

QUANTITIES				
ITEM	UNIT	ESTD	AS BUILT	SUPPLIER
6" DIP WATER LINE	L.F.	961	826	GRIFFIN
8" DIP WATER LINE	L.F.	2727	2740	"
FIRE HYDRANT	EA.	6	6	S. KENNEDY
AIR RELEASE VALVE	EA.	1	1	GA1
6" VALVE	EA.	5	5	KENNEDY
8" CAP	EA.	1	1	GRIFFIN
6" 1/8 HB	EA.	2	4	GRIFFIN
8" 1/8 HB	EA.	4	3	"
6"x6" TEE	EA.	1	1	GRIFFIN
8"x6" TEE	EA.	4	4	"
8"x8" TEE	EA.	1	2	"
16"x6" TAPPING SLEEVE & VALVE	EA.	1	1	KENNEDY
16"x8" TAPPING SLEEVE & VALVE	EA.	2	2	"
18" DIP	L.F.	359	-	
4" PVC (SHC)	L.F.	235	-	
6" PVC (SHC)	L.F.	215	-	
STD. MANHOLE	EA.	1	-	
STD. SHALLOW MANHOLE	EA.	1	1	ATLANTIC

BLOWOFF

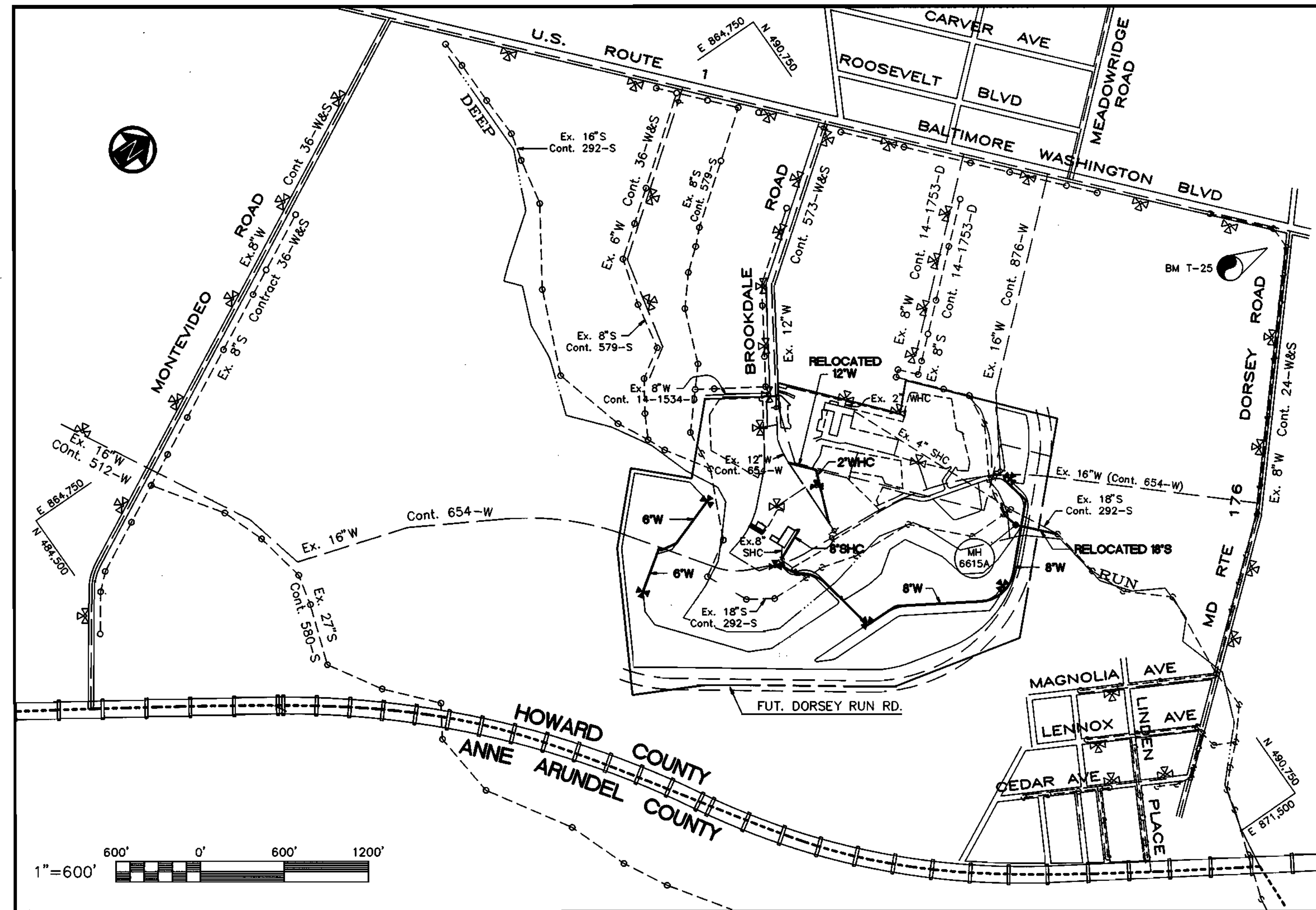
BALTIMORE - WASHINGTON AUTO EXCHANGE, INC. WATER AND SEWER MAIN PLANS CONTRACT NO. 14-3151-D

GENERAL NOTES

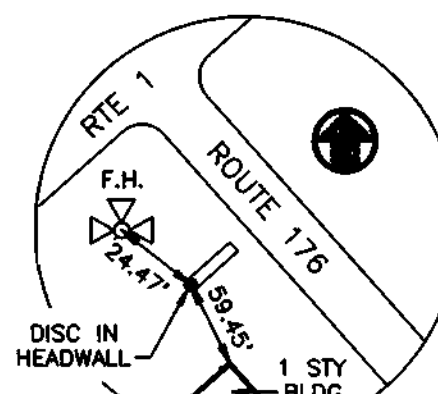
- APPROXIMATE LOCATION OF EXISTING MAINS ARE SHOWN. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING MAINS AND SERVICES AND MAINTAIN UNINTERRUPTED SUPPLY. ANY DAMAGE INCURRED SHALL BE REPAIRED IMMEDIATELY TO THE SATISFACTION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.
- ALL HORIZONTAL CONTROLS ARE BASED ON THE MARYLAND STATE COORDINATES.
- ALL VERTICAL CONTROLS ARE BASED ON U.S.G.S. DATUM.
- ALL PIPE ELEVATIONS SHOWN ARE INVERT ELEVATIONS.
- CLEAR ALL UTILITIES BY A MINIMUM OF 6". CLEAR ALL POLES BY 2'-0" MINIMUM OR TUNNEL AS REQUIRED. ANY COST INCURRED TO THE CONTRACTOR FOR TUNNELING OR BRACING AT POLES SHALL BE INCLUDED IN UNIT PRICES BID FOR CONSTRUCTION OF THE MAIN.
- FOR DETAILS NOT SHOWN ON THE DRAWINGS USE HOWARD COUNTY STANDARD DETAILS FOR CONSTRUCTION.
- FOR MATERIALS AND CONSTRUCTION METHODS USE HOWARD COUNTY STANDARD SPECIFICATIONS.
- CONTRACTOR SHALL LOCATE EXISTING UTILITIES A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF CONSTRUCTION OPERATIONS IN THE VICINITY OF PROPOSED UTILITIES AT HIS OWN EXPENSE.
- CONTRACTOR SHALL LOCATE EXISTING UTILITIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:

STATE HIGHWAY ADMINISTRATION - 531-5533
BALTIMORE GAS AND ELECTRIC COMPANY - UNDERGROUND ELECTRIC DISTRIBUTION CUSTOMER SERVICE - 561-5905.
BALTIMORE GAS AND ELECTRIC COMPANY - UNDERGROUND GAS DISTRIBUTION CUSTOMER SERVICE - 561-5905.
ENGINEERING - "DAMAGE CONTROL" - 234-5621.
"MISS UTILITY" - 1-800-257-7777
CHESAPEAKE AND POTOMAC (C&P) TELEPHONE COMPANY - 1-301-725-9976.
AMERICAN TELEPHONE AND TELEGRAPH-CABLE LOCATION DIVISION-(SEE MISS UTILITY).
COLONIAL PIPELINE COMPANY - 781-4681.
BUREAU OF UTILITIES HOWARD COUNTY - 313-4900.

- TREES ARE TO BE PROTECTED FROM DAMAGE TO MAXIMUM EXTENT. TREES 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 AS DIRECTED BY THE ENGINEER. PAYMENT FOR SUCH REMOVAL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONSTRUCTION OF THE MAIN.
- PLACE REGULATION "MEN WORKING" AND WARNING SIGNS AS REQUIRED TO COMPLY WITH MARYLAND STATE HIGHWAY ADMINISTRATION MANUAL OF TRAFFIC CONTROL FOR HIGHWAY CONSTRUCTION AND MAINTENANCE OPERATIONS.
- ALL WATER MAINS SHALL BE D.I.P. CLASS 52 UNLESS OTHERWISE NOTED.
- TOP OF ALL WATER MAINS SHALL HAVE MINIMUM OF 3-1/2' COVER UNLESS OTHERWISE NOTED.
- VALVES ADJACENT TO TEES SHALL BE STRAPPED TO TEES. (STD. W2.14 & W2.15)
- BLOCK ALL FITTINGS WITH CONCRETE. (STD. W2.21,22,23,24,25)
- BURY LINE ELEVATIONS ON FIRE HYDRANTS SHALL BE SET TO THE ELEVATIONS SHOWN ON THE DRAWINGS. ALL FIRE HYDRANTS SHALL BE STRAPPED AND BUTTRESSED WITH CONCRETE IN ACCORDANCE WITH STANDARD DETAILS. SOIL AROUND THE FIRE HYDRANT TO BE COMPACTED IN ACCORDANCE WITH SECTIONS 1000 & 1005 OF THE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL NOT OPERATE ANY WATER MAIN VALVES ON THE EXISTING SYSTEM.
- ALL WATER HOUSE CONNECTIONS SHALL BE FOR AN INSIDE METER SETTING.
- ORIGINAL GROUND OVER WATER AND SEWER WAS TAKEN BY FIELD SURVEY IN AUGUST, 1987 BY PURDUM & JESCHKE.
- ALL D.I.P. FITTINGS SHALL BE IN ACCORDANCE WITH AWWA SPECIFICATION C-153 DUCTILE IRON COMPACT FITTINGS, 3-INCH THROUGH 12-INCH FOR WATER AND OTHER LIQUIDS.
- INSIDE DETECTOR CHECKS SHALL BE PROVIDED FOR THE SPRINKLER SYSTEM FOR EACH BUILDING.
- ALL SEWER MAINS SHALL BE C.S.P.X., R.C.S.P. DIP OR PVC UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL PROVIDE A JOINT IN ALL SEWER MAINS WITHIN 2'-0" OF EXTERIOR MANHOLE WALL.
- ALL MANHOLES SHALL BE 4'-0" INSIDE DIAMETER, UNLESS OTHERWISE NOTED.
- SET TOP OF MANHOLE FRAME 1'-6" ABOVE FINISHED GRADE, STANDARD DETAIL G.5.41.
- ALL CONSTRUCTION IS TO BE DONE PER THIS PLAN AND HOWARD COUNTY DESIGN MANUAL VOLUME IV.



NUMBER OF LOTS - 1
TYPE OF BUILDING - RECONDITIONING & SALES
NUMBER OF WHC - 1
NUMBER OF SHC - 1
DRAINAGE AREA - DEEP RUN
WATER CODE - B01
SEWER CODE - 2320000
TREATMENT PLANT - PATAPSCO
TEST GRADIENT FOR WATER - 550



CONSTRUCTION SEQUENCE SEDIMENT CONTROL PROCEDURES

- OBTAIN SEDIMENT CONTROL PERMIT (ARTICLE 15.05-3).
- CONSTRUCT DIKE AND SILT FENCE STRUCTURES.
- CLEAR, GRUB AND STRIP AS REQUIRED FOR WATER MAIN CONSTRUCTION - PROTECT STREAMS FROM EROSION OF STORED TOPSOIL.
- CONSTRUCT WATER MAIN PIPE LINES.
- RESTORE EROSION CONTROL STRUCTURES DISTURBED BY WATER MAIN CONSTRUCTION.
- STABILIZE DISTURBED AREAS AS CONSTRUCTION PROGRESSES WITH TEMPORARY SEEDING AND MULCHING (OR PERMANENT RESTORATION).
- COMPLETE PERMANENT RESTORATION.
- REMOVE SEDIMENT CONTROL STRUCTURES WHEN DIRECTED.

NOTE: SEDIMENT CONTROL MEASURES TO BE IMPLEMENTED IN ACCORDANCE WITH VOLUME 4 SECTION 219 OF THE HOWARD COUNTY DESIGN MANUAL AND THE GRADING & SEDIMENT CONTROL PLANS SDP-91-94.

This Development Plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

Reviewed for Howard Soil Conservation District and meets technical requirements.

John F. Silvestro 12/20/91
Howard Soil Conservation District Date

James M. Nelson 12/20/91
U.S. Soil Conservation Service Date

"WESELY Az. 1962"
N 492468.27 E 868676.61
BENCH MARK REFERENCE
HO. CO. B.M. T-25 1957 EL. 276.958

PURDUM & JESCHKE
CONSULTING ENGINEERS
LAND SURVEYORS
1029 North Calvert Street
Baltimore, Maryland 21202
Tel: (301)837-0194 Fax: (301)837-3431

OWNER/DEVELOPER
**BALTIMORE-WASHINGTON
AUTO EXCHANGE, INC.**
7151 BROOKDALE ROAD
BALTIMORE, MARYLAND 21227

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

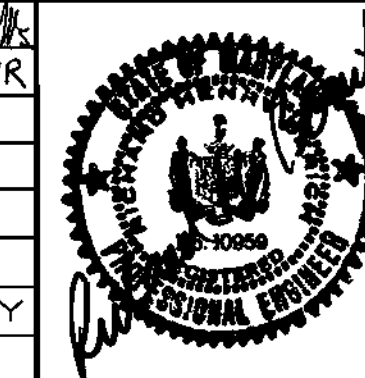
James M. Nelson 12/20/91
DIRECTOR OF PUBLIC WORKS DATE

Robert S. ... 12-17-91
CHIEF, BUREAU OF UTILITIES DATE

... 12-20-91
CHIEF, BUREAU OF ENGINEERING DATE

... 12/20/91
CHIEF, LAND DEVELOPMENT DIV. DATE

DATE	DESCRIPTION	BY
6/30/92	Per Redline Markup	
9/21/92	" " "	PWR



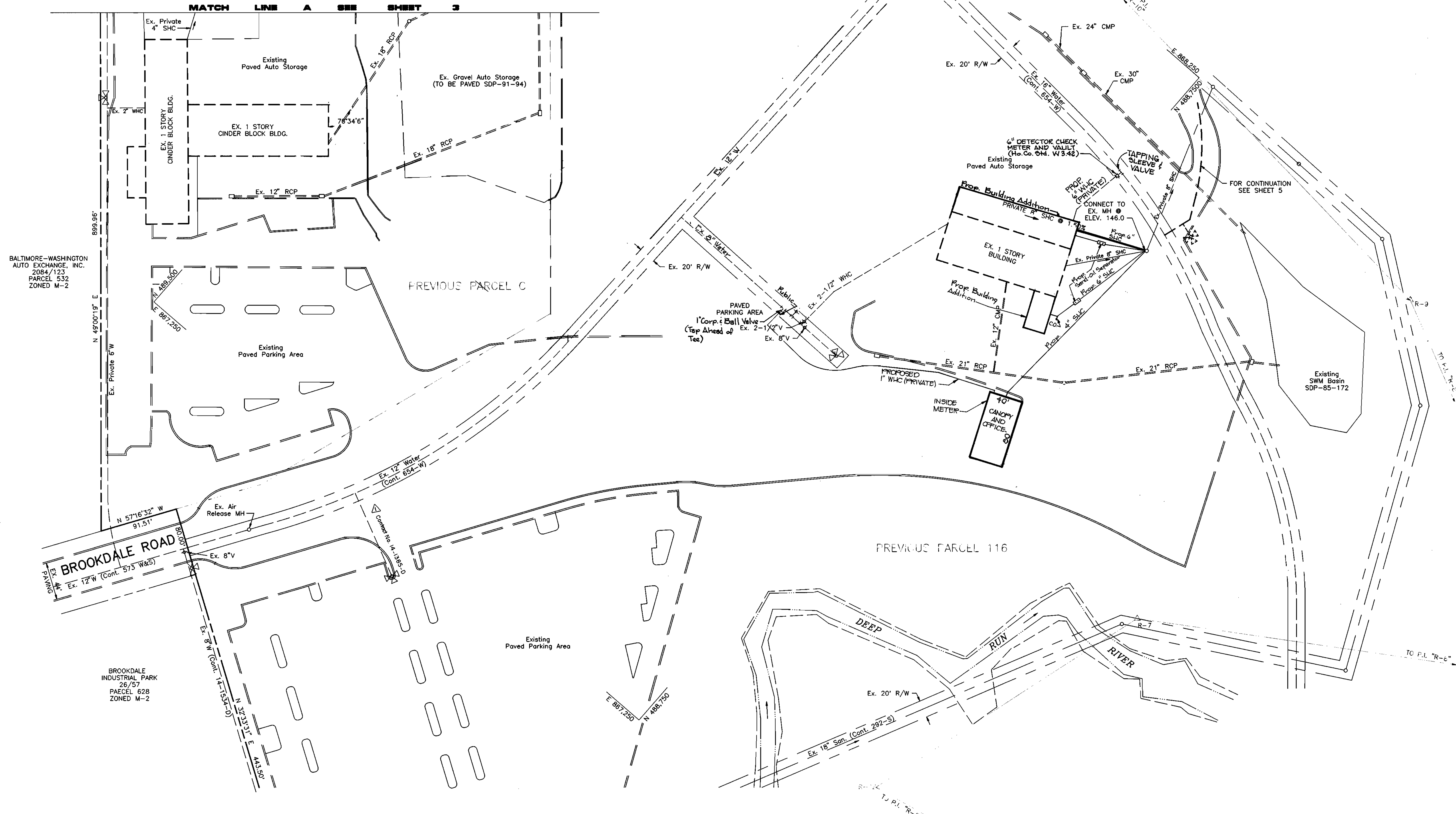
WATER AND SEWER MAIN PLANS-CONTRACT #14-3151-D
BALTIMORE - WASHINGTON
AUTO EXCHANGE, INC.
TITLE SHEET

TAX MAP NO. 43
1st ELECTION DISTRICT
DATE: NOVEMBER 18, 1991

PARCEL 116 & C
HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN

SHEET 1 OF 9
DES: GDT
DRAWN: REC
CHK: RHB
SDP-91-94

TRAVERSE COORDINATES			
PNT.	NORTH	EAST	ELEV.
R-5	487849.9550	867499.9651	175.34
R-6	488489.0237	867371.9266	151.48
R-7	488388.5843	867721.9538	138.92
R-8	487950.7686	868002.3480	132.74
R-9	488392.6299	868214.2000	133.18
R-10	488885.8866	868262.3192	125.01



BALTIMORE-WASHINGTON
AUTO EXCHANGE, INC.
2084/123
PARCEL 532
ZONED M-2

BROOKDALE
INDUSTRIAL PARK
26/57
PARCEL 628
ZONED M-2

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BALTIMORE, MARYLAND 21227

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James P. ... 12/20/91
DIRECTOR OF PUBLIC WORKS DATE

Robert ... 12-17-91
CHIEF, BUREAU OF UTILITIES DATE

... 13/20/91
CHIEF, BUREAU OF ENGINEERING DATE

... 11/20/91
CHIEF, LAND DEVELOPMENT DIV. DATE

DATE	DESCRIPTION	BY
12/23/92	REVISE WVC LOCATION	BJW
6/20/92	Per Redline Markup	BJW
	F.H. CONTRACT NO.	SLC
	REVISIONS	



WATER & SEWER MAIN PLANS - CONTRACT #14-3151-D
BALTIMORE - WASHINGTON
AUTO EXCHANGE, INC.
**PLAN OF 12" WATER MAIN
STA. 0+00 - STA. 5+91**

TAX MAP NO. 43
1st ELECTION DISTRICT
DATE: NOVEMBER 18, 1991

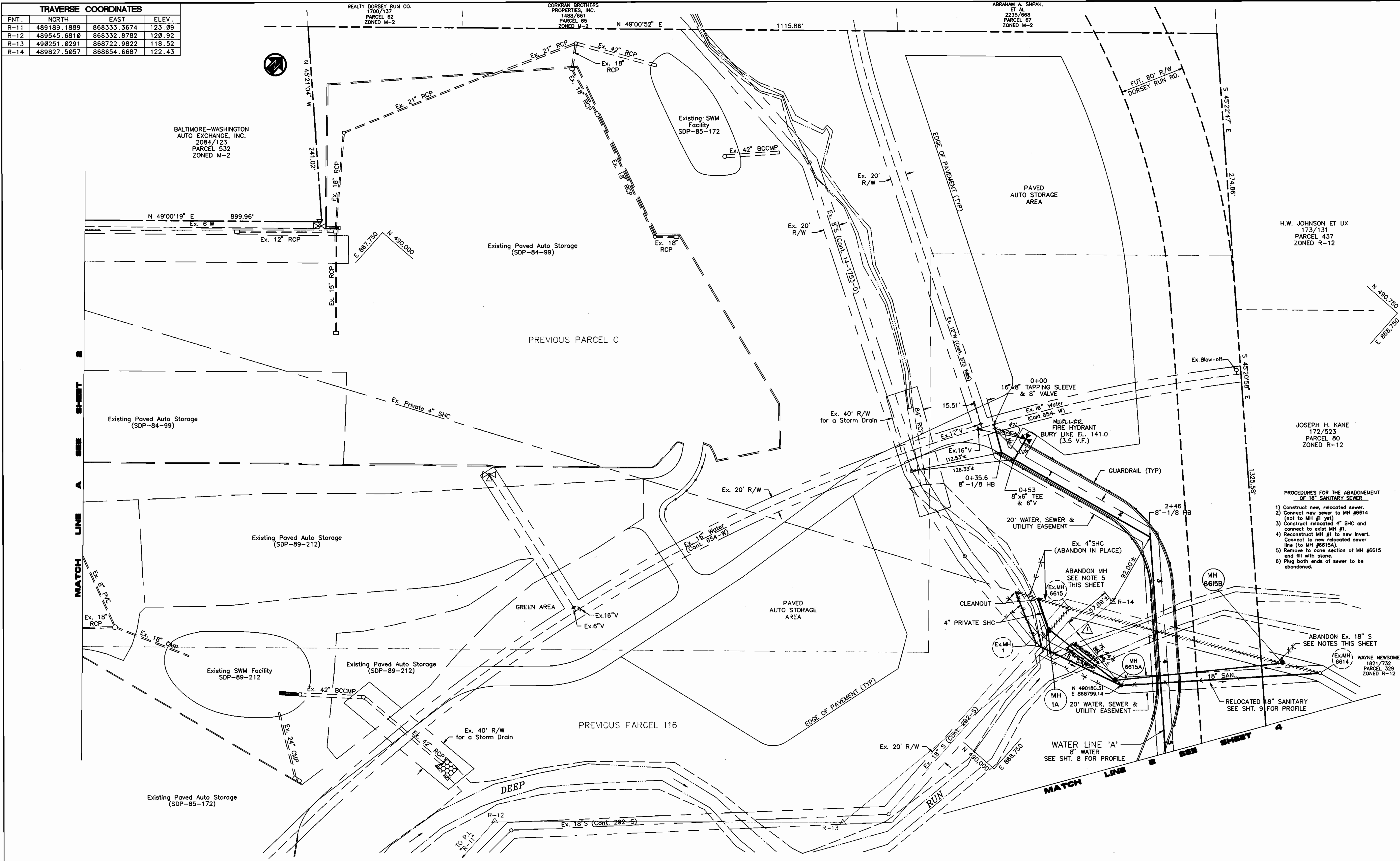
PARCEL 116 & C
HOWARD COUNTY, MARYLAND
SCALE: 1" = 50'

SHEET 2 OF 9

DES: GDT
DRAWN: REC
CHK: RHB

SDP-91-94

TRAVERSE COORDINATES			
PNT.	NORTH	EAST	ELEV.
R-11	489189.1889	868333.3674	123.09
R-12	489545.6810	868332.8782	120.92
R-13	490251.0291	868722.9822	118.52
R-14	489827.5057	868654.6687	122.43



- PROCEDURES FOR THE ABANDONMENT OF 18" SANITARY SEWER
- 1) Construct new, relocated sewer.
 - 2) Connect new sewer to MH #6614 (not to MH #1 yet).
 - 3) Construct relocated 4" SHC and connect to exist MH #1.
 - 4) Reconstruct MH #1 to new invert. Connect to new relocated sewer line (to MH #6615A).
 - 5) Remove to cone section of MH #6615 and fill with stone.
 - 6) Plug both ends of sewer to be abandoned.

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BALTIMORE, MARYLAND 21227

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James J. Veloz
DIRECTOR OF PUBLIC WORKS
DATE 12-17-91

Robert J. ...
CHIEF, BUREAU OF UTILITIES
DATE 12-20-91

...
CHIEF, LAND DEVELOPMENT DIV.
DATE 12-20-91

DATE	DESCRIPTION	SLC	BY
2/13/95	18" SAN SEWER RELOCATION	SLC	
REVISIONS			



WATER & SEWER MAIN PLANS - CONTRACT #14-3151-D
BALTIMORE - WASHINGTON
AUTO EXCHANGE, INC.
PLAN OF 8" WATER MAIN
STA. 0+00 TO 5+13
& 18" SEWER MAIN

TAX MAP NO. 43
1st ELECTION DISTRICT
DATE: NOVEMBER 18, 1991

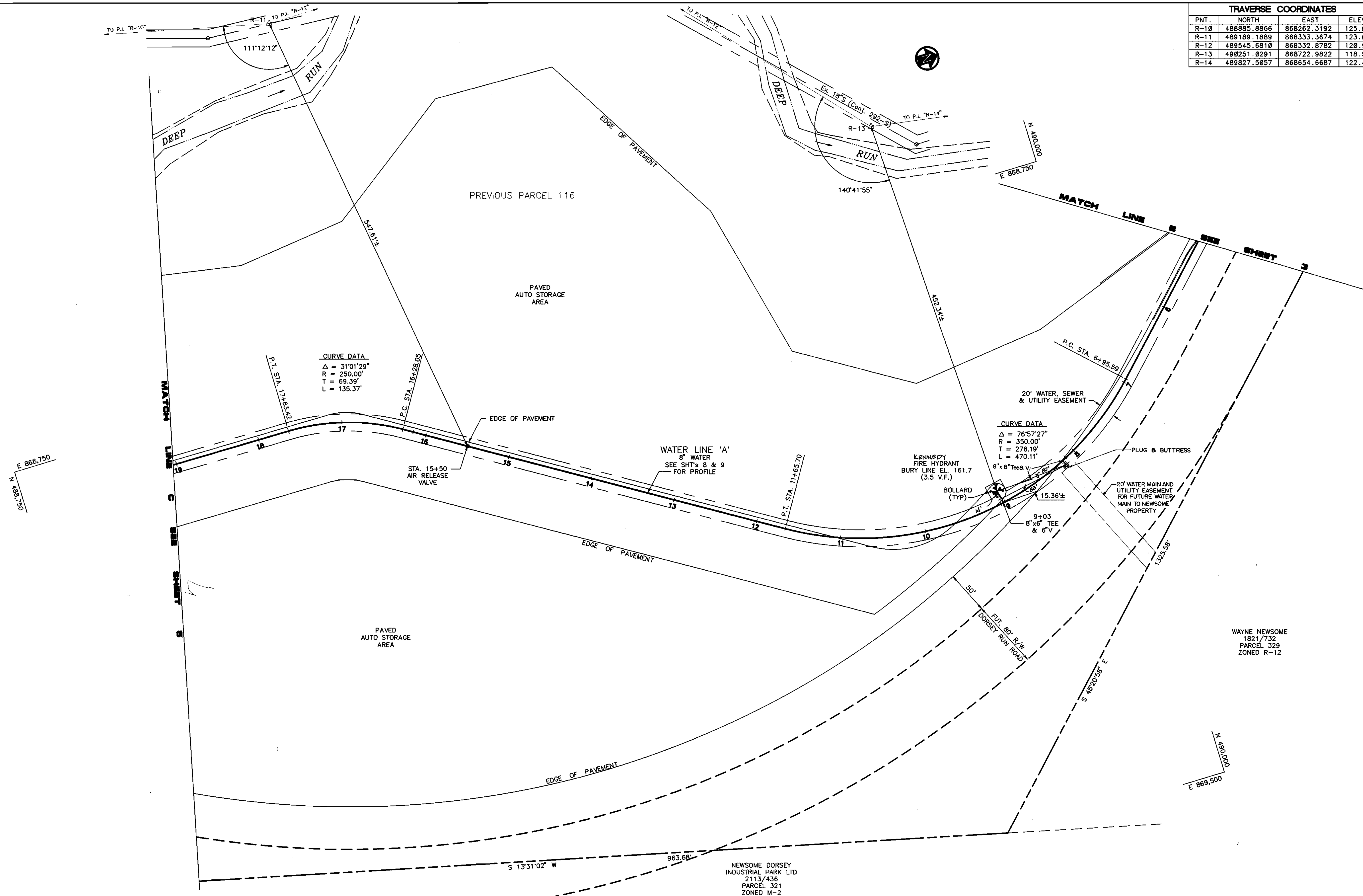
PARCEL 116 & C
HOWARD COUNTY, MARYLAND
SCALE: 1" = 50'

SHEET 3 OF 9

DES: GDT
DRAWN: REC
CHK: RHB

SDP-91-94

TRAVERSE COORDINATES			
PNT.	NORTH	EAST	ELEV.
R-10	488885.8866	868262.3192	125.01
R-11	489189.1889	868333.3674	123.09
R-12	489545.6810	868332.8782	120.92
R-13	490251.0291	868722.9822	118.52
R-14	489827.5057	868654.6687	122.43



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7151 BROOKDALE ROAD
BALTIMORE, MARYLAND 21227

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

<i>[Signature]</i> DIRECTOR OF PUBLIC WORKS DATE 12/20/91	<i>[Signature]</i> CHIEF, BUREAU OF ENGINEERING DATE 12/20/91
<i>[Signature]</i> CHIEF, BUREAU OF UTILITIES DATE 12-17-91	<i>[Signature]</i> CHIEF, LAND DEVELOPMENT DIV. DATE 12/20/91

DATE	DESCRIPTION	BY



WATER & SEWER MAIN PLANS - CONTRACT #14-3151-D
BALTIMORE - WASHINGTON
AUTO EXCHANGE, INC.
PLAN OF 8" WATER MAIN
STA. 5+13 - 19+04

TAX MAP NO. 43
1st ELECTION DISTRICT
DATE: NOVEMBER 18, 1991

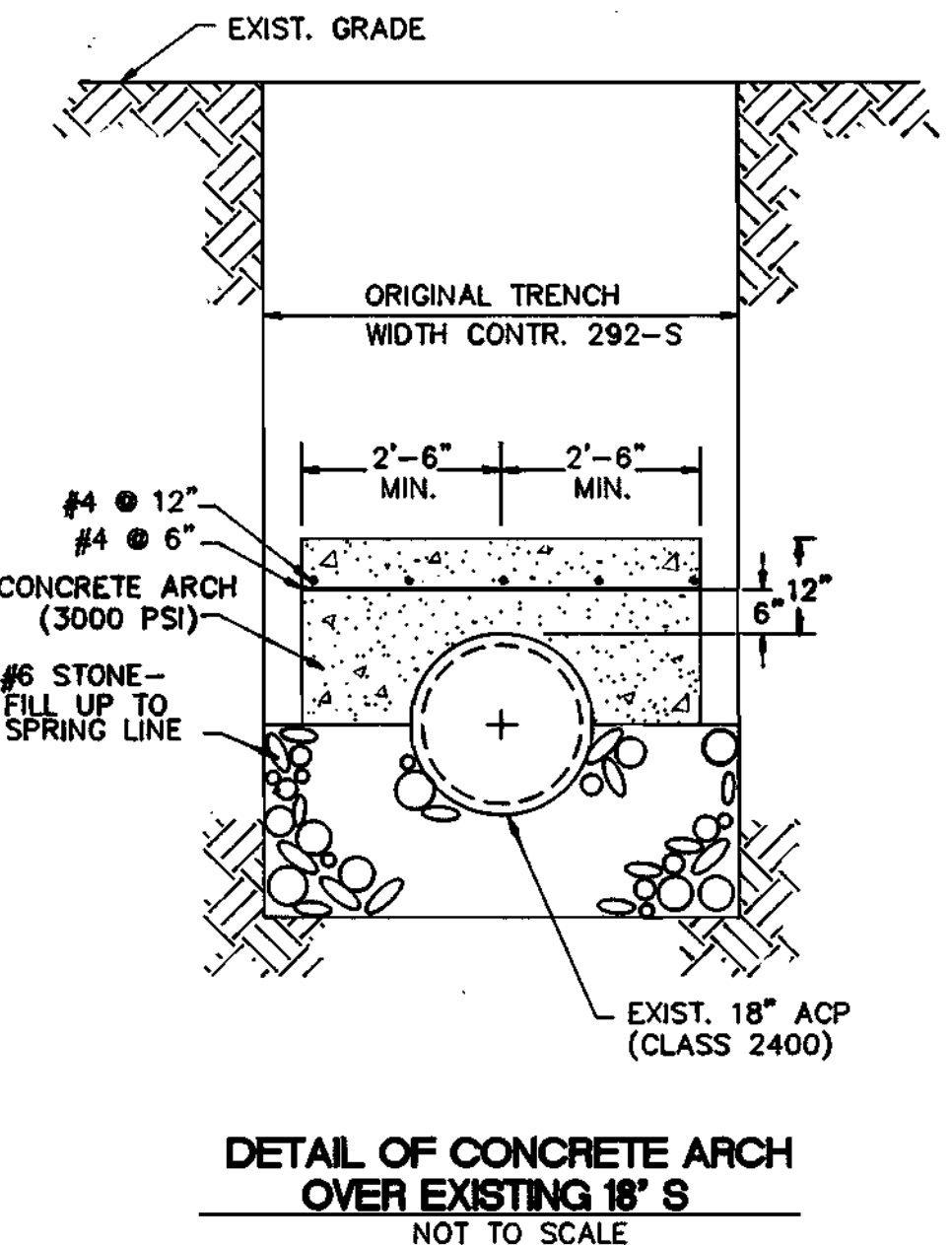
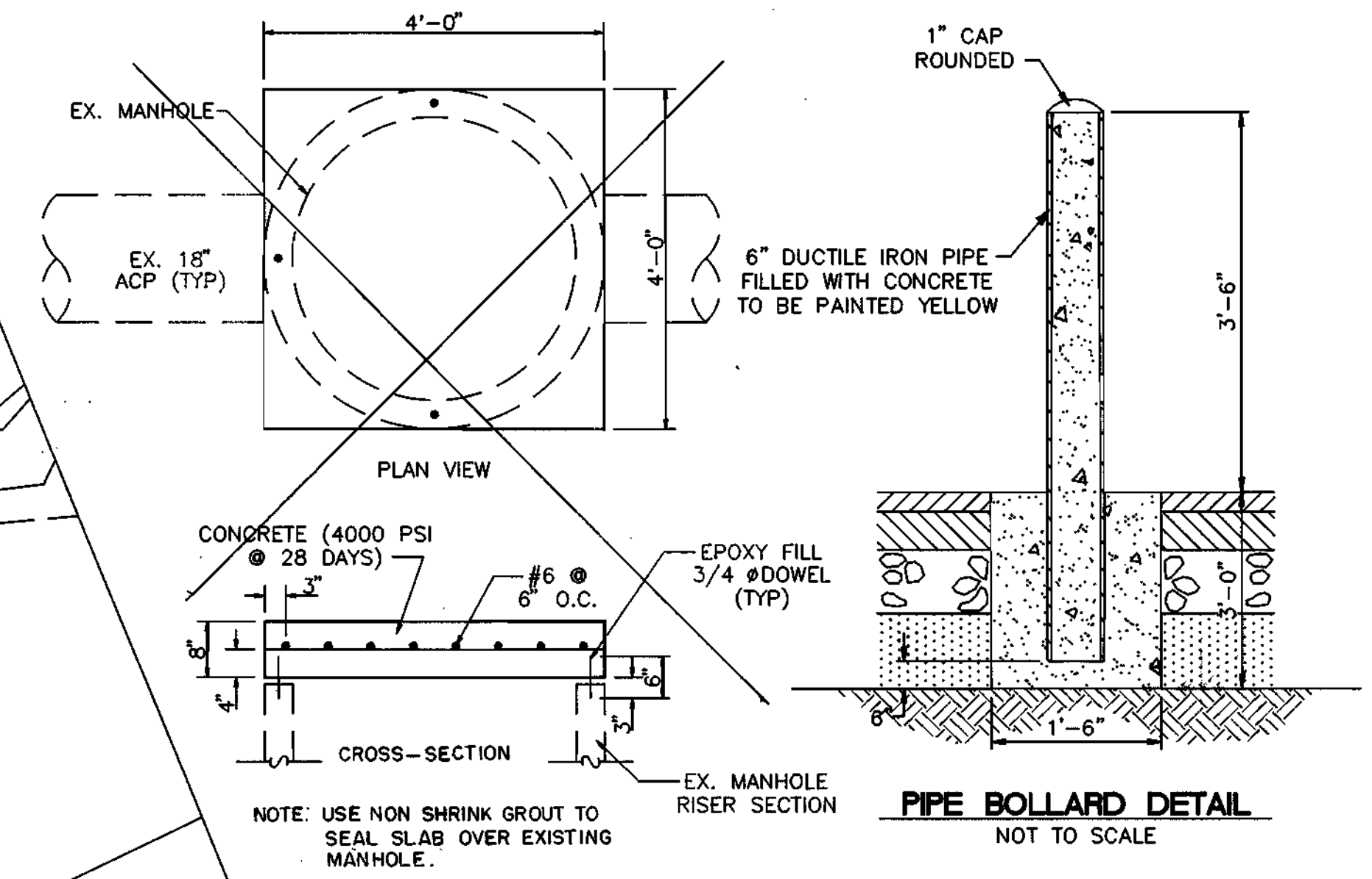
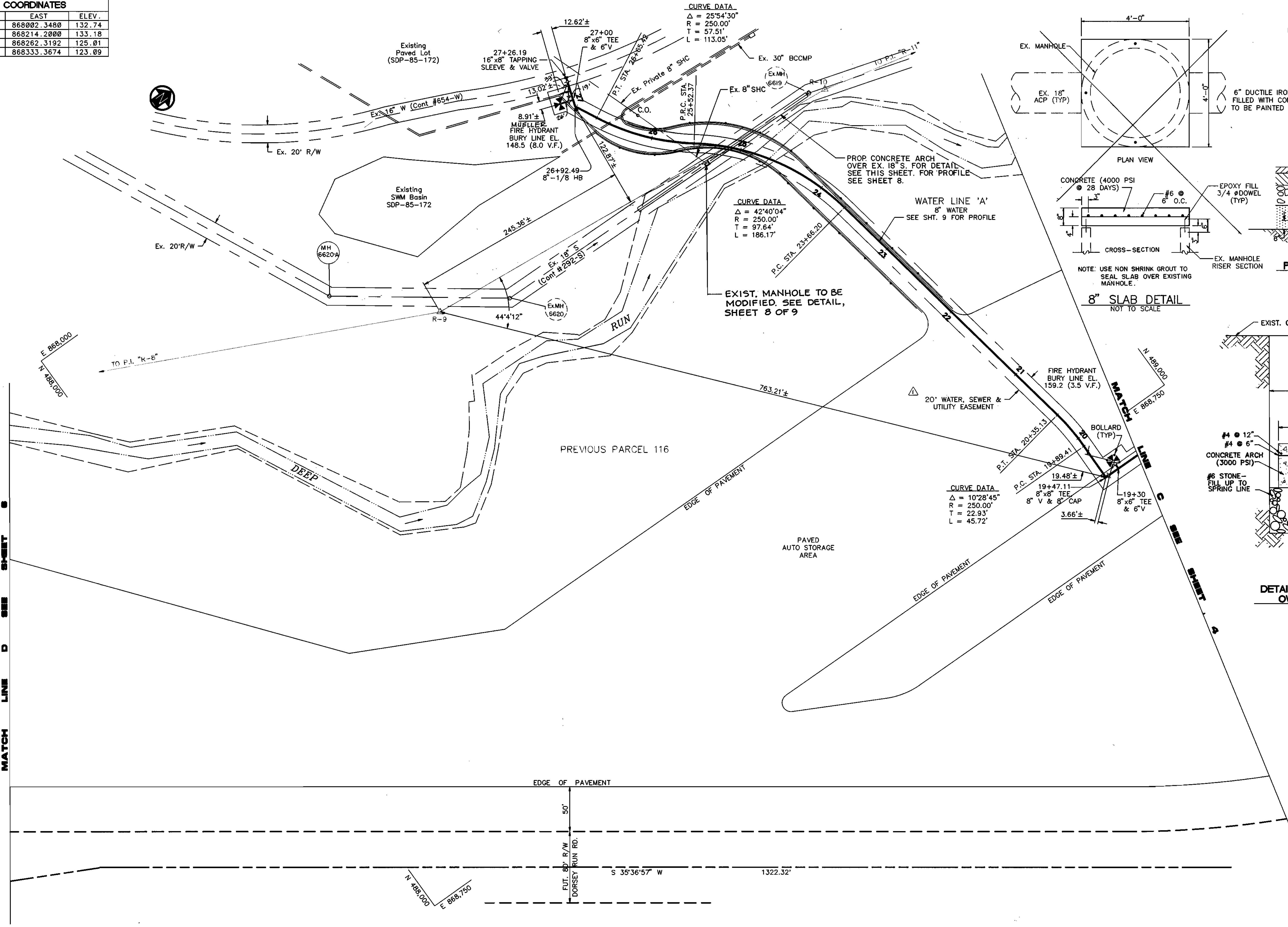
PARCEL 116 & C
HOWARD COUNTY, MARYLAND
SCALE: 1"=50'

SHEET 4 OF 9

DES: GDT
DRAWN: REC
CHK: RHB

SDP-91-94

TRAVERSE COORDINATES			
PNT.	NORTH	EAST	ELEV.
R-8	487950.7686	868002.3480	132.74
R-9	488392.6299	868214.2000	133.18
R-10	488885.8866	868262.3192	125.01
R-11	489189.1889	868333.3674	123.09



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BALTIMORE-WASHINGTON
AUTO EXCHANGE, INC.
 7151 BROOKDALE ROAD
 BALTIMORE, MARYLAND 21227

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

James M. Lewis 12/20/91
 DIRECTOR OF PUBLIC WORKS DATE

Robert Benning 12-17-91
 CHIEF, BUREAU OF UTILITIES DATE

John M. Grogan 12/20/91
 CHIEF, LAND DEVELOPMENT DIV. DATE

9/21/92 PER RED-LINE MARK-UPS 7/30/92 PWR

DATE	DESCRIPTION	BY
	30' TO 20' EASEMENT	SLC



WATER & SEWER MAIN PLANS - CONTRACT #14-3151-D
 BALTIMORE - WASHINGTON
 AUTO EXCHANGE, INC.
PLAN OF 8" WATER MAIN
STA. 19+04 - 27+26.19

TAX MAP NO. 43
 1st ELECTION DISTRICT
 DATE: NOVEMBER 18, 1991

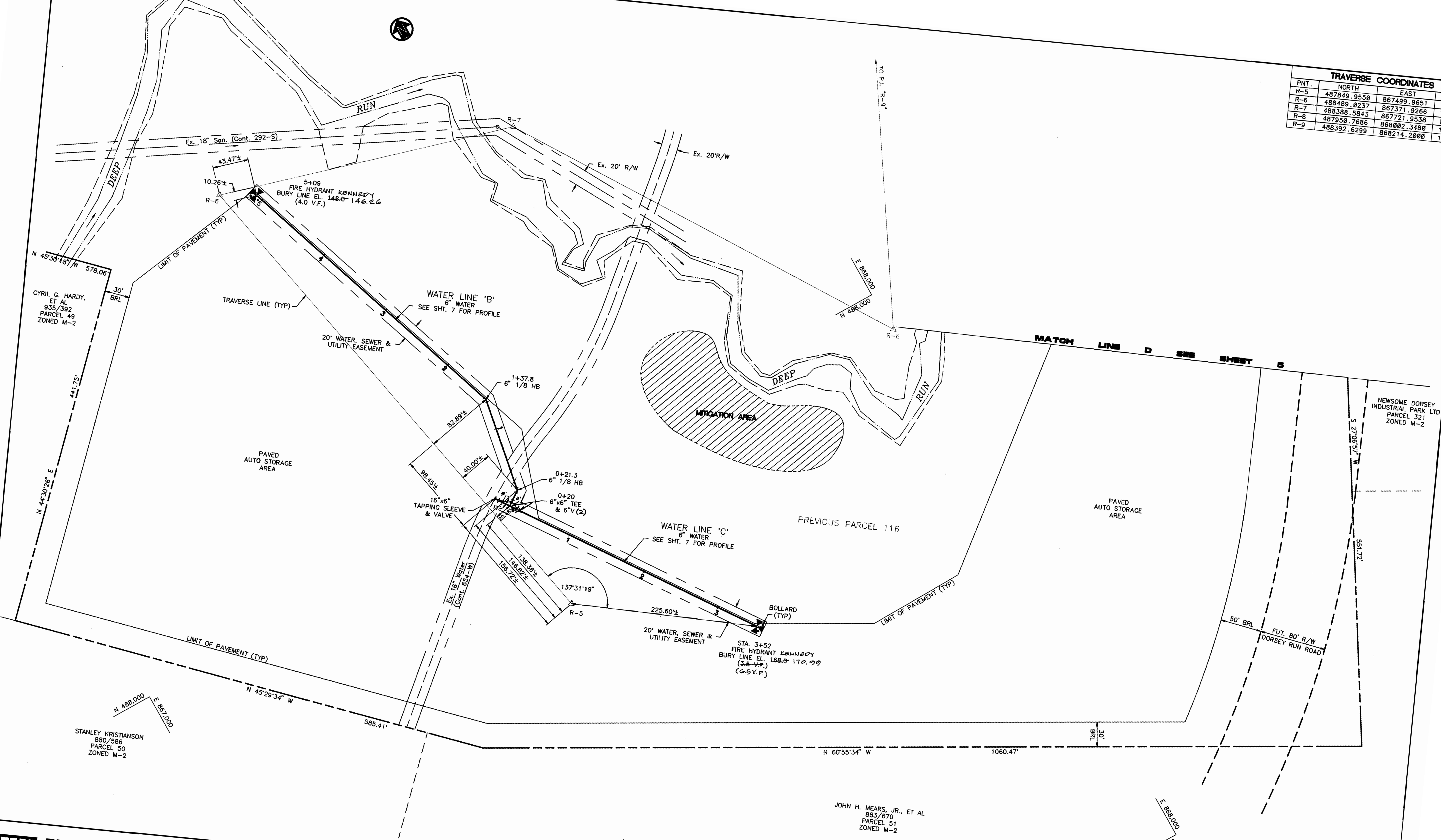
PARCEL 116 & C
 HOWARD COUNTY, MARYLAND
 SCALE: 1" = 50'

SHEET 5 OF 9

DES: GDT
 DRAWN: REC
 CHK: RHB

SDP-91-94

TRAVERSE COORDINATES			
PNT.	NORTH	EAST	E
R-5	487849.9550	867499.9651	17
R-6	488489.0237	867371.9266	15
R-7	488388.5843	867721.9538	13
R-8	487950.7686	868002.3480	13
R-9	488392.6299	868214.2000	133



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OWNER/DEVELOPER
BALTIMORE-WASHINGTON
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 BALTIMORE, MARYLAND 21227

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

James M. [Signature] 12/20/94
 DIRECTOR OF PUBLIC WORKS DATE

Robert [Signature] 12-17-91
 CHIEF, BUREAU OF UTILITIES DATE

William S. [Signature] 12-20-91
 CHIEF, BUREAU OF ENGINEERING DATE

John [Signature] 12/20/94
 CHIEF, LAND DEVELOPMENT DIV. DATE

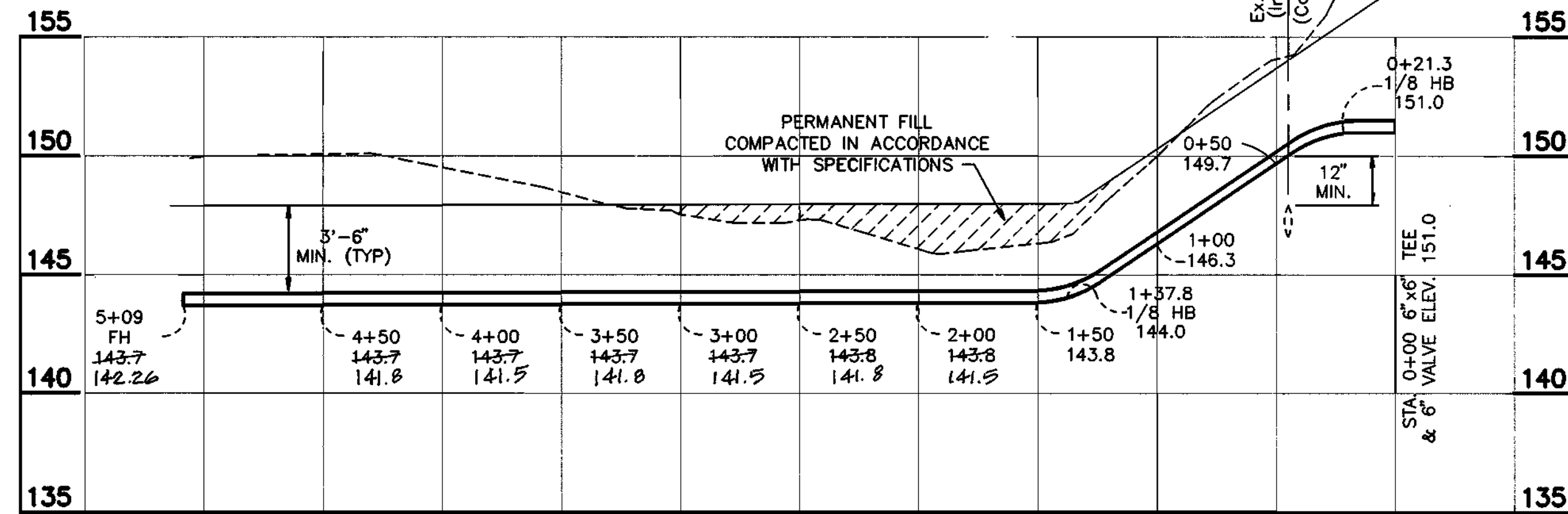
DATE	DESCRIPTION	BY



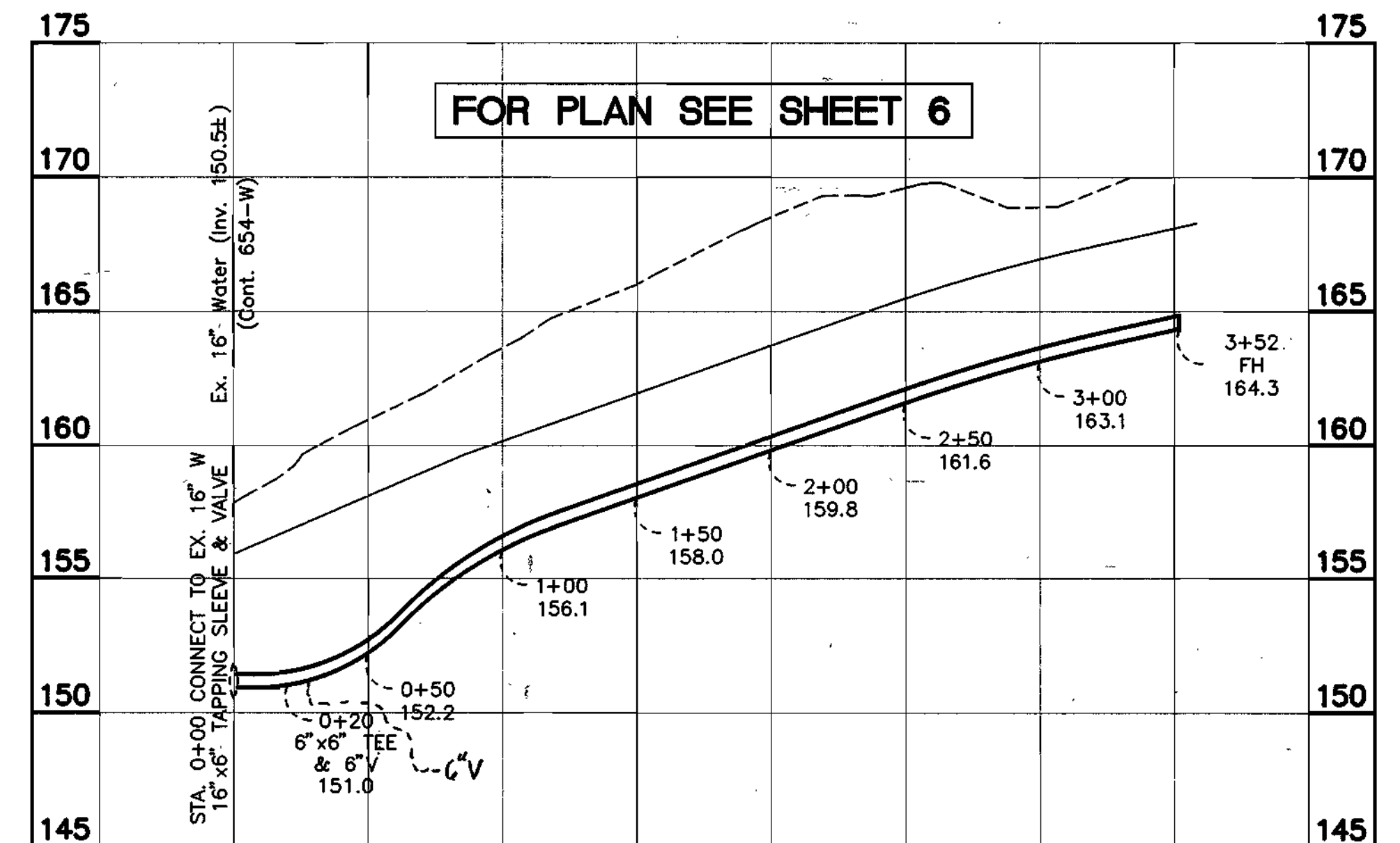
WATER & SEWER MAIN PLANS - CONTRACT #14-3151-D
 BALTIMORE - WASHINGTON
 AUTO EXCHANGE, INC.
PLAN OF
6" WATER MAIN

SHEET **6** OF **9**
 DES: GDT
 DRAWN: REC

FOR PLAN SEE SHEET 6



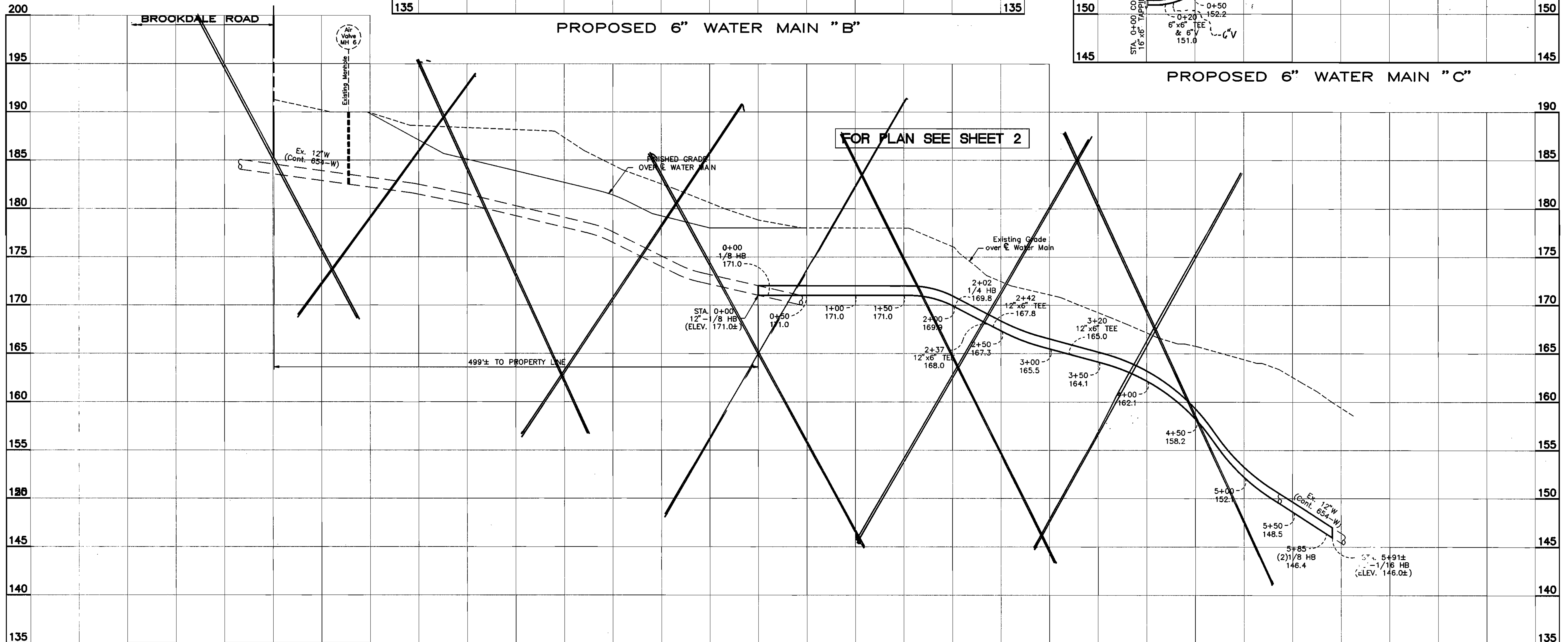
FOR PLAN SEE SHEET 6



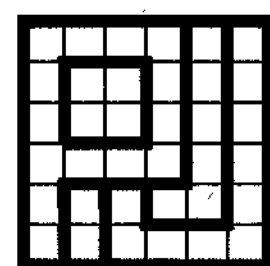
PROPOSED 6" WATER MAIN "B"

PROPOSED 6" WATER MAIN "C"

FOR PLAN SEE SHEET 2



PROPOSED RELOCATION OF 12" WATER MAIN



PURDUM & JESCHKE
CONSULTING ENGINEERS
LAND SURVEYORS
1029 North Calvert Street
Baltimore, Maryland 21202
Tel: (301)837-0194 Fax: (301)837-3431

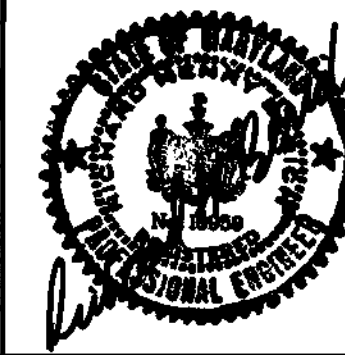
OWNER/DEVELOPER
BALTIMORE-WASHINGTON
AUTO EXCHANGE, INC.
7151 BROOKDALE ROAD
BALTIMORE, MARYLAND 21227

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

James R. ... 12-20-91
DIRECTOR OF PUBLIC WORKS DATE
Richard B. ... 12-17-91
CHIEF, BUREAU OF UTILITIES DATE

William S. ... 12-20-91
CHIEF, BUREAU OF ENGINEERING DATE
John M. ... 1/20/91
CHIEF, LAND DEVELOPMENT DIV. DATE

DATE	DESCRIPTION	BY
6/30/92	Per Redline Markup	



WATER & SEWER MAIN PLANS - CONTRACT #14-3151-D
BALTIMORE - WASHINGTON
AUTO EXCHANGE, INC.
WATER MAIN PROFILES

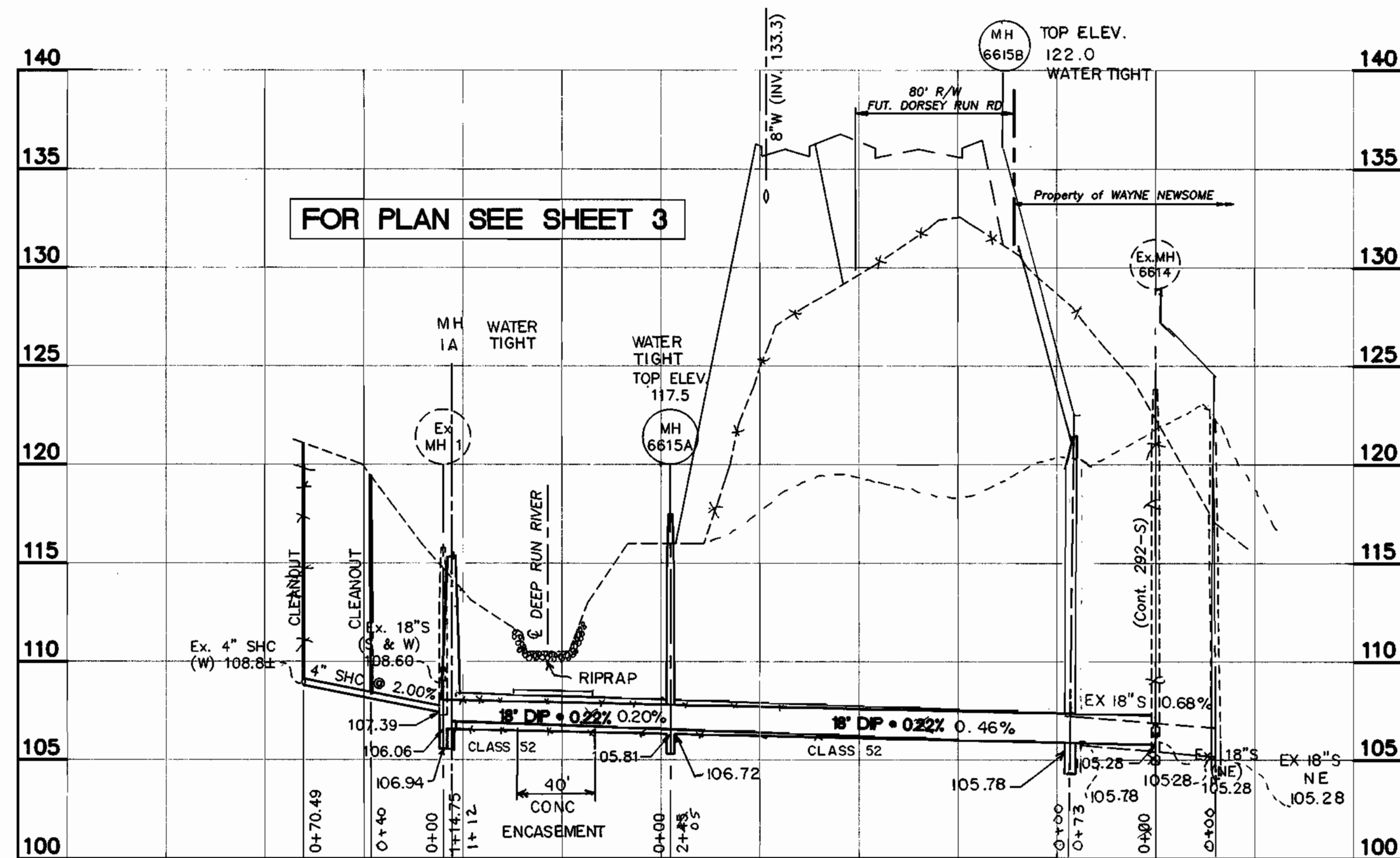
TAX MAP NO. 43
1st ELECTION DISTRICT
DATE: NOVEMBER 18, 1991

PARCEL 116 & C
HOWARD COUNTY, MARYLAND
SDP-91-94

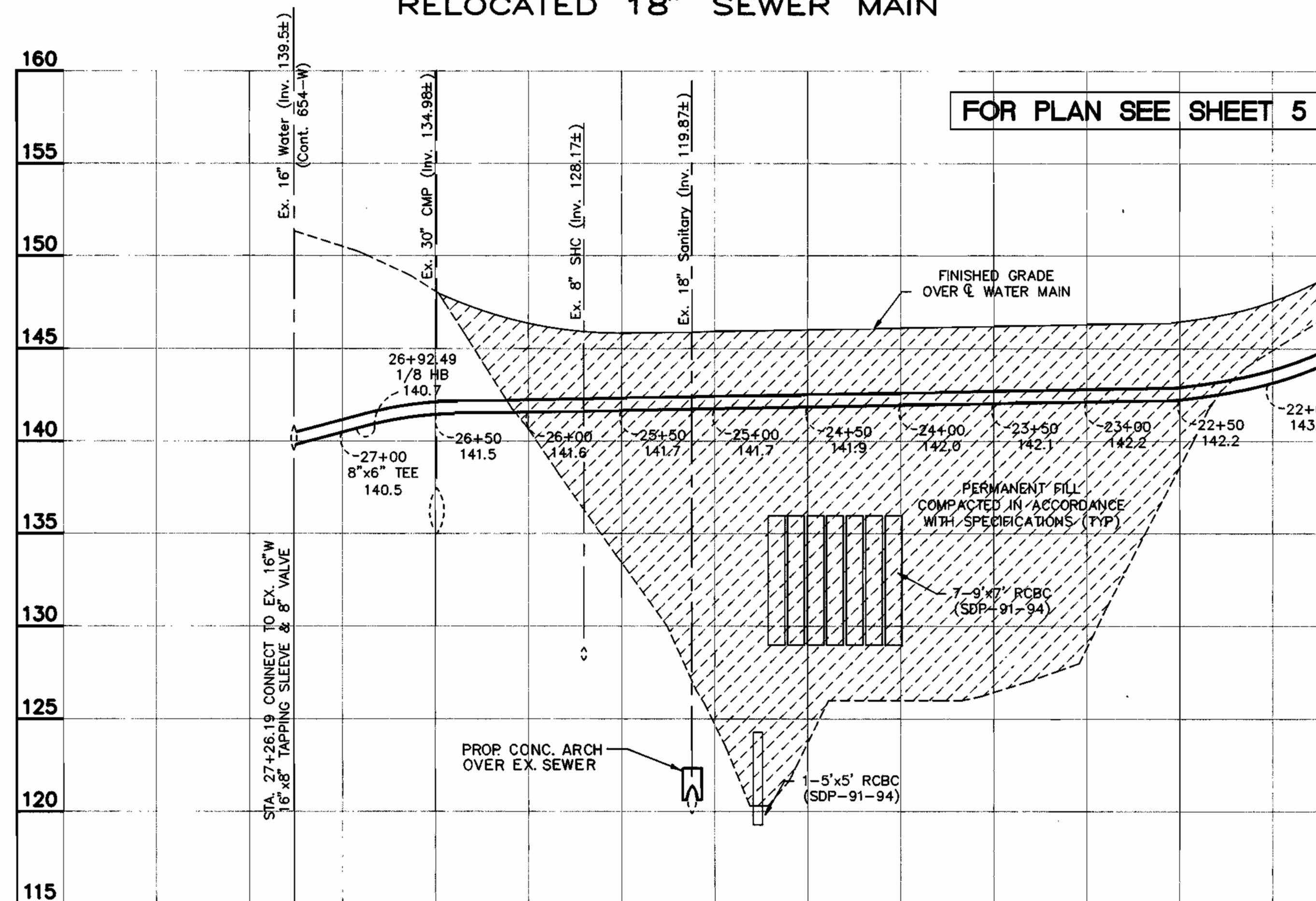
SHEET 7 OF 9

DES: GDT
DRAWN: REC
CHK: RHB

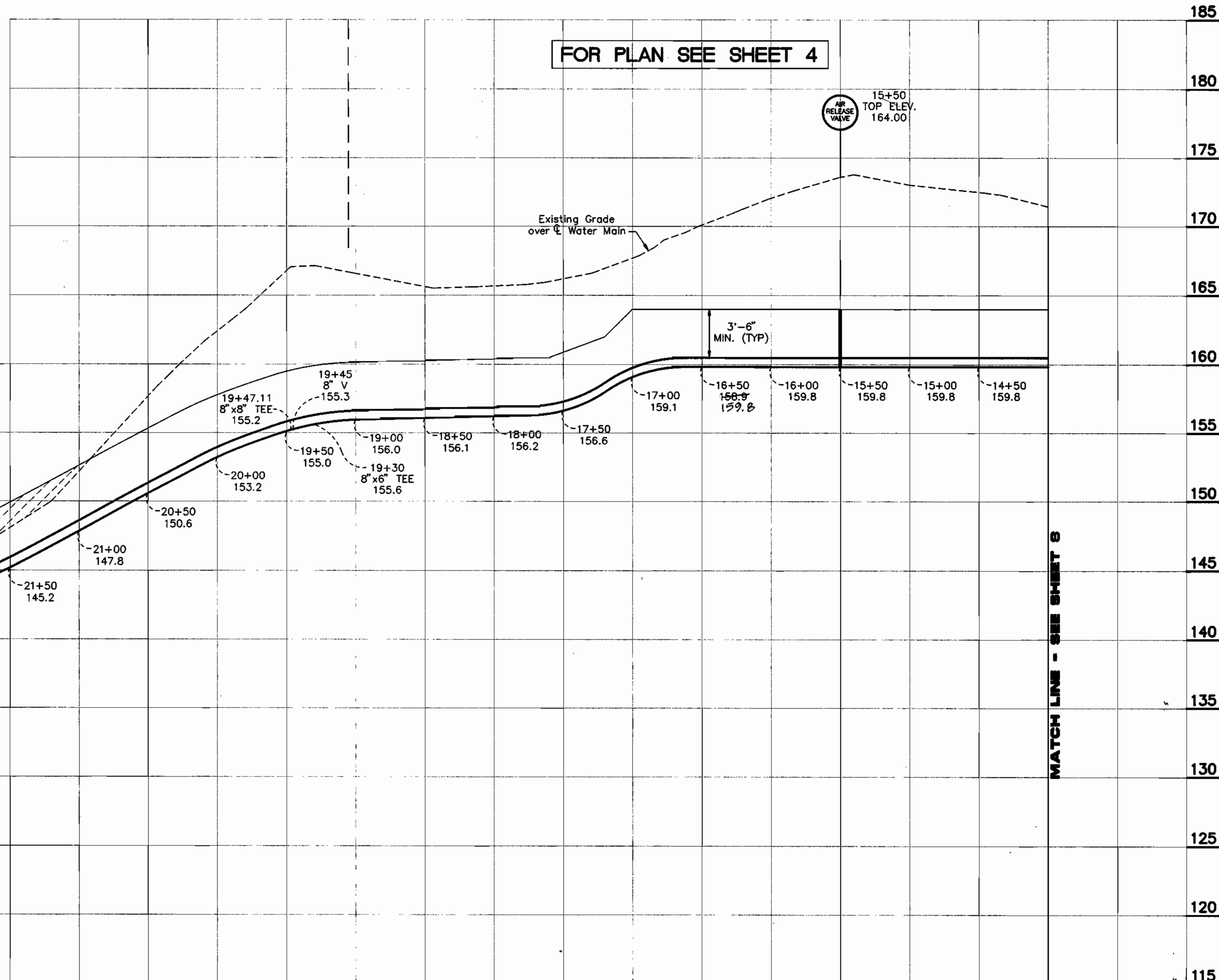
SCALE: HORIZ. 1"=50'
VERT. 1"=5'



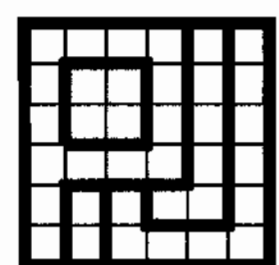
RELOCATED 18" SEWER MAIN



PROPOSED 8" WATER MAIN "A"



636BUPRO (NEW SHTS)



PURDUM & JESCHKE
 CONSULTING ENGINEERS
 LAND SURVEYORS
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 Baltimore, Maryland 21202
 Tel: (301)837-0194 Fax: (301)837-3431

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AUTO EXCHANGE, INC.
 7151 BROOKDALE ROAD
 BALTIMORE, MARYLAND 21227

DEPARTMENT OF PUBLIC WORKS
 HOWARD COUNTY, MARYLAND

<i>James J. ...</i> DIRECTOR OF PUBLIC WORKS DATE 12/20/91	<i>James R. ...</i> CHIEF, BUREAU OF ENGINEERING DATE 12-20-91
<i>Robert ...</i> CHIEF, BUREAU OF UTILITIES DATE 12-17-91	<i>...</i> CHIEF, LAND DEVELOPMENT DIV. DATE 1/20/92

DATE	DESCRIPTION	BY
2/13/92	18" SAN SEWER RELOCATION	



WATER & SEWER MAIN PLANS - CONTRACT #14-3151-D
 BALTIMORE - WASHINGTON
 AUTO EXCHANGE, INC.
WATER & SEWER
MAIN PROFILES
 TAX MAP NO. 43
 1st ELECTION DISTRICT
 DATE: NOVEMBER 18, 1991

PARCEL 116 & C
 HOWARD COUNTY, MARYLAND
 SDP-91-94

SHEET 9 OF 9
 DES: GDT
 DRAWN: REC
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 SCALE: HORIZ. 1"=50'
 VERT. 1"=5'