

構造計算書

2009年 2月

物件名 ガイドブック用サンプル物件
建設場所
設計事務所
設計者

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1. 一般事項

1 - 1 建物概要等

物件名 ガイドブック用サンプル物件
 建設場所
 用途 専用住宅
 規模 木造3階建て
 構造

| 階 | 構造 | 軒高(mm) | 床厚(mm) | 階高(mm) | 床面積(m ²) |
|----|----|--------|--------|--------|----------------------|
| 3階 | 木造 | 2800.0 | 30.0 | 2770.0 | 29.60 |
| 2階 | 木造 | 2800.0 | 30.0 | 2800.0 | 29.60 |
| 1階 | 木造 | 2900.0 | 174.0 | 2756.0 | 29.60 |
| 合計 | | | | | 88.80 |

基礎高さ 400.0 (mm)
 軒高さ 8900.0 (mm)
 最高高さ 10047.3 (mm) 屋根勾配 2.00 (寸) 11.31 (度)

建設地 一般地域 垂直積雪量(h) 30.0 (cm) 地震地域係数(Z) 1.0
 基準風速(V₀) 30 (m/s) 地表面粗度区分

地盤種別 第2種
 許容地耐力 50.0 (kN/m²)
 地業 べた基礎
 基礎の底部の深さ 300.0 (mm)

1 - 2 設計方針

準拠基準等

- ・ 建築基準法、同施行令及び関連告示

参考文献

- ・ 「木造軸組工法住宅の許容応力度設計」(財)日本住宅・木材技術センター

構造計算ルート

- ・ 建築基準法 木造構造計算ルート： 許容応力度計算ルート1
- ・ 品確法 構造性能評価ルート： 許容応力度計算 ルート1

1 - 3 使用材料及び許容応力度

(1) 使用部材一覧

| 部材名 | 樹種 | 寸法(mm) |
|------|----|---------------------|
| 土台 | 桧 | 105 × 105(共通) |
| 管柱1階 | 桧 | 105 × 105(共通) |
| | " | 120 × 120 |
| 管柱2階 | 桧 | 105 × 105(共通) |
| 管柱3階 | 桧 | 105 × 105(共通) |
| 通し柱 | 桧 | 120 × 120(共通) |
| 梁2階 | 米松 | 105 × 105(共通) |
| | " | 105 × 150 |
| | " | 105 × 180 |
| | " | 105 × 240 |
| | " | 105 × 270 |
| | " | 105 × 300 |
| 梁3階 | 米松 | 105 × 105(共通) |
| | " | 105 × 180 |
| | " | 105 × 210 |
| | " | 105 × 240 |
| | " | 105 × 300 |
| 小屋梁 | 米松 | 105 × 105(共通) |
| | " | 105 × 150 |
| | " | 105 × 180 |
| | " | 105 × 210 |
| | " | 105 × 270 |
| 跳出梁 | 米松 | 105 × 180 |
| 小屋束 | 杉 | 105 × 105(共通) |
| 大引 | 桧 | 105 × 105(共通) |
| 母屋 | 米松 | 105 × 105(共通) |
| 垂木 | 杉 | 45 × 90 @455(共通) |
| 根太 | 米松 | 45 × 105 @303.3(共通) |
| 間柱 | 米楨 | 30 × 105 |

(2) 基準強度及び許容応力度

基準強度表

| 樹種 | 基準強度 (N/mm ²) | | | | | ヤング係数 (単位: × 10 ³ N/mm ²) |
|----|---------------------------|-----------|----------|-----------|-------------|---|
| | 圧縮 Fc | 引張り Ft | 曲げ Fb | せん断 Fs | めり込み Fcv | |
| 米松 | 22.20 | 17.70 | 28.20 | 2.40 | 9.00 | 9.800 |
| 桧 | 20.70 | 16.20 | 26.70 | 2.10 | 7.80 | 8.820 |
| 杉 | 17.70 | 13.50 | 22.20 | 1.80 | 6.00 | 6.860 |

許容応力度表

| 樹種 | 長期 (N/mm ²) | | | | | | 短期 (N/mm ²) | | | | | |
|----|-------------------------|-------------------|-------------------|-------------------|--------------------|--------------------|-------------------------|-----------------|-----------------|-----------------|------------------|------------------|
| | 圧縮 | 引張 | 曲げ | せん断 | めり 込み | めり込 み(土台) | 圧縮 | 引張 | 曲げ | せん断 | めり 込み | めり込 み(土台) |
| | $\frac{1.1Fc}{3}$ | $\frac{1.1Ft}{3}$ | $\frac{1.1Fb}{3}$ | $\frac{1.1Fs}{3}$ | $\frac{1.5Fcv}{3}$ | $\frac{1.5Fcv}{3}$ | $\frac{2Fc}{3}$ | $\frac{2Ft}{3}$ | $\frac{2Fb}{3}$ | $\frac{2Fs}{3}$ | $\frac{2Fcv}{3}$ | $\frac{2Fcv}{3}$ |
| 米松 | 8.14 | 6.49 | 10.34 | 0.88 | 4.50 | 4.50 | 14.80 | 11.80 | 18.80 | 1.60 | 6.00 | 6.00 |
| 桧 | 7.59 | 5.94 | 9.79 | 0.77 | 3.90 | 3.90 | 13.80 | 10.80 | 17.80 | 1.40 | 5.20 | 5.20 |
| 杉 | 6.49 | 4.95 | 8.14 | 0.66 | 3.00 | 3.00 | 11.80 | 9.00 | 14.80 | 1.20 | 4.00 | 4.00 |

許容応力度表 (積雪時)

| 樹種 | 長期 (N/mm ²) | | | | | | 短期 (N/mm ²) | | | | | |
|----|-------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------------|-------------------|-------------------|-------------------|------------------|------------------|
| | 圧縮 | 引張 | 曲げ | せん断 | めり 込み | めり込 み(土台) | 圧縮 | 引張 | 曲げ | せん断 | めり 込み | めり込 み(土台) |
| | $\frac{1.43Fc}{3}$ | $\frac{1.43Ft}{3}$ | $\frac{1.43Fb}{3}$ | $\frac{1.43Fs}{3}$ | $\frac{1.5Fcv}{3}$ | $\frac{1.5Fcv}{3}$ | $\frac{1.6Fc}{3}$ | $\frac{1.6Ft}{3}$ | $\frac{1.6Fb}{3}$ | $\frac{1.6Fs}{3}$ | $\frac{2Fcv}{3}$ | $\frac{2Fcv}{3}$ |
| 米松 | 10.58 | 8.44 | 13.44 | 1.14 | 4.50 | 4.50 | 11.84 | 9.44 | 15.04 | 1.28 | 6.00 | 6.00 |
| 桧 | 9.87 | 7.72 | 12.73 | 1.00 | 3.90 | 3.90 | 11.04 | 8.64 | 14.24 | 1.12 | 5.20 | 5.20 |
| 杉 | 8.44 | 6.44 | 10.58 | 0.86 | 3.00 | 3.00 | 9.44 | 7.20 | 11.84 | 0.96 | 4.00 | 4.00 |

使用鉄筋及びコンクリート

| | |
|------------------|--------|
| 鉄筋種類 (D10 ~ D16) | SD295A |
| 鉄筋種類 (D19以上) | SD345 |
| コンクリート種類 | Fc18 |

鉄筋、コンクリート、及びアンカーボルトの許容応力度表

| 許容応力度 材料 | 長期 (N/mm ²) | | | | | 短期 (N/mm ²) | | | | |
|-----------------|-------------------------|----------|------------------|-----------|------|-------------------------|----------|------------------|-----------|------|
| | 圧縮 rfc fc | 引張 ft | せん断 wft fs | 付着fa | | 圧縮 rfc fc | 引張 ft | せん断 wft fs | 付着fa | |
| | | | | 曲げ材 上ば | その他 | | | | 曲げ材 上ば | その他 |
| SD295A | 195 | 195 | 195 | 1.20 | 1.80 | 295 | 295 | 295 | 1.80 | 2.70 |
| SD345 | 215 | 215 | 195 | | | 345 | 345 | 345 | | |
| Fc18 | 6 | - | 0.6 | | | 12 | - | 0.9 | | |
| M12(ひば,ヒノキ,広葉樹) | - | 156 | - | - | - | - | 235 | 8720 (N) | - | - |
| M16(ひば,ヒノキ,広葉樹) | - | 156 | - | - | - | - | 235 | 15510 (N) | - | - |

(3) 許容地耐力

| | |
|----|----------------------------|
| 長期 | 50.0 (kN/m ²) |
| 短期 | 100.0 (kN/m ²) |

(4) 接合部の許容引張耐力

| 接合部の仕様 | 許容引張耐力 |
|---------------------------|--------|
| 告示第1460号接合仕様による | |
| L字型かど金物くぎ CN65×10本 | 3.38kN |
| T字型かど金物くぎ CN65×10本 | 5.07kN |
| 山形プレート金物くぎ CN90×8本 | 5.88kN |
| 羽子板ボルト 12mm又は短冊金物 | 7.50kN |
| 羽子板ボルト 12mm + スクリュー釘 × 1本 | 8.50kN |
| 10 k N用引き寄せ金物 | 10.0kN |
| 15 k N用引き寄せ金物 | 15.0kN |
| 20 k N用引き寄せ金物 | 20.0kN |
| 15 k N用引き寄せ金物 × 2枚 | 30.0kN |
| 筋かいプレート BP-2 | |

(5) 筋かい・面材倍率表

*は使用していることを示す。

筋かい倍率表

| 番号 | 仕様 | 圧縮倍率 | 引張倍率 |
|-----|----------------------------------|------|------|
| 1 | 鉄筋 9 三角座金 ナット締め 鋼板添え版 8×CN90 平打ち | 0.00 | 2.00 |
| 2 | 木材 15×90 びんた伸ばし 5×CN65 平打ち | 1.00 | 1.00 |
| 3 | 木材 30×90 BP、又は同等以上 | 2.00 | 1.00 |
| * 4 | 木材 45×90 BP2、又は同等以上 | 2.50 | 1.50 |
| 5 | 木材 90×90 ボルトM12 | 5.00 | 1.00 |

耐力壁用面材倍率表

| 番号 | 工法または材料名称 | 倍率 |
|-----|-------------------|------|
| 1 | 木ずり | 0.50 |
| 2 | JAS構造用合板 | 2.50 |
| 3 | パーティクルボード | 2.50 |
| 4 | 構造用パネル(OSB) | 2.50 |
| * 5 | 石膏ボード | 0.90 |
| 6 | 構造用石膏ボードA種 | 1.70 |
| 7 | 構造用石膏ボードB種 | 1.20 |
| 8 | ハードボード | 2.00 |
| 9 | 硬質木片セメント板 | 2.00 |
| 10 | 炭酸マグネシウム板 | 2.00 |
| 11 | パルプセメント板 | 1.50 |
| 12 | シージングインシュレーションボード | 1.00 |
| 13 | ラスシート | 1.00 |
| 14 | 胴縁 | 0.50 |

準耐力壁用面材倍率表

| 番号 | 工法または材料名称 | 倍率 | 釘低減係数 |
|-----|---------------|------|-------|
| 1 | 木ずり | 0.50 | 1.0 |
| 2 | JAS構造用合板 | 2.50 | 0.6 |
| 3 | パーティクルボード | 2.50 | 0.6 |
| 4 | 構造用パネル(OSB) | 2.50 | 0.6 |
| * 5 | 石膏ボード | 0.90 | 0.6 |
| 6 | 構造用石膏ボードA種 | 1.70 | 0.6 |
| 7 | 構造用石膏ボードB種 | 1.20 | 0.6 |

(6) 水平構面床倍率表

*は使用していることを示す。

F: 面材張り床面、R: 面材張り屋根面、H: 火打水平構面

| 番号 | 水平構面の仕様 | 床倍率 |
|------|--|------|
| F1 | 構造用合板 12mm以上、根太@340 以下落し込み、N50@150以下 | 2.00 |
| * F2 | 構造用合板 12mm以上、根太@340 以下半欠き、N50@150以下 | 1.60 |
| F3 | 構造用合板 12mm以上、根太@340 以下転ばし、N50@150以下 | 1.00 |
| F4 | 構造用合板 12mm以上、根太@500 以下落し込み、N50@150以下 | 1.40 |
| F5 | 構造用合板 12mm以上、根太@500 以下半欠き、N50@150以下 | 1.12 |
| F6 | 構造用合板 12mm以上、根太@500 以下転ばし、N50@150以下 | 0.70 |
| F7 | 構造用合板 24mm以上、根太なし直張り4周釘打ち、N75@150以下 | 3.00 |
| F8 | 構造用合板 24mm以上、根太なし直張り川の字釘打ち、N75@150以下 | 1.20 |
| F9 | 幅 180 杉板 12mm以上、根太@340 以下落し込み、N50@150以下 | 0.39 |
| F10 | 幅 180 杉板 12mm以上、根太@340 以下半欠き、N50@150以下 | 0.36 |
| F11 | 幅 180 杉板 12mm以上、根太@340 以下転ばし、N50@150以下 | 0.30 |
| F12 | 幅 180 杉板 12mm以上、根太@500 以下落し込み、N50@150以下 | 0.26 |
| F13 | 幅 180 杉板 12mm以上、根太@500 以下半欠き、N50@150以下 | 0.24 |
| F14 | 幅 180 杉板 12mm以上、根太@500 以下転ばし、N50@150以下 | 0.20 |
| * R1 | 3寸勾配以下、構造用合板9mm以上、垂木@500以下転ばし、N50@150以下 | 0.70 |
| R2 | 5寸勾配以下、構造用合板9mm以上、垂木@500以下転ばし、N50@150以下 | 0.70 |
| R3 | 矩勾配以下、構造用合板9mm以上、垂木@500以下転ばし、N50@150以下 | 0.50 |
| R4 | 3寸勾配以下、幅180杉板9mm以上、垂木@500以下転ばし、N50@150以下 | 0.20 |
| R5 | 5寸勾配以下、幅180杉板9mm以上、垂木@500以下転ばし、N50@150以下 | 0.20 |
| R6 | 矩勾配以下、幅180杉板9mm以上、垂木@500以下転ばし、N50@150以下 | 0.10 |
| H1 | 火打金物HB、平均負担面積 2.5㎡以下、梁せい 240以上 | 0.80 |
| H2 | 火打金物HB、平均負担面積 2.5㎡以下、梁せい 150以上 | 0.60 |
| H3 | 火打金物HB、平均負担面積 2.5㎡以下、梁せい 105以上 | 0.50 |
| H4 | 火打金物HB、平均負担面積 3.3㎡以下、梁せい 240以上 | 0.48 |
| H5 | 火打金物HB、平均負担面積 3.3㎡以下、梁せい 150以上 | 0.36 |
| H6 | 火打金物HB、平均負担面積 3.3㎡以下、梁せい 105以上 | 0.30 |
| H7 | 火打金物HB、平均負担面積 5.0㎡以下、梁せい 240以上 | 0.24 |
| H8 | 火打金物HB、平均負担面積 5.0㎡以下、梁せい 150以上 | 0.18 |
| H9 | 火打金物HB、平均負担面積 5.0㎡以下、梁せい 105以上 | 0.15 |
| H10 | 木製火打 90×90、平均負担面積 2.5㎡以下、梁せい 240以上 | 0.80 |
| H11 | 木製火打 90×90、平均負担面積 2.5㎡以下、梁せい 150以上 | 0.60 |
| H12 | 木製火打 90×90、平均負担面積 2.5㎡以下、梁せい 105以上 | 0.50 |
| H13 | 木製火打 90×90、平均負担面積 3.3㎡以下、梁せい 240以上 | 0.48 |
| H14 | 木製火打 90×90、平均負担面積 3.3㎡以下、梁せい 150以上 | 0.36 |
| H15 | 木製火打 90×90、平均負担面積 3.3㎡以下、梁せい 105以上 | 0.30 |
| H16 | 木製火打 90×90、平均負担面積 5.0㎡以下、梁せい 240以上 | 0.24 |
| H17 | 木製火打 90×90、平均負担面積 5.0㎡以下、梁せい 150以上 | 0.18 |
| H18 | 木製火打 90×90、平均負担面積 5.0㎡以下、梁せい 105以上 | 0.15 |

1 - 4 仮定荷重

(1) 固定荷重

屋根一般

| 項目 | 単位荷重(N/m ²) | |
|---------|-------------------------|-----|
| 仕上げ、野地板 | 340 | 小計 |
| 垂木、母屋 | 100 | 440 |
| 小屋組 | | 100 |
| 天井 | | 100 |
| | | |
| | 合計 | 640 |
| | 補正後 (勾配考慮) | 649 |

屋根軒先

| 項目 | 単位荷重(N/m ²) | |
|---------|-------------------------|-----|
| 仕上げ、野地板 | 340 | 小計 |
| 天井 | 100 | 440 |
| | | |
| | | |
| | | |
| | 合計 | 440 |
| | 補正後 (勾配考慮) | 449 |

3階床

| 項目 | 単位荷重(N/m ²) | |
|-----|-------------------------|-----|
| 仕上げ | 350 | 小計 |
| 床組 | 140 | 490 |
| 天井 | | 100 |
| | | |
| | | |
| | 合計 | 590 |
| | 補正後 | 590 |

2階床

| 項目 | 単位荷重(N/m ²) | |
|-----|-------------------------|-----|
| 仕上げ | 350 | 小計 |
| 床組 | 140 | 490 |
| 天井 | | 100 |
| | | |
| | | |
| | 合計 | 590 |
| | 補正後 | 590 |

1階 床

| 項目 | 単位荷重(N/m ²) | |
|-----|-------------------------|-----|
| 仕上げ | 350 | 小計 |
| 床組 | 140 | 490 |
| | | |
| | | |
| | | |
| | 合計 | 490 |
| | 補正後 | 490 |

3階 外壁

| 項目 | 単位荷重(N/m ²) | |
|----------|-------------------------|-----|
| 軸組 | | 150 |
| 外部仕上げ、下地 | | 600 |
| 内部仕上げ | | 120 |
| | | |
| | | |
| | 合計 | 870 |
| | 補正後 | 870 |

2階 外壁

| 項目 | 単位荷重(N/m ²) | |
|----------|-------------------------|-----|
| 軸組 | | 150 |
| 外部仕上げ、下地 | | 600 |
| 内部仕上げ | | 120 |
| | | |
| | | |
| | 合計 | 870 |
| | 補正後 | 870 |

1階 外壁

| 項目 | 単位荷重(N/m ²) | |
|----------|-------------------------|-----|
| 軸組 | | 150 |
| 外部仕上げ、下地 | | 600 |
| 内部仕上げ | | 120 |
| | | |
| | | |
| | 合計 | 870 |
| | 補正後 | 870 |

内壁

| 項目 | 単位荷重(N/m ²) | |
|---------|-------------------------|-----|
| 軸組 | 150 | |
| 仕上げ(両面) | 240 | |
| | | |
| | | |
| | | |
| | 合計 | 390 |
| | 補正後 | 390 |

バルコニー

| 項目 | 単位荷重(N/m ²) | |
|--------|-------------------------|-----|
| バルコニー床 | 800 | 小計 |
| | | 800 |
| | | |
| | | |
| | | |
| | 合計 | 800 |
| | 補正後 | 800 |

(2) 積載荷重

| 項目 | 床用 (N/m ²) | 梁、柱、基礎用 (N/m ²) | 地震用 (N/m ²) |
|-------|------------------------|-----------------------------|-------------------------|
| 屋根 | 0 | 0 | 0 |
| 3階床 | 1800 | 1300 | 600 |
| 2階床 | 1800 | 1300 | 600 |
| 1階床 | 1800 | 1300 | 600 |
| バルコニー | 1800 | 1300 | 600 |

(3) 積雪荷重

垂直積雪量 30.0 (cm)
単位荷重 20.0 (N/cm/m²)
屋根形状係数 0.98 (勾配 2.00 寸 11.31 度)
積雪荷重
・短期[積雪時] 588 (N/m²)

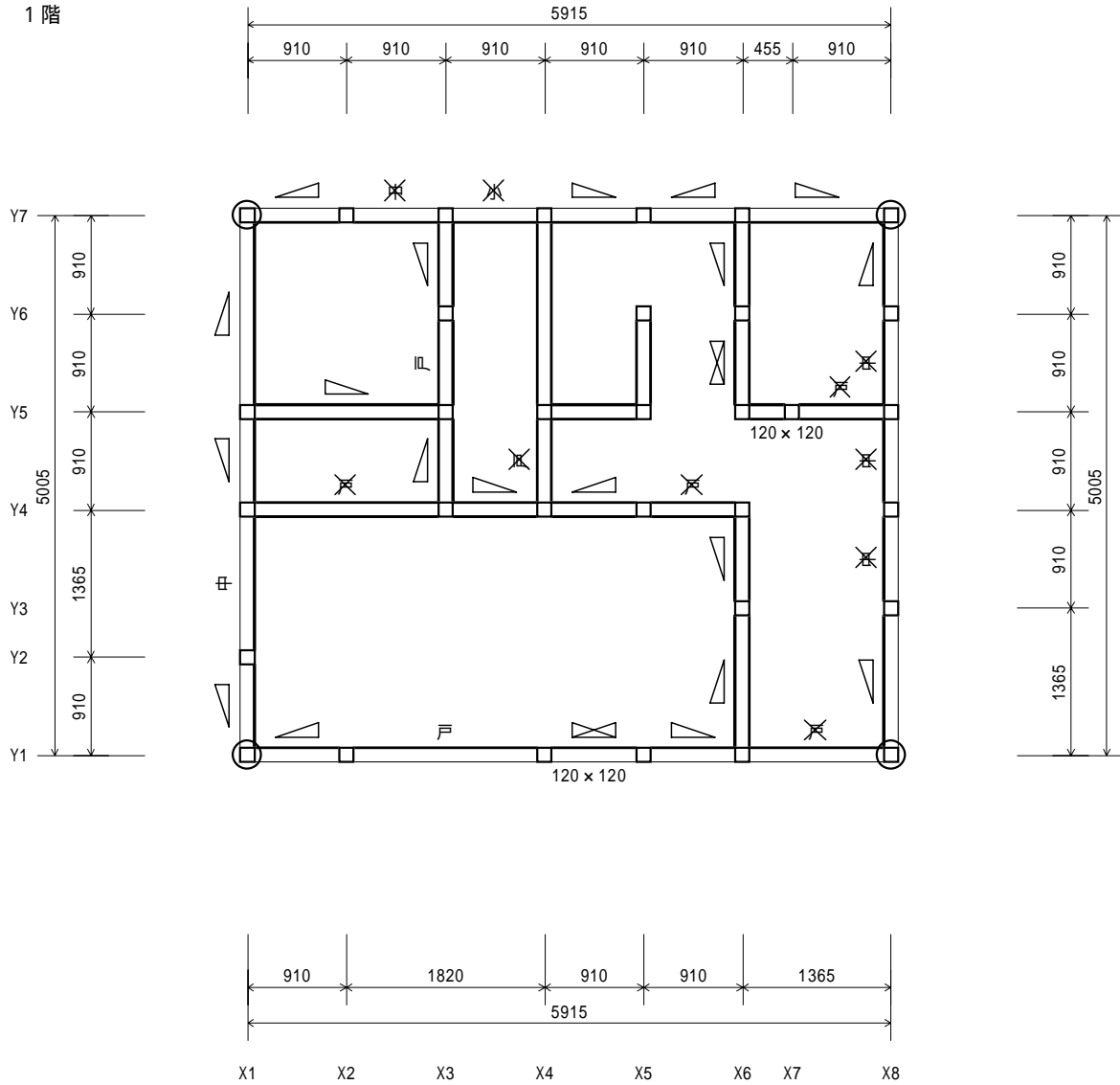
(4) 屋根及び床の設計荷重

| 項目 | 種類 | | 固定荷重(N/m ²) | 積載荷重(N/m ²) | 積雪荷重(N/m ²) | 合計(N/m ²) |
|-------|-----|-------|-------------------------|-------------------------|-------------------------|-----------------------|
| 屋根一般 | 屋根用 | 長期用 | 440 | 0 | 0 | 440 |
| | | 短期積雪用 | 440 | 0 | 588 | 1028 |
| | 軸組用 | 長期用 | 649 | 0 | 0 | 649 |
| | | 短期積雪用 | 649 | 0 | 588 | 1237 |
| | 地震用 | | 649 | 0 | 0 | 649 |
| 屋根軒先 | 屋根用 | 長期用 | 440 | 0 | 0 | 440 |
| | | 短期積雪用 | 440 | 0 | 588 | 1028 |
| | 軸組用 | 長期用 | 449 | 0 | 0 | 449 |
| | | 短期積雪用 | 449 | 0 | 588 | 1037 |
| | 地震用 | | 449 | 0 | 0 | 449 |
| 3階床 | 床用 | | 490 | 1800 | - | 2290 |
| | 軸組用 | | 590 | 1300 | - | 1890 |
| | 地震用 | | 590 | 600 | - | 1190 |
| 2階床 | 床用 | | 490 | 1800 | - | 2290 |
| | 軸組用 | | 590 | 1300 | - | 1890 |
| | 地震用 | | 590 | 600 | - | 1190 |
| 1階床 | 床用 | | 490 | 1800 | - | 2290 |
| | 軸組用 | | 490 | 1300 | - | 1790 |
| | 地震用 | | 490 | 600 | - | 1090 |
| バルコニー | 床用 | | 800 | 1800 | - | 2600 |
| | 軸組用 | | 800 | 1300 | - | 2100 |
| | 地震用 | | 800 | 600 | - | 1400 |

1 - 5 柱壁伏図、断面図、床伏図

(1) 柱壁伏図

1 階



共通部材

管柱1階 : 105 × 105 (mm) 桧

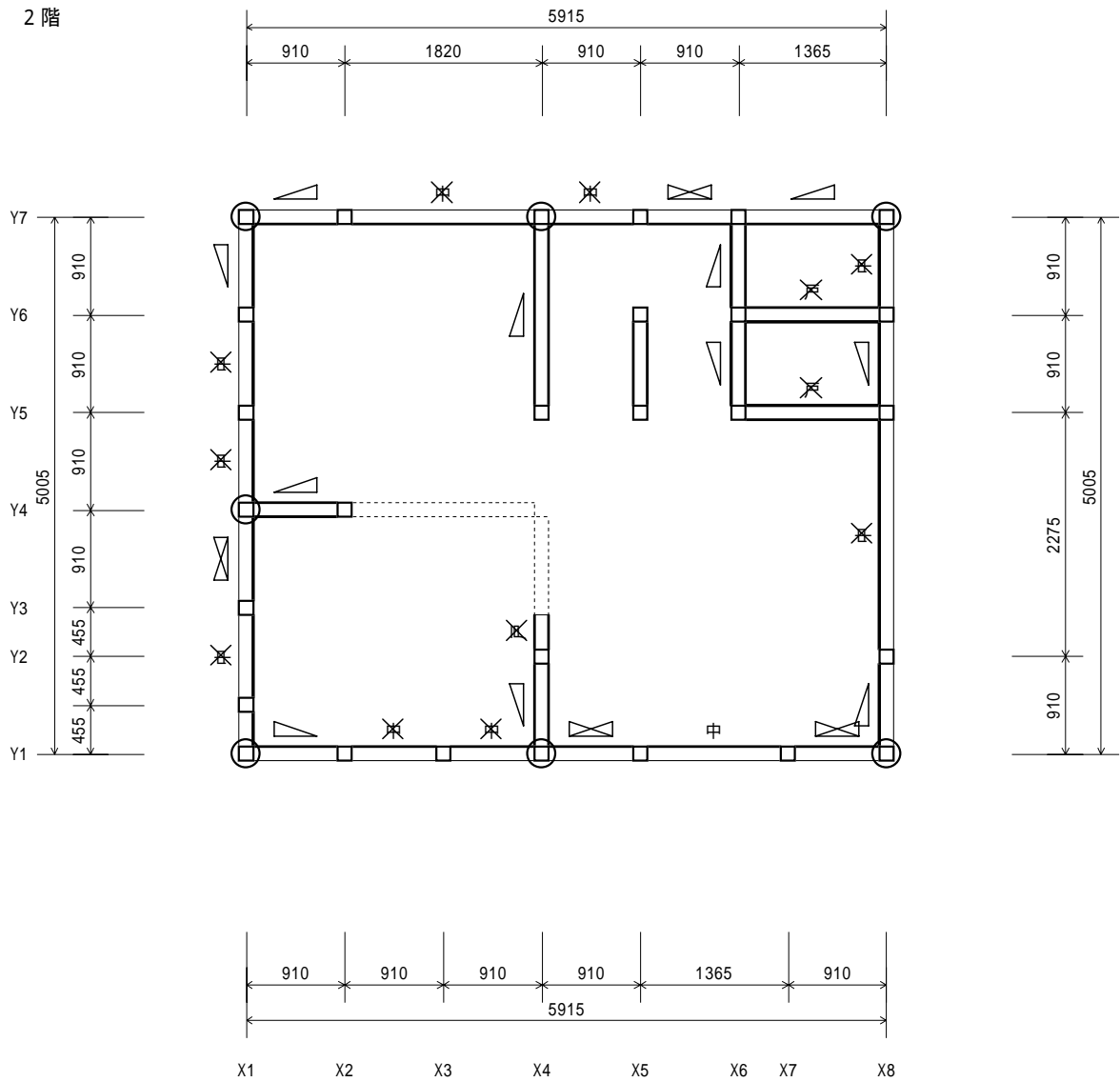
通し柱 : 120 × 120 (mm) 桧

凡例:

| | |
|---|---------|
| □ | 管柱 |
| ⊕ | 通し柱 |
| ⊗ | 筋かいダブル |
| ∕ | 筋かいシングル |
| — | 面材 |
| ⋯ | その他の内壁 |

凡例:

| | 開口高 (h) |
|---|---------------|
| 小 | 60.0 (cm) |
| 中 | 100.0 (cm) |
| 戸 | 200.0 (cm) |
| x | 準耐力壁、腰壁等に該当せず |



共通部材

通し柱 : 120 × 120 (mm) 桧

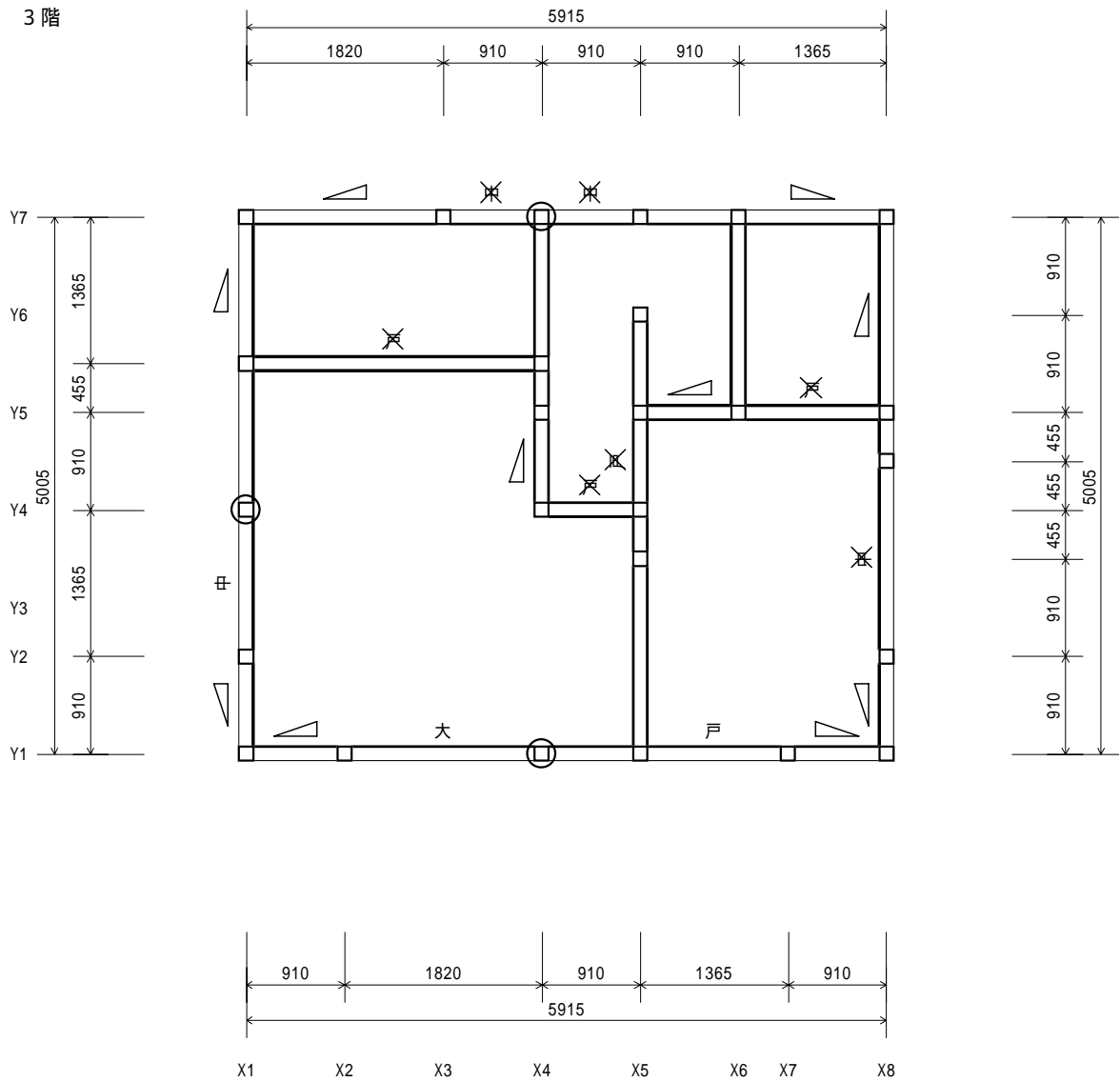
管柱2階 : 105 × 105 (mm) 桧

凡例:

| | |
|---|---------|
| □ | 管柱 |
| ⊕ | 通し柱 |
| ⊗ | 筋かいダブル |
| △ | 筋かいシングル |
| — | 面材 |
| ⋯ | その他の内壁 |

凡例:

| | 開口高 (h) |
|---|---------------|
| 中 | 100.0 (cm) |
| 戸 | 200.0 (cm) |
| x | 準耐力壁、腰壁等に該当せず |



共通部材

通し柱 : 120 × 120 (mm) 桧

管柱3階 : 105 × 105 (mm) 桧

凡例:

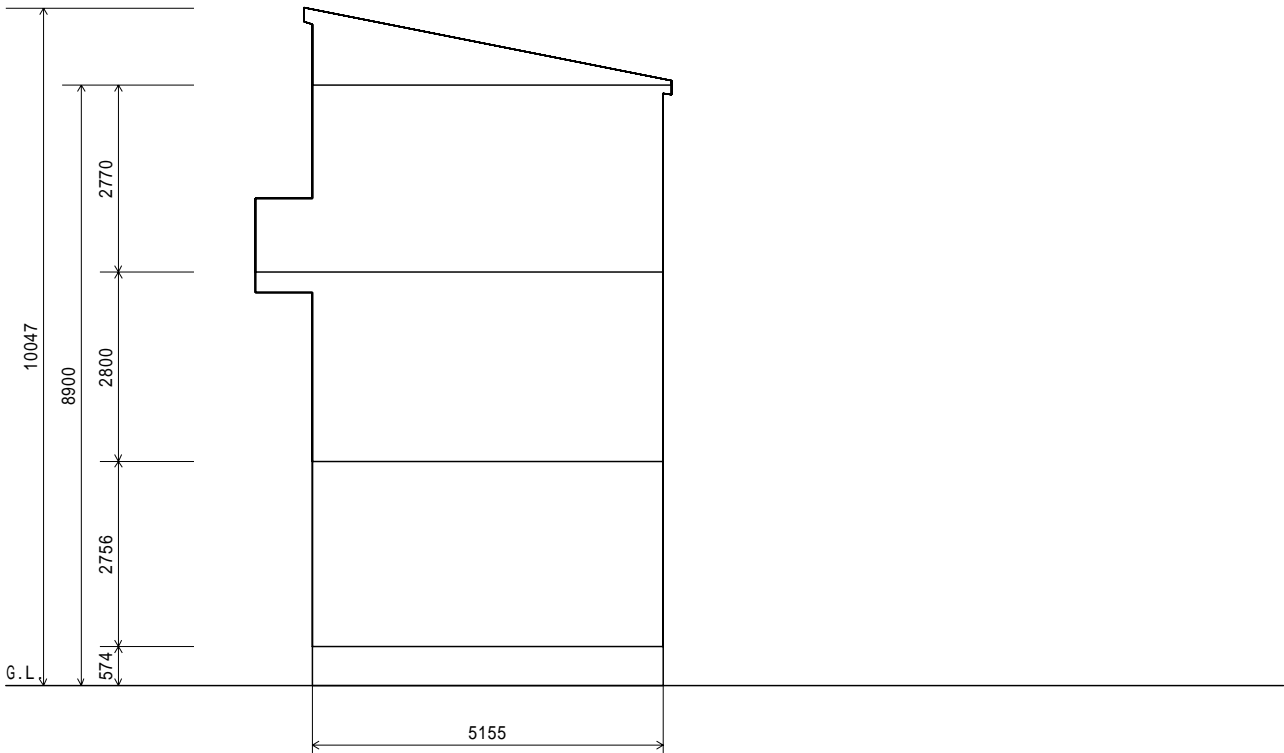
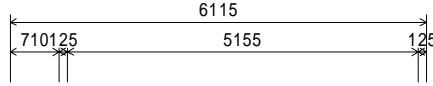
| | |
|---|---------|
| □ | 管柱 |
| ⊕ | 通し柱 |
| △ | 筋かいシングル |
| — | 面材 |

凡例:

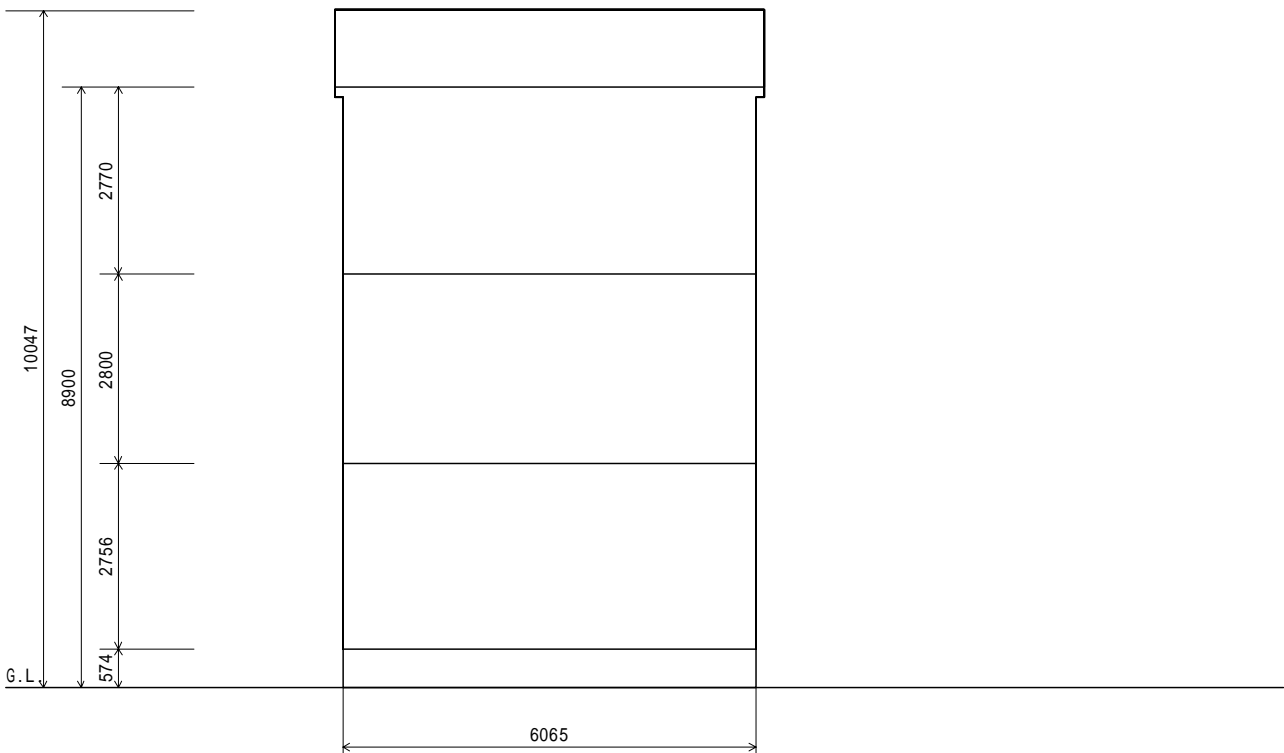
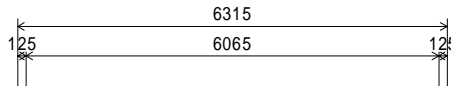
| | 開口高 (h) |
|---|---------------|
| 中 | 100.0 (cm) |
| 大 | 120.0 (cm) |
| 戸 | 200.0 (cm) |
| x | 準耐力壁、腰壁等に該当せず |

(2) 断面図

X 方向

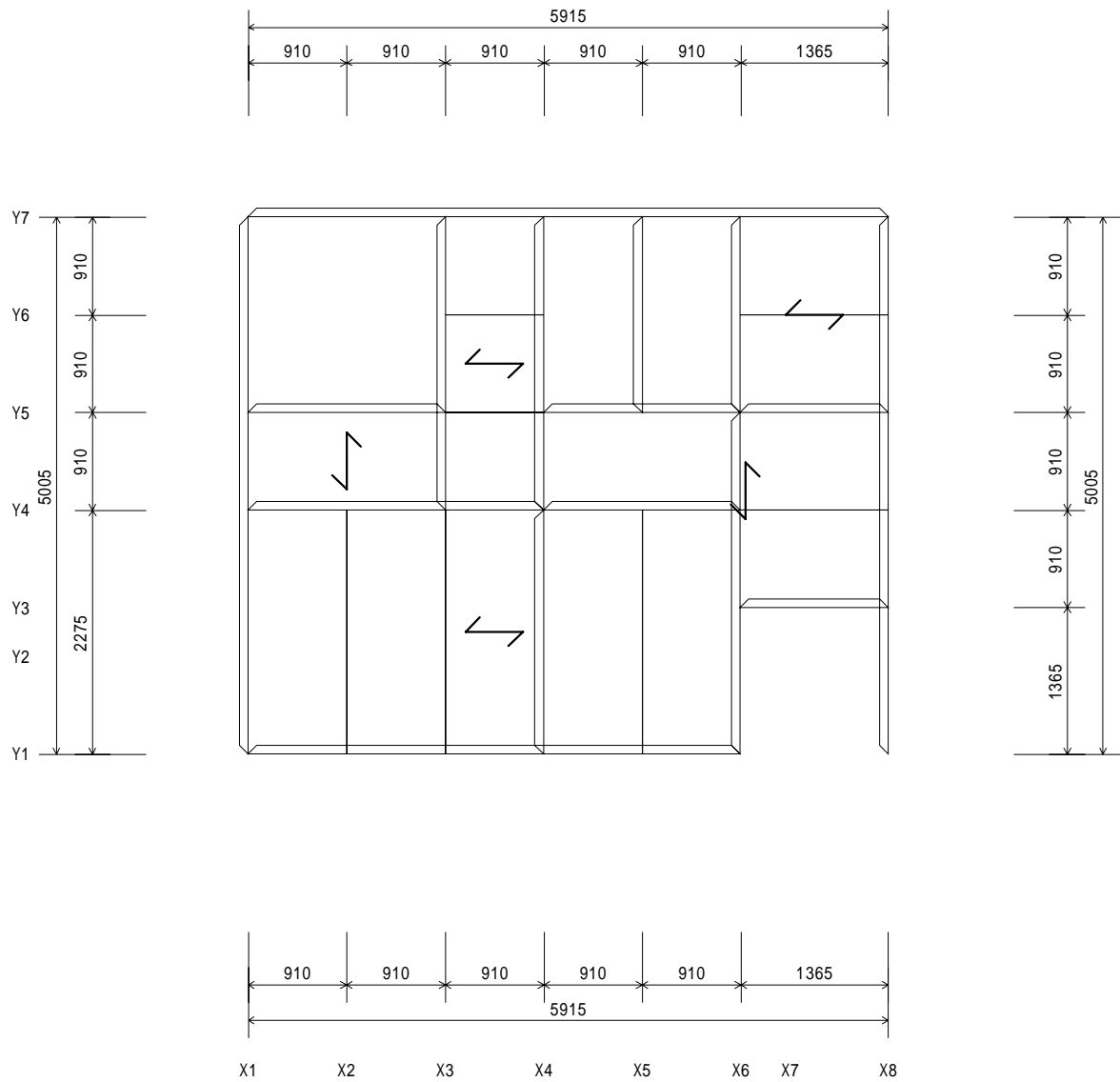


Y 方向



(3) 床伏図

1階床



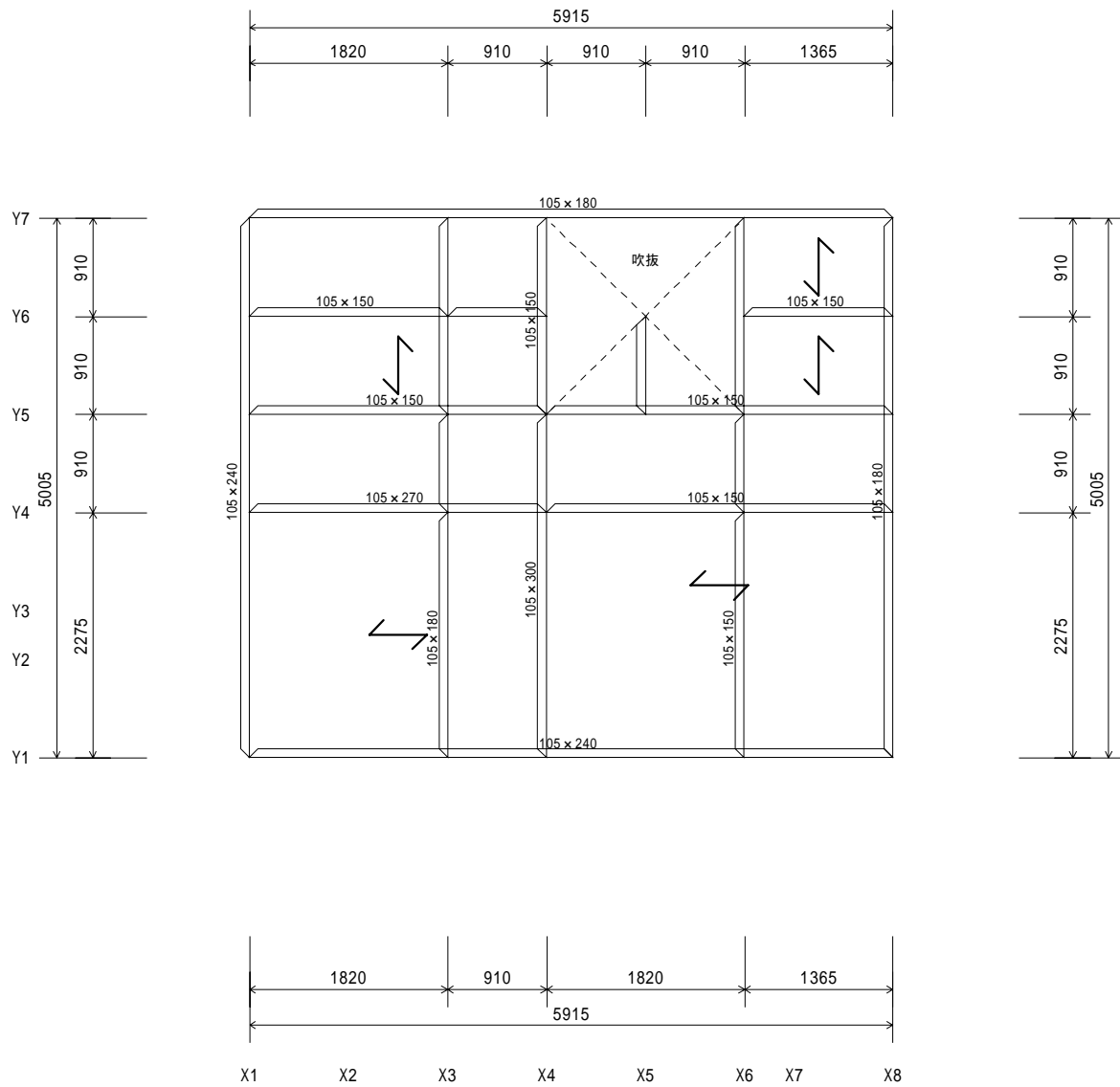
共通部材

土台 : 105 × 105 (mm) 桧

凡例 :

| | |
|--|----|
| | 土台 |
| | 大引 |
| | 根太 |

2階床



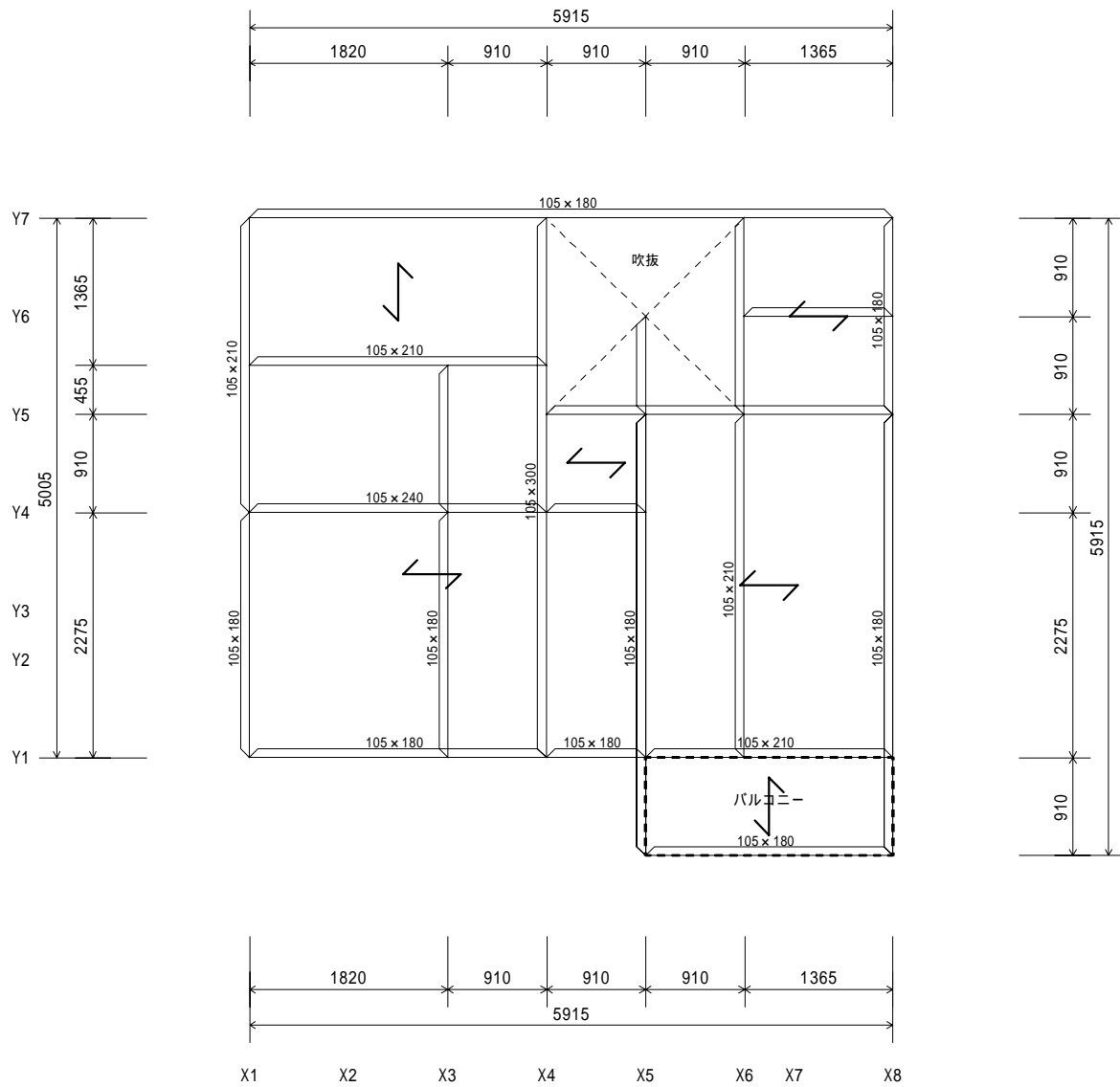
共通部材

梁2階 : 105 x 105 (mm) 米松

凡例 :

| | |
|--|----|
| | 梁 |
| | 根太 |

3階床



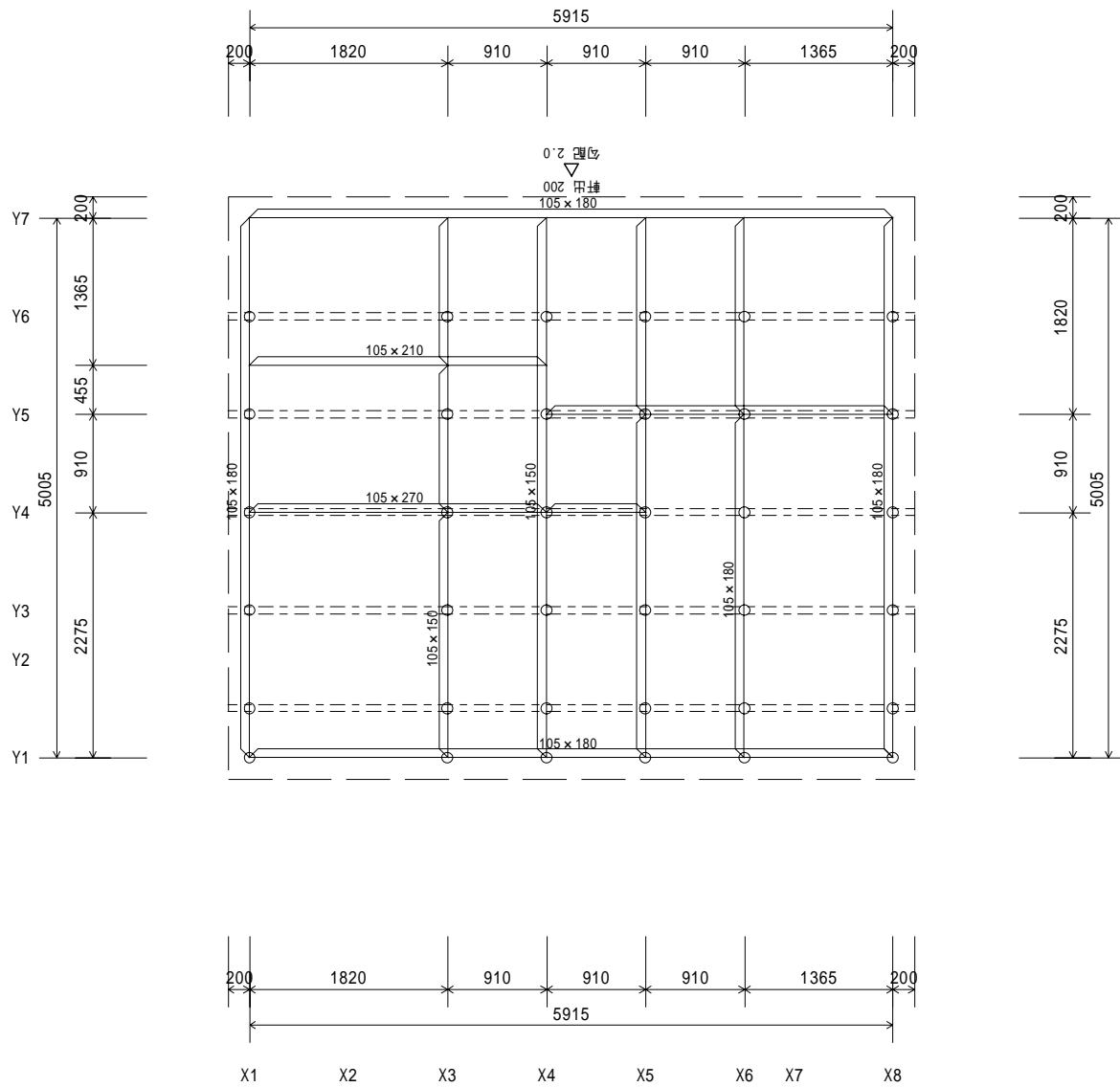
共通部材

梁3階 : 105 x 105 (mm) 米松

凡例 :

| | |
|--|----|
| | 梁 |
| | 根太 |

小屋



共通部材

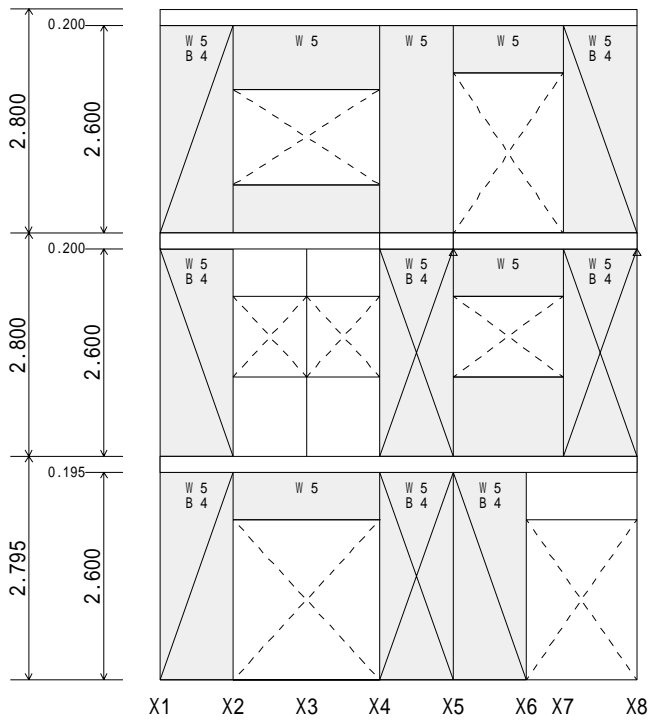
小屋梁 : 105 × 105 (mm) 米松

凡例 :

| | |
|--|-----|
| | 梁 |
| | 小屋束 |
| | 母屋 |

1 - 6 略軸組図

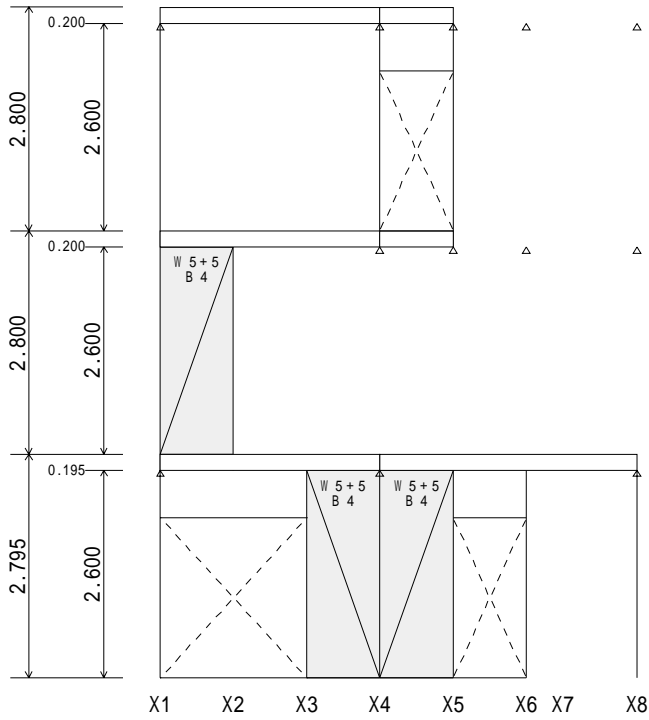
Y1通り



凡例:

| |
|------------------|
| W : 面材仕様 外面 + 内面 |
| B : 筋かい仕様 |

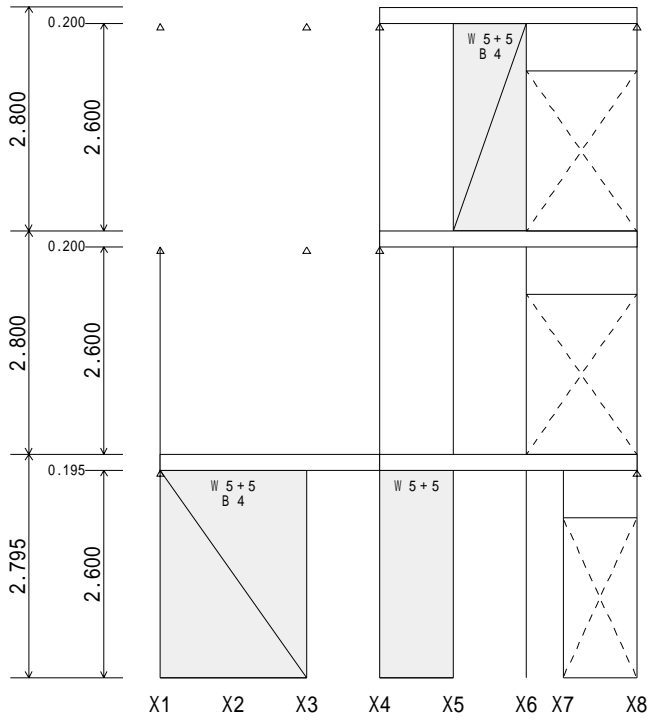
Y4通り



凡例:

| |
|------------------|
| W : 面材仕様 外面 + 内面 |
| B : 筋かい仕様 |

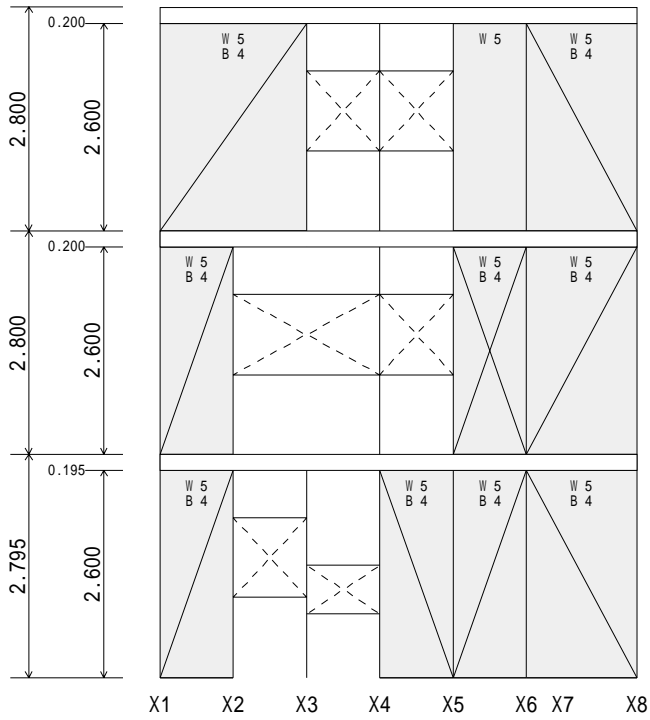
Y5通り



凡例:

| |
|------------------|
| W : 面材仕様 外面 + 内面 |
| B : 筋かい仕様 |

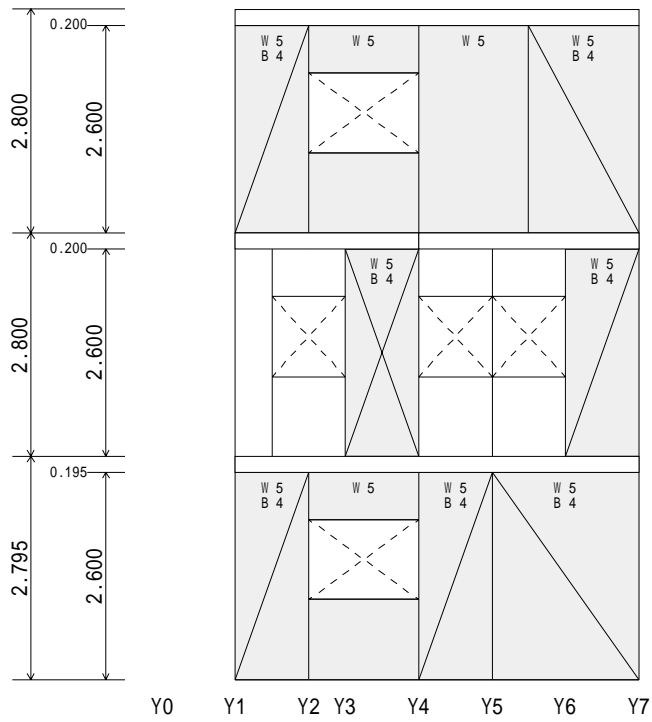
Y7通り



凡例:

| |
|------------------|
| W : 面材仕様 外面 + 内面 |
| B : 筋かい仕様 |

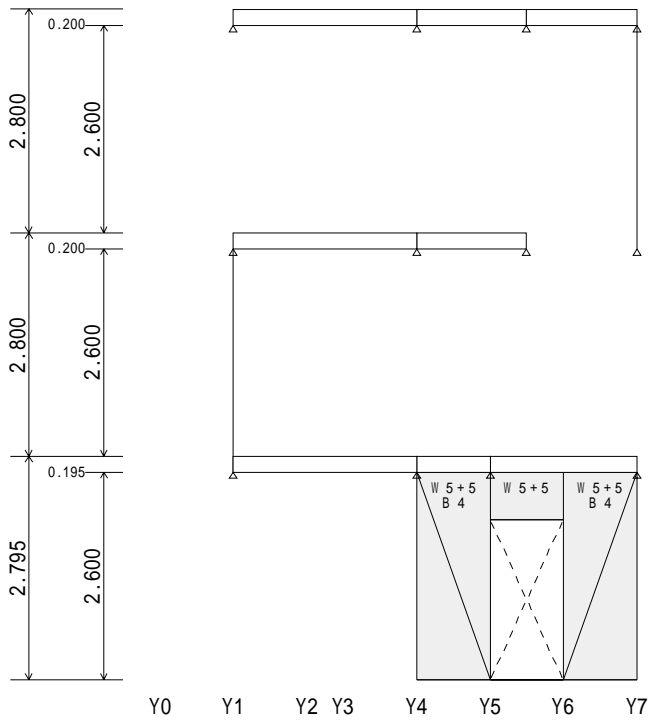
X1通り



凡例:

| |
|------------------|
| W : 面材仕様 外面 + 内面 |
| B : 筋かい仕様 |

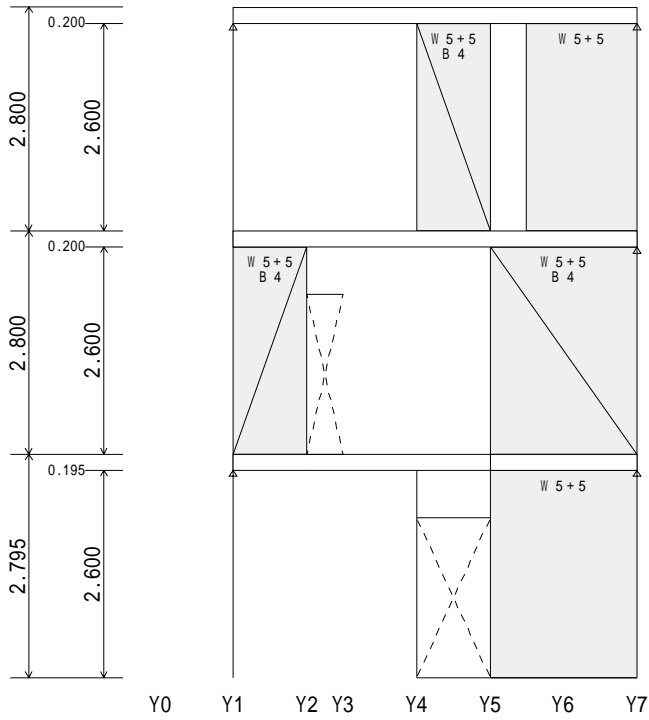
X3通り



凡例:

| |
|------------------|
| W : 面材仕様 外面 + 内面 |
| B : 筋かい仕様 |

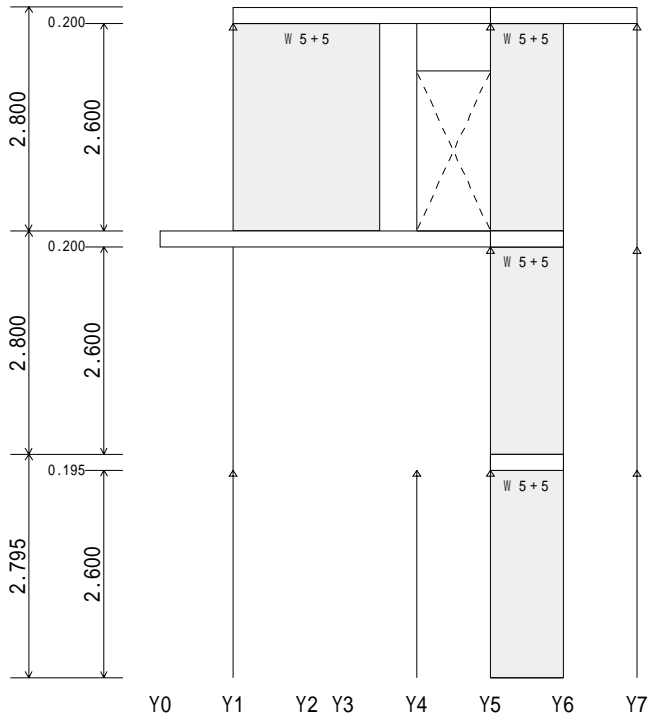
X4通り



凡例:

| |
|------------------|
| W : 面材仕様 外面 + 内面 |
| B : 筋かい仕様 |

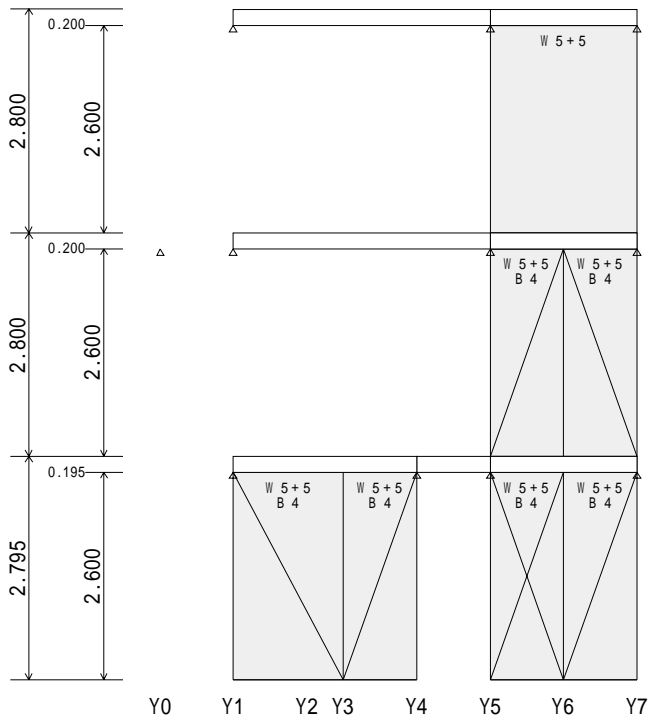
X5通り



凡例:

| |
|------------------|
| W : 面材仕様 外面 + 内面 |
| B : 筋かい仕様 |

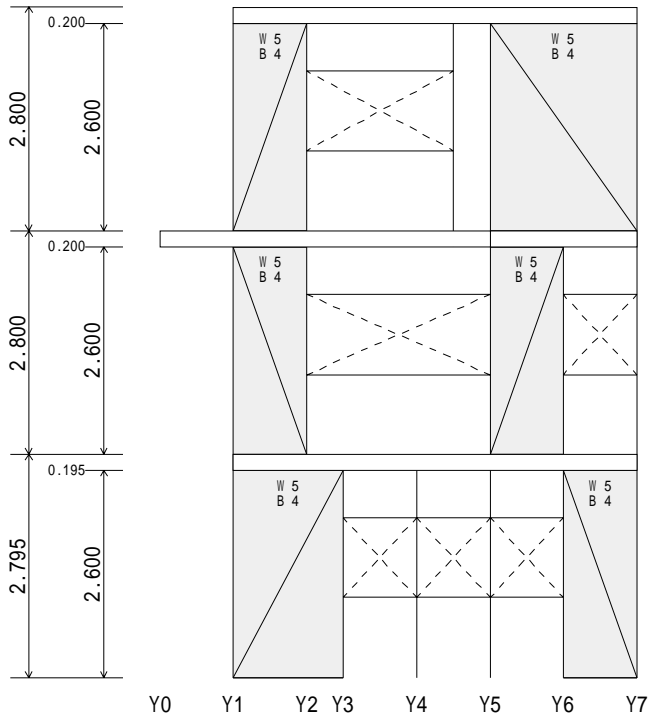
X6通り



凡例:

| |
|------------------|
| W : 面材仕様 外面 + 内面 |
| B : 筋かい仕様 |

X8通り

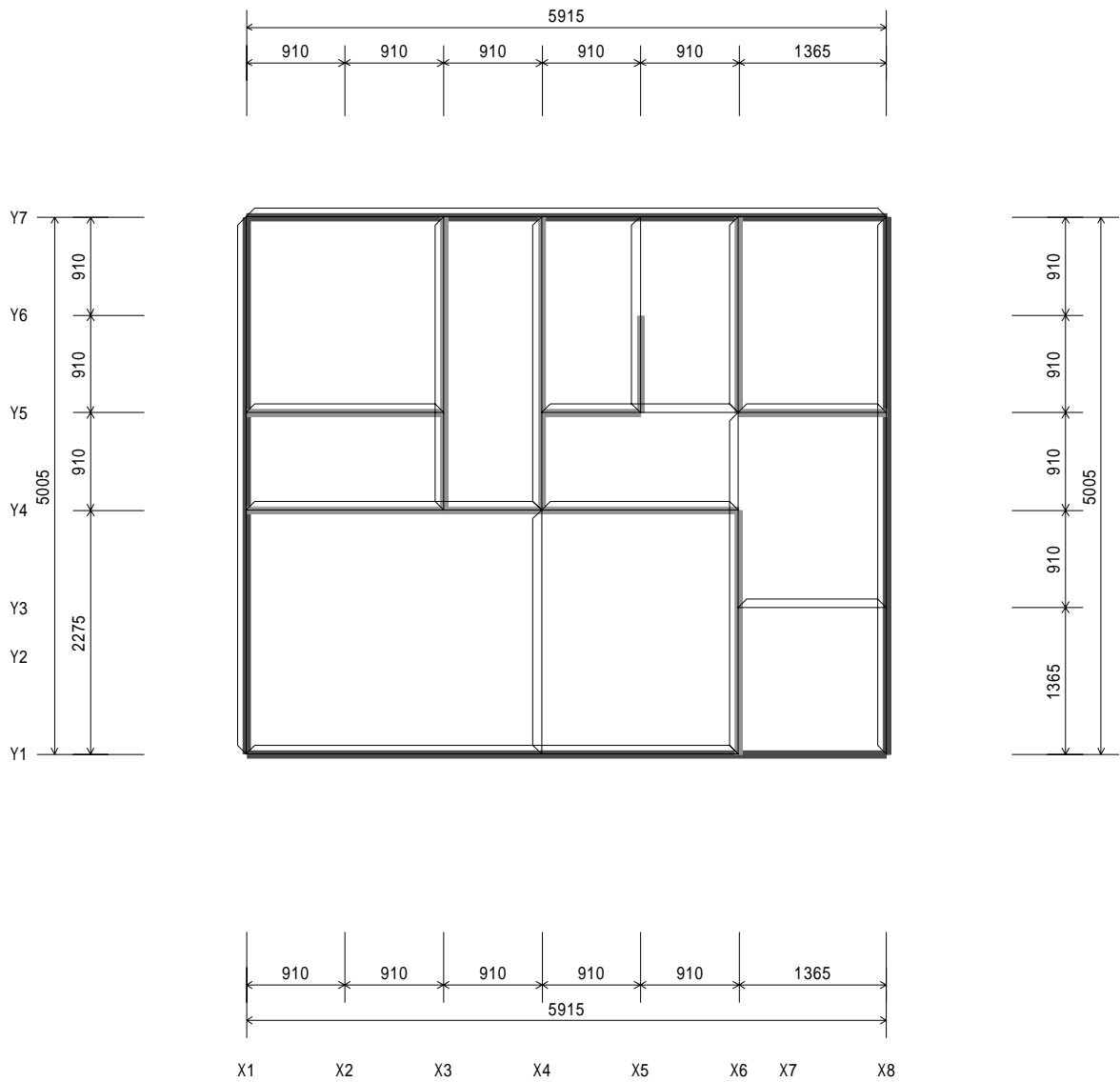


凡例:

| |
|------------------|
| W : 面材仕様 外面 + 内面 |
| B : 筋かい仕様 |

1 - 7 荷重分布図

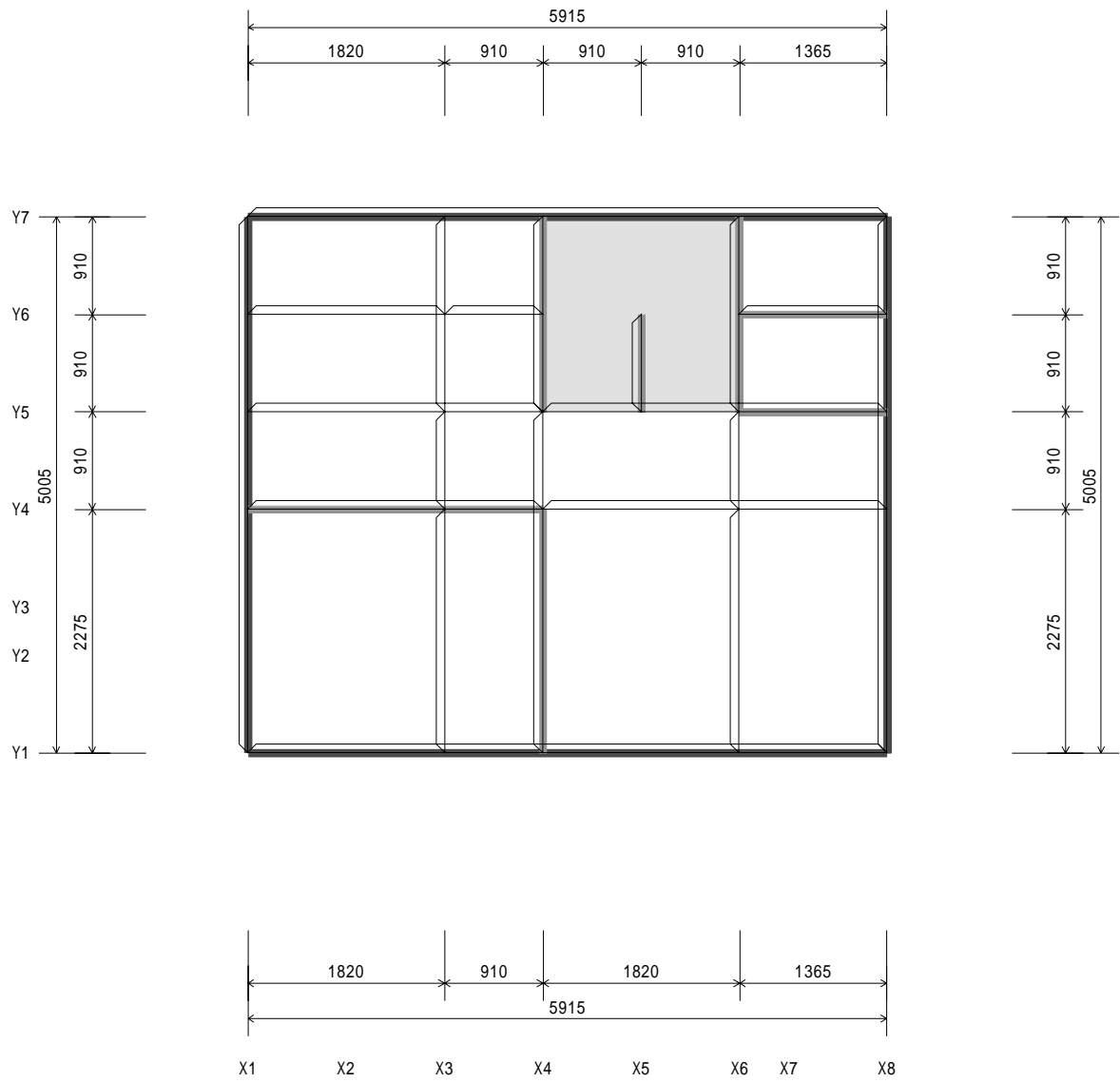
1階



外壁・妻壁
 内壁

追加荷重はありません。

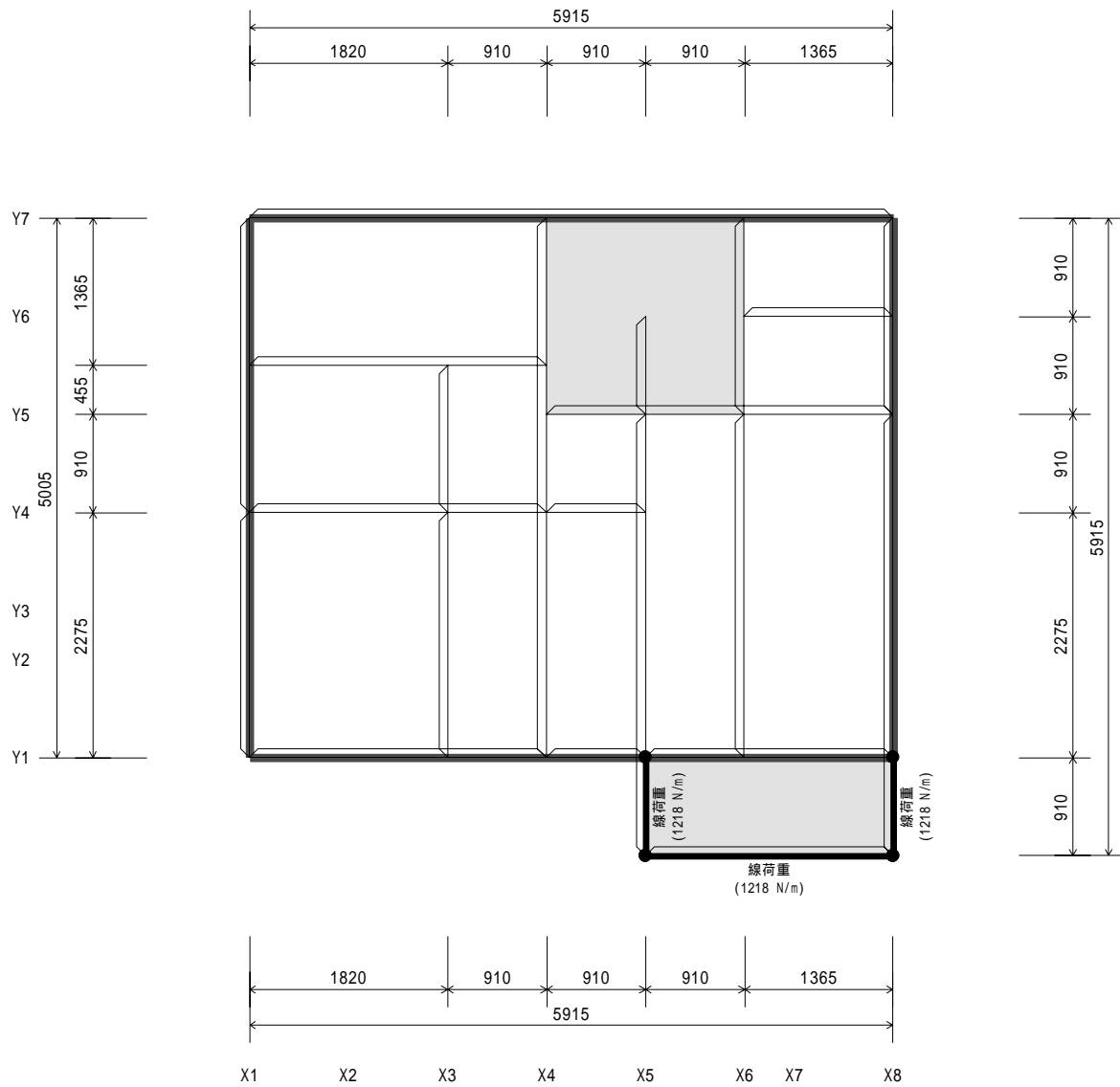
2 階



外壁・妻壁
 内壁

追加荷重はありません。

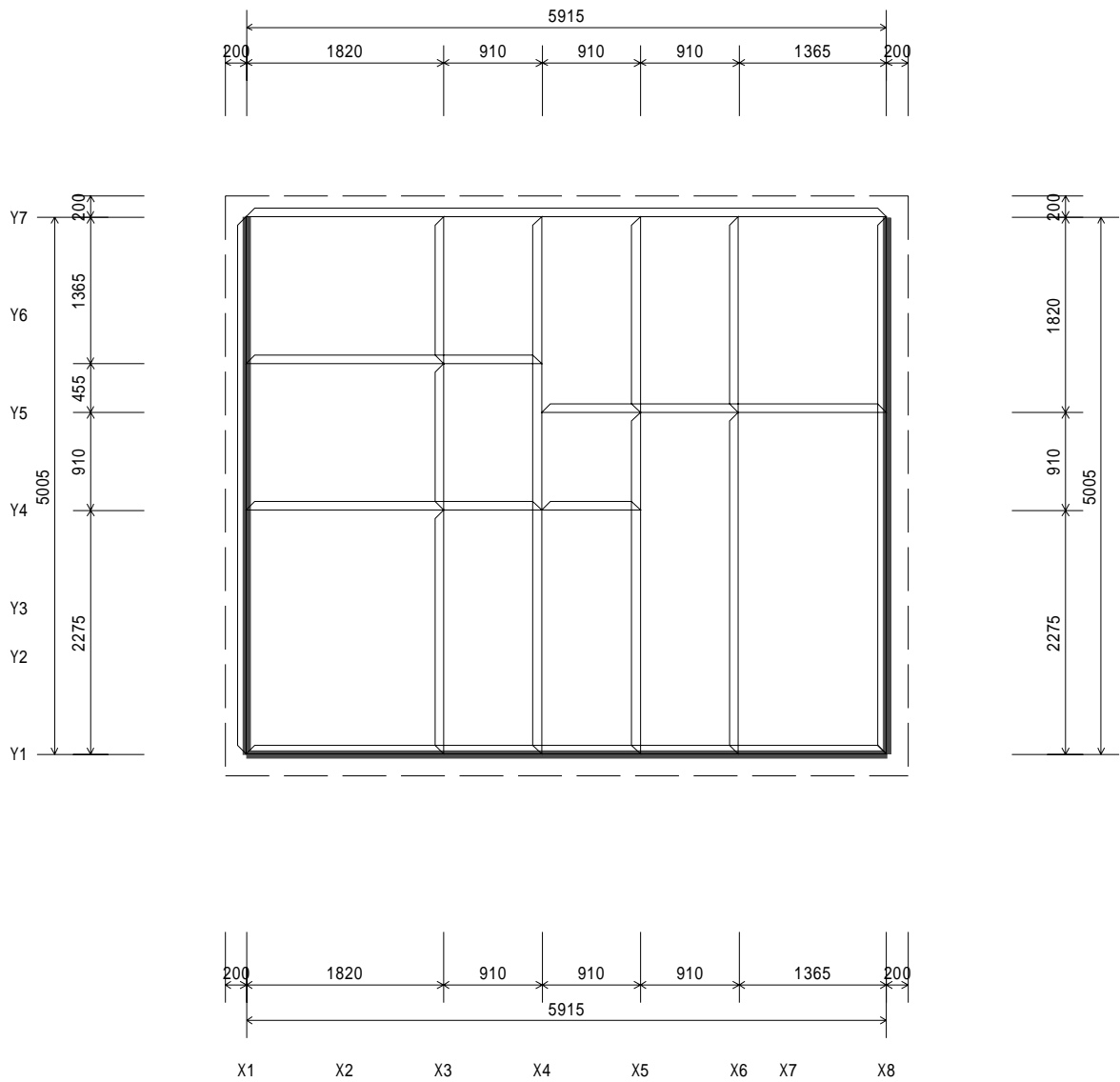
3階



外壁・妻壁
 内壁
 線荷重

()の上段は架構用、下段は地震用
1つのみは同じ値

小屋



外壁・妻壁
 内壁

追加荷重はありません。

2 . 水平力に対する検定(令46条による壁量計算)

2 - 1 有効耐力壁の配置と耐力の算定

3階

| | | X1 | X2 | X3 | X4 | X5 | X6 | X7 | X8 | | |
|------|----|--------------|----|--------------|----|----|--------------|----|----|--------------|---------|
| | Y7 | | | | | | | | | ili j | ili |
| | Y6 | | | | | | | | | 2.00 × 3.185 | 6.37 |
| | Y5 | | | | | | | | | 2.00 × 0.910 | 1.82 |
| | Y4 | | | | | | | | | | |
| | Y3 | | | | | | | | | | |
| | Y2 | | | | | | | | | 2.00 × 1.820 | 3.64 |
| | Y1 | | | | | | | | | | |
| | | | | | | | | | | | Ld= ili |
| | | | | | | | | | | | 11.83 |
| ili | | 4.55 | | 1.82 | | | 5.46 | | | Ld= ili | |
| ilij | | 2.00 × 2.275 | | 2.00 × 0.910 | | | 2.00 × 2.730 | | | | |

2 階

| | | X1 | X2 | X3 | X4 | X5 | X6 | X7 | X8 | | |
|-------|-----|------------------------------|----|--------------|----|--------------|----|--------------|----|------------------------------|---------|
| | Y7 | | | | | | | | | ili j | ili |
| | Y6 | | | | | | | | | 4.00 × 0.910 2.00 × 2.275 | 8.19 |
| | Y5 | | | | | | | | | | |
| | Y4 | | | | | | | | | 2.00 × 0.910 | 1.82 |
| | Y3 | | | | | | | | | | |
| | Y2 | | | | | | | | | 4.00 × 1.820 2.00 × 0.910 | 9.10 |
| | Y1 | | | | | | | | | | |
| | | | | | | | | | | | Ld= ili |
| | | | | | | | | | | | 19.11 |
| ili j | ili | 5.46 | | 5.46 | | 3.64 | | 3.64 | | Ld= ili | 18.20 |
| ili j | | 4.00 × 0.910 2.00 × 0.910 | | 2.00 × 2.730 | | 2.00 × 1.820 | | 2.00 × 1.820 | | | |

1 階

| | | X1 | X2 | X3 | X4 | X5 | X6 | X7 | X8 | | |
|-------|-----|--------------|------|--------------|------|------------------------------|-------|--------------|------|------------------------------|---------|
| | Y7 | | | | | | | | | ili j | ili |
| | Y6 | | | | | | | | | | |
| | Y5 | | | | | | | | | 2.00 × 1.820 | 3.64 |
| | Y4 | | | | | | | | | 2.00 × 1.820 | 3.64 |
| | Y3 | | | | | | | | | | |
| | Y2 | | | | | | | | | 4.00 × 0.910 2.00 × 1.820 | 7.28 |
| | Y1 | | | | | | | | | | |
| | | | | | | | | | | | Ld= ili |
| | | | | | | | | | | | 22.75 |
| ili j | ili | 2.00 × 3.640 | 7.28 | 2.00 × 1.820 | 3.64 | 4.00 × 0.910 2.00 × 3.185 | 10.01 | 2.00 × 2.275 | 4.55 | Ld= ili | 25.48 |

2 - 2 必要壁量の算定

(1) 地震力に対する必要壁量

| 階 | 床面積 (m ²) | 単位壁長 (m/m ²) 軽い屋根 | 必要壁量 (m) × |
|---|-----------------------|----------------------------------|---------------|
| 3 | 29.60 | 0.18 | 5.33 |
| 2 | 29.60 | 0.34 | 10.07 |
| 1 | 29.60 | 0.46 | 13.62 |

(2) 風圧力に対する必要壁量

| X方向の壁長 | 階 | 各階見付面積 Aw (m ²) | Aw (m ²) | 必要壁量Lnw × 0.50 (m) |
|--------|---|--------------------------------|----------------------|-----------------------|
| | 3 | 10.54 | 10.54 | 5.27 |
| | 2 | 15.61 | 26.15 | 13.08 |
| | 1 | 14.21 | 40.36 | 20.18 |
| Y方向の壁長 | 階 | 各階見付面積 Aw (m ²) | Aw (m ²) | 必要壁量Lnw × 0.50 (m) |
| | 3 | 15.90 | 15.90 | 7.95 |
| | 2 | 16.99 | 32.89 | 16.45 |
| | 1 | 16.72 | 49.61 | 24.81 |

2 - 3 存在壁量の算定及び地震力・風圧力に対する検定

| 階 | 地震力に対して | | | | | 風圧力に対して | | | | 判定 |
|---|---------|-------|------|-------|------|---------|------|-------|------|----|
| | X方向 | | Y方向 | | X方向 | | Y方向 | | | |
| | 壁長 | Ld/Ln | 壁長 | Ld/Ln | 壁長 | Ld/Ln | 壁長 | Ld/Ln | | |
| 3 | Ld | 11.83 | 2.21 | 11.83 | 2.21 | 11.83 | 2.24 | 11.83 | 1.48 | OK |
| | Ln | 5.33 | | 5.33 | | 5.27 | | 7.95 | | |
| 2 | Ld | 19.11 | 1.89 | 18.20 | 1.80 | 19.11 | 1.46 | 18.20 | 1.10 | OK |
| | Ln | 10.07 | | 10.07 | | 13.08 | | 16.45 | | |
| 1 | Ld | 22.75 | 1.67 | 25.48 | 1.87 | 22.75 | 1.12 | 25.48 | 1.02 | OK |
| | Ln | 13.62 | | 13.62 | | 20.18 | | 24.81 | | |

3. 水平力に対する検定(許容応力度計算)

3 - 1 地震力の算定

(1) 地震用重量の算定

()内の数値は基礎用設計荷重を示す

3階 X方向

| 通り または 区間 | 項目 | 単位重量 (N/m ²) | 面積 (m ²) | Wo (N) | Wi (kN) | 位置 (m) | 重量一次 モーメントGo × |
|-----------------|------|-----------------------------|-------------------------|-----------|------------|-----------|----------------------|
| Y7 | 屋根軒先 | 449 | 1.263 | 567 | 7.694 | 5.005 | 38.508 |
| | 3階外壁 | 870 | 8.192 | 7127 | | | |
| Y7-Y5 | 屋根一般 | 649 | 10.765 | 6986 | 12.277 | 4.095 | 50.274 |
| | 屋根軒先 | 449 | 0.728 | 327 | | | |
| | 妻壁 | 870 | 0.663 | 577 | | | |
| | 3階外壁 | 870 | 5.042 | 4387 | | | |
| Y5-Y1 | 屋根一般 | 649 | 18.839 | 12227 | 24.257 | 1.593 | 38.641 |
| | 屋根軒先 | 449 | 1.274 | 572 | | | |
| | 妻壁 | 870 | 4.348 | 3783 | | | |
| | 3階外壁 | 870 | 8.822 | 7675 | | | |
| Y1 | 屋根軒先 | 449 | 1.263 | 567 | 12.845 | 0.000 | 0.000 |
| | 妻壁 | 870 | 5.921 | 5151 | | | |
| | 3階外壁 | 870 | 8.192 | 7127 | | | |
| 合計 | | | | | 57.073 | | 127.423 |

3階 Y方向

| 通り または 区間 | 項目 | 単位重量 (N/m ²) | 面積 (m ²) | Wo (N) | Wi (kN) | 位置 (m) | 重量一次 モーメントGo × |
|-----------------|------|-----------------------------|-------------------------|-----------|------------|-----------|----------------------|
| X1 | 屋根軒先 | 449 | 1.081 | 485 | | | |
| | 妻壁 | 870 | 2.506 | 2180 | | | |
| | 3階外壁 | 870 | 6.932 | 6031 | 8.696 | 0.000 | 0.000 |
| X1-X4 | 屋根一般 | 649 | 13.664 | 8868 | | | |
| | 屋根軒先 | 449 | 1.092 | 490 | | | |
| | 妻壁 | 870 | 2.733 | 2378 | | | |
| | 3階外壁 | 870 | 7.562 | 6579 | 18.315 | 1.365 | 25.000 |
| X4-X5 | 屋根一般 | 649 | 4.555 | 2956 | | | |
| | 屋根軒先 | 449 | 0.364 | 163 | | | |
| | 妻壁 | 870 | 0.911 | 793 | | | |
| | 3階外壁 | 870 | 2.520 | 2192 | 6.104 | 3.185 | 19.441 |
| X5-X6 | 屋根一般 | 649 | 4.555 | 2956 | | | |
| | 屋根軒先 | 449 | 0.364 | 163 | | | |
| | 妻壁 | 870 | 0.911 | 793 | | | |
| | 3階外壁 | 870 | 2.520 | 2192 | 6.104 | 4.095 | 24.996 |
| X6-X8 | 屋根一般 | 649 | 6.832 | 4434 | | | |
| | 屋根軒先 | 449 | 0.546 | 245 | | | |
| | 妻壁 | 870 | 1.366 | 1188 | | | |
| | 3階外壁 | 870 | 3.782 | 3290 | 9.157 | 5.233 | 47.919 |
| X8 | 屋根軒先 | 449 | 1.081 | 485 | | | |
| | 妻壁 | 870 | 2.505 | 2179 | | | |
| | 3階外壁 | 870 | 6.932 | 6031 | 8.695 | 5.915 | 51.431 |
| 合計 | | | | | 57.071 | | 168.787 |

2階 X方向

| 通り または 区間 | 項目 | 単位重量 (N/m ²) | 面積 (m ²) | Wo (N) | Wi (kN) | 位置 (m) | 重量一次 モーメントGo × |
|-----------------|-------|-----------------------------|-------------------------|------------------|--------------------|-----------|----------------------|
| Y7 | 3階外壁 | 870 | 8.192 | 7127 | 14.331 | 5.005 | 71.727 |
| | 2階外壁 | 870 | 8.281 | 7204 | | | |
| Y7-Y5 | 3階床 | 1190 (1890) | 7.453 | 8869 (14086) | 20.920 (26.137) | 4.095 | 85.667 |
| | 3階吹抜 | 0 | 3.312 | 0 | | | |
| | 3階外壁 | 870 | 5.042 | 4387 | | | |
| | 2階外壁 | 870 | 5.096 | 4434 | | | |
| | 2階内壁 | 390 | 8.281 | 3230 | | | |
| Y5 | 2階内壁 | 390 | 1.911 | 745 | 0.745 | 3.185 | 2.373 |
| Y5-Y4 | 3階床 | 1190 (1890) | 5.383 | 6406 (10174) | 10.815 (14.583) | 2.730 | 29.525 |
| | 3階外壁 | 870 | 2.520 | 2192 | | | |
| | 2階外壁 | 870 | 2.548 | 2217 | | | |
| Y4 | 2階内壁 | 390 | 3.822 | 1491 | 1.491 | 2.275 | 3.392 |
| Y4-Y1 | 3階床 | 1190 (1890) | 13.457 | 16014 (25434) | 28.281 (37.701) | 1.138 | 32.184 |
| | 3階外壁 | 870 | 6.302 | 5483 | | | |
| | 2階外壁 | 870 | 6.370 | 5542 | | | |
| | 2階内壁 | 390 | 3.185 | 1242 | | | |
| Y1 | バルコニー | 1400 (2100) | 2.070 | 2898 (4347) | 22.217 (23.666) | 0.000 | 0.000 |
| | 3階外壁 | 870 | 8.192 | 7127 | | | |
| | 2階外壁 | 870 | 8.281 | 7204 | | | |
| | 線荷重 | 1218 | 4.095 | 4988 | | | |
| 合計 | | | | | 98.800 | | 224.868 |

2階 Y方向

| 通り または 区間 | 項目 | 単位重量 (N/m ²) | 面積 (m ²) | Wo (N) | Wi (kN) | 位置 (m) | 重量一次 モーメントGo × |
|-----------------|-------|-----------------------------|-------------------------|------------------|--------------------|-----------|----------------------|
| X1 | 3階外壁 | 870 | 6.932 | 6031 | 12.127 | 0.000 | 0.000 |
| | 2階外壁 | 870 | 7.007 | 6096 | | | |
| X1-X4 | 3階床 | 1190 (1890) | 13.664 | 16260 (25825) | 30.980 (40.545) | 1.365 | 42.288 |
| | 3階外壁 | 870 | 7.562 | 6579 | | | |
| | 2階外壁 | 870 | 7.644 | 6650 | | | |
| | 2階内壁 | 390 | 3.822 | 1491 | | | |
| X4 | 2階内壁 | 390 | 5.733 | 2236 | 2.236 | 2.730 | 6.104 |
| X4-X5 | 3階床 | 1190 (1890) | 2.898 | 3449 (5477) | 7.858 (9.886) | 3.185 | 25.028 |
| | 3階吹抜 | 0 | 1.656 | 0 | | | |
| | 3階外壁 | 870 | 2.520 | 2192 | | | |
| | 2階外壁 | 870 | 2.548 | 2217 | | | |
| X5 | 2階内壁 | 390 | 1.274 | 497 | 1.605 | 3.640 | 5.842 |
| | 線荷重 | 1218 | 0.910 | 1108 | | | |
| X5-X6 | 3階床 | 1190 (1890) | 2.898 | 3449 (5477) | 10.125 (12.733) | 4.095 | 41.462 |
| | 3階吹抜 | 0 | 1.656 | 0 | | | |
| | バルコニー | 1400 (2100) | 0.828 | 1159 (1739) | | | |
| | 3階外壁 | 870 | 2.520 | 2192 | | | |
| | 2階外壁 | 870 | 2.548 | 2217 | | | |
| | 線荷重 | 1218 | 0.910 | 1108 | | | |
| X6 | 2階内壁 | 390 | 2.548 | 994 | 0.994 | 4.550 | 4.523 |
| X6-X8 | 3階床 | 1190 (1890) | 6.832 | 8130 (12912) | 19.638 (25.289) | 5.233 | 102.766 |
| | バルコニー | 1400 (2100) | 1.242 | 1739 (2608) | | | |
| | 3階外壁 | 870 | 3.782 | 3290 | | | |
| | 2階外壁 | 870 | 3.822 | 3325 | | | |
| | 2階内壁 | 390 | 3.822 | 1491 | | | |
| | 線荷重 | 1218 | 1.365 | 1663 | | | |
| | 3階外壁 | 870 | 6.932 | 6031 | | | |
| 2階外壁 | 870 | 7.007 | 6096 | | | | |
| X8 | 線荷重 | 1218 | 0.910 | 1108 | 13.235 | 5.915 | 78.285 |
| | 線荷重 | 1218 | 0.910 | 1108 | | | |
| 合計 | | | | | 98.798 | | 306.298 |

1階 X方向

| 通り または 区間 | 項目 | 単位重量 (N/m ²) | 面積 (m ²) | Wo (N) | Wi (kN) | 位置 (m) | 重量一次 モーメントGo × |
|-----------------|------|-----------------------------|-------------------------|------------------|--------------------|-----------|----------------------|
| Y7 | 2階外壁 | 870 | 8.281 | 7204 | 14.295 | 5.005 | 71.546 |
| | 1階外壁 | 870 | 8.151 | 7091 | | | |
| Y7-Y5 | 2階床 | 1190 (1890) | 7.453 | 8869 (14086) | 24.320 (29.537) | 4.095 | 99.590 |
| | 2階吹抜 | 0 | 3.312 | 0 | | | |
| | 2階外壁 | 870 | 5.096 | 4434 | | | |
| | 1階外壁 | 870 | 5.016 | 4364 | | | |
| | 2階内壁 | 390 | 8.281 | 3230 | | | |
| | 1階内壁 | 390 | 8.778 | 3423 | | | |
| Y5 | 2階内壁 | 390 | 1.911 | 745 | 2.946 | 3.185 | 9.383 |
| | 1階内壁 | 390 | 5.643 | 2201 | | | |
| Y5-Y4 | 2階床 | 1190 (1890) | 5.383 | 6406 (10174) | 11.783 (15.551) | 2.730 | 32.168 |
| | 2階外壁 | 870 | 2.548 | 2217 | | | |
| | 1階外壁 | 870 | 2.508 | 2182 | | | |
| | 1階内壁 | 390 | 2.508 | 978 | | | |
| Y4 | 2階内壁 | 390 | 3.822 | 1491 | 3.936 | 2.275 | 8.954 |
| | 1階内壁 | 390 | 6.270 | 2445 | | | |
| Y4-Y1 | 2階床 | 1190 (1890) | 13.457 | 16014 (25434) | 29.476 (38.896) | 1.138 | 33.544 |
| | 2階外壁 | 870 | 6.370 | 5542 | | | |
| | 1階外壁 | 870 | 6.270 | 5455 | | | |
| | 2階内壁 | 390 | 3.185 | 1242 | | | |
| | 1階内壁 | 390 | 3.135 | 1223 | | | |
| Y1 | 2階外壁 | 870 | 8.281 | 7204 | 14.295 | 0.000 | 0.000 |
| | 1階外壁 | 870 | 8.151 | 7091 | | | |
| 合計 | | | | | 101.051 | | 255.185 |

1階 Y方向

| 通り または 区間 | 項目 | 単位重量 (N/m ²) | 面積 (m ²) | Wo (N) | Wi (kN) | 位置 (m) | 重量一次 モーメントGo × |
|-----------------|------|-----------------------------|-------------------------|------------------|--------------------|-----------|----------------------|
| X1 | 2階外壁 | 870 | 7.007 | 6096 | 12.096 | 0.000 | 0.000 |
| | 1階外壁 | 870 | 6.897 | 6000 | | | |
| X1-X3 | 2階床 | 1190 (1890) | 9.109 | 10840 (17216) | 22.588 (28.964) | 0.910 | 20.555 |
| | 2階外壁 | 870 | 5.096 | 4434 | | | |
| | 1階外壁 | 870 | 5.016 | 4364 | | | |
| | 2階内壁 | 390 | 2.548 | 994 | | | |
| | 1階内壁 | 390 | 5.016 | 1956 | | | |
| X3 | 1階内壁 | 390 | 3.762 | 1467 | 1.467 | 1.820 | 2.670 |
| X3-X4 | 2階床 | 1190 (1890) | 4.555 | 5420 (8609) | 10.805 (13.994) | 2.275 | 24.581 |
| | 2階外壁 | 870 | 2.548 | 2217 | | | |
| | 1階外壁 | 870 | 2.508 | 2182 | | | |
| | 2階内壁 | 390 | 1.274 | 497 | | | |
| | 1階内壁 | 390 | 1.254 | 489 | | | |
| X4 | 2階内壁 | 390 | 5.733 | 2236 | 3.703 | 2.730 | 10.109 |
| | 1階内壁 | 390 | 3.762 | 1467 | | | |
| X4-X5 | 2階床 | 1190 (1890) | 2.898 | 3449 (5477) | 8.826 (10.854) | 3.185 | 28.111 |
| | 2階吹抜 | 0 | 1.656 | 0 | | | |
| | 2階外壁 | 870 | 2.548 | 2217 | | | |
| | 1階外壁 | 870 | 2.508 | 2182 | | | |
| | 1階内壁 | 390 | 2.508 | 978 | | | |
| X5 | 2階内壁 | 390 | 1.274 | 497 | 0.986 | 3.640 | 3.589 |
| | 1階内壁 | 390 | 1.254 | 489 | | | |
| X5-X6 | 2階床 | 1190 (1890) | 2.898 | 3449 (5477) | 8.337 (10.365) | 4.095 | 34.140 |
| | 2階吹抜 | 0 | 1.656 | 0 | | | |
| | 2階外壁 | 870 | 2.548 | 2217 | | | |
| | 1階外壁 | 870 | 2.508 | 2182 | | | |
| | 1階内壁 | 390 | 1.254 | 489 | | | |
| X6 | 2階内壁 | 390 | 2.548 | 994 | 3.195 | 4.550 | 14.537 |
| | 1階内壁 | 390 | 5.643 | 2201 | | | |
| X6-X8 | 2階床 | 1190 (1890) | 6.832 | 8130 (12912) | 16.953 (21.735) | 5.233 | 88.715 |
| | 2階外壁 | 870 | 3.822 | 3325 | | | |
| | 1階外壁 | 870 | 3.762 | 3273 | | | |
| | 2階内壁 | 390 | 3.822 | 1491 | | | |
| | 1階内壁 | 390 | 1.881 | 734 | | | |

| 通り または 区間 | 項目 | 単位重量 (N/m ²) | 面積 (m ²) | Wo (N) | Wi (kN) | 位置 (m) | 重量一次 モーメントGo × |
|-----------------|------|-----------------------------|-------------------------|-----------|------------|-----------|----------------------|
| X8 | 2階外壁 | 870 | 7.007 | 6096 | | | |
| | 1階外壁 | 870 | 6.897 | 6000 | 12.096 | 5.915 | 71.548 |
| 合計 | | | | | 101.052 | | 298.555 |

F階 X方向

| 通り または 区間 | 項目 | 単位重量 (N/m ²) | 面積 (m ²) | Wo (N) | Wi (kN) | 位置 (m) | 重量一次 モーメントGo × |
|-----------------|------|-----------------------------|-------------------------|------------------|--------------------|-----------|----------------------|
| Y7 | 1階外壁 | 870 | 8.151 | 7091 | 7.091 | 5.005 | 35.490 |
| Y7-Y5 | 1階床 | 1090 (1790) | 10.765 | 11734 (19269) | | | |
| | 1階外壁 | 870 | 5.016 | 4364 | | | |
| | 1階内壁 | 390 | 8.778 | 3423 | 19.521 (27.056) | 4.095 | 79.938 |
| Y5 | 1階内壁 | 390 | 5.643 | 2201 | 2.201 | 3.185 | 7.010 |
| Y5-Y4 | 1階床 | 1090 (1790) | 5.383 | 5867 (9636) | | | |
| | 1階外壁 | 870 | 2.508 | 2182 | | | |
| | 1階内壁 | 390 | 2.508 | 978 | 9.027 (12.796) | 2.730 | 24.644 |
| Y4 | 1階内壁 | 390 | 6.270 | 2445 | 2.445 | 2.275 | 5.562 |
| Y4-Y1 | 1階床 | 1090 (1790) | 13.457 | 14668 (24088) | | | |
| | 1階外壁 | 870 | 6.270 | 5455 | | | |
| | 1階内壁 | 390 | 3.135 | 1223 | 21.346 (30.766) | 1.138 | 24.292 |
| Y1 | 1階外壁 | 870 | 8.151 | 7091 | 7.091 | 0.000 | 0.000 |
| 合計 | | | | | 68.722 | | 176.936 |

F階 Y方向

| 通り または 区間 | 項目 | 単位重量 (N/m ²) | 面積 (m ²) | Wo (N) | Wi (kN) | 位置 (m) | 重量一次 モーメントGo × |
|-----------------|------|-----------------------------|-------------------------|-----------------|--------------------|-----------|----------------------|
| X1 | 1階外壁 | 870 | 6.897 | 6000 | 6.000 | 0.000 | 0.000 |
| X1-X3 | 1階床 | 1090 (1790) | 9.109 | 9929 (16305) | | | |
| | 1階外壁 | 870 | 5.016 | 4364 | | | |
| | 1階内壁 | 390 | 5.016 | 1956 | 16.249 (22.625) | 0.910 | 14.787 |
| X3 | 1階内壁 | 390 | 3.762 | 1467 | 1.467 | 1.820 | 2.670 |
| X3-X4 | 1階床 | 1090 (1790) | 4.555 | 4965 (8153) | | | |
| | 1階外壁 | 870 | 2.508 | 2182 | | | |
| | 1階内壁 | 390 | 1.254 | 489 | 7.636 (10.824) | 2.275 | 17.372 |
| X4 | 1階内壁 | 390 | 3.762 | 1467 | 1.467 | 2.730 | 4.005 |
| X4-X5 | 1階床 | 1090 (1790) | 4.555 | 4965 (8153) | | | |
| | 1階外壁 | 870 | 2.508 | 2182 | | | |
| | 1階内壁 | 390 | 2.508 | 978 | 8.125 (11.313) | 3.185 | 25.878 |
| X5 | 1階内壁 | 390 | 1.254 | 489 | 0.489 | 3.640 | 1.780 |
| X5-X6 | 1階床 | 1090 (1790) | 4.555 | 4965 (8153) | | | |
| | 1階外壁 | 870 | 2.508 | 2182 | | | |
| | 1階内壁 | 390 | 1.254 | 489 | 7.636 (10.824) | 4.095 | 31.269 |
| X6 | 1階内壁 | 390 | 5.643 | 2201 | 2.201 | 4.550 | 10.015 |
| X6-X8 | 1階床 | 1090 (1790) | 6.832 | 7447 (12229) | | | |
| | 1階外壁 | 870 | 3.762 | 3273 | | | |
| | 1階内壁 | 390 | 1.881 | 734 | 11.454 (16.236) | 5.233 | 59.939 |
| X8 | 1階外壁 | 870 | 6.897 | 6000 | 6.000 | 5.915 | 35.490 |
| 合計 | | | | | 68.724 | | 203.205 |

(2) Ai分布と各階地震力の算定および重心

$$C_i = Z \times R_t \times A_i \times C_o$$

$$Z = 1.0$$

$$R_t = 1.0$$

$$T = 0.03h = 0.03 \times (8.900 + 10.047) / 2 = 0.284 \text{秒}$$

$$A_i = 1 + (1 / i - i) \times 2T / (1 + 3T)$$

$$C_o = 0.200$$

| 階 | Wi (kN) | Wi (kN) | i | Ai | Co | Ci | eQi (kN) | ePi (kN) | C'i (ePi/Wi) |
|---|------------|------------|-------|-------|-------|-------|-------------|-------------|-----------------|
| 3 | 57.073 | 57.073 | 0.222 | 1.583 | 0.200 | 0.317 | 18.092 | 18.092 | 0.317 |
| 2 | 98.800 | 155.873 | 0.607 | 1.207 | 0.200 | 0.241 | 37.565 | 19.473 | 0.197 |
| 1 | 101.052 | 256.925 | 1.000 | 1.000 | 0.200 | 0.200 | 51.385 | 13.820 | 0.137 |

重心算定表

| 階 | 方向 | Wi (kN) | Go | 重心Gi (m) |
|---|----|------------|---------|-------------|
| 3 | X | 57.073 | 127.423 | 2.233 |
| | Y | 57.071 | 168.787 | 2.957 |
| 2 | X | 98.800 | 224.868 | 2.276 |
| | Y | 98.798 | 306.298 | 3.100 |
| 1 | X | 101.051 | 255.185 | 2.525 |
| | Y | 101.052 | 298.555 | 2.954 |

3 - 2 風圧力の算定

(1) 速度圧qの算定



$$H = (8.900 + 10.047) / 2 = 9.474 \text{ (m)}$$

$$V_o = 30.0 \text{ (m/s)}$$

地表面粗度区分 より

$$Z_b = 5 \text{ (m)}$$

$$Z_g = 450 \text{ (m)}$$

$$= 0.20 \text{ (m)}$$

$$G_f = 2.50 \text{ (H } 10 \text{より)}$$

$H > Z_b$ より

$$E_r = 1.7(H/Z_g)$$

$$= 0.785$$

$$E = E_r^2 \times G_f$$

$$= 1.541$$

$$\text{速度圧 } q = 0.6 \times E \times V_o^2$$

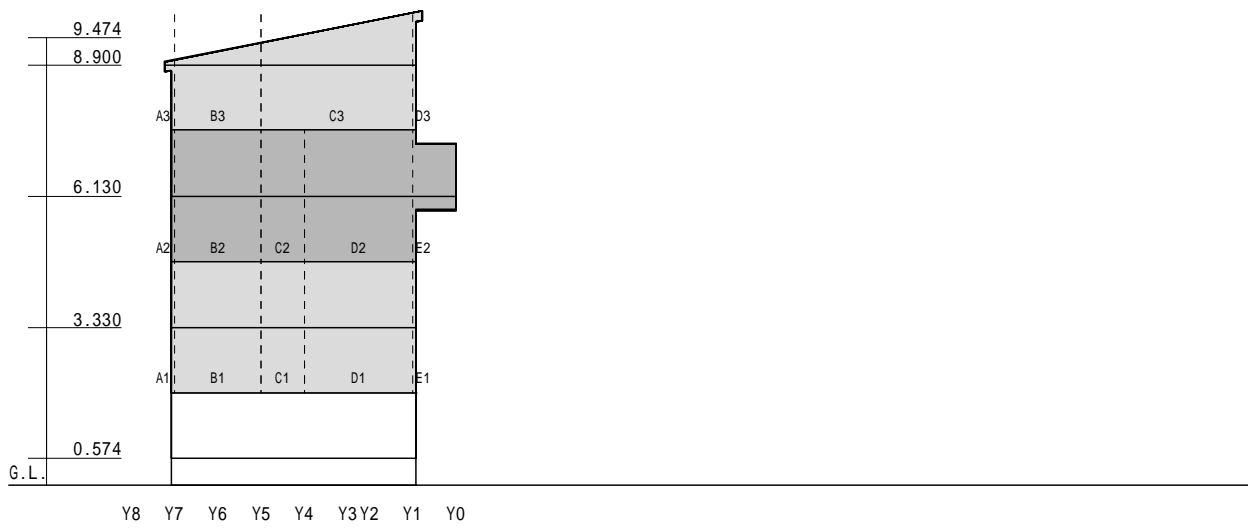
$$= 832 \text{ (N/m}^2\text{)}$$

各階風圧力の算定 (風力係数を考慮)

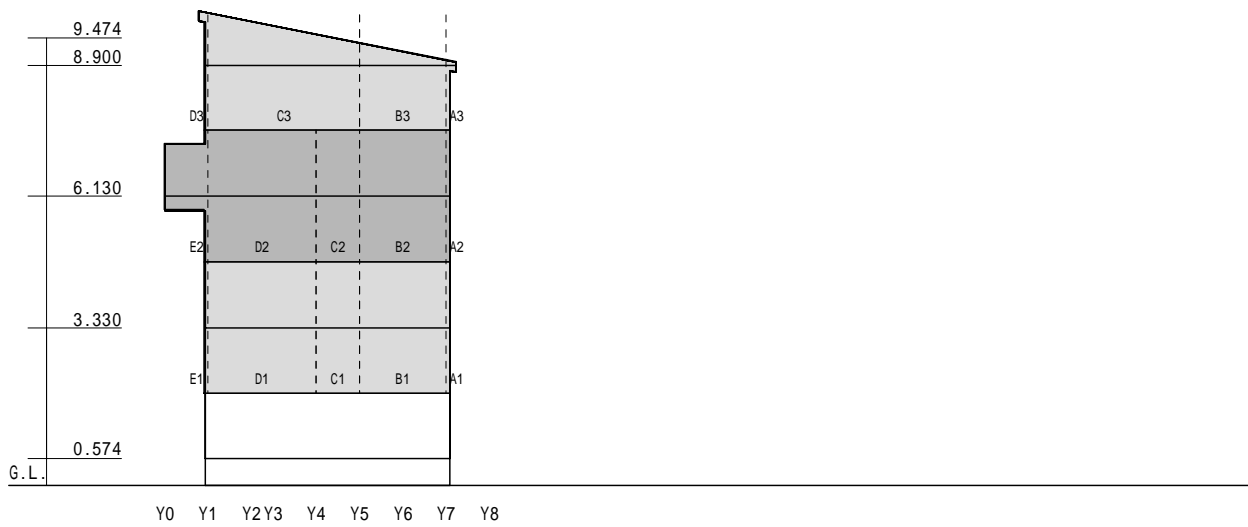
| 階 | h (m) | q (N/m ²) | 風荷重 | | | | | |
|-------|----------|--------------------------|--------------------|------|-------|----------------|----------------|------------------------|
| | | | Z _b (m) | | H(m) | K _z | C _f | 風荷重(N/m ²) |
| 屋根勾配面 | 9.474 | 832 | 5 | 0.20 | 9.474 | | 0.513 | 427 |
| 屋根外壁 | 9.474 | 832 | 5 | 0.20 | 9.474 | 1.000 | 1.200 | 998 |
| 3階外壁 | 8.900 | 832 | 5 | 0.20 | 9.474 | 0.975 | 1.180 | 982 |
| 2階外壁 | 6.130 | 832 | 5 | 0.20 | 9.474 | 0.840 | 1.072 | 892 |
| 1階外壁 | 3.330 | 832 | 5 | 0.20 | 9.474 | 0.774 | 1.019 | 848 |

(2) 風圧力の算定および風重心

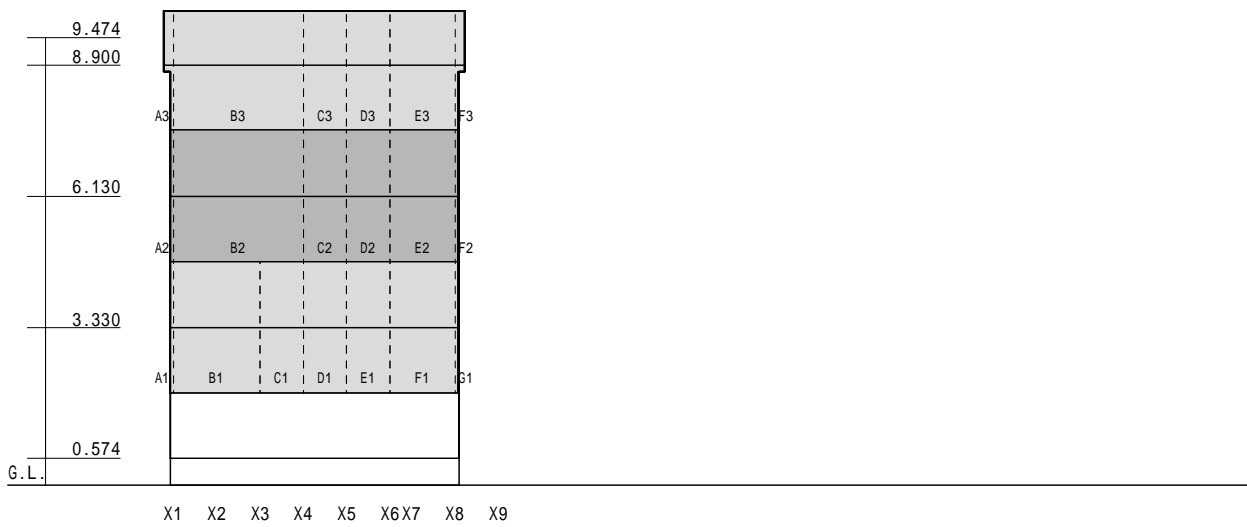
X左加力方向



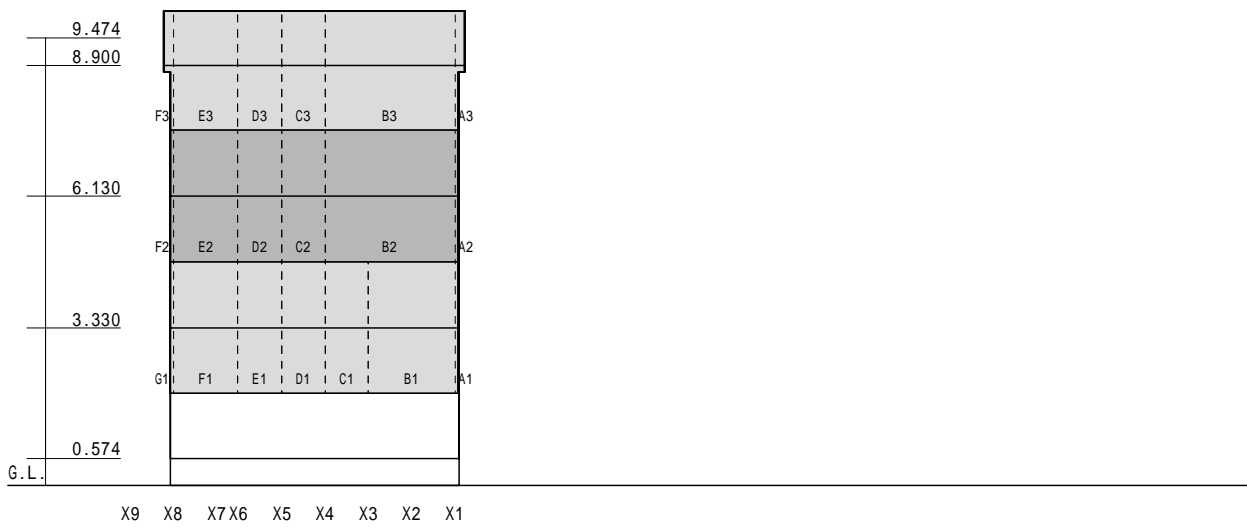
X右加力方向



Y下加力方向



Y上加力方向



X左加力方向風圧力算定

| 階 | 通り | 記号 | 面積 (m ²) | 風荷重 (N/m ²) | wQ (kN) | wQi (kN) | wQi (kN) | 位置 (m) | 風圧力一次 モーメントGo × | Go (kN・m) |
|---|-------|----|-------------------------|----------------------------|----------------|-------------|-------------|-----------|-----------------------|--------------|
| 3 | Y7 | A3 | 0.018 0.120 | 998 982 | 0.018 0.118 | 10.217 | 10.217 | 5.005 | 0.681 | 23.932 |
| | Y7-Y5 | B3 | 0.535 2.521 | 998 982 | 0.534 2.476 | | | 4.095 | 12.326 | |
| | Y5-Y1 | C3 | 2.531 4.411 | 998 982 | 2.526 4.332 | | | 1.593 | 10.925 | |
| | Y1 | D3 | 0.111 0.104 | 998 982 | 0.111 0.102 | | | 0.000 | 0.000 | |
| 2 | Y7 | A2 | 0.209 | 892 | 0.186 | 13.849 | 24.066 | 5.005 | 0.931 | 32.051 |
| | Y7-Y5 | B2 | 5.069 | 892 | 4.522 | | | 4.095 | 18.518 | |
| | Y5-Y4 | C2 | 2.534 | 892 | 2.260 | | | 2.730 | 6.170 | |
| | Y4-Y1 | D2 | 6.336 | 892 | 5.652 | | | 1.138 | 6.432 | |
| | Y1 | E2 | 1.378 | 892 | 1.229 | | | 0.000 | 0.000 | |
| 1 | Y7 | A1 | 0.208 | 848 | 0.176 | 12.142 | 36.208 | 5.005 | 0.881 | 30.388 |
| | Y7-Y5 | B1 | 5.056 | 848 | 4.287 | | | 4.095 | 17.555 | |
| | Y5-Y4 | C1 | 2.528 | 848 | 2.144 | | | 2.730 | 5.853 | |
| | Y4-Y1 | D1 | 6.320 | 848 | 5.359 | | | 1.138 | 6.099 | |
| | Y1 | E1 | 0.208 | 848 | 0.176 | | | 0.000 | 0.000 | |

X右加力方向風圧力算定

| 階 | 通り | 記号 | 面積 (m ²) | 風荷重 (N/m ²) | wQ (kN) | wQi (kN) | wQi (kN) | 位置 (m) | 風圧力一次 モーメントGo × | Go (kN・m) |
|---|-------|----|-------------------------|----------------------------|----------------|-------------|-------------|-----------|-----------------------|--------------|
| 3 | Y7 | A3 | 0.018 0.120 | 998 982 | 0.018 0.118 | 10.217 | 10.217 | 5.005 | 0.681 | 23.932 |
| | Y7-Y5 | B3 | 0.535 2.521 | 998 982 | 0.534 2.476 | | | 4.095 | 12.326 | |
| | Y5-Y1 | C3 | 2.531 4.411 | 998 982 | 2.526 4.332 | | | 1.593 | 10.925 | |
| | Y1 | D3 | 0.111 0.104 | 998 982 | 0.111 0.102 | | | 0.000 | 0.000 | |
| 2 | Y7 | A2 | 0.209 | 892 | 0.186 | 13.849 | 24.066 | 5.005 | 0.931 | 32.051 |
| | Y7-Y5 | B2 | 5.069 | 892 | 4.522 | | | 4.095 | 18.518 | |
| | Y5-Y4 | C2 | 2.534 | 892 | 2.260 | | | 2.730 | 6.170 | |
| | Y4-Y1 | D2 | 6.336 | 892 | 5.652 | | | 1.138 | 6.432 | |
| | Y1 | E2 | 1.378 | 892 | 1.229 | | | 0.000 | 0.000 | |
| 1 | Y7 | A1 | 0.208 | 848 | 0.176 | 12.142 | 36.208 | 5.005 | 0.881 | 30.388 |
| | Y7-Y5 | B1 | 5.056 | 848 | 4.287 | | | 4.095 | 17.555 | |
| | Y5-Y4 | C1 | 2.528 | 848 | 2.144 | | | 2.730 | 5.853 | |
| | Y4-Y1 | D1 | 6.320 | 848 | 5.359 | | | 1.138 | 6.099 | |
| | Y1 | E1 | 0.208 | 848 | 0.176 | | | 0.000 | 0.000 | |

Y下加力方向風圧力算定

| 階 | 通り | 記号 | 面積 (m ²) | 風荷重 (N/m ²) | wQ (kN) | wQi (kN) | wQi (kN) | 位置 (m) | 風圧力一次 モーメントGo × | Go (kN・m) |
|---|-------|----|-------------------------|----------------------------|----------------|-------------|-------------|-----------|-----------------------|--------------|
| 3 | X1 | A3 | 0.231 0.122 | 998 982 | 0.231 0.120 | 15.553 | 15.553 | 0.000 | 0.000 | 46.000 |
| | X1-X4 | B3 | 3.148 3.781 | 998 982 | 3.142 3.713 | | | 1.365 | 9.357 | |
| | X4-X5 | C3 | 1.049 1.260 | 998 982 | 1.047 1.237 | | | 3.185 | 7.275 | |
| | X5-X6 | D3 | 1.049 1.260 | 998 982 | 1.047 1.237 | | | 4.095 | 9.353 | |
| | X6-X8 | E3 | 1.574 1.891 | 998 982 | 1.571 1.857 | | | 5.233 | 17.939 | |
| | X8 | F3 | 0.231 0.122 | 998 982 | 0.231 0.120 | | | 5.915 | 2.076 | |
| 2 | X1 | A2 | 0.209 | 892 | 0.186 | 15.065 | 30.618 | 0.000 | 0.000 | 44.555 |
| | X1-X4 | B2 | 7.603 | 892 | 6.782 | | | 1.365 | 9.257 | |
| | X4-X5 | C2 | 2.534 | 892 | 2.260 | | | 3.185 | 7.198 | |
| | X5-X6 | D2 | 2.534 | 892 | 2.260 | | | 4.095 | 9.255 | |
| | X6-X8 | E2 | 3.802 | 892 | 3.391 | | | 5.233 | 17.745 | |
| | X8 | F2 | 0.209 | 892 | 0.186 | | | 5.915 | 1.100 | |
| 1 | X1 | A1 | 0.208 | 848 | 0.176 | 14.287 | 44.905 | 0.000 | 0.000 | 42.258 |
| | X1-X3 | B1 | 5.056 | 848 | 4.287 | | | 0.910 | 3.901 | |
| | X3-X4 | C1 | 2.528 | 848 | 2.144 | | | 2.275 | 4.878 | |
| | X4-X5 | D1 | 2.528 | 848 | 2.144 | | | 3.185 | 6.829 | |
| | X5-X6 | E1 | 2.528 | 848 | 2.144 | | | 4.095 | 8.780 | |
| | X6-X8 | F1 | 3.792 | 848 | 3.216 | | | 5.233 | 16.829 | |
| | X8 | G1 | 0.208 | 848 | 0.176 | | | 5.915 | 1.041 | |

Y 上加力方向風圧力算定

| 階 | 通り | 記号 | 面積 (m ²) | 風荷重 (N/m ²) | wQ (kN) | wQi (kN) | wQi (kN) | 位置 (m) | 風圧力一次 モーメントGo × | Go (kN・m) |
|---|-------|----|-------------------------|----------------------------|----------------|-------------|-------------|-----------|-----------------------|--------------|
| 3 | X1 | A3 | 0.231 0.122 | 998 982 | 0.231 0.120 | 15.553 | 15.553 | 0.000 | 0.000 | 46.000 |
| | X1-X4 | B3 | 3.148 3.781 | 998 982 | 3.142 3.713 | | | 1.365 | 9.357 | |
| | X4-X5 | C3 | 1.049 1.260 | 998 982 | 1.047 1.237 | | | 3.185 | 7.275 | |
| | X5-X6 | D3 | 1.049 1.260 | 998 982 | 1.047 1.237 | | | 4.095 | 9.353 | |
| | X6-X8 | E3 | 1.574 1.891 | 998 982 | 1.571 1.857 | | | 5.233 | 17.939 | |
| | X8 | F3 | 0.231 0.122 | 998 982 | 0.231 0.120 | | | 5.915 | 2.076 | |
| 2 | X1 | A2 | 0.209 | 892 | 0.186 | 15.065 | 30.618 | 0.000 | 0.000 | 44.555 |
| | X1-X4 | B2 | 7.603 | 892 | 6.782 | | | 1.365 | 9.257 | |
| | X4-X5 | C2 | 2.534 | 892 | 2.260 | | | 3.185 | 7.198 | |
| | X5-X6 | D2 | 2.534 | 892 | 2.260 | | | 4.095 | 9.255 | |
| | X6-X8 | E2 | 3.802 | 892 | 3.391 | | | 5.233 | 17.745 | |
| | X8 | F2 | 0.209 | 892 | 0.186 | | | 5.915 | 1.100 | |
| 1 | X1 | A1 | 0.208 | 848 | 0.176 | 14.287 | 44.905 | 0.000 | 0.000 | 42.258 |
| | X1-X3 | B1 | 5.056 | 848 | 4.287 | | | 0.910 | 3.901 | |
| | X3-X4 | C1 | 2.528 | 848 | 2.144 | | | 2.275 | 4.878 | |
| | X4-X5 | D1 | 2.528 | 848 | 2.144 | | | 3.185 | 6.829 | |
| | X5-X6 | E1 | 2.528 | 848 | 2.144 | | | 4.095 | 8.780 | |
| | X6-X8 | F1 | 3.792 | 848 | 3.216 | | | 5.233 | 16.829 | |
| | X8 | G1 | 0.208 | 848 | 0.176 | | | 5.915 | 1.041 | |

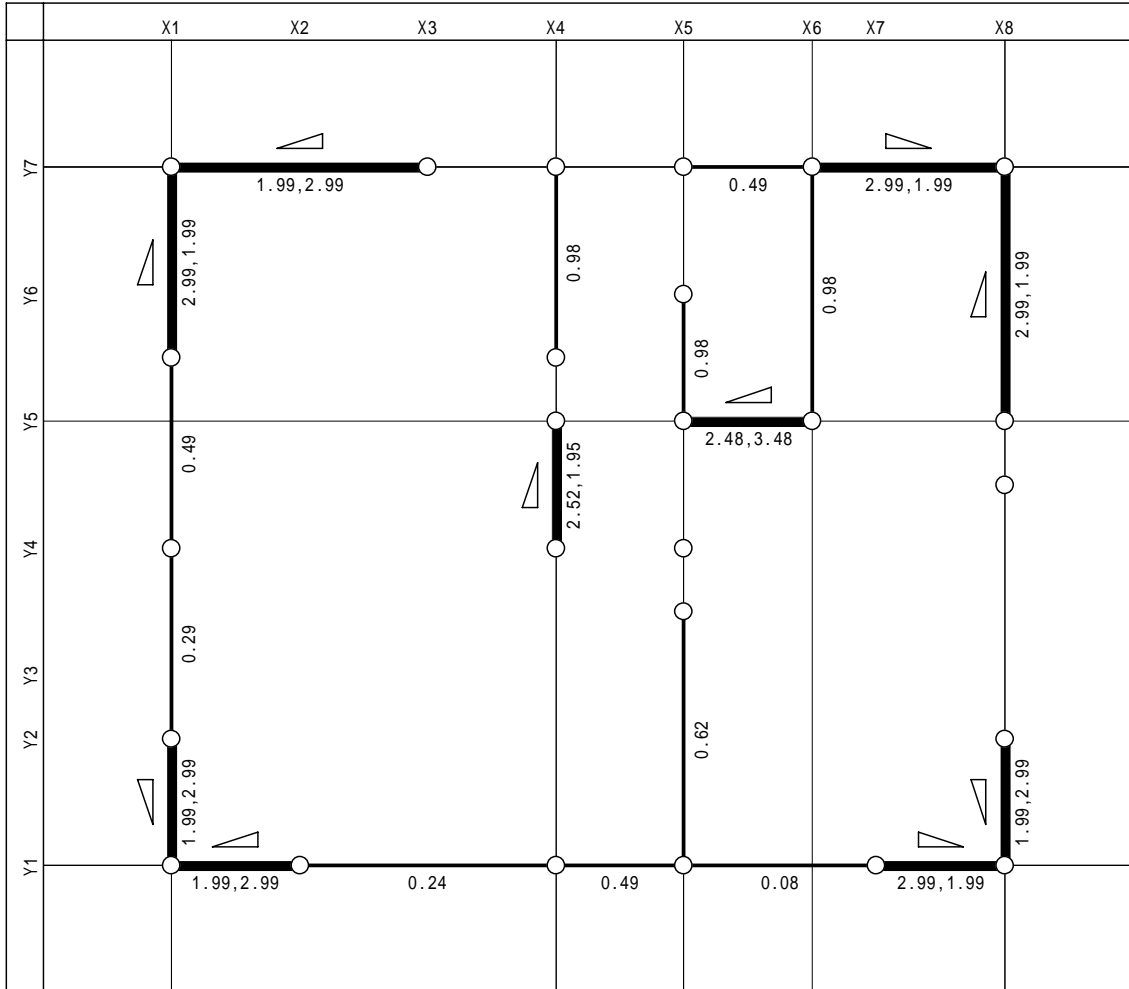
風重心算定表

| 階 | 方向 | wQi (kN) | Go | 風重心Gi (m) |
|---|------|-------------|--------|--------------|
| 3 | X左加力 | 10.217 | 23.932 | 2.342 |
| | X右加力 | 10.217 | 23.932 | 2.342 |
| | Y下加力 | 15.553 | 46.000 | 2.958 |
| | Y上加力 | 15.553 | 46.000 | 2.958 |
| 2 | X左加力 | 13.849 | 32.051 | 2.314 |
| | X右加力 | 13.849 | 32.051 | 2.314 |
| | Y下加力 | 15.065 | 44.555 | 2.958 |
| | Y上加力 | 15.065 | 44.555 | 2.958 |
| 1 | X左加力 | 12.142 | 30.388 | 2.503 |
| | X右加力 | 12.142 | 30.388 | 2.503 |
| | Y下加力 | 14.287 | 42.258 | 2.958 |
| | Y上加力 | 14.287 | 42.258 | 2.958 |

3 - 3 鉛直構面の許容耐力と剛性の算定

(1) 耐力壁配置図

3階



凡例:

| | |
|--|----------|
| | 筋かいシングル |
| | 筋かいダブル |
| | 柱 |
| | 耐力壁 |
| | 準耐力壁、腰壁等 |

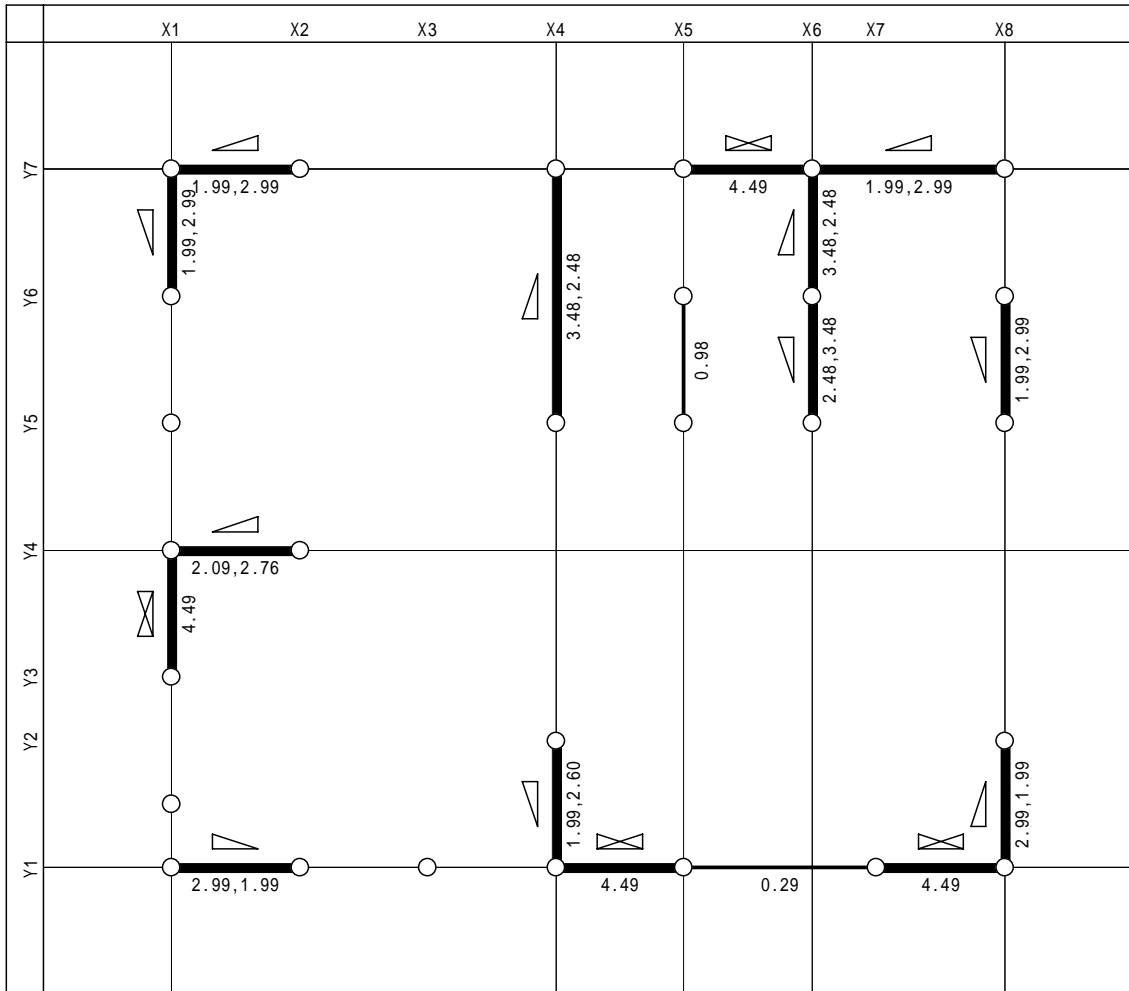
壁倍率

筋かい(シングル) : [X左加力、X右加力]または[Y下加力、Y上加力]

筋かい(ダブル) : 方向に関らず同じ

準耐力壁、腰壁等 : 方向に関らず同じ

2階



凡例:

| | |
|--|----------|
| | 筋かいシングル |
| | 筋かいダブル |
| | 柱 |
| | 耐力壁 |
| | 準耐力壁、腰壁等 |

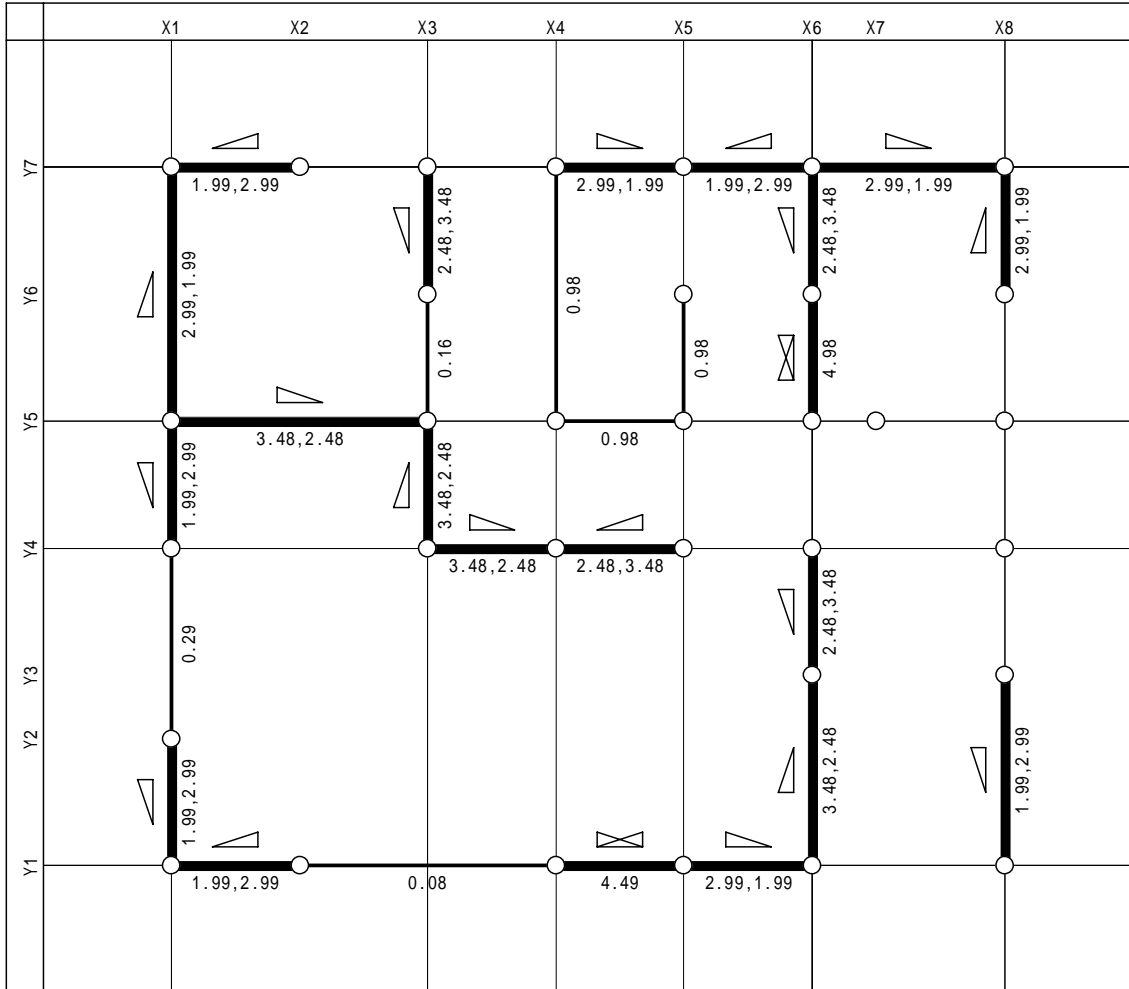
壁倍率

筋かい(シングル) : [X左加力、X右加力]または[Y下加力、Y上加力]

筋かい(ダブル) : 方向に関らず同じ

準耐力壁、腰壁等 : 方向に関らず同じ

1階



凡例:

| | |
|--|----------|
| | 筋かいシングル |
| | 筋かいダブル |
| | 柱 |
| | 耐力壁 |
| | 準耐力壁、腰壁等 |

壁倍率

筋かい(シングル) : [X左加力、X右加力]または[Y下加力、Y上加力]

筋かい(ダブル) : 方向に関らず同じ

準耐力壁、腰壁等 : 方向に関らず同じ

(2) 梁上低減係数 1

左加力, 下加力方向

| 計算 番号 | 階 | 階高 H (cm) | 位置 | 樹種 | Fb (kN/cm ²) | E (kN/cm ²) | B (cm) | D (cm) | 欠損 低減 | 壁 | 長さ (cm) | 壁倍率 | P (kN) | K (kN/rad) |
|----------|---|-----------------|------------|----|-----------------------------|----------------------------|-----------|-----------|----------|-----|------------|-----------|-----------|---------------|
| | | | | | | | | | | 2次梁 | 種類 | a (cm) | b (cm) | |
| 1 | 2 | 280 | Y4通り X1-X3 | 米松 | 2.820 | 980.0 | 10.5 | 27.0 | 0.90 | 壁a | 91.0 | 2.48 | 4.423 | 663.450 |
| | | | | | | | | | | 壁b | 91.0 | 0.00 | 0.000 | 0.000 |
| | | | | | | | | | | 壁c | | | | |
| | | | | | | | | | | 梁1 | | | | |
| | | | | | | | | | | 梁2 | | | | |
| 2 | 2 | 280 | X4通り Y1-Y4 | 米松 | 2.820 | 980.0 | 10.5 | 30.0 | 0.90 | 壁a | 91.0 | 2.48 | 4.423 | 663.450 |
| | | | | | | | | | | 壁b | 136.5 | 0.00 | 0.000 | 0.000 |
| | | | | | | | | | | 壁c | | | | |
| | | | | | | | | | | 梁1 | | | | |
| | | | | | | | | | | 梁2 | | | | |
| 3 | 3 | 280 | X4通り Y2-Y5 | 米松 | 2.820 | 980.0 | 10.5 | 30.0 | 0.80 | 壁a | 136.5 | 0.00 | 0.000 | 0.000 |
| | | | | | | | | | | 壁b | 91.0 | 3.48 | 6.207 | 931.050 |
| | | | | | | | | | | 壁c | | | | |
| | | | | | | | | | | 梁1 | | | | |
| | | | | | | | | | | 梁2 | | | | |
| 4 | 3 | 280 | X5通り Y1-Y5 | 米松 | 2.820 | 980.0 | 10.5 | 18.0 | 1.00 | 壁a | 182.0 | 0.98 | 3.496 | 524.400 |
| | | | | | | | | | | 壁b | 136.5 | 0.00 | 0.000 | 0.000 |
| | | | | | | | | | | 壁c | | | | |
| | | | | | | | | | | 梁1 | | | | |
| | | | | | | | | | | 梁2 | | | | |

右加力, 上加力方向

| 計算 番号 | 階 | 階高 H (cm) | 位置 | 樹種 | Fb (kN/cm ²) | E (kN/cm ²) | B (cm) | D (cm) | 欠損 低減 | 壁 | 長さ (cm) | 壁倍率 | P (kN) | K (kN/rad) |
|----------|---|-----------------|------------|----|-----------------------------|----------------------------|-----------|-----------|----------|-----|------------|-----------|-----------|---------------|
| | | | | | | | | | | 2次梁 | 種類 | a (cm) | b (cm) | |
| 1 | 2 | 280 | Y4通り X1-X3 | 米松 | 2.820 | 980.0 | 10.5 | 27.0 | 0.90 | 壁a | 91.0 | 0.00 | 0.000 | 0.000 |
| | | | | | | | | | | 壁b | 91.0 | 3.48 | 6.207 | 931.050 |
| | | | | | | | | | | 壁c | | | | |
| | | | | | | | | | | 梁1 | | | | |
| | | | | | | | | | | 梁2 | | | | |
| 2 | 2 | 280 | X4通り Y1-Y4 | 米松 | 2.820 | 980.0 | 10.5 | 30.0 | 0.90 | 壁a | 136.5 | 0.00 | 0.000 | 0.000 |
| | | | | | | | | | | 壁b | 91.0 | 3.48 | 6.207 | 931.050 |
| | | | | | | | | | | 壁c | | | | |
| | | | | | | | | | | 梁1 | | | | |
| | | | | | | | | | | 梁2 | | | | |
| 3 | 3 | 280 | X4通り Y2-Y5 | 米松 | 2.820 | 980.0 | 10.5 | 30.0 | 0.80 | 壁a | 91.0 | 2.48 | 4.423 | 663.450 |
| | | | | | | | | | | 壁b | 136.5 | 0.00 | 0.000 | 0.000 |
| | | | | | | | | | | 壁c | | | | |
| | | | | | | | | | | 梁1 | | | | |
| | | | | | | | | | | 梁2 | | | | |
| 4 | 3 | 280 | X5通り Y1-Y5 | 米松 | 2.820 | 980.0 | 10.5 | 18.0 | 1.00 | 壁a | 136.5 | 0.00 | 0.000 | 0.000 |
| | | | | | | | | | | 壁b | 182.0 | 0.98 | 3.496 | 524.400 |
| | | | | | | | | | | 壁c | | | | |
| | | | | | | | | | | 梁1 | | | | |
| | | | | | | | | | | 梁2 | | | | |

(3) 梁上低減係数 2

左加力, 下加力方向

| 計算 番号 | 軸力 (kN) | | 梁モーメント (kN・cm) | | 必要梁せい (cm) | | たわみ (cm) | | 有効せん断剛性 (kN/rad) | | 梁上低減係数 | |
|----------|------------|---------|-------------------|-----------|---------------|------|-------------|--------|---------------------|---------|--------|-------|
| | | | | | | | | | | | | |
| 1 | Na | -6.805 | sMab | 619.210 | 1次梁 | 21.6 | ab | 0.113 | Ka' | 559.277 | Ca | 0.843 |
| | Nab | 13.609 | sMbc | | | | bc | 0.000 | Kb' | | Cb | |
| | Nbc | | sM1 | | 2次梁 1 | | 1 | | Kc' | | Cc | |
| | Nc | 6.805 | sM2 | | 2次梁 2 | | 2 | | | | | |
| 2 | Na | -5.444 | sMab | 743.051 | 1次梁 | 23.6 | ab | 0.148 | Ka' | 533.339 | Ca | 0.804 |
| | Nab | 13.609 | sMbc | | | | bc | 0.000 | Kb' | | Cb | |
| | Nbc | | sM1 | | 2次梁 1 | | 1 | | Kc' | | Cc | |
| | Nc | 5.444 | sM2 | | 2次梁 2 | | 2 | | | | | |
| 3 | Na | -7.639 | sMab | -1042.751 | 1次梁 | 29.7 | ab | -0.233 | Ka' | | Ca | |
| | Nab | -19.098 | sMbc | | | | bc | 0.000 | Kb' | 672.692 | Cb | 0.723 |
| | Nbc | | sM1 | | 2次梁 1 | | 1 | | Kc' | | Cc | |
| | Nc | 7.639 | sM2 | | 2次梁 2 | | 2 | | | | | |
| 4 | Na | -3.073 | sMab | 419.484 | 1次梁 | 16.8 | ab | 0.695 | Ka' | 333.418 | Ca | 0.636 |
| | Nab | 5.378 | sMbc | | | | bc | 0.000 | Kb' | | Cb | |
| | Nbc | | sM1 | | 2次梁 1 | | 1 | | Kc' | | Cc | |
| | Nc | 3.073 | sM2 | | 2次梁 2 | | 2 | | | | | |

右加力, 上加力方向

| 計算 番号 | 軸力 (kN) | | 梁モーメント (kN・cm) | | 必要梁せい (cm) | | たわみ (cm) | | 有効せん断剛性 (kN/rad) | | 梁上低減係数 | |
|----------|------------|---------|-------------------|-----------|---------------|------|-------------|--------|---------------------|---------|--------|-------|
| | | | | | | | | | | | | |
| 1 | Na | -9.549 | sMab | -868.959 | 1次梁 | 25.5 | ab | -0.158 | Ka' | | Ca | |
| | Nab | -19.098 | sMbc | | | | bc | 0.000 | Kb' | 738.671 | Cb | 0.793 |
| | Nbc | | sM1 | | 2次梁 1 | | 1 | | Kc' | | Cc | |
| | Nc | 9.549 | sM2 | | 2次梁 2 | | 2 | | | | | |
| 2 | Na | -7.639 | sMab | -1042.751 | 1次梁 | 28.0 | ab | -0.207 | Ka' | | Ca | |
| | Nab | -19.098 | sMbc | | | | bc | 0.000 | Kb' | 694.187 | Cb | 0.746 |
| | Nbc | | sM1 | | 2次梁 1 | | 1 | | Kc' | | Cc | |
| | Nc | 7.639 | sM2 | | 2次梁 2 | | 2 | | | | | |
| 3 | Na | -5.444 | sMab | 743.051 | 1次梁 | 25.0 | ab | 0.166 | Ka' | 520.914 | Ca | 0.785 |
| | Nab | 13.609 | sMbc | | | | bc | 0.000 | Kb' | | Cb | |
| | Nbc | | sM1 | | 2次梁 1 | | 1 | | Kc' | | Cc | |
| | Nc | 5.444 | sM2 | | 2次梁 2 | | 2 | | | | | |
| 4 | Na | -3.073 | sMab | -419.484 | 1次梁 | 16.8 | ab | -0.695 | Ka' | | Ca | |
| | Nab | -5.378 | sMbc | | | | bc | 0.000 | Kb' | 333.418 | Cb | 0.636 |
| | Nbc | | sM1 | | 2次梁 1 | | 1 | | Kc' | | Cc | |
| | Nc | 3.073 | sM2 | | 2次梁 2 | | 2 | | | | | |

(4) 鉛直構面の剛性算定表

3階 X左加力方向

横架材内法寸法 = 2600(mm)

$Pa(N) = i \times li \times 1960$

$Di(N/rad) = Pa \times 150$

壁倍率

面材高さの合計/横架材の内法寸法

釘配列の低減係数

| 通り | 位置 | 壁種別 | | | | 各 倍率 | 倍率計 (耐力壁) | 梁上低 減係数 | 壁倍率 i | 長さli (m) | 耐力Pa (N) | 耐力 Pa (N) | 剛性Di (N/rad) |
|-------|-------|------|------|------|------|---------|--------------|------------|----------|-------------|-------------|--------------|-----------------|
| Y1 | X1-X2 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 0.910 | 3549 | | | |
| | X2-X4 | 腰壁等 | 0.90 | 0.46 | 0.60 | 0.24 | 0.24 | | 0.24 | 1.820 | 856 | | |
| | X4-X5 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | 0.49 | | 0.49 | 0.910 | 874 | | |
| | X5-X7 | 腰壁等 | 0.90 | 0.15 | 0.60 | 0.08 | 0.08 | | 0.08 | 1.365 | 214 | | |
| X7-X8 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | | | |
| | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 0.910 | 5333 | 10826 | 1623900 | | |
| Y5 | X5-X6 | 耐力壁 | 1.50 | | | 1.50 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 2.48 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 2.48 | 0.910 | 4423 | 4423 | 663450 | |
| Y7 | X1-X3 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 1.820 | 7099 | | | |
| | X5-X6 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | 0.49 | | 0.49 | 0.910 | 874 | | |
| | X6-X8 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | | |
| 0.90 | | | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 1.365 | 7999 | 15972 | 2395800 | | |

3階 X右加力方向

横架材内法寸法 = 2600(mm)

$Pa(N) = i \times li \times 1960$

$Di(N/rad) = Pa \times 150$

壁倍率

面材高さの合計/横架材の内法寸法

釘配列の低減係数

| 通り | 位置 | 壁種別 | | | | 各 倍率 | 倍率計 (耐力壁) | 梁上低 減係数 | 壁倍率 i | 長さli (m) | 耐力Pa (N) | 耐力 Pa (N) | 剛性Di (N/rad) | |
|-------|-------|------|------|------|------|---------|--------------|------------|----------|-------------|-------------|--------------|-----------------|--------|
| Y1 | X1-X2 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | 10826 | 1623900 | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 0.910 | 5333 | | | | |
| | X2-X4 | 腰壁等 | 0.90 | 0.46 | 0.60 | 0.24 | 0.24 | | 0.24 | 1.820 | 856 | | | |
| | X4-X5 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | 0.49 | | 0.49 | 0.910 | 874 | | | |
| | X5-X7 | 腰壁等 | 0.90 | 0.15 | 0.60 | 0.08 | 0.08 | | 0.08 | 1.365 | 214 | | | |
| X7-X8 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | 3549 | 10826 | 1623900 | |
| | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 0.910 | 3549 | | | | | |
| Y5 | X5-X6 | 耐力壁 | 2.50 | | | 2.50 | | | | | | 6207 | 6207 | 931050 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 3.48 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 3.48 | 0.910 | 6207 | | | | |
| Y7 | X1-X3 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | 16864 | 2529600 | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 1.820 | 10666 | | | | |
| | X5-X6 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | 0.49 | | 0.49 | 0.910 | 874 | | | |
| | X6-X8 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | | | 5324 |
| 0.90 | | | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 1.365 | 5324 | | | | | |

3階 Y下加力方向

横架材内法寸法 = 2600(mm)

Pa(N) = $i \times l_i \times 1960$

Di(N/rad) = Pa × 150

壁倍率

面材高さの合計/横架材の内法寸法

釘配列の低減係数

| 通り | 位置 | 壁種別 | | | | 各 倍率 | 倍率計 (耐力壁) | 梁上低 減係数 | 壁倍率 i | 長さli (m) | 耐力Pa (N) | 耐力 Pa (N) | 剛性Di (N/rad) |
|----|---------|------|------|------|------|---------|--------------|------------|----------|-------------|-------------|--------------|-----------------|
| X1 | Y1-Y2 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 0.910 | 3549 | | | |
| | Y2-Y4 | 腰壁等 | 0.90 | 0.54 | 0.60 | 0.29 | 0.29 | | 0.29 | 1.365 | 776 | | |
| | Y4-Y5.5 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | 0.49 | | 0.49 | 1.365 | 1311 | | |
| | Y5.5-Y7 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | | 2.99 | 1.365 | 7999 | 13635 | 2045250 |
| X4 | Y4-Y5 | 耐力壁 | 2.50 | | | 2.50 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 3.48 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 0.723 | 2.52 | 0.910 | 4495 | | |
| | Y5.5-Y7 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 0.98 | | 0.98 | 1.365 | 2622 | 7117 | 1067550 |
| X5 | Y1-Y3.5 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 0.98 | 0.636 | 0.62 | 1.820 | 2212 | | |
| | Y5-Y6 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 0.98 | | 0.98 | 0.910 | 1748 | 3960 | 594000 |
| X6 | Y5-Y7 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 0.98 | | 0.98 | 1.820 | 3496 | 3496 | 524400 |
| X8 | Y1-Y2 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 0.910 | 3549 | | | |
| | Y5-Y7 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 1.820 | 10666 | 14215 | 2132250 | |

3階 Y上加力方向

横架材内法寸法 = 2600(mm)

$Pa(N) = i \times li \times 1960$

$Di(N/rad) = Pa \times 150$

壁倍率

面材高さの合計/横架材の内法寸法

釘配列の低減係数

| 通り | 位置 | 壁種別 | | | | 各 倍率 | 倍率計 (耐力壁) | 梁上低 減係数 | 壁倍率 i | 長さli (m) | 耐力Pa (N) | 耐力 Pa (N) | 剛性Di (N/rad) |
|------|---------|------|------|------|------|---------|--------------|------------|----------|-------------|-------------|--------------|-----------------|
| X1 | Y1-Y2 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 0.910 | 5333 | | | |
| | Y2-Y4 | 腰壁等 | 0.90 | 0.54 | 0.60 | 0.29 | 0.29 | | 0.29 | 1.365 | 776 | | |
| | Y4-Y5.5 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | 0.49 | | 0.49 | 1.365 | 1311 | | |
| | Y5.5-Y7 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | | |
| 0.90 | | | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 1.365 | 5324 | 12744 | 1911600 | | |
| X4 | Y4-Y5 | 耐力壁 | 1.50 | | | 1.50 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 2.48 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 0.785 | 1.95 | 0.910 | 3478 | | |
| | Y5.5-Y7 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | | | | | | | |
| 0.90 | | | 0.92 | 0.60 | 0.49 | 0.98 | | 0.98 | 1.365 | 2622 | 6100 | 915000 | |
| X5 | Y1-Y3.5 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 0.98 | 0.636 | 0.62 | 1.820 | 2212 | | |
| | Y5-Y6 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 0.98 | | 0.98 | 0.910 | 1748 | 3960 | 594000 |
| X6 | Y5-Y7 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 0.98 | | 0.98 | 1.820 | 3496 | 3496 | 524400 |
| X8 | Y1-Y2 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 0.910 | 5333 | | | |
| | Y5-Y7 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 1.820 | 7099 | 12432 | 1864800 | |

2階 X左加力方向

横架材内法寸法 = 2600(mm)

$Pa(N) = i \times li \times 1960$

$Di(N/rad) = Pa \times 150$

壁倍率

面材高さの合計/横架材の内法寸法

釘配列の低減係数

| 通り | 位置 | 壁種別 | | | | 各 倍率 | 倍率計 (耐力壁) | 梁上低 減係数 | 壁倍率 i | 長さli (m) | 耐力Pa (N) | 耐力 Pa (N) | 剛性Di (N/rad) |
|------|-------|-----|------|------|------|---------|--------------|------------|----------|-------------|-------------|--------------|-----------------|
| Y1 | X1-X2 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | 22125 | 3318750 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 0.910 | 5333 | | | |
| | X4-X5 | 耐力壁 | 4.00 | | | 4.00 | 4.49 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (4.00) | 4.49 | 0.910 | 8008 | | | |
| | X5-X7 | 腰壁等 | 0.90 | 0.54 | 0.60 | 0.29 | 0.29 | | 0.29 | 1.365 | 776 | | |
| | X7-X8 | 耐力壁 | 4.00 | | | 4.00 | 4.49 | | | | | | |
| 0.90 | | | 0.92 | 0.60 | 0.49 | (4.00) | 4.49 | 0.910 | 8008 | | | | |
| Y4 | X1-X2 | 耐力壁 | 1.50 | | | 1.50 | | | | | | 3728 | 559200 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 2.48 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 0.843 | 2.09 | 0.910 | 3728 | | |
| Y7 | X1-X2 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | 16881 | 2532150 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 0.910 | 3549 | | | |
| | X5-X6 | 耐力壁 | 4.00 | | | 4.00 | 4.49 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (4.00) | 4.49 | 0.910 | 8008 | | | |
| | X6-X8 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 1.365 | 5324 | | | |

2階 X右加力方向

横架材内法寸法 = 2600(mm)

$Pa(N) = i \times li \times 1960$

$Di(N/rad) = Pa \times 150$

壁倍率

面材高さの合計/横架材の内法寸法

釘配列の低減係数

| 通り | 位置 | 壁種別 | | | | 各 倍率 | 倍率計 (耐力壁) | 梁上低 減係数 | 壁倍率 i | 長さli (m) | 耐力Pa (N) | 耐力 Pa (N) | 剛性Di (N/rad) |
|------|-------|-----|------|------|------|---------|--------------|------------|----------|-------------|-------------|--------------|-----------------|
| Y1 | X1-X2 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | 20341 | 3051150 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 0.910 | 3549 | | | |
| | X4-X5 | 耐力壁 | 4.00 | | | 4.00 | 4.49 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (4.00) | 4.49 | 0.910 | 8008 | | | |
| | X5-X7 | 腰壁等 | 0.90 | 0.54 | 0.60 | 0.29 | 0.29 | | 0.29 | 1.365 | 776 | | |
| | X7-X8 | 耐力壁 | 4.00 | | | 4.00 | 4.49 | | | | | | |
| 0.90 | | | 0.92 | 0.60 | 0.49 | (4.00) | 4.49 | 0.910 | 8008 | | | | |
| Y4 | X1-X2 | 耐力壁 | 2.50 | | | 2.50 | | | | | | 4923 | 738450 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 3.48 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 0.793 | 2.76 | 0.910 | 4923 | | |
| Y7 | X1-X2 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | 21340 | 3201000 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 0.910 | 5333 | | | |
| | X5-X6 | 耐力壁 | 4.00 | | | 4.00 | 4.49 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (4.00) | 4.49 | 0.910 | 8008 | | | |
| | X6-X8 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 1.365 | 7999 | | | |

2階 Y下加力方向

横架材内法寸法 = 2600(mm)

$Pa(N) = i \times li \times 1960$

$Di(N/rad) = Pa \times 150$

壁倍率

面材高さの合計/横架材の内法寸法

釘配列の低減係数

| 通り | 位置 | 壁種別 | | | | 各 倍率 | 倍率計 (耐力壁) | 梁上低 減係数 | 壁倍率 i | 長さli (m) | 耐力Pa (N) | 耐力 Pa (N) | 剛性Di (N/rad) |
|----|-------|------|------|------|------|---------|--------------|------------|----------|-------------|-------------|--------------|-----------------|
| X1 | Y3-Y4 | 耐力壁 | 4.00 | | | 4.00 | 4.49 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (4.00) | 4.49 | 0.910 | 8008 | | | |
| | Y6-Y7 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 0.910 | 3549 | 11557 | 1733550 | |
| X4 | Y1-Y2 | 耐力壁 | 1.50 | | | 1.50 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 2.48 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 0.804 | 1.99 | 0.910 | 3549 | | |
| | Y5-Y7 | 耐力壁 | 2.50 | | | 2.50 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 3.48 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 3.48 | 1.820 | 12414 | 15963 | 2394450 | |
| X5 | Y5-Y6 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 0.98 | | 0.98 | 0.910 | 1748 | 1748 | 262200 |
| X6 | Y5-Y6 | 耐力壁 | 1.50 | | | 1.50 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 2.48 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 2.48 | 0.910 | 4423 | | | |
| | Y6-Y7 | 耐力壁 | 2.50 | | | 2.50 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 3.48 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 3.48 | 0.910 | 6207 | 10630 | 1594500 | |
| X8 | Y1-Y2 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 0.910 | 5333 | | | |
| | Y5-Y6 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 0.910 | 3549 | 8882 | 1332300 | |

2階 Y上加力方向

横架材内法寸法 = 2600(mm)

$Pa(N) = i \times li \times 1960$

$Di(N/rad) = Pa \times 150$

壁倍率

面材高さの合計/横架材の内法寸法

釘配列の低減係数

| 通り | 位置 | 壁種別 | | | | 各 倍率 | 倍率計 (耐力壁) | 梁上低 減係数 | 壁倍率 i | 長さli (m) | 耐力Pa (N) | 耐力 Pa (N) | 剛性Di (N/rad) | |
|----|-------|------|------|------|------|---------|--------------|------------|----------|-------------|-------------|--------------|-----------------|--|
| X1 | Y3-Y4 | 耐力壁 | 4.00 | | | 4.00 | 4.49 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (4.00) | 4.49 | 0.910 | 8008 | | | | |
| | Y6-Y7 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 0.910 | 5333 | 13341 | 2001150 | | |
| X4 | Y1-Y2 | 耐力壁 | 2.50 | | | 2.50 | | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 3.48 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 0.746 | 2.60 | 0.910 | 4637 | | | |
| | Y5-Y7 | 耐力壁 | 1.50 | | | 1.50 | | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 2.48 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 2.48 | 1.820 | 8847 | 13484 | 2022600 | | |
| X5 | Y5-Y6 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 0.98 | 0.98 | 0.910 | 1748 | 1748 | 262200 | | |
| X6 | Y5-Y6 | 耐力壁 | 2.50 | | | 2.50 | | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 3.48 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 3.48 | 0.910 | 6207 | | | | |
| | Y6-Y7 | 耐力壁 | 1.50 | | | 1.50 | | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 2.48 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 2.48 | 0.910 | 4423 | 10630 | 1594500 | | |
| X8 | Y1-Y2 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 0.910 | 3549 | | | | |
| | Y5-Y6 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 0.910 | 5333 | 8882 | 1332300 | | |

1階 X左加力方向

横架材内法寸法 = 2600(mm)

Pa(N) = $i \times l_i \times 1960$

Di(N/rad) = Pa × 150

壁倍率

面材高さの合計/横架材の内法寸法

釘配列の低減係数

| 通り | 位置 | 壁種別 | | | | 各 倍率 | 倍率計 (耐力壁) | 梁上低 減係数 | 壁倍率 i | 長さli (m) | 耐力Pa (N) | 耐力 Pa (N) | 剛性Di (N/rad) |
|------|-------|------|------|------|------|---------|--------------|------------|----------|-------------|-------------|--------------|-----------------|
| Y1 | X1-X2 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | 17175 | 2576250 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 0.910 | 3549 | | | |
| | X2-X4 | 腰壁等 | 0.90 | 0.15 | 0.60 | 0.08 | 0.08 | | 0.08 | 1.820 | 285 | | |
| | X4-X5 | 耐力壁 | 4.00 | | | 4.00 | 4.49 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (4.00) | 4.49 | 0.910 | 8008 | | | |
| | X5-X6 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | | |
| 0.90 | | | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 0.910 | 5333 | | | | |
| Y4 | X3-X4 | 耐力壁 | 2.50 | | | 2.50 | | | | | | 10630 | 1594500 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 3.48 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 3.48 | 0.910 | 6207 | | | |
| | X4-X5 | 耐力壁 | 1.50 | | | 1.50 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 2.48 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 2.48 | 0.910 | 4423 | | | |
| Y5 | X1-X3 | 耐力壁 | 2.50 | | | 2.50 | | | | | | 14162 | 2124300 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 3.48 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 3.48 | 1.820 | 12414 | | | |
| | X4-X5 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 0.98 | 0.98 | 0.910 | 1748 | | | |
| Y7 | X1-X2 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | 20430 | 3064500 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 0.910 | 3549 | | | |
| | X4-X5 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 0.910 | 5333 | | | |
| | X5-X6 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 0.910 | 3549 | | | |
| | X6-X8 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 1.365 | 7999 | | | |

1階 X右加力方向

横架材内法寸法 = 2600(mm)

$Pa(N) = i \times li \times 1960$

$Di(N/rad) = Pa \times 150$

壁倍率

面材高さの合計/横架材の内法寸法

釘配列の低減係数

| 通り | 位置 | 壁種別 | | | | 各 倍率 | 倍率計 (耐力壁) | 梁上低 減係数 | 壁倍率 i | 長さli (m) | 耐力Pa (N) | 耐力 Pa (N) | 剛性Di (N/rad) | |
|----|-------|------|------|------|------|---------|--------------|------------|----------|-------------|-------------|--------------|-----------------|------|
| Y1 | X1-X2 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | 17175 | 2576250 | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 0.910 | 5333 | | | | |
| | X2-X4 | 腰壁等 | 0.90 | 0.15 | 0.60 | 0.08 | 0.08 | | 0.08 | 1.820 | 285 | | | |
| | X4-X5 | 耐力壁 | 4.00 | | | 4.00 | 4.49 | | | | | | | 8008 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (4.00) | 4.49 | 0.910 | | | | | |
| | X5-X6 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 0.910 | 3549 | | | | |
| Y4 | X3-X4 | 耐力壁 | 1.50 | | | 1.50 | | | | | | 10630 | 1594500 | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 2.48 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 2.48 | 0.910 | 4423 | | | | |
| | X4-X5 | 耐力壁 | 2.50 | | | 2.50 | | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 3.48 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 3.48 | 0.910 | 6207 | | | | |
| Y5 | X1-X3 | 耐力壁 | 1.50 | | | 1.50 | | | | | | 10595 | 1589250 | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 2.48 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 2.48 | 1.820 | 8847 | | | | |
| | X4-X5 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 0.98 | 0.98 | 0.910 | 1748 | | | | |
| Y7 | X1-X2 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | 19539 | 2930850 | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 0.910 | 5333 | | | | |
| | X4-X5 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 0.910 | 3549 | | | | |
| | X5-X6 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 0.910 | 5333 | | | | |
| | X6-X8 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 1.365 | 5324 | | | | |

1階 Y下加力方向

横架材内法寸法 = 2600(mm)

Pa(N) = $i \times l_i \times 1960$

Di(N/rad) = Pa × 150

壁倍率

面材高さの合計/横架材の内法寸法

釘配列の低減係数

| 通り | 位置 | 壁種別 | | | | 各 倍率 | 倍率計 (耐力壁) | 梁上低 減係数 | 壁倍率 i | 長さli (m) | 耐力Pa (N) | 耐力 Pa (N) | 剛性Di (N/rad) |
|-------|-------|------|------|------|------|---------|--------------|------------|----------|-------------|-------------|--------------|-----------------|
| X1 | Y1-Y2 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | 18540 | 2781000 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 0.910 | 3549 | | | |
| | Y2-Y4 | 腰壁等 | 0.90 | 0.54 | 0.60 | 0.29 | 0.29 | | 0.29 | 1.365 | 776 | | |
| | Y4-Y5 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 0.910 | 3549 | | | |
| | Y5-Y7 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | | |
| 0.90 | | | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 1.820 | 10666 | | | | |
| X3 | Y4-Y5 | 耐力壁 | 2.50 | | | 2.50 | | | | | | 10915 | 1637250 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 3.48 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 3.48 | 0.910 | 6207 | | | |
| | Y5-Y6 | 腰壁等 | 0.90 | 0.15 | 0.60 | 0.08 | | | | | | | |
| | | | 0.90 | 0.15 | 0.60 | 0.08 | 0.16 | 0.16 | 0.910 | 285 | | | |
| | Y6-Y7 | 耐力壁 | 1.50 | | | 1.50 | | | | | | | |
| 0.90 | | | 0.92 | 0.60 | 0.49 | 2.48 | | | | | | | |
| 0.90 | | | 0.92 | 0.60 | 0.49 | (1.50) | 2.48 | 0.910 | 4423 | | | | |
| X4 | Y5-Y7 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | | | | | | 3496 | 524400 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 0.98 | 0.98 | 1.820 | 3496 | | | |
| X5 | Y5-Y6 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | | | | | | 1748 | 262200 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 0.98 | 0.98 | 0.910 | 1748 | | | |
| X6 | Y1-Y3 | 耐力壁 | 2.50 | | | 2.50 | | | | | | 27038 | 4055700 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 3.48 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 3.48 | 1.365 | 9310 | | | |
| | Y3-Y4 | 耐力壁 | 1.50 | | | 1.50 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 2.48 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 2.48 | 0.910 | 4423 | | | |
| | Y5-Y6 | 耐力壁 | 4.00 | | | 4.00 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 4.98 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (4.00) | 4.98 | 0.910 | 8882 | | | |
| Y6-Y7 | 耐力壁 | 1.50 | | | 1.50 | | | | | | | | |
| | | 0.90 | 0.92 | 0.60 | 0.49 | 2.48 | | | | | | | |
| | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 2.48 | 0.910 | 4423 | | | | |
| X8 | Y1-Y3 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | 10657 | 1598550 | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 1.365 | 5324 | | | |
| | Y6-Y7 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 0.910 | 5333 | | | |

1階 Y上加力方向

横架材内法寸法 = 2600(mm)

Pa(N) = $i \times l_i \times 1960$

Di(N/rad) = Pa × 150

壁倍率

面材高さの合計/横架材の内法寸法

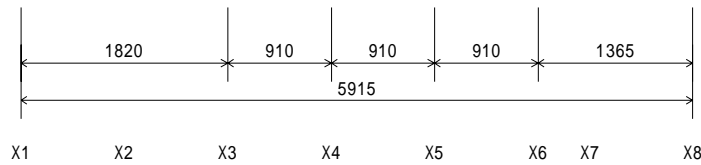
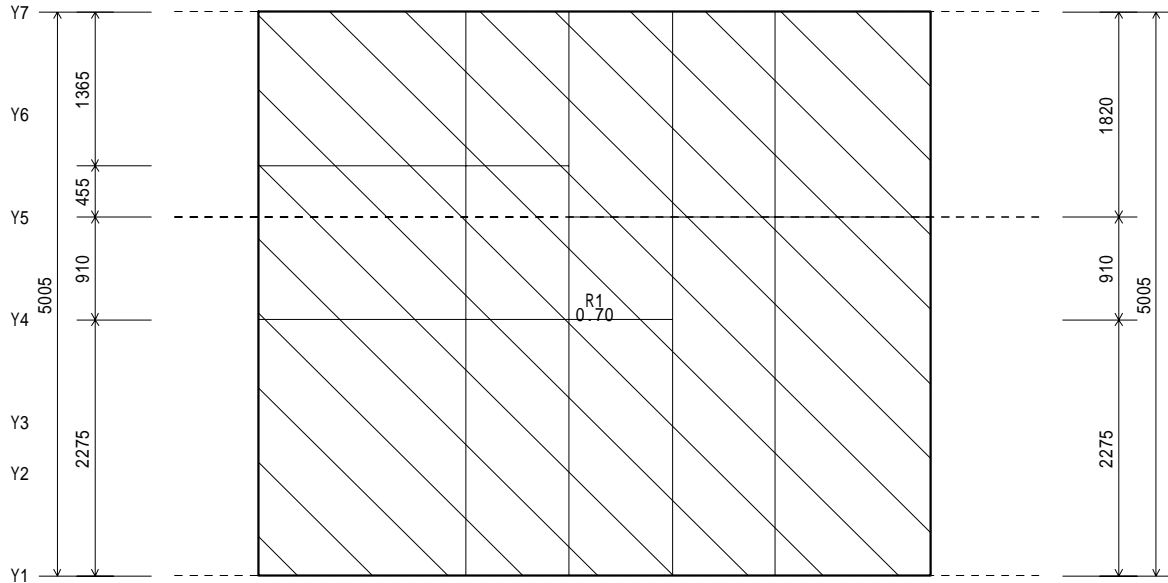
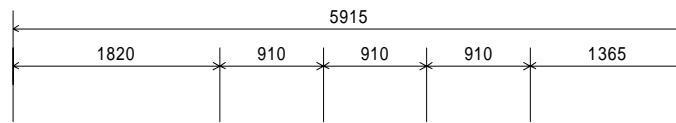
釘配列の低減係数

| 通り | 位置 | 壁種別 | | | | 各 倍率 | 倍率計 (耐力壁) | 梁上低 減係数 | 壁倍率 i | 長さli (m) | 耐力Pa (N) | 耐力 Pa (N) | 剛性Di (N/rad) |
|------|-------|------|------|------|------|---------|--------------|------------|----------|-------------|-------------|--------------|-----------------|
| X1 | Y1-Y2 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | 18541 | 2781150 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 0.910 | 5333 | | | |
| | Y2-Y4 | 腰壁等 | 0.90 | 0.54 | 0.60 | 0.29 | 0.29 | | 0.29 | 1.365 | 776 | | |
| | Y4-Y5 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 0.910 | 5333 | | | |
| | Y5-Y7 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | | |
| 0.90 | | | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 1.820 | 7099 | | | | |
| X3 | Y4-Y5 | 耐力壁 | 1.50 | | | 1.50 | | | | | | 10915 | 1637250 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 2.48 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 2.48 | 0.910 | 4423 | | | |
| | Y5-Y6 | 腰壁等 | 0.90 | 0.15 | 0.60 | 0.08 | | | | | | | |
| | | | 0.90 | 0.15 | 0.60 | 0.08 | 0.16 | 0.16 | 0.910 | 285 | | | |
| | Y6-Y7 | 耐力壁 | 2.50 | | | 2.50 | | | | | | | |
| 0.90 | | | 0.92 | 0.60 | 0.49 | 3.48 | | | | | | | |
| 0.90 | | | 0.92 | 0.60 | 0.49 | (2.50) | 3.48 | 0.910 | 6207 | | | | |
| X4 | Y5-Y7 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | | | | | | 3496 | 524400 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 0.98 | 0.98 | 1.820 | 3496 | | | |
| X5 | Y5-Y6 | 準耐力壁 | 0.90 | 0.92 | 0.60 | 0.49 | | | | | | 1748 | 262200 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 0.98 | 0.98 | 0.910 | 1748 | | | |
| X6 | Y1-Y3 | 耐力壁 | 1.50 | | | 1.50 | | | | | | 27931 | 4189650 |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 2.48 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 2.48 | 1.365 | 6635 | | | |
| | Y3-Y4 | 耐力壁 | 2.50 | | | 2.50 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 3.48 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 3.48 | 0.910 | 6207 | | | |
| | Y5-Y6 | 耐力壁 | 4.00 | | | 4.00 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 4.98 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (4.00) | 4.98 | 0.910 | 8882 | | | |
| | Y6-Y7 | 耐力壁 | 2.50 | | | 2.50 | | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | 3.48 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 3.48 | 0.910 | 6207 | | | |
| X8 | Y1-Y3 | 耐力壁 | 2.50 | | | 2.50 | 2.99 | | | | 11548 | 1732200 | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (2.50) | 2.99 | 1.365 | 7999 | | | |
| | Y6-Y7 | 耐力壁 | 1.50 | | | 1.50 | 1.99 | | | | | | |
| | | | 0.90 | 0.92 | 0.60 | 0.49 | (1.50) | 1.99 | 0.910 | 3549 | | | |

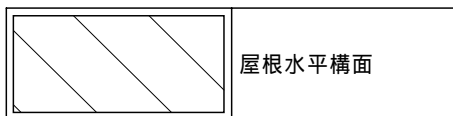
3 - 4 水平構面の許容耐力と剛性の算定

(1) 水平構面の許容耐力の算定

小屋 X方向

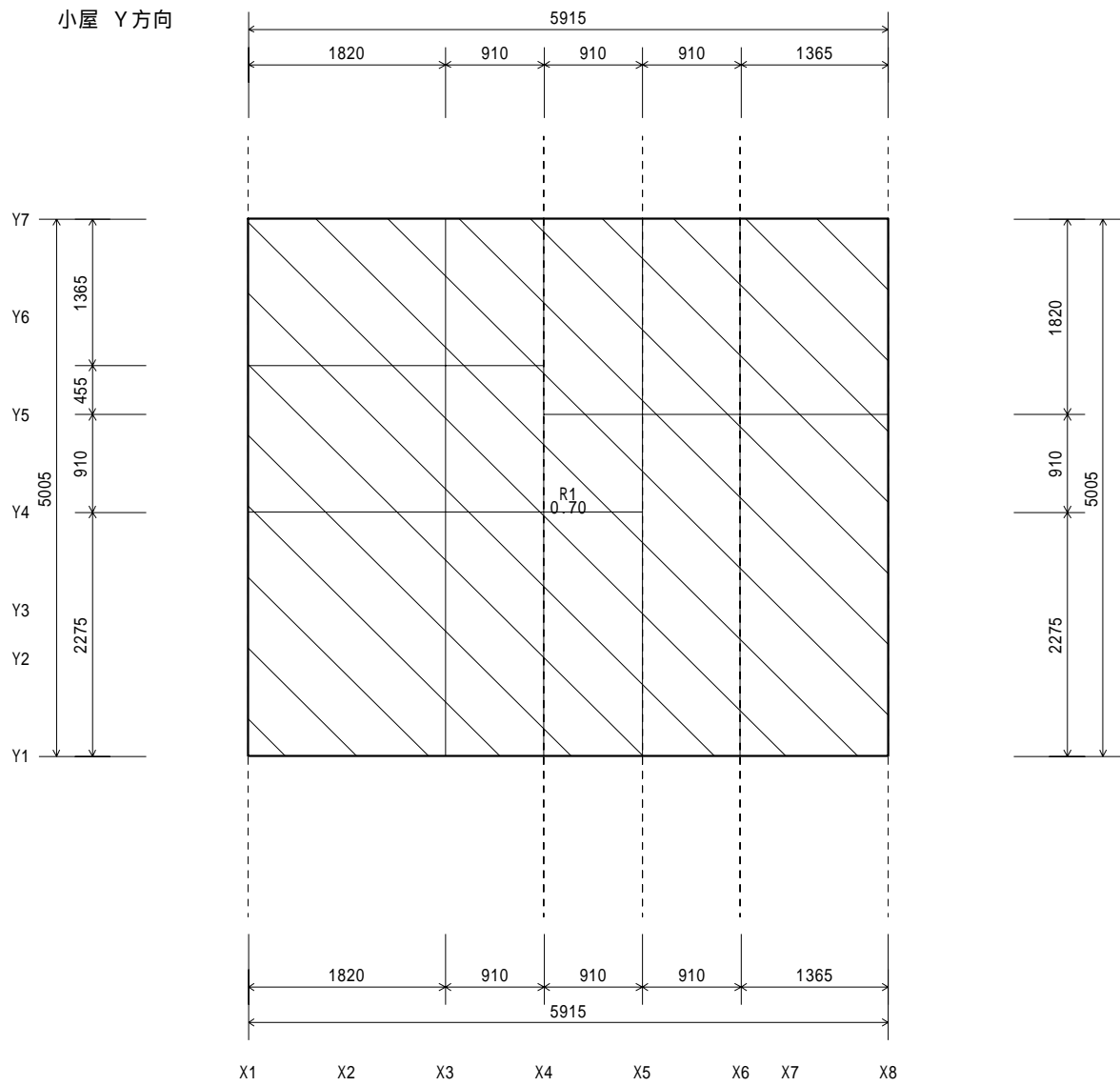


凡例:

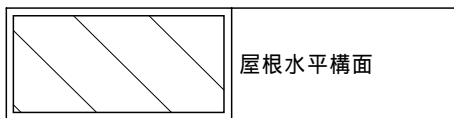


小屋 X方向 Pa(kN) = 構面倍率 × 奥行き × 1.960

| 区間 | 構面 番号 | 構面倍率 | 奥行き (m) | Pa (kN) | Pa (kN) |
|-------|----------|------|------------|------------|------------|
| Y7-Y5 | R1 | 0.70 | 5.915 | 8.115 | 8.115 |
| Y5-Y1 | R1 | 0.70 | 5.915 | 8.115 | 8.115 |



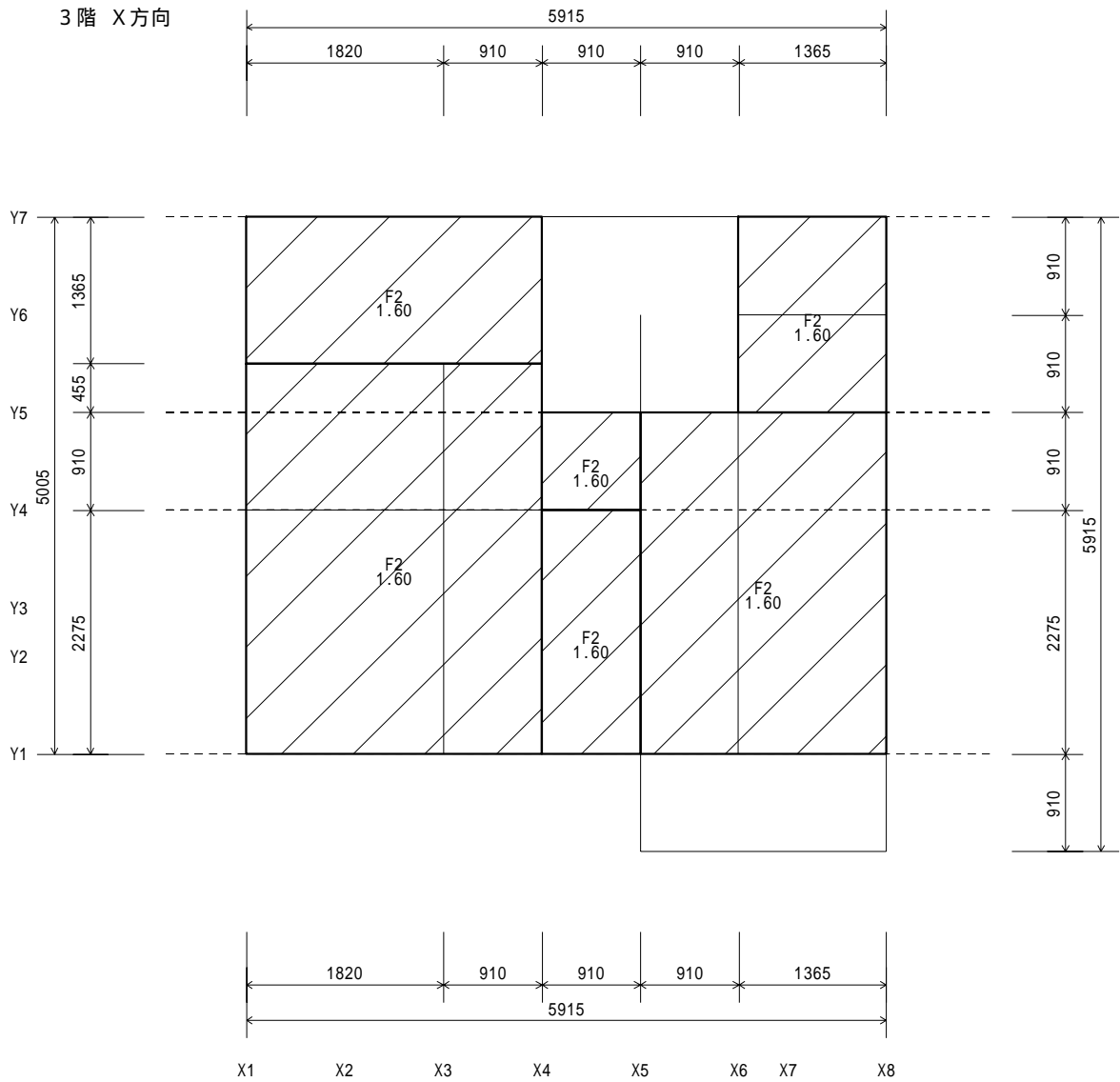
凡例:



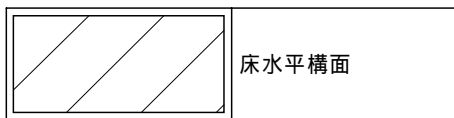
小屋 Y方向

Pa(kN) = 構面倍率 × 奥行き × 1.960

| 区間 | 構面 番号 | 構面倍率 | 奥行き (m) | Pa (kN) | Pa (kN) |
|-------|----------|------|------------|------------|------------|
| X1-X4 | R1 | 0.70 | 5.005 | 6.867 | 6.867 |
| X4-X5 | R1 | 0.70 | 5.005 | 6.867 | 6.867 |
| X5-X6 | R1 | 0.70 | 5.005 | 6.867 | 6.867 |
| X6-X8 | R1 | 0.70 | 5.005 | 6.867 | 6.867 |



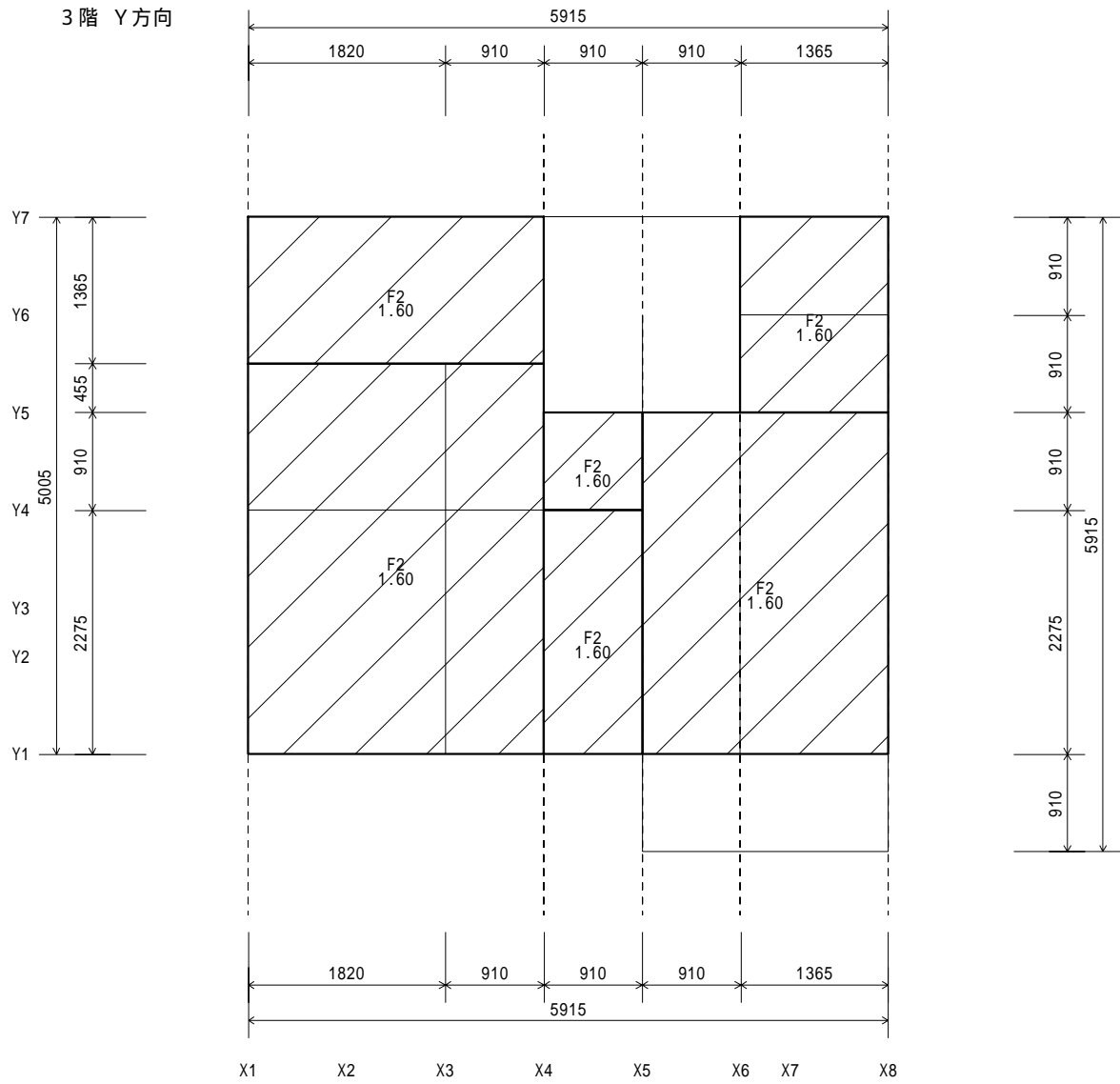
凡例:



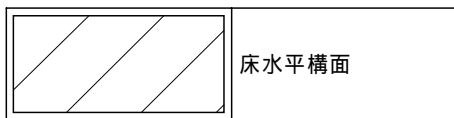
3階 X方向

Pa(kN) = 構面倍率 × 奥行き × 1.960

| 区間 | 構面 番号 | 構面倍率 | 奥行き (m) | Pa (kN) | Pa (kN) |
|-------|----------|------|------------|------------|------------|
| Y7-Y5 | F2 | 1.60 | 2.730 | 8.561 | 12.842 |
| | F2 | 1.60 | 1.365 | 4.281 | |
| Y5-Y4 | F2 | 1.60 | 2.730 | 8.561 | 18.549 |
| | F2 | 1.60 | 0.910 | 2.854 | |
| | F2 | 1.60 | 2.275 | 7.134 | |
| Y4-Y1 | F2 | 1.60 | 2.730 | 8.561 | 18.549 |
| | F2 | 1.60 | 0.910 | 2.854 | |
| | F2 | 1.60 | 2.275 | 7.134 | |



凡例:

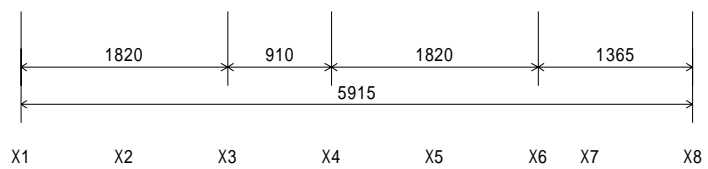
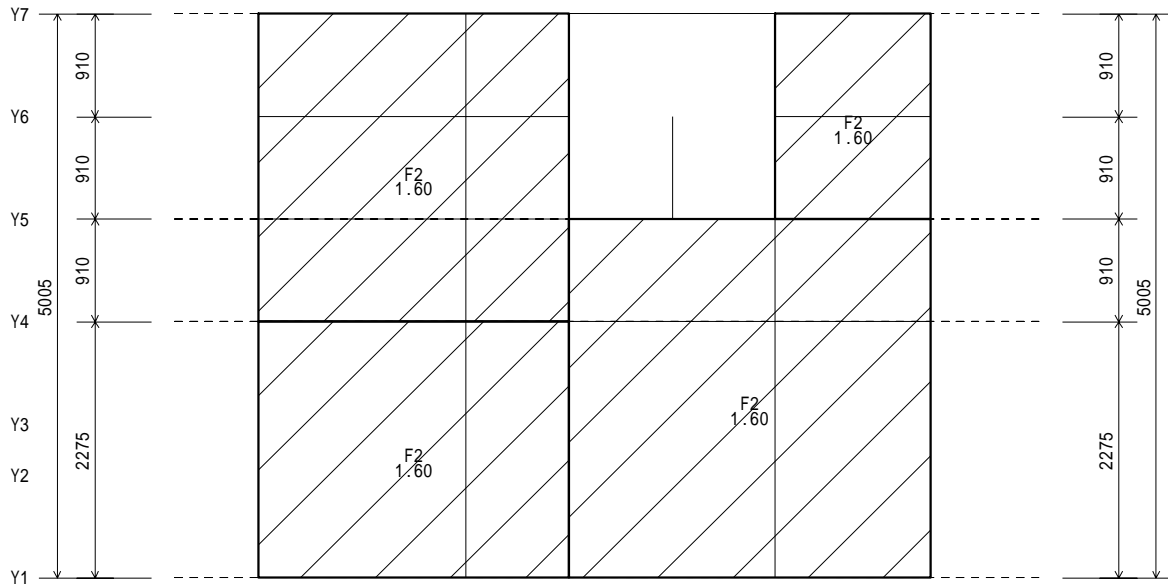
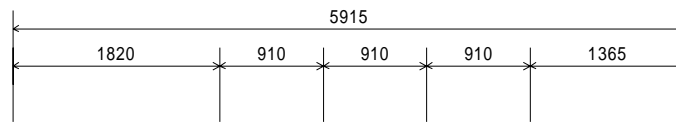


3階 Y方向

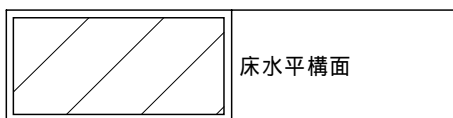
Pa(kN) = 構面倍率 × 奥行き × 1.960

| 区間 | 構面 番号 | 構面倍率 | 奥行き (m) | Pa (kN) | Pa (kN) |
|-------|----------|------|------------|------------|------------|
| X1-X4 | F2 | 1.60 | 3.640 | 11.415 | 15.696 |
| | F2 | 1.60 | 1.365 | 4.281 | |
| X4-X5 | F2 | 1.60 | 2.275 | 7.134 | 9.988 |
| | F2 | 1.60 | 0.910 | 2.854 | |
| X5-X6 | F2 | 1.60 | 3.185 | 9.988 | 9.988 |
| X6-X8 | F2 | 1.60 | 3.185 | 9.988 | 15.696 |
| | F2 | 1.60 | 1.820 | 5.708 | |

2階 X方向



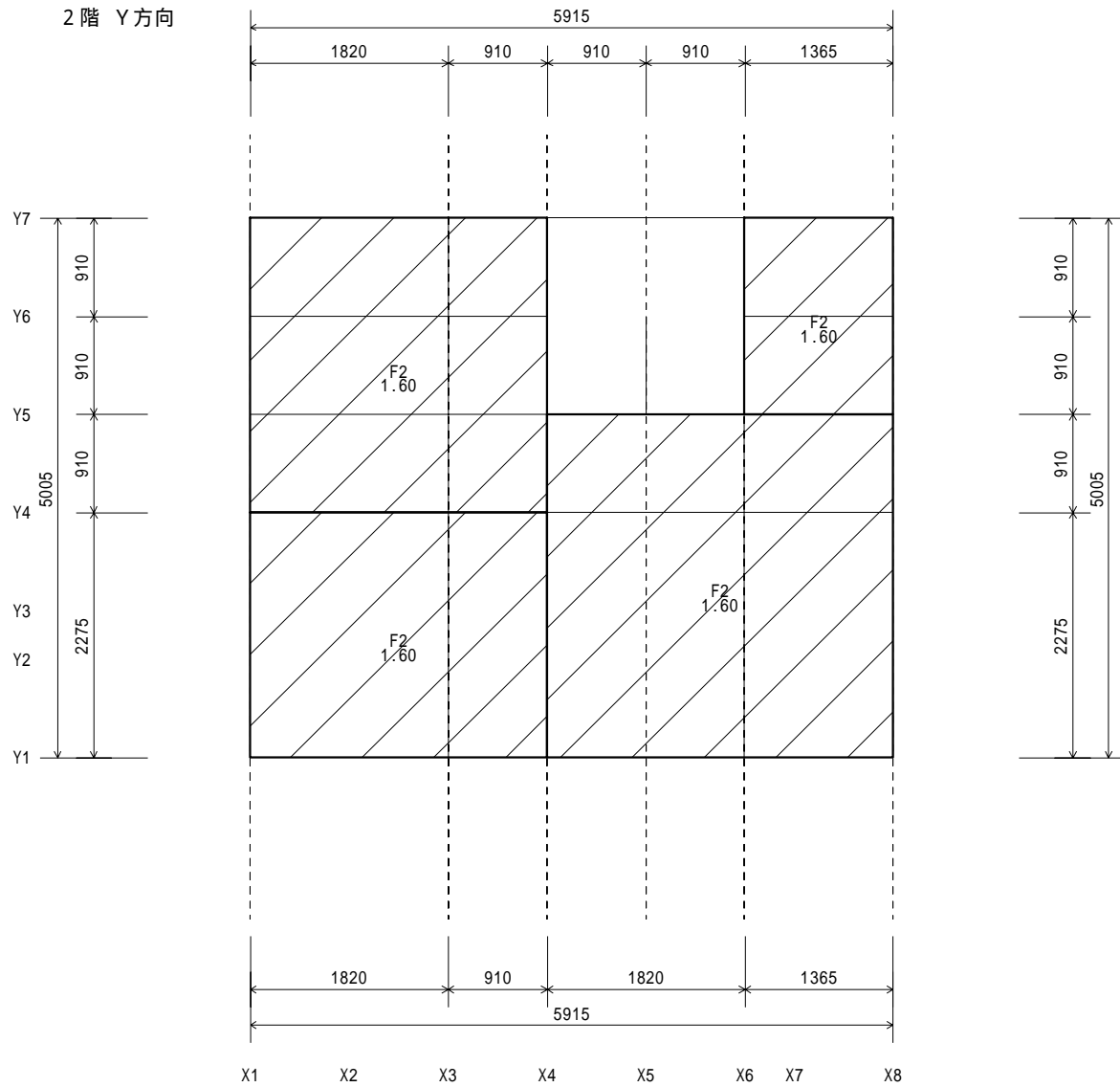
凡例:



2階 X方向

Pa(kN) = 構面倍率 × 奥行き × 1.960

| 区間 | 構面 番号 | 構面倍率 | 奥行き (m) | Pa (kN) | Pa (kN) |
|-------|----------|------|------------|------------|------------|
| Y7-Y5 | F2 | 1.60 | 2.730 | 8.561 | 12.842 |
| | F2 | 1.60 | 1.365 | 4.281 | |
| Y5-Y4 | F2 | 1.60 | 2.730 | 8.561 | 18.549 |
| | F2 | 1.60 | 3.185 | 9.988 | |
| Y4-Y1 | F2 | 1.60 | 2.730 | 8.561 | 18.549 |
| | F2 | 1.60 | 3.185 | 9.988 | |



2階 Y方向

Pa(kN) = 構面倍率 × 奥行き × 1.960

| 区間 | 構面 番号 | 構面倍率 | 奥行き (m) | Pa (kN) | Pa (kN) |
|-------|----------|------|------------|------------|------------|
| X1-X3 | F2 | 1.60 | 2.275 | 7.134 | 15.695 |
| | F2 | 1.60 | 2.730 | 8.561 | |
| X3-X4 | F2 | 1.60 | 2.275 | 7.134 | 15.695 |
| | F2 | 1.60 | 2.730 | 8.561 | |
| X4-X5 | F2 | 1.60 | 3.185 | 9.988 | 9.988 |
| X5-X6 | F2 | 1.60 | 3.185 | 9.988 | 9.988 |
| X6-X8 | F2 | 1.60 | 3.185 | 9.988 | 15.696 |
| | F2 | 1.60 | 1.820 | 5.708 | |

3 - 5 偏心率とねじれ補正係数の算定

3階 X左加力方向

| 通り または区間 | 位置 (m) | 剛性 Di (N/rad) | 剛性一次 モーメント | 剛心 - 位置 Y(m) | Di × Y ² | ねじれ補正係数 | |
|-------------|-----------|------------------|---------------|-----------------|---------------------|---------|-------|
| | | | | | | 地震用 e | 風圧用 w |
| Y7 | 5.005 | 2395800 | 11990979 | -1.993 | 9516235 | 0.876 | 0.894 |
| Y7-Y5 | | | | | | 0.933 | 0.943 |
| Y5 | 3.185 | 663450 | 2113088 | -0.173 | 19856 | 0.989 | 0.991 |
| Y5-Y1 | | | | | | 1.088 | 1.076 |
| Y1 | 0.000 | 1623900 | 0 | 3.012 | 14732255 | 1.187 | 1.161 |
| 合計 | | 4683150 | 14104067 | | 24268346 | | |

地震用

| | |
|-----------------------------------|----------|
| 剛心(/) | 3.012 |
| 重心 | 2.233 |
| 偏心距離= 剛心-重心 | 0.779 |
| ねじり剛性= +Y上加力の Di × X ² | 58816191 |
| 弾力半径= (ねじり剛性/) | 3.544 |
| 偏心率=偏心距離/弾力半径 | 0.220 |
| 偏心率判定 (偏心率 0.30) | OK |

風圧用

| | |
|-----------------------------------|----------|
| 剛心(/) | 3.012 |
| 重心 | 2.342 |
| 偏心距離= 剛心-重心 | 0.670 |
| ねじり剛性= +Y上加力の Di × X ² | 58816191 |
| 弾力半径= (ねじり剛性/) | 3.544 |
| 偏心率=偏心距離/弾力半径 | 0.189 |
| | |

3階 X右加力方向

| 通り または区間 | 位置 (m) | 剛性 Di (N/rad) | 剛性一次 モーメント | 剛心 - 位置 Y(m) | Di × Y ² | ねじれ補正係数 | |
|-------------|-----------|------------------|---------------|-----------------|---------------------|---------|-------|
| | | | | | | 地震用 e | 風圧用 w |
| Y7 | 5.005 | 2529600 | 12660648 | -1.932 | 9442046 | 0.861 | 0.879 |
| Y7-Y5 | | | | | | 0.927 | 0.936 |
| Y5 | 3.185 | 931050 | 2965394 | -0.112 | 11679 | 0.992 | 0.993 |
| Y5-Y1 | | | | | | 1.107 | 1.093 |
| Y1 | 0.000 | 1623900 | 0 | 3.073 | 15335022 | 1.221 | 1.192 |
| 合計 | | 5084550 | 15626042 | | 24788747 | | |

地震用

| | |
|-----------------------------------|----------|
| 剛心(/) | 3.073 |
| 重心 | 2.233 |
| 偏心距離= 剛心-重心 | 0.840 |
| ねじり剛性= +Y上加力の Di × X ² | 59336592 |
| 弾力半径= (ねじり剛性/) | 3.416 |
| 偏心率=偏心距離/弾力半径 | 0.246 |
| 偏心率判定 (偏心率 0.30) | OK |

風圧用

| | |
|-----------------------------------|----------|
| 剛心(/) | 3.073 |
| 重心 | 2.342 |
| 偏心距離= 剛心-重心 | 0.731 |
| ねじり剛性= +Y上加力の Di × X ² | 59336592 |
| 弾力半径= (ねじり剛性/) | 3.416 |
| 偏心率=偏心距離/弾力半径 | 0.214 |
| | |

3階 Y下加力方向

| 通り または区間 | 位置 (m) | 剛性 Di (N/rad) | 剛性一次 モーメント | 剛心 - 位置 X(m) | Di × X ² | ねじれ補正係数 | |
|-------------|-----------|------------------|---------------|-----------------|---------------------|---------|-------|
| | | | | | | 地震用 e | 風圧用 w |
| X1 | 0.000 | 2045250 | 0 | 3.155 | 20358470 | 1.064 | 1.064 |
| X1-X4 | | | | | | 1.037 | 1.037 |
| X4 | 2.730 | 1067550 | 2914412 | 0.425 | 192826 | 1.009 | 1.009 |
| X4-X5 | | | | | | 1.000 | 1.000 |
| X5 | 3.640 | 594000 | 2162160 | -0.485 | 139724 | 0.990 | 0.990 |
| X5-X6 | | | | | | 0.981 | 0.981 |
| X6 | 4.550 | 524400 | 2386020 | -1.395 | 1020496 | 0.972 | 0.972 |
| X6-X8 | | | | | | 0.958 | 0.958 |
| X8 | 5.915 | 2132250 | 12612259 | -2.760 | 16242628 | 0.944 | 0.944 |
| 合計 | | 6363450 | 20074851 | | 37954144 | | |

地震用

| | |
|-----------------------------------|----------|
| 剛心(/) | 3.155 |
| 重心 | 2.957 |
| 偏心距離= 剛心-重心 | 0.198 |
| ねじり剛性= +X左加力の Di × Y ² | 62222490 |
| 弾力半径= (ねじり剛性/) | 3.127 |
| 偏心率=偏心距離/弾力半径 | 0.063 |
| 偏心率判定 (偏心率 0.30) | OK |

風圧用

| | |
|-----------------------------------|----------|
| 剛心(/) | 3.155 |
| 重心 | 2.958 |
| 偏心距離= 剛心-重心 | 0.197 |
| ねじり剛性= +X左加力の Di × Y ² | 62222490 |
| 弾力半径= (ねじり剛性/) | 3.127 |
| 偏心率=偏心距離/弾力半径 | 0.063 |
| | |

3階 Y上加力方向

| 通り または区間 | 位置 (m) | 剛性 Di (N/rad) | 剛性一次 モーメント | 剛心 - 位置 X(m) | Di × X ² | ねじれ補正係数 | |
|-------------|-----------|------------------|---------------|-----------------|---------------------|---------|-------|
| | | | | | | 地震用 e | 風圧用 w |
| X1 | 0.000 | 1911600 | 0 | 3.111 | 18501078 | 1.047 | 1.047 |
| X1-X4 | | | | | | 1.027 | 1.027 |
| X4 | 2.730 | 915000 | 2497950 | 0.381 | 132822 | 1.006 | 1.006 |
| X4-X5 | | | | | | 0.999 | 0.999 |
| X5 | 3.640 | 594000 | 2162160 | -0.529 | 166226 | 0.992 | 0.992 |
| X5-X6 | | | | | | 0.985 | 0.985 |
| X6 | 4.550 | 524400 | 2386020 | -1.439 | 1085886 | 0.978 | 0.978 |
| X6-X8 | | | | | | 0.968 | 0.968 |
| X8 | 5.915 | 1864800 | 11030292 | -2.804 | 14661833 | 0.957 | 0.958 |
| 合計 | | 5809800 | 18076422 | | 34547845 | | |

地震用

| | |
|-----------------------------------|----------|
| 剛心(/) | 3.111 |
| 重心 | 2.957 |
| 偏心距離= 剛心-重心 | 0.154 |
| ねじり剛性= +X左加力の Di × Y ² | 58816191 |
| 弾力半径= (ねじり剛性/) | 3.182 |
| 偏心率=偏心距離/弾力半径 | 0.048 |
| 偏心率判定 (偏心率 0.30) | OK |

風圧用

| | |
|-----------------------------------|----------|
| 剛心(/) | 3.111 |
| 重心 | 2.958 |
| 偏心距離= 剛心-重心 | 0.153 |
| ねじり剛性= +X左加力の Di × Y ² | 58816191 |
| 弾力半径= (ねじり剛性/) | 3.182 |
| 偏心率=偏心距離/弾力半径 | 0.048 |
| | |

2階 X左加力方向

| 通り または区間 | 位置 (m) | 剛性 Di (N/rad) | 剛性一次 モーメント | 剛心 - 位置 Y(m) | Di × Y ² | ねじれ補正係数 | |
|-------------|-----------|------------------|---------------|-----------------|---------------------|---------|-------|
| | | | | | | 地震用 e | 風圧用 w |
| Y7 | 5.005 | 2532150 | 12673411 | 2.829 | 20265407 | 1.027 | 1.037 |
| Y7-Y5 | | | | | | 1.019 | 1.025 |
| Y5 | 3.185 | 0 | 0 | 1.009 | 0 | 1.010 | 1.013 |
| Y5-Y4 | | | | | | 1.006 | 1.007 |
| Y4 | 2.275 | 559200 | 1272180 | 0.099 | 5481 | 1.001 | 1.001 |
| Y4-Y1 | | | | | | 0.990 | 0.986 |
| Y1 | 0.000 | 3318750 | 0 | -2.176 | 15714202 | 0.979 | 0.971 |
| 合計 | | 6410100 | 13945591 | | 35985090 | | |

地震用

| | |
|-----------------------------------|----------|
| 剛心(/) | 2.176 |
| 重心 | 2.276 |
| 偏心距離= 剛心-重心 | 0.100 |
| ねじり剛性= +Y下加力の Di × X ² | 66958218 |
| 弾力半径= (ねじり剛性/) | 3.232 |
| 偏心率=偏心距離/弾力半径 | 0.031 |
| 偏心率判定 (偏心率 0.30) | OK |

風圧用

| | |
|-----------------------------------|----------|
| 剛心(/) | 2.176 |
| 重心 | 2.314 |
| 偏心距離= 剛心-重心 | 0.138 |
| ねじり剛性= +Y下加力の Di × X ² | 66958218 |
| 弾力半径= (ねじり剛性/) | 3.232 |
| 偏心率=偏心距離/弾力半径 | 0.043 |
| | |

2階 X右加力方向

| 通り または区間 | 位置 (m) | 剛性 Di (N/rad) | 剛性一次 モーメント | 剛心 - 位置 Y(m) | Di × Y ² | ねじれ補正係数 | |
|-------------|-----------|------------------|---------------|-----------------|---------------------|---------|-------|
| | | | | | | 地震用 e | 風圧用 w |
| Y7 | 5.005 | 3201000 | 16021005 | -2.473 | 19576449 | 0.937 | 0.946 |
| Y7-Y5 | | | | | | 0.960 | 0.966 |
| Y5 | 3.185 | 0 | 0 | -0.653 | 0 | 0.983 | 0.986 |
| Y5-Y4 | | | | | | 0.995 | 0.996 |
| Y4 | 2.275 | 738450 | 1679974 | 0.257 | 48774 | 1.007 | 1.006 |
| Y4-Y1 | | | | | | 1.036 | 1.031 |
| Y1 | 0.000 | 3051150 | 0 | 2.532 | 19560996 | 1.065 | 1.055 |
| 合計 | | 6990600 | 17700979 | | 39186219 | | |

地震用

| | |
|-----------------------------------|----------|
| 剛心(/) | 2.532 |
| 重心 | 2.276 |
| 偏心距離= 剛心-重心 | 0.256 |
| ねじり剛性= +Y下加力の Di × X ² | 70159347 |
| 弾力半径= (ねじり剛性/) | 3.168 |
| 偏心率=偏心距離/弾力半径 | 0.081 |
| 偏心率判定 (偏心率 0.30) | OK |

風圧用

| | |
|-----------------------------------|----------|
| 剛心(/) | 2.532 |
| 重心 | 2.314 |
| 偏心距離= 剛心-重心 | 0.218 |
| ねじり剛性= +Y下加力の Di × X ² | 70159347 |
| 弾力半径= (ねじり剛性/) | 3.168 |
| 偏心率=偏心距離/弾力半径 | 0.069 |
| | |

2階 Y下加力方向

| 通り または区間 | 位置 (m) | 剛性 Di (N/rad) | 剛性一次 モーメント | 剛心 - 位置 X(m) | Di × X ² | ねじれ補正係数 | |
|-------------|-----------|------------------|---------------|-----------------|---------------------|---------|-------|
| | | | | | | 地震用 e | 風圧用 w |
| X1 | 0.000 | 1733550 | 0 | -3.092 | 16573542 | 0.997 | 1.045 |
| X1-X4 | | | | | | 0.999 | 1.025 |
| X4 | 2.730 | 2394450 | 6536849 | -0.362 | 313778 | 1.000 | 1.005 |
| X4-X5 | | | | | | 1.000 | 0.999 |
| X5 | 3.640 | 262200 | 954408 | 0.548 | 78740 | 1.000 | 0.992 |
| X5-X6 | | | | | | 1.001 | 0.986 |
| X6 | 4.550 | 1594500 | 7254975 | 1.458 | 3389531 | 1.001 | 0.979 |
| X6-X8 | | | | | | 1.002 | 0.969 |
| X8 | 5.915 | 1332300 | 7880555 | 2.823 | 10617537 | 1.002 | 0.959 |
| 合計 | | 7317000 | 22626787 | | 30973128 | | |

地震用

| | |
|-----------------------------------|----------|
| 剛心(/) | 3.092 |
| 重心 | 3.100 |
| 偏心距離= 剛心-重心 | 0.008 |
| ねじり剛性= +X左加力の Di × Y ² | 66958218 |
| 弾力半径= (ねじり剛性/) | 3.025 |
| 偏心率=偏心距離/弾力半径 | 0.003 |
| 偏心率判定 (偏心率 0.30) | OK |

風圧用

| | |
|-----------------------------------|----------|
| 剛心(/) | 3.092 |
| 重心 | 2.958 |
| 偏心距離= 剛心-重心 | 0.134 |
| ねじり剛性= +X左加力の Di × Y ² | 66958218 |
| 弾力半径= (ねじり剛性/) | 3.025 |
| 偏心率=偏心距離/弾力半径 | 0.044 |
| | |

2階 Y上加力方向

| 通り または区間 | 位置 (m) | 剛性 Di (N/rad) | 剛性一次 モーメント | 剛心 - 位置 X(m) | Di × X ² | ねじれ補正係数 | |
|-------------|-----------|------------------|---------------|-----------------|---------------------|---------|-------|
| | | | | | | 地震用 e | 風圧用 w |
| X1 | 0.000 | 2001150 | 0 | -2.996 | 17962354 | 0.968 | 1.012 |
| X1-X4 | | | | | | 0.983 | 1.007 |
| X4 | 2.730 | 2022600 | 5521698 | -0.266 | 143111 | 0.997 | 1.001 |
| X4-X5 | | | | | | 1.002 | 0.999 |
| X5 | 3.640 | 262200 | 954408 | 0.644 | 108744 | 1.007 | 0.997 |
| X5-X6 | | | | | | 1.012 | 0.996 |
| X6 | 4.550 | 1594500 | 7254975 | 1.554 | 3850584 | 1.017 | 0.994 |
| X6-X8 | | | | | | 1.025 | 0.991 |
| X8 | 5.915 | 1332300 | 7880555 | 2.919 | 11351943 | 1.032 | 0.988 |
| 合計 | | 7212750 | 21611636 | | 33416736 | | |

地震用

| | |
|-----------------------------------|----------|
| 剛心(/) | 2.996 |
| 重心 | 3.100 |
| 偏心距離= 剛心-重心 | 0.104 |
| ねじり剛性= +X左加力の Di × Y ² | 69401826 |
| 弾力半径= (ねじり剛性/) | 3.102 |
| 偏心率=偏心距離/弾力半径 | 0.034 |
| 偏心率判定 (偏心率 0.30) | OK |

風圧用

| | |
|-----------------------------------|----------|
| 剛心(/) | 2.996 |
| 重心 | 2.958 |
| 偏心距離= 剛心-重心 | 0.038 |
| ねじり剛性= +X左加力の Di × Y ² | 69401826 |
| 弾力半径= (ねじり剛性/) | 3.102 |
| 偏心率=偏心距離/弾力半径 | 0.012 |
| | |

1階 X左加力方向

| 通り または区間 | 位置 (m) | 剛性 Di (N/rad) | 剛性一次 モーメント | 剛心 - 位置 Y(m) | Di × Y ² | ねじれ補正係数 | |
|-------------|-----------|------------------|---------------|-----------------|---------------------|---------|-------|
| | | | | | | 地震用 e | 風圧用 w |
| Y7 | 5.005 | 3064500 | 15337823 | -2.256 | 15596883 | 0.945 | 0.940 |
| Y7-Y5 | | | | | | 0.967 | 0.964 |
| Y5 | 3.185 | 2124300 | 6765896 | -0.436 | 403821 | 0.989 | 0.988 |
| Y5-Y4 | | | | | | 1.000 | 1.001 |
| Y4 | 2.275 | 1594500 | 3627488 | 0.474 | 358246 | 1.011 | 1.013 |
| Y4-Y1 | | | | | | 1.039 | 1.043 |
| Y1 | 0.000 | 2576250 | 0 | 2.749 | 19468724 | 1.067 | 1.073 |
| 合計 | | 9359550 | 25731207 | | 35827674 | | |

地震用

| | |
|-----------------------------------|----------|
| 剛心 (/) | 2.749 |
| 重心 | 2.525 |
| 偏心距離= 剛心-重心 | 0.224 |
| ねじり剛性= +Y下加力の Di × X ² | 86564281 |
| 弾力半径= (ねじり剛性/) | 3.041 |
| 偏心率=偏心距離/弾力半径 | 0.074 |
| 偏心率判定 (偏心率 0.30) | OK |

風圧用

| | |
|-----------------------------------|----------|
| 剛心 (/) | 2.749 |
| 重心 | 2.503 |
| 偏心距離= 剛心-重心 | 0.246 |
| ねじり剛性= +Y下加力の Di × X ² | 86564281 |
| 弾力半径= (ねじり剛性/) | 3.041 |
| 偏心率=偏心距離/弾力半径 | 0.081 |
| | |

1階 X右加力方向

| 通り または区間 | 位置 (m) | 剛性 Di (N/rad) | 剛性一次 モーメント | 剛心 - 位置 Y(m) | Di × Y ² | ねじれ補正係数 | |
|-------------|-----------|------------------|---------------|-----------------|---------------------|---------|-------|
| | | | | | | 地震用 e | 風圧用 w |
| Y7 | 5.005 | 2930850 | 14668904 | -2.317 | 15734236 | 0.962 | 0.957 |
| Y7-Y5 | | | | | | 0.977 | 0.974 |
| Y5 | 3.185 | 1589250 | 5061761 | -0.497 | 392559 | 0.992 | 0.991 |
| Y5-Y4 | | | | | | 1.000 | 1.000 |
| Y4 | 2.275 | 1594500 | 3627488 | 0.413 | 271972 | 1.007 | 1.008 |
| Y4-Y1 | | | | | | 1.026 | 1.029 |
| Y1 | 0.000 | 2576250 | 0 | 2.688 | 18614292 | 1.044 | 1.050 |
| 合計 | | 8690850 | 23358153 | | 35013059 | | |

地震用

| | |
|-----------------------------------|----------|
| 剛心 (/) | 2.688 |
| 重心 | 2.525 |
| 偏心距離= 剛心-重心 | 0.163 |
| ねじり剛性= +Y下加力の Di × X ² | 85749666 |
| 弾力半径= (ねじり剛性/) | 3.141 |
| 偏心率=偏心距離/弾力半径 | 0.052 |
| 偏心率判定 (偏心率 0.30) | OK |

風圧用

| | |
|-----------------------------------|----------|
| 剛心 (/) | 2.688 |
| 重心 | 2.503 |
| 偏心距離= 剛心-重心 | 0.185 |
| ねじり剛性= +Y下加力の Di × X ² | 85749666 |
| 弾力半径= (ねじり剛性/) | 3.141 |
| 偏心率=偏心距離/弾力半径 | 0.059 |
| | |

1階 Y下加力方向

| 通り または区間 | 位置 (m) | 剛性 Di (N/rad) | 剛性一次 モーメント | 剛心 - 位置 X(m) | Di × X ² | ねじれ補正係数 | |
|-------------|-----------|------------------|---------------|-----------------|---------------------|---------|-------|
| | | | | | | 地震用 e | 風圧用 w |
| X1 | 0.000 | 2781000 | 0 | 3.064 | 26108295 | 1.043 | 1.041 |
| X1-X3 | | | | | | 1.030 | 1.029 |
| X3 | 1.820 | 1637250 | 2979795 | 1.244 | 2533703 | 1.017 | 1.017 |
| X3-X4 | | | | | | 1.011 | 1.011 |
| X4 | 2.730 | 524400 | 1431612 | 0.334 | 58500 | 1.005 | 1.004 |
| X4-X5 | | | | | | 0.999 | 0.998 |
| X5 | 3.640 | 262200 | 954408 | -0.576 | 86992 | 0.992 | 0.992 |
| X5-X6 | | | | | | 0.986 | 0.986 |
| X6 | 4.550 | 4055700 | 18453435 | -1.486 | 8955781 | 0.979 | 0.980 |
| X6-X8 | | | | | | 0.970 | 0.971 |
| X8 | 5.915 | 1598550 | 9455423 | -2.851 | 12993336 | 0.960 | 0.962 |
| 合計 | | 10859100 | 33274673 | | 50736607 | | |

地震用

| | |
|-----------------------------------|----------|
| 剛心(/) | 3.064 |
| 重心 | 2.954 |
| 偏心距離= 剛心-重心 | 0.110 |
| ねじり剛性= +X右加力の Di × Y ² | 85749666 |
| 弾力半径= (ねじり剛性/) | 2.810 |
| 偏心率=偏心距離/弾力半径 | 0.039 |
| 偏心率判定 (偏心率 0.30) | OK |

風圧用

| | |
|-----------------------------------|----------|
| 剛心(/) | 3.064 |
| 重心 | 2.958 |
| 偏心距離= 剛心-重心 | 0.106 |
| ねじり剛性= +X右加力の Di × Y ² | 85749666 |
| 弾力半径= (ねじり剛性/) | 2.810 |
| 偏心率=偏心距離/弾力半径 | 0.038 |
| | |

1階 Y上加力方向

| 通り または区間 | 位置 (m) | 剛性 Di (N/rad) | 剛性一次 モーメント | 剛心 - 位置 X(m) | Di × X ² | ねじれ補正係数 | |
|-------------|-----------|------------------|---------------|-----------------|---------------------|---------|-------|
| | | | | | | 地震用 e | 風圧用 w |
| X1 | 0.000 | 2781150 | 0 | 3.116 | 27003454 | 1.064 | 1.063 |
| X1-X3 | | | | | | 1.046 | 1.045 |
| X3 | 1.820 | 1637250 | 2979795 | 1.296 | 2749951 | 1.027 | 1.026 |
| X3-X4 | | | | | | 1.018 | 1.017 |
| X4 | 2.730 | 524400 | 1431612 | 0.386 | 78134 | 1.008 | 1.008 |
| X4-X5 | | | | | | 0.999 | 0.999 |
| X5 | 3.640 | 262200 | 954408 | -0.524 | 71994 | 0.989 | 0.989 |
| X5-X6 | | | | | | 0.980 | 0.980 |
| X6 | 4.550 | 4189650 | 19062908 | -1.434 | 8615412 | 0.970 | 0.971 |
| X6-X8 | | | | | | 0.956 | 0.958 |
| X8 | 5.915 | 1732200 | 10245963 | -2.799 | 13570749 | 0.942 | 0.944 |
| 合計 | | 11126850 | 34674686 | | 52089694 | | |

地震用

| | |
|-----------------------------------|----------|
| 剛心(/) | 3.116 |
| 重心 | 2.954 |
| 偏心距離= 剛心-重心 | 0.162 |
| ねじり剛性= +X右加力の Di × Y ² | 87102753 |
| 弾力半径= (ねじり剛性/) | 2.798 |
| 偏心率=偏心距離/弾力半径 | 0.058 |
| 偏心率判定 (偏心率 0.30) | OK |

風圧用

| | |
|-----------------------------------|----------|
| 剛心(/) | 3.116 |
| 重心 | 2.958 |
| 偏心距離= 剛心-重心 | 0.158 |
| ねじり剛性= +X右加力の Di × Y ² | 87102753 |
| 弾力半径= (ねじり剛性/) | 2.798 |
| 偏心率=偏心距離/弾力半径 | 0.056 |
| | |

3 - 6 鉛直構面の負担水平力に対する検定

3階 X左加力方向

eQi = 18.092(kN)

wQi = 10.217(kN)

| 通り | 許容耐力 Pa (kN) | 剛性 Di (kN/rad) | 地震力 | | | | 風圧力 | | | |
|----|--------------------|----------------------|----------------|-------------------|-----------|-------------|----------------|-------------------|-----------|-------------|
| | | | ねじれ 補正 e | 水平力 Qe (kN) | Qe/ Pa | 判定 < 1.0 | ねじれ 補正 w | 水平力 Qw (kN) | Qw/ Pa | 判定 < 1.0 |
| Y7 | 15.972 | 2395.800 | 0.876 | 8.108 | 0.507 | OK | 0.894 | 4.673 | 0.292 | OK |
| Y5 | 4.423 | 663.450 | 0.989 | 2.535 | 0.573 | OK | 0.991 | 1.434 | 0.324 | OK |
| Y1 | 10.826 | 1623.900 | 1.187 | 7.447 | 0.687 | OK | 1.161 | 4.113 | 0.379 | OK |
| 合計 | 31.221 | 4683.150 | | 18.090 | 0.579 | OK | | 10.220 | 0.327 | OK |

3階 X右加力方向

eQi = 18.092(kN)

wQi = 10.217(kN)

| 通り | 許容耐力 Pa (kN) | 剛性 Di (kN/rad) | 地震力 | | | | 風圧力 | | | |
|----|--------------------|----------------------|----------------|-------------------|-----------|-------------|----------------|-------------------|-----------|-------------|
| | | | ねじれ 補正 e | 水平力 Qe (kN) | Qe/ Pa | 判定 < 1.0 | ねじれ 補正 w | 水平力 Qw (kN) | Qw/ Pa | 判定 < 1.0 |
| Y7 | 16.864 | 2529.600 | 0.861 | 7.750 | 0.459 | OK | 0.879 | 4.468 | 0.264 | OK |
| Y5 | 6.207 | 931.050 | 0.992 | 3.286 | 0.529 | OK | 0.993 | 1.858 | 0.299 | OK |
| Y1 | 10.826 | 1623.900 | 1.221 | 7.055 | 0.651 | OK | 1.192 | 3.890 | 0.359 | OK |
| 合計 | 33.897 | 5084.550 | | 18.091 | 0.533 | OK | | 10.216 | 0.301 | OK |

3階 Y下加力方向

eQi = 18.092(kN)

wQi = 15.553(kN)

| 通り | 許容耐力 Pa (kN) | 剛性 Di (kN/rad) | 地震力 | | | | 風圧力 | | | |
|----|--------------------|----------------------|----------------|-------------------|-----------|-------------|----------------|-------------------|-----------|-------------|
| | | | ねじれ 補正 e | 水平力 Qe (kN) | Qe/ Pa | 判定 < 1.0 | ねじれ 補正 w | 水平力 Qw (kN) | Qw/ Pa | 判定 < 1.0 |
| X1 | 13.635 | 2045.250 | 1.064 | 6.187 | 0.453 | OK | 1.064 | 5.319 | 0.390 | OK |
| X4 | 7.117 | 1067.550 | 1.009 | 3.062 | 0.430 | OK | 1.009 | 2.633 | 0.369 | OK |
| X5 | 3.960 | 594.000 | 0.990 | 1.672 | 0.422 | OK | 0.990 | 1.437 | 0.362 | OK |
| X6 | 3.496 | 524.400 | 0.972 | 1.449 | 0.414 | OK | 0.972 | 1.246 | 0.356 | OK |
| X8 | 14.215 | 2132.250 | 0.944 | 5.723 | 0.402 | OK | 0.944 | 4.920 | 0.346 | OK |
| 合計 | 42.423 | 6363.450 | | 18.093 | 0.426 | OK | | 15.555 | 0.366 | OK |

3階 Y上加力方向

$eQ_i = 18.092(\text{kN})$

$wQ_i = 15.553(\text{kN})$

| 通り | 許容耐力 Pa (kN) | 剛性 Di (kN/rad) | 地震力 | | | | 風圧力 | | | |
|----|--------------------|----------------------|----------------|-------------------|-----------|-------------|----------------|-------------------|-----------|-------------|
| | | | ねじれ 補正 e | 水平力 Qe (kN) | Qe/ Pa | 判定 < 1.0 | ねじれ 補正 w | 水平力 Qw (kN) | Qw/ Pa | 判定 < 1.0 |
| X1 | 12.744 | 1911.600 | 1.047 | 6.233 | 0.489 | OK | 1.047 | 5.358 | 0.420 | OK |
| X4 | 6.100 | 915.000 | 1.006 | 2.866 | 0.469 | OK | 1.006 | 2.464 | 0.403 | OK |
| X5 | 3.960 | 594.000 | 0.992 | 1.835 | 0.463 | OK | 0.992 | 1.577 | 0.398 | OK |
| X6 | 3.496 | 524.400 | 0.978 | 1.597 | 0.456 | OK | 0.978 | 1.373 | 0.392 | OK |
| X8 | 12.432 | 1864.800 | 0.957 | 5.557 | 0.446 | OK | 0.958 | 4.782 | 0.384 | OK |
| 合計 | 38.732 | 5809.800 | | 18.088 | 0.467 | OK | | 15.554 | 0.401 | OK |

2階 X左加力方向

eQi = 37.565(kN)

wQi = 24.066(kN)

| 通り | 地震力 | | | | | | 風圧力 | | | |
|----|--------------------|----------------------|----------------|-------------------|-----------|-------------|----------------|-------------------|-----------|-------------|
| | 許容耐力 Pa (kN) | 剛性 Di (kN/rad) | ねじれ 補正 e | 水平力 Qe (kN) | Qe/ Pa | 判定 < 1.0 | ねじれ 補正 w | 水平力 Qw (kN) | Qw/ Pa | 判定 < 1.0 |
| Y7 | 16.881 | 2532.150 | 1.027 | 15.240 | 0.902 | OK | 1.037 | 9.858 | 0.583 | OK |
| Y5 | 0.000 | 0.000 | 1.010 | 0.000 | 0.000 | OK | 1.013 | 0.000 | 0.000 | OK |
| Y4 | 3.728 | 559.200 | 1.001 | 3.280 | 0.879 | OK | 1.001 | 2.102 | 0.563 | OK |
| Y1 | 22.125 | 3318.750 | 0.979 | 19.040 | 0.860 | OK | 0.971 | 12.099 | 0.546 | OK |
| 合計 | 42.734 | 6410.100 | / | 37.560 | 0.878 | OK | / | 24.059 | 0.562 | OK |

2階 X右加力方向

eQi = 37.565(kN)

wQi = 24.066(kN)

| 通り | 地震力 | | | | | | 風圧力 | | | |
|----|--------------------|----------------------|----------------|-------------------|-----------|-------------|----------------|-------------------|-----------|-------------|
| | 許容耐力 Pa (kN) | 剛性 Di (kN/rad) | ねじれ 補正 e | 水平力 Qe (kN) | Qe/ Pa | 判定 < 1.0 | ねじれ 補正 w | 水平力 Qw (kN) | Qw/ Pa | 判定 < 1.0 |
| Y7 | 21.340 | 3201.000 | 0.937 | 16.117 | 0.755 | OK | 0.946 | 10.425 | 0.488 | OK |
| Y5 | 0.000 | 0.000 | 0.983 | 0.000 | 0.000 | OK | 0.986 | 0.000 | 0.000 | OK |
| Y4 | 4.923 | 738.450 | 1.007 | 3.996 | 0.811 | OK | 1.006 | 2.557 | 0.519 | OK |
| Y1 | 20.341 | 3051.150 | 1.065 | 17.462 | 0.858 | OK | 1.055 | 11.082 | 0.544 | OK |
| 合計 | 46.604 | 6990.600 | / | 37.575 | 0.806 | OK | / | 24.064 | 0.516 | OK |

2階 Y下加力方向

eQi = 37.565(kN)

wQi = 30.618(kN)

| 通り | 地震力 | | | | | | 風圧力 | | | |
|----|--------------------|----------------------|----------------|-------------------|-----------|-------------|----------------|-------------------|-----------|-------------|
| | 許容耐力 Pa (kN) | 剛性 Di (kN/rad) | ねじれ 補正 e | 水平力 Qe (kN) | Qe/ Pa | 判定 < 1.0 | ねじれ 補正 w | 水平力 Qw (kN) | Qw/ Pa | 判定 < 1.0 |
| X1 | 11.557 | 1733.550 | 0.997 | 8.873 | 0.767 | OK | 1.045 | 7.580 | 0.655 | OK |
| X4 | 15.963 | 2394.450 | 1.000 | 12.293 | 0.770 | OK | 1.005 | 10.070 | 0.630 | OK |
| X5 | 1.748 | 262.200 | 1.000 | 1.346 | 0.770 | OK | 0.992 | 1.088 | 0.622 | OK |
| X6 | 10.630 | 1594.500 | 1.001 | 8.194 | 0.770 | OK | 0.979 | 6.532 | 0.614 | OK |
| X8 | 8.882 | 1332.300 | 1.002 | 6.854 | 0.771 | OK | 0.959 | 5.346 | 0.601 | OK |
| 合計 | 48.780 | 7317.000 | / | 37.560 | 0.769 | OK | / | 30.616 | 0.627 | OK |

2階 Y上加力方向

$eQ_i = 37.565(\text{kN})$

$wQ_i = 30.618(\text{kN})$

| 通り | 許容耐力 Pa (kN) | 剛性 Di (kN/rad) | 地震力 | | | | 風圧力 | | | |
|----|--------------------|----------------------|----------------|-------------------|-----------|-------------|----------------|-------------------|-----------|-------------|
| | | | ねじれ 補正 e | 水平力 Qe (kN) | Qe/ Pa | 判定 < 1.0 | ねじれ 補正 w | 水平力 Qw (kN) | Qw/ Pa | 判定 < 1.0 |
| X1 | 13.341 | 2001.150 | 0.968 | 10.089 | 0.756 | OK | 1.012 | 8.597 | 0.644 | OK |
| X4 | 13.484 | 2022.600 | 0.997 | 10.502 | 0.778 | OK | 1.001 | 8.594 | 0.637 | OK |
| X5 | 1.748 | 262.200 | 1.007 | 1.375 | 0.786 | OK | 0.997 | 1.110 | 0.635 | OK |
| X6 | 10.630 | 1594.500 | 1.017 | 8.446 | 0.794 | OK | 0.994 | 6.728 | 0.632 | OK |
| X8 | 8.882 | 1332.300 | 1.032 | 7.161 | 0.806 | OK | 0.988 | 5.588 | 0.629 | OK |
| 合計 | 48.085 | 7212.750 | | 37.573 | 0.781 | OK | | 30.617 | 0.636 | OK |

1階 X左加力方向

eQi = 51.385(kN)

wQi = 36.208(kN)

| 通り | 許容耐力 Pa (kN) | 剛性 Di (kN/rad) | 地震力 | | | | 風圧力 | | | |
|----|--------------------|----------------------|----------------|-------------------|-----------|-------------|----------------|-------------------|-----------|-------------|
| | | | ねじれ 補正 e | 水平力 Qe (kN) | Qe/ Pa | 判定 < 1.0 | ねじれ 補正 w | 水平力 Qw (kN) | Qw/ Pa | 判定 < 1.0 |
| Y7 | 20.430 | 3064.500 | 0.945 | 15.899 | 0.778 | OK | 0.940 | 11.144 | 0.545 | OK |
| Y5 | 14.162 | 2124.300 | 0.989 | 11.534 | 0.814 | OK | 0.988 | 8.119 | 0.573 | OK |
| Y4 | 10.630 | 1594.500 | 1.011 | 8.850 | 0.832 | OK | 1.013 | 6.249 | 0.587 | OK |
| Y1 | 17.175 | 2576.250 | 1.067 | 15.092 | 0.878 | OK | 1.073 | 10.694 | 0.622 | OK |
| 合計 | 62.397 | 9359.550 | | 51.375 | 0.823 | OK | | 36.206 | 0.580 | OK |

1階 X右加力方向

eQi = 51.385(kN)

wQi = 36.208(kN)

| 通り | 許容耐力 Pa (kN) | 剛性 Di (kN/rad) | 地震力 | | | | 風圧力 | | | |
|----|--------------------|----------------------|----------------|-------------------|-----------|-------------|----------------|-------------------|-----------|-------------|
| | | | ねじれ 補正 e | 水平力 Qe (kN) | Qe/ Pa | 判定 < 1.0 | ねじれ 補正 w | 水平力 Qw (kN) | Qw/ Pa | 判定 < 1.0 |
| Y7 | 19.539 | 2930.850 | 0.962 | 16.670 | 0.853 | OK | 0.957 | 11.686 | 0.598 | OK |
| Y5 | 10.595 | 1589.250 | 0.992 | 9.321 | 0.879 | OK | 0.991 | 6.562 | 0.619 | OK |
| Y4 | 10.630 | 1594.500 | 1.007 | 9.494 | 0.893 | OK | 1.008 | 6.696 | 0.629 | OK |
| Y1 | 17.175 | 2576.250 | 1.044 | 15.902 | 0.925 | OK | 1.050 | 11.270 | 0.656 | OK |
| 合計 | 57.939 | 8690.850 | | 51.387 | 0.886 | OK | | 36.214 | 0.625 | OK |

1階 Y下加力方向

eQi = 51.385(kN)

wQi = 44.905(kN)

| 通り | 許容耐力 Pa (kN) | 剛性 Di (kN/rad) | 地震力 | | | | 風圧力 | | | |
|----|--------------------|----------------------|----------------|-------------------|-----------|-------------|----------------|-------------------|-----------|-------------|
| | | | ねじれ 補正 e | 水平力 Qe (kN) | Qe/ Pa | 判定 < 1.0 | ねじれ 補正 w | 水平力 Qw (kN) | Qw/ Pa | 判定 < 1.0 |
| X1 | 18.540 | 2781.000 | 1.043 | 13.725 | 0.740 | OK | 1.041 | 11.972 | 0.645 | OK |
| X3 | 10.915 | 1637.250 | 1.017 | 7.879 | 0.721 | OK | 1.017 | 6.886 | 0.630 | OK |
| X4 | 3.496 | 524.400 | 1.005 | 2.494 | 0.713 | OK | 1.004 | 2.177 | 0.622 | OK |
| X5 | 1.748 | 262.200 | 0.992 | 1.231 | 0.704 | OK | 0.992 | 1.076 | 0.615 | OK |
| X6 | 27.038 | 4055.700 | 0.979 | 18.788 | 0.694 | OK | 0.980 | 16.436 | 0.607 | OK |
| X8 | 10.657 | 1598.550 | 0.960 | 7.262 | 0.681 | OK | 0.962 | 6.359 | 0.596 | OK |
| 合計 | 72.394 | 10859.100 | | 51.379 | 0.709 | OK | | 44.906 | 0.620 | OK |

1階 Y上加力方向

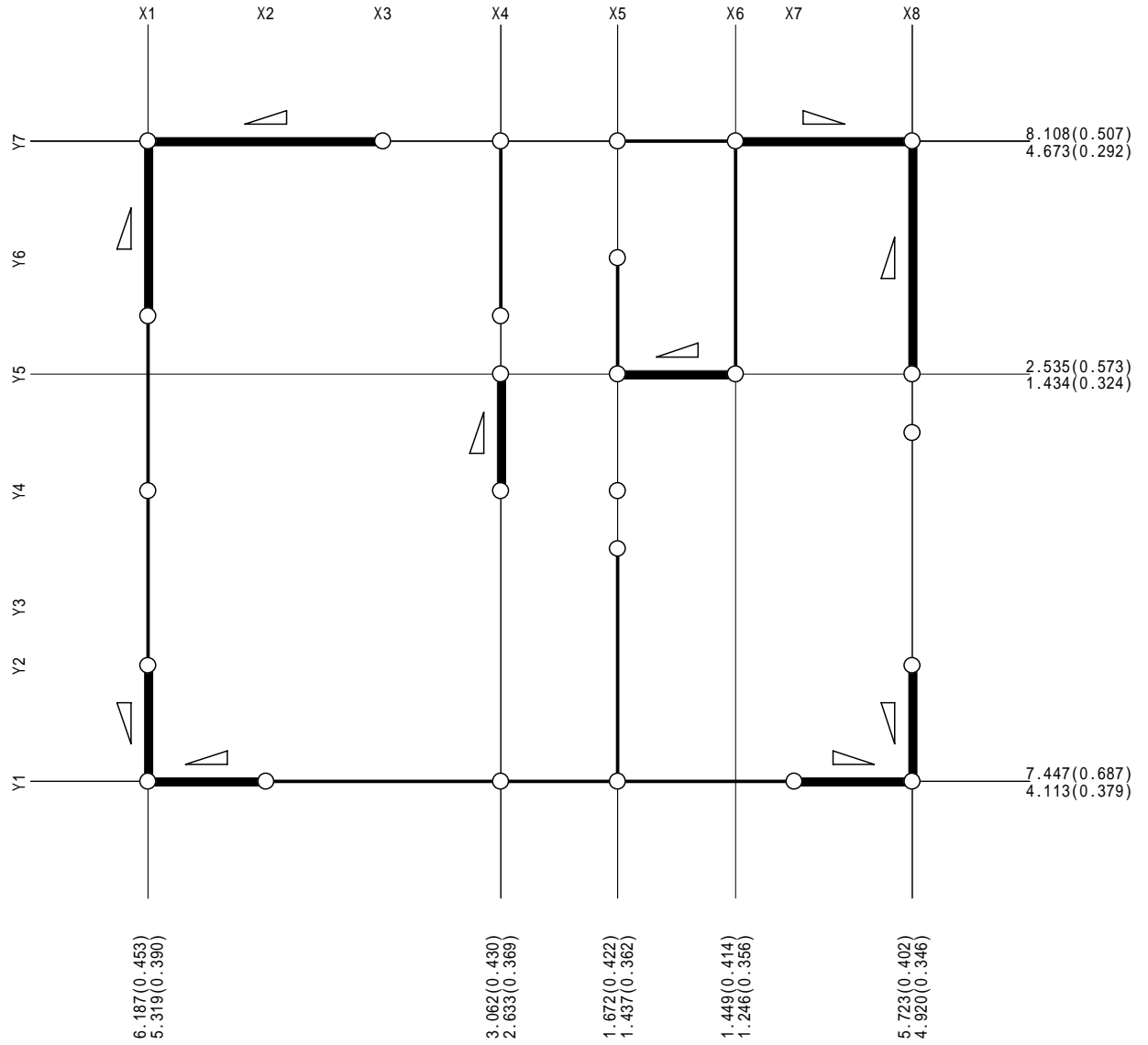
eQi = 51.385(kN)

wQi = 44.905(kN)

| 通り | 許容耐力 Pa (kN) | 剛性 Di (kN/rad) | 地震力 | | | | 風圧力 | | | |
|----|--------------------|----------------------|----------------|-------------------|-----------|-------------|----------------|-------------------|-----------|-------------|
| | | | ねじれ 補正 e | 水平力 Qe (kN) | Qe/ Pa | 判定 < 1.0 | ねじれ 補正 w | 水平力 Qw (kN) | Qw/ Pa | 判定 < 1.0 |
| X1 | 18.541 | 2781.150 | 1.064 | 13.666 | 0.737 | OK | 1.063 | 11.931 | 0.643 | OK |
| X3 | 10.915 | 1637.250 | 1.027 | 7.765 | 0.711 | OK | 1.026 | 6.779 | 0.621 | OK |
| X4 | 3.496 | 524.400 | 1.008 | 2.441 | 0.698 | OK | 1.008 | 2.133 | 0.610 | OK |
| X5 | 1.748 | 262.200 | 0.989 | 1.198 | 0.685 | OK | 0.989 | 1.047 | 0.598 | OK |
| X6 | 27.931 | 4189.650 | 0.970 | 18.768 | 0.671 | OK | 0.971 | 16.418 | 0.587 | OK |
| X8 | 11.548 | 1732.200 | 0.942 | 7.536 | 0.652 | OK | 0.944 | 6.599 | 0.571 | OK |
| 合計 | 74.179 | 11126.850 | | 51.374 | 0.692 | OK | | 44.907 | 0.605 | OK |

鉛直構面の水平荷重時の応力図および検定比図

3階 X左加力方向
Y下加力方向

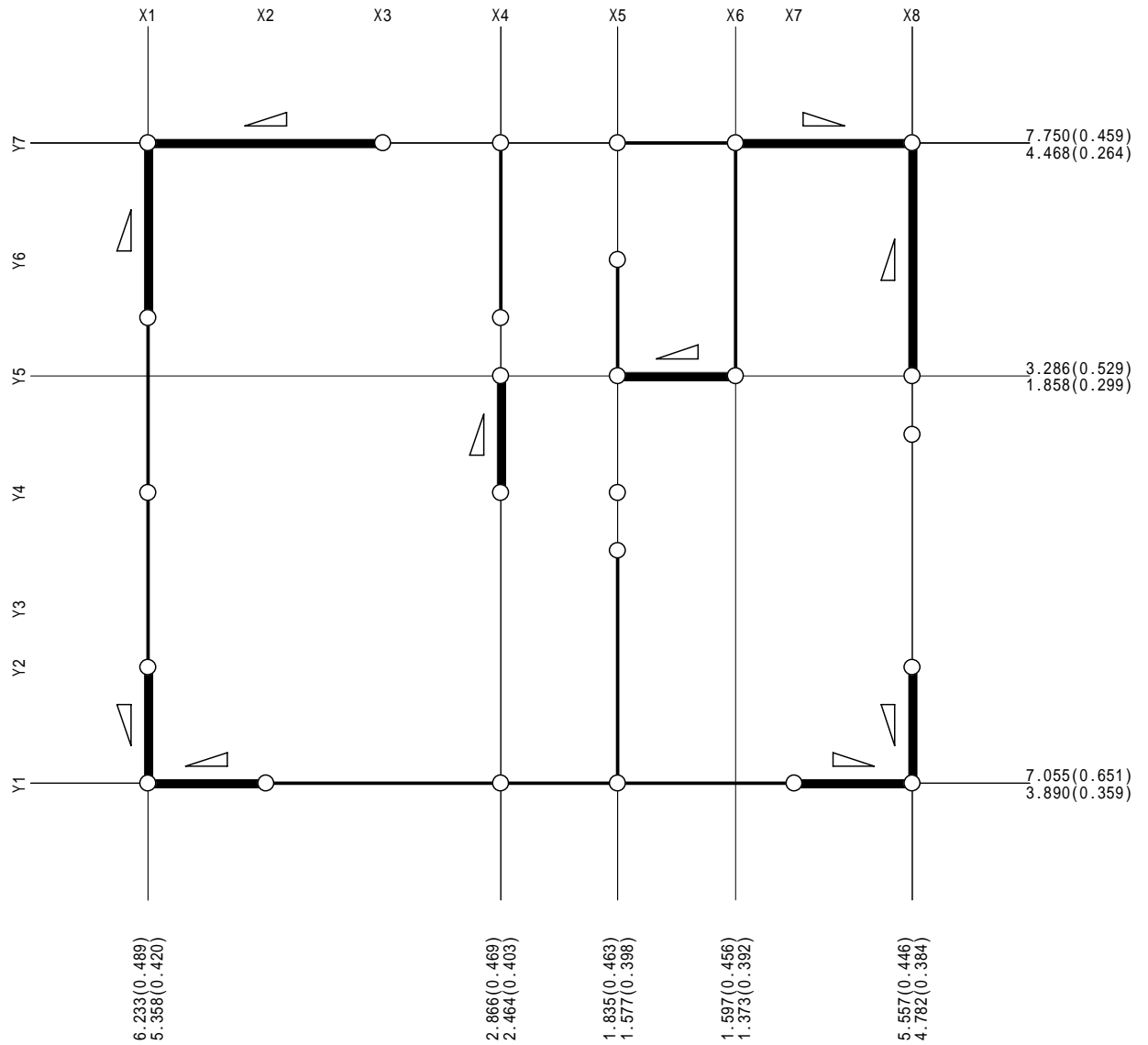


凡例:

| |
|---------------|
| 地震力 k N (検定比) |
| 風圧力 k N (検定比) |

検定比 = 水平荷重 / 許容せん断力

3階 X右加力方向
Y上加力方向



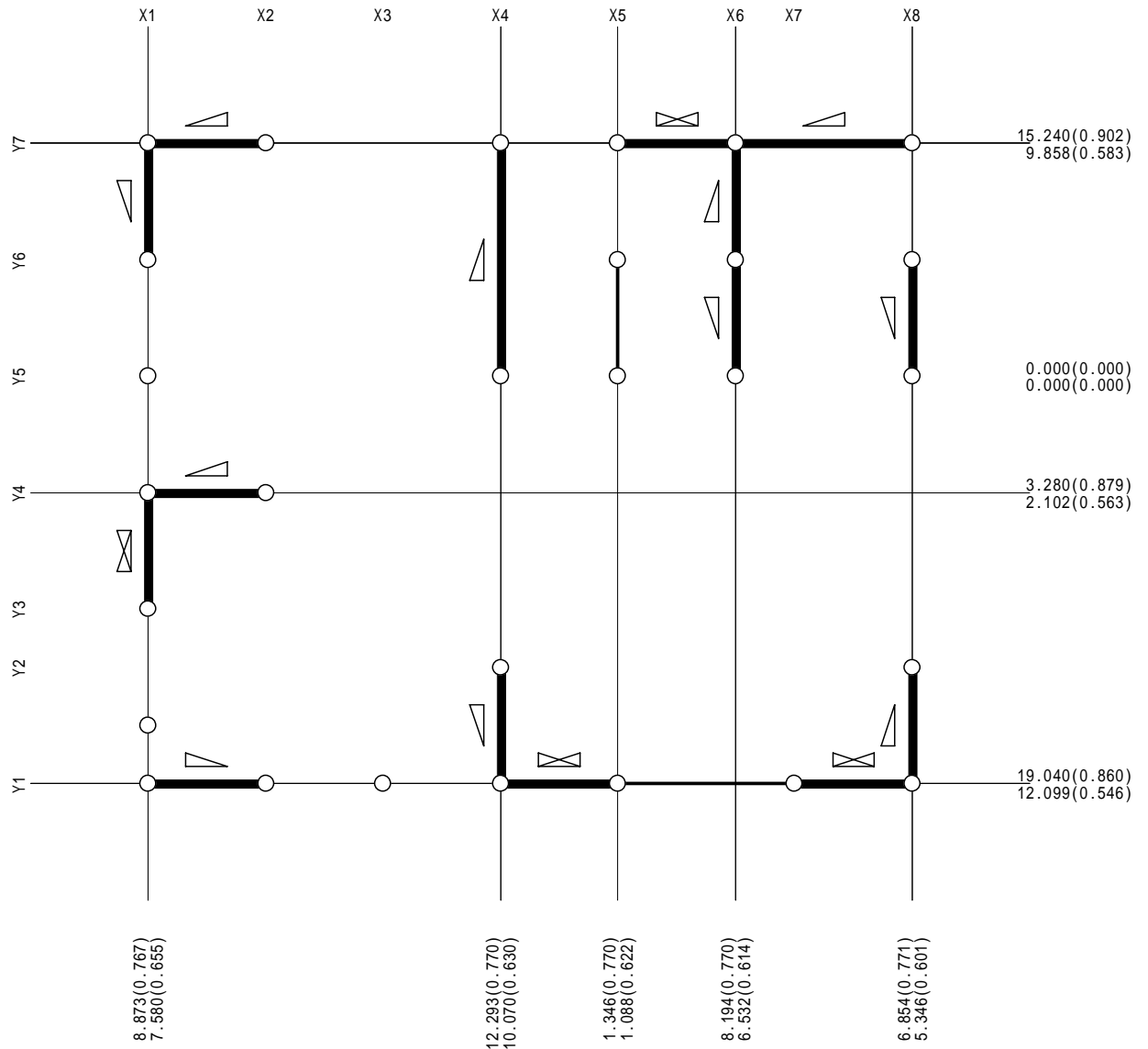
凡例:

地震力 k N (検定比)

風圧力 k N (検定比)

検定比 = 水平荷重 / 許容せん断力

2階 X左加力方向
Y下加力方向

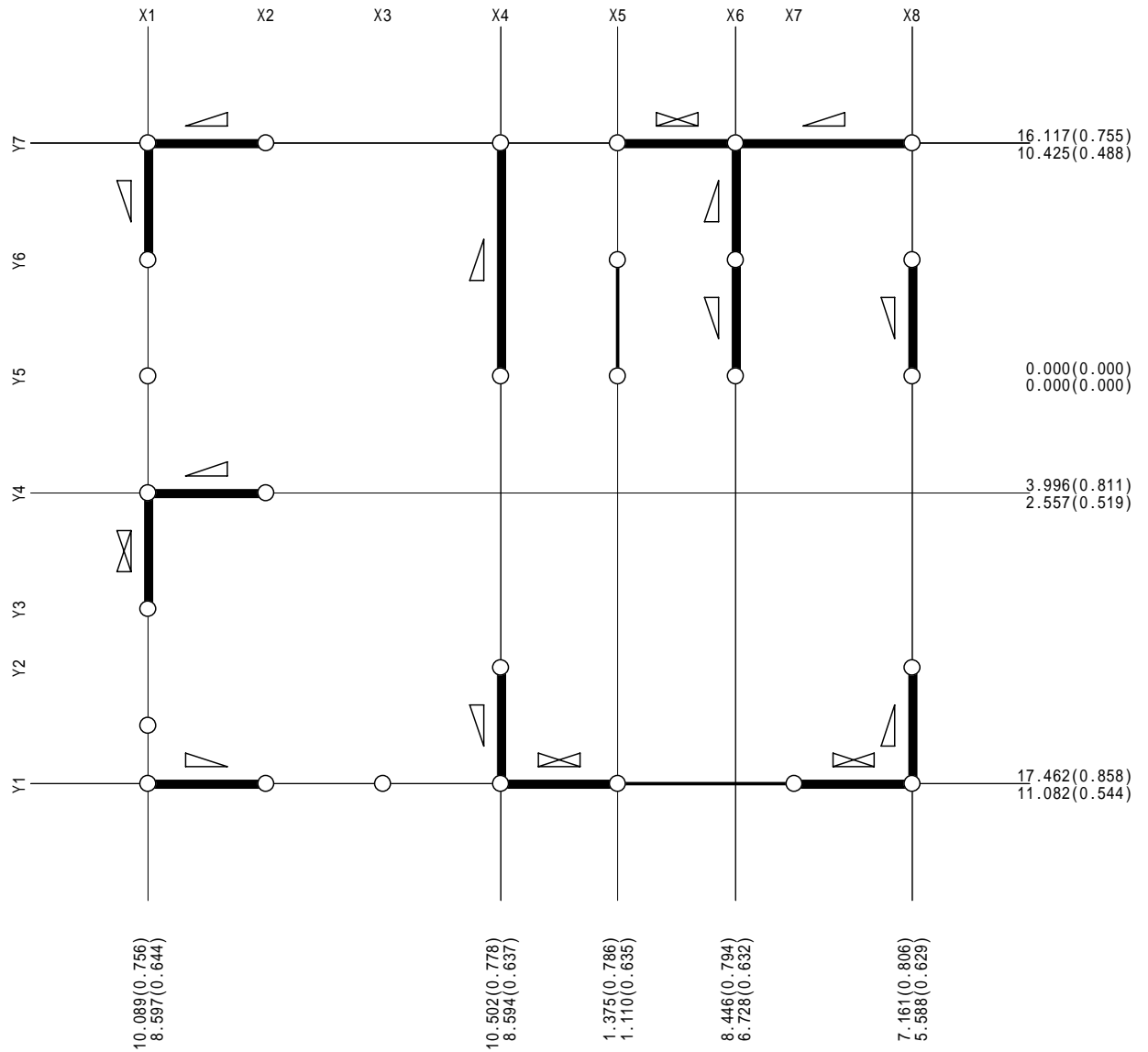


凡例:

| |
|---------------|
| 地震力 k N (検定比) |
| 風圧力 k N (検定比) |

検定比 = 水平荷重 / 許容せん断力

2階 X右加力方向
Y上加力方向

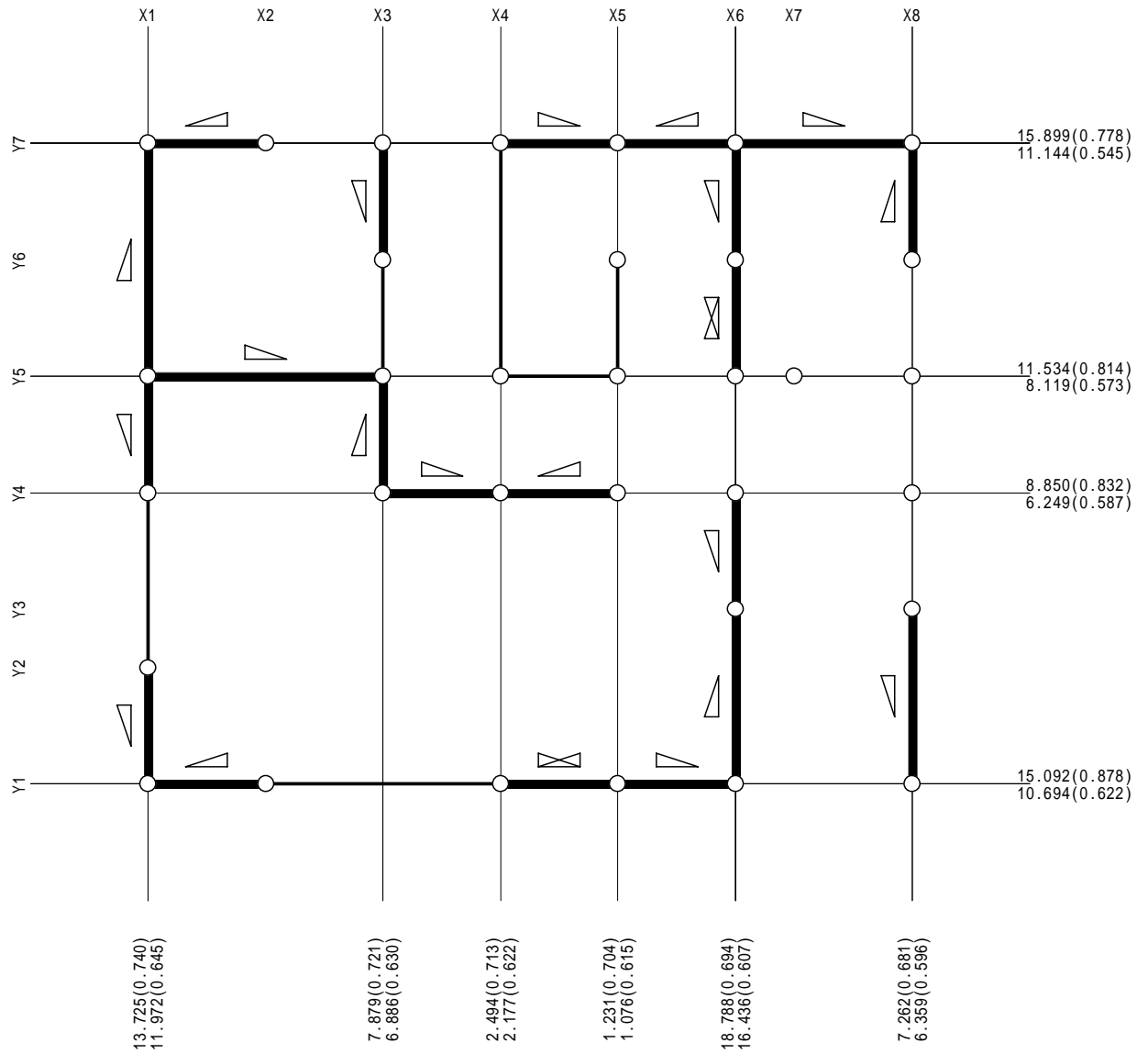


凡例:

| |
|---------------|
| 地震力 k N (検定比) |
| 風圧力 k N (検定比) |

検定比 = 水平荷重 / 許容せん断力

1階 X左加力方向
Y下加力方向



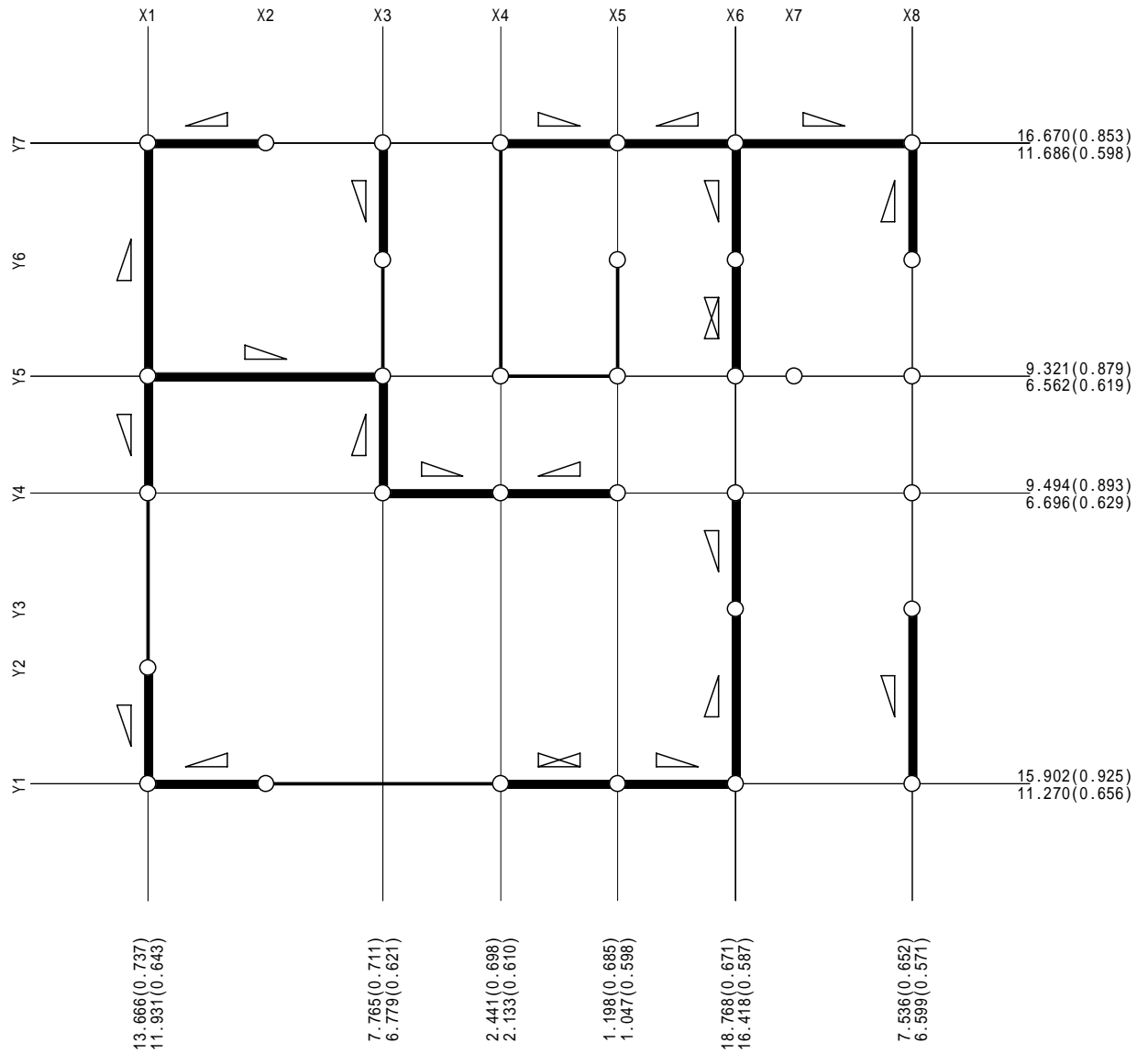
凡例:

地震力 k N (検定比)

風圧力 k N (検定比)

検定比 = 水平荷重 / 許容せん断力

1階 X右加力方向
Y上加力方向



凡例:

地震力 k N (検定比)

風圧力 k N (検定比)

検定比 = 水平荷重 / 許容せん断力

3 - 7 水平構面の負担水平力に対する検定

(1) 水平構面の地震時のせん断力に対する検定

3階 X左加力方向

せん断力係数 $C'_{i}=0.317$

| 通り または 区間 | e | Qeji (kN) | 重量 (kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|------------|------------------------|------------|------------|---------|-------------|
| Y7 | 0.876 | 8.108 | 7.694 | 2.137 | | | | |
| 上端 | 0.933 | | 12.277 | 3.631 | 8.115 | 5.971 | 0.736 | OK |
| 下端 | | | | | | 2.340 | 0.288 | OK |
| Y5 | 0.989 | 2.535 | 0.000 | 0.000 | | | | |
| 上端 | 1.088 | | 24.257 | 8.366 | 8.115 | 4.875 | 0.601 | OK |
| 下端 | | | | | | -3.491 | 0.430 | OK |
| Y1 | 1.187 | 7.447 | 12.845 | 4.833 | | | | |

3階 X右加力方向

せん断力係数 $C'_{i}=0.317$

| 通り または 区間 | e | Qeji (kN) | 重量 (kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|------------|------------------------|------------|------------|---------|-------------|
| Y7 | 0.861 | 7.750 | 7.694 | 2.100 | | | | |
| 上端 | 0.927 | | 12.277 | 3.608 | 8.115 | 5.650 | 0.696 | OK |
| 下端 | | | | | | 2.042 | 0.252 | OK |
| Y5 | 0.992 | 3.286 | 0.000 | 0.000 | | | | |
| 上端 | 1.107 | | 24.257 | 8.512 | 8.115 | 5.328 | 0.657 | OK |
| 下端 | | | | | | -3.184 | 0.392 | OK |
| Y1 | 1.221 | 7.055 | 12.845 | 4.972 | | | | |

3階 Y下加力方向

せん断力係数 $C'i=0.317$

| 通り または 区間 | e | Qeji (kN) | 重量 (kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|------------|------------------------|------------|------------|---------|-------------|
| X1 | 1.064 | 6.187 | 8.696 | 2.933 | | | | |
| 上端 | 1.037 | | 18.315 | 6.021 | 6.867 | 3.254 | 0.474 | OK |
| 下端 | | | | | | -2.767 | 0.403 | OK |
| X4 | 1.009 | 3.062 | 0.000 | 0.000 | | | | |
| 上端 | 1.000 | | 6.104 | 1.935 | 6.867 | 0.295 | 0.043 | OK |
| 下端 | | | | | | -1.640 | 0.239 | OK |
| X5 | 0.990 | 1.672 | 0.000 | 0.000 | | | | |
| 上端 | 0.981 | | 6.104 | 1.898 | 6.867 | 0.032 | 0.005 | OK |
| 下端 | | | | | | -1.866 | 0.272 | OK |
| X6 | 0.972 | 1.449 | 0.000 | 0.000 | | | | |
| 上端 | 0.958 | | 9.157 | 2.781 | 6.867 | -0.417 | 0.061 | OK |
| 下端 | | | | | | -3.198 | 0.466 | OK |
| X8 | 0.944 | 5.723 | 8.695 | 2.602 | | | | |

3階 Y上加力方向

せん断力係数 $C'i=0.317$

| 通り または 区間 | e | Qeji (kN) | 重量 (kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|------------|------------------------|------------|------------|---------|-------------|
| X1 | 1.047 | 6.233 | 8.696 | 2.886 | | | | |
| 上端 | 1.027 | | 18.315 | 5.963 | 6.867 | 3.347 | 0.487 | OK |
| 下端 | | | | | | -2.616 | 0.381 | OK |
| X4 | 1.006 | 2.866 | 0.000 | 0.000 | | | | |
| 上端 | 0.999 | | 6.104 | 1.933 | 6.867 | 0.250 | 0.036 | OK |
| 下端 | | | | | | -1.683 | 0.245 | OK |
| X5 | 0.992 | 1.835 | 0.000 | 0.000 | | | | |
| 上端 | 0.985 | | 6.104 | 1.906 | 6.867 | 0.152 | 0.022 | OK |
| 下端 | | | | | | -1.754 | 0.255 | OK |
| X6 | 0.978 | 1.597 | 0.000 | 0.000 | | | | |
| 上端 | 0.968 | | 9.157 | 2.810 | 6.867 | -0.157 | 0.023 | OK |
| 下端 | | | | | | -2.967 | 0.432 | OK |
| X8 | 0.957 | 5.557 | 8.695 | 2.638 | | | | |

2階 X左加力方向

せん断力係数 $C'i=0.197$

| 通り または 区間 | e | Qeji (kN) | 重量 (kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|------------|------------------------|------------|------------|---------|-------------|
| Y7 | 1.027 | 15.240 | 14.331 | 11.007 | | | | |
| 上端 | 1.019 | | 20.920 | 4.200 | 12.842 | 4.233 | 0.330 | OK |
| 下端 | | | | | | 0.033 | 0.003 | OK |
| Y5 | 1.010 | 0.000 | 0.745 | 2.683 | | | | |
| 上端 | 1.006 | | 10.815 | 2.143 | 18.549 | -2.650 | 0.143 | OK |
| 下端 | | | | | | -4.793 | 0.258 | OK |
| Y4 | 1.001 | 3.280 | 1.491 | 0.294 | | | | |
| 上端 | 0.990 | | 28.281 | 5.516 | 18.549 | -1.807 | 0.097 | OK |
| 下端 | | | | | | -7.323 | 0.395 | OK |
| Y1 | 0.979 | 19.040 | 22.217 | 11.732 | | | | |

2階 X右加力方向

せん断力係数 $C'i=0.197$

| 通り または 区間 | e | Qeji (kN) | 重量 (kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|------------|------------------------|------------|------------|---------|-------------|
| Y7 | 0.937 | 16.117 | 14.331 | 10.395 | | | | |
| 上端 | 0.960 | | 20.920 | 3.956 | 12.842 | 5.722 | 0.446 | OK |
| 下端 | | | | | | 1.766 | 0.138 | OK |
| Y5 | 0.983 | 0.000 | 0.745 | 3.430 | | | | |
| 上端 | 0.995 | | 10.815 | 2.120 | 18.549 | -1.664 | 0.090 | OK |
| 下端 | | | | | | -3.784 | 0.204 | OK |
| Y4 | 1.007 | 3.996 | 1.491 | 0.296 | | | | |
| 上端 | 1.036 | | 28.281 | 5.772 | 18.549 | -0.084 | 0.005 | OK |
| 下端 | | | | | | -5.856 | 0.316 | OK |
| Y1 | 1.065 | 17.462 | 22.217 | 11.716 | | | | |

2階 Y下加力方向

せん断力係数 $C'i=0.197$

| 通り または 区間 | e | Qeji (kN) | 重量 (kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|------------|------------------------|------------|------------|---------|-------------|
| X1 | 0.997 | 8.873 | 12.127 | 8.569 | | | | |
| 上端 | 0.999 | | 30.980 | 6.097 | 15.696 | 0.304 | 0.019 | OK |
| 下端 | | | | | | -5.793 | 0.369 | OK |
| X4 | 1.000 | 12.293 | 2.236 | 3.502 | | | | |
| 上端 | 1.000 | | 7.858 | 1.548 | 9.988 | 2.998 | 0.300 | OK |
| 下端 | | | | | | 1.450 | 0.145 | OK |
| X5 | 1.000 | 1.346 | 1.605 | 1.988 | | | | |
| 上端 | 1.001 | | 10.125 | 1.997 | 9.988 | 0.808 | 0.081 | OK |
| 下端 | | | | | | -1.189 | 0.119 | OK |
| X6 | 1.001 | 8.194 | 0.994 | 1.645 | | | | |
| 上端 | 1.002 | | 19.638 | 3.876 | 15.696 | 5.360 | 0.341 | OK |
| 下端 | | | | | | 1.484 | 0.095 | OK |
| X8 | 1.002 | 6.854 | 13.235 | 8.336 | | | | |

2階 Y上加力方向

せん断力係数 $C'i=0.197$

| 通り または 区間 | e | Qeji (kN) | 重量 (kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|------------|------------------------|------------|------------|---------|-------------|
| X1 | 0.968 | 10.089 | 12.127 | 8.546 | | | | |
| 上端 | 0.983 | | 30.980 | 5.999 | 15.696 | 1.543 | 0.098 | OK |
| 下端 | | | | | | -4.456 | 0.284 | OK |
| X4 | 0.997 | 10.502 | 2.236 | 3.305 | | | | |
| 上端 | 1.002 | | 7.858 | 1.551 | 9.988 | 2.741 | 0.274 | OK |
| 下端 | | | | | | 1.190 | 0.119 | OK |
| X5 | 1.007 | 1.375 | 1.605 | 2.153 | | | | |
| 上端 | 1.012 | | 10.125 | 2.019 | 9.988 | 0.412 | 0.041 | OK |
| 下端 | | | | | | -1.607 | 0.161 | OK |
| X6 | 1.017 | 8.446 | 0.994 | 1.796 | | | | |
| 上端 | 1.025 | | 19.638 | 3.965 | 15.696 | 5.043 | 0.321 | OK |
| 下端 | | | | | | 1.078 | 0.069 | OK |
| X8 | 1.032 | 7.161 | 13.235 | 8.248 | | | | |

1階 X左加力方向

せん断力係数 $C'i=0.137$

| 通り または 区間 | e | Qeji (kN) | 重量 (kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|------------|------------------------|------------|------------|---------|-------------|
| Y7 | 0.945 | 15.899 | 14.295 | 17.091 | | | | |
| 上端 | 0.967 | | 24.320 | 3.222 | 12.842 | -1.192 | 0.093 | OK |
| 下端 | | | | | | -4.414 | 0.344 | OK |
| Y5 | 0.989 | 11.534 | 2.946 | 0.399 | | | | |
| 上端 | 1.000 | | 11.783 | 1.614 | 18.549 | 6.721 | 0.362 | OK |
| 下端 | | | | | | 5.107 | 0.275 | OK |
| Y4 | 1.011 | 8.850 | 3.936 | 3.825 | | | | |
| 上端 | 1.039 | | 29.476 | 4.196 | 18.549 | 10.132 | 0.546 | OK |
| 下端 | | | | | | 5.936 | 0.320 | OK |
| Y1 | 1.067 | 15.092 | 14.295 | 21.130 | | | | |

1階 X右加力方向

せん断力係数 $C'i=0.137$

| 通り または 区間 | e | Qeji (kN) | 重量 (kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|------------|------------------------|------------|------------|---------|-------------|
| Y7 | 0.962 | 16.670 | 14.295 | 18.001 | | | | |
| 上端 | 0.977 | | 24.320 | 3.255 | 12.842 | -1.331 | 0.104 | OK |
| 下端 | | | | | | -4.586 | 0.357 | OK |
| Y5 | 0.992 | 9.321 | 2.946 | 0.400 | | | | |
| 上端 | 1.000 | | 11.783 | 1.614 | 18.549 | 4.335 | 0.234 | OK |
| 下端 | | | | | | 2.721 | 0.147 | OK |
| Y4 | 1.007 | 9.494 | 3.936 | 4.539 | | | | |
| 上端 | 1.026 | | 29.476 | 4.143 | 18.549 | 7.676 | 0.414 | OK |
| 下端 | | | | | | 3.533 | 0.190 | OK |
| Y1 | 1.044 | 15.902 | 14.295 | 19.507 | | | | |

1階 Y下加力方向

せん断力係数 $C'i=0.137$

| 通り または 区間 | e | Qeji (kN) | 重量 (kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|------------|------------------------|------------|------------|---------|-------------|
| X1 | 1.043 | 13.725 | 12.096 | 10.601 | | | | |
| 上端 | 1.030 | | 22.588 | 3.187 | 15.695 | 3.124 | 0.199 | OK |
| 下端 | | | | | | -0.063 | 0.004 | OK |
| X3 | 1.017 | 7.879 | 1.467 | 0.204 | | | | |
| 上端 | 1.011 | | 10.805 | 1.497 | 15.695 | 7.612 | 0.485 | OK |
| 下端 | | | | | | 6.115 | 0.390 | OK |
| X4 | 1.005 | 2.494 | 3.703 | 12.803 | | | | |
| 上端 | 0.999 | | 8.826 | 1.208 | 9.988 | -4.194 | 0.420 | OK |
| 下端 | | | | | | -5.402 | 0.541 | OK |
| X5 | 0.992 | 1.231 | 0.986 | 1.480 | | | | |
| 上端 | 0.986 | | 8.337 | 1.126 | 9.988 | -5.651 | 0.566 | OK |
| 下端 | | | | | | -6.777 | 0.679 | OK |
| X6 | 0.979 | 18.788 | 3.195 | 8.623 | | | | |
| 上端 | 0.970 | | 16.953 | 2.253 | 15.696 | 3.388 | 0.216 | OK |
| 下端 | | | | | | 1.135 | 0.072 | OK |
| X8 | 0.960 | 7.262 | 12.096 | 8.445 | | | | |

1階 Y上加力方向

せん断力係数 $C'i=0.137$

| 通り または 区間 | e | Qeji (kN) | 重量 (kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|------------|------------------------|------------|------------|---------|-------------|
| X1 | 1.064 | 13.666 | 12.096 | 11.852 | | | | |
| 上端 | 1.046 | | 22.588 | 3.237 | 15.695 | 1.814 | 0.116 | OK |
| 下端 | | | | | | -1.423 | 0.091 | OK |
| X3 | 1.027 | 7.765 | 1.467 | 0.206 | | | | |
| 上端 | 1.018 | | 10.805 | 1.507 | 15.695 | 6.136 | 0.391 | OK |
| 下端 | | | | | | 4.629 | 0.295 | OK |
| X4 | 1.008 | 2.441 | 3.703 | 11.013 | | | | |
| 上端 | 0.999 | | 8.826 | 1.208 | 9.988 | -3.943 | 0.395 | OK |
| 下端 | | | | | | -5.151 | 0.516 | OK |
| X5 | 0.989 | 1.198 | 0.986 | 1.509 | | | | |
| 上端 | 0.980 | | 8.337 | 1.119 | 9.988 | -5.462 | 0.547 | OK |
| 下端 | | | | | | -6.581 | 0.659 | OK |
| X6 | 0.970 | 18.768 | 3.195 | 8.871 | | | | |
| 上端 | 0.956 | | 16.953 | 2.220 | 15.696 | 3.316 | 0.211 | OK |
| 下端 | | | | | | 1.096 | 0.070 | OK |
| X8 | 0.942 | 7.536 | 12.096 | 8.722 | | | | |

(2) 水平構面の風圧時のせん断力に対する検定

3階 X左加力方向

| 通り または 区間 | w | Qwji (kN) | 区間 風圧力 wQ(kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|---------------------|------------------------|------------|------------|---------|-------------|
| Y7 | 0.894 | 4.673 | 0.136 | 0.122 | | | | |
| 上端 | 0.943 | | 3.010 | 2.838 | 8.115 | 4.551 | 0.561 | OK |
| 下端 | | | | | | 1.713 | 0.211 | OK |
| Y5 | 0.991 | 1.434 | 0.000 | 0.000 | | | | |
| 上端 | 1.076 | | 6.858 | 7.379 | 8.115 | 3.147 | 0.388 | OK |
| 下端 | | | | | | -4.232 | 0.522 | OK |
| Y1 | 1.161 | 4.113 | 0.213 | 0.247 | | | | |

3階 X右加力方向

| 通り または 区間 | w | Qwji (kN) | 区間 風圧力 wQ(kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|---------------------|------------------------|------------|------------|---------|-------------|
| Y7 | 0.879 | 4.468 | 0.136 | 0.120 | | | | |
| 上端 | 0.936 | | 3.010 | 2.817 | 8.115 | 4.348 | 0.536 | OK |
| 下端 | | | | | | 1.531 | 0.189 | OK |
| Y5 | 0.993 | 1.858 | 0.000 | 0.000 | | | | |
| 上端 | 1.093 | | 6.858 | 7.496 | 8.115 | 3.389 | 0.418 | OK |
| 下端 | | | | | | -4.107 | 0.506 | OK |
| Y1 | 1.192 | 3.890 | 0.213 | 0.254 | | | | |

3階 Y下加力方向

| 通り または 区間 | w | Qwji (kN) | 区間 風圧力 wQ(kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|---------------------|------------------------|------------|------------|---------|-------------|
| X1 | 1.064 | 5.319 | 0.351 | 0.373 | | | | |
| 上端 | 1.037 | | 6.855 | 7.109 | 6.867 | 4.946 | 0.720 | OK |
| 下端 | | | | | | -2.163 | 0.315 | OK |
| X4 | 1.009 | 2.633 | 0.000 | 0.000 | | | | |
| 上端 | 1.000 | | 2.284 | 2.284 | 6.867 | 0.470 | 0.068 | OK |
| 下端 | | | | | | -1.814 | 0.264 | OK |
| X5 | 0.990 | 1.437 | 0.000 | 0.000 | | | | |
| 上端 | 0.981 | | 2.284 | 2.241 | 6.867 | -0.377 | 0.055 | OK |
| 下端 | | | | | | -2.618 | 0.381 | OK |
| X6 | 0.972 | 1.246 | 0.000 | 0.000 | | | | |
| 上端 | 0.958 | | 3.428 | 3.284 | 6.867 | -1.372 | 0.200 | OK |
| 下端 | | | | | | -4.656 | 0.678 | OK |
| X8 | 0.944 | 4.920 | 0.351 | 0.331 | | | | |

3階 Y上加力方向

| 通り または 区間 | w | Qwji (kN) | 区間 風圧力 wQ(kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|---------------------|------------------------|------------|------------|---------|-------------|
| X1 | 1.047 | 5.358 | 0.351 | 0.367 | | | | |
| 上端 | 1.027 | | 6.855 | 7.040 | 6.867 | 4.991 | 0.727 | OK |
| 下端 | | | | | | -2.049 | 0.298 | OK |
| X4 | 1.006 | 2.464 | 0.000 | 0.000 | | | | |
| 上端 | 0.999 | | 2.284 | 2.282 | 6.867 | 0.415 | 0.060 | OK |
| 下端 | | | | | | -1.867 | 0.272 | OK |
| X5 | 0.992 | 1.577 | 0.000 | 0.000 | | | | |
| 上端 | 0.985 | | 2.284 | 2.250 | 6.867 | -0.290 | 0.042 | OK |
| 下端 | | | | | | -2.540 | 0.370 | OK |
| X6 | 0.978 | 1.373 | 0.000 | 0.000 | | | | |
| 上端 | 0.968 | | 3.428 | 3.318 | 6.867 | -1.167 | 0.170 | OK |
| 下端 | | | | | | -4.485 | 0.653 | OK |
| X8 | 0.958 | 4.782 | 0.351 | 0.336 | | | | |

2階 X左加力方向

| 通り または 区間 | w | Qwji (kN) | 区間 風圧力 wQ(kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|---------------------|------------------------|------------|------------|---------|-------------|
| Y7 | 1.037 | 9.858 | 0.186 | 4.866 | | | | |
| 上端 | 1.025 | | 4.522 | 4.635 | 12.842 | 4.992 | 0.389 | OK |
| 下端 | | | | | | 0.357 | 0.028 | OK |
| Y5 | 1.013 | 0.000 | 0.000 | 1.434 | | | | |
| 上端 | 1.007 | | 2.260 | 2.276 | 18.549 | -1.077 | 0.058 | OK |
| 下端 | | | | | | -3.353 | 0.181 | OK |
| Y4 | 1.001 | 2.102 | 0.000 | 0.000 | | | | |
| 上端 | 0.986 | | 5.652 | 5.573 | 18.549 | -1.251 | 0.067 | OK |
| 下端 | | | | | | -6.824 | 0.368 | OK |
| Y1 | 0.971 | 12.099 | 1.229 | 5.306 | | | | |

2階 X右加力方向

| 通り または 区間 | w | Qwji (kN) | 区間 風圧力 wQ(kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|---------------------|------------------------|------------|------------|---------|-------------|
| Y7 | 0.946 | 10.425 | 0.186 | 4.644 | | | | |
| 上端 | 0.966 | | 4.522 | 4.368 | 12.842 | 5.781 | 0.450 | OK |
| 下端 | | | | | | 1.413 | 0.110 | OK |
| Y5 | 0.986 | 0.000 | 0.000 | 1.858 | | | | |
| 上端 | 0.996 | | 2.260 | 2.251 | 18.549 | -0.445 | 0.024 | OK |
| 下端 | | | | | | -2.696 | 0.145 | OK |
| Y4 | 1.006 | 2.557 | 0.000 | 0.000 | | | | |
| 上端 | 1.031 | | 5.652 | 5.827 | 18.549 | -0.139 | 0.007 | OK |
| 下端 | | | | | | -5.966 | 0.322 | OK |
| Y1 | 1.055 | 11.082 | 1.229 | 5.187 | | | | |

2階 Y下加力方向

| 通り または 区間 | w | Qwji (kN) | 区間 風圧力 wQ(kN) | Pij w _{ij-1,j} (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|---------------------|------------------------------------|------------|------------|---------|-------------|
| X1 | 1.045 | 7.580 | 0.186 | 5.513 | | | | |
| 上端 | 1.025 | | 6.782 | 6.952 | 15.696 | 2.067 | 0.132 | OK |
| 下端 | | | | | | -4.885 | 0.311 | OK |
| X4 | 1.005 | 10.070 | 0.000 | 2.633 | | | | |
| 上端 | 0.999 | | 2.260 | 2.258 | 9.988 | 2.552 | 0.256 | OK |
| 下端 | | | | | | 0.294 | 0.029 | OK |
| X5 | 0.992 | 1.088 | 0.000 | 1.437 | | | | |
| 上端 | 0.986 | | 2.260 | 2.228 | 9.988 | -0.055 | 0.006 | OK |
| 下端 | | | | | | -2.283 | 0.229 | OK |
| X6 | 0.979 | 6.532 | 0.000 | 1.246 | | | | |
| 上端 | 0.969 | | 3.391 | 3.286 | 15.696 | 3.003 | 0.191 | OK |
| 下端 | | | | | | -0.283 | 0.018 | OK |
| X8 | 0.959 | 5.346 | 0.186 | 5.098 | | | | |

2階 Y上加力方向

| 通り または 区間 | w | Qwji (kN) | 区間 風圧力 wQ(kN) | Pij w _{ij-1,j} (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|---------------------|------------------------------------|------------|------------|---------|-------------|
| X1 | 1.012 | 8.597 | 0.186 | 5.546 | | | | |
| 上端 | 1.007 | | 6.782 | 6.829 | 15.696 | 3.051 | 0.194 | OK |
| 下端 | | | | | | -3.778 | 0.241 | OK |
| X4 | 1.001 | 8.594 | 0.000 | 2.464 | | | | |
| 上端 | 0.999 | | 2.260 | 2.258 | 9.988 | 2.352 | 0.235 | OK |
| 下端 | | | | | | 0.094 | 0.009 | OK |
| X5 | 0.997 | 1.110 | 0.000 | 1.577 | | | | |
| 上端 | 0.996 | | 2.260 | 2.251 | 9.988 | -0.373 | 0.037 | OK |
| 下端 | | | | | | -2.624 | 0.263 | OK |
| X6 | 0.994 | 6.728 | 0.000 | 1.373 | | | | |
| 上端 | 0.991 | | 3.391 | 3.360 | 15.696 | 2.731 | 0.174 | OK |
| 下端 | | | | | | -0.629 | 0.040 | OK |
| X8 | 0.988 | 5.588 | 0.186 | 4.966 | | | | |

1階 X左加力方向

| 通り または 区間 | w | Qwji (kN) | 区間 風圧力 wQ(kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|---------------------|------------------------|------------|------------|---------|-------------|
| Y7 | 0.940 | 11.144 | 0.176 | 10.023 | | | | |
| 上端 | 0.964 | | 4.287 | 4.133 | 12.842 | 1.121 | 0.087 | OK |
| 下端 | | | | | | -3.012 | 0.235 | OK |
| Y5 | 0.988 | 8.119 | 0.000 | 0.000 | | | | |
| 上端 | 1.001 | | 2.144 | 2.146 | 18.549 | 5.107 | 0.275 | OK |
| 下端 | | | | | | 2.961 | 0.160 | OK |
| Y4 | 1.013 | 6.249 | 0.000 | 2.102 | | | | |
| 上端 | 1.043 | | 5.359 | 5.589 | 18.549 | 7.108 | 0.383 | OK |
| 下端 | | | | | | 1.519 | 0.082 | OK |
| Y1 | 1.073 | 10.694 | 0.176 | 12.288 | | | | |

1階 X右加力方向

| 通り または 区間 | w | Qwji (kN) | 区間 風圧力 wQ(kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|---------------------|------------------------|------------|------------|---------|-------------|
| Y7 | 0.957 | 11.686 | 0.176 | 10.593 | | | | |
| 上端 | 0.974 | | 4.287 | 4.176 | 12.842 | 1.093 | 0.085 | OK |
| 下端 | | | | | | -3.083 | 0.240 | OK |
| Y5 | 0.991 | 6.562 | 0.000 | 0.000 | | | | |
| 上端 | 1.000 | | 2.144 | 2.144 | 18.549 | 3.479 | 0.188 | OK |
| 下端 | | | | | | 1.335 | 0.072 | OK |
| Y4 | 1.008 | 6.696 | 0.000 | 2.557 | | | | |
| 上端 | 1.029 | | 5.359 | 5.514 | 18.549 | 5.474 | 0.295 | OK |
| 下端 | | | | | | -0.040 | 0.002 | OK |
| Y1 | 1.050 | 11.270 | 0.176 | 11.267 | | | | |

1階 Y下加力方向

| 通り または 区間 | w | Qwji (kN) | 区間 風圧力 wQ(kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|---------------------|------------------------|------------|------------|---------|-------------|
| X1 | 1.041 | 11.972 | 0.176 | 7.763 | | | | |
| 上端 | 1.029 | | 4.287 | 4.411 | 15.695 | 4.209 | 0.268 | OK |
| 下端 | | | | | | -0.202 | 0.013 | OK |
| X3 | 1.017 | 6.886 | 0.000 | 0.000 | | | | |
| 上端 | 1.011 | | 2.144 | 2.168 | 15.695 | 6.684 | 0.426 | OK |
| 下端 | | | | | | 4.516 | 0.288 | OK |
| X4 | 1.004 | 2.177 | 0.000 | 10.070 | | | | |
| 上端 | 0.998 | | 2.144 | 2.140 | 9.988 | -3.377 | 0.338 | OK |
| 下端 | | | | | | -5.517 | 0.552 | OK |
| X5 | 0.992 | 1.076 | 0.000 | 1.088 | | | | |
| 上端 | 0.986 | | 2.144 | 2.114 | 9.988 | -5.529 | 0.554 | OK |
| 下端 | | | | | | -7.643 | 0.765 | OK |
| X6 | 0.980 | 16.436 | 0.000 | 6.532 | | | | |
| 上端 | 0.971 | | 3.216 | 3.123 | 15.696 | 2.261 | 0.144 | OK |
| 下端 | | | | | | -0.862 | 0.055 | OK |
| X8 | 0.962 | 6.359 | 0.176 | 5.515 | | | | |

1階 Y上加力方向

| 通り または 区間 | w | Qwji (kN) | 区間 風圧力 wQ(kN) | Pij wij-1,j (kN) | Pa (kN) | Qi (kN) | Qi / Pa | 判定 < 1.0 |
|-----------------|-------|--------------|---------------------|------------------------|------------|------------|---------|-------------|
| X1 | 1.063 | 11.931 | 0.176 | 8.784 | | | | |
| 上端 | 1.045 | | 4.287 | 4.480 | 15.695 | 3.147 | 0.201 | OK |
| 下端 | | | | | | -1.333 | 0.085 | OK |
| X3 | 1.026 | 6.779 | 0.000 | 0.000 | | | | |
| 上端 | 1.017 | | 2.144 | 2.180 | 15.695 | 5.446 | 0.347 | OK |
| 下端 | | | | | | 3.266 | 0.208 | OK |
| X4 | 1.008 | 2.133 | 0.000 | 8.594 | | | | |
| 上端 | 0.999 | | 2.144 | 2.142 | 9.988 | -3.195 | 0.320 | OK |
| 下端 | | | | | | -5.337 | 0.534 | OK |
| X5 | 0.989 | 1.047 | 0.000 | 1.110 | | | | |
| 上端 | 0.980 | | 2.144 | 2.101 | 9.988 | -5.400 | 0.541 | OK |
| 下端 | | | | | | -7.501 | 0.751 | OK |
| X6 | 0.971 | 16.418 | 0.000 | 6.728 | | | | |
| 上端 | 0.958 | | 3.216 | 3.081 | 15.696 | 2.189 | 0.139 | OK |
| 下端 | | | | | | -0.892 | 0.057 | OK |
| X8 | 0.944 | 6.599 | 0.176 | 5.754 | | | | |

4. 軸力

4 - 1 軸力表

(1) 長期常時軸力

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | P ₀ (kN) | P(kN) | P(kN) |
|---------|----|---------------|------------------------------|-------------------------|---------------------|--------|--------|
| X1Y1 | 小屋 | 屋根一般 | 0.649 | 0.207 | 0.134 | 0.843 | 0.843 |
| | | 屋根軒先 | 0.449 | 0.268 | 0.120 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.978 × 0.500 | 0.193 | | |
| | 3 | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | 2.664 | 3.507 |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 束X1Y1.5 | 0.944 × 0.500 | 0.472 | | | |
| | 2 | 2階 外壁 | 0.870 | 0.455 × 2.800 × 0.500 | 0.554 | 1.923 | 5.430 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.890 | 0.138 | 0.261 | | |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 5.310 | 10.740 |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| 2階 床 | | 1.890 | 0.345 | 0.652 | | | |
| 柱X1Y1.5 | | 4.951 × 0.500 | 2.476 | | | | |
| X1Y1.5 | 小屋 | 屋根一般 | 0.649 | 0.621 | 0.403 | 0.944 | 0.944 |
| | | 屋根軒先 | 0.449 | 0.404 | 0.181 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.933 × 0.500 | 0.184 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.887 × 0.500 | 0.176 | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 4.951 | 4.951 |
| | | 2階 外壁 | 0.870 | 0.455 × 2.800 × 0.500 | 0.554 | | |
| X1Y2 | 3 | 妻壁 | 0.870 | 0.455 × 0.842 × 0.500 | 0.167 | 4.230 | 4.230 |
| | | 妻壁 | 0.870 | 0.455 × 0.796 × 0.500 | 0.157 | | |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 束X1Y1.5 | 0.944 × 0.500 | 0.472 | | | |
| | | 束X1Y3 | 1.039 × 0.667 | 0.693 | | | |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 11.092 | 11.092 |
| | | 1階 外壁 | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | |
| | | 2階 床 | 1.890 | 1.035 | 1.956 | | |
| | | 柱X1Y1.5 | 4.951 × 0.500 | 2.476 | | | |
| | | 柱X1Y3 | 5.896 × 0.667 | 3.933 | | | |
| | | 3階 床 | 1.890 | 0.828 | 1.565 | | |
| X1Y3 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 1.039 | 1.039 |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.683 × 0.500 | 0.271 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.751 × 0.500 | 0.149 | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 5.896 | 5.896 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.890 | 0.828 | 1.565 | | |
| | | 柱X1Y2 | 4.230 × 0.500 | 2.115 | | | |
| X1Y4 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 1.051 | 1.051 |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.501 × 0.500 | 0.198 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.592 × 0.500 | 0.234 | | |
| | | 3階 床 | 1.890 | 0.828 | 1.565 | | |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | Po(kN) | P(kN) | P(kN) |
|--------|-------|---------|------------------------------|-------------------------|--------|--------|--------|
| X1Y4 | 3 | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | 4.486 | 5.537 |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 梁X3Y4 | | 0.268 × 0.333 | 0.089 | | |
| | | 梁X3Y4 | | 0.630 × 0.333 | 0.210 | | |
| | | 束X1Y3 | | 1.039 × 0.333 | 0.346 | | |
| | | 束X1Y5 | | 0.850 × 0.333 | 0.283 | | |
| | | 束X3Y4 | | 0.806 × 0.333 | 0.268 | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 4.017 | 9.554 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | |
| 3階 床 | | 1.890 | 0.690 | 1.304 | | | |
| 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 10.236 | 19.790 | |
| | 1階 外壁 | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | | |
| | 内壁 | 0.390 | 1.820 × 2.756 × 0.500 | 0.978 | | | |
| | 2階 床 | 1.890 | 1.035 | 1.956 | | | |
| | 柱X1Y3 | | 5.896 × 0.333 | 1.963 | | | |
| | 柱X2Y4 | | 5.223 × 0.500 | 2.612 | | | |
| X1Y5 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 0.850 | 0.850 |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.410 × 0.500 | 0.163 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.341 × 0.500 | 0.068 | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 7.126 | 7.126 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.890 | 0.690 | 1.304 | | |
| | | 梁X1Y5.5 | | 2.412 × 0.500 | 1.206 | | |
| | | 柱X1Y5.5 | | 4.799 × 0.500 | 2.400 | | |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 9.640 | 16.766 |
| | | 1階 外壁 | 0.870 | 1.820 × 2.756 × 0.500 | 2.182 | | |
| | | 内壁 | 0.390 | 1.820 × 2.756 × 0.500 | 0.978 | | |
| 2階 床 | | 1.890 | 0.897 | 1.695 | | | |
| 梁X1Y6 | | | 1.304 × 0.500 | 0.652 | | | |
| 柱X1Y6 | | | 6.083 × 0.500 | 3.042 | | | |
| X1Y5.5 | 3 | 妻壁 | 0.870 | 0.455 × 0.296 × 0.500 | 0.058 | 4.799 | 4.799 |
| | | 妻壁 | 0.870 | 0.455 × 0.250 × 0.500 | 0.050 | | |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 梁X3Y5.5 | | 0.538 × 0.333 | 0.179 | | |
| | | 梁X3Y5.5 | | 0.538 × 0.333 | 0.179 | | |
| | | 束X1Y5 | | 0.850 × 0.667 | 0.567 | | |
| | | 束X1Y6 | | 0.714 × 0.667 | 0.476 | | |
| X1Y6 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 0.714 | 0.714 |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.137 × 0.500 | 0.054 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.205 × 0.500 | 0.041 | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 6.083 | 6.083 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.890 | 0.138 | 0.261 | | |
| | | 梁X1Y5.5 | | 2.412 × 0.500 | 1.206 | | |
| | | 柱X1Y5.5 | | 4.799 × 0.500 | 2.400 | | |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | Po(kN) | P(kN) | P(kN) |
|--------|-------|-------|------------------------------|-------------------------|--------|--------|-------|
| X1Y7 | 3 | 屋根一般 | 0.649 | 0.414 | 0.269 | | |
| | | 屋根軒先 | 0.449 | 0.313 | 0.141 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.046 × 0.500 | 0.018 | | |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | |
| | | 束X1Y6 | | 0.714 × 0.333 | 0.238 | 4.504 | 4.504 |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.890 | 0.276 | 0.522 | 2.738 | 7.242 |
| 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| | 1階 外壁 | 0.870 | 1.820 × 2.756 × 0.500 | 2.182 | | | |
| | 2階 床 | 1.890 | 0.276 | 0.522 | | | |
| | 梁X1Y6 | | 1.304 × 0.500 | 0.652 | | | |
| | 柱X1Y6 | | 6.083 × 0.500 | 3.042 | 7.489 | 14.731 | |
| X2Y1 | 3 | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | |
| | | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 梁X3Y1 | | 0.904 × 0.500 | 0.452 | | |
| | | 束X3Y1 | | 1.117 × 0.500 | 0.559 | 5.092 | 5.092 |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.890 | 0.138 | 0.261 | 2.477 | 7.569 |
| 1 | 1階 外壁 | 0.870 | 1.820 × 2.756 × 0.500 | 2.182 | | | |
| | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| | 2階 床 | 1.890 | 0.207 | 0.391 | | | |
| | 梁X3Y1 | | 2.544 × 0.500 | 1.272 | | | |
| | 柱X3Y1 | | 5.021 × 0.500 | 2.511 | 7.447 | 15.016 | |
| X2Y4 | 2 | 内壁 | 0.390 | 1.820 × 2.800 | 1.987 | | |
| | | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | |
| | | 3階 床 | 1.890 | 0.414 | 0.782 | | |
| | | 梁X3Y4 | | 2.544 × 0.500 | 1.272 | | |
| | | 梁X3Y4 | | 1.370 × 0.500 | 0.685 | 5.223 | 5.223 |
| | | | | | | | |
| X2Y7 | 2 | 2階 外壁 | 0.870 | 1.820 × 2.800 × 0.500 | 2.217 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.890 | 0.932 | 1.761 | | |
| | | 柱X3Y7 | | 4.083 × 0.500 | 2.042 | 7.128 | 7.128 |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | 2階 床 | 1.890 | 0.414 | 0.782 | 2.964 | 10.092 | |
| X3Y1 | 小屋 | 屋根一般 | 0.649 | 0.311 | 0.202 | | |
| | | 屋根軒先 | 0.449 | 0.273 | 0.123 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | 1.117 | 1.117 |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | 3階 床 | 1.890 | 1.484 | 2.805 | 5.021 | 5.021 | |
| X3Y1.5 | 小屋 | 屋根一般 | 0.649 | 0.932 | 0.605 | | |
| | | 屋根軒先 | 0.449 | 0.273 | 0.123 | 0.728 | 0.728 |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | P ₀ (kN) | P(kN) | P(kN) | |
|------|---------|-------|------------------------------|-------------------------|-----------------------|--------|-------|--|
| X3Y3 | 小屋 | 屋根一般 | 0.649 | 1.242 | 0.806 | 0.806 | 0.806 | |
| X3Y4 | 小屋 | 屋根一般 | 0.649 | 1.242 | 0.806 | 0.806 | 0.806 | |
| | | 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 内壁 | 0.390 | 1.820 × 2.756 × 0.500 | 0.978 | | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | |
| | | 2階 床 | 1.890 | 2.174 | 4.109 | | | |
| | | 柱X2Y4 | | 5.223 × 0.500 | 2.612 | 8.677 | 8.677 | |
| X3Y5 | 小屋 | 屋根一般 | 0.649 | 1.242 | 0.806 | 0.806 | 0.806 | |
| | | 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 内壁 | 0.390 | 1.820 × 2.756 × 0.500 | 0.978 | | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | |
| | | 2階 床 | 1.890 | 1.242 | 2.347 | 4.303 | 4.303 | |
| X3Y6 | 小屋 | 屋根一般 | 0.649 | 1.242 | 0.806 | 0.806 | 0.806 | |
| | | 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | |
| | | 2階 床 | 1.890 | 1.242 | 2.347 | 3.325 | 3.325 | |
| X3Y7 | 3 | 屋根一般 | 0.649 | 0.621 | 0.403 | | | |
| | | 屋根軒先 | 0.449 | 0.273 | 0.123 | | | |
| | | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | | |
| | | 束X3Y6 | | 0.806 × 0.333 | 0.268 | 4.083 | 4.083 | |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | |
| | | 2階 床 | 1.890 | 0.414 | 0.782 | 3.453 | 3.453 | |
| | | X4Y1 | 小屋 | 屋根一般 | 0.649 | 0.207 | 0.134 | |
| 屋根軒先 | 0.449 | | | 0.182 | 0.082 | | | |
| 妻壁 | 0.870 | | | 0.910 × 1.001 × 0.500 | 0.396 | | | |
| 妻壁 | 0.870 | | | 0.910 × 1.001 × 0.500 | 0.396 | 1.008 | 1.008 | |
| 3 | 3階 外壁 | | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | | |
| | 3階 外壁 | | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | | |
| | 梁X3Y1 | | | 0.904 × 0.500 | 0.452 | | | |
| | 束X3Y1 | | | 1.117 × 0.500 | 0.559 | | | |
| | 束X4Y1.5 | | | 0.485 × 0.800 | 0.388 | | | |
| | 束X4Y3 | | | 0.537 × 0.400 | 0.215 | 4.903 | 5.911 | |
| 2 | 2階 外壁 | | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | | |
| | 2階 外壁 | | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | | |
| | 内壁 | | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | | |
| | 3階 床 | 1.890 | 0.414 | 0.782 | 3.495 | 9.406 | | |
| 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | | |
| | 1階 外壁 | 0.870 | 1.820 × 2.756 × 0.500 | 2.182 | | | | |
| | 2階 床 | 1.890 | 1.553 | 2.935 | | | | |
| | 梁X3Y1 | | 2.544 × 0.500 | 1.272 | | | | |
| | 柱X3Y1 | | 5.021 × 0.500 | 2.511 | | | | |
| | 柱X4Y2 | | 6.660 × 0.600 | 3.996 | 13.987 | 23.393 | | |
| | X4Y1.5 | 小屋 | 屋根一般 | 0.649 | 0.621 | 0.403 | | |
| 屋根軒先 | | | 0.449 | 0.182 | 0.082 | 0.485 | 0.485 | |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | Po(kN) | P(kN) | P(kN) | |
|---------|---------|---------------|------------------------------|-------------------------|-----------------------|--------|--------|-------|
| X4Y2 | 2 | 内壁 | 0.390 | 1.365 × 2.800 | 1.491 | | | |
| | | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | | |
| | | 3階 床 | 1.890 | 1.449 | 2.739 | | | |
| | | 梁X4Y4 | | 2.479 × 0.400 | 0.992 | | | |
| | | 梁X4Y4 | | 0.261 × 0.400 | 0.104 | | | |
| | | 柱X4Y4 | | 2.093 × 0.400 | 0.837 | 6.660 | 6.660 | |
| X4Y3 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 0.537 | 0.537 | |
| X4Y4 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 0.537 | 0.537 | |
| | | 3 | 梁X3Y4 | | 0.630 × 0.667 | 0.420 | | |
| | | 梁X3Y4 | | 0.268 × 0.667 | 0.179 | | | |
| | | 束X3Y4 | | 0.806 × 0.667 | 0.538 | | | |
| | | 束X4Y1.5 | | 0.485 × 0.200 | 0.097 | | | |
| | | 束X4Y3 | | 0.537 × 0.600 | 0.322 | 1.556 | 2.093 | |
| X4Y5 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 0.537 | 0.537 | |
| | | 3 | 柱X4Y5 | | | | | 0.537 |
| | | 2 | 内壁 | 0.390 | 1.820 × 2.800 × 0.500 | 0.994 | | |
| | | | 3階 床 | 1.890 | 0.966 | 1.826 | | |
| | | | 梁X4Y4 | | 2.479 × 0.600 | 1.487 | | |
| | | | 梁X4Y4 | | 0.261 × 0.600 | 0.157 | | |
| 梁X4Y5.5 | | | 2.870 × 0.750 | 2.153 | | | | |
| 柱X4Y4 | | 2.093 × 0.600 | 1.256 | | | | | |
| | 柱X4Y5.5 | | 1.076 × 0.750 | 0.807 | 8.680 | 9.217 | | |
| X4Y5.5 | 3 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | |
| | | 内壁 | 0.390 | 1.820 × 2.756 × 0.500 | 0.978 | | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | |
| | | 2階 床 | 1.890 | 0.828 | 1.565 | | | |
| | | 梁X4Y6 | | 0.522 × 0.500 | 0.261 | 3.782 | 12.999 | |
| | | 梁X3Y5.5 | | 0.538 × 0.667 | 0.359 | | | |
| | 梁X3Y5.5 | | 0.538 × 0.667 | 0.359 | | | | |
| | 束X4Y6 | | 0.537 × 0.667 | 0.358 | 1.076 | 1.076 | | |
| X4Y6 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 0.537 | 0.537 | |
| X4Y7 | 3 | 屋根一般 | 0.649 | 0.414 | 0.269 | | | |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | | |
| | | 束X4Y6 | | 0.537 × 0.333 | 0.179 | 2.722 | 2.722 | |
| | 2 | 2階 外壁 | 0.870 | 1.820 × 2.800 × 0.500 | 2.217 | | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | | |
| | | 内壁 | 0.390 | 1.820 × 2.800 × 0.500 | 0.994 | | | |
| | | 3階 床 | 1.890 | 0.656 | 1.240 | | | |
| | | 梁X4Y5.5 | | 2.870 × 0.250 | 0.718 | | | |
| | 柱X3Y7 | | 4.083 × 0.500 | 2.042 | | | | |
| | 柱X4Y5.5 | | 1.076 × 0.250 | 0.269 | 8.588 | 11.310 | | |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | Po(kN) | P(kN) | P(kN) |
|--------|---------|---------|------------------------------|-------------------------|--------|--------|--------|
| X4Y7 | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 内壁 | 0.390 | 1.820 × 2.756 × 0.500 | 0.978 | | |
| | | 2階 床 | 1.890 | 0.276 | 0.522 | | |
| | | 梁X4Y6 | | 0.522 × 0.500 | 0.261 | 3.943 | 15.253 |
| X5Y1 | 小屋 | 屋根一般 | 0.649 | 0.207 | 0.134 | | |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | 1.008 | 1.008 |
| | 3 | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 線荷重 | 1.218 | 0.910 × 1.000 | 1.108 | | |
| | | 梁X6Y1 | | 1.095 × 0.333 | 0.365 | | |
| | | 束X5Y1.5 | | 0.485 × 0.750 | 0.364 | | |
| | | 束X5Y3 | | 0.537 × 0.250 | 0.134 | | |
| | 2 | 束X6Y1 | | 0.864 × 0.333 | 0.288 | 5.000 | 6.008 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 2階 外壁 | 0.870 | 1.365 × 2.800 × 0.500 | 1.663 | | |
| | | 3階 床 | 1.890 | 1.484 | 2.805 | | |
| | | バルコニー | 2.100 | 0.380 | 0.798 | | |
| | | 梁X5Y0 | | 0.943 × 1.000 | 0.943 | | |
| 1 | 梁X5Y4 | | 0.261 × 0.286 | 0.075 | | | |
| | 梁X6Y1 | | 3.098 × 0.333 | 1.032 | | | |
| | 柱X5Y3.5 | | 0.524 × 0.429 | 0.225 | | | |
| | 柱X5Y4 | | 0.537 × 0.286 | 0.154 | 8.803 | 14.811 | |
| | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| 1 | 2階 床 | 1.890 | 0.138 | 0.261 | 2.443 | 17.254 | |
| | | | | | | | |
| X5Y1.5 | 小屋 | 屋根一般 | 0.649 | 0.621 | 0.403 | | |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | 0.485 | 0.485 |
| X5Y3 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 0.537 | 0.537 |
| | | | | | | | |
| X5Y3.5 | 3 | 束X5Y1.5 | | 0.485 × 0.250 | 0.121 | | |
| | | 束X5Y3 | | 0.537 × 0.750 | 0.403 | 0.524 | 0.524 |
| X5Y4 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 0.537 | 0.537 |
| | 3 | 柱X5Y4 | | | | | 0.537 |
| | 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| 1 | 2階 床 | 1.890 | 0.276 | 0.522 | 1.500 | 1.500 | |
| | | | | | | | |
| X5Y5 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 0.537 | 0.537 |
| | 3 | 柱X5Y5 | | | | | 0.537 |
| | 2 | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | |
| | | 3階 床 | 1.890 | 1.311 | 2.478 | | |
| | | 梁X5Y4 | | 0.261 × 0.714 | 0.186 | | |
| 1 | 柱X5Y3.5 | | 0.524 × 0.571 | 0.299 | | | |
| | 柱X5Y4 | | 0.537 × 0.714 | 0.383 | 3.843 | 4.380 | |
| 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | |
| | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | |
| 1 | 2階 床 | 1.890 | 0.138 | 0.261 | 1.239 | 5.619 | |
| | | | | | | | |
| X5Y6 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 0.537 | 0.537 |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | P ₀ (kN) | P(kN) | P(kN) |
|--------|-------|---------|------------------------------|-------------------------|---------------------|--------|-------|
| X5Y6 | 3 | 柱X5Y6 | | | | | 0.537 |
| | 2 | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | 0.497 | 1.034 |
| | 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | 0.489 | 1.523 |
| X5Y7 | 3 | 屋根一般 | 0.649 | 0.414 | 0.269 | | |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | 2.543 | 2.543 |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 2.216 | 4.759 |
| 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 2.182 | 6.941 | |
| X6Y1 | 小屋 | 屋根一般 | 0.649 | 0.259 | 0.168 | | |
| | | 屋根軒先 | 0.449 | 0.228 | 0.102 | | |
| | | 妻壁 | 0.870 | 0.455 × 1.001 × 0.500 | 0.198 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | 0.864 | 0.864 |
| | 1 | 1階 外壁 | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 内壁 | 0.390 | 1.365 × 2.756 × 0.500 | 0.734 | | |
| | 2階 床 | 1.890 | 1.018 | 1.924 | | | |
| | 柱X7Y1 | | 10.893 × 0.667 | 7.266 | 12.651 | 12.651 | |
| X6Y1.5 | 小屋 | 屋根一般 | 0.649 | 0.776 | 0.504 | | |
| | | 屋根軒先 | 0.449 | 0.228 | 0.102 | 0.606 | 0.606 |
| X6Y3 | 小屋 | 屋根一般 | 0.649 | 1.035 | 0.672 | 0.672 | 0.672 |
| | 1 | 内壁 | 0.390 | 1.365 × 2.756 × 0.500 | 0.734 | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| 2階 床 | 1.890 | 1.812 | 3.425 | 4.648 | 4.648 | | |
| X6Y4 | 小屋 | 屋根一般 | 0.649 | 1.035 | 0.672 | 0.672 | 0.672 |
| | 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| 2階 床 | 1.890 | 1.311 | 2.478 | 3.456 | 3.456 | | |
| X6Y5 | 小屋 | 屋根一般 | 0.649 | 1.035 | 0.672 | 0.672 | 0.672 |
| | 3 | 束X6Y1.5 | | 0.606 × 0.143 | 0.087 | | |
| | | 束X6Y3 | | 0.672 × 0.429 | 0.288 | | |
| | | 束X6Y4 | | 0.672 × 0.714 | 0.480 | | |
| | | 束X6Y6 | | 0.672 × 0.500 | 0.336 | 1.191 | 1.863 |
| | 2 | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | |
| | | 内壁 | 0.390 | 1.365 × 2.800 × 0.500 | 0.745 | | |
| 3階 床 | 1.890 | 2.122 | 4.011 | 5.253 | 7.116 | | |
| 1 | 内壁 | 0.390 | 0.455 × 2.756 × 0.500 | 0.245 | | | |
| | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | |
| 2階 床 | 1.890 | 0.690 | 1.304 | 2.038 | 9.154 | | |
| X6Y6 | 小屋 | 屋根一般 | 0.649 | 1.035 | 0.672 | 0.672 | 0.672 |
| | 2 | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | |
| | | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | |
| | | 内壁 | 0.390 | 1.365 × 2.800 × 0.500 | 0.745 | | |
| 3階 床 | 1.890 | 0.621 | 1.174 | 2.913 | 2.913 | | |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | Po(kN) | P(kN) | P(kN) |
|-------|-------|---------|------------------------------|-------------------------|--------|--------|--------|
| X6Y6 | 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | 2.152 | 5.065 |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 2階 床 | 1.890 | 0.621 | 1.174 | | |
| X6Y7 | 3 | 屋根一般 | 0.649 | 0.518 | 0.336 | 3.515 | 3.515 |
| | | 屋根軒先 | 0.449 | 0.228 | 0.102 | | |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 束X6Y6 | | 0.672 × 0.500 | 0.336 | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 3.856 | 7.371 |
| | | 2階 外壁 | 0.870 | 1.365 × 2.800 × 0.500 | 1.663 | | |
| | | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | |
| | 1 | 3階 床 | 1.890 | 0.311 | 0.588 | 3.804 | 11.175 |
| 1階 外壁 | | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| 1階 外壁 | | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | | |
| X7Y1 | 3 | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | 4.641 | 4.641 |
| | | 妻壁 | 0.870 | 0.455 × 1.001 × 0.500 | 0.198 | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 梁X6Y1 | | 1.095 × 0.667 | 0.730 | | |
| | 2 | 束X6Y1 | | 0.864 × 0.667 | 0.576 | 6.252 | 10.893 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 2階 外壁 | 0.870 | 1.365 × 2.800 × 0.500 | 1.663 | | |
| | | 3階 床 | 1.890 | 0.173 | 0.327 | | |
| 1 | バルコニー | 2.100 | 0.518 | 1.088 | 2.066 | | |
| | 梁X6Y1 | | 3.098 × 0.667 | 2.066 | | | |
| | | | | | | | |
| X7Y5 | 1 | 内壁 | 0.390 | 0.455 × 2.756 × 0.500 | 0.245 | 1.516 | 1.516 |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 2階 床 | 1.890 | 0.414 | 0.782 | | |
| X8Y1 | 小屋 | 屋根一般 | 0.649 | 0.155 | 0.101 | 0.790 | 0.790 |
| | | 屋根軒先 | 0.449 | 0.222 | 0.100 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.978 × 0.500 | 0.193 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | |
| | 3 | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | 3.712 | 4.502 |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 線荷重 | 1.218 | 0.910 × 1.000 | 1.108 | | |
| | 2 | 束X8Y1.5 | | 0.823 × 0.500 | 0.412 | 4.261 | 8.763 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.890 | 0.276 | 0.522 | | |
| | 1 | バルコニー | 2.100 | 0.276 | 0.580 | 11.641 | 20.404 |
| | | 梁X8Y0 | | 0.943 × 1.000 | 0.943 | | |
| 1階 外壁 | | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | | |
| 1階 外壁 | | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | | |
| 2階 床 | | 1.890 | 0.466 | 0.881 | | | |
| 柱X7Y1 | | | 10.893 × 0.333 | 3.627 | 3.861 | | |
| | 柱X8Y2 | | 11.596 × 0.333 | 3.861 | | | |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | Po(kN) | P(kN) | P(kN) |
|---------|-------|---------|------------------------------|-------------------------|--------|--------|--------|
| X8Y1.5 | 小屋 | 屋根一般 | 0.649 | 0.466 | 0.302 | | |
| | | 屋根軒先 | 0.449 | 0.359 | 0.161 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.887 × 0.500 | 0.176 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.933 × 0.500 | 0.184 | 0.823 | 0.823 |
| X8Y2 | 3 | 妻壁 | 0.870 | 0.455 × 0.842 × 0.500 | 0.167 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.796 × 0.500 | 0.157 | | |
| | | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 束X8Y1.5 | | 0.823 × 0.500 | 0.412 | | |
| | | 束X8Y3 | | 0.905 × 0.750 | 0.679 | | |
| | | 束X8Y4 | | 0.823 × 0.250 | 0.206 | 4.910 | 4.910 |
| | 2 | 2階 外壁 | 0.870 | 2.275 × 2.800 × 0.500 | 2.771 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.890 | 1.087 | 2.054 | | |
| 柱X8Y4.5 | | | 3.764 × 0.200 | 0.753 | 6.686 | 11.596 | |
| X8Y3 | 小屋 | 屋根一般 | 0.649 | 0.621 | 0.403 | | |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.751 × 0.500 | 0.149 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.683 × 0.500 | 0.271 | 0.905 | 0.905 |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 1階 外壁 | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | |
| | 2階 床 | 1.890 | 0.777 | 1.469 | | | |
| | 柱X8Y2 | | 11.596 × 0.667 | 7.735 | 11.931 | 11.931 | |
| X8Y4 | 小屋 | 屋根一般 | 0.649 | 0.621 | 0.403 | | |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.523 × 0.500 | 0.104 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.592 × 0.500 | 0.234 | 0.823 | 0.823 |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | 2階 床 | 1.890 | 0.621 | 1.174 | 3.356 | 3.356 | |
| X8Y4.5 | 3 | 妻壁 | 0.870 | 0.455 × 0.478 × 0.500 | 0.095 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.432 × 0.500 | 0.085 | | |
| | | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | |
| | | 3階 外壁 | 0.870 | 0.455 × 2.770 × 0.500 | 0.548 | | |
| | | 束X8Y3 | | 0.905 × 0.250 | 0.226 | | |
| | | 束X8Y4 | | 0.823 × 0.750 | 0.617 | 3.764 | 3.764 |
| | | | | | | | |
| X8Y5 | 小屋 | 屋根一般 | 0.649 | 0.621 | 0.403 | | |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.319 × 0.500 | 0.126 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.387 × 0.500 | 0.077 | 0.688 | 0.688 |
| | 3 | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | |
| | | 3階 外壁 | 0.870 | 0.455 × 2.770 × 0.500 | 0.548 | | |
| | | 束X8Y6 | | 0.629 × 0.500 | 0.315 | 3.056 | 3.744 |
| | 2 | 2階 外壁 | 0.870 | 2.275 × 2.800 × 0.500 | 2.771 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 内壁 | 0.390 | 1.365 × 2.800 × 0.500 | 0.745 | | |
| | | 3階 床 | 1.890 | 1.087 | 2.054 | | |
| | | 柱X8Y4.5 | | 3.764 × 0.800 | 3.011 | 9.689 | 13.433 |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | P ₀ (kN) | P(kN) | P(kN) |
|-------|----|-------|------------------------------|-------------------------|---------------------|-------|--------|
| X8Y5 | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 3.584 | 17.017 |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 2階 床 | 1.890 | 0.483 | 0.913 | | |
| X8Y6 | 小屋 | 屋根一般 | 0.649 | 0.621 | 0.403 | 0.629 | 0.629 |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.137 × 0.500 | 0.054 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.228 × 0.500 | 0.090 | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 4.135 | 4.135 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 内壁 | 0.390 | 1.365 × 2.800 × 0.500 | 0.745 | | |
| | | 3階 床 | 1.890 | 0.621 | 1.174 | | |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 3.356 | 7.491 |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| 2階 床 | | 1.890 | 0.621 | 1.174 | | | |
| X8Y7 | 3 | 屋根一般 | 0.649 | 0.311 | 0.202 | 4.493 | 4.493 |
| | | 屋根軒先 | 0.449 | 0.268 | 0.120 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.046 × 0.500 | 0.018 | | |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | |
| | | 束X8Y6 | | 0.629 × 0.500 | 0.315 | | |
| | 2 | 2階 外壁 | 0.870 | 1.365 × 2.800 × 0.500 | 1.663 | 3.359 | 7.852 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.890 | 0.311 | 0.588 | | |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 3.315 | 11.167 |
| 1階 外壁 | | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | | |
| 2階 床 | | 1.890 | 0.311 | 0.588 | | | |

(2) 短期積雪用軸力

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | P ₀ (kN) | P(kN) | P(kN) |
|---------|----|------------------|------------------------------|--|---------------------|--------|--------|
| X1Y1 | 小屋 | 屋根一般 | 1.237 | 0.207 | 0.256 | 1.123 | 1.123 |
| | | 屋根軒先 | 1.037 | 0.268 | 0.278 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.978 × 0.500 | 0.193 | | |
| | 3 | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | 2.966 | 4.089 |
| | | 3階 外壁 束X1Y1.5 | 0.870 | 0.910 × 2.770 × 0.500 1.547 × 0.500 | 1.096 0.774 | | |
| | 2 | 2階 外壁 | 0.870 | 0.455 × 2.800 × 0.500 | 0.554 | 1.923 | 6.012 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.890 | 0.138 | 0.261 | | |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 5.484 | 11.496 |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 2階 床 | 1.890 | 0.345 | 0.652 | | |
| 柱X1Y1.5 | | 5.300 × 0.500 | | 2.650 | | | |
| X1Y1.5 | 小屋 | 屋根一般 | 1.237 | 0.621 | 0.768 | 1.547 | 1.547 |
| | | 屋根軒先 | 1.037 | 0.404 | 0.419 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.933 × 0.500 | 0.184 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.887 × 0.500 | 0.176 | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 5.300 | 5.300 |
| | | 2階 外壁 | 0.870 | 0.455 × 2.800 × 0.500 | 0.554 | | |
| | | 3階 床 | 1.890 | 0.621 | 1.174 | | |
| | | 柱X1Y2 | | 4.928 × 0.500 | 2.464 | | |
| X1Y2 | 3 | 妻壁 | 0.870 | 0.455 × 0.842 × 0.500 | 0.167 | 4.928 | 4.928 |
| | | 妻壁 | 0.870 | 0.455 × 0.796 × 0.500 | 0.157 | | |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 束X1Y1.5 | 1.890 | 1.547 × 0.500 | 0.774 | | |
| | | 束X1Y3 | | 1.633 × 0.667 | 1.089 | | |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 11.498 | 11.498 |
| | | 1階 外壁 | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | |
| | | 2階 床 | 1.890 | 1.035 | 1.956 | | |
| | | 柱X1Y1.5 柱X1Y3 | | 5.300 × 0.500 6.245 × 0.667 | 2.650 4.165 | | |
| X1Y3 | 小屋 | 屋根一般 | 1.237 | 0.828 | 1.024 | 1.633 | 1.633 |
| | | 屋根軒先 | 1.037 | 0.182 | 0.189 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.683 × 0.500 | 0.271 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.751 × 0.500 | 0.149 | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 6.245 | 6.245 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.890 | 0.828 | 1.565 | | |
| | | 柱X1Y2 | | 4.928 × 0.500 | 2.464 | | |
| X1Y4 | 小屋 | 屋根一般 | 1.237 | 0.828 | 1.024 | 1.645 | 1.645 |
| | | 屋根軒先 | 1.037 | 0.182 | 0.189 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.501 × 0.500 | 0.198 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.592 × 0.500 | 0.234 | | |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | Po(kN) | P(kN) | P(kN) |
|--------|---------|---------|------------------------------|-------------------------|--------|--------|--------|
| X1Y4 | 3 | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | 5.399 | 7.044 |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 梁X3Y4 | | 0.511 × 0.333 | 0.170 | | |
| | | 梁X3Y4 | | 1.209 × 0.333 | 0.403 | | |
| | | 束X1Y3 | | 1.633 × 0.333 | 0.544 | | |
| | | 束X1Y5 | | 1.444 × 0.333 | 0.481 | | |
| | | 束X3Y4 | | 1.536 × 0.333 | 0.511 | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 4.017 | 11.061 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | |
| | | 3階 床 | 1.890 | 0.690 | 1.304 | | |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 10.353 | 21.414 |
| 1階 外壁 | | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | | |
| 内壁 | | 0.390 | 1.820 × 2.756 × 0.500 | 0.978 | | | |
| 2階 床 | | 1.890 | 1.035 | 1.956 | | | |
| 柱X1Y3 | | | 6.245 × 0.333 | 2.080 | | | |
| 柱X2Y4 | | | 5.223 × 0.500 | 2.612 | | | |
| X1Y5 | 小屋 | 屋根一般 | 1.237 | 0.828 | 1.024 | 1.444 | 1.444 |
| | | 屋根軒先 | 1.037 | 0.182 | 0.189 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.410 × 0.500 | 0.163 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.341 × 0.500 | 0.068 | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 7.684 | 7.684 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.890 | 0.690 | 1.304 | | |
| | | 梁X1Y5.5 | | 2.412 × 0.500 | 1.206 | | |
| | | 柱X1Y5.5 | | 5.915 × 0.500 | 2.958 | | |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 9.919 | 17.603 |
| | | 1階 外壁 | 0.870 | 1.820 × 2.756 × 0.500 | 2.182 | | |
| | | 内壁 | 0.390 | 1.820 × 2.756 × 0.500 | 0.978 | | |
| 2階 床 | | 1.890 | 0.897 | 1.695 | | | |
| 梁X1Y6 | | | 1.304 × 0.500 | 0.652 | | | |
| 柱X1Y6 | | | 6.641 × 0.500 | 3.321 | | | |
| X1Y5.5 | 3 | 妻壁 | 0.870 | 0.455 × 0.296 × 0.500 | 0.058 | 5.915 | 5.915 |
| | | 妻壁 | 0.870 | 0.455 × 0.250 × 0.500 | 0.050 | | |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 梁X3Y5.5 | | 1.025 × 0.333 | 0.341 | | |
| | | 梁X3Y5.5 | | 1.025 × 0.333 | 0.341 | | |
| | | 束X1Y5 | | 1.444 × 0.667 | 0.963 | | |
| | | 束X1Y6 | | 1.308 × 0.667 | 0.872 | | |
| | | X1Y6 | 小屋 | 屋根一般 | 1.237 | | |
| 屋根軒先 | 1.037 | | | 0.182 | 0.189 | | |
| 妻壁 | 0.870 | | | 0.910 × 0.137 × 0.500 | 0.054 | | |
| 妻壁 | 0.870 | | | 0.455 × 0.205 × 0.500 | 0.041 | | |
| 2 | 2階 外壁 | | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 6.641 | 6.641 |
| | 2階 外壁 | | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | 3階 床 | | 1.890 | 0.138 | 0.261 | | |
| | 梁X1Y5.5 | | | 2.412 × 0.500 | 1.206 | | |
| | 柱X1Y5.5 | | | 5.915 × 0.500 | 2.958 | | |
| | | | | | | | |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | Po(kN) | P(kN) | P(kN) |
|--------|-------|-------|------------------------------|-------------------------|--------|--------|-------|
| X1Y7 | 3 | 屋根一般 | 1.237 | 0.414 | 0.512 | | |
| | | 屋根軒先 | 1.037 | 0.313 | 0.325 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.046 × 0.500 | 0.018 | | |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | |
| | | 束X1Y6 | | 1.308 × 0.333 | 0.436 | 5.129 | 5.129 |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.890 | 0.276 | 0.522 | 2.738 | 7.867 |
| 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| | 1階 外壁 | 0.870 | 1.820 × 2.756 × 0.500 | 2.182 | | | |
| | 2階 床 | 1.890 | 0.276 | 0.522 | | | |
| | 梁X1Y6 | | 1.304 × 0.500 | 0.652 | | | |
| | 柱X1Y6 | | 6.641 × 0.500 | 3.321 | 7.768 | 15.635 | |
| X2Y1 | 3 | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | |
| | | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 梁X3Y1 | | 1.763 × 0.500 | 0.882 | | |
| | | 束X3Y1 | | 1.460 × 0.500 | 0.730 | 5.693 | 5.693 |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.890 | 0.138 | 0.261 | 2.477 | 8.170 |
| 1 | 1階 外壁 | 0.870 | 1.820 × 2.756 × 0.500 | 2.182 | | | |
| | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| | 2階 床 | 1.890 | 0.207 | 0.391 | | | |
| | 梁X3Y1 | | 2.544 × 0.500 | 1.272 | | | |
| | 柱X3Y1 | | 5.021 × 0.500 | 2.511 | 7.447 | 15.617 | |
| X2Y4 | 2 | 内壁 | 0.390 | 1.820 × 2.800 | 1.987 | | |
| | | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | |
| | | 3階 床 | 1.890 | 0.414 | 0.782 | | |
| | | 梁X3Y4 | | 2.544 × 0.500 | 1.272 | | |
| | | 梁X3Y4 | | 1.370 × 0.500 | 0.685 | 5.223 | 5.223 |
| | | | | | | | |
| X2Y7 | 2 | 2階 外壁 | 0.870 | 1.820 × 2.800 × 0.500 | 2.217 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.890 | 0.932 | 1.761 | | |
| | | 柱X3Y7 | | 4.851 × 0.500 | 2.426 | 7.512 | 7.512 |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | 2階 床 | 1.890 | 0.414 | 0.782 | 2.964 | 10.476 | |
| X3Y1 | 小屋 | 屋根一般 | 1.237 | 0.311 | 0.385 | | |
| | | 屋根軒先 | 1.037 | 0.273 | 0.283 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | 1.460 | 1.460 |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | 3階 床 | 1.890 | 1.484 | 2.805 | 5.021 | 5.021 | |
| X3Y1.5 | 小屋 | 屋根一般 | 1.237 | 0.932 | 1.153 | | |
| | | 屋根軒先 | 1.037 | 0.273 | 0.283 | 1.436 | 1.436 |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | Po(kN) | P(kN) | P(kN) |
|--------|----|------------------|------------------------------|--------------------------------|----------------|--------|--------|
| X3Y3 | 小屋 | 屋根一般 | 1.237 | 1.242 | 1.536 | 1.536 | 1.536 |
| X3Y4 | 小屋 | 屋根一般 | 1.237 | 1.242 | 1.536 | 1.536 | 1.536 |
| | 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 内壁 | 0.390 | 1.820 × 2.756 × 0.500 | 0.978 | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 2階 床 柱X2Y4 | 1.890 | 2.174 5.223 × 0.500 | 4.109 2.612 | 8.677 | 8.677 |
| X3Y5 | 小屋 | 屋根一般 | 1.237 | 1.242 | 1.536 | 1.536 | 1.536 |
| | 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 内壁 | 0.390 | 1.820 × 2.756 × 0.500 | 0.978 | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 2階 床 | 1.890 | 1.242 | 2.347 | 4.303 | 4.303 |
| X3Y6 | 小屋 | 屋根一般 | 1.237 | 1.242 | 1.536 | 1.536 | 1.536 |
| | 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 2階 床 | 1.890 | 1.242 | 2.347 | 3.325 | 3.325 |
| X3Y7 | 3 | 屋根一般 | 1.237 | 0.621 | 0.768 | | |
| | | 屋根軒先 | 1.037 | 0.273 | 0.283 | | |
| | | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 束X3Y6 | | 1.536 × 0.333 | 0.511 | 4.851 | 4.851 |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 2階 床 | 1.890 | 0.414 | 0.782 | 3.453 | 3.453 |
| | | | | | | | |
| X4Y1 | 小屋 | 屋根一般 | 1.237 | 0.207 | 0.256 | | |
| | | 屋根軒先 | 1.037 | 0.182 | 0.189 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | 1.237 | 1.237 |
| | 3 | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 梁X3Y1 | | 1.763 × 0.500 | 0.882 | | |
| | | 束X3Y1 | | 1.460 × 0.500 | 0.730 | | |
| | | 束X4Y1.5 束X4Y3 | | 0.957 × 0.800 1.024 × 0.400 | 0.766 0.410 | 6.077 | 7.314 |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | |
| | | 3階 床 | 1.890 | 0.414 | 0.782 | 3.495 | 10.809 |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 1階 外壁 | 0.870 | 1.820 × 2.756 × 0.500 | 2.182 | | |
| 2階 床 | | 1.890 | 1.553 | 2.935 | | | |
| 梁X3Y1 | | | 2.544 × 0.500 | 1.272 | | | |
| 柱X3Y1 | | | 5.021 × 0.500 | 2.511 | | | |
| 柱X4Y2 | | | 7.423 × 0.600 | 4.454 | 14.445 | 25.254 | |
| X4Y1.5 | 小屋 | 屋根一般 | 1.237 | 0.621 | 0.768 | | |
| | | 屋根軒先 | 1.037 | 0.182 | 0.189 | 0.957 | 0.957 |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | Po(kN) | P(kN) | P(kN) | |
|---------|-------|---------------|------------------------------|-------------------------|-----------------------|--------|-------|-------|
| X4Y2 | 2 | 内壁 | 0.390 | 1.365 × 2.800 | 1.491 | | | |
| | | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | | |
| | | 3階 床 | 1.890 | 1.449 | 2.739 | | | |
| | | 梁X4Y4 | | 2.479 × 0.400 | 0.992 | | | |
| | | 梁X4Y4 | | 0.261 × 0.400 | 0.104 | | | |
| | | 柱X4Y4 | | 4.001 × 0.400 | 1.600 | 7.423 | 7.423 | |
| X4Y3 | 小屋 | 屋根一般 | 1.237 | 0.828 | 1.024 | 1.024 | 1.024 | |
| X4Y4 | 小屋 | 屋根一般 | 1.237 | 0.828 | 1.024 | 1.024 | 1.024 | |
| | | 3 | 梁X3Y4 | | 1.209 × 0.667 | 0.806 | | |
| | | | 梁X3Y4 | | 0.511 × 0.667 | 0.341 | | |
| | | | 束X3Y4 | | 1.536 × 0.667 | 1.025 | | |
| | | | 束X4Y1.5 | | 0.957 × 0.200 | 0.191 | | |
| | | | 束X4Y3 | | 1.024 × 0.600 | 0.614 | 2.977 | 4.001 |
| 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | | |
| | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | | |
| | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | | |
| | 2階 床 | 1.890 | 2.036 | 3.848 | | | | |
| | 柱X4Y2 | | 7.423 × 0.400 | 2.969 | 8.284 | 8.284 | | |
| X4Y5 | 小屋 | 屋根一般 | 1.237 | 0.828 | 1.024 | 1.024 | 1.024 | |
| | | 3 | 柱X4Y5 | | | | | 1.024 |
| | | 2 | 内壁 | 0.390 | 1.820 × 2.800 × 0.500 | 0.994 | | |
| | | | 3階 床 | 1.890 | 0.966 | 1.826 | | |
| | | | 梁X4Y4 | | 2.479 × 0.600 | 1.487 | | |
| | | | 梁X4Y4 | | 0.261 × 0.600 | 0.157 | | |
| 梁X4Y5.5 | | | 2.870 × 0.750 | 2.153 | | | | |
| 柱X4Y4 | | 4.001 × 0.600 | 2.401 | | | | | |
| 柱X4Y5.5 | | 2.051 × 0.750 | 1.538 | 10.556 | 11.580 | | | |
| 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | | |
| | 内壁 | 0.390 | 1.820 × 2.756 × 0.500 | 0.978 | | | | |
| | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | | |
| | 2階 床 | 1.890 | 0.828 | 1.565 | | | | |
| | 梁X4Y6 | | 0.522 × 0.500 | 0.261 | 3.782 | 15.362 | | |
| X4Y5.5 | 3 | 梁X3Y5.5 | | 1.025 × 0.667 | 0.684 | | | |
| | | 梁X3Y5.5 | | 1.025 × 0.667 | 0.684 | | | |
| | | 束X4Y6 | | 1.024 × 0.667 | 0.683 | 2.051 | 2.051 | |
| X4Y6 | 小屋 | 屋根一般 | 1.237 | 0.828 | 1.024 | 1.024 | 1.024 | |
| X4Y7 | 3 | 屋根一般 | 1.237 | 0.414 | 0.512 | | | |
| | | 屋根軒先 | 1.037 | 0.182 | 0.189 | | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | | |
| | | 束X4Y6 | | 1.024 × 0.333 | 0.341 | 3.234 | 3.234 | |
| | 2 | 2階 外壁 | 0.870 | 1.820 × 2.800 × 0.500 | 2.217 | | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | | |
| | | 内壁 | 0.390 | 1.820 × 2.800 × 0.500 | 0.994 | | | |
| | | 3階 床 | 1.890 | 0.656 | 1.240 | | | |
| | | 梁X4Y5.5 | | 2.870 × 0.250 | 0.718 | | | |
| 柱X3Y7 | | 4.851 × 0.500 | 2.426 | | | | | |
| 柱X4Y5.5 | | 2.051 × 0.250 | 0.513 | 9.216 | 12.450 | | | |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | Po(kN) | P(kN) | P(kN) |
|--------|---------|---------|------------------------------|-------------------------|--------|--------|--------|
| X4Y7 | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 内壁 | 0.390 | 1.820 × 2.756 × 0.500 | 0.978 | | |
| | | 2階 床 | 1.890 | 0.276 | 0.522 | | |
| | | 梁X4Y6 | | 0.522 × 0.500 | 0.261 | 3.943 | 16.393 |
| X5Y1 | 小屋 | 屋根一般 | 1.237 | 0.207 | 0.256 | | |
| | | 屋根軒先 | 1.037 | 0.182 | 0.189 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | 1.237 | 1.237 |
| | 3 | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 線荷重 | 1.218 | 0.910 × 1.000 | 1.108 | | |
| | | 梁X6Y1 | | 2.122 × 0.333 | 0.707 | | |
| | | 束X5Y1.5 | | 0.957 × 0.750 | 0.718 | | |
| | | 束X5Y3 | | 1.024 × 0.250 | 0.256 | | |
| | 2 | 束X6Y1 | | 1.150 × 0.333 | 0.383 | 5.913 | 7.150 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 2階 外壁 | 0.870 | 1.365 × 2.800 × 0.500 | 1.663 | | |
| | | 3階 床 | 1.890 | 1.484 | 2.805 | | |
| | | バルコニー | 2.100 | 0.380 | 0.798 | | |
| 梁X5Y0 | | | 0.943 × 1.000 | 0.943 | | | |
| 1 | 梁X5Y4 | | 0.261 × 0.286 | 0.075 | | | |
| | 梁X6Y1 | | 3.098 × 0.333 | 1.032 | | | |
| | 柱X5Y3.5 | | 1.007 × 0.429 | 0.432 | | | |
| | 柱X5Y4 | | 1.024 × 0.286 | 0.293 | 9.149 | 16.299 | |
| | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| 1 | 2階 床 | 1.890 | 0.138 | 0.261 | 2.443 | 18.742 | |
| | | | | | | | |
| X5Y1.5 | 小屋 | 屋根一般 | 1.237 | 0.621 | 0.768 | | |
| | | 屋根軒先 | 1.037 | 0.182 | 0.189 | 0.957 | 0.957 |
| X5Y3 | 小屋 | 屋根一般 | 1.237 | 0.828 | 1.024 | 1.024 | 1.024 |
| X5Y3.5 | 3 | 束X5Y1.5 | | 0.957 × 0.250 | 0.239 | | |
| | | 束X5Y3 | | 1.024 × 0.750 | 0.768 | 1.007 | 1.007 |
| X5Y4 | 小屋 | 屋根一般 | 1.237 | 0.828 | 1.024 | 1.024 | 1.024 |
| | 3 | 柱X5Y4 | | | | | 1.024 |
| | 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| 1 | 2階 床 | 1.890 | 0.276 | 0.522 | 1.500 | 1.500 | |
| | | | | | | | |
| X5Y5 | 小屋 | 屋根一般 | 1.237 | 0.828 | 1.024 | 1.024 | 1.024 |
| | 3 | 柱X5Y5 | | | | | 1.024 |
| | 2 | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | |
| | | 3階 床 | 1.890 | 1.311 | 2.478 | | |
| | | 梁X5Y4 | | 0.261 × 0.714 | 0.186 | | |
| 1 | 柱X5Y3.5 | | 1.007 × 0.571 | 0.575 | | | |
| | 柱X5Y4 | | 1.024 × 0.714 | 0.731 | 4.467 | 5.491 | |
| 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | |
| | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | |
| 1 | 2階 床 | 1.890 | 0.138 | 0.261 | 1.239 | 6.730 | |
| | | | | | | | |
| X5Y6 | 小屋 | 屋根一般 | 1.237 | 0.828 | 1.024 | 1.024 | 1.024 |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | P ₀ (kN) | P(kN) | P(kN) | |
|------------|------------|------------------------------|--------------------------------|--|----------------------------------|----------------|--------|--------|
| X5Y6 | 3 | 柱X5Y6 | | | | | 1.024 | |
| | 2 | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | 0.497 | 1.521 | |
| | 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | 0.489 | 2.010 | |
| X5Y7 | 3 | 屋根一般 | 1.237 | 0.414 | 0.512 | | | |
| | | 屋根軒先 | 1.037 | 0.182 | 0.189 | | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | 2.893 | 2.893 | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 2.216 | 5.109 | |
| 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | | |
| | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 2.182 | 7.291 | | |
| X6Y1 | 小屋 | 屋根一般 | 1.237 | 0.259 | 0.320 | | | |
| | | 屋根軒先 | 1.037 | 0.228 | 0.236 | | | |
| | | 妻壁 | 0.870 | 0.455 × 1.001 × 0.500 | 0.198 | | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | 1.150 | 1.150 | |
| | 1 | 1階 外壁 | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | | |
| | | 1階 外壁 内壁 2階 床 柱X7Y1 | 0.870 0.390 1.890 | 0.910 × 2.756 × 0.500 1.365 × 2.756 × 0.500 11.769 × 0.667 | 1.091 0.734 1.924 7.850 | | 13.235 | 13.235 |
| X6Y1.5 | 小屋 | 屋根一般 | 1.237 | 0.776 | 0.960 | | | |
| | | 屋根軒先 | 1.037 | 0.228 | 0.236 | 1.196 | 1.196 | |
| X6Y3 | 小屋 | 屋根一般 | 1.237 | 1.035 | 1.280 | 1.280 | 1.280 | |
| | | 1 | 内壁 | 0.390 | 1.365 × 2.756 × 0.500 | 0.734 | | |
| | | | 内壁 2階 床 | 0.390 1.890 | 0.910 × 2.756 × 0.500 1.812 | 0.489 3.425 | 4.648 | 4.648 |
| X6Y4 | 小屋 | 屋根一般 | 1.237 | 1.035 | 1.280 | 1.280 | 1.280 | |
| | | 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | | 内壁 2階 床 | 0.390 1.890 | 0.910 × 2.756 × 0.500 1.311 | 0.489 2.478 | 3.456 | 3.456 |
| X6Y5 | 小屋 | 屋根一般 | 1.237 | 1.035 | 1.280 | 1.280 | 1.280 | |
| | | 3 | 束X6Y1.5 | | 1.196 × 0.143 | 0.171 | | |
| | | | 束X6Y3 | | 1.280 × 0.429 | 0.549 | | |
| | | | 束X6Y4 | | 1.280 × 0.714 | 0.914 | | |
| | 束X6Y6 | | | 1.280 × 0.500 | 0.640 | 2.274 | 3.554 | |
| | 2 | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | | |
| 内壁 3階 床 | | 0.390 1.890 | 1.365 × 2.800 × 0.500 2.122 | 0.745 4.011 | 5.253 | 8.807 | | |
| 1 | 内壁 | 0.390 | 0.455 × 2.756 × 0.500 | 0.245 | | | | |
| | 内壁 2階 床 | 0.390 1.890 | 0.910 × 2.756 × 0.500 0.690 | 0.489 1.304 | 2.038 | 10.845 | | |
| X6Y6 | 小屋 | 屋根一般 | 1.237 | 1.035 | 1.280 | 1.280 | 1.280 | |
| | | 2 | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | |
| | | | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | |
| | | | 内壁 3階 床 | 0.390 1.890 | 1.365 × 2.800 × 0.500 0.621 | 0.745 1.174 | 2.913 | 2.913 |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | Po(kN) | P(kN) | P(kN) | |
|-------|---------|----------------|------------------------------|-------------------------|-----------------------|--------|--------|-------|
| X6Y6 | 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | 2.152 | 5.065 | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | |
| | | 2階 床 | 1.890 | 0.621 | 1.174 | | | |
| X6Y7 | 3 | 屋根一般 | 1.237 | 0.518 | 0.641 | 4.258 | 4.258 | |
| | | 屋根軒先 | 1.037 | 0.228 | 0.236 | | | |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | | |
| | | 束X6Y6 | | 1.280 × 0.500 | 0.640 | | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 3.856 | 8.114 | |
| | | 2階 外壁 | 0.870 | 1.365 × 2.800 × 0.500 | 1.663 | | | |
| | | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | | |
| | | 3階 床 | 1.890 | 0.311 | 0.588 | | | |
| 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 3.804 | 11.918 | | |
| | 1階 外壁 | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | | | |
| | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | | |
| | 2階 床 | 1.890 | 0.311 | 0.588 | | | | |
| X7Y1 | 3 | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | 5.517 | 5.517 | |
| | | 妻壁 | 0.870 | 0.455 × 1.001 × 0.500 | 0.198 | | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | | |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | | |
| | | 梁X6Y1 | | 2.122 × 0.667 | 1.415 | | | |
| | | 束X6Y1 | | 1.150 × 0.667 | 0.767 | | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 6.252 | 11.769 | |
| | | 2階 外壁 | 0.870 | 1.365 × 2.800 × 0.500 | 1.663 | | | |
| | | 3階 床 | 1.890 | 0.173 | 0.327 | | | |
| 1 | バルコニー | 2.100 | 0.518 | 1.088 | 2.066 | | | |
| | 梁X6Y1 | | 3.098 × 0.667 | 2.066 | | | | |
| | | | | | | | | |
| X7Y5 | 1 | 内壁 | 0.390 | 0.455 × 2.756 × 0.500 | 0.245 | 1.516 | 1.516 | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | |
| | | 2階 床 | 1.890 | 0.414 | 0.782 | | | |
| X8Y1 | 小屋 | 屋根一般 | 1.237 | 0.155 | 0.192 | 1.011 | 1.011 | |
| | | 屋根軒先 | 1.037 | 0.222 | 0.230 | | | |
| | | 妻壁 | 0.870 | 0.455 × 0.978 × 0.500 | 0.193 | | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | | |
| | 3 | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | 3.954 | 4.965 | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | | |
| | | 線荷重 | 1.218 | 0.910 × 1.000 | 1.108 | | | |
| | 束X8Y1.5 | | | 1.308 × 0.500 | 0.654 | | | |
| | | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 4.261 | 9.226 |
| | | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | | 3階 床 | 1.890 | 0.276 | 0.522 | | |
| | バルコニー | | 2.100 | 0.276 | 0.580 | | | |
| | 梁X8Y0 | | | 0.943 × 1.000 | 0.943 | | | |
| 1 | | 1階 外壁 | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | 12.203 | 21.429 | |
| | | 1階 外壁 | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | | |
| | | 2階 床 | 1.890 | 0.466 | 0.881 | | | |
| | 柱X7Y1 | | 11.769 × 0.333 | 3.919 | | | | |
| 柱X8Y2 | | 12.404 × 0.333 | 4.131 | | | | | |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | P ₀ (kN) | P(kN) | P(kN) |
|---------|---------|---------|------------------------------|-------------------------|---------------------|--------|-------|
| X8Y1.5 | 小屋 | 屋根一般 | 1.237 | 0.466 | 0.576 | | |
| | | 屋根軒先 | 1.037 | 0.359 | 0.372 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.887 × 0.500 | 0.176 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.933 × 0.500 | 0.184 | 1.308 | 1.308 |
| X8Y2 | 3 | 妻壁 | 0.870 | 0.455 × 0.842 × 0.500 | 0.167 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.796 × 0.500 | 0.157 | | |
| | | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 束X8Y1.5 | | 1.308 × 0.500 | 0.654 | | |
| | | 束X8Y3 | | 1.377 × 0.750 | 1.033 | | |
| | | 束X8Y4 | | 1.295 × 0.250 | 0.324 | 5.624 | 5.624 |
| | 2 | 2階 外壁 | 0.870 | 2.275 × 2.800 × 0.500 | 2.771 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.890 | 1.087 | 2.054 | | |
| 柱X8Y4.5 | | | 4.236 × 0.200 | 0.847 | 6.780 | 12.404 | |
| X8Y3 | 小屋 | 屋根一般 | 1.237 | 0.621 | 0.768 | | |
| | | 屋根軒先 | 1.037 | 0.182 | 0.189 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.751 × 0.500 | 0.149 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.683 × 0.500 | 0.271 | 1.377 | 1.377 |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 1階 外壁 | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | |
| 2階 床 | 2階 床 | 1.890 | 0.777 | 1.469 | | | |
| | 柱X8Y2 | | 12.404 × 0.667 | 8.273 | 12.469 | 12.469 | |
| X8Y4 | 小屋 | 屋根一般 | 1.237 | 0.621 | 0.768 | | |
| | | 屋根軒先 | 1.037 | 0.182 | 0.189 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.523 × 0.500 | 0.104 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.592 × 0.500 | 0.234 | 1.295 | 1.295 |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| 2階 床 | 1.890 | 0.621 | 1.174 | 3.356 | 3.356 | | |
| X8Y4.5 | 3 | 妻壁 | 0.870 | 0.455 × 0.478 × 0.500 | 0.095 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.432 × 0.500 | 0.085 | | |
| | | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | |
| | | 3階 外壁 | 0.870 | 0.455 × 2.770 × 0.500 | 0.548 | | |
| | | 束X8Y3 | | 1.377 × 0.250 | 0.344 | | |
| | | 束X8Y4 | | 1.295 × 0.750 | 0.971 | 4.236 | 4.236 |
| | | X8Y5 | 小屋 | 屋根一般 | 1.237 | 0.621 | 0.768 |
| 屋根軒先 | 1.037 | | | 0.182 | 0.189 | | |
| 妻壁 | 0.870 | | | 0.910 × 0.319 × 0.500 | 0.126 | | |
| 妻壁 | 0.870 | | | 0.455 × 0.387 × 0.500 | 0.077 | 1.160 | 1.160 |
| 3 | 3階 外壁 | | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | |
| | 3階 外壁 | | 0.870 | 0.455 × 2.770 × 0.500 | 0.548 | | |
| | 束X8Y6 | | | 1.101 × 0.500 | 0.551 | 3.292 | 4.452 |
| 2 | 2階 外壁 | | 0.870 | 2.275 × 2.800 × 0.500 | 2.771 | | |
| | 2階 外壁 | | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | 内壁 | 0.390 | 1.365 × 2.800 × 0.500 | 0.745 | | | |
| | 3階 床 | 1.890 | 1.087 | 2.054 | | | |
| | 柱X8Y4.5 | | 4.236 × 0.800 | 3.389 | 10.067 | 14.519 | |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | Po(kN) | P(kN) | P(kN) |
|------|----|-------|------------------------------|-------------------------|--------|-------|--------|
| X8Y5 | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 3.584 | 18.103 |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 2階 床 | 1.890 | 0.483 | 0.913 | | |
| X8Y6 | 小屋 | 屋根一般 | 1.237 | 0.621 | 0.768 | 1.101 | 1.101 |
| | | 屋根軒先 | 1.037 | 0.182 | 0.189 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.137 × 0.500 | 0.054 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.228 × 0.500 | 0.090 | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 4.135 | 4.135 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 内壁 | 0.390 | 1.365 × 2.800 × 0.500 | 0.745 | | |
| | | 3階 床 | 1.890 | 0.621 | 1.174 | | |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 3.356 | 7.491 |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| 2階 床 | | 1.890 | 0.621 | 1.174 | | | |
| X8Y7 | 3 | 屋根一般 | 1.237 | 0.311 | 0.385 | 5.070 | 5.070 |
| | | 屋根軒先 | 1.037 | 0.268 | 0.278 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.046 × 0.500 | 0.018 | | |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | |
| | | 束X8Y6 | | 1.101 × 0.500 | 0.551 | | |
| | 2 | 2階 外壁 | 0.870 | 1.365 × 2.800 × 0.500 | 1.663 | 3.359 | 8.429 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.890 | 0.311 | 0.588 | | |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 3.315 | 11.744 |
| | | 1階 外壁 | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | |
| 2階 床 | | 1.890 | 0.311 | 0.588 | | | |

(3) 引抜耐力検討用軸力

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | P ₀ (kN) | P(kN) | P(kN) |
|---------|----|-----------------------------------|------------------------------|--|----------------------------------|-------|--------|
| X1Y1 | 小屋 | 屋根一般 | 0.649 | 0.207 | 0.134 | 0.843 | 0.843 |
| | | 屋根軒先 | 0.449 | 0.268 | 0.120 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.978 × 0.500 | 0.193 | | |
| | 3 | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | 2.664 | 3.507 |
| | | 3階 外壁 束X1Y1.5 | 0.870 | 0.910 × 2.770 × 0.500 0.944 × 0.500 | 1.096 0.472 | | |
| | 2 | 2階 外壁 | 0.870 | 0.455 × 2.800 × 0.500 | 0.554 | 1.826 | 5.333 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.190 | 0.138 | 0.164 | | |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 4.851 | 10.184 |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 2階 床 | 1.190 | 0.345 | 0.411 | | |
| 柱X1Y1.5 | | | 4.516 × 0.500 | 2.258 | | | |
| X1Y1.5 | 小屋 | 屋根一般 | 0.649 | 0.621 | 0.403 | 0.944 | 0.944 |
| | | 屋根軒先 | 0.449 | 0.404 | 0.181 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.933 × 0.500 | 0.184 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.887 × 0.500 | 0.176 | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 4.516 | 4.516 |
| | | 2階 外壁 3階 床 柱X1Y2 | 0.870 1.190 | 0.455 × 2.800 × 0.500 0.621 4.230 × 0.500 | 0.554 0.739 2.115 | | |
| X1Y2 | 3 | 妻壁 | 0.870 | 0.455 × 0.842 × 0.500 | 0.167 | 4.230 | 4.230 |
| | | 妻壁 | 0.870 | 0.455 × 0.796 × 0.500 | 0.157 | | |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 束X1Y1.5 | | 0.944 × 0.500 | 0.472 | | |
| | | 束X1Y3 | | 1.039 × 0.667 | 0.693 | | |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 9.763 | 9.763 |
| | | 1階 外壁 2階 床 柱X1Y1.5 柱X1Y3 | 0.870 1.190 | 1.365 × 2.756 × 0.500 1.035 4.516 × 0.500 5.316 × 0.667 | 1.636 1.232 2.258 3.546 | | |
| X1Y3 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 1.039 | 1.039 |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.683 × 0.500 | 0.271 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.751 × 0.500 | 0.149 | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 5.316 | 5.316 |
| | | 2階 外壁 3階 床 柱X1Y2 | 0.870 1.190 | 0.910 × 2.800 × 0.500 0.828 4.230 × 0.500 | 1.108 0.985 2.115 | | |
| X1Y4 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 1.051 | 1.051 |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.501 × 0.500 | 0.198 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.592 × 0.500 | 0.234 | | |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | Po(kN) | P(kN) | P(kN) |
|--------|-------|---------|------------------------------|-------------------------|--------|--------|--------|
| X1Y4 | 3 | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | 4.486 | 5.537 |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 梁X3Y4 | | 0.268 × 0.333 | 0.089 | | |
| | | 梁X3Y4 | | 0.630 × 0.333 | 0.210 | | |
| | | 束X1Y3 | | 1.039 × 0.333 | 0.346 | | |
| | | 束X1Y5 | | 0.850 × 0.333 | 0.283 | | |
| | | 束X3Y4 | | 0.806 × 0.333 | 0.268 | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 3.534 | 9.071 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | |
| 3階 床 | | 1.190 | 0.690 | 0.821 | | | |
| 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 8.812 | 17.883 | |
| | 1階 外壁 | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | | |
| | 内壁 | 0.390 | 1.820 × 2.756 × 0.500 | 0.978 | | | |
| | 2階 床 | 1.190 | 1.035 | 1.232 | | | |
| | 柱X1Y3 | | 5.316 × 0.333 | 1.770 | | | |
| | 柱X2Y4 | | 4.210 × 0.500 | 2.105 | | | |
| X1Y5 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 0.850 | 0.850 |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.410 × 0.500 | 0.163 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.341 × 0.500 | 0.068 | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 6.197 | 6.197 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.190 | 0.690 | 0.821 | | |
| | | 梁X1Y5.5 | | 1.519 × 0.500 | 0.760 | | |
| | | 柱X1Y5.5 | | 4.799 × 0.500 | 2.400 | | |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 8.499 | 14.696 |
| | | 1階 外壁 | 0.870 | 1.820 × 2.756 × 0.500 | 2.182 | | |
| | | 内壁 | 0.390 | 1.820 × 2.756 × 0.500 | 0.978 | | |
| 2階 床 | | 1.190 | 0.897 | 1.067 | | | |
| 梁X1Y6 | | | 0.821 × 0.500 | 0.411 | | | |
| 柱X1Y6 | | | 5.540 × 0.500 | 2.770 | | | |
| X1Y5.5 | 3 | 妻壁 | 0.870 | 0.455 × 0.296 × 0.500 | 0.058 | 4.799 | 4.799 |
| | | 妻壁 | 0.870 | 0.455 × 0.250 × 0.500 | 0.050 | | |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 梁X3Y5.5 | | 0.538 × 0.333 | 0.179 | | |
| | | 梁X3Y5.5 | | 0.538 × 0.333 | 0.179 | | |
| | | 束X1Y5 | | 0.850 × 0.667 | 0.567 | | |
| | | 束X1Y6 | | 0.714 × 0.667 | 0.476 | | |
| X1Y6 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 0.714 | 0.714 |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.137 × 0.500 | 0.054 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.205 × 0.500 | 0.041 | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 5.540 | 5.540 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.190 | 0.138 | 0.164 | | |
| | | 梁X1Y5.5 | | 1.519 × 0.500 | 0.760 | | |
| | | 柱X1Y5.5 | | 4.799 × 0.500 | 2.400 | | |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | Po(kN) | P(kN) | P(kN) |
|--------|-------|-------|------------------------------|-------------------------|--------|--------|-------|
| X1Y7 | 3 | 屋根一般 | 0.649 | 0.414 | 0.269 | | |
| | | 屋根軒先 | 0.449 | 0.313 | 0.141 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.046 × 0.500 | 0.018 | | |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | |
| | | 束X1Y6 | | 0.714 × 0.333 | 0.238 | 4.504 | 4.504 |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.190 | 0.276 | 0.328 | 2.544 | 7.048 |
| 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| | 1階 外壁 | 0.870 | 1.820 × 2.756 × 0.500 | 2.182 | | | |
| | 2階 床 | 1.190 | 0.276 | 0.328 | | | |
| | 梁X1Y6 | | 0.821 × 0.500 | 0.411 | | | |
| | 柱X1Y6 | | 5.540 × 0.500 | 2.770 | 6.782 | 13.830 | |
| X2Y1 | 3 | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | |
| | | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 梁X3Y1 | | 0.904 × 0.500 | 0.452 | | |
| | | 束X3Y1 | | 1.117 × 0.500 | 0.559 | 5.092 | 5.092 |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.190 | 0.138 | 0.164 | 2.380 | 7.472 |
| 1 | 1階 外壁 | 0.870 | 1.820 × 2.756 × 0.500 | 2.182 | | | |
| | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| | 2階 床 | 1.190 | 0.207 | 0.246 | | | |
| | 梁X3Y1 | | 1.602 × 0.500 | 0.801 | | | |
| | 柱X3Y1 | | 3.982 × 0.500 | 1.991 | 6.311 | 13.783 | |
| X2Y4 | 2 | 内壁 | 0.390 | 1.820 × 2.800 | 1.987 | | |
| | | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | |
| | | 3階 床 | 1.190 | 0.414 | 0.493 | | |
| | | 梁X3Y4 | | 1.602 × 0.500 | 0.801 | | |
| | | 梁X3Y4 | | 0.863 × 0.500 | 0.432 | 4.210 | 4.210 |
| | | | | | | | |
| X2Y7 | 2 | 2階 外壁 | 0.870 | 1.820 × 2.800 × 0.500 | 2.217 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.190 | 0.932 | 1.109 | | |
| | | 柱X3Y7 | | 4.083 × 0.500 | 2.042 | 6.476 | 6.476 |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | 2階 床 | 1.190 | 0.414 | 0.493 | 2.675 | 9.151 | |
| X3Y1 | 小屋 | 屋根一般 | 0.649 | 0.311 | 0.202 | | |
| | | 屋根軒先 | 0.449 | 0.273 | 0.123 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | 1.117 | 1.117 |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | 3階 床 | 1.190 | 1.484 | 1.766 | 3.982 | 3.982 | |
| X3Y1.5 | 小屋 | 屋根一般 | 0.649 | 0.932 | 0.605 | | |
| | | 屋根軒先 | 0.449 | 0.273 | 0.123 | 0.728 | 0.728 |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | Po(kN) | P(kN) | P(kN) | |
|--------|------|---------|------------------------------|-------------------------|-----------------------|--------|-------|-------|
| X3Y3 | 小屋 | 屋根一般 | 0.649 | 1.242 | 0.806 | 0.806 | 0.806 | |
| X3Y4 | 小屋 | 屋根一般 | 0.649 | 1.242 | 0.806 | 0.806 | 0.806 | |
| | | 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | | 内壁 | 0.390 | 1.820 × 2.756 × 0.500 | 0.978 | | |
| | | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | | 2階 床 | 1.190 | 2.174 | 2.587 | | |
| | | | 柱X2Y4 | | 4.210 × 0.500 | 2.105 | 6.648 | 6.648 |
| X3Y5 | 小屋 | 屋根一般 | 0.649 | 1.242 | 0.806 | 0.806 | 0.806 | |
| 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | | |
| | 内壁 | 0.390 | 1.820 × 2.756 × 0.500 | 0.978 | | | | |
| | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | | |
| | 2階 床 | 1.190 | 1.242 | 1.478 | 3.434 | 3.434 | | |
| | | | | | | | | |
| X3Y6 | 小屋 | 屋根一般 | 0.649 | 1.242 | 0.806 | 0.806 | 0.806 | |
| | | 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | | 2階 床 | 1.190 | 1.242 | 1.478 | 2.456 | 2.456 |
| X3Y7 | 3 | 屋根一般 | 0.649 | 0.621 | 0.403 | | | |
| | | 屋根軒先 | 0.449 | 0.273 | 0.123 | | | |
| | | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | | |
| | | 束X3Y6 | | 0.806 × 0.333 | 0.268 | 4.083 | 4.083 | |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | |
| | | 2階 床 | 1.190 | 0.414 | 0.493 | 3.164 | 3.164 | |
| | | | | | | | | |
| X4Y1 | 小屋 | 屋根一般 | 0.649 | 0.207 | 0.134 | | | |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | 1.008 | 1.008 | |
| | 3 | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | | |
| | | 梁X3Y1 | | 0.904 × 0.500 | 0.452 | | | |
| | | 束X3Y1 | | 1.117 × 0.500 | 0.559 | | | |
| | | 束X4Y1.5 | | 0.485 × 0.800 | 0.388 | | | |
| | | 束X4Y3 | | 0.537 × 0.400 | 0.215 | 4.903 | 5.911 | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | | |
| | | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | | |
| | | 3階 床 | 1.190 | 0.414 | 0.493 | 3.206 | 9.117 | |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| 1階 外壁 | | 0.870 | 1.820 × 2.756 × 0.500 | 2.182 | | | | |
| 2階 床 | | 1.190 | 1.553 | 1.848 | | | | |
| 梁X3Y1 | | | 1.602 × 0.500 | 0.801 | | | | |
| 柱X3Y1 | | | 3.982 × 0.500 | 1.991 | | | | |
| 柱X4Y2 | | | 5.239 × 0.600 | 3.143 | 11.056 | 20.173 | | |
| | | | | | | | | |
| X4Y1.5 | 小屋 | 屋根一般 | 0.649 | 0.621 | 0.403 | | | |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | 0.485 | 0.485 | |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | Po(kN) | P(kN) | P(kN) | |
|---------|---------|---------------|------------------------------|-------------------------|-----------------------|-------|--------|-------|
| X4Y2 | 2 | 内壁 | 0.390 | 1.365 × 2.800 | 1.491 | | | |
| | | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | | |
| | | 3階 床 | 1.190 | 1.449 | 1.724 | | | |
| | | 梁X4Y4 | | 1.561 × 0.400 | 0.624 | | | |
| | | 梁X4Y4 | | 0.164 × 0.400 | 0.066 | | | |
| | | 柱X4Y4 | | 2.093 × 0.400 | 0.837 | 5.239 | 5.239 | |
| X4Y3 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 0.537 | 0.537 | |
| X4Y4 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 0.537 | 0.537 | |
| | | 3 | 梁X3Y4 | | 0.630 × 0.667 | 0.420 | | |
| | | 梁X3Y4 | | 0.268 × 0.667 | 0.179 | | | |
| | | 束X3Y4 | | 0.806 × 0.667 | 0.538 | | | |
| | | 束X4Y1.5 | | 0.485 × 0.200 | 0.097 | | | |
| | | 束X4Y3 | | 0.537 × 0.600 | 0.322 | 1.556 | 2.093 | |
| X4Y5 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 0.537 | 0.537 | |
| | | 3 | 柱X4Y5 | | | | | 0.537 |
| | | 2 | 内壁 | 0.390 | 1.820 × 2.800 × 0.500 | 0.994 | | |
| | | | 3階 床 | 1.190 | 0.966 | 1.150 | | |
| | | | 梁X4Y4 | | 1.561 × 0.600 | 0.937 | | |
| | | | 梁X4Y4 | | 0.164 × 0.600 | 0.098 | | |
| 梁X4Y5.5 | | | 1.808 × 0.750 | 1.356 | | | | |
| 柱X4Y4 | | 2.093 × 0.600 | 1.256 | | | | | |
| | 柱X4Y5.5 | | 1.076 × 0.750 | 0.807 | 6.598 | 7.135 | | |
| X4Y5.5 | 3 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | |
| | | 内壁 | 0.390 | 1.820 × 2.756 × 0.500 | 0.978 | | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | |
| | | 2階 床 | 1.190 | 0.828 | 0.985 | | | |
| | | 梁X4Y6 | | 0.328 × 0.500 | 0.164 | 3.105 | 10.240 | |
| | | 梁X3Y5.5 | | 0.538 × 0.667 | 0.359 | | | |
| | 梁X3Y5.5 | | 0.538 × 0.667 | 0.359 | | | | |
| | 束X4Y6 | | 0.537 × 0.667 | 0.358 | 1.076 | 1.076 | | |
| X4Y6 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 0.537 | 0.537 | |
| X4Y7 | 3 | 屋根一般 | 0.649 | 0.414 | 0.269 | | | |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | | |
| | | 束X4Y6 | | 0.537 × 0.333 | 0.179 | 2.722 | 2.722 | |
| | | 2 | 2階 外壁 | 0.870 | 1.820 × 2.800 × 0.500 | 2.217 | | |
| | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | | | |
| | 内壁 | 0.390 | 1.820 × 2.800 × 0.500 | 0.994 | | | | |
| | 3階 床 | 1.190 | 0.656 | 0.781 | | | | |
| | 梁X4Y5.5 | | 1.808 × 0.250 | 0.452 | | | | |
| 柱X3Y7 | | 4.083 × 0.500 | 2.042 | | | | | |
| 柱X4Y5.5 | | 1.076 × 0.250 | 0.269 | 7.863 | 10.585 | | | |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | Po(kN) | P(kN) | P(kN) |
|--------|---------|---------|------------------------------|-------------------------|--------|--------|--------|
| X4Y7 | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 内壁 | 0.390 | 1.820 × 2.756 × 0.500 | 0.978 | | |
| | | 2階 床 | 1.190 | 0.276 | 0.328 | | |
| | | 梁X4Y6 | | 0.328 × 0.500 | 0.164 | 3.652 | 14.237 |
| X5Y1 | 小屋 | 屋根一般 | 0.649 | 0.207 | 0.134 | | |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | 1.008 | 1.008 |
| | 3 | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 線荷重 | 1.218 | 0.910 × 1.000 | 1.108 | | |
| | | 梁X6Y1 | | 1.095 × 0.333 | 0.365 | | |
| | | 束X5Y1.5 | | 0.485 × 0.750 | 0.364 | | |
| | | 束X5Y3 | | 0.537 × 0.250 | 0.134 | | |
| | 2 | 束X6Y1 | | 0.864 × 0.333 | 0.288 | 5.000 | 6.008 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 2階 外壁 | 0.870 | 1.365 × 2.800 × 0.500 | 1.663 | | |
| | | 3階 床 | 1.190 | 1.484 | 1.766 | | |
| | | バルコニー | 1.400 | 0.380 | 0.532 | | |
| | | 梁X5Y0 | | 0.629 × 1.000 | 0.629 | | |
| 1 | 梁X5Y4 | | 0.164 × 0.286 | 0.047 | | | |
| | 梁X6Y1 | | 1.950 × 0.333 | 0.649 | | | |
| | 柱X5Y3.5 | | 0.524 × 0.429 | 0.225 | | | |
| | 柱X5Y4 | | 0.537 × 0.286 | 0.154 | 6.773 | 12.781 | |
| | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| 1 | 2階 床 | 1.190 | 0.138 | 0.164 | 2.346 | 15.127 | |
| | | | | | | | |
| X5Y1.5 | 小屋 | 屋根一般 | 0.649 | 0.621 | 0.403 | | |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | 0.485 | 0.485 |
| X5Y3 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 0.537 | 0.537 |
| | | | | | | | |
| X5Y3.5 | 3 | 束X5Y1.5 | | 0.485 × 0.250 | 0.121 | | |
| | | 束X5Y3 | | 0.537 × 0.750 | 0.403 | 0.524 | 0.524 |
| X5Y4 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 0.537 | 0.537 |
| | 3 | 柱X5Y4 | | | | | 0.537 |
| | 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| 1 | 2階 床 | 1.190 | 0.276 | 0.328 | 1.306 | 1.306 | |
| | | | | | | | |
| X5Y5 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 0.537 | 0.537 |
| | 3 | 柱X5Y5 | | | | | 0.537 |
| | 2 | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | |
| | | 3階 床 | 1.190 | 1.311 | 1.560 | | |
| | | 梁X5Y4 | | 0.164 × 0.714 | 0.117 | | |
| 1 | 柱X5Y3.5 | | 0.524 × 0.571 | 0.299 | | | |
| | 柱X5Y4 | | 0.537 × 0.714 | 0.383 | 2.856 | 3.393 | |
| 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | |
| | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | |
| 1 | 2階 床 | 1.190 | 0.138 | 0.164 | 1.142 | 4.535 | |
| | | | | | | | |
| X5Y6 | 小屋 | 屋根一般 | 0.649 | 0.828 | 0.537 | 0.537 | 0.537 |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | P ₀ (kN) | P(kN) | P(kN) | |
|--------|-------|-------|------------------------------|-------------------------|-----------------------|--------|-------|--|
| X5Y6 | 3 | 柱X5Y6 | | | | | 0.537 | |
| | 2 | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | 0.497 | 1.034 | |
| | 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | 0.489 | 1.523 | |
| X5Y7 | 3 | 屋根一般 | 0.649 | 0.414 | 0.269 | | | |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | 2.543 | 2.543 | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 2.216 | 4.759 | |
| 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | | |
| | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 2.182 | 6.941 | | |
| X6Y1 | 小屋 | 屋根一般 | 0.649 | 0.259 | 0.168 | | | |
| | | 屋根軒先 | 0.449 | 0.228 | 0.102 | | | |
| | | 妻壁 | 0.870 | 0.455 × 1.001 × 0.500 | 0.198 | | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | 0.864 | 0.864 | |
| | 1 | 1階 外壁 | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | | |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| | | 内壁 | 0.390 | 1.365 × 2.756 × 0.500 | 0.734 | | | |
| | 2階 床 | 1.190 | 1.018 | 1.211 | | | | |
| | 柱X7Y1 | | 9.644 × 0.667 | 6.433 | 11.105 | 11.105 | | |
| X6Y1.5 | 小屋 | 屋根一般 | 0.649 | 0.776 | 0.504 | | | |
| | | 屋根軒先 | 0.449 | 0.228 | 0.102 | 0.606 | 0.606 | |
| X6Y3 | 小屋 | 屋根一般 | 0.649 | 1.035 | 0.672 | 0.672 | 0.672 | |
| | | 1 | 内壁 | 0.390 | 1.365 × 2.756 × 0.500 | 0.734 | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | |
| | 2階 床 | 1.190 | 1.812 | 2.156 | 3.379 | 3.379 | | |
| X6Y4 | 小屋 | 屋根一般 | 0.649 | 1.035 | 0.672 | 0.672 | 0.672 | |
| | | 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | |
| | 2階 床 | 1.190 | 1.311 | 1.560 | 2.538 | 2.538 | | |
| X6Y5 | 小屋 | 屋根一般 | 0.649 | 1.035 | 0.672 | 0.672 | 0.672 | |
| | | 3 | 束X6Y1.5 | | 0.606 × 0.143 | 0.087 | | |
| | | 束X6Y3 | | 0.672 × 0.429 | 0.288 | | | |
| | | 束X6Y4 | | 0.672 × 0.714 | 0.480 | | | |
| | | 束X6Y6 | | 0.672 × 0.500 | 0.336 | 1.191 | 1.863 | |
| | 2 | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | | |
| | | 内壁 | 0.390 | 1.365 × 2.800 × 0.500 | 0.745 | | | |
| | 3階 床 | 1.190 | 2.122 | 2.525 | 3.767 | 5.630 | | |
| 1 | 内壁 | 0.390 | 0.455 × 2.756 × 0.500 | 0.245 | | | | |
| | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | | | |
| | 2階 床 | 1.190 | 0.690 | 0.821 | 1.555 | 7.185 | | |
| X6Y6 | 小屋 | 屋根一般 | 0.649 | 1.035 | 0.672 | 0.672 | 0.672 | |
| | | 2 | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | |
| | | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | | |
| | | 内壁 | 0.390 | 1.365 × 2.800 × 0.500 | 0.745 | | | |
| | 3階 床 | 1.190 | 0.621 | 0.739 | 2.478 | 2.478 | | |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | Po(kN) | P(kN) | P(kN) |
|-------|-------|---------|------------------------------|-------------------------|--------|--------|--------|
| X6Y6 | 1 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | 1.717 | 4.195 |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 2階 床 | 1.190 | 0.621 | 0.739 | | |
| X6Y7 | 3 | 屋根一般 | 0.649 | 0.518 | 0.336 | 3.515 | 3.515 |
| | | 屋根軒先 | 0.449 | 0.228 | 0.102 | | |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 束X6Y6 | | 0.672 × 0.500 | 0.336 | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 3.638 | 7.153 |
| | | 2階 外壁 | 0.870 | 1.365 × 2.800 × 0.500 | 1.663 | | |
| | | 内壁 | 0.390 | 0.910 × 2.800 × 0.500 | 0.497 | | |
| | 1 | 3階 床 | 1.190 | 0.311 | 0.370 | 3.586 | 10.739 |
| 1階 外壁 | | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | | |
| 1階 外壁 | | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | | |
| X7Y1 | 3 | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | 4.641 | 4.641 |
| | | 2階 床 | 1.190 | 0.311 | 0.370 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | |
| | | 妻壁 | 0.870 | 0.455 × 1.001 × 0.500 | 0.198 | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | 2 | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | 5.003 | 9.644 |
| | | 梁X6Y1 | | 1.095 × 0.667 | 0.730 | | |
| | | 束X6Y1 | | 0.864 × 0.667 | 0.576 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| 2 | 2階 外壁 | 0.870 | 1.365 × 2.800 × 0.500 | 1.663 | 5.003 | 9.644 | |
| | 3階 床 | 1.190 | 0.173 | 0.206 | | | |
| | バルコニー | 1.400 | 0.518 | 0.725 | | | |
| | 梁X6Y1 | | 1.950 × 0.667 | 1.301 | | | |
| X7Y5 | 1 | 内壁 | 0.390 | 0.455 × 2.756 × 0.500 | 0.245 | 1.227 | 1.227 |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 2階 床 | 1.190 | 0.414 | 0.493 | | |
| X8Y1 | 小屋 | 屋根一般 | 0.649 | 0.155 | 0.101 | 0.790 | 0.790 |
| | | 屋根軒先 | 0.449 | 0.222 | 0.100 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.978 × 0.500 | 0.193 | | |
| | | 妻壁 | 0.870 | 0.910 × 1.001 × 0.500 | 0.396 | | |
| | 3 | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | 3.712 | 4.502 |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 線荷重 | 1.218 | 0.910 × 1.000 | 1.108 | | |
| | 2 | 束X8Y1.5 | | 0.823 × 0.500 | 0.412 | 3.559 | 8.061 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.190 | 0.276 | 0.328 | | |
| | 1 | バルコニー | 1.400 | 0.276 | 0.386 | 10.646 | 18.707 |
| | | 梁X8Y0 | | 0.629 × 1.000 | 0.629 | | |
| 1階 外壁 | | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | | |
| 1 | 1階 外壁 | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | 10.646 | 18.707 | |
| | 2階 床 | 1.190 | 0.466 | 0.555 | | | |
| | 柱X7Y1 | | 9.644 × 0.333 | 3.211 | | | |
| | | 柱X8Y2 | | 10.836 × 0.333 | 3.608 | | |

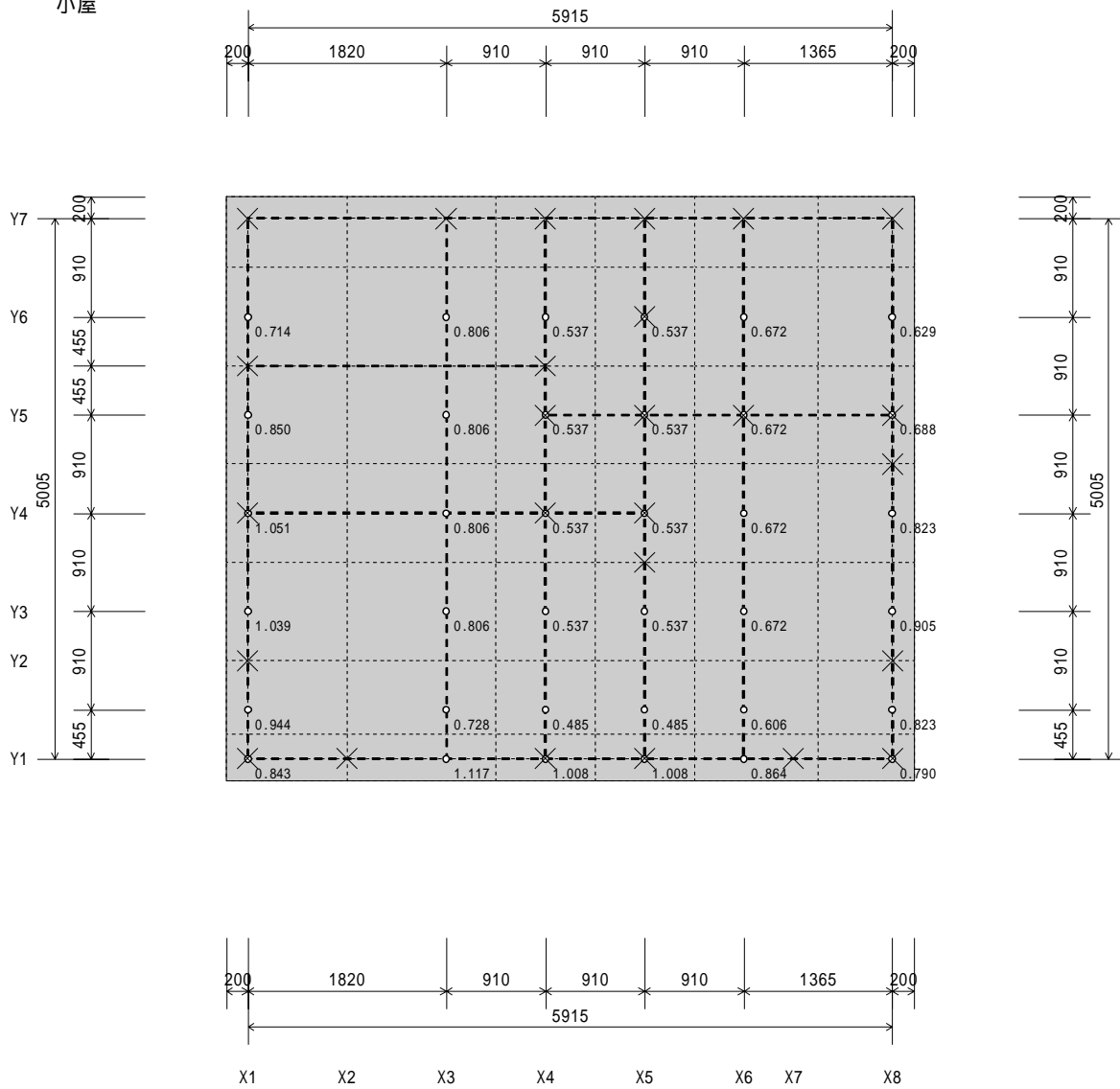
| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | P ₀ (kN) | P(kN) | P(kN) |
|---------|-------|---------|------------------------------|-------------------------|---------------------|--------|--------|
| X8Y1.5 | 小屋 | 屋根一般 | 0.649 | 0.466 | 0.302 | | |
| | | 屋根軒先 | 0.449 | 0.359 | 0.161 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.887 × 0.500 | 0.176 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.933 × 0.500 | 0.184 | 0.823 | 0.823 |
| X8Y2 | 3 | 妻壁 | 0.870 | 0.455 × 0.842 × 0.500 | 0.167 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.796 × 0.500 | 0.157 | | |
| | | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | |
| | | 3階 外壁 | 0.870 | 0.910 × 2.770 × 0.500 | 1.096 | | |
| | | 束X8Y1.5 | | 0.823 × 0.500 | 0.412 | | |
| | | 束X8Y3 | | 0.905 × 0.750 | 0.679 | | |
| | | 束X8Y4 | | 0.823 × 0.250 | 0.206 | 4.910 | 4.910 |
| | 2 | 2階 外壁 | 0.870 | 2.275 × 2.800 × 0.500 | 2.771 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.190 | 1.087 | 1.294 | | |
| 柱X8Y4.5 | | | 3.764 × 0.200 | 0.753 | 5.926 | 10.836 | |
| X8Y3 | 小屋 | 屋根一般 | 0.649 | 0.621 | 0.403 | | |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.751 × 0.500 | 0.149 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.683 × 0.500 | 0.271 | 0.905 | 0.905 |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 1階 外壁 | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | |
| | 2階 床 | 1.190 | 0.777 | 0.925 | | | |
| | 柱X8Y2 | | 10.836 × 0.667 | 7.228 | 10.880 | 10.880 | |
| X8Y4 | 小屋 | 屋根一般 | 0.649 | 0.621 | 0.403 | | |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.523 × 0.500 | 0.104 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.592 × 0.500 | 0.234 | 0.823 | 0.823 |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | 2階 床 | 1.190 | 0.621 | 0.739 | 2.921 | 2.921 | |
| X8Y4.5 | 3 | 妻壁 | 0.870 | 0.455 × 0.478 × 0.500 | 0.095 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.432 × 0.500 | 0.085 | | |
| | | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | |
| | | 3階 外壁 | 0.870 | 0.455 × 2.770 × 0.500 | 0.548 | | |
| | | 束X8Y3 | | 0.905 × 0.250 | 0.226 | | |
| | | 束X8Y4 | | 0.823 × 0.750 | 0.617 | 3.764 | 3.764 |
| X8Y5 | 小屋 | 屋根一般 | 0.649 | 0.621 | 0.403 | | |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.319 × 0.500 | 0.126 | | |
| | | 妻壁 | 0.870 | 0.455 × 0.387 × 0.500 | 0.077 | 0.688 | 0.688 |
| | 3 | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | |
| | | 3階 外壁 | 0.870 | 0.455 × 2.770 × 0.500 | 0.548 | | |
| | | 束X8Y6 | | 0.629 × 0.500 | 0.315 | 3.056 | 3.744 |
| | 2 | 2階 外壁 | 0.870 | 2.275 × 2.800 × 0.500 | 2.771 | | |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 内壁 | 0.390 | 1.365 × 2.800 × 0.500 | 0.745 | | |
| | | 3階 床 | 1.190 | 1.087 | 1.294 | | |
| | | 柱X8Y4.5 | | 3.764 × 0.800 | 3.011 | 8.929 | 12.673 |

| 符号 | 階 | 項目 | 単位荷重 (kN/m ²) | 面積 (m ²) | P ₀ (kN) | P(kN) | P(kN) |
|-------|----|-------|------------------------------|-------------------------|---------------------|-------|--------|
| X8Y5 | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 3.246 | 15.919 |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| | | 内壁 | 0.390 | 0.910 × 2.756 × 0.500 | 0.489 | | |
| | | 2階 床 | 1.190 | 0.483 | 0.575 | | |
| X8Y6 | 小屋 | 屋根一般 | 0.649 | 0.621 | 0.403 | 0.629 | 0.629 |
| | | 屋根軒先 | 0.449 | 0.182 | 0.082 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.137 × 0.500 | 0.054 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.228 × 0.500 | 0.090 | | |
| | 2 | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | 3.700 | 3.700 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 内壁 | 0.390 | 1.365 × 2.800 × 0.500 | 0.745 | | |
| | | 3階 床 | 1.190 | 0.621 | 0.739 | | |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 2.921 | 6.621 |
| | | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | | |
| 2階 床 | | 1.190 | 0.621 | 0.739 | | | |
| X8Y7 | 3 | 屋根一般 | 0.649 | 0.311 | 0.202 | 4.493 | 4.493 |
| | | 屋根軒先 | 0.449 | 0.268 | 0.120 | | |
| | | 妻壁 | 0.870 | 0.910 × 0.046 × 0.500 | 0.018 | | |
| | | 3階 外壁 | 0.870 | 1.365 × 2.770 × 0.500 | 1.645 | | |
| | | 3階 外壁 | 0.870 | 1.820 × 2.770 × 0.500 | 2.193 | | |
| | | 束X8Y6 | | 0.629 × 0.500 | 0.315 | | |
| | 2 | 2階 外壁 | 0.870 | 1.365 × 2.800 × 0.500 | 1.663 | 3.141 | 7.634 |
| | | 2階 外壁 | 0.870 | 0.910 × 2.800 × 0.500 | 1.108 | | |
| | | 3階 床 | 1.190 | 0.311 | 0.370 | | |
| | 1 | 1階 外壁 | 0.870 | 0.910 × 2.756 × 0.500 | 1.091 | 3.097 | 10.731 |
| 1階 外壁 | | 0.870 | 1.365 × 2.756 × 0.500 | 1.636 | | | |
| 2階 床 | | 1.190 | 0.311 | 0.370 | | | |

4 - 2 軸力図

(1) 長期常時軸力

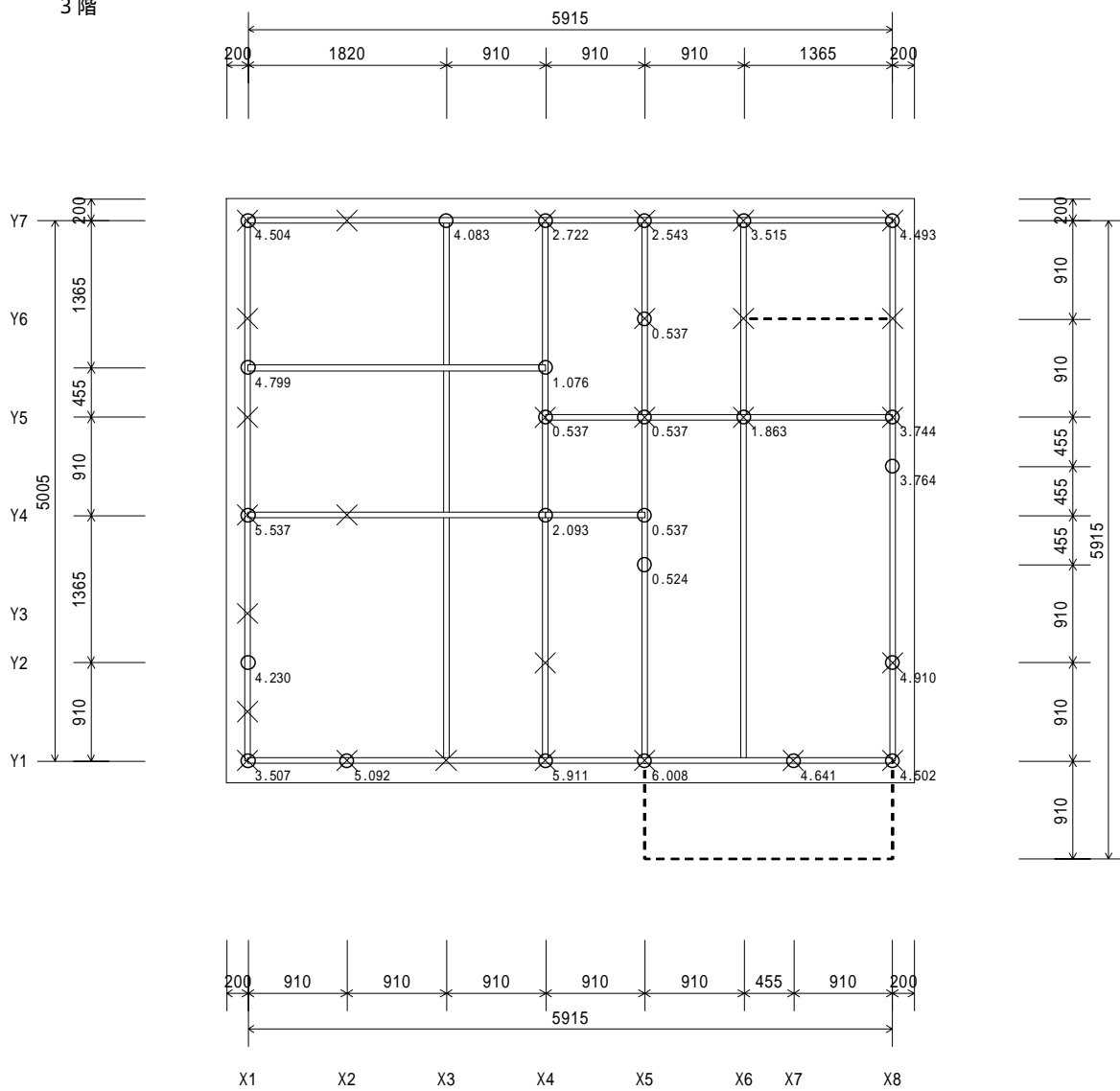
小屋



凡例:

| | |
|-----|--------|
| × | 柱(下階) |
| ○ | 小屋束 |
| --- | 梁(当階) |
| --- | 軸力負担領域 |

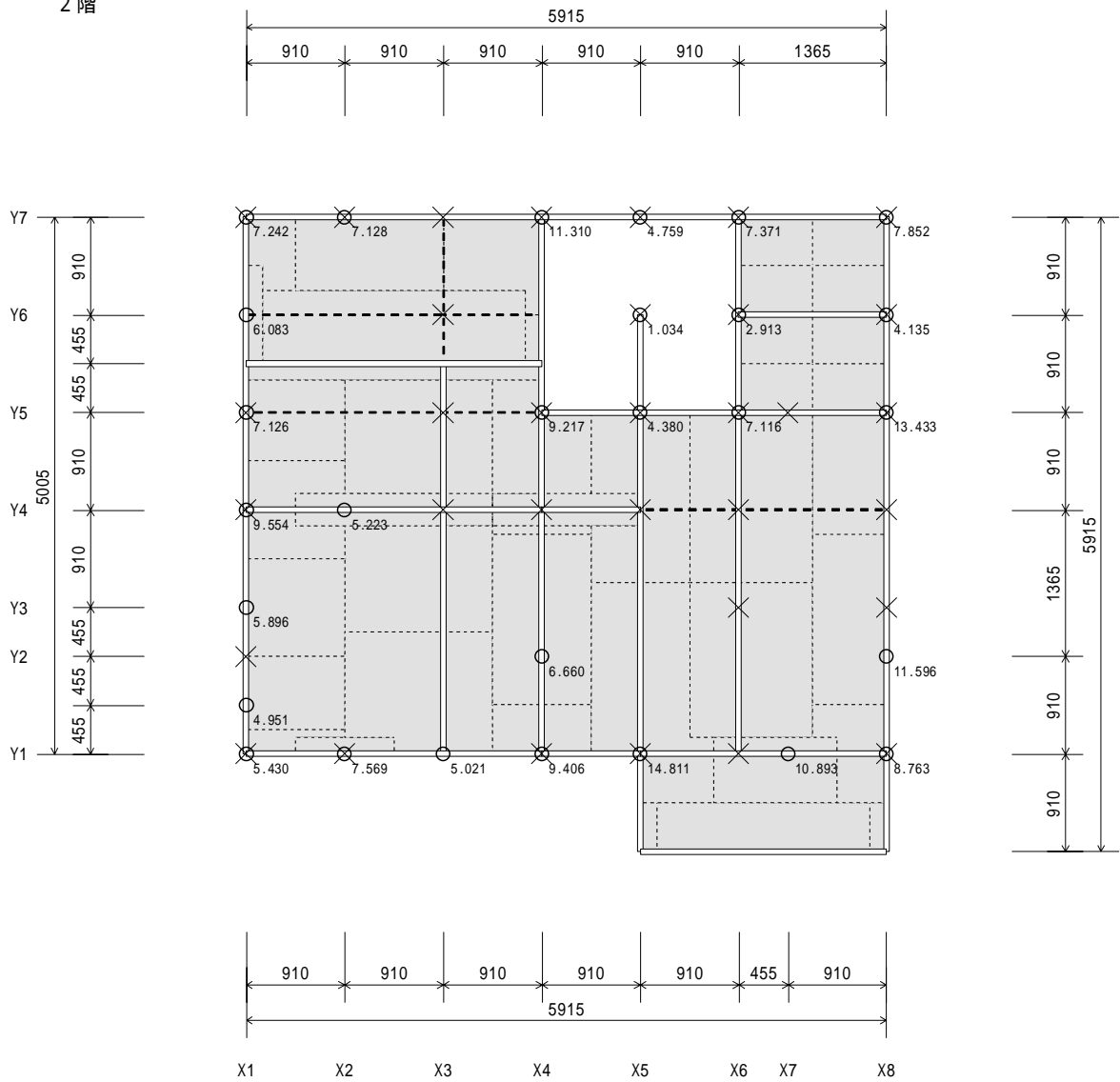
3階



凡例:

| | |
|-----|--------|
| ○ | 柱(当階) |
| × | 柱(下階) |
| --- | 梁(当階) |
| — | 梁(上階) |
| --- | 軸力負担領域 |

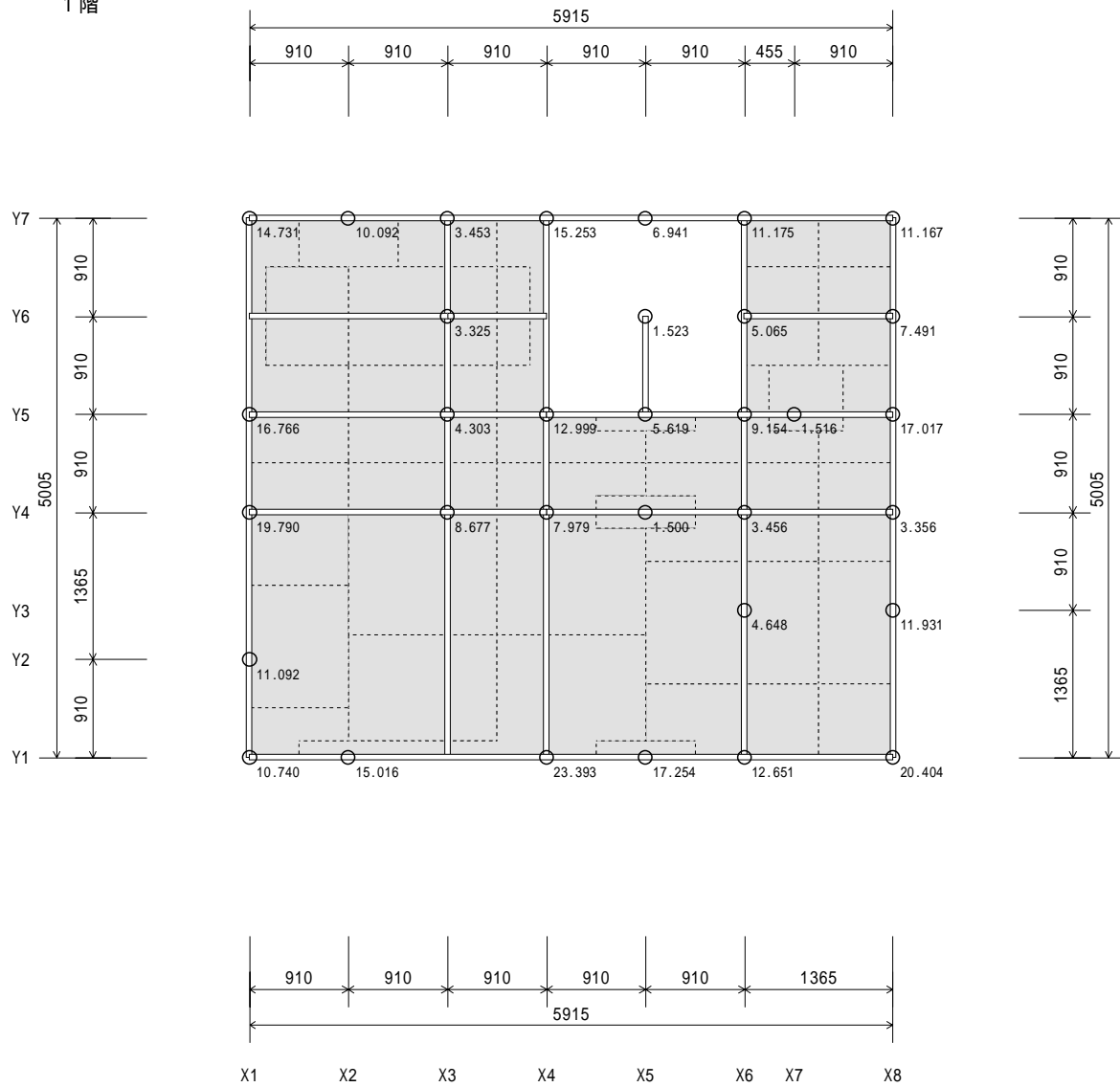
2 階



凡例:

| | |
|------------|--------|
| ○ | 柱(当階) |
| × | 柱(下階) |
| --- | 梁(当階) |
| — | 梁(上階) |
| ▭ (shaded) | 軸力負担領域 |

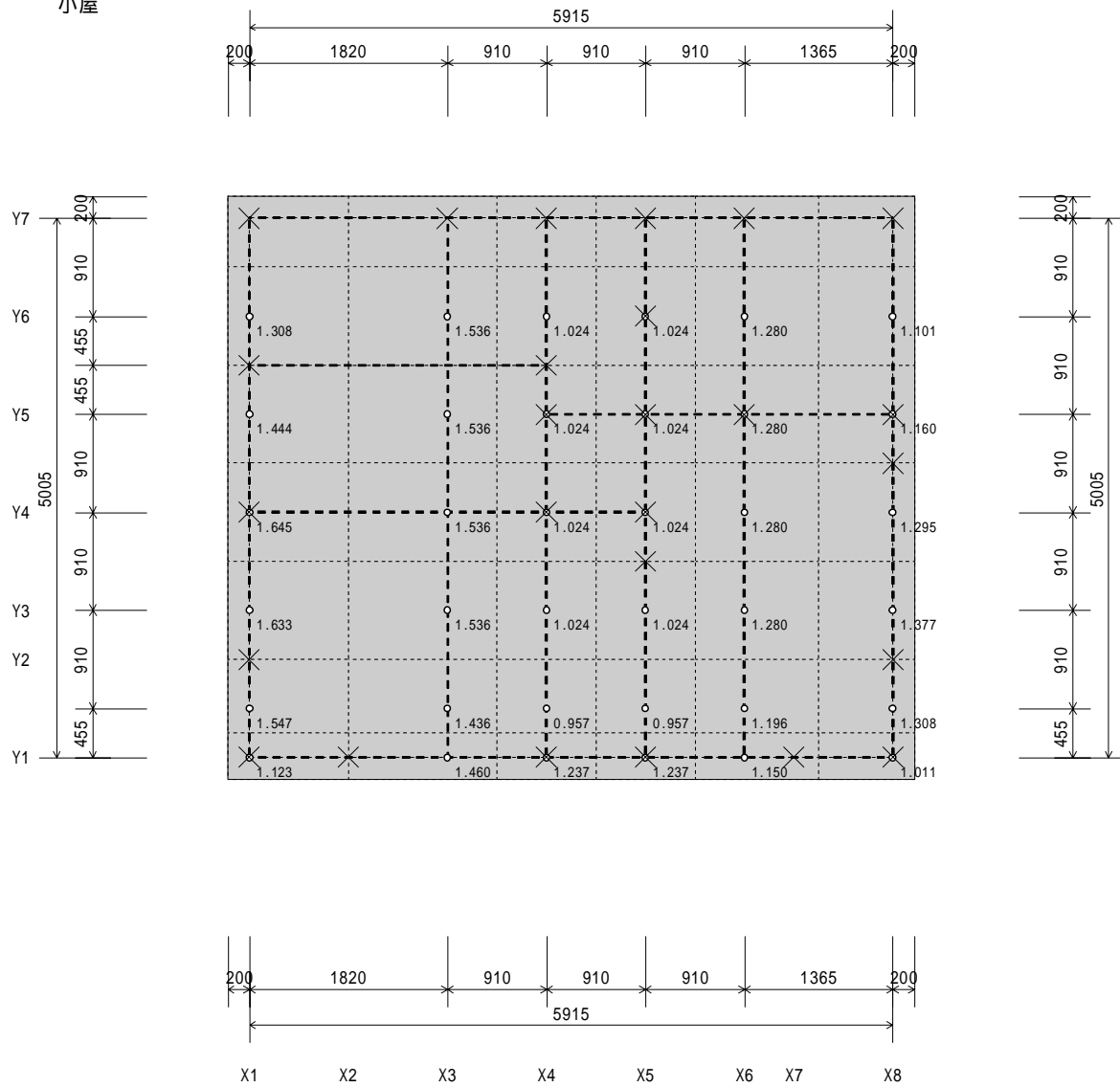
1階



凡例:

| | |
|-----|--------|
| ○ | 柱(当階) |
| ══ | 梁(上階) |
| --- | 軸力負担領域 |

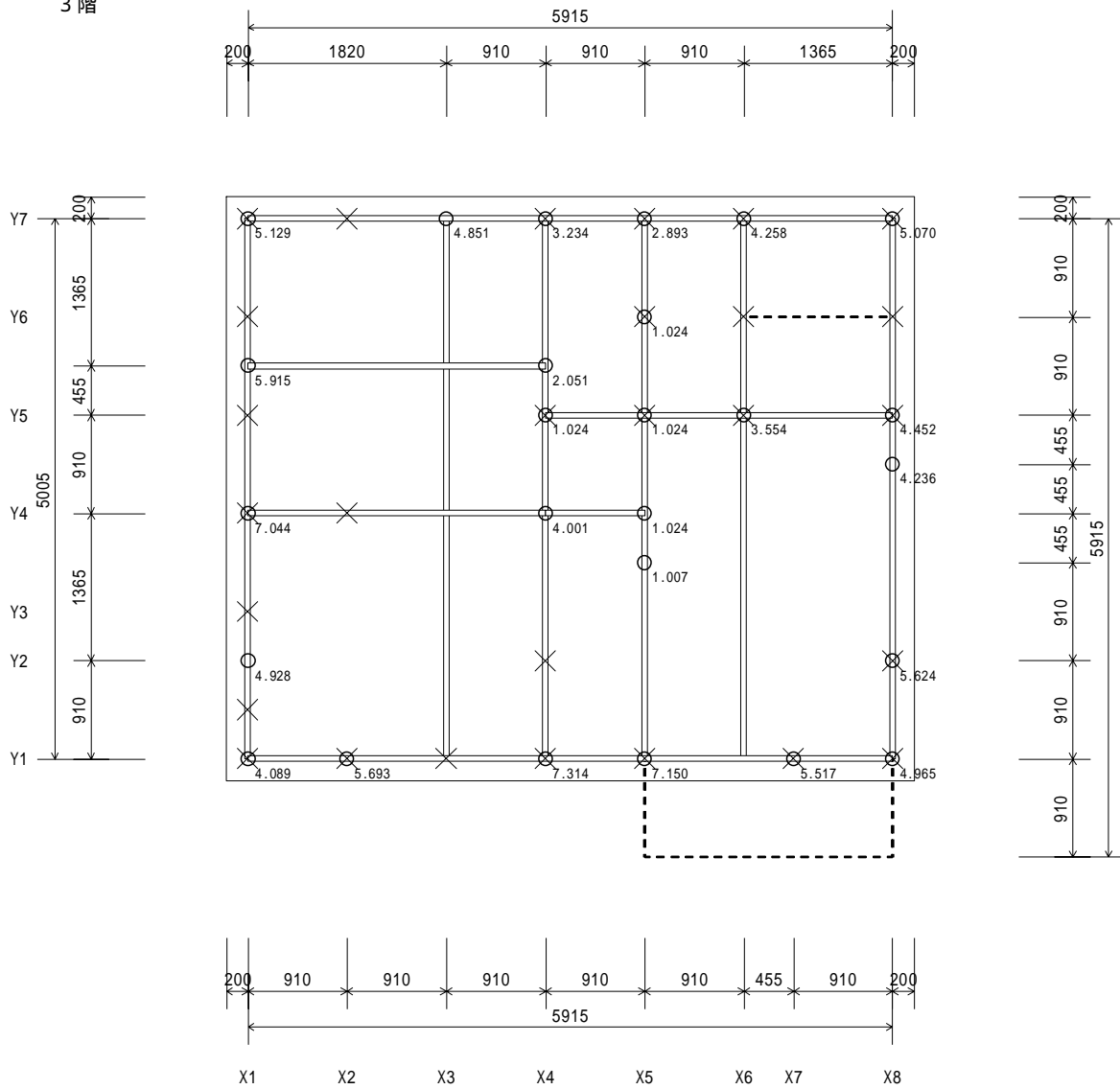
(2) 短期積雪用軸力
小屋



凡例:

| | |
|-----|--------|
| × | 柱(下階) |
| ○ | 小屋束 |
| --- | 梁(当階) |
| --- | 軸力負担領域 |

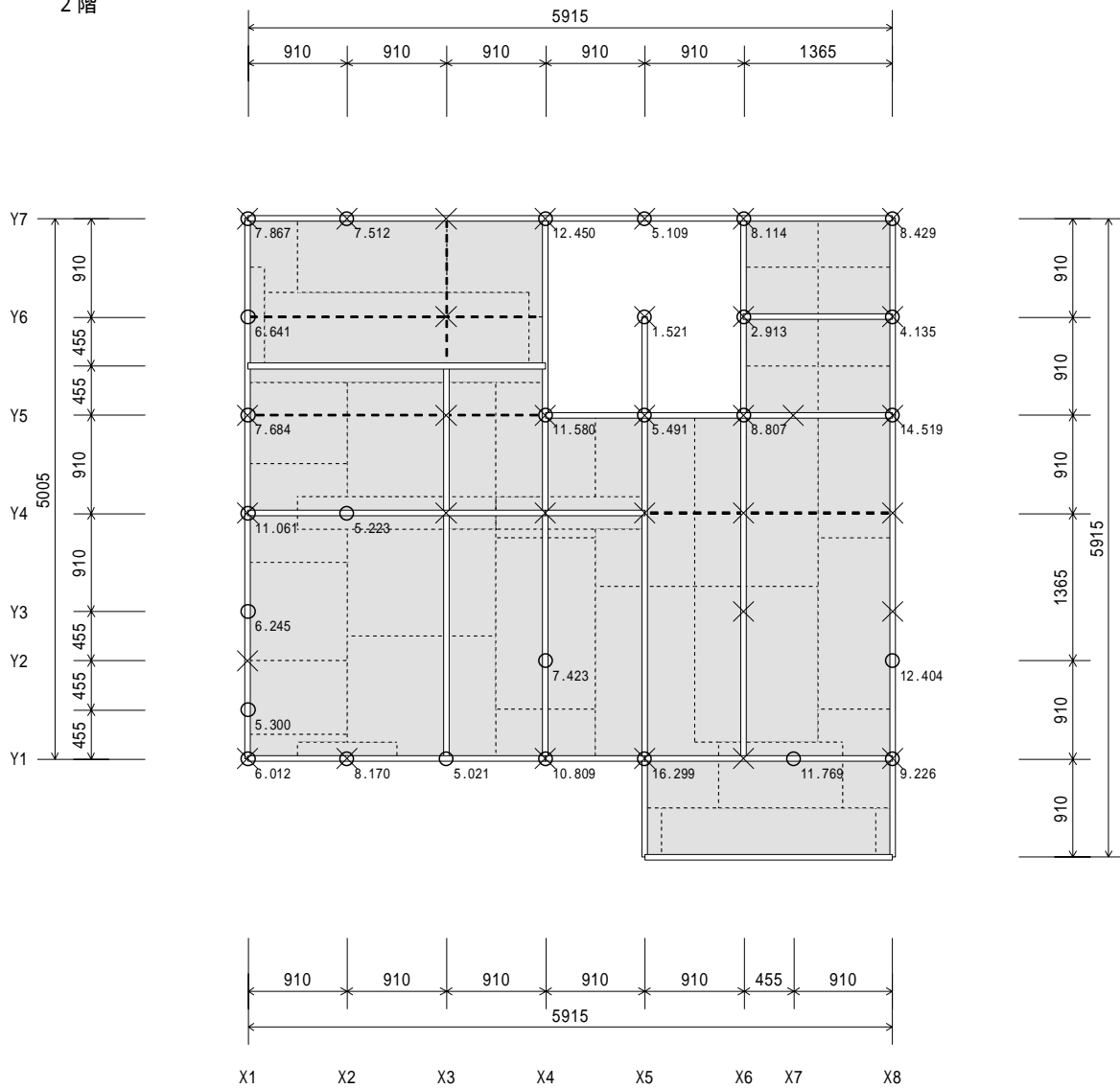
3階



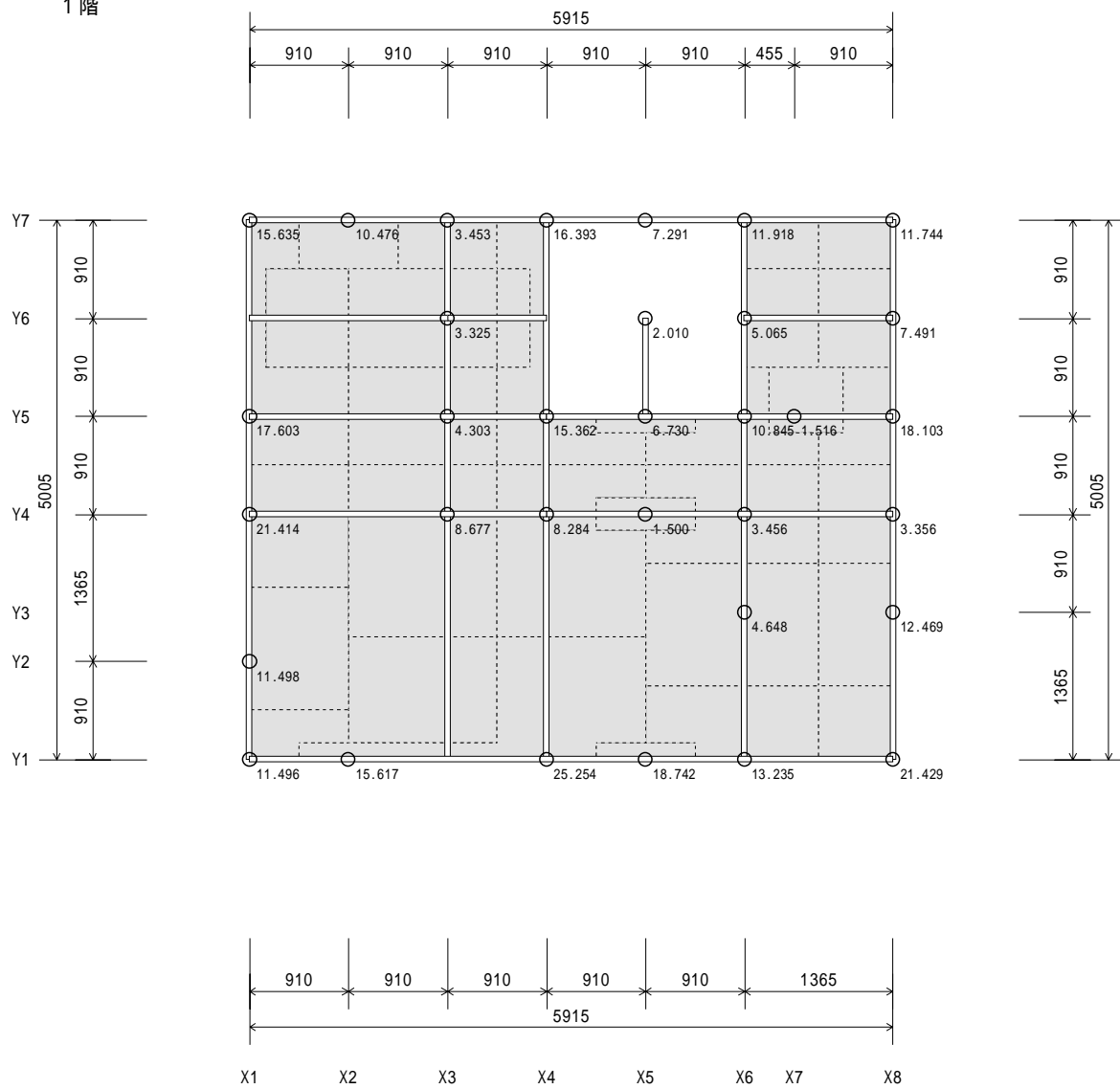
凡例:

| | |
|-----|--------|
| ○ | 柱(当階) |
| × | 柱(下階) |
| --- | 梁(当階) |
| — | 梁(上階) |
| --- | 軸力負担領域 |

2 階



1階

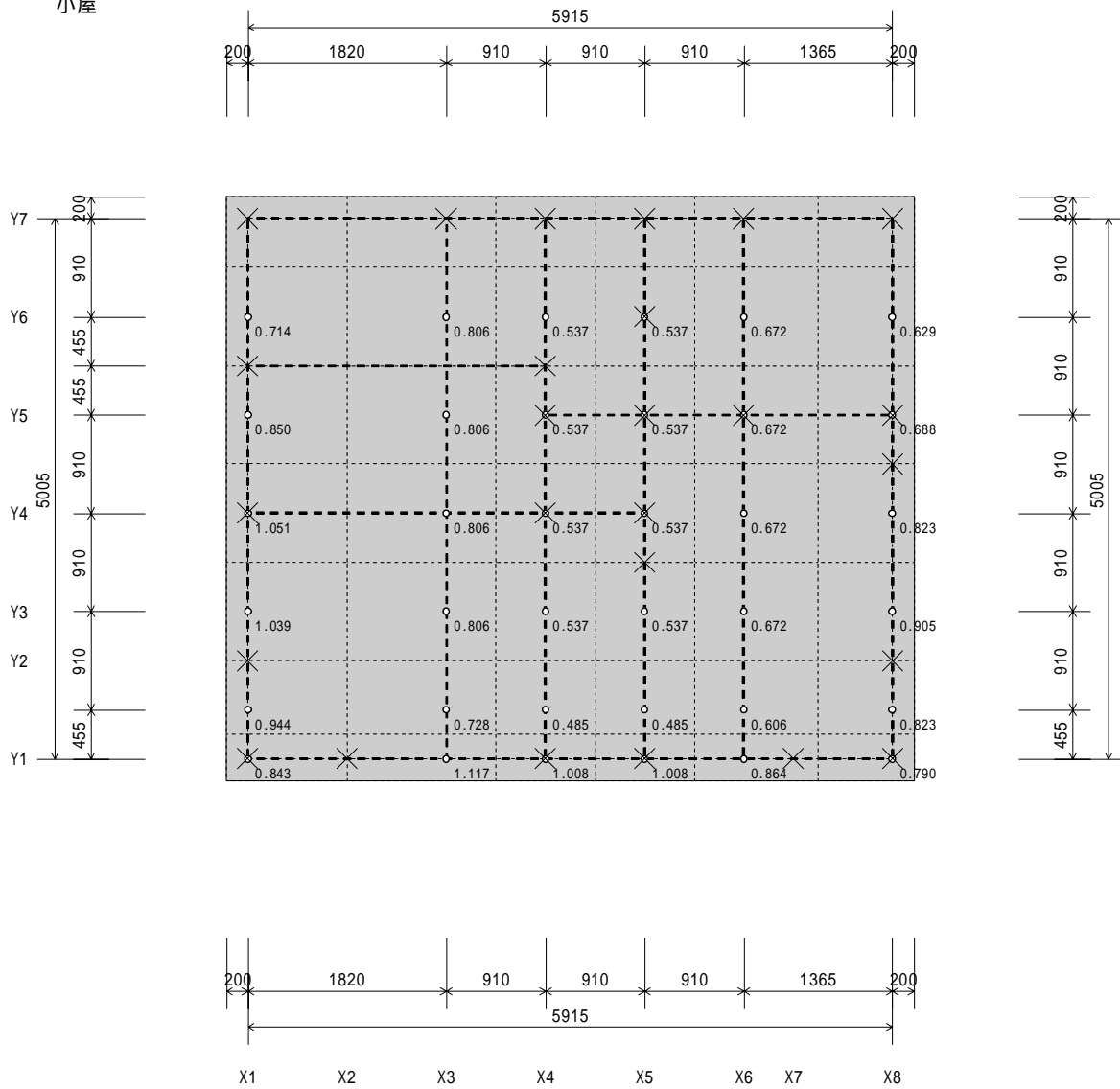


凡例:

| | |
|-----|--------|
| ○ | 柱(当階) |
| ══ | 梁(上階) |
| --- | 軸力負担領域 |

(3) 引張耐力検討用軸力

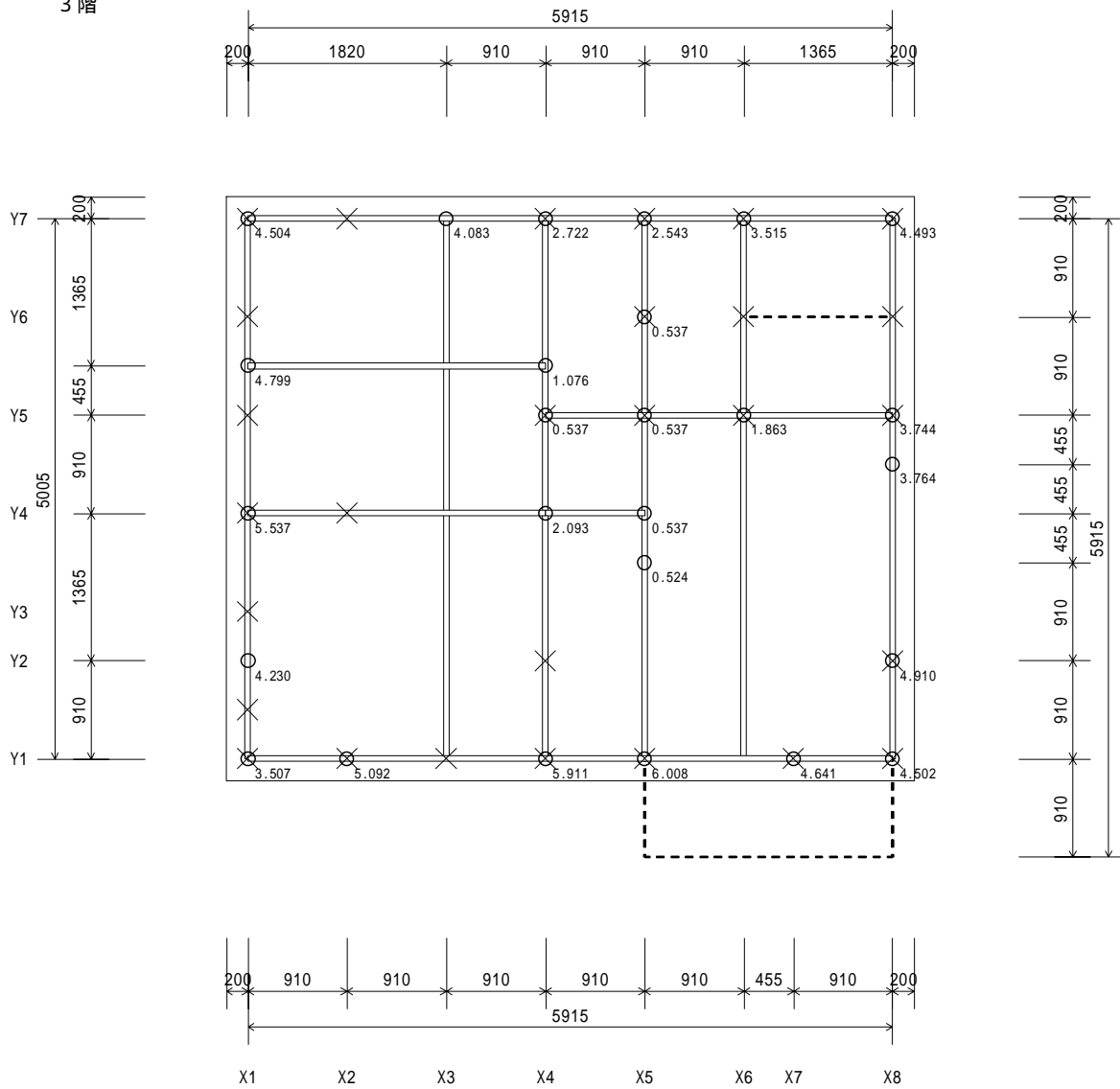
小屋



凡例:

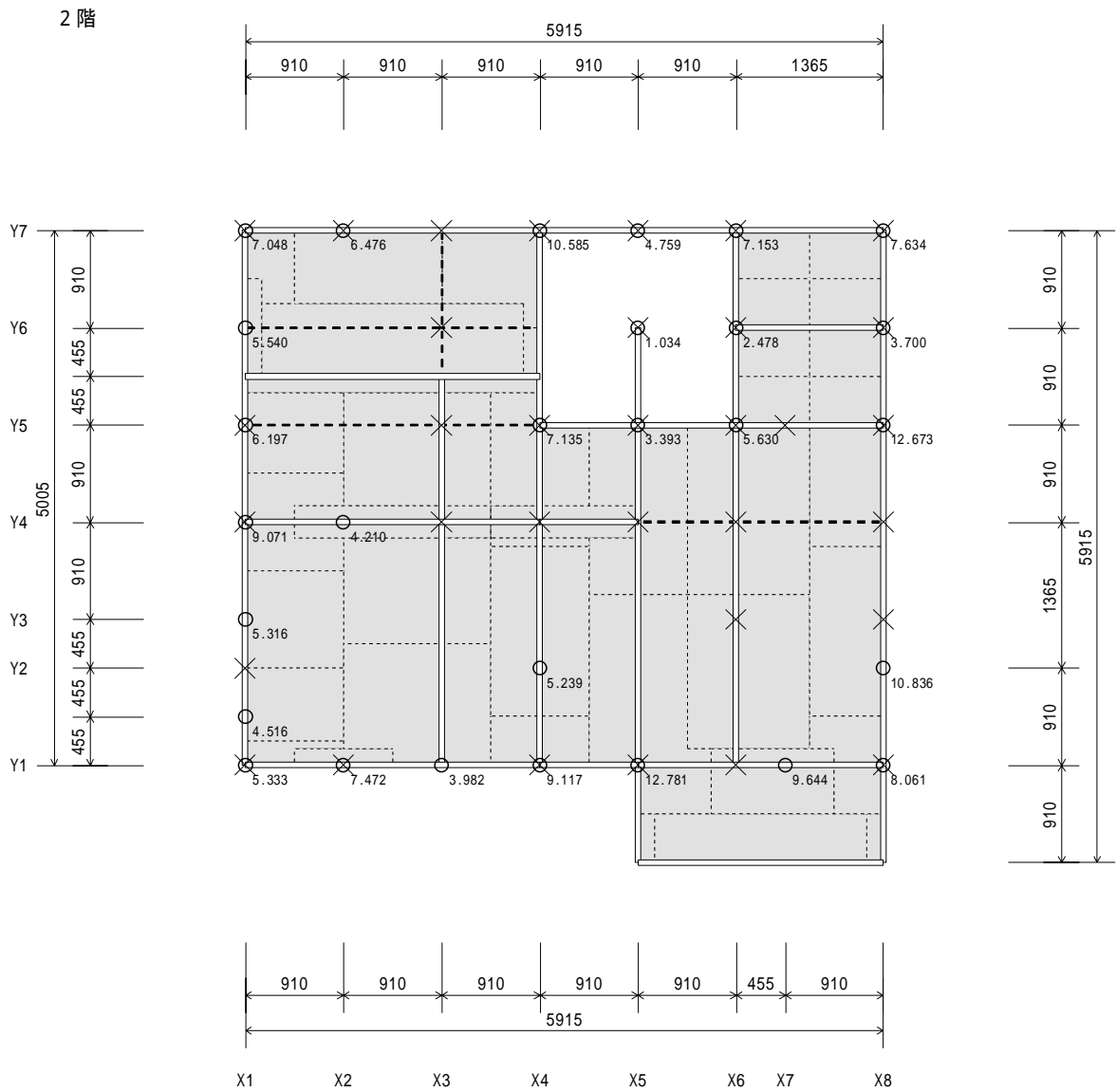
| | |
|-----|--------|
| × | 柱(下階) |
| ○ | 小屋束 |
| --- | 梁(当階) |
| --- | 軸力負担領域 |

3階



凡例:

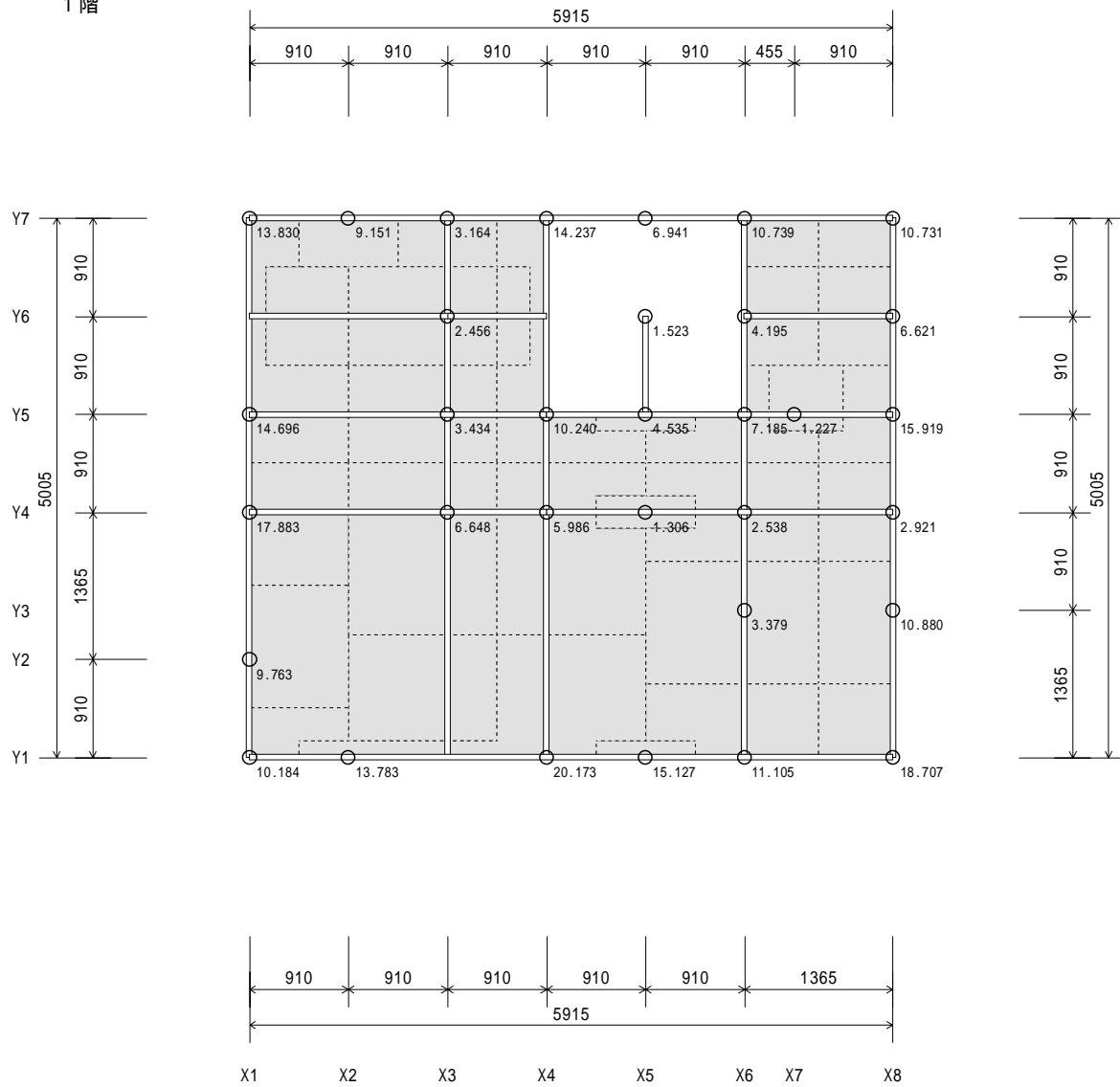
| | |
|-----|--------|
| ○ | 柱(当階) |
| × | 柱(下階) |
| --- | 梁(当階) |
| — | 梁(上階) |
| --- | 軸力負担領域 |



凡例:

| | |
|-----|--------|
| ○ | 柱(当階) |
| × | 柱(下階) |
| --- | 梁(当階) |
| — | 梁(上階) |
| ▭ | 軸力負担領域 |

1階



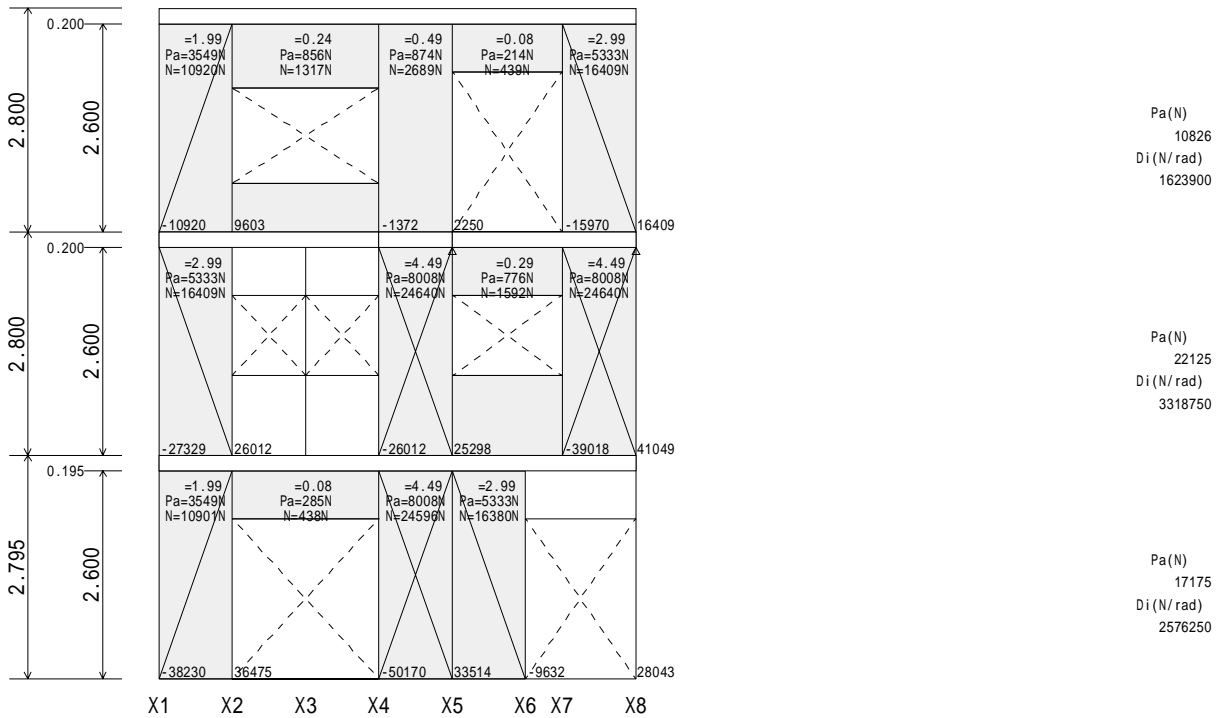
凡例:

| | |
|-----|--------|
| ○ | 柱(当階) |
| ══ | 梁(上階) |
| --- | 軸力負担領域 |

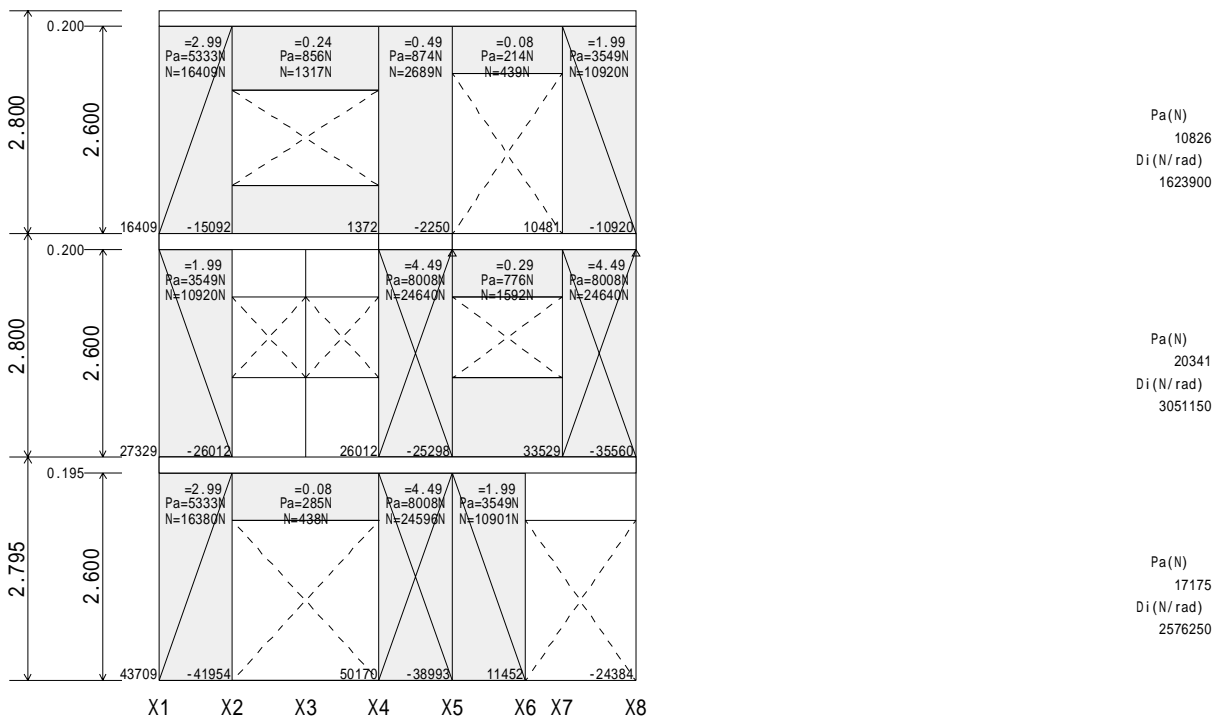
4 - 3 耐力壁の許容耐力時の軸力

Y1通り

・左加力時

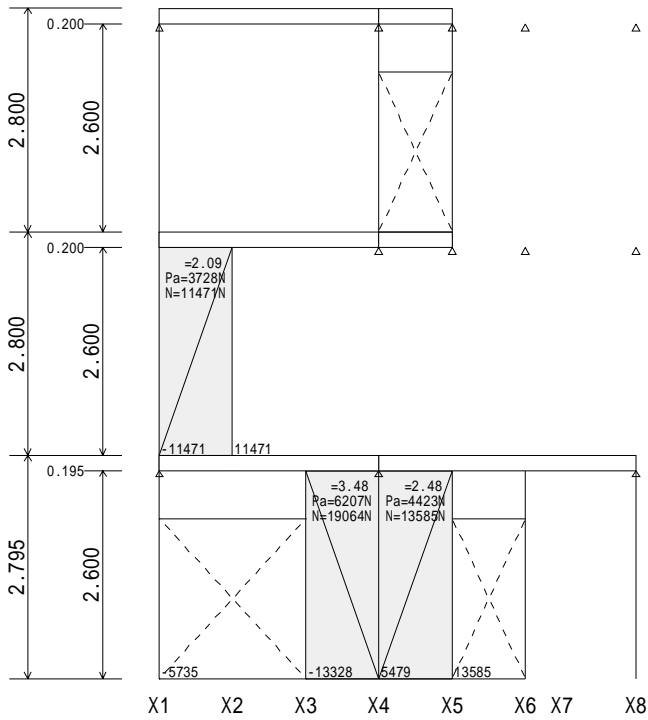


・右加力時



Y4通り

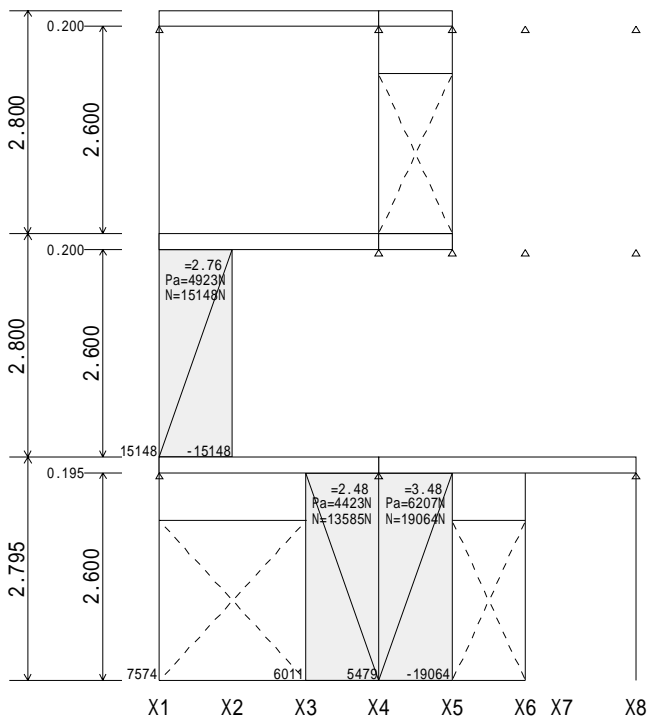
・左加力時



Pa(N)
3728
Di(N/rad)
559200

Pa(N)
10630
Di(N/rad)
1594500

・右加力時

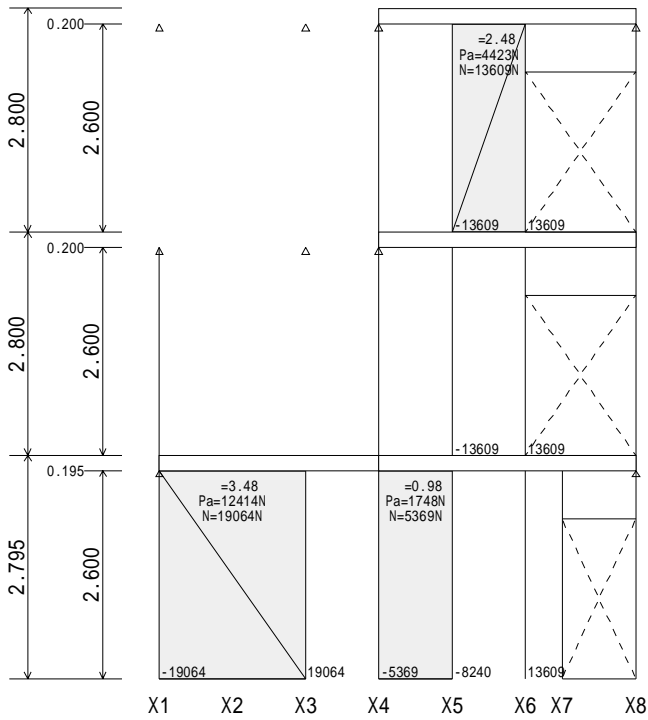


Pa(N)
4923
Di(N/rad)
738450

Pa(N)
10630
Di(N/rad)
1594500

Y5通り

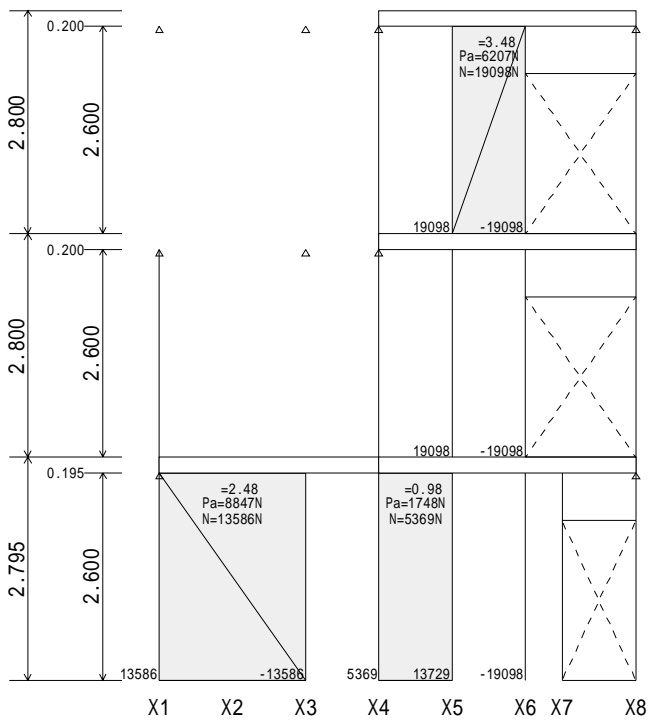
・左加力時



Pa (N)
4423
Di (N/rad)
663450

Pa (N)
14162
Di (N/rad)
2124300

・右加力時

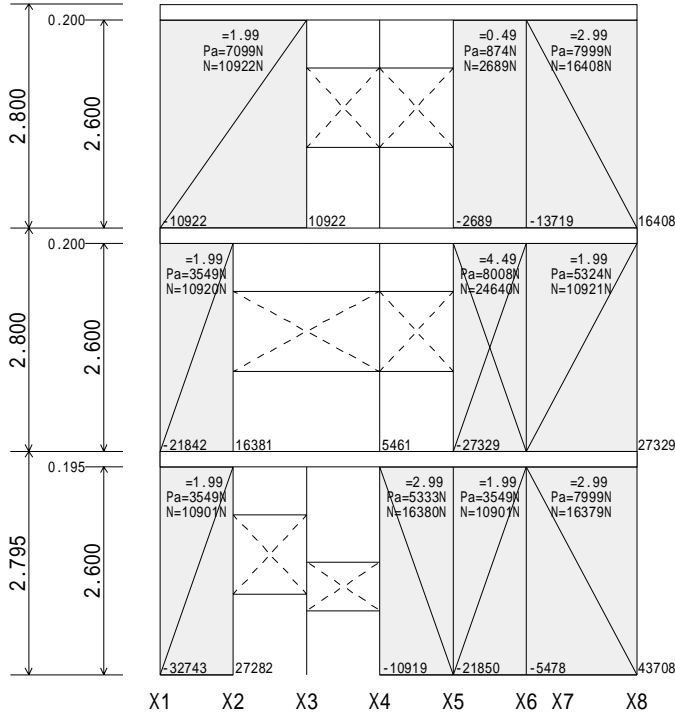


Pa (N)
6207
Di (N/rad)
931050

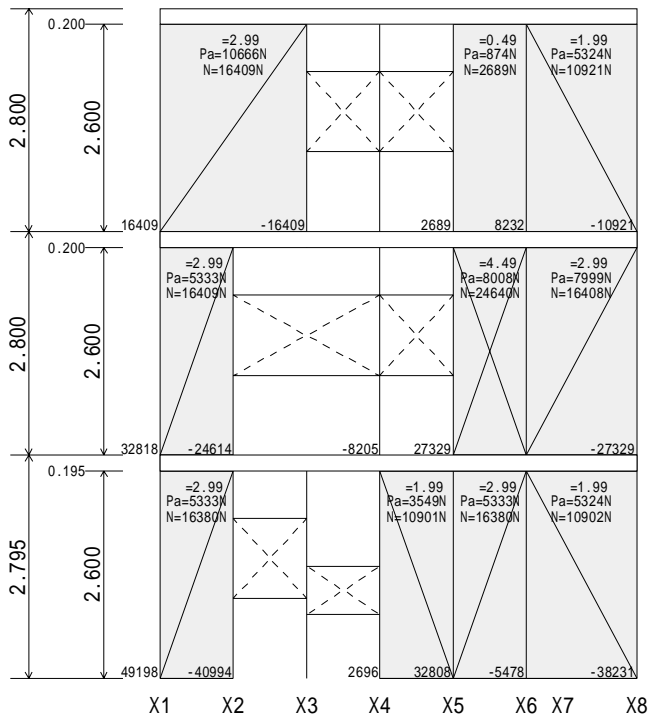
Pa (N)
10595
Di (N/rad)
1589250

Y7通り

・左加力時

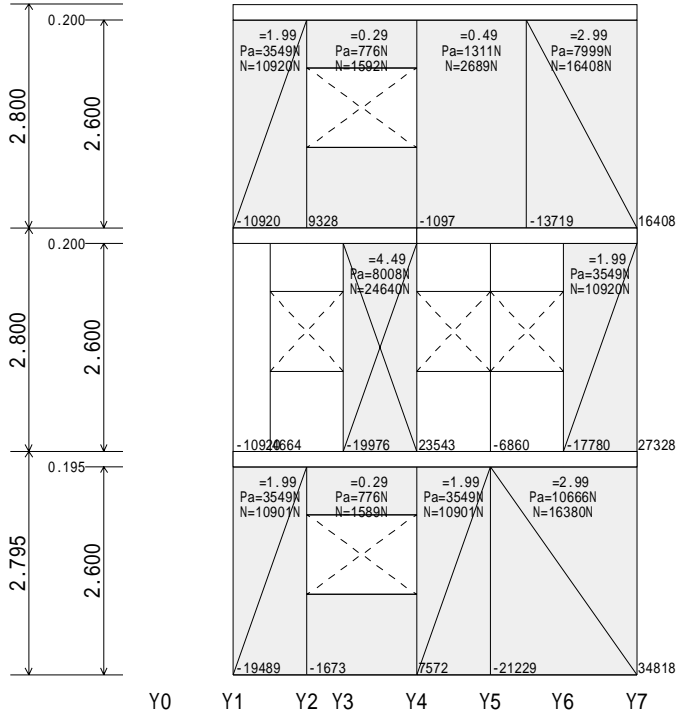


・右加力時

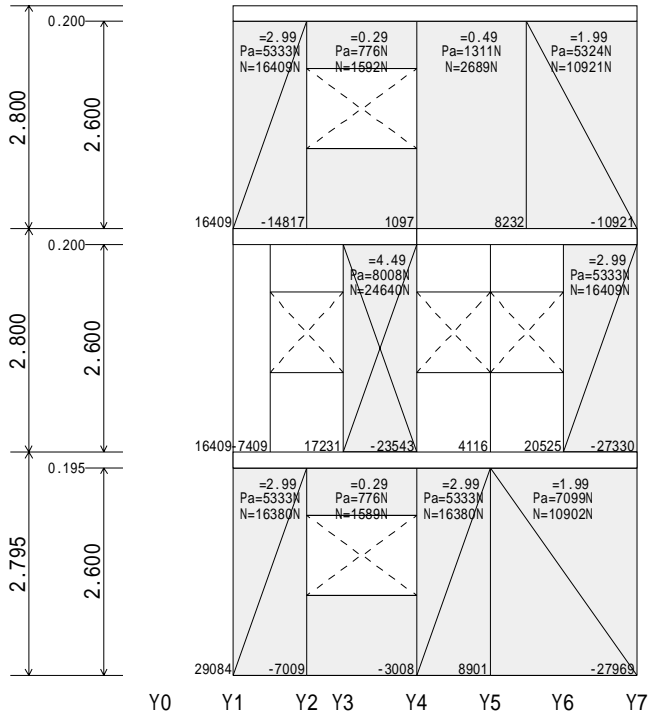


X1通り

・下加力時

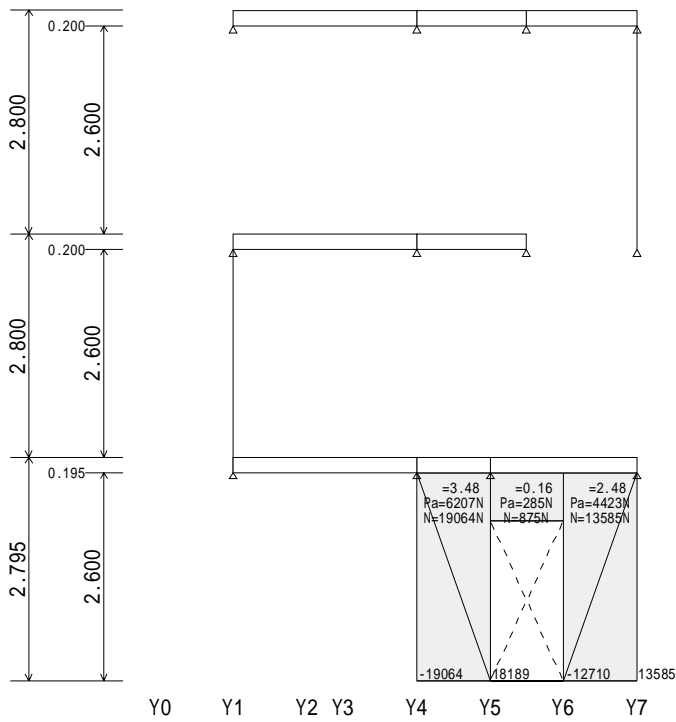


・上加力時

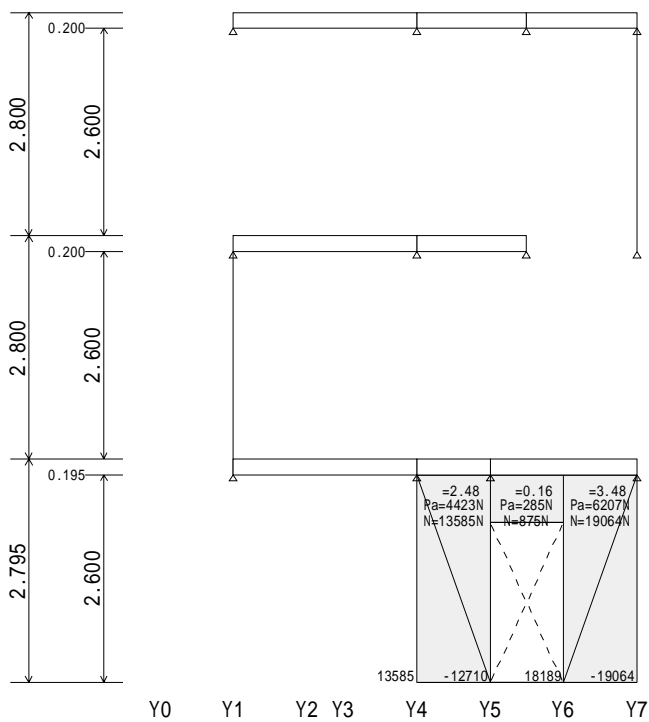


X3通り

・下加力時

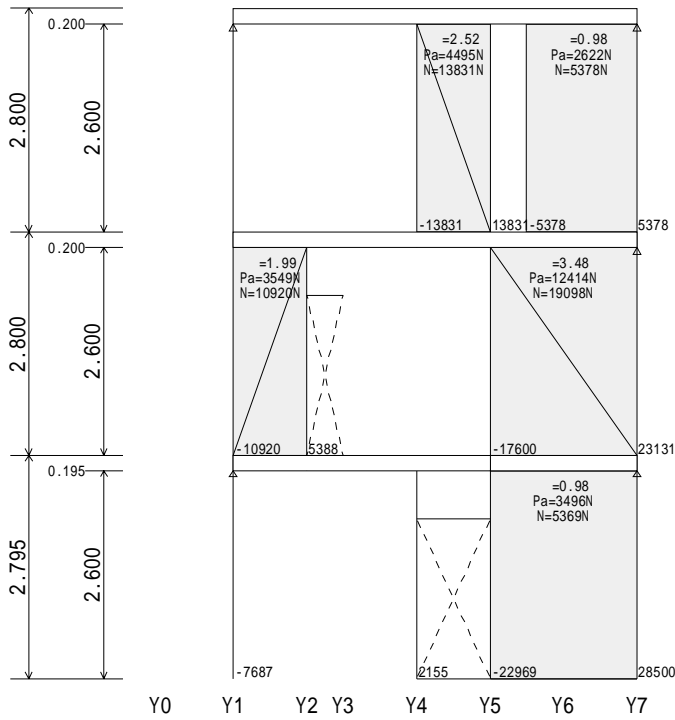


・上加力時



X4通り

・下加力時

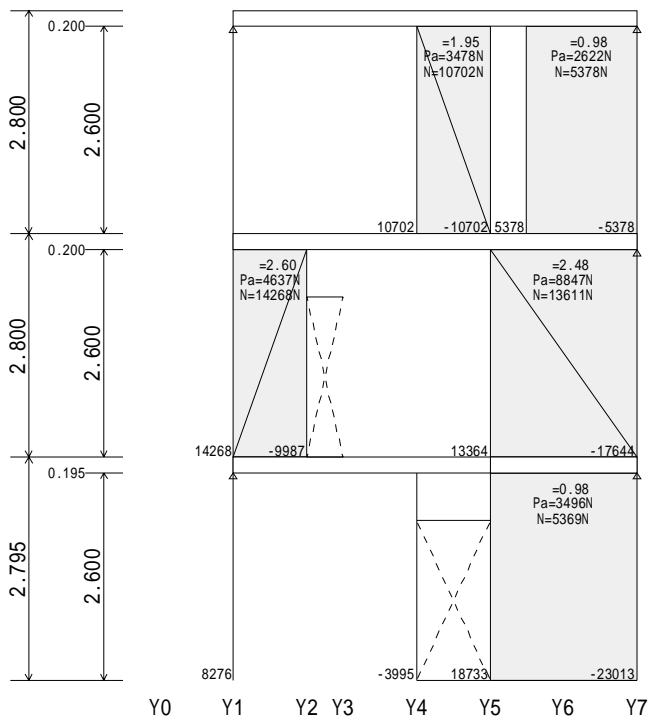


Pa(N)
7117
Di(N/rad)
1067550

Pa(N)
15963
Di(N/rad)
2394450

Pa(N)
3496
Di(N/rad)
524400

・上加力時



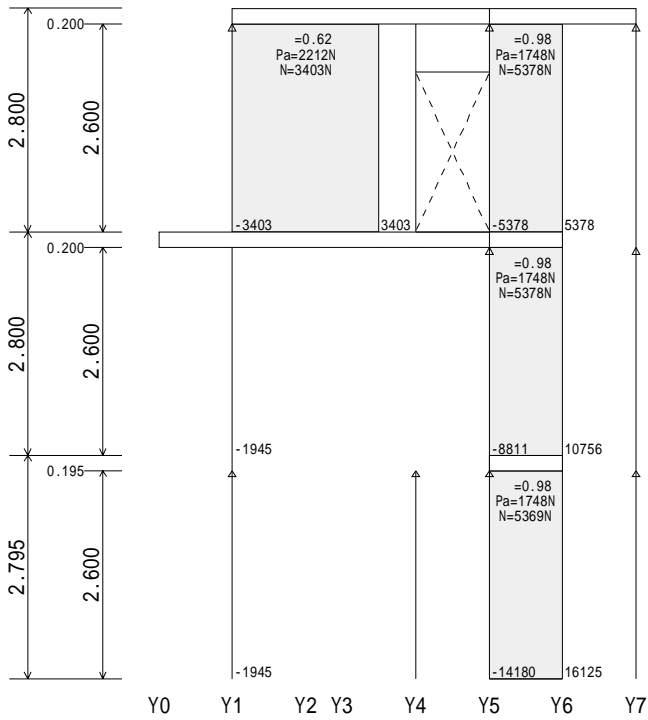
Pa(N)
6100
Di(N/rad)
915000

Pa(N)
13484
Di(N/rad)
2022600

Pa(N)
3496
Di(N/rad)
524400

X5通り

・下加力時

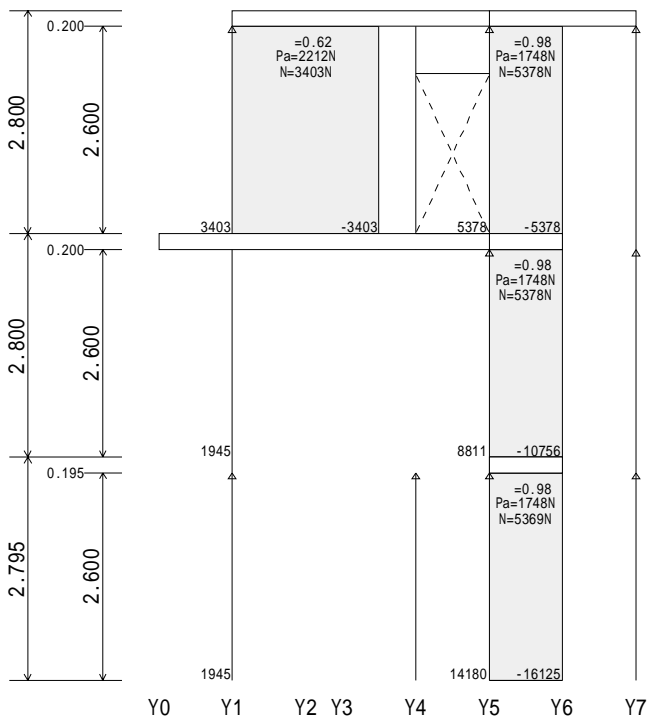


Pa(N)
3960
Di(N/rad)
594000

Pa(N)
1748
Di(N/rad)
262200

Pa(N)
1748
Di(N/rad)
262200

・上加力時



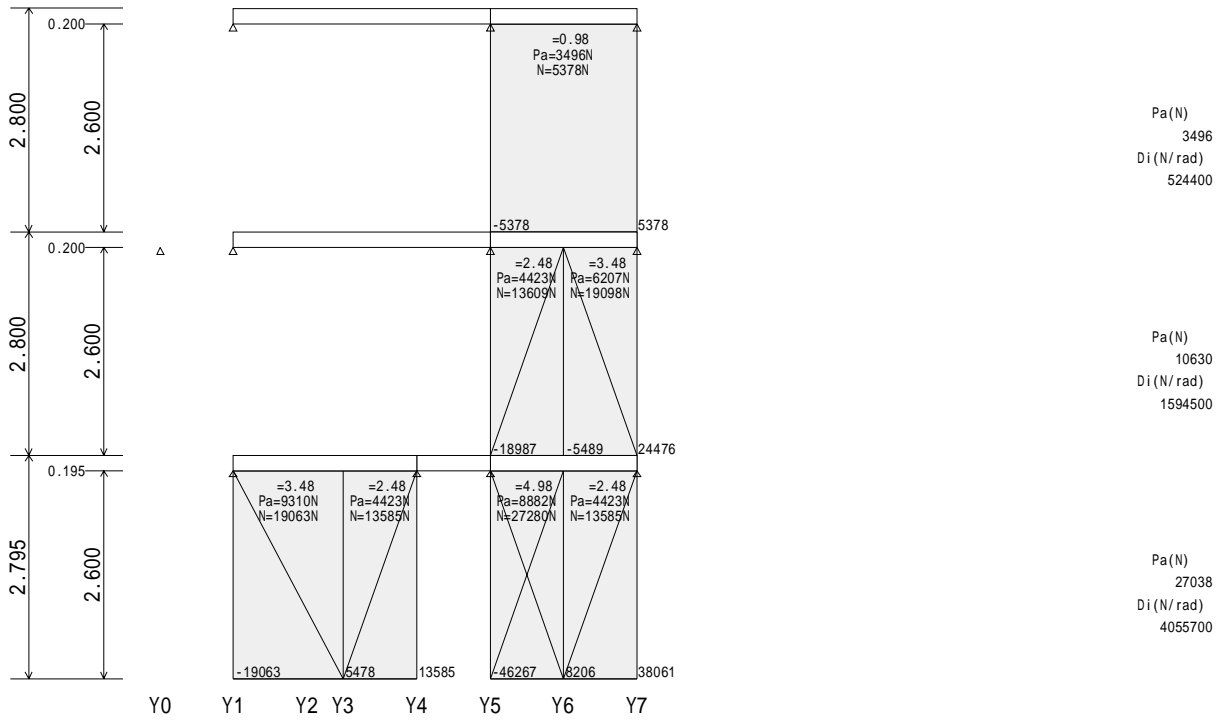
Pa(N)
3960
Di(N/rad)
594000

Pa(N)
1748
Di(N/rad)
262200

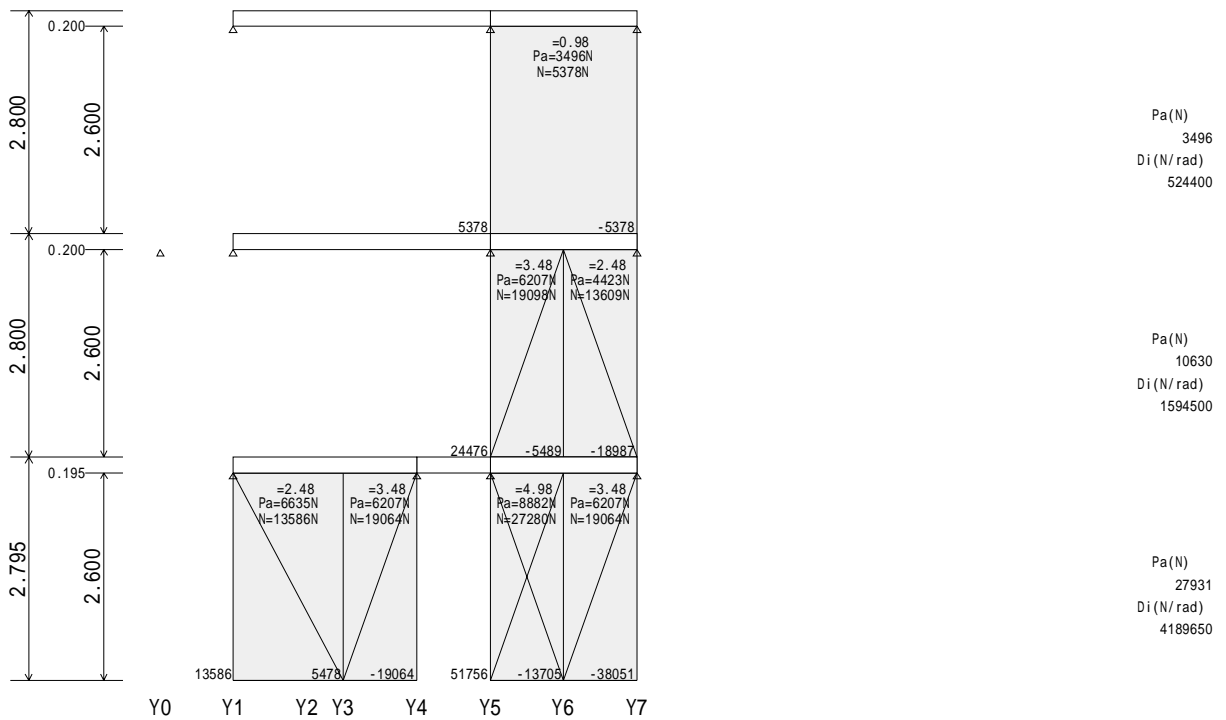
Pa(N)
1748
Di(N/rad)
262200

X6通り

・下加力時

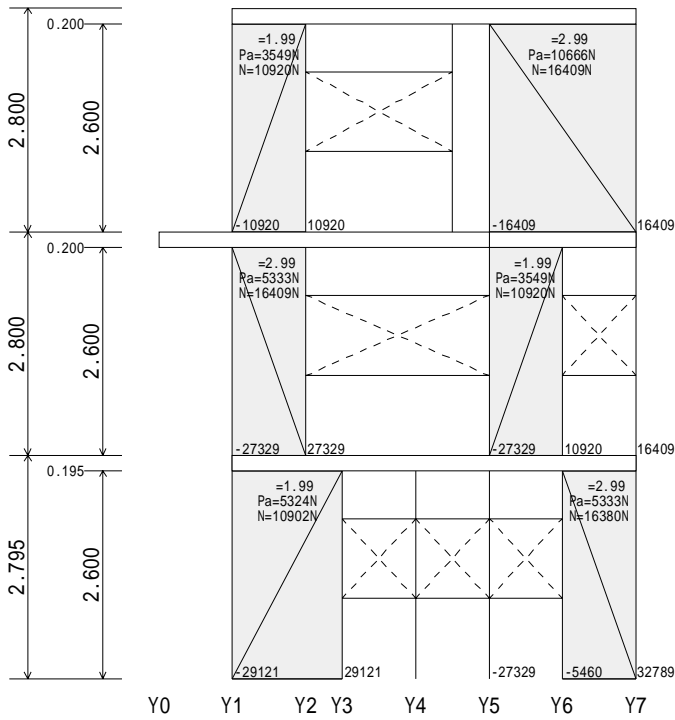


・上加力時

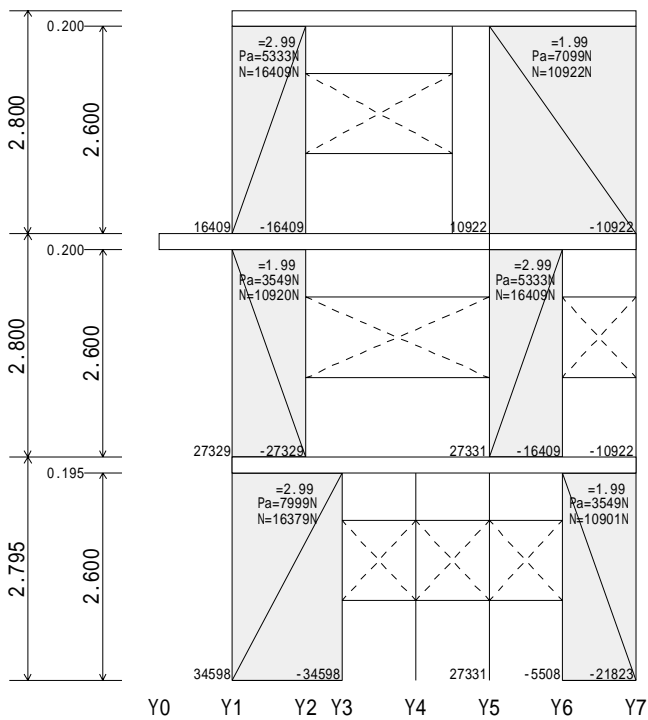


X8通り

・下加力時



・上加力時



5 . 各部の設計

5 - 1 柱の設計

一覧（軸力）

3F

| 位置 | 断面 | | | 長期 | 雪長期 | 雪短期 | 水平力 | 判定 |
|--------|--------------------|-------------------------------------|-------------------------------------|---------------------|----------------------|----------------------|---------------------|----|
| | サイズ(mm) 樹種 | A(mm ²) | i(mm) | L _N (N) | L _{Ns} (N) | s _{Ns} (N) | e _N (N) | |
| | | l _k (mm) | F _k (N/mm ²) | L _{Na} (N) | L _{sNa} (N) | s _{sNa} (N) | s _{Na} (N) | |
| | | F _c (N/mm ²) | F _k (N/mm ²) | N/Na | N/Na | N/Na | N/Na | |
| X1Y1 | 105.0 × 105.0 桧 | 11025 | 30.311 | 3507 | | 4089 | 19916 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.11 | | 0.09 | 0.35 | |
| X1Y2 | 105.0 × 105.0 桧 | 11025 | 30.311 | 4230 | | 4928 | 13558 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.13 | | 0.11 | 0.24 | |
| X1Y4 | 120.0 × 120.0 桧 | 14400 | 34.641 | 5537 | | 7044 | 6634 | OK |
| | | 2800 | 80.829 | 53750 | | 78182 | 97728 | |
| | | 20.70 | 10.18 | 0.10 | | 0.09 | 0.07 | |
| X1Y5.5 | 105.0 × 105.0 桧 | 11025 | 30.311 | 4799 | | 5915 | 13031 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.15 | | 0.13 | 0.23 | |
| X1Y7 | 105.0 × 105.0 桧 | 11025 | 30.311 | 4504 | | 5129 | 20913 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.14 | | 0.11 | 0.37 | |
| X2Y1 | 105.0 × 105.0 桧 | 11025 | 30.311 | 5092 | | 5693 | 14695 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.16 | | 0.12 | 0.26 | |
| X3Y7 | 105.0 × 105.0 桧 | 11025 | 30.311 | 4083 | | 4851 | 15005 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.13 | | 0.11 | 0.26 | |
| X4Y1 | 120.0 × 120.0 桧 | 14400 | 34.641 | 5911 | | 7314 | 7283 | OK |
| | | 2800 | 80.829 | 53750 | | 78182 | 97728 | |
| | | 20.70 | 10.18 | 0.11 | | 0.09 | 0.07 | |
| X4Y4 | 105.0 × 105.0 桧 | 11025 | 30.311 | 2093 | | 4001 | 12795 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.07 | | 0.09 | 0.22 | |
| X4Y5 | 105.0 × 105.0 桧 | 11025 | 30.311 | 537 | | 1024 | 14368 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.02 | | 0.02 | 0.25 | |
| X4Y5.5 | 105.0 × 105.0 桧 | 11025 | 30.311 | 1076 | | 2051 | 6454 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.03 | | 0.04 | 0.11 | |
| X4Y7 | 120.0 × 120.0 桧 | 14400 | 34.641 | 2722 | | 3234 | 8100 | OK |
| | | 2800 | 80.829 | 53750 | | 78182 | 97728 | |
| | | 20.70 | 10.18 | 0.05 | | 0.04 | 0.08 | |
| X5Y1 | 105.0 × 105.0 桧 | 11025 | 30.311 | 6008 | | 7150 | 9411 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.19 | | 0.16 | 0.16 | |
| X5Y3.5 | 105.0 × 105.0 桧 | 11025 | 30.311 | 524 | | 1007 | 3927 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.02 | | 0.02 | 0.07 | |
| X5Y4 | 105.0 × 105.0 桧 | 11025 | 30.311 | 537 | | 1024 | | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | | |
| | | 20.70 | 7.79 | 0.02 | | 0.02 | | |
| X5Y5 | 105.0 × 105.0 桧 | 11025 | 30.311 | 537 | | 1024 | 19635 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.02 | | 0.02 | 0.34 | |
| X5Y6 | 105.0 × 105.0 桧 | 11025 | 30.311 | 537 | | 1024 | 5915 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.02 | | 0.02 | 0.10 | |

| 位置 | 断面 | | | | 長期 | 雪長期 | 雪短期 | 水平力 | 判定 |
|--------|--------------------|-------------------------------------|-------------------------------------|---------------------|----------------------|----------------------|---------------------|-----|----|
| | サイズ(mm) 樹種 | A(mm ²) | i(mm) | L _N (N) | L _{Ns} (N) | s _{Ns} (N) | e _N (N) | | |
| | | l _k (mm) | F _k (N/mm ²) | L _{Na} (N) | L _{sNa} (N) | ss _{Na} (N) | s _{Na} (N) | | |
| | | F _c (N/mm ²) | F _k (N/mm ²) | N/Na | N/Na | N/Na | N/Na | | |
| X5Y7 | 105.0 × 105.0 桧 | 11025 | 30.311 | 2543 | | 2893 | 5232 | | |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | | |
| | | 20.70 | 7.79 | 0.08 | | 0.06 | 0.09 | | |
| X6Y5 | 105.0 × 105.0 桧 | 11025 | 30.311 | 1863 | | 3554 | 15472 | | |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | | |
| | | 20.70 | 7.79 | 0.06 | | 0.08 | 0.27 | | |
| X6Y7 | 105.0 × 105.0 桧 | 11025 | 30.311 | 3515 | | 4258 | 11747 | | |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | | |
| | | 20.70 | 7.79 | 0.11 | | 0.09 | 0.21 | | |
| X7Y1 | 105.0 × 105.0 桧 | 11025 | 30.311 | 4641 | | 5517 | 15122 | | |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | | |
| | | 20.70 | 7.79 | 0.15 | | 0.12 | 0.26 | | |
| X8Y1 | 105.0 × 105.0 桧 | 11025 | 30.311 | 4502 | | 4965 | 20911 | | |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | | |
| | | 20.70 | 7.79 | 0.14 | | 0.11 | 0.37 | | |
| X8Y2 | 105.0 × 105.0 桧 | 11025 | 30.311 | 4910 | | 5624 | 15830 | | |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | | |
| | | 20.70 | 7.79 | 0.16 | | 0.12 | 0.28 | | |
| X8Y4.5 | 105.0 × 105.0 桧 | 11025 | 30.311 | 3764 | | 4236 | | | |
| | | 2800 | 92.376 | 31491 | | 45805 | | | |
| | | 20.70 | 7.79 | 0.12 | | 0.09 | | | |
| X8Y5 | 105.0 × 105.0 桧 | 11025 | 30.311 | 3744 | | 4452 | 14666 | | |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | | |
| | | 20.70 | 7.79 | 0.12 | | 0.10 | 0.26 | | |
| X8Y7 | 105.0 × 105.0 桧 | 11025 | 30.311 | 4493 | | 5070 | 20902 | | |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | | |
| | | 20.70 | 7.79 | 0.14 | | 0.11 | 0.37 | | |

一覧(曲げ)

3F

| 位置 | 断面 | | | | 風圧力時 | | | 判定 |
|--------|--------------------|-------------------------------|---------------------|--|------------------|--------------------|------|----|
| | B×D(mm) 樹種 | A(mm ²) lk(mm) | Z(mm ³) | sfk(N/mm ²) sfb(N/mm ²) | wN(N) Ms(N・m) | N/A・sfk M/Z・sfb | + | |
| X1Y2 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 4230 909 | 0.07 0.26 | 0.33 | OK |
| X1Y4 | 120.0 × 120.0 桧 | 14400 2800 | 288000 80.829 | 6.79 17.80 | 5537 1091 | 0.06 0.21 | 0.27 | OK |
| X1Y5.5 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 4799 1091 | 0.08 0.32 | 0.40 | OK |
| X2Y1 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 5092 1091 | 0.09 0.32 | 0.41 | OK |
| X3Y7 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 4083 1091 | 0.07 0.32 | 0.39 | OK |
| X4Y1 | 120.0 × 120.0 桧 | 14400 2800 | 288000 80.829 | 6.79 17.80 | 5911 1091 | 0.06 0.21 | 0.27 | OK |
| X5Y7 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 2543 727 | 0.04 0.21 | 0.25 | OK |
| X7Y1 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 4641 909 | 0.08 0.26 | 0.34 | OK |
| X8Y2 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 4910 1091 | 0.09 0.32 | 0.41 | OK |
| X8Y4.5 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 3764 909 | 0.07 0.26 | 0.33 | OK |
| X8Y5 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 3744 909 | 0.07 0.26 | 0.33 | OK |

一覧（軸力）

2F

| 位置 | 断面 | | | 長期 | 雪長期 | 雪短期 | 水平力 | 判定 |
|--------|--------------------|-------------------------------------|-------------------------------------|---------------------|----------------------|----------------------|---------------------|----|
| | サイズ(mm) 樹種 | A(mm ²) | i(mm) | L _N (N) | L _{Ns} (N) | s _{Ns} (N) | e _N (N) | |
| | | lk(mm) | F _k (N/mm ²) | L _{Na} (N) | L _{sNa} (N) | s _{sNa} (N) | s _{Na} (N) | |
| | | F _c (N/mm ²) | F _k (N/mm ²) | N/Na | N/Na | N/Na | N/Na | |
| X1Y1 | 120.0 × 120.0 桧 | 14400 | 34.641 | 5430 | | 6012 | 32759 | OK |
| | | 2800 | 80.829 | 53750 | | 78182 | 97728 | |
| | | 20.70 | 10.18 | 0.10 | | 0.08 | 0.34 | |
| X1Y1.5 | 105.0 × 105.0 桧 | 11025 | 30.311 | 4951 | | 5300 | 9615 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.16 | | 0.12 | 0.17 | |
| X1Y3 | 105.0 × 105.0 桧 | 11025 | 30.311 | 5896 | | 6245 | 23127 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.19 | | 0.14 | 0.40 | |
| X1Y4 | 120.0 × 120.0 桧 | 14400 | 34.641 | 9554 | | 11061 | 33097 | OK |
| | | 2800 | 80.829 | 53750 | | 78182 | 97728 | |
| | | 20.70 | 10.18 | 0.18 | | 0.14 | 0.34 | |
| X1Y5 | 105.0 × 105.0 桧 | 11025 | 30.311 | 7126 | | 7684 | 11242 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.23 | | 0.17 | 0.20 | |
| X1Y6 | 105.0 × 105.0 桧 | 11025 | 30.311 | 6083 | | 6641 | 26608 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.19 | | 0.14 | 0.46 | |
| X1Y7 | 120.0 × 120.0 桧 | 14400 | 34.641 | 7242 | | 7867 | 40060 | OK |
| | | 2800 | 80.829 | 53750 | | 78182 | 97728 | |
| | | 20.70 | 10.18 | 0.13 | | 0.10 | 0.41 | |
| X2Y1 | 105.0 × 105.0 桧 | 11025 | 30.311 | 7569 | | 8170 | 33581 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.24 | | 0.18 | 0.59 | |
| X2Y4 | 105.0 × 105.0 桧 | 11025 | 30.311 | 5223 | | 5223 | 16694 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.17 | | 0.11 | 0.29 | |
| X2Y7 | 105.0 × 105.0 桧 | 11025 | 30.311 | 7128 | | 7512 | 23509 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.23 | | 0.16 | 0.41 | |
| X3Y1 | 105.0 × 105.0 桧 | 11025 | 30.311 | 5021 | | 5021 | | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | | |
| | | 20.70 | 7.79 | 0.16 | | 0.11 | | |
| X4Y1 | 120.0 × 120.0 桧 | 14400 | 34.641 | 9406 | | 10809 | 35418 | OK |
| | | 2800 | 80.829 | 53750 | | 78182 | 97728 | |
| | | 20.70 | 10.18 | 0.17 | | 0.14 | 0.36 | |
| X4Y2 | 105.0 × 105.0 桧 | 11025 | 30.311 | 6660 | | 7423 | 12048 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.21 | | 0.16 | 0.21 | |
| X4Y5 | 105.0 × 105.0 桧 | 11025 | 30.311 | 9217 | | 11580 | 22581 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.29 | | 0.25 | 0.39 | |
| X4Y7 | 120.0 × 120.0 桧 | 14400 | 34.641 | 11310 | | 12450 | 34441 | OK |
| | | 2800 | 80.829 | 53750 | | 78182 | 97728 | |
| | | 20.70 | 10.18 | 0.21 | | 0.16 | 0.35 | |
| X5Y1 | 105.0 × 105.0 桧 | 11025 | 30.311 | 14811 | | 16299 | 40109 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.47 | | 0.36 | 0.70 | |
| X5Y5 | 105.0 × 105.0 桧 | 11025 | 30.311 | 4380 | | 5491 | 23478 | OK |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | |
| | | 20.70 | 7.79 | 0.14 | | 0.12 | 0.41 | |

| 位置 | 断面 | | | | 長期 | 雪長期 | 雪短期 | 水平力 | 判定 |
|------|--------------------|-------------------------------------|-------------------------------------|---------------------|----------------------|----------------------|---------------------|-----|----|
| | サイズ(mm) 樹種 | A(mm ²) | i(mm) | L _N (N) | L _{Ns} (N) | s _{Ns} (N) | e _N (N) | | |
| | | l _k (mm) | F _k (N/mm ²) | L _{Na} (N) | L _{sNa} (N) | ss _{Na} (N) | s _{Na} (N) | | |
| | | F _c (N/mm ²) | F _k (N/mm ²) | N/Na | N/Na | N/Na | N/Na | | |
| X5Y6 | 105.0 × 105.0 桧 | 11025 | 30.311 | 1034 | | 1521 | 11790 | | |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | | |
| | | 20.70 | 7.79 | 0.03 | | 0.03 | 0.21 | | |
| X5Y7 | 105.0 × 105.0 桧 | 11025 | 30.311 | 4759 | | 5109 | 32088 | | |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | | |
| | | 20.70 | 7.79 | 0.15 | | 0.11 | 0.56 | | |
| X6Y5 | 105.0 × 105.0 桧 | 11025 | 30.311 | 7116 | | 8807 | 31592 | | |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | | |
| | | 20.70 | 7.79 | 0.23 | | 0.19 | 0.55 | | |
| X6Y6 | 105.0 × 105.0 桧 | 11025 | 30.311 | 2913 | | 2913 | | | |
| | | 2800 | 92.376 | 31491 | | 45805 | | | |
| | | 20.70 | 7.79 | 0.09 | | 0.06 | | | |
| X6Y7 | 105.0 × 105.0 桧 | 11025 | 30.311 | 7371 | | 8114 | 31847 | | |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | | |
| | | 20.70 | 7.79 | 0.23 | | 0.18 | 0.56 | | |
| X7Y1 | 105.0 × 105.0 桧 | 11025 | 30.311 | 10893 | | 11769 | 44422 | | |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | | |
| | | 20.70 | 7.79 | 0.35 | | 0.26 | 0.78 | | |
| X8Y1 | 120.0 × 120.0 桧 | 14400 | 34.641 | 8763 | | 9226 | 49812 | | |
| | | 2800 | 80.829 | 53750 | | 78182 | 97728 | | |
| | | 20.70 | 10.18 | 0.16 | | 0.12 | 0.51 | | |
| X8Y2 | 105.0 × 105.0 桧 | 11025 | 30.311 | 11596 | | 12404 | 38925 | | |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | | |
| | | 20.70 | 7.79 | 0.37 | | 0.27 | 0.68 | | |
| X8Y5 | 105.0 × 105.0 桧 | 11025 | 30.311 | 13433 | | 14519 | 40764 | | |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | | |
| | | 20.70 | 7.79 | 0.43 | | 0.32 | 0.71 | | |
| X8Y6 | 105.0 × 105.0 桧 | 11025 | 30.311 | 4135 | | 4135 | 15055 | | |
| | | 2800 | 92.376 | 31491 | | 45805 | 57257 | | |
| | | 20.70 | 7.79 | 0.13 | | 0.09 | 0.26 | | |
| X8Y7 | 120.0 × 120.0 桧 | 14400 | 34.641 | 7852 | | 8429 | 35181 | | |
| | | 2800 | 80.829 | 53750 | | 78182 | 97728 | | |
| | | 20.70 | 10.18 | 0.15 | | 0.11 | 0.36 | | |

一覧(曲げ)

2F

| 位置 | 断面 | | | | 風圧力時 | | | 判定 |
|--------|--------------------|-------------------------------|---------------------|--|------------------|--------------------|------|----|
| | B×D(mm) 樹種 | A(mm ²) lk(mm) | Z(mm ³) | sfk(N/mm ²) sfb(N/mm ²) | wN(N) Ms(N・m) | N/A・sfk M/Z・sfb | + | |
| X1Y1 | 120.0 × 120.0 桧 | 14400 2800 | 288000 80.829 | 6.79 17.80 | 5430 323 | 0.06 0.06 | 0.12 | OK |
| X1Y1.5 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 4951 486 | 0.09 0.14 | 0.23 | OK |
| X1Y3 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 5896 647 | 0.10 0.19 | 0.29 | OK |
| X1Y5 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 7126 647 | 0.12 0.19 | 0.31 | OK |
| X1Y6 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 6083 647 | 0.11 0.19 | 0.30 | OK |
| X2Y1 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 7569 647 | 0.13 0.19 | 0.32 | OK |
| X2Y7 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 7128 970 | 0.12 0.28 | 0.40 | OK |
| X3Y1 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 5021 647 | 0.09 0.19 | 0.28 | OK |
| X5Y1 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 14811 809 | 0.26 0.24 | 0.50 | OK |
| X5Y7 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 4759 647 | 0.08 0.19 | 0.27 | OK |
| X7Y1 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 10893 809 | 0.19 0.24 | 0.43 | OK |
| X8Y2 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 11596 1133 | 0.20 0.33 | 0.53 | OK |
| X8Y5 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 13433 1133 | 0.23 0.33 | 0.56 | OK |
| X8Y6 | 105.0 × 105.0 桧 | 11025 2800 | 192938 92.376 | 5.19 17.80 | 4135 647 | 0.07 0.19 | 0.26 | OK |
| X8Y7 | 120.0 × 120.0 桧 | 14400 2800 | 288000 80.829 | 6.79 17.80 | 7852 486 | 0.08 0.09 | 0.17 | OK |

一覧（軸力）

1F

*: めり込み時NG

| 位置 | 断面 | | | 長期 | 雪長期 | 雪短期 | 水平力 | 判定 |
|------|--------------------|-------------------------------------|-------------------------------------|---------------------|----------------------|----------------------|---------------------|----|
| | サイズ(mm) 樹種 | A(mm ²) | i(mm) | L _N (N) | L _{Ns} (N) | s _{Ns} (N) | e _N (N) | |
| | | lk(mm) | F _k (N/mm ²) | L _{Na} (N) | L _{sNa} (N) | s _{sNa} (N) | s _{Na} (N) | |
| | | F _c (N/mm ²) | F _k (N/mm ²) | N/Na | N/Na | N/Na | N/Na | |
| X1Y1 | 120.0 × 120.0 桧 | 14400 | 34.641 | 10740 | | 11496 | 54449 | OK |
| | | 2795 | 80.685 | 53909 | | 78413 | 98016 | |
| | | 20.70 | 10.21 | 0.20 | | 0.15 | 0.56 | |
| X1Y2 | 105.0 × 105.0 桧 | 11025 | 30.311 | 11092 | | 11498 | | OK |
| | | 2795 | 92.211 | 31612 | | 45982 | | |
| | | 20.70 | 7.82 | 0.35 | | 0.25 | | |
| X1Y4 | 105.0 × 105.0 桧 | 11025 | 30.311 | 19790 | | 21414 | 27364 | OK |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | |
| | | 20.70 | 7.82 | 0.63 | | 0.47 | 0.48 | |
| X1Y5 | 105.0 × 105.0 桧 | 11025 | 30.311 | 16766 | | 17603 | 30352 | OK |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | |
| | | 20.70 | 7.82 | 0.53 | | 0.38 | 0.53 | |
| X1Y7 | 120.0 × 120.0 桧 | 14400 | 34.641 | 14731 | | 15635 | 63929 | OK |
| | | 2795 | 80.685 | 53909 | | 78413 | 98016 | |
| | | 20.70 | 10.21 | 0.27 | | 0.20 | 0.65* | |
| X2Y1 | 105.0 × 105.0 桧 | 11025 | 30.311 | 15016 | | 15617 | 51491 | OK |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | |
| | | 20.70 | 7.82 | 0.48 | | 0.34 | 0.90* | |
| X2Y7 | 105.0 × 105.0 桧 | 11025 | 30.311 | 10092 | | 10476 | 37374 | OK |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | |
| | | 20.70 | 7.82 | 0.32 | | 0.23 | 0.65 | |
| X3Y4 | 105.0 × 105.0 桧 | 11025 | 30.311 | 8677 | | 8677 | 22262 | OK |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | |
| | | 20.70 | 7.82 | 0.27 | | 0.19 | 0.39 | |
| X3Y5 | 105.0 × 105.0 桧 | 11025 | 30.311 | 4303 | | 4303 | 23367 | OK |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | |
| | | 20.70 | 7.82 | 0.14 | | 0.09 | 0.41 | |
| X3Y6 | 105.0 × 105.0 桧 | 11025 | 30.311 | 3325 | | 3325 | 21514 | OK |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | |
| | | 20.70 | 7.82 | 0.11 | | 0.07 | 0.37 | |
| X3Y7 | 105.0 × 105.0 桧 | 11025 | 30.311 | 3453 | | 3453 | 17038 | OK |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | |
| | | 20.70 | 7.82 | 0.11 | | 0.08 | 0.30 | |
| X4Y1 | 120.0 × 120.0 桧 | 14400 | 34.641 | 23393 | | 25254 | 73563 | OK |
| | | 2795 | 80.685 | 53909 | | 78413 | 98016 | |
| | | 20.70 | 10.21 | 0.43 | | 0.32 | 0.75* | |
| X4Y4 | 105.0 × 105.0 桧 | 11025 | 30.311 | 7979 | | 8284 | 13458 | OK |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | |
| | | 20.70 | 7.82 | 0.25 | | 0.18 | 0.23 | |
| X4Y5 | 105.0 × 105.0 桧 | 11025 | 30.311 | 12999 | | 15362 | 31732 | OK |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | |
| | | 20.70 | 7.82 | 0.41 | | 0.33 | 0.55 | |
| X4Y7 | 105.0 × 105.0 桧 | 11025 | 30.311 | 15253 | | 16393 | 43753 | OK |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | |
| | | 20.70 | 7.82 | 0.48 | | 0.36 | 0.76 | |
| X5Y1 | 105.0 × 105.0 桧 | 11025 | 30.311 | 17254 | | 18742 | 50768 | OK |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | |
| | | 20.70 | 7.82 | 0.55 | | 0.41 | 0.88* | |
| X5Y4 | 105.0 × 105.0 桧 | 11025 | 30.311 | 1500 | | 1500 | 15085 | OK |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | |
| | | 20.70 | 7.82 | 0.05 | | 0.03 | 0.26 | |

*: めり込み時NG

| 位置 | 断面 | | | 長期 | 雪長期 | 雪短期 | 水平力 | | 判定 |
|------|--------------------|-------------------------------------|-------------------------------------|---------------------|----------------------|----------------------|---------------------|----|----|
| | サイズ(mm) 樹種 | A(mm ²) | i(mm) | L _N (N) | L _{Ns} (N) | s _{Ns} (N) | e _N (N) | | |
| | | lk(mm) | F _k (N/mm ²) | L _{Na} (N) | L _{sNa} (N) | s _{sNa} (N) | s _{Na} (N) | | |
| | | F _c (N/mm ²) | F _k (N/mm ²) | N/Na | N/Na | N/Na | N/Na | | |
| X5Y5 | 105.0 × 105.0 桧 | 11025 | 30.311 | 5619 | | 6730 | 19799 | OK | |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | | |
| | | 20.70 | 7.82 | 0.18 | | 0.15 | 0.34 | | |
| X5Y6 | 105.0 × 105.0 桧 | 11025 | 30.311 | 1523 | | 2010 | 17648 | OK | |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | | |
| | | 20.70 | 7.82 | 0.05 | | 0.04 | 0.31 | | |
| X5Y7 | 105.0 × 105.0 桧 | 11025 | 30.311 | 6941 | | 7291 | 39749 | OK | |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | | |
| | | 20.70 | 7.82 | 0.22 | | 0.16 | 0.69 | | |
| X6Y1 | 105.0 × 105.0 桧 | 11025 | 30.311 | 12651 | | 13235 | 26237 | OK | |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | | |
| | | 20.70 | 7.82 | 0.40 | | 0.29 | 0.46 | | |
| X6Y3 | 105.0 × 105.0 桧 | 11025 | 30.311 | 4648 | | 4648 | 10126 | OK | |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | | |
| | | 20.70 | 7.82 | 0.15 | | 0.10 | 0.18 | | |
| X6Y4 | 105.0 × 105.0 桧 | 11025 | 30.311 | 3456 | | 3456 | 17041 | OK | |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | | |
| | | 20.70 | 7.82 | 0.11 | | 0.08 | 0.30 | | |
| X6Y5 | 120.0 × 120.0 桧 | 14400 | 34.641 | 9154 | | 10845 | 60910 | OK | |
| | | 2795 | 80.685 | 53909 | | 78413 | 98016 | | |
| | | 20.70 | 10.21 | 0.17 | | 0.14 | 0.62 | | |
| X6Y6 | 105.0 × 105.0 桧 | 11025 | 30.311 | 5065 | | 5065 | 13271 | OK | |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | | |
| | | 20.70 | 7.82 | 0.16 | | 0.11 | 0.23 | | |
| X6Y7 | 105.0 × 105.0 桧 | 11025 | 30.311 | 11175 | | 11918 | 49236 | OK | |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | | |
| | | 20.70 | 7.82 | 0.35 | | 0.26 | 0.86* | | |
| X7Y5 | 105.0 × 105.0 桧 | 11025 | 30.311 | 1516 | | 1516 | | OK | |
| | | 2795 | 92.211 | 31612 | | 45982 | | | |
| | | 20.70 | 7.82 | 0.05 | | 0.03 | | | |
| X8Y1 | 120.0 × 120.0 桧 | 14400 | 34.641 | 20404 | | 21429 | 55002 | OK | |
| | | 2795 | 80.685 | 53909 | | 78413 | 98016 | | |
| | | 20.70 | 10.21 | 0.38 | | 0.27 | 0.56 | | |
| X8Y3 | 105.0 × 105.0 桧 | 11025 | 30.311 | 11931 | | 12469 | 41052 | OK | |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | | |
| | | 20.70 | 7.82 | 0.38 | | 0.27 | 0.71 | | |
| X8Y4 | 105.0 × 105.0 桧 | 11025 | 30.311 | 3356 | | 3356 | | OK | |
| | | 2795 | 92.211 | 31612 | | 45982 | | | |
| | | 20.70 | 7.82 | 0.11 | | 0.07 | | | |
| X8Y5 | 105.0 × 105.0 桧 | 11025 | 30.311 | 17017 | | 18103 | 44348 | OK | |
| | | 2795 | 92.211 | 31612 | | 45982 | 57477 | | |
| | | 20.70 | 7.82 | 0.54 | | 0.39 | 0.77* | | |
| X8Y6 | 105.0 × 105.0 桧 | 11025 | 30.311 | 7491 | | 7491 | | OK | |
| | | 2795 | 92.211 | 31612 | | 45982 | | | |
| | | 20.70 | 7.82 | 0.24 | | 0.16 | | | |
| X8Y7 | 120.0 × 120.0 桧 | 14400 | 34.641 | 11167 | | 11744 | 54875 | OK | |
| | | 2795 | 80.685 | 53909 | | 78413 | 98016 | | |
| | | 20.70 | 10.21 | 0.21 | | 0.15 | 0.56 | | |

一覧(曲げ)

1F

| 位置 | 断面 | | | | 風圧力時 | | | 判定 |
|------|--------------------|-------------------------------|---------------------|--|------------------|--------------------|------|----|
| | B×D(mm) 樹種 | A(mm ²) lk(mm) | Z(mm ³) | sfk(N/mm ²) sfb(N/mm ²) | wN(N) Ms(N・m) | N/A・sfk M/Z・sfb | + | |
| X1Y2 | 105.0 × 105.0 桧 | 11025 | 192938 | 5.21 | 11092 | 0.19 | 0.41 | OK |
| | | 2795 | 92.211 | 17.80 | 758 | 0.22 | | |
| X1Y4 | 105.0 × 105.0 桧 | 11025 | 192938 | 5.21 | 19790 | 0.34 | 0.56 | OK |
| | | 2795 | 92.211 | 17.80 | 758 | 0.22 | | |
| X2Y1 | 105.0 × 105.0 桧 | 11025 | 192938 | 5.21 | 15016 | 0.26 | 0.52 | OK |
| | | 2795 | 92.211 | 17.80 | 908 | 0.26 | | |
| X2Y7 | 105.0 × 105.0 桧 | 11025 | 192938 | 5.21 | 10092 | 0.18 | 0.36 | OK |
| | | 2795 | 92.211 | 17.80 | 605 | 0.18 | | |
| X4Y1 | 120.0 × 120.0 桧 | 14400 | 288000 | 6.81 | 23393 | 0.24 | 0.42 | OK |
| | | 2795 | 80.685 | 17.80 | 908 | 0.18 | | |
| X5Y1 | 105.0 × 105.0 桧 | 11025 | 192938 | 5.21 | 17254 | 0.30 | 0.48 | OK |
| | | 2795 | 92.211 | 17.80 | 605 | 0.18 | | |
| X5Y7 | 105.0 × 105.0 桧 | 11025 | 192938 | 5.21 | 6941 | 0.12 | 0.30 | OK |
| | | 2795 | 92.211 | 17.80 | 605 | 0.18 | | |
| X8Y1 | 120.0 × 120.0 桧 | 14400 | 288000 | 6.81 | 20404 | 0.21 | 0.30 | OK |
| | | 2795 | 80.685 | 17.80 | 455 | 0.09 | | |
| X8Y3 | 105.0 × 105.0 桧 | 11025 | 192938 | 5.21 | 11931 | 0.21 | 0.43 | OK |
| | | 2795 | 92.211 | 17.80 | 758 | 0.22 | | |
| X8Y4 | 105.0 × 105.0 桧 | 11025 | 192938 | 5.21 | 3356 | 0.06 | 0.24 | OK |
| | | 2795 | 92.211 | 17.80 | 605 | 0.18 | | |
| X8Y5 | 105.0 × 105.0 桧 | 11025 | 192938 | 5.21 | 17017 | 0.30 | 0.48 | OK |
| | | 2795 | 92.211 | 17.80 | 605 | 0.18 | | |
| X8Y6 | 105.0 × 105.0 桧 | 11025 | 192938 | 5.21 | 7491 | 0.13 | 0.31 | OK |
| | | 2795 | 92.211 | 17.80 | 605 | 0.18 | | |

一覧(めり込み)

1F

| 位置 | 断面 | | 長期 | 雪長期 | 雪短期 | 水平力 | 判定 |
|------|---------------|--------------------------------------|---------------------|----------------------|----------------------|---------------------|----|
| | サイズ(mm) | ほぞ | L _N (N) | L _{Ns} (N) | s _{Ns} (N) | e _N (N) | |
| | 樹種 | A _e (mm ²) | L _{Na} (N) | L _{sNa} (N) | ss _{Na} (N) | s _{Na} (N) | |
| | 受材 樹種 | F _{cv} (N/mm ²) | N/Na | N/Na | N/Na | N/Na | |
| X1Y1 | 120.0 × 120.0 | 35.0 × 75.0 | 10740 | | | | OK |
| | 桧 | 11775 | 45923 | | | | |
| | 土台 桧 | 7.80 | 0.23 | | | | |
| X1Y2 | 105.0 × 105.0 | 35.0 × 75.0 | 11092 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.34 | | | | |
| X1Y4 | 105.0 × 105.0 | 35.0 × 75.0 | 19790 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.60 | | | | |
| X1Y5 | 105.0 × 105.0 | 35.0 × 75.0 | 16766 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.51 | | | | |
| X1Y7 | 120.0 × 120.0 | 35.0 × 75.0 | 14731 | | | | OK |
| | 桧 | 11775 | 45923 | | | | |
| | 土台 桧 | 7.80 | 0.32 | | | | |
| X2Y1 | 105.0 × 105.0 | 35.0 × 75.0 | 15016 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.46 | | | | |
| X2Y7 | 105.0 × 105.0 | 35.0 × 75.0 | 10092 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.31 | | | | |
| X3Y4 | 105.0 × 105.0 | 35.0 × 75.0 | 8677 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.26 | | | | |
| X3Y5 | 105.0 × 105.0 | 35.0 × 75.0 | 4303 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.13 | | | | |
| X3Y6 | 105.0 × 105.0 | 35.0 × 75.0 | 3325 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.10 | | | | |
| X3Y7 | 105.0 × 105.0 | 35.0 × 75.0 | 3453 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.11 | | | | |
| X4Y1 | 120.0 × 120.0 | 35.0 × 75.0 | 23393 | | | | OK |
| | 桧 | 11775 | 45923 | | | | |
| | 土台 桧 | 7.80 | 0.51 | | | | |
| X4Y4 | 105.0 × 105.0 | 35.0 × 75.0 | 7979 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.24 | | | | |
| X4Y5 | 105.0 × 105.0 | 35.0 × 75.0 | 12999 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.40 | | | | |
| X4Y7 | 105.0 × 105.0 | 35.0 × 75.0 | 15253 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.47 | | | | |
| X5Y1 | 105.0 × 105.0 | 35.0 × 75.0 | 17254 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.53 | | | | |
| X5Y4 | 105.0 × 105.0 | 35.0 × 75.0 | 1500 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.05 | | | | |

| 位置 | 断面 | | 長期 | 雪長期 | 雪短期 | 水平力 | 判定 |
|------|---------------|--------------------------------------|---------------------|----------------------|----------------------|---------------------|----|
| | サイズ(mm) | ほぞ | L _N (N) | L _{Ns} (N) | s _{Ns} (N) | e _N (N) | |
| | 樹種 | A _e (mm ²) | L _{Na} (N) | L _{sNa} (N) | ss _{Na} (N) | s _{Na} (N) | |
| | 受材 樹種 | F _{cv} (N/mm ²) | N/Na | N/Na | N/Na | N/Na | |
| X5Y5 | 105.0 × 105.0 | 35.0 × 75.0 | 5619 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.17 | | | | |
| X5Y6 | 105.0 × 105.0 | 35.0 × 75.0 | 1523 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.05 | | | | |
| X5Y7 | 105.0 × 105.0 | 35.0 × 75.0 | 6941 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.21 | | | | |
| X6Y1 | 105.0 × 105.0 | 35.0 × 75.0 | 12651 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.39 | | | | |
| X6Y3 | 105.0 × 105.0 | 35.0 × 75.0 | 4648 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.14 | | | | |
| X6Y4 | 105.0 × 105.0 | 35.0 × 75.0 | 3456 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.11 | | | | |
| X6Y5 | 120.0 × 120.0 | 35.0 × 75.0 | 9154 | | | | OK |
| | 桧 | 11775 | 45923 | | | | |
| | 土台 桧 | 7.80 | 0.20 | | | | |
| X6Y6 | 105.0 × 105.0 | 35.0 × 75.0 | 5065 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.15 | | | | |
| X6Y7 | 105.0 × 105.0 | 35.0 × 75.0 | 11175 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.34 | | | | |
| X7Y5 | 105.0 × 105.0 | 35.0 × 75.0 | 1516 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.05 | | | | |
| X8Y1 | 120.0 × 120.0 | 35.0 × 75.0 | 20404 | | | | OK |
| | 桧 | 11775 | 45923 | | | | |
| | 土台 桧 | 7.80 | 0.44 | | | | |
| X8Y3 | 105.0 × 105.0 | 35.0 × 75.0 | 11931 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.36 | | | | |
| X8Y4 | 105.0 × 105.0 | 35.0 × 75.0 | 3356 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.10 | | | | |
| X8Y5 | 105.0 × 105.0 | 35.0 × 75.0 | 17017 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.52 | | | | |
| X8Y6 | 105.0 × 105.0 | 35.0 × 75.0 | 7491 | | | | OK |
| | 桧 | 8400 | 32760 | | | | |
| | 土台 桧 | 7.80 | 0.23 | | | | |
| X8Y7 | 120.0 × 120.0 | 35.0 × 75.0 | 11167 | | | | OK |
| | 桧 | 11775 | 45923 | | | | |
| | 土台 桧 | 7.80 | 0.24 | | | | |

3F X4Y1 120.0 (mm) × 120.0 (mm) 桧
 $A=14400 \text{ (mm}^2)$ $Z=288000 \text{ (mm}^3)$ $I=17280000 \text{ (mm}^4)$ $i=34.641 \text{ (mm)}$ $Ik=2800 \text{ (mm)}$ =80.829
 $F_c=20.70 \text{ (N/mm}^2)$ $F_b=26.70 \text{ (N/mm}^2)$
 $30 < 100 \text{ よリ } F_k=(1.3-0.01) \times F_c=10.18 \text{ (N/mm}^2)$

[長期]

$lN=5911 \text{ (N)}$
 $lNa=1.1 \times F_k/3 \times A=53750 \text{ (N)}$
 $lN/lNa=5911/53750=0.11 \quad 1.0 \text{ ----- OK}$

[短期積雪時]

$sNs=7314 \text{ (N)}$
 $ssNa=1.6 \times F_k/3 \times A=78182 \text{ (N)}$
 $sNs/ssNa=7314/78182=0.09 \quad 1.0 \text{ ----- OK}$

[水平力作用時]

$eN=5911+1372=7283 \text{ (N)}$
 $sNa=2 \times F_k/3 \times A=97728 \text{ (N)}$
 $eN/sNa=7283/97728=0.07 \quad 1.0 \text{ ----- OK}$

[短期風圧時]

$wN=5911 \text{ (N)}$
 $w=q \times (0.8Kz+0.2) \times \text{負担幅}=832 \times (0.8 \times 0.975+0.2) \times 1.365=1113 \text{ (N/m)}$
 $sfk=2 \times F_k/3=6.79 \text{ (N/mm}^2)$
 $sfb=2 \times F_b/3=17.80 \text{ (N/mm}^2)$
 柱が受ける曲げモーメントの最大値は
 $Ms=1/8 \times w \times Ik^2=1/8 \times 1113 \times 2.800^2=1091 \text{ (N}\cdot\text{m)}$
 $wN/(A \times sfk)+Ms/(Z \times sfb)=5911/(14400 \times 6.79)+1091000/(288000 \times 17.80)$
 $=0.06+0.21=0.27 \quad 1.0 \text{ ----- OK}$

3F X5Y1 105.0 (mm) × 105.0 (mm) 桧
 $A=11025 \text{ (mm}^2\text{)}$ $Z=192938 \text{ (mm}^3\text{)}$ $I=10129219 \text{ (mm}^4\text{)}$ $i=30.311 \text{ (mm)}$ $Ik=2800 \text{ (mm)}$ $=92.376$
 $Fc=20.70 \text{ (N/mm}^2\text{)}$ $Fb=26.70 \text{ (N/mm}^2\text{)}$
 $30 < 100 \text{ より } Fk=(1.3-0.01) \times Fc=7.79 \text{ (N/mm}^2\text{)}$

[長期]

$\perp N=6008 \text{ (N)}$
 $\perp Na=1.1 \times Fk/3 \times A=31491 \text{ (N)}$
 $\perp N/\perp Na=6008/31491=0.19 \quad 1.0 \text{ ----- OK}$

[短期積雪時]

$sNs=7150 \text{ (N)}$
 $ssNa=1.6 \times Fk/3 \times A=45805 \text{ (N)}$
 $sNs/ssNa=7150/45805=0.16 \quad 1.0 \text{ ----- OK}$

[水平力作用時]

$eN=6008+3403=9411 \text{ (N)}$
 $sNa=2 \times Fk/3 \times A=57257 \text{ (N)}$
 $eN/sNa=9411/57257=0.16 \quad 1.0 \text{ ----- OK}$

2F X5Y1 105.0 (mm) × 105.0 (mm) 桧
 $A=11025 \text{ (mm}^2)$ $Z=192938 \text{ (mm}^3)$ $I=10129219 \text{ (mm}^4)$ $i=30.311 \text{ (mm)}$ $Ik=2800 \text{ (mm)}$ $=92.376$
 $Fc=20.70 \text{ (N/mm}^2)$ $Fb=26.70 \text{ (N/mm}^2)$
 $30 < 100$ より $Fk=(1.3-0.01) \times Fc=7.79 \text{ (N/mm}^2)$

[長期]

$\perp N=14811 \text{ (N)}$
 $\perp Na=1.1 \times Fk/3 \times A=31491 \text{ (N)}$
 $\perp N/\perp Na=14811/31491=0.47 \quad 1.0 \text{ ----- OK}$

[短期積雪時]

$sNs=16299 \text{ (N)}$
 $ssNa=1.6 \times Fk/3 \times A=45805 \text{ (N)}$
 $sNs/ssNa=16299/45805=0.36 \quad 1.0 \text{ ----- OK}$

[水平力作用時]

$eN=14811+25298=40109 \text{ (N)}$
 $sNa=2 \times Fk/3 \times A=57257 \text{ (N)}$
 $eN/sNa=40109/57257=0.70 \quad 1.0 \text{ ----- OK}$

[短期風圧時]

$wN=14811 \text{ (N)}$
 $w=q \times (0.8Kz+0.2) \times \text{負担幅}=832 \times (0.8 \times 0.840+0.2) \times 1.138=826 \text{ (N/m)}$
 $sfk=2 \times Fk/3=5.19 \text{ (N/mm}^2)$
 $sfb=2 \times Fb/3=17.80 \text{ (N/mm}^2)$
 柱が受ける曲げモーメントの最大値は
 $Ms=1/8 \times w \times Ik^2=1/8 \times 826 \times 2.800^2=809 \text{ (N}\cdot\text{m)}$
 $wN/(A \times sfk)+Ms/(Z \times sfb)=14811/(11025 \times 5.19)+809000/(192938 \times 17.80)$
 $=0.26+0.24=0.50 \quad 1.0 \text{ ----- OK}$

2F X8Y5 105.0 (mm) × 105.0 (mm) 桧
 $A=11025 \text{ (mm}^2)$ $Z=192938 \text{ (mm}^3)$ $I=10129219 \text{ (mm}^4)$ $i=30.311 \text{ (mm)}$ $Ik=2800 \text{ (mm)}$ $=92.376$
 $F_c=20.70 \text{ (N/mm}^2)$ $F_b=26.70 \text{ (N/mm}^2)$
 $30 < 100$ より $F_k=(1.3-0.01) \times F_c=7.79 \text{ (N/mm}^2)$

[長期]

$lN=13433 \text{ (N)}$
 $lNa=1.1 \times F_k/3 \times A=31491 \text{ (N)}$
 $lN/lNa=13433/31491=0.43 \quad 1.0 \text{ ----- OK}$

[短期積雪時]

$sNs=14519 \text{ (N)}$
 $ssNa=1.6 \times F_k/3 \times A=45805 \text{ (N)}$
 $sNs/ssNa=14519/45805=0.32 \quad 1.0 \text{ ----- OK}$

[水平力作用時]

$eN=13433+27331=40764 \text{ (N)}$
 $sNa=2 \times F_k/3 \times A=57257 \text{ (N)}$
 $eN/sNa=40764/57257=0.71 \quad 1.0 \text{ ----- OK}$

[短期風圧時]

$wN=13433 \text{ (N)}$
 $w=q \times (0.8Kz+0.2) \times \text{負担幅}=832 \times (0.8 \times 0.840+0.2) \times 1.593=1156 \text{ (N/m)}$
 $sfk=2 \times F_k/3=5.19 \text{ (N/mm}^2)$
 $sfb=2 \times F_b/3=17.80 \text{ (N/mm}^2)$
 柱が受ける曲げモーメントの最大値は
 $Ms=1/8 \times w \times Ik^2=1/8 \times 1156 \times 2.800^2=1133 \text{ (N}\cdot\text{m)}$
 $wN/(A \times sfk)+Ms/(Z \times sfb)=13433/(11025 \times 5.19)+1133000/(192938 \times 17.80)$
 $=0.23+0.33=0.56 \quad 1.0 \text{ ----- OK}$

1F X1Y4 105.0 (mm) × 105.0 (mm) 桧
 $A=11025 \text{ (mm}^2)$ $Z=192938 \text{ (mm}^3)$ $I=10129219 \text{ (mm}^4)$ $i=30.311 \text{ (mm)}$ $Ik=2795 \text{ (mm)}$ $=92.211$
 $Fc=20.70 \text{ (N/mm}^2)$ $Fb=26.70 \text{ (N/mm}^2)$
 $30 < 100$ より $Fk=(1.3-0.01) \times Fc=7.82 \text{ (N/mm}^2)$

[長期]

$\perp N=19790 \text{ (N)}$
 $\perp Na=1.1 \times Fk/3 \times A=31612 \text{ (N)}$
 $\perp N/\perp Na=19790/31612=0.63 \quad 1.0 \text{ ----- OK}$
 めり込みに対して
 相手材 土台 桧 $Fcv=7.80 \text{ (N/mm}^2)$
 $Ae=A - (35.0 \times 75.0)=11025 - 2625=8400 \text{ (mm}^2)$
 $Na=1.50 \times Fcv/3 \times Ae=32760 \text{ (N)}$
 $\perp N/Na=19790/32760=0.60 \quad 1.0 \text{ ----- OK}$

[短期積雪時]

$sNs=21414 \text{ (N)}$
 $ssNa=1.6 \times Fk/3 \times A=45982 \text{ (N)}$
 $sNs/ssNa=21414/45982=0.47 \quad 1.0 \text{ ----- OK}$

[水平力作用時]

$eN=19790+7574=27364 \text{ (N)}$
 $sNa=2 \times Fk/3 \times A=57477 \text{ (N)}$
 $eN/sNa=27364/57477=0.48 \quad 1.0 \text{ ----- OK}$

[短期風圧時]

$wN=19790 \text{ (N)}$
 $w=q \times (0.8Kz+0.2) \times \text{負担幅}=832 \times (0.8 \times 0.774+0.2) \times 1.138=776 \text{ (N/m)}$
 $sfk=2 \times Fk/3=5.21 \text{ (N/mm}^2)$
 $sfb=2 \times Fb/3=17.80 \text{ (N/mm}^2)$
 柱が受ける曲げモーメントの最大値は
 $Ms=1/8 \times w \times Ik^2=1/8 \times 776 \times 2.795^2=758 \text{ (N}\cdot\text{m)}$
 $wN/(A \times sfk)+Ms/(Z \times sfb)=19790/(11025 \times 5.21)+758000/(192938 \times 17.80)$
 $=0.34+0.22=0.56 \quad 1.0 \text{ ----- OK}$

1F X4Y1 120.0 (mm) × 120.0 (mm) 桧
 $A=14400$ (mm²) $Z=288000$ (mm³) $I=17280000$ (mm⁴) $i=34.641$ (mm) $Ik=2795$ (mm) =80.685
 $Fc=20.70$ (N/mm²) $Fb=26.70$ (N/mm²)
 $30 < 100$ より $Fk=(1.3-0.01) \times Fc=10.21$ (N/mm²)

[長期]

$\perp N=23393$ (N)
 $\perp Na=1.1 \times Fk/3 \times A=53909$ (N)
 $\perp N/\perp Na=23393/53909=0.43$ 1.0 ----- OK
 めり込みに対して
 相手材 土台 桧 $Fcv=7.80$ (N/mm²)
 $Ae=A - (35.0 \times 75.0)=14400 - 2625=11775$ (mm²)
 $Na=1.50 \times Fcv/3 \times Ae=45923$ (N)
 $\perp N/Na=23393/45923=0.51$ 1.0 ----- OK

[短期積雪時]

$sNs=25254$ (N)
 $ssNa=1.6 \times Fk/3 \times A=78413$ (N)
 $sNs/ssNa=25254/78413=0.32$ 1.0 ----- OK

[水平力作用時]

$eN=23393+50170=73563$ (N)
 $sNa=2 \times Fk/3 \times A=98016$ (N)
 $eN/sNa=73563/98016=0.75$ 1.0 ----- OK

[短期風圧時]

$wN=23393$ (N)
 $w=q \times (0.8Kz+0.2) \times \text{負担幅}=832 \times (0.8 \times 0.774+0.2) \times 1.365=930$ (N/m)
 $sfk=2 \times Fk/3=6.81$ (N/mm²)
 $sfb=2 \times Fb/3=17.80$ (N/mm²)
 柱が受ける曲げモーメントの最大値は
 $Ms=1/8 \times w \times Ik^2=1/8 \times 930 \times 2.795^2=908$ (N・m)
 $wN/(A \times sfk)+Ms/(Z \times sfb)=23393/(14400 \times 6.81)+908000/(288000 \times 17.80)$
 $=0.24+0.18=0.42$ 1.0 ----- OK

1F X6Y5 120.0 (mm) × 120.0 (mm) 桧
 $A=14400 \text{ (mm}^2)$ $Z=288000 \text{ (mm}^3)$ $I=17280000 \text{ (mm}^4)$ $i=34.641 \text{ (mm)}$ $I_k=2795 \text{ (mm)}$ $=80.685$
 $F_c=20.70 \text{ (N/mm}^2)$ $F_b=26.70 \text{ (N/mm}^2)$
 $30 < 100$ より $F_k=(1.3-0.01) \times F_c=10.21 \text{ (N/mm}^2)$

[長期]

$\perp N=9154 \text{ (N)}$
 $\perp N_a=1.1 \times F_k/3 \times A=53909 \text{ (N)}$
 $\perp N/\perp N_a=9154/53909=0.17 \quad 1.0 \text{ ----- OK}$
 めり込みに対して
 相手材 土台 桧 $F_{cv}=7.80 \text{ (N/mm}^2)$
 $A_e=A - (35.0 \times 75.0)=14400 - 2625=11775 \text{ (mm}^2)$
 $N_a=1.50 \times F_{cv}/3 \times A_e=45923 \text{ (N)}$
 $\perp N/N_a=9154/45923=0.20 \quad 1.0 \text{ ----- OK}$

[短期積雪時]

$sN_s=10845 \text{ (N)}$
 $ssN_a=1.6 \times F_k/3 \times A=78413 \text{ (N)}$
 $sN_s/ssN_a=10845/78413=0.14 \quad 1.0 \text{ ----- OK}$

[水平力作用時]

$eN=9154+51756=60910 \text{ (N)}$
 $sN_a=2 \times F_k/3 \times A=98016 \text{ (N)}$
 $eN/sN_a=60910/98016=0.62 \quad 1.0 \text{ ----- OK}$

1F X8Y1 120.0 (mm) × 120.0 (mm) 桧
 $A=14400$ (mm²) $Z=288000$ (mm³) $I=17280000$ (mm⁴) $i=34.641$ (mm) $Ik=2795$ (mm) =80.685
 $Fc=20.70$ (N/mm²) $Fb=26.70$ (N/mm²)
 $30 < 100$ より $Fk=(1.3-0.01) \times Fc=10.21$ (N/mm²)

[長期]

$\perp N=20404$ (N)
 $\perp Na=1.1 \times Fk/3 \times A=53909$ (N)
 $\perp N/\perp Na=20404/53909=0.38$ 1.0 ----- OK
 めり込みに対して
 相手材 土台 桧 $Fcv=7.80$ (N/mm²)
 $Ae=A - (35.0 \times 75.0)=14400 - 2625=11775$ (mm²)
 $Na=1.50 \times Fcv/3 \times Ae=45923$ (N)
 $\perp N/Na=20404/45923=0.44$ 1.0 ----- OK

[短期積雪時]

$sNs=21429$ (N)
 $ssNa=1.6 \times Fk/3 \times A=78413$ (N)
 $sNs/ssNa=21429/78413=0.27$ 1.0 ----- OK

[水平力作用時]

$eN=20404+34598=55002$ (N)
 $sNa=2 \times Fk/3 \times A=98016$ (N)
 $eN/sNa=55002/98016=0.56$ 1.0 ----- OK

[短期風圧時]

$wN=20404$ (N)
 $w=q \times (0.8Kz+0.2) \times \text{負担幅}=832 \times (0.8 \times 0.774+0.2) \times 0.683=466$ (N/m)
 $sfk=2 \times Fk/3=6.81$ (N/mm²)
 $sfb=2 \times Fb/3=17.80$ (N/mm²)
 柱が受ける曲げモーメントの最大値は
 $Ms=1/8 \times w \times Ik^2=1/8 \times 466 \times 2.795^2=455$ (N・m)
 $wN/(A \times sfk)+Ms/(Z \times sfb)=20404/(14400 \times 6.81)+455000/(288000 \times 17.80)$
 $=0.21+0.09=0.30$ 1.0 ----- OK

5 - 2 梁の設計

一覧
小屋

変形増大係数(長期):2.0 梁せん断力安全係数:0.9

| 通り | 位置 | 断面 | | | 荷重 状態 | モーメント M(N・m) | せん断力 Q(N) | 曲げ /fb | せん断 /fs | たわみ量 (mm) | 許容たわみ量 a 長期 L/200 雪長期 L/200 雪短期 L/150 | 判定 |
|------|---------|----------------------------|---|--|-----------|--------------------|------------------|--------------|--------------|----------------|--|----|
| | | サイズ(mm) 樹種 欠損低減 | Z(mm ³) A(mm ²) I(mm ⁴) | Fb(N/mm ²) Fs(N/mm ²) L(m) | | | | | | | | |
| Y1 | X1-X2 | 105.0 × 180.0 米松 10% | 510300 18900 45927000 | 28.20 2.40 0.910 | 長期 | 90.15 | 396.3 | 0.02 | 0.04 | 0.036 | 4.550 | OK |
| Y1 | X2-X4 | 105.0 × 180.0 米松 10% | 510300 18900 45927000 | 28.20 2.40 1.820 | 長期 雪短期 | 919.56 1466.47 | 1010.5 1611.5 | 0.17 0.19 | 0.10 0.11 | 1.128 0.900 | 9.100 12.133 | OK |
| Y1 | X4-X5 | 105.0 × 180.0 米松 10% | 510300 18900 45927000 | 28.20 2.40 0.910 | 長期 | 90.15 | 396.3 | 0.02 | 0.04 | 0.036 | 4.550 | OK |
| Y1 | X5-X7 | 105.0 × 180.0 米松 10% | 510300 18900 45927000 | 28.20 2.40 1.365 | 長期 雪短期 | 594.23 992.51 | 1306.0 2181.3 | 0.11 0.13 | 0.13 0.15 | 0.394 0.329 | 6.825 9.100 | OK |
| Y1 | X7-X8 | 105.0 × 180.0 米松 10% | 510300 18900 45927000 | 28.20 2.40 0.910 | 長期 | 90.15 | 396.3 | 0.02 | 0.04 | 0.036 | 4.550 | OK |
| Y4 | X1-X4 | 105.0 × 270.0 米松 10% | 1148175 28350 155003625 | 28.20 2.40 2.730 | 長期 雪短期 | 1033.76 1975.31 | 1136.0 2170.7 | 0.09 0.11 | 0.08 0.10 | 0.810 0.774 | 13.650 18.200 | OK |
| Y5.5 | X1-X4 | 105.0 × 210.0 米松 10% | 694575 22050 72930375 | 28.20 2.40 2.730 | 長期 雪短期 | 652.77 1243.67 | 717.3 1366.7 | 0.09 0.12 | 0.06 0.08 | 1.088 1.036 | 13.650 18.200 | OK |
| Y7 | X1-X3 | 105.0 × 180.0 米松 10% | 510300 18900 45927000 | 28.20 2.40 1.820 | 長期 雪短期 | 159.45 318.90 | 350.4 700.9 | 0.03 0.04 | 0.04 0.05 | 0.246 0.245 | 9.100 12.133 | OK |
| Y7 | X3-X4 | 105.0 × 180.0 米松 10% | 510300 18900 45927000 | 28.20 2.40 0.910 | 長期 雪短期 | 39.86 79.73 | 175.2 350.4 | 0.01 0.01 | 0.01 0.03 | 0.016 0.016 | 4.550 6.067 | OK |
| Y7 | X4-X5 | 105.0 × 180.0 米松 10% | 510300 18900 45927000 | 28.20 2.40 0.910 | 長期 雪短期 | 39.86 79.73 | 175.2 350.4 | 0.01 0.01 | 0.01 0.03 | 0.016 0.016 | 4.550 6.067 | OK |
| Y7 | X5-X6 | 105.0 × 180.0 米松 10% | 510300 18900 45927000 | 28.20 2.40 0.910 | 長期 雪短期 | 39.86 79.73 | 175.2 350.4 | 0.01 0.01 | 0.01 0.03 | 0.016 0.016 | 4.550 6.067 | OK |
| Y7 | X6-X8 | 105.0 × 180.0 米松 10% | 510300 18900 45927000 | 28.20 2.40 1.365 | 長期 雪短期 | 89.69 179.38 | 262.8 525.7 | 0.02 0.02 | 0.03 0.03 | 0.078 0.078 | 6.825 9.100 | OK |
| X1 | Y1-Y2 | 105.0 × 180.0 米松 10% | 510300 18900 45927000 | 28.20 2.40 0.910 | 長期 雪短期 | 214.76 351.94 | 472.0 773.5 | 0.04 0.05 | 0.05 0.05 | 0.066 0.054 | 4.550 6.067 | OK |
| X1 | Y2-Y4 | 105.0 × 180.0 米松 10% | 510300 18900 45927000 | 28.20 2.40 1.365 | 長期 雪短期 | 315.16 495.34 | 692.7 1088.7 | 0.06 0.06 | 0.06 0.08 | 0.210 0.164 | 6.825 9.100 | OK |
| X1 | Y4-Y5.5 | 105.0 × 180.0 米松 10% | 510300 18900 45927000 | 28.20 2.40 1.365 | 長期 雪短期 | 257.83 438.01 | 566.7 962.7 | 0.05 0.06 | 0.05 0.07 | 0.172 0.145 | 6.825 9.100 | OK |
| X1 | Y5.5-Y7 | 105.0 × 180.0 米松 10% | 510300 18900 45927000 | 28.20 2.40 1.365 | 長期 雪短期 | 216.58 396.76 | 476.0 872.0 | 0.04 0.05 | 0.05 0.06 | 0.144 0.132 | 6.825 9.100 | OK |
| X3 | Y1-Y4 | 105.0 × 150.0 米松 10% | 354375 15750 26578125 | 28.20 2.40 2.275 | 長期 雪短期 | 844.26 1631.33 | 904.9 1763.6 | 0.23 0.31 | 0.11 0.15 | 2.758 2.662 | 11.375 15.167 | OK |

| 通り | 位置 | 断面 | | | 荷重 状態 | モーメント M(N・m) | せん断力 Q(N) | 曲げ /fb | せん断 /fs | たわみ量 (mm) | 許容たわみ量 a | 判定 |
|----|---------|----------------------------|---|--|----------|-----------------|--------------|-----------|------------|--------------|----------|----|
| | | サイズ(mm) 樹種 欠損低減 | Z(mm ³) A(mm ²) I(mm ⁴) | Fb(N/mm ²) Fs(N/mm ²) L(m) | | | | | | | | |
| X3 | Y4-Y5.5 | 105.0 × 105.0 米松 10% | 173644 | 28.20 | 長期 | 244.49 | 537.3 | 0.14 | 0.09 | 0.816 | 6.825 | OK |
| | | | 11025 | 2.40 | 雪短期 | 465.92 | 1024.0 | 0.18 | 0.12 | 0.776 | 9.100 | |
| X3 | Y5.5-Y7 | 105.0 × 105.0 米松 10% | 173644 | 28.20 | 長期 | 244.49 | 537.3 | 0.14 | 0.09 | 0.816 | 6.825 | OK |
| | | | 11025 | 2.40 | 雪短期 | 465.92 | 1024.0 | 0.18 | 0.12 | 0.776 | 9.100 | |
| X4 | Y1-Y4 | 105.0 × 150.0 米松 10% | 354375 | 28.20 | 長期 | 562.48 | 602.9 | 0.15 | 0.08 | 1.838 | 11.375 | OK |
| | | | 15750 | 2.40 | 雪短期 | 1087.37 | 1175.5 | 0.20 | 0.10 | 1.774 | 15.167 | |
| X4 | Y5.5-Y7 | 105.0 × 150.0 米松 10% | 354375 | 28.20 | 長期 | 162.89 | 358.0 | 0.04 | 0.04 | 0.186 | 6.825 | OK |
| | | | 15750 | 2.40 | 雪短期 | 310.61 | 682.7 | 0.06 | 0.06 | 0.178 | 9.100 | |
| X5 | Y1-Y3.5 | 105.0 × 105.0 米松 10% | 173644 | 28.20 | 長期 | 464.71 | 523.9 | 0.26 | 0.09 | 2.872 | 9.100 | OK |
| | | | 11025 | 2.40 | 雪短期 | 901.11 | 1006.8 | 0.35 | 0.12 | 2.784 | 12.133 | |
| X6 | Y1-Y5 | 105.0 × 180.0 米松 10% | 510300 | 28.20 | 長期 | 1529.05 | 1095.3 | 0.29 | 0.11 | 5.706 | 15.925 | OK |
| | | | 18900 | 2.40 | 雪短期 | 2939.94 | 2122.7 | 0.38 | 0.15 | 5.481 | 21.233 | |
| X6 | Y5-Y7 | 105.0 × 105.0 米松 10% | 173644 | 28.20 | 長期 | 305.76 | 336.0 | 0.17 | 0.06 | 1.890 | 9.100 | OK |
| | | | 11025 | 2.40 | 雪短期 | 582.40 | 640.0 | 0.22 | 0.08 | 1.800 | 12.133 | |
| X8 | Y1-Y2 | 105.0 × 180.0 米松 10% | 510300 | 28.20 | 長期 | 187.23 | 411.5 | 0.04 | 0.04 | 0.058 | 4.550 | OK |
| | | | 18900 | 2.40 | 雪短期 | 297.57 | 654.0 | 0.04 | 0.04 | 0.046 | 6.067 | |
| X8 | Y2-Y4.5 | 105.0 × 180.0 米松 10% | 510300 | 28.20 | 長期 | 785.78 | 884.9 | 0.15 | 0.09 | 0.964 | 9.100 | OK |
| | | | 18900 | 2.40 | 雪短期 | 1215.47 | 1356.6 | 0.16 | 0.10 | 0.746 | 12.133 | |
| X8 | Y4.5-Y5 | 105.0 × 180.0 米松 10% | 510300 | 28.20 | 長期 | 9.23 | 81.1 | 0.00 | 0.01 | 0.002 | 2.275 | OK |
| | | | 18900 | 2.40 | 雪短期 | | | | | | | |
| X8 | Y5-Y7 | 105.0 × 180.0 米松 10% | 510300 | 28.20 | 長期 | 286.20 | 314.5 | 0.05 | 0.03 | 0.352 | 9.100 | OK |
| | | | 18900 | 2.40 | 雪短期 | 500.96 | 550.5 | 0.07 | 0.03 | 0.308 | 12.133 | |

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| 通り | 位置 | 断面 | | | | 荷重 状態 | モーメント M(N・m) | せん断力 Q(N) | 曲げ /fb | せん断 /fs | たわみ量 (mm) | 許容たわみ量 a 長期 L/300 雪長期 L/300 雪短期 L/225 | 判定 |
|------|-------|----------------------------|-----------------------------|--------------------------------|-----------|--------------------|------------------|--------------|--------------|----------------|----------------|--|----|
| | | サイズ(mm) 樹種 欠損低減 | Z(mm³) A(mm²) I(mm⁴) | Fb(N/mm²) Fs(N/mm²) L(m) | | | | | | | | | |
| Y0 | X5-X8 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 2.275 | 長期 | 1406.15 | 2472.4 | 0.30 | 0.25 | 3.236 | 7.583 | OK | |
| Y1 | X1-X2 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.910 | 長期 | 279.19 | 1227.2 | 0.06 | 0.13 | 0.116 | 3.033 | OK | |
| Y1 | X2-X3 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.910 | 長期 | 279.19 | 1227.2 | 0.06 | 0.13 | 0.116 | 3.033 | OK | |
| Y1 | X3-X4 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.910 | 長期 | 279.19 | 1227.2 | 0.06 | 0.13 | 0.116 | 3.033 | OK | |
| Y1 | X4-X5 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.910 | 長期 | 279.19 | 1227.2 | 0.06 | 0.13 | 0.116 | 3.033 | OK | |
| Y1 | X5-X7 | 105.0 × 210.0 米松 20% | 617400 22050 64827000 | 28.20 2.40 1.365 | 長期 | 1695.93 | 4558.3 | 0.27 | 0.39 | 0.902 | 4.550 | OK | |
| Y1 | X7-X8 | 105.0 × 210.0 米松 20% | 617400 22050 64827000 | 28.20 2.40 0.910 | 長期 | 378.10 | 1662.0 | 0.06 | 0.14 | 0.092 | 3.033 | OK | |
| Y4 | X1-X2 | 105.0 × 240.0 米松 20% | 806400 25200 96768000 | 28.20 2.40 0.910 | 長期 | 59.48 | 261.4 | 0.01 | 0.03 | 0.008 | 3.033 | OK | |
| Y4 | X2-X4 | 105.0 × 240.0 米松 20% | 806400 25200 96768000 | 28.20 2.40 1.820 | 長期 | 2018.78 | 2479.9 | 0.24 | 0.19 | 1.148 | 6.067 | OK | |
| Y4 | X4-X5 | 105.0 × 105.0 米松 20% | 154350 11025 8103375 | 28.20 2.40 0.910 | 長期 | 59.48 | 261.4 | 0.04 | 0.05 | 0.082 | 3.033 | OK | |
| Y5 | X4-X5 | 105.0 × 105.0 米松 20% | 154350 11025 8103375 | 28.20 2.40 0.910 | 長期 | 29.74 | 130.7 | 0.02 | 0.03 | 0.042 | 3.033 | OK | |
| Y5 | X5-X6 | 105.0 × 105.0 米松 20% | 154350 11025 8103375 | 28.20 2.40 0.910 | 長期 | 29.74 | 130.7 | 0.02 | 0.03 | 0.042 | 3.033 | OK | |
| Y5 | X6-X8 | 105.0 × 105.0 米松 20% | 154350 11025 8103375 | 28.20 2.40 1.365 | 長期 | 133.83 | 392.2 | 0.08 | 0.06 | 0.412 | 4.550 | OK | |
| Y5.5 | X1-X4 | 105.0 × 210.0 米松 20% | 617400 22050 64827000 | 28.20 2.40 2.730 | 長期 | 2159.69 | 3067.6 | 0.34 | 0.27 | 3.822 | 9.100 | OK | |
| Y6 | X6-X8 | 105.0 × 105.0 米松 20% | 154350 11025 8103375 | 28.20 2.40 1.365 | 長期 | 133.83 | 392.2 | 0.08 | 0.06 | 0.412 | 4.550 | OK | |
| Y7 | X1-X2 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.910 | 長期 | 383.08 | 1683.9 | 0.08 | 0.16 | 0.144 | 3.033 | OK | |
| Y7 | X2-X4 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 1.820 | 長期 雪短期 | 2392.26 2741.70 | 3216.2 3600.2 | 0.51 0.40 | 0.33 0.25 | 3.146 1.814 | 6.067 8.089 | OK | |

| 通り | 位置 | 断面 | | | 荷重 状態 | モーメント M(N・m) | せん断力 Q(N) | 曲げ /fb | せん断 /fs | たわみ量 (mm) | 許容たわみ量 a 長期 L/300 雪長期 L/300 雪短期 L/225 | 判定 |
|----|--------------|----------------------------|-------------------------------|--------------------------------|----------|-----------------|--------------|-----------|------------|--------------|--|----|
| | | サイズ(mm) 樹種 欠損低減 | Z(mm³) A(mm²) I(mm⁴) | Fb(N/mm²) Fs(N/mm²) L(m) | | | | | | | | |
| Y7 | X4-X5 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.910 | 長期 | 249.45 | 1096.5 | 0.05 | 0.11 | 0.108 | 3.033 | OK |
| Y7 | X5-X6 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.910 | 長期 | 249.45 | 1096.5 | 0.05 | 0.11 | 0.108 | 3.033 | OK |
| Y7 | X6-X8 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 1.365 | 長期 | 628.19 | 1840.8 | 0.13 | 0.19 | 0.586 | 4.550 | OK |
| X1 | Y1-Y1.5 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.455 | 長期 | 106.87 | 939.5 | 0.02 | 0.09 | 0.010 | 1.517 | OK |
| X1 | Y1.5-Y3 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.910 | 長期 | 1140.36 | 2897.6 | 0.24 | 0.29 | 0.382 | 3.033 | OK |
| | | | | | 雪短期 | 1299.15 | 3246.6 | 0.19 | 0.23 | 0.219 | 4.044 | |
| X1 | Y3-Y4 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.910 | 長期 | 427.49 | 1879.1 | 0.09 | 0.19 | 0.156 | 3.033 | OK |
| X1 | Y4-Y5 | 105.0 × 210.0 米松 20% | 617400 22050 64827000 | 28.20 2.40 0.910 | 長期 | 427.49 | 1879.1 | 0.07 | 0.16 | 0.098 | 3.033 | OK |
| X1 | Y5-Y6 | 105.0 × 210.0 米松 20% | 617400 22050 64827000 | 28.20 2.40 0.910 | 長期 | 1818.53 | 4388.1 | 0.28 | 0.38 | 0.390 | 3.033 | OK |
| | | | | | 雪短期 | 2072.42 | 4946.1 | 0.22 | 0.30 | 0.222 | 4.044 | |
| X1 | Y6-Y7 | 105.0 × 210.0 米松 20% | 617400 22050 64827000 | 28.20 2.40 0.910 | 長期 | 279.19 | 1227.2 | 0.04 | 0.10 | 0.074 | 3.033 | OK |
| X3 | Y1-Y4 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 2.275 | 長期 | 1669.07 | 2934.6 | 0.36 | 0.29 | 2.834 | 7.583 | OK |
| X3 | Y4-Y5.5 | 105.0 × 105.0 米松 20% | 154350 11025 8103375 | 28.20 2.40 1.365 | 長期 | 600.87 | 1760.8 | 0.38 | 0.30 | 1.850 | 4.550 | OK |
| X4 | Y1-Y2 | 105.0 × 300.0 米松 20% | 1260000 31500 189000000 | 28.20 2.40 0.910 | 長期 | 178.03 | 782.6 | 0.01 | 0.05 | 0.012 | 3.033 | OK |
| X4 | Y2-Y5 | 105.0 × 300.0 米松 20% | 1260000 31500 189000000 | 28.20 2.40 2.275 | 長期 | 3707.00 | 4856.2 | 0.28 | 0.29 | 1.618 | 7.583 | OK |
| | | | | | 雪短期 | 4748.77 | 6001.0 | 0.25 | 0.25 | 1.047 | 10.111 | |
| X4 | Y5-Y7 | 105.0 × 300.0 米松 20% | 1260000 31500 189000000 | 28.20 2.40 1.820 | 長期 | 1613.63 | 3742.1 | 0.12 | 0.23 | 0.452 | 6.067 | OK |
| | | | | | 雪短期 | 1946.35 | 4473.4 | 0.10 | 0.18 | 0.272 | 8.089 | |
| X5 | Y0-Y1 跳出梁 | 105.0 × 180.0 米松 0% | 567000 18900 51030000 | 28.20 2.40 0.910 | 長期 | 1494.61 | 2341.9 | 0.25 | 0.24 | 1.440 | 3.033 | OK |
| X5 | Y1-Y5 | 105.0 × 180.0 米松 0% | 567000 18900 51030000 | 28.20 2.40 3.185 | 長期 | 2960.88 | 3608.5 | 0.51 | 0.37 | 8.888 | 10.617 | OK |
| | | | | | 雪短期 | 3638.43 | 4232.2 | 0.43 | 0.30 | 5.605 | 14.156 | |
| X6 | Y1-Y5 | 105.0 × 210.0 米松 20% | 617400 22050 64827000 | 28.20 2.40 3.185 | 長期 | 2727.27 | 3425.1 | 0.43 | 0.29 | 5.714 | 10.617 | OK |

| 通り | 位置 | 断面 | | | 荷重 状態 | モーメント M(N・m) | せん断力 Q(N) | 曲げ /fb | せん断 /fs | たわみ量 (mm) | 許容たわみ量 a | 判定 |
|----|--------------|----------------------------|---|--|-----------|--------------------|------------------|--------------|--------------|----------------|-----------------|----|
| | | サイズ(mm) 樹種 欠損低減 | Z(mm ³) A(mm ²) I(mm ⁴) | Fb(N/mm ²) Fs(N/mm ²) L(m) | | | | | | | | |
| X6 | Y5-Y6 | 105.0 × 105.0 米松 20% | 154350 11025 8103375 | 28.20 2.40 0.910 | 長期 | 133.62 | 587.4 | 0.08 | 0.10 | 0.184 | 3.033 | OK |
| X6 | Y6-Y7 | 105.0 × 105.0 米松 20% | 154350 11025 8103375 | 28.20 2.40 0.910 | 長期 | 133.62 | 587.4 | 0.08 | 0.10 | 0.184 | 3.033 | OK |
| X8 | Y0-Y1 跳出梁 | 105.0 × 180.0 米松 0% | 567000 18900 51030000 | 28.20 2.40 0.910 | 長期 | 1494.61 | 2341.9 | 0.25 | 0.24 | 1.440 | 3.033 | OK |
| X8 | Y1-Y2 | 105.0 × 180.0 米松 0% | 567000 18900 51030000 | 28.20 2.40 0.910 | 長期 | 383.08 | 1683.9 | 0.07 | 0.16 | 0.116 | 3.033 | OK |
| X8 | Y2-Y5 | 105.0 × 180.0 米松 0% | 567000 18900 51030000 | 28.20 2.40 2.275 | 長期 雪短期 | 1904.59 2076.40 | 4479.6 4857.2 | 0.32 0.24 | 0.46 0.34 | 3.232 1.748 | 7.583 10.111 | OK |
| X8 | Y5-Y6 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.910 | 長期 | 383.08 | 1683.9 | 0.08 | 0.16 | 0.144 | 3.033 | OK |
| X8 | Y6-Y7 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.910 | 長期 | 383.08 | 1683.9 | 0.08 | 0.16 | 0.144 | 3.033 | OK |

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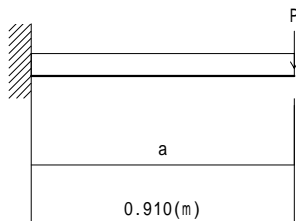
| 通り | 位置 | 断面 | | | | 荷重 状態 | モーメント M(N・m) | せん断力 Q(N) | 曲げ /fb | せん断 /fs | たわみ量 (mm) | 許容たわみ量 a 長期 L/300 雪長期 L/300 雪短期 L/225 | 判定 |
|----|-------|----------------------------|-------------------------------|--------------------------------|-----------|--------------------|------------------|--------------|--------------|----------------|----------------|--|----|
| | | サイズ(mm) 樹種 欠損低減 | Z(mm³) A(mm²) I(mm⁴) | Fb(N/mm²) Fs(N/mm²) L(m) | | | | | | | | | |
| Y1 | X1-X2 | 105.0 × 240.0 米松 20% | 806400 25200 96768000 | 28.20 2.40 0.910 | 長期 | 281.90 | 1239.1 | 0.03 | 0.09 | 0.050 | 3.033 | OK | |
| Y1 | X2-X4 | 105.0 × 240.0 米松 20% | 806400 25200 96768000 | 28.20 2.40 1.820 | 長期 | 3561.03 | 4043.9 | 0.43 | 0.30 | 2.060 | 6.067 | OK | |
| Y1 | X4-X5 | 105.0 × 240.0 米松 20% | 806400 25200 96768000 | 28.20 2.40 0.910 | 長期 | 281.90 | 1239.1 | 0.03 | 0.09 | 0.050 | 3.033 | OK | |
| Y1 | X5-X6 | 105.0 × 240.0 米松 20% | 806400 25200 96768000 | 28.20 2.40 0.910 | 長期 | 281.90 | 1239.1 | 0.03 | 0.09 | 0.050 | 3.033 | OK | |
| Y1 | X6-X8 | 105.0 × 240.0 米松 20% | 806400 25200 96768000 | 28.20 2.40 1.365 | 長期 雪短期 | 3363.69 3629.41 | 7458.1 8042.1 | 0.40 0.30 | 0.56 0.42 | 1.056 0.570 | 4.550 6.067 | OK | |
| Y4 | X1-X3 | 105.0 × 270.0 米松 10% | 1148175 28350 155003625 | 28.20 2.40 1.820 | 長期 | 2851.46 | 3655.5 | 0.24 | 0.24 | 1.000 | 6.067 | OK | |
| Y4 | X3-X4 | 105.0 × 270.0 米松 10% | 1148175 28350 155003625 | 28.20 2.40 0.910 | 長期 | 231.79 | 1018.8 | 0.02 | 0.06 | 0.022 | 3.033 | OK | |
| Y4 | X4-X5 | 105.0 × 150.0 米松 20% | 315000 15750 23625000 | 28.20 2.40 0.910 | 長期 | 59.48 | 261.4 | 0.02 | 0.03 | 0.028 | 3.033 | OK | |
| Y4 | X5-X6 | 105.0 × 150.0 米松 20% | 315000 15750 23625000 | 28.20 2.40 0.910 | 長期 | 59.48 | 261.4 | 0.02 | 0.03 | 0.028 | 3.033 | OK | |
| Y4 | X6-X8 | 105.0 × 150.0 米松 20% | 315000 15750 23625000 | 28.20 2.40 1.365 | 長期 | 133.83 | 392.2 | 0.04 | 0.05 | 0.142 | 4.550 | OK | |
| Y5 | X1-X3 | 105.0 × 150.0 米松 20% | 315000 15750 23625000 | 28.20 2.40 1.820 | 長期 | 712.12 | 1565.1 | 0.22 | 0.19 | 1.338 | 6.067 | OK | |
| Y5 | X3-X4 | 105.0 × 150.0 米松 20% | 315000 15750 23625000 | 28.20 2.40 0.910 | 長期 | 178.03 | 782.6 | 0.05 | 0.09 | 0.084 | 3.033 | OK | |
| Y5 | X4-X5 | 105.0 × 150.0 米松 20% | 315000 15750 23625000 | 28.20 2.40 0.910 | 長期 | 29.74 | 130.7 | 0.01 | 0.01 | 0.014 | 3.033 | OK | |
| Y5 | X5-X6 | 105.0 × 150.0 米松 20% | 315000 15750 23625000 | 28.20 2.40 0.910 | 長期 | 29.74 | 130.7 | 0.01 | 0.01 | 0.014 | 3.033 | OK | |
| Y5 | X6-X7 | 105.0 × 150.0 米松 20% | 315000 15750 23625000 | 28.20 2.40 0.455 | 長期 | 57.95 | 509.4 | 0.02 | 0.06 | 0.010 | 1.517 | OK | |
| Y5 | X7-X8 | 105.0 × 150.0 米松 20% | 315000 15750 23625000 | 28.20 2.40 0.910 | 長期 | 231.79 | 1018.8 | 0.07 | 0.13 | 0.140 | 3.033 | OK | |
| Y6 | X1-X3 | 105.0 × 150.0 米松 20% | 315000 15750 23625000 | 28.20 2.40 1.820 | 長期 | 712.12 | 1565.1 | 0.22 | 0.19 | 1.338 | 6.067 | OK | |

| 通り | 位置 | 断面 | | | 荷重 状態 | モーメント M(N・m) | せん断力 Q(N) | 曲げ /fb | せん断 /fs | たわみ量 (mm) | 許容たわみ量 a 長期 L/300 雪長期 L/300 雪短期 L/225 | 判定 |
|----|-------|----------------------------|-------------------------------|--------------------------------|-----------|--------------------|------------------|--------------|--------------|----------------|--|----|
| | | サイズ(mm) 樹種 欠損低減 | Z(mm³) A(mm²) I(mm⁴) | Fb(N/mm²) Fs(N/mm²) L(m) | | | | | | | | |
| Y6 | X3-X4 | 105.0 × 105.0 米松 20% | 154350 11025 8103375 | 28.20 2.40 0.910 | 長期 | 178.03 | 782.6 | 0.11 | 0.14 | 0.244 | 3.033 | OK |
| Y6 | X6-X8 | 105.0 × 150.0 米松 20% | 315000 15750 23625000 | 28.20 2.40 1.365 | 長期 | 654.90 | 1919.1 | 0.20 | 0.23 | 0.850 | 4.550 | OK |
| Y7 | X1-X2 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.910 | 長期 | 341.18 | 1499.7 | 0.07 | 0.15 | 0.134 | 3.033 | OK |
| Y7 | X2-X3 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.910 | 長期 | 341.18 | 1499.7 | 0.07 | 0.15 | 0.134 | 3.033 | OK |
| Y7 | X3-X4 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.910 | 長期 | 341.18 | 1499.7 | 0.07 | 0.15 | 0.134 | 3.033 | OK |
| Y7 | X4-X5 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.910 | 長期 | 252.16 | 1108.4 | 0.05 | 0.11 | 0.110 | 3.033 | OK |
| Y7 | X5-X6 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.910 | 長期 | 252.16 | 1108.4 | 0.05 | 0.11 | 0.110 | 3.033 | OK |
| Y7 | X6-X8 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 1.365 | 長期 | 767.65 | 2249.5 | 0.16 | 0.23 | 0.674 | 4.550 | OK |
| X1 | Y1-Y2 | 105.0 × 240.0 米松 20% | 806400 25200 96768000 | 28.20 2.40 0.910 | 長期 雪短期 | 1304.38 1383.78 | 3258.1 3432.6 | 0.16 0.11 | 0.24 0.17 | 0.186 0.099 | 3.033 4.044 | OK |
| X1 | Y2-Y4 | 105.0 × 240.0 米松 20% | 806400 25200 96768000 | 28.20 2.40 1.365 | 長期 雪短期 | 2144.52 2250.38 | 5104.5 5337.2 | 0.26 0.19 | 0.38 0.28 | 0.666 0.350 | 4.550 6.067 | OK |
| X1 | Y4-Y5 | 105.0 × 240.0 米松 20% | 806400 25200 96768000 | 28.20 2.40 0.910 | 長期 | 281.90 | 1239.1 | 0.03 | 0.09 | 0.050 | 3.033 | OK |
| X1 | Y5-Y7 | 105.0 × 240.0 米松 20% | 806400 25200 96768000 | 28.20 2.40 1.820 | 長期 雪短期 | 3480.04 3733.93 | 3954.9 4233.9 | 0.42 0.31 | 0.30 0.22 | 2.014 1.081 | 6.067 8.089 | OK |
| X3 | Y1-Y4 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 2.275 | 長期 | 1669.07 | 2934.6 | 0.36 | 0.29 | 2.834 | 7.583 | OK |
| X3 | Y4-Y5 | 105.0 × 105.0 米松 20% | 154350 11025 8103375 | 28.20 2.40 0.910 | 長期 | 59.48 | 261.4 | 0.04 | 0.05 | 0.082 | 3.033 | OK |
| X3 | Y5-Y6 | 105.0 × 105.0 米松 20% | 154350 11025 8103375 | 28.20 2.40 0.910 | 長期 | 59.48 | 261.4 | 0.04 | 0.05 | 0.082 | 3.033 | OK |
| X3 | Y6-Y7 | 105.0 × 105.0 米松 20% | 154350 11025 8103375 | 28.20 2.40 0.910 | 長期 | 59.48 | 261.4 | 0.04 | 0.05 | 0.082 | 3.033 | OK |
| X4 | Y1-Y4 | 105.0 × 300.0 米松 10% | 1417500 31500 212625000 | 28.20 2.40 2.275 | 長期 雪短期 | 5238.67 5655.27 | 6930.6 7388.4 | 0.36 0.27 | 0.42 0.30 | 2.026 1.097 | 7.583 10.111 | OK |

| 通り | 位置 | 断面 | | | 荷重 状態 | モーメント M(N・m) | せん断力 Q(N) | 曲げ /fb | せん断 /fs | たわみ量 (mm) | 許容たわみ量 a | 判定 |
|----|-------|----------------------------|-------------------------------|--------------------------------|-----------|--------------------|------------------|--------------|--------------|----------------|----------------|----|
| | | サイズ(mm) 樹種 欠損低減 | Z(mm³) A(mm²) I(mm⁴) | Fb(N/mm²) Fs(N/mm²) L(m) | | | | | | | | |
| X4 | Y4-Y5 | 105.0 × 300.0 米松 10% | 1417500 31500 212625000 | 28.20 2.40 0.910 | 長期 | 207.77 | 913.3 | 0.01 | 0.05 | 0.012 | 3.033 | OK |
| X4 | Y5-Y7 | 105.0 × 150.0 米松 20% | 315000 15750 23625000 | 28.20 2.40 1.820 | 長期 | 808.61 | 1516.2 | 0.25 | 0.18 | 2.140 | 6.067 | OK |
| X5 | Y5-Y6 | 105.0 × 105.0 米松 20% | 154350 11025 8103375 | 28.20 2.40 0.910 | 長期 | 113.04 | 496.9 | 0.07 | 0.09 | 0.246 | 3.033 | OK |
| X6 | Y1-Y3 | 105.0 × 150.0 米松 20% | 315000 15750 23625000 | 28.20 2.40 1.365 | 長期 | 701.22 | 2054.9 | 0.22 | 0.25 | 0.742 | 4.550 | OK |
| X6 | Y3-Y4 | 105.0 × 150.0 米松 20% | 315000 15750 23625000 | 28.20 2.40 0.910 | 長期 | 311.66 | 1369.9 | 0.10 | 0.16 | 0.148 | 3.033 | OK |
| X6 | Y4-Y5 | 105.0 × 105.0 米松 20% | 154350 11025 8103375 | 28.20 2.40 0.910 | 長期 | 311.66 | 1369.9 | 0.20 | 0.24 | 0.428 | 3.033 | OK |
| X6 | Y5-Y6 | 105.0 × 105.0 米松 20% | 154350 11025 8103375 | 28.20 2.40 0.910 | 長期 | 142.77 | 627.6 | 0.09 | 0.11 | 0.288 | 3.033 | OK |
| X6 | Y6-Y7 | 105.0 × 105.0 米松 20% | 154350 11025 8103375 | 28.20 2.40 0.910 | 長期 | 142.77 | 627.6 | 0.09 | 0.11 | 0.288 | 3.033 | OK |
| X8 | Y1-Y3 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 1.365 | 長期 雪短期 | 3784.70 4029.80 | 8611.7 9150.4 | 0.81 0.59 | 0.86 0.63 | 2.802 1.492 | 4.550 6.067 | OK |
| X8 | Y3-Y4 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.910 | 長期 | 385.78 | 1695.7 | 0.08 | 0.16 | 0.146 | 3.033 | OK |
| X8 | Y4-Y5 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.910 | 長期 | 385.78 | 1695.7 | 0.08 | 0.16 | 0.146 | 3.033 | OK |
| X8 | Y5-Y6 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.910 | 長期 | 281.90 | 1239.1 | 0.06 | 0.13 | 0.118 | 3.033 | OK |
| X8 | Y6-Y7 | 105.0 × 180.0 米松 20% | 453600 18900 40824000 | 28.20 2.40 0.910 | 長期 | 281.90 | 1239.1 | 0.06 | 0.13 | 0.118 | 3.033 | OK |

3F X5通り Y0-Y1

105.0(mm) × 180.0(mm) 跳出梁 米松



A=18900 (mm²)
 Z=567000 (mm³)
 I=51030000 (mm⁴)
 E=9.800 × 10³ (N/mm²)
 Fb=28.20 (N/mm²)
 Fs=2.40 (N/mm²)
 L=0.910 (m)

[長期]

$${}_L P = 943.0 \text{ (N)}$$

$${}_L a = 0.910 \text{ (m)}$$

$$w = 2100.0 \times 0.152 + 1218.0 = 1537.2 \text{ (N/m)}$$

$$w' = 1400.0 \times 0.152 + 1218.0 = 1430.8 \text{ (N/m)}$$

$$M = 1/2 \times w L^2 + {}_L P L a = 1494.61 \text{ (N}\cdot\text{m)}$$

$$Q = w L + {}_L P = 2341.9 \text{ (N)}$$

$$f_b = 1.1 \times F_b / 3 = 10.34 \text{ (N/mm}^2\text{)}$$

$$f_s = 1.1 \times F_s / 3 \times 0.9 = 0.79 \text{ (N/mm}^2\text{)}$$

$$/ f_b = (M/Z) / f_b = 2.64 / 10.34 = 0.25 \quad 1.0 \text{ ----- OK}$$

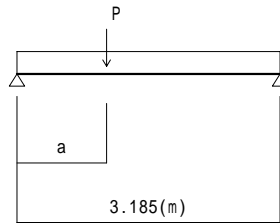
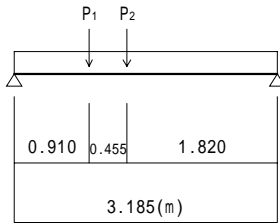
$$/ f_s = (1.5 \times Q/A) / f_s = 0.19 / 0.79 = 0.24 \quad 1.0 \text{ ----- OK}$$

$$= 1/8 \times (w' L^4) / (E \times I) + 1/3 ({}_L P L^3) / (E \times I) = 0.720$$

$$= 0.720 \times 2.0 = 1.440 \quad L/300 = 3.033 \text{ (mm) ----- OK}$$

3F X5通り Y1-Y5

105.0(mm) × 180.0(mm) 米松



A=18900 (mm²)
 Z=567000 (mm³)
 I=51030000 (mm⁴)
 E=9.800 × 10³ (N/mm²)
 Fb=28.20 (N/mm²)
 Fs=2.40 (N/mm²)
 L=3.185 (m)

[長期]

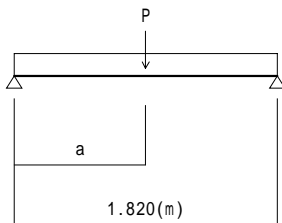
$$\begin{aligned} L P &= P_1 + P_2 = 798.0 + 524.0 = 1322.0 \text{ (N)} \\ L a &= (798.0 \times 0.910 + 524.0 \times 1.365) / L P = 1.090 \text{ (m)} \\ w &= 1890.0 \times 0.910 = 1719.9 \text{ (N/m)} \\ w' &= 1190.0 \times 0.910 = 1082.9 \text{ (N/m)} \\ M &= 1/8 \times (w L^2) + 1/2 \times (L P \times L a) + (L P^2 L a^2) / (2 \times w L^2) = 2960.88 \text{ (N} \cdot \text{m)} \\ Q &= 1/2 \times (w L) + (L P (L - L a)) / L = 3608.5 \text{ (N)} \\ f_b &= 1.1 \times F_b / 3 = 10.34 \text{ (N/mm}^2\text{)} \\ f_s &= 1.1 \times F_s / 3 \times 0.9 = 0.79 \text{ (N/mm}^2\text{)} \\ / f_b &= (M/Z) / f_b = 5.22 / 10.34 = 0.51 \quad 1.0 \text{ ----- OK} \\ / f_s &= (1.5 \times Q/A) / f_s = 0.29 / 0.79 = 0.37 \quad 1.0 \text{ ----- OK} \\ &= 5/384 \times (w' L^4) / (E \times I) + 1/48 \times L P L a (3L^2 - 4L a^2) / (E \times I) = 2.902 + 1.542 = 4.444 \\ &= 4.444 \times 2.0 = 8.888 \quad L/300 = 10.617 \text{ (mm) ----- OK} \end{aligned}$$

[短期積雪時]

$$\begin{aligned} ss P &= P_1 + P_2 = 1285.0 + 1007.0 = 2292.0 \text{ (N)} \\ ssa &= (1285.0 \times 0.910 + 1007.0 \times 1.365) / ss P = 1.110 \text{ (m)} \\ w &= 1890.0 \times 0.910 = 1719.9 \text{ (N/m)} \\ w' &= 1190.0 \times 0.910 = 1082.9 \text{ (N/m)} \\ M &= 1/8 \times (w L^2) + 1/2 \times (ss P \times ssa) + (ss P^2 ssa^2) / (2 \times w L^2) = 3638.43 \text{ (N} \cdot \text{m)} \\ Q &= 1/2 \times (w L) + (ss P (L - ssa)) / L = 4232.2 \text{ (N)} \\ f_b &= 1.6 \times F_b / 3 = 15.04 \text{ (N/mm}^2\text{)} \\ f_s &= 1.6 \times F_s / 3 \times 0.9 = 1.15 \text{ (N/mm}^2\text{)} \\ / f_b &= (M/Z) / f_b = 6.42 / 15.04 = 0.43 \quad 1.0 \text{ ----- OK} \\ / f_s &= (1.5 \times Q/A) / f_s = 0.34 / 1.15 = 0.30 \quad 1.0 \text{ ----- OK} \\ &= 5/384 \times (w' L^4) / (E \times I) + 1/48 \times ss P ssa (3L^2 - 4ssa^2) / (E \times I) = 2.902 + 2.703 = 5.605 \quad L/225 = 14.156 \text{ (mm) ----- OK} \end{aligned}$$

2F Y4通り X1-X3

105.0(mm) × 270.0(mm) 米松



A=28350 (mm²)
 Z=1148175 (mm³)
 I=155003625 (mm⁴)
 * Z, Iを10%低減
 E=9.800 × 10³ (N/mm²)
 Fb=28.20 (N/mm²)
 Fs=2.40 (N/mm²)
 L=1.820 (m)

[長期]

$${}_L P = 5223.0 \text{ (N)}$$

$${}_L a = 0.910 \text{ (m)}$$

$$w = 1890.0 \times 0.607 = 1147.2 \text{ (N/m)}$$

$$w' = 1190.0 \times 0.607 = 722.3 \text{ (N/m)}$$

$$M = 1/2 \times (w {}_L a (L - {}_L a)) + ({}_L P {}_L a (L - {}_L a)) / L = 2851.46 \text{ (N} \cdot \text{m)}$$

$$Q = 1/2 \times (wL) + ({}_L P (L - {}_L a)) / L = 3655.5 \text{ (N)}$$

$$fb = 1.1 \times Fb / 3 = 10.34 \text{ (N/mm}^2\text{)}$$

$$fs = 1.1 \times Fs / 3 \times 0.9 = 0.79 \text{ (N/mm}^2\text{)}$$

$$/fb = (M/Z) / fb = 2.48 / 10.34 = 0.24 \quad 1.0 \text{ ----- OK}$$

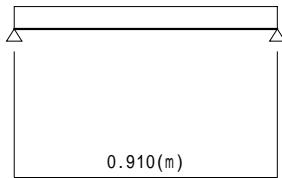
$$/fs = (1.5 \times Q/A) / fs = 0.19 / 0.79 = 0.24 \quad 1.0 \text{ ----- OK}$$

$$= 5/384 \times (w' L^4) / (E \times I) + 1/48 \times {}_L P {}_L a (3L^2 - 4{}_L a^2) / (E \times I) = 0.068 + 0.432 = 0.500$$

$$= 0.500 \times 2.0 = 1.000 \quad L/300 = 6.067 \text{ (mm) ----- OK}$$

2F Y4通り X3-X4

105.0(mm) × 270.0(mm) 米松



A=28350 (mm²)
 Z=1148175 (mm³)
 I=155003625 (mm⁴)
 * Z, Iを10%低減
 E=9.800 × 10³ (N/mm²)
 Fb=28.20 (N/mm²)
 Fs=2.40 (N/mm²)
 L=0.910 (m)

[長期]

$$w=390.0 \times 2.800+1890.0 \times 0.607=2239.2 \text{ (N/m)}$$

$$w'=390.0 \times 2.800+1190.0 \times 0.607=1814.3 \text{ (N/m)}$$

$$M=1/8 \times (wL^2)=231.79 \text{ (N}\cdot\text{m)}$$

$$Q=1/2 \times (wL)=1018.8 \text{ (N)}$$

$$fb=1.1 \times Fb/3=10.34 \text{ (N/mm}^2\text{)}$$

$$fs=1.1 \times Fs/3 \times 0.9=0.79 \text{ (N/mm}^2\text{)}$$

$$/fb=(M/Z)/fb=0.20/10.34=0.02 \quad 1.0 \text{ ----- OK}$$

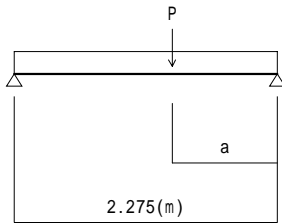
$$/fs=(1.5 \times Q/A)/fs=0.05/0.79=0.06 \quad 1.0 \text{ ----- OK}$$

$$=5/384 \times (w' L^4)/(E \times I)=0.011$$

$$=0.011 \times 2.0=0.022 \quad L/300=3.033 \text{ (mm) ----- OK}$$

2F X4通り Y1-Y4

105.0(mm) × 300.0(mm) 米松



A=31500 (mm²)
 Z=1417500 (mm³)
 I=212625000 (mm⁴)
 * Z, Iを10%低減
 E=9.800 × 10³ (N/mm²)
 Fb=28.20 (N/mm²)
 Fs=2.40 (N/mm²)
 L=2.275 (m)

[長期]

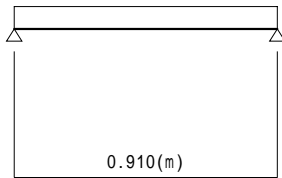
${}_L P = 6660.0$ (N)
 ${}_L a = 0.910$ (m)
 $w = 1890.0 \times 1.365 = 2579.9$ (N/m)
 $w' = 1190.0 \times 1.365 = 1624.4$ (N/m)
 $M = 1/2 \times (w_L a (L - L a)) + ({}_L P a (L - L a)) / L = 5238.67$ (N·m)
 $Q = 1/2 \times (wL) + ({}_L P (L - L a)) / L = 6930.6$ (N)
 $f_b = 1.1 \times F_b / 3 = 10.34$ (N/mm²)
 $f_s = 1.1 \times F_s / 3 \times 0.9 = 0.79$ (N/mm²)
 $/f_b = (M/Z) / f_b = 3.70 / 10.34 = 0.36$ 1.0 ----- OK
 $/f_s = (1.5 \times Q/A) / f_s = 0.33 / 0.79 = 0.42$ 1.0 ----- OK
 $= 5/384 \times (w' L^4) / (E \times I) + 1/48 \times {}_L P a (3L^2 - 4L a^2) / (E \times I) = 0.272 + 0.741 = 1.013$
 $= 1.013 \times 2.0 = 2.026$ L/300=7.583 (mm) ----- OK

[短期積雪時]

${}_{ss} P = 7423.0$ (N)
 ${}_{ss} a = 0.910$ (m)
 $w = 1890.0 \times 1.365 = 2579.9$ (N/m)
 $w' = 1190.0 \times 1.365 = 1624.4$ (N/m)
 $M = 1/2 \times (w_{ss} a (L - {}_{ss} a)) + ({}_{ss} P {}_{ss} a (L - {}_{ss} a)) / L = 5655.27$ (N·m)
 $Q = 1/2 \times (wL) + ({}_{ss} P (L - {}_{ss} a)) / L = 7388.4$ (N)
 $f_b = 1.6 \times F_b / 3 = 15.04$ (N/mm²)
 $f_s = 1.6 \times F_s / 3 \times 0.9 = 1.15$ (N/mm²)
 $/f_b = (M/Z) / f_b = 3.99 / 15.04 = 0.27$ 1.0 ----- OK
 $/f_s = (1.5 \times Q/A) / f_s = 0.35 / 1.15 = 0.30$ 1.0 ----- OK
 $= 5/384 \times (w' L^4) / (E \times I) + 1/48 \times {}_{ss} P {}_{ss} a (3L^2 - 4{}_{ss} a^2) / (E \times I) = 0.272 + 0.825 = 1.097$ L/225=10.111 (mm) ----- OK

2F X4通り Y4-Y5

105.0(mm) × 300.0(mm) 米松



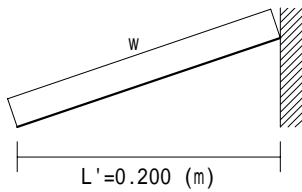
A=31500 (mm²)
 Z=1417500 (mm³)
 I=212625000 (mm⁴)
 * Z, Iを10%低減
 E=9.800 × 10³ (N/mm²)
 Fb=28.20 (N/mm²)
 Fs=2.40 (N/mm²)
 L=0.910 (m)

[長期]

w=1890.0 × 1.062=2007.2 (N/m)
 w'=1190.0 × 1.062=1263.8 (N/m)
 M=1/8 × (wL²)=207.77 (N·m)
 Q=1/2 × (wL)=913.3 (N)
 fb=1.1 × Fb/3=10.34 (N/mm²)
 fs=1.1 × Fs/3 × 0.9=0.79 (N/mm²)
 /fb=(M/Z)/fb=0.15/10.34=0.01 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.04/0.79=0.05 1.0 ----- OK
 =5/384 × (w' L⁴)/(E × I)=0.006
 =0.006 × 2.0=0.012 L/300=3.033 (mm) ----- OK

5 - 3 垂木の設計

軒先 小屋 X8Y7 ~ X1Y7
 45.0 (mm) × 90.0 (mm) @ 455.0 (mm) 杉



$A=4050$ (mm²) $Z=60750$ (mm³) $I=2733750$ (mm⁴)
 屋根勾配 2.00 寸 (11.31 度) $\cos = 0.98$
 $F_b=22.20$ (N/mm²) $F_s=1.80$ (N/mm²) $E=6.860 \times 10^3$ (N/mm²)
 $F_{sys}=1.15$ $L=L'/\cos = 0.204$ (m)
 $W_g=440$ (N/m²)
 $sW_s=588$ (N/m²)
 $q=832$ (N/m²) $C_{pe}=0.95$ $K_z=0.975$
 $W_w=q \times (C_{pe}+0.8K_z)=1439$ (N/m²)

[長期]

$w=(W_g \times \cos) \times 0.455=196.2$ (N/m)
 $M=1/2 \times (w \times L^2)=4.08$ (N·m)
 $Q=w \times L=40.0$ (N)
 $f_b=1.1 \times F_b/3 \times F_{sys}=9.36$ (N/mm²)
 $f_s=1.1 \times F_s/3=0.66$ (N/mm²)
 $/f_b=(M/Z)/f_b=0.07/9.36=0.01$ 1.0 ----- OK
 $/f_s=(1.5 \times Q/A)/f_s=0.01/0.66=0.02$ 1.0 ----- OK
 $=1/8 \times (w \times L^4)/(E \times I) \times 2.0=0.005$ $L/200=1.020$ (mm) ----- OK

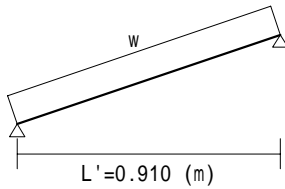
[短期積雪時]

$w=(W_g \times \cos + sW_s \times \cos^2) \times 0.455=453.1$ (N/m)
 $M=1/2 \times (w \times L^2)=9.43$ (N·m)
 $Q=w \times L=92.4$ (N)
 $f_b=1.6 \times F_b/3 \times F_{sys}=13.62$ (N/mm²)
 $f_s=1.6 \times F_s/3=0.96$ (N/mm²)
 $/f_b=(M/Z)/f_b=0.16/13.62=0.01$ 1.0 ----- OK
 $/f_s=(1.5 \times Q/A)/f_s=0.03/0.96=0.03$ 1.0 ----- OK
 $=1/8 \times (w \times L^4)/(E \times I)=0.006$ $L/150=1.360$ (mm) ----- OK

[短期風圧時]

$w=(W_g \times \cos - W_w) \times 0.455=-458.5$ (N/m)
 $M=1/2 \times (w \times L^2)=9.54$ (N·m)
 $Q=w \times L=93.5$ (N)
 $f_b=2 \times F_b/3 \times F_{sys}=17.02$ (N/mm²)
 $f_s=2 \times F_s/3=1.20$ (N/mm²)
 $/f_b=(M/Z)/f_b=0.16/17.02=0.01$ 1.0 ----- OK
 $/f_s=(1.5 \times Q/A)/f_s=0.03/1.20=0.03$ 1.0 ----- OK

一般 小屋 X8Y7~X1Y7
45.0 (mm) × 90.0 (mm) @455.0 (mm) 杉



A=4050 (mm²) Z=60750 (mm³) I=2733750 (mm⁴)
屋根勾配 2.00 寸(11.31 度) cos =0.98
Fb=22.20 (N/mm²) Fs=1.80 (N/mm²) E=6.860 × 10³ (N/mm²)
Fsys=1.15 L=L'/cos =0.929 (m)
Wg=440 (N/m²)
sWs=588 (N/m²)

[長期]

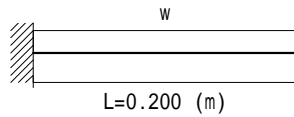
w=(Wg × cos) × 0.455=196.2 (N/m)
M=1/8 × (w × L²)=21.17 (N・m)
Q=1/2 × (w × L)=91.1 (N)
fb=1.1 × Fb/3 × Fsys=9.36 (N/mm²)
fs=1.1 × Fs/3=0.66 (N/mm²)
/fb=(M/Z)/fb=0.35/9.36=0.04 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.03/0.66=0.05 1.0 ----- OK
=5/384 × (w × L⁴)/(E × I) × 2.0=0.203 L/200=4.645 (mm) ----- OK

[短期積雪時]

w=(Wg × cos +sWs × cos²) × 0.455=453.1 (N/m)
M=1/8 × (w × L²)=48.88 (N・m)
Q=1/2 × (w × L)=210.5 (N)
fb=1.6 × Fb/3 × Fsys=13.62 (N/mm²)
fs=1.6 × Fs/3=0.96 (N/mm²)
/fb=(M/Z)/fb=0.80/13.62=0.06 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.08/0.96=0.08 1.0 ----- OK
=5/384 × (w × L⁴)/(E × I)=0.235 L/150=6.193 (mm) ----- OK

5 - 4 母屋・棟木の設計

母屋(けらば) 小屋 Y1.5通り X1-X1
 105.0 (mm) × 105.0 (mm) 米松



A=11025 (mm²) Z=192938 (mm³) I=10129219 (mm⁴)
 屋根勾配 2.00 寸(11.31 度) cos =0.98
 Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
 L=0.200 (m)
 Wg=440 (N/m²)
 sWs=588 (N/m²)
 q=832 (N/m²) Cpe=0.95 Kz=0.975
 Ww=q × (Cpe+0.8Kz)=1439 (N/m²)

[長期]

w=(Wg/cos) × 0.683=306.7 (N/m)
 M=1/2 × (w × L²)=6.13 (N・m)
 Q=w × L=61.3 (N)
 fb=1.1 × Fb/3=10.34 (N/mm²)
 fs=1.1 × Fs/3=0.88 (N/mm²)
 /fb=(M/Z)/fb=0.03/10.34=0.00 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.01/0.88=0.01 1.0 ----- OK
 =1/8 × (w × L⁴)/(E × I) × 2.0=0.002 L/200=1.000 (mm) ----- OK

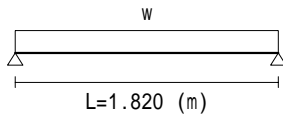
[短期積雪時]

w=(Wg/cos +sWs) × 0.683=708.3 (N/m)
 M=1/2 × (w × L²)=14.17 (N・m)
 Q=w × L=141.7 (N)
 fb=1.6 × Fb/3=15.04 (N/mm²)
 fs=1.6 × Fs/3=1.28 (N/mm²)
 /fb=(M/Z)/fb=0.07/15.04=0.00 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.02/1.28=0.02 1.0 ----- OK
 =1/8 × (w × L⁴)/(E × I)=0.002 L/150=1.333 (mm) ----- OK

[短期風圧時]

w=((Wg-Ww)/cos) × 0.683=-696.2 (N/m)
 M=1/2 × (w × L²)=13.92 (N・m)
 Q=w × L=139.2 (N)
 fb=2 × Fb/3=18.80 (N/mm²)
 fs=2 × Fs/3=1.60 (N/mm²)
 /fb=(M/Z)/fb=0.07/18.80=0.00 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.02/1.60=0.01 1.0 ----- OK

母屋 小屋 Y1.5通り X1-X3
105.0 (mm) × 105.0 (mm) 米松



A=11025 (mm²) Z=192938 (mm³) I=10129219 (mm⁴)
 屋根勾配 2.00 寸(11.31 度) cos =0.98
 Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
 L=1.820 (m)
 Wg=440 (N/m²)
 sWs=588 (N/m²)

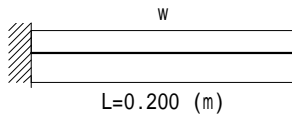
[長期]

w=(Wg/cos) × 0.683=306.7 (N/m)
 M=1/8 × (w × L²)=126.99 (N·m)
 Q=1/2 × (w × L)=279.1 (N)
 fb=1.1 × Fb/3=10.34 (N/mm²)
 fs=1.1 × Fs/3=0.88 (N/mm²)
 /fb=(M/Z)/fb=0.66/10.34=0.06 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.04/0.88=0.05 1.0 ----- OK
 =5/384 × (w × L⁴)/(E × I) × 2.0=0.883 L/200=9.100 (mm) ----- OK

[短期積雪時]

w=(Wg/cos +sWs) × 0.683=708.3 (N/m)
 M=1/8 × (w × L²)=293.27 (N·m)
 Q=1/2 × (w × L)=644.6 (N)
 fb=1.6 × Fb/3=15.04 (N/mm²)
 fs=1.6 × Fs/3=1.28 (N/mm²)
 /fb=(M/Z)/fb=1.52/15.04=0.10 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.09/1.28=0.07 1.0 ----- OK
 =5/384 × (w × L⁴)/(E × I)=1.020 L/150=12.133 (mm) ----- OK

母屋(けらば) 小屋 Y3通り X1-X1
 105.0 (mm) × 105.0 (mm) 米松



A=11025 (mm²) Z=192938 (mm³) I=10129219 (mm⁴)
 屋根勾配 2.00 寸(11.31 度) cos =0.98
 Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
 L=0.200 (m)
 Wg=440 (N/m²)
 sWs=588 (N/m²)
 q=832 (N/m²) Cpe=0.95 Kz=0.975
 Ww=q × (Cpe+0.8Kz)=1439 (N/m²)

[長期]

w=(Wg/cos) × 0.910=408.6 (N/m)
 M=1/2 × (w × L²)=8.17 (N·m)
 Q=w × L=81.7 (N)
 fb=1.1 × Fb/3=10.34 (N/mm²)
 fs=1.1 × Fs/3=0.88 (N/mm²)
 /fb=(M/Z)/fb=0.04/10.34=0.00 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.01/0.88=0.01 1.0 ----- OK
 =1/8 × (w × L⁴)/(E × I) × 2.0=0.002 L/200=1.000 (mm) ----- OK

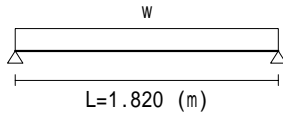
[短期積雪時]

w=(Wg/cos +sWs) × 0.910=943.7 (N/m)
 M=1/2 × (w × L²)=18.87 (N·m)
 Q=w × L=188.7 (N)
 fb=1.6 × Fb/3=15.04 (N/mm²)
 fs=1.6 × Fs/3=1.28 (N/mm²)
 /fb=(M/Z)/fb=0.10/15.04=0.01 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.03/1.28=0.02 1.0 ----- OK
 =1/8 × (w × L⁴)/(E × I)=0.002 L/150=1.333 (mm) ----- OK

[短期風圧時]

w=((Wg-Ww)/cos) × 0.910=-927.6 (N/m)
 M=1/2 × (w × L²)=18.55 (N·m)
 Q=w × L=185.5 (N)
 fb=2 × Fb/3=18.80 (N/mm²)
 fs=2 × Fs/3=1.60 (N/mm²)
 /fb=(M/Z)/fb=0.10/18.80=0.01 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.03/1.60=0.02 1.0 ----- OK

母屋 小屋 Y3通り X1-X3
 105.0 (mm) × 105.0 (mm) 米松



A=11025 (mm²) Z=192938 (mm³) I=10129219 (mm⁴)
 屋根勾配 2.00 寸(11.31 度) cos =0.98
 Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
 L=1.820 (m)
 Wg=440 (N/m²)
 sWs=588 (N/m²)

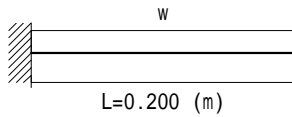
[長期]

w=(Wg/cos) × 0.910=408.6 (N/m)
 M=1/8 × (w × L²)=169.18 (N・m)
 Q=1/2 × (w × L)=371.8 (N)
 fb=1.1 × Fb/3=10.34 (N/mm²)
 fs=1.1 × Fs/3=0.88 (N/mm²)
 /fb=(M/Z)/fb=0.88/10.34=0.09 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.05/0.88=0.06 1.0 ----- OK
 =5/384 × (w × L⁴)/(E × I) × 2.0=1.177 L/200=9.100 (mm) ----- OK

[短期積雪時]

w=(Wg/cos +sWs) × 0.910=943.7 (N/m)
 M=1/8 × (w × L²)=390.74 (N・m)
 Q=1/2 × (w × L)=858.8 (N)
 fb=1.6 × Fb/3=15.04 (N/mm²)
 fs=1.6 × Fs/3=1.28 (N/mm²)
 /fb=(M/Z)/fb=2.03/15.04=0.13 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.12/1.28=0.09 1.0 ----- OK
 =5/384 × (w × L⁴)/(E × I)=1.359 L/150=12.133 (mm) ----- OK

母屋(けらば) 小屋 Y4通り X1-X1
 105.0 (mm) × 105.0 (mm) 米松



$A=11025$ (mm²) $Z=192938$ (mm³) $I=10129219$ (mm⁴)
 屋根勾配 2.00 寸(11.31 度) $\cos =0.98$
 $F_b=28.20$ (N/mm²) $F_s=2.40$ (N/mm²) $E=9.800 \times 10^3$ (N/mm²)
 $L=0.200$ (m)
 $W_g=440$ (N/m²)
 $sW_s=588$ (N/m²)
 $q=832$ (N/m²) $C_{pe}=0.95$ $K_z=0.975$
 $W_w=q \times (C_{pe}+0.8K_z)=1439$ (N/m²)

[長期]

$w=(W_g/\cos) \times 0.910=408.6$ (N/m)
 $M=1/2 \times (w \times L^2)=8.17$ (N·m)
 $Q=w \times L=81.7$ (N)
 $f_b=1.1 \times F_b/3=10.34$ (N/mm²)
 $f_s=1.1 \times F_s/3=0.88$ (N/mm²)
 $/f_b=(M/Z)/f_b=0.04/10.34=0.00$ 1.0 ----- OK
 $/f_s=(1.5 \times Q/A)/f_s=0.01/0.88=0.01$ 1.0 ----- OK
 $=1/8 \times (w \times L^4)/(E \times I) \times 2.0=0.002$ $L/200=1.000$ (mm) ----- OK

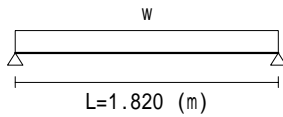
[短期積雪時]

$w=(W_g/\cos + sW_s) \times 0.910=943.7$ (N/m)
 $M=1/2 \times (w \times L^2)=18.87$ (N·m)
 $Q=w \times L=188.7$ (N)
 $f_b=1.6 \times F_b/3=15.04$ (N/mm²)
 $f_s=1.6 \times F_s/3=1.28$ (N/mm²)
 $/f_b=(M/Z)/f_b=0.10/15.04=0.01$ 1.0 ----- OK
 $/f_s=(1.5 \times Q/A)/f_s=0.03/1.28=0.02$ 1.0 ----- OK
 $=1/8 \times (w \times L^4)/(E \times I)=0.002$ $L/150=1.333$ (mm) ----- OK

[短期風圧時]

$w=((W_g-W_w)/\cos) \times 0.910=-927.6$ (N/m)
 $M=1/2 \times (w \times L^2)=18.55$ (N·m)
 $Q=w \times L=185.5$ (N)
 $f_b=2 \times F_b/3=18.80$ (N/mm²)
 $f_s=2 \times F_s/3=1.60$ (N/mm²)
 $/f_b=(M/Z)/f_b=0.10/18.80=0.01$ 1.0 ----- OK
 $/f_s=(1.5 \times Q/A)/f_s=0.03/1.60=0.02$ 1.0 ----- OK

母屋 小屋 Y4通り X1-X3
 105.0 (mm) × 105.0 (mm) 米松



A=11025 (mm²) Z=192938 (mm³) I=10129219 (mm⁴)
 屋根勾配 2.00 寸(11.31 度) cos =0.98
 Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
 L=1.820 (m)
 Wg=440 (N/m²)
 sWs=588 (N/m²)

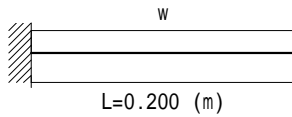
[長期]

w=(Wg/cos) × 0.910=408.6 (N/m)
 M=1/8 × (w × L²)=169.18 (N・m)
 Q=1/2 × (w × L)=371.8 (N)
 fb=1.1 × Fb/3=10.34 (N/mm²)
 fs=1.1 × Fs/3=0.88 (N/mm²)
 /fb=(M/Z)/fb=0.88/10.34=0.09 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.05/0.88=0.06 1.0 ----- OK
 =5/384 × (w × L⁴)/(E × I) × 2.0=1.177 L/200=9.100 (mm) ----- OK

[短期積雪時]

w=(Wg/cos +sWs) × 0.910=943.7 (N/m)
 M=1/8 × (w × L²)=390.74 (N・m)
 Q=1/2 × (w × L)=858.8 (N)
 fb=1.6 × Fb/3=15.04 (N/mm²)
 fs=1.6 × Fs/3=1.28 (N/mm²)
 /fb=(M/Z)/fb=2.03/15.04=0.13 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.12/1.28=0.09 1.0 ----- OK
 =5/384 × (w × L⁴)/(E × I)=1.359 L/150=12.133 (mm) ----- OK

母屋(けらば) 小屋 Y5通り X1-X1
 105.0 (mm) × 105.0 (mm) 米松



A=11025 (mm²) Z=192938 (mm³) I=10129219 (mm⁴)
 屋根勾配 2.00 寸(11.31 度) cos =0.98
 Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
 L=0.200 (m)
 Wg=440 (N/m²)
 sWs=588 (N/m²)
 q=832 (N/m²) Cpe=0.95 Kz=0.975
 Ww=q × (Cpe+0.8Kz)=1439 (N/m²)

[長期]

w=(Wg/cos) × 0.910=408.6 (N/m)
 M=1/2 × (w × L²)=8.17 (N·m)
 Q=w × L=81.7 (N)
 fb=1.1 × Fb/3=10.34 (N/mm²)
 fs=1.1 × Fs/3=0.88 (N/mm²)
 /fb=(M/Z)/fb=0.04/10.34=0.00 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.01/0.88=0.01 1.0 ----- OK
 =1/8 × (w × L⁴)/(E × I) × 2.0=0.002 L/200=1.000 (mm) ----- OK

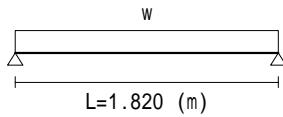
[短期積雪時]

w=(Wg/cos +sWs) × 0.910=943.7 (N/m)
 M=1/2 × (w × L²)=18.87 (N·m)
 Q=w × L=188.7 (N)
 fb=1.6 × Fb/3=15.04 (N/mm²)
 fs=1.6 × Fs/3=1.28 (N/mm²)
 /fb=(M/Z)/fb=0.10/15.04=0.01 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.03/1.28=0.02 1.0 ----- OK
 =1/8 × (w × L⁴)/(E × I)=0.002 L/150=1.333 (mm) ----- OK

[短期風圧時]

w=((Wg-Ww)/cos) × 0.910=-927.6 (N/m)
 M=1/2 × (w × L²)=18.55 (N·m)
 Q=w × L=185.5 (N)
 fb=2 × Fb/3=18.80 (N/mm²)
 fs=2 × Fs/3=1.60 (N/mm²)
 /fb=(M/Z)/fb=0.10/18.80=0.01 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.03/1.60=0.02 1.0 ----- OK

母屋 小屋 Y5通り X1-X3
 105.0 (mm) × 105.0 (mm) 米松



A=11025 (mm²) Z=192938 (mm³) I=10129219 (mm⁴)
 屋根勾配 2.00 寸(11.31 度) cos =0.98
 Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
 L=1.820 (m)
 Wg=440 (N/m²)
 sWs=588 (N/m²)

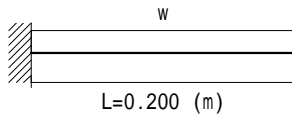
[長期]

w=(Wg/cos) × 0.910=408.6 (N/m)
 M=1/8 × (w × L²)=169.18 (N·m)
 Q=1/2 × (w × L)=371.8 (N)
 fb=1.1 × Fb/3=10.34 (N/mm²)
 fs=1.1 × Fs/3=0.88 (N/mm²)
 /fb=(M/Z)/fb=0.88/10.34=0.09 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.05/0.88=0.06 1.0 ----- OK
 =5/384 × (w × L⁴)/(E × I) × 2.0=1.177 L/200=9.100 (mm) ----- OK

[短期積雪時]

w=(Wg/cos +sWs) × 0.910=943.7 (N/m)
 M=1/8 × (w × L²)=390.74 (N·m)
 Q=1/2 × (w × L)=858.8 (N)
 fb=1.6 × Fb/3=15.04 (N/mm²)
 fs=1.6 × Fs/3=1.28 (N/mm²)
 /fb=(M/Z)/fb=2.03/15.04=0.13 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.12/1.28=0.09 1.0 ----- OK
 =5/384 × (w × L⁴)/(E × I)=1.359 L/150=12.133 (mm) ----- OK

母屋(けらば) 小屋 Y6通り X1-X1
 105.0 (mm) × 105.0 (mm) 米松



A=11025 (mm²) Z=192938 (mm³) I=10129219 (mm⁴)
 屋根勾配 2.00 寸(11.31 度) cos =0.98
 Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
 L=0.200 (m)
 Wg=440 (N/m²)
 sWs=588 (N/m²)
 q=832 (N/m²) Cpe=0.95 Kz=0.975
 Ww=q × (Cpe+0.8Kz)=1439 (N/m²)

[長期]

w=(Wg/cos) × 0.910=408.6 (N/m)
 M=1/2 × (w × L²)=8.17 (N·m)
 Q=w × L=81.7 (N)
 fb=1.1 × Fb/3=10.34 (N/mm²)
 fs=1.1 × Fs/3=0.88 (N/mm²)
 /fb=(M/Z)/fb=0.04/10.34=0.00 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.01/0.88=0.01 1.0 ----- OK
 =1/8 × (w × L⁴)/(E × I) × 2.0=0.002 L/200=1.000 (mm) ----- OK

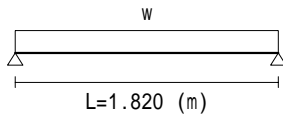
[短期積雪時]

w=(Wg/cos +sWs) × 0.910=943.7 (N/m)
 M=1/2 × (w × L²)=18.87 (N·m)
 Q=w × L=188.7 (N)
 fb=1.6 × Fb/3=15.04 (N/mm²)
 fs=1.6 × Fs/3=1.28 (N/mm²)
 /fb=(M/Z)/fb=0.10/15.04=0.01 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.03/1.28=0.02 1.0 ----- OK
 =1/8 × (w × L⁴)/(E × I)=0.002 L/150=1.333 (mm) ----- OK

[短期風圧時]

w=((Wg-Ww)/cos) × 0.910=-927.6 (N/m)
 M=1/2 × (w × L²)=18.55 (N·m)
 Q=w × L=185.5 (N)
 fb=2 × Fb/3=18.80 (N/mm²)
 fs=2 × Fs/3=1.60 (N/mm²)
 /fb=(M/Z)/fb=0.10/18.80=0.01 1.0 ----- OK
 /fs=(1.5 × Q/A)/fs=0.03/1.60=0.02 1.0 ----- OK

母屋 小屋 Y6通り X1-X3
105.0 (mm) × 105.0 (mm) 米松



A=11025 (mm²) Z=192938 (mm³) I=10129219 (mm⁴)
屋根勾配 2.00 寸(11.31 度) cos =0.98
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
L=1.820 (m)
Wg=440 (N/m²)
sWs=588 (N/m²)

[長期]

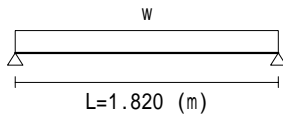
w=(Wg/cos) × 0.910=408.6 (N/m)
M=1/8 × (w × L²)=169.18 (N·m)
Q=1/2 × (w × L)=371.8 (N)
fb=1.1 × Fb/3=10.34 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=0.88/10.34=0.09 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.05/0.88=0.06 1.0 ----- OK
=5/384 × (w × L⁴)/(E × I) × 2.0=1.177 L/200=9.100 (mm) ----- OK

[短期積雪時]

w=(Wg/cos +sWs) × 0.910=943.7 (N/m)
M=1/8 × (w × L²)=390.74 (N·m)
Q=1/2 × (w × L)=858.8 (N)
fb=1.6 × Fb/3=15.04 (N/mm²)
fs=1.6 × Fs/3=1.28 (N/mm²)
/fb=(M/Z)/fb=2.03/15.04=0.13 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.12/1.28=0.09 1.0 ----- OK
=5/384 × (w × L⁴)/(E × I)=1.359 L/150=12.133 (mm) ----- OK

5 - 5 根太の設計

3F X1Y1 ~ X3Y4
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

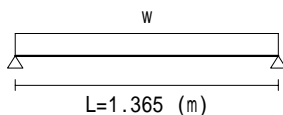


$A=4725$ (mm²) $Z=82688$ (mm³) $I=4341094$ (mm⁴)
 $F_b=28.20$ (N/mm²) $F_s=2.40$ (N/mm²) $E=9.800 \times 10^3$ (N/mm²)
 $F_{sys}=1.25$ $L=1.820$ (m)
 $W_g=490$ (N/m²) $W_p=1800$ (N/m²) $W_{p'}=600$ (N/m²)

[長期]

$w=(W_g+W_p) \times 0.303=693.9$ (N/m)
 $w'=(W_g+W_{p'}) \times 0.303=330.3$ (N/m)
 $M=1/8 \times (w \times L^2)=287.31$ (N·m)
 $Q=1/2 \times (w \times L)=631.4$ (N)
 $f_b=1.1 \times F_b/3 \times F_{sys}=12.93$ (N/mm²)
 $f_s=1.1 \times F_s/3=0.88$ (N/mm²)
 $/f_b=(M/Z)/f_b=3.47/12.93=0.27$ 1.0 ----- OK
 $/f_s=(1.5 \times Q/A)/f_s=0.20/0.88=0.23$ 1.0 ----- OK
 $=5/384 \times (w' \times L^4)/(E \times I) \times 2.0=2.219$ $L/300=6.067$ (mm) ----- OK

3F X1Y5.5 ~ X4Y7
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

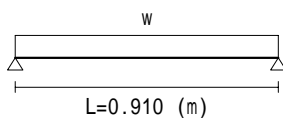


$A=4725$ (mm²) $Z=82688$ (mm³) $I=4341094$ (mm⁴)
 $F_b=28.20$ (N/mm²) $F_s=2.40$ (N/mm²) $E=9.800 \times 10^3$ (N/mm²)
 $F_{sys}=1.25$ $L=1.365$ (m)
 $W_g=490$ (N/m²) $W_p=1800$ (N/m²) $W_{p'}=600$ (N/m²)

[長期]

$w=(W_g+W_p) \times 0.303=693.9$ (N/m)
 $w'=(W_g+W_{p'}) \times 0.303=330.3$ (N/m)
 $M=1/8 \times (w \times L^2)=161.61$ (N·m)
 $Q=1/2 \times (w \times L)=473.6$ (N)
 $f_b=1.1 \times F_b/3 \times F_{sys}=12.93$ (N/mm²)
 $f_s=1.1 \times F_s/3=0.88$ (N/mm²)
 $/f_b=(M/Z)/f_b=1.95/12.93=0.15$ 1.0 ----- OK
 $/f_s=(1.5 \times Q/A)/f_s=0.15/0.88=0.17$ 1.0 ----- OK
 $=5/384 \times (w' \times L^4)/(E \times I) \times 2.0=0.702$ $L/300=4.550$ (mm) ----- OK

3F X3Y1 ~ X4Y4
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

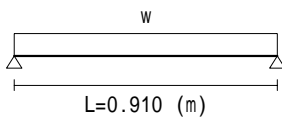


$A=4725$ (mm²) $Z=82688$ (mm³) $I=4341094$ (mm⁴)
 $F_b=28.20$ (N/mm²) $F_s=2.40$ (N/mm²) $E=9.800 \times 10^3$ (N/mm²)
 $F_{sys}=1.25$ $L=0.910$ (m)
 $W_g=490$ (N/m²) $W_p=1800$ (N/m²) $W_{p'}=600$ (N/m²)

[長期]

$w=(W_g+W_p) \times 0.303=693.9$ (N/m)
 $w'=(W_g+W_{p'}) \times 0.303=330.3$ (N/m)
 $M=1/8 \times (w \times L^2)=71.83$ (N·m)
 $Q=1/2 \times (w \times L)=315.7$ (N)
 $f_b=1.1 \times F_b/3 \times F_{sys}=12.93$ (N/mm²)
 $f_s=1.1 \times F_s/3=0.88$ (N/mm²)
 $/f_b=(M/Z)/f_b=0.87/12.93=0.07$ 1.0 ----- OK
 $/f_s=(1.5 \times Q/A)/f_s=0.10/0.88=0.11$ 1.0 ----- OK
 $=5/384 \times (w' \times L^4)/(E \times I) \times 2.0=0.139$ $L/300=3.033$ (mm) ----- OK

3F X4Y4 ~ X5Y5
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

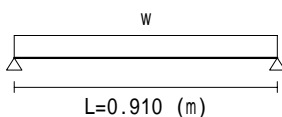


A=4725 (mm²) Z=82688 (mm³) I=4341094 (mm⁴)
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
Fsys=1.25 L=0.910 (m)
Wg=490 (N/m²) Wp=1800 (N/m²) Wp'=600 (N/m²)

[長期]

w=(Wg+Wp) × 0.303=693.9 (N/m)
w'=(Wg+Wp') × 0.303=330.3 (N/m)
M=1/8 × (w × L²)=71.83 (N·m)
Q=1/2 × (w × L)=315.7 (N)
fb=1.1 × Fb/3 × Fsys=12.93 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=0.87/12.93=0.07 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.10/0.88=0.11 1.0 ----- OK
=5/384 × (w' × L⁴)/(E × I) × 2.0=0.139 L/300=3.033 (mm) ----- OK

3F X5Y0 ~ X8Y1
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

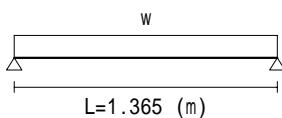


A=4725 (mm²) Z=82688 (mm³) I=4341094 (mm⁴)
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
Fsys=1.25 L=0.910 (m)
Wg=800 (N/m²) Wp=1800 (N/m²) Wp'=600 (N/m²)

[長期]

w=(Wg+Wp) × 0.303=787.8 (N/m)
w'=(Wg+Wp') × 0.303=424.2 (N/m)
M=1/8 × (w × L²)=81.55 (N·m)
Q=1/2 × (w × L)=358.4 (N)
fb=1.1 × Fb/3 × Fsys=12.93 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=0.99/12.93=0.08 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.11/0.88=0.13 1.0 ----- OK
=5/384 × (w' × L⁴)/(E × I) × 2.0=0.178 L/300=3.033 (mm) ----- OK

3F X6Y1 ~ X8Y5
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

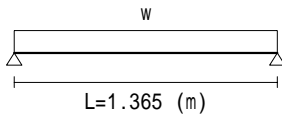


A=4725 (mm²) Z=82688 (mm³) I=4341094 (mm⁴)
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
Fsys=1.25 L=1.365 (m)
Wg=490 (N/m²) Wp=1800 (N/m²) Wp'=600 (N/m²)

[長期]

w=(Wg+Wp) × 0.303=693.9 (N/m)
w'=(Wg+Wp') × 0.303=330.3 (N/m)
M=1/8 × (w × L²)=161.61 (N·m)
Q=1/2 × (w × L)=473.6 (N)
fb=1.1 × Fb/3 × Fsys=12.93 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=1.95/12.93=0.15 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.15/0.88=0.17 1.0 ----- OK
=5/384 × (w' × L⁴)/(E × I) × 2.0=0.702 L/300=4.550 (mm) ----- OK

3F X6Y5 ~ X8Y6
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

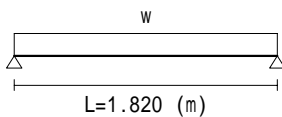


A=4725 (mm²) Z=82688 (mm³) I=4341094 (mm⁴)
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
Fsys=1.25 L=1.365 (m)
Wg=490 (N/m²) Wp=1800 (N/m²) Wp'=600 (N/m²)

[長期]

w=(Wg+Wp) × 0.303=693.9 (N/m)
w'=(Wg+Wp') × 0.303=330.3 (N/m)
M=1/8 × (w × L²)=161.61 (N·m)
Q=1/2 × (w × L)=473.6 (N)
fb=1.1 × Fb/3 × Fsys=12.93 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=1.95/12.93=0.15 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.15/0.88=0.17 1.0 ----- OK
=5/384 × (w' × L⁴)/(E × I) × 2.0=0.702 L/300=4.550 (mm) ----- OK

2F X1Y1 ~ X3Y4
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

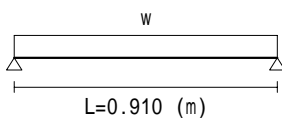


A=4725 (mm²) Z=82688 (mm³) I=4341094 (mm⁴)
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
Fsys=1.25 L=1.820 (m)
Wg=490 (N/m²) Wp=1800 (N/m²) Wp'=600 (N/m²)

[長期]

w=(Wg+Wp) × 0.303=693.9 (N/m)
w'=(Wg+Wp') × 0.303=330.3 (N/m)
M=1/8 × (w × L²)=287.31 (N·m)
Q=1/2 × (w × L)=631.4 (N)
fb=1.1 × Fb/3 × Fsys=12.93 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=3.47/12.93=0.27 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.20/0.88=0.23 1.0 ----- OK
=5/384 × (w' × L⁴)/(E × I) × 2.0=2.219 L/300=6.067 (mm) ----- OK

2F X1Y4 ~ X3Y5
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

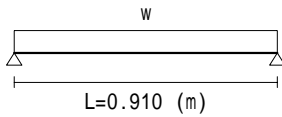


A=4725 (mm²) Z=82688 (mm³) I=4341094 (mm⁴)
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
Fsys=1.25 L=0.910 (m)
Wg=490 (N/m²) Wp=1800 (N/m²) Wp'=600 (N/m²)

[長期]

w=(Wg+Wp) × 0.303=693.9 (N/m)
w'=(Wg+Wp') × 0.303=330.3 (N/m)
M=1/8 × (w × L²)=71.83 (N·m)
Q=1/2 × (w × L)=315.7 (N)
fb=1.1 × Fb/3 × Fsys=12.93 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=0.87/12.93=0.07 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.10/0.88=0.11 1.0 ----- OK
=5/384 × (w' × L⁴)/(E × I) × 2.0=0.139 L/300=3.033 (mm) ----- OK

2F X3Y1 ~ X4Y4
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

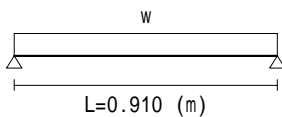


A=4725 (mm²) Z=82688 (mm³) I=4341094 (mm⁴)
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
Fsys=1.25 L=0.910 (m)
Wg=490 (N/m²) Wp=1800 (N/m²) Wp'=600 (N/m²)

[長期]

w=(Wg+Wp) × 0.303=693.9 (N/m)
w'=(Wg+Wp') × 0.303=330.3 (N/m)
M=1/8 × (w × L²)=71.83 (N·m)
Q=1/2 × (w × L)=315.7 (N)
fb=1.1 × Fb/3 × Fsys=12.93 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=0.87/12.93=0.07 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.10/0.88=0.11 1.0 ----- OK
=5/384 × (w' × L⁴)/(E × I) × 2.0=0.139 L/300=3.033 (mm) ----- OK

2F X3Y4 ~ X4Y5
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

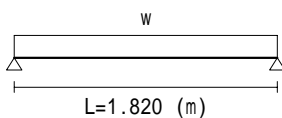


A=4725 (mm²) Z=82688 (mm³) I=4341094 (mm⁴)
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
Fsys=1.25 L=0.910 (m)
Wg=490 (N/m²) Wp=1800 (N/m²) Wp'=600 (N/m²)

[長期]

w=(Wg+Wp) × 0.303=693.9 (N/m)
w'=(Wg+Wp') × 0.303=330.3 (N/m)
M=1/8 × (w × L²)=71.83 (N·m)
Q=1/2 × (w × L)=315.7 (N)
fb=1.1 × Fb/3 × Fsys=12.93 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=0.87/12.93=0.07 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.10/0.88=0.11 1.0 ----- OK
=5/384 × (w' × L⁴)/(E × I) × 2.0=0.139 L/300=3.033 (mm) ----- OK

2F X4Y1 ~ X6Y4
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

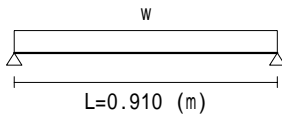


A=4725 (mm²) Z=82688 (mm³) I=4341094 (mm⁴)
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
Fsys=1.25 L=1.820 (m)
Wg=490 (N/m²) Wp=1800 (N/m²) Wp'=600 (N/m²)

[長期]

w=(Wg+Wp) × 0.303=693.9 (N/m)
w'=(Wg+Wp') × 0.303=330.3 (N/m)
M=1/8 × (w × L²)=287.31 (N·m)
Q=1/2 × (w × L)=631.4 (N)
fb=1.1 × Fb/3 × Fsys=12.93 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=3.47/12.93=0.27 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.20/0.88=0.23 1.0 ----- OK
=5/384 × (w' × L⁴)/(E × I) × 2.0=2.219 L/300=6.067 (mm) ----- OK

2F X6Y5 ~ X8Y6
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

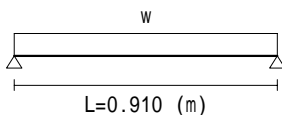


A=4725 (mm²) Z=82688 (mm³) I=4341094 (mm⁴)
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
Fsys=1.25 L=0.910 (m)
Wg=490 (N/m²) Wp=1800 (N/m²) Wp'=600 (N/m²)

[長期]

w=(Wg+Wp) × 0.303=693.9 (N/m)
w'=(Wg+Wp') × 0.303=330.3 (N/m)
M=1/8 × (w × L²)=71.83 (N·m)
Q=1/2 × (w × L)=315.7 (N)
fb=1.1 × Fb/3 × Fsys=12.93 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=0.87/12.93=0.07 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.10/0.88=0.11 1.0 ----- OK
=5/384 × (w' × L⁴)/(E × I) × 2.0=0.139 L/300=3.033 (mm) ----- OK

2F X6Y6 ~ X8Y7
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

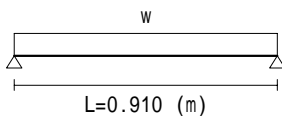


A=4725 (mm²) Z=82688 (mm³) I=4341094 (mm⁴)
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
Fsys=1.25 L=0.910 (m)
Wg=490 (N/m²) Wp=1800 (N/m²) Wp'=600 (N/m²)

[長期]

w=(Wg+Wp) × 0.303=693.9 (N/m)
w'=(Wg+Wp') × 0.303=330.3 (N/m)
M=1/8 × (w × L²)=71.83 (N·m)
Q=1/2 × (w × L)=315.7 (N)
fb=1.1 × Fb/3 × Fsys=12.93 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=0.87/12.93=0.07 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.10/0.88=0.11 1.0 ----- OK
=5/384 × (w' × L⁴)/(E × I) × 2.0=0.139 L/300=3.033 (mm) ----- OK

1F X1Y1 ~ X2Y4
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

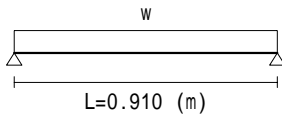


A=4725 (mm²) Z=82688 (mm³) I=4341094 (mm⁴)
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
Fsys=1.25 L=0.910 (m)
Wg=490 (N/m²) Wp=1800 (N/m²) Wp'=600 (N/m²)

[長期]

w=(Wg+Wp) × 0.303=693.9 (N/m)
w'=(Wg+Wp') × 0.303=330.3 (N/m)
M=1/8 × (w × L²)=71.83 (N·m)
Q=1/2 × (w × L)=315.7 (N)
fb=1.1 × Fb/3 × Fsys=12.93 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=0.87/12.93=0.07 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.10/0.88=0.11 1.0 ----- OK
=5/384 × (w' × L⁴)/(E × I) × 2.0=0.139 L/300=3.033 (mm) ----- OK

1F X1Y4 ~ X3Y5
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

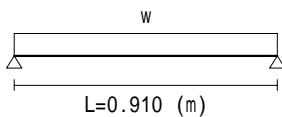


A=4725 (mm²) Z=82688 (mm³) I=4341094 (mm⁴)
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
Fsys=1.25 L=0.910 (m)
Wg=490 (N/m²) Wp=1800 (N/m²) Wp'=600 (N/m²)

[長期]

w=(Wg+Wp) × 0.303=693.9 (N/m)
w'=(Wg+Wp') × 0.303=330.3 (N/m)
M=1/8 × (w × L²)=71.83 (N·m)
Q=1/2 × (w × L)=315.7 (N)
fb=1.1 × Fb/3 × Fsys=12.93 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=0.87/12.93=0.07 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.10/0.88=0.11 1.0 ----- OK
=5/384 × (w' × L⁴)/(E × I) × 2.0=0.139 L/300=3.033 (mm) ----- OK

1F X2Y1 ~ X3Y4
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

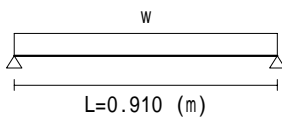


A=4725 (mm²) Z=82688 (mm³) I=4341094 (mm⁴)
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
Fsys=1.25 L=0.910 (m)
Wg=490 (N/m²) Wp=1800 (N/m²) Wp'=600 (N/m²)

[長期]

w=(Wg+Wp) × 0.303=693.9 (N/m)
w'=(Wg+Wp') × 0.303=330.3 (N/m)
M=1/8 × (w × L²)=71.83 (N·m)
Q=1/2 × (w × L)=315.7 (N)
fb=1.1 × Fb/3 × Fsys=12.93 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=0.87/12.93=0.07 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.10/0.88=0.11 1.0 ----- OK
=5/384 × (w' × L⁴)/(E × I) × 2.0=0.139 L/300=3.033 (mm) ----- OK

1F X3Y4 ~ X4Y5
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

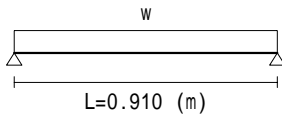


A=4725 (mm²) Z=82688 (mm³) I=4341094 (mm⁴)
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
Fsys=1.25 L=0.910 (m)
Wg=490 (N/m²) Wp=1800 (N/m²) Wp'=600 (N/m²)

[長期]

w=(Wg+Wp) × 0.303=693.9 (N/m)
w'=(Wg+Wp') × 0.303=330.3 (N/m)
M=1/8 × (w × L²)=71.83 (N·m)
Q=1/2 × (w × L)=315.7 (N)
fb=1.1 × Fb/3 × Fsys=12.93 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=0.87/12.93=0.07 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.10/0.88=0.11 1.0 ----- OK
=5/384 × (w' × L⁴)/(E × I) × 2.0=0.139 L/300=3.033 (mm) ----- OK

1F X4Y1 ~ X5Y4
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

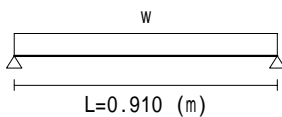


A=4725 (mm²) Z=82688 (mm³) I=4341094 (mm⁴)
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
Fsys=1.25 L=0.910 (m)
Wg=490 (N/m²) Wp=1800 (N/m²) Wp'=600 (N/m²)

[長期]

w=(Wg+Wp) × 0.303=693.9 (N/m)
w'=(Wg+Wp') × 0.303=330.3 (N/m)
M=1/8 × (w × L²)=71.83 (N·m)
Q=1/2 × (w × L)=315.7 (N)
fb=1.1 × Fb/3 × Fsys=12.93 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=0.87/12.93=0.07 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.10/0.88=0.11 1.0 ----- OK
=5/384 × (w' × L⁴)/(E × I) × 2.0=0.139 L/300=3.033 (mm) ----- OK

1F X4Y4 ~ X6Y5
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

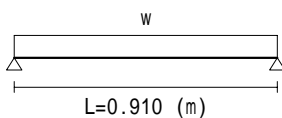


A=4725 (mm²) Z=82688 (mm³) I=4341094 (mm⁴)
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
Fsys=1.25 L=0.910 (m)
Wg=490 (N/m²) Wp=1800 (N/m²) Wp'=600 (N/m²)

[長期]

w=(Wg+Wp) × 0.303=693.9 (N/m)
w'=(Wg+Wp') × 0.303=330.3 (N/m)
M=1/8 × (w × L²)=71.83 (N·m)
Q=1/2 × (w × L)=315.7 (N)
fb=1.1 × Fb/3 × Fsys=12.93 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=0.87/12.93=0.07 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.10/0.88=0.11 1.0 ----- OK
=5/384 × (w' × L⁴)/(E × I) × 2.0=0.139 L/300=3.033 (mm) ----- OK

1F X5Y1 ~ X6Y4
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

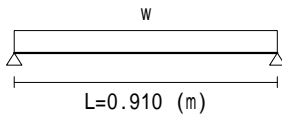


A=4725 (mm²) Z=82688 (mm³) I=4341094 (mm⁴)
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
Fsys=1.25 L=0.910 (m)
Wg=490 (N/m²) Wp=1800 (N/m²) Wp'=600 (N/m²)

[長期]

w=(Wg+Wp) × 0.303=693.9 (N/m)
w'=(Wg+Wp') × 0.303=330.3 (N/m)
M=1/8 × (w × L²)=71.83 (N·m)
Q=1/2 × (w × L)=315.7 (N)
fb=1.1 × Fb/3 × Fsys=12.93 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=0.87/12.93=0.07 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.10/0.88=0.11 1.0 ----- OK
=5/384 × (w' × L⁴)/(E × I) × 2.0=0.139 L/300=3.033 (mm) ----- OK

1F X6Y3 ~ X8Y4
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松

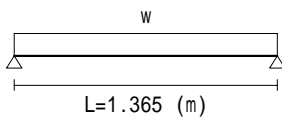


A=4725 (mm²) Z=82688 (mm³) I=4341094 (mm⁴)
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
Fsys=1.25 L=0.910 (m)
Wg=490 (N/m²) Wp=1800 (N/m²) Wp'=600 (N/m²)

[長期]

w=(Wg+Wp) × 0.303=693.9 (N/m)
w'=(Wg+Wp') × 0.303=330.3 (N/m)
M=1/8 × (w × L²)=71.83 (N·m)
Q=1/2 × (w × L)=315.7 (N)
fb=1.1 × Fb/3 × Fsys=12.93 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=0.87/12.93=0.07 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.10/0.88=0.11 1.0 ----- OK
=5/384 × (w' × L⁴)/(E × I) × 2.0=0.139 L/300=3.033 (mm) ----- OK

1F X6Y5 ~ X8Y6
45.0 (mm) × 105.0 (mm)@303.3 (mm) 米松



A=4725 (mm²) Z=82688 (mm³) I=4341094 (mm⁴)
Fb=28.20 (N/mm²) Fs=2.40 (N/mm²) E=9.800 × 10³ (N/mm²)
Fsys=1.25 L=1.365 (m)
Wg=490 (N/m²) Wp=1800 (N/m²) Wp'=600 (N/m²)

[長期]

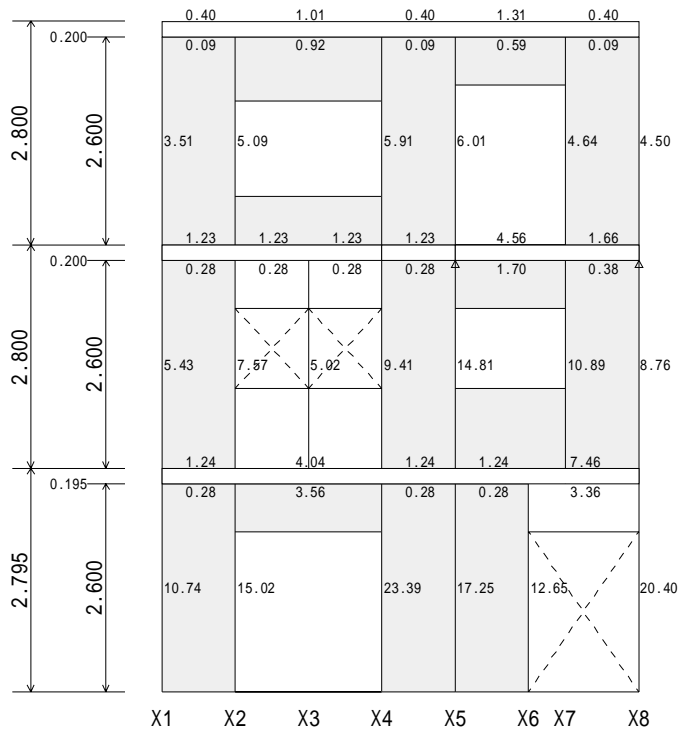
w=(Wg+Wp) × 0.303=693.9 (N/m)
w'=(Wg+Wp') × 0.303=330.3 (N/m)
M=1/8 × (w × L²)=161.61 (N·m)
Q=1/2 × (w × L)=473.6 (N)
fb=1.1 × Fb/3 × Fsys=12.93 (N/mm²)
fs=1.1 × Fs/3=0.88 (N/mm²)
/fb=(M/Z)/fb=1.95/12.93=0.15 1.0 ----- OK
/fs=(1.5 × Q/A)/fs=0.15/0.88=0.17 1.0 ----- OK
=5/384 × (w' × L⁴)/(E × I) × 2.0=0.702 L/300=4.550 (mm) ----- OK

5 - 6 断面応力図・検定比図

鉛直荷重時 応力図

Y1通り

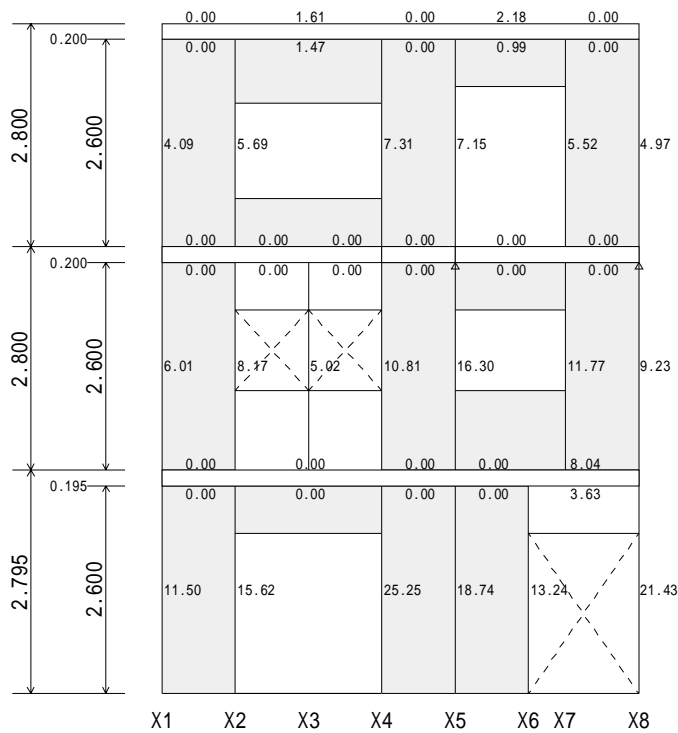
長期



凡例

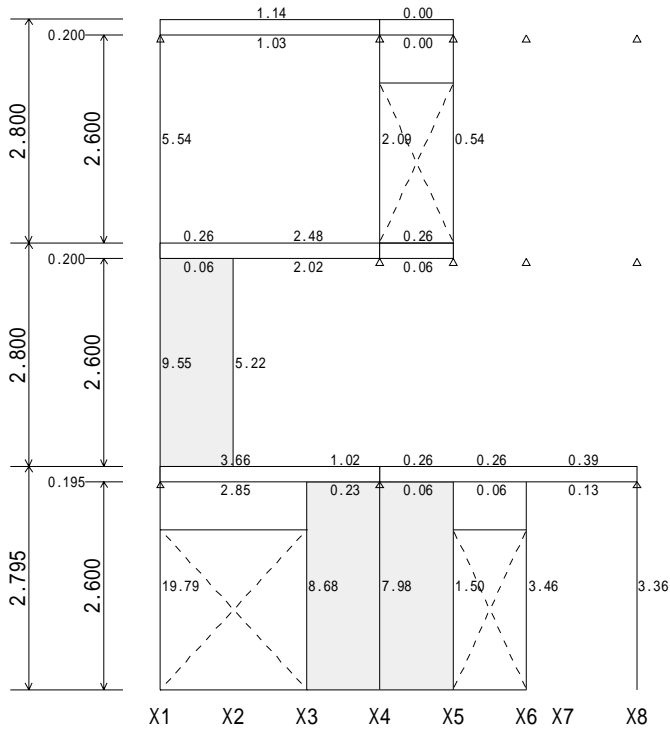
- 梁 上段 : 梁せん断力(kN)
- 梁 下段 : 梁モーメント(kN・m)
- 柱 柱軸力(kN)

短期積雪時



Y4通り

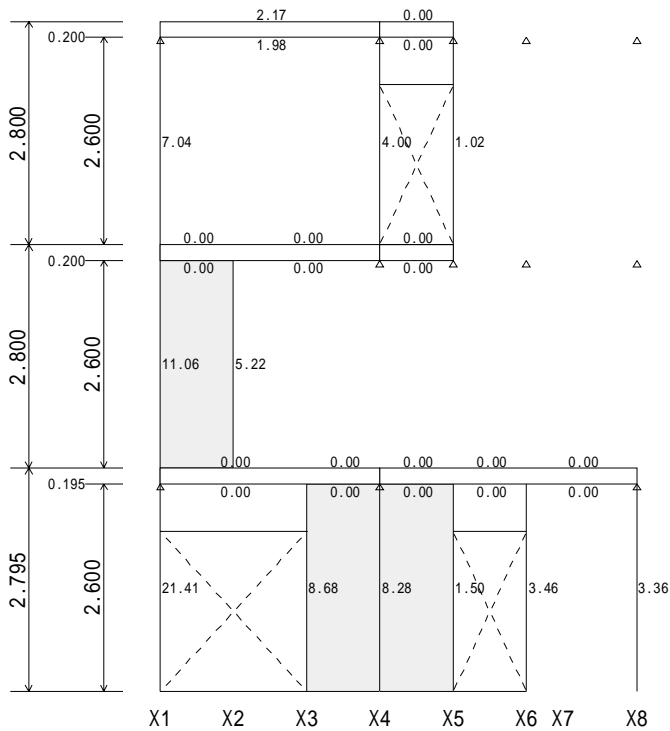
長期



凡例

- 梁 上段 : 梁せん断力 (kN)
- 梁 下段 : 梁モーメント (kN·m)
- 柱 柱軸力 (kN)

短期積雪時

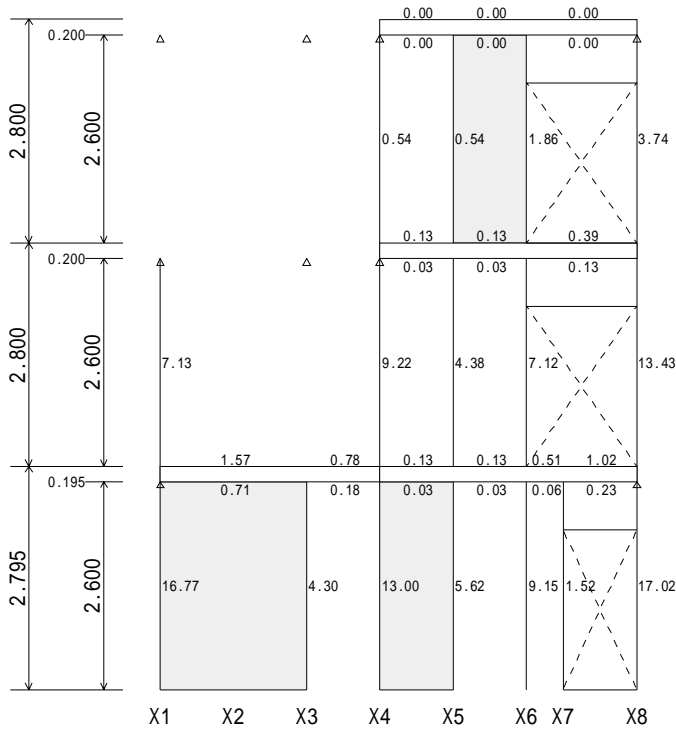


凡例

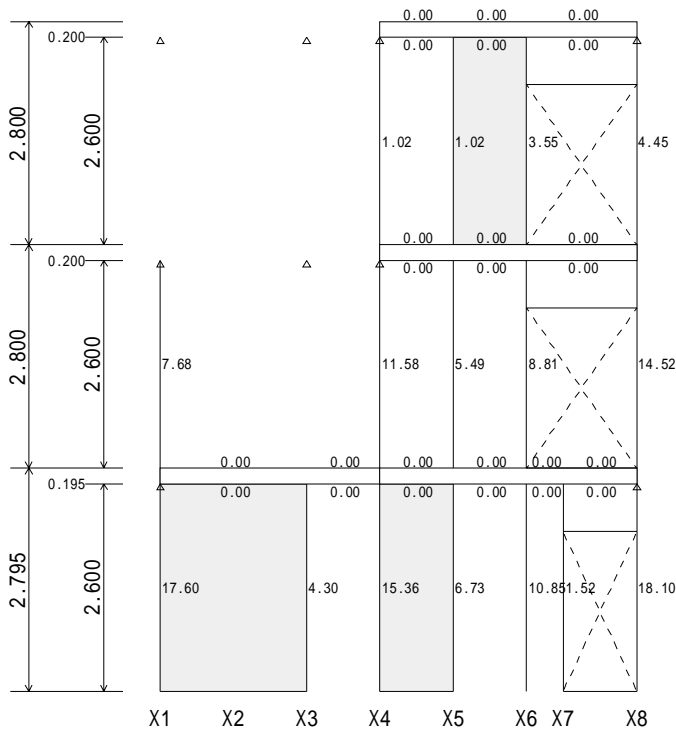
- 梁 上段 : 梁せん断力 (kN)
- 梁 下段 : 梁モーメント (kN・m)
- 柱 柱軸力 (kN)

Y5通り

長期



短期積雪時

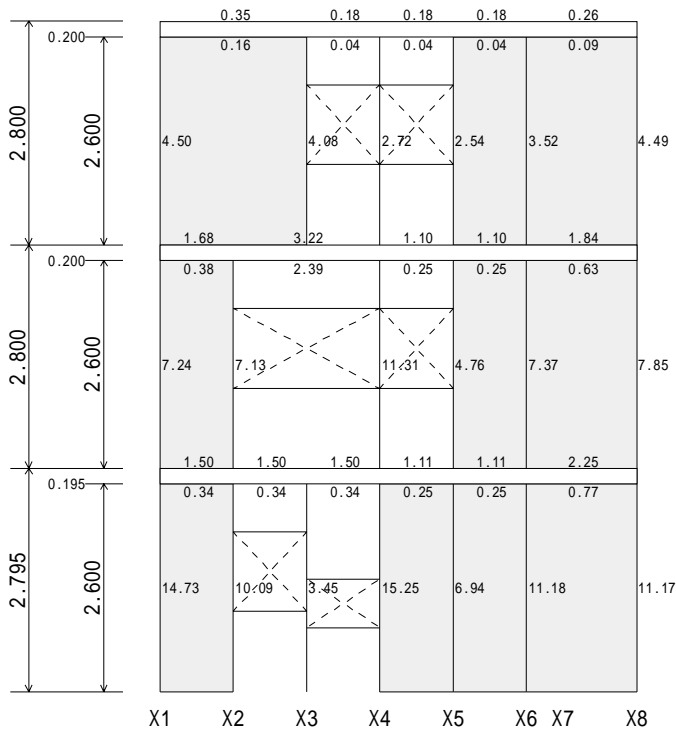


凡例

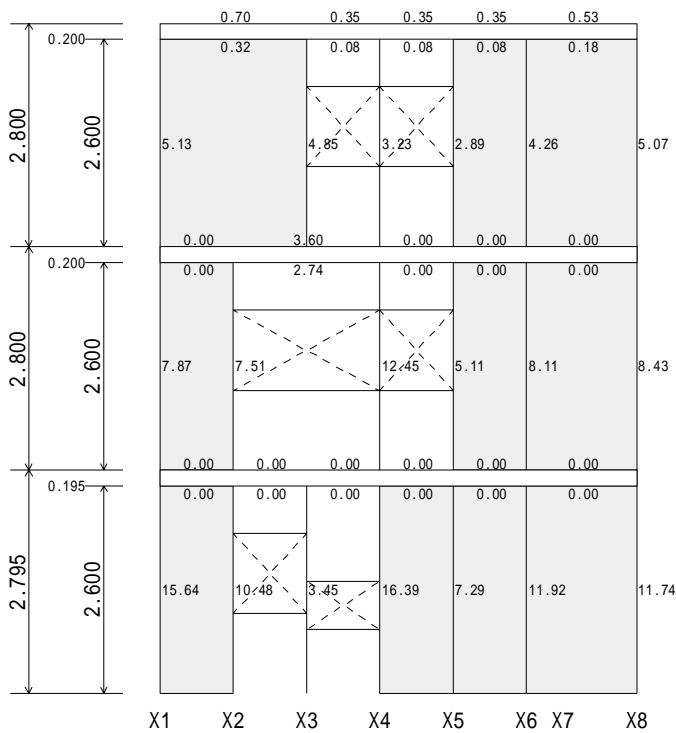
- 梁 上段 : 梁せん断力(kN)
- 梁 下段 : 梁モーメント(kN・m)
- 柱 柱軸力(kN)

Y7通り

長期



短期積雪時

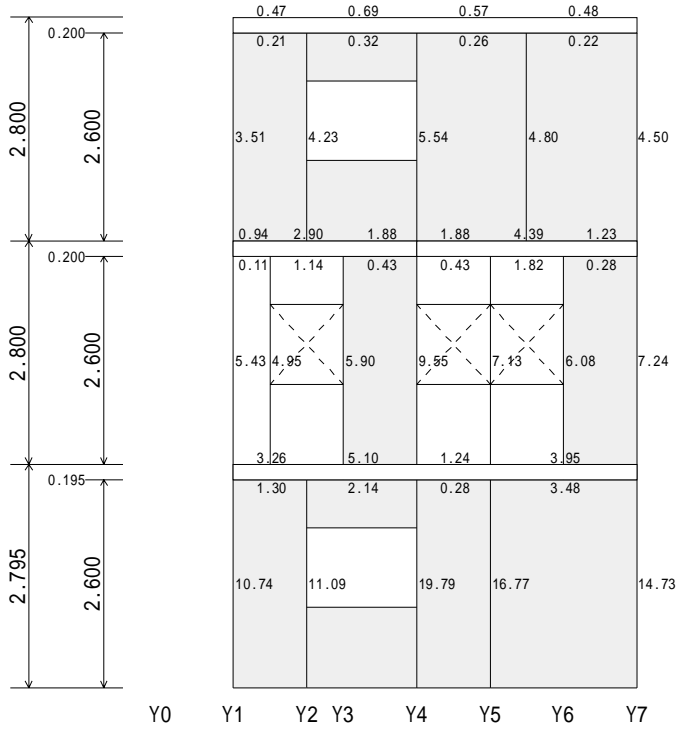


凡例

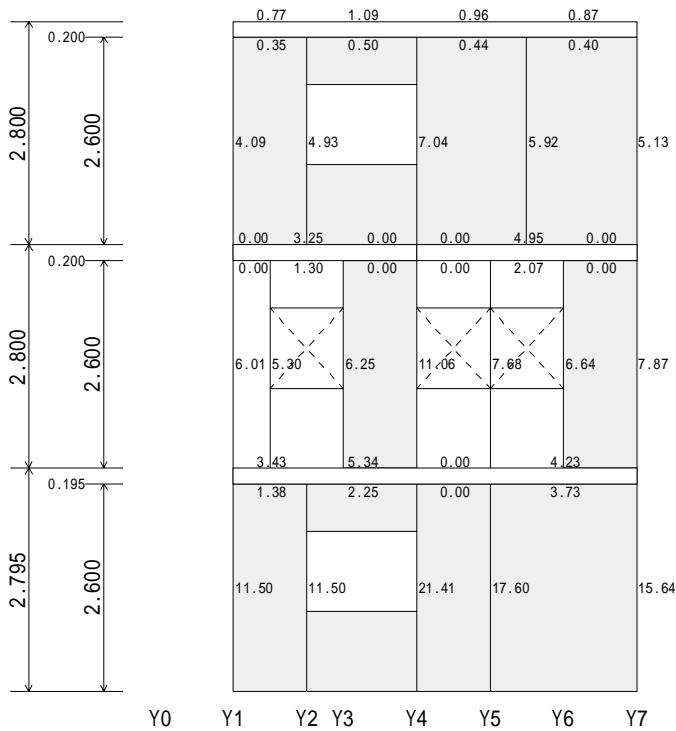
- 梁 上段 : 梁せん断力 (kN)
- 梁 下段 : 梁モーメント (kN・m)
- 柱 柱軸力 (kN)

X1通り

長期

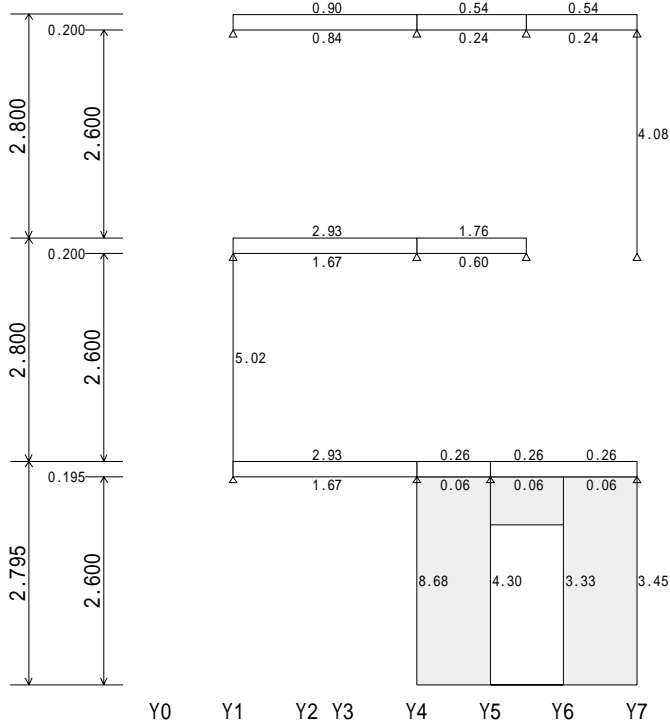


短期積雪時



X3通り

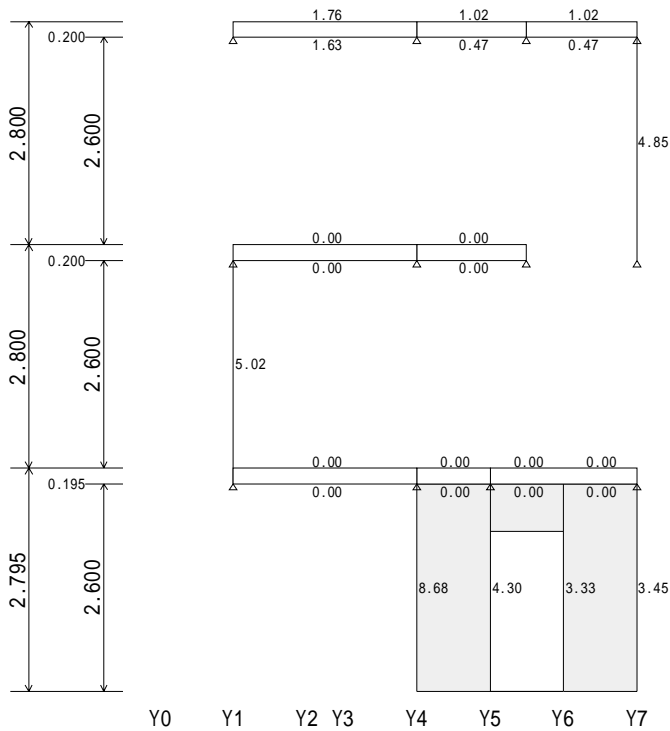
長期



凡例

- 梁 上段 : 梁せん断力 (kN)
- 梁 下段 : 梁モーメント (kN·m)
- 柱 柱軸力 (kN)

短期積雪時

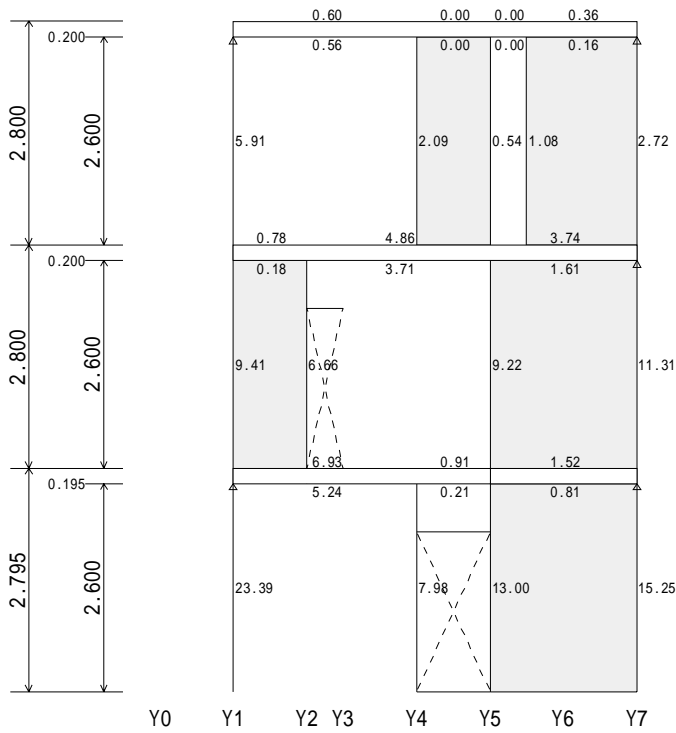


凡例

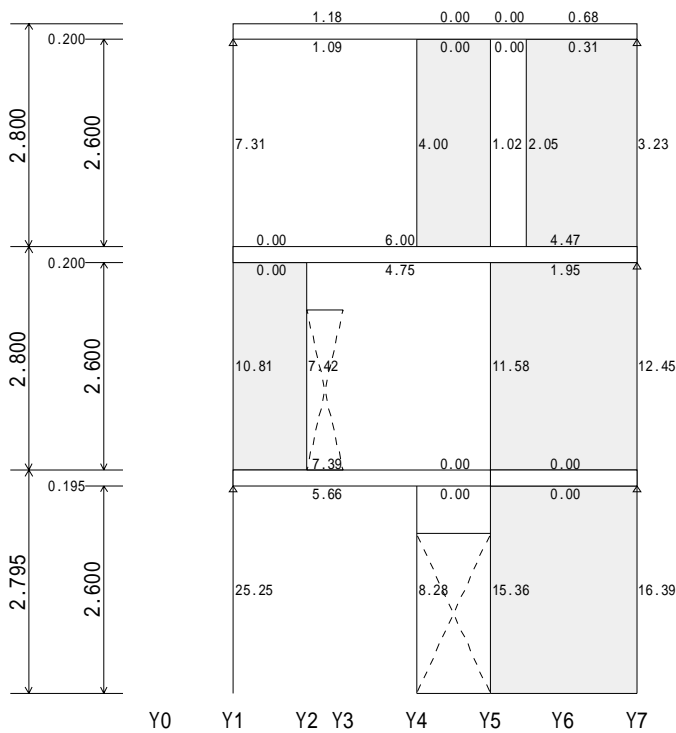
- 梁 上段 : 梁せん断力 (kN)
- 梁 下段 : 梁モーメント (kN・m)
- 柱 柱軸力 (kN)

X4通り

長期



短期積雪時

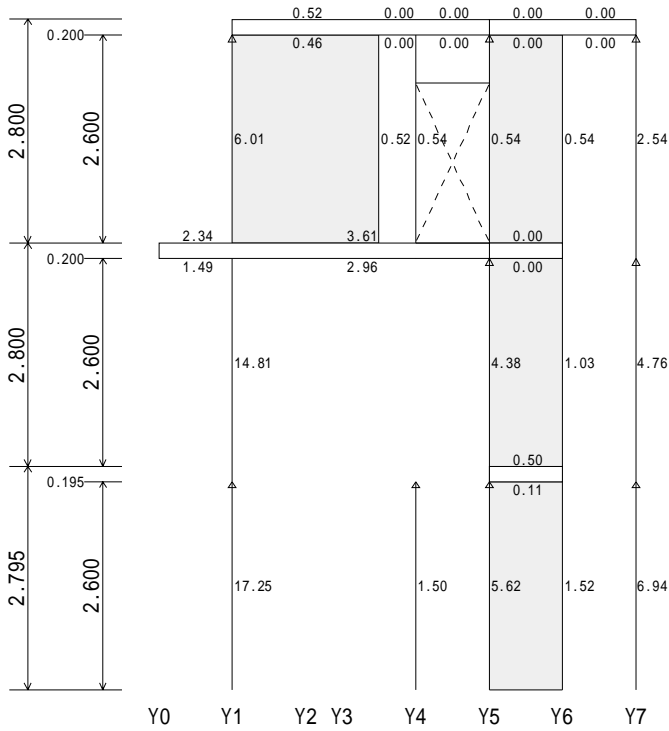


凡例

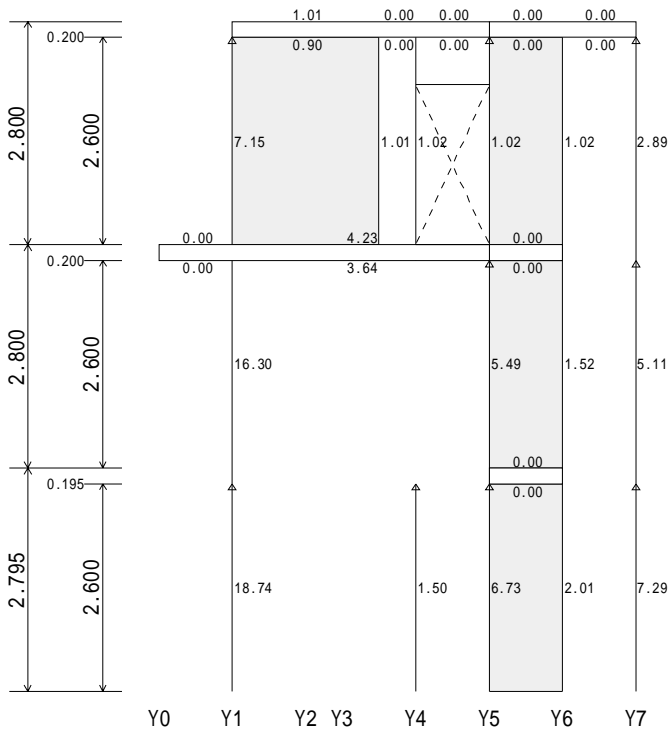
- 梁 上段 : 梁せん断力(kN)
- 梁 下段 : 梁モーメント(kN・m)
- 柱 柱軸力(kN)

X5通り

長期



短期積雪時

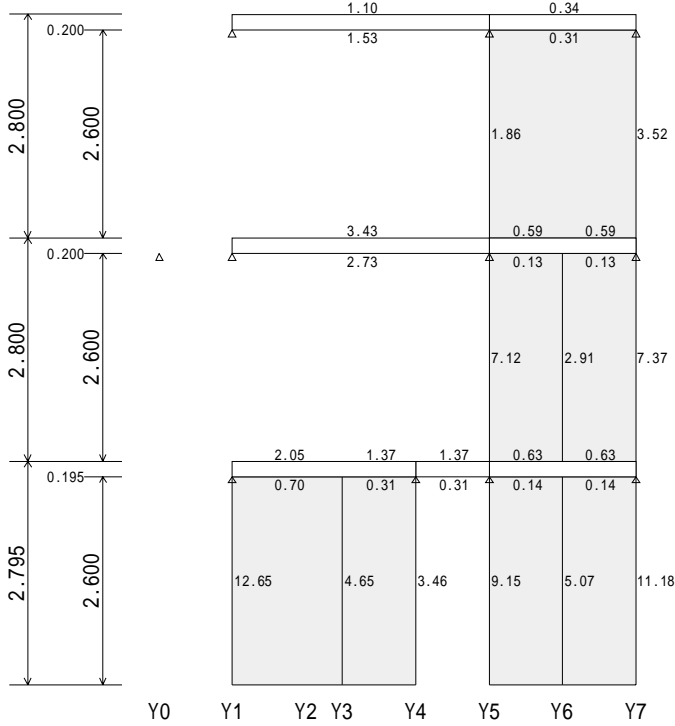


凡例

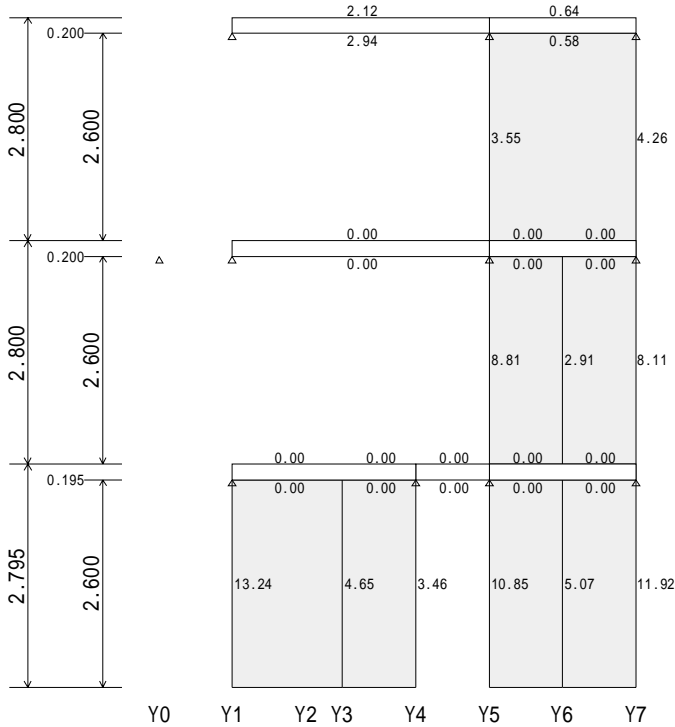
- 梁 上段 : 梁せん断力 (kN)
- 梁 下段 : 梁モーメント (kN・m)
- 柱 柱軸力 (kN)

X6通り

長期



短期積雪時

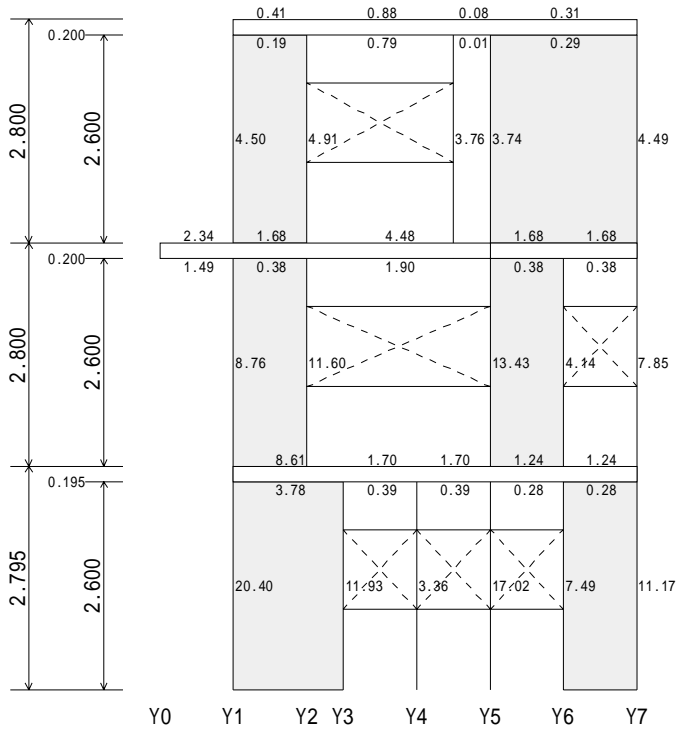


凡例

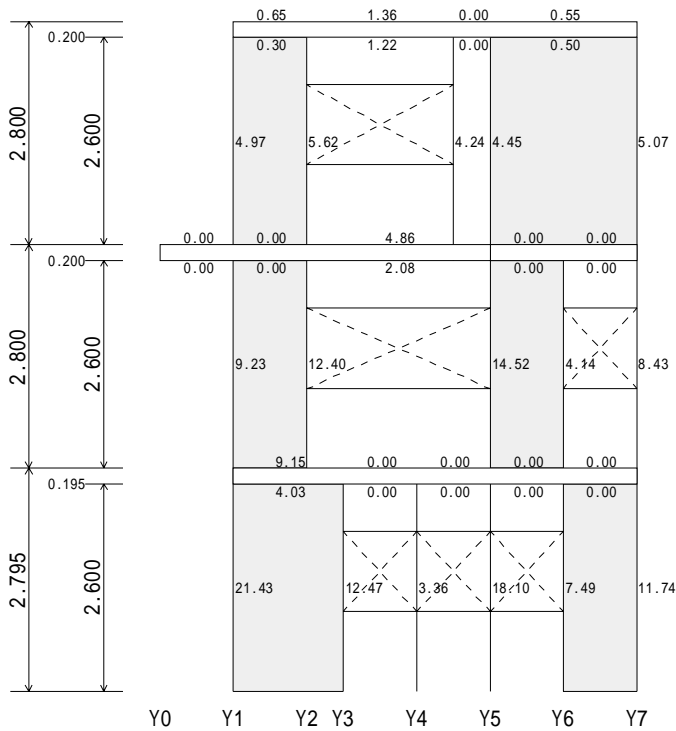
- 梁 上段 : 梁せん断力(kN)
- 梁 下段 : 梁モーメント(kN・m)
- 柱 柱軸力(kN)

X8通り

長期



短期積雪時

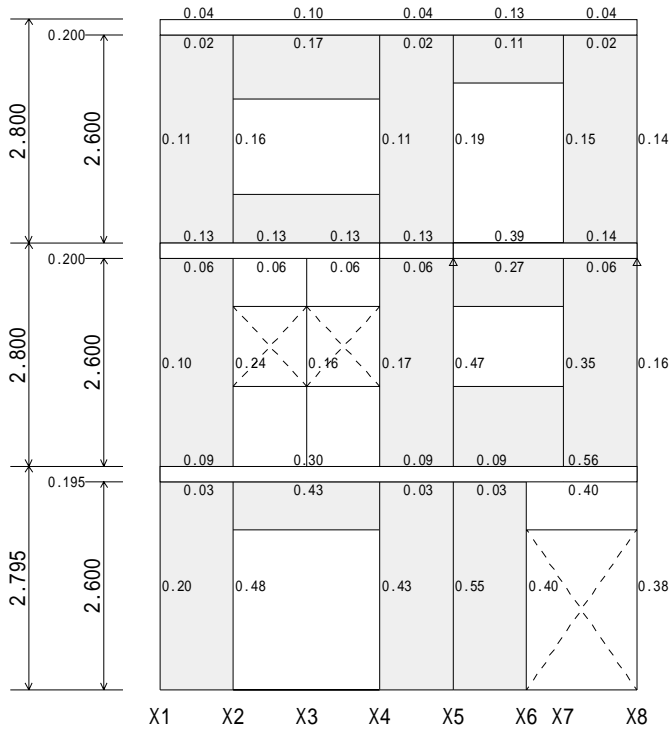


鉛直荷重時 検定比図
Y1通り

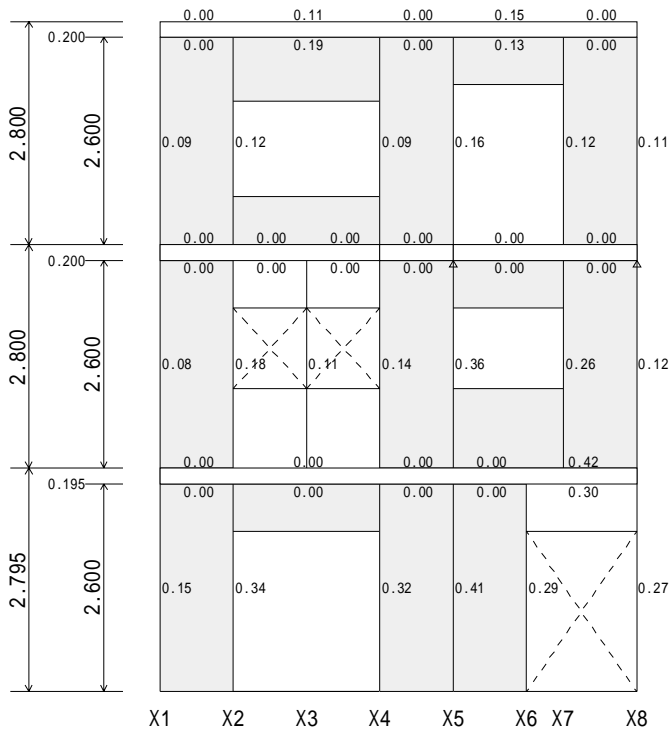
凡例

- 梁 上段 : 梁せん断力検定比
- 梁 下段 : 梁モーメント検定比
- 柱 柱軸力検定比

長期



短期積雪時

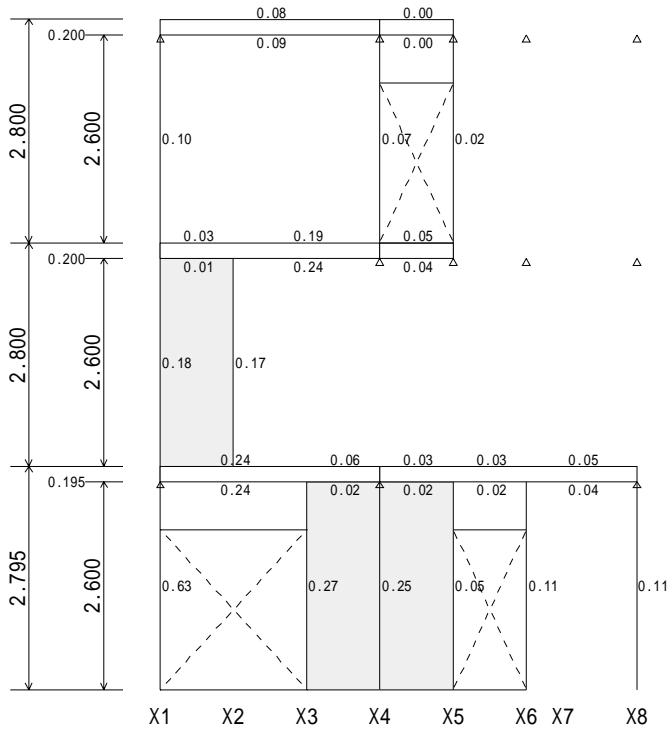


凡例

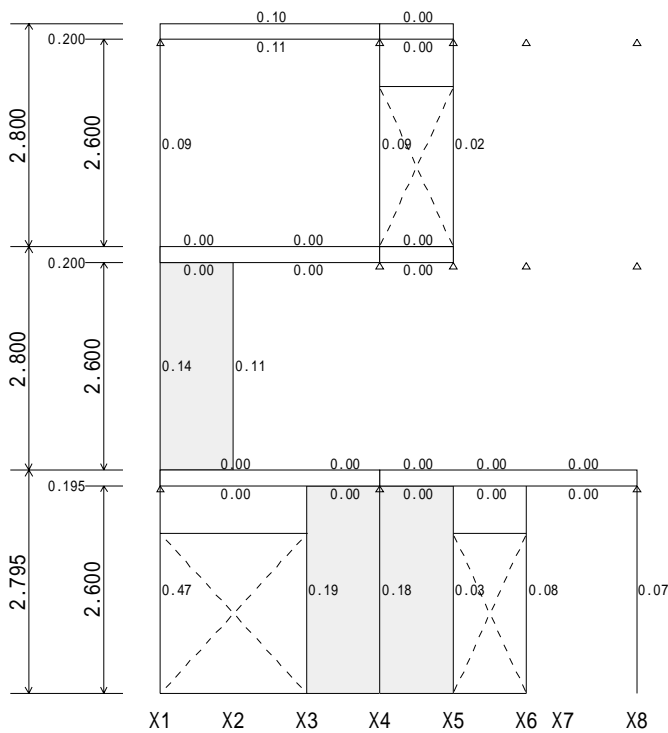
- 梁 上段 : 梁せん断力検定比
- 梁 下段 : 梁モーメント検定比
- 柱 柱軸力検定比

Y4通り

長期

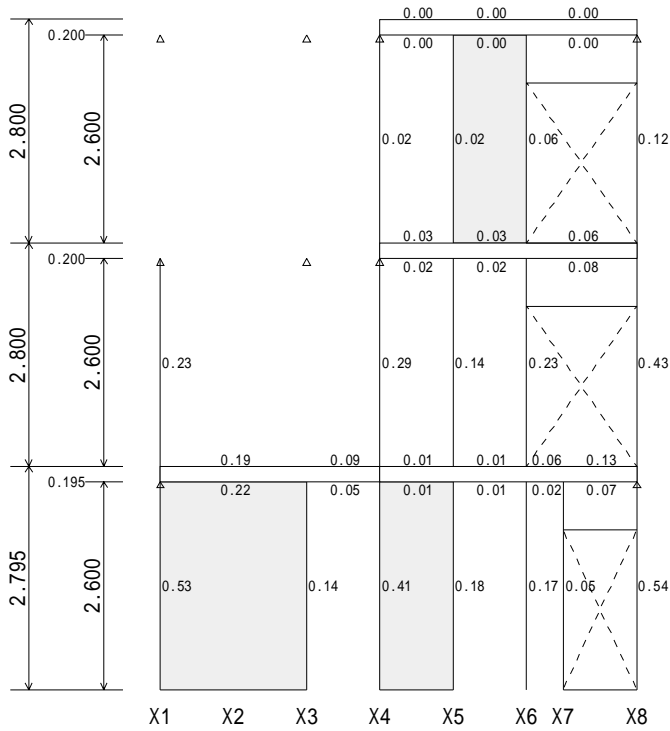


短期積雪時



Y5通り

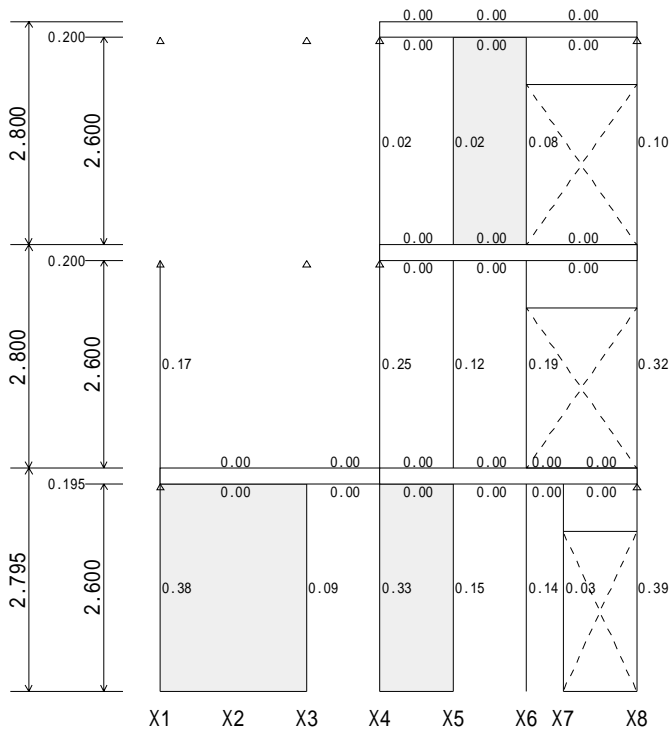
長期



凡例

- 梁 上段 : 梁せん断力検定比
- 梁 下段 : 梁モーメント検定比
- 柱 柱軸力検定比

短期積雪時

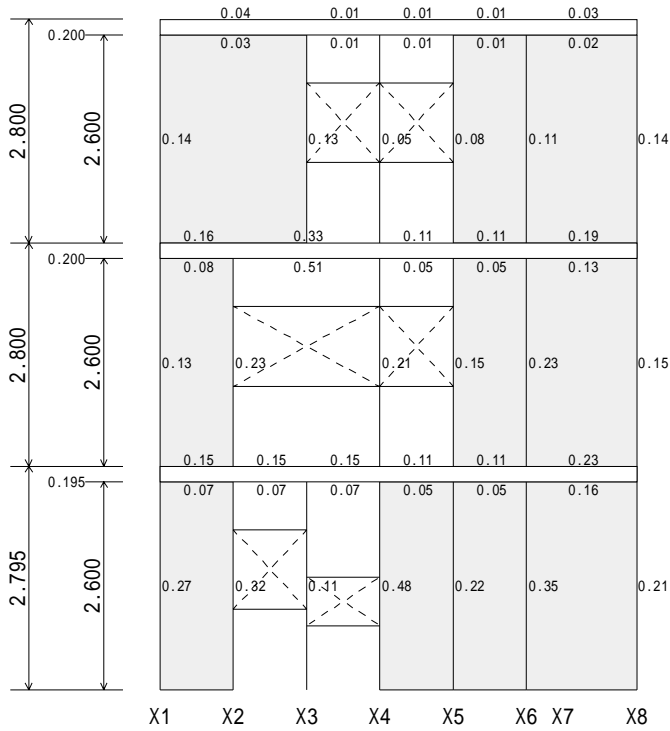


凡例

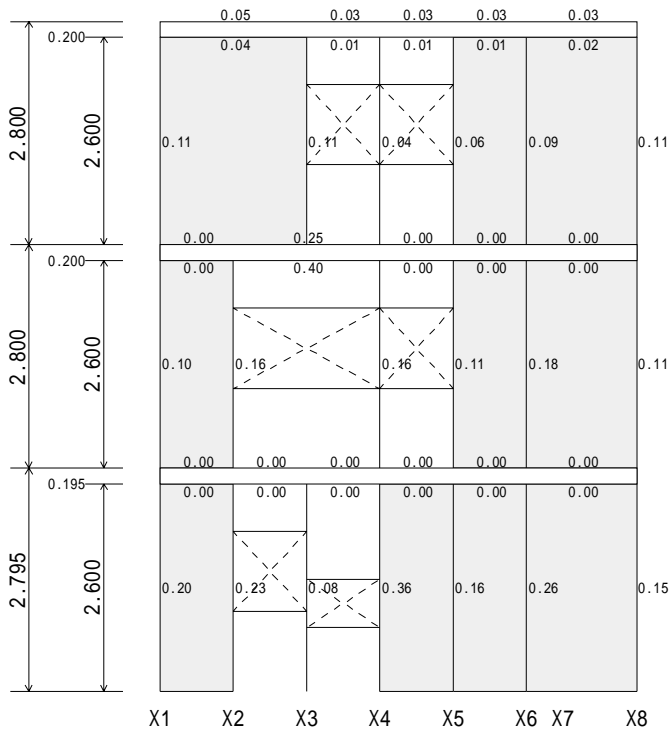
- 梁 上段 : 梁せん断力検定比
- 梁 下段 : 梁モーメント検定比
- 柱 柱軸力検定比

Y7通り

長期

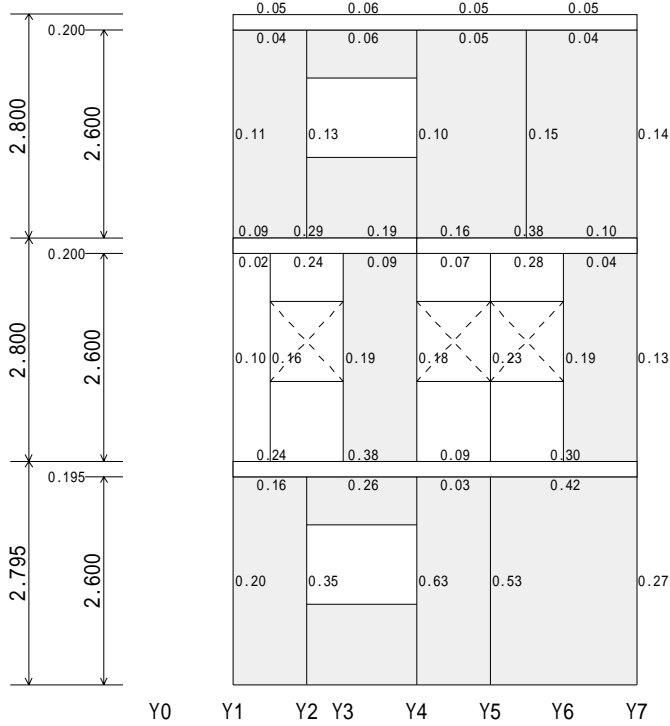


短期積雪時



X1通り

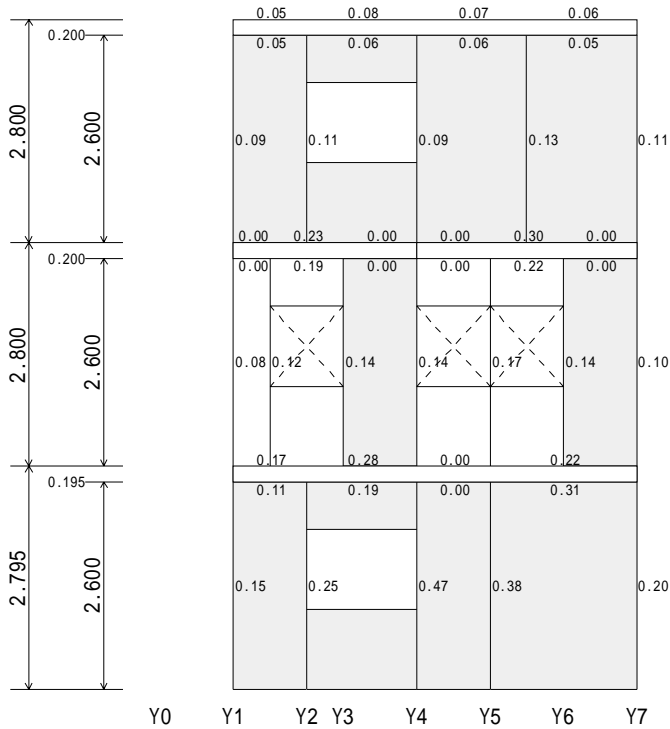
長期



凡例

- 梁 上段 : 梁せん断力検定比
- 梁 下段 : 梁モーメント検定比
- 柱 柱軸力検定比

短期積雪時

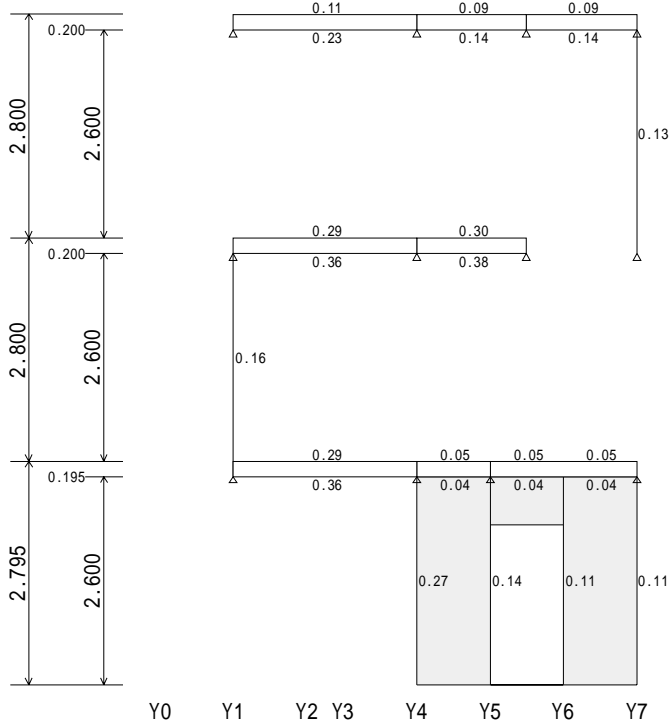


凡例

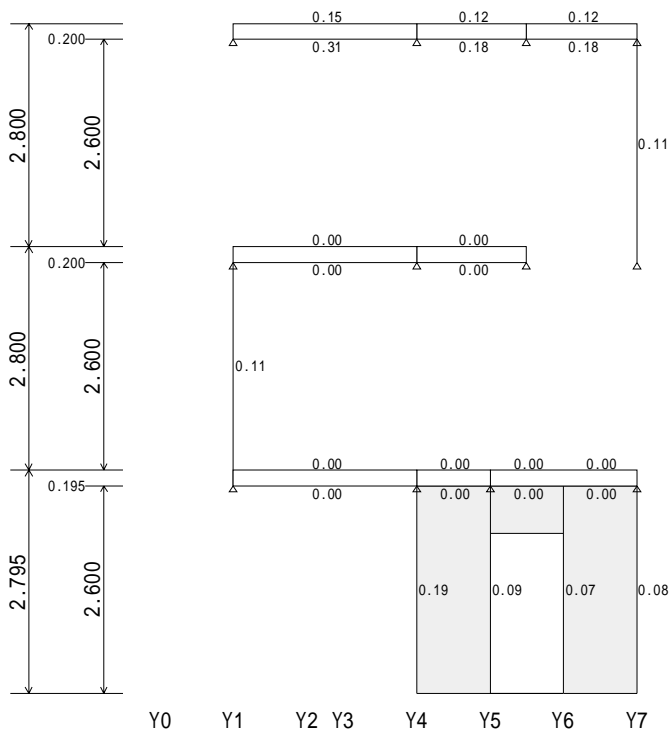
- 梁 上段 : 梁せん断力検定比
- 梁 下段 : 梁モーメント検定比
- 柱 柱軸力検定比

X3通り

長期



短期積雪時

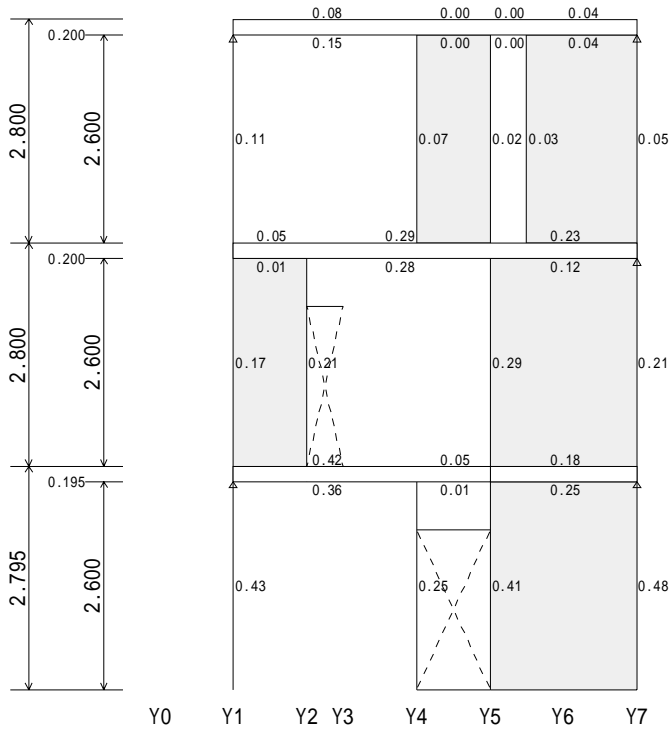


凡例

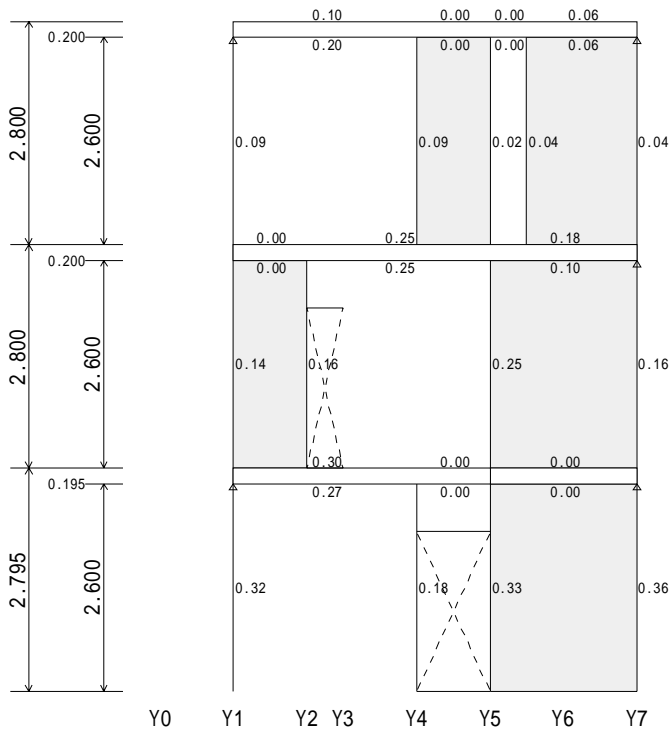
- 梁 上段 : 梁せん断力検定比
- 梁 下段 : 梁モーメント検定比
- 柱 柱軸力検定比

X4通り

長期



短期積雪時

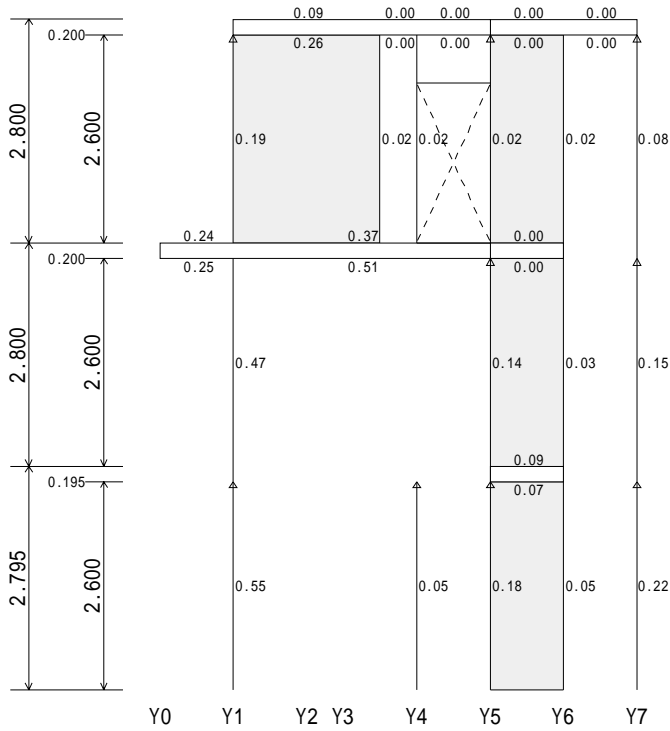


凡例

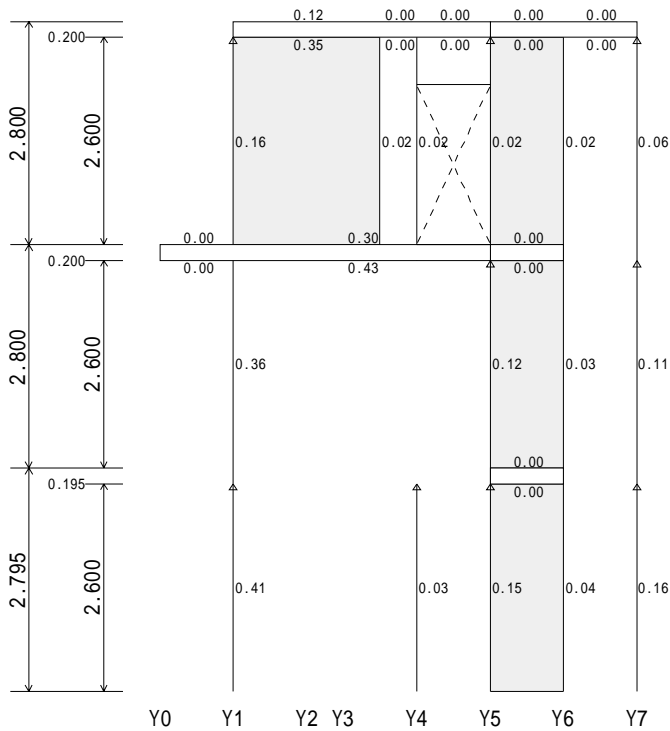
- 梁 上段 : 梁せん断力検定比
- 梁 下段 : 梁モーメント検定比
- 柱 柱軸力検定比

X5通り

長期



短期積雪時

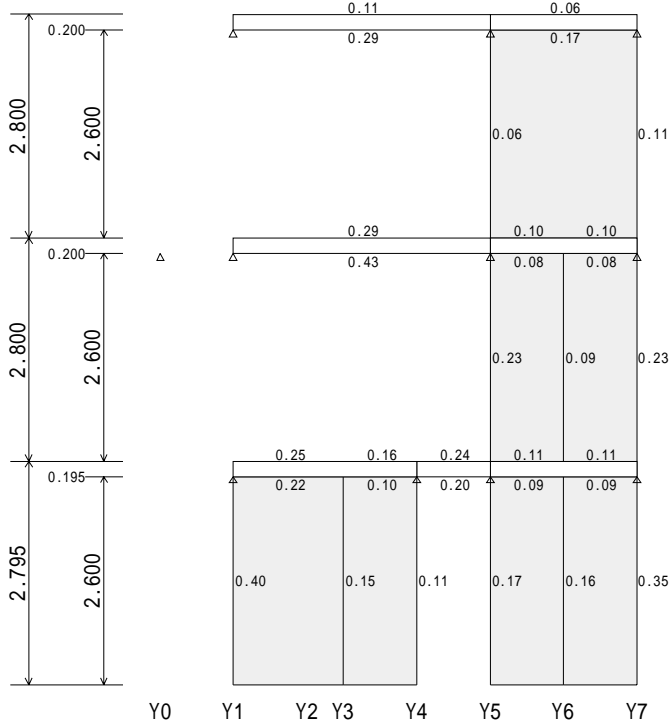


凡例

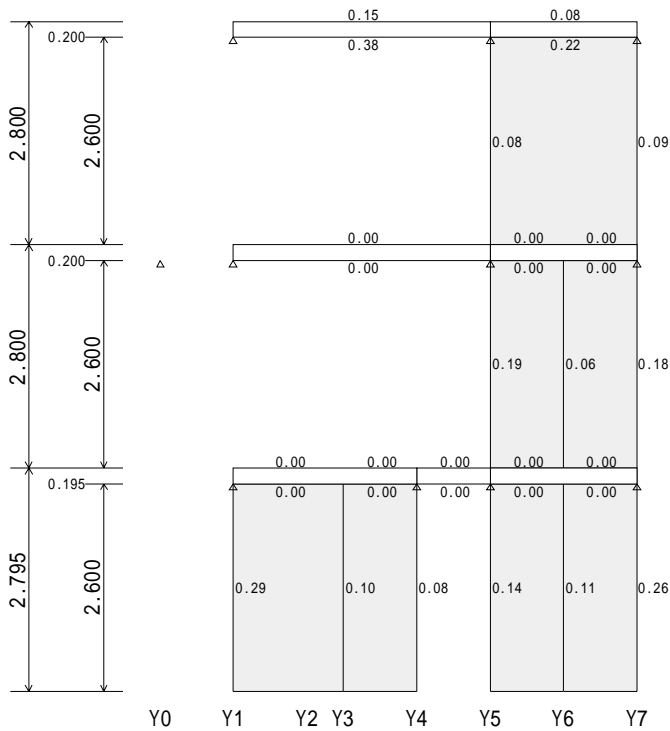
- 梁 上段 : 梁せん断力検定比
- 梁 下段 : 梁モーメント検定比
- 柱 柱軸力検定比

X6通り

長期

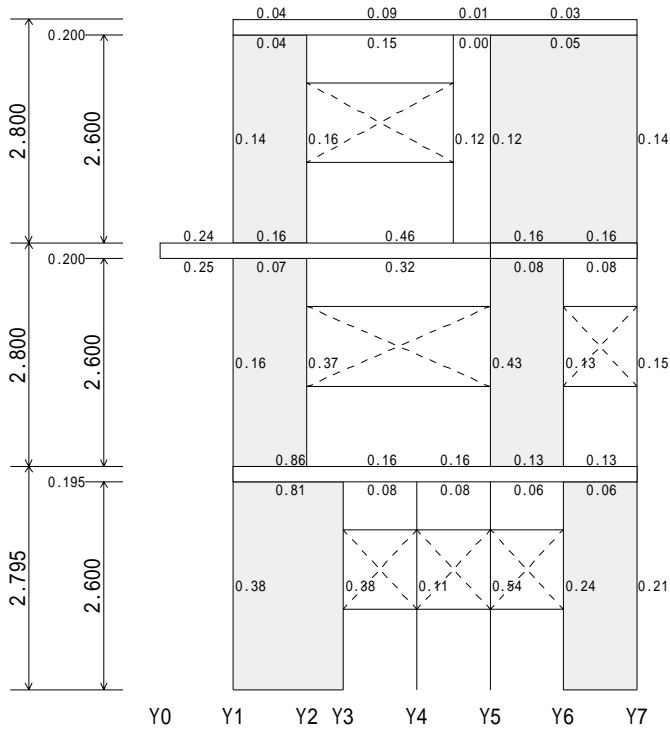


短期積雪時



X8通り

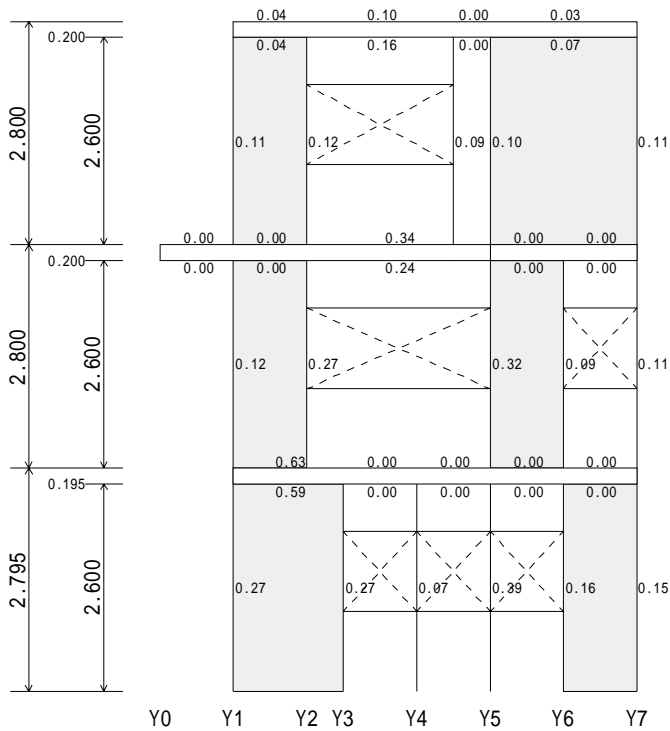
長期



凡例

- 梁 上段 : 梁せん断力検定比
- 梁 下段 : 梁モーメント検定比
- 柱 柱軸力検定比

短期積雪時



6 . 接合部の設計

6 - 1 柱脚柱頭の引張耐力の検討(詳細計算法)

(1) 応力中心高さ算定表

3 階 X 左加力方向

| 通り | Qeij (kN) | 上階 | 通り | qij (kN) | 分配比 | q'ij (kN) | h (cm) | q'ij × h | M (kN・cm) | Hu (cm) |
|----|-----------|----|----|----------|-----|-----------|--------|----------|-----------|---------|
| Y7 | 8.108 | | | | | | | | 0.000 | 0.0 |
| Y5 | 2.535 | | | | | | | | 0.000 | 0.0 |
| Y1 | 7.447 | | | | | | | | 0.000 | 0.0 |

3 階 X 右加力方向

| 通り | Qeij (kN) | 上階 | 通り | qij (kN) | 分配比 | q'ij (kN) | h (cm) | q'ij × h | M (kN・cm) | Hu (cm) |
|----|-----------|----|----|----------|-----|-----------|--------|----------|-----------|---------|
| Y7 | 7.750 | | | | | | | | 0.000 | 0.0 |
| Y5 | 3.286 | | | | | | | | 0.000 | 0.0 |
| Y1 | 7.055 | | | | | | | | 0.000 | 0.0 |

3 階 Y 下加力方向

| 通り | Qeij (kN) | 上階 | 通り | qij (kN) | 分配比 | q'ij (kN) | h (cm) | q'ij × h | M (kN・cm) | Hu (cm) |
|----|-----------|----|----|----------|-----|-----------|--------|----------|-----------|---------|
| X1 | 6.187 | | | | | | | | 0.000 | 0.0 |
| X4 | 3.062 | | | | | | | | 0.000 | 0.0 |
| X5 | 1.672 | | | | | | | | 0.000 | 0.0 |
| X6 | 1.449 | | | | | | | | 0.000 | 0.0 |
| X8 | 5.723 | | | | | | | | 0.000 | 0.0 |

3 階 Y 上加力方向

| 通り | Qeij (kN) | 上階 | 通り | qij (kN) | 分配比 | q'ij (kN) | h (cm) | q'ij × h | M (kN・cm) | Hu (cm) |
|----|-----------|----|----|----------|-----|-----------|--------|----------|-----------|---------|
| X1 | 6.233 | | | | | | | | 0.000 | 0.0 |
| X4 | 2.866 | | | | | | | | 0.000 | 0.0 |
| X5 | 1.835 | | | | | | | | 0.000 | 0.0 |
| X6 | 1.597 | | | | | | | | 0.000 | 0.0 |
| X8 | 5.557 | | | | | | | | 0.000 | 0.0 |

2階 X左加力方向

| 通 り | Qeij (kN) | 上 階 | 通 り | qij (kN) | 分配比 | q'ij (kN) | h (cm) | q'ij×h | M (kN・cm) | Hu (cm) |
|--------|--------------|--------|--------|-------------|------|--------------|-----------|----------|--------------|------------|
| Y7 | 15.240 | 3 | Y7 | 8.108 | 1.00 | 8.108 | 280.0 | 2270.240 | 2504.600 | 164.3 |
| | | 3 | Y5 | 2.535 | 0.33 | 0.837 | 280.0 | 234.360 | | |
| Y4 | 3.280 | 3 | Y5 | 2.535 | 0.67 | 1.698 | 280.0 | 475.440 | 475.440 | 145.0 |
| Y1 | 19.040 | 3 | Y1 | 7.447 | 1.00 | 7.447 | 280.0 | 2085.160 | 2085.160 | 109.5 |

2階 X右加力方向

| 通 り | Qeij (kN) | 上 階 | 通 り | qij (kN) | 分配比 | q'ij (kN) | h (cm) | q'ij×h | M (kN・cm) | Hu (cm) |
|--------|--------------|--------|--------|-------------|------|--------------|-----------|----------|--------------|------------|
| Y7 | 16.117 | 3 | Y7 | 7.750 | 1.00 | 7.750 | 280.0 | 2170.000 | 2473.520 | 153.5 |
| | | 3 | Y5 | 3.286 | 0.33 | 1.084 | 280.0 | 303.520 | | |
| Y4 | 3.996 | 3 | Y5 | 3.286 | 0.67 | 2.202 | 280.0 | 616.560 | 616.560 | 154.3 |
| Y1 | 17.462 | 3 | Y1 | 7.055 | 1.00 | 7.055 | 280.0 | 1975.400 | 1975.400 | 113.1 |

2階 Y下加力方向

| 通 り | Qeij (kN) | 上 階 | 通 り | qij (kN) | 分配比 | q'ij (kN) | h (cm) | q'ij×h | M (kN・cm) | Hu (cm) |
|--------|--------------|--------|--------|-------------|------|--------------|-----------|----------|--------------|------------|
| X1 | 8.873 | 3 | X1 | 6.187 | 1.00 | 6.187 | 280.0 | 1732.360 | 1732.360 | 195.2 |
| X4 | 12.293 | 3 | X4 | 3.062 | 1.00 | 3.062 | 280.0 | 857.360 | 857.360 | 69.7 |
| X5 | 1.346 | 3 | X5 | 1.672 | 1.00 | 1.672 | 280.0 | 468.160 | 468.160 | 347.8 |
| X6 | 8.194 | 3 | X6 | 1.449 | 1.00 | 1.449 | 280.0 | 405.720 | 405.720 | 49.5 |
| X8 | 6.854 | 3 | X8 | 5.723 | 1.00 | 5.723 | 280.0 | 1602.440 | 1602.440 | 233.8 |

2階 Y上加力方向

| 通 り | Qeij (kN) | 上 階 | 通 り | qij (kN) | 分配比 | q'ij (kN) | h (cm) | q'ij×h | M (kN・cm) | Hu (cm) |
|--------|--------------|--------|--------|-------------|------|--------------|-----------|----------|--------------|------------|
| X1 | 10.089 | 3 | X1 | 6.233 | 1.00 | 6.233 | 280.0 | 1745.240 | 1745.240 | 173.0 |
| X4 | 10.502 | 3 | X4 | 2.866 | 1.00 | 2.866 | 280.0 | 802.480 | 802.480 | 76.4 |
| X5 | 1.375 | 3 | X5 | 1.835 | 1.00 | 1.835 | 280.0 | 513.800 | 513.800 | 373.7 |
| X6 | 8.446 | 3 | X6 | 1.597 | 1.00 | 1.597 | 280.0 | 447.160 | 447.160 | 52.9 |
| X8 | 7.161 | 3 | X8 | 5.557 | 1.00 | 5.557 | 280.0 | 1555.960 | 1555.960 | 217.3 |

1階 X左加力方向

| 通 り | Qeij (kN) | 上 階 | 通 り | qij (kN) | 分配比 | q'ij (kN) | h (cm) | q'ij×h | M (kN・cm) | Hu (cm) |
|--------|--------------|--------|--------|-------------|------|--------------|-----------|----------|--------------|------------|
| Y7 | 15.899 | 3 | Y7 | 8.108 | 1.00 | 8.108 | 280.0 | 2270.240 | 6771.800 | 425.9 |
| | | 3 | Y5 | 2.535 | 0.33 | 0.837 | 280.0 | 234.360 | | |
| | | 2 | Y7 | 15.240 | 1.00 | 15.240 | 280.0 | 4267.200 | | |
| Y5 | 11.534 | | | | | | | 0.000 | 0.0 | |
| Y4 | 8.850 | 3 | Y5 | 2.535 | 0.67 | 1.698 | 280.0 | 475.440 | 1393.840 | 157.5 |
| | | 2 | Y4 | 3.280 | 1.00 | 3.280 | 280.0 | 918.400 | | |
| Y1 | 15.092 | 3 | Y1 | 7.447 | 1.00 | 7.447 | 280.0 | 2085.160 | 7416.360 | 491.4 |
| | | 2 | Y1 | 19.040 | 1.00 | 19.040 | 280.0 | 5331.200 | | |

1階 X右加力方向

| 通 り | Qeij (kN) | 上 階 | 通 り | qij (kN) | 分配比 | q'ij (kN) | h (cm) | q'ij×h | M (kN・cm) | Hu (cm) |
|--------|--------------|--------|--------|-------------|------|--------------|-----------|----------|--------------|------------|
| Y7 | 16.670 | 3 | Y7 | 7.750 | 1.00 | 7.750 | 280.0 | 2170.000 | 6986.280 | 419.1 |
| | | 3 | Y5 | 3.286 | 0.33 | 1.084 | 280.0 | 303.520 | | |
| | | 2 | Y7 | 16.117 | 1.00 | 16.117 | 280.0 | 4512.760 | | |
| Y5 | 9.321 | | | | | | | 0.000 | 0.0 | |
| Y4 | 9.494 | 3 | Y5 | 3.286 | 0.67 | 2.202 | 280.0 | 616.560 | 1735.440 | 182.8 |
| | | 2 | Y4 | 3.996 | 1.00 | 3.996 | 280.0 | 1118.880 | | |
| Y1 | 15.902 | 3 | Y1 | 7.055 | 1.00 | 7.055 | 280.0 | 1975.400 | 6864.760 | 431.7 |
| | | 2 | Y1 | 17.462 | 1.00 | 17.462 | 280.0 | 4889.360 | | |

1階 Y下加力方向

| 通 り | Qeij (kN) | 上 階 | 通 り | qij (kN) | 分配比 | q'ij (kN) | h (cm) | q'ij×h | M (kN・cm) | Hu (cm) |
|--------|--------------|--------|--------|-------------|------|--------------|-----------|----------|--------------|------------|
| X1 | 13.725 | 3 | X1 | 6.187 | 1.00 | 6.187 | 280.0 | 1732.360 | 4216.800 | 307.2 |
| | | 2 | X1 | 8.873 | 1.00 | 8.873 | 280.0 | 2484.440 | | |
| X3 | 7.879 | | | | | | | 0.000 | 0.0 | |
| X4 | 2.494 | 3 | X4 | 3.062 | 1.00 | 3.062 | 280.0 | 857.360 | 4299.400 | 1723.9 |
| | | 2 | X4 | 12.293 | 1.00 | 12.293 | 280.0 | 3442.040 | | |
| X5 | 1.231 | 3 | X5 | 1.672 | 1.00 | 1.672 | 280.0 | 468.160 | 845.040 | 686.5 |
| | | 2 | X5 | 1.346 | 1.00 | 1.346 | 280.0 | 376.880 | | |
| X6 | 18.788 | 3 | X6 | 1.449 | 1.00 | 1.449 | 280.0 | 405.720 | 2700.040 | 143.7 |
| | | 2 | X6 | 8.194 | 1.00 | 8.194 | 280.0 | 2294.320 | | |
| X8 | 7.262 | 3 | X8 | 5.723 | 1.00 | 5.723 | 280.0 | 1602.440 | 3521.560 | 484.9 |
| | | 2 | X8 | 6.854 | 1.00 | 6.854 | 280.0 | 1919.120 | | |

1階 Y上加力方向

| 通り | Qeij (kN) | 上 階 | 通り | qij (kN) | 分配比 | q'ij (kN) | h (cm) | q'ij×h | M (kN・cm) | Hu (cm) |
|----|--------------|--------|----|-------------|------|--------------|-----------|----------|--------------|------------|
| X1 | 13.666 | 3 | X1 | 6.233 | 1.00 | 6.233 | 280.0 | 1745.240 | 4570.160 | 334.4 |
| | | 2 | X1 | 10.089 | 1.00 | 10.089 | 280.0 | 2824.920 | | |
| X3 | 7.765 | | | | | | | | 0.000 | 0.0 |
| X4 | 2.441 | 3 | X4 | 2.866 | 1.00 | 2.866 | 280.0 | 802.480 | 3743.040 | 1533.4 |
| | | 2 | X4 | 10.502 | 1.00 | 10.502 | 280.0 | 2940.560 | | |
| X5 | 1.198 | 3 | X5 | 1.835 | 1.00 | 1.835 | 280.0 | 513.800 | 898.800 | 750.3 |
| | | 2 | X5 | 1.375 | 1.00 | 1.375 | 280.0 | 385.000 | | |
| X6 | 18.768 | 3 | X6 | 1.597 | 1.00 | 1.597 | 280.0 | 447.160 | 2812.040 | 149.8 |
| | | 2 | X6 | 8.446 | 1.00 | 8.446 | 280.0 | 2364.880 | | |
| X8 | 7.536 | 3 | X8 | 5.557 | 1.00 | 5.557 | 280.0 | 1555.960 | 3561.040 | 472.5 |
| | | 2 | X8 | 7.161 | 1.00 | 7.161 | 280.0 | 2005.080 | | |

(2) 梁ゾーン重量および重心算定表

3階 X方向

| 梁番号 | 通り | 柱位置 | 重量 (kN) | 重量小計 (kN) | 位置 (cm) | 重心 Xw (cm) |
|-----|----|-----|------------|--------------|------------|------------------|
| 1 | Y7 | X1 | 4.504 | | | 307.4 |
| | | X3 | 2.042 | 6.546 | 91.0 | |
| | | X3 | 2.042 | | | |
| | | X4 | 1.361 | 3.403 | 227.5 | |
| | | X4 | 1.361 | | | |
| | | X5 | 1.272 | 2.633 | 318.5 | |
| | | X5 | 1.272 | | | |
| | | X6 | 1.758 | 3.030 | 409.5 | |
| | | X6 | 1.758 | | | |
| | | X8 | 4.493 | 6.251 | 523.3 | |
| | | | 計 | 21.863 | | |
| 2 | Y5 | X4 | 0.537 | | | 205.1 |
| | | X5 | 0.269 | 0.806 | 45.5 | |
| | | X5 | 0.269 | | | |
| | | X6 | 0.932 | 1.201 | 136.5 | |
| | | X6 | 0.932 | | | |
| | | X8 | 3.744 | 4.676 | 250.3 | |
| | | | 計 | 6.683 | | |
| 3 | Y1 | X1 | 3.507 | | | 310.2 |
| | | X2 | 2.546 | 6.053 | 45.5 | |
| | | X2 | 2.546 | | | |
| | | X4 | 2.956 | 5.502 | 182.0 | |
| | | X4 | 2.956 | | | |
| | | X5 | 3.004 | 5.960 | 318.5 | |
| | | X5 | 3.004 | | | |
| | | X7 | 2.321 | 5.325 | 432.3 | |
| | | X7 | 2.321 | | | |
| | | X8 | 4.502 | 6.823 | 546.0 | |
| | | | 計 | 29.663 | | |

3階 Y方向

| 梁番号 | 通り | 柱位置 | 重量 (kN) | 重量小計 (kN) | 位置 (cm) | 重心 Xw (cm) |
|-----|----|------|------------|--------------|------------|------------------|
| 1 | X1 | Y1 | 3.507 | 5.622 | 45.5 | 245.7 |
| | | Y2 | 2.115 | | | |
| | | Y2 | 2.115 | 4.884 | 159.3 | |
| | | Y4 | 2.769 | | | |
| | | Y4 | 2.769 | 5.169 | 295.8 | |
| | | Y5.5 | 2.400 | | | |
| | | Y5.5 | 2.400 | 6.904 | 432.3 | |
| | | Y7 | 4.504 | | | |
| | | 計 | 22.579 | | | |
| 2 | X4 | Y1 | 5.911 | 6.958 | 113.8 | 229.8 |
| | | Y4 | 1.047 | | | |
| | | Y4 | 1.047 | 1.316 | 273.0 | |
| | | Y5 | 0.269 | | | |
| | | Y5 | 0.269 | 0.807 | 341.3 | |
| | | Y5.5 | 0.538 | | | |
| | | Y5.5 | 0.538 | 3.260 | 432.3 | |
| | | Y7 | 2.722 | | | |
| | | 計 | 12.341 | | | |
| 3 | X5 | Y1 | 6.008 | 6.270 | 91.0 | 112.6 |
| | | Y3.5 | 0.262 | | | |
| | | Y3.5 | 0.262 | 0.531 | 204.8 | |
| | | Y4 | 0.269 | | | |
| | | Y4 | 0.269 | 0.538 | 273.0 | |
| | | Y5 | 0.269 | | | |
| | | | | 計 | 7.339 | |
| 4 | X5 | Y5 | 0.269 | 0.538 | 45.5 | 121.9 |
| | | Y6 | 0.269 | | | |
| | | Y6 | 0.269 | 2.812 | 136.5 | |
| | | Y7 | 2.543 | | | |
| | | | | 計 | 3.350 | |
| 5 | X6 | Y5 | 0.932 | 4.447 | 91.0 | 91.0 |
| | | Y7 | 3.515 | | | |
| | | | | 計 | 4.447 | |

| 梁 番 号 | 通り | 柱位置 | 重量 (kN) | 重量小計 (kN) | 位置 (cm) | 重心 X _w (cm) |
|-------------|----|------|------------|--------------|------------|------------------------------|
| 6 | X8 | Y1 | 4.502 | | | 225.2 |
| | | Y2 | 2.455 | 6.957 | 45.5 | |
| | | Y2 | 2.455 | | | |
| | | Y4.5 | 1.882 | 4.337 | 182.0 | |
| | | Y4.5 | 1.882 | | | |
| | | Y5 | 1.872 | 3.754 | 295.8 | |
| | | Y5 | 1.872 | | | |
| | | Y7 | 4.493 | 6.365 | 409.5 | |
| | | 計 | 21.413 | | | |

2階 X方向

| 梁番号 | 通り | 柱位置 | 重量 (kN) | 重量小計 (kN) | 位置 (cm) | 重心 Xw (cm) |
|-----|-------|--------|------------|--------------|------------|------------------|
| 1 | Y7 | X1 | 7.048 | 10.286 | 45.5 | 292.5 |
| | | X2 | 3.238 | | | |
| | | X2 | 3.238 | 8.531 | 182.0 | |
| | | X4 | 5.293 | | | |
| | | X4 | 5.293 | 7.673 | 318.5 | |
| | | X5 | 2.380 | | | |
| | | X5 | 2.380 | 5.957 | 409.5 | |
| | | X6 | 3.577 | | | |
| | | X6 | 3.577 | 11.211 | 523.3 | |
| X8 | 7.634 | | | | | |
| | | 計 | | 43.658 | | |
| 2 | Y4 | X1 | 9.071 | 11.176 | 45.5 | 52.7 |
| | | X2 | 2.105 | | | |
| | | X2 | 2.105 | 2.105 | 91.0 | |
| | | | 計 | 13.281 | | |
| 3 | Y1 | X1 | 5.333 | 9.069 | 45.5 | 125.8 |
| | | X2 | 3.736 | | | |
| | | X2 | 3.736 | 5.727 | 136.5 | |
| | | X3 | 1.991 | | | |
| | | X3 | 1.991 | 6.550 | 227.5 | |
| | | X4 | 4.559 | | | |
| | 計 | 21.346 | | | | |
| 4 | Y1 | X4 | 4.559 | 10.950 | 45.5 | 45.5 |
| | | X5 | 6.391 | | | |
| | | | 計 | 10.950 | | |
| 5 | Y1 | X5 | 6.391 | 11.213 | 68.3 | 129.1 |
| | | X7 | 4.822 | | | |
| | | X7 | 4.822 | 12.883 | 182.0 | |
| | | X8 | 8.061 | | | |
| | | | 計 | 24.096 | | |

2階 Y方向

| 梁番号 | 通り | 柱位置 | 重量 (kN) | 重量小計 (kN) | 位置 (cm) | 重心 Xw (cm) |
|-----|----|------|------------|--------------|------------|------------------|
| 1 | X1 | Y1 | 5.333 | | | 98.0 |
| | | Y1.5 | 2.258 | 7.591 | 22.8 | |
| | | Y1.5 | 2.258 | | | |
| | | Y3 | 2.658 | 4.916 | 91.0 | |
| | | Y3 | 2.658 | | | |
| | | Y4 | 4.536 | 7.194 | 182.0 | |
| | | 計 | 19.701 | | | |
| 2 | X1 | Y4 | 4.536 | | | 145.0 |
| | | Y5 | 3.099 | 7.635 | 45.5 | |
| | | Y5 | 3.099 | | | |
| | | Y6 | 2.770 | 5.869 | 136.5 | |
| | | Y6 | 2.770 | | | |
| | | Y7 | 7.048 | 9.818 | 227.5 | |
| | | 計 | 23.322 | | | |
| 3 | X4 | Y1 | 9.117 | | | 236.8 |
| | | Y2 | 2.620 | 11.737 | 45.5 | |
| | | Y2 | 2.620 | | | |
| | | Y5 | 3.568 | 6.188 | 204.8 | |
| | | Y5 | 3.568 | | | |
| | | Y7 | 10.585 | 14.153 | 409.5 | |
| | | 計 | 32.078 | | | |
| 4 | X5 | Y5 | 1.697 | | | 45.5 |
| | | Y6 | 1.034 | 2.731 | 45.5 | |
| | | 計 | 2.731 | | | |
| 5 | X6 | Y5 | 2.815 | | | 106.9 |
| | | Y6 | 1.239 | 4.054 | 45.5 | |
| | | Y6 | 1.239 | | | |
| | | Y7 | 7.153 | 8.392 | 136.5 | |
| | | 計 | 12.446 | | | |
| 6 | X8 | Y1 | 4.031 | 4.031 | 0.0 | 112.4 |
| | | Y1 | 4.031 | | | |
| | | Y2 | 5.418 | 9.449 | 45.5 | |
| | | Y2 | 5.418 | | | |
| | | Y5 | 6.337 | 11.755 | 204.8 | |
| | | 計 | 25.235 | | | |
| 7 | X8 | Y5 | 6.337 | | | 94.3 |
| | | Y6 | 1.850 | 8.187 | 45.5 | |
| | | Y6 | 1.850 | | | |
| | | Y7 | 7.634 | 9.484 | 136.5 | |
| | | 計 | 17.671 | | | |

1階 X方向

| 梁番号 | 通り | 柱位置 | 重量 (kN) | 重量小計 (kN) | 位置 (cm) | 重心 Xw (cm) |
|-----|----|-----|------------|--------------|------------|------------------|
| 1 | Y7 | X1 | 13.830 | | | 277.3 |
| | | X2 | 4.576 | 18.406 | 45.5 | |
| | | X2 | 4.576 | | | |
| | | X3 | 1.582 | 6.158 | 136.5 | |
| | | X3 | 1.582 | | | |
| | | X4 | 7.119 | 8.701 | 227.5 | |
| | | X4 | 7.119 | | | |
| | | X5 | 3.471 | 10.590 | 318.5 | |
| | | X5 | 3.471 | | | |
| | | X6 | 5.370 | 8.841 | 409.5 | |
| | | X6 | 5.370 | | | |
| | | 計 | 68.797 | | | |
| 2 | Y5 | X1 | 14.696 | | | 131.1 |
| | | X3 | 1.717 | 16.413 | 91.0 | |
| | | X3 | 1.717 | | | |
| | | X4 | 5.120 | 6.837 | 227.5 | |
| | | 計 | 23.250 | | | |
| 3 | Y5 | X4 | 5.120 | | | 191.6 |
| | | X5 | 2.268 | 7.388 | 45.5 | |
| | | X5 | 2.268 | | | |
| | | X6 | 3.593 | 5.861 | 136.5 | |
| | | X6 | 3.593 | | | |
| | | X7 | 0.614 | 4.207 | 204.8 | |
| | | X7 | 0.614 | | | |
| | | 計 | 33.989 | | | |
| 4 | Y4 | X1 | 17.883 | | | 122.3 |
| | | X3 | 3.324 | 21.207 | 91.0 | |
| | | X3 | 3.324 | | | |
| | | X4 | 2.993 | 6.317 | 227.5 | |
| | | 計 | 27.524 | | | |
| 5 | Y4 | X4 | 2.993 | | | 151.4 |
| | | X5 | 0.653 | 3.646 | 45.5 | |
| | | X5 | 0.653 | | | |
| | | X6 | 1.269 | 1.922 | 136.5 | |
| | | X6 | 1.269 | | | |
| | | 計 | 9.758 | | | |

| 梁 番 号 | 通り | 柱位置 | 重量 (kN) | 重量小計 (kN) | 位置 (cm) | 重心 X _w (cm) |
|-------------|----|-----|------------|--------------|------------|------------------------------|
| 6 | Y1 | X1 | 10.184 | | | 309.3 |
| | | X2 | 6.892 | 17.076 | 45.5 | |
| | | X2 | 6.892 | | | |
| | | X4 | 10.087 | 16.979 | 182.0 | |
| | | X4 | 10.087 | | | |
| | | X5 | 7.564 | 17.651 | 318.5 | |
| | | X5 | 7.564 | | | |
| | | X6 | 5.553 | 13.117 | 409.5 | |
| | | X6 | 5.553 | | | |
| | | X8 | 18.707 | 24.260 | 523.3 | |
| | | 計 | 89.083 | | | |

1階 Y方向

| 梁番号 | 通り | 柱位置 | 重量 (kN) | 重量小計 (kN) | 位置 (cm) | 重心 Xw (cm) |
|-----|----|-----|------------|--------------|------------|------------------|
| 1 | X1 | Y1 | 10.184 | | | 241.2 |
| | | Y2 | 4.882 | 15.066 | 45.5 | |
| | | Y2 | 4.882 | | | |
| | | Y4 | 8.942 | 13.824 | 159.3 | |
| | | Y4 | 8.942 | | | |
| | | Y5 | 7.348 | 16.290 | 273.0 | |
| | | Y5 | 7.348 | | | |
| | | | 13.830 | 21.178 | 409.5 | |
| | | | 計 | 66.358 | | |
| 2 | X3 | Y4 | 3.324 | | | 45.5 |
| | | Y5 | 1.717 | 5.041 | 45.5 | |
| | | | 計 | 5.041 | | |
| 3 | X3 | Y5 | 1.717 | | | 100.0 |
| | | Y6 | 1.228 | 2.945 | 45.5 | |
| | | Y6 | 1.228 | | | |
| | | Y7 | 3.164 | 4.392 | 136.5 | |
| | | | 計 | 7.337 | | |
| 4 | X4 | Y5 | 5.120 | | | 91.0 |
| | | Y7 | 14.237 | 19.357 | 91.0 | |
| | | | 計 | 19.357 | | |
| 5 | X5 | Y5 | 4.535 | | | 45.5 |
| | | Y6 | 1.523 | 6.058 | 45.5 | |
| | | | 計 | 6.058 | | |
| 6 | X6 | Y1 | 11.105 | | | 89.7 |
| | | Y3 | 1.690 | 12.795 | 68.3 | |
| | | Y3 | 1.690 | | | |
| | | Y4 | 1.269 | 2.959 | 182.0 | |
| | | | 計 | 15.754 | | |
| 7 | X6 | Y5 | 3.593 | | | 108.5 |
| | | Y6 | 2.098 | 5.691 | 45.5 | |
| | | Y6 | 2.098 | | | |
| | | Y7 | 10.739 | 12.837 | 136.5 | |
| | | | 計 | 18.528 | | |

| 梁 番 号 | 通り | 柱位置 | 重量 (kN) | 重量小計 (kN) | 位置 (cm) | 重心 X _w (cm) |
|-------------|----|-----|------------|--------------|------------|------------------------------|
| 8 | X8 | Y1 | 18.707 | | | 242.8 |
| | | Y3 | 5.440 | 24.147 | 68.3 | |
| | | Y3 | 5.440 | | | |
| | | Y4 | 1.461 | 6.901 | 182.0 | |
| | | Y4 | 1.461 | | | |
| | | Y5 | 7.960 | 9.421 | 273.0 | |
| | | Y5 | 7.960 | | | |
| | | Y6 | 3.311 | 11.271 | 364.0 | |
| | | Y6 | 3.311 | | | |
| | | Y7 | 10.731 | 14.042 | 455.0 | |
| | | | 計 | 65.782 | | |

(3) 梁別接合部の許容耐力の算定表

3階 X方向

| 梁番号 | 通り | 左からHu (cm) | 右からHu (cm) | 柱数 | 壁数 | 座標柱1 | 座標柱n | 梁ゾーン重量 (kN) | L _{WL} (cm) | L _{WR} (cm) | 左からQa (kN) | 右からQa (kN) | (cm) | (cm) | (cm ²) |
|-----|----|------------|------------|----|----|------|------|-------------|----------------------|----------------------|------------|------------|------|------|--------------------|
| 1 | Y7 | 0.0 | 0.0 | 6 | 3 | X1 | X8 | 21.863 | 307.4 | 284.1 | 15.972 | 16.864 | 1866 | 1684 | 306397 |
| 2 | Y5 | 0.0 | 0.0 | 4 | 1 | X4 | X8 | 6.683 | 205.1 | 113.4 | 4.423 | 6.207 | 592 | 683 | 45546 |
| 3 | Y1 | 0.0 | 0.0 | 6 | 5 | X1 | X8 | 29.663 | 310.2 | 281.3 | 10.826 | 10.826 | 1820 | 1729 | 260852 |

3階 Y方向

| 梁番号 | 通り | 下からHu (cm) | 上からHu (cm) | 柱数 | 壁数 | 座標柱1 | 座標柱n | 梁ゾーン重量 (kN) | L _{WL} (cm) | L _{WR} (cm) | 下からQa (kN) | 上からQa (kN) | (cm) | (cm) | (cm ²) |
|-----|----|------------|------------|----|----|------|------|-------------|----------------------|----------------------|------------|------------|------|------|--------------------|
| 1 | X1 | 0.0 | 0.0 | 5 | 4 | Y1 | Y7 | 22.579 | 245.7 | 254.8 | 13.635 | 12.744 | 1183 | 1320 | 149058 |
| 2 | X4 | 0.0 | 0.0 | 5 | 2 | Y1 | Y7 | 12.341 | 229.8 | 270.7 | 7.117 | 6.100 | 1411 | 1092 | 169761 |
| 3 | X5 | 0.0 | 0.0 | 4 | 1 | Y1 | Y5 | 7.339 | 112.6 | 205.9 | 2.212 | 2.212 | 728 | 546 | 45546 |
| 4 | X5 | 0.0 | 0.0 | 3 | 1 | Y5 | Y7 | 3.350 | 121.9 | 60.1 | 1.748 | 1.748 | 273 | 273 | 8281 |
| 5 | X6 | 0.0 | 0.0 | 2 | 1 | Y5 | Y7 | 4.447 | 91.0 | 91.0 | 3.496 | 3.496 | 182 | 182 | 0 |
| 6 | X8 | 0.0 | 0.0 | 5 | 2 | Y1 | Y7 | 21.413 | 225.2 | 275.3 | 14.215 | 12.432 | 1183 | 1320 | 157339 |

2階 X方向

| 梁番号 | 通り | 左からHu (cm) | 右からHu (cm) | 柱数 | 壁数 | 座標柱1 | 座標柱n | 梁の重量 (kN) | L _{WL} (cm) | L _{WR} (cm) | 左からQa (kN) | 右からQa (kN) | (cm) | (cm) | (cm ²) |
|-----|----|------------|------------|----|----|------|------|-----------|----------------------|----------------------|------------|------------|------|------|--------------------|
| 1 | Y7 | 164.3 | 153.5 | 6 | 3 | X1 | X8 | 43.658 | 292.5 | 299.0 | 16.881 | 21.340 | 1775 | 1775 | 277414 |
| 2 | Y4 | 145.0 | 154.3 | 2 | 1 | X1 | X2 | 13.281 | 52.7 | 38.3 | 3.728 | 4.923 | 91 | 91 | 0 |
| 3 | Y1 | 109.5 | 113.1 | 4 | 1 | X1 | X4 | 21.346 | 125.8 | 147.2 | 5.333 | 3.549 | 546 | 546 | 33124 |
| 4 | Y1 | 109.5 | 113.1 | 2 | 1 | X4 | X5 | 10.950 | 45.5 | 45.5 | 8.008 | 8.008 | 91 | 91 | 0 |
| 5 | Y1 | 109.5 | 113.1 | 3 | 2 | X5 | X8 | 24.096 | 129.1 | 98.4 | 8.784 | 8.784 | 364 | 319 | 12422 |

2階 Y方向

| 梁番号 | 通り | 下からHu (cm) | 上からHu (cm) | 柱数 | 壁数 | 座標柱1 | 座標柱n | 梁の重量 (kN) | L _{WL} (cm) | L _{WR} (cm) | 下からQa (kN) | 上からQa (kN) | (cm) | (cm) | (cm ²) |
|-----|----|------------|------------|----|----|------|------|-----------|----------------------|----------------------|------------|------------|------|------|--------------------|
| 1 | X1 | 195.2 | 173.0 | 4 | 1 | Y1 | Y4 | 19.701 | 98.0 | 129.5 | 8.008 | 8.008 | 410 | 501 | 20703 |
| 2 | X1 | 195.2 | 173.0 | 4 | 1 | Y4 | Y7 | 23.322 | 145.0 | 128.0 | 3.549 | 5.333 | 546 | 546 | 33124 |
| 3 | X4 | 69.7 | 76.4 | 4 | 2 | Y1 | Y7 | 32.078 | 236.8 | 263.7 | 15.963 | 13.484 | 910 | 1092 | 95232 |
| 4 | X5 | 347.8 | 373.7 | 2 | 1 | Y5 | Y6 | 2.731 | 45.5 | 45.5 | 1.748 | 1.748 | 91 | 91 | 0 |
| 5 | X6 | 49.5 | 52.9 | 3 | 2 | Y5 | Y7 | 12.446 | 106.9 | 75.1 | 10.630 | 10.630 | 273 | 273 | 8281 |
| 6 | X8 | 233.8 | 217.3 | 3 | 1 | Y1 | Y5 | 25.235 | 112.4 | 206.1 | 5.333 | 3.549 | 410 | 546 | 20703 |
| 7 | X8 | 233.8 | 217.3 | 3 | 1 | Y5 | Y7 | 17.671 | 94.3 | 87.7 | 3.549 | 5.333 | 273 | 273 | 8281 |

1階 X方向

| 梁番号 | 通り | 左からHu (cm) | 右からHu (cm) | 柱数 | 壁数 | 座標柱1 | 座標柱n | 梁の重量 (kN) | L _{WL} (cm) | L _{WR} (cm) | 左からQa (kN) | 右からQa (kN) | (cm) | (cm) | (cm ²) |
|-----|----|------------|------------|----|----|------|------|-----------|----------------------|----------------------|------------|------------|------|------|--------------------|
| 1 | Y7 | 425.9 | 419.1 | 7 | 4 | X1 | X8 | 68.797 | 277.3 | 314.2 | 20.430 | 19.539 | 1957 | 2184 | 351943 |
| 2 | Y5 | 0.0 | 0.0 | 3 | 1 | X1 | X4 | 23.250 | 131.1 | 141.9 | 12.414 | 8.847 | 455 | 364 | 16562 |
| 3 | Y5 | 0.0 | 0.0 | 5 | 1 | X4 | X8 | 33.989 | 191.6 | 126.9 | 1.748 | 1.748 | 819 | 774 | 66248 |
| 4 | Y4 | 157.5 | 182.8 | 3 | 1 | X1 | X4 | 27.524 | 122.3 | 150.7 | 6.207 | 4.423 | 455 | 364 | 16562 |
| 5 | Y4 | 157.5 | 182.8 | 4 | 1 | X4 | X8 | 9.758 | 151.4 | 167.1 | 4.423 | 6.207 | 592 | 683 | 45546 |
| 6 | Y1 | 491.4 | 431.7 | 6 | 4 | X1 | X8 | 89.083 | 309.3 | 282.2 | 17.175 | 17.175 | 1775 | 1775 | 277414 |

1階 Y方向

| 梁番号 | 通り | 下からHu (cm) | 上からHu (cm) | 柱数 | 壁数 | 座標柱1 | 座標柱n | 梁の重量 (kN) | L _{WL} (cm) | L _{WR} (cm) | 下からQa (kN) | 上からQa (kN) | (cm) | (cm) | (cm ²) |
|-----|----|------------|------------|----|----|------|------|-----------|----------------------|----------------------|------------|------------|------|------|--------------------|
| 1 | X1 | 307.2 | 334.4 | 5 | 4 | Y1 | Y7 | 66.358 | 241.2 | 259.3 | 18.540 | 18.541 | 1138 | 1365 | 157339 |
| 2 | X3 | 0.0 | 0.0 | 2 | 1 | Y4 | Y5 | 5.041 | 45.5 | 45.5 | 6.207 | 4.423 | 91 | 91 | 0 |
| 3 | X3 | 0.0 | 0.0 | 3 | 2 | Y5 | Y7 | 7.337 | 100.0 | 82.0 | 4.708 | 6.492 | 273 | 273 | 8281 |
| 4 | X4 | 1723.9 | 1533.4 | 2 | 1 | Y5 | Y7 | 19.357 | 91.0 | 91.0 | 3.496 | 3.496 | 182 | 182 | 0 |
| 5 | X5 | 686.5 | 750.3 | 2 | 1 | Y5 | Y6 | 6.058 | 45.5 | 45.5 | 1.748 | 1.748 | 91 | 91 | 0 |
| 6 | X6 | 143.7 | 149.8 | 3 | 2 | Y1 | Y4 | 15.754 | 89.7 | 137.8 | 13.733 | 12.842 | 364 | 319 | 12422 |
| 7 | X6 | 143.7 | 149.8 | 3 | 2 | Y5 | Y7 | 18.528 | 108.5 | 73.5 | 13.305 | 15.089 | 273 | 273 | 8281 |
| 8 | X8 | 484.9 | 472.5 | 6 | 2 | Y1 | Y7 | 65.782 | 242.8 | 257.7 | 10.657 | 11.548 | 1593 | 1411 | 207025 |

(4) 柱脚柱頭の必要引張耐力の算定表

3階 X方向

| 梁番号 | 通り | 柱座標 | L _L (cm) | L _R (cm) | 左から加力 | | 右から加力 | | 必要引張耐力 | |
|-----|----|-----|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | | | | | T _d (kN) | T _u (kN) | T _d (kN) | T _u (kN) | T _d (kN) | T _u (kN) |
| 1 | Y7 | X1 | 0.0 | 591.5 | 4.912 | -6.010 | -15.334 | 1.075 | 4.912 | 1.075 |
| | | X3 | 182.0 | 409.5 | -7.819 | 3.103 | 3.118 | -13.291 | 3.118 | 3.118 |
| | | X4 | 273.0 | 318.5 | -3.263 | -3.263 | -4.065 | -4.065 | -3.263 | -3.263 |
| | | X5 | 364.0 | 227.5 | -2.823 | -5.512 | -4.388 | -1.699 | -2.823 | -1.699 |
| | | X6 | 455.0 | 136.5 | 1.787 | -11.932 | -6.138 | 2.094 | 1.787 | 2.094 |
| | | X8 | 591.5 | 0.0 | -14.634 | 1.774 | 4.971 | -5.950 | 4.971 | 1.774 |
| 2 | Y5 | X4 | 0.0 | 318.5 | 1.001 | 1.001 | -2.965 | -2.965 | 1.001 | 1.001 |
| | | X5 | 91.0 | 227.5 | 6.163 | -7.446 | -11.716 | 7.382 | 6.163 | 7.382 |
| | | X6 | 182.0 | 136.5 | -9.088 | 4.521 | 8.181 | -10.917 | 8.181 | 8.181 |
| | | X8 | 318.5 | 0.0 | -4.748 | -4.748 | -0.170 | -0.170 | -0.170 | -0.170 |
| 3 | Y1 | X1 | 0.0 | 591.5 | 2.495 | -8.425 | -14.658 | 1.751 | 2.495 | 1.751 |
| | | X2 | 91.0 | 500.5 | -8.360 | 1.243 | 1.546 | -13.546 | 1.546 | 1.546 |
| | | X4 | 273.0 | 318.5 | -4.060 | -5.432 | -5.781 | -4.409 | -4.060 | -4.409 |
| | | X5 | 364.0 | 227.5 | -6.465 | -4.215 | -3.517 | -5.767 | -3.517 | -4.215 |
| | | X7 | 500.5 | 91.0 | 1.755 | -14.215 | -9.203 | 1.278 | 1.755 | 1.755 |
| | | X8 | 591.5 | 0.0 | -15.028 | 1.381 | 1.950 | -8.970 | 1.950 | 1.381 |

3階 Y方向

| 梁番号 | 通り | 柱座標 | L _L (cm) | L _R (cm) | 下から加力 | | 上から加力 | | 必要引張耐力 | |
|-----|----|------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | | | | | T _d (kN) | T _u (kN) | T _d (kN) | T _u (kN) | T _d (kN) | T _u (kN) |
| 1 | X1 | Y1 | 0.0 | 500.5 | 4.014 | -6.906 | -15.005 | 1.404 | 4.014 | 1.404 |
| | | Y2 | 91.0 | 409.5 | -7.290 | 2.038 | 1.488 | -13.329 | 1.488 | 2.038 |
| | | Y4 | 227.5 | 273.0 | -3.847 | -4.944 | -5.149 | -4.052 | -3.847 | -4.052 |
| | | Y5.5 | 364.0 | 136.5 | 0.694 | -13.025 | -7.396 | 0.836 | 0.694 | 0.836 |
| | | Y7 | 500.5 | 0.0 | -16.139 | 0.269 | 3.500 | -7.421 | 3.500 | 0.269 |
| 2 | X4 | Y1 | 0.0 | 500.5 | -1.751 | -1.751 | -5.526 | -5.526 | -1.751 | -1.751 |
| | | Y4 | 227.5 | 273.0 | 4.588 | -9.243 | -8.410 | 2.292 | 4.588 | 4.588 |
| | | Y5 | 318.5 | 182.0 | -9.474 | 4.357 | 3.279 | -7.423 | 3.279 | 4.357 |
| | | Y5.5 | 364.0 | 136.5 | 0.015 | -5.363 | -4.268 | 1.110 | 0.015 | 1.110 |
| | | Y7 | 500.5 | 0.0 | -5.709 | -0.331 | 2.591 | -2.787 | 2.591 | -0.331 |
| 3 | X5 | Y1 | 0.0 | 318.5 | -0.808 | -4.211 | -6.306 | -2.903 | -0.808 | -2.903 |
| | | Y3.5 | 182.0 | 136.5 | -3.536 | -0.133 | -0.133 | -3.536 | -0.133 | -0.133 |
| | | Y4 | 227.5 | 91.0 | -1.666 | -1.666 | -1.142 | -1.142 | -1.142 | -1.142 |
| | | Y5 | 318.5 | 0.0 | -1.328 | -1.328 | 0.242 | 0.242 | 2.158 | 1.038 |
| 4 | X5 | Y5 | 0.0 | 182.0 | 3.486 | -1.892 | -4.582 | 0.796 | 2.158 | 1.038 |
| | | Y6 | 91.0 | 91.0 | -3.806 | 1.572 | 1.573 | -3.805 | 1.573 | 1.572 |
| | | Y7 | 182.0 | 0.0 | -3.030 | -3.030 | -0.341 | -0.341 | -0.341 | -0.341 |
| 5 | X6 | Y5 | 0.0 | 182.0 | 3.155 | -2.223 | -7.602 | -2.224 | 3.155 | -2.223 |
| | | Y7 | 182.0 | 0.0 | -7.602 | -2.224 | 3.155 | -2.223 | 3.155 | -2.223 |
| 6 | X8 | Y1 | 0.0 | 500.5 | 3.849 | -7.071 | -15.514 | 0.895 | 3.849 | 0.895 |
| | | Y2 | 91.0 | 409.5 | -8.098 | 2.822 | 2.061 | -14.348 | 2.061 | 2.822 |
| | | Y4.5 | 273.0 | 227.5 | -4.691 | -4.691 | -3.813 | -3.813 | -3.813 | -3.813 |
| | | Y5 | 318.5 | 182.0 | 3.001 | -13.408 | -8.691 | 2.231 | 3.001 | 3.001 |
| | | Y7 | 500.5 | 0.0 | -15.462 | 0.947 | 4.561 | -6.361 | 4.561 | 0.947 |

2階 X方向

| 梁番号 | 通り | 柱座標 | L _L (cm) | L _R (cm) | 左から加力 | | 右から加力 | | 必要引張耐力 | |
|-----|----|-----|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | | | | | T _d (kN) | T _u (kN) | T _d (kN) | T _u (kN) | T _d (kN) | T _u (kN) |
| 1 | Y7 | X1 | 0.0 | 591.5 | 4.159 | -6.761 | -23.127 | -6.718 | 4.159 | -6.718 |
| | | X2 | 91.0 | 500.5 | -8.597 | 2.323 | -4.363 | -20.772 | -4.363 | 2.323 |
| | | X4 | 273.0 | 318.5 | -6.810 | -6.810 | -7.858 | -7.858 | -6.810 | -6.810 |
| | | X5 | 364.0 | 227.5 | 3.673 | -20.967 | -17.824 | 6.816 | 3.673 | 6.816 |
| | | X6 | 455.0 | 136.5 | -17.343 | -3.624 | 0.967 | -7.265 | 0.967 | 0.967 |
| | | X8 | 591.5 | 0.0 | -18.698 | -7.777 | 8.587 | -7.821 | 8.587 | 8.587 |
| 2 | Y4 | X1 | 0.0 | 91.0 | 11.821 | 0.350 | -29.085 | -13.937 | 11.821 | 0.350 |
| | | X2 | 91.0 | 0.0 | -25.102 | -13.631 | 15.804 | 0.656 | 15.804 | 15.804 |
| 3 | Y1 | X1 | 0.0 | 273.0 | 6.502 | -9.907 | -14.511 | -3.591 | 6.502 | 6.502 |
| | | X2 | 91.0 | 182.0 | -12.330 | 4.079 | -1.115 | -12.035 | -1.115 | 4.079 |
| | | X3 | 182.0 | 91.0 | -6.548 | -6.548 | -4.098 | -4.098 | -4.098 | -4.098 |
| | | X4 | 273.0 | 0.0 | -8.970 | -8.970 | -1.622 | -1.622 | 19.831 | 19.831 |
| 4 | Y1 | X4 | 0.0 | 91.0 | 28.801 | 4.161 | -40.068 | -15.428 | 19.831 | 19.831 |
| | | X5 | 91.0 | 0.0 | -39.751 | -15.111 | 29.118 | 4.478 | 10.909 | 10.909 |
| 5 | Y1 | X5 | 0.0 | 227.5 | 3.765 | 2.173 | -18.209 | -16.617 | 10.909 | 10.909 |
| | | X7 | 136.5 | 91.0 | 2.118 | -20.930 | -18.363 | 4.685 | 2.118 | 4.685 |
| | | X8 | 227.5 | 0.0 | -29.976 | -5.336 | 12.531 | -12.109 | 12.531 | 12.531 |

2階 Y方向

| 梁番号 | 通り | 柱座標 | L _L (cm) | L _R (cm) | 下から加力 | | 上から加力 | | 必要引張耐力 | |
|-----|----|------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | | | | | T _d (kN) | T _u (kN) | T _d (kN) | T _u (kN) | T _d (kN) | T _u (kN) |
| 1 | X1 | Y1 | 0.0 | 227.5 | 3.771 | 3.771 | -13.588 | -13.588 | 3.771 | 3.771 |
| | | Y1.5 | 45.5 | 182.0 | -0.090 | -0.090 | -9.735 | -9.735 | -0.090 | -0.090 |
| | | Y3 | 136.5 | 91.0 | 4.509 | -20.131 | -14.350 | 10.290 | 4.509 | 10.290 |
| | | Y4 | 227.5 | 0.0 | -27.852 | -3.212 | 17.995 | -6.645 | 7.315 | 7.315 |
| 2 | X1 | Y4 | 0.0 | 273.0 | -1.255 | -1.255 | -10.680 | -10.680 | 7.315 | 7.315 |
| | | Y5 | 91.0 | 182.0 | -4.305 | -4.305 | -7.447 | -7.447 | -4.305 | -4.305 |
| | | Y6 | 182.0 | 91.0 | -1.896 | -12.816 | -12.419 | 3.990 | -1.896 | 3.990 |
| | | Y7 | 273.0 | 0.0 | -15.866 | -4.946 | 7.224 | -9.185 | 7.224 | 7.224 |
| 3 | X4 | Y1 | 0.0 | 500.5 | 2.854 | -8.066 | -19.043 | -4.775 | 2.854 | -4.775 |
| | | Y2 | 91.0 | 409.5 | -10.231 | 0.689 | -3.220 | -17.488 | -3.220 | 0.689 |
| | | Y5 | 318.5 | 182.0 | -0.636 | -19.734 | -13.269 | 0.342 | -0.636 | 0.342 |
| | | Y7 | 500.5 | 0.0 | -24.066 | -4.968 | 3.454 | -10.157 | 3.454 | -4.968 |
| 4 | X5 | Y5 | 0.0 | 91.0 | 10.694 | 5.316 | -13.922 | -8.544 | 10.694 | 5.316 |
| | | Y6 | 91.0 | 0.0 | -13.425 | -8.047 | 11.191 | 5.813 | 11.191 | 5.813 |
| 5 | X6 | Y5 | 0.0 | 182.0 | 14.811 | 1.202 | -23.877 | -4.779 | 14.811 | 1.202 |
| | | Y6 | 91.0 | 91.0 | -1.404 | -6.893 | -1.404 | -6.893 | -1.404 | -1.404 |
| | | Y7 | 182.0 | 0.0 | -25.853 | -6.755 | 12.835 | -0.774 | 12.835 | -0.774 |
| 6 | X8 | Y1 | 0.0 | 318.5 | 3.314 | -13.095 | -18.627 | -7.707 | 3.314 | 3.314 |
| | | Y2 | 91.0 | 227.5 | -15.433 | 0.976 | -4.534 | -15.454 | -4.534 | 0.976 |
| | | Y5 | 318.5 | 0.0 | -13.074 | -13.074 | -2.059 | -2.059 | -5.895 | -9.894 |
| 7 | X8 | Y5 | 0.0 | 182.0 | 7.179 | -3.741 | -24.244 | -7.835 | -5.895 | -9.894 |
| | | Y6 | 91.0 | 91.0 | -11.350 | -0.430 | 2.314 | -14.095 | 2.314 | 2.314 |
| | | Y7 | 182.0 | 0.0 | -13.500 | -13.500 | 4.259 | 4.259 | 4.259 | 4.259 |

1階 X方向

| 梁番号 | 通り | 柱座標 | L _L (cm) | L _R (cm) | 左から加力 | | 右から加力 | | 必要引張耐力 | |
|-----|----|-----|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | | | | | T _d (kN) | T _u (kN) | T _d (kN) | T _u (kN) | T _d (kN) | T _u (kN) |
| 1 | Y7 | X1 | 0.0 | 591.5 | 7.953 | -2.948 | -29.985 | -13.605 | 7.953 | -2.948 |
| | | X2 | 91.0 | 500.5 | -6.960 | 3.941 | -9.708 | -26.088 | -6.960 | 3.941 |
| | | X3 | 182.0 | 409.5 | -5.523 | -5.523 | -14.001 | -14.001 | -5.523 | -5.523 |
| | | X4 | 273.0 | 318.5 | -1.346 | -17.726 | -15.554 | -4.654 | -1.346 | -1.346 |
| | | X5 | 364.0 | 227.5 | -16.288 | -10.809 | -8.947 | -3.468 | -8.947 | -3.468 |
| | | X6 | 455.0 | 136.5 | -14.822 | -20.300 | 0.429 | -5.049 | 0.429 | 0.429 |
| | | X8 | 591.5 | 0.0 | -31.769 | -15.390 | 8.985 | -1.917 | 8.985 | -1.917 |
| 2 | Y5 | X1 | 0.0 | 273.0 | 6.714 | -12.350 | -21.272 | -7.686 | 6.714 | 6.714 |
| | | X3 | 182.0 | 91.0 | -18.269 | 0.795 | 0.389 | -13.197 | 0.389 | 0.795 |
| | | X4 | 273.0 | 0.0 | -11.696 | -11.696 | -2.367 | -2.367 | -9.944 | -4.575 |
| 3 | Y5 | X4 | 0.0 | 318.5 | -0.880 | -6.249 | -7.577 | -2.208 | -9.944 | -4.575 |
| | | X5 | 91.0 | 227.5 | -8.041 | -2.672 | -3.262 | -8.631 | -3.262 | -2.672 |
| | | X6 | 182.0 | 136.5 | -7.150 | -7.150 | -6.999 | -6.999 | -6.999 | -6.999 |
| | | X7 | 227.5 | 91.0 | -8.046 | -8.046 | -7.526 | -7.526 | -7.526 | -7.526 |
| | | X8 | 318.5 | 0.0 | -9.839 | -9.839 | -8.579 | -8.579 | -8.579 | -8.579 |
| 4 | Y4 | X1 | 0.0 | 273.0 | -5.106 | -5.106 | -17.946 | -17.946 | -5.106 | -5.106 |
| | | X3 | 182.0 | 91.0 | -0.456 | -19.520 | -14.213 | -0.628 | -0.456 | -0.456 |
| | | X4 | 273.0 | 0.0 | -21.962 | -2.898 | 4.635 | -8.950 | -12.577 | -7.098 |
| 5 | Y4 | X4 | 0.0 | 318.5 | 7.953 | -5.632 | -17.212 | 1.852 | -12.577 | -7.098 |
| | | X5 | 91.0 | 227.5 | -7.845 | 5.740 | 5.078 | -13.986 | 5.078 | 5.740 |
| | | X6 | 182.0 | 136.5 | -3.265 | -3.265 | -1.228 | -1.228 | -1.228 | -1.228 |
| | | X8 | 318.5 | 0.0 | -6.584 | -6.584 | 3.611 | 3.611 | 3.611 | 3.611 |
| 6 | Y1 | X1 | 0.0 | 591.5 | 5.010 | -5.891 | -33.309 | -16.929 | 5.010 | -5.891 |
| | | X2 | 91.0 | 500.5 | -10.100 | 0.363 | -13.983 | -29.925 | -10.100 | 0.363 |
| | | X4 | 273.0 | 318.5 | -1.647 | -25.805 | -27.703 | -3.545 | -1.647 | -1.647 |
| | | X5 | 364.0 | 227.5 | -22.263 | -14.047 | -5.611 | -19.307 | -5.611 | -5.611 |
| | | X6 | 455.0 | 136.5 | -30.774 | -14.394 | -3.843 | -14.744 | -3.843 | -14.394 |
| | | X8 | 591.5 | 0.0 | -29.227 | -29.227 | -4.546 | -4.546 | -4.546 | -4.546 |

1階 Y方向

| 梁番号 | 通り | 柱座標 | L _L (cm) | L _R (cm) | 下から加力 | | 上から加力 | | 必要引張耐力 | |
|-----|----|-----|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | | | | | T _d (kN) | T _u (kN) | T _d (kN) | T _u (kN) | T _d (kN) | T _u (kN) |
| 1 | X1 | Y1 | 0.0 | 500.5 | 5.834 | -5.067 | -33.161 | -16.781 | 5.834 | -5.067 |
| | | Y2 | 91.0 | 409.5 | -9.730 | -0.418 | -12.894 | -27.685 | -9.730 | -0.418 |
| | | Y4 | 227.5 | 273.0 | -8.604 | -17.916 | -20.662 | -5.871 | -8.604 | -5.871 |
| | | Y5 | 318.5 | 182.0 | -15.977 | -21.456 | -5.846 | -11.324 | -5.846 | -5.846 |
| | | Y7 | 500.5 | 0.0 | -37.822 | -21.442 | 6.229 | -4.673 | 6.229 | -4.673 |
| 2 | X3 | Y4 | 0.0 | 91.0 | 16.544 | -2.520 | -16.105 | -2.520 | 16.544 | 16.544 |
| | | Y5 | 91.0 | 0.0 | -21.585 | -2.521 | 11.064 | -2.521 | 3.559 | -1.426 |
| 3 | X3 | Y5 | 0.0 | 182.0 | 1.970 | 1.095 | -7.505 | -6.630 | 3.559 | -1.426 |
| | | Y6 | 91.0 | 91.0 | 3.909 | -8.801 | -11.540 | 6.649 | 3.909 | 6.649 |
| | | Y7 | 182.0 | 0.0 | -13.216 | 0.369 | 11.709 | -7.355 | 11.709 | 11.709 |
| 4 | X4 | Y5 | 0.0 | 182.0 | 28.804 | 23.435 | -44.502 | -39.133 | 28.804 | 23.435 |
| | | Y7 | 182.0 | 0.0 | -48.161 | -42.792 | 25.145 | 19.776 | 25.145 | 19.776 |
| 5 | X5 | Y5 | 0.0 | 91.0 | 15.527 | 10.158 | -22.810 | -17.441 | 15.527 | 10.158 |
| | | Y6 | 91.0 | 0.0 | -21.585 | -16.216 | 16.752 | 11.383 | 16.752 | 11.383 |
| 6 | X6 | Y1 | 0.0 | 227.5 | 19.951 | 0.888 | -31.498 | -17.912 | 19.951 | 19.951 |
| | | Y3 | 136.5 | 91.0 | -9.962 | -4.484 | -5.545 | -0.067 | -5.545 | -0.067 |
| | | Y4 | 227.5 | 0.0 | -25.776 | -12.191 | 21.326 | 2.262 | 21.326 | 21.326 |
| 7 | X6 | Y5 | 0.0 | 182.0 | 29.967 | 2.687 | -42.040 | -14.760 | 29.967 | 29.967 |
| | | Y6 | 91.0 | 91.0 | -13.024 | 0.672 | -2.068 | -10.284 | -2.068 | 0.672 |
| | | Y7 | 182.0 | 0.0 | -35.471 | -21.886 | 25.580 | 6.516 | 25.580 | 25.580 |
| 8 | X8 | Y1 | 0.0 | 500.5 | 2.695 | -8.207 | -32.702 | -16.323 | 2.695 | -8.207 |
| | | Y3 | 136.5 | 364.0 | -12.421 | -1.519 | -9.348 | -25.727 | -9.348 | -1.519 |
| | | Y4 | 227.5 | 273.0 | -9.780 | -9.780 | -12.888 | -12.888 | -9.780 | -9.780 |
| | | Y5 | 318.5 | 182.0 | -12.590 | -12.590 | -8.238 | -8.238 | -8.238 | -8.238 |
| | | Y6 | 409.5 | 91.0 | -7.210 | -23.590 | -9.039 | 1.862 | -7.210 | 1.862 |
| | | Y7 | 500.5 | 0.0 | -26.399 | -10.019 | 6.512 | -4.389 | 6.512 | -4.389 |

(5) 柱脚柱頭接合部の引張耐力の検討

3 階

| 位置 | 柱頭 柱脚 | 方 向 | 必要引張 耐力 (kN) | 最大引張 耐力 (kN) | 金物 | 許容耐力 (kN) | 検定比 |
|--------|----------|--------|-----------------|-----------------|---------|--------------|------|
| X1Y7 | 柱頭 | X | 1.075 | 1.075 | T字型かど金物 | 5.07 | 0.97 |
| | | Y | 0.269 | | | | |
| | 柱脚 | X | 4.912 | 4.912 | | | |
| | | Y | 3.500 | | | | |
| X3Y7 | 柱頭 | X | 3.118 | 3.118 | L字型かど金物 | 3.38 | 0.92 |
| | | Y | | | | | |
| | 柱脚 | X | 3.118 | 3.118 | | | |
| | | Y | | | | | |
| X4Y7 | 柱頭 | X | -3.263 | -0.331 | 通し柱 | | |
| | | Y | -0.331 | | | | |
| | 柱脚 | X | -3.263 | 2.591 | | | |
| | | Y | 2.591 | | | | |
| X5Y7 | 柱頭 | X | -1.699 | -0.341 | | | |
| | | Y | -0.341 | | | | |
| | 柱脚 | X | -2.823 | -0.341 | | | |
| | | Y | -0.341 | | | | |
| X6Y7 | 柱頭 | X | 2.094 | 2.094 | L字型かど金物 | 3.38 | 0.62 |
| | | Y | -2.223 | | | | |
| | 柱脚 | X | 1.787 | 3.155 | | | |
| | | Y | 3.155 | | | | |
| X8Y7 | 柱頭 | X | 1.774 | 1.774 | L字型かど金物 | 3.38 | 0.52 |
| | | Y | 0.947 | | | | |
| | 柱脚 | X | 4.971 | 4.971 | | | |
| | | Y | 4.561 | | | | |
| X5Y6 | 柱頭 | X | | 1.572 | L字型かど金物 | 3.38 | 0.47 |
| | | Y | 1.572 | | | | |
| | 柱脚 | X | | 1.573 | | | |
| | | Y | 1.573 | | | | |
| X1Y5.5 | 柱頭 | X | | 0.836 | | | |
| | | Y | 0.836 | | | | |
| | 柱脚 | X | | 0.694 | | | |
| | | Y | 0.694 | | | | |
| X4Y5.5 | 柱頭 | X | | 1.110 | L字型かど金物 | 3.38 | 0.33 |
| | | Y | 1.110 | | | | |
| | 柱脚 | X | | 0.015 | | | |
| | | Y | 0.015 | | | | |
| X4Y5 | 柱頭 | X | 1.001 | 4.357 | T字型かど金物 | 5.07 | 0.86 |
| | | Y | 4.357 | | | | |
| | 柱脚 | X | 1.001 | 3.279 | | | |
| | | Y | 3.279 | | | | |

検定比 : 最大引張耐力 / 許容耐力

| 位置 | 柱頭 柱脚 | 方 向 | 必要引張 耐力(kN) | 最大引張 耐力(kN) | 金物 | 許容耐力 (kN) | 検定比 | |
|--------|----------|--------|----------------|----------------|-----------------|-----------------|------|------|
| X5Y5 | 柱頭 | X | 7.382 | 7.382 | 羽子板ボルト、短冊金物 | 7.50 | 0.98 | |
| | | Y | 1.038 | | | | | |
| | 柱脚 | X | 6.163 | 6.163 | | 羽子板ボルト、短冊金物 | 7.50 | 0.82 |
| | | Y | 2.158 | | | | | |
| X6Y5 | 柱頭 | X | 8.181 | 8.181 | 羽子板ボルト + スクリュー釘 | 8.50 | 0.96 | |
| | | Y | -2.223 | | | | | |
| | 柱脚 | X | 8.181 | 8.181 | | 羽子板ボルト + スクリュー釘 | 8.50 | 0.96 |
| | | Y | 3.155 | | | | | |
| X8Y5 | 柱頭 | X | -0.170 | 3.001 | L字型かど金物 | 3.38 | 0.89 | |
| | | Y | 3.001 | | | | | |
| | 柱脚 | X | -0.170 | 3.001 | | L字型かど金物 | 3.38 | 0.89 |
| | | Y | 3.001 | | | | | |
| X8Y4.5 | 柱頭 | X | | -3.813 | | | | |
| | | Y | -3.813 | | | | | |
| | 柱脚 | X | | -3.813 | | | | |
| | | Y | -3.813 | | | | | |
| X1Y4 | 柱頭 | X | | -4.052 | | | | |
| | | Y | -4.052 | | | | | |
| | 柱脚 | X | | -3.847 | | 通し柱 | | |
| | | Y | -3.847 | | | | | |
| X4Y4 | 柱頭 | X | | 4.588 | T字型かど金物 | 5.07 | 0.90 | |
| | | Y | 4.588 | | | | | |
| | 柱脚 | X | | 4.588 | | T字型かど金物 | 5.07 | 0.90 |
| | | Y | 4.588 | | | | | |
| X5Y4 | 柱頭 | X | | -1.142 | | | | |
| | | Y | -1.142 | | | | | |
| | 柱脚 | X | | -1.142 | | | | |
| | | Y | -1.142 | | | | | |
| X5Y3.5 | 柱頭 | X | | -0.133 | | | | |
| | | Y | -0.133 | | | | | |
| | 柱脚 | X | | -0.133 | | | | |
| | | Y | -0.133 | | | | | |
| X1Y2 | 柱頭 | X | | 2.038 | L字型かど金物 | 3.38 | 0.60 | |
| | | Y | 2.038 | | | | | |
| | 柱脚 | X | | 1.488 | | L字型かど金物 | 3.38 | 0.44 |
| | | Y | 1.488 | | | | | |
| X8Y2 | 柱頭 | X | | 2.822 | L字型かど金物 | 3.38 | 0.83 | |
| | | Y | 2.822 | | | | | |
| | 柱脚 | X | | 2.061 | | L字型かど金物 | 3.38 | 0.61 |
| | | Y | 2.061 | | | | | |

検定比 : 最大引張耐力 / 許容耐力

| 位置 | 柱頭 柱脚 | 方 向 | 必要引張 耐力(kN) | 最大引張 耐力(kN) | 金物 | 許容耐力 (kN) | 検定比 | |
|------|----------|--------|----------------|----------------|---------|--------------|------|---------|
| X1Y1 | 柱頭 | X | 1.751 | 1.751 | L字型かど金物 | 3.38 | 0.52 | |
| | | Y | 1.404 | | | | | |
| | 柱脚 | X | 2.495 | 4.014 | | | | T字型かど金物 |
| | | Y | 4.014 | | | | | |
| X2Y1 | 柱頭 | X | 1.546 | 1.546 | L字型かど金物 | 3.38 | 0.46 | |
| | | Y | | | | | | |
| | 柱脚 | X | 1.546 | 1.546 | | | | L字型かど金物 |
| | | Y | | | | | | |
| X4Y1 | 柱頭 | X | -4.409 | -1.751 | 通し柱 | | | |
| | | Y | -1.751 | | | | | |
| | 柱脚 | X | -4.060 | -1.751 | | | | |
| | | Y | -1.751 | | | | | |
| X5Y1 | 柱頭 | X | -4.215 | -2.903 | | | | |
| | | Y | -2.903 | | | | | |
| | 柱脚 | X | -3.517 | -0.808 | | | | |
| | | Y | -0.808 | | | | | |
| X7Y1 | 柱頭 | X | 1.755 | 1.755 | L字型かど金物 | 3.38 | 0.52 | |
| | | Y | | | | | | |
| | 柱脚 | X | 1.755 | 1.755 | | | | L字型かど金物 |
| | | Y | | | | | | |
| X8Y1 | 柱頭 | X | 1.381 | 1.381 | L字型かど金物 | 3.38 | 0.41 | |
| | | Y | 0.895 | | | | | |
| | 柱脚 | X | 1.950 | 3.849 | | | | T字型かど金物 |
| | | Y | 3.849 | | | | | |

検定比：最大引張耐力/許容耐力

2 階

| 位置 | 柱頭 柱脚 | 方 向 | 必要引張 耐力(kN) | 最大引張 耐力(kN) | 金物 | 許容耐力 (kN) | 検定比 | | | |
|------|----------|--------|----------------|----------------|-------------|--------------|------|---------|-------|------|
| X1Y7 | 柱頭 | X | -6.718 | 7.224 | 羽子板ボルト、短冊金物 | 7.50 | 0.96 | | | |
| | | Y | 7.224 | | | | | | | |
| | 柱脚 | X | 4.159 | 7.224 | | | | 通し柱 | | |
| | | Y | 7.224 | | | | | | | |
| X2Y7 | 柱頭 | X | 2.323 | 2.323 | L字型かど金物 | 3.38 | 0.69 | | | |
| | | Y | | | | | | | | |
| | 柱脚 | X | -4.363 | -4.363 | | | | | | |
| | | Y | | | | | | | | |
| X4Y7 | 柱頭 | X | -6.810 | -4.968 | 通し柱 | | | | | |
| | | Y | -4.968 | | | | | | | |
| | 柱脚 | X | -6.810 | 3.454 | | | | T字型かど金物 | 5.07 | 0.68 |
| | | Y | 3.454 | | | | | | | |
| X5Y7 | 柱頭 | X | 6.816 | 6.816 | 羽子板ボルト、短冊金物 | 7.50 | 0.91 | | | |
| | | Y | | | | | | | | |
| | 柱脚 | X | 3.673 | 3.673 | | | | T字型かど金物 | 5.07 | 0.72 |
| | | Y | | | | | | | | |
| X6Y7 | 柱頭 | X | 0.967 | 0.967 | | | | | | |
| | | Y | -0.774 | | | | | | | |
| | 柱脚 | X | 0.967 | 12.835 | | | | HDB-15 | 15.00 | 0.86 |
| | | Y | 12.835 | | | | | | | |
| X8Y7 | 柱頭 | X | 8.587 | 8.587 | HDB-10 | 10.00 | 0.86 | | | |
| | | Y | 4.259 | | | | | | | |
| | 柱脚 | X | 8.587 | 8.587 | | | | 通し柱 | | |
| | | Y | 4.259 | | | | | | | |
| X1Y6 | 柱頭 | X | | 3.990 | T字型かど金物 | 5.07 | 0.79 | | | |
| | | Y | 3.990 | | | | | | | |
| | 柱脚 | X | | -1.896 | | | | | | |
| | | Y | -1.896 | | | | | | | |
| X5Y6 | 柱頭 | X | | 5.813 | 山形プレート | 5.88 | 0.99 | | | |
| | | Y | 5.813 | | | | | | | |
| | 柱脚 | X | | 11.191 | | | | HDB-15 | 15.00 | 0.75 |
| | | Y | 11.191 | | | | | | | |
| X6Y6 | 柱頭 | X | | -1.404 | | | | | | |
| | | Y | -1.404 | | | | | | | |
| | 柱脚 | X | | -1.404 | | | | | | |
| | | Y | -1.404 | | | | | | | |
| X8Y6 | 柱頭 | X | | 2.314 | L字型かど金物 | 3.38 | 0.68 | | | |
| | | Y | 2.314 | | | | | | | |
| | 柱脚 | X | | 2.314 | | | | L字型かど金物 | 3.38 | 0.68 |
| | | Y | 2.314 | | | | | | | |

検定比：最大引張耐力/許容耐力

| 位置 | 柱頭 柱脚 | 方 向 | 必要引張 耐力(kN) | 最大引張 耐力(kN) | 金物 | 許容耐力 (kN) | 検定比 | | |
|------|----------|--------|----------------|----------------|---------|--------------|------|-------|------|
| X1Y5 | 柱頭 | X | | -4.305 | | | | | |
| | | Y | -4.305 | | | | | | |
| | 柱脚 | X | | -4.305 | | | | | |
| | | Y | -4.305 | | | | | | |
| X4Y5 | 柱頭 | X | | 0.342 | | | | | |
| | | Y | 0.342 | | | | | | |
| | 柱脚 | X | | -0.636 | | | | | |
| | | Y | -0.636 | | | | | | |
| X5Y5 | 柱頭 | X | | 5.316 | 山形プレート | 5.88 | 0.90 | | |
| | | Y | 5.316 | | | | | | |
| | 柱脚 | X | | 10.694 | HDB-15 | 15.00 | 0.71 | | |
| | | Y | 10.694 | | | | | | |
| X6Y5 | 柱頭 | X | | 1.202 | L字型かど金物 | 3.38 | 0.36 | | |
| | | Y | 1.202 | | | | | | |
| | 柱脚 | X | | 14.811 | HDB-15 | 15.00 | 0.99 | | |
| | | Y | 14.811 | | | | | | |
| X8Y5 | 柱頭 | X | | -9.894 | | | | | |
| | | Y | -9.894 | | | | | | |
| | 柱脚 | X | | -5.895 | | | | | |
| | | Y | -5.895 | | | | | | |
| X1Y4 | 柱頭 | X | 0.350 | 7.315 | 通し柱 | | | | |
| | | Y | 7.315 | | | | | | |
| | 柱脚 | X | 11.821 | 11.821 | HDB-15 | | | 15.00 | 0.79 |
| | | Y | 7.315 | | | | | | |
| X2Y4 | 柱頭 | X | 15.804 | 15.804 | HDB-20 | 20.00 | 0.79 | | |
| | | Y | | | | | | | |
| | 柱脚 | X | 15.804 | 15.804 | HDB-20 | 20.00 | 0.79 | | |
| | | Y | | | | | | | |
| X1Y3 | 柱頭 | X | | 10.290 | HDB-15 | 15.00 | 0.69 | | |
| | | Y | 10.290 | | | | | | |
| | 柱脚 | X | | 4.509 | T字型かど金物 | 5.07 | 0.89 | | |
| | | Y | 4.509 | | | | | | |
| X4Y2 | 柱頭 | X | | 0.689 | | | | | |
| | | Y | 0.689 | | | | | | |
| | 柱脚 | X | | -3.220 | | | | | |
| | | Y | -3.220 | | | | | | |
| X8Y2 | 柱頭 | X | | 0.976 | | | | | |
| | | Y | 0.976 | | | | | | |
| | 柱脚 | X | | -4.534 | | | | | |
| | | Y | -4.534 | | | | | | |

検定比 : 最大引張耐力 / 許容耐力

| 位置 | 柱頭 柱脚 | 方 向 | 必要引張 耐力(kN) | 最大引張 耐力(kN) | 金物 | 許容耐力 (kN) | 検定比 | |
|--------|----------|--------|----------------|----------------|-------------|--------------|------|---------|
| X1Y1.5 | 柱頭 | X | | -0.090 | | | | |
| | | Y | -0.090 | | | | | |
| | 柱脚 | X | | -0.090 | | | | |
| | | Y | -0.090 | | | | | |
| X1Y1 | 柱頭 | X | 6.502 | 6.502 | 羽子板ボルト、短冊金物 | 7.50 | 0.87 | |
| | | Y | 3.771 | | | | | |
| | 柱脚 | X | 6.502 | 6.502 | | | | 通し柱 |
| | | Y | 3.771 | | | | | |
| X2Y1 | 柱頭 | X | 4.079 | 4.079 | T字型かど金物 | 5.07 | 0.80 | |
| | | Y | | | | | | |
| | 柱脚 | X | -1.115 | -1.115 | | | | |
| | | Y | | | | | | |
| X3Y1 | 柱頭 | X | -4.098 | -4.098 | | | | |
| | | Y | | | | | | |
| | 柱脚 | X | -4.098 | -4.098 | | | | |
| | | Y | | | | | | |
| X4Y1 | 柱頭 | X | 19.831 | 19.831 | 通し柱 | | | |
| | | Y | -4.775 | | | | | |
| | 柱脚 | X | 19.831 | 19.831 | | | | HDB-20 |
| | | Y | 2.854 | | | | | |
| X5Y1 | 柱頭 | X | 10.909 | 10.909 | HDB-15 | 15.00 | 0.73 | |
| | | Y | | | | | | |
| | 柱脚 | X | 10.909 | 10.909 | | | | HDB-15 |
| | | Y | | | | | | |
| X7Y1 | 柱頭 | X | 4.685 | 4.685 | T字型かど金物 | 5.07 | 0.92 | |
| | | Y | | | | | | |
| | 柱脚 | X | 2.118 | 2.118 | | | | L字型かど金物 |
| | | Y | | | | | | |
| X8Y1 | 柱頭 | X | 12.531 | 12.531 | HDB-15 | 15.00 | 0.84 | |
| | | Y | 3.314 | | | | | |
| | 柱脚 | X | 12.531 | 12.531 | | | | 通し柱 |
| | | Y | 3.314 | | | | | |

検定比：最大引張耐力/許容耐力

1 階

| 位置 | 柱頭 柱脚 | 方 向 | 必要引張 耐力(kN) | 最大引張 耐力(kN) | 金物 | 許容耐力 (kN) | 検定比 |
|------|----------|--------|----------------|----------------|-------------|--------------|------|
| X1Y7 | 柱頭 | X | -2.948 | -2.948 | 通し柱 | | |
| | | Y | -4.673 | | | | |
| | 柱脚 | X | 7.953 | 7.953 | | | |
| | | Y | 6.229 | | | | |
| X2Y7 | 柱頭 | X | 3.941 | 3.941 | T字型かど金物 | 5.07 | 0.78 |
| | | Y | | | | | |
| | 柱脚 | X | -6.960 | -6.960 | | | |
| | | Y | | | | | |
| X3Y7 | 柱頭 | X | -5.523 | 11.709 | HDB-15 | 15.00 | 0.78 |
| | | Y | 11.709 | | | | |
| | 柱脚 | X | -5.523 | 11.709 | | | |
| | | Y | 11.709 | | | | |
| X4Y7 | 柱頭 | X | -1.346 | 19.776 | HDB-20 | 20.00 | 0.99 |
| | | Y | 19.776 | | | | |
| | 柱脚 | X | -1.346 | 25.145 | | | |
| | | Y | 25.145 | | | | |
| X5Y7 | 柱頭 | X | -3.468 | -3.468 | | | |
| | | Y | | | | | |
| | 柱脚 | X | -8.947 | -8.947 | | | |
| | | Y | | | | | |
| X6Y7 | 柱頭 | X | 0.429 | 25.580 | 2-HDB-15 | 30.00 | 0.85 |
| | | Y | 25.580 | | | | |
| | 柱脚 | X | 0.429 | 25.580 | | | |
| | | Y | 25.580 | | | | |
| X8Y7 | 柱頭 | X | -1.917 | -1.917 | 通し柱 | | |
| | | Y | -4.389 | | | | |
| | 柱脚 | X | 8.985 | 8.985 | | | |
| | | Y | 6.512 | | | | |
| X3Y6 | 柱頭 | X | | 6.649 | 羽子板ボルト、短冊金物 | 7.50 | 0.89 |
| | | Y | 6.649 | | | | |
| | 柱脚 | X | | 3.909 | | | |
| | | Y | 3.909 | | | | |
| X5Y6 | 柱頭 | X | | 11.383 | HDB-15 | 15.00 | 0.76 |
| | | Y | 11.383 | | | | |
| | 柱脚 | X | | 16.752 | | | |
| | | Y | 16.752 | | | | |
| X6Y6 | 柱頭 | X | | 0.672 | | | |
| | | Y | 0.672 | | | | |
| | 柱脚 | X | | -2.068 | | | |
| | | Y | -2.068 | | | | |

検定比 : 最大引張耐力 / 許容耐力

| 位置 | 柱頭 柱脚 | 方 向 | 必要引張 耐力(kN) | 最大引張 耐力(kN) | 金物 | 許容耐力 (kN) | 検定比 |
|------|----------|--------|----------------|----------------|-------------|--------------|------|
| X8Y6 | 柱頭 | X | | 1.862 | L字型かど金物 | 3.38 | 0.55 |
| | | Y | 1.862 | | | | |
| | 柱脚 | X | | -7.210 | | | |
| | | Y | -7.210 | | | | |
| X1Y5 | 柱頭 | X | 6.714 | 6.714 | 羽子板ボルト、短冊金物 | 7.50 | 0.90 |
| | | Y | -5.846 | | | | |
| | 柱脚 | X | 6.714 | 6.714 | | | |
| | | Y | -5.846 | | | | |
| X3Y5 | 柱頭 | X | 0.795 | 0.795 | T字型かど金物 | 5.07 | 0.70 |
| | | Y | -1.426 | | | | |
| | 柱脚 | X | 0.389 | 3.559 | | | |
| | | Y | 3.559 | | | | |
| X4Y5 | 柱頭 | X | -4.575 | 23.435 | HDB-25 | 25.00 | 0.94 |
| | | Y | 23.435 | | | | |
| | 柱脚 | X | -9.944 | 28.804 | | | |
| | | Y | 28.804 | | | | |
| X5Y5 | 柱頭 | X | -2.672 | 10.158 | HDB-15 | 15.00 | 0.68 |
| | | Y | 10.158 | | | | |
| | 柱脚 | X | -3.262 | 15.527 | | | |
| | | Y | 15.527 | | | | |
| X6Y5 | 柱頭 | X | -6.999 | 29.967 | 2-HDB-15 | 30.00 | 1.00 |
| | | Y | 29.967 | | | | |
| | 柱脚 | X | -6.999 | 29.967 | | | |
| | | Y | 29.967 | | | | |
| X7Y5 | 柱頭 | X | -7.526 | -7.526 | | | |
| | | Y | | | | | |
| | 柱脚 | X | -7.526 | -7.526 | | | |
| | | Y | | | | | |
| X8Y5 | 柱頭 | X | -8.579 | -8.238 | | | |
| | | Y | -8.238 | | | | |
| | 柱脚 | X | -8.579 | -8.238 | | | |
| | | Y | -8.238 | | | | |
| X1Y4 | 柱頭 | X | -5.106 | -5.106 | | | |
| | | Y | -5.871 | | | | |
| | 柱脚 | X | -5.106 | -5.106 | | | |
| | | Y | -8.604 | | | | |
| X3Y4 | 柱頭 | X | -0.456 | 16.544 | HDB-20 | 20.00 | 0.83 |
| | | Y | 16.544 | | | | |
| | 柱脚 | X | -0.456 | 16.544 | | | |
| | | Y | 16.544 | | | | |

検定比 : 最大引張耐力 / 許容耐力

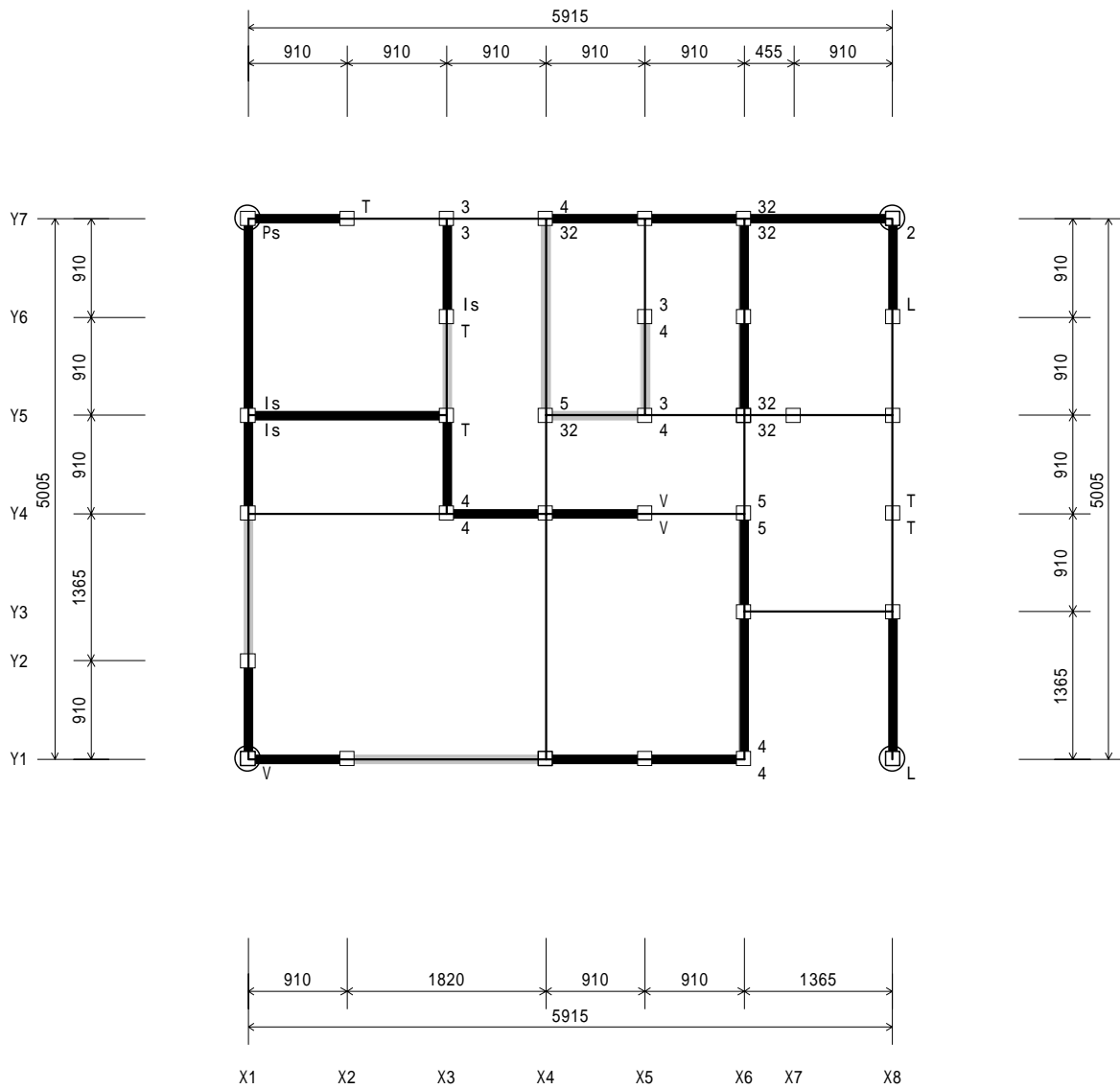
| 位置 | 柱頭 柱脚 | 方 向 | 必要引張 耐力(kN) | 最大引張 耐力(kN) | 金物 | 許容耐力 (kN) | 検定比 | | | |
|------|----------|--------|----------------|----------------|---------|--------------|------|---------|-------|------|
| X4Y4 | 柱頭 | X | -7.098 | -7.098 | | | | | | |
| | | Y | | | | | | | | |
| | 柱脚 | X | -12.577 | -12.577 | | | | | | |
| | | Y | | | | | | | | |
| X5Y4 | 柱頭 | X | 5.740 | 5.740 | 山形プレート | 5.88 | 0.98 | | | |
| | | Y | | | | | | | | |
| | 柱脚 | X | 5.078 | 5.078 | | | | 山形プレート | 5.88 | 0.86 |
| | | Y | | | | | | | | |
| X6Y4 | 柱頭 | X | -1.228 | 21.326 | HDB-25 | 25.00 | 0.85 | | | |
| | | Y | 21.326 | | | | | | | |
| | 柱脚 | X | -1.228 | 21.326 | | | | HDB-25 | 25.00 | 0.85 |
| | | Y | 21.326 | | | | | | | |
| X8Y4 | 柱頭 | X | 3.611 | 3.611 | T字型かど金物 | 5.07 | 0.71 | | | |
| | | Y | -9.780 | | | | | | | |
| | 柱脚 | X | 3.611 | 3.611 | | | | T字型かど金物 | 5.07 | 0.71 |
| | | Y | -9.780 | | | | | | | |
| X6Y3 | 柱頭 | X | | -0.067 | | | | | | |
| | | Y | -0.067 | | | | | | | |
| | 柱脚 | X | | -5.545 | | | | | | |
| | | Y | -5.545 | | | | | | | |
| X8Y3 | 柱頭 | X | | -1.519 | | | | | | |
| | | Y | -1.519 | | | | | | | |
| | 柱脚 | X | | -9.348 | | | | | | |
| | | Y | -9.348 | | | | | | | |
| X1Y2 | 柱頭 | X | | -0.418 | | | | | | |
| | | Y | -0.418 | | | | | | | |
| | 柱脚 | X | | -9.730 | | | | | | |
| | | Y | -9.730 | | | | | | | |
| X1Y1 | 柱頭 | X | -5.891 | -5.067 | 通し柱 | | | | | |
| | | Y | -5.067 | | | | | | | |
| | 柱脚 | X | 5.010 | 5.834 | | | | 山形プレート | 5.88 | 0.99 |
| | | Y | 5.834 | | | | | | | |
| X2Y1 | 柱頭 | X | 0.363 | 0.363 | | | | | | |
| | | Y | | | | | | | | |
| | 柱脚 | X | -10.100 | -10.100 | | | | | | |
| | | Y | | | | | | | | |
| X4Y1 | 柱頭 | X | -1.647 | -1.647 | | | | | | |
| | | Y | | | | | | | | |
| | 柱脚 | X | -1.647 | -1.647 | | | | | | |
| | | Y | | | | | | | | |

検定比 : 最大引張耐力/許容耐力

| 位置 | 柱頭 柱脚 | 方 向 | 必要引張 耐力(kN) | 最大引張 耐力(kN) | 金物 | 許容耐力 (kN) | 検定比 | |
|------|----------|--------|----------------|----------------|--------|--------------|------|---------|
| X5Y1 | 柱頭 | X | -5.611 | -5.611 | | | | |
| | | Y | | | | | | |
| | 柱脚 | X | -5.611 | -5.611 | | | | |
| | | Y | | | | | | |
| X6Y1 | 柱頭 | X | -14.394 | 19.951 | HDB-20 | 20.00 | 1.00 | |
| | | Y | 19.951 | | | | | |
| | 柱脚 | X | -3.843 | 19.951 | | | | |
| | | Y | 19.951 | | | | | |
| X8Y1 | 柱頭 | X | -4.546 | -4.546 | 通し柱 | | | |
| | | Y | -8.207 | | | | | |
| | 柱脚 | X | -4.546 | 2.695 | | | | L字型かど金物 |
| | | Y | 2.695 | | | | | |

検定比 : 最大引張耐力/許容耐力

6 - 2 金物配置伏図
1階



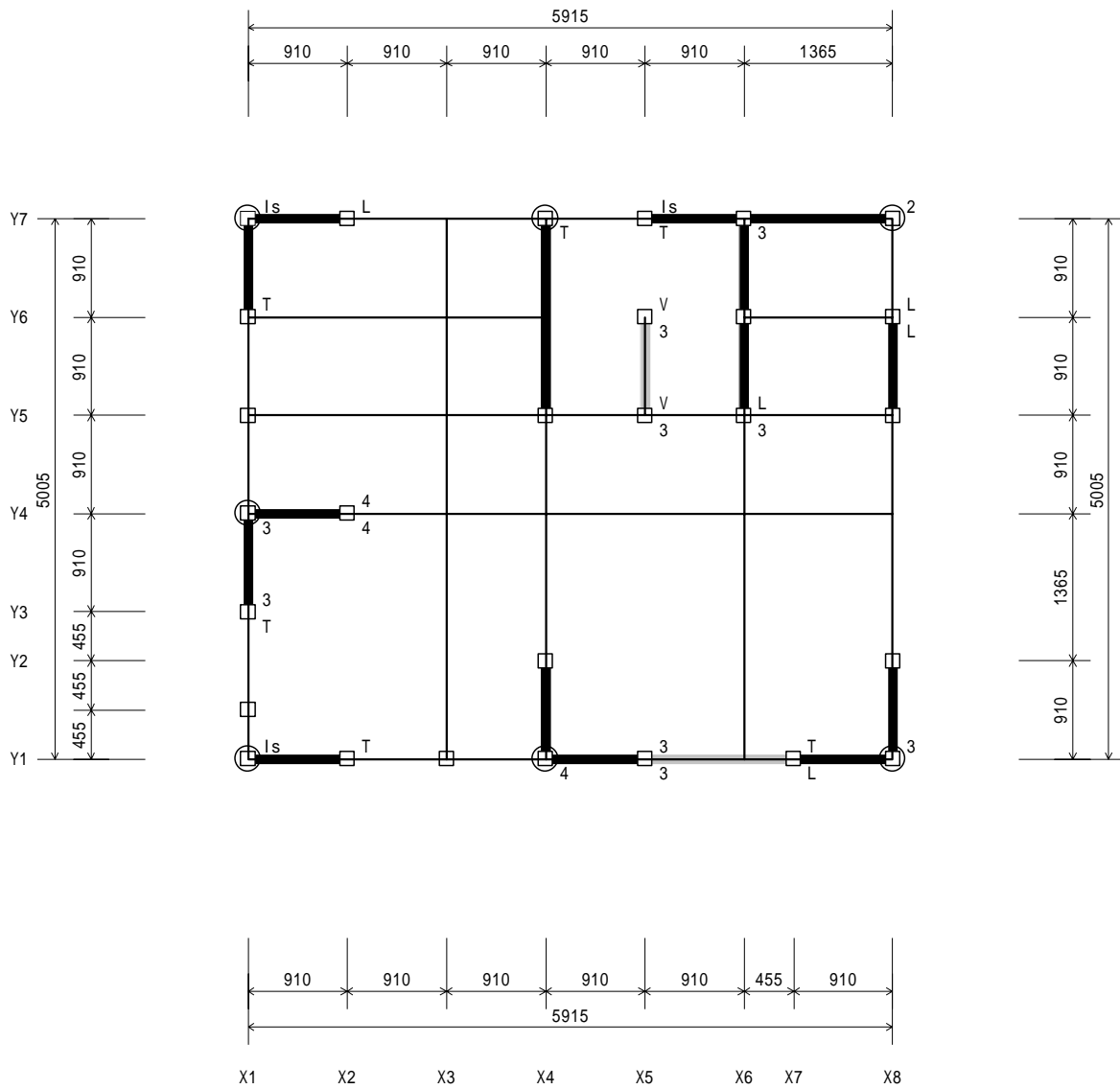
凡例:

| | |
|----------|----------|
| □ | 管柱 |
| ⊙ | 通し柱 |
| A | A : 柱頭金物 |
| B | B : 柱脚金物 |
| — | 耐力壁 |
| — | 準耐力壁 |

金物記号の凡例:

| | |
|----|--------------|
| L | L字型かど金物 |
| T | T字型かど金物 |
| V | 山形プレート |
| Is | 羽子板ボルト、短冊金物 |
| Ps | 羽子板ボルト+スクルー釘 |
| 2 | HDB-10 |
| 3 | HDB-15 |
| 4 | HDB-20 |
| 5 | HDB-25 |
| 32 | 2-HDB-15 |
| 42 | 2-HDB-20 |
| 52 | 2-HDB-25 |
| 99 | 50kNを超えています |

2階



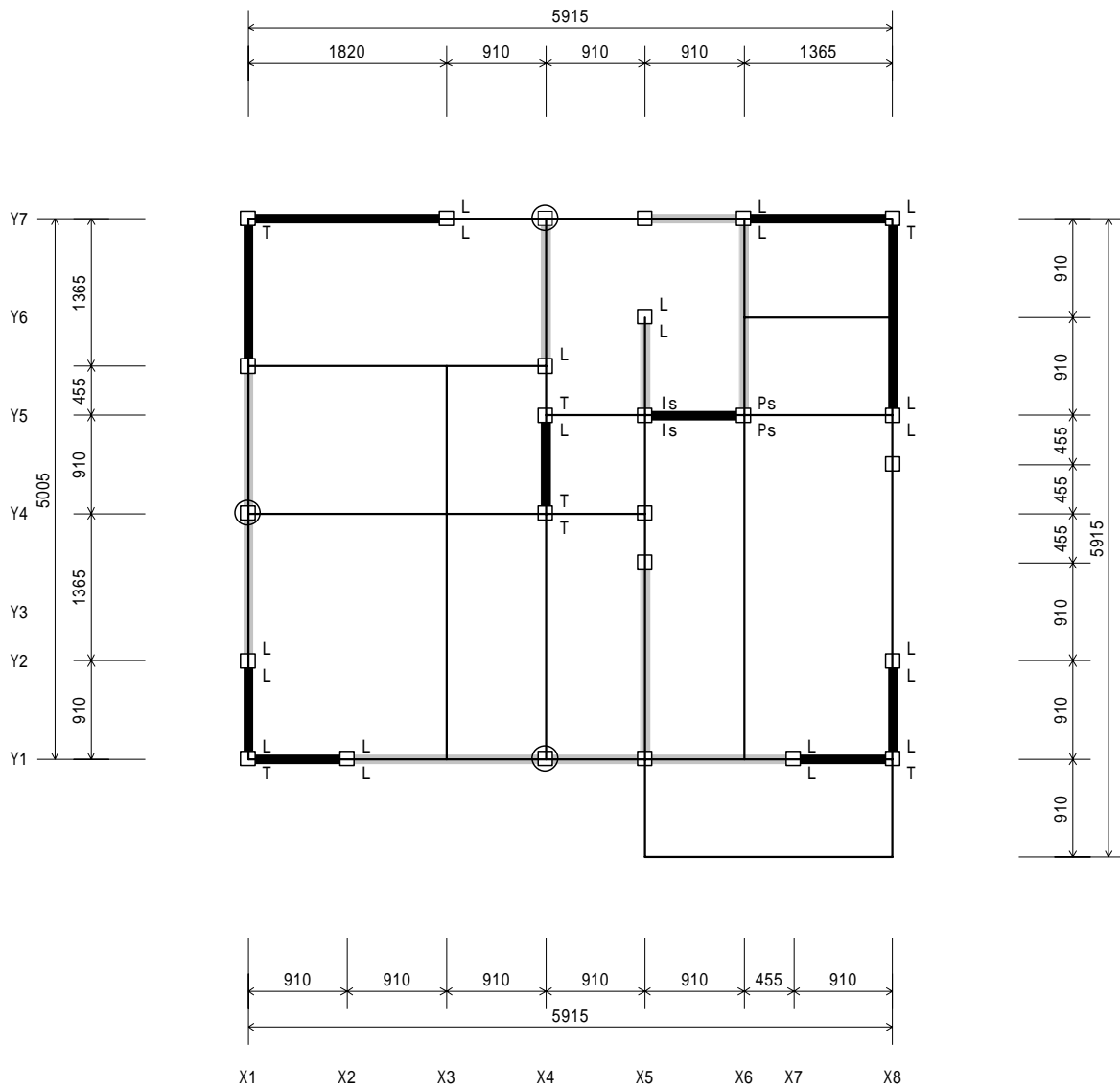
凡例:

| | |
|-----------|----------|
| □ | 管柱 |
| ⊙ | 通し柱 |
| A □ | A : 柱頭金物 |
| B □ | B : 柱脚金物 |
| — (thick) | 耐力壁 |
| — (thin) | 準耐力壁 |

金物記号の凡例:

| | |
|----|--------------|
| L | L字型かど金物 |
| T | T字型かど金物 |
| V | 山形プレート |
| Is | 羽子板ボルト、短冊金物 |
| Ps | 羽子板ボルト+スクリー釘 |
| 2 | HDB-10 |
| 3 | HDB-15 |
| 4 | HDB-20 |
| 5 | HDB-25 |
| 32 | 2-HDB-15 |
| 42 | 2-HDB-20 |
| 52 | 2-HDB-25 |
| 99 | 50kNを超えています |

3階



凡例:

| | |
|-----------|----------|
| □ | 管柱 |
| ⊙ | 通し柱 |
| A □ | A : 柱頭金物 |
| B □ | B : 柱脚金物 |
| — (thick) | 耐力壁 |
| — (thin) | 準耐力壁 |

金物記号の凡例:

| | |
|----|--------------|
| L | L字型かど金物 |
| T | T字型かど金物 |
| V | 山形プレート |
| Is | 羽子板ボルト、短冊金物 |
| Ps | 羽子板ボルト+スクリーナ |
| 2 | HDB-10 |
| 3 | HDB-15 |
| 4 | HDB-20 |
| 5 | HDB-25 |
| 32 | 2-HDB-15 |
| 42 | 2-HDB-20 |
| 52 | 2-HDB-25 |
| 99 | 50kNを超えています |

6 - 3 横架材接合部の引張耐力の検討

X方向

A : 羽子板ボルト又は短冊金物 (7.5kN以下)

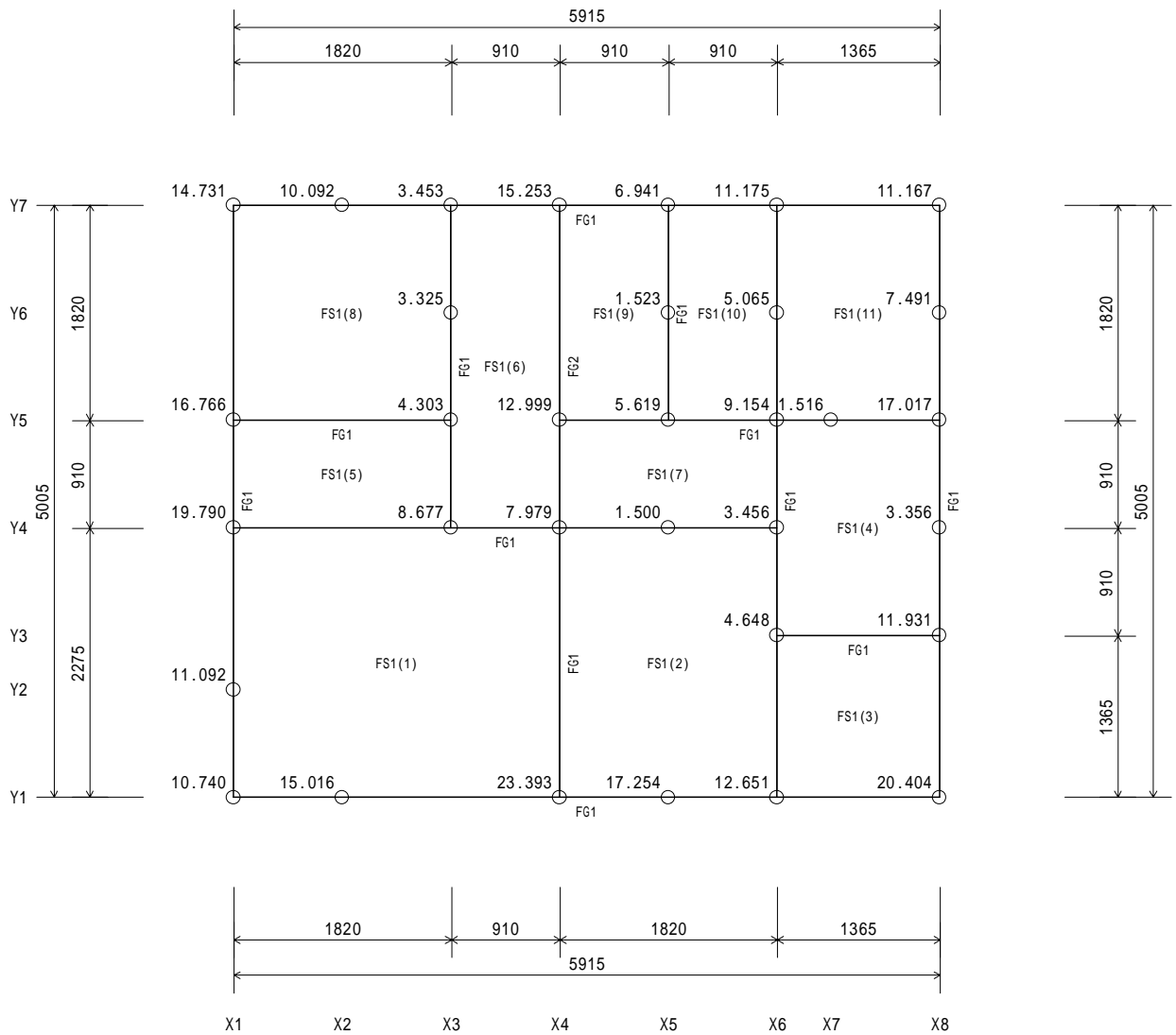
| 階 | 区間 | Qa (kN) | L (m) | Qa (kN/m) | 幅 (m) | T _N (kN) | 接合部 仕様例 |
|----|-------|------------|----------|--------------|----------|------------------------|------------|
| 3階 | Y7-Y5 | 8.115 | 5.915 | 1.372 | 1.820 | 1.249 | A |
| | Y5-Y1 | 8.115 | 5.915 | 1.372 | 3.185 | 2.185 | A |
| 2階 | Y7-Y5 | 12.842 | 5.915 | 2.171 | 1.820 | 1.976 | A |
| | Y5-Y4 | 18.549 | 5.915 | 3.136 | 0.910 | 1.427 | A |
| | Y4-Y1 | 18.549 | 5.915 | 3.136 | 2.275 | 3.567 | A |
| 1階 | Y7-Y5 | 12.842 | 5.915 | 2.171 | 1.820 | 1.976 | A |
| | Y5-Y4 | 18.549 | 5.915 | 3.136 | 0.910 | 1.427 | A |
| | Y4-Y1 | 18.549 | 5.915 | 3.136 | 2.275 | 3.567 | A |

Y方向

A : 羽子板ボルト又は短冊金物 (7.5kN以下)

| 階 | 区間 | Qa (kN) | L (m) | Qa (kN/m) | 幅 (m) | T _N (kN) | 接合部 仕様例 |
|----|-------|------------|----------|--------------|----------|------------------------|------------|
| 3階 | X1-X4 | 6.867 | 5.005 | 1.372 | 2.730 | 1.873 | A |
| | X4-X5 | 6.867 | 5.005 | 1.372 | 0.910 | 0.624 | A |
| | X5-X6 | 6.867 | 5.005 | 1.372 | 0.910 | 0.624 | A |
| | X6-X8 | 6.867 | 5.005 | 1.372 | 1.365 | 0.936 | A |
| 2階 | X1-X4 | 15.696 | 5.005 | 3.136 | 2.730 | 4.281 | A |
| | X4-X5 | 9.988 | 3.185 | 3.136 | 0.910 | 1.427 | A |
| | X5-X6 | 9.988 | 3.185 | 3.136 | 0.910 | 1.427 | A |
| | X6-X8 | 15.696 | 5.005 | 3.136 | 1.365 | 2.140 | A |
| 1階 | X1-X3 | 15.695 | 5.005 | 3.136 | 1.820 | 2.854 | A |
| | X3-X4 | 15.695 | 5.005 | 3.136 | 0.910 | 1.427 | A |
| | X4-X5 | 9.988 | 3.185 | 3.136 | 0.910 | 1.427 | A |
| | X5-X6 | 9.988 | 3.185 | 3.136 | 0.910 | 1.427 | A |
| | X6-X8 | 15.696 | 5.005 | 3.136 | 1.365 | 2.140 | A |

7. 基礎の設計



軸力 = 329.477 (kN)

地耐力 : $f_e = 50.0 \text{ (kN/m}^2\text{)}$

根入深さ : $D_f = 0.30 \text{ (m)}$

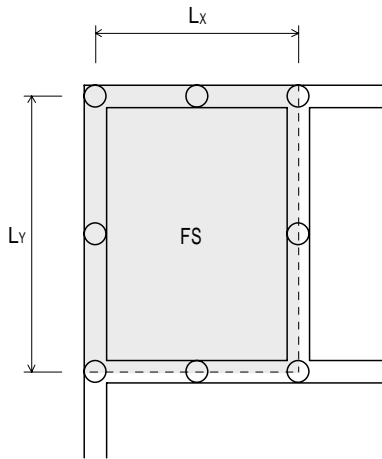
有効地耐力 : $f_e' = 50.0 - 20.0 \times 0.30 = 44.0 \text{ (kN/m}^2\text{)}$

凡例:

| | |
|-----|----------|
| ○ | 柱軸力 (kN) |
| — | 地中梁 |
| () | べた基礎No. |

7 - 1 べた基礎の検定

(1) 接地圧の検定



$$\text{均し荷重} = \frac{\text{負担軸力} + \text{基礎立上り重量}}{L_x \times L_y}$$

$$\text{接地圧} = \text{均し荷重} + \text{床荷重}$$

L_x = 短辺長さ

L_y = 長辺長さ

基礎立上り=0.400 (m) $f_{e'}=44.0$ (kN/m²)

| No | 位置 | Lx (m) | Ly (m) | 軸力 (kN) | 立上り幅 (m) | 立上り (kN) | 均し荷重 (kN/m ²) | 床荷重 (kN/m ²) | 接地圧 (kN/m ²) | e | e/f _{e'} | 判定 < 1.0 |
|----|-----------|--------|--------|---------|----------|----------|---------------------------|--------------------------|--------------------------|-------|-------------------|----------|
| 1 | X1Y1-X4Y4 | 2.275 | 2.730 | 66.769 | 0.150 | 10.811 | 12.491 | 1.790 | 14.281 | 0.325 | OK | |
| 2 | X4Y1-X6Y4 | 1.820 | 2.275 | 44.069 | 0.150 | 7.207 | 12.383 | 1.790 | 14.173 | 0.322 | OK | |
| 3 | X6Y1-X8Y3 | 1.365 | 1.365 | 35.020 | 0.150 | 5.898 | 21.963 | 1.790 | 23.753 | 0.540 | OK | |
| 4 | X6Y3-X8Y5 | 1.365 | 1.820 | 27.218 | 0.150 | 5.897 | 13.331 | 1.790 | 15.121 | 0.344 | OK | |
| 5 | X1Y4-X3Y5 | 0.910 | 1.820 | 24.769 | 0.150 | 4.585 | 17.726 | 1.790 | 19.516 | 0.444 | OK | |
| 6 | X3Y4-X4Y7 | 0.910 | 2.730 | 27.998 | 0.150 | 5.897 | 13.645 | 1.790 | 15.435 | 0.351 | OK | |
| 7 | X4Y4-X6Y5 | 0.910 | 1.820 | 20.355 | 0.150 | 3.930 | 14.665 | 1.790 | 16.455 | 0.374 | OK | |
| 8 | X1Y5-X3Y7 | 1.820 | 1.820 | 38.748 | 0.150 | 7.862 | 14.073 | 1.790 | 15.863 | 0.361 | OK | |
| 9 | X4Y5-X5Y7 | 0.910 | 1.820 | 21.170 | 0.150 | 4.585 | 15.553 | 1.790 | 17.343 | 0.394 | OK | |
| 10 | X5Y5-X6Y7 | 0.910 | 1.820 | 19.741 | 0.150 | 4.585 | 14.690 | 1.790 | 16.480 | 0.375 | OK | |
| 11 | X6Y5-X8Y7 | 1.365 | 1.820 | 40.623 | 0.150 | 6.880 | 19.124 | 1.790 | 20.914 | 0.475 | OK | |

(2)スラブ筋の検定

FS1(1) X1Y1-X4Y4 (2隣辺ピン端) シングル配筋

断面寸法 $d = 150.0$ (mm)
 $j_U = 7/8 \times (d - 75.0) = 65.6$ (mm)
 $j_D = 7/8 \times (d - 75.0) = 65.6$ (mm)
 $L_X = 2.275$ (m) $L_Y = 2.730$ (m)

曲げモーメント $e = 14.281$ (kN/m²)
 $e_x = 14.281 \times 2.730^4 / (2.275^4 + 2.730^4) = 9.635$ (kN/m²)
 $M_{x1} = 1/8 \times e_x \times L_x^2$ (端部) = 6.233 (kN・m/m)
 $M_{x2} = 1/18 \times e_x \times L_x^2$ (中央部) = 2.770 (kN・m/m)
 $M_{y1} = 1/12 \times e \times L_x^2$ (端部) = 6.159 (kN・m/m)
 $M_{y2} = 1/36 \times e \times L_x^2$ (中央部) = 2.053 (kN・m/m)

配筋量 短辺at_下 = $M_{x1} / (L_{ft} \times j_D) = 6.233 / (0.195 \times 65.6 / 10^3)$
 = 487.3 (mm²) D13@200(635.0 mm²) ----- OK
 短辺at_上 = $M_{x2} / (L_{ft} \times j_U) = 2.770 / (0.195 \times 65.6 / 10^3)$
 = 216.5 (mm²) D13@200(635.0 mm²) ----- OK
 長辺at_下 = $M_{y1} / (L_{ft} \times j_D) = 6.159 / (0.195 \times 65.6 / 10^3)$
 = 481.5 (mm²) D13@200(635.0 mm²) ----- OK
 長辺at_上 = $M_{y2} / (L_{ft} \times j_U) = 2.053 / (0.195 \times 65.6 / 10^3)$
 = 160.5 (mm²) D13@200(635.0 mm²) ----- OK

FS1(2) X4Y1-X6Y4 (1辺ピン端) シングル配筋

断面寸法 $d = 150.0$ (mm)
 $j_U = 7/8 \times (d - 75.0) = 65.6$ (mm)
 $j_D = 7/8 \times (d - 75.0) = 65.6$ (mm)
 $L_X = 1.820$ (m) $L_Y = 2.275$ (m)

曲げモーメント $e = 14.173$ (kN/m²)
 $e_x = 14.173 \times 2.275^4 / (1.820^4 + 2.275^4) = 10.055$ (kN/m²)
 $M_{x1} = 1/9 \times e_x \times L_x^2$ (端部) = 3.701 (kN・m/m)
 $M_{x2} = 1/18 \times e_x \times L_x^2$ (中央部) = 1.850 (kN・m/m)
 $M_{y1} = 1/14 \times e \times L_x^2$ (端部) = 3.353 (kN・m/m)
 $M_{y2} = 1/36 \times e \times L_x^2$ (中央部) = 1.304 (kN・m/m)

配筋量 短辺at_下 = $M_{x1} / (L_{ft} \times j_D) = 3.701 / (0.195 \times 65.6 / 10^3)$
 = 289.3 (mm²) D13@200(635.0 mm²) ----- OK
 短辺at_上 = $M_{x2} / (L_{ft} \times j_U) = 1.850 / (0.195 \times 65.6 / 10^3)$
 = 144.6 (mm²) D13@200(635.0 mm²) ----- OK
 長辺at_下 = $M_{y1} / (L_{ft} \times j_D) = 3.353 / (0.195 \times 65.6 / 10^3)$
 = 262.1 (mm²) D13@200(635.0 mm²) ----- OK
 長辺at_上 = $M_{y2} / (L_{ft} \times j_U) = 1.304 / (0.195 \times 65.6 / 10^3)$
 = 101.9 (mm²) D13@200(635.0 mm²) ----- OK

FS1(3) X6Y1-X8Y3 (2隣辺ピン端) シングル配筋

断面寸法 $d = 150.0$ (mm)
 $j_u = 7/8 \times (d-75.0)=65.6$ (mm)
 $j_D = 7/8 \times (d-75.0)=65.6$ (mm)
 $L_x = 1.365$ (m) $L_y = 1.365$ (m)

曲げモーメント $e = 23.753$ (kN/m²)
 $e_x = 23.753 \times 1.365^4 / (1.365^4 + 1.365^4) = 11.877$ (kN/m²)
 $M_{x1} = 1/8 \times e_x \times L_x^2$ (端部) = 2.766 (kN·m/m)
 $M_{x2} = 1/18 \times e_x \times L_x^2$ (中央部) = 1.229 (kN·m/m)
 $M_{y1} = 1/12 \times e \times L_x^2$ (端部) = 3.688 (kN·m/m)
 $M_{y2} = 1/36 \times e \times L_x^2$ (中央部) = 1.229 (kN·m/m)

配筋量 短辺at下 = $M_{x1} / (L_{ft} \times j_D) = 2.766 / (0.195 \times 65.6 / 10^3)$
 = 216.2 (mm²) D13@200(635.0 mm²) ----- OK
 短辺at上 = $M_{x2} / (L_{ft} \times j_u) = 1.229 / (0.195 \times 65.6 / 10^3)$
 = 96.1 (mm²) D13@200(635.0 mm²) ----- OK
 長辺at下 = $M_{y1} / (L_{ft} \times j_D) = 3.688 / (0.195 \times 65.6 / 10^3)$
 = 288.3 (mm²) D13@200(635.0 mm²) ----- OK
 長辺at上 = $M_{y2} / (L_{ft} \times j_u) = 1.229 / (0.195 \times 65.6 / 10^3)$
 = 96.1 (mm²) D13@200(635.0 mm²) ----- OK

FS1(4) X6Y3-X8Y5 (1辺ピン端) シングル配筋

断面寸法 $d = 150.0$ (mm)
 $j_u = 7/8 \times (d-75.0)=65.6$ (mm)
 $j_D = 7/8 \times (d-75.0)=65.6$ (mm)
 $L_x = 1.365$ (m) $L_y = 1.820$ (m)

曲げモーメント $e = 15.121$ (kN/m²)
 $e_x = 15.121 \times 1.820^4 / (1.365^4 + 1.820^4) = 11.487$ (kN/m²)
 $M_{x1} = 1/9 \times e_x \times L_x^2$ (端部) = 2.378 (kN·m/m)
 $M_{x2} = 1/18 \times e_x \times L_x^2$ (中央部) = 1.189 (kN·m/m)
 $M_{y1} = 1/14 \times e \times L_x^2$ (端部) = 2.012 (kN·m/m)
 $M_{y2} = 1/36 \times e \times L_x^2$ (中央部) = 0.783 (kN·m/m)

配筋量 短辺at下 = $M_{x1} / (L_{ft} \times j_D) = 2.378 / (0.195 \times 65.6 / 10^3)$
 = 185.9 (mm²) D13@200(635.0 mm²) ----- OK
 短辺at上 = $M_{x2} / (L_{ft} \times j_u) = 1.189 / (0.195 \times 65.6 / 10^3)$
 = 92.9 (mm²) D13@200(635.0 mm²) ----- OK
 長辺at下 = $M_{y1} / (L_{ft} \times j_D) = 2.012 / (0.195 \times 65.6 / 10^3)$
 = 157.3 (mm²) D13@200(635.0 mm²) ----- OK
 長辺at上 = $M_{y2} / (L_{ft} \times j_u) = 0.783 / (0.195 \times 65.6 / 10^3)$
 = 61.2 (mm²) D13@200(635.0 mm²) ----- OK

FS1(5) X1Y4-X3Y5 (1辺ピン端) シングル配筋

断面寸法 $d = 150.0$ (mm)
 $j_u = 7/8 \times (d-75.0) = 65.6$ (mm)
 $j_D = 7/8 \times (d-75.0) = 65.6$ (mm)
 $L_x = 0.910$ (m) $L_y = 1.820$ (m)

曲げモーメント $e = 19.516$ (kN/m²)
 $e_x = 19.516 \times 1.820^4 / (0.910^4 + 1.820^4) = 18.368$ (kN/m²)
 $M_{x1} = 1/9 \times e_x \times L_x^2$ (端部) = 1.690 (kN·m/m)
 $M_{x2} = 1/18 \times e_x \times L_x^2$ (中央部) = 0.845 (kN·m/m)
 $M_{y1} = 1/14 \times e \times L_x^2$ (端部) = 1.154 (kN·m/m)
 $M_{y2} = 1/36 \times e \times L_x^2$ (中央部) = 0.449 (kN·m/m)

配筋量 短辺at_下 = $M_{x1} / (L_{ft} \times j_D) = 1.690 / (0.195 \times 65.6 / 10^3)$
 = 132.1 (mm²) D13@200(635.0 mm²) ----- OK
 短辺at_上 = $M_{x2} / (L_{ft} \times j_u) = 0.845 / (0.195 \times 65.6 / 10^3)$
 = 66.1 (mm²) D13@200(635.0 mm²) ----- OK
 長辺at_下 = $M_{y1} / (L_{ft} \times j_D) = 1.154 / (0.195 \times 65.6 / 10^3)$
 = 90.2 (mm²) D13@200(635.0 mm²) ----- OK
 長辺at_上 = $M_{y2} / (L_{ft} \times j_u) = 0.449 / (0.195 \times 65.6 / 10^3)$
 = 35.1 (mm²) D13@200(635.0 mm²) ----- OK

FS1(6) X3Y4-X4Y7 (1辺ピン端) シングル配筋

断面寸法 $d = 150.0$ (mm)
 $j_u = 7/8 \times (d-75.0) = 65.6$ (mm)
 $j_D = 7/8 \times (d-75.0) = 65.6$ (mm)
 $L_x = 0.910$ (m) $L_y = 2.730$ (m)

曲げモーメント $e = 15.435$ (kN/m²)
 $e_x = 15.435 \times 2.730^4 / (0.910^4 + 2.730^4) = 15.247$ (kN/m²)
 $M_{x1} = 1/9 \times e_x \times L_x^2$ (端部) = 1.403 (kN·m/m)
 $M_{x2} = 1/18 \times e_x \times L_x^2$ (中央部) = 0.701 (kN·m/m)
 $M_{y1} = 1/14 \times e \times L_x^2$ (端部) = 0.913 (kN·m/m)
 $M_{y2} = 1/36 \times e \times L_x^2$ (中央部) = 0.355 (kN·m/m)

配筋量 短辺at_下 = $M_{x1} / (L_{ft} \times j_D) = 1.403 / (0.195 \times 65.6 / 10^3)$
 = 109.7 (mm²) D13@200(635.0 mm²) ----- OK
 短辺at_上 = $M_{x2} / (L_{ft} \times j_u) = 0.701 / (0.195 \times 65.6 / 10^3)$
 = 54.8 (mm²) D13@200(635.0 mm²) ----- OK
 長辺at_下 = $M_{y1} / (L_{ft} \times j_D) = 0.913 / (0.195 \times 65.6 / 10^3)$
 = 71.4 (mm²) D13@200(635.0 mm²) ----- OK
 長辺at_上 = $M_{y2} / (L_{ft} \times j_u) = 0.355 / (0.195 \times 65.6 / 10^3)$
 = 27.8 (mm²) D13@200(635.0 mm²) ----- OK

FS1(7) X4Y4-X6Y5 (4辺固定) シングル配筋

断面寸法 $d = 150.0$ (mm)
 $j_U = 7/8 \times (d - 75.0) = 65.6$ (mm)
 $j_D = 7/8 \times (d - 75.0) = 65.6$ (mm)
 $L_X = 0.910$ (m) $L_Y = 1.820$ (m)

曲げモーメント $e = 16.455$ (kN/m²)
 $e_x = 16.455 \times 1.820^4 / (0.910^4 + 1.820^4) = 15.487$ (kN/m²)
 $M_{x1} = 1/12 \times e_x \times L_X^2$ (端部) = 1.069 (kN・m/m)
 $M_{x2} = 1/18 \times e_x \times L_X^2$ (中央部) = 0.712 (kN・m/m)
 $M_{y1} = 1/24 \times e \times L_X^2$ (端部) = 0.568 (kN・m/m)
 $M_{y2} = 1/36 \times e \times L_X^2$ (中央部) = 0.379 (kN・m/m)

配筋量 短辺at_下 $= M_{x1} / (L_{ft} \times j_D) = 1.069 / (0.195 \times 65.6 / 10^3)$
 $= 83.6$ (mm²) D13@200(635.0 mm²) ----- OK
 短辺at_上 $= M_{x2} / (L_{ft} \times j_U) = 0.712 / (0.195 \times 65.6 / 10^3)$
 $= 55.7$ (mm²) D13@200(635.0 mm²) ----- OK
 長辺at_下 $= M_{y1} / (L_{ft} \times j_D) = 0.568 / (0.195 \times 65.6 / 10^3)$
 $= 44.4$ (mm²) D13@200(635.0 mm²) ----- OK
 長辺at_上 $= M_{y2} / (L_{ft} \times j_U) = 0.379 / (0.195 \times 65.6 / 10^3)$
 $= 29.6$ (mm²) D13@200(635.0 mm²) ----- OK

FS1(8) X1Y5-X3Y7 (2隣辺ピン端) シングル配筋

断面寸法 $d = 150.0$ (mm)
 $j_U = 7/8 \times (d - 75.0) = 65.6$ (mm)
 $j_D = 7/8 \times (d - 75.0) = 65.6$ (mm)
 $L_X = 1.820$ (m) $L_Y = 1.820$ (m)

曲げモーメント $e = 15.863$ (kN/m²)
 $e_x = 15.863 \times 1.820^4 / (1.820^4 + 1.820^4) = 7.932$ (kN/m²)
 $M_{x1} = 1/8 \times e_x \times L_X^2$ (端部) = 3.284 (kN・m/m)
 $M_{x2} = 1/18 \times e_x \times L_X^2$ (中央部) = 1.460 (kN・m/m)
 $M_{y1} = 1/12 \times e \times L_X^2$ (端部) = 4.379 (kN・m/m)
 $M_{y2} = 1/36 \times e \times L_X^2$ (中央部) = 1.460 (kN・m/m)

配筋量 短辺at_下 $= M_{x1} / (L_{ft} \times j_D) = 3.284 / (0.195 \times 65.6 / 10^3)$
 $= 256.7$ (mm²) D13@200(635.0 mm²) ----- OK
 短辺at_上 $= M_{x2} / (L_{ft} \times j_U) = 1.460 / (0.195 \times 65.6 / 10^3)$
 $= 114.1$ (mm²) D13@200(635.0 mm²) ----- OK
 長辺at_下 $= M_{y1} / (L_{ft} \times j_D) = 4.379 / (0.195 \times 65.6 / 10^3)$
 $= 342.3$ (mm²) D13@200(635.0 mm²) ----- OK
 長辺at_上 $= M_{y2} / (L_{ft} \times j_U) = 1.460 / (0.195 \times 65.6 / 10^3)$
 $= 114.1$ (mm²) D13@200(635.0 mm²) ----- OK

FS1(9) X4Y5-X5Y7 (1辺ピン端) シングル配筋

断面寸法 $d = 150.0$ (mm)
 $j_u = 7/8 \times (d-75.0)=65.6$ (mm)
 $j_D = 7/8 \times (d-75.0)=65.6$ (mm)
 $L_x = 0.910$ (m) $L_y = 1.820$ (m)

曲げモーメント $e = 17.343$ (kN/m²)
 $e_x = 17.343 \times 1.820^4 / (0.910^4 + 1.820^4) = 16.323$ (kN/m²)
 $M_{x1} = 1/9 \times e_x \times L_x^2$ (端部) = 1.502 (kN·m/m)
 $M_{x2} = 1/18 \times e_x \times L_x^2$ (中央部) = 0.751 (kN·m/m)
 $M_{y1} = 1/14 \times e \times L_x^2$ (端部) = 1.026 (kN·m/m)
 $M_{y2} = 1/36 \times e \times L_x^2$ (中央部) = 0.399 (kN·m/m)

配筋量 短辺at_下 = $M_{x1} / (L_{ft} \times j_D) = 1.502 / (0.195 \times 65.6 / 10^3)$
 = 117.4 (mm²) D13@200(635.0 mm²) ----- OK
 短辺at_上 = $M_{x2} / (L_{ft} \times j_u) = 0.751 / (0.195 \times 65.6 / 10^3)$
 = 58.7 (mm²) D13@200(635.0 mm²) ----- OK
 長辺at_下 = $M_{y1} / (L_{ft} \times j_D) = 1.026 / (0.195 \times 65.6 / 10^3)$
 = 80.2 (mm²) D13@200(635.0 mm²) ----- OK
 長辺at_上 = $M_{y2} / (L_{ft} \times j_u) = 0.399 / (0.195 \times 65.6 / 10^3)$
 = 31.2 (mm²) D13@200(635.0 mm²) ----- OK

FS1(10) X5Y5-X6Y7 (1辺ピン端) シングル配筋

断面寸法 $d = 150.0$ (mm)
 $j_u = 7/8 \times (d-75.0)=65.6$ (mm)
 $j_D = 7/8 \times (d-75.0)=65.6$ (mm)
 $L_x = 0.910$ (m) $L_y = 1.820$ (m)

曲げモーメント $e = 16.480$ (kN/m²)
 $e_x = 16.480 \times 1.820^4 / (0.910^4 + 1.820^4) = 15.511$ (kN/m²)
 $M_{x1} = 1/9 \times e_x \times L_x^2$ (端部) = 1.427 (kN·m/m)
 $M_{x2} = 1/18 \times e_x \times L_x^2$ (中央部) = 0.714 (kN·m/m)
 $M_{y1} = 1/14 \times e \times L_x^2$ (端部) = 0.975 (kN·m/m)
 $M_{y2} = 1/36 \times e \times L_x^2$ (中央部) = 0.379 (kN·m/m)

配筋量 短辺at_下 = $M_{x1} / (L_{ft} \times j_D) = 1.427 / (0.195 \times 65.6 / 10^3)$
 = 111.6 (mm²) D13@200(635.0 mm²) ----- OK
 短辺at_上 = $M_{x2} / (L_{ft} \times j_u) = 0.714 / (0.195 \times 65.6 / 10^3)$
 = 55.8 (mm²) D13@200(635.0 mm²) ----- OK
 長辺at_下 = $M_{y1} / (L_{ft} \times j_D) = 0.975 / (0.195 \times 65.6 / 10^3)$
 = 76.2 (mm²) D13@200(635.0 mm²) ----- OK
 長辺at_上 = $M_{y2} / (L_{ft} \times j_u) = 0.379 / (0.195 \times 65.6 / 10^3)$
 = 29.6 (mm²) D13@200(635.0 mm²) ----- OK

FS1(11) X6Y5-X8Y7 (2隣辺ピン端) シングル配筋

断面寸法 $d = 150.0$ (mm)
 $j_u = 7/8 \times (d - 75.0) = 65.6$ (mm)
 $j_D = 7/8 \times (d - 75.0) = 65.6$ (mm)
 $L_x = 1.365$ (m) $L_y = 1.820$ (m)

曲げモーメント $e = 20.914$ (kN/m²)
 $e_x = 20.914 \times 1.820^4 / (1.365^4 + 1.820^4) = 15.887$ (kN/m²)
 $M_{x1} = 1/8 \times e_x \times L_x^2$ (端部) = 3.700 (kN·m/m)
 $M_{x2} = 1/18 \times e_x \times L_x^2$ (中央部) = 1.645 (kN·m/m)
 $M_{y1} = 1/12 \times e \times L_x^2$ (端部) = 3.247 (kN·m/m)
 $M_{y2} = 1/36 \times e \times L_x^2$ (中央部) = 1.082 (kN·m/m)

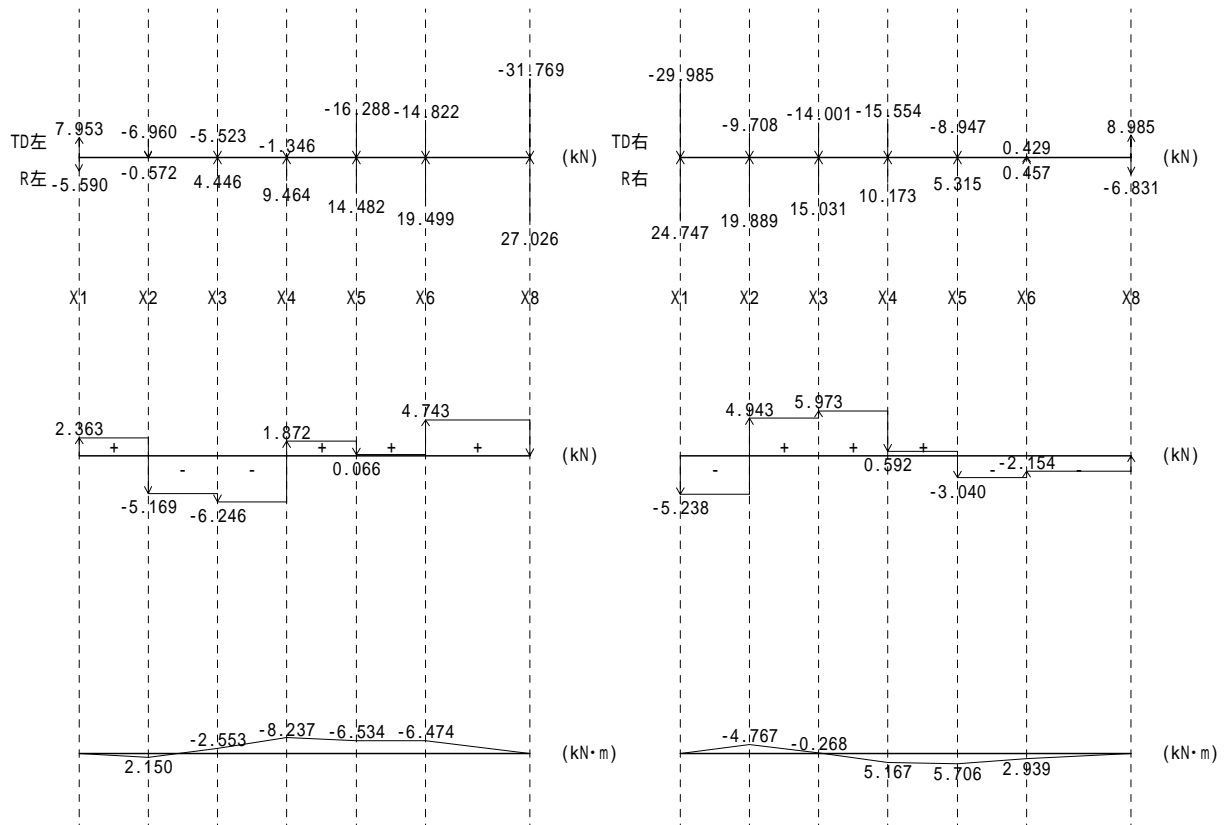
配筋量 短辺at_下 = $M_{x1} / (L_{ft} \times j_D) = 3.700 / (0.195 \times 65.6 / 10^3)$
= 289.2 (mm²) D13@200(635.0 mm²) ----- OK
短辺at_上 = $M_{x2} / (L_{ft} \times j_u) = 1.645 / (0.195 \times 65.6 / 10^3)$
= 128.6 (mm²) D13@200(635.0 mm²) ----- OK
長辺at_下 = $M_{y1} / (L_{ft} \times j_D) = 3.247 / (0.195 \times 65.6 / 10^3)$
= 253.8 (mm²) D13@200(635.0 mm²) ----- OK
長辺at_上 = $M_{y2} / (L_{ft} \times j_u) = 1.082 / (0.195 \times 65.6 / 10^3)$
= 84.6 (mm²) D13@200(635.0 mm²) ----- OK

7 - 2 基礎梁の断面と配筋の検定

X方向 Y7通り X1-X8

[水平荷重時 左加力]

[水平荷重時 右加力]



応力の算定 (水平荷重時)

| 柱 | 座標 | 位置 (m) | 水平荷重時 左加力 | | | | 水平荷重時 右加力 | | | |
|---|----|--------|-----------|--------|---------|------------------------|-----------|--------|---------|------------------------|
| | | | Td (kN) | R (kN) | Qe (kN) | M _{水f} (kN·m) | Td (kN) | R (kN) | Qe (kN) | M _{水f} (kN·m) |
| 1 | X1 | 0.000 | 7.953 | -5.590 | 2.363 | 0.000 | -29.985 | 24.747 | -5.238 | 0.000 |
| 2 | X2 | 0.910 | -6.960 | -0.572 | -5.169 | 2.150 | -9.708 | 19.889 | 4.943 | -4.767 |
| 3 | X3 | 1.820 | -5.523 | 4.446 | -6.246 | -2.553 | -14.001 | 15.031 | 5.973 | -0.268 |
| 4 | X4 | 2.730 | -1.346 | 9.464 | 1.872 | -8.237 | -15.554 | 10.173 | 0.592 | 5.167 |
| 5 | X5 | 3.640 | -16.288 | 14.482 | 0.066 | -6.534 | -8.947 | 5.315 | -3.040 | 5.706 |
| 6 | X6 | 4.550 | -14.822 | 19.499 | 4.743 | -6.474 | 0.429 | 0.457 | -2.154 | 2.939 |
| 7 | X8 | 5.915 | -31.769 | 27.026 | 0.000 | 0.000 | 8.985 | -6.831 | 0.000 | 0.000 |
| 計 | | 19.565 | -68.755 | 68.755 | | | -68.781 | 68.781 | | |

応力の算定 (長期)

| 柱間 | 柱間長さ (m) | 長期 | | | | |
|-------|----------|------------------------|-------|-----------------------|-----------------------|---------------------|
| | | e (kN/m ²) | B (m) | M _中 (kN・m) | M _端 (kN・m) | Q _L (kN) |
| X1-X2 | 0.910 | 15.863 | 0.910 | 1.494 | 0.996 | 6.568 |
| X2-X3 | 0.910 | 15.863 | 0.910 | 1.494 | 0.996 | 6.568 |
| X3-X4 | 0.910 | 15.435 | 0.455 | 0.727 | 0.485 | 3.195 |
| X4-X5 | 0.910 | 17.343 | 0.455 | 0.817 | 0.545 | 3.590 |
| X5-X6 | 0.910 | 16.480 | 0.455 | 0.776 | 0.517 | 3.412 |
| X6-X8 | 1.365 | 20.914 | 0.683 | 3.327 | 2.218 | 9.749 |

応力の算定 (短期)

| 柱間 | 短期 左加力 | | | 短期 右加力 | | |
|-------|--|--------|--|--|--------|--|
| | M _端 +M _{水r} (kN・m) | | Q _L +1.5Q _e (kN) | M _端 +M _{水r} (kN・m) | | Q _L +1.5Q _e (kN) |
| | 左側 | 右側 | | 左側 | 右側 | |
| X1-X2 | 0.996 | 3.146 | 10.113 | 0.996 | -3.771 | 14.425 |
| X2-X3 | 3.146 | -1.557 | 14.322 | -3.771 | 0.728 | 13.983 |
| X3-X4 | -2.068 | -7.752 | 12.564 | 0.217 | 5.652 | 12.155 |
| X4-X5 | -7.692 | -5.989 | 6.398 | 5.712 | 6.251 | 4.478 |
| X5-X6 | -6.017 | -5.957 | 3.511 | 6.223 | 3.456 | 7.972 |
| X6-X8 | -4.256 | 2.218 | 16.864 | 5.157 | 2.218 | 12.980 |

許容耐力の算定 (1)

かぶり厚上:75.0 (mm) かぶり厚下:75.0 (mm)

| 柱間 | 基礎高さ (mm) | 上端主筋 | | | | 下端主筋 | | | |
|-------|-----------|-------|------------------------|--------|------------|-------|------------------------|--------|------------|
| | | 鉄筋 | 断面積 (mm ²) | j (mm) | LMa (kN・m) | 鉄筋 | 断面積 (mm ²) | j (mm) | LMa (kN・m) |
| X1-X2 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| X2-X3 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| X3-X4 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| X4-X5 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| X5-X6 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| X6-X8 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |

許容耐力の算定 (2)

Fc18 Lfs=0.600 (N/mm²) sfs=0.900 (N/mm²)

| 柱間 | 幅b (mm) | スターラップ筋 | | | | せん断長期 | | せん断短期 | |
|-------|---------|---------|------------------------|----------|---------|-------|----------|-------|----------|
| | | 鉄筋 | 断面積 (mm ²) | ピッチ (mm) | Pw | | LQa (kN) | | sQa (kN) |
| X1-X2 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| X2-X3 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| X3-X4 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 1.73 | 132.091 |
| X4-X5 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 1.18 | 91.484 |
| X5-X6 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 1.06 | 82.846 |
| X6-X8 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |

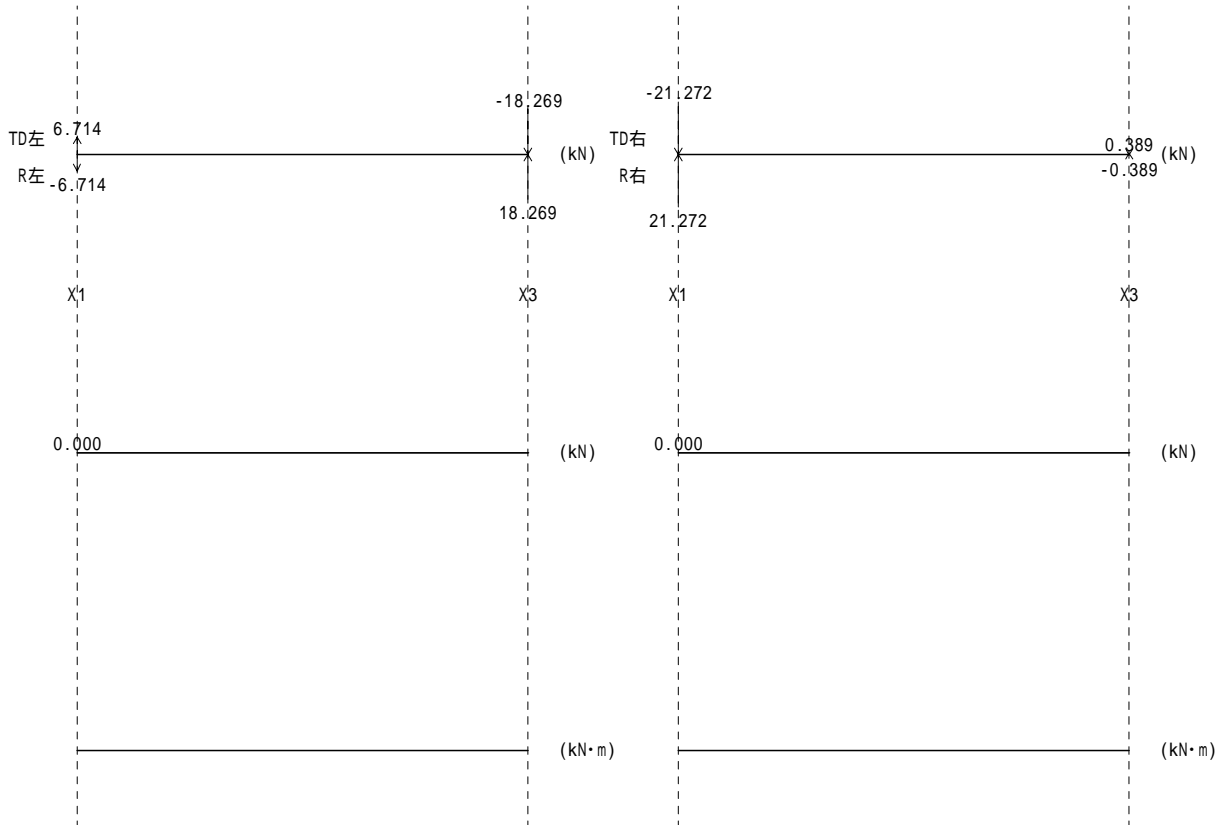
判定

| 柱間 | 長期 | | | 短期 左加力 | | | 短期 右加力 | | | 判定 < 1.0 |
|-------|--------------------------|--------------------------|---------------------------------|---|-------|---|---|-------|---|-------------|
| | M中/ 上端L _{Ma} | M端/ 下端L _{Ma} | Q _L /L _{Qa} | M端+M _{水r} /1.5L _{Ma} | | Q _L +1.5Q _e /sQ _a | M端+M _{水r} /1.5L _{Ma} | | Q _L +1.5Q _e /sQ _a | |
| | | | | 左側 | 右側 | | 左側 | 右側 | | |
| X1-X2 | 0.055 | 0.037 | 0.065 | 0.025 | 0.077 | 0.066 | 0.025 | 0.093 | 0.095 | OK |
| X2-X3 | 0.055 | 0.037 | 0.065 | 0.077 | 0.038 | 0.094 | 0.093 | 0.018 | 0.092 | OK |
| X3-X4 | 0.027 | 0.018 | 0.032 | 0.051 | 0.191 | 0.095 | 0.005 | 0.139 | 0.092 | OK |
| X4-X5 | 0.030 | 0.020 | 0.035 | 0.189 | 0.147 | 0.070 | 0.141 | 0.154 | 0.049 | OK |
| X5-X6 | 0.029 | 0.019 | 0.034 | 0.148 | 0.147 | 0.042 | 0.153 | 0.085 | 0.096 | OK |
| X6-X8 | 0.123 | 0.082 | 0.096 | 0.105 | 0.055 | 0.111 | 0.127 | 0.055 | 0.085 | OK |

X方向 Y5通り X1-X3

[水平荷重時 左加力]

[水平荷重時 右加力]



応力の算定 (水平荷重時)

| 柱 | 座標 | 位置 (m) | 水平荷重時 左加力 | | | | 水平荷重時 右加力 | | | |
|---|----|-----------|------------|-----------|------------|---------------------------|------------|-----------|------------|---------------------------|
| | | | Td (kN) | R (kN) | Qe (kN) | M _{水f} (kN・m) | Td (kN) | R (kN) | Qe (kN) | M _{水f} (kN・m) |
| 1 | X1 | 0.000 | 6.714 | -6.714 | 0.000 | 0.000 | -21.272 | 21.272 | 0.000 | 0.000 |
| 2 | X3 | 1.820 | -18.269 | 18.269 | 0.000 | 0.000 | 0.389 | -0.389 | 0.000 | 0.000 |
| 計 | | 1.820 | -11.555 | 11.555 | | | -20.883 | 20.883 | | |

応力の算定 (長期)

| 柱間 | 柱間 長さ (m) | 長期 | | | | |
|-------|-----------------|---------------------------|----------|--------------------------|--------------------------|------------------------|
| | | e (kN/m ²) | B (m) | M _中 (kN・m) | M _端 (kN・m) | Q _L (kN) |
| X1-X3 | 1.820 | 19.516 | 1.365 | 11.030 | 7.353 | 24.242 |

応力の算定 (短期)

| 柱間 | 短期 左加力 | | | 短期 右加力 | | |
|-------|--|-------|---|--|-------|---|
| | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) |
| | 左側 | 右側 | | 左側 | 右側 | |
| X1-X3 | 7.353 | 7.353 | 24.242 | 7.353 | 7.353 | 24.242 |

許容耐力の算定(1)

かぶり厚上:75.0 (mm) かぶり厚下:75.0 (mm)

| 柱間 | 基礎 高さ (mm) | 上端主筋 | | | | 下端主筋 | | | |
|-------|------------------|-------|---------------------------|-----------|---------------------------|-------|---------------------------|-----------|---------------------------|
| | | 鉄筋 | 断面積 (mm ²) | j (mm) | L _{Ma} (kN・m) | 鉄筋 | 断面積 (mm ²) | j (mm) | L _{Ma} (kN・m) |
| X1-X3 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |

許容耐力の算定(2)

F_{c18} L_fs=0.600 (N/mm²) s_fs=0.900 (N/mm²)

| 柱間 | 幅b (mm) | スターラップ筋 | | | | せん断長期 | | せん断短期 | |
|-------|------------|---------|---------------------------|-------------|----------------|-------|-------------------------|-------|-------------------------|
| | | 鉄筋 | 断面積 (mm ²) | ピッチ (mm) | P _w | | L _{Qa} (kN) | | s _{Qa} (kN) |
| X1-X3 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |

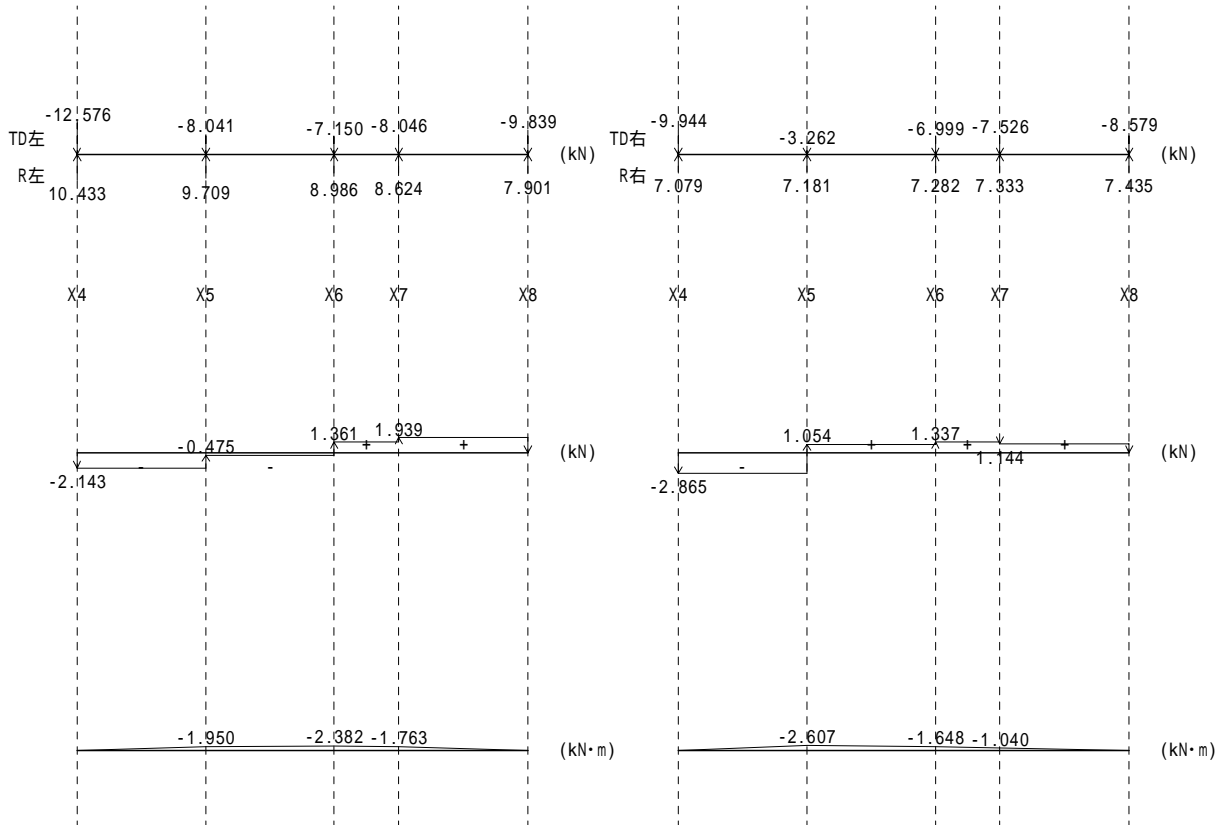
判定

| 柱間 | 長期 | | | 短期 左加力 | | | 短期 右加力 | | | 判定 < 1.0 |
|-------|---------------------------------------|---------------------------------------|---------------------------------|--|-------|---|--|-------|---|-------------|
| | M _中 / 上端L _{Ma} | M _端 / 下端L _{Ma} | Q _L /L _{Qa} | M _端 +M _{水f} /1.5L _{Ma} | | Q _L +1.5Q _e /s _{Qa} | M _端 +M _{水f} /1.5L _{Ma} | | Q _L +1.5Q _e /s _{Qa} | |
| | | | | 左側 | 右側 | | 左側 | 右側 | | |
| X1-X3 | 0.407 | 0.271 | 0.239 | 0.181 | 0.181 | 0.159 | 0.181 | 0.181 | 0.159 | OK |

X方向 Y5通り X4-X8

[水平荷重時 左加力]

[水平荷重時 右加力]



応力の算定 (水平荷重時)

| 柱 | 座標 | 位置 (m) | 水平荷重時 左加力 | | | | 水平荷重時 右加力 | | | |
|---|----|--------|-----------|--------|---------|------------------------|-----------|--------|---------|------------------------|
| | | | Td (kN) | R (kN) | Qe (kN) | M _{wf} (kN·m) | Td (kN) | R (kN) | Qe (kN) | M _{wf} (kN·m) |
| 1 | X4 | 2.730 | -12.576 | 10.433 | -2.143 | 0.000 | -9.944 | 7.079 | -2.865 | 0.000 |
| 2 | X5 | 3.640 | -8.041 | 9.709 | -0.475 | -1.950 | -3.262 | 7.181 | 1.054 | -2.607 |
| 3 | X6 | 4.550 | -7.150 | 8.986 | 1.361 | -2.382 | -6.999 | 7.282 | 1.337 | -1.648 |
| 4 | X7 | 5.005 | -8.046 | 8.624 | 1.939 | -1.763 | -7.526 | 7.333 | 1.144 | -1.040 |
| 5 | X8 | 5.915 | -9.839 | 7.901 | 0.000 | 0.000 | -8.579 | 7.435 | 0.000 | 0.000 |
| 計 | | 21.840 | -45.652 | 45.653 | | | -36.310 | 36.310 | | |

応力の算定 (長期)

| 柱間 | 柱間 長さ (m) | 長期 | | | | |
|-------|-----------------|---------------------------|----------|--------------------------|--------------------------|------------------------|
| | | e (kN/m ²) | B (m) | M _中 (kN・m) | M _端 (kN・m) | Q _L (kN) |
| X4-X5 | 0.910 | 17.343 | 0.910 | 1.634 | 1.089 | 7.181 |
| X5-X6 | 0.910 | 16.480 | 0.910 | 1.552 | 1.035 | 6.824 |
| X6-X7 | 0.455 | 20.914 | 1.365 | 0.739 | 0.493 | 6.495 |
| X7-X8 | 0.910 | 20.914 | 1.365 | 2.955 | 1.970 | 12.989 |

応力の算定 (短期)

| 柱間 | 短期 左加力 | | | 短期 右加力 | | |
|-------|--|--------|---|--|--------|---|
| | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) |
| | 左側 | 右側 | | 左側 | 右側 | |
| X4-X5 | 1.089 | -0.861 | 10.396 | 1.089 | -1.518 | 11.479 |
| X5-X6 | -0.915 | -1.347 | 7.537 | -1.572 | -0.613 | 8.405 |
| X6-X7 | -1.889 | -1.270 | 8.537 | -1.155 | -0.547 | 8.501 |
| X7-X8 | 0.207 | 1.970 | 15.898 | 0.930 | 1.970 | 14.705 |

許容耐力の算定(1)

かぶり厚上:75.0 (mm) かぶり厚下:75.0 (mm)

| 柱間 | 基礎 高さ (mm) | 上端主筋 | | | | 下端主筋 | | | |
|-------|------------------|-------|---------------------------|-----------|---------------------------|-------|---------------------------|-----------|---------------------------|
| | | 鉄筋 | 断面積 (mm ²) | j (mm) | L _{Ma} (kN・m) | 鉄筋 | 断面積 (mm ²) | j (mm) | L _{Ma} (kN・m) |
| X4-X5 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| X5-X6 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| X6-X7 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| X7-X8 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |

許容耐力の算定(2)

F_c18 L_fs=0.600 (N/mm²) s_fs=0.900 (N/mm²)

| 柱間 | 幅b (mm) | スターラップ筋 | | | | せん断長期 | | せん断短期 | |
|-------|------------|---------|---------------------------|-------------|----------------|-------|-------------------------|-------|-------------------------|
| | | 鉄筋 | 断面積 (mm ²) | ピッチ (mm) | P _w | | L _{Qa} (kN) | | s _{Qa} (kN) |
| X4-X5 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| X5-X6 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| X6-X7 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| X7-X8 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |

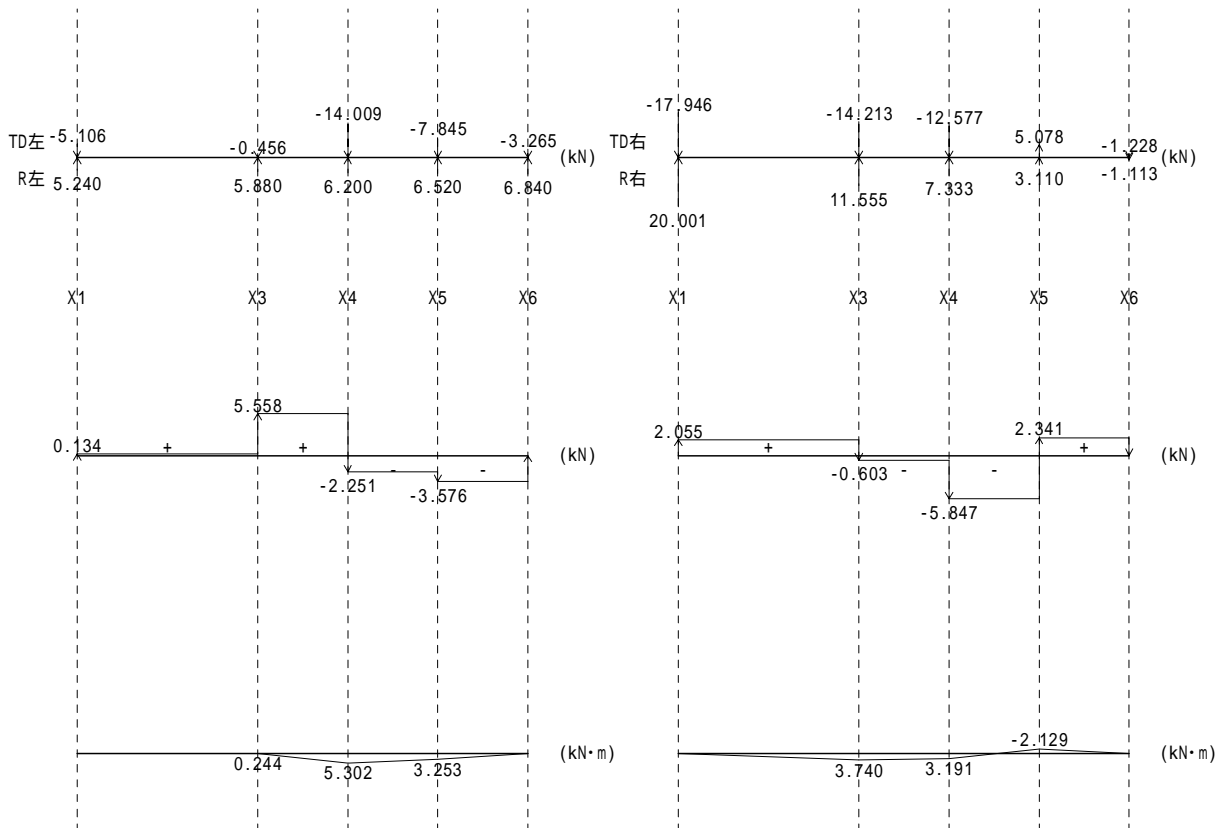
判定

| 柱間 | 長期 | | | 短期 左加力 | | | 短期 右加力 | | | 判定 < 1.0 |
|-------|---------------------------------------|---------------------------------------|---------------------------------|--|-------|---|--|-------|---|-------------|
| | M _中 / 上端L _{Ma} | M _端 / 下端L _{Ma} | Q _L /L _{Qa} | M _端 +M _{水f} /1.5L _{Ma} | | Q _L +1.5Q _e /s _{Qa} | M _端 +M _{水f} /1.5L _{Ma} | | Q _L +1.5Q _e /s _{Qa} | |
| | | | | 左側 | 右側 | | 左側 | 右側 | | |
| X4-X5 | 0.060 | 0.040 | 0.071 | 0.027 | 0.021 | 0.068 | 0.027 | 0.037 | 0.075 | OK |
| X5-X6 | 0.057 | 0.038 | 0.067 | 0.023 | 0.033 | 0.050 | 0.039 | 0.015 | 0.055 | OK |
| X6-X7 | 0.027 | 0.018 | 0.064 | 0.046 | 0.031 | 0.056 | 0.028 | 0.013 | 0.056 | OK |
| X7-X8 | 0.109 | 0.073 | 0.128 | 0.005 | 0.048 | 0.105 | 0.023 | 0.048 | 0.097 | OK |

X方向 Y4通り X1-X6

[水平荷重時 左加力]

[水平荷重時 右加力]



応力の算定 (水平荷重時)

| 柱 | 座標 | 位置 (m) | 水平荷重時 左加力 | | | | 水平荷重時 右加力 | | | |
|---|----|-----------|------------|-----------|------------|---------------------------|------------|-----------|------------|---------------------------|
| | | | Td (kN) | R (kN) | Qe (kN) | M _{水f} (kN·m) | Td (kN) | R (kN) | Qe (kN) | M _{水f} (kN·m) |
| 1 | X1 | 0.000 | -5.106 | 5.240 | 0.134 | 0.000 | -17.946 | 20.001 | 2.055 | 0.000 |
| 2 | X3 | 1.820 | -0.456 | 5.880 | 5.558 | 0.244 | -14.213 | 11.555 | -0.603 | 3.740 |
| 3 | X4 | 2.730 | -14.009 | 6.200 | -2.251 | 5.302 | -12.577 | 7.333 | -5.847 | 3.191 |
| 4 | X5 | 3.640 | -7.845 | 6.520 | -3.576 | 3.253 | 5.078 | 3.110 | 2.341 | -2.129 |
| 5 | X6 | 4.550 | -3.265 | 6.840 | 0.000 | 0.000 | -1.228 | -1.113 | 0.000 | 0.000 |
| 計 | | 12.740 | -30.681 | 30.680 | | | -40.886 | 40.886 | | |

応力の算定 (長期)

| 柱間 | 柱間長さ (m) | 長期 | | | | |
|-------|----------|------------------------|-------|-----------------------|-----------------------|---------------------|
| | | e (kN/m ²) | B (m) | M _中 (kN・m) | M _端 (kN・m) | Q _L (kN) |
| X1-X3 | 1.820 | 19.516 | 1.593 | 12.872 | 8.582 | 28.291 |
| X3-X4 | 0.910 | 15.435 | 1.593 | 2.545 | 1.697 | 11.188 |
| X4-X5 | 0.910 | 16.455 | 1.365 | 2.325 | 1.550 | 10.220 |
| X5-X6 | 0.910 | 16.455 | 1.365 | 2.325 | 1.550 | 10.220 |

応力の算定 (短期)

| 柱間 | 短期 左加力 | | | 短期 右加力 | | |
|-------|--|-------|--|--|--------|--|
| | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) |
| | 左側 | 右側 | | 左側 | 右側 | |
| X1-X3 | 8.582 | 8.826 | 28.492 | 8.582 | 12.322 | 31.374 |
| X3-X4 | 1.941 | 6.999 | 19.525 | 5.437 | 4.888 | 12.093 |
| X4-X5 | 6.852 | 4.803 | 13.597 | 4.741 | -0.579 | 18.991 |
| X5-X6 | 4.803 | 1.550 | 15.584 | -0.579 | 1.550 | 13.732 |

許容耐力の算定(1)

かぶり厚上:75.0 (mm) かぶり厚下:75.0 (mm)

| 柱間 | 基礎高さ (mm) | 上端主筋 | | | | 下端主筋 | | | |
|-------|-----------|-------|------------------------|--------|------------------------|-------|------------------------|--------|------------------------|
| | | 鉄筋 | 断面積 (mm ²) | j (mm) | L _{Ma} (kN・m) | 鉄筋 | 断面積 (mm ²) | j (mm) | L _{Ma} (kN・m) |
| X1-X3 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| X3-X4 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| X4-X5 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| X5-X6 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |

許容耐力の算定(2)

F_{c18} L_{fs}=0.600 (N/mm²) s_{fs}=0.900 (N/mm²)

| 柱間 | 幅b (mm) | スターラップ筋 | | | | せん断長期 | | せん断短期 | |
|-------|---------|---------|------------------------|----------|----------------|-------|----------------------|-------|----------------------|
| | | 鉄筋 | 断面積 (mm ²) | ピッチ (mm) | P _w | | L _{Qa} (kN) | | s _{Qa} (kN) |
| X1-X3 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| X3-X4 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| X4-X5 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| X5-X6 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |

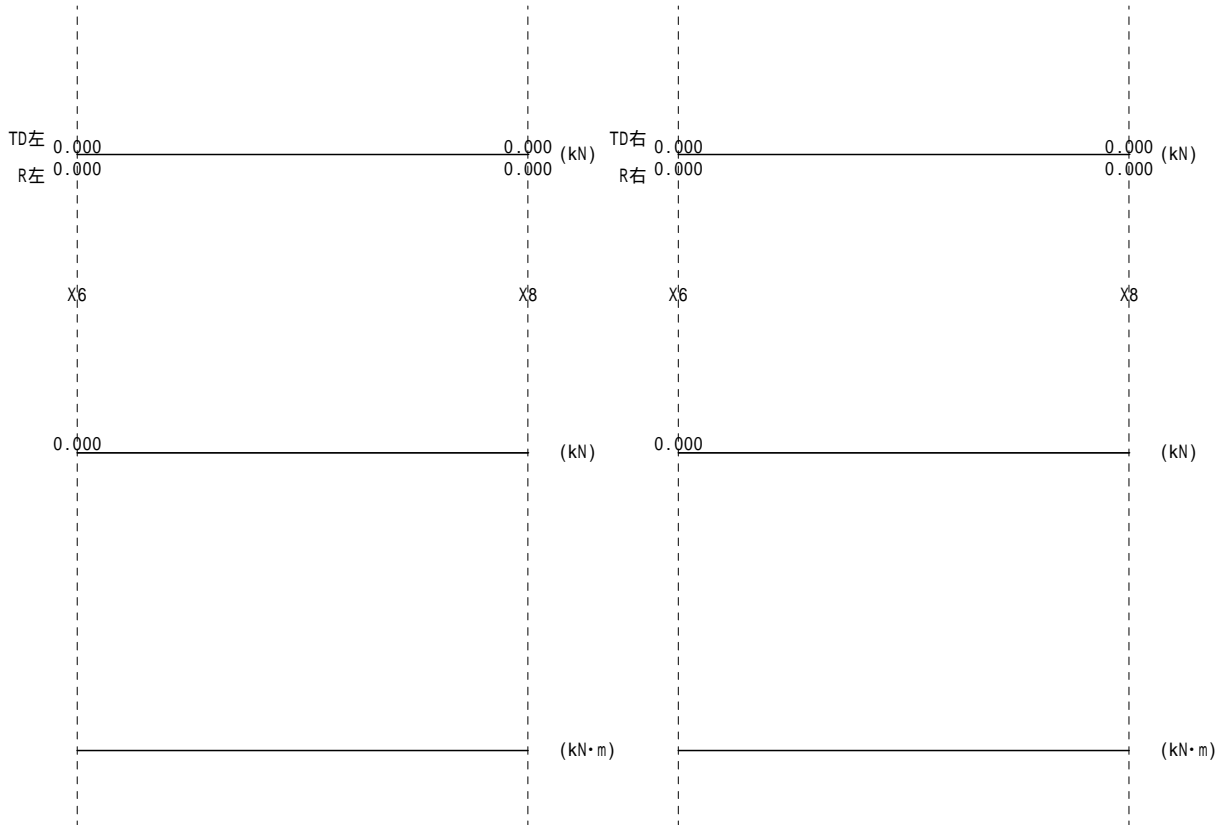
判定

| 柱間 | 長期 | | | 短期 左加力 | | | 短期 右加力 | | | 判定 |
|-------|-----------------------------------|-----------------------------------|---------------------------------|---|-------|--|---|-------|--|----|
| | M _中 /上端L _{Ma} | M _端 /下端L _{Ma} | Q _L /L _{Qa} | M _端 +M _{水f} /1.5L _{Ma} | | Q _L +1.5Q _e /s _{Qa} | M _端 +M _{水f} /1.5L _{Ma} | | Q _L +1.5Q _e /s _{Qa} | |
| | | | | 左側 | 右側 | | 左側 | 右側 | | |
| X1-X3 | 0.475 | 0.317 | 0.279 | 0.211 | 0.217 | 0.187 | 0.211 | 0.303 | 0.206 | OK |
| X3-X4 | 0.094 | 0.063 | 0.110 | 0.048 | 0.172 | 0.128 | 0.134 | 0.120 | 0.080 | OK |
| X4-X5 | 0.086 | 0.057 | 0.101 | 0.169 | 0.118 | 0.089 | 0.117 | 0.014 | 0.125 | OK |
| X5-X6 | 0.086 | 0.057 | 0.101 | 0.118 | 0.038 | 0.102 | 0.014 | 0.038 | 0.090 | OK |

X方向 Y3通り X6-X8

[水平荷重時 左加力]

[水平荷重時 右加力]



応力の算定 (水平荷重時)

| 柱 | 座標 | 位置 (m) | 水平荷重時 左加力 | | | | 水平荷重時 右加力 | | | |
|---|----|-----------|------------|-----------|------------|---------------------------|------------|-----------|------------|---------------------------|
| | | | Td (kN) | R (kN) | Qe (kN) | M _{水f} (kN·m) | Td (kN) | R (kN) | Qe (kN) | M _{水f} (kN·m) |
| 1 | X6 | 4.550 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | |
| 2 | X8 | 5.915 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | |
| 計 | | 10.465 | 0.000 | 0.000 | | 0.000 | 0.000 | | | |

応力の算定 (長期)

| 柱間 | 柱間 長さ (m) | 長期 | | | | |
|-------|-----------------|---------------------------|----------|--------------------------|--------------------------|------------------------|
| | | e (kN/m ²) | B (m) | M _中 (kN·m) | M _端 (kN·m) | Q _L (kN) |
| X6-X8 | 1.365 | 23.753 | 1.365 | 7.551 | 5.034 | 22.129 |

応力の算定 (短期)

| 柱間 | 短期 左加力 | | | 短期 右加力 | | |
|-------|--|-------|---|--|-------|---|
| | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) |
| | 左側 | 右側 | | 左側 | 右側 | |
| X6-X8 | 5.034 | 5.034 | 22.129 | 5.034 | 5.034 | 22.129 |

許容耐力の算定(1)

かぶり厚上:75.0 (mm) かぶり厚下:75.0 (mm)

| 柱間 | 基礎 高さ (mm) | 上端主筋 | | | | 下端主筋 | | | |
|-------|------------------|-------|---------------------------|-----------|---------------------------|-------|---------------------------|-----------|---------------------------|
| | | 鉄筋 | 断面積 (mm ²) | j (mm) | L _{Ma} (kN・m) | 鉄筋 | 断面積 (mm ²) | j (mm) | L _{Ma} (kN・m) |
| X6-X8 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |

許容耐力の算定(2)

F_{c18} L_{fs}=0.600 (N/mm²) s_{fs}=0.900 (N/mm²)

| 柱間 | 幅b (mm) | スターラップ筋 | | | | せん断長期 | | せん断短期 | |
|-------|------------|---------|---------------------------|-------------|----------------|-------|-------------------------|-------|-------------------------|
| | | 鉄筋 | 断面積 (mm ²) | ピッチ (mm) | P _w | | L _{Qa} (kN) | | s _{Qa} (kN) |
| X6-X8 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |

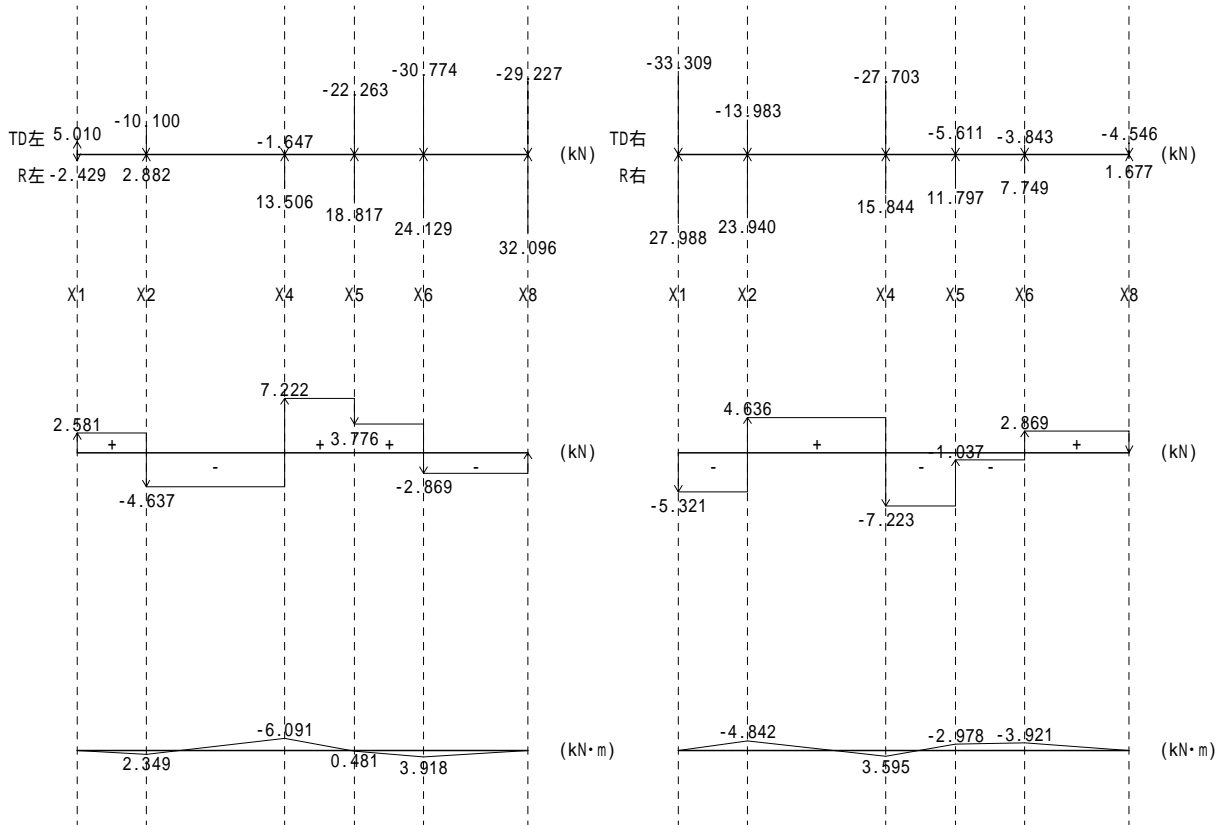
判定

| 柱間 | 長期 | | | 短期 左加力 | | | 短期 右加力 | | | 判定 < 1.0 |
|-------|---------------------------------------|---------------------------------------|---------------------------------|--|-------|---|--|-------|---|-------------|
| | M _中 / 上端L _{Ma} | M _端 / 下端L _{Ma} | Q _L /L _{Qa} | M _端 +M _{水f} /1.5L _{Ma} | | Q _L +1.5Q _e /s _{Qa} | M _端 +M _{水f} /1.5L _{Ma} | | Q _L +1.5Q _e /s _{Qa} | |
| | | | | 左側 | 右側 | | 左側 | 右側 | | |
| X6-X8 | 0.279 | 0.186 | 0.218 | 0.124 | 0.124 | 0.145 | 0.124 | 0.124 | 0.145 | OK |

X方向 Y1通り X1-X8

[水平荷重時 左加力]

[水平荷重時 右加力]



応力の算定 (水平荷重時)

| 柱 | 座標 | 位置 (m) | 水平荷重時 左加力 | | | | 水平荷重時 右加力 | | | |
|---|----|-----------|------------|-----------|------------|---------------------------|------------|-----------|------------|---------------------------|
| | | | Td (kN) | R (kN) | Qe (kN) | M _{水f} (kN・m) | Td (kN) | R (kN) | Qe (kN) | M _{水f} (kN・m) |
| 1 | X1 | 0.000 | 5.010 | -2.429 | 2.581 | 0.000 | -33.309 | 27.988 | -5.321 | 0.000 |
| 2 | X2 | 0.910 | -10.100 | 2.882 | -4.637 | 2.349 | -13.983 | 23.940 | 4.636 | -4.842 |
| 3 | X4 | 2.730 | -1.647 | 13.506 | 7.222 | -6.091 | -27.703 | 15.844 | -7.223 | 3.595 |
| 4 | X5 | 3.640 | -22.263 | 18.817 | 3.776 | 0.481 | -5.611 | 11.797 | -1.037 | -2.978 |
| 5 | X6 | 4.550 | -30.774 | 24.129 | -2.869 | 3.918 | -3.843 | 7.749 | 2.869 | -3.921 |
| 6 | X8 | 5.915 | -29.227 | 32.096 | 0.000 | 0.000 | -4.546 | 1.677 | 0.000 | 0.000 |
| 計 | | 17.745 | -89.001 | 89.001 | | | -88.995 | 88.995 | | |

応力の算定 (長期)

| 柱間 | 柱間長さ (m) | 長期 | | | | |
|-------|----------|------------------------|-------|-----------------------|-----------------------|---------------------|
| | | e (kN/m ²) | B (m) | M _中 (kN・m) | M _端 (kN・m) | Q _L (kN) |
| X1-X2 | 0.910 | 14.281 | 1.138 | 1.682 | 1.122 | 7.395 |
| X2-X4 | 1.820 | 14.281 | 1.138 | 6.729 | 4.486 | 14.789 |
| X4-X5 | 0.910 | 14.173 | 0.910 | 1.335 | 0.890 | 5.868 |
| X5-X6 | 0.910 | 14.173 | 0.910 | 1.335 | 0.890 | 5.868 |
| X6-X8 | 1.365 | 23.753 | 0.683 | 3.778 | 2.519 | 11.072 |

応力の算定 (短期)

| 柱間 | 短期 左加力 | | | 短期 右加力 | | |
|-------|--|--------|--|--|--------|--|
| | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) |
| | 左側 | 右側 | | 左側 | 右側 | |
| X1-X2 | 1.122 | 3.471 | 11.267 | 1.122 | -3.720 | 15.377 |
| X2-X4 | 6.835 | -1.605 | 21.745 | -0.356 | 8.081 | 21.743 |
| X4-X5 | -5.201 | 1.371 | 16.701 | 4.485 | -2.088 | 16.703 |
| X5-X6 | 1.371 | 4.808 | 11.532 | -2.088 | -3.031 | 7.424 |
| X6-X8 | 6.437 | 2.519 | 15.376 | -1.402 | 2.519 | 15.376 |

許容耐力の算定 (1)

かぶり厚上:75.0 (mm) かぶり厚下:75.0 (mm)

| 柱間 | 基礎高さ (mm) | 上端主筋 | | | | 下端主筋 | | | |
|-------|-----------|-------|------------------------|--------|------------|-------|------------------------|--------|------------|
| | | 鉄筋 | 断面積 (mm ²) | j (mm) | ∫Ma (kN・m) | 鉄筋 | 断面積 (mm ²) | j (mm) | ∫Ma (kN・m) |
| X1-X2 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| X2-X4 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| X4-X5 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| X5-X6 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| X6-X8 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |

許容耐力の算定 (2)

Fc18 ∫fs=0.600 (N/mm²) sfs=0.900 (N/mm²)

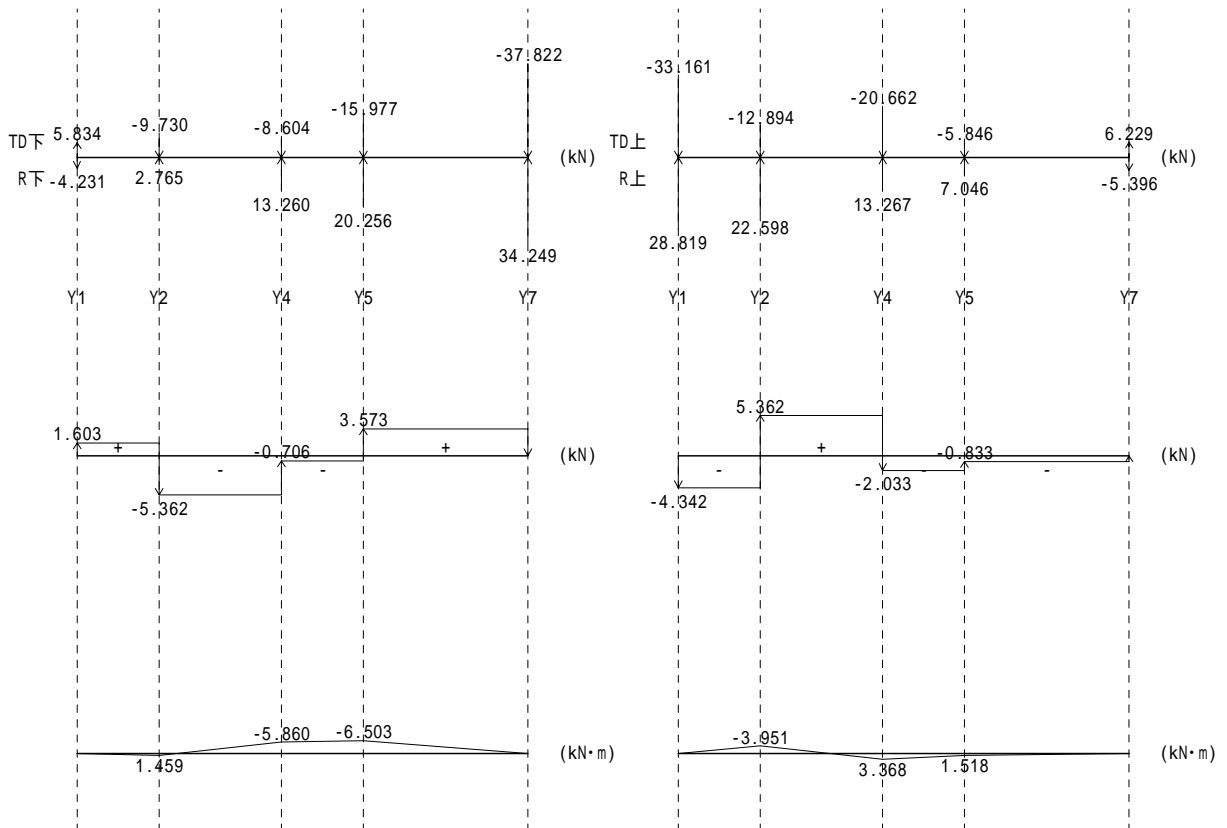
| 柱間 | 幅b (mm) | スターラップ筋 | | | | せん断長期 | | せん断短期 | |
|-------|---------|---------|------------------------|----------|---------|-------|----------|-------|----------|
| | | 鉄筋 | 断面積 (mm ²) | ピッチ (mm) | Pw | | ∫Qa (kN) | | sQa (kN) |
| X1-X2 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| X2-X4 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| X4-X5 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| X5-X6 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| X6-X8 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |

判定

| 柱間 | 長期 | | | 短期 左加力 | | | 短期 右加力 | | | 判定 < 1.0 |
|-------|--------------------------|--------------------------|---------------------------------|---|-------|---|---|-------|---|-------------|
| | M中/ 上端L _{Ma} | M端/ 下端L _{Ma} | Q _L /L _{Qa} | M端+M _{水r} /1.5L _{Ma} | | Q _L +1.5Q _e /sQ _a | M端+M _{水r} /1.5L _{Ma} | | Q _L +1.5Q _e /sQ _a | |
| | | | | 左側 | 右側 | | 左側 | 右側 | | |
| X1-X2 | 0.062 | 0.041 | 0.073 | 0.028 | 0.085 | 0.074 | 0.028 | 0.092 | 0.101 | OK |
| X2-X4 | 0.248 | 0.166 | 0.146 | 0.168 | 0.040 | 0.143 | 0.009 | 0.199 | 0.143 | OK |
| X4-X5 | 0.049 | 0.033 | 0.058 | 0.128 | 0.034 | 0.110 | 0.110 | 0.051 | 0.110 | OK |
| X5-X6 | 0.049 | 0.033 | 0.058 | 0.034 | 0.118 | 0.076 | 0.051 | 0.075 | 0.049 | OK |
| X6-X8 | 0.139 | 0.093 | 0.109 | 0.158 | 0.062 | 0.101 | 0.035 | 0.062 | 0.101 | OK |

Y方向 X1通り Y1-Y7
[水平荷重時 下加力]

[水平荷重時 上加力]



応力の算定 (水平荷重時)

| 柱 | 座標 | 位置 (m) | 水平荷重時 下加力 | | | | 水平荷重時 上加力 | | | |
|---|----|-----------|------------|-----------|------------|---------------------------|------------|-----------|------------|---------------------------|
| | | | Td (kN) | R (kN) | Qe (kN) | M _{wf} (kN·m) | Td (kN) | R (kN) | Qe (kN) | M _{wf} (kN·m) |
| 1 | Y1 | 0.000 | 5.834 | -4.231 | 1.603 | 0.000 | -33.161 | 28.819 | -4.342 | 0.000 |
| 2 | Y2 | 0.910 | -9.730 | 2.765 | -5.362 | 1.459 | -12.894 | 22.598 | 5.362 | -3.951 |
| 3 | Y4 | 2.275 | -8.604 | 13.260 | -0.706 | -5.860 | -20.662 | 13.267 | -2.033 | 3.368 |
| 4 | Y5 | 3.185 | -15.977 | 20.256 | 3.573 | -6.503 | -5.846 | 7.046 | -0.833 | 1.518 |
| 5 | Y7 | 5.005 | -37.822 | 34.249 | 0.000 | 0.000 | 6.229 | -5.396 | 0.000 | 0.000 |
| 計 | | 11.375 | -66.299 | 66.299 | | | -66.334 | 66.334 | | |

応力の算定 (長期)

| 柱間 | 柱間長さ (m) | 長期 | | | | |
|-------|----------|------------------------|-------|-----------------------|-----------------------|---------------------|
| | | e (kN/m ²) | B (m) | M _中 (kN・m) | M _端 (kN・m) | Q _L (kN) |
| Y1-Y2 | 0.910 | 14.281 | 1.138 | 1.682 | 1.122 | 7.395 |
| Y2-Y4 | 1.365 | 14.281 | 1.138 | 3.785 | 2.523 | 11.092 |
| Y4-Y5 | 0.910 | 19.516 | 0.455 | 0.919 | 0.613 | 4.040 |
| Y5-Y7 | 1.820 | 15.863 | 0.910 | 5.977 | 3.985 | 13.136 |

応力の算定 (短期)

| 柱間 | 短期 下加力 | | | 短期 上加力 | | |
|-------|--|--------|--|--|--------|--|
| | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) |
| | 左側 | 右側 | | 左側 | 右側 | |
| Y1-Y2 | 1.122 | 2.581 | 9.800 | 1.122 | -2.829 | 13.908 |
| Y2-Y4 | 3.982 | -3.337 | 19.135 | -1.428 | 5.891 | 19.135 |
| Y4-Y5 | -5.247 | -5.890 | 5.099 | 3.981 | 2.131 | 7.090 |
| Y5-Y7 | -2.518 | 3.985 | 18.496 | 5.503 | 3.985 | 14.386 |

許容耐力の算定(1)

かぶり厚上:75.0 (mm) かぶり厚下:75.0 (mm)

| 柱間 | 基礎高さ (mm) | 上端主筋 | | | | 下端主筋 | | | |
|-------|-----------|-------|------------------------|--------|------------------------|-------|------------------------|--------|------------------------|
| | | 鉄筋 | 断面積 (mm ²) | j (mm) | L _{Ma} (kN・m) | 鉄筋 | 断面積 (mm ²) | j (mm) | L _{Ma} (kN・m) |
| Y1-Y2 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| Y2-Y4 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| Y4-Y5 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| Y5-Y7 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |

許容耐力の算定(2)

F_{c18} L_{fs}=0.600 (N/mm²) s_{fs}=0.900 (N/mm²)

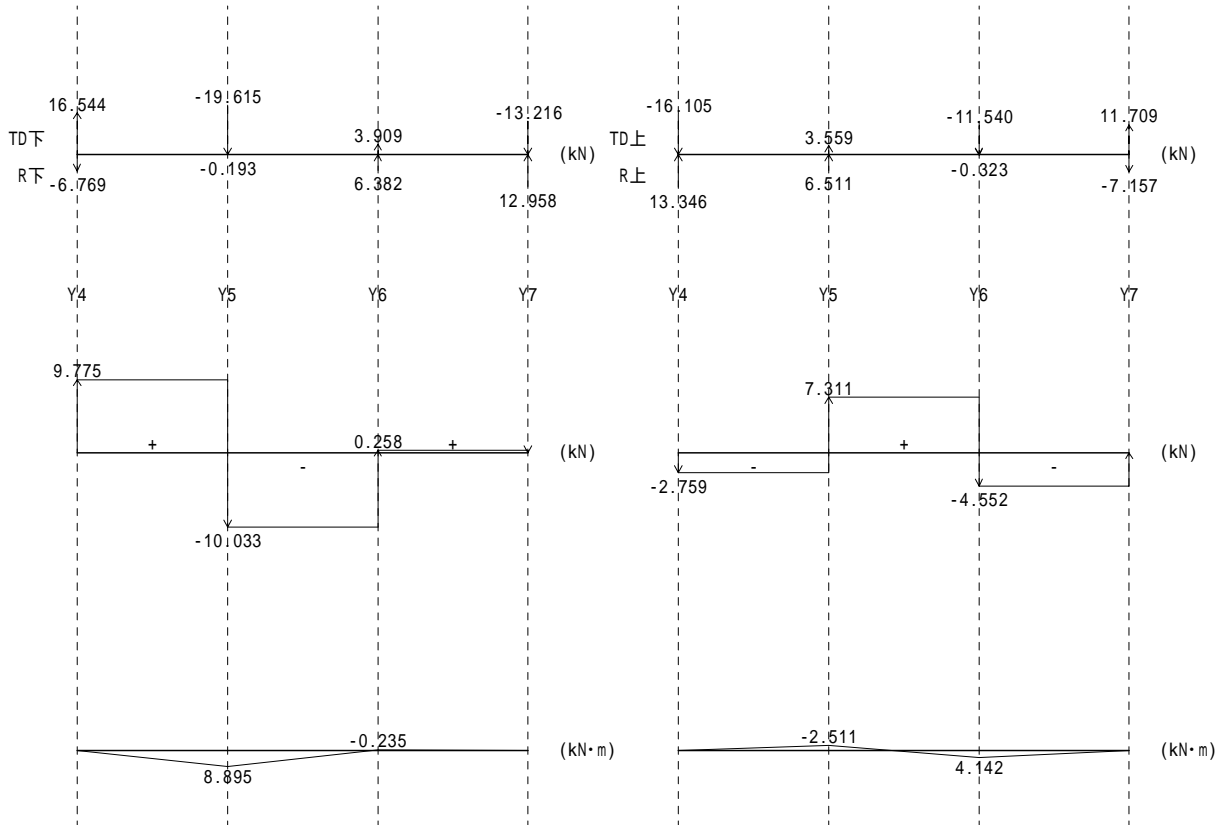
| 柱間 | 幅b (mm) | スターラップ筋 | | | | せん断長期 | | せん断短期 | |
|-------|---------|---------|------------------------|----------|----------------|-------|----------------------|-------|----------------------|
| | | 鉄筋 | 断面積 (mm ²) | ピッチ (mm) | P _w | | L _{Qa} (kN) | | s _{Qa} (kN) |
| Y1-Y2 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| Y2-Y4 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| Y4-Y5 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 1.34 | 103.371 |
| Y5-Y7 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |

判定

| 柱間 | 長期 | | | 短期 下加力 | | | 短期 上加力 | | | 判定 |
|-------|-----------------------------------|-----------------------------------|---------------------------------|---|-------|--|---|-------|--|----|
| | M _中 /上端L _{Ma} | M _端 /下端L _{Ma} | Q _L /L _{Qa} | M _端 +M _{水f} /1.5L _{Ma} | | Q _L +1.5Q _e /s _{Qa} | M _端 +M _{水f} /1.5L _{Ma} | | Q _L +1.5Q _e /s _{Qa} | |
| | | | | 左側 | 右側 | | 左側 | 右側 | | |
| Y1-Y2 | 0.062 | 0.041 | 0.073 | 0.028 | 0.064 | 0.064 | 0.028 | 0.070 | 0.091 | OK |
| Y2-Y4 | 0.140 | 0.093 | 0.109 | 0.098 | 0.082 | 0.126 | 0.035 | 0.145 | 0.126 | OK |
| Y4-Y5 | 0.034 | 0.023 | 0.040 | 0.129 | 0.145 | 0.049 | 0.098 | 0.052 | 0.069 | OK |
| Y5-Y7 | 0.221 | 0.147 | 0.130 | 0.062 | 0.098 | 0.122 | 0.135 | 0.098 | 0.095 | OK |

Y方向 X3通り Y4-Y7
[水平荷重時 下加力]

[水平荷重時 上加力]



応力の算定 (水平荷重時)

| 柱 | 座標 | 位置 (m) | 水平荷重時 下加力 | | | | 水平荷重時 上加力 | | | |
|---|----|-----------|------------|-----------|------------|---------------------------|------------|-----------|------------|---------------------------|
| | | | Td (kN) | R (kN) | Qe (kN) | M _{水f} (kN·m) | Td (kN) | R (kN) | Qe (kN) | M _{水f} (kN·m) |
| 1 | Y4 | 2.275 | 16.544 | -6.769 | 9.775 | 0.000 | -16.105 | 13.346 | -2.759 | 0.000 |
| 2 | Y5 | 3.185 | -19.615 | -0.193 | -10.033 | 8.895 | 3.559 | 6.511 | 7.311 | -2.511 |
| 3 | Y6 | 4.095 | 3.909 | 6.382 | 0.258 | -0.235 | -11.540 | -0.323 | -4.552 | 4.142 |
| 4 | Y7 | 5.005 | -13.216 | 12.958 | 0.000 | 0.000 | 11.709 | -7.157 | 0.000 | 0.000 |
| 計 | | 14.560 | -12.378 | 12.378 | | | -12.377 | 12.377 | | |

応力の算定 (長期)

| 柱間 | 柱間長さ (m) | 長期 | | | | |
|-------|----------|------------------------|-------|-----------------------|-----------------------|---------------------|
| | | e (kN/m ²) | B (m) | M _中 (kN・m) | M _端 (kN・m) | Q _L (kN) |
| Y4-Y5 | 0.910 | 19.516 | 0.910 | 1.838 | 1.226 | 8.081 |
| Y5-Y6 | 0.910 | 15.863 | 1.365 | 2.241 | 1.494 | 9.852 |
| Y6-Y7 | 0.910 | 15.863 | 1.365 | 2.241 | 1.494 | 9.852 |

応力の算定 (短期)

| 柱間 | 短期 下加力 | | | 短期 上加力 | | |
|-------|--|--------|--|--|--------|--|
| | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) |
| | 左側 | 右側 | | 左側 | 右側 | |
| Y4-Y5 | 1.226 | 10.121 | 22.744 | 1.226 | -1.285 | 12.220 |
| Y5-Y6 | 10.389 | 1.259 | 24.902 | -1.017 | 5.636 | 20.819 |
| Y6-Y7 | 1.259 | 1.494 | 10.239 | 5.636 | 1.494 | 16.680 |

許容耐力の算定 (1)

かぶり厚上:75.0 (mm) かぶり厚下:75.0 (mm)

| 柱間 | 基礎高さ (mm) | 上端主筋 | | | | 下端主筋 | | | |
|-------|-----------|-------|------------------------|--------|------------------------|-------|------------------------|--------|------------------------|
| | | 鉄筋 | 断面積 (mm ²) | j (mm) | L _{Ma} (kN・m) | 鉄筋 | 断面積 (mm ²) | j (mm) | L _{Ma} (kN・m) |
| Y4-Y5 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| Y5-Y6 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| Y6-Y7 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |

許容耐力の算定 (2)

F_c18 f_s=0.600 (N/mm²) s_fs=0.900 (N/mm²)

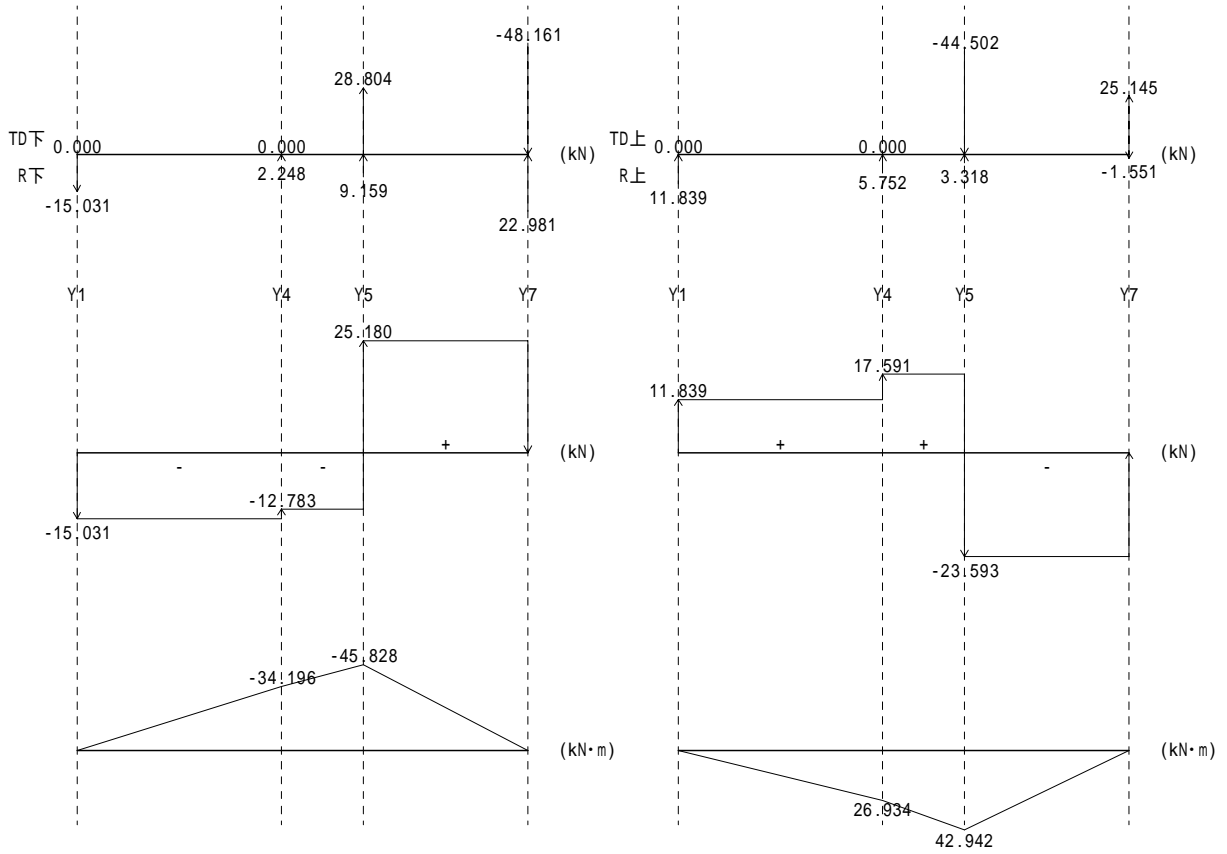
| 柱間 | 幅b (mm) | スターラップ筋 | | | | せん断長期 | | せん断短期 | |
|-------|---------|---------|------------------------|----------|----------------|-------|----------------------|-------|----------------------|
| | | 鉄筋 | 断面積 (mm ²) | ピッチ (mm) | P _w | | L _{Qa} (kN) | | s _{Qa} (kN) |
| Y4-Y5 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| Y5-Y6 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| Y6-Y7 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |

判定

| 柱間 | 長期 | | | 短期 下加力 | | | 短期 上加力 | | | 判定 |
|-------|-----------------------------------|-----------------------------------|---------------------------------|---|-------|--|---|-------|--|----|
| | M _中 /上端L _{Ma} | M _端 /下端L _{Ma} | Q _L /L _{Qa} | M _端 +M _{水f} /1.5L _{Ma} | | Q _L +1.5Q _e /s _{Qa} | M _端 +M _{水f} /1.5L _{Ma} | | Q _L +1.5Q _e /s _{Qa} | |
| | | | | 左側 | 右側 | | 左側 | 右側 | | |
| Y4-Y5 | 0.068 | 0.045 | 0.080 | 0.030 | 0.249 | 0.150 | 0.030 | 0.032 | 0.080 | OK |
| Y5-Y6 | 0.083 | 0.055 | 0.097 | 0.256 | 0.031 | 0.164 | 0.025 | 0.139 | 0.137 | OK |
| Y6-Y7 | 0.083 | 0.055 | 0.097 | 0.031 | 0.037 | 0.067 | 0.139 | 0.037 | 0.110 | OK |

Y方向 X4通り Y1-Y7
[水平荷重時 下加力]

[水平荷重時 上加力]



応力の算定 (水平荷重時)

| 柱 | 座標 | 位置 (m) | 水平荷重時 下加力 | | | | 水平荷重時 上加力 | | | |
|---|----|--------|-----------|---------|---------|------------------------|-----------|--------|---------|------------------------|
| | | | Td (kN) | R (kN) | Qe (kN) | M _{水f} (kN·m) | Td (kN) | R (kN) | Qe (kN) | M _{水f} (kN·m) |
| 1 | Y1 | 0.000 | 0.000 | -15.031 | -15.031 | 0.000 | 0.000 | 11.839 | 11.839 | 0.000 |
| 2 | Y4 | 2.275 | 0.000 | 2.248 | -12.783 | -34.196 | 0.000 | 5.752 | 17.591 | 26.934 |
| 3 | Y5 | 3.185 | 28.804 | 9.159 | 25.180 | -45.828 | -44.502 | 3.318 | -23.593 | 42.942 |
| 4 | Y7 | 5.005 | -48.161 | 22.981 | 0.000 | 0.000 | 25.145 | -1.551 | 0.000 | 0.000 |
| 計 | | 10.465 | -19.357 | 19.357 | | | -19.357 | 19.357 | | |

応力の算定 (長期)

| 柱間 | 柱間長さ (m) | 長期 | | | | |
|-------|----------|------------------------|-------|-----------------------|-----------------------|---------------------|
| | | e (kN/m ²) | B (m) | M _中 (kN・m) | M _端 (kN・m) | Q _L (kN) |
| Y1-Y4 | 2.275 | 14.281 | 2.048 | 18.922 | 12.615 | 33.269 |
| Y4-Y5 | 0.910 | 16.455 | 0.910 | 1.550 | 1.033 | 6.813 |
| Y5-Y7 | 1.820 | 17.343 | 0.910 | 6.535 | 4.356 | 14.362 |

応力の算定 (短期)

| 柱間 | 短期 下加力 | | | 短期 上加力 | | |
|-------|--|---------|--|--|--------|--|
| | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) |
| | 左側 | 右側 | | 左側 | 右側 | |
| Y1-Y4 | 12.615 | -21.581 | 55.816 | 12.615 | 39.549 | 51.028 |
| Y4-Y5 | -33.163 | -44.795 | 25.988 | 27.967 | 43.975 | 33.200 |
| Y5-Y7 | -41.472 | 4.356 | 52.132 | 47.298 | 4.356 | 49.752 |

許容耐力の算定 (1)

かぶり厚上:75.0 (mm) かぶり厚下:75.0 (mm)

| 柱間 | 基礎高さ (mm) | 上端主筋 | | | | 下端主筋 | | | |
|-------|-----------|-------|------------------------|--------|------------------------|-------|------------------------|--------|------------------------|
| | | 鉄筋 | 断面積 (mm ²) | j (mm) | L _{Ma} (kN・m) | 鉄筋 | 断面積 (mm ²) | j (mm) | L _{Ma} (kN・m) |
| Y1-Y4 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| Y4-Y5 | 700.0 | 2-D16 | 398 | 546.9 | 42.445 | 2-D16 | 398 | 546.9 | 42.445 |
| Y5-Y7 | 700.0 | 2-D16 | 398 | 546.9 | 42.445 | 2-D16 | 398 | 546.9 | 42.445 |

許容耐力の算定 (2)

F_c18 f_s=0.600 (N/mm²) s_fs=0.900 (N/mm²)

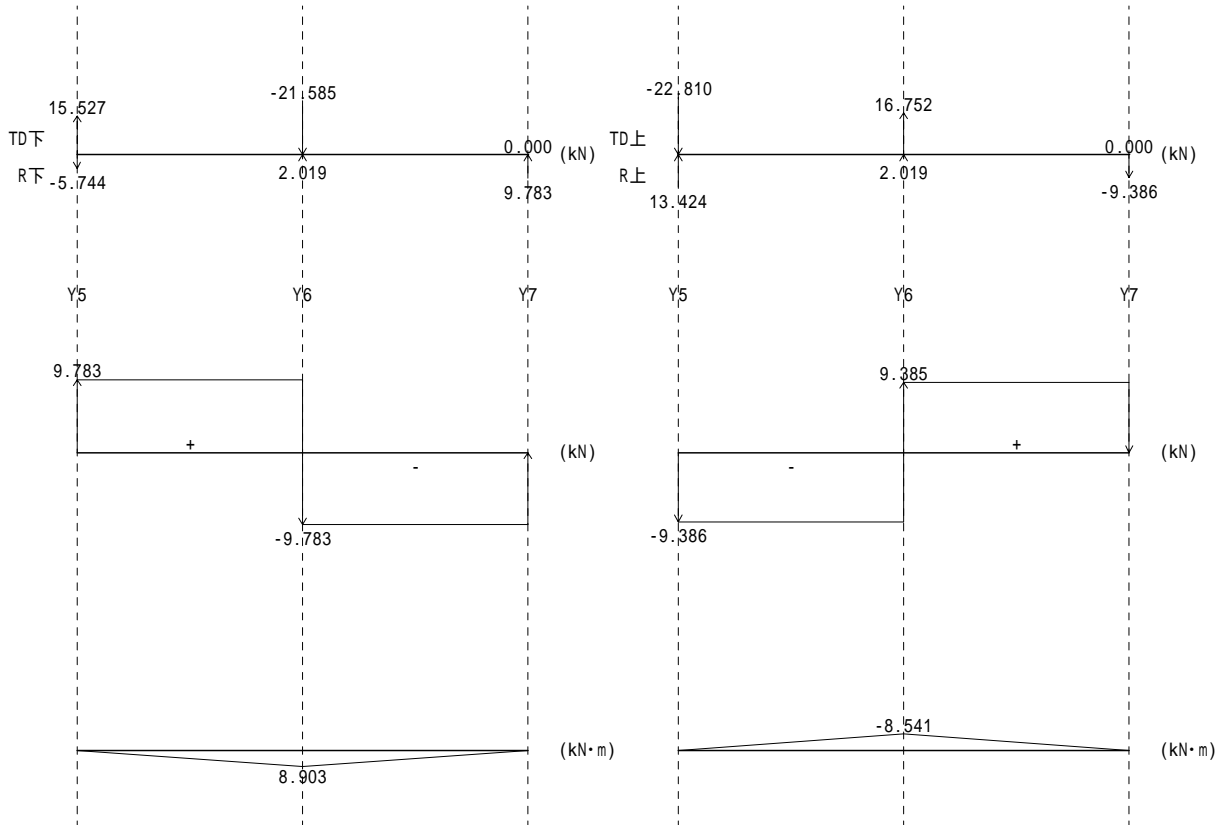
| 柱間 | 幅b (mm) | スターラップ筋 | | | | せん断長期 | | せん断短期 | |
|-------|---------|---------|------------------------|----------|----------------|-------|----------------------|-------|----------------------|
| | | 鉄筋 | 断面積 (mm ²) | ピッチ (mm) | P _w | | L _{Qa} (kN) | | s _{Qa} (kN) |
| Y1-Y4 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 1.67 | 127.366 |
| Y4-Y5 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 1.00 | 78.268 |
| Y5-Y7 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 1.34 | 103.076 |

判定

| 柱間 | 長期 | | | 短期 下加力 | | | 短期 上加力 | | | 判定 |
|-------|-----------------------------------|-----------------------------------|---------------------------------|---|-------|--|---|-------|--|----|
| | M _中 /上端L _{Ma} | M _端 /下端L _{Ma} | Q _L /L _{Qa} | M _端 +M _{水f} /1.5L _{Ma} | | Q _L +1.5Q _e /s _{Qa} | M _端 +M _{水f} /1.5L _{Ma} | | Q _L +1.5Q _e /s _{Qa} | |
| | | | | 左側 | 右側 | | 左側 | 右側 | | |
| Y1-Y4 | 0.699 | 0.466 | 0.328 | 0.310 | 0.531 | 0.438 | 0.310 | 0.973 | 0.401 | OK |
| Y4-Y5 | 0.037 | 0.024 | 0.067 | 0.521 | 0.704 | 0.332 | 0.439 | 0.691 | 0.424 | OK |
| Y5-Y7 | 0.154 | 0.103 | 0.142 | 0.651 | 0.068 | 0.506 | 0.743 | 0.068 | 0.483 | OK |

Y方向 X5通り Y5-Y7
[水平荷重時 下加力]

[水平荷重時 上加力]



応力の算定 (水平荷重時)

| 柱 | 座標 | 位置 (m) | 水平荷重時 下加力 | | | | 水平荷重時 上加力 | | | |
|---|----|-----------|------------|-----------|------------|---------------------------|------------|-----------|------------|---------------------------|
| | | | Td (kN) | R (kN) | Qe (kN) | M _{水f} (kN·m) | Td (kN) | R (kN) | Qe (kN) | M _{水f} (kN·m) |
| 1 | Y5 | 3.185 | 15.527 | -5.744 | 9.783 | 0.000 | -22.810 | 13.424 | -9.386 | 0.000 |
| 2 | Y6 | 4.095 | -21.585 | 2.019 | -9.783 | 8.903 | 16.752 | 2.019 | 9.385 | -8.541 |
| 3 | Y7 | 5.005 | 0.000 | 9.783 | 0.000 | 0.000 | 0.000 | -9.386 | 0.000 | 0.000 |
| 計 | | 12.285 | -6.058 | 6.058 | | | -6.058 | 6.057 | | |

応力の算定 (長期)

| 柱間 | 柱間 長さ (m) | 長期 | | | | |
|-------|-----------------|---------------------------|----------|--------------------------|--------------------------|------------------------|
| | | e (kN/m ²) | B (m) | M _中 (kN·m) | M _端 (kN·m) | Q _L (kN) |
| Y5-Y6 | 0.910 | 17.343 | 0.910 | 1.634 | 1.089 | 7.181 |
| Y6-Y7 | 0.910 | 17.343 | 0.910 | 1.634 | 1.089 | 7.181 |

応力の算定 (短期)

| 柱間 | 短期 下加力 | | | 短期 上加力 | | |
|-------|--|-------|---|--|--------|---|
| | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) |
| | 左側 | 右側 | | 左側 | 右側 | |
| Y5-Y6 | 1.089 | 9.992 | 21.856 | 1.089 | -7.452 | 21.260 |
| Y6-Y7 | 9.992 | 1.089 | 21.856 | -7.452 | 1.089 | 21.259 |

許容耐力の算定(1)

かぶり厚上:75.0 (mm) かぶり厚下:75.0 (mm)

| 柱間 | 基礎 高さ (mm) | 上端主筋 | | | | 下端主筋 | | | |
|-------|------------------|-------|---------------------------|-----------|---------------------------|-------|---------------------------|-----------|---------------------------|
| | | 鉄筋 | 断面積 (mm ²) | j (mm) | L _{Ma} (kN・m) | 鉄筋 | 断面積 (mm ²) | j (mm) | L _{Ma} (kN・m) |
| Y5-Y6 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| Y6-Y7 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |

許容耐力の算定(2)

F_{c18} f_s=0.600 (N/mm²) s_fs=0.900 (N/mm²)

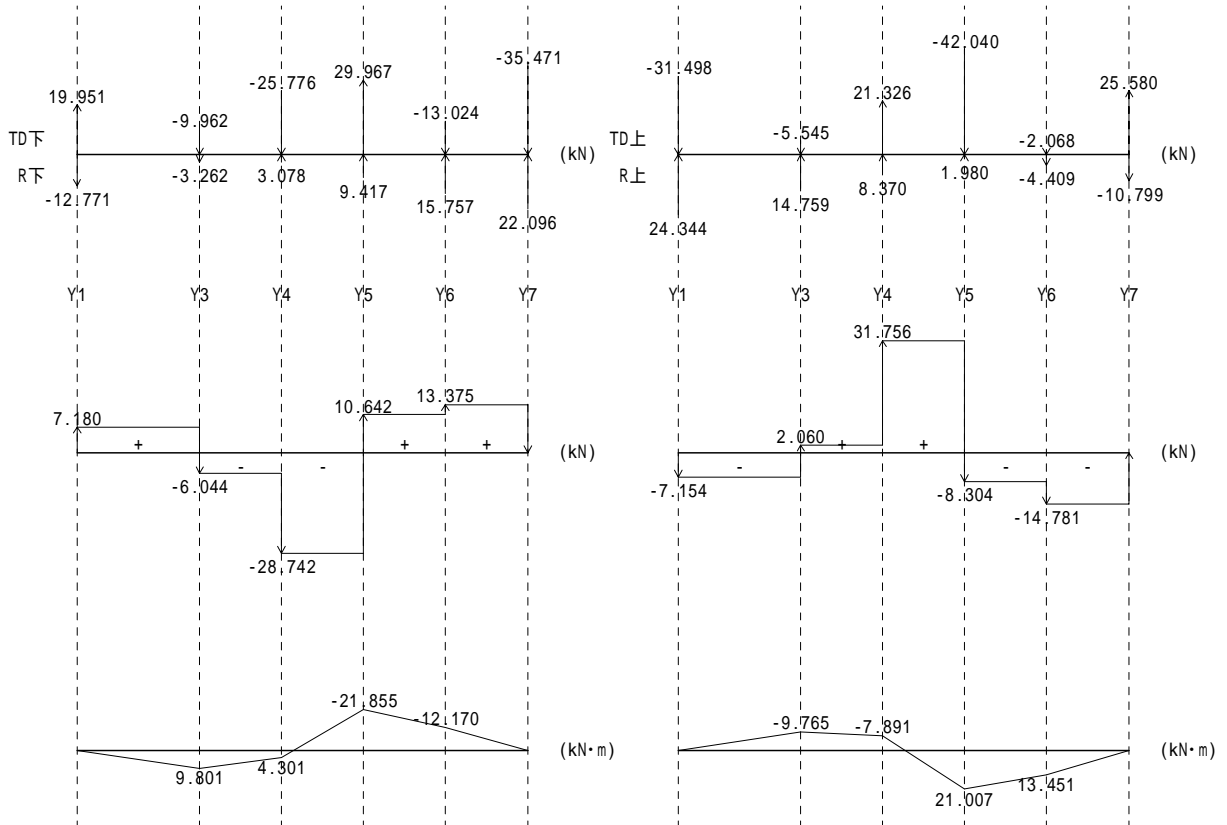
| 柱間 | 幅b (mm) | スターラップ筋 | | | | せん断長期 | | せん断短期 | |
|-------|------------|---------|---------------------------|-------------|----------------|-------|-------------------------|-------|-------------------------|
| | | 鉄筋 | 断面積 (mm ²) | ピッチ (mm) | P _w | | L _{Qa} (kN) | | s _{Qa} (kN) |
| Y5-Y6 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| Y6-Y7 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |

判定

| 柱間 | 長期 | | | 短期 下加力 | | | 短期 上加力 | | | 判定 < 1.0 |
|-------|---------------------------------------|---------------------------------------|---------------------------------|--|-------|---|--|-------|---|-------------|
| | M _中 / 上端L _{Ma} | M _端 / 下端L _{Ma} | Q _L /L _{Qa} | M _端 +M _{水f} /1.5L _{Ma} | | Q _L +1.5Q _e /s _{Qa} | M _端 +M _{水f} /1.5L _{Ma} | | Q _L +1.5Q _e /s _{Qa} | |
| | | | | 左側 | 右側 | | 左側 | 右側 | | |
| Y5-Y6 | 0.060 | 0.040 | 0.071 | 0.027 | 0.246 | 0.144 | 0.027 | 0.183 | 0.140 | OK |
| Y6-Y7 | 0.060 | 0.040 | 0.071 | 0.246 | 0.027 | 0.144 | 0.183 | 0.027 | 0.140 | OK |

Y方向 X6通り Y1-Y7
[水平荷重時 下加力]

[水平荷重時 上加力]



応力の算定 (水平荷重時)

| 柱 | 座標 | 位置 (m) | 水平荷重時 下加力 | | | | 水平荷重時 上加力 | | | |
|---|----|-----------|------------|-----------|------------|---------------------------|------------|-----------|------------|---------------------------|
| | | | Td (kN) | R (kN) | Qe (kN) | M _{wf} (kN·m) | Td (kN) | R (kN) | Qe (kN) | M _{wf} (kN·m) |
| 1 | Y1 | 0.000 | 19.951 | -12.771 | 7.180 | 0.000 | -31.498 | 24.344 | -7.154 | 0.000 |
| 2 | Y3 | 1.365 | -9.962 | -3.262 | -6.044 | 9.801 | -5.545 | 14.759 | 2.060 | -9.765 |
| 3 | Y4 | 2.275 | -25.776 | 3.078 | -28.742 | 4.301 | 21.326 | 8.370 | 31.756 | -7.891 |
| 4 | Y5 | 3.185 | 29.967 | 9.417 | 10.642 | -21.855 | -42.040 | 1.980 | -8.304 | 21.007 |
| 5 | Y6 | 4.095 | -13.024 | 15.757 | 13.375 | -12.170 | -2.068 | -4.409 | -14.781 | 13.451 |
| 6 | Y7 | 5.005 | -35.471 | 22.096 | 0.000 | 0.000 | 25.580 | -10.799 | 0.000 | 0.000 |
| 計 | | 15.925 | -34.315 | 34.315 | | | -34.245 | 34.245 | | |

応力の算定 (長期)

| 柱間 | 柱間長さ (m) | 長期 | | | | |
|-------|----------|------------------------|-------|-----------------------|-----------------------|---------------------|
| | | e (kN/m ²) | B (m) | M _中 (kN・m) | M _端 (kN・m) | Q _L (kN) |
| Y1-Y3 | 1.365 | 23.753 | 1.593 | 8.813 | 5.875 | 25.825 |
| Y3-Y4 | 0.910 | 15.121 | 1.593 | 2.493 | 1.662 | 10.960 |
| Y4-Y5 | 0.910 | 16.455 | 1.138 | 1.938 | 1.292 | 8.520 |
| Y5-Y6 | 0.910 | 20.914 | 1.138 | 2.464 | 1.642 | 10.829 |
| Y6-Y7 | 0.910 | 20.914 | 1.138 | 2.464 | 1.642 | 10.829 |

応力の算定 (短期)

| 柱間 | 短期 下加力 | | | 短期 上加力 | | |
|-------|--|---------|--|--|--------|--|
| | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) |
| | 左側 | 右側 | | 左側 | 右側 | |
| Y1-Y3 | 5.875 | 15.676 | 36.595 | 5.875 | -3.890 | 36.556 |
| Y3-Y4 | 11.463 | 5.963 | 20.026 | -8.103 | -6.229 | 14.050 |
| Y4-Y5 | 5.593 | -20.563 | 51.633 | -6.599 | 22.299 | 56.154 |
| Y5-Y6 | -20.213 | -10.528 | 26.792 | 22.649 | 15.093 | 23.285 |
| Y6-Y7 | -10.528 | 1.642 | 30.892 | 15.093 | 1.642 | 33.001 |

許容耐力の算定 (1)

かぶり厚上:75.0 (mm) かぶり厚下:75.0 (mm)

| 柱間 | 基礎高さ (mm) | 上端主筋 | | | | 下端主筋 | | | |
|-------|-----------|-------|------------------------|--------|------------|-------|------------------------|--------|------------|
| | | 鉄筋 | 断面積 (mm ²) | j (mm) | ∫Ma (kN・m) | 鉄筋 | 断面積 (mm ²) | j (mm) | ∫Ma (kN・m) |
| Y1-Y3 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| Y3-Y4 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| Y4-Y5 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| Y5-Y6 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| Y6-Y7 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |

許容耐力の算定 (2)

F_{c18} ∫fs=0.600 (N/mm²) ∫fs=0.900 (N/mm²)

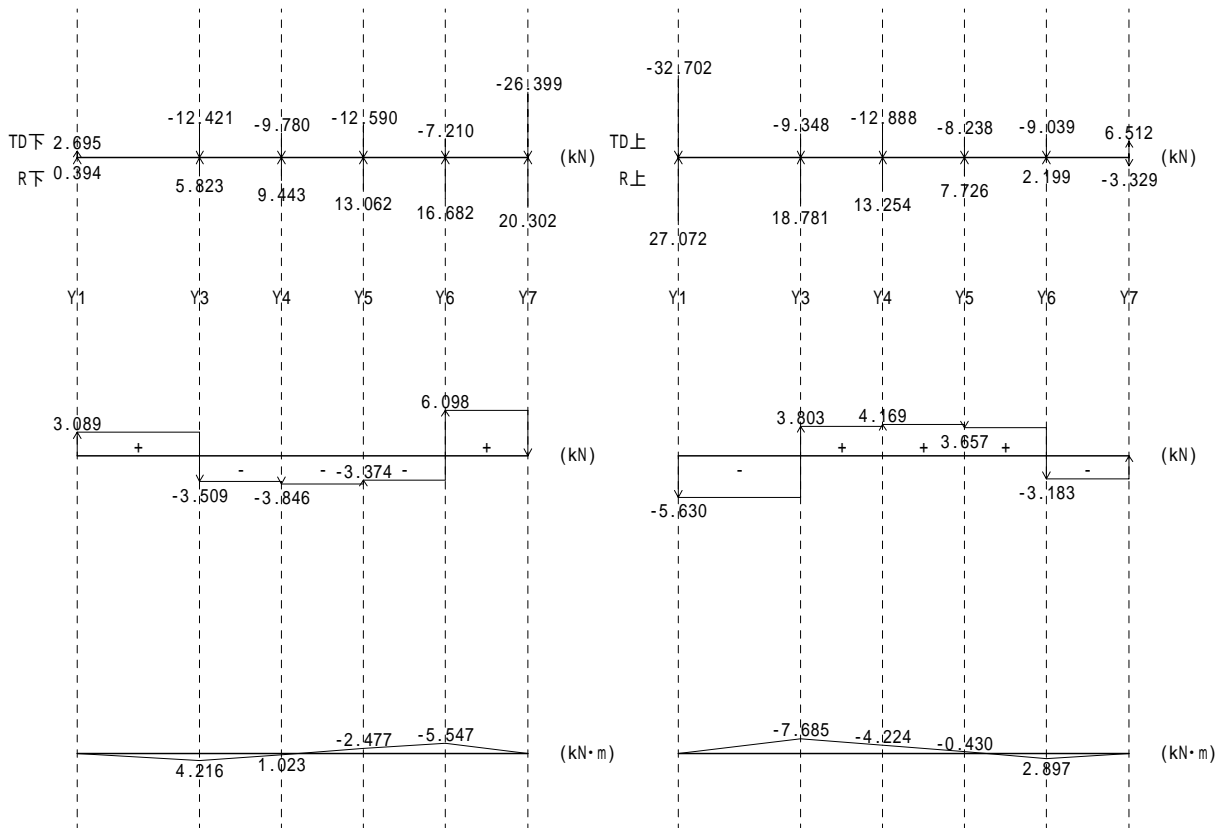
| 柱間 | 幅b (mm) | スターラップ筋 | | | | せん断長期 | | せん断短期 | |
|-------|---------|---------|------------------------|----------|---------|----------|----------|-------|---------|
| | | 鉄筋 | 断面積 (mm ²) | ピッチ (mm) | Pw | ∫Qa (kN) | ∫Qa (kN) | | |
| Y1-Y3 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| Y3-Y4 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 1.92 | 146.489 |
| Y4-Y5 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| Y5-Y6 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 1.38 | 106.472 |
| Y6-Y7 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |

判定

| 柱間 | 長期 | | | 短期 下加力 | | | 短期 上加力 | | | 判定 < 1.0 |
|-------|--------------------------|--------------------------|---------------------------------|---|-------|---|---|-------|---|-------------|
| | M中/ 上端L _{Ma} | M端/ 下端L _{Ma} | Q _L /L _{Qa} | M端+M _{水r} /1.5L _{Ma} | | Q _L +1.5Q _e /sQ _a | M端+M _{水r} /1.5L _{Ma} | | Q _L +1.5Q _e /sQ _a | |
| | | | | 左側 | 右側 | | 左側 | 右側 | | |
| Y1-Y3 | 0.325 | 0.217 | 0.255 | 0.145 | 0.386 | 0.241 | 0.145 | 0.096 | 0.240 | OK |
| Y3-Y4 | 0.092 | 0.061 | 0.108 | 0.282 | 0.147 | 0.137 | 0.199 | 0.153 | 0.096 | OK |
| Y4-Y5 | 0.072 | 0.048 | 0.084 | 0.138 | 0.506 | 0.339 | 0.162 | 0.549 | 0.369 | OK |
| Y5-Y6 | 0.091 | 0.061 | 0.107 | 0.497 | 0.259 | 0.252 | 0.557 | 0.371 | 0.219 | OK |
| Y6-Y7 | 0.091 | 0.061 | 0.107 | 0.259 | 0.040 | 0.203 | 0.371 | 0.040 | 0.217 | OK |

Y方向 X8通り Y1-Y7
[水平荷重時 下加力]

[水平荷重時 上加力]



応力の算定 (水平荷重時)

| 柱 | 座標 | 位置 (m) | 水平荷重時 下加力 | | | | 水平荷重時 上加力 | | | |
|---|----|-----------|------------|-----------|------------|---------------------------|------------|-----------|------------|---------------------------|
| | | | Td (kN) | R (kN) | Qe (kN) | M _{水f} (kN·m) | Td (kN) | R (kN) | Qe (kN) | M _{水f} (kN·m) |
| 1 | Y1 | 0.000 | 2.695 | 0.394 | 3.089 | 0.000 | -32.702 | 27.072 | -5.630 | 0.000 |
| 2 | Y3 | 1.365 | -12.421 | 5.823 | -3.509 | 4.216 | -9.348 | 18.781 | 3.803 | -7.685 |
| 3 | Y4 | 2.275 | -9.780 | 9.443 | -3.846 | 1.023 | -12.888 | 13.254 | 4.169 | -4.224 |
| 4 | Y5 | 3.185 | -12.590 | 13.062 | -3.374 | -2.477 | -8.238 | 7.726 | 3.657 | -0.430 |
| 5 | Y6 | 4.095 | -7.210 | 16.682 | 6.098 | -5.547 | -9.039 | 2.199 | -3.183 | 2.897 |
| 6 | Y7 | 5.005 | -26.399 | 20.302 | 0.000 | 0.000 | 6.512 | -3.329 | 0.000 | 0.000 |
| 計 | | 15.925 | -65.705 | 65.706 | | | -65.703 | 65.703 | | |

応力の算定 (長期)

| 柱間 | 柱間長さ (m) | 長期 | | | | |
|-------|----------|------------------------|-------|-----------------------|-----------------------|---------------------|
| | | e (kN/m ²) | B (m) | M _中 (kN・m) | M _端 (kN・m) | Q _L (kN) |
| Y1-Y3 | 1.365 | 23.753 | 0.683 | 3.778 | 2.519 | 11.072 |
| Y3-Y4 | 0.910 | 15.121 | 0.683 | 1.069 | 0.713 | 4.699 |
| Y4-Y5 | 0.910 | 15.121 | 0.683 | 1.069 | 0.713 | 4.699 |
| Y5-Y6 | 0.910 | 20.914 | 0.683 | 1.479 | 0.986 | 6.499 |
| Y6-Y7 | 0.910 | 20.914 | 0.683 | 1.479 | 0.986 | 6.499 |

応力の算定 (短期)

| 柱間 | 短期 下加力 | | | 短期 上加力 | | |
|-------|--|--------|--|--|--------|--|
| | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) | M _端 +M _{水f} (kN・m) | | Q _L +1.5Q _e (kN) |
| | 左側 | 右側 | | 左側 | 右側 | |
| Y1-Y3 | 2.519 | 6.735 | 15.706 | 2.519 | -5.166 | 19.517 |
| Y3-Y4 | 4.929 | 1.736 | 9.963 | -6.972 | -3.511 | 10.404 |
| Y4-Y5 | 1.736 | -1.764 | 10.468 | -3.511 | 0.283 | 10.953 |
| Y5-Y6 | -1.491 | -4.561 | 11.560 | 0.556 | 3.883 | 11.985 |
| Y6-Y7 | -4.561 | 0.986 | 15.646 | 3.883 | 0.986 | 11.274 |

許容耐力の算定 (1)

かぶり厚上:75.0 (mm) かぶり厚下:75.0 (mm)

| 柱間 | 基礎高さ (mm) | 上端主筋 | | | | 下端主筋 | | | |
|-------|-----------|-------|------------------------|--------|------------|-------|------------------------|--------|------------|
| | | 鉄筋 | 断面積 (mm ²) | j (mm) | ∫Ma (kN・m) | 鉄筋 | 断面積 (mm ²) | j (mm) | ∫Ma (kN・m) |
| Y1-Y3 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| Y3-Y4 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| Y4-Y5 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| Y5-Y6 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |
| Y6-Y7 | 700.0 | 2-D13 | 254 | 546.9 | 27.088 | 2-D13 | 254 | 546.9 | 27.088 |

許容耐力の算定 (2)

Fc18 ∫fs=0.600 (N/mm²) sfs=0.900 (N/mm²)

| 柱間 | 幅b (mm) | スターラップ筋 | | | | せん断長期 | | せん断短期 | |
|-------|---------|---------|------------------------|----------|---------|-------|----------|-------|----------|
| | | 鉄筋 | 断面積 (mm ²) | ピッチ (mm) | Pw | | ∫Qa (kN) | | sQa (kN) |
| Y1-Y3 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| Y3-Y4 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 1.73 | 132.165 |
| Y4-Y5 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| Y5-Y6 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |
| Y6-Y7 | 150.0 | 1-D10 | 71 | 200.0 | 0.00237 | 2.00 | 101.375 | 2.00 | 152.100 |

判定

| 柱間 | 長期 | | | 短期 下加力 | | | 短期 上加力 | | | 判定 < 1.0 |
|-------|--------------------------|--------------------------|---------------------------------|---|-------|---|---|-------|---|-------------|
| | M中/ 上端L _{Ma} | M端/ 下端L _{Ma} | Q _L /L _{Qa} | M端+M _{水r} /1.5L _{Ma} | | Q _L +1.5Q _e /sQ _a | M端+M _{水r} /1.5L _{Ma} | | Q _L +1.5Q _e /sQ _a | |
| | | | | 左側 | 右側 | | 左側 | 右側 | | |
| Y1-Y3 | 0.139 | 0.093 | 0.109 | 0.062 | 0.166 | 0.103 | 0.062 | 0.127 | 0.128 | OK |
| Y3-Y4 | 0.039 | 0.026 | 0.046 | 0.121 | 0.043 | 0.075 | 0.172 | 0.086 | 0.079 | OK |
| Y4-Y5 | 0.039 | 0.026 | 0.046 | 0.043 | 0.043 | 0.069 | 0.086 | 0.007 | 0.072 | OK |
| Y5-Y6 | 0.055 | 0.036 | 0.064 | 0.037 | 0.112 | 0.076 | 0.014 | 0.096 | 0.079 | OK |
| Y6-Y7 | 0.055 | 0.036 | 0.064 | 0.112 | 0.024 | 0.103 | 0.096 | 0.024 | 0.074 | OK |

7 - 3 アンカーボルトと土台の検定

(1) アンカーボルトの短期許容引張耐力の算定

土台 105.0 (mm) × 105.0 (mm) 桧 (共通)

めり込み $F_e = 7.80$ (N/mm²)

M12 : $a_t = 84$ (mm²) $s_{ft} = 235$ (N/mm²) 角座金 45 (mm) × 45 (mm)

ボルト自体 $T_{a1} = a_t \times s_{ft} = 84 \times 235 = 19740$ (N)

座金めり込み $T_{a2} = 45^2 \times F_e = 15795$ (N)

${}_{M12}T_a = \min(T_{a1}, T_{a2}) = 15795$ (N)

M16 : $a_t = 157$ (mm²) $s_{ft} = 235$ (N/mm²) 角座金 65 (mm) × 65 (mm)

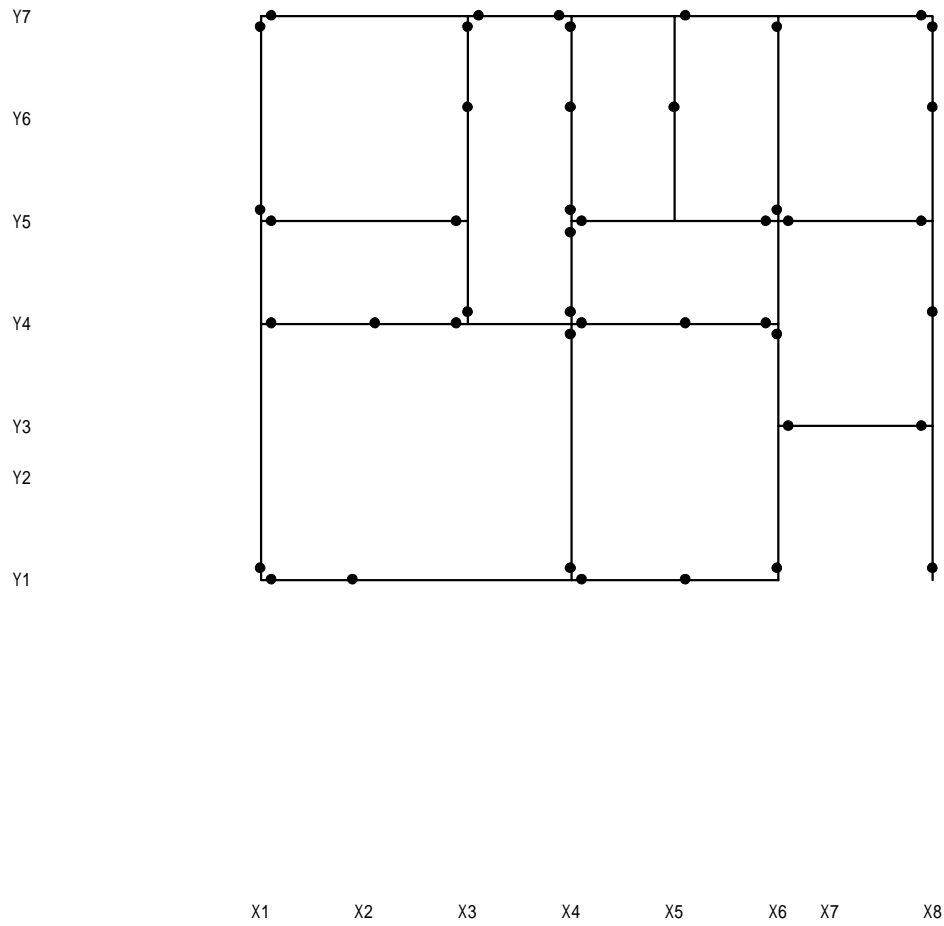
ボルト自体 $T_{a1} = a_t \times s_{ft} = 157 \times 235 = 36895$ (N)

座金めり込み $T_{a2} = 65^2 \times F_e = 32955$ (N)

${}_{M16}T_a = \min(T_{a1}, T_{a2}) = 32955$ (N)

(2) アンカーボルトのせん断耐力の検定

・アンカーボルト配置図



凡例

| | |
|---|-----|
| — | 土台 |
| ● | M12 |

アンカーボルトの許容せん断耐力

M12 : 8720 (N)

M16 : 15510 (N)

X方向

| 通り | 本数 | | アンカーボルト sQa(N) | 壁 | | 判定 sQa > 壁 Qa |
|----|-----|-----|-------------------|--------|--------|------------------|
| | M12 | M16 | | Qa左(N) | Qa右(N) | |
| Y7 | 5 | 0 | 43600 | 20430 | 19539 | OK |
| Y5 | 6 | 0 | 52320 | 14162 | 10595 | OK |
| Y4 | 6 | 0 | 52320 | 10630 | 10630 | OK |
| Y1 | 4 | 0 | 34880 | 17175 | 17175 | OK |

Y方向

| 通り | 本数 | | アンカーボルト sQa(N) | 壁 | | 判定 sQa > 壁 Qa |
|----|-----|-----|-------------------|--------|--------|------------------|
| | M12 | M16 | | Qa下(N) | Qa上(N) | |
| X1 | 3 | 0 | 26160 | 18540 | 18541 | OK |
| X3 | 3 | 0 | 26160 | 10915 | 10915 | OK |
| X4 | 7 | 0 | 61040 | 3496 | 3496 | OK |
| X5 | 1 | 0 | 8720 | 1748 | 1748 | OK |
| X6 | 4 | 0 | 34880 | 27038 | 27931 | OK |
| X8 | 4 | 0 | 34880 | 10657 | 11548 | OK |