

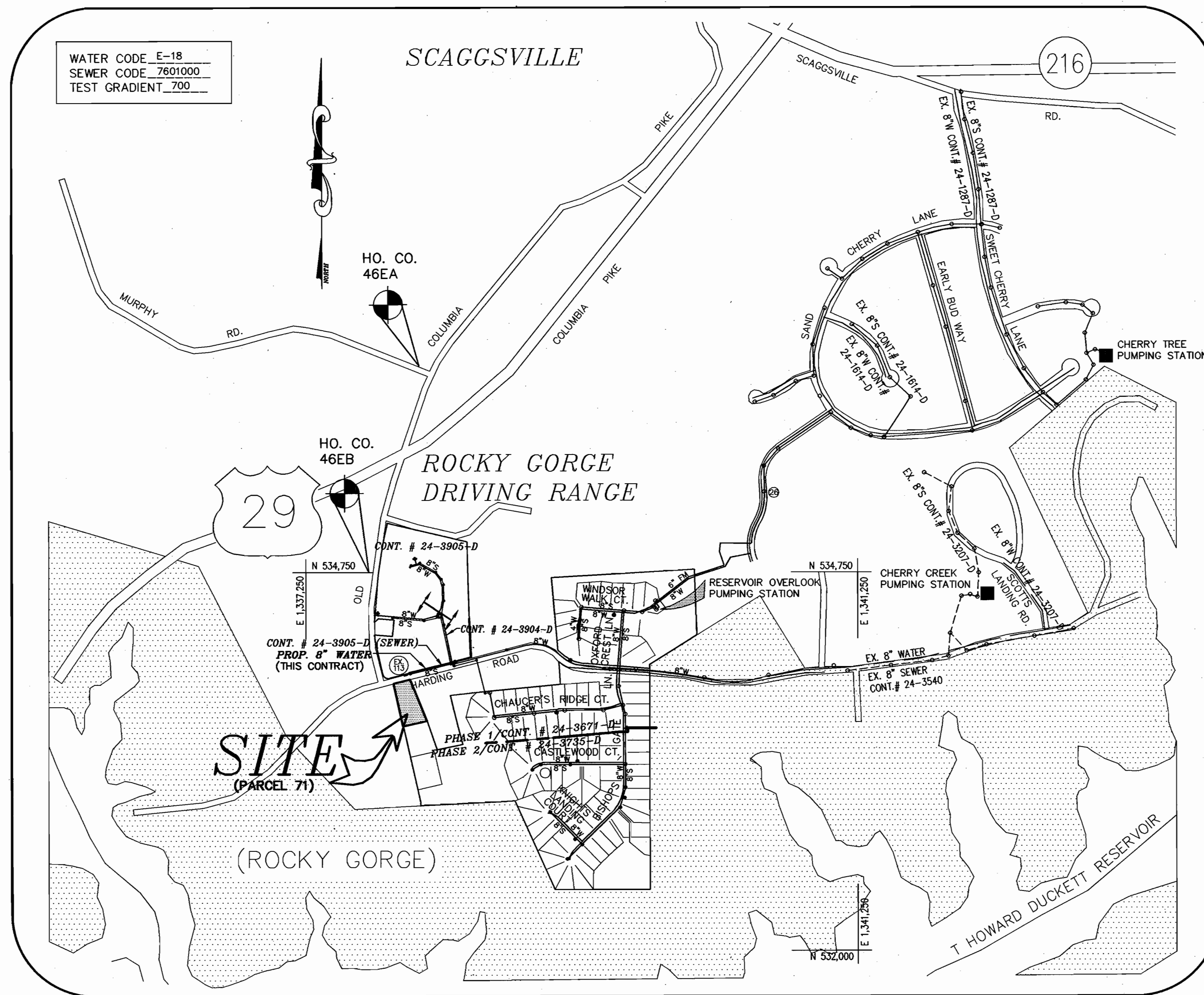
QUANTITY TABLE

ITEMS	QUANTITIES ESTIMATED	QUANTITIES	TYPE	MANUFACTURER/SUPPLIER
8" WATER	377 L.F.			
8" V	1			
1" WHC	85 L.F.			
# WHC	2			
8" CAP & BUTTRESS	1			
1/8 HB	2			
1/32 VB	1			
4" SEWER HOUSE CONNECTION	84 L.F.			
# MH DROP CONNECTIONS	1			
# MH CONNECTIONS	2			

NAME OF UTILITY CONTRACTOR:
SURVEY AND DRAFTING DIVISION AS-BUILT DATE

INDEX OF DRAWINGS

NO.	DESCRIPTION
1	TITLE SHEET
2	WATER & SEWER PLAN & PROFILE
3	SEDIMENT CONTROL PLAN
4	SEDIMENT CONTROL NOTES & DETAILS



VICINITY MAP

SCALE : 1" = 600'

TYPE OF BUILDING	SFD
No. OF UNITS	2
No. OF WATER HOUSE CONNECTION	2
No. OF TWIN WATER HOUSE CONNECTION	N/A
No. OF SEWER HOUSE CONNECTIONS	2
DRAINAGE AREA	LITTLE PATUXENT
TREATMENT PLANT	LITTLE PATUXENT WATER RECLAMATION PLANT

**CONTRACT NO.: 24-4076-D
KIM PROPERTY,
LOTS 1 & 2
WATER & SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS**

GENERAL NOTES

- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROLS ARE BASED ON MARYLAND STATE COORDINATES, NAD 83.
- ALL VERTICAL CONTROLS ARE BASED ON NAVD 88.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS, UNLESS OTHERWISE NOTED ON THE PLANS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 12". CLEAR ALL POLES BY 5'-0" MINIMUM OR TUNNEL AS REQUIRED, UNLESS OTHERWISE NOTED. THE OWNER HAS CONTACTED THE UTILITY COMPANIES AND HAS MADE ARRANGEMENTS FOR BRACING OF POLES AS SHOWN ON THE DRAWINGS. IN THE EVENT THE CONTRACTOR'S WORK REQUIRES THE BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR BRACING OF ADDITIONAL POLES OR DAMAGES SHALL BE DEDUCTED FROM MONIES OWED THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES TO SCHEDULE THE BRACING OF THE POLES.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS, AND FOR MATERIALS AND CONSTRUCTION METHODS USE HOWARD COUNTY DESIGN MANUAL, VOLUME IV, STANDARD SPECIFICATIONS AND DETAIL FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL AT THE LOCATIONS OF THE TEST PITS. A NOTE OR NOTES CONTAINING THE RESULTS OF THE TEST PIT OR PITS IS INCLUDED ON THE DRAWINGS. EXISTING UTILITIES IN THE VICINITY OF THE PROPOSED WORK FOR WHICH TEST PITS HAVE NOT BEEN DUG SHALL BE LOCATED BY THE CONTRACTOR TWO WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS AT HIS OWN EXPENSE.
- CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

AT&T	1-800-252-1133
BG & E CO. CONTRACTOR SERVICES	(410) 850-4620
BG & E CO. UNDERGROUND DAMAGE CONTROL	(410) 787-9068
HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS	(410) 313-4900
BUREAU OF UTILITIES	(410) 795-1390
COLONIAL PIPELINE CO.	1-800-257-7777
MISS UTILITY	(410) 531-5533
STATE HIGHWAY ADMINISTRATION	1-800-743-0033 / (410) 224-9210
VERIZON	
- TREES AND SHRUBS ARE TO BE PROTECTED FROM DAMAGE TO THE MAXIMUM EXTENT. TREES AND SHRUBS LOCATED WITHIN THE CONSTRUCTION STRIP ARE NOT TO BE REMOVED OR DAMAGED BY THE CONTRACTOR.
- CONTRACTOR SHALL REMOVE TREES, STUMPS AND ROOTS ALONG LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- THE CONTRACTOR SHALL NOTIFY THE BUREAU OF HIGHWAYS, HOWARD COUNTY, AT (410) 313-7450 AT LEAST FIVE WORKING DAYS BEFORE OPEN CUTTING OR BORING/JACKING OF ANY COUNTY ROAD FOR LAYING WATER/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.114(a) OF THE HOWARD COUNTY CODE.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS.
- STATIONING SHOWN IS WATER MAIN AND CENTER LINE STATIONING.
- ALL CLEANOUTS AND BALL VALVES ARE TO BE LOCATED PER HOWARD COUNTY STANDARD DETAILS.
- CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO COMMENCING CONSTRUCTION.
- ALL SEWER HOUSE CONNECTIONS TO BE 4" IN SIZE, UNLESS OTHERWISE NOTED.
- ALL WATER HOUSE CONNECTIONS TO BE 1" IN SIZE UNLESS OTHERWISE NOTED.
- ALL CELLARS WILL HAVE SERVICE TO LOWEST FLOOR UNLESS OTHERWISE NOTED.
- THERE WILL BE NO TWIN SEWER HOUSE CONNECTIONS ON SITE UNLESS APPROVED BY HOWARD COUNTY.
- ALL WATER MAINS TO BE 8", 6", OR 4" DIP CLASS 52.
- COMPACTION IN FILL AREAS TO BE 95% AS DETERMINED PER AASHTO T-180.
- IF MATERIAL IS WITHIN 8% OF OPTIMUM MOISTURE, WORKING THE MATERIAL UNTIL REQUIRED COMPACTION IS ACHIEVED IS CONTRACTOR'S RESPONSIBILITY.
- THE CONSTRUCTION IS TO BE LIMITED TO THAT WHICH CAN BE BACKFILLED AND STABILIZED IN ANY ONE WORKING DAY.
- THE SPOIL FROM THE TRENCH OPERATIONS IS TO BE PLACED ON THE UPHILL SIDE OF CONSTRUCTION.
- COORDINATES BASED ON NAD '83 MARYLAND COORDINATE SYSTEM AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 46EA & 46EB.

STA. No. 46EA	N 536,185.423	ELEV. 415.10
	E 1,338,091.710	
STA. No. 46EB	N 534,750.221	ELEV. 413.24
	E 1,337,742.800	

GENERAL NOTES - WATER MAIN ONLY

- ALL WATER MAINS TO BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOPS OF ALL WATER MAINS TO HAVE A MINIMUM OF 3'-1/2" COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES.
- ALL FITTINGS SHALL BE BUTTRESSED OR ANCHORED WITH CONCRETE IN ACCORDANCE WITH THE STANDARD DETAILS UNLESS OTHERWISE PROVIDED FOR ON THE DRAWINGS.
- FIRE HYDRANTS SHALL BE SET TO THE BURY LINE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE INSTALLED IN ACCORDANCE WITH STANDARD DETAILS. THE SOIL AROUND THE FIRE HYDRANT SHALL BE COMPACTED IN ACCORDANCE WITH SECTION 1000 AND SECTION 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.

GENERAL NOTES - SEWER MAIN ONLY

- ALL SEWER MAINS SHALL BE P.V.C. OR D.I.P. UNLESS OTHERWISE NOTED.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER UNLESS OTHERWISE NOTED.
- FORCE MAINS SHALL BE D.I.P. ONLY.
- MANHOLES SHOWN WITH 12" AND 16" WALLS ARE FOR BRICK MANHOLES ONLY.
- MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATERTIGHT FRAME AND COVER, STANDARD DETAIL C5.52. WHERE WATERTIGHT MANHOLE FRAMES AND COVERS ARE USED, SET TOP OF FRAME 1' - 6" ABOVE FINISHED GRADE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- HOUSE(S) WITH THE SYMBOL "C.N.S." INDICATES THAT CELLAR CANNOT BE SERVED.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.

OWNER/DEVELOPER
HO KI KIM & SUNG OK KIM
11471 HARDING ROAD
LAUREL, MARYLAND 20723

KIM PROPERTY
WATER & SEWER MAIN EXTENSIONS
HOWARD COUNTY, MARYLAND
CONTRACT No. 24-4076-D

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 INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Ho Ki Kim 1/2/03
DEVELOPER'S SIGNATURE DATE

Ho Ki Kim
DEVELOPER'S NAME

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

R. Jacob Hikmat 12/19/02
ENGINEER'S SIGNATURE DATE

R. JACOB HIKMAT
ENGINEER'S NAME

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

Jim Meyer 1/29/03
USDA-NATURAL RESOURCES CONSERVATION SERVICE DATE

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

John R. Robertson 1/29/03
HOWARD SCD DATE

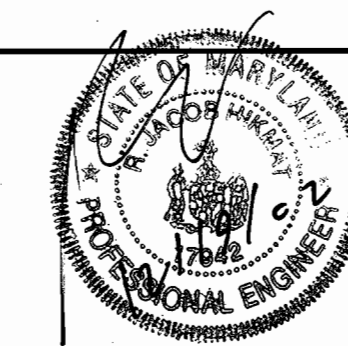
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F-02-174

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

MILDENBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors

5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
(410) 937-0286 Fax: (301) 621-5521 Wash. (410) 937-0288 Fax








engineering	SJD				
illustration	SJD				
approval					
project	2002-029				
date	DEC 2002	BY	NO.	REVISION	DATE

TITLE SHEET

**KIM PROPERTY
LOTS 1 & 2**
CONTRACT NO. 24-4076-D
TAX MAP 46 PARCEL 71
SIXTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

scale
AS SHOWN
1 of 4

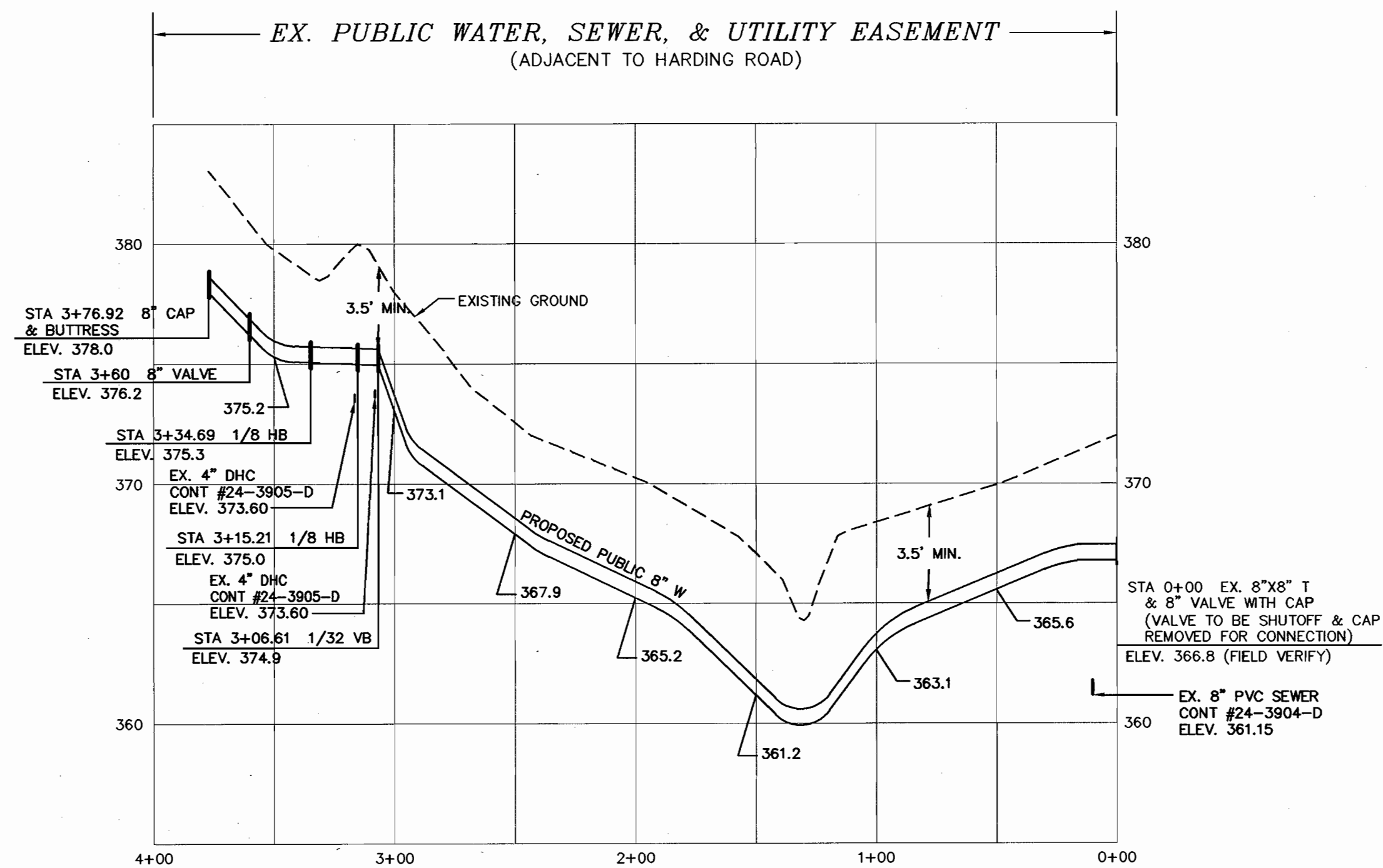
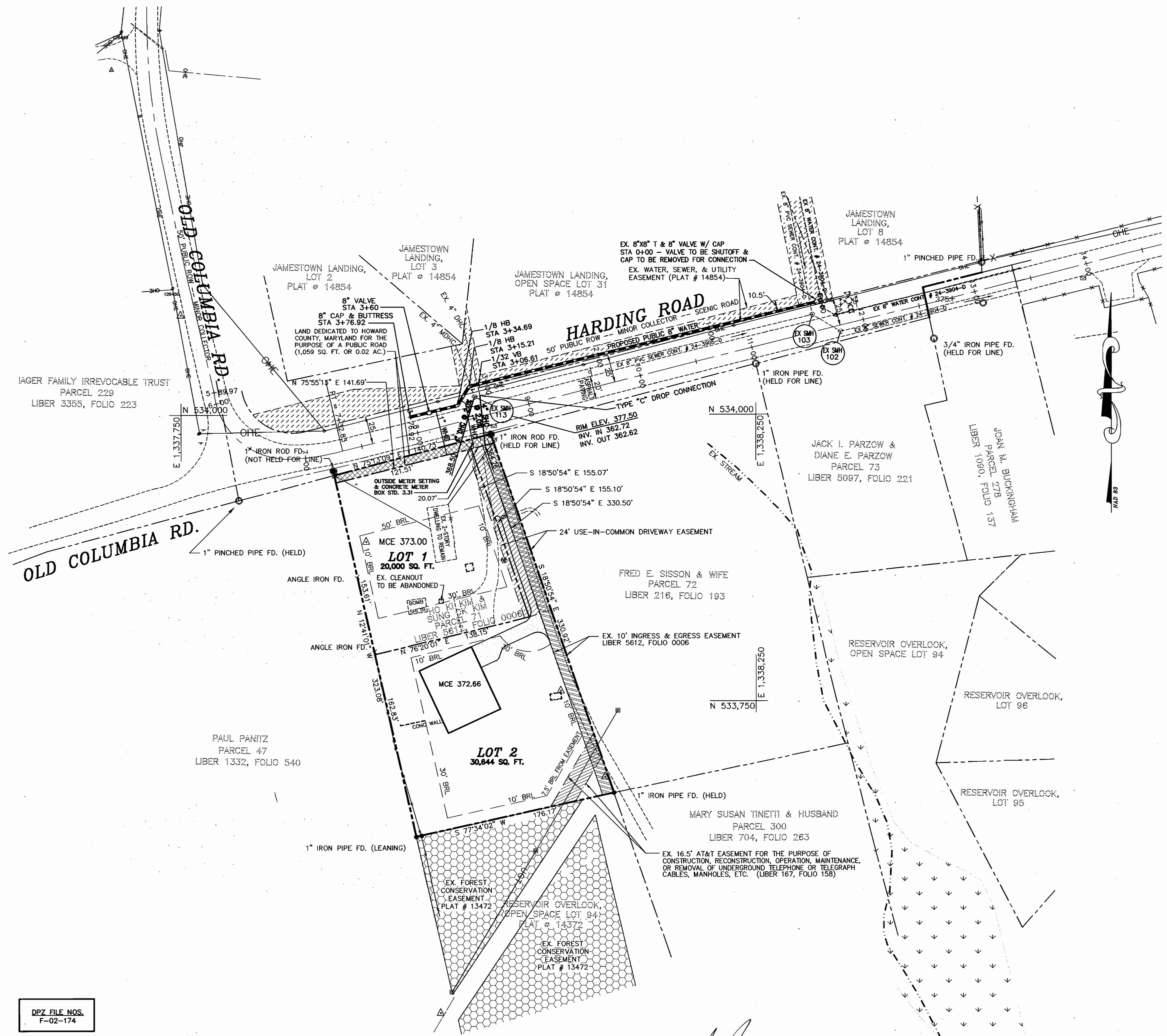
LEGEND

-  DENOTES AN EXISTING 10' PRIVATE INGRESS & EGRESS EASEMENT.
-  DENOTES A PROPOSED 24' PRIVATE USE-IN-COMMON DRIVEWAY EASEMENT.
-  DENOTES LAND DEDICATED TO HOWARD COUNTY, MARYLAND FOR THE PURPOSE OF A PUBLIC ROAD.
-  DENOTES PROPOSED PAVING.
-  DENOTES PUBLIC WATER, SEWER, & UTILITY EASEMENT

WATER MAIN TABULATION CHART

HARDING ROAD	
NORTHING & EASTING	APPURTENANCE
N 534,098.576	EX. 8"x8" T
E 1,338,307.064	
N 534,100.535	EX. 8" V & CAP
E 1,338,306.661	
N 534,026.332	1/32 VB
E 1,338,009.011	1/8 HB
N 534,024.719	1/8 HB
E 1,338,000.710	1/8 HB
N 534,007.883	8" V
E 1,337,990.541	
N 534,001.919	8" V
E 1,337,965.942	8" CAP & BUTTRISS
N 533,997.933	
E 1,337,949.502	

NOTE: - CONTRACTOR TO VERIFY THE LOCATION OF APPURTENANCES WITHIN EASEMENTS.



WATER PROFILE
 HORIZONTAL SCALE: 1" = 50'
 VERTICAL SCALE: 1" = 5'

OWNER/DEVELOPER
 HO KI KIM & SUNG OK KIM
 11471 HARDING ROAD
 LAUREL, MARYLAND 20723

KIM PROPERTY
 WATER & SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND
 CONTRACT No. 24-4076-D

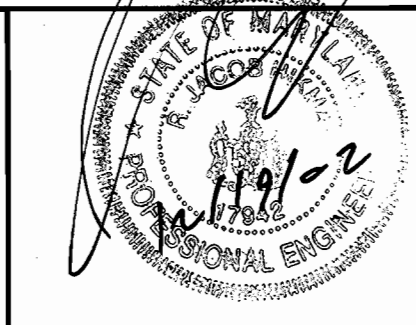
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DPZ FILE NOS.
 F-02-174

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND
 Chief, Bureau of Utilities
 1-17-03

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND
 Chief, Development Engineering Division
 2/10/03

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 987-0296 (alt. (301) 621-5521 Wash. (410) 997-0298 Fax.



engineering	SJD				
illustration	SJD				
approval					
project	2002-029				
date	DEC 2002	BY	NO.	REVISION	DATE

WATER & SEWER PLAN & PROFILE
 600' SCALE MAP NO. 46 BLOCK NO. 15

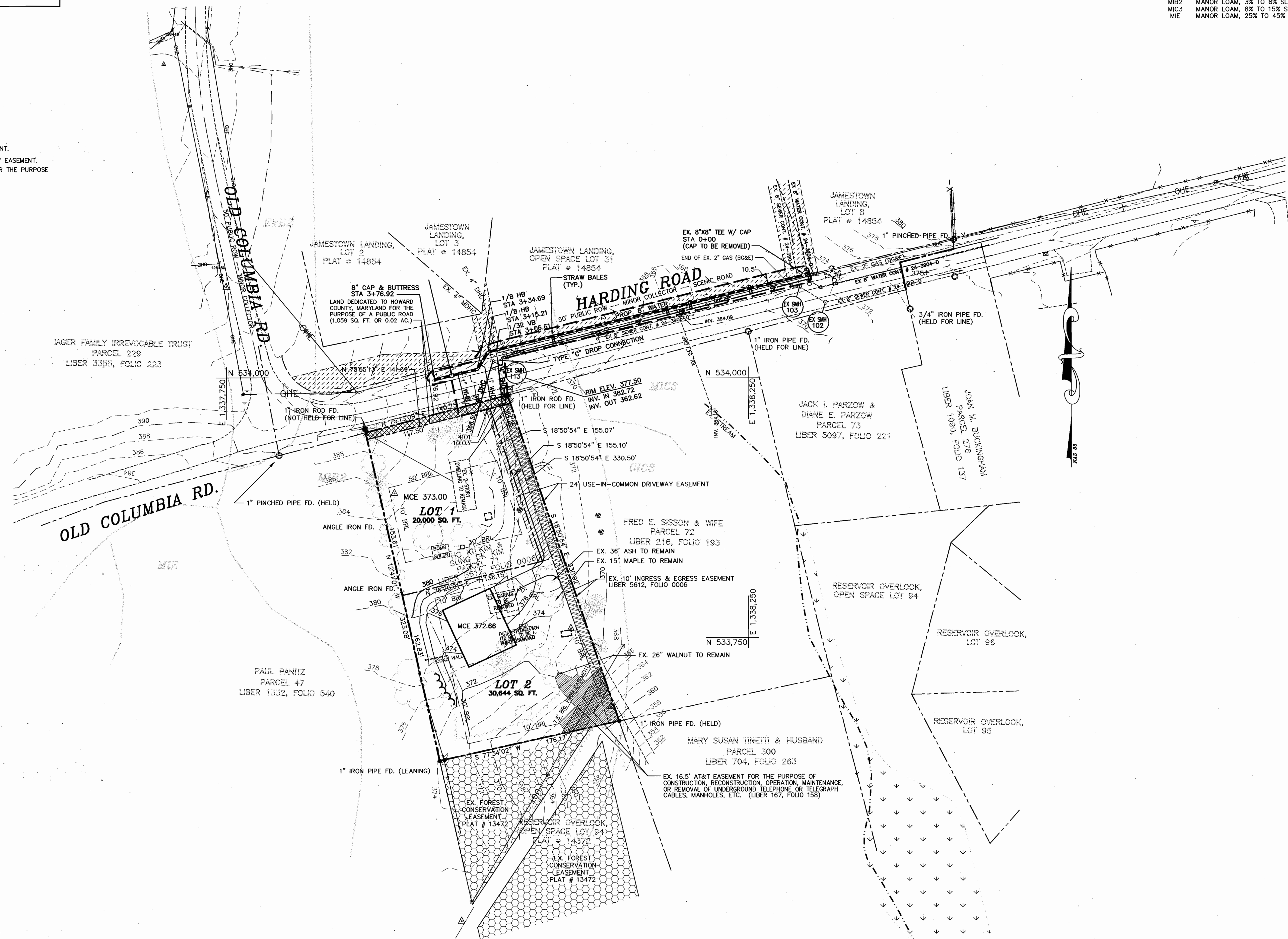
KIM PROPERTY LOTS 1 & 2
 CONTRACT No. 24-4076-D
 TAX MAP 46 PARCEL 71
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 scale 1" = 50'
 2 of 4

NOTE :
STRAW BALES ARE TO BE LOCATED AND SECURED TIGHTLY AGAINST THE SILT FENCE/SUPER SILT FENCE STAKES.

SOILS DESCRIPTION (BASED ON SHEET 33)
 SYMBOL DESCRIPTION
 EK22 ELIOAK SILT LOAM, 3% TO 8% SLOPES, MODERATELY ERODED --- TYPE C
 GIC3 GLENELG SILT LOAM, 8% TO 15% SLOPES, SEVERELY ERODED --- TYPE B
 MIB2 MANOR LOAM, 3% TO 8% SLOPES, MODERATELY ERODED --- TYPE B
 MIC3 MANOR LOAM, 8% TO 15% SLOPES, SEVERELY ERODED --- TYPE B
 MIE MANOR LOAM, 25% TO 45% SLOPES --- TYPE B

LEGEND

- 15% TO 24.9% SLOPES
- DENOTES AN EXISTING 10' PRIVATE INGRESS & EGRESS EASEMENT.
- DENOTES A PROPOSED 24' PRIVATE USE-IN-COMMON DRIVEWAY EASEMENT.
- DENOTES LAND DEDICATED TO HOWARD COUNTY, MARYLAND FOR THE PURPOSE OF A PUBLIC ROAD.
- DENOTES PROPOSED PAVING.
- DENOTES PUBLIC WATER, SEWER, & UTILITY EASEMENT
- SUPER SILT FENCE
- SILT FENCE
- LIMIT OF DISTURBANCE
- STRAW BALES



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 INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.

Ho Ki Kim 1/3/03
 DEVELOPER'S SIGNATURE DATE
 Ho Ki Kim
 DEVELOPER'S NAME

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

R. Jacob Hikmat 12/19/02
 ENGINEER'S SIGNATURE DATE
 R. JACOB HIKMAT
 ENGINEER'S NAME

REVIEWED FOR HOWARD SCD AND MEETS TECHNICAL REQUIREMENTS.

Jim Murray 1/29/03
 US NATURE RESOURCES SERVICE
 CONSERVATION SERVICE

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

John R. Robertson 1/29/03
 HOWARD SCD

DPZ FILE NOS.
F-02-174

OWNER/DEVELOPER
 HO KI KIM & SUNG OK KIM
 11471 HARDING ROAD
 LAUREL, MARYLAND 20723

KIM PROPERTY
 WATER & SEWER MAIN EXTENSIONS
 HOWARD COUNTY, MARYLAND
 CONTRACT No. 24-4076-D

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

John R. Robertson 1/17/03
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
 HOWARD COUNTY, MARYLAND

John R. Robertson 2/3/03
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

MILDENBERG, BOENDER & ASSOC., INC.
 Engineers Planners Surveyors
 5072 Dorsey Hall Drive, Suite 202, Ellicott City, Maryland 21042
 (410) 997-0296 Balt. (301) 621-5521 Wash. (410) 997-0298 Fax.



engineering	SJD				
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SEDIMENT CONTROL PLAN

600' SCALE MAP NO. 46 BLOCK NO. 15

KIM PROPERTY
 LOTS 1 & 2
 CONTRACT NO. 24-4076-D
 TAX MAP 46 PARCEL 71
 SIXTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

scale
1" = 50'
3 of 4

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