



Revisions
07/10/94 REVISIONS AS PER TOWN OF CARY
08/01/94 REVISIONS AS PER TOWN OF CARY
SEPT. 7, 1994 REVISIONS TO ALLOW FOR PHASED CONSTRUCTION
03/09/96 REVISED SAN. SEWER "DITCHFALL" AS PER OWNER
04/14/97 Add Proposed BERM AND DETAIL

TOWN OF CARY
DEVELOPMENT REVIEW GROUP
ENGINEERING REVIEW: _____
UTILITY REVIEW: _____
EROSION CONTROL REVIEW: _____
PLANNING REVIEW: *Bob Kew*
PLAN TYPE: *Admin*
DATE SUBMITTED: *4-21-97*

OWNER:
GOODWILL CORPORATION
104 ED BISHOP COURT
CARY, N.C. 27511

Project
BENEDUM PLACE
UTILITIES/ GRADING/
EROSION CONTROL

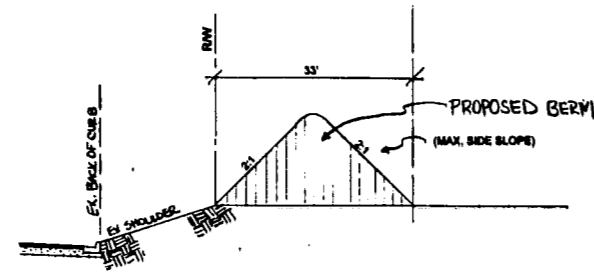
APPROVED
TC: 5-22-97
RCS

Date
JUNE 29, 1994

Scale
1" = 60'

Sheet
2 OF 8

"Official Approval Plans"



PROPOSED BERM DETAIL
NTS

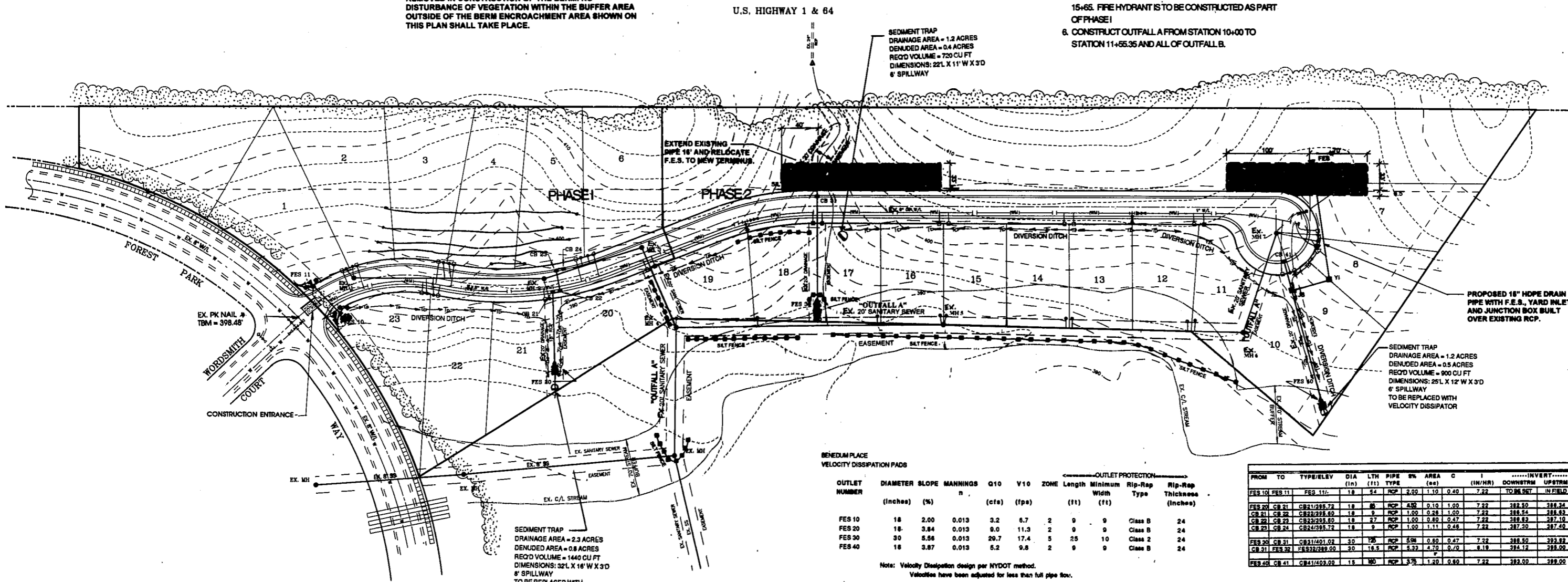
SERVICE LEGEND

- SANITARY SEWER SERVICE
- WATER SERVICE

NOTE:
MAXIMUM ENCROACHMENT OF BERM INTO 100' BUFFER AREA SHALL BE LIMITED TO THE DIMENSIONS INDICATED ON THIS PLAN. NO EXISTING HEALTHY TREES ARE TO BE REMOVED IN CONSTRUCTION OF THE BERM. NO DISTURBANCE OF VEGETATION WITHIN THE BUFFER AREA OUTSIDE OF THE BERM ENCROACHMENT AREA SHOWN ON THIS PLAN SHALL TAKE PLACE.

PHASE I CONSTRUCTION NOTES

1. END ASPHALT PAVING AT STATION 14+64
2. END CURB AND GUTTER AT STATION 14+64
3. BEGIN 6:1 TRANSITION SLOPE AT STATION 14+74
4. INSTALL NCDOT TYPE III BARRICADE AT STATION 14+74
5. END WATERLINE WITH PLUG AND BLOCK AT STATION 15+65. FIRE HYDRANT IS TO BE CONSTRUCTED AS PART OF PHASE I
6. CONSTRUCT OUTFALL A FROM STATION 10+00 TO STATION 11+55.35 AND ALL OF OUTFALL B.



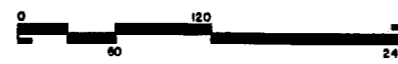
BENEDUM PLACE
VELOCITY DISSIPATION PADS

| OUTLET NUMBER | DIAMETER (inches) | SLOPE (%) | MANNINGS n | Q10 (cfs) | V10 (fps) | ZONE | OUTLET PROTECTION | | | |
|---------------|-------------------|-----------|------------|-----------|-----------|------|-------------------|--------------------|--------------|----|
| | | | | | | | Length (ft) | Minimum Width (ft) | Rip-Rap Type | |
| FES 10 | 18 | 2.00 | 0.013 | 3.2 | 6.7 | 2 | 0 | 0 | Class B | 24 |
| FES 20 | 18 | 3.84 | 0.013 | 6.0 | 11.3 | 2 | 0 | 0 | Class B | 24 |
| FES 30 | 30 | 8.58 | 0.013 | 20.7 | 17.4 | 5 | 25 | 10 | Class 2 | 24 |
| FES 40 | 18 | 3.87 | 0.013 | 5.2 | 9.8 | 2 | 0 | 0 | Class B | 24 |

Note: Velocity Dissipation design per HYDOT method.
Velocities have been adjusted for less than full pipe flow.

| FROM | TO | TYPE/LEV | DIA (in) | LTH (ft) | PIPE TYPE | SN | AREA (sq) | C | I (in/hr) | INVERT | DOWNSTREAM | UPSTREAM |
|--------|--------|-------------|----------|----------|-----------|------|-----------|------|-----------|-----------|------------|----------|
| FES 10 | FES 11 | FES 11/2 | 18 | 54 | RCP | 2.00 | 1.10 | 0.40 | 7.22 | TO INVERT | IN FIELD | |
| FES 20 | CB 21 | CB21/215.72 | 18 | 86 | RCP | 4.00 | 0.10 | 1.00 | 7.22 | 382.50 | 382.24 | |
| CB 21 | CB 22 | CB22/215.80 | 18 | 9 | RCP | 1.00 | 0.28 | 1.00 | 7.22 | 388.24 | 388.52 | |
| CB 22 | CB 23 | CB23/205.80 | 18 | 27 | RCP | 1.00 | 0.80 | 0.47 | 7.22 | 388.52 | 387.10 | |
| CB 23 | CB 24 | CB24/215.72 | 18 | 9 | RCP | 1.00 | 1.11 | 0.48 | 7.22 | 387.10 | 387.40 | |
| FES 20 | CB 31 | CB31/201.02 | 30 | 75 | RCP | 5.00 | 0.80 | 0.47 | 7.22 | 388.50 | 382.89 | |
| CB 31 | FES 22 | CB32/219.00 | 30 | 18.5 | RCP | 5.22 | 4.70 | 0.70 | 8.19 | 384.12 | 385.00 | |
| FES 40 | CB 41 | CB41/203.00 | 18 | 90 | RCP | 3.75 | 1.20 | 0.40 | 7.22 | 382.00 | 382.00 | |

PROJECTED SANITARY SEWER FLOW = 6,440 G.P.D.
(23 HOUSEHOLD UNITS X 280 GALLONS PER DAY PER HOUSEHOLD UNIT = 6,440 G.P.D.)



SCALE: 1" = 60'

TOTAL DENUDED AREA 2.02 AC

CARY PROJECT #: SUB - 127 - PUD - AD - 04

