

GENERAL WATER NOTES

DEPARTMENT OF PUBLIC WORKS BUREAU OF ENGINEERING

PART I

- 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.
- The existing topography was obtained from a flown aerial survey taken with 2 foot contour intervals on March 30, 2005 performed by Hartford Aerial Survey.
- 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. 16DA and 16DC. 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 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.
- When test pits have been made on existing utilities, they are noted by the symbol $\frac{1}{4}$ 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 (Construction Services)	410-850-4620
BGE (Emergency)	410-787-4068
Bureau of Utilities	410-313-4400
Colonial Pipeline Co.	410-745-1940
Miss Utility	1-800-251-TTTT
State Highway Administration	410-531-5533
Verizon	1-800-743-0033/410-224-4210
- 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) 313-1450 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 DFM requirements per Section 18.14(a) of the Howard County Code.

PART II WATER

- 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.

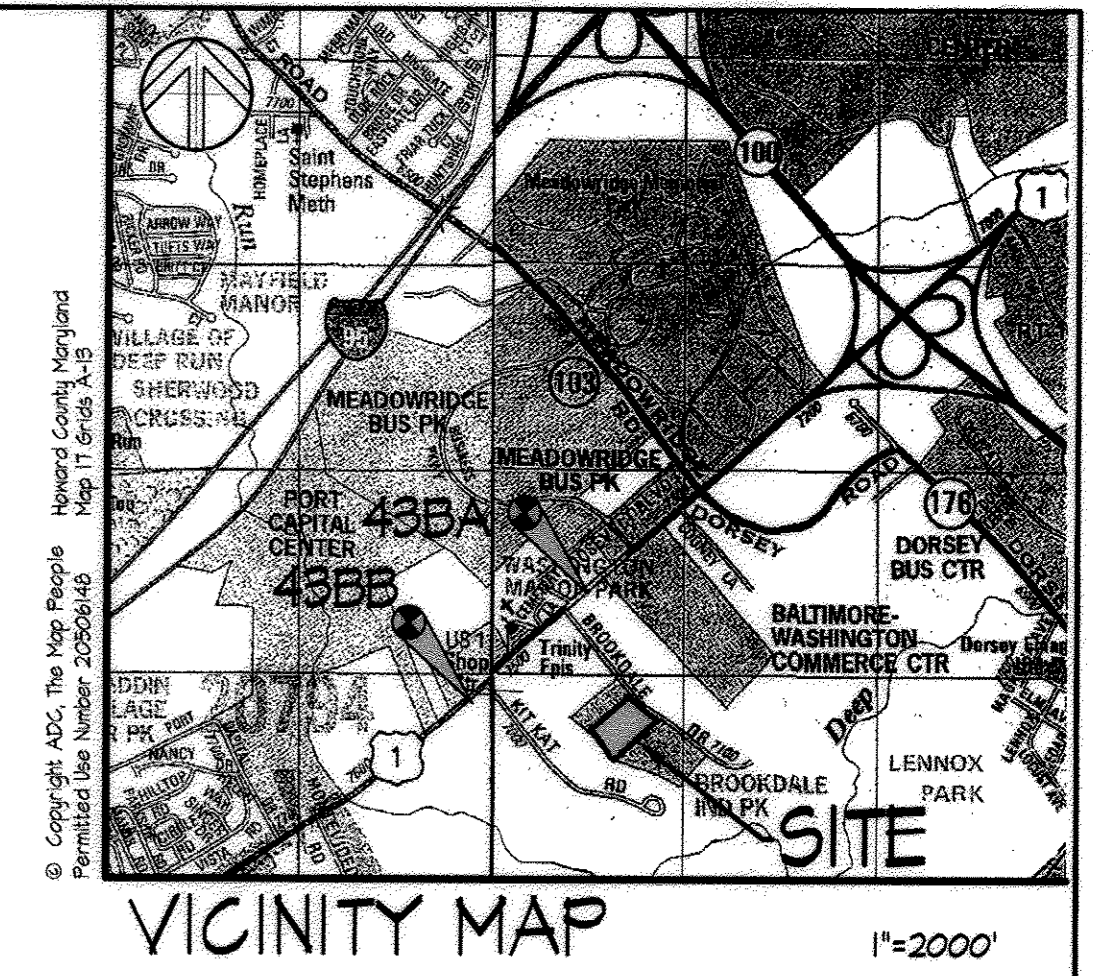
PART III SEWER

- All sewer mains shall be DIP and PVC unless otherwise noted.
- All manholes shall be 4'-0" inside diameter unless otherwise noted.
- Force mains shall be DIP only.
- Manholes shown with 12" and 16" walls are for brick manholes only.
- Manholes designated W.T. in plan and profiles shall have watertight frame and covers, Standard Detail 6552. Where watertight manhole frames and covers are used, set top of frame 18" above finished grade unless otherwise noted on drawings.
- House(s) with the symbol "C.N.S." indicates that cellar cannot be served.

CONTRACT No. 14-4546-D

Brookdale Industrial Park

PARCEL A



BENCHMARKS

MONUMENT	NORTHING	EASTING	ELEVATION	HORIZ. DATUM	VERT. DATUM
43BA	550534.186	1576405.228	204.31	NAD83(91)	NAVD88
43BB	551676.341	1578108.415	204.50	NAD83(91)	NAVD88

DRAWING INDEX

SHEET #	DRAWING #	DRAWING TITLE
1 OF 2	NO.01	COVER SHEET
2 OF 2	NO.00	WATER AND SEWER PLAN & PROFILES

WATER CODE: B01
SEWER CODE: 2350000
TEST GRADIENT:

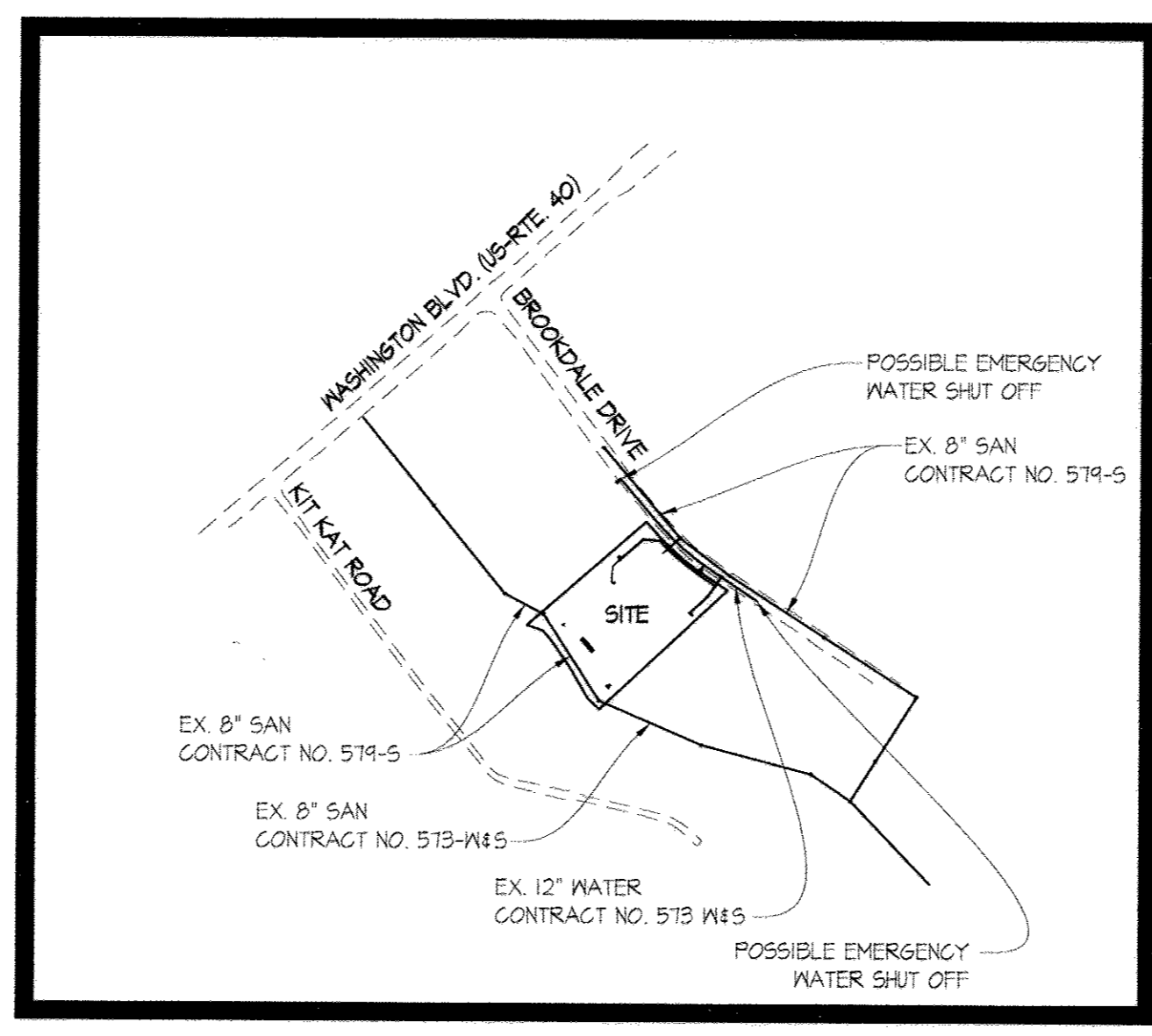
QUANTITIES

ITEM	ESTIMATED QUANTITY	QUANTITY	TYPE	MANUFACTURER/SUPPLIER
6" WATER MAIN	12 L.F.	14.5 L.F.	6-SDR19	ATLANTIC STATES
8" WATER MAIN	594 L.F.	579 L.F.	6-SDR19	ATLANTIC STATES
FIRE HYDRANT (BURY 6'-0")	1 EA.	1 EA.	A-473	MUELLER CO.
FIRE HYDRANT (BURY 6'-6")	1 EA.	1 EA.	A-473	MUELLER CO.
8" X 8" TEE	2 EA.	2 EA.	C-153	UNION FOUNDRY
8" X 8" TEE	1 EA.	1 EA.	C-153	UNION FOUNDRY
8" VALVE	2 EA.	2 EA.	GATE V	MUELLER CO.
8" VALVE	1 EA.	1 EA.	GATE V	MUELLER CO.
12" X 8" TAPPING SLEEVE & VALVE	1 EA.	1 EA.	C624	SMITH BLAIR
6" SEWER HOUSE CONNECTION	60 L.F.	60 L.F.	SDR 35	NORTH AMERICAN

NAME OF UTILITY CONTRACTOR: KINBLEY CONSTRUCTION
SURVEY AND DRAFTING DIV. CHECKBOX AS-BUILT DATE: 2-6-13

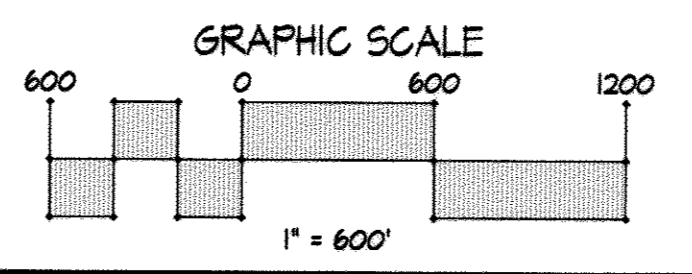
OWNER/DEVELOPER:
KINBLEY HOLDINGS, INC.
6254 REYNOLDS HILL ROAD
SEVEN VALLEYS, PA 17360
CONTACT: MICHAEL D. JEFFERS
PHONE NO. 717-741-8408

SITE DATA:
ADDRESS: 1010 BROOKDALE DRIVE
SUBDIVISION NAME: BROOKDALE INDUSTRIAL PARK
SECTION / AREA: N/A
PARCEL No.: PARCEL A
FLAT No.: 0216B
BLOCK No.: 4/5
ZONE: CE
TAX MAP No.: 43
ELECTION DISTRICT: 1
CENSUS TRACT: 6012.02
200 SCALE MAP #:



LOCATION MAP
SCALE: 1" = 600'

TYPE OF BUILDING:	60,000 S.F. FLEX SPACE BUILDING
NUMBER OF LOTS:	1 PROP. BUILDING
NUMBER OF S.H.C.S.:	1
NUMBER OF W.H.C.S.:	1
AREA OF PARCEL:	217,800 sq / 5.0 AC.
SEWER SHED:	DORSEY RUN
TREATMENT PLANT:	N/A



SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 214 OF THE SPECIFICATIONS AND AS SHOWN ON SDP-08-031

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

HOWARD SOIL CONSERVATION DISTRICT DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT. Flat #: F-08-168; SDP #: SDP-08-031

APPROVED: *John K. Robertson* 9/16/08 DATE
HOWARD SOIL CONSERVATION DISTRICT

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

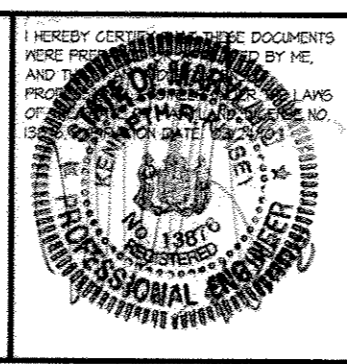
Shawn C. Coen elzslba
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

William J. ... 9/23/08
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE N/A

SITE RESOURCES
Incorporated
Comprehensive Land Planning & Site Design Services

14307 Jarrettsville Pike, Phoenix, Maryland 21131
(410) 683-3388 • fax (410) 683-3389



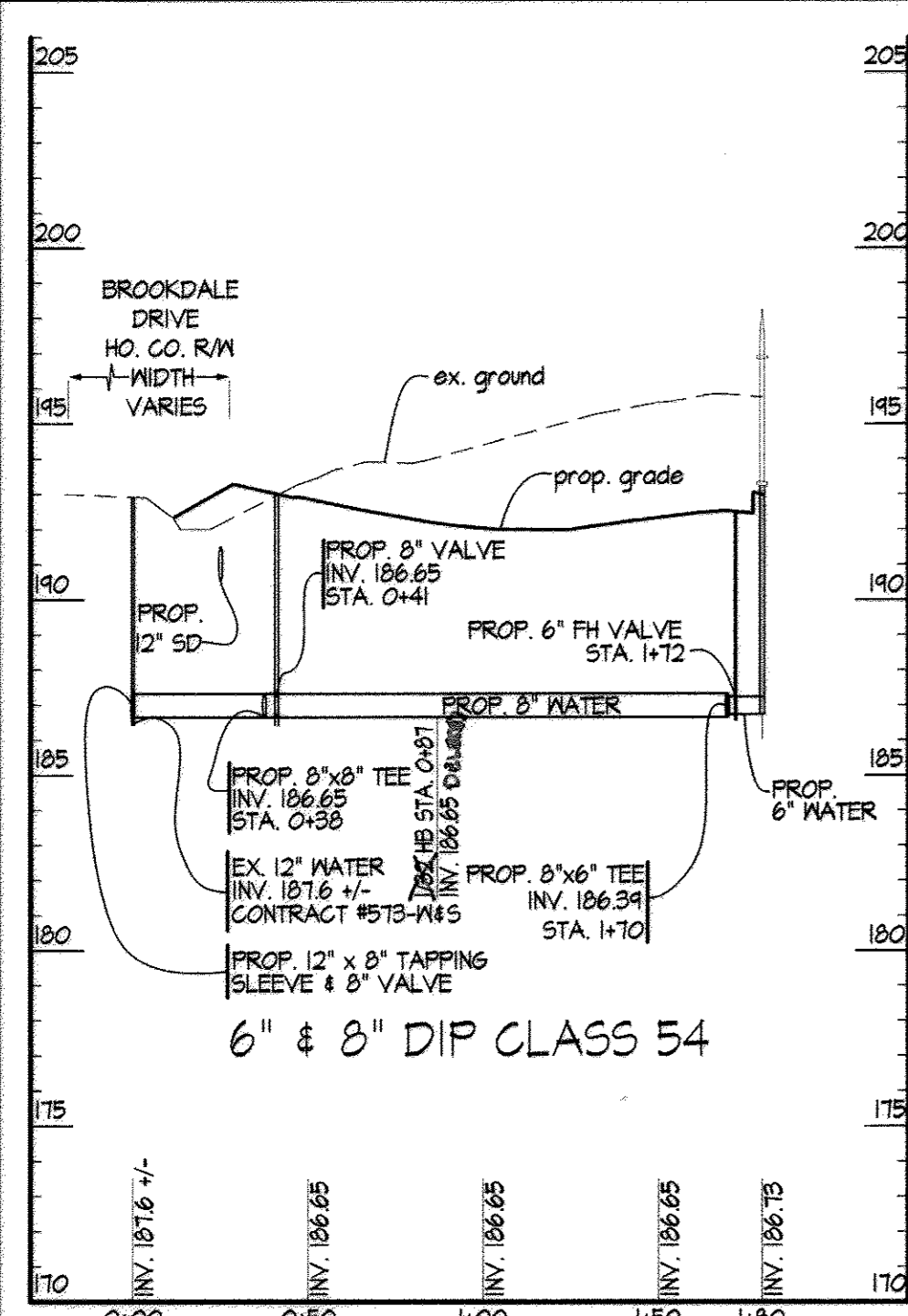
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DRN: AM			
CHK: KRK			
DATE: 08/21/08	KCI	AS-BUILT	2/26/13
	BY NO.	REVISION	DATE

WATER AND SEWER PLAN

600' SCALE MAP NO. 43 BLOCK NO. 4/5

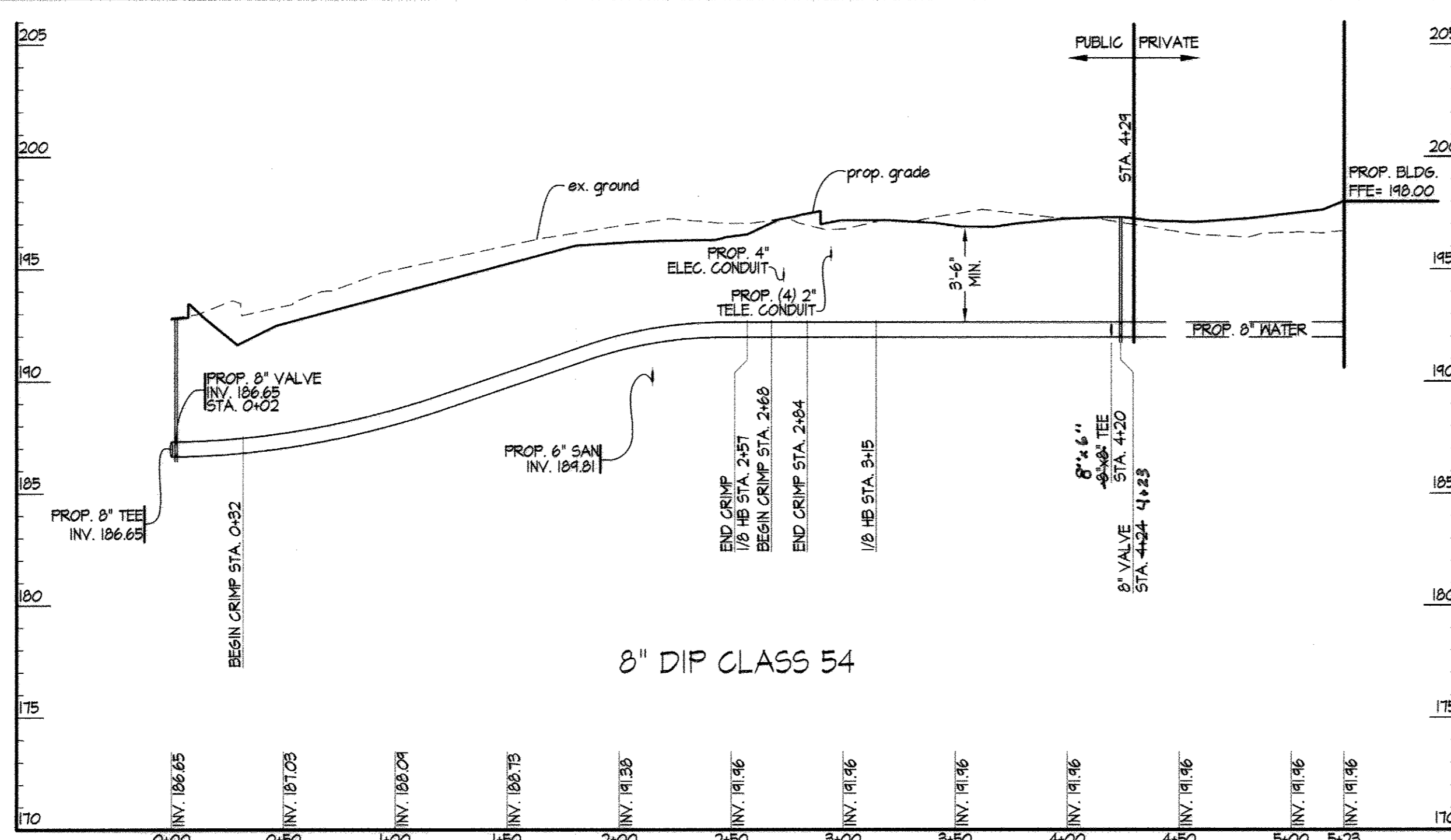
BROOKDALE INDUSTRIAL PARK
PARCEL A
1010 BROOKDALE DRIVE
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 14-4546-D

NO.01
SCALE: AS SHOWN
SHEET 1 OF 2



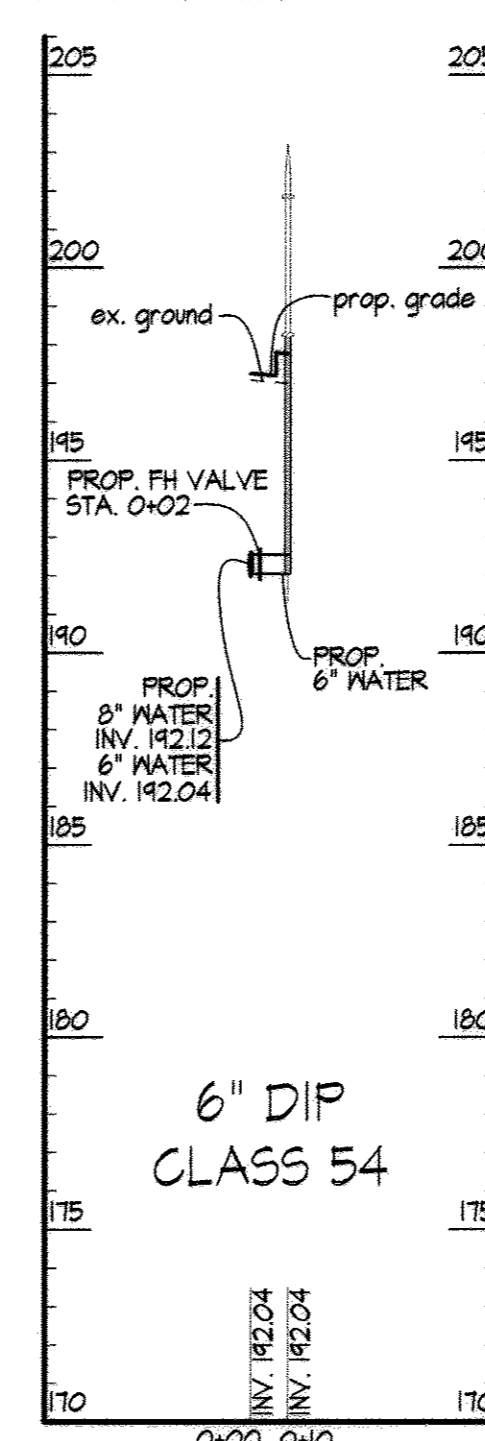
1 WATER PROFILE #1

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



2 WATER PROFILE #2

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



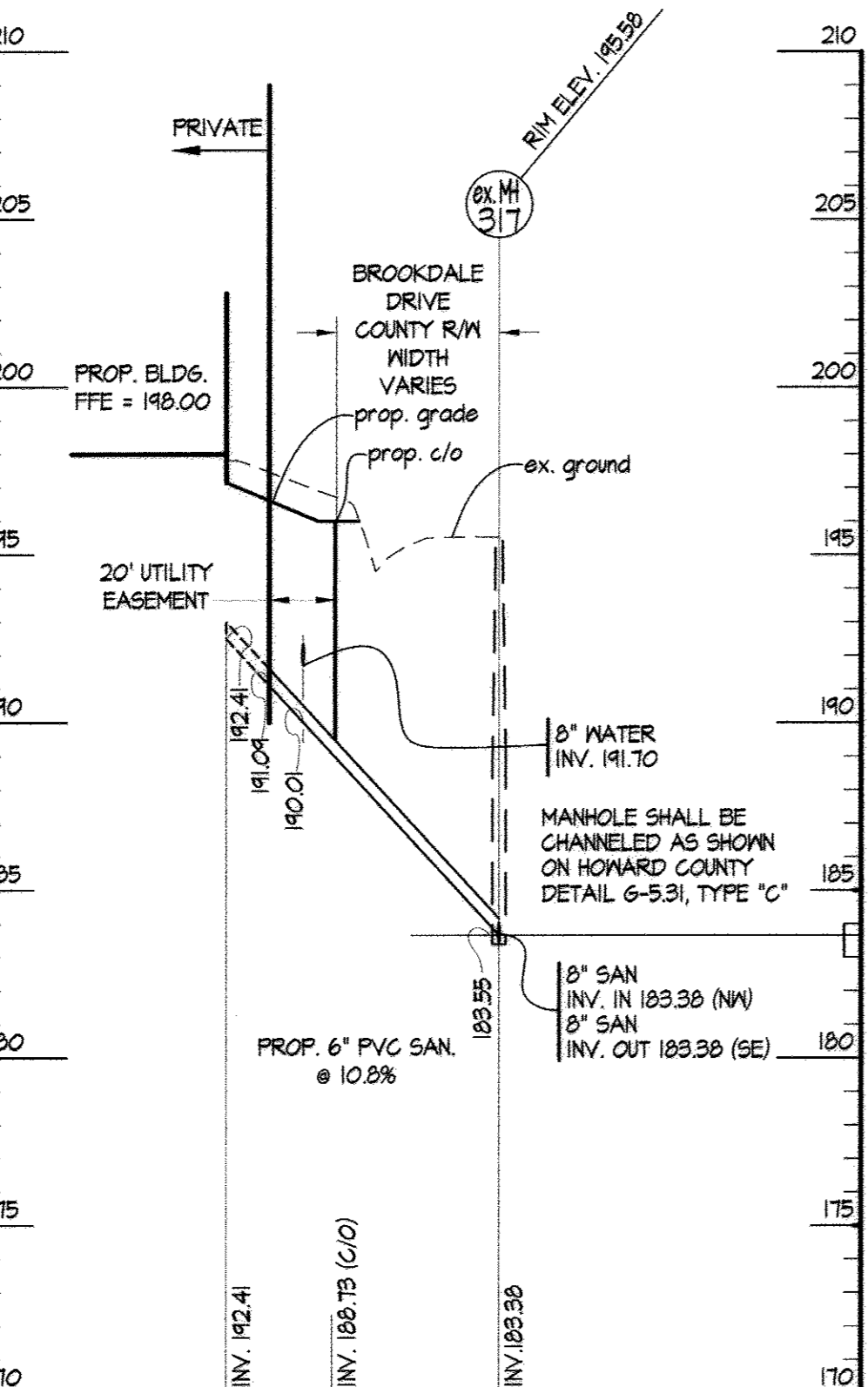
3 WATER PROFILE #3

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

BROOKDALE INDUSTRIAL PARK 14-4546-D				
VALUES	FROM	TO	DISTANCE	REMARKS
8" T.S. + V	EX SMH 316	8" V	32'	ON BROOKDALE DR. 579-5
0+02	EX FH	8" V	78.5'	ON BROOKDALE DR.
LINE 1	8" V 0+43	8" V	43'	LINE 1
8" V	EX SMH 316	8" V	68'	ON BROOKDALE DR. 579-5
0+43	EX FH	8" V	77'	ON BROOKDALE DR.
LINE 1	8" V 0+02	8" V	43'	LINE 2 "V" at 0+02
6" FHV	FH 1+70	6" V	9'	
1+70	I-19	6" V	64'	
LINE 1	I-20	6" V	60'	
8" V	EX F.H.	8" V	74'	ON BROOKDALE DR.
0+02	8" V 0+43	8" V	4'	"V" ON LINE 1
LINE 2	EX SMH 316	8" V	66'	ON BROOKDALE DR. 579-5
8" V	I-11	8" V	69'	
4+23	F.H. 4+20	8" V	9.5'	LINE 3
LINE 2	6" FHV 4+20	8" V	3'	LINE 3
6" FHV	F.H. 4+20	6" V	7.5'	
4+20	I-11	6" V	62'	
LINE 2	8" V 4+23	6" V	3'	LINE 2
6" SMC	EX SMH 317	CO	50'	CONT. 579-5
	EX FH	CO	139'	ON BROOKDALE DR.
	I-13	CO	144'	

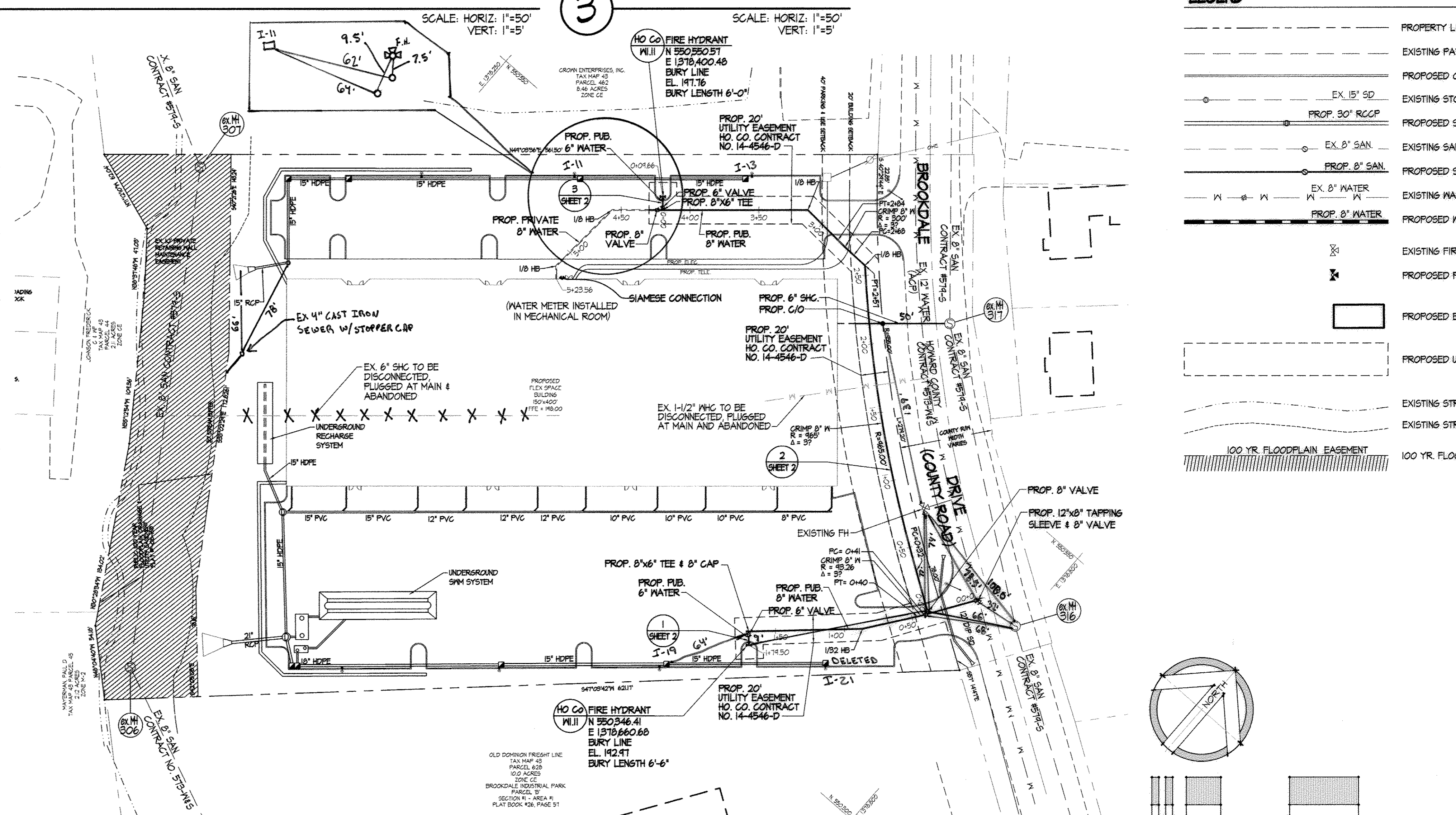
LEGEND	
	PROPERTY LINE
	EXISTING PAVING
	PROPOSED CURB
	EXISTING STORM DRAIN
	PROPOSED STORM DRAIN
	EXISTING SANITARY SEWER
	PROPOSED SANITARY SEWER
	EXISTING WATER
	PROPOSED WATER
	EXISTING FIRE HYDRANT
	PROPOSED PUBLIC FIRE HYDRANT
	PROPOSED BUILDINGS
	PROPOSED UTILITY EASEMENT
	EXISTING STREAM
	EXISTING STREAM BUFFER
	100 YR. FLOODPLAIN EASEMENT

NOTE:
1. CONTRACTOR TO TEST PIT AND VERIFY HORIZONTAL AND VERTICAL LOCATION OF EX. 12" WATER PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER IF SIGNIFICANT DIFFERENCES BETWEEN PLAN AND FIELD LOCATIONS ARE FOUND.
2. UTILITY TRENCH ROADWAY REPAVING SHALL BE IN ACCORDANCE WITH STANDARD DETAIL 4-4.01.



4 SEWER PROFILE

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



PLAN

SCALE: 1"=50'

SEDIMENT CONTROL MEASURES FOR THIS CONTRACT WILL BE IMPLEMENTED IN ACCORDANCE WITH SECTION 214 OF THE SPECIFICATIONS AND AS SHOWN ON SDP-08-031

REVIEWED FOR HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS

HOWARD SOIL CONSERVATION DISTRICT DATE

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SOIL CONSERVATION DISTRICT. Plot #: F-08-168; SDP #: SDP-08-031

APPROVED

HOWARD SOIL CONSERVATION DISTRICT DATE

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

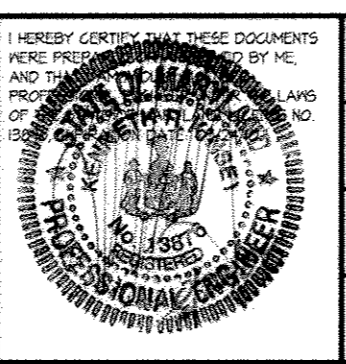
Steve C. ... 8/28/08
CHIEF, BUREAU OF UTILITIES DATE

DEPARTMENT OF PLANNING & ZONING
HOWARD COUNTY, MARYLAND

... 9/23/08
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

SITE RESOURCES
incorporated
Comprehensive Land Planning & Site Design Services

14307 Jarrettsville Pike, Phoenix, Maryland 21131
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DES: KFR					
DRN: AM					
CHK: KRK					
DATE: 08/21/08	BY: [Signature]	NO. [Signature]	REVISION [Signature]	DATE: 2/2/10	

WATER AND SEWER PLAN

600' SCALE MAP NO. 43 BLOCK NO. 4/5

BROOKDALE INDUSTRIAL PARK
PARCEL A
7010 BROOKDALE DRIVE
1st ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
CONTRACT NO. 14-4546-D

SCALE: AS SHOWN
SHEET 2 OF 2