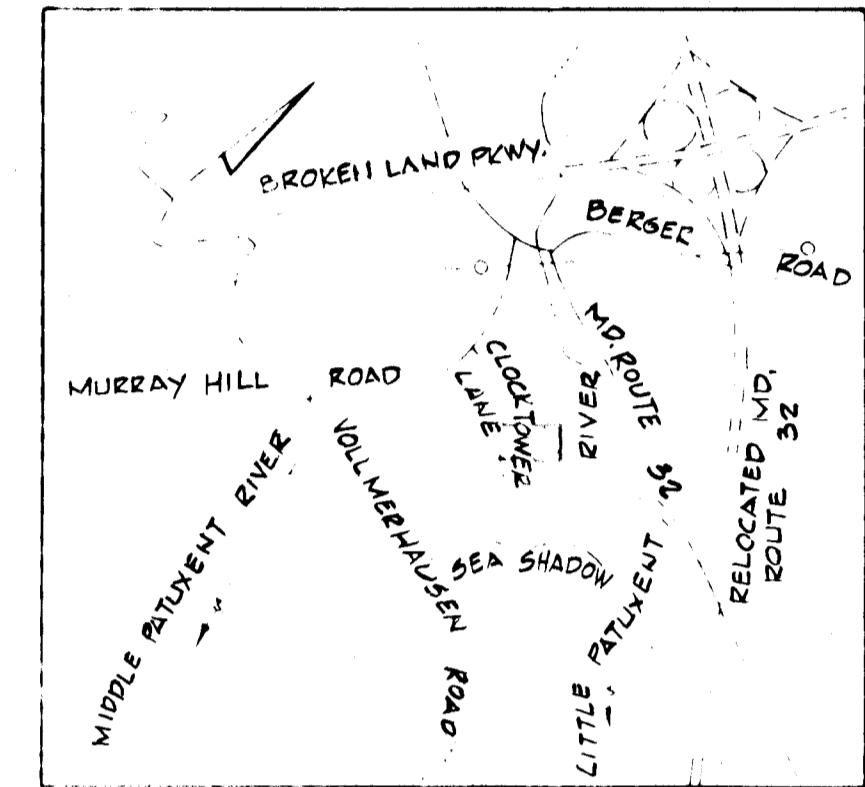


COLUMBIA

HOWARD COUNTY, MARYLAND
 6TH ELECTION DISTRICT

ROAD CONSTRUCTION PLANS VILLAGE OF KINGS CONTRIVANCE SECTION 3 AREA 1 RESUBDIVISION OF A PORTION OF PARCEL "B-1" LOT B-60 TO LOT B-114



VICINITY MAP
 Scale 1" = 1200'

STORM WATER MANAGEMENT

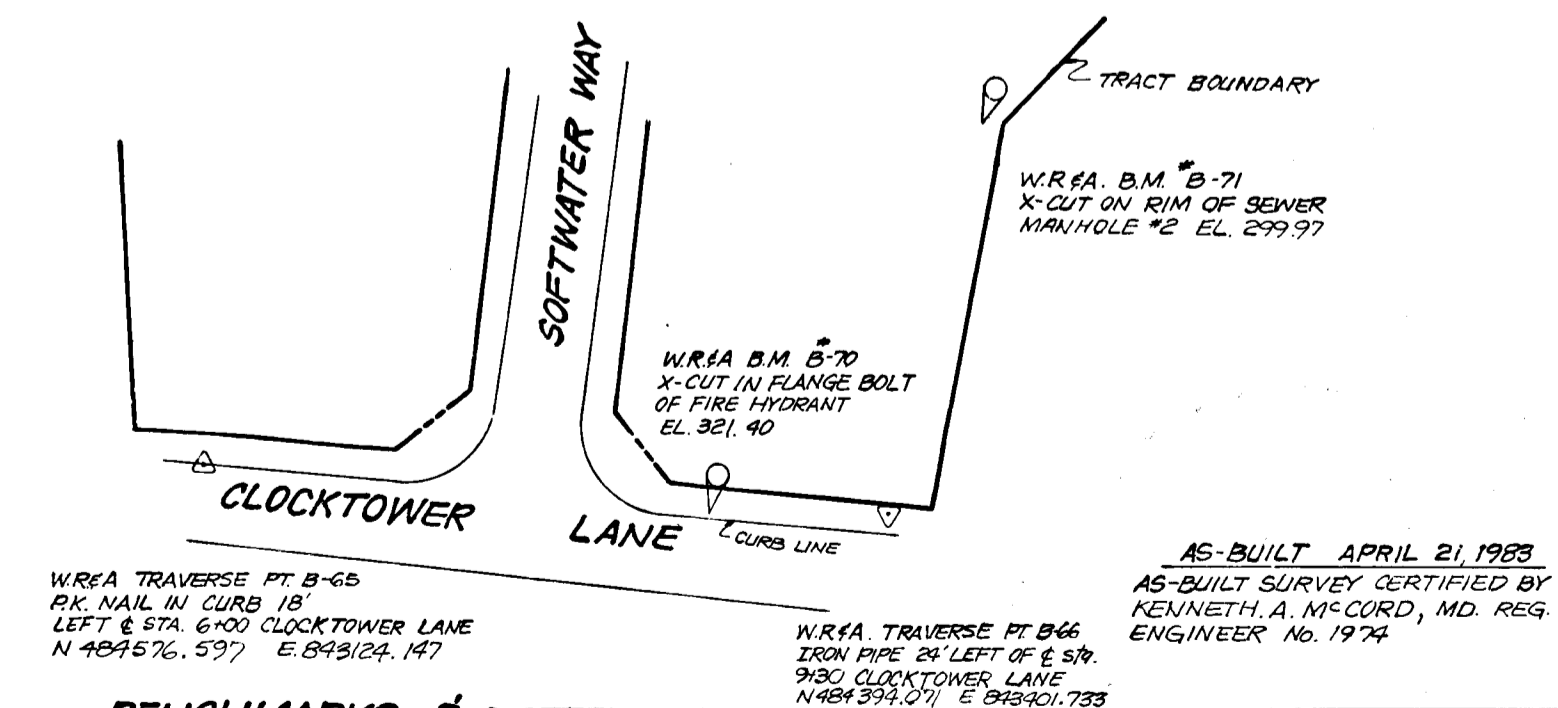
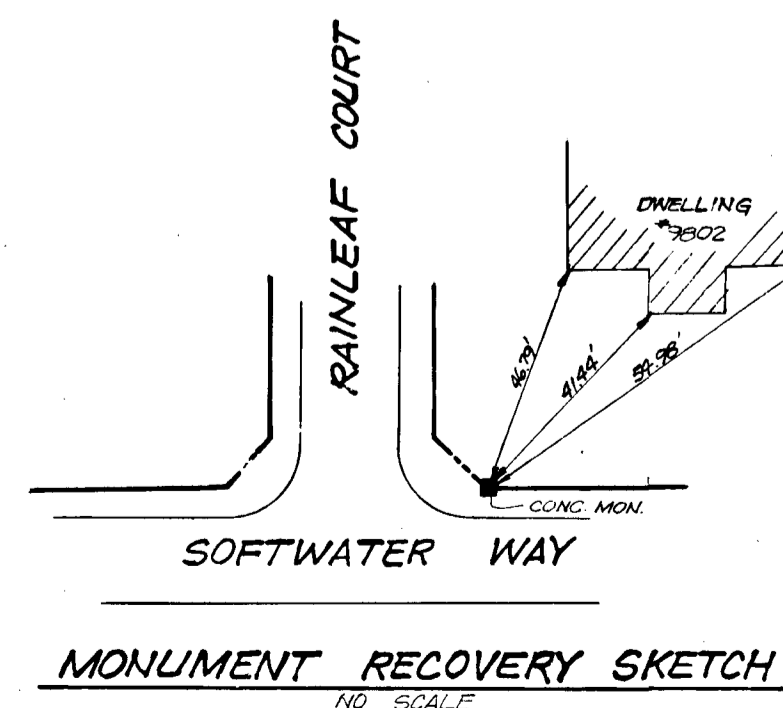
Storm Water Management Ponds #1, #3 and #4 have been designed together to provide the storage required for Parcel "B-1". See hydrologic and hydraulic computations on file in the Department of Public Works under F-79-44C. Also see Road Construction Drawings for the Village of Kings Contrivance Section 3 Areal. Pond #1 is shown on Sheet 25 of 27 File F-78-203C. Ponds #3 and #4 are shown on Sheets 35 and 36 of 37, File F-79-44C respectively.

PLAN SUBJECT TO V.P. 82-08

SHEET INDEX	
NO.	DESCRIPTION
1	TITLE SHEET
2	PLAN AND PROFILE- SOFTWATER WAY- STA. 3+47.18 TO STA. 11+97.68
3	PLAN AND PROFILE- RAINLEAF COURT- STA. 0+00 TO STA. 0+48
3	DRAINAGE AREA MAP AND STORM DRAIN PROFILES
4	DETAILS
5	SEDIMENT CONTROL
6	SEDIMENT CONTROL DETAIL & NOTES

GENERAL NOTES

- All work shall be done in accordance with Howard County Standards Specifications and Details for Construction.
- All utility companies must be notified 24 hours in advance of any construction.
- Secondary residential streets are designed for 30 mph traffic speed in accordance with AASHTO standards.
- All inlets shall be Howard County standard unless otherwise shown. All "A" inlets shall be depressed.
- Storm drain trenches within road rights-of-ways shall be backfilled and compacted in accordance with Howard County Road Code.
- Any damage to public rights-of-ways or paving will be corrected at the developer's expense.
- Approximate location of existing utilities are shown. The contractor shall take all necessary precautions to protect existing utilities and to maintain uninterrupted service. Any damage incurred due to contractor's operations shall be repaired immediately at the Contractor's expense.
- The Contractor shall test pit existing utilities where directed by the Engineer a minimum of two weeks in advance of any construction.
- Contractor to notify the Howard County Dept. of Inspections and Permits at least 3 days before starting work shown on these drawings. Telephone 992-2436.



Date	Rev. No.	Revision Description
2/27/82	2	As Per Planning and D.P.W. Comments
1/27/82	1	As Per Planning, D.P.W. & S.C.S. Comments

DEVELOPER HOWARD HOMES BUILDING CO., INC. P.O. BOX 802 COLUMBIA, MARYLAND		WHITMAN, REQUARDT & ASSOCIATES ENGINEERS 2915 ST. PAUL STREET BALTIMORE, MARYLAND 21218 <i>Kenneth A. McCord</i> KENNETH A. MCCORD Registered Engineer No. 1974
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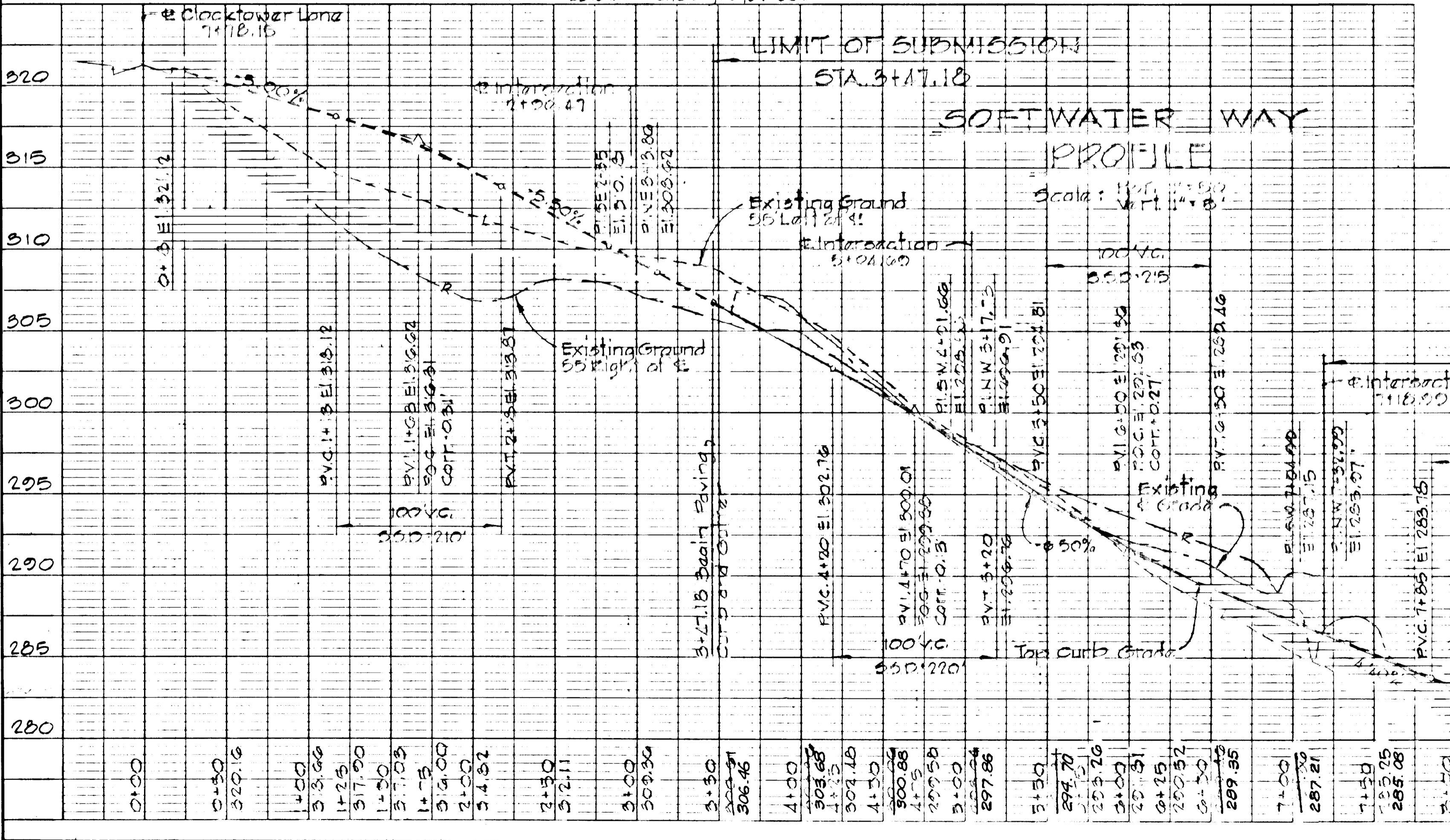
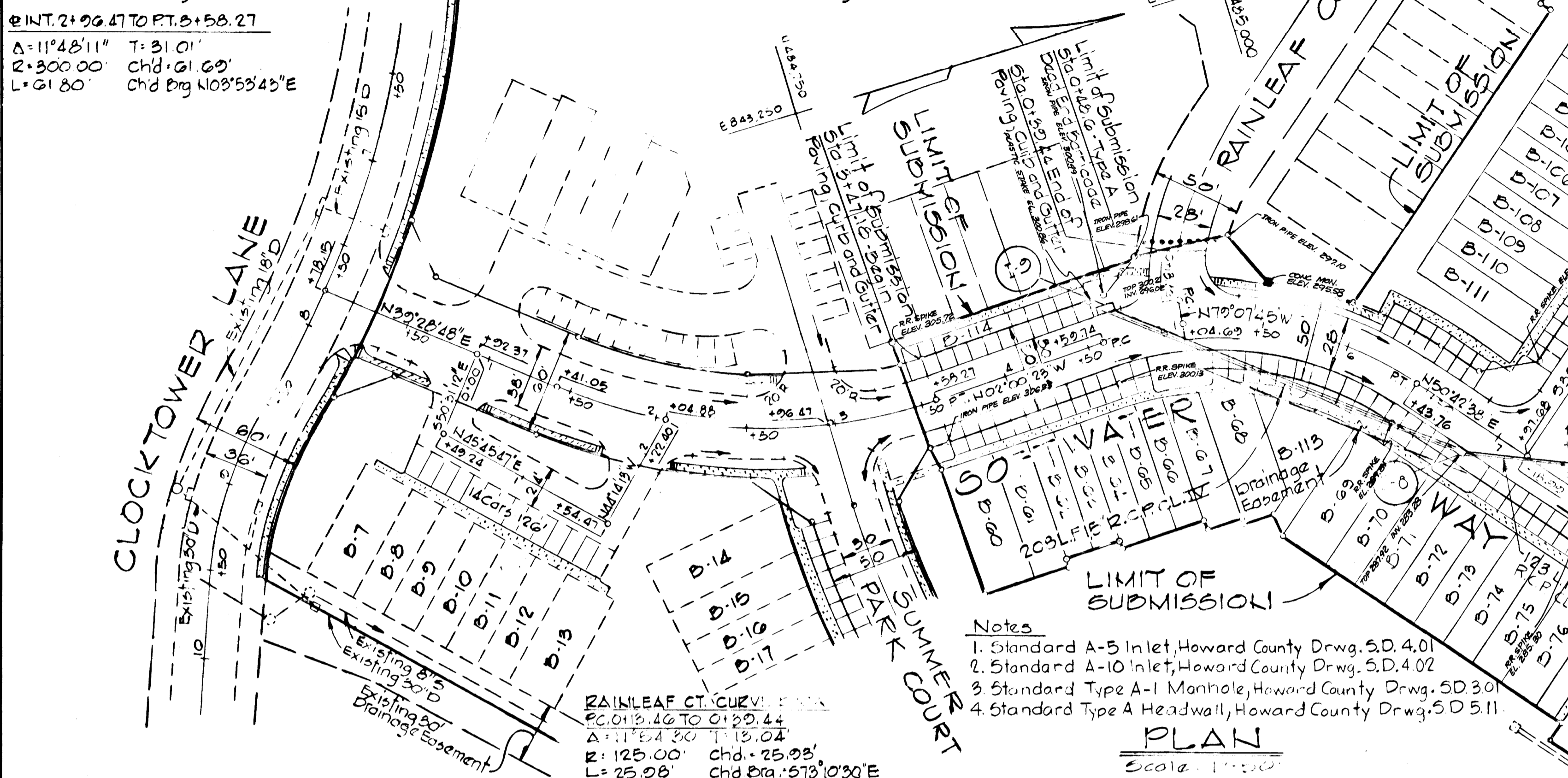
PC1+41.05 TO E INT 2+04.88
 $\Delta = 12'11.21"$ T: 22.04
 $R = 500.00$ Chd: 65.71'
 $L = 65.81'$ Chd Brg: N83°23'05"E

PC4+59.74 TO E INT 5+04.69
 $\Delta = 12'52.56"$ T: 22.57
 $R = 200.00$ Chd: 44.86'
 $L = 44.95'$ Chd Brg: N04°25'56"E

E INT 5+04.69 TO P1+64.76
 $\Delta = 29'50.25"$ T: 72.48
 $R = 200.00$ Chd: 136.28'
 $L = 139.07'$ Chd Brg: N80°47'27"E

PC9+46.95 TO PT. 9+70.12
 $\Delta = 20'00.00"$ T: 15.00'
 $R = 15.00$ Chd: 21.21'
 $L = 23.56'$ Chd Brg: N84°17'22"W

PC10+02.12 TO PT. 10+25.68
 $\Delta = 20'00.00"$ T: 15.00'
 $R = 15.00$ Chd: 21.21'
 $L = 23.56'$ Chd Brg: S05°12'38"W



STORM DRAIN STRUCTURE SCHEDULE

No.	TYPE	Top Elevation	Inv. In	Inv. Out	LOCATION
1-6	Std A-10 Inlet (width=35)	282.08	276.67	276.67	Inlet 16.41 ft Sta. 8+66.82
1-7	Std A-5 Inlet (width=25)	282.08	276.67	276.67	Inlet 15.32 ft Sta. 8+66.82
1-8	Std A-5 Inlet (width=25)	282.08	276.67	276.67	Inlet 15.32 ft Sta. 8+66.82
1-9	Std A-10 Inlet (width=35)	282.08	276.67	276.67	Inlet 17.42 ft Sta. 8+66.82
M-3	Standard A-1 Manhole	282.08	276.67	276.67	M-10.42 ft Sta. 8+14.55
S-4	Type A Headwall	274.98	274.98	274.98	See Plan & Profile

DEPARTMENT OF PUBLIC WORKS
 William E. Roy
 CHIEF, BUREAU OF ENGINEERING
 DATE: 3/11/82

OFFICE OF PLANNING & ZONING
 John W. Whisman
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION
 DATE: 5-10-82

NOTE:
 For Softwater Way and Summer Park Court profiles and storm drains, see Road Construction Drawings for Village of Kings Contrivance, Section B Area I, F-82-53 by Whisman, Reardon and Assoc.

3/25/82 3 As per Health Dept. Comments
 4/24/82 2 As per Planning and Zoning Comments
 5/14/82 1 As per Planning and Zoning Comments
 Rev Date: Rev No: Rev. Description

COLUMBIA
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD HOMES BUILDING CO., INC.

PROJECT AREA
 VILLAGE OF KINGS CONTRIVANCE
 SECTION B AREA I LOTS B-60 THRU B-114
 A RESUBDIVISION OF A PORTION OF PARCEL "B-1"

PLAN AND PROFILE
 SOFTWATER WAY STA. 3+17.18 TO STA. 11+27.68
 RAINLEAF COURT STA. 0+00 TO STA. 0+47

SCALE: AS SHOWN DATE

WHITMAN, REARDON & ASSOCIATES
 ENGINEERS
 BALTIMORE, MARYLAND 21218

Kenneth A. McCord
 KENNETH A. MCCORD
 Registered Engineer
 No. 1974

- Notes**
- Standard A-5 Inlet, Howard County Drwg. S.D. 4.01
 - Standard A-10 Inlet, Howard County Drwg. S.D. 4.02
 - Standard Type A-1 Manhole, Howard County Drwg. S.D. 3.01
 - Standard Type A Headwall, Howard County Drwg. S.D. 5.11

NOTE:
 WIDTHS OF ROAD = 28' & 30'
 LENGTH OF ROAD = 250'
 NO SEWER MHS IN ROAD R/W

RAINLEAF COURT
 ± CURVE DATA
 PC. 0+13.46 TO PT. 1+00.87
 $\Delta = 39'50.25"$ T = 45.30
 $R = 125.00'$ Chd = 85.18
 $L = 86.92'$ Chd Brg = N53°12'33"W

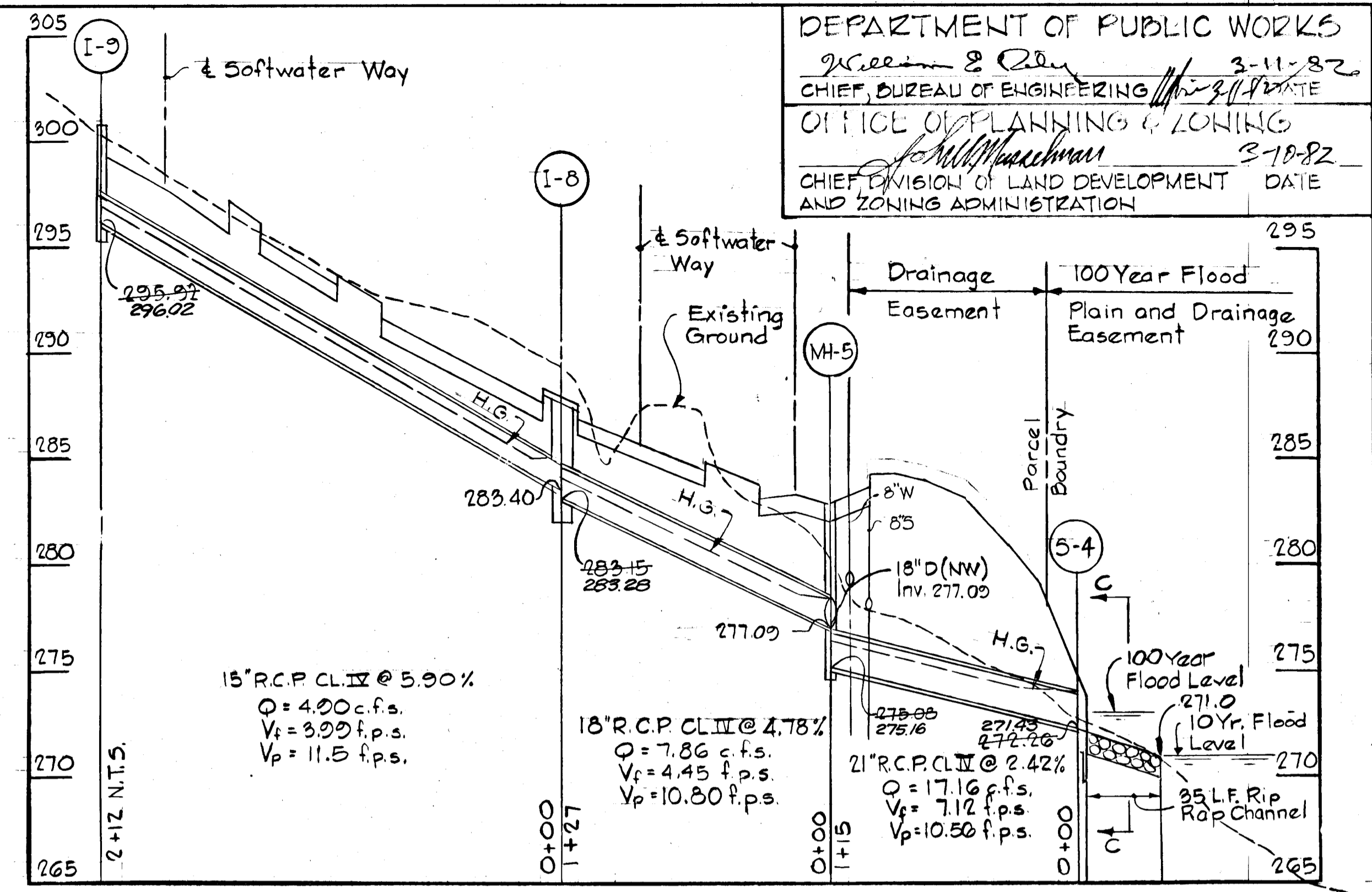
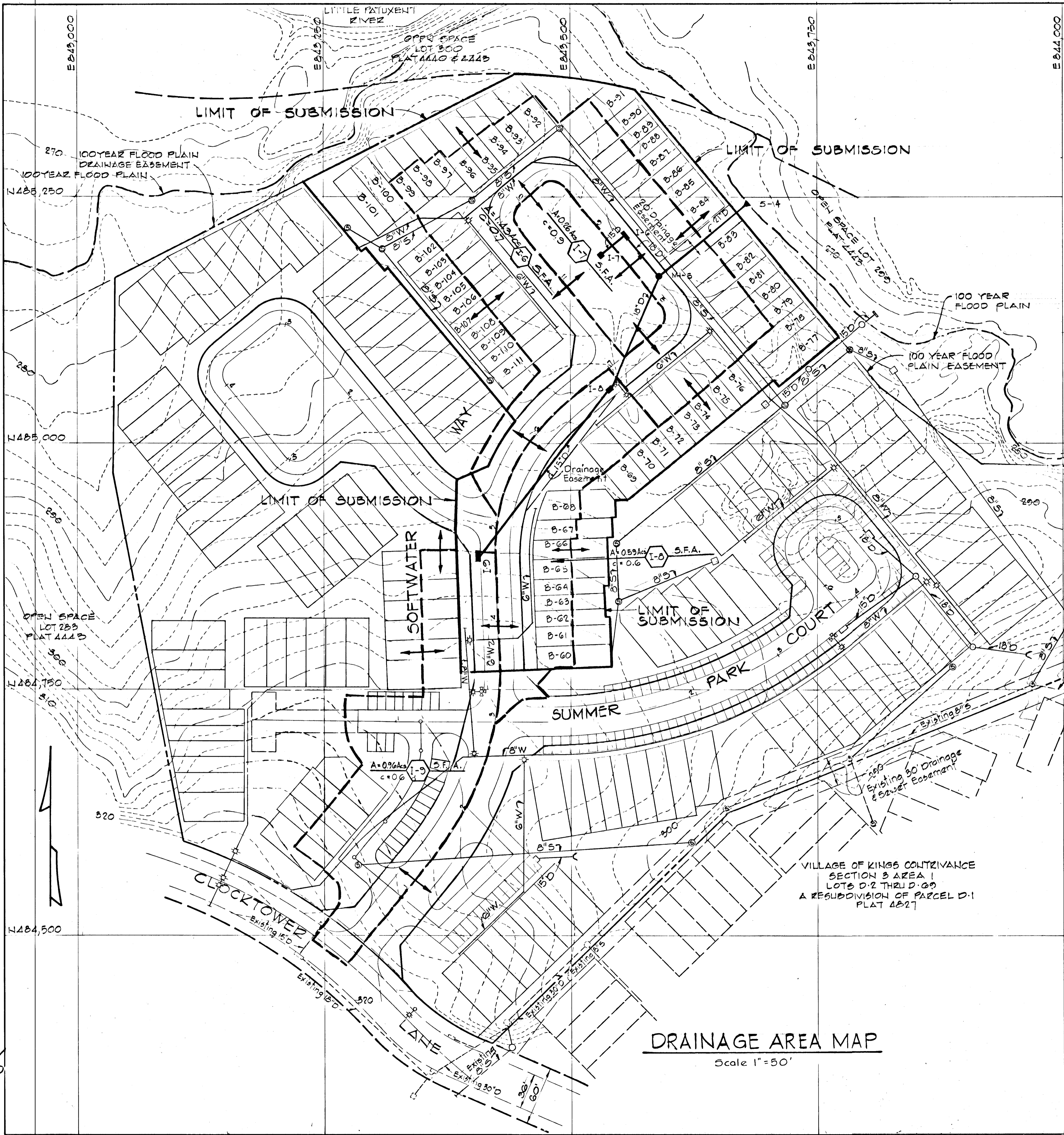
AS-BUILT 4-21-83
 AS-BUILT SURVEY PERFORMED BY
 KENNETH A. MCCORD, REG.
 PROFESSIONAL ENGINEER NO. 1974

100 YEAR FLOOD PLAIN
 AND DRAINAGE EASEMENT

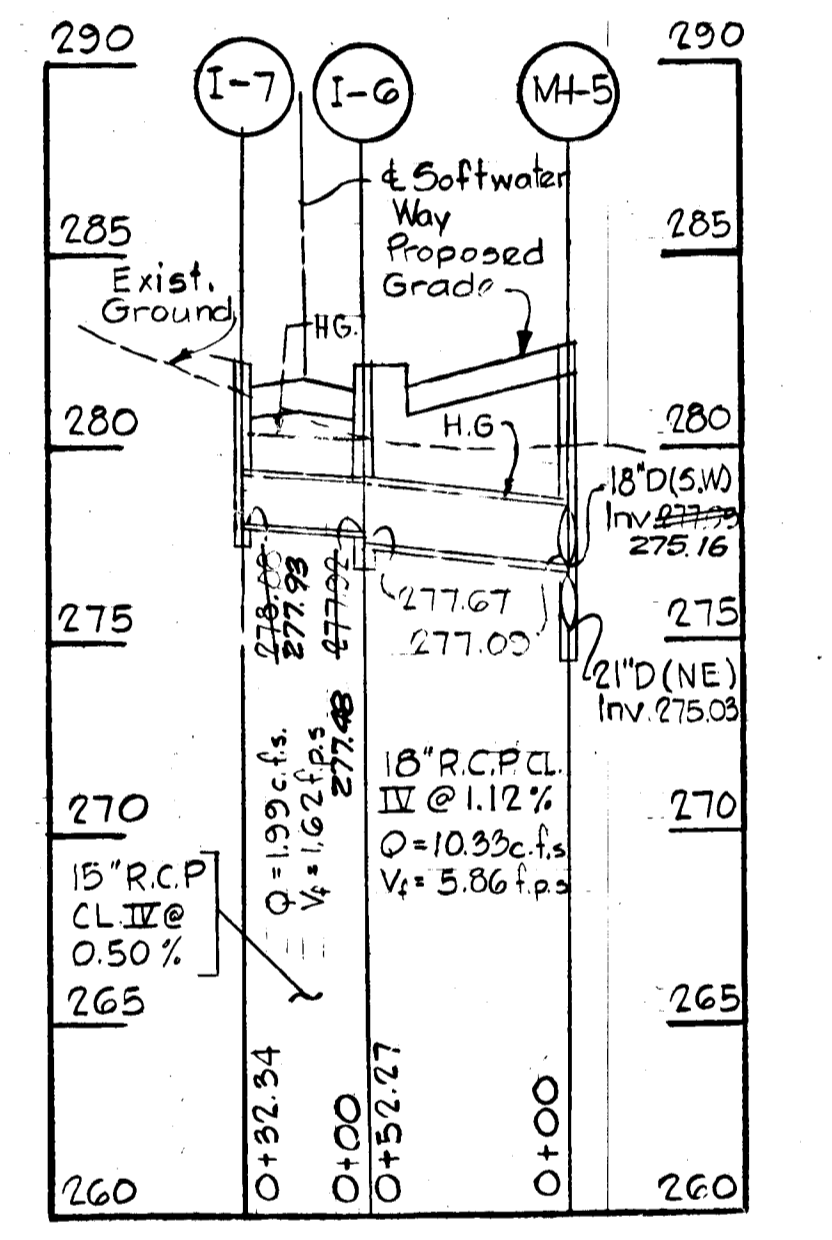
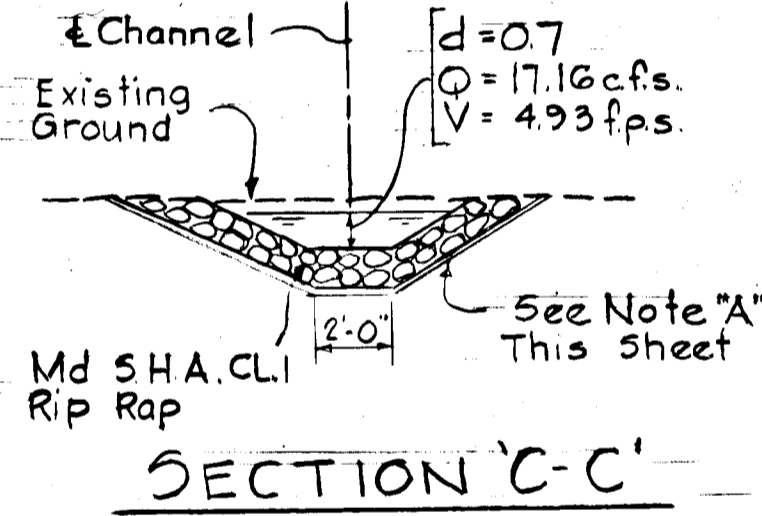
100 Year Flood Plain

35" F Rip Rap Channel

BENCH MARKS
 W.R.E.A. BM # B-70-B1 Elev. 321.40
 X-cut in flange bolt on fire hydrant on Clocktower Lane 6' Right Sta. 2+05 between P1# B-65-B1 and P1# B-66-B1.
 W.R.E.A. BM # B-71-B1 Elev. 299.97
 X-cut in rim of Sanitary Manhole 8' Right Sta. 3+41 between P1# B-66-B1 and P1# B-67-B1.



Note "A"
 Plastic Filter Cloth shall be bedded and smooth surfaced and anchored with steel pins before placement of rip rap.



VILLAGE OF KINGS CONTRIVANCE
 SECTION 3 AREA 1
 LOTS D-2 THRU D-69
 A RESUBDIVISION OF PARCEL D-1
 PLAT 4827

DRAINAGE AREA MAP
 Scale 1"=50'

AS-BUILT 4-21-1983
 AS-BUILT SURVEY CERTIFIED BY
 KENNETH A. McCORD, MD. REG.
 ENGINEER No. 1974

REVIEWED FOR HOWARD S.C.D.
 AND MEETS TECHNICAL REQUIREMENTS
 3-2-82
 DATE
 U.S. SOIL CONSERVATION SERVICE
 THIS DEVELOPMENT PLAN IS
 APPROVED FOR SOIL EROSION AND
 SEDIMENT CONTROL BY THE HOWARD
 SOIL CONSERVATION DISTRICT
 APPROVED: 3-2-82
 HOWARD S.C.D. DATE

01/25/82	3	As Per Health Dept. Comments
2/24/82	2	As Per Planning and D.P.W. Comments
1/22/82	1	As Per Planning, D.P.W. & S.C.D. Comments
Rev. No.	Rev. No.	Revision Description

COLUMBIA
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

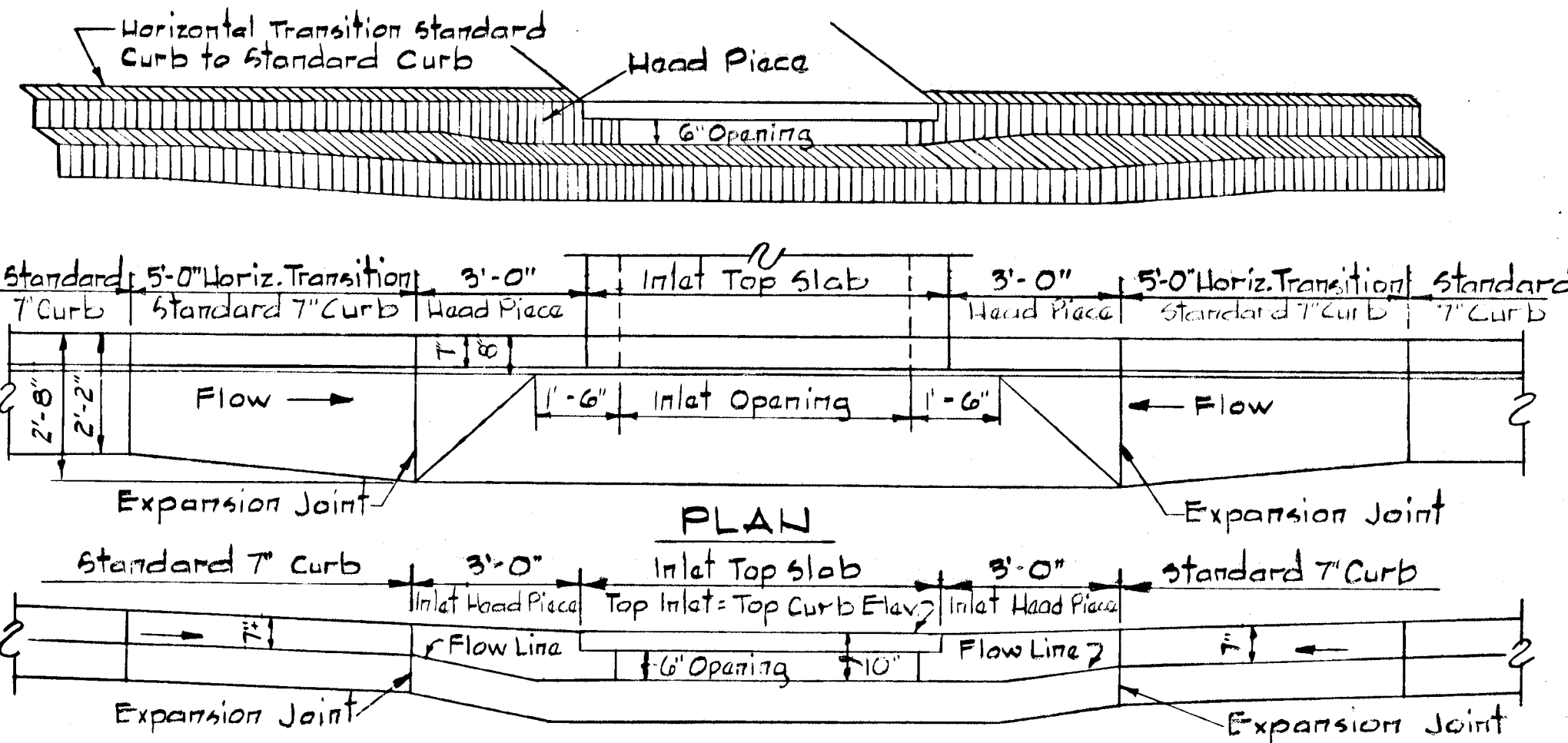
OWNER AND DEVELOPER
 HOWARD HOMES BUILDING CO., INC.

PROJECT AREA
 VILLAGE OF KINGS CONTRIVANCE
 SECTION 3 AREA 1 LOTS B-60 THRU B-114
 A RESUBDIVISION OF A PORTION OF PARCEL B-1
 PROJECT TITLE

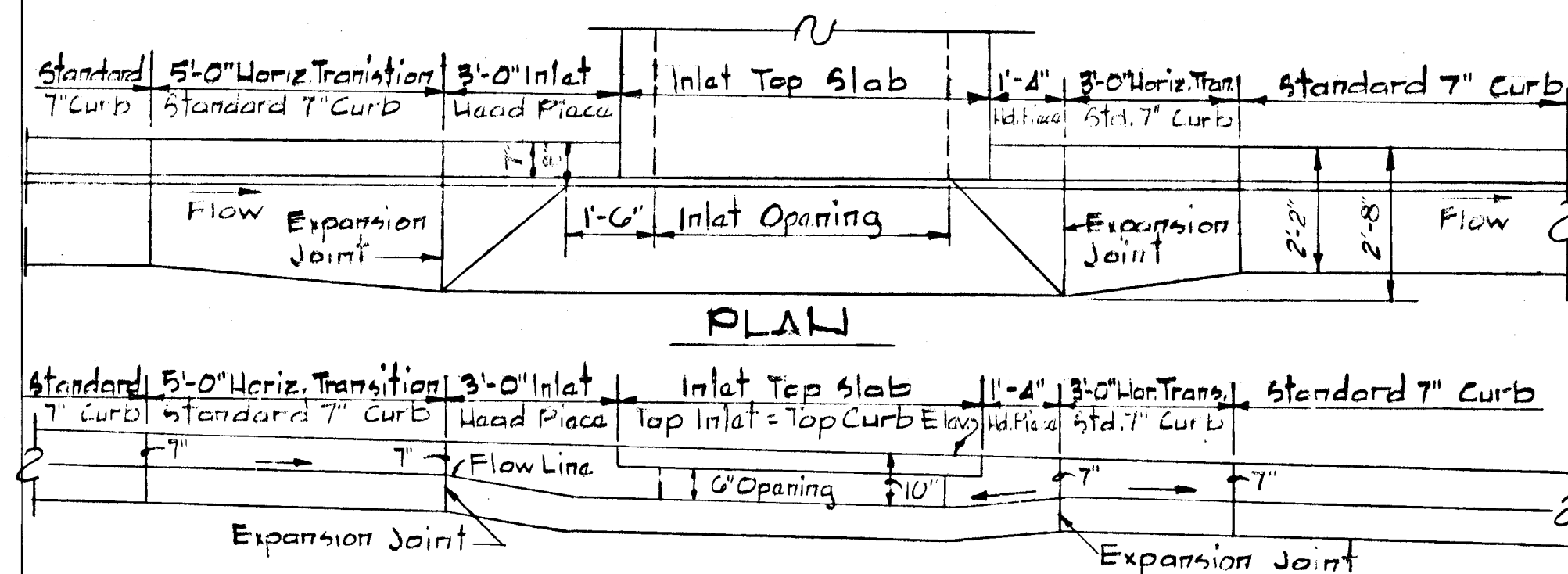
DRAINAGE AREA MAP
 STORM DRAIN PROFILES

SCALE: AS SHOWN DATE:
 WHITMAN, REQUARDT AND ASSOCIATES
 ENGINEERS
 2315 ST. PAUL STREET
 BALTIMORE, MARYLAND 21218

APPROVED: Kenneth A. McCord
 KENNETH A. McCORD
 Registered Engineer
 No. 1074

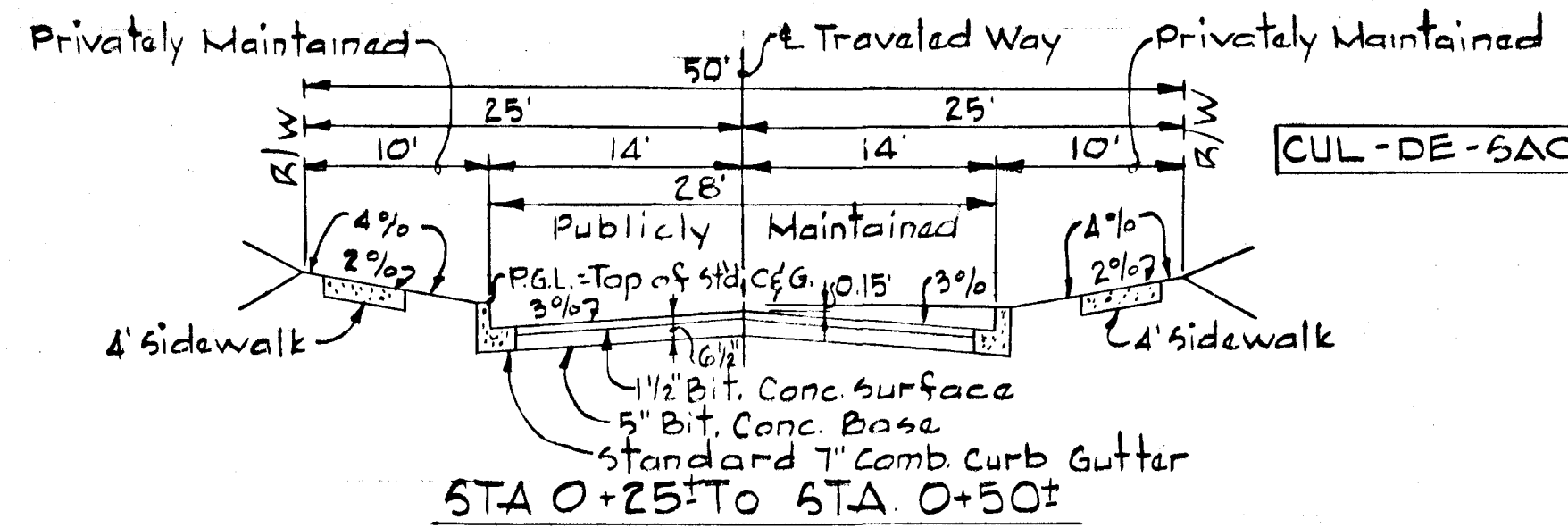


SECTION ALONG FLOW LINE
SLUMPED "A" INLETS - STANDARD CURB

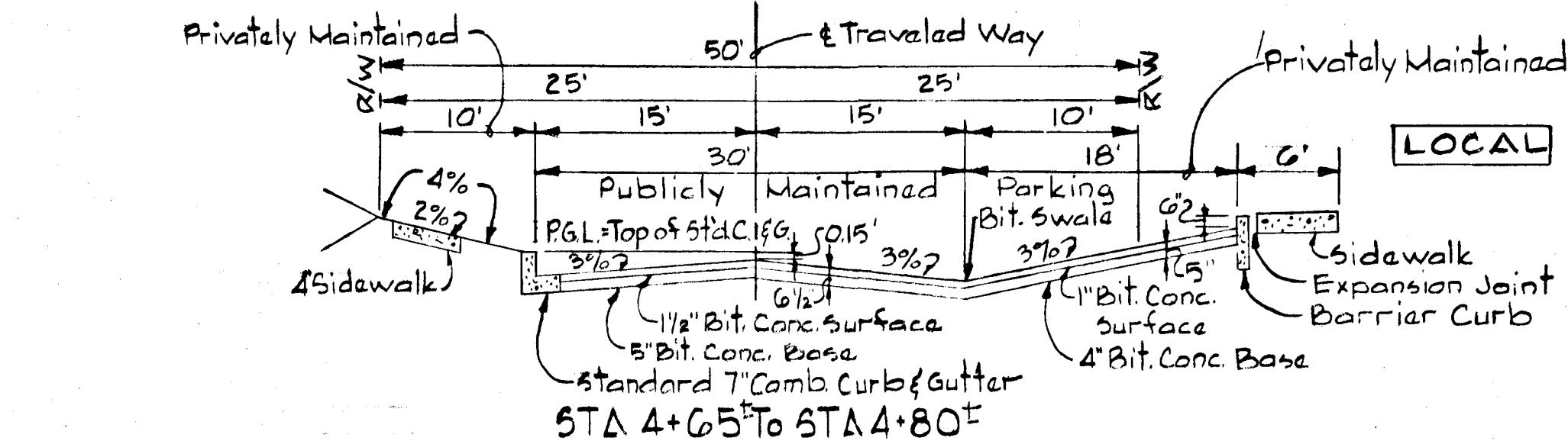


SECTION ALONG FLOW LINE
"A" INLETS - STANDARD CURB

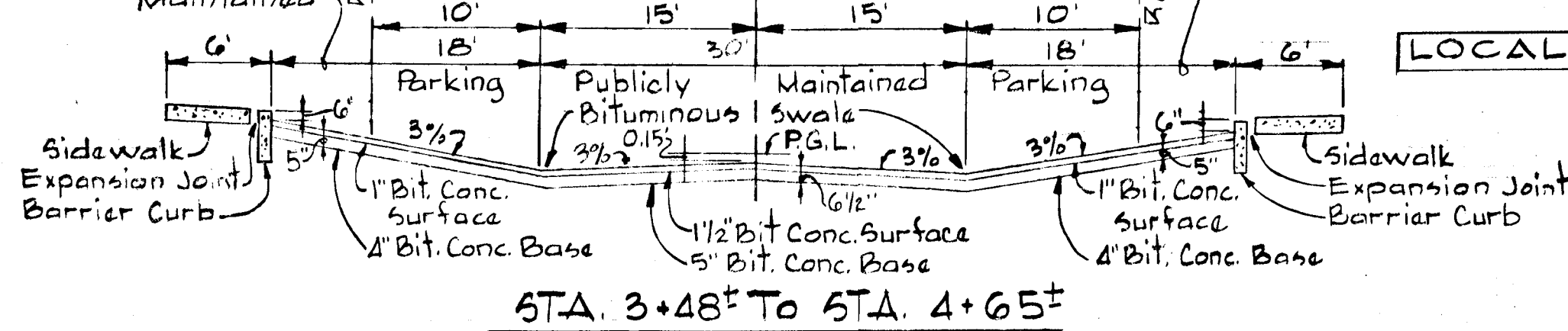
ALL TYPICAL SECTIONS SHOWN HEREON APPLY TO NEW TOWN DESIGN. SPEED LIMIT EQUALS 30 MPH FROM STA. 2+47.18 TO STA. 2+20. SPEED LIMIT DOES NOT APPLY BEYOND STA. 2+20



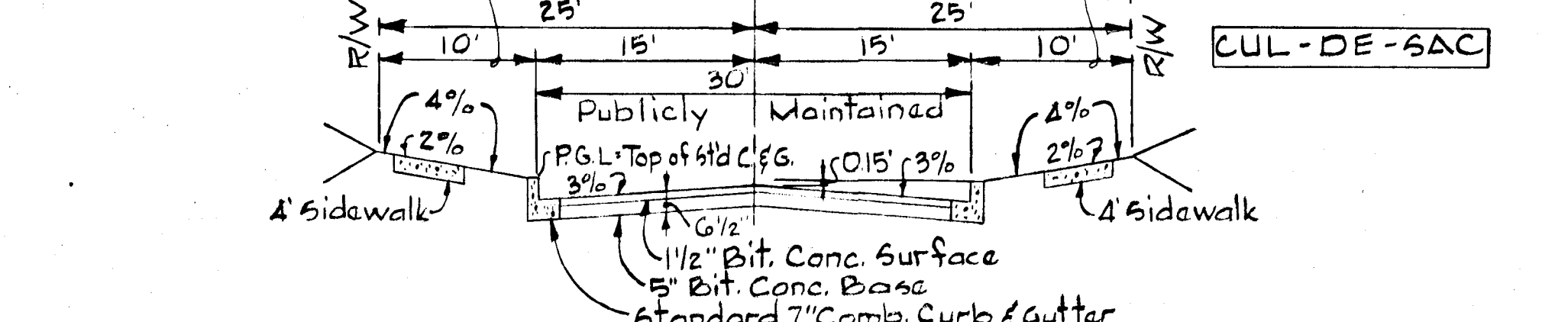
TYPICAL SECTION - RAINLEAF COURT



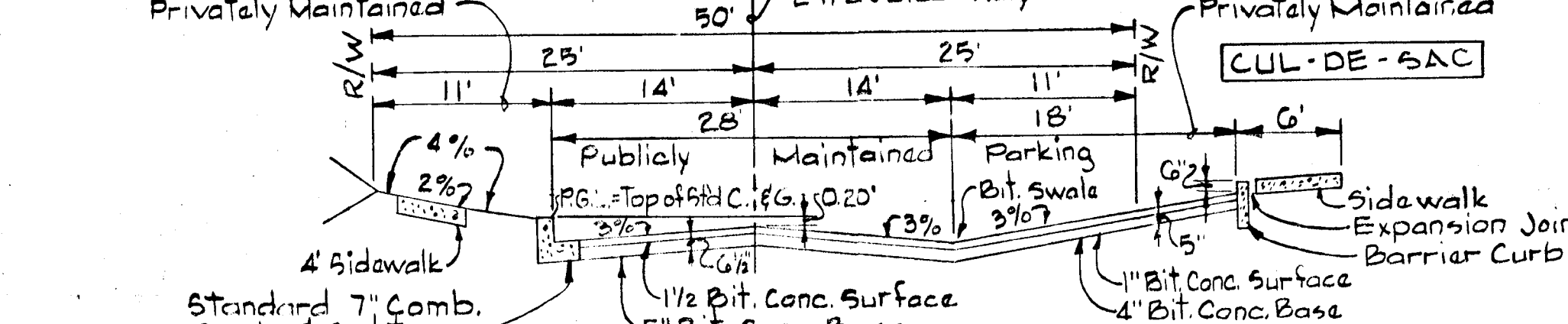
TYPICAL SECTION - SOFTWATER WAY



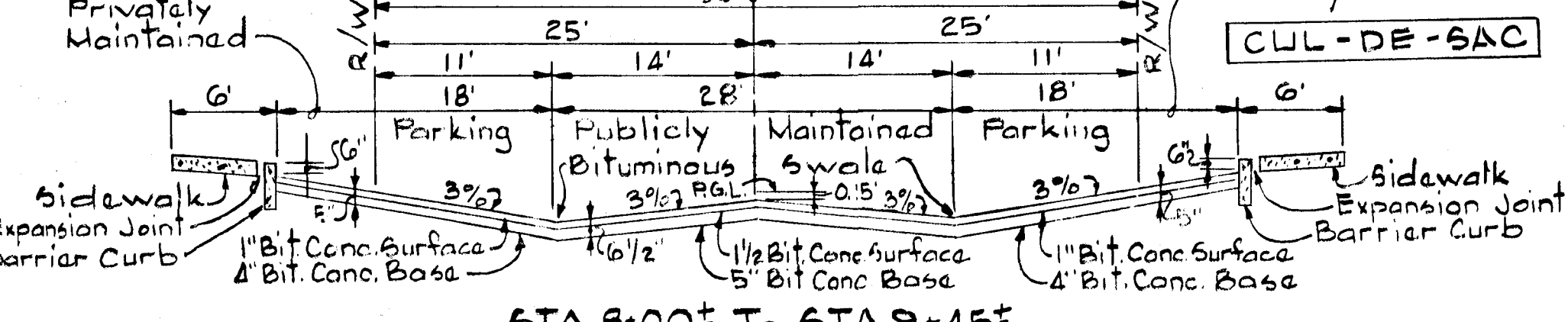
TYPICAL SECTION - SOFTWATER WAY



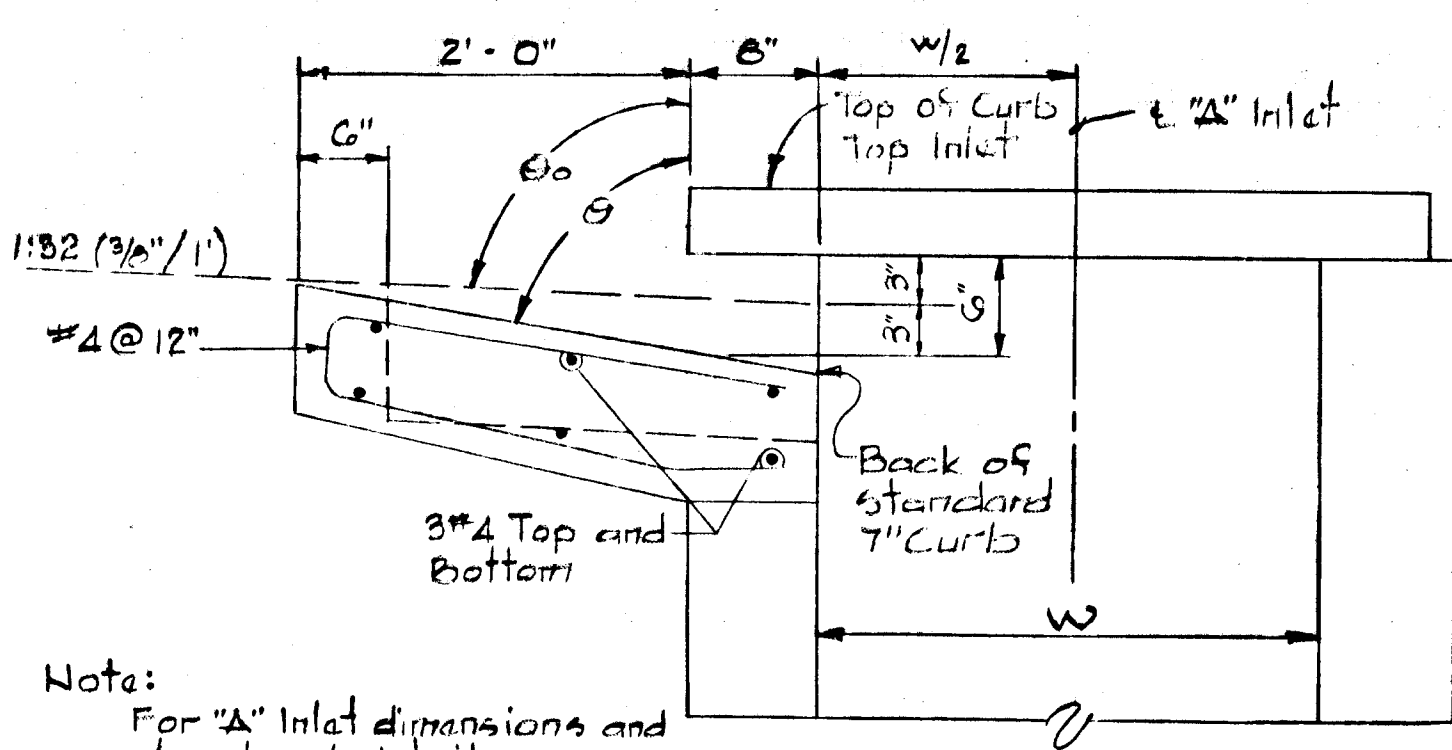
TYPICAL SECTION - SOFTWATER WAY



TYPICAL SECTION - SOFTWATER WAY



TYPICAL SECTION - SOFTWATER WAY



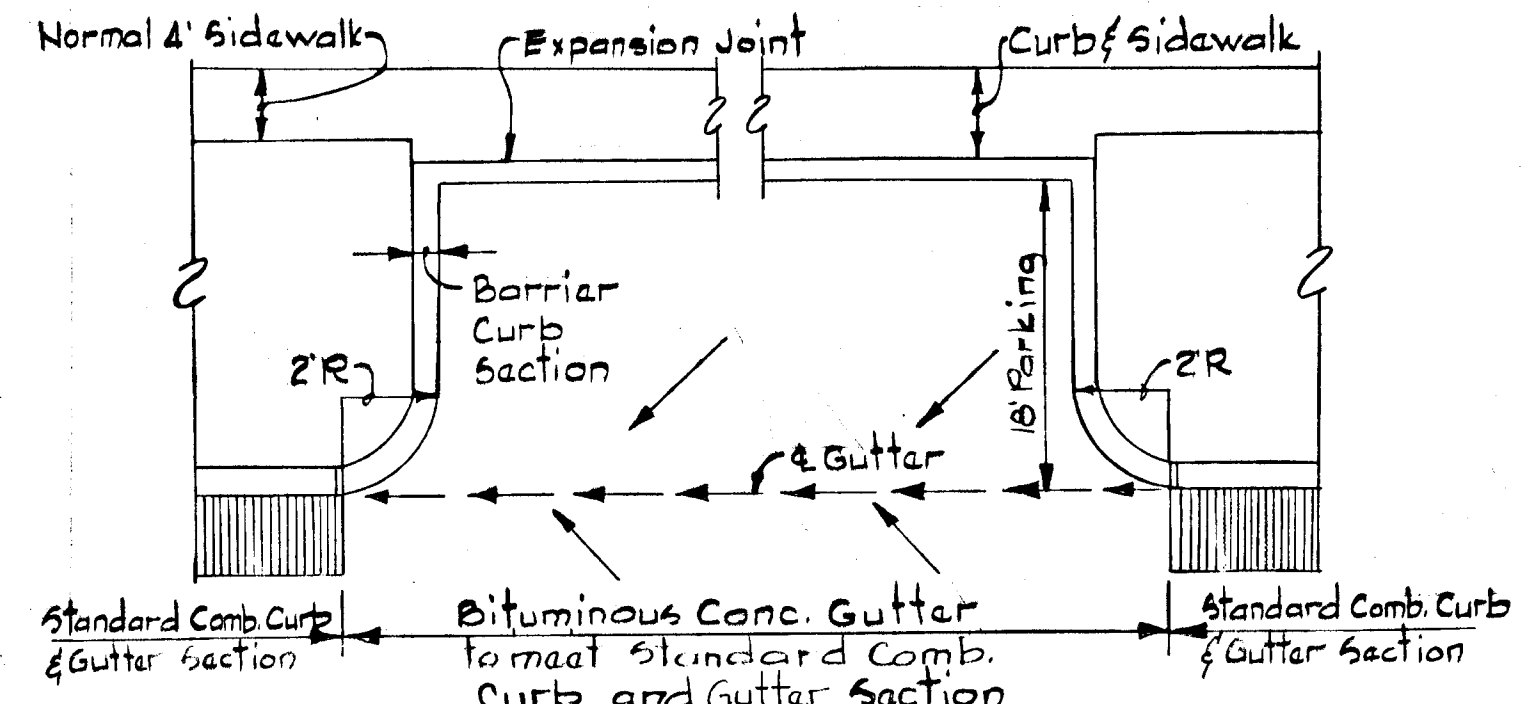
SECTION "A" INLET STANDARD CURB

ROADWAY CONSTRUCTION NOTES:

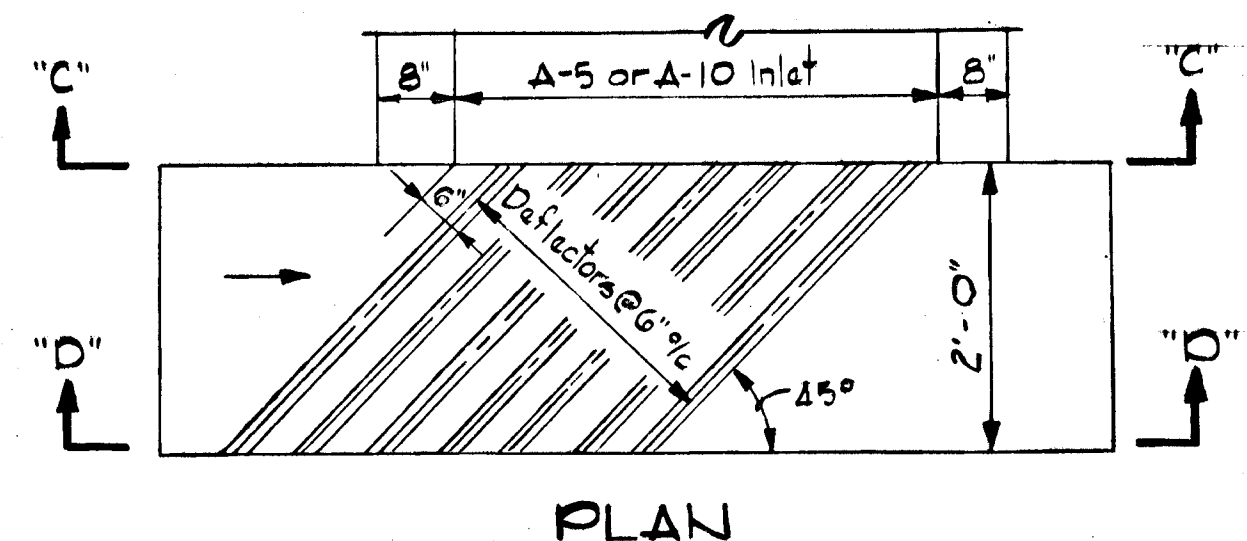
- All materials and construction methods shall be in accordance with the Howard County Standard Specifications and Details for Construction.
- Standard 7" Comb and Modified Curb and Gutter shall be in accordance with County Standard Detail R-3.01.
- Paving (5") shall be in accordance with County Standard Detail R-2.01 (Paving Section P-1).
- Paving (6 1/2") shall be in accordance with County Standard Detail R-2.01 (Paving Section P-2).
- Sidewalks shall be in accordance with County Standard Detail R-3.05.
- Base will be primed in accordance with Article B3.04 of the Howard County Standard Specifications.
- Tack Coat is required in accordance with the Howard County Standard Specifications.

DEPARTMENT OF PUBLIC WORKS
 CHIEF, BUREAU OF ENGINEERING
 OFFICE OF PLANNING & ZONING
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

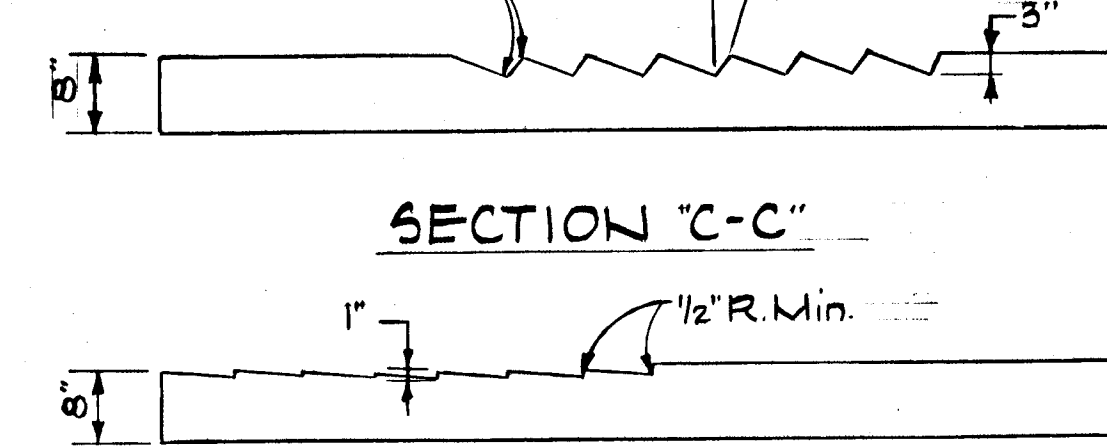
*Granular Base Alternates may be substituted at the option of the Developer.



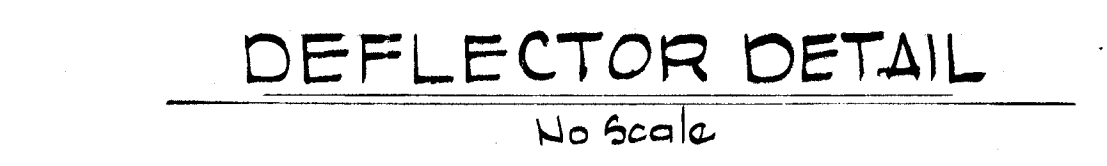
CURB GUTTER TRANSITION DETAIL



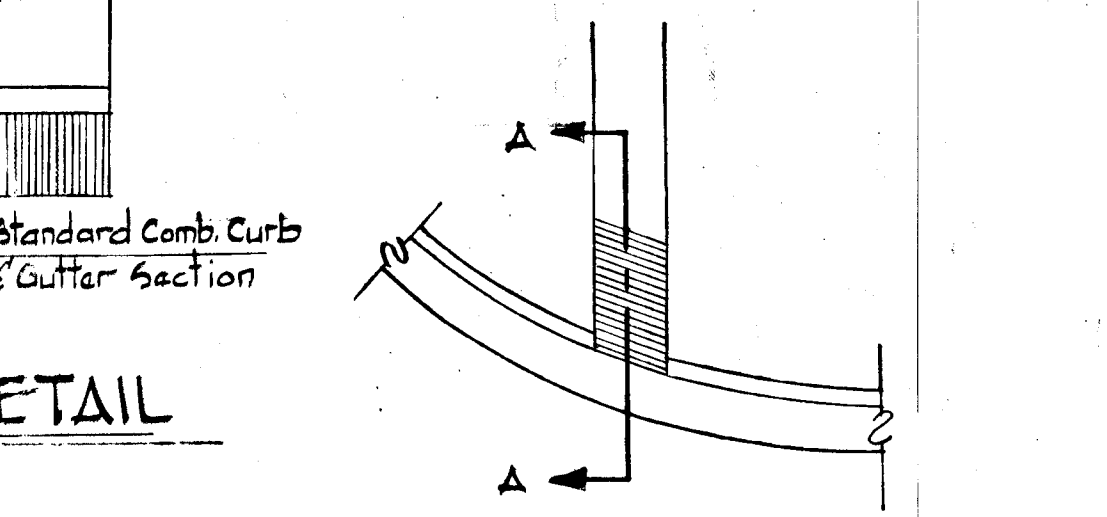
DEFLECTOR DETAIL



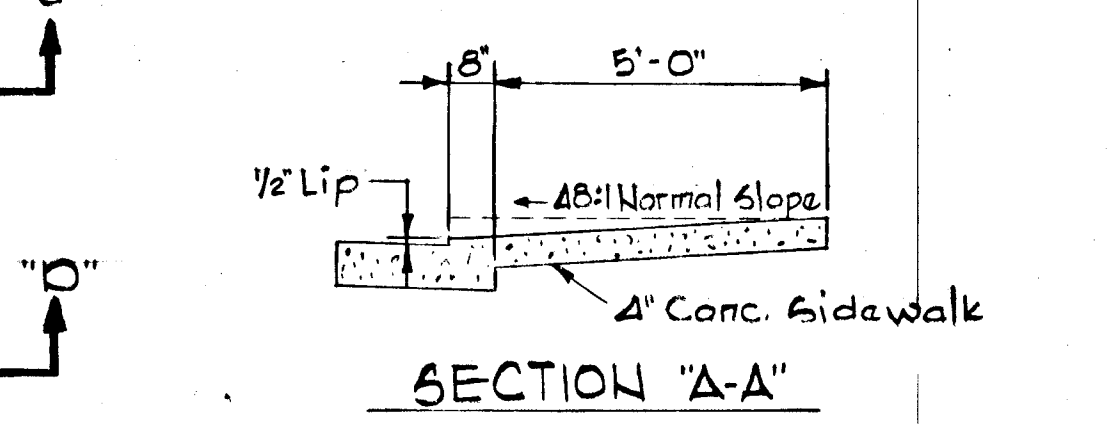
SECTION "C-C"



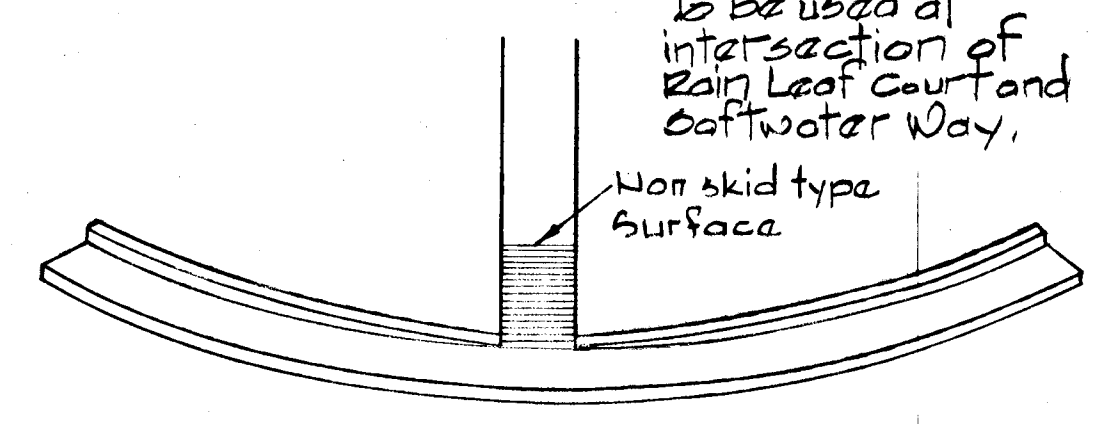
SECTION "D-D"



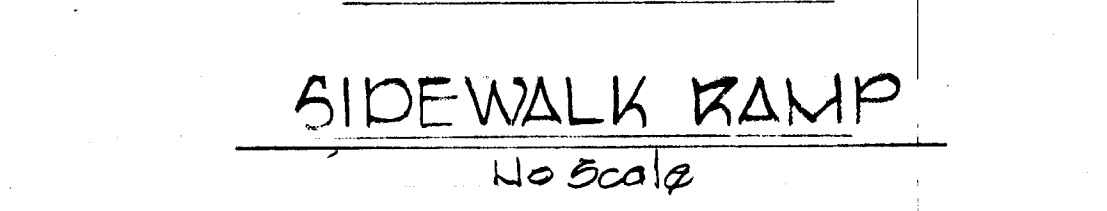
PLAN



SECTION "A-A"



ISOMETRIC VIEW



SIDEWALK RAMP

Rev. Date	Rev. No.	Revision Description
2/22/82	2	As per Planning and D.P.W. Comments
1/22/82	1	As per Planning, D.P.W. & S.C.S. Comments

COLUMBIA
 GIBBLETON DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD HOMES BUILDING CO., INC.

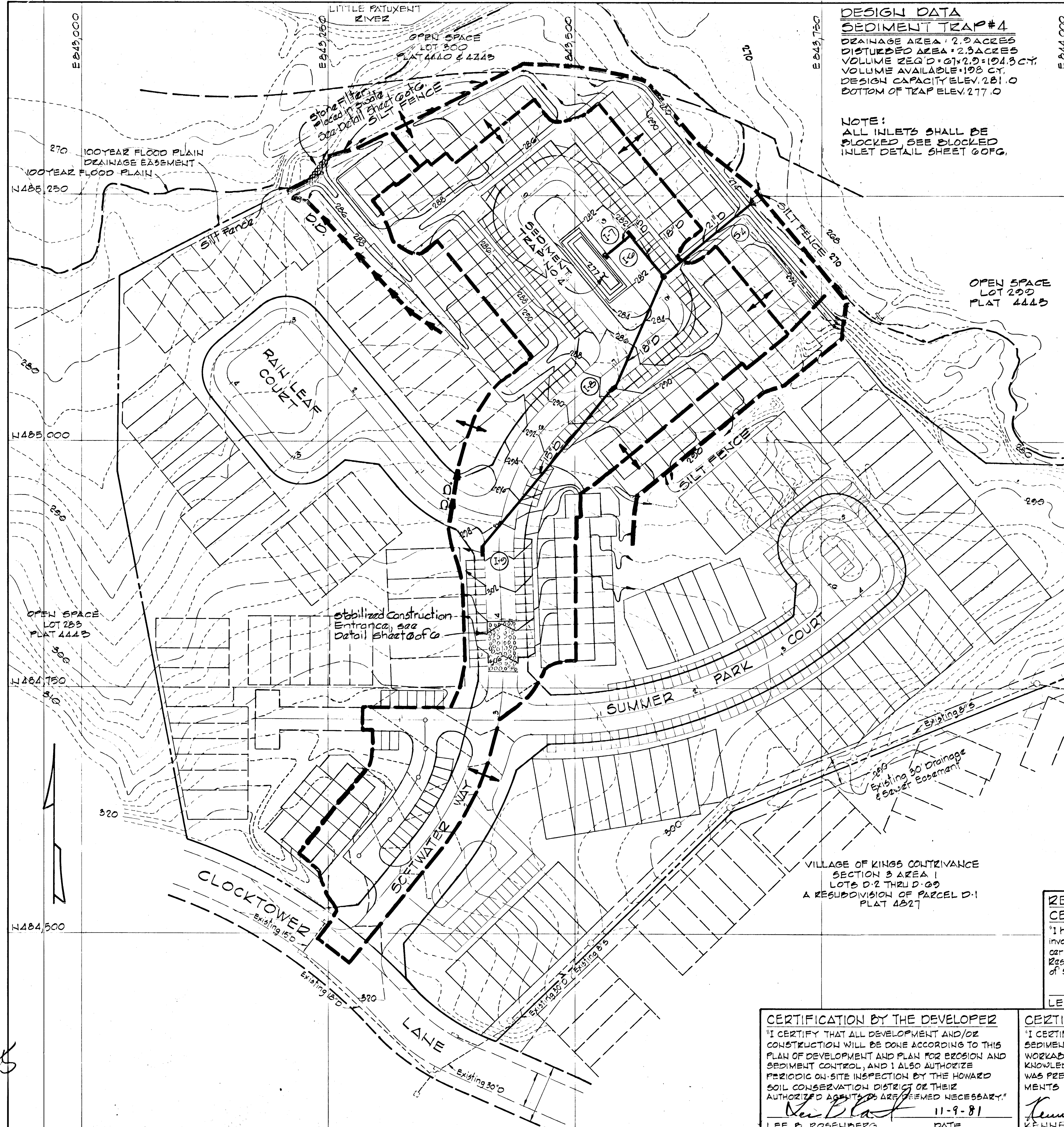
PROJECT AREA
 VILLAGE OF KINGS CONTRIVANCE
 SECTION 3 AREA 1 LOTS B-60 TO B-114
 A RESUBDIVISION OF A PORTION OF PARCEL "B-1"

PROJECT TITLE
STANDARD DETAILS

SCALE: AS SHOWN DATE: _____

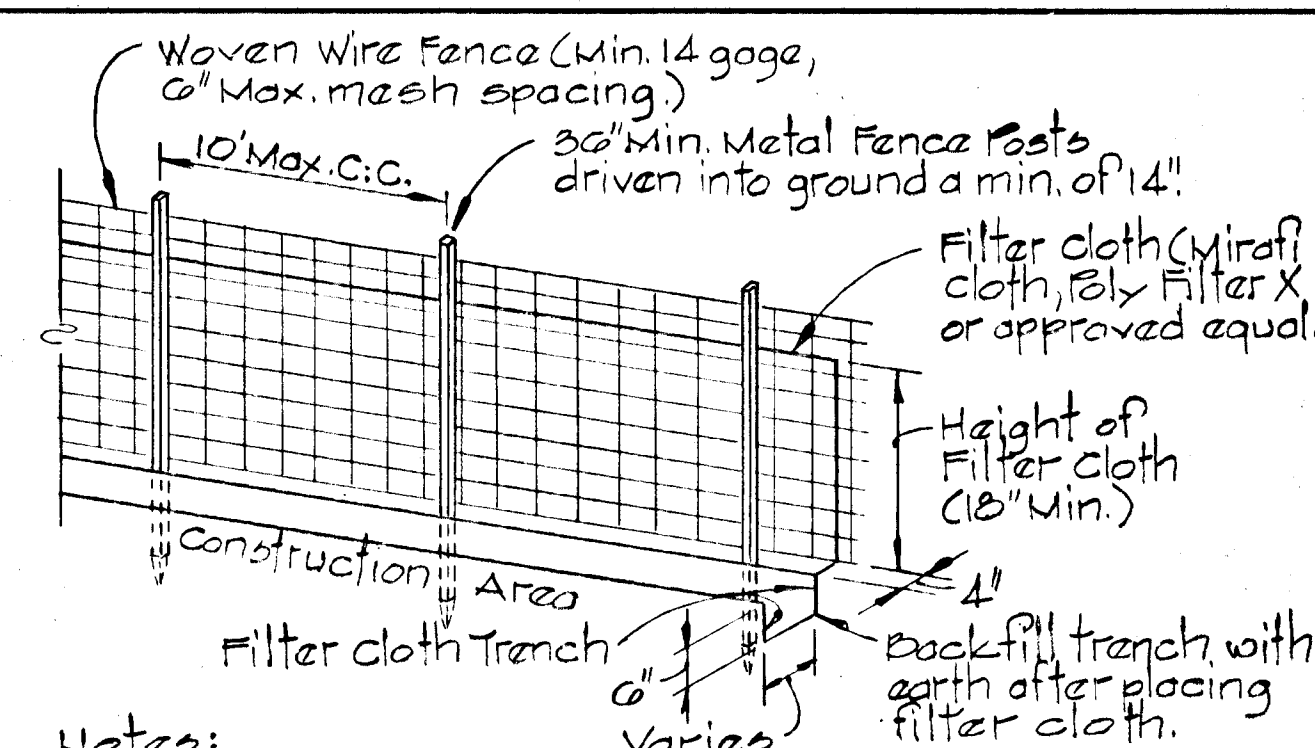
WHITMAN, REQUARDT AND ASSOCIATES
 ENGINEERS
 2315 ST. PAUL STREET
 BALTIMORE, MARYLAND 21202

Kenneth A. McCord
 KENNETH A. McCORD
 Registered Engineer
 No. 1974



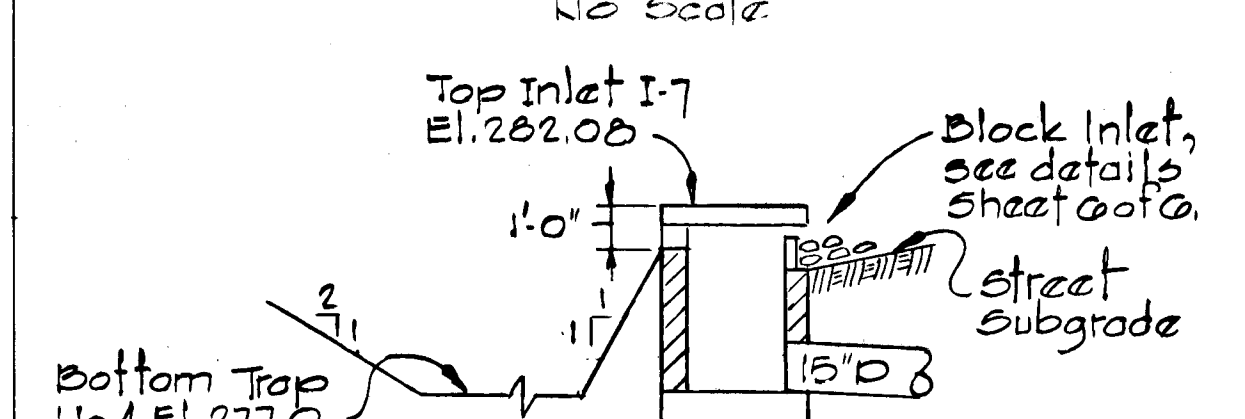
DESIGN DATA
SEDIMENT TRAP #4
 DRAINAGE AREA: 2.0 ACRES
 DISTURBED AREA: 2.3 ACRES
 VOLUME REQ'D: 67,200 = 104.3 CY
 VOLUME AVAILABLE: 198 CY
 DESIGN CAPACITY: ELEV. 281.0
 BOTTOM OF TRAP: ELEV. 277.0

NOTE:
 ALL INLETS SHALL BE
 BLOCKED, SEE BLOCKED
 INLET DETAIL SHEET 60FG.



Notes:
 1. Woven wire fence to be fastened securely to fence posts by use of wire ties.
 2. Filter cloth to be fastened securely to woven wire fence by use of wire ties spaced every 24" x 24".

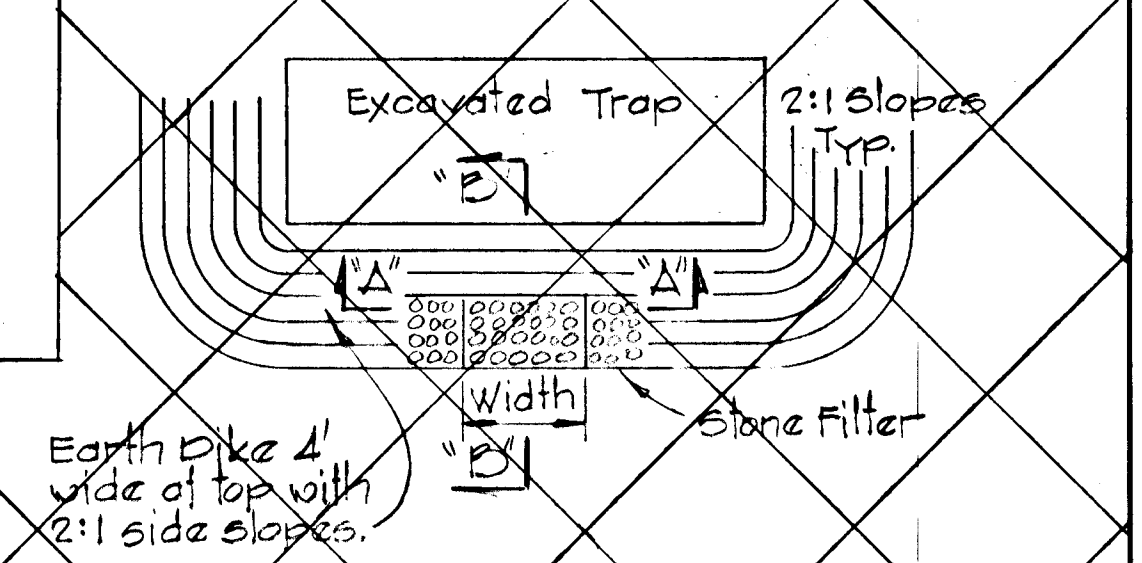
SILT FENCE DETAIL



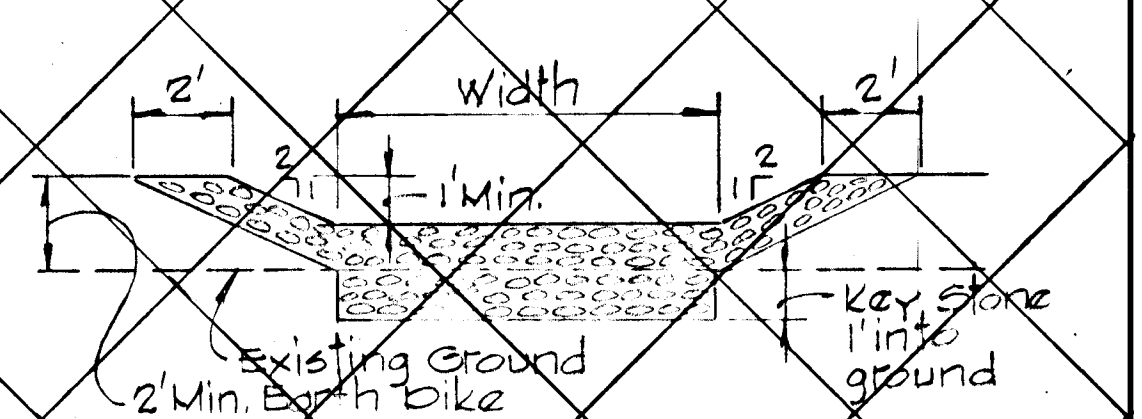
SECTION THRU TRAP NO. 4 @ INLET I-7

Scale: 1" = 5' H & V

DEPARTMENT OF PUBLIC WORKS
 3-11-82
 CHIEF, BUREAU OF ENGINEERING
 OFFICE OF PLANNING & ZONING
 3-10-82
 CHIEF, DIVISION OF LAND DEVELOPMENT AND ZONING ADMINISTRATION

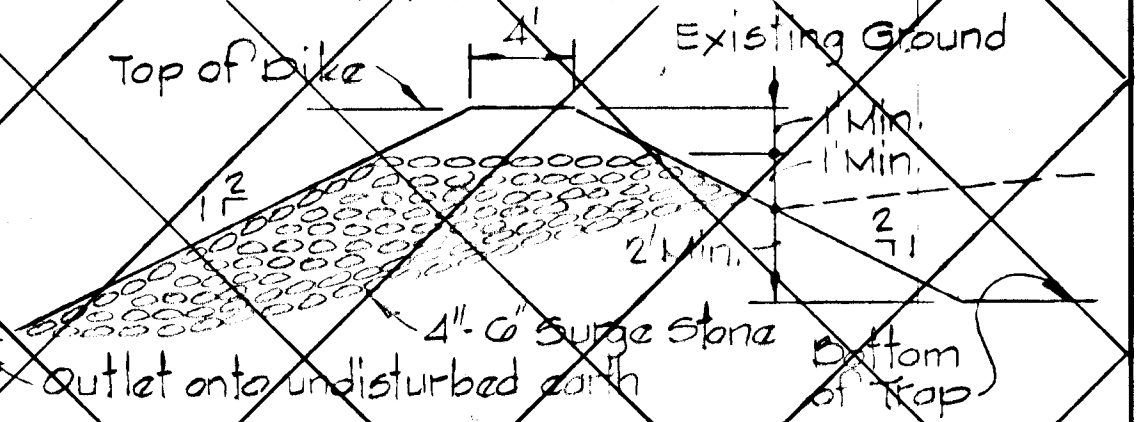


TYPICAL PLAN - EXCAVATED TRAP



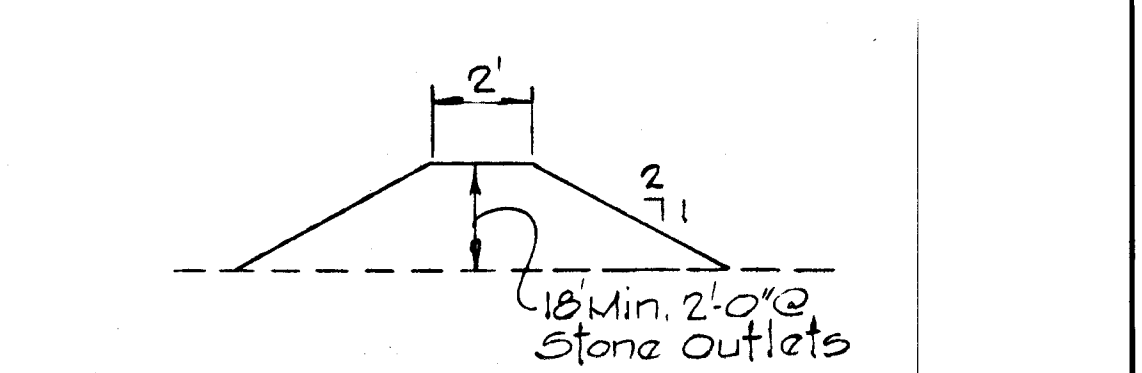
SECTION "A-A"

NOT APPLICABLE



SECTION "B-B"
TRAP AND STONE FILTER DETAIL

No Scale



DIVERSION DIKE

No Scale

SITE ANALYSIS
 AREA OF IMPERVIOUS - 2.0 ACRES
 AREA TO BE VEGETATED - 1.7 ACRES

LEGEND

- DIVERSION DIKE
- SILT FENCE
- DRAINAGE AREA LINE

RESPONSIBLE PERSONNEL CERTIFICATION

"I hereby certify that any responsible personnel involved in the construction project will have a certificate of attendance at a Department of Natural Resources approved training program for the control of Sediment and Erosion before beginning the project."

Lee B. Rosenberg 11-9-81
 LEE B. ROSENBERG DATE

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS

Daryl B. Baber 3-2-82
 DATE

U.S. SOIL CONSERVATION SERVICE

CERTIFICATION BY THE DEVELOPER

"I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL, AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS DEEMED NECESSARY."

Lee B. Rosenberg 11-9-81
 LEE B. ROSENBERG DATE

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 11-9-81
 KENNETH A. MCCORD PE 1074 DATE

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

APPROVED *Lee B. Baber* 3-2-82
 HOWARD S.C.D. DATE

Rev. No.	Rev. Date	Revision Description
2	2/22/82	As Per Planning and D.P.W. Comments
1	1/22/82	As Per Planning, D.P.W. & S.C.S. Comments

COLUMBIA
 6TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

OWNER AND DEVELOPER
 HOWARD HOMES BUILDING CO., INC.

PROJECT AREA
 VILLAGE OF KINGS CONTEINANCE SECTION 3 AREA 1 LOTS B-G THRU B-114 A RESUBDIVISION OF A PORTION OF PARCEL B-1

PROJECT TITLE
 SEDIMENT CONTROL PLAN AND DETAILS

SCALE: AS SHOWN DATE:

WHITMAN, REQUARDT AND ASSOCIATES ENGINEERS
 2315 ST. PAUL STREET
 BALTIMORE, MARYLAND 21218

Kenneth A. McCord
 KENNETH A. MCCORD
 Registered Engineer
 No. 1074

SEDIMENT CONTROL NOTES

- See Sequence of Construction on this sheet.
- The Sediment Control measures shall be constructed as shown on these drawings.
- All diversion areas shall be seeded as specified in notes 4 and 5. All other surfaces to be permanently seeded. See Specifications on this sheet.
- The diversion dikes shall be hydroseeded as follows:
 - Ground Limestone (50#/1000#)
 - Fertilizer 10-10-10 (25#/1000#)
 - Seed Mixture Rye Grass (40#/Acres)
- Mulch with straw at the rate of 50#/1000# or one ton/acre Anchor with asphalt at the rate of 480 gallons/acre.

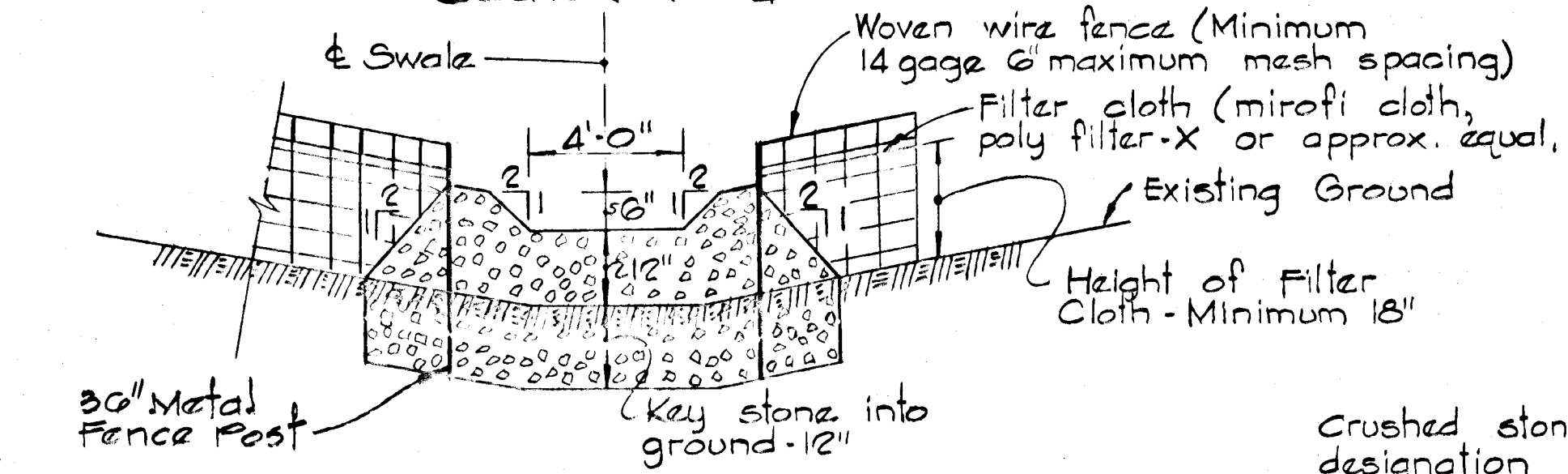
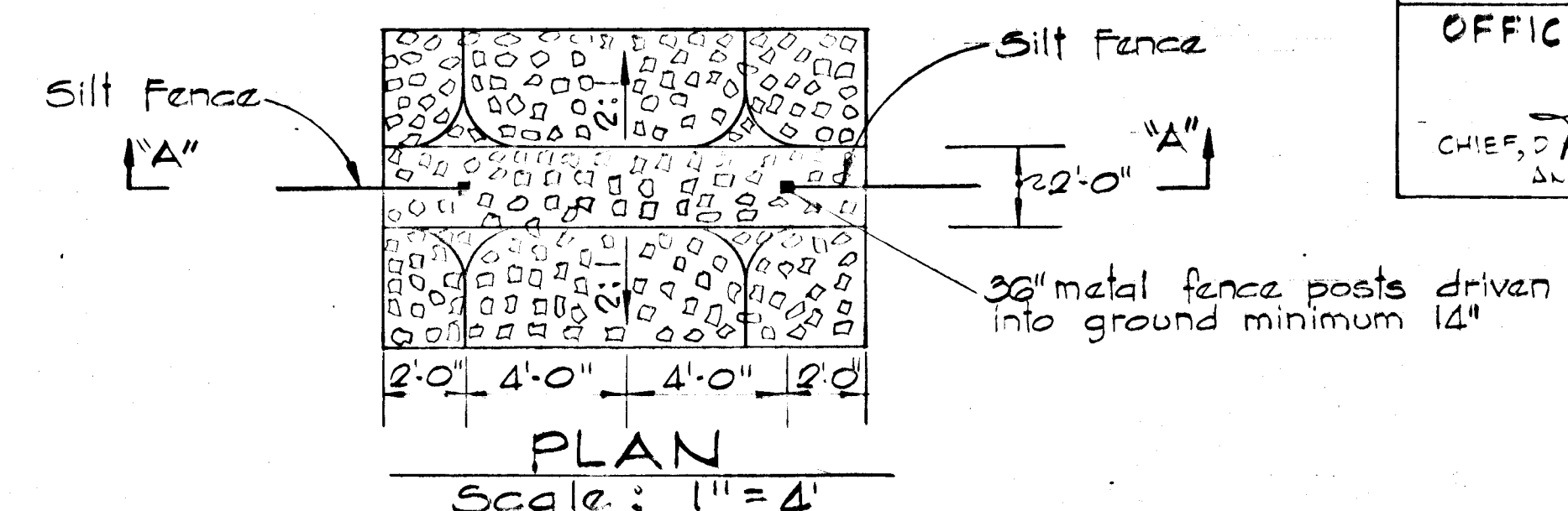
PERMANENT SEEDING

- 1/2 - 2 tons/acre agricultural ground limestone
 Fertilizer - 1000#/acre (10-10-10)
 Seeding - 50#/acre of the following:
 20% Kentucky Blue Grass, 20% Marion Blue Grass, 55% Creeping Red Fescue, 5% Redtop
 Mulch Required: Mulch area with straw at 75#/1000# or 15 tons/acre Anchor with asphalt at the rate of 480 gallons/acre. Stabilization of slopes steeper than 3:1 shall be planted with crownvetch at 15#/acre or 334#/1000# or Kentucky 3 Tall Fescue at 40#/acre or 1#/1000#

SEQUENCE OF CONSTRUCTION

- Obtain Grading Permit.
- Construct "Stabilized Construction Entrance" Softwater Way.
- Clear and grub limits of construction.
- Construct perimeter Diversion Dikes, Silt Fences, Stone Filter and Trap 4.
- Stabilize Diversion Dikes and Sediment Trap Embankment with temporary seeding, see specifications.
- Strip limits of construction.
- Rough grade limits of construction.
- Construct storm drain systems and Block Inlets I-6, I-7, I-8 and I-9.
- Construct utilities, housing, curb and gutter and streets.
- Final grade and construct sidewalks, etc.
- Stabilize all disturbed areas with permanent seeding, see specifications.
- Flush storm drain system at Sediment Trap 4.
- Remove Diversion Dikes, Silt Fences, Stone Filter and Sediment Trap 4 after grass is established in the contributing drainage areas. Stabilize Trap removal area with permanent seeding, see specifications.

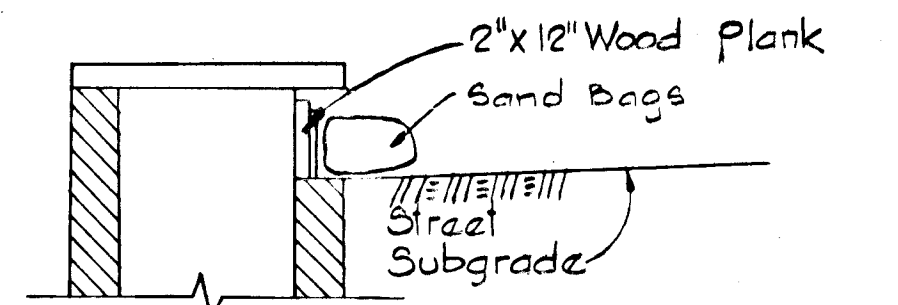
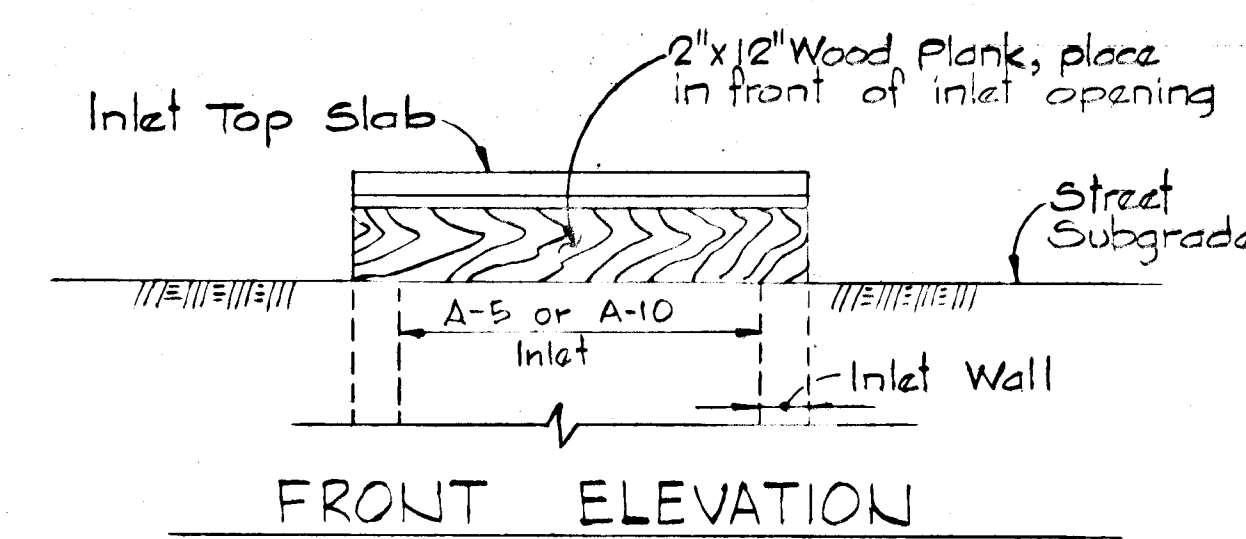
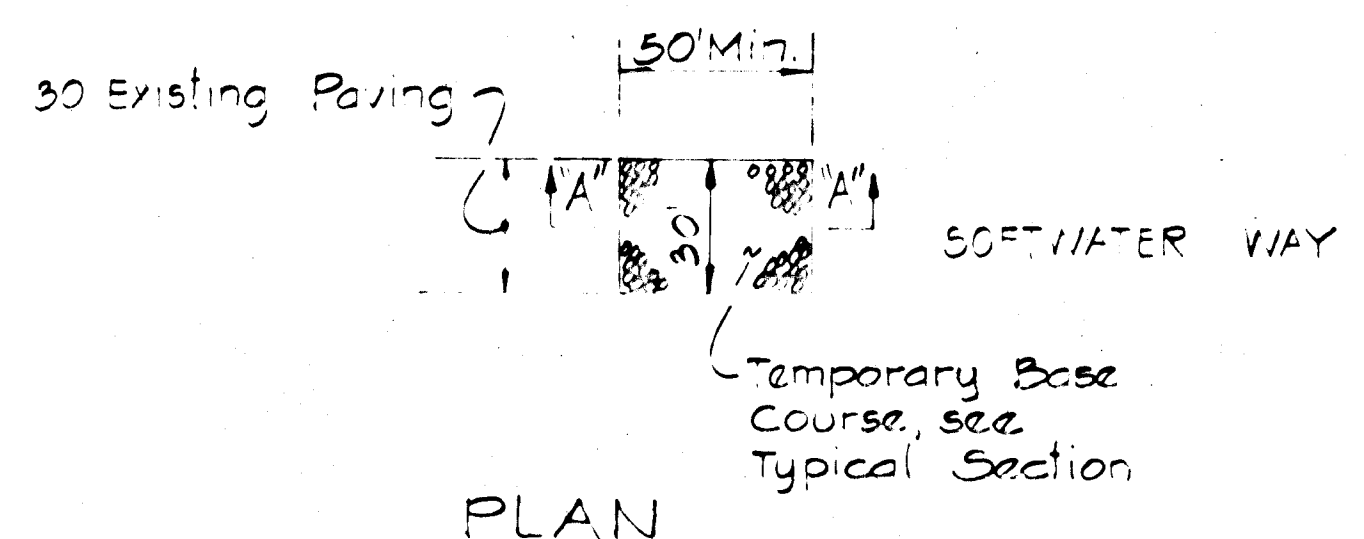
DEPARTMENT OF PUBLIC WORKS
 Chief, Bureau of Engineering
 Office of Planning and Zoning
 Chief, Division of Land Development and Zoning Administration



STONE FILTER DETAIL
 Scale: As Shown

Crushed stone shall meet AASHTO designation M-43 size 2 or 24

SEE 11-82-03



BLOCKED INLET DETAIL
 INLETS I-6, I-7, I-8 & I-9
 No Scale

Stone size to be MSHA No 2 (2 1/2" to 1") or AASHTO M43 No 2 (2 1/2" to 1") Crushed Stone
 8" Min Poly Filter X or approved equal

STABILIZED CONSTRUCTION ENTRANCE DETAIL
 No Scale

CERTIFICATION BY THE DEVELOPER
 I CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.
 Lee B. Rosenberg 11-9-81 DATE

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 PE, 1974 11-9-81 DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
 APPROVED [Signature] 3-10-82 DATE
 HOWARD S.O.C.

REVIEWED FOR HOWARD S.C.D. AND MEETS TECHNICAL REQUIREMENTS
 [Signature] 3-10-82 DATE
 U.S. SOIL CONSERVATION SERVICE

RESPONSIBLE PERSONNEL CERTIFICATION
 I hereby certify that any responsible personnel involved in the construction project will have a certificate of attendance of a Department of Natural Resources approved training program for the control of sediment and erosion before beginning the project.
 Lee B. Rosenberg 11-9-81 DATE

2/29/82	2	As Per Planning and DEWD Comments
1/24/82	1	As Per Planning, DEWD, & SCS Comments
Revised	Rev. No.	Revision Description
COLUMBIA 624 ELECTION DISTRICT HOWARD COUNTY, MARYLAND		
OWNER AND DEVELOPER HOWARD HOMES BUILDING CO., INC.		
PROJECT AREA VILLAGE OF KINGS CONTRIVANCE SECTION 3 AREA 1 LOTS B-60 THRU B-114		
PROJECT TITLE SEDIMENT CONTROL NOTES AND DETAILS		
SCALE: AS SHOWN DATE:		
WHITMAN, REQUARDY AND ASSOCIATES ENGINEERS 2315 ST PAUL STREET BALTIMORE, MARYLAND 21218		
[Signature] KENNETH A. MCCORD Registered Engineer No. 1974		[Seal]

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