

VICINITY MAP
SCALE: 1" = 2000'

DEVELOPER'S CERTIFICATION
"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." Deviation from this plan will not be made unless authorized by the Howard Soil Conservation District.

R. E. Fend 8/8/73
Howard County

ENGINEER'S CERTIFICATION
"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."

Robert N. Bond 6/27/73
DATE

Reviewed for Howard Soil Conservation District and meets Technical Requirements.

James P. Helm 7/26/73
DATE

This development plan is approved for Soil Erosion and Sediment Control by the Howard Soil Conservation District.

APPROVED: Robert W. Ziehm 7/26/73
HOWARD SOIL CONSERVATION DISTRICT

APPROVED
DIVISION OF LAND DEVELOPMENT
AND TRANSPORTATION PLANNING
HOWARD COUNTY, MARYLAND
DATE: 7/27/73
KRC

LIMIT OF PAVING
S.I.A. 20+75

APPROVED FOR DEPARTMENT OF RECREATION AND PARKS

Hendrick H. Schaefer 8/1/73
DIRECTOR DATE

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT

Robert W. Ziehm 8/6/73
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

Thomas H. Ziehm 8/7/73
PLANNING DIRECTOR DATE

W. H. Lawrence 8/7/73
CHIEF DIVISION OF LAND DEVELOPMENT

APPROVED FOR STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

William U. Utter 8/1/73
DIRECTOR DATE

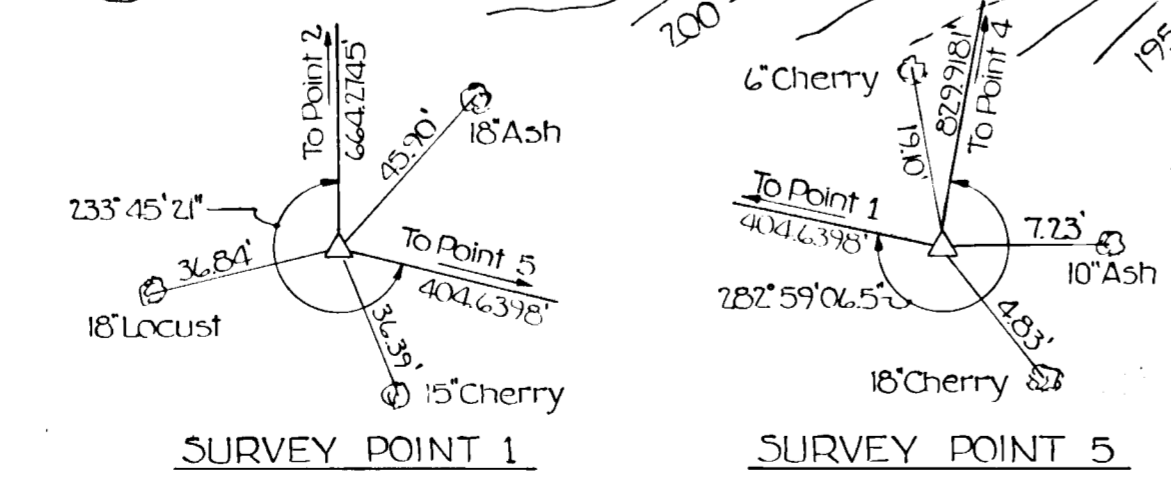
J. M. McLeod 7/31/73
CHIEF, BUREAU OF HIGHWAYS DATE

OWNER & DEVELOPER
Howard County, Maryland
Deed Ref. 577/414-417

SITE DATA
Total Area of Property: 44.51 Acres
Area to be Graded (Phase I): 31.2 Acres

ZONING - MR

- CROSS REFERENCES
1. For Access Rd. Profile, see Sheet No 7
 2. For Storm Drain Profiles, see Sheet No 8
 3. For Access Rd. Stakeout Data, see Sheet No 4



- LEGEND
- Proposed Contours
 - Existing Contours
 - Swale or Ditch Flow
 - Soil Stabilization Matting
 - Seed & Mulch
 - Approximate Grading Limits
 - Diversion Berm
 - Sod

PREPARED BY:
Robert N. Bond
THE WILSON T. BALLARD CO.
CONSULTING ENGINEERS
OWINGS MILLS, MARYLAND



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

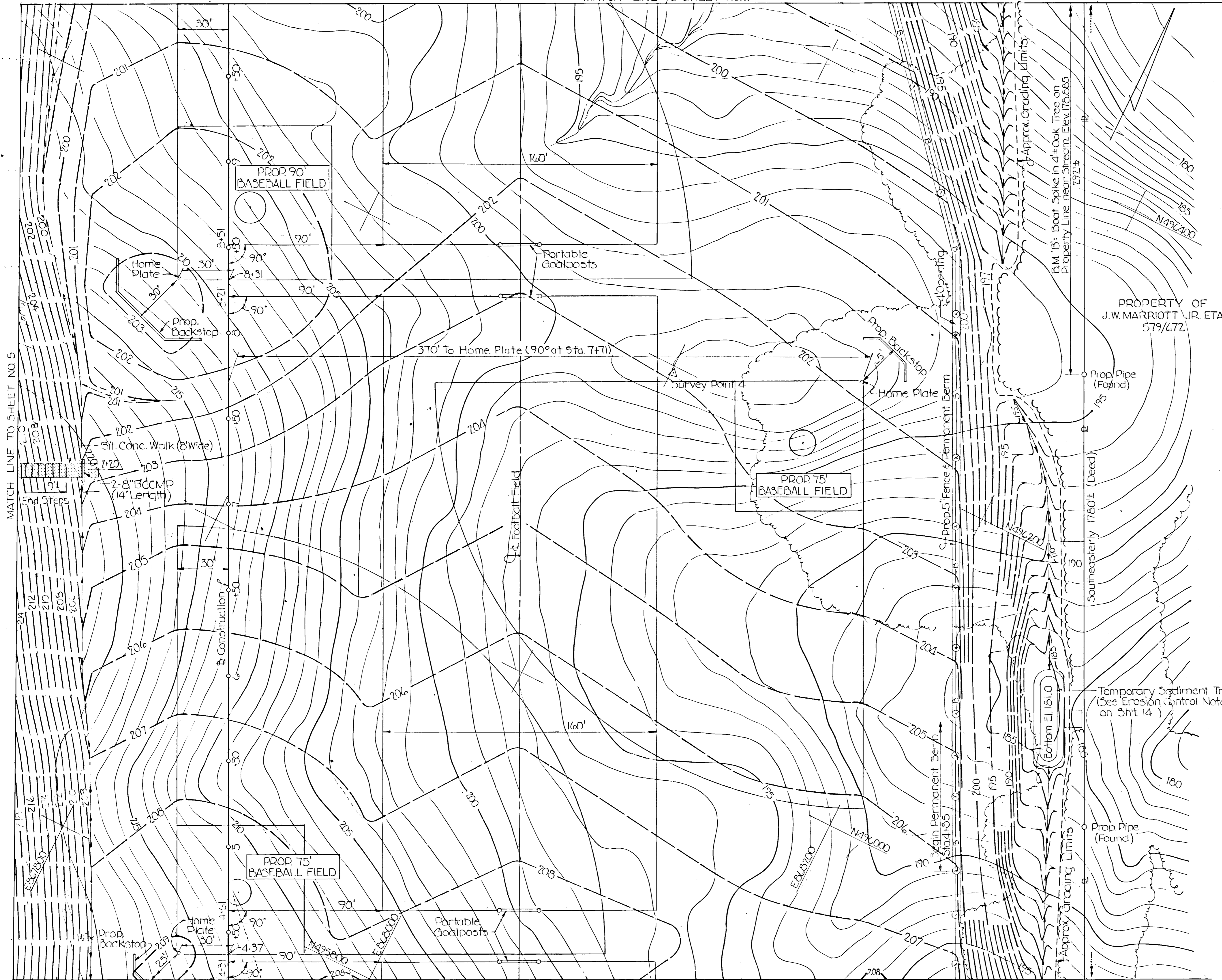
CONTRACT NO. RP-3026

DEPARTMENT OF RECREATION AND PARKS
HOWARD COUNTY, MARYLAND

TROY HILL RECREATION PARK
PHASE I - SITE PLAN
ELECTION DISTRICT NO. 1

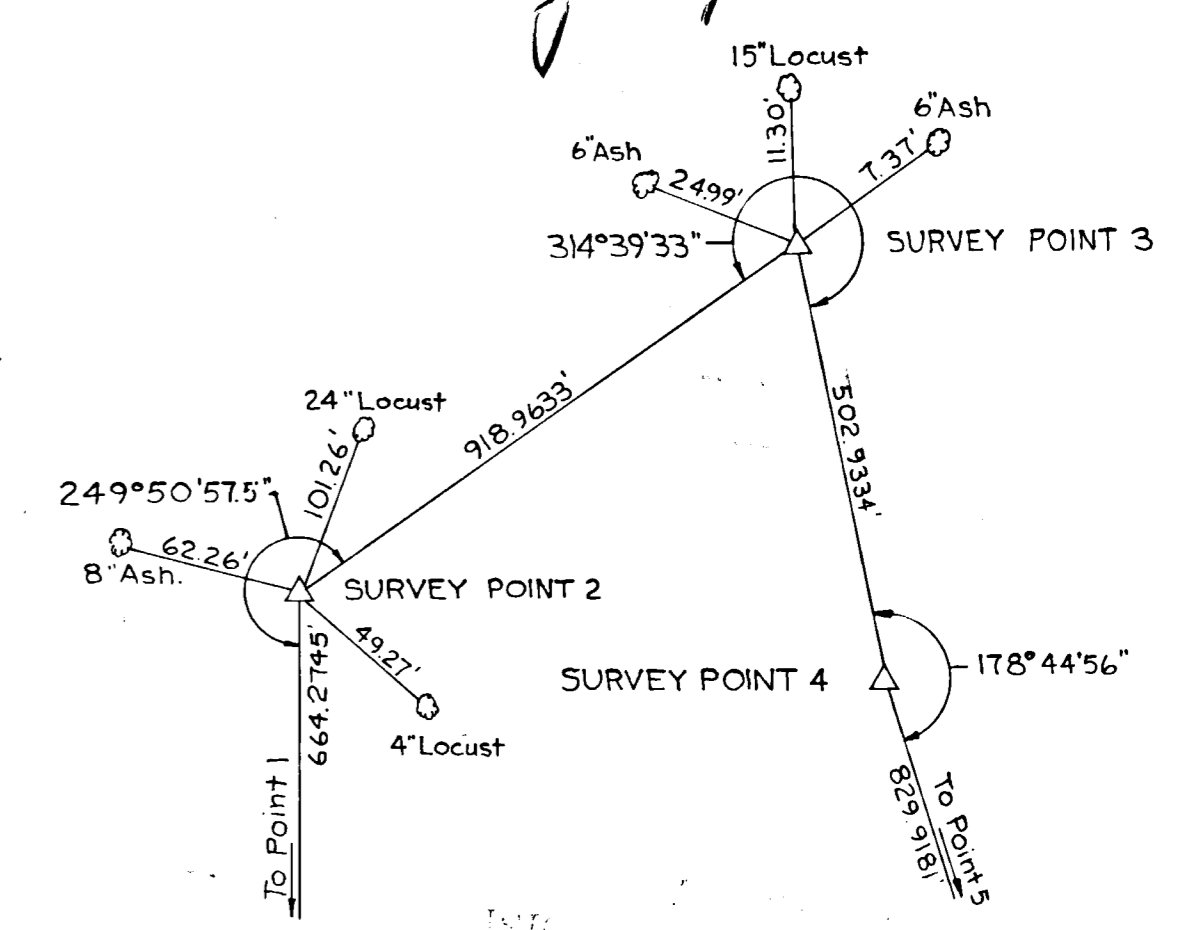
DRAWING NO. 1 OF 14
SCALE 1" = 30'

MATCH LINE TO SHEET NO.3



- GENERAL NOTES
1. Horizontal Control is based upon Howard County Control Station WESELY 1962.
 2. Vertical Control is based upon Maryland State Highway Administration BM 6A (Elev. 198.65)
 3. For Coordinate Values of Survey Control points and construction stake-out data, see sheet No. 4.
 4. For Sediment Control notes, see sheet No. 14.
 5. Storm Drain Structure Details of Howard County shall be followed.

APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 7/24/73
JWC



SURVEY POINTS 2, 3 & 4
REFERENCES

| | | | |
|--|-----------------------|------|----------------|
| APPROVED FOR DEPARTMENT OF RECREATION AND PARKS | <i>Shirley H. ...</i> | DATE | <u>8/6/73</u> |
| APPROVED: HOWARD COUNTY HEALTH DEPARTMENT | <i>...</i> | DATE | <u>8/6/73</u> |
| APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING | <i>...</i> | DATE | <u>8/7/73</u> |
| APPROVED: STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. | <i>...</i> | DATE | <u>8/1/73</u> |
| APPROVED: STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. | <i>...</i> | DATE | <u>7/31/73</u> |

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 CONSULTING ENGINEERS
 OWINGS MILLS, MARYLAND

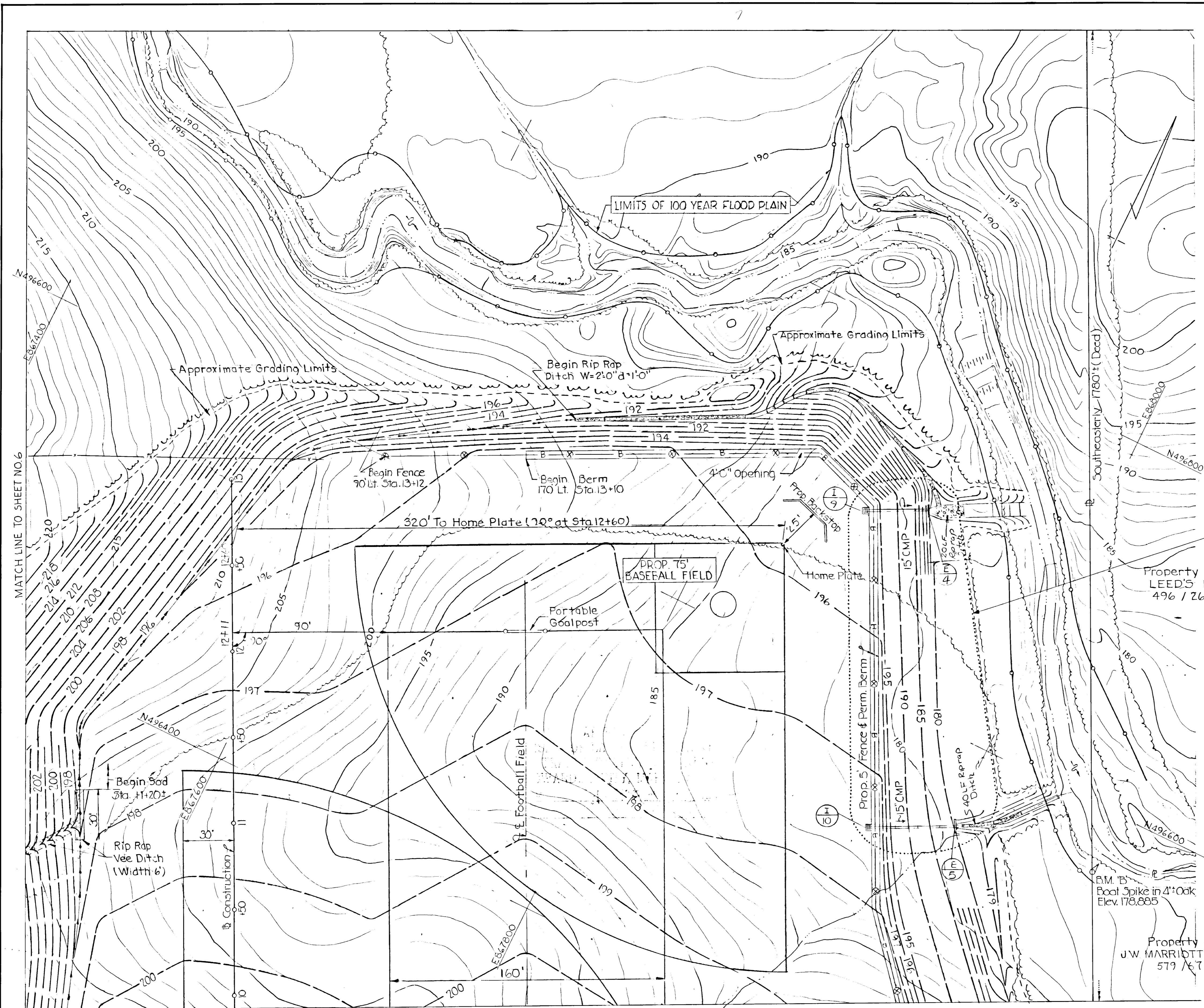
DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

CONTRACT NO. RP-3026

DEPARTMENT OF RECREATION AND PARKS
 HOWARD COUNTY, MARYLAND

TROY HILL RECREATION PARK
 PHASE I - SITE PLAN
 ELECTION DISTRICT NO. 1

DRAWING NO. 2 OF 14
 SCALE 1" = 30'



Note:
 Activity No. 2 of Soil Stabilization Plan requires that a Sediment Basin be constructed in this area and be maintained until the grading and seeding operations for the site have been completed, at which time the basin is to be removed and the grading of the basin area completed as shown. See Sediment Basin Plan on Sheet No. 13 & notes on Sheet No. 14.

APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 7/24/73
[Signature]

CROSS REFERENCE
 1. For Storm Drain Details see Sheet # 3

APPROVED FOR DEPARTMENT OF RECREATION AND PARKS

[Signature] 8/6/73
 DIRECTOR DATE

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT

[Signature] 8/6/73
 COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

[Signature] 8/7/73
 PLANNING DIRECTOR DATE

[Signature] 8/7/73
 CHIEF DIVISION OF LAND DEVELOPMENT

APPROVED FOR STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

[Signature] 8/1/73
 DIRECTOR DATE

[Signature] 7/31/73
 CHIEF, BUREAU OF HIGHWAYS DATE

PREPARED BY:
 THE WILSON T. BALLARD CO.
 CONSULTING ENGINEERS
 OWINGS MILLS, MARYLAND
 PROFESSIONAL ENGINEER
 NO. 363-0150

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

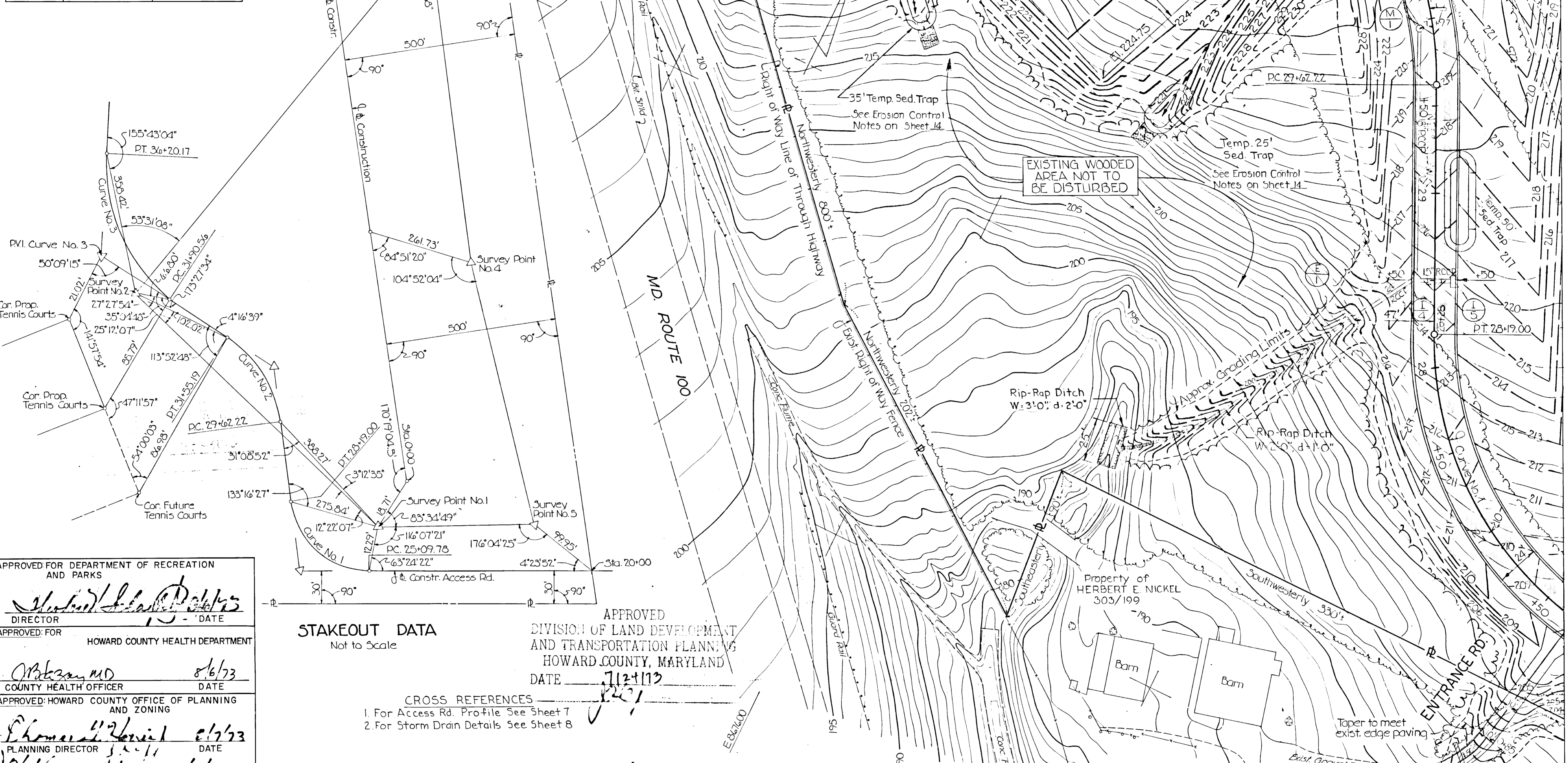
CONTRACT NO. RP 3026

DEPARTMENT OF RECREATION AND PARKS
 HOWARD COUNTY, MARYLAND

TROY HILL RECREATION PARK
 PHASE I - SITE PLAN
 ELECTION DISTRICT NO. 1

DRAWING NO. 3 OF 14
 SCALE 1" = 30'

| SURVEY CONTROL COORDINATES | | |
|----------------------------|--------------|-------------|
| POINT NO. | NORTH | EAST |
| WESLEY | 4972468.27 | 868676.61 |
| 1 | 4953668.8633 | 868119.3700 |
| 2 | 495704.8430 | 867547.5043 |
| 3 | 496608.6136 | 867713.9140 |
| 4 | 496196.1632 | 868001.7103 |
| 5 | 495576.0876 | 868491.3660 |



APPROVED FOR DEPARTMENT OF RECREATION AND PARKS
Michael P. Bell
 DIRECTOR DATE

APPROVED FOR HOWARD COUNTY HEALTH DEPARTMENT
Robert M. D.
 COUNTY HEALTH OFFICER DATE 8/6/73

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Thomas J. Z...
 PLANNING DIRECTOR DATE 8/1/73
W. J. Cannon
 CHIEF DIVISION OF LAND DEVELOPMENT DATE 8/1/73

APPROVED FOR STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
William J. Altman
 DIRECTOR DATE 8/1/73
D. M. McLeod
 CHIEF, BUREAU OF HIGHWAYS DATE 7/31/73

PREPARED BY:
 THE WILSON T. BALLARD CO.
 CONSULTING ENGINEERS
 OWINGS MILLS, MARYLAND
 Tel. No. 363-0150



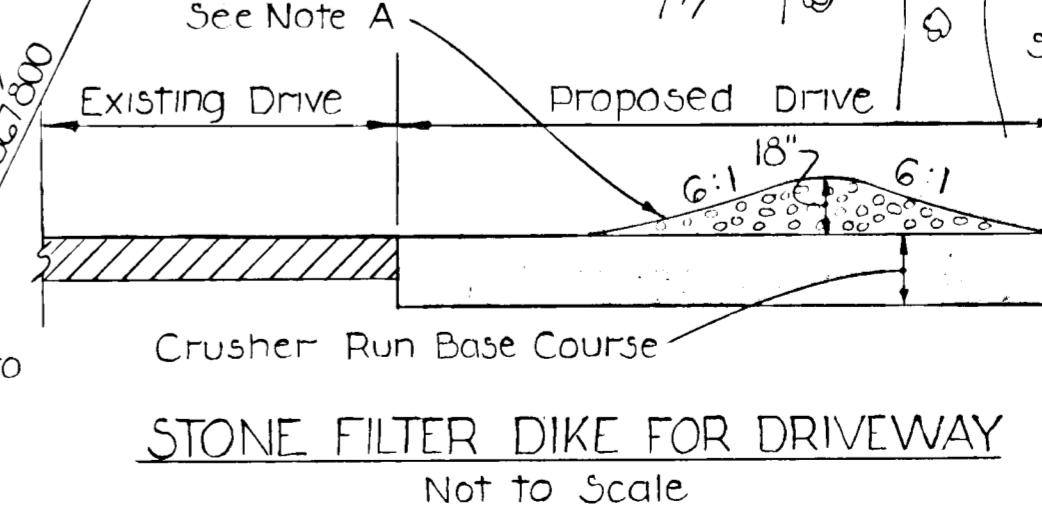
STAKEOUT DATA
 Not to Scale

APPROVED DIVISION OF LAND DEVELOPMENT AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 7/12/73

- CROSS REFERENCES
 1. For Access Rd. Profile See Sheet 7
 2. For Storm Drain Details See Sheet 8

| CURVE DATA FOR ACCESS ROAD | | | | | | | | |
|----------------------------|-----------|------------|---------|---------|---------|--------|----------|----------|
| NO. | Δ | Dc | R | T | L | E | PC. | PT. |
| 1 | 88°35'04" | 28°38'52" | 200.00' | 195.12' | 309.22' | 79.41' | 25+09.78 | 28+49.00 |
| 2 | 55°16'55" | 28°38'52" | 200.00' | 104.74' | 192.97' | 25.77' | 29+62.22 | 31+55.19 |
| 3 | 61°32'15" | 14°19'26" | 400.00' | 238.15' | 429.61' | 65.53' | 31+90.56 | 36+20.17 |
| 4 | 41°41'40" | 6°24'24" | 85.00' | 32.37' | 61.85' | 5.95' | 20+63.00 | 21+24.85 |
| 5 | 82°35'08" | 143°14'22" | 40.00' | 35.13' | 57.66' | 13.24' | 10+49.00 | 11+06.66 |

NOTE A
 Stone Filter: Stone size to conform to SHA 1 Gradations. See Table 20.02-2 of the Specifications. Filter to be removed prior to placing Bit Conc. Surfacing



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

CONTRACT NO. RP 3026

DEPARTMENT OF RECREATION AND PARKS
 HOWARD COUNTY, MARYLAND

TROY HILL RECREATION PARK
 PHASE I - SITE PLAN
 ELECTION DISTRICT NO. 1

DRAWING NO 4 OF 14 SCALE 1" = 30'

MATCH LINE TO SHEET NO. 6



APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 7/24/73
[Signature]

CROSS REFERENCES

- 1. For Access Rd. Profile see Sheet #7
- 2. For Storm Drain Details see Sheet #8

APPROVED FOR DEPARTMENT OF RECREATION AND PARKS

[Signature] 8/6/73
 DIRECTOR DATE

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT

[Signature] 8/6/73
 COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING

[Signature] 8/7/73
 PLANNING DIRECTOR DATE

[Signature] 8/7/73
 CHIEF DIVISION OF LAND DEVELOPMENT

APPROVED: FOR STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.

[Signature] 8/1/73
 DIRECTOR DATE

[Signature] 7/31/73
 CHIEF, BUREAU OF HIGHWAYS DATE

[Signature]

PREPARED BY:
 THE WILSON T. BALLARD CO.
 CONSULTING ENGINEERS
 OWINGS MILLS, MARYLAND



Tel. No. 363-0150

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

CONTRACT NO. RP 3026

DEPARTMENT OF RECREATION
 AND PARKS
 HOWARD COUNTY, MARYLAND

TROY HILL RECREATION PARK
 PHASE I - SITE PLAN
 ELECTION DISTRICT NO. 1

DRAWING NO. 5 OF 14
 SCALE 1" = 30'

Bench Mark 'A'
 Boat Spike in Mulberry tree along
 driveway to abandoned house between
 corn crib and house. Elev. 270.815



MATCH MARK SEE SHEET NO. 3

5

MATCH MARK SEE SHEET NO. 5

APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 7/24/73
JRC

APPROVED FOR DEPARTMENT OF RECREATION
 AND PARKS
Richard S. ... 8/6/73
 DIRECTOR DATE

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT
Ortiz MD 8/6/73
 COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING
 AND ZONING
Thomas S. ... 8/7/73
 PLANNING DIRECTOR DATE
W. H. ... 8/7/73
 CHIEF DIVISION OF LAND DEVELOPMENT

APPROVED FOR
 STORM DRAINAGE SYSTEMS AND PUBLIC
 ROADS, HOWARD COUNTY DEPARTMENT
 OF PUBLIC WORKS.
William A. ... 8/13/73
 DIRECTOR DATE
S. R. ... 7/31/73
 CHIEF, BUREAU OF HIGHWAYS DATE

PREPARED BY:
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 CONSULTING ENGINEERS
 OWINGS MILLS, MARYLAND
 Tel. No. 363-0150



DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

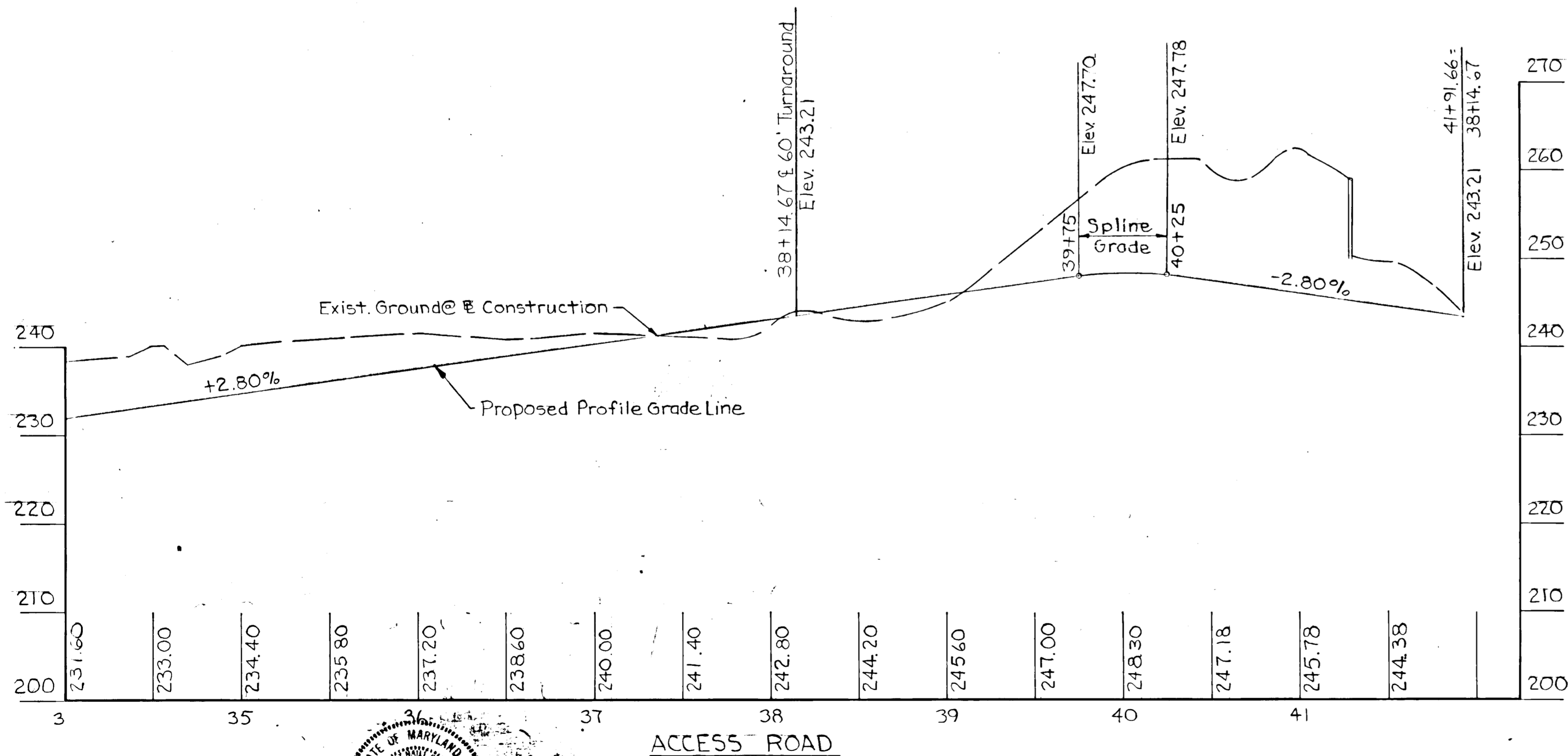
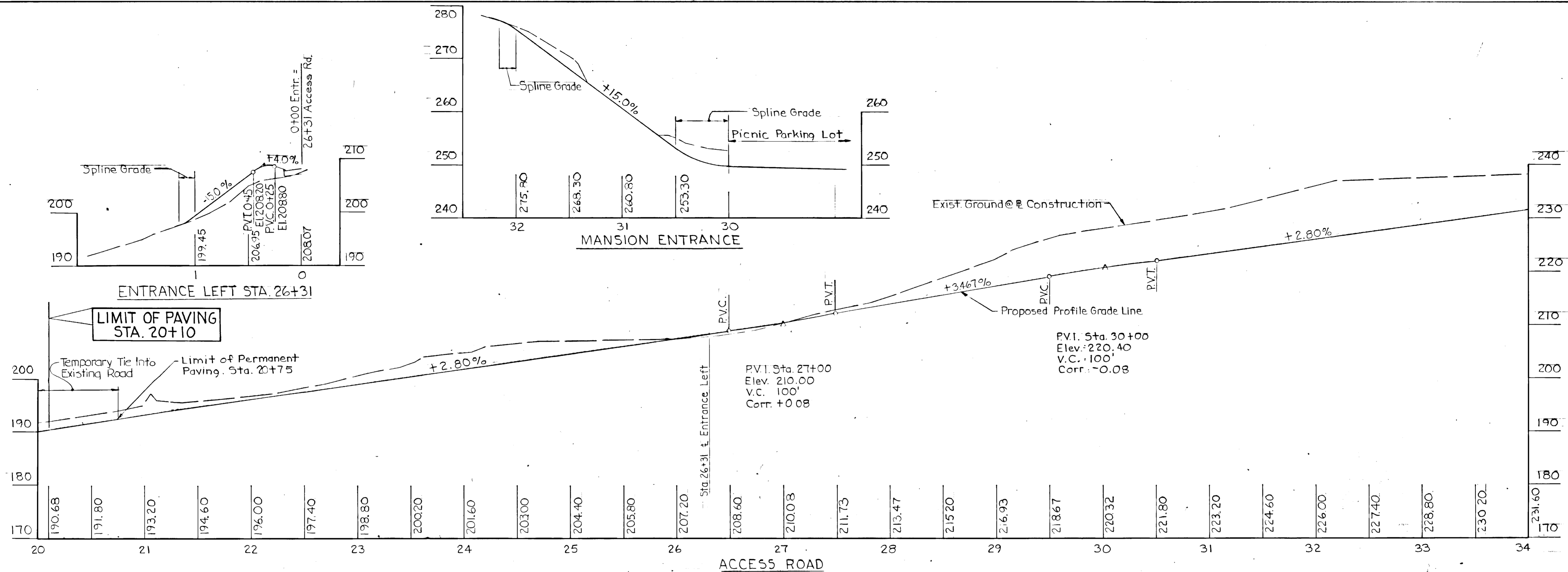
CONTRACT NO. RP 3026

DEPARTMENT OF RECREATION
 AND PARKS
 HOWARD COUNTY, MARYLAND

TROY HILL RECREATION PARK
 PHASE I - SITE PLAN
 ELECTION DISTRICT NO. 1

DRAWING NO. 6 OF 14
 SCALE 1" = 30'

SDP 73-104



APPROVED
 DIVISION OF LAND DEVELOPMENT
 DIVISION OF PLANNING AND ZONING
 AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 7/24/73
 J.R. [Signature]

APPROVED FOR DEPARTMENT OF RECREATION AND PARKS
 [Signature]
 DIRECTOR DATE 8/6/73

HOWARD COUNTY HEALTH DEPARTMENT
 [Signature]
 COUNTY HEALTH OFFICER DATE 8/6/73

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING
 [Signature]
 PLANNING DIRECTOR DATE 8/7/73

[Signature]
 CHIEF DIVISION OF LAND DEVELOPMENT DATE 8/7/73

APPROVED FOR STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
 [Signature]
 DIRECTOR DATE 8/1/73
 [Signature]
 CHIEF, BUREAU OF HIGHWAYS DATE 7/31/73

Prepared by
 THE WILSON T. BALLARD CO.
 CONSULTING ENGINEERS
 OWINGS MILLS, MARYLAND



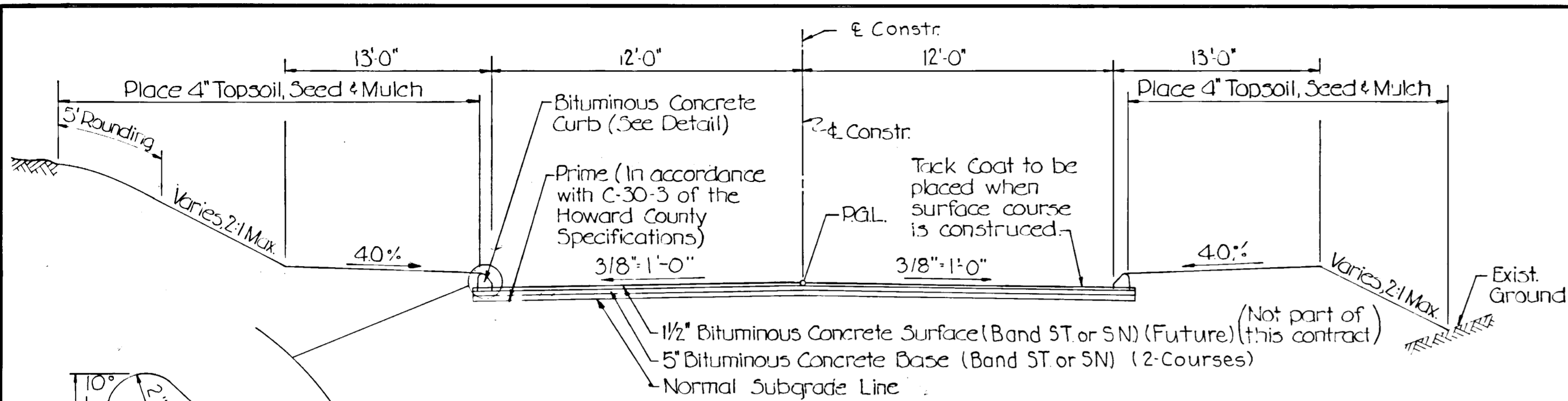
DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

CONTRACT NO. RP 3026

DEPARTMENT OF RECREATION AND PARKS
 HOWARD COUNTY, MARYLAND

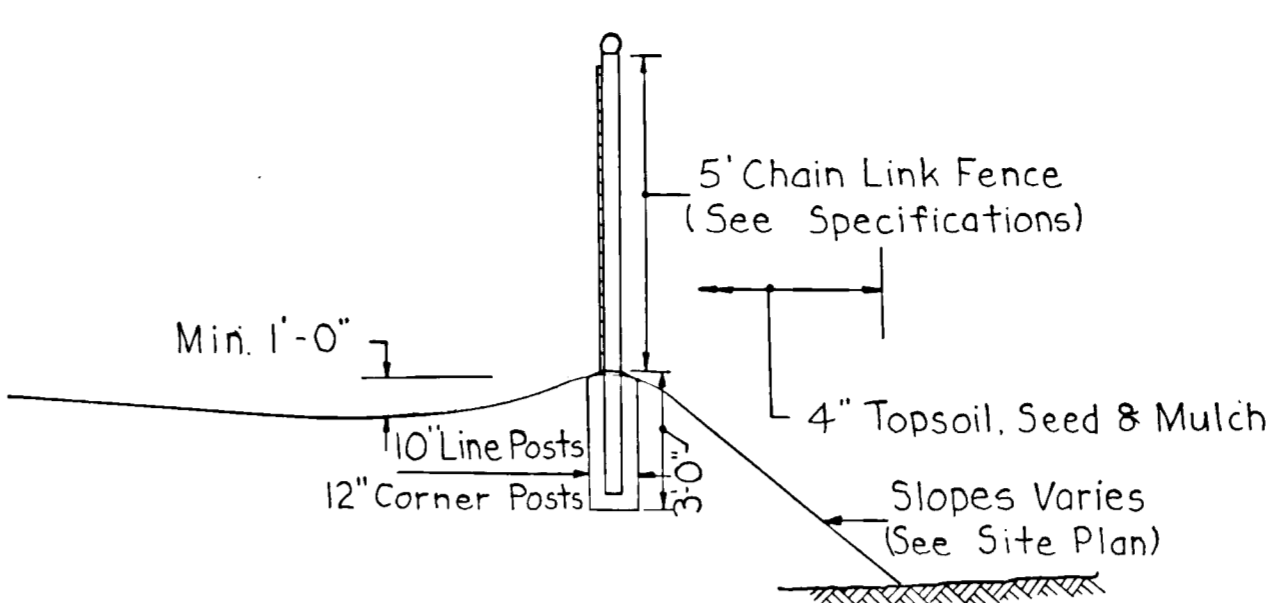
TROY HILL RECREATION PARK
 PHASE I - ROAD PROFILES
 ELECTION DISTRICT NO. 1

DRAWING NO. 7 OF 14
 SCALE HOR. 1"=50' VER. 1"=10'

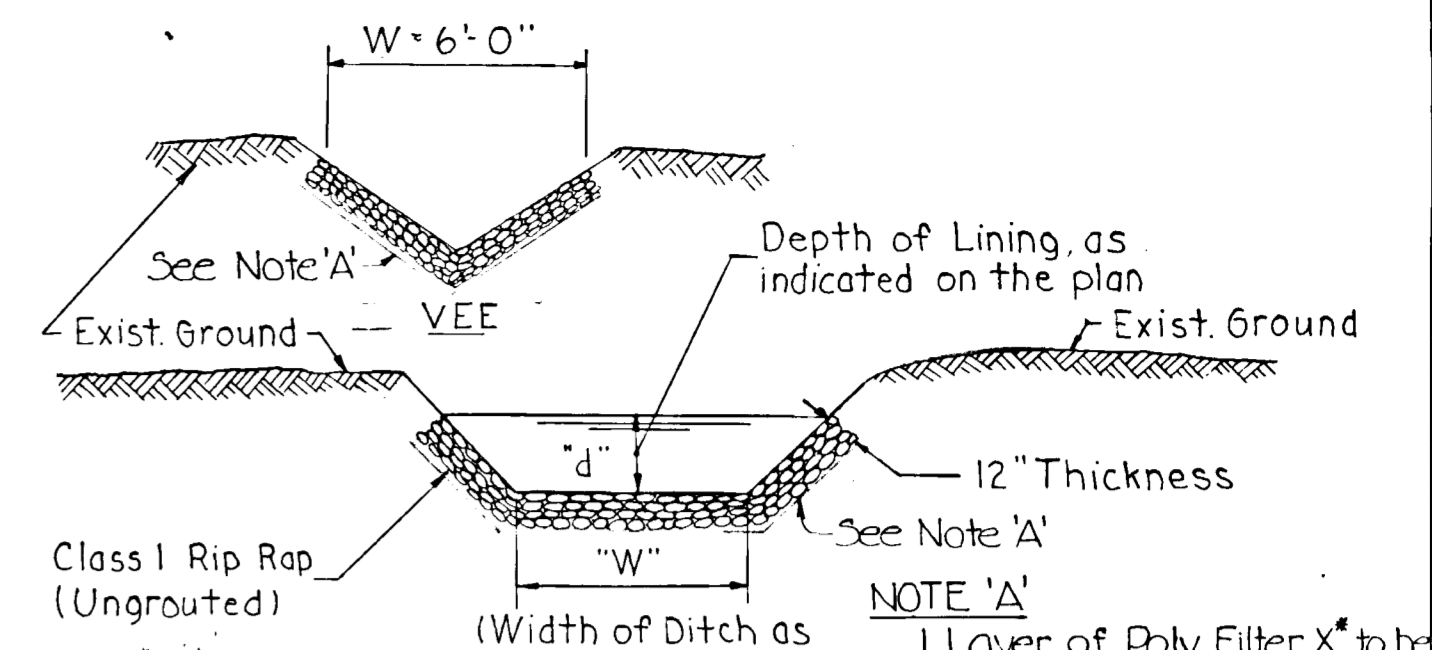


TYPICAL SECTION - ACCESS ROAD

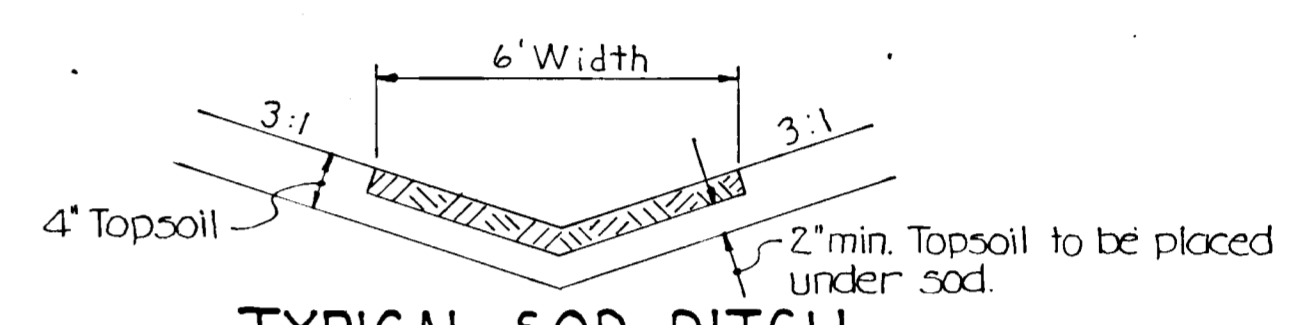
NOTE:
Use Access Road Paving
Section for Parking Lots



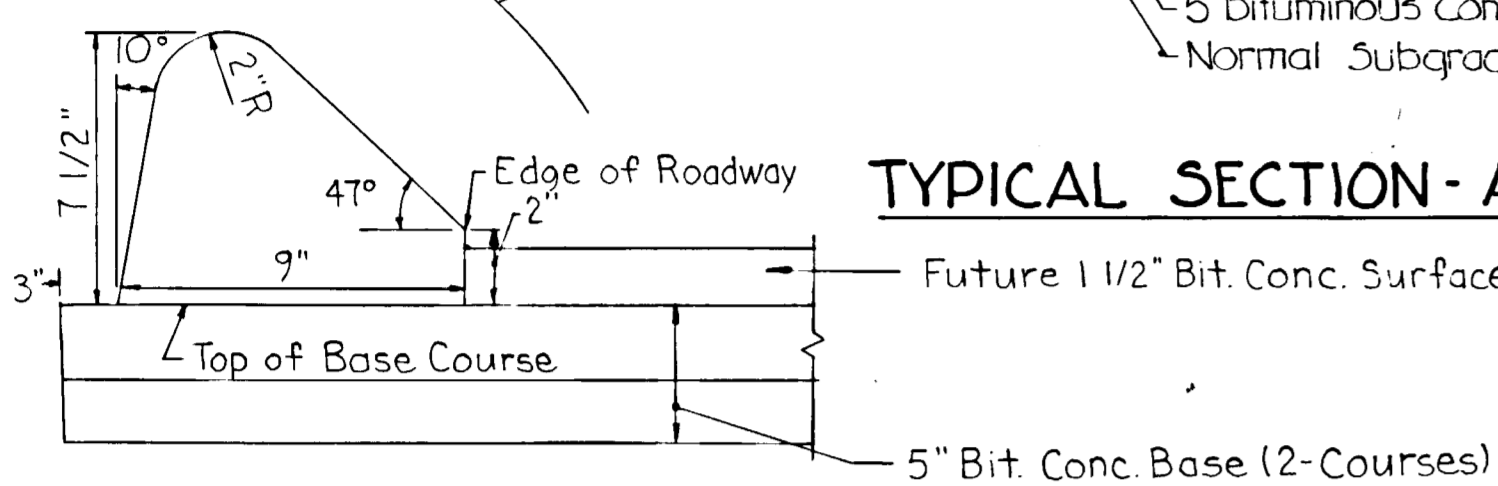
TYPICAL SECTION FOR BERM & FENCE ALONG EAST OF NORTH EDGES OF PLAYING FIELD



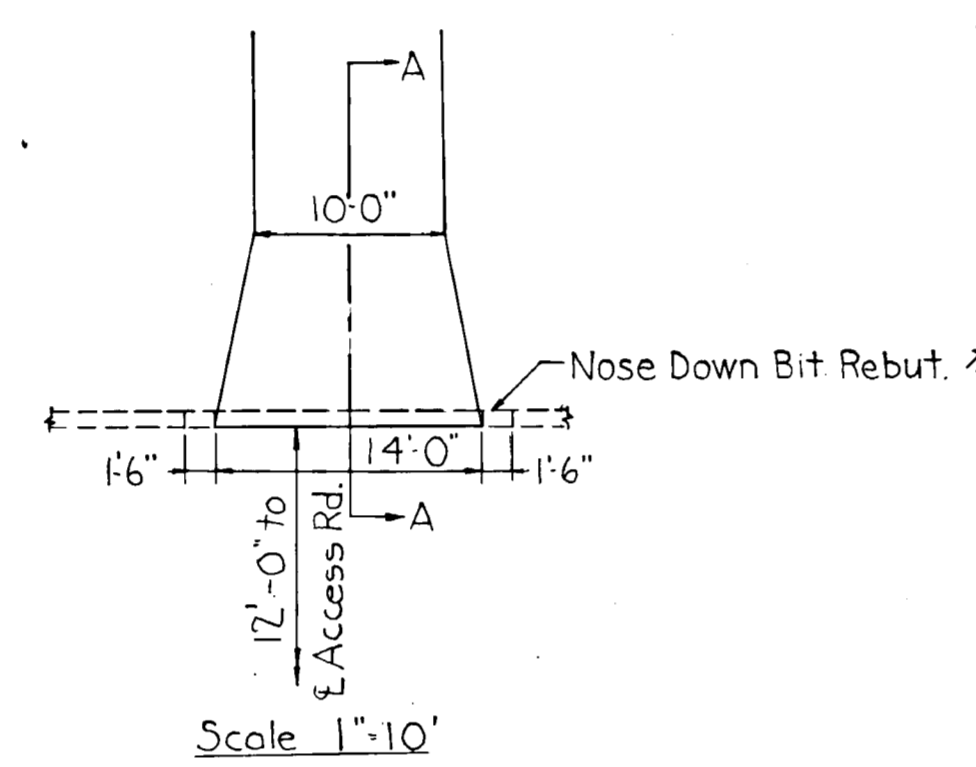
TYPICAL RIP-RAP DITCH



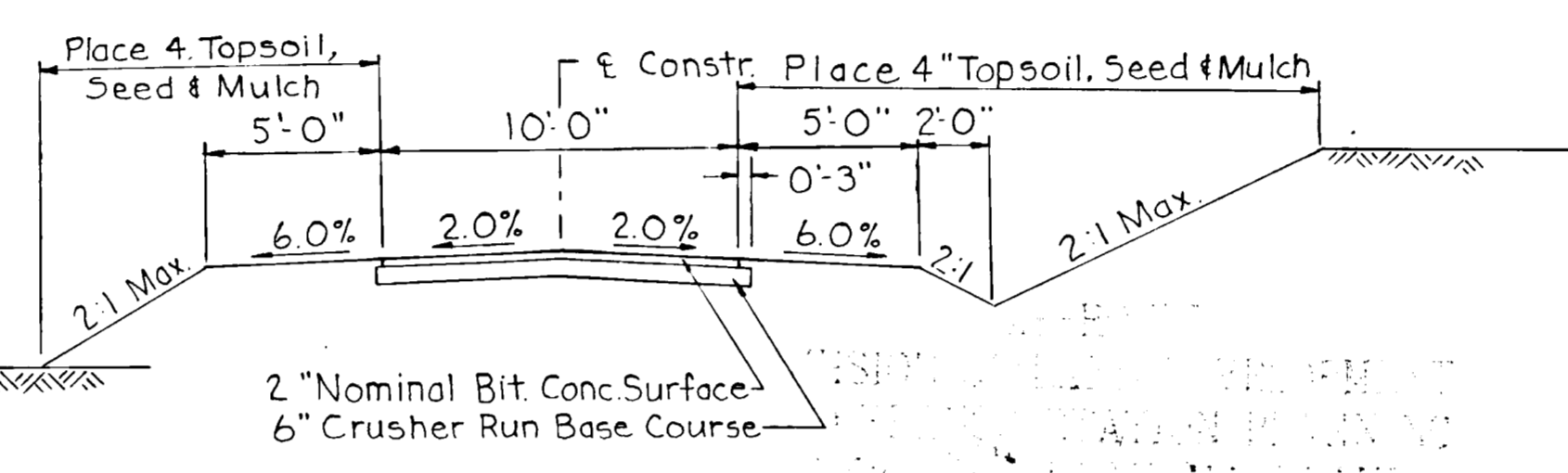
TYPICAL SOD DITCH



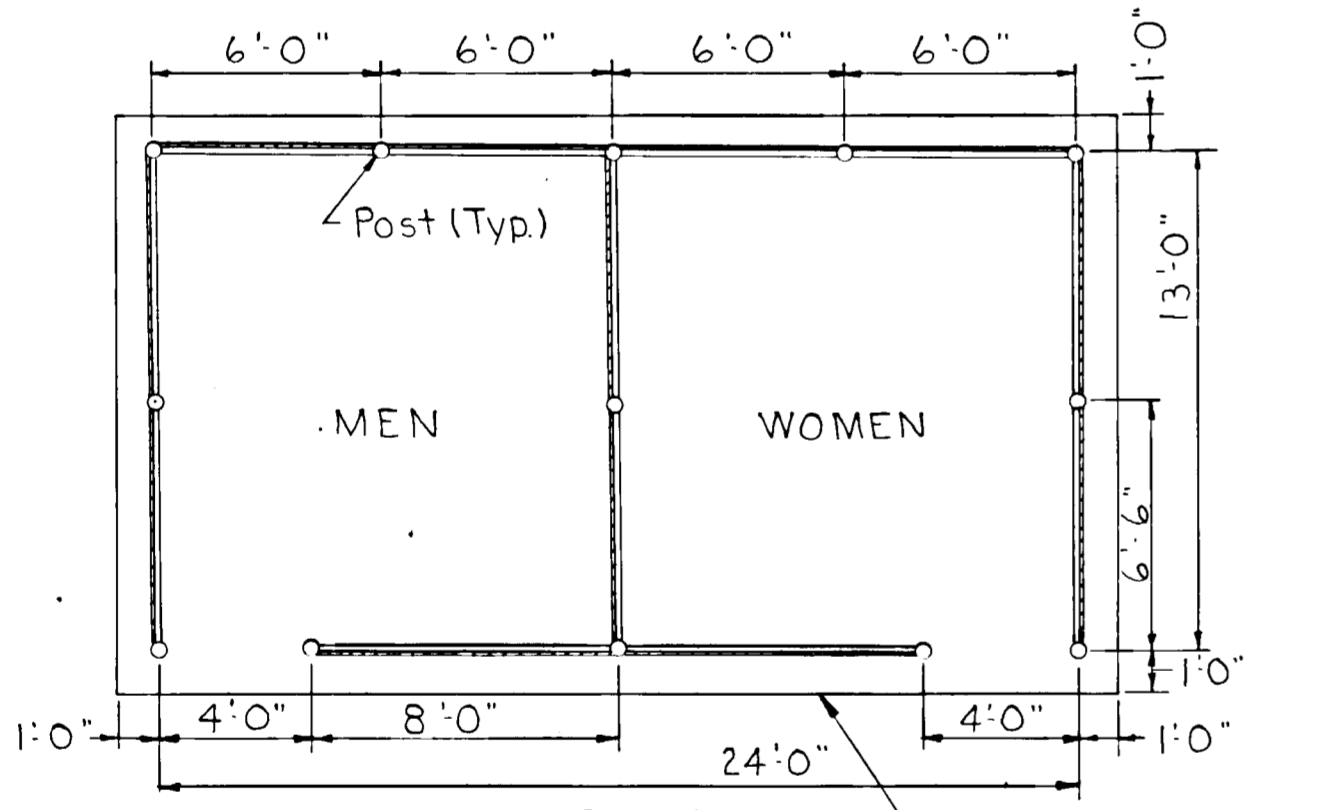
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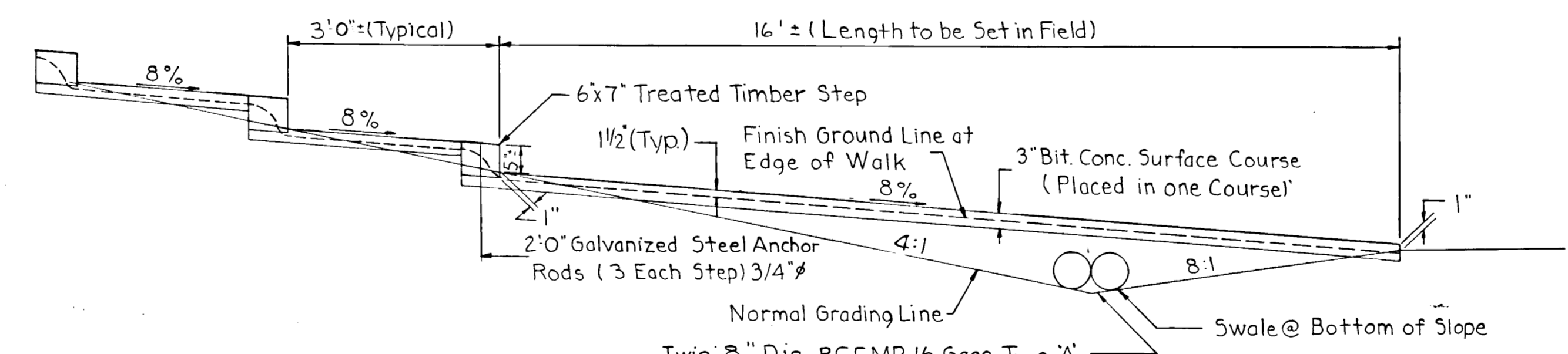
DRIVEWAY ENTRANCE DETAILS



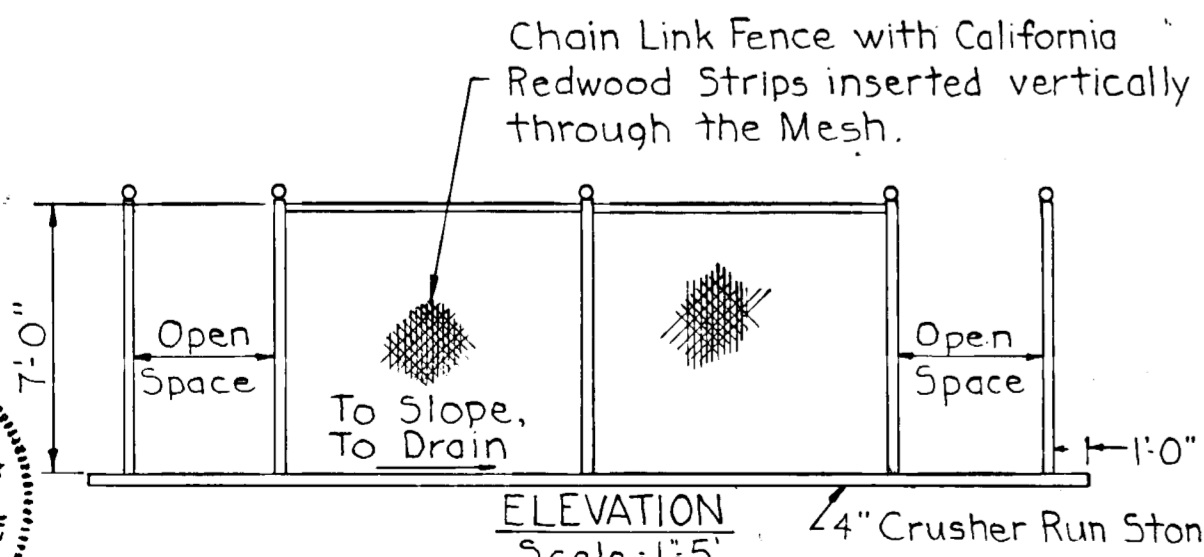
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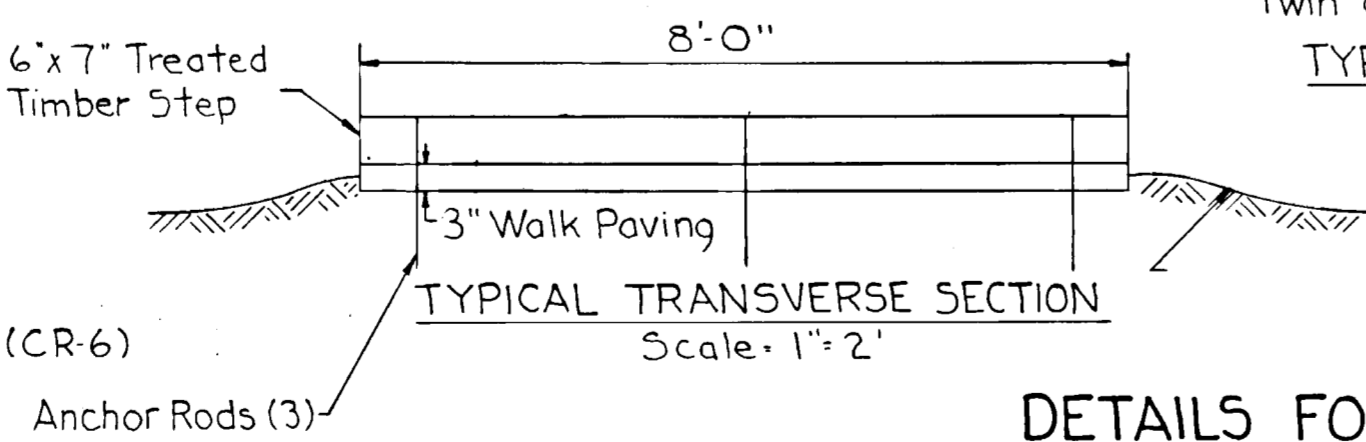
PLAN
Scale 1"=5'



TYPICAL LONGITUDINAL SECTION
Scale 1"=2'



DETAIL OF SCREENING FOR PORTABLE SANITARY FACILITIES



TYPICAL TRANSVERSE SECTION
Scale 1"=2'

DETAILS FOR WALK STEPS TO PLAYING FIELDS

APPROVED
DIVISION OF LAND DEVELOPMENT
AND TRANSPORTATION PLANNING
HOWARD COUNTY, MARYLAND
DATE 2/24/73

APPROVED FOR DEPARTMENT OF RECREATION AND PARKS
DIRECTOR DATE

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING
PLANNING DIRECTOR DATE

APPROVED: DIVISION OF LAND DEVELOPMENT
CHIEF DATE

APPROVED FOR STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
DIRECTOR DATE



PREPARED BY:
THE WILSON T. BALLARD CO.
CONSULTING ENGINEERS
OWINGS MILLS, MARYLAND
Tel. No. 363-0150

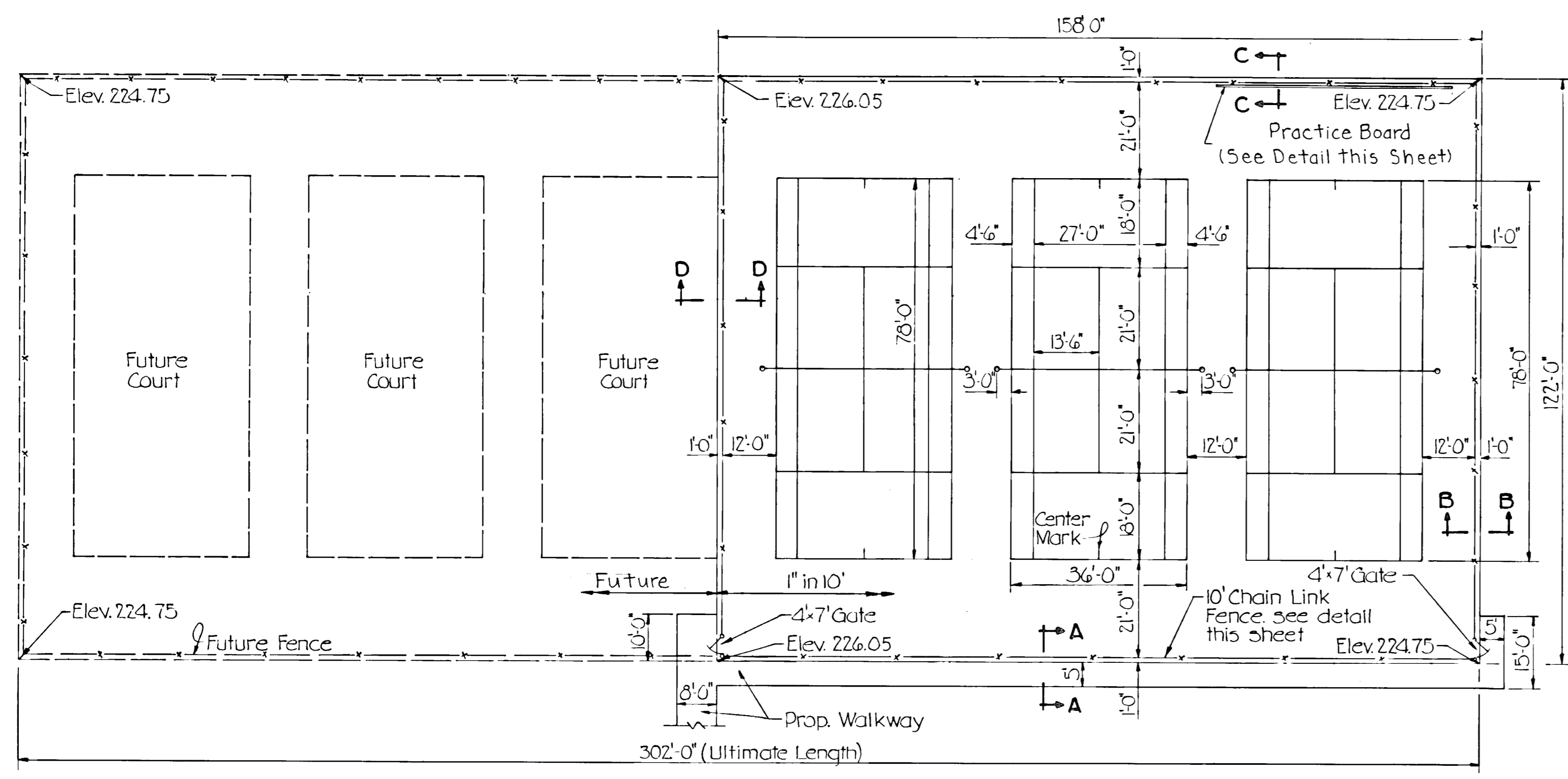
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CONTRACT NO. RP 3026

DEPARTMENT OF RECREATION AND PARKS
HOWARD COUNTY, MARYLAND

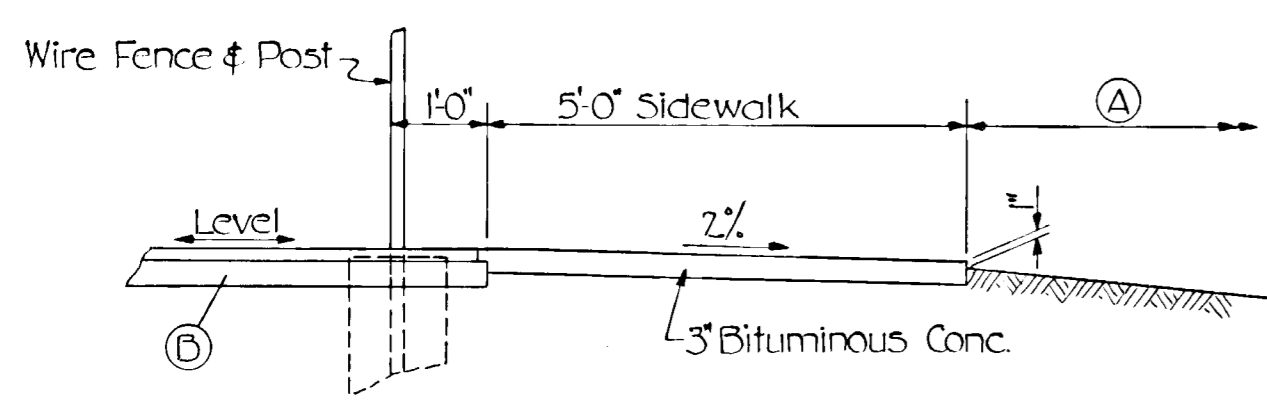
TROY HILL RECREATION PARK
PHASE I - TYPICAL DETAILS
ELECTION DISTRICT NO. 1

DRAWING NO. 9 OF 14 SCALE AS SHOWN

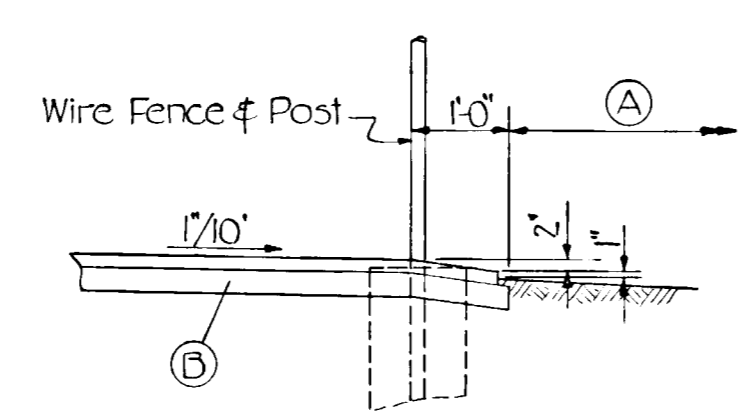


PLAN
Scale: 1/4"=2'-0"

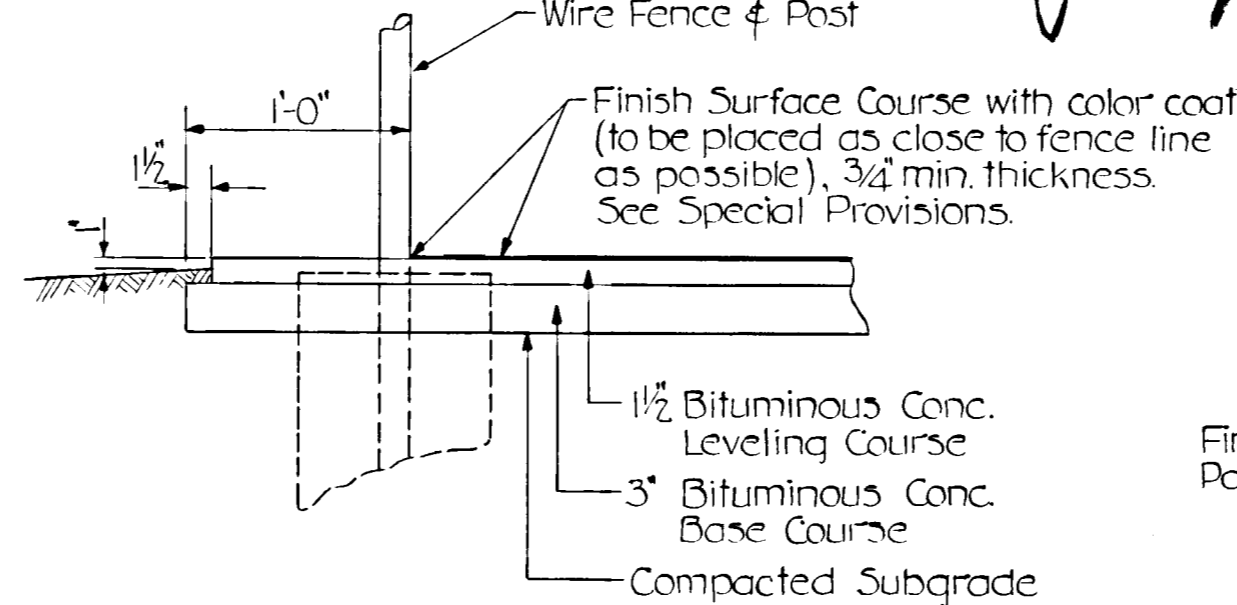
TENNIS COURTS



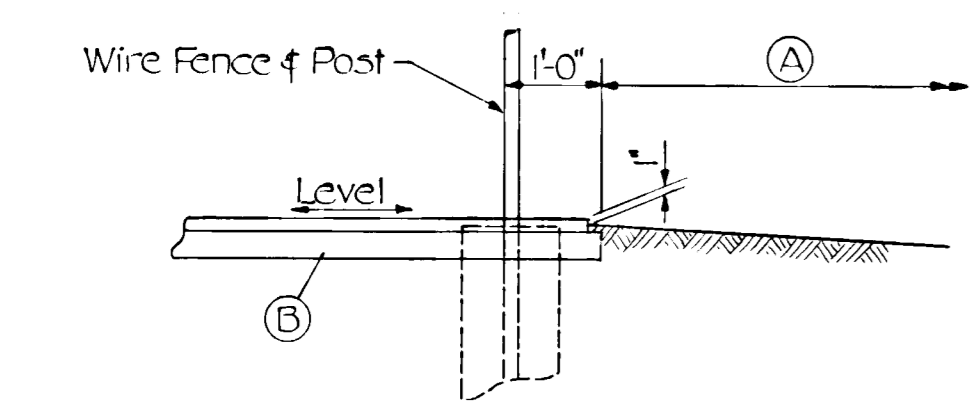
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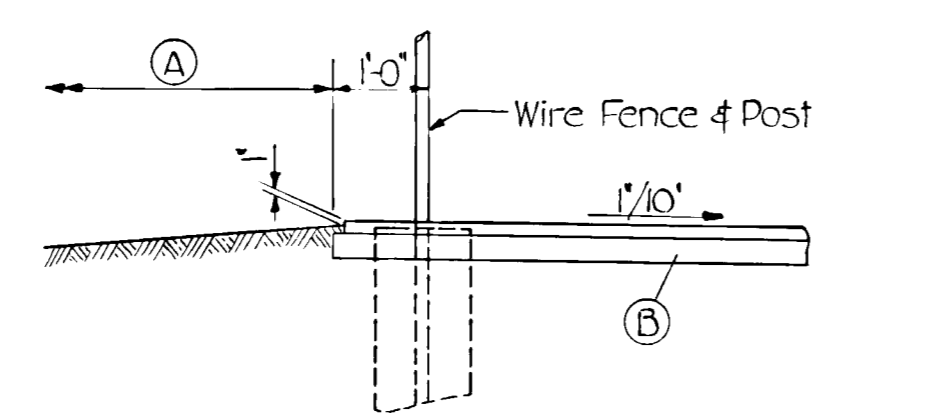
SECTION B-B
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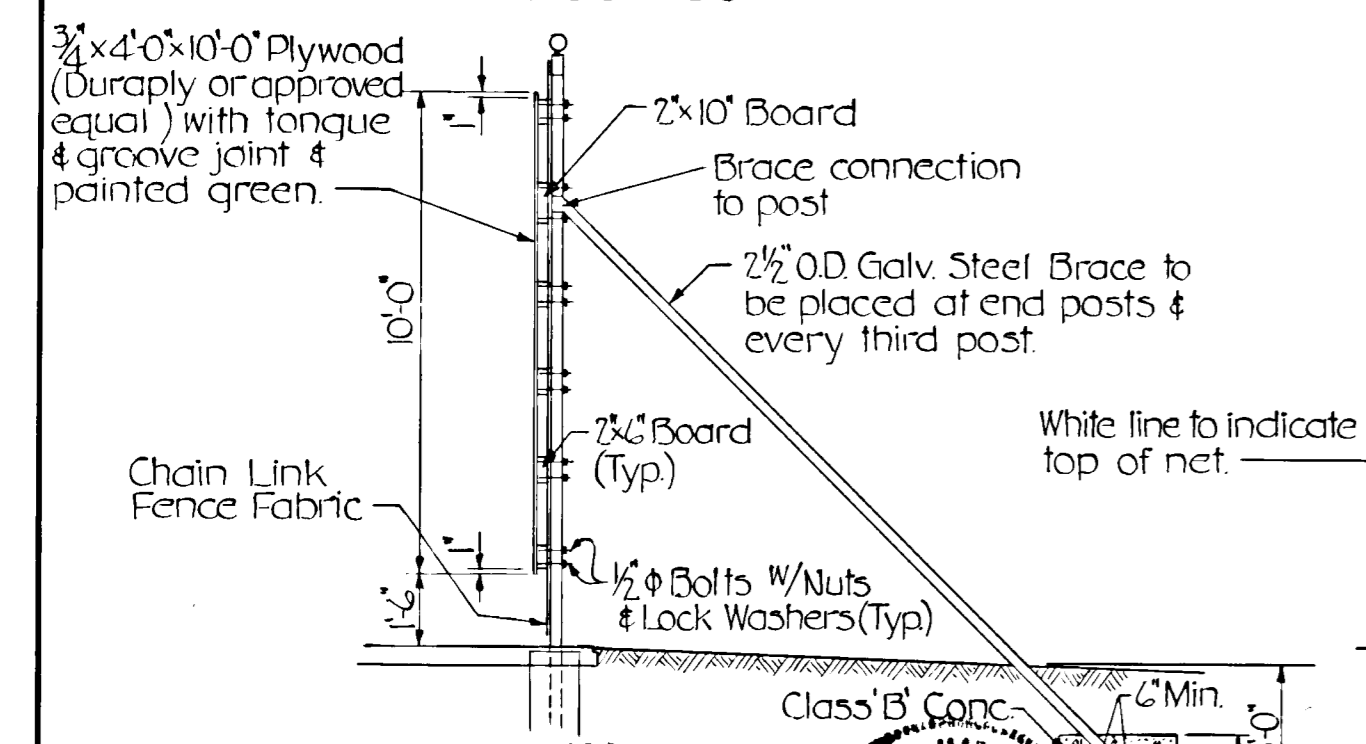
TENNIS COURT PAVING SECTION
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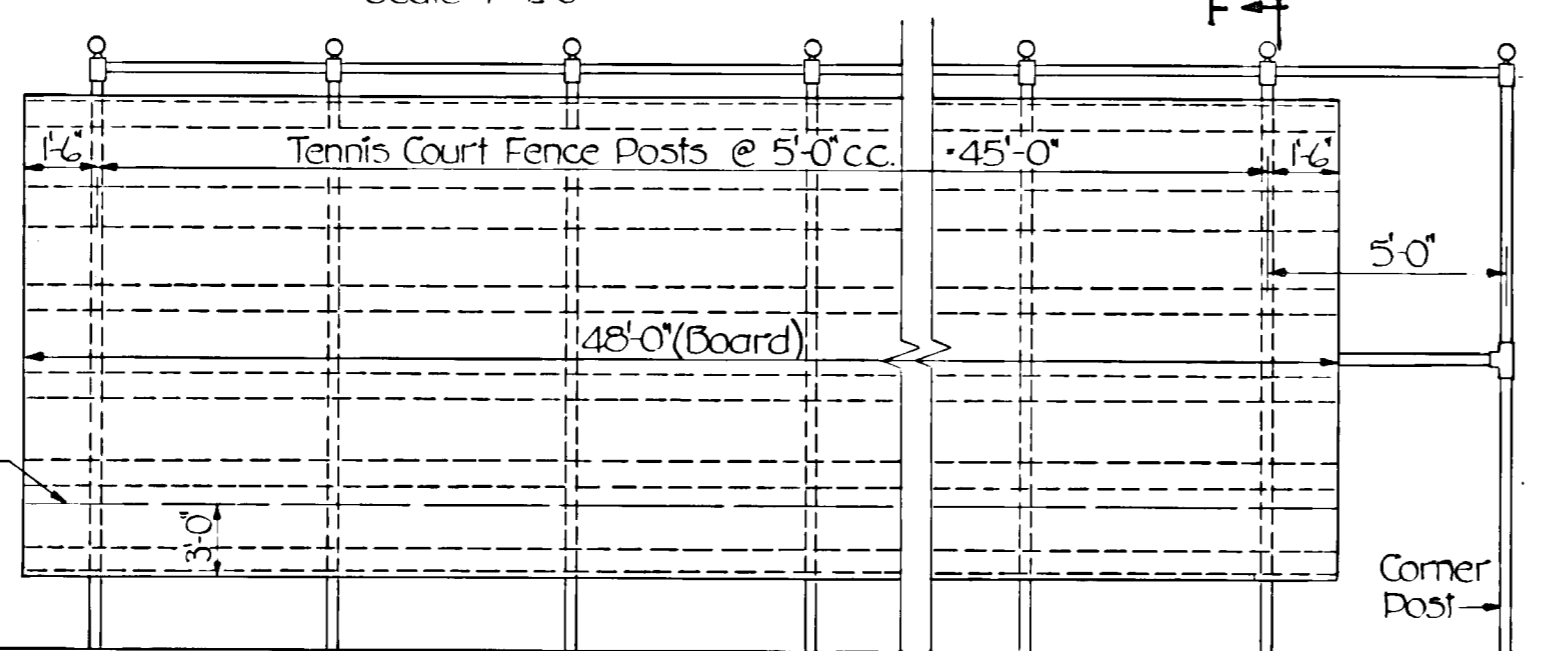
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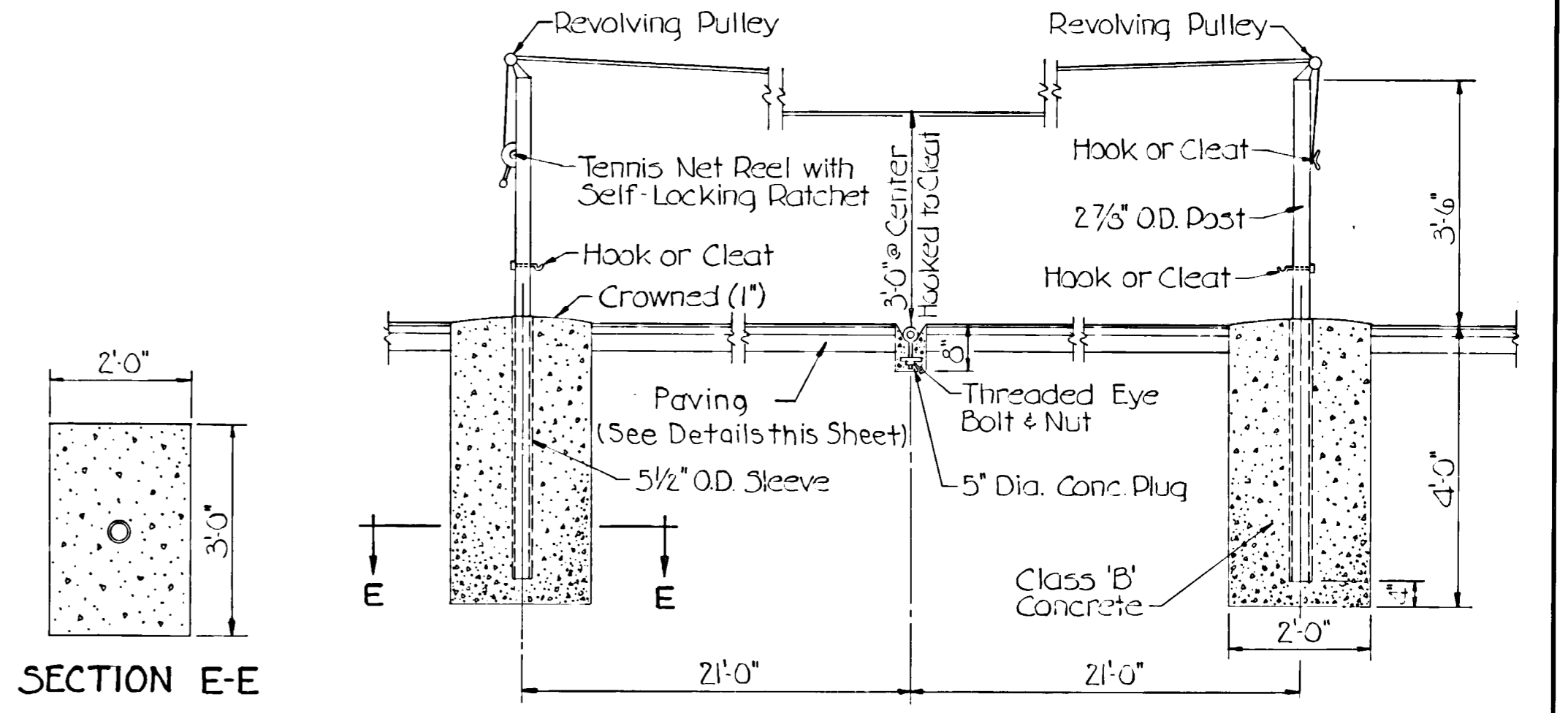
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SECTION F-F
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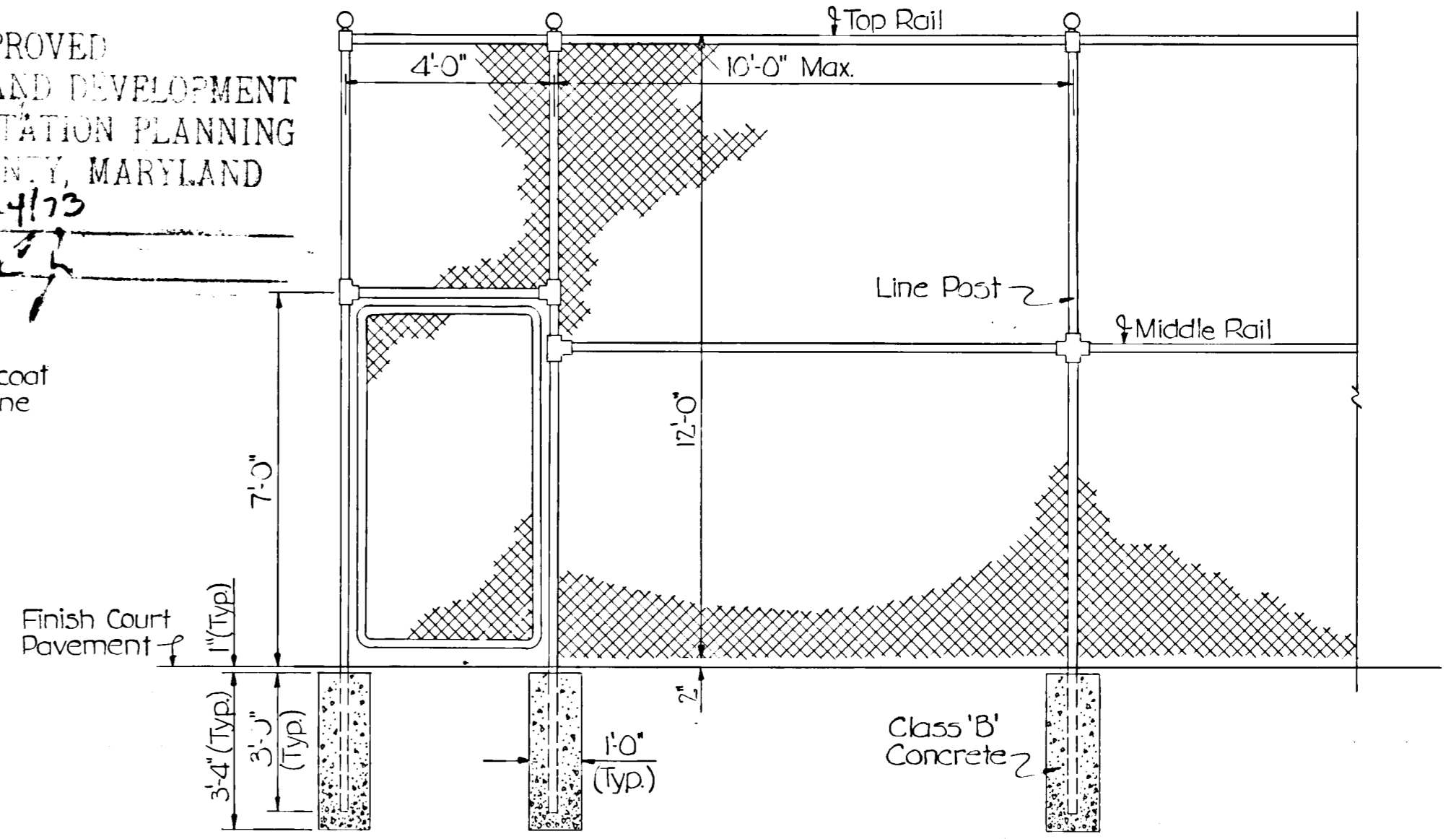


ELEVATION
TENNIS PRACTICE BOARD DETAIL
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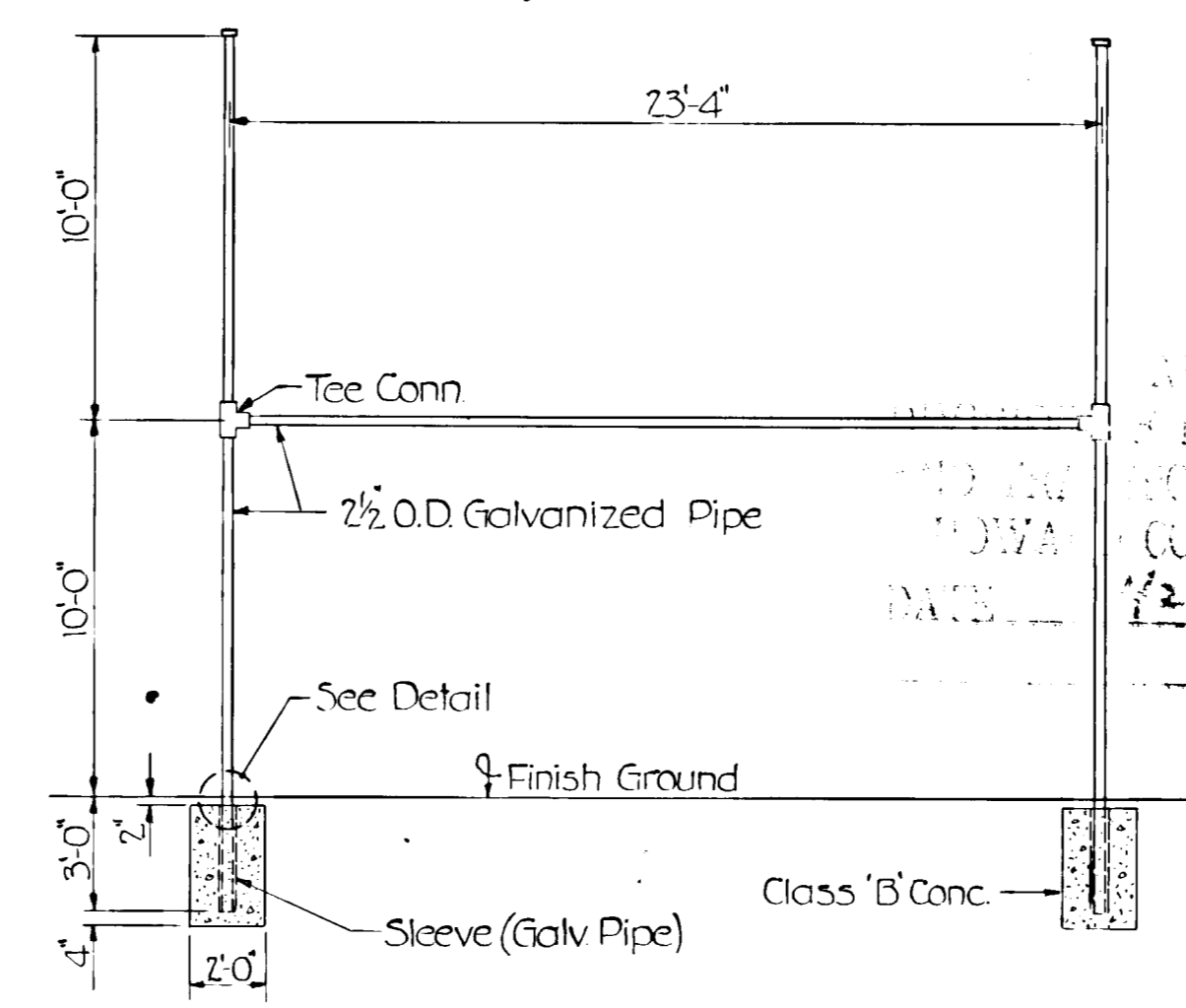


TENNIS COURT NET SUPPORT DETAIL
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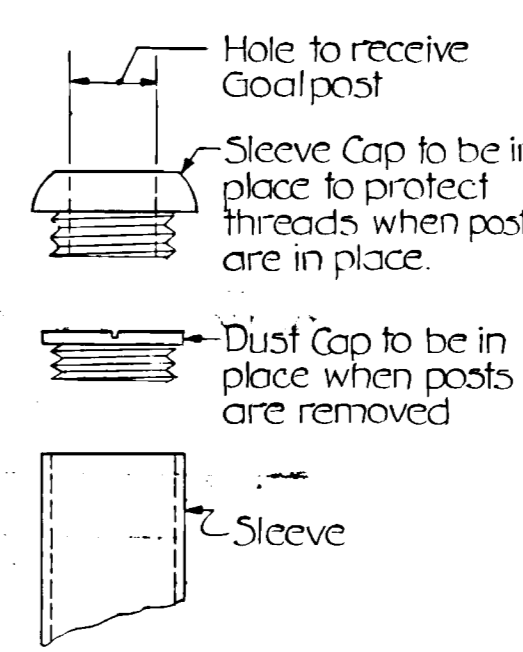
APPROVED
DIVISION OF LAND DEVELOPMENT
AND TRANSPORTATION PLANNING
HOWARD COUNTY, MARYLAND
DATE 7/24/73



FENCE DETAIL
Scale: 3/8"=1'-0"



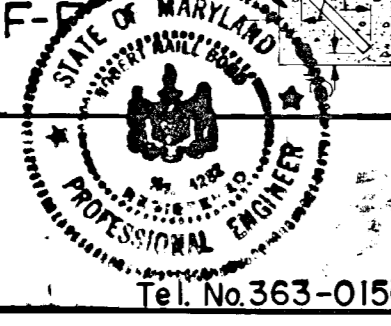
FOOTBALL GOAL POST
Not to Scale



DETAIL

| | |
|--|---------|
| APPROVED FOR DEPARTMENT OF RECREATION AND PARKS | |
| <i>[Signature]</i> | DATE |
| APPROVED: HOWARD COUNTY HEALTH DEPARTMENT | |
| <i>[Signature]</i> | 8/6/73 |
| APPROVED: HOWARD COUNTY OFFICE OF PLANNING AND ZONING | |
| <i>[Signature]</i> | 8/7/73 |
| <i>[Signature]</i> | 8/7/73 |
| APPROVED: FOR STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. | |
| <i>[Signature]</i> | 8/1/73 |
| <i>[Signature]</i> | 7/31/73 |

PREPARED BY:
THE WILSON T. BALLARD CO.
CONSULTING ENGINEERS
OWINGS MILLS, MARYLAND



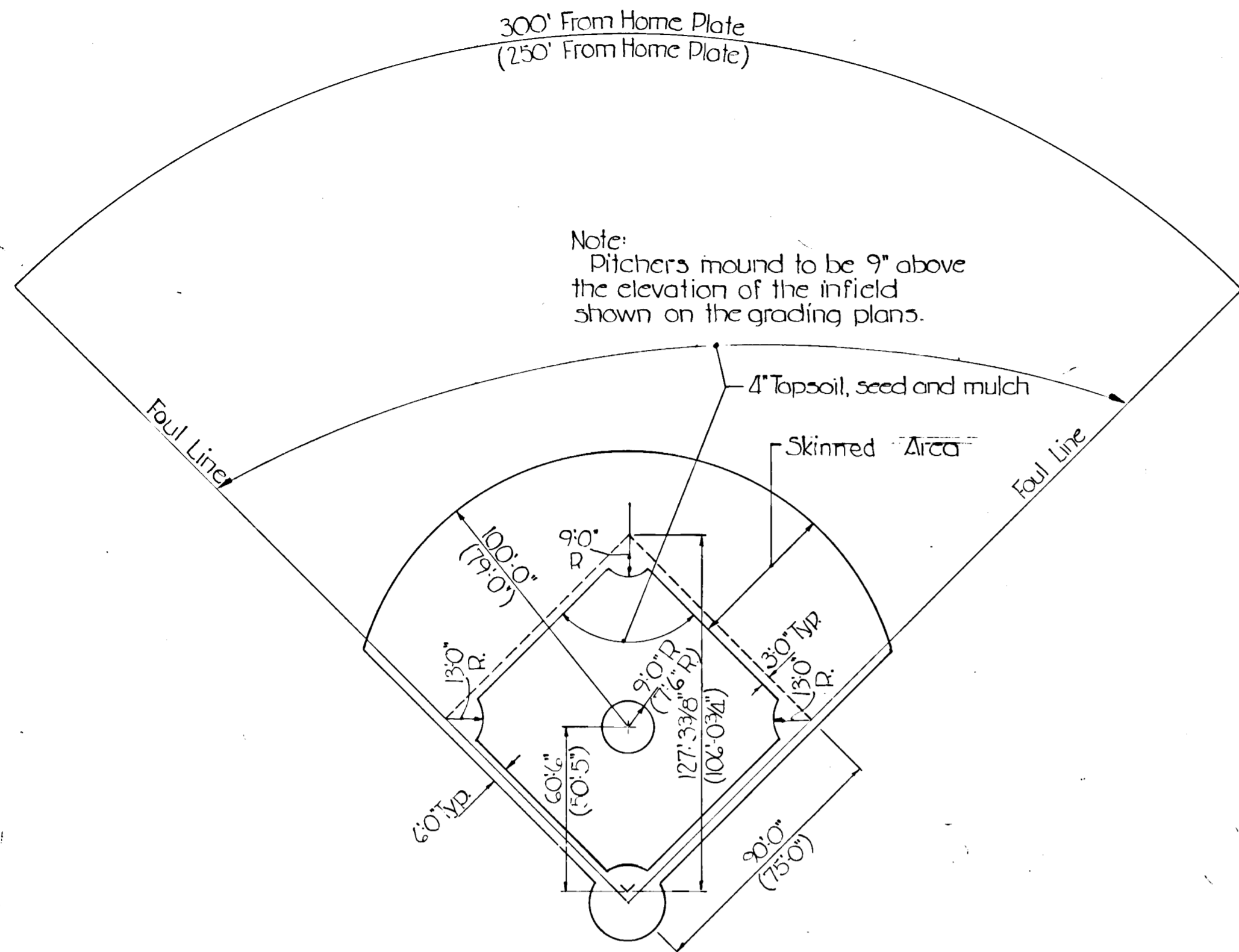
DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CONTRACT NO. RP 3026

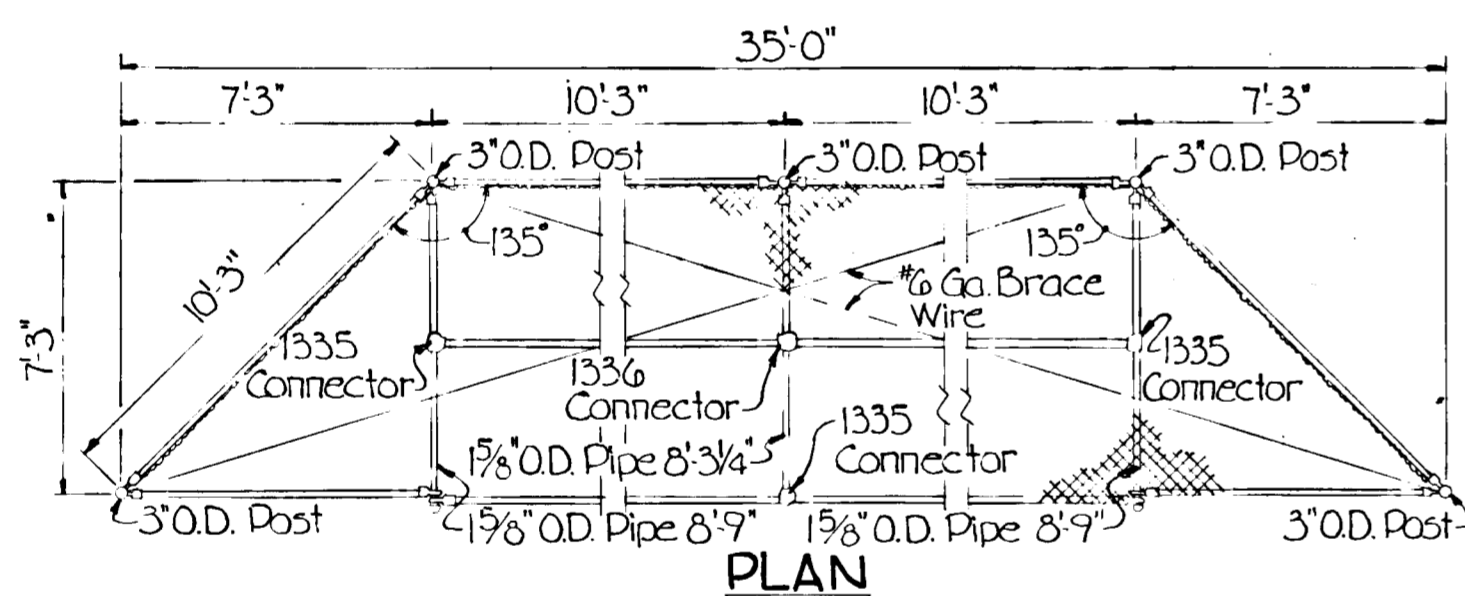
DEPARTMENT OF RECREATION AND PARKS
HOWARD COUNTY, MARYLAND

TROY HILL RECREATION PARK
PHASE I - TYPICAL DETAILS
ELECTION DISTRICT NO. 1

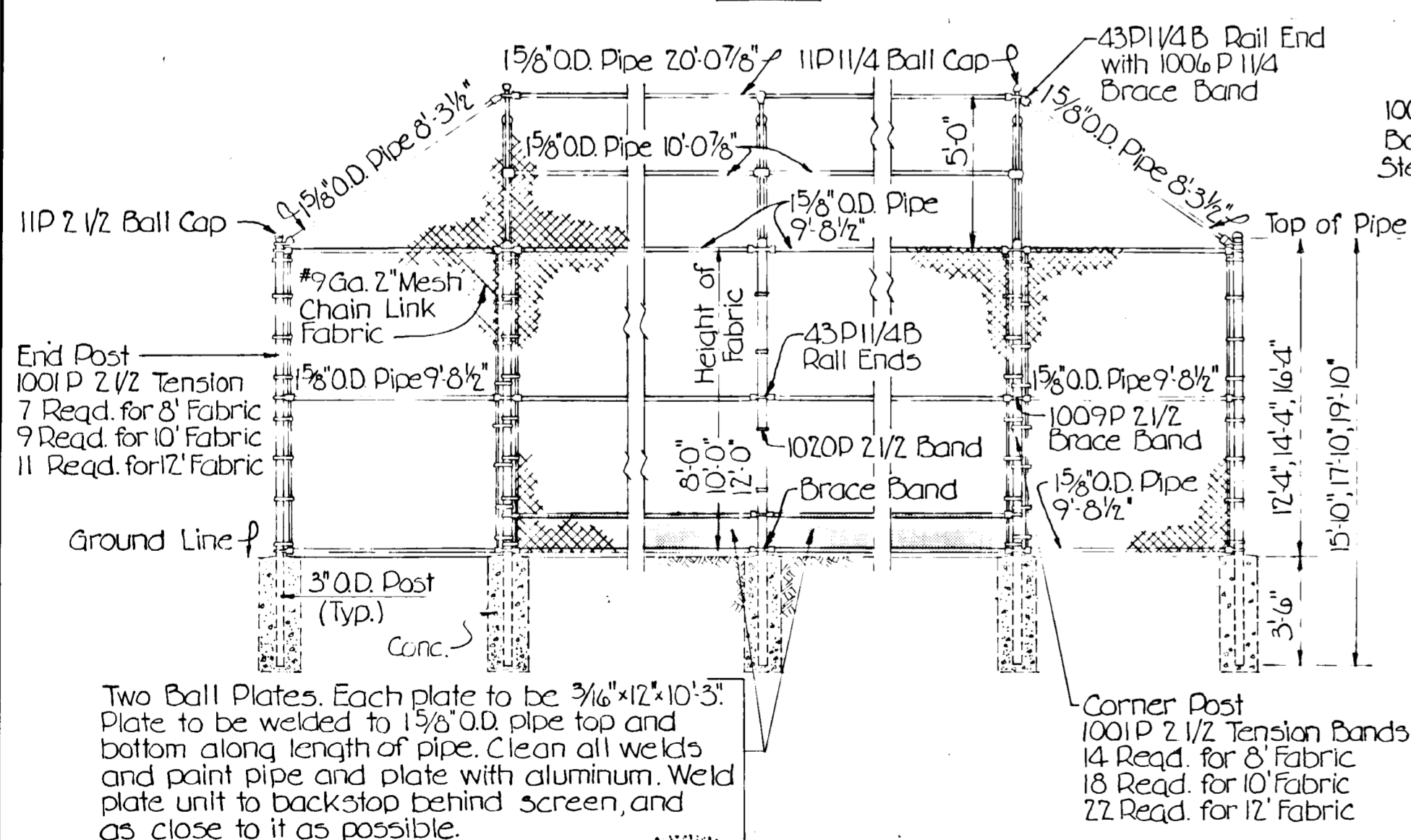
DRAWING NO. 10 OF 14 SCALE AS SHOWN



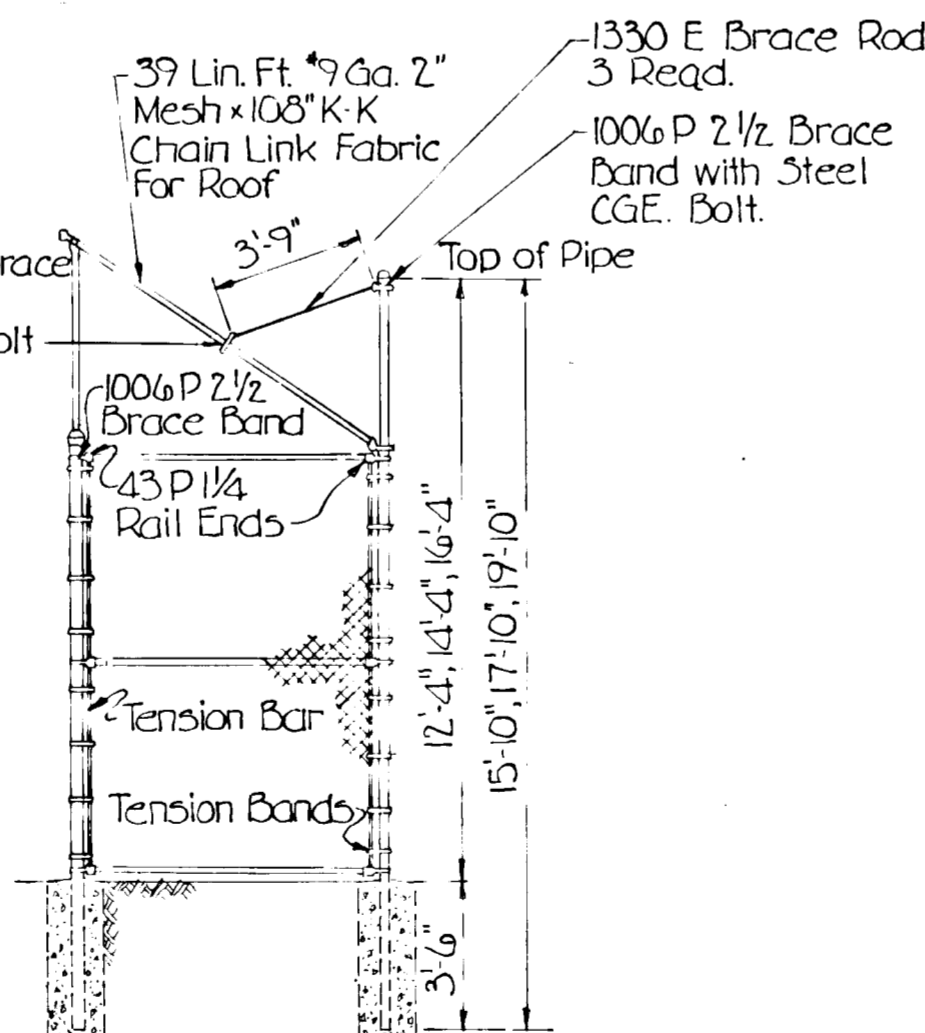
BASEBALL DIAMOND LAYOUT
Scale 1" = 40'



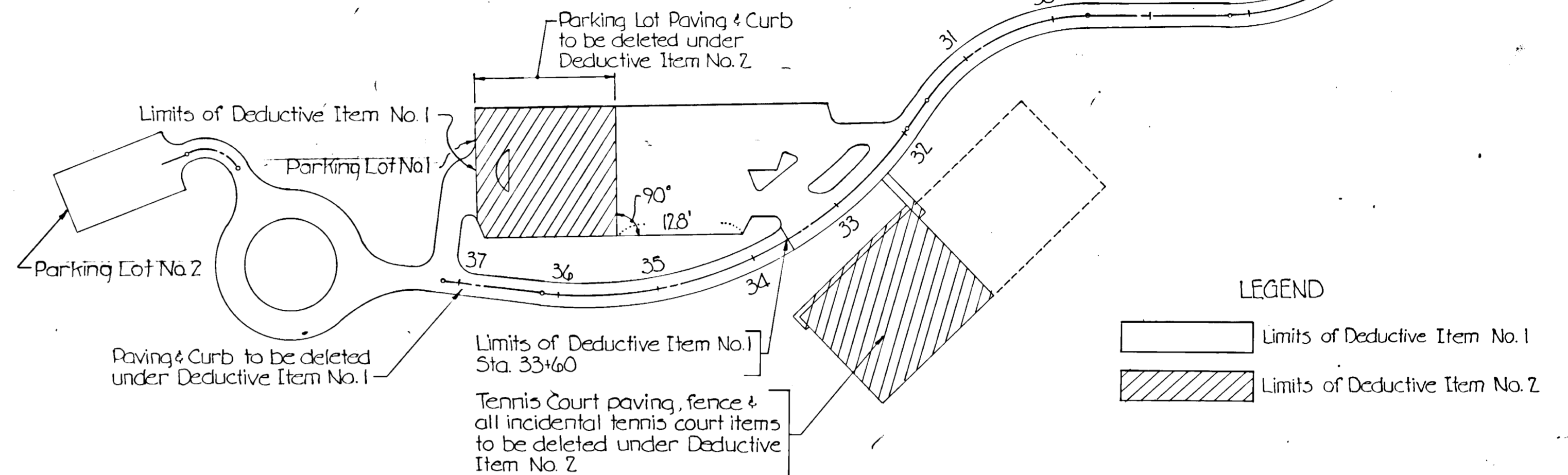
All Items Galvanized Unless Otherwise Specified



BASEBALL BACKSTOP DETAIL
Not To Scale



NOTE
The grading under the deductive items shall be completed to the normal subgrade line planned for the pavement section and shall be transitioned to drain and sloped to suit adjacent permanent grading. The area from which paving is deleted shall be covered with 4 inches of topsoil, seeded and mulched.



LIMITS OF DEDUCTIVE ITEMS
Scale: 1" = 100'

APPROVED
DIVISION OF LAND DEVELOPMENT
AND TRANSPORTATION PLANNING
HOWARD COUNTY, MARYLAND
DATE 8/17/73
BY [Signature]

| | |
|--|---------|
| APPROVED FOR DEPARTMENT OF RECREATION AND PARKS | |
| [Signature] | DATE |
| DIRECTOR | |
| APPROVED: | |
| HOWARD COUNTY HEALTH DEPARTMENT | |
| [Signature] | 8/6/73 |
| COUNTY HEALTH OFFICER | |
| DATE | |
| APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING | |
| [Signature] | 8/17/73 |
| PLANNING DIRECTOR | |
| [Signature] | 8/17/73 |
| CHIEF | |
| DIVISION OF LAND DEVELOPMENT | |
| APPROVED FOR: | |
| STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. | |
| [Signature] | 8/1/73 |
| DIRECTOR | |
| [Signature] | 7/31/73 |
| CHIEF, BUREAU OF HIGHWAYS | |
| DATE | |

PREPARED BY
THE WILSON T. BALLARD CO.
CONSULTING ENGINEERS
OWINGS MILLS, MARYLAND
Tel. No. 363-0150



DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CONTRACT NO. RP 3026

DEPARTMENT OF RECREATION AND PARKS
HOWARD COUNTY, MARYLAND

TROY HILL RECREATION PARK
PHASE I - TYPICAL DETAILS
ELECTION DISTRICT NO. 1

DRAWING NO. 11 OF 14 SCALE AS SHOWN



APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 7/21/73

STORM DRAIN DESIGN DATA

| LOCATION | FROM TO | AREA | ACRES | | | COEFF. "C" | CA | Σ CA | TIME CONC. MIN. | | | STORM FREQ. | INTEN. "I" | Q-CIA CFS. | PIPE n° 014 | | | | REMARKS |
|----------|---------|-----------|-------|-------|-----|------------|------|-------|-----------------|-------|------------|-------------|------------|------------|-------------|-------------------------|--------------------------|-------|---------|
| | | | SUB | TOTAL | CA | | | | INLET | DRAIN | TOTAL | | | | SIZE | SLOPE | VEL. | LGTH. | |
| I-3 | I-2 | I-C | 3.69 | .21 | .77 | .77 | 10.6 | 10.6 | 10Yr. | 6.0 | 4.65 | 15" | 100 | 3.7 | 16 | Sf=0.60% Vn=5.4 dn=0.84 | | | |
| I-2 | | 2-C | 0.45 | .58 | .26 | | 10.0 | 10.0 | 10Yr. | 6.1 | 1.24 | | | | | | | | |
| I-2 | I-1 | I-C & 2C | 4.14 | | | 1.03 | 10.6 | 10.6 | 10Yr. | 6.0 | 6.18 | 15" | 120 | 4.9 | 18 | Sf=1.00% Vn=6.2 dn=0.95 | | | |
| I-1 | | 3-C | 0.37 | .65 | .24 | | 7.5 | 7.5 | 10Yr. | 6.55 | 1.58 | | | | | | | | |
| I-1 | E-2 | I-C-3-C | 4.51 | | | 1.27 | 10.6 | 0.1 | 10.7 | 10Yr. | 6.0 | 7.62 | 18" | 0.80 | 4.2 | 15 | Sf=0.53% Vn=5.6 dn=1.08 | | |
| I-7 | I-6 | I-B | 1.94 | .75 | .14 | | 9.5 | 20Yr. | 7.1 | 6.2 | 10.4 (0.7) | 18" | 2.2 | 5.7 | 107 | Sf=1.6% Vn=9.0 dn=.93 | | | |
| I-6 | | 2-B | 1.53 | .53 | .81 | | 10.0 | 10.0 | 10Yr. | 6.1 | 4.95 | | | | | | | | |
| I-6 | M-1 | I-B & 2-B | 3.47 | | | 2.49 | 10.0 | 10.0 | 10Yr. | 6.1 | 15.2 | 18" | 3.5 | 8.5 | 147 | Sf=2.4% Vn=12.0 dn=1.0 | | | |
| M-1 | I-4 | I-B & 2-B | 3.47 | | | 2.49 | 10.0 | .2 | 10.2 | 10Yr. | 6.1 | 15.2 | 18" | 2.8 | 8.5 | 142 | Sf=2.4% Vn=12.0 dn=1.0 | | |
| I-5 | I-4 | 3-B | 1.03 | .61 | .63 | | 8.3 | 8.3 | 10Yr. | 6.35 | 4.00 | 15" | 1.0 | 3.2 | 19 | Sf=0.44% Vn=5.2 dn=.75 | | | |
| I-4 | | 4-B | .35 | .60 | .21 | | 10.0 | 10.0 | 10Yr. | 6.1 | 1.28 | | | | | | | | |
| I-4 | E-1 | I-B-4-B | 4.85 | | | 3.33 | 10.2 | .2 | 10.4 | 10Yr. | 6.0 | 20.0 | 24" | 3.75 | 6.2 | 41 | Sf=0.86% Vn=13.0 dn=0.98 | | |
| I-8 | E-3 | I-A | 0.53 | .62 | .33 | | 7.5 | 7.5 | 20 Yr. | 7.5 | 2.46 | 15" | 0.60 | 3.1 | 21 | Sf=0.54% Vn=3.6 dn=0.7 | | | |
| I-9 | Outfall | I-D | 1.75 | 0.20 | | | 10.0 | 10.0 | 20 Yr. | 7.0 | 2.45 | 15" | 3405 | 2.0 | 37 | Sf=0.48% Vn=11.5 dn=.38 | | | |
| I-10 | Outfall | I-E | 2.76 | 0.20 | | | 10.0 | 10.0 | 10 Yr. | 6.1 | 3.36 | 15" | 29.3 | 2.7 | 54 | Sf=0.70% Vn=11.0 dn=.44 | | | |

APPROVED FOR DEPARTMENT OF RECREATION AND PARKS
Robert N. Bond 8/6/73
 DIRECTOR DATE

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT
W. B. ... 8/6/73
 COUNTY HEALTH OFFICER DATE

APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Thomas ... 8/7/73
 PLANNING DIRECTOR DATE

J. ... 8/7/73
 CHIEF DIVISION OF LAND DEVELOPMENT

APPROVED FOR STORM DRAINAGE SYSTEMS AND PUBLIC ROADS, HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS.
William A. ... 8/1/73
 DIRECTOR DATE

J. ... 7/31/73
 CHIEF, BUREAU OF HIGHWAYS DATE

APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND TRANSPORTATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 7/21/73

PREPARED BY
 THE WILSON T BALLARD CO
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 OWINGS MILLS, MARYLAND

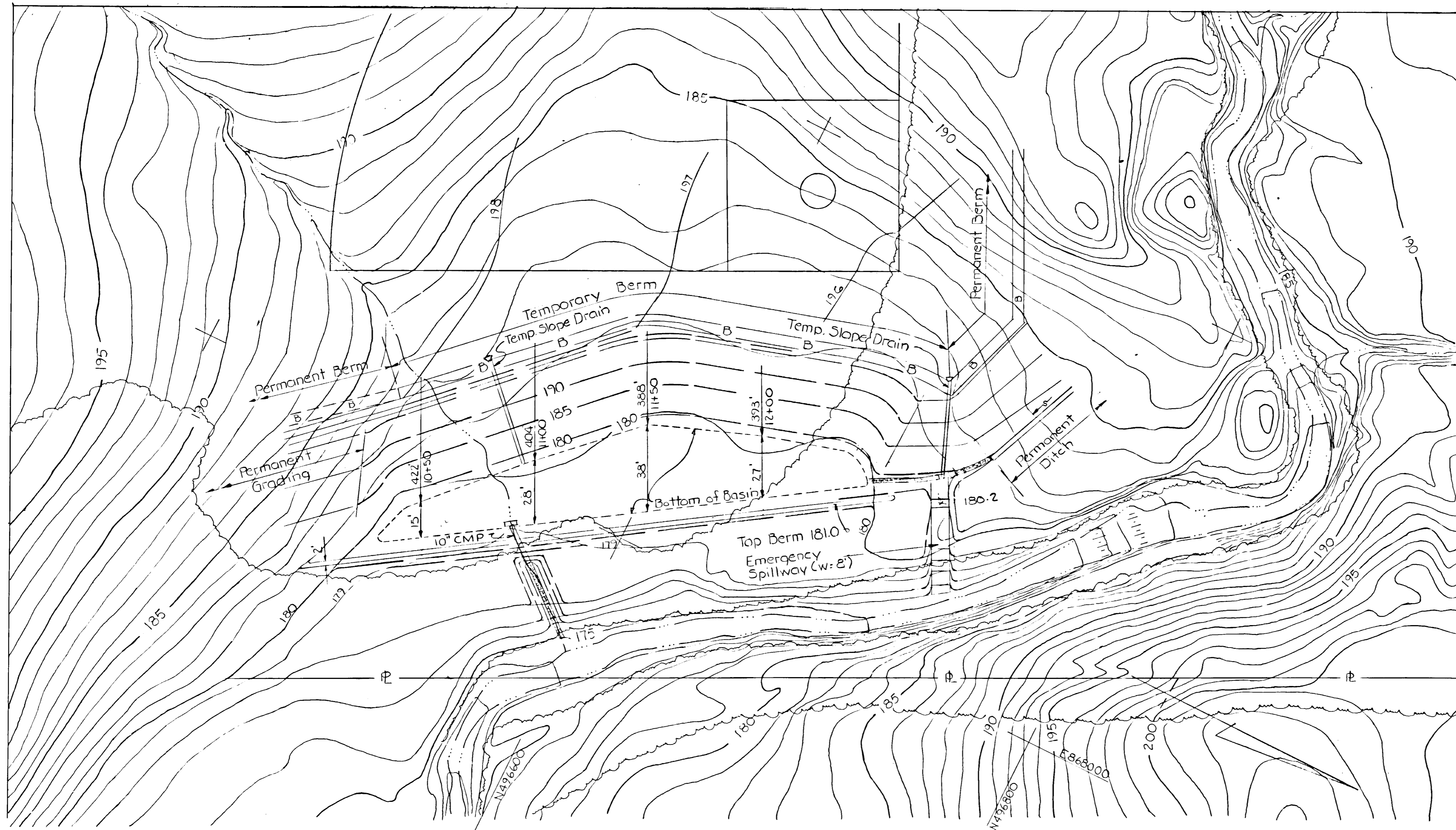
DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

CONTRACT NO. RC 3026

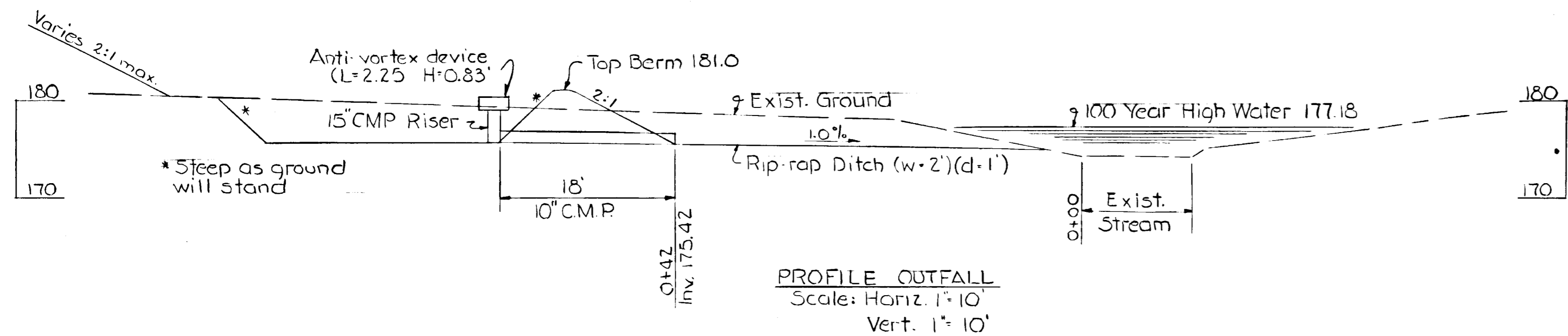
DEPARTMENT OF RECREATION AND PARKS
 HOWARD COUNTY, MARYLAND

TROY HILL RECREATION PARK
 PHASE I - DRAINAGE AREA MAP
 ELECTION DISTRICT NO. 1

DRAWING NO. 12 OF 14 SCALE 1" = 30'



APPROVED
 DIVISION OF LAND DEVELOPMENT
 AND RECREATION PLANNING
 HOWARD COUNTY, MARYLAND
 DATE 7/24/73
 J. B. O.



TEMPORARY SEDIMENT BASIN
 NORTHEAST CORNER-ATHLETIC FIELD

SEDIMENT BASIN

| | |
|------------------------------------|-----------------------------|
| Drainage Area | 16.0 Acres ± |
| Q | 18.6 cfs |
| Storage | 0.6 Ac. ft. |
| Trap Efficiency | 70% |
| Pipe Spillway | |
| Barrel: Size 10' L x 18" Fall 0.6' | |
| Riser: Size 15' L x 3.4' | |
| Discharge | 4.2 cfs |
| Emergency Spillway | |
| Q | 14.4 cfs |
| W | 8' H: 10' S: 40% V: 4.0 fps |
| Elevations | |
| Water Level | 180.0 |
| Riser | 179.0 |
| EM. Spillway | 180.2 |
| Top Embankment | 181.0 |

APPROVED FOR DEPARTMENT OF RECREATION AND PARKS
Robert N. Bond
 DIRECTOR DATE
 APPROVED HOWARD COUNTY HEALTH DEPARTMENT
John H. ...
 CITY HEALTH OFFICER DATE 8/1/73
 APPROVED HOWARD COUNTY OFFICE OF PLANNING AND ZONING
Thomas S. ...
 PLANNING DIRECTOR DATE 8/1/73
W. L. ...
 CHIEF DIVISION OF LAND DEVELOPMENT DATE 8/7/73
 APPROVED FOR STORM DRAINAGE SYSTEMS AND PUBLIC ROADS HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS
William A. Altman
 DIRECTOR DATE 8/1/73
J. M. ...
 CHIEF, BUREAU OF HIGHWAYS DATE 7/31/73

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 Tel No 363-0150

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

CONTRACT NO. RP 302G

DEPARTMENT OF RECREATION AND PARKS
 HOWARD COUNTY, MARYLAND

TROY HILL RECREATION PARK
 PHASE I - SEDIMENT BASIN DETAILS
 ELECTION DISTRICT NO. 1

DRAWING NO. 13 OF 14 SCALE 1" = 30'

SEDIMENT CONTROL AND SOIL STABILIZATION INSTRUCTIONS

1.0 SCOPE

- 1.1 Sediment Control and Soil Stabilization during construction.
- 1.2 Permanent Soil Stabilization Features and their maintenance after construction has been completed.

2.0 APPLICABLE DOCUMENTS

- 2.1 State of Maryland, Department of Natural Resources, Rules and Procedures for Sediment Control. April, 1972.
- 2.2 County Council of Howard County, Maryland, Council Bill 38, 1971.
- 2.3 United States Department of Agriculture, Soil Conservation Service, Standards and Specifications for Soil Erosion and Sediment Control in Urbanizing Areas. Adopted by State of Maryland, Department of Natural Resources in response to House Bill 1151, 1970.

3.0 SEQUENCE OF SEDIMENT CONTROL ACTIVITIES

- 3.1 **Activity 1** - The general contractor shall notify the Howard Soil Conservation District, 9051 Baltimore National Pike, Ellicott City, Maryland 21043, (301) 465-3190 in writing at least 24 hours before the commencement of any construction or institution of of sediment control measures shown on the drawings.
- 3.2 **Activity 2** -
 - 3.2.1 Straw bales, sediment traps and the sediment basin shall be constructed and approved for service by the Howard County Department of Public Works, Bureau of Inspections, Licenses of Permits for the Soil Conservation District before site clearing or grading operations will be permitted.
 - 3.2.2 All Sediment Control Measures shall be constructed as directed by this drawing, and shall then be maintained in operation until permission for their removal has been obtained from the Bureau of Inspections, Licenses and Permits for the Soil Conservation District.
 - 3.2.3 Sediment traps and the basin shall be cleaned out when deposited sediment reaches to within 1' of the top of the trap. Straw bales shall be replaced when they have become ineffective.
 - 3.2.4 Temporary slope drains shall be furnished and installed as indicated on the plans. The drains shall be of a material acceptable to the Engineer (collapsible plastic pipe, metal pipe, etc.) and shall be capable of being shortened or extended as the cut or fill slope length changes. An approved portable flume shall be provided at the entrance to the slope drain. Slope drains must be securely anchored to the face of the slope in a manner approved by the Engineer.
- 3.3 **Activity 3**
 - 3.3.1 Upon completion of the grading, topsoiling, seeding and mulching of the portion of the recreation field draining to the proposed sediment basin located at the northeast corner of the site and upon receipt of the approval of the Howard County Soil Conservation District, the said sediment basin may be removed from service and the grading of the area covered by the basin may be completed. All silt collected in the basin must be removed from the site before the placing of the embankment proceeds.

Erosion control precautions shall be exercised during this phase of the work so as to prevent the grading operation in the basin area from causing sedimentation of the adjacent stream. The precautions shall include diversion berms, slope drains and a 25' sediment trap.

3.4 Activity 4

- 3.4.1 Remove all sediment traps upon receipt of approval of the Howard County Soil Conservation District. All sediment collected in the traps shall be removed from the traps and deposited at an approved location on the site and the hole back-filled with suitable embankment material and compacted in accordance with specifications. The hole shall be filled to an elevation which will provide positive runoff. Ditches or swales passing through the area shall be shared to provide a flow line and the ditch or swale shall be lined with sod (8 feet in width) or a rip-rap material, as the case may be, so as to conform with the lining of the approach channel.

All components of the storm drain system shall be cleaned of accumulated sediment to the satisfaction of the Engineer.

4.0 CONSTRUCTION REQUIREMENTS

- 4.1 **Stockpile Protection During Construction** - Stockpiles of topsoil and other erodible materials shall have a temporary dike laid around their base with a minimum 25 foot long stone overflow berm at the low point.

All stockpiles that are to be undisturbed for three (3) weeks or longer shall, immediately after piling, be fertilized, limed and seeded with annual rye grass at a rate of 1.0 pounds per 1,000 square feet.
- 4.2 **Topsoil, Permanent Seeding and Mulching** -
 - 4.2.1 All areas disturbed by grading or embankment movement, not being paved, and flatter than three (3) feet horizontal to one (1) vertical, shall be topsoiled, seeded and mulched following completion of permanent and/or temporary grading, in accordance with the following:
 - a) Place a compacted layer of topsoil to finished grade.
 - b) Spread pulverized dolomitic limestone at the rate of one ton per acre.
 - c) Spread 10-10-10 commercial grade fertilizer at a rate of 1,000 pounds per acre and immediately disc into soil to a depth of 3".
 - d) Seed prepared areas at the rate of 180 pounds per acre using Kentucky 31 Paspalum and 20 pounds per acre Annual Rye Grass. Mulch all areas immediately after seeding with unweathered small grain straw or hay at the rate of 1.5 tons per acre. Spray mulch with emulsified asphalt at the rate of 1.24 gallons per square yard. The seed, fertilizer and mulch may also be applied by hydrosowing.
 - 4.2.2 All slopes steeper than three (3) horizontal to one (1) vertical shall be topsoiled, planted with Crownvetch and inoculated Kentucky 31 tall Paspalum and mulched. The seeding rate shall be 0.70 pounds per 1,000 square feet for Crownvetch and 1.80 pounds per 1,000 square feet for 31 tall Paspalum. Limestone and fertilizer shall be applied as for the slopes flatter than 3:1.
- 4.3 **Temporary Seeding**
 - 4.3.1 Temporary seeding will be required for all disturbed areas which are to be left incomplete or cannot be planted with permanent seeding for a period in excess of two (2) months. Temporary seeding shall not be used without the written authorization of the Engineer.
 - 4.3.2 Temporary seeding may be accomplished by spreading or hydrosowing, as follows:
 - a) Pulverized dolomitic limestone at a rate of one ton per acre
 - b) 10-10-10 commercial grade fertilizer at the rate of 600 pounds per acre
 - c) Disc into the soil to a depth of at least 3"
 - d) Seed with annual rye grass at a rate of 35 pounds per acre
 - e) Mulch in accordance with 4.2.1.
 - 4.3.3 In lieu of mulch application for temporary and permanent conditions and especially drainage swales and ditches, the following alternatives may be used:
 - a) Worm Jute matting
 - b) Woven fiberglass matting
 - c) Wood fiber blanket
 - d) Excelsior blanket
- 4.4 **Slopes** - No slopes steeper than 2:1 shall be created.
- 4.5 **Control Measures** - Details of erosion control measures are shown on sheets 8 and 13.

5.0 INSPECTION AND ENFORCEMENT

- 5.1 The Howard County Department of Public Works has certified that construction and maintenance of Sediment Control and Soil Stabilization Measures shall be carried out in accordance with these drawings and construction specifications, as required by Council Bill 38, 1971 (Document 2.2). The Contractor shall familiarize himself with the provisions of this bill and shall prepare and institute a maintenance program for sediment control structures (including daily checks at the end of a shift) satisfactory to the Engineer.
- 5.2 Inspection by the Bureau of Inspections, Licenses and Permits will be supplemented by spot checks by the Engineer and other Representatives of the owner to insure responsible compliance by the Contractor.
- 5.3 In case the Contractor fails to control erosion and sedimentation, the County reserves the right to employ outside assistance or to use its own forces to provide the necessary corrective measures. Such incurred direct costs plus project engineering costs will be charged to the Contractor and appropriate deductions made from the Contractor's monthly progress estimate.



Robert T. Bond

PREPARED BY:
THE WILSON T. BALLARD CO.
CONSULTING ENGINEERS
OWINGS MILLS, MARYLAND

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

CONTRACT NO. RP-3026

DEPARTMENT OF RECREATION
AND PARKS
HOWARD COUNTY, MARYLAND

**TROY HILL RECREATION PARK
PHASE I - SEDIMENT CONTROL NOTES**
ELECTION DISTRICT NO. 1

DRAWING NO. 14
OF 14
SCALE 1" = 30'

APPROVED
DIVISION OF LAND DEVELOPMENT
AND TRANSPORTATION PLANNING
HOWARD COUNTY, MARYLAND
DATE 7/24/73

APPROVED FOR DEPARTMENT OF RECREATION
AND PARKS

Herbert Schaefer
DIRECTOR DATE

APPROVED HOWARD COUNTY HEALTH DEPARTMENT

W. J. M. D. 8/6/73
COUNTY HEALTH OFFICER DATE

APPROVED HOWARD COUNTY OFFICE OF PLANNING
AND ZONING

Thomas E. Merrill 8/7/73
PLANNING DIRECTOR DATE
W. J. Conner 8/7/73
CHIEF DIVISION OF LAND DEVELOPMENT

APPROVED FOR
STORM DRAINAGE SYSTEMS AND PUBLIC
ROADS, HOWARD COUNTY DEPARTMENT
OF PUBLIC WORKS
William G. Altman 8/6/73
DIRECTOR DATE
E. N. McLeod 7/31/73
CHIEF, BUREAU OF HIGHWAYS DATE