

Other Utah Locations – S_S

| | ASCE 7-10 | ASCE 7-16 | Change | Percentage |
|--------------|-----------|-----------|--------|------------|
| Logan | 0.971 | 1.058 | 0.087 | 9% |
| Brigham City | 1.467 | 1.372 | -0.095 | -6% |
| Ogden | 1.373 | 1.362 | -0.011 | -1% |
| Provo | 1.144 | 1.323 | 0.179 | 16% |
| Manti | 0.638 | 0.635 | -0.003 | 0% |
| Cedar City | 0.702 | 0.777 | 0.075 | 11% |
| St. George | 0.499 | 0.509 | 0.010 | 2% |
| Vernal | 0.297 | 0.317 | 0.020 | 7% |
| Monticello | 0.156 | 0.179 | 0.023 | 15% |

Selected Changes to ASCE 7-16



SEAU 6th Annual Education Conference – Feb. 20, 21, 2018

Other Utah Locations – S_1

| | ASCE 7-10 | ASCE 7-16 | Change | Percentage |
|--------------|-----------|-----------|--------|------------|
| Logan | 0.311 | 0.353 | 0.042 | 14% |
| Brigham City | 0.521 | 0.488 | -0.033 | -6% |
| Ogden | 0.499 | 0.497 | -0.002 | 0% |
| Provo | 0.427 | 0.496 | 0.069 | 16% |
| Manti | 0.186 | 0.199 | 0.013 | 7% |
| Cedar City | 0.216 | 0.250 | 0.034 | 16% |
| St. George | 0.153 | 0.165 | 0.012 | 8% |
| Vernal | 0.091 | 0.082 | -0.009 | -10% |
| Monticello | 0.054 | 0.057 | 0.003 | 6% |

Selected Changes to ASCE 7-16



SEAU 6th Annual Education Conference – Feb. 20, 21, 2018

Sample Changes, S_{DS} (Short Period Buildings)

| Location | S_{DS} | A | B Measured | B Unmeasured | C | D | Default | E |
|--------------|----------|------|---------------|-----------------|------|------|---------|------|
| Logan | +9% | +8% | -2% | +9% | +29% | +6% | +18% | +40% |
| Brigham City | -6% | -6% | -16% | -6% | +12% | -6% | +12% | +25% |
| Murray | -4% | -4% | -14% | -4% | +15% | -4% | +15% | +15% |
| St. George | +2% | +2% | -8% | +2% | +10% | +1% | +1% | +1% |
| Monticello | +15% | +16% | +4% | +15% | +25% | +15% | 15% | +10% |



Sample Changes, S_{D1} (Long Period Buildings)

| Location | S_{D1} | A | B Measured | B Unmeasured | C | D | Default | E |
|---------------------------------|----------|------|------------|--------------|------|---------------------------|---------|------|
| Logan ($S_1 > 0.2$) | +14% | +13% | -9% | +14% | +15% | +24% (+59% Base Shear) | +24% | * |
| Brigham City ($S_1 > 0.2$) | -6% | -6% | -25% | -6% | +8% | +13% (+40% Base Shear) | +13% | * |
| Murray ($S_1 > 0.2$) | -4% | 0% | -20% | -1% | 13% | +17% (+43% Base Shear) | +17% | * |
| St. George ($S_1 < 0.2$) | +8% | +7% | -14% | +8% | -2% | +12% | +12% | +17% |
| Monticello ($S_1 < 0.2$) | +6% | +3% | -17% | +6% | -7% | +5% | +5% | +26% |

* Site-specific ground motion hazard analysis is required

