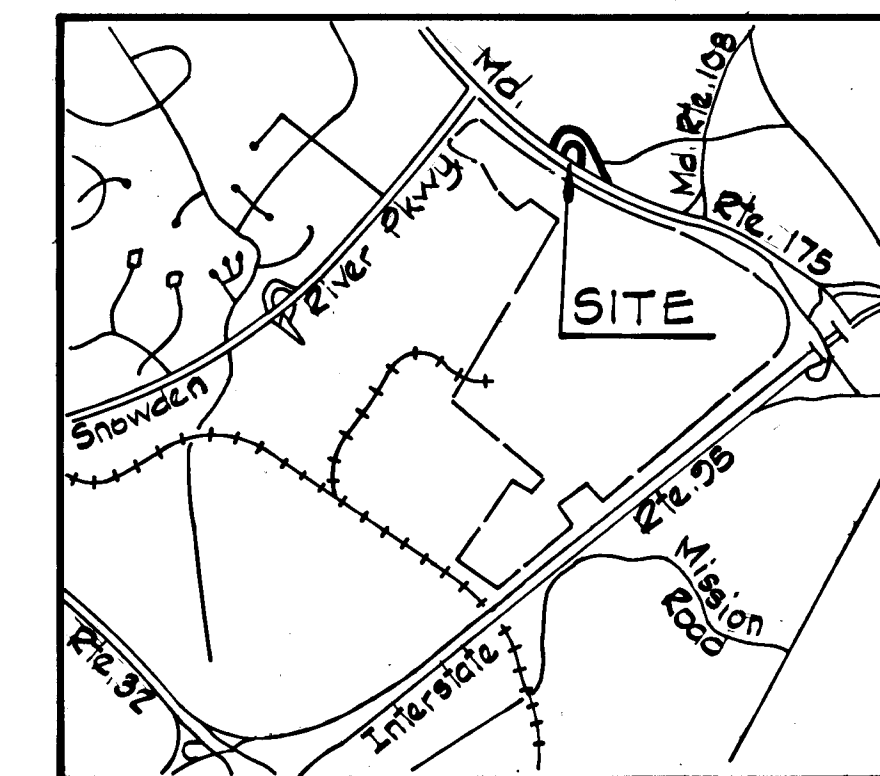


# COLUMBIA GATEWAY DRIVE-INTERCHANGE RAMPS

## ROAD CONSTRUCTION PLANS

HOWARD COUNTY, MARYLAND  
5<sup>TH</sup> ELECTION DISTRICT



VICINITY MAP  
Scale: 1"=2,000'

**GENERAL NOTES:**

1. All work shall be done in accordance with the State of Maryland Department of Transportation, State Highway Administration, "Standard Specifications for Construction and Materials, dated January, 1982. Or shall be performed in accordance with Howard County Standards, Specifications and Details for Construction as indicated.

**BENCH MARKS**

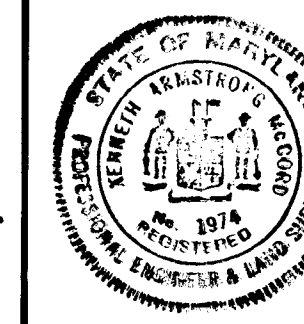
Howard County Survey - Concrete monument, 165'± right of centerline  
Control Point #2343001 Station 70+50± Maryland Route 175.  
Elev. 288.24.

Whitman, Requardt and Associates Survey Point - PK Nail in top of concrete curb, 28'± right  
of baseline of construction Station 7+85± Ramp "C"  
2412-M Elev. 320.78

SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	PLAN - RAMP "C" AND "G"
3	PLAN - MD. RTE. 175 WIDENING
4	PLAN - MD. RTE 175 WIDENING
5	SEDIMENT CONTROL PLANS
6	SEDIMENT CONTROL PLANS
7	SEDIMENT CONTROL PLANS
8	SEDIMENT CONTROL PLANS

Rev. Date	Rev. No.	Revision Description
5/21/86	1	AS Per Planning and Zoning and D.P.W. Comments

**DEVELOPER**  
THE HOWARD RESEARCH  
AND DEVELOPMENT CORPORATION  
10275 LITTLE PATUXENT PARKWAY  
COLUMBIA, MARYLAND 21044

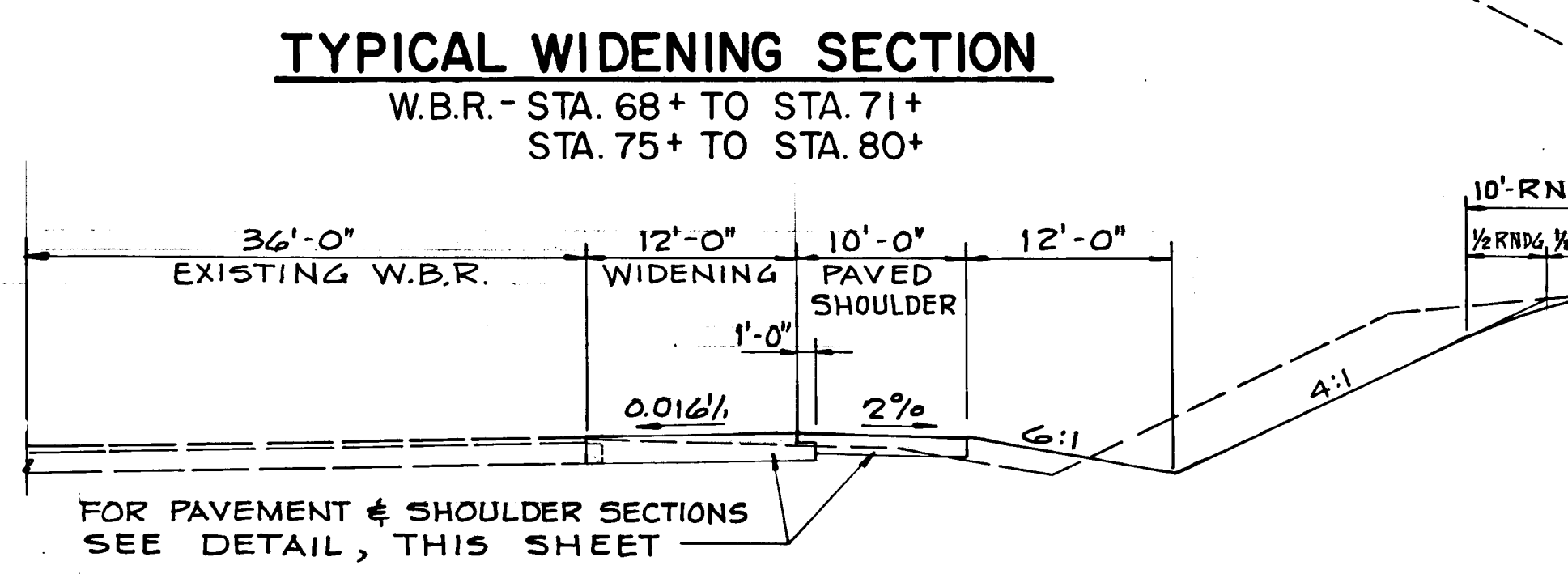
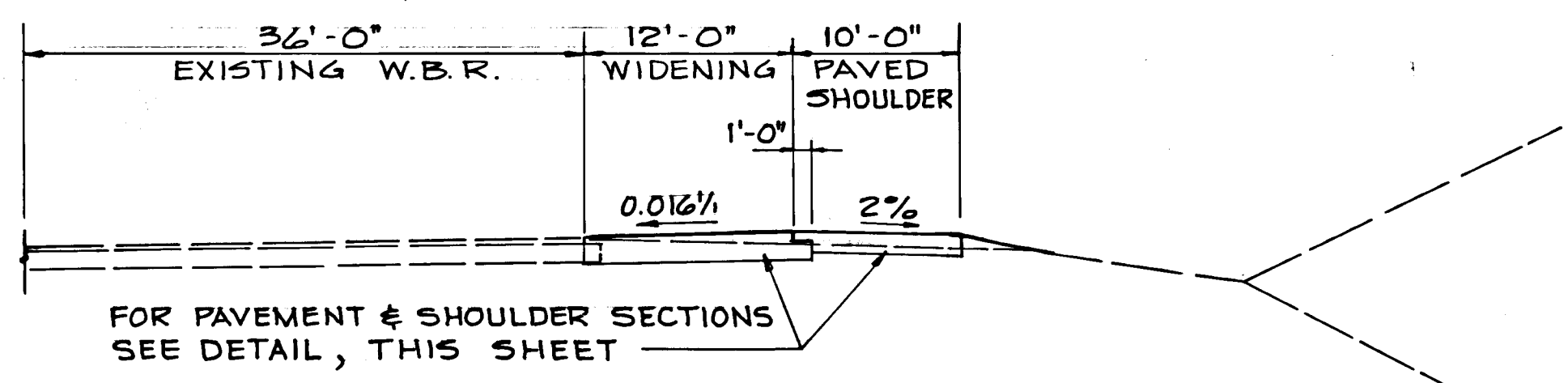
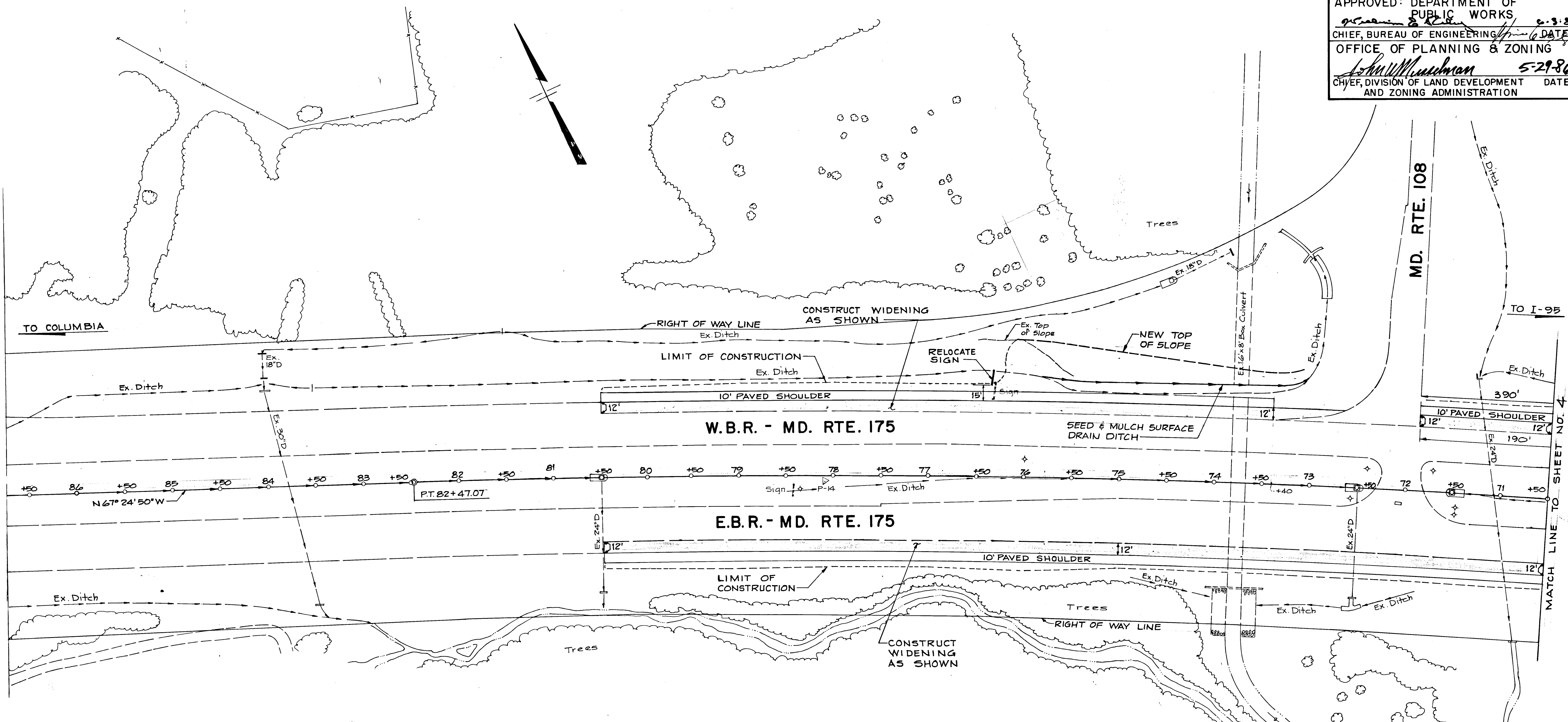


WHITMAN, REQUARDT AND ASSOCIATES  
ENGINEERS  
2315 ST. PAUL STREET  
BALTIMORE, MARYLAND 21218  
*Kenneth A. McCoz*  
KENNETH A. MCCOZ  
Registered Engineer  
No. 1974

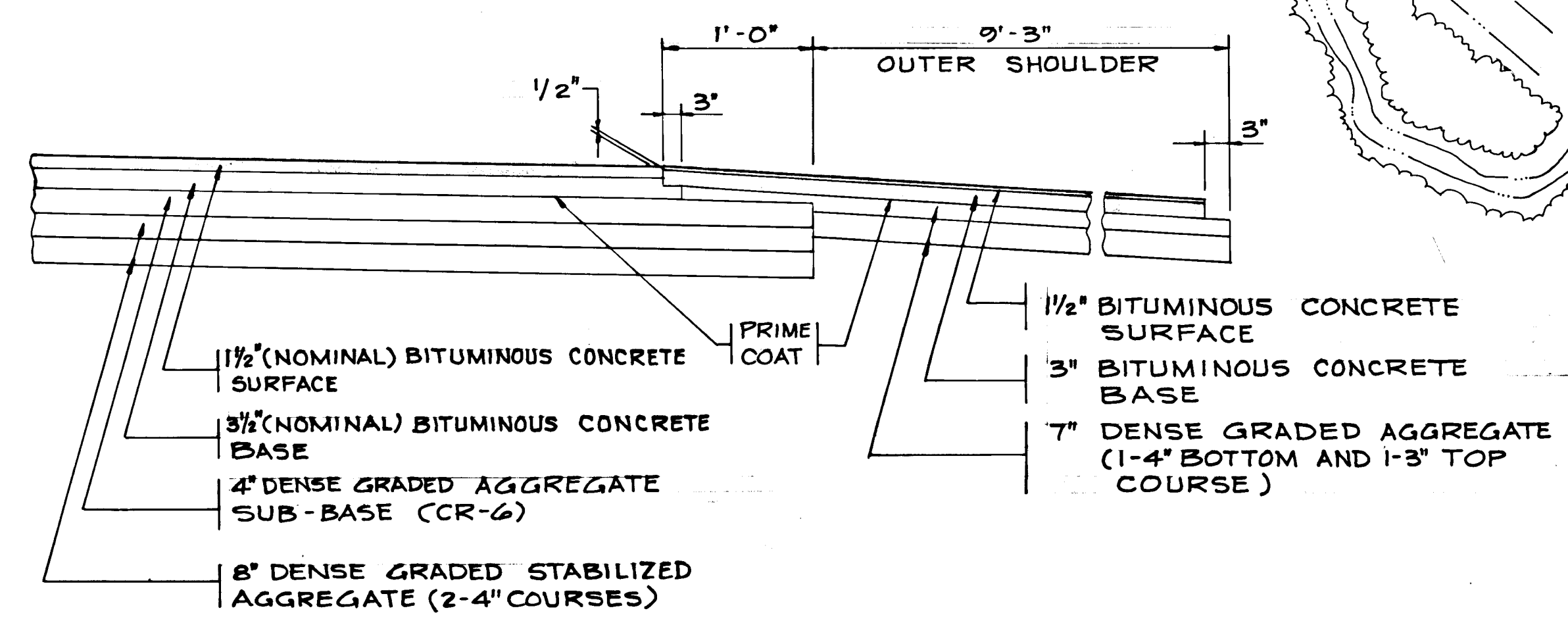
1158







NOTE:  
 THE MAXIMUM DROP OFF WHICH WILL BE PERMITTED OVERNIGHT SHALL BE 5" OR AT A SLOPE NOT GREATER THAN 2:1.



REV. DATE	REV. NO.	REVISION DESCRIPTION
5/21/86	1	As Per S.H.A. Comments

6 TH. ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER  
 THE HOWARD RESEARCH  
 AND DEVELOPMENT CORPORATION

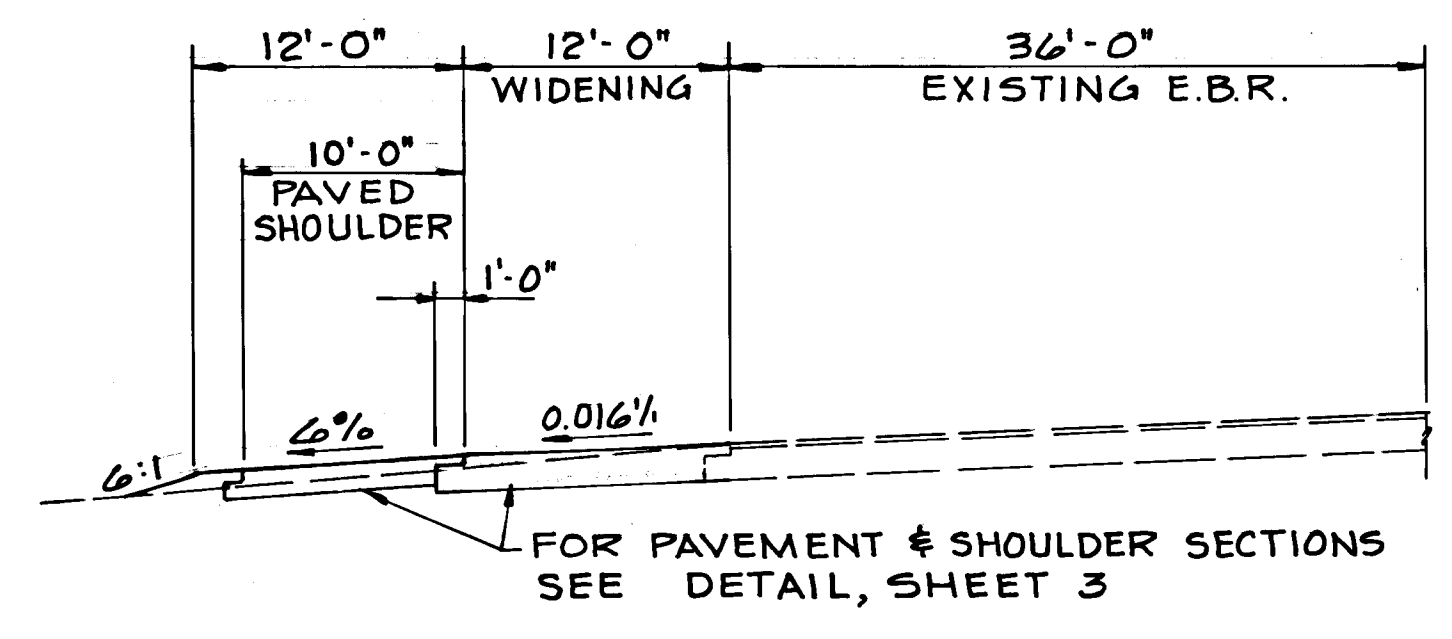
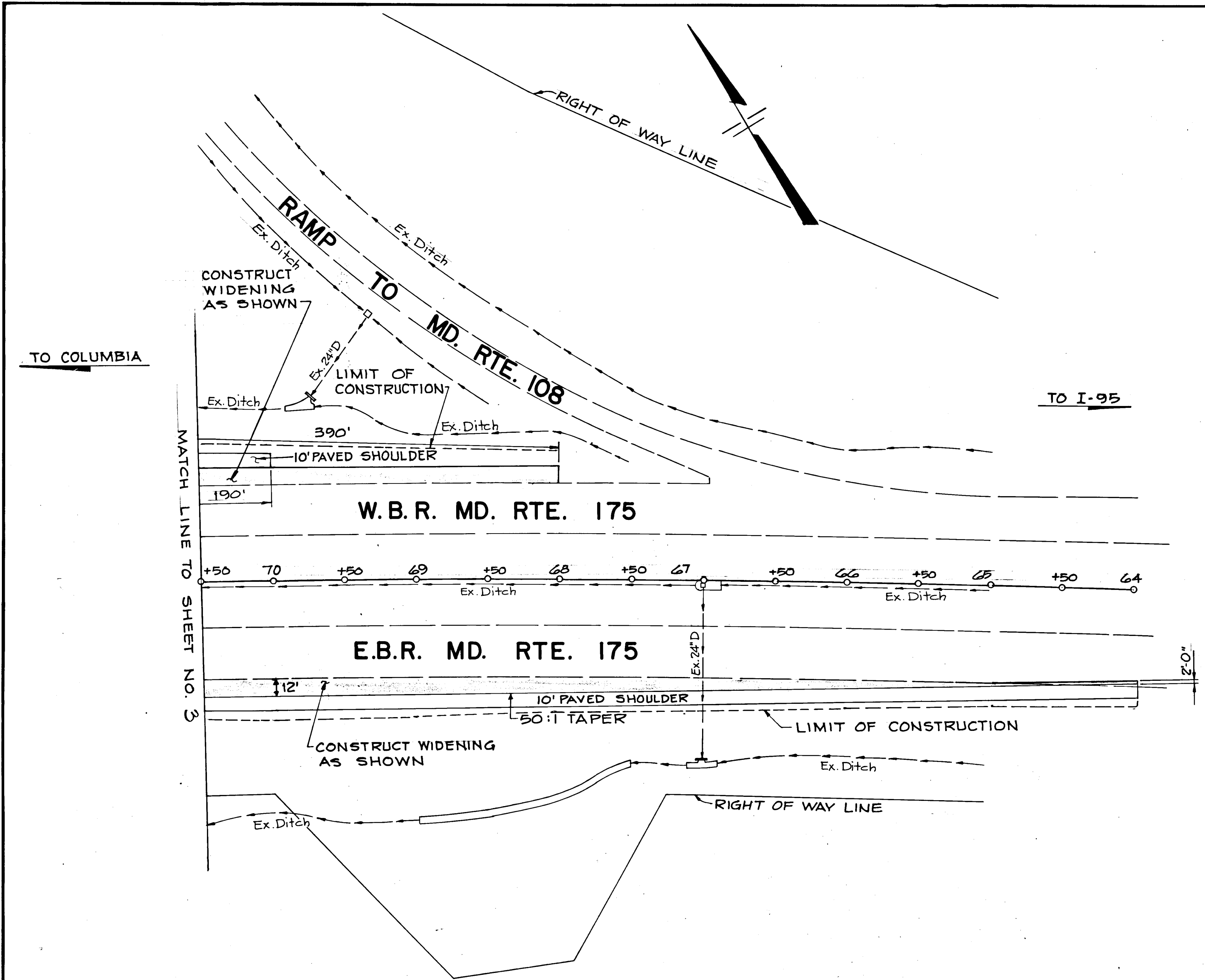
PROJECT AREA  
 COLUMBIA GATEWAY DRIVE  
 INTERCHANGE RAMP

PROJECT TITLE  
 PLAN  
 MD. RTE. 175 WIDENING

SCALE: 1" = 50' DATE:  
 WHITMAN, REQUARDT AND ASSOCIATES  
 ENGINEERS  
 BALTIMORE, MARYLAND 21218

Kenneth A. McCord  
 Registered Engineer  
 NO. 1974

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 CHIEF, BUREAU OF ENGINEERING DATE 5-2-86  
 OFFICE OF PLANNING & ZONING  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE 5-2-86



**TYPICAL WIDENING SECTION**  
 E.B.R. - STA. 65+ TO STA. 80+

5/21/86	1	As per S.H.A. Comments
REV. DATE	REV. NO.	REVISION DESCRIPTION
6 TH. ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION		
PROJECT AREA COLUMBIA GATEWAY DRIVE INTERCHANGE RAMPS		
PROJECT TITLE <b>PLAN</b> MD. RTE. 175 WIDENING		
SCALE: 1" = 50'		DATE:
WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21218		
 KENNETH A. McCORD Registered Engineer NO. 1974		

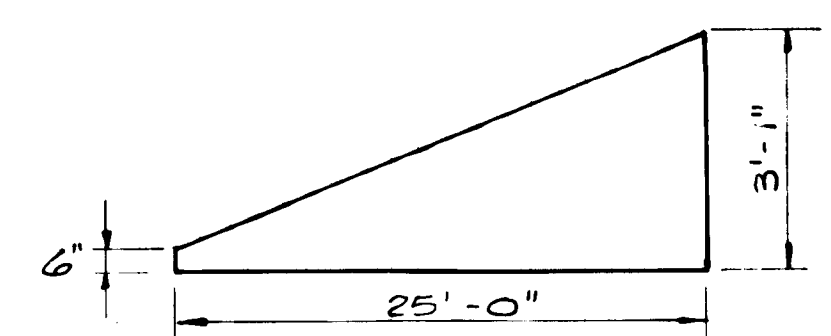
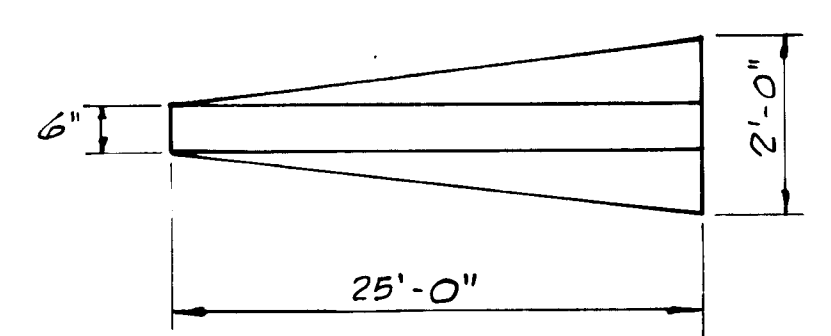
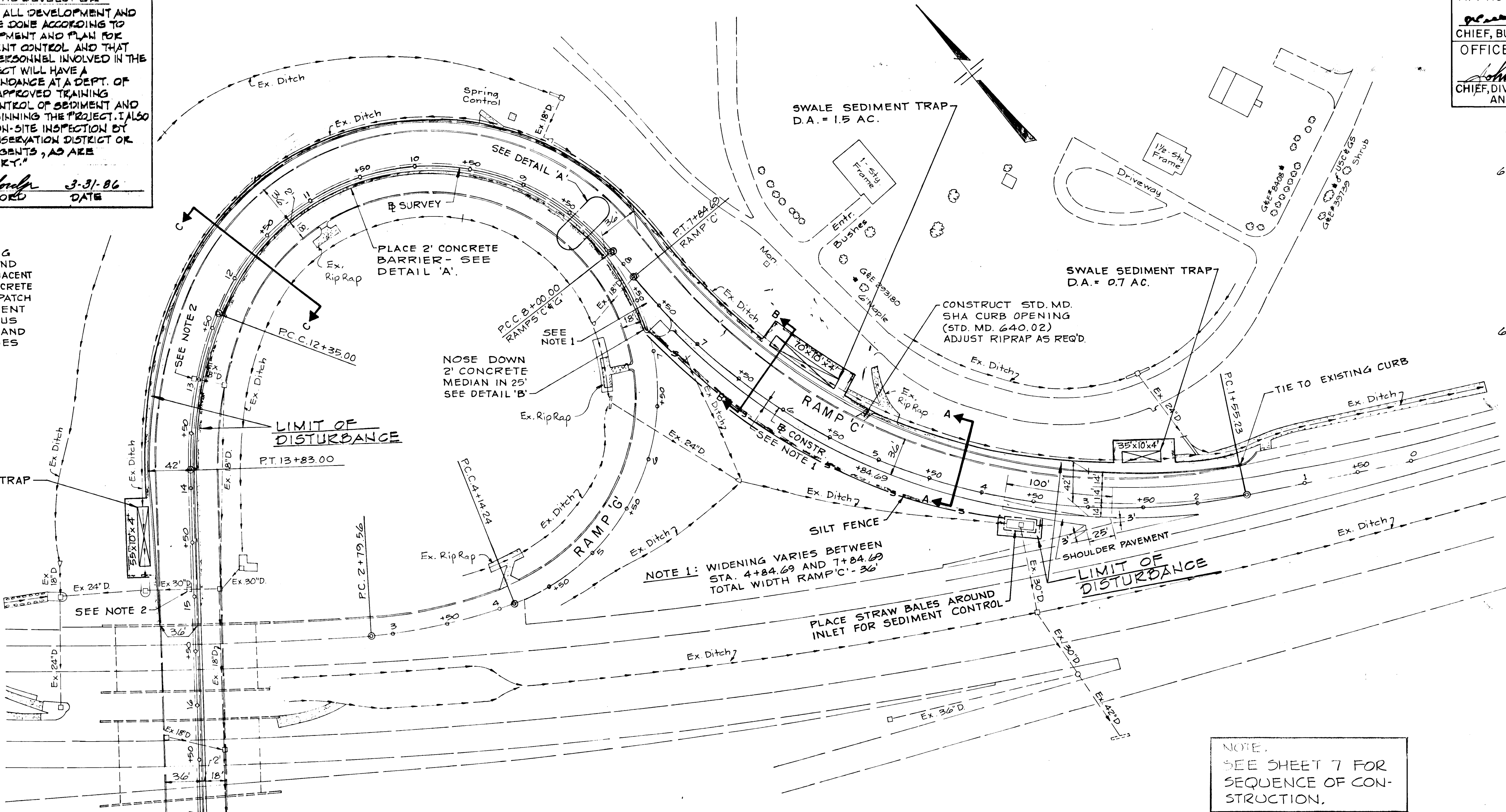


**CERTIFICATION BY THE DEVELOPER**  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPT. OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEMAND NECESSARY.

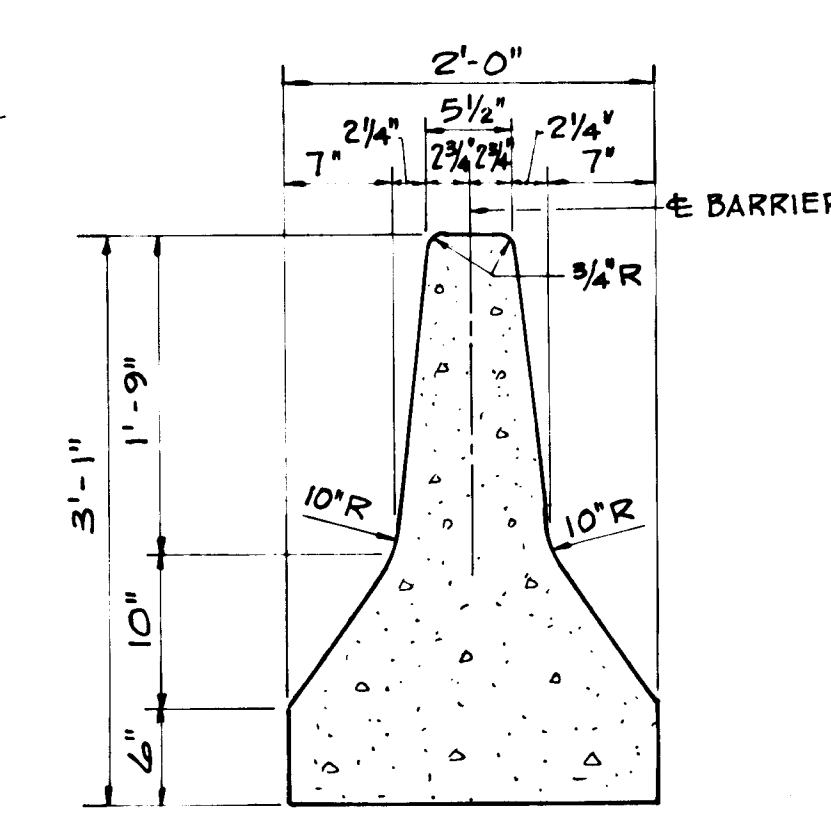
*Walter Woodford* 3-31-86  
 WALTER W. WOODFORD DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS  
*James B. Kelly* 3-31-86  
 CHIEF, BUREAU OF ENGINEERING  
 OFFICE OF PLANNING & ZONING  
*John M. Muehlen* 3-29-86  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE AND ZONING ADMINISTRATION

**NOTE 2**  
 REMOVE EXISTING TYPE S INLET AND RECONSTRUCT ADJACENT TO PROPOSED CONCRETE BARRIER CURB PATCH EXISTING PAVEMENT USING BITUMINOUS CONCRETE BASE AND SURFACE COURSES PER DETAIL 'A'.



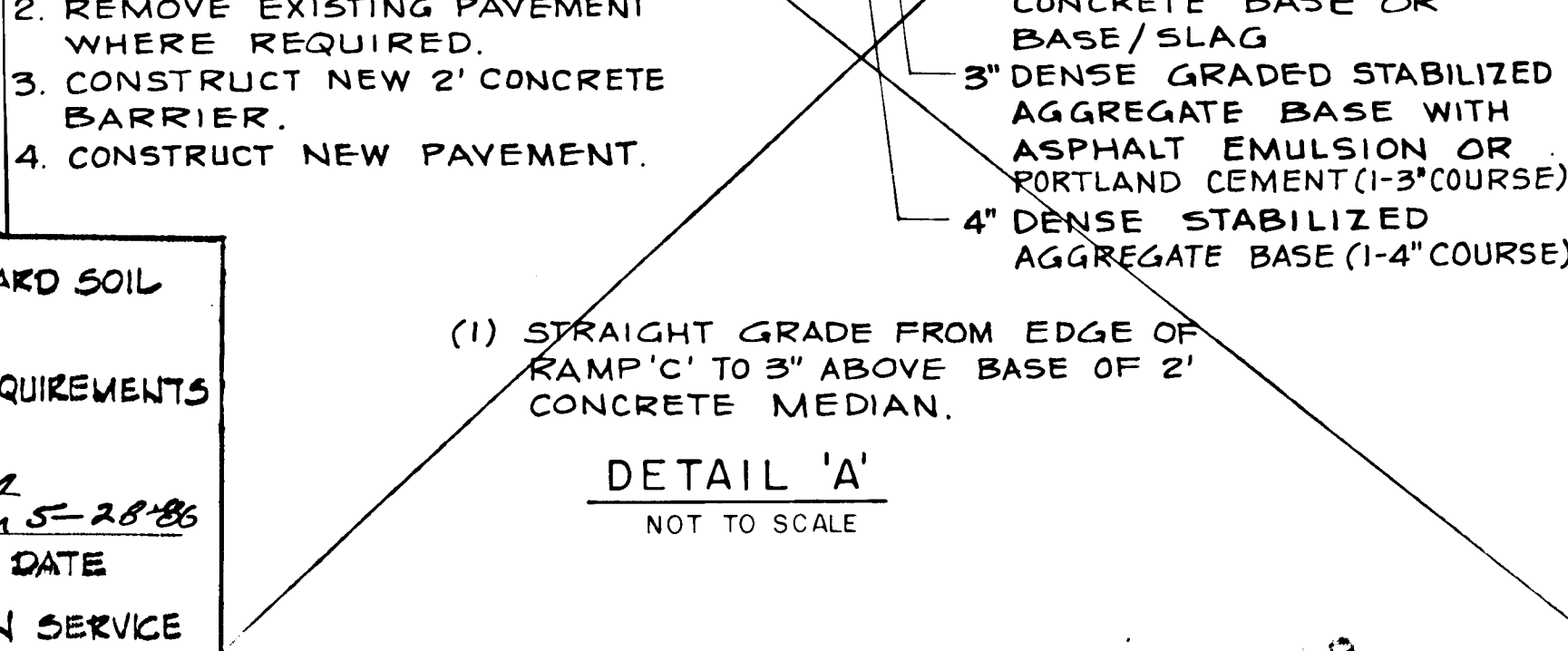
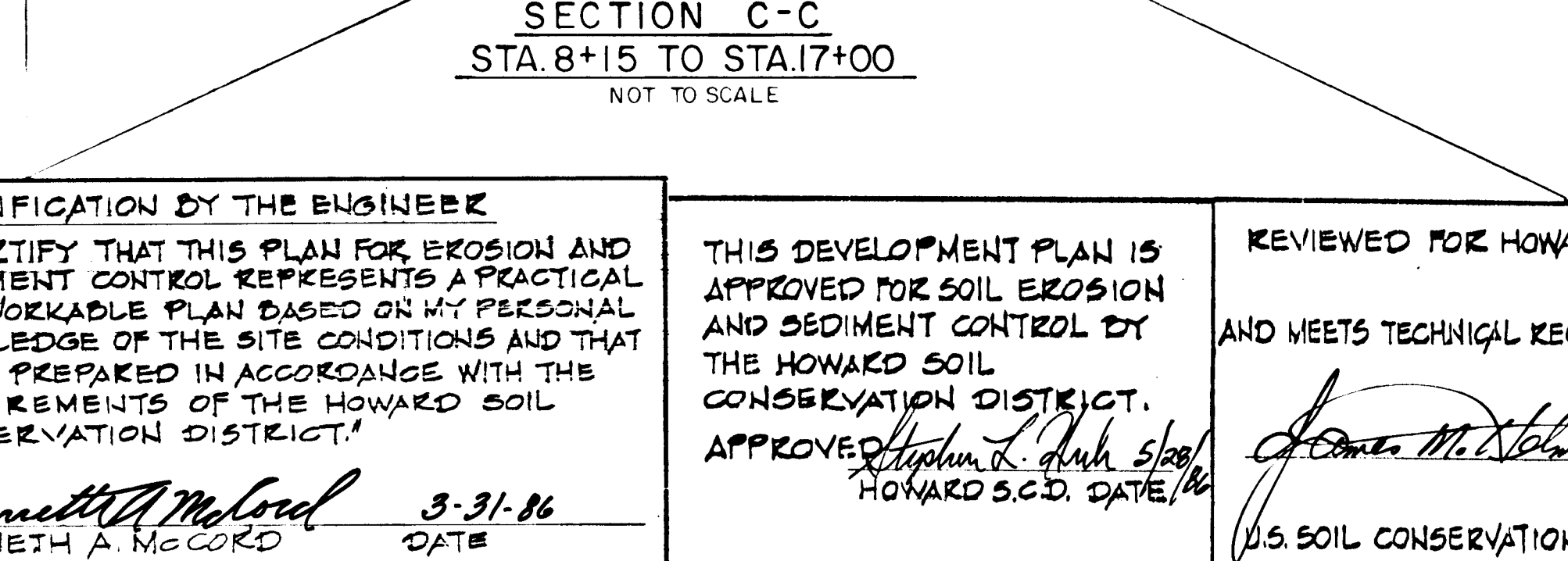
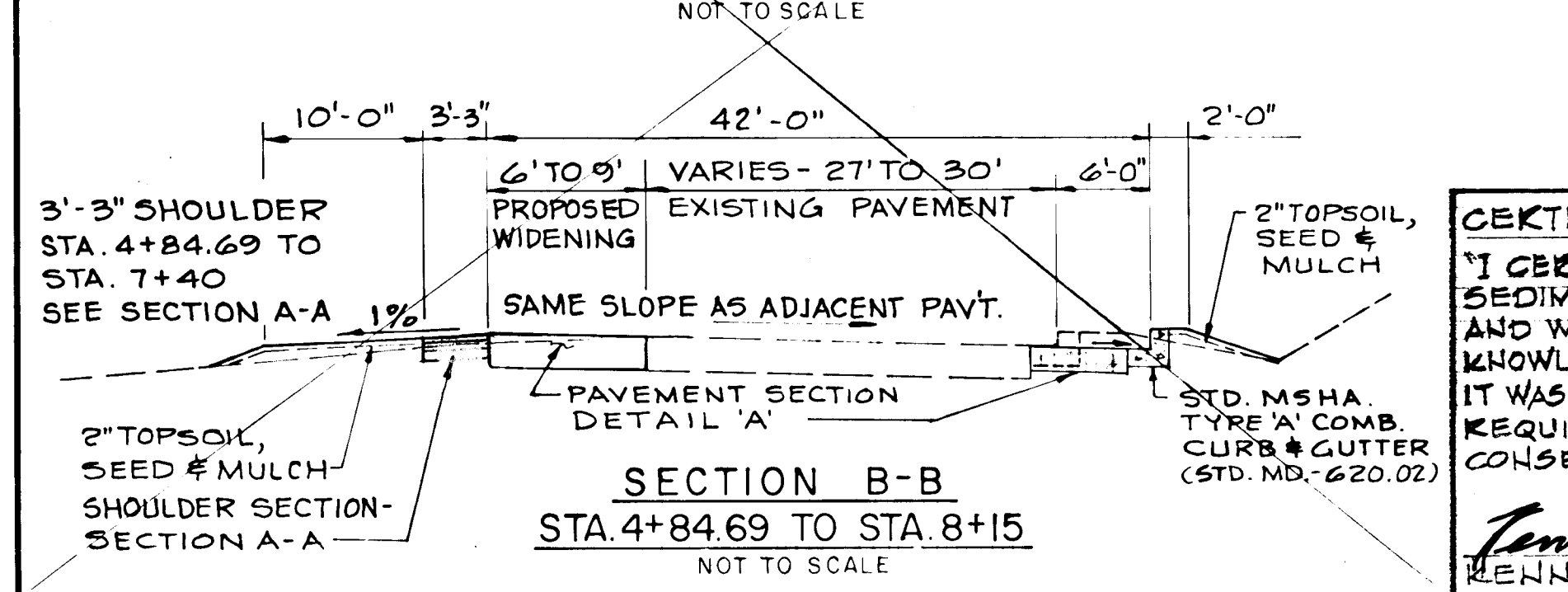
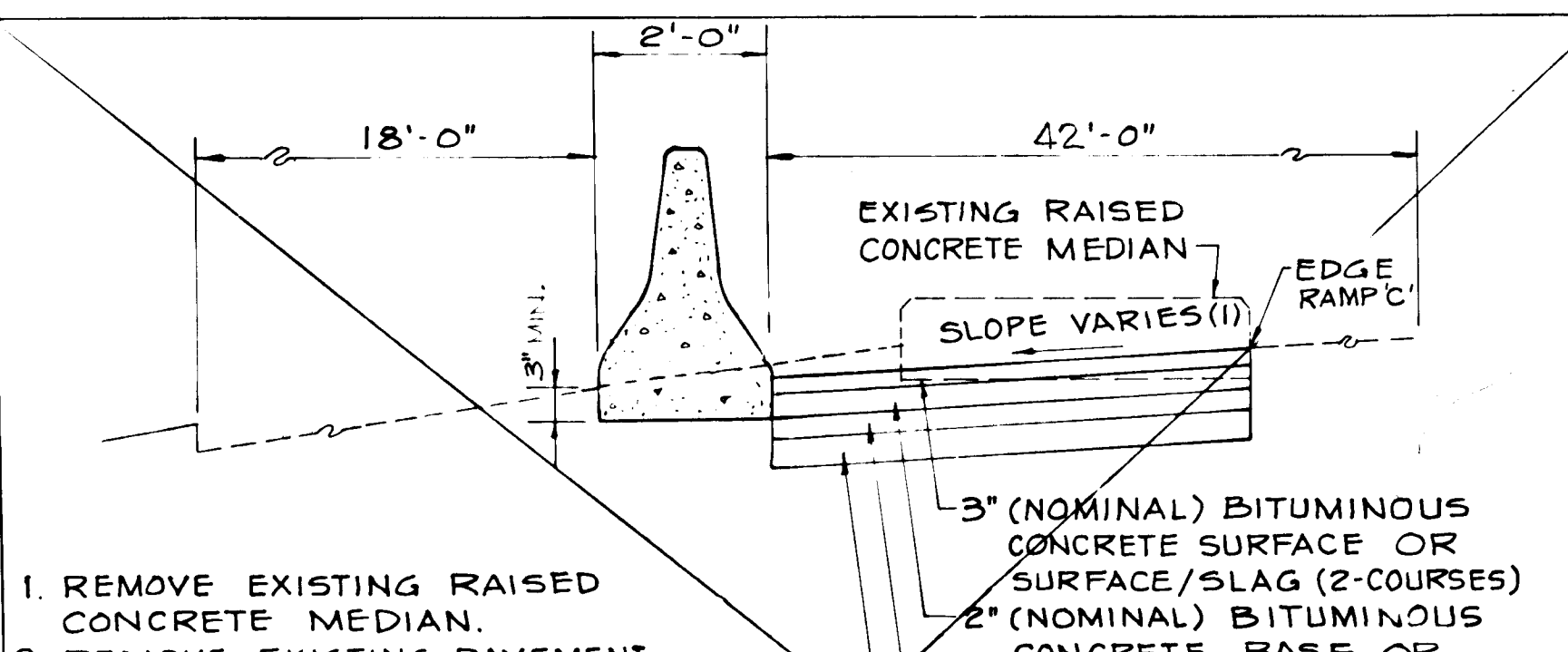
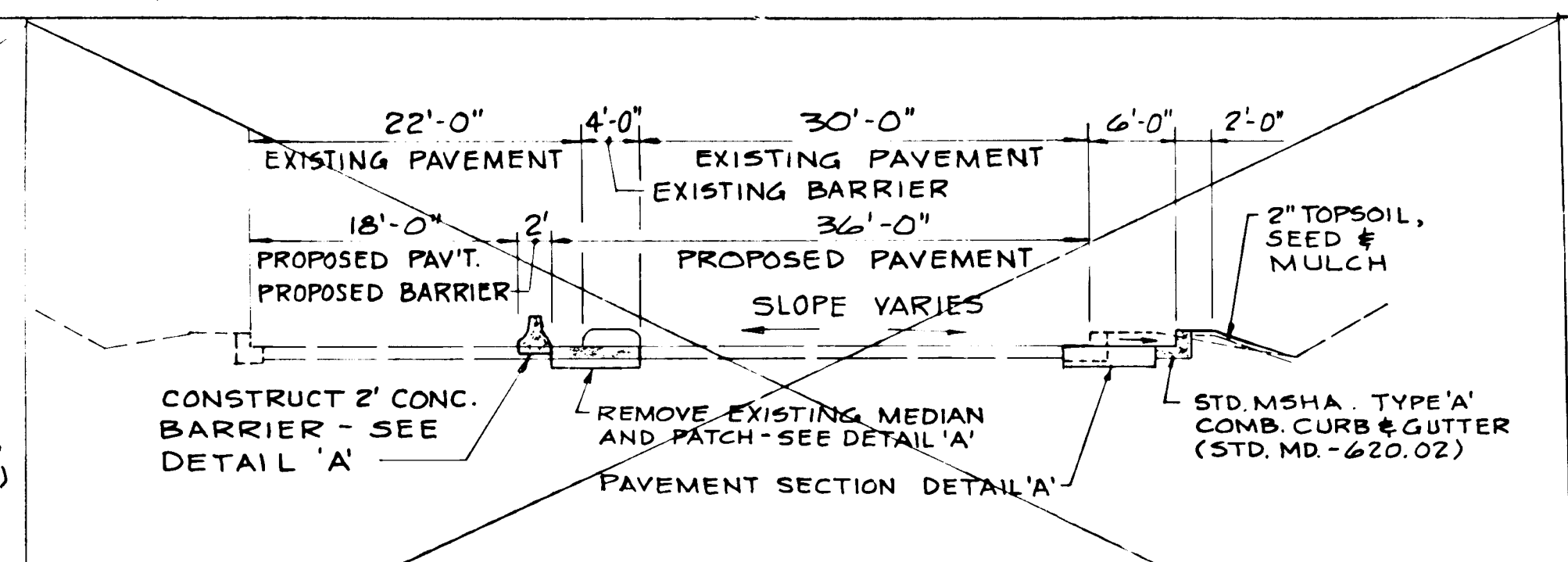
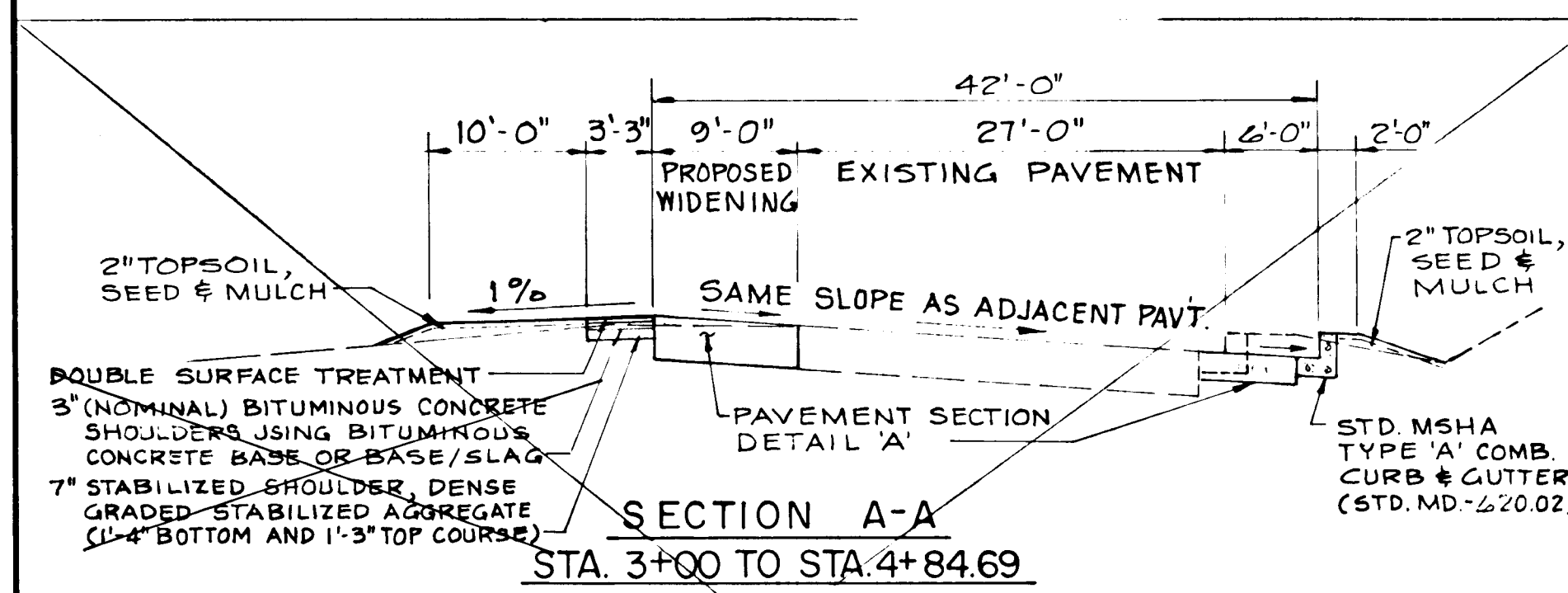
**DETAIL 'B'**  
 METHOD OF NOSING DOWN 2' BARRIER  
 NOT TO SCALE



**TYPICAL SECTION**  
 2' CONCRETE BARRIER  
 NOT TO SCALE

**NOTE 1:** WIDENING VARIES BETWEEN STA. 4+84.69 AND 7+84.69 TOTAL WIDTH RAMP 'C' - 36'

**NOTE:** SEE SHEET 7 FOR SEQUENCE OF CONSTRUCTION.



**DETAIL 'A'**  
 NOT TO SCALE

1. REMOVE EXISTING RAISED CONCRETE MEDIAN.
2. REMOVE EXISTING PAVEMENT WHERE REQUIRED.
3. CONSTRUCT NEW 2' CONCRETE BARRIER.
4. CONSTRUCT NEW PAVEMENT.

(1) STRAIGHT GRADE FROM EDGE OF RAMP 'C' TO 3" ABOVE BASE OF 2' CONCRETE MEDIAN.

**CERTIFICATION 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.

*Kenneth A. McCord* 3-31-86  
 KENNETH A. MCCORD DATE

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

APPROVED: *Stephen L. Gish* 3/30/86  
 HOWARD S.C.D. DATE

REVIEWED FOR HOWARD SOIL AND MEETS TECHNICAL REQUIREMENTS

*James M. Kelly* 3-28-86  
 DATE  
 U.S. SOIL CONSERVATION SERVICE

5/21/80	1	As Per S.C.S. Comments
REV. DATE	REV. NO.	REVISION DESCRIPTION
<b>6TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND</b>		
OWNER AND DEVELOPER THE HOWARD RESEARCH AND DEVELOPMENT CORPORATION		
PROJECT AREA COLUMBIA GATEWAY DRIVE INTERCHANGE RAMP		
PROJECT TITLE SEDIMENT CONTROL		
SCALE: 1"=50'	DATE:	
WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21218		
<i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer		NO. 1974

**CERTIFICATION BY THE DEVELOPER**  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPT. OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

*Walter E. Woodford* 3-31-86  
 WALTER E. WOODFORD DATE

REVIEWED FOR HOWARD SOIL AND MEETS TECHNICAL REQUIREMENTS

*James M. Dehn* 5-28-86  
 DATE  
 U.S. SOIL CONSERVATION SERVICE

**CERTIFICATION 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.

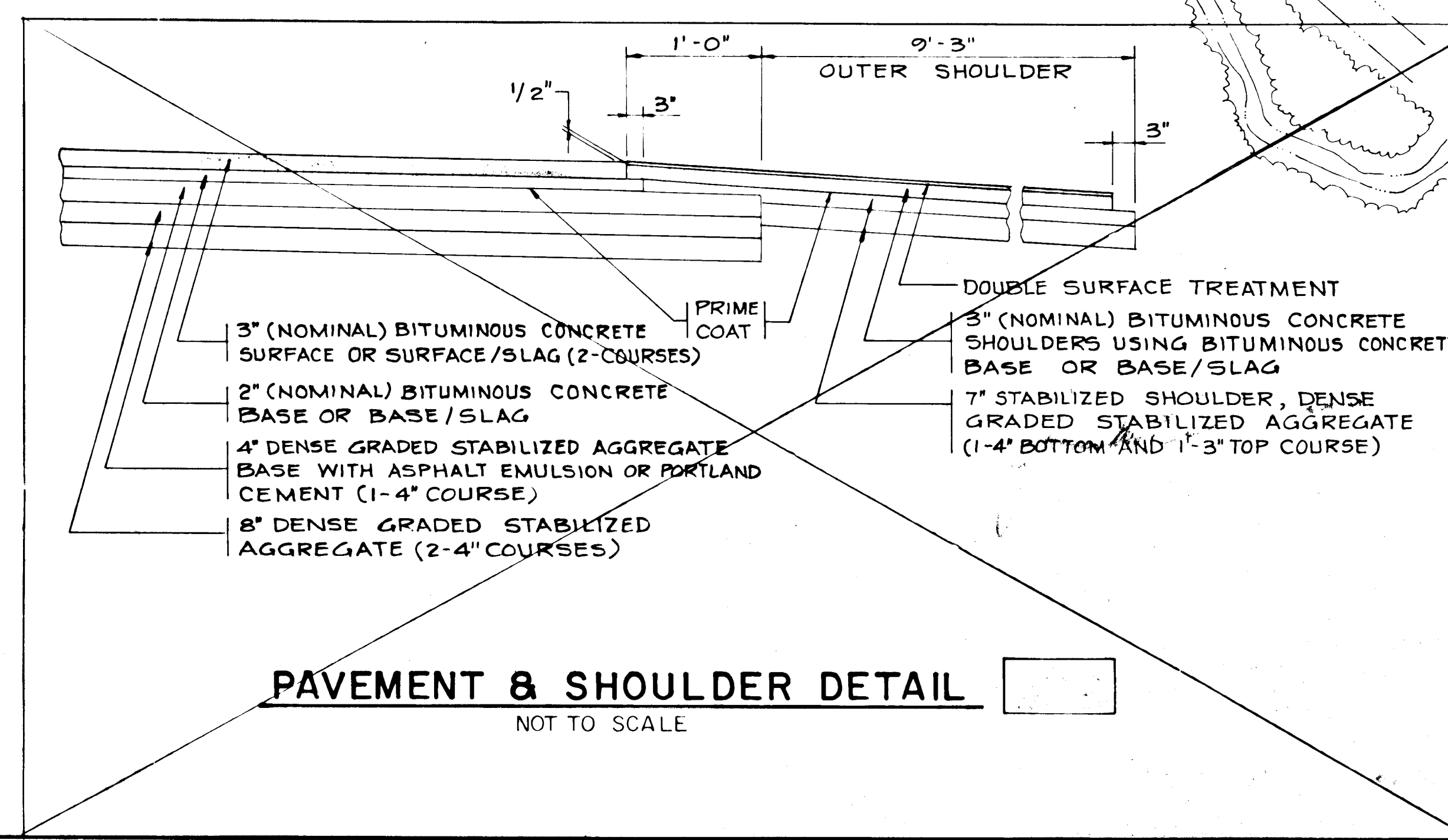
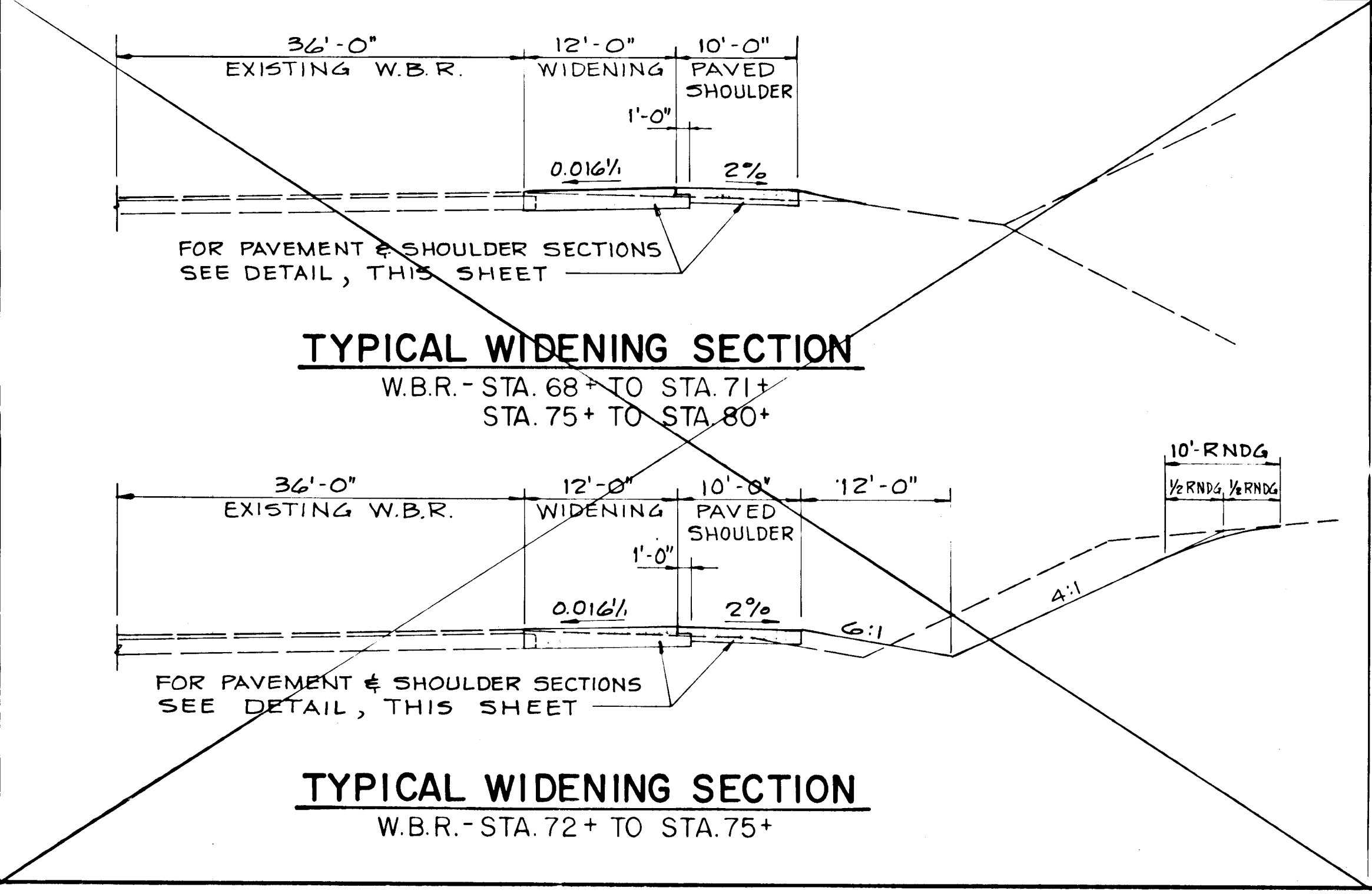
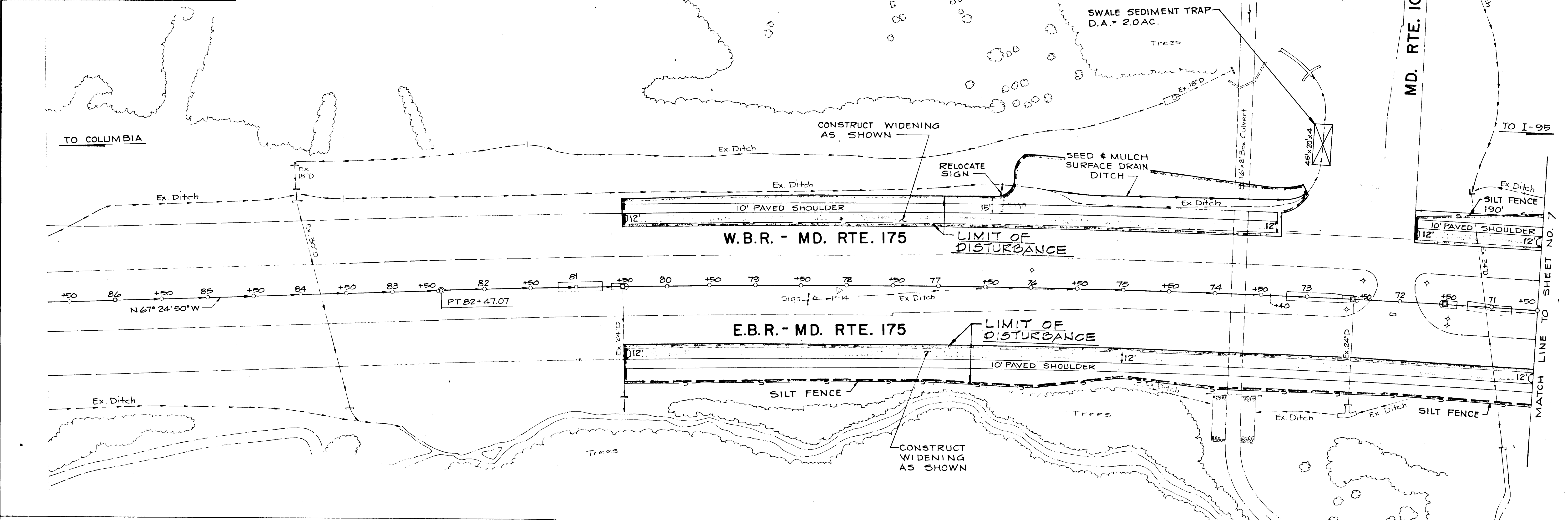
*Kenneth A. McCord* 3-31-86  
 DATE  
 KENNETH A. MCCORD

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

APPROVED *Stephen L. Pugh*  
 HOWARD S.C.D. DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS  
 CHIEF, BUREAU OF ENGINEERING  
 OFFICE OF PLANNING & ZONING

*John W. Murchison* 5-29-86  
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION DATE



REVDATE	REV. NO.	REVISION	DESCRIPTION
5/21/80	1	As Per S.C.S. Comments	

6 TH. ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER  
 THE HOWARD RESEARCH  
 AND DEVELOPMENT CORPORATION

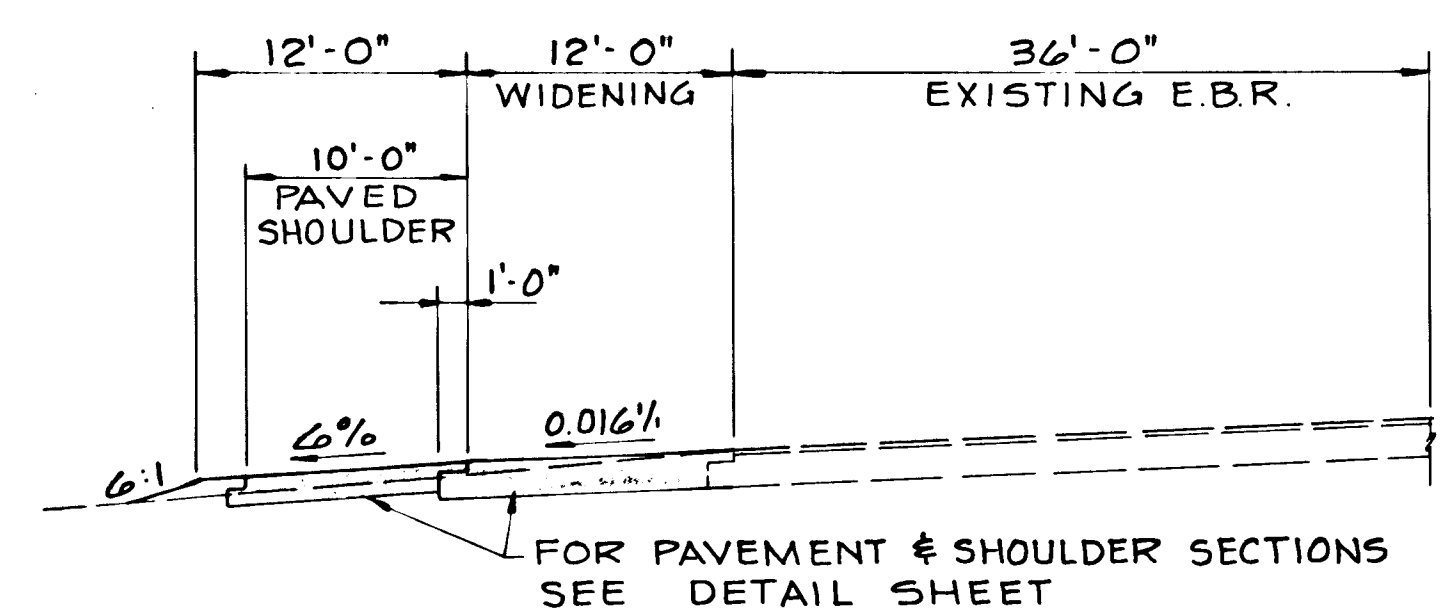
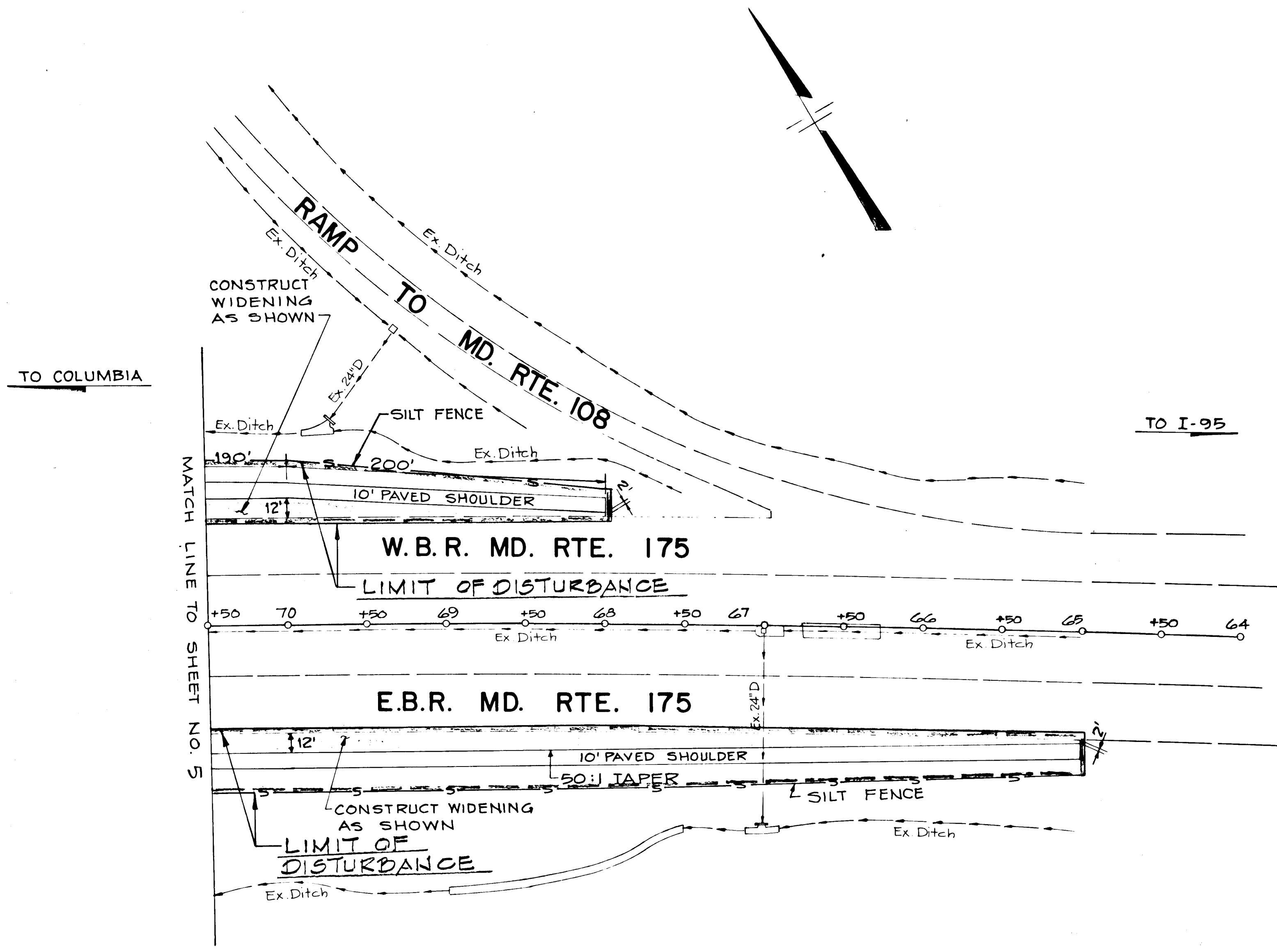
PROJECT AREA  
 COLUMBIA GATEWAY DRIVE  
 INTERCHANGE RAMP

PROJECT TITLE  
 SEDIMENT CONTROL

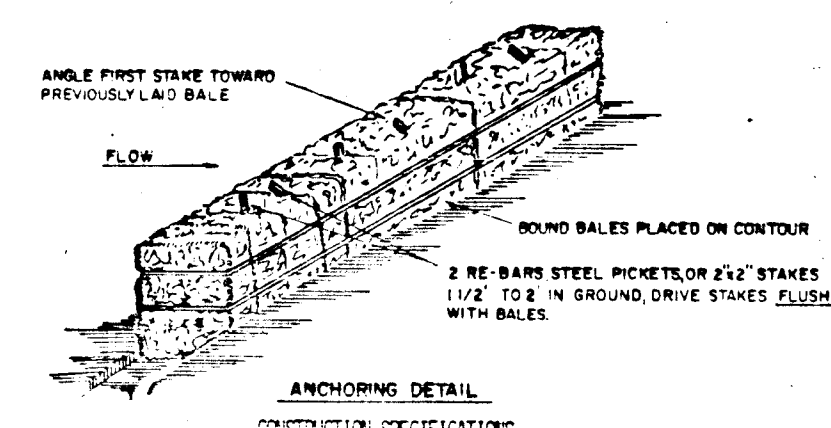
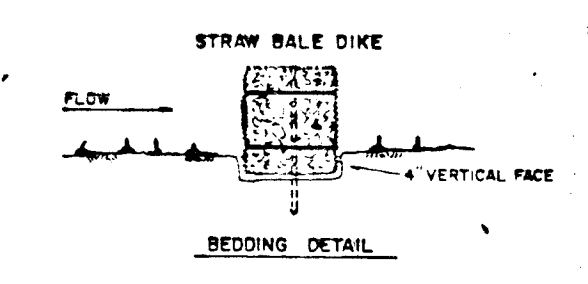
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 WHITMAN, REQUARDT AND ASSOCIATES  
 ENGINEERS  
 BALTIMORE, MARYLAND 21218

*Kenneth A. McCord*  
 KENNETH A. MCCORD  
 Registered Engineer  
 NO. 1974





**TYPICAL WIDENING SECTION**  
 E.B.R. - STA. 65+ TO STA. 80+



1. Bales shall be placed at the toe of a slope or on the contour and in a row with each bale overlapping the adjacent bales.
2. Each bale shall be embedded in the soil a minimum of 60 inches, and placed so the bindings are horizontal.
3. Bales shall be securely anchored in place by either two stakes or re-bars driven through the bale. The first stake in each bale shall be driven toward the previously laid bale at an angle to force the bales together. Stakes shall be driven flush with the bale.
4. Inspection shall be frequent and repair/replacement shall be made promptly as needed.
5. Bales shall be removed when they have served their usefulness so as not to block or impede storm flow or drainage.

**SEQUENCE OF CONSTRUCTION**

1. Obtain grading permit.
2. Construct swale sediment traps, silt fence and place straw bales around existing inlet.
3. Construct road widenings and paved shoulders.
4. Seed and mulch all disturbed areas with permanent seeding, see seeding notes on Sheet B.
5. After construction is completed and grass is established, sediment control facilities may be removed.

**CERTIFICATION 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.  
 Kenneth A. McCord 3-31-86  
 KENNETH A. MCCORD DATE

**CERTIFICATION BY THE DEVELOPER**  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPT. OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.  
 Walter E. Woodford 3-31-86  
 WALTER E. WOODFORD DATE

REVIEWED FOR HOWARD SOIL AND MEETS TECHNICAL REQUIREMENTS  
 5-28-86  
 DATE  
 U.S. SOIL CONSERVATION SERVICE

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

5/21/86	1	As Per S.C.S. Comments
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PROJECT TITLE SEDIMENT CONTROL		
SCALE: 1" = 50'	DATE:	
WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS BALTIMORE, MARYLAND 21218		
Kenneth A. McCord KENNETH A. MCCORD Registered Engineer NO. 1974		



