

# MARYLAND WHOLESAL FOOD CENTER

## FINAL WATER CONSTRUCTION PLAN

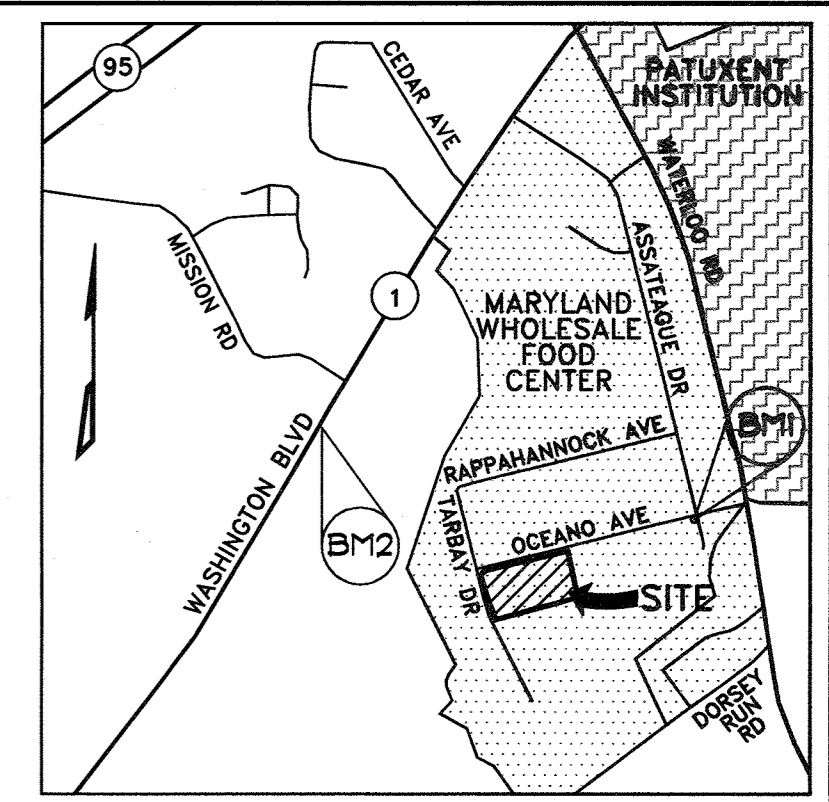
PARCEL C  
 CONTRACT NUMBER 44-5035-D  
 6TH ELECTION DISTRICT HOWARD COUNTY, MD

### BENCHMARK

BENCHMARK #1  
 N. 543166.795  
 E. 1974425.118  
 B.M. 49HB - CONC. MON.  
 ELEV. 76.6987

BENCHMARK #2  
 N. 544117.488  
 E. 1972956.920  
 B.M. 495C - CONC. MON.  
 ELEV. 66.874

ADC MAP COORDINATES  
 MAP 41 D1  
 N 39°09'21", E 76°47'13"



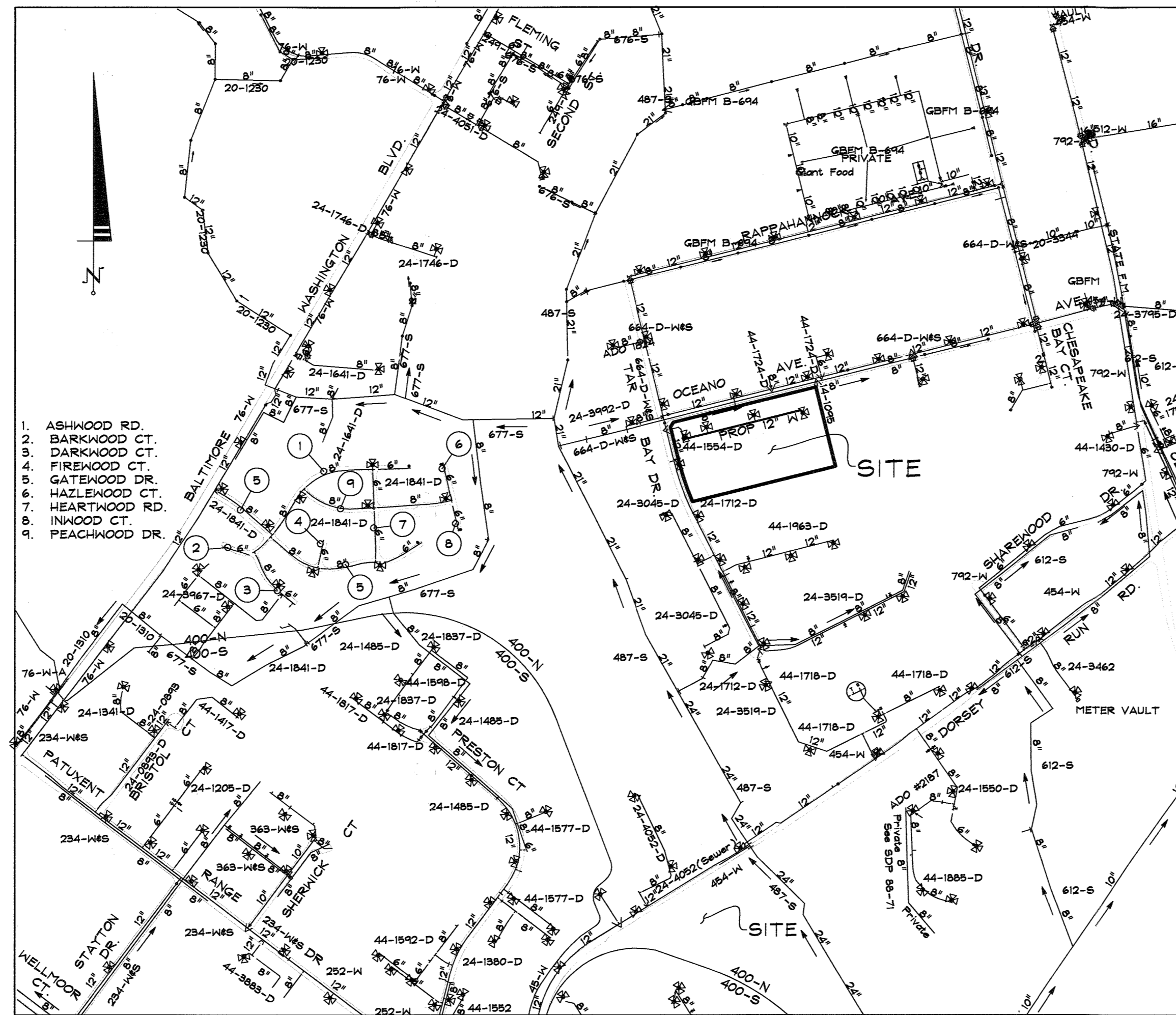
VICINITY MAP  
 SCALE: 1"=2000'

### GENERAL NOTES

- 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 OCTOBER, 2016 BY DEVELOPMENT DESIGN CONSULTANTS, INC.
- 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. 49HB NO. 49G6.
- ALL VERTICAL CONTROLS ARE BASED ON NAVD '88. VERTICAL CONTROLS PROVIDED ON THE DRAWINGS ARE BASED ON HOWARD COUNTY CONTROL STATION CONCRETE MONUMENTS.
- 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'-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 THE 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 DRAWING, 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.
- WHERE TEST PITS HAVE BEEN MADE ON EXISTING UTILITIES, THEY ARE NOTED BY THE SYMBOL (X) 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 ..... 1-800-292-1193
  - BGE (CONTRACTOR SERVICES) ..... 410-637-8718
  - BGE (EMERGENCY) ..... 410-685-0123
  - BUREAU OF UTILITIES ..... 410-313-4900
  - COLONIAL PIPELINE CO ..... 410-795-1990
  - MISB UTILITY SERVICE ..... 1-800-257-7777
  - STATE HIGHWAY ADMINISTRATION ..... 410-531-5533
  - VERIZON ..... 1-800-743-0033
- 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.
- THE 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 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 COUNTRY/SEWER MAINS OR HOUSE CONNECTIONS. THE APPROVAL OF THESE DRAWINGS WILL CONSTITUTE COMPLIANCE WITH DPW REQUIREMENTS PER SECTION 18.11(A) OF THE HOWARD COUNTY CODE.

### WATER NOTES

- ALL WATER MAINS SHALL BE D.I.P. CLASS 54 UNLESS OTHERWISE NOTED.
- 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 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING WATER SYSTEM.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR INSIDE METER SETTING UNLESS OTHERWISE NOTED ON PLANS OR IN SPECIFICATIONS.
- FOR SPRINKLER SYSTEM FRR A<sub>2</sub>; TOWN HOMES OR MULTI-FAMILY DWELLING UNITS SHOULD HAVE A MINIMUM OF 1" CONNECTION WITH A 3/4" METER.
- TRACER WIRE AND CONTINUITY TEST STATIONS SHALL BE INSTALLED ON ALL DIP AND PVC WATER MAINS IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL.
- FOR PVC WATER MAINS, ALL RECORDS FOR QUALITY CONTROL AND QUALIFICATION TEST REQUIREMENTS NOTED IN SECTION 5.1 OF THE AWWA STANDARD C900 FOR PVC PRESSURE PIPES SHALL BE SUBMITTED WITH THE PIPE MATERIAL CERTIFICATIONS OR SHOP DRAWINGS PRIOR TO APPROVAL OF THE MATERIAL FOR USE. 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, 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. 17 POUND MAGNESIUM ANODES SHALL BE INSTALLED ON ALL VALVES AND DUCTILE IRON FITTINGS INCLUDING RESTRAINTS AND HARNESSSES. 12 POUND 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.
- PROPER ASSEMBLY OF GASKETED PVC JOINTS: THE MANUFACTURER'S INSERTION LINE OF GASKETED PVC PIPE JOINTS INDICATES THE MAXIMUM DEPTH OF INSERTION OF THE SPIGOT INTO THE BELL. AFTER ASSEMBLY OF THE JOINT, THE INSERTION LINE SHALL REMAIN VISIBLE. DUAL INSERTION LINES ON GASKETED PVC PIPE INDICATE THE MAXIMUM AND MINIMUM DEPTH OF THE INSERTION OF THE SPIGOT INTO THE BELL. THE CONTRACTOR SHALL NOT OVER INSERT OR OVER HOME THE SPIGOT INTO THE BELL ON THE PVC PIPE.
- ALL CHANGES IN HORIZONTAL OR VERTICAL DIRECTION OF PVC WATER PIPE SHALL BE MADE WITH STANDARD BENDS, 5-DEGREE SWEEPS OR HIGH DEFLECTION (HD) COUPLINGS. NO BENDING OF THE PIPE OR DEFLECTING OF PVC JOINTS IS PERMITTED WHERE HIGH DEFLECTION COUPLINGS OR 5-DEGREE SWEEPS ARE PERMITTED. THE CONTRACTOR SHALL PROVIDE ONE FULL PIPE LENGTH (20-FOOT LONG) ON EITHER SIDE OF THE HIGH DEFLECTION COUPLING OR 5-DEGREE SWEEP. THE CONTRACTOR SHALL USE A VIBRATORY PLATE COMPACTOR OR OTHER APPROVED MEANS TO THOROUGHLY COMPACT THE #57 STONE ON BOTH SIDES OF THE HIGH DEFLECTION COUPLING OR 5-DEGREE SWEEP, TAKING CARE NOT TO USE COMPACTION EQUIPMENT DIRECTLY OVER THE FITTING. PVC HIGH DEFLECTION COUPLINGS SHALL BE LIMITED TO A TOTAL DEFLECTION OF 1/2" DEFLECTION COUPLINGS (1/2" ON EITHER END OF THE COUPLING). SHALL BE RATED FOR A MINIMUM 200 PSI MEETING THE REQUIREMENTS OF AWWA C900, SHALL HAVE A MINIMUM LAY LENGTH OF 9-INCHES AND SHALL HAVE VENTER STOPS. PVC HIGH DEFLECTION COUPLINGS SHALL BE CERTAINTED PVC HIGH DEFLECTION (HD) STOP COUPLINGS OR EQUAL. FIVE DEGREE SWEEPS SHALL BE BELL BY SPIGOT, RATED FOR A MINIMUM 225 PSI, DR 18 MEETING THE REQUIREMENTS OF AWWA C900 AND SHALL BE MULTI FITTINGS (IRX) BLUE BRUTE DRIS OR EQUAL.
- WHEN PVC HIGH DEFLECTION COUPLINGS OR PVC 5-DEGREE SWEEPS ARE USED TO FACILITATE CHANGES IN HORIZONTAL OR VERTICAL ALIGNMENTS OF AWWA C-900 PVC PIPELINES, THE CONTRACTOR SHALL INSTALL DEVICES FOR THE PREVENTION OF OVER-INSERTION OF THE PVC PIPE SPIGOTS OR PLAIN ENDS INTO THE PUSH ON BELL JOINT ON BOTH SIDES OF THE HIGH DEFLECTION COUPLINGS AND 5-DEGREE SWEEPS. BELL STOPS SHALL BE PLACED AT THE PROPER INSERTION LINE FOR THE FITTING. THE BELL STOP SHALL BE MANUFACTURED OF DUCTILE IRON AND INCORPORATES AN EXPANSION RETENTION SPRING TO ALLOW FOR PIPE EXPANSION AND CONTRACTION. THE BELL STOPS SHALL BE SERIES 8000 MEGA-STOP, AS MANUFACTURED BY EBAA IRON, INC. OR APPROVED EQUAL.



- ASHWOOD RD.
- BARKWOOD CT.
- DARKWOOD CT.
- FIREWOOD CT.
- GATEWOOD DR.
- HAZLEWOOD CT.
- HEARTHWOOD RD.
- INWOOD CT.
- PEACHWOOD DR.

LOCATION MAP  
 SCALE: 1" = 600'

TYPE OF BUILDING: INDUSTRIAL/WAREHOUSE 2  
 NUMBER OF WHC: 2  
 NUMBER OF SHC: 1  
 DRAINAGE AREA: DORSEY  
 TREATMENT PLANT: LITTLE PATUXENT  
 WATER ZONE: 400  
 TEST GRADIENT: 550  
 PROPERTY AREA: 10.57 AC.

### DRAWING LEGEND

- BOUNDARY LINE
- EXISTING PROPERTY BOUNDARY
- EX. ROAD / EDGE OF PAVING
- EX. SEWER LINE & MANHOLES, CLEAN-OUTS
- EX. OVERHEAD ELECTRIC & UTILITY POLES
- PROP. CURB & GUTTER
- PROPOSED ROAD CENTERLINE
- PROP. 12" WATER
- PROPOSED WATER LINE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 219 OF THE SPECIFICATIONS AND AS SHOWN ON SDP-17-24.

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

*J. H. Blanton* 9/14/18  
 HOWARD SOIL CONSERVATION DISTRICT DATE

BY THE DEVELOPER:  
 I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL 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.

*W. Richard Demario* 3/6/18  
 DEVELOPER DATE

ENGINEER  
 I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION 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.

*W. Richard Demario* 3/6/18  
 ENGINEER DATE

### AS-BUILT

OWNER  
 ICON 7951 OCEANO POOL 2, LLC  
 2 NORTH RIVERSIDE PLAZA  
 SUITE 2350  
 CHICAGO, IL 60606  
 (312) 940-5285

DEVELOPER  
 MRP INDUSTRIAL  
 509 S. EXETER STREET  
 SUITE 216  
 BALTIMORE, MD 21202  
 (410) 685-0000

ITEMS	QUANTITIES ESTIMATED	QUANTITIES		SUPPLIER
		QUANTITIES	AS-BUILT	
12" WATER MAIN (DIP)	762	762 LE	CL 54 DIP	US PIPE BRS
6" WATER MAIN (DIP)	81	80 L.F.	CL 54 DIP	US PIPE BRS
12"x12" TEE	1	1 EA.	M.J	STAR PIPE BRS
12"x6" TEE	3	3 EA.	HYDRANT TEE	STAR PIPE BRS
1/8" HORIZ. BEND	2	2 EA.	M.J	STAR PIPE BRS
1/8" VERT. BEND	1	1 EA.	M.J	STAR PIPE BRS
FIRE HYDRANT	3	3 EA.		MUELLER BRS
8" MHC	1			
2" MHC	1			
6" SHC	1			
6" VALVE FH		9 EA.	M.J GATE	MUELLER BRS
8" VALVE		1 EA.	M.J GATE	MUELLER BRS
12" CAP		2 EA.	M.J	STAR PIPE BRS

DEPARTMENT OF PUBLIC WORKS  
 HOWARD COUNTY, MARYLAND

*Richard Bluff* 3-23-18  
 CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING AND ZONING  
 HOWARD COUNTY, MARYLAND

*Charles Clark* 4-19-18  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

Development Design Consultants  
 Planners Surveyors Engineers Landscape Architects

192 East Main Street  
 Westminster, MD 21157

410.386.0560  
 410.386.0564 (Fax)

DDC@DDCinc.us  
 www.DDCinc.us

*W. Richard Demario*  
 PROFESSIONAL ENGINEER #21958

DES. BY: BKC  
 DRN. BY: LJC  
 CHK. BY: WRD  
 DATE: 1/08/18

NO.	REVISIONS	DRN.	DATE

FINAL WATER PLANS

600 SCALE MAP NO.: 43 BLOCK NO.: 21

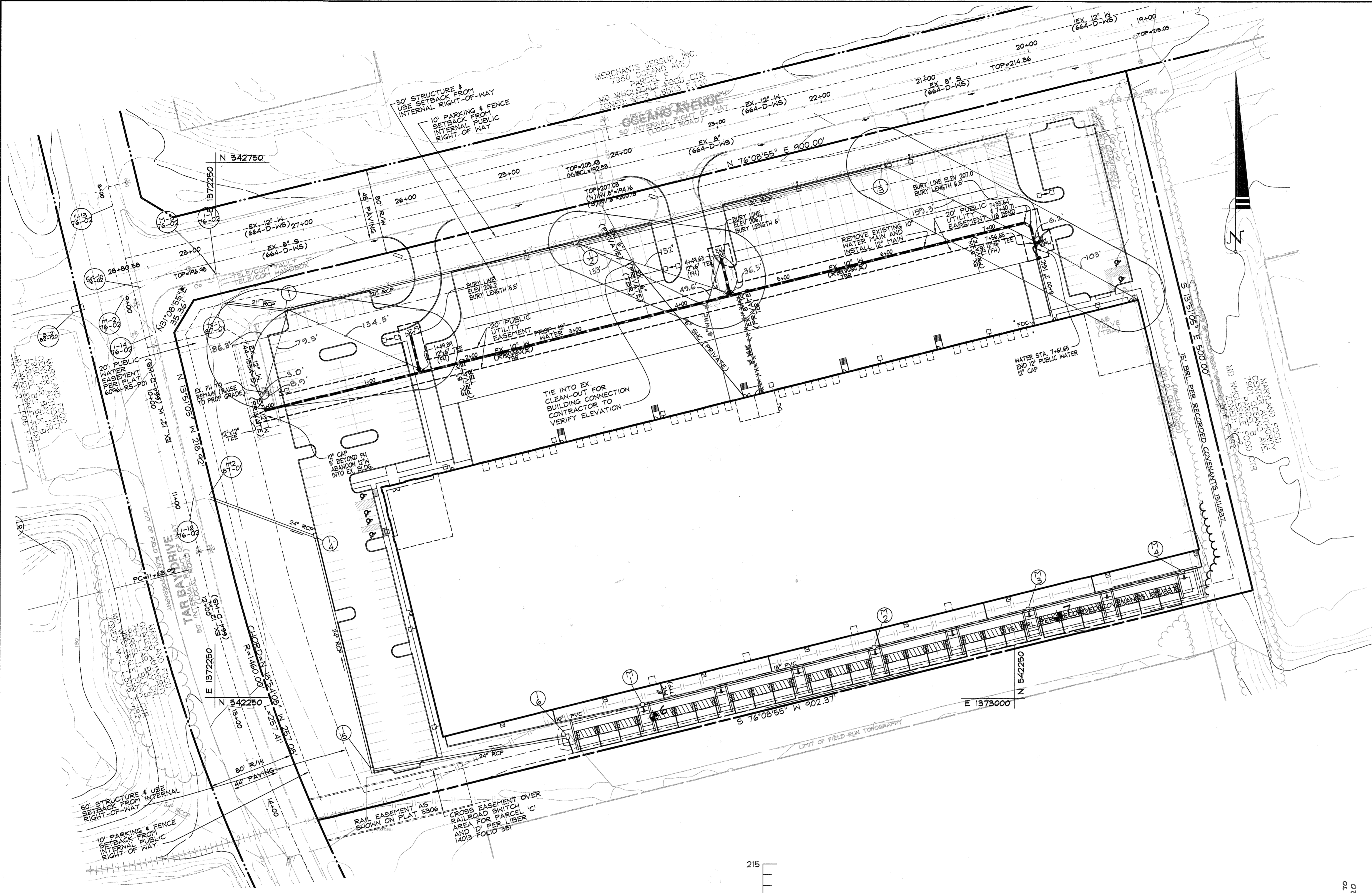
FINAL WATER CONSTRUCTION PLANS  
 MARYLAND WHOLESAL FOOD CENTER  
 PARCEL 'C'

6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 CONTRACT NO. 44-5035-D

SCALE:  
 AS SHOWN

SHEET  
 1 OF 2





**DRAWING LEGEND**

	BOUNDARY LINE
	EXISTING PROPERTY BOUNDARY
	EX. ROAD / EDGE OF PAVING
	EX. SEWER LINE & MANHOLES, CLEAN-OUTS
	EX. OVERHEAD ELECTRIC & UTILITY POLES
	PROP. CURB & GUTTER
	PROPOSED ROAD CENTERLINE
	PROPOSED 12" WATER

CENTERLINE OF 12" WATER MAIN  
COORDINATE TABLE

0+00	N 54258.3521	E 1372296.0690
1+49.89	N 542584.3559	E 1372441.5702
4+49.63	N 542626.3549	E 1372752.5350
7+33.64	N 542694.3749	E 1373008.2935
7+40.71	N 542690.9222	E 1373014.2881
7+56.65	N 542675.4501	E 1373018.1167
7+61.65	N 542670.5965	E 1373019.3177

**AS-BUILT**  
DATE: 9/3/19

**WATER HOUSE CONNECTION AS-BUILT LOCATION TABLE**

LOT #	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
PARCEL C	7981 OCEANO AVE.		

**SEWER HOUSE CONNECTION AS-BUILT LOCATION TABLE**

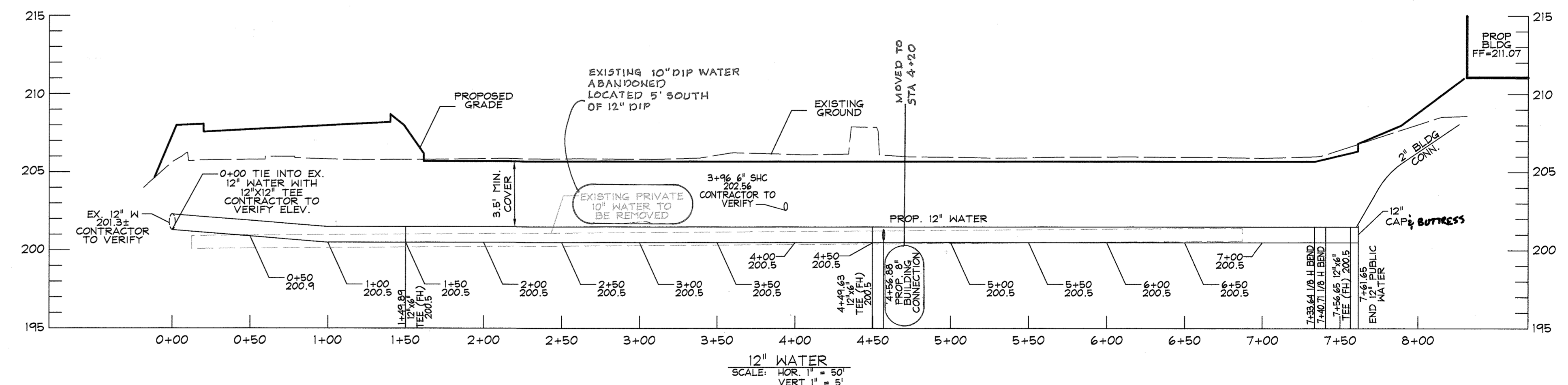
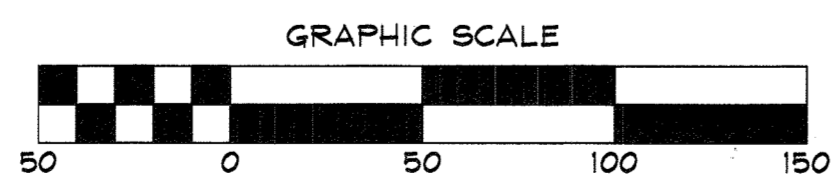
LOT #	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
PARCEL C	7981 OCEANO AVE.		

BY THE DEVELOPER:  
I/WE CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL, AND THAT ALL 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.

DEVELOPER: *[Signature]* DATE: 1/30/18

ENGINEER:  
I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION 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.

ENGINEER: *[Signature]* DATE: 3/6/18



DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF UTILITIES: *[Signature]* DATE: 3-23-18

DEPARTMENT OF PLANNING AND ZONING  
HOWARD COUNTY, MARYLAND

CHIEF, DEVELOPMENT ENGINEERING DIVISION: *[Signature]* DATE: 4-17-18

Development Design Consultants  
Planners Surveyors Engineers Landscape Architects

192 East Main Street  
Westminster, MD 21157

410.384.0560  
410.384.0564 (Fax)

DDC@DDCinc.us  
www.DDCinc.us

Professional Certification:  
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. 21998, Expiration Date: 6-05-18

W. RICHARD DEMARCO  
PROFESSIONAL ENGINEER #21998

DES. BY:	BKC
DRN. BY:	LUC
CHK. BY:	WRD
DATE:	1/08/18
NO.	
REVISIONS	
DRN. DATE	

**FINAL WATER PLAN & PROFILE**

600 SCALE MAP NO.: 43 BLOCK NO.: 21

**FINAL WATER CONSTRUCTION PLANS**  
MARYLAND WHOLESALE FOOD CENTER  
PARCEL 'C'

6th ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
CONTRACT NO. 44-5035-D

SCALE: 1" = 50'  
SHEET 2 OF 2