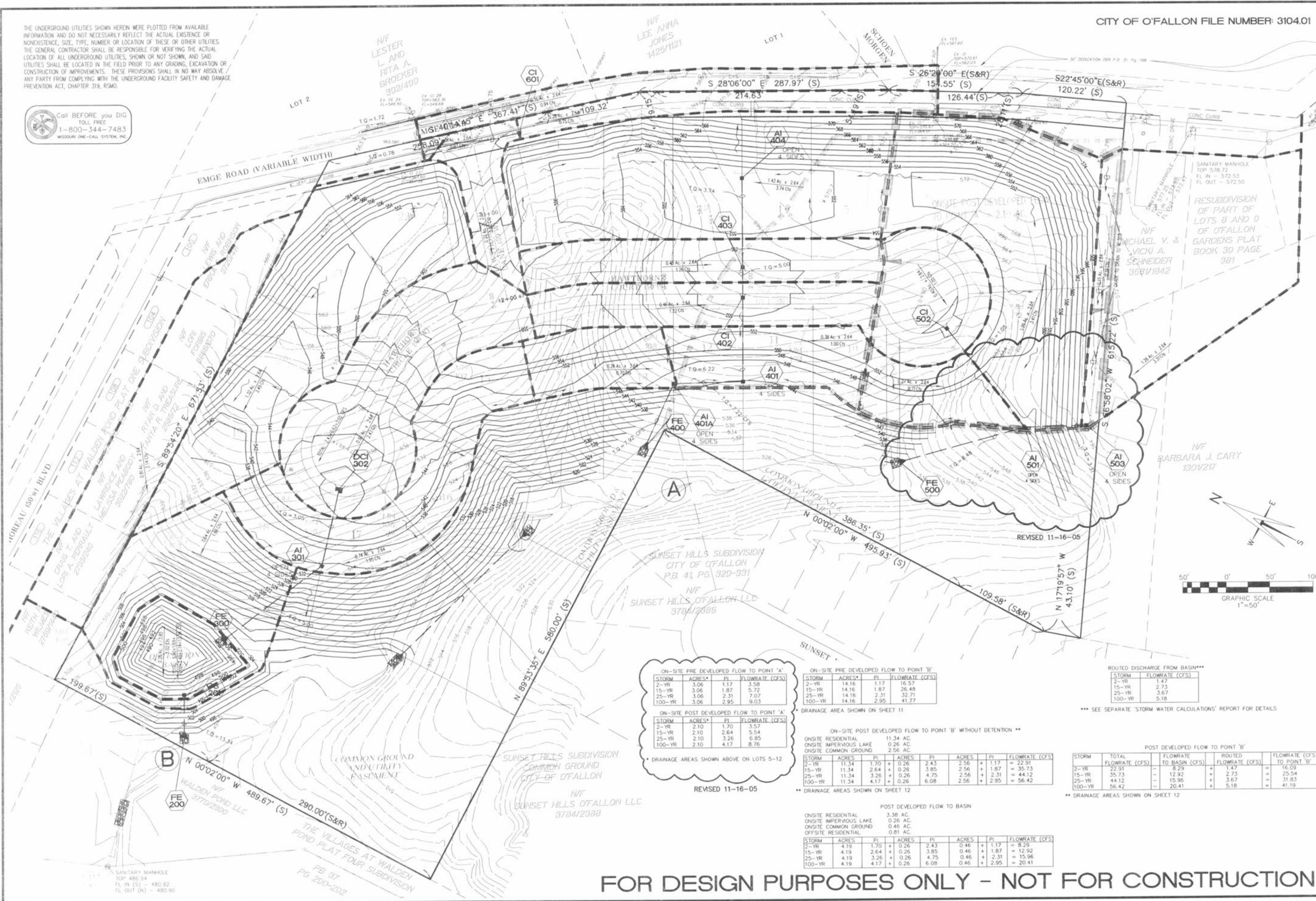


THE UNDERGROUND UTILITIES SHOWN HEREIN WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE OR NONEXISTENCE, SIZE, TYPE, NUMBER OR LOCATION OF THESE OR OTHER UTILITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, AND SAID UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319, RSMO.



CITY OF O'FALLON FILE NUMBER: 3104.01



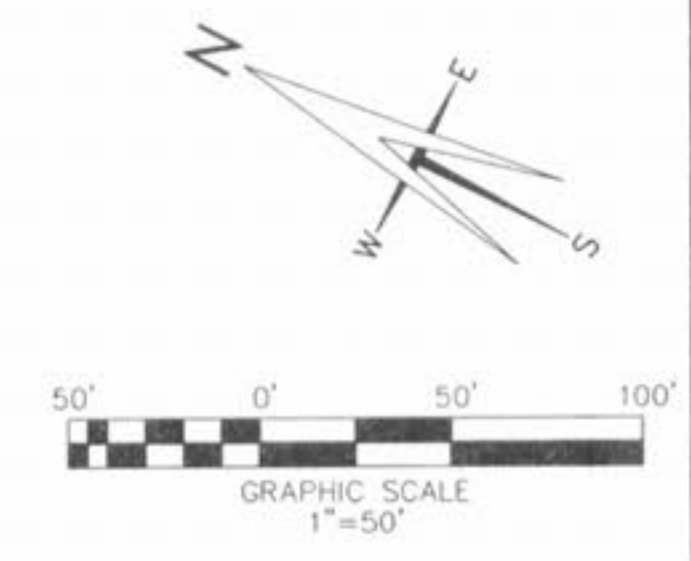
|          |                                       |
|----------|---------------------------------------|
| 06/24/05 | REVISED PER CITY OF O'FALLON COMMENTS |
| 07/27/05 | REVISED PER CITY OF O'FALLON COMMENTS |
| 08/25/05 | REVISED PER CITY OF O'FALLON COMMENTS |
| 09/27/05 | REVISED PER CITY OF O'FALLON COMMENTS |
| 11/02/05 | APPROVED BY THE CITY OF O'FALLON      |
| 11/16/05 | REVISED PER DEVELOPER                 |

**IMPROVEMENT PLANS  
ELK RIDGE  
DRAINAGE AREA MAP**

ST. CHARLES ENGINEERING & SURVEYING, INC.  
801 S. FIFTH STREET, SUITE 202  
ST. CHARLES, MO 63301  
TEL: (636) 947-0607 FAX: (636) 947-2448



ORDER NO.  
040486  
DATE  
04/21/05  
8



ON-SITE PRE DEVELOPED FLOW TO POINT 'A'

| STORM  | ACRES* | PI   | FLOWRATE (CFS) |
|--------|--------|------|----------------|
| 2-YR   | 3.06   | 1.17 | 3.58           |
| 15-YR  | 3.06   | 1.87 | 5.72           |
| 25-YR  | 3.06   | 2.31 | 7.07           |
| 100-YR | 3.06   | 2.95 | 9.03           |

ON-SITE POST DEVELOPED FLOW TO POINT 'A'

| STORM  | ACRES* | PI   | FLOWRATE (CFS) |
|--------|--------|------|----------------|
| 2-YR   | 2.10   | 1.70 | 3.57           |
| 15-YR  | 2.10   | 2.64 | 5.54           |
| 25-YR  | 2.10   | 3.26 | 6.85           |
| 100-YR | 2.10   | 4.17 | 8.76           |

\* DRAINAGE AREAS SHOWN ABOVE ON LOTS 5-12

ON-SITE PRE DEVELOPED FLOW TO POINT 'B'

| STORM  | ACRES* | PI   | FLOWRATE (CFS) |
|--------|--------|------|----------------|
| 2-YR   | 14.16  | 1.17 | 16.57          |
| 15-YR  | 14.16  | 1.87 | 26.48          |
| 25-YR  | 14.16  | 2.31 | 32.71          |
| 100-YR | 14.16  | 2.95 | 41.77          |

ON-SITE POST DEVELOPED FLOW TO POINT 'B' WITHOUT DETENTION \*\*

| STORM  | ACRES* | PI   | ACRES  | PI   | ACRES | PI     | FLOWRATE (CFS) |
|--------|--------|------|--------|------|-------|--------|----------------|
| 2-YR   | 11.34  | 1.70 | + 0.26 | 2.43 | 2.56  | + 1.17 | = 22.91        |
| 15-YR  | 11.34  | 2.64 | + 0.26 | 3.85 | 2.56  | + 1.87 | = 35.73        |
| 25-YR  | 11.34  | 3.26 | + 0.26 | 4.75 | 2.56  | + 2.31 | = 44.12        |
| 100-YR | 11.34  | 4.17 | + 0.26 | 6.08 | 2.56  | + 2.95 | = 56.42        |

\*\* DRAINAGE AREAS SHOWN ON SHEET 12

ROUTED DISCHARGE FROM BASIN\*\*\*

| STORM  | FLOWRATE (CFS) |
|--------|----------------|
| 2-YR   | 1.47           |
| 15-YR  | 2.73           |
| 25-YR  | 3.67           |
| 100-YR | 5.18           |

\*\*\* SEE SEPARATE 'STORM WATER CALCULATIONS' REPORT FOR DETAILS

POST DEVELOPED FLOW TO POINT 'B'

| STORM  | TOTAL FLOWRATE (CFS) | FLOWRATE TO BASIN (CFS) | ROUTED FLOWRATE (CFS) | FLOWRATE (CFS) TO POINT 'B' |
|--------|----------------------|-------------------------|-----------------------|-----------------------------|
| 2-YR   | 22.91                | -                       | + 1.47                | = 16.09                     |
| 15-YR  | 35.73                | -                       | + 2.73                | = 25.54                     |
| 25-YR  | 44.12                | -                       | + 3.67                | = 31.83                     |
| 100-YR | 56.42                | -                       | + 5.18                | = 41.19                     |

\*\* DRAINAGE AREAS SHOWN ON SHEET 12

POST DEVELOPED FLOW TO BASIN

| STORM  | ACRES* | PI   | ACRES  | PI   | ACRES | PI     | FLOWRATE (CFS) |
|--------|--------|------|--------|------|-------|--------|----------------|
| 2-YR   | 4.19   | 1.70 | + 0.26 | 2.43 | 0.46  | + 1.17 | = 8.29         |
| 15-YR  | 4.19   | 2.64 | + 0.26 | 3.85 | 0.46  | + 1.87 | = 12.92        |
| 25-YR  | 4.19   | 3.26 | + 0.26 | 4.75 | 0.46  | + 2.31 | = 15.96        |
| 100-YR | 4.19   | 4.17 | + 0.26 | 6.08 | 0.46  | + 2.95 | = 20.41        |

**FOR DESIGN PURPOSES ONLY - NOT FOR CONSTRUCTION**