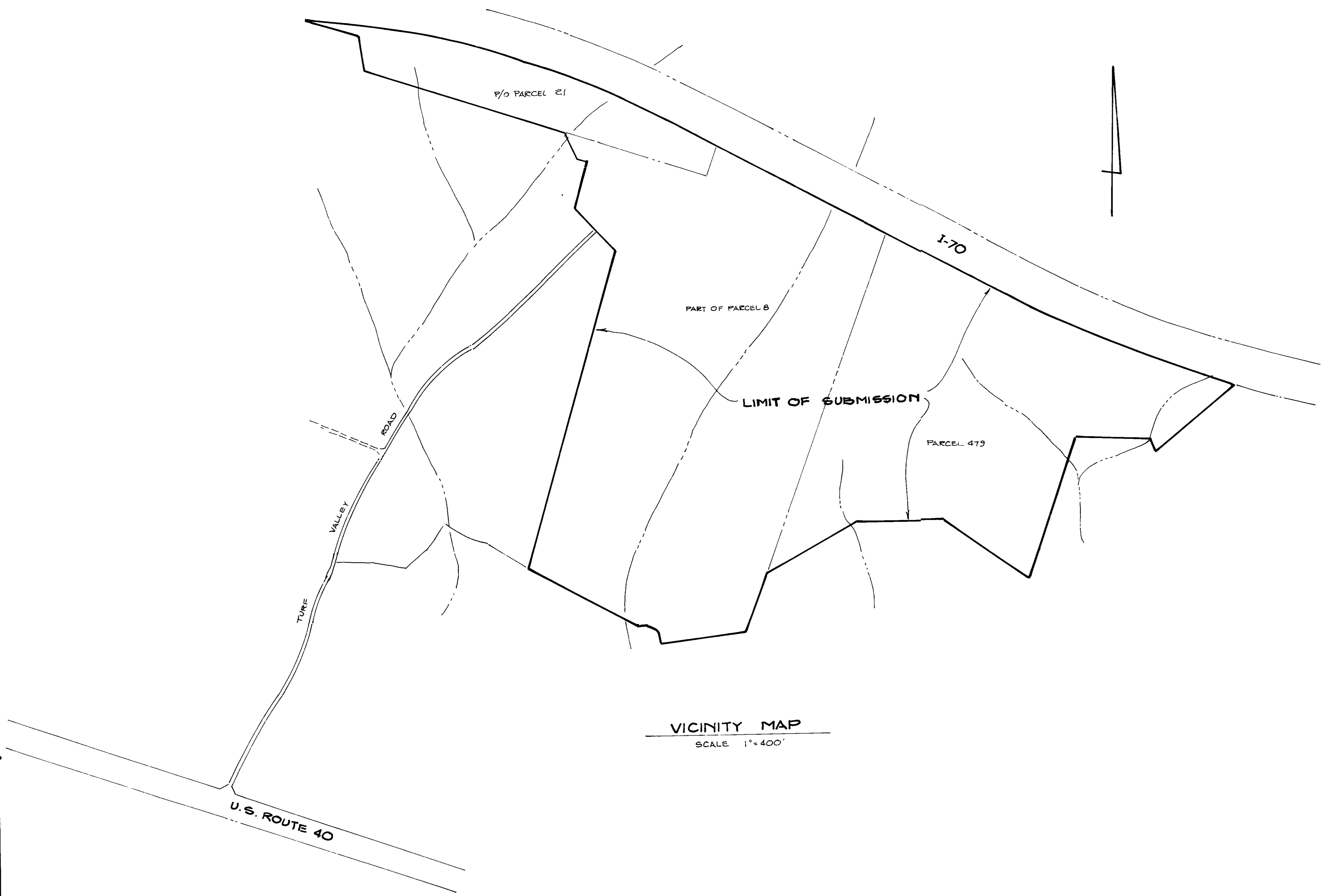


INDEX TO SHEETS

- 1 COVER SHEET
- 2 SITE DEVELOPMENT PLAN
- 3 SOIL MAP
- 4 DRAINAGE AREA MAP TO SWM PONDS

- 5 POND # 5 DETAILS-INFILTRATION BASIN
- 6 POND # 5 DETAILS-TEMP. STORM WATER MNGMT.
- 7 SOIL BORINGS DETAILS
- 8 INDEX TO SEDIMENT CONTROL
- 9 SEDIMENT CONTROL PLAN
- 10 SEDIMENT CONTROL PLAN
- 11 SEDIMENT CONTROL PLAN
- 12 SEDIMENT CONTROL PLAN
- 13 SEDIMENT CONTROL PLAN
- 14 SEDIMENT CONTROL PLAN
- 15 SEDIMENT CONTROL PLAN
- 16 SEDIMENT CONTROL PLAN
- 17 SEDIMENT CONTROL PLAN
- 18 SEDIMENT CONTROL PLAN
- 19 SEDIMENT CONTROL PLAN
- 20 STORM WATER MANAGEMENT DETAIL
- 21 SEDIMENT CONTROL DETAIL



VICINITY MAP
SCALE 1"=400'

LORIA, GEOGHI & ASSOCIATES, LTD
ENGINEERS, PLANNERS SURVEYORS
3217 CORPORATE COURT
BELLGATE CITY, MD 21043
(301) 750-9003

10-26-88

| NO | REVISIONS | DATE |
|----|--|--------|
| 1 | REMOVE SHEETS 5, 6, 7 & 8 FROM SDP-89-47 AS APPROVED ON 10/26/88 | 3/4/91 |

| ADDRESS CHART | |
|---------------|-----------------------|
| LOT NUMBER | STREET ADDRESS |
| 1 | 2700 TURF VALLEY ROAD |

REVIEWED HOWARD COUNTY HEALTH DEPARTMENT
NO SANITARY FACILITIES REQUIRED
DATE 8-1-89
COUNTY HEALTH OFFICER

APPROVED HOWARD COUNTY DEPT OF PLANNING & ZONING
DATE 8/1/89
DIRECTOR

APPROVED DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS.
DATE 7/31/89
DIRECTOR

DATE 7-25-89
CHIEF BUREAU OF ENGINEERING

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
DATE 7/24/89
U.S. SOIL CONSERVATION SERVICE

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

DEVELOPER'S CERTIFICATE

"I certify that all development and/or construction will be done according to these plans, and 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. I will provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."
DATE 7/24/89
Signature of Developer

ENGINEER'S CERTIFICATE

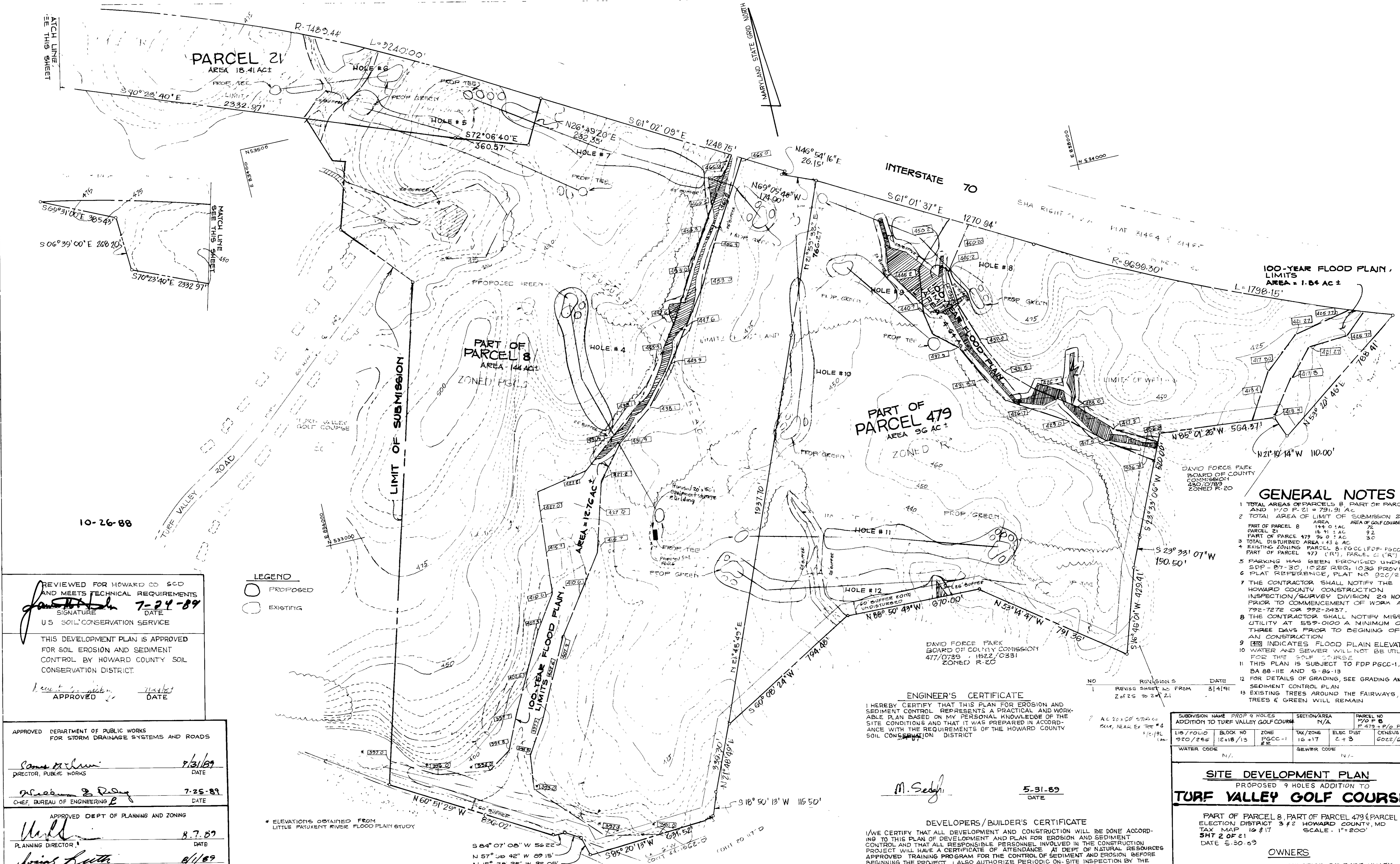
"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."
DATE 5-31-89
Signature of Engineer

| SUBDIVISION NAME | | PROP | HOLES | SECT / AREA | LOT / PARCEL # |
|-------------------------|----------|---------------|----------------|-------------|-----------------------|
| TURF VALLEY GOLF COURSE | | | | | F 8 P 479 + B6 P21 |
| LIB / FOLIO | BLOCK # | ZONE | TAX / ZONE MAP | ELEC DIST | CENSUS TR. |
| 220/205 | 12+18/13 | R 4 R6CC-1 | 16 + 17 | 2 + 3 | 6002/6030 |
| WATER CODE | | | SEWER CODE | | |
| 11/A | | | 4/A | | |

VICINITY MAP AND INDEX SHEET
PROPOSED 9 HOLES ADDITION TO
TURF VALLEY GOLF COURSE

283 RD ELECTION DISTRICT TAX MAP 16 & 17
HOWARD COUNTY, MD P/O P.8, P.479, P/O P.21
SCALE AS SHOWN SHEET 1 OF 21
DATE 5-30-89

OWNERS
PARCEL 8 - MANGIONE ENTERPRISES OF TURF VALLEY
PARCEL 479 TURF VALLEY ASSOCIATION
PARCEL 21 NICHOLAS B & MARY C MANGIONE
1205 YORK RD
LUTHERVILLE, MD 21093



PARCEL 21
AREA 18.41 AC ±

PART OF PARCEL 8
AREA 144 AC ±
ZONED R-13

PART OF PARCEL 479
AREA 36 AC ±
ZONED R-20

100-YEAR FLOOD PLAIN,
LIMITS
AREA = 1.84 AC ±
L = 1798.15'

LEGEND
○ PROPOSED
○ EXISTING

GENERAL NOTES

- TOTAL AREA OF PARCELS 8, PART OF PARCEL 479 AND P/O P-21 = 791.91 AC
- TOTAL AREA OF LIMIT OF SUBMISSION 258.41 AC
- PART OF PARCEL 8 AREA 144.01 AC AREA OF GOLF COURSE 30.7%
- PART OF PARCEL 479 AREA 36.11 AC 9.2%
- TOTAL DISTURBED AREA = 43.6 AC 5.5%
- EXISTING ZONING PARCEL 8 - FGCC (FDP-PGCC-1) PART OF PARCEL 479 (R-1), PARCEL 21 (R-1)
- PARKING HAS BEEN PROVIDED UNDER SDF-87-30, 1025 REQ. 1026 PROVIDED
- PLAT REFERENCE, PLAT NO. 920/285
- THE CONTRACTOR SHALL NOTIFY THE HOWARD COUNTY CONSTRUCTION INSPECTION/SURVEY DIVISION 24 HOURS PRIOR TO COMMENCEMENT OF WORK AT 792-7272 OR 992-2437.
- THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 552-0100 A MINIMUM OF THREE DAYS PRIOR TO BEGINNING OF AN CONSTRUCTION
- 100 INDICATES FLOOD PLAIN ELEVATION
- WATER AND SEWER WILL NOT BE UTILIZED FOR THE GOLF COURSE
- THIS PLAN IS SUBJECT TO FDP PGCC-1, BA 88-11E AND S-86-13
- FOR DETAILS OF GRADING, SEE GRADING AND SEDIMENT CONTROL PLAN
- EXISTING TREES AROUND THE FAIRWAYS, TREES & GREEN WILL REMAIN

ENGINEER'S CERTIFICATE

I HEREBY 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 COUNTY SOIL CONSERVATION DISTRICT

M. Sedghi

5-31-89
DATE

DEVELOPERS/BUILDER'S CERTIFICATE

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 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 COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY.

Developer/Builder

7/26/88
DATE

LORIA, SEDGHI & ASSOCIATES, LTD.

ENGINEERS • SITE PLANNERS • SURVEYORS
3217 CORPORATE COURT
ELLCOTT CITY, MD 21043
(301) 750-9003

REVIEWED FOR HOWARD CO SCD AND MEETS TECHNICAL REQUIREMENTS
Signature: *[Signature]* DATE: 7-24-89
U.S. SOIL CONSERVATION SERVICE

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

APPROVED DATE: 7/24/89

APPROVED DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS

Signature: *[Signature]* DATE: 7/31/89
DIRECTOR, PUBLIC WORKS

Signature: *[Signature]* DATE: 7-25-89
CHIEF, BUREAU OF ENGINEERING

APPROVED DEPT OF PLANNING AND ZONING
Signature: *[Signature]* DATE: 8-7-89
PLANNING DIRECTOR

Signature: *[Signature]* DATE: 8/1/89
CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED HOWARD COUNTY HEALTH DEPARTMENT REVIEWED. NO SANITARY FACILITIES REQUIRED

Signature: *[Signature]* DATE: 8-1-89
HEALTH OFFICER

| SUBDIVISION NAME | | SECTION/AREA | PARCEL NO |
|-------------------------------------|----------|--------------|-----------|
| ADDITION TO TURF VALLEY GOLF COURSE | | N/A | P/O P-21 |
| LIB/FOLIO | BLOCK NO | ZONE | TAX/ZONE |
| 920/285 | 12+18/13 | PGCC-1 | 16+17 |
| WATER CODE | | SEWER CODE | |
| N/A | | N/A | |

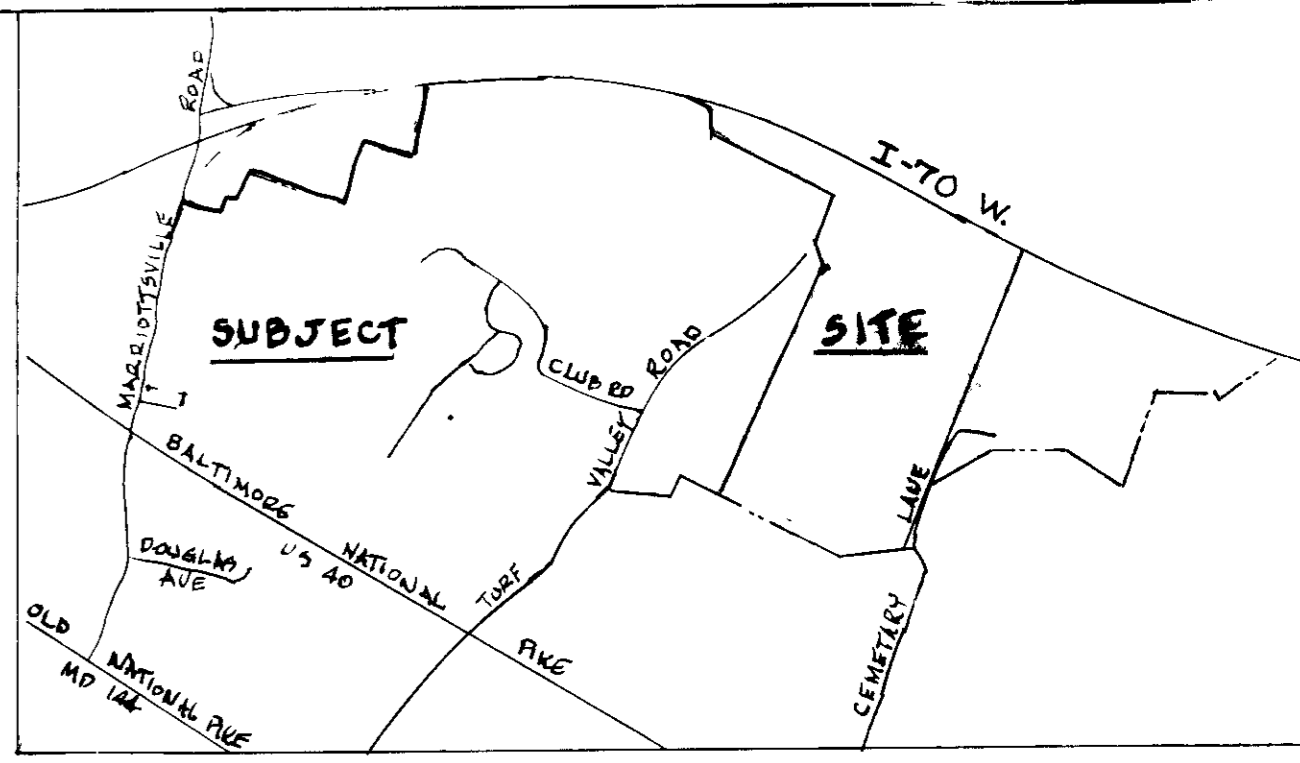
SITE DEVELOPMENT PLAN
PROPOSED 9 HOLES ADDITION TO
TURF VALLEY GOLF COURSE

PART OF PARCEL 8, PART OF PARCEL 479 & PARCEL 21
ELECTION DISTRICT 3 #2 HOWARD COUNTY, MD
TAX MAP 16 #17 SCALE: 1"=200'
SHT 2 OF 21
DATE 5-30-89

OWNERS

PARCEL 8 MANGIONE ENTERPRISE OF TURF VALLEY
PARCEL 479 TURF VALLEY ASSOCIATION
PARCEL 21 NICHOLAS B & MARY C MANGIONE
1205 YORK ROAD
LUTHERVILLE, MD
21093

SDP 59.47



VICINITY MAP
SCALE - 1" = 2000'

TURF VALLEY GOLF COURSE
920/285

100 YEAR FLOOD PLAIN
LIMITS
AREA = 1.84 AC
L = 1798.15'

DAVID FORCE PARK

DAVID FORCE PARK

10-26-88

- LEGEND**
- PROPOSED
 - EXISTING

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DIST. & MEETS TECHNICAL REQUIREMENTS
James M. Sedghi 7/24/87
SIGNATURE DATE
U.S. SOIL CONSERVATION SERVICE

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

APPROVED DATE

APPROVED DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS

James M. Sedghi 7/31/87
DIRECTOR, PUBLIC WORKS DATE

William D. Reay 7-25-87
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED, DEPT. OF PLANNING AND ZONING HO 60
William D. Reay 8-7-87
PLANNING DIRECTOR DATE

James M. Sedghi 8/1/87
CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED HOWARD COUNTY HEALTH DEPARTMENT REVIEWED: NO SANITARY FACILITIES REQUIRED

James M. Sedghi 8-1-89
HEALTH OFFICER DATE

ENGINEER'S CERTIFICATE
I HEREBY 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 COUNTY SOIL CONSERVATION DISTRICT

M. Sedghi 7-26-88
DATE

DEVELOPER'S/BUILDER'S CERTIFICATE
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 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 COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

William D. Reay 7-26/88
DEVELOPER/BUILDER DATE

| No | REVISIONS | DATE |
|----|--|--------|
| 1 | REVISE SOIL MAP, REVISE SHEET NO FROM 3 OF 25 TO 3 OF 21 | 3/4/91 |

HOWARD COUNTY SOIL MAP - 9 # 15

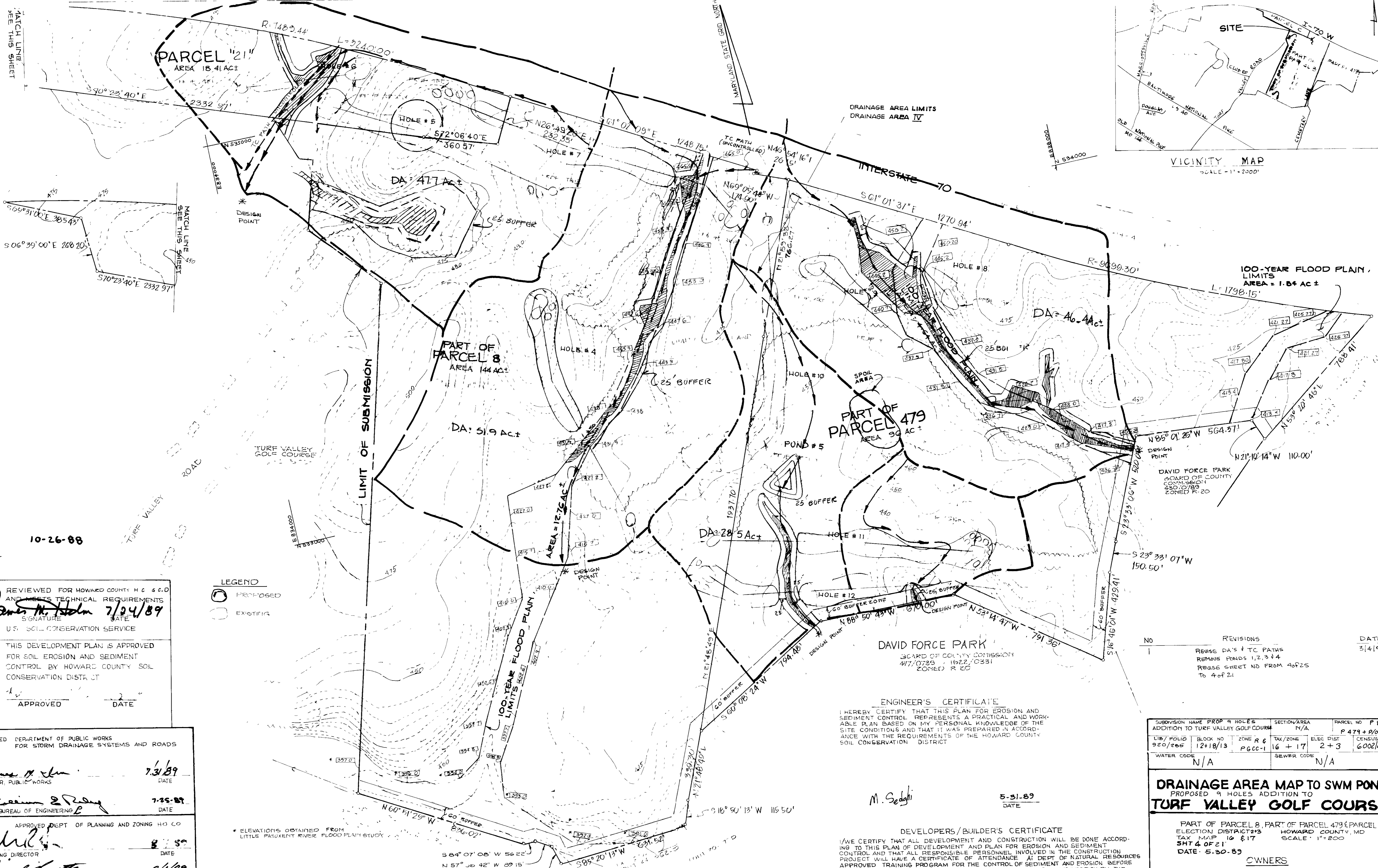
| | | |
|--|----------------------|---------------------|
| SUBDIVISION NAME PROP 9 HOLES ADDITION TO TURF VALLEY GOLF COURSE | SECTION/AREA N/A | PARCEL NO P 8 |
| LIB/FOLIO 920/285 | BLOCK NO 12+18/13 | TAX/ZONE 16 + 17 |
| WATER CODE N/A | ELEC DIST 2 + 3 | SEWER CODE N/A |
| CENSUS TR 6002/6030 | | |

SOIL MAP
PROPOSED 9 HOLES ADDITION TO
TURF VALLEY GOLF COURSE

ELECTION DISTRICT 3 HOWARD COUNTY, MD
TAX MAP 16 & 17 SCALE: 1"=200'
SHT. 3 OF 21
DATE: 5-30-89

OWNERS
PARCEL 8 MANGIONE ENTERPRISES OF TURF VALLEY
PARCEL 479 TURF VALLEY ASSOCIATION
PARCEL 21 NICHOLAS B & MARY C. MANGIONE
1205 YORK ROAD
LUTHERVILLE, MD
21093

LORIA, SEDGHI & ASSOCIATES, LTD.
ENGINEERS • SITE PLANNERS • SURVEYORS
3217 CORPORATE COURT
ELLCOTT CITY, MD. 21043
(301) 750-9003



10-26-88

REVIEWED FOR HOWARD COUNTY H & S.C.D. AND MEETS TECHNICAL REQUIREMENTS
James M. Sedghi 7/24/89
 SIGNATURE DATE
 U.S. SOIL CONSERVATION SERVICE

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

APPROVED DATE

LEGEND
 ○ PROPOSED
 ○ EXISTING

APPROVED DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS

James M. Sedghi 7/31/89
 DIRECTOR, PUBLIC WORKS DATE

William E. Riley 7-25-89
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED DEPT. OF PLANNING AND ZONING H & C O
William E. Riley 8-1-89
 PLANNING DIRECTOR DATE

Approved 8/1/89
 CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED HOWARD COUNTY HEALTH DEPARTMENT REVIEWED NONSANITARY FACILITIES REQUIRED

Joseph M. Boydman, Sr. 8-1-89
 HEALTH OFFICER DATE

* ELEVATIONS OBTAINED FROM LITTLE PATUXENT RIVER FLOOD PLAIN STUDY

LORIA, SEDGHI & ASSOCIATES, LTD.

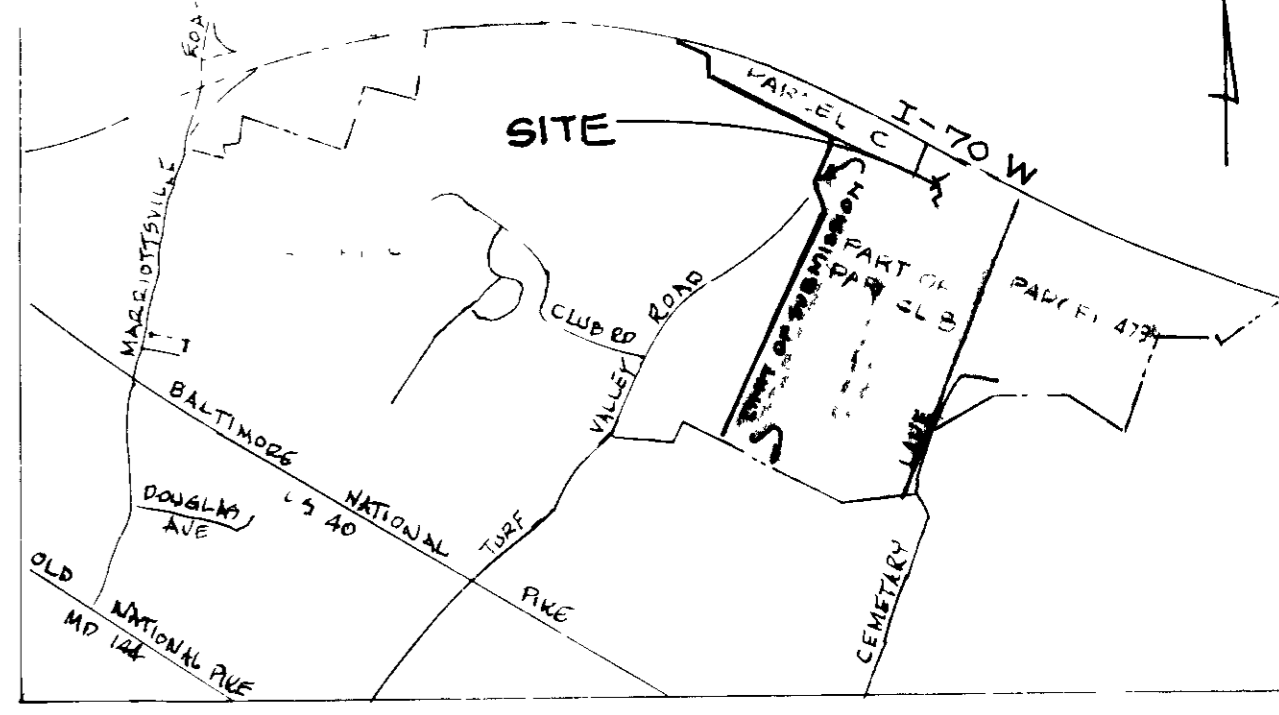
ENGINEERS • SITE PLANNERS • SURVEYORS
 3217 CORPORATE COURT
 ELLICOTT CITY, MD 21043
 (301) 750-9003

ENGINEER'S CERTIFICATE
 I HEREBY 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 COUNTY SOIL CONSERVATION DISTRICT

M. Sedghi 5-31-89
 DATE

DEVELOPERS/BUILDER'S CERTIFICATE
 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 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 COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY

DEVELOPER/BUILDER DATE



| NO | REVISIONS | DATE |
|----|---|--------|
| 1 | REVISE DA'S & TC PATHS RENAME PONDS 1, 2, 3 & 4 REVISE SHEET NO FROM 4625 TO 4621 | 3/4/91 |

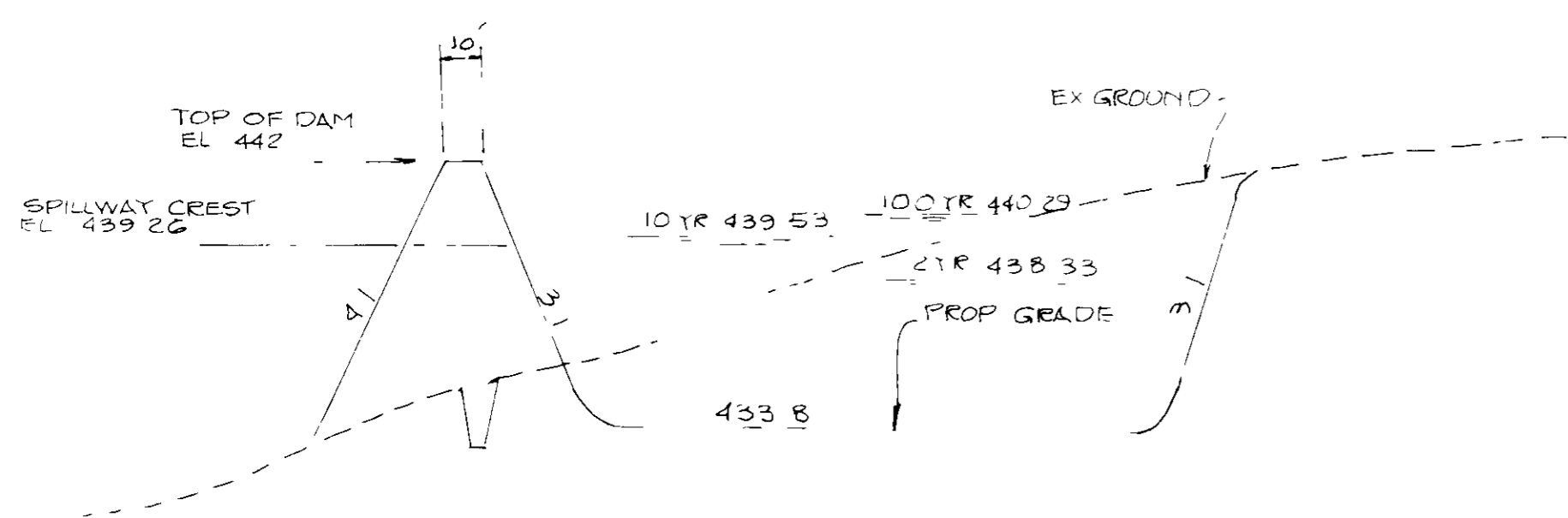
| SUBDIVISION NAME | SECTION/AREA | PARCEL NO |
|--|--------------|-----------|
| PROP 9 HOLES ADDITION TO TURF VALLEY GOLF COURSE | N/A | P 8 |
| LIE/FIELD | BLOCK NO | ZONE R & |
| 920/005 | 12+18/13 | P 600-1 |
| TAX/ZONE | ELEC DIST | CENSUS TR |
| 16 + 17 | 2 + 3 | 6002/6030 |
| WATER CODE | SEWER CODE | |
| N/A | N/A | |

DRAINAGE AREA MAP TO SWM PONDS
 PROPOSED 9 HOLES ADDITION TO
TURF VALLEY GOLF COURSE

PART OF PARCEL 8, PART OF PARCEL 479 & PARCEL 21
 ELECTION DISTRICT 23 HOWARD COUNTY, MD
 TAX MAP 16 & 17 SCALE 1" = 200'
 SHT 4 OF 21
 DATE: 5-30-89

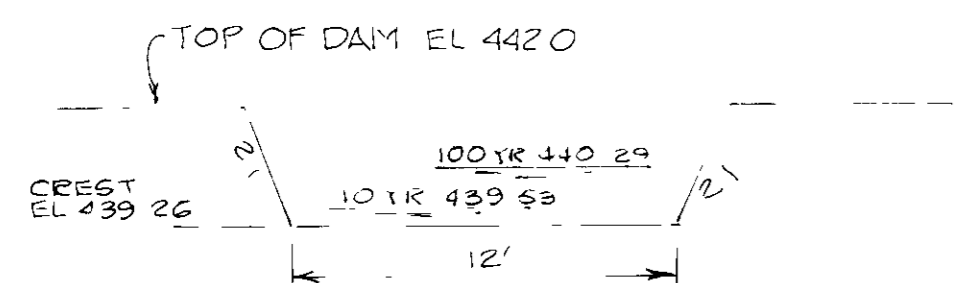
OWNERS
 PARCEL 8 MANGIONE ENTERPRISES OF TURF VALLEY
 PARCEL 479 TURF VALLEY ASSOCIATION
 PARCEL 21 NICHOLAS B. & MARYC. MANGIONE
 1205 YORK ROAD
 LUTHERVILLE, MD
 21093

SDP-89-47



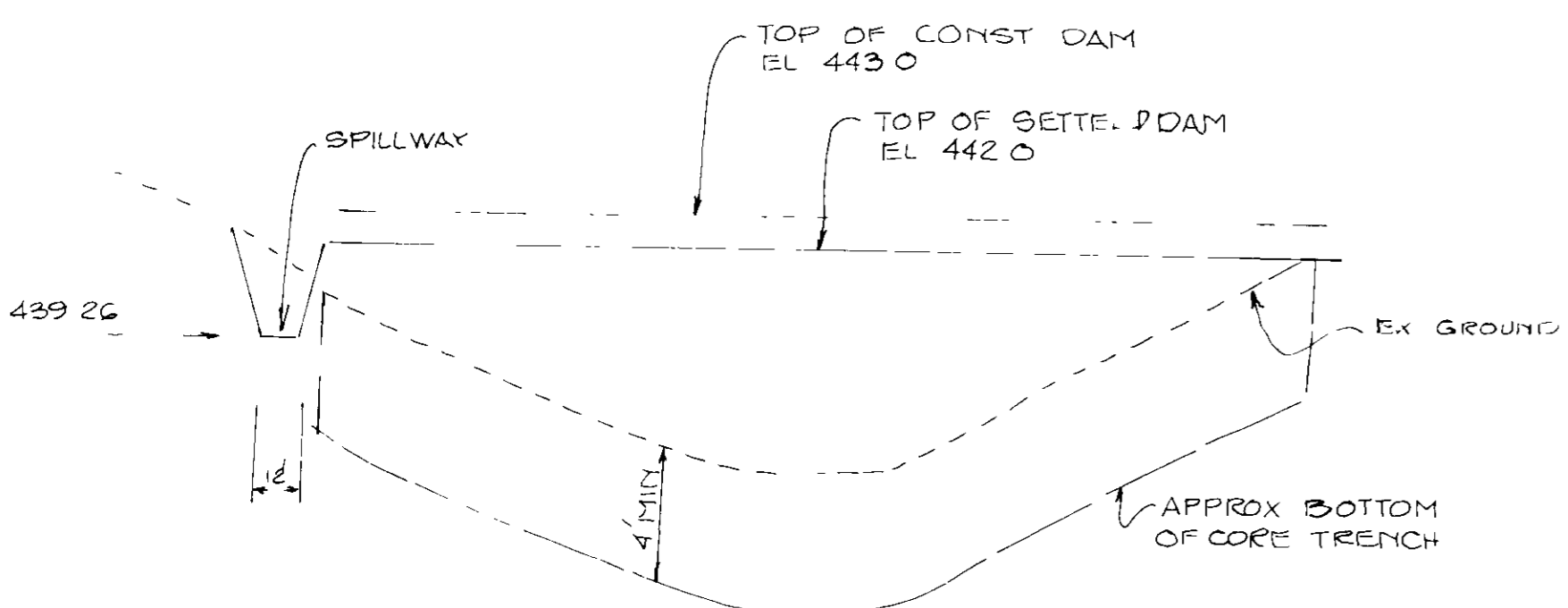
SECTION THROUGH DAM

SCALE HORIZ 1"=50'
VERT 1"=5'



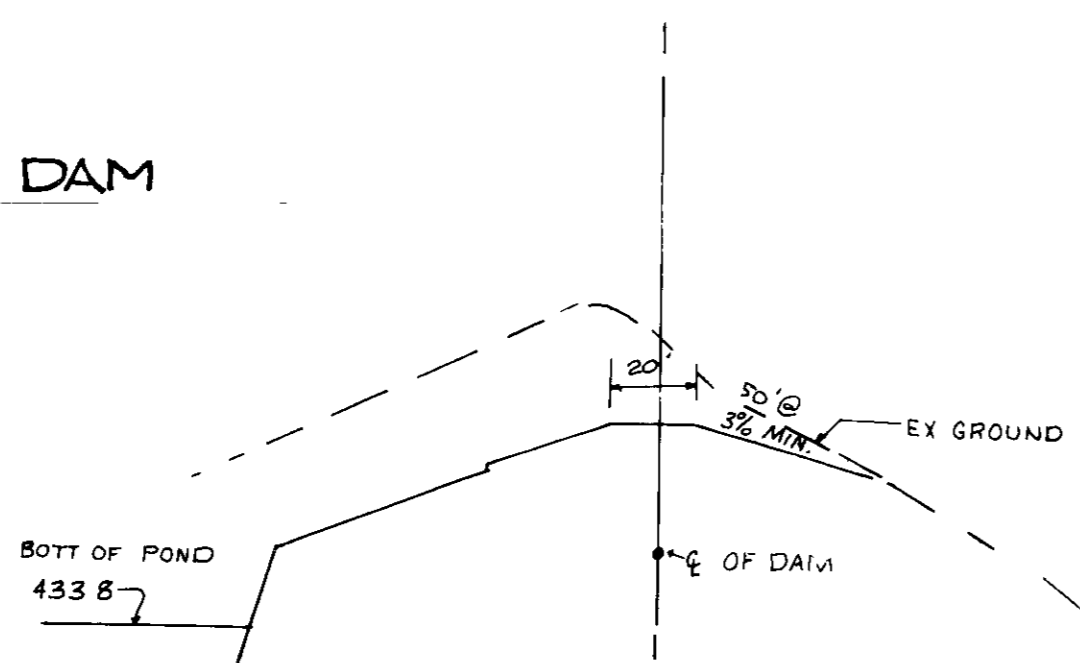
SPILLWAY CREST

NTS



PROFILE ALONG & DAM

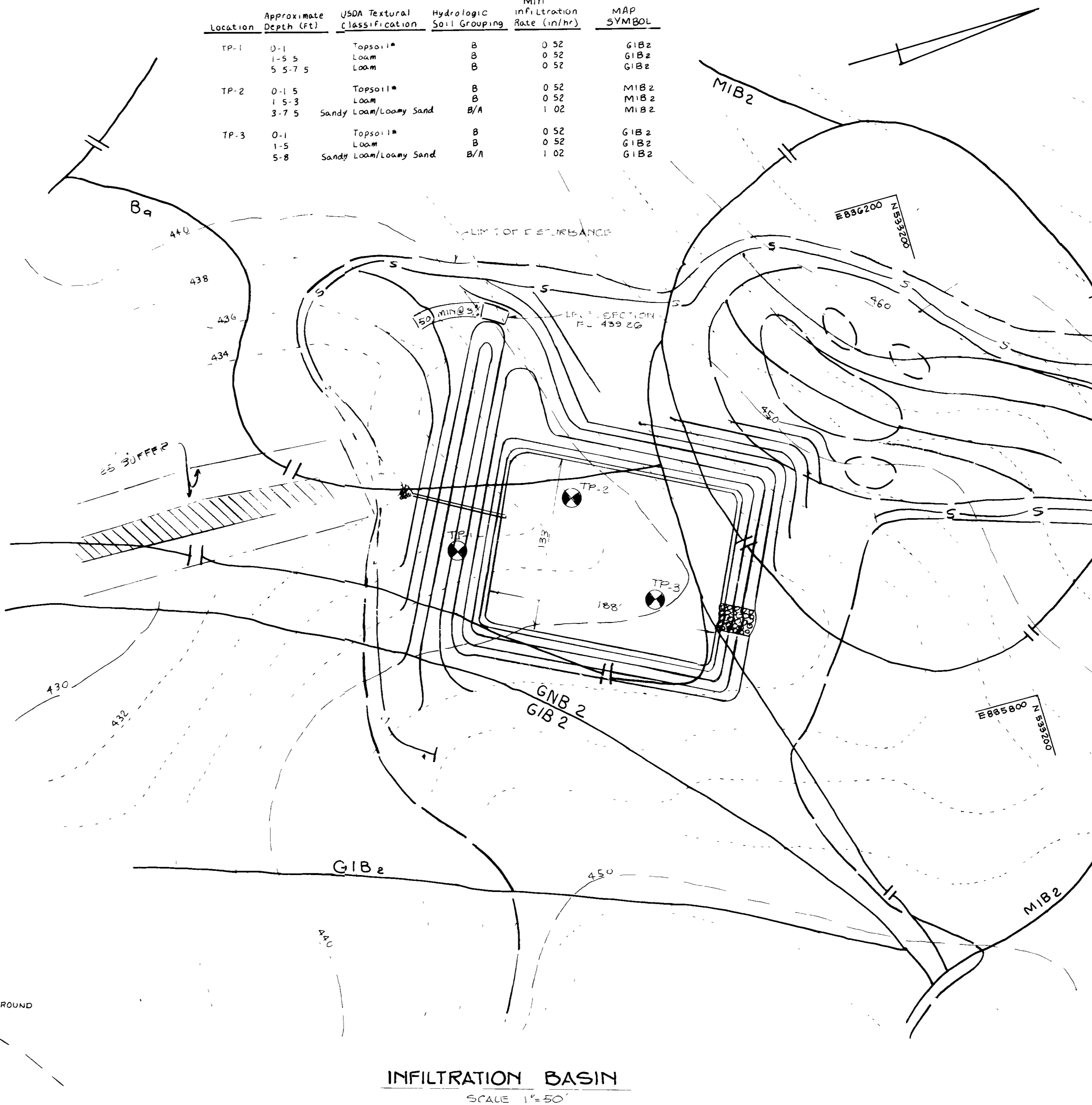
SCALE HORIZ 1"=50'
VERT 1"=5'



PROFILE THRU EMERGENCY SPILLWAY

SCALE HORIZ 1"=50' POND # 5
VERT 1"=5'

| Location | Approximate Depth (Ft) | USDA Textural Classification | Hydrologic Soil Grouping | Min Infiltration Rate (in/hr) | MAP SYMBOL |
|----------|------------------------|------------------------------|--------------------------|-------------------------------|------------|
| TP-1 | 0-1 | Topsoil* | B | 0.52 | G1B2 |
| | 1-5 | Loam | B | 0.52 | G1B2 |
| | 5-7.5 | Loam | B | 0.52 | G1B2 |
| TP-2 | 0-1 | Topsoil* | B | 0.52 | M1B2 |
| | 1-5 | Loam | B | 0.52 | M1B2 |
| | 5-7.5 | Sandy Loam/Loamy Sand | B/A | 1.02 | M1B2 |
| TP-3 | 0-1 | Topsoil* | B | 0.52 | G1B2 |
| | 1-5 | Loam | B | 0.52 | G1B2 |
| | 5-8 | Sandy Loam/Loamy Sand | B/A | 1.02 | G1B2 |



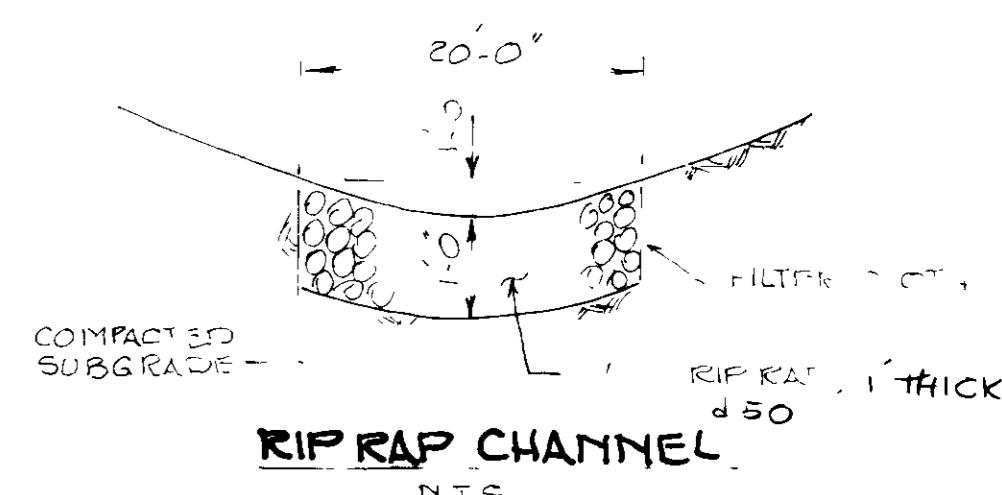
INFILTRATION BASIN

SCALE 1"=50'

| No | DEPTH (FEET) | Description of Materials |
|----|--------------|--|
| | | |
| 1 | 1.0 | Topsoil |
| | 3.0 | Brown moist, fine to coarse Sandy micaceous SILT (ML), trace gravel, trace to little clay |
| | 5.0 | Loam |
| 2 | 6.0 | GREY MOIST, FINE TO COARSE SANDY MICACEOUS SILT (ML), trace to little clay (Loam) |
| | 7.5 | Test Pit Terminated at 7.5 Ft NO TP-2 |
| | | Topsoil |
| 1 | 1.5 | Topsoil |
| | 3.0 | Brown and gray, moist, fine to coarse Sandy micaceous SILT (ML), trace gravel, trace to little clay (Loam) |
| | 5.5 | White, moist, Silty fine to coarse SAND (SM) trace to little gravel, trace clay, mica Sandy Loam/Loamy sand |
| 2 | 7.5 | Test Pit Terminated at 7.5 ft NO TP-3 |
| | | Topsoil |
| | | Topsoil |
| 1 | 1.0 | Topsoil |
| | 3.0 | Brown, moist, fine to coarse Sandy micaceous SILT, trace gravel, trace to little clay (Loam) |
| | 5.0 | Light grey and brown moist Silty fine to coarse SAND (SM), trace to little fine gravel, trace clay and mica |
| | 8.0 | Sandy Loam/Loamy sand Test Pit Terminated @ 8 ft |

* NOTE:
FOR SEQUENCE OF CONSTRUCTION
SEE SHEET 6 OF 21

NOTE:
THIS POND IS IN HAZARD CLASS "A" ANY FAILING OF THIS DAM WILL RESULT IN FLOODING OF DOWNSTREAM. HOWEVER SINCE THE AREA OF DOWNSTREAM IS GOLF COURSE, THE FAILING OF DAM WILL NOT DAM THE ADJACENT PROPERTIES.



RIP RAP CHANNEL

NTS

10-26-88

LORIA, SEOGHI & ASSOCIATES, LTD

ENGINEERS PLANNERS SUPERVISORS
3217 CORPORATE COURT
ELLICOTT CITY, MD 21043
(301) 710 9003

APPROVED HOWARD COUNTY HEALTH DEPARTMENT
REVIEWED FOR SANITARY FACILITIES REQUIRED
DATE 8-1-89

APPROVED HOWARD COUNTY DEPT OF PLANNING & ZONING
DATE 8/1/89

APPROVED DEPARTMENT OF PUBLIC WORKS
FOR DRAINAGE SYSTEMS & ROADS
DATE 7-25-89

THESE PLANS HAVE BEEN REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.

DATE 7/24/89

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

DATE

By the Engineer:

"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."

DATE 5-31-89

By the Developer:

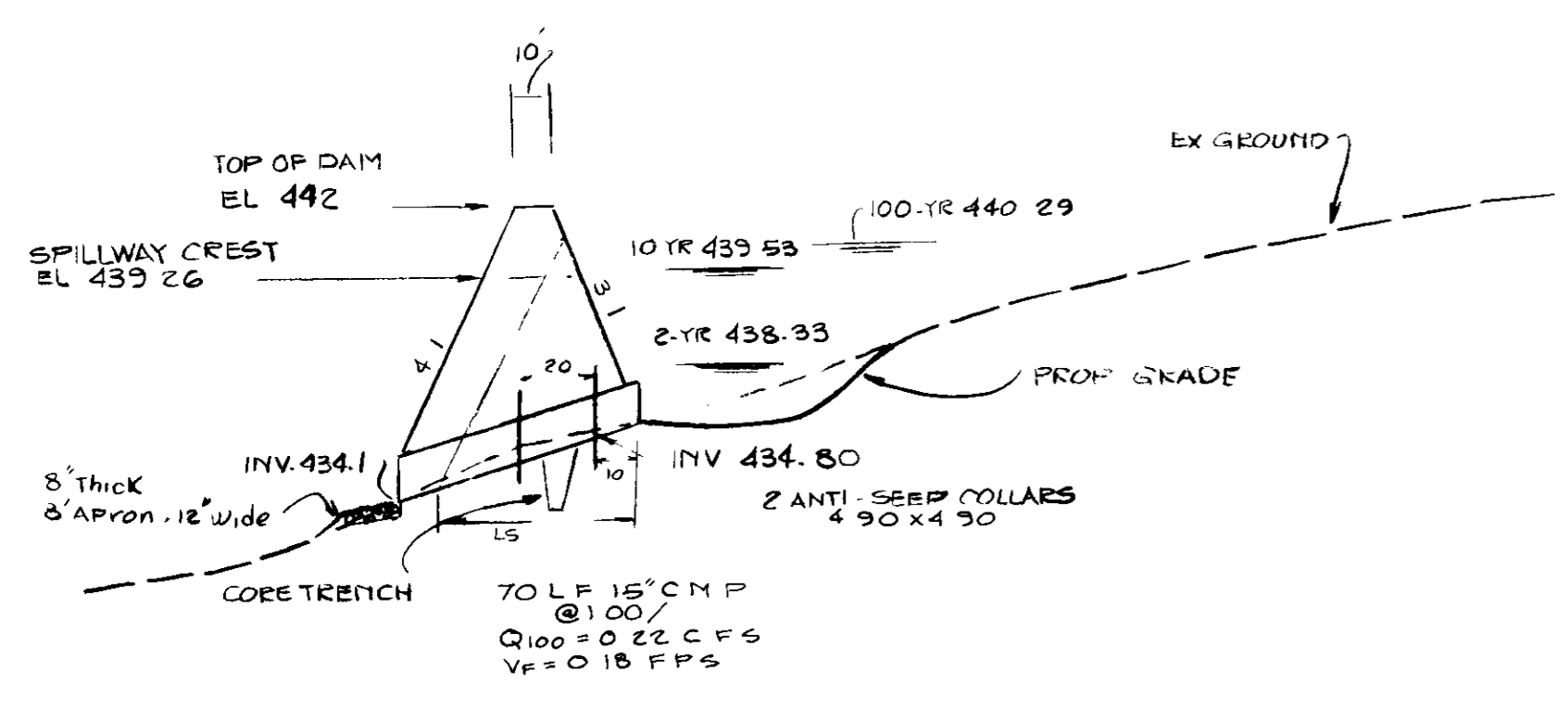
"I/we certify that all development and/or construction will be done according to these plans, and that any responsible personnel involved in the construction project will have a Certificate of Attendance at a Department of Natural Resources Approved Training Program for the Control of Sediment and Erosion before beginning the project. I will provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

DATE 5/25/89

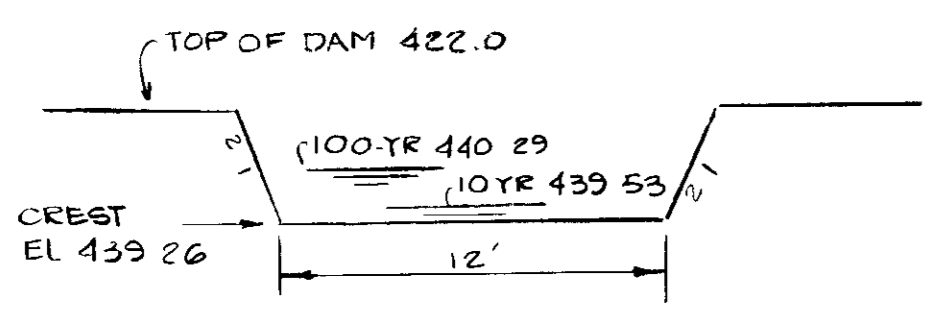
STORMWATER MANAGEMENT PLAN
PROPOSED 9 HOLES ADDITION TO
TURF VALLEY GOLF COURSE

2+3 RD ELECTION DISTRICT TAX MAP 1G #17
HOWARD COUNTY P/O P.8, P.479 P/O P.21
SCALE: AS SHOWN SHEET 5 OF 21
DATE: 5-30-89

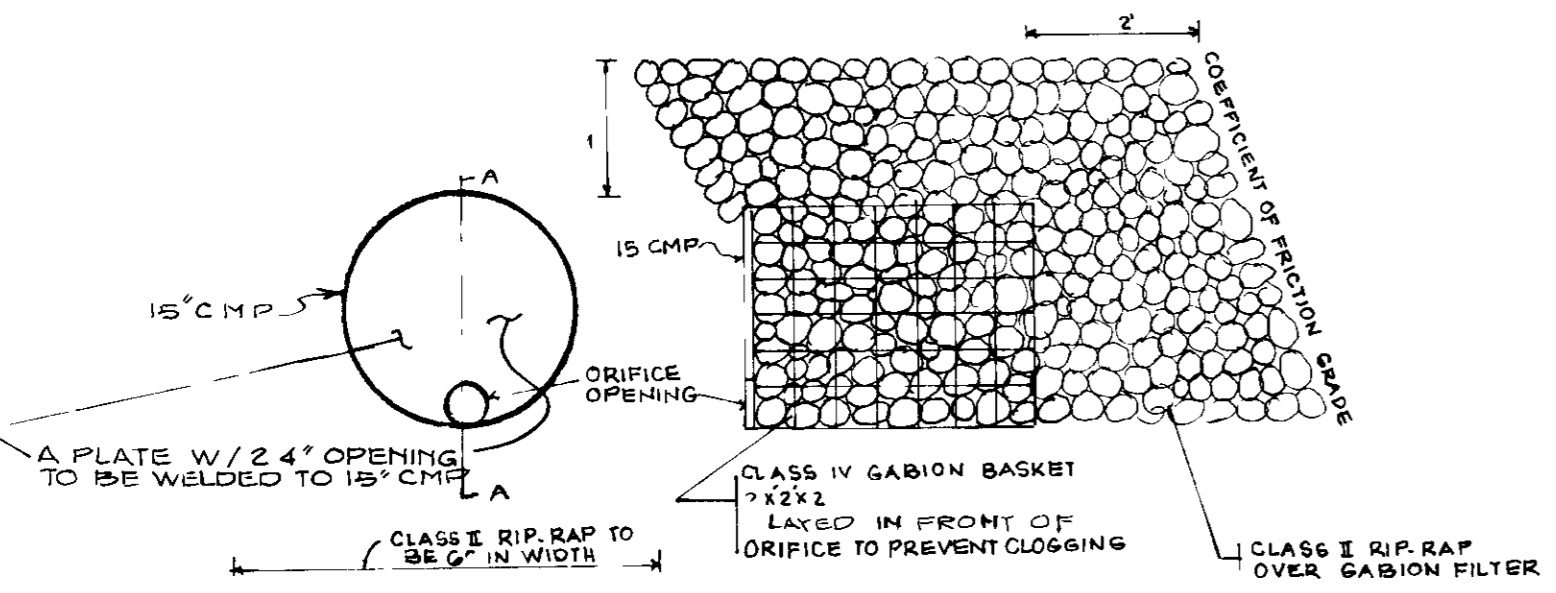
OWNERS
PARCEL 8 - MANGIONE ENTERPRISES OF TURF VALLEY
PARCEL 479 - TURF VALLEY ASSOCIATION
PARCEL 21 - NICHOLAS B & MARY C MANSION
1203 YORK RD
LUTHERVILLE, MD 21193



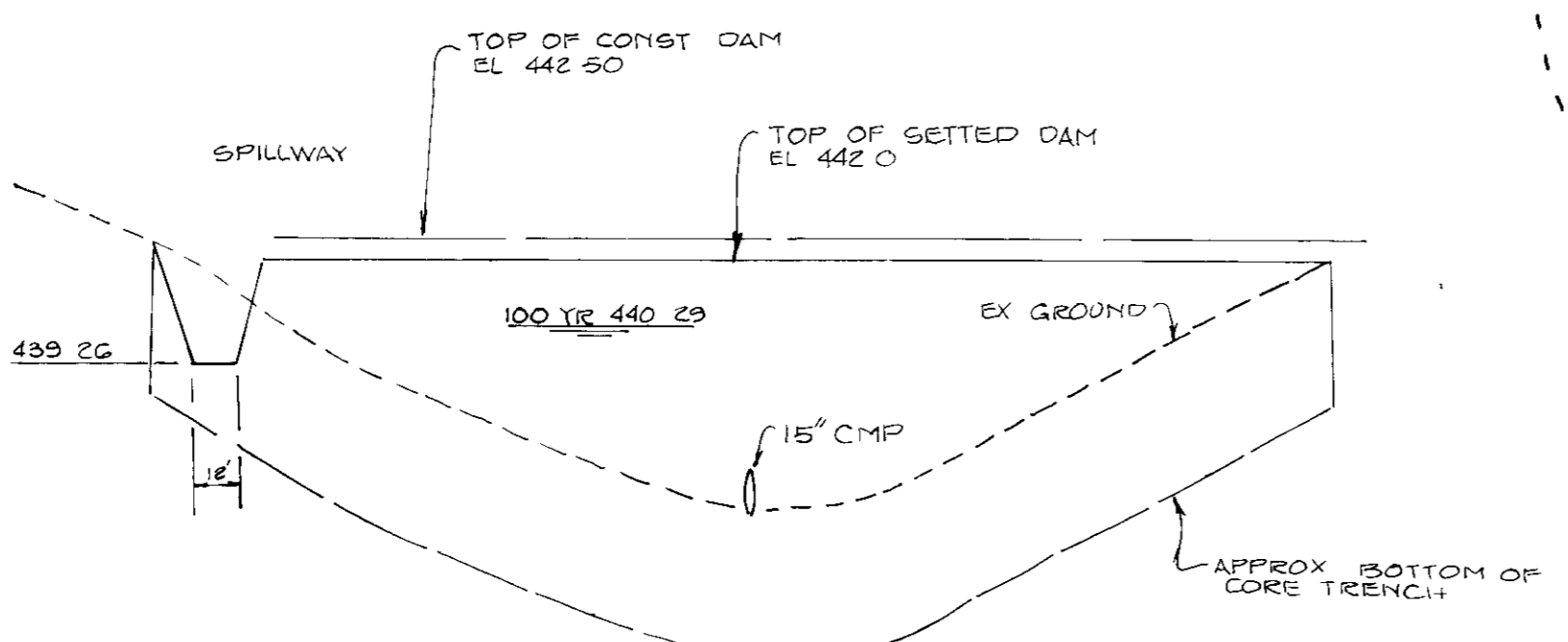
SECTION THROUGH DAM
SCALE: HORIZ 1"=50'
VERT 1"=5'



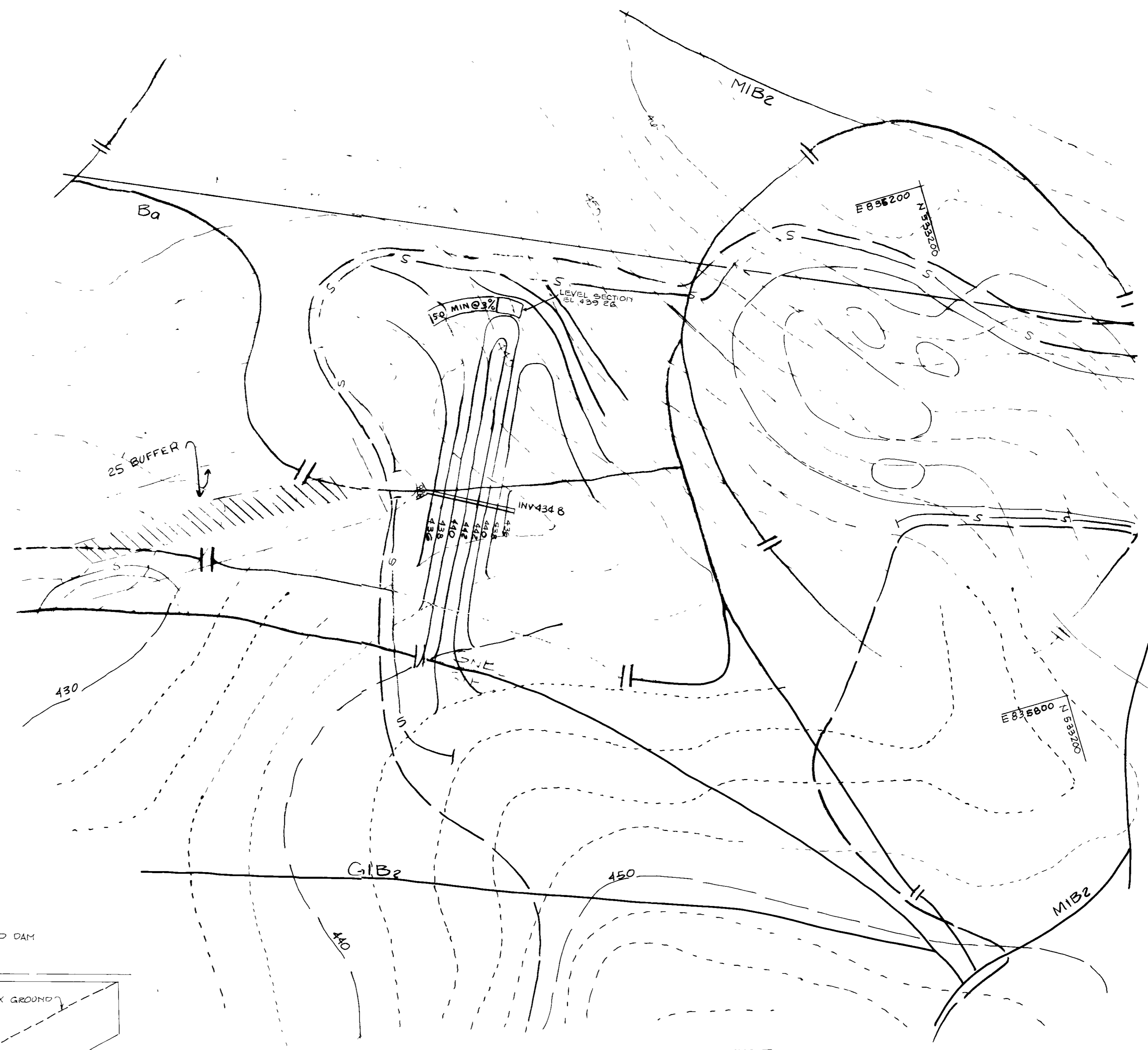
SPILLWAY CREST
NTS



ORIFICE PIPE & DETAIL
NTS



PROFILE ALONG & DAM LOOKING UPSTREAM
SCALE: HORIZ 1"=50'
VERT 1"=5'



TEMPORARY STORMWATER MANAGEMENT
SCALE 1"=50'

SEQUENCE OF CONSTRUCTION

- 1) OBTAIN GRADING PERMIT.
- 2) INSTALL SEDIMENT CONTROL STRUCTURES.
- 3) CONSTRUCT ENBANKMENT AND SPILLWAYS IN ACCORDANCE WITH THE PLAN.
- 4) CLEAR CONSTRUCTION AREA AND GRADE.
- 5) SEED AND MULCH DISTURBED AREA.
- 6) WHEN ENTIRE SITE IS STABILIZED; CUT ONE FOOT IN THE BOTTOM OF THE POND AND SIDES (EXCEPT DAM) AS SHOWN ON THE PLAN.
- 7) PLUG THE OPENINGS IN THE BOTTOM OF THE DAM.
- 8) SEED AND MULCH DISTURBED AREA.

NOTE:
THIS POND IS IN HAZARD CLASS "A" ANY FAILING OF THE DAM WILL RESULT IN FLOODING OF DOWNSTREAM. HOWEVER SINCE THE AREA OF DOWNSTREAM IS GOLF COURSE, THE FAILING OF DAM WILL NOT DAMAGE THE ADJACENT PROPERTIES.

10-26-88

THESE PLANS HAS BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL.
James M. Stahl 7/24/89
DATE
U.S. SOIL CONSERVATION SERVICE

THESE PLANS FOR SMALL POND CONSTRUCTION, SOIL EROSION AND SEDIMENT CONTROL, MEET THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
HOWARD SOIL CONSERVATION DISTRICT DATE

APPROVED HOWARD COUNTY HEALTH DEPARTMENT
REVIEWED: NO SANITARY FACILITIES REQUIRED
Joyce M. DeL. Mendenhall 8-1-89
DATE
COUNTY HEALTH OFFICER

APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING
Will 8-7-89
DATE
PLANNING DIRECTOR

APPROVED DEPARTMENT OF PUBLIC WORKS
FOR STORM DRAINAGE SYSTEMS & ROADS
James E. Lewis 7-31-89
DATE
DIRECTOR

James E. Lewis 7-25-89
DATE
CHIEF BUREAU OF ENGINEERING

LS
LORIA, SEDGHI & ASSOCIATES, LTD.
Engineers • Site Planners • Surveyors
3217 Corporate Court
Ellicott City, MD 21043
(301) 750-9003

ENGINEERS CERTIFICATE

"I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT. I HAVE NOTIFIED THE DEVELOPER THAT HE MUST PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS-BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION."

M. Sedghi 5-31-89
DATE

DEVELOPERS CERTIFICATE

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THESE PLANS, AND 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. I WILL PROVIDE THE HOWARD SOIL CONSERVATION DISTRICT WITH AN "AS BUILT" PLAN OF THE POND WITHIN 30 DAYS OF COMPLETION. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT."

DEVELOPER / BUILDER DATE

| NO | REVISIONS | DATE |
|----|--|--------|
| 1 | REVISE SHEET NO FROM 10 OF 25 TO 6 OF 21 | 3/4/91 |

POND # 5

PROPOSED 9 HOLES ADDITION TO
TURF VALLEY GOLF COURSE
STORM WATER MANAGEMENT PLAN
ELECTION DISTRICT 3 HOWARD COUNTY, MD.
TAX MAP 1G #17 SCALE 1"=50'
SHEET 6 OF 21 DATE 5-30-89

OWNERS
PARCEL 8 - MANGIONE ENTERPRISES OF TURF VALLEY
PARCEL 479 - TURF VALLEY ASSOCIATION
PARCEL 21 - NICHOLAS B. & MARY C. MANGIONE
1205 YORK ROAD
LUTHERVILLE, MD
21093

| Approximate Depth (ft) | USDA Textural Classification (UNIFIED SOIL CLASS) | Hydrolic Soil Grouping | MIN Infiltration Rate (in/hr) | Map Symbol | Location | Approximate Depth (ft) | USDA Textural Classification (UNIFIED SOIL CLASS) | Hydrolic Soil Grouping | MIN Infiltration Rate (in/hr) | Map Symbol | Location | Approximate Depth (ft) | USDA Textural Classification (UNIFIED SOIL CLASS) | Hydrolic Soil Grouping | MIN Infiltration Rate (in/hr) | Map Symbol | Location | Approximate Depth (ft) | USDA Textural Classification (UNIFIED SOIL CLASS) | Hydrolic Soil Grouping | MIN Infiltration Rate (in/hr) | Map Symbol | Location |
|------------------------|---|------------------------|-------------------------------|------------|-----------|--------------------------------|---|------------------------|-------------------------------|-------------|----------------------------|------------------------|---|------------------------|-------------------------------|-----------------|----------|------------------------|---|------------------------|-------------------------------|------------|----------|
| P1-B1 0-4 | Loam (MLs) | B | 0.52 | KN | P2-B1 0-6 | Loam/Silt Loam (MLs) B/C | A/C | 0.27 | G1 P3 | P3-B7 0.5-5 | Loamy Sand/Sandy Loam (SM) | A/B | 1.02 | M1 B2 | P4-B10 0-8 | Silt Loam (MLc) | C | 0.27 | MDC | | | | |
| P1-B1 4-6 | Loam/Silt Loam (MLs) | B/C | 0.27 | KN | P2-B1 6-8 | Sand (SM-SP) | A | 8.27 | G1 P3 | P3-B7 5.5-8 | Sandy Loam (SM) | B | 1.02 | M1 B2 | P4-B11 0-4 | Silt Loam (MLc) | C | 0.27 | MDC | | | | |
| P1-B1 6-8 | Loamy Sand/Sandy Loam (SM) A/B | A/B | 1.02 | KN | P2-B2 0-4 | Loam (MLs) | B | 0.52 | B1 C2 | P3-B8 0-5 | Loamy Sand/Sandy Loam (SM) | A/B | 1.02 | M1 C3 | P4-B12 0-8 | Silt Loam (MLc) | C | 0.27 | MDC | | | | |
| P1-B2 0-2 | Loam (MLs) | B | 0.52 | END 2 | P2-B2 4-8 | Sand (SM-SP) | A | 8.27 | B1 C2 | P3-B8 5-8 | Silt Loam (MLc) | C | 0.27 | M1 C3 | | | | | | | | | |
| P1-B2 2-6 | Loam/Silt Loam (MLs) | B/C | 0.27 | END 2 | P2-B3 0-3 | Loamy Sand/Sandy Loam (SM) A/B | A/B | 1.02 | B1 C2 | P3-B9 0-4 | Loamy Sand/Sandy Loam (SM) | A/B | 1.02 | M1 B3 | | | | | | | | | |
| P1-B2 6-8 | Loam (MLs) | B | 0.52 | END 2 | P2-B3 3-8 | Loamy Sand/Sandy Loam (SM) A/B | A/B | 1.02 | B1 C2 | P3-B9 4-6 | Loam/Silt Loam (MLs) | B/C | 0.27 | M1 B3 | | | | | | | | | |
| P1-B3 0-3 | Loamy Sand/Sandy Loam (SM) A/B | A/B | 1.02 | KN | | | | | | | | | | | | | | | | | | | |
| P1-B3 3-6 | Sandy Loam (SM) | B | 1.02 | KN | | | | | | | | | | | | | | | | | | | |
| P1-B3 6-8 | Sand (SM-SP) | A | 8.27 | KN | | | | | | | | | | | | | | | | | | | |

No. P 1 B 1

| Samples | | |
|----------------------------|--------------|---|
| No. | Depth (feet) | Description of Materials |
| | 0.5 | Topsoil |
| 1 | 4.0 | Tan brown, moist, fine to coarse Sandy SILT (MLs), little to some clay, trace to little mica Loam |
| 2 | 6.0 | Grey and tan, moist, fine to coarse Sandy micaceous SILT (MLs), little to some clay Loam/Silt Loam |
| 3 | 7.0 8.0 | Light to dark brown, moist, micaceous Silty fine to coarse SAND (SM), trace clay Loamy Sand/Sandy Loam |
| Test Pit Terminated @ 8 ft | | |

No. P 2 B 1

| Samples | | |
|----------------------------|--------------|--|
| No. | Depth (feet) | Description of Materials |
| | 1.0 | Topsoil |
| 1 | 2.0 | Dark tan, moist, fine to coarse Sandy SILT (MLs) little to some clay, trace to little mica |
| 2 | 3.0 | Loam/Silt Loam |
| 3 | 5.0 6.0 | White and brown, moist, fine to coarse SAND (SM-SP), trace to little silt and mica Sand |
| 4 | 8.0 | |
| Test Pit Terminated @ 8 ft | | |

No. P 3 B 7

| Samples | | |
|----------------------------|--------------|--|
| No. | Depth (feet) | Description of Materials |
| | 0.5 | Topsoil |
| 1 | 2.0 | Dark brown, moist, Silty fine to coarse SAND (SH), trace clay, trace to little mica Loamy Sand/Sandy Loam |
| 2 | 5.0 5.5 | |
| 3 | 6.5 | Brown to red, moist, micaceous Silty fine to coarse SAND (SM), trace to little clay |
| 4 | 8.0 | Sandy Loam |
| Test Pit Terminated @ 8 ft | | |

No. P 4 B 10

| Samples | | |
|----------------------------|--------------|--|
| No. | Depth (feet) | Description of Materials |
| | 0.5 | Topsoil |
| 1 | 3.0 | Tan, brown and red, moist, Clayey SILT (MLc), little to some fine to coarse gravel, little to some mica Silt Loam |
| 2 | 7.0 8.0 | |
| Test Pit Terminated @ 8 ft | | |

No. P 1 B 2

| Samples | | |
|----------------------------|--------------|--|
| No. | Depth (feet) | Description of Materials |
| | 0.75 | Topsoil |
| 1 | 2.0 | Tan, moist, fine to coarse Sandy SILT (MLs) little to some clay trace to little mica (Loam) |
| 2 | 3.0 | Brown, moist, fine to coarse Sandy SILT (MLs), little to some clay, trace to little mica Loam/Silt Loam |
| 3 | 6.0 | |
| 4 | 7.0 8.0 | Brown to red, moist, fine to coarse Sandy SILT (MLs), little to some clay, trace to little mica Loam |
| Test Pit Terminated @ 8 ft | | |

No. P 2 B 2

| Samples | | |
|----------------------------|--------------|--|
| No. | Depth (feet) | Description of Materials |
| | 0.75 | Topsoil |
| 1 | 2.0 | Brown, moist, fine to coarse Sandy SILT (MLs), little to some clay, trace to little mica Loam |
| 2 | 4.0 5.0 | White and brown, moist, fine to coarse SAND (SM-SP), trace to little silt and mica Sand |
| 3 | 8.0 | |
| Test Pit Terminated @ 8 ft | | |

No. P 3 B 8

| Samples | | |
|----------------------------|--------------|---|
| No. | Depth (feet) | Description of Materials |
| | 0.5 | Topsoil |
| 1 | 3.0 | Dark brown, moist, micaceous Silty fine to coarse SAND (SM), trace clay Loamy Sand/Sandy Loam |
| 2 | 5.0 6.0 | Dark brown, moist, Clayey SILT (MLc), little to some fine to coarse sand, trace to little mica Silt Loam |
| 3 | 8.0 | |
| Test Pit Terminated @ 8 ft | | |

No. P 4 B 11

| Samples | | |
|----------------------------|--------------|--|
| No. | Depth (feet) | Description of Materials |
| | 0.5 | Topsoil |
| 1 | 2.0 | Light to dark tan, moist, clayey SILT (MLc), little to some fine to coarse sand, trace to little mica Silt Loam |
| 2 | 4.0 | |
| Test Pit Terminated @ 4 ft | | |

No. P 1 B 3

| Samples | | |
|----------------------------|--------------|---|
| No. | Depth (feet) | Description of Materials |
| | 0.5 | Topsoil |
| 1 | 3.0 | Dark tan, moist, Silty fine to coarse SAND (SM), trace clay, trace to little mica Loamy Sand/Sandy Loam |
| 2 | 4.0 6.0 | Light to dark brown, moist, micaceous Silty fine to coarse SAND (SM), trace to little clay, trace fine to coarse gravel Sandy Loam |
| 3 | 7.0 | Light to dark brown, moist, fine to coarse SAND (SM-SP), trace to little silt and mica Sand |
| 4 | 8.0 | |
| Test Pit Terminated @ 8 ft | | |

No. P 2 B 3

| Samples | | |
|----------------------------|--------------|--|
| No. | Depth (feet) | Description of Materials |
| | 0.75 | Topsoil |
| 1 | 2.0 3.0 | Brown to dark brown, moist, Silty fine to coarse SAND (SM), trace clay and mica Loamy Sand/Sandy Loam |
| 2 | 4.0 | Light to dark grey, moist, Silty fine to coarse SAND (SM), trace clay, trace to little mica Loamy Sand/Sandy Loam |
| 3 | 8.0 | |
| Test Pit Terminated @ 8 ft | | |

No. P 3 B 9

| Samples | | |
|----------------------------|--------------|---|
| No. | Depth (feet) | Description of Materials |
| | 0.5 | Topsoil |
| 1 | 3.0 4.0 | Dark brown, moist, micaceous Silty fine to coarse SAND (SM), trace clay Loamy sand/Sandy Loam |
| 2 | 6.0 | Dark tan, moist, fine to coarse Sandy SILT (MLs), little to some clay, trace to little mica Loam/Silt Loam |
| 3 | 7.0 8.0 | |
| Test Pit Terminated @ 8 ft | | |

No. P 4 B 12

| Samples | | |
|----------------------------|--------------|---|
| No. | Depth (feet) | Description of Materials |
| | 0.5 | Topsoil |
| 1 | 2.0 | Brown to red, moist, Clayey SILT (MLc), little to some fine to coarse sand, and mica Silt Loam |
| 2 | 4.0 | |
| 3 | 6.0 | |
| 4 | 8.0 | |
| Test Pit Terminated @ 8 ft | | |

10-26-88

LORIA, SEOGHI & ASSOCIATES, LTD

ENGINEERS PLANNERS SURVEYORS
3217 CORPORATE COURT
ELICOTT CITY, MD 21043
(301)750-9005

| NO | REVISIONS | DATE |
|----|-------------------------------------|--------|
| 1 | REVISE SHEET NO FROM 11 OF 25 TO 26 | 3/4/91 |

APPROVED HOWARD COUNTY HEALTH DEPARTMENT
NO SANITARY FACILITIES REQUIRED
DATE: 8-1-89

APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING
DATE: 8-1-89

APPROVED DEPARTMENT OF PUBLIC WORKS
FOR STORM DRAINAGE SYSTEMS & ROADS
DATE: 7-25-89

APPROVED HOWARD SOIL CONSERVATION DISTRICT
DATE: 7/24/89

APPROVED
DATE: 7-25-89

DEVELOPER'S CERTIFICATE

"I/We certify that all development and/or construction will be done according to these plans, and 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. I will provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

Signature of Developer: [Signature]
Date: [Date]

ENGINEER'S CERTIFICATE

"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."

Signature of Engineer: [Signature]
Date: 5-31-89

SUBDIVISION NAME: PROP 9 HOLES
TURF VALLEY GOLF COURSE

SECT./AREA: 16 + 17
ELEC. DIST: 2 + 3

WATER CODE: N/A
SEWER CODE: N/A

SOIL BORINGS DETAIL
PROPOSED 9 HOLE ADDITION
TURF VALLEY GOLF COURSE

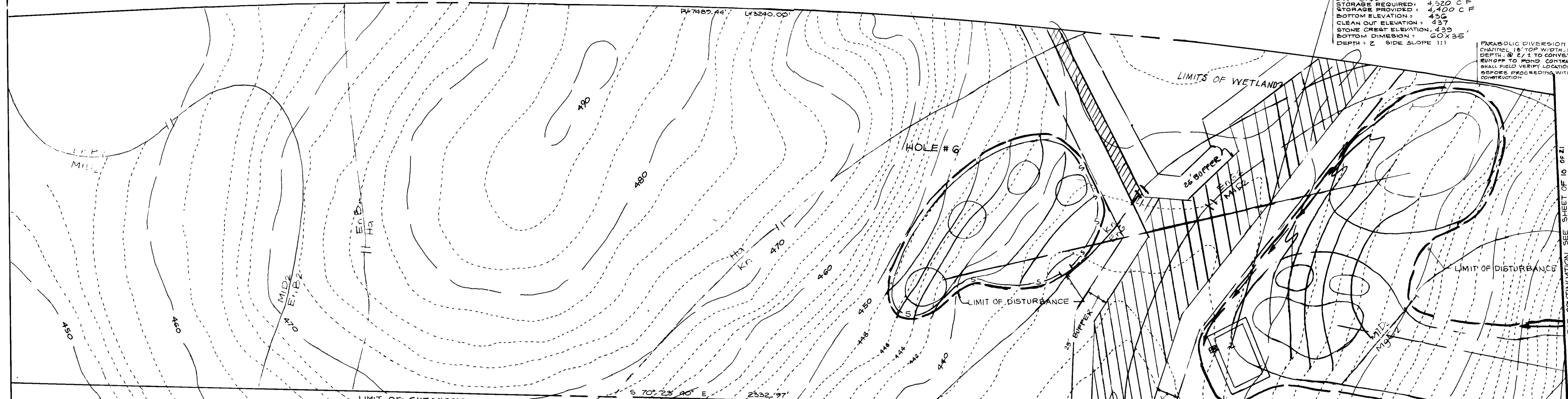
243 RD ELECTION DISTRICT TAX MAP 16 E 7
HOWARD COUNTY, MD PARCELS - 8 8479 E 21

SCALE: N/A SHEET OF 2
DATE: 5-30-89

PARCEL 8 MANGIONE ENTERPRISES OF TURF VALLEY
PARCEL 479 TURF VALLEY ASSOCIATION
PARCEL 21 NICHOLAS B & MARYC MANGIONE
1209 TERRY RD LUTHERVILLE MD 21093

TRAP #1
 DA: 2.40 AC
 STORAGE REQUIRED: 4,520 CF
 STORAGE PROVIDED: 4,400 CF
 BOTTOM ELEVATION: 435
 CLEAN OUT ELEVATION: 437
 STONE CREST ELEVATION: 439
 BOTTOM DIMENSION: 60' X 35'
 DEPTH: 2' SIDE SLOPE 1:1

PARABOLIC DIVERSION
 CHANNEL 18" TOP WIDTH, 1.5'
 DEPTH, @ 2' 1" TO CONVEY
 RUNOFF TO POND. CONTRACTOR
 SHALL FIELD VERIFY LOCATION
 BEFORE PROCEEDING WITH
 CONSTRUCTION



MATCH LINE - Q
 FOR CONTINUATION
 SEE THIS SHEET 9 OF 21

MATCH LINE - Q
 FOR CONTINUATION
 SEE THIS SHEET 9 OF 21

TURF VALLEY
 GOLF COURSE
 920/285

10-26-88

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.
James M. DeLoe 7/24/89
 SIGNATURE DATE
 S SOIL CONSERVATION SERVICE

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY HOWARD COUNTY SOIL CONSERVATION DISTRICT

Robert W. Ziehm 7/24/89
 APPROVED DATE

APPROVED DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS

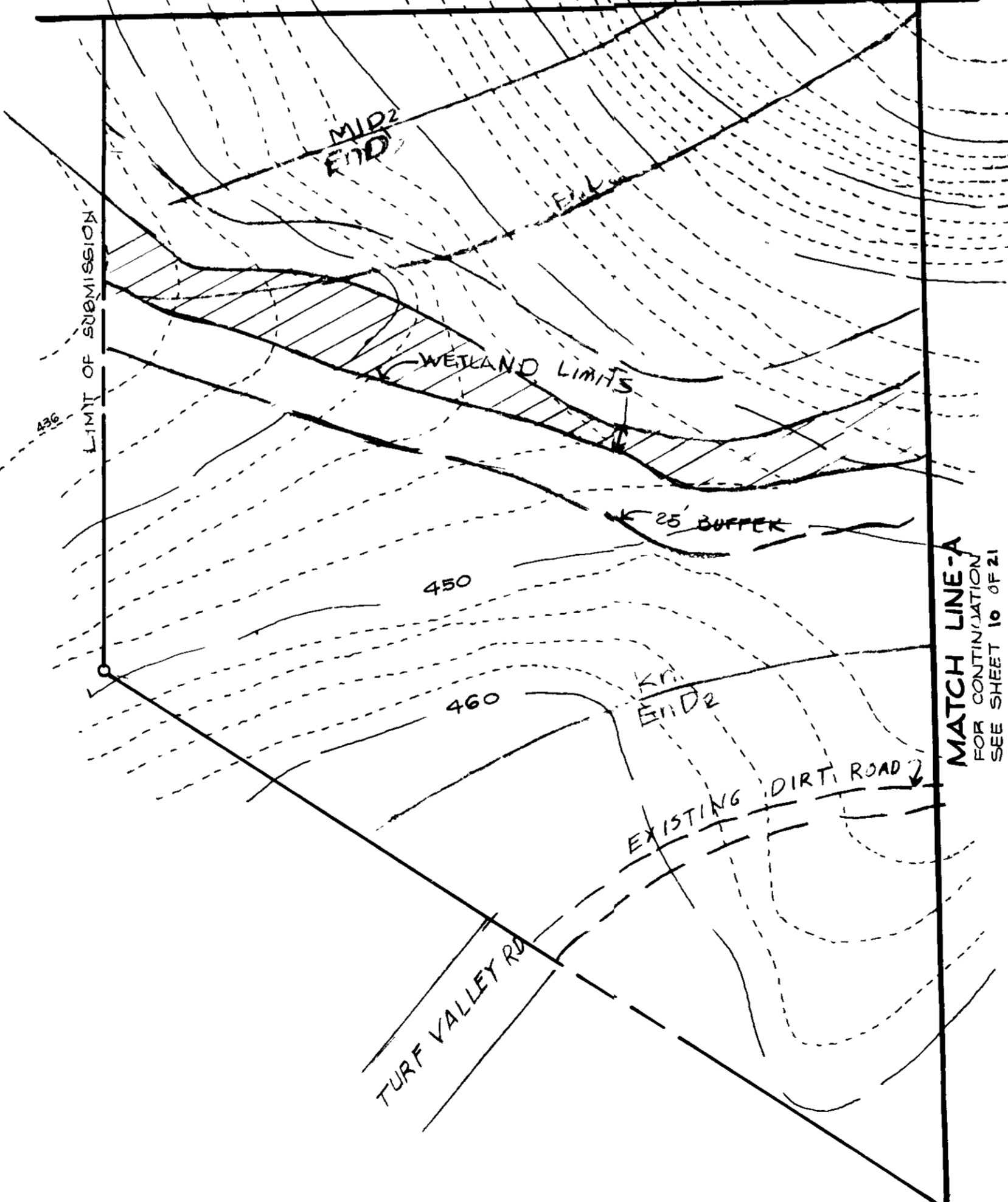
James M. DeLoe 7/31/89
 DIRECTOR OF PUBLIC WORKS DATE

William S. Pacey 7-15-89
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED DEPT. OF PLANNING AND ZONING H.O. CO
William S. Pacey 8-7-89
 PLANNING DIRECTOR DATE

Joseph DeLoe 8/1/89
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED HOWARD COUNTY HEALTH DEPARTMENT
 REVIEWED: NO SANITARY FACILITIES REQUIRED
Joseph M. DeLoe 8-1-89
 HEALTH OFFICER DATE



LORIA, SEDGHI & ASSOCIATES, LTD.
 ENGINEERS • SITE PLANNERS • SURVEYORS
 3217 CORPORATE COURT
 ELLICOTT CITY, MD. 21043
 (301) 750-9003

ENGINEER'S CERTIFICATE
 I HEREBY 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 COUNTY SOIL CONSERVATION DISTRICT
M. Sedghi 5-31-89
 MIKE SEDGHI PE, 13816 DATE

DEVELOPER'S/BUILDER'S CERTIFICATE
 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 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 COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.
John Mangione 9-3-88
 DEVELOPER/BUILDER DATE

| NO | REVISIONS | DATE |
|----|---|--------|
| 1 | REMOVE POND #1, REVISE SHEET NO FROM 13 OF 25 TO 9 OF 21. | 3/1/89 |

HOWARD COUNTY SOIL MAP 98 15

| SUBDIVISION NAME | SECTION/AREA | PARCEL NO P/O P. 21 | | | |
|---|--------------|---------------------|------------|-----------|-----------|
| 9 HOLES ADDITION TO TURF VALLEY GOLF COURSE | N/A | 16 P8, P479 | | | |
| LIB / FOLIO | BLOCK NO | ZONE | TAX / ZONE | ELEC DIST | CENSUS TR |
| 920/285 | 12-18/13 | PGCC-14E | 16 #17 | 3 #2 | 6002/6030 |
| WATER CODE | SEWER CODE | | | | |
| N/A | N/A | | | | |

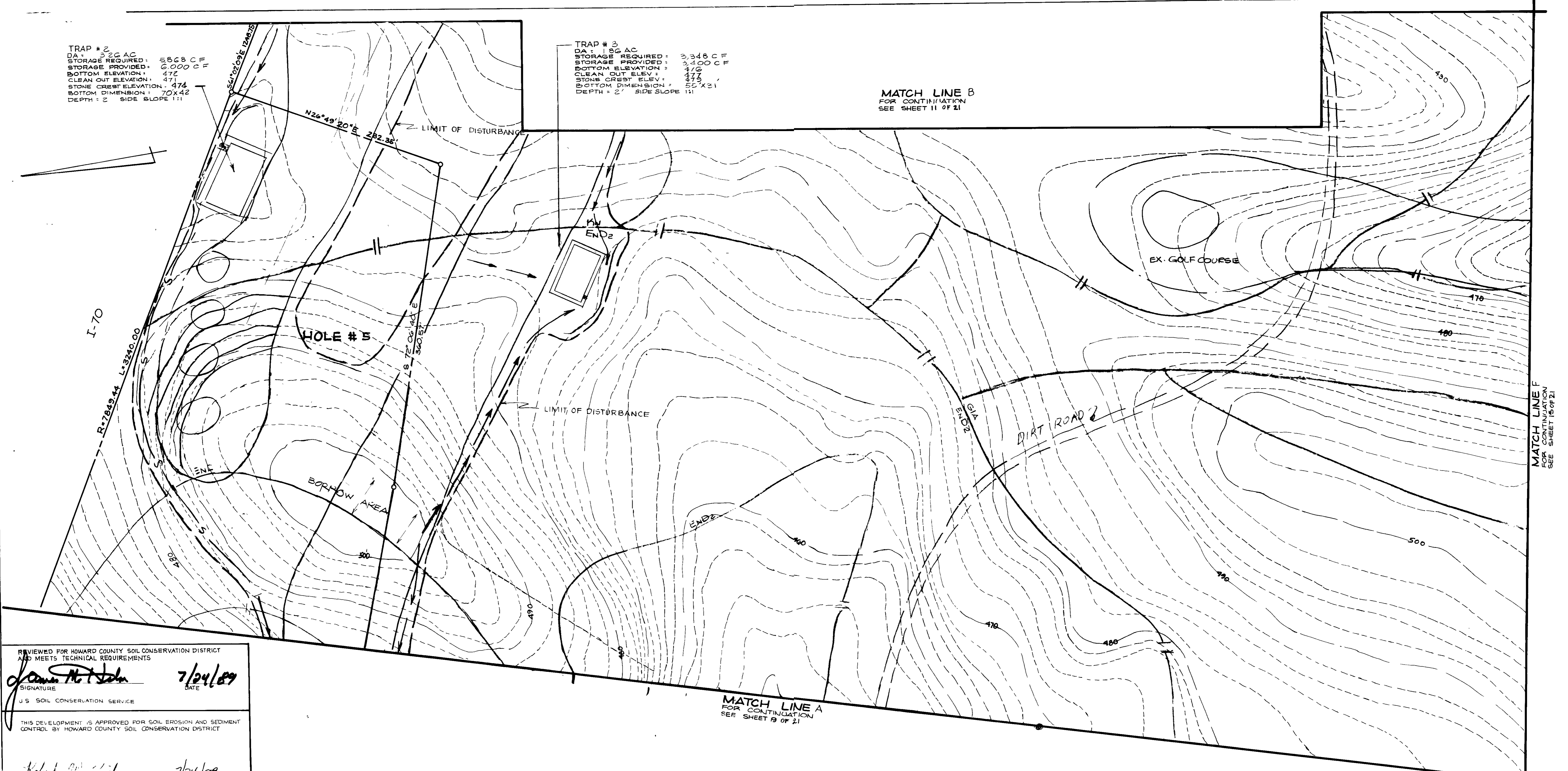
GRADING & SEDIMENT CONTROL PLAN
 PROPOSED 9 HOLES ADDITION TO
TURF VALLEY GOLF COURSE
 PART OF PARCEL 8, PARCEL 479 & PARCEL 21
 ELECTION DISTRICT 3 HOWARD COUNTY, MD
 TAX MAP 16 #17 SCALE 1" = 50'
 SHEET 9 OF 21 DATE: 5-30-89

OWNERS
 PARCEL 8: MANGIONE ENTERPRISES OF TURF VALLEY
 PARCEL 479: TURF VALLEY ASSOCIATION
 PARCEL 21: NICHOLAS B. & MARY C. MANGIONE
 1205 YORK ROAD
 LUTHERVILLE, MD
 21093

TRAP # 2
 DA: 1.86 AC
 STORAGE REQUIRED: 5,868 CF
 STORAGE PROVIDED: 6,000 CF
 BOTTOM ELEVATION: 472
 CLEAN OUT ELEV: 471
 STONE CREST ELEVATION: 474
 BOTTOM DIMENSION: 70x42
 DEPTH: 2' SIDE SLOPE 1:1

TRAP # 3
 DA: 1.86 AC
 STORAGE REQUIRED: 3,348 CF
 STORAGE PROVIDED: 3,400 CF
 BOTTOM ELEVATION: 470
 CLEAN OUT ELEV: 470
 STONE CREST ELEV: 475
 BOTTOM DIMENSION: 55'x21'
 DEPTH: 2' SIDE SLOPE 1:1

MATCH LINE B
 FOR CONTINUATION
 SEE SHEET 11 OF 21



REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
James M. John 7/24/89
 SIGNATURE DATE
 U.S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY HOWARD COUNTY SOIL CONSERVATION DISTRICT

Robert W. Gibson 7/24/89
 APPROVED DATE

APPROVED DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS

James P. Smith 7/25/89
 DIRECTOR OF PUBLIC WORKS DATE
William S. Riley 7-25-89
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED DEPT. OF PLANNING AND ZONING HO. CO.
William S. Riley 8-7-89
 PLANNING DIRECTOR DATE

Joseph R. Smith 8/1/89
 CHIEF DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED HOWARD COUNTY HEALTH DEPARTMENT
 REVIEWED: NO SANITARY FACILITIES REQUIRED
Joseph M. Boyd 9-1-89
 HEALTH OFFICER DATE

10-26-88

LORIA, SEDGHI & ASSOCIATES, LTD.
 ENGINEERS • SITE PLANNERS • SURVEYORS
 3217 CORPORATE COURT
 ELLICOTT CITY, MD 21043
 (301) 750-9003

ENGINEER'S CERTIFICATE
 I HEREBY 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 COUNTY SOIL CONSERVATION DISTRICT.
M. Sedghi 7-12-88
 MIKE SEDGHI PE 13816 DATE

| NO. | REVISIONS | DATE |
|-----|---|--------|
| 1 | REVISE SHEET NO FROM 14 OF 25 TO 10 OF 21 | 3/4/91 |

DEVELOPER'S/BUILDER'S CERTIFICATE
 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 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 COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.
John Mangione 9/13/88
 DEVELOPER / BUILDER DATE

HOWARD COUNTY SOIL MAP 9815

| SUBDIVISION NAME | SECTION / AREA | PARCEL NO |
|---|-----------------------------|--|
| 9 HOLES ADDITION TO TURF VALLEY GOLF COURSE | N/A | P/O P. 8, P. 473 |
| L16/FOLIO 520/205 | BLOCK NO 12+18/13 ZONE P6CC | TAX / ZONE 10 817 ELEC DIST 2 83 CENSUS TR 6002/6030 |
| WATER CODE | N/A | SEWER CODE N/A |

GRADING & SEDIMENT CONTROL PLAN
 PROPOSED 9 HOLES ADDITION TO
TURF VALLEY GOLF COURSE
 PART OF PARCEL 8, PARCEL 473 & PARCEL 21
 ELECTION DISTRICT 3 HOWARD COUNTY, MD.
 TAX MAP 16 & 17 SCALE 1" = 50'
 SHEET 10 OF 21 DATE: 5-30-89

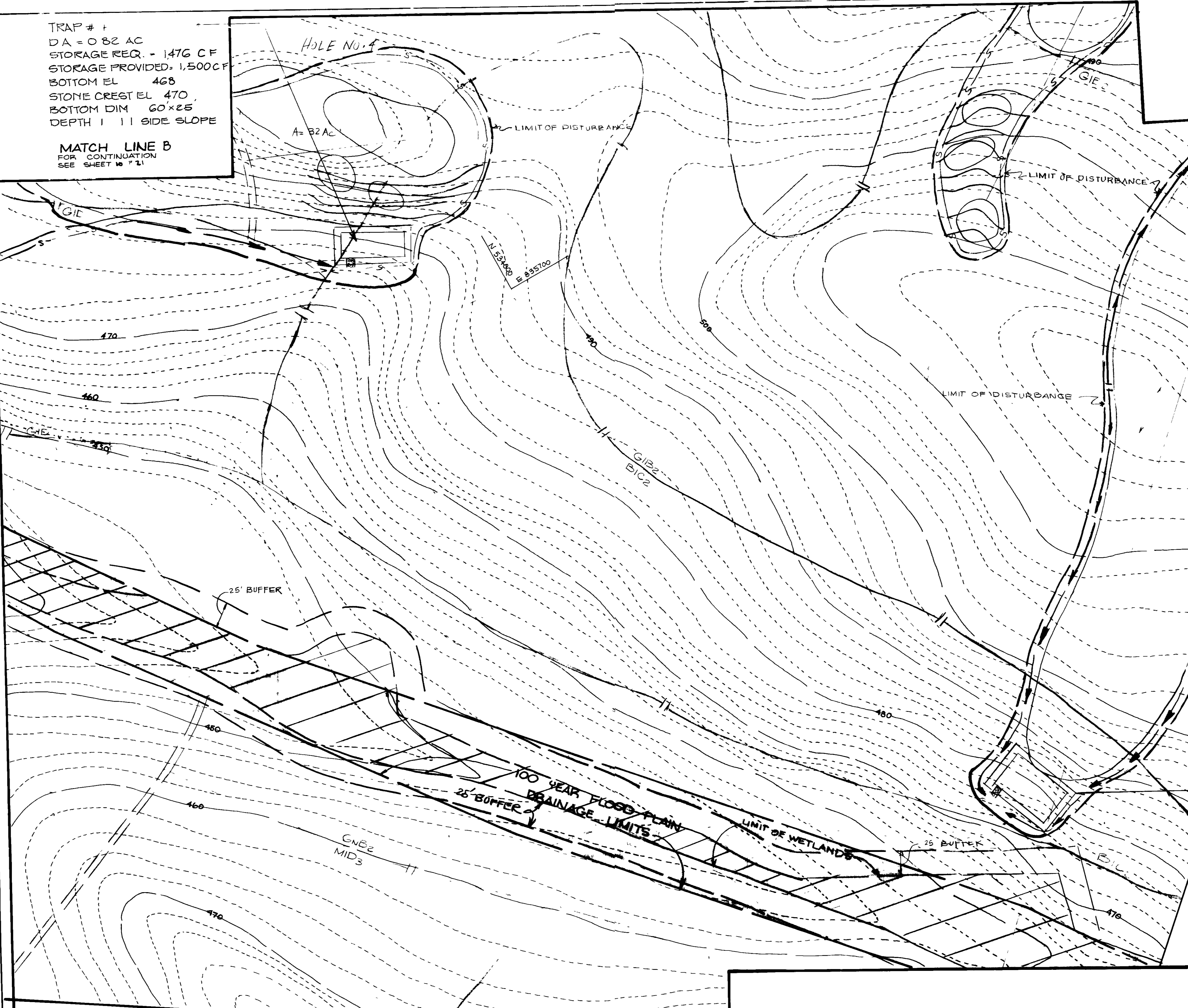
OWNERS
 PARCEL 8 • MANGIONE ENTERPRISES OF TURF VALLEY
 PARCEL 473 • TURF VALLEY ASSOCIATION
 PARCEL 21 • NICHOLAS B. & MARY C. MANGIONE
 1205 YORK ROAD
 LUTHERVILLE, MD
 21093

TRAP # 1
 DA = 0.82 AC
 STORAGE REQ. = 1,476 CF
 STORAGE PROVIDED = 1,500 CF
 BOTTOM EL 468
 STONE CREST EL 470
 BOTTOM DIM 60x25
 DEPTH 1 1/2 SIDE SLOPE

MATCH LINE B
 FOR CONTINUATION
 SEE SHEET 10 OF 21

MATCH LINE B
 FOR CONTINUATION
 SEE SHEET 10 OF 21

MATCH LINE G
 FOR CONTINUATION
 SEE SHEET 15 OF 21



10-26-88

REVIEWED FOR H.C.S.C.D. AND MEETS TECHNICAL REQUIREMENTS
James M. Stahl 7/24/89
 SIGNATURE DATE
 U.S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY HOWARD COUNTY SOIL CONSERVATION DISTRICT
Robert W. Gielm 7/24/89
 APPROVED DATE

APPROVED DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS
James J. Smith 7/31/89
 DIRECTOR OF PUBLIC WORKS DATE

APPROVED DEPT. OF PLANNING AND ZONING HO-CO
William A. Kelly 8/7/89
 PLANNING DIRECTOR DATE

APPROVED HOWARD COUNTY HEALTH DEPARTMENT REVIEWED: NO SANITARY FACILITIES REQUIRED
Joseph M. Boyd 8-1-89
 HEALTH OFFICER DATE

TRAP # 5
 DA = 1.35 AC
 STORAGE REQUIRED = 2,430 CF
 STORAGE PROVIDED = 2,500 CF
 BOTTOM EL 466
 STONE CREST EL 468
 BOTTOM DIM 60x40
 DEPTH 1 1/2 SIDE SLOPES
 NOTE: STABILIZE SWALE BELOW TRAP #5 WITH 50% OR CURLEX (OR EQUAL) AND APPROVED GRASS MIXTURE IMMEDIATELY AFTER ITS CONSTRUCTION.

HOWARD COUNTY SOIL MAP 9& 15

| SUBDIVISION NAME PROP 3 HOLES ADDITION TO TURF VALLEY GOLF COURSE | | SECTION/AREA | PARCEL NO |
|---|------------|---------------|----------------|
| | | N/A | NO P. 6, P. 21 |
| LIB/FOLIO | BLOCK NO | ZONE R & PGCC | TAX / ZONE |
| 920/265 | 12 + 10/13 | 10 & 17 | 3 & 2 |
| WATER CODE | | SEWER CODE | |
| N/A | | N/A | |

GRADING & SEDIMENT CONTROL PLAN
 PROPOSED 3 HOLES ADDITION TO
TURF VALLEY GOLF COURSE
 PART OF PARCEL 8, PARCEL 479 & PARCEL 21
 ELECTION DISTRICT 3 HOWARD COUNTY, MD
 TAX MAP 16 & 17 SCALE 1" = 50'
 SHEET 11 OF 21 DATE 5-30-89

| NO | REVISIONS | DATE |
|----|---|--------|
| 1 | REMOVE POND #2, REMOVE SWALE TO POND #2, REVISE SHEET NO. FROM 15 OF 25 TO 11 OF 21 | 3/4/91 |

MATCH LINE C
 FOR CONTINUATION
 SEE SHEET 12 OF 21

LORIA, SEDGHI & ASSOCIATES, LTD.
 ENGINEERS • SITE PLANNERS • SURVEYORS
 3217 CORPORATE COURT
 ELLICOTT CITY, MD. 21043
 (301) 750-9003

ENGINEER'S CERTIFICATE
 I HEREBY 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 COUNTY SOIL CONSERVATION DISTRICT.
M. Sedghi
 MIKE SEDGHI PE, 13816 7-12-88 DATE

DEVELOPER'S/BUILDER'S CERTIFICATE
 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 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 COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY.
Nicholas B. Mangione
 DEVELOPER/BUILDER 9/13/88 DATE

OWNERS
 PARCEL 8: MANGIONE ENTERPRISES OF TURF VALLEY
 PARCEL 479: TURF VALLEY ASSOCIATION
 PARCEL 21: NICHOLAS B & MARY C MANGIONE
 1205 YORK ROAD
 LUTHERVILLE, MD
 21093

MATCH LINE K
SEE SHEET 19 OF 21

MATCH LINE C
SEE SHEET 11 OF 21

MATCH LINE H
FOR CONTINUATION
SEE SHEET 18 OF 21

MATCH LINE I
FOR CONTINUATION
SEE SHEET 13 OF 21

10-26-88

REVIEWED FOR H.C.S.C.D. AND MEETS TECHNICAL REQUIREMENT
Robert M. ... 7/24/89
SIGNATURE DATE
U.S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY HOWARD COUNTY SOIL CONSERVATION DISTRICT

Robert W. Zehm 7/24/89
APPROVED DATE

APPROVED DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS

James J. ... 7/31/89
DIRECTOR OF PUBLIC WORKS DATE

William B. ... 7-25-89
CHIEF BUREAU OF ENGINEERING DATE

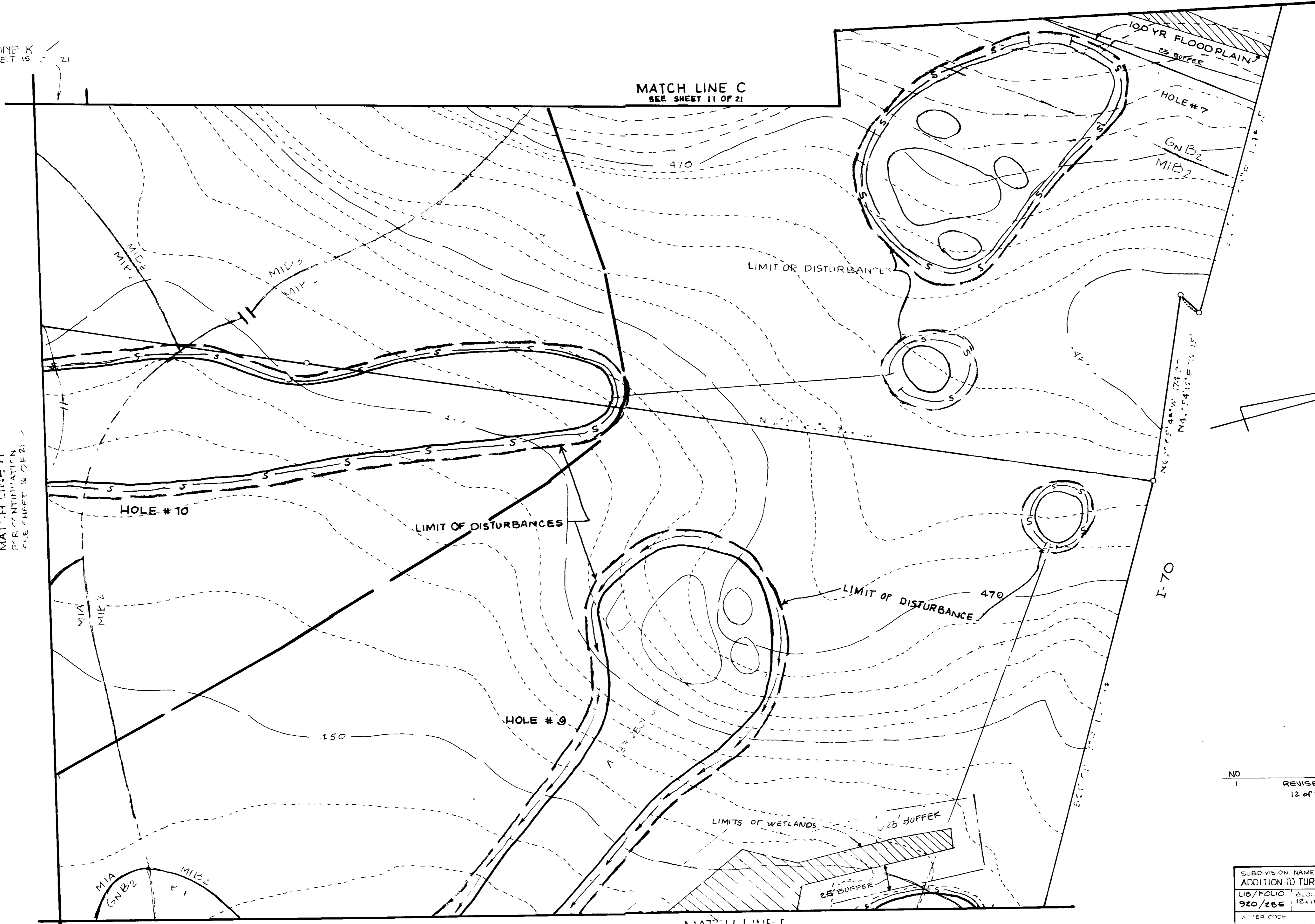
APPROVED: DEPT. OF PLANNING AND ZONING HO. CO

... 8-7-89
PLANNING DIRECTOR DATE

... 8/1/89
DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED HOWARD COUNTY HEALTH DEPARTMENT
REVIEWED: NO SANITARY FACILITIES REQUIRED

... 8-1-89
HEALTH OFFICER DATE



| NO | REVISIONS | DATE |
|----|---|--------|
| 1 | REVISE SHEET NO FROM 16 OF 25 TO 12 OF 21 | 3/4/91 |

HOWARD COUNTY SOIL MAP 9845

| SUBDIVISION NAME | PROP. 9 HOLES ADDITION TO TURF VALLEY GOLF COURSE | SECTION AREA | PARCEL NO |
|------------------|---|--------------|---------------|
| 920/265 | 12+18/13 | R# PACC-1 | 6+17 |
| | | | 3#2 6002/6030 |

WATER CODE: N/A SEWER CODE: N/A

GRADING & SEDIMENT CONTROL PLAN
PROPOSED 9 HOLES ADDITION TO
TURF VALLEY GOLF COURSE
PART OF PARCEL 8 PARCEL 479 & PARCEL 21
ELECTION DISTRICT 3 HOWARD COUNTY MD
"AX MAP 6 & 17" SCALE 1"=50'
SHEET 12 OF 21" DATE 5-30-89

OWNERS
PARCEL 8 MANGIONE ENTERPRISES OF TURF VALLEY
PARCEL 479 TURF VALLEY ASSOCIATION
PARCEL 21: NICHOLAS B. & MARY C. MANGIONE
1205 YORK ROAD
LUTHERVILLE MD
21093

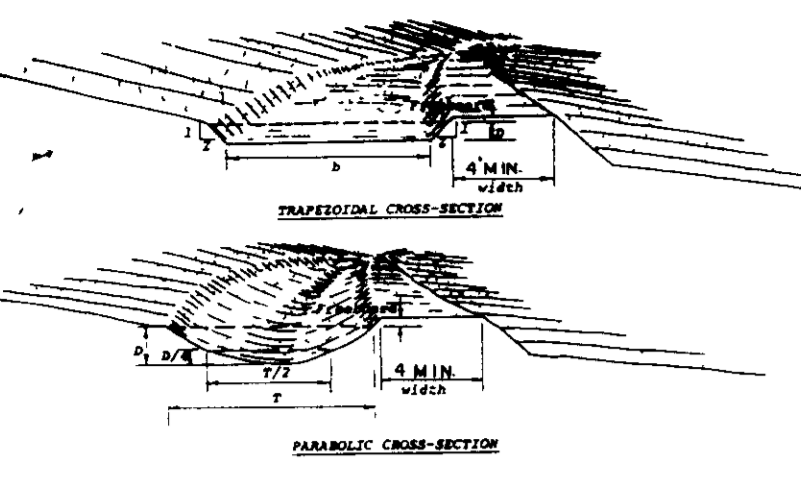
LORIA, SEDGHI & ASSOCIATES, LTD.
ENGINEERS • SITE PLANNERS • SURVEYORS
3217 CORPORATE COURT
ELLICOTT CITY MD 21043
(301) 750-9003

ENGINEER'S CERTIFICATE
I HEREBY 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 COUNTY SOIL CONSERVATION DISTRICT

M. Sedghi
M. SEDGHI PE 3816 DATE

DEVELOPER'S/BUILDER'S CERTIFICATE
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 DEPT. OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY.

Nicholas B. Mangione
NICHOLAS B. MANGIONE DATE 4/3/89



Construction Specifications

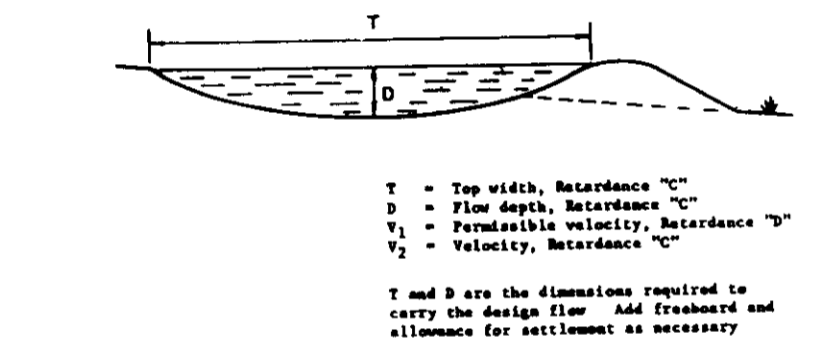
- All cross brash stream obstructions and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of the diversion.
- The diversion shall be excavated or shaped to show, grade and cross section as required to meet the criteria specified herein and be free of obstructions which will impede normal flow.
- Fills shall be compacted as needed to prevent unequal settlement that would cause damage to the completed diversion.
- All work required and not needed in construction shall be spread or disposed of so that it will not interfere with the functioning of the diversion.
- Stabilization shall be done according to the appropriate Standard and Specifications for Vegetative Practices.
- For erosion velocities of less than 3 ft per sec., seeding and mulching may be used for the establishment of the vegetation. It is recommended that when conditions permit, temporary diversion or other means be used to prevent water flow entering the diversion during the establishment of the vegetation.
- For erosion velocities of more than 3 ft per sec., the diversion shall be stabilized with and with seeding proceeded by lime or fertilizer setting or with seeding and mulching (including temporary diversion of water until the vegetation is established). See the Standard and Specifications for Protective Materials.

Standard Symbol

TABLE 1-DIVERSION
MAXIMUM PERMISSIBLE DESIGN VELOCITIES

| Soil Texture | Retention and Cover | Channel Vegetation | Permissible Velocity - Feet per second |
|--|--|--------------------|--|
| Sand, silt, sandy loam, silty loam, loamy sand (M, SM, SP, SW) | B - Turf, Midland and Coastal Bermudagrass 2/ | 3/ | 3.5 |
| | | | 3.0 |
| Silty clay loam, sandy clay loam (M-CL, SC) | C - Kentucky 31 tall fescue and Kentucky blugrass | 3/ | 2.5 |
| | | | 2.5 |
| Clay (CL) | D - Annuals 2/ Small grain (oats, rye, barley, millet), Ryegrass | 3/ | 4.5 |
| | | | 4.0 |
| | C - Kentucky 31 tall fescue and Kentucky blugrass | 3/ | 3.5 |
| | | | 3.5 |
| | D - Annuals 2/ Small grain (oats, rye, barley, millet), Ryegrass | 3/ | 5.5 |
| | | | 5.0 |
| | C - Kentucky 31 tall fescue and Kentucky blugrass | 3/ | 4.0 |
| | | | 4.0 |

- To be used only below established or protected areas
- Common bermudagrass is a restricted noxious weed in Maryland
- Annuals - Use only as temporary protection until permanent vegetation is established

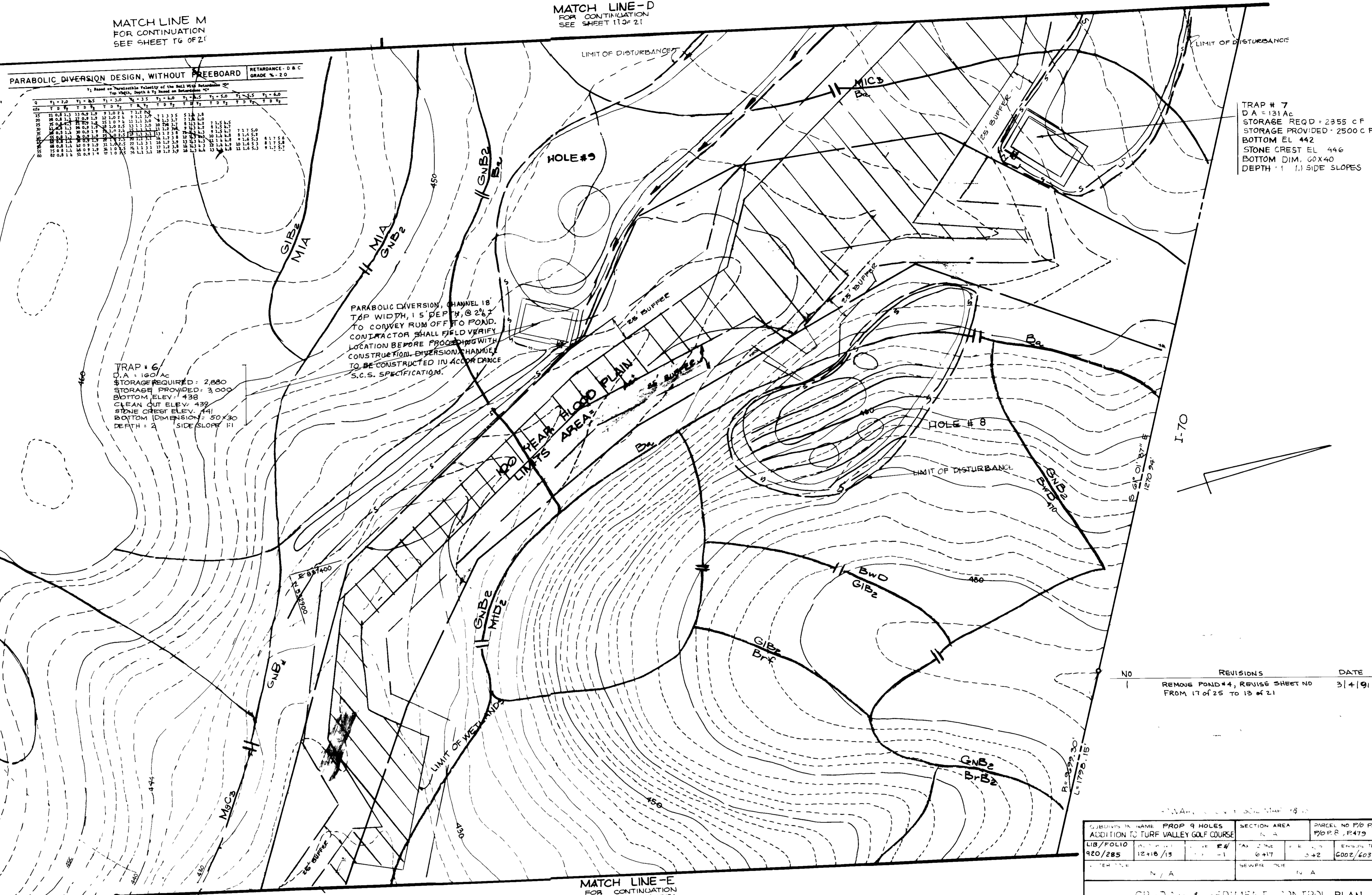


REVIEWED FOR HCSO AND MEETS TECHNICAL REQUIREMENTS
 Signature: *[Signature]* DATE: 7/24/89

APPROVED DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND EROSION CONTROL
 Signature: *[Signature]* DATE: 7/25/89

APPROVED DEPT. PLANNING AND ZONING
 Signature: *[Signature]* DATE: 8/1/89

APPROVED HOWARD COUNTY HEALTH DEPARTMENT
 REVIEWED: NO SANITARY FACILITIES REQUIRED
 Signature: *[Signature]* DATE: 8-1-89



PARABOLIC DIVERSION DESIGN, WITHOUT FREEBOARD
RETARDANCE - D & C GRADE % = 2.0

| Top Width, ft | V ₁ Based on Permissible Velocity of the Soil With Retardance 2/ | | V ₂ Based on Permissible Velocity of the Soil With Retardance 3/ | |
|---------------|---|----------------|---|----------------|
| | T | V ₁ | T | V ₂ |
| 0 | 2.0 | 3.5 | 3.0 | 4.0 |
| 10 | 2.0 | 3.5 | 3.0 | 4.0 |
| 20 | 2.0 | 3.5 | 3.0 | 4.0 |
| 30 | 2.0 | 3.5 | 3.0 | 4.0 |
| 40 | 2.0 | 3.5 | 3.0 | 4.0 |
| 50 | 2.0 | 3.5 | 3.0 | 4.0 |
| 60 | 2.0 | 3.5 | 3.0 | 4.0 |
| 70 | 2.0 | 3.5 | 3.0 | 4.0 |
| 80 | 2.0 | 3.5 | 3.0 | 4.0 |
| 90 | 2.0 | 3.5 | 3.0 | 4.0 |
| 100 | 2.0 | 3.5 | 3.0 | 4.0 |

TRAP # 6
 D.A. = 160 AC
 STORAGE REQUIRED = 2,680
 STORAGE PROVIDED = 3,000
 BOTTOM ELEV. = 438
 STONE CREST ELEV. = 441
 BOTTOM DIMENSION = 50 X 30
 DEPTH = 2 SIDE SLOPE 1:1

PARABOLIC DIVERSION, CHANNEL 18" TOP WIDTH, 1.5' DEPTH, @ 2% TO CONVEY RUN OFF TO POND. CONTRACTOR SHALL FIELD VERIFY LOCATION BEFORE PROCEEDING WITH CONSTRUCTION. DIVERSION CHANNEL TO BE CONSTRUCTED IN ACCORDANCE S.C.S. SPECIFICATIONS.

TRAP # 7
 D.A. = 131 AC
 STORAGE REQ'D = 2355 C.F.
 STORAGE PROVIDED = 2500 C.F.
 BOTTOM EL. 442
 STONE CREST EL. 446
 BOTTOM DIM. 60 X 40
 DEPTH = 1.1 SIDE SLOPES

10-26-88
LORIA, SEDGHI & ASSOCIATES, LTD.
 ENGINEERS • SITE PLANNERS • SURVEYORS
 3217 CORPORATE COURT
 ELLICOTT CITY, MD 21043
 (301) 551-0003

ENGINEER'S CERTIFICATE
 HEREBY 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 COUNTY SOIL CONSERVATION DISTRICT.
 Mike Sedghi, P.E. 7-12-88

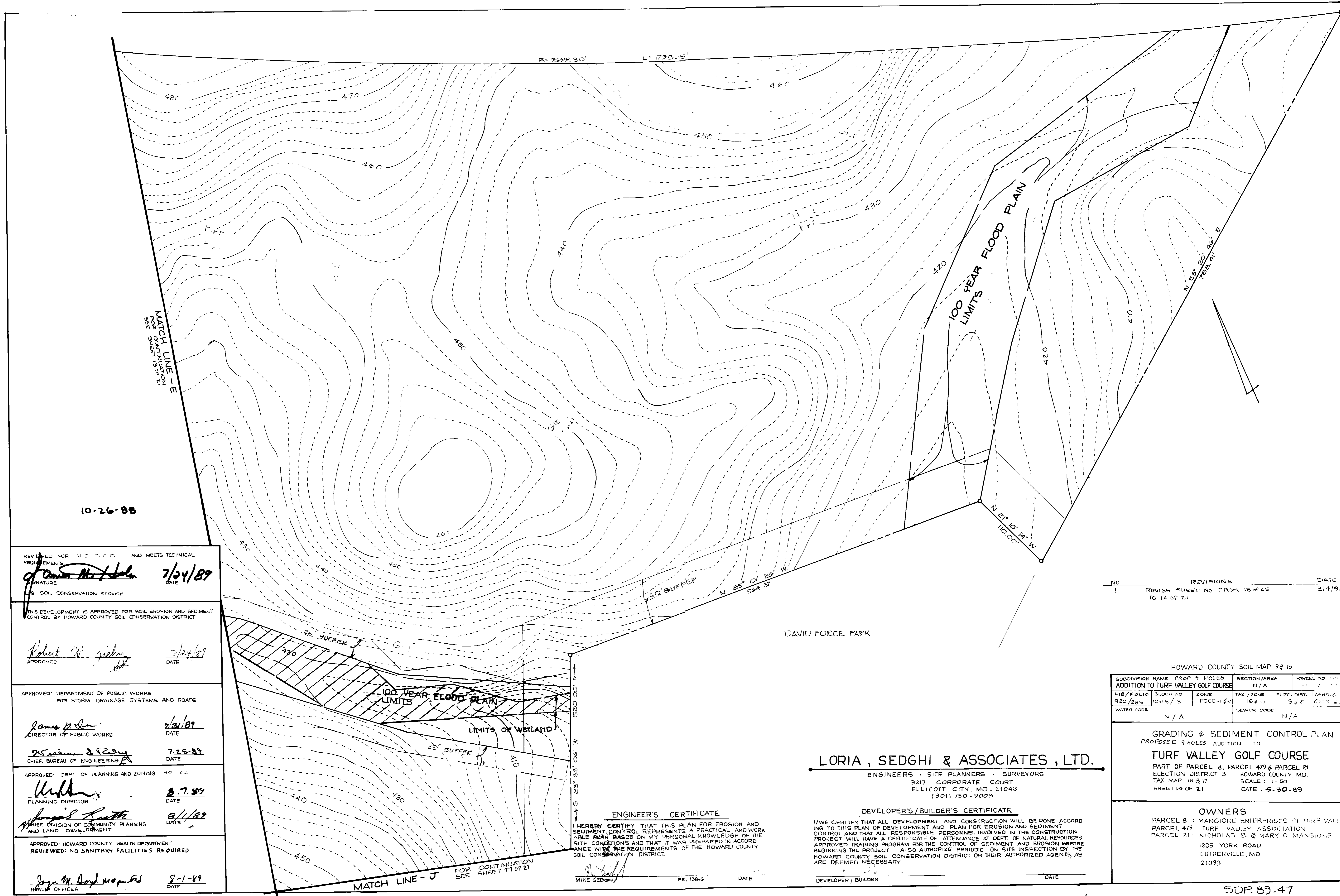
DEVELOPER'S/BUILDER'S CERTIFICATE
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 Nicholas Mangione, 4/13/88

| No | REVISIONS | DATE |
|----|---|--------|
| 1 | REMOVE POND #4, REVISE SHEET NO FROM 17 OF 25 TO 13 OF 21 | 3/4/91 |

| SUBMITTER NAME | SECTION AREA | PARCEL NO P/O P.21 |
|--|--------------|--------------------|
| PROP 9 HOLES ADDITION TO TURF VALLEY GOLF COURSE | N/A | P/O P.R. #479 |
| LIB/FOLIO | DATE | ENGINEER |
| 920/285 | 12-10-15 | 6002/6030 |

GRADING & SEDIMENT CONTROL PLAN
 PROPOSED 9 HOLES ADDITION TO TURF VALLEY GOLF COURSE
 TURF VALLEY GOLF COURSE
 PART OF PARCEL 8 PARCEL 479 & PARCEL 21
 ELECTION DISTRICT 3 HOWARD COUNTY, MD
 TAX MAP 16 B 17
 SHEET 13 OF 21 DATE 5-30-89

OWNERS
 PARCEL 8: MANGIONE ENTERPRISES OF TURF VALLEY
 PARCEL 479: TURF VALLEY ASSOCIATION
 PARCEL 21: NICHOLAS B & MARY C MANGIONE
 1205 YORK ROAD
 LUTHERVILLE, MD 21703



10-26-88

REVIEWED FOR H.C.S.C.O. AND MEETS TECHNICAL REQUIREMENTS
Robert W. Zich 7/24/89
 SIGNATURE DATE
 U.S. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY HOWARD COUNTY SOIL CONSERVATION DISTRICT

Robert W. Zich 7/24/89
 APPROVED DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS

James P. Jones 7/31/89
 DIRECTOR OF PUBLIC WORKS DATE
Richard S. Ryan 7-25-89
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED: DEPT. OF PLANNING AND ZONING
William C. ... 8-7-89
 PLANNING DIRECTOR DATE
Joseph ... 8/1/89
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED: HOWARD COUNTY HEALTH DEPARTMENT
 REVIEWED: NO SANITARY FACILITIES REQUIRED
Joseph M. Boyd 8-1-89
 HEALTH OFFICER DATE

| NO | REVISIONS | DATE |
|----|--|--------|
| 1 | REVISE SHEET NO FROM 18 OF 25 TO 14 OF 21. | 3/4/91 |

HOWARD COUNTY SOIL MAP 98 15

| SUBDIVISION NAME | PROP 9 HOLES ADDITION TO TURF VALLEY GOLF COURSE | SECTION/AREA | PARCEL NO |
|------------------|--|--------------|-----------|
| L18/FOLIO | 12+16/13 | PGCC-1 & 2 | 16 & 17 |
| 920/285 | | | |
| WATER CODE | N/A | SEWER CODE | N/A |

GRADING & SEDIMENT CONTROL PLAN
 PROPOSED 9 HOLES ADDITION TO
TURF VALLEY GOLF COURSE
 PART OF PARCEL 8, PARCEL 479 & PARCEL 21
 ELECTION DISTRICT 3 HOWARD COUNTY, MD.
 TAX MAP 16 & 17 SCALE: 1"=50'
 SHEET 14 OF 21 DATE: 5-30-89

OWNERS
 PARCEL 8 : MANGIONE ENTERPRISES OF TURF VALLEY
 PARCEL 479 : TURF VALLEY ASSOCIATION
 PARCEL 21 : NICHOLAS B. & MARY C. MANGIONE
 1205 YORK ROAD
 LUTHERVILLE, MD
 21093

DAVID FORCE PARK

LORIA, SEDGHI & ASSOCIATES, LTD.

ENGINEERS • SITE PLANNERS • SURVEYORS
 3217 CORPORATE COURT
 ELLICOTT CITY, MD. 21043
 (301) 750-9003

ENGINEER'S CERTIFICATE
 I HEREBY 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 COUNTY SOIL CONSERVATION DISTRICT.

DEVELOPER'S/BUILDER'S CERTIFICATE
 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 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 COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

Mike Sedghi PE, 19816 DATE

DEVELOPER/BUILDER DATE

MATCH LINE - J FOR CONTINUATION SHEET 17 OF 21

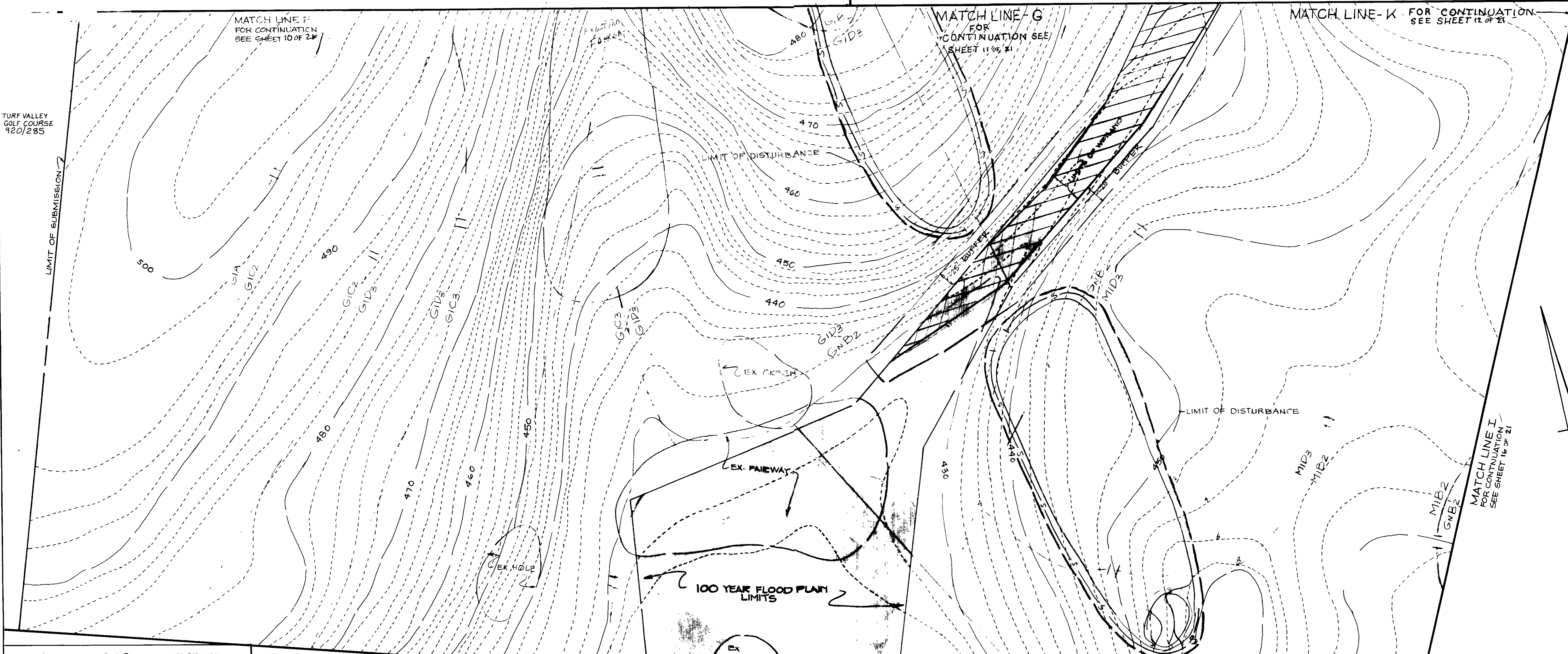
MATCH LINE F FOR CONTINUATION SEE SHEET 10 OF 21

MATCH LINE G FOR CONTINUATION SEE SHEET 11 OF 21

MATCH LINE K FOR CONTINUATION SEE SHEET 12 OF 21

TURF VALLEY GOLF COURSE 920/285

LIMIT OF SUBMISSION



MATCH LINE I FOR CONTINUATION SEE SHEET 16 OF 21

MATCH LINE L FOR CONTINUATION SEE SHEET 18 OF 21

REVIEWED FOR H.C.S.C.D. AND MEETS TECHNICAL REQUIREMENTS
John M. Hahn 7/24/89
 SIGNATURE DATE
 J. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY HOWARD COUNTY SOIL CONSERVATION DISTRICT

APPROVED
Robert W. Zeleny 7/24/89
 APPROVED DATE

APPROVED DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS

James M. ... 7/31/89
 DIRECTOR OF PUBLIC WORKS DATE

William E. ... 7-25-89
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED DEPT. OF PLANNING AND ZONING HO. CO.
Charles ... 8-7-89
 PLANNING DIRECTOR DATE

Louis ... 8/1/89
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED HOWARD COUNTY HEALTH DEPARTMENT
 REVIEWED: NO SANITARY FACILITIES REQUIRED
Joseph M. Boyd 8-1-89
 HEALTH OFFICER DATE

10-26-88

| NO. | REVISIONS | DATE |
|-----|---|--------|
| 1 | REVISE SHEET NO FROM 19 OF 25 TO 18 OF 21 | 3/4/91 |

| HOWARD COUNTY SOIL MAP 9 & 15 | | | | | |
|-------------------------------------|--------------|------------------|-----------|------------|------------|
| SUBDIVISION NAME | SECTION/AREA | PARCEL NO. | BLOCK NO. | ZONE | TAX / ZONE |
| ADDITION TO TURF VALLEY GOLF COURSE | N/A | 920 P-8 | 12-18/13 | PGCC-1 & R | 16-17 |
| 920/285 | | P-479 & P/O P-21 | | | 3 & 2 |
| | | 2002/2030 | | | |
| WATER CODE | N/A | SEWER CODE | N/A | | |

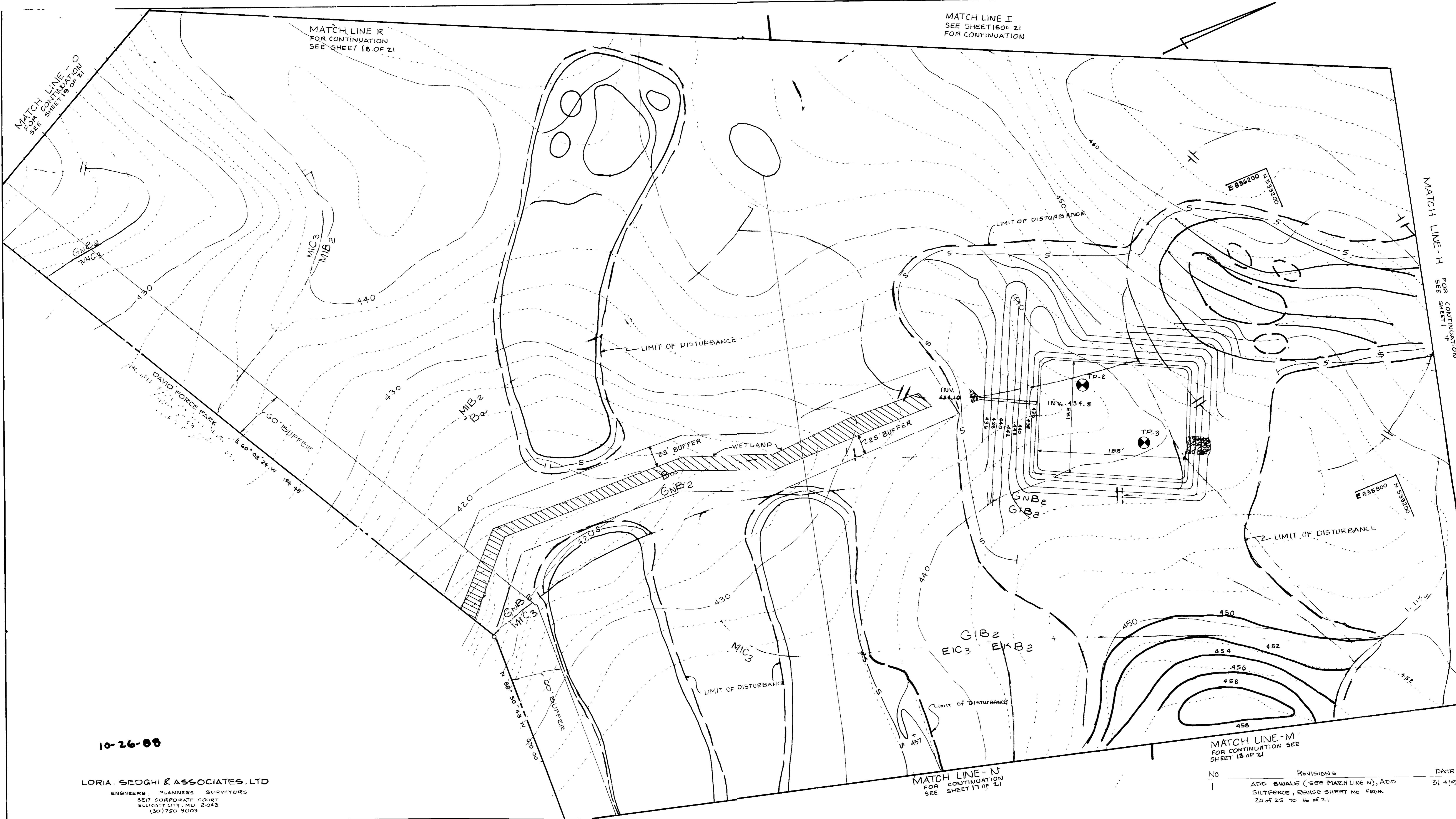
GRADING & SEDIMENT CONTROL PLAN
 PROPOSED 9 HOLES ADDITION TO
 TURF VALLEY GOLF COURSE
 PART OF PARCEL 8, PARCEL 479 & PARCEL 21
 ELECTION DISTRICT 3 HOWARD COUNTY MD
 TAX MAP 16 & 17 SCALE 1" = 50'
 SHEET 18 OF 21 DATE 5-30-89

OWNERS
 PARCEL 8 MANGIONE ENTERPRISES OF TURF VALLEY
 PARCEL 479 TURF VALLEY ASSOCIATION
 PARCEL 21 NICHOLAS B. & MARY C MANGIONE
 1205 YORK ROAD
 LUTHERVILLE, MD
 21093

LORIA, SEDGHI & ASSOCIATES, LTD.
 ENGINEERS • SITE PLANNERS • SURVEYORS
 3217 CORPORATE COURT
 ELLICOTT CITY, MD. 21043
 (301) 750-9003

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Mike Sedghi 7-12-88
 MIKE SEDGHI P.E. 13814 DATE

DEVELOPER'S / BUILDER'S CERTIFICATE
 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 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 COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY.
John Mangione 9/13/89
 DEVELOPER / BUILDER DATE



10-26-88
 LORIA, SEDGHI & ASSOCIATES, LTD
 ENGINEERS, PLANNERS SURVEYORS
 3217 CORPORATE COURT
 ELICOTT CITY, MD 21043
 (301) 750-9003

| NO | REVISIONS | DATE |
|----|--|--------|
| 1 | ADD SWALE (SEE MATCH LINE N), ADD SILTFENCE, REVISE SHEET NO FROM 20 OF 25 TO 16 OF 21 | 3/1/89 |

APPROVED HOWARD COUNTY HEALTH DEPARTMENT
 REVIEWED FOR SANITARY FACILITIES REQUIRED
 HEALTH OFFICER: *[Signature]* DATE: 7-1-89

APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING
 DIRECTOR: *[Signature]* DATE: 7/1/89

APPROVED: DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS.
 DIRECTOR: *[Signature]* DATE: 7/31/89
 CHIEF BUREAU OF ENGINEERING: *[Signature]* DATE: 7-25-89

REVIEWED FOR HOWARD COUNTY SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS
 US SOIL CONSERVATION SERVICE DATE: 7/24/89

THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT
 APPROVED: *[Signature]* DATE: 7/25/89
 DISTRICT HOWARD, SOIL CONSERVATION DISTRICT

"I/We certify that all development and/or construction will be done according to these plans, and 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. I will provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."
 Signature of Developer: *[Signature]* Date: 7/24/89

"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."
 Signature of Engineer: *[Signature]* Date: 5-31-89

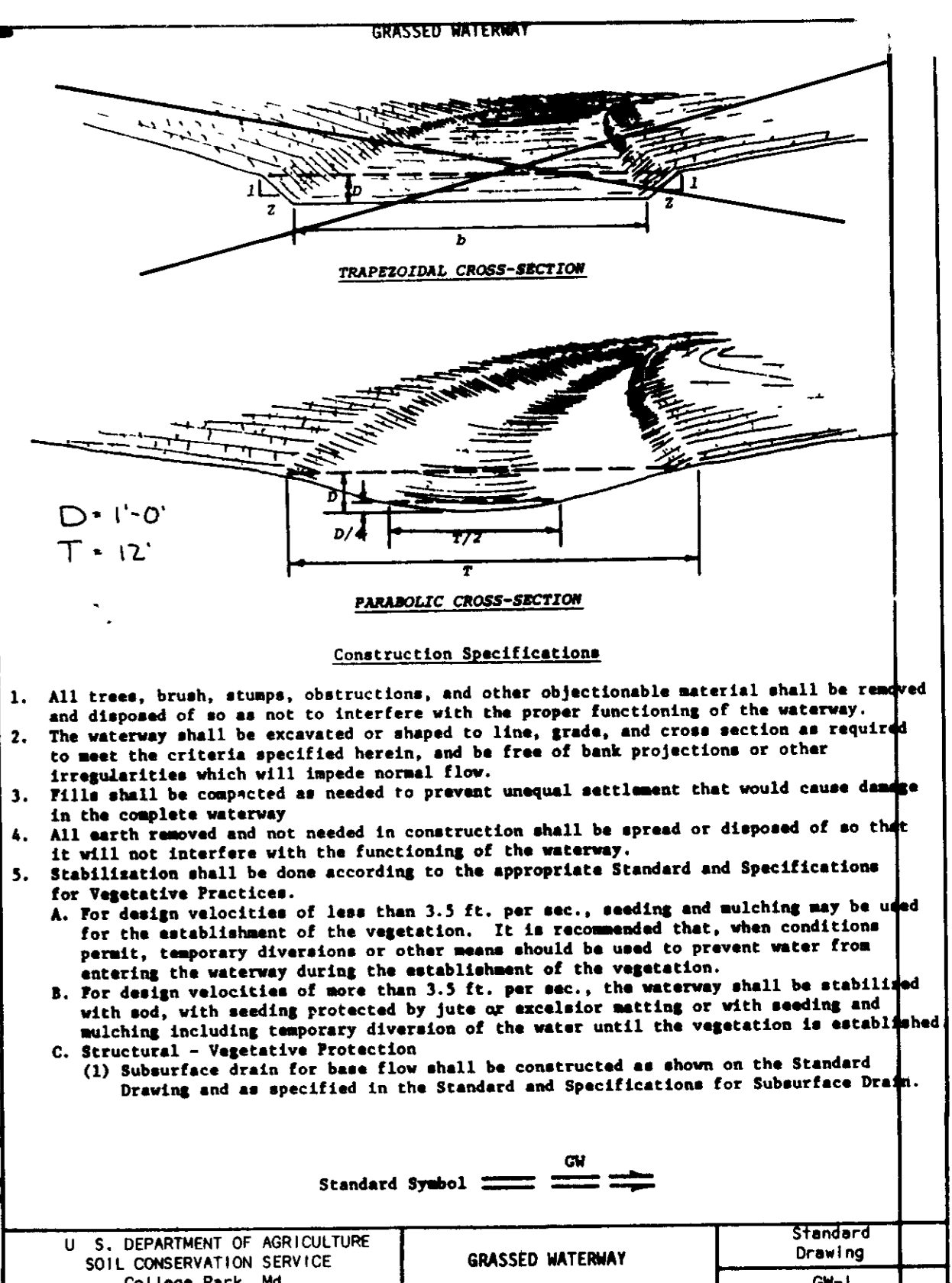
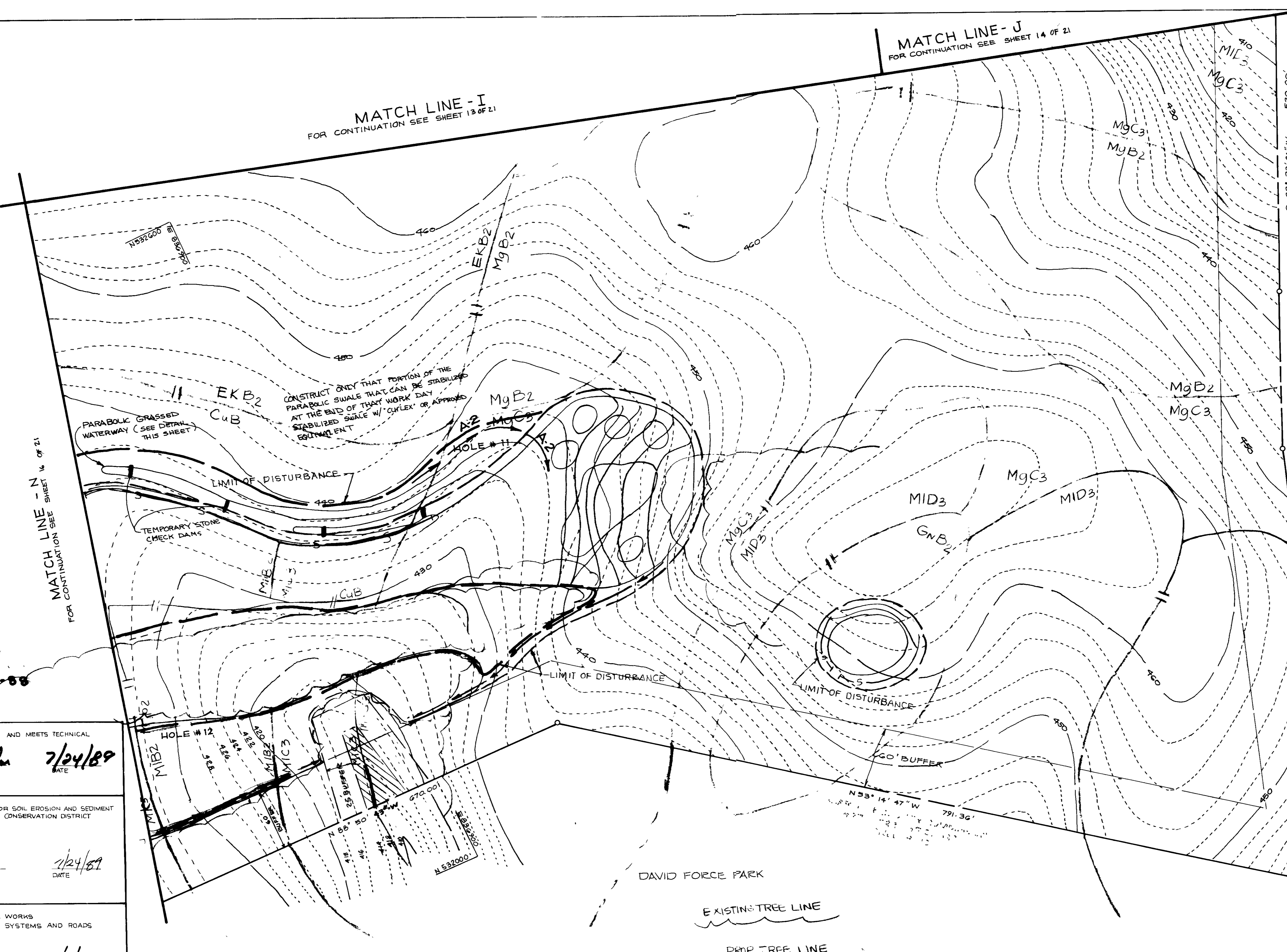
| | | | |
|--|-------------------------|------------------|-----------------------|
| SUBDIVISION NAME: PROR 9 HOLES TURF VALLEY GOLF COURSE | | SECT / AREA: N/A | LOT / PARCEL #: P 8 |
| PLAT / BLDG # / ZONE: 200/205 / R & PGCC-1 | TAX / ZONE MAP: 16 + 17 | ELEC DIST: 2 + 3 | CENSUS TR.: G002/6030 |
| WATER CODE: N/A | | SEWER CODE: N/A | |

GRADING & SEDIMENT CONTROL PLAN
 PROPOSED 9 HOLES ADDITION TO
 TURF VALLEY GOLF COURSE
 283 RD ELECTION DISTRICT TAX MAP 16 & 17
 HOWARD COUNTY, MD PARCELS - 6479 & 21
 SCALE 1"=50' SHEET 16 OF 21
 DATE 5-30-89

PARCEL 8 MANGIONE ENTERPRISES OF TURF VALLEY
 PARCEL 179 TURF VALLEY ASSOCIATION
 PARCEL 21 NICHOLAS B. & MARY C. MANGIONE
 1805 LEXINGTON LUTHERVILLE, MD 21093

MATCH LINE - I
FOR CONTINUATION SEE SHEET 13 OF 21

MATCH LINE - J
FOR CONTINUATION SEE SHEET 14 OF 21



U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
College Park, MD

GRASSED WATERWAY
Standard Drawing
GW-1

DAVID FORCE PARK
HOWARD COUNTY SOIL MAP 9 & 15

| NO | REVISIONS | DATE |
|----|--|--------|
| 1 | REMOVE POOL NO. 23, ADD PARABOLIC SWALE ALONG NORTHERN LIMITS OF HOLE #11, REVISE LIMITS OF DISTURBANCE. | 3/4/89 |

REVIEWED FOR H.C. S.C.O. AND MEETS TECHNICAL REQUIREMENTS
James M. Holden 7/24/89
SIGNATURE DATE
S.O. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY HOWARD COUNTY SOIL CONSERVATION DISTRICT

Robert W. Zichy 7/24/89
APPROVED DATE

APPROVED DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS

James P. Kelly 7/24/89
DIRECTOR OF PUBLIC WORKS DATE

Robert W. Zichy 7-25-89
CHIEF, BUREAU OF ENGINEERING DATE

APPROVED DEPT. OF PLANNING AND ZONING HO. CO.
W. R. Kelly 8-7-89
PLANNING DIRECTOR DATE

Joseph R. Heath 8/1/89
DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED HOWARD COUNTY HEALTH DEPARTMENT
REVIEWED: NO SANITARY FACILITIES REQUIRED
Joseph M. Boyd 8-1-89
HEALTH OFFICER DATE

LORIA, SEDGHI & ASSOCIATES, LTD.
ENGINEERS • SITE PLANNERS • SURVEYORS
3217 CORPORATE COURT
ELLCOTT CITY, MD 21043
(301) 750-9003

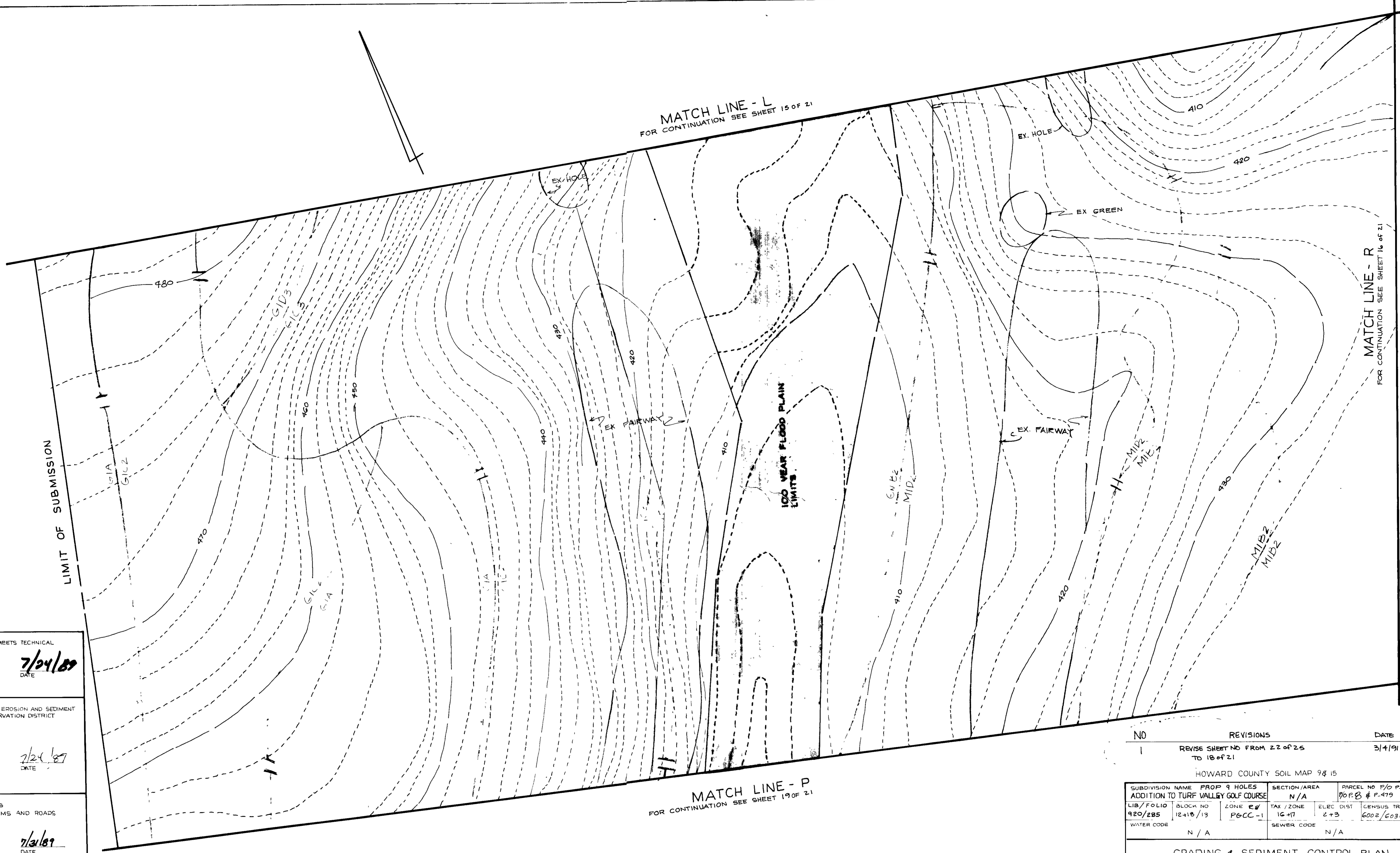
ENGINEER'S CERTIFICATE
I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD COUNTY SOIL CONSERVATION DISTRICT.
M. Sedghi PE 13816 7-12-89
DATE

DEVELOPER'S/BUILDER'S CERTIFICATE
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 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 COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY.
John Mangione 9/13/88
DEVELOPER / BUILDER DATE

| SUBDIVISION NAME | PROP 9 HOLES | SECTION/AREA | PARCEL NO |
|-------------------------------------|--------------|--------------|------------|
| ADDITION TO TURF VALLEY GOLF COURSE | N/A | P 479 + P 21 | P 8 |
| LIB / FOLIO | BLOCK NO | ZONE A & | TAX / ZONE |
| 920/285 | 12+18/13 | P6CC-1 | 16 + 17 |
| WATER CODE | ELEC DIST | CENSUS TR | |
| N/A | 2 + 3 | 6002/6030 | |
| | SEWER CODE | | |
| | N/A | | |

GRADING & SEDIMENT CONTROL PLAN
PROPOSED 9 HOLES ADDITION TO
TURF VALLEY GOLF COURSE
PART OF PARCEL 8, PARCEL 479 & PARCEL 21
ELECTION DISTRICT 3 HOWARD COUNTY, MD
TAX MAP 16 & 17 SCALE: 1" = 50'
SHEET 17 OF 21 DATE: 5-30-89

OWNERS
PARCEL 8: MANGIONE ENTERPRISES OF TURF VALLEY
PARCEL 479: TURF VALLEY ASSOCIATION
PARCEL 21: NICHOLAS B & MARY C MANGIONE
1205 YORK ROAD
LUTHERVILLE, MD
21093



TURF VALLEY GOLF COURSE
920/285

10-26-88

REVIEWED FOR H.C.S.C.D. AND MEETS TECHNICAL REQUIREMENTS
James M. Hahn 7/24/89
 SIGNATURE DATE
 H.C.S.C.D. SOIL CONSERVATION SERVICE

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY HOWARD COUNTY SOIL CONSERVATION DISTRICT

Robert W. Zieher 7/24/89
 APPROVED DATE

APPROVED DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS

James M. Hahn 7/24/89
 DIRECTOR OF PUBLIC WORKS DATE

William E. Riley 7-25-89
 CHIEF, BUREAU OF ENGINEERING DATE

APPROVED DEPT. OF PLANNING AND ZONING HO CO
Archie 8-7-89
 PLANNING DIRECTOR DATE

James M. Hahn 8/1/89
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT DATE

APPROVED HOWARD COUNTY HEALTH DEPARTMENT
 REVIEWED: NO SANITARY FACILITIES REQUIRED
Roger M. Boyd 8-1-89
 HEALTH OFFICER DATE

LORIA, SEDGHI & ASSOCIATES, LTD.
 ENGINEERS - SITE PLANNERS - SURVEYORS
 3217 CORPORATE COURT
 ELLICOTT CITY, MD. 21043
 (301) 750-9003

ENGINEER'S CERTIFICATE
 I HEREBY 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 COUNTY SOIL CONSERVATION DISTRICT
Mike Sedghi
 PE, 19816 9-12-88 DATE

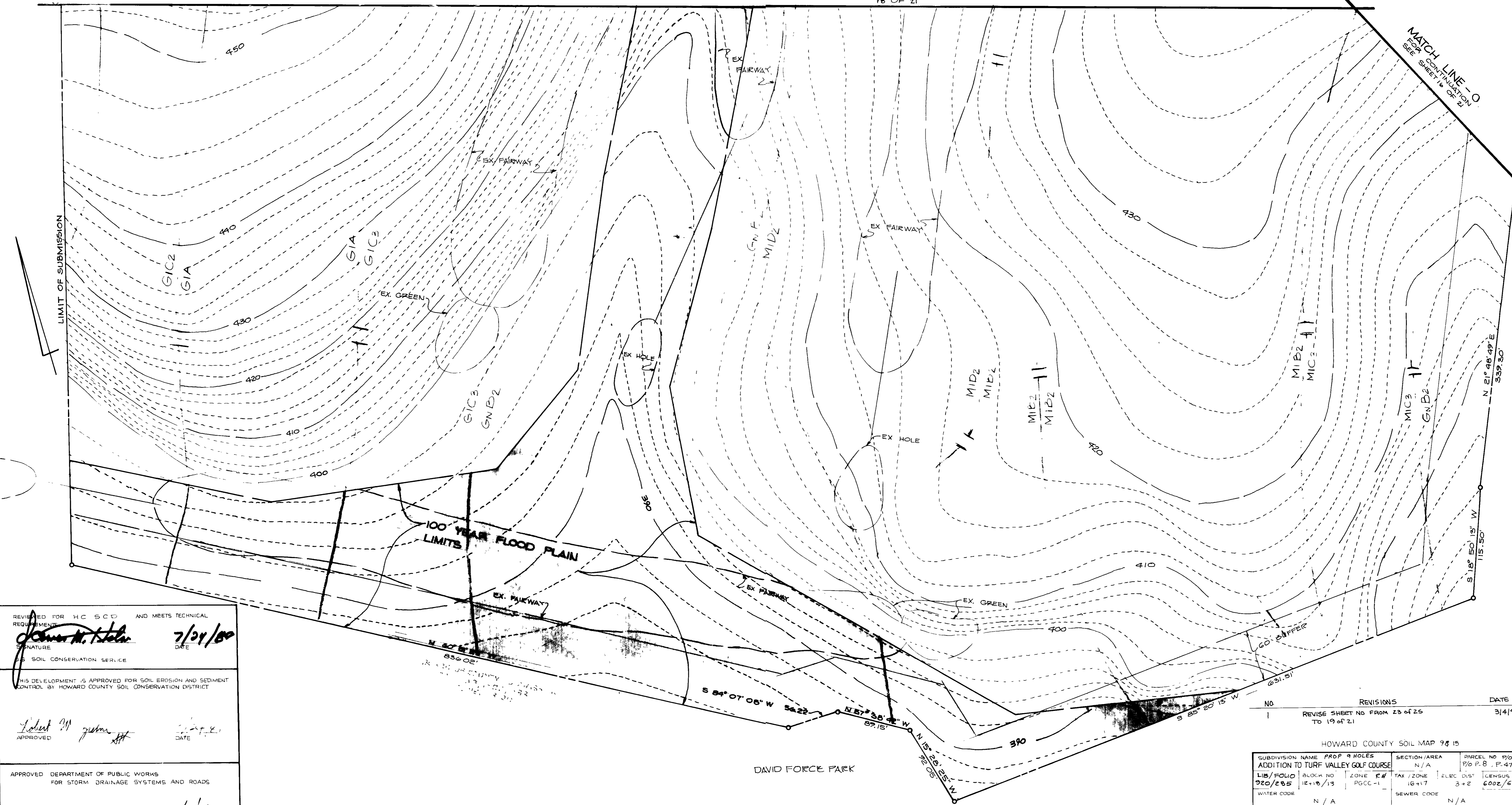
DEVELOPER'S/BUILDER'S CERTIFICATE
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN OF DEVELOPMENT AND PLAN FOR EROSION AND SEDIMENT CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT DEPT. OF 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 COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.
John Mangione
 DEVELOPER/BUILDER 9/13/88 DATE

| NO | REVISIONS | DATE |
|----|---|--------|
| 1 | REVISE SHEET NO FROM 22 OF 25 TO 18 OF 21 | 3/4/91 |

| HOWARD COUNTY SOIL MAP 9 & 15 | | | | | |
|-------------------------------------|--------------|--------------|--------------------|-----------|-----------|
| SUBDIVISION NAME | PROP 9 HOLES | SECTION/AREA | PARCEL NO P/O P.21 | | |
| ADDITION TO TURF VALLEY GOLF COURSE | | N/A | 90 P.21 # P.479 | | |
| LIB/FOLIO | BLOCK NO | ZONE | TAX / ZONE | ELEC DIST | CENSUS TR |
| 920/285 | 12+10/13 | P6CC-1 | 1G+17 | 2+3 | 6002/6030 |
| WATER CODE | | SEWER CODE | | | |
| N/A | | N/A | | | |

GRADING & SEDIMENT CONTROL PLAN
 PROPOSED 9 HOLES ADDITION TO
TURF VALLEY GOLF COURSE
 PART OF PARCEL 8, PARCEL 479 & PARCEL 21
 ELECTION DISTRICT 3 HOWARD COUNTY, MD
 TAX MAP 16 & 17 SCALE 1" = 50'
 SHEET OF DATE 5-30-89

OWNERS
 PARCEL 8 MANGIONE ENTERPRISES OF TURF VALLEY
 PARCEL 479 TURF VALLEY ASSOCIATION
 PARCEL 21: NICHOLAS B. & MARY C. MANGIONE
 1205 YORK ROAD
 LUTHERVILLE, MD
 21093



REVIEWED FOR HC SCD AND MEETS TECHNICAL REQUIREMENT
 Signature: *James M. Kohn* DATE: 7/24/89
 SOIL CONSERVATION SERVICE

THIS DEVELOPMENT IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY HOWARD COUNTY SOIL CONSERVATION DISTRICT

Approved: *Robert M. [unclear]* DATE: 7-27-89
 APPROVED

APPROVED DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS AND ROADS

Signature: *James [unclear]* DATE: 7/31/89
 DIRECTOR OF PUBLIC WORKS

Signature: *William [unclear]* DATE: 7-25-89
 CHIEF, BUREAU OF ENGINEERING

APPROVED DEPT. OF PLANNING AND ZONING HO CO
 Signature: *[unclear]* DATE: 6-7-89
 PLANNING DIRECTOR

Signature: *[unclear]* DATE: 8/11/89
 CHIEF, DIVISION OF COMMUNITY PLANNING AND LAND DEVELOPMENT

APPROVED HOWARD COUNTY HEALTH DEPARTMENT
 REVIEWED: NO SANITARY FACILITIES REQUIRED
 Signature: *James M. Boyd* DATE: 9-1-89
 HEALTH OFFICER

10-26-88
LORIA, SEDGHI & ASSOCIATES, LTD.
 ENGINEERS • SITE PLANNERS • SURVEYORS
 3217 CORPORATE COURT
 ELLICOTT CITY, MD 21043
 (301) 750-9003

ENGINEER'S CERTIFICATE
 I HEREBY 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 COUNTY SOIL CONSERVATION DISTRICT.
 Signature: *Mike Sedghi* DATE: 9-12-88
 MIKE SEDGHI

DEVELOPER'S/BUILDER'S CERTIFICATE
 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 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 COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.
 Signature: *John Mangione* DATE: 9/12/88
 DEVELOPER/BUILDER

| HOWARD COUNTY SOIL MAP 9 & 15 | | | | |
|--|---|-----------------|------------------|-----------------|
| NO. | REVISIONS | DATE | | |
| 1 | REVISE SHEET NO FROM 23 OF 25 TO 19 OF 21 | 3/4/79 | | |
| SUBDIVISION NAME: PROP 9 HOLES ADDITION TO TURF VALLEY GOLF COURSE | | | | |
| LIB/FOLIO: 920/205 | BLOCK NO: 12+10/13 | ZONE: PGCC-1 | TAX /ZONE: 16+17 | ELEC. DIST: 3+2 |
| CENSUS TR: 6002/6030 | | SEWER CODE: N/A | | |
| GRADING & SEDIMENT CONTROL PLAN PROPOSED 9 HOLES ADDITION TO TURF VALLEY GOLF COURSE PART OF PARCEL 8, PARCEL 479 & PARCEL 21 ELECTION DISTRICT 3 HOWARD COUNTY MD TAX MAP 16 & 17 SCALE 1" = 50' SHEET 19 OF 21 DATE: 5-30-89 | | | | |
| OWNERS PARCEL 8: MANGIONE ENTERPRISES OF TURF VALLEY PARCEL 479: TURF VALLEY ASSOCIATION PARCEL 21: NICHOLAS B & MARY C MANGIONE 1205 YORK ROAD LUTHERVILLE, MD 21093 | | | | |

These specifications are appropriate to ponds within the scope of the Standard for practice 378.

I. SITE PREPARATION

Areas under the borrow areas, embankment, and structural works shall be cleared, grubbed and the topsoil stripped to remove all trees, vegetation, roots or other objectionable material. Channel banks and sharp breaks shall be sloped to no steeper than 1:1.

Areas covered by the pond or reservoir will be cleared of all trees, brush, logs, fences, rubbish and other objectionable material unless otherwise designated on the plans. Trees, brush and stumps shall be cut approximately level with the ground surface.

All cleared and grubbed material shall be disposed of outside the limits of the dam and reservoir as directed by the owner or his representative. When specified, a sufficient quantity of topsoil will be stockpiled in a suitable location for use on the embankment and other designated areas.

II. EARTH FILL

Material

The fill material shall be taken from approved designated borrow area or areas. It shall be free of roots, stumps, wood, rubbish, over-size stones, frozen or other objectionable materials. The embankment shall be constructed to an elevation which provides for anticipated settlement to the design elevation. The fill height all along the length of the embankment shall be increased above the design elevation (including freeboard) as shown on the plans.

Placement

Areas on which fill is to be placed shall be scarified prior to placement of fill. Fill materials shall be placed in 8-inch maximum thickness (before compaction) layers which are to be continuous over the entire length of the fill. The most porous borrow material shall be placed in the downstream portions of the embankment.

Compaction

The placement of the hauling and spreading equipment over the fill shall be controlled so that the entire surface of each lift shall be traversed by not less than one tread track of the equipment or compaction shall be achieved by a minimum of four complete passes of a sheepfoot, rubber tired or vibratory roller. Fill material shall contain sufficient moisture such that the required degree of compaction can be obtained with the equipment used.

Cutoff Trench

Where specified, a cutoff trench shall be excavated along or parallel to the centerline of the embankment as shown on the plans. The bottom width of the trench shall be governed by the equipment used for excavation, with the minimum width being four feet. The depth shall be at least four feet or as shown on the plans. The side slopes of the trench shall be 1 to 1 or flatter. The backfill material for the cutoff trench shall be the most impervious material available and shall be compacted with equipment or rollers to assure maximum density and minimum permeability.

III. STRUCTURAL BACKFILL

Backfill material shall be of the type and quality conforming to that specified for the adjoining fill material. The fill shall be placed in horizontal layers not to exceed four inches in thickness and compacted by hand tampers or other compaction equipment. The material needs to fill completely all spaces under and adjacent to the pipe. At no time during the backfilling operation shall driven equipment be allowed to operate closer than four feet, measured horizontally, to any part of a structure. Under no circumstances shall the contractor drive equipment over any part of a concrete structure or pipe unless there is a compacted fill of twenty-four inches or greater over the structure of pipe.

IV. PIPE CONDUITS

A. Corrugated Metal Pipe

- Materials - (Steel Pipe)** - This pipe and its appurtenances shall be galvanized and fully bituminous coated and shall conform to the requirements of AASHTO Specification M-190 Type A with watertight coupling bands. Any bituminous coating damaged or otherwise removed shall be replaced with cold applied bituminous coating compound.

Materials - (Aluminum Pipe) - This pipe and its appurtenances shall conform to the requirements of AASHTO Specification M-196 or M-211 with watertight coupling bands. Coupling bands, anti-seep collars, end sections, etc. must be composed of the same material as the pipe. Metals must be insulated from dissimilar materials with use of rubber or plastic insulating materials at least 24 mils in thickness. Aluminum surfaces that are to be in contact with concrete shall be painted with one coat of zinc chromate primer. Hot dip galvanized bolts may be used for connections. The ϕ of the surrounding soils shall be less than 9 and greater than 4.

Helically corrugated pipe in addition to the requirements above shall have either continuously welded seams or have lock seams which are caulked, during fabrication with a neoprene bead.

- Connections** - All connections with pipes must be completely watertight. The drain pipe or barrel connection to the riser shall be welded all around when the pipe and riser are metal. Watertight coupling bands shall be used at all joints. Anti-seep collars shall be connected to the pipe in such a manner as to be completely watertight.

- Bedding** - The pipe shall be firmly and uniformly bedded throughout its entire length. Where rock or soft, spongy or other unstable soil is encountered, all such material shall be removed and replaced with suitable earth compacted to provide adequate support.

- Laying pipe** - The pipe shall be placed with inside circumferential laps pointing downstream and with the longitudinal laps at the side.

- Backfilling** shall conform to structural backfill as shown above.

- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

B. Reinforced Concrete Pipe

- Materials** - Reinforced concrete pipe shall have a rubber gasket joint and shall equal or exceed ASTM Specification C-361. Approved equivalents are AWWA Specification C-300, 301, and 302.

- Bedding** - All reinforced concrete pipe conduits shall be laid in a concrete bedding for their entire length. This bedding shall consist of high slump concrete placed under the pipe and up the sides of the pipe at least 10% of its diameter with a minimum thickness of 3", or as shown on the drawings.

- Laying pipe** - Bell and spigot pipe shall be placed with the bell end upstream. Joints shall be made in accordance with recommendations of the manufacturer of the material. After the joints are sealed for the entire length, the bedding shall be placed so that all spaces under the pipe are filled. Care shall be exercised to prevent any deviation from the original line and grade of the pipe.

- Backfilling** shall conform to structural backfill as shown above.

- Other details (anti-seep collars, valves, etc.) shall be as shown on the drawings.

- For pipes of other materials, specific specifications shall be shown on the drawings.

V. CONCRETE

1. Materials

- Cement** - Normal Portland cement shall conform to the latest ASTM Specification C-150.
- Water** - The water used in concrete shall be clean, free from oil, acid, alkali, scales, organic matter or other objectionable substances.
- Sand** - The sand used in concrete shall be clean, hard, strong and durable, and shall be well graded with 100 percent passing a one-quarter inch sieve. Limestone sand shall not be used.
- Coarse Aggregate** - The coarse aggregate shall be clean, hard, strong and durable, and free from clay or dirt. It shall be well graded with a maximum size of one and one-half (1-1/2) inches.
- Reinforcing Steel** - The reinforcing steel shall be deformed bars of intermediate grade billet steel or rail steel conforming to ASTM Specification A-615.

- Design Mix** - The concrete shall be mixed in the following proportions, measured by weight. The water-cement ratio shall be 5-1/2 to 6 U.S. gallons of water per 94 pound bag of cement. The proportion of materials for the trial mix shall be 1-2 3-1/2. The combination of aggregates may be adjusted to produce a plastic and workable mix that will not produce harshness in placing or honeycombing in the structure.

- Mixing** - The concrete ingredients shall be mixed in batch mixers until the mixture is homogeneous and of uniform consistency. The mixing of each batch shall continue for not less than one and one-half minutes after all the ingredients, except the full amount of water, are in the mixer. The minimum mixing time is predicted on proper control of the speed of rotation of the mixer and of the introduction of the materials, including water, into the mixer. Water shall be added prior to, during, and following the mixer-charging operations. Excessive overmixing requiring the addition of water to preserve the required concrete consistency shall not be permitted. Truck mixing will be allowed provided that the use of this method shall cause no violation of any applicable provisions of the specifications given here.

- Forms** - The forms shall have sufficient strength and rigidity to hold the concrete and to withstand the necessary pressure, tamping, and vibration without deflection from the prescribed lines. They shall be mortar-tight and constructed so that they can be removed without hammering or prying against the concrete.

The inside of forms shall be oiled with a non-staining mineral oil or thoroughly wetted before concrete is placed. Forms may be removed 24 hours after the placement of concrete. All wire ties and other devices used shall be recessed from the surface of the concrete.

- Reinforcing Steel** - All reinforcing material shall be free of dirt, rust, scale, oil, paint or any other coatings. The steel shall be accurately placed and securely tied and blocked into position so that no movement of the steel will occur during placement of concrete.

- Consolidating** - Concrete shall be consolidated with internal type mechanical vibrators. Vibration shall be supplemented by spading and hand tamping as necessary to insure smooth and dense concrete along form surfaces, in corners, and around embedded items.

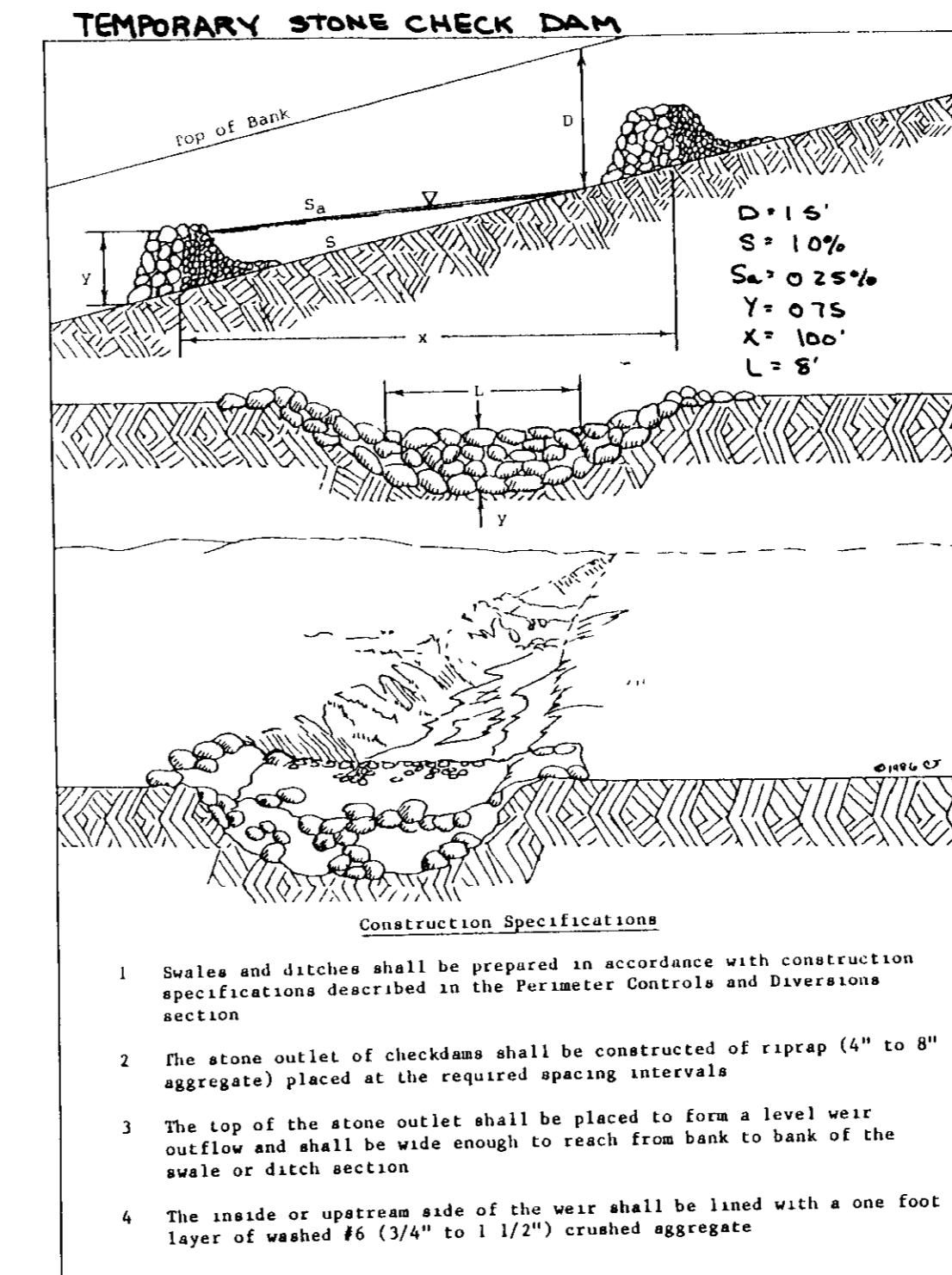
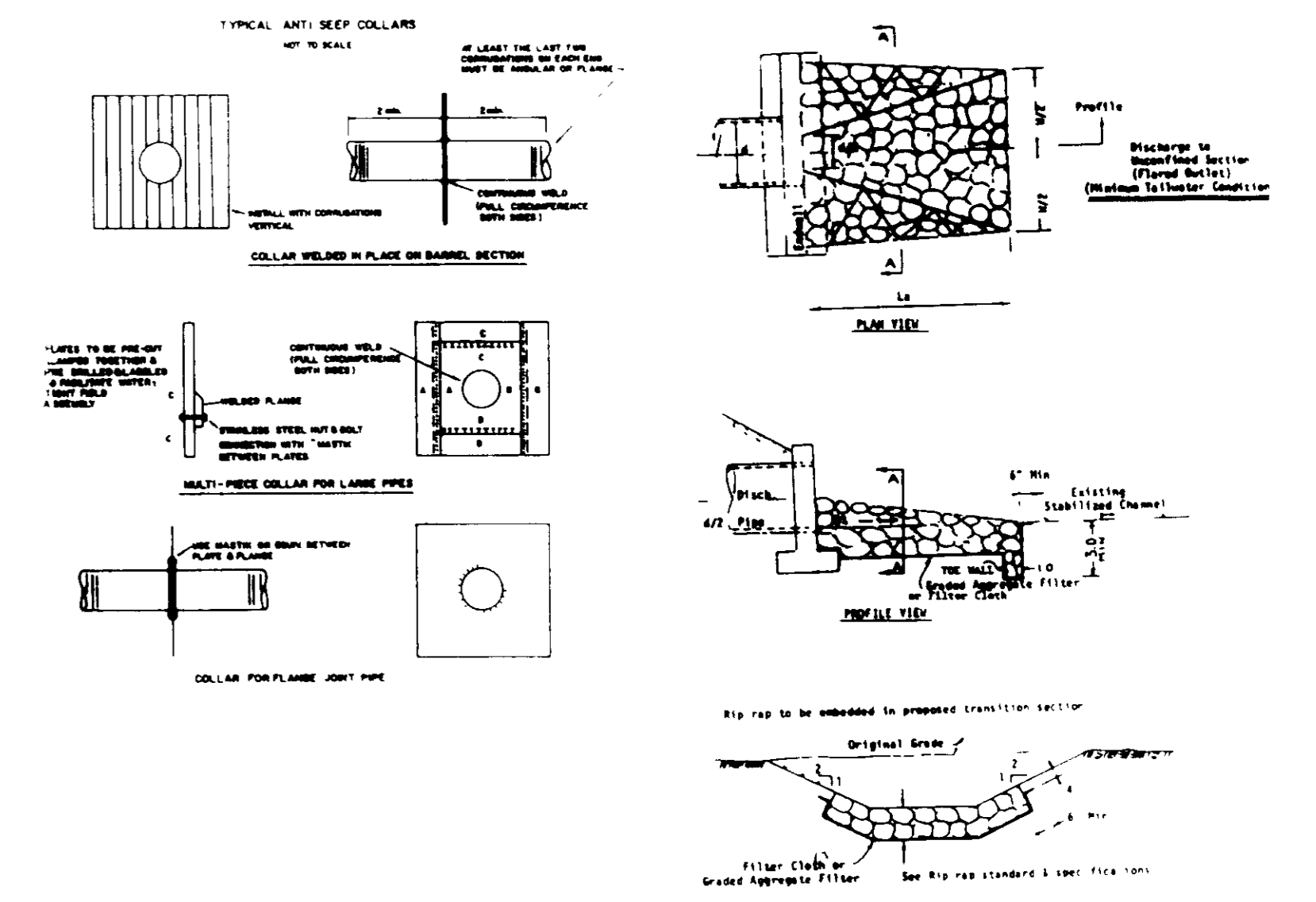
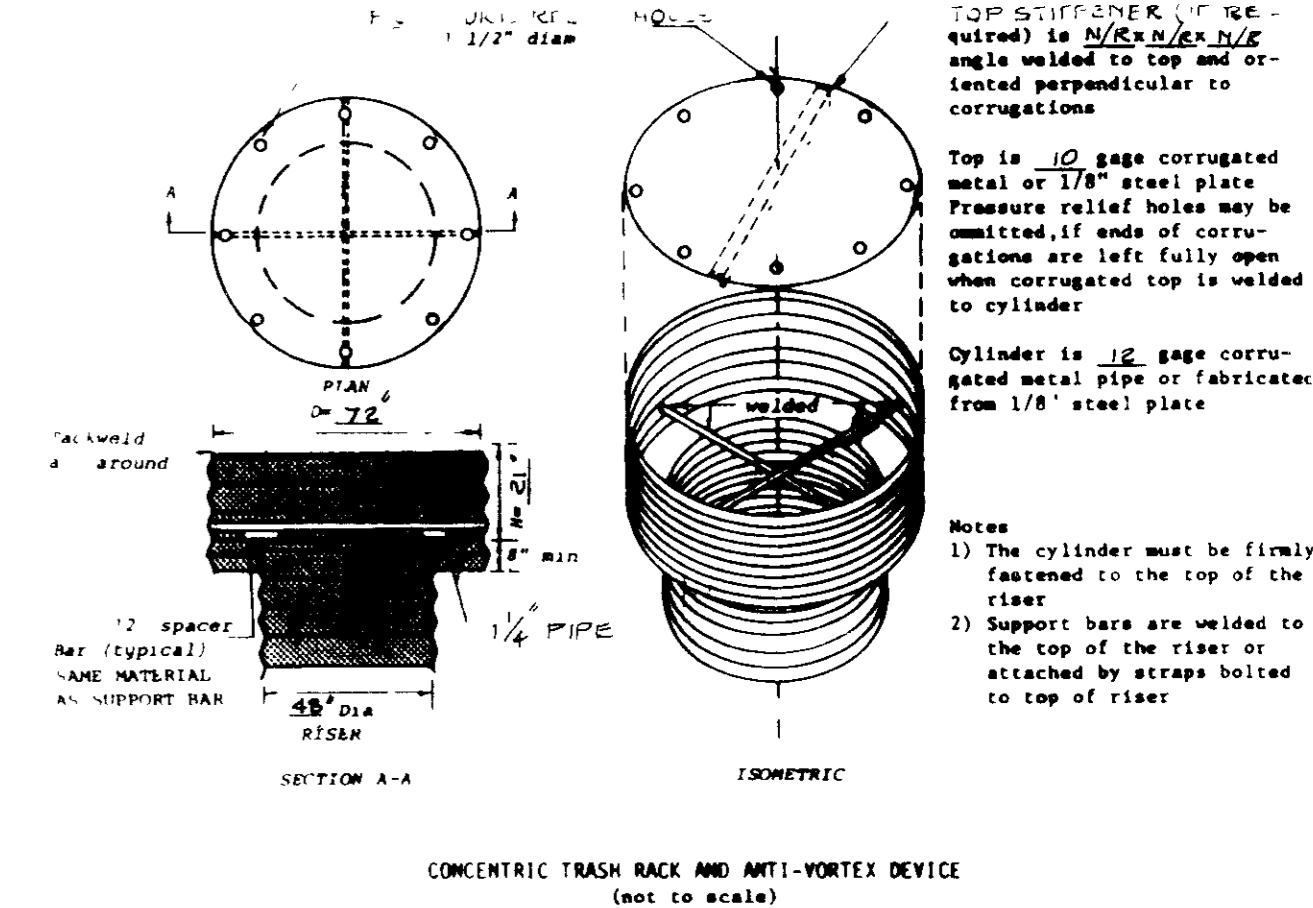
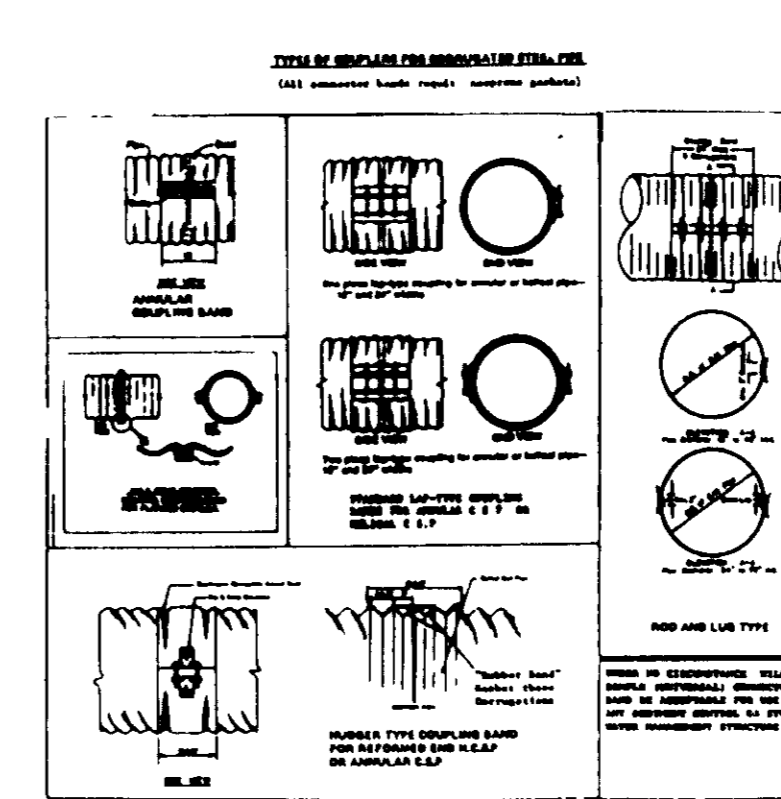
- Finishing** - Defective concrete, honeycombed areas, voids left by the removal of tie rods, ridges on all concrete surfaces permanently exposed to view or exposed to water on the finished structure, shall be repaired immediately after the removal of forms. All voids shall be reamed and completely filled with dry-patching mortar.

- Protection and Curing** - Exposed surfaces of concrete shall be protected from the direct rays of the sun for at least the first three (3) days. All concrete shall be kept continuously moist for at least ten (10) days after being placed. Moisture may be applied by spraying or sprinkling as necessary to prevent the concrete from drying. Concrete shall not be exposed to freezing during the curing period. Curing compounds may also be used.

- Placing Temperature** - Concrete may not be placed at temperatures below 37° F with the temperature falling, or 34° with the temperature rising.

VI. STABILIZATION

All borrow areas shall be graded to provide proper drainage and left in a slightly condition. All exposed surfaces of the embankment, spillway, spoil and borrow areas, and terraces shall be stabilized by seeding, fertilizing and mulching (if required) in accordance with the vegetative treatment specifications shown on or accompanying the drawings.



SEQUENCE OF CONSTRUCTION

- OBTAIN GRADING PERMIT.
- INSTALL SEDIMENT CONTROL STRUCTURES.
- CONSTRUCT EMBANKMENT AND SPILLWAYS IN ACCORDANCE WITH THE TEMPORARY S.W.M. PLAN.
- CLEAR CONSTRUCTION AREA AND GRADE.
- SEED AND MULCH DISTURBED AREA.
- RETROFIT SPILLWAYS IN ACCORDANCE WITH THE PERMANENT S.W.M. PLAN.
- REMOVE ANY ACCUMULATED SEDIMENT & SEED & MULCH DISTURBED AREAS REQUIRED.

| No | REVISIONS | DATE |
|----|---|--------|
| 1 | REVISE SHEET NO FROM 24 OF 25 TO 20 OF 21 ADD STONE CHECK DAM DETAIL | 3/4/91 |

10-26-88

| | |
|---|--|
| APPROVED HOWARD COUNTY HEALTH DEPARTMENT REVIEWED. NO SANITARY FACILITIES REQUIRED <i>[Signature]</i> COUNTY HEALTH OFFICER DATE 8-1-89 | These plans have been reviewed for the Howard Soil Conservation District and meet the technical requirements for small pond construction, soil erosion and sediment control. <i>[Signature]</i> S.S. Soil Conservation Service DATE 7/24/89 |
| APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING <i>[Signature]</i> PLANNING DIRECTOR DATE 8-7-89 | These plans for small pond construction, soil erosion and sediment control meet the requirements of the Howard Soil Conservation District. <i>[Signature]</i> TOWN OF SEEBURG DATE 7-25-89 |
| APPROVED DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE SYSTEMS & ROADS <i>[Signature]</i> DIRECTOR DATE 7-25-89 | |

by the Developer

"I/We certify that all development and/or construction will be done according to these plans, and 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. I will provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion. I also authorize periodic on-site inspections by the Howard Soil Conservation District."

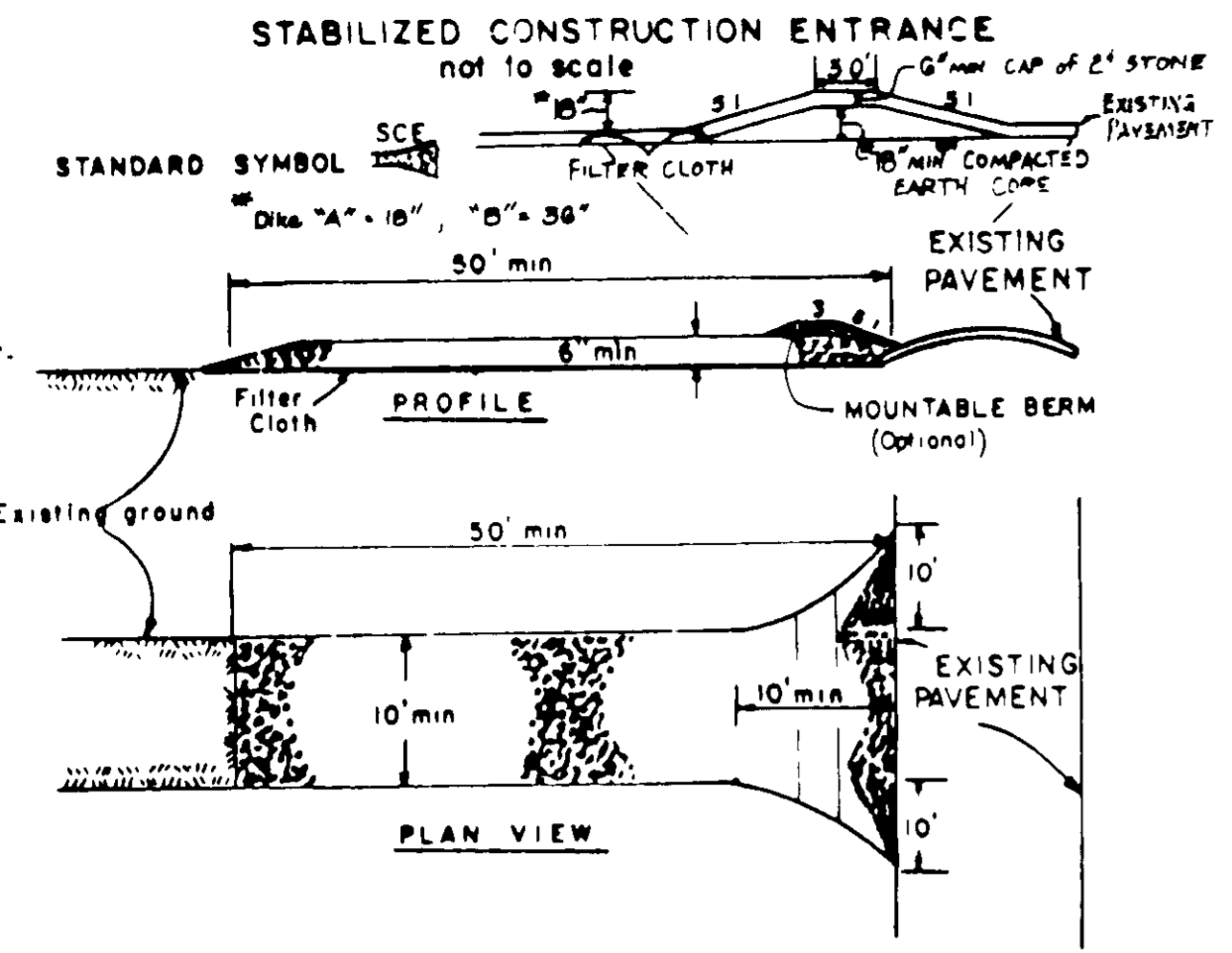
[Signature]
Signature of Developer
Date

by the Engineer

"I certify that this plan for pond construction, erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions. This plan was prepared in accordance with the requirements of the Howard Soil Conservation District. I have notified the developer that he must provide the Howard Soil Conservation District with an "as-built" plan of the pond within 30 days of completion."

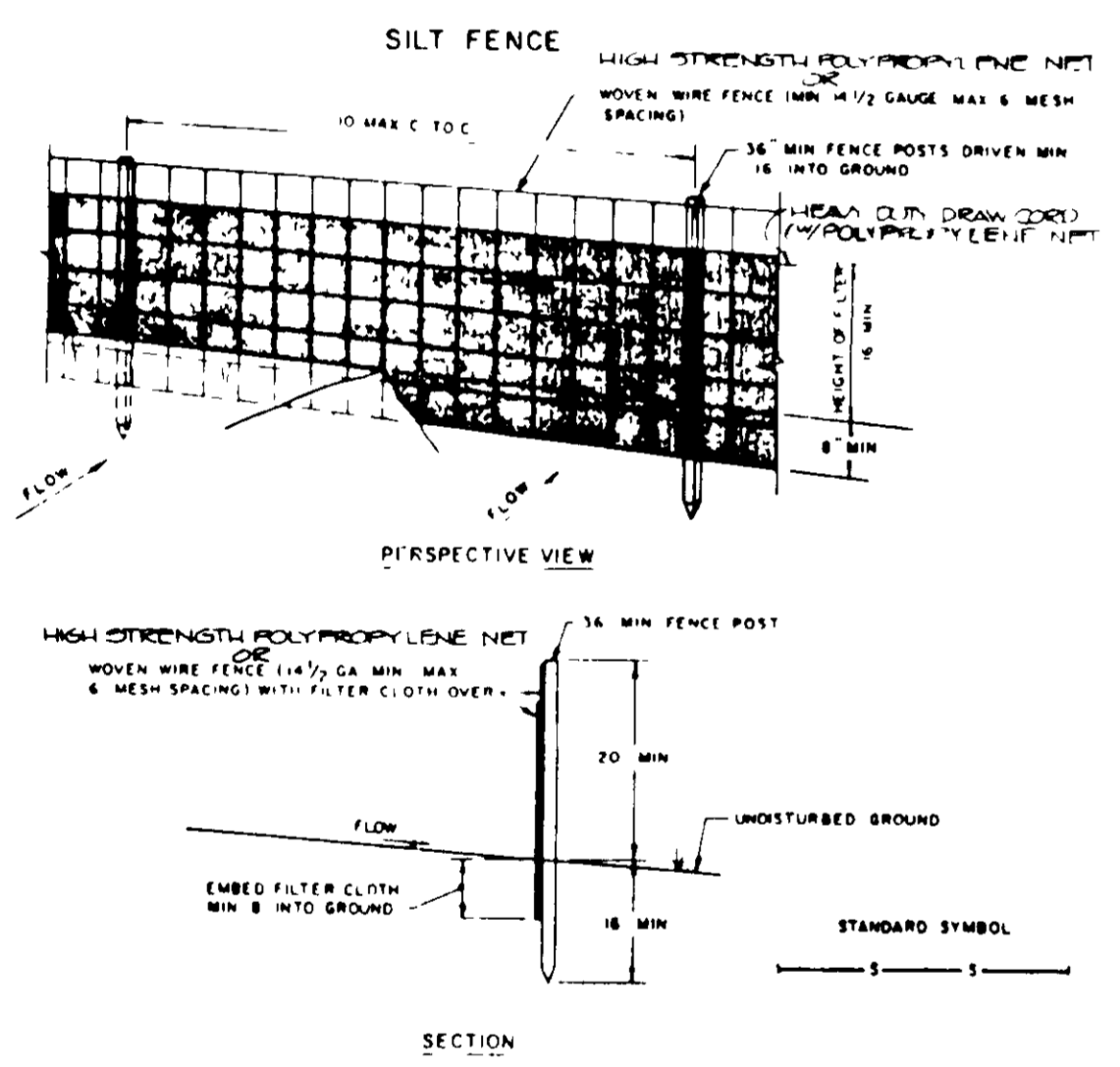
[Signature]
Signature of Engineer
Date 5-31-89

| | | | |
|---|--|---|-----------------|
| LORIA, SEDGHI & ASSOCIATES, LTD. ENGINEERS SITE PLANNERS SURVEYORS 3217 CORPORATE COURT ELLCOTT CITY, MD 21043 (301) 780-9008 | | | |
| DESIGNED M.S. | STORMWATER MANAGEMENT DETAILS SEDIMENT CONTROL DETAILS PROPOSED 9 HOLES ADDITION TO TURF VALLEY GOLF COURSE | SCALE AS SHOWN | |
| DRAWN V.S. | PARCELS 3 REDEVELOPMENT DISTRICT TAX MAP 16 #17 | HOWARD COUNTY, MD SCALE AS SHOWN | DATE 7-25-89 |
| CHECKED M.S. | OWNER PARCEL 5 PARCEL 479 PARCEL 21 | MANIACONS ENTERPRISES OF TURF VALLEY TURF VALLEY ASSOCIATION NICHOLAS B. & MARY C. MANGIONE | PLC NO |



CONSTRUCTION SPECIFICATIONS

1. Stone Slab - Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply)
3. Thickness - Not less than six (6) inches.
4. Width - Ten (10) foot minimum, but not less than the full width at points where ingress or egress occurs.
5. Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mounded berm with 5:1 slopes will be permitted.
7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
8. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.



CONSTRUCTION SPECIFICATIONS FOR SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH 1/2" SPACED EVERY 20" AT TOP AND MID SECTION
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN, EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BUGLES" DEVELOP IN THE SILT FENCE

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREA NOT SUBJECT TO IMMEDIATE FUTURE DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED

Seeding Preparation: Loosen upper 3 inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:

- 1) Preferred - Apply 2 tons per acre dolomitic limestone (92 lbs/1000 square ft) and 600 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft) before seeding. Narrow or disc into upper three inches of soil. At time of seeding, apply 400 lbs per acre 30-0-0 ureaform fertilizer (9lbs/1000 sq ft)
- 2) Acceptable - Apply 7 tons per acre dolomitic limestone (92 lbs/1000 sq ft) and 1000 lbs per acre 10-10-10 fertilizer (23 lbs/1000 sq ft) before seeding. Narrow or disc into upper three inches of soil.

Seeding: For the periods March 1 thru April 30, and August 1 thru October 15, seed with 60 lbs per acre (1.4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue. For the period May 1 thru July 31, seed with 50 lbs Kentucky 31 Tall Fescue per acre and 2 lbs per acre (.05 lbs/1000 sq ft) of weeping lovegrass. During the period of October 16 thru February 28, protect site by Option (1) 2 tons per acre of well anchored straw mulch and seed as soon as possible in the spring. Option (2) Use sod. Option (3) Seed with 60 lbs/acre Kentucky 31 Tall Fescue and mulch with 2 tons/acre well anchored straw.

Mulching: Apply 1 1/2 to 2 tons per acre (70 to 90 lbs/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal/acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 1/4 ft or higher, use 348 gal/acre (8 gal/1000 sq ft) for anchoring.

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

TEMPORARY SEEDING NOTES

APPLY TO GRADED OR CLEARED AREA LIKELY TO BE REDISTURBED WHERE A SHORT-TERM VEGETATIVE COVER IS NEEDED

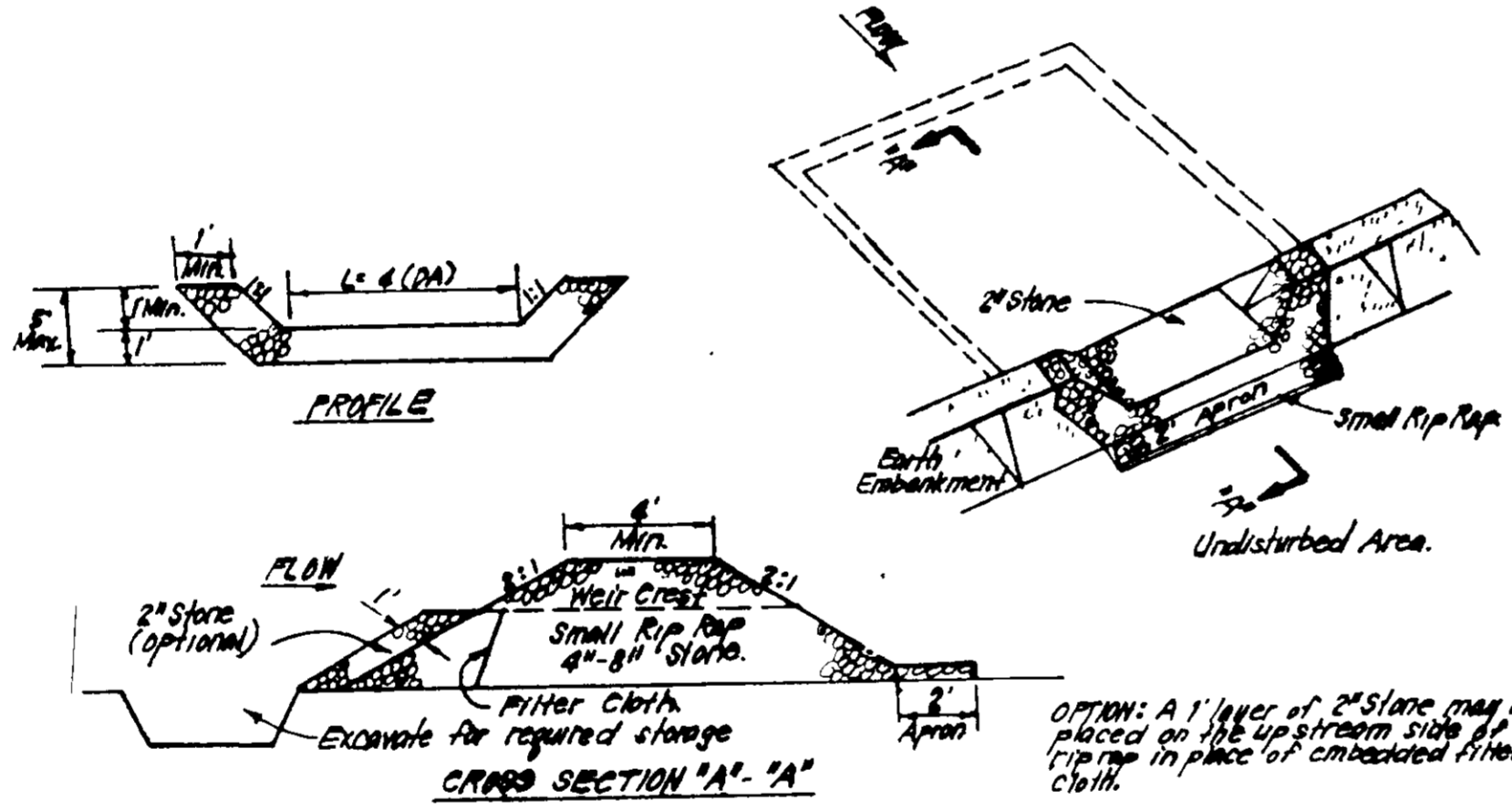
Seeding Preparation: Loosen upper 3 inches of soil by raking, discing or other acceptable means before seeding.

Soil Amendments: Apply 60 lbs per acre 10-10-10 fertilizer (14 lbs/1000 sq ft)

Seeding: For periods March 1 thru April 30 and from August 15 thru November 15, seed with 2 1/2 lbs per acre of annual ryegrass (.52 lbs/1000 sq ft). For the period May 1 thru August 14, seed with 3 lbs per acre of weeping lovegrass (.07 lbs/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/1000 sq ft) of unrotted small grain straw immediately after seeding. Anchor mulch immediately after application using mulch anchoring tool or 218 gal/acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes, 1/4 ft or higher, use 348 gal/acre (8 gal/1000 sq ft) for anchoring.

REFER TO THE 1985 MD STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED



CONSTRUCTION SPECIFICATIONS:

1. Area under embankment shall be cleared, grubbed and stripped of any vegetation and root mat. The top soil shall be covered.
2. The fill material for the embankment shall be free of rocks and other woody vegetation as well as other stumps, roots, rocks, or any other objectionable material. The embankment shall be compacted by tamping with vibratory roller while it is being constructed.
3. All cut and fill slopes shall be 2:1 or flatter.
4. The stone used in the outlet shall be small rip-rap 4" to 8" in size with 1" thickness of 2" aggregate placed on the up-grade side on the small rip-rap or crushed filter cloth in the rip-rap.
5. Sediment shall be removed and traps emptied to the original dimensions when the sediment has accumulated to 1/4 the design depth of the trap.
6. The structure shall be inspected after each rain and repairs made as needed.
7. Construction operations shall be carried out in such a manner that erosion and water pollution is minimized.
8. The structure shall be removed and the area stabilized when the drainage area has been properly stabilized.

STONE OUTLET SEDIMENT TRAP (S.O.S.T.) STV.

NOTE FOR PONDS 1-5 ALL PONDS WILL BE EVALUATED AND REDESIGNED TO MEET MD 378 STANDARD'S UNDER FUTURE DEVELOPMENT PLANS FOR THE GOLF COURSE.

STANDARD AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION WITH SOD

SPECIFICATIONS

1. Class of turfgrass sod shall be Maryland or Virginia State Certified, or Maryland or Virginia State approved sod.
 2. Sod shall be machine cut to a uniform soil thickness of 3/4 inch, plus or minus 1/4 inch, at the time of cutting. Measurement for thickness shall include top growth and thatch.
 3. Standard size sections of sod shall be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.
 4. Individual pieces of sod shall be cut to the suppliers width and length. Maximum allowable deviation from standard widths and lengths shall be 5 percent. Broken pads and torn or uneven ends will not be acceptable.
 5. Sod shall not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
 6. Sod shall be harvested, delivered and installed within a period of 36 hours. Sod not transplanted within this period shall be inspected and approved prior to its installation.
- Site Preparation**
- Fertilizer and lime application rates shall be determined by soil tests. Under unusual circumstances where there is insufficient time for a complete soil test, fertilizer and lime materials may be applied in amounts shown under B, below.
- A. Prior to sodding, the surface shall be cleared of all trash, debris, and of all roots, brush, wire, grade stakes and other objects that would interfere with planting, fertilizing or maintenance operations.
 - B. Where the soil is acid or composed of heavy clays, ground limestone shall be spread at the rate of 2 tons/acre or 100 pounds per 1,000 square feet. In all soils 1,000 pounds per acre or 25 pounds per 1,000 square feet of 10-10-10 fertilizer or equivalent shall be uniformly applied and mixed into the top 3 inches of soil with the required lime.
 - C. All areas receiving sod shall be uniformly fine graded. Hard-packed earth shall be scarified prior to placement of sod.

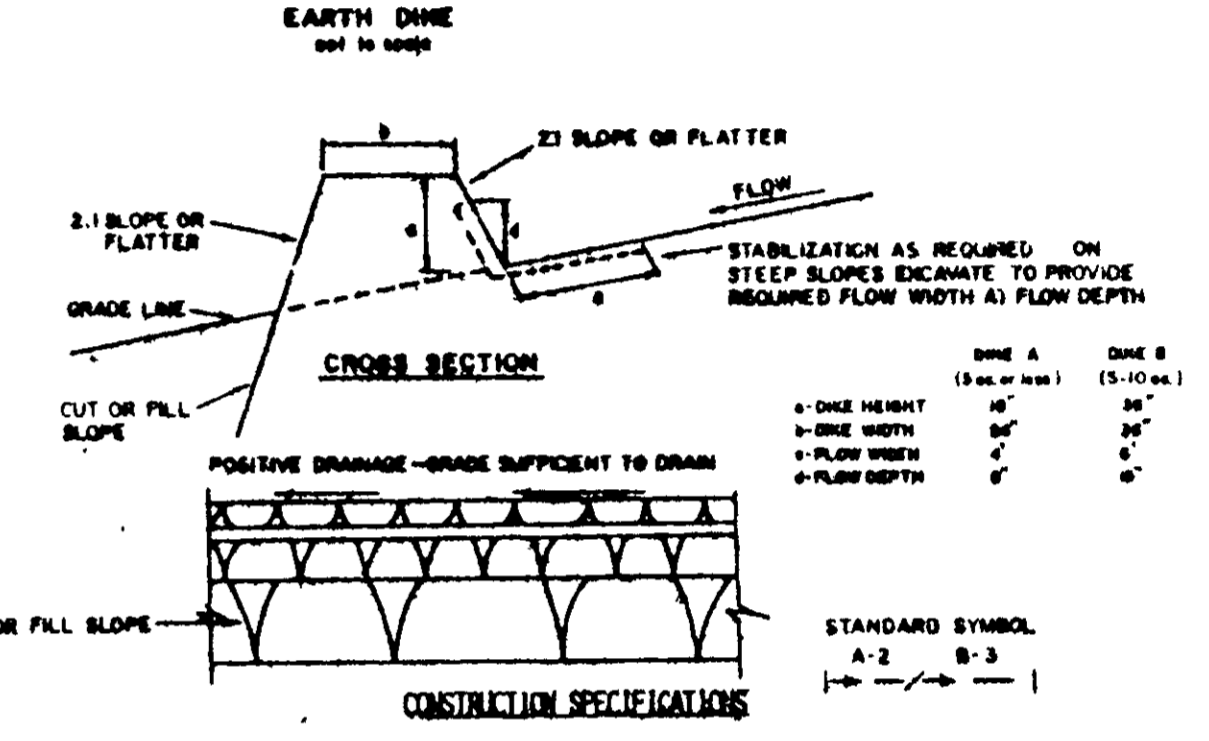
SEDIMENT CONTROL NOTES

- 1) A minimum of 24 hours notice must be given to the Howard County Office of Inspection and Permits prior to the start of any construction. (991-2437)
 - 2) 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 STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 - 3) Following initial soil disturbance or redisturbance, 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 all other disturbed or graded areas on the project site.
 - 4) All sediment traps/basins shown shall be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 13, of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
 - 5) All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARD AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec. 51) sod (Sec. 54), temporary seedings (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.
 - 6) 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.
 - 7) Site Analysis:

| | |
|------------------------------------|---------------|
| Total Area of Site | 258.6 Acres |
| Area Disturbed | 25.4 Acres |
| Area to be roofed or paved | 0 Acres |
| Area to be vegetatively stabilized | 28.4 Acres |
| Total Cut | 2,000 Cu. yds |
| Total Fill | 1,000 Cu. yds |
| Offsite waste/borrow area location | N/A |
 - 8) Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
 - 9) Additional sediment control must be provided, if deemed necessary by the Howard County DWM sediment control inspector.
 - 10) On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
 - 11) If houses are to be constructed on an "As-Built" basis, at random, Single Lot Sediment Control as shown below shall be implemented.
 - 12) All pipes to be blocked at the end of each day (see detail below).
 - 13) The total amount of straw bale dikes/silt fence equals 2,120 L.F.
- * THE SOILS INVESTIGATION FOR POND NO. 4 WILL REQUIRE A MINIMUM OF 3 BORINGS. THE BORING LOGS WILL BE SUBMITTED TO THE H.S.C.D. THE BORING LOGS WILL BE "RED LINED" FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION OF POND NO. 4. ONCE APPROVED BY H.S.C.D. THE BORING LOGS WILL BE "RED LINED" ONTO THE ORIGINALS AND CONSTRUCTION MAY BEGIN ON THE POND AND GRADING WITHIN ITS DRAINAGE AREA MAY BEGIN.
- FLAG WETLANDS BOUNDARIES AND ERECT SNOW FENCING FOR PROTECTION

GENERAL NOTES

- 1) Refer to "1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control" for standard details and detailed specifications of each practice specified herein.
- 2) With the approval of the sediment control inspector, minor field adjustments can and will be made to ensure the control of any sediment. Changes in sediment control practices require prior approval of the sediment control inspector and the County Soil Conservation District.
- 3) At the end of each working day, all sediment control practices will be inspected and left in operational condition.
- 4) Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within a) seven calendar days as to the surface of all perimeter controls, dikes, mulch, ditches, perimeter slopes, and all slopes greater than 3:1, b) fourteen days as to all other disturbed or graded areas on the project site.
- 5) Any change to the grading proposed on this plan requires re-submission to County Soil Conservation District for approval.
- 6) Dust control will be provided for all disturbed areas. Refer to 1983 Maryland Standards and Specifications for Soil Erosion and Sediment Control, pp 1801 and 81.02 for acceptable methods and specifications for dust control.
- 7) Any variation from the sequence of operations stated on this plan requires the approval of the sediment control inspector and the County Soil Conservation District prior to the initiation of the change.
- 8) Excess cut or borrow material shall go to or come from, respectively, a site with an approved sediment control plan. The following item may be used as applicable:
 - A. Refer to "Maryland's Guidelines to Waterway Construction" by the Water Resources Administration (WRA), dated January, 1986 for standard details and detailed specifications of each practice specified herein for waterway construction.



1. ALL DIKES SHALL BE COMPACTED BY EARTH-MOVING EQUIPMENT.
2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. TOP MOUTH MAY BE WIDER AND SLOPE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. FLOW SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT PERMANENTLY STABILIZED.
6. STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR REED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW.

| TYPE OF TREATMENT | CHANNEL SIZE | DIKE A | DIKE B |
|-------------------|--------------|-------------------------|--|
| 1 | 1.5-3.0' | SEED AND STRAW MULCH | SEED AND STRAW MULCH |
| 2 | 3.1-5.0' | SEED AND STRAW MULCH | SEED USING JUTE, OR EXCELLENT SOIL; 2" STONE |
| 3 | 5.1-8.0' | SEED WITH JUTE, OR SOIL | 2" STONE |
| 4 | 8.1-20' | LINED RIP-RAP 4-8" | EMBANKMENT BEHIND |

STONE TO BE 2" HIGH STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT. RIP-RAP TO BE 4-8 INCHES IN A LAYER AT LEAST 8 INCHES THICKNESS AND PRESSED INTO THE SOIL.

APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.

PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

| NO. | REVISIONS | DATE |
|-----|---|--------|
| 1 | REVISE SHEET NO FROM 25 OF 25 TO 21 OF 21 | 3/4/89 |

SEQUENCE OF CONSTRUCTION

1. OBTAIN GRADING PERMIT
2. INSTALL SEDIMENT CONTROL DEVICES, TEMPORARY S.W.M. POND
3. CLEAR AND GRUB AND CONSTRUCT TREES AND GREENS
4. STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND RE-PROFIT TEMPORARY S.W.M. POND FOR CONVERSION TO PERMANENT USE.
5. STABILIZE ANY REMAINING DISTURBED AREAS.
6. WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL DEVICES.

APPROVED HOWARD COUNTY HEALTH DEPARTMENT
REVIEWED NO SANITARY FACILITIES REQUIRED
8-1-89

APPROVED HOWARD COUNTY DEPT. OF PLANNING & ZONING
8/1/89

APPROVED DEPARTMENT OF PUBLIC WORKS FOR STORM DRAINAGE & ROADS
7-31-89

APPROVED 7-25-89

Reviewed for HOWARD SCD
Name: [Signature]
Signature: [Signature]
Date: 7/24/89

U.S. SOIL CONSERVATION SERVICE

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

Approved: [Signature]
Date: 7/27/89

DEVELOPER'S/BUILDER'S CERTIFICATE

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 COUNTY SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY.

DEVELOPER/BUILDER: [Signature] DATE: 10-26-88

ENGINEER'S CERTIFICATE

I HEREBY 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 COUNTY SOIL CONSERVATION DISTRICT.

M. Sedghi DATE: 5-31-89

LORIA, SEDGHI & ASSOCIATES, LTD.
Engineers • Site Planners • Surveyors

3217 Corporate Court
Ellicott City, MD 21043
(301) 776-0000

| | | | | | |
|----------|--|--|---------------------------------------|----------|--|
| DESIGNED | MS | SEDIMENT & EROSION CONTROL DETAIL PROPOSED 9 HOLES ADDITION TO TURF VALLEY GOLF COURSE | SCALE | AS SHOWN | |
| DRAWN | VS | | DRAWING | 2 | |
| CHECKED | MS | | PARCEL 479, P.O. P.B. & P.O. 21 | FILE NO. | |
| DATE | 5-30-89 | | ELECTION DISTRICT 3 HOWARD COUNTY, MD | | |
| OWNER | PARCEL 5 MANGIONE ENTERPRISES OF TURF VALLEY | TAX MAP 16 #17 | | | |
| | PARCEL 21 MARY C. MANGIONE | | | | |

SLP 89.47

AND SWALE ALONG THE NORTHERN LIMIT OF FAIRWAY NO. 11 (SHEET 17 OF 21)