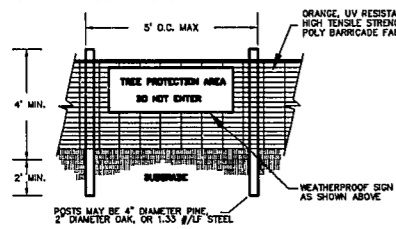


WARNING SIGNS TO BE MADE OF DURABLE, WEATHERPROOF MATERIAL. LETTERS ARE TO BE 3" HIGH MINIMUM, CLEARLY LEGIBLE AND SPACED AS SHOWN ABOVE. PLACE SIGN AT EACH END OF LINEAR TREE PROTECTION AREAS, AND AT INTERVALS NOT TO EXCEED 200' O.C. IN BETWEEN. FOR TREE PROTECTION AREAS LESS THAN 200' IN PERIMETER, PROVIDE NO LESS THAN ONE SIGN PER PROTECTION AREA. ATTACH SIGNS SECURELY TO FENCE POSTS AND FABRIC.

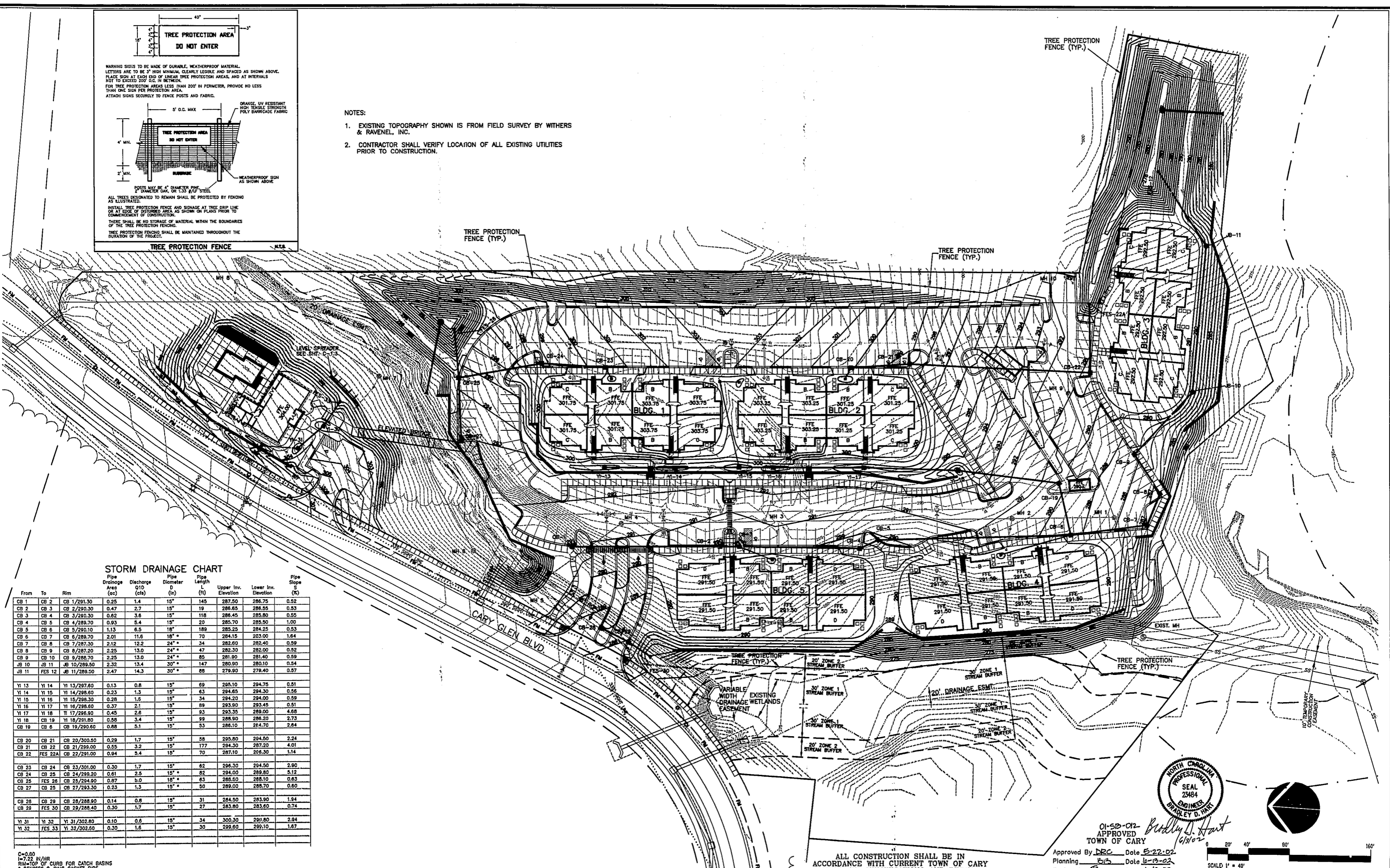


POSTS MAY BE 4" DIAMETER PIPE, 2" DIAMETER DAK, OR 1.33 #3/4" STEEL. ALL TREES DESIGNATED TO REMAIN SHALL BE PROTECTED BY FENCING AS ILLUSTRATED. INSTALL TREE PROTECTION FENCE AND SIGNAGE AT TREE DROP LINE OR AT EDGE OF DISTURBED AREA, AS SHOWN ON PLANS PRIOR TO COMMENCEMENT OF CONSTRUCTION. THERE SHALL BE NO STORAGE OF MATERIAL WITHIN THE BOUNDARIES OF THE TREE PROTECTION FENCING. TREE PROTECTION FENCING SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.

TREE PROTECTION FENCE

NOTES:

- EXISTING TOPOGRAPHY SHOWN IS FROM FIELD SURVEY BY WITHERS & RAVENEL, INC.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.



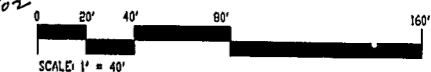
STORM DRAINAGE CHART

| From  | To      | Rim          | Pipe Drainage Area (sq-ft) | Discharge C/D (cfs) | Pipe Diameter (in) | Pipe Length (ft) | Upper Inv. Elevation | Lower Inv. Elevation | Pipe Slope (%) |
|-------|---------|--------------|----------------------------|---------------------|--------------------|------------------|----------------------|----------------------|----------------|
| CB 1  | CB 2    | CB 1/291.30  | 0.25                       | 1.4                 | 15"                | 145              | 287.50               | 286.75               | 0.52           |
| CB 2  | CB 3    | CB 2/290.30  | 0.47                       | 2.7                 | 15"                | 19               | 286.65               | 286.55               | 0.53           |
| CB 3  | CB 4    | CB 3/290.30  | 0.82                       | 3.6                 | 15"                | 116              | 286.45               | 285.80               | 0.55           |
| CB 4  | CB 5    | CB 4/289.70  | 0.93                       | 5.4                 | 15"                | 20               | 285.70               | 285.50               | 1.00           |
| CB 5  | CB 6    | CB 5/290.10  | 1.13                       | 6.5                 | 18"                | 189              | 285.25               | 284.25               | 0.53           |
| CB 6  | CB 7    | CB 6/289.70  | 2.01                       | 11.6                | 18"                | 70               | 284.15               | 283.00               | 1.64           |
| CB 7  | CB 8    | CB 7/287.30  | 2.12                       | 12.2                | 24"                | 34               | 282.60               | 282.40               | 0.59           |
| CB 8  | CB 9    | CB 8/287.20  | 2.25                       | 13.0                | 24"                | 47               | 282.30               | 282.00               | 0.52           |
| CB 9  | CB 10   | CB 9/286.70  | 2.25                       | 13.0                | 24"                | 85               | 281.80               | 281.40               | 0.59           |
| CB 10 | CB 11   | CB 10/289.50 | 2.32                       | 13.4                | 30"                | 147              | 280.90               | 280.10               | 0.54           |
| CB 11 | FES 12  | CB 11/289.50 | 2.47                       | 14.3                | 30"                | 89               | 279.90               | 279.40               | 0.97           |
| YI 13 | YI 14   | YI 13/287.60 | 0.13                       | 0.8                 | 15"                | 69               | 295.10               | 294.75               | 0.51           |
| YI 14 | YI 15   | YI 14/288.60 | 0.23                       | 1.3                 | 15"                | 63               | 294.65               | 294.30               | 0.56           |
| YI 15 | YI 16   | YI 15/288.30 | 0.28                       | 1.6                 | 15"                | 34               | 294.20               | 294.00               | 0.59           |
| YI 16 | YI 17   | YI 16/288.60 | 0.37                       | 2.1                 | 15"                | 89               | 293.90               | 293.45               | 0.51           |
| YI 17 | YI 18   | YI 17/286.90 | 0.45                       | 2.6                 | 15"                | 93               | 293.35               | 289.00               | 4.68           |
| YI 18 | CB 19   | YI 18/291.80 | 0.58                       | 3.4                 | 15"                | 99               | 288.90               | 286.20               | 2.73           |
| CB 19 | CB 6    | CB 19/290.60 | 0.88                       | 5.1                 | 15"                | 53               | 286.10               | 284.70               | 2.64           |
| CB 20 | CB 21   | CB 20/300.50 | 0.29                       | 1.7                 | 15"                | 58               | 295.80               | 294.50               | 2.24           |
| CB 21 | CB 22   | CB 21/299.00 | 0.55                       | 3.2                 | 15"                | 177              | 294.30               | 287.00               | 4.01           |
| CB 22 | FES 22A | CB 22/291.00 | 0.84                       | 5.4                 | 15"                | 70               | 287.10               | 286.30               | 1.14           |
| CB 23 | CB 24   | CB 23/301.00 | 0.30                       | 1.7                 | 15"                | 82               | 296.30               | 294.50               | 2.90           |
| CB 24 | CB 25   | CB 24/299.20 | 0.61                       | 3.5                 | 15"                | 82               | 294.00               | 289.80               | 5.12           |
| CB 25 | FES 26  | CB 25/294.90 | 0.87                       | 5.0                 | 18"                | 83               | 288.50               | 286.10               | 0.83           |
| CB 27 | CB 25   | CB 27/293.30 | 0.23                       | 1.3                 | 15"                | 50               | 289.00               | 288.70               | 0.60           |
| CB 28 | CB 29   | CB 28/288.00 | 0.14                       | 0.8                 | 15"                | 31               | 284.50               | 283.90               | 1.94           |
| CB 29 | FES 30  | CB 29/288.40 | 0.30                       | 1.7                 | 15"                | 27               | 283.80               | 283.60               | 0.74           |
| YI 31 | YI 32   | YI 31/302.80 | 0.10                       | 0.6                 | 15"                | 34               | 300.30               | 299.80               | 2.04           |
| YI 32 | FES 33  | YI 32/302.60 | 0.30                       | 1.6                 | 15"                | 30               | 299.60               | 299.10               | 1.67           |

C=0.80  
 7-22 IN/HR  
 RIM=TOP OF CURB FOR CATCH BASINS  
 \* DENOTES O-RING GASKET PIPE  
 ALL STORM PIPE IS RCP CL II UNLESS OTHERWISE NOTED.



01-50-02  
 APPROVED  
 TOWN OF CARY  
 Approved By: *Bradley D. Hart* Date: 6/22/02  
 Planning: *JS* Date: 6-13-02  
 Engineering: *JS* Date: 6/12/02



ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT TOWN OF CARY STANDARD SPECIFICATIONS AND DETAILS

| No. | Revision                         | Date    | By  | Designer        | Scale             |
|-----|----------------------------------|---------|-----|-----------------|-------------------|
| 1.  | REVISED LEASING OFFICE/POOL SITE | 4/18/02 | BDH | BDH             | 1"=40'            |
| 2.  | FOR TDC REVIEW                   | 6/2/02  | BDH | BDH             | 01MARCH02         |
|     |                                  |         |     | Checked By: BDH | Job No. 201238.00 |

THE GROVE AT CARY PARK

OVERALL GRADING AND STORM DRAINAGE PLAN

**WITHERS & RAVENEL**  
 ENGINEERS | PLANNERS | SURVEYORS  
 111 MacKenan Drive Cary, North Carolina 27511 tel: 919-469-3340 fax: 919-467-6008 www.wITHERSANDRAVENEL.COM

Sheet No. C-1