

Construction Specifications For Water Quality Trench

Trenching
An infiltration trench shall not be constructed or placed in service until all of the contributing drainage area has been stabilized and approved by the responsible inspector.

Trench Preparation
Excavate the trench to the design dimensions. Excavated materials shall be placed away from the trench sides to enhance trench wall stability. Large tree roots must be trimmed flush with the trench sides in order to prevent fabric puncturing or tearing during subsequent installation procedures. The side walls of the trench shall be roughened where sheared and sealed by heavy equipment.

Fabric Laydown
Fabric roll must be cut to the proper width prior to installation. The cut width must include sufficient material to conform to trench perimeter irregularities and for a 6-inch minimum top overlap. Place the fabric roll over the trench and unroll a sufficient length to allow placement of the fabric down into the trench. Stones or other anchoring objects should be placed on the fabric at the edge of the trench to keep the lined trench open during windy periods. When overlaps are required between rolls, the upstream roll should lap a minimum of 2 feet over the downstream roll in order to provide a shingled effect. The overlap ensures fabric continuity or to ensure that the fabric conforms to the excavation surface during aggregate placement and compaction.

Stone Aggregate Placement and Compaction
The stone aggregate should be placed in lifts and compacted using plate compactors. As a rule of thumb, a maximum loose lift thickness of 12 inches is recommended. The compaction process ensures fabric conformity to the excavation sides, thereby reducing the potential for soil piping, fabric clogging, and settlement problems.

Overlapping and Covering
Following the stone aggregate placement, the filter fabric shall be folded over the stone aggregate to form a 6" minimum longitudinal lap. The desired fill soil or stone aggregate shall be placed over the lap at sufficient intervals to maintain the lap during subsequent backfilling.

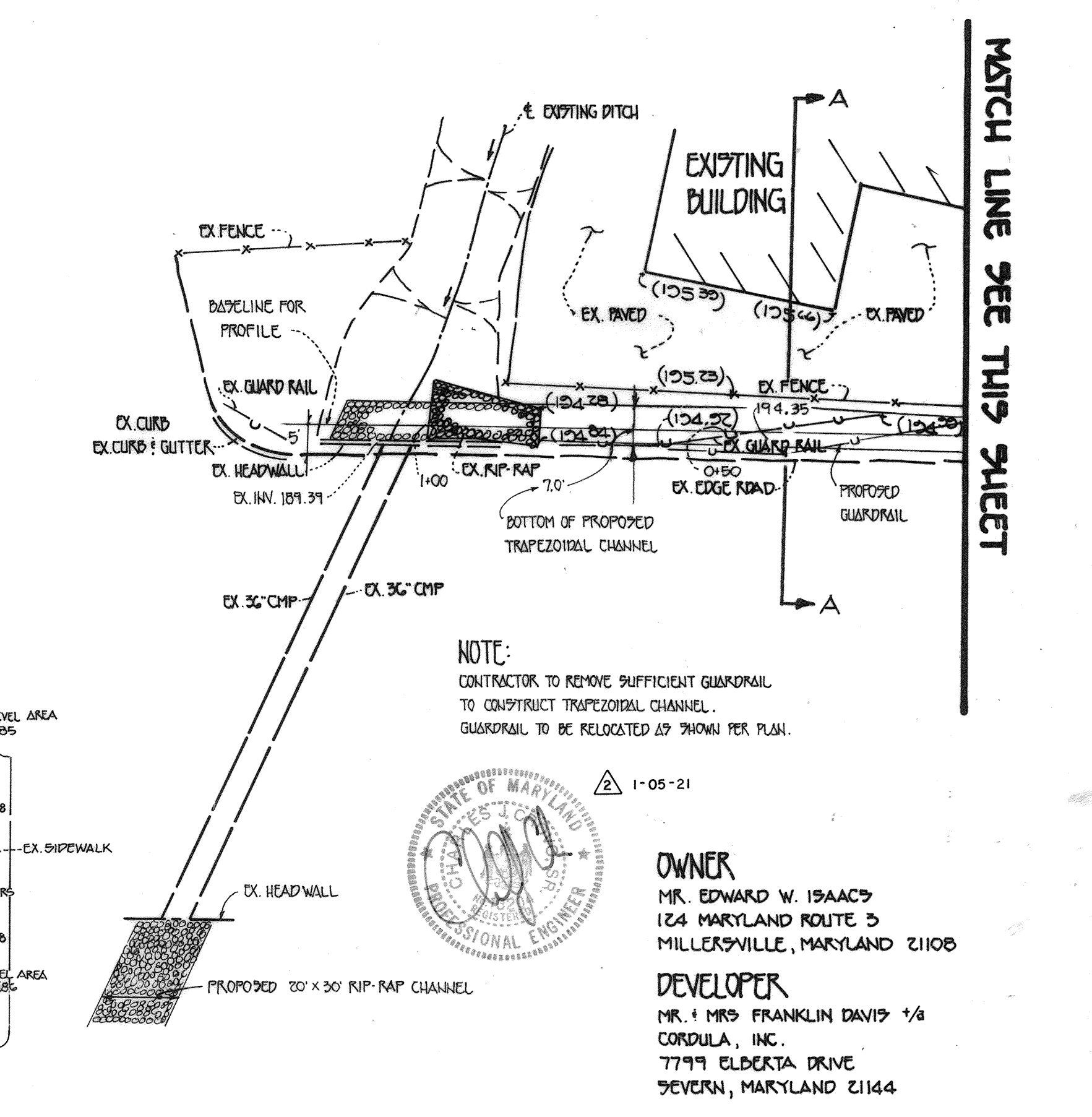
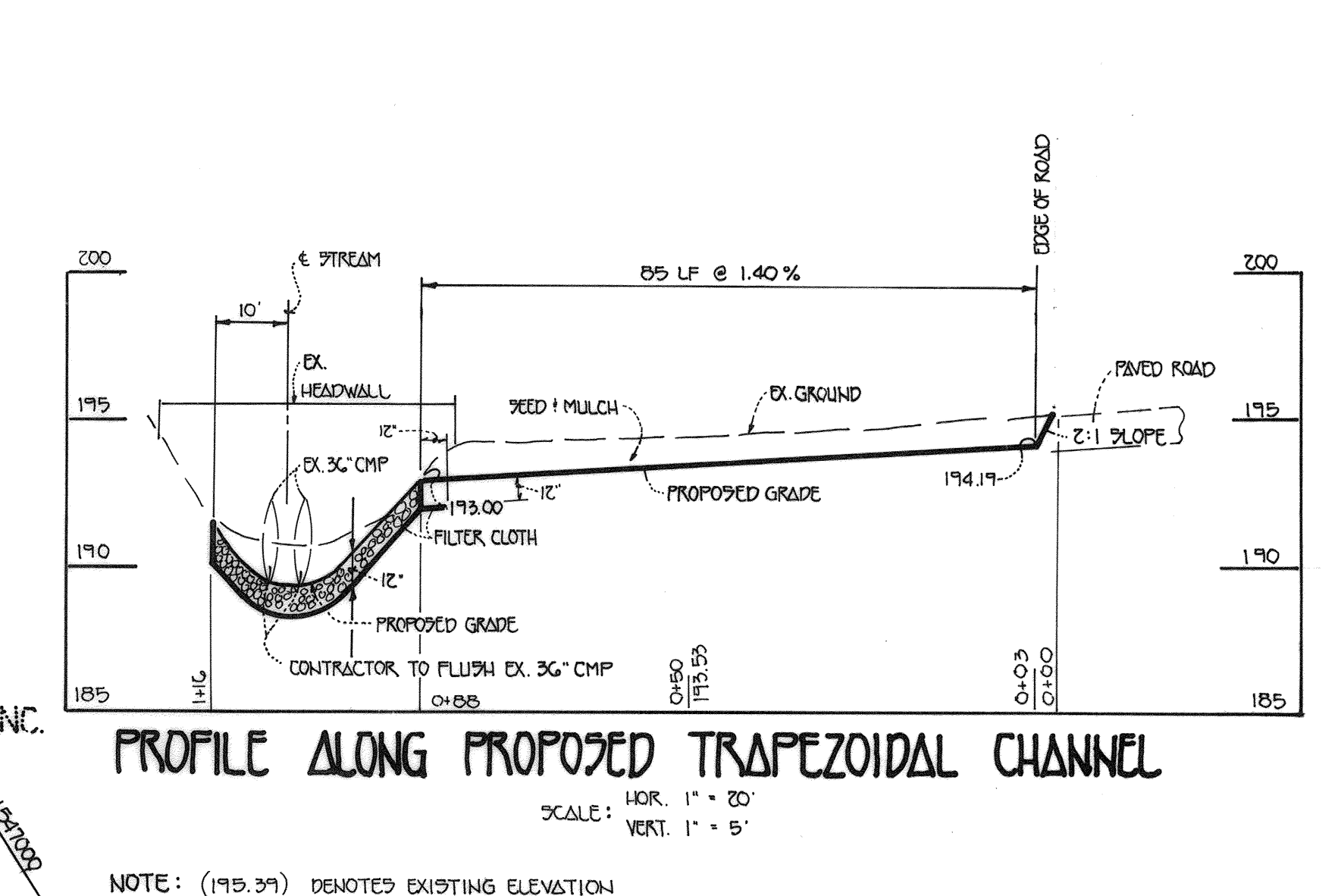
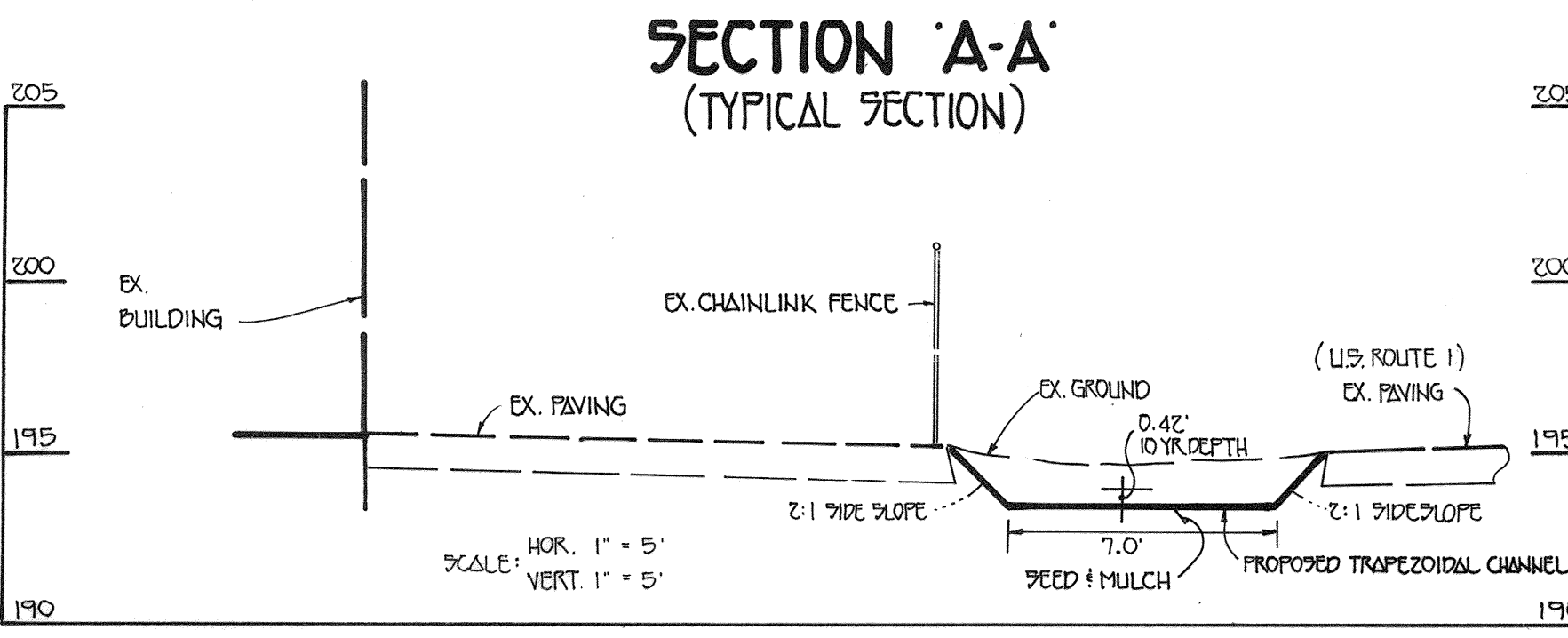
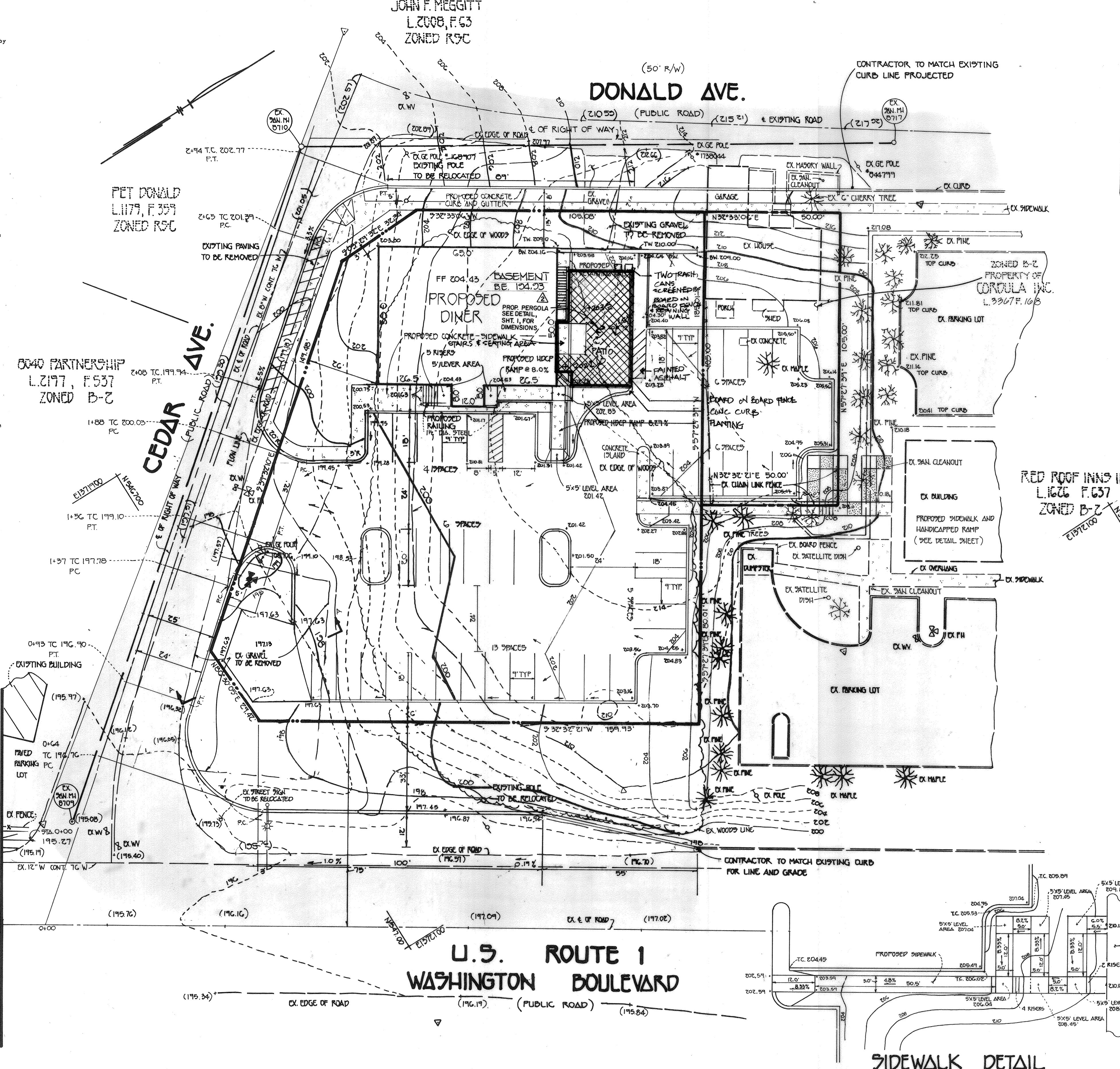
Contamination
Care shall be exercised to prevent natural or fill soils from intermingling with the stone aggregate. All contaminated stone aggregate shall be removed and replaced with uncontaminated stone aggregate.

Voids Behind Fabric
Voids can be created between the fabric and excavation sides and shall be avoided. Removing boulders or other obstacles from the trench walls is one source of such voids. Natural soils should be placed in these voids at the most compactible state during construction to ensure fabric conformity to the excavation sides, soil piping, fabric clogging, and possible surface subsidence will be avoided by this remedial process.

Unstable Excavation Sides
Vertically excavated walls may be difficult to maintain in areas where the soil moisture is high or where soft cohesive or cohesionless soils predominate. These conditions may require laying back of the side slopes to maintain stability; trapezoidal rather than rectangular cross sections may result.

Traffic Control
Heavy equipment and traffic shall be restricted from travelling over the infiltration areas to minimize compaction of the soil.

Observation Well
An observation well shall be provided. The depth of the well at the time of installation will be clearly marked on the well cap.



REVISIONS

ISSUED FOR	DATE
CHANGE IN USE & ADJACENT AREA TO THE EXTENSION	10/02/18
ADD PERGOLA TO EX. BLDG.	1-05-21

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
971 BALTIMORE NATIONAL PKWY, SUITE 100
ELICOTT CITY, MARYLAND 21043
301 481-2955

10/17/24
SIGNATURE OF ENGINEER

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 SOIL CONSERVATION DISTRICT.

10-13-24
SIGNATURE OF DEVELOPER

DEVELOPER'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 DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

10-13-24
SIGNATURE OF DEVELOPER

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

10/19/24
DATE

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

10/19/24
DATE

APPROVED: DEPT. OF PLANNING AND ZONING

11/2/24
DATE

11/4/24
DATE

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

11/2/24
DATE

APPROVED: DEPARTMENT OF PUBLIC WORKS FOR PUBLIC WATER & SEWER AND STORM DRAINAGE SYSTEMS AND ROADS.

10/21/24
DATE

10/21/24
DATE

PROPERTY/SUBDIVISION	SECTION/AREA	PARCEL
THE CEDARS		D
PLAT NO. 11173	BLOCK NO. 84	ZONE B-2
TAX/ZONE 43	ELEC. DIST. 6TH	CENSUS TR. 6067.01
WATER CODE 502	SEWER CODE 3290000	

GRADING PLAN

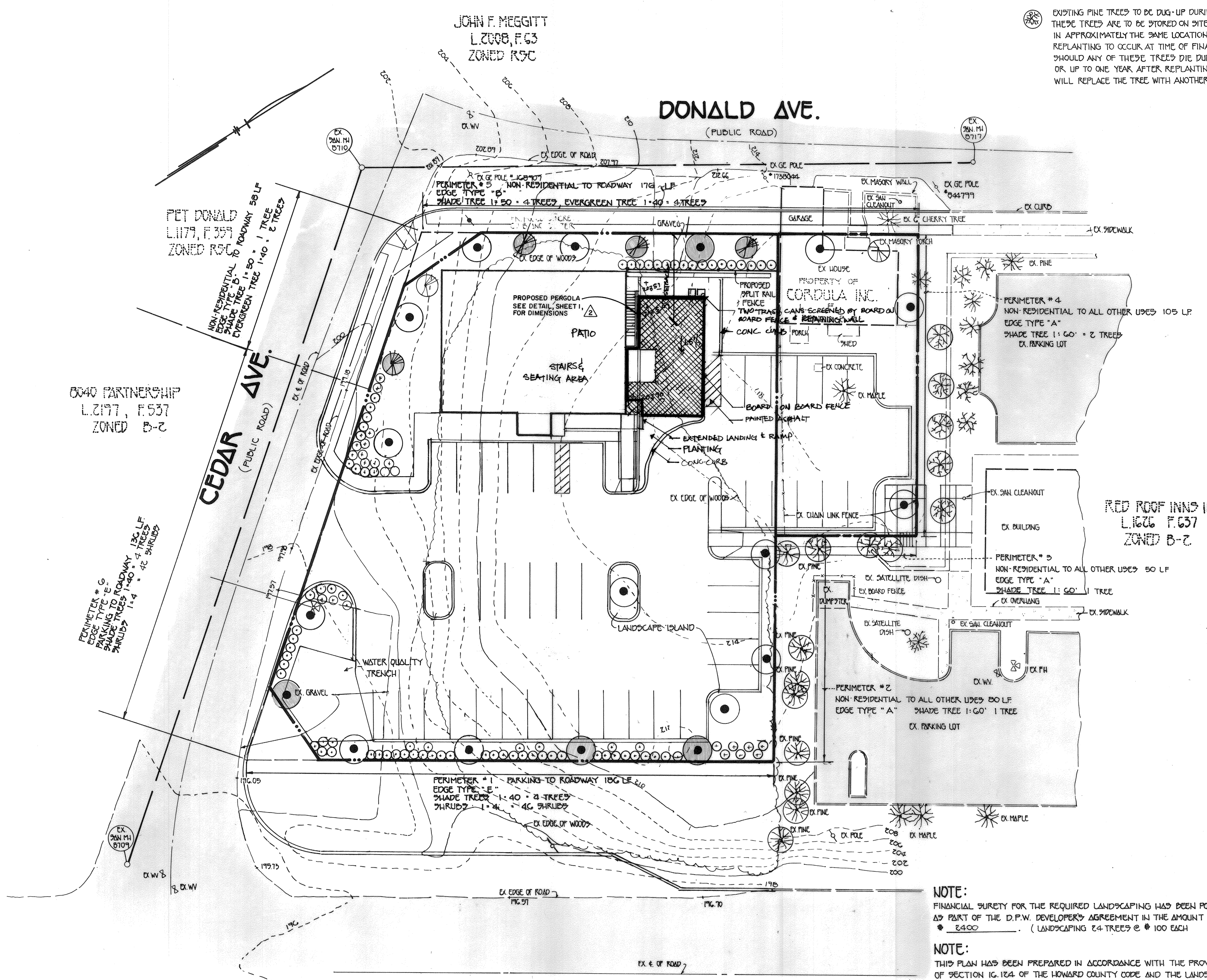
FRANKS DINER

THE CEDARS
SUBTITLE: TOBACCO LEAF

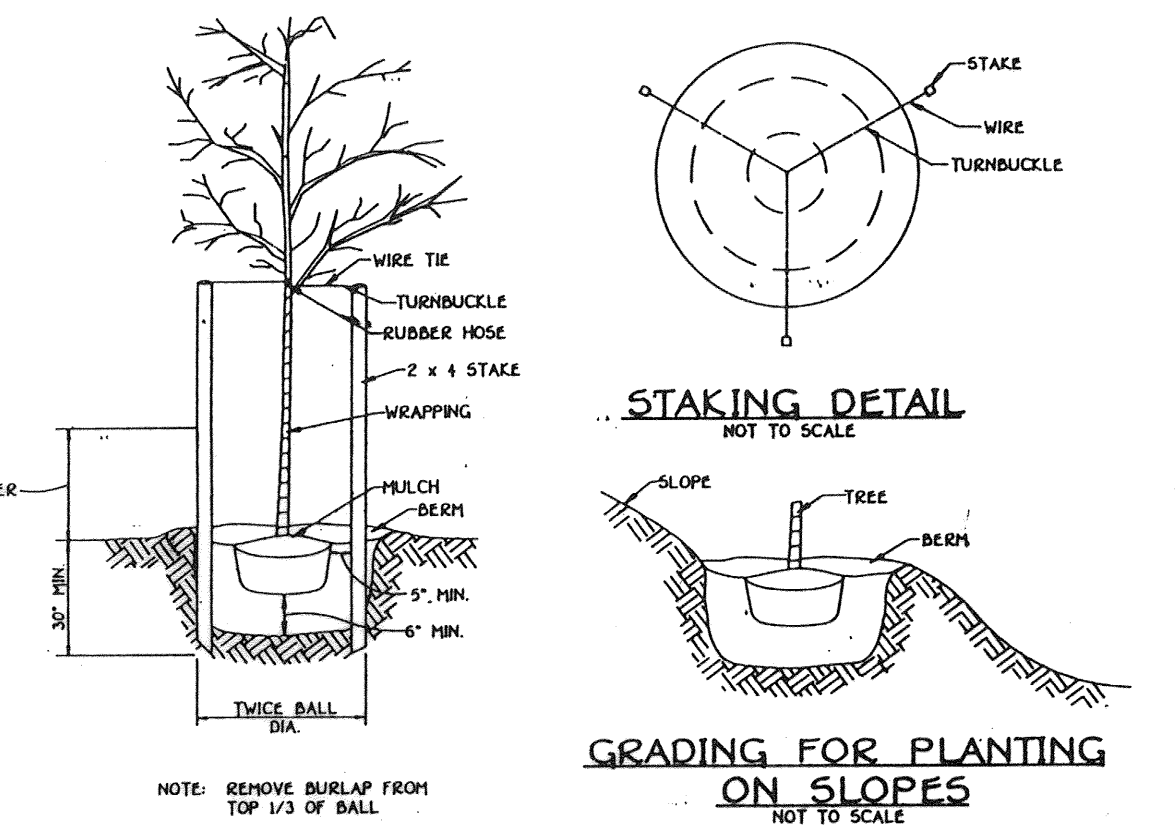
TAX MAP 43
91TH ELECTION DIST.
SCALE: 1" = 20'

PARCEL B
HOWARD COUNTY, MARYLAND
DATE: AUGUST 10, 1974

SHEET 2 OF 5



EXISTING PINE TREES TO BE DUG-UP DURING MASS GRADING. THESE TREES ARE TO BE STORED ON SITE AND REPLANTED IN APPROXIMATELY THE SAME LOCATION. REPLANTING TO OCCUR AT TIME OF FINAL BEEDING. SHOULD ANY OF THESE TREES DIE DURING STORAGE, OR UP TO ONE YEAR AFTER REPLANTING THE DEVELOPER WILL REPLACE THE TREE WITH ANOTHER OF EQUAL SIZE.



TYPICAL TREE PLANTING DETAIL NOT TO SCALE

LANDSCAPE LEGEND			
SYMBOL	QUANTITY	BOTANICAL / COMMON NAME	SIZE
	18	GLEDITIA TRIACANTHOS INERMIS SHADENASTER THORNLESS HONEYLOCUST	2 1/2' - 3' CAL.
	6	CEDRUS DEODORA / DEODAR CEDAR	6' - 8' HT.
	97	ELIONYMUS ALATUS COMPACTA / DWARF WING ELIONYMUS	2' - 2 1/2' HT.

MISSING TREES TO BE REPLANTED TO BRING SITE INTO COMPLIANCE WITH PREVIOUSLY APPROVED SPP-94-70

PERIMETER	SCHEDULE A PERIMETER LANDSCAPE EDGE					
	1	2	3	4	5	6
PERIMETER	Adjacent to Roadways	Adjacent to Perimeter Properties	Adjacent to Perimeter Properties	Adjacent to Properties	Adjacent to Roadways	Adjacent to Roadways
LANDSCAPE TYPE	A	B	A	A	B	E
LINEAR FEET OF PERIMETER	186'	80'	50'	105'	175'	58' 136'
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET) (DESCRIBE IF NEEDED)	-	-	-	-	-	-
CREDIT FOR WALL, FENCE OR BERM (YES, NO, LINEAR FEET) (DESCRIBE IF NEEDED)	-	-	-	-	-	-
NUMBER OF PLANTS REQUIRED						
SHADE TREES	1	1	1	2	4	1 3
EVERGREEN TREES	16	-	-	-	4	2 34
NUMBER OF PLANTS PROVIDED						
18 SHADE TREES	4	1	1	2	4	1 3
6 EVERGREEN TREES	-	-	-	-	4	2 -
97 OTHER TREES (NO SUBSTITUTION)	46	-	-	-	17	- 34
DESIRABLE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED	-	-	-	-	-	-

SCHEDULE B PARKING LOT INTERNAL LANDSCAPING

Number of Parking Spaces	42
Number of Trees Required	2
Number of Trees Provided	
Shade Trees	2
Other Trees (2:1 substitution)	

NOTE: FINANCIAL SURETY FOR THE REQUIRED LANDSCAPING HAS BEEN POSTED AS PART OF THE D.P.W. DEVELOPER'S AGREEMENT IN THE AMOUNT OF \$4,000 (LANDSCAPING 24 TREES @ \$100 EACH)

NOTE: THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL.

Developer's/Builder's Certificate
I/We certify that the landscaping shown on this plan will be done according to the plan, Section 16.124 of the Howard County Code and the Howard County Landscape Manual. I/We further certify that upon completion a Certification of Landscape Installation accompanied by an executed one year guarantee of plant materials will be submitted to the Department of Planning and Zoning.

U.S. ROUTE 1
WASHINGTON BOULEVARD
(PUBLIC ROAD)

STATE OF MARYLAND
LAND SURVEYORS
FISHER, COLLINS & CARTER, INC.
1971 BALTIMORE NATIONAL PIKE, SUITE 100
ELICOTT CITY, MARYLAND 21043
1300 461 - 2995

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 SOIL CONSERVATION DISTRICT.

10/17/94
SIGNATURE OF ENGINEER

DEVELOPER'S CERTIFICATE
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10/23/94
SIGNATURE OF DEVELOPER

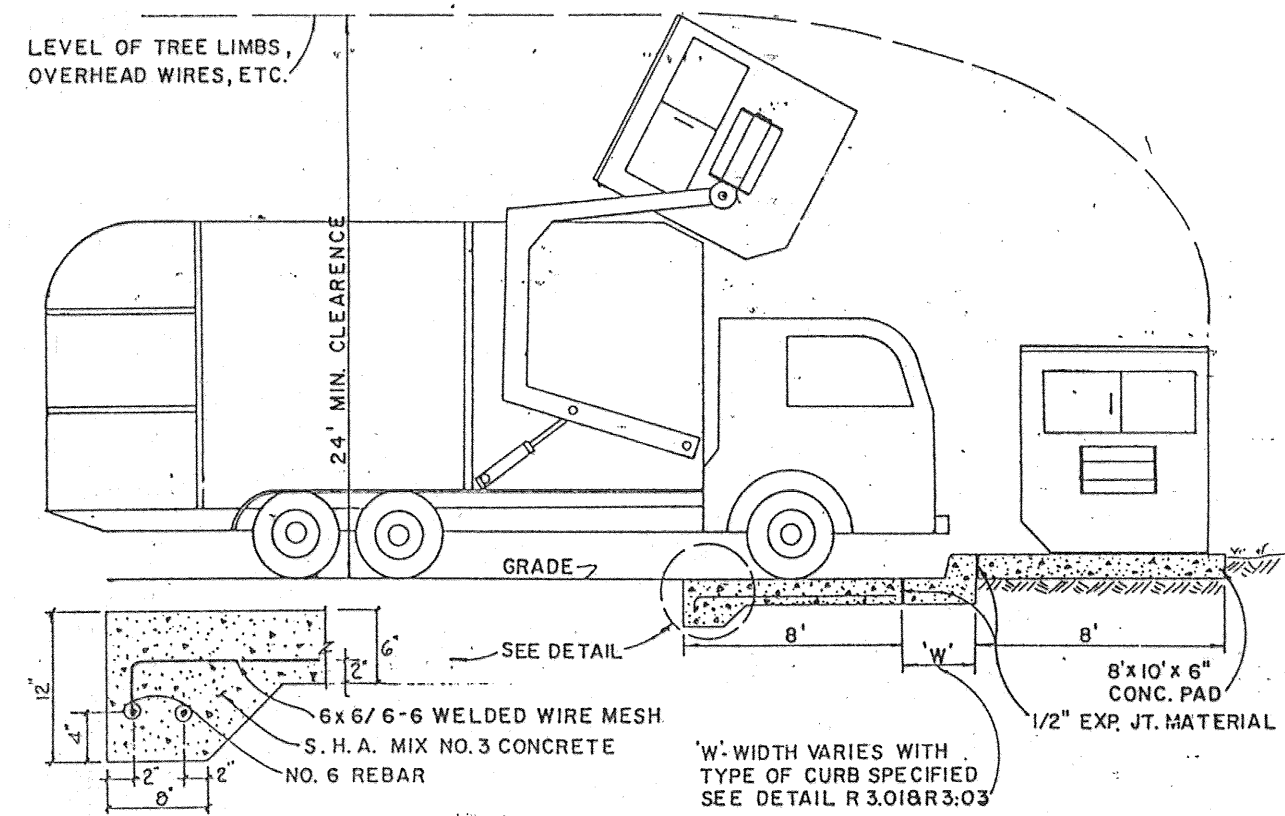
REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND DEETS TECHNICAL REQUIREMENTS
10/19/94
U.S. SOIL CONSERVATION SERVICE
APPROVED: JOHN R. BENTON 10/19/94
DISTRICT HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPT. OF PLANNING AND ZONING
11/7/94
PLANNING DIRECTOR
11/4/94
CHIEF, DIVISION OF LAND/DEVELOPMENT AND RESEARCH
APPROVED: HOWARD COUNTY HEALTH DEPARTMENT FOR PUBLIC WATER AND SEWERAGE SYSTEMS
11/2/94
HEALTH OFFICER

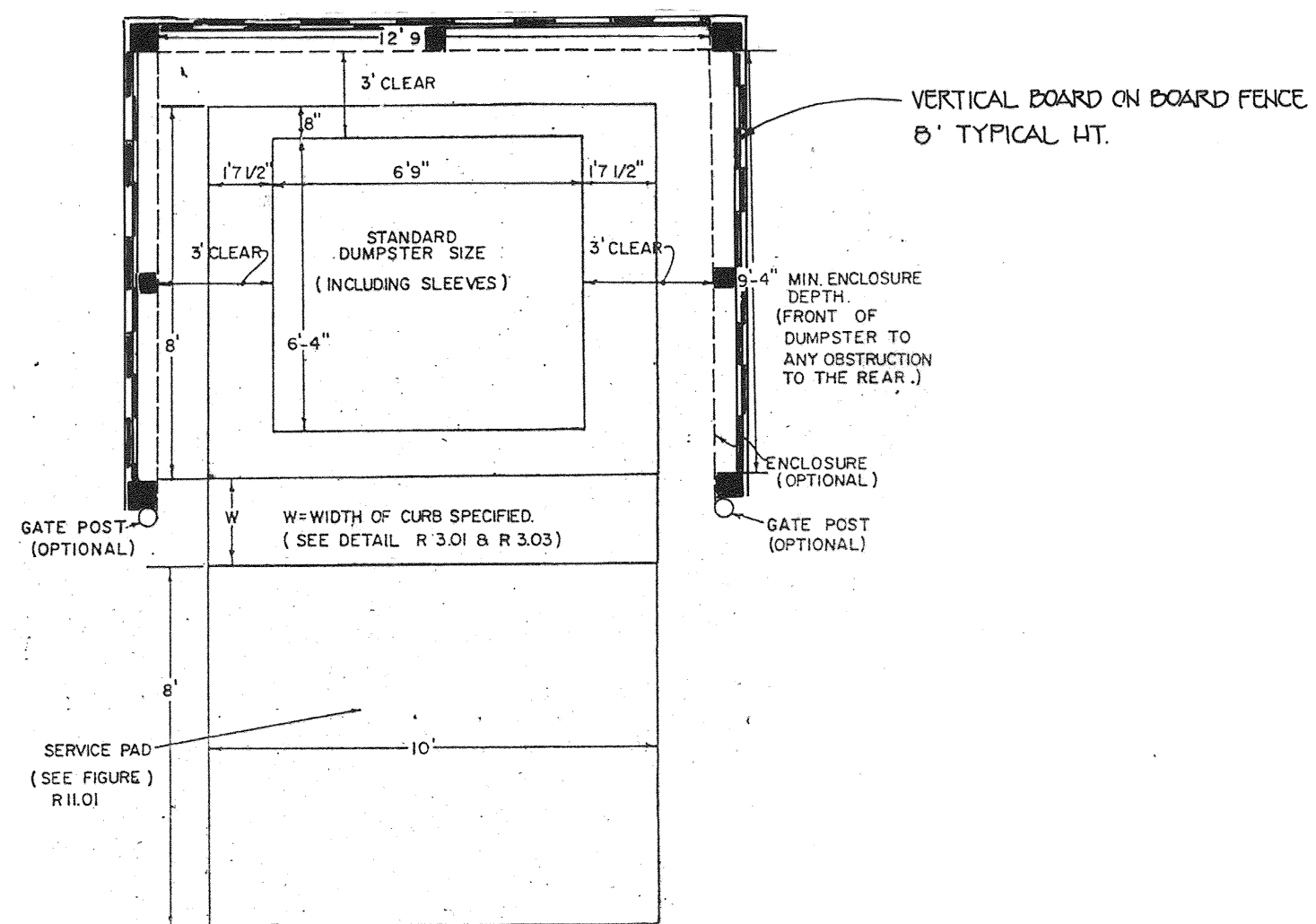
APPROVED: DEPARTMENT OF PUBLIC WORKS FOR PUBLIC WATER & SEWER AND STORM DRAINAGE SYSTEMS AND ROADS.
10/21/94
DIRECTOR, PUBLIC WORKS
10/21/94
CHIEF, BUREAU OF ENGINEERING
PROPERTY/SUBDIVISION THE CEDAR'S
SECTION/AREA PARCEL/LOT NO. B
PLAT NO. BLOCK NO. ZONE TAX/ZONE ELEC. DIST. CENSUS TR. 11193 0, 14 B-2 43 GTH C0C9.01
WATER CODE 0 02 SEWER CODE 3279000

LANDSCAPE PLAN
FRANKS DINER
THE CEDAR'S
SUBTITLE: TOBACCO LEAF
F 94-51
TAX MAP 43 SIXTH ELECTION DIST. HOWARD COUNTY, MARYLAND
SCALE: 1" = 20' SHEET 4 OF 5
DATE: AUGUST 3 1994

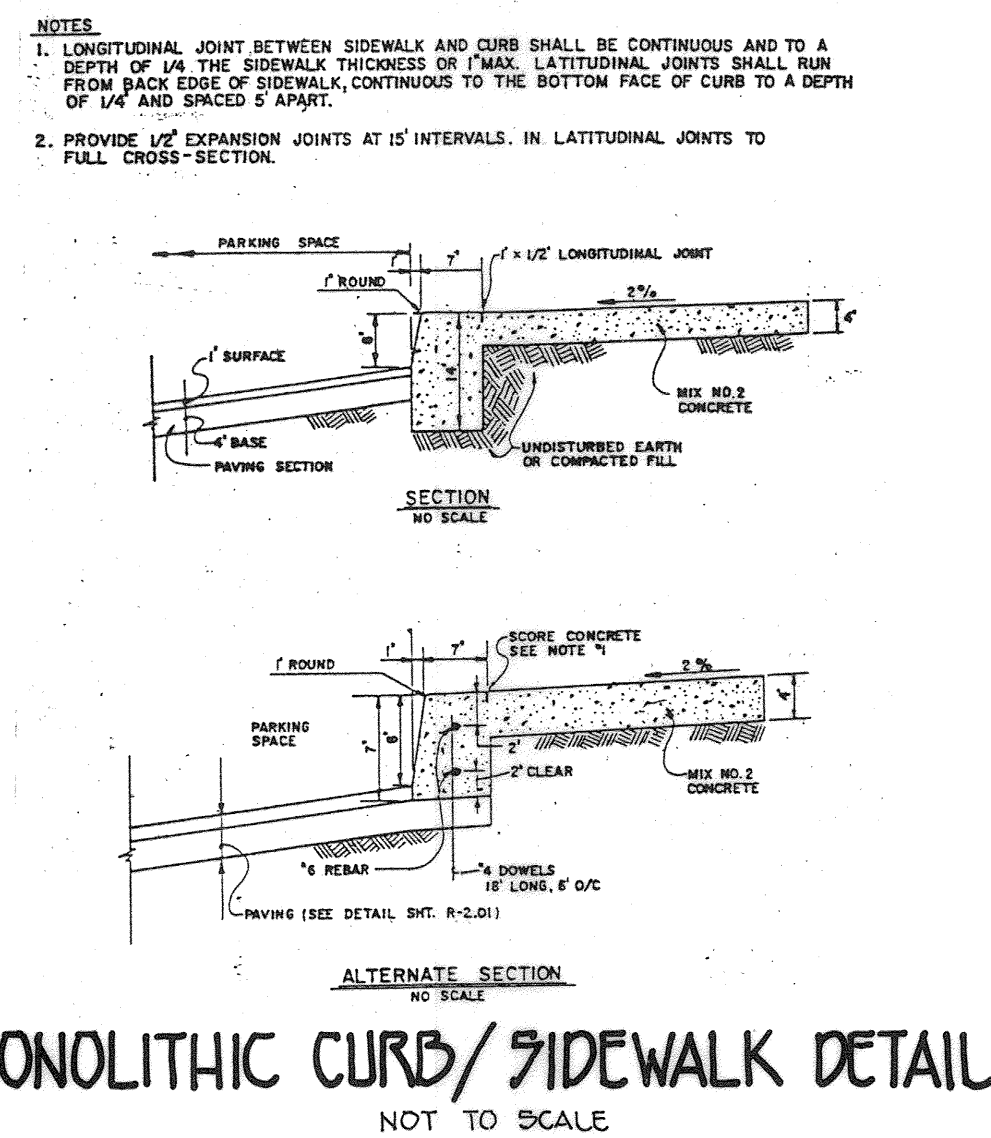




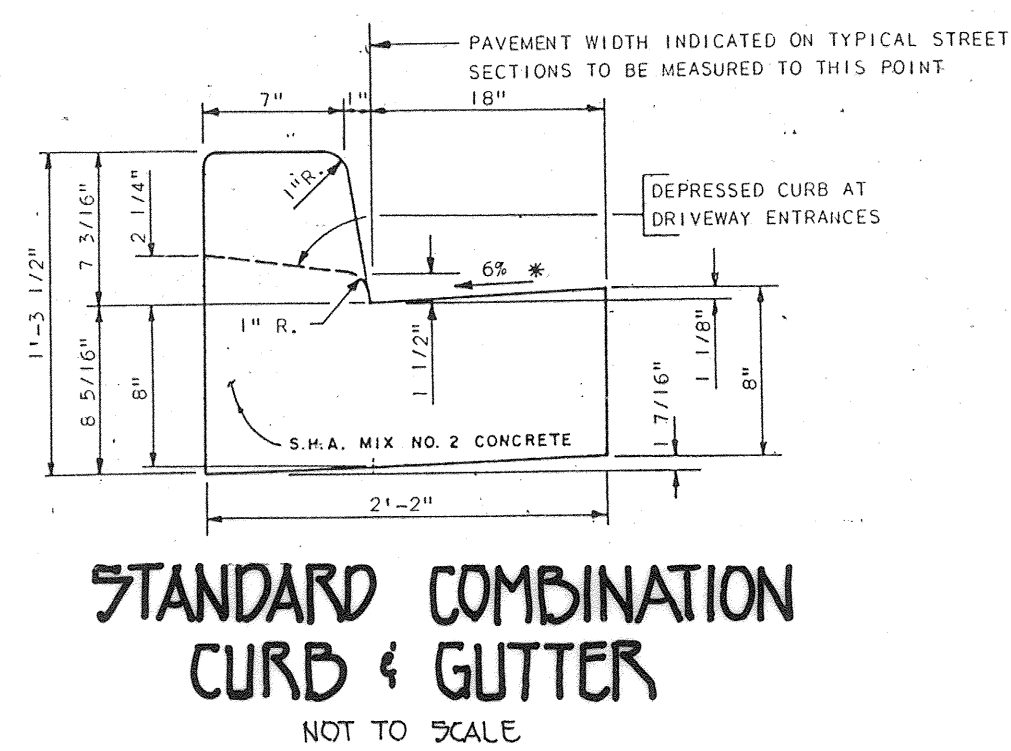
SOLID WASTE SERVICE PAD
NOT TO SCALE



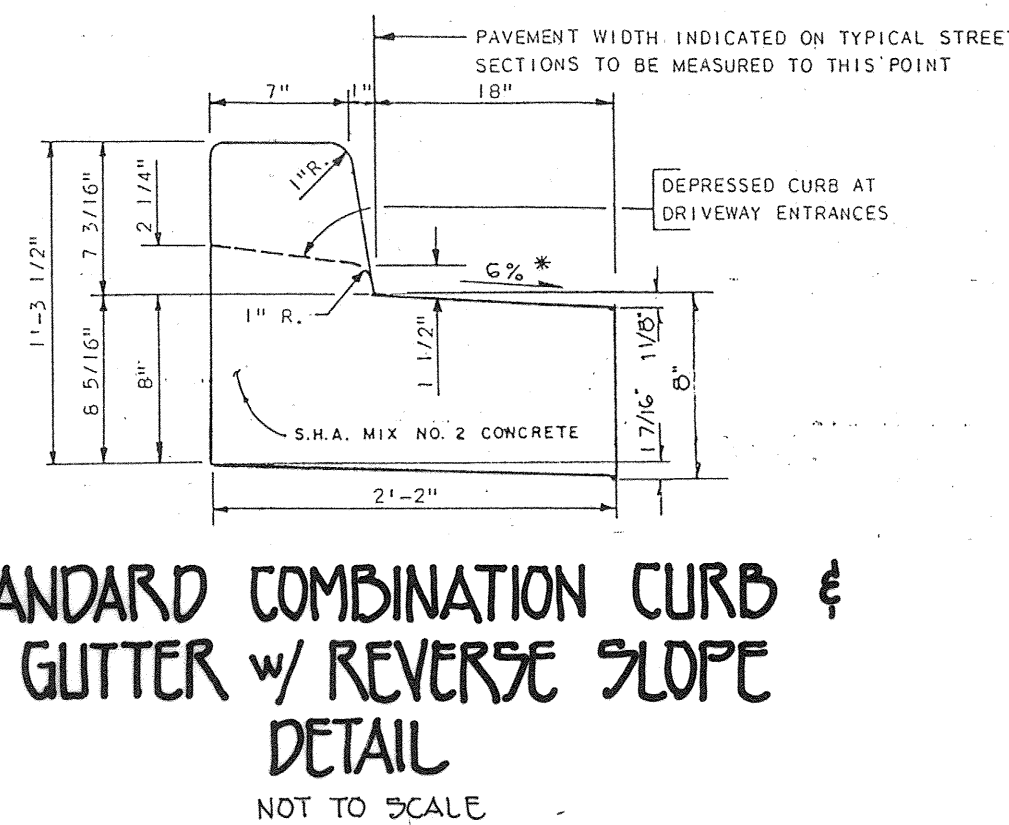
SOLID WASTE OPTIONAL CONTAINER ENCLOSURE
DETAIL
NOT TO SCALE



MONOLITHIC CURB/SIDEWALK DETAIL
NOT TO SCALE



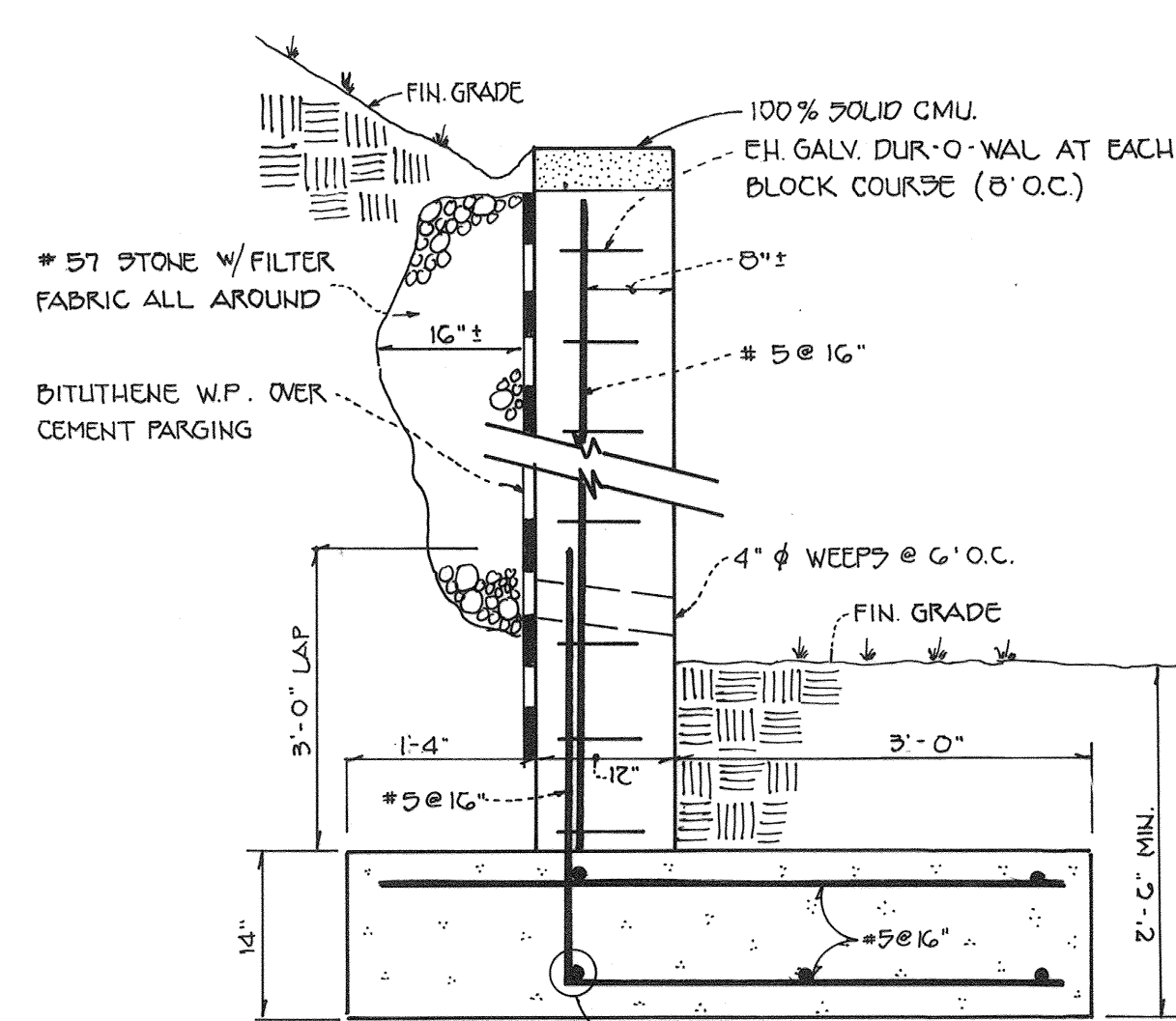
STANDARD COMBINATION CURB & GUTTER
NOT TO SCALE



STANDARD COMBINATION CURB & GUTTER w/ REVERSE SLOPE DETAIL
NOT TO SCALE



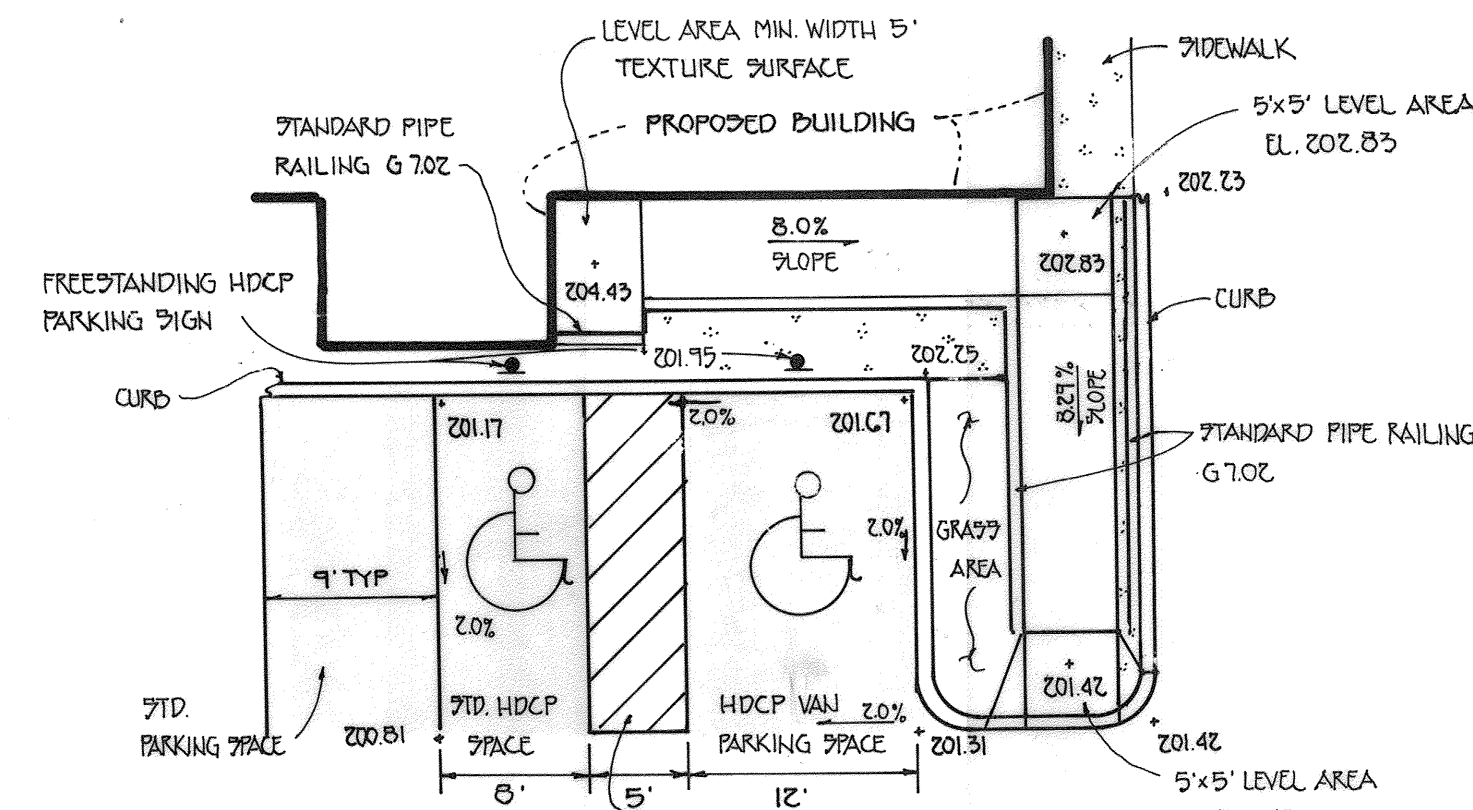
RESERVED HANDICAPPED PARKING SIGN DETAIL
NOT TO SCALE



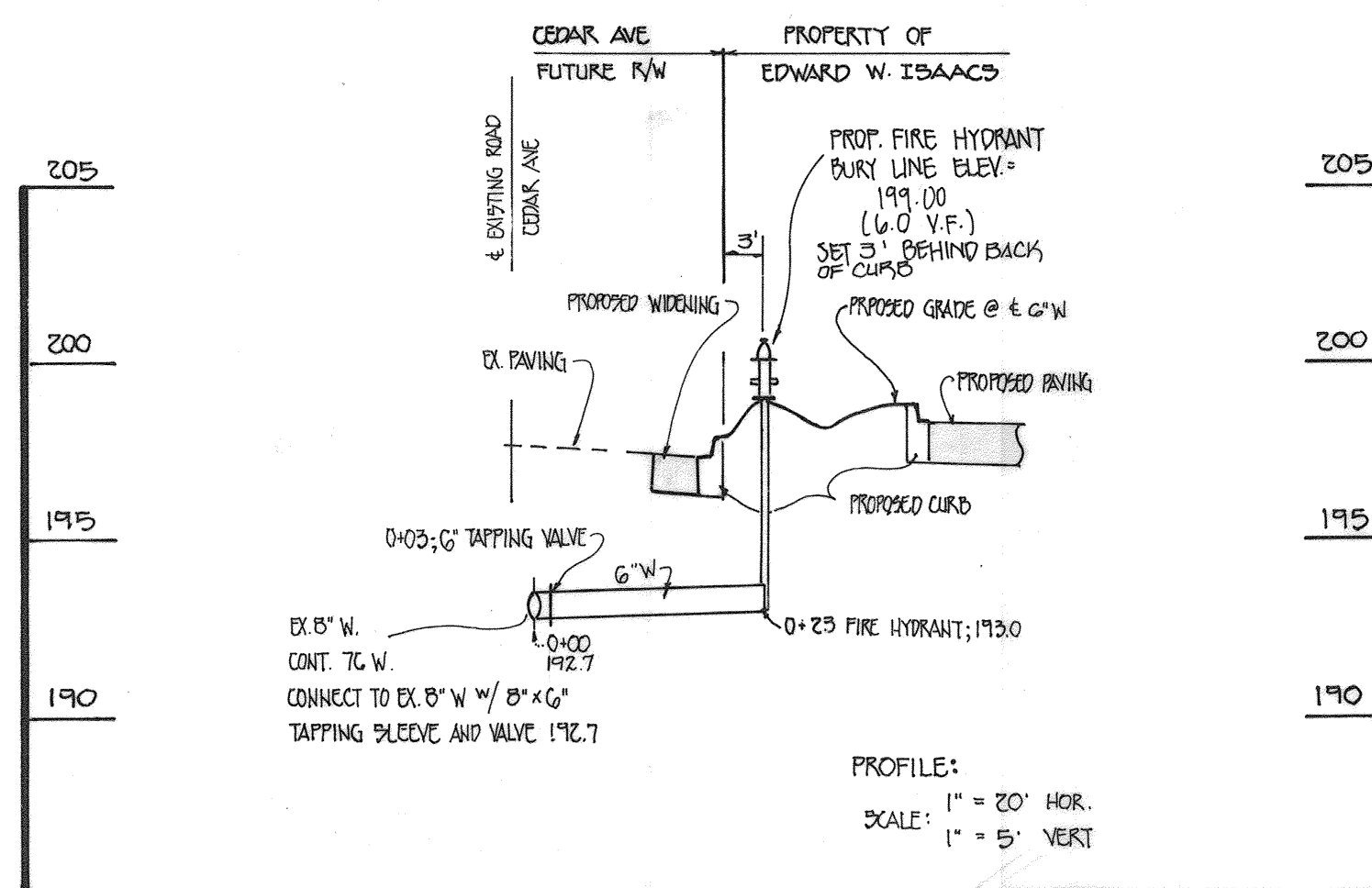
TYPICAL RETAINING WALL SECTION

- NOTES**
1. ALL WORK IN ACCORDANCE WITH LOCAL AND STATE CODES.
 2. SOIL VALUE ASSUMED TO BE MIN. 2000 P.S.F. VERIFY IN FIELD.
 3. CONCRETE TO BE 3000 P.S.I. @ 28 DAYS.
 4. MASONRY TO BE ASTM C 90 CMU MORTAR TO BE TYPE S.
 5. FILL ALL CELLS WITH MIN. 2,500 P.S.I. PEA GRAVEL CONCRETE.
 6. REINFORCE STEEL TO BE ASTM A 615 GRADE 60.
 7. PROVIDE 2 CONTROL JOINTS IN WALL. (16\"/>

TYPICAL WALL CROSS-SECTION DETAIL
NOT TO SCALE



HANDICAPPED PARKING DETAIL
NOT TO SCALE



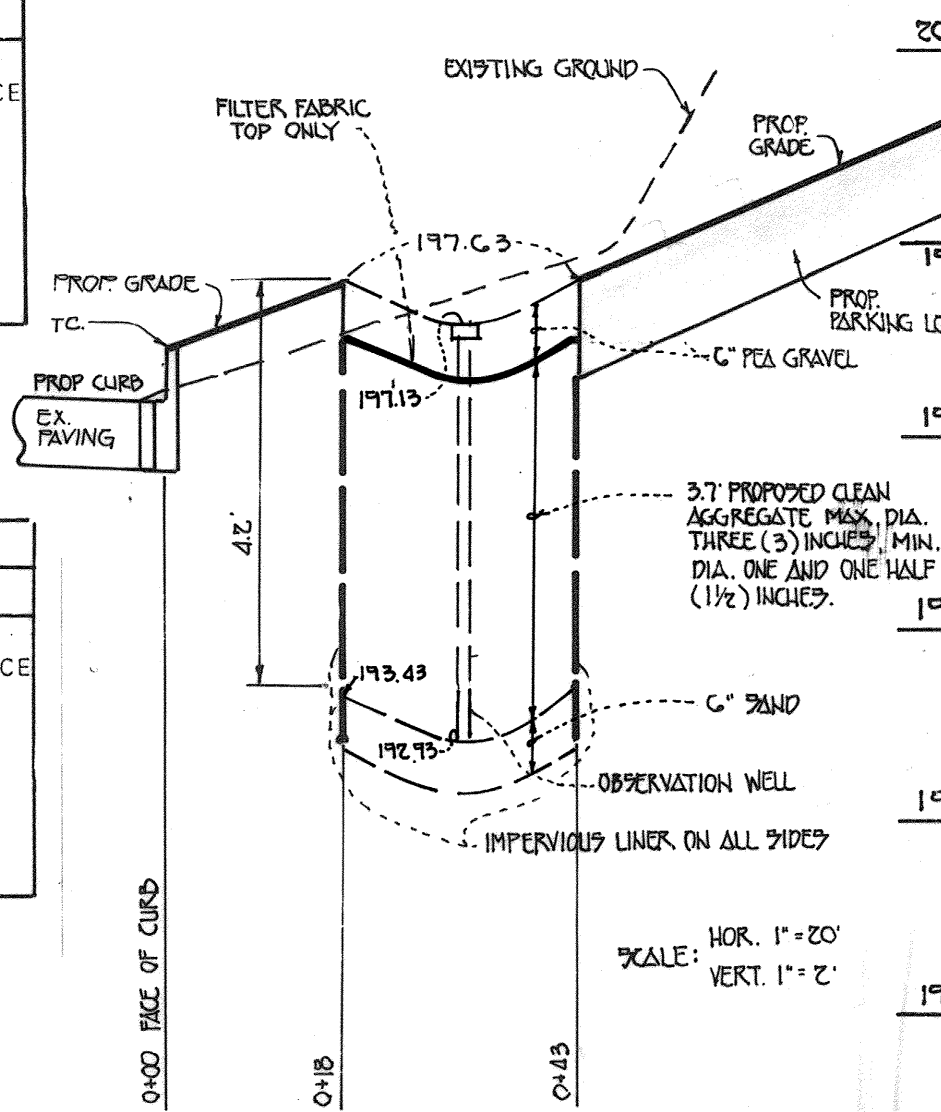
PROPOSED 6\"/>

PAVEMENT MATERIALS	
FULL DEPTH BIT. CONC. ALTERNATE	GRANULAR BASE ALTERNATES
1 1/2\"/>	1 1/2\"/>
5\"/>	2 1/2\"/>
	C\"/>

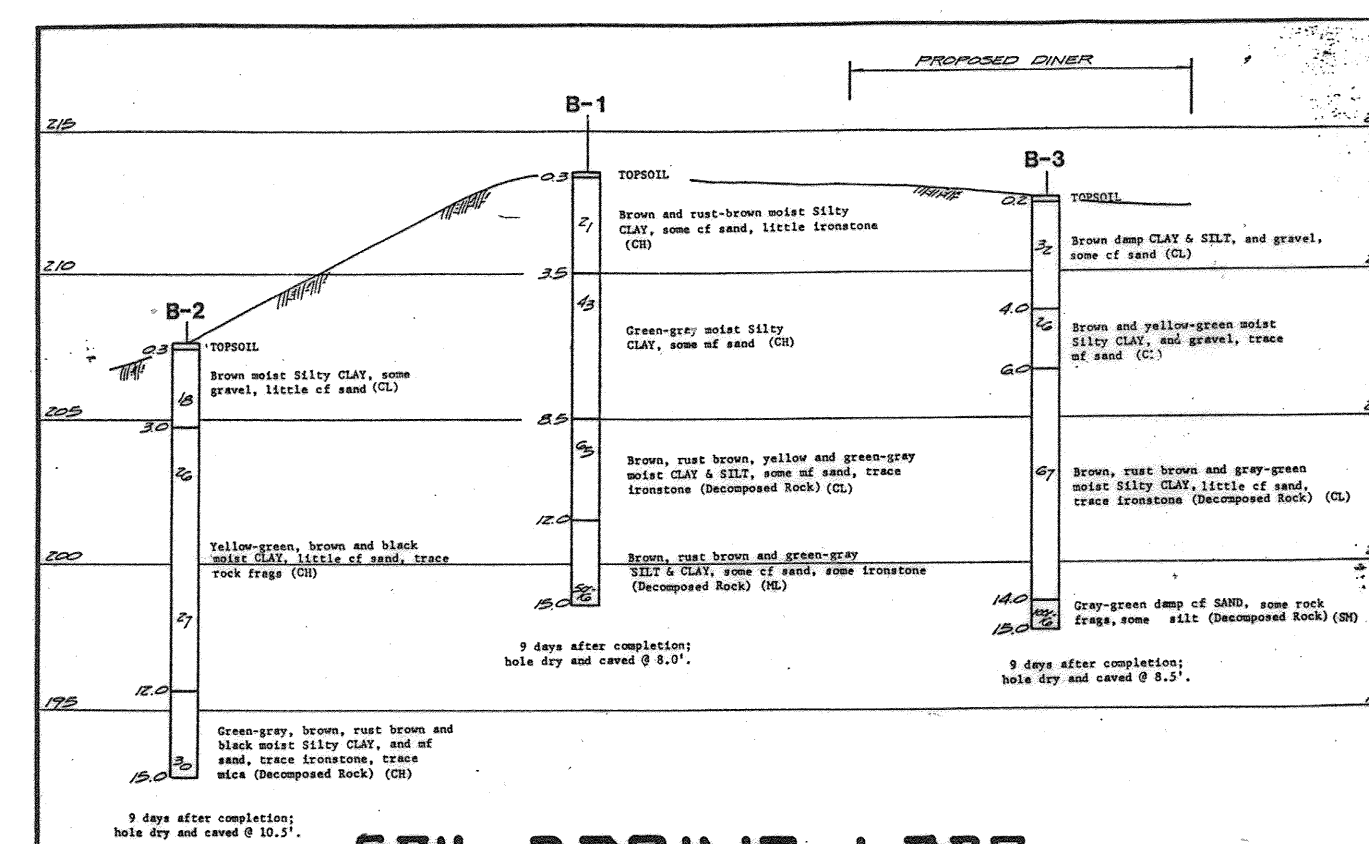
P-2 PAVING SECTION DETAIL
NOT TO SCALE

PAVEMENT MATERIALS	
FULL DEPTH BIT. CONC. ALTERNATE	GRANULAR BASE ALTERNATES
1\"/>	1\"/>
4\"/>	2\"/>
	4\"/>

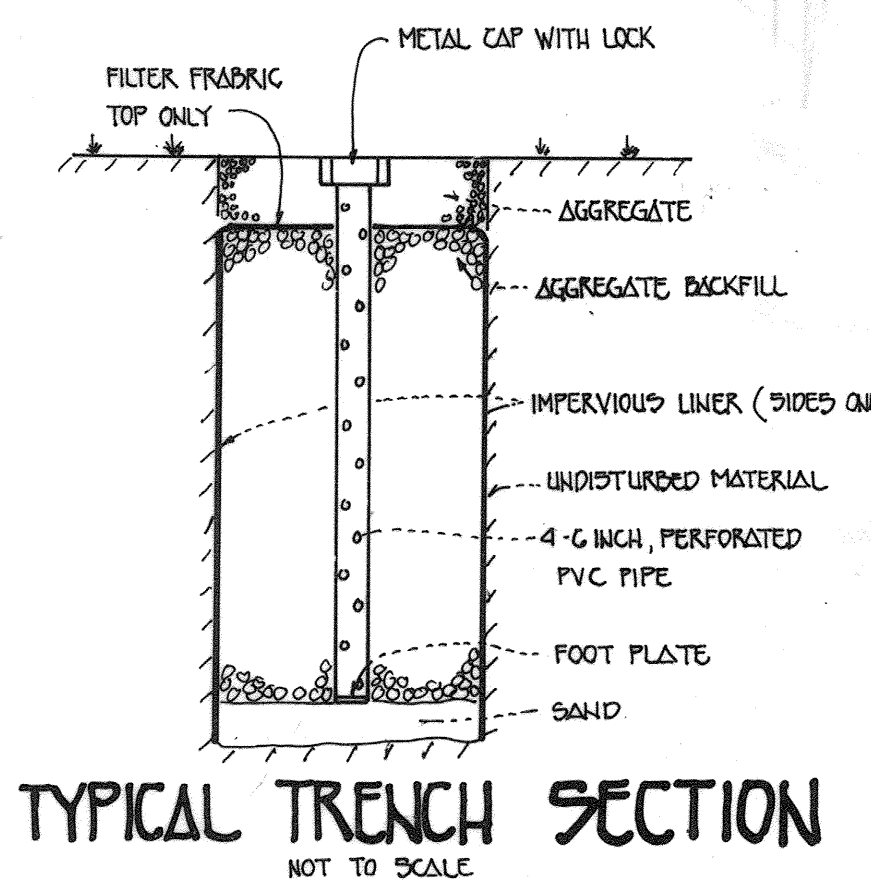
P-1 PAVING SECTION DETAIL
NOT TO SCALE



TRENCH DETAIL
NOT TO SCALE



SOIL BORING LOGS
NOT TO SCALE



TYPICAL TRENCH SECTION
NOT TO SCALE

NO.	REVISION	DATE
1	REVISED TITLE BLOCK	1-05-21

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
917 BALTHORE NATIONAL PKE. SUITE 100
ELLICOTT CITY, MARYLAND 21043
(301) 461-2255

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 SOIL CONSERVATION DISTRICT.
[Signature]
SIGNATURE OF ENGINEER
10/17/94
DATE

DEVELOPER'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 DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ONSITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.
[Signature]
SIGNATURE OF DEVELOPER
10-18-94
DATE

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND METS TECHNICAL REQUIREMENTS
[Signature]
DATE 10/19/94
HOWARD SOIL CONSERVATION SERVICE
THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
[Signature]
DATE 10/19/94
HOWARD SOIL CONSERVATION DISTRICT

APPROVED: DEPT. OF PLANNING AND ZONING
[Signature] 11/7/94
PLANNING DIRECTOR
[Signature] 11/4/94
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH
APPROVED: HOWARD COUNTY HEALTH DEPARTMENT FOR PUBLIC WATER AND SEWERAGE SYSTEMS
[Signature] 11/2/94
HEALTH OFFICER

APPROVED: DEPARTMENT OF PUBLIC WORKS FOR PUBLIC WATER & SEWER AND STORM DRAINAGE SYSTEMS AND ROADS.
[Signature] 10/21/94
DIRECTOR, PUBLIC WORKS
[Signature] 10/21/94
CHIEF, BUREAU OF ENGINEERING

PROPERTY/SUBDIVISION	SECTION/AREA	PARCEL
THE CEDARS		B
PLAT NO.	BLOCK NO.	ZONE
11193	8, 14	B-2
TAX/ZONE	ELEC. DIST.	CENSUS TR.
43	C TH	60C9.01
WATER CODE	SEWER CODE	
802	3290000	

NOTES AND DETAILS
FRANKS DINER
THE CEDARS
SUBTITLE: "TOBACCO LEAF"
TAX MAP 43 F 94-51 PARCEL B
SIXTH ELECTION DIST. HOWARD COUNTY, MARYLAND
SCALE: 1" = 20' DATE: AUGUST 3, 1974
SHEET 5 OF 5

OWNER
MR. EDWARD W. ISAACS
124 MARYLAND ROUTE 3
MILLERSVILLE, MARYLAND 21108
DEVELOPER
MR. & MRS. FRANKLIN DAVID & CORDULA, INC.
7799 ELBERTA DRIVE
SEVERN, MARYLAND 21144