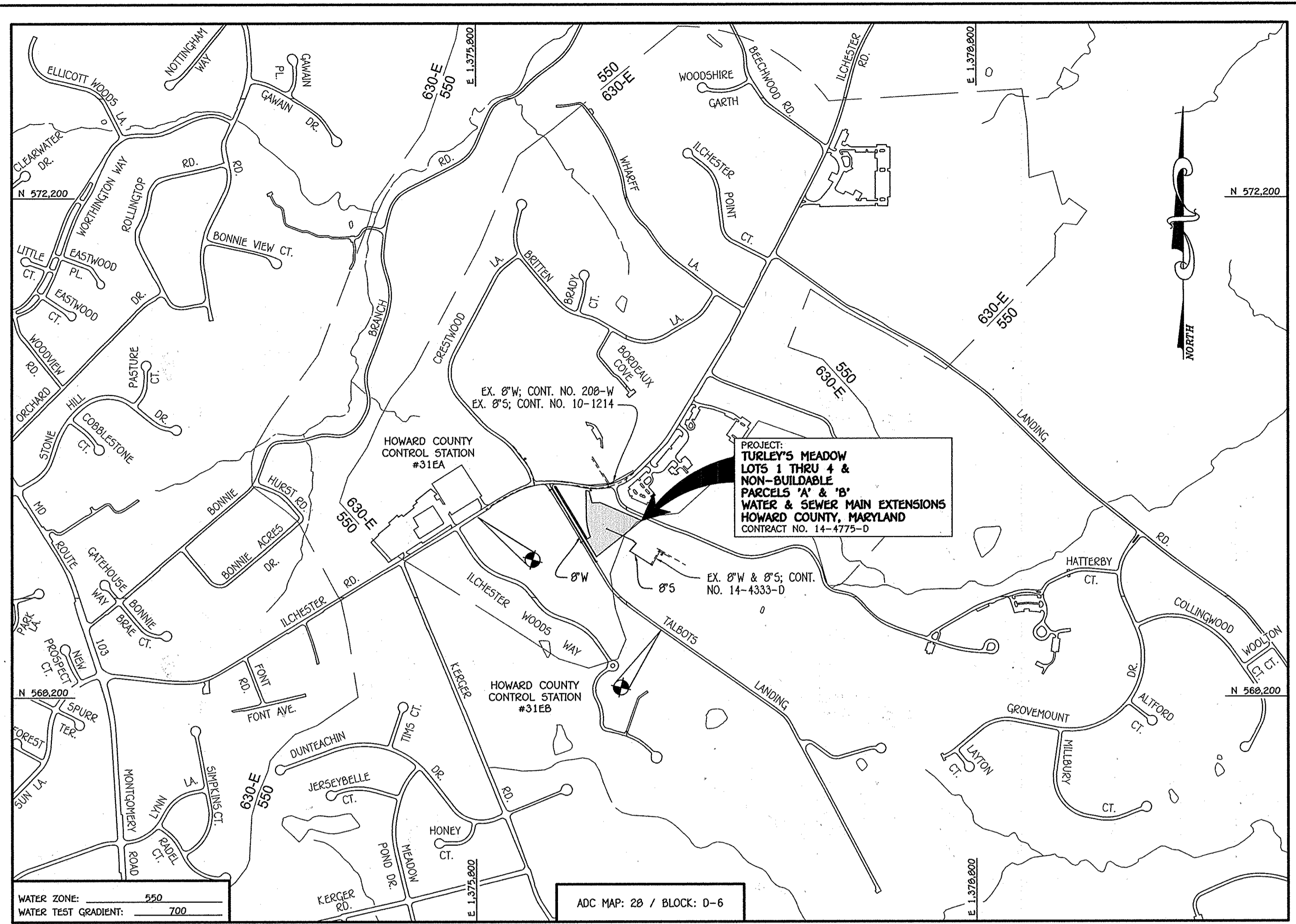


QUANTITIES				
ITEM	ESTIMATED	AS-BUILT		
		QUANTITIES	TYPE	SUPPLIER
Ø5	554 L.F.	528 L.F.	8" - SDR35	JM Eagle / BRS
4"5	202 L.F.	215 L.F.	4" - SDR35	JM Eagle / BRS
MANHOLE	6 EACH	6 each	STD. 4' MH	Contractors Precast
ØW, C900 PVC, DR-18	729 L.F.	730 L.F.	C900 PVC	JM Eagle / National
ØW, C900 PVC, DR-18	30 L.F.	40 L.F.	C900 PVC	JM Eagle / National
1-1/2" W/C	235 L.F.	315 L.F.	Copper	Cambridge Lee
2" DEFLECTION COUPLING	1 EACH	2 each	PVC	Pro Line
1/16 H.B.	1 EACH	1 each	Epoxy	Star Pipe
ØW TAPPING SLEEVE	1 EACH	1 each	Stainless Steel	Romac Industries
Ø"X6" F.H. TEE	2 EACH	2 each	Epoxy	Star Pipe
Ø" TAPPING VALVE	1 EACH	1 each	Epoxy	Mueller
Ø" VALVE	1 EACH	1 each	Epoxy	Mueller
6" VALVE	2 EACH	2 each	Epoxy	Mueller
FIRE HYDRANT	2 EACH	2 each	Epoxy	Mueller
CONTINUITY TEST STATION	2 EACH	2 each	Concrete	Horne Concrete
1" SINGLE OUTSIDE METER SETTING	7 EACH	1 each		Mueller

**BENCHMARK INFORMATION**

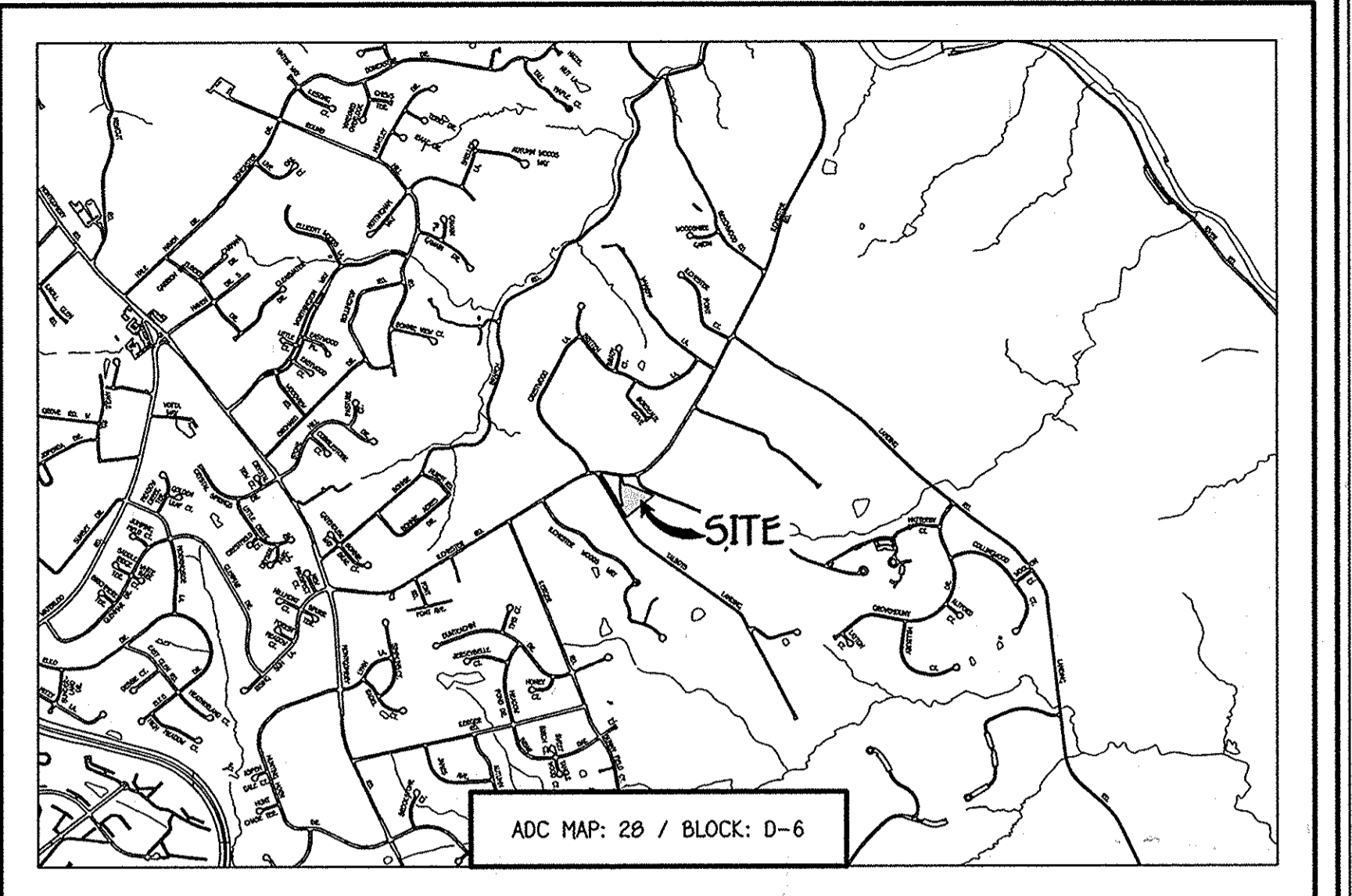
B.M.#1 - HOWARD COUNTY CONTROL STATION #31EA - HORIZONTAL - (NAD '83)  
 (LOCATED ALONG THE SOUTH SIDE OF ILCHESTER ROAD, APPROX. 2' BEHIND EDGE OF WALK,  
 20.7' NORTH OF WIRE FENCE ALONG TRANSMISSION LINE RIGHT-OF-WAY)  
 N 567,641.1675  
 E 1,374,916.0130  
 ELEVATION = 463.842 - VERTICAL - (NAVD '88)

B.M.#2 - HOWARD COUNTY CONTROL STATION #31EB - HORIZONTAL - (NAD '83)  
 (LOCATED ALONG THE SOUTH SIDE OF TALBOTS LANDING, APPROX. 19' FROM CENTERLINE OF ROAD &  
 APPROX. 196' WEST OF DRIVEWAY ENTRANCE #316D)  
 N 568,731.0273  
 E 1,376,273.5289  
 ELEVATION = 452.628 - VERTICAL - (NAVD '88)



PRIVATE WELL & SEPTIC SYSTEM CHART				
PARCEL NO.	ADDRESS	OWNER	ABANDON WELL	ABANDON SEPTIC
730	5005 ILCHESTER ROAD	ALFRED P. TURLEY	NA	YES

NOTE: WATER METERS WILL NOT BE RELEASED BY HOWARD COUNTY TO ANY NEW BUILDING UNTIL THE SEPTIC SYSTEM HAS BEEN ABANDONED IN ACCORDANCE WITH HOWARD COUNTY HEALTH DEPARTMENT REGULATIONS AND THE EXISTING DWELLING IS CONNECTED TO THE PUBLIC SEWER MAINS.



**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 MARCH, 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. 31EA & NO. 31EB. ALL VERTICAL CONTROLS ARE BASED ON NAVD '88 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'-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 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)	410-685-0123
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
- 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 1005 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) ROUND 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 HARNESSSES. 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.
  - TO ACCOMMODATE A SPRINKLER SYSTEM, ALL DWELLING UNITS SHALL HAVE A 1-1/2" CONNECTION WITH A 1" OUTSIDE METER SETTING, STD. DET. W-3.228.
- PART C: SEWER MAIN GENERAL NOTES
- ALL SEWER MAINS SHALL BE D.I.P. OR P.V.C. 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 18" WALLS ARE FOR BRICK MANHOLES ONLY.
  - MANHOLES DESIGNATED W.T. IN PLAN AND PROFILE SHALL HAVE WATER-TIGHT FRAME AND COVER, STANDARD DETAIL C5.52. WHERE WATER-TIGHT 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.

**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. Keidel*, FOR: **BURKARD HOMES, LLC.** 09-18-13  
 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. Keidel* 09/18/13  
 SIGNATURE OF ENGINEER DATE

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 308 OF THE HOWARD COUNTY DESIGN MANUAL - VOLUME IV, STANDARD SPECIFICATIONS AND DETAILS FOR CONSTRUCTION AND AS SHOWN ON F-13-084.

*Paul W. Keidel*, FOR: **BURKARD HOMES, L.L.C.** 09-18-13  
 SIGNATURE OF DEVELOPER DATE

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

APPROVED: *John R. Robertson* 10/9/13  
 HOWARD SOIL CONSERVATION DISTRICT DATE

SYMBOL	LEGEND	DESCRIPTION
---	EX. WATER MAIN	
---	EX. SEWER MAIN	
---	EX. WATER & SEWER EASEMENT	
---	PROP. WATER MAIN	
---	PROP. SEWER MAIN	
---	PROP. WATER & SEWER EASEMENT	
---	PROP. W/C	
---	PROP. SHC	

# CONTRACT NO. 14-4775-D

# TURLEY'S MEADOW

# LOTS 1 THRU 4 &

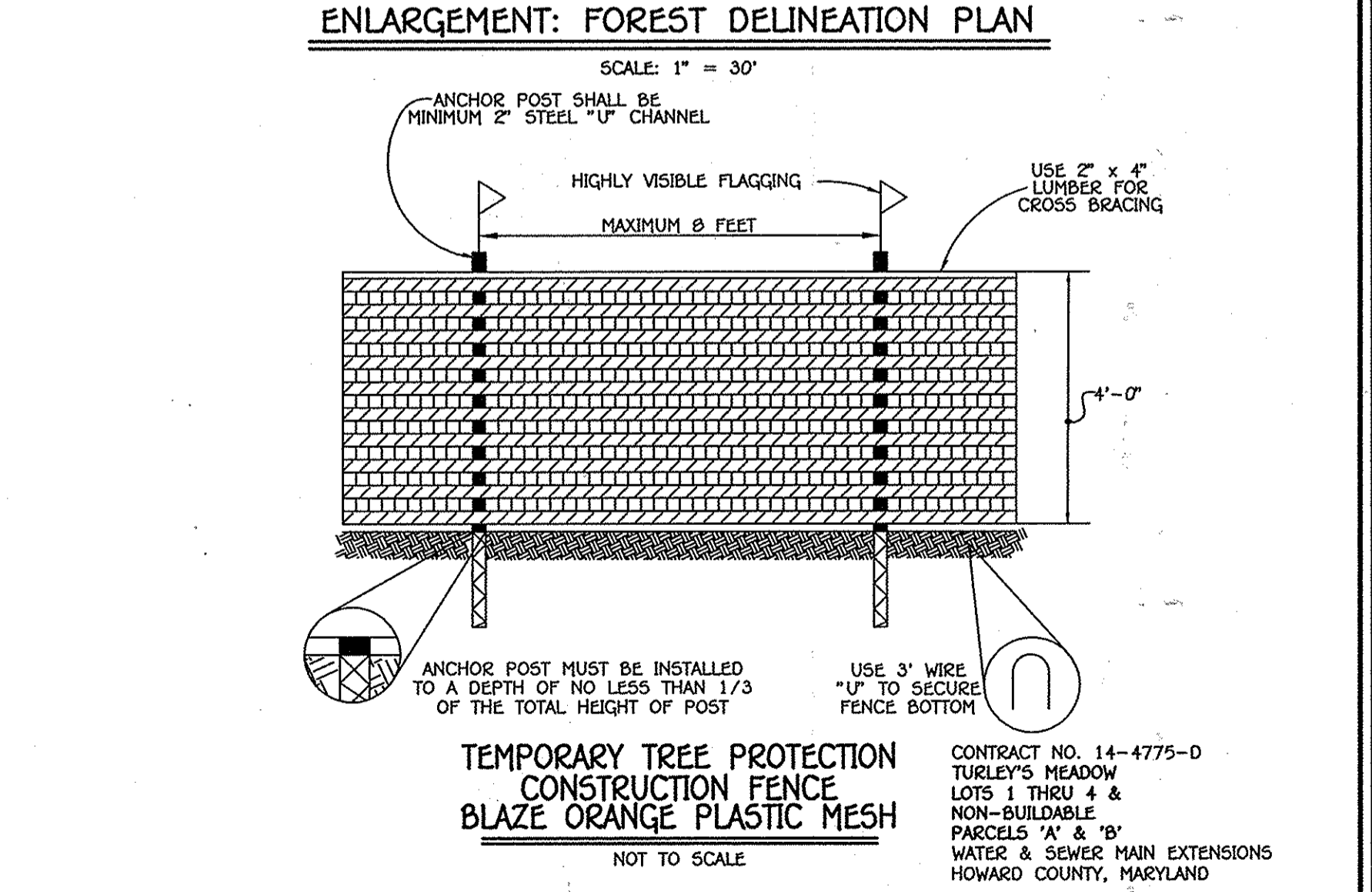
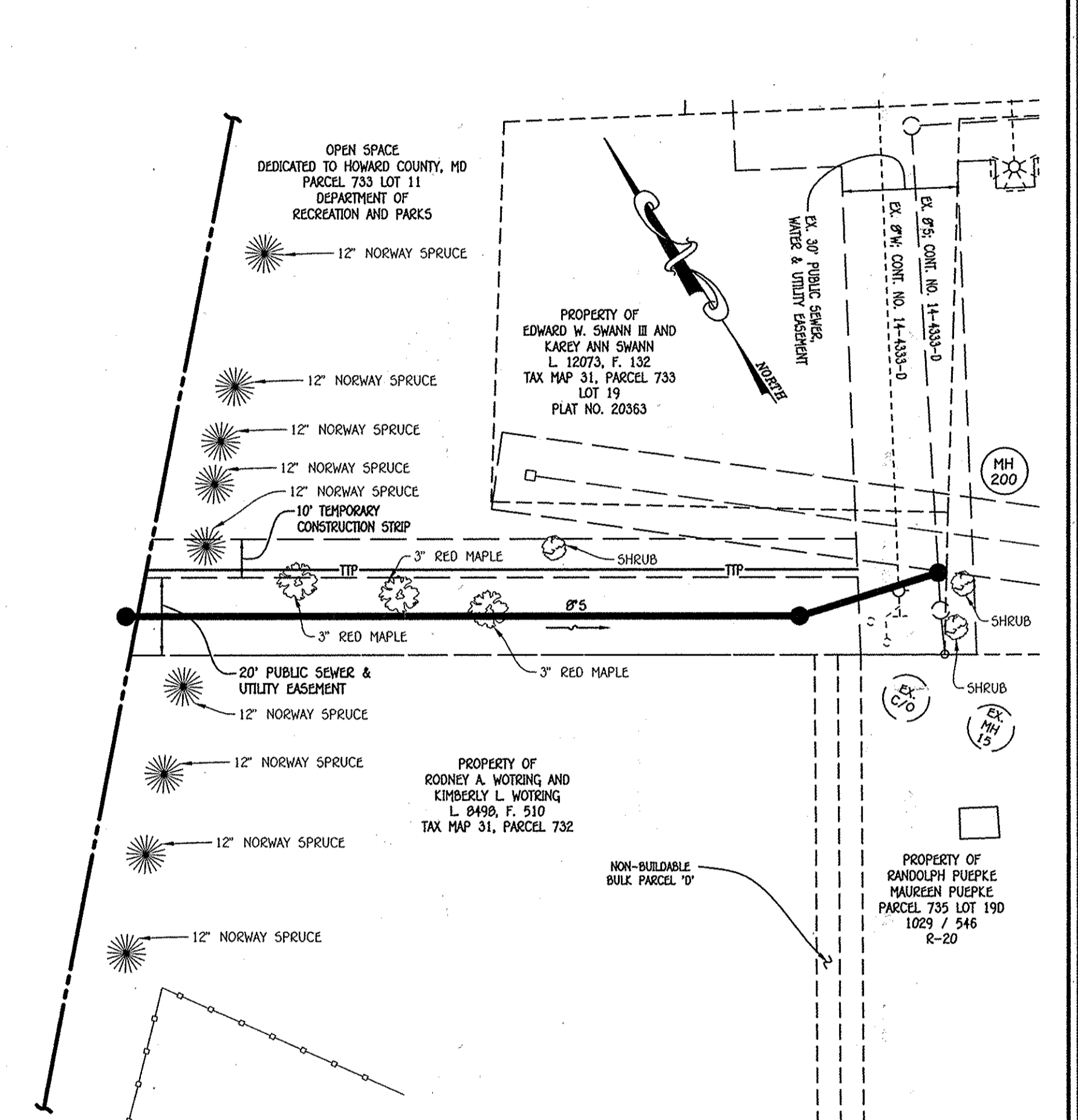
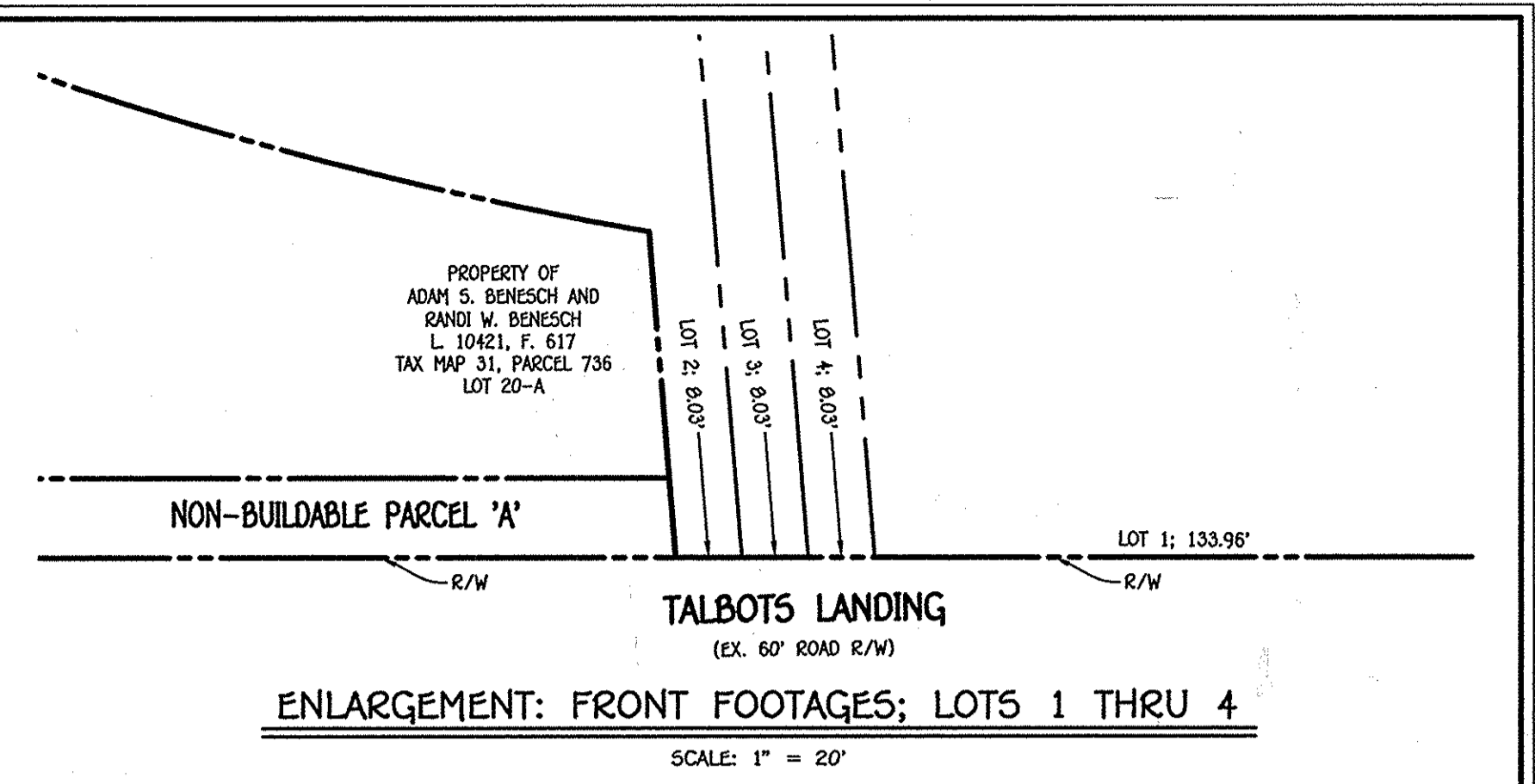
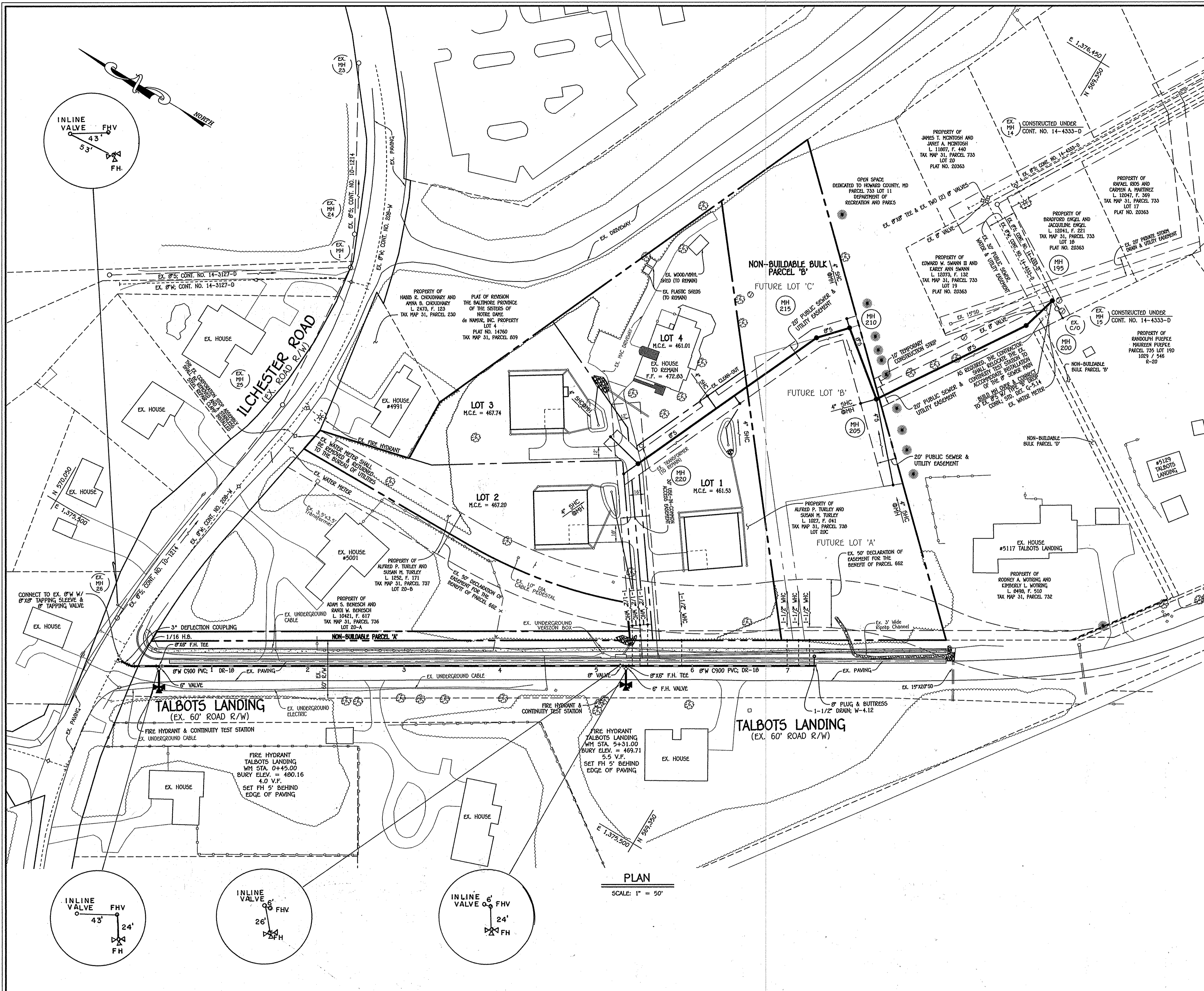
# NON-BUILDABLE

# PARCELS 'A' & 'B'

## WATER & SEWER MAIN EXTENSIONS

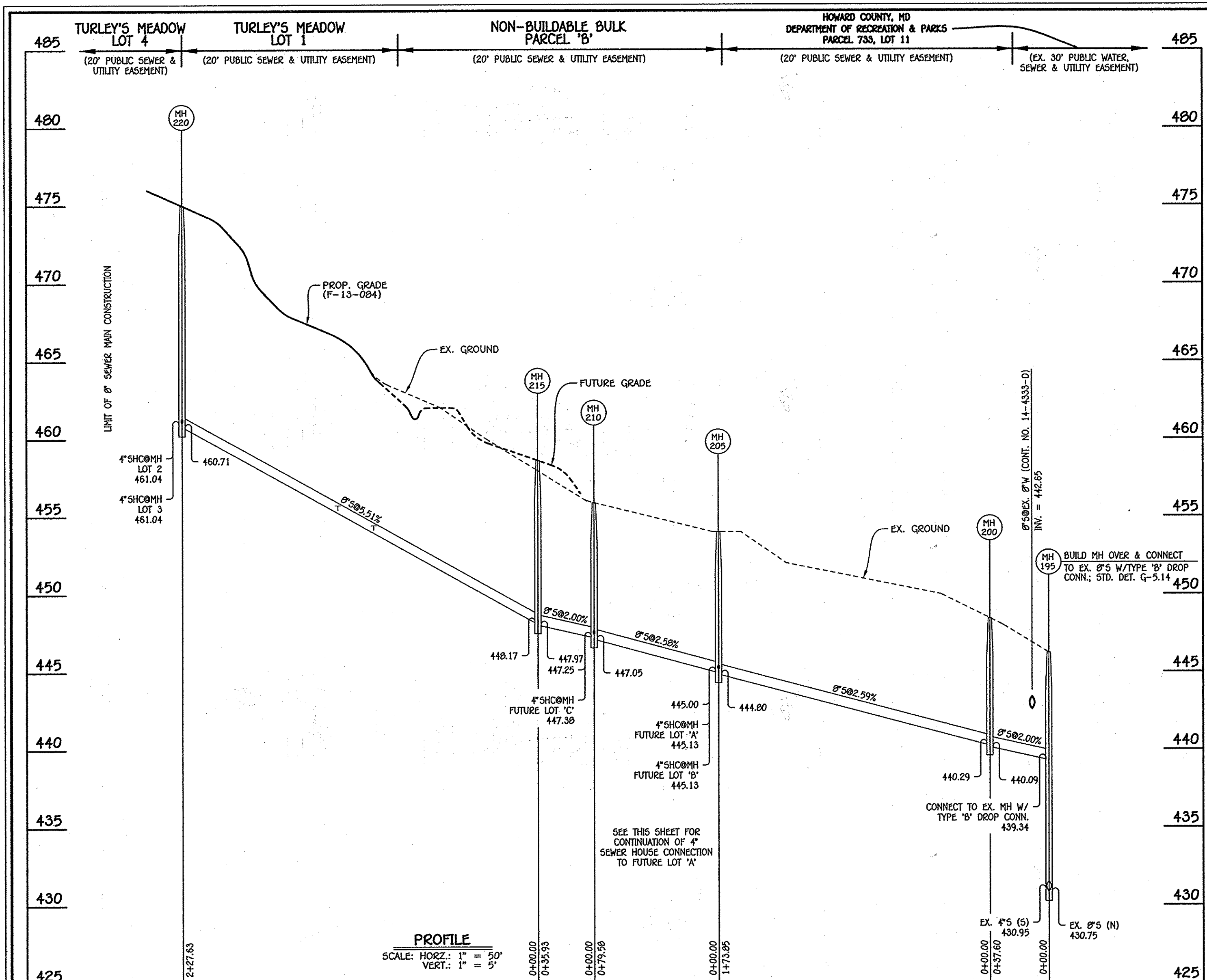
## HOWARD COUNTY, MARYLAND

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND <i>Shirley Lee</i> 9/24/13 CHIEF, BUREAU OF UTILITIES DATE	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND <i>John R. Robertson</i> 10/11/13 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 5/7/15/14. <b>FISHER, COLLINS &amp; CARTER, INC.</b> CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CENTRAL SQUARE OFFICE BUILDING - 10272 BALTIMORE NATIONAL PkE. ELICOTT CITY, MARYLAND 21042 (410) 461-2295	DESIGNED BY: B.C.R. DRAWN BY: B.C.R. CHECKED BY: P.M.K. DATE: SEPTEMBER, 2013 BY NO. REVISION DATE	WATER & SEWER MAIN EXTENSIONS TITLE SHEET 600' SCALE MAP NO. 0031 BLOCK NO. 0016 F.C.C. WORK ORDER NO. 06053-3004 FILE NAME: WATER & SEWER MAIN EXTENSION PLAN	<b>TURLEY'S MEADOW</b> LOTS 1 THRU 4 & NON-BUILDABLE PARCELS 'A' & 'B' WATER & SEWER MAIN EXTENSIONS CONTRACT NO. 14-4775-D FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE AS SHOWN SHEET 1 OF 3
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DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND Chief, Bureau of Utilities: <i>Steve C. Coon</i>		DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND Chief, Development Engineering Division: <i>Paul W. Kriebel</i>		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 5/7/16/14. <b>FISHER, COLLINS &amp; CARTER, INC.</b> CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CENTRAL SERVICE OFFICE: 10275 BALTIMORE NATIONAL PIKE, ELKOTT CITY, MARYLAND 21042 (410) 461-2995		DESIGNED BY: B.C.R. DRAWN BY: B.C.R. CHECKED BY: P.W.K. DATE: SEPTEMBER, 2013		WATER & SEWER MAIN EXTENSIONS: PLAN, FRONT FOOTAGE ENLARGEMENT & FOREST DELINEATION PLAN 600' SCALE MAP NO. 0031 BLOCK NO. 0016 F.C.C. WORK ORDER NO. 06053-3004 FILE NAME: WATER & SEWER MAIN EXTENSION PLAN		TURLEY'S MEADOW LOTS 1 THRU 4 & NON-BUILDABLE PARCELS 'A' & 'B' WATER & SEWER MAIN EXTENSIONS CONTRACT NO. 14-4775-D FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE AS SHOWN SHEET 2 OF 3	
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E:\2005\06053.dwg\06053-3004 Turley's Meadow-Overview\06053-3004 Water & Sewer Contract Plan.dwg, Plan Sheet 2, 9/18/2013 2:49:55 PM

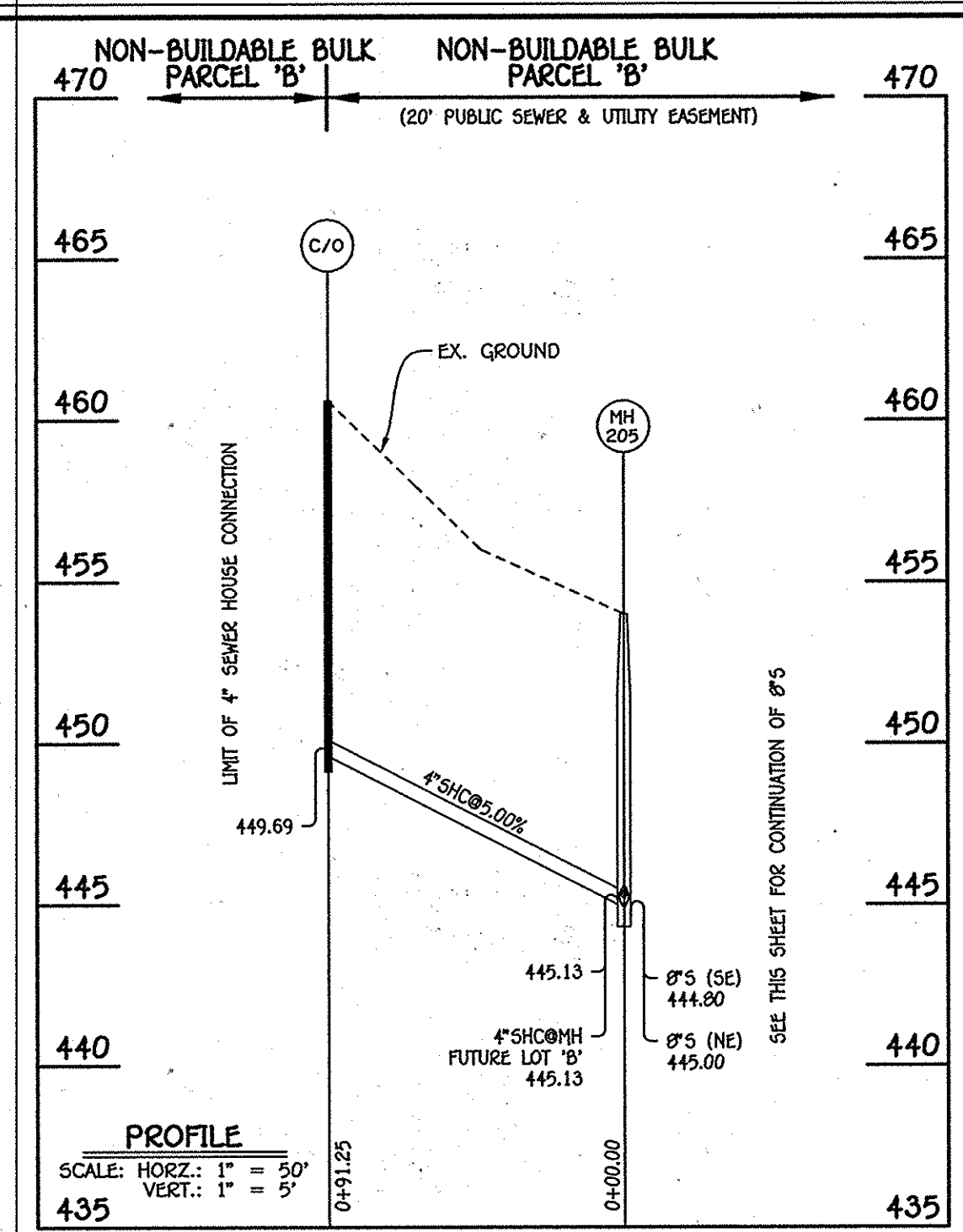


8" SEWER MAIN: LOTS 1 THRU 4 & FUTURE LOTS 'A' THRU 'C'

NO.	NORTHING	EASTING	RIM ELEVATION
195	569265.60	1376210.45	446.22 *
200	569275.78	1376174.26	448.42 *
205	569370.24	1376028.29	454.00 *
210	569432.40	1376077.99	455.87 *
215	569456.66	1376051.49	458.58 ***
220	569548.84	1375843.36	475.04 **

NOTE: \* SET MH RIMS FLUSH W/EXISTING GROUND.  
 \*\* SET MH RIMS FLUSH W/PROPOSED GRADE.  
 \*\*\* SET MH RIMS FLUSH W/FUTURE GRADE.

STATION	LOT	ELEVATION AT MAIN	ELEVATION AT EASEMENT	M.C.E.	B.E.
MH 200 TO MH 205					
@MH 205 CEN.	FUTURE LOT 'B'	445.13	455.47	450.57	458.40
@MH 205 LT.	FUTURE LOT 'A'	445.13	449.69	453.39	462.20
MH 205 TO MH 210					
@MH 210 CEN.	FUTURE LOT 'C'	447.38	447.58	453.68	458.50
MH 215 TO MH 220					
1+05 LT.	1	454.13	454.33	461.53	469.00
1+28 RT.	4	455.39	455.71	461.01	472.83
@MH 220 RT.	3	461.04	461.84	467.74	472.00
@MH 220 CEN.	2	461.04	461.40	467.20	472.50



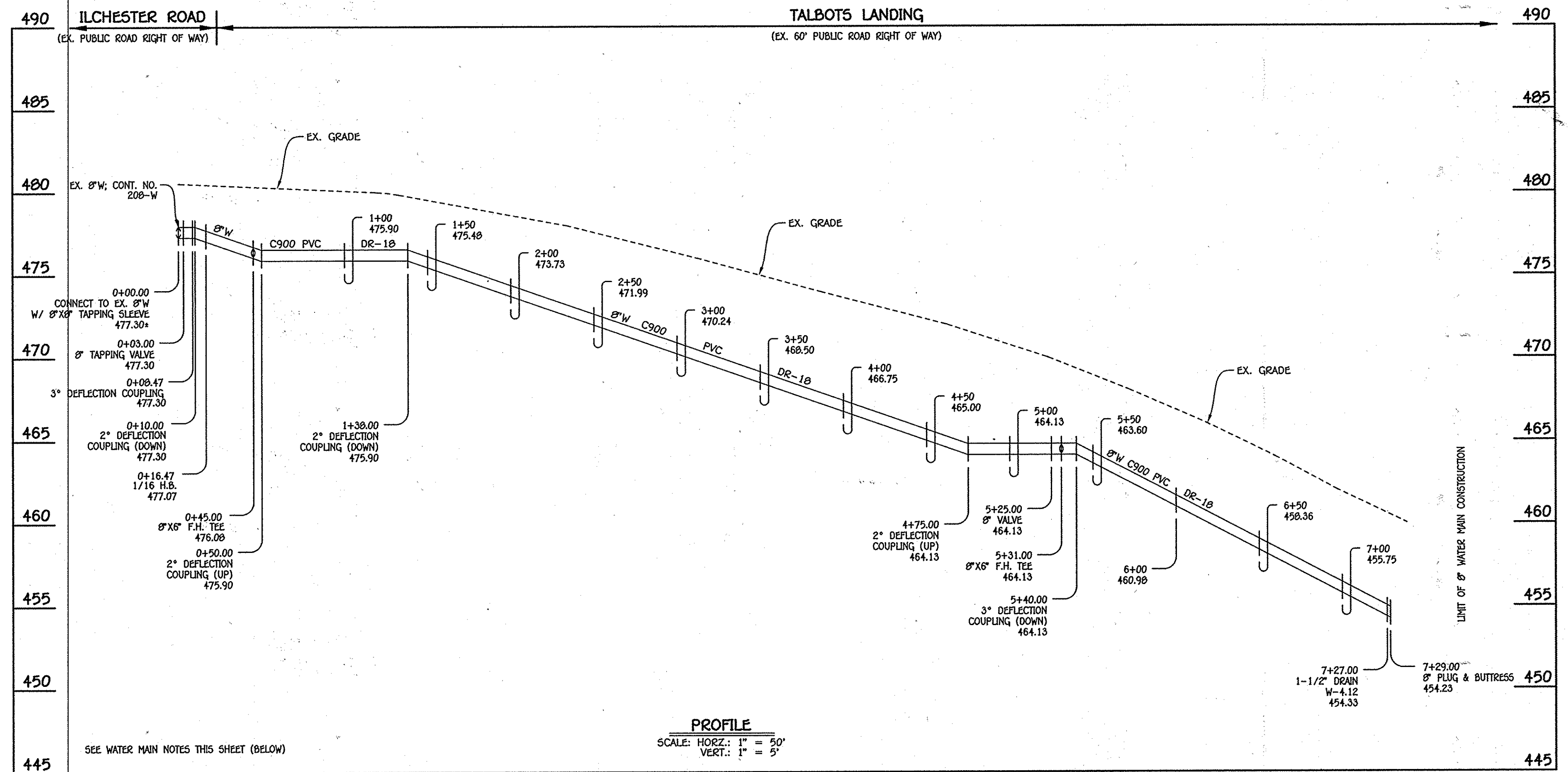
4" SHC: FUTURE LOT 'A'

LOT NUMBER	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
1		SMH220 119'	SMH215 107'
2		SMH220 24'	Transformer Lot 4 35'
3		SMH220 42'	Transformer Lot 4 32'
4		SMH220 97'	SMH215 130'

LOT NUMBER	ADDRESS	LOCATION DIMENSION 1	LOCATION DIMENSION 2
1		F.H. #2 67'	SMH220 169'
2		F.H. #2 70'	SMH220 170'
3		F.H. #2 73'	SMH220 172'
4		F.H. #2 78'	SMH220 189'

A	SMH205 91'	SMH205 217'
B	SMH210 80'	SMH205 18'
C	SMH215 38'	SMH210 11'
5	F.H. #2 176'	SMH 205 273'
6	F.H. #2 187'	SMH 205 268'
7	F.H. #2 198'	SMH205 264'

W.M. STA.	APPURTENANCE	NORTHING	EASTING
0+00.00	8" WATER MAIN: TALBOTS LANDING		
0+00.00	8" X 8" TAPPING SLEEVE	569909.87	1375390.94
0+03.00	8" TAPPING VALVE	569906.87	1375391.04
0+08.47	3" DEFLECTION COUPLING	569901.40	1375391.23
0+16.47	1/16 H.B.	569893.45	1375392.15
0+45.00	8" X 6" F.H. TEE	569868.95	1375406.76
5+25.00	8" VALVE	569456.69	1375652.61
5+31.00	8" X 6" F.H. TEE	569451.54	1375655.68
7+27.00	1-1/2" DRAIN	569283.20	1375756.07
7+29.00	8" PLUG & BUTTRESS	569281.48	1375757.10



8" WATER MAIN: TALBOTS LANDING

- WATER MAIN NOTES:
1. ALL WATER MAINS SHALL BE AMWA C900 PVC PIPE; DR-18.
  2. ALL PIPE BEDDING, TRACER WIRE, LOCATING TAPE AND OTHER APPURTENANCES SHALL BE IN ACCORDANCE WITH THE HOWARD COUNTY DESIGN MANUAL, VOLUME IV - WATER AND SEWER STANDARDS FOR AMWA C900 PVC WATER PIPE INSTALLATION.
  3. DEFLECTION COUPLINGS SHALL BE CERTAIN-TIED PVC HIGH DEFLECTION COUPLINGS.
  4. ALL WATER HOUSE CONNECTIONS AND TAPS SHALL BE PERFORMED USING A SADDLE.

DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND [Signature]	DEPARTMENT OF PLANNING AND ZONING HOWARD COUNTY, MARYLAND [Signature]	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. 12243 EXPIRATION DATE IS 7/16/14. <b>FISHER, COLLINS &amp; CARTER, INC.</b> CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS CONTINENTAL SOURCE OFFICE PARK - 18272 BALDWIN NATIONAL PIKE ELKLOTT CITY, MARYLAND 21042 (410) 461-2295	DESIGNED BY: [Blank] B.C.R. DRAWN BY: [Blank] B.C.R. CHECKED BY: [Blank] P.M.K. DATE: SEPTEMBER, 2013 BY NO. [Blank] REVISION [Blank]	WATER & SEWER MAIN EXTENSIONS PROFILES, CHARTS & TABLES 600' SCALE MAP NO. 0031 BLOCK NO. 0016 F.C.C. WORK ORDER NO. 06053-3004 FILE NAME: WATER & SEWER MAIN EXTENSION PLAN	TURLEY'S MEADOW LOTS 1 THRU 4 & NON-BUILDABLE PARCELS 'A' & 'B' WATER & SEWER MAIN EXTENSIONS CONTRACT NO. 14-4775-D FIRST ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE AS SHOWN SHEET 3 OF 3
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