

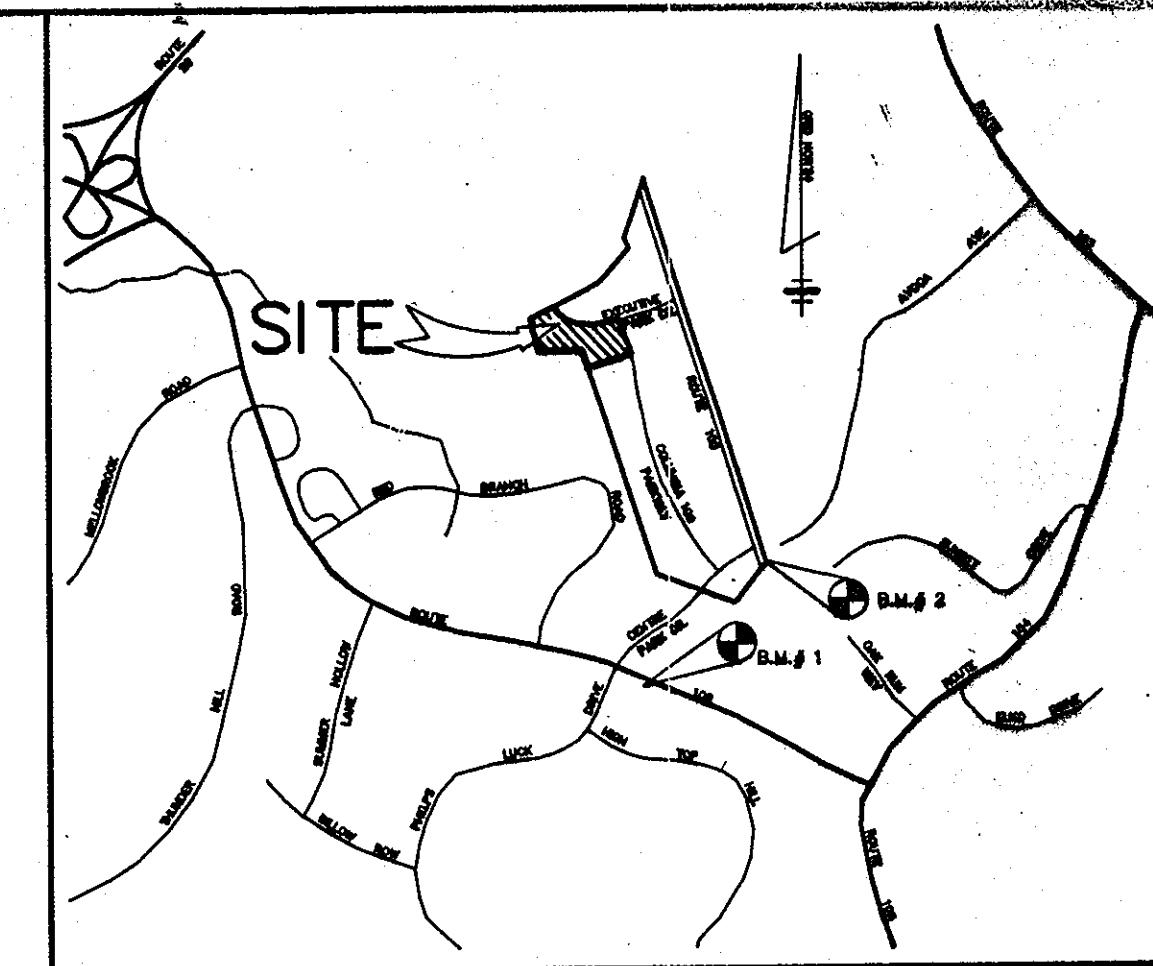
SHEET INDEX	
No.	DESCRIPTION
1	TITLE SHEET
2	SITE DEVELOPMENT PLAN
3	SITE DEVELOPMENT PLAN
4	GEOMETRY PLAN
5	GEOMETRY PLAN
6	GRADING AND SEDIMENT CONTROL PLAN
7	GRADING AND SEDIMENT CONTROL PLAN
8	SEDIMENT CONTROL NOTES & DETAILS
9	DETAIL SHEET
10	STORM DRAIN PROFILES
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13	LANDSCAPE PLAN
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15	DRAINAGE AREA MAP

SITE DEVELOPMENT PLAN

ORCHARD CROSSING

2nd ELECTION DISTRICT

HOWARD COUNTY, MARYLAND



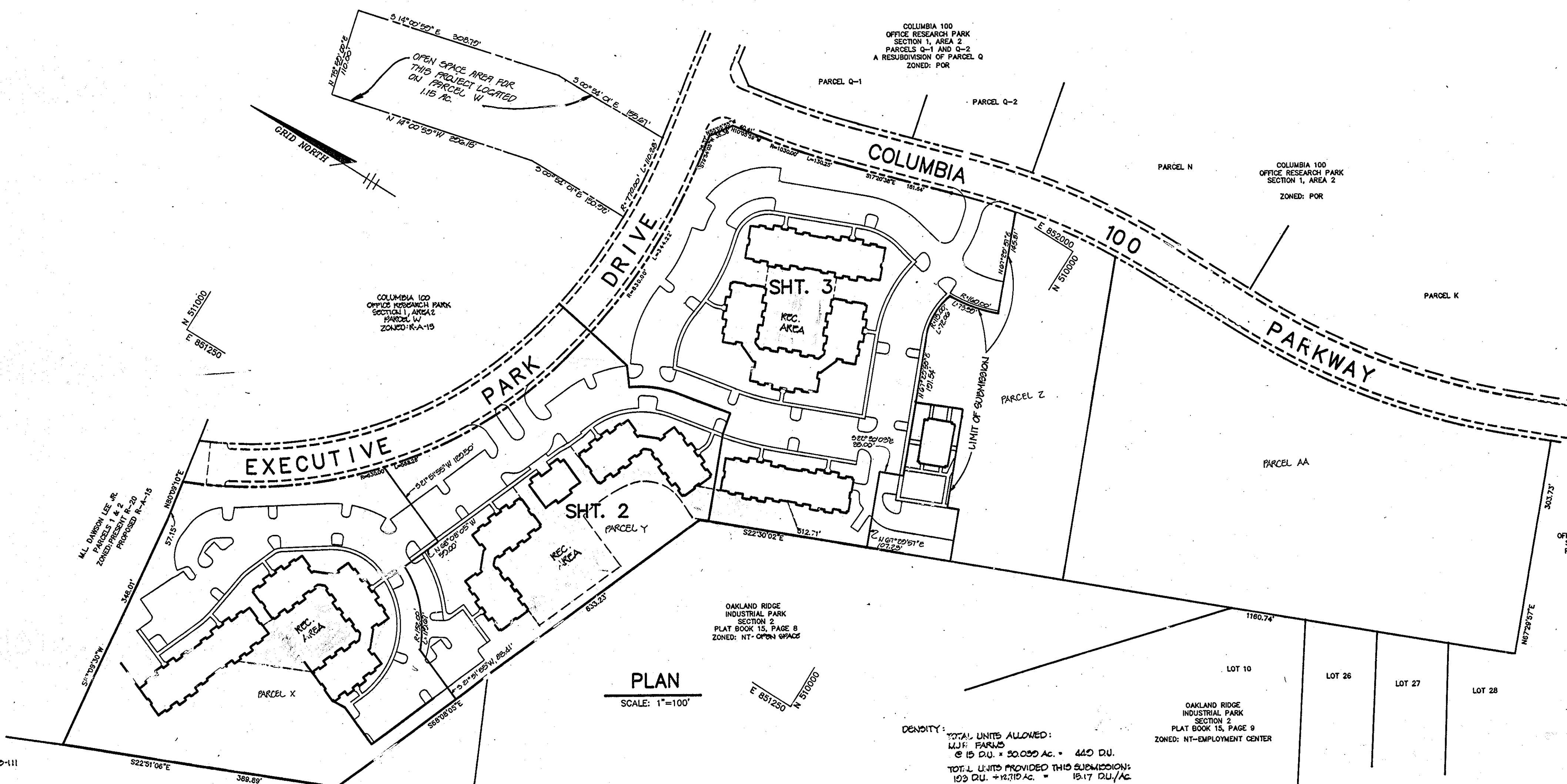
VICINITY MAP
SCALE: 1"=2000'
BENCHMARKS

BM # 1 ELEV. 482.29
HO. CO. 2743010-R
3/4" REBAR 0.4' BELOW SURFACE, 34.7' SOUTH OF CURB ON MARYLAND ROUTE 108 175' + EAST OF CL PHELPS LUCK DRIVE.

BM # 2 ELEV. 525.51
NAIL IN STONE AT PROPERTY CORNER COLUMBIA 100 - OFFICE RESEARCH PARK.

GENERAL NOTES

- ALL WATER LINES SHALL BE CONSTRUCTED A MINIMUM OF 42" COVER BELOW FINISHED GRADE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY PLUS M.S.A. STANDARDS AND SPECIFICATIONS IF APPLICABLE.
- APPROXIMATE LOCATION OF EXISTING UTILITIES ARE SHOWN FROM BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL TEST EXISTING UTILITIES AT LEAST (10) DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS TO VERIFY THEIR LOCATION AND ELEVATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF LOCATION OF UTILITIES IS OTHER THAN SHOWN.
- THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF CONSTRUCTION INSPECTION AT (410) 313-1880 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
- CONTRACTOR TO NOTIFY THE FOLLOWING UTILITIES OR AGENCIES AT LEAST FIVE DAYS BEFORE STARTING WORK SHOWN ON THESE DRAWINGS:
MISS UTILITY 1-800-257-7777
GAP TELEPHONE COMPANY 313-4800
HOWARD COUNTY BUREAU OF UTILITIES 313-4800
AT&T CABLE LOCATION DIVISION 303-3553
BALTIMORE GAS & ELECTRIC COMPANY 685-0123
STATE HIGHWAY ADMINISTRATION 531-6533
- TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE PLACEMENT OF ANY ASPHALT.
- ALL INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HOWARD COUNTY STANDARDS.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALLS.
- MANHOLE STATIONS SHALL BE ADJUSTED AS NECESSARY TO CONFORM TO PLAN DIMENSIONS.
- NO PIPE SHALL BE LAD UNTIL LINES OF EXCAVATION HAVE BEEN BROUGHT TO SUBGRADE.
- TOPO TAKEN FROM FIELD RUN SURVEY DATED FEB. 1993 BY RIEMER MUEGGE AND ASSOCIATES, INC. CONTOURS SHOWN AT 2 FOOT INTERVAL.
- VERTICAL CONTROL ESTABLISHED USING HO. CO. MONUMENT #1440003 & 2440002 HORIZONTAL CONTROL ESTABLISHED FROM MARYLAND STATE COORDINATE SYSTEM.
- WETLANDS DELINEATION PERFORMED BY MCCARTHY & ASSOCIATES, INC., DATED MAY, 1993.
- ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- ALL STORM DRAIN PIPE BEDDING SHALL BE AS SHOWN IN DETAIL 03.01 (TRENCH IN ROCK OR TRENCH IN EARTH AS DETERMINED BY FIELD CONDITIONS) IN VOL. IV OF HOWARD COUNTY DESIGN MANUAL UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR AS SHOWN ON THE DRAWINGS.
- THE DEVELOPER IS RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR RIGHTS-OF-WAY THAT MAY BE REQUIRED FOR THE SEDIMENT AND EROSION CONTROL PRACTICES, STORMWATER MANAGEMENT PRACTICES AND THE DISCHARGE OF STORMWATER ONTO OR ACROSS ADJACENT OR DOWNSTREAM PROPERTIES INCLUDED IN THIS PLAN. HE IS ALSO RESPONSIBLE FOR THE ACQUISITION OF ALL EASEMENTS, RIGHTS AND/OR WORK ON ADJACENT PROPERTIES INCLUDED IN THIS PLAN.
- THE PAVEMENT DETAILS SHOWN ON THESE PLANS REFLECT THE HOWARD COUNTY MINIMUM STANDARD PAVEMENT SECTIONS AND ARE NOT BASED ON SITE SPECIFIC CONDITIONS. PRIOR TO PAVING, THE FINAL PAVEMENT SECTIONS SHALL BE DETERMINED BY A QUALIFIED GEOTECHNICAL ENGINEER BASED ON IN-SITU TESTING OF THE FINISHED SUBGRADE. ANY PAVEMENT SECTION DETERMINED BY THE GEOTECHNICAL ENGINEER THAT IS LESS THAN THE HOWARD COUNTY MINIMUM STANDARD SHALL FIRST BE APPROVED BY THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS. THE TESTING AND GEOTECHNICAL ENGINEER SHALL BE FURNISHED BY THE OWNER.
- STORMWATER MANAGEMENT QUANTITY AND QUALITY CONTROL FOR THIS DEVELOPMENT IS PROVIDED UNDER FIRST-FLUSH QUALITY FOR AROMAS JUST DRAINAGES TO THE FACILITY AND PROVIDED UNDER THIRD FLUSH PLAN.
- ALL ELEVATIONS SHOWN ARE BASED ON U.S.C. AND G.S. MEAN SEA LEVEL (M.T.M. 1929).
- TRAFFIC STUDY PERFORMED BY THE TRAFFIC GROUP AND SUBMITTED UNDER P-00-111.
- EXISTING UTILITIES LOCATED FROM P-87-82 AND WATER & SEWER CONTRACT # 24-1888-0.
- ANY DAMAGE TO THE COUNTY'S RIGHT-OF-WAY SHALL BE CORRECTED AT THE DEVELOPER'S EXPENSE.
- ALL STORM DRAIN PIPES UNDER 18 INCH ARE TO BE ADVANCED DRAINAGE SYSTEMS, INC. N-12 POLYETHYLENE.
- THE NOISE STUDY PREPARED BY RIEMER MUEGGE & ASSOCIATES, INC. DATED APRIL, 1992 AND APPROVED UNDER ZB-930M INDICATED THAT THE ESA CONTOUR FOR THE YEAR 2010 DOES NOT ENDOUR ON THIS PARCEL.
- WATER METERS ARE TO BE LOCATED INSIDE EACH BUILDING.
- FOR PUBLIC WATER & SEWER PLANS SEE HOWARD COUNTY CONTRACT NO. 20.
- SEE DEPARTMENT OF PLANNING & ZONING FILE NO. 93-20-090, 87-82, P-00-111.
- THE OIL/WATER SEPARATOR IS TO BE MAINTAINED AND MAINTAINED BY THE OWNER OF THIS PROJECT.
- NO WORK SHALL COMMENCE FOR THE CONSTRUCTION OF THE RETAINING WALLS NEAR BUILDINGS A, D, & E UNTIL THE DESIGN HAS BEEN REVIEWED, APPROVED AND A BUILDING PERMIT IS ISSUED BY THE DEPARTMENT OF PUBLIC WORKS.
- AN ADMINISTRATIVE REQUIREMENT WAS APPROVED ON DECEMBER 22, 1993, TO REDUCE THE 30 FOOT BUILDING SETBACK TO 40 FEET FOR BUILDINGS P, K, L AND REDUCE THE 30 FOOT PARKING SETBACK TO 21 FEET AND 28 FEET IN TWO AREAS OF THE PARKING LOT.



PLAN
SCALE: 1"=100'

SITE ANALYSIS

AREA OF PARCEL: 18118 AC. (0.7, 780 Sq. Ft.)
 AREA OF SUBMISSION: 11,500 AC. (0.08 Sq. Ft.) + 1.15 AC. OPEN SPACE
 PRESENT ZONING: R-A-15 (PER ZB-930M)
 PROPOSED USE: APARTMENTS AND RELATED RECREATIONAL FACILITIES + SINGLE FAMILY ATTACHED
 TOTAL NUMBER OF UNITS ALLOWED: 103 UNITS
 TOTAL NUMBER OF UNITS PROVIDED: 103 UNITS

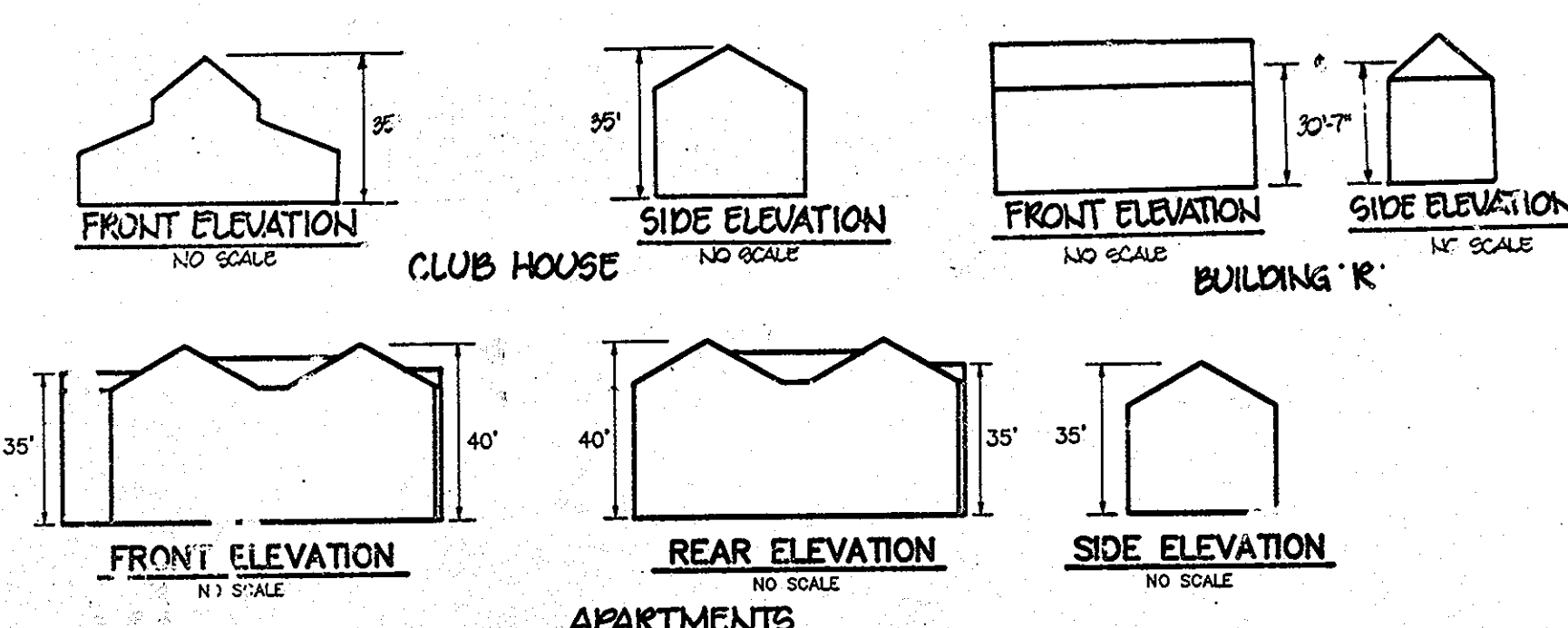
PARKING REQUIRED: 206 (100 UNITS x 2 PER UNIT)
 PARKING PROVIDED: 260 INCLUDING 17 H/C SPACES

BUILDING COVERAGE ON SITE: 2.09 AC. (16%)
 PAVED PARKING LOT/AREA ON SITE: 0.91 AC.

DENSITY: TOTAL UNITS ALLOWED: 103 UNITS
 @ 15 DU = 50,000 AC. = 440 DU.
 TOTAL UNITS PROVIDED THIS SUBMISSION: 103 DU. + 12,710 AC. = 13.17 DU./AC.

OPEN SPACE: REQUIRED THIS SUBMISSION: 2.9 AC.
 PROVIDED: ON 11.57 AC. = 2.89 AC. (24.7%)
 ON M.I.F. SPACES = 1.15 AC. (2.0%)
 TOTAL PROVIDED: 4.04 AC. (31.7% OF 12,710 AC.)

RECREATION AREA: REQUIRED THIS SUBMISSION: 175 SF x 103 = 0.78 AC. (33% x 8 Sq. Ft.)
 PROVIDED = 1.16 AC. (50,320.60 Sq. Ft.)



PROJECT NAME	COLUMBIA 100 OFFICE RESEARCH PARK SECTION 1, AREA 2 PARCELS Q-1 AND Q-2 A RESUBMISSION OF PARCEL Q ZONED: FOR	SHEET/AREA	1/2	PARCEL	X, Y & P. 2
PLAT #	11022	BLK #	12	R-#	R-A-15
WATER CODE	002	SEWER CODE	5750639	E. OF SURVEY	2nd
				CONTR. TRACT	6023.02

AS BUILT CERTIFICATE

JAYKANT D. PAREKH #19148 DATE

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

COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR DATE 4/14/94

CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE 4/13/94

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

DIRECTOR DATE 12/21/93

CHIEF, BUREAU OF ENGINEERING ACTING DATE 12/29/93

DATE: 12-10-93 REVISION

DEVELOPER: O.D.C. CROSSING, INC. C/O EARL ARMIGER THE EXECUTIVE CENTER 3300 NORTH RIDGE ROAD SUITE 230 ELLICOTT CITY, MD. 21043

PROJECT: ORCHARD CROSSING AN APARTMENT COMMUNITY

AREA: TAX MAP 30, 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND COLUMBIA 100 OFFICE RESEARCH PARK SECTION 1, AREA 2 PARCELS Q-1, Q-2 & P. 2

TITLE: TITLE SHEET

OWNER: HOWARD COUNTY HOUSING COMMISSION 10050 HICKORY RIDGE ROAD COLUMBIA, MD. 21044

RIEMER MUEGGE & ASSOCIATES, INC. Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, Md. 21045 410-997-8900 • FAX: 410-997-8202

DATE: 12-10-93

DESIGNED BY: J.C.O.

DRAWN BY: J.C.O.

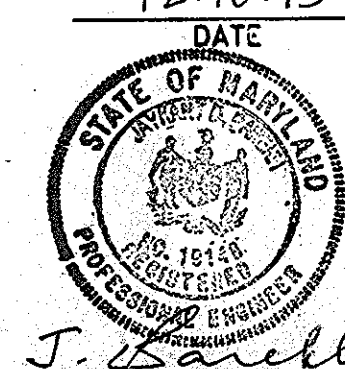
PROJECT NO.: 91001

DATE: SEPTEMBER 20, 1993



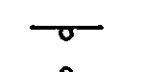

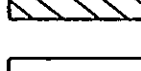
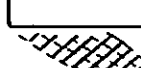
SCALE: AS SHOWN

DRAWING NO.: 1 OF 15

JAYKANT D. PAREKH #19148



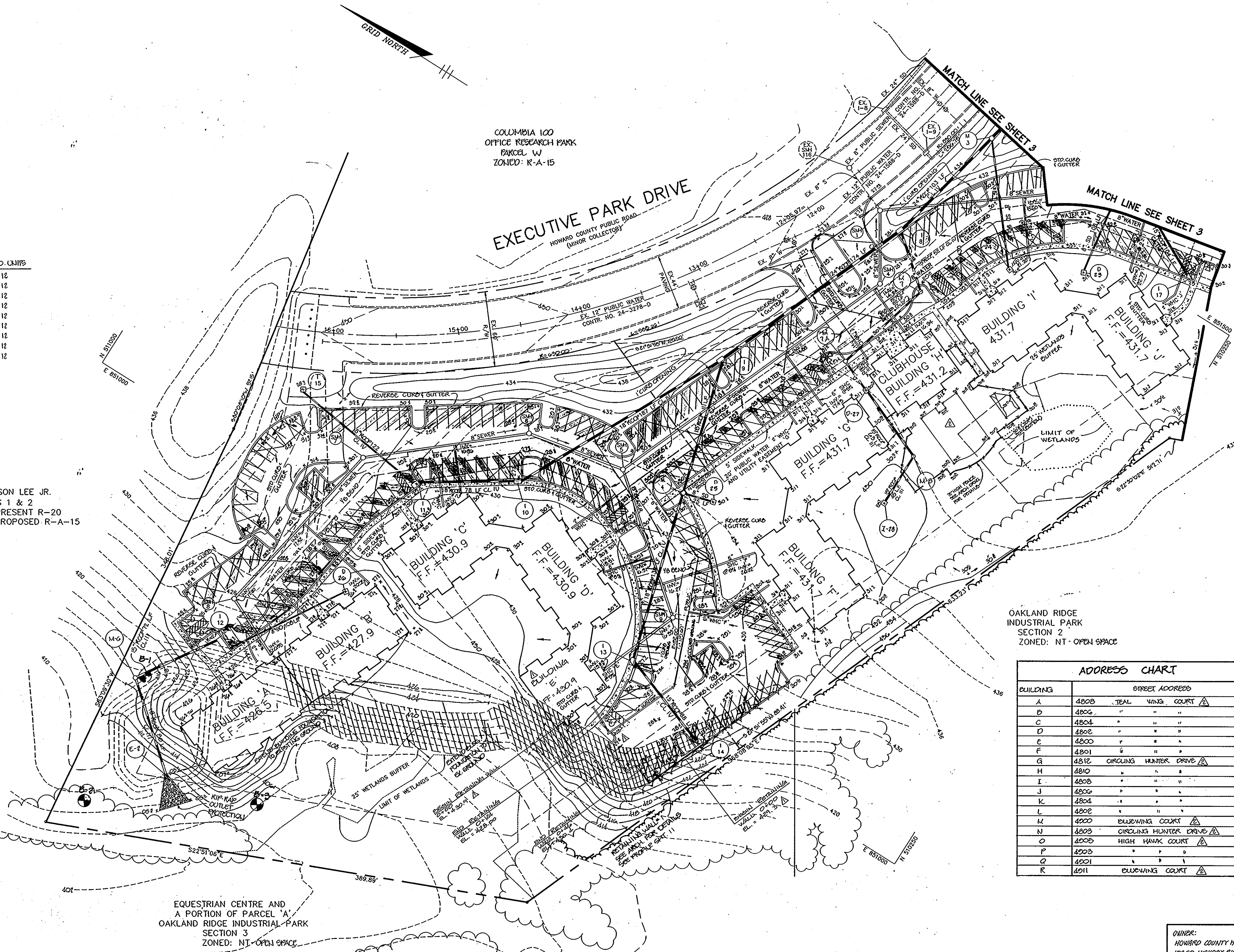
LEGEND

-  CONCRETE SIDEWALKS
-  B-1 SOIL BORING LOCATION
-  HANDICAP PARKING SIGN
-  HANDICAP PARKING SPACE
-  P-1 PAVING
-  P-2 PAVING

- NOTES:
1. ALL CURB RADII ARE 5' UNLESS OTHERWISE NOTED.
 2. * INDICATES TRANSITION FROM STANDARD TO REVERSE CURB & GUTTER.
 3. ALL PAVING TO BE AS PER PAVING SECTION ON SHEET 9 UNLESS OTHERWISE NOTED.
 4. GUTTER SLOPE TO MATCH PAVEMENT CROSS SLOPE.
 5. FOR DETAIL OF HANDICAP SIGNS AND RAMPS SEE DETAIL SHEET 9.

BUILDING NO.	NO. UNITS
A	12
B	12
C	12
D	12
E	12
F	12
G	12
H	12
I	12
J	12

M.L. DAWSON LEE JR.
PARCELS 1 & 2
ZONED: PRESENT R-20
PROPOSED R-A-15



COLUMBIA 100
OFFICE RESEARCH PARK
PARCEL W
ZONED: R-A-15

EXECUTIVE PARK DRIVE
HOWARD COUNTY PUBLIC ROAD
(MINOR COLLECTOR)

OAKLAND RIDGE
INDUSTRIAL PARK
SECTION 2
ZONED: NT - OPEN SPACE

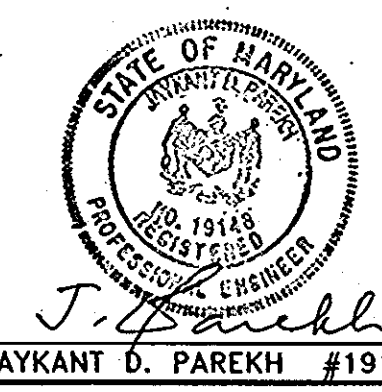
EQUESTRIAN CENTRE AND
A PORTION OF PARCEL 'A'
OAKLAND RIDGE INDUSTRIAL PARK
SECTION 3
ZONED: NT - OPEN SPACE

ADDRESS CHART	
BUILDING	STREET ADDRESS
A	4808 TEAL WING COURT
B	4806 " " "
C	4804 " " "
D	4802 " " "
E	4800 " " "
F	4801 " " "
G	4812 CIRCLING HUNTER DRIVE
H	4810 " " "
I	4808 " " "
J	4806 " " "
K	4804 " " "
L	4802 " " "
M	4800 BLENWING COURT
N	4808 CIRCLING HUNTER DRIVE
O	4806 HIGH HAWK COURT
P	4804 " " "
Q	4802 " " "
R	4811 BLENWING COURT

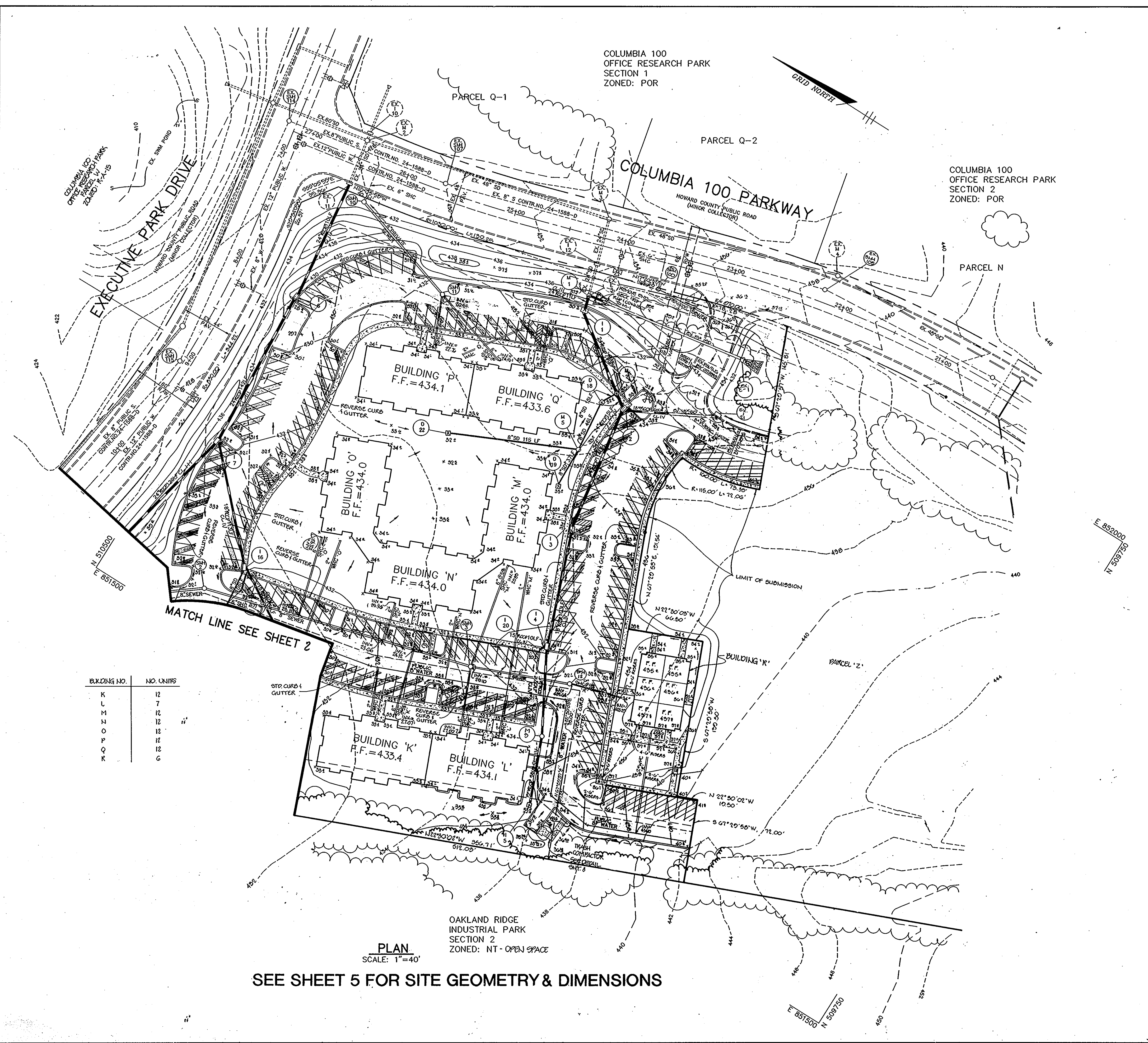
PLAN
SCALE: 1"=40'

SEE SHEET 4 FOR SITE GEOMETRY & DIMENSIONS

AS BUILT CERTIFICATE	
JAYKANT D. PAREKH #19148	DATE
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.	
N/A	DATE
COUNTY HEALTH OFFICER	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>[Signature]</i>	4/14/94
DIRECTOR	DATE
<i>[Signature]</i>	4/13/94
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	DATE
APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.	
<i>[Signature]</i>	12/29/93
DIRECTOR	DATE
<i>[Signature]</i>	12/29/93
CHIEF, BUREAU OF ENGINEERING ACTION	DATE
<small>4-9-93</small> ADD TO REVISION LOG, REV. STORM DRAIN LAYOUT AND ADDRESS CHART <small>1-95</small> TO RECHECK THE ACCURACY OF THE BOUNDARY LINES ON THIS PROJECT, RECHECK THE USE OF EXISTING "E" AND ADJUST THE PAVEMENT. DATE NO. REVISION	
DEVELOPER O.D.C. CROSSING, INC. C/O EARL ARMIGER THE EXECUTIVE CENTER 3300 NORTH RIDGE ROAD SUITE 230 ELLICOTT CITY, MD. 21043	
PROJECT ORCHARD CROSSING AN APARTMENT COMMUNITY	
AREA TAX MAP 30, 2ND ELECTION DISTRICT HOWARD COUNTY, MARYLAND COLUMBIA 100 OFFICE RESEARCH PARK SECTION 1, AREA 2, PARCEL W, Y, Z, PG. 2	
TITLE SITE DEVELOPMENT PLAN	
RIEMER MUEGGE & ASSOCIATES, INC. Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, Md. 21045 410-997-8900 FAX: 410-997-9282	
F-87-82 ZB-930M F-93-111 DATE 12-10-93 DESIGNED BY: J.C.O. DRAWN BY: J.C.O. PROJECT NO: 91001 DATE: SEPTEMBER 23, 1993 SCALE: AS SHOWN DRAWING NO. 2 OF 15	
OWNER: HOWARD COUNTY HOUSING COMMISSION 10650 HICKORY RIDGE ROAD COLUMBIA, MD. 21044	



JAYKANT D. PAREKH #19148



LEGEND

- CONCRETE SIDEWALKS
- SOIL BORING LOCATION
- HANDICAP PARKING SIGN
- HANDICAP PARKING SPACE
- P-1 PAVING
- P-2 PAVING

- NOTES:**
1. ALL CURB RADII ARE 5' UNLESS OTHERWISE NOTED.
 2. * INDICATES TRANSITION FROM STANDARD TO REVERSE CURB & GUTTER.
 3. ALL PAVING TO BE AS PER PAVING SECTION ON SHEET 2 UNLESS OTHERWISE NOTED.
 4. GUTTER SLOPE TO MATCH PAVEMENT CROSS SLOPE.
 5. FOR DETAIL OF HANDICAP SIGNS AND RAMPS SEE DETAIL SHEET 2.

AS BUILT CERTIFICATE

JAYKANT D. PAREKH #19148	DATE
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT:	
<i>[Signature]</i> COUNTY HEALTH OFFICER	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING:	
<i>[Signature]</i> DIRECTOR	4/14/94 DATE
<i>[Signature]</i> CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	4/13/94 DATE
APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS:	
<i>[Signature]</i> DIRECTOR	12/29/93 DATE
<i>[Signature]</i> CHIEF, BUREAU OF ENGINEERING ACTIVITY	12/29/93 DATE

DEVELOPER
 O.D.C. CROSSING, INC.
 C/O CAR. ARMSTRONG
 THE EXECUTIVE CENTER
 3300 NORTH RIDGE ROAD
 SUITE 230
 ELLICOTT CITY, MD. 21043

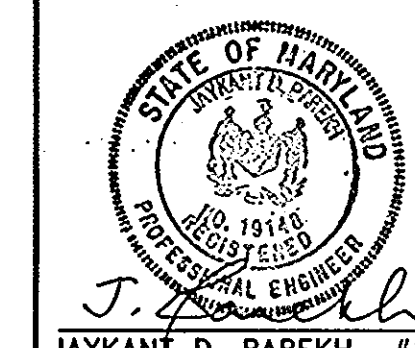
PROJECT
ORCHARD CROSSING
 AN APARTMENT COMMUNITY

AREA
 TAX MAP 20, 2nd ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 COLUMBIA 100 OFFICE RESEARCH PARK
 SECTION 1, AREA 2 PARCEL X, Y & Z

TITLE
SITE DEVELOPMENT PLAN

OWNER:
 HOWARD COUNTY HOUSING COMMISSION
 10000 HICKORY RIDGE ROAD
 COLUMBIA, MD. 21044

12-10-93 DATE	F-87-82 ZB:930M F-93-111
DESIGNED BY: J.C.O.	
DRAWN BY: J.C.O.	
PROJECT NO: 91001	
DATE: SEPTEMBER 30, 1993	
SCALE: AS SHOWN	
DRAWING NO. 3 OF 15	

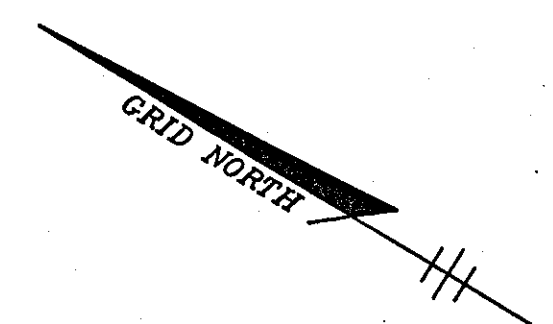


PLAN
 SCALE: 1"=40'

SEE SHEET 5 FOR SITE GEOMETRY & DIMENSIONS

BUILDING NO.	NO. UNITS
K	12
L	7
M	12
N	12
O	12
P	12
Q	12
R	6

OAKLAND RIDGE
 INDUSTRIAL PARK
 SECTION 2
 ZONED: NT - OPEN SPACE



COLUMBIA 100
OFFICE RESEARCH PARK
PARCEL W
ZONED: R-A-15

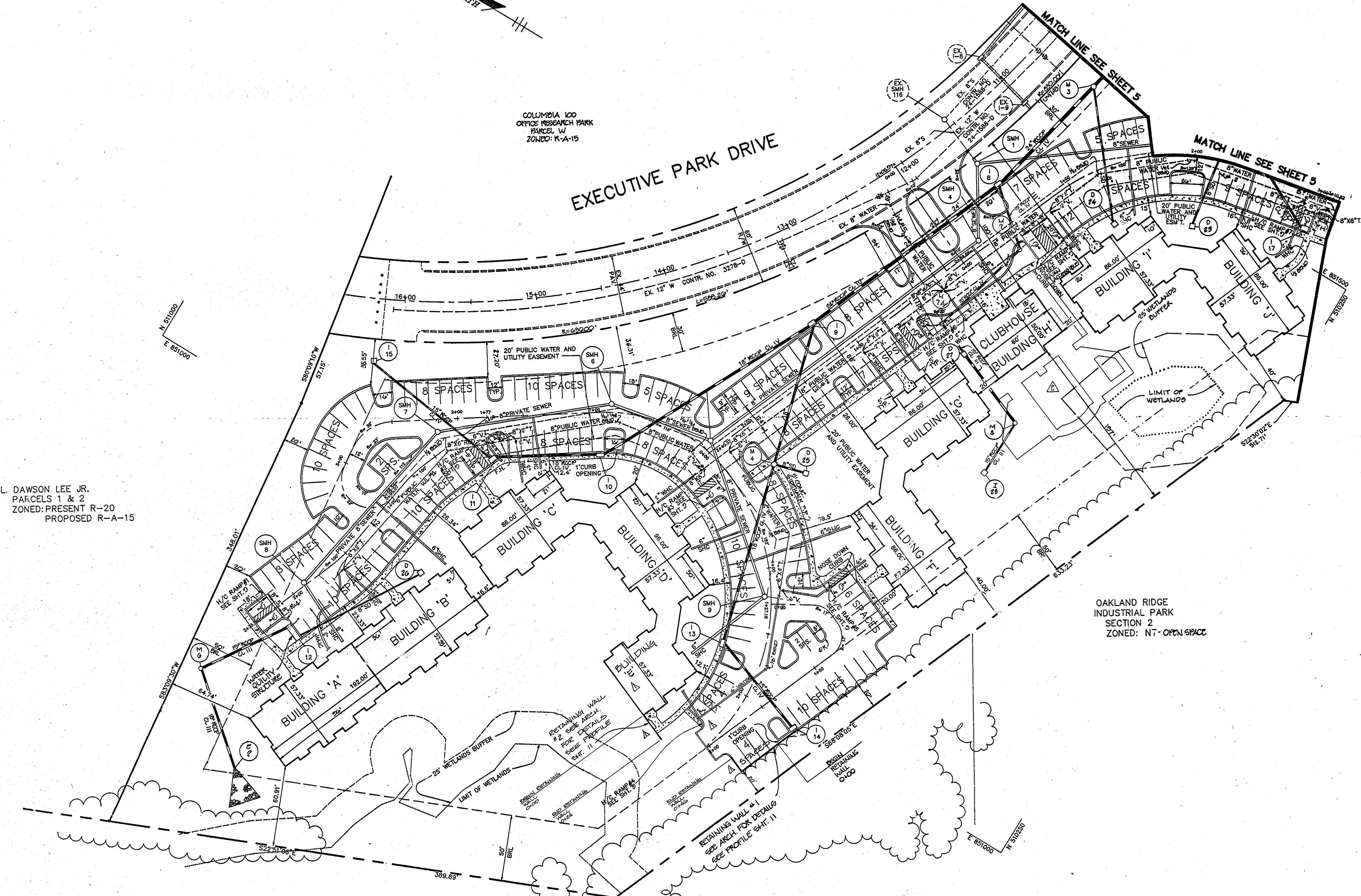
EXECUTIVE PARK DRIVE

M.L. DAWSON LEE JR.
PARCELS 1 & 2
ZONED: PRESENT R-20
PROPOSED R-A-15

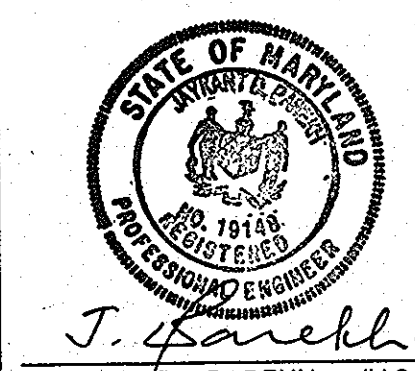
OAKLAND RIDGE
INDUSTRIAL PARK
SECTION 2
ZONED: NT-OPEN SPACE

EQUESTRIAN CENTRE AND
A PORTION OF PARCEL 'A'
OAKLAND RIDGE INDUSTRIAL PARK
SECTION 3
ZONED: NT-OPEN SPACE

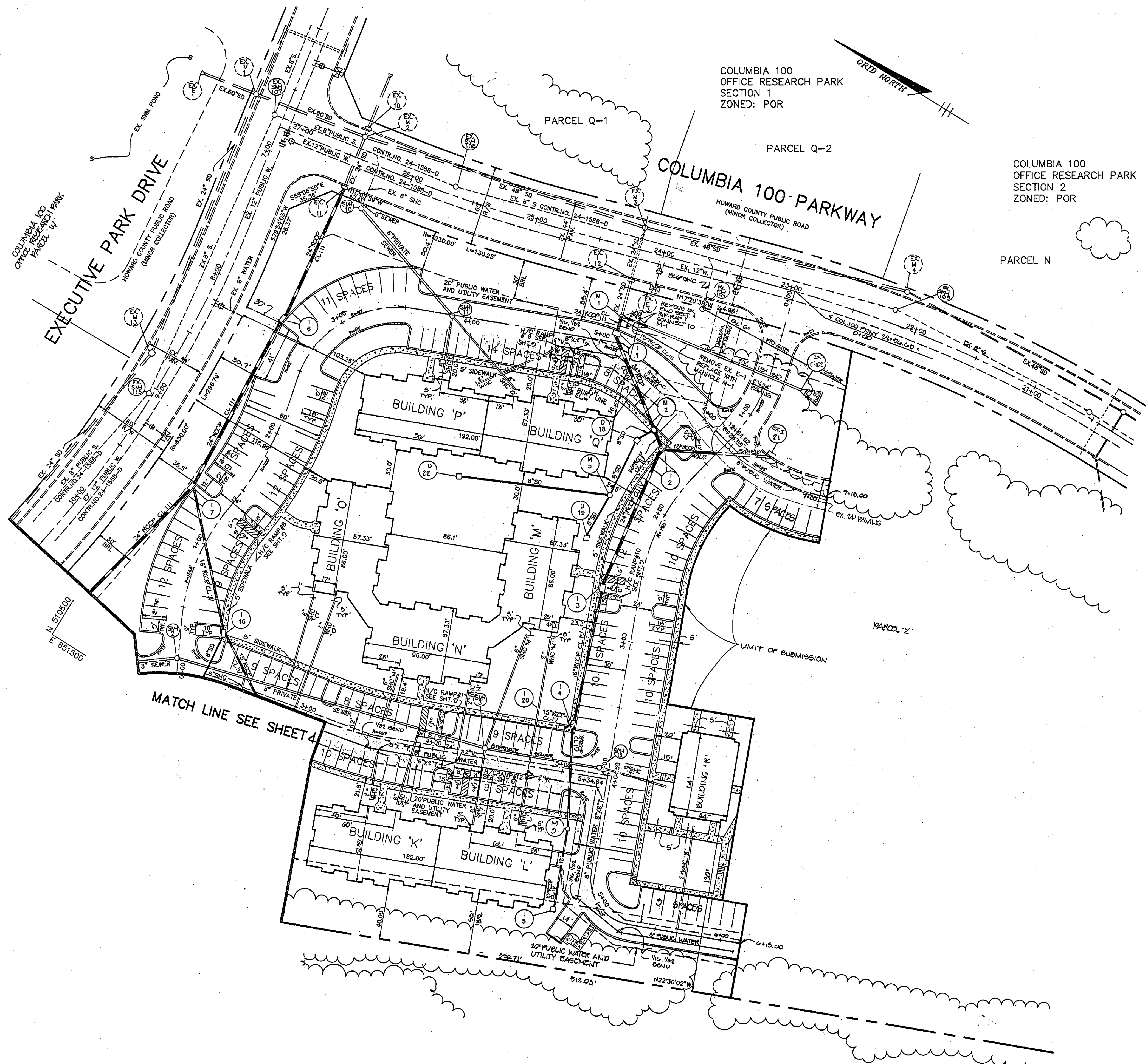
PLAN
SCALE: 1"=40'



AS BUILT CERTIFICATE	
JAYKANT D. PAREKH #19148	DATE
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.	
<i>[Signature]</i>	
COUNTY HEALTH OFFICER	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>[Signature]</i>	
DIRECTOR	4/14/94 DATE
<i>[Signature]</i>	
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	4/13/94 DATE
APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.	
<i>[Signature]</i>	
DIRECTOR	12/29/93 DATE
<i>[Signature]</i>	
CHIEF, BUREAU OF ENGINEERING ACTING	12/29/93 DATE
4-B-25 ADDED POOL & DECK, REV. S.D. LAYOUT TO REFLECT THE HEIGHT OF THE RETAINING WALLS ON SITE, REDUCE THE SIZE OF FOUNDATION TO AND ADJUST THE PERIMETER.	
1-95	
DATE	NO. REVISION
DEVELOPER O.D.C. CROSSING, INC. C/O CARL ARMIGER THE EXECUTIVE CENTER 3300 NORTH RIDGE ROAD SUITE 230 ELLCOTT CITY, MD. 21043	
PROJECT ORCHARD CROSSING AN APARTMENT COMMUNITY	
AREA TAX MAP 30, 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND COLUMBIA 100 OFFICE RESEARCH PARK SECTION 1, AREA 2 PARCEL 'X', 'Y' & 'Z'	
TITLE GEOMETRY PLAN	
OWNER: HOWARD COUNTY HOUSING COMMISSION 10000 HICKORY RIDGE ROAD COLUMBIA, MD. 21044	
RIEMER MUEGGE & ASSOCIATES, INC. Planners • Engineers • Surveyors 8818 Centre Park Drive • Suite 200 • Columbia, Md. 21045 410-997-8900 • FAX: 410-997-9282	
12.10.93 DATE	F-87-82 ZB:330M F-93-111
DESIGNED BY J.C.O.	
DRAWN BY: J.C.O.	
PROJECT NO: 91001	
DATE: SEPTEMBER 30, 1993	
SCALE: AS SHOWN	
DRAWING NO. 4 OF 15	



JAYKANT D. PAREKH #19148



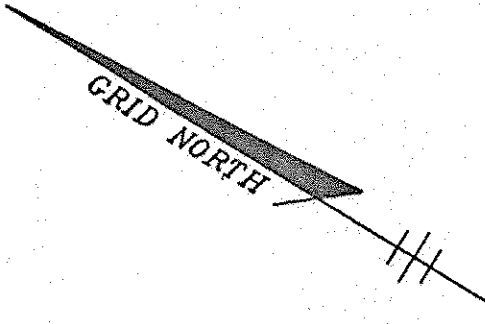
PLAN
SCALE: 1"=40'

OAKLAND RIDGE
INDUSTRIAL PARK
SECTION 2
ZONED: NT-OPEN SPACE

COLUMBIA 100
OFFICE RESEARCH PARK
SECTION 1
ZONED: POR

COLUMBIA 100
OFFICE RESEARCH PARK
SECTION 2
ZONED: POR

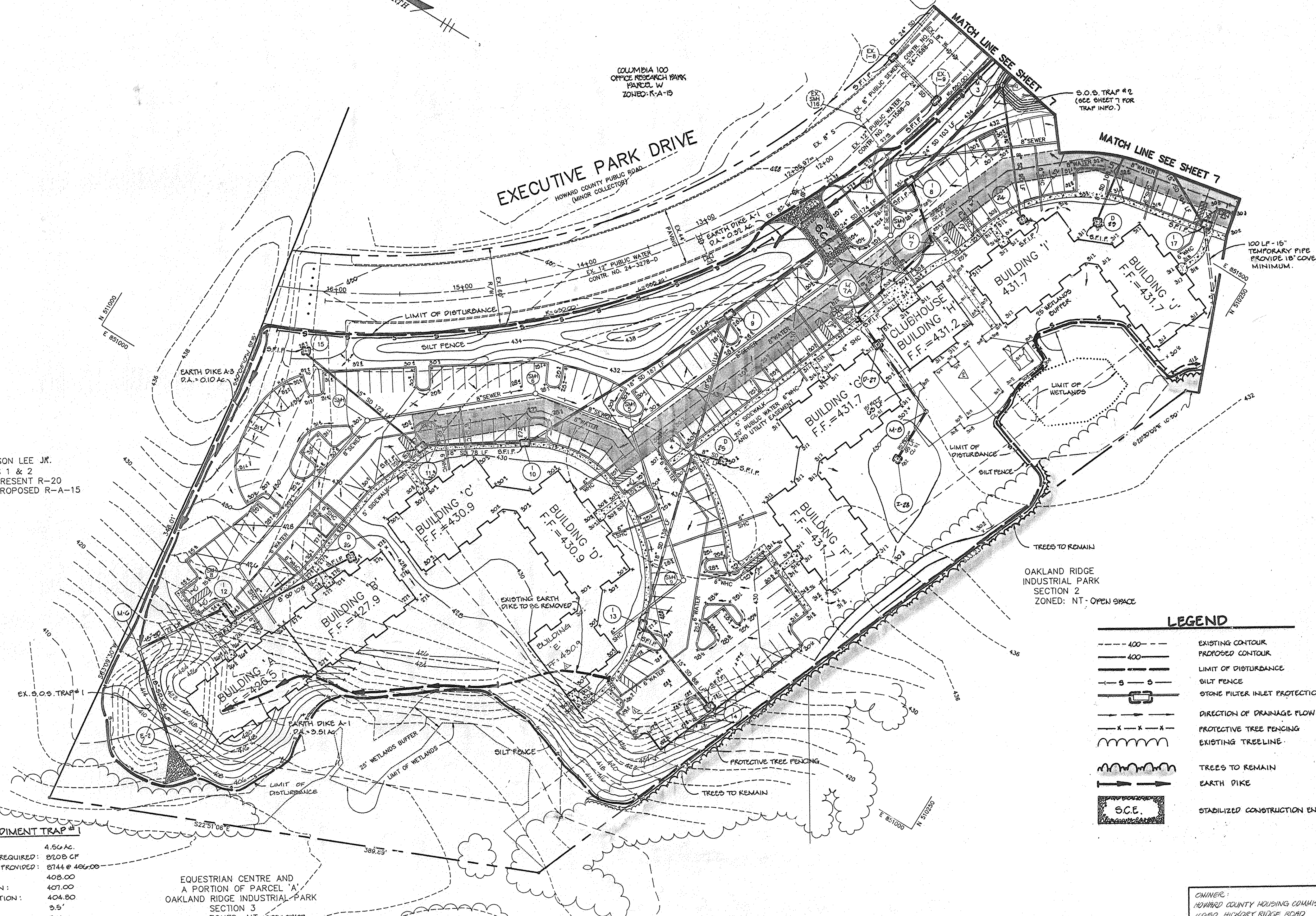
AS BUILT CERTIFICATE			
JAYKANT D. PAREKH #19148	DATE		
APPROVED : FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.			
_____ COUNTY HEALTH OFFICER			
APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.			
<i>James Smith</i>	4/14/94		
DIRECTOR	DATE		
<i>Chia Surinans</i>	4/13/94		
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	DATE		
APPROVED : FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.			
<i>James Smith</i>	12/29/93		
DIRECTOR	DATE		
<i>David Smith</i>	12/29/93		
CHIEF, BUREAU OF ENGINEERING ACTING	DATE		
DATE	BY REVISION		
DEVELOPER O.D.C. CROSSING, INC. C/O EARL ARMER THE EXECUTIVE CENTER 3300 NORTH RIDGE ROAD SUITE 230 ELLCOTT CITY, MD. 21043			
PROJECT ORCHARD CROSSING AN APARTMENT COMMUNITY			
AREA TAX MAP 30, 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND COLUMBIA 100 OFFICE RESEARCH PARK SECTION 1, AREA 2 PARCELS 'X', 'Y' & 'Z'			
TITLE GEOMETRY PLAN			
OWNER: HOWARD COUNTY HOUSING COMMISSION 10850 HICKORY RIDGE ROAD COLUMBIA, MD. 21044			
<table border="0"> <tr> <td style="text-align: center;"> </td> <td> F-87-82 28:930M F-93-1111 DESIGNED BY : J. D. DRAWN BY : J.C.O. PROJECT NO : 31001 DATE : SEPTEMBER 20, 1993 SCALE : AS SHOWN DRAWING NO. 5 OF 19 </td> </tr> </table>			F-87-82 28:930M F-93-1111 DESIGNED BY : J. D. DRAWN BY : J.C.O. PROJECT NO : 31001 DATE : SEPTEMBER 20, 1993 SCALE : AS SHOWN DRAWING NO. 5 OF 19
	F-87-82 28:930M F-93-1111 DESIGNED BY : J. D. DRAWN BY : J.C.O. PROJECT NO : 31001 DATE : SEPTEMBER 20, 1993 SCALE : AS SHOWN DRAWING NO. 5 OF 19		



COLUMBIA 100 OFFICE RESEARCH PARK
PARCEL W
ZONED: R-A-15

EXECUTIVE PARK DRIVE
HOWARD COUNTY PUBLIC ROAD
(MINOR COLLECTOR)

M.L. DAWSON LEE JR.
PARCELS 1 & 2
ZONED: PRESENT R-20
PROPOSED R-A-15



OAKLAND RIDGE INDUSTRIAL PARK
SECTION 2
ZONED: NT - OPEN SPACE

LEGEND

	EXISTING CONTOUR
	PROPOSED CONTOUR
	LIMIT OF DISTURBANCE
	SILT FENCE
	STONE FILTER INLET PROTECTION
	DIRECTION OF DRAINAGE FLOW
	PROTECTIVE TREE FENCING
	EXISTING TREELINE
	TREES TO REMAIN
	EARTH DIKE
	STABILIZED CONSTRUCTION ENTRANCE

EX. STONE SEDIMENT TRAP #1

DRAINAGE AREA:	4.56 AC.
STORAGE VOLUME REQUIRED:	8200 CF
STORAGE VOLUME PROVIDED:	8744 @ 406'00"
TOP ELEVATION:	408.00
CREST ELEVATION:	407.00
CLEANOUT ELEVATION:	404.50
DEPTH:	3.5'
SIDE SLOPES:	2:1
OUTLET WIDTH:	20'
BOTTOM ELEVATION:	403.50

EQUESTRIAN CENTRE AND
A PORTION OF PARCEL 'A'
OAKLAND RIDGE INDUSTRIAL PARK
SECTION 3
ZONED: NT - OPEN SPACE

PLAN
SCALE: 1"=40'

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

A. Challenge 12-10-93
DEVELOPER DATE

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

J. Garekh 12-10-93
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

Tatiana Cap... 12/22/93
U.S. SOIL CONSERVATION SERVICE DATE

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

Shuff... 12/21/93
HOWARD SOIL CONSERVATION DISTRICT DATE

AS BUILT CERTIFICATE

JAYKANT D. PAREKH #19148 DATE

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

COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

James Smith 4/19/94
DIRECTOR DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

Jana Surinani 4/13/94
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

James G. ... 12-29-93
DIRECTOR DATE

REVISION

DEVELOPER
O.D.C. CROSSING, INC.
C/O EARL ARMIGER
THE EXECUTIVE CENTER
3300 NORTH RIDGE ROAD
SUITE 230
ELlicott CITY, MD. 21043

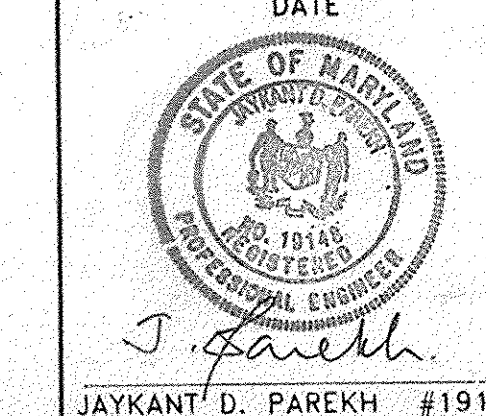
PROJECT **ORCHARD CROSSING**
AN APARTMENT COMMUNITY

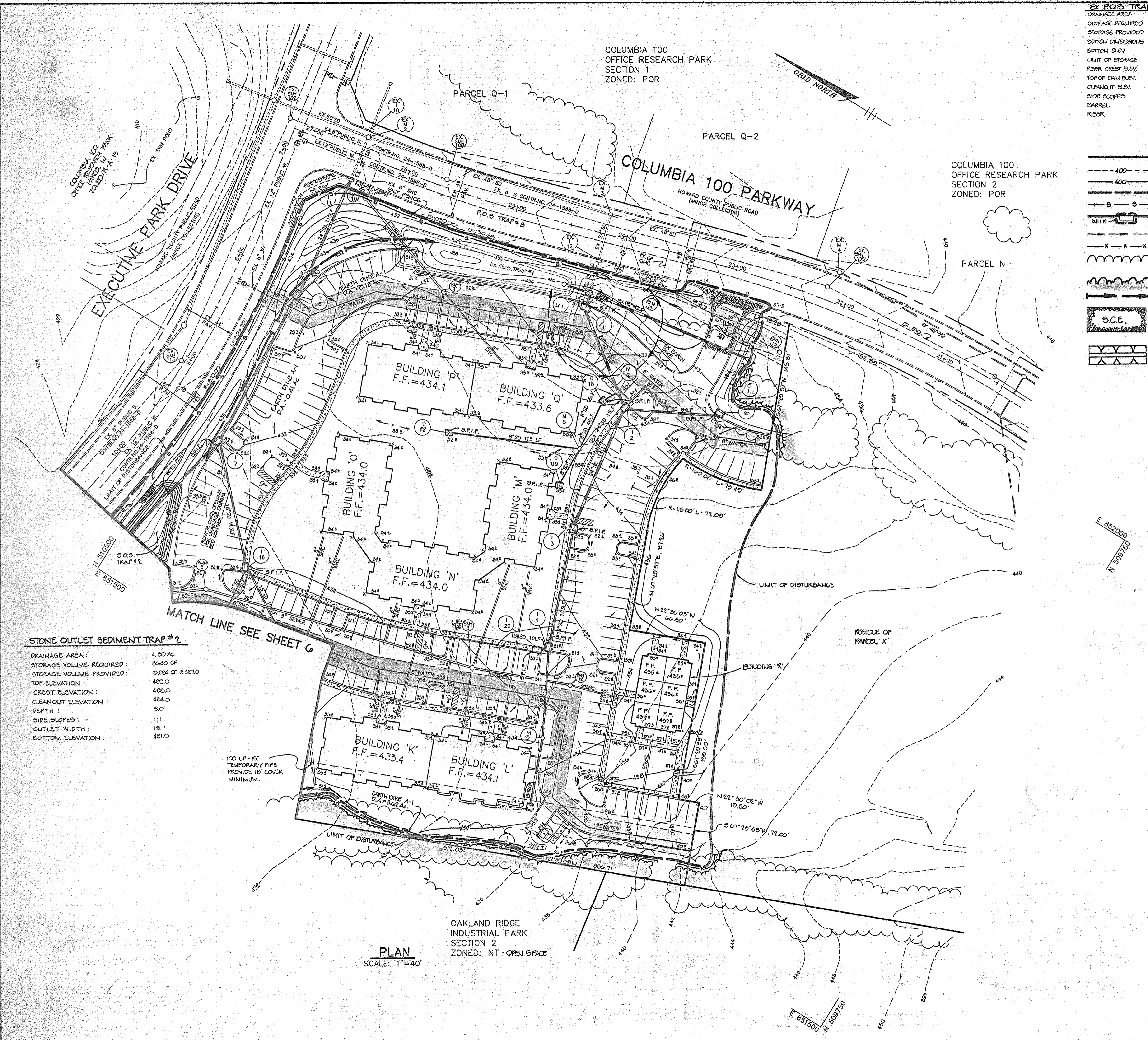
AREA
TAX MAP 30, 2ND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
COLUMBIA 100 OFFICE RESEARCH PARK
SECTION 1, AREA 2 PARCEL 'X', 'Y' & 'Z'

TITLE **SEDIMENT CONTROL PLAN**

RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers • Surveyors
8818 Centre Park Drive • Suite 200 • Columbia, Md. 21045
410-997-8900 FAX: 410-997-9282

12-10-93 DATE
F-87-82 ZB:930M
F-93-111
DESIGNED BY: J.C.O.
DRAWN BY: J.C.O.
PROJECT NO: 91001
DATE: SEPTEMBER 30, 1993
SCALE: AS SHOWN
DRAWING NO. 6 OF 15





COLUMBIA 100
OFFICE RESEARCH PARK
SECTION 1
ZONED: POR

PARCEL Q-2

COLUMBIA 100 PARKWAY
HOWARD COUNTY PUBLIC ROAD
(MINOR COLLECTOR)

COLUMBIA 100
OFFICE RESEARCH PARK
SECTION 2
ZONED: POR

PARCEL N

STONE OUTLET SEDIMENT TRAP #2
DRAINAGE AREA: 4.80 AC.
STORAGE VOLUME REQUIRED: 8640 CF
STORAGE VOLUME PROVIDED: 10,225 CF @ 427.0
TOP ELEVATION: 428.0
CREST ELEVATION: 428.0
CLEANOUT ELEVATION: 424.0
DEPTH: 8.0'
SIDE SLOPES: 1:1
OUTLET WIDTH: 18"
BOTTOM ELEVATION: 421.0

100 LF-15" TEMPORARY PIPES PROVIDE 18" COVER MINIMUM.

PLAN
SCALE: 1"=40'

OAKLAND RIDGE
INDUSTRIAL PARK
SECTION 2
ZONED: NT - OPEN SPACE

EX. P.O.S. TRAP NO. 1

DRAINAGE AREA	3.11 AC.
STORAGE REQUIRED	5908 CF
STORAGE PROVIDED	8710 CF
BOTTOM DIMENSIONS	21' x 150'
BOTTOM ELEV.	426.0
LIMIT OF STORAGE	428.5
RESER. CREST ELEV.	428.5
TOP OF DAM ELEV.	430.0
CLEANOUT ELEV.	427.25
SIDE SLOPES	1:1
BARREL	21'
RESER.	24'

LEGEND

- 400 --- EXISTING CONTOUR
- 400 --- PROPOSED CONTOUR
- 9 --- 9 --- LIMIT OF DISTURBANCE
- 9 --- 9 --- GILT FENCE
- 9 --- 9 --- STONE FILTER INLET PROTECTION
- x --- x --- DIRECTION OF DRAINAGE FLOW
- x --- x --- PROTECTIVE TREE FENCING
- wavy --- EXISTING TREELINE
- wavy --- TREES TO REMAIN
- --- EARTH DIKE
- 6.C.E. --- STABILIZED CONSTRUCTION ENTRANCE
- --- MOUNTABLE BERM

BY THE DEVELOPER :

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

J. Galligan 12-10-93
DEVELOPER DATE

BY THE ENGINEER :

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

J. Parekh 12-10-93
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

Patricia Engh 12/21/93
U.S. SOIL CONSERVATION SERVICE DATE

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

Sup. J. Li 10/21/93
HOWARD SOIL CONSERVATION DISTRICT DATE

AS BUILT CERTIFICATE

JAYKANT D. PAREKH #19148 DATE

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

J. Parekh DATE
COUNTY HEALTH OFFICER

APPROVED : HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

James Smith 4/14/94 DATE
DIRECTOR

Chris Swannery 4/18/94 DATE
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH

APPROVED : FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

James M. Lee 12-29-93 DATE
DIRECTOR

James M. Lee 12/29/93 DATE
CHIEF, BUREAU OF ENGINEERING & CONSTRUCTION

DEVELOPER
O.D.C. CROSSING, INC.
C/O EARL ARMIGOR
THE EXECUTIVE CENTER
3300 NORTH RIDGE ROAD
SUITE 230
ELLCOTT CITY, MD. 21043

PROJECT **ORCHARD CROSSING**
AN APARTMENT COMMUNITY

AREA TAX MAP 30, 2nd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
COLUMBIA 100 OFFICE RESEARCH PARK
SECTION 1, AREA 2 PARCEL W, Y & R, Z

TITLE **SEDIMENT CONTROL PLAN**

RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers • Surveyors
8818 Centre Park Drive • Suite 200 • Columbia, Md. 21048
410-997-8900 FAX: 410-997-9282

12-10-93
DATE

F-87-82 ZB-930M
F-93-111

DESIGNED BY: J.C.O.

DRAWN BY: J.C.O.

PROJECT NO: 91001

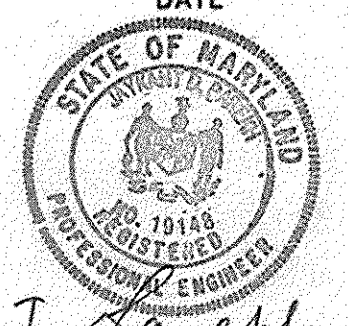
DATE: SEPTEMBER 22, 1993

SCALE: AS SHOWN

DRAWING NO. 7 OF 15

J. Parekh
JAYKANT D. PAREKH #19148

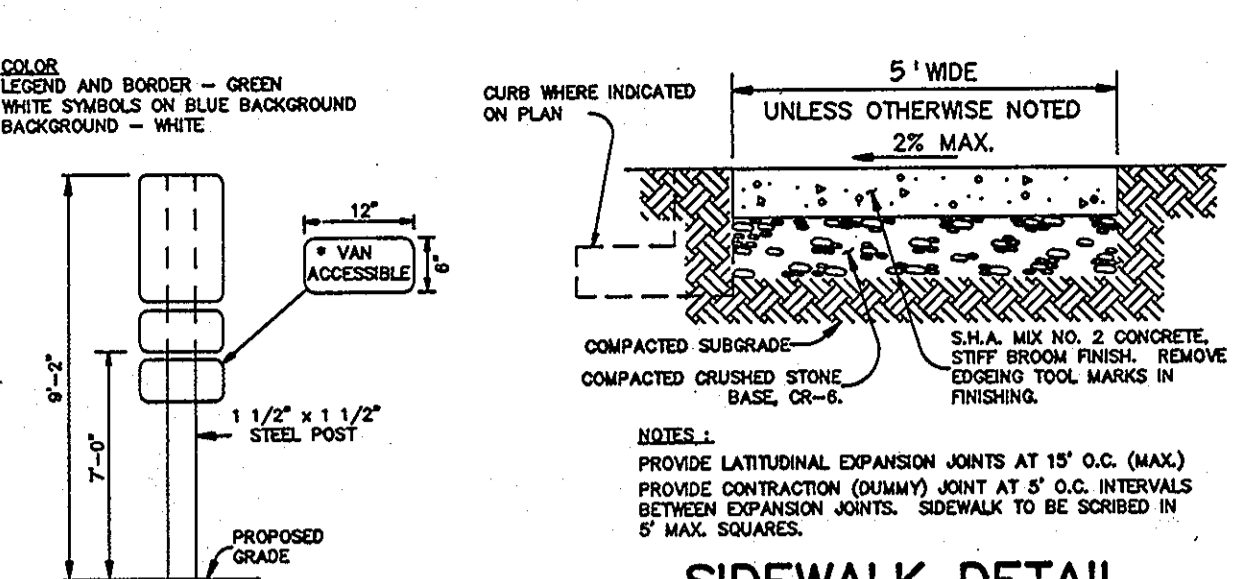
OWNER:
HOWARD COUNTY HOUSING COMMISSION
10050 HICKORY RIDGE ROAD
COL., MD. 21046



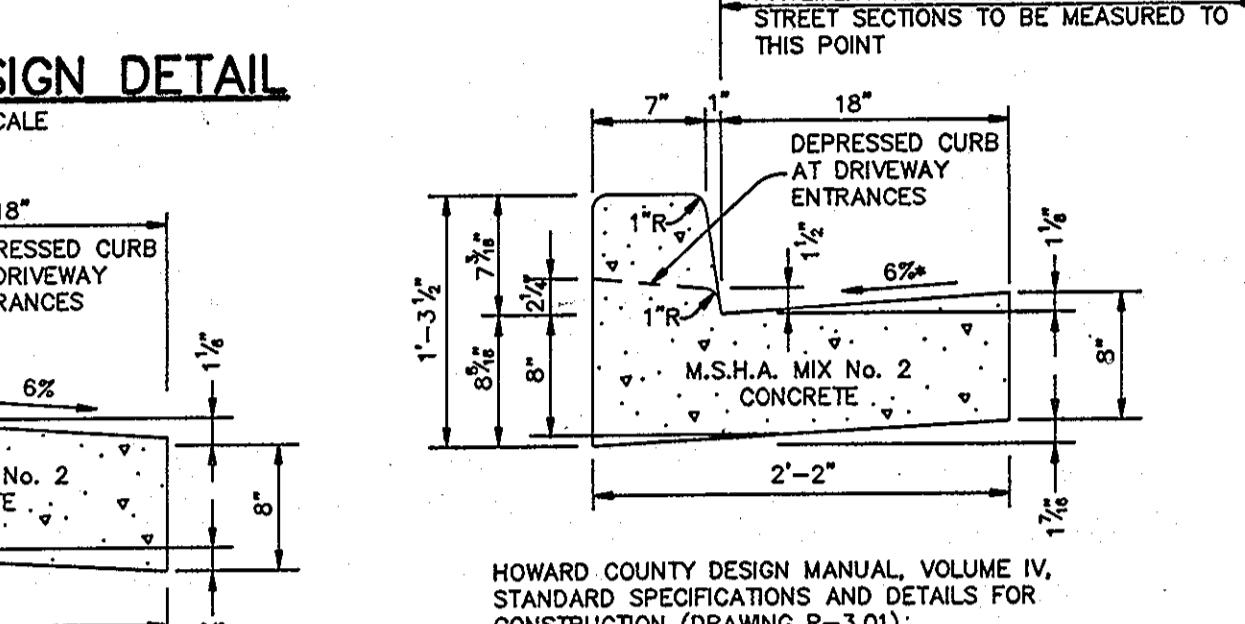


FOR VAN ACCESSIBLE SPACES ONLY, SEE PLAN FOR LOCATION.

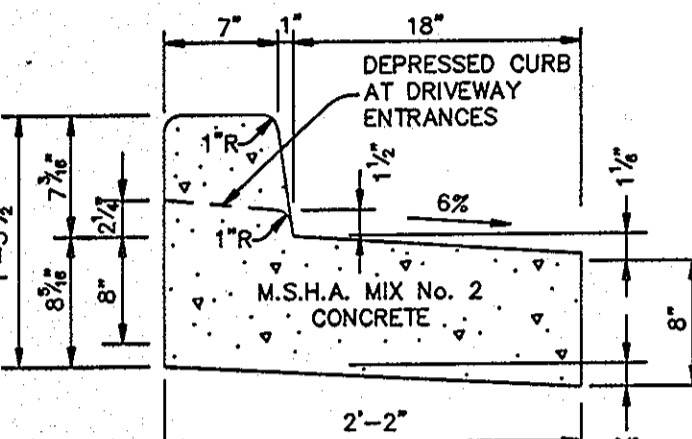
HANDICAP SIGN DETAIL
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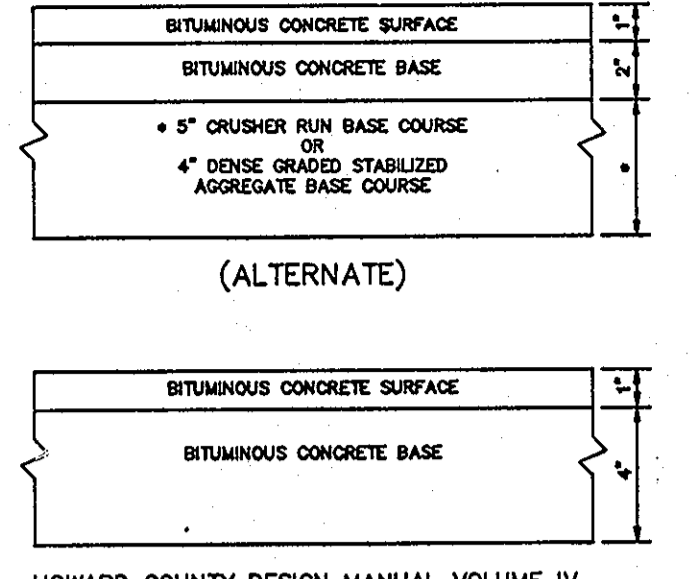
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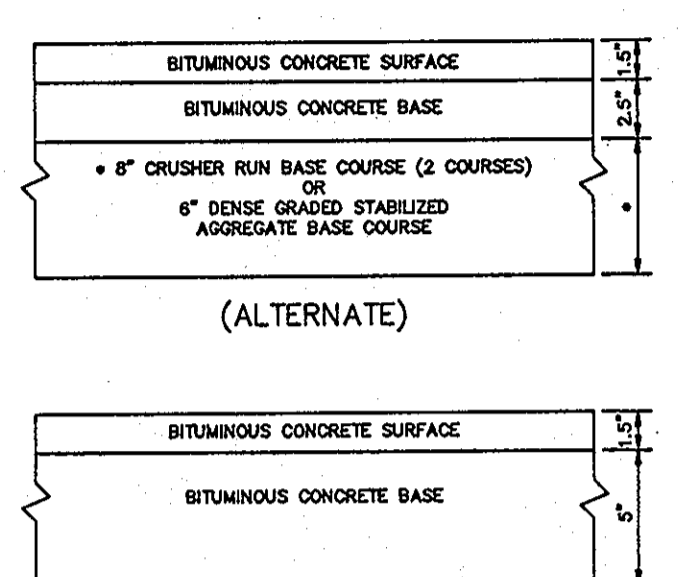
STANDARD 7" COMBINATION CURB AND GUTTER
NO SCALE



REVERSE 7" COMBINATION CURB AND GUTTER
NO SCALE

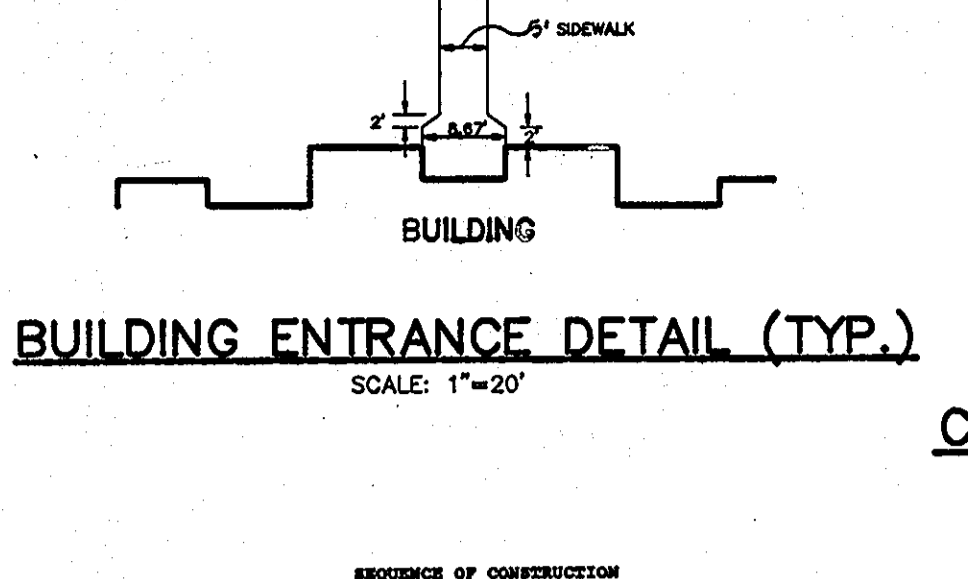


P-1 PAVING
NO SCALE

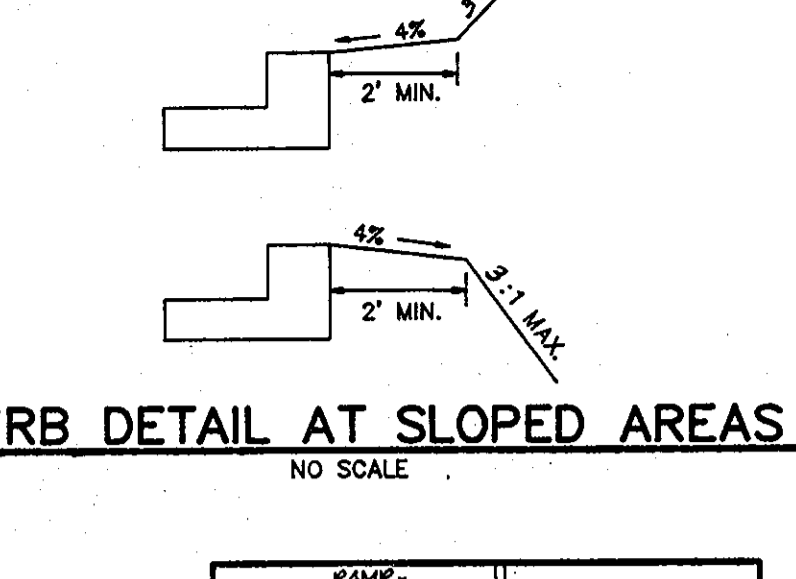


(ALTERNATE)

P-2 PAVING
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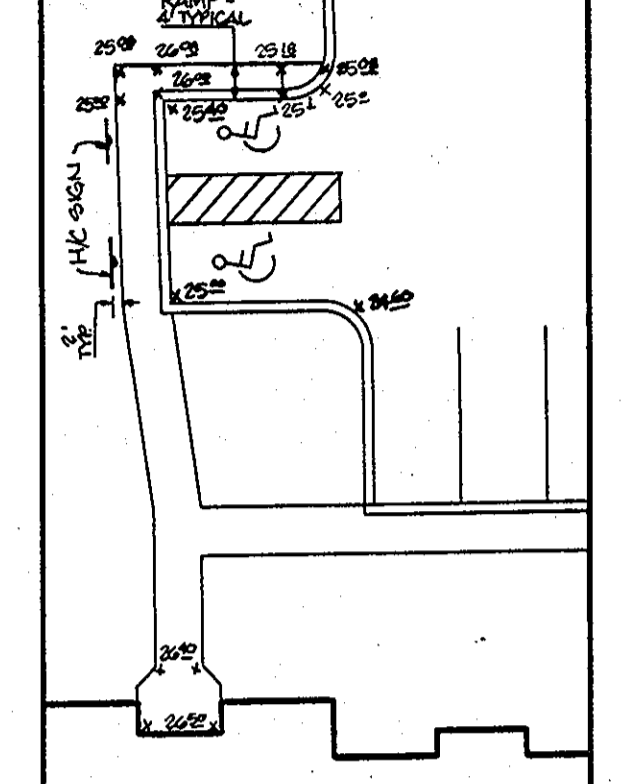


BUILDING ENTRANCE DETAIL (TYP.)
SCALE: 1"=20"

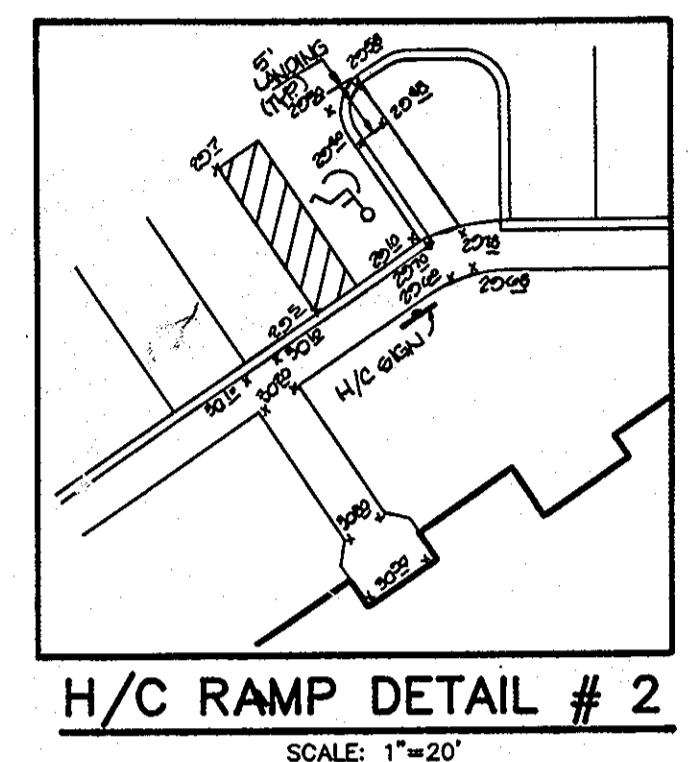


CURB DETAIL AT SLOPED AREAS
NO SCALE

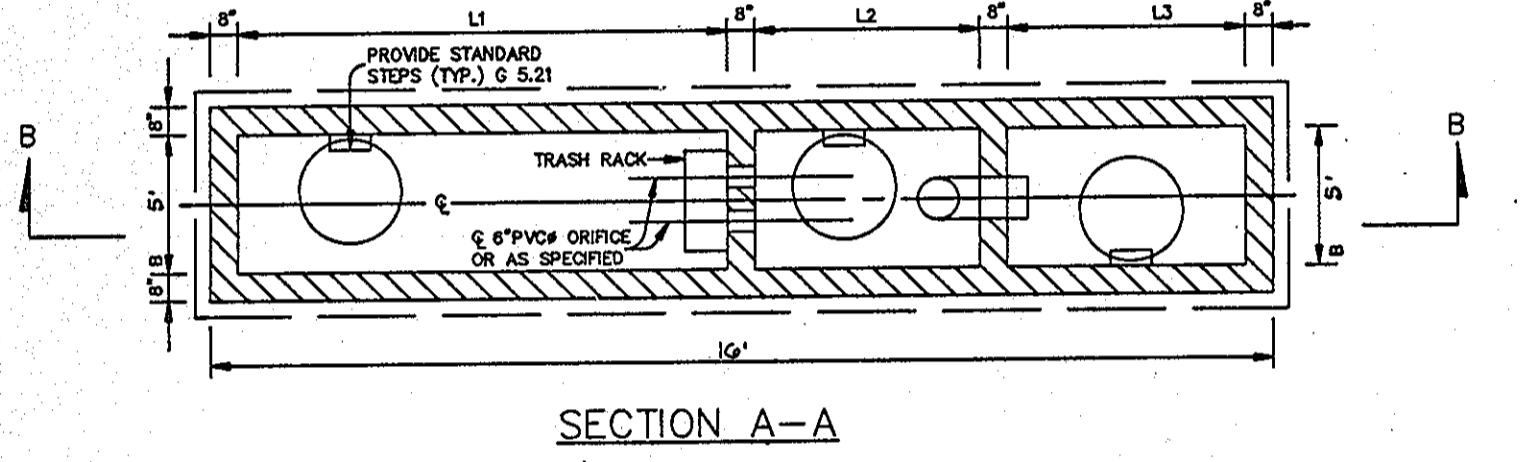
MANHOLE SCHEDULE		
1	N 510539.21	E 851434.86
2	N 510410.03	E 851535.15
3	N 510175.64	E 851601.90
4	N 510507.90	E 851385.38
5	N 510602.31	E 851150.13
6	N 510681.19	E 851134.34
7	N 510783.08	E 851046.96
8	N 510809.83	E 850896.84
9	N 510505.26	E 851071.42
10	N 510472.88	E 851896.53
11	N 510371.13	E 851864.70
12	N 510009.91	E 851626.14



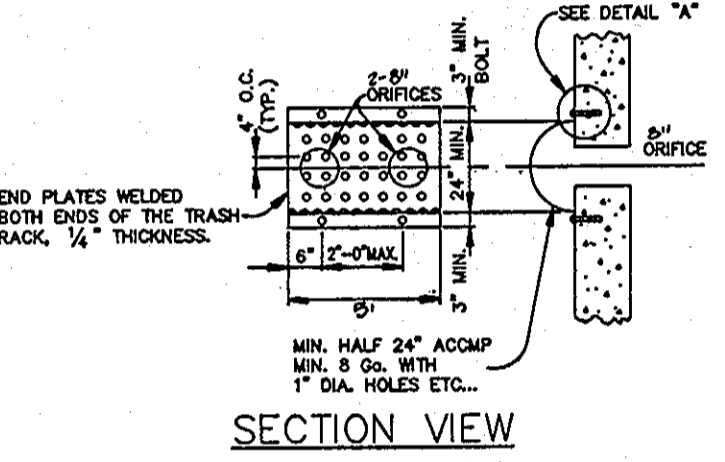
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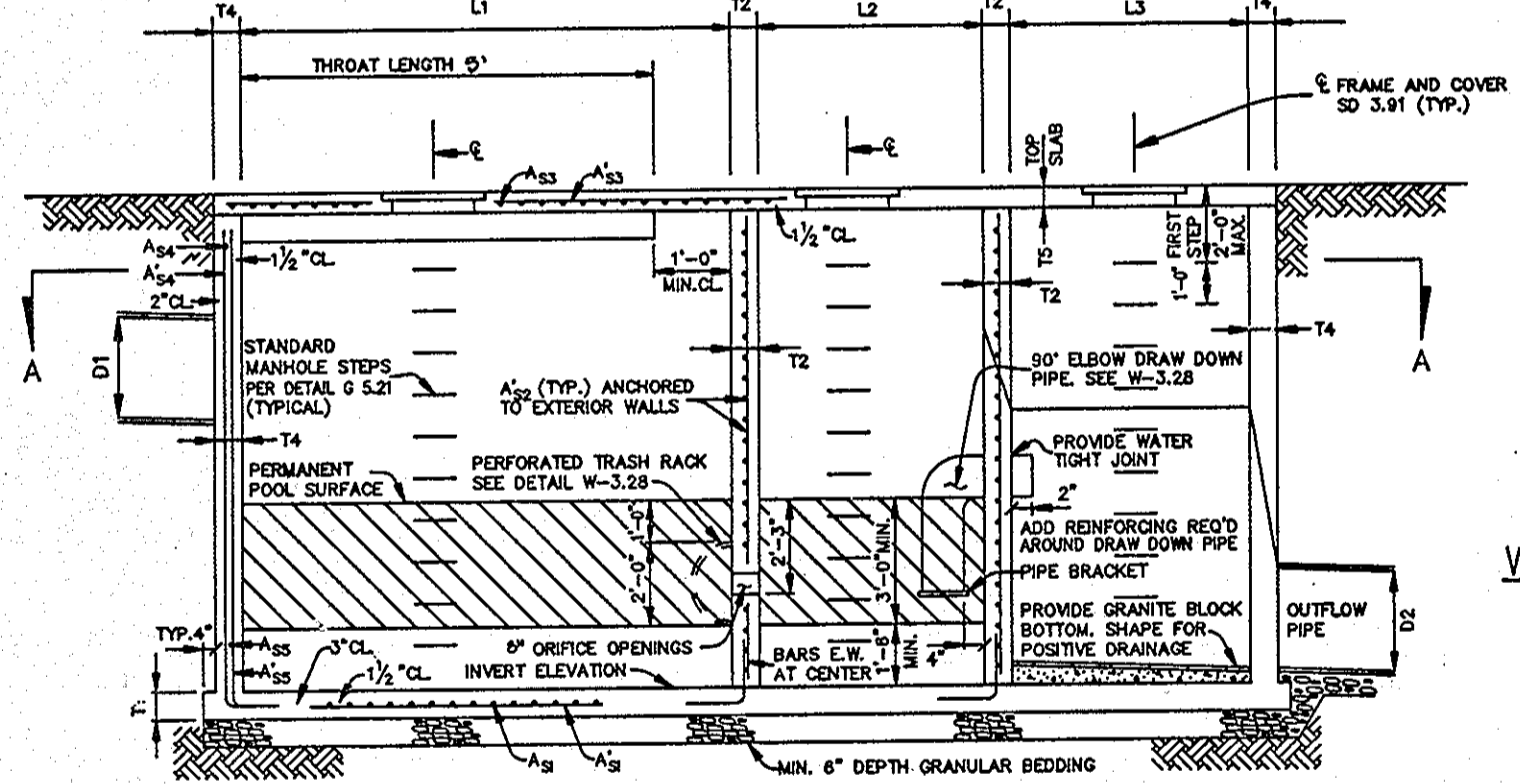
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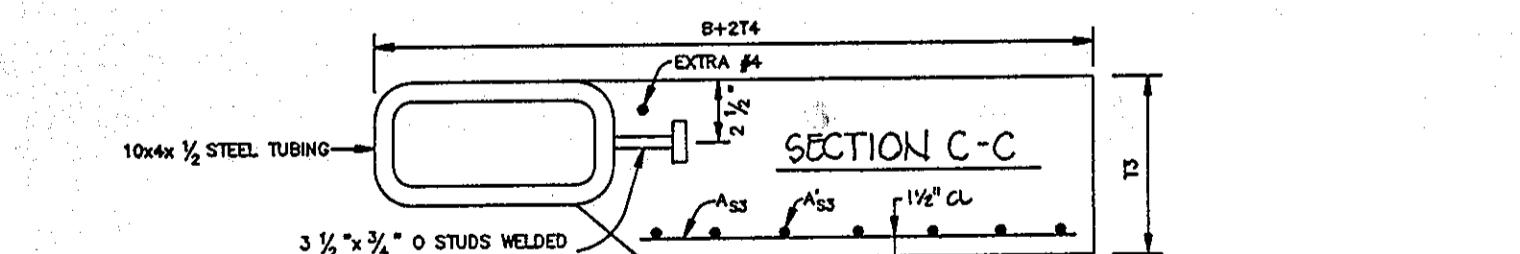
SECTION A-A



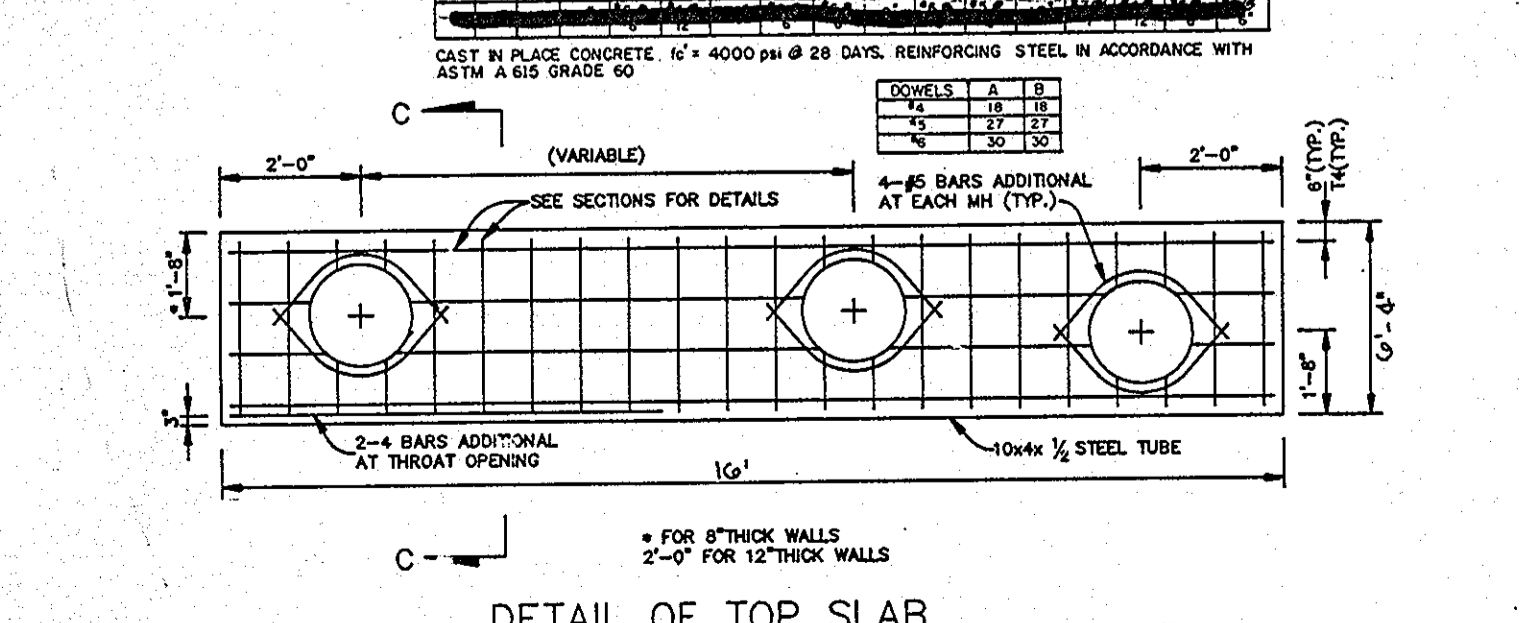
SECTION VIEW TRASH RACK



PLAN VIEW TRASH RACK



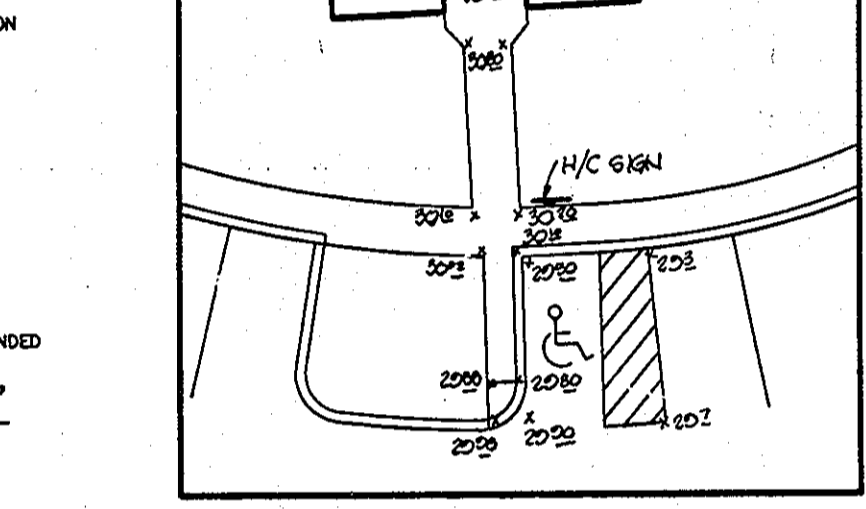
SECTION B-B



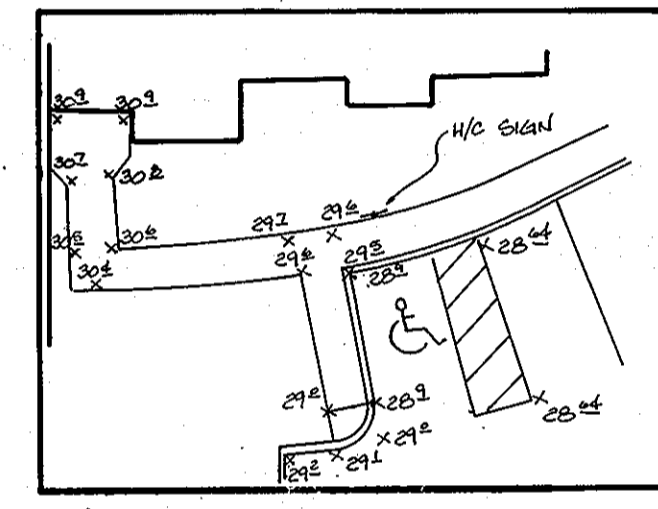
DETAIL OF TOP SLAB
NO SCALE

WATER QUALITY STRUCTURE NOTES

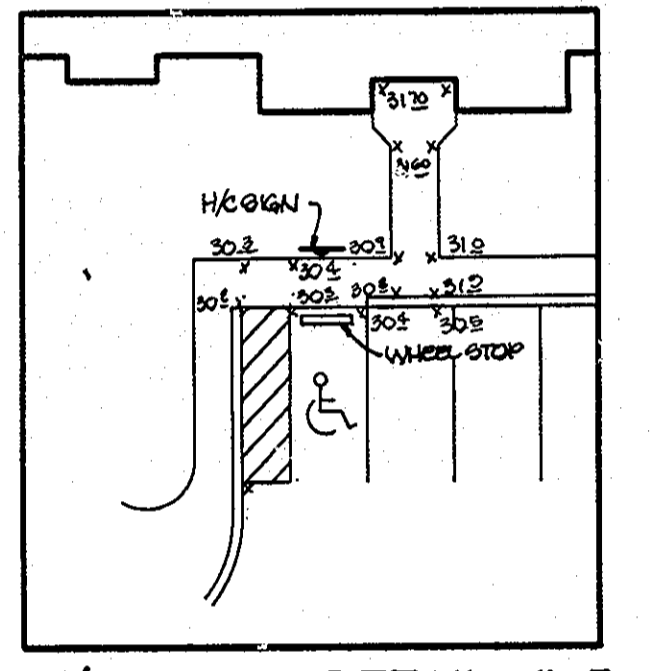
- DESIGN AND GENERAL NOTES**
- Use poured in place concrete for the entire structure.
 - Refer to Maryland State Highway Administration for materials and methods of construction.
 - Wall thickness shall be as per Howard County Standard Details W-3.28 and W-3.27.
 - Fo = 3,500 psi at 28 days.
 - All reinforcing steel to be ASTM A615, GR.60.
 - For details concerning throat openings, refer to Howard County Standard Detail SD-4.01, W-3.27 and W-3.28.
 - For details not noted in this standard, refer to Howard County Standard Detail SD-4.01, W-3.27 and W-3.28.
 - The top 4 inches of walls may be brick masonry for leveling, if required. Brick masonry shall comply with the latest IBC specifications.
- MAINTENANCE NOTES**
- Water Quality Structures will require periodic cleaning. Owners of these facilities will have to clean them as needed or on a frequency that the County determines to be appropriate. Owners of water quality structures will be notified by the County of the frequency of maintenance.
 - Maintenance of these facilities will consist of cleaning out the separator and disposal of the waste and the repair of the facility as needed.
 - The disposal of the liquid and solid matter should be as follows:
 - All liquid material in the separator shall be pumped into a suitable tank truck and disposed of at an approved sanitary district discharge methods or be taken to an approved sewerage treatment plant for discharge.
 - The solid material shall be landfilled in an approved sanitary landfill.
 - The inlet pipes, trash racks, grates and structural parts shall be repaired as needed.
- CONSTRUCTION NOTES**
- SIU and debris shall not be allowed to enter the structures until contributing drainage areas have been permanently stabilized.
 - All openings to structures shall be protected with the appropriate sediment control measure during construction.
- INSPECTION NOTES**
- Prior to start of construction on water quality structure, the Howard County Department of Public Works Inspector must be called 48 hours in advance at 301-280-1100.
 - The Howard County Department of Public Works Inspector must be notified (410-380-0100) at each of the following stages:
 - Approval of subgrade for footing.
 - Forming formed and steel set prior to pouring.
 - Forming sides formed and steel set prior to pouring.
 - Prior to top slab and manhole being set, Howard County Department of Public Works Inspector must check structure and all debris and silt in structure removed.
 - When site is permanently stabilized and sediment control measures to protect it are to be removed.



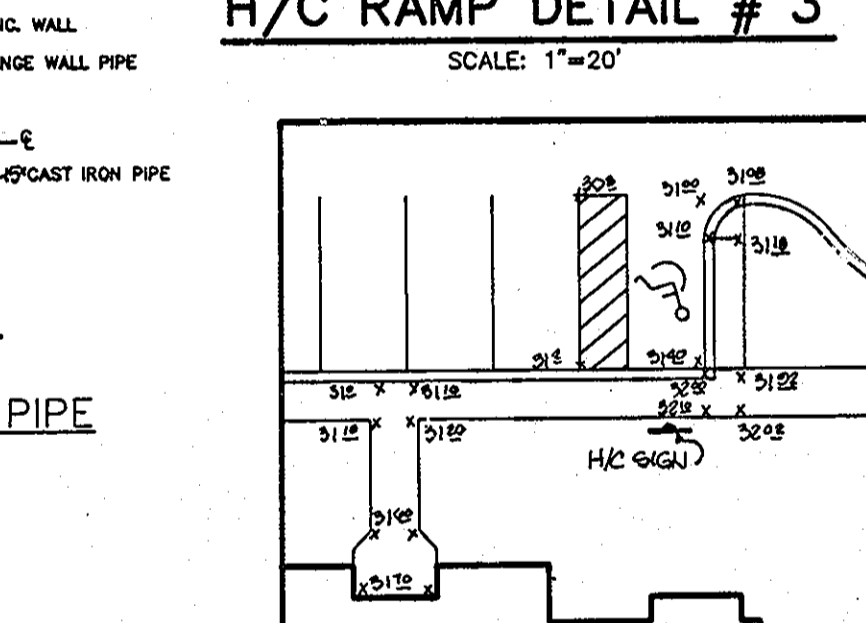
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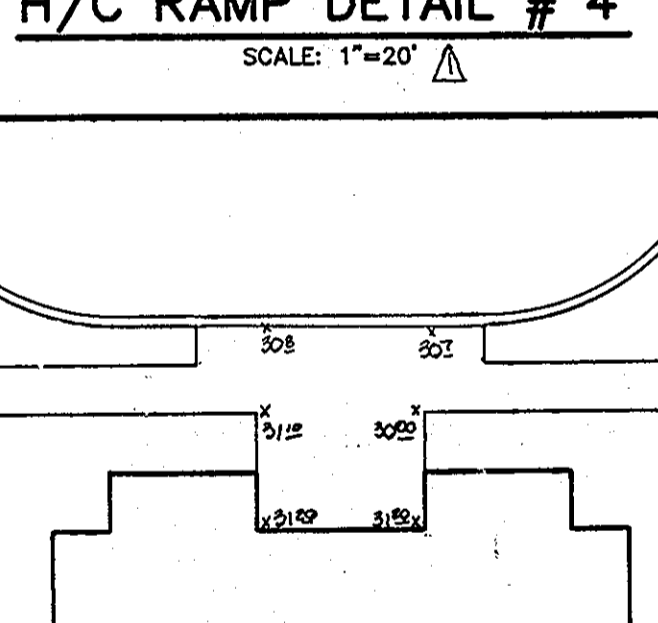
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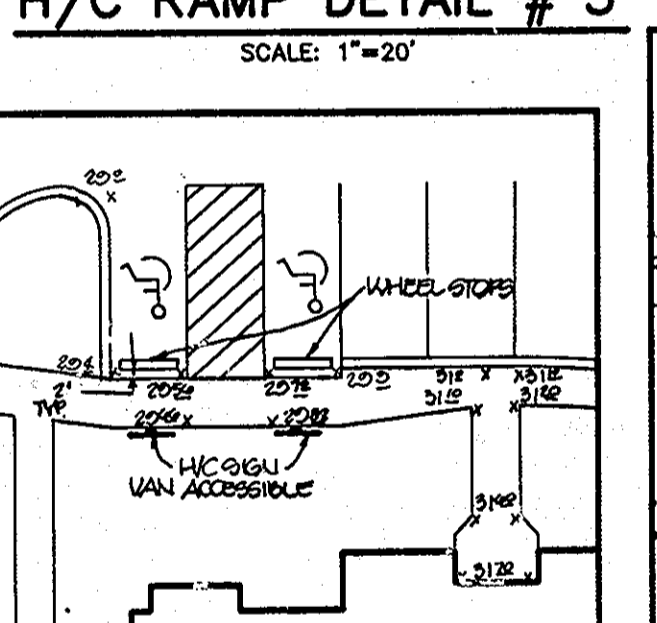
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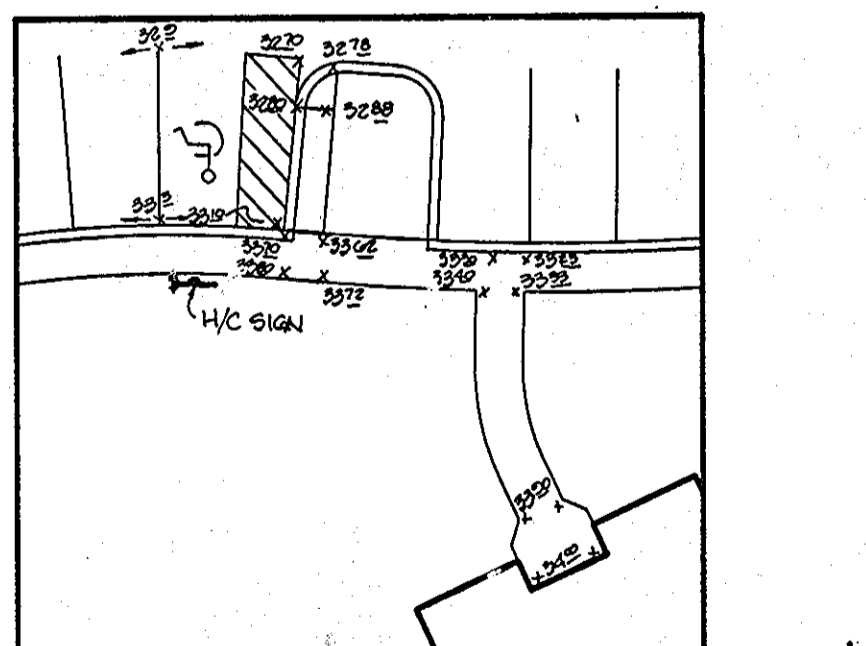
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SCALE: 1"=20"



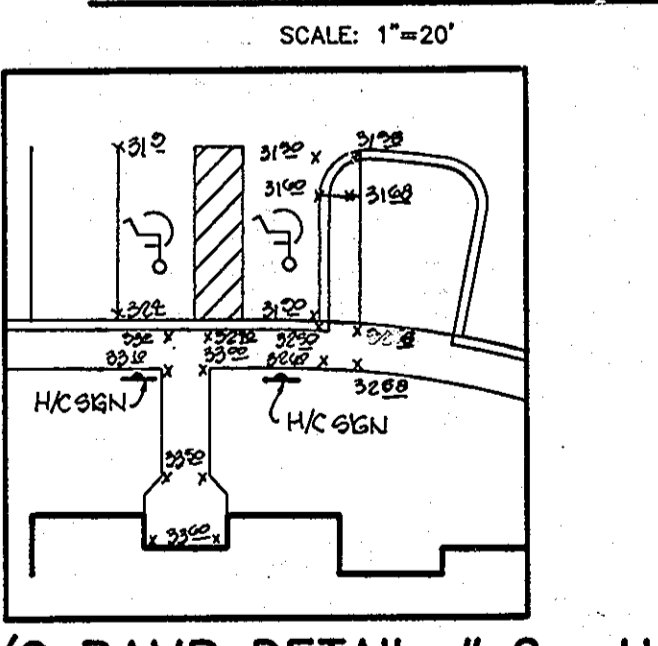
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SCALE: 1"=20"



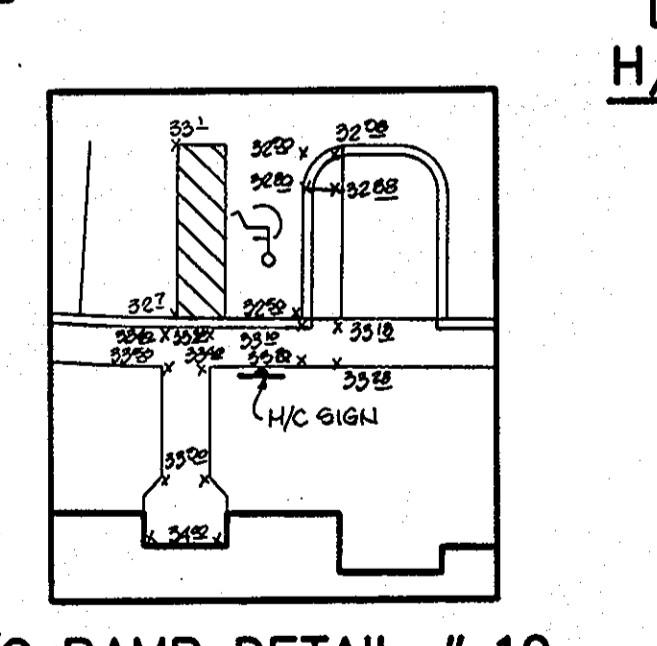
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SCALE: 1"=20"



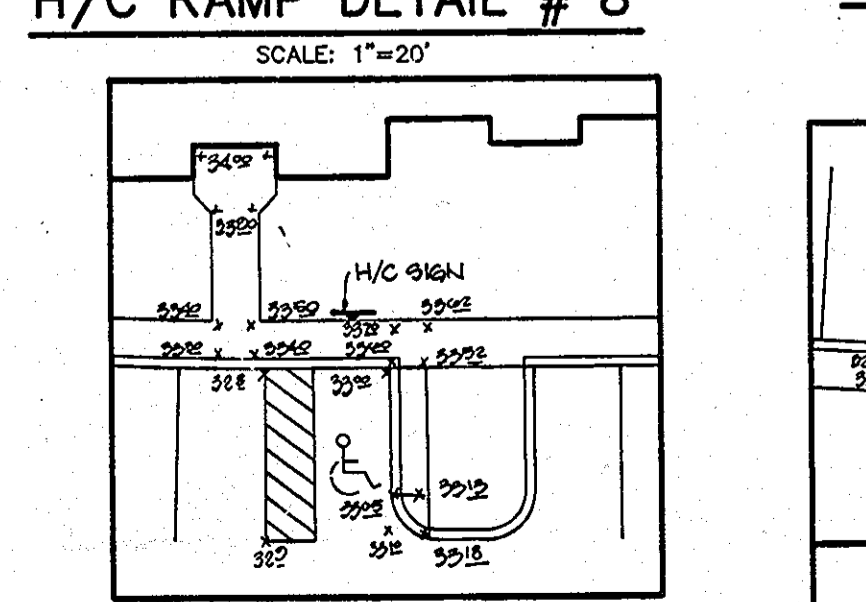
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SCALE: 1"=20"



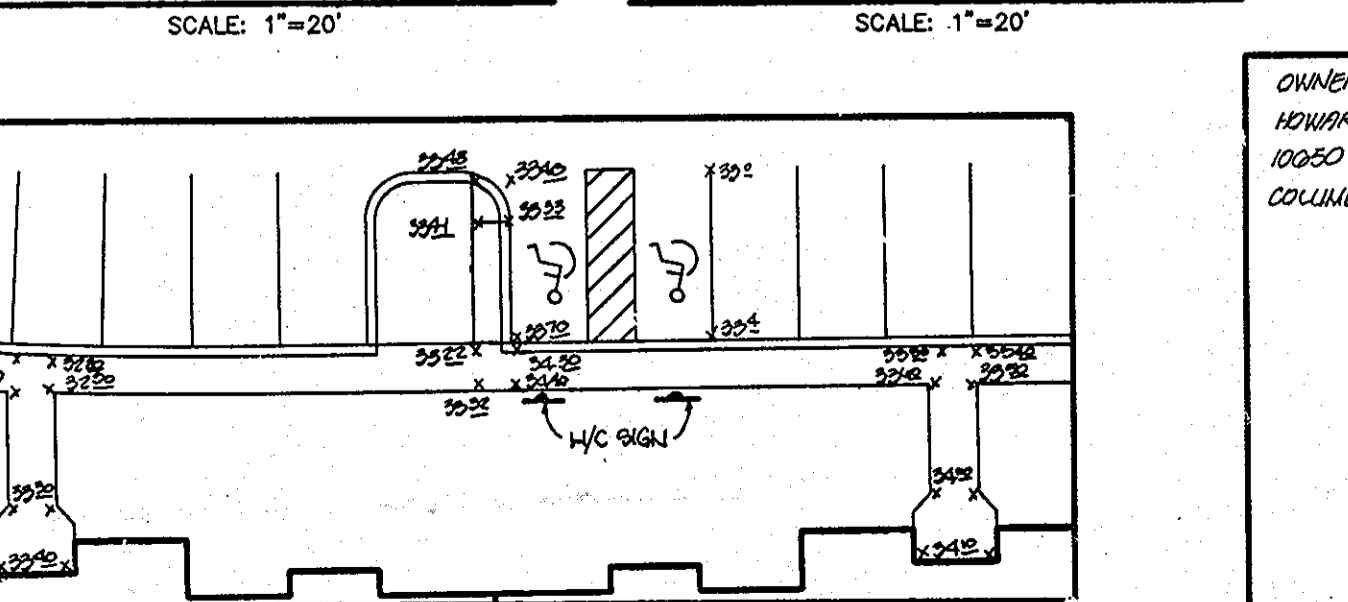
H/C RAMP DETAIL # 10
SCALE: 1"=20"



H/C RAMP DETAIL # 11
SCALE: 1"=20"



H/C RAMP DETAIL # 12
SCALE: 1"=20"



H/C RAMP DETAIL # 13
SCALE: 1"=20"

AS BUILT CERTIFICATE

JAYKANT D. PAREKH #19148 DATE

BY THE DEVELOPER:

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

J. Callery 12-10-93
DEVELOPER DATE

BY THE ENGINEER:

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

J. Lareth 12-10-93
ENGINEER DATE

THESE PLANS HAVE BEEN REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEET THE TECHNICAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENT CONTROL.

J.S. SOIL CONSERVATION SERVICE 12/20/93
DATE

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

Howard Soil Conservation District 12/20/93
DATE

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

HOWARD COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

4/11/94
DIRECTOR DATE

4/13/94
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

12/29/93
DIRECTOR DATE

12/29/93
CHIEF, BUREAU OF ENGINEERING DESIGN DATE

DATE	NO.	REVISION
1-93	A	TO REFLECT THE HEIGHT OF THE SEWERMANHOLE ON THE EROSION CONTROL PLAN AND ADJUST THE PAVING

DEVELOPER
D.D.C. CROSSING, INC.
C/O PARK ARMCHER
THE EXECUTIVE CENTER
3300 NORTH RIDGE ROAD
SUITE 230
ELLCOTT CITY, MD. 21043

PROJECT
ORCHARD CROSSING
AN APARTMENT COMMUNITY

AREA TAX MAP 30, 2ND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
COLUMBIA 100 OFFICE RESEARCH PARK
SECTION 1, AREA 2, PARCEL 'X', 'Y' & 'Z'

TITLE
DETAIL SHEET

OWNER:
HOWARD COUNTY HOUSING COMMISSION
10050 HICKORY RIDGE RD.
COLUMBIA, MD. 21044

12-10-93
DATE

F-87-82 28:03DM
F-93-111

DESIGNED BY: J.C.O.

DRAWN BY: J.C.O.

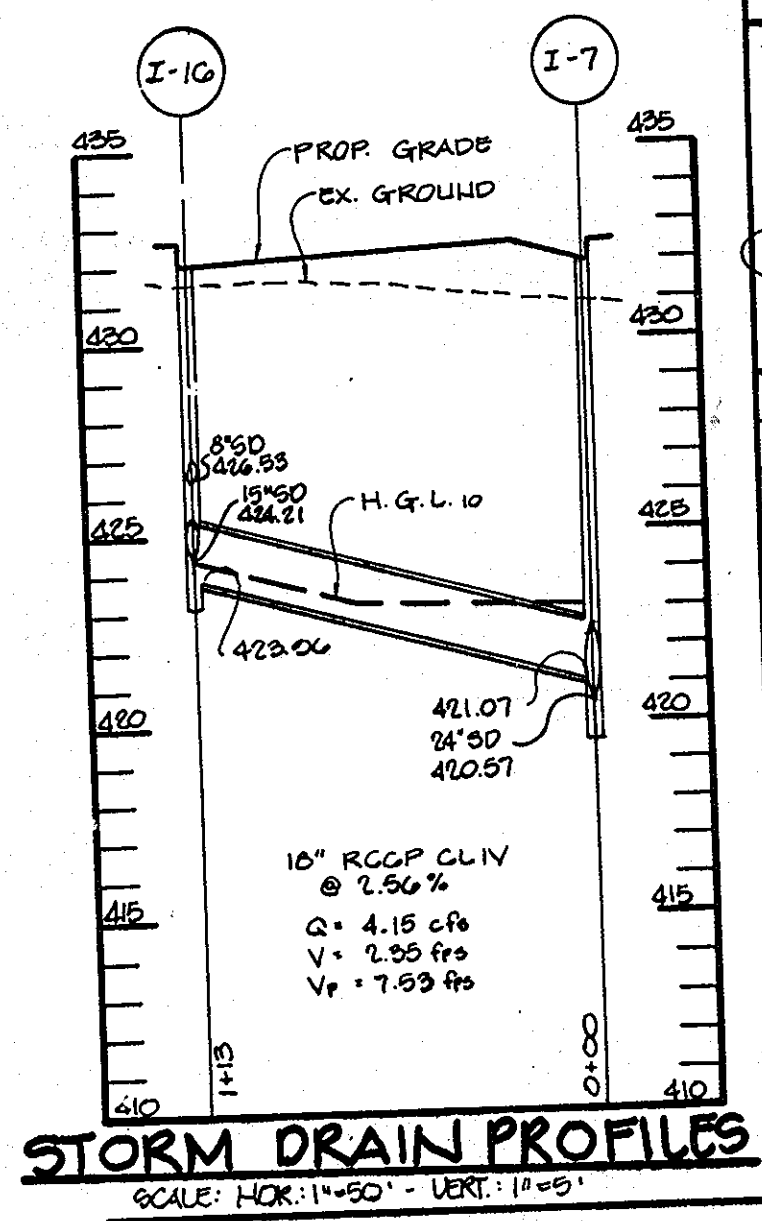
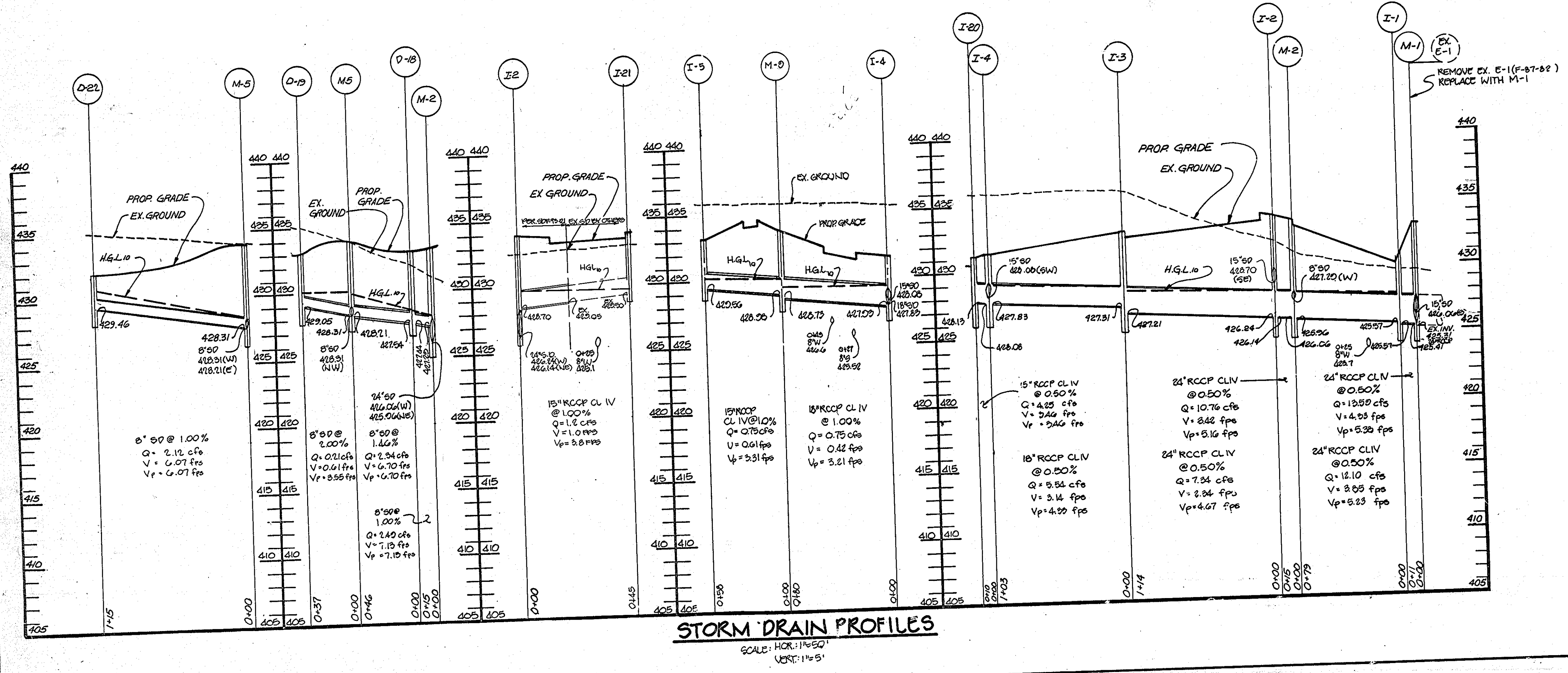
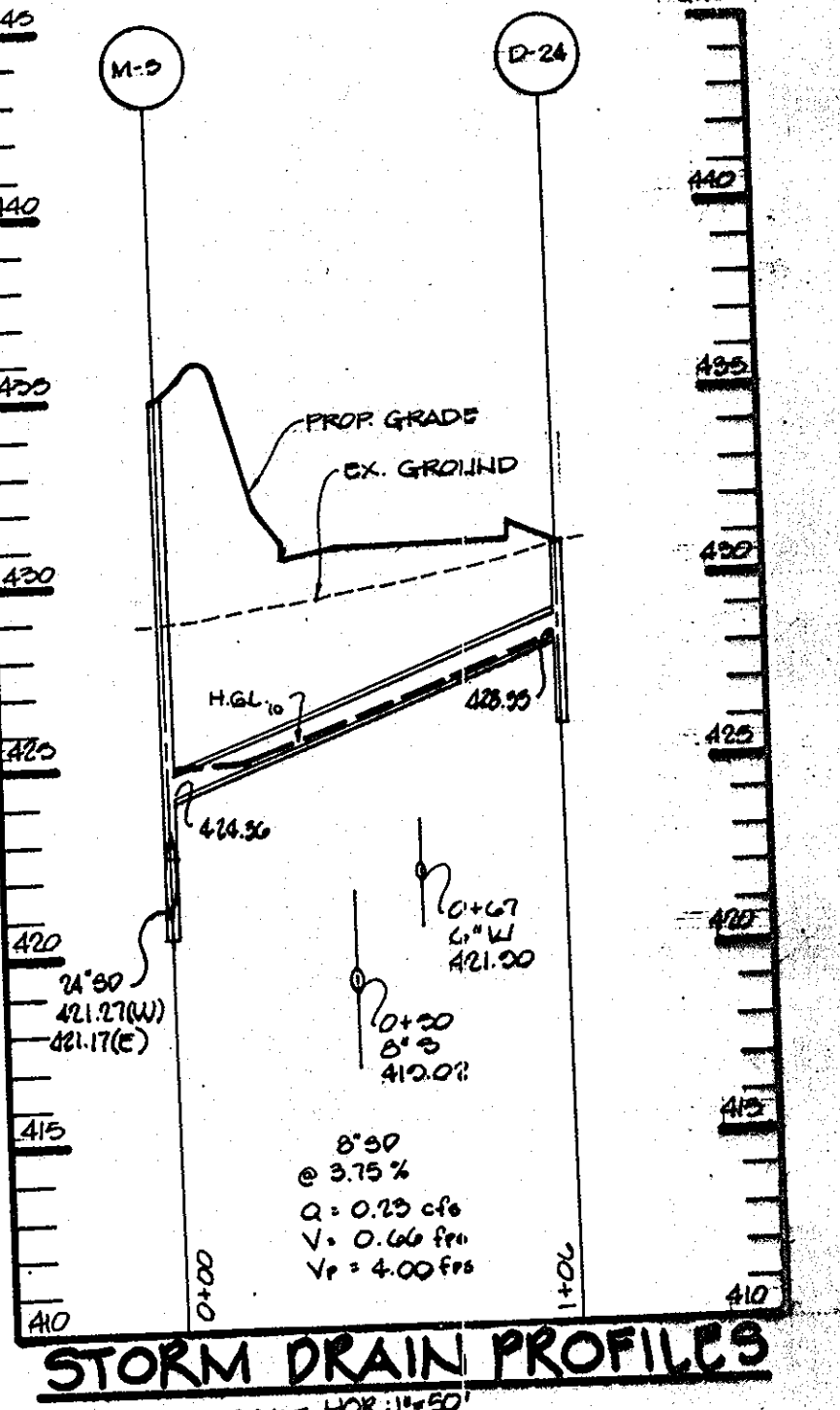
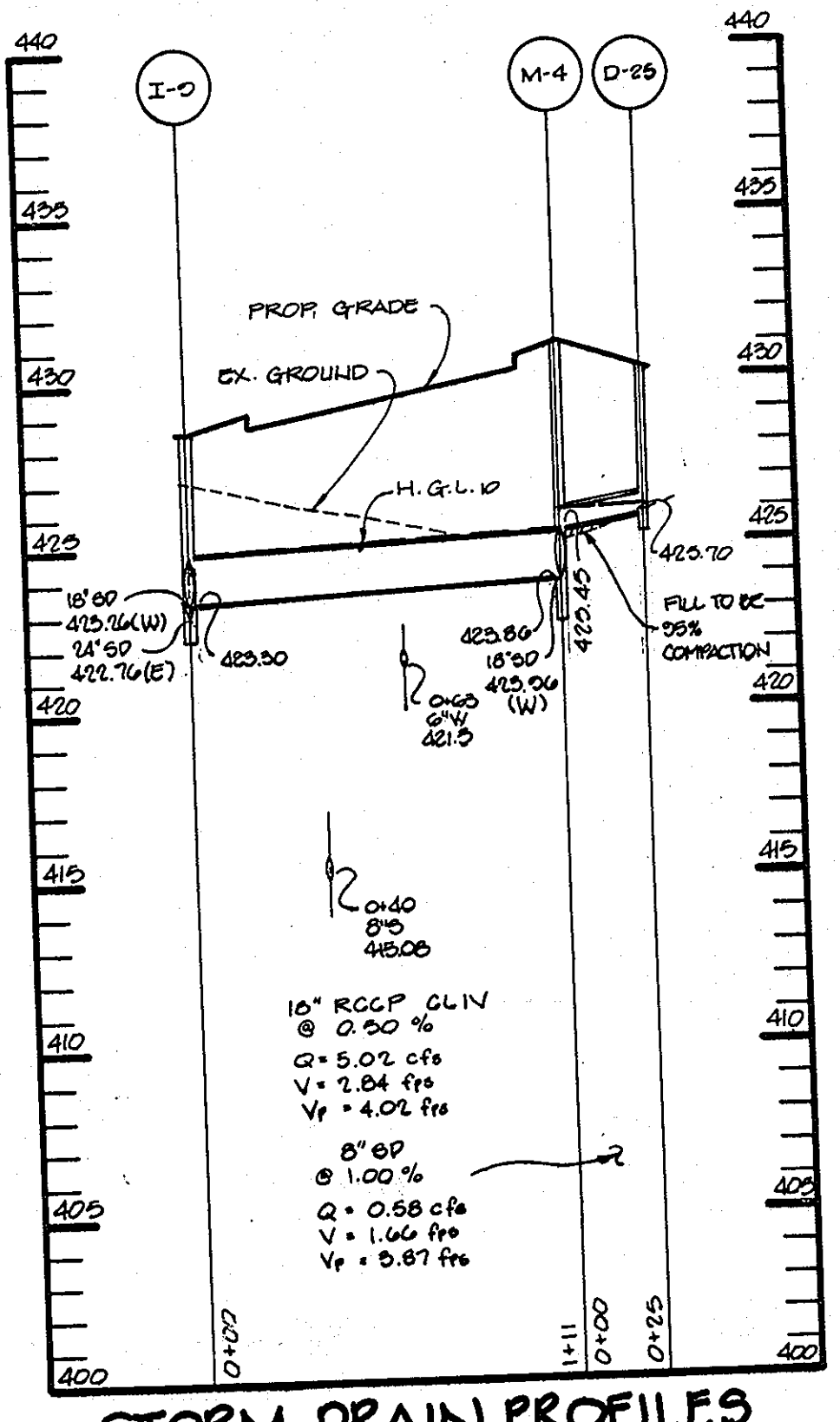
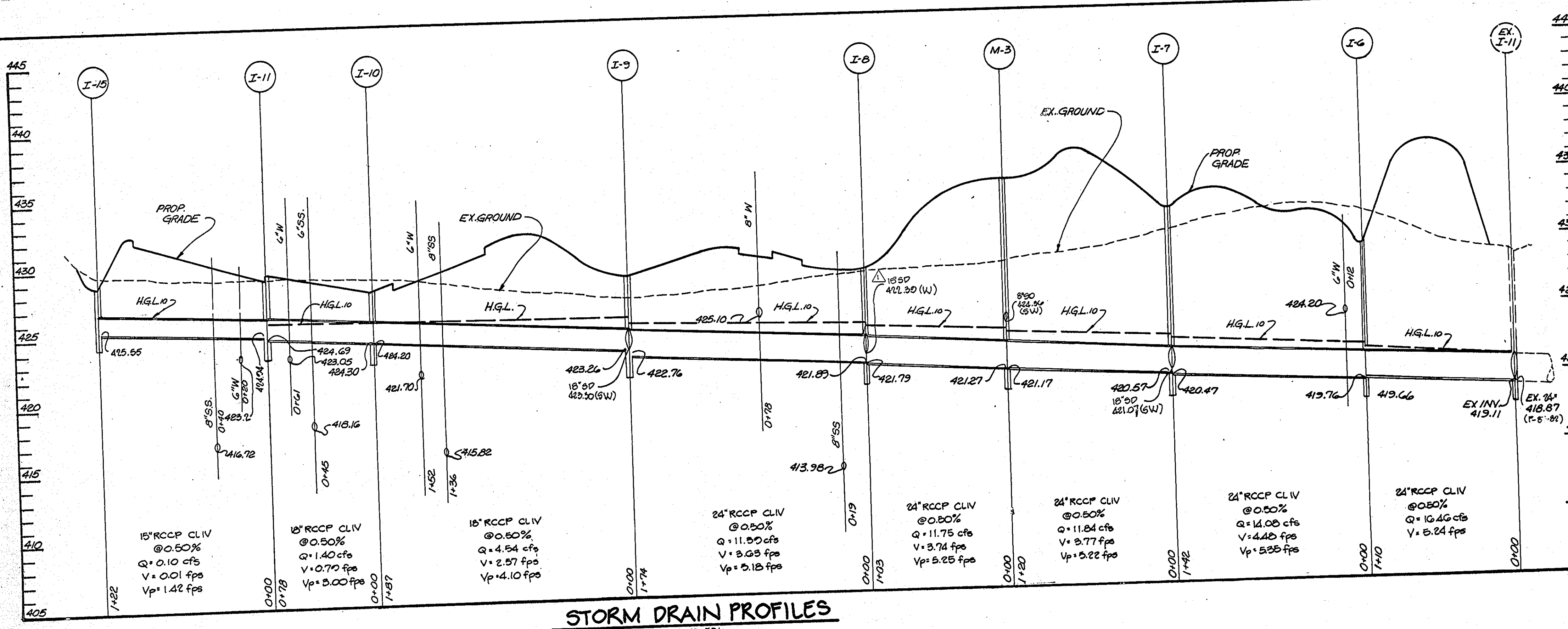
PROJECT NO: 91001

DATE: DECEMBER 02, 1993

SCALE: AS SHOWN

DRAWING NO. 09 OF 15

JAYKANT D. PAREKH #19148



AS BUILT CERTIFICATE

JAYKANT D. PAREKH #19148 DATE

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

HOWARD COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR DATE 4/14/94

CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE 4/11/94

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

DIRECTOR DATE 12/29/93

CHIEF, BUREAU OF ENGINEERING ACTING DATE 12/29/93

REVISION

DEVELOPER
O.D.C. CROSSING INC.
C/O CARL ARMIGER
THE EXECUTIVE CENTER
3300 NORTH RIDGE ROAD
SUITE 230
ELLCOTT CITY, MD. 21043

PROJECT
ORCHARD CROSSING
AN APARTMENT COMMUNITY

AREA
TAX MAP 30, 2nd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
COLUMBIA 100 OFFICE RESEARCH PARK
SECTION 1, AREA 2, PARCEL 'X', 7' x 2'

TITLE
STORM DRAIN PROFILES

OWNER
HOWARD COUNTY HOUSING COMMISSION
10050 HIGHLAND RIDGE RD.
COLUMBIA, MD. 21048

DATE 12-10-93 F-87-82 2:5930M F-93-111

DESIGNED BY: J.C.O.

DRAWN BY: J.C.O.

PROJECT NO: C1001

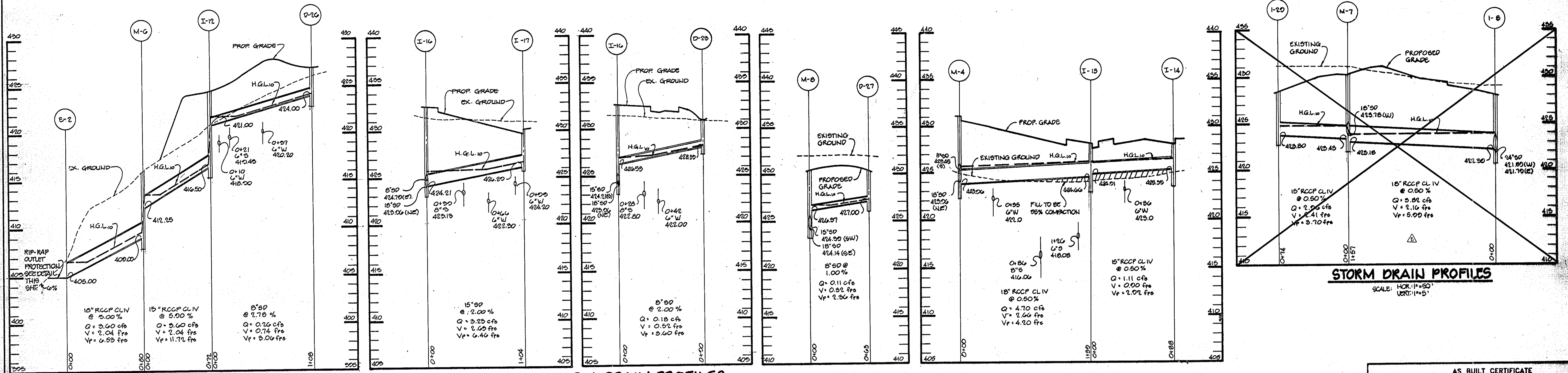
DATE: SEPTEMBER 28, 1993

SCALE: AS SHOWN

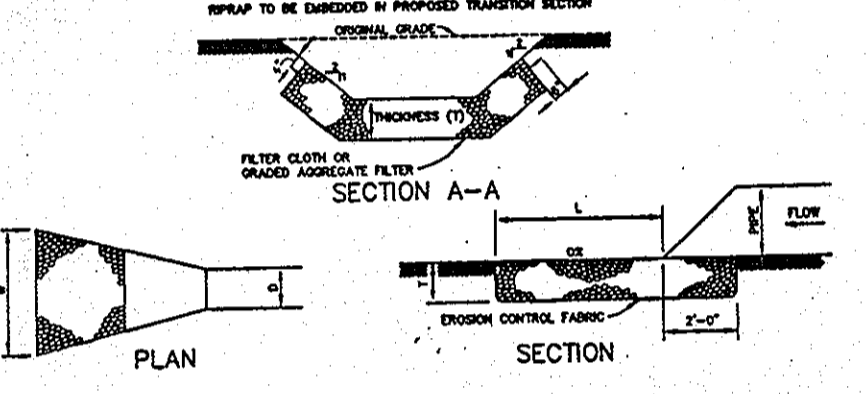
DRAWING NO. 12 OF 15

JAYKANT D. PAREKH #19148

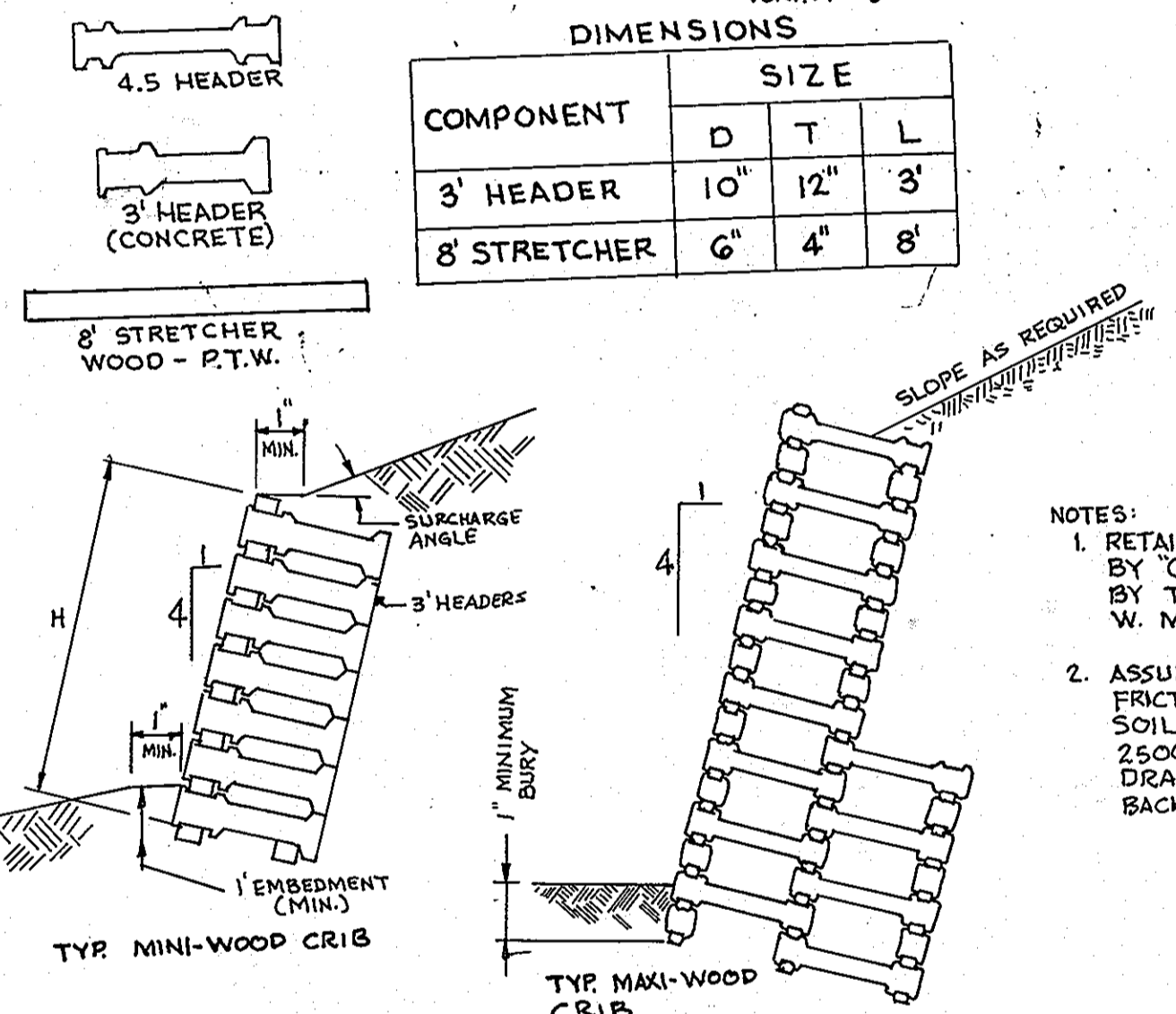
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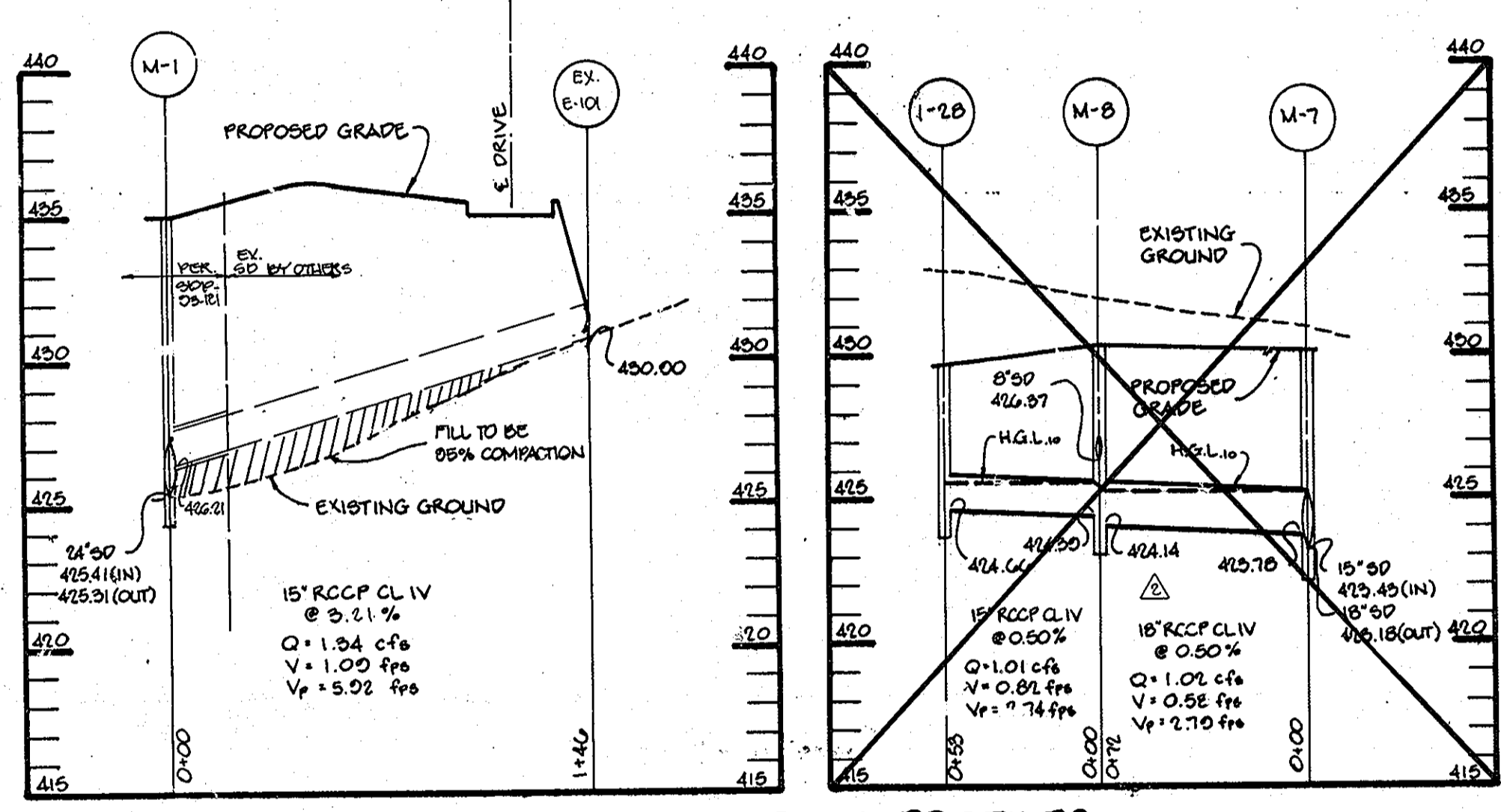
STORM DRAIN PROFILES
SCALE: HOR: 1"=50'
VERT: 1"=5'



RIPRAP OUTLET PROTECTION DETAIL
NO SCALE

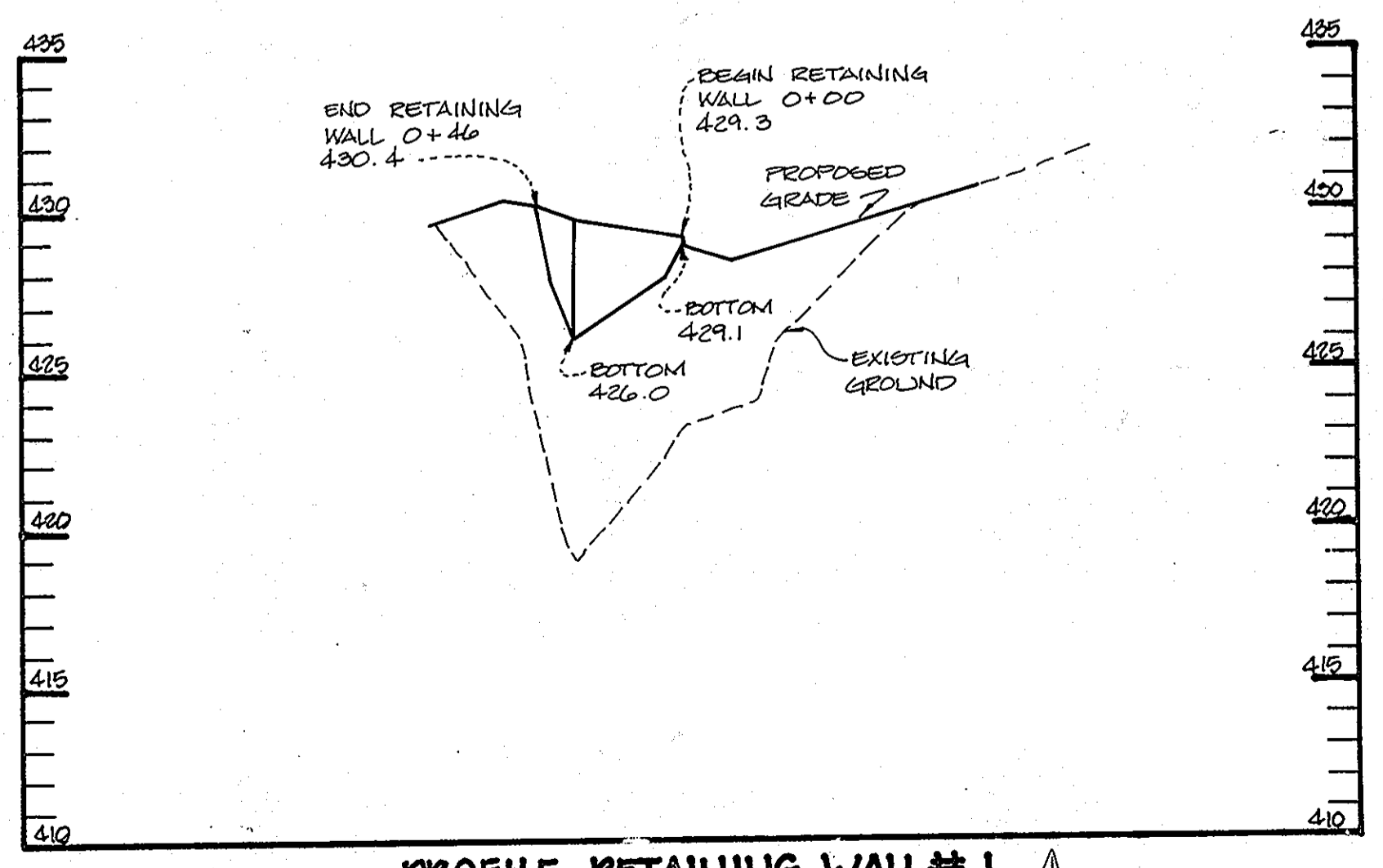


RETAINING WALL DETAILS
NO SCALE



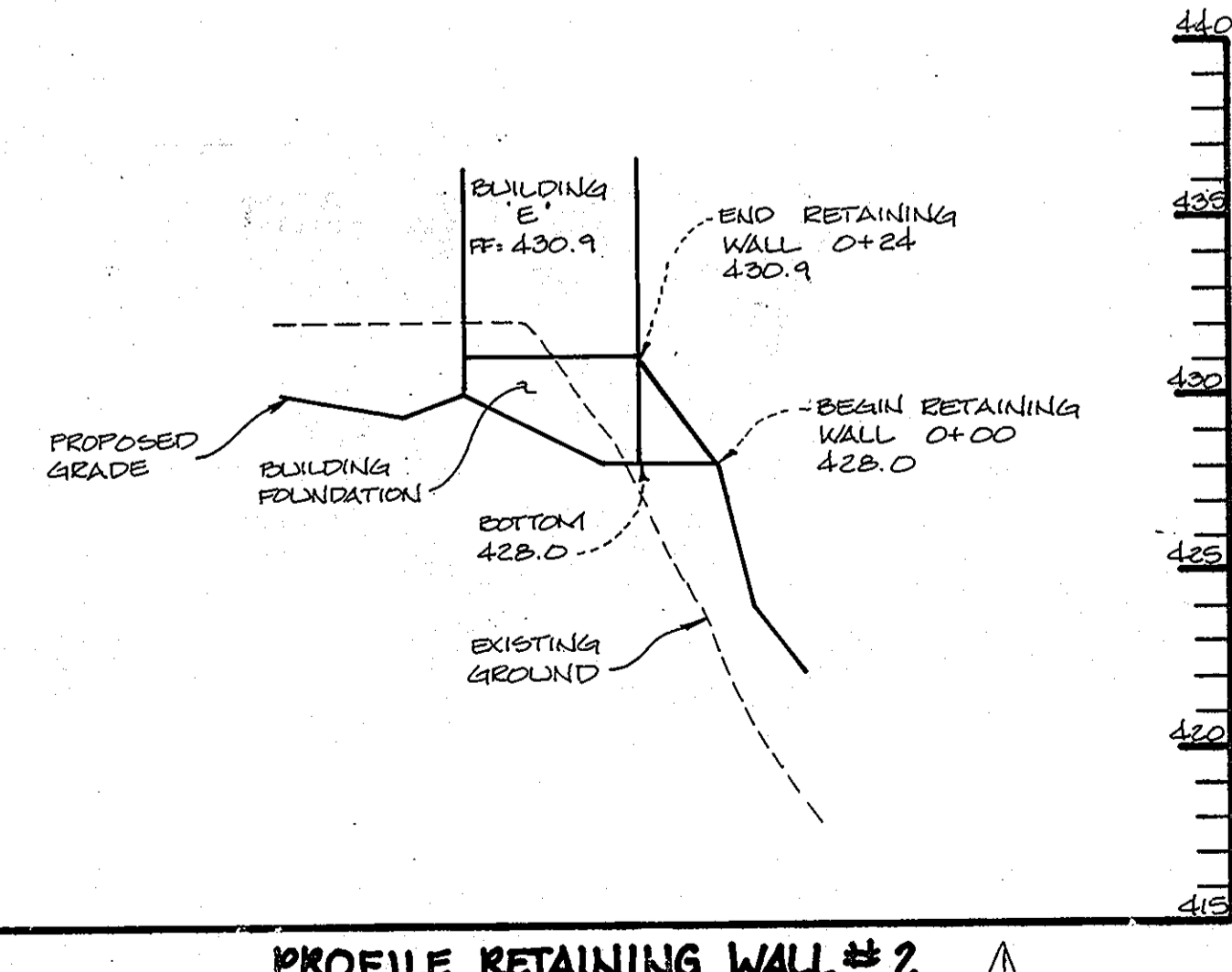
STORM DRAIN PROFILES
SCALE: HOR: 1"=50'
VERT: 1"=5'

STRUCTURE NUMBER	LOCATION		TOP ELEV.	INVERT		TYPE	HO. CO. STD. DETAIL #
	NORTH	EAST		IN	OUT		
I-1	510258.64	851919.44	431.10	425.57	425.47	A-5	SD 4.01
I-2	510183.00	851863.97	433.00	426.14	426.14	A-5	SD 4.01
I-3	510164.70	851751.11	432.50	427.31	427.21	WR	SD 4.35
I-4	510127.40	851652.89	431.60	427.83	427.83	A-5	SD 4.01
I-5	510207.00	851527.00	429.20	425.96	425.96	TYPE 'D'	SD 4.30
I-6	510478.38	851794.79	429.50	419.76	419.66	A-5	SD 4.01
I-7	510469.99	851650.08	432.60	420.47	420.47	A-5	SD 4.01
I-8	510516.82	851429.92	428.70	421.79	421.79	A-5	SD 4.01
I-9	510383.56	851265.59	428.70	422.76	422.76	A-5	SD 4.01
I-10	510687.76	851096.81	428.10	424.20	424.20	A-5	SD 4.01
I-11	510735.36	851051.92	429.70	424.94	424.94	WR	SD 4.35
I-12	510796.23	850860.60	424.80	416.50	416.50	WATER QUALITY STRUCTURE	SD 4.42
I-13	510513.86	851024.15	428.20	424.06	424.06	A-5	SD 4.01
I-14	510430.12	850994.85	428.70	425.55	425.55	WR	SD 4.35
I-15	510852.75	851067.64	428.70	425.55	425.55	TYPE 'D'	SD 4.30
I-16	510390.43	851568.84	432.60	423.96	423.96	A-5	SD 4.01
I-17	510300.52	851523.24	429.70	426.29	426.29	WR	SD 4.35
D-18	510202.36	851859.68	432.40	427.54	427.44	9" CATCH BASIN	NDS#900
D-19	510195.75	851776.50	433.00	429.05	429.05	9" CATCH BASIN	NDS#900
I-20	510134.64	851644.79	431.30	425.19	425.19	9" CATCH BASIN	NDS#900
M-0	510080.00	851584.00	428.75	425.79	425.79	4" MANHOLE	G 5.12
I-21	510110.54	851904.43	434.00	427.09	427.09	9" CATCH BASIN	NDS#900
D-22	510301.88	851764.17	432.00	428.46	428.46	9" CATCH BASIN	NDS#900
D-23	510374.52	851479.79	431.00	428.82	428.82	9" CATCH BASIN	NDS#900
D-24	510426.17	851450.46	430.00	428.57	428.57	9" CATCH BASIN	NDS#900
D-25	510527.66	851166.66	430.20	425.70	425.70	9" CATCH BASIN	NDS#900
D-26	510737.81	850949.02	426.70	424.00	424.00	9" CATCH BASIN	NDS#900
M-1	510261.99	851932.58	434.00	425.31	425.31	4" MANHOLE	G 5.12
M-2	510195.13	851872.98	433.40	425.96	425.96	4" MANHOLE	G 5.12
M-3	510494.47	851531.70	435.00	421.17	421.17	4" MANHOLE	G 5.12
M-4	510551.35	851159.91	431.30	423.86	423.86	4" MANHOLE	G 5.12
M-5	510197.73	851813.19	434.00	428.21	428.21	4" MANHOLE	G 5.12
M-6	510842.98	850802.25	416.00	412.25	409.00	4" MANHOLE	G 5.12
M-7	510477.00	851507.00	429.80	422.80	422.80	4" MANHOLE	G 5.12
E-1	510118.02	851937.12	428.19	420.00	420.00	END SECT.	SD 5.51
E-2	510781.25	850749.73	406.50	405.00	405.00	END SECT.	SD 5.51
M-8	510412.00	851284.00	429.60	425.00	425.00	4" MANHOLE	G 5.12
D-27	510478.00	851308.00	430.80	425.00	425.00	TYPE 'D'	SD 4.30
I-28	510411.00	851380.00	425.70	422.00	422.00	TYPE 'D'	SD 4.30
I-29	510321.00	851354.00	428.40	423.80	423.80	TYPE 'D'	SD 4.30
M-2A	510500.00	851516.00	421.00	424.40	424.40	4" MANHOLE	G 5.12



PROFILE RETAINING WALL #1

SCALE: HOR: 1"=50'
VERT: 1"=5'



PROFILE RETAINING WALL #2

SCALE: HOR: 1"=50'
VERT: 1"=5'

AS BUILT CERTIFICATE

JAYKANT D. PAREKH #19148 DATE

APPROVED: FOR PUBLIC WATER AND PUBLIC SEWAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.

COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR DATE 4/14/94

CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE 4/13/94

APPROVED: FOR PUBLIC WATER, PUBLIC SEWAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

DIRECTOR DATE 12/29/93

CHIEF, BUREAU OF ENGINEERING & SURVEYING DATE 10/29/93

DEVELOPER
D.D.C. CROSSING, INC.
C/O CARL ARMIGER
THE EXECUTIVE CENTER
3300 NORTH RIDGE ROAD
SUITE 230
ELLCOTT CITY, MD. 21043

PROJECT **ORCHARD CROSSING**
AN APARTMENT COMMUNITY

AREA TAX MAP 30, 2ND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
COLUMBIA 100 OFFICE RESEARCH PARK
SECTION 1, AREA 2, PARCEL 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100

TITLE **STORM DRAIN PROFILES**

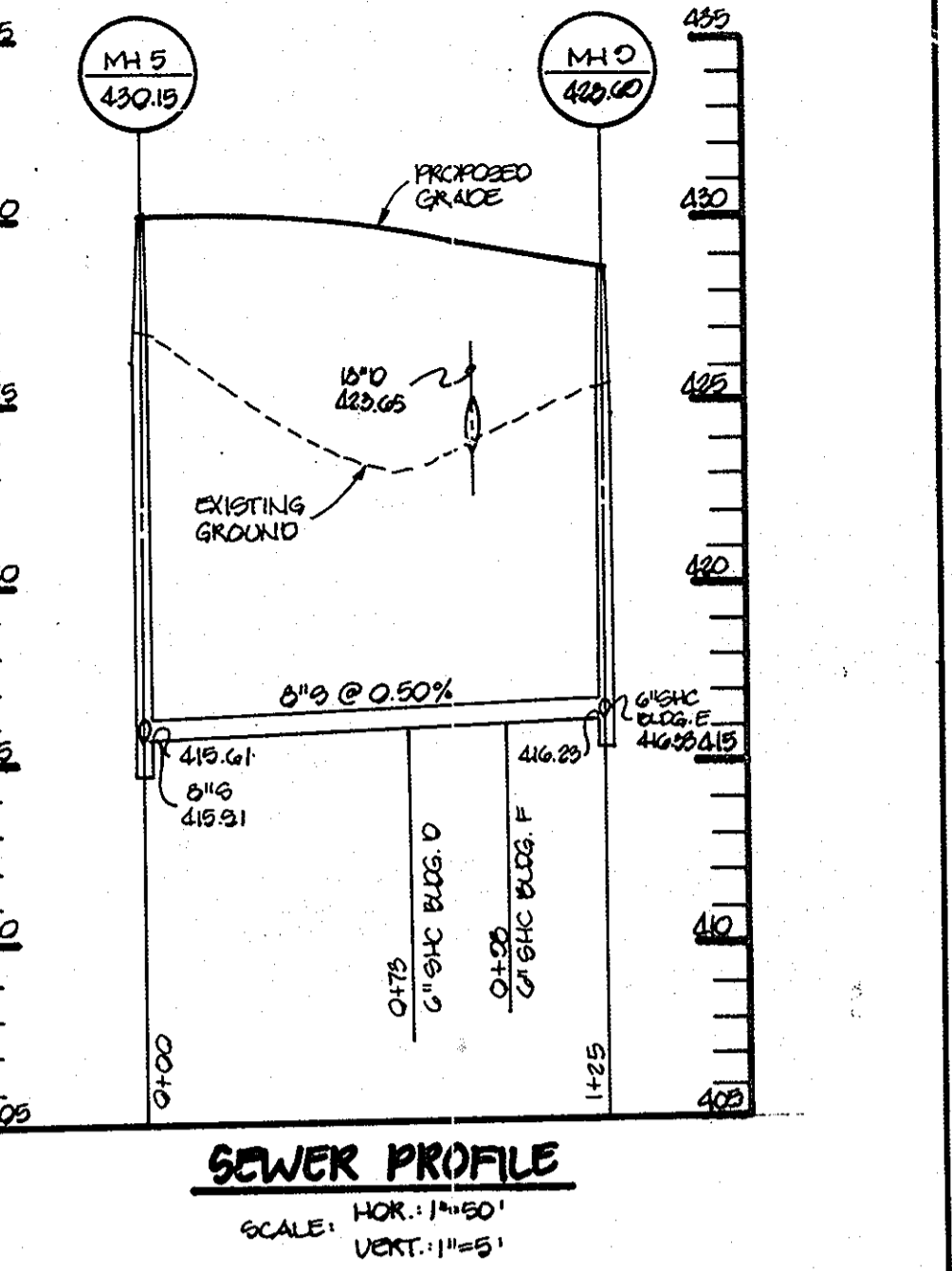
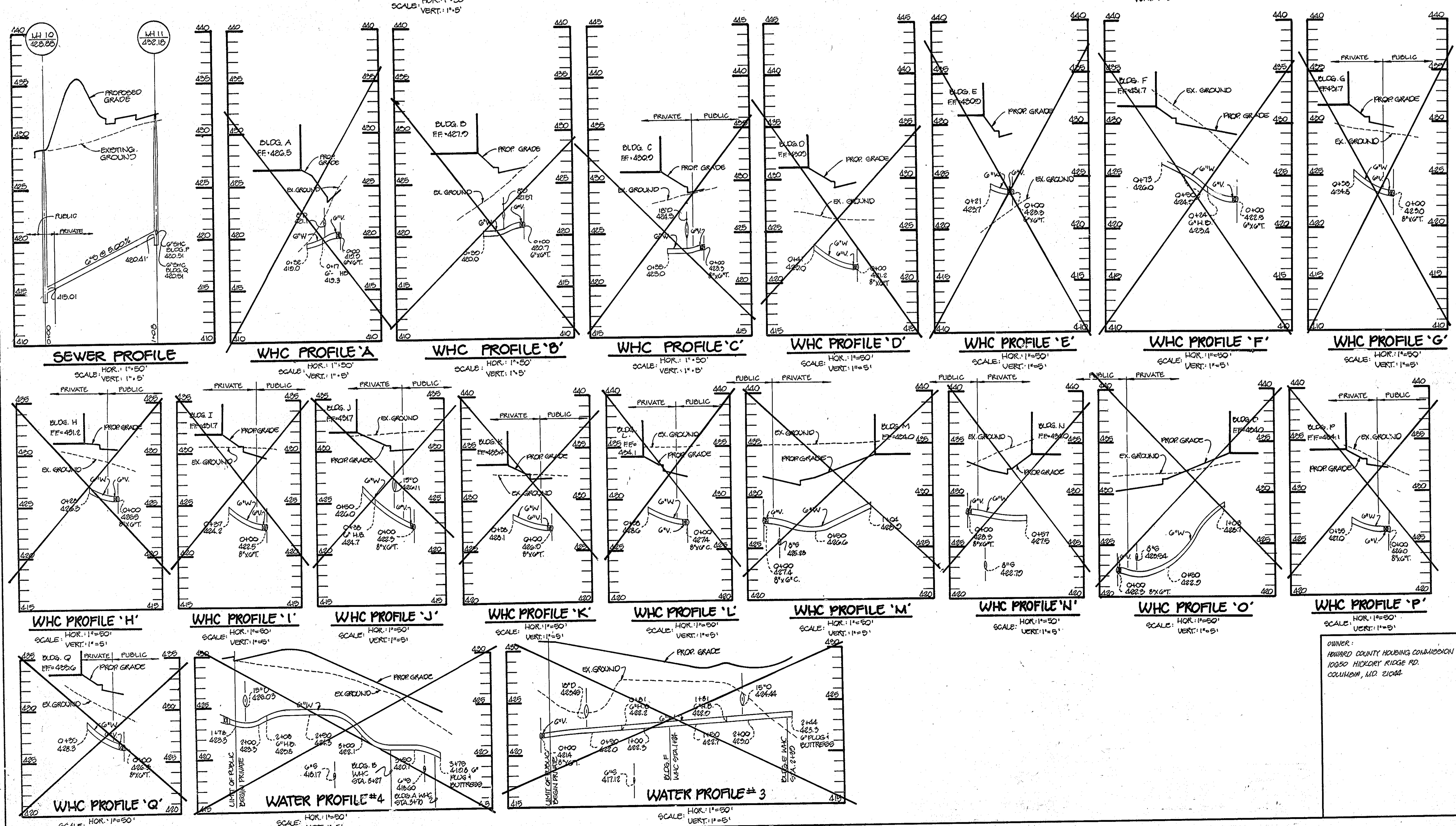
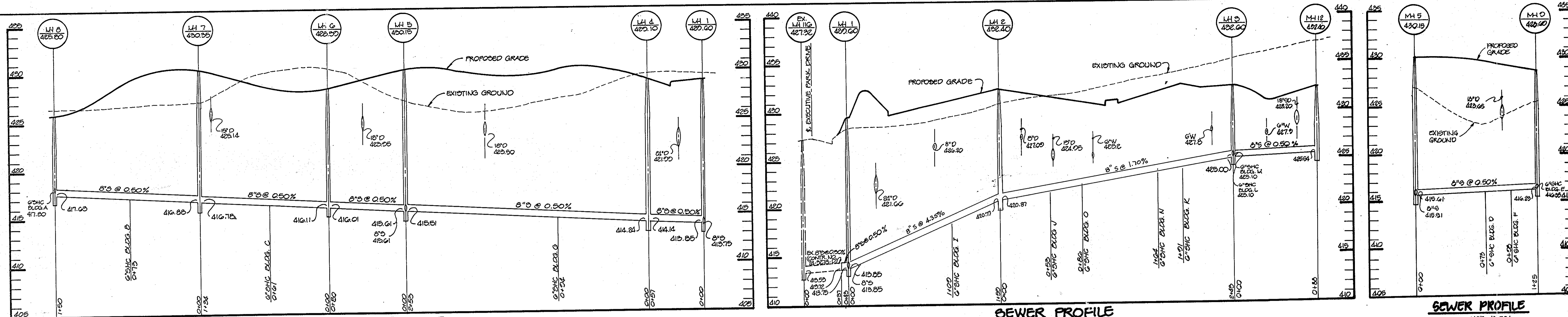
OWNER:
HOWARD COUNTY HOUSING COMMISSION
10050 HICKORY RIDGE RD.
COLUMBIA, MD. 21044

RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers • Surveyors
8812 Centre Park Drive • Suite 200 • Columbia, Md. 21046
410-997-8900 FAX: 410-997-9242

DATE 12-10-93 F-87-82 28:93OM
F-93-111

DESIGNED BY: J.C.O.
DRAWN BY: S.K.
PROJECT NO: 91001
DATE: SEPTEMBER 28, 1993
SCALE: AS SHOWN
DRAWING NO. 11 OF 18

JAYKANT D. PAREKH #19148



AS BUILT CERTIFICATE

JAYKANT D. PAREKH #19148 DATE

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

COUNTY HEALTH OFFICER DATE

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

DIRECTOR DATE 4/14/94

CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE 4/13/94

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

DIRECTOR DATE 12/29/93

CHIEF, BUREAU OF ENGINEERING ACTING DATE 12/29/93

DATE NO. REVISION

DEVELOPER
O.C.D. CROSSING, INC.
C/O EARL ARMIGER
THE EXECUTIVE CENTER
3300 NORTH RIDGE ROAD
SUITE 230
ELLCOTT CITY, MD. 21043

PROJECT
ORCHARD CROSSING
AN APARTMENT COMMUNITY

AREA
TAX MAP 30, 2nd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
COLUMBIA 100 OFFICE RESEARCH PARK
SECTION 1, AREA 2, PARCEL 'X', 'Y' & 'P' 2'

TITLE
PROFILES

OWNER:
HOWARD COUNTY HOUSING COMMISSION
10850 HICKORY RIDGE RD.
COLUMBIA, MD. 21042

RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers • Surveyors
8818 Centre Park Drive • Suite 200 • Columbia, Md. 21045
410-997-8900 FAX: 410-997-9282

DATE 12.10.93

DESIGNED BY: J.C.O.

DRAWN BY: J.C.O.

PROJECT NO: 91001

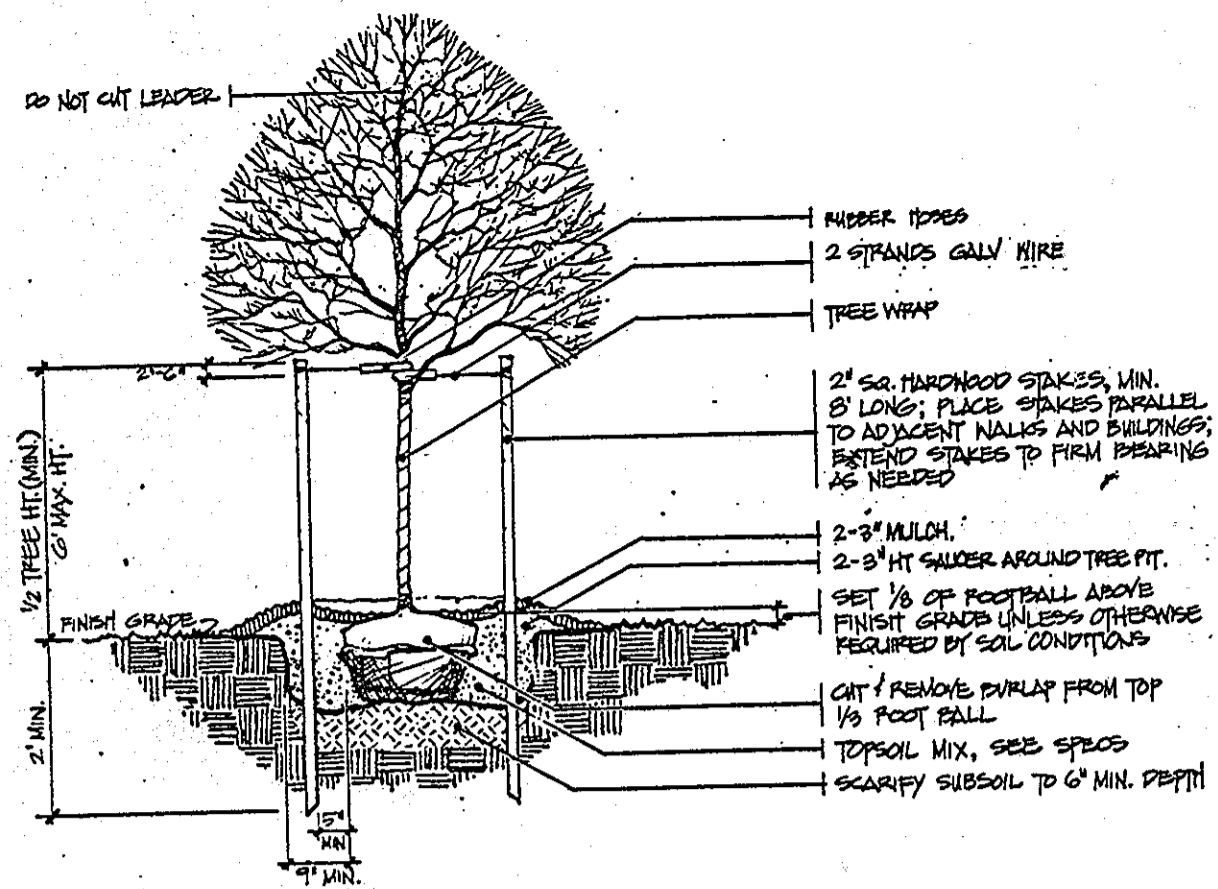
DATE: SEPTEMBER 30, 1993

SCALE: AS SHOWN

DRAWING NO. 12 OF 15

JAYKANT D. PAREKH #19148

SPP-23-121



General Notes

- The Landscape Plan has been prepared in accordance with the Howard County Planning, Zoning and Subdivision and Land Development Regulations and the Landscape Manual.
- Presently, the property has no significant woody vegetation. Existing woods do not abut property perimeters 4 through 6 and are not credited toward on-site buffer requirements. However, the proposed planting is designed to accentuate certain areas while leaving others with the natural forested edge. The existing wooded area is generally several hundred feet in width with dominant mature specimens consisting of maple, oak, mulberry, tulip, poplar and cherry. The understory is predominantly wild rose and other forbs. The canopy limits of the existing off-site vegetation are documented on the Landscape Plans.
- The site has been cleared and rough graded according to a previously approved grading plan. Through discussions with Howard County Planning Staff, it has been determined that the site is exempt from compliance with the Forest Conservation Act requirements.
- The street tree landscape program for Executive Park Drive and Columbia 100 Parkway has been implemented according to previous Submission No. 5246 for Columbia 100 Office Research Park. Minor adjustments will need to be made once the existing cul-de-sac is eliminated and Executive Park Drive is extended.
- The stormwater management for the majority of the site is being handled by an appropriately sized existing facility located directly north of the intersection of Executive Park Drive and Columbia 100 Parkway. The remaining runoff is not sufficient to warrant an additional on-site management facility.
- The Landscape Plan meets the minimum requirements established in the Landscape Manual. Additional planting is proposed for the community entrance, foundations and perimeters of buildings and the club amenity area. Additional image enhancement plantings are proposed for the entry corridor.
- Several tree plantings fall near or atop underground storm drain lines. It is assumed that field adjustment of plants will be necessary as well as the possible relocation of several storm drain lines, especially at the front entry area.

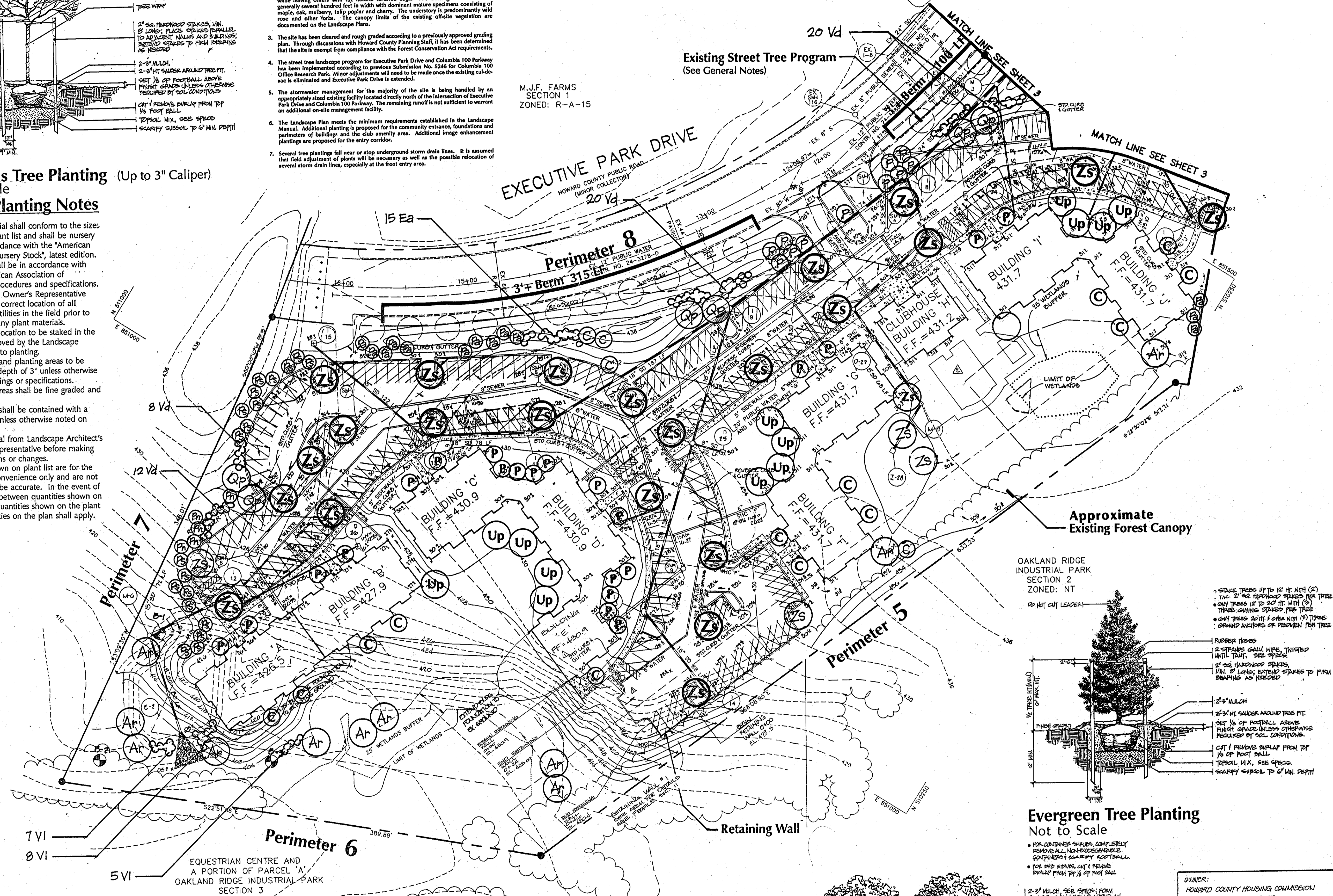
M.J.F. FARMS
SECTION 1
ZONED: R-A-15

Existing Street Tree Program
(See General Notes)

Deciduous Tree Planting (Up to 3" Caliper) Not to Scale

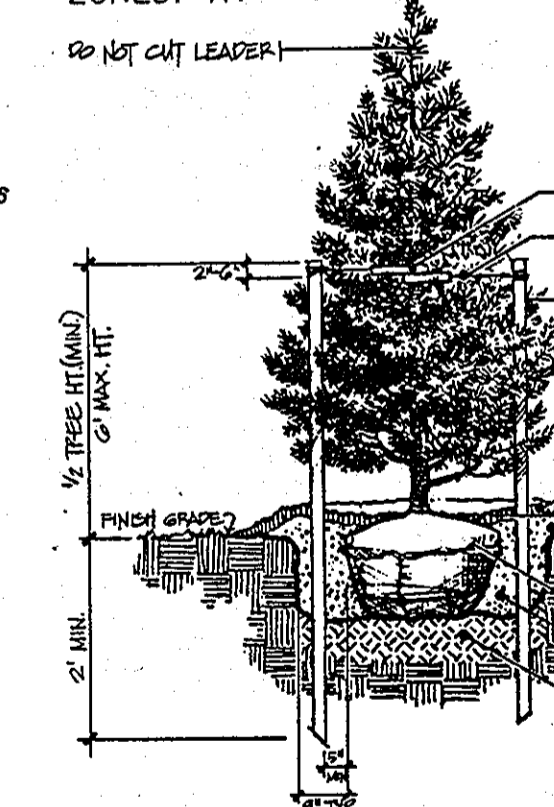
General Planting Notes

- All plant material shall conform to the sizes given in the plant list and shall be nursery grown in accordance with the "American Standard for Nursery Stock", latest edition.
- All planting shall be in accordance with standard American Association of Nurserymen procedures and specifications. Contractor and Owner's Representative shall verify the correct location of all underground utilities in the field prior to installation of any plant materials.
- Plant material location to be staked in the field and approved by the Landscape Architect prior to planting.
- All plant beds and planting areas to be mulched to a depth of 3" unless otherwise noted on drawings or specifications.
- All disturbed areas shall be fine graded and seeded.
- All plant beds shall be contained with a spaced edge unless otherwise noted on drawings.
- Obtain approval from Landscape Architect or Owner's Representative before making any substitutions or changes.
- Quantities shown on plant list are for the Contractor's convenience only and are not guaranteed to be accurate. In the event of a discrepancy between quantities shown on the plan and quantities shown on the plant list, the quantities on the plan shall apply.



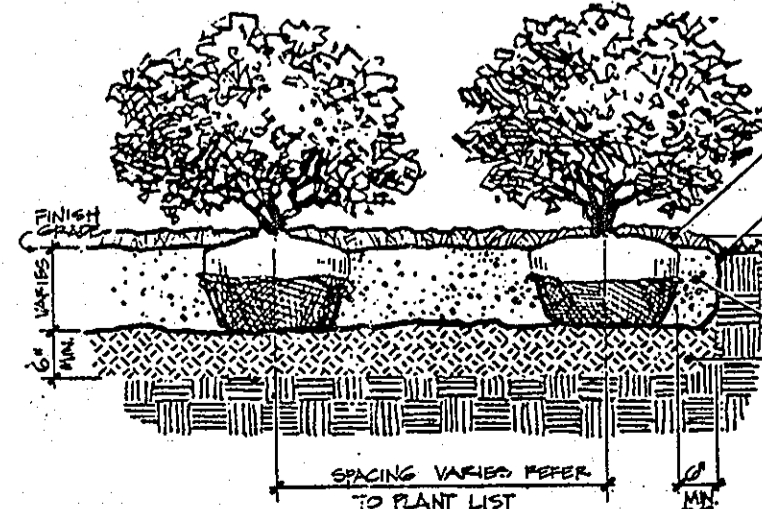
Approximate Existing Forest Canopy

OAKLAND RIDGE INDUSTRIAL PARK
SECTION 2
ZONED: NT



Evergreen Tree Planting Not to Scale

- FOR CONTAINER SHRUBS, COMPLETELY REMOVE ALL NON-ADAPTABLE CONTAINER & SCAFFRY ROOTBALL
- FOR P&B SHRUBS, CUT & REMOVE OVERLAP FROM TOP 1/2" OF FOOTBALL



Shrub Bed Planting Not to Scale

KEY

- (Zs) Parking Lot Internal Landscaping
- (Zs) Residential Internal Landscaping
- (Zs) Perimeter Landscaping

Note: Refer to drawing 14 of 15 for plant lists and landscape requirements/calculations

PLAN
SCALE: 1"=40'

Quarry Park Place
9175 Guilford Road
Columbia, Maryland 21046
301.782.4360
Fax 301.496.3070



LEGEND

- CONCRETE SIDEWALKS
- SOIL BORING LOCATION
- HANDICAP PARKING SIGN
- HANDICAP PARKING SPACE
- P-1 PAVING
- P-2 PAVING

- NOTES:
- ALL CURB RADII ARE 5' UNLESS OTHERWISE NOTED.
 - INDICATES TRANSITION FROM STANDARD TO REVERSE CURB & GUTTER.
 - ALL PAVING TO BE AS PER PAVING SECTION ON SHEET 9 UNLESS OTHERWISE NOTED.
 - GUTTER SLOPE TO MATCH PAVEMENT CROSS SLOPE.
 - FOR DETAIL OF HANDICAP SIGNS AND RAMPS SEE DETAIL SHEET 9.

AS BUILT CERTIFICATE	
JAYKANT D. PAREKH #19148	DATE
APPROVED: FOR PUBLIC WATER AND PUBLIC SEWERAGE SYSTEMS, HOWARD COUNTY HEALTH DEPARTMENT.	
HOWARD COUNTY HEALTH OFFICER	DATE
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.	
<i>[Signature]</i>	4/14/94
DIRECTOR	DATE
<i>[Signature]</i>	4/13/94
CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH	DATE
APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.	
<i>[Signature]</i>	12/29/93
DIRECTOR	DATE
<i>[Signature]</i>	12/29/93
CHIEF, BUREAU OF ENGINEERING ACTING	DATE
4.5-5.0 E 1/2" AS BUILT CERTIFICATE, REVISION 1/29/94	
1-95 TO RECORD THE HEIGHT OF THE EXISTING WALLS OF THE EXISTING BUILDING, THE SIZE OF THE BUILDING TO BE ADJUSTED TO THE PROVISIONS	
DATE	REVISION
DEVELOPER	
O.D.C. CROSSING, INC. C/O EARL ARMINGER THE EXECUTIVE CENTER 3300 NORTH RIDGE ROAD SUITE 230 ELLCOTT CITY, MD. 21043	
PROJECT	
ORCHARD CROSSING AN APARTMENT COMMUNITY	
AREA	
TAX MAP 30 PARCEL X, Y & RD. 2 2nd ELECTION DISTRICT HOWARD COUNTY, MARYLAND COLUMBIA 100 OFFICE RESEARCH PARK, SECTION 1, AREA 2	
TITLE	
LANDSCAPE PLAN.	
OWNER:	
HOWARD COUNTY HOUSING COMMISSION 10050 HICKORY RIDGE RD. COLUMBIA, MD. 21044	
12/10/93	F-87-82 28:930M F-93-111
DATE	DESIGNED BY:
	DRAWN BY:
	PROJECT NO.:
	DATE: 10/1/93
	SCALE: AS SHOWN
	DRAWING NO. 12 OF 15

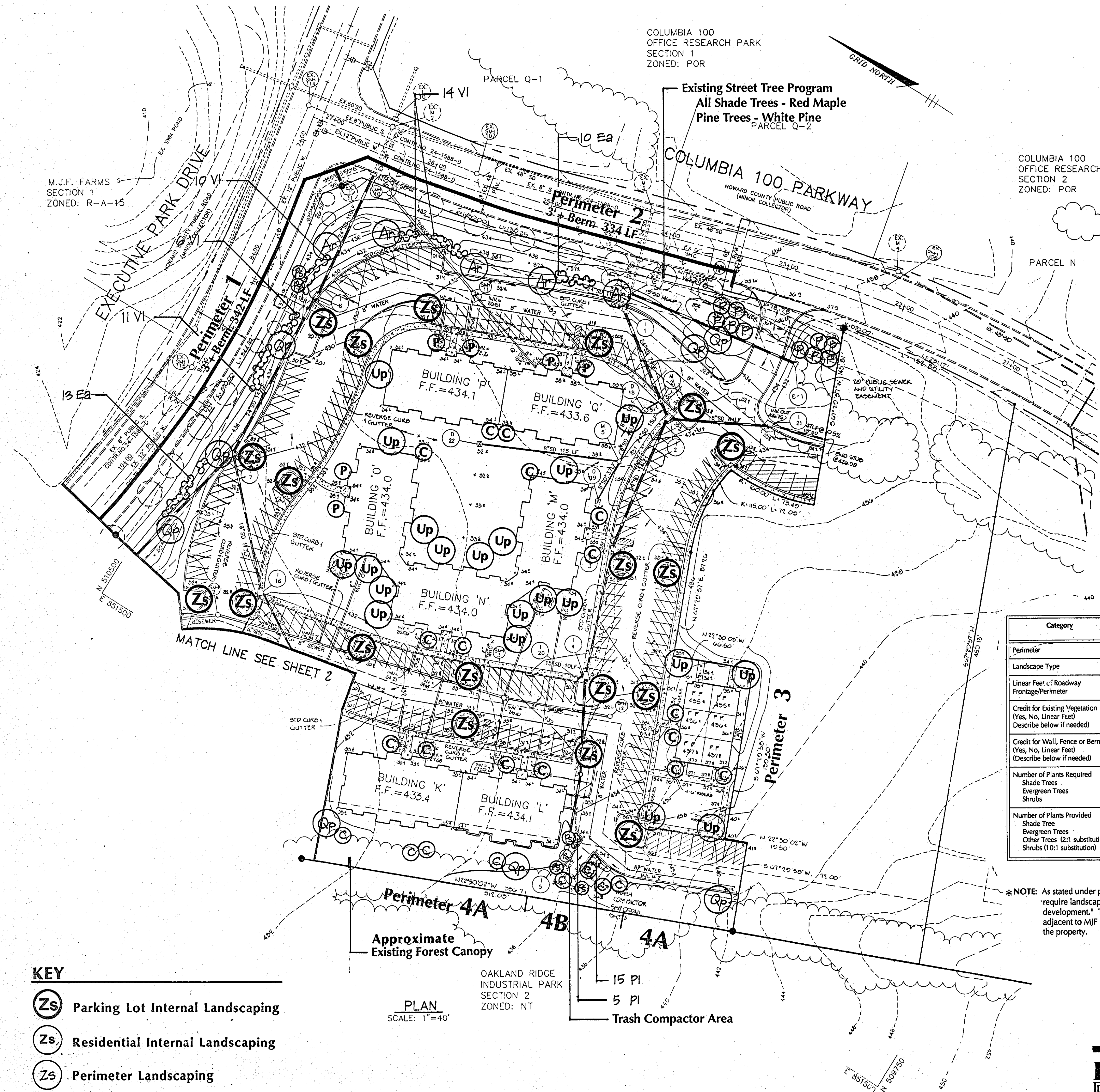


COLUMBIA 100
OFFICE RESEARCH PARK
SECTION 1
ZONED: POR

COLUMBIA 100
OFFICE RESEARCH PARK
SECTION 2
ZONED: POR

Existing Street Tree Program
All Shade Trees - Red Maple
Pine Trees - White Pine

M.J.F. FARMS
SECTION 1
ZONED: R-A-15



**SCHEDULE B
PARKING LOT INTERNAL LANDSCAPING**

Number of Parking Spaces	387
Number of Trees Required - 1 per 10 spaces	39
Number of Trees Provided Shade Trees Other Trees (2:1 substitution)	42
Number of Islands Required - 1 per 10 spaces	39
Number of Islands Provided	50+

**SCHEDULE C
RESIDENTIAL DEVELOPMENT INTERNAL LANDSCAPING**

Number of Dwelling Units	187 APTS	6 SFA
Number of Trees Required (1:DU SFA; 1:3 DU APTS)	62	6
Number of Trees Provided Shade Trees Other Trees (2:1 substitution) Shrubs (10:1 substitution)	32 54/27 30/3	4 4/2 -

**SCHEDULE A
PERIMETER LANDSCAPE EDGE**

Category	Adjacent to Roadways				Adjacent to Perimeter Properties				
	1	2	8	3	4A	4B	5	6	7
Perimeter	1	2	8	3	4A	4B	5	6	7
Landscape Type	E	E	E	NA	A	C	A	A	C
Linear Feet of Roadway Frontage/Perimeter	342'	430'	635'	676.5'	277'	80'	633'	390'	405'
Credit for Existing Vegetation (Yes, No, Linear Feet) Describe below if needed	No	No	No	No	No	No	No	No	No
Credit for Wall, Fence or Berm (Yes, No, Linear Feet) (Describe below if needed)	Yes 342 LF 3' Berm	Yes 334 LF 3' Berm	Yes 415 LF 3' Berm	NA	No	No	No	No	No
Number of Plants Required Shade Trees Evergreen Trees Shrubs	1:40 (9) (0)	1:40 (11) 1:4(24)	1:40(16) 1:4(55)	NA	1:60(5) -	1:40(2) 1:20(4)	1:60(11) -	1:60(7) -	1:40(10) 1:20(20)
Number of Plants Provided Shade Tree Evergreen Trees Other Trees (2:1 substitution) Shrubs (10:1 substitution)	4 2/1 -	6 10/5 24	4 10/5 55	NA	3 4/2 -	4 4/2 20/2	9 3/1.5 1/0.5	5 -	6 24/22 20/2

*NOTE: As stated under perimeter landscaped edges, p. 17 of the Landscape Manual, "The regulations do not require landscaped edges, buffering, or screening between internal lots or parcels within the same development." This situation occurs along Perimeter 3 of this plan. Perimeter buffer treatment adjacent to MJF Farms property will be provided upon submittal of the plan for the remainder of the property.

Plant List

Qty	Key	Botanical/Common Name	Size	Remarks
17	Ar	Acer rubrum "Red Sunset" Red Sunset Maple	13-15' ht. 2 1/2' - 3' cal.	B&B Full
14	Qp	Quercus phellos Willow Oak	12-14' ht. 2 1/2' - 3' cal.	B&B Full
34	Up	Ulmus parvifolia Chinese Elm	13-15' ht. 2 1/2' - 3' cal.	B&B Full
50	Zs	Zelkova serrata "Green Vase" Green Vase Zelkova	13-15' ht. 2 1/2' - 3' cal.	B&B Full
42	C	Comus kousa var. chinensis Chinese Dogwood	8-10' ht.	B&B Full
49	P	Prunus serrulata "Kwanzan" Kwanzan Cherry	8-10' ht. 2-2 1/2' cal.	B&B Heavy
13	Pa	Picea abies Norway Spruce	6-8' ht.	B&B Full
5	Pn	Pinus nigra Austrian Pine	6-8' ht.	B&B Full
25	PS	Pinus strobus Semi-sheared Eastern White Pine	6-8' ht.	B&B Full
68	Ea	Euonymus alatus "Compactus" Dwarf Winged Euonymus	2-2 1/2' ht. 2-3 canes	B&B Full
60	Vd	Viburnum dentatum Arrowwood Viburnum	2 1/2-3' ht. 3-4 canes	B&B Full
61	VI	Viburnum dilatatum Linden Viburnum	2 1/2-3' ht. 2-3 spd.	B&B Full
20	PI	Prunus laurocerasus "Otto Luyken" Otto Luyken Cherry Laurel	24-30' ht. 30-36' spd.	3&B Full

AS BUILT CERTIFICATE

JAYKANT D. PAREKH #19148 DATE

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

HOWARD COUNTY HEALTH OFFICER DATE

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

Director DATE 4/14/94

Director DATE 4/13/94

CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH DATE 4/11/94

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

Director DATE 12/29/93

CHIEF, BUREAU OF ENGINEERING DATE 12/29/93

DEVELOPER
O.D.C. CROSSING, INC.
C/O EARL ARMINGER
THE EXECUTIVE CENTER
3300 NORTH RIDGE ROAD
SUITE 230
ELLCOTT CITY, MD. 21043

PROJECT
ORCHARD CROSSING
AN APARTMENT COMMUNITY

AREA
TAX MAP 30 PARCEL X, Y, Z
2nd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
COLUMBIA 100 OFFICE RESEARCH PARK, SECTION 1, AREA 2

TITLE
LANDSCAPE PLAN

RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers • Surveyors
8818 Centre Park Drive • Suite 200 • Columbia, Md. 21048
410-997-8000 FAX: 410-997-0282

12/10/93
10 days

DESIGNED BY:

DRAWN BY:

PROJECT NO:

DATE: 10/1/93

SCALE: AS SHOWN

DRAWING NO. 14 OF 15

SDP-93-12.1

- KEY**
- (Zs) Parking Lot Internal Landscaping
 - (Zs) Residential Internal Landscaping
 - (Zs) Perimeter Landscaping

PLAN
SCALE: 1"=40'

OAKLAND RIDGE INDUSTRIAL PARK SECTION 2 ZONED: NT

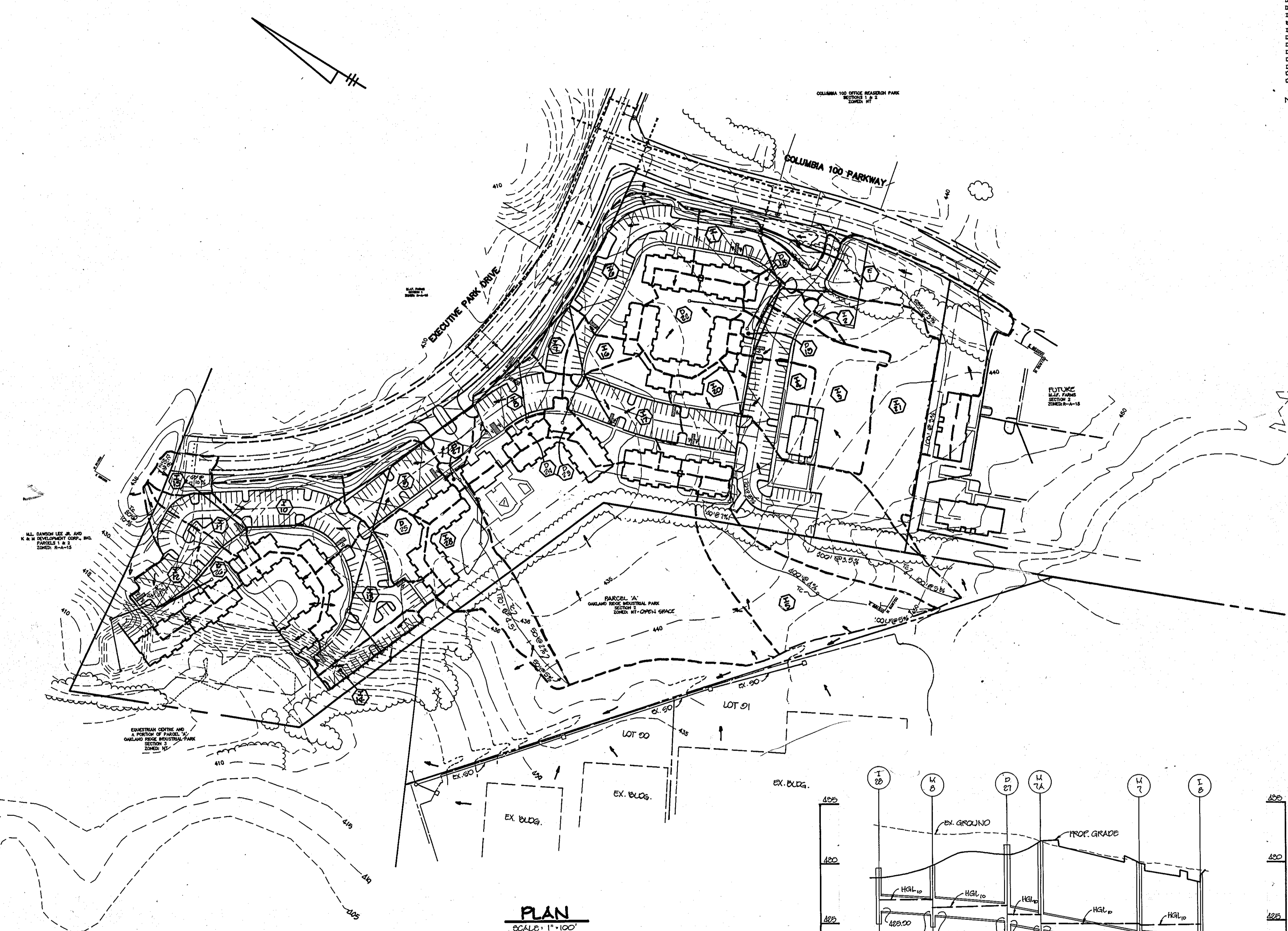
15 PI
5 PI
Trash Compactor Area

LDR International
Quarry Park Place
9175 Guilford Road
Columbia, Maryland 21046
301.792.4380
Fax 301.498.5070

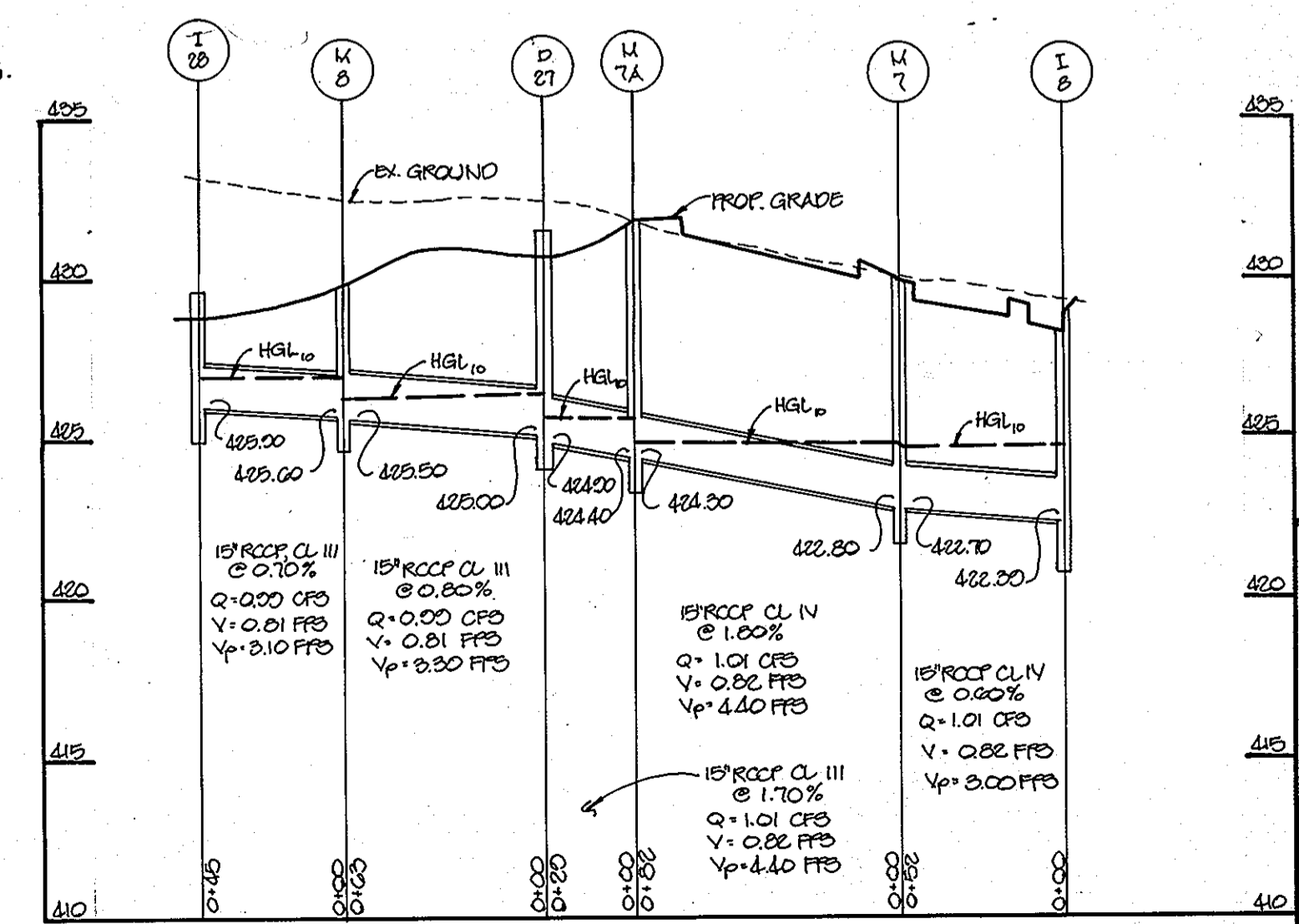


INLET NO.	AREA (Acres)	'C'	IMP	ZONING
I-1	0.48	0.82	81	R-A-15
I-2	0.09	0.70	67	R-A-15
I-3	0.72	0.56	49	R-A-15
I-4	0.40	0.67	63	R-A-15
I-5	1.16	0.33	2	R-A-15
I-6	0.77	0.70	66	R-A-15
I-7	0.90	0.62	55	R-A-15
I-8	3.90	0.27	17	R-A-15
I-9	0.41	0.70	66	R-A-15
I-10	0.59	0.73	69	R-A-15
I-11	0.19	0.80	79	R-A-15
I-12	0.57	0.80	79	R-A-15
I-13	0.59	0.82	81	R-A-15
I-14	0.14	0.91	93	R-A-15
I-15	0.07	0.19	0	R-A-15
I-16	0.19	0.51	42	R-A-15
I-17	0.63	0.61	54	R-A-15
D-18	0.09	0.45	33	R-A-15
D-19	0.05	0.50	40	R-A-15
I-20	1.93	0.45	39	R-A-15
E-1	1.05	0.23	48	R-A-15
D-21	0.86	0.81	70	R-A-15
D-22	0.51	0.49	39	R-A-15
D-23	0.07	0.20	14	R-A-15
D-24	0.06	0.45	33	R-A-15
D-25	0.20	0.34	20	R-A-15
D-26	0.08	0.38	25	R-A-15
D-27	0.07	0.40	29	R-A-15
D-28	0.68	0.86	12	R-A-15

NOTE: ALL SOILS ARE 'C' SOILS. THIS SITE HAS BEEN PREVIOUSLY MASS-GRADED.



PLAN
SCALE: 1" = 100'



STORM DRAIN PROFILE
SCALE: HOR: 1" = 50'
VERT: 1" = 5'

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

COUNTY HEALTH OFFICER _____ DATE _____

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING.

DIRECTOR _____ DATE 4/14/94

CHIEF, DIVISION OF LAND DEVELOPMENT AND RESEARCH _____ DATE 4/13/94

APPROVED: FOR PUBLIC WATER, PUBLIC SEWERAGE, STORM DRAINAGE SYSTEMS AND PUBLIC ROADS.

DIRECTOR _____ DATE 12/29/93

CHIEF, BUREAU OF ENGINEERING ACTING _____ DATE 12/29/93

DATE NO. 1 ADD'D REVISIONS, ADDED D.D. PROFILE

DEVELOPER
O.D.C. CROSSING, INC.
C/O EARL ARMIGER
THE EXECUTIVE CENTER
3300 NORTH RIDGE ROAD
SUITE 230
ELLCOTT CITY, MD. 21043

PROJECT ORCHARD CROSSING
AN APARTMENT COMMUNITY

AREA TAX MAP 30, 2ND ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
COLUMBIA 100 OFFICE RESEARCH PARK
SECTION 1, AREA 2 PARCEL 'X', 'Y', & 'Z'

TITLE DRAINAGE AREA MAP

OWNER:
HOWARD COUNTY HOUSING COMMISSION
10050 HICKORY RIDGE RD.
COLUMBIA, MD. 21044

RIEMER MUEGGE & ASSOCIATES, INC.
Planners • Engineers • Surveyors
8818 Centre Park Drive • Suite 200 • Columbia, MD. 21045
410-997-8900 FAX: 410-997-9282

DATE 12-10-93

F-87-82 ZB:930M
F-93-111

DESIGNED BY: J.C.O.

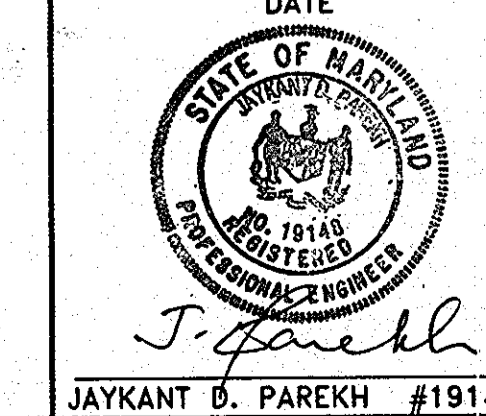
DRAWN BY: J.C.O.

PROJECT NO: 91001

DATE: SEPTEMBER 30, 1993

SCALE: AS SHOWN

DRAWING NO. 15 OF 15



JAYKANT B. PAREKH #19148