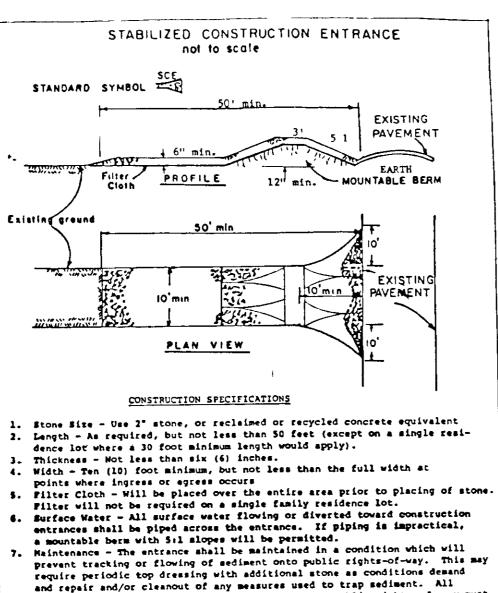


Pipe Outlet Trap CONSTRUCTION SPECIFICATION FOR ST-I

- 1 Area under ambankment shall be cleared, grubbed and stripped of any egetation and root mat. The pool area shall be cleared
- 2 The fill material for the embankment shall be free of roots or other woody vegetation as well as oversized stones, rocks, organic material, or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed
- 3 Volume of sediment storage shall be 1800 cubic feet per acre of
- 4 Sediment shall be removed and trap restored to its original dimensions when the sediment has accumulated to 1/2 the design depth of the trap Removed sediment shall be deposited in a suitable area and in such a
- 5 The structure shall be inspected after each rain and repairs made as
- 6 Construction operations shall be carried out in such a memoer that erosion and water pollution are minimized 7 The structure shall be removed and area stabilized when the drainage area
- has been properly stabilized 8 All fill slopes shall be 2:1 or flatter, cut slopes 1 1 or flatter
- 9 All pipe connections shall be watertight
- 10 The top 2/3 of the riser shall be perforated with one (1) inch diameter holes or slits spaced six(6) inches vertically and horizontally and placed in the concave portion of pipe. No holes will be allowed within six(6
- 11 The riser shall be wrapped with 1/4 to 1/2 inch hardware cloth wire then wrapped with filter cloth (having an equivalent sieve sise of 40 - 80) The filter cloth shall extend six (6) inches above the highest hole and six (6) inches below the lowest hole. Where ends of filter cloth come together, they shall be overlapped, folded and stapled to prevent bypass
- 12 Straps or connecting bands shall be used to hold the filter cloth and wire fabric in place. They shall be placed at the top and bottom of the cloth
- 13 Fill material around the pipe spillway shall be hand compacted in four(4) anch layers A minimum of two (2) feet of hand-compacted backfull shall be placed over the pipe spillway before crossing it with construction
- 14 The riser shall be anchored with either a concrete base or steel plate base to prevent flotation. For concrete bases the depth shall be 12 inches with the riser embedded nine (9) inches. A 1/4 inch minimum thickness steel plate shall be attached to the riser by a continuous weld around the bottom to form a watertight connection and then place two (2) feet of stone, gravel, or tamped earth on the plate



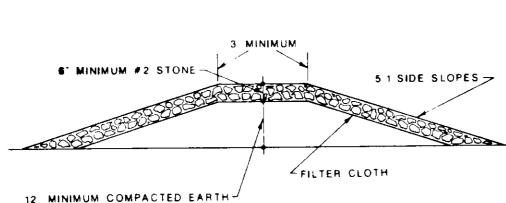
5 1 SIDE SLOPES > FILTER CLOTH 12 MINIMUM COMPACTED EARTH

STABILIZED CONSTRUCTION

Standard

SEDIMENT CONTROL NOTES

- prior to the start of any construction (992-2437) 2) All vegetative and structural practices are to be installed according to the provisions of this plan STANDARDS 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 must be fenced and warning signs posted around their perimeter in accordance with Vol 1, Chaper 12, of the HOWARD COUNTY DESIGN MANUAL, Storm
- 5) All disturbed areas must be stabilized within the time period specified above in accordance with the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seedings (Sec 51) sod (Sec 54), temporary seeding (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 permission for their removal has been obtained from
- 7) Site Analysis Total Area of Site 1003 Acres Area Disturbed 0.821 Acres Area to be roofed or paved Area to be vegetatively stabilized 0.182 Acres 0 Cu yds 2088 Cu yds Total Cut Total Fill Offsite waste/borrow area location
- grading activity for placement of utilities must be
- 9) Additional sediment controls must be provided, if
- 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



MOUNTABLE BERM DETAIL (for SCE)

- 1) A minimum of 24 hours notice must be given to
- and are to be in conformance with the 1983 MARYLAND
- and are to be maintained in operative condition until the Howard County Sediment Control Inspector
- 8) Any sediment control practice which is disturbed by repaired on the same day of disturbance
- deemed necessary by the Howard County DPW sediment control inspector

STABIL ZATION AS REQUIRED ON STEEP SLOPES EXCAVATE O PROVIDE REQUIRED FLOW WIDTH AT FLOW DEPTI (5 AC OR LESS) (5-10 AC a-DIKE HEIGHT POSITIVE DRAMAGE -GRADE SUFFICENT TO DRAM X X X X X X o-DIKE WIDTH 11TGIW WOJE-5 CONSTRUCTION SPECIFICATIONS 1 ALL DIKES SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT 2 ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET 3 TOP WIDTH MAY BE WIDER AND SIDE SLOPES FLATTER IF DESIRED TO FACILITATE 4 FIELD LOCATION SHALL BE ADJUSTED AS NEEDED TO UTILIZE A STABLE, SAFE DUTLET EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONSW WITH A MINIMUM OF EROSION RUNOFF 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 ADEQUATELY STABILIZED 6 STABILIZATION SHALL BE (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH OR STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW TYPE OF CHANNEL 0 5-3 0% SEED AND STRAW MULCH SEED AND STRAW MULCH

SWALE INLET PROTECTION DETAIL

CONSTRUCTION SPECIFICATIONS

B WIRE MESH MUST BE OF SUFFICIENT STRENGTH TO SUPPORT FILTER FABRIC AND STONE FOR CURB INLETS, WITH WATER FULLY IMPOUNDED AGAINST IT

FILTER CLOTH MUST BE OF A TYPE APPROVED FOR THIS PURPOSE, RESISTANT TO SUNLIGHT WITH

SIEVE SIZE, EDS, 40-85, TO ALLOW SUFFICIENT PASSAGE OF WATER AND REMOVAL OF SEDI-

EXCAVATE COMPLETELY AROUND INLET TO A DEPTH OF 18" BELOW NOTCH ELEVATION

DRIVE 2 X 4 POST 1' INTO GROUND AT FOUR CORNERS OF INLET PLACE NAIL STRIPS BETWEEN POSTS ON ENDS OF INLET ASSEMBLE TOP PORTION OF 2 X 4 FRAME USING OVER-LAP JOINT SHOWN TOP OF FRAME (WEIR) MUST BE 6" BELOW EDGE OF ROADWAY ADJACENT

STRETCH WIRE MESH TIGHTLY AROUND FRAME AND FASTEN SECURELY ENDS MUST MEET A

STRETCH FILTER CLOTH TIGHTLY OVER WIRE MESH. THE CLOTH MUST EXTEND FROM TOP OF FRAME TO 18" BELOW INLET NOTCH ELEV. FASTEN SECURELY TO FRAME. ENDS MUST MEET AT POST, BE OVERLAPPED AND FOLDED, THEN FASTENED DOWN

BACKFILL AROUND INLET IN COMPACTED 6" LAYERS UNTIL LAYER OF EARTH IS EVEN WITH

6 IF THE INLET IS NOT IN A LOW POINT CONSTRUCT A COMPACTED EARTH DIKE IN THE DITCHLINE BELOW IT THE TOP OF THIS DIKE IS TO BE AT LEAST 6' HIGHER THAN THE

THIS STRUCTURE MUST BE INSPECTED FREQUENTLY AND THE FILTER FABRIC REPLACED WHEN

A WOODEN FRAME IS TO BE CONSTRUCTED OF 2" X 4" CONSTRUCTION GRADE LUMBER

D STONE IS TO BE 2" IN SIZE AND CLEAN, SINCE FINES WOULD CLOG THE CLOTH

NOTCH ELEVATION ON ENDS AND TOP ELEVATION ON SIDES

POSTS DRIVEN

- APPROVED FILTER CLOTH

SWALE, DITCHLINE OR YARD INLET PROTECTION

WINE NESH

II PROCEDURE

3 1-5 0% SEED AND STRAW MULCH SEED USING JUTE OR EXCELSIOR, SOD 2" STONE 5 1-8.0% SEED WITH JUTE, OR LINED RIP-RAP 4-8"

- 8 1- 20% LINED RIP-RAP 4-8 ENGINEERING DESIGN A STONE TO BE 2" STONE, OR RECYCLED CONCRETE EQUIVALENT, IN A LAYER AT LEAST 3" IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION
- 8 RIP-RAP TO BE 4-8" IN A LAYER AT LEAST 8" THICKNESS AND PRESSED INTO
- APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE
- PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER
 - EARTH DIKE

Apply to graded or cleared areas not subject to immediate further disturbance where a permanent long-lived vegetative cover is needed

PERMANENT SEED ING NOTES

Seedbed Preparation Loosen upper three inches of soil by raking, discing or other acceptable means before seeding if not previously loosened

- 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 Harrow or disc into upper three inches of soil At time of seeding, apply 400 lbs per acre
- 30-0-0 ureaform fertilizer (9 lbs/1000 sq ft) 2) Acceptable -- Apply 2 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 Harrow 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 50 lbs per acre (1 4 lbs/1000 sq ft) of Kentucky 31 Tall Fescue For the period May 1 thru July 31, seed with 60 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 is 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 15 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 gallons per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas On slopes 8 feet er higher, use 348 gallons per acre (8 gal/1000 sq ft) for anchoring Maintenance -- Inspect all seeded areas and make needed repairs, replacements and

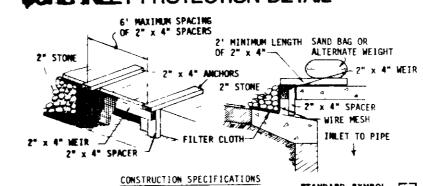
TEMPORARY SEEDING NOTES Apply to graded or cleared areas likely to be redisturbed where a short-term vegetative

Seedbed Preparation Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened

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 Novermber 15, seed with $2\frac{1}{2}$ bushel per acre of annual rye (3 2 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 12 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 per acre (5 gal/1000 sq ft) of emulsified asphalt on flat areas. On slopes 8 ft or higher, use 348 gal per acre (8 gal/1000 sq ft) for anchering Refer to the 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTRO for rate and methods not covered.

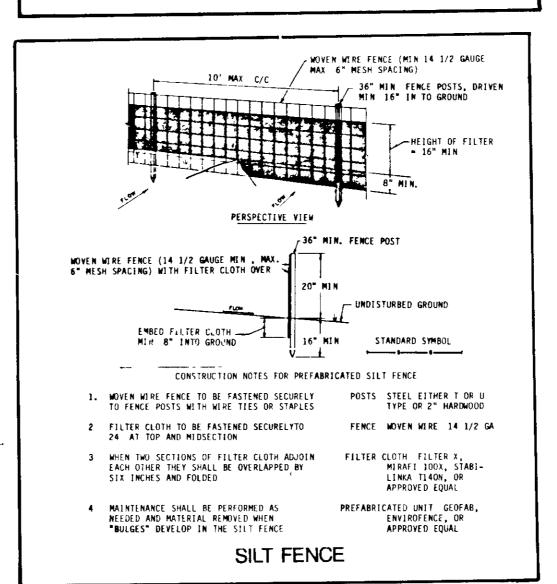
GURB INLET PROTECTION DETAIL

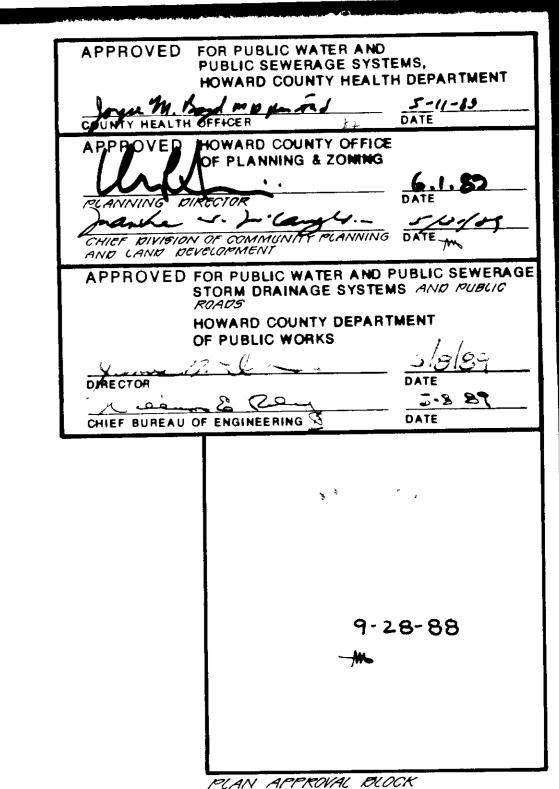


LEDGE OF ROADWAY OR

STANDARD SYMBOL-

- MATERIALS A WOODEN FRAME IS TO BE CONSTRUCTED OF 2 X 4" CONSTRUCTION GRADE LUMBER
- B WIRE MESH MUST BE OF SUFFICIENT STRENGTH TO SUPPORT FILTER FABRIC, AND STONE FOR FILTER CLOTH MUST BE OF A TYPE APPROVED FOR THIS PURPOSE, RESISTANT TO SUNLIGHT WITH SIEVE SIZE, EOS, 40-85 TO ALLOW SUFFICIENT PASSAGE OF WATER AND REMOVAL OF SEDI-
- D STONE IS TO BE 2" IN SIZE AND CLEAN, SINCE FINES WOULD CLOG THE CLOTH
- II PROCEDURE CURB INLET PROTECTION
 - ATTACH A CONTINUOUS PIECE OF WIRE MESH (30" MIN WIDTH BY THROAT LENGTH PLUS 4') TO THE 2" X 4" WEIR (MEASURING THROAT LENGTH PLUS 2') AS SHOWN ON THE STAN-
 - PLACE A PIECE OF APPROVED FILTER CLOTH (40-85 SIEVE) OF THE SAME DIMENSIONS AS THE WIRE MESH OVER THE WIRE MESH AND SECURELY ATTACH TO THE 2" X 4' WIER
- 3 SECURELY MAIL THE 2" X 4" WEIR TO 9" LONG VERTICAL SPACERS TO BE LOCATED BE-TWEEN THE WEIR AND INLET FACE (MAX 6' APART) 4 PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL (MINIMUM 2 LENGTHS OF 2
- X 4") TO THE TOP OF THE WEIR AT SPACER LOCATIONS THESE 2" X 4" ANCHORS SHALL EXTEND ACROSS THE INLET TOP AND BE HELD IN PLACE BY SANDBAGS OR ALTERNATE
- 5 THE ASSEMBLY SHALL BE PLACED SO THAT THE END SPACERS ARE A MINIMUM 1' BEYOND BOTH ENDS OF THE THROAT OPENING
- 6 FORM THE WIRE MESH AND FILTER CLOTH TO THE CONCRETE GUTTER AND AGAINST THE FACE OF CURB ON BOTH SIDES OF THE INLET PLACE CLEAN 2" STONE OVER THE WIRE MESH AND FILTER FABRIC IN SUCH A MANNER AS TO PREVENT WATER FROM ENTERING THE INLET
- THIS TYPE OF PROTECTION MUST BE INSPECTED FREQUENTLY AND THE FILTER CLOTH AND STONE REPLACED WHEN CLOGGED WITH SEDIMENT
- 8 ASSURE THAT STORM FLOW DOES NOT BYPASS INLET BY INSTALLING TEMPORARY EARTH OF ASPHALT DIKES DIRECTING FLOW INTO INLET





By the Developer.

"I/We certify that all development and construction will be done according to this plan, 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 Seidment and Erosion before beginning the project."

Signature of Developer - MCOONALDS CORPORATION MR GENE HARRIS

By the Engineer

I certify that this plan for erosion and sediment control represents a practical and workable plan based on my personal knowledge of the site conditions and that it was prepared in accordance with the requirements of the Howard So N Conservation District."

3/4/89

Signature of Englinee DONALD U WING

Reviewed for S C.D. and meets Technical Requirements.

U 5. Soil Conservation Date

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

COLUMBIA JUNCTION HOWARD COUNTY, MARYLAND

SECTION 2 AREA 1 ELECTION DISTRICT PARCEL TAX MAP 47 & 48



OWNER: SCI LIMITED PARTNERSHIP 8480 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MD 21043



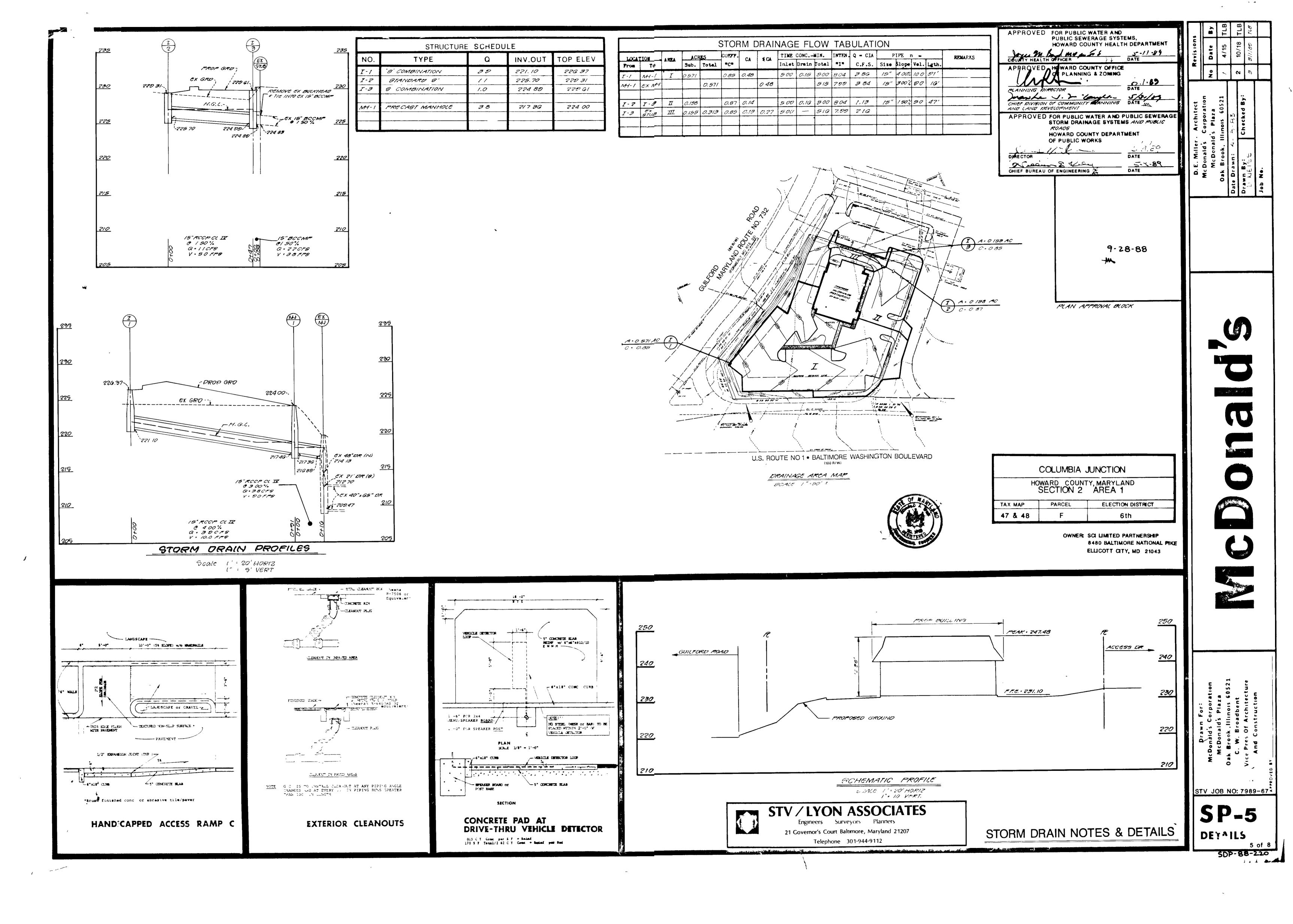
STV/LYON ASSOCIATES

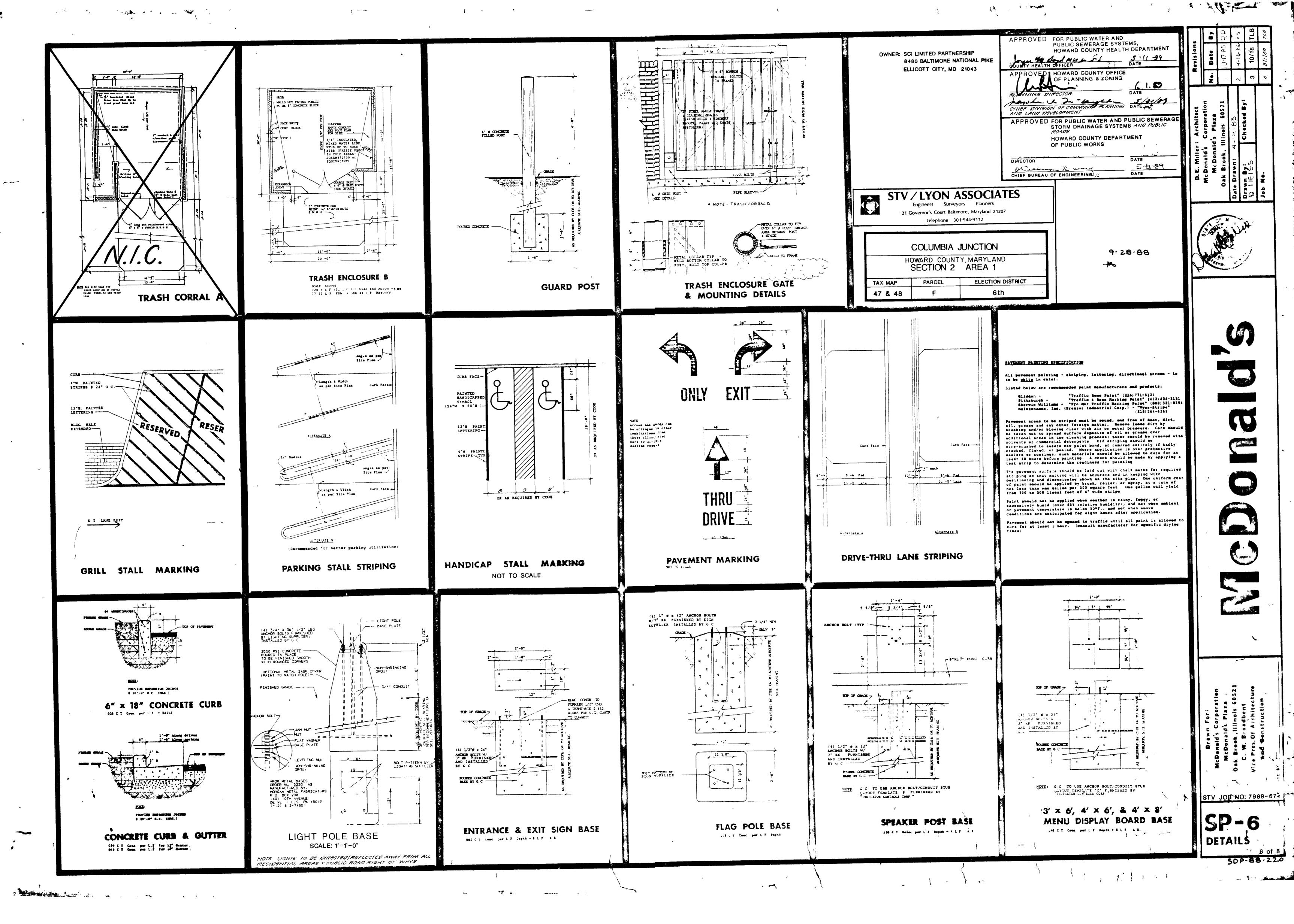
Engineers Surveyors Planners 21 Governor's Court Baltimore, Maryland 21207

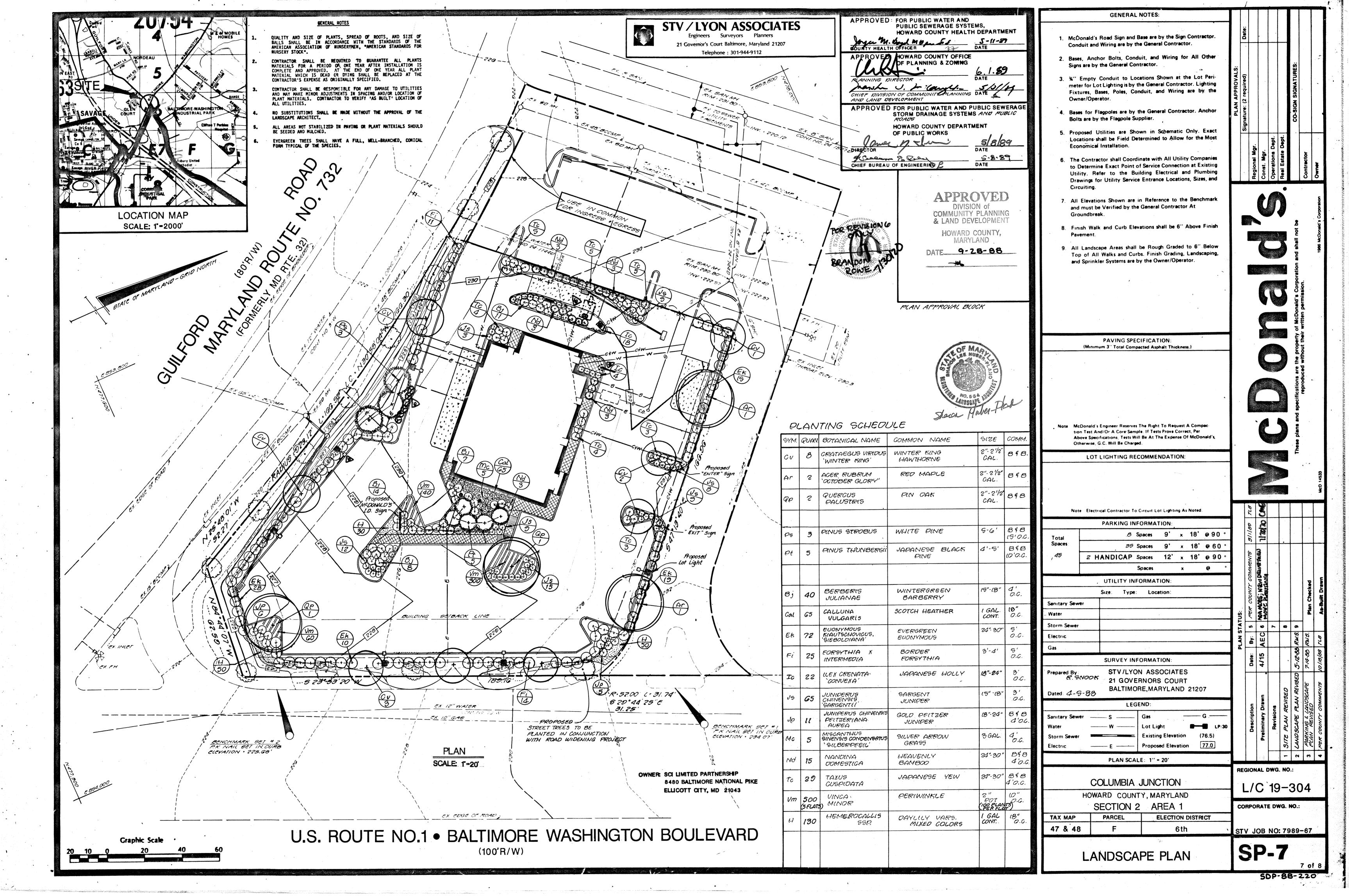
Telephone 301-944-9112

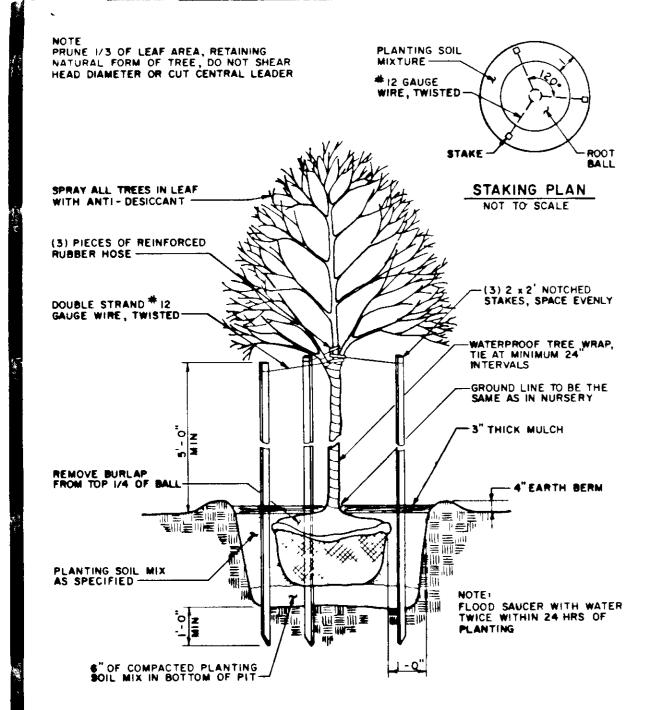
SEDIMENT & EROSION CONTROL NOTES & DETAILS

STV JOB NO: 7989-67

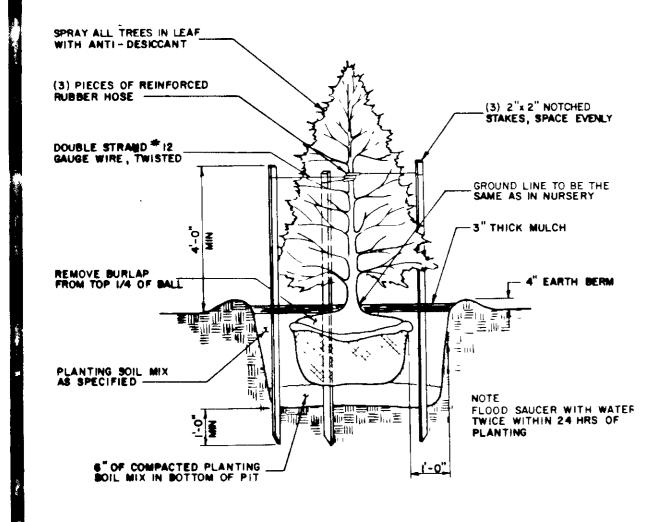




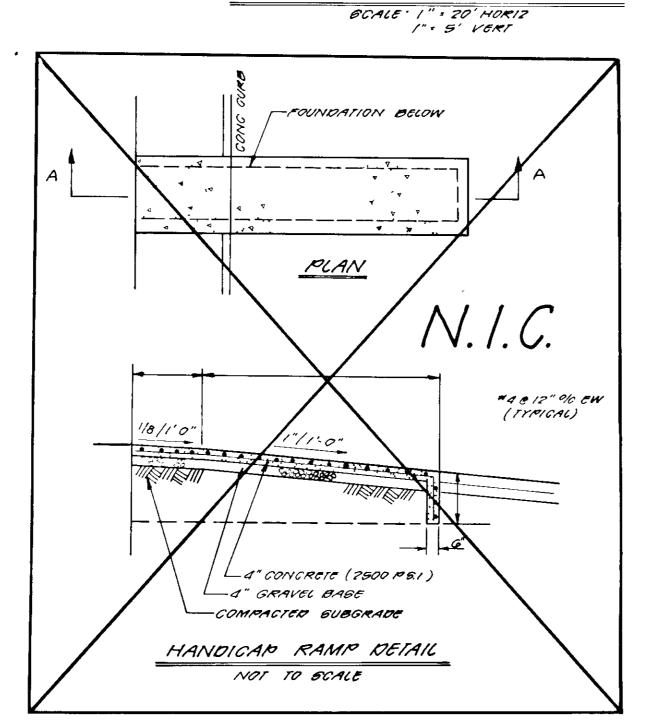


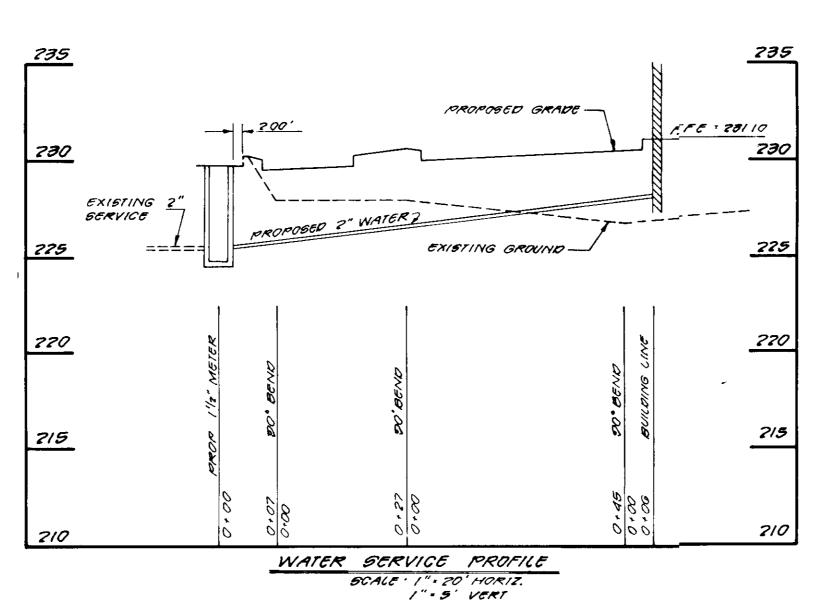


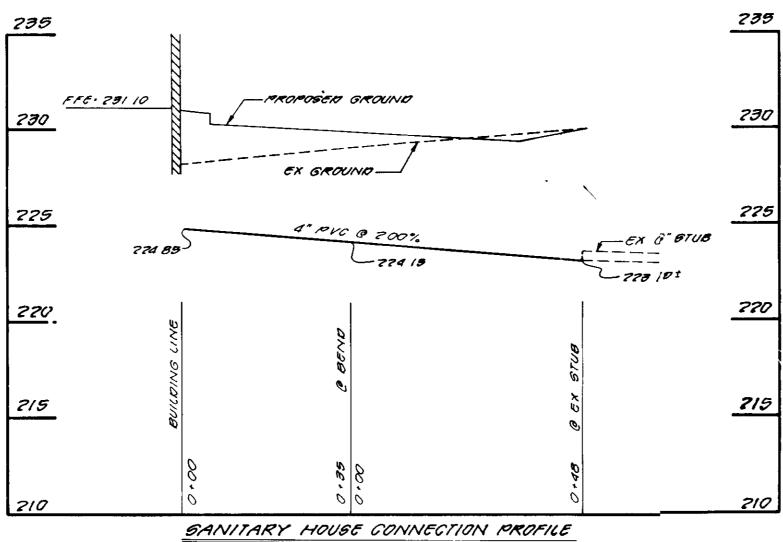
TREE PLANTING DETAIL NOT TO SCALE

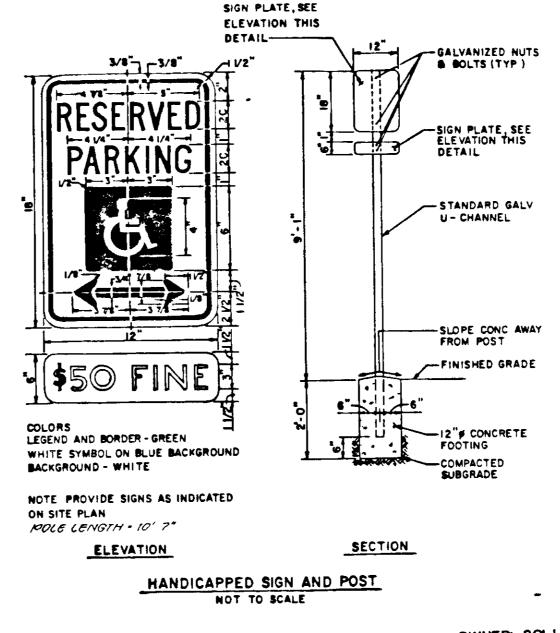


EVERGREEN TREE PLANTING DETAIL NOT TO SCALE

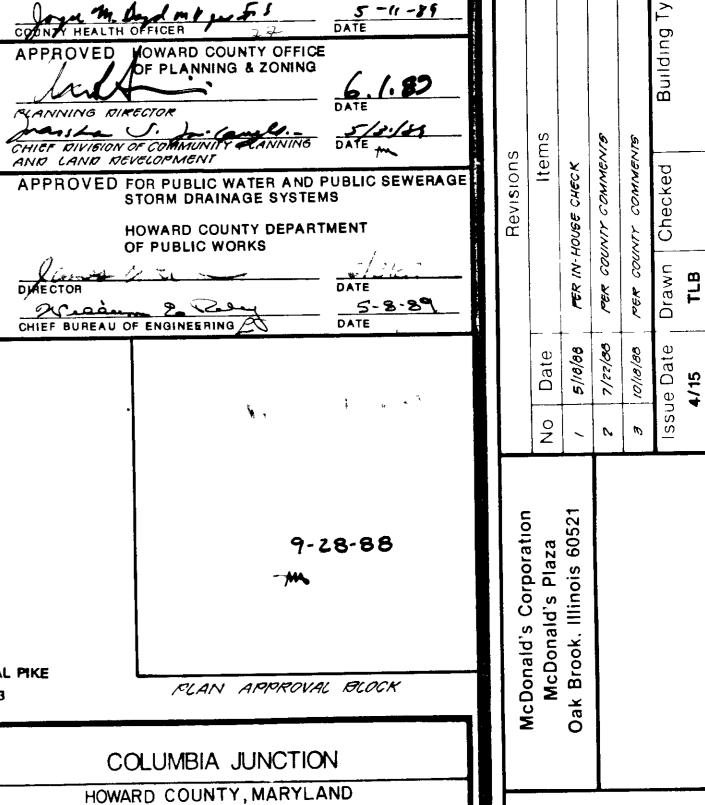




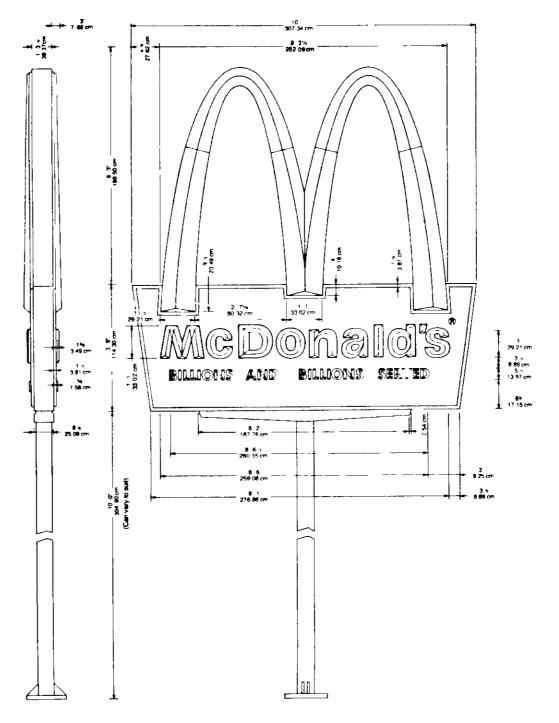


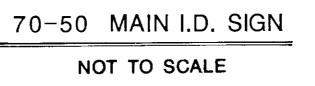


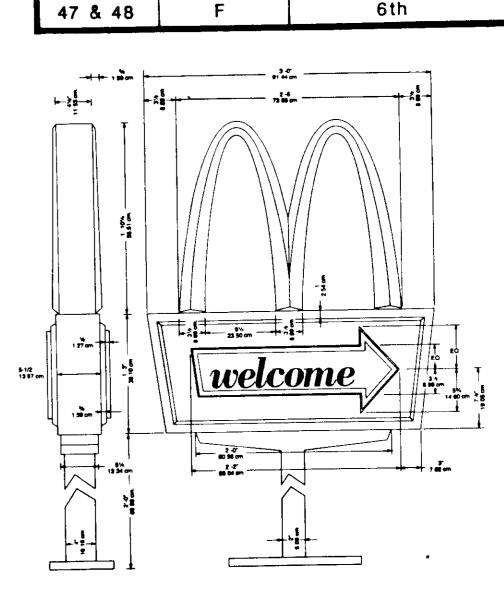
OWNER: SCI LIMITED PARTNERSHIP 8480 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MD 21043



ELECTION DISTRICT







SECTION 2 AREA 1

PARCEL

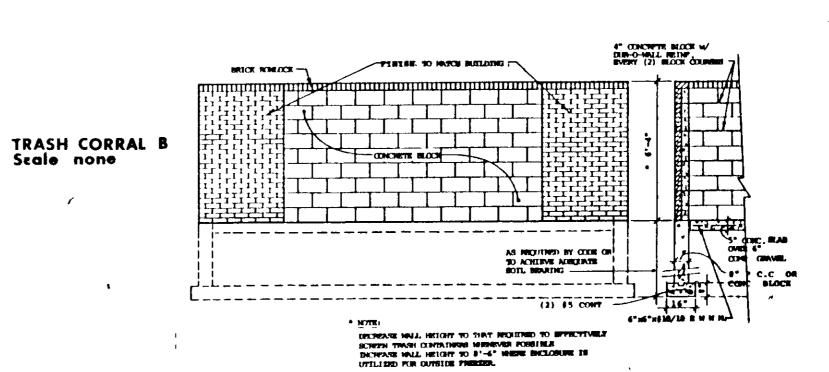
TAX MAP

APPROVED FOR PUBLIC WATER AND

PUBLIC SEWERAGE SYSTEMS,

HOWARD COUNTY HEALTH DEPARTMENT

(70-5) DIRECTIONAL SIGN NOT TO SCALE



FRONT ELEVATION

WALL SECTION

STV/LYON ASSOCIATES Engineers Surveyors Planners 21 Governor's Court Baltimore, Maryland 21207

Telephone 301-944-9112

SP-8

STV JOB NO: 7989-67

SDP-88-220