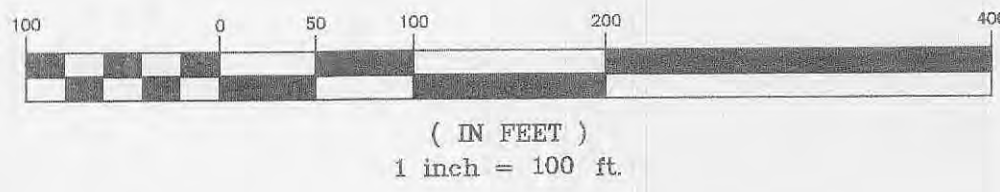


GRAPHIC SCALE



PROGRESS WEST (BJC HOSPITAL)  
STORMWATER RUNOFF CALCULATIONS

| SUBAREA                                   | AREA ( SQ FT ) |          | TOTAL AREA    |             | IMPERVIOUS PERCENTAGE |             |             |             |             |
|---|----------------|----------|---------------|-------------|-----------------------|-------------|-------------|-------------|-------------|
|   | IMPERVIOUS     | PERVIOUS | SQ FT         | AC          | Q(15)                 | Q(15)       | Q(15)       | Q(15)       | TOTAL       |
| <b>SOUTH WATERSHED (BYPASS DETENTION)</b> |                |          |               |             |                       |             |             |             |             |
| 34  | 4,839          | 58,800   | 63,639        | 1.46        | 0.11                  | 0.39        | 1.35        | 2.29        | 2.69        |
| 35  | 2,585          | 0        | 2,585         | 0.06        | 0.06                  | 0.21        | 0.00        | 0.00        | 0.21        |
| 63  | 3,210          | 4,948    | 8,158         | 0.19        | 0.07                  | 0.26        | 0.11        | 0.19        | 0.45        |
| 64  | 3,115          | 0        | 3,115         | 0.07        | 0.07                  | 0.25        | 0.00        | 0.00        | 0.25        |
| 105                                       | 0              | 92,481   | 92,481        | 2.12        | 0.00                  | 0.00        | 2.12        | 3.61        | 3.61        |
| 106                                       | 0              | 44,255   | 44,255        | 1.02        | 0.00                  | 0.00        | 1.02        | 1.73        | 1.73        |
|   |                |          | <b>Totals</b> | <b>4.92</b> | <b>0.32</b>           | <b>1.12</b> | <b>4.60</b> | <b>7.82</b> | <b>8.94</b> |
| <b>NORTH WATERSHED</b>                    |                |          |               |             |                       |             |             |             |             |
| 1   | 34,013         | 0        | 34,013        | 0.78        | 0.78                  | 2.76        | 0.00        | 0.00        | 2.76        |
| 2   | 6,540          | 83,727   | 90,267        | 2.07        | 0.15                  | 0.53        | 1.92        | 3.27        | 3.80        |
| 3   | 0              | 24,444   | 24,444        | 0.56        | 0.00                  | 0.00        | 0.56        | 0.95        | 0.95        |
| 4   | 17,727         | 0        | 17,727        | 0.41        | 0.41                  | 1.44        | 0.00        | 0.00        | 1.44        |
| 5   | 11,212         | 0        | 11,212        | 0.26        | 0.26                  | 0.91        | 0.00        | 0.00        | 0.91        |
| 6   | 11,674         | 0        | 11,674        | 0.27        | 0.27                  | 0.95        | 0.00        | 0.00        | 0.95        |
| 7   | 12,105         | 31,375   | 43,480        | 1.00        | 0.28                  | 0.98        | 0.72        | 1.22        | 2.21        |
| 8   | 20,848         | 46,091   | 66,939        | 1.54        | 0.48                  | 1.69        | 1.06        | 1.80        | 3.49        |
| 9   | 0              | 18,487   | 18,487        | 0.42        | 0.00                  | 0.00        | 0.42        | 0.72        | 0.72        |
| 10  | 6,739          | 1,071    | 7,810         | 0.18        | 0.15                  | 0.55        | 0.02        | 0.04        | 0.59        |
| 11  | 4,954          | 1,071    | 6,025         | 0.12        | 0.09                  | 0.33        | 0.02        | 0.04        | 0.37        |
| 12  | 18,317         | 9,377    | 27,694        | 0.64        | 0.42                  | 1.49        | 0.22        | 0.37        | 1.85        |
| 13  | 37,540         | 0        | 37,540        | 0.86        | 0.86                  | 3.05        | 0.00        | 0.00        | 3.05        |
| 14  | 4,283          | 15,291   | 19,574        | 0.45        | 0.10                  | 0.35        | 0.35        | 0.60        | 0.94        |
| 15  | 9,051          | 6,740    | 15,791        | 0.36        | 0.21                  | 0.74        | 0.15        | 0.26        | 1.00        |
| 16  | 6,555          | 2,374    | 8,929         | 0.22        | 0.15                  | 0.54        | 0.07        | 0.12        | 0.68        |
| 17  | 12,944         | 6,756    | 19,700        | 0.45        | 0.30                  | 1.05        | 0.16        | 0.26        | 1.32        |
| 18  | 15,000         | 3,102    | 18,102        | 0.42        | 0.34                  | 1.22        | 0.07        | 0.12        | 1.34        |
| 19  | 5,113          | 18       | 5,131         | 0.12        | 0.12                  | 0.42        | 0.00        | 0.00        | 0.42        |
| 20  | 4,999          | 221      | 5,220         | 0.12        | 0.11                  | 0.41        | 0.01        | 0.01        | 0.41        |
| 21  | 8,464          | 1,389    | 9,853         | 0.18        | 0.15                  | 0.53        | 0.03        | 0.05        | 0.58        |
| 22  | 12,150         | 3,433    | 15,583        | 0.36        | 0.28                  | 0.99        | 0.08        | 0.12        | 1.12        |
| 23  | 3,552          | 0        | 3,552         | 0.08        | 0.08                  | 0.29        | 0.00        | 0.00        | 0.29        |
| 24  | 2,208          | 4,240    | 6,448         | 0.15        | 0.05                  | 0.18        | 0.10        | 0.17        | 0.34        |
| 25  | 8,829          | 6,301    | 15,130        | 0.30        | 0.16                  | 0.55        | 0.14        | 0.25        | 0.80        |
| 26  | 0              | 10,874   | 10,874        | 0.25        | 0.00                  | 0.00        | 0.25        | 0.42        | 0.42        |
| 27  | 17,660         | 0        | 17,660        | 0.41        | 0.41                  | 1.44        | 0.00        | 0.00        | 1.44        |
| 28  | 0              | 25,363   | 25,363        | 0.58        | 0.00                  | 0.00        | 0.58        | 0.99        | 0.99        |
| 29  | 15,468         | 0        | 15,468        | 0.36        | 0.36                  | 1.26        | 0.00        | 0.00        | 1.26        |
| 30  | 20,335         | 0        | 20,335        | 0.47        | 0.47                  | 1.65        | 0.00        | 0.00        | 1.65        |
| 31  | 7,863          | 5,366    | 13,229        | 0.30        | 0.18                  | 0.62        | 0.12        | 0.21        | 0.83        |
| 32  | 20,335         | 0        | 20,335        | 0.47        | 0.47                  | 1.65        | 0.00        | 0.00        | 1.65        |
| 33  | 18,589         | 39,379   | 57,968        | 1.35        | 0.45                  | 1.59        | 0.00        | 0.14        | 3.13        |
| 36  | 1,600          | 3,172    | 4,772         | 0.11        | 0.04                  | 0.13        | 0.07        | 0.12        | 0.25        |
| 37  | 1,529          | 0        | 1,529         | 0.04        | 0.04                  | 0.12        | 0.00        | 0.00        | 0.12        |
| 38  | 2,515          | 6,021    | 8,536         | 0.20        | 0.06                  | 0.20        | 0.14        | 0.23        | 0.44        |
| 39  | 2,007          | 0        | 2,007         | 0.05        | 0.05                  | 0.16        | 0.00        | 0.00        | 0.16        |
| 40  | 5,110          | 15,017   | 20,127        | 0.46        | 0.12                  | 0.42        | 0.34        | 0.59        | 1.00        |
| 41  | 8,160          | 3,422    | 11,582        | 0.27        | 0.19                  | 0.66        | 0.08        | 0.13        | 0.80        |
| 42  | 3,489          | 3,232    | 6,721         | 0.15        | 0.08                  | 0.28        | 0.07        | 0.13        | 0.41        |
| 43  | 1,097          | 0        | 1,097         | 0.03        | 0.03                  | 0.09        | 0.00        | 0.00        | 0.09        |
| 44  | 2,347          | 5,179    | 7,526         | 0.17        | 0.05                  | 0.19        | 0.12        | 0.20        | 0.39        |
| 45  | 1,914          | 0        | 1,914         | 0.04        | 0.04                  | 0.16        | 0.00        | 0.00        | 0.16        |
| 46  | 5,951          | 3,555    | 9,506         | 0.22        | 0.14                  | 0.48        | 0.08        | 0.14        | 0.62        |
| 47  | 6,264          | 1,208    | 7,472         | 0.17        | 0.14                  | 0.51        | 0.03        | 0.05        | 0.56        |
| 48  | 9,185          | 2,858    | 12,043        | 0.28        | 0.21                  | 0.75        | 0.07        | 0.11        | 0.86        |
| 49  | 27,106         | 0        | 27,106        | 0.62        | 0.62                  | 2.20        | 0.00        | 0.00        | 2.20        |
| 50  | 2,970          | 8,133    | 11,103        | 0.25        | 0.07                  | 0.24        | 0.19        | 0.32        | 0.56        |
| 51  | 2,121          | 0        | 2,121         | 0.05        | 0.05                  | 0.17        | 0.00        | 0.00        | 0.17        |
| 52  | 2,710          | 3,211    | 5,921         | 0.14        | 0.06                  | 0.22        | 0.07        | 0.13        | 0.35        |
| 53  | 1,887          | 2,167    | 4,054         | 0.09        | 0.04                  | 0.15        | 0.05        | 0.08        | 0.24        |
| 54  | 2,103          | 5,809    | 7,912         | 0.18        | 0.05                  | 0.17        | 0.13        | 0.23        | 0.40        |
| 55  | 2,127          | 0        | 2,127         | 0.05        | 0.05                  | 0.17        | 0.00        | 0.00        | 0.17        |
| 56  | 6,343          | 3,079    | 9,422         | 0.22        | 0.19                  | 0.68        | 0.09        | 0.15        | 0.83        |
| 57  | 4,375          | 300      | 4,675         | 0.11        | 0.10                  | 0.36        | 0.01        | 0.02        | 0.37        |
| 58  | 13,461         | 5,986    | 19,447        | 0.45        | 0.31                  | 1.09        | 0.14        | 0.23        | 1.33        |
| 59  | 5,601          | 1,220    | 6,821         | 0.16        | 0.13                  | 0.46        | 0.03        | 0.05        | 0.50        |
| 60  | 9,347          | 9,148    | 18,495        | 0.42        | 0.21                  | 0.76        | 0.21        | 0.36        | 1.12        |
| 61  | 5,947          | 0        | 5,947         | 0.14        | 0.14                  | 0.48        | 0.00        | 0.00        | 0.48        |
| 62  | 81,385         | 104,321  | 185,706       | 4.26        | 0.61                  | 1.97        | 0.61        | 1.09        | 10.69       |
| 65  | 0              | 73,545   | 73,545        | 1.69        | 0.00                  | 0.00        | 1.69        | 2.87        | 2.87        |
| 66  | 11,200         | 0        | 11,200        | 0.26        | 0.26                  | 0.91        | 0.00        | 0.00        | 0.91        |
| 67  | 3,304          | 4,418    | 7,722         | 0.18        | 0.08                  | 0.27        | 0.10        | 0.17        | 0.44        |
| 68  | 2,467          | 0        | 2,467         | 0.06        | 0.06                  | 0.20        | 0.00        | 0.00        | 0.20        |
| 69  | 2,467          | 4,138    | 6,605         | 0.15        | 0.06                  | 0.22        | 0.09        | 0.16        | 0.38        |
| 70  | 0              | 64,643   | 64,643        | 1.48        | 0.00                  | 0.00        | 1.48        | 2.52        | 2.52        |
| 71  | 8,882          | 16,285   | 25,167        | 0.58        | 0.20                  | 0.72        | 0.37        | 0.64        | 1.36        |
| 72  | 24,392         | 5,577    | 29,969        | 0.69        | 0.56                  | 1.98        | 0.13        | 0.22        | 2.20        |
| 73  | 7,638          | 670      | 8,308         | 0.19        | 0.18                  | 0.62        | 0.02        | 0.03        | 0.65        |
| 74  | 16,718         | 2,908    | 19,626        | 0.45        | 0.38                  | 1.36        | 0.07        | 0.11        | 1.47        |
| 75  | 18,536         | 3,474    | 22,010        | 0.51        | 0.43                  | 1.51        | 0.08        | 0.14        | 1.65        |
| 76  | 3,908          | 3,491    | 7,399         | 0.17        | 0.09                  | 0.32        | 0.08        | 0.14        | 0.45        |
| 77  | 2,974          | 0        | 2,974         | 0.07        | 0.07                  | 0.24        | 0.00        | 0.00        | 0.24        |
| 78  | 1,997          | 5,346    | 7,343         | 0.17        | 0.05                  | 0.18        | 0.12        | 0.21        | 0.37        |
| 79  | 4,801          | 7,093    | 11,894        | 0.27        | 0.11                  | 0.39        | 0.16        | 0.28        | 0.67        |
| 80  | 2,364          | 3,760    | 6,124         | 0.14        | 0.05                  | 0.19        | 0.09        | 0.15        | 0.34        |
| 81  | 20,977         | 4,364    | 25,341        | 0.58        | 0.48                  | 1.70        | 0.10        | 0.17        | 1.88        |
| 82  | 22,882         | 13,378   | 36,260        | 0.83        | 0.53                  | 1.86        | 0.31        | 0.52        | 2.38        |
| 83  | 10,804         | 12,530   | 23,334        | 0.54        | 0.25                  | 0.88        | 0.29        | 0.49        | 1.37        |
| 84  | 14,233         | 2,850    | 17,083        | 0.39        | 0.33                  | 1.16        | 0.07        | 0.11        | 1.27        |
| 85  | 17,041         | 2,307    | 19,348        | 0.44        | 0.39                  | 1.39        | 0.09        | 0.16        | 1.47        |
| 86  | 2,034          | 3,179    | 5,213         | 0.12        | 0.05                  | 0.17        | 0.07        | 0.12        | 0.29        |
| 87  | 2,034          | 3,835    | 5,869         | 0.13        | 0.05                  | 0.17        | 0.09        | 0.15        | 0.31        |
| 88  | 32,708         | 0        | 32,708        | 0.75        | 0.75                  | 2.66        | 0.00        | 0.00        | 2.66        |
| 89  | 2,144          | 5,002    | 7,146         | 0.16        | 0.05                  | 0.17        | 0.11        | 0.20        | 0.37        |
| 90  | 2,127          | 3,424    | 5,551         | 0.13        | 0.05                  | 0.17        | 0.08        | 0.13        | 0.31        |
| 91  | 18,458         | 5,513    | 23,971        | 0.55        | 0.42                  | 1.50        | 0.13        | 0.22        | 1.72        |
| 92  | 2,635          | 560      | 3,195         | 0.07        | 0.06                  | 0.21        | 0.01        | 0.02        | 0.24        |
| 93  | 2,178          | 752      | 2,930         | 0.07        | 0.05                  | 0.18        | 0.02        | 0.03        | 0.21        |
| 94  | 2,893          | 752      | 3,645         | 0.08        | 0.07                  | 0.24        | 0.02        | 0.03        | 0.28        |
| 95  | 2,635          | 1,613    | 4,248         | 0.10        | 0.06                  | 0.21        | 0.04        | 0.06        | 0.28        |
| 96  | 9,276          | 5,517    | 14,793        | 0.34        | 0.21                  | 0.75        | 0.13        | 0.22        | 0.97        |
| 97  | 6,990          | 2,124    | 9,114         | 0.21        | 0.16                  | 0.57        | 0.05        | 0.08        | 0.65        |
| 98  | 6,989          | 2,720    | 9,709         | 0.22        | 0.16                  | 0.57        | 0.06        | 0.11        | 0.67        |
| 99  | 8,871          | 12,531   | 21,402        | 0.49        | 0.20                  | 0.72        | 0.29        | 0.49        | 1.21        |
| 100                                       | 22,849         | 14,323   | 37,172        | 0.85        | 0.52                  | 1.86        | 0.33        | 0.56        | 2.42        |
| 101                                       | 0              | 15,300   | 15,300        | 0.35        | 0.00                  | 0.00        | 0.35        | 0.60        | 0.60        |
| 102                                       | 27,166         | 7,022    | 34,188        | 0.78        | 0.62                  | 2.21        | 0.18        | 0.27        | 2.48        |
| 103                                       | 4,638          | 14,466   | 19,104        | 0.44        | 0.11                  | 0.38        | 0.33        | 0.56        | 0.94        |
| 104                                       | 26,033         | 0        | 26,033        | 0.60        | 0.60                  | 2.12        | 0.00        | 0.00        | 2.12        |
| 107                                       | 0              | 185,747  | 185,747       | 4.26        | 0.00                  | 0.00        | 4.26        | 7.25        | 7.25        |

5 - 03/02/05 REVISED PER CITY & COORDINATING COMMENTS  
 4 - 02/02/05 REVISED PER CITY, DUCKET CREEK AND MODOT COMMENTS  
 3 - 12/08/04 REVISED SANITARY SEWER ROUTE  
 2 - 12/01/04 REVISED PER FIRE DISTRICT, SEWER DISTRICT AND CITY COMMENTS  
 1 - 11/22/04 REVISED PER COORDINATION ISSUES

PROGRESS WEST HEALTHCARE CENTER - UTILITY PACKAGE  
 ULTIMATE DEVELOPED SITE DRAINAGE AREA MAP