

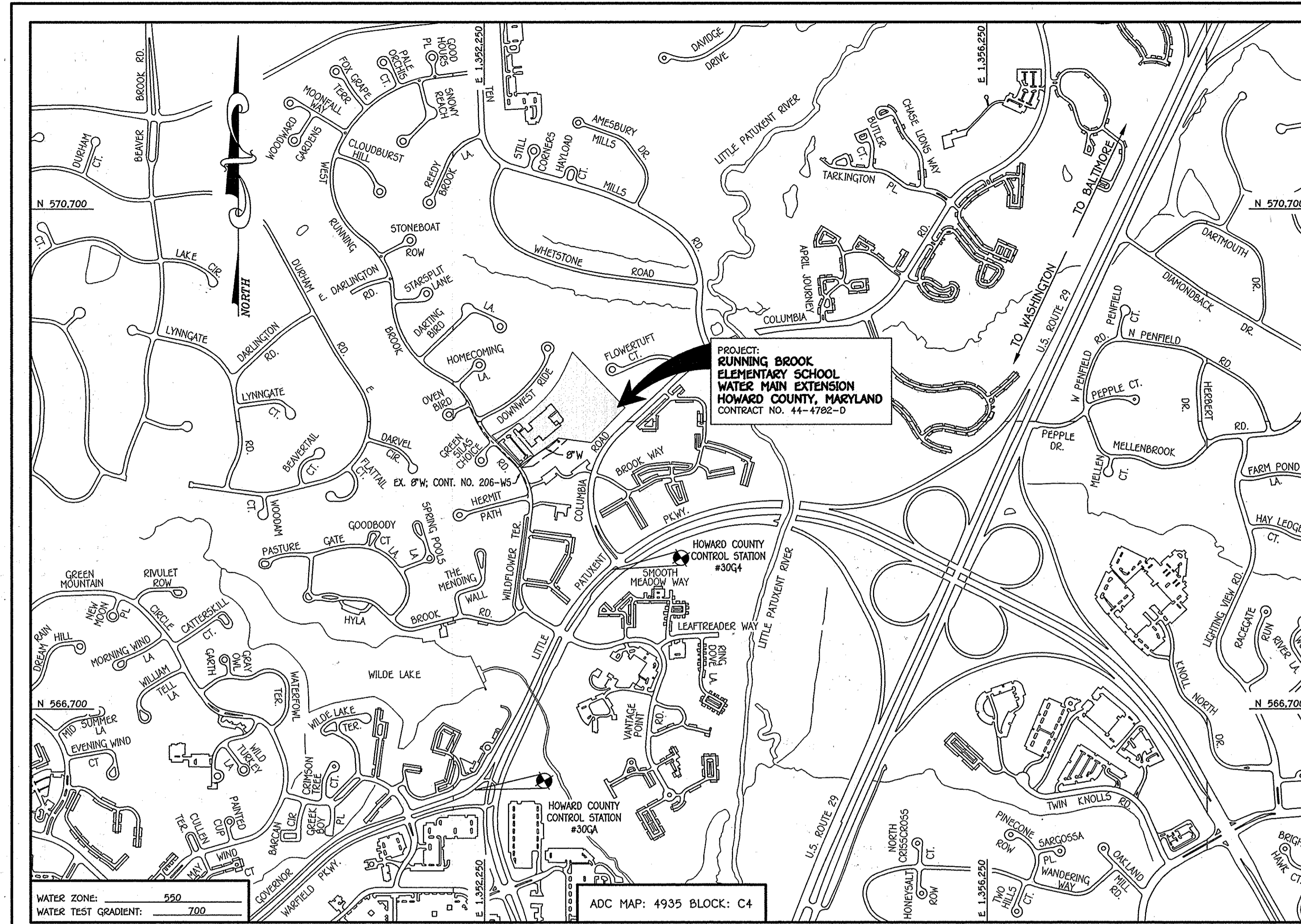
QUANTITIES				
ITEM	ESTIMATED	QUANTITIES	AS-BUILT	SUPPLIER
8" W C900 PVC, DR-18	415 L.F.	414	PVC C-900	NORTH AMERICAN PIPE
6" W	17 L.F.	15	PVC C-900	NORTH AMERICAN PIPE
2" W	14 L.F.	14	COPPER	MUELLER INDUSTRIES
8" XPT TAPPING SLEEVE	1 EACH	1		SMITH BLAIR
8" TAPPING VALVE	1 EACH	1		MUELLER CO.
6" VALVE	1 EACH	1		MUELLER CO.
8" X 6" TEE	1 EACH	1		TYLER/UNION FOUNDRY
8" PLUG & BUTTRESS	1 EACH	1		TYLER/UNION FOUNDRY
3" DEFLECTION COUPLING	1 EACH	1		NORTH AMERICAN PROMETS
1/32 H.B.	2 EACH	2		TYLER/UNION FOUNDRY
FIRE HYDRANT	1 EACH	1		MUELLER CO.
CONTINUITY TEST STATION	1 EACH	1		CONCRETE PIPE & PRECAST
1-1/2" OUTSIDE METER SETTING	1 EACH	1		CONCRETE PIPE & PRECAST
				AY McDONALD

NAME OF UTILITY CONTRACTOR: CERTIFIED MAINTENANCE CO.  
SURVEY & DRAFTING DIVISION AS-BUILT DATE:

**BENCHMARK INFORMATION**

B.M.#1 - HOWARD COUNTY CONTROL STATION #30QA - HORIZONTAL - NAD '83  
N 966,053.5979  
E 1,352,177.5307  
ELEVATION = 339.876 - VERTICAL - (NAVD '86)

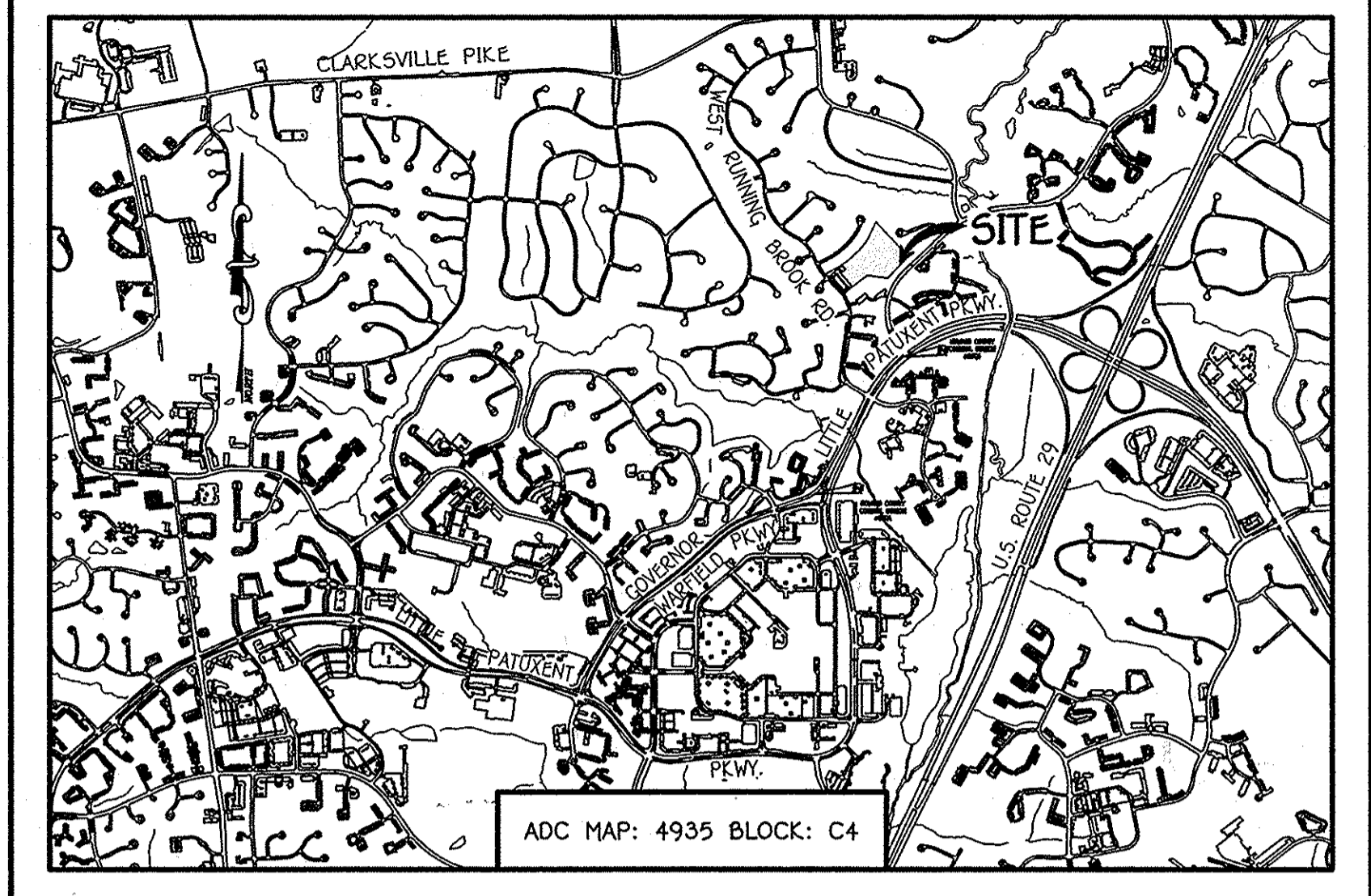
B.M.#2 - HOWARD COUNTY CONTROL STATION #30Q4 - HORIZONTAL - (NAD '83)  
N 967,819.2390  
E 1,353,271.231  
ELEVATION = 360.247 - VERTICAL - (NAVD '86)



TYPE OF BUILDING: EXISTING ELEMENTARY SCHOOL	NUMBER OF PARCELS: 1
NO. OF WATER HOUSE CONNECTIONS: N/A	NO. OF SEWER HOUSE CONNECTIONS: N/A
SEWER SHED: LITTLE PATUXENT	TREATMENT PLANT: LITTLE PATUXENT WATER RECLAMATION PLANT SAVAGE, MARYLAND

**LOCATION MAP**  
SCALE: 1" = 600'

PLAN REFERENCE NUMBERS:  
SDP-08-98c, SDP-70-03  
SDP-08-01c



**VICINITY MAP**  
SCALE: 1" = 2000'

**GENERAL NOTES**

- PART A
- APPROXIMATE LOCATIONS 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.
  - TOPOGRAPHIC FIELD SURVEYS WERE PERFORMED ON OR ABOUT DECEMBER, 2012 BY FISHER, COLLINS & CARTER, INC.
  - HORIZONTAL AND VERTICAL SURVEY CONTROLS
  - THE COORDINATES SHOWN ON THE DRAWINGS ARE BASED ON MARYLAND STATE REFERENCE SYSTEM NAD '83/91' AS PROJECTED BY HOWARD COUNTY GEODETIC CONTROL STATIONS NO. 30QA & NO. 30Q4.
  - ALL VERTICAL CONTROLS ARE BASED ON NAVD '86. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS.
  - ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
  - CLEAR ALL UTILITIES BY A MINIMUM OF 12 INCHES. CLEAR ALL POLES BY 5' OF 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 BRACING OF ADDITIONAL POLES, ANY COST INCURRED BY THE OWNER FOR THE BRACING OF THE 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 DETAILS FOR CONSTRUCTION (LATEST EDITION). THE CONTRACTOR SHALL HAVE A COPY OF VOLUME IV ON THE JOB SITE.
  - 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.
  - THE 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
BGE (CONTRACTOR SERVICES)	410-637-8713
BGE (EMERGENCY)	410-695-0123
BUREAU OF UTILITIES	410-313-4900
COLONIAL PIPELINE CO.	410-795-1390
MISS UTILITY	1-800-257-7777
STATE HIGHWAY ADMINISTRATION	410-531-9533
VERIZON	1-800-743-0033 / 410-224-9210
  - 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 THE LINE OF EXCAVATION. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE 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 DWP REQUIREMENTS PER SECTION 18.114(a) OF THE HOWARD COUNTY CODE.

- PART B: WATER MAIN GENERAL NOTES
- ALL WATER MAINS SHALL BE AWWA C900 PVC, DR-18.
  - TOPS OF ALL WATER MAINS SHALL HAVE A MINIMUM OF 3'-6" OF 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 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 1008 OF THE STANDARD SPECIFICATIONS.
  - THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
  - TRACER WIRE AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL D.I.P. AND PVC WATER MAINS IN ACCORDANCE WITH HOWARD COUNTY DESIGN MANUAL.
  - FOR PVC WATER MAINS, ALL RECORDS FOR THE QUALITY CONTROL AND QUALIFICATION TEST REQUIREMENTS NOTED IN SECTION 5.1 OF THE AWWA STANDARD C900 FOR PVC PRESSURE PIPE SHALL BE SUBMITTED WITH THE PIPE MATERIAL CERTIFICATIONS OR SHOP DRAWINGS PRIOR TO APPROVAL OF THE MATERIAL FOR USE. THE TEST RECORDS SHALL BE FOR THE PIPE TO BE INSTALLED UNDER THIS CONTRACT. ALL PVC PIPE SHALL CONTAIN MARKINGS TO ALLOW CROSS REFERENCING OF THE PIPE SUPPLIED TO THE TEST RECORDS RECEIVED.
  - UNLESS OTHERWISE NOTED ON THE PLANS OR IN THE SPECIFICATIONS, SEVENTEEN (17) FOUND SACRIFICIAL ANODES SHALL BE INSTALLED ON ALL VALVES AND METALLIC FITTINGS USED WITH PVC WATER MAINS IN ACCORDANCE WITH VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION. MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINTS AND HANGERSSES. ZINC ANODES SHALL BE INSTALLED ON ALL STAINLESS STEEL FITTINGS AND SADDLES USED WITH PVC MAINS. ALL "TEES" USED WITH PVC MAINS SHALL BE DUCTILE IRON.

**DEVELOPER'S CERTIFICATION**

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

Paul W. Koedel, FOR:  
HOWARD COUNTY PUBLIC SCHOOL SYSTEM 02-07-13  
SIGNATURE OF DEVELOPER DATE

**ENGINEER'S CERTIFICATION**

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.

Paul W. Koedel, 02/07/13  
SIGNATURE OF ENGINEER DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 508 OF THE HOWARD COUNTY DESIGN MANUAL - VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION

Paul W. Koedel, FOR:  
HOWARD COUNTY PUBLIC SCHOOL SYSTEM 02-07-13  
SIGNATURE OF DEVELOPER DATE

SDP-08-016

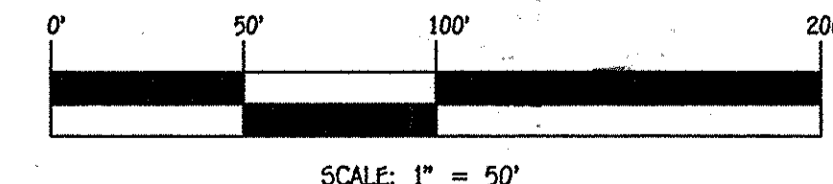
THIS DEVELOPMENT IS APPROVED FOR EROSION AND SEDIMENT CONTROL BY HOWARD SOIL CONSERVATION DISTRICT.

APPROVED:  
John P. Blanton, 2/25/13  
HOWARD SOIL CONSERVATION DISTRICT DATE

LEGEND	
SYMBOL	DESCRIPTION
---	EX. WATER MAIN
---	EX. SEWER MAIN
---	EX. WATER & SEWER EASEMENT
---	PROP. WATER MAIN
---	PROP. SEWER MAIN
---	PROP. WATER & SEWER EASEMENT
---	PROP. W.H.C.
---	PROP. S.H.C.

CONTRACT NO. 44-4782-D  
**RUNNING BROOK  
ELEMENTARY SCHOOL**  
WATER MAIN EXTENSION  
HOWARD COUNTY, MARYLAND

**DEVELOPER**  
HOWARD COUNTY PUBLIC SCHOOL SYSTEM  
10910 MARYLAND ROUTE 108  
ELLICOTT CITY, MD 21042



CONTRACT NO. 44-4782-D  
RUNNING BROOK ELEMENTARY SCHOOL  
WILDLAKE VILLAGE OF WILDE LAKE  
WATER MAIN EXTENSION  
HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND  
Steve C. Green, 2/15/13  
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND  
[Signature], 3/4/13  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE M.G.

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 12043 EXPIRATION DATE IS 7/16/14.  
**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PARK  
1812071 CITY, MARYLAND 21042  
410 461 - 2295



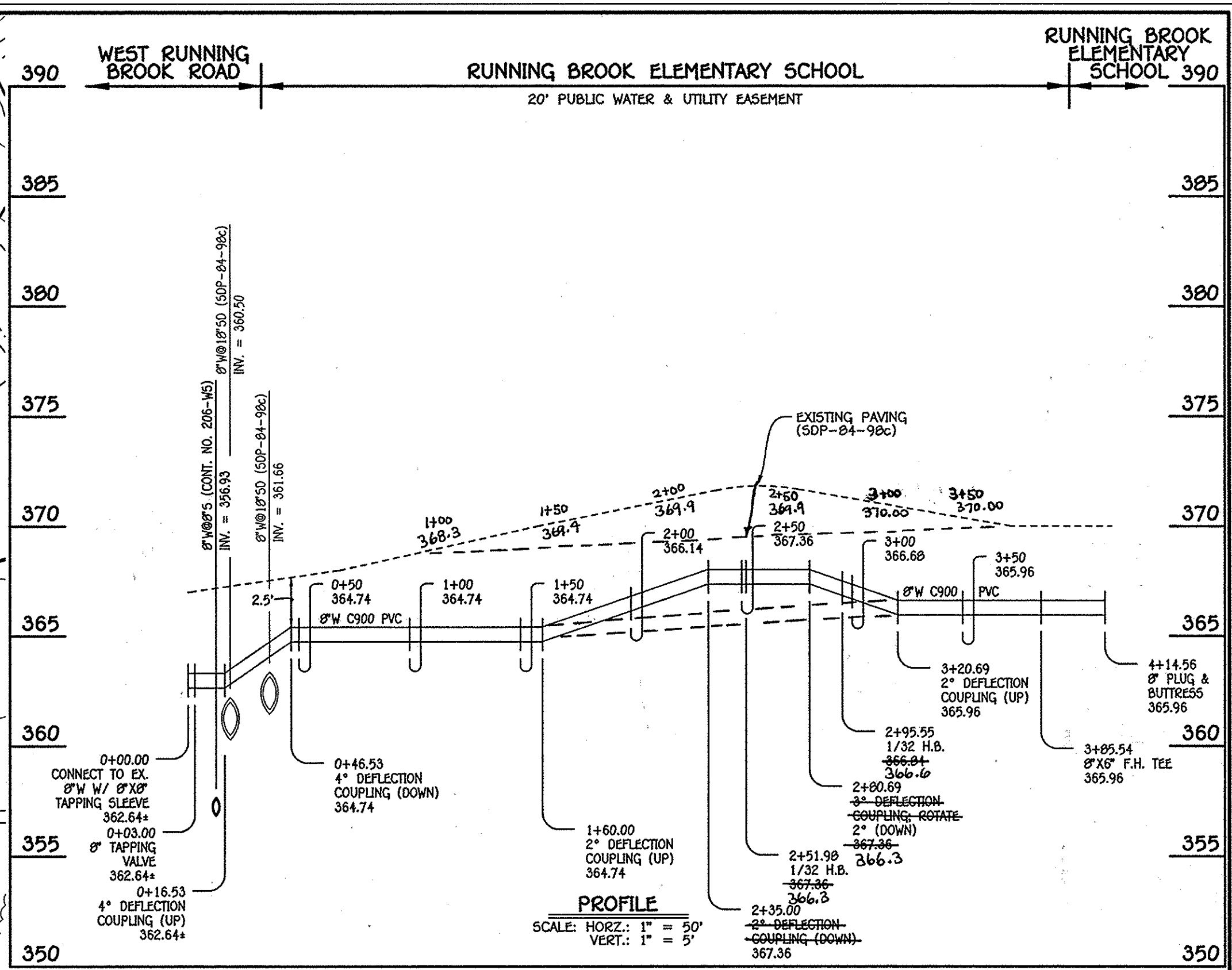
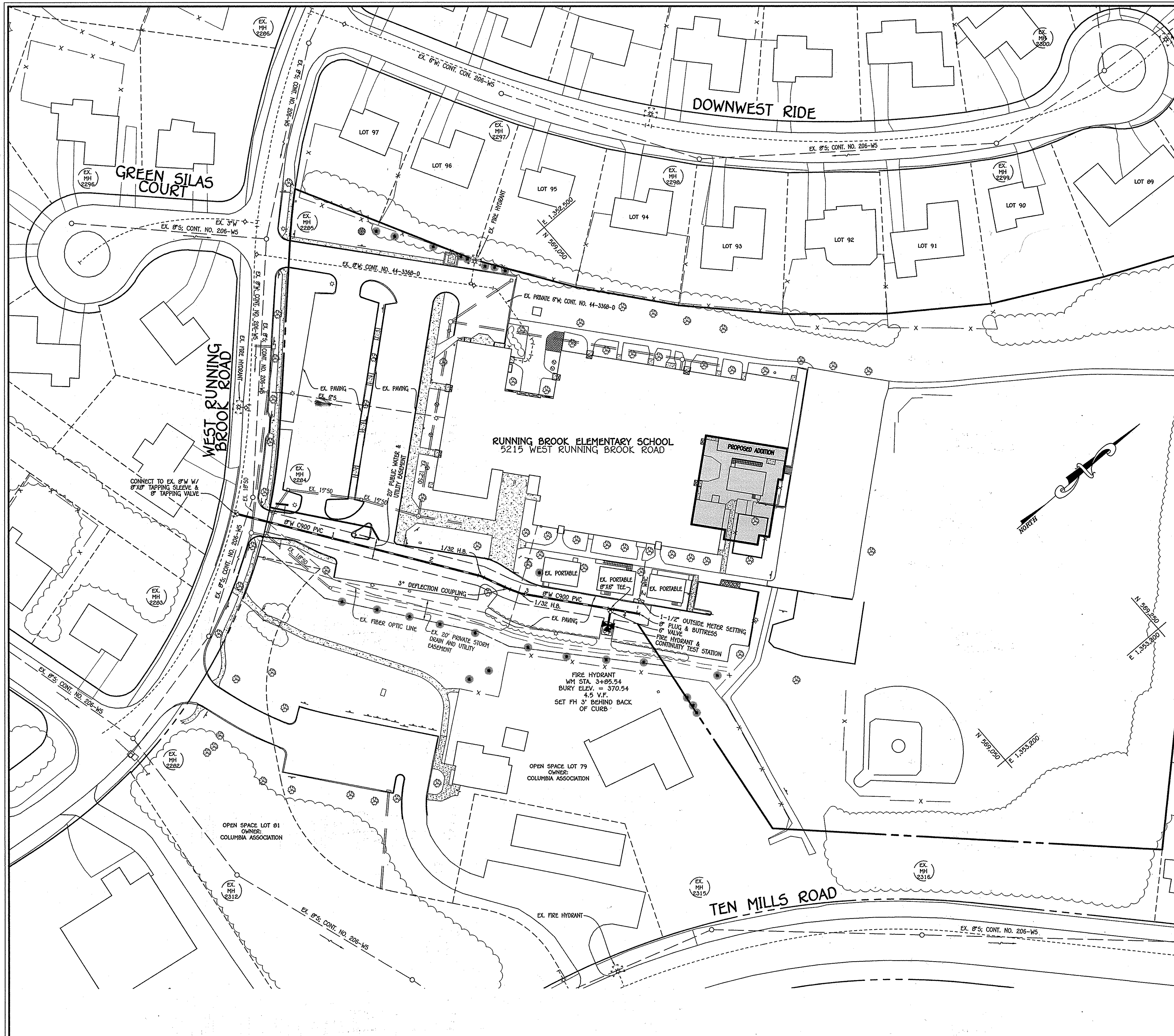
DESIGNED BY:	B.C.R.				
DRAWN BY:	B.C.R.				
CHECKED BY:	P.W.K.				
DATE:	FEBRUARY, 2013	BY	NO.	REVISION	DATE

**WATER MAIN EXTENSION  
TITLE SHEET**

600' SCALE MAP NO. 30 BLOCK NO. 14  
F.C.C. WORK ORDER NO. 06002  
FILE NAME: WATER MAIN EXTENSION PLAN

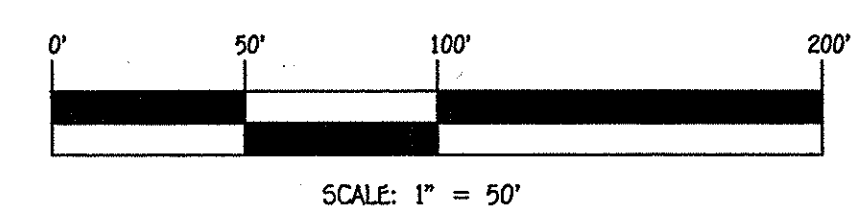
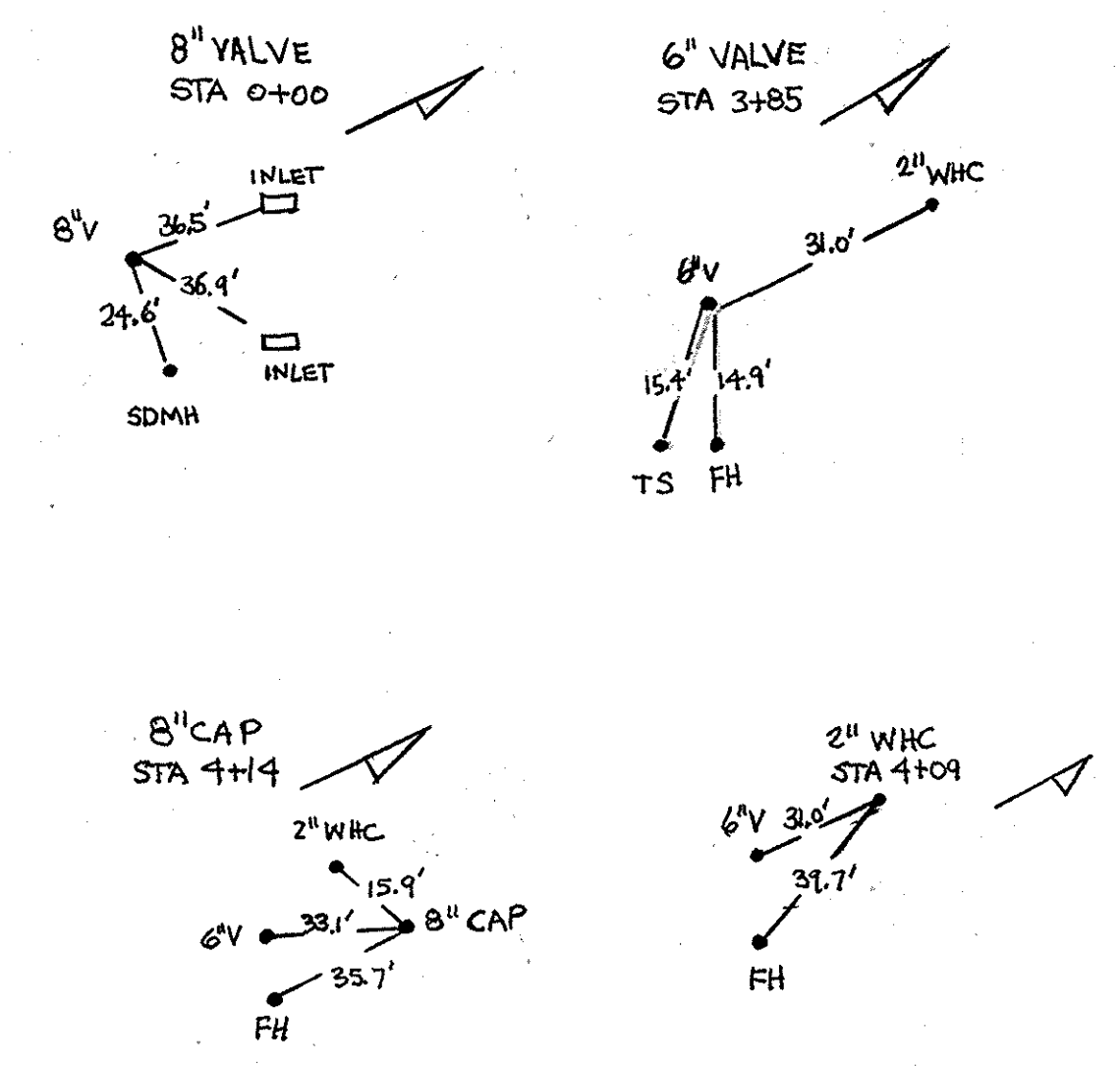
**RUNNING BROOK ELEMENTARY SCHOOL**  
COLUMBIA; VILLAGE OF WILDE LAKE  
WATER MAIN EXTENSION  
CONTRACT NO. 44-4782-D  
FIRST ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 1 OF 2



**8" WATER MAIN & FIRE HYDRANT**

WATER MAIN TABULATION CHART			
W.M. STA.	APPURTENANCE	NORTHING	EASTING
8" WATER MAIN & FIRE HYDRANT			
0+00.00	8" X 8" TAPPING SLEEVE	568631.84	1352515.57
0+03.00	8" TAPPING VALVE	568633.56	1352518.03
2+51.98	1/32" H.B.	568776.09	1352722.17
2+80.69	3" DEFLECTION COUPLING	568787.76	1352748.40
2+95.55	1/32" H.B.	568794.87	1352761.45
3+85.54	8" X 6" F.H. TEE	568822.04	1352830.96
4+14.56	8" PLUG & BUTTRESS	568870.46	1352853.55



CONTRACT NO. 44-4782-D  
 RUNNING BROOK ELEMENTARY SCHOOL  
 WOODLARK VILLAGE OF WILDE LAKE  
 WATER MAIN EXTENSION  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND

*Sida C. Bean* 2/13/13  
 CHIEF, BUREAU OF UTILITIES DATE

*Paul W. Kriebel* 2/14/13  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 12043 EXPIRATION DATE IS 7/16/14.

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
 SUITE 201 CITY, MARYLAND 21042  
 (410) 461-2295

PAUL W. KRIEBEL

#12043

DESIGNED BY: B.C.R.

DRAWN BY: B.C.R.

CHECKED BY: P.W.K.

DATE: FEBRUARY, 2013

BY NO. REVISION DATE

**WATER MAIN EXTENSION  
 PLAN, PROFILE & CHART**

600' SCALE MAP NO. 30 BLOCK NO. 14

F.C.C. WORK ORDER NO. 06002

FILE NAME: WATER MAIN EXTENSION PLAN

**RUNNING BROOK ELEMENTARY SCHOOL**  
 COLUMBIA; VILLAGE OF WILDE LAKE  
 WATER MAIN EXTENSION  
 CONTRACT NO. 44-4782-D  
 FIRST ELECTION DISTRICT  
 HOWARD COUNTY, MARYLAND

SCALE AS SHOWN

SHEET 2 OF 2

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