

**VICINITY MAP**  
SCALE: 1"=2000'

**BENCHMARKS**

#1 HO. CO. MON. 2439001	ELEV. 418.62
N 494415.124	E 833503.031
#2 HO. CO. MON. 2440001	ELEV. 420.85
N 493066.296	E 834257.523

**LEGEND**

--- 420 ---	EXISTING CONTOUR
---	PROPOSED PATHWAY
(Tree symbol)	EXISTING TREE
.....	WETLANDS LIMITS
---	WETLANDS BUFFER

APPROVED FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.

COUNTY HEALTH OFFICER \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED FOR HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Director \_\_\_\_\_ 10/2/94 DATE

Chief, Division of Land Development and Research \_\_\_\_\_ 10/21/94 DATE

APPROVED FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

Director \_\_\_\_\_ 10/14/94 DATE

Chief, Bureau of Engineering M.K. \_\_\_\_\_ 2/16/94 DATE

- GENERAL NOTES**
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST HOWARD COUNTY DESIGN MANUAL, VOLUME IV, I.e., STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION.
  - APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FROM BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
  - THE CONTRACTOR SHALL TEST PIT EXISTING UTILITIES AT LEAST (5) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS TO VERIFY THEIR LOCATION AND ELEVATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF LOCATION OF UTILITIES IS OTHER THAN SHOWN.
  - CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS:
 

MISS UTILITY	1-800-257-7777
C&P TELEPHONE COMPANY	725-9976
HOWARD COUNTY BUREAU OF UTILITIES	313-4900
AT&T CABLE LOCATION DIVISION	393-3553
BALTIMORE GAS & ELECTRIC COMPANY	685-0123
STATE HIGHWAY ADMINISTRATION	531-5533
HOWARD COUNTY CONSTRUCTION / INSPECTION SURVEY DIVISION	313-1880
  - PROFILE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
  - TOPO TAKEN FROM FIELD RUN SURVEY DATED AUGUST, 1993 BY RIEMER MUEGGE AND ASSOCIATES, INC.
  - THE DEVELOPER IS RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR RIGHTS-OF-WAY THAT MAY BE REQUIRED FOR THE SEDIMENT AND EROSION CONTROL PRACTICES, STORMWATER MANAGEMENT PRACTICES AND THE DISCHARGE OF STORMWATER ONTO OR ACROSS ADJACENT OR DOWNSTREAM PROPERTIES INCLUDED IN THIS PLAN. HE IS ALSO RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR WORK ON ADJACENT PROPERTIES INCLUDED IN THIS PLAN.
  - PATHWAY TO BE MAINTAINED BY COLUMBIA ASSOCIATION.
  - THE PATHWAY IS TO BE CONSTRUCTED IN A MAXIMUM OF 350 FOOT LENGTH SECTIONS AT A TIME. EACH 350 FOOT SECTION MUST BE STABILIZED PRIOR TO THE START OF THE NEXT SECTION.

- GENERAL NOTES**
- WETLAND DELINEATION PERFORMED BY RIEMER MUEGGE & ASSOCIATES, INC. DATED JULY 1993.
  - THE WETLANDS PERMIT FOR THE STREAM CROSSING WAS ISSUED ON 2-10-94; PERMIT NO. 93-NT-1237.
  - PLANNING ZONE FILE REFERENCES; FDP PHASE 205A PART I, SDP-90-167 & F90-96
  - TREES ADJACENT TO THE PATHWAY CONSTRUCTION ARE TO BE PROTECTED WITH TREE PROTECTIVE FENCING, SEE DETAIL SHEET 2.

**SITE ANALYSIS**

TOTAL AREA =	10.92 ACRES	440,500 SQ. FT.
ZONED: NEW TOWN S.E.M.D.		
PROPOSED USE: PATHWAY SYSTEM		
OPEN SPACE (GREEN AREA) TO REMAIN ON SITE:	10.92 AC.	
AREA OF OBLIVION	0.47 AC.	
LENGTH OF PATH	2,135 FT. ±	
LENGTH OF BOARDWALK	44 FT. ±	

**WETLANDS IMPACT**

NON-TIDAL WETLANDS	320 SQ. FT.
NON-TIDAL WETLANDS BUFFER	1,800 SQ. FT.
TEMPORARY IMPACT TO NON-TIDAL WETLANDS	320 SQ. FT.

**SHEET INDEX**

1. SITE DEVELOPMENT AND GRADING AND SEDIMENT CONTROL PLAN
2. SEDIMENT CONTROL NOTES AND DETAILS

BY THE DEVELOPER:

I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTIONS BY THE HOWARD SOIL CONSERVATION DISTRICT.

Developer: Denis A. Ellis DATE: 8/23/94

BY THE ENGINEER:

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Engineer: J. Farrell DATE: 8.15.94

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

U.S. SOIL CONSERVATION SERVICE DATE: 8/29/94

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

Howard Soil Conservation District DATE: 8/29/94

DATE NO. \_\_\_\_\_ REVISION \_\_\_\_\_

OWNER / DEVELOPER

COLUMBIA ASSOCIATION  
10221 WINCOPIN CIRCLE  
COLUMBIA, MARYLAND 21044

PROJECT **CLEMENS CROSSING WEST PATHWAY**

AREA VILLAGE OF HICKORY RIDGE SEC. 6 AREA 5, LOT 106  
5th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

TITLE **SITE DEVELOPMENT AND GRADING AND SEDIMENT CONTROL PLAN**

**RIEMER MUEGGE & ASSOCIATES, INC.**  
Planners • Engineers • Surveyors  
8818 Centre Park Drive Suite 200 Columbia, MD 21045  
410-997-8900 FAX: 410-997-9282

DATE: 8.15.94

SDP-90-167 F-90-96  
FDP PHASE 205A PART 1

DESIGNED BY: D.B.S.

DRAWN BY: D.B.S.

PROJECT NO.: 93700

DATE: NOVEMBER 2, 1993

SCALE: AS SHOWN

DRAWING NO. 1 OF 2

JAYKANT D. PAREKH # 19148

**SEDIMENT CONTROL NOTES**

- A minimum of 24 hours notice must be given to the Howard County Office of Inspections and Permits prior to the start of any construction (313-4800).
- All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL.
- Following initial soil disturbance or redistribution, permanent or temporary stabilization shall be completed within: (a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes greater than 3:1, b) 14 days as to other disturbed or graded areas on the project site.
- All sediment traps/basins shown must be fenced and warning signs posted around the perimeter in accordance with Vol. 1, Chapter 12, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL AND EROSION CONTROL for permanent seedings (Sec. 51), sod (Sec. 54), temporary seeding (Sec. 50) and mulching (Sec. 52). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:
 

Total Area of Site	10.92 acres
Area Disturbed	0.47 acres
Area to be roofed or paved	0.26 acres
Area to be vegetatively stabilized	0.10 acres
Total Cut	0 cu.yds.
Total Fill	0 cu.yds.
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County Department of Public Works Sediment Control Inspector.
- Site grading will begin only after all perimeter sediment control measures have been installed and are in a functioning condition.
- Sediment will be removed from traps when its depth reaches clean out elevation shown on the plans.
- Cut and fill quantities provided under site analysis do not represent bid quantities. These quantities do not distinguish between topsoil, structural fill or embankment material, nor do they reflect consideration of undercutting or removal of unsuitable material. The contractor shall familiarize himself with site conditions which may affect the work.
- BORROW SITE TO BE PRE-APPROVED BY SEDIMENT CONTROL INSPECTOR. OR, IN CASE OF EXCESS MATERIAL, AN APPROVED SEDIMENT CONTROL PLAN WILL BE NEEDED TO DEPOSIT EXCESS OFF-SITE.

**TEMPORARY SEEDING NOTES**

Apply to graded or cleared areas likely to be redistributed where a short-term vegetative cover is needed.

**Seedbed Preparation:** Loosen upper three inches of soil by raking, dicing or other acceptable means before seeding, if not previously loosened.

**Soil Amendments:** Apply 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.).

**Seeding:** For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2-1/2 bushels per acre of annual rye (3.2 lbs. per 1000 sq.ft.). For the period May 1 thru August 14, seed with 3 lbs. per acre of weeping lovegrass (0.07 lbs. per 1000 sq.ft.). For the period November 16 thru February 28, protect site by applying 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring, or use sod.

**Mulching:** Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for rate and methods not covered.

**PERMANENT SEEDING NOTES**

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed.

**Seedbed Preparation:** Loosen upper three inches of soil by raking, dicing or other acceptable means before seeding, if not previously loosened.

**Soil Amendments:** In lieu of soil test recommendations, use one of the following schedules:

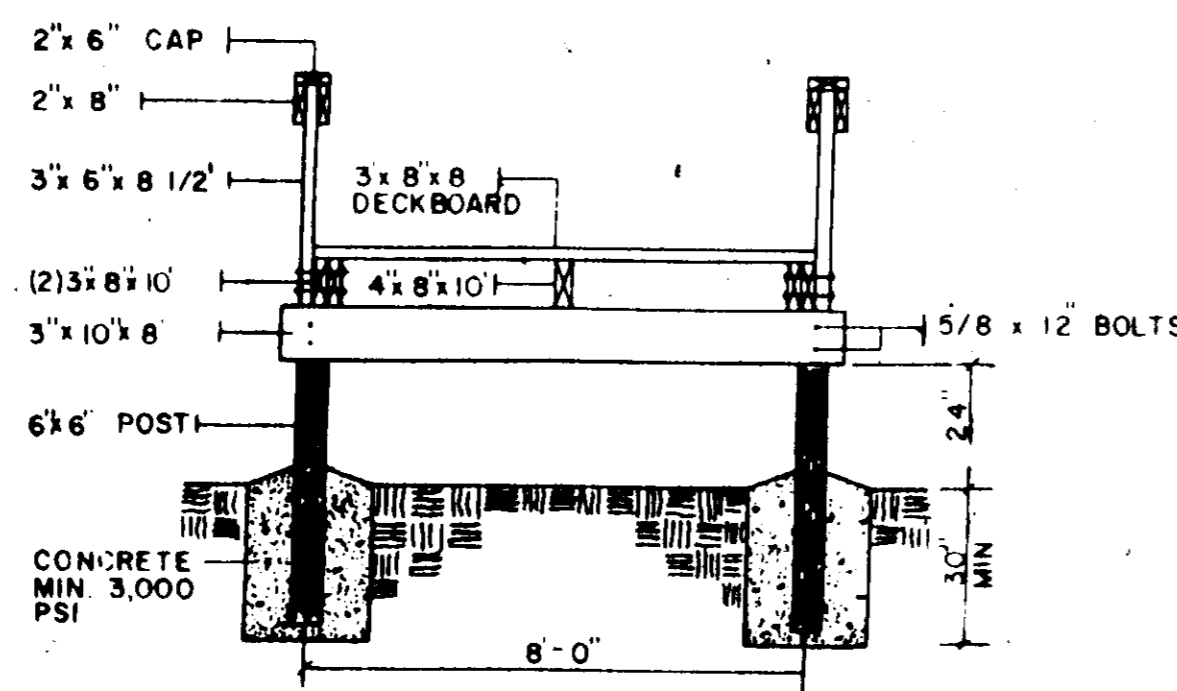
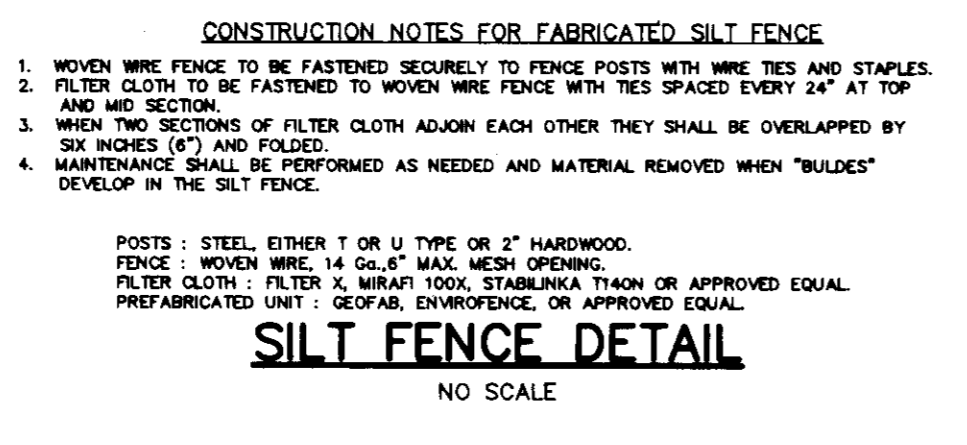
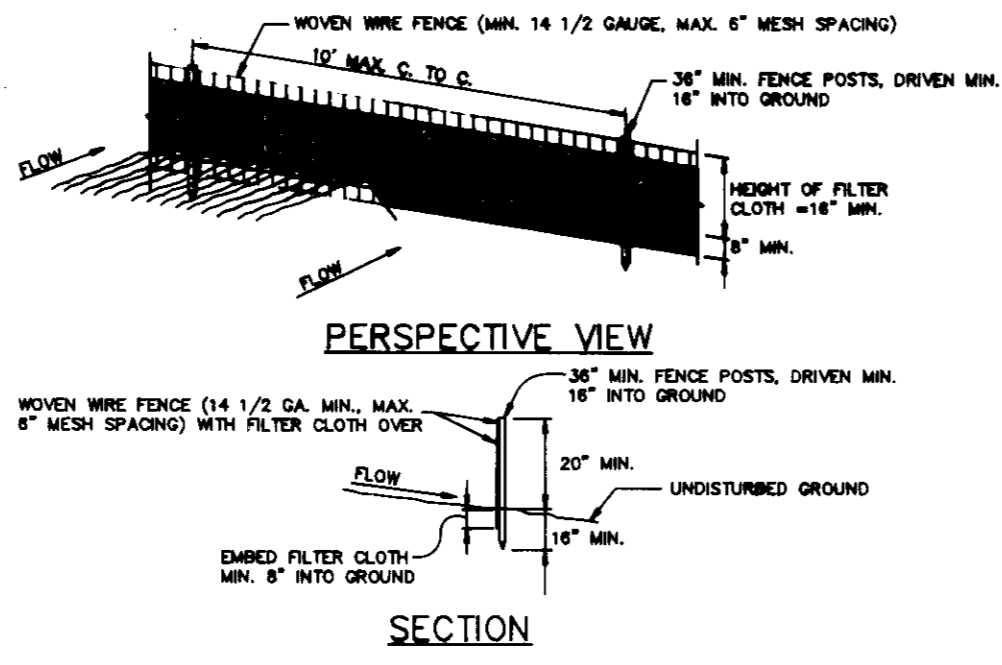
- Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 600 lbs. per acre 10-10-10 fertilizer (14 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs. per acre 30-0-0 ureaform fertilizer (9 lbs. per 1000 sq.ft.).
- Acceptable - Apply 2 tons per acre dolomitic limestone (92 lbs. per 1000 sq.ft.) and 1000 lbs. per acre 10-10-10 fertilizer (23 lbs. per 1000 sq.ft.) before seeding. Harrow or disc into upper three inches of soil.

**Seeding:** For the period March 1 thru April 30 and from August 1 thru October 15, seed with 60 lbs. per acre (1.4 lbs. per 1000 sq.ft.) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 60 lbs. Kentucky 31 Tall Fescue per acre and 2 lbs. per acre (0.05 lbs. per 1000 sq.ft.) of weeping lovegrass. During the period October 16 thru February 28, protect site by one of the following options:

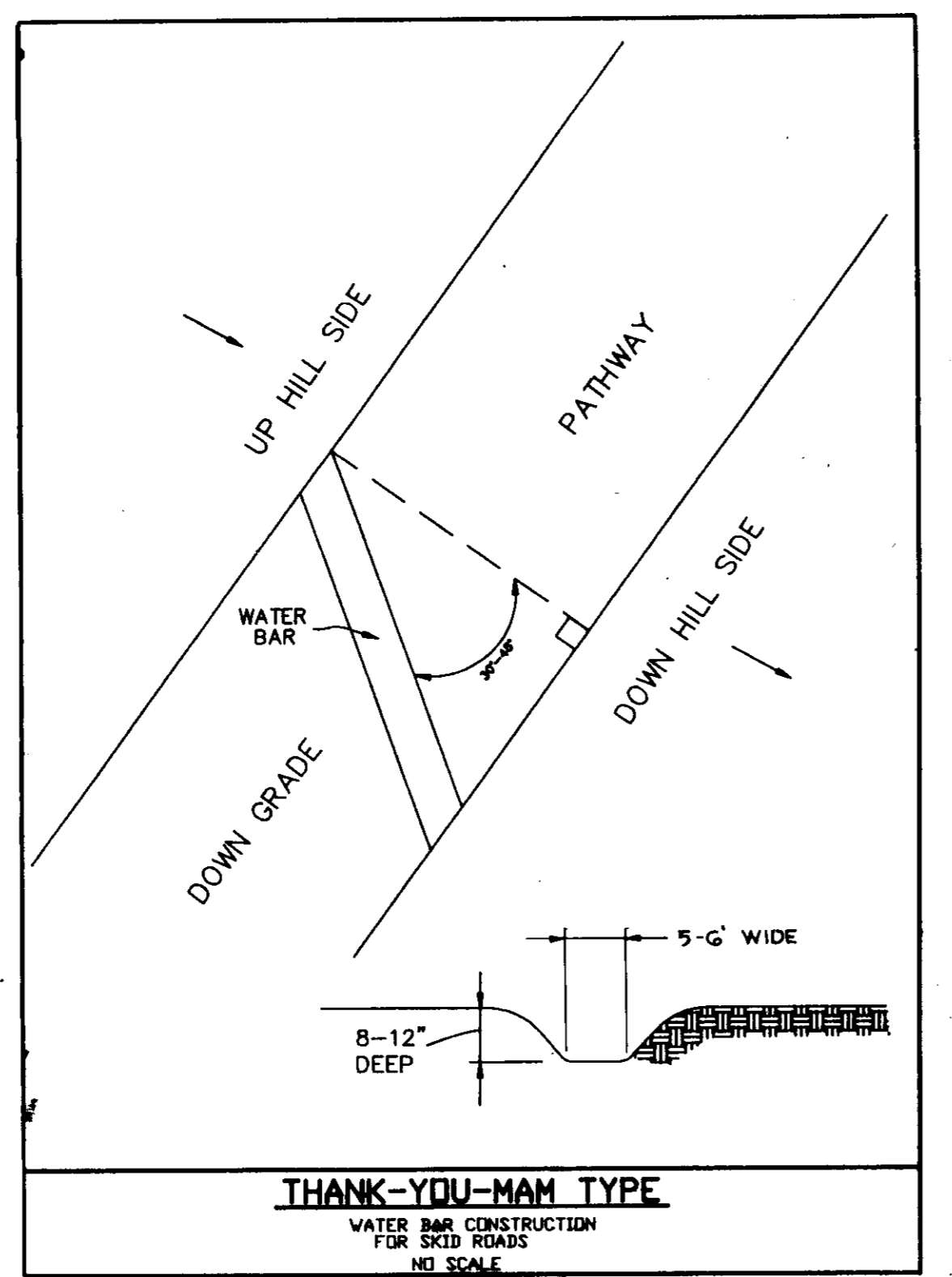
- 2 tons per acre of well-anchored mulch straw and seed as soon as possible in the spring.
- Use sod.
- Seed with 60 lbs. per acre Kentucky 31 Tall Fescue and mulch with 2 tons per acre well anchored straw.

**Mulching:** Apply 1-1/2 to 2 tons per acre (70 to 90 lbs. per 1000 sq.ft.) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal. per acre (5 gal. per 1000 sq.ft.) of emulsified asphalt on flat areas. On slopes, 8 ft. or higher, use 347 gal. per acre (8 gal. per 1000 sq.ft.) for anchoring.

**Maintenance:** Inspect all seeded areas and make needed repairs, replacements and reseedings.

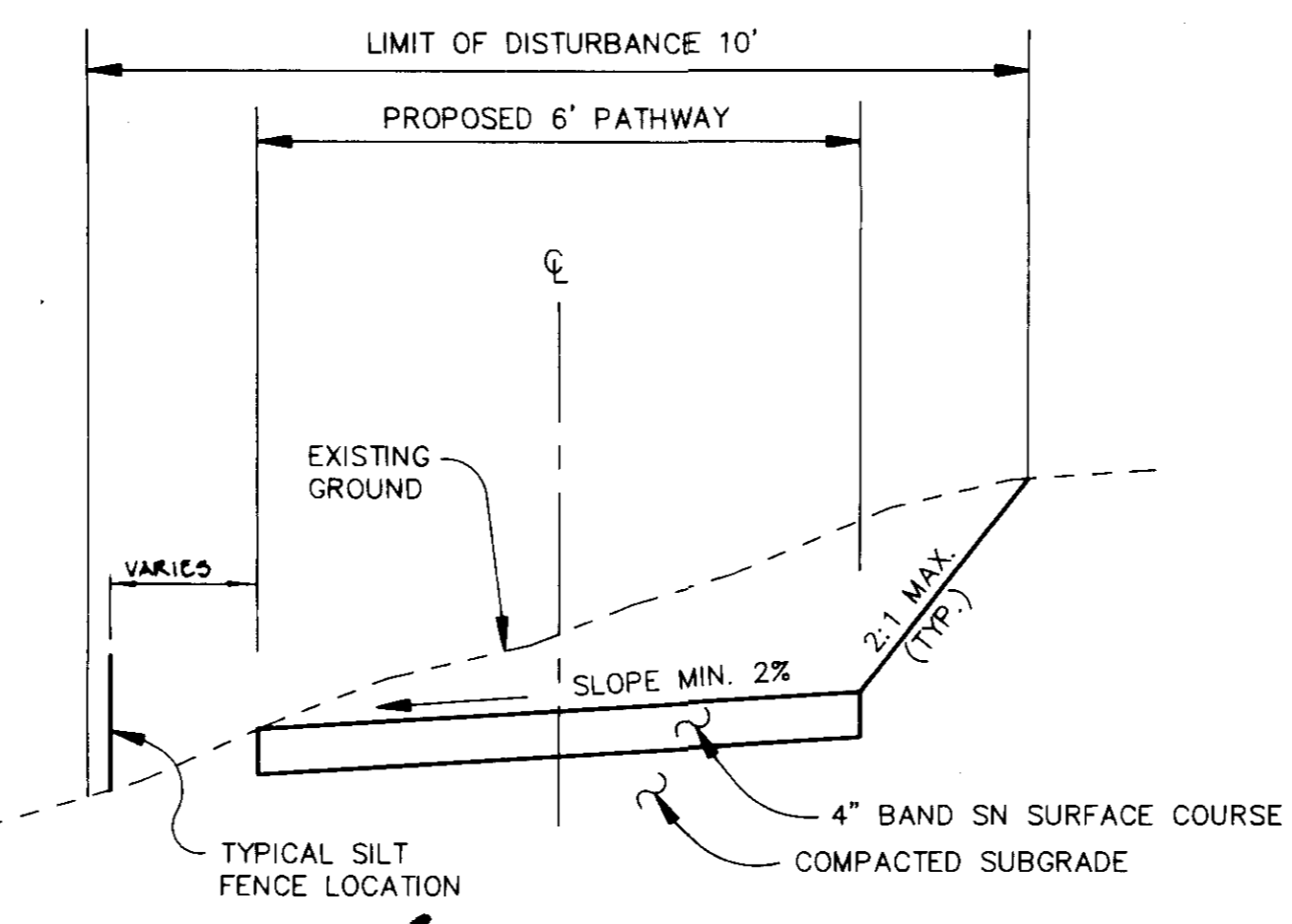


**3 FRONTVIEW BOARDWALK SECTION**  
NOT TO SCALE

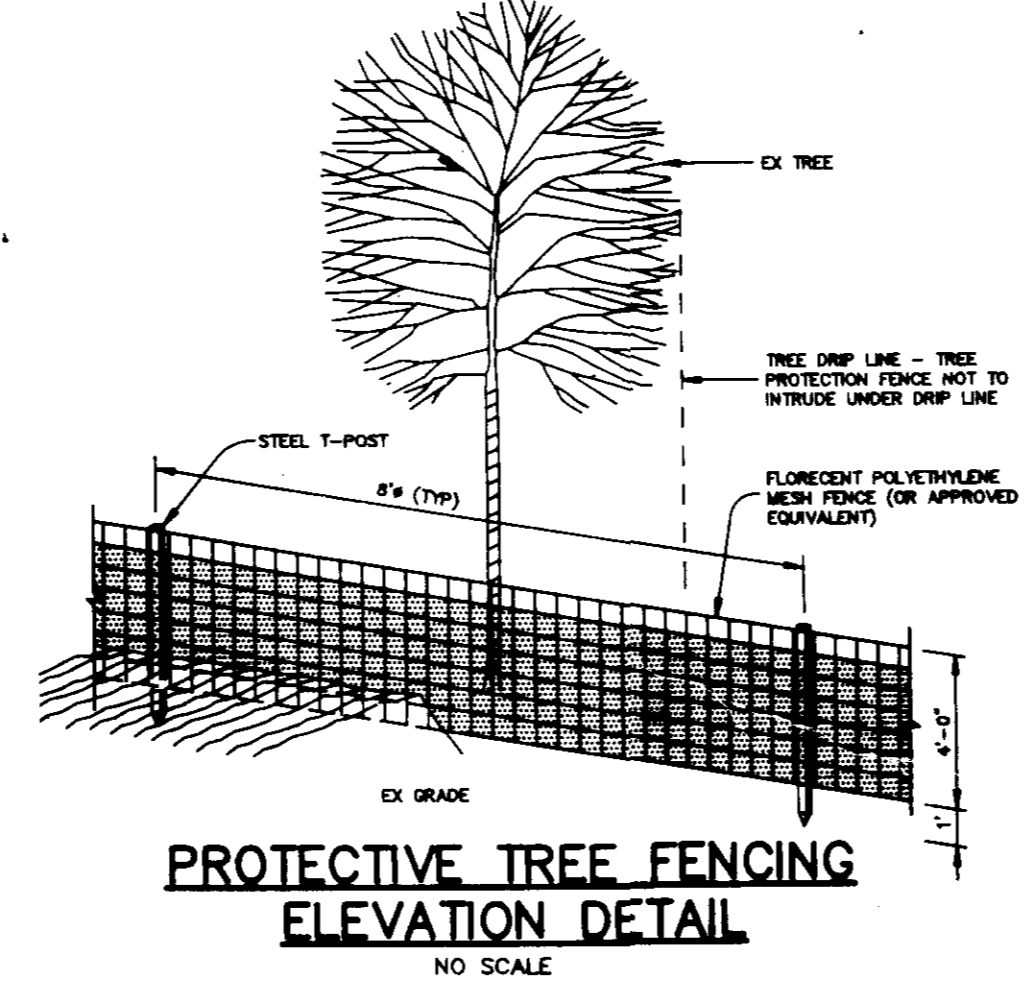


**THANK-YOU-MAM TYPE**  
WATER BAR CONSTRUCTION FOR SIDE ROADS  
NO SCALE

NOTE: "THANK-YOU-MAM" TO BE CONSTRUCTED EVERY 100' ALONG PATHWAY.



**TYPICAL PATHWAY CROSS SECTION**  
NO SCALE



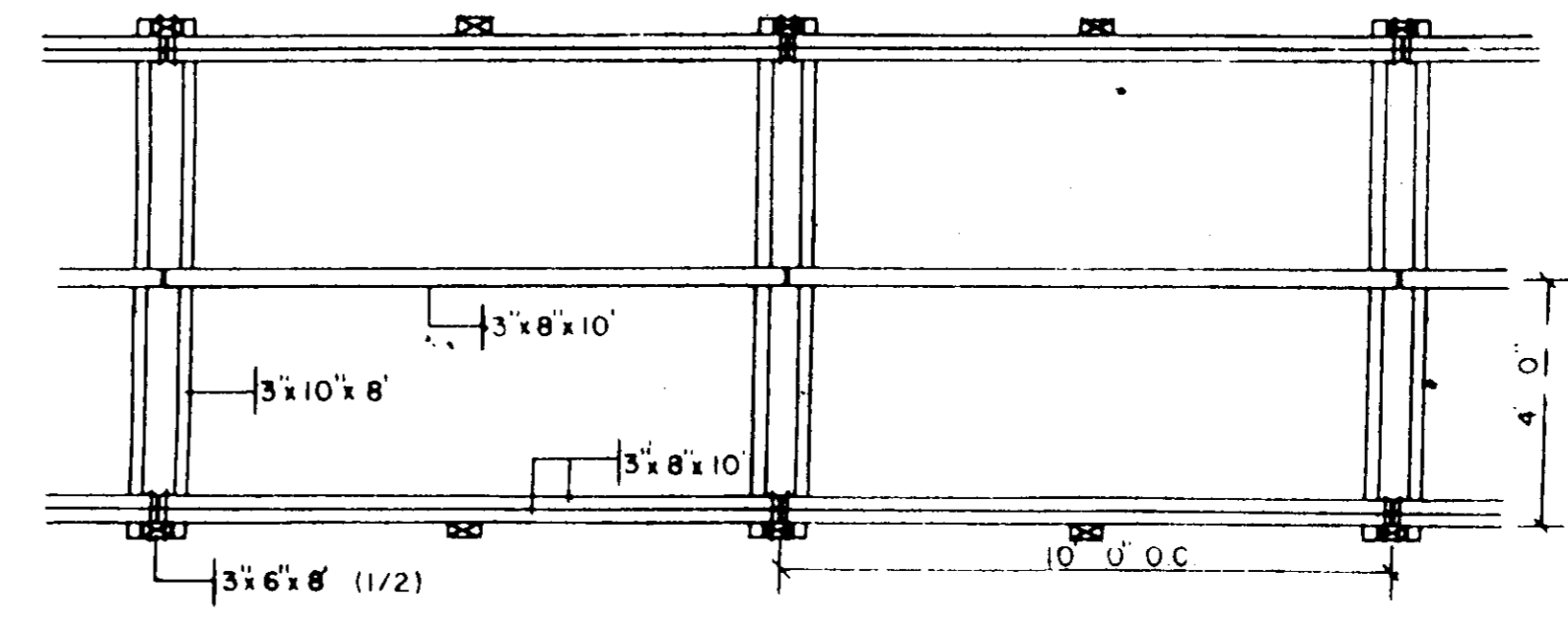
**PROTECTIVE TREE FENCING ELEVATION DETAIL**  
NO SCALE

**TREE PRESERVATION PROCEDURES**

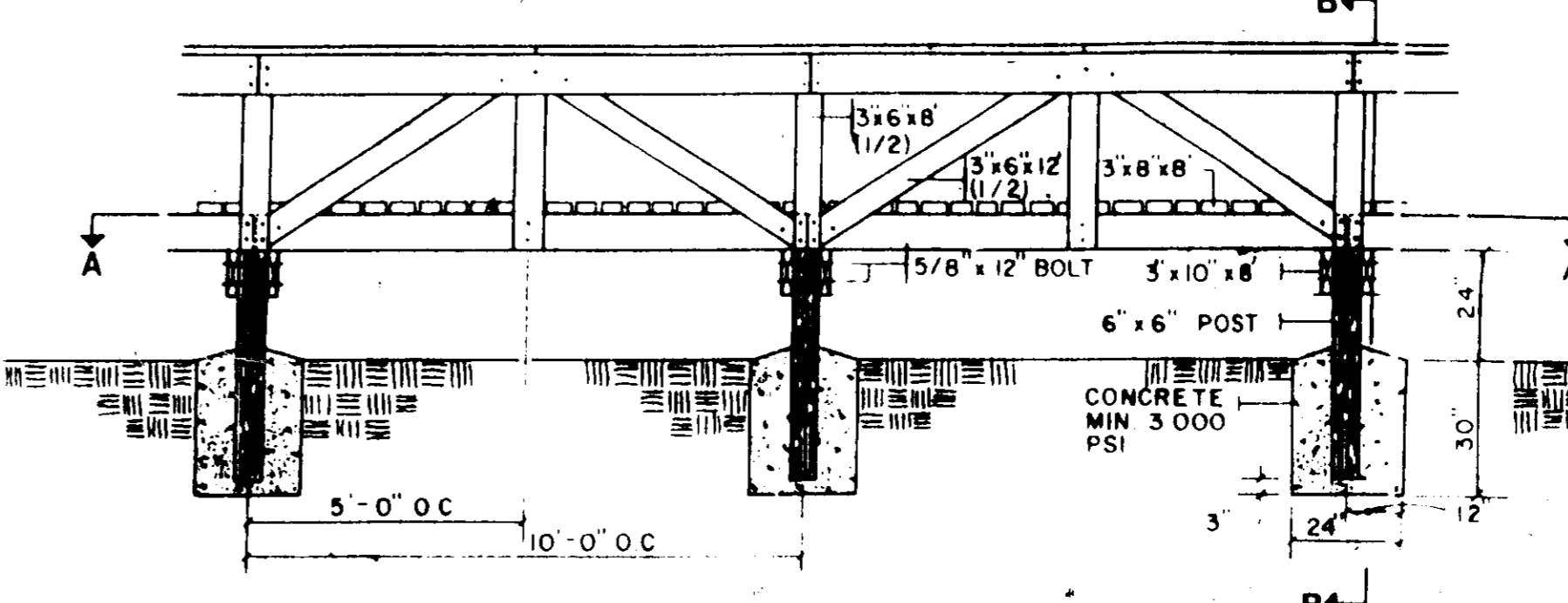
- THE EDGE OF WOODS TO BE PROTECTED WILL BE MARKED IN THE FIELD PER THE APPROVED SITE DEVELOPMENT PLAN PRIOR TO THE START OF CONSTRUCTION ACTIVITY.
- PROTECTIVE FENCING SHALL BE INSTALLED AT THE DRIP LINE OF THE EDGE OF WOODS. ALL AREAS WITHIN PROTECTIVE FENCING ARE TO BE CONSIDERED OFF LIMITS FOR ANY CONSTRUCTION ACTIVITY.
- PROTECTIVE FENCING WILL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE GENERAL CONTRACTOR WILL AFFIX SIGNS TO THE FENCING INDICATING THAT THESE AREAS ARE TREE PRESERVATION AREAS. THE GENERAL CONTRACTOR SHALL TAKE UTMOST CARE TO PROTECT TREE ROOT SYSTEMS DURING THE CONSTRUCTION CYCLE. TREE ROOT SYSTEMS SHALL BE PROTECTED FROM BURNING, FLOODING, EXCESSIVE WETTING FROM DEWATERING OPERATIONS, OFF-SITE RUN OFF, SPILLAGE, AND DRAINAGE OF SOLUTIONS CONTAINING MATERIALS HAZARDOUS TO TREE ROOTS.
- REMOVAL OF TOPSOIL OR ROOT MAT WITHIN THE TREE PRESERVATION AREA SHALL BE PROHIBITED. THE GENERAL CONTRACTOR SHALL BE PROHIBITED FROM PARKING ANY CONSTRUCTION EQUIPMENT, OR FROM STORING ANY BUILDING SUPPLIES OR EARTH STOCKPILES WITHIN THE TREE PRESERVATION AREAS.
- FOOT TRAFFIC, AS WELL AS VEHICULAR TRAFFIC, IN THE TREE PRESERVATION AREAS SHALL BE KEPT TO A MINIMUM. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TREE DAMAGED OR DESTROYED WITHIN THE TREE PRESERVATION AREAS, WHETHER CAUSED BY THE CONTRACTOR, HIS AGENTS, EMPLOYEES, SUB-CONTRACTORS, OR LICENSEES.
- CONSTRUCTION ACTIVITIES EXPRESSLY RESTRICTED WITHIN THE TREE PRESERVATION AREAS: PLACING BACKFILL IN PROTECTED AREAS, FELLING TREES INTO PROTECTED AREAS, DRIVING CONSTRUCTION EQUIPMENT INTO OR THROUGH PROTECTED AREAS, BURNING IN OR IN CLOSE PROXIMITY TO PROTECTED AREAS, STACKING OR STORING SUPPLIES IN PROTECTED AREAS, CONDUCTING TREMCHING OPERATIONS IN PROTECTED AREAS, GRADING BEYOND THE LIMITS OF DISTURBANCE.
- THE GENERAL CONTRACTOR SHALL PROVIDE A WASH OUT AREA FOR CONCRETE TRUCKS ON SITE, WHICH WILL NOT DRAIN TOWARDS A PROTECTED AREA.
- ALL TREES WHICH ARE NOT TO BE PRESERVED WITHIN FIFTY FEET OF ANY TREE PRESERVATION AREA ARE TO BE REMOVED IN A MANNER THAT WILL NOT DAMAGE THOSE TREES THAT ARE DESIGNATED FOR PRESERVATION. IT IS HIGHLY RECOMMENDED THAT TREE STUMPS WITHIN THIS FIFTY FOOT AREA BE GROUND OUT WITH A STUMP GRINDING MACHINE TO MINIMIZE DAMAGE.

**SEQUENCE OF CONSTRUCTION**

- OBTAIN A GRADING PERMIT AND ALL OTHER NECESSARY PERMITS. (1 Week)
- INSTALL SILT FENCE ALONG THE PATHWAY SECTION TO BE CONSTRUCTED. (3 Weeks)
- BEGIN CLEARING AND GRUBBING FOR PATHWAY CONSTRUCTION. ALL TREES 12 INCHES IN DIAMETER OR LARGER SHOULD BE PROTECTED AND UNDISTURBED. (3 Weeks)
- COMPACT SUBGRADE AND INSTALL PATHWAY. (3 Weeks)
- UPON THE APPROVAL OF THE HOWARD COUNTY SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROLS AND STABILIZE IN ACCORDANCE WITH THE PERMANENT SEEDING NOTES. (2 Days)



**2 BOARDWALK FRAMING PLAN**  
NOT TO SCALE



**1 SIDEVIEW BOARDWALK ELEVATION**  
NOT TO SCALE

**NOTES:**

- THE BRIDGE AND BOARDWALK DETAILS SHOWN ON THIS PLAN ARE MINIMUM STANDARDS AND WERE SUPPLIED BY COLUMBIA RECREATION AND PARK ASSOCIATION. THEY ARE NOT SITE SPECIFIC AND THEREFORE SHALL NOT BE USED FOR CONSTRUCTION PURPOSES.
- D.P.W. REVIEWS BRIDGE AND BOARDWALK DRAWINGS FOR LINE GRADE AND FLOODPLAIN IMPACT ONLY. DEPARTMENT OF LICENSE AND PERMITS PERFORMS RELATED STRUCTURAL REVIEW.

**CONSTRUCTION NOTES:**

- ALL LUMBER SHALL BE 60 CCA TREATED SOUTHERN YELLOW PINE # 2 OR BETTER S4S MIN STRESS GRADE, 1200 PSI.
- ALL HARDWARE SHALL BE HOT DIPPED GALVANIZED.

APPROVED  
PLANNING BOARD  
OF HOWARD COUNTY  
DATE 7 July 94

BY THE DEVELOPER:

DEVELOPER: *Delis A. Ellis* DATE: \_\_\_\_\_

BY THE ENGINEER:

ENGINEER: *J. Lareth* DATE: 8-15-94

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

*Patricia Engle* 10/2/94  
U.S. SOIL CONSERVATION SERVICE DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.

*Shirley R. Kelly* 10/2/94  
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.

COUNTY HEALTH OFFICER: \_\_\_\_\_ DATE: \_\_\_\_\_

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

*James D. Smith* 10/2/94  
DIRECTOR DATE

*Jina Hummer* 10/2/94  
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

*James P. Shaw* 10/14/94  
DIRECTOR DATE

*Paul J. Sasser* 9/16/94  
CHIEF, BUREAU OF ENGINEERING M.K. 091544 DATE

DATE NO.	REVISION

OWNER / DEVELOPER: COLUMBIA ASSOCIATION, 10221 WINCOPPIN CIRCLE, COLUMBIA, MARYLAND 21044

PROJECT: CLEMENS CROSSING WEST PATHWAY

AREA: VILLAGE OF HICKORY RIDGE, SEC. 6 AREA G, LOT 106, 5th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

TITLE: SEDIMENT CONTROL NOTES AND DETAILS

RIEMER MUEGGE & ASSOCIATES, INC.  
Planners • Engineers • Surveyors  
8818 Centre Park Drive • Suite 200 • Columbia, Md. 21045  
410-997-8900 FAX: 410-997-9282

8-15-94 DATE

SDP-90-167 F-90-96

DESIGNED BY: D.B.S.

DRAWN BY: D.B.S.

PROJECT NO.: 93700

DATE: NOVEMBER 2, 1993

SCALE: AS SHOWN

DRAWING NO. 2 OF 2

JAYKANT D. PAREKH # 19148

SDP-94-64