

VICINITY MAP
SCALE 1" = 2000'

SITE DEVELOPMENT PLANS FOR BRINKER INTERNATIONAL

BEFORE DIGGING IN THIS AREA, CALL
MISS UTILITY
1-800-257-7777
M-F 7:00 AM - 7:00 PM



SITE ANALYSIS DATA CHART

TOTAL PROJECT AREA	1.8358 ACRES
AREA OF PLAN SUBMISSION	1.8358 ACRES
LIMIT OF DISTURBED AREA	1.69 ACRES
PRESENT ZONING	NEW TOWN
PROPOSED USES FOR SITE AND STRUCTURES	RESTAURANT
FLOOR SPACE ON EACH LEVEL OF BUILDING PER USE	7833 SQ FT
TOTAL NUMBER OF UNITS ALLOWED FOR PROJECT	1
TOTAL NUMBER OF EMPLOYEES	54
NUMBER OF PARKING SPACES REQUIRED BY HC ZONING	39
NUMBER OF PARKING SPACES PROVIDED ON SITE	110
OPEN SPACE ON SITE	0.43 ACRES AND 23% OF GROSS AREA
AREA OF RECREATION OPEN SPACE REQUIRED BY SUBDIVISION AND LDR	ACRES REQUIRED 0 ACRES PROVIDED 0
BUILDING COVERAGE OF THE SITE	0.18 ACRES AND 10% OF GROSS AREA
APPLICABLE DPZ FILE REFERENCES	

F-97-54, FDP-226-A, SP-95-08, F-96-41, WP-95-94,
WP-96-33, PB-302, F-96-114, SDP-96-79, AND SDP-96-114

ROMANO'S PROTOTYPE 4.12 COLUMBIA CROSSING SHOPPING CENTER COLUMBIA, MARYLAND

APPROVED
PLANNING BOARD
of HOWARD COUNTY

DATE 3/26/97

CONSULTANTS

FREELAND, CLINKSCALES, + KAUFFMAN, INC.	CIVIL ENGINEER
FREELAND, CLINKSCALES, + KAUFFMAN, INC.	LANDSCAPE ARCHITECT
D + E, INC.	ARCHITECT
GILES ENGINEERING	SOILS + ENVIRONMENTAL ENGINEER

ZONING: NEW TOWN (NT)
SECTION 1, AREA 1, PARCEL P
6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
PLAT 12489
TOTAL ACREAGE: 1.8358 AC.

OWNER/CONTRACT PURCHASER

BRINKER INTERNATIONAL
150 SE 12th STREET, SUITE 200
FT. LAUDERDALE, FL 33316
(305) 462-6828
CONTACT: MR. BILL GAISFORD

ENGINEER / LANDSCAPE ARCHITECT

FREELAND, CLINKSCALES, + KAUFFMAN, INC.
209 W. STONE AVENUE
GREENVILLE, SC 29609
(864) 233-5497
(864) 233-8915 FAX

ISSUE DATE: 10-29-96
SHEET 1 / 23

DRAWING LIST

SHEET 1	COVER SHEET
SHEET 2	GENERAL NOTES
SHEET 3	SITE PLAN
SHEET 4	GRADING PLAN
SHEET 5	UTILITY PLAN
SHEET 6	EROSION CONTROL PLAN
SHEET 7	DRAINAGE AREAS
SHEET 8	UTILITY PROFILES
SHEET 9	STORM DRAIN PROFILES
SHEET 10	STORM DRAIN CALCULATIONS
SHEET 11	SPECIFICATIONS 1
SHEET 12	SPECIFICATIONS 2
SHEET 13	SITE DETAILS
SHEET 14	SITE DETAILS
SHEET 15	SITE DETAILS
SHEET 16	SITE DETAILS
SHEET 17	EROSION CONTROL DETAILS
SHEET 18	LANDSCAPE PLAN
SHEET 19	ENLARGED LANDSCAPE PLAN
SHEET 20	IRRIGATION PLAN
SHEET 21	LANDSCAPE SPECIFICATIONS
SHEET 22	IRRIGATION SPECIFICATIONS
SHEET 23	LANDSCAPE DETAILS

UTILITY CONTACTS

ELECTRIC: BALTIMORE GAS + ELECTRIC ELLEN BOWMAN 7317 PARKWAY DRIVE SOUTH HANOVER, MD 21076 (410) 859-9065	TELEPHONE: BELL ATLANTIC JIMMY CARVER 25102510 RIVA ROAD ANNAPOLIS, MD 21401 (410) 224-1664
SEWER: HOWARD COUNTY CHARLES DAMMERS 3450 COURTHOUSE DRIVE ELLCOTT CITY, MD 21043 (410) 313-2420	GAS: BALTIMORE GAS + ELECTRIC ELLEN BOWMAN 7317 PARKWAY DRIVE SOUTH HANOVER, MD 21076 (410) 859-9065
WATER: HOWARD COUNTY CHARLES DAMMERS 3450 COURTHOUSE DRIVE ELLCOTT CITY, MD 21043 (410) 313-2420	

ADDRESS CHART

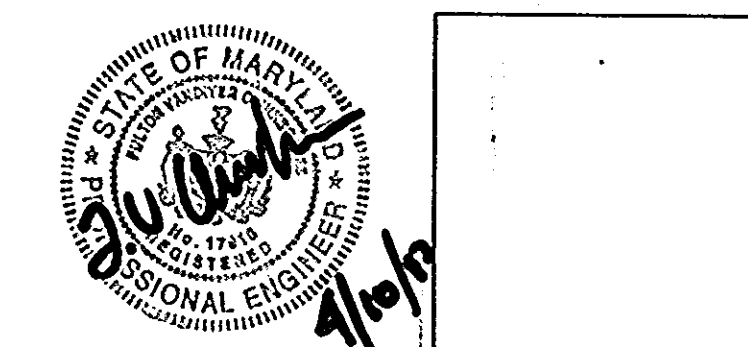
LOT/PARCEL #	STREET ADDRESS
P	6181 Columbia Crossing Circle, Columbia, MD 21227

PERMIT INFORMATION CHART

SUBDIVISION NAME	RT 175 Commercial	SECTION/AREA	1/1	LOT/PARCEL	P
PLAT # OR L/F	12489	BLOCK #	30	ELECTION DISTRICT	6TH
WATER CODE	E06	ZONING	NT	CENSUS TRACT	6067.03
		SEWER CODE	490000D		

GENERAL NOTES

- CALL BEFORE YOU DIG MISS UTILITY 1-800-257-7777
- ALL NEW UTILITIES WILL BE LOCATED UNDERGROUND.
- ALL WORK SHALL CONFORM TO THE HOWARD COUNTY STANDARDS.
- ALL CURB/HANDICAP RAMP DESIGNS SHALL CONFORM TO ADA STANDARDS OR THE HOWARD COUNTY SITE PLAN STANDARDS, WHICHEVER IS MORE RESTRICTIVE.
- INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS AND FIELD CONDITIONS WHEN POSSIBLE, BUT THE CONTRACTOR MUST DETERMINE THE EXACT LOCATION AND ELEVATION OF ALL EXISTING UTILITIES BY DIGGING TEST PITS BY HAND AT ALL UTILITY CROSSINGS WELL IN ADVANCE OF TRENCHING. IF THE CLEARANCES ARE LESS THAN SPECIFIED ON THE PLANS OR 12", WHICHEVER IS LESS, CONTACT FREELAND-CLINKSCALES & KAUFFMAN, INC. AT 864-233-5497 AND BRINKER INTERNATIONAL PRIOR TO PROCEEDING WITH CONSTRUCTION.
- THE CONTRACTOR SHALL INCLUDE IN HIS CONTRACT PRICE THE REMOVAL AND DISPOSAL OF ANY EXCESS TOPSOIL HE DETERMINES IS NOT REQUIRED TO PERFORM THE FINAL GRADING AND LANDSCAPING OPERATION. THE CONTRACTOR MUST ALSO BRING IN ANY TOPSOIL NECESSARY TO PERFORM LANDSCAPING IF NONE IS AVAILABLE.
- THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF ALL REQUIRED/NECESSARY SHEETING, SHORING, BRACING, AND SPECIAL EXCAVATION MEASURES REQUIRED ON THE PROJECT TO MEET OSHA, FEDERAL STATE, AND LOCAL REGULATIONS PURSUANT TO THE INSTALLATION OF THE WORK INDICATED ON THE DRAWINGS. BRINKER INTERNATIONAL AND FREELAND-CLINKSCALES & KAUFFMAN, INC. ACCEPT NO RESPONSIBILITY FOR THE DESIGN TO INSTALL SAID ITEMS.



APPROVED FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER & SEWERAGE FOR HOWARD COUNTY, MARYLAND.

APPROVED FOR HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

James M. Boyd, M.E. 5/14/97
COUNTY HEALTH OFFICER MHC DATE

APPROVED: 5/5/97
DATE

APPROVED: 5/20/97
DATE

APPROVED: 5/21/97
DATE

GENERAL NOTES - PAVING AND STORM SEWERS

- PAVING AND STORM SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH PLANS AND THE HOWARD COUNTY DESIGN MANUALS.
- CONTRACTOR SHALL VERIFY LOCATION OF ALL EXISTING UTILITIES BEFORE CONSTRUCTION.
- PROVIDE CONTRACTION JOINTS AT 15' CTRS. MAXIMUM IN P.C.C. PAVEMENT PROVIDE EXPANSION JOINTS AT ALL RADIUS POINTS IN P.C.C. CURB AND GUTTER AND AS SHOWN ON THE DETAILS OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- PCC SIDEWALK SHALL BE OF THE WIDTH AS INDICATED ON THE PLANS AND 4" THICK UNLESS OTHERWISE NOTED. SIDEWALK RAMPS AND SIDEWALK ALONG ACCESSIBLE PARKING SPACES SHALL BE 6" THICK. CROSS SLOPES SHALL BE 1/4" PER FOOT. INSTALL 3/4" P.J.F EXPANSION JOINTS AT THE SIDEWALK-CURB JOINT AND AT MAXIMUM 50 FOOT CENTERS. SCOUR JOINTS ARE TO BE HAND TOOLED AT 1/2" NOMINAL DEPTH AND AT 5'0" ON CENTER.
- ALL PIPE SHALL BE BEDDED IN 4" SAND OR GRAVEL BEDDING. BEDDING MATERIALS SHALL EXTEND TO UNDISTURBED EARTH.
- ALL EXCESS MATERIAL SHALL BE INCORPORATED IN THE EMBANKMENT ON SITE AS DIRECTED BY THE OWNER'S REPRESENTATIVE. ALL TRENCHING OPERATIONS WITHIN A PREPARED SUBGRADE SHALL BE BACKFILLED IN SUCH A MANNER THAT THE SUBGRADE WILL REMAIN IN THE CONDITION EXISTING BEFORE CONSTRUCTION OPERATIONS BEGAN. THE CONTRACTOR WILL BE HELD LIABLE FOR THE COST OF ANY GRADING OPERATIONS NECESSARY TO CORRECT FAULTY BACKFILLING OR CLEANUP PROCEDURES.
- 12 INCH STORM SEWERS AND LARGER SHALL BE RCP IN ACCORDANCE WITH HOWARD COUNTY SPECIFICATIONS.
- 4 & 6 INCH STORM SEWERS SHALL BE CORRUGATED POLYETHYLENE PIPE WITH A SMOOTH INTERIOR MEETING THE REQUIREMENTS OF AASHTO M294 & M252. THE DIAMETER INDICATED SHALL BE INSTALLED AS SHOWN ON THE PLANS IN LOCATIONS AS DIRECTED BY THE OWNER'S REPRESENTATIVE TO DRAIN THE DOWNSPOUTS FROM THE BUILDING.
- SUBSTITUTIONS FOR DOT CASTINGS INDICATED ON THE PLANS MUST BE APPROVED IN ADVANCE BY THE OWNER'S REPRESENTATIVE.
- PVC CONDUIT, SCHEDULE 40, ELECTRICAL GRADE SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE PLANS AT 24"-30" DEPTH BELOW SUBGRADE FOR FUTURE UTILITY INSTALLATION. CONDUITS SHALL BE TRENCH BACKFILLED. LENGTH OF THE CONDUIT SHALL EXTEND TO 2 FEET BEYOND THE CURB AND GUTTER OR SIDEWALK UNLESS OTHERWISE INDICATED ON THE PLANS AND ENDS TAPED W/ DUCT TAPE. A PULL STRING ON WIRE SHALL BE INSTALLED IN THE CONDUIT. THE CONTRACTOR SHALL MARK LOCATIONS OF BURIED CONDUIT BY A SCORE LINE IN THE TOP OF THE CURB DURING PAVING OPERATIONS.
- ALL DIMENSIONS AND LENGTHS FOR STORM SEWERS ARE TO THE CENTER OF THE STRUCTURES.
- RIM ELEVATIONS ON CURB CASTINGS ARE TO TOP OF PROPOSED CURB.
- TRENCH BACKFILL WILL BE PROVIDED WHEN THE INNER EDGE OF TRENCH OR MANHOLE EXCAVATION IS WITHIN 2 FEET OF ANY PROPOSED OR EXISTING PAVEMENT, CURB, OR SIDEWALK. NO EXTRA COMPENSATION WILL BE ALLOWED FOR COORDINATION OF THIS WORK.

GENERAL NOTES - GRADING AND EROSION CONTROL

- EARTHWORK SHALL BE IN ACCORDANCE WITH THE PLANS AND THE HOWARD COUNTY DESIGN MANUALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR GRADING INCLUDING EXCAVATION, EMBANKMENT, AND BACKFILLING AS NECESSARY TO CONSTRUCT ALL PAVEMENT AND SIDEWALKS TO THE ELEVATIONS SHOWN ON THE PLANS.
- THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE DONE TO EXISTING STORM OR SANITARY MANHOLES OR OTHER EXISTING UTILITIES DURING GRADING.
- EXISTING VEGETATION AND TOPSOIL SHALL BE REMOVED AS SHOWN ON THE PLANS AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE. REMOVAL SHALL BE TO A DEPTH AS NEEDED TO REMOVE ALL ORGANIC MATERIAL.
- EMBANKMENT WITHIN THE PROPOSED PAVEMENT AND BUILDING SITE AREAS SHALL BE COMPACTED TO NOT LESS THAN 95% OF THE STANDARD LABORATORY DENSITY IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
- NOT USED
- LANDSCAPED AREAS SHALL RECEIVE A MINIMUM OF 6 INCHES OF TOPSOIL IN EMBANKMENT AREAS. EXCAVATION AREAS SHALL BE UNDERCUT 6" IN LANDSCAPED AREAS TO ACCOMMODATE 6" OF TOPSOIL TO FINISH GRADE.
- LANDSCAPING SHALL TAKE PLACE AS SOON AS FINISH GRADING OPERATIONS ARE COMPLETE, UNLESS DIRECTED OTHERWISE BY THE OWNER.

GENERAL NOTES - SANITARY SEWERS

- WATER AND SEWER MAIN CONSTRUCTION SHALL COMPLY WITH THE STATE OF MARYLAND HEALTH DEPARTMENT AND THE HOWARD COUNTY DESIGN MANUALS.
- 6" SANITARY SERVICE SEWERS SHALL BE SLOPED A MINIMUM OF 1/8" PER FOOT. PIPE MATERIAL FOR 6 INCH SERVICE SEWERS SHALL BE:

POLYVINYL CHLORIDE (PVC) SEWER PIPE CONFORMING TO ASTM D-3034. MINIMUM WALL THICKNESS SHALL BE STANDARD DIMENSION RATIO (SDR) 35. PIPE JOINTS FOR PVC PIPE SHALL BE FLEXIBLE ELASTOMERIC SEALS PER ASTM D-3212. WHERE PVC SEWER PIPE IS USED, BEDDING AND HAUNCHING AND INITIAL INITIAL BACKFILL (TO 12" OVER THE TOP OF THE PIPE) SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS AND ASTM D-2321. CLASS 1 MATERIAL SHALL ALSO BE USED FOR HAUNCHING AND FOR THE INITIAL BACKFILL TO 12" OVER THE PIPE.
- THE JOINTING OF DISSIMILAR PIPES SHALL BE ACCOMPLISHED BY USING APPROVED FABRICATED COUPLINGS AND CONCRETE ENCASEMENT 12" EITHER SIDE OF JOINT.
- THE INVERT OF ANY SERVICE CONNECTION MADE IN MANHOLES SHALL ENTER THE MANHOLE AT A POINT WHICH IS BETWEEN THE CENTERLINE AND THE TOP OF THE MAIN SEWER LINE IN THE MANHOLE AND SHALL BE FILETTED TO MEET THE INVERT OF THE MAIN SEWER LINE.
- ALL EXCESS MATERIAL SHALL BE INCORPORATED IN THE EMBANKMENT ON THE SITE AS DIRECTED BY THE OWNER'S REPRESENTATIVE. ALL TRENCHING OPERATIONS WITHIN A PREPARED STREET SUBGRADE SHALL BE BACKFILLED IN SUCH A MANNER THAT THE SUBGRADE WILL REMAIN IN THE CONDITION EXISTING BEFORE CONSTRUCTION OPERATIONS BEGAN. THE CONTRACTOR WILL BE HELD LIABLE FOR THE COST OF ANY GRADING OPERATIONS NECESSARY TO CORRECT FAULTY BACKFILLING OR CLEANUP PROCEDURES.
- PROVIDE TRENCH BACKFILL WHEN INNER EDGE OF TRENCH OR MANHOLE EXCAVATION IS WITHIN 2 FEET OF ANY PROPOSED OR EXISTING PAVEMENT, CURB, OR SIDEWALK.

GENERAL NOTES - TRAFFIC CONTROL

- WHENEVER CONSTRUCTION OPERATIONS ENCRONCH ON THE RIGHT-OF-WAY OF ADJACENT ROADWAYS, TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH LOCAL AND STATE STANDARDS.
- NO MATERIALS OR EQUIPMENT SHALL BE STORED OR STOCKPILED WITHIN THE RIGHT-OF-WAY OF ADJACENT ROADWAYS.

GENERAL NOTES - AUTHORITY AND RESPONSIBILITY

1. THE ENGINEER, AS REPRESENTATIVE OF THE OWNER, SHALL NOT GUARANTEE THE WORK OF ANY CONTRACTOR OR SUBCONTRACTOR, SHALL HAVE NO AUTHORITY TO STOP WORK, SHALL HAVE NO SUPERVISION OR CONTROL AS TO THE WORK OR PERSONS DOING THE WORK, SHALL NOT HAVE CHARGE OF THE WORK, SHALL NOT BE RESPONSIBLE FOR SAFETY IN, ON, OR ABOUT THE JOB SITE OR HAVE ANY CONTROL OF THE SAFETY OR ADEQUACY OF ANY EQUIPMENT, BUILDING COMPONENT, SCAFFOLDING, SUPPORTS, FORMS, OR OTHER WORK AIDS, AND SHALL HAVE NO DUTIES OR RESPONSIBILITIES IMPOSED BY THE STRUCTURAL WORK ACT.

NOTES - COOPERATION BETWEEN CONTRACTORS

1. LOCATED ADJACENT TO OR IN THE GENERAL VICINITY OF THE LIMITS OF THE PROJECT, ADDITIONAL PROJECTS MAY BE UNDER CONTRACT DURING THE TIME THIS CONTRACT IS IN FORCE. THE CONTRACTOR FOR THIS PROJECT SHALL COOPERATE WITH THE CONTRACTORS OF THIS PROJECT AND OTHER PROJECTS AS PROVIDED IN THE MARYLAND DOT STANDARD SPECIFICATIONS. SPECIFIC COORDINATION ITEMS BY OTHERS INCLUDE BUT ARE NOT LIMITED TO:

- CONSTRUCTION OF ANY PUBLIC IMPROVEMENTS ALONG ADJACENT RIGHT-OF-WAYS.
- CONSTRUCTION OF PAVING, STORM SEWERS, AND APPURTENANCES FOR ADJACENT LOT DEVELOPMENT.
- CONSTRUCTION OF UTILITIES ON AND OFF SITE INCLUDING GAS, WATER, ELECTRIC, TELEPHONE, AND CABLEVISION.
- PLANTING AND MAINTENANCE OF LANDSCAPE ITEMS.

2. THESE ITEMS OF WORK MAY OR MAY NOT BE IN PLACE AT THE TIME OF CONSTRUCTION OF THIS PROJECT. WHEN ADJACENT WORK IS FOUND IN PLACE THE CONTRACTOR SHALL MAKE THE NECESSARY CONNECTION IN A MANNER APPROVED BY THE OWNER'S REPRESENTATIVE. WHEN ADJACENT WORK ITEMS ARE NOT YET CONSTRUCTED, THE CONTRACTOR SHALL CONSTRUCT THE NECESSARY JOINTS, STUBS, OR PLUGS FOR FUTURE CONNECTIONS AS DIRECTED BY THE OWNER'S REPRESENTATIVE.

REVISIONS

APPROVED
PLANNING BOARD
of HOWARD COUNTY

DATE: 3/26/97

CONTRACT PURCHASER
BRINKER INTERNATIONAL
150 SE 12th STREET
SUITE 200
FT. LAUDERDALE, FL 33316
ATTN: Mr. Bill Gaisford
305-462-6828



FCK Freeland-Clinkscates & Kauffman, Inc.
Engineers - Landscape Architects
209 West Stone Avenue
Greenville, South Carolina 29609
864-233-5497
fax 864-233-8915

ROMANO'S
Macaroni
GRILL

COLUMBIA CROSSING SHOPPING CENTER

GENERAL NOTES

SECTION 1, AREA 1, PARCEL P
TAX MAP 36, GRID 18, P/O PARCEL 50
6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

Drawn VME FCK Job. 96 - 30 Drawing
Check JDC Date 10-29-96 2/23

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER & SEWERAGE FOR HOWARD COUNTY, MARYLAND.

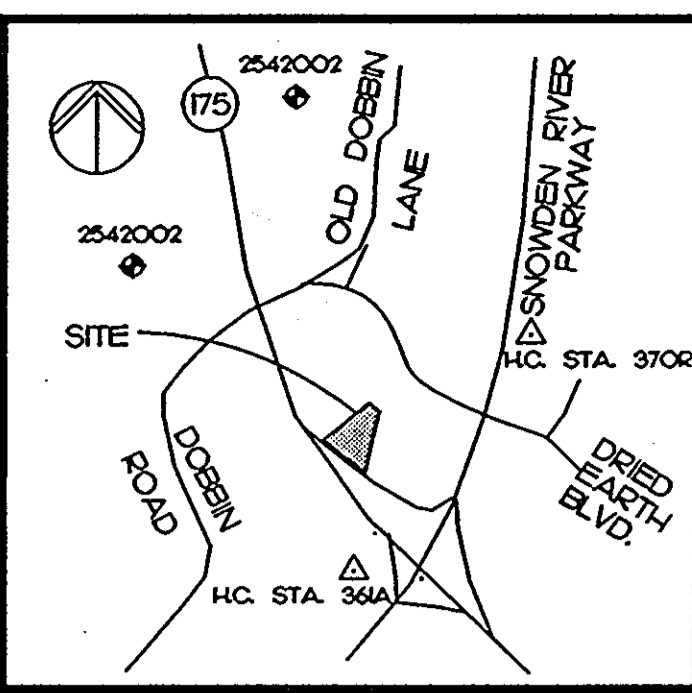
Jorge M. Boyd 5-14-97
COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

[Signature] 5/5/97
DATE

[Signature] 5/20/97
DATE

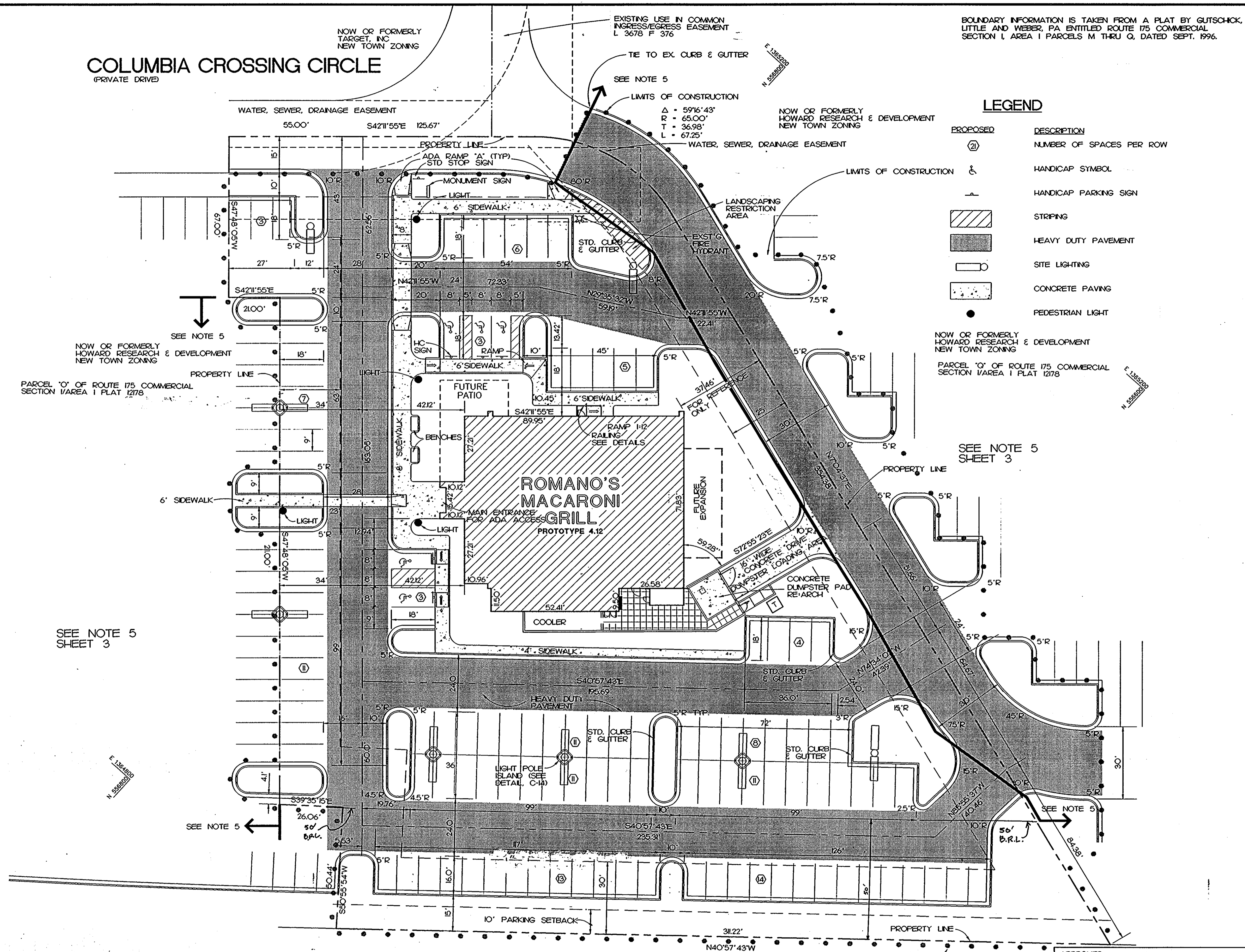
[Signature] 5/24/97
DATE



VICINITY MAP
SCALE 1" = 2000'

COLUMBIA CROSSING CIRCLE

(PRIVATE DRIVE)



LEGEND

- | PROPOSED | DESCRIPTION |
|----------|--------------------------|
| (2) | NUMBER OF SPACES PER ROW |
| ♿ | HANDICAP SYMBOL |
| ♿ | HANDICAP PARKING SIGN |
| ▨ | STRIPING |
| ▨ | HEAVY DUTY PAVEMENT |
| ○ | SITE LIGHTING |
| □ | CONCRETE PAVING |
| ● | PEDESTRIAN LIGHT |

NOW OR FORMERLY HOWARD RESEARCH & DEVELOPMENT NEW TOWN ZONING
PARCEL 10' OF ROUTE 175 COMMERCIAL SECTION I AREA I PLAT 1278

SEE NOTE 5 SHEET 3

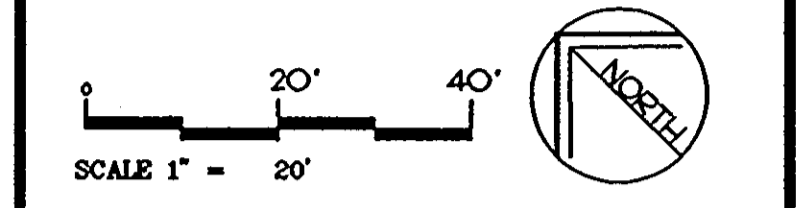
NOW OR FORMERLY HOWARD RESEARCH & DEVELOPMENT NEW TOWN ZONING
PARCEL 10' OF ROUTE 175 COMMERCIAL SECTION I AREA I PLAT 1278

SEE NOTE 5 SHEET 3

REVISIONS

REVISED	02-25-97
REVISED	03-14-97
REVISED	03-31-97

BEFORE DIGGING IN THIS AREA, CALL MISS UTILITY
1-800-257-7777
M-F 7:00 AM - 7:00 PM

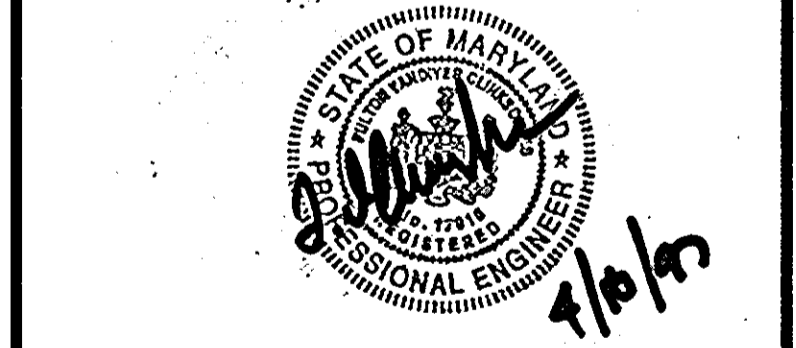


- Notes:
- All dimensions unless otherwise noted, are face of curb, face of building, or centerline of parking bay.
 - Unless noted otherwise, pavement shall be standard duty asphalt.
 - All handicap spaces are to receive a handicap sign and handicap symbol painted on the asphalt. Stall adjacent to 8 foot striped aisles are to receive a "Van Accessible" sign in addition to the above. A precast concrete parking block is required in each handicap space. See enlarged plan sheet.
 - The contractor shall refer to the architectural plans for exact locations and dimensions of the entrances, porches, sloped sidewalk, ramps, service yard, precise building dimensions, and exact utility entrance points.
 - All work outside of the property line boundary and work in the road along the east property line shall be listed as a separate bid item.

HOWARD COUNTY REFERENCE NUMBERS

RECORD PLAN	F97-54
FDP	PHASE 226
SOP-96-70	
F-96-41	
WP-95-94	
WP-96-33	
PE-90-07	
F-96-114	
SOP-96-79	
SOP-96-114	

CONTRACT PURCHASER
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ROMANO'S Macaroni GRILL

COLUMBIA CROSSING SHOPPING CENTER

SITE PLAN

SECTION I, AREA I, PARCEL P
TAX MAP 36, GRID 1, P10 PARCEL 50
6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

Drawn	JC/CG	FCK Job	96-90	Drawing	
Check	KK	Date	10-29-96		3 / 23

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 3/20/97

MARYLAND STATE ROUTE 175

(M.S.H.A. R/W PLAT Nos. 41415 & 41577 - 41582)
RIGHT-OF-WAY WIDTH VARIES

SITE DATA

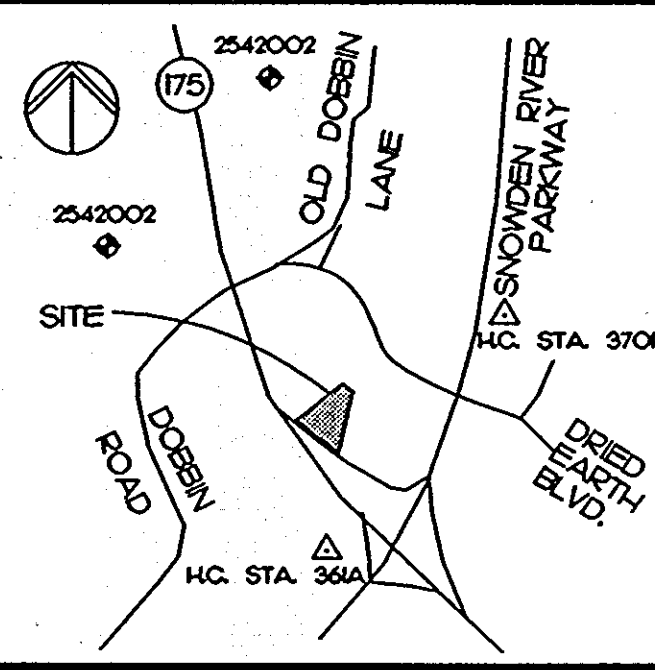
SITE AREA - 18358 ACRES
BUILDING AREA - 7833 GROSS SQ FT
COOLER/FREEZER 240 GROSS SQ FT
TOTAL AREA - 8073 GROSS SQ FT
BUILDING HEIGHT - 26'-0"
SEATING CAPACITY - 314

	PROVIDED	REQUIRED
TOTAL PARKING - 110 SPACES		39
TOTAL ADA PARKING - 5 SPACES		1
VAN ACCESSIBLE - 2 SPACES		

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER & SEWERAGE FOR HOWARD COUNTY, MARYLAND.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

DATE 5/14/97
DATE 5/20/97
DATE 5/20/97



VICINITY MAP
SCALE 1" = 2000'

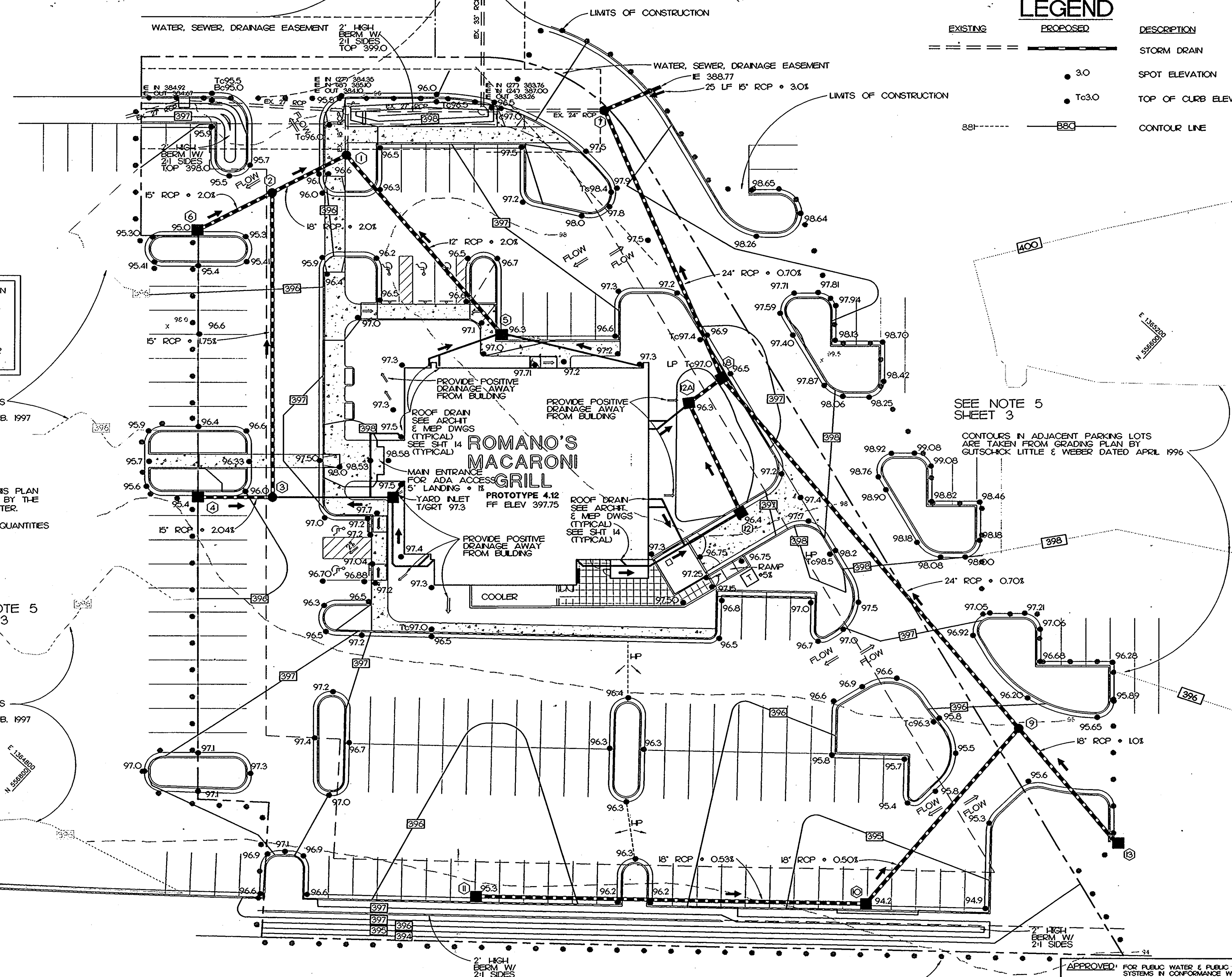
COLUMBIA CROSSING CIRCLE

(PRIVATE DRIVE)

BOUNDARY INFORMATION IS TAKEN FROM A PLAT BY GUTSCHICK, LITTLE AND WEBER, PA ENTITLED ROUTE 175 COMMERCIAL SECTION I, AREA I PARCELS M THRU Q, DATED SEPT. 1996.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
---	---	STORM DRAIN
•	•	SPOT ELEVATION
•	•	TOP OF CURB ELEVATION
---	---	CONTOUR LINE



STORMWATER MANAGEMENT FOR THIS SITE HAS BEEN PROVIDED BY A REGIONAL STORMWATER DETENTION POND DEVELOPED AS PART OF COLUMBIA CROSSING SHOPPING CENTER.

STORMWATER RUNOFF FROM THIS SITE WILL BE DIRECTED TO CATCH BASINS AND STORM DRAIN PIPES CONNECTED WITH THIS REGIONAL STORMWATER DETENTION POND.

CONTOURS IN ADJACENT PARKING LOTS ARE TAKEN FROM GRADING PLAN BY GUTSCHICK LITTLE & WEBER DATED FEB. 1997

ELEVATIONS AND CONTOURS SHOWN AS EXISTING ON THIS PLAN ARE TAKEN FROM THE MASS GRADING PLANS SUPPLIED BY THE DEVELOPER OF THE COLUMBIA CROSSING SHOPPING CENTER.

THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ANY QUANTITIES WHICH AFFECT HIS WORK OR BIDS.

SEE NOTE 5 SHEET 3

CONTOURS IN ADJACENT PARKING LOTS ARE TAKEN FROM GRADING PLAN BY GUTSCHICK LITTLE & WEBER DATED FEB. 1997

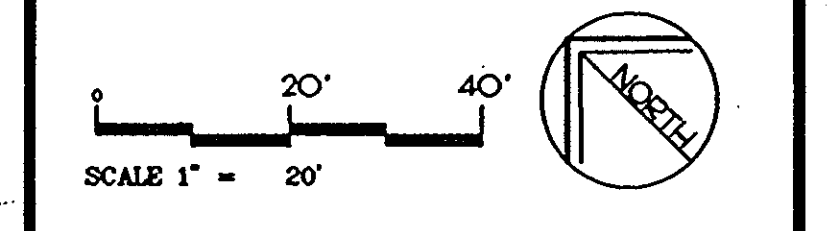
SEE NOTE 5 SHEET 3

CONTOURS IN ADJACENT PARKING LOTS ARE TAKEN FROM GRADING PLAN BY GUTSCHICK LITTLE & WEBER DATED APRIL 1996

REVISIONS

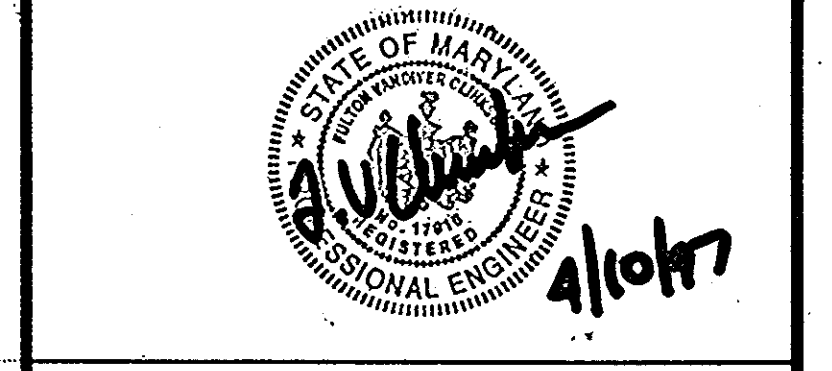
REVISED	02-25-97
REVISED	03-14-97
REVISED	03-31-97

BEFORE DIGGING IN THIS AREA, CALL MISS UTILITY 1-800-257-7777 M-F 7:00 AM - 7:00 PM



- Notes:
- Catch basins, manholes, frames, grates, shall meet the requirements of the latest edition of the Howard County Standard Specifications.
 - The contractor shall refer to the Architectural Plans for the exact number, size and location of the roof drains.
 - Information concerning underground utilities was obtained from available records and field locations when possible, but the contractor must determine the exact location and elevation of all existing utilities by digging test pits by hand at all crossings well in advance of trenching. If clearances are less than specified on the plan or twelve inches (12"), whichever is less, contact the design engineer and the owner prior to proceeding with construction.
 - The contractor is responsible for the design and implementation of all sheeting, shoring, bracing, and special excavation measures required to meet OSHA, Federal, State, and local regulations pursuant to the installation of all work indicated on these drawings. The owner and the design engineer accept no responsibility for the designs to install said items.
 - Precast Drainage Structures have been specified on the plans. The owner and the engineer however assume no responsibility for these structures, as field conditions often dictate minor elevation adjustments. The contractor assumes all responsibility and expense for modifying the precast structures to accommodate field revisions.
 - Stormwater management facilities for this project are to be public and maintained by Howard County, MD (DP2 File F-96-41).

CONTRACT PURCHASER
BRINKER INTERNATIONAL
150 SE 12th STREET SUITE 200
FT. LAUDERDALE, FLORIDA
ATTN: Mr. Bill Gaisford
305-462-8828



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fax 864-233-8915

ROMANO'S Macaroni GRILL

COLUMBIA CROSSING SHOPPING CENTER GRADING PLAN

SECTION I, AREA I, PARCEL P TAX MAP 34, 3RD E.D. P/O PARCEL 50 6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND	Drawn JC/CG	FCK Job. 96-30	Drawing / 23
Check KK	Date 10-29-96	4	

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 3/26/97

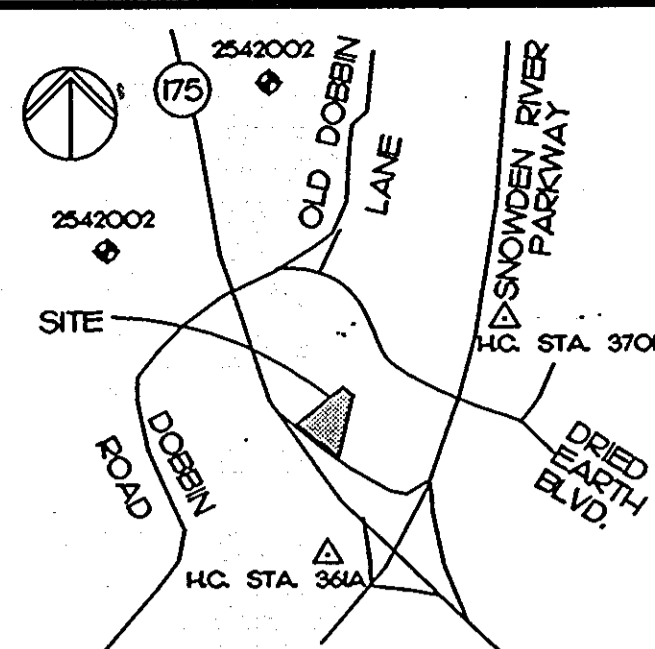
MARYLAND STATE ROUTE 175

APPROVED FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER & SEWERAGE FOR HOWARD COUNTY, MARYLAND.
COUNTY HEALTH OFFICER KR 5-14-97 DATE

APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
DATE 5/14/97

APPROVED
DATE 5/20/97

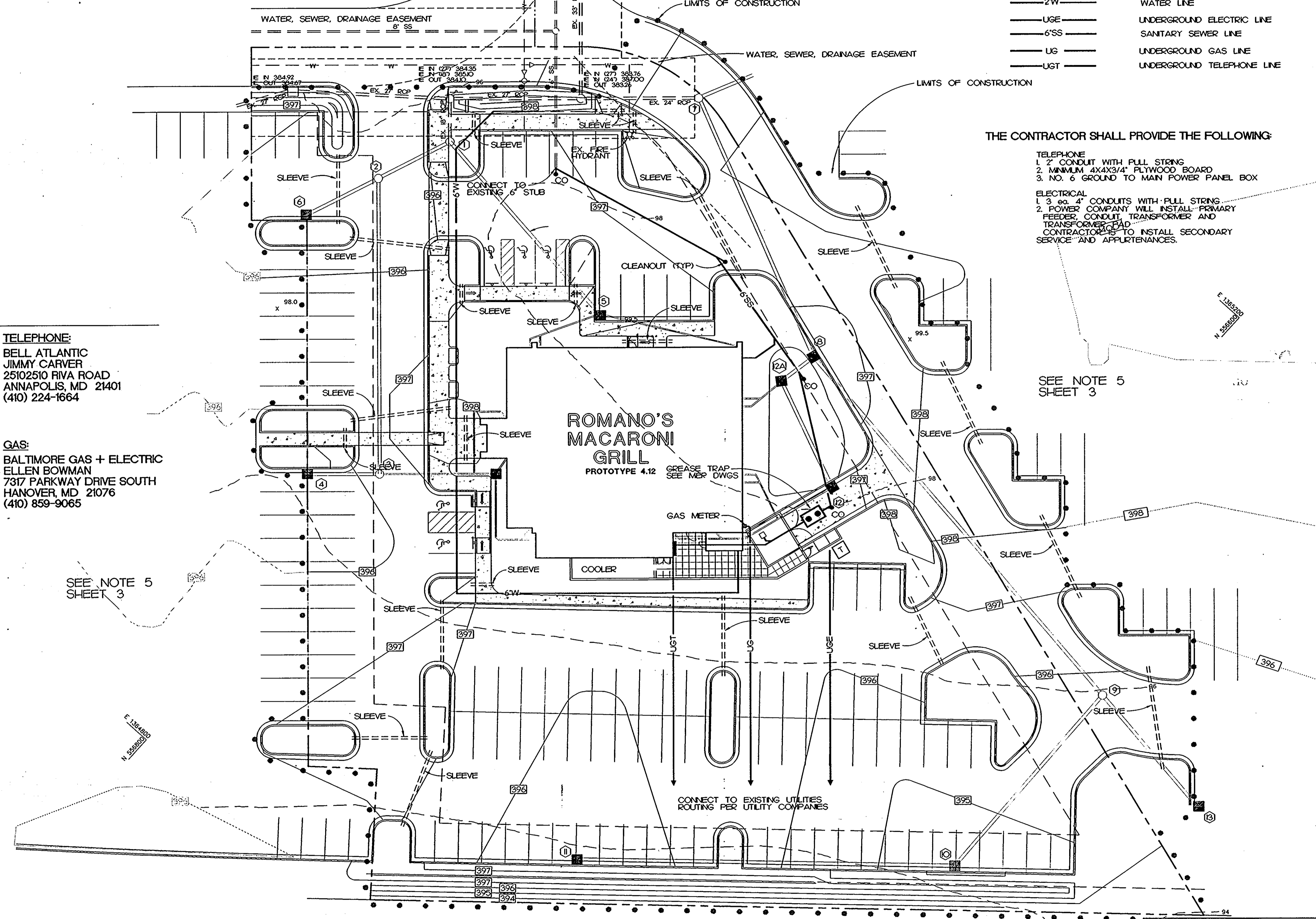
LIMITS OF CONSTRUCTION - LIMITS OF DISTURBANCE FOLLOWS R/W OF HIGHWAY. NO DISTURBANCE WILL BE ALLOWED ON HIGHWAY R/W.



VICINITY MAP
SCALE 1" = 2000'

COLUMBIA CROSSING CIRCLE

(PRIVATE DRIVE)



BOUNDARY INFORMATION IS TAKEN FROM A PLAT BY GUTSCHICK, LITTLE AND WEBER, PA. ENTITLED ROUTE 175 COMMERCIAL SECTION I, AREA I PARCELS M THRU Q, DATED SEPT. 1996.

LEGEND

PROPOSED	DESCRIPTION
— 2W —	WATER LINE
— UGE —	UNDERGROUND ELECTRIC LINE
— 6"SS —	SANITARY SEWER LINE
— UG —	UNDERGROUND GAS LINE
— UGT —	UNDERGROUND TELEPHONE LINE

THE CONTRACTOR SHALL PROVIDE THE FOLLOWING:

- TELEPHONE**
1. 2" CONDUIT WITH PULL STRING
 2. MINIMUM 4X4X3/4" PLYWOOD BOARD
 3. NO. 6 GROUND TO MAIN POWER PANEL BOX
- ELECTRICAL**
1. 3" 60.4" CONDUITS WITH PULL STRING
 2. POWER COMPANY WILL INSTALL PRIMARY FEEDER CONDUIT, TRANSFORMER AND TRANSFORMER PAD
 - CONTRACTOR IS TO INSTALL SECONDARY SERVICE AND APPURTENANCES.

SEE NOTE 5
SHEET 3

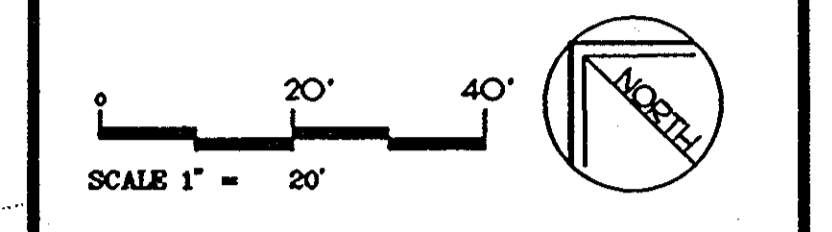
UTILITY CONTACTS

- ELECTRIC:**
BALTIMORE GAS + ELECTRIC
ELLEN BOWMAN
7317 PARKWAY DRIVE SOUTH
HANOVER, MD 21076
(410) 859-9065
- TELEPHONE:**
BELL ATLANTIC
JIMMY CARVER
25102510 RIVA ROAD
ANNAPOLIS, MD 21401
(410) 224-1664
- SEWER:**
HOWARD COUNTY
CHARLES DAMMERS
3450 COURTHOUSE DRIVE
ELLCOTT CITY, MD 21043
(410) 313-2420
- GAS:**
BALTIMORE GAS + ELECTRIC
ELLEN BOWMAN
7317 PARKWAY DRIVE SOUTH
HANOVER, MD 21076
(410) 859-9065
- WATER:**
HOWARD COUNTY
CHARLES DAMMERS
3450 COURTHOUSE DRIVE
ELLCOTT CITY, MD 21043
(410) 313-2420

REVISIONS

REVISED	02-25-97
REVISED	03-14-97
REVISED	03-31-97

BEFORE DIGGING IN THIS AREA, CALL
MISS UTILITY
1-800-257-7777
M-F 7:00 AM - 7:00 PM



- Notes:**
1. The existing utilities and obstructions shown are from the best available records and shall be verified by the contractor to his satisfaction prior to construction. Necessary precautions shall be taken by the contractor to protect existing services and mains, and any damage to them shall be repaired immediately at the contractor's expense.
 2. The contractor shall refer to architectural plans for exact utility exit points, exit porches.
 3. All water lines shall be installed with a minimum of 36 inches of cover.
 4. Refer to Howard County Water & Sewer Department for specifications and illustrations of typical fire and domestic service installation.
 5. This site plan indicates potable water service lines and sanitary sewer laterals. Maryland State law requires this work to be installed by a Maryland Licensed Master Plumber.
 6. All sleeves for irrigation lines shall be 4" diameter sch. 40 PVC.
 7. The contractor shall be responsible for any damage to items to be relocated.

CONTRACT PURCHASER
BRINKER INTERNATIONAL
150 SE 12th STREET
SUITE 200
FT. LAUDERDALE, FLORIDA
ATTN: Mr. Bill Gaisford
305-462-6828



FCK Freeland-Clinkscales & Kauffman, Inc.
Engineers - Landscape Architects
209 West Stone Avenue
Greenville, South Carolina 29609
864-233-5497
fax 864-233-8915

ROMANO'S Macaroni GRILL

COLUMBIA CROSSING SHOPPING CENTER

UTILITY PLAN

SECTION I, AREA I, PARCEL P
TAX MAP 33, GRID B, PLO PARCEL 50
6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

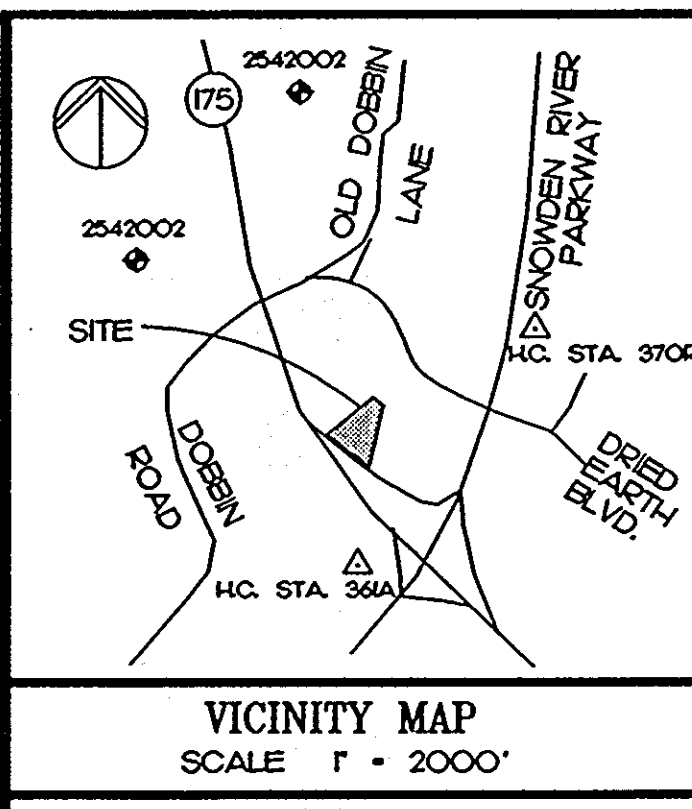
Drawn JC/CG FCK Job. 96-30 Drawing / 23
Check KK Date 10-29-96

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 3/26/97

MARYLAND STATE ROUTE 175

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER & SEWERAGE FOR HOWARD COUNTY, MARYLAND.
COUNTY HEALTH OFFICER M/L DATE 5-14-97
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
DATE 5/14/97
DATE 5/20/97

LIMITS OF CONSTRUCTION
LIMITS OF DISTURBANCE FOLLOWS
R/W OF HIGHWAY. NO DISTURBANCE
WILL BE ALLOWED ON HIGHWAY R/W.



COLUMBIA CROSSING CIRCLE

(PRIVATE DRIVE)

LEGEND

existing	proposed	description
---	---	CONTOUR
---	---	SPOT ELEVATION
---	---	STORM DRAINAGE
---	---	INLET PROTECTION
---	---	SILT FENCE

EROSION AND SEDIMENT CONTROL GENERAL NOTES:

SEDIMENT CONTROL MEASURES MUST BE INSPECTED AND MAINTAINED REGULARLY TO INSURE THAT THE INTENDED PURPOSES ARE ACCOMPLISHED.

ALL DISTURBED AREAS NOT INTENDED FOR PAVING SHALL BE SEEDED AS PER SPECIFICATIONS TO CONTROL EROSION.

ALL GRADED SLOPES STEEPER THAN 3 TO 1 (HORIZONTAL TO VERTICAL) SHALL BE STABILIZED WITH AN APPROVED EROSION CONTROL BLANKET AND SEEDED. EROSION CONTROL BLANKET SHALL BE CURLEX BLANKETS BY AMERICAN EXCELSIOR COMPANY OR APPROVED EQUAL.

THE CONTRACTOR SHALL NOTE THAT IN CASE OF DISCREPANCY BETWEEN THE SCALED AND COMPUTED DIMENSIONS SHOWN, THE COMPUTED DIMENSIONS SHALL GOVERN.

EXCAVATED EARTH SHALL BE PILED ON THE HIGH SIDE OF EXCAVATIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE GRADING QUANTITIES USED FOR THE PREPARATION OF THE BID.

STABILIZATION REQUIREMENTS: (NOT NECESSARILY VEGETATION) ALL PERIMETER CONTROLS ARE TO BE STABILIZED WITHIN 7 DAYS OF INSTALLATION. ALL OTHER DISTURBED AREAS ARE TO BE STABILIZED WITHIN 14 DAYS.

TEMPORARY SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL ALL CONTRIBUTING AREAS ARE GRADED AND STABILIZED.

THE USER IS RESPONSIBLE TO VERIFY ALL INFORMATION SHOWN ON THESE PLANS.

ALL SILT BARRIERS SHALL BE PLACED IMMEDIATELY FOLLOWING THE PAVEMENT APPROVAL.

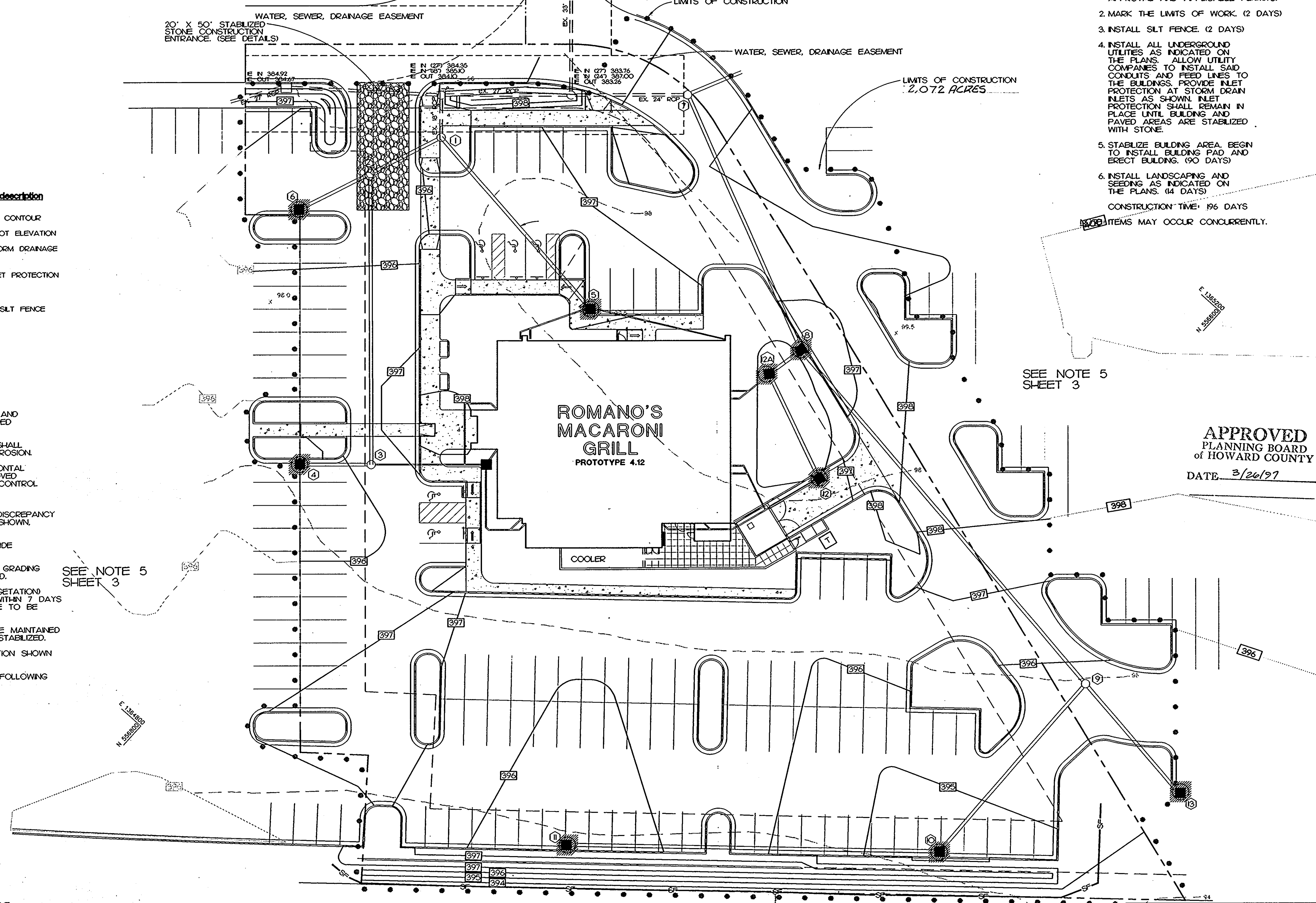
WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONAL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Monte Rosenberg 2/24/97
MONTE ROSENBERG FEBRUARY 24, 1997

USDA-NATURAL RESOURCES CONSERVATION SERVICE
Cheryl Simmons 4/30/97
DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT.
John P. Robertson 4/30/97
HOWARD SCD DATE

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
John Vanover 2/24/97
FULTON VANOVER 02-24-97



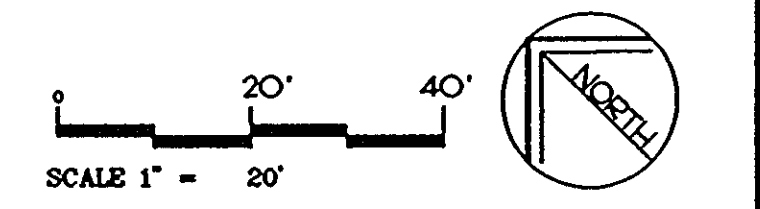
BOUNDARY INFORMATION IS TAKEN FROM A PLAT BY GUTSCHICK, LITTLE AND WEBER, PA ENTITLED ROUTE 175 COMMERCIAL SECTION I, AREA I PARCELS M THRU Q, DATED SEPT. 1996.

- ### SEQUENCE OF EVENTS
- OBTAIN EROSION CONTROL PLAN APPROVAL AND APPLICABLE PERMITS.
 - MARK THE LIMITS OF WORK. (2 DAYS)
 - INSTALL SILT FENCE. (2 DAYS)
 - INSTALL ALL UNDERGROUND UTILITIES AS INDICATED ON THE PLANS. ALLOW UTILITY COMPANIES TO INSTALL SAID CONDUITS AND FEED LINES TO THE BUILDINGS. PROVIDE INLET PROTECTION AT STORM DRAIN INLETS AS SHOWN. INLET PROTECTION SHALL REMAIN IN PLACE UNTIL BUILDING AND PAVED AREAS ARE STABILIZED WITH STONE.
 - STABILIZE BUILDING AREA. BEGIN TO INSTALL BUILDING PAD AND ERECT BUILDING. (90 DAYS)
 - INSTALL LANDSCAPING AND SEEDING AS INDICATED ON THE PLANS. (14 DAYS)
- CONSTRUCTION TIME: 196 DAYS
- NOTES: ITEMS MAY OCCUR CONCURRENTLY.

REVISIONS

REVISED	02-25-97
REVISED	03-14-97
REVISED	03-31-97

BEFORE DIGGING IN THIS AREA, CALL MISS UTILITY
1-800-257-7777
M-F 7:00 AM - 7:00 PM



- Notes:
- No stormwater shall enter the stormwater structures until the site is graded and stabilized with the stone base per the details. Refer to the 'Sequence of Events' for more details.
 - All silt fence to be installed within the project property. If encroachment is required to install the fences, the contractor shall obtain written permission from the property owner prior to placement.
 - Erosion control measures will be maintained at all times. Additional erosion and sediment control measures will be installed if deemed necessary by on-site inspection.

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE: 3/26/97

CONTRACT PURCHASER
BRINKER INTERNATIONAL
150 SE 12th STREET
SUITE 200
FT. LAUDERDALE, FLORIDA
ATTN: Mr. Bill Gaisford
305-462-6828



FCK Freeland-Clinkscales & Kauffman, Inc.
Engineers - Landscape Architects
209 West Stone Avenue
Greenville, South Carolina 29609
864-233-5497
fax 864-233-8915

ROMANO'S
Macaroni
GRILL

COLUMBIA CROSSING SHOPPING CENTER

EROSION CONTROL PLAN

SECTION I, AREA I, PARCEL P
TAX MAP '86, GRID 18, P10 PARCELS 50
6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

Drawn JC/CG FCK Job. 96-30 Drawing / 23
Check KK Date 10-29-96 6 / 23

LIMITS OF CONSTRUCTION - LIMITS OF DISTURBANCE FOLLOWS R/W OF HIGHWAY. NO DISTURBANCE WILL BE ALLOWED ON HIGHWAY R/W.

WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THE PLAN AND THAT ANY RESPONSIBLE PERSONAL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND 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 HSCD.

Monte Rosenberg 2/24/97
Signature of Developer Date

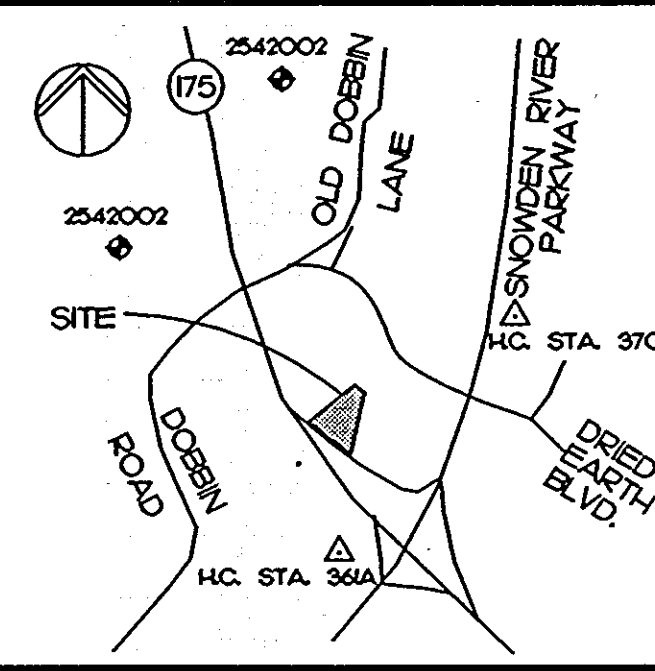
APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER & SEWERAGE FOR HOWARD COUNTY, MARYLAND.
John Vanover 5-14-97
COUNTY HEALTH OFFICER M/R DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
John Vanover 5/15/97
DATE

APPROVED: DIVISION OF LAND DEVELOPMENT
John Vanover 5/20/97
DATE

APPROVED: DIRECTOR
John Vanover 5/20/97
DATE

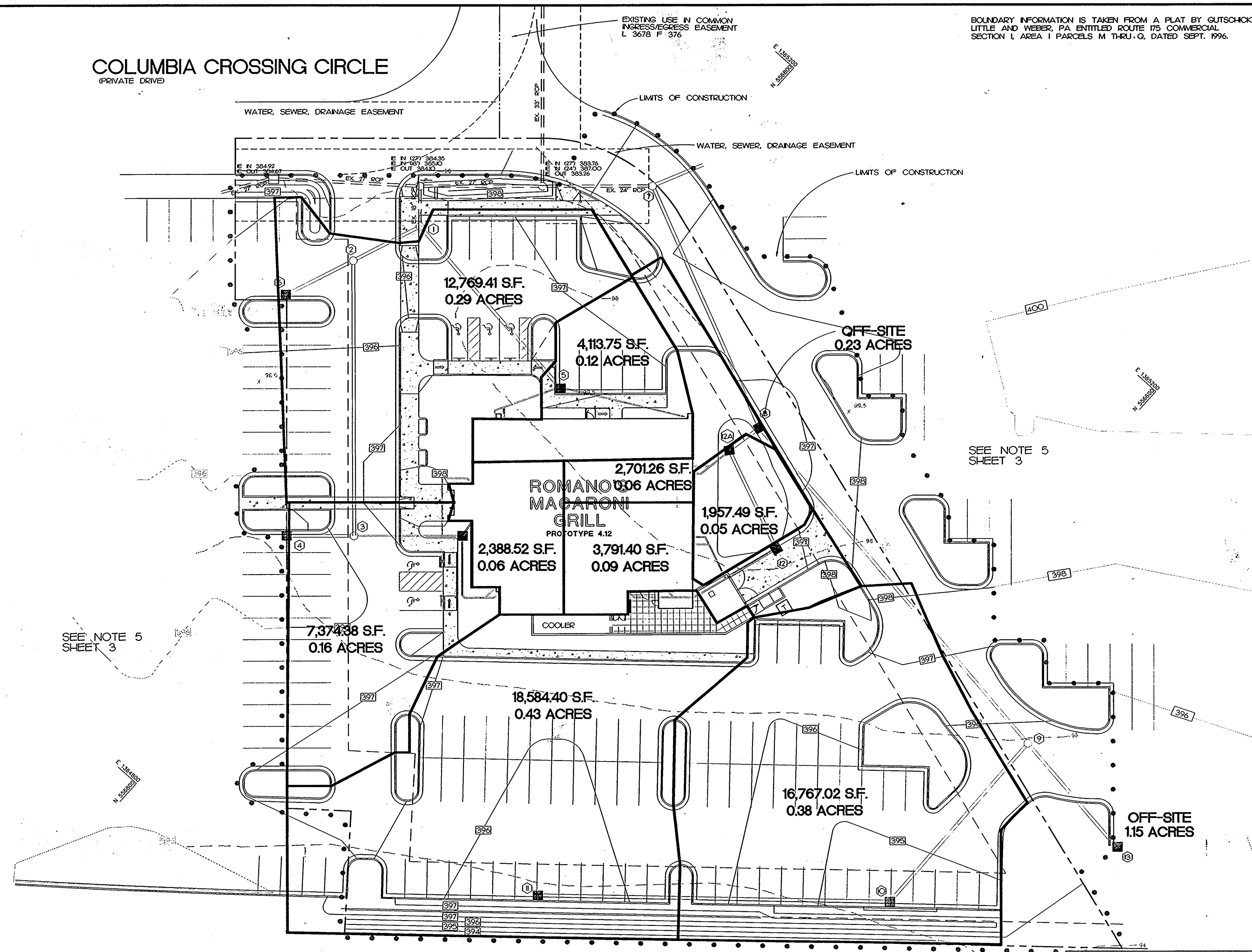
MARYLAND STATE ROUTE 175



VICINITY MAP
SCALE 1" = 2000'

COLUMBIA CROSSING CIRCLE

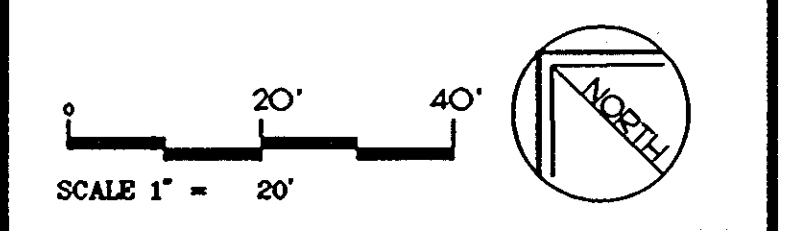
(PRIVATE DRIVE)



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REVISIONS	
REVISED	02-25-97
REVISED	03-14-97
REVISED	03-31-97

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MISS UTILITY
1-800-257-7777
M-F 7:00 AM - 7:00 PM



APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 3/26/97

CONTRACT PURCHASER
BRINKER INTERNATIONAL
150 SE 12th STREET
SUITE 200
FT. LAUDERDALE, FLORIDA
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Greenville, South Carolina 29609
864-233-5497
fax 864-233-8915

ROMANO'S Macaroni GRILL

COLUMBIA CROSSING SHOPPING CENTER

DRAINAGE AREAS

SECTION I, AREA I, PARCEL P
TAX MAP 26, GRID 8, P10 PARCEL 50
6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

Drawn	JC/CG	FCK Job	96-30	Drawing	
Check	KK	Date	10-29-96		7/23

MARYLAND STATE ROUTE 175

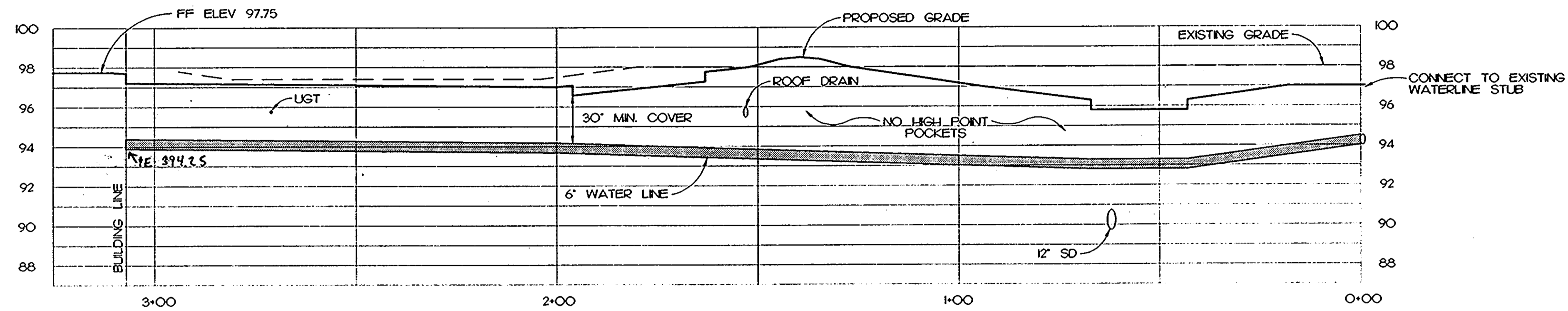
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LIMITS OF DISTURBANCE FOLLOWS
R/W OF HIGHWAY. NO DISTURBANCE
WILL BE ALLOWED ON HIGHWAY R/W.

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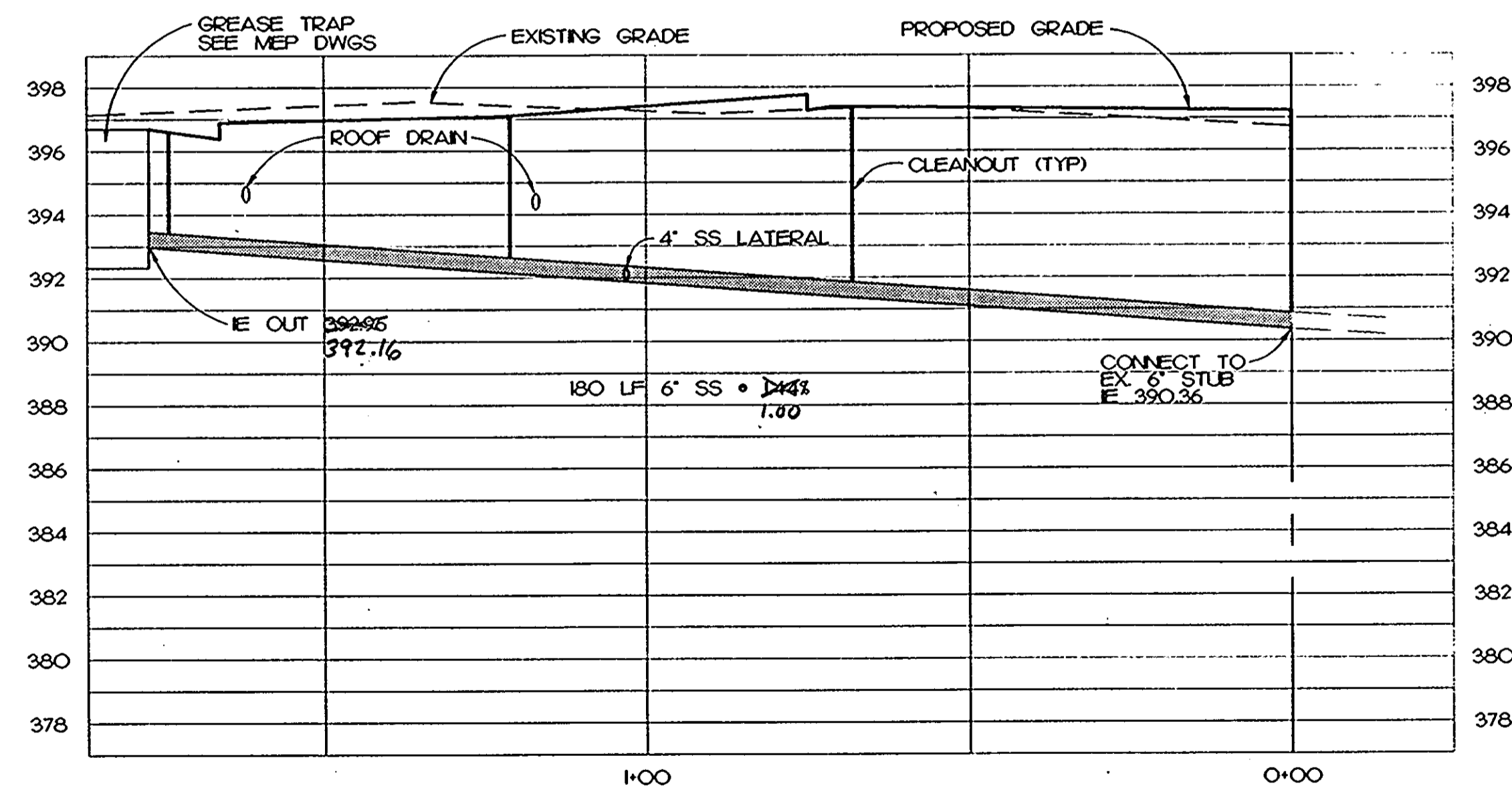
John H. Boyd
COUNTY HEALTH OFFICER
DATE 5-12-97

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Mike Davison
DIRECTOR
DATE 5/15/97
Andy Hamilton
DATE 5/16/97
John S. Smith
DATE 5/20/97



WATER LINE PROFILE



SANITARY SEWER PROFILE

REVISIONS

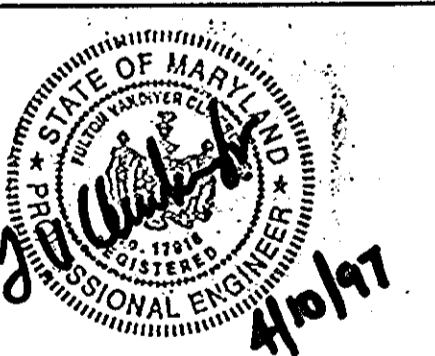
BEFORE DIGGING IN THIS AREA, CALL THE UTILITY PROTECTION CENTER 1-800-257-7777 M-F 7:00 AM - 7:00 PM

HORIZONTAL SCALE 1" = 20' VERTICAL SCALE 1" = 4'

APPROVED PLANNING BOARD of HOWARD COUNTY

DATE 5/26/97

CONTRACT PURCHASER BRINKER INTERNATIONAL 150 SE 12th STREET SUITE 200 FT. LAUDERDALE, FL 33316 ATTN: Mr. Bill Gaisford 305-462-6828



FCK Freeland-Clinkscales & Kauffman, Inc. Engineers - Landscaps Architects 209 West Stone Avenue Greenville, South Carolina 29609 864-233-5497 fax 864-233-8915



COLUMBIA CROSSING SHOPPING CENTER

UTILITY PROFILES

SECTION 1 AREA 1 PARCEL P TAX MAP 26, GRID 18, P/O PARCEL 50 6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

APPROVED FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER & SEWERAGE FOR HOWARD COUNTY, MARYLAND.

County Health Officer M/R DATE 5-14-97

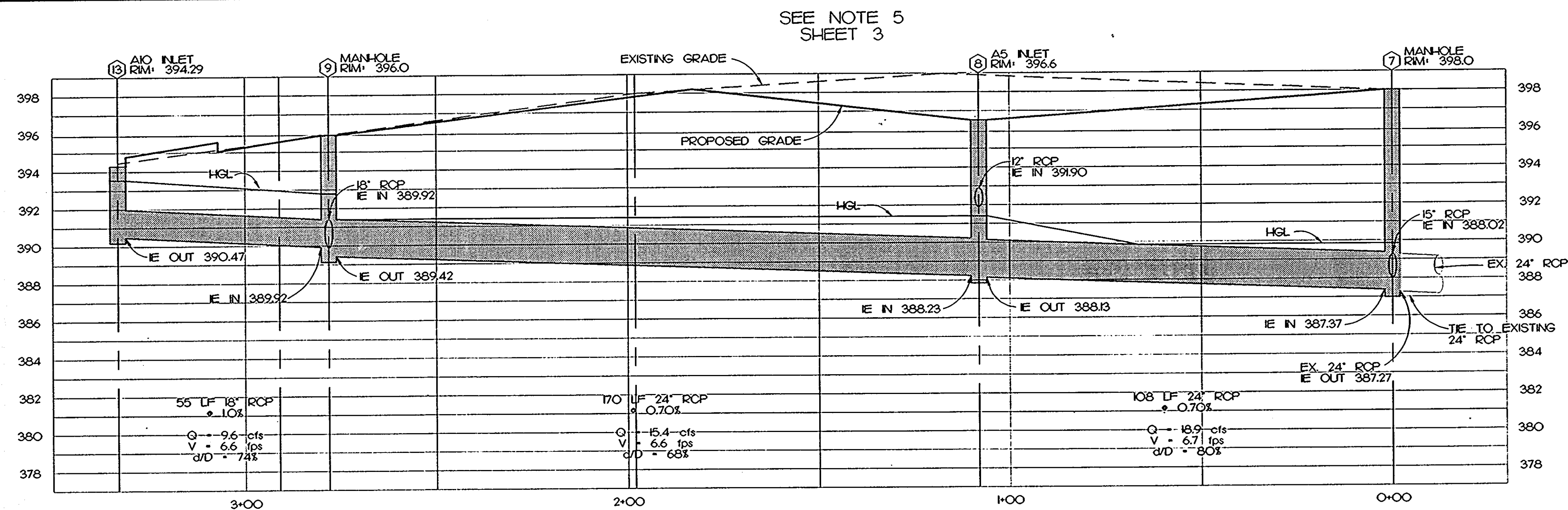
APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

DATE 5/5/97

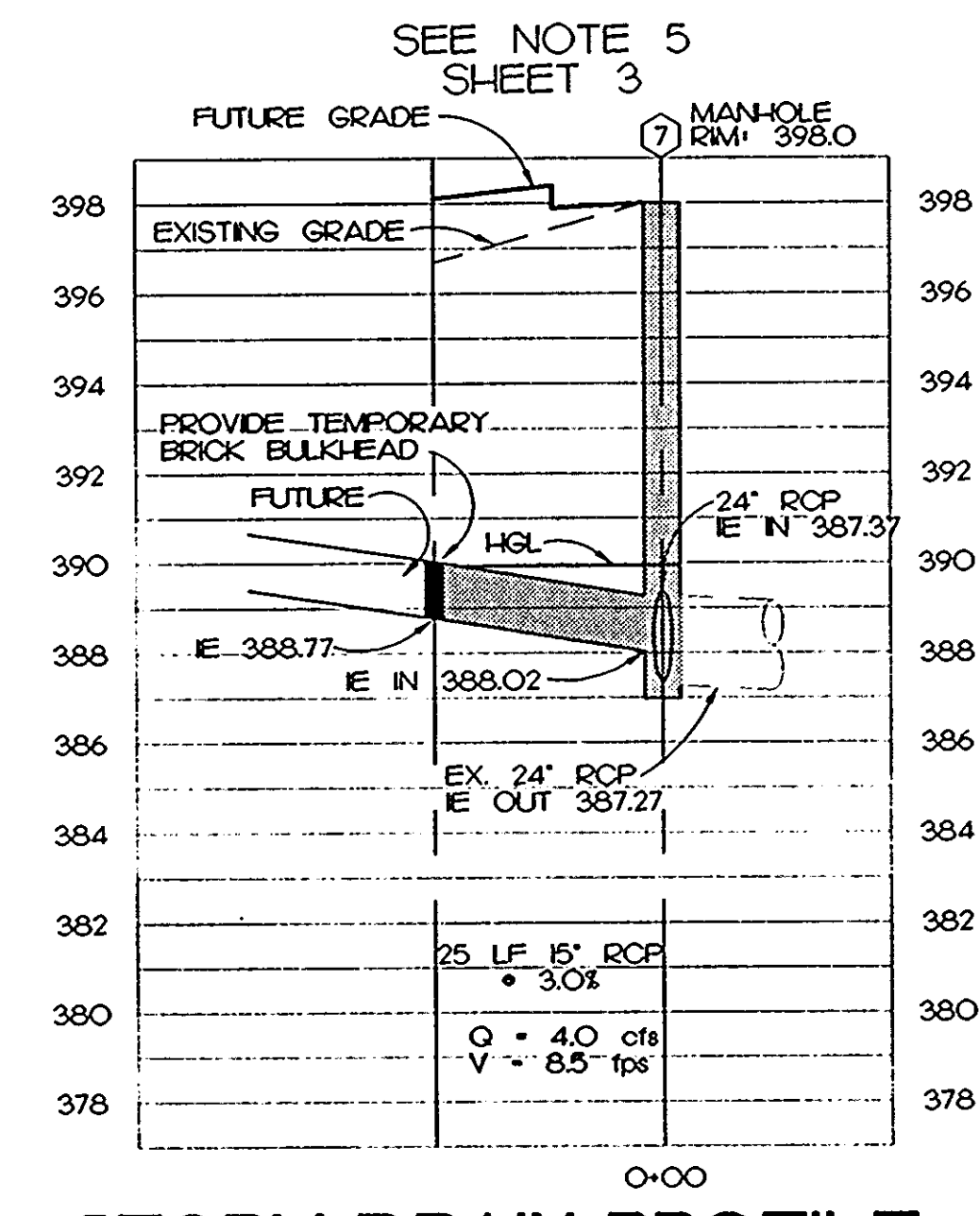
DATE 5/29/97

DATE 5/29/97

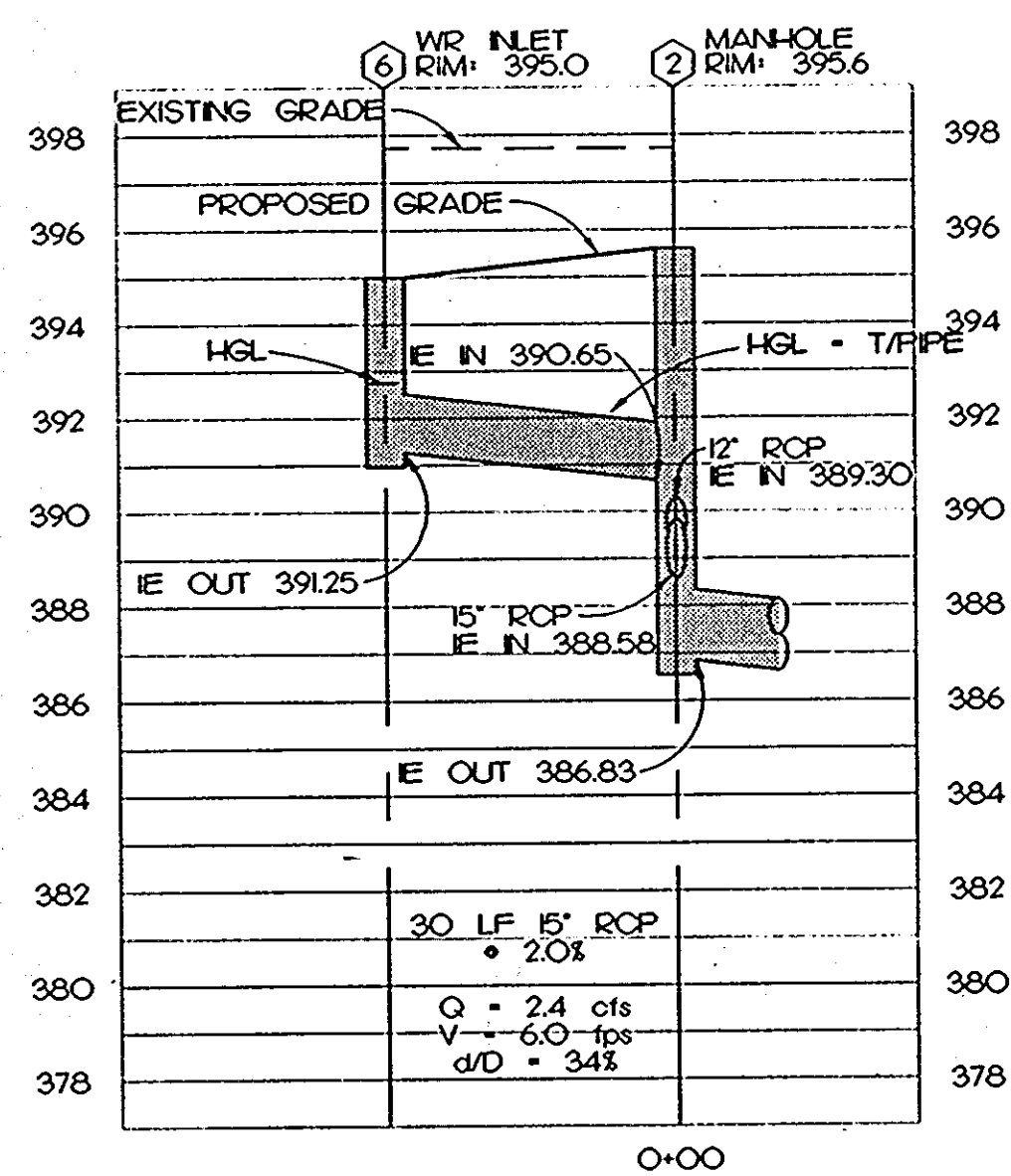
Drawn JC/CG FCK Job. 96-30 Drawing Date 10-29-96 8/23



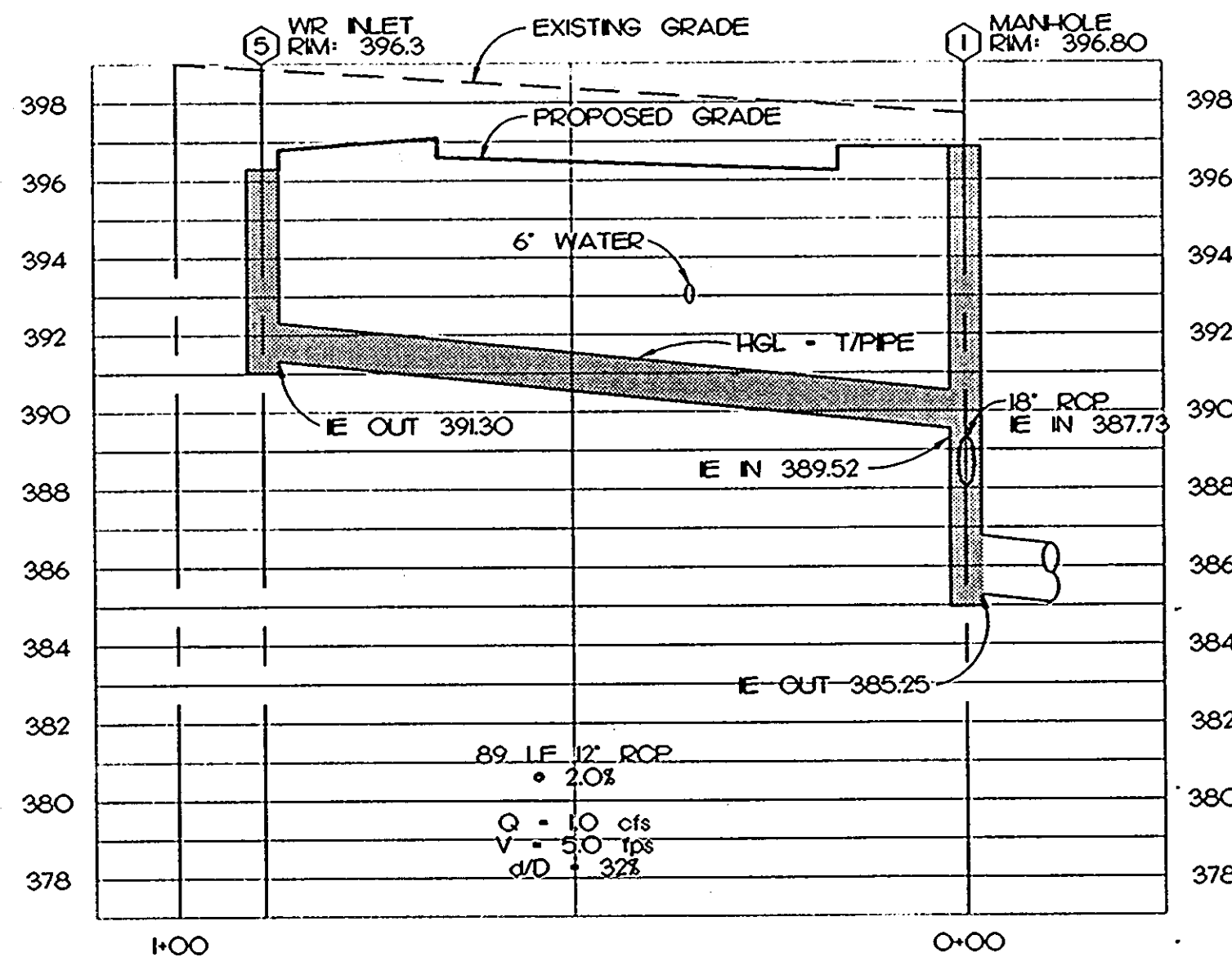
SEE NOTE 5 SHEET 3
**STORM DRAIN PROFILE
 STR # 13 TO STR. # 7**



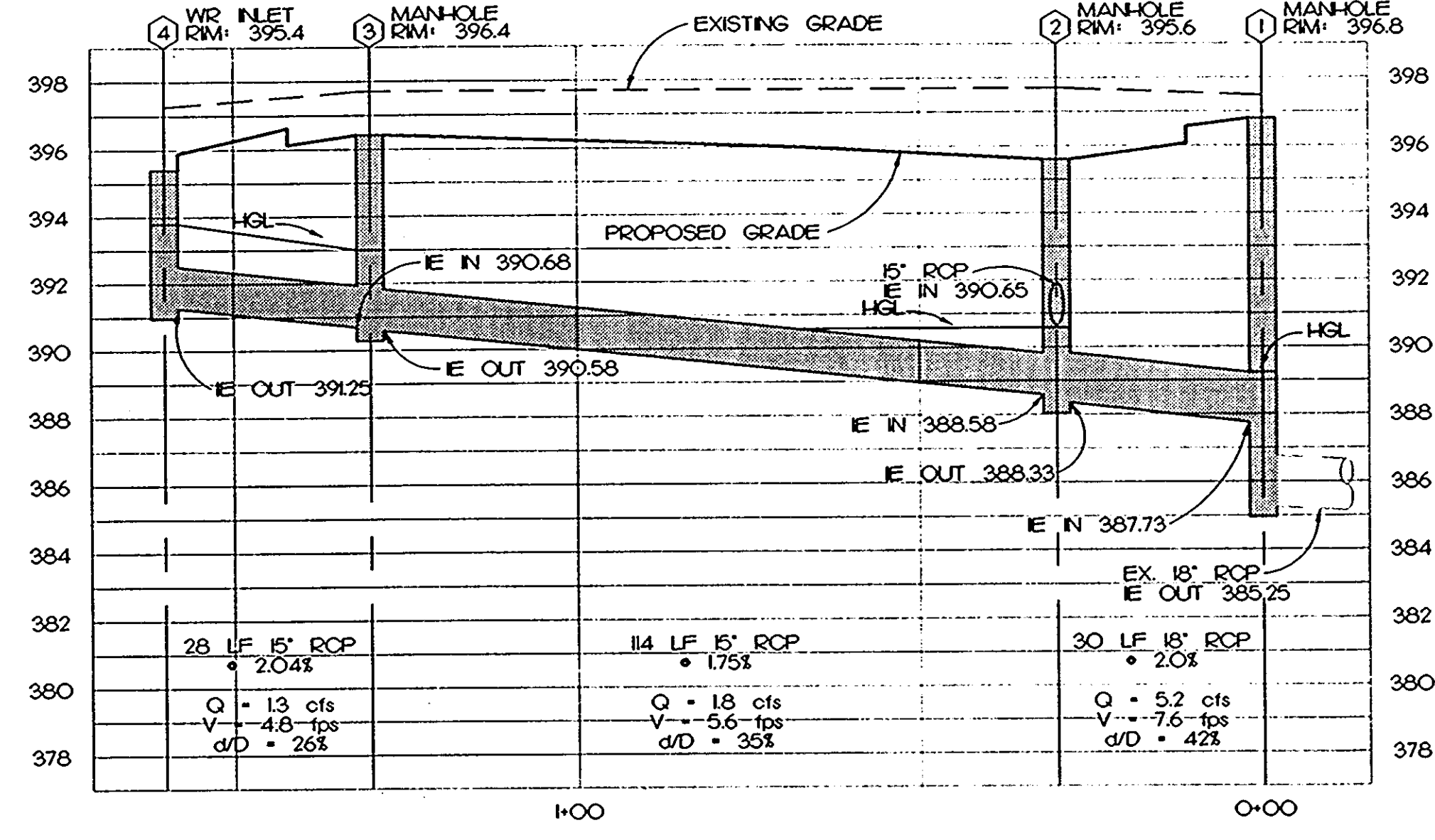
SEE NOTE 5 SHEET 3
**STORM DRAIN PROFILE
 STUB OUT TO STR. # 7**



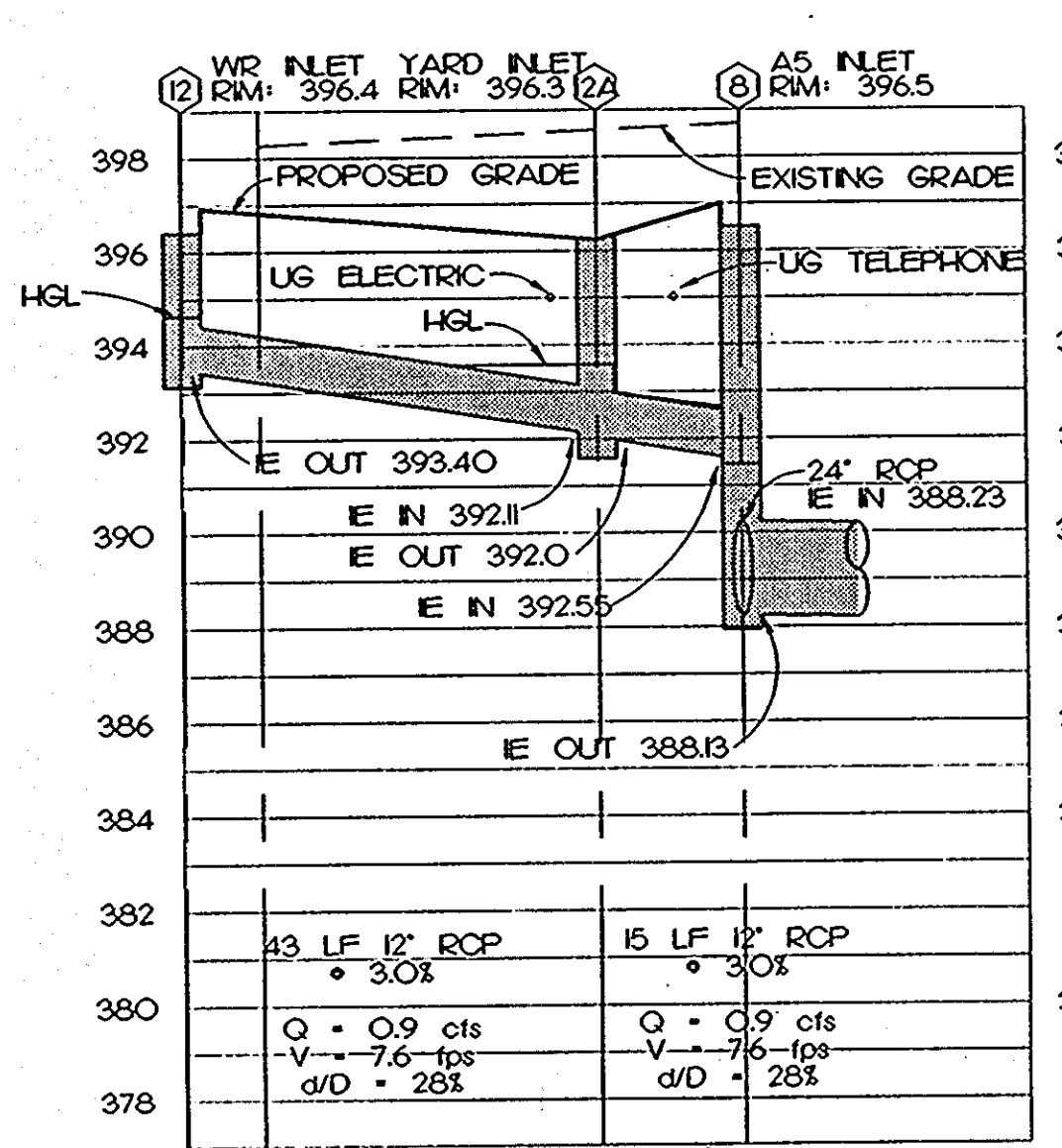
**STORM DRAIN PROFILE
 STR #6 TO STR. #2**



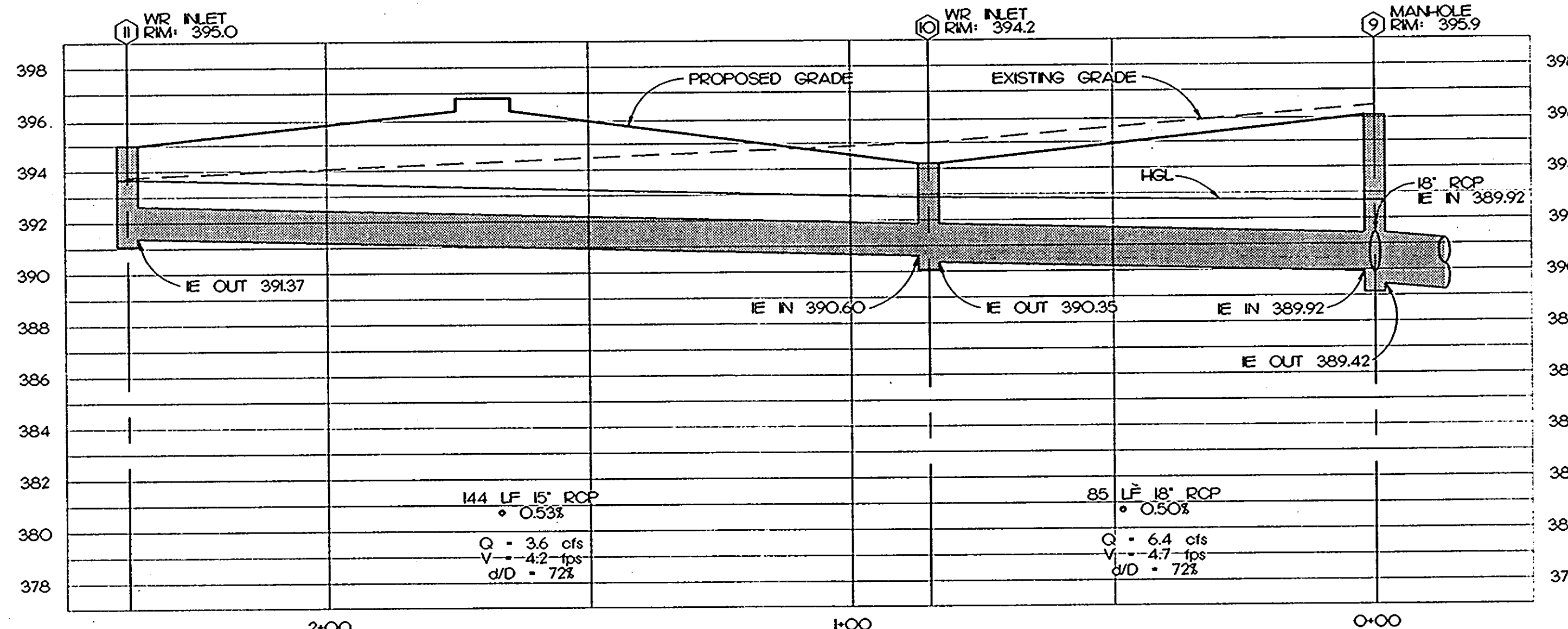
**STORM DRAIN PROFILE
 STR #5 TO STR. #1**



**STORM DRAIN PROFILE
 STR #4 TO STR. #2**



**STORM DRAIN PROFILE
 STR #12 TO STR. #8**



**STORM DRAIN PROFILE
 STR #11 TO STR. #9**

STORM DRAIN STRUCTURE SCHEDULE				
NUMBER	STRUCTURE TYPE	TOP ELEV	PIPE SIZE & INVERT IN ELEVATION	PIPE SIZE & INVERT IN ELEVATION
1	4" STD. MH	396.80	18" - 385.25	18" - 387.73
2	4" STD. MH	395.60	18" - 388.33	15" - 388.58
3	4" STD. MH	396.40	15" - 390.58	15" - 390.68
4	WR	395.40	15" - 391.25	---
5	WR	396.30	12" - 391.30	---
6	WR	395.00	15" - 391.25	---
7	4" STD. MH	398.00	24" - 387.27	24" - 387.37
8	A5	396.60	24" - 388.13	24" - 388.23
9	4" STD. MH	396.00	24" - 389.42	18" - 387.92
10	WR	394.20	18" - 390.35	15" - 390.60
11	WR	395.00	15" - 391.37	---
12	WR	396.40	12" - 393.40	---
12A	YARD INLET	396.30	12" - 392.00	12" - 392.11
13	AIO	394.29	18" - 390.47	---

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER & SEWERAGE FOR HOWARD COUNTY, MARYLAND.
 COUNTY HEALTH OFFICER: M.R. DATE: 5-14-97
 APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
 DATE: 5/20/97

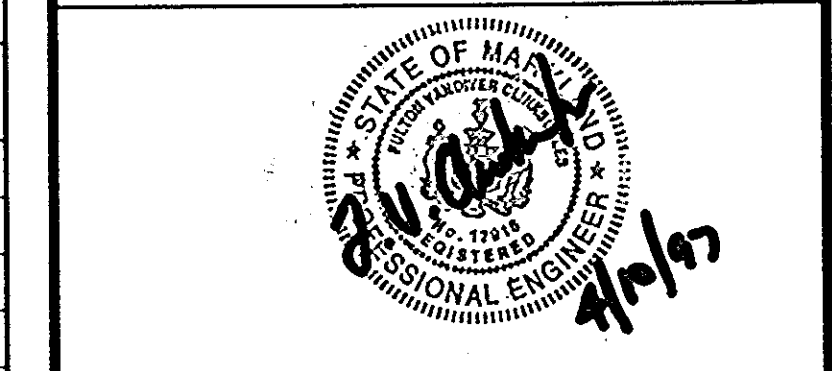
REVISIONS
 REVISED 02-24-97
 REVISED 03-03-97
 REVISED 03-14-97

BEFORE DIGGING IN THIS AREA, CALL THE UTILITY PROTECTION CENTER
 1-800-257-7777
 M-F 7:00 AM - 7:00 PM

HORIZONTAL SCALE: 1" = 20'
 VERTICAL SCALE: 1" = 4'

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE: 3/24/97

CONTRACT PURCHASER
 BRINKER INTERNATIONAL
 150 SE 12th STREET
 SUITE 200
 FT. LAUDERDALE, FL 33316
 ATTN: Mr. Bill Gaisford
 305-462-6828



FCK Freeland-Clinkscales & Kauffman, Inc.
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 209 West Stone Avenue
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COLUMBIA CROSSING SHOPPING CENTER
STORM DRAIN PROFILES

SECTION 1, AREA 1, PARCEL P
 TAX MAP 36, GRID 16, PVO PARCEL 50
 6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
 Drawn JC/CG FCK Job. 96-30 Drawing
 Check KK Date 10-29-96 9/23

Figure 4.01

STORM DRAIN COMPUTATIONS														
PROJECT NAME: ROMANO'S MACARONI GRILL										SHEET _____ of _____				
COMPUTED BY: CAG										DESIGN FREQUENCY: 10 YR.				
DATE: 12-11-96										CHECKED BY: JDC				
DATE: 12-12-96										DATE: 12-12-96				
FROM NO	TO NO	INC. AREA (AC)	TOTAL AREA (AC)	C	C X A	SUM (C X A)	TIME (MIN)	I (IN/AR)	O (CFS)	DES. SLOPE (%)	DIAMETER (IN)	VELOCITY (FT/SEC)	LENGTH (FT)	REMARKS
5	2	0.12	0.12	.98	.118	.118	5	8.50	1.0	2.0	12	5.0	100	.30
6	2	0.29	0.29	.98	.284	.284	5	8.50	2.4	2.0	15	6.0	30	.08
4	3	0.16	0.16	.98	.157	.157	5	8.50	1.3	2.0	15	4.8	30	.11
3	2	0.06	0.22	.98	.059	.216	5.11	8.50	1.8	2.0	15	5.6	100	.30
2	1	—	0.63	—	.617	5.4	8.50	5.2	2.0	2.0	18	7.6	30	.07
11	10	0.43	0.43	.98	.421	.421	5	8.50	3.6	0.5	15	4.2	153	.61
10	9	0.38	0.81	.98	.372	.794	5.6	8.0	6.4	0.5	18	4.7	85	.34
13	9	1.15	1.15	.98	1.13	1.13	5	8.50	9.6	1.0	18	6.6	95	.14
9	8	—	1.96	—	1.92	5.9	8.0	15.4	0.7	2.0	24	6.6	170	.43
12	8	0.11	0.11	.98	.108	.108	5	8.5	0.9	3.0	12	7.6	50	.11
8	7	0.34	2.41	.98	.333	2.36	6.34	8.0	18.9	0.7	24	6.7	108	.27

Figure 4.07

INLET & GUTTER COMPUTATIONS															
PROJECT NAME: ROMANO'S MACARONI GRILL										SHEET _____ of _____					
COMPUTED BY: JDC										DESIGN FREQUENCY: 2 YR.					
DATE: 12-12-96										CHECKED BY:					
DATE:										DATE:					
INLET NO	AREA AC	TIME MIN	C	C X A	I (IN/AR)	O (CFS)	O bypass CFS	TOTAL TO INLET CFS	STREET GRADE %	INLET TYPE	INLET CAPACITY CFS	SPREAD FT.	O BYPASS CFS	TO INLET NO	REMARKS DEPTH
4	.16	5	.98	.16	5.9	0.9	0	0.9	5	WR	3.8	0	0		0.19
5	.07	5	.98	.07	5.9	0.4	0	0.4	2	WR	6.0	0	0		0.12
6	.29	5	.98	.28	5.9	1.7	0	1.7	2	WR	12.5	0	0		0.25
8	.29	5	.98	.28	5.9	1.7	0	1.7	3	A-5	8.3	0	0		0.25
10	.38	5	.98	.37	5.9	2.2	0	2.2	3	WR	9.3	0	0		0.28
11	.43	5	.98	.42	5.9	2.5	0	2.5	4	WR	7.3	0	0		0.29
12	.05	5	.98	.05	5.9	0.3	0	0.3	6	WR	1.8	0	0		0.11
13	1.15	5	.98	1.13	5.9	6.7	0	6.7	3	A-10	16	0	0		0.5

Figure 4.24

HOWARD COUNTY HYDRAULIC GRADIENT AND HEADLOSS COMPUTATION FORM

JOB NAME: _____ DPZ NO: _____ DATE: _____

FROM 1 TO 2 @ STRUCTURE NO. 2 30 FT. @ 2.0% ELEV. = 392.53 HGL = 392.53 T/PIPE 389.83

LOSS NO. x FACTOR = LOSS
 Q1 = 1.8 V1 = 5.6 A = .25 x 1 = .25
 Q2 = 4.2 V2 = 6.6 B = .02 x 1 = .02
 Q3 = 2.4 V3 = 6.0 C = .11 x 1 = .11
 D = .37 x 1 = .37
 TOTAL = .75
 HGL = 392.58

FROM 2 TO 3 @ STRUCTURE NO. 3 14 FT. @ 1.75% ELEV. = 392.38 HGL = 392.38 T/PIPE 391.83

LOSS NO. x FACTOR = LOSS
 Q1 = 1.3 V1 = 4.8 A = .18 x 1 = .18
 Q2 = 1.8 V2 = 5.6 B = .07 x 1 = .07
 Q3 = .9 V3 = 5.6 C = .09 x 1 = .09
 D = .37 x 1 = .37
 TOTAL = .46
 HGL = 392.04

FROM 3 TO 4 @ STRUCTURE NO. 4 28 FT. @ 2.04% ELEV. = 392.78 HGL = 392.78 T/PIPE 392.50

LOSS NO. x FACTOR = LOSS
 Q1 = 1.5 V1 = 4.8 A = .15 x 1 = .15
 Q2 = 2.4 V2 = 6.0 B = .07 x 1 = .07
 Q3 = 1.3 V3 = 4.8 C = .07 x 1 = .07
 D = .37 x 1 = .37
 TOTAL = .21
 HGL = 392.71

Figure 4.24

HOWARD COUNTY HYDRAULIC GRADIENT AND HEADLOSS COMPUTATION FORM

JOB NAME: _____ DPZ NO: _____ DATE: _____

FROM 9 TO 10 @ STRUCTURE NO. 10 85 FT. @ .50% ELEV. = 392.53 HGL = 392.53 T/PIPE 391.85

LOSS NO. x FACTOR = LOSS
 Q1 = 3.6 V1 = 4.2 A = .10 x 1 = .10
 Q2 = 6.4 V2 = 4.7 B = .02 x 1 = .02
 Q3 = .06 V3 = .06 C = .06 x 1 = .06
 D = .18 x 1 = .18
 TOTAL = .18
 HGL = 392.94

FROM 10 TO 11 @ STRUCTURE NO. 11 144 FT. @ .53% ELEV. = 392.99 HGL = 392.99 T/PIPE 392.62

LOSS NO. x FACTOR = LOSS
 Q1 = 5.6 V1 = 4.2 A = .10 x 1 = .10
 Q2 = 5.6 V2 = 4.2 B = .10 x 1 = .10
 Q3 = .06 V3 = .06 C = .06 x 1 = .06
 D = .10 x 1 = .10
 TOTAL = .10
 HGL = 393.80

FROM 1 TO 5 @ STRUCTURE NO. 5 89 FT. @ 2.0% ELEV. = 392.78 HGL = 392.78 T/PIPE 392.30

LOSS NO. x FACTOR = LOSS
 Q1 = 1.0 V1 = 5.0 A = .22 x 1 = .22
 Q2 = 4.2 V2 = 8.5 B = .30 x 1 = .30
 Q3 = 5.2 V3 = 7.6 C = .40 x 1 = .40
 D = .40 x 1 = .40
 TOTAL = 1.0
 HGL = 392.79

Figure 4.24

HOWARD COUNTY HYDRAULIC GRADIENT AND HEADLOSS COMPUTATION FORM

JOB NAME: _____ DPZ NO: _____ DATE: _____

FROM 7 TO 7 @ STRUCTURE NO. 7 0 FT. @ 0% ELEV. = 389.27 HGL = 389.27

LOSS NO. x FACTOR = LOSS
 Q1 = 18.9 V1 = 6.7 A = .27 x 1 = .27
 Q2 = 22.9 V2 = 6.9 B = .06 x 1 = .06
 Q3 = 4.0 V3 = 8.5 C = .23 x 1 = .23
 D = .01 x 1 = .01
 TOTAL = .57
 HGL = 389.84

*CROWN of EXISTING 24" PIPE

FROM 7 TO 8 @ STRUCTURE NO. 8 108 FT. @ .7% ELEV. = 389.84 HGL = 390.36 T/PIPE 390.13

LOSS NO. x FACTOR = LOSS
 Q1 = 15.4 V1 = 6.6 A = .22 x 1 = .22
 Q2 = 18.9 V2 = 6.9 B = .07 x 1 = .07
 Q3 = 4.9 V3 = 7.6 C = .42 x 1 = .42
 D = .21 x 1 = .21
 TOTAL = .44
 HGL = 391.4

FROM 8 TO 9 @ STRUCTURE NO. 9 170 FT. @ .7% ELEV. = 391.42 HGL = 392.33 T/PIPE 391.42

LOSS NO. x FACTOR = LOSS
 Q1 = 9.6 V1 = 6.6 A = .23 x 1 = .23
 Q2 = 15.4 V2 = 6.6 B = .07 x 1 = .07
 Q3 = 6.4 V3 = 4.7 C = .22 x 1 = .22
 D = .22 x 1 = .22
 TOTAL = .43
 HGL = 392.78

FROM 9 TO 13 @ STRUCTURE NO. 13 55 FT. @ 1.0% ELEV. = 392.78 HGL = 393.33 T/PIPE 391.77

LOSS NO. x FACTOR = LOSS
 Q1 = 9.6 V1 = 6.6 A = .22 x 1 = .22
 Q2 = 9.6 V2 = 6.6 B = .22 x 1 = .22
 Q3 = 9.6 V3 = 6.6 C = .22 x 1 = .22
 D = .22 x 1 = .22
 TOTAL = .22
 HGL = 393.55

Figure 4.24

HOWARD COUNTY HYDRAULIC GRADIENT AND HEADLOSS COMPUTATION FORM

JOB NAME: _____ DPZ NO: _____ DATE: _____

FROM 8 TO 12A @ STRUCTURE NO. 12A 15 FT. @ 3% ELEV. = 390.76 HGL = 391.51 T/PIPE 393.25

LOSS NO. x FACTOR = LOSS
 Q1 = .09 V1 = 7.4 A = .3 x 1 = .3
 Q2 = .07 V2 = 7.6 B = .07 x 1 = .07
 Q3 = .07 V3 = 7.6 C = .07 x 1 = .07
 D = .01 x 1 = .01
 TOTAL = .3
 HGL = 393.55

FROM 12A TO 12 @ STRUCTURE NO. 12 42 FT. @ 3.0% ELEV. = 393.55 HGL = 394.70

LOSS NO. x FACTOR = LOSS
 Q1 = .9 V1 = 7.6 A = .3 x 1 = .3
 Q2 = .9 V2 = 7.6 B = .07 x 1 = .07
 Q3 = .07 V3 = 7.6 C = .07 x 1 = .07
 D = .01 x 1 = .01
 TOTAL = .3
 HGL = 394.70

APPROVED
 PLANNING BOARD
 of HOWARD COUNTY
 DATE: 3/26/97

CONTRACT PURCHASER
 BRINKER INTERNATIONAL
 150 SE 12th STREET
 SUITE 200
 FT. LAUDERDALE, FL 33316
 ATTN: Mr. Bill Gaisford
 305-462-6828



FCK Freeland-Clinkscales & Kauffman, Inc.
 Engineers - Landscape Architects
 209 West Stone Avenue
 Greenville, South Carolina 29609
 864-233-5497
 fax 864-233-8915

ROMANO'S
 Macaroni
 GRILL

COLUMBIA CROSSING SHOPPING CENTER

STORM DRAIN
 CALCULATIONS

SECTION 1 AREA 1 PARCEL P
 TAX MAP 36, GRID 18, P/O PARCEL 50
 6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

Drawn JC/CG FCK Job. 96-30 Drawing
 Check KK Date 10-29-96 10/23

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER & SEWERAGE FOR HOWARD COUNTY, MARYLAND.

John M. Gaisford
 COUNTY HEALTH OFFICER
 DATE: 5-14-97

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Michael Danner
 CHIEF DEVELOPMENT MGR
 ENGINEERING DIVISION
 DATE: 5/19/97
 Division of Land Development
 DATE: 5/28/97

REVISIONS

SECTION 02110 SITE CLEARING

PART I - GENERAL

1.01 SECTION INCLUDES

- A. Surface debris removal
B. Topsoil stripping and storage
C. Grubbing
D. Tree Removal
E. Location and protection of reference points

1.03 RELATED SECTIONS

- A. Grading: SECTION 02210
B. Excavation for structures and utilities: SECTION 02221
C. Trenching: SECTION 02225

1.04 REGULATORY REQUIREMENTS

- A. Governing Authorities:
B. Utilities:
C. Coordinate work of this Section with utility companies.

1.05 EXAMINATION OF SITE

- A. Contractor shall visit and examine the site to ascertain the actual nature and scope of any demolition work.

PART II - PRODUCTS

2.01 NOT APPLICABLE

PART III - EXECUTION

3.01 GENERAL

- A. Remove trees, grass, weeds, roots, and other vegetation from the areas to be excavated, filled or graded.

3.02 PREPARATION

- A. Verify that existing plant life and features designated to remain are logged or identified.

3.03 PROTECTION

- A. Protect utilities, bench marks and existing structures, trees, and features, designated to remain, from damage or displacement.

3.04 CLEARING

- A. Surface Debris:
B. Topsoil Stripping:
1. General
2. Depth

3.05 GRADING

- C. Grubbing:
1. General
2. Depth

3.06 TREE REMOVAL

- A. Remove trees and stumps from area to be occupied by new construction and where shown on the Drawings.

3.07 REFERENCE POINTS

- A. Locate bench marks, monuments and other reference points for elevation and location of building.

3.08 CLEAN-UP

- A. Upon completion of work of this Section, remove related debris from premises.

END OF SECTION

SECTION 02210 GRADING

PART I - GENERAL

1.01 SECTION INCLUDES

- A. Rough grading and contouring of site.
B. Finish grading and topsoil.
1.02 RELATED SECTIONS
A. Subsurface Investigation: SECTION 00500
B. Site clearing: SECTION 02110
C. Excavating, backfilling and compacting: SECTION 02221

PART II - PRODUCTS

2.01 MATERIALS

- A. Subsoil:
B. Topsoil:
C. Utilities:
D. Coordinate work of this Section with utility companies.

PART III - EXECUTION

3.01 INSPECTION

- A. Verify site conditions and note irregularities affecting work of each phase of this Section.

3.02 PREPARATION

- A. Rough Grading:
1. General
2. Utilities

3.03 PROTECTION

- A. Protect trees, shrubs, lawns, and other features to remain as portion of final landscaping.

3.04 GRADING

- A. Rough:
B. Backfilling:
C. Tolerance

3.05 CLEAN-UP

- A. Upon completion of work of this Section, remove related debris from the premises.

END OF SECTION

SECTION 02221 EXCAVATING, BACKFILLING, AND COMPACTING FOR STRUCTURES

PART I - GENERAL

1.01 SECTION INCLUDES

- A. Excavation for building construction
B. Excavation for parking construction
C. Dewatering excavations
D. Filling and backing for construction
E. Compaction
F. Inspection and Testing

1.02 RELATED SECTIONS

- A. Subsurface Investigation: SECTION 00500
B. Testing Laboratory Services: SECTION 01410
C. Grading: SECTION 02210
D. Excavating, Backfilling and compacting for utilities: SECTION 02225

1.03 REFERENCE STANDARDS

- A. American Society for Testing Materials (ASTM)
1.04 TEST REPORTS
A. Submit three copies to Owner.

PART II - PRODUCTS

2.01 MATERIALS FOR FILLING AND BACKFILLING

- A. General Site:
B. Building Embankment:
C. Select Fill (within building limits):
D. Topsoil:

PART III - EXECUTION

3.01 INSPECTION

- A. Verify foundation walls are braced to support surcharge forces imposed by backfilling operations and that areas to be backfilled are free of debris, snow, ice, or water.

3.02 PREPARATION

- A. Excavating:
1. General
2. Utilities

3.03 PROTECTION

- A. General:
1. Provide adequate sheeting, shoring and bracing for excavations to prevent caving or to protect personnel.

3.04 EXCAVATING

- A. Excavate subsoil required for building foundations, construction operations, and other work.

3.05 DEWATERING

- A. If water condition is present, provide dewatering without additional cost to Owner.

3.06 BACKFILLING AND COMPACTING

A. General:

- Backfill areas to provide elevations shown on the Drawings. Use unfrozen materials. Backfill systematically, as early as possible, to allow maximum time for natural settlement.

B. Backfilling:

- 1. Employ placement methods which will not disturb or damage construction to remain.

C. Layering and Compacting:

- Maintain optimum moisture content of backfill materials to attain required compaction density.

D. Granular Fill/Sand Cushion:

- Spread and compact to requirements shown on the Drawings.

3.07 TESTING

- A. Employ and pay for, as part of Contract Price, the services of an Owner acceptable independent testing laboratory to test fill and backfill materials.

3.08 CLEAN-UP

- A. Upon completion of work of this Section, remove related debris from the premises.

END OF SECTION

SECTION 02225 EXCAVATING, BACKFILLING AND COMPACTING FOR UTILITIES

PART I - GENERAL

1.01 SECTION INCLUDES

- A. Excavation for trenches
B. Dewatering Excavations
C. Backfilling
D. Compacted bed and compacted fill

1.02 RELATED SECTIONS

- A. Subsurface Investigation: SECTION 00500
B. Testing Laboratory Services: SECTION 01410
C. Grading: SECTION 02210
D. Excavating, backfilling and compacting for structures: SECTION 02221

1.03 REFERENCE STANDARDS

- A. American Society for Testing Materials (ASTM)
1.04 TEST REPORTS
A. Submit three copies to the Owner.

PART II - PRODUCTS

2.01 MATERIALS FOR BACKFILLING

- A. General Use:
B. Sand:
C. Construction:

PART III - EXECUTION

- 3.01 INSPECTION
A. Verify that areas to be backfilled are free of debris, snow, ice, or water, and ground surfaces are not frozen.

3.02 PREPARATION

- A. Identify required lines, levels, contours, and datum.
B. Landscape Features:
C. Excavations:

3.03 PROTECTION

- A. General:
1. Provide adequate sheeting, shoring and bracing for excavations to prevent caving or to protect personnel.

3.04 EXCAVATING

- A. Excavate subsoil required for building foundations, construction operations, and other work.

3.05 DEWATERING

- A. If water condition is present, provide dewatering without additional cost to Owner.

3.04 EXCAVATING

- A. Excavate subsoil required for piping and other utility work. Cut trenches sufficiently wide to enable installation of utilities and allow inspection.

3.05 DEWATERING

- A. If water condition is present, provide dewatering without additional cost to Owner.

3.06 BACKFILLING AND COMPACTING

- A. General:
B. Backfilling:
C. Layering and Compacting:

- Maintain optimum moisture content of backfill materials to attain required compaction density.

3.07 TESTING

- A. Employ and pay for, as part of Contract Price, the services of an Owner acceptable independent testing laboratory to test fill and backfill materials.

3.08 CLEAN-UP

- A. Upon completion of work of this Section, remove related debris from the premises.

END OF SECTION

SECTION 02229 ROCK REMOVAL

PART I - GENERAL

1.01 SECTION INCLUDES

- A. Removal of rock during excavation
B. Explosive tools or explosives to assist rock removal.

1.02 RELATED SECTIONS

- A. Subsurface Investigation: SECTION 00500
B. Testing Laboratory Services: SECTION 01410
C. REFERENCES
D. DEFINITIONS

1.05 SUBMITTALS

- A. Shop Drawings:
B. OSHA -
C. Explosives Firm:

1.06 QUALIFICATIONS

- A. Seismic Survey Firm:
B. Explosives Firm:

1.07 REGULATORY REQUIREMENTS

- A. Conform to applicable codes for explosive disintegration of rock, to NFPA 495 for handling explosive materials, and all applicable OSHA requirements.

1.08 SCHEDULING

- A. Schedule Work to avoid working hours of or disruption to occupied buildings nearby.

PART II - PRODUCTS

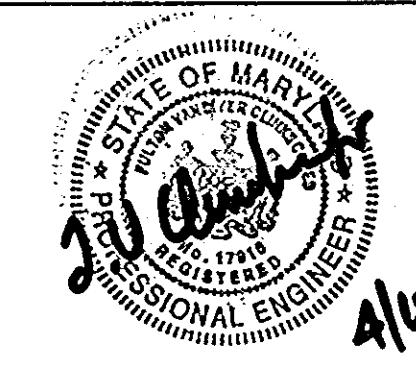
2.01 MATERIALS

- A. Explosives:
B. Delay Device:
C. Blast Mat Materials:
D. Mechanical Disintegration Compounds:

CONTRACTOR TO FURNISH ALL AS-BUILT DRAWINGS AS REQUIRED BY HOWARD COUNTY. DRAWINGS ARE TO BE COMPLETE AND MEET ALL COUNTY STANDARDS.

APPROVED PLANNING BOARD OF HOWARD COUNTY DATE 3/20/97

CONTRACT PURCHASER BRINKER INTERNATIONAL 150 SE 12th STREET SUITE 200 FT. LAUDERDALE, FL 33316



FCK Freeland-Clinkscales & Kauffman, Inc. Engineers - Landscape Architects 209 West Stone Avenue Greenville, South Carolina 29609

ROMANO'S Macaroni GRILL COLUMBIA CROSSING SHOPPING CENTER

SPECIFICATIONS SHEET 1 SECTION 1 AREA 1 PARCEL P TAX MAP 34 GRID R PO PARCEL 50

APPROVED FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER & SEWERAGE FOR HOWARD COUNTY, MARYLAND. JAMES M. BOUDREAU COUNTY HEALTH OFFICER DATE 5/14/97

Drawn JC/CG FCK Job 96-30 Drawing Date 11/23 Check KK Date 10-29-96

SDP-97-69

SECTION 0232
GRANULAR SUB-BASE (GRAVEL)

PART I - GENERAL

1.01 SECTION INCLUDES

A. Compacted gravel sub-base under parking and driveway paving.

1.02 INTENT

A. It is the intent of these specifications to provide a completed course of compacted gravel free from loose or segregated areas, of uniform density, well bound for its full depth and with a surface suitable for placing subsequent paving courses. Contractor is responsible to regulate sequence of work, maintain the work and rework as necessary to meet above requirements.

1.03 APPROVAL OF SUBCONTRACTOR

A. Subcontractor for work of this section shall be approved in writing by paving subcontractor.

1.04 REFERENCE STANDARDS

A. American Society for Testing Materials (ASTM):

PART II - PRODUCTS

2.01 MATERIALS

A. SEE DRAWING DETAILS

PART III - EXECUTION

3.01 INSPECTION

A. Verify compacted subgrade is dry and ready to receive work of this section. Verify gradients and elevations of base are correct. Beginning of installation means acceptance of existing conditions.

3.02 PLACING STONE

A. Spread gravel material over prepared subgrade to total compacted thickness shown on the drawings. Place stone in layers and compact to 98 percent standard proctor max dry density; ASTM D-698. Level surfaces to elevations and gradients indicated. Perform hand tamping in areas inaccessible to compaction equipment.

3.03 CLEAN-UP

A. Upon completion of work of this section, remove related debris from premises.

END OF SECTION

SECTION 02505
CONCRETE PAVING, WALKS, CURBS, GUTTERS, AND APPROACHES

PART I - GENERAL

1.01 SECTION INCLUDES

A. Concrete pedestrian traffic surfaces (walks, ramps, etc.)

B. Concrete vehicular traffic surfaces

C. Concrete curbs and gutters

D. Concrete traffic approaches

1.02 RELATED SECTIONS

A. Concrete Formwork: SECTION 03100

B. Concrete Reinforcement: SECTION 03200

C. Cast-In-Place Concrete: SECTION 03300

D. Concrete Curing: SECTION 03370

1.03 REFERENCE PUBLICATIONS AND STANDARDS

A. Governing Authority:

Applicable standards and regulations of state and municipal agencies having governing authority over the work specified in this section shall take priority over items specified herein and shown on the drawings unless the requirements set forth herein require a superior quality work.

B. Material Standards:

American Society for Testing Materials (ASTM)

C. Concrete Standards:

American Concrete Institute (ACI): ACI-617 "Standard Specifications for Concrete Pavement and Bases" ACI-395 "Manual of Standard Practice for Detailing Reinforced Concrete"

1.04 SUBMITTALS

A. Testing Laboratory Reports:

Furnish three copies of the test reports to the Owner indicating results of the cylinder test.

PART II - PRODUCTS

2.01 FORM MATERIAL

A. As specified in CONCRETE FORMWORK.

2.02 BASIC MATERIALS

A. Concrete:

As Specified in CAST-IN-PLACE CONCRETE

B. Reinforcing Steel:

As specified in CONCRETE REINFORCEMENT

2.03 MISCELLANEOUS MATERIALS

A. Air Entraining Agent:

ASTM C0260, Master Builders or equal.

B. Dispersing Admixture:

ASTM C-494, Master Builders or equal.

C. Curing Compound:

ASTM C-309, No. 40W by A. C. Horn Company or equal.

D. Joint Filler:

ASTM D1751, pre-molded fiber filler, unless shown otherwise on the drawings.

E. Joint Sealer:

ASTM D-1190, Code 2351.

2.04 CONCRETE MIX DESIGN

A. Contractor shall employ and pay for, as a part of the contract price, the services of an Owner approved independent testing laboratory to determine actual design mix to be used, based on the following:

1. All concrete: 3000 psi at 28 days.

PART III - EXECUTION

3.01 INSPECTION OF SUBGRADE

A. Inspect subgrades prepared as specified elsewhere in these Specifications and report any deficiencies to the Owner before beginning work. Commencement of work shall indicate acceptance of subgrades by this Contractor.

3.02 CONSTRUCTION

A. General:

Deliver and place concrete as specified in CAST-IN-PLACE CONCRETE.

B. Curbs and Gutters:

1. Configurations

Construct to cross-sectional details shown on drawings and at indicated locations. Curbs may be fully formed or pulled and troweled to configurations shown on the drawings.

2. Reinforcement

Reinforce as indicated on the drawings with continuous reinforcing bars lapped 30 bar diameters and securely tied at all splices. Metal chairs shall be used to hold the reinforcing steel in the proper plane.

3. Expansion Joints

Construct 1/2" wide expansion joints with joint filler across lengths of curb at all tangent points and at not more than twenty foot intervals. Construct one inch wide expansion joints with joint filler between curbs and concrete paving. All fixed objects, such as buildings, poles, pipes, catch basins, etc., within or abutting the concrete shall be separated from the concrete by expansion joints.

4. Finishing

Finish surfaces with dense uniform texture equal to burtop drag and cross-score with 1/4" deep cross joints at ten foot intervals with edges smoothed 1/8".

END OF SECTION

5. Joints

Fill expansion joints with joint filler except for space 3/4" deep at surface. After concrete has set, clean the open joint above filler and fill with joint sealer in accordance with instructions of sealer manufacturer.

C. Traffic Approaches and Vehicular Traffic Surfaces:

1. Configuration

Construct to cross-sectional details shown on drawings and at indicated locations.

2. Reinforcement

Reinforce with #3 minimum size reinforcing bars 18 inches on center both ways, unless otherwise indicated or noted on the drawings.

3. Expansion and Construction Joints

At intentional points for stoppage of concrete placing, use expansion joints. At unintentional points of stoppage of concrete placing, use continuation of reinforcing through joints. Construct 1/2 inch wide expansion joints with joint filler at locations shown on the drawings or at not more than twenty foot intervals each way if not shown. Construct 1/2 inch wide expansion joints with joint filler between curbs and concrete paving. All fixed objects, such as buildings, poles, pipes, catch basins, etc., within or abutting the concrete shall be separated from the concrete by expansion joints.

4. Joint Filling and Sealing

Fill expansion joints with joint filler except for space 3/4" deep at surface. After concrete has set, clean the open joint above filler and fill with joint sealer in accordance with instructions of sealer manufacturer.

5. Finishing

Vibrate, screed and float concrete to level and test the surface, which shall not vary over 1/4" in ten feet when tested with ten foot straight edge. Finish surface to gritty texture with burtop drag or straight continuous strokes with a stiff bristle push broom. Finish all edges smooth with 1/8" or 1/4" radius.

D. Walks

1. Configurations

Construct to cross-sectional details shown on drawings and at indicated locations.

2. Sand Cushion

Concrete shall be placed over a sand cushion placed on the stabilized subgrade as shown on the drawings or a minimum of 4" thick if not shown on the drawings.

3. Reinforcing

Reinforce with 6 x 6 x W1.4, WNF, minimum reinforcing unless otherwise indicated or noted on the drawings.

4. Expansion Joints

Construct expansion joints as detailed in locations shown on the drawings.

5. Finishing

1. General:

Finish surfaces not noted on the drawings to be finished otherwise to a "broom" or "burtop drag" gritty surface. Tool all joints and all edges to provide a smooth border to each section or division of the walk. Finish all vertical surfaces in a manner that leaves the exposed surfaces free of "honeycombing" and form marks. Any damaged surfaces shall be repaired and stone-rubbed to match adjacent finished surfaces.

3.03 CURING CONCRETE

A. Apply a white-pigmented type curing compound at a uniform rate of approximately 200 sq. ft./gallon, or as recommended by curing compound manufacturer as soon as the finishing operation has been completed and the concrete has lost its water sheen. The curing procedure must protect the concrete, including all exposed surfaces against loss of moisture and rapid temperature change for a period of not less than four days from the beginning of the curing operation and without damage to, or marking of the finished concrete surface. Traffic shall not be allowed on finished concrete for a minimum period of seven days.

3.04 TESTING

A. Independent Testing Laboratory:

Contractor shall employ and pay for, as a part of the contract price, the services of an Owner approved independent testing laboratory to perform concrete cylinder testing. Test cylinders shall be taken and cured by the Contractor and tested by the testing laboratory for each different class of concrete poured in any one day. Cylinders shall be taken in accordance with ASTM C31, and cured and tested in accordance with ASTM C39. One set of three cylinders is required for each 50 cubic yards of concrete or less, placed in any one day. One cylinder shall be tested at 7 days, one cylinder shall be tested at 28 days and one cylinder shall be held as a spare from each set of three cylinders as specified above.

B. Contractor Tests:

1. Slump Tests

Slump tests shall be taken by the Contractor when cylinders are taken, and shall show maximum slump 5" and minimum slump 3".

2. Air Entrainment

Air content by volume: 5% to 7% based on measurements made in concrete mixtures at point of discharge at job site at time slump tests are made. Air content by volume shall be determined in accord with ASTM C231.

3.05 CLEANING CONCRETE

A. Concrete approaches, sidewalks and related work shall be hosed down with water, scrubbed with fiber brushes, allowed to dry and left broom clean and in condition acceptable to the Owner.

3.06 CLEAN-UP

A. Upon completion of work of this section remove related debris from premises.

END OF SECTION

SECTION 02511
"ASPHALTIC" CONCRETE PAVING

PART I - GENERAL

1.01 SECTION INCLUDES

A. Paving base

B. Base Course and surface course

1.02 REFERENCE STANDARDS

A. American Association of State Highway Officials (AASHO)

B. American Society for Testing Materials (ASTM)

C. Governing Authority:

Applicable publications of governing bodies having jurisdiction over the work

1.03 SUBMITTALS

A. Submit three copies of design mix test reports to Owner.

PART II - PRODUCTS

2.01 MATERIALS

A. Sub-Base:

If required; as shown on the site plan (SP) drawings and specified in other sections of these specifications

B. Base Course (Binder):

Unless otherwise shown on the drawings; uniform mix of coarse aggregate and asphalt as determined by "design mix"

C. Surface Course:

Unless otherwise shown on the drawings; uniform mix of coarse aggregate and fine aggregate (pea gravel will not be acceptable), mineral filler and asphalt as determined by "design mix"

D. Design Mixes:

Contractor employ and pay for the services of an Owner-approved independent testing laboratory to determine design mixes for base and surface courses; including asphalt bitumen content; ASTM D2172, latest edition, entitled, "Quantitative Extraction of Bitumen from Bituminous Paving Mixtures"

PART III - EXECUTION

3.01 GRADE CONTROL

A. Establish and maintain lines and grades shown on drawings by means of line and grade stakes.

3.02 TRANSPORTATION

A. Transport paving mixes from approved mixing plant to site in light vehicles with metal bottoms previously cleaned of foreign materials. Vehicles shall be suitably insulated to avoid heat losses. Cover each load to prevent cooling and loss of ingredients.

3.03 PLACING

A. General:

Thickness shown on site (SP) drawings. Unless otherwise shown on the drawings, place asphaltic concrete in two courses; first a coarse graded base course, and second a fine graded surface course. Apply base course to prepared sub-base (when applicable) which has been primed with asphalt MC-1, application temperature 50 to 120 degrees F, at a rate of 0.15 to 0.40 gal/sq. yd. Apply surface course to base course to which has been applied a tack coat of asphalt RC-2, application temperature 100 to 175 degrees F, at rate of 0.05 to 0.25 gal/sq. yd. Place each course under temperature conditions of 40 to 90 degrees F.

B. Means:

Dump and spread mixture on primed base with spreading and finishing machine, so that after compaction, surface will be smooth, of uniform density and meets requirements for typical cross-section shown. Other placing means may be proposed.

C. Time and Temperature:

Place and initially roll during daylight hours. Mixture placing temperature; between 225 and 325 degrees F.

D. Protection of Curbs and Gutters:

Prevent splattering of adjacent curbs, gutter, concrete paving and structures. Hand spreading may be employed where machine is impractical.

E. Finish Grades:

Approximately 6 inches below adjacent concrete sidewalks, and/or curbs, except as specifically shown otherwise on the drawings; true to grades shown and straight within 1/4 inch in 10 feet when checked with a straight edge. No "bird baths" will be allowed.

3.04 ROLLING

A. General:

After rolling with medium weight steel-wheeled roller, roll with pneumatic, three wheel, or tandem rollers longitudinally at sides and proceed toward center of pavement, overlapping on successive trips by at least half width of rear wheels. Alternate trips of roller shall be slightly different in length.

B. Compression and Roller Marks:

Roll until no further compression can be obtained and roller marks are eliminated. If required, roll diagonally in each direction with tandem roller with second diagonal rolling crossing line of first rolling.

C. Prevention of Mixture Adhesion to Roller:

Keep wheels moistened with water; excessive use of water will not be permitted. Do not permit rollers to stand on pavement which has not been fully compacted and which has not cooled to atmospheric temperature.

D. Displacement:

Keep movement of roller slow enough to avoid displacement of mixture. Correct any displacement at once by use of rakes and addition of fresh mixture.

E. Precautions:

Prevent dropping of oil, gasoline and grease on pavement.

F. Hand Operations:

Thoroughly compact edges of pavement along curbs, headdresses, aprons, manholes, valve boxes and similar places not accessible to roller with lightly oiled hand-operated vibrating rollers or mechanical tampers.

3.05 SPECIAL TESTING

The following tests shall be performed at no additional expense if requested by the Owner.

A. Extraction and Gradation Test:

ASTM D2172 for each type. Number and location to be determined on the job by the Owner.

B. Field-In-Place Density Test:

ASTM D1188 for each type. Number and location to be determined on the job by the Owner.

C. Thickness Test:

Determine by test borings. Make one test for each 5,000 sq. ft. of paving surface. If average thickness is deficient by no more than 1/4 inch, and no individual thickness is deficient by more than 5/8 inch, installation will be held to meet requirements. If average thickness is deficient by more than 1/4 inch, or if any individual thickness determination is deficient by more than 5/8 inch, pavement thickness will be held to not meet requirements. Deficient areas shall be defined, removed and replaced, or adjusted to design thickness by methods acceptable to the Owner.

3.06 CLEAN-UP

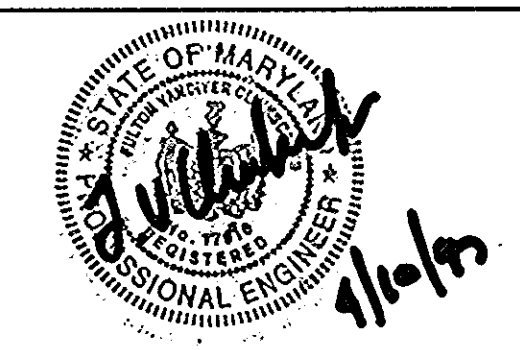
A. Upon completion of work of this section, remove related debris from premises.

END OF SECTION

REVISIONS

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 3/26/97

CONTRACT PURCHASER
BRINKER INTERNATIONAL
150 SE 12th STREET
SUITE 200
FT. LAUDERDALE, FL 33316
ATTN: Mr. Bill Gaisford
305-462-6828



FCK Freeland-Clinkscales & Kauffman, Inc.
Engineers - Landscapes Architects
209 West Stone Avenue
Greenville, South Carolina 29609
864-233-5497
fax 864-233-8915

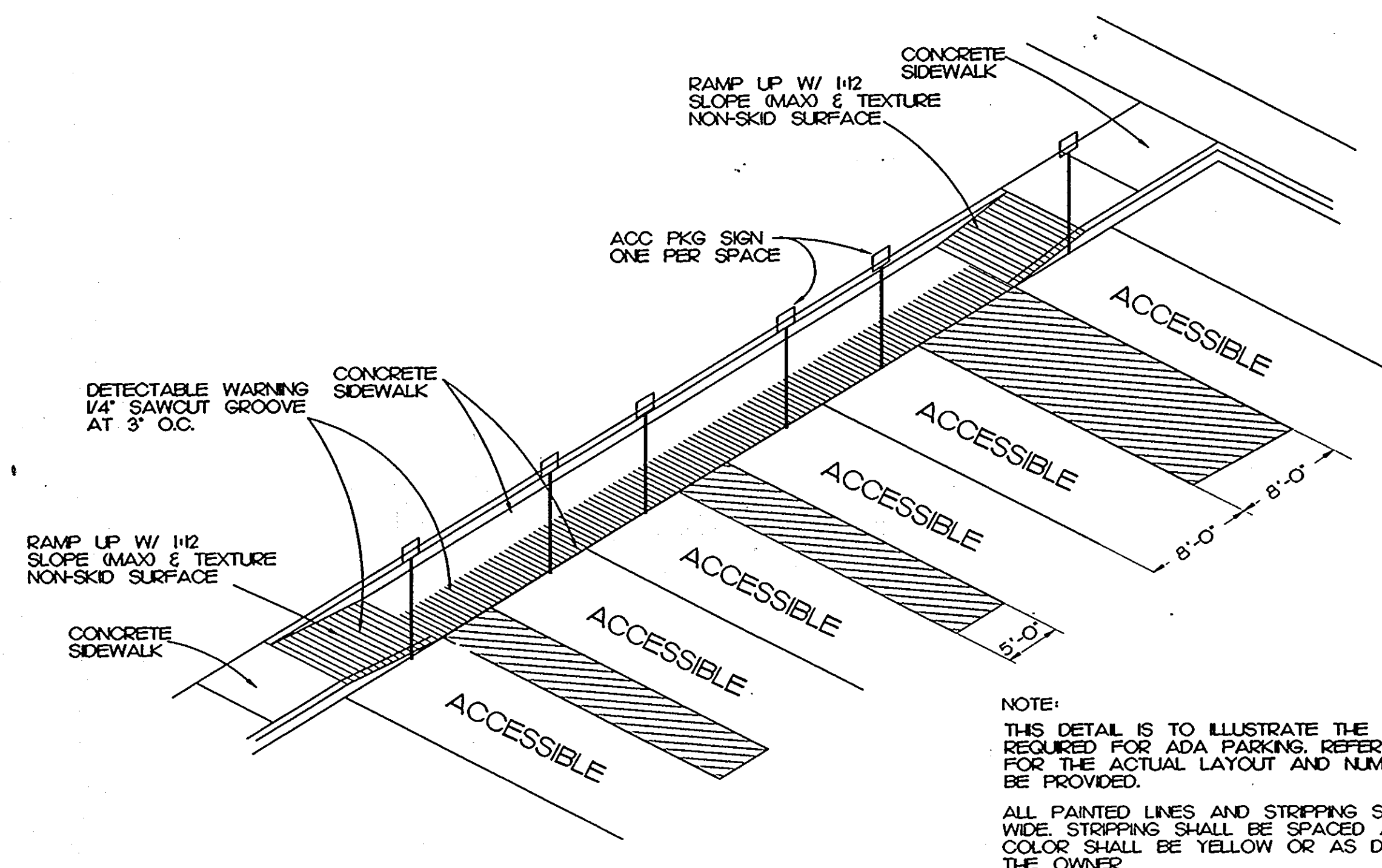


COLUMBIA CROSSING SHOPPING CENTER
SPECIFICATIONS SHEET 2

APPROVED: FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER & SEWERAGE FOR HOWARD COUNTY, MARYLAND.
DATE 5/14/97
COUNTY HEALTH OFFICER W.J.B.

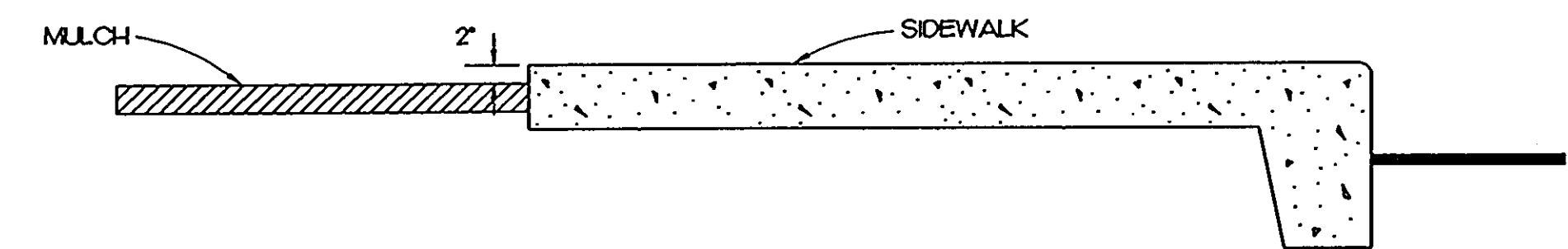
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
DATE 5/15/97
ENGINEERING DIVISION
DATE 5/24/97
DIVISION OF LAND DEVELOPMENT
DATE 5/24/97
DIRECTOR

SECTION 1 AREA 1 PARCEL P
TAX MAP 36, GRID 18, P/O PARCEL 50
6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
Drawing JC/CG FCK Job. 96-30
Check KK Date 10-29-96 12/23

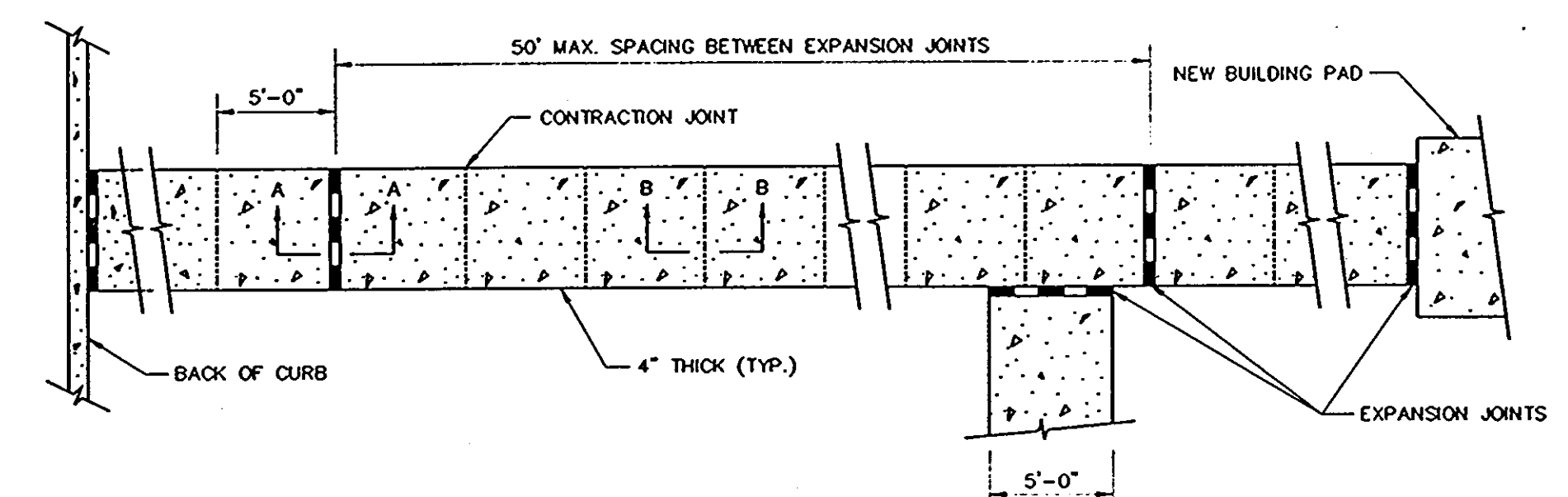


ADA PARKING
(N.T.S.)
(RE: SITE PLAN)

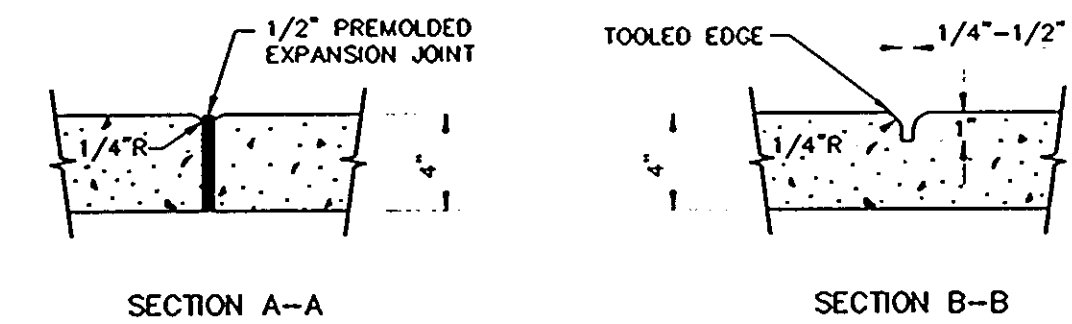
NOTE:
THIS DETAIL IS TO ILLUSTRATE THE MAJOR COMPONENTS REQUIRED FOR ADA PARKING. REFER TO THE SITE PLAN FOR THE ACTUAL LAYOUT AND NUMBER OF SPACES TO BE PROVIDED.
ALL PAINTED LINES AND STRIPPING SHALL BE 4" WIDE. STRIPPING SHALL BE SPACED AT 18" ON CENTER. COLOR SHALL BE YELLOW OR AS DIRECTED BY THE OWNER.



MULCHING DETAIL @ SIDEWALKS
(N.T.S.)
(RE: GRADING PLAN)



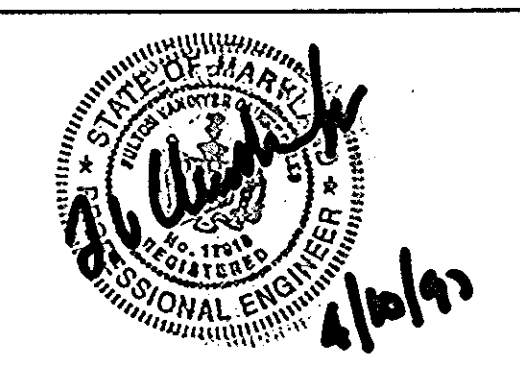
SEE ARCH. DWG FOR JOINTING, COLORATION, ETC INFORMATION FOR DECORATIVE CONCRETE.



CONCRETE SIDEWALK STANDARDS
(N.T.S.)
(RE: SITE PLAN)

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 3/20/97

CONTRACT PURCHASER
BRINKER INTERNATIONAL
150 SE 12th STREET
SUITE 200
FT. LAUDERDALE, FL 33316
ATTN: Mr. Bill Gaisford
305-462-6828



FCK Freeland-Clinkscales & Kauffman, Inc.
Engineers - Landscape Architects
209 West Stone Avenue
Greenville, South Carolina 29609
864-233-5497
fax 864-233-8915

ROMANO'S Macaroni GRILL

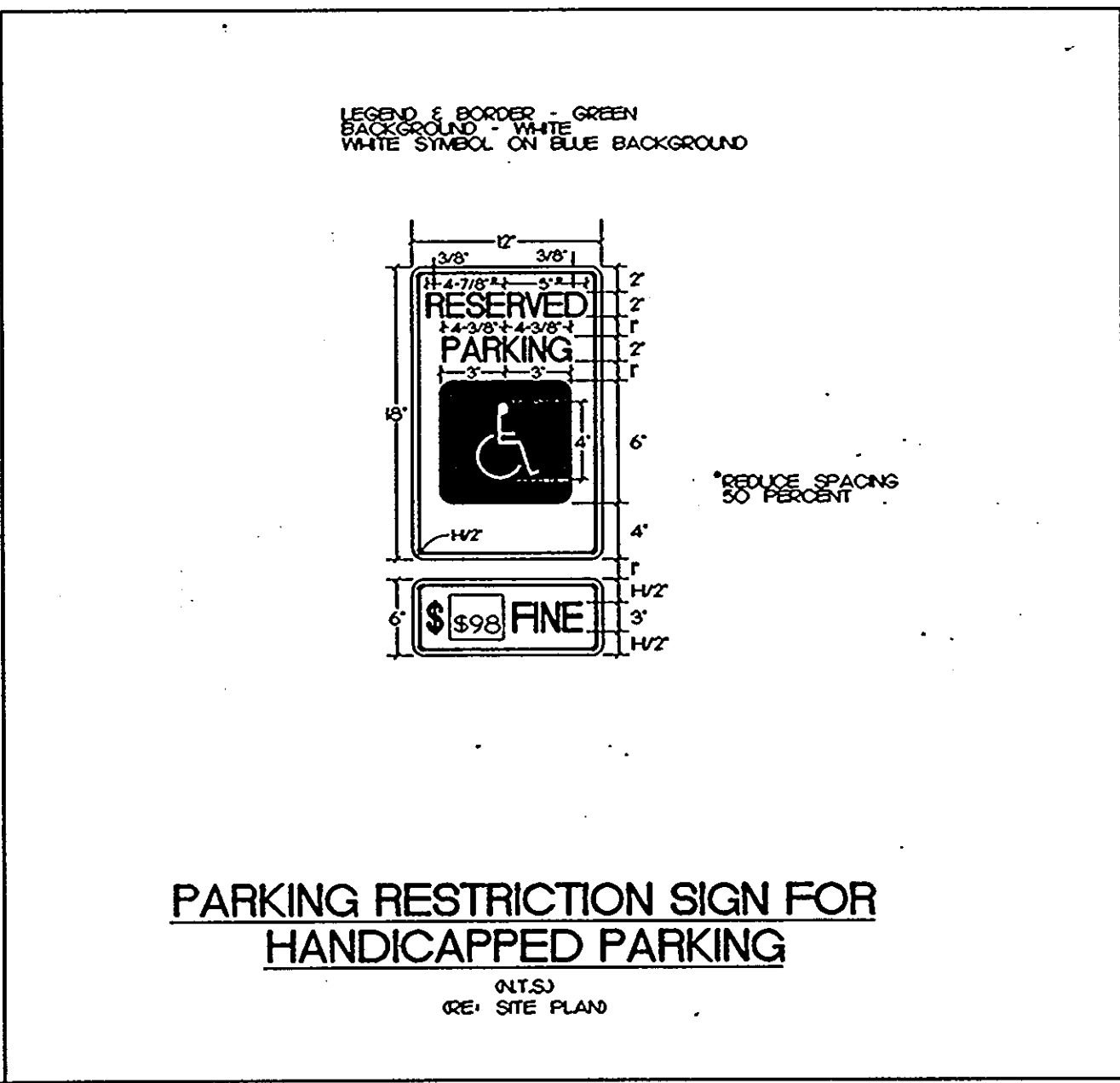
COLUMBIA CROSSING SHOPPING CENTER

SITE DETAILS

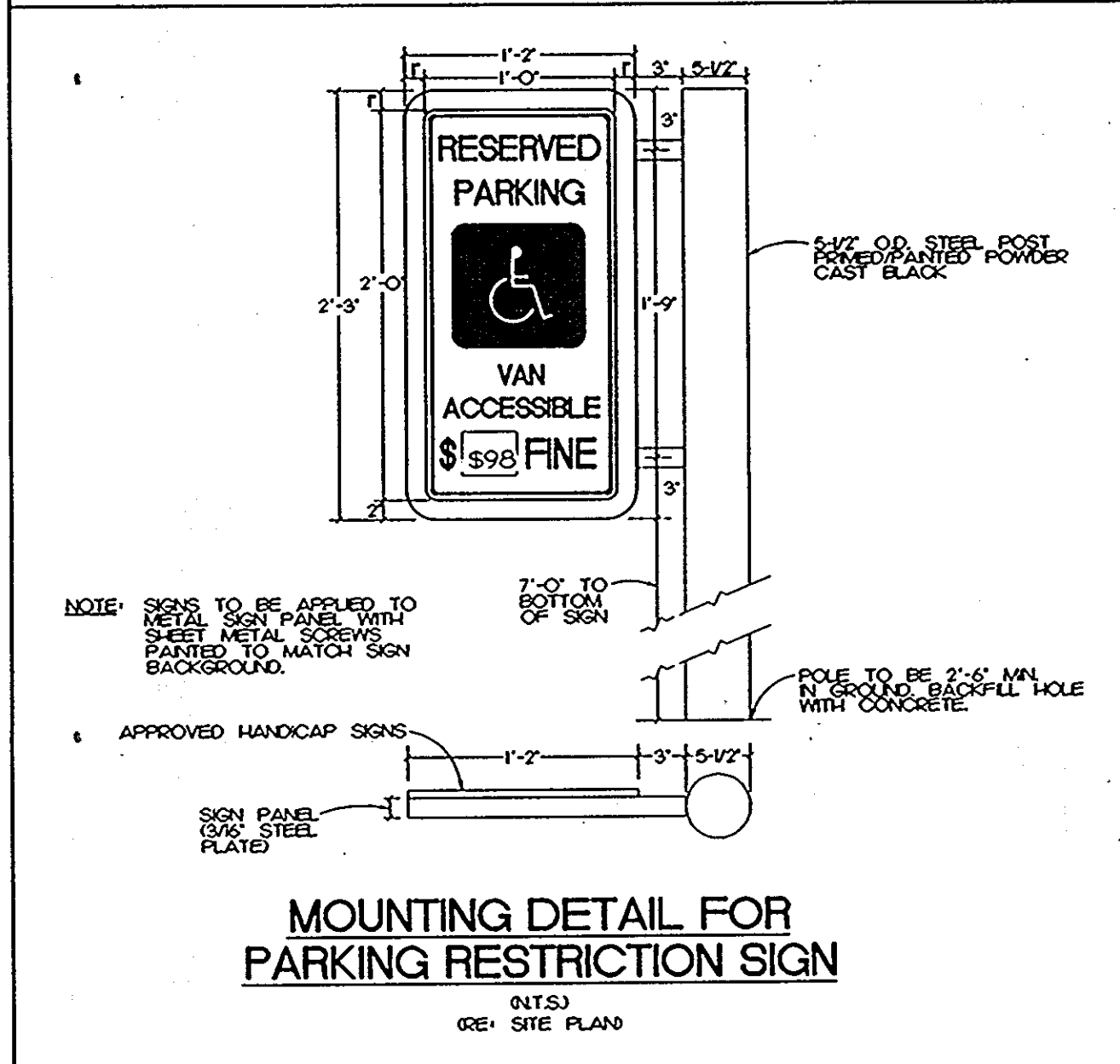
SECTION 1 AREA 1 PARCEL P
TAX MAP 36, GRID 18, P/O PARCEL 50
6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
Drawn JC/CG FCK Job. 96-30 Drawing
Check KK Date 10-29-96 13/23



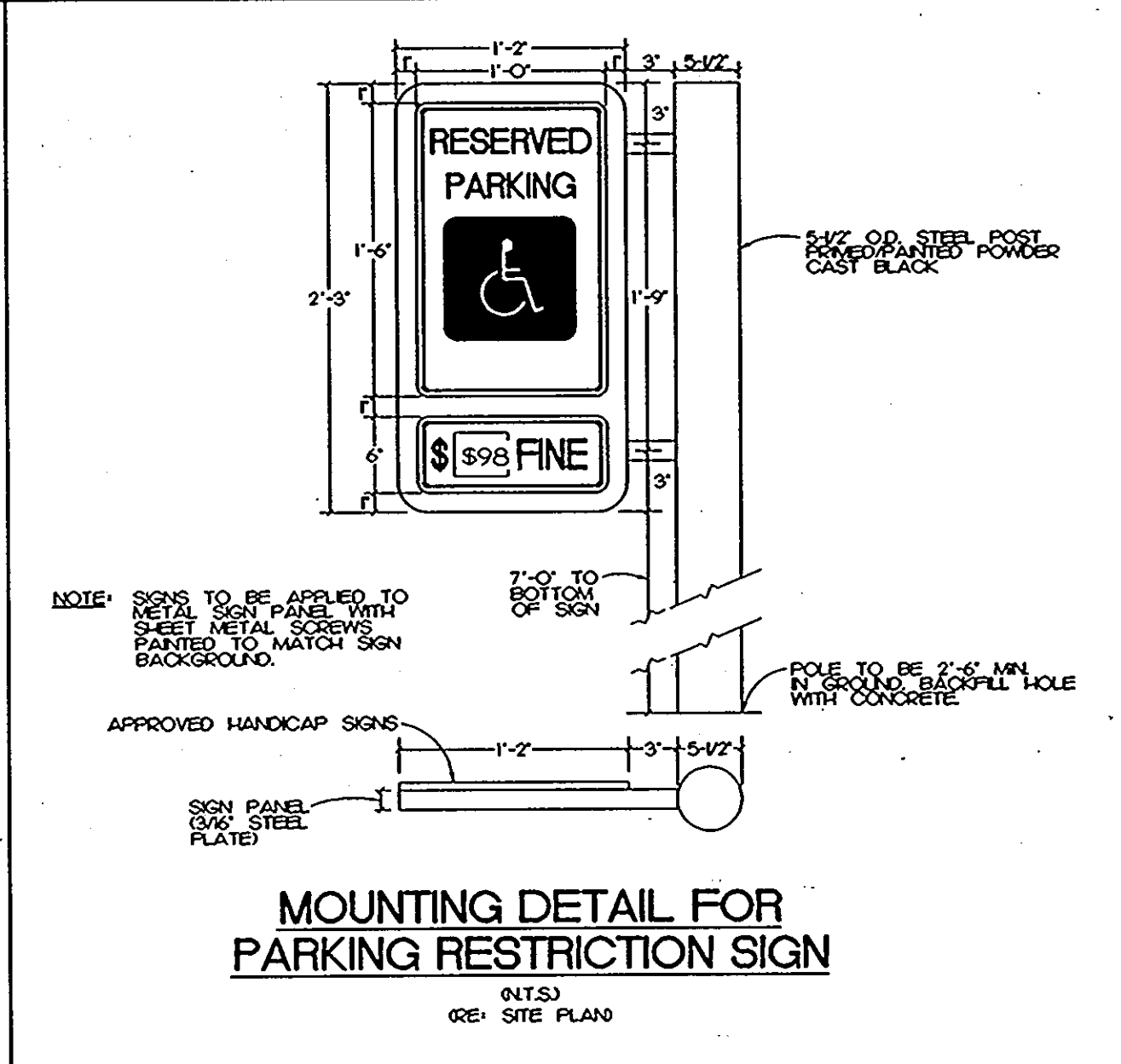
PARKING RESTRICTION SIGN FOR VAN HANDICAPPED PARKING
(N.T.S.)
(RE: SITE PLAN)



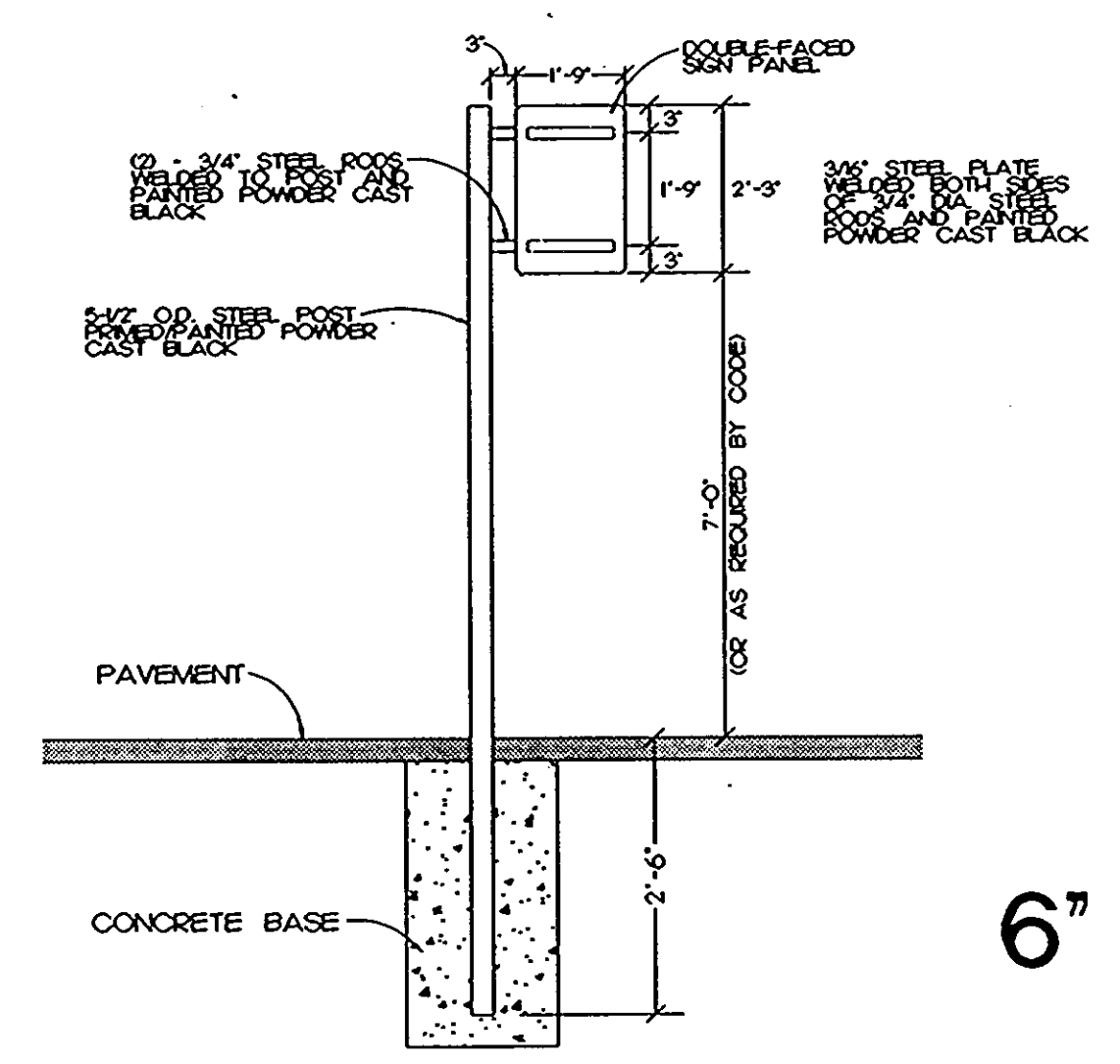
PARKING RESTRICTION SIGN FOR HANDICAPPED PARKING
(N.T.S.)
(RE: SITE PLAN)



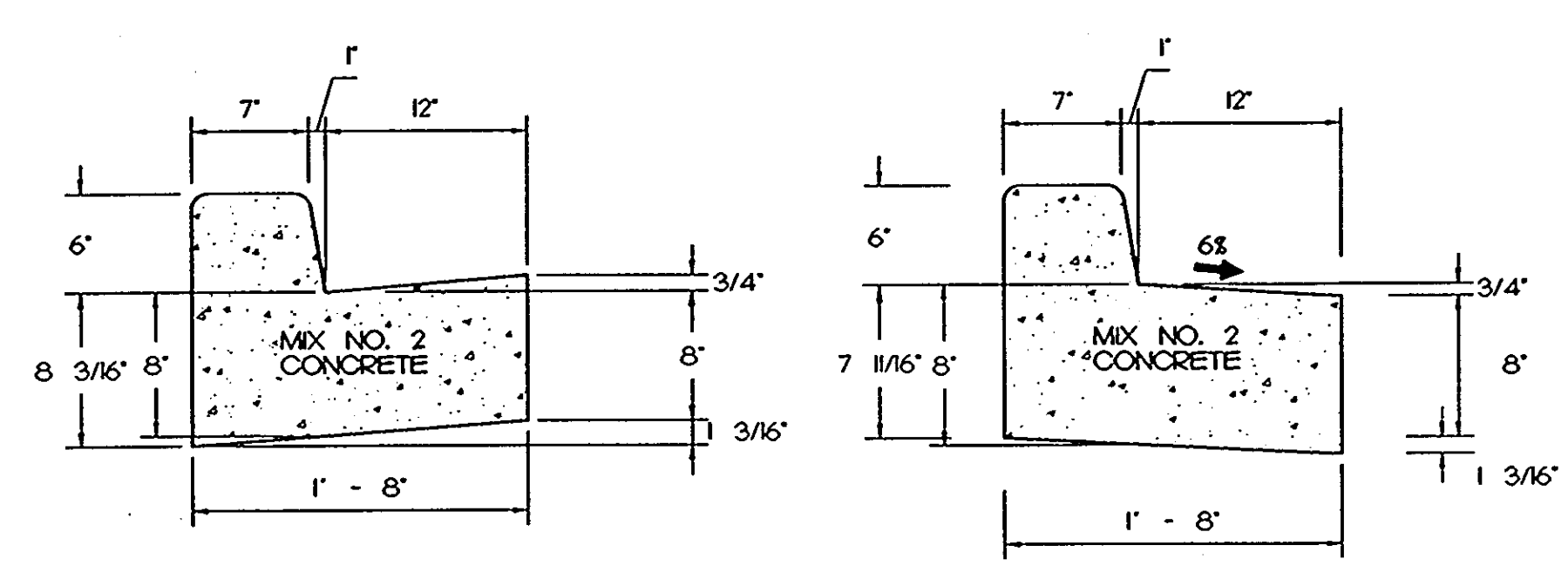
MOUNTING DETAIL FOR PARKING RESTRICTION SIGN
(N.T.S.)
(RE: SITE PLAN)



MOUNTING DETAIL FOR PARKING RESTRICTION SIGN
(N.T.S.)
(RE: SITE PLAN)

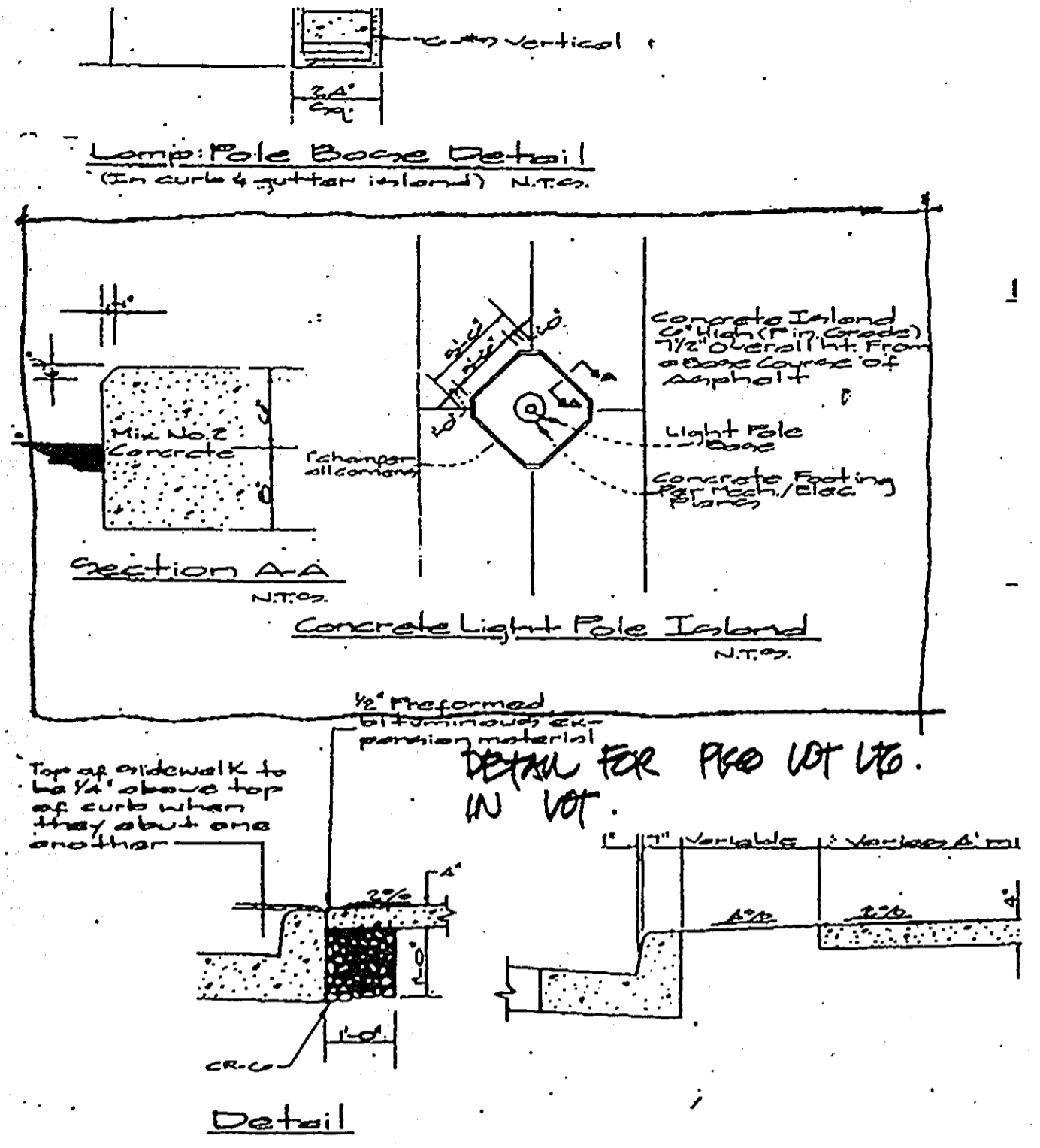


POST/SIGN PANEL DETAIL FOR PARKING RESTRICTION SIGN
(N.T.S.)
(RE: SITE PLAN)

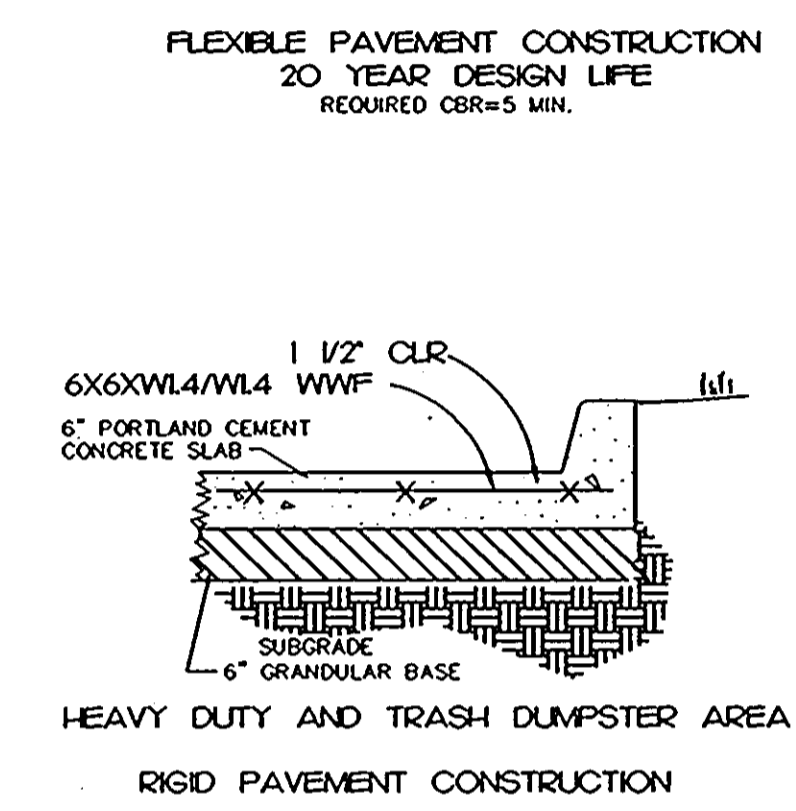
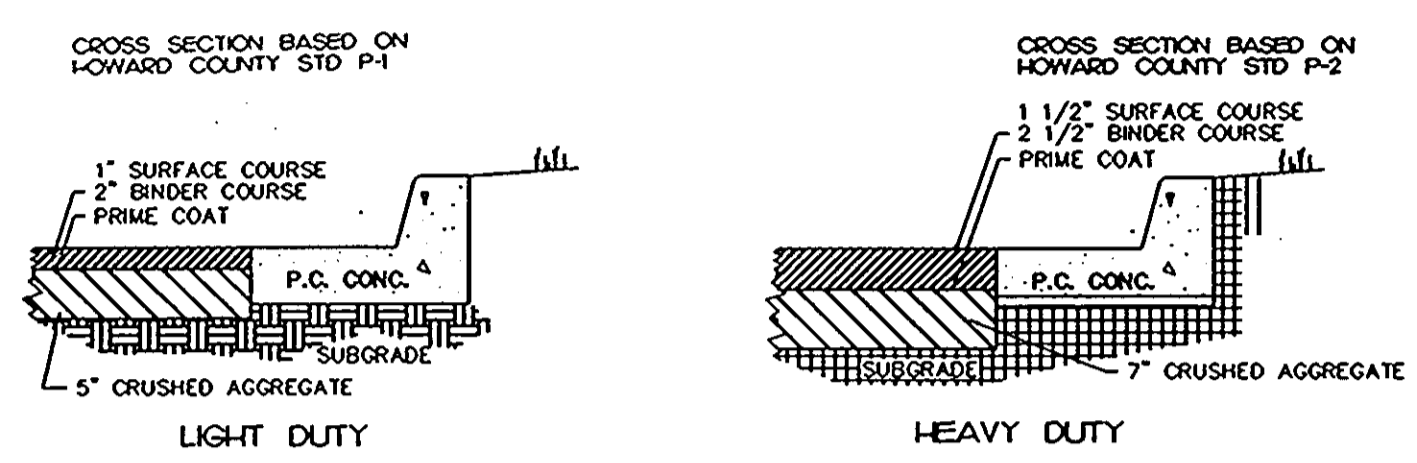
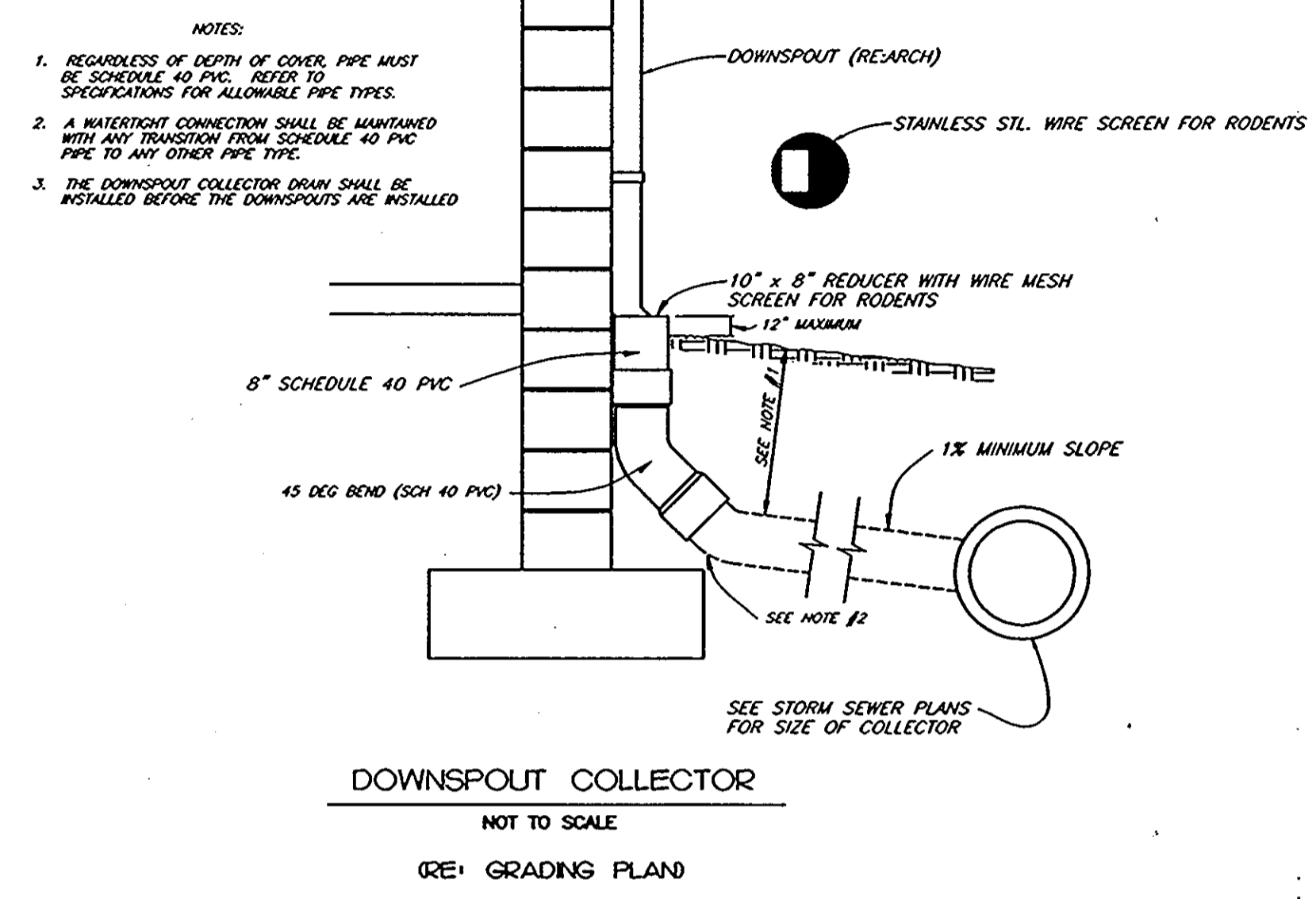


6" COMBINATION CURB + GUTTER

APPROVED FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER & SEWERAGE FOR HOWARD COUNTY, MARYLAND.
DATE 5/19/97
APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
DATE 5/20/97
DATE 5/20/97



Notes:
1. Sidewalk to be scribed in 5' maximum squares.
2. Expansion joints across the sidewalk not to be more than 10'.



NOTE: PORTLAND CEMENT CONCRETE SHALL BE 3000 P.S.I. 28 DAY STRENGTH W/4% TO 7% ENTRAINED AIR ± 1% AND SLUMP OF 4" MAX. TO 2" MIN.
CONSTRUCTION SHALL CONFORM TO THE MARYLAND DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION NO. 520.

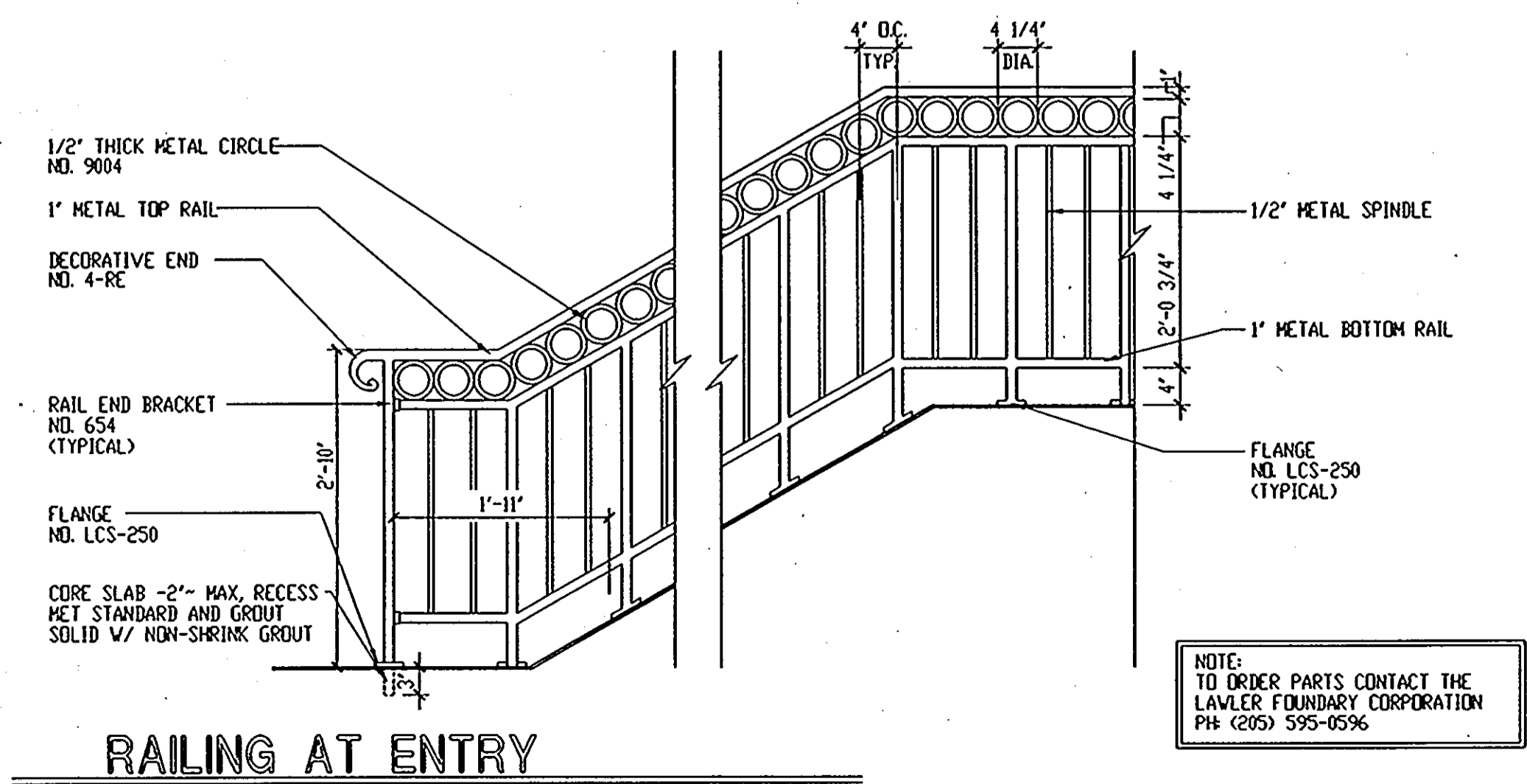
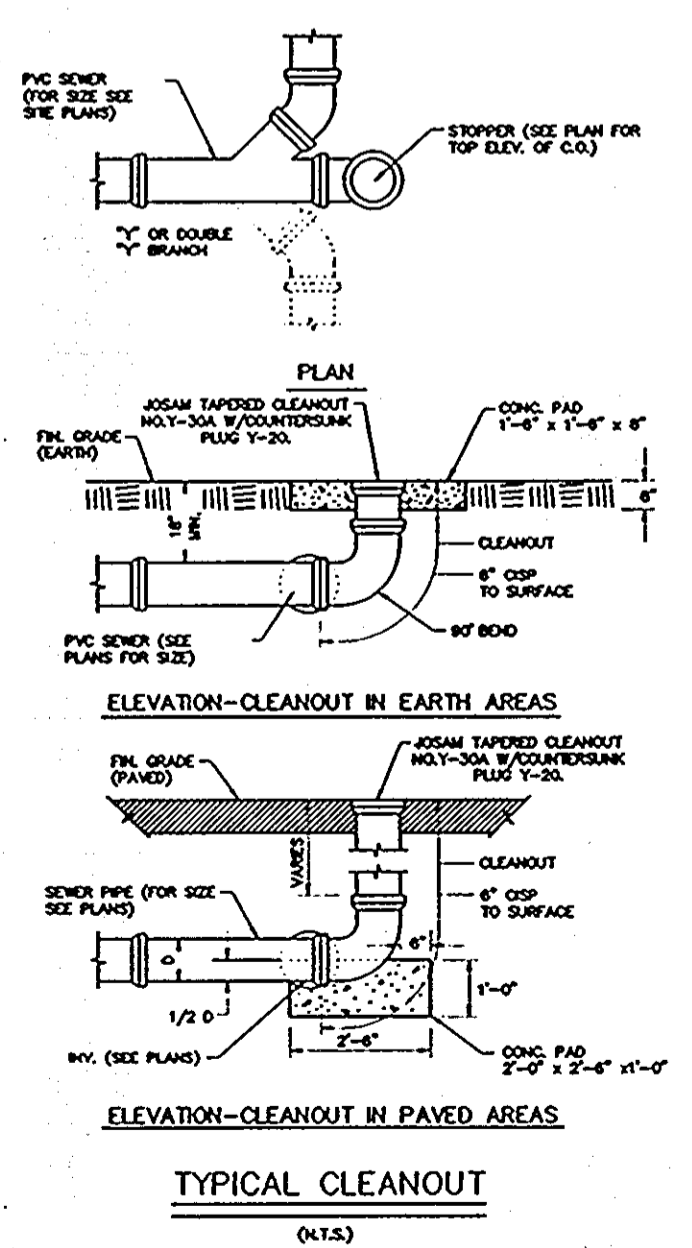
ASPHALT SURFACE COURSE MD DOT SPECIFICATION SECTION 901, TYPE SF SC (w)
ASPHALT BINDER COURSE MD DOT SPECIFICATION SECTION 901, TYPE BF, BC (w)
AGGREGATE BASE MD DOT SPECIFICATION SECTION 500, SUBSECTION 901, TYPE BRG, GA
CONCRETE PAVEMENT MD DOT SPECIFICATION SECTION 520.

COMPACTION IN ACCORDANCE WITH REQUIREMENTS PRESENTED IN SECTION 400.05G.

IMMEDIATELY PRIOR TO PAVEMENT CONSTRUCTION, THE SUBGRADE SOILS SHALL BE SCARIFIED, MOISTURE CONDITIONED (IF NECESSARY) TO 2 TO 4 PERCENT ABOVE OPTIMUM MOISTURE AND RECOMPACTED IN ACCORDANCE WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT BY GILES ENGINEERING ASSOCIATES.

- CONCRETE CONTROL JOINT SPACING SHALL BE 12' OC
- CONCRETE CONTROL JOINTS SHALL BE LOAD TRANSFER REINFORCED
- THE BARS SHALL BE PLACED AT ALL CONSTRUCTION JOINTS PARALLEL TO TRAFFIC AND CONSIST OF GRADE 40, NO. 4 REINFORCING BARS 24" IN LENGTH AND PLACED AT 48" ON-CENTER.
- THREE-QUARTER INCH DIAMETER LUBRICATED SMOOTH DOWELS SHALL BE PLACED AT ALL CONTROL JOINTS PERPENDICULAR TO TRAFFIC
- THESE DOWELS SHALL BE 18" LONG AND SPACED 12" ON-CENTER.
- EXPANSION JOINTS SHALL BE PROVIDED WHERE PAVEMENT ABUTS FIXED OBJECTS SUCH AS BUILDING AND LIGHT POLES.

PAVING DETAILS
(RE: SITE PLAN)



APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE: 3/24/97

CONTRACT PURCHASER
BRINKER INTERNATIONAL
150 SE 12th STREET
SUITE 200
FT. LAUDERDALE, FL 33316
ATTN: Mr. Bill Gaisford
305-462-6828



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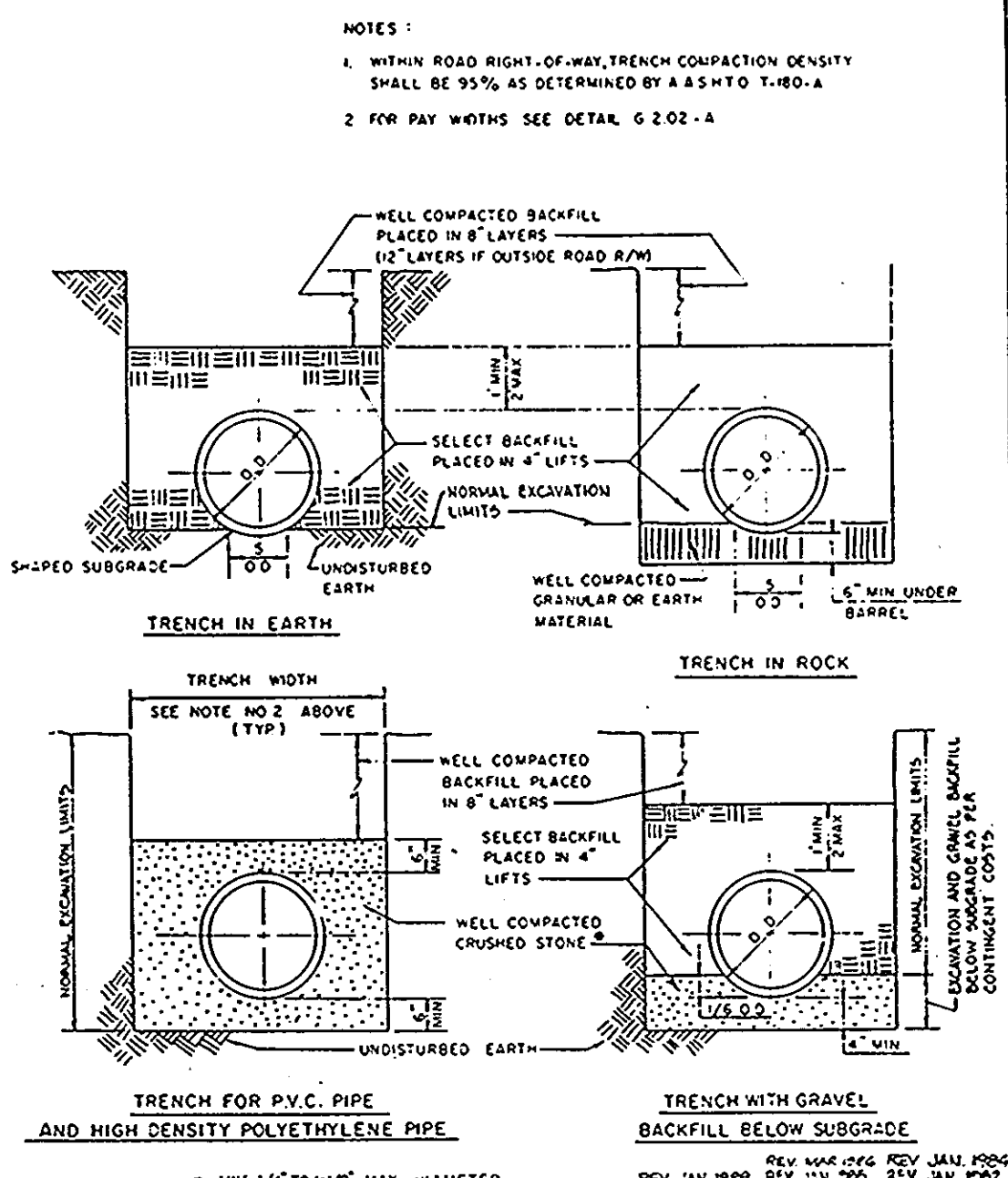
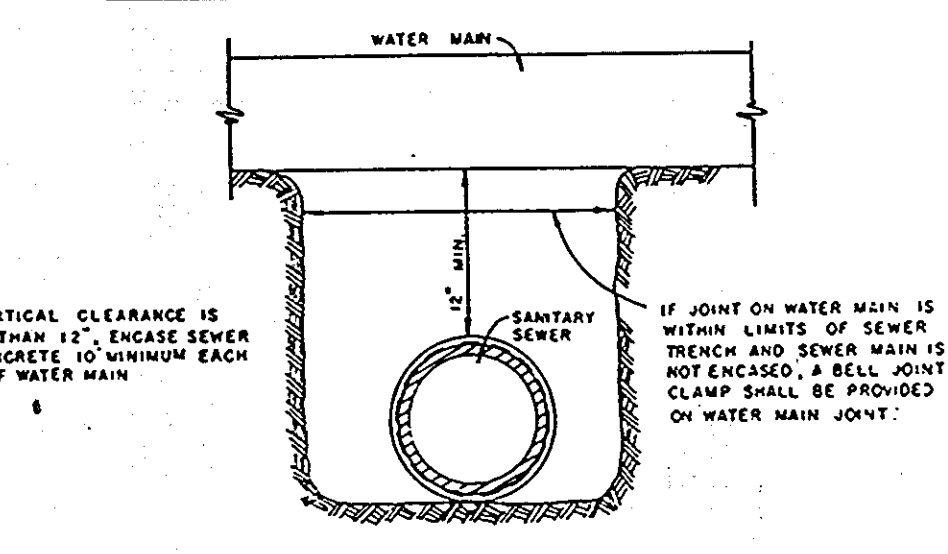
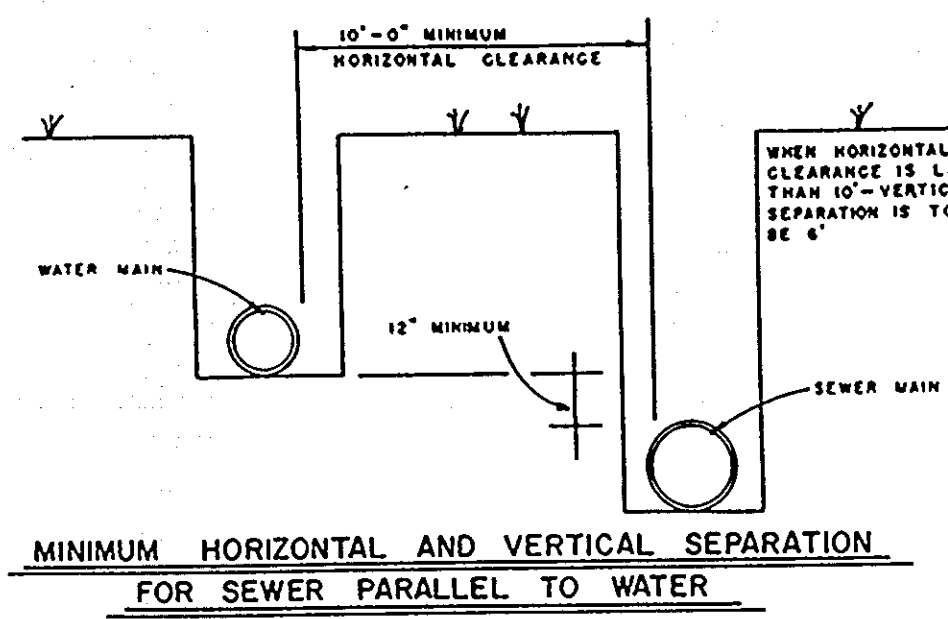
ROMANO'S
Macaroni GRILL

COLUMBIA CROSSING SHOPPING CENTER
SITE DETAILS

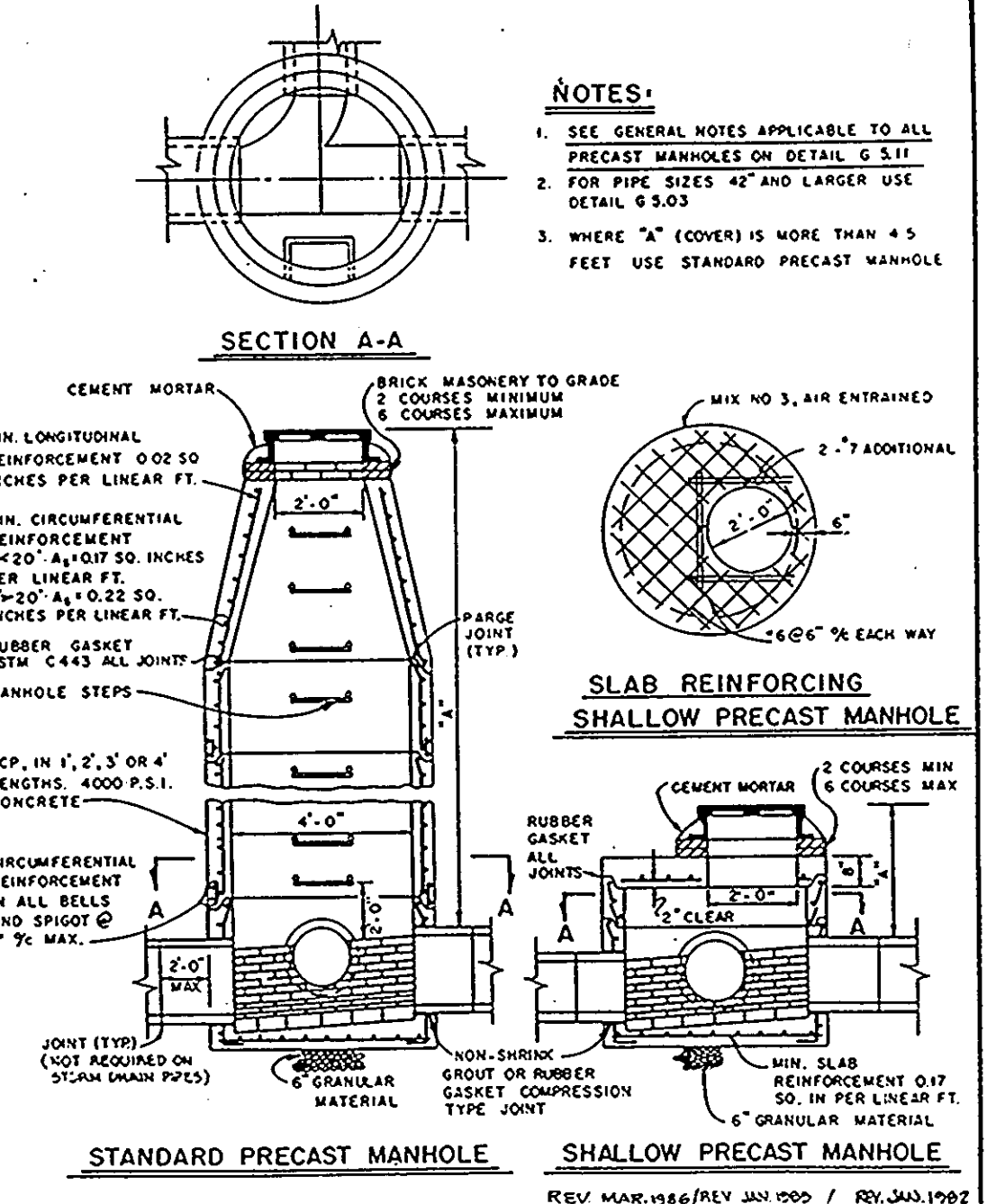
APPROVED FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER & SEWERAGE FOR HOWARD COUNTY, MARYLAND.
COUNTY HEALTH OFFICER: MRL DATE: 5-14-97

APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
DATE: 5/14/97

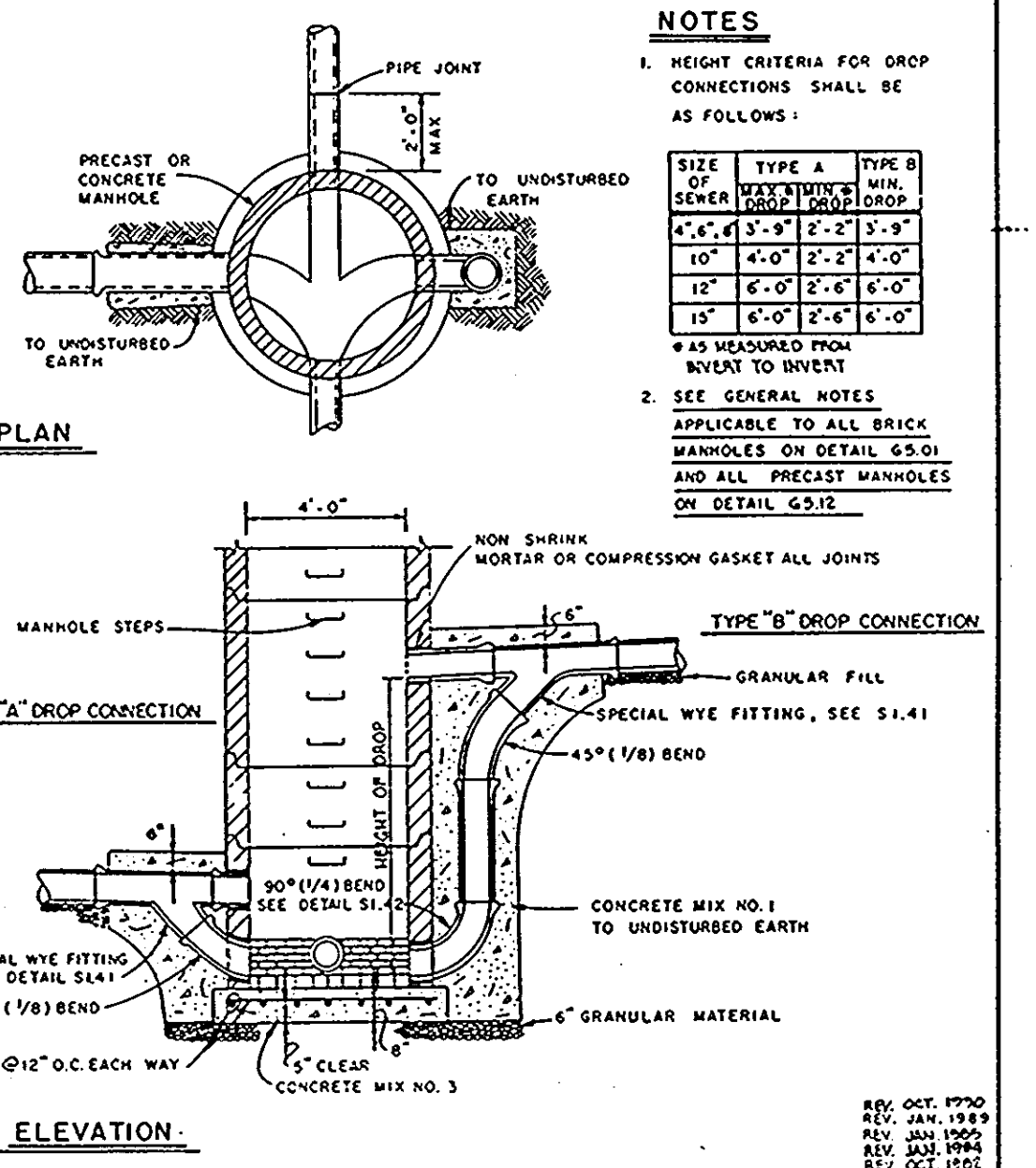
Drawn JC/CG FCK Job. 96-30 Drawing
Check KK Date 10-29-96 14/23



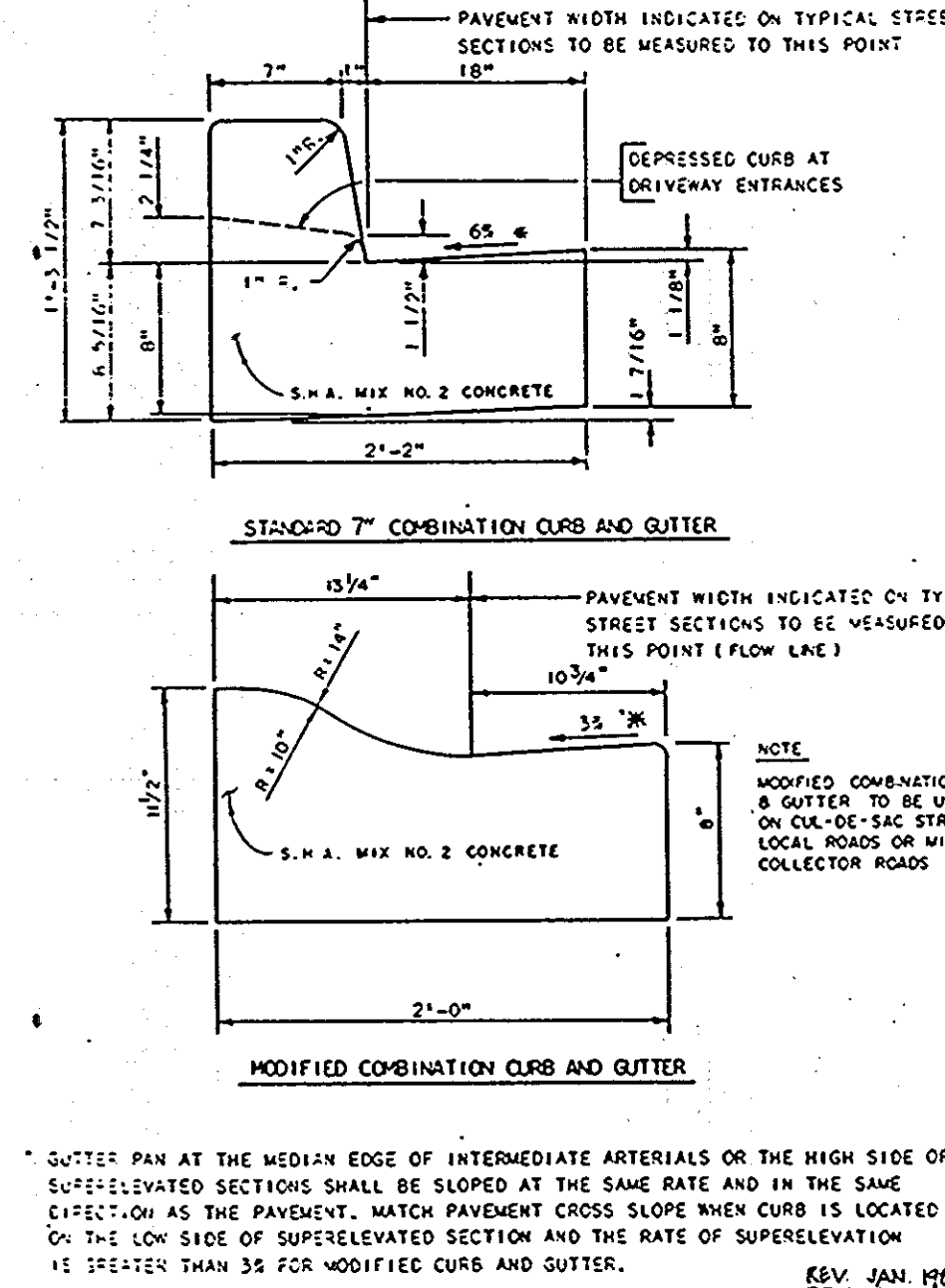
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
STANDARD SANITARY SEWER DETAILS
WATER SEWER CLEARANCE REQUIREMENTS
REV. JAN. 1994
REV. JUN. 1989
REV. JUN. 1987
REV. JUN. 1985
REV. JAN. 1982



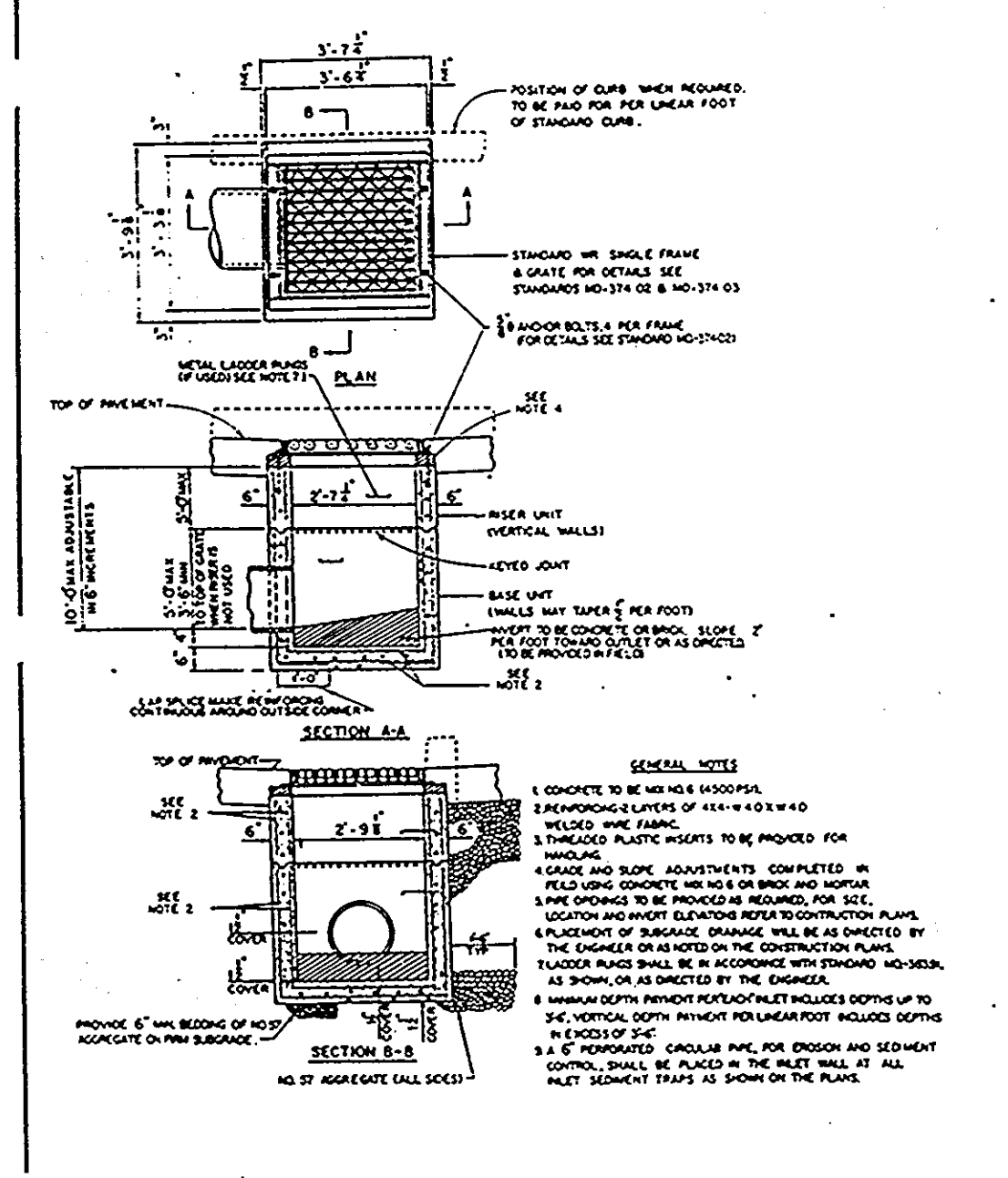
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
4'-0" STANDARD AND SHALLOW PRECAST MANHOLE FOR USE WITH 24" AND SMALLER PIPE
REV. MAR. 1988/REV. JAN. 1982 / REV. JUN. 1982



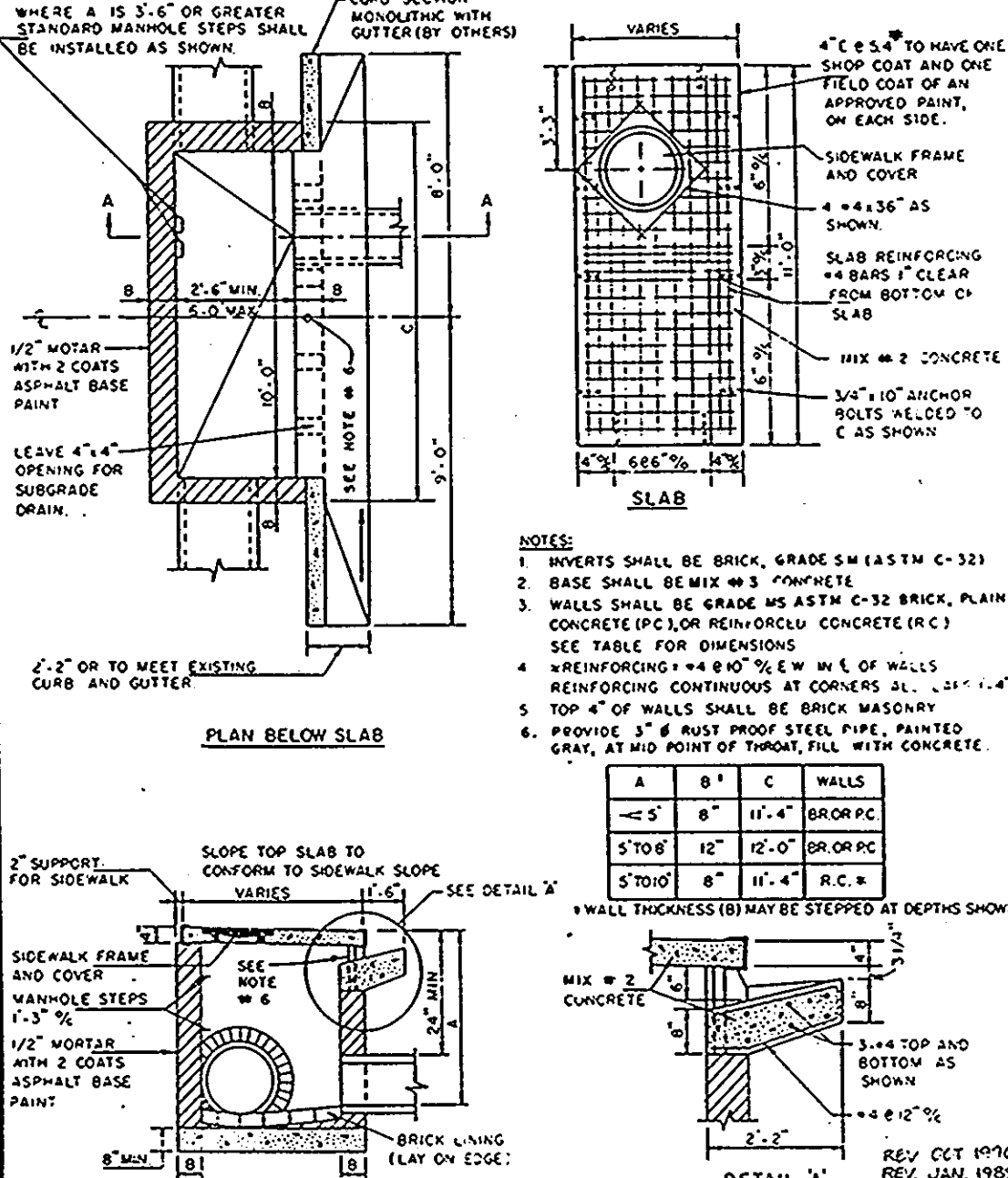
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
DROP MANHOLE TYPE "A" AND TYPE "B"
REV. OCT. 1990
REV. JAN. 1989
REV. JUN. 1988
REV. JUL. 1987
REV. OCT. 1986



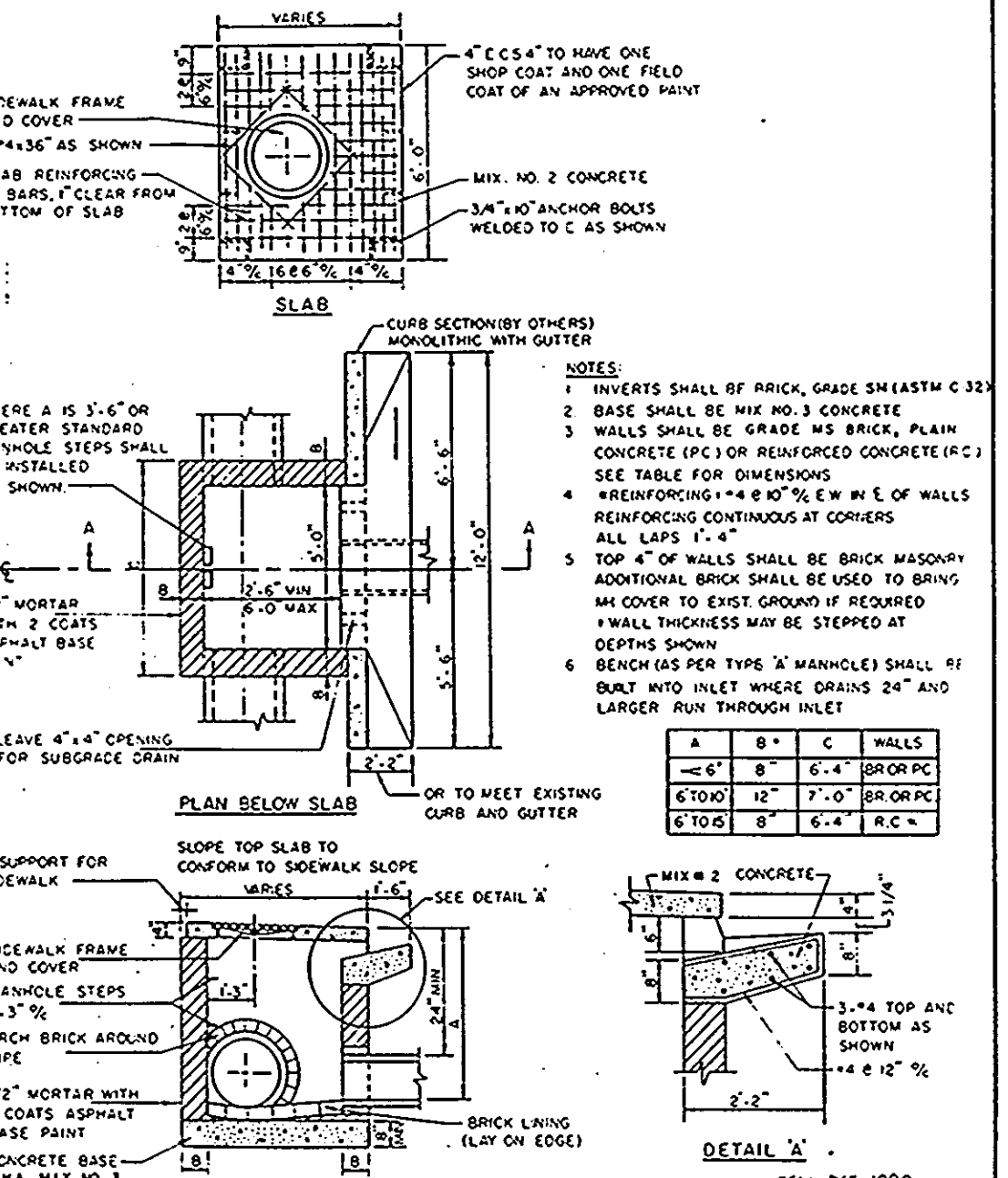
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
COMBINATION CURB AND GUTTER
REV. JAN. 1994
REV. JUN. 1987
REV. MAR. 1986



HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
PRECAST SINGLE WALL INLET
REV. OCT. 1970
REV. JAN. 1989
REV. MAR. 1986
REV. OCT. 1986



HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
TYPE "A-10" INLET
REV. OCT. 1970
REV. JAN. 1989
REV. MAR. 1986
REV. OCT. 1986

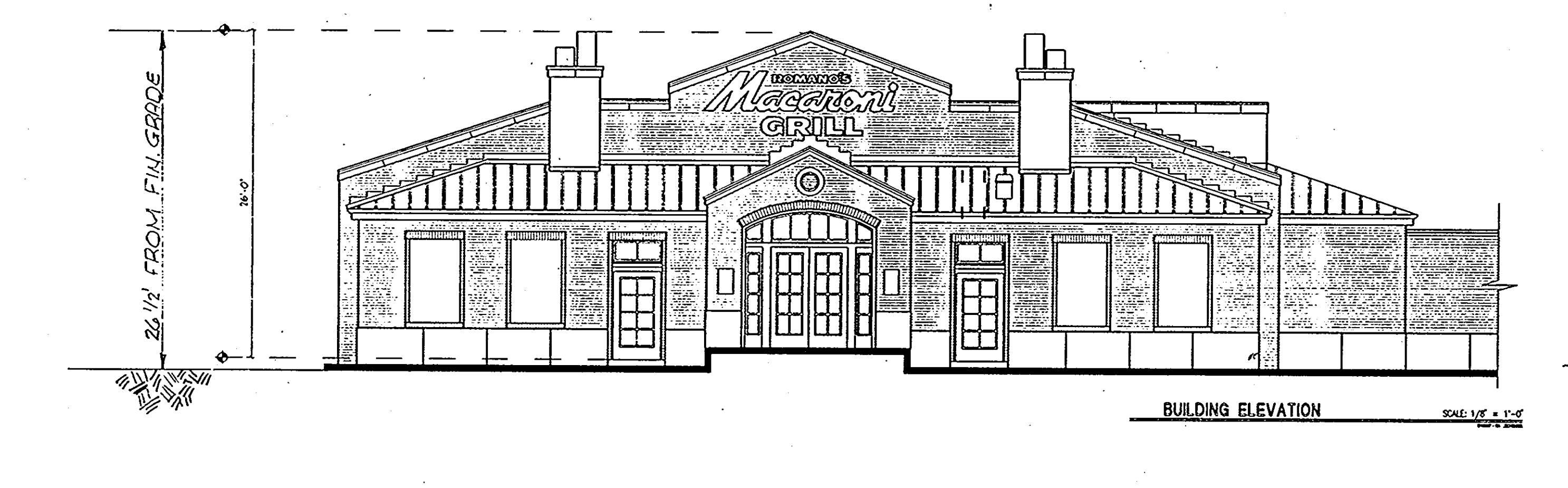


HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
TYPE "A-5" INLET BRICK OR CAST-IN-PLACE
REV. OCT. 1970
REV. JAN. 1989
REV. MAR. 1986
REV. OCT. 1986

FIGURES SHOWN IN TABLE ARE MEASURED FROM INVERT OF PIPE TO GRADE

Pipe Dia.	REINFORCED CONCRETE PIPE ASTM-C-76				ASBESTOS CEMENT PIPE ASTM-C-428			
	Class I	Class II	Class III	Class IV	Class 2400	Class 3300	Class 4000	Class 5600
12"	4	7	3	14	3	4	3	30"
14"					4	9	3	30"
15"	4	11	3	22	3	5	8	4
16"					6	7	4	13
18"	4	12	3	23	3	5	12	4
20"					6	9	5	13
21"	4	12	3	24	3	6	9	5
24"	5	13	4	25	4	6	9	5
27"	5	13	4	20	4	6	9	5
30"	5	13	4	21	4	6	9	5
36"	6	9	5	14	5	22	5	6
42"	6	9	5	14	5	21	5	6
48"	6	10	6	15	6	22	6	6
54"	6	11	6	16	6	23	6	6
60"	7	12	7	17	7	23	7	7
66"	8	13	8	17	8	24	7	7
72"	8	13	8	17	8	25	8	8

PIPE SHALL NOT BE USED WHERE THERE ARE BLANK SPACES IN THE TABLE.
CLASS 1500 ASBESTOS CEMENT PIPE SHALL NOT BE USED.



HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
STANDARD STORM DRAIN DETAIL PERMISSIBLE DETAIL TABLE
CONC. AND ASBESTOS CEMENT PIPE
REV. OCT. 1970
REV. JAN. 1989
REV. MAR. 1986
REV. OCT. 1986

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 3/26/97

CONTRACT PURCHASER
BRINKER INTERNATIONAL
150 SE 12th STREET
SUITE 200
FT. LAUDERDALE, FL 33316
ATTN: Mr. Bill Gaisford
305-462-6828



FCK Freeland-Clinkscales & Kauffman, Inc.
Engineers - Landscape Architects
209 West Stone Avenue
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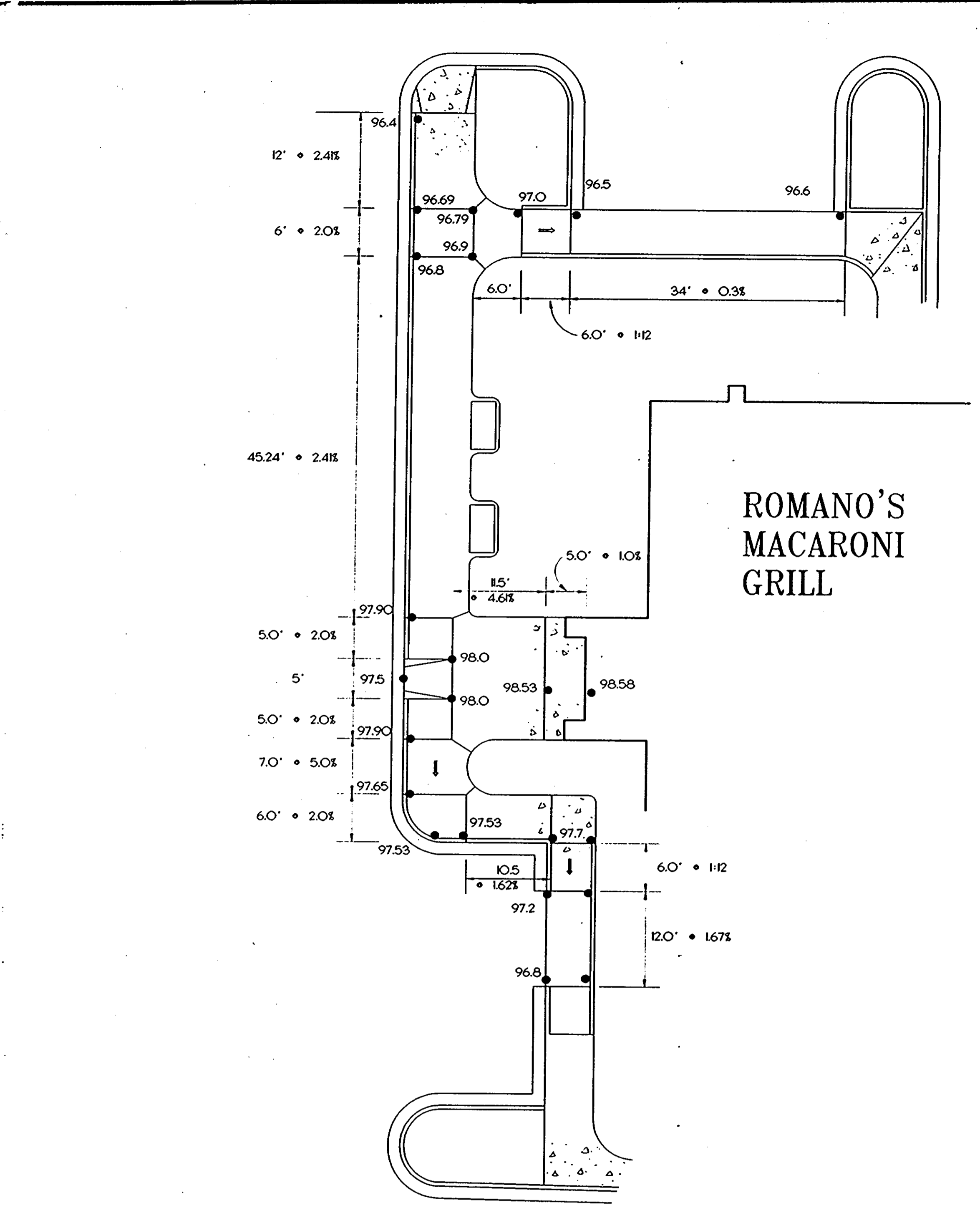
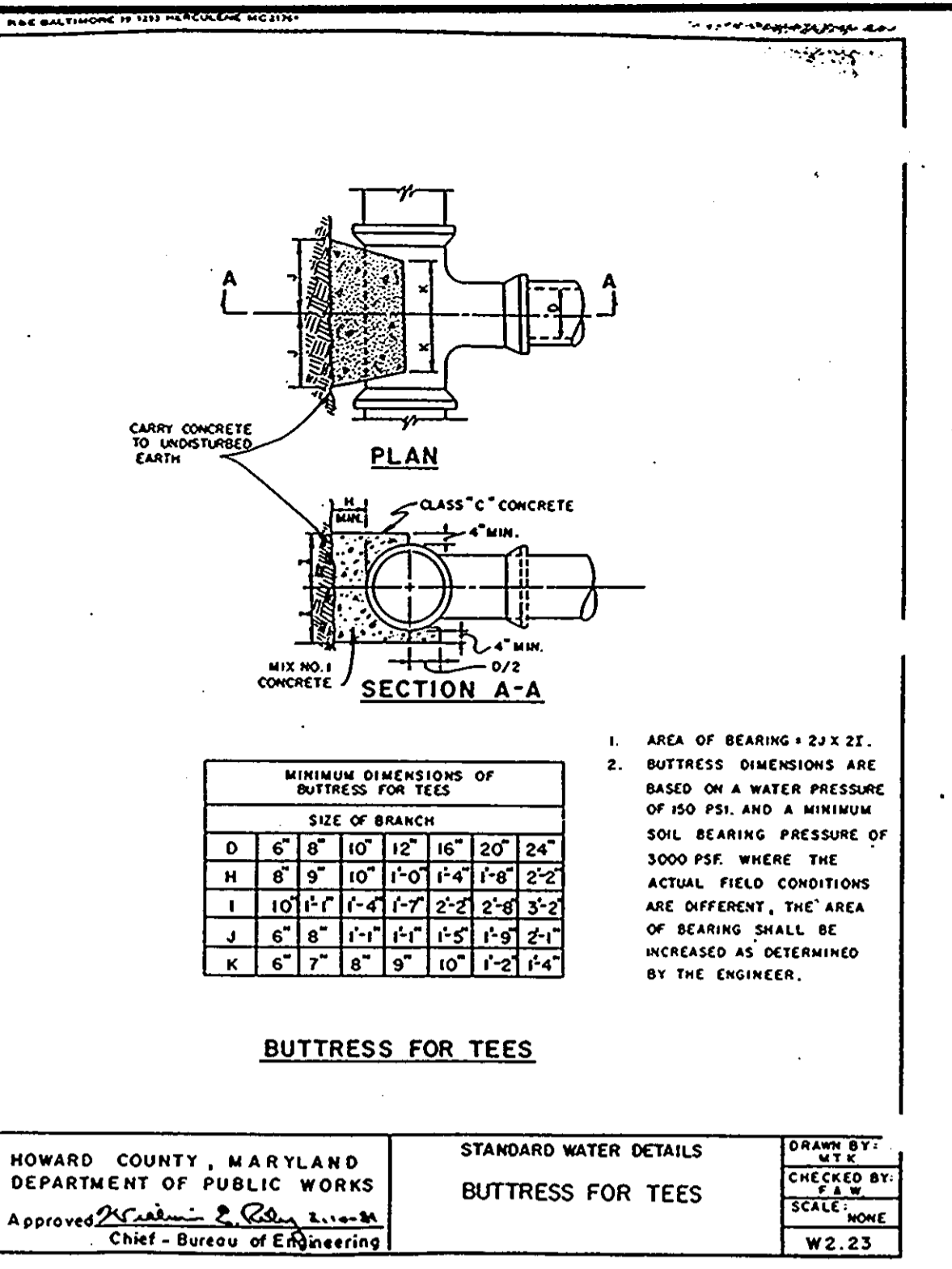
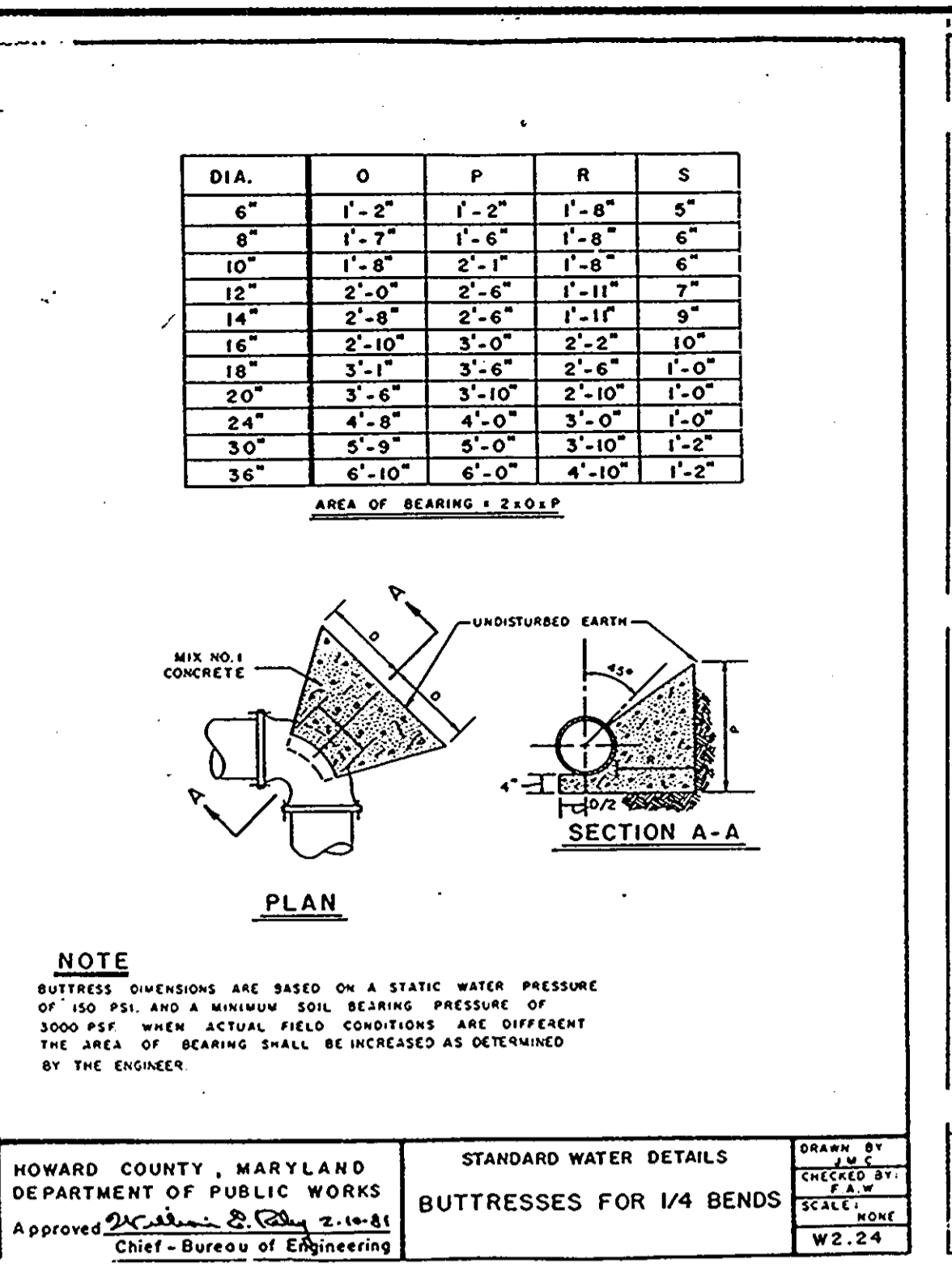
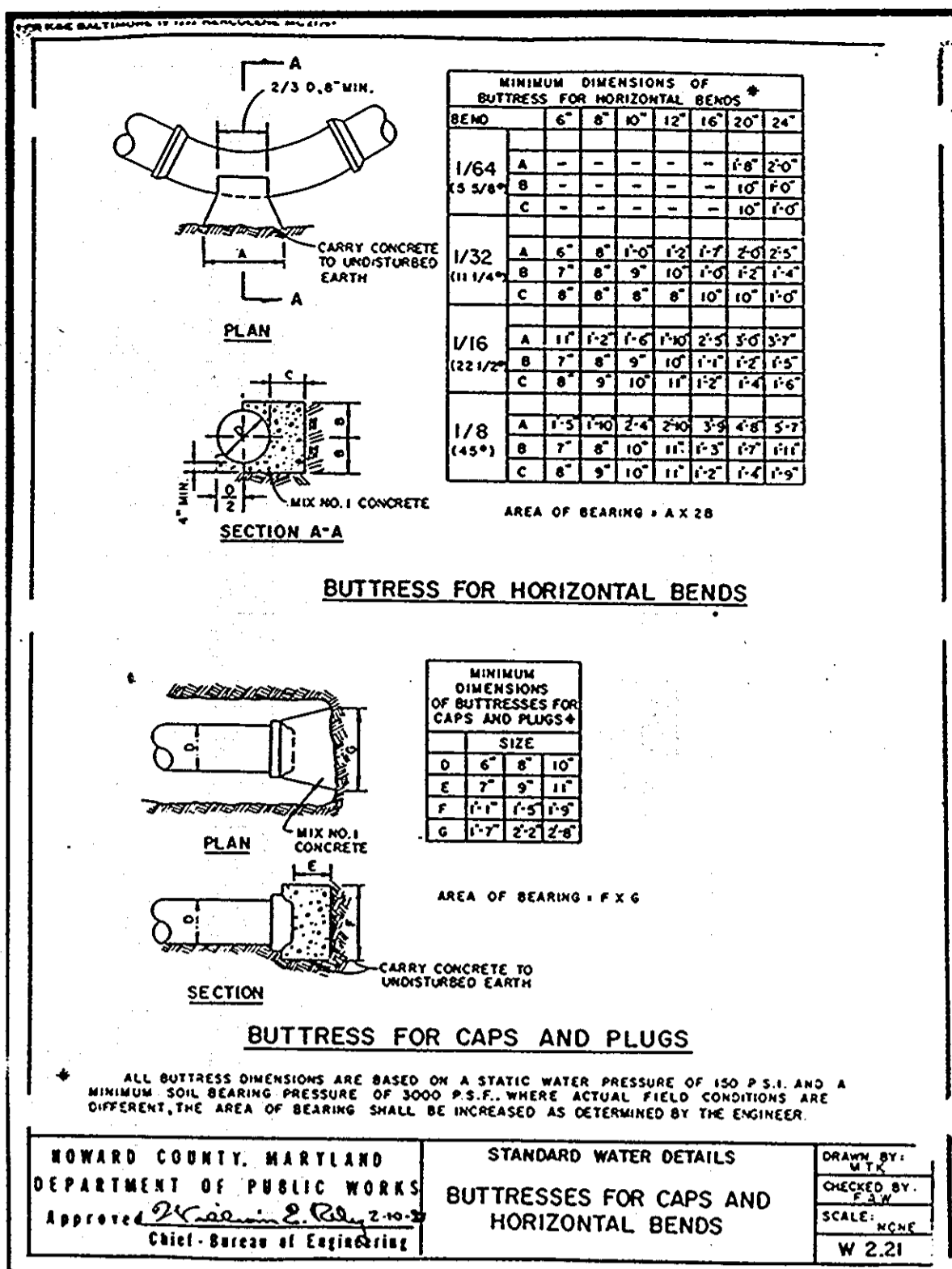
ROMANO'S
Macaroni GRILL

COLUMBIA CROSSING SHOPPING CENTER

SITE DETAILS

APPROVED FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER & SEWERAGE FOR HOWARD COUNTY, MARYLAND.
DATE 5/14/97
APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
DATE 5/15/97
DATE 5/20/97

SECTION 1 AREA 1 PARCEL P
TAX MAP 36, GRID 18, P/O PARCEL 50
6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
Drawing
Check KK Date 10-29-96 15/23



REVISIONS

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE: 2/26/97

CONTRACT PURCHASER
BRINKER INTERNATIONAL
150 SE 12th STREET
SUITE 200
FT. LAUDERDALE, FL 33316
ATTN: Mr. Bill Gaisford
305-462-6828

HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
Approved: [Signature] 2-10-97
Chief - Bureau of Engineering

STANDARD WATER DETAILS
BUTTRESSES FOR CAPS AND
HORIZONTAL BENDS

DRAWN BY: [Signature]
CHECKED BY: [Signature]
SCALE: NONE
W 2.21

HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
Approved: [Signature] 2-10-97
Chief - Bureau of Engineering

STANDARD WATER DETAILS
BUTTRESSES FOR 1/4 BENDS

DRAWN BY: [Signature]
CHECKED BY: [Signature]
SCALE: NONE
W 2.24

HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
Approved: [Signature] 2-10-97
Chief - Bureau of Engineering

STANDARD WATER DETAILS
BUTTRESS FOR TEES

DRAWN BY: [Signature]
CHECKED BY: [Signature]
SCALE: NONE
W 2.23

**ENLARGED SIDEWALK PLAN
TO SHOW ADA ACCESSIBILITY**

02/28/97 16:59
FROM THE ROUSE COMPANY (FRI) 02 28' 97 16:59/ST. 16:59/NO. 3560272936 P 1/1

FCK FREELAND, CLINKSCALES & KAUFFMAN
Engineers - Landscape Architects

February 26, 1997

Howard Research & Development
10275 Little Patuxent Parkway
Columbia, MD 21044

Re: Romano's Macaroni Grill
Columbia Crossing Shopping Center
Off-Site Construction.

Atttn: Al Edwards

Dear Al,
Pursuant to HSCD's request for written permission from HRD for Brinker International to construct the off-site work shown on our site construction plans, we have drafted the following statement.

In the interest of providing a workable division of construction activities, Howard Research and Development Co. grants Brinker International permission to construct certain off-site improvements as shown on the Site Construction Plans for Romano's Macaroni Grill prepared by Freeland-Clinkscapes & Kauffman. These improvements consist of curbing, storm drains, paving, and landscaping located along the common property lines separating Parcel "O" and "P" and Parcel "Q" and "R" of the 175 Commercial, Section 1/4 Area 1, Plat 12178. The intent of this letter is to provide information to Howard County. This letter is to have no impact on any agreements, written or verbal, between Howard Research & Development and Brinker International.

Howard Research & Development by: [Signature] Al Edwards Date

Post-It Fax Note 7671 Date 2/28/97 To: John Chudotz From: Al Edwards Co: FCSR Co: HRD-ROUSE Phone: 864-233-8915 Fax: 410-992-6027

209 West Stone Avenue Greenville, South Carolina 29609 864-233-5497

FCK Freeland-Clinkscapes & Kauffman, Inc.
Engineers - Landscape Architects
209 West Stone Avenue
Greenville, South Carolina 29609
864-233-5497
fax 864-233-8915

ROMANO'S Macaroni GRILL

COLUMBIA CROSSING SHOPPING CENTER

SITE DETAILS

SECTION 1 AREA 1 PARCEL P
TAX MAP 36, GRID 18, P/O PARCEL 50
6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

Drawn JC/CG FCK Job: 96-30 Drawing
Check KK Date 10-29-96 16/23

APPROVED FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER & SEWERAGE FOR HOWARD COUNTY, MARYLAND.
JAMES BYLER, JR. 5-17-92
COUNTY HEALTH OFFICER M.R. DATE

APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
[Signature] 5/5/97
DATE
[Signature] 5/29/97
DATE
[Signature] 5/29/97
DATE

HOWARD SOIL CONSERVATION DISTRICT

PERMANENT SEEDING NOTES

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

Seedbed Preparation: Loosen upper three inches of soil by raking, disking 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/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil. At time of seeding, apply 400 lbs/acre 50-0-0 ureaform fertilizer (9 lbs/1000 sq. ft.)
2. Acceptable -- Apply 2 tons/acre dolomitic limestone (92 lbs/1000 sq. ft.) and 1000 lbs/acre 10-10-10 fertilizer (23 lbs/1000 sq. ft.) before seeding. Harrow or disk into upper three inches of soil.

Seeding: For the periods March 1 -- April 30, and August 1 -- October 15, seed with 60 lbs/acre (1.4 lbs/1000 sq. ft.) of Kentucky 31 Tall Fescue. For the period May 1 -- July 31, seed with 60 lbs Kentucky 31 Tall Fescue per acre and 2 lbs/acre (.05 lbs/1000 sq. ft.) of weeping lovegrass. During the period of October 16 -- February 28, protect site by:
Option 1: -- Two 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 30 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. per acre (5 gal/1000 sq. ft.) of emulsified asphalt on flat areas. On slope 8 feet or higher, use 348 gal. per acre (8 gal/1000 sq. ft.) for anchoring.

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

TEMPORARY SEEDING NOTES

Apply to graded or cleared areas likely to be re-disturbed where a short-term vegetative cover is needed.

Seedbed preparation: -- Loosen upper three inches of soil by raking, disking or other acceptable means before seeding, if not previously loosened.

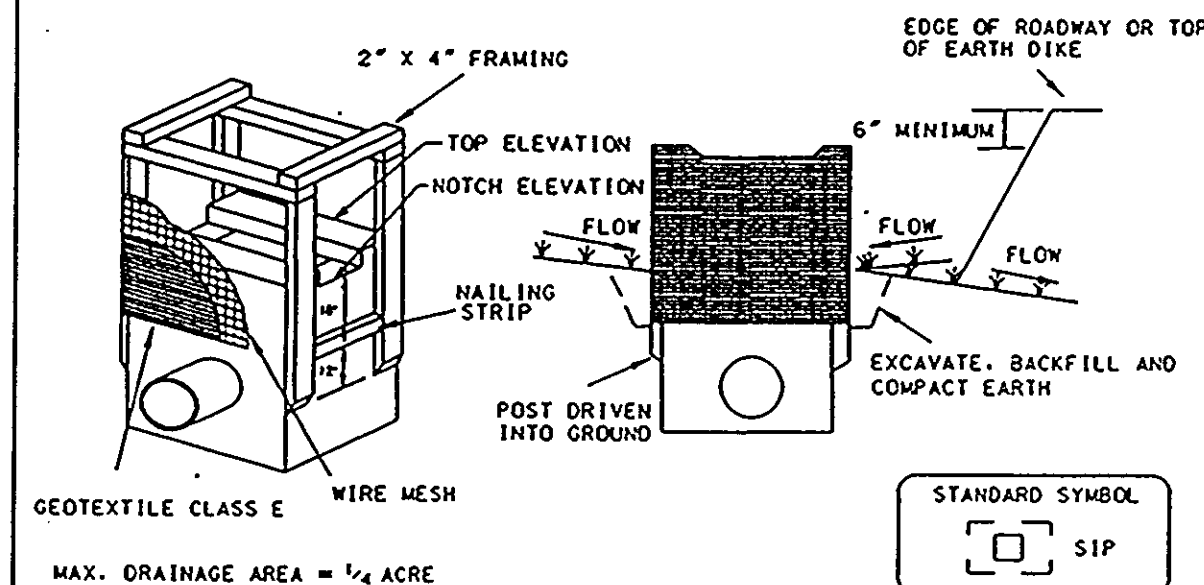
Soil Amendments: -- Apply 600 lbs/acre 10-10-10 fertilizer (14 lbs/1000 sq. ft.)

Seeding: -- For periods March 1 -- April 30 and from August 15 -- October 15, seed with 2-1/2 bushel per acre of annual ryegrass (3.2 lbs/1000 sq. ft.). For the period May 1 -- August 14, seed with 3 lbs/acre of weeping lovegrass (.07 lbs/1000 sq. ft.). For the period November 16 -- February 28, protect site by apply 2 tons/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/acre (70 to 90 lbs/1000 sq. ft.) of unrotted weed-free, 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 slope 8 ft. or higher, use 348 gal. per acre (8 gal/1000 sq. ft.) for anchoring.

Refer to the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for additional rates and methods not covered.

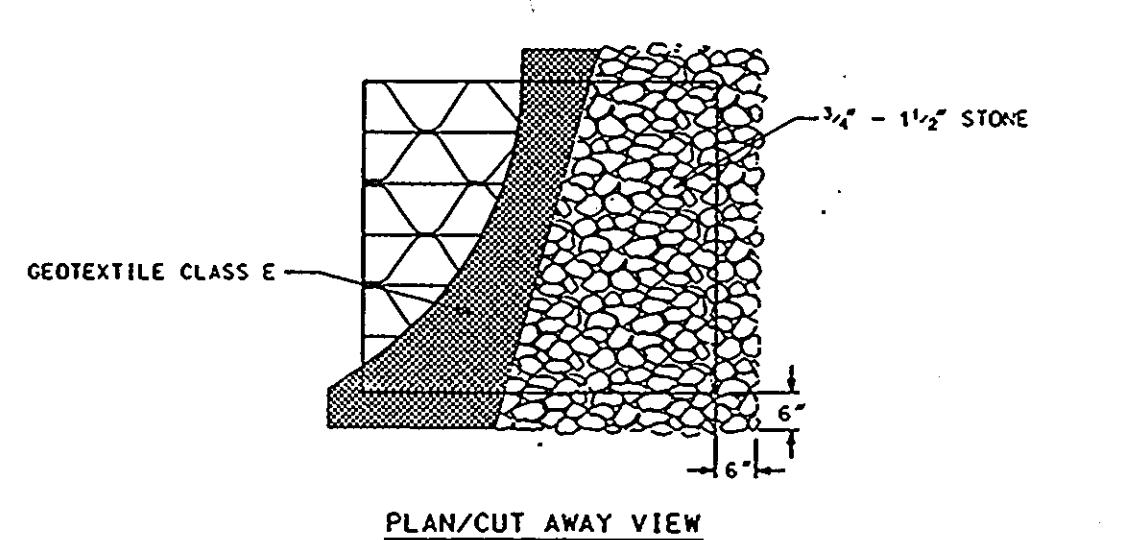
DETAIL 23A - STANDARD INLET PROTECTION



- Construction Specifications
1. Excavate completely around the inlet to a depth of 18" below the notch elevation.
 2. Drive the 2" x 4" construction grade lumber posts 1' into the ground at each corner of the inlet. Place nail strips between the posts on the ends of the inlet. Assemble the top portion of the 2" x 4" frame using the overlap joint shown on Detail 23A. The top of the frame (weir) must be 6" below adjacent roadways where flooding and safety issues may arise.
 3. Stretch the 1/2" x 1/2" wire mesh tightly around the frame and fasten securely. The ends must meet and overlap at a post.
 4. Stretch the Geotextile Class E tightly over the wire mesh with the geotextile extending from the top of the frame to 18" below the inlet notch elevation. Fasten the geotextile firmly to the frame. The ends of the geotextile must meet at a post, be overlapped and folded, then fastened down.
 5. Backfill around the inlet in compacted 6" layers until the layer of earth is level with the notch elevation on the ends and top elevation on the sides.
 6. If the inlet is not in a sump, construct a compacted earth dike across the ditch line directly below it. The top of the earth dike should be of least 6" higher than the top of the frame.
 7. The structure must be inspected periodically and after each rain and the geotextile replaced when it becomes clogged.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 16 - 6	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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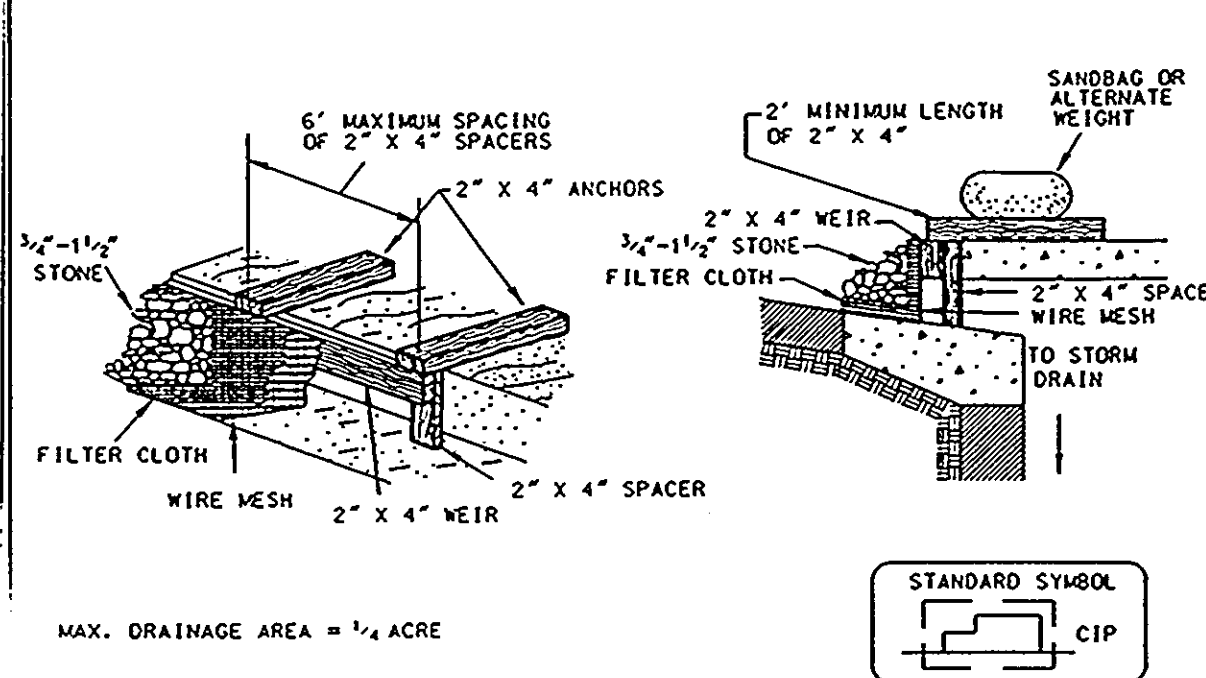
DETAIL 23B - AT GRADE INLET PROTECTION



- Construction Specifications
1. Lift grate and wrap with Geotextile Class E to completely cover all openings, then set grate back in place.
 2. Place 3/4" to 1 1/2" stone, 4"-6" thick on the grate to secure the fabric and provide additional filtration.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 16 - 6A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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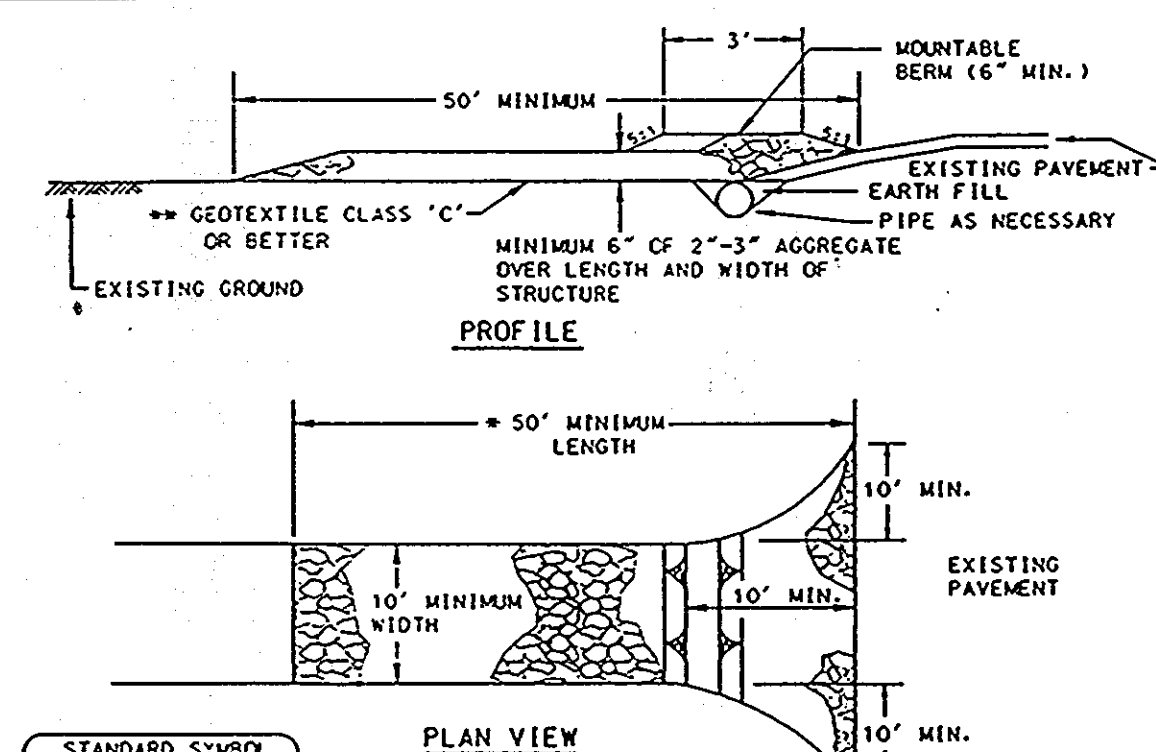
DETAIL 23C - CURB INLET PROTECTION (COG OR COS INLETS)



- Construction Specifications
1. Attach a continuous piece of wire mesh (30" minimum width by throat length plus 4") to the 2" x 4" weir (measuring throat length plus 2") as shown on the standard drawing.
 2. Place a continuous piece of Geotextile Class E the same dimensions as the wire mesh over the wire mesh and securely attach it to the 2" x 4" weir.
 3. Securely nail the 2" x 4" weir to a 3" long vertical spacer to be located between the weir and the inlet face (max. 4" apart).
 4. Place the assembly against the inlet throat and nail (minimum 2" lengths of 2" x 4" to the top of the weir of spacer locations). These 2" x 4" anchors shall extend across the inlet top and be held in place by sandbags or alternate weight.
 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 1/2" x 1/2" wire mesh and the geotextile fabric to the concrete gutter and against the face of the curb on both sides of the inlet. Place clean 3/4" x 1 1/2" stone over the wire mesh and geotextile in such a manner to prevent water from entering the inlet under or around the geotextile.
 7. This type of protection must be inspected frequently and the filter cloth and stone replaced when clogged with sediment.
 8. Assume that storm flow does not bypass the inlet by installing a temporary earth or asphalt dike to direct the flow to the inlet.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 16 - 6B	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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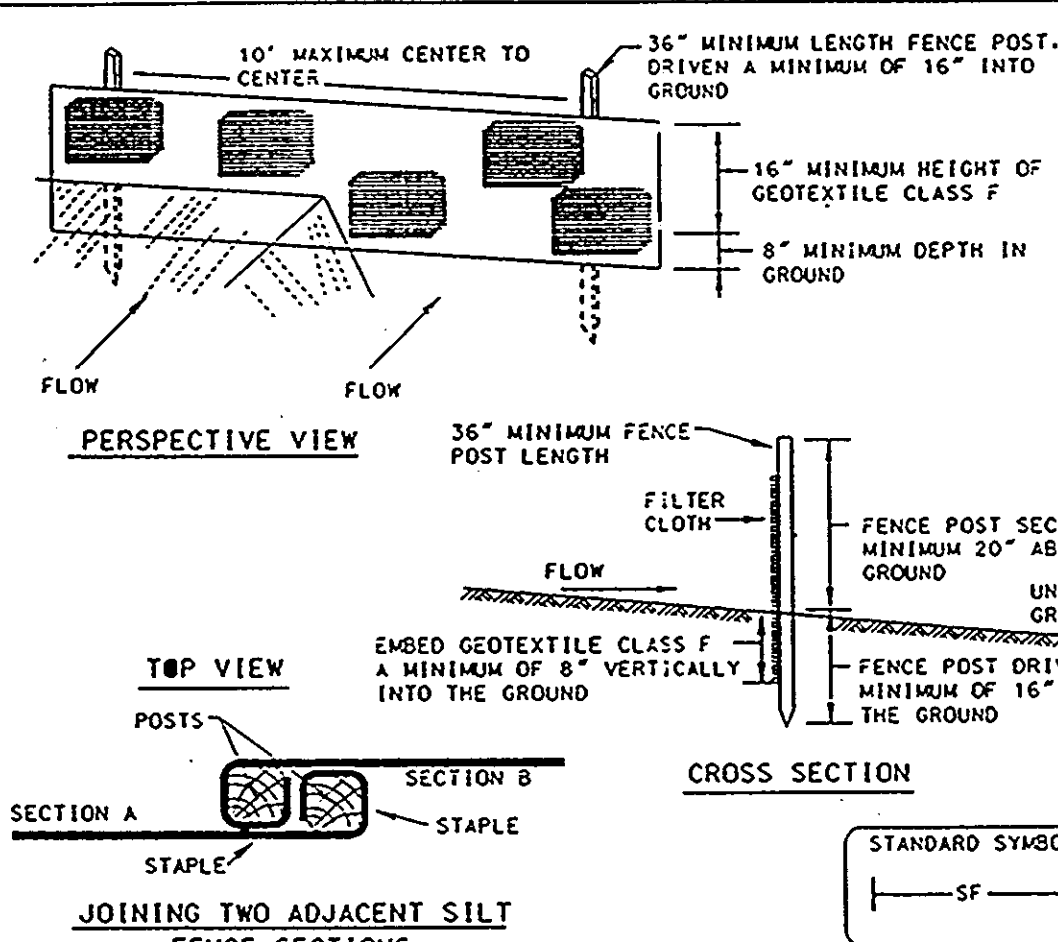
DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE



- Construction Specifications
1. Length - minimum of 50' (*30' for single residence lot).
 2. Width - 10' minimum, should be flared at the existing road to provide a turning radius.
 3. Geotextile fabric (filter cloth) shall be placed over the existing ground prior to placing stone. The plan approval authority may not require single family residences to use geotextile.
 4. Stone - crushed aggregate (2" to 3") or reclaimed or recycled concrete equivalent shall be placed at least 6" deep over the length and width of the entrance.
 5. Surface Water - all surface water flowing to or diverted toward construction entrances shall be piped through the entrance, maintaining positive drainage. Pipe installed through the stabilized construction entrance shall be protected with a mountable berm with 5:1 slopes and a minimum of 6" of stone over the pipe. Pipe has to be sized according to the drainage. When the SCE is located at a high spot and has no drainage to convey a pipe will not be necessary. Pipe should be sized according to the amount of runoff to be conveyed. A 6" minimum will be required.
 6. Location - A stabilized construction entrance shall be located at every point where construction traffic enters or leaves a construction site. Vehicles leaving the site must travel over the entire length of the stabilized construction entrance.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE F - 17 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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DETAIL 22 - SILT FENCE



- Construction Specifications
1. Fence posts shall be a minimum of 36" long driven 16" minimum into the ground. Wood posts shall be 1 1/2" x 1 1/2" square (minimum) cut, or 1 1/2" diameter (minimum) round and shall be of sound quality hardwood. Steel posts will be standard T or U section weighing not less than 1.00 pound per linear foot.
 2. Geotextile shall be fastened securely to each fence post with wire ties or staples at top and mid-section and shall meet the following requirements for Geotextile Class F:

Tensile Strength	50 lbs/in. (min.)	Test: MSHM 509
Tensile Modulus	20 lbs/in. (min.)	Test: MSHM 509
Flow Rate	0.3 gal ft ² /minute (max.)	Test: MSHM 322
Filtering Efficiency	75% (min.)	Test: MSHM 322
 3. Where ends of geotextile fabric come together, they shall be overlapped, folded and stapled to prevent sediment bypass.
 4. Silt Fence shall be inspected after each rainfall event and maintained when bulges occur or when sediment accumulation reached 50% of the fabric height.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 16 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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SILT FENCE

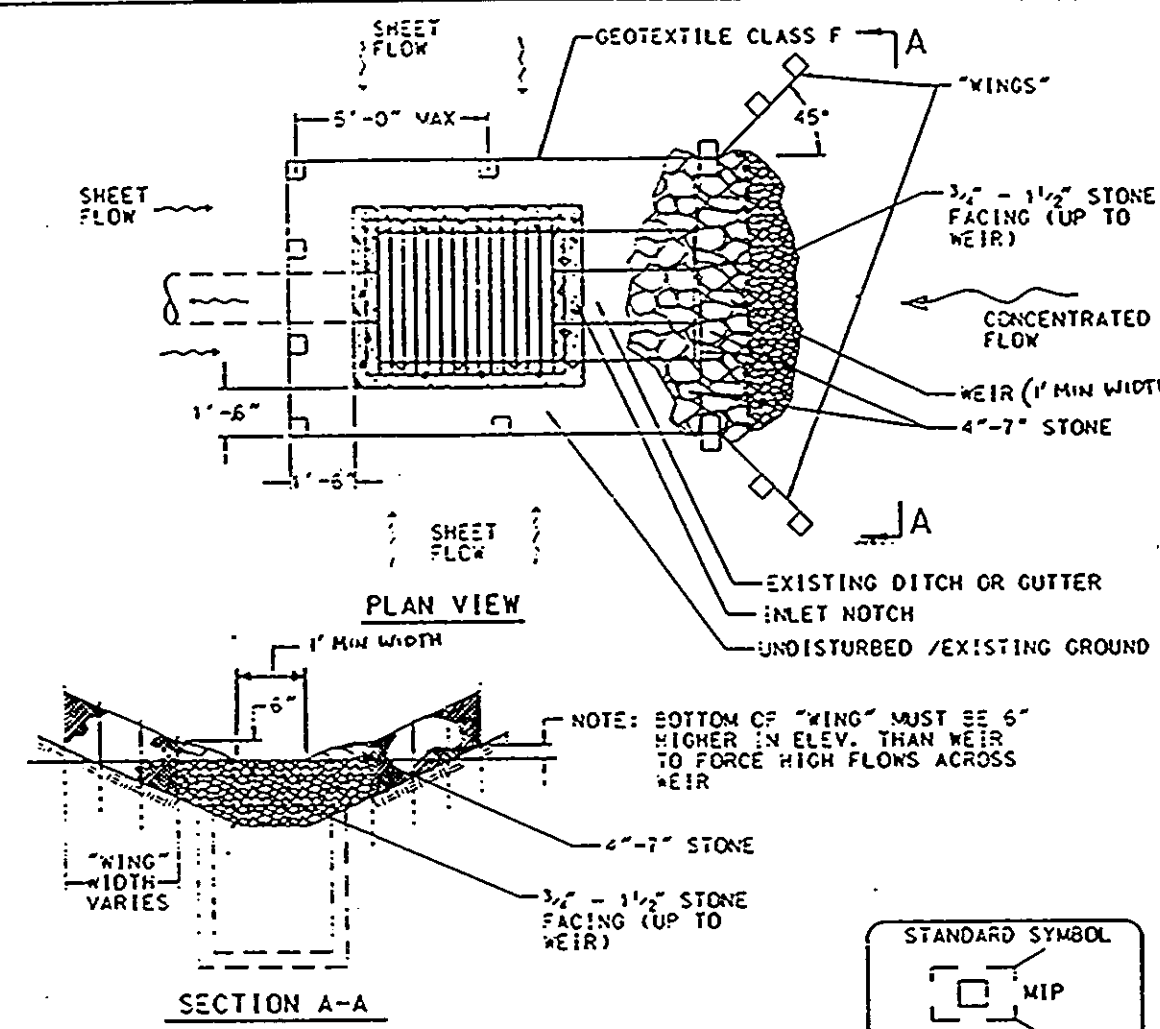
Silt Fence Design Criteria

Slope Steepness	(Maximum) Slope Length	(Maximum) Silt Fence Length
Flatter than 50:1	unlimited	unlimited
50:1 to 10:1	125 feet	1,000 feet
10:1 to 5:1	100 feet	750 feet
5:1 to 3:1	60 feet	500 feet
3:1 to 2:1	40 feet	250 feet
2:1 and steeper	20 feet	125 feet

Note: In areas of less than 2% slope and sandy soils (USDA general classification system, soil Class A) maximum slope length and silt fence length will be unlimited. In these areas a silt fence may be the only perimeter control required.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 16 - 3A	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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DETAIL 23D - MEDIAN INLET PROTECTION



- Construction Specifications
1. Fence posts shall be 36" (min.) long, driven 16" into the ground and spaced 5' (max.) apart. Wood posts shall be 1 1/2" x 1 1/2" (min.) square cut or 1 1/2" (min.) diameter round and shall be of sound quality hardwood. Steel posts shall be standard T or U section weighing not less than 1.00 lb/linear foot.
 2. Geotextile Class F shall be fastened securely to each post with wire ties or staples at top and mid-section.
 3. Where ends of geotextile fabric come together they shall be overlapped, folded and stapled.
 4. Median Inlet Protection shall be inspected after each rain and maintained when bulges occur in the fabric or when the stone gets clogged.
 5. Stone used to construct the weir shall be 4" - 7" with a 1" thick layer of 3/4" - 1 1/2" stone on the upstream face.

U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 16 - 3C	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONAL 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.

Monte Rosenberger 2/24/97
 MONTE ROSENBERGER FEBRUARY 24, 1997

I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

J.V. Vanover 2/24/97
 FULTON VANOVER CLINKSCALES 02-24-97

HOWARD SOIL CONSERVATION DISTRICT

STANDARD SEDIMENT CONTROL NOTES

1. A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (313-1855).
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 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL and revisions thereto.
3. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within: a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes and all slopes steeper 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, Chapter 7 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 1994 MARYLAND STANDARDS AND SPECIFICATION FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding, sod, temporary seeding, and mulching (Sec G). Temporary stabilization with mulch alone shall 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	=	2.072	Acres
Area Disturbed	=	2.072	Acres
Area to be roofed or paved	=	1.647	Acres
Area to be vegetatively stabilized	=	.425	Acres
Total Cut	=	300	Cu. Yds.
Total Fill	=	0	Cu. Yds.

 Off-site waste/borrow area location: BY CONTRACTOR

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 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 initial approval by the inspection agency is made.

11. Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized within one working day, whichever is shorter.

REVISIONS

APPROVED
 PLANNING BOARD
 OF HOWARD COUNTY
 DATE 3/26/97

CONTRACT PURCHASER
 BRINKER INTERNATIONAL
 150 SE 12th STREET
 SUITE 200
 FT. LAUDERDALE, FL 33316
 ATTN: Mr. BILL GAISFORD
 205-462-6828



FCK Freeland-Clinkscales & Kauffman, Inc.
 Engineers - Landscape Architects
 209 West Stone Avenue
 Greenville, South Carolina 29609
 864-233-5497
 fax 864-233-8915

ROMANO'S
 Macaroni
 GRILL

COLUMBIA CROSSING SHOPPING CENTER

EROSION CONTROL DETAILS

SECTION 1 AREA 1 PARCEL P
 TAX MAP 34 3RD & PVO PARCEL 50
 6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
 Drawn JCV/GCK FCK Job. 96-30
 Check KK Date 10-29-96 17/23

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

Clayton Simmons 4/30/97
 USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

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

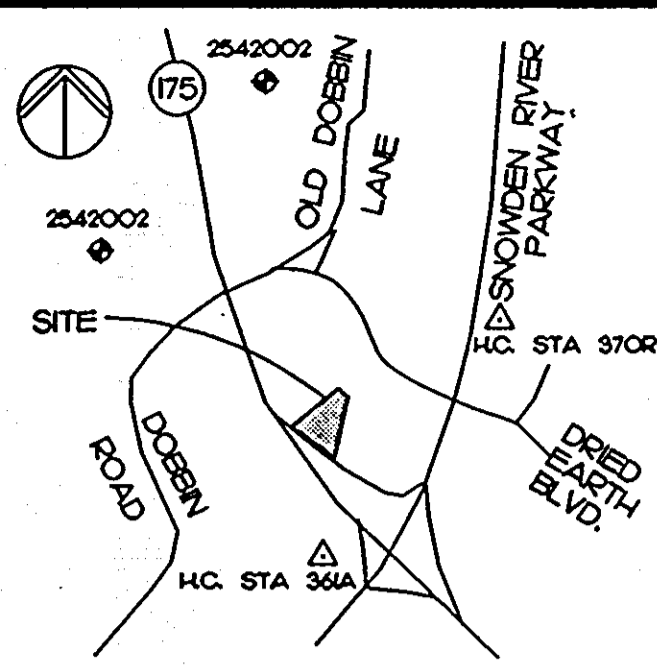
John R. Kavanagh 4/30/97
 HOWARD SCD DATE

APPROVED FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER & SEWERAGE FOR HOWARD COUNTY, MARYLAND.

John M. Boyler 5/14/97
 COUNTY HEALTH OFFICER DATE

APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

DATE 6/5/97
 DATE 5/20/97
 DATE 5/20/97



VICINITY MAP
SCALE 1" = 2000'

COLUMBIA CROSSING CIRCLE

(PRIVATE DRIVE)

BOUNDARY INFORMATION IS TAKEN FROM A PLAT BY GUTSCHICK, LITTLE AND WEBER, PA ENTITLED ROUTE 175 COMMERCIAL SECTION I, AREA I PARCELS M THRU Q, DATED SEPT 1996.

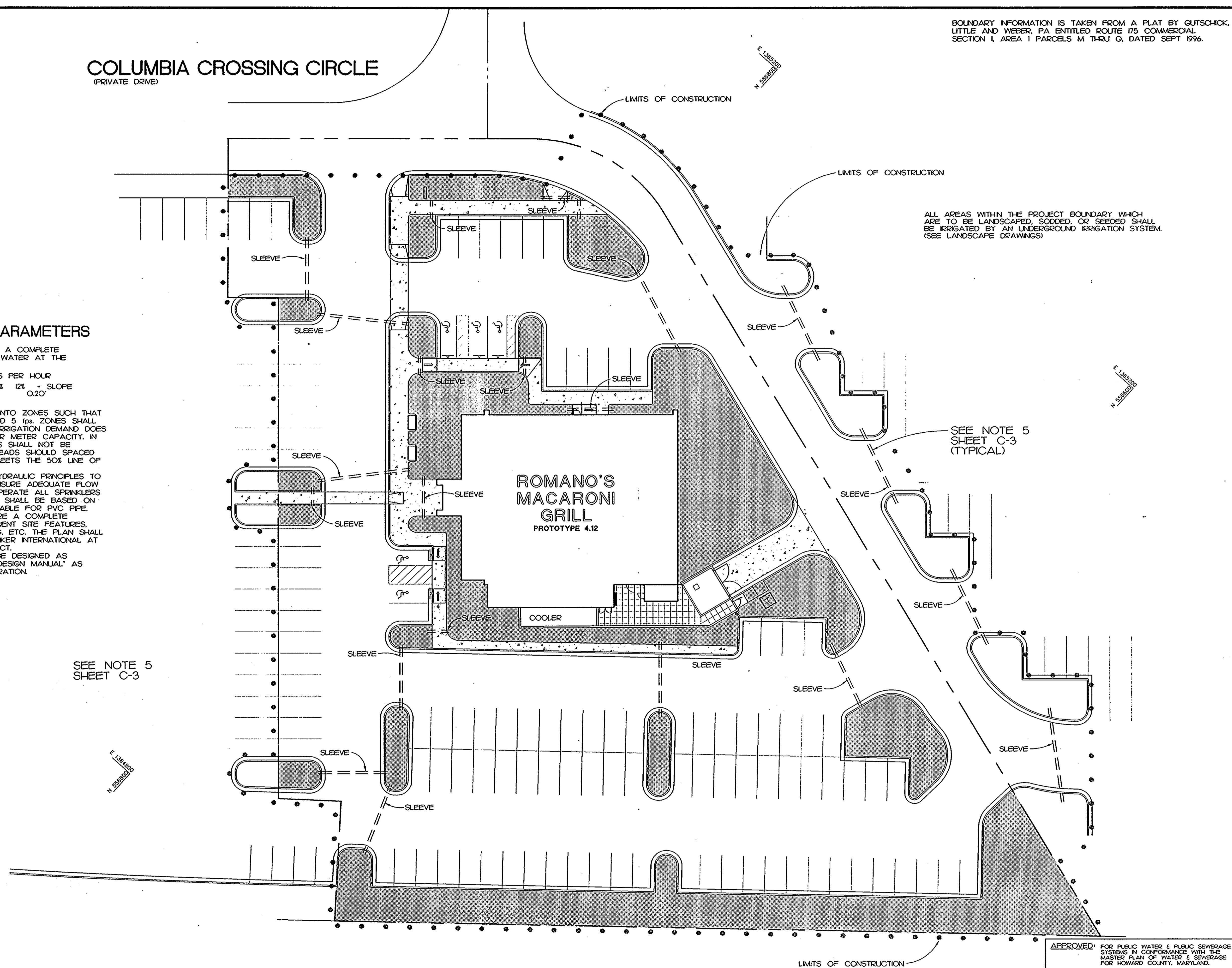
SYSTEM DESIGN PARAMETERS

THE CONTRACTOR SHALL DESIGN A COMPLETE IRRIGATION SYSTEM TO PROVIDE WATER AT THE FOLLOWING RATES:

PRECIPITATION RATES-INCHES PER HOUR
0 TO 5% SLOPE
5 TO 8% SLOPE
8 TO 12% SLOPE
12% + SLOPE
0.50" 0.40" 0.30" 0.20"

THE SYSTEM SHALL BE DIVIDED INTO ZONES SUCH THAT LINE VELOCITY DOES NOT EXCEED 5 FPS. ZONES SHALL BE CONTROLLED SO THAT THE IRRIGATION DEMAND DOES NOT EXCEED 85% OF THE WATER METER CAPACITY. IN ADDITION, DIFFERENT TYPE HEADS SHALL NOT BE INSTALLED ON COMMON LINES. HEADS SHOULD BE SPACED SO THAT 50% OF RADIUS LINE MEETS THE 50% LINE OF THE ADJACENT HEAD. THE CONTRACTOR SHALL USE HYDRAULIC PRINCIPLES TO DESIGN ALL COMPONENTS TO ENSURE ADEQUATE FLOW AND PRESSURE TO PROPERLY OPERATE ALL SPRINKLERS ON THE PROJECT. PIPE FRICTION SHALL BE BASED ON A FRICTION FACTOR (C=150) SUITABLE FOR PVC PIPE. THE CONTRACTOR SHALL PREPARE A COMPLETE IRRIGATION PLAN SHOWING PERTINENT SITE FEATURES, SPRINKLER HEADS, VALVES, PIPING, ETC. THE PLAN SHALL BECOME THE PROPERTY OF BRINKER INTERNATIONAL AT THE COMPLETION OF THE PROJECT. THE IRRIGATION SYSTEM SHALL BE DESIGNED AS DESCRIBED IN THE "LANDSCAPE DESIGN MANUAL" AS PUBLISHED BY RAIN BIRD CORPORATION.

SEE NOTE 5
SHEET C-3



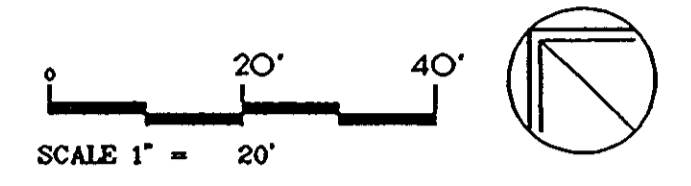
ALL AREAS WITHIN THE PROJECT BOUNDARY WHICH ARE TO BE LANDSCAPED, SOODED, OR SEEDED SHALL BE IRRIGATED BY AN UNDERGROUND IRRIGATION SYSTEM. (SEE LANDSCAPE DRAWINGS)

SEE NOTE 5
SHEET C-3
(TYPICAL)

MARYLAND STATE ROUTE 175

REVISIONS

BEFORE DIGGING IN THIS AREA, CALL THE UTILITY PROTECTION CENTER
1-800-257-7777
M-F 7:00 AM - 7:00 PM



- NOTES:
1. ALL IRRIGATION HEADS ARE TO BE PLACED AND ADJUSTED SO AS TO NOT SPRAY ONTO THE BUILDING.
 2. ALL IRRIGATION HEADS ARE TO BE LOCATED AND SIZED NOT TO BE DAMAGED BY AUTOMOBILE OVERHANGS.
 3. CONTRACTOR SHALL VERIFY IRRIGATION SYSTEM BASED ON ACTUAL WATER PRESSURE ACTUALLY AVAILABLE ON SITE.

DATE: _____
APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE: 3/26/97

CONTRACT PURCHASER
BRINKER INTERNATIONAL
150 SE 12th STREET
SUITE 200
FT. LAUDERDALE, FLORIDA
ATTN: Mr. Bill Gaisford
305-462-6828



FCK Freeland-Clinkscales & Kauffman, Inc.
Engineers - Landscape Architects
209 West Stone Avenue
Greenville, South Carolina 29609
864-233-5497
fax 864-233-8915

ROMANO'S Macaroni GRILL

COLUMBIA CROSSING SHOPPING CENTER
IRRIGATION PLAN

SECTION I, AREA I, PARCEL P
TAX MAP 34, 000 19, P10 PARCEL 50
6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
Drawn JC/CG FCK Job 96-30 Drawing
Check KK Date 10-29-96 20/23

APPROVED FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER & SEWERAGE FOR HOWARD COUNTY, MARYLAND.
Jorge M. Dept. 11-51
COUNTY HEALTH OFFICER/R.M.L. DATE 5/14/97
APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING
DATE 5/20/97
DATE 5/22/97

LANDSCAPE SPECIFICATIONS

GENERAL CONDITIONS:

The Brinker International representative is hereinafter referred to as Owner's Construction Manager. The address and phone is 6820 LBJ Freeway, Dallas, TX 75240. Phone # (214) 980-8917.

The contractor signing this Agreement, or his duly appointed representative, is hereinafter referred to as the Contractor.

Bidding is based on drawings and specifications.

The competency and responsibility of Bidders will be considered in making the award. The Owner reserves the right to reject any or all bids, and to waive any informality in bids received.

DRAWINGS AND SPECIFICATIONS

Should there be anything shown on the drawings and not described in the specifications, or not shown on the drawings and described in the specifications, the same shall be fully executed and carried out as if drawn, shown, or described in both; and the Contractor is not to make any alterations or corrections on the drawings or in the specifications. Should any error or conflict appear, the same is to be referred to the Owner's Construction Manager before the bids are submitted or the work is commenced, or as otherwise specified herein.

OWNER'S CONSTRUCTION MANAGERS STATUS

A) The Construction manager is the representative of the Owner. He has authority to stop work whenever such stoppage may be necessary to insure the proper execution of the Contract.

B) The Construction Manager is the interpreter of the requirements of the Contract Documents and the judge of its performance. He will make decisions on all claims, disputes, or other matters in question between the Contractor and the Owner.

RESPONSIBILITIES OF CONTRACTOR

A) The Contractor and all Subcontractors shall bind themselves to comply with all laws and ordinances and requirements of all authorities having jurisdiction over the place where the project is located, and shall protect the Owner from damage arising from violation thereof.

B) The Contractor shall give his personal supervision to work, and have a responsible superintendent continuously on the job to act for him.

C) Public liability and property damage insurance will be as determined by the Owner.

EXAMINATION OF SITE

All Contractors submitting proposals for this work shall first examine the site and all conditions at the site. All proposals shall take into consideration all such conditions as may affect the work under this Contract.

MEASUREMENTS, LAYOUT, AND LEVELS

All lines and levels necessary for the location and erection of the landscape construction and for all excavation, filling, and grading work shall be established by the Contractor. The Contractor shall take his own measurements of the site, verifying same with the drawings, and shall be responsible for the proper fit of the completed work.

SUBSTITUTION OF MATERIALS

A) The Contractor, before submitting his bid, shall locate all necessary materials as called for in the plans and specifications, and shall be assured of their availability for use on the job.

B) The contract bids shall be based upon providing the specified materials, processes, products, etc., identified in this specification and indicated on the drawings.

C) Substitutions will be permitted only upon admission of written proof that specified items are not obtainable, and with the authorization of the Construction Manager. Written request with nearest available size and variety of plant, and price adjustments, are to be submitted to the Landscape Architect.

SUPERVISION

The Landscape Architect will not engage in any way to superintend so as to relieve the Contractor of responsibility for the complete and proper execution of the work, nor for the consequences of neglect or carelessness by him or his subordinates.

SELECTION

The Construction Manager has the right to select all plant materials at the nursery or field source or Contractor's holding yard.

MAINTENANCE

A) The Contractor shall maintain all trees, shrubs, and groundcover under this Contract until final acceptance, by adequate watering, cultivating the top 2 inches, weeding every 2 weeks, spraying, and replacing as necessary to keep plants in a healthy, vigorous condition, and shall rake bed areas as may be required to keep them neat.

B) The Contractor shall maintain all grass areas under this Contract until acceptance by watering, mowing, spraying, etc.

WATER

Water will be available on the site at no expense to the Contractor. Hose and other watering equipment required for the work shall be furnished by this Contractor at his expense. Additional water will be available as the irrigation system is installed.

CHANGES IN THE WORK

A) While no new or unforeseen items are anticipated, they shall be classed as extra work when they cannot be covered by any of the specifications. The Contractor shall submit detailed prices for any extras to the Construction Manager, and shall perform extras upon written acceptance from the Construction Manager. In the absence of such written order, he shall not be entitled to payment for such extra work. All bills for extra work shall be submitted monthly.

B) The Construction Manager shall have authority to order minor changes in the work not involving an adjustment in the contract sum or an extension of the contract's time, and not inconsistent with the intent of the contract documents. Such changes may be effected by field order or by other written order. Such changes shall be binding on the Owner and the Contractor.

C) The Owner, without invalidating the Contract, may order changes in the work consisting of additions, deletions, or other revisions, the contract sum, and the contract time being adjusted accordingly. All such changes in the work shall be authorized by written change order and shall be executed by the Construction Manager.

FINAL COMPLETION AND FINAL PAYMENT

Upon receipt of written notice that the work is ready for final inspection and acceptance and upon receipt of a final application for payment, the Construction Manager will promptly make such inspection and, when he finds the work acceptable under the Contract Documents and the Contract fully performed, he will promptly issue a final certificate for payment stating that to the best of his knowledge, information and belief, and on the basis of his observations and inspections, the work has been completed in accordance with the terms and conditions of the Contract Documents and that the entire balance found to be due the Contractor, and noted in said final certificate, is due and payable.

SODDING SHALL BE BERMUDAGRASS (CYNODON DACTLON), STATE CERTIFIED OR STATE APPROVED. CERTIFIED TURFGRASS IS GROWN FROM CERTIFIED SEED, INSPECTED AND CERTIFIED BY THE STATE CERTIFYING AGENCY. THIS ENSURES GENETIC PURITY, HIGH QUALITY, FREEDOM FROM NOXIOUS WEEDS AND EXCESSIVE INSECT OR DISEASE PROBLEMS.

PART I - GENERAL

WORK INCLUDED

Perform all work required to complete the landscape installation including all labor, materials, services, and equipment necessary and described herein and shown on the accompanying drawings.

QUALITY ASSURANCE

A) Approval: The selection of all materials and execution of all operations required under these drawings and specifications are subject to the approval of the Construction Manager.

B) Rejection: The Construction Manager shall have the right to reject all material and all work which in his opinion does not conform to the contract documents at any stage of the operation. All rejected material shall be promptly removed and corrected by the Contractor as directed.

REFERENCES

American Standard for Nursery Stock, edition approved October 22, 1980. Hotus Third.

SUBMITTALS

A) Submit for approval sufficient representative quantities of sandy loam, manure, peat moss, stone, gravel, etc. Samples shall be approved by Construction Manager before use on project.

B) Submit 3 representative samples of each tree, shrub, and ground cover plants for Construction Manager's approval. When approved, they will be tagged. Maintain as representative samples. Samples may be used to complete installation provided they remain tagged until final acceptance of entire installation.

WARRANTY

A) All materials shall be warranted for one full year after final acceptance. The Contractor shall, upon written notice, remove all dead material and all materials not in vigorous, thriving condition, as soon as weather permits and on notification by the Construction Manager. Plants, including trees, which have perished due to that shape, size, or symmetry has damaged, shall be considered subject to replacement. In such cases, the opinion of the Construction Manager shall be final.

B) Plants used for replacement shall be of the same kind and size as those originally planted, and shall be planted as originally specified. All work including materials, labor, and equipment used in replacements, shall be no cost to the Owner. Replacement plants shall carry a 12 month warranty. Any damage, including ruts in lawn or bed areas, incurred in making replacements shall be immediately repaired.

C) At the direction of the Construction Manager, plants may be replaced at the start of the next planting or digging season; but in such cases, dead plants shall be immediately removed from the premises.

D) The Owner agrees that for the warranty to be effective, he will water plants during dry periods and as notified by the Contractor, and cultivate beds once a month after final acceptance.

MAINTENANCE

1. Landscape maintenance shall include the necessary watering, cultivation, weeding, pruning, wound dressing, disease and insect pest control protective spraying, labor for replacement of dead plant material, straightening plants which lean or sag, adjustment of plants which settle or are planted too low, moving, replacement of mulch that has been displaced, repairing and reshaping of saucers, and reseeding or replanting of those areas affected. Removable of rubbish, waste, tools, and equipment used at the end of each work day. Other procedures consistent with good horticulture practice necessary to insure vigorous, healthy growth of plant material are also part of the maintenance contract.

2. Irrigation system shall be used by the landscaping contractor for watering. Failure of the system does not eliminate landscaping contractor's responsibility of maintaining desired level of moisture necessary for health growth.

3. Landscape contractor shall maintain areas free of weeds and undesirable grasses by methods and materials by ANA.

4. Inspect plant material at least once each month to locate any disease or insect pest infestations. Control in accordance with ANA standards.

5. Fertilize on regular schedule program to fit requirements of plant material to maintain healthy growth.

6. Amount of pruning shall be limited to minimum necessary to remove dead or injured branches. To compensate for loss of roots as a result of transplanting operations. Pruning shall be done to not change the natural habit of the plant. Cuts shall be made flush, leaving no stubs.

7. Mow grass at regular intervals to keep height from exceeding 3-inches. Cleanup after mowing shall include sweeping or blowing to clear mowing debris.

8. During course of maintenance, excess and waste materials shall be continuously and promptly removed at the end of each work day.

PART II - PRODUCTS

PLANTS

Plant material shall be delivered to the site only after the beds are prepared and are ready for planting. All shipments of nursery materials shall be thoroughly protected from the sun and from drying winds during transit. All plants which cannot be planted at once, after delivery to the site, shall be well-protected against the possibility of dying by wind and sun. Balls of earth on B&B plant shall be kept covered with soil or other acceptable material. All plants remain the property of the Contractor until final acceptance.

SHRUBS AND GROUND COVERS

A) Plants shall be nursery grown, healthy, vigorous, bushy, well-branched, of normal habit of growth for the species, and shall be free from disease, insect eggs, and larvae. They shall have ball sizes that meet the standards set forth by the American Association of Nurserymen, Inc. The specified sizes shall be before pruning, and the plants shall be measured with their nominal top branches in normal position to the top of the container. All plants shall be nursery grown, except upon special approval. All pruning of new trees and shrubs, as directed by the Construction Manager, shall be executed by this Contractor at no additional cost to the Owner.

B) All plants shall be of specimen quality, full and bushy to the ground, and of compact growth. Specimen means an exceptional heavy symmetrical, tightly knit plant, so trained or favored in its development that its appearance is unquestionable and outstandingly superior in form, number of branches, compactness and symmetry.

C) All plants shall be hardy under climatic conditions similar to those in the locality of the project.

SHADE TREES

A) Shade Trees shall be field grown unless noted otherwise on the plant list and be healthy, vigorous, full-branched, well-shaped, and shall meet the trunk diameter, height, and spread requirements of the plant list. Balls shall be firm, neat, slightly tapered, and well-burlapped. Any tree loose in the ball or with a broken ball at time of planting will be rejected. Field grown tree balls shall be 10 inches in diameter for each one inch of trunk diameter.

B) Caliper of the trunk shall be taken 6 inches above the ground level up to and including 4 inch caliper size and 12 inches above the ground for larger sizes.

MULTI-TRUNK TREES

A) All trees shall be field grown unless stated otherwise.

B) Measure multi-trunk trees by taking the caliper of the largest trunk and one-half the caliper of all other trunks.

MISCELLANEOUS MATERIALS

A) BARK: Fine textured, 1 to 1.5 inch size of hardwood material.

B) PEAT MOSS: Clean hypnum peat, free of noxious weeds and rubble, dark brown in color.

C) ACID GROW

D) TREE WRAPPING MATERIAL: Waterproof crepepaper or burlap strips as made and sold for this purpose.

E) SHREDDER BARK: 1-2 inch size for topping, free of miscellaneous debris, sticks, etc. of hardwood material.

F) JUTE MESH: Smolder Resistant.

G) STEEL EDGING: 1/8 inch by 4 inches with steel stakes painted green by J.T. Ryerson & Son or Pro-Steel (817) 572-4958.

H) WIRE PATTERNS: Galvanized 16 gauge wire.

I) PLYTHELENE: 4 mil. black polyethylene plastic, perforate 1 inch holes, 2 feet on center.

J) FILTER FABRIC

K) RUBBER HOSE: Two ply black rubber garden hose not less than 1/2 inch inside diameter.

PART III - EXECUTION

LAYOUT

The Contractor shall lay out his work and set necessary markers and stakes, and be responsible for their correctness. The Construction Manager reserves the right to relocate shrubs and trees from positions on the plans prior to their installation.

TREE PITS AND PLANTINGS

A) Ornamental trees: Plant ornamental trees in pockets 12 inches larger than ball. After setting the tree, the pit shall be backfilled with four parts of sandy loam to one part of peat, and carefully settled by watering to prevent air pockets. Form a 4 inch high watering ring for each tree.

B) Shade trees: Plant shade trees in tree pit 2 feet greater in diameter than ball, and 6 inches deeper. Fill bottom of pit with sandy loam to depth of ball. After settling the tree, the pit shall be backfilled with five parts of topsoil to one part of peat, and carefully settled by watering to prevent air pockets. Form a 4 inch high watering ring around tree ball.

WRAPPING TREES

All Red Oak and nursery grown Live Oak shall be wrapped, with wrapping extending from the ground to a point immediately below the lowest branches of each tree, or as directed. Wrapping shall be done spirally from the bottom up when the trees are being planted. The wrapping material shall be securely held in place by small tacks or staples so that it will remain in place for 2 years.

BED PREPARATION

A) Ground cover beds shall be loosened to a depth of 6 inches. Peat moss or Acid Gro shall be applied at the rate of 2 inches thick and worked into the upper 6 inches of bed. Ground cover shall be planted in string line straight rows using alternate spaces between rows.

B) Shrub beds shall be loosened to a depth of 8 inches. Peat moss or Acid Gro shall be applied at the rate of 3 inches thick and worked into the upper 6 inches of bed.

SHRUB POCKET PLANTING (IF STATED ON DRAWING)

Shrub pits shall be excavated 8 inches wider and 4 inches deeper than the shrub root ball. Pit shall be backfilled with 3 parts Acid Gro to 2 parts sandy loam.

TREE GUYING AND STAKING

Straighten wind-blown plant materials with #12 galvanized steel wire, rubber hose and 4' stakes as necessary to prevent any future problems.

BED ALIGNMENT

After the planting is completed, all cultivated areas shall be leveled, loosened, and raked, and the edges carefully trimmed so that the tree pits and beds shall present a neat appearance. Care shall be used that these bed edges conform as closely as possible with the lines shown on the Planting Plan.

TOP DRESSING

After the work of planting has been completed and approved by the Construction Manager, mulch around and on top of plants with 1 inch of pine bark lightly cultivated into soil. This operation should be delayed until near final acceptance.

PRUNING

Prune all dead and broken branches and stubs flush. Thin out trees about 20 percent of the branches. Remove tags, labels, ribbons, etc. just prior to final inspection.

EARTH BERMS

Earth Berms may be built of approved excavated soil from bed preparation and should follow contour as per plans. All grades should be smooth slopes per section to allow for mowing without scalping lawn areas. Settling and refilling should be accomplished before planting grass.

WIRE PATTERN INSTALLATION

Wire patterns shall be attached to surface as follows:

A) Masonry- masonry nails or glue fasteners.

B) Wood- galvanized nails

C) Stucco- glue fasteners.

Use 1 fastener per 3 feet of height. Three strand, fan-shaped patterns shall continue to top the vertical surface and overlap top of freestanding wall, fence, structure or trellis.

POLYETHYLENE PLASTIC INSTALLATION

Install in 2 layers over smooth soil surface. Areas to be excavated minimum of 3 inches. Overlap minimum of 8 inches. Plastic shall lap up 2 inches on edges against vertical sides.

GRASS REMOVAL

Existing grass in proposed bed areas shall be removed, including root systems. Contractor shall re-fill excavated areas with sandy loam to finished grade before bed preparation or planting.

SOIL EROSION PROTECTION

Jute mesh shall be installed on slopes greater than 3 on 1 before planting and shall have a minimum overlap of 12 inches where sections join. Material shall be installed in lengthwise sections running with the slope, not across the slope. Pins shall be installed so that no gaps or sags are visible in mesh.

SOD

A) All areas to be sodded shall be loosened and raked smooth. Areas next to sidewalks and curbs shall be graded down to one inch below finish grade to allow for thickness of grass build-up.

B) Grass areas will be planted as indicated on the plans. All sod shall be placed closely so joints are flush between blocks. Sodded areas shall be rolled with a 200 pound roller, watered thoroughly and rolled. All grass areas shall be fertilized with a commercial 15-5-10 fertilizer, at rate of 4 pounds per 1000 square feet.

HYDROMULCH GRASS

All areas to be hydromulched shall be made free of weeds by use of 'Round Up' and any clumps, stones, clods, etc. larger than 3/4 inch shall be raked out. The hydromulch shall be composed of virgin wood cellulose fiber by Conwed or Weyerhaeuser. Certified hulled Bermuda seed shall have a minimum purity of 98 percent and a minimum germination rate of 85 percent. The fertilizer shall be 16-20-0 granular form and homogenized. Apply at the following rates per 1000 square feet: Hydromulch 50 pounds, seed 2.5 pounds and fertilizer 18 pounds.

RYE GRASS SEEDING (September 15 - November 15)

Seed with Annual Italian Rye Grass seed at the rate of 5 pounds per 1000 square feet.

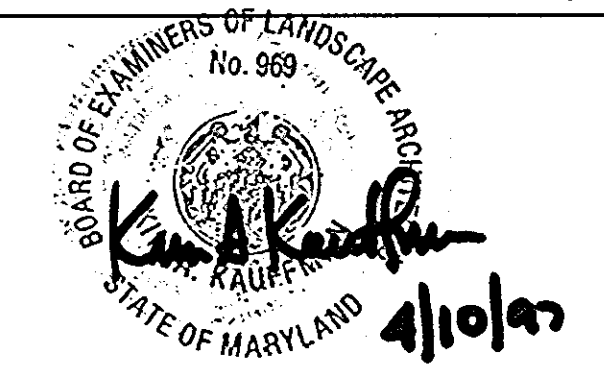
CLEAN-UP

During the work, the premises are to be kept neat and orderly at all times. Storage areas for plant and other materials shall be so organized that they, too, are neat and orderly. All trash, including debris resulting from removing weeds or rock from planting areas, preparing beds, or planting plants shall be removed from the site, daily as the work progresses. All walks and drives shall be kept clean by sweeping and hosing; excavated soil may be distributed on the site as directed by Owner.

REVISIONS

APPROVED
PLANNING BOARD
of HOWARD COUNTY
DATE 3/26/97

CONTRACT PURCHASER
BRINKER INTERNATIONAL
150 SE 12th STREET
SUITE 200
FT. LAUDERDALE, FL 33316
ATTN: Mr. Bill Gaisford
305-462-6828



FCK Freeland-Clinkscales & Kauffman, Inc.
Engineers - Landscape Architects
209 West Stone Avenue
Greenville, South Carolina 29609
864-233-5497
fax 864-233-8915

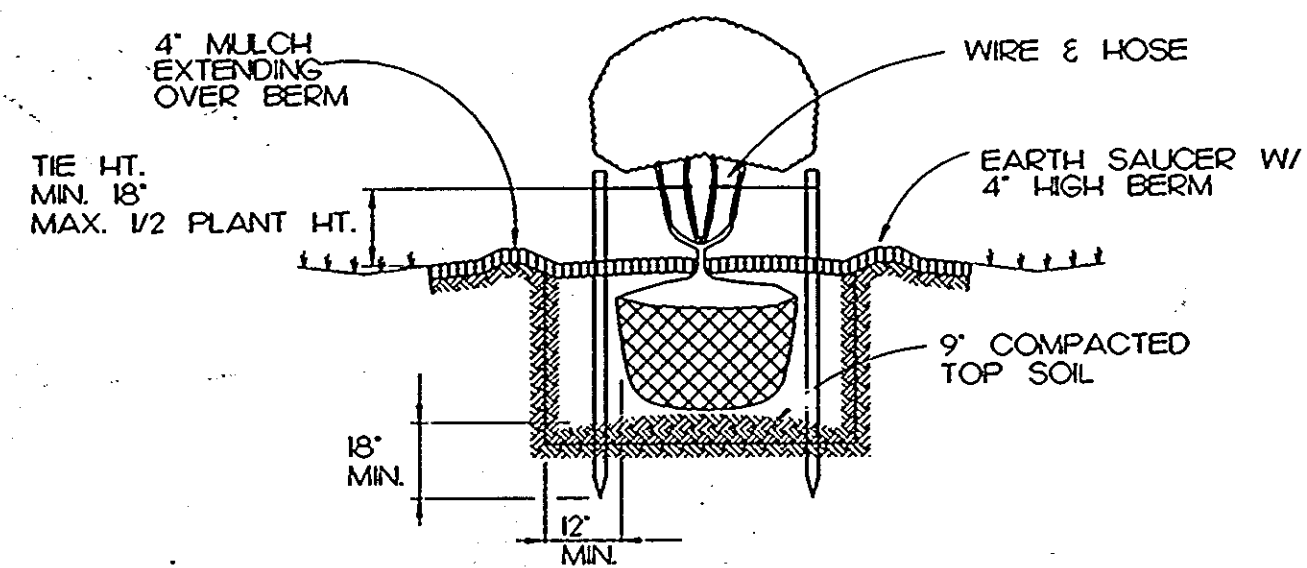
ROMANO'S
Macaroni
GRILL

COLUMBIA CROSSING SHOPPING CENTER

LANDSCAPE
SPECIFICATIONS

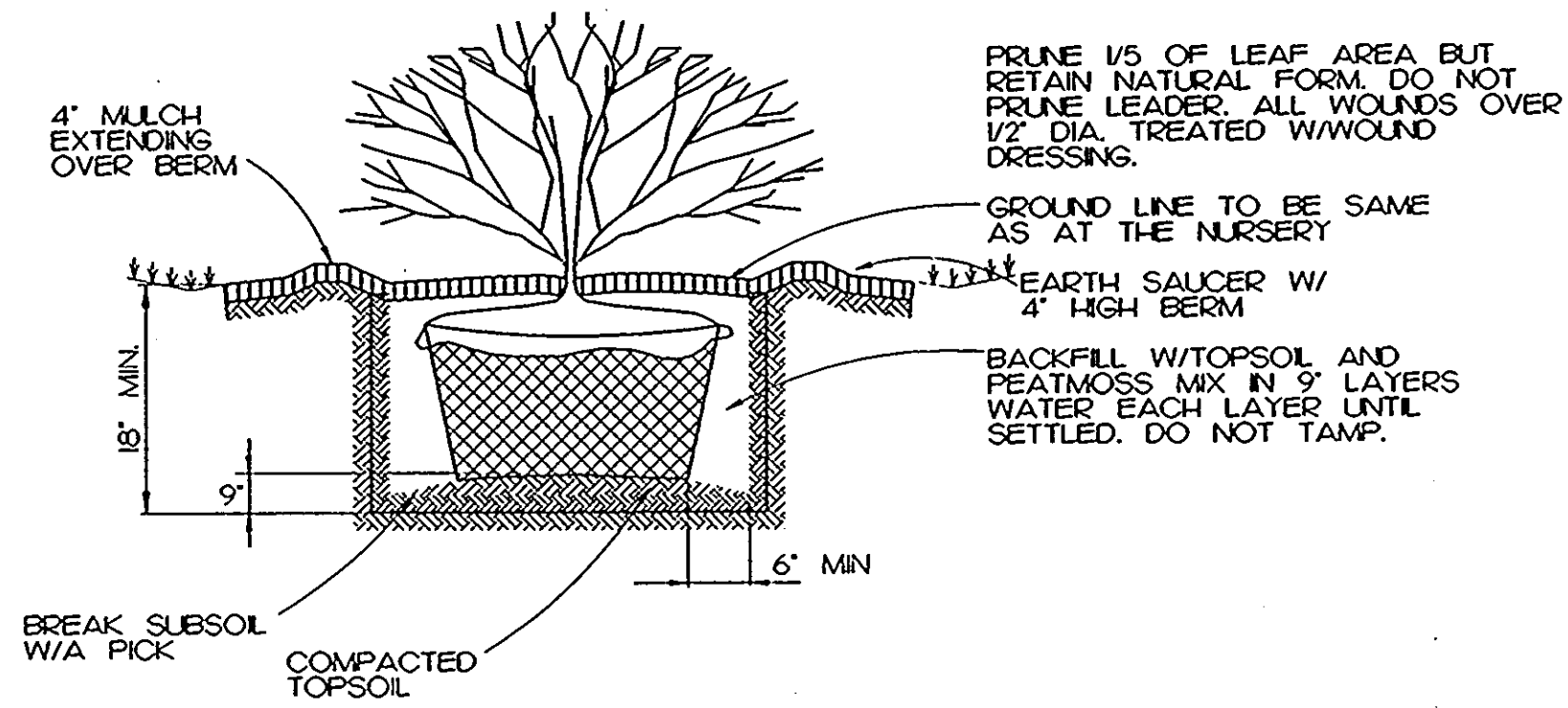
SECTION I AREA I PARCEL P
TAX MAP 580 18, PLO PARCEL 30
6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND

Drawn JC/CG FCK Job 96-30 Drawing
Check KK Date 10-29-96 21/23



TIES ON SINGLE STEM SMALL TREES SHALL BE SIMILAR TO THOSE SHOWN ON DETAIL.
TIES ON MULTI-STEM SMALL TREES TO BE MADE ON HEAVIEST BRANCHES OF PLANT 9" COMPACTED TOPSOIL SOIL MIX

TYPICAL SMALL TREE PLANTING WITH STAKES



PRUNE 1/5 OF LEAF AREA BUT RETAIN NATURAL FORM. DO NOT PRUNE LEADER. ALL WOUNDS OVER 1/2" DIA. TREATED W/WOUND DRESSING.
GROUND LINE TO BE SAME AS AT THE NURSERY
BACKFILL W/TOPSOL AND PEATMOSS MIX IN 9" LAYERS WATER EACH LAYER UNTIL SETTLED. DO NOT TAMP.

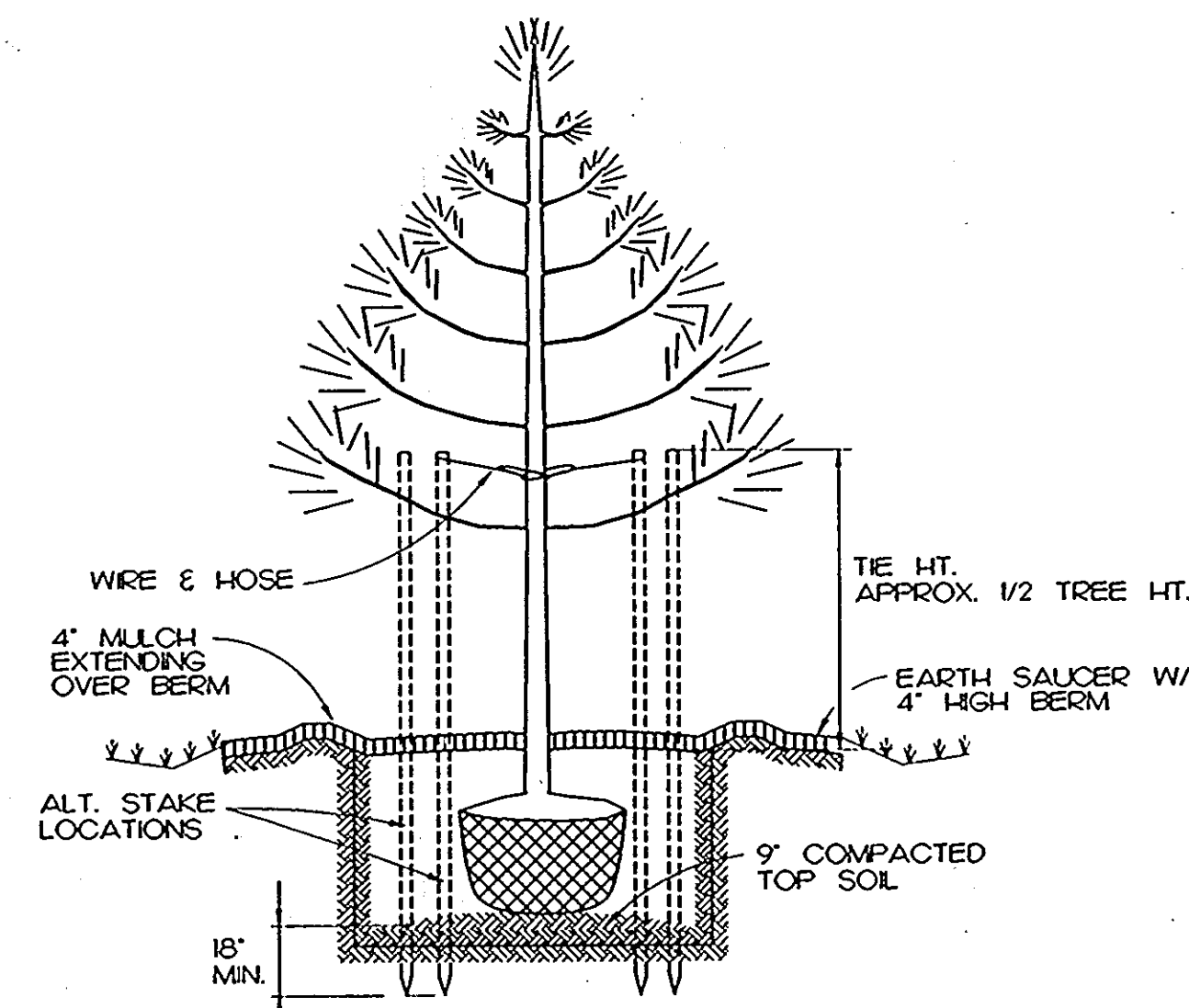
TYPICAL SHRUB PLANTING

SEEDING SPECIFICATIONS

PERMANENT SEEDING:

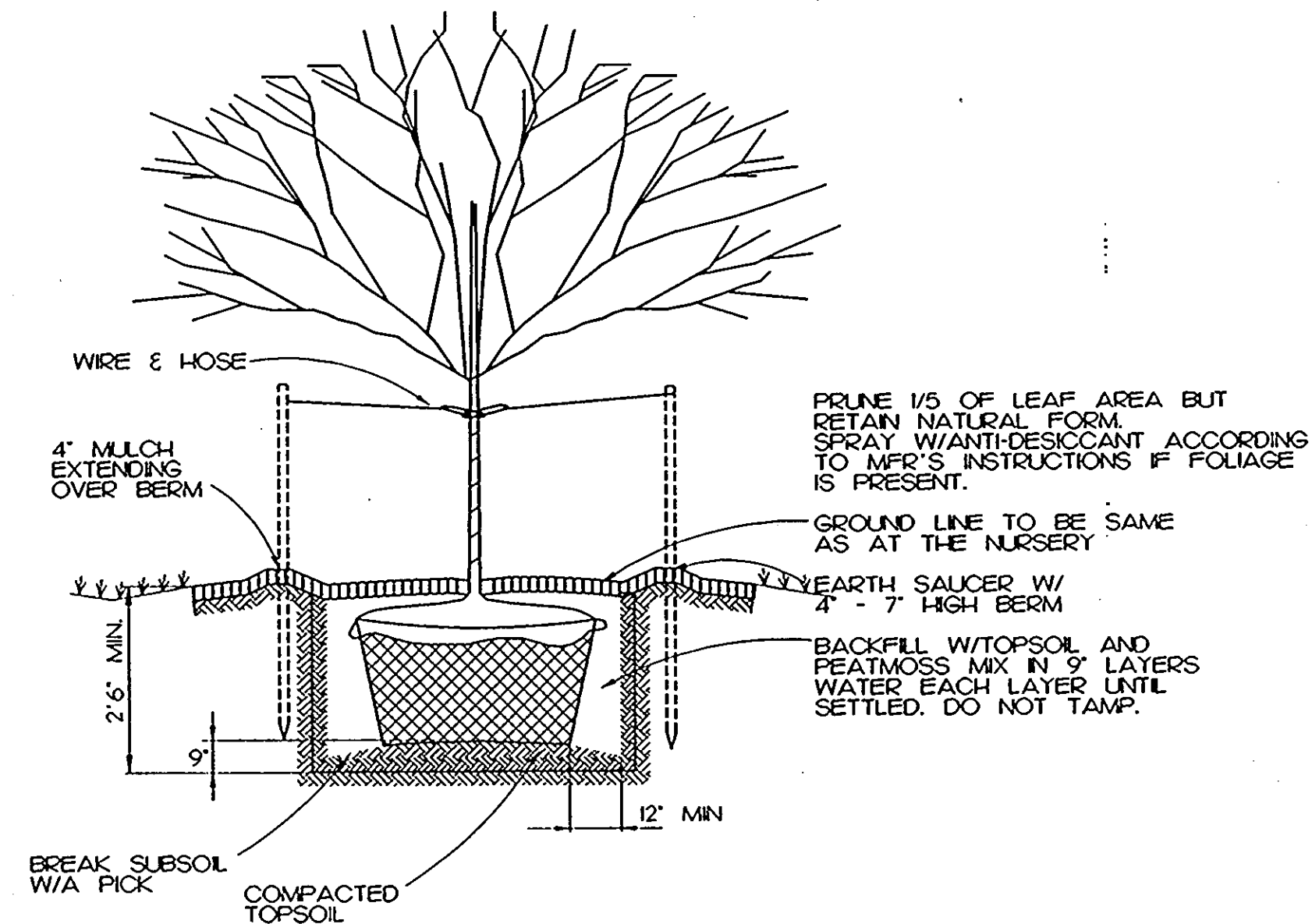
A: SEEDING: APPLY 5-6 POUNDS PER 1,000 SQUARE FEET OF KENTUCKY 31 TALL FESCUE BETWEEN FEBRUARY 1 AND APRIL 30 OR BETWEEN AUGUST 15 AND OCTOBER 31. APPLY SEED UNIFORMLY ON A MOIST FIRM SEEDBED WITH A CYCLONE SEEDER DRILL, CULTIPACKER SEEDER OR HYDROSEEDER (SLURRY INCLUDED SEEDS AND FERTILIZER, RECOMMENDED ON STEEP SLOPES ONLY). MAXIMUM SEED DEPTH SHOULD BE AT LEAST 1/4" IN CLAY SOILS AND 1/2" IN SANDY SOILS WHEN USING OTHER THAN THE HYDROSEEDER METHOD. IRRIGATE IF SOIL MOISTURE IS DEFICIENT TO SUPPORT ADEQUATE GROWTH, UNTIL VEGETATION IS FIRMLY ESTABLISHED.

B: MULCHING: MULCH SHALL BE UNCHOPPED UNROTTED SMALL GRAIN STRAW APPLIED AT A RATE OF 70 TO 90 POUNDS PER 1,000 SQUARE FEET. MULCH MATERIALS SHALL BE RELATIVELY FREE OF ALL KINDS OF WEEDS AND SHALL BE FREE OF PROHIBITED NOXIOUS WEEDS. SPREAD MULCH MECHANICALLY OR UNIFORMLY BY HAND. MULCH ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER MULCH PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY PEG AND TWINE METHOD, MULCH ANCHORING TOOL, NETTING OR LIQUID MULCH BINDERS.



TIES ON SINGLE STEM SMALL TREES SHALL BE SIMILAR TO THOSE SHOWN ON DETAIL.
TIES ON MULTI-STEM SMALL TREES TO BE MADE ON HEAVIEST BRANCHES OF PLANT 9" COMPACTED TOPSOIL SOIL MIX

TYPICAL EVERGREEN PLANTING WITH STAKES



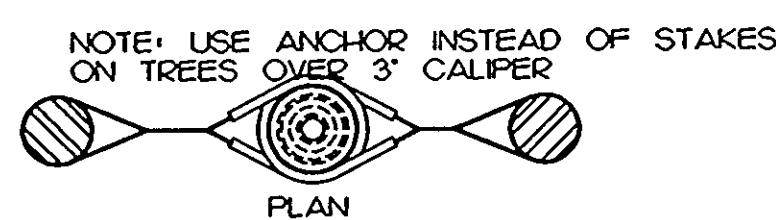
PRUNE 1/5 OF LEAF AREA BUT RETAIN NATURAL FORM. SPRAY W/ANTHROPICANT ACCORDING TO MFR'S INSTRUCTIONS IF FOLIAGE IS PRESENT.
GROUND LINE TO BE SAME AS AT THE NURSERY
BACKFILL W/TOPSOL AND PEATMOSS MIX IN 9" LAYERS WATER EACH LAYER UNTIL SETTLED. DO NOT TAMP.

TYPICAL TREE PLANTING

SODDING PREPARATION: AREA TO BE SODDED SHALL BE LOOSE AND FRIABLE TO A DEPTH OF AT LEAST 3". THE TOP LAYER SHALL BE LOOSENEED BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SODDING OCCURS. IN LIEU OF SOIL TEST RESULTS, APPLY 100 POUNDS OF DOLOMITIC LIMESTONE AND 25 POUNDS OF 10-10-10 FERTILIZER PER 1,000 SQUARE FEET. HARROW OR DISK LIME AND FERTILIZER INTO THE SOIL TO A DEPTH OF AT LEAST 3 INCHES ON SLOPES FLATTER THAN 3:1. NO ATTEMPT SHOULD TO DRAG ANY DISKED AREA TO MAKE THE SOIL SURFACE SMOOTH AFTER DISKING.

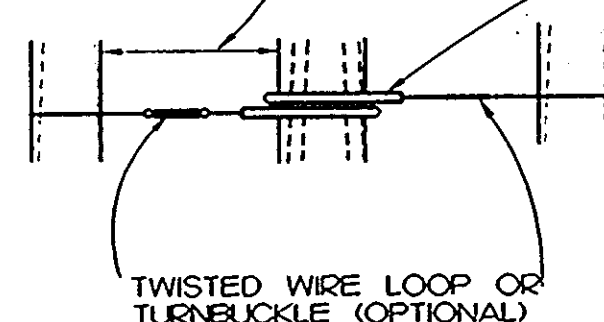
TEMPORARY SEEDING:

LIME: 100 POUNDS OF DOLOMITIC LIMESTONE PER 1,000 SQUARE FEET.
FERTILIZER: 15 POUNDS OF 10-10-10 PER 1,000 SQUARE FEET.
SEED: PERENNIAL RYE, ITALIAN RYE -0.92 POUNDS PER 1,000 SQUARE FEET (FEBRUARY 1 THROUGH APRIL 30 OR AUGUST 15 THROUGH NOVEMBER 1)
MILLET -0.92 POUNDS PER 1,000 SQUARE FEET (MAY 1 THROUGH AUGUST 15)
MULCH: SAME AS ABOVE (NOV. 2 THROUGH JAN. 31)

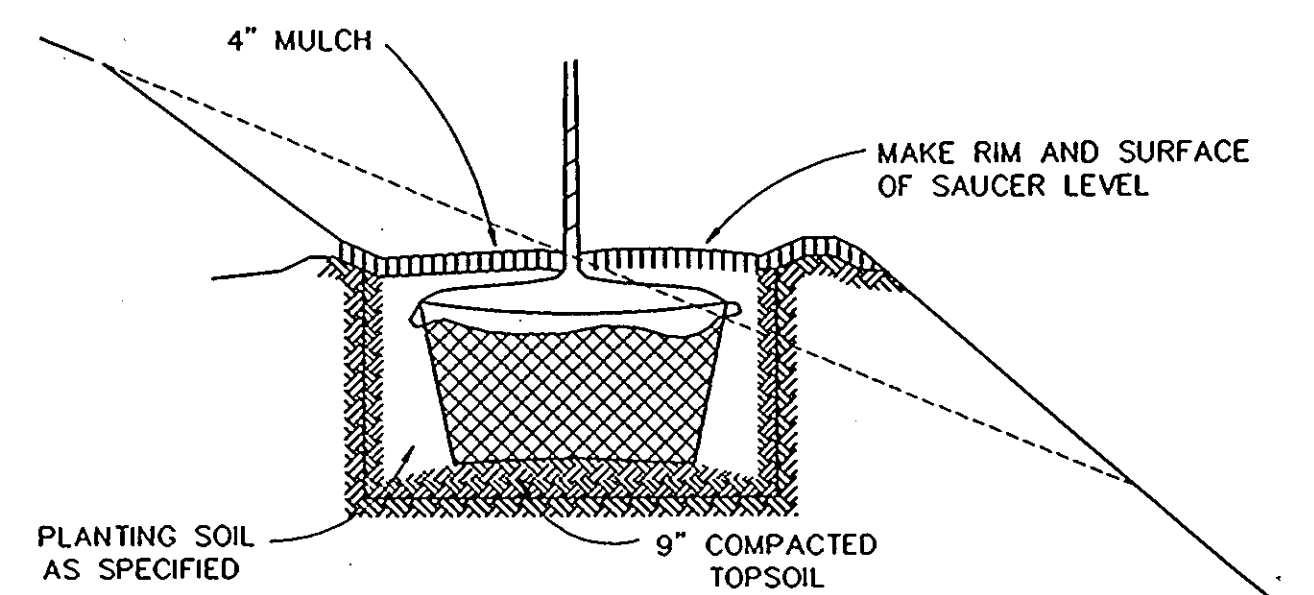


APPROX. 2/3 BALL DIA. SHALL BE SIMILAR TO THOSE SHOWN

RUBBER HOSE ONE PIECE PER TIE COMPLETELY ENROLLING WIRE LOOP AROUND TREE



STAKING TIE



SLOPE PLANTING SECTION

REVISIONS

APPROVED
PLANNING BOARD
OF HOWARD COUNTY
DATE 3/24/97

CONTRACT PURCHASER
BRINKER INTERNATIONAL
150 SE 12th STREET
SUITE 200
FT. LAUDERDALE, FL 33316
ATTN: Mr. Bill Gaisford
305-462-6828



FCK Freeland-Clinkscales & Kauffman, Inc.
Engineers - Landscape Architects
209 West Stone Avenue
Greenville, South Carolina 29609
864-233-5497
fax 864-233-8915

ROMANO'S
Macaroni
GRILL

COLUMBIA CROSSING SHOPPING CENTER

LANDSCAPE
DETAILS

SECTION 1 AREA 1 PARCEL P
TAX MAP 36, GRID 18, P10 PARCEL 50
6th ELECTION DISTRICT, HOWARD COUNTY, MARYLAND
Drawn JC/CG FCK Job 96-30 Drawing
Date 10-29-96 23/23
Check KK Date 10-29-96

APPROVED FOR PUBLIC WATER & PUBLIC SEWERAGE SYSTEMS IN CONFORMANCE WITH THE MASTER PLAN OF WATER & SEWERAGE FOR HOWARD COUNTY, MARYLAND.

James M. Boyd, M.D., S.E. 5-14-97
COUNTY HEALTH OFFICER M.D. DATE

APPROVED HOWARD COUNTY DEPARTMENT OF PLANNING & ZONING

Michael J. ... 8/5/97
CHIEF DEVELOPMENT ENGINEER M.I.C. DATE
James ... 5/29/97
DIRECTOR DATE
8/28/97