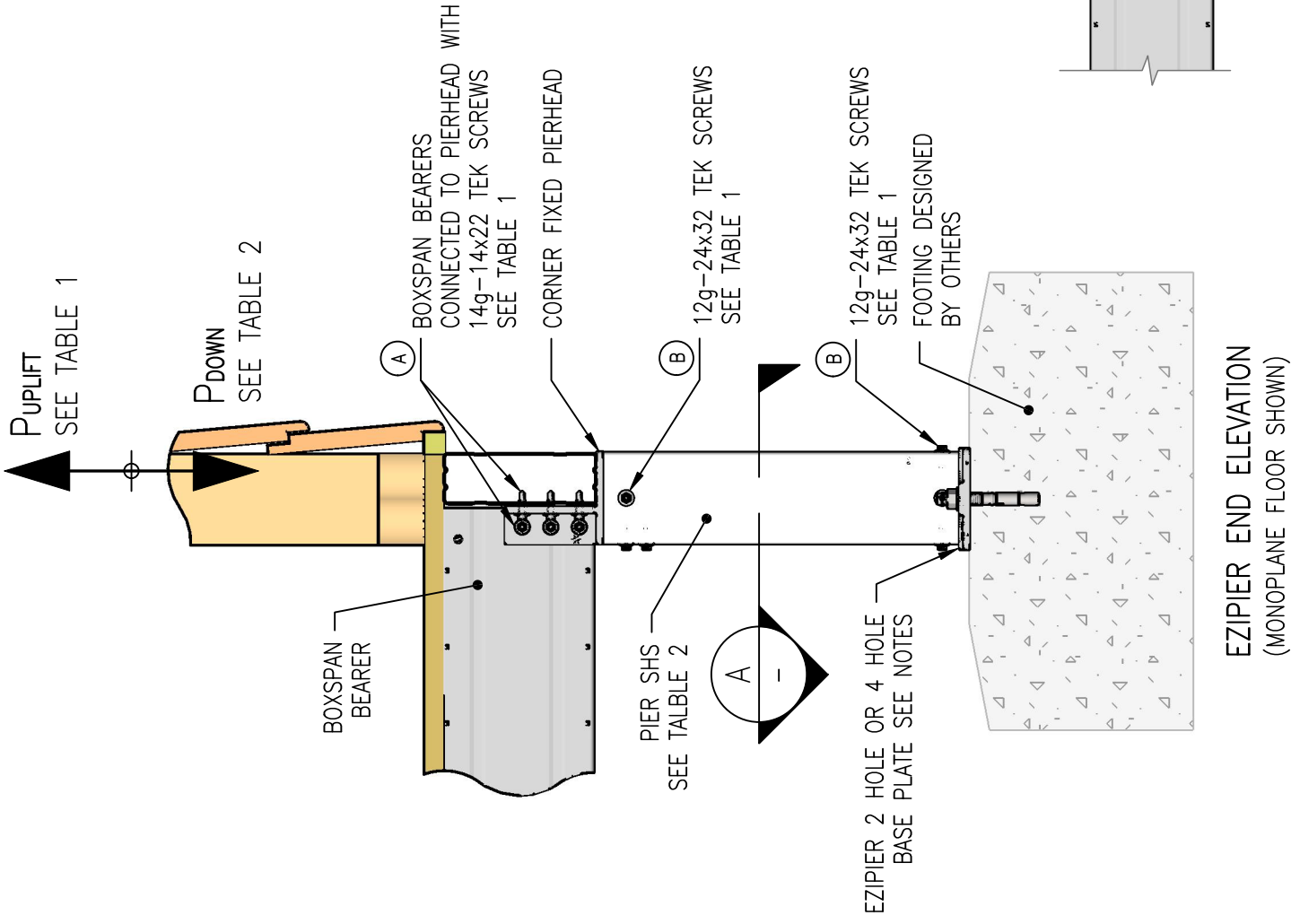


TABLE 1: EZIPIER UPLIFT CAPACITY P_{uplift}

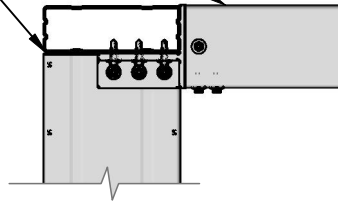
| TEK "A" QTY | TEK "B" QTY | WEB 0.8MT LOAD (kN) | WEB 1.0MT LOAD (kN) |
|-------------|-------------|---------------------|---------------------|
| 6 | 4 | 12.7 | 17.7 |

BOXSPAN LEGEND:
 WEB 0.8BMT = B100-16, B150-16, B200-16
 WEB 1.0BMT = B150-20, B200-20, B250-20

GENERAL NOTES:

- THIS DRAWING SHOWS A BOXSPAN MONOPLANE FLOOR. IT IS ASSUMED THE FLOOR SUPPORTED BY THE PIERS IS FULLY BRACED AND THE LOADS SUPPORTED ARE DEAD LOADS, LIVE LOADS AND WIND UPLIFT ONLY.
- THE NOMINAL CONNECTION SHOWN IS THE MINIMUM CONNECTION THAT SHOULD BE USED. A COMPETANT PERSON SHOULD CHECK THE DESIGN FOR UPLIFT TO SUIT THE ACTUAL SITE CONDITIONS.
- THE FIXED HEAD IS MADE FROM MILD STEEL 300MP_a, THE BASE PLATE IS MADE FROM DUCTILE CAST IRON WITH A MINIMUM ULTIMATE TENSILE STRENGTH OF 400MP_a CONFORMING TO AS1831-2007 (ISO1083) AND HOT DIPPED GALVANISED TO 500gsm (GRAMS PER SQUARE METER).
- FOR PROTECTIVE COATING SYSTEMS REFER TO: NCC VOLUME 2, NASH STANDARD RESIDENTIAL AND LOW-RISE STEEL FRAMING PART 2: DESIGN SOLUTIONS, AS/NZS 4680 HOT-DIP ZINC COATINGS ON FABRICATED FERROUS ARTICLES, AS/NZS 4792 HOLLOW SECTIONS PRODUCED BY WELDING PRE-GALVANIZED STEEL STRIP.
- BASE PLATE MUST BE SELECTED TO SUIT THE APPLIED LOADS, SEE DRAWING P14 FOR THE 2 AND 4 HOLE BASE PLATE CAPACITIES OR VISIT OUR WEBSITE www.spantec.com.au
- THE TERMITE INSPECTION POINT IS THE OUTSIDE FACES OF THE SHS POST. USE TERMITE RESISTANT FILLER TO FILL THE GAP BETWEEN THE PIER HEAD AND THE SHS. THIS FORCES THE TERMITES OUT OF THE SHS AT THE BASE PLATE REQUIRING THEM TO BUILD THEIR MUD CAVERNS UP THE OUTSIDE OF THE SHS POST.

INSIDE DWELLING



TERMITE INSPECTION POINT IS LOCATED ON THE OUTSIDE FACES OF THE SHS. SEE GENERAL NOTES 6.

TERMITE INSPECTION POINT AND PIERHEAD PREFERRED ORIENTATION
 TERMITE INSPECTION SATISFIES NCC REQUIREMENTS BY PROVISION OF A CLEAR INSPECTION POINT.

NOMINAL CONNECTION
 2/M12x100 LG GALV. WEDGE ANCHORS IN 110mm DEEP HOLE WITH 60mm MIN. EMBEDMENT (AFTER TIGHTENING) IN N25 CONCRETE.

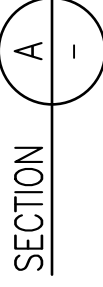
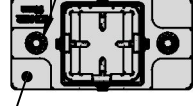


TABLE 2: EZIPIER DOWNWARD CAPACITY P_{down}

(MAX. FFL 2700mm)

| PIER HEAD | PIER SHS SIZE (mm) | MAX. DOWN LOAD (kN) |
|-----------|--------------------|---------------------|
| 75CFPH | 75x75x2.0 | 45.0 |
| 90CFPH | 90x90x2.0 | 55.0 |
| 89CFPH | 89x89x3.5 | 110.0 |

EZIPIER DOWNWARD CAPACITY NOTES

- THE CAPACITY OF PIERHEAD IS BASED ON THE STRENGTH OF THE WHOLE PIER ASSEMBLY AND IT IS ASSUMED THE PIER IS CENTRICALLY LOADED, IF THE PIER IS ESSENTIALLY LOADED THEN REDUCE THE VALUES IN THE TABLE ABOVE BY 25%. THE ULTIMATE DOWNWARD LOAD CAPACITY OF THE PIER IS BASED ON A MAXIMUM FFL OF 2700mm, FOR FLOOR HEIGHTS ABOVE 2700mm THE PIER CAPACITY MUST BE CHECKED BY A COMPETANT PERSON.
- PIER SHS MIN. STEEL GRADE 350MP_a TO AS1163.
- THE CAPACITIES IN THE TABLES ARE CALCULATED USING AUSTRALIAN LOADING CODE AS1170 AND AS4600. IF A HIGHER CAPACITY IS NEEDED USE A "U" PIER HEAD.

STRUCTURAL DESIGN CERTIFICATION
HALINA ENGINEERS
 ACN 639-248-114

REF. # 3333
 DATE: 25/08/2022

SIGNATURE
 HA NGUYEN
 BE(HONS) PHD MIEAust CPEng NER 4188792
 PE0001349 (VIC), RPEQ24385 (QLD), TAS 727649808

| | | | | | |
|--|------|-------------|---------------------|------|---|
| <p>SPANTEC™ SPANTEC SYSTEMS Pty Ltd ABN 56 053 584 384 17 Drapers Road, Braemar, NSW, 2575 PO Box 81, Mittagong, NSW, 2575, Australia Phone: 02 4860 1000 Fax: 02 4872 1616 www.spantec.com.au COPYRIGHT: THIS DRAWING REMAINS THE PROPERTY OF SPANTEC SYSTEMS PTY. LTD. AND MAY NOT BE ALTERED IN ANY WAY WITHOUT SPANTEC SYSTEMS PTY. LTD. WRITTEN CONSENT.</p> | REV. | DESCRIPTION | DRN. | DATE | DESCRIPTION |
| | - | - | - | - | EZIPIER FIXED HEIGHT CORNER PIERHEAD ASSEMBLY BOXSPAN CONNECTION DETAILS |
| DRAWING NUMBER: P21 | | | REVISION: - | | |
| SCALE @ A3 NTS | | | DRAWN MR | | |
| | | | DATE DRAWN 20/08/22 | | |