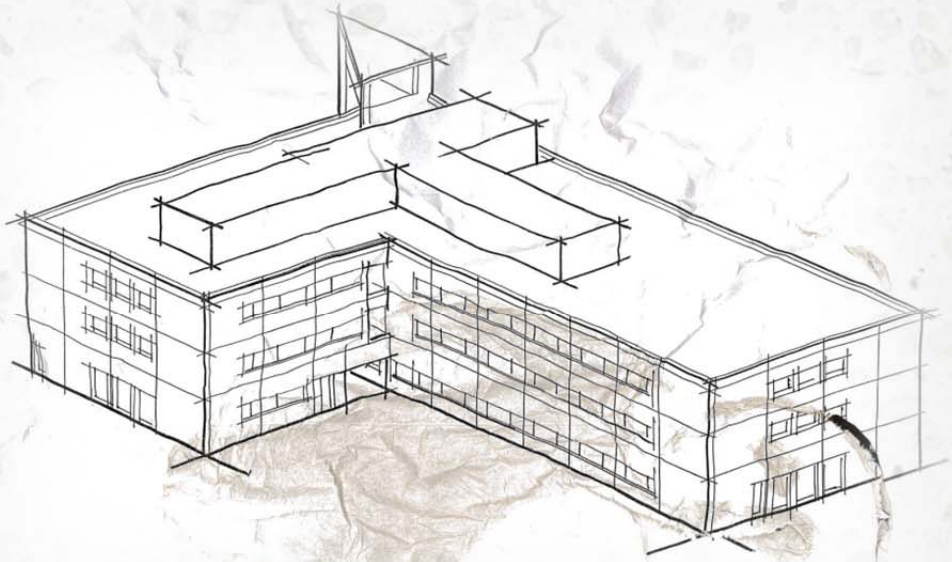
*Masteroppgave ved UiS*

# Analyse & Design

Ole Kristian Rødde Pedersen

2014



# Tillegg

# INNHOLDSFORTEGNELSE

# TILLEGG A

## ETABS-RESULTATER FOR SYSCO

## 1 FIGURER OG TABELLER

### Figurer



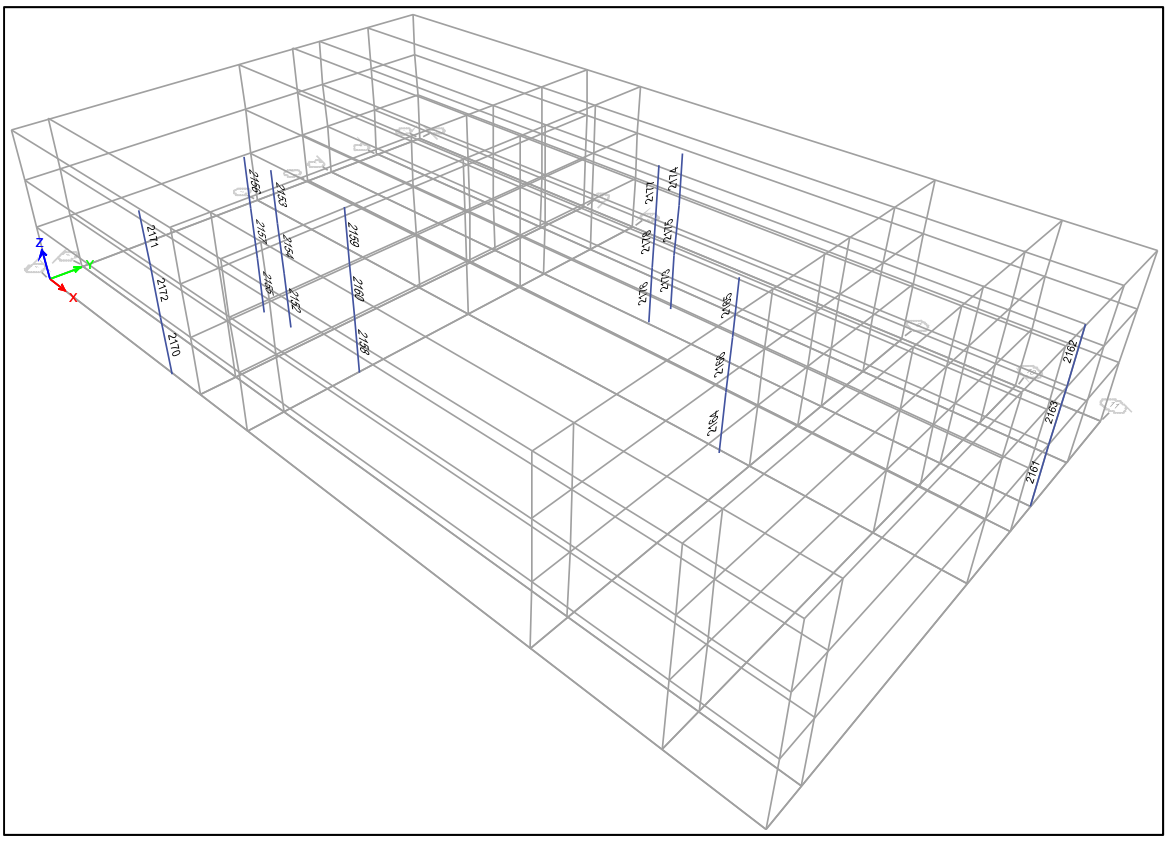
### Tabeller

# 2 Identifisering av elementer

For å finne fram i analyseresultatene er det nødvendig å vite hvor hver stav befinner seg. Her vises stavene på tegning/illustrasjon og i tilhørende tabell

## 2.1 Skjærvegger

Modelleres som søyler med tykkelse 200mm (tilsvarer innersjiktet i fasadeveggene) og utstrekning 3m. Hver skjærvegg gis samme lengde på 3m for å få en målbar forskyvning i etasjene.



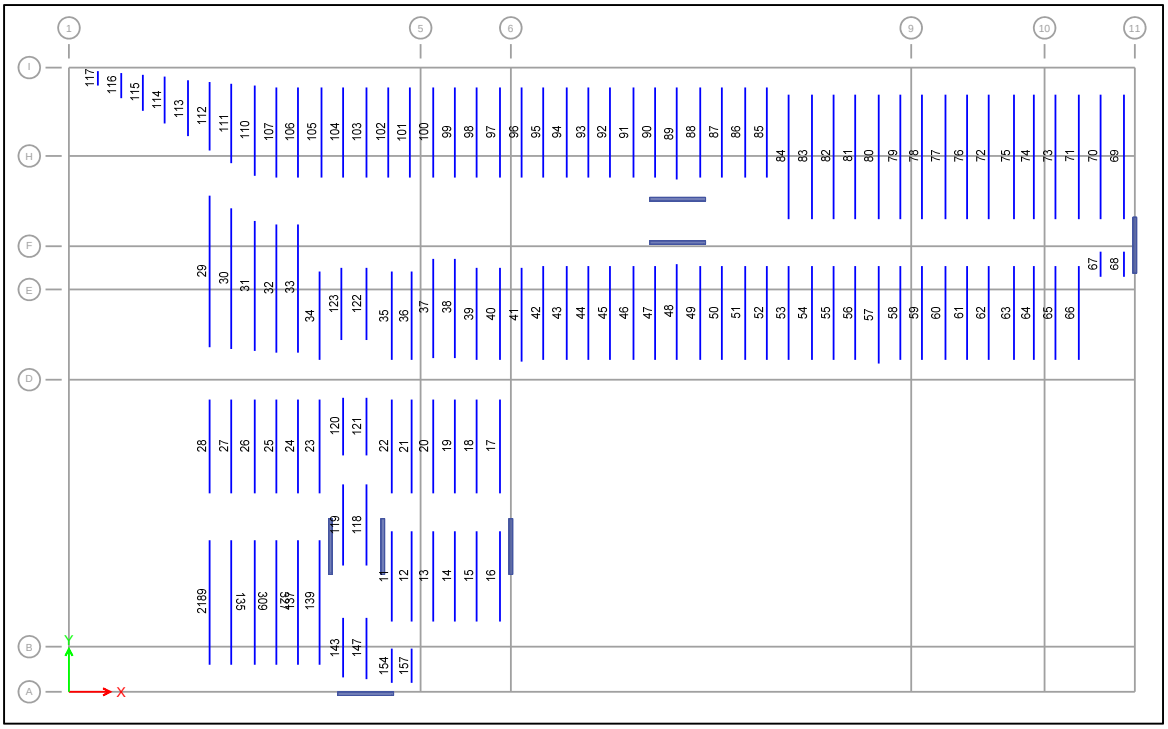

FIGUR A 1 SKJÆRVEGGER

| TABLE: Column Connectivity | | | | | | TABLE: Column Connectivity | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Story | Label | Unique Name | Points | Length | | Story | Label | Unique Name | Points | Length |
| | | | | mm | | | | | | mm |
| Story1 | C1 | 2152 | 2210; 7 | 4000 | | Story2 | C7 | 2172 | 13; 2205 | 3500 |
| Story1 | C2 | 2155 | 2211; 249 | 4000 | | Story2 | C8 | 2175 | 10; 2203 | 3500 |
| Story1 | C3 | 2158 | 2212; 507 | 4000 | | Story2 | C9 | 2178 | 12; 2204 | 3500 |
| Story1 | C5 | 2164 | 2214; 15 | 4000 | | Story2 | C6 | 2163 | 286; 2101 | 3500 |
| Story1 | C7 | 2170 | 2216; 13 | 4000 | | Story3 | C1 | 2153 | 2201; 1486 | 3500 |
| Story1 | C8 | 2173 | 2217; 10 | 4000 | | Story3 | C2 | 2156 | 2132; 1417 | 3500 |
| Story1 | C9 | 2176 | 2218; 12 | 4000 | | Story3 | C3 | 2159 | 1886; 1171 | 3500 |
| Story1 | C6 | 2161 | 2213; 286 | 4000 | | Story3 | C5 | 2165 | 2206; 1491 | 3500 |
| Story2 | C1 | 2154 | 7; 2201 | 3500 | | Story3 | C7 | 2171 | 2205; 1490 | 3500 |
| Story2 | C2 | 2157 | 249; 2132 | 3500 | | Story3 | C8 | 2174 | 2203; 1488 | 3500 |
| Story2 | C3 | 2160 | 507; 1886 | 3500 | | Story3 | C9 | 2177 | 2204; 1489 | 3500 |
| Story2 | C5 | 2166 | 15; 2206 | 3500 | | Story3 | C6 | 2162 | 2101; 1386 | 3500 |

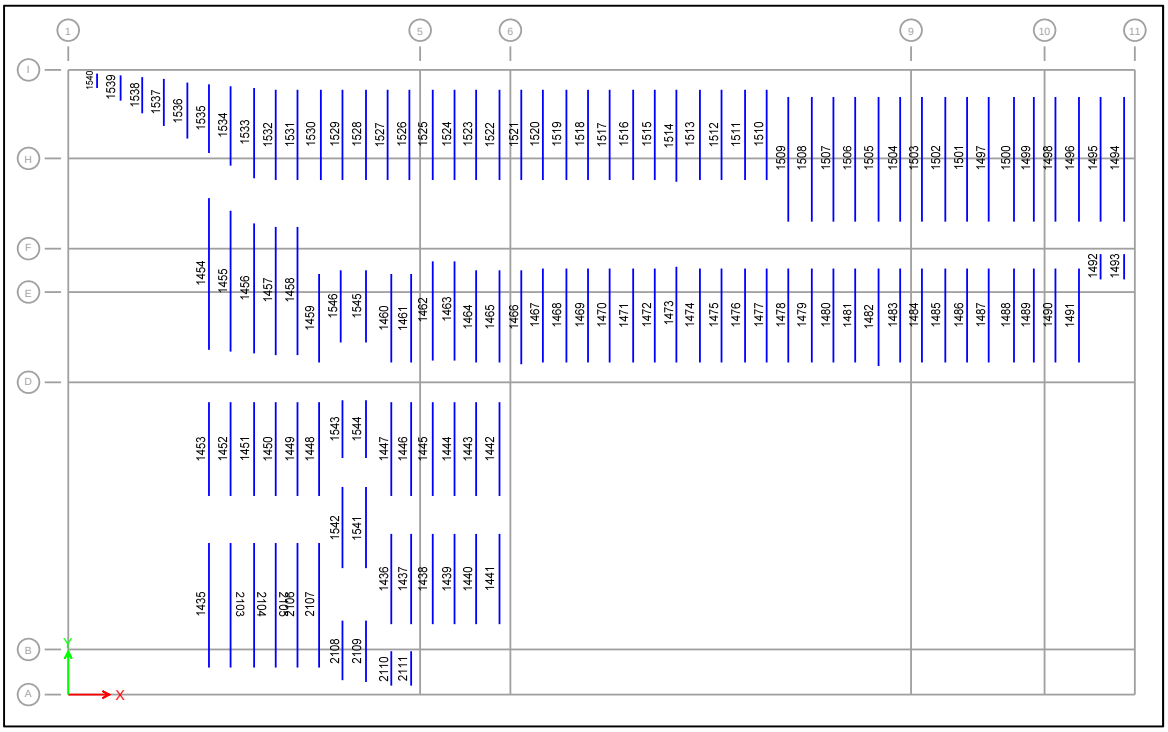
TABELL A 1SKJÆRVEGGER

## 2.2 HULLDEKKESTAVER

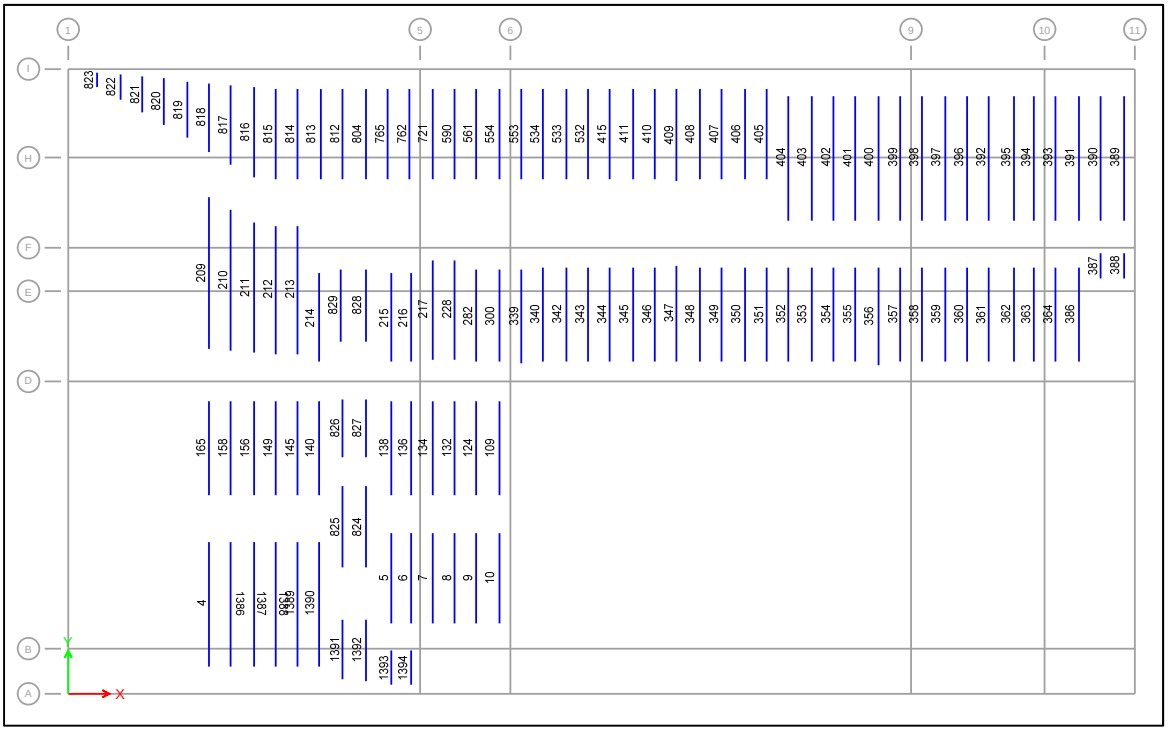
Modelleres med korrekt tverrsnitt tilsvarende HD320 for eksakte forskyvningsberegninger.



FIGUR A 2 HD-STAVER: DEKKE OVER 1.ETG



FIGUR A 3 HD-STAVER: DEKKE OVER 2.ETG



FIGUR A 4 HD-STAVER: DEKKE OVER 3.ETG

| TABLE: Beam Connectivity | | | | | | TABLE: Beam Connectivity | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Story | Label | Unique Name | Points | Length mm | | Story | Label | Unique Name | Points | Length mm |
| Story1 | B11 | 11 | 21; 22 | 6890 | | Story2 | B97 | 1522 | 1612; 1613 | 7025 |
| Story1 | B12 | 12 | 23; 24 | 6890 | | Story2 | B98 | 1523 | 1614; 1615 | 7025 |
| Story1 | B13 | 13 | 25; 26 | 6890 | | Story2 | B99 | 1524 | 1616; 1617 | 7025 |
| Story1 | B14 | 14 | 27; 28 | 6890 | | Story2 | B100 | 1525 | 1618; 1619 | 7025 |
| Story1 | B15 | 15 | 29; 30 | 6890 | | Story2 | B101 | 1526 | 1620; 1621 | 7025 |
| Story1 | B16 | 16 | 31; 32 | 6890 | | Story2 | B102 | 1527 | 1622; 1623 | 7025 |
| Story1 | B17 | 17 | 32; 33 | 7200 | | Story2 | B103 | 1528 | 1624; 1625 | 7025 |
| Story1 | B18 | 18 | 30; 34 | 7200 | | Story2 | B104 | 1529 | 1626; 1627 | 7025 |
| Story1 | B19 | 19 | 28; 35 | 7200 | | Story2 | B105 | 1530 | 1628; 1629 | 7025 |
| Story1 | B20 | 20 | 26; 36 | 7200 | | Story2 | B106 | 1531 | 1630; 1631 | 7025 |
| Story1 | B21 | 21 | 24; 37 | 7200 | | Story2 | B107 | 1532 | 1632; 1633 | 7025 |
| Story1 | B22 | 22 | 22; 38 | 7200 | | Story2 | B110 | 1533 | 1525; 1634 | 6833.7 |
| Story1 | B25 | 25 | 8; 41 | 7200 | | Story2 | B111 | 1534 | 1524; 1635 | 6032.3 |
| Story1 | B26 | 26 | 6; 42 | 7200 | | Story2 | B112 | 1535 | 1636; 1523 | 5230.9 |
| Story1 | B27 | 27 | 4; 43 | 7200 | | Story2 | B113 | 1536 | 1637; 1638 | 4429.5 |
| Story1 | B28 | 28 | 2; 44 | 7200 | | Story2 | B114 | 1537 | 1639; 1640 | 3628.2 |
| Story1 | B29 | 29 | 45; 44 | 11569.1 | | Story2 | B115 | 1538 | 1641; 1642 | 2826.8 |
| Story1 | B30 | 30 | 46; 43 | 10767.7 | | Story2 | B116 | 1539 | 1643; 1644 | 2025.4 |
| Story1 | B31 | 31 | 42; 47 | 9966.3 | | Story2 | B117 | 1540 | 1645; 1646 | 1224 |
| Story1 | B35 | 35 | 38; 51 | 6825 | | Story2 | B120 | 1543 | 1649; 1650 | 4430 |
| Story1 | B36 | 36 | 52; 37 | 6825 | | Story2 | B121 | 1544 | 1651; 1652 | 4430 |
| Story1 | B37 | 37 | 36; 53 | 7640 | | Story2 | B155 | 1467 | 1653; 1534 | 7285 |
| Story1 | B38 | 38 | 35; 54 | 7640 | | Story2 | B156 | 1468 | 1654; 1535 | 7285 |
| Story1 | B39 | 39 | 34; 55 | 7025 | | Story2 | B157 | 1469 | 1655; 1536 | 7285 |
| Story1 | B40 | 40 | 33; 56 | 7025 | | Story2 | B159 | 1471 | 1657; 1538 | 7285 |
| Story1 | B41 | 41 | 57; 58 | 7115 | | Story2 | B160 | 1472 | 1658; 1539 | 7285 |
| Story1 | B52 | 52 | 79; 80 | 7290 | | Story2 | B169 | 1488 | 1663; 1577 | 7290 |
| Story1 | B53 | 53 | 81; 82 | 7290 | | Story2 | B170 | 1489 | 1664; 1575 | 7290 |
| Story1 | B55 | 55 | 85; 86 | 7290 | | Story2 | B171 | 1490 | 1665; 1573 | 7290 |
| Story1 | B56 | 56 | 87; 88 | 7290 | | Story2 | B172 | 1491 | 1666; 1570 | 7290 |
| Story1 | B58 | 58 | 91; 92 | 7290 | | Story2 | B42 | 1448 | 1668; 1669 | 7200 |
| Story1 | B59 | 59 | 93; 94 | 7290 | | Story2 | B43 | 1449 | 1667; 1670 | 7200 |
| Story1 | B60 | 60 | 95; 96 | 7290 | | Story2 | B45 | 1459 | 1669; 1671 | 6825 |
| Story1 | B61 | 61 | 97; 98 | 7290 | | Story2 | B46 | 1546 | 1672; 1673 | 5595 |
| Story1 | B62 | 62 | 99; 100 | 7290 | | Story2 | B47 | 1457 | 1632; 1519 | 9775 |
| Story1 | B67 | 67 | 109; 110 | 1940 | | Story2 | B48 | 1458 | 1670; 1630 | 9775 |
| Story1 | B68 | 68 | 111; 112 | 1940 | | Story2 | B49 | 1542 | 1648; 1649 | 6200 |
| Story1 | B69 | 69 | 112; 113 | 9600 | | Story2 | B50 | 1541 | 1647; 1651 | 6200 |
| Story1 | B70 | 70 | 110; 114 | 9600 | | Story2 | B51 | 1545 | 1674; 1675 | 5600 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Story1 | B71 | 71 | 115; 116 | 9600 | | Story2 | B210 | 1479 | 1547; 1548 | 7290 |
| Story1 | B72 | 72 | 100; 117 | 9600 | | Story2 | B54 | 1435 | 2136; 1495 | 9600 |
| Story1 | B73 | 73 | 118; 119 | 9600 | | Story2 | B430 | 2103 | 1496; 2137 | 9600 |
| Story1 | B74 | 74 | 120; 121 | 9600 | | Story2 | B531 | 2104 | 1497; 2138 | 9600 |
| Story1 | B75 | 75 | 122; 123 | 9600 | | Story2 | B533 | 2105 | 1498; 2139 | 9600 |
| Story1 | B76 | 76 | 98; 124 | 9600 | | Story2 | B535 | 2106 | 2140; 1667 | 9600 |
| Story1 | B77 | 77 | 96; 125 | 9600 | | Story2 | B537 | 2107 | 1668; 2141 | 9600 |
| Story1 | B78 | 78 | 94; 126 | 9600 | | Story2 | B539 | 2108 | 2142; 1499 | 4680 |
| Story1 | B79 | 79 | 92; 127 | 9600 | | Story2 | B543 | 2110 | 2144; 1501 | 2710 |
| Story1 | B80 | 80 | 90; 128 | 9600 | | Story2 | B545 | 2111 | 2145; 1503 | 2710 |
| Story1 | B81 | 81 | 88; 129 | 9600 | | Story2 | B10 | 2109 | 2205; 1500 | 4795 |
| Story1 | B82 | 82 | 86; 130 | 9600 | | Story2 | B2 | 1473 | 2207; 2204 | 7435 |
| Story1 | B83 | 83 | 84; 131 | 9600 | | Story2 | B3 | 1470 | 1537; 1656 | 7285 |
| Story1 | B84 | 84 | 82; 132 | 9600 | | Story2 | B9 | 1474 | 1661; 1540 | 7285 |
| Story1 | B85 | 85 | 133; 134 | 7025 | | Story2 | B24 | 1475 | 1660; 1541 | 7285 |
| Story1 | B86 | 86 | 135; 136 | 7025 | | Story2 | B32 | 1476 | 1659; 1542 | 7285 |
| Story1 | B87 | 87 | 137; 138 | 7025 | | Story2 | B33 | 1482 | 1553; 2206 | 7450 |
| Story1 | B88 | 88 | 139; 140 | 7025 | | Story2 | B34 | 1514 | 1597; 2203 | 7155 |
| Story1 | B90 | 90 | 143; 144 | 7025 | | Story3 | B11 | 5 | 449; 450 | 6890 |
| Story1 | B91 | 91 | 145; 146 | 7025 | | Story3 | B12 | 6 | 451; 452 | 6890 |
| Story1 | B92 | 92 | 147; 148 | 7025 | | Story3 | B13 | 7 | 453; 454 | 6890 |
| Story1 | B93 | 93 | 149; 150 | 7025 | | Story3 | B14 | 8 | 455; 521 | 6890 |
| Story1 | B94 | 94 | 151; 152 | 7025 | | Story3 | B15 | 9 | 522; 530 | 6890 |
| Story1 | B95 | 95 | 153; 154 | 7025 | | Story3 | B16 | 10 | 556; 579 | 6890 |
| Story1 | B96 | 96 | 155; 156 | 7025 | | Story3 | B17 | 109 | 579; 594 | 7200 |
| Story1 | B97 | 97 | 157; 158 | 7025 | | Story3 | B18 | 124 | 530; 610 | 7200 |
| Story1 | B98 | 98 | 159; 160 | 7025 | | Story3 | B19 | 132 | 521; 635 | 7200 |
| Story1 | B99 | 99 | 161; 162 | 7025 | | Story3 | B20 | 134 | 454; 636 | 7200 |
| Story1 | B100 | 100 | 163; 164 | 7025 | | Story3 | B21 | 136 | 452; 641 | 7200 |
| Story1 | B101 | 101 | 165; 166 | 7025 | | Story3 | B22 | 138 | 450; 642 | 7200 |
| Story1 | B102 | 102 | 167; 168 | 7025 | | Story3 | B25 | 149 | 446; 643 | 7200 |
| Story1 | B103 | 103 | 169; 170 | 7025 | | Story3 | B26 | 156 | 445; 729 | 7200 |
| Story1 | B104 | 104 | 171; 172 | 7025 | | Story3 | B27 | 158 | 444; 731 | 7200 |
| Story1 | B105 | 105 | 173; 174 | 7025 | | Story3 | B28 | 165 | 443; 799 | 7200 |
| Story1 | B106 | 106 | 175; 176 | 7025 | | Story3 | B29 | 209 | 808; 799 | 11569.1 |
| Story1 | B107 | 107 | 177; 178 | 7025 | | Story3 | B30 | 210 | 809; 731 | 10767.7 |
| Story1 | B110 | 110 | 47; 183 | 6833.7 | | Story3 | B31 | 211 | 729; 810 | 9966.3 |
| Story1 | B111 | 111 | 46; 184 | 6032.3 | | Story3 | B35 | 215 | 642; 811 | 6825 |
| Story1 | B112 | 112 | 185; 45 | 5230.9 | | Story3 | B36 | 216 | 812; 641 | 6825 |
| Story1 | B113 | 113 | 186; 187 | 4429.5 | | Story3 | B37 | 217 | 636; 813 | 7640 |
| Story1 | B114 | 114 | 188; 189 | 3628.2 | | Story3 | B38 | 228 | 635; 814 | 7640 |
| Story1 | B115 | 115 | 190; 191 | 2826.8 | | Story3 | B39 | 282 | 610; 815 | 7025 |
| Story1 | B116 | 116 | 192; 193 | 2025.4 | | Story3 | B40 | 300 | 594; 816 | 7025 |
| Story1 | B117 | 117 | 194; 195 | 1224 | | Story3 | B41 | 339 | 817; 818 | 7115 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Story1 | B120 | 120 | 200; 201 | 4430 | | Story3 | B52 | 351 | 828; 829 | 7290 |
| Story1 | B121 | 121 | 202; 203 | 4430 | | Story3 | B53 | 352 | 830; 831 | 7290 |
| Story1 | B155 | 42 | 237; 59 | 7285 | | Story3 | B55 | 354 | 834; 835 | 7290 |
| Story1 | B156 | 43 | 238; 61 | 7285 | | Story3 | B56 | 355 | 836; 837 | 7290 |
| Story1 | B157 | 44 | 239; 63 | 7285 | | Story3 | B58 | 357 | 839; 840 | 7290 |
| Story1 | B159 | 46 | 241; 67 | 7285 | | Story3 | B59 | 358 | 841; 842 | 7290 |
| Story1 | B160 | 47 | 242; 69 | 7285 | | Story3 | B60 | 359 | 843; 844 | 7290 |
| Story1 | B169 | 63 | 259; 122 | 7290 | | Story3 | B61 | 360 | 845; 846 | 7290 |
| Story1 | B170 | 64 | 260; 120 | 7290 | | Story3 | B62 | 361 | 847; 848 | 7290 |
| Story1 | B171 | 65 | 261; 118 | 7290 | | Story3 | B67 | 387 | 849; 850 | 1940 |
| Story1 | B172 | 66 | 262; 115 | 7290 | | Story3 | B68 | 388 | 851; 852 | 1940 |
| Story1 | B42 | 23 | 19; 20 | 7200 | | Story3 | B69 | 389 | 852; 853 | 9600 |
| Story1 | B43 | 24 | 17; 60 | 7200 | | Story3 | B70 | 390 | 850; 854 | 9600 |
| Story1 | B45 | 34 | 20; 64 | 6825 | | Story3 | B71 | 391 | 855; 856 | 9600 |
| Story1 | B46 | 123 | 66; 68 | 5595 | | Story3 | B72 | 392 | 848; 857 | 9600 |
| Story1 | B47 | 32 | 177; 41 | 9775 | | Story3 | B73 | 393 | 858; 859 | 9600 |
| Story1 | B48 | 33 | 60; 175 | 9775 | | Story3 | B74 | 394 | 860; 861 | 9600 |
| Story1 | B49 | 119 | 198; 200 | 6200 | | Story3 | B75 | 395 | 862; 863 | 9600 |
| Story1 | B50 | 118 | 196; 202 | 6200 | | Story3 | B76 | 396 | 846; 864 | 9600 |
| Story1 | B51 | 122 | 70; 72 | 5600 | | Story3 | B77 | 397 | 844; 865 | 9600 |
| Story1 | B210 | 54 | 83; 84 | 7290 | | Story3 | B78 | 398 | 842; 866 | 9600 |
| Story1 | B54 | 2189 | 644; 2 | 9600 | | Story3 | B79 | 399 | 840; 867 | 9600 |
| Story1 | B430 | 135 | 4; 645 | 9600 | | Story3 | B80 | 400 | 838; 868 | 9600 |
| Story1 | B531 | 309 | 6; 671 | 9600 | | Story3 | B81 | 401 | 837; 869 | 9600 |
| Story1 | B533 | 327 | 8; 672 | 9600 | | Story3 | B82 | 402 | 835; 870 | 9600 |
| Story1 | B535 | 137 | 707; 17 | 9600 | | Story3 | B83 | 403 | 833; 871 | 9600 |
| Story1 | B537 | 139 | 19; 708 | 9600 | | Story3 | B84 | 404 | 831; 872 | 9600 |
| Story1 | B539 | 143 | 712; 14 | 4680 | | Story3 | B85 | 405 | 873; 874 | 7025 |
| Story1 | B543 | 154 | 714; 21 | 2710 | | Story3 | B86 | 406 | 875; 876 | 7025 |
| Story1 | B545 | 157 | 715; 23 | 2710 | | Story3 | B87 | 407 | 877; 878 | 7025 |
| Story1 | B10 | 147 | 13; 16 | 4795 | | Story3 | B88 | 408 | 879; 880 | 7025 |
| Story1 | B2 | 48 | 3; 12 | 7435 | | Story3 | B90 | 410 | 883; 884 | 7025 |
| Story2 | B11 | 1436 | 1501; 1502 | 6890 | | Story3 | B91 | 411 | 885; 886 | 7025 |
| Story2 | B12 | 1437 | 1503; 1504 | 6890 | | Story3 | B92 | 415 | 887; 888 | 7025 |
| Story2 | B13 | 1438 | 1505; 1506 | 6890 | | Story3 | B93 | 532 | 889; 890 | 7025 |
| Story2 | B14 | 1439 | 1507; 1508 | 6890 | | Story3 | B94 | 533 | 891; 892 | 7025 |
| Story2 | B15 | 1440 | 1509; 1510 | 6890 | | Story3 | B95 | 534 | 893; 894 | 7025 |
| Story2 | B16 | 1441 | 1511; 1512 | 6890 | | Story3 | B96 | 553 | 895; 896 | 7025 |
| Story2 | B17 | 1442 | 1512; 1513 | 7200 | | Story3 | B97 | 554 | 897; 898 | 7025 |
| Story2 | B18 | 1443 | 1510; 1514 | 7200 | | Story3 | B98 | 561 | 899; 900 | 7025 |
| Story2 | B19 | 1444 | 1508; 1515 | 7200 | | Story3 | B99 | 590 | 901; 902 | 7025 |
| Story2 | B20 | 1445 | 1506; 1516 | 7200 | | Story3 | B100 | 721 | 903; 904 | 7025 |
| Story2 | B21 | 1446 | 1504; 1517 | 7200 | | Story3 | B101 | 762 | 905; 906 | 7025 |
| Story2 | B22 | 1447 | 1502; 1518 | 7200 | | Story3 | B102 | 765 | 907; 908 | 7025 |

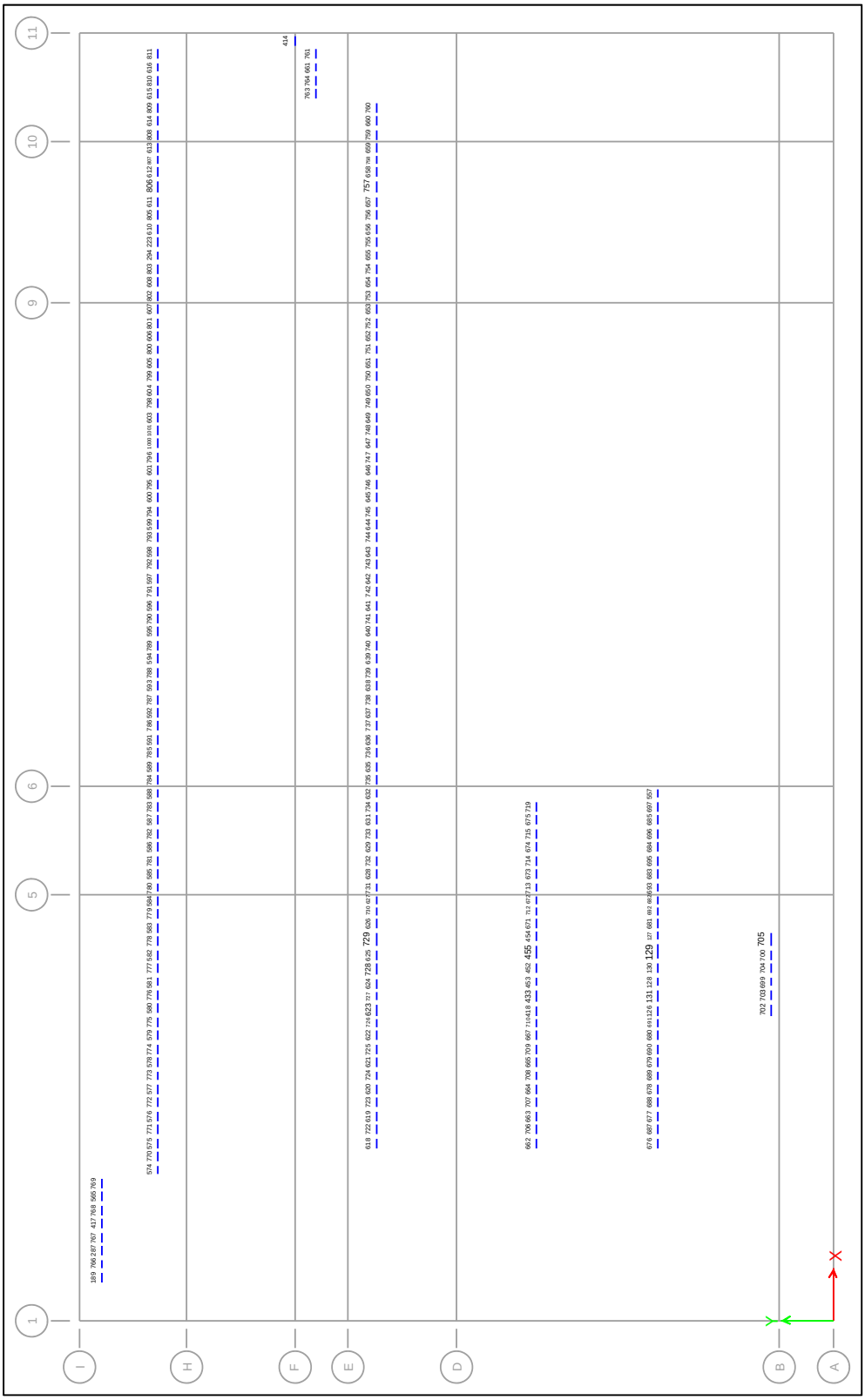
| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Story2 | B25 | 1450 | 1498; 1519 | 7200 | | Story3 | B103 | 804 | 909; 910 | 7025 |
| Story2 | B26 | 1451 | 1497; 1520 | 7200 | | Story3 | B104 | 812 | 911; 912 | 7025 |
| Story2 | B27 | 1452 | 1496; 1521 | 7200 | | Story3 | B105 | 813 | 913; 914 | 7025 |
| Story2 | B28 | 1453 | 1495; 1522 | 7200 | | Story3 | B106 | 814 | 915; 916 | 7025 |
| Story2 | B29 | 1454 | 1523; 1522 | 11569.1 | | Story3 | B107 | 815 | 917; 918 | 7025 |
| Story2 | B30 | 1455 | 1524; 1521 | 10767.7 | | Story3 | B110 | 816 | 810; 919 | 6833.7 |
| Story2 | B31 | 1456 | 1520; 1525 | 9966.3 | | Story3 | B111 | 817 | 809; 920 | 6032.3 |
| Story2 | B35 | 1460 | 1518; 1526 | 6825 | | Story3 | B112 | 818 | 921; 808 | 5230.9 |
| Story2 | B36 | 1461 | 1527; 1517 | 6825 | | Story3 | B113 | 819 | 922; 923 | 4429.5 |
| Story2 | B37 | 1462 | 1516; 1528 | 7640 | | Story3 | B114 | 820 | 924; 925 | 3628.2 |
| Story2 | B38 | 1463 | 1515; 1529 | 7640 | | Story3 | B115 | 821 | 926; 927 | 2826.8 |
| Story2 | B39 | 1464 | 1514; 1530 | 7025 | | Story3 | B116 | 822 | 928; 929 | 2025.4 |
| Story2 | B40 | 1465 | 1513; 1531 | 7025 | | Story3 | B117 | 823 | 930; 931 | 1224 |
| Story2 | B41 | 1466 | 1532; 1533 | 7115 | | Story3 | B120 | 826 | 934; 935 | 4430 |
| Story2 | B52 | 1477 | 1543; 1544 | 7290 | | Story3 | B121 | 827 | 936; 937 | 4430 |
| Story2 | B53 | 1478 | 1545; 1546 | 7290 | | Story3 | B155 | 340 | 938; 819 | 7285 |
| Story2 | B55 | 1480 | 1549; 1550 | 7290 | | Story3 | B156 | 342 | 939; 820 | 7285 |
| Story2 | B56 | 1481 | 1551; 1552 | 7290 | | Story3 | B157 | 343 | 940; 821 | 7285 |
| Story2 | B58 | 1483 | 1554; 1555 | 7290 | | Story3 | B159 | 345 | 942; 823 | 7285 |
| Story2 | B59 | 1484 | 1556; 1557 | 7290 | | Story3 | B160 | 346 | 943; 824 | 7285 |
| Story2 | B60 | 1485 | 1558; 1559 | 7290 | | Story3 | B169 | 362 | 948; 862 | 7290 |
| Story2 | B61 | 1486 | 1560; 1561 | 7290 | | Story3 | B170 | 363 | 949; 860 | 7290 |
| Story2 | B62 | 1487 | 1562; 1563 | 7290 | | Story3 | B171 | 364 | 950; 858 | 7290 |
| Story2 | B67 | 1492 | 1564; 1565 | 1940 | | Story3 | B172 | 386 | 951; 855 | 7290 |
| Story2 | B68 | 1493 | 1566; 1567 | 1940 | | Story3 | B42 | 140 | 953; 954 | 7200 |
| Story2 | B69 | 1494 | 1567; 1568 | 9600 | | Story3 | B43 | 145 | 952; 955 | 7200 |
| Story2 | B70 | 1495 | 1565; 1569 | 9600 | | Story3 | B45 | 214 | 954; 956 | 6825 |
| Story2 | B71 | 1496 | 1570; 1571 | 9600 | | Story3 | B46 | 829 | 957; 958 | 5595 |
| Story2 | B72 | 1497 | 1563; 1572 | 9600 | | Story3 | B47 | 212 | 917; 643 | 9775 |
| Story2 | B73 | 1498 | 1573; 1574 | 9600 | | Story3 | B48 | 213 | 955; 915 | 9775 |
| Story2 | B74 | 1499 | 1575; 1576 | 9600 | | Story3 | B49 | 825 | 933; 934 | 6200 |
| Story2 | B75 | 1500 | 1577; 1578 | 9600 | | Story3 | B50 | 824 | 932; 936 | 6200 |
| Story2 | B76 | 1501 | 1561; 1579 | 9600 | | Story3 | B51 | 828 | 959; 960 | 5600 |
| Story2 | B77 | 1502 | 1559; 1580 | 9600 | | Story3 | B210 | 353 | 832; 833 | 7290 |
| Story2 | B78 | 1503 | 1557; 1581 | 9600 | | Story3 | B54 | 4 | 1421; 443 | 9600 |
| Story2 | B79 | 1504 | 1555; 1582 | 9600 | | Story3 | B430 | 1386 | 444; 1422 | 9600 |
| Story2 | B80 | 1505 | 1553; 1583 | 9600 | | Story3 | B531 | 1387 | 445; 1423 | 9600 |
| Story2 | B81 | 1506 | 1552; 1584 | 9600 | | Story3 | B533 | 1388 | 446; 1424 | 9600 |
| Story2 | B82 | 1507 | 1550; 1585 | 9600 | | Story3 | B535 | 1389 | 1425; 952 | 9600 |
| Story2 | B83 | 1508 | 1548; 1586 | 9600 | | Story3 | B537 | 1390 | 953; 1426 | 9600 |
| Story2 | B84 | 1509 | 1546; 1587 | 9600 | | Story3 | B539 | 1391 | 1427; 447 | 4680 |
| Story2 | B85 | 1510 | 1588; 1589 | 7025 | | Story3 | B543 | 1393 | 1429; 449 | 2710 |
| Story2 | B86 | 1511 | 1590; 1591 | 7025 | | Story3 | B545 | 1394 | 1430; 451 | 2710 |
| Story2 | B87 | 1512 | 1592; 1593 | 7025 | | Story3 | B10 | 1392 | 1490; 448 | 4795 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Story2 | B88 | 1513 | 1594; 1595 | 7025 | | Story3 | B2 | 347 | 1492; 1489 | 7435 |
| Story2 | B90 | 1515 | 1598; 1599 | 7025 | | Story3 | B3 | 344 | 822; 941 | 7285 |
| Story2 | B91 | 1516 | 1600; 1601 | 7025 | | Story3 | B9 | 348 | 946; 825 | 7285 |
| Story2 | B92 | 1517 | 1602; 1603 | 7025 | | Story3 | B24 | 349 | 945; 826 | 7285 |
| Story2 | B93 | 1518 | 1604; 1605 | 7025 | | Story3 | B32 | 350 | 944; 827 | 7285 |
| Story2 | B94 | 1519 | 1606; 1607 | 7025 | | Story3 | B33 | 356 | 838; 1491 | 7450 |
| Story2 | B95 | 1520 | 1608; 1609 | 7025 | | Story3 | B34 | 409 | 882; 1488 | 7155 |
| Story2 | B96 | 1521 | 1610; 1611 | 7025 | | | | | | |

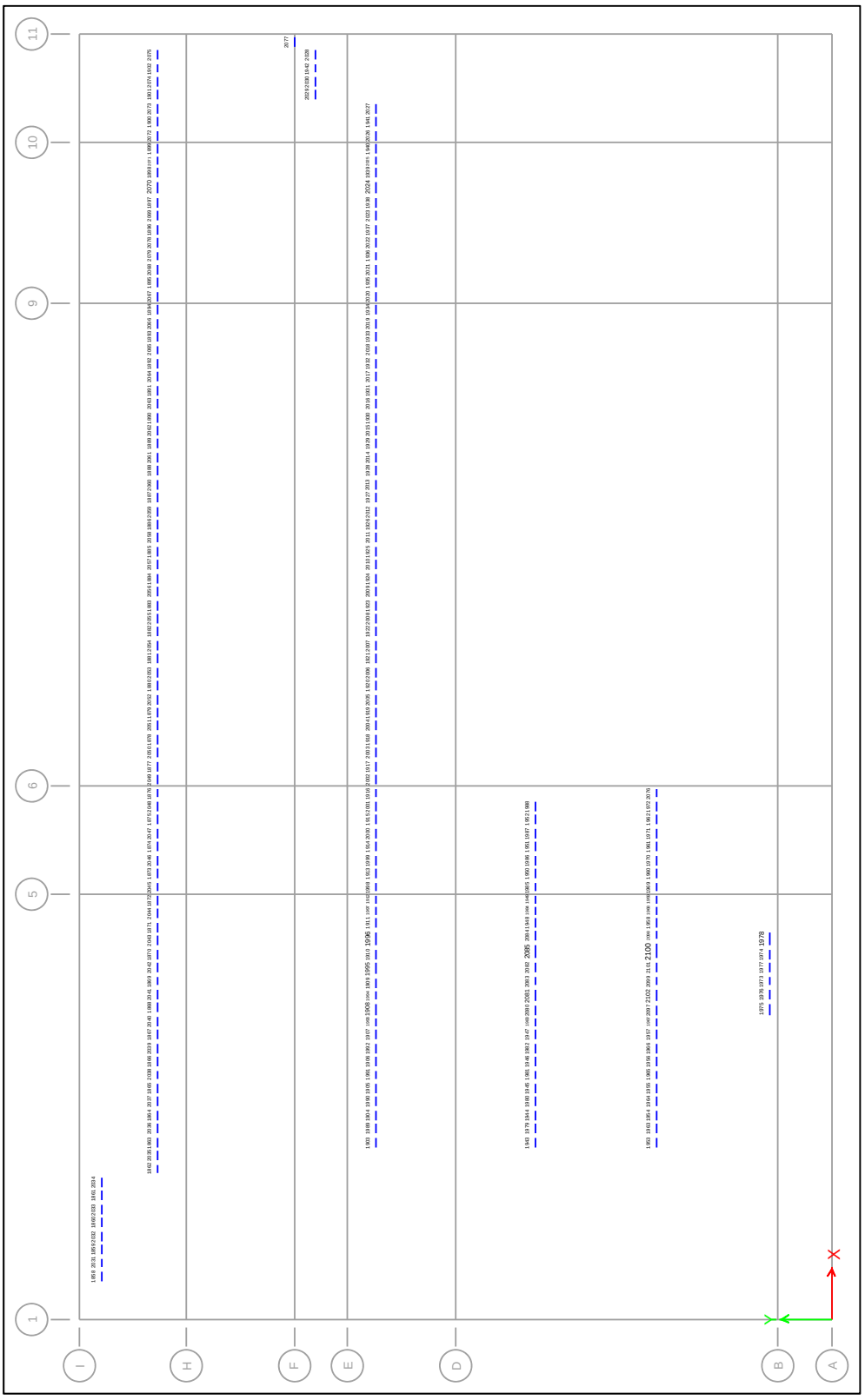
TABELL A 2 HULLDEKKESTAVER

## 2.3 HD-SKJÆRSTAVER

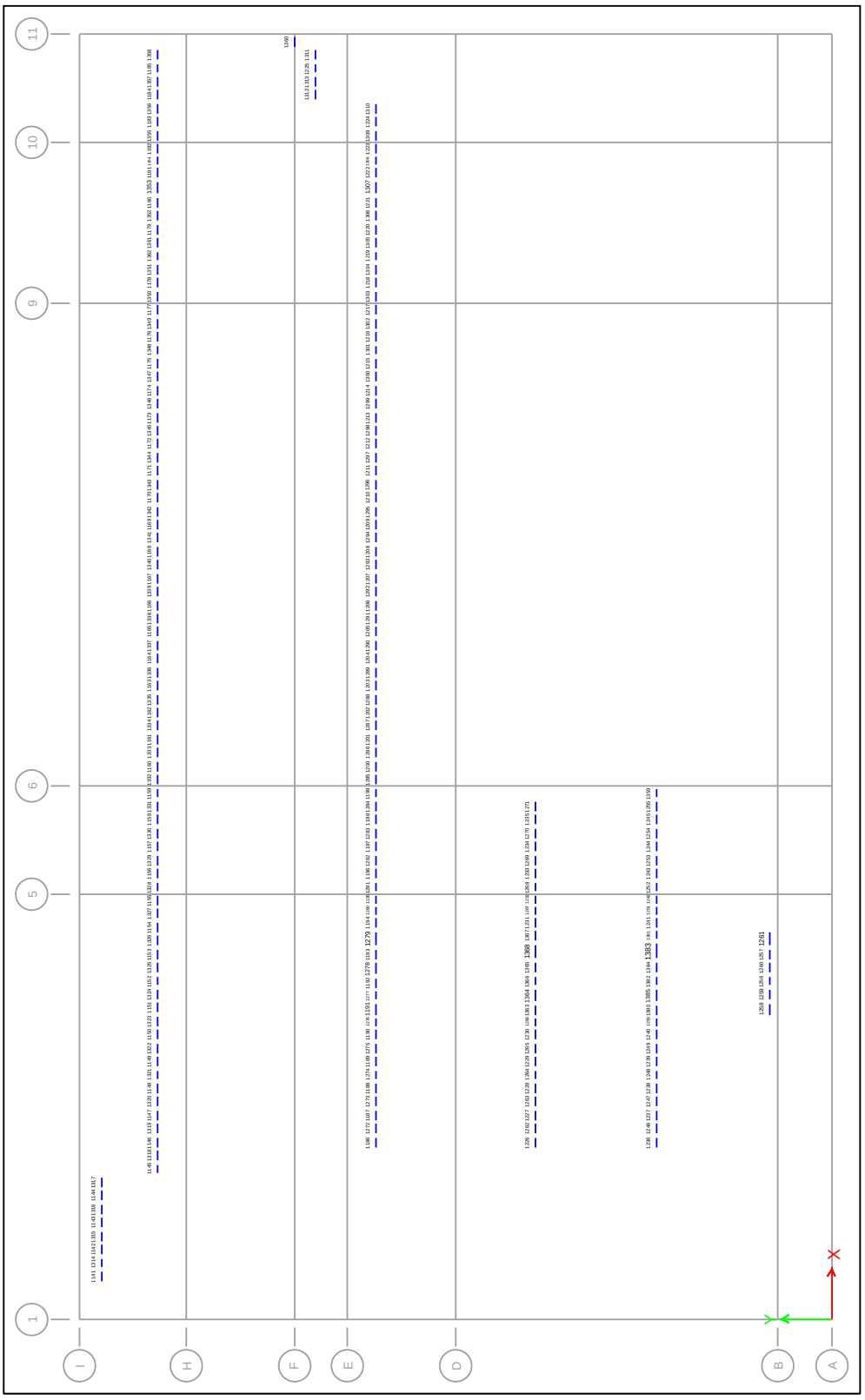
Skjærforbindelser i fuger mellom elementene og mot skjærvegger




FIGUR A 5 SKJÆRSTAVER: DEKKE OVER 1.ETG




FIGUR A 6 SKJÆRSTAVER: DEKKE OVER 2.ETG




FIGUR A 7 SKJÆRSTAVER: DEKKE OVER 3.ETG

| TABLE: Beam Connectivity | | | | | TABLE: Beam Connectivity | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Story | Label | Unique Name | Points | Length mm | Story | Label | Unique Name | Points | Length mm |
| Story1 | B530 | 557 | 512; 507 | 600 | Story2 | B785 | 2058 | 1940; 1941 | 600 |
| Story1 | B288 | 287 | 374; 489 | 600 | Story2 | B786 | 2059 | 1942; 1943 | 600 |
| Story1 | B574 | 578 | 532; 533 | 600 | Story2 | B787 | 2060 | 1944; 1945 | 600 |
| Story1 | B575 | 579 | 534; 535 | 600 | Story2 | B788 | 2061 | 1946; 2099 | 600 |
| Story1 | B576 | 580 | 536; 537 | 600 | Story2 | B208 | 1889 | 2099; 1947 | 600 |
| Story1 | B577 | 581 | 538; 539 | 600 | Story2 | B209 | 1890 | 1948; 1949 | 600 |
| Story1 | B578 | 582 | 540; 541 | 600 | Story2 | B282 | 1891 | 1950; 1951 | 600 |
| Story1 | B579 | 583 | 542; 543 | 600 | Story2 | B286 | 1892 | 1952; 1953 | 600 |
| Story1 | B580 | 584 | 544; 545 | 600 | Story2 | B294 | 1893 | 1954; 1955 | 600 |
| Story1 | B581 | 585 | 546; 547 | 600 | Story2 | B414 | 1894 | 1956; 1957 | 600 |
| Story1 | B582 | 586 | 548; 549 | 600 | Story2 | B429 | 1895 | 1958; 1959 | 600 |
| Story1 | B583 | 587 | 550; 551 | 600 | Story2 | B479 | 1896 | 1961; 1962 | 600 |
| Story1 | B584 | 588 | 552; 553 | 600 | Story2 | B509 | 1897 | 1963; 1964 | 600 |
| Story1 | B585 | 589 | 554; 555 | 600 | Story2 | B527 | 1898 | 1965; 1966 | 600 |
| Story1 | B586 | 785 | 555; 557 | 600 | Story2 | B528 | 1899 | 1967; 1968 | 600 |
| Story1 | B587 | 591 | 557; 558 | 600 | Story2 | B529 | 1900 | 1969; 1970 | 600 |
| Story1 | B588 | 592 | 559; 560 | 600 | Story2 | B550 | 1901 | 1971; 1972 | 600 |
| Story1 | B589 | 593 | 561; 562 | 600 | Story2 | B561 | 1902 | 1973; 1974 | 600 |
| Story1 | B590 | 594 | 563; 564 | 600 | Story2 | B613 | 2062 | 1947; 1948 | 600 |
| Story1 | B591 | 595 | 565; 566 | 600 | Story2 | B629 | 2063 | 1949; 1950 | 600 |
| Story1 | B592 | 596 | 567; 568 | 600 | Story2 | B661 | 2064 | 1951; 1952 | 600 |
| Story1 | B593 | 597 | 569; 570 | 600 | Story2 | B696 | 2065 | 1953; 1954 | 600 |
| Story1 | B594 | 598 | 571; 572 | 600 | Story2 | B706 | 2066 | 1955; 1956 | 600 |
| Story1 | B595 | 599 | 573; 574 | 600 | Story2 | B755 | 2067 | 1957; 1958 | 600 |
| Story1 | B596 | 600 | 575; 576 | 600 | Story2 | B758 | 2068 | 1959; 1960 | 600 |
| Story1 | B597 | 601 | 577; 578 | 600 | Story2 | B806 | 2069 | 1962; 1963 | 600 |
| Story1 | B631 | 636 | 647; 648 | 600 | Story2 | B808 | 2070 | 1964; 1965 | 725 |
| Story1 | B632 | 637 | 649; 650 | 600 | Story2 | B810 | 2071 | 1966; 1967 | 475 |
| Story1 | B633 | 638 | 651; 652 | 600 | Story2 | B811 | 2072 | 1968; 1969 | 600 |
| Story1 | B634 | 639 | 653; 654 | 600 | Story2 | B812 | 2073 | 1970; 1971 | 600 |
| Story1 | B635 | 640 | 655; 656 | 600 | Story2 | B813 | 2074 | 1972; 1973 | 600 |
| Story1 | B636 | 641 | 657; 658 | 600 | Story2 | B814 | 2075 | 1974; 1975 | 600 |
| Story1 | B637 | 642 | 659; 660 | 600 | Story2 | B816 | 2078 | 2102; 1961 | 600 |
| Story1 | B638 | 643 | 661; 662 | 600 | Story2 | B817 | 2079 | 1960; 2102 | 600 |
| Story1 | B639 | 644 | 663; 664 | 600 | Story2 | B842 | 1858 | 2103; 1889 | 600 |
| Story1 | B640 | 645 | 665; 666 | 600 | Story2 | B843 | 2031 | 1889; 1890 | 600 |
| Story1 | B641 | 646 | 667; 668 | 600 | Story2 | B844 | 1860 | 2097; 1892 | 600 |
| Story1 | B642 | 647 | 669; 670 | 600 | Story2 | B845 | 2033 | 1892; 2104 | 600 |
| Story1 | B644 | 649 | 673; 674 | 600 | Story2 | B846 | 1861 | 2104; 1893 | 600 |
| Story1 | B645 | 650 | 675; 676 | 600 | Story2 | B847 | 2034 | 1893; 2098 | 600 |
| Story1 | B646 | 651 | 677; 678 | 600 | Story2 | B848 | 1865 | 2105; 1900 | 600 |
| Story1 | B647 | 652 | 679; 680 | 600 | Story2 | B849 | 2038 | 1900; 1901 | 600 |
| Story1 | B648 | 653 | 681; 682 | 600 | Story2 | B850 | 1864 | 1898; 1899 | 600 |
| Story1 | B649 | 654 | 683; 684 | 600 | Story2 | B851 | 2037 | 1899; 2105 | 600 |
| Story1 | B650 | 655 | 685; 686 | 600 | Story2 | B852 | 1863 | 1896; 1897 | 600 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Story1 | B651 | 656 | 687; 688 | 600 | Story2 | B853 | 2036 | 1897; 1898 | 600 |
| Story1 | B652 | 657 | 689; 690 | 600 | Story2 | B854 | 1862 | 1894; 1895 | 600 |
| Story1 | B653 | 658 | 691; 692 | 600 | Story2 | B855 | 2035 | 1895; 1896 | 600 |
| Story1 | B654 | 659 | 693; 694 | 600 | Story2 | B856 | 1917 | 2106; 2004 | 600 |
| Story1 | B655 | 660 | 695; 696 | 600 | Story2 | B857 | 2003 | 2004; 2005 | 600 |
| Story1 | B656 | 661 | 697; 698 | 600 | Story2 | B858 | 1903 | 1976; 1977 | 600 |
| Story1 | B657 | 662 | 699; 700 | 600 | Story2 | B859 | 1904 | 1978; 1979 | 600 |
| Story1 | B658 | 663 | 701; 702 | 600 | Story2 | B860 | 1905 | 1980; 1981 | 600 |
| Story1 | B659 | 664 | 703; 704 | 600 | Story2 | B861 | 1906 | 1982; 1983 | 600 |
| Story1 | B660 | 665 | 705; 706 | 600 | Story2 | B862 | 1907 | 1984; 1985 | 600 |
| Story1 | B662 | 667 | 709; 710 | 600 | Story2 | B863 | 1908 | 1986; 1987 | 700 |
| Story1 | B666 | 671 | 717; 718 | 600 | Story2 | B864 | 1909 | 1988; 1989 | 600 |
| Story1 | B667 | 672 | 719; 720 | 500 | Story2 | B865 | 1910 | 1990; 1991 | 600 |
| Story1 | B668 | 673 | 721; 722 | 600 | Story2 | B866 | 1911 | 1992; 1993 | 600 |
| Story1 | B669 | 674 | 723; 724 | 600 | Story2 | B867 | 1912 | 1994; 1995 | 500 |
| Story1 | B670 | 675 | 725; 726 | 600 | Story2 | B868 | 1913 | 1996; 1997 | 600 |
| Story1 | B701 | 706 | 700; 701 | 600 | Story2 | B869 | 1914 | 1998; 1999 | 600 |
| Story1 | B702 | 707 | 702; 703 | 600 | Story2 | B870 | 1915 | 2000; 2001 | 600 |
| Story1 | B703 | 708 | 704; 705 | 600 | Story2 | B871 | 1916 | 2002; 2003 | 600 |
| Story1 | B704 | 709 | 706; 709 | 600 | Story2 | B872 | 1989 | 1977; 1978 | 600 |
| Story1 | B705 | 710 | 710; 711 | 500 | Story2 | B873 | 1990 | 1979; 1980 | 600 |
| Story1 | B707 | 712 | 718; 719 | 500 | Story2 | B874 | 1991 | 1981; 1982 | 600 |
| Story1 | B708 | 713 | 720; 721 | 600 | Story2 | B875 | 1992 | 1983; 1984 | 600 |
| Story1 | B709 | 714 | 722; 723 | 600 | Story2 | B876 | 1993 | 1985; 1986 | 500 |
| Story1 | B710 | 715 | 724; 725 | 600 | Story2 | B877 | 1994 | 1987; 1988 | 500 |
| Story1 | B712 | 719 | 726; 764 | 600 | Story2 | B878 | 1995 | 1989; 1990 | 700 |
| Story1 | B730 | 737 | 648; 649 | 600 | Story2 | B879 | 1996 | 1991; 1992 | 800 |
| Story1 | B731 | 738 | 650; 651 | 600 | Story2 | B880 | 1997 | 1993; 1994 | 500 |
| Story1 | B732 | 739 | 652; 653 | 600 | Story2 | B881 | 1998 | 1995; 1996 | 600 |
| Story1 | B733 | 740 | 654; 655 | 600 | Story2 | B882 | 1999 | 1997; 1998 | 600 |
| Story1 | B734 | 741 | 656; 657 | 600 | Story2 | B883 | 2000 | 1999; 2000 | 600 |
| Story1 | B735 | 742 | 658; 659 | 600 | Story2 | B884 | 2001 | 2001; 2002 | 600 |
| Story1 | B736 | 743 | 660; 661 | 600 | Story2 | B885 | 2002 | 2003; 2106 | 600 |
| Story1 | B737 | 744 | 662; 663 | 600 | Story2 | B886 | 1958 | 2107; 2081 | 600 |
| Story1 | B738 | 745 | 664; 665 | 600 | Story2 | B887 | 1959 | 2108; 2082 | 500 |
| Story1 | B739 | 746 | 666; 667 | 600 | Story2 | B888 | 1960 | 2109; 2083 | 600 |
| Story1 | B740 | 747 | 668; 669 | 600 | Story2 | B889 | 1961 | 2110; 2084 | 600 |
| Story1 | B741 | 748 | 670; 673 | 600 | Story2 | B890 | 1962 | 2111; 2085 | 600 |
| Story1 | B742 | 749 | 674; 675 | 600 | Story2 | B891 | 1968 | 2081; 2108 | 500 |
| Story1 | B743 | 750 | 676; 677 | 600 | Story2 | B892 | 1969 | 2082; 2109 | 600 |
| Story1 | B744 | 751 | 678; 679 | 600 | Story2 | B893 | 1970 | 2083; 2110 | 600 |
| Story1 | B745 | 752 | 680; 681 | 600 | Story2 | B894 | 1971 | 2084; 2111 | 600 |
| Story1 | B746 | 753 | 682; 683 | 600 | Story2 | B895 | 1972 | 2085; 2100 | 600 |
| Story1 | B747 | 754 | 684; 685 | 600 | Story2 | B896 | 1953 | 2112; 2076 | 600 |
| Story1 | B748 | 755 | 686; 687 | 600 | Story2 | B897 | 1954 | 2113; 2077 | 600 |
| Story1 | B749 | 756 | 688; 689 | 600 | Story2 | B898 | 1955 | 2114; 2078 | 600 |
| Story1 | B750 | 757 | 690; 691 | 725 | Story2 | B899 | 1956 | 2115; 2079 | 600 |
| Story1 | B751 | 758 | 692; 693 | 475 | Story2 | B900 | 1957 | 2116; 2080 | 600 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Story1 | B752 | 759 | 694; 695 | 600 | Story2 | B901 | 1963 | 2076; 2113 | 600 |
| Story1 | B753 | 760 | 696; 776 | 600 | Story2 | B902 | 1964 | 2077; 2114 | 600 |
| Story1 | B754 | 761 | 698; 777 | 600 | Story2 | B903 | 1965 | 2078; 2115 | 600 |
| Story1 | B756 | 763 | 778; 779 | 600 | Story2 | B904 | 1966 | 2079; 2116 | 600 |
| Story1 | B757 | 764 | 779; 697 | 600 | Story2 | B905 | 1967 | 2080; 2117 | 500 |
| Story1 | B760 | 767 | 489; 783 | 600 | Story2 | B906 | 2080 | 2065; 2118 | 600 |
| Story1 | B767 | 774 | 533; 534 | 600 | Story2 | B908 | 2081 | 2118; 2119 | 700 |
| Story1 | B768 | 775 | 535; 536 | 600 | Story2 | B910 | 2083 | 2119; 2121 | 600 |
| Story1 | B769 | 776 | 537; 538 | 600 | Story2 | B911 | 2082 | 2121; 2120 | 600 |
| Story1 | B770 | 777 | 539; 540 | 600 | Story2 | B914 | 2084 | 2122; 2066 | 600 |
| Story1 | B771 | 778 | 541; 542 | 600 | Story2 | B915 | 2085 | 2120; 2122 | 800 |
| Story1 | B772 | 779 | 543; 544 | 600 | Story2 | B8 | 2097 | 2117; 2132 | 600 |
| Story1 | B773 | 780 | 545; 546 | 600 | Story2 | B148 | 2099 | 2133; 2134 | 600 |
| Story1 | B774 | 781 | 547; 548 | 600 | Story2 | B152 | 2102 | 2132; 2133 | 700 |
| Story1 | B775 | 782 | 549; 550 | 600 | Story2 | B154 | 2101 | 2134; 2135 | 600 |
| Story1 | B776 | 783 | 551; 552 | 600 | Story2 | B4 | 2098 | 2201; 2107 | 500 |
| Story1 | B777 | 784 | 553; 554 | 600 | Story2 | B5 | 2100 | 2135; 2201 | 900 |
| Story1 | B778 | 786 | 558; 559 | 600 | Story2 | B44 | 2077 | 1567; 2101 | 600 |
| Story1 | B779 | 787 | 560; 561 | 600 | Story2 | B145 | 1973 | 459; 460 | 600 |
| Story1 | B780 | 788 | 562; 563 | 600 | Story2 | B146 | 1974 | 461; 466 | 600 |
| Story1 | B781 | 789 | 564; 565 | 600 | Story2 | B147 | 1975 | 467; 468 | 650 |
| Story1 | B782 | 790 | 566; 567 | 600 | Story2 | B149 | 1976 | 468; 459 | 650 |
| Story1 | B783 | 791 | 568; 569 | 600 | Story2 | B150 | 1977 | 460; 461 | 600 |
| Story1 | B784 | 792 | 570; 571 | 600 | Story2 | B151 | 1978 | 466; 1690 | 800 |
| Story1 | B785 | 793 | 572; 573 | 600 | Story3 | B530 | 1359 | 1385; 1171 | 600 |
| Story1 | B786 | 794 | 574; 575 | 600 | Story3 | B288 | 1142 | 1175; 1176 | 600 |
| Story1 | B787 | 795 | 576; 577 | 600 | Story3 | B574 | 1149 | 1186; 1187 | 600 |
| Story1 | B788 | 796 | 578; 790 | 600 | Story3 | B575 | 1150 | 1188; 1189 | 600 |
| Story1 | B208 | 1000 | 790; 580 | 600 | Story3 | B576 | 1151 | 1190; 1191 | 600 |
| Story1 | B209 | 603 | 581; 582 | 600 | Story3 | B577 | 1152 | 1192; 1193 | 600 |
| Story1 | B282 | 604 | 583; 584 | 600 | Story3 | B578 | 1153 | 1194; 1195 | 600 |
| Story1 | B286 | 605 | 585; 586 | 600 | Story3 | B579 | 1154 | 1196; 1197 | 600 |
| Story1 | B294 | 606 | 587; 588 | 600 | Story3 | B580 | 1155 | 1198; 1199 | 600 |
| Story1 | B414 | 607 | 589; 590 | 600 | Story3 | B581 | 1156 | 1200; 1201 | 600 |
| Story1 | B429 | 608 | 591; 592 | 600 | Story3 | B582 | 1157 | 1202; 1203 | 600 |
| Story1 | B479 | 610 | 595; 596 | 600 | Story3 | B583 | 1158 | 1204; 1205 | 600 |
| Story1 | B509 | 611 | 597; 598 | 600 | Story3 | B584 | 1159 | 1206; 1207 | 600 |
| Story1 | B527 | 612 | 599; 600 | 600 | Story3 | B585 | 1160 | 1208; 1209 | 600 |
| Story1 | B528 | 613 | 601; 602 | 600 | Story3 | B586 | 1333 | 1209; 1210 | 600 |
| Story1 | B529 | 614 | 603; 604 | 600 | Story3 | B587 | 1161 | 1210; 1211 | 600 |
| Story1 | B550 | 615 | 605; 606 | 600 | Story3 | B588 | 1162 | 1212; 1213 | 600 |
| Story1 | B561 | 616 | 607; 608 | 600 | Story3 | B589 | 1163 | 1214; 1215 | 600 |
| Story1 | B613 | 1001 | 580; 581 | 600 | Story3 | B590 | 1164 | 1216; 1217 | 600 |
| Story1 | B629 | 798 | 582; 583 | 600 | Story3 | B591 | 1165 | 1218; 1219 | 600 |
| Story1 | B661 | 799 | 584; 585 | 600 | Story3 | B592 | 1166 | 1220; 1221 | 600 |
| Story1 | B696 | 800 | 586; 587 | 600 | Story3 | B593 | 1167 | 1222; 1223 | 600 |
| Story1 | B706 | 801 | 588; 589 | 600 | Story3 | B594 | 1168 | 1224; 1225 | 600 |
| Story1 | B755 | 802 | 590; 591 | 600 | Story3 | B595 | 1169 | 1226; 1227 | 600 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Story1 | B758 | 803 | 592; 593 | 600 | Story3 | B596 | 1170 | 1228; 1229 | 600 |
| Story1 | B806 | 805 | 596; 597 | 600 | Story3 | B597 | 1171 | 1230; 1231 | 600 |
| Story1 | B808 | 806 | 598; 599 | 725 | Story3 | B631 | 1201 | 1290; 1291 | 600 |
| Story1 | B810 | 807 | 600; 601 | 475 | Story3 | B632 | 1202 | 1292; 1293 | 600 |
| Story1 | B811 | 808 | 602; 603 | 600 | Story3 | B633 | 1203 | 1294; 1295 | 600 |
| Story1 | B812 | 809 | 604; 605 | 600 | Story3 | B634 | 1204 | 1296; 1297 | 600 |
| Story1 | B813 | 810 | 606; 607 | 600 | Story3 | B635 | 1205 | 1298; 1299 | 600 |
| Story1 | B814 | 811 | 608; 609 | 600 | Story3 | B636 | 1206 | 1300; 1301 | 600 |
| Story1 | B816 | 223 | 210; 595 | 600 | Story3 | B637 | 1207 | 1302; 1303 | 600 |
| Story1 | B817 | 294 | 593; 210 | 600 | Story3 | B638 | 1208 | 1304; 1305 | 600 |
| Story1 | B842 | 189 | 211; 207 | 600 | Story3 | B639 | 1209 | 1306; 1307 | 600 |
| Story1 | B843 | 766 | 207; 374 | 600 | Story3 | B640 | 1210 | 1308; 1309 | 600 |
| Story1 | B844 | 417 | 783; 502 | 600 | Story3 | B641 | 1211 | 1310; 1311 | 600 |
| Story1 | B845 | 768 | 502; 212 | 600 | Story3 | B642 | 1212 | 1312; 1313 | 600 |
| Story1 | B846 | 565 | 212; 523 | 600 | Story3 | B644 | 1213 | 1314; 1315 | 600 |
| Story1 | B847 | 769 | 523; 785 | 600 | Story3 | B645 | 1214 | 1316; 1317 | 600 |
| Story1 | B848 | 577 | 213; 531 | 600 | Story3 | B646 | 1215 | 1318; 1319 | 600 |
| Story1 | B849 | 773 | 531; 532 | 600 | Story3 | B647 | 1216 | 1320; 1321 | 600 |
| Story1 | B850 | 576 | 528; 529 | 600 | Story3 | B648 | 1217 | 1322; 1323 | 600 |
| Story1 | B851 | 772 | 529; 213 | 600 | Story3 | B649 | 1218 | 1324; 1325 | 600 |
| Story1 | B852 | 575 | 526; 527 | 600 | Story3 | B650 | 1219 | 1326; 1327 | 600 |
| Story1 | B853 | 771 | 527; 528 | 600 | Story3 | B651 | 1220 | 1328; 1329 | 600 |
| Story1 | B854 | 574 | 524; 525 | 600 | Story3 | B652 | 1221 | 1330; 1331 | 600 |
| Story1 | B855 | 770 | 525; 526 | 600 | Story3 | B653 | 1222 | 1332; 1333 | 600 |
| Story1 | B856 | 635 | 285; 646 | 600 | Story3 | B654 | 1223 | 1334; 1335 | 600 |
| Story1 | B857 | 736 | 646; 647 | 600 | Story3 | B655 | 1224 | 1336; 1337 | 600 |
| Story1 | B858 | 618 | 611; 612 | 600 | Story3 | B656 | 1225 | 1338; 1339 | 600 |
| Story1 | B859 | 619 | 613; 614 | 600 | Story3 | B657 | 1226 | 1340; 1341 | 600 |
| Story1 | B860 | 620 | 615; 616 | 600 | Story3 | B658 | 1227 | 1342; 1343 | 600 |
| Story1 | B861 | 621 | 617; 618 | 600 | Story3 | B659 | 1228 | 1344; 1345 | 600 |
| Story1 | B862 | 622 | 619; 620 | 600 | Story3 | B660 | 1229 | 1346; 1347 | 600 |
| Story1 | B863 | 623 | 621; 622 | 700 | Story3 | B662 | 1230 | 1348; 1349 | 600 |
| Story1 | B864 | 624 | 623; 624 | 600 | Story3 | B666 | 1231 | 1351; 1352 | 600 |
| Story1 | B865 | 625 | 625; 626 | 600 | Story3 | B667 | 1232 | 1353; 1354 | 500 |
| Story1 | B866 | 626 | 627; 628 | 600 | Story3 | B668 | 1233 | 1355; 1356 | 600 |
| Story1 | B867 | 627 | 629; 630 | 500 | Story3 | B669 | 1234 | 1357; 1358 | 600 |
| Story1 | B868 | 628 | 631; 632 | 600 | Story3 | B670 | 1235 | 1359; 1360 | 600 |
| Story1 | B869 | 629 | 633; 634 | 600 | Story3 | B701 | 1262 | 1341; 1342 | 600 |
| Story1 | B870 | 631 | 637; 638 | 600 | Story3 | B702 | 1263 | 1343; 1344 | 600 |
| Story1 | B871 | 632 | 639; 640 | 600 | Story3 | B703 | 1264 | 1345; 1346 | 600 |
| Story1 | B872 | 722 | 612; 613 | 600 | Story3 | B704 | 1265 | 1347; 1348 | 600 |
| Story1 | B873 | 723 | 614; 615 | 600 | Story3 | B705 | 1266 | 1349; 1350 | 500 |
| Story1 | B874 | 724 | 616; 617 | 600 | Story3 | B707 | 1267 | 1352; 1353 | 500 |
| Story1 | B875 | 725 | 618; 619 | 600 | Story3 | B708 | 1268 | 1354; 1355 | 600 |
| Story1 | B876 | 726 | 620; 621 | 500 | Story3 | B709 | 1269 | 1356; 1357 | 600 |
| Story1 | B877 | 727 | 622; 623 | 500 | Story3 | B710 | 1270 | 1358; 1359 | 600 |
| Story1 | B878 | 728 | 624; 625 | 700 | Story3 | B712 | 1271 | 1360; 1377 | 600 |
| Story1 | B879 | 729 | 626; 627 | 800 | Story3 | B730 | 1287 | 1291; 1292 | 600 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Story1 | B880 | 730 | 628; 629 | 500 | Story3 | B731 | 1288 | 1293; 1294 | 600 |
| Story1 | B881 | 731 | 630; 631 | 600 | Story3 | B732 | 1289 | 1295; 1296 | 600 |
| Story1 | B882 | 732 | 632; 633 | 600 | Story3 | B733 | 1290 | 1297; 1298 | 600 |
| Story1 | B883 | 733 | 634; 637 | 600 | Story3 | B734 | 1291 | 1299; 1300 | 600 |
| Story1 | B884 | 734 | 638; 639 | 600 | Story3 | B735 | 1292 | 1301; 1302 | 600 |
| Story1 | B885 | 735 | 640; 285 | 600 | Story3 | B736 | 1293 | 1303; 1304 | 600 |
| Story1 | B886 | 681 | 287; 738 | 600 | Story3 | B737 | 1294 | 1305; 1306 | 600 |
| Story1 | B887 | 682 | 288; 740 | 500 | Story3 | B738 | 1295 | 1307; 1308 | 600 |
| Story1 | B888 | 683 | 289; 742 | 600 | Story3 | B739 | 1296 | 1309; 1310 | 600 |
| Story1 | B889 | 684 | 290; 744 | 600 | Story3 | B740 | 1297 | 1311; 1312 | 600 |
| Story1 | B890 | 685 | 291; 746 | 600 | Story3 | B741 | 1298 | 1313; 1314 | 600 |
| Story1 | B891 | 692 | 738; 288 | 500 | Story3 | B742 | 1299 | 1315; 1316 | 600 |
| Story1 | B892 | 693 | 740; 289 | 600 | Story3 | B743 | 1300 | 1317; 1318 | 600 |
| Story1 | B893 | 695 | 742; 290 | 600 | Story3 | B744 | 1301 | 1319; 1320 | 600 |
| Story1 | B894 | 696 | 744; 291 | 600 | Story3 | B745 | 1302 | 1321; 1322 | 600 |
| Story1 | B895 | 697 | 746; 512 | 600 | Story3 | B746 | 1303 | 1323; 1324 | 600 |
| Story1 | B896 | 676 | 292; 728 | 600 | Story3 | B747 | 1304 | 1325; 1326 | 600 |
| Story1 | B897 | 677 | 293; 730 | 600 | Story3 | B748 | 1305 | 1327; 1328 | 600 |
| Story1 | B898 | 678 | 320; 732 | 600 | Story3 | B749 | 1306 | 1329; 1330 | 600 |
| Story1 | B899 | 679 | 367; 734 | 600 | Story3 | B750 | 1307 | 1331; 1332 | 725 |
| Story1 | B900 | 680 | 395; 736 | 600 | Story3 | B751 | 1308 | 1333; 1334 | 475 |
| Story1 | B901 | 687 | 728; 293 | 600 | Story3 | B752 | 1309 | 1335; 1336 | 600 |
| Story1 | B902 | 688 | 730; 320 | 600 | Story3 | B753 | 1310 | 1337; 1378 | 600 |
| Story1 | B903 | 689 | 732; 367 | 600 | Story3 | B754 | 1311 | 1339; 1379 | 600 |
| Story1 | B904 | 690 | 734; 395 | 600 | Story3 | B756 | 1312 | 1380; 1381 | 600 |
| Story1 | B905 | 691 | 736; 408 | 500 | Story3 | B757 | 1313 | 1381; 1338 | 600 |
| Story1 | B906 | 418 | 711; 409 | 600 | Story3 | B760 | 1315 | 1176; 1382 | 600 |
| Story1 | B908 | 433 | 409; 475 | 700 | Story3 | B767 | 1322 | 1187; 1188 | 600 |
| Story1 | B910 | 453 | 475; 484 | 600 | Story3 | B768 | 1323 | 1189; 1190 | 600 |
| Story1 | B911 | 452 | 484; 477 | 600 | Story3 | B769 | 1324 | 1191; 1192 | 600 |
| Story1 | B914 | 454 | 503; 717 | 600 | Story3 | B770 | 1325 | 1193; 1194 | 600 |
| Story1 | B915 | 455 | 477; 503 | 800 | Story3 | B771 | 1326 | 1195; 1196 | 600 |
| Story1 | B8 | 126 | 408; 249 | 600 | Story3 | B772 | 1327 | 1197; 1198 | 600 |
| Story1 | B148 | 128 | 518; 519 | 600 | Story3 | B773 | 1328 | 1199; 1200 | 600 |
| Story1 | B152 | 131 | 249; 518 | 700 | Story3 | B774 | 1329 | 1201; 1202 | 600 |
| Story1 | B154 | 130 | 519; 520 | 600 | Story3 | B775 | 1330 | 1203; 1204 | 600 |
| Story1 | B4 | 127 | 7; 287 | 500 | Story3 | B776 | 1331 | 1205; 1206 | 600 |
| Story1 | B5 | 129 | 520; 7 | 900 | Story3 | B777 | 1332 | 1207; 1208 | 600 |
| Story1 | B44 | 414 | 112; 286 | 600 | Story3 | B778 | 1334 | 1211; 1212 | 600 |
| Story1 | B145 | 699 | 389; 391 | 600 | Story3 | B779 | 1335 | 1213; 1214 | 600 |
| Story1 | B146 | 700 | 392; 412 | 600 | Story3 | B780 | 1336 | 1215; 1216 | 600 |
| Story1 | B147 | 702 | 413; 415 | 650 | Story3 | B781 | 1337 | 1217; 1218 | 600 |
| Story1 | B149 | 703 | 415; 389 | 650 | Story3 | B782 | 1338 | 1219; 1220 | 600 |
| Story1 | B150 | 704 | 391; 392 | 600 | Story3 | B783 | 1339 | 1221; 1222 | 600 |
| Story1 | B151 | 705 | 412; 208 | 800 | Story3 | B784 | 1340 | 1223; 1224 | 600 |
| Story2 | B530 | 2076 | 2100; 1886 | 600 | Story3 | B785 | 1341 | 1225; 1226 | 600 |
| Story2 | B288 | 1859 | 1890; 1891 | 600 | Story3 | B786 | 1342 | 1227; 1228 | 600 |
| Story2 | B574 | 1866 | 1901; 1902 | 600 | Story3 | B787 | 1343 | 1229; 1230 | 600 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Story2 | B575 | 1867 | 1903; 1904 | 600 | Story3 | B788 | 1344 | 1231; 1384 | 600 |
| Story2 | B576 | 1868 | 1905; 1906 | 600 | Story3 | B208 | 1172 | 1384; 1232 | 600 |
| Story2 | B577 | 1869 | 1907; 1908 | 600 | Story3 | B209 | 1173 | 1233; 1234 | 600 |
| Story2 | B578 | 1870 | 1909; 1910 | 600 | Story3 | B282 | 1174 | 1235; 1236 | 600 |
| Story2 | B579 | 1871 | 1911; 1912 | 600 | Story3 | B286 | 1175 | 1237; 1238 | 600 |
| Story2 | B580 | 1872 | 1913; 1914 | 600 | Story3 | B294 | 1176 | 1239; 1240 | 600 |
| Story2 | B581 | 1873 | 1915; 1916 | 600 | Story3 | B414 | 1177 | 1241; 1242 | 600 |
| Story2 | B582 | 1874 | 1917; 1918 | 600 | Story3 | B429 | 1178 | 1243; 1244 | 600 |
| Story2 | B583 | 1875 | 1919; 1920 | 600 | Story3 | B479 | 1179 | 1246; 1247 | 600 |
| Story2 | B584 | 1876 | 1921; 1922 | 600 | Story3 | B509 | 1180 | 1248; 1249 | 600 |
| Story2 | B585 | 1877 | 1923; 1924 | 600 | Story3 | B527 | 1181 | 1250; 1251 | 600 |
| Story2 | B586 | 2050 | 1924; 1925 | 600 | Story3 | B528 | 1182 | 1252; 1253 | 600 |
| Story2 | B587 | 1878 | 1925; 1926 | 600 | Story3 | B529 | 1183 | 1254; 1255 | 600 |
| Story2 | B588 | 1879 | 1927; 1928 | 600 | Story3 | B550 | 1184 | 1256; 1257 | 600 |
| Story2 | B589 | 1880 | 1929; 1930 | 600 | Story3 | B561 | 1185 | 1258; 1259 | 600 |
| Story2 | B590 | 1881 | 1931; 1932 | 600 | Story3 | B613 | 1345 | 1232; 1233 | 600 |
| Story2 | B591 | 1882 | 1933; 1934 | 600 | Story3 | B629 | 1346 | 1234; 1235 | 600 |
| Story2 | B592 | 1883 | 1935; 1936 | 600 | Story3 | B661 | 1347 | 1236; 1237 | 600 |
| Story2 | B593 | 1884 | 1937; 1938 | 600 | Story3 | B696 | 1348 | 1238; 1239 | 600 |
| Story2 | B594 | 1885 | 1939; 1940 | 600 | Story3 | B706 | 1349 | 1240; 1241 | 600 |
| Story2 | B595 | 1886 | 1941; 1942 | 600 | Story3 | B755 | 1350 | 1242; 1243 | 600 |
| Story2 | B596 | 1887 | 1943; 1944 | 600 | Story3 | B758 | 1351 | 1244; 1245 | 600 |
| Story2 | B597 | 1888 | 1945; 1946 | 600 | Story3 | B806 | 1352 | 1247; 1248 | 600 |
| Story2 | B631 | 1918 | 2005; 2006 | 600 | Story3 | B808 | 1353 | 1249; 1250 | 725 |
| Story2 | B632 | 1919 | 2007; 2008 | 600 | Story3 | B810 | 1354 | 1251; 1252 | 475 |
| Story2 | B633 | 1920 | 2009; 2010 | 600 | Story3 | B811 | 1355 | 1253; 1254 | 600 |
| Story2 | B634 | 1921 | 2011; 2012 | 600 | Story3 | B812 | 1356 | 1255; 1256 | 600 |
| Story2 | B635 | 1922 | 2013; 2014 | 600 | Story3 | B813 | 1357 | 1257; 1258 | 600 |
| Story2 | B636 | 1923 | 2015; 2016 | 600 | Story3 | B814 | 1358 | 1259; 1260 | 600 |
| Story2 | B637 | 1924 | 2017; 2018 | 600 | Story3 | B816 | 1361 | 1387; 1246 | 600 |
| Story2 | B638 | 1925 | 2019; 2020 | 600 | Story3 | B817 | 1362 | 1245; 1387 | 600 |
| Story2 | B639 | 1926 | 2021; 2022 | 600 | Story3 | B842 | 1141 | 1388; 1174 | 600 |
| Story2 | B640 | 1927 | 2023; 2024 | 600 | Story3 | B843 | 1314 | 1174; 1175 | 600 |
| Story2 | B641 | 1928 | 2025; 2026 | 600 | Story3 | B844 | 1143 | 1382; 1177 | 600 |
| Story2 | B642 | 1929 | 2027; 2028 | 600 | Story3 | B845 | 1316 | 1177; 1389 | 600 |
| Story2 | B644 | 1930 | 2029; 2030 | 600 | Story3 | B846 | 1144 | 1389; 1178 | 600 |
| Story2 | B645 | 1931 | 2031; 2032 | 600 | Story3 | B847 | 1317 | 1178; 1383 | 600 |
| Story2 | B646 | 1932 | 2033; 2034 | 600 | Story3 | B848 | 1148 | 1390; 1185 | 600 |
| Story2 | B647 | 1933 | 2035; 2036 | 600 | Story3 | B849 | 1321 | 1185; 1186 | 600 |
| Story2 | B648 | 1934 | 2037; 2038 | 600 | Story3 | B850 | 1147 | 1183; 1184 | 600 |
| Story2 | B649 | 1935 | 2039; 2040 | 600 | Story3 | B851 | 1320 | 1184; 1390 | 600 |
| Story2 | B650 | 1936 | 2041; 2042 | 600 | Story3 | B852 | 1146 | 1181; 1182 | 600 |
| Story2 | B651 | 1937 | 2043; 2044 | 600 | Story3 | B853 | 1319 | 1182; 1183 | 600 |
| Story2 | B652 | 1938 | 2045; 2046 | 600 | Story3 | B854 | 1145 | 1179; 1180 | 600 |
| Story2 | B653 | 1939 | 2047; 2048 | 600 | Story3 | B855 | 1318 | 1180; 1181 | 600 |
| Story2 | B654 | 1940 | 2049; 2050 | 600 | Story3 | B856 | 1200 | 1391; 1289 | 600 |
| Story2 | B655 | 1941 | 2051; 2052 | 600 | Story3 | B857 | 1286 | 1289; 1290 | 600 |
| Story2 | B656 | 1942 | 2053; 2054 | 600 | Story3 | B858 | 1186 | 1261; 1262 | 600 |

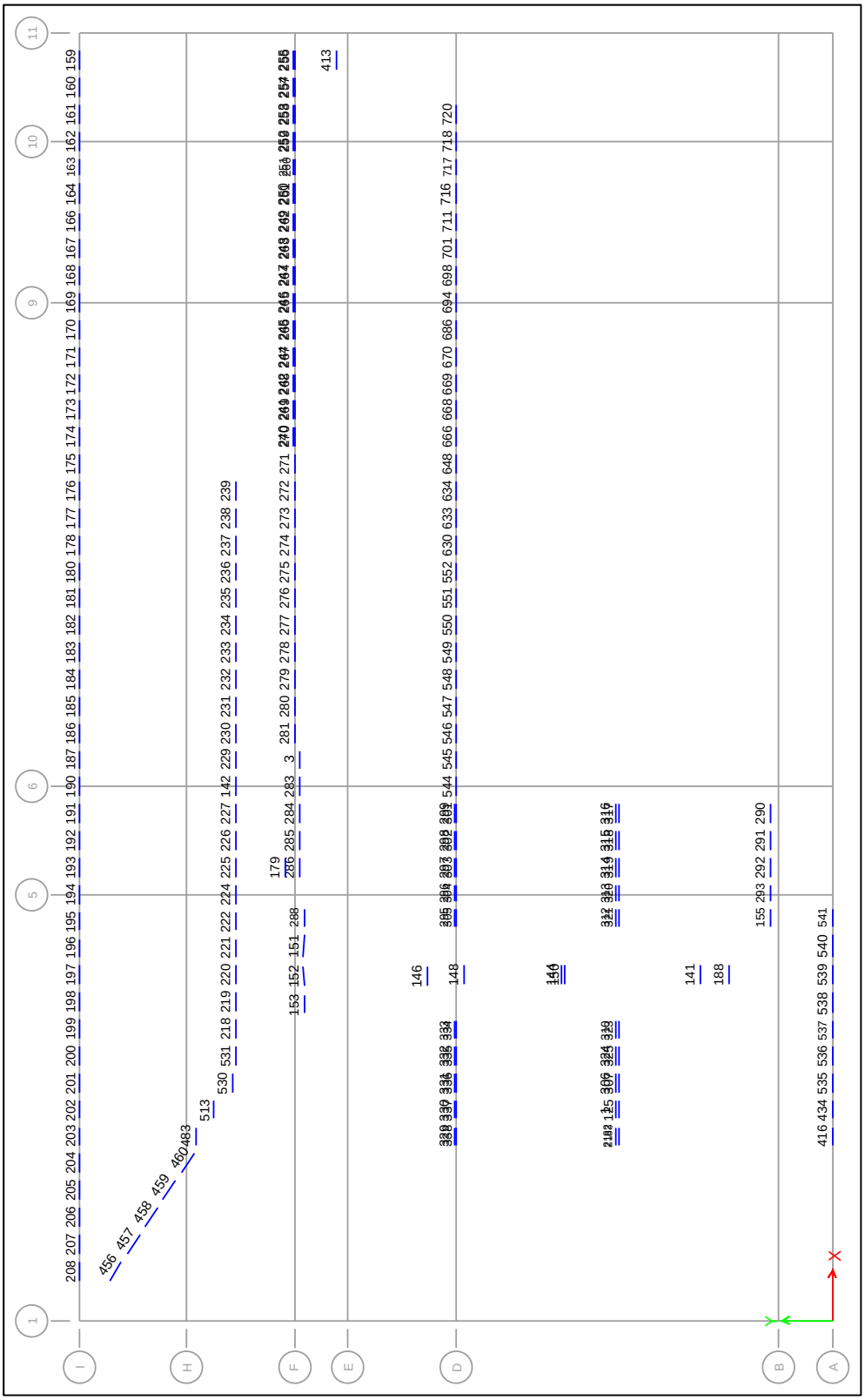
| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Story2 | B657 | 1943 | 2055; 2056 | 600 | Story3 | B859 | 1187 | 1263; 1264 | 600 |
| Story2 | B658 | 1944 | 2057; 2058 | 600 | Story3 | B860 | 1188 | 1265; 1266 | 600 |
| Story2 | B659 | 1945 | 2059; 2060 | 600 | Story3 | B861 | 1189 | 1267; 1268 | 600 |
| Story2 | B660 | 1946 | 2061; 2062 | 600 | Story3 | B862 | 1190 | 1269; 1270 | 600 |
| Story2 | B662 | 1947 | 2063; 2064 | 600 | Story3 | B863 | 1191 | 1271; 1272 | 700 |
| Story2 | B666 | 1948 | 2066; 2067 | 600 | Story3 | B864 | 1192 | 1273; 1274 | 600 |
| Story2 | B667 | 1949 | 2068; 2069 | 500 | Story3 | B865 | 1193 | 1275; 1276 | 600 |
| Story2 | B668 | 1950 | 2070; 2071 | 600 | Story3 | B866 | 1194 | 1277; 1278 | 600 |
| Story2 | B669 | 1951 | 2072; 2073 | 600 | Story3 | B867 | 1195 | 1279; 1280 | 500 |
| Story2 | B670 | 1952 | 2074; 2075 | 600 | Story3 | B868 | 1196 | 1281; 1282 | 600 |
| Story2 | B701 | 1979 | 2056; 2057 | 600 | Story3 | B869 | 1197 | 1283; 1284 | 600 |
| Story2 | B702 | 1980 | 2058; 2059 | 600 | Story3 | B870 | 1198 | 1285; 1286 | 600 |
| Story2 | B703 | 1981 | 2060; 2061 | 600 | Story3 | B871 | 1199 | 1287; 1288 | 600 |
| Story2 | B704 | 1982 | 2062; 2063 | 600 | Story3 | B872 | 1272 | 1262; 1263 | 600 |
| Story2 | B705 | 1983 | 2064; 2065 | 500 | Story3 | B873 | 1273 | 1264; 1265 | 600 |
| Story2 | B707 | 1984 | 2067; 2068 | 500 | Story3 | B874 | 1274 | 1266; 1267 | 600 |
| Story2 | B708 | 1985 | 2069; 2070 | 600 | Story3 | B875 | 1275 | 1268; 1269 | 600 |
| Story2 | B709 | 1986 | 2071; 2072 | 600 | Story3 | B876 | 1276 | 1270; 1271 | 500 |
| Story2 | B710 | 1987 | 2073; 2074 | 600 | Story3 | B877 | 1277 | 1272; 1273 | 500 |
| Story2 | B712 | 1988 | 2075; 2092 | 600 | Story3 | B878 | 1278 | 1274; 1275 | 700 |
| Story2 | B730 | 2004 | 2006; 2007 | 600 | Story3 | B879 | 1279 | 1276; 1277 | 800 |
| Story2 | B731 | 2005 | 2008; 2009 | 600 | Story3 | B880 | 1280 | 1278; 1279 | 500 |
| Story2 | B732 | 2006 | 2010; 2011 | 600 | Story3 | B881 | 1281 | 1280; 1281 | 600 |
| Story2 | B733 | 2007 | 2012; 2013 | 600 | Story3 | B882 | 1282 | 1282; 1283 | 600 |
| Story2 | B734 | 2008 | 2014; 2015 | 600 | Story3 | B883 | 1283 | 1284; 1285 | 600 |
| Story2 | B735 | 2009 | 2016; 2017 | 600 | Story3 | B884 | 1284 | 1286; 1287 | 600 |
| Story2 | B736 | 2010 | 2018; 2019 | 600 | Story3 | B885 | 1285 | 1288; 1391 | 600 |
| Story2 | B737 | 2011 | 2020; 2021 | 600 | Story3 | B886 | 1241 | 1392; 1366 | 600 |
| Story2 | B738 | 2012 | 2022; 2023 | 600 | Story3 | B887 | 1242 | 1393; 1367 | 500 |
| Story2 | B739 | 2013 | 2024; 2025 | 600 | Story3 | B888 | 1243 | 1394; 1368 | 600 |
| Story2 | B740 | 2014 | 2026; 2027 | 600 | Story3 | B889 | 1244 | 1395; 1369 | 600 |
| Story2 | B741 | 2015 | 2028; 2029 | 600 | Story3 | B890 | 1245 | 1396; 1370 | 600 |
| Story2 | B742 | 2016 | 2030; 2031 | 600 | Story3 | B891 | 1251 | 1366; 1393 | 500 |
| Story2 | B743 | 2017 | 2032; 2033 | 600 | Story3 | B892 | 1252 | 1367; 1394 | 600 |
| Story2 | B744 | 2018 | 2034; 2035 | 600 | Story3 | B893 | 1253 | 1368; 1395 | 600 |
| Story2 | B745 | 2019 | 2036; 2037 | 600 | Story3 | B894 | 1254 | 1369; 1396 | 600 |
| Story2 | B746 | 2020 | 2038; 2039 | 600 | Story3 | B895 | 1255 | 1370; 1385 | 600 |
| Story2 | B747 | 2021 | 2040; 2041 | 600 | Story3 | B896 | 1236 | 1397; 1361 | 600 |
| Story2 | B748 | 2022 | 2042; 2043 | 600 | Story3 | B897 | 1237 | 1398; 1362 | 600 |
| Story2 | B749 | 2023 | 2044; 2045 | 600 | Story3 | B898 | 1238 | 1399; 1363 | 600 |
| Story2 | B750 | 2024 | 2046; 2047 | 725 | Story3 | B899 | 1239 | 1400; 1364 | 600 |
| Story2 | B751 | 2025 | 2048; 2049 | 475 | Story3 | B900 | 1240 | 1401; 1365 | 600 |
| Story2 | B752 | 2026 | 2050; 2051 | 600 | Story3 | B901 | 1246 | 1361; 1398 | 600 |
| Story2 | B753 | 2027 | 2052; 2093 | 600 | Story3 | B902 | 1247 | 1362; 1399 | 600 |
| Story2 | B754 | 2028 | 2054; 2094 | 600 | Story3 | B903 | 1248 | 1363; 1400 | 600 |
| Story2 | B756 | 2029 | 2095; 2096 | 600 | Story3 | B904 | 1249 | 1364; 1401 | 600 |
| Story2 | B757 | 2030 | 2096; 2053 | 600 | Story3 | B905 | 1250 | 1365; 1402 | 500 |
| Story2 | B760 | 2032 | 1891; 2097 | 600 | Story3 | B906 | 1363 | 1350; 1403 | 600 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Story2 | B767 | 2039 | 1902; 1903 | 600 | Story3 | B908 | 1364 | 1403; 1404 | 700 |
| Story2 | B768 | 2040 | 1904; 1905 | 600 | Story3 | B910 | 1366 | 1404; 1406 | 600 |
| Story2 | B769 | 2041 | 1906; 1907 | 600 | Story3 | B911 | 1365 | 1406; 1405 | 600 |
| Story2 | B770 | 2042 | 1908; 1909 | 600 | Story3 | B914 | 1367 | 1407; 1351 | 600 |
| Story2 | B771 | 2043 | 1910; 1911 | 600 | Story3 | B915 | 1368 | 1405; 1407 | 800 |
| Story2 | B772 | 2044 | 1912; 1913 | 600 | Story3 | B8 | 1380 | 1402; 1417 | 600 |
| Story2 | B773 | 2045 | 1914; 1915 | 600 | Story3 | B148 | 1382 | 1418; 1419 | 600 |
| Story2 | B774 | 2046 | 1916; 1917 | 600 | Story3 | B152 | 1385 | 1417; 1418 | 700 |
| Story2 | B775 | 2047 | 1918; 1919 | 600 | Story3 | B154 | 1384 | 1419; 1420 | 600 |
| Story2 | B776 | 2048 | 1920; 1921 | 600 | Story3 | B4 | 1381 | 1486; 1392 | 500 |
| Story2 | B777 | 2049 | 1922; 1923 | 600 | Story3 | B5 | 1383 | 1420; 1486 | 900 |
| Story2 | B778 | 2051 | 1926; 1927 | 600 | Story3 | B44 | 1360 | 852; 1386 | 600 |
| Story2 | B779 | 2052 | 1928; 1929 | 600 | Story3 | B145 | 1256 | 429; 435 | 600 |
| Story2 | B780 | 2053 | 1930; 1931 | 600 | Story3 | B146 | 1257 | 436; 437 | 600 |
| Story2 | B781 | 2054 | 1932; 1933 | 600 | Story3 | B147 | 1258 | 438; 458 | 650 |
| Story2 | B782 | 2055 | 1934; 1935 | 600 | Story3 | B149 | 1259 | 458; 429 | 650 |
| Story2 | B783 | 2056 | 1936; 1937 | 600 | Story3 | B150 | 1260 | 435; 436 | 600 |
| Story2 | B784 | 2057 | 1938; 1939 | 600 | Story3 | B151 | 1261 | 437; 975 | 800 |

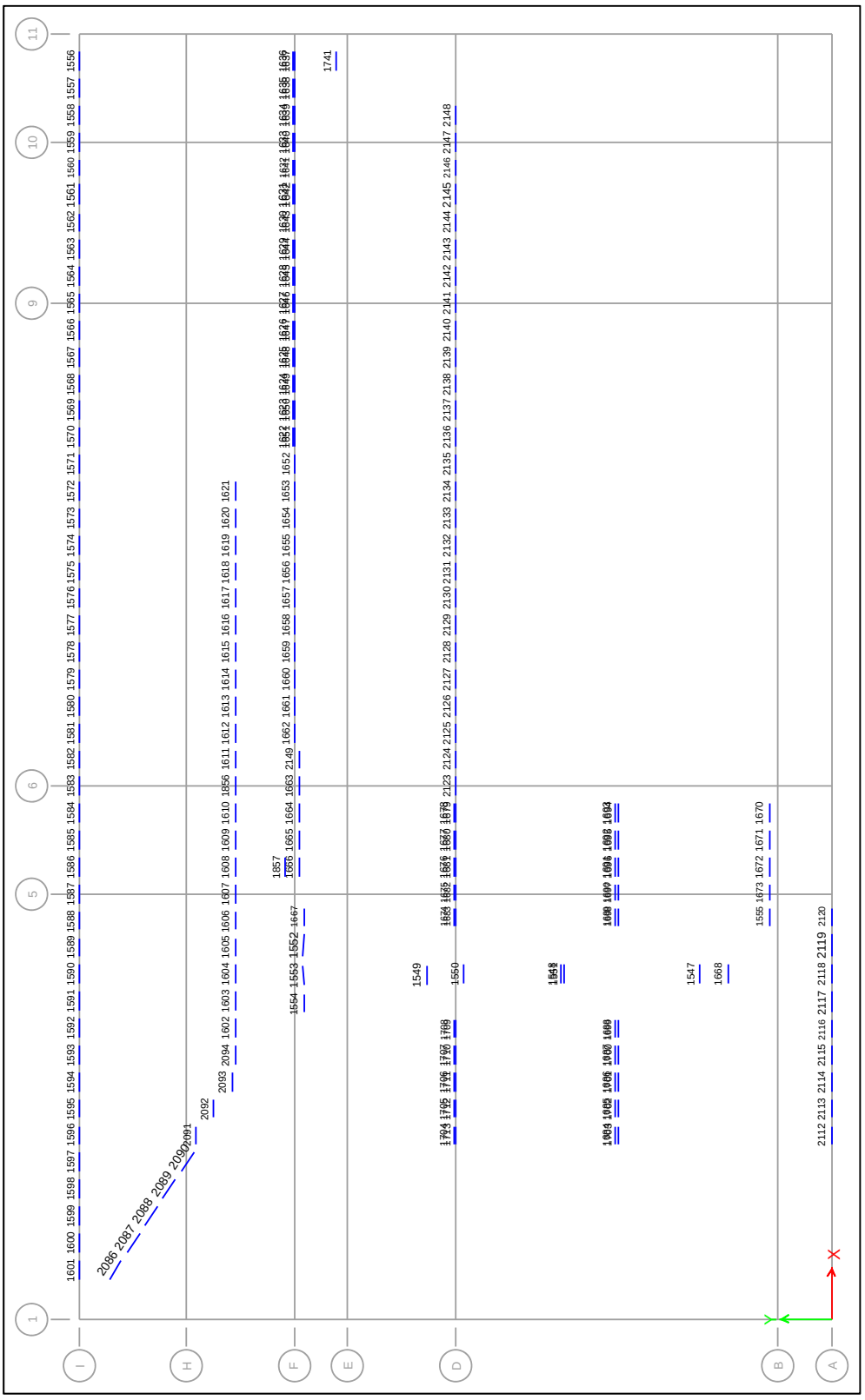
TABELL A 3 SKJÆRSTAVER

## 2.4 STRINGERELEMENTER

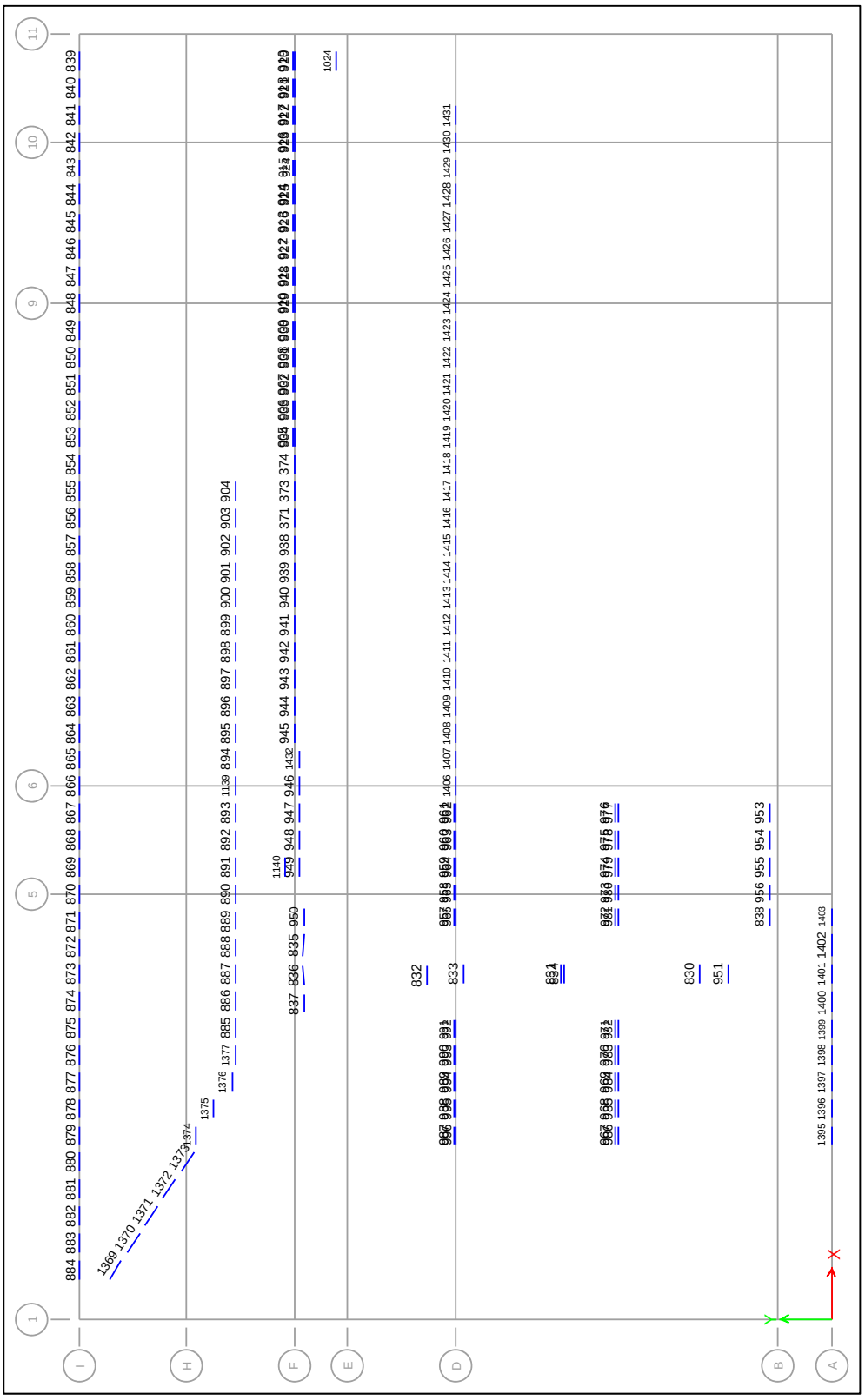
Tilsvarer skivearmering i strekksituasjon og fugestøp i trykksituasjon



FIGUR A 8 STRINGERE: DEKKE OVER 1.ETG




FIGUR A 9 STRINGERE: DEKKE OVER 2.ETG



FIGUR A 10 STRINGERE: DEKKE OVER 3.ETG

| TABLE: Beam Connectivity | | | | | | TABLE: Beam Connectivity | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Story | Label | Unique Name | Points | Length mm | | Story | Label | Unique Name | Points | Length mm |
| Story1 | B64 | 141 | 76; 78 | 1200 | | Story2 | B267 | 1653 | 1794; 1793 | 1199.8 |
| Story1 | B108 | 144 | 104; 105 | 1200 | | Story2 | B268 | 1654 | 1795; 1794 | 1200.2 |
| Story1 | B118 | 146 | 107; 108 | 1300 | | Story2 | B269 | 1655 | 1796; 1795 | 1200 |
| Story1 | B122 | 148 | 181; 180 | 1200 | | Story2 | B270 | 1656 | 1797; 1796 | 1200 |
| Story1 | B124 | 150 | 102; 197 | 1200 | | Story2 | B271 | 1657 | 1798; 1797 | 1200 |
| Story1 | B125 | 151 | 204; 199 | 1400 | | Story2 | B272 | 1658 | 1799; 1798 | 1200 |
| Story1 | B126 | 152 | 205; 204 | 1299.6 | | Story2 | B273 | 1659 | 1800; 1799 | 1200 |
| Story1 | B127 | 153 | 206; 205 | 1200.2 | | Story2 | B274 | 1660 | 1801; 1800 | 1200 |
| Story1 | B129 | 155 | 208; 209 | 1100 | | Story2 | B275 | 1661 | 1802; 1801 | 1200 |
| Story1 | B130 | 159 | 215; 214 | 1200 | | Story2 | B276 | 1662 | 1803; 1802 | 1200 |
| Story1 | B131 | 160 | 216; 215 | 1200 | | Story2 | B278 | 1663 | 1805; 1804 | 1200 |
| Story1 | B132 | 161 | 217; 216 | 1200 | | Story2 | B279 | 1664 | 1806; 1805 | 1200 |
| Story1 | B133 | 162 | 218; 217 | 1200 | | Story2 | B280 | 1665 | 1807; 1806 | 1200 |
| Story1 | B134 | 163 | 219; 218 | 1075 | | Story2 | B281 | 1666 | 1808; 1807 | 1200 |
| Story1 | B135 | 164 | 220; 219 | 1325 | | Story2 | B283 | 1667 | 1686; 1809 | 1100.2 |
| Story1 | B139 | 166 | 223; 220 | 1200 | | Story2 | B287 | 1668 | 1810; 1811 | 1200 |
| Story1 | B140 | 167 | 224; 223 | 1200 | | Story2 | B290 | 1670 | 1815; 1814 | 1200 |
| Story1 | B141 | 168 | 225; 224 | 1200 | | Story2 | B291 | 1671 | 1816; 1815 | 1200 |
| Story1 | B142 | 169 | 226; 225 | 1200 | | Story2 | B292 | 1672 | 1817; 1816 | 1200 |
| Story1 | B143 | 170 | 227; 226 | 1200 | | Story2 | B293 | 1673 | 1691; 1817 | 1100 |
| Story1 | B153 | 171 | 229; 227 | 1200 | | Story2 | B295 | 1674 | 1818; 1819 | 1100 |
| Story1 | B165 | 172 | 231; 229 | 1200 | | Story2 | B296 | 1675 | 1819; 1820 | 1100 |
| Story1 | B166 | 173 | 232; 231 | 1200 | | Story2 | B297 | 1676 | 1820; 1821 | 1200 |
| Story1 | B167 | 174 | 233; 232 | 1200 | | Story2 | B298 | 1677 | 1821; 1822 | 1200 |
| Story1 | B168 | 175 | 234; 233 | 1200 | | Story2 | B299 | 1678 | 1822; 1823 | 1200 |
| Story1 | B173 | 176 | 235; 234 | 1200 | | Story2 | B301 | 1679 | 1825; 1824 | 1200 |
| Story1 | B174 | 177 | 236; 235 | 1200 | | Story2 | B302 | 1680 | 1826; 1825 | 1200 |
| Story1 | B175 | 178 | 246; 236 | 1200 | | Story2 | B303 | 1681 | 1827; 1826 | 1200 |
| Story1 | B177 | 180 | 250; 246 | 1200 | | Story2 | B304 | 1682 | 1828; 1827 | 1100 |
| Story1 | B178 | 181 | 251; 250 | 1200 | | Story2 | B305 | 1683 | 1829; 1828 | 1100 |
| Story1 | B179 | 182 | 252; 251 | 1200 | | Story2 | B306 | 1684 | 1830; 1831 | 1200 |
| Story1 | B180 | 183 | 253; 252 | 1200 | | Story2 | B307 | 1685 | 1831; 1832 | 1200 |
| Story1 | B181 | 184 | 254; 253 | 1200 | | Story2 | B308 | 1686 | 1832; 1833 | 1200 |
| Story1 | B182 | 185 | 255; 254 | 1200 | | Story2 | B309 | 1687 | 1833; 1834 | 1200 |
| Story1 | B184 | 186 | 256; 255 | 1200 | | Story2 | B310 | 1688 | 1834; 1835 | 1100 |
| Story1 | B185 | 187 | 257; 256 | 1200 | | Story2 | B312 | 1689 | 1836; 1837 | 1100 |
| Story1 | B186 | 190 | 264; 257 | 1200 | | Story2 | B313 | 1690 | 1837; 1838 | 1100 |
| Story1 | B187 | 191 | 265; 264 | 1200 | | Story2 | B314 | 1691 | 1838; 1839 | 1200 |
| Story1 | B188 | 192 | 266; 265 | 1200 | | Story2 | B315 | 1692 | 1839; 1840 | 1200 |
| Story1 | B189 | 193 | 267; 266 | 1200 | | Story2 | B316 | 1693 | 1840; 1841 | 1200 |
| Story1 | B190 | 194 | 268; 267 | 1200 | | Story2 | B317 | 1694 | 1843; 1842 | 1200 |
| Story1 | B191 | 195 | 269; 268 | 1200 | | Story2 | B318 | 1695 | 1844; 1843 | 1200 |
| Story1 | B192 | 196 | 270; 269 | 1200 | | Story2 | B319 | 1696 | 1845; 1844 | 1200 |
| Story1 | B193 | 197 | 271; 270 | 1200 | | Story2 | B320 | 1697 | 1846; 1845 | 1100 |
| Story1 | B194 | 198 | 272; 271 | 1200 | | Story2 | B321 | 1698 | 1847; 1846 | 1100 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Story1 | B195 | 199 | 273; 272 | 1200 | | Story2 | B323 | 1699 | 1849; 1848 | 1100 |
| Story1 | B196 | 200 | 274; 273 | 1200 | | Story2 | B324 | 1700 | 1850; 1849 | 1200 |
| Story1 | B197 | 201 | 275; 274 | 1200 | | Story2 | B325 | 1701 | 1851; 1850 | 1200 |
| Story1 | B198 | 202 | 276; 275 | 1200 | | Story2 | B326 | 1702 | 1852; 1851 | 1200 |
| Story1 | B199 | 203 | 277; 276 | 1200 | | Story2 | B327 | 1703 | 2148; 1852 | 1200 |
| Story1 | B200 | 204 | 278; 277 | 1200 | | Story2 | B329 | 1704 | 1853; 1854 | 1200 |
| Story1 | B201 | 205 | 279; 278 | 1200 | | Story2 | B330 | 1705 | 1854; 1855 | 1200 |
| Story1 | B202 | 206 | 280; 279 | 1200 | | Story2 | B331 | 1706 | 1855; 1856 | 1200 |
| Story1 | B203 | 207 | 281; 280 | 1200 | | Story2 | B332 | 1707 | 1856; 1857 | 1200 |
| Story1 | B204 | 208 | 282; 281 | 1200 | | Story2 | B333 | 1708 | 1857; 1858 | 1100 |
| Story1 | B213 | 531 | 514; 294 | 1200 | | Story2 | B334 | 1709 | 1860; 1859 | 1100 |
| Story1 | B214 | 218 | 294; 295 | 1200 | | Story2 | B335 | 1710 | 1861; 1860 | 1200 |
| Story1 | B215 | 219 | 295; 296 | 1200 | | Story2 | B336 | 1711 | 1862; 1861 | 1200 |
| Story1 | B216 | 220 | 296; 297 | 1200 | | Story2 | B337 | 1712 | 1863; 1862 | 1200 |
| Story1 | B217 | 221 | 297; 298 | 1200 | | Story2 | B338 | 1713 | 1864; 1863 | 1200 |
| Story1 | B218 | 222 | 298; 299 | 1200 | | Story2 | B413 | 1741 | 1865; 1866 | 1200 |
| Story1 | B219 | 224 | 299; 300 | 1200 | | Story2 | B65 | 1856 | 1748; 1749 | 1200 |
| Story1 | B220 | 225 | 300; 301 | 1200 | | Story2 | B183 | 1857 | 1888; 1887 | 1200 |
| Story1 | B221 | 226 | 301; 302 | 1200 | | Story2 | B921 | 2091 | 1523; 2128 | 1200 |
| Story1 | B222 | 227 | 302; 303 | 1200 | | Story2 | B922 | 2092 | 1524; 2129 | 1200 |
| Story1 | B224 | 229 | 304; 305 | 1200 | | Story2 | B923 | 2093 | 1525; 2130 | 1200 |
| Story1 | B225 | 230 | 305; 306 | 1200 | | Story2 | B547 | 2112 | 2136; 2137 | 1200.3 |
| Story1 | B226 | 231 | 306; 307 | 1200 | | Story2 | B548 | 2113 | 2137; 2138 | 1199.9 |
| Story1 | B227 | 232 | 307; 308 | 1200 | | Story2 | B549 | 2114 | 2138; 2139 | 1199.9 |
| Story1 | B228 | 233 | 308; 309 | 1200 | | Story2 | B553 | 2115 | 2139; 2140 | 1199.9 |
| Story1 | B229 | 234 | 309; 310 | 1200 | | Story2 | B557 | 2116 | 2140; 2141 | 1100 |
| Story1 | B230 | 235 | 310; 311 | 1200 | | Story2 | B566 | 2117 | 2141; 2142 | 1300 |
| Story1 | B231 | 236 | 311; 312 | 1200 | | Story2 | B570 | 2118 | 2142; 2143 | 1200 |
| Story1 | B232 | 237 | 312; 313 | 1200 | | Story2 | B571 | 2119 | 2143; 2144 | 1400 |
| Story1 | B233 | 238 | 313; 314 | 1200 | | Story2 | B572 | 2120 | 2144; 2145 | 1100 |
| Story1 | B234 | 239 | 314; 315 | 1200 | | Story2 | B608 | 2123 | 1824; 2150 | 1200 |
| Story1 | B235 | 240 | 316; 317 | 1200 | | Story2 | B609 | 2124 | 2150; 2151 | 1200 |
| Story1 | B236 | 241 | 317; 318 | 1200 | | Story2 | B610 | 2125 | 2151; 2152 | 1200 |
| Story1 | B237 | 242 | 318; 319 | 1200 | | Story2 | B611 | 2126 | 2152; 2153 | 1200 |
| Story1 | B239 | 244 | 319; 321 | 1200 | | Story2 | B612 | 2127 | 2153; 2154 | 1200 |
| Story1 | B240 | 245 | 321; 322 | 1200 | | Story2 | B614 | 2128 | 2154; 2155 | 1200 |
| Story1 | B241 | 246 | 322; 323 | 1200 | | Story2 | B615 | 2129 | 2155; 2156 | 1200 |
| Story1 | B242 | 247 | 323; 324 | 1200 | | Story2 | B616 | 2130 | 2156; 2157 | 1200 |
| Story1 | B243 | 248 | 324; 325 | 1200 | | Story2 | B617 | 2131 | 2157; 2158 | 1200 |
| Story1 | B244 | 249 | 325; 326 | 1200 | | Story2 | B618 | 2132 | 2158; 2159 | 1200 |
| Story1 | B245 | 250 | 326; 327 | 1325 | | Story2 | B619 | 2133 | 2159; 2160 | 1200 |
| Story1 | B246 | 251 | 327; 328 | 1075 | | Story2 | B620 | 2134 | 2160; 2161 | 1200 |
| Story1 | B247 | 252 | 328; 329 | 1200 | | Story2 | B621 | 2135 | 2161; 2162 | 1200 |
| Story1 | B248 | 253 | 329; 330 | 1200 | | Story2 | B622 | 2136 | 2162; 2163 | 1200 |
| Story1 | B249 | 254 | 330; 331 | 1200 | | Story2 | B623 | 2137 | 2163; 2164 | 1200 |
| Story1 | B250 | 255 | 331; 332 | 1200 | | Story2 | B624 | 2138 | 2164; 2165 | 1200 |
| Story1 | B251 | 256 | 334; 333 | 1200 | | Story2 | B625 | 2139 | 2165; 2166 | 1200 |
| Story1 | B252 | 257 | 335; 334 | 1200 | | Story2 | B626 | 2140 | 2166; 2167 | 1200 |

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|---|---|---|---|---|---|---|---|---|---|
| Story1 | B253 | 258 | 336; 335 | 1200 | Story2 | B627 | 2141 | 2167; 2168 | 1200 |
| Story1 | B254 | 259 | 337; 336 | 1200 | Story2 | B628 | 2142 | 2168; 2169 | 1200 |
| Story1 | B255 | 260 | 338; 337 | 1075 | Story2 | B630 | 2143 | 2169; 2170 | 1200 |
| Story1 | B256 | 261 | 339; 338 | 1325 | Story2 | B643 | 2144 | 2170; 2171 | 1200 |
| Story1 | B257 | 262 | 340; 339 | 1200 | Story2 | B663 | 2145 | 2171; 2172 | 1325 |
| Story1 | B258 | 263 | 341; 340 | 1200 | Story2 | B664 | 2146 | 2172; 2173 | 1075 |
| Story1 | B259 | 264 | 342; 341 | 1200 | Story2 | B665 | 2147 | 2173; 2174 | 1200 |
| Story1 | B260 | 265 | 343; 342 | 1200 | Story2 | B671 | 2148 | 2174; 2175 | 1200 |
| Story1 | B261 | 266 | 344; 343 | 1200 | Story2 | B6 | 2149 | 1804; 2202 | 1200 |
| Story1 | B262 | 267 | 345; 344 | 1200 | Story2 | B1 | 2086 | 1645; 1643 | 1443 |
| Story1 | B263 | 268 | 346; 345 | 1200 | Story2 | B57 | 2087 | 1643; 1641 | 1443 |
| Story1 | B264 | 269 | 347; 346 | 1200 | Story2 | B66 | 2088 | 1641; 1639 | 1443 |
| Story1 | B265 | 270 | 348; 347 | 1200 | Story2 | B109 | 2089 | 1639; 1637 | 1443 |
| Story1 | B266 | 271 | 349; 348 | 1200 | Story2 | B119 | 2090 | 1637; 1523 | 1443 |
| Story1 | B267 | 272 | 350; 349 | 1199.8 | Story3 | B64 | 830 | 961; 962 | 1200 |
| Story1 | B268 | 273 | 351; 350 | 1200.2 | Story3 | B108 | 831 | 964; 965 | 1200 |
| Story1 | B269 | 274 | 352; 351 | 1200 | Story3 | B118 | 832 | 966; 967 | 1300 |
| Story1 | B270 | 275 | 353; 352 | 1200 | Story3 | B122 | 833 | 969; 968 | 1200 |
| Story1 | B271 | 276 | 354; 353 | 1200 | Story3 | B124 | 834 | 963; 970 | 1200 |
| Story1 | B272 | 277 | 355; 354 | 1200 | Story3 | B125 | 835 | 972; 971 | 1400 |
| Story1 | B273 | 278 | 356; 355 | 1200 | Story3 | B126 | 836 | 973; 972 | 1299.6 |
| Story1 | B274 | 279 | 357; 356 | 1200 | Story3 | B127 | 837 | 974; 973 | 1200.2 |
| Story1 | B275 | 280 | 358; 357 | 1200 | Story3 | B129 | 838 | 975; 976 | 1100 |
| Story1 | B276 | 281 | 359; 358 | 1200 | Story3 | B130 | 839 | 978; 977 | 1200 |
| Story1 | B278 | 283 | 363; 362 | 1200 | Story3 | B131 | 840 | 979; 978 | 1200 |
| Story1 | B279 | 284 | 364; 363 | 1200 | Story3 | B132 | 841 | 980; 979 | 1200 |
| Story1 | B280 | 285 | 365; 364 | 1200 | Story3 | B133 | 842 | 981; 980 | 1200 |
| Story1 | B281 | 286 | 366; 365 | 1200 | Story3 | B134 | 843 | 982; 981 | 1075 |
| Story1 | B283 | 288 | 199; 369 | 1100.2 | Story3 | B135 | 844 | 983; 982 | 1325 |
| Story1 | B287 | 188 | 222; 247 | 1200 | Story3 | B139 | 845 | 984; 983 | 1200 |
| Story1 | B290 | 290 | 371; 370 | 1200 | Story3 | B140 | 846 | 985; 984 | 1200 |
| Story1 | B291 | 291 | 372; 371 | 1200 | Story3 | B141 | 847 | 986; 985 | 1200 |
| Story1 | B292 | 292 | 373; 372 | 1200 | Story3 | B142 | 848 | 987; 986 | 1200 |
| Story1 | B293 | 293 | 209; 373 | 1100 | Story3 | B143 | 849 | 988; 987 | 1200 |
| Story1 | B295 | 295 | 375; 376 | 1100 | Story3 | B153 | 850 | 989; 988 | 1200 |
| Story1 | B296 | 296 | 376; 377 | 1100 | Story3 | B165 | 851 | 990; 989 | 1200 |
| Story1 | B297 | 297 | 377; 378 | 1200 | Story3 | B166 | 852 | 991; 990 | 1200 |
| Story1 | B298 | 298 | 378; 379 | 1200 | Story3 | B167 | 853 | 992; 991 | 1200 |
| Story1 | B299 | 299 | 379; 380 | 1200 | Story3 | B168 | 854 | 993; 992 | 1200 |
| Story1 | B301 | 301 | 384; 383 | 1200 | Story3 | B173 | 855 | 994; 993 | 1200 |
| Story1 | B302 | 302 | 385; 384 | 1200 | Story3 | B174 | 856 | 995; 994 | 1200 |
| Story1 | B303 | 303 | 386; 385 | 1200 | Story3 | B175 | 857 | 996; 995 | 1200 |
| Story1 | B304 | 304 | 387; 386 | 1100 | Story3 | B177 | 858 | 997; 996 | 1200 |
| Story1 | B305 | 305 | 388; 387 | 1100 | Story3 | B178 | 859 | 998; 997 | 1200 |
| Story1 | B306 | 2182 | 1; 390 | 1200 | Story3 | B179 | 860 | 999; 998 | 1200 |
| Story1 | B307 | 1 | 390; 39 | 1200 | Story3 | B180 | 861 | 1000; 999 | 1200 |
| Story1 | B308 | 306 | 39; 48 | 1200 | Story3 | B181 | 862 | 1001; 1000 | 1200 |
| Story1 | B309 | 324 | 48; 393 | 1200 | Story3 | B182 | 863 | 1002; 1001 | 1200 |

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|---|---|---|---|---|---|---|---|---|---|---|
| Story1 | B310 | 310 | 393; 394 | 1100 | | Story3 | B184 | 864 | 1003; 1002 | 1200 |
| Story1 | B312 | 312 | 396; 397 | 1100 | | Story3 | B185 | 865 | 1004; 1003 | 1200 |
| Story1 | B313 | 313 | 397; 398 | 1100 | | Story3 | B186 | 866 | 1005; 1004 | 1200 |
| Story1 | B314 | 314 | 398; 399 | 1200 | | Story3 | B187 | 867 | 1006; 1005 | 1200 |
| Story1 | B315 | 315 | 399; 400 | 1200 | | Story3 | B188 | 868 | 1007; 1006 | 1200 |
| Story1 | B316 | 316 | 400; 401 | 1200 | | Story3 | B189 | 869 | 1008; 1007 | 1200 |
| Story1 | B317 | 317 | 403; 402 | 1200 | | Story3 | B190 | 870 | 1009; 1008 | 1200 |
| Story1 | B318 | 318 | 404; 403 | 1200 | | Story3 | B191 | 871 | 1010; 1009 | 1200 |
| Story1 | B319 | 319 | 405; 404 | 1200 | | Story3 | B192 | 872 | 1011; 1010 | 1200 |
| Story1 | B320 | 320 | 406; 405 | 1100 | | Story3 | B193 | 873 | 1012; 1011 | 1200 |
| Story1 | B321 | 321 | 407; 406 | 1100 | | Story3 | B194 | 874 | 1013; 1012 | 1200 |
| Story1 | B323 | 323 | 411; 410 | 1100 | | Story3 | B195 | 875 | 1014; 1013 | 1200 |
| Story1 | B324 | 325 | 74; 411 | 1200 | | Story3 | B196 | 876 | 1015; 1014 | 1200 |
| Story1 | B325 | 307 | 40; 74 | 1200 | | Story3 | B197 | 877 | 1016; 1015 | 1200 |
| Story1 | B326 | 125 | 414; 40 | 1200 | | Story3 | B198 | 878 | 1017; 1016 | 1200 |
| Story1 | B327 | 2183 | 18; 414 | 1200 | | Story3 | B199 | 879 | 1018; 1017 | 1200 |
| Story1 | B329 | 329 | 417; 418 | 1200 | | Story3 | B200 | 880 | 1019; 1018 | 1200 |
| Story1 | B330 | 330 | 418; 419 | 1200 | | Story3 | B201 | 881 | 1020; 1019 | 1200 |
| Story1 | B331 | 331 | 419; 420 | 1200 | | Story3 | B202 | 882 | 1021; 1020 | 1200 |
| Story1 | B332 | 332 | 420; 421 | 1200 | | Story3 | B203 | 883 | 1022; 1021 | 1200 |
| Story1 | B333 | 333 | 421; 422 | 1100 | | Story3 | B204 | 884 | 1023; 1022 | 1200 |
| Story1 | B334 | 334 | 424; 423 | 1100 | | Story3 | B213 | 1377 | 1416; 1024 | 1200 |
| Story1 | B335 | 335 | 425; 424 | 1200 | | Story3 | B214 | 885 | 1024; 1025 | 1200 |
| Story1 | B336 | 336 | 426; 425 | 1200 | | Story3 | B215 | 886 | 1025; 1026 | 1200 |
| Story1 | B337 | 337 | 427; 426 | 1200 | | Story3 | B216 | 887 | 1026; 1027 | 1200 |
| Story1 | B338 | 338 | 428; 427 | 1200 | | Story3 | B217 | 888 | 1027; 1028 | 1200 |
| Story1 | B413 | 413 | 103; 106 | 1200 | | Story3 | B218 | 889 | 1028; 1029 | 1200 |
| Story1 | B65 | 142 | 303; 304 | 1200 | | Story3 | B219 | 890 | 1029; 1030 | 1200 |
| Story1 | B183 | 179 | 179; 101 | 1200 | | Story3 | B220 | 891 | 1030; 1031 | 1200 |
| Story1 | B921 | 483 | 45; 510 | 1200 | | Story3 | B221 | 892 | 1031; 1032 | 1200 |
| Story1 | B922 | 513 | 46; 511 | 1200 | | Story3 | B222 | 893 | 1032; 1033 | 1200 |
| Story1 | B923 | 530 | 47; 513 | 1200 | | Story3 | B224 | 894 | 1034; 1035 | 1200 |
| Story1 | B547 | 416 | 644; 645 | 1200.3 | | Story3 | B225 | 895 | 1035; 1036 | 1200 |
| Story1 | B548 | 434 | 645; 671 | 1199.9 | | Story3 | B226 | 896 | 1036; 1037 | 1200 |
| Story1 | B549 | 535 | 671; 672 | 1199.9 | | Story3 | B227 | 897 | 1037; 1038 | 1200 |
| Story1 | B553 | 536 | 672; 707 | 1199.9 | | Story3 | B228 | 898 | 1038; 1039 | 1200 |
| Story1 | B557 | 537 | 707; 708 | 1100 | | Story3 | B229 | 899 | 1039; 1040 | 1200 |
| Story1 | B566 | 538 | 708; 712 | 1300 | | Story3 | B230 | 900 | 1040; 1041 | 1200 |
| Story1 | B570 | 539 | 712; 713 | 1200 | | Story3 | B231 | 901 | 1041; 1042 | 1200 |
| Story1 | B571 | 540 | 713; 714 | 1400 | | Story3 | B232 | 902 | 1042; 1043 | 1200 |
| Story1 | B572 | 541 | 714; 715 | 1100 | | Story3 | B233 | 903 | 1043; 1044 | 1200 |
| Story1 | B608 | 544 | 383; 737 | 1200 | | Story3 | B234 | 904 | 1044; 1045 | 1200 |
| Story1 | B609 | 545 | 737; 739 | 1200 | | Story3 | B235 | 905 | 1046; 1047 | 1200 |
| Story1 | B610 | 546 | 739; 741 | 1200 | | Story3 | B236 | 906 | 1047; 1048 | 1200 |
| Story1 | B611 | 547 | 741; 743 | 1200 | | Story3 | B237 | 907 | 1048; 1049 | 1200 |
| Story1 | B612 | 548 | 743; 745 | 1200 | | Story3 | B239 | 908 | 1049; 1050 | 1200 |
| Story1 | B614 | 549 | 745; 747 | 1200 | | Story3 | B240 | 909 | 1050; 1051 | 1200 |
| Story1 | B615 | 550 | 747; 748 | 1200 | | Story3 | B241 | 910 | 1051; 1052 | 1200 |

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|---|---|---|---|---|---|---|---|---|---|
| Story1 | B616 | 551 | 748; 749 | 1200 | | Story3 | B242 | 911 | 1052; 1053 | 1200 |
| Story1 | B617 | 552 | 749; 750 | 1200 | | Story3 | B243 | 912 | 1053; 1054 | 1200 |
| Story1 | B618 | 630 | 750; 751 | 1200 | | Story3 | B244 | 913 | 1054; 1055 | 1200 |
| Story1 | B619 | 633 | 751; 752 | 1200 | | Story3 | B245 | 914 | 1055; 1056 | 1325 |
| Story1 | B620 | 634 | 752; 759 | 1200 | | Story3 | B246 | 915 | 1056; 1057 | 1075 |
| Story1 | B621 | 648 | 759; 760 | 1200 | | Story3 | B247 | 916 | 1057; 1058 | 1200 |
| Story1 | B622 | 666 | 760; 761 | 1200 | | Story3 | B248 | 917 | 1058; 1059 | 1200 |
| Story1 | B623 | 668 | 761; 762 | 1200 | | Story3 | B249 | 918 | 1059; 1060 | 1200 |
| Story1 | B624 | 669 | 762; 763 | 1200 | | Story3 | B250 | 919 | 1060; 1061 | 1200 |
| Story1 | B625 | 670 | 763; 765 | 1200 | | Story3 | B251 | 920 | 1063; 1062 | 1200 |
| Story1 | B626 | 686 | 765; 766 | 1200 | | Story3 | B252 | 921 | 1064; 1063 | 1200 |
| Story1 | B627 | 694 | 766; 767 | 1200 | | Story3 | B253 | 922 | 1065; 1064 | 1200 |
| Story1 | B628 | 698 | 767; 768 | 1200 | | Story3 | B254 | 923 | 1066; 1065 | 1200 |
| Story1 | B630 | 701 | 768; 769 | 1200 | | Story3 | B255 | 924 | 1067; 1066 | 1075 |
| Story1 | B643 | 711 | 769; 770 | 1200 | | Story3 | B256 | 925 | 1068; 1067 | 1325 |
| Story1 | B663 | 716 | 770; 771 | 1325 | | Story3 | B257 | 926 | 1069; 1068 | 1200 |
| Story1 | B664 | 717 | 771; 772 | 1075 | | Story3 | B258 | 927 | 1070; 1069 | 1200 |
| Story1 | B665 | 718 | 772; 773 | 1200 | | Story3 | B259 | 928 | 1071; 1070 | 1200 |
| Story1 | B671 | 720 | 773; 774 | 1200 | | Story3 | B260 | 929 | 1072; 1071 | 1200 |
| Story1 | B6 | 3 | 362; 9 | 1200 | | Story3 | B261 | 930 | 1073; 1072 | 1200 |
| Story1 | B1 | 456 | 194; 192 | 1443 | | Story3 | B262 | 931 | 1074; 1073 | 1200 |
| Story1 | B57 | 457 | 192; 190 | 1443 | | Story3 | B263 | 932 | 1075; 1074 | 1200 |
| Story1 | B66 | 458 | 190; 188 | 1443 | | Story3 | B264 | 933 | 1076; 1075 | 1200 |
| Story1 | B109 | 459 | 188; 186 | 1443 | | Story3 | B265 | 934 | 1077; 1076 | 1200 |
| Story1 | B119 | 460 | 186; 45 | 1443 | | Story3 | B268 | 371 | 1080; 89 | 1200.2 |
| Story2 | B64 | 1547 | 1676; 1677 | 1200 | | Story3 | B269 | 938 | 1081; 1080 | 1200 |
| Story2 | B108 | 1548 | 1679; 1680 | 1200 | | Story3 | B270 | 939 | 1082; 1081 | 1200 |
| Story2 | B118 | 1549 | 1681; 1682 | 1300 | | Story3 | B271 | 940 | 1083; 1082 | 1200 |
| Story2 | B122 | 1550 | 1684; 1683 | 1200 | | Story3 | B272 | 941 | 1084; 1083 | 1200 |
| Story2 | B124 | 1551 | 1678; 1685 | 1200 | | Story3 | B273 | 942 | 1085; 1084 | 1200 |
| Story2 | B125 | 1552 | 1687; 1686 | 1400 | | Story3 | B274 | 943 | 1086; 1085 | 1200 |
| Story2 | B126 | 1553 | 1688; 1687 | 1299.6 | | Story3 | B275 | 944 | 1087; 1086 | 1200 |
| Story2 | B127 | 1554 | 1689; 1688 | 1200.2 | | Story3 | B276 | 945 | 1088; 1087 | 1200 |
| Story2 | B129 | 1555 | 1690; 1691 | 1100 | | Story3 | B278 | 946 | 1090; 1089 | 1200 |
| Story2 | B130 | 1556 | 1693; 1692 | 1200 | | Story3 | B279 | 947 | 1091; 1090 | 1200 |
| Story2 | B131 | 1557 | 1694; 1693 | 1200 | | Story3 | B280 | 948 | 1092; 1091 | 1200 |
| Story2 | B132 | 1558 | 1695; 1694 | 1200 | | Story3 | B281 | 949 | 1093; 1092 | 1200 |
| Story2 | B133 | 1559 | 1696; 1695 | 1200 | | Story3 | B283 | 950 | 971; 1094 | 1100.2 |
| Story2 | B134 | 1560 | 1697; 1696 | 1075 | | Story3 | B287 | 951 | 1095; 1096 | 1200 |
| Story2 | B135 | 1561 | 1698; 1697 | 1325 | | Story3 | B290 | 953 | 1100; 1099 | 1200 |
| Story2 | B139 | 1562 | 1699; 1698 | 1200 | | Story3 | B291 | 954 | 1101; 1100 | 1200 |
| Story2 | B140 | 1563 | 1700; 1699 | 1200 | | Story3 | B292 | 955 | 1102; 1101 | 1200 |
| Story2 | B141 | 1564 | 1701; 1700 | 1200 | | Story3 | B293 | 956 | 976; 1102 | 1100 |
| Story2 | B142 | 1565 | 1702; 1701 | 1200 | | Story3 | B295 | 957 | 1103; 1104 | 1100 |
| Story2 | B143 | 1566 | 1703; 1702 | 1200 | | Story3 | B296 | 958 | 1104; 1105 | 1100 |
| Story2 | B153 | 1567 | 1704; 1703 | 1200 | | Story3 | B297 | 959 | 1105; 1106 | 1200 |
| Story2 | B165 | 1568 | 1705; 1704 | 1200 | | Story3 | B298 | 960 | 1106; 1107 | 1200 |
| Story2 | B166 | 1569 | 1706; 1705 | 1200 | | Story3 | B299 | 961 | 1107; 1108 | 1200 |

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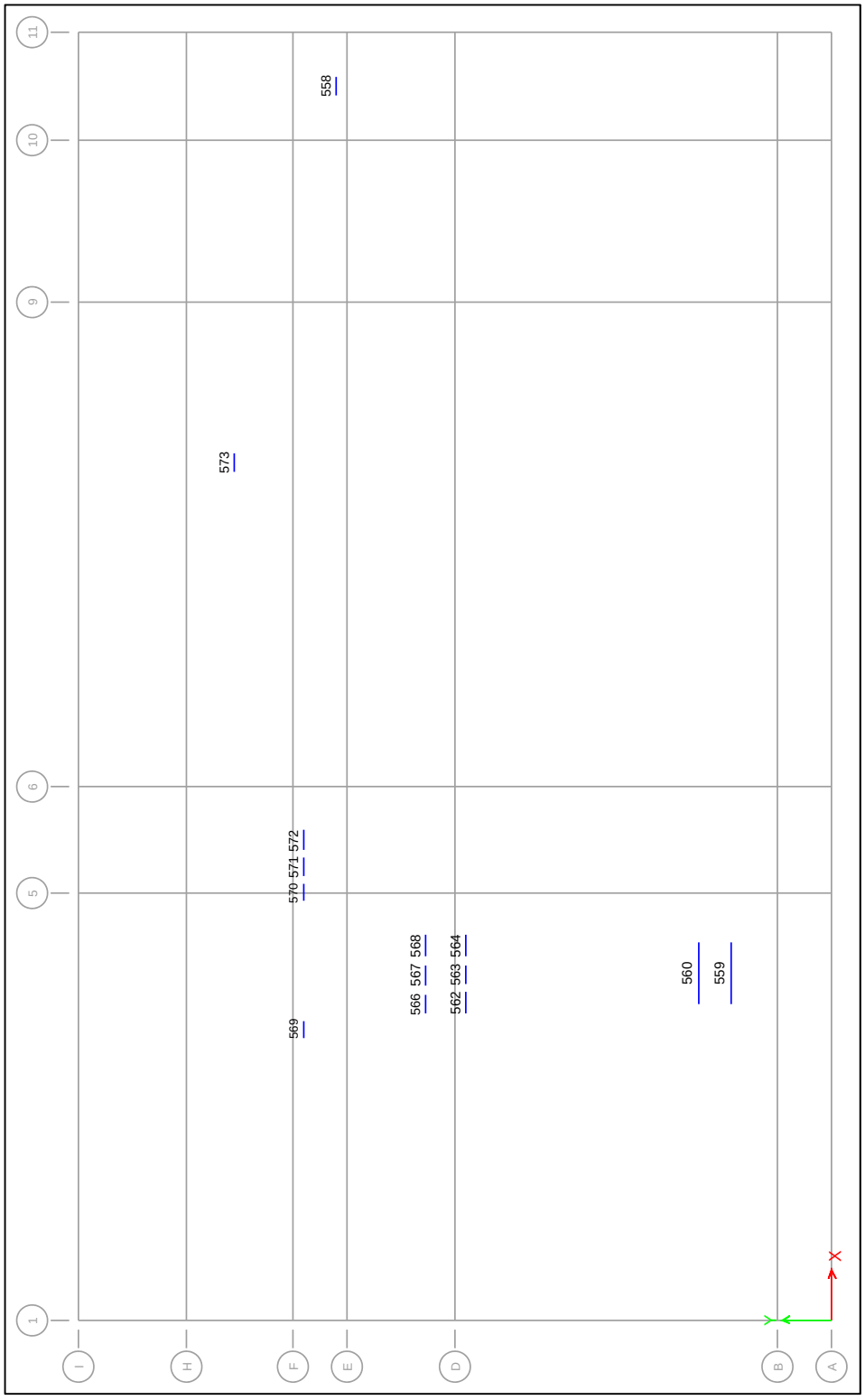
|---|---|---|---|---|---|---|---|---|---|---|
| Story2 | B167 | 1570 | 1707; 1706 | 1200 | | Story3 | B301 | 962 | 1110; 1109 | 1200 |
| Story2 | B168 | 1571 | 1708; 1707 | 1200 | | Story3 | B302 | 963 | 1111; 1110 | 1200 |
| Story2 | B173 | 1572 | 1709; 1708 | 1200 | | Story3 | B303 | 964 | 1112; 1111 | 1200 |
| Story2 | B174 | 1573 | 1710; 1709 | 1200 | | Story3 | B304 | 965 | 1113; 1112 | 1100 |
| Story2 | B175 | 1574 | 1711; 1710 | 1200 | | Story3 | B305 | 966 | 1114; 1113 | 1100 |
| Story2 | B177 | 1575 | 1712; 1711 | 1200 | | Story3 | B306 | 967 | 1115; 1116 | 1200 |
| Story2 | B178 | 1576 | 1713; 1712 | 1200 | | Story3 | B307 | 968 | 1116; 1117 | 1200 |
| Story2 | B179 | 1577 | 1714; 1713 | 1200 | | Story3 | B308 | 969 | 1117; 1118 | 1200 |
| Story2 | B180 | 1578 | 1715; 1714 | 1200 | | Story3 | B309 | 970 | 1118; 1119 | 1200 |
| Story2 | B181 | 1579 | 1716; 1715 | 1200 | | Story3 | B310 | 971 | 1119; 1120 | 1100 |
| Story2 | B182 | 1580 | 1717; 1716 | 1200 | | Story3 | B312 | 972 | 1121; 1122 | 1100 |
| Story2 | B184 | 1581 | 1718; 1717 | 1200 | | Story3 | B313 | 973 | 1122; 1123 | 1100 |
| Story2 | B185 | 1582 | 1719; 1718 | 1200 | | Story3 | B314 | 974 | 1123; 1124 | 1200 |
| Story2 | B186 | 1583 | 1720; 1719 | 1200 | | Story3 | B315 | 975 | 1124; 1125 | 1200 |
| Story2 | B187 | 1584 | 1721; 1720 | 1200 | | Story3 | B316 | 976 | 1125; 1126 | 1200 |
| Story2 | B188 | 1585 | 1722; 1721 | 1200 | | Story3 | B317 | 977 | 1128; 1127 | 1200 |
| Story2 | B189 | 1586 | 1723; 1722 | 1200 | | Story3 | B318 | 978 | 1129; 1128 | 1200 |
| Story2 | B190 | 1587 | 1724; 1723 | 1200 | | Story3 | B319 | 979 | 1130; 1129 | 1200 |
| Story2 | B191 | 1588 | 1725; 1724 | 1200 | | Story3 | B320 | 980 | 1131; 1130 | 1100 |
| Story2 | B192 | 1589 | 1726; 1725 | 1200 | | Story3 | B321 | 981 | 1132; 1131 | 1100 |
| Story2 | B193 | 1590 | 1727; 1726 | 1200 | | Story3 | B323 | 982 | 1134; 1133 | 1100 |
| Story2 | B194 | 1591 | 1728; 1727 | 1200 | | Story3 | B324 | 983 | 1135; 1134 | 1200 |
| Story2 | B195 | 1592 | 1729; 1728 | 1200 | | Story3 | B325 | 984 | 1136; 1135 | 1200 |
| Story2 | B196 | 1593 | 1730; 1729 | 1200 | | Story3 | B326 | 985 | 1137; 1136 | 1200 |
| Story2 | B197 | 1594 | 1731; 1730 | 1200 | | Story3 | B327 | 986 | 1433; 1137 | 1200 |
| Story2 | B198 | 1595 | 1732; 1731 | 1200 | | Story3 | B329 | 987 | 1138; 1139 | 1200 |
| Story2 | B199 | 1596 | 1733; 1732 | 1200 | | Story3 | B330 | 988 | 1139; 1140 | 1200 |
| Story2 | B200 | 1597 | 1734; 1733 | 1200 | | Story3 | B331 | 989 | 1140; 1141 | 1200 |
| Story2 | B201 | 1598 | 1735; 1734 | 1200 | | Story3 | B332 | 990 | 1141; 1142 | 1200 |
| Story2 | B202 | 1599 | 1736; 1735 | 1200 | | Story3 | B333 | 991 | 1142; 1143 | 1100 |
| Story2 | B203 | 1600 | 1737; 1736 | 1200 | | Story3 | B334 | 992 | 1145; 1144 | 1100 |
| Story2 | B204 | 1601 | 1738; 1737 | 1200 | | Story3 | B335 | 993 | 1146; 1145 | 1200 |
| Story2 | B213 | 2094 | 2131; 1739 | 1200 | | Story3 | B336 | 994 | 1147; 1146 | 1200 |
| Story2 | B214 | 1602 | 1739; 1740 | 1200 | | Story3 | B337 | 995 | 1148; 1147 | 1200 |
| Story2 | B215 | 1603 | 1740; 1741 | 1200 | | Story3 | B338 | 996 | 1149; 1148 | 1200 |
| Story2 | B216 | 1604 | 1741; 1742 | 1200 | | Story3 | B413 | 1024 | 1150; 1151 | 1200 |
| Story2 | B217 | 1605 | 1742; 1743 | 1200 | | Story3 | B65 | 1139 | 1033; 1034 | 1200 |
| Story2 | B218 | 1606 | 1743; 1744 | 1200 | | Story3 | B183 | 1140 | 1173; 1172 | 1200 |
| Story2 | B219 | 1607 | 1744; 1745 | 1200 | | Story3 | B921 | 1374 | 808; 1413 | 1200 |
| Story2 | B220 | 1608 | 1745; 1746 | 1200 | | Story3 | B922 | 1375 | 809; 1414 | 1200 |
| Story2 | B221 | 1609 | 1746; 1747 | 1200 | | Story3 | B923 | 1376 | 810; 1415 | 1200 |
| Story2 | B222 | 1610 | 1747; 1748 | 1200 | | Story3 | B547 | 1395 | 1421; 1422 | 1200.3 |
| Story2 | B224 | 1611 | 1749; 1750 | 1200 | | Story3 | B548 | 1396 | 1422; 1423 | 1199.9 |
| Story2 | B225 | 1612 | 1750; 1751 | 1200 | | Story3 | B549 | 1397 | 1423; 1424 | 1199.9 |
| Story2 | B226 | 1613 | 1751; 1752 | 1200 | | Story3 | B553 | 1398 | 1424; 1425 | 1199.9 |
| Story2 | B227 | 1614 | 1752; 1753 | 1200 | | Story3 | B557 | 1399 | 1425; 1426 | 1100 |
| Story2 | B228 | 1615 | 1753; 1754 | 1200 | | Story3 | B566 | 1400 | 1426; 1427 | 1300 |
| Story2 | B229 | 1616 | 1754; 1755 | 1200 | | Story3 | B570 | 1401 | 1427; 1428 | 1200 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Story2 | B230 | 1617 | 1755; 1756 | 1200 | Story3 | B571 | 1402 | 1428; 1429 | 1400 |
| Story2 | B231 | 1618 | 1756; 1757 | 1200 | Story3 | B572 | 1403 | 1429; 1430 | 1100 |
| Story2 | B232 | 1619 | 1757; 1758 | 1200 | Story3 | B608 | 1406 | 1109; 1435 | 1200 |
| Story2 | B233 | 1620 | 1758; 1759 | 1200 | Story3 | B609 | 1407 | 1435; 1436 | 1200 |
| Story2 | B234 | 1621 | 1759; 1760 | 1200 | Story3 | B610 | 1408 | 1436; 1437 | 1200 |
| Story2 | B235 | 1622 | 1761; 1762 | 1200 | Story3 | B611 | 1409 | 1437; 1438 | 1200 |
| Story2 | B236 | 1623 | 1762; 1763 | 1200 | Story3 | B612 | 1410 | 1438; 1439 | 1200 |
| Story2 | B237 | 1624 | 1763; 1764 | 1200 | Story3 | B614 | 1411 | 1439; 1440 | 1200 |
| Story2 | B239 | 1625 | 1764; 1765 | 1200 | Story3 | B615 | 1412 | 1440; 1441 | 1200 |
| Story2 | B240 | 1626 | 1765; 1766 | 1200 | Story3 | B616 | 1413 | 1441; 1442 | 1200 |
| Story2 | B241 | 1627 | 1766; 1767 | 1200 | Story3 | B617 | 1414 | 1442; 1443 | 1200 |
| Story2 | B242 | 1628 | 1767; 1768 | 1200 | Story3 | B618 | 1415 | 1443; 1444 | 1200 |
| Story2 | B243 | 1629 | 1768; 1769 | 1200 | Story3 | B619 | 1416 | 1444; 1445 | 1200 |
| Story2 | B244 | 1630 | 1769; 1770 | 1200 | Story3 | B620 | 1417 | 1445; 1446 | 1200 |
| Story2 | B245 | 1631 | 1770; 1771 | 1325 | Story3 | B621 | 1418 | 1446; 1447 | 1200 |
| Story2 | B246 | 1632 | 1771; 1772 | 1075 | Story3 | B622 | 1419 | 1447; 1448 | 1200 |
| Story2 | B247 | 1633 | 1772; 1773 | 1200 | Story3 | B623 | 1420 | 1448; 1449 | 1200 |
| Story2 | B248 | 1634 | 1773; 1774 | 1200 | Story3 | B624 | 1421 | 1449; 1450 | 1200 |
| Story2 | B249 | 1635 | 1774; 1775 | 1200 | Story3 | B625 | 1422 | 1450; 1451 | 1200 |
| Story2 | B250 | 1636 | 1775; 1776 | 1200 | Story3 | B626 | 1423 | 1451; 1452 | 1200 |
| Story2 | B251 | 1637 | 1778; 1777 | 1200 | Story3 | B627 | 1424 | 1452; 1453 | 1200 |
| Story2 | B252 | 1638 | 1779; 1778 | 1200 | Story3 | B628 | 1425 | 1453; 1454 | 1200 |
| Story2 | B253 | 1639 | 1780; 1779 | 1200 | Story3 | B630 | 1426 | 1454; 1455 | 1200 |
| Story2 | B254 | 1640 | 1781; 1780 | 1200 | Story3 | B643 | 1427 | 1455; 1456 | 1200 |
| Story2 | B255 | 1641 | 1782; 1781 | 1075 | Story3 | B663 | 1428 | 1456; 1457 | 1325 |
| Story2 | B256 | 1642 | 1783; 1782 | 1325 | Story3 | B664 | 1429 | 1457; 1458 | 1075 |
| Story2 | B257 | 1643 | 1784; 1783 | 1200 | Story3 | B665 | 1430 | 1458; 1459 | 1200 |
| Story2 | B258 | 1644 | 1785; 1784 | 1200 | Story3 | B671 | 1431 | 1459; 1460 | 1200 |
| Story2 | B259 | 1645 | 1786; 1785 | 1200 | Story3 | B6 | 1432 | 1089; 1487 | 1200 |
| Story2 | B260 | 1646 | 1787; 1786 | 1200 | Story3 | B63 | 373 | 89; 221 | 1199.8 |
| Story2 | B261 | 1647 | 1788; 1787 | 1200 | Story3 | B89 | 374 | 221; 1077 | 1200 |
| Story2 | B262 | 1648 | 1789; 1788 | 1200 | Story3 | B1 | 1369 | 930; 928 | 1443 |
| Story2 | B263 | 1649 | 1790; 1789 | 1200 | Story3 | B57 | 1370 | 928; 926 | 1443 |
| Story2 | B264 | 1650 | 1791; 1790 | 1200 | Story3 | B66 | 1371 | 926; 924 | 1443 |
| Story2 | B265 | 1651 | 1792; 1791 | 1200 | Story3 | B109 | 1372 | 924; 922 | 1443 |
| Story2 | B266 | 1652 | 1793; 1792 | 1200 | Story3 | B119 | 1373 | 922; 808 | 1443 |

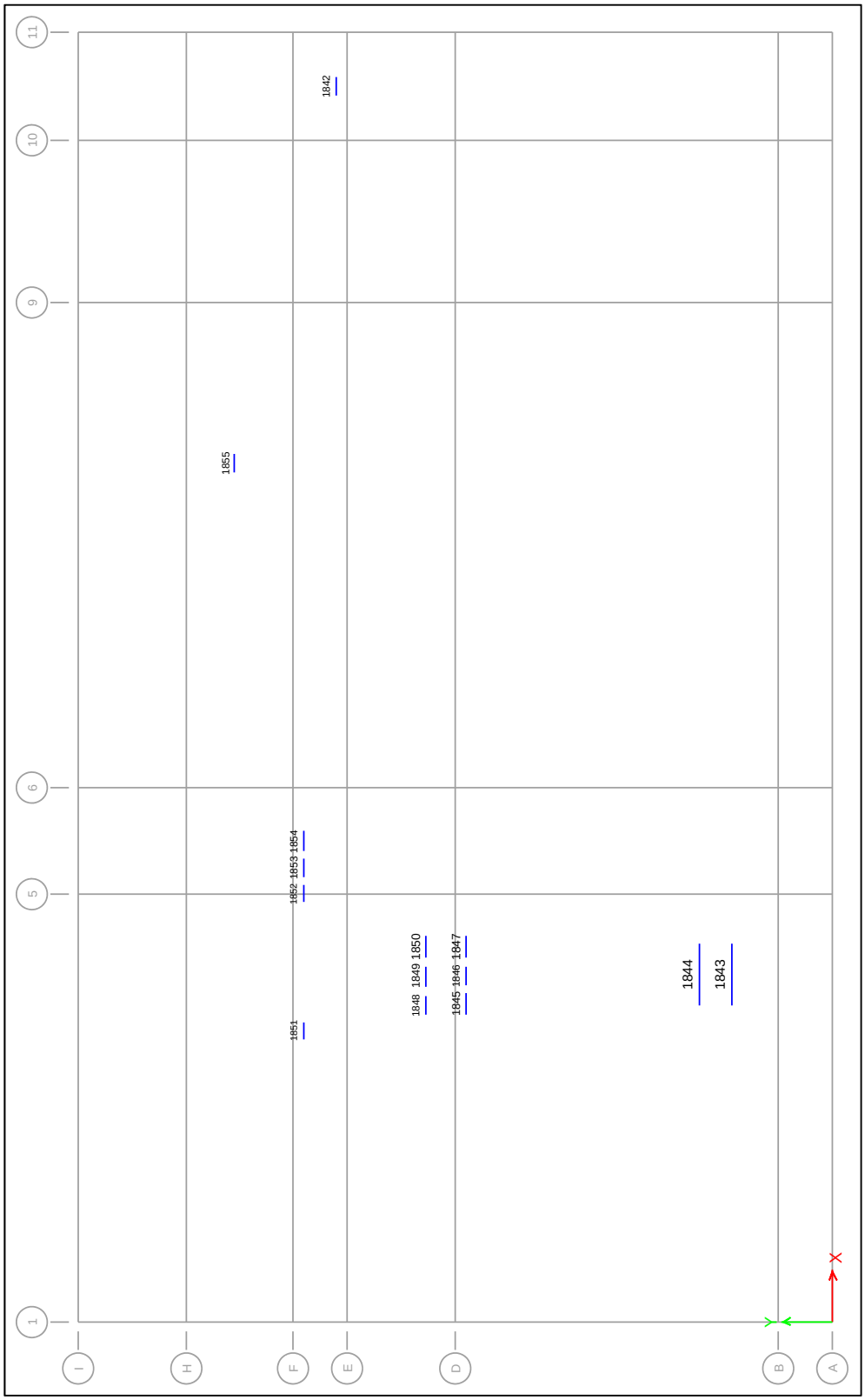
TABELL A 4 STRINGERELEMENTER

## 2.5 Strekkstål ved diskontinuitet i armering

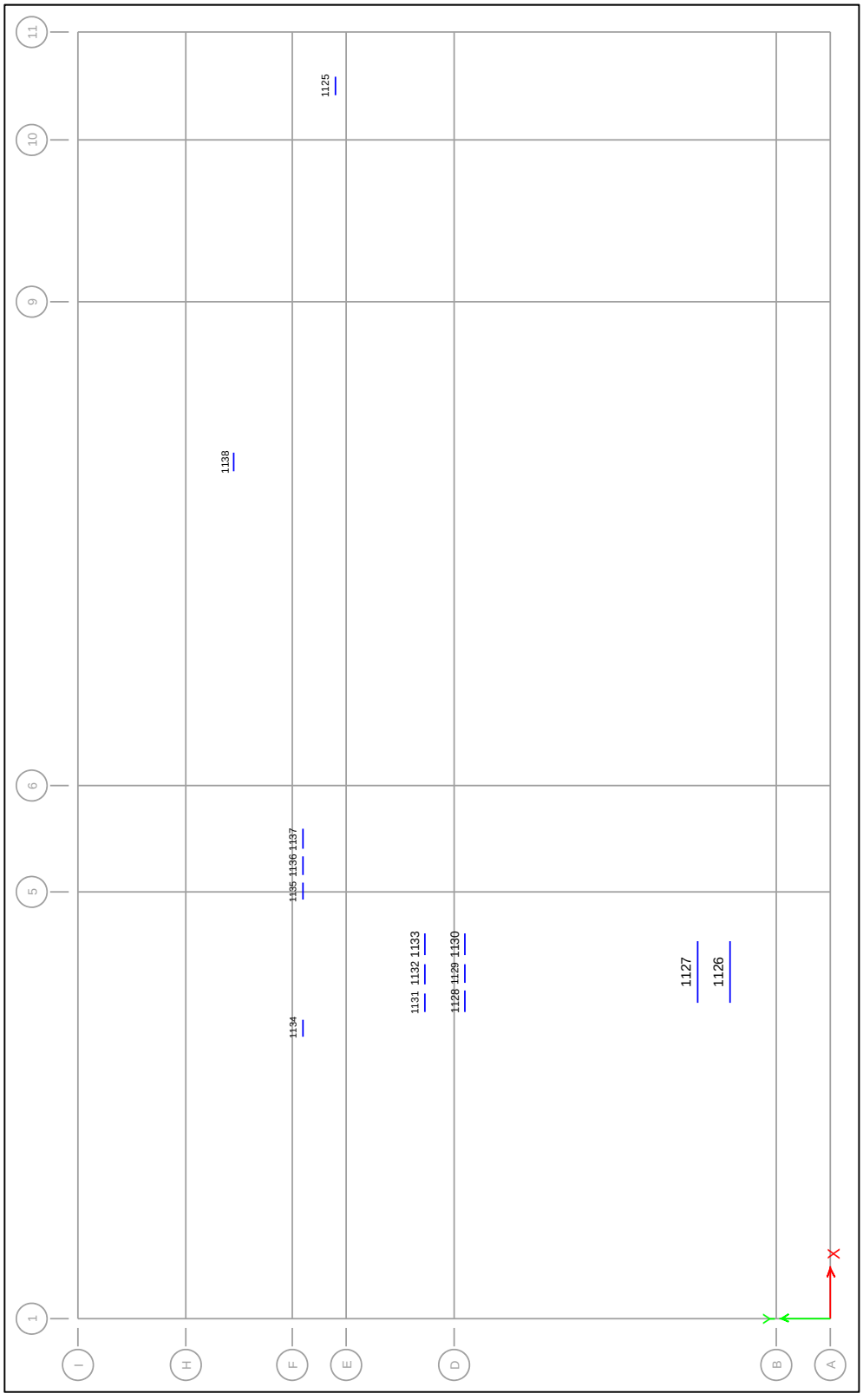
Strekkforbindelsene som opptar kreftene der hvor armeringen ikke kan føres, tilordnes egne elementer i ETABS-modellen.
Stålkvalitet S355J0 og tverrsnitt 8x100mm som et utgangspunkt.




FIGUR A 11 STREKKSTÅL: DEKKE OVER 1.ETG




FIGUR A 12 STREKKSTÅL: DEKKE OVER 2.ETG



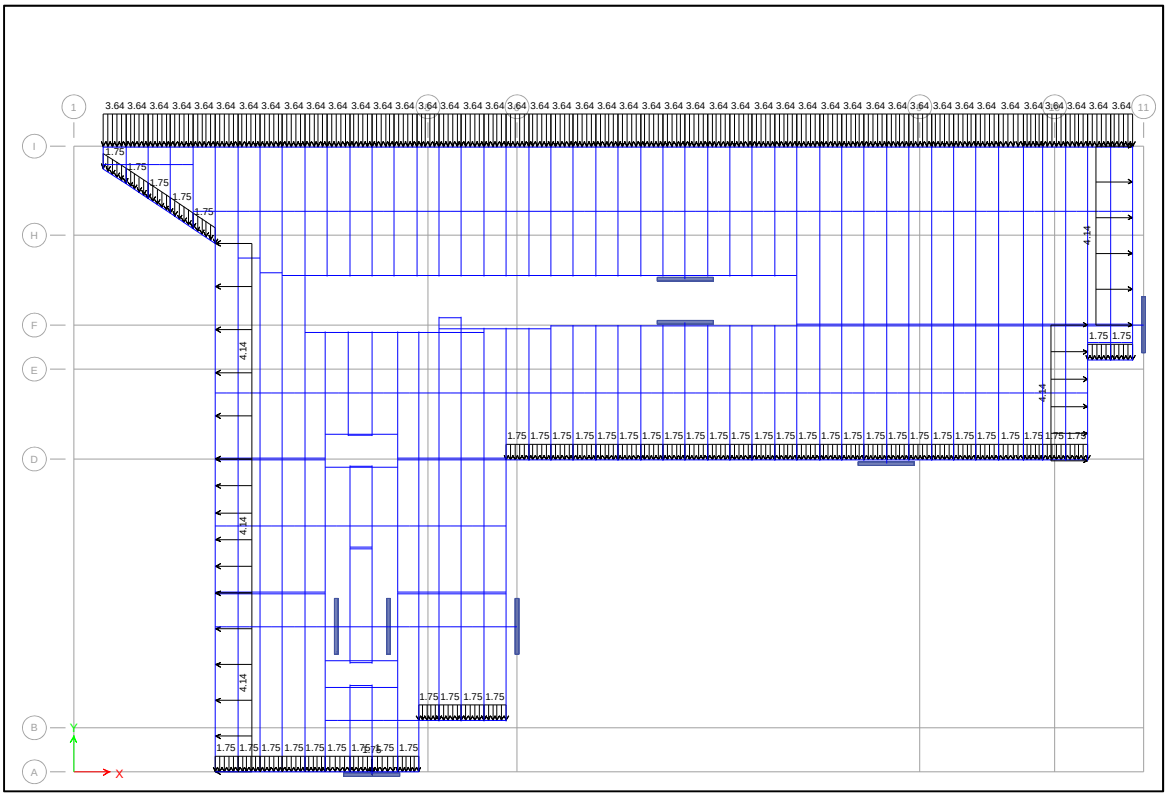

FIGUR A 13 STREKKSTÅL: DEKKE OVER 3.ETG

| TABLE: Beam Connectivity | | | | | | TABLE: Beam Connectivity | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Story | Label | Unique Name | Points | Length mm | | Story | Label | Unique Name | Points | Length mm |
| Story1 | B555 | 559 | 480; 481 | 3900 | | Story2 | B564 | 1850 | 1879; 1880 | 1400 |
| Story1 | B556 | 560 | 483; 482 | 3900 | | Story2 | B567 | 1853 | 1882; 1883 | 1200 |
| Story1 | B558 | 562 | 485; 486 | 1300 | | Story2 | B568 | 1854 | 1883; 1884 | 1200 |
| Story1 | B559 | 563 | 486; 487 | 1200 | | Story2 | B144 | 1852 | 1809; 1882 | 1100 |
| Story1 | B560 | 564 | 487; 488 | 1400 | | Story2 | B123 | 1842 | 182; 1865 | 1200 |
| Story1 | B562 | 566 | 490; 491 | 1200 | | Story2 | B128 | 1855 | 1760; 283 | 1200 |
| Story1 | B563 | 567 | 491; 492 | 1300 | | Story2 | B136 | 1851 | 382; 1689 | 1100 |
| Story1 | B564 | 568 | 492; 493 | 1400 | | Story3 | B555 | 1126 | 1154; 1155 | 3900 |
| Story1 | B567 | 571 | 495; 496 | 1200 | | Story3 | B556 | 1127 | 1157; 1156 | 3900 |
| Story1 | B568 | 572 | 496; 497 | 1200 | | Story3 | B558 | 1128 | 1158; 1159 | 1300 |
| Story1 | B144 | 570 | 369; 495 | 1100 | | Story3 | B559 | 1129 | 1159; 1160 | 1200 |
| Story1 | B123 | 558 | 5; 103 | 1200 | | Story3 | B560 | 1130 | 1160; 1161 | 1400 |
| Story1 | B128 | 573 | 315; 228 | 1200 | | Story3 | B562 | 1131 | 1162; 1163 | 1200 |
| Story1 | B136 | 569 | 284; 206 | 1100 | | Story3 | B563 | 1132 | 1163; 1164 | 1300 |
| Story2 | B555 | 1843 | 1869; 1870 | 3900 | | Story3 | B564 | 1133 | 1164; 1165 | 1400 |
| Story2 | B556 | 1844 | 1872; 1871 | 3900 | | Story3 | B567 | 1136 | 1167; 1168 | 1200 |
| Story2 | B558 | 1845 | 1873; 1874 | 1300 | | Story3 | B568 | 1137 | 1168; 1169 | 1200 |
| Story2 | B559 | 1846 | 1874; 1875 | 1200 | | Story3 | B144 | 1135 | 1094; 1167 | 1100 |
| Story2 | B560 | 1847 | 1875; 1876 | 1400 | | Story3 | B123 | 1125 | 141; 1150 | 1200 |
| Story2 | B562 | 1848 | 1877; 1878 | 1200 | | Story3 | B128 | 1138 | 1045; 248 | 1200 |
| Story2 | B563 | 1849 | 1878; 1879 | 1300 | | Story3 | B136 | 1134 | 368; 974 | 1100 |

TABELL A 5 STREKKSTÅLSTAVER

# 3 Horisontale laster

Det kjøres én lastkombinasjon: Vindlast i negativ Y-retning. Lastsituasjonen er den samme i alle etasjer:



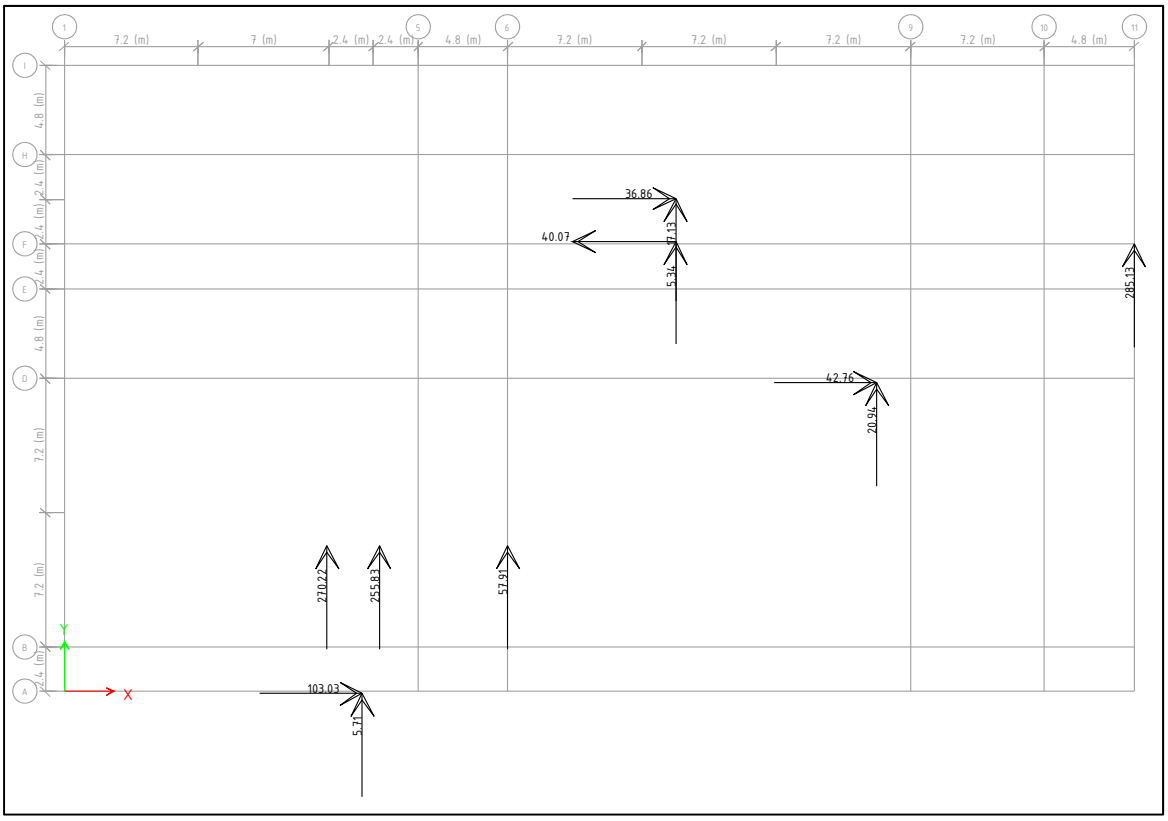
FIGUR A 14 HORISONTALE LASTER: DEKKE OVER 1.-3.ETG

# 4 Analyseresultater

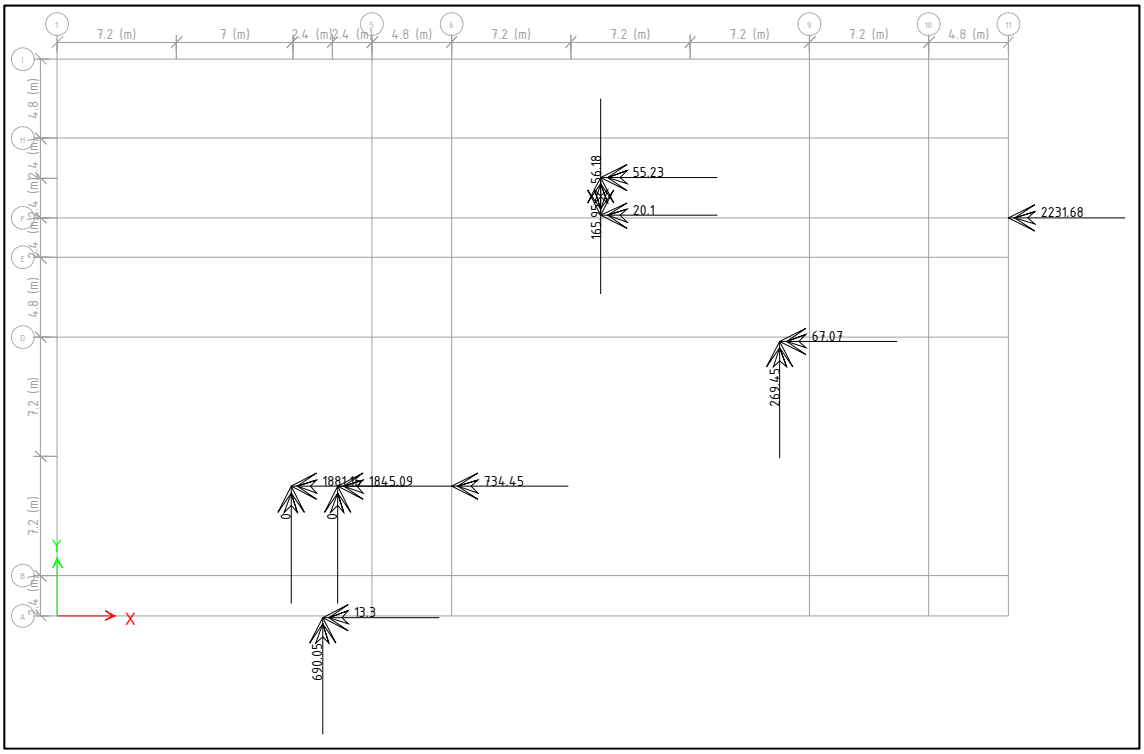
Analyseresultatene presenteres grafisk som vist på skjermen i ETABS. I tillegg vises tabelloversikter over krefter og kraftvirkninger.

Etter som at alle elementene er modellert som staver skal det la seg gjøre å lese kreftene som virker på hver stav direkte ut fra skjermbildet/tabellen.

## 4.1 Opplagerreaksjoner i skjærveggene




FIGUR A 15 KREFTER PÅ SKJÆRVEGGER MOT FUNDAMENT

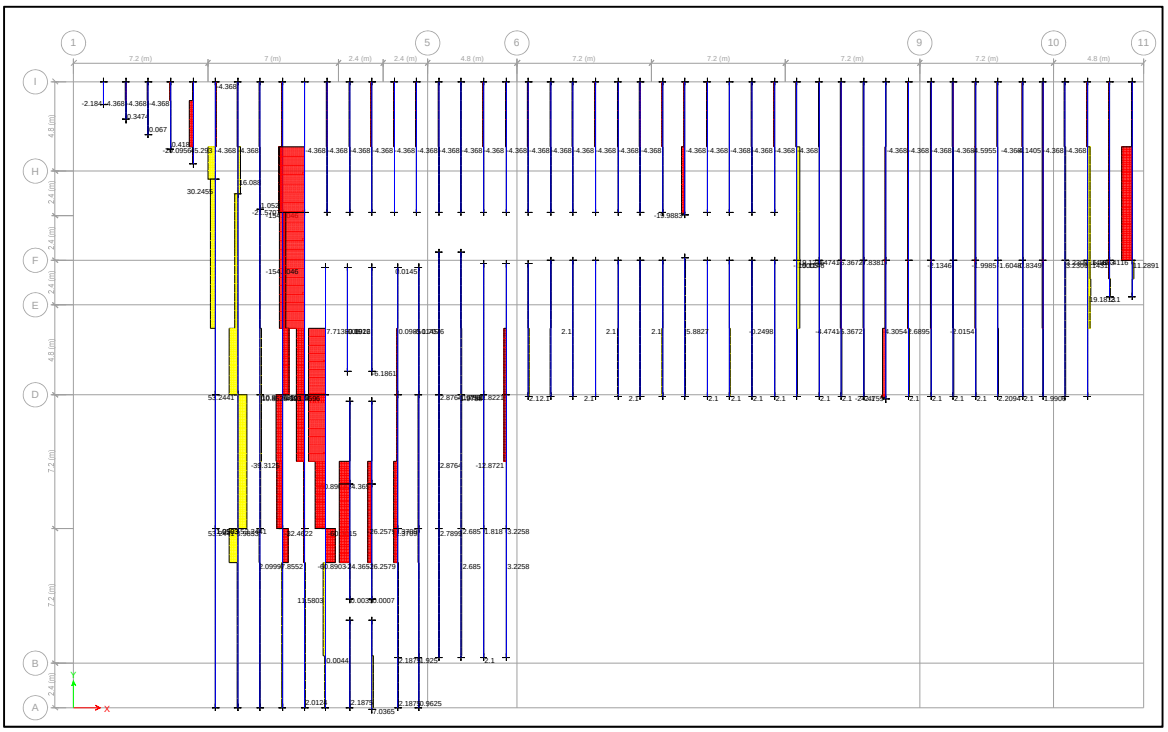



FIGUR A 16 MOMENTER PÅ SKJÆRVEGGER MOT FUNDAMENT

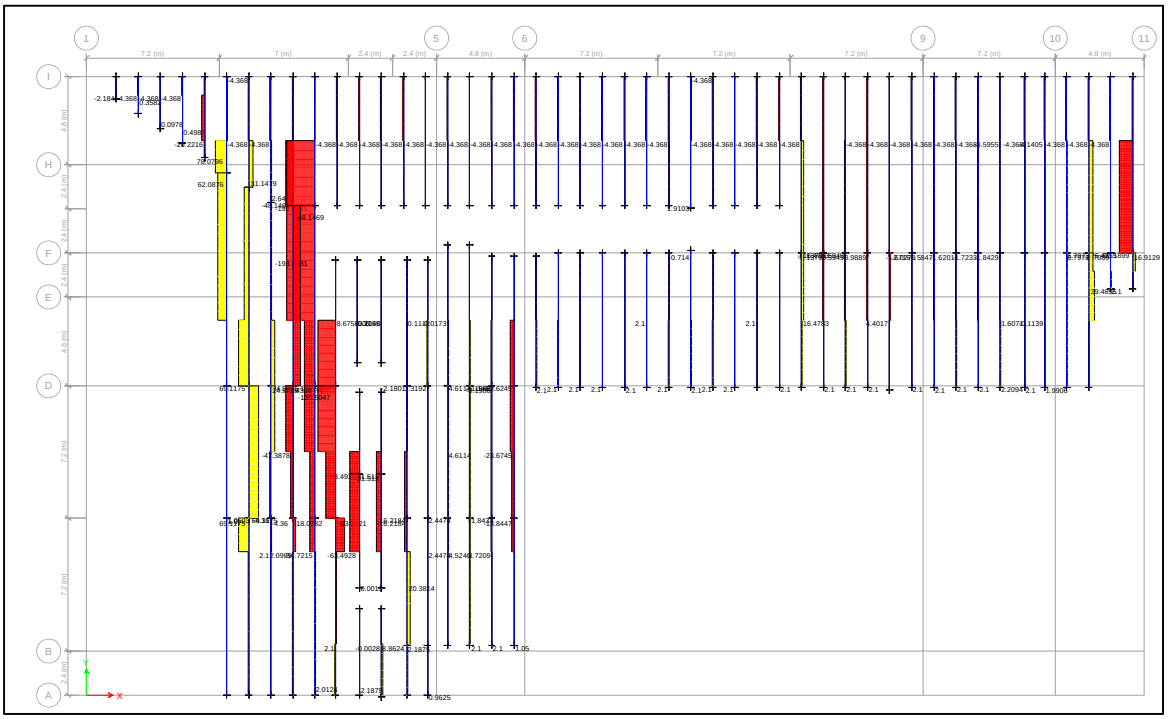
| TABLE: Joint Reactions | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Story | Joint Label | Load Case/ | FX | FY | FZ | MX | MY | MZ |
| | | | kN | kN | kN | kN-m | kN-m | kN-m |
| Base | 499 | Vind-y | 0 | 57.908 | 0 | -734.4487 | 0 | -34.7448 |
| Base | 182 | Vind-y | 0 | 270.2191 | 0 | -1881.1641 | 0 | -3.2722 |
| Base | 7 | Vind-y | 0 | 255.828 | 0 | -1845.0906 | 0 | -5.7996 |
| Base | 10 | Vind-y | 36.8584 | 17.1329 | 0 | -55.2305 | 165.9528 | -3.6858 |
| Base | 12 | Vind-y | -40.0736 | 5.3436 | 0 | -20.0998 | -56.181 | -4.0074 |
| Base | 13 | Vind-y | 103.0273 | 5.7085 | 0 | -13.3045 | 690.0503 | -10.3027 |
| Base | 15 | Vind-y | 42.7581 | 20.9407 | 0 | -67.073 | 269.4542 | -4.2758 |
| Base | 11 | Vind-y | 0 | 285.1315 | 0 | -2231.682 | 0 | - |

TABELL A 6 SKJÆRVEGGERS KRAFTOVERFØRINGER MOT FUNDAMENT

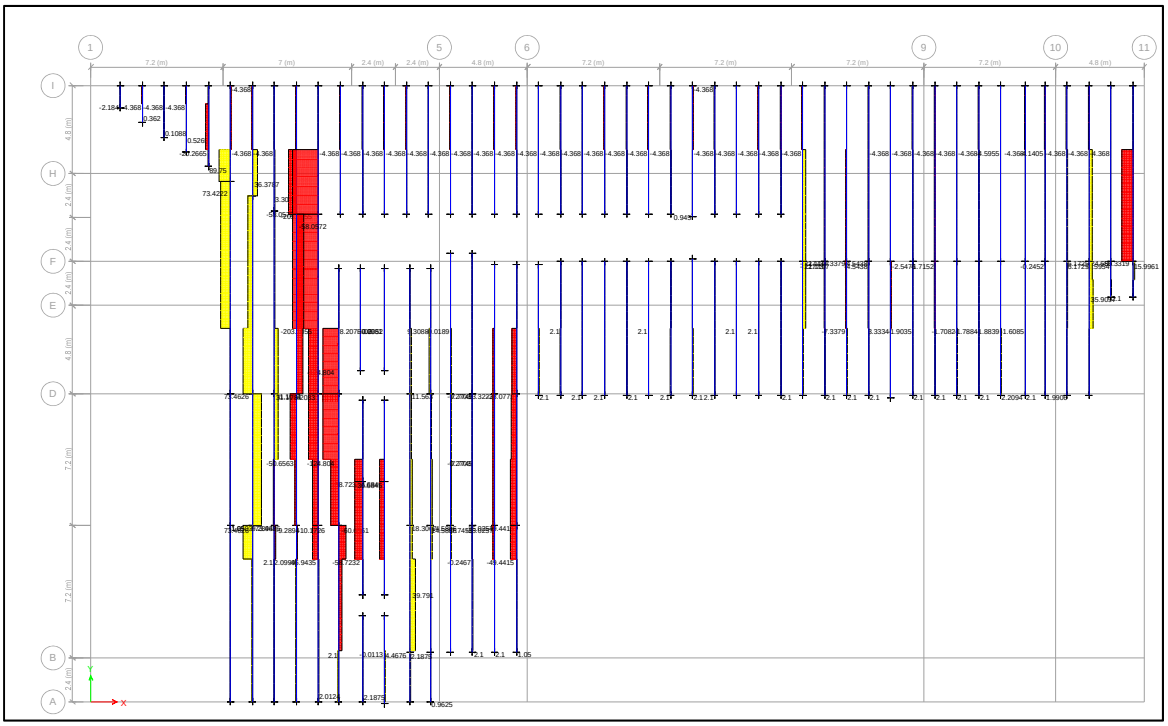
## 4.2 AKSIALKREFTER I HD-STAVER



FIGUR A 17 AKSIALKREFTER I HD-STAVER: DEKKE OVER 1.ETG

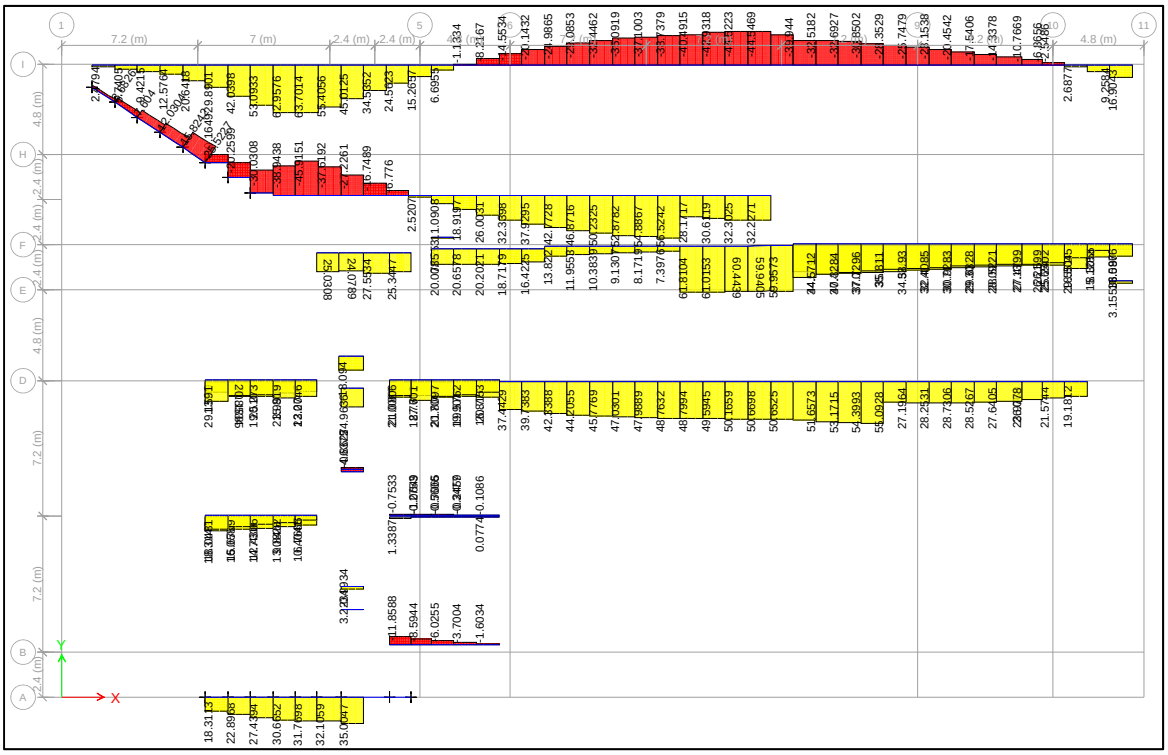


FIGUR A 18 AKSIALKREFTER I HD-STAVER: DEKKE OVER 2.ETG

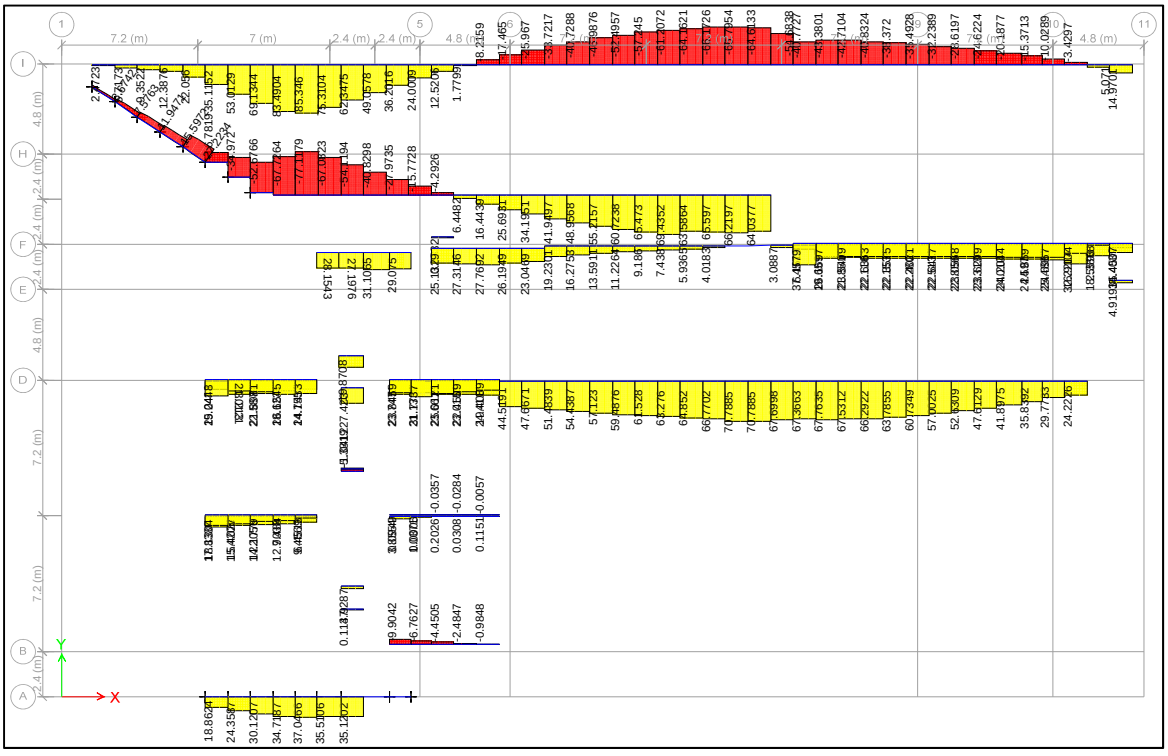


FIGUR A 19 AKSIALKREFTER I HD-STAVER: DEKKE OVER 3.ETG

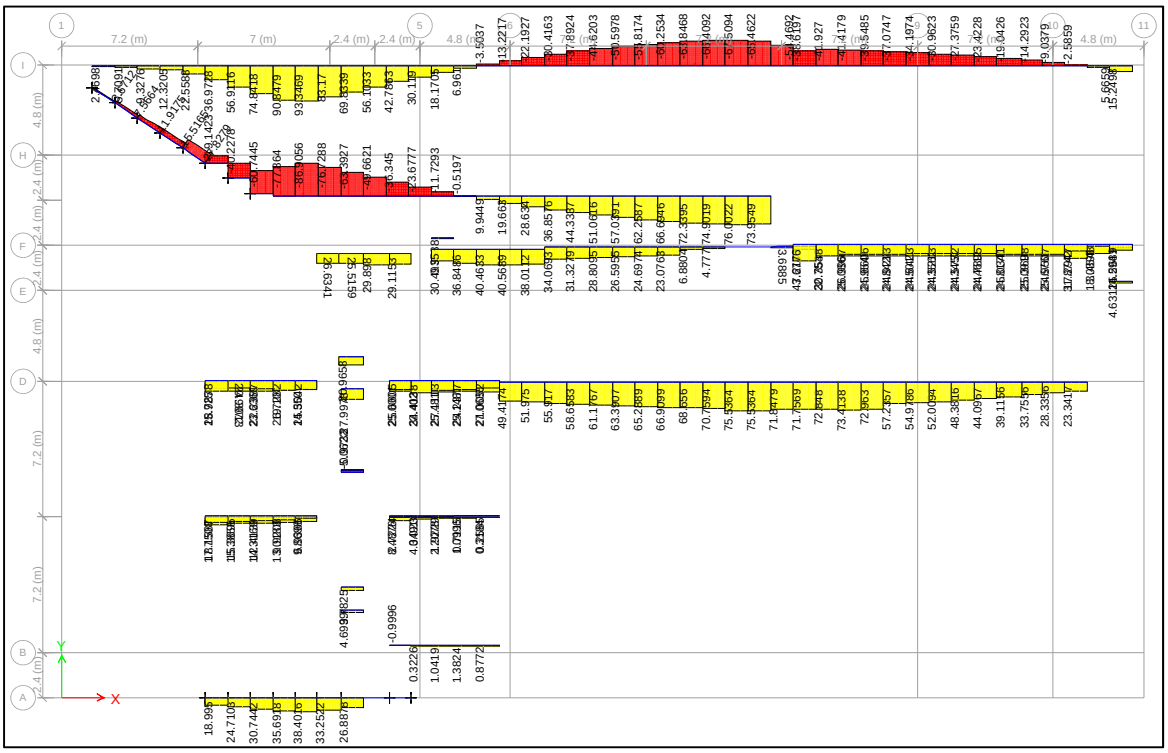
## 4.3 Aksialkraft i stringere



FIGUR A 20 AKSIALKREFTER I STRINGERE: DEKKE OVER 1.ETG

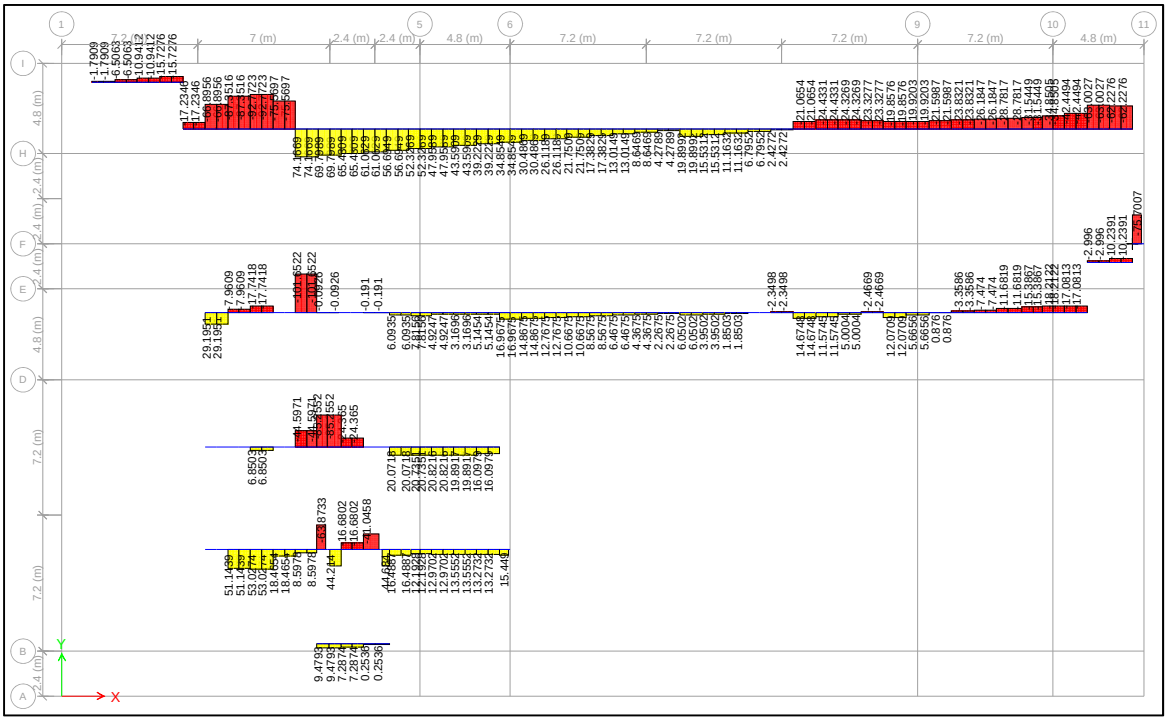


FIGUR A 21 AKSIALKREFTER I STRINGERE: DEKKE OVER 2.ETG

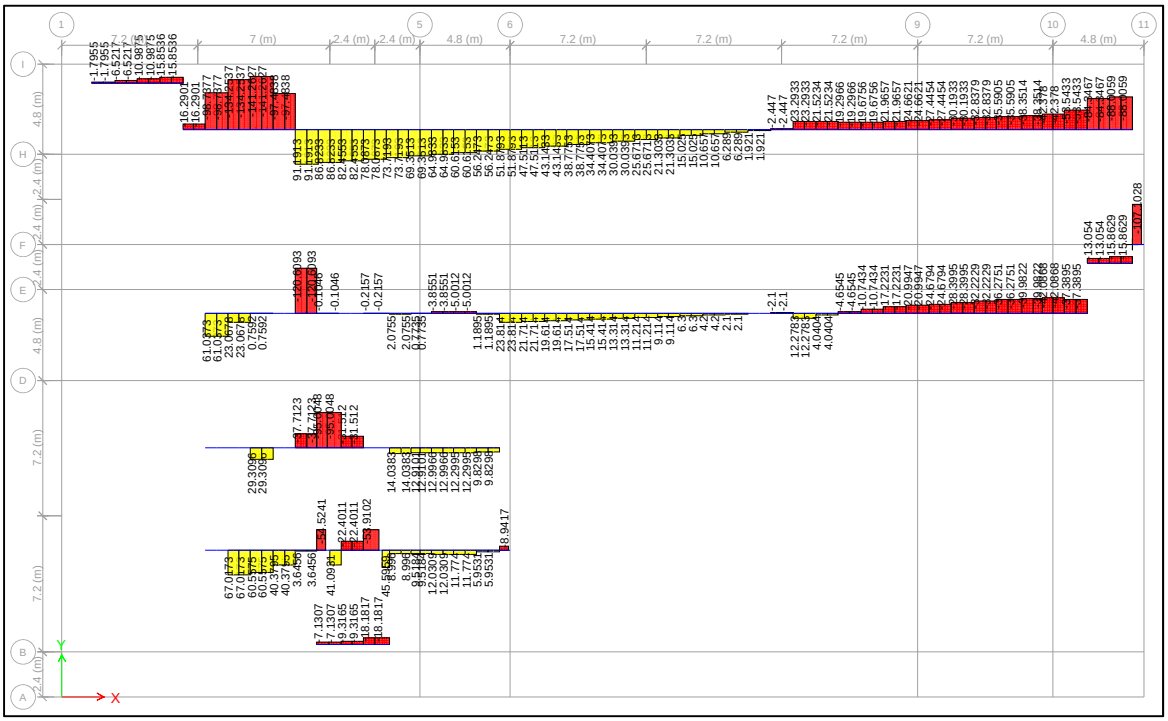


FIGUR A 22 AKSIALKREFTER I STRINGERE: DEKKE OVER 3.ETG

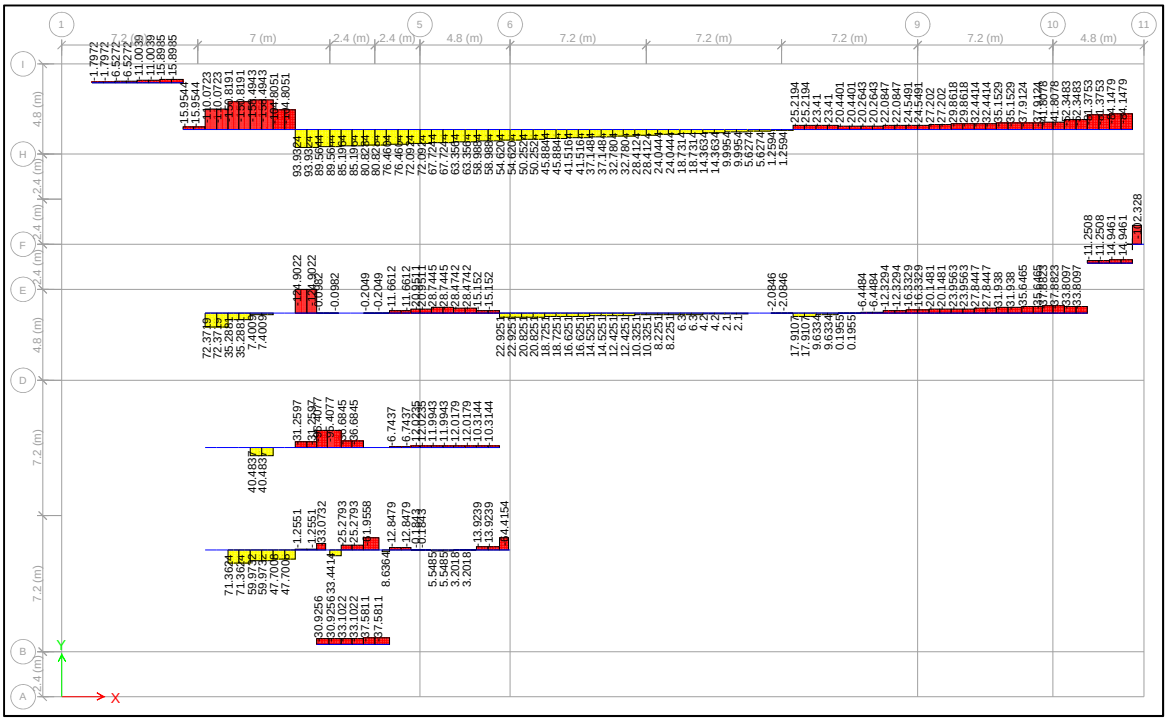
## 4.4 SKJÆRKRAFT I SKJÆRSTAVER



FIGUR A 23 SKJÆRKRAFT I SKJÆRSTAVER: DEKKE OVER 1.ETG

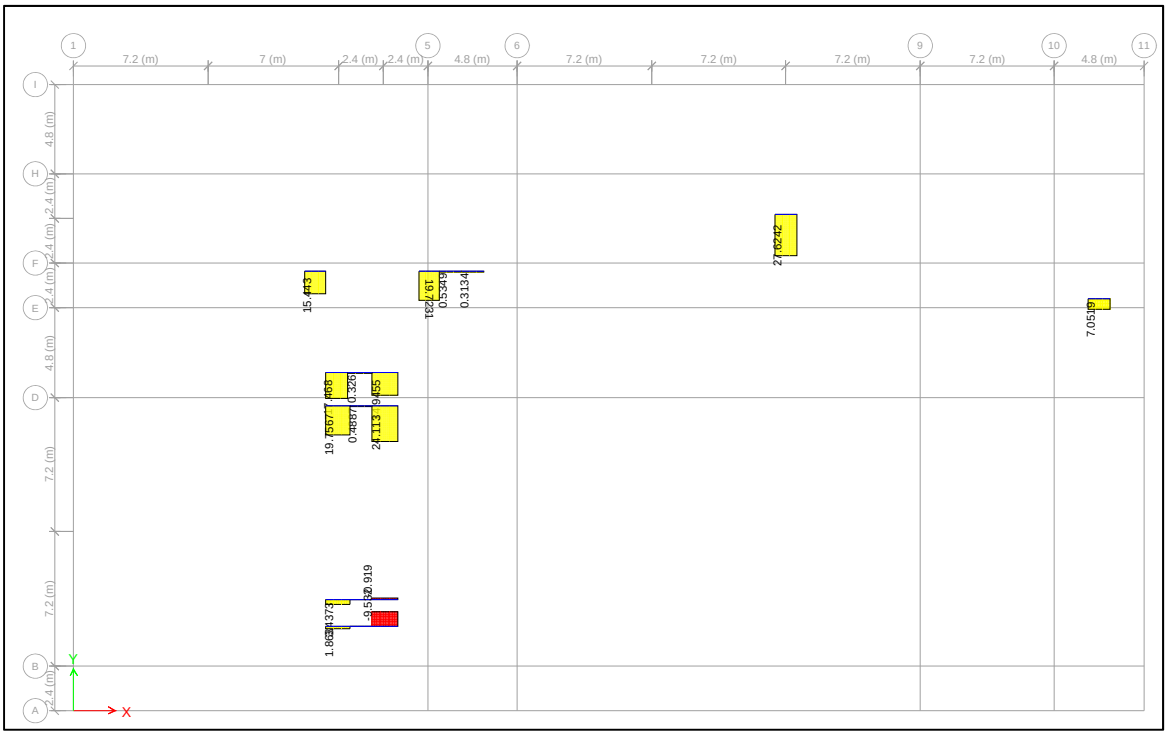


FIGUR A 24 SKJÆRKRAFT I SKJÆRSTAVER: DEKKE OVER 2.ETG

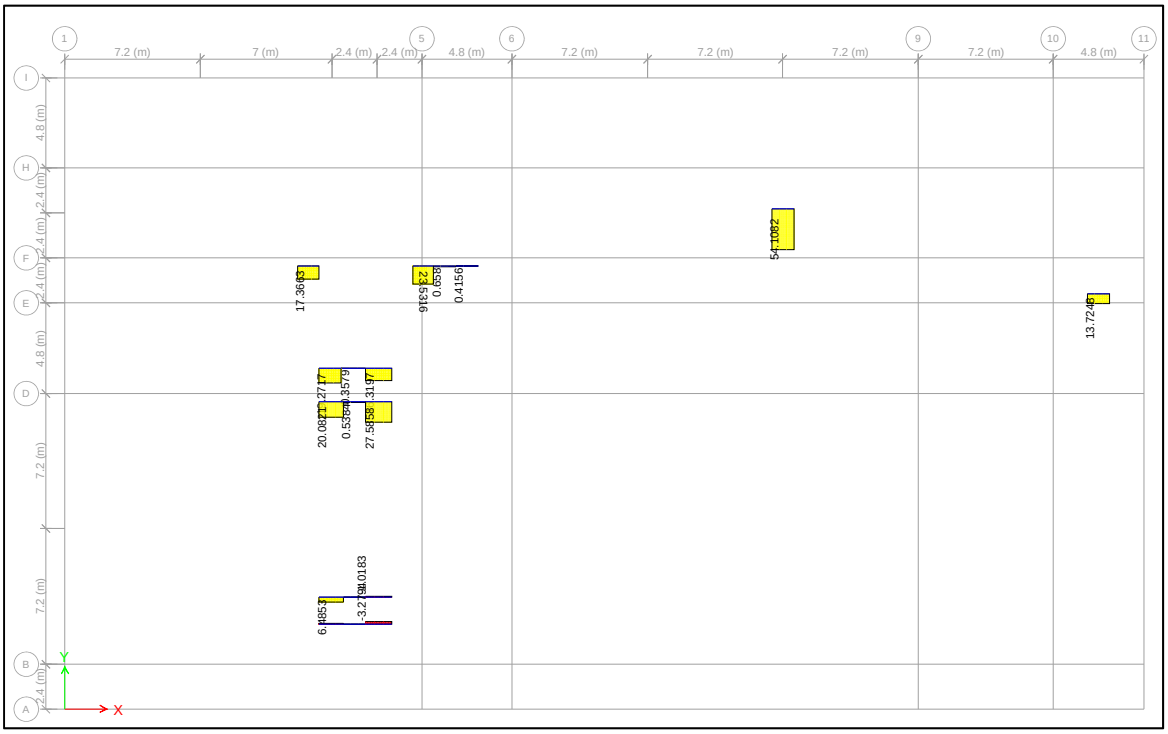


FIGUR A 25 SKJÆRKRAFT I SKJÆRSTAVER: DEKKE OVER 3.ETG

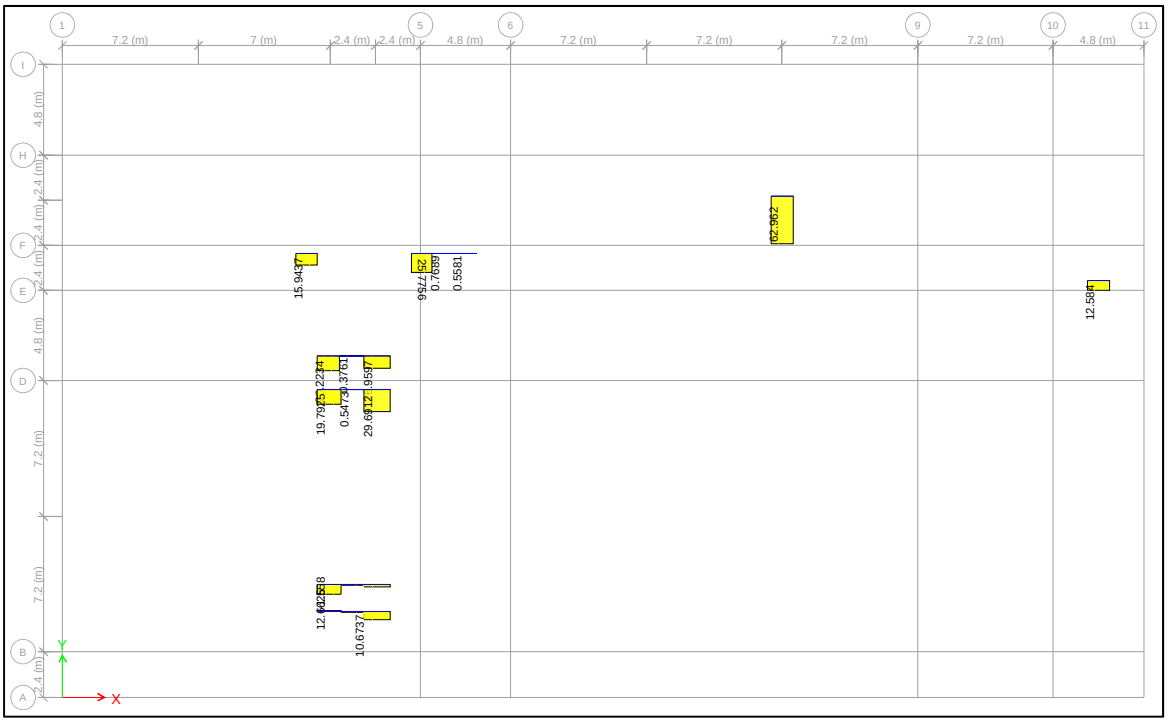
## 4.5 Kraft i strekkforbindelser




FIGUR A 26 KRAFT I STREKKFORBINDELSER: DEKKE OVER 1.ETG




FIGUR A 27 KRAFT I STREKKFORBINDELSER: DEKKE OVER 2.ETG




FIGUR A 28 KRAFT I STREKKFORBINDELSER: DEKKE OVER 3.ETG

## 4.6 HORISONTALSKIVEELEMENTER: TABELL

Under dette punktet samles alle kraftvirkninger som påvirker elementene i hulldekkeskiven. Av hensyn til datamengdene er de representert med resultatene fra dekke over 1.etg. Dette kan forsvares med at etasjene er såpass likt utformet og med identisk last at resultatene vil få svært lite avvik etasjevis.

| TABLE: Beam Forces, Story 1 for load case Vind-y | | | | | TABLE: Beam Forces, Story 1 for load case Vind-y | | | | | TABLE: Beam Forces, Story 1 for load case Vind-y | | | | | TABLE: Beam Forces, Story 1 for load case Vind-y | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Beam** | **Station** | **P** | **V3** | **M2** | **Beam** | **Station** | **P** | **V3** | **M2** | **Beam** | **Station** | **P** | **V3** | **M2** | **Beam** | **Station** | **P** | **V3** | **M2** |
| | m | kN | kN | kN-m | | m | kN | kN | kN-m | | m | kN | kN | kN-m | | m | kN | kN | kN-m |
| B11 | 0.0 | 2.2 | 0.0 | 0.0 | B88 | 3.5 | -4.4 | -2.4 | -8.4 | B173 | 0.0 | -44.3 | 2.2 | 0.0 | B747 | 0.0 | 0.0 | 0.6 | -2.9 |
| B11 | 0.1 | 2.2 | 0.0 | 0.0 | B88 | 7.0 | -4.4 | -2.4 | 0.0 | B173 | 1.2 | -44.3 | -2.2 | 0.0 | B747 | 0.6 | 0.0 | 0.6 | -3.3 |
| B11 | 0.1 | 9.4 | 9.1 | 45.2 | B88 | 7.0 | 0.0 | 0.0 | 0.0 | B174 | 0.0 | -44.4 | 2.2 | 0.0 | B748 | 0.0 | 0.0 | -3.6 | -3.0 |
| B11 | 1.8 | 9.4 | 9.1 | 29.1 | B88 | 7.0 | 0.0 | 0.0 | 0.0 | B174 | 1.2 | -44.4 | -2.2 | 0.0 | B748 | 0.6 | 0.0 | -3.6 | -0.8 |
| B11 | 1.8 | 9.4 | 4.2 | 29.1 | B90 | 0.0 | 0.0 | 0.0 | 0.0 | B175 | 0.0 | -42.7 | 2.2 | 0.0 | B749 | 0.0 | 0.0 | -7.7 | -3.0 |
| B11 | 3.3 | 9.4 | 4.2 | 23.1 | B90 | 0.1 | 0.0 | 0.0 | 0.0 | B175 | 1.2 | -42.7 | -2.2 | 0.0 | B749 | 0.6 | 0.0 | -7.7 | 1.7 |
| B11 | 3.3 | 9.4 | 3.5 | 23.1 | B90 | 0.1 | 0.0 | -1.6 | 0.0 | B177 | 0.0 | -40.3 | 2.2 | 0.0 | B750 | 0.0 | 0.0 | -11.9 | -2.8 |
| B11 | 5.1 | 9.4 | 3.5 | 16.7 | B90 | 3.5 | 0.0 | -1.6 | 5.6 | B177 | 1.2 | -40.3 | -2.2 | 0.0 | B750 | 0.7 | 0.0 | -11.9 | 5.8 |
| B11 | 5.1 | -27.8 | 3.5 | 6.1 | B90 | 3.5 | -4.4 | -1.6 | -5.6 | B178 | 0.0 | -38.6 | 2.2 | 0.0 | B751 | 0.0 | 0.0 | -15.6 | -0.4 |
| B11 | 6.8 | -27.8 | 3.5 | 0.1 | B90 | 7.0 | -4.4 | -1.6 | 0.0 | B178 | 1.2 | -38.6 | -2.2 | 0.0 | B751 | 0.5 | 0.0 | -15.6 | 7.0 |
| B11 | 6.8 | -27.8 | 1.4 | 0.1 | B90 | 7.0 | 0.0 | 0.0 | 0.0 | B179 | 0.0 | -37.0 | 2.2 | 0.0 | B752 | 0.0 | 0.0 | -18.5 | 0.4 |
| B11 | 6.9 | -27.8 | 1.4 | 0.0 | B90 | 7.0 | 0.0 | 0.0 | 0.0 | B179 | 1.2 | -37.0 | -2.2 | 0.0 | B752 | 0.6 | 0.0 | -18.5 | 11.5 |
| B12 | 0.0 | 1.0 | 0.0 | 0.0 | B91 | 0.0 | 0.0 | 0.0 | 0.0 | B180 | 0.0 | -35.0 | 2.2 | 0.0 | B753 | 0.0 | 0.0 | -17.3 | 4.5 |
| B12 | 0.1 | 1.0 | 0.0 | 0.0 | B91 | 0.1 | 0.0 | 0.0 | 0.0 | B180 | 1.2 | -35.0 | -2.2 | 0.0 | B753 | 0.6 | 0.0 | -17.3 | 14.8 |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B12 | 0.1 | 1.9 | -2.8 | 0.0 | B91 | 0.1 | 0.0 | -2.0 | 0.0 | B181 | 0.0 | -32.3 | 2.2 | 0.0 | B754 | 0.0 | 0.0 | -10.3 | 0.0 |
| B12 | 5.1 | 1.9 | -2.8 | 14.2 | B91 | 3.5 | 0.0 | -2.0 | 6.9 | B181 | 1.2 | -32.3 | -2.2 | 0.0 | B754 | 0.6 | 0.0 | -10.3 | 6.2 |
| B12 | 5.1 | -1.7 | -2.8 | -5.0 | B91 | 3.5 | -4.4 | -2.0 | -6.9 | B182 | 0.0 | -29.0 | 2.2 | 0.0 | B756 | 0.0 | 0.0 | -3.1 | -1.9 |
| B12 | 6.8 | -1.7 | -2.8 | 0.0 | B91 | 7.0 | -4.4 | -2.0 | 0.0 | B182 | 1.2 | -29.0 | -2.2 | 0.0 | B756 | 0.6 | 0.0 | -3.1 | 0.0 |
| B12 | 6.8 | -1.7 | -0.5 | 0.0 | B91 | 7.0 | 0.0 | 0.0 | 0.0 | B184 | 0.0 | -24.9 | 2.2 | 0.0 | B757 | 0.0 | 0.0 | -3.1 | 0.0 |
| B12 | 6.9 | -1.7 | -0.5 | 0.0 | B91 | 7.0 | 0.0 | 0.0 | 0.0 | B184 | 1.2 | -24.9 | -2.2 | 0.0 | B757 | 0.6 | 0.0 | -3.1 | 1.9 |
| B13 | 0.0 | 0.0 | 0.0 | 0.0 | B92 | 0.0 | 0.0 | 0.0 | 0.0 | B185 | 0.0 | -20.1 | 2.2 | 0.0 | B760 | 0.0 | 0.0 | -6.5 | -3.3 |
| B13 | 0.1 | 0.0 | 0.0 | 0.0 | B92 | 0.1 | 0.0 | 0.0 | 0.0 | B185 | 1.2 | -20.1 | -2.2 | 0.0 | B760 | 0.6 | 0.0 | -6.5 | 0.6 |
| B13 | 0.1 | 2.0 | -2.0 | 0.0 | B92 | 0.1 | 0.0 | -2.6 | 0.0 | B186 | 0.0 | -14.5 | 2.2 | 0.0 | B767 | 0.0 | 0.0 | -76.1 | 45.5 |
| B13 | 5.1 | 2.0 | -2.0 | 9.8 | B92 | 3.5 | 0.0 | -2.6 | 9.1 | B186 | 1.2 | -14.5 | -2.2 | 0.0 | B767 | 0.6 | 0.0 | -76.1 | 91.2 |
| B13 | 5.1 | 3.3 | -2.0 | -3.5 | B92 | 3.5 | -4.4 | -2.6 | -9.1 | B187 | 0.0 | -8.2 | 2.2 | 0.0 | B768 | 0.0 | 0.0 | 74.1 | 41.7 |
| B13 | 6.8 | 3.3 | -2.0 | -0.1 | B92 | 7.0 | -4.4 | -2.6 | 0.0 | B187 | 1.2 | -8.2 | -2.2 | 0.0 | B768 | 0.6 | 0.0 | 74.1 | -2.7 |
| B13 | 6.8 | 3.3 | -1.5 | -0.1 | B92 | 7.0 | 0.0 | 0.0 | 0.0 | B188 | 0.0 | -1.1 | 2.2 | 0.0 | B769 | 0.0 | 0.0 | 69.7 | 12.7 |
| B13 | 6.9 | 3.3 | -1.5 | 0.0 | B92 | 7.0 | 0.0 | 0.0 | 0.0 | B188 | 1.2 | -1.1 | -2.2 | 0.0 | B769 | 0.6 | 0.0 | 69.7 | -29.1 |
| B14 | 0.0 | 0.0 | 0.0 | 0.0 | B93 | 0.0 | 0.0 | 0.0 | 0.0 | B189 | 0.0 | 6.7 | 2.2 | 0.0 | B770 | 0.0 | 0.0 | 65.4 | 3.6 |
| B14 | 0.1 | 0.0 | 0.0 | 0.0 | B93 | 0.1 | 0.0 | 0.0 | 0.0 | B189 | 1.2 | 6.7 | -2.2 | 0.0 | B770 | 0.6 | 0.0 | 65.4 | -35.6 |
| B14 | 0.1 | 2.1 | -1.7 | 0.0 | B93 | 0.1 | 0.0 | -3.3 | 0.0 | B190 | 0.0 | 15.3 | 2.2 | 0.0 | B771 | 0.0 | 0.0 | 61.0 | 0.2 |
| B14 | 5.1 | 2.1 | -1.7 | 8.4 | B93 | 3.5 | 0.0 | -3.3 | 11.6 | B190 | 1.2 | 15.3 | -2.2 | 0.0 | B771 | 0.6 | 0.0 | 61.0 | -36.4 |
| B14 | 5.1 | 3.0 | -1.7 | -3.0 | B93 | 3.5 | -4.4 | -3.3 | -11.6 | B191 | 0.0 | 24.6 | 2.2 | 0.0 | B772 | 0.0 | 0.0 | 56.6 | -1.4 |
| B14 | 6.8 | 3.0 | -1.7 | -0.1 | B93 | 7.0 | -4.4 | -3.3 | 0.0 | B191 | 1.2 | 24.6 | -2.2 | 0.0 | B772 | 0.6 | 0.0 | 56.6 | -35.3 |
| B14 | 6.8 | 3.0 | -1.9 | -0.1 | B93 | 7.0 | 0.0 | 0.0 | 0.0 | B192 | 0.0 | 34.5 | 2.2 | 0.0 | B773 | 0.0 | 0.0 | 52.3 | -2.4 |
| B14 | 6.9 | 3.0 | -1.9 | 0.0 | B93 | 7.0 | 0.0 | 0.0 | 0.0 | B192 | 1.2 | 34.5 | -2.2 | 0.0 | B773 | 0.6 | 0.0 | 52.3 | -33.8 |
| B15 | 0.0 | 0.0 | 0.0 | 0.0 | B94 | 0.0 | 0.0 | 0.0 | 0.0 | B193 | 0.0 | 45.0 | 2.2 | 0.0 | B774 | 0.0 | 0.0 | 47.9 | -3.2 |
| B15 | 0.1 | 0.0 | 0.0 | 0.0 | B94 | 0.1 | 0.0 | 0.0 | 0.0 | B193 | 1.2 | 45.0 | -2.2 | 0.0 | B774 | 0.6 | 0.0 | 47.9 | -32.0 |
| B15 | 0.1 | 2.1 | -1.5 | 0.0 | B94 | 0.1 | 0.0 | -4.1 | 0.0 | B194 | 0.0 | 55.4 | 2.2 | 0.0 | B775 | 0.0 | 0.0 | 43.5 | -3.9 |
| B15 | 5.1 | 2.1 | -1.5 | 7.6 | B94 | 3.5 | 0.0 | -4.1 | 14.1 | B194 | 1.2 | 55.4 | -2.2 | 0.0 | B775 | 0.6 | 0.0 | 43.5 | -30.0 |
| B15 | 5.1 | 2.1 | -1.5 | -2.7 | B94 | 3.5 | -4.4 | -4.1 | -14.1 | B195 | 0.0 | 63.7 | 2.2 | 0.0 | B776 | 0.0 | 0.0 | 39.2 | -4.6 |
| B15 | 6.8 | 2.1 | -1.5 | -0.1 | B94 | 7.0 | -4.4 | -4.1 | 0.0 | B195 | 1.2 | 63.7 | -2.2 | 0.0 | B776 | 0.6 | 0.0 | 39.2 | -28.1 |
| B15 | 6.8 | 2.1 | -1.8 | -0.1 | B94 | 7.0 | 0.0 | 0.0 | 0.0 | B196 | 0.0 | 62.9 | 2.2 | 0.0 | B777 | 0.0 | 0.0 | 34.8 | -5.1 |
| B15 | 6.9 | 2.1 | -1.8 | 0.0 | B94 | 7.0 | 0.0 | 0.0 | 0.0 | B196 | 1.2 | 62.9 | -2.2 | 0.0 | B777 | 0.6 | 0.0 | 34.8 | -26.0 |
| B16 | 0.0 | 0.0 | 0.0 | 0.0 | B95 | 0.0 | 0.0 | 0.0 | 0.0 | B197 | 0.0 | 53.0 | 2.2 | 0.0 | B778 | 0.0 | 0.0 | 26.0 | -6.1 |
| B16 | 0.1 | 0.0 | 0.0 | 0.0 | B95 | 0.1 | 0.0 | 0.0 | 0.0 | B197 | 1.2 | 53.0 | -2.2 | 0.0 | B778 | 0.6 | 0.0 | 26.0 | -21.7 |
| B16 | 0.1 | 1.1 | -1.2 | 0.0 | B95 | 0.1 | 0.0 | -4.8 | 0.0 | B198 | 0.0 | 42.0 | 2.2 | 0.0 | B779 | 0.0 | 0.0 | 21.7 | -6.4 |
| B16 | 5.1 | 1.1 | -1.2 | 5.8 | B95 | 3.5 | 0.0 | -4.8 | 16.7 | B198 | 1.2 | 42.0 | -2.2 | 0.0 | B779 | 0.6 | 0.0 | 21.7 | -19.4 |
| B16 | 5.1 | 3.4 | -1.2 | -2.1 | B95 | 3.5 | -4.4 | -4.8 | -16.7 | B199 | 0.0 | 29.8 | 2.2 | 0.0 | B780 | 0.0 | 0.0 | 17.3 | -6.6 |
| B16 | 6.8 | 3.4 | -1.2 | -0.1 | B95 | 7.0 | -4.4 | -4.8 | 0.0 | B199 | 1.2 | 29.8 | -2.2 | 0.0 | B780 | 0.6 | 0.0 | 17.3 | -17.0 |
| B16 | 6.8 | 3.4 | -1.3 | -0.1 | B95 | 7.0 | 0.0 | 0.0 | 0.0 | B200 | 0.0 | 20.6 | 2.2 | 0.0 | B781 | 0.0 | 0.0 | 12.9 | -6.5 |
| B16 | 6.9 | 3.4 | -1.3 | 0.0 | B95 | 7.0 | 0.0 | 0.0 | 0.0 | B200 | 1.2 | 20.6 | -2.2 | 0.0 | B781 | 0.6 | 0.0 | 12.9 | -14.3 |
| B17 | 0.0 | 3.4 | -1.3 | 0.0 | B96 | 0.0 | 0.0 | 0.0 | 0.0 | B201 | 0.0 | 12.6 | 2.2 | 0.0 | B782 | 0.0 | 0.0 | 8.6 | -5.6 |
| B17 | 0.1 | 3.4 | -1.3 | 0.1 | B96 | 0.1 | 0.0 | 0.0 | 0.0 | B201 | 1.2 | 12.6 | -2.2 | 0.0 | B782 | 0.6 | 0.0 | 8.6 | -10.7 |
| B17 | 0.1 | 3.4 | -1.3 | 0.1 | B96 | 0.1 | 0.0 | -5.6 | 0.0 | B202 | 0.0 | 9.4 | 2.2 | 0.0 | B783 | 0.0 | 0.0 | 4.2 | -2.0 |
| B17 | 3.6 | 3.4 | -1.3 | 4.5 | B96 | 3.5 | 0.0 | -5.6 | 19.3 | B202 | 1.2 | 9.4 | -2.2 | 0.0 | B783 | 0.6 | 0.0 | 4.2 | -4.6 |
| B17 | 3.6 | -9.5 | -1.3 | -5.5 | B96 | 3.5 | -4.4 | -5.6 | -19.3 | B203 | 0.0 | 5.7 | 2.2 | 0.0 | B784 | 0.0 | 0.0 | 19.8 | -2.0 |
| B17 | 7.2 | -9.5 | -1.3 | -1.0 | B96 | 7.0 | -4.4 | -5.6 | 0.0 | B203 | 1.2 | 5.7 | -2.2 | 0.0 | B784 | 0.6 | 0.0 | 19.8 | -13.8 |
| B17 | 7.2 | -8.5 | -20.4 | -1.0 | B96 | 7.0 | 0.0 | 0.0 | 0.0 | B204 | 0.0 | 2.5 | 2.2 | 0.0 | B785 | 0.0 | 0.0 | 15.4 | -6.3 |
| B17 | 7.2 | -8.5 | -20.4 | 0.0 | B96 | 7.0 | 0.0 | 0.0 | 0.0 | B204 | 1.2 | 2.5 | -2.2 | 0.0 | B785 | 0.6 | 0.0 | 15.4 | -15.6 |
| B18 | 0.0 | 2.1 | -1.8 | 0.0 | B97 | 0.0 | 0.0 | 0.0 | 0.0 | B213 | 0.0 | -38.6 | 0.0 | 0.0 | B786 | 0.0 | 0.0 | 11.0 | -10.6 |
| B18 | 0.1 | 2.1 | -1.8 | 0.1 | B97 | 0.1 | 0.0 | 0.0 | 0.0 | B213 | 1.2 | -38.6 | 0.0 | 0.0 | B786 | 0.6 | 0.0 | 11.0 | -17.3 |
| B18 | 0.1 | 2.1 | -2.1 | 0.1 | B97 | 0.1 | 0.0 | -6.3 | 0.0 | B214 | 0.0 | -46.0 | 0.0 | 0.0 | B787 | 0.0 | 0.0 | 6.7 | -21.9 |
| B18 | 3.6 | 2.1 | -2.1 | 7.7 | B97 | 3.5 | 0.0 | -6.3 | 21.9 | B214 | 1.2 | -46.0 | 0.0 | 0.0 | B787 | 0.6 | 0.0 | 6.7 | -25.9 |
| B18 | 3.6 | -1.1 | -2.1 | -7.8 | B97 | 3.5 | -4.4 | -6.3 | -21.9 | B215 | 0.0 | -37.7 | 0.0 | 0.0 | B788 | 0.0 | 0.0 | 2.3 | -59.2 |
| B18 | 7.2 | -1.1 | -2.1 | -0.2 | B97 | 7.0 | -4.4 | -6.3 | 0.0 | B215 | 1.2 | -37.7 | 0.0 | 0.0 | B788 | 0.6 | 0.0 | 2.3 | -60.6 |
| B18 | 7.2 | -1.1 | -3.7 | -0.2 | B97 | 7.0 | 0.0 | 0.0 | 0.0 | B216 | 0.0 | -27.3 | 0.0 | 0.0 | B210 | 0.0 | 0.0 | 0.0 | 0.0 |
| B18 | 7.2 | -1.1 | -3.7 | 0.0 | B97 | 7.0 | 0.0 | 0.0 | 0.0 | B216 | 1.2 | -27.3 | 0.0 | 0.0 | B210 | 0.0 | 0.0 | 0.0 | 0.0 |
| B19 | 0.0 | 3.0 | -1.9 | 0.0 | B98 | 0.0 | 0.0 | 0.0 | 0.0 | B217 | 0.0 | -16.8 | 0.0 | 0.0 | B210 | 0.0 | 2.1 | -1.5 | 0.0 |
| B19 | 0.1 | 3.0 | -1.9 | 0.1 | B98 | 0.1 | 0.0 | 0.0 | 0.0 | B217 | 1.2 | -16.8 | 0.0 | 0.0 | B210 | 0.1 | 2.1 | -1.5 | 0.1 |
| B19 | 0.1 | 3.0 | -2.4 | 0.1 | B98 | 0.1 | 0.0 | -7.1 | 0.0 | B218 | 0.0 | -6.9 | 0.0 | 0.0 | B210 | 0.1 | 2.1 | -1.5 | 0.1 |
| B19 | 3.6 | 3.0 | -2.4 | 8.7 | B98 | 3.5 | 0.0 | -7.1 | 24.5 | B218 | 1.2 | -6.9 | 0.0 | 0.0 | B210 | 3.6 | 2.1 | -1.5 | 5.3 |
| B19 | 3.6 | 1.9 | -2.4 | -8.7 | B98 | 3.5 | -4.4 | -7.1 | -24.5 | B219 | 0.0 | 2.4 | 0.0 | 0.0 | B210 | 3.6 | -1.1 | -1.5 | -5.5 |
| B19 | 7.2 | 1.9 | -2.4 | -0.1 | B98 | 7.0 | -4.4 | -7.1 | 0.0 | B219 | 1.2 | 2.4 | 0.0 | 0.0 | B210 | 7.2 | -1.1 | -1.5 | -0.2 |
| B19 | 7.2 | 1.9 | -2.2 | -0.1 | B98 | 7.0 | 0.0 | 0.0 | 0.0 | B220 | 0.0 | 11.0 | 0.0 | 0.0 | B210 | 7.2 | -1.1 | -4.4 | -0.2 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B19 | 7.2 | 1.9 | -2.2 | 0.0 | B98 | 7.0 | 0.0 | 0.0 | 0.0 | B220 | 1.2 | 11.0 | 0.0 | 0.0 | B210 | 7.3 | -1.1 | -4.4 | 0.0 |
| B20 | 0.0 | 3.3 | -1.5 | 0.0 | B99 | 0.0 | 0.0 | 0.0 | 0.0 | B221 | 0.0 | 18.8 | 0.0 | 0.0 | B208 | 0.0 | 0.0 | -20.8 | -61.1 |
| B20 | 0.1 | 3.3 | -1.5 | 0.1 | B99 | 0.1 | 0.0 | 0.0 | 0.0 | B221 | 1.2 | 18.8 | 0.0 | 0.0 | B208 | 0.6 | 0.0 | -20.8 | -48.6 |
| B20 | 0.1 | 3.3 | -2.0 | 0.1 | B99 | 0.1 | 0.0 | -7.8 | 0.0 | B222 | 0.0 | 25.9 | 0.0 | 0.0 | B209 | 0.0 | 0.0 | -24.1 | -34.0 |
| B20 | 3.6 | 3.3 | -2.0 | 7.3 | B99 | 3.5 | 0.0 | -7.8 | 27.1 | B222 | 1.2 | 25.9 | 0.0 | 0.0 | B209 | 0.6 | 0.0 | -24.1 | -19.6 |
| B20 | 3.6 | 2.6 | -2.0 | -7.5 | B99 | 3.5 | -4.4 | -7.8 | -27.1 | B224 | 0.0 | 37.8 | 0.0 | 0.0 | B282 | 0.0 | 0.0 | -24.1 | -22.3 |
| B20 | 7.2 | 2.6 | -2.0 | -0.2 | B99 | 7.0 | -4.4 | -7.8 | 0.0 | B224 | 1.2 | 37.8 | 0.0 | 0.0 | B282 | 0.6 | 0.0 | -24.1 | -7.8 |
| B20 | 7.2 | 2.6 | -4.5 | -0.2 | B99 | 7.0 | 0.0 | 0.0 | 0.0 | B225 | 0.0 | 42.6 | 0.0 | 0.0 | B286 | 0.0 | 0.0 | -23.1 | -16.9 |
| B20 | 7.2 | 2.6 | -4.5 | 0.0 | B99 | 7.0 | 0.0 | 0.0 | 0.0 | B225 | 1.2 | 42.6 | 0.0 | 0.0 | B286 | 0.6 | 0.0 | -23.1 | -3.0 |
| B21 | 0.0 | -1.7 | -0.5 | 0.0 | B100 | 0.0 | 0.0 | 0.0 | 0.0 | B226 | 0.0 | 46.7 | 0.0 | 0.0 | B294 | 0.0 | 0.0 | -19.7 | -13.7 |
| B21 | 0.1 | -1.7 | -0.5 | 0.0 | B100 | 0.1 | 0.0 | 0.0 | 0.0 | B226 | 1.2 | 46.7 | 0.0 | 0.0 | B294 | 0.6 | 0.0 | -19.7 | -1.9 |
| B21 | 0.1 | -1.7 | -0.6 | 0.0 | B100 | 0.1 | 0.0 | -8.6 | 0.0 | B227 | 0.0 | 50.0 | 0.0 | 0.0 | B414 | 0.0 | 0.0 | -19.8 | -14.6 |
| B21 | 3.6 | -1.7 | -0.6 | 2.0 | B100 | 3.5 | 0.0 | -8.6 | 29.6 | B227 | 1.2 | 50.0 | 0.0 | 0.0 | B414 | 0.6 | 0.0 | -19.8 | -2.7 |
| B21 | 3.6 | -2.9 | -0.6 | -1.9 | B100 | 3.5 | -4.4 | -8.6 | -29.6 | B228 | 0.0 | 52.7 | 0.0 | 0.0 | B429 | 0.0 | 0.0 | -21.5 | -16.4 |
| B21 | 7.2 | -2.9 | -0.6 | 0.0 | B100 | 7.0 | -4.4 | -8.6 | 0.0 | B228 | 1.2 | 52.7 | 0.0 | 0.0 | B429 | 0.6 | 0.0 | -21.5 | -3.5 |
| B21 | 7.2 | -2.9 | 1.0 | 0.0 | B100 | 7.0 | 0.0 | 0.0 | 0.0 | B229 | 0.0 | 54.7 | 0.0 | 0.0 | B479 | 0.0 | 0.0 | -26.1 | -20.2 |
| B21 | 7.2 | -2.9 | 1.0 | 0.0 | B100 | 7.0 | 0.0 | 0.0 | 0.0 | B229 | 1.2 | 54.7 | 0.0 | 0.0 | B479 | 0.6 | 0.0 | -26.1 | -4.5 |
| B22 | 0.0 | -27.8 | 1.4 | 0.0 | B101 | 0.0 | 0.0 | 0.0 | 0.0 | B230 | 0.0 | 56.3 | 0.0 | 0.0 | B509 | 0.0 | 0.0 | -28.7 | -22.8 |
| B22 | 0.1 | -27.8 | 1.4 | -0.1 | B101 | 0.1 | 0.0 | 0.0 | 0.0 | B230 | 1.2 | 56.3 | 0.0 | 0.0 | B509 | 0.6 | 0.0 | -28.7 | -5.6 |
| B22 | 0.1 | -27.8 | 2.8 | -0.1 | B101 | 0.1 | 0.0 | -9.3 | 0.0 | B231 | 0.0 | 28.2 | 0.0 | 0.0 | B527 | 0.0 | 0.0 | -31.4 | -21.9 |
| B22 | 3.6 | -27.8 | 2.8 | -9.9 | B101 | 3.5 | 0.0 | -9.3 | 32.1 | B231 | 1.2 | 28.2 | 0.0 | 0.0 | B527 | 0.6 | 0.0 | -31.4 | -3.0 |
| B22 | 3.6 | -8.5 | 2.8 | 18.7 | B101 | 3.5 | -4.4 | -9.3 | -32.1 | B232 | 0.0 | 30.6 | 0.0 | 0.0 | B528 | 0.0 | 0.0 | -34.7 | -29.2 |
| B22 | 6.8 | -8.5 | 2.8 | 10.0 | B101 | 7.0 | -4.4 | -9.3 | 0.0 | B232 | 1.2 | 30.6 | 0.0 | 0.0 | B528 | 0.6 | 0.0 | -34.7 | -8.3 |
| B22 | 6.8 | -8.5 | 24.6 | 10.0 | B101 | 7.0 | 0.0 | 0.0 | 0.0 | B233 | 0.0 | 32.3 | 0.0 | 0.0 | B529 | 0.0 | 0.0 | -42.4 | -37.0 |
| B22 | 7.2 | -8.5 | 24.6 | 0.2 | B101 | 7.0 | 0.0 | 0.0 | 0.0 | B233 | 1.2 | 32.3 | 0.0 | 0.0 | B529 | 0.6 | 0.0 | -42.4 | -11.6 |
| B22 | 7.2 | -8.5 | 3.7 | 0.2 | B102 | 0.0 | 0.0 | 0.0 | 0.0 | B234 | 0.0 | 32.2 | 0.0 | 0.0 | B550 | 0.0 | 0.0 | -63.0 | -48.4 |
| B22 | 7.2 | -8.5 | 3.7 | 0.0 | B102 | 0.1 | 0.0 | 0.0 | 0.0 | B234 | 1.2 | 32.2 | 0.0 | 0.0 | B550 | 0.6 | 0.0 | -63.0 | -10.6 |
| B25 | 0.0 | -35.8 | -1.4 | 0.0 | B102 | 0.1 | 0.0 | -10.0 | 0.0 | B235 | 0.0 | 44.2 | 0.0 | 0.0 | B561 | 0.0 | 0.0 | -62.3 | -46.2 |
| B25 | 0.1 | -35.8 | -1.4 | 0.1 | B102 | 3.5 | 0.0 | -10.0 | 34.5 | B235 | 1.2 | 44.2 | 0.0 | 0.0 | B561 | 0.6 | 0.0 | -62.3 | -8.8 |
| B25 | 0.1 | -35.8 | 1.3 | 0.1 | B102 | 3.5 | -4.4 | -10.0 | -34.5 | B236 | 0.0 | 39.9 | 0.0 | 0.0 | B613 | 0.0 | 0.0 | -20.8 | -48.6 |
| B25 | 3.6 | -35.8 | 1.3 | -4.7 | B102 | 7.0 | -4.4 | -10.0 | 0.0 | B236 | 1.2 | 39.9 | 0.0 | 0.0 | B613 | 0.6 | 0.0 | -20.8 | -36.1 |
| B25 | 3.6 | -39.0 | 1.3 | 5.0 | B102 | 7.0 | 0.0 | 0.0 | 0.0 | B237 | 0.0 | 37.4 | 0.0 | 0.0 | B629 | 0.0 | 0.0 | -24.1 | -19.6 |
| B25 | 7.2 | -39.0 | 1.3 | 0.2 | B102 | 7.0 | 0.0 | 0.0 | 0.0 | B237 | 1.2 | 37.4 | 0.0 | 0.0 | B629 | 0.6 | 0.0 | -24.1 | -5.1 |
| B25 | 7.2 | -39.0 | 4.9 | 0.2 | B103 | 0.0 | 0.0 | 0.0 | 0.0 | B239 | 0.0 | 35.5 | 0.0 | 0.0 | B661 | 0.0 | 0.0 | -24.1 | -7.8 |
| B25 | 7.2 | -39.0 | 4.9 | 0.0 | B103 | 0.1 | 0.0 | 0.0 | 0.0 | B239 | 1.2 | 35.5 | 0.0 | 0.0 | B661 | 0.6 | 0.0 | -24.1 | 6.6 |
| B26 | 0.0 | 6.1 | -3.3 | 0.0 | B103 | 0.1 | 0.0 | -10.5 | 0.0 | B240 | 0.0 | 33.7 | 0.0 | 0.0 | B696 | 0.0 | 0.0 | -23.1 | -3.0 |
| B26 | 0.1 | 6.1 | -3.3 | 0.2 | B103 | 3.5 | 0.0 | -10.5 | 36.2 | B240 | 1.2 | 33.7 | 0.0 | 0.0 | B696 | 0.6 | 0.0 | -23.1 | 10.8 |
| B26 | 0.1 | 6.1 | 0.3 | 0.2 | B103 | 3.5 | -4.4 | -10.5 | -36.2 | B241 | 0.0 | 32.2 | 0.0 | 0.0 | B706 | 0.0 | 0.0 | -19.7 | -1.9 |
| B26 | 3.6 | 6.1 | 0.3 | -0.8 | B103 | 7.0 | -4.4 | -10.5 | 0.0 | B241 | 1.2 | 32.2 | 0.0 | 0.0 | B706 | 0.6 | 0.0 | -19.7 | 9.9 |
| B26 | 3.6 | 9.2 | 0.3 | 1.0 | B103 | 7.0 | 0.0 | 0.0 | 0.0 | B242 | 0.0 | 30.7 | 0.0 | 0.0 | B755 | 0.0 | 0.0 | -19.8 | -2.7 |
| B26 | 7.2 | 9.2 | 0.3 | 0.0 | B103 | 7.0 | 0.0 | 0.0 | 0.0 | B242 | 1.2 | 30.7 | 0.0 | 0.0 | B755 | 0.6 | 0.0 | -19.8 | 9.1 |
| B26 | 7.2 | 9.2 | 0.9 | 0.0 | B104 | 0.0 | 0.0 | 0.0 | 0.0 | B243 | 0.0 | 29.5 | 0.0 | 0.0 | B758 | 0.0 | 0.0 | -21.5 | -3.5 |
| B26 | 7.2 | 9.2 | 0.9 | 0.0 | B104 | 0.1 | 0.0 | 0.0 | 0.0 | B243 | 1.2 | 29.5 | 0.0 | 0.0 | B758 | 0.6 | 0.0 | -21.5 | 9.4 |
| B27 | 0.0 | 55.0 | -2.3 | 0.0 | B104 | 0.1 | 0.0 | -10.4 | 0.0 | B244 | 0.0 | 28.4 | 0.0 | 0.0 | B806 | 0.0 | 0.0 | -26.1 | -4.5 |
| B27 | 0.1 | 55.0 | -2.3 | 0.1 | B104 | 3.5 | 0.0 | -10.4 | 35.9 | B244 | 1.2 | 28.4 | 0.0 | 0.0 | B806 | 0.6 | 0.0 | -26.1 | 11.1 |
| B27 | 0.1 | 55.0 | 0.1 | 0.1 | B104 | 3.5 | -4.4 | -10.4 | -35.9 | B245 | 0.0 | 27.4 | 0.0 | 0.0 | B808 | 0.0 | 0.0 | -28.7 | -5.6 |
| B27 | 3.6 | 55.0 | 0.1 | -0.3 | B104 | 7.0 | -4.4 | -10.4 | 0.0 | B245 | 1.3 | 27.4 | 0.0 | 0.0 | B808 | 0.7 | 0.0 | -28.7 | 15.2 |
| B27 | 3.6 | 55.0 | 0.1 | 0.1 | B104 | 7.0 | 0.0 | 0.0 | 0.0 | B246 | 0.0 | 26.5 | 0.0 | 0.0 | B810 | 0.0 | 0.0 | -31.4 | -3.0 |
| B27 | 7.2 | 55.0 | 0.1 | -0.3 | B104 | 7.0 | 0.0 | 0.0 | 0.0 | B246 | 1.1 | 26.5 | 0.0 | 0.0 | B810 | 0.5 | 0.0 | -31.4 | 11.9 |
| B27 | 7.2 | 55.0 | -6.1 | -0.3 | B105 | 0.0 | 0.0 | 0.0 | 0.0 | B247 | 0.0 | 25.2 | 0.0 | 0.0 | B811 | 0.0 | 0.0 | -34.7 | -8.3 |
| B27 | 7.2 | 55.0 | -6.1 | 0.0 | B105 | 0.1 | 0.0 | 0.0 | 0.0 | B247 | 1.2 | 25.2 | 0.0 | 0.0 | B811 | 0.6 | 0.0 | -34.7 | 12.5 |
| B28 | 0.0 | 1.1 | 3.2 | 0.0 | B105 | 0.1 | 0.0 | -8.3 | 0.0 | B248 | 0.0 | 18.5 | 0.0 | 0.0 | B812 | 0.0 | 0.0 | -42.4 | -11.6 |
| B28 | 0.1 | 1.1 | 3.4 | -0.2 | B105 | 3.5 | 0.0 | -8.3 | 28.7 | B248 | 1.2 | 18.5 | 0.0 | 0.0 | B812 | 0.6 | 0.0 | -42.4 | 13.8 |
| B28 | 0.1 | 1.1 | -14.7 | -0.2 | B105 | 3.5 | -4.4 | -8.3 | -28.7 | B249 | 0.0 | 8.2 | 0.0 | 0.0 | B813 | 0.0 | 0.0 | -63.0 | -10.6 |
| B28 | 3.6 | 1.1 | 0.0 | 25.9 | B105 | 7.0 | -4.4 | -8.3 | 0.0 | B249 | 1.2 | 8.2 | 0.0 | 0.0 | B813 | 0.6 | 0.0 | -63.0 | 27.2 |
| B28 | 3.6 | 1.1 | 0.0 | 26.1 | B105 | 7.0 | 0.0 | 0.0 | 0.0 | B250 | 0.0 | 16.1 | 0.0 | 0.0 | B814 | 0.0 | 0.0 | -62.3 | -8.8 |
| B28 | 7.2 | 1.1 | 14.7 | 0.0 | B105 | 7.0 | 0.0 | 0.0 | 0.0 | B250 | 1.2 | 16.1 | 0.0 | 0.0 | B814 | 0.6 | 0.0 | -62.3 | 28.6 |
| B28 | 7.2 | 1.1 | 0.8 | 0.0 | B106 | 0.0 | -154.6 | -6.5 | 0.0 | B251 | 0.0 | 3.6 | 0.0 | 0.0 | B816 | 0.0 | 0.0 | -23.7 | -4.0 |
| B28 | 7.2 | 1.1 | 1.0 | 0.0 | B106 | 0.1 | -154.6 | -6.5 | 0.3 | B251 | 1.2 | 3.6 | 0.0 | 0.0 | B816 | 0.6 | 0.0 | -23.7 | 10.2 |
| B29 | 0.0 | 29.9 | 19.8 | 0.0 | B106 | 0.1 | -154.6 | 0.8 | 0.3 | B252 | 0.0 | 15.1 | 0.0 | 0.0 | B817 | 0.0 | 0.0 | -23.7 | -18.2 |
| B29 | 8.0 | 29.9 | -13.4 | -25.4 | B106 | 3.5 | -154.6 | 0.8 | -2.4 | B252 | 1.2 | 15.1 | 0.0 | 0.0 | B817 | 0.6 | 0.0 | -23.7 | -4.0 |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B29 | 8.0 | 1.1 | -13.4 | -72.3 | B106 | 3.5 | -4.4 | 0.8 | 2.7 | B253 | 0.0 | 29.5 | 0.0 | 0.0 | B842 | 0.0 | 0.0 | -1.8 | -2.9 |
| B29 | 11.5 | 1.1 | -27.9 | 0.1 | B106 | 7.0 | -4.4 | 0.8 | 0.0 | B253 | 1.2 | 29.5 | 0.0 | 0.0 | B842 | 0.6 | 0.0 | -1.8 | -1.8 |
| B29 | 11.5 | 1.1 | 1.2 | 0.1 | B106 | 7.0 | 0.0 | 0.0 | 0.0 | B254 | 0.0 | 25.6 | 0.0 | 0.0 | B843 | 0.0 | 0.0 | -1.8 | -1.8 |
| B29 | 11.6 | 1.1 | 1.0 | 0.0 | B106 | 7.0 | 0.0 | 0.0 | 0.0 | B254 | 1.2 | 25.6 | 0.0 | 0.0 | B843 | 0.6 | 0.0 | -1.8 | -0.8 |
| B30 | 0.0 | 16.2 | 2.1 | 0.0 | B107 | 0.0 | -20.7 | 1.0 | 0.0 | B255 | 0.0 | 26.1 | 0.0 | 0.0 | B844 | 0.0 | 0.0 | -10.9 | -9.6 |
| B30 | 7.2 | 16.2 | 2.1 | -15.4 | B107 | 0.1 | -20.7 | 1.0 | 0.0 | B255 | 1.1 | 26.1 | 0.0 | 0.0 | B844 | 0.6 | 0.0 | -10.9 | -3.1 |
| B30 | 7.2 | 55.0 | 2.1 | 7.2 | B107 | 0.1 | -20.7 | 39.6 | 0.0 | B256 | 0.0 | 27.0 | 0.0 | 0.0 | B845 | 0.0 | 0.0 | -10.9 | -3.1 |
| B30 | 10.7 | 55.0 | 2.1 | -0.3 | B107 | 0.2 | -20.7 | 39.6 | -5.6 | B256 | 1.3 | 27.0 | 0.0 | 0.0 | B845 | 0.6 | 0.0 | -10.9 | 3.5 |
| B30 | 10.7 | 55.0 | -6.1 | -0.3 | B107 | 0.2 | -20.7 | 9.9 | -5.6 | B257 | 0.0 | 28.0 | 0.0 | 0.0 | B846 | 0.0 | 0.0 | -15.7 | -7.8 |
| B30 | 10.8 | 55.0 | -6.1 | 0.0 | B107 | 3.5 | -20.7 | 9.9 | -38.5 | B257 | 1.2 | 28.0 | 0.0 | 0.0 | B846 | 0.6 | 0.0 | -15.7 | 1.7 |
| B31 | 0.0 | 9.2 | 0.9 | 0.0 | B107 | 3.5 | -4.4 | 9.9 | 34.2 | B258 | 0.0 | 29.2 | 0.0 | 0.0 | B847 | 0.0 | 0.0 | -15.7 | 1.7 |
| B31 | 0.1 | 9.2 | 0.9 | 0.0 | B107 | 7.0 | -4.4 | 9.9 | 0.0 | B258 | 1.2 | 29.2 | 0.0 | 0.0 | B847 | 0.6 | 0.0 | -15.7 | 11.1 |
| B31 | 0.1 | 9.2 | 1.4 | 0.0 | B107 | 7.0 | 0.0 | 0.0 | 0.0 | B259 | 0.0 | 30.5 | 0.0 | 0.0 | B848 | 0.0 | 0.0 | -92.5 | -38.4 |
| B31 | 3.6 | 9.2 | 1.4 | -4.9 | B107 | 7.0 | 0.0 | 0.0 | 0.0 | B259 | 1.2 | 30.5 | 0.0 | 0.0 | B848 | 0.6 | 0.0 | -92.5 | 17.0 |
| B31 | 3.6 | 1.0 | 1.4 | 8.9 | B110 | 0.0 | 1.0 | 31.1 | 0.0 | B260 | 0.0 | 32.2 | 0.0 | 0.0 | B849 | 0.0 | 0.0 | -92.5 | 17.0 |
| B31 | 10.0 | 1.0 | 1.4 | 0.0 | B110 | 0.8 | 1.0 | 31.1 | -24.9 | B260 | 1.2 | 32.2 | 0.0 | 0.0 | B849 | 0.6 | 0.0 | -92.5 | 72.5 |
| B35 | 0.0 | -8.5 | 3.7 | 0.0 | B110 | 0.8 | 1.0 | 11.0 | -24.9 | B261 | 0.0 | 34.3 | 0.0 | 0.0 | B850 | 0.0 | 0.0 | -87.1 | -51.9 |
| B35 | 0.1 | -8.5 | 3.7 | -0.2 | B110 | 3.3 | 1.0 | 11.0 | -52.8 | B261 | 1.2 | 34.3 | 0.0 | 0.0 | B850 | 0.6 | 0.0 | -87.1 | 0.3 |
| B35 | 0.1 | -8.5 | -17.3 | -0.2 | B110 | 3.3 | -4.4 | 11.0 | 38.3 | B262 | 0.0 | 35.4 | 0.0 | 0.0 | B851 | 0.0 | 0.0 | -87.1 | 0.3 |
| B35 | 1.3 | -8.5 | -17.3 | 22.0 | B110 | 6.8 | -4.4 | 11.0 | 0.0 | B262 | 1.2 | 35.4 | 0.0 | 0.0 | B851 | 0.6 | 0.0 | -87.1 | 52.6 |
| B35 | 1.3 | -8.5 | -2.4 | 22.0 | B110 | 6.8 | 0.0 | 0.0 | 0.0 | B263 | 0.0 | 36.7 | 0.0 | 0.0 | B852 | 0.0 | 0.0 | -66.5 | -51.2 |
| B35 | 3.6 | -8.5 | -2.4 | 27.4 | B110 | 6.8 | 0.0 | 0.0 | 0.0 | B263 | 1.2 | 36.7 | 0.0 | 0.0 | B852 | 0.6 | 0.0 | -66.5 | -11.3 |
| B35 | 3.6 | 0.1 | -2.4 | -7.8 | B111 | 0.0 | 16.2 | 22.2 | 0.0 | B264 | 0.0 | 37.1 | 0.0 | 0.0 | B853 | 0.0 | 0.0 | -66.5 | -11.3 |
| B35 | 6.8 | 0.1 | -2.4 | 0.0 | B111 | 0.8 | 16.2 | 22.2 | -17.8 | B264 | 1.2 | 37.1 | 0.0 | 0.0 | B853 | 0.6 | 0.0 | -66.5 | 28.6 |
| B35 | 6.8 | 0.0 | 0.0 | 0.0 | B111 | 0.8 | 16.2 | 12.1 | -17.8 | B265 | 0.0 | 34.1 | 0.0 | 0.0 | B854 | 0.0 | 0.0 | -17.2 | -24.2 |
| B35 | 6.8 | 0.0 | 0.0 | 0.0 | B111 | 2.5 | 16.2 | 12.1 | -38.6 | B265 | 1.2 | 34.1 | 0.0 | 0.0 | B854 | 0.6 | 0.0 | -17.2 | -13.8 |
| B36 | 0.0 | 0.0 | 0.0 | 0.0 | B111 | 2.5 | -4.4 | 12.1 | 41.9 | B266 | 0.0 | 59.1 | 0.0 | 0.0 | B855 | 0.0 | 0.0 | -17.2 | -13.8 |
| B36 | 0.1 | 0.0 | 0.0 | 0.0 | B111 | 6.0 | -4.4 | 12.1 | 0.0 | B266 | 1.2 | 59.1 | 0.0 | 0.0 | B855 | 0.6 | 0.0 | -17.2 | -3.5 |
| B36 | 0.1 | 0.0 | -6.0 | 0.0 | B111 | 6.0 | 0.0 | 0.0 | 0.0 | B267 | 0.0 | 59.0 | 0.0 | 0.0 | B856 | 0.0 | 0.0 | 14.4 | 6.7 |
| B36 | 3.3 | 0.0 | -6.0 | 19.4 | B111 | 6.0 | 0.0 | 0.0 | 0.0 | B267 | 1.2 | 59.0 | 0.0 | 0.0 | B856 | 0.6 | 0.0 | 14.4 | -1.9 |
| B36 | 3.3 | -2.9 | -6.0 | -21.1 | B112 | 0.0 | 0.0 | 0.0 | 0.0 | B268 | 0.0 | 59.5 | 0.0 | 0.0 | B857 | 0.0 | 0.0 | 14.4 | -1.9 |
| B36 | 6.8 | -2.9 | -6.0 | 0.0 | B112 | 0.1 | 0.0 | 0.0 | 0.0 | B268 | 1.2 | 59.5 | 0.0 | 0.0 | B857 | 0.6 | 0.0 | 14.4 | -10.5 |
| B36 | 6.8 | -2.9 | 1.0 | 0.0 | B112 | 0.1 | -4.4 | 9.2 | 0.0 | B269 | 0.0 | 60.1 | 0.0 | 0.0 | B858 | 0.0 | 0.0 | 28.8 | 46.9 |
| B36 | 6.8 | -2.9 | 1.0 | 0.0 | B112 | 3.5 | -4.4 | 9.2 | -31.9 | B269 | 1.2 | 60.1 | 0.0 | 0.0 | B858 | 0.6 | 0.0 | 28.8 | 29.7 |
| B37 | 0.0 | 2.6 | -4.5 | 0.0 | B112 | 3.5 | 44.9 | 9.2 | 15.8 | B270 | 0.0 | 60.9 | 0.0 | 0.0 | B859 | 0.0 | 0.0 | -10.0 | -10.3 |
| B37 | 0.1 | 2.6 | -4.5 | 0.2 | B112 | 5.2 | 44.9 | 9.2 | 0.0 | B270 | 1.2 | 60.9 | 0.0 | 0.0 | B859 | 0.6 | 0.0 | -10.0 | -4.2 |
| B37 | 0.1 | 2.6 | 0.7 | 0.2 | B113 | 0.0 | -2.9 | 8.1 | 0.0 | B271 | 0.0 | 6.0 | 0.0 | 0.0 | B860 | 0.0 | 0.0 | -18.3 | -12.0 |
| B37 | 3.6 | 2.6 | 0.7 | -2.1 | B113 | 0.9 | -2.9 | 8.1 | -7.4 | B271 | 1.2 | 6.0 | 0.0 | 0.0 | B860 | 0.6 | 0.0 | -18.3 | -1.0 |
| B37 | 3.6 | 0.0 | 0.7 | 6.2 | B113 | 0.9 | -20.1 | 8.1 | 16.8 | B272 | 0.0 | 6.7 | 0.0 | 0.0 | B861 | 0.0 | 0.0 | 0.0 | 0.3 |
| B37 | 6.8 | 0.0 | 0.7 | 4.1 | B113 | 3.4 | -20.1 | 8.1 | -3.3 | B272 | 1.2 | 6.7 | 0.0 | 0.0 | B861 | 0.6 | 0.0 | 0.0 | 0.3 |
| B37 | 6.8 | 0.0 | 19.7 | 4.1 | B113 | 3.4 | -4.4 | 8.1 | 7.8 | B273 | 0.0 | 7.6 | 0.0 | 0.0 | B862 | 0.0 | 0.0 | -101.5 | -43.3 |
| B37 | 7.0 | 0.0 | 19.7 | 0.2 | B113 | 4.4 | -4.4 | 8.1 | 0.0 | B273 | 1.2 | 7.6 | 0.0 | 0.0 | B862 | 0.6 | 0.0 | -101.5 | 17.6 |
| B37 | 7.0 | 0.0 | 0.3 | 0.2 | B113 | 4.4 | 0.0 | 0.0 | 0.0 | B274 | 0.0 | 8.7 | 0.0 | 0.0 | B863 | 0.0 | 0.0 | -0.1 | -19.1 |
| B37 | 7.6 | 0.0 | 0.3 | 0.0 | B113 | 4.4 | 0.0 | 0.0 | 0.0 | B274 | 1.2 | 8.7 | 0.0 | 0.0 | B863 | 0.7 | 0.0 | -0.1 | -19.1 |
| B37 | 7.6 | 0.0 | 0.0 | 0.0 | B114 | 0.0 | 0.4 | 3.2 | 0.0 | B275 | 0.0 | 10.2 | 0.0 | 0.0 | B864 | 0.0 | 0.0 | 0.0 | -13.1 |
| B37 | 7.6 | 0.0 | 0.0 | 0.0 | B114 | 2.6 | 0.4 | 3.2 | -8.3 | B275 | 1.2 | 10.2 | 0.0 | 0.0 | B864 | 0.6 | 0.0 | 0.0 | -13.1 |
| B38 | 0.0 | 1.9 | -2.2 | 0.0 | B114 | 2.6 | -4.4 | 3.2 | 3.0 | B276 | 0.0 | 12.0 | 0.0 | 0.0 | B865 | 0.0 | 0.0 | -0.2 | -32.6 |
| B38 | 0.1 | 1.9 | -2.2 | 0.1 | B114 | 3.6 | -4.4 | 3.2 | 0.0 | B276 | 1.2 | 12.0 | 0.0 | 0.0 | B865 | 0.6 | 0.0 | -0.2 | -32.5 |
| B38 | 0.1 | 1.9 | -0.6 | 0.1 | B114 | 3.6 | 0.0 | 0.0 | 0.0 | B278 | 0.0 | 16.8 | 0.0 | 0.0 | B866 | 0.0 | 0.0 | 8.4 | 2.9 |
| B38 | 3.6 | 1.9 | -0.6 | 2.0 | B114 | 3.6 | 0.0 | 0.0 | 0.0 | B278 | 1.2 | 16.8 | 0.0 | 0.0 | B866 | 0.6 | 0.0 | 8.4 | -2.2 |
| B38 | 3.6 | 0.0 | -0.6 | -2.0 | B115 | 0.0 | 0.1 | 3.7 | 0.0 | B279 | 0.0 | 18.5 | 0.0 | 0.0 | B867 | 0.0 | 0.0 | 11.3 | 34.1 |
| B38 | 6.8 | 0.0 | -0.6 | -0.2 | B115 | 1.8 | 0.1 | 3.7 | -6.7 | B279 | 1.2 | 18.5 | 0.0 | 0.0 | B867 | 0.5 | 0.0 | 11.3 | 28.4 |
| B38 | 6.8 | 0.0 | -0.3 | -0.2 | B115 | 1.8 | -4.4 | 3.7 | 3.5 | B280 | 0.0 | 19.4 | 0.0 | 0.0 | B868 | 0.0 | 0.0 | 8.8 | 13.3 |
| B38 | 7.0 | 0.0 | -0.3 | -0.2 | B115 | 2.8 | -4.4 | 3.7 | 0.0 | B280 | 1.2 | 19.4 | 0.0 | 0.0 | B868 | 0.6 | 0.0 | 8.8 | 8.0 |
| B38 | 7.0 | 0.0 | -0.3 | -0.2 | B115 | 2.8 | 0.0 | 0.0 | 0.0 | B281 | 0.0 | 19.5 | 0.0 | 0.0 | B869 | 0.0 | 0.0 | 6.9 | 6.8 |
| B38 | 7.6 | 0.0 | -0.3 | 0.0 | B115 | 2.8 | 0.0 | 0.0 | 0.0 | B281 | 1.2 | 19.5 | 0.0 | 0.0 | B869 | 0.6 | 0.0 | 6.9 | 2.7 |
| B38 | 7.6 | 0.0 | 0.0 | 0.0 | B116 | 0.0 | 0.3 | 3.3 | 0.0 | B283 | 0.0 | 25.6 | 0.0 | 0.0 | B870 | 0.0 | 0.0 | 8.0 | 7.3 |
| B38 | 7.6 | 0.0 | 0.0 | 0.0 | B116 | 1.0 | 0.3 | 3.3 | -3.3 | B283 | 1.1 | 25.6 | 0.0 | 0.0 | B870 | 0.6 | 0.0 | 8.0 | 2.5 |
| B39 | 0.0 | -1.1 | -3.7 | 0.0 | B116 | 1.0 | -4.4 | 3.3 | 3.1 | B287 | 0.0 | 3.8 | 0.0 | 0.0 | B871 | 0.0 | 0.0 | 16.5 | 10.3 |
| B39 | 0.1 | -1.1 | -3.7 | 0.2 | B116 | 2.0 | -4.4 | 3.3 | 0.0 | B287 | 1.2 | 3.8 | 0.0 | 0.0 | B871 | 0.6 | 0.0 | 16.5 | 0.5 |
| B39 | 0.1 | -1.1 | -1.2 | 0.2 | B116 | 2.0 | 0.0 | 0.0 | 0.0 | B290 | 0.0 | -1.2 | 1.1 | 0.0 | B872 | 0.0 | 0.0 | 28.8 | 29.7 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B39 | 3.6 | -1.1 | -1.2 | 4.5 | B116 | 2.0 | 0.0 | 0.0 | 0.0 | B290 | 1.2 | -1.2 | -1.1 | 0.0 | B872 | 0.6 | 0.0 | 28.8 | 12.4 |
| B39 | 3.6 | 0.0 | -1.2 | -4.2 | B117 | 0.0 | -0.4 | 2.5 | 0.0 | B291 | 0.0 | -2.7 | 1.1 | 0.0 | B873 | 0.0 | 0.0 | -10.0 | -4.2 |
| B39 | 6.8 | 0.0 | -1.2 | -0.2 | B117 | 0.2 | -0.4 | 2.5 | -0.5 | B291 | 1.2 | -2.7 | -1.1 | 0.0 | B873 | 0.6 | 0.0 | -10.0 | 1.8 |
| B39 | 6.8 | 0.0 | -0.9 | -0.2 | B117 | 0.2 | -2.2 | 2.5 | 2.4 | B292 | 0.0 | -4.3 | 1.1 | 0.0 | B874 | 0.0 | 0.0 | -18.3 | -1.0 |
| B39 | 7.0 | 0.0 | -0.9 | 0.0 | B117 | 1.2 | -2.2 | 2.5 | 0.0 | B292 | 1.2 | -4.3 | -1.1 | 0.0 | B874 | 0.6 | 0.0 | -18.3 | 9.9 |
| B39 | 7.0 | 0.0 | 0.0 | 0.0 | B117 | 1.2 | 0.0 | 0.0 | 0.0 | B293 | 0.0 | -6.3 | 1.0 | 0.0 | B875 | 0.0 | 0.0 | 0.0 | 0.3 |
| B39 | 7.0 | 0.0 | 0.0 | 0.0 | B117 | 1.2 | 0.0 | 0.0 | 0.0 | B293 | 1.1 | -6.3 | -1.0 | 0.0 | B875 | 0.6 | 0.0 | 0.0 | 0.3 |
| B40 | 0.0 | -8.5 | -20.4 | 0.0 | B120 | 0.0 | -46.8 | 2.7 | 0.0 | B295 | 0.0 | 21.1 | 0.0 | 0.0 | B876 | 0.0 | 0.0 | -101.5 | 17.6 |
| B40 | 0.1 | -8.5 | -20.4 | 1.0 | B120 | 0.1 | -46.8 | 2.7 | -0.1 | B295 | 1.1 | 21.1 | 0.0 | 0.0 | B876 | 0.5 | 0.0 | -101.5 | 68.4 |
| B40 | 0.1 | -8.5 | -1.7 | 1.0 | B120 | 0.1 | -46.8 | 3.6 | -0.1 | B296 | 0.0 | 28.1 | 0.0 | 0.0 | B877 | 0.0 | 0.0 | -0.1 | -19.1 |
| B40 | 3.6 | -8.5 | -1.7 | 6.9 | B120 | 1.2 | -46.8 | 3.6 | -4.2 | B296 | 1.1 | 28.1 | 0.0 | 0.0 | B877 | 0.5 | 0.0 | -0.1 | -19.0 |
| B40 | 3.6 | 0.0 | -1.7 | -5.8 | B120 | 1.2 | 0.0 | 3.6 | 12.6 | B297 | 0.0 | 22.9 | 0.0 | 0.0 | B878 | 0.0 | 0.0 | 0.0 | -13.1 |
| B40 | 7.0 | 0.0 | -1.7 | 0.0 | B120 | 4.3 | 0.0 | 3.6 | 1.2 | B297 | 1.2 | 22.9 | 0.0 | 0.0 | B878 | 0.7 | 0.0 | 0.0 | -13.1 |
| B40 | 7.0 | 0.0 | 0.0 | 0.0 | B120 | 4.3 | 0.0 | 24.9 | 1.2 | B298 | 0.0 | 21.2 | 0.0 | 0.0 | B879 | 0.0 | 0.0 | -0.2 | -32.5 |
| B40 | 7.0 | 0.0 | 0.0 | 0.0 | B120 | 4.4 | 0.0 | 24.9 | 0.0 | B298 | 1.2 | 21.2 | 0.0 | 0.0 | B879 | 0.8 | 0.0 | -0.2 | -32.3 |
| B41 | 0.0 | 0.0 | 0.0 | 0.0 | B120 | 4.4 | 0.0 | 0.0 | 0.0 | B299 | 0.0 | 18.7 | 0.0 | 0.0 | B880 | 0.0 | 0.0 | 8.4 | -2.2 |
| B41 | 0.0 | 0.0 | 0.0 | 0.0 | B120 | 4.4 | 0.0 | 0.0 | 0.0 | B299 | 1.2 | 18.7 | 0.0 | 0.0 | B880 | 0.5 | 0.0 | 8.4 | -6.4 |
| B41 | 0.0 | 2.1 | -2.3 | 0.0 | B121 | 0.0 | -35.8 | -2.7 | 0.0 | B301 | 0.0 | 23.2 | 0.0 | 0.0 | B881 | 0.0 | 0.0 | 11.3 | 28.4 |
| B41 | 0.1 | 2.1 | -2.3 | 0.1 | B121 | 0.1 | -35.8 | -2.7 | 0.1 | B301 | 1.2 | 23.2 | 0.0 | 0.0 | B881 | 0.6 | 0.0 | 11.3 | 21.6 |
| B41 | 0.1 | 2.1 | -2.3 | 0.1 | B121 | 0.1 | -35.8 | -3.6 | 0.1 | B302 | 0.0 | 21.6 | 0.0 | 0.0 | B882 | 0.0 | 0.0 | 8.8 | 8.0 |
| B41 | 3.6 | 2.1 | -2.3 | 8.3 | B121 | 1.2 | -35.8 | -3.6 | 4.2 | B302 | 1.2 | 21.6 | 0.0 | 0.0 | B882 | 0.6 | 0.0 | 8.8 | 2.8 |
| B41 | 3.6 | 0.0 | -2.3 | -7.8 | B121 | 1.2 | 0.0 | -3.6 | -12.6 | B303 | 0.0 | 21.8 | 0.0 | 0.0 | B883 | 0.0 | 0.0 | 6.9 | 2.7 |
| B41 | 7.1 | 0.0 | -2.3 | 0.0 | B121 | 4.3 | 0.0 | -3.6 | -1.2 | B303 | 1.2 | 21.8 | 0.0 | 0.0 | B883 | 0.6 | 0.0 | 6.9 | -1.5 |
| B41 | 7.1 | 0.0 | 0.0 | 0.0 | B121 | 4.3 | 0.0 | -24.9 | -1.2 | B304 | 0.0 | 19.3 | 0.0 | 0.0 | B884 | 0.0 | 0.0 | 8.0 | 2.5 |
| B41 | 7.1 | 0.0 | 0.0 | 0.0 | B121 | 4.4 | 0.0 | -24.9 | 0.0 | B304 | 1.1 | 19.3 | 0.0 | 0.0 | B884 | 0.6 | 0.0 | 8.0 | -2.3 |
| B52 | 0.0 | 0.0 | 0.0 | 0.0 | B121 | 4.4 | 0.0 | 0.0 | 0.0 | B305 | 0.0 | 20.9 | 0.0 | 0.0 | B885 | 0.0 | 0.0 | 16.5 | 0.5 |
| B52 | 0.0 | 0.0 | 0.0 | 0.0 | B121 | 4.4 | 0.0 | 0.0 | 0.0 | B305 | 1.1 | 20.9 | 0.0 | 0.0 | B885 | 0.6 | 0.0 | 16.5 | -9.4 |
| B52 | 0.0 | 2.1 | 0.0 | 0.0 | B155 | 0.0 | 0.0 | 0.0 | 0.0 | B306 | 0.0 | 18.1 | 0.0 | 0.0 | B886 | 0.0 | 0.0 | 11.0 | -8.7 |
| B52 | 0.1 | 2.1 | 0.0 | 0.0 | B155 | 0.1 | 0.0 | 0.0 | 0.0 | B306 | 1.2 | 18.1 | 0.0 | 0.0 | B886 | 0.6 | 0.0 | 11.0 | -15.3 |
| B52 | 0.1 | 2.1 | 0.0 | 0.0 | B155 | 0.1 | 0.0 | 12.0 | 0.0 | B307 | 0.0 | 15.6 | 0.0 | 0.0 | B887 | 0.0 | 0.0 | 7.3 | -1.6 |
| B52 | 3.6 | 2.1 | 0.0 | -0.1 | B155 | 0.2 | 0.0 | 12.0 | -2.0 | B307 | 1.2 | 15.6 | 0.0 | 0.0 | B887 | 0.5 | 0.0 | 7.3 | -5.3 |
| B52 | 3.6 | -0.2 | 0.0 | 0.1 | B155 | 0.2 | 0.0 | -2.5 | -2.0 | B308 | 0.0 | 12.1 | 0.0 | 0.0 | B888 | 0.0 | 0.0 | 8.6 | 3.7 |
| B52 | 7.2 | -0.2 | 0.0 | 0.0 | B155 | 3.6 | 0.0 | -2.5 | 6.5 | B308 | 1.2 | 12.1 | 0.0 | 0.0 | B888 | 0.6 | 0.0 | 8.6 | -1.5 |
| B52 | 7.2 | 0.0 | 0.0 | 0.0 | B155 | 3.6 | 2.1 | -2.5 | -9.0 | B309 | 0.0 | 9.3 | 0.0 | 0.0 | B889 | 0.0 | 0.0 | 9.5 | 4.8 |
| B52 | 7.3 | 0.0 | 0.0 | 0.0 | B155 | 7.2 | 2.1 | -2.5 | -0.1 | B309 | 1.2 | 9.3 | 0.0 | 0.0 | B889 | 0.6 | 0.0 | 9.5 | -1.0 |
| B53 | 0.0 | 0.0 | 0.0 | 0.0 | B155 | 7.2 | 2.1 | -2.5 | -0.1 | B310 | 0.0 | 6.8 | 0.0 | 0.0 | B890 | 0.0 | 0.0 | 9.6 | 3.6 |
| B53 | 0.0 | 0.0 | 0.0 | 0.0 | B155 | 7.2 | 2.1 | -2.5 | 0.0 | B310 | 1.1 | 6.8 | 0.0 | 0.0 | B890 | 0.6 | 0.0 | 9.6 | -2.1 |
| B53 | 0.0 | 2.1 | -1.0 | 0.0 | B155 | 7.2 | 0.0 | 0.0 | 0.0 | B312 | 0.0 | -1.4 | 0.0 | 0.0 | B891 | 0.0 | 0.0 | 11.0 | -15.3 |
| B53 | 0.1 | 2.1 | -1.0 | 0.0 | B155 | 7.3 | 0.0 | 0.0 | 0.0 | B312 | 1.1 | -1.4 | 0.0 | 0.0 | B891 | 0.5 | 0.0 | 11.0 | -20.8 |
| B53 | 0.1 | 2.1 | -1.0 | 0.0 | B156 | 0.0 | 0.0 | 0.0 | 0.0 | B313 | 0.0 | -1.3 | 0.0 | 0.0 | B892 | 0.0 | 0.0 | 7.3 | -5.3 |
| B53 | 3.6 | 2.1 | -1.0 | 3.5 | B156 | 0.1 | 0.0 | 0.0 | 0.0 | B313 | 1.1 | -1.3 | 0.0 | 0.0 | B892 | 0.6 | 0.0 | 7.3 | -9.7 |
| B53 | 3.6 | 18.7 | -1.0 | -2.3 | B156 | 0.1 | 0.0 | -1.8 | 0.0 | B314 | 0.0 | -0.8 | 0.0 | 0.0 | B893 | 0.0 | 0.0 | 8.6 | -1.5 |
| B53 | 7.2 | 18.7 | -1.0 | 1.2 | B156 | 3.6 | 0.0 | -1.8 | 6.4 | B314 | 1.2 | -0.8 | 0.0 | 0.0 | B893 | 0.6 | 0.0 | 8.6 | -6.7 |
| B53 | 7.2 | 18.7 | 24.0 | 1.2 | B156 | 3.6 | 2.1 | -1.8 | -6.5 | B315 | 0.0 | -0.3 | 0.0 | 0.0 | B894 | 0.0 | 0.0 | 9.5 | -1.0 |
| B53 | 7.3 | 18.7 | 24.0 | 0.0 | B156 | 7.2 | 2.1 | -1.8 | -0.1 | B315 | 1.2 | -0.3 | 0.0 | 0.0 | B894 | 0.6 | 0.0 | 9.5 | -6.7 |
| B55 | 0.0 | 0.0 | 0.0 | 0.0 | B156 | 7.2 | 2.1 | -1.8 | -0.1 | B316 | 0.0 | 0.1 | 0.0 | 0.0 | B895 | 0.0 | 0.0 | 9.6 | -2.1 |
| B55 | 0.0 | 0.0 | 0.0 | 0.0 | B156 | 7.2 | 2.1 | -1.8 | 0.0 | B316 | 1.2 | 0.1 | 0.0 | 0.0 | B895 | 0.6 | 0.0 | 9.6 | -7.9 |
| B55 | 0.0 | 2.1 | -1.2 | 0.0 | B156 | 7.2 | 0.0 | 0.0 | 0.0 | B317 | 0.0 | -0.2 | 0.0 | 0.0 | B896 | 0.0 | 0.0 | 0.0 | -12.9 |
| B55 | 0.1 | 2.1 | -1.2 | 0.1 | B156 | 7.3 | 0.0 | 0.0 | 0.0 | B317 | 1.2 | -0.2 | 0.0 | 0.0 | B896 | 0.6 | 0.0 | 0.0 | -12.9 |
| B55 | 0.1 | 2.1 | -1.2 | 0.1 | B157 | 0.0 | 0.0 | 0.0 | 0.0 | B318 | 0.0 | -0.4 | 0.0 | 0.0 | B897 | 0.0 | 0.0 | 52.9 | 32.8 |
| B55 | 3.6 | 2.1 | -1.2 | 4.2 | B157 | 0.1 | 0.0 | 0.0 | 0.0 | B318 | 1.2 | -0.4 | 0.0 | 0.0 | B897 | 0.6 | 0.0 | 52.9 | 1.0 |
| B55 | 3.6 | -4.4 | -1.2 | -4.2 | B157 | 0.1 | 0.0 | -1.5 | 0.0 | B319 | 0.0 | -0.6 | 0.0 | 0.0 | B898 | 0.0 | 0.0 | 56.9 | 15.9 |
| B55 | 7.2 | -4.4 | -1.2 | 0.0 | B157 | 3.6 | 0.0 | -1.5 | 5.4 | B319 | 1.2 | -0.6 | 0.0 | 0.0 | B898 | 0.6 | 0.0 | 56.9 | -18.2 |
| B55 | 7.2 | -4.4 | -0.7 | 0.0 | B157 | 3.6 | 2.1 | -1.5 | -5.4 | B320 | 0.0 | -0.2 | 0.0 | 0.0 | B899 | 0.0 | 0.0 | 19.0 | -17.4 |
| B55 | 7.3 | -4.4 | -0.7 | 0.0 | B157 | 7.2 | 2.1 | -1.5 | -0.1 | B320 | 1.1 | -0.2 | 0.0 | 0.0 | B899 | 0.6 | 0.0 | 19.0 | -28.8 |
| B56 | 0.0 | 0.0 | 0.0 | 0.0 | B157 | 7.2 | 2.1 | -1.5 | -0.1 | B321 | 0.0 | 2.1 | 0.0 | 0.0 | B900 | 0.0 | 0.0 | 8.7 | -23.7 |
| B56 | 0.0 | 0.0 | 0.0 | 0.0 | B157 | 7.2 | 2.1 | -1.5 | 0.0 | B321 | 1.1 | 2.1 | 0.0 | 0.0 | B900 | 0.6 | 0.0 | 8.7 | -28.9 |
| B56 | 0.0 | 2.1 | -0.6 | 0.0 | B157 | 7.2 | 0.0 | 0.0 | 0.0 | B323 | 0.0 | 7.6 | 0.0 | 0.0 | B901 | 0.0 | 0.0 | 0.0 | -12.9 |
| B56 | 0.1 | 2.1 | -0.6 | 0.0 | B157 | 7.3 | 0.0 | 0.0 | 0.0 | B323 | 1.1 | 7.6 | 0.0 | 0.0 | B901 | 0.6 | 0.0 | 0.0 | -12.9 |
| B56 | 0.1 | 2.1 | -0.6 | 0.0 | B158 | 0.0 | 0.0 | 0.0 | 0.0 | B324 | 0.0 | 11.9 | 0.0 | 0.0 | B902 | 0.0 | 0.0 | 52.9 | 1.0 |
| B56 | 3.6 | 2.1 | -0.6 | 2.3 | B158 | 0.1 | 0.0 | 0.0 | 0.0 | B324 | 1.2 | 11.9 | 0.0 | 0.0 | B902 | 0.6 | 0.0 | 52.9 | -30.7 |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B56 | 3.6 | -5.3 | -0.6 | -2.3 | B158 | 0.1 | 0.0 | -1.2 | 0.0 | B325 | 0.0 | 14.1 | 0.0 | 0.0 | B903 | 0.0 | 0.0 | 56.9 | -18.2 |
| B56 | 7.2 | -5.3 | -0.6 | 0.0 | B158 | 3.6 | 0.0 | -1.2 | 4.2 | B325 | 1.2 | 14.1 | 0.0 | 0.0 | B903 | 0.6 | 0.0 | 56.9 | -52.4 |
| B56 | 7.2 | -5.3 | 0.6 | 0.0 | B158 | 3.6 | 2.1 | -1.2 | -4.2 | B326 | 0.0 | 15.7 | 0.0 | 0.0 | B904 | 0.0 | 0.0 | 19.0 | -28.8 |
| B56 | 7.3 | -5.3 | 0.6 | 0.0 | B158 | 7.2 | 2.1 | -1.2 | -0.1 | B326 | 1.2 | 15.7 | 0.0 | 0.0 | B904 | 0.6 | 0.0 | 19.0 | -40.2 |
| B58 | 0.0 | 0.0 | 0.0 | 0.0 | B158 | 7.2 | 2.1 | -1.2 | -0.1 | B327 | 0.0 | 18.2 | 0.0 | 0.0 | B905 | 0.0 | 0.0 | 8.7 | -28.9 |
| B58 | 0.0 | 0.0 | 0.0 | 0.0 | B158 | 7.2 | 2.1 | -1.2 | 0.0 | B327 | 1.2 | 18.2 | 0.0 | 0.0 | B905 | 0.5 | 0.0 | 8.7 | -33.2 |
| B58 | 0.0 | 2.1 | -1.0 | 0.0 | B158 | 7.2 | 0.0 | 0.0 | 0.0 | B329 | 0.0 | 29.2 | 0.0 | 0.0 | B906 | 0.0 | 0.0 | -82.6 | -86.5 |
| B58 | 0.1 | 2.1 | -1.0 | 0.1 | B158 | 7.3 | 0.0 | 0.0 | 0.0 | B329 | 1.2 | 29.2 | 0.0 | 0.0 | B906 | 0.6 | 0.0 | -82.6 | -37.0 |
| B58 | 0.1 | 2.1 | -1.0 | 0.1 | B159 | 0.0 | 0.0 | 0.0 | 0.0 | B330 | 0.0 | 20.9 | 0.0 | 0.0 | B908 | 0.0 | 0.0 | -82.6 | -37.0 |
| B58 | 3.6 | 2.1 | -1.0 | 3.6 | B159 | 0.1 | 0.0 | 0.0 | 0.0 | B330 | 1.2 | 20.9 | 0.0 | 0.0 | B908 | 0.7 | 0.0 | -82.6 | 20.8 |
| B58 | 3.6 | -4.3 | -1.0 | -3.6 | B159 | 0.1 | 0.0 | -0.9 | 0.0 | B331 | 0.0 | 20.4 | 0.0 | 0.0 | B910 | 0.0 | 0.0 | -35.8 | 4.1 |
| B58 | 7.2 | -4.3 | -1.0 | 0.1 | B159 | 3.6 | 0.0 | -0.9 | 3.2 | B331 | 1.2 | 20.4 | 0.0 | 0.0 | B910 | 0.6 | 0.0 | -35.8 | 25.6 |
| B58 | 7.2 | -4.3 | 1.1 | 0.1 | B159 | 3.6 | 2.1 | -0.9 | -3.2 | B332 | 0.0 | 24.3 | 0.0 | 0.0 | B911 | 0.0 | 0.0 | -35.8 | 25.6 |
| B58 | 7.3 | -4.3 | 1.1 | 0.0 | B159 | 7.2 | 2.1 | -0.9 | 0.0 | B332 | 1.2 | 24.3 | 0.0 | 0.0 | B911 | 0.6 | 0.0 | -35.8 | 47.1 |
| B59 | 0.0 | 0.0 | 0.0 | 0.0 | B159 | 7.2 | 2.1 | -0.9 | 0.0 | B333 | 0.0 | 22.6 | 0.0 | 0.0 | B914 | 0.0 | 0.0 | 0.0 | 63.8 |
| B59 | 0.0 | 0.0 | 0.0 | 0.0 | B159 | 7.2 | 2.1 | -0.9 | 0.0 | B333 | 1.1 | 22.6 | 0.0 | 0.0 | B914 | 0.6 | 0.0 | 0.0 | 63.8 |
| B59 | 0.0 | 2.1 | -0.4 | 0.0 | B159 | 7.2 | 0.0 | 0.0 | 0.0 | B334 | 0.0 | 13.5 | 0.0 | 0.0 | B915 | 0.0 | 0.0 | 0.0 | 63.8 |
| B59 | 0.1 | 2.1 | -0.4 | 0.0 | B159 | 7.3 | 0.0 | 0.0 | 0.0 | B334 | 1.1 | 13.5 | 0.0 | 0.0 | B915 | 0.8 | 0.0 | 0.0 | 63.8 |
| B59 | 0.1 | 2.1 | -0.4 | 0.0 | B160 | 0.0 | 0.0 | 0.0 | 0.0 | B335 | 0.0 | 15.9 | 0.0 | 0.0 | B921 | 0.0 | -10.1 | 0.0 | 0.0 |
| B59 | 3.6 | 2.1 | -0.4 | 1.6 | B160 | 0.1 | 0.0 | 0.0 | 0.0 | B335 | 1.2 | 15.9 | 0.0 | 0.0 | B921 | 1.2 | -10.1 | 0.0 | 0.0 |
| B59 | 3.6 | -2.7 | -0.4 | -1.5 | B160 | 0.1 | 0.0 | -0.7 | 0.0 | B336 | 0.0 | 19.5 | 0.0 | 0.0 | B922 | 0.0 | -20.0 | 0.0 | 0.0 |
| B59 | 7.2 | -2.7 | -0.4 | 0.1 | B160 | 3.6 | 0.0 | -0.7 | 2.5 | B336 | 1.2 | 19.5 | 0.0 | 0.0 | B922 | 1.2 | -20.0 | 0.0 | 0.0 |
| B59 | 7.2 | -2.7 | 1.2 | 0.1 | B160 | 3.6 | 2.1 | -0.7 | -2.5 | B337 | 0.0 | 20.1 | 0.0 | 0.0 | B923 | 0.0 | -29.7 | 0.0 | 0.0 |
| B59 | 7.3 | -2.7 | 1.2 | 0.0 | B160 | 7.2 | 2.1 | -0.7 | 0.0 | B337 | 1.2 | 20.1 | 0.0 | 0.0 | B923 | 1.2 | -29.7 | 0.0 | 0.0 |
| B60 | 0.0 | 0.0 | 0.0 | 0.0 | B160 | 7.2 | 2.1 | -0.7 | 0.0 | B338 | 0.0 | 13.9 | 0.0 | 0.0 | B8 | 0.0 | 0.0 | -58.9 | -29.5 |
| B60 | 0.0 | 0.0 | 0.0 | 0.0 | B160 | 7.2 | 2.1 | -0.7 | 0.0 | B338 | 1.2 | 13.9 | 0.0 | 0.0 | B8 | 0.5 | 0.0 | -58.9 | 0.0 |
| B60 | 0.0 | 2.1 | 0.2 | 0.0 | B160 | 7.2 | 0.0 | 0.0 | 0.0 | B413 | 0.0 | 3.2 | 1.1 | 0.0 | B144 | 0.0 | 19.6 | 0.0 | 0.0 |
| B60 | 0.1 | 2.1 | 0.2 | 0.0 | B160 | 7.3 | 0.0 | 0.0 | 0.0 | B413 | 1.2 | 3.2 | -1.1 | 0.0 | B144 | 1.1 | 19.6 | 0.0 | 0.0 |
| B60 | 0.1 | 2.1 | 0.2 | 0.0 | B162 | 0.0 | 0.0 | 0.0 | 0.0 | B555 | 0.0 | -4.9 | 0.0 | 0.0 | B148 | 0.0 | 0.0 | 0.2 | -16.7 |
| B60 | 3.6 | 2.1 | 0.2 | -0.9 | B162 | 0.0 | 0.0 | 0.0 | 0.0 | B555 | 3.9 | -4.9 | 0.0 | 0.0 | B148 | 0.6 | 0.0 | 0.2 | -16.8 |
| B60 | 3.6 | -2.1 | 0.2 | 1.0 | B162 | 0.0 | 2.1 | -0.8 | 0.0 | B556 | 0.0 | -0.7 | 0.0 | 0.0 | B152 | 0.1 | 0.0 | 47.0 | 0.0 |
| B60 | 7.2 | -2.1 | 0.2 | 0.1 | B162 | 0.1 | 2.1 | -0.8 | 0.0 | B556 | 3.9 | -0.7 | 0.0 | 0.0 | B152 | 0.7 | 0.0 | 47.0 | -28.2 |
| B60 | 7.2 | -2.1 | 1.6 | 0.1 | B162 | 0.1 | 2.1 | -0.8 | 0.0 | B558 | 0.0 | 21.8 | 0.0 | 0.0 | B154 | 0.0 | 0.0 | 0.2 | -16.8 |
| B60 | 7.3 | -2.1 | 1.6 | 0.0 | B162 | 3.6 | 2.1 | -0.8 | 2.8 | B558 | 1.3 | 21.8 | 0.0 | 0.0 | B154 | 0.6 | 0.0 | 0.2 | -16.9 |
| B61 | 0.0 | 0.0 | 0.0 | 0.0 | B162 | 3.6 | 0.0 | -0.8 | -2.8 | B559 | 0.0 | 0.5 | 0.0 | 0.0 | B54 | 0.0 | 1.1 | -18.4 | 0.0 |
| B61 | 0.0 | 0.0 | 0.0 | 0.0 | B162 | 7.2 | 0.0 | -0.8 | 0.0 | B559 | 1.2 | 0.5 | 0.0 | 0.0 | B54 | 7.8 | 1.1 | 13.9 | 17.8 |
| B61 | 0.0 | 2.1 | 0.9 | 0.0 | B162 | 7.2 | 0.0 | 0.0 | 0.0 | B560 | 0.0 | 21.8 | 0.0 | 0.0 | B54 | 7.8 | 1.1 | 13.9 | 30.8 |
| B61 | 0.1 | 2.1 | 0.9 | 0.0 | B162 | 7.3 | 0.0 | 0.0 | 0.0 | B560 | 1.4 | 21.8 | 0.0 | 0.0 | B54 | 9.6 | 1.1 | 21.1 | 0.2 |
| B61 | 0.1 | 2.1 | 0.9 | 0.0 | B163 | 0.0 | 0.0 | 0.0 | 0.0 | B562 | 0.0 | 17.4 | 0.0 | 0.0 | B54 | 9.6 | 1.1 | 2.9 | 0.2 |
| B61 | 3.6 | 2.1 | 0.9 | -3.4 | B163 | 0.0 | 0.0 | 0.0 | 0.0 | B562 | 1.2 | 17.4 | 0.0 | 0.0 | B54 | 9.6 | 1.1 | 3.2 | 0.0 |
| B61 | 3.6 | -2.0 | 0.9 | 3.4 | B163 | 0.0 | 2.1 | -0.6 | 0.0 | B563 | 0.0 | 0.3 | 0.0 | 0.0 | B430 | 0.0 | 55.0 | -2.3 | 0.0 |
| B61 | 7.2 | -2.0 | 0.9 | 0.1 | B163 | 0.1 | 2.1 | -0.6 | 0.0 | B563 | 1.3 | 0.3 | 0.0 | 0.0 | B430 | 0.1 | 55.0 | -2.3 | 0.1 |
| B61 | 7.2 | -2.0 | 2.1 | 0.1 | B163 | 0.1 | 2.1 | -0.6 | 0.0 | B564 | 0.0 | 14.9 | 0.0 | 0.0 | B430 | 0.1 | 55.0 | -4.8 | 0.1 |
| B61 | 7.3 | -2.0 | 2.1 | 0.0 | B163 | 3.6 | 2.1 | -0.6 | 2.0 | B564 | 1.4 | 14.9 | 0.0 | 0.0 | B430 | 1.8 | 55.0 | -4.8 | 8.5 |
| B62 | 0.0 | 0.0 | 0.0 | 0.0 | B163 | 3.6 | 0.0 | -0.6 | -2.0 | B567 | 0.0 | 0.5 | 0.0 | 0.0 | B430 | 1.8 | 2.1 | -4.8 | -37.3 |
| B62 | 0.0 | 0.0 | 0.0 | 0.0 | B163 | 7.2 | 0.0 | -0.6 | 0.0 | B567 | 1.2 | 0.5 | 0.0 | 0.0 | B430 | 9.6 | 2.1 | -4.8 | 0.0 |
| B62 | 0.0 | 2.2 | 1.6 | 0.0 | B163 | 7.2 | 0.0 | 0.0 | 0.0 | B568 | 0.0 | 0.3 | 0.0 | 0.0 | B531 | 0.0 | 6.1 | -3.3 | 0.0 |
| B62 | 0.1 | 2.2 | 1.6 | -0.1 | B163 | 7.3 | 0.0 | 0.0 | 0.0 | B568 | 1.2 | 0.3 | 0.0 | 0.0 | B531 | 0.1 | 6.1 | -3.3 | 0.2 |
| B62 | 0.1 | 2.2 | 1.6 | -0.1 | B164 | 0.0 | 0.0 | 0.0 | 0.0 | B530 | 0.0 | 0.0 | 12.0 | 0.0 | B531 | 0.1 | 6.1 | -4.9 | 0.2 |
| B62 | 3.6 | 2.2 | 1.6 | -5.8 | B164 | 0.0 | 0.0 | 0.0 | 0.0 | B530 | 0.5 | 0.0 | 12.0 | -6.0 | B531 | 1.8 | 6.1 | -4.9 | 8.7 |
| B62 | 3.6 | -2.0 | 1.6 | 5.9 | B164 | 0.0 | 2.1 | -0.5 | 0.0 | B65 | 0.0 | 32.2 | 0.0 | 0.0 | B531 | 1.8 | 2.1 | -4.9 | -38.0 |
| B62 | 7.2 | -2.0 | 1.6 | 0.1 | B164 | 0.1 | 2.1 | -0.5 | 0.0 | B65 | 1.2 | 32.2 | 0.0 | 0.0 | B531 | 9.6 | 2.1 | -4.9 | 0.0 |
| B62 | 7.2 | -2.0 | 2.5 | 0.1 | B164 | 0.1 | 2.1 | -0.5 | 0.0 | B183 | 0.0 | 0.3 | 0.0 | 0.0 | B533 | 0.0 | -35.8 | -1.4 | 0.0 |
| B62 | 7.3 | -2.0 | 2.5 | 0.0 | B164 | 3.6 | 2.1 | -0.5 | 1.8 | B183 | 1.2 | 0.3 | 0.0 | 0.0 | B533 | 0.1 | -35.8 | -1.4 | 0.1 |
| B67 | 0.0 | 0.0 | 0.0 | 0.0 | B164 | 3.6 | 0.2 | -0.5 | -1.8 | B288 | 0.0 | 0.0 | -6.5 | -7.2 | B533 | 0.1 | -35.8 | -3.7 | 0.1 |
| B67 | 0.1 | 0.0 | 0.0 | 0.0 | B164 | 7.2 | 0.2 | -0.5 | 0.0 | B288 | 0.6 | 0.0 | -6.5 | -3.3 | B533 | 1.8 | -35.8 | -3.7 | 6.5 |
| B67 | 0.1 | 2.1 | 3.9 | 0.0 | B164 | 7.2 | 0.0 | 0.0 | 0.0 | B574 | 0.0 | 0.0 | -76.1 | -0.1 | B533 | 1.8 | 2.1 | -3.7 | -28.5 |
| B67 | 1.0 | 2.1 | 3.9 | -3.6 | B164 | 7.3 | 0.0 | 0.0 | 0.0 | B574 | 0.6 | 0.0 | -76.1 | 45.5 | B533 | 9.6 | 2.1 | -3.7 | 0.0 |
| B67 | 1.0 | -5.1 | 3.9 | 4.4 | B169 | 0.0 | 0.0 | 0.0 | 0.0 | B575 | 0.0 | 0.0 | 74.1 | 86.2 | B535 | 0.0 | 2.0 | -1.7 | 0.0 |
| B67 | 1.9 | -5.1 | 3.9 | 0.8 | B169 | 0.0 | 0.0 | 0.0 | 0.0 | B575 | 0.6 | 0.0 | 74.1 | 41.7 | B535 | 7.8 | 2.0 | -1.7 | 13.6 |
| B67 | 1.9 | -5.1 | 15.5 | 0.8 | B169 | 0.0 | 2.1 | 2.1 | 0.0 | B576 | 0.0 | 0.0 | 69.7 | 54.6 | B535 | 7.8 | -8.4 | -1.7 | -2.9 |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B67 | 1.9 | -5.1 | 15.5 | 0.0 | B169 | 0.1 | 2.1 | 2.1 | -0.1 | B576 | 0.6 | 0.0 | 69.7 | 12.7 | B535 | 9.6 | -8.4 | -1.7 | 0.1 |
| B68 | 0.0 | 0.0 | 0.0 | 0.0 | B169 | 0.1 | 2.1 | 2.1 | -0.1 | B577 | 0.0 | 0.0 | 65.4 | 42.8 | B535 | 9.6 | -8.4 | 2.6 | 0.1 |
| B68 | 0.1 | 0.0 | 0.0 | 0.0 | B169 | 3.6 | 2.1 | 2.1 | -7.7 | B577 | 0.6 | 0.0 | 65.4 | 3.6 | B535 | 9.6 | -8.4 | 2.6 | 0.0 |
| B68 | 0.1 | 1.1 | 3.2 | 0.0 | B169 | 3.6 | -1.6 | 2.1 | 7.9 | B578 | 0.0 | 0.0 | 61.0 | 36.8 | B537 | 0.0 | -63.5 | 6.1 | 0.0 |
| B68 | 1.0 | 1.1 | 3.2 | -2.9 | B169 | 7.2 | -1.6 | 2.1 | 0.2 | B578 | 0.6 | 0.0 | 61.0 | 0.2 | B537 | 0.1 | -63.5 | 6.1 | -0.3 |
| B68 | 1.0 | 11.3 | 3.2 | 3.3 | B169 | 7.2 | -1.6 | 3.0 | 0.2 | B579 | 0.0 | 0.0 | 56.6 | 32.6 | B537 | 0.1 | -63.5 | -1.5 | -0.3 |
| B68 | 1.9 | 11.3 | 3.2 | 0.3 | B169 | 7.3 | -1.6 | 3.0 | 0.0 | B579 | 0.6 | 0.0 | 56.6 | -1.4 | B537 | 1.8 | -63.5 | -1.5 | 2.3 |
| B68 | 1.9 | 11.3 | 6.8 | 0.3 | B170 | 0.0 | 0.0 | 0.0 | 0.0 | B580 | 0.0 | 0.0 | 52.3 | 29.0 | B537 | 1.8 | 4.1 | -1.5 | -1.5 |
| B68 | 1.9 | 11.3 | 6.8 | 0.0 | B170 | 0.0 | 0.0 | 0.0 | 0.0 | B580 | 0.6 | 0.0 | 52.3 | -2.4 | B537 | 3.6 | 4.1 | -1.5 | 1.2 |
| B69 | 0.0 | -64.5 | 6.8 | 0.0 | B170 | 0.0 | 2.0 | 2.4 | 0.0 | B581 | 0.0 | 0.0 | 47.9 | 25.5 | B537 | 3.6 | 4.1 | -2.2 | 1.2 |
| B69 | 0.1 | -64.5 | 6.6 | -0.3 | B170 | 0.1 | 2.0 | 2.4 | -0.1 | B581 | 0.6 | 0.0 | 47.9 | -3.2 | B537 | 5.1 | 4.1 | -2.2 | 4.4 |
| B69 | 0.1 | -64.5 | 22.6 | -0.3 | B170 | 0.1 | 2.0 | 2.4 | -0.1 | B582 | 0.0 | 0.0 | 43.5 | 22.2 | B537 | 5.1 | 4.1 | -7.1 | 4.4 |
| B69 | 6.1 | -64.5 | -2.4 | -61.6 | B170 | 3.6 | 2.0 | 2.4 | -8.8 | B582 | 0.6 | 0.0 | 43.5 | -3.9 | B537 | 6.8 | 4.1 | -7.1 | 17.0 |
| B69 | 6.1 | -2.2 | -2.4 | -33.0 | B170 | 3.6 | -0.8 | 2.4 | 8.9 | B583 | 0.0 | 0.0 | 39.2 | 18.9 | B537 | 6.8 | 2.1 | -7.1 | -19.7 |
| B69 | 9.6 | -2.2 | -16.7 | 0.0 | B170 | 7.2 | -0.8 | 2.4 | 0.1 | B583 | 0.6 | 0.0 | 39.2 | -4.6 | B537 | 9.6 | 2.1 | -7.1 | 0.0 |
| B69 | 9.6 | 0.0 | 0.2 | 0.0 | B170 | 7.2 | -0.8 | 3.0 | 0.1 | B584 | 0.0 | 0.0 | 34.8 | 15.7 | B539 | 0.0 | 2.2 | 3.8 | 0.0 |
| B69 | 9.6 | 0.0 | 0.0 | 0.0 | B170 | 7.3 | -0.8 | 3.0 | 0.0 | B584 | 0.6 | 0.0 | 34.8 | -5.1 | B539 | 2.8 | 2.2 | 3.8 | -10.5 |
| B70 | 0.0 | -5.1 | 15.5 | 0.0 | B171 | 0.0 | 0.0 | 0.0 | 0.0 | B585 | 0.0 | 0.0 | 30.4 | 12.6 | B539 | 2.8 | 0.0 | 3.8 | 7.1 |
| B70 | 0.1 | -5.1 | 15.5 | -0.8 | B171 | 0.0 | 0.0 | 0.0 | 0.0 | B585 | 0.6 | 0.0 | 30.4 | -5.6 | B539 | 4.6 | 0.0 | 3.8 | 0.0 |
| B70 | 0.1 | -5.1 | 7.6 | -0.8 | B171 | 0.0 | 2.1 | 2.4 | 0.0 | B586 | 0.0 | 0.0 | 30.4 | -5.6 | B539 | 4.6 | 0.0 | 0.0 | 0.0 |
| B70 | 6.1 | -5.1 | 7.6 | -47.0 | B171 | 0.1 | 2.1 | 2.4 | -0.1 | B586 | 0.6 | 0.0 | 30.4 | -23.9 | B539 | 4.7 | 0.0 | 0.0 | 0.0 |
| B70 | 6.1 | -4.4 | 7.6 | 26.5 | B171 | 0.1 | 2.1 | 2.4 | -0.1 | B587 | 0.0 | 0.0 | 26.0 | 9.6 | B543 | 0.0 | 2.2 | 0.0 | 0.0 |
| B70 | 9.6 | -4.4 | 7.6 | 0.0 | B171 | 3.6 | 2.1 | 2.4 | -8.7 | B587 | 0.6 | 0.0 | 26.0 | -6.1 | B543 | 2.7 | 2.2 | 0.0 | 0.0 |
| B70 | 9.6 | 0.0 | 0.0 | 0.0 | B171 | 3.6 | 3.3 | 2.4 | 8.6 | B588 | 0.0 | 0.0 | 21.7 | 6.6 | B545 | 0.0 | 1.0 | 0.0 | 0.0 |
| B70 | 9.6 | 0.0 | 0.0 | 0.0 | B171 | 7.2 | 3.3 | 2.4 | -0.1 | B588 | 0.6 | 0.0 | 21.7 | -6.4 | B545 | 2.7 | 1.0 | 0.0 | 0.0 |
| B71 | 0.0 | 16.3 | -3.7 | 0.0 | B171 | 7.2 | 3.3 | -1.5 | -0.1 | B589 | 0.0 | 0.0 | 17.3 | 3.8 | B547 | 0.0 | 18.4 | 1.1 | 0.0 |
| B71 | 0.1 | 16.3 | -3.7 | 0.2 | B171 | 7.3 | 3.3 | -1.5 | 0.0 | B589 | 0.6 | 0.0 | 17.3 | -6.6 | B547 | 1.2 | 18.4 | -1.1 | 0.0 |
| B71 | 0.1 | 16.3 | 6.6 | 0.2 | B172 | 0.0 | 0.0 | 0.0 | 0.0 | B590 | 0.0 | 0.0 | 12.9 | 1.3 | B548 | 0.0 | 23.2 | 1.0 | 0.0 |
| B71 | 6.1 | 16.3 | 6.6 | -39.5 | B172 | 0.0 | 0.0 | -0.2 | 0.0 | B590 | 0.6 | 0.0 | 12.9 | -6.5 | B548 | 1.2 | 23.2 | -1.0 | 0.0 |
| B71 | 6.1 | -4.4 | 6.6 | 22.7 | B172 | 0.0 | 1.1 | 19.1 | 0.0 | B591 | 0.0 | 0.0 | 8.6 | -0.5 | B549 | 0.0 | 28.1 | 1.0 | 0.0 |
| B71 | 9.6 | -4.4 | 6.6 | 0.0 | B172 | 3.6 | 1.1 | 4.1 | -41.8 | B591 | 0.6 | 0.0 | 8.6 | -5.6 | B549 | 1.2 | 28.1 | -1.0 | 0.0 |
| B71 | 9.6 | 0.0 | 0.0 | 0.0 | B172 | 3.6 | 18.3 | 4.1 | -27.0 | B592 | 0.0 | 0.0 | 4.2 | 0.5 | B553 | 0.0 | 31.7 | 1.0 | 0.0 |
| B71 | 9.6 | 0.0 | 0.0 | 0.0 | B172 | 5.4 | 18.3 | -3.1 | -27.9 | B592 | 0.6 | 0.0 | 4.2 | -2.0 | B553 | 1.2 | 31.7 | -1.0 | 0.0 |
| B72 | 0.0 | -2.0 | 2.5 | 0.0 | B172 | 5.4 | 19.4 | -10.2 | -27.9 | B593 | 0.0 | 0.0 | 19.8 | 9.9 | B557 | 0.0 | 33.5 | 1.0 | 0.0 |
| B72 | 0.1 | -2.0 | 2.5 | -0.1 | B172 | 6.3 | 19.4 | -14.0 | -16.7 | B593 | 0.6 | 0.0 | 19.8 | -2.0 | B557 | 1.1 | 33.5 | -1.0 | 0.0 |
| B72 | 0.1 | -2.0 | 3.6 | -0.1 | B172 | 6.3 | 16.3 | -14.0 | -14.9 | B594 | 0.0 | 0.0 | 15.4 | 2.9 | B566 | 0.0 | 40.6 | 1.1 | 0.0 |
| B72 | 6.1 | -2.0 | 3.6 | -21.6 | B172 | 7.2 | 16.3 | -17.9 | -0.2 | B594 | 0.6 | 0.0 | 15.4 | -6.3 | B566 | 1.3 | 40.6 | -1.1 | 0.0 |
| B72 | 6.1 | -4.6 | 3.6 | 12.3 | B172 | 7.2 | 16.3 | -3.4 | -0.2 | B595 | 0.0 | 0.0 | 11.0 | -4.0 | B570 | 0.0 | 36.8 | 1.1 | 0.0 |
| B72 | 9.6 | -4.6 | 3.6 | 0.0 | B172 | 7.3 | 16.3 | -3.7 | 0.0 | B595 | 0.6 | 0.0 | 11.0 | -10.6 | B570 | 1.2 | 36.8 | -1.1 | 0.0 |
| B72 | 9.6 | 0.0 | 0.0 | 0.0 | B42 | 0.0 | -63.5 | 6.1 | 0.0 | B596 | 0.0 | 0.0 | 6.7 | -17.9 | B571 | 0.0 | 0.0 | 1.2 | 0.0 |
| B72 | 9.6 | 0.0 | 0.0 | 0.0 | B42 | 0.1 | -63.5 | 6.1 | -0.3 | B596 | 0.6 | 0.0 | 6.7 | -21.9 | B571 | 1.4 | 0.0 | -1.2 | 0.0 |
| B73 | 0.0 | 3.3 | -1.5 | 0.0 | B42 | 0.1 | -63.5 | 12.9 | -0.3 | B597 | 0.0 | 0.0 | 2.3 | -57.8 | B572 | 0.0 | 0.0 | 1.0 | 0.0 |
| B73 | 0.1 | 3.3 | -1.5 | 0.1 | B42 | 3.6 | -63.5 | 12.9 | -46.0 | B597 | 0.6 | 0.0 | 2.3 | -59.2 | B572 | 1.1 | 0.0 | -1.0 | 0.0 |
| B73 | 0.1 | 3.3 | 5.2 | 0.1 | B42 | 3.6 | -101.4 | 12.9 | 37.2 | B631 | 0.0 | 0.0 | 12.3 | 4.9 | B608 | 0.0 | 42.3 | 1.1 | 0.0 |
| B73 | 6.1 | 3.3 | 5.2 | -31.5 | B42 | 6.8 | -101.4 | 12.9 | -3.4 | B631 | 0.6 | 0.0 | 12.3 | -2.4 | B608 | 1.2 | 42.3 | -1.1 | 0.0 |
| B73 | 6.1 | -4.4 | 5.2 | 18.1 | B42 | 6.8 | -101.4 | -9.0 | -3.4 | B632 | 0.0 | 0.0 | 10.2 | 3.1 | B609 | 0.0 | 44.6 | 1.1 | 0.0 |
| B73 | 9.6 | -4.4 | 5.2 | 0.0 | B42 | 7.2 | -101.4 | -9.0 | 0.2 | B632 | 0.6 | 0.0 | 10.2 | -3.0 | B609 | 1.2 | 44.6 | -1.1 | 0.0 |
| B73 | 9.6 | 0.0 | 0.0 | 0.0 | B42 | 7.2 | -101.4 | 4.5 | 0.2 | B633 | 0.0 | 0.0 | 8.1 | 1.7 | B610 | 0.0 | 47.1 | 1.1 | 0.0 |
| B73 | 9.6 | 0.0 | 0.0 | 0.0 | B42 | 7.2 | -101.4 | 4.5 | 0.0 | B633 | 0.6 | 0.0 | 8.1 | -3.2 | B610 | 1.2 | 47.1 | -1.1 | 0.0 |
| B74 | 0.0 | -0.8 | 3.0 | 0.0 | B43 | 0.0 | -8.4 | 2.6 | 0.0 | B634 | 0.0 | 0.0 | 6.0 | 0.4 | B611 | 0.0 | 48.9 | 1.1 | 0.0 |
| B74 | 0.1 | -0.8 | 3.0 | -0.1 | B43 | 0.1 | -8.4 | 2.6 | -0.1 | B634 | 0.6 | 0.0 | 6.0 | -3.2 | B611 | 1.2 | 48.9 | -1.1 | 0.0 |
| B74 | 0.1 | -0.8 | 4.3 | -0.1 | B43 | 0.1 | -8.4 | 5.1 | -0.1 | B635 | 0.0 | 0.0 | 3.9 | -0.4 | B612 | 0.0 | 50.4 | 1.1 | 0.0 |
| B74 | 6.1 | -0.8 | 4.3 | -26.1 | B43 | 3.6 | -8.4 | 5.1 | -18.2 | B635 | 0.6 | 0.0 | 3.9 | -2.7 | B612 | 1.2 | 50.4 | -1.1 | 0.0 |
| B74 | 6.1 | -4.1 | 4.3 | 14.9 | B43 | 3.6 | -53.1 | 5.1 | 18.4 | B636 | 0.0 | 0.0 | 1.8 | 0.0 | B614 | 0.0 | 51.6 | 1.1 | 0.0 |
| B74 | 9.6 | -4.1 | 4.3 | 0.0 | B43 | 7.2 | -53.1 | 5.1 | 0.4 | B636 | 0.6 | 0.0 | 1.8 | -1.0 | B614 | 1.2 | 51.6 | -1.1 | 0.0 |
| B74 | 9.6 | 0.0 | 0.0 | 0.0 | B43 | 7.2 | -53.1 | 7.6 | 0.4 | B637 | 0.0 | 0.0 | 6.1 | 3.3 | B615 | 0.0 | 52.5 | 1.1 | 0.0 |
| B74 | 9.6 | 0.0 | 0.0 | 0.0 | B43 | 7.2 | -53.1 | 7.6 | 0.0 | B637 | 0.6 | 0.0 | 6.1 | -0.3 | B615 | 1.2 | 52.5 | -1.1 | 0.0 |
| B75 | 0.0 | -1.6 | 3.0 | 0.0 | B45 | 0.0 | -101.4 | 4.5 | 0.0 | B638 | 0.0 | 0.0 | 4.0 | 1.7 | B616 | 0.0 | 53.2 | 1.1 | 0.0 |
| B75 | 0.1 | -1.6 | 3.0 | -0.2 | B45 | 0.1 | -101.4 | 4.5 | -0.2 | B638 | 0.6 | 0.0 | 4.0 | -0.7 | B616 | 1.2 | 53.2 | -1.1 | 0.0 |
| B75 | 0.1 | -1.6 | 3.9 | -0.2 | B45 | 0.1 | -101.4 | 27.0 | -0.2 | B639 | 0.0 | 0.0 | 1.9 | 1.0 | B617 | 0.0 | 53.1 | 1.1 | 0.0 |
| B75 | 6.1 | -1.6 | 3.9 | -23.6 | B45 | 1.3 | -101.4 | 27.0 | -34.8 | B639 | 0.6 | 0.0 | 1.9 | -0.1 | B617 | 1.2 | 53.1 | -1.1 | 0.0 |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B75 | 6.1 | -4.4 | 3.9 | 13.5 | B45 | 1.3 | -101.4 | 9.7 | -34.8 | B640 | 0.0 | 0.0 | 0.0 | 2.4 | B618 | 0.0 | 53.9 | 1.1 | 0.0 |
| B75 | 9.6 | -4.4 | 3.9 | 0.0 | B45 | 3.6 | -101.4 | 9.7 | -56.3 | B640 | 0.6 | 0.0 | 0.0 | 2.4 | B618 | 1.2 | 53.9 | -1.1 | 0.0 |
| B75 | 9.6 | 0.0 | 0.0 | 0.0 | B45 | 3.6 | 0.0 | 9.7 | 31.2 | B641 | 0.0 | 0.0 | -2.3 | 2.2 | B619 | 0.0 | 54.5 | 1.1 | 0.0 |
| B75 | 9.6 | 0.0 | 0.0 | 0.0 | B45 | 6.8 | 0.0 | 9.7 | 0.0 | B641 | 0.6 | 0.0 | -2.3 | 3.6 | B619 | 1.2 | 54.5 | -1.1 | 0.0 |
| B76 | 0.0 | -2.0 | 2.1 | 0.0 | B45 | 6.8 | 0.0 | 0.0 | 0.0 | B642 | 0.0 | 0.0 | 14.3 | 10.8 | B620 | 0.0 | 55.0 | 1.1 | 0.0 |
| B76 | 0.1 | -2.0 | 2.1 | -0.1 | B45 | 6.8 | 0.0 | 0.0 | 0.0 | B642 | 0.6 | 0.0 | 14.3 | 2.3 | B620 | 1.2 | 55.0 | -1.1 | 0.0 |
| B76 | 0.1 | -2.0 | 3.2 | -0.1 | B46 | 0.0 | 0.0 | 0.0 | 0.0 | B644 | 0.0 | 0.0 | 11.1 | 4.4 | B621 | 0.0 | 55.0 | 1.1 | 0.0 |
| B76 | 6.1 | -2.0 | 3.2 | -19.3 | B46 | 0.1 | 0.0 | 0.0 | 0.0 | B644 | 0.6 | 0.0 | 11.1 | -2.3 | B621 | 1.2 | 55.0 | -1.1 | 0.0 |
| B76 | 6.1 | -4.4 | 3.2 | 11.0 | B46 | 0.1 | 0.0 | -18.0 | 0.0 | B645 | 0.0 | 0.0 | 4.6 | -0.5 | B622 | 0.0 | 55.9 | 1.1 | 0.0 |
| B76 | 9.6 | -4.4 | 3.2 | 0.0 | B46 | 0.1 | 0.0 | -18.0 | 0.9 | B645 | 0.6 | 0.0 | 4.6 | -3.3 | B622 | 1.2 | 55.9 | -1.1 | 0.0 |
| B76 | 9.6 | 0.0 | 0.0 | 0.0 | B46 | 0.1 | 0.0 | -0.9 | 0.9 | B646 | 0.0 | 0.0 | -2.8 | -1.5 | B623 | 0.0 | 57.4 | 1.1 | 0.0 |
| B76 | 9.6 | 0.0 | 0.0 | 0.0 | B46 | 2.3 | 0.0 | -0.9 | 2.9 | B646 | 0.6 | 0.0 | -2.8 | 0.2 | B623 | 1.2 | 57.4 | -1.1 | 0.0 |
| B77 | 0.0 | -2.1 | 1.6 | 0.0 | B46 | 2.3 | 0.1 | -0.9 | -3.0 | B647 | 0.0 | 0.0 | 11.8 | 7.7 | B624 | 0.0 | 58.6 | 1.1 | 0.0 |
| B77 | 0.1 | -2.1 | 1.6 | -0.1 | B46 | 5.5 | 0.1 | -0.9 | 0.0 | B647 | 0.6 | 0.0 | 11.8 | 0.7 | B624 | 1.2 | 58.6 | -1.1 | 0.0 |
| B77 | 0.1 | -2.1 | 2.9 | -0.1 | B46 | 5.5 | 0.0 | 0.0 | 0.0 | B648 | 0.0 | 0.0 | 5.4 | 0.8 | B625 | 0.0 | 59.2 | 1.1 | 0.0 |
| B77 | 6.1 | -2.1 | 2.9 | -17.6 | B46 | 5.6 | 0.0 | 0.0 | 0.0 | B648 | 0.6 | 0.0 | 5.4 | -2.4 | B625 | 1.2 | 59.2 | -1.1 | 0.0 |
| B77 | 6.1 | -4.4 | 2.9 | 10.0 | B47 | 0.0 | -20.7 | 1.0 | 0.0 | B649 | 0.0 | 0.0 | 0.6 | -2.6 | B626 | 0.0 | 27.6 | 1.1 | 0.0 |
| B77 | 9.6 | -4.4 | 2.9 | 0.0 | B47 | 6.2 | -20.7 | 1.0 | -6.0 | B649 | 0.6 | 0.0 | 0.6 | -2.9 | B626 | 1.2 | 27.6 | -1.1 | 0.0 |
| B77 | 9.6 | 0.0 | 0.0 | 0.0 | B47 | 6.2 | -39.0 | 1.0 | 3.6 | B650 | 0.0 | 0.0 | -3.6 | -5.2 | B627 | 0.0 | 28.6 | 1.1 | 0.0 |
| B77 | 9.6 | 0.0 | 0.0 | 0.0 | B47 | 9.7 | -39.0 | 1.0 | 0.2 | B650 | 0.6 | 0.0 | -3.6 | -3.0 | B627 | 1.2 | 28.6 | -1.1 | 0.0 |
| B78 | 0.0 | -2.7 | 1.2 | 0.0 | B47 | 9.7 | -39.0 | 4.9 | 0.2 | B651 | 0.0 | 0.0 | -7.7 | -7.6 | B628 | 0.0 | 29.0 | 1.1 | 0.0 |
| B78 | 0.1 | -2.7 | 1.2 | -0.1 | B47 | 9.8 | -39.0 | 4.9 | 0.0 | B651 | 0.6 | 0.0 | -7.7 | -3.0 | B628 | 1.2 | 29.0 | -1.1 | 0.0 |
| B78 | 0.1 | -2.7 | 2.7 | -0.1 | B48 | 0.0 | -53.1 | 7.6 | 0.0 | B652 | 0.0 | 0.0 | -11.9 | -10.0 | B630 | 0.0 | 28.8 | 1.1 | 0.0 |
| B78 | 6.1 | -2.7 | 2.7 | -16.2 | B48 | 0.1 | -53.1 | 7.6 | -0.4 | B652 | 0.6 | 0.0 | -11.9 | -2.8 | B630 | 1.2 | 28.8 | -1.1 | 0.0 |
| B78 | 6.1 | -4.4 | 2.7 | 9.3 | B48 | 0.1 | -53.1 | 9.4 | -0.4 | B653 | 0.0 | 0.0 | -15.6 | -9.8 | B643 | 0.0 | 27.8 | 1.1 | 0.0 |
| B78 | 9.6 | -4.4 | 2.7 | 0.0 | B48 | 3.6 | -53.1 | 9.4 | -33.1 | B653 | 0.6 | 0.0 | -15.6 | -0.4 | B643 | 1.2 | 27.8 | -1.1 | 0.0 |
| B78 | 9.6 | 0.0 | 0.0 | 0.0 | B48 | 3.6 | -154.6 | 9.4 | 10.5 | B654 | 0.0 | 0.0 | -18.5 | -10.7 | B663 | 0.0 | 26.2 | 1.2 | 0.0 |
| B78 | 9.6 | 0.0 | 0.0 | 0.0 | B48 | 6.8 | -154.6 | 9.4 | -19.6 | B654 | 0.6 | 0.0 | -18.5 | 0.4 | B663 | 1.3 | 26.2 | -1.2 | 0.0 |
| B79 | 0.0 | -4.3 | 1.1 | 0.0 | B48 | 6.8 | -154.6 | -6.5 | -19.6 | B655 | 0.0 | 0.0 | -17.3 | -5.9 | B664 | 0.0 | 24.1 | 0.9 | 0.0 |
| B79 | 0.1 | -4.3 | 1.1 | -0.1 | B48 | 9.8 | -154.6 | -6.5 | 0.0 | B655 | 0.6 | 0.0 | -17.3 | 4.5 | B664 | 1.1 | 24.1 | -0.9 | 0.0 |
| B79 | 0.1 | -4.3 | 2.6 | -0.1 | B49 | 0.0 | 0.0 | 0.0 | 0.0 | B656 | 0.0 | 0.0 | -10.3 | -6.2 | B665 | 0.0 | 21.7 | 1.1 | 0.0 |
| B79 | 6.1 | -4.3 | 2.6 | -15.6 | B49 | 0.1 | 0.0 | 0.0 | 0.0 | B656 | 0.6 | 0.0 | -10.3 | 0.0 | B665 | 1.2 | 21.7 | -1.1 | 0.0 |
| B79 | 6.1 | -4.4 | 2.6 | 8.9 | B49 | 0.1 | 0.0 | -1.9 | 0.0 | B657 | 0.0 | 0.0 | 0.0 | -0.2 | B671 | 0.0 | 19.2 | 1.1 | 0.0 |
| B79 | 9.6 | -4.4 | 2.6 | 0.0 | B49 | 2.0 | 0.0 | -1.9 | 3.7 | B657 | 0.6 | 0.0 | 0.0 | -0.2 | B671 | 1.2 | 19.2 | -1.1 | 0.0 |
| B79 | 9.6 | 0.0 | 0.0 | 0.0 | B49 | 2.0 | -46.8 | -1.9 | -7.8 | B658 | 0.0 | 0.0 | 0.0 | -0.7 | B4 | 0.1 | 0.0 | 48.2 | 0.0 |
| B79 | 9.6 | 0.0 | 0.0 | 0.0 | B49 | 6.2 | -46.8 | -1.9 | 0.1 | B658 | 0.6 | 0.0 | 0.0 | -0.7 | B4 | 0.5 | 0.0 | 48.2 | -19.3 |
| B80 | 0.0 | -7.8 | 0.7 | 0.0 | B49 | 6.2 | -46.8 | 2.7 | 0.1 | B659 | 0.0 | 0.0 | 3.2 | -2.5 | B5 | 0.0 | 0.0 | -35.6 | -28.5 |
| B80 | 0.1 | -7.8 | 0.7 | 0.0 | B49 | 6.2 | -46.8 | 2.7 | 0.0 | B659 | 0.6 | 0.0 | 3.2 | -4.4 | B5 | 0.8 | 0.0 | -35.6 | 0.0 |
| B80 | 0.1 | -7.8 | 2.6 | 0.0 | B50 | 0.0 | 0.0 | 0.0 | 0.0 | B660 | 0.0 | 0.0 | 0.0 | -15.9 | B6 | 0.0 | 14.5 | 0.0 | 0.0 |
| B80 | 6.1 | -7.8 | 2.6 | -15.6 | B50 | 0.1 | 0.0 | 0.0 | 0.0 | B660 | 0.6 | 0.0 | 0.0 | -15.9 | B6 | 1.2 | 14.5 | 0.0 | 0.0 |
| B80 | 6.1 | -4.4 | 2.6 | 8.9 | B50 | 0.1 | 0.0 | 1.9 | 0.0 | B662 | 0.0 | 0.0 | -44.7 | -52.5 | B7 | 0.1 | -19.9 | -29.8 | 0.0 |
| B80 | 9.6 | -4.4 | 2.6 | 0.0 | B50 | 2.0 | 0.0 | 1.9 | -3.7 | B662 | 0.6 | 0.0 | -44.7 | -25.7 | B7 | 0.2 | -19.9 | -29.8 | 2.4 |
| B80 | 9.6 | 0.0 | 0.0 | 0.0 | B50 | 2.0 | -35.8 | 1.9 | 7.8 | B666 | 0.0 | 0.0 | 19.2 | 35.2 | B7 | 0.2 | -19.9 | -1.7 | 2.4 |
| B80 | 9.6 | 0.0 | 0.0 | 0.0 | B50 | 6.2 | -35.8 | 1.9 | -0.1 | B666 | 0.6 | 0.0 | 19.2 | 23.7 | B7 | 3.6 | -19.9 | -1.7 | 8.4 |
| B81 | 0.0 | -5.3 | 0.6 | 0.0 | B50 | 6.2 | -35.8 | -2.7 | -0.1 | B667 | 0.0 | 0.0 | 18.1 | 18.0 | B7 | 3.6 | -4.4 | -1.7 | -6.0 |
| B81 | 0.1 | -5.3 | 0.6 | 0.0 | B50 | 6.2 | -35.8 | -2.7 | 0.0 | B667 | 0.5 | 0.0 | 18.1 | 9.0 | B7 | 7.1 | -4.4 | -1.7 | 0.0 |
| B81 | 0.1 | -5.3 | 2.5 | 0.0 | B51 | 0.0 | 0.0 | 0.0 | 0.0 | B668 | 0.0 | 0.0 | 17.3 | 12.9 | B7 | 7.1 | 0.0 | 0.0 | 0.0 |
| B81 | 6.1 | -5.3 | 2.5 | -14.9 | B51 | 0.1 | 0.0 | 0.0 | 0.0 | B668 | 0.6 | 0.0 | 17.3 | 2.5 | B7 | 7.2 | 0.0 | 0.0 | 0.0 |
| B81 | 6.1 | -4.4 | 2.5 | 8.5 | B51 | 0.1 | 0.0 | 18.0 | 0.0 | B669 | 0.0 | 0.0 | 16.2 | 9.5 | B10 | 0.1 | 4.8 | -40.6 | 0.0 |
| B81 | 9.6 | -4.4 | 2.5 | 0.0 | B51 | 0.1 | 0.0 | 18.0 | -0.9 | B669 | 0.6 | 0.0 | 16.2 | -0.2 | B10 | 0.1 | 4.8 | -40.6 | 0.6 |
| B81 | 9.6 | 0.0 | 0.0 | 0.0 | B51 | 0.1 | 0.0 | 3.4 | -0.9 | B670 | 0.0 | 0.0 | 12.9 | 5.6 | B10 | 0.1 | 7.0 | -3.8 | 0.6 |
| B81 | 9.6 | 0.0 | 0.0 | 0.0 | B51 | 2.3 | 0.0 | 3.4 | -8.5 | B670 | 0.6 | 0.0 | 12.9 | -2.2 | B10 | 2.9 | 7.0 | -3.8 | 11.1 |
| B82 | 0.0 | -4.4 | -0.7 | 0.0 | B51 | 2.3 | -0.2 | 3.4 | 11.0 | B701 | 0.0 | 0.0 | 0.0 | -0.2 | B10 | 2.9 | 0.0 | -3.8 | -7.1 |
| B82 | 0.1 | -4.4 | -0.7 | 0.0 | B51 | 5.6 | -0.2 | 3.4 | 0.0 | B701 | 0.6 | 0.0 | 0.0 | -0.2 | B10 | 4.7 | 0.0 | -3.8 | 0.0 |
| B82 | 0.1 | -4.4 | 1.8 | 0.0 | B51 | 5.6 | 0.0 | 0.0 | 0.0 | B702 | 0.0 | 0.0 | 0.0 | -0.7 | B10 | 4.7 | 0.0 | 0.0 | 0.0 |
| B82 | 6.1 | -4.4 | 1.8 | -10.9 | B51 | 5.6 | 0.0 | 0.0 | 0.0 | B702 | 0.6 | 0.0 | 0.0 | -0.7 | B10 | 4.8 | 0.0 | 0.0 | 0.0 |
| B82 | 6.1 | -4.4 | 1.8 | 6.3 | B64 | 0.0 | 1.9 | 0.0 | 0.0 | B703 | 0.0 | 0.0 | 3.2 | -4.4 | B23 | 0.1 | -24.5 | -32.0 | 0.0 |
| B82 | 9.6 | -4.4 | 1.8 | 0.0 | B64 | 1.2 | 1.9 | 0.0 | 0.0 | B703 | 0.6 | 0.0 | 3.2 | -6.3 | B23 | 0.2 | -24.5 | -32.0 | 3.2 |
| B82 | 9.6 | 0.0 | 0.0 | 0.0 | B108 | 0.0 | -0.9 | 0.0 | 0.0 | B704 | 0.0 | 0.0 | 0.0 | -15.9 | B23 | 0.2 | -22.4 | -0.4 | 3.2 |
| B82 | 9.6 | 0.0 | 0.0 | 0.0 | B108 | 1.2 | -0.9 | 0.0 | 0.0 | B704 | 0.6 | 0.0 | 0.0 | -15.9 | B23 | 0.3 | -22.4 | -0.4 | 3.2 |
| B83 | 0.0 | -1.1 | -4.4 | 0.0 | B118 | 0.0 | 18.0 | 0.0 | 0.0 | B705 | 0.0 | 0.0 | -44.7 | -25.7 | B23 | 0.3 | -22.4 | -0.4 | 3.2 |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B83 | 0.1 | -1.1 | -4.4 | 0.2 | B118 | 1.3 | 18.0 | 0.0 | 0.0 | B705 | 0.5 | 0.0 | -44.7 | -3.3 | B23 | 3.8 | -22.4 | -0.4 | 4.5 |
| B83 | 0.1 | -1.1 | -0.2 | 0.2 | B122 | 0.0 | 24.9 | 0.0 | 0.0 | B707 | 0.0 | 0.0 | 19.2 | 23.7 | B23 | 3.8 | -7.8 | -0.4 | -1.3 |
| B83 | 6.1 | -1.1 | -0.2 | 1.4 | B122 | 1.2 | 24.9 | 0.0 | 0.0 | B707 | 0.5 | 0.0 | 19.2 | 14.1 | B23 | 7.4 | -7.8 | -0.4 | 0.0 |
| B83 | 6.1 | -4.4 | -0.2 | -0.7 | B124 | 0.0 | -4.6 | 0.0 | 0.0 | B708 | 0.0 | 0.0 | 18.1 | 9.0 | B23 | 7.4 | -7.8 | 0.7 | 0.0 |
| B83 | 9.6 | -4.4 | -0.2 | 0.0 | B124 | 1.2 | -4.6 | 0.0 | 0.0 | B708 | 0.6 | 0.0 | 18.1 | -1.9 | B23 | 7.5 | -7.8 | 0.7 | 0.0 |
| B83 | 9.6 | 0.0 | 0.0 | 0.0 | B125 | 0.0 | 28.1 | 0.0 | 0.0 | B709 | 0.0 | 0.0 | 17.3 | 2.5 | B2 | 0.0 | 0.0 | 0.0 | 0.0 |
| B83 | 9.6 | 0.0 | 0.0 | 0.0 | B125 | 1.4 | 28.1 | 0.0 | 0.0 | B709 | 0.6 | 0.0 | 17.3 | -7.9 | B2 | 0.0 | 0.0 | 0.0 | 0.0 |
| B84 | 0.0 | 18.7 | 24.0 | 0.0 | B126 | 0.0 | 24.7 | 0.0 | 0.0 | B710 | 0.0 | 0.0 | 16.2 | -0.2 | B2 | 0.0 | 2.1 | 0.0 | 0.0 |
| B84 | 0.1 | 18.7 | 24.0 | -1.2 | B126 | 1.3 | 24.7 | 0.0 | 0.0 | B710 | 0.6 | 0.0 | 16.2 | -9.9 | B2 | 0.1 | 2.1 | 0.0 | 0.0 |
| B84 | 0.1 | 18.7 | -20.2 | -1.2 | B127 | 0.0 | 25.6 | 0.0 | 0.0 | B712 | 0.0 | 0.0 | 12.9 | -2.2 | B2 | 0.1 | 2.1 | 0.0 | 0.0 |
| B84 | 2.6 | 18.7 | -20.2 | 50.8 | B127 | 1.2 | 25.6 | 0.0 | 0.0 | B712 | 0.6 | 0.0 | 12.9 | -10.0 | B2 | 3.6 | 2.1 | 0.0 | 0.0 |
| B84 | 2.6 | 18.7 | 7.4 | 50.8 | B129 | 0.0 | -9.1 | 0.0 | 0.0 | B730 | 0.0 | 0.0 | 12.3 | -2.4 | B2 | 3.6 | 6.4 | 0.0 | -5.4 |
| B84 | 6.1 | 18.7 | 7.4 | 25.1 | B129 | 1.1 | -9.1 | 0.0 | 0.0 | B730 | 0.6 | 0.0 | 12.3 | -9.8 | B2 | 7.2 | 6.4 | 0.0 | -5.5 |
| B84 | 6.1 | -4.4 | 7.4 | 25.7 | B130 | 0.0 | 16.9 | 2.2 | 0.0 | B731 | 0.0 | 0.0 | 10.2 | -3.0 | B2 | 7.2 | 6.4 | -54.9 | -5.5 |
| B84 | 9.6 | -4.4 | 7.4 | 0.0 | B130 | 1.2 | 16.9 | -2.2 | 0.0 | B731 | 0.6 | 0.0 | 10.2 | -9.1 | B2 | 7.3 | 6.4 | -54.9 | 0.0 |
| B84 | 9.6 | 0.0 | 0.0 | 0.0 | B131 | 0.0 | 9.2 | 2.2 | 0.0 | B732 | 0.0 | 0.0 | 8.1 | -3.2 | B44 | 0.0 | 0.0 | -75.8 | 0.0 |
| B84 | 9.6 | 0.0 | 0.0 | 0.0 | B131 | 1.2 | 9.2 | -2.2 | 0.0 | B732 | 0.6 | 0.0 | 8.1 | -8.0 | B44 | 0.5 | 0.0 | -75.8 | 37.9 |
| B85 | 0.0 | 0.0 | 0.0 | 0.0 | B132 | 0.0 | 2.7 | 2.2 | 0.0 | B733 | 0.0 | 0.0 | 6.0 | -3.2 | B1 | 0.0 | -2.3 | 1.1 | 0.0 |
| B85 | 0.1 | 0.0 | 0.0 | 0.0 | B132 | 1.2 | 2.7 | -2.2 | 0.0 | B733 | 0.6 | 0.0 | 6.0 | -6.7 | B1 | 1.4 | -3.7 | -1.1 | 0.0 |
| B85 | 0.1 | 0.0 | 4.6 | 0.0 | B133 | 0.0 | -2.5 | 2.2 | 0.0 | B734 | 0.0 | 0.0 | 3.9 | -2.7 | B57 | 0.0 | -6.2 | 1.1 | 0.0 |
| B85 | 3.5 | 0.0 | 4.6 | -16.0 | B133 | 1.2 | -2.5 | -2.2 | 0.0 | B734 | 0.6 | 0.0 | 3.9 | -5.0 | B57 | 1.4 | -7.6 | -1.1 | 0.0 |
| B85 | 3.5 | -4.4 | 4.6 | 16.0 | B134 | 0.0 | -6.9 | 2.0 | 0.0 | B735 | 0.0 | 0.0 | 1.8 | -1.0 | B66 | 0.0 | -10.6 | 1.1 | 0.0 |
| B85 | 7.0 | -4.4 | 4.6 | 0.0 | B134 | 1.1 | -6.9 | -2.0 | 0.0 | B735 | 0.6 | 0.0 | 1.8 | -2.1 | B66 | 1.4 | -12.0 | -1.1 | 0.0 |
| B85 | 7.0 | 0.0 | 0.0 | 0.0 | B135 | 0.0 | -10.7 | 2.4 | 0.0 | B736 | 0.0 | 0.0 | 6.1 | -0.3 | B109 | 0.0 | -14.4 | 1.1 | 0.0 |
| B85 | 7.0 | 0.0 | 0.0 | 0.0 | B135 | 1.3 | -10.7 | -2.4 | 0.0 | B736 | 0.6 | 0.0 | 6.1 | -3.9 | B109 | 1.4 | -15.8 | -1.1 | 0.0 |
| B86 | 0.0 | 0.0 | 0.0 | 0.0 | B139 | 0.0 | -14.3 | 2.2 | 0.0 | B737 | 0.0 | 0.0 | 4.0 | -0.7 | B119 | 0.0 | -24.1 | 1.1 | 0.0 |
| B86 | 0.1 | 0.0 | 0.0 | 0.0 | B139 | 1.2 | -14.3 | -2.2 | 0.0 | B737 | 0.6 | 0.0 | 4.0 | -3.1 | B119 | 1.4 | -25.5 | -1.1 | 0.0 |
| B86 | 0.1 | 0.0 | 0.1 | 0.0 | B140 | 0.0 | -17.5 | 2.2 | 0.0 | B738 | 0.0 | 0.0 | 1.9 | -0.1 | B123 | 0.0 | 7.1 | 1.1 | 0.0 |
| B86 | 3.5 | 0.0 | 0.1 | -0.3 | B140 | 1.2 | -17.5 | -2.2 | 0.0 | B738 | 0.6 | 0.0 | 1.9 | -1.2 | B123 | 1.2 | 7.1 | -1.1 | 0.0 |
| B86 | 3.5 | -4.4 | 0.1 | 0.3 | B141 | 0.0 | -20.4 | 2.2 | 0.0 | B739 | 0.0 | 0.0 | 0.0 | 2.4 | B128 | 0.0 | 27.6 | 0.0 | 0.0 |
| B86 | 7.0 | -4.4 | 0.1 | 0.0 | B141 | 1.2 | -20.4 | -2.2 | 0.0 | B739 | 0.6 | 0.0 | 0.0 | 2.4 | B128 | 1.2 | 27.6 | 0.0 | 0.0 |
| B86 | 7.0 | 0.0 | 0.0 | 0.0 | B142 | 0.0 | -23.1 | 2.2 | 0.0 | B740 | 0.0 | 0.0 | -2.3 | 3.6 | B136 | 0.0 | 15.9 | 0.0 | 0.0 |
| B86 | 7.0 | 0.0 | 0.0 | 0.0 | B142 | 1.2 | -23.1 | -2.2 | 0.0 | B740 | 0.6 | 0.0 | -2.3 | 5.0 | B136 | 1.1 | 15.9 | 0.0 | 0.0 |
| B87 | 0.0 | 0.0 | 0.0 | 0.0 | B143 | 0.0 | -25.6 | 2.2 | 0.0 | B741 | 0.0 | 0.0 | 14.3 | 2.3 | B145 | 0.0 | 0.0 | -0.2 | 16.5 |
| B87 | 0.1 | 0.0 | 0.0 | 0.0 | B143 | 1.2 | -25.6 | -2.2 | 0.0 | B741 | 0.6 | 0.0 | 14.3 | -6.3 | B145 | 0.6 | 0.0 | -0.2 | 16.6 |
| B87 | 0.1 | 0.0 | -1.7 | 0.0 | B153 | 0.0 | -28.2 | 2.2 | 0.0 | B742 | 0.0 | 0.0 | 11.1 | -2.3 | B146 | 0.0 | 0.0 | -7.3 | 35.0 |
| B87 | 3.5 | 0.0 | -1.7 | 5.8 | B153 | 1.2 | -28.2 | -2.2 | 0.0 | B742 | 0.6 | 0.0 | 11.1 | -9.0 | B146 | 0.6 | 0.0 | -7.3 | 39.4 |
| B87 | 3.5 | -4.4 | -1.7 | -5.8 | B165 | 0.0 | -30.7 | 2.2 | 0.0 | B743 | 0.0 | 0.0 | 4.6 | -3.3 | B147 | 0.0 | 0.0 | 2.0 | 36.7 |
| B87 | 7.0 | -4.4 | -1.7 | 0.0 | B165 | 1.2 | -30.7 | -2.2 | 0.0 | B743 | 0.6 | 0.0 | 4.6 | -6.1 | B147 | 0.7 | 0.0 | 2.0 | 35.4 |
| B87 | 7.0 | 0.0 | 0.0 | 0.0 | B166 | 0.0 | -32.5 | 2.2 | 0.0 | B744 | 0.0 | 0.0 | -2.8 | 0.2 | B149 | 0.0 | 0.0 | 2.0 | 35.4 |
| B87 | 7.0 | 0.0 | 0.0 | 0.0 | B166 | 1.2 | -32.5 | -2.2 | 0.0 | B744 | 0.6 | 0.0 | -2.8 | 1.9 | B149 | 0.7 | 0.0 | 2.0 | 34.2 |
| B88 | 0.0 | 0.0 | 0.0 | 0.0 | B167 | 0.0 | -32.3 | 2.2 | 0.0 | B745 | 0.0 | 0.0 | 11.8 | 0.7 | B150 | 0.0 | 0.0 | -0.2 | 16.6 |
| B88 | 0.1 | 0.0 | 0.0 | 0.0 | B167 | 1.2 | -32.3 | -2.2 | 0.0 | B745 | 0.6 | 0.0 | 11.8 | -6.4 | B150 | 0.6 | 0.0 | -0.2 | 16.8 |
| B88 | 0.1 | 0.0 | -2.4 | 0.0 | B168 | 0.0 | -39.7 | 2.2 | 0.0 | B746 | 0.0 | 0.0 | 5.4 | -2.4 | B151 | 0.0 | 0.0 | -7.3 | 39.4 |
| B88 | 3.5 | 0.0 | -2.4 | 8.4 | B168 | 1.2 | -39.7 | -2.2 | 0.0 | B746 | 0.6 | 0.0 | 5.4 | -5.6 | B151 | 0.8 | 0.0 | -7.3 | 45.2 |

TABELL A 7 KREFTER PÅ ELEMENTER I DEKKE OVER 1.ETG

# TILLEGG B

## BEVIS AV RASK-METODEN

## 1 FIGURER OG TABELLER

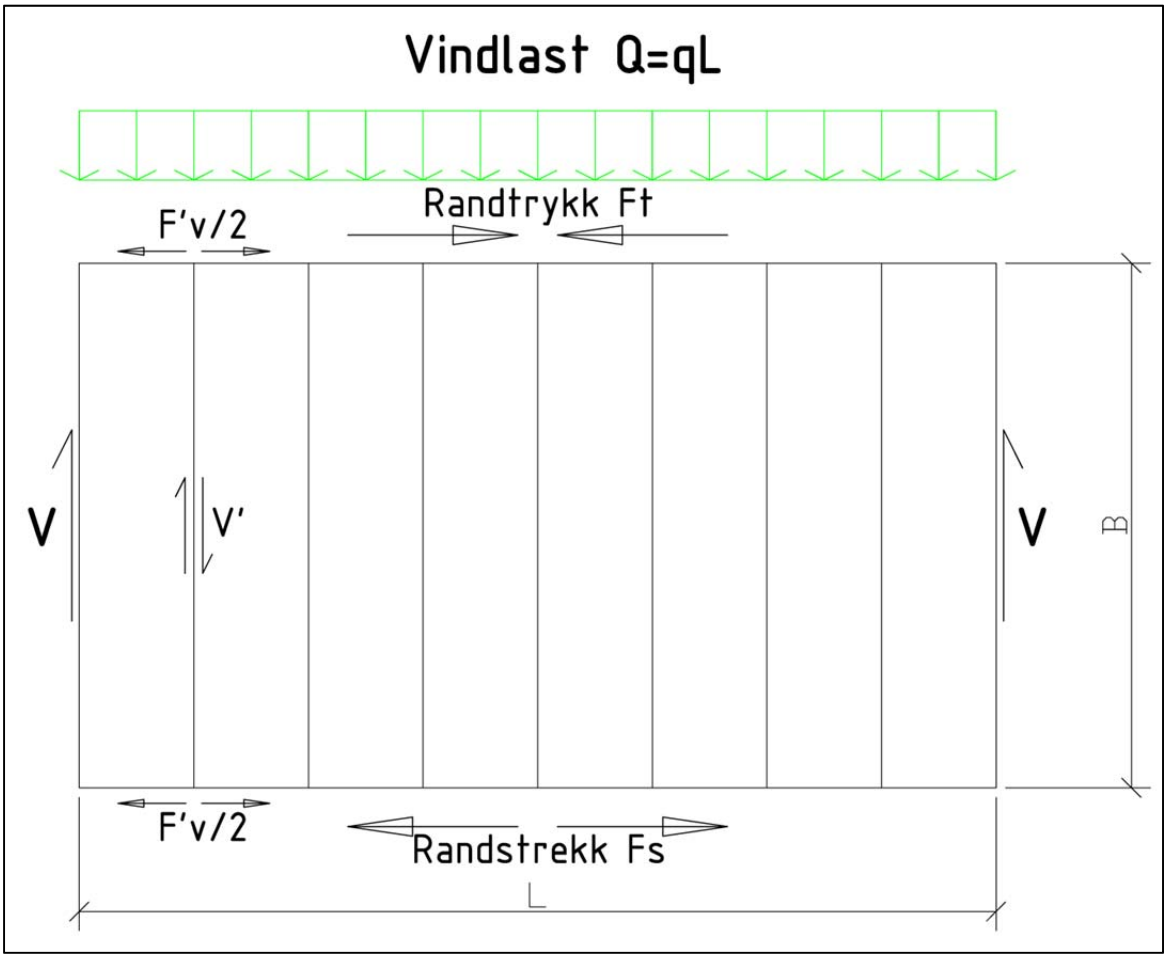
### Figurer



### Tabeller

## 2 Testoppsett

For å finne ut om skivemodell modellert med rammer av staver (RaSk) blir det gjort en sammenlikning mot analytisk beregning av en testskive.




FIGUR B 1 KRAFTMODELL FOR HD-SKIVE

## 3 Skiveteori

Vi tar utgangspunkt i generell skiveteori som er presentert i kapittel 5 i Bind 1. Ved hjelp av disse metodene skal det bestemmes randarmering, gjøres skjærkontroll av fuger og forbindelser samt forankring av strekkarmering til elementdekket.

## 3.1 Kraft og kraftvirkning

Kreftene finnes som for en bjelke:

Moment $M_{max} = \frac{qL^2}{8}$

Med randstrekk $F_s = \frac{M}{z}$

Skjærkraft $V_{max} = \frac{qL}{2}$

Som også gir et bidrag på armeringsmengden for randstrekk (sammenholding av «løse» elementer)

Friksjonskraft i fuger $F_v = \frac{V}{\mu}$

Der:

μ er friksjonskoeffisient for utstøpingen av fugen – 1.0.

## 3.2 Randarmering (randstringer)

Armeringsmengde for opptredende moment $\boldsymbol{A_M} = \frac{F_{sd}}{f_{yd}}$

Randstrekk pga moment $F_s = \frac{M_d}{z}$

Momentvirkning for vilkårlig x $M_d = \frac{qLx}{2} - \frac{qx^2}{2} = \frac{qx}{2}(L - x)$

$$\therefore A_M = \frac{qx(L-x)}{2f_{yd}z}$$

Arealtillegg i stål fra skjær $A_{vt} = \frac{F_V}{f_{yd}}$

som fordeles likt over antall fuger, *n*.

Skjærkraft for vilkårlig x $V_d = q\left(\frac{L}{2} - x\right)$

Armeringsmengde pr fuge fra skjærkraft $\boldsymbol{A_V} = \frac{A_{vt}}{n} = \frac{q\left(\frac{L}{2}-x\right)}{nf_{yd}\mu} = \frac{q(L-2x)}{2nf_{yd}\mu}$

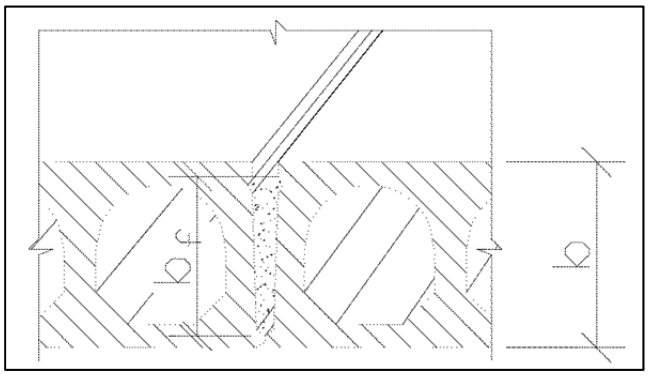
Total armering pr fuge $\boldsymbol{A_t} = \boldsymbol{A_M} + \boldsymbol{A_V}$

$$A_t = \frac{q}{2f_{yd}}\left(\frac{xL}{z} - \frac{x^2}{z} + \frac{L}{n\mu} - \frac{2x}{n\mu}\right)$$

Største $A_t$ finnes ved derivasjon med hensyn på x: $A_{t,max} for \frac{dA_t}{dx} = 0$;

$$\frac{dA_t}{dx} = \frac{q}{2f_{yd}}\left(\frac{L}{z} - \frac{2x}{z} - \frac{2}{n\mu}\right) = 0 \Rightarrow x = \frac{L}{2} - \frac{z}{n\mu} = \frac{L}{2} - \frac{z}{n}$$

## 3.3 Skjærforbindelser



I tillegg til å ha armeringsmengder i randstringerne nok til å oppta skjærkrefter fra fugene, må selve fugens skjærkapasitet kontrolleres.

Skjærspenning langs en fuge pga. opptredende skjærkraft V' blir $\tau = \frac{V_d'}{z} b_f \not> f_{vd}$

Der

$$b_f = fugehøyde$$

$$f_{vd} = 0.2N/mm^2 \; for \; glatte \; fuger$$

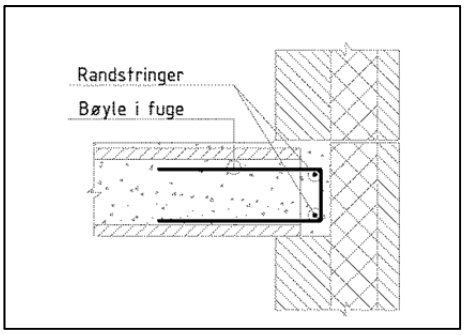
## 3.4 Forankring av stringer ved gavl

Randarmeringen må forankres til det ytterste hulldekket mot gavlen. Dette holder også elementet igjen mot utglidning. Dette gjøres med 90 graders forankringsbøyle fra randarmering og inn i det ytterste elementet.

Kraft i over fugelengden $F_{Vd}' = \frac{V_d'}{\mu}$

Skjærarmeringsmengde $A_V = \frac{F_{Vd}'}{f_{yd} n}$

## 3.5 Forankring av stringer til HD-skive

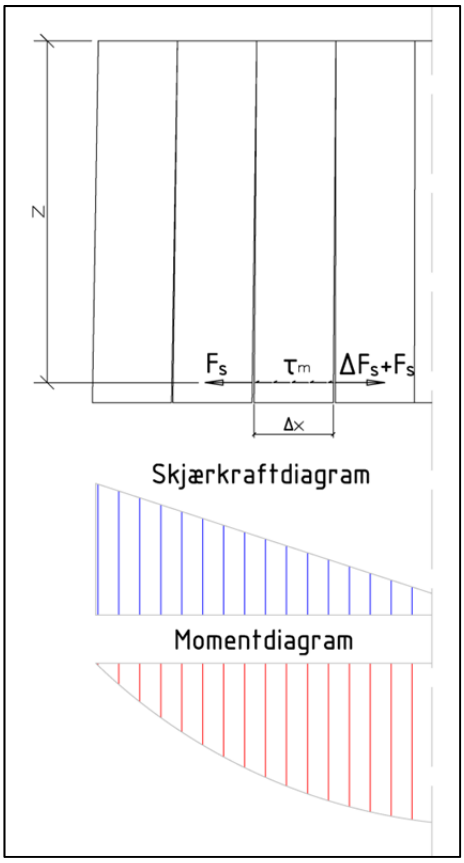



FIGUR B 2 FUGEFORANKRING

Strekkarmeringen må forankres til selve dekket. For HD-skiver benyttes bøyler i elementfugene som omfarer randarmeringen.

Den midlere skjærspenningen finnes fra enkel skjærteori som ble introdusert innledningsvis i kapittel 5:

$$\tau_m = \frac{\Delta F_s}{b\Delta x}$$




FIGUR B 3 SKJÆRTILLEGG PÅ RANDARMERING

Kraftøkningen i randstringer $\Delta F_s = \frac{\Delta M}{z}$

Som gir forholdet $\frac{\Delta M}{\Delta x} = \frac{dM}{dx} = V =$ skjærkraft i et vilkårlig snitt.

$$\therefore \tau_m = \frac{\Delta M}{b\Delta x z} = \frac{V}{bz}$$

Med hulldekkeelementer som er 1200mm brede får vi horisontal skjærkraft over dekkebredden:

$$V_{hd} = 1.2m \cdot b\tau_m = \frac{1.2V_d}{z}[kN/element]$$

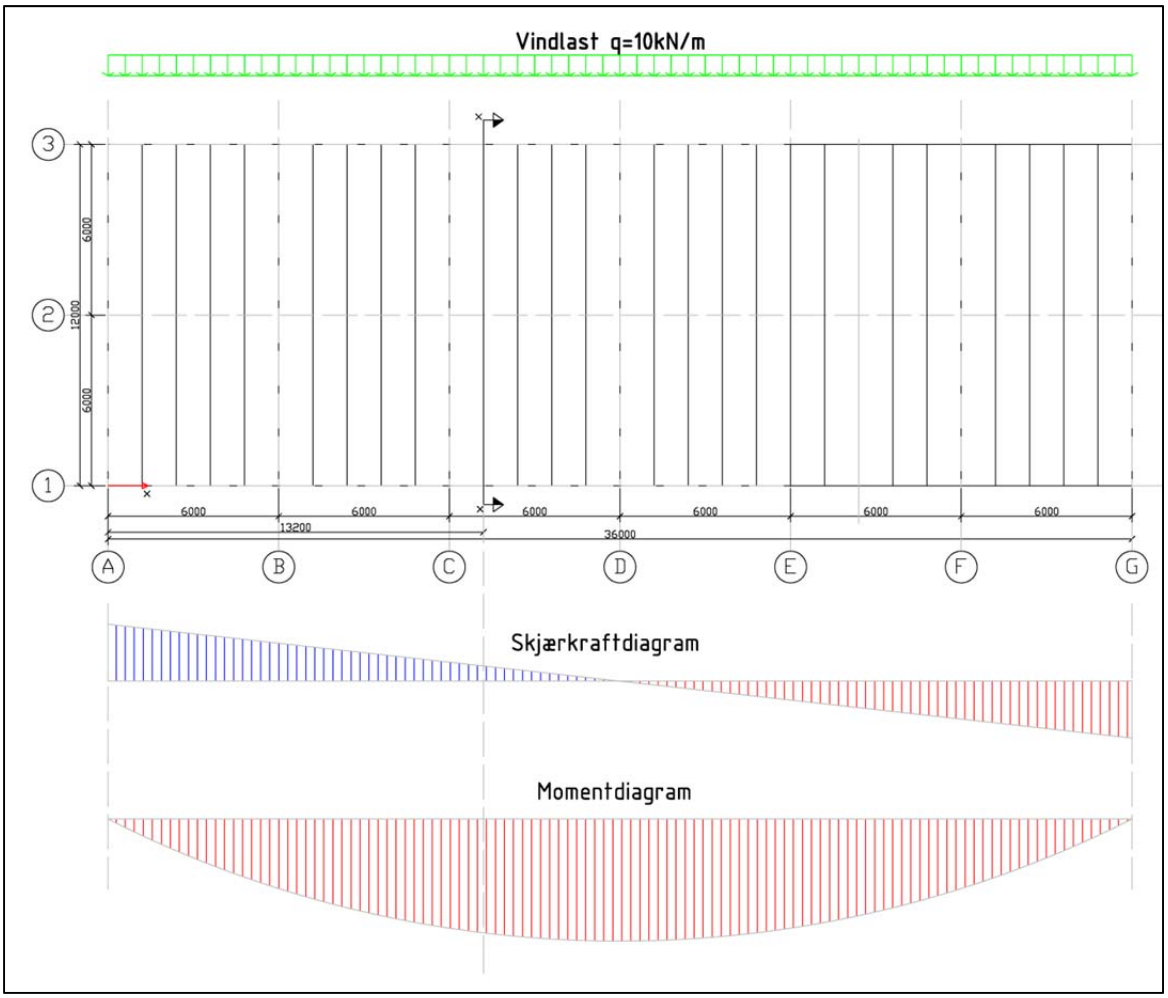
Armeringsmengde $A_f = \frac{V_{hd}}{\mu f_{yd}} = \frac{V_{hd}}{f_{yd}}$

I tillegg vil vindsug på gavl gi direkte bidrag på armeringsmengden.

# 4 Eksempelbygg: Analytisk løsning

## 4.1 Geometri og materiale:

- Hulldekke HD320
- L=36m
- B=12m
- Armering B500NC, $f_{yk}$=500N/mm²
- Z=0.8B=9.6m （Walraven）




FIGUR B 4 LASTER OG LASTVIRKNING PÅ TESTBYGG

Det regnes uten partialfaktorer.

## 4.2 Randarmering (Randstringer)

Kontrollsnitt for randarmering $x = \frac{L}{2} - \frac{z}{n} = \frac{36m}{2} - \frac{9.6m}{2} = 13.2m$

Armeringsmengde ved x $A_t = \frac{10\times10\text{^}3}{2\cdot500}\left(\frac{13.2\cdot36}{9.6} - \frac{13.2^2}{9.6} + \frac{36}{2} - \frac{2\cdot13.2}{2}\right) = 361.5mm^2$

$$\boldsymbol{A_t = 2ø16 = 402mm^2}$$

Armeringsmengde for $M_{max}$ alene $A_{tM} = \frac{qL^2}{8zf_{yk}} = \frac{10kN/m\cdot(36m)^2}{8\cdot9.6m\cdot500N/mm\text{^}2} = 337.5mm^2$

## 4.3 Skjærforbindelser

Skjær i den første fugen $V_{f1} = q\left(\frac{L}{2} - x\right) = 10\frac{kN}{m}\left(\frac{36m}{2} - 1.2m\right) = 168kN$

Skjærspenning i fugen $\tau_{f1} = \frac{V_{f1}}{zb_f} = \frac{168kN}{9.6m\cdot0.29m} = 0.06\frac{N}{mm^2} < 0.2\frac{N}{mm^2}$

Nødvendig randarmering for å holde siste element på plass mot utglidning:

$$A_1 = \frac{V_{f1}}{f_{yk}n} = \frac{168kN}{500N/mm^2\cdot 2} = 168mm^2$$

Armering pga gavlsug $A_{sug} = \frac{qB}{nf_{yk}} = \frac{10\frac{kN}{m}\cdot12m}{2\cdot500\frac{N}{mm^2}} = 120mm^2$

Total armeringsmengde pr side $A_V = A_1 + A_{sug} = 288mm^2 = 2ø12$

## 4.4 Forankring ved gavl

Opptredende skjærkraft ved gavler $V = \frac{qL}{2} = \frac{10\frac{kN}{m}\cdot36m}{2} = 180kN$

Kraft som må forankres $F_{G1} = \frac{V}{\mu} = V = 180kN$

Sug på gavl, formfaktor 1.0 $F_{sug} = qB = 10\frac{kN}{m}\cdot 12m = 120kN$

Det må forankres for $F_G = 180 + 120 = 300kN$

Regnemessig kapasitet pr. forbindelse er 30kN og avstand mellom forbindelser bør være min. 1m. Da har vi 11 forbindelser til rådighet langs dekkekanten og en forbindelse i hver ende av fugen mot naboelementet: 13 forbindelser totalt. Vi trenger kun 10: 8 i sidekant og 2 i fugen.

$$\frac{300kN}{10forbindelser} = 30kN/forbindelse = OK!$

## 4.5 Forankring av stringer til HD-skive

Det er nødvendig med forankring av randarmering dersom midlere skjærspenning er større enn 0.5N/mm²:

Midlere skjærspenning over HD-bredden $\tau_m = \tau_{f1} = 0.06\frac{N}{mm^2} > 0.05\frac{N}{mm^2}$

Nødvendig forankringsarmering ved skjærfriksjonsberegning blir da

$$A_B = \frac{1.2V}{z}\Big/_{f_{yk}n} = \frac{1.2m \cdot 168kN}{9.6m}\Big/_{500\frac{N}{mm^2}\cdot 2} = 21mm^2$$

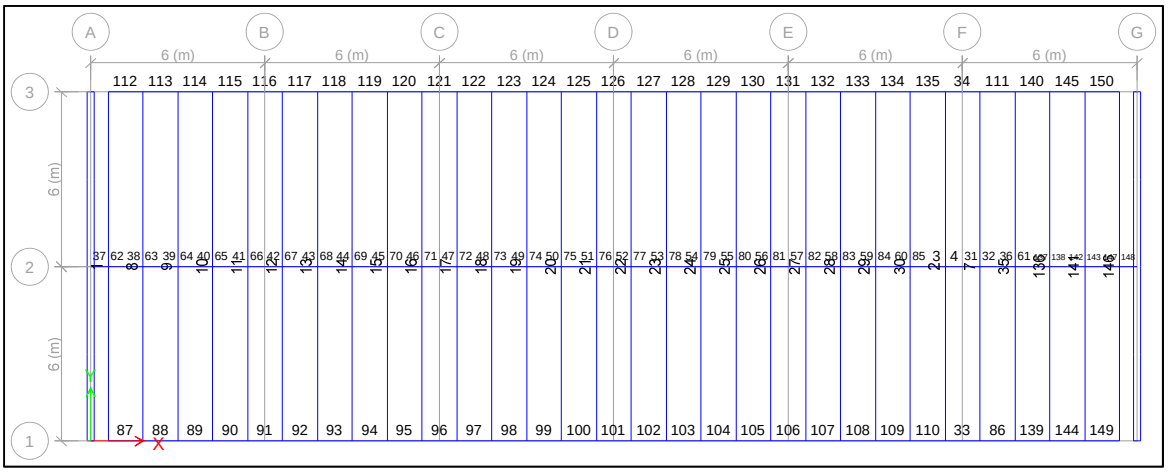
Armeringsmengde pga vindsug på lagnvegg: $A_{sug} = q\mu_{overtrykk}1.2m/f_{yk} = 10\frac{kN}{m}\cdot 0.7 \cdot 1.2m/500\frac{N}{mm^2} = 16.8mm^2$

Total forankringsarmering $A_3 = A_B + A_{sug} = 37.8mm^2/fuge = 1ø10/3.fuge$

# 5 Eksempelbygg: RaSk-løsning

## 5.1 Geometri og materialer

Tilsvarende oppsett som i kapittel 4 ovenfor.




FIGUR B 5 ELEMENTNUMMER I ETABS

| TABLE: Frame Assignments - Summary | | | | TABLE: Frame Assignments - Summary | | |
|---|---|---|---|---|---|---|
| Unique Name | Length mm | Design Section | | Unique Name | Length mm | Design Section |
| 1 | 12000 | HD32 | | 20 | 12000 | HD32 |
| 2 | 12000 | HD32 | | 21 | 12000 | HD32 |
| 7 | 12000 | HD32 | | 22 | 12000 | HD32 |
| 8 | 12000 | HD32 | | 23 | 12000 | HD32 |
| 9 | 12000 | HD32 | | 24 | 12000 | HD32 |
| 10 | 12000 | HD32 | | 25 | 12000 | HD32 |
| 11 | 12000 | HD32 | | 26 | 12000 | HD32 |
| 12 | 12000 | HD32 | | 27 | 12000 | HD32 |
| 13 | 12000 | HD32 | | 28 | 12000 | HD32 |
| 14 | 12000 | HD32 | | 29 | 12000 | HD32 |
| 15 | 12000 | HD32 | | 30 | 12000 | HD32 |
| 16 | 12000 | HD32 | | 35 | 12000 | HD32 |
| 17 | 12000 | HD32 | | 136 | 12000 | HD32 |
| 18 | 12000 | HD32 | | 141 | 12000 | HD32 |
| 19 | 12000 | HD32 | | 146 | 12000 | HD32 |

TABELL B 1 HD-STAVER I ETABS

| TABLE: Frame Assignments - Summary | | | | TABLE: Frame Assignments - Summary | | |
|---|---|---|---|---|---|---|
| **Unique Name** | **Length** | **Design Section** | | **Unique Name** | **Length** | **Design Section** |
| | mm | | | | mm | |
| 85 | 600 | HD32Skjær | | 61 | 600 | HD32Skjær |
| 3 | 600 | HD32Skjær | | 62 | 600 | HD32Skjær |
| 4 | 600 | HD32Skjær | | 63 | 600 | HD32Skjær |
| 31 | 600 | HD32Skjær | | 64 | 600 | HD32Skjær |
| 32 | 600 | HD32Skjær | | 65 | 600 | HD32Skjær |
| 36 | 600 | HD32Skjær | | 66 | 600 | HD32Skjær |
| 37 | 600 | HD32Skjær | | 67 | 600 | HD32Skjær |
| 38 | 600 | HD32Skjær | | 68 | 600 | HD32Skjær |
| 39 | 600 | HD32Skjær | | 69 | 600 | HD32Skjær |
| 40 | 600 | HD32Skjær | | 70 | 600 | HD32Skjær |
| 41 | 600 | HD32Skjær | | 71 | 600 | HD32Skjær |
| 42 | 600 | HD32Skjær | | 72 | 600 | HD32Skjær |
| 43 | 600 | HD32Skjær | | 73 | 600 | HD32Skjær |
| 44 | 600 | HD32Skjær | | 74 | 600 | HD32Skjær |
| 45 | 600 | HD32Skjær | | 75 | 600 | HD32Skjær |
| 46 | 600 | HD32Skjær | | 76 | 600 | HD32Skjær |
| 47 | 600 | HD32Skjær | | 77 | 600 | HD32Skjær |
| 48 | 600 | HD32Skjær | | 78 | 600 | HD32Skjær |
| 49 | 600 | HD32Skjær | | 79 | 600 | HD32Skjær |
| 50 | 600 | HD32Skjær | | 80 | 600 | HD32Skjær |
| 51 | 600 | HD32Skjær | | 81 | 600 | HD32Skjær |
| 52 | 600 | HD32Skjær | | 82 | 600 | HD32Skjær |
| 53 | 600 | HD32Skjær | | 83 | 600 | HD32Skjær |
| 54 | 600 | HD32Skjær | | 84 | 600 | HD32Skjær |
| 55 | 600 | HD32Skjær | | 137 | 600 | HD32Skjær |
| 56 | 600 | HD32Skjær | | 138 | 600 | HD32Skjær |
| 57 | 600 | HD32Skjær | | 142 | 600 | HD32Skjær |
| 58 | 600 | HD32Skjær | | 143 | 600 | HD32Skjær |
| 59 | 600 | HD32Skjær | | 147 | 600 | HD32Skjær |
| 60 | 600 | HD32Skjær | | 148 | 600 | HD32Skjær |

TABELL B 2 SKJÆRSTAVER I ETABS

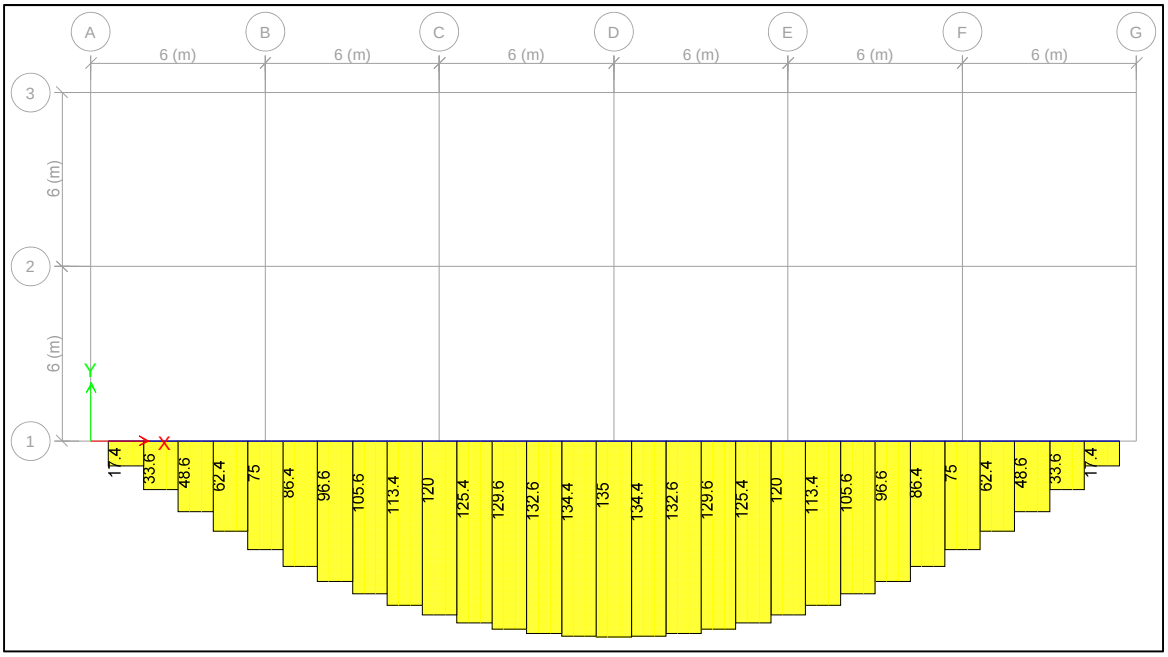
| TABLE: Frame Assignments - Summary | | | | | TABLE: Frame Assignments - Summary | | | |
|---|---|---|---|---|---|---|---|---|
| **Unique Name** | **Design Type** | **Lengt** mm | **Design Section** | | **Unique Name** | **Design Type** | **Lengt** mm | **Design Section** |
| 99 | Beam | 1200 | Stringer | | 128 | Beam | 1200 | Stringer |
| 98 | Beam | 1200 | Stringer | | 127 | Beam | 1200 | Stringer |
| 97 | Beam | 1200 | Stringer | | 126 | Beam | 1200 | Stringer |
| 96 | Beam | 1200 | Stringer | | 125 | Beam | 1200 | Stringer |
| 95 | Beam | 1200 | Stringer | | 124 | Beam | 1200 | Stringer |
| 94 | Beam | 1200 | Stringer | | 123 | Beam | 1200 | Stringer |
| 93 | Beam | 1200 | Stringer | | 122 | Beam | 1200 | Stringer |
| 92 | Beam | 1200 | Stringer | | 121 | Beam | 1200 | Stringer |
| 91 | Beam | 1200 | Stringer | | 120 | Beam | 1200 | Stringer |
| 90 | Beam | 1200 | Stringer | | 119 | Beam | 1200 | Stringer |
| 89 | Beam | 1200 | Stringer | | 118 | Beam | 1200 | Stringer |
| 88 | Beam | 1200 | Stringer | | 117 | Beam | 1200 | Stringer |
| 87 | Beam | 1200 | Stringer | | 116 | Beam | 1200 | Stringer |
| 86 | Beam | 1200 | Stringer | | 115 | Beam | 1200 | Stringer |
| 34 | Beam | 1200 | Stringer | | 114 | Beam | 1200 | Stringer |
| 33 | Beam | 1200 | Stringer | | 113 | Beam | 1200 | Stringer |
| 150 | Beam | 1200 | Stringer | | 112 | Beam | 1200 | Stringer |
| 149 | Beam | 1200 | Stringer | | 111 | Beam | 1200 | Stringer |
| 145 | Beam | 1200 | Stringer | | 110 | Beam | 1200 | Stringer |
| 144 | Beam | 1200 | Stringer | | 109 | Beam | 1200 | Stringer |
| 140 | Beam | 1200 | Stringer | | 108 | Beam | 1200 | Stringer |
| 139 | Beam | 1200 | Stringer | | 107 | Beam | 1200 | Stringer |
| 135 | Beam | 1200 | Stringer | | 106 | Beam | 1200 | Stringer |
| 134 | Beam | 1200 | Stringer | | 105 | Beam | 1200 | Stringer |
| 133 | Beam | 1200 | Stringer | | 104 | Beam | 1200 | Stringer |
| 132 | Beam | 1200 | Stringer | | 103 | Beam | 1200 | Stringer |
| 131 | Beam | 1200 | Stringer | | 102 | Beam | 1200 | Stringer |
| 130 | Beam | 1200 | Stringer | | 101 | Beam | 1200 | Stringer |
| 129 | Beam | 1200 | Stringer | | 100 | Beam | 1200 | Stringer |

TABELL B 3 STRINGERER I ETABS

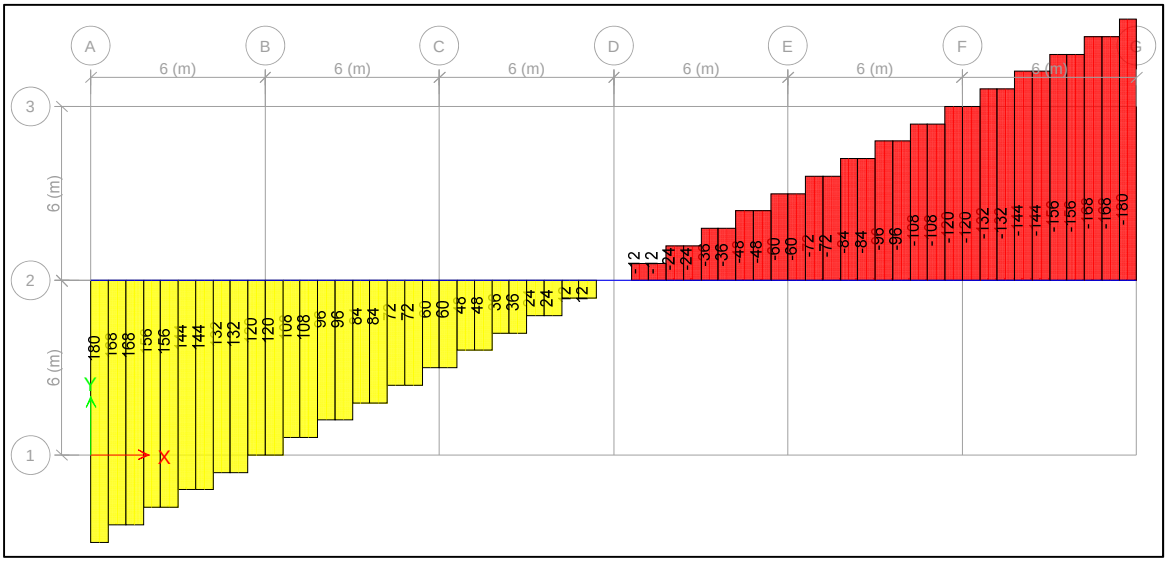
## 5.2 Randarmering (randstringer)

Krefter på strekkside i skiven som opptas i randarmering:

- Akse 1: Kraft i randstringer
- Akse 2: Skjær som superponeres sammen med randstrekk




FIGUR B 6 KRAFT I RANDSTRINGER ALENE




FIGUR B 7 SKJÆRKRAFT I SKJÆRSTAVER ALENE

Vi sjekker for x=13.2m som funnet i kapittel 4.2 ovenfor, altså den ellevte HD-staven fra akse A:

Fra figurene leser vi av randstrekk = 135kN, skjær = 48kN. Randarmering blir da

$$A_t = 135kN + \frac{48kN}{2} / 500\ N/mm^2 = 318mm^2 = 2ø16$$

## 5.3 Skjærforbindelser

Skjær i den første fugen leses av Figur B 7 Skjærkraft i skjærstaver aleneFigur B 7

$$V_{f1} = 168kN$$

Nødvendig randarmering for å holde siste element på plass mot utglidning:

$$A_1 = \frac{V_{f1}}{f_{yk} n} = \frac{168kN}{500N/mm^2 \cdot 2} = 168mm^2$$

Armering pga gavlsug $A_{sug} = \frac{qB}{nf_{yk}} = \frac{10\frac{kN}{m} \cdot 12m}{2 \cdot 500\frac{N}{mm^2}} = 120mm^2$

Total armeringsmengde pr side $A_V = A_1 + A_{sug} = 288mm^2 = 2ø12$

## 5.4 Forankring ved gavl

Opptredende skjærkraft ved gavler avlest $V = 180kN$

Kraft som må forankres $F_{G1} = \frac{V}{\mu} = V = 180kN$

Sug på gavl, formfaktor 1.0 $F_{sug} = qB = 10\frac{kN}{m} \cdot 12m = 120kN$

Det må forankres for $F_G = 180 + 120 = 300kN$

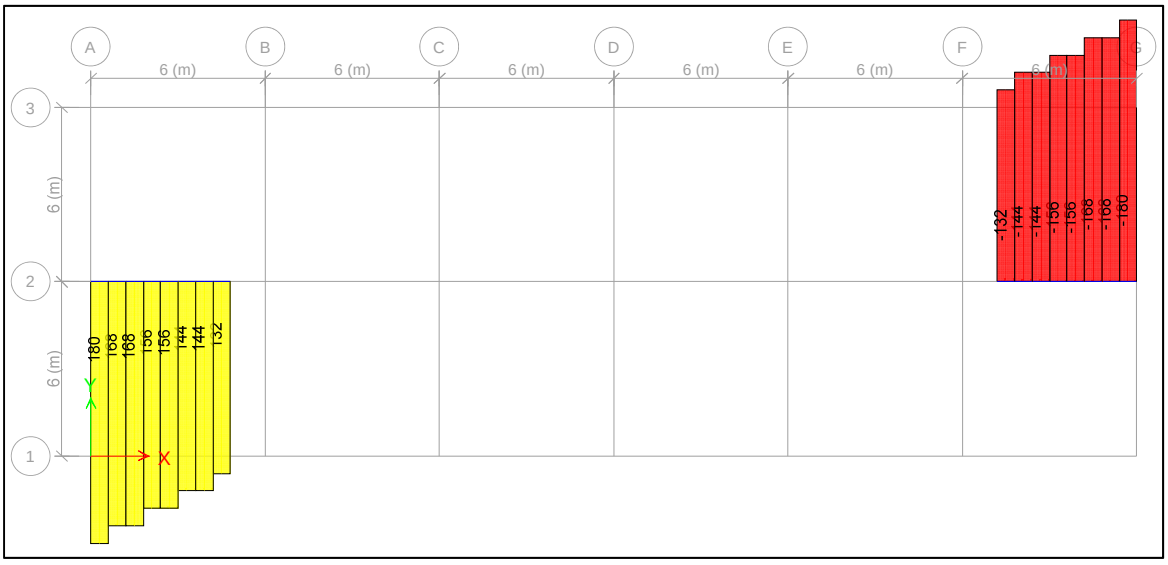
$$\frac{300kN}{10 forbindelser} = 30kN/forbindelse = OK!$$

## 5.5 Forankring av stringer til HD-skive

For å etterkomme kravet om at største skjærspenning uten armering ikke skal være større enn 0.05MPa setter vi opp relasjonen i forhold til skjærkraften:

$$\tau_{f1} = \frac{V_{f1}}{zb_f} < 0.05\frac{N}{mm^2} \Rightarrow V_{f1} < 0.05zb_f = 0.05\frac{N}{mm^2} \cdot 0.8 \cdot 12m \cdot 0.29m = 139.2kN$$

Altså vil det ikke være regnemessig behov for forankringsarmering dersom avlest skjærkraft er mindre enn 139.2kN: Området mellom akse B og F vil ikke ha behov for fugearmering




Figur B 8 Fuger med behov for fugearmering

# 6 Sammenlikning av resultater: Analytisk vs. RaSk

## 6.1 Geometri og materiale

Global geometri er identisk i de to regnemodellene. Den store forskjellen ligger i at den analytiske modellen regnes med ett element: nemlig én bjelke. RammeSkive-metoden regnes med 148 elementer som representerer skivevirkning.

## 6.2 Randarmering (Randstringer)

Den analytiske regnemodellen forutsetter bjelkevirkning for skiven. Indre momentarm, z, tilsvarer da samme høyde som i bjelkemekanikk for et betongtverrsnitt, med Walravens foreslåtte forhold; z = 0.8B.

RaSk-metoden lar kreftene virke i ytterpunktene av stavene, altså blir z = B.

Dersom vi ser på randarmering pga moment alene (V=0) skal denne faktoren finnes igjen:

$$A_{tM,analytisk} = 337.5\ mm^2$$

$$A_{tM,RaSk} = 135kN/500\frac{N}{mm^2} = 270mm^2$$

$$\therefore \frac{\boldsymbol{A_{tM,RaSk}}}{\boldsymbol{A_{tM,analytisk}}} = \frac{\boldsymbol{270}}{\boldsymbol{337.5}} = \boldsymbol{0.8\ Q.E.D.}$$

## 6.3 Skjærforbindelser

Her finnes det at resultatene er identiske: skjærkreftene i RaSk-metoden fordeler seg over lengden på akkurat samme måte som i analytisk bjelketeori; lineært mellom opplagerreaksjonene.

## 6.4 Forankring ved gavl

I og med at denne beregningen henger direkte sammen med hvordan skjærforløpet er, får vi også her identisk resultat i de to metodene.

## 6.5 Forankring av stringer til HD-skive

Da skjærkreftene leses rett av i ETABS-modellen er det unødvendig å gå veien om skjærspenningsberegning pga. friksjon i fugen. Nødvendig bøylearmering kan finnes direkte ved å lese av kreftene i hver fuge (kraften i skjærstaven tilhørende fugen.)

# TILLEGG C

## GARASJEEFFEKTEN

### 1 FIGURER OG TABELLER

#### Figurer



#### Tabeller



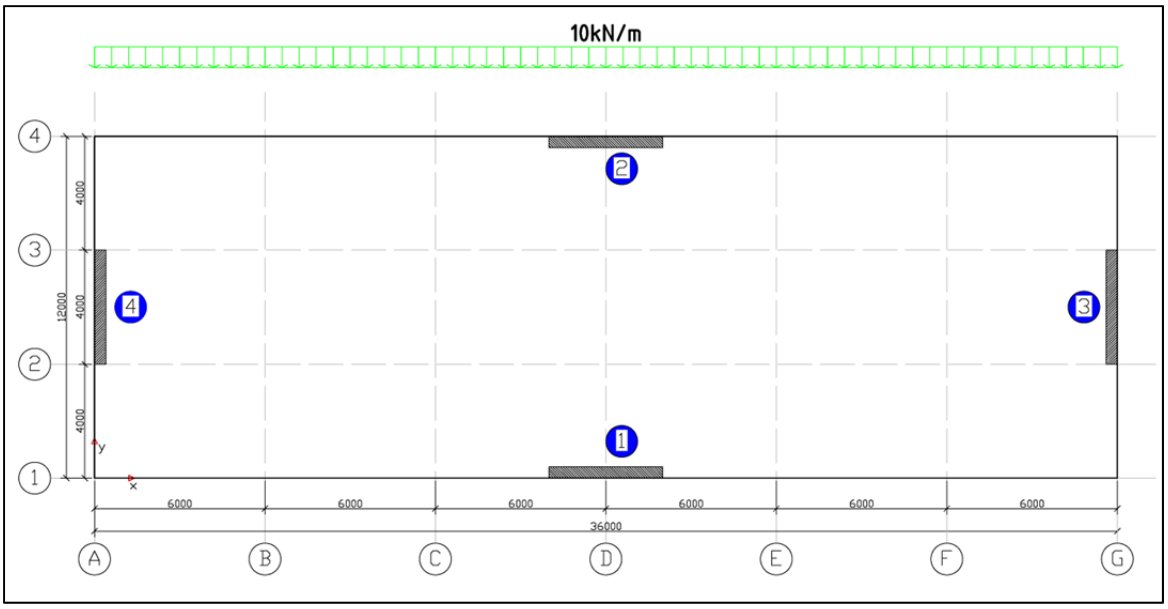
### 2 GENERELT

Som nevnt i kapittel 6.2 i Bind 1 har vertikalskivenes stivhet stor innflytelse på kraftfordelingen i globalanalysen. Vi skal her vise med eksempler hvordan dette slår ut ved å bruke program V-skive fra Sletten Byggdata kontra RaSk-metoden i ETABS.

V-skive benytter tradisjonell håndregningsmetode med uendelig stiv horisontalskive, mens RaSk-metoden med sitt rammebaserte prinsipp danner en deformerbar horisontalskive. Det er derfor forventningen at RaSk-metoden skal kunne dra større nytte av skiver som ikke er stive enn hva V-skive klarer.

# 3 Testoppsett

Vi benytter samme bygningskropp som ble benyttet i beviset for RaSk-metoden i Tillegg B. Vertikalskivene nummereres fra 1-4.




FIGUR C 1 TESTSKIVE FOR STIVHETSBETYDNING

# 4 Kjøring 1: Like stivheter

Alle fire vertikalskivene modelleres med lik stivhet. For å oppnå dette velges veggtykkelse 200mm og lengde 3m.

## 4.1 V-skive

Resultater fra V-skive følger på de seks neste sidene.

**Kjøring 1: Like stivheter**

| Tittel | | | Side |
|---|---|---|---|
| Identiske vertikalskiver | | | 4- 1 |
| Prosjekt: Masteroppgave UiS 2014 | Oppgave: Tillegg C | Sign: OKRP | Dato: 08-06-2014 |

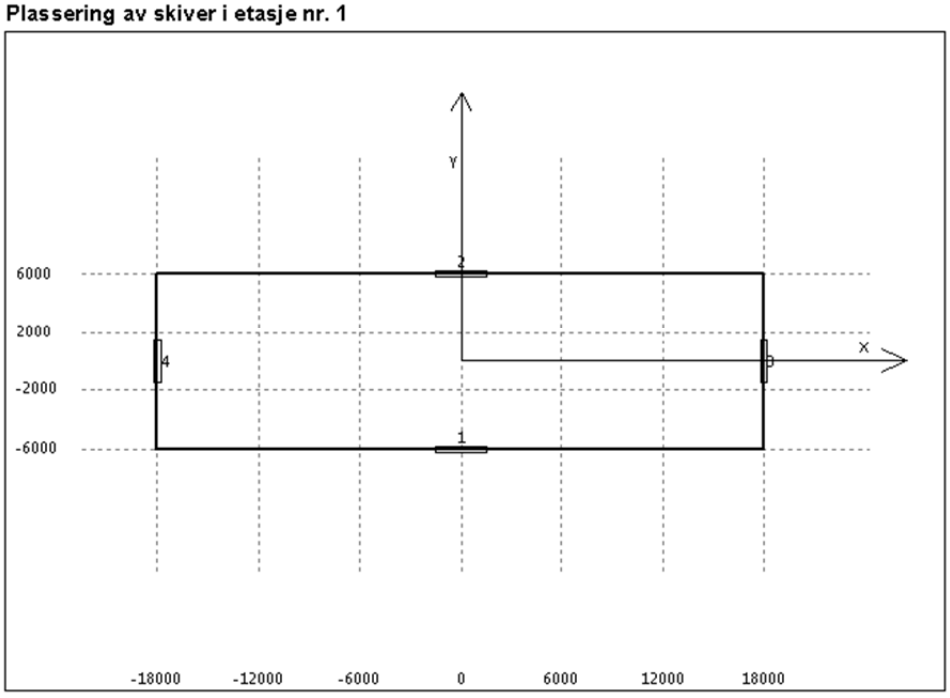
Dataprogram: V-SKIVE versjon 6.1.0 Laget av sivilingeniør Ove Sletten
Beregning av forskyvninger er basert på Emodul = 25000 N/mm2
Stivhetsmatrise for veggskiver: Bjelkemodell er benyttet

| | |
|---|---|
| Antall etasjer: | 1 |
| Antall skiver: | 4 |
| Antall lasttilfeller: | 1 |
| Antall lastkombinasjoner: | 1 |
| Antall utsparinger: | 0 |

## Etasjehøyder

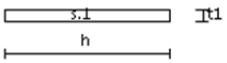
| Etasje nr | Etasjehøyde |
|---|---|
| 1 | 4000 |

## Plassering av skiver i etasje nr. 1




## Skive nr 1

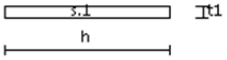
| Posisjonsdata: | | Etasje | h(mm) | t1(mm) |
|---|---|---|---|---|
| x (mm) | 0 | 1 | 3000 | 200 |
| Y (mm) | -6000 | | | |
| V (grader) | 0.0 | | | |
| Fra etasje | 1 | | | |
| Til etasje | 1 | | | |



| Tittel | | | Side |
|---|---|---|---|
| Identiske vertikalskiver | | | 4- 2 |
| Prosjekt: Masteroppgave UiS 2014 | Oppg: Tillegg C | Sign: ØKRP | Dato: 08-06-2014 |

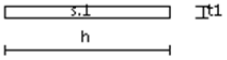
**Skive nr 2**

| Posisjonsdata: | | | Etasje | h(mm) | t1(mm) |
|---|---|---|---|---|---|
| x (mm) | 0 | | 1 | 3000 | 200 |
| Y (mm) | 6000 | | | | |
| V(grader) | 0.0 | | | | |
| Fra etasje | 1 | | | | |
| Til etasje | 1 | | | | |



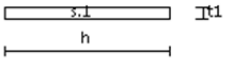

**Skive nr 3**

| Posisjonsdata: | | | Etasje | h(mm) | t1(mm) |
|---|---|---|---|---|---|
| x (mm) | 18000 | | 1 | 3000 | 200 |
| Y (mm) | 0 | | | | |
| V(grader) | 90.0 | | | | |
| Fra etasje | 1 | | | | |
| Til etasje | 1 | | | | |



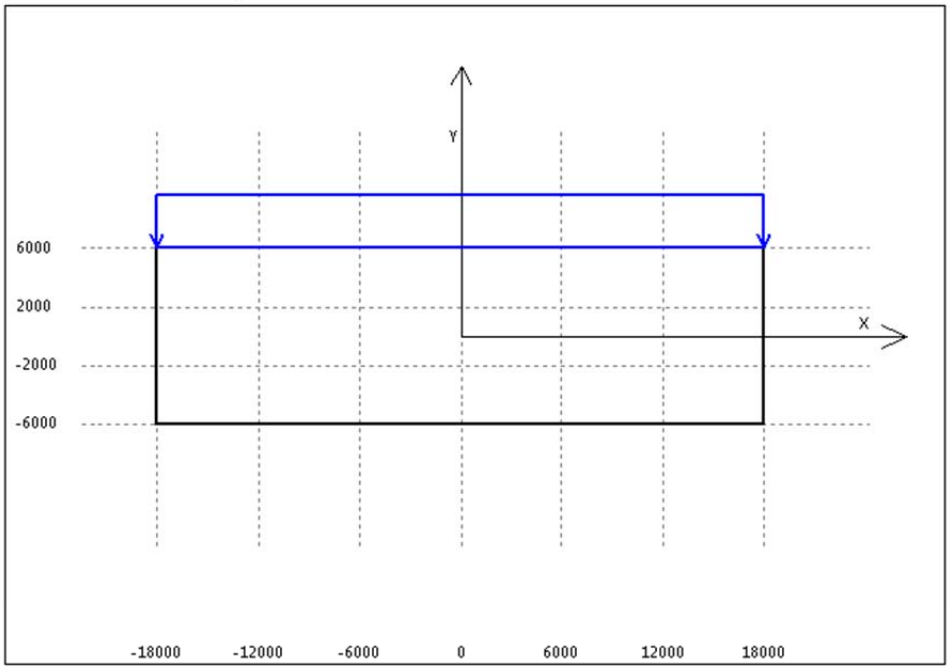

**Skive nr 4**

| Posisjonsdata: | | | Etasje | h(mm) | t1(mm) |
|---|---|---|---|---|---|
| x (mm) | -18000 | | 1 | 3000 | 200 |
| Y (mm) | 0 | | | | |
| V(grader) | 90.0 | | | | |
| Fra etasje | 1 | | | | |
| Til etasje | 1 | | | | |



| Tittel | | | Side |
|---|---|---|---|
| Identiske vertikalskiver | | | 4- 3 |
| Prosjekt: Masteroppgave UiS 2014 | Oppdrag: Tillegg C | Sign: OKRP | Dato: 08-06-2014 |

**Lasttilfelle nr 1: Vind -y**




**Lastdata for lasttilfelle nr 1: Vind -y**

| Retning | q(kN/m) | x1 | x2 | y1 | y2 | Fra etasje | Til etasje |
|---|---|---|---|---|---|---|---|
| Y | -10.0 | -18000 | 18000 | 6000 | 6000 | 1 | 1 |

**Lastkombinasjoner**

| Last-kombinasjon | Lasttilfelle nr |
|---|---|
| | 1 |
| 1 | 1 |

**Lastfaktorer for horisontallast**

| Lasttilfelle | Bruksgrense | Bruddgrense |
|---|---|---|
| 1 Vind -y | 1 | 1.5 |

**Påført vertikallast (kN)**

| Skive | over etasje nr 1 | |
|---|---|---|
| nr | egenvekt | nyttelast |
| 1 | 0 | 0 |
| 2 | 0 | 0 |
| 3 | 0 | 0 |
| 4 | 0 | 0 |

| Tittel | | | Side |
|---|---|---|---|
| Identiske vertikalskiver | | | 4- 4 |
| Prosjekt | Ordre | Sign | Dato |
| Masteroppgave UiS 2014 | Tillegg C | ØKRP | 08-06-2014 |

**Lastfaktorer for vertikallast**

| | Bruksgrense | Bruddgrense |
|---|---|---|
| Egenvekt | 1.00 | 1.20 |
| Nyttelast | 1.00 | 1.50 |

Egenvekt vertikalskiver: 2500 kg/m3

## Beregningsresultater

**Aksialkraft i skive nr 1 (kN)**

| Etasje nr | Bruksgrense | | | Bruddgrense | | |
|---|---|---|---|---|---|---|
| | Egenvekt | Nyttelast | Totallast | Egenvekt | Nyttelast | Totallast |
| 1 | 60 | 0 | 60 | 72 | 0 | 72 |

**Aksialkraft i skive nr 2 (kN)**

| Etasje nr | Bruksgrense | | | Bruddgrense | | |
|---|---|---|---|---|---|---|
| | Egenvekt | Nyttelast | Totallast | Egenvekt | Nyttelast | Totallast |
| 1 | 60 | 0 | 60 | 72 | 0 | 72 |

**Aksialkraft i skive nr 3 (kN)**

| Etasje nr | Bruksgrense | | | Bruddgrense | | |
|---|---|---|---|---|---|---|
| | Egenvekt | Nyttelast | Totallast | Egenvekt | Nyttelast | Totallast |
| 1 | 60 | 0 | 60 | 72 | 0 | 72 |

**Aksialkraft i skive nr 4 (kN)**

| Etasje nr | Bruksgrense | | | Bruddgrense | | |
|---|---|---|---|---|---|---|
| | Egenvekt | Nyttelast | Totallast | Egenvekt | Nyttelast | Totallast |
| 1 | 60 | 0 | 60 | 72 | 0 | 72 |

**Lastkombinasjon nr 1 Horisontale tilleggskrefter på grunn av utbøyning**

| Px(kN) | Py(kN) | X(mm) | Y(mm) | Etasje nr | Skive nr |
|---|---|---|---|---|---|
| 0.0 | 0.0 | 0 | -6000 | 1 | 1 |
| 0.0 | 0.0 | 0 | 6000 | 1 | 2 |
| 0.0 | 0.0 | 18000 | 0 | 1 | 3 |
| 0.0 | 0.0 | -18000 | 0 | 1 | 4 |

**Lastkombinasjon nr 1 Bruksgrense**

| Etasje nr | Lastvektor | | | Forskyvningsvektor | | |
|---|---|---|---|---|---|---|
| | Rx(kN) | Ry(kN) | Rz(kNm) | Vx(mm) | Vy(mm) | Vz(grader) |
| 1 | 0.0 | -360.0 | 0.0 | 0 | 0 | 0.0000 |

**Lastkombinasjon nr 1 : Skive nr 1 Bruksgrense**

| H(kN) | Forskyvning(mm) | Skjærkraft(kN) | Moment(kNm) |
|---|---|---|---|
| 0.0 | 0.0 | 0.0 | 0.0 |

1.etg

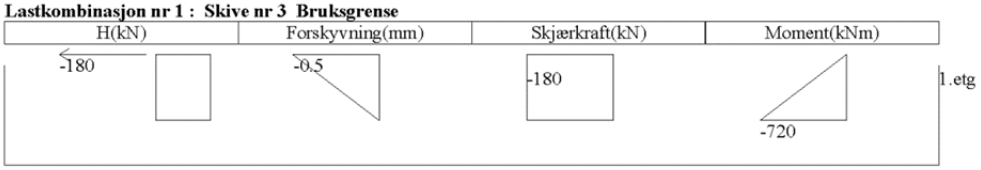
**Lastkombinasjon nr 1 : Skive nr 2 Bruksgrense**

| H(kN) | Forskyvning(mm) | Skjærkraft(kN) | Moment(kNm) |
|---|---|---|---|
| 0.0 | 0.0 | 0.0 | 0.0 |

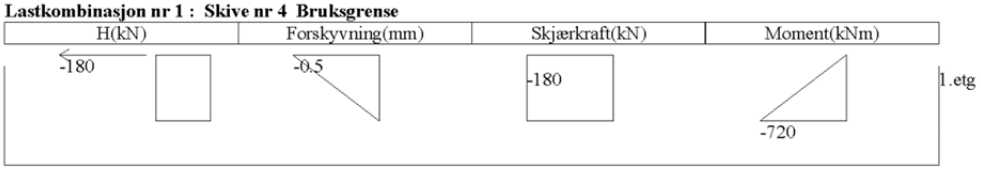
1.etg

| Tittel | | | Side |
|---|---|---|---|
| Identiske vertikalskiver | | | 4- 5 |
| Prosjekt | Ordre | Sign | Dato |
| Masteroppgave UiS 2014 | Tillegg C | ØKRP | 08-06-2014 |

**Lastkombinasjon nr 1 : Skive nr 3 Bruksgrense**




**Lastkombinasjon nr 1 : Skive nr 4 Bruksgrense**




## Maksimum og minimum snittkrefter for plane skiver

**Skive nr 1 Bruksgrense**

| Etasje nr | Aksialkraft (kN) | | Moment (kNm) | Skjærkraft (kN) |
|---|---|---|---|---|
| | Maks. | Min. | Maks.tallverdi | Maks.tallverdi |
| 1 | 60 | 60 | 0 | 0 |

**Skive nr 2 Bruksgrense**

| Etasje nr | Aksialkraft (kN) | | Moment (kNm) | Skjærkraft (kN) |
|---|---|---|---|---|
| | Maks. | Min. | Maks.tallverdi | Maks.tallverdi |
| 1 | 60 | 60 | 0 | 0 |

**Skive nr 3 Bruksgrense**

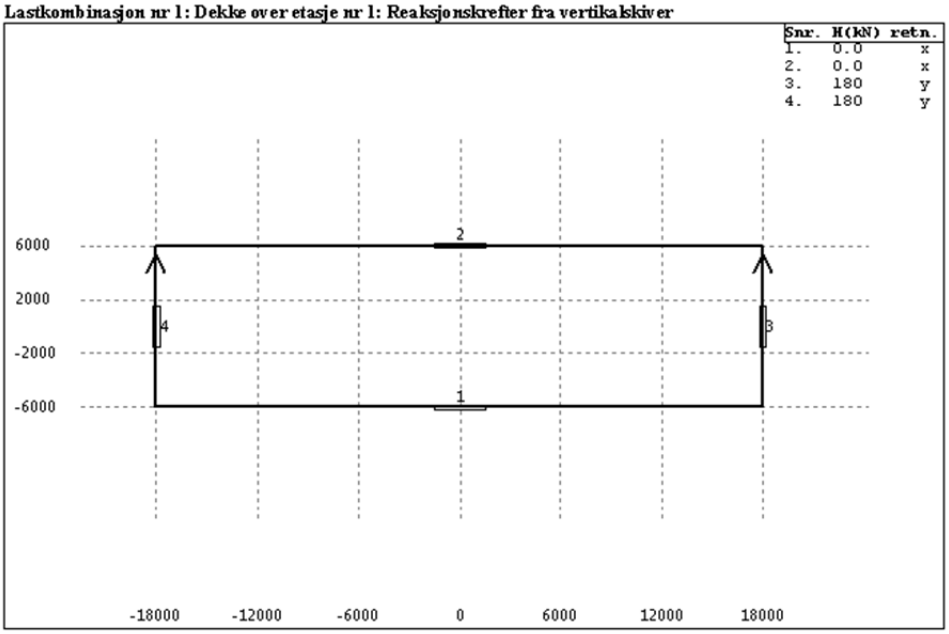
| Etasje nr | Aksialkraft (kN) | | Moment (kNm) | Skjærkraft (kN) |
|---|---|---|---|---|
| | Maks. | Min. | Maks.tallverdi | Maks.tallverdi |
| 1 | 60 | 60 | -720 | -180 |

**Skive nr 4 Bruksgrense**

| Etasje nr | Aksialkraft (kN) | | Moment (kNm) | Skjærkraft (kN) |
|---|---|---|---|---|
| | Maks. | Min. | Maks.tallverdi | Maks.tallverdi |
| 1 | 60 | 60 | -720 | -180 |

| Tittel | | | Side |
|---|---|---|---|
| Identiske vertikalskiver | | | 4-6 |
| Prosjekt: Masteroppgave UiS 2014 | Oppg.: Tillegg C | Sign.: OKRP | Dato: 08-06-2014 |

**Lastkombinasjon nr 1: Dekke over etasje nr 1: Reaksjonskrefter fra vertikalskiver**




## Maksimum snittkrefter i dekker

**Dekke nr 1 Bruksgrense**

| Modullinjer i Y-retning | | |
|---|---|---|
| X-koord. (mm) | Moment (kNm) Maks.tallverdi | Skjærkraft (kN) Maks.tallverdi |
| -18000 | 0 | 0 |
| -12000 | 900 | 120 |
| -6000 | 1440 | 60 |
| 0 | 1620 | 0 |
| 6000 | 1440 | -60 |
| 12000 | 900 | -120 |
| 18000 | 0 | -180 |

| Modullinjer i X-retning | | |
|---|---|---|
| Y-koord. (mm) | Moment (kNm) Maks.tallverdi | Skjærkraft (kN) Maks.tallverdi |
| -6000 | 0 | 0 |
| -2000 | 0 | 0 |
| 2000 | 0 | 0 |
| 6000 | 0 | 0 |

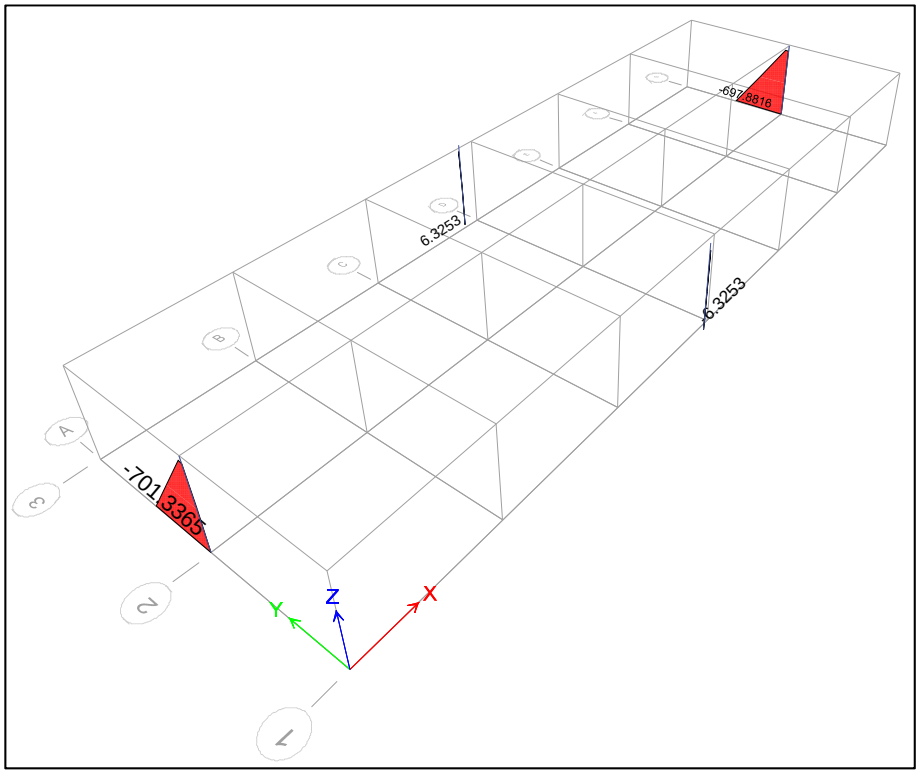
## 4.2 RaSk-metoden i ETABS

Tilsvarende kjøring gjort i ETABS.

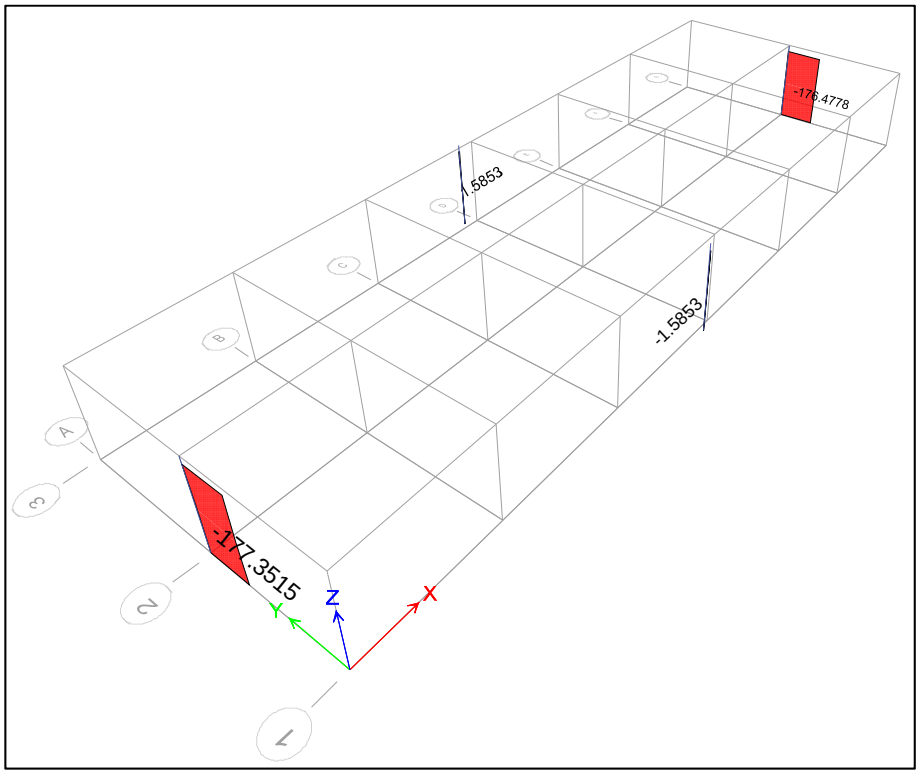
Kraftvirkninger på vertikalskiver:

| Column | P | V2 | M3 |
|---|---|---|---|
| | kN | kN | kN-m |
| 1 | -123.3 | -1.6 | -6.3 |
| 2 | 123.5 | 1.6 | 6.3 |
| 3 | 0.0 | -176.5 | -697.9 |
| 4 | 0.0 | -177.4 | -701.3 |

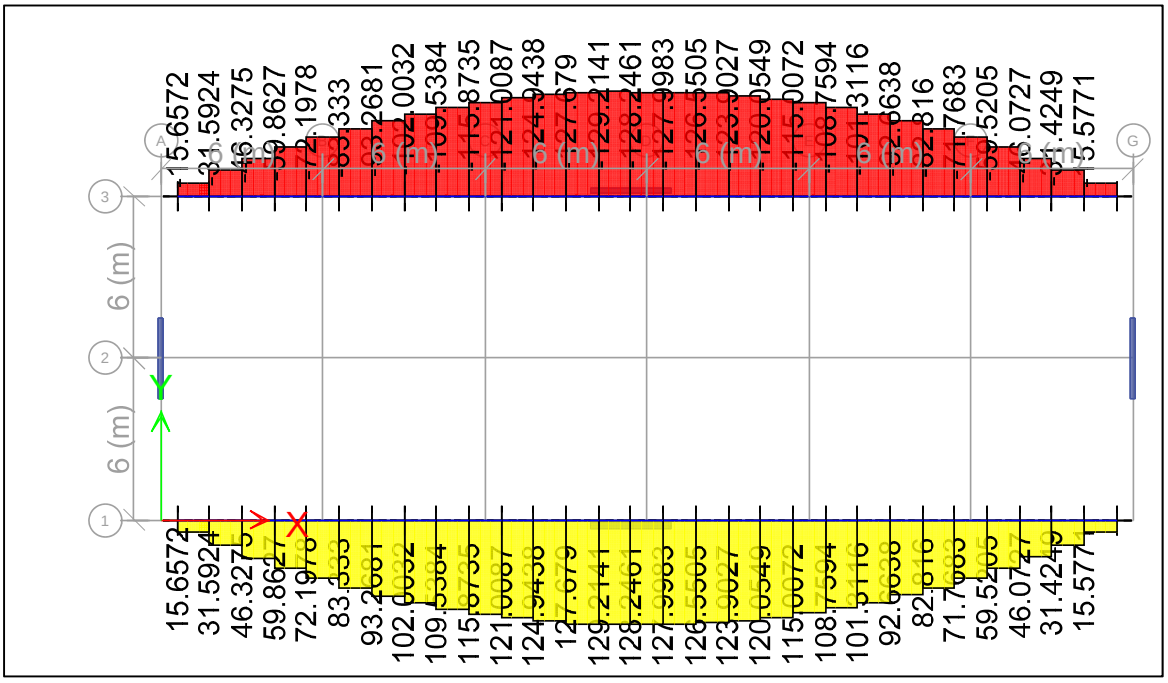
TABELL C 1 VERTIKALSKIVER, RASK-METODEN




FIGUR C 2 MOMENT, RASK-METODEN




FIGUR C 3 SKJÆRKREFTER, RASK-METODEN




FIGUR C 4 STRINGERE, RASK-METODEN

## 4.3 Kjøring 1: Resultatbetraktninger

Sammenlikning av resultater viser at det er svært liten forskjell i oppførselen til skivene – som forventet

I RaSk-modellen får skive 1 og 2 ca. 6kNm i bidrag. Dette avlaster gavlene 3 og 4 slik at disse får omtrent 700kNm i momentbelastning. V-skive legger hele belastningen på gavlene og gir følgelig 720kNm i moment – mindre enn 3 % forskjell.

En kjapp håndregning bekrefter resultatene:

Skjærkrefter på gavler/opplagerreaksjoner $R_3 = R_4 = \frac{qL}{2} = \frac{10\frac{kN}{m} \cdot 36m}{2} = 180kN$

Momentvirkning på gavler $M_3 = M_4 = RH = 180kN \cdot 4m = 720kNm$

Håndregning stemmer altså 100 % overens med V-skive, og gir et forventet avvik i forhold til RaSk-metoden som klarer å aktivisere langveggene.

Krefter i horisontalskive:

Største moment funnet i V-skive midt på lengden L: $M_{max} = 1620kNm$

Tilsvarende stringerkraft $F_{s,V-skive} = \frac{M_{max}}{z} = \frac{1620kNm}{0.8 \cdot 12m} = 168.75kN$

Største avleste kraft i RaSk-metoden $F_{s,RaSk} = 129.2kN$

Forhold mellom strekkrefter $\frac{F_{s,RaSk}}{F_{s,V-skive}} = \frac{129.2}{168.75} = 0.77^{1} \cong 0.8$

som bevist i kap5 i tillegg B.

[1] Bidrag fra langvegger i RaSk-modellen gir dette avviket på 4 %

# 5 Kjøring 2: Stive skiver 1,2 og 4

Stivheten økes i skive 1, 2 og 4 ved å øke lengden til 12m. Minner om at stivhet øker i tredje potens ved økning av vegglengden:

Stivheten til en skive $I_{skive} = \frac{bB^3}{12}$

Slik at økningen da blir $\frac{12^3}{3^3} = \left(\frac{12}{3}\right)^3 = 4^3 = 64$

12m skive er 64 ganger stivere enn 3m skive.

## 5.1 V-skive

Resultater fra V-skive følger på de seks neste sidene.

**Kjøring 2: Ulike stivheter**

| Tittel | | | Side |
|---|---|---|---|
| Vertikalskive 4 med stor stivhet | | | 5- 1 |
| Prosjekt | Oppdrag | Sign | Dato |
| Masteroppgave UiS 2014 | Tillegg C | OKRP | 08-06-2014 |

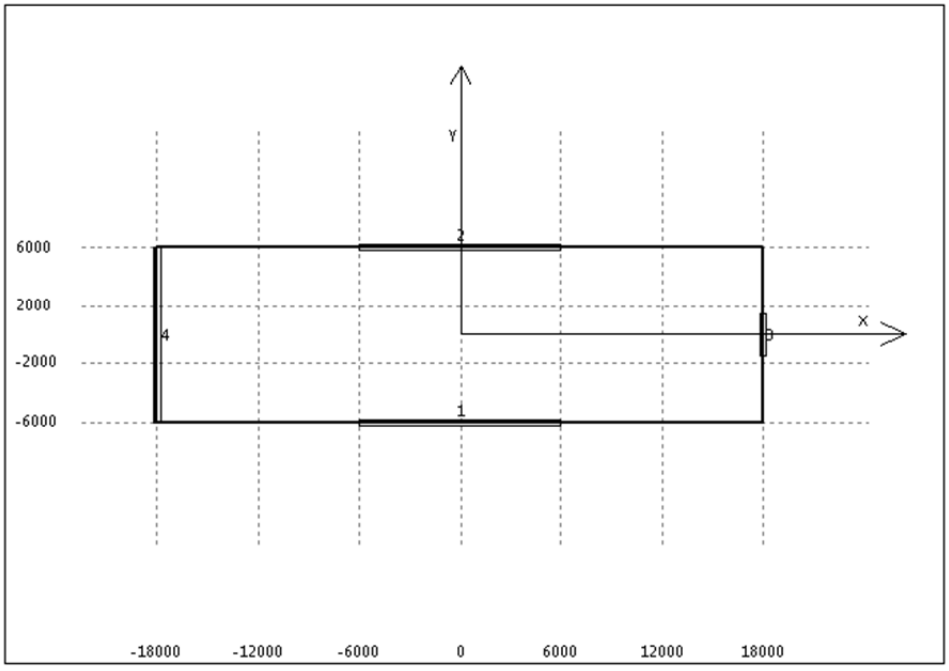
Dataprogram: V-SKIVE versjon 6.1.0 Laget av sivilingeniør Ove Sletten
Beregning av forskyvninger er basert på Emodul = 25000 N/mm2
Stivhetsmatrise for veggskiver: Bjelkemodell er benyttet

| | |
|---|---|
| Antall etasjer: | 1 |
| Antall skiver: | 4 |
| Antall lasttilfeller: | 1 |
| Antall lastkombinasjoner: | 1 |
| Antall utsparinger: | 0 |

## Etasjehøyder

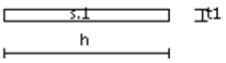
| Etasje nr | Etasjehøyde |
|---|---|
| 1 | 4000 |

## Plassering av skiver i etasje nr. 1




## Skive nr 1

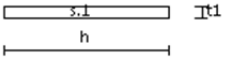
| Posisjonsdata: | | | Etasje | h(mm) | t1(mm) |
|---|---|---|---|---|---|
| x (mm) | 0 | | 1 | 12000 | 200 |
| Y (mm) | -6000 | | | | |
| V (grader) | 0.0 | | | | |
| Fra etasje | 1 | | | | |
| Til etasje | 1 | | | | |



| Tittel | | | Side |
|---|---|---|---|
| Vertikalskive 4 med stor stivhet | | | 5- 2 |
| Prosjekt: Masteroppgave UiS 2014 | Emne: Tillegg C | Sign: ØKRP | Dato: 08-06-2014 |

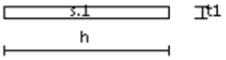
**Skive nr 2**

| Posisjonsdata: | | | Etasje | h(mm) | t1(mm) |
|---|---|---|---|---|---|
| x (mm) | 0 | | 1 | 12000 | 200 |
| Y (mm) | 6000 | | | | |
| V (grader) | 0.0 | | | | |
| Fra etasje | 1 | | | | |
| Til etasje | 1 | | | | |



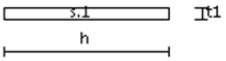

**Skive nr 3**

| Posisjonsdata: | | | Etasje | h(mm) | t1(mm) |
|---|---|---|---|---|---|
| x (mm) | 18000 | | 1 | 3000 | 200 |
| Y (mm) | 0 | | | | |
| V (grader) | 90.0 | | | | |
| Fra etasje | 1 | | | | |
| Til etasje | 1 | | | | |



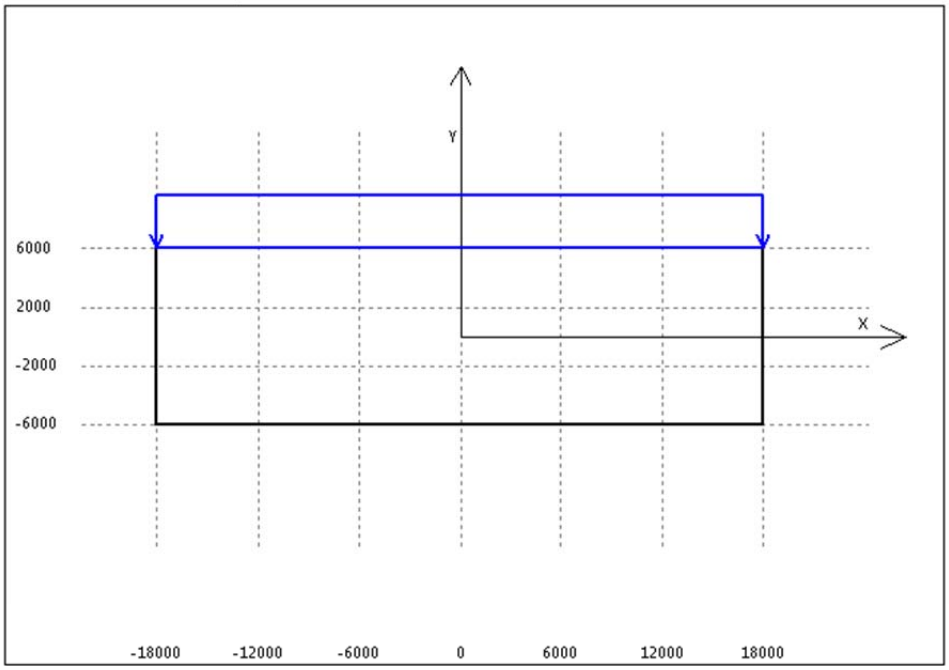

**Skive nr 4**

| Posisjonsdata: | | | Etasje | h(mm) | t1(mm) |
|---|---|---|---|---|---|
| x (mm) | -18000 | | 1 | 12000 | 200 |
| Y (mm) | 0 | | | | |
| V (grader) | 90.0 | | | | |
| Fra etasje | 1 | | | | |
| Til etasje | 1 | | | | |



| Tittel | | | Side |
|---|---|---|---|
| Vertikalskive 4 med stor stivhet | | | 5- 3 |
| Prosjekt: Masteroppgave UiS 2014 | Oppg: Tillegg C | Sign: ØKRP | Dato: 08-06-2014 |

**Lasttilfelle nr 1: Vind -y**




**Lastdata for lasttilfelle nr 1: Vind -y**

| Retning | q(kN/m) | x1 | x2 | y1 | y2 | Fra etasje | Til etasje |
|---|---|---|---|---|---|---|---|
| Y | -10.0 | -18000 | 18000 | 6000 | 6000 | 1 | 1 |

**Lastkombinasjoner**

| Last-kombinasjon | Lasttilfelle nr |
|---|---|
| | 1 |
| 1 | 1 |

**Lastfaktorer for horisontallast**

| Lasttilfelle | Bruksgrense | Bruddgrense |
|---|---|---|
| 1 Vind -y | 1 | 1.5 |

**Påført vertikallast (kN)**

| Skive | over etasje nr 1 | |
|---|---|---|
| nr | egenvekt | nyttelast |
| 1 | 0 | 0 |
| 2 | 0 | 0 |
| 3 | 0 | 0 |
| 4 | 0 | 0 |

| Tittel | | | Side |
|---|---|---|---|
| Vertikalskive 4 med stor stivhet | | | 5- 4 |
| Prosjekt: Masteroppgave UiS 2014 | Ordre: Tillegg C | Sign: OKRP | Dato: 08-06-2014 |

**Lastfaktorer for vertikallast**

| | Bruksgrense | Bruddgrense |
|---|---|---|
| Egenvekt | 1.00 | 1.20 |
| Nyttelast | 1.00 | 1.50 |

Egenvekt vertikalskiver: 2500 kg/m3

## Beregningsresultater

**Aksialkraft i skive nr 1 (kN)**

| Etasje nr | Bruksgrense | | | Bruddgrense | | |
|---|---|---|---|---|---|---|
| | Egenvekt | Nyttelast | Totallast | Egenvekt | Nyttelast | Totallast |
| 1 | 240 | 0 | 240 | 288 | 0 | 288 |

**Aksialkraft i skive nr 2 (kN)**

| Etasje nr | Bruksgrense | | | Bruddgrense | | |
|---|---|---|---|---|---|---|
| | Egenvekt | Nyttelast | Totallast | Egenvekt | Nyttelast | Totallast |
| 1 | 240 | 0 | 240 | 288 | 0 | 288 |

**Aksialkraft i skive nr 3 (kN)**

| Etasje nr | Bruksgrense | | | Bruddgrense | | |
|---|---|---|---|---|---|---|
| | Egenvekt | Nyttelast | Totallast | Egenvekt | Nyttelast | Totallast |
| 1 | 60 | 0 | 60 | 72 | 0 | 72 |

**Aksialkraft i skive nr 4 (kN)**

| Etasje nr | Bruksgrense | | | Bruddgrense | | |
|---|---|---|---|---|---|---|
| | Egenvekt | Nyttelast | Totallast | Egenvekt | Nyttelast | Totallast |
| 1 | 240 | 0 | 240 | 288 | 0 | 288 |

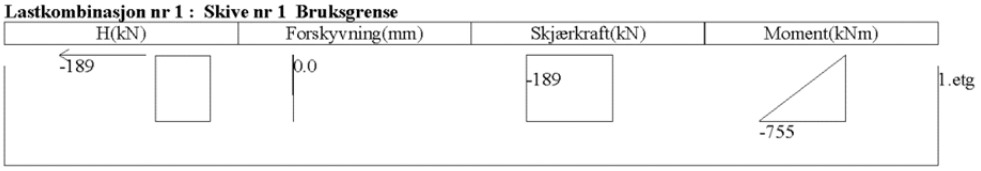
**Lastkombinasjon nr 1 Horisontale tilleggskrefter på grunn av utbøyning**

| Px(kN) | Py(kN) | X(mm) | Y(mm) | Etasje nr | Skive nr |
|---|---|---|---|---|---|
| 0.0 | 0.0 | 0 | -6000 | 1 | 1 |
| 0.0 | 0.0 | 0 | 6000 | 1 | 2 |
| 0.0 | 0.0 | 18000 | 0 | 1 | 3 |
| 0.0 | 0.0 | -18000 | 0 | 1 | 4 |

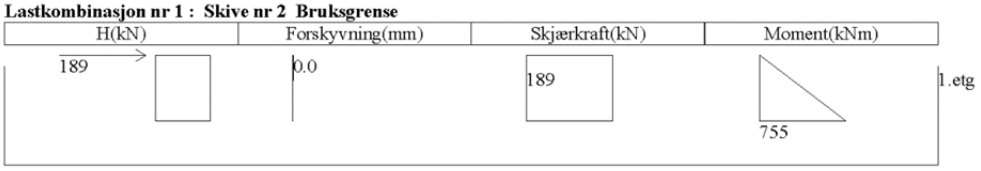
**Lastkombinasjon nr 1 Bruksgrense**

| Etasje nr | Lastvektor | | | Forskyvningsvektor | | |
|---|---|---|---|---|---|---|
| | Rx(kN) | Ry(kN) | Rz(kNm) | Vx(mm) | Vy(mm) | Vz(grader) |
| 1 | 0.0 | -360.0 | 0.0 | 0 | 0 | -0.0004 |

**Lastkombinasjon nr 1 : Skive nr 1 Bruksgrense**



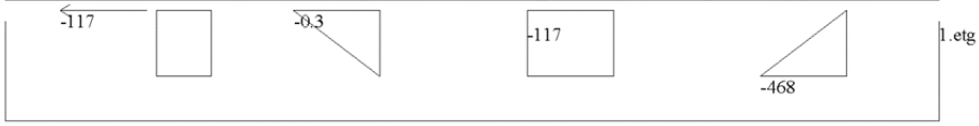

**Lastkombinasjon nr 1 : Skive nr 2 Bruksgrense**



| Tittel | | | Side |
|---|---|---|---|
| Vertikalskive 4 med stor stivhet | | | 5- 5 |
| Prosjekt: Masteroppgave UiS 2014 | Ordre: Tillegg C | Sign: ØKRP | Dato: 08-06-2014 |

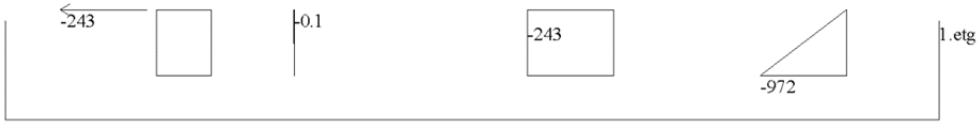
**Lastkombinasjon nr 1 : Skive nr 3 Bruksgrense**

| H(kN) | Forskyvning(mm) | Skjærkraft(kN) | Moment(kNm) |
|---|---|---|---|




**Lastkombinasjon nr 1 : Skive nr 4 Bruksgrense**

| H(kN) | Forskyvning(mm) | Skjærkraft(kN) | Moment(kNm) |
|---|---|---|---|




## Maksimum og minimum snittkrefter for plane skiver

**Skive nr 1 Bruksgrense**

| Etasje nr | Aksialkraft (kN) | | Moment (kNm) | Skjærkraft (kN) |
|---|---|---|---|---|
| | Maks. | Min. | Maks.tallverdi | Maks.tallverdi |
| 1 | 240 | 240 | -755 | -189 |

**Skive nr 2 Bruksgrense**

| Etasje nr | Aksialkraft (kN) | | Moment (kNm) | Skjærkraft (kN) |
|---|---|---|---|---|
| | Maks. | Min. | Maks.tallverdi | Maks.tallverdi |
| 1 | 240 | 240 | 755 | 189 |

**Skive nr 3 Bruksgrense**

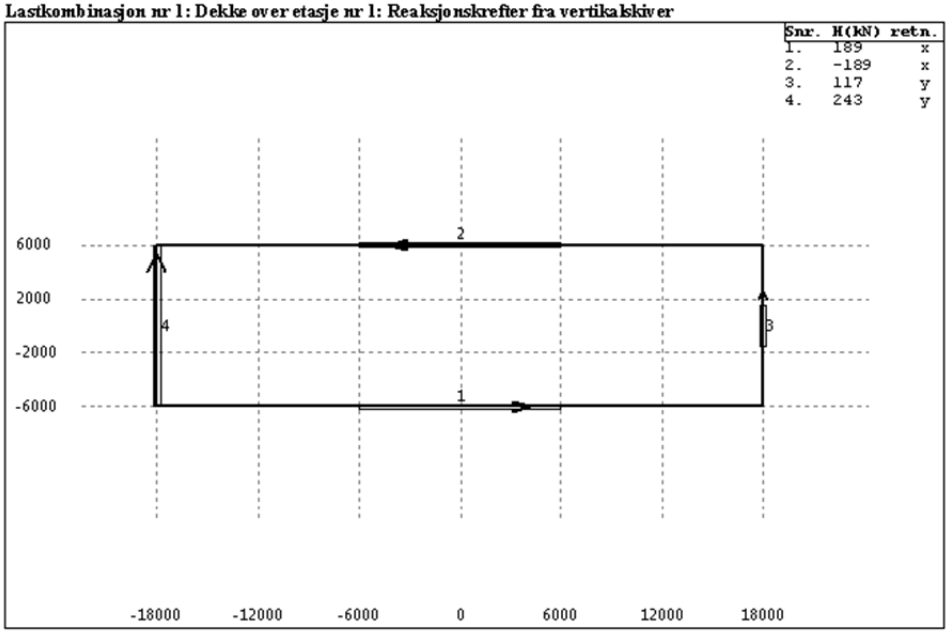
| Etasje nr | Aksialkraft (kN) | | Moment (kNm) | Skjærkraft (kN) |
|---|---|---|---|---|
| | Maks. | Min. | Maks.tallverdi | Maks.tallverdi |
| 1 | 60 | 60 | -468 | -117 |

**Skive nr 4 Bruksgrense**

| Etasje nr | Aksialkraft (kN) | | Moment (kNm) | Skjærkraft (kN) |
|---|---|---|---|---|
| | Maks. | Min. | Maks.tallverdi | Maks.tallverdi |
| 1 | 240 | 240 | -972 | -243 |

| Tittel | | | Side |
|---|---|---|---|
| Vertikalskive 4 med stor stivhet | | | 5-6 |
| Prosjekt | Oppdrag | Sign | Dato |
| Masteroppgave UiS 2014 | Tillegg C | OKRP | 08-06-2014 |

**Lastkombinasjon nr 1: Dekke over etasje nr 1: Reaksjonskrefter fra vertikalskiver**




## Maksimum snittkrefter i dekker

**Dekke nr 1 Bruksgrense**

| Modullinjer i Y-retning | | |
|---|---|---|
| X-koord. (mm) | Moment (kNm) Maks.tallverdi | Skjærkraft (kN) Maks.tallverdi |
| -18000 | 0 | 0 |
| -12000 | 1277 | 183 |
| -6000 | 2195 | 123 |
| 0 | 1620 | 63 |
| 6000 | 685 | 3 |
| 12000 | 523 | -57 |
| 18000 | 0 | -117 |

| Modullinjer i X-retning | | |
|---|---|---|
| Y-koord. (mm) | Moment (kNm) Maks.tallverdi | Skjærkraft (kN) Maks.tallverdi |
| -6000 | 0 | 0 |
| -2000 | -703 | 189 |
| 2000 | 703 | 189 |
| 6000 | 0 | 189 |

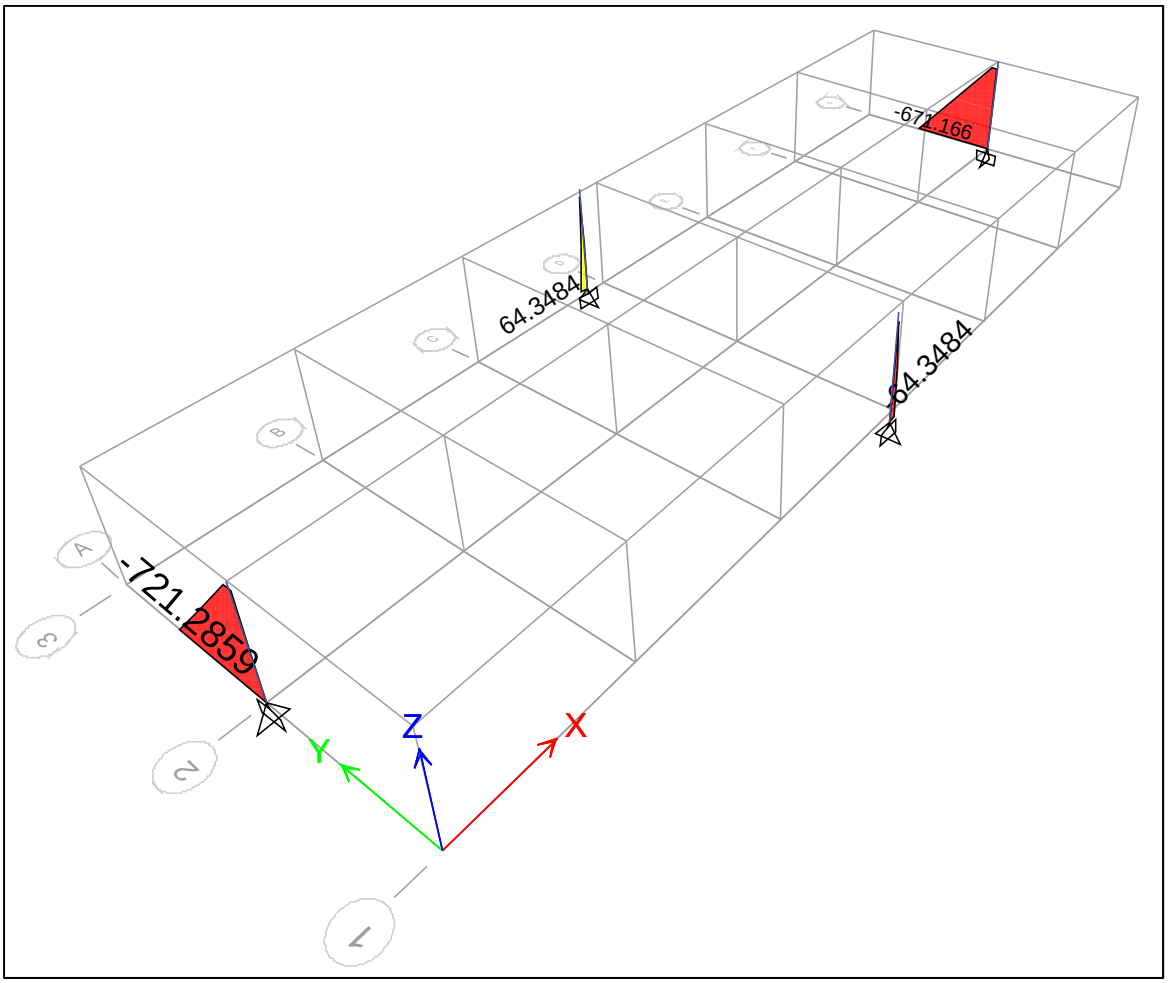
## 5.2 RASK-METODEN I ETABS

Tilsvarende kjøring gjort i ETABS.

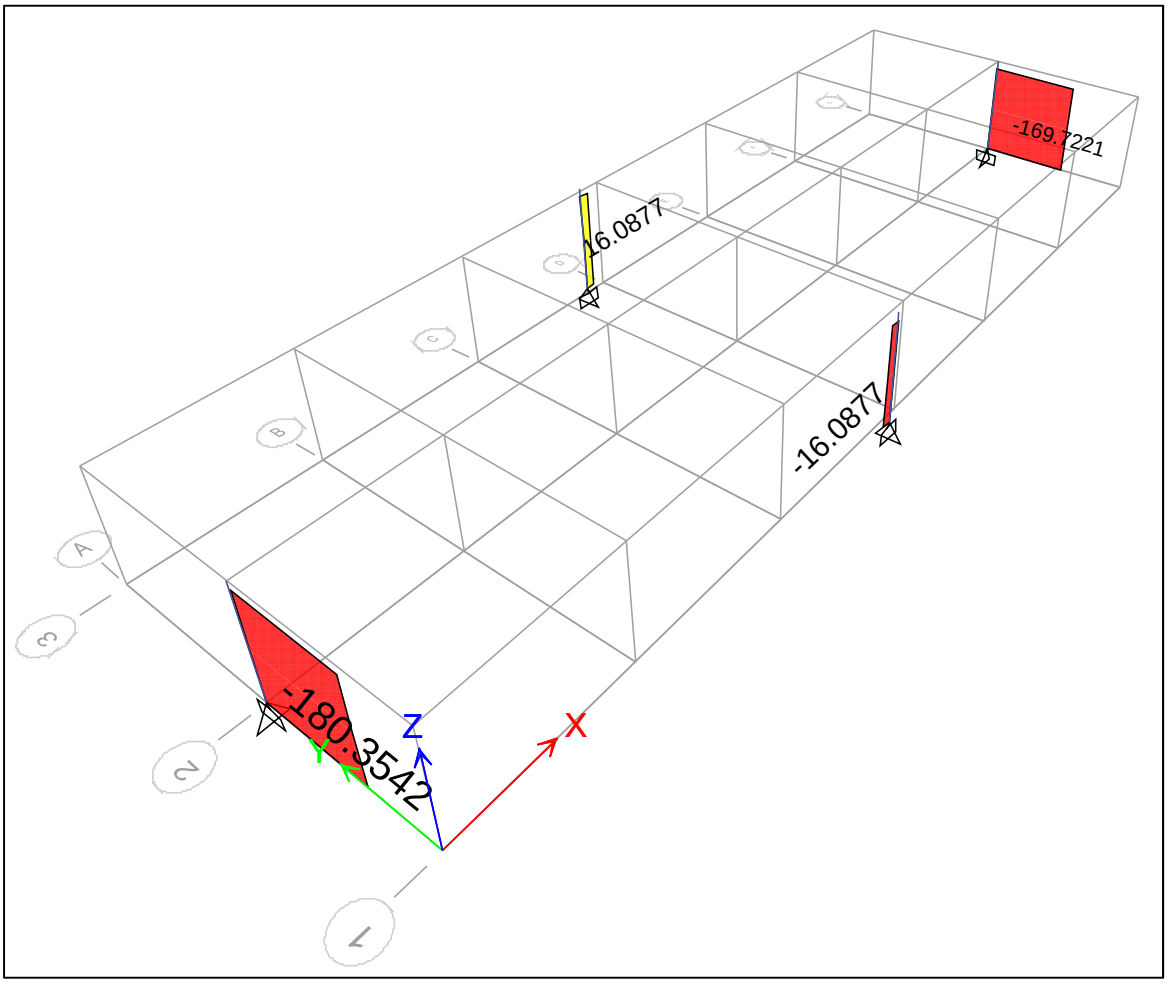
Kraftvirkninger på vertikalskiver:

| Column | P | V2 | M3 |
|---|---|---|---|
| | kN | kN | kN-m |
| 1.0 | -198.3 | -16.1 | -64.3 |
| 2.0 | 198.6 | 16.1 | 64.3 |
| 3.0 | 0.0 | -169.7 | -671.2 |
| 4.0 | 0.0 | -180.4 | -721.3 |

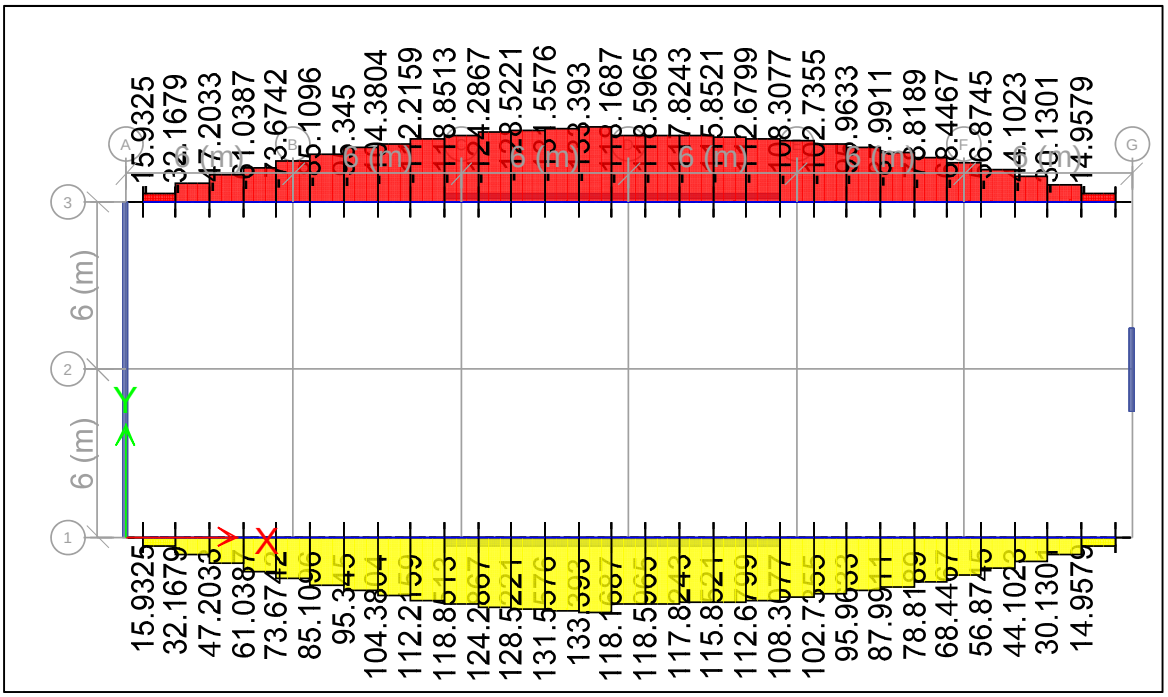
TABELL C 2 VERTIKALSKIVER, RASK-METODEN




FIGUR C 5 MOMENT, RASK-METODEN




FIGUR C 6 SKJÆRKREFTER, RASK-METODEN




FIGUR C 7 STRINGERE, RASK-METODEN

## 5.3 Kjøring 2: Resultatbetraktninger

Langveggene, som i kjøring 1 ikke var belastet i V-skive, har nå fått hele 755kNm i momentbelastning. En økning som selvsagt er uendelig. RaSk-metoden gir langveggene ca. 64kNm i moment: ti ganger mer enn i kjøring 1.
Ved kjøring 2 har altså tradisjonell regnemodell overført mer enn 11 ganger mer moment til langveggene enn hva RaSk-metoden gjør – substansielt mye mer.

Dette er garasjeeffekten som slår inn for tradisjonell regnemodell.

Det matematisk pene uttrykket som ga 720kNm i hver av gavlene kan nå ikke brukes. V-skive har nå fordelt mesteparten av momentet til venstre gavl; skive 4. Denne gavlen må nå ta 972kNm, mot 468kNm i motsatt gavl: altså 500 kNm i forskjell.

RaSk-metoden gir 721kNm mot 671kNm respektivt – bare 50kNm i forskjell. Gavl 4 har faktisk nesten identisk belastning som matematikken gir, mens langveggene avlaster skive 3.

Største moment funnet i V-skive $M_{max} = 2195kNm$

Tilsvarende stringerkraft $F_{s,V-skive} = \frac{M_{max}}{z} = \frac{2195kNm}{0.8 \cdot 12m} = 228.6kN$

Største avleste kraft i RaSk-metoden $F_{s,RaSk} = 133.4kN$

Forhold mellom strekkrefter $\frac{F_{s,RaSk}}{F_{s,V-skive}} = \frac{133.4}{228.6} = 0.58 \neq 0.8$

Altså har de to regnemodellene skilt lag.

# 6 Konklusjon

Konklusjonen som kan trekkes er at tradisjonell regnemodell sier at dersom man øker stivheten til veggene vil dette være ugunstig for byggets stabilitet. Dette faller på sin egen urimelighet: Ved å forsterke en vegg kan man aldri komme i fare for at de andre veggene bryter sammen, eller at horisontalskiven kollapser. Denne problemstillingen ivaretas av RaSk-metoden. Det er fordi horisontalskiven her er så myk at den vil legge seg på alle vertikalskiver og aktivisere disse – enten de har høy relativ stivhet eller ei.

Beregningsresultatene gir oss tallverdier å feste konklusjonen til:

Første kjøring sier at vi må ha randstringer for å kunne oppta

$$F_{s,V-skive} = 168.75kN \bigwedge F_{s,RaSk} = 129.2kN$$

Som tilsvarer 3ø12 B500NC (karakteristiske verdier brukt, både for belastning og kapasitet)

Andre kjøring gir randstringer som skal kunne oppta

$$F_{s,V-skive} = 228.6kN \bigwedge F_{s,RaSk} = 133.4kN$$

Det vil si at vi fortsatt klarer oss med 3ø12 for RaSk-metoden, som har tilnærmet like horisontalskiveoppførsler i kjøring 1 og kjøring 2.

Men V-skive vil at vi skal armere med 3ø16 – vesentlig mye mer armering.

Som forventet har vi da funnet at vertikalskivenes stivhet har stor innvirkning på kraftfordelingen i tradisjonell regnemodell, mens RaSk-metoden ikke er så følsom for dette.

Altså vil modellering med RaSk-metoden ikke være særs avhengig av vertikalskivens stivhet.

Q.E.D