

Hydrant No.	Constr. Sta.	Lead Pipe Stationing And Fittings	Hydrant Depth-Of-Bury
1	11+15, Lt.	0+00 8" x 8" x 6" Tapping Sleeve & Valve W/ Roadway Box, Inv. 222.71 0+04 6" x 45" Elbow, Inv. 222.71 0+08 6" x 45" Elbow, Inv. 228.5± 0+22 6" Fire Hydrant, Inv. 228.5±	5'
2	13+60, Lt.	0+00 8" x 8" x 6" Tapping Sleeve & Valve W/ Roadway Box, Inv. 216.9± 0+04 6" x 45" Elbow, Inv. 216.9± 0+08 6" x 45" Elbow, Inv. 219.7± 0+16 6" Fire Hydrant, Inv. 219.7±	5'
3	18+60, Rt.	0+00 8" x 8" x 6" Anchoring Tee & Valve W/ Roadway Box, Inv. 216.0± 0+21 6" Fire Hydrant, Inv. 216.0±	5'
4	22+00, Rt.	0+00 8" x 8" x 6" Anchoring Tee & Valve W/ Roadway Box, Inv. 214.6± 0+23 6" Fire Hydrant, Inv. 214.6±	7'

Note: 1. "Fire Hydrant Settings" As Per Std. W.11, W.2.11, Or W.2.12, And As Directed By The Engineer.

**LEGEND AND NOTES**

- ① Adjust Existing Utility Appurtenances To Finished Grade.
- ② Vertical Adjustment To Existing San. MH Stacks And Frame & Covers, Typical For G, See Contract Special Provisions.

- Notes:
- Remove Existing Fire Hydrant & Roadway Box; Valve To Remain In The Ground; See Contract Special Provisions For Additional Information, Typical For Two (2) Locations.
  - Remove Existing Fire Hydrant & Valve W/ Roadway Box, Earthed Open End Of Pipe Remaining In The Ground; Transport Hydrant & Valves (2 Each) In An Undamaged Condition To The Utility Bureau Of Utilities Storage Yard.

ITEM	QTY	UNIT	REMARKS	SUPPLIER
1" x 3/4" Copper	20	LF		
1" x 3/4" Elbow	2	EA		
1" x 3/4" Tee	2	EA		
1" x 3/4" Adapter	2	EA		
1" x 3/4" Coupling	2	EA		
1" x 3/4" Plug	2	EA		
1" x 3/4" Cap	2	EA		
1" x 3/4" Nut	2	EA		
1" x 3/4" Washer	2	EA		
1" x 3/4" Bolt	2	EA		
1" x 3/4" Lock Washer	2	EA		
1" x 3/4" Flat Washer	2	EA		
1" x 3/4" Hex Nut	2	EA		
1" x 3/4" Hex Bolt	2	EA		
1" x 3/4" Hex Lock Washer	2	EA		
1" x 3/4" Hex Flat Washer	2	EA		
1" x 3/4" Hex Nut	2	EA		
1" x 3/4" Hex Bolt	2	EA		
1" x 3/4" Hex Lock Washer	2	EA		
1" x 3/4" Hex Flat Washer	2	EA		

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

CHIEF, BUREAU OF ENGINEERING  
DATE: 10-11-88

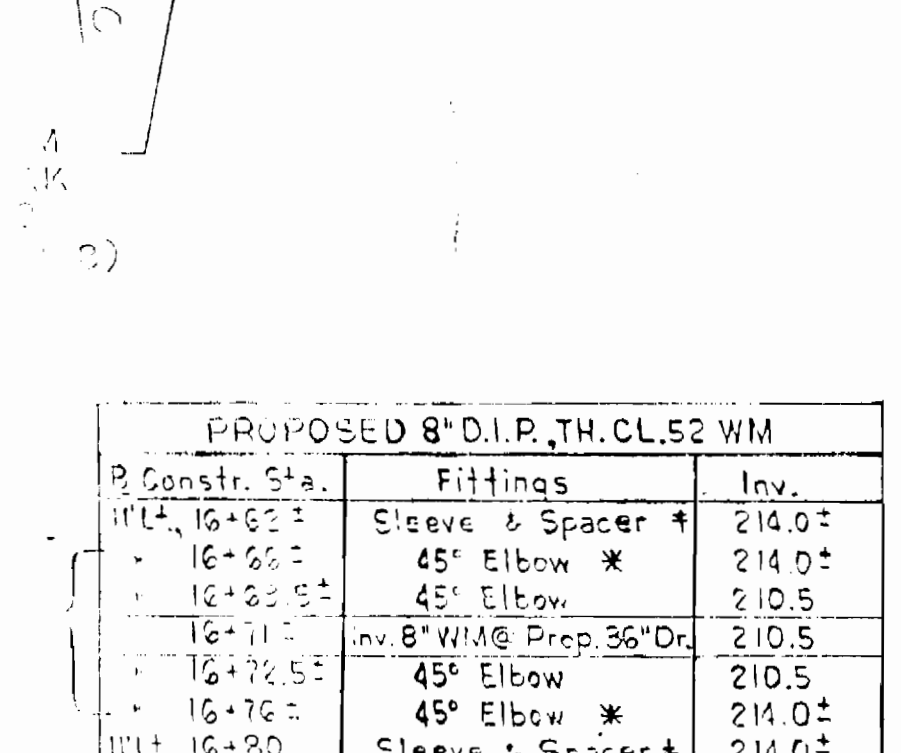
CHIEF, BUREAU OF UTILITIES

**QUANTITIES**

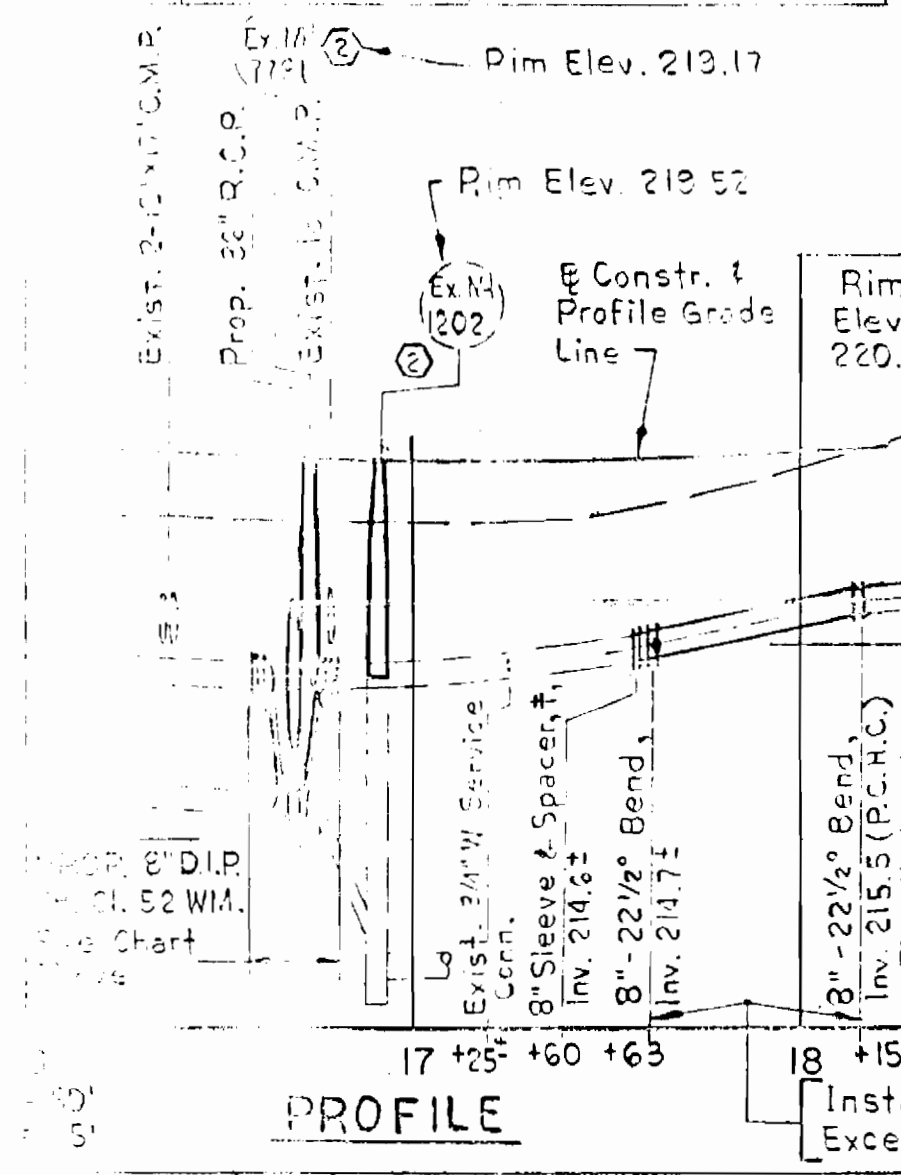
ITEM	QTY	UNIT	REMARKS	SUPPLIER
1" x 3/4" Copper	20	LF		
1" x 3/4" Elbow	2	EA		
1" x 3/4" Tee	2	EA		
1" x 3/4" Adapter	2	EA		
1" x 3/4" Coupling	2	EA		
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1" x 3/4" Flat Washer	2	EA		
1" x 3/4" Hex Nut	2	EA		
1" x 3/4" Hex Bolt	2	EA		
1" x 3/4" Hex Lock Washer	2	EA		
1" x 3/4" Hex Flat Washer	2	EA		

RUMMEL, KLEPPER & KAHL  
1035 N. CALVERT STREET  
BALTIMORE, MARYLAND 21202

**PLAN**



NOTE: \* Install 8" Anchor For Vertical Bend, 8" Size", Std. Dims. "A" = 3'-0", "B" = 3'-0", "C" = 4'-0".  
† Install 8" Tee & Adapter As Per Std. W.4.15.

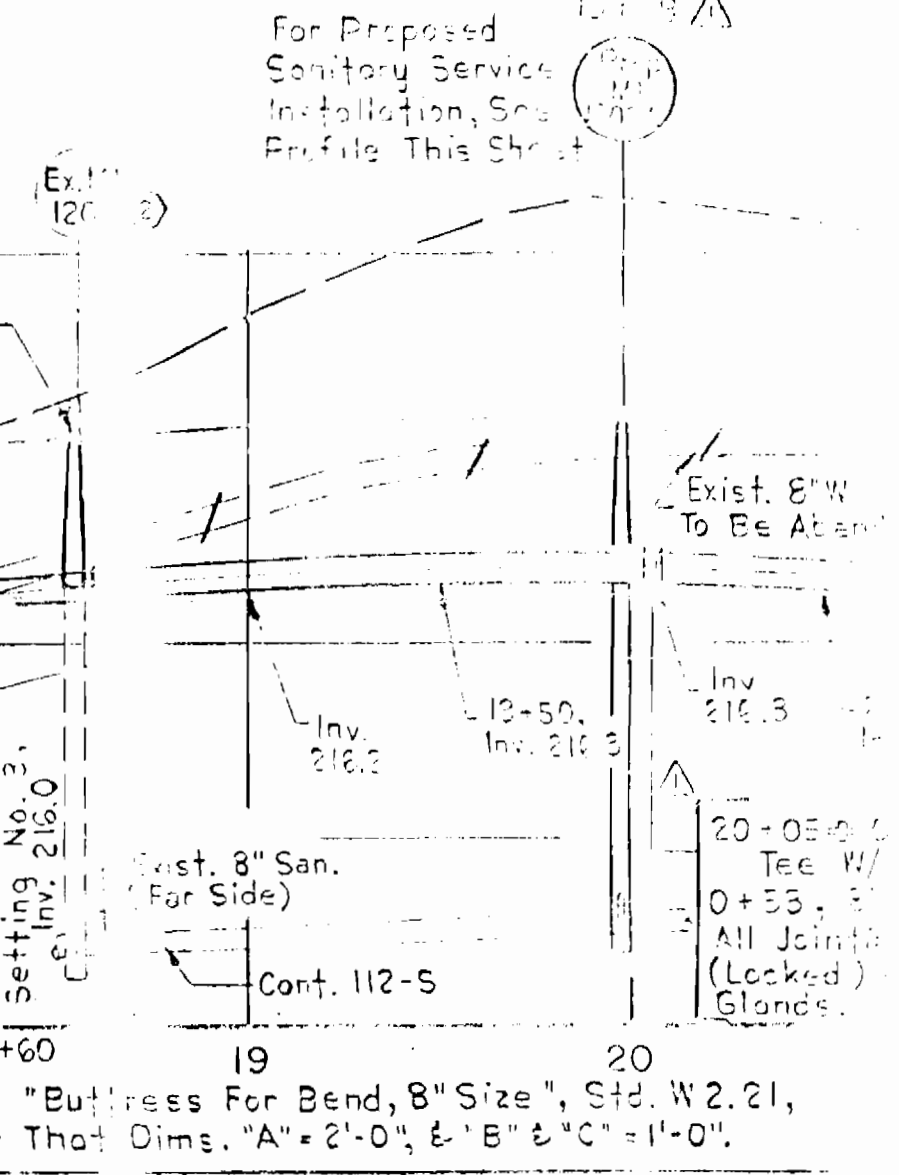


INSTALL "BUTTS" FOR BEND, 8" SIZE", STD. W.2.21, EXCEPT THAT DIMS. "A" = 2'-0", "B" = 3'-0", "C" = 1'-0".

**WATER SERVICE ADJUSTMENTS**

Remarks
All Contained Items And Reset Vertically Upward To New Project Finished Grade, All As Per Std. W.3.21, Tube And Compression Connectors To Avoid Conflict With Project Storm Drain (See Above Std.), And Service Pipe.
6. Contained Items In Their Entirety; Salvage Meter For Reinstallation. Install Totally New 1" x 3/4" Metered New Project Finished Grade, Complete, Including Vault With All Contained Items & New Frame & Cover; Re-3.3. Service Extension At 40± Of 1" Copper Tube, Fittings, & Adapters To Tie-In To Exist. Plastic Service Pipe No. 9155, Except That Installation Shall Be 3/4" x 3/8" Metered Service, With Extension At 25± CF To Adapters To Tie-In To Existing Copper Tube Service Pipe.
8" x 8" Tapping Sleeve & Valve And Install New "PROPOSED 8" D.I.P. TH. CL. 52, WATER SERVICE" As 8" Anchoring Tee & Valve W/ Roadway Box, Inv. 214.2 On-Line, Inv. 214.7
Existing Systems, Furnish/ Install Elbows, Sleeve & Spacer, And Adapters As Required To Effect Tie-In Existing 8" Service, Inv. 216.6±. Install "Buttress For Tee, 8" Size", Std. W.2.23, W/ Dims. "A" = 2'-0", "B" = 3'-0", "C" = 4'-0". Buttress For Horiz. Bends (Std. 0+49) To Suit Elbows Installed, Std. W.2.21 & W/ Allow. Soil Brng. Pressure Of 1/2" (See Contr. Spec. Prov.) & Install New 2" Corp. Cock; Install 50± L.F. OF 2" Copper Tube And Tie-In To Pipe Upstream Of Meter Setting (Existing Setting May Be Similar To As Shown On Std. W.3.24), Necessary To Perform Tie-In, And Furnish/ Install All Fittings And Adapters To Effect Such Tie-In. Saddle Installation Shall Be As Per Std. W.3.21.

REMARKS

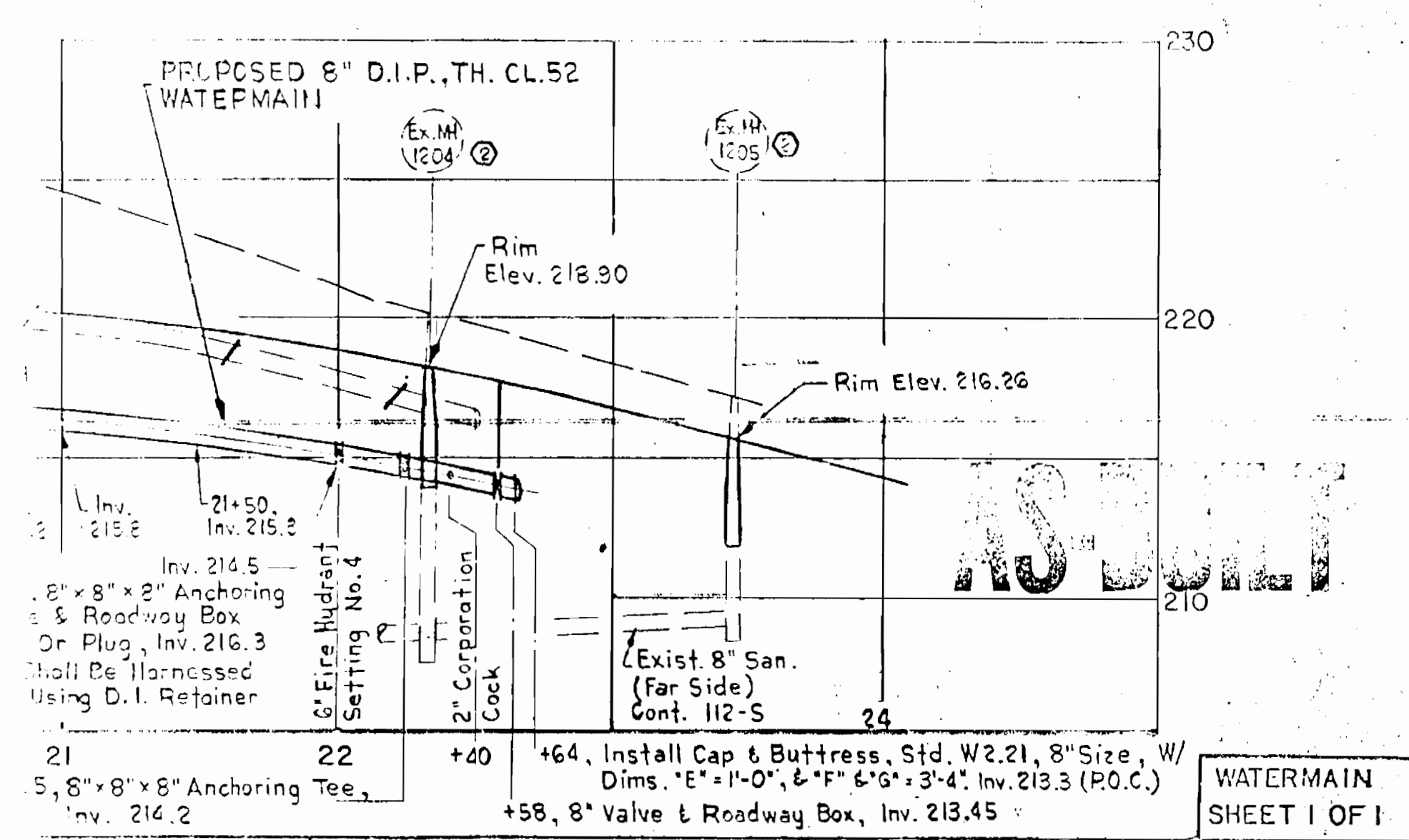


INSTALL "BUTTS" FOR BEND, 8" SIZE", STD. W.2.21, EXCEPT THAT DIMS. "A" = 2'-0", "B" = 3'-0", "C" = 1'-0".

**WATER SERVICE ADJUSTMENTS**

Remarks
All Contained Items And Reset Vertically Upward To New Project Finished Grade, All As Per Std. W.3.21, Tube And Compression Connectors To Avoid Conflict With Project Storm Drain (See Above Std.), And Service Pipe.
6. Contained Items In Their Entirety; Salvage Meter For Reinstallation. Install Totally New 1" x 3/4" Metered New Project Finished Grade, Complete, Including Vault With All Contained Items & New Frame & Cover; Re-3.3. Service Extension At 40± Of 1" Copper Tube, Fittings, & Adapters To Tie-In To Exist. Plastic Service Pipe No. 9155, Except That Installation Shall Be 3/4" x 3/8" Metered Service, With Extension At 25± CF To Adapters To Tie-In To Existing Copper Tube Service Pipe.
8" x 8" Tapping Sleeve & Valve And Install New "PROPOSED 8" D.I.P. TH. CL. 52, WATER SERVICE" As 8" Anchoring Tee & Valve W/ Roadway Box, Inv. 214.2 On-Line, Inv. 214.7
Existing Systems, Furnish/ Install Elbows, Sleeve & Spacer, And Adapters As Required To Effect Tie-In Existing 8" Service, Inv. 216.6±. Install "Buttress For Tee, 8" Size", Std. W.2.23, W/ Dims. "A" = 2'-0", "B" = 3'-0", "C" = 4'-0". Buttress For Horiz. Bends (Std. 0+49) To Suit Elbows Installed, Std. W.2.21 & W/ Allow. Soil Brng. Pressure Of 1/2" (See Contr. Spec. Prov.) & Install New 2" Corp. Cock; Install 50± L.F. OF 2" Copper Tube And Tie-In To Pipe Upstream Of Meter Setting (Existing Setting May Be Similar To As Shown On Std. W.3.24), Necessary To Perform Tie-In, And Furnish/ Install All Fittings And Adapters To Effect Such Tie-In. Saddle Installation Shall Be As Per Std. W.3.21.

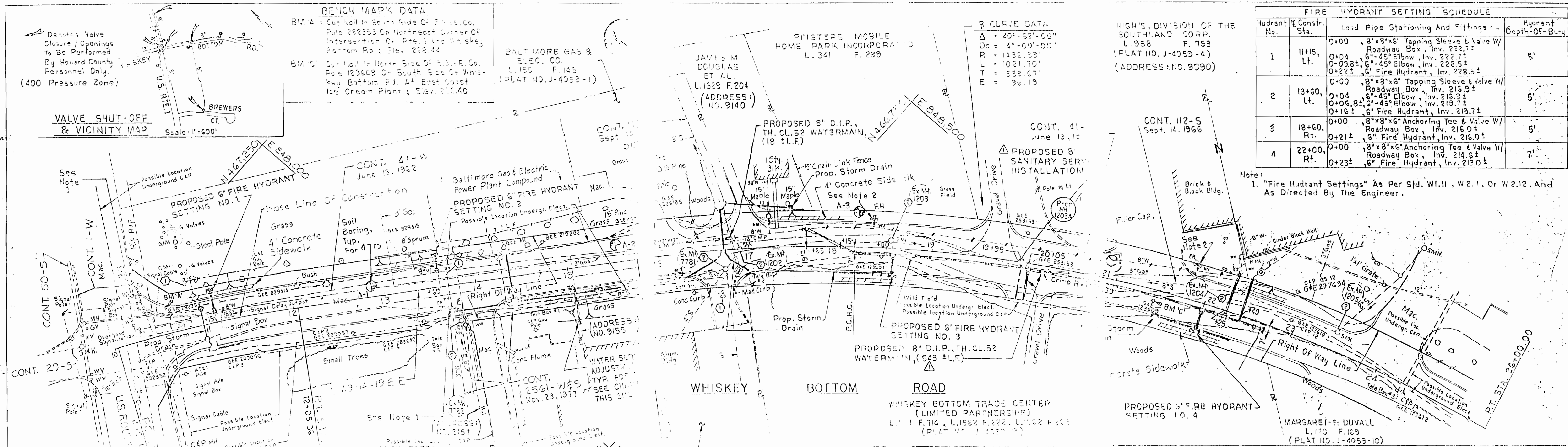
REMARKS



INSTALL "BUTTS" FOR BEND, 8" SIZE", STD. W.2.21, EXCEPT THAT DIMS. "A" = 2'-0", "B" = 3'-0", "C" = 1'-0".

WHISKEY BOTTOM ROAD 8" WATER MAIN RELOCATION  
CAPITAL PROJECT J-4053 & B-3816  
CONTRACT NO. 44-1639  
ELECTION DISTRICT NO. 6  
HOWARD COUNTY, MARYLAND

SCALE AS SHOWN  
SHEET 10 OF 11



**LEGEND AND NOTES**

① Adjust Existing Utility Appurtenances To Finished Grade.

② Vertical Adjustment To Existing San. MH Stacks And Frame & Covers, Typical For 6'. See Contract Special Provisions.

Notes:

1. Remove Existing Fire Hydrant & Roadway Box; Valve To Remain In The Ground. See Contract Special Provisions For Additional Information, Typical For Two (2) Locations.

2. Remove Existing Fire Hydrant & Valve W/ Roadway Box, Bulhead Down E. of Fire Hydrant Remaining In The Ground. Transport Hydrant & Valves (2 Each) In An Undamaged Condition To The Baltimore Bureau Of Utilities Storage Yard.

**QUANTITIES**

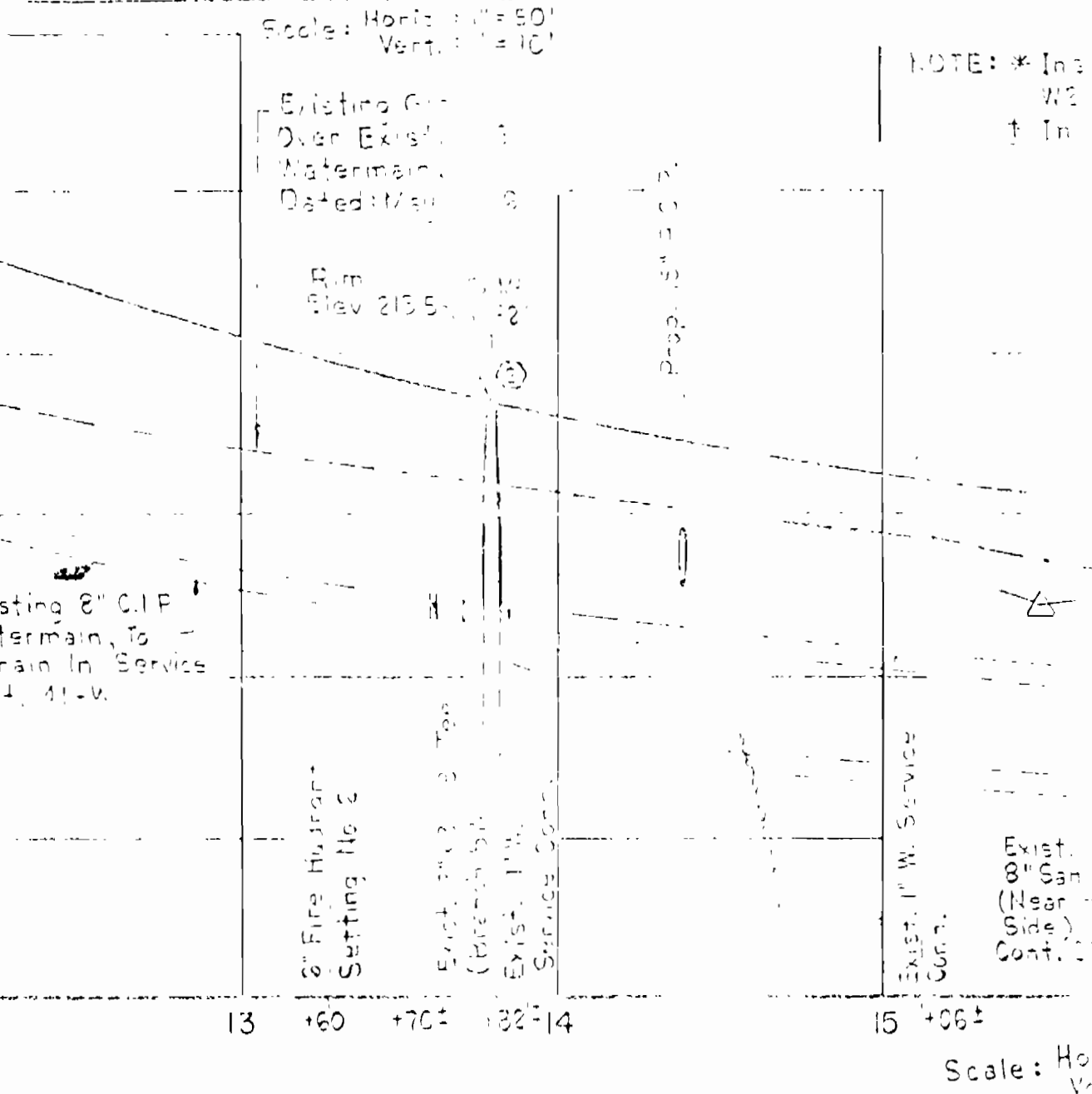
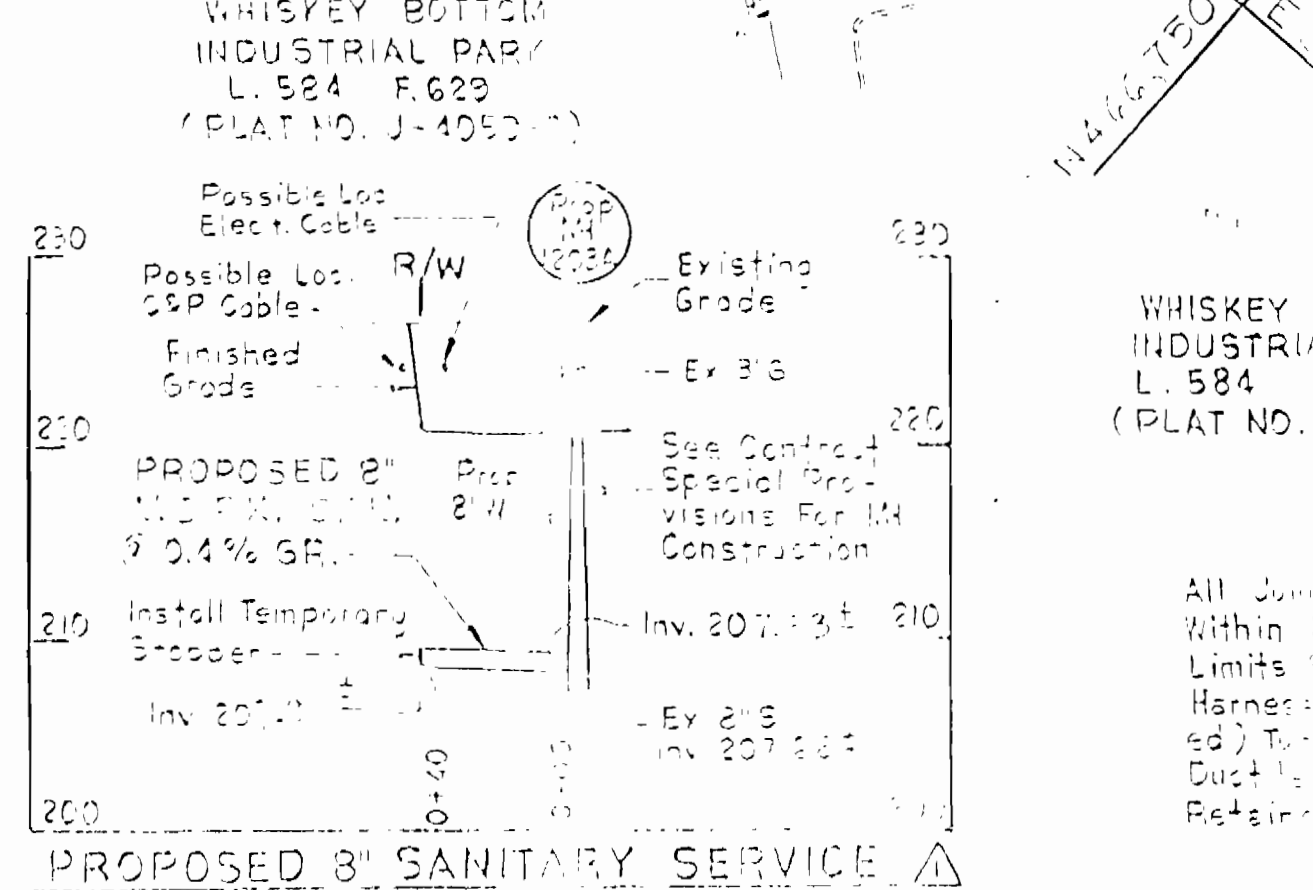
ITEM	QTY	UNIT	SUPPLIER
1" Fire Hydrant Setting No. 1	1	EA	
1" Fire Hydrant Setting No. 2	1	EA	
1" Fire Hydrant Setting No. 3	1	EA	
1" Fire Hydrant Setting No. 4	1	EA	
1" Fire Hydrant Setting No. 5	1	EA	
1" Fire Hydrant Setting No. 6	1	EA	
1" Fire Hydrant Setting No. 7	1	EA	
1" Fire Hydrant Setting No. 8	1	EA	
1" Fire Hydrant Setting No. 9	1	EA	
1" Fire Hydrant Setting No. 10	1	EA	
1" Fire Hydrant Setting No. 11	1	EA	
1" Fire Hydrant Setting No. 12	1	EA	
1" Fire Hydrant Setting No. 13	1	EA	
1" Fire Hydrant Setting No. 14	1	EA	
1" Fire Hydrant Setting No. 15	1	EA	
1" Fire Hydrant Setting No. 16	1	EA	
1" Fire Hydrant Setting No. 17	1	EA	
1" Fire Hydrant Setting No. 18	1	EA	
1" Fire Hydrant Setting No. 19	1	EA	
1" Fire Hydrant Setting No. 20	1	EA	
1" Fire Hydrant Setting No. 21	1	EA	
1" Fire Hydrant Setting No. 22	1	EA	
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1" Fire Hydrant Setting No. 24	1	EA	
1" Fire Hydrant Setting No. 25	1	EA	
1" Fire Hydrant Setting No. 26	1	EA	
1" Fire Hydrant Setting No. 27	1	EA	
1" Fire Hydrant Setting No. 28	1	EA	
1" Fire Hydrant Setting No. 29	1	EA	
1" Fire Hydrant Setting No. 30	1	EA	
1" Fire Hydrant Setting No. 31	1	EA	
1" Fire Hydrant Setting No. 32	1	EA	
1" Fire Hydrant Setting No. 33	1	EA	
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1" Fire Hydrant Setting No. 37	1	EA	
1" Fire Hydrant Setting No. 38	1	EA	
1" Fire Hydrant Setting No. 39	1	EA	
1" Fire Hydrant Setting No. 40	1	EA	
1" Fire Hydrant Setting No. 41	1	EA	
1" Fire Hydrant Setting No. 42	1	EA	
1" Fire Hydrant Setting No. 43	1	EA	
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1" Fire Hydrant Setting No. 47	1	EA	
1" Fire Hydrant Setting No. 48	1	EA	
1" Fire Hydrant Setting No. 49	1	EA	
1" Fire Hydrant Setting No. 50	1	EA	

DEPARTMENT OF PUBLIC WORKS  
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS

CHIEF, BUREAU OF ENGINEERING

DATE: 10-11-88



RUMMEL, KLEPPER & KAHL

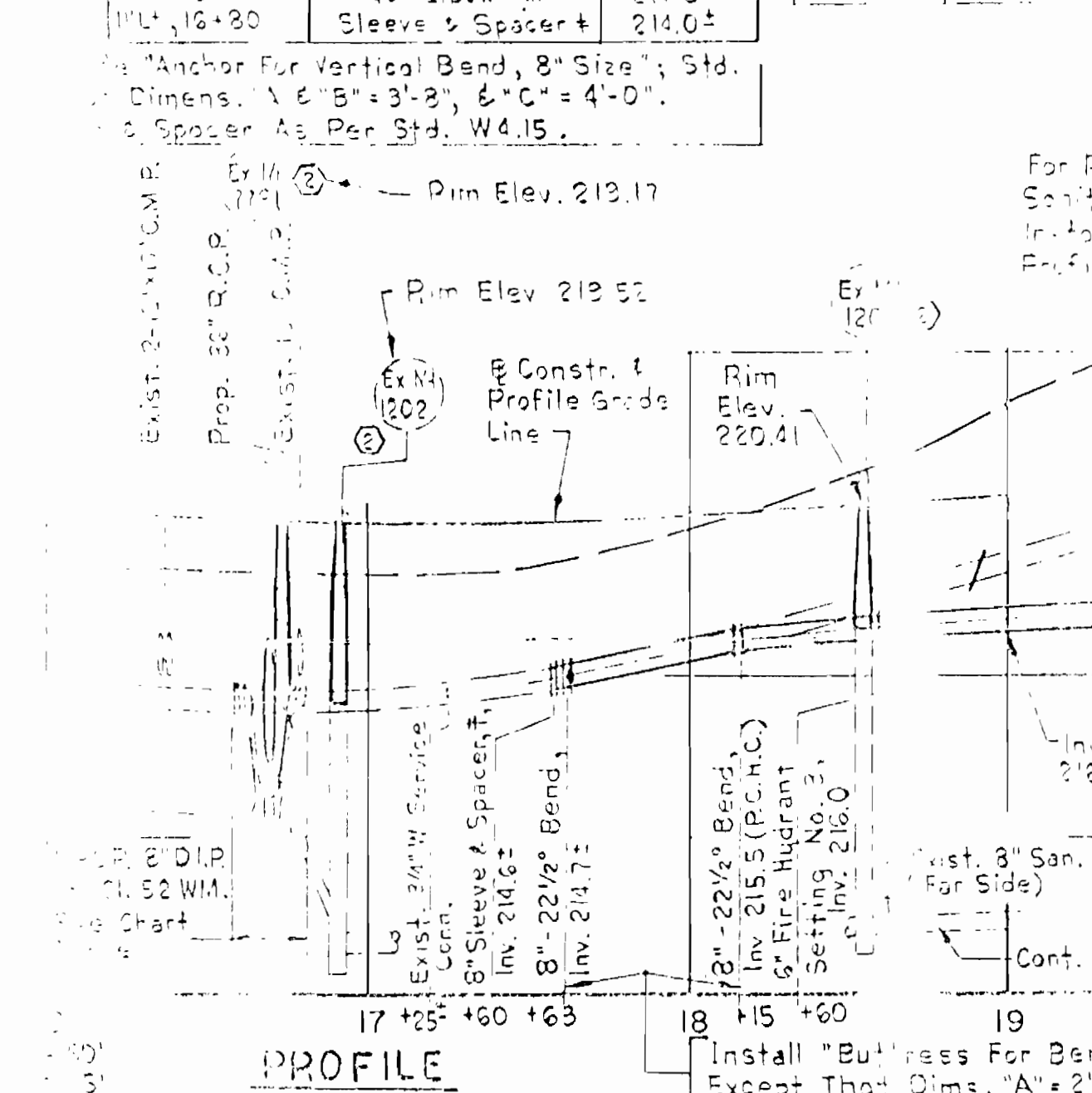
1035 N. CALVERT STREET  
BALTIMORE, MARYLAND 21202

DATE: 10-11-88

**PLAN**  
Scale: 1"=50'

**PROPOSED 8" D.I.P., TH. CL. 52 WM**

Constr. Sta.	Fittings	Inv.
11+16.55	Sleeve & Spacer	214.0
12+00.55	45° Elbow	214.0
12+00.55	45° Elbow	210.5
12+11.00	8" W.M. Prop. 36" Dr.	210.5
12+11.00	45° Elbow	210.5
12+11.00	45° Elbow	214.0
12+16.80	Sleeve & Spacer	214.0



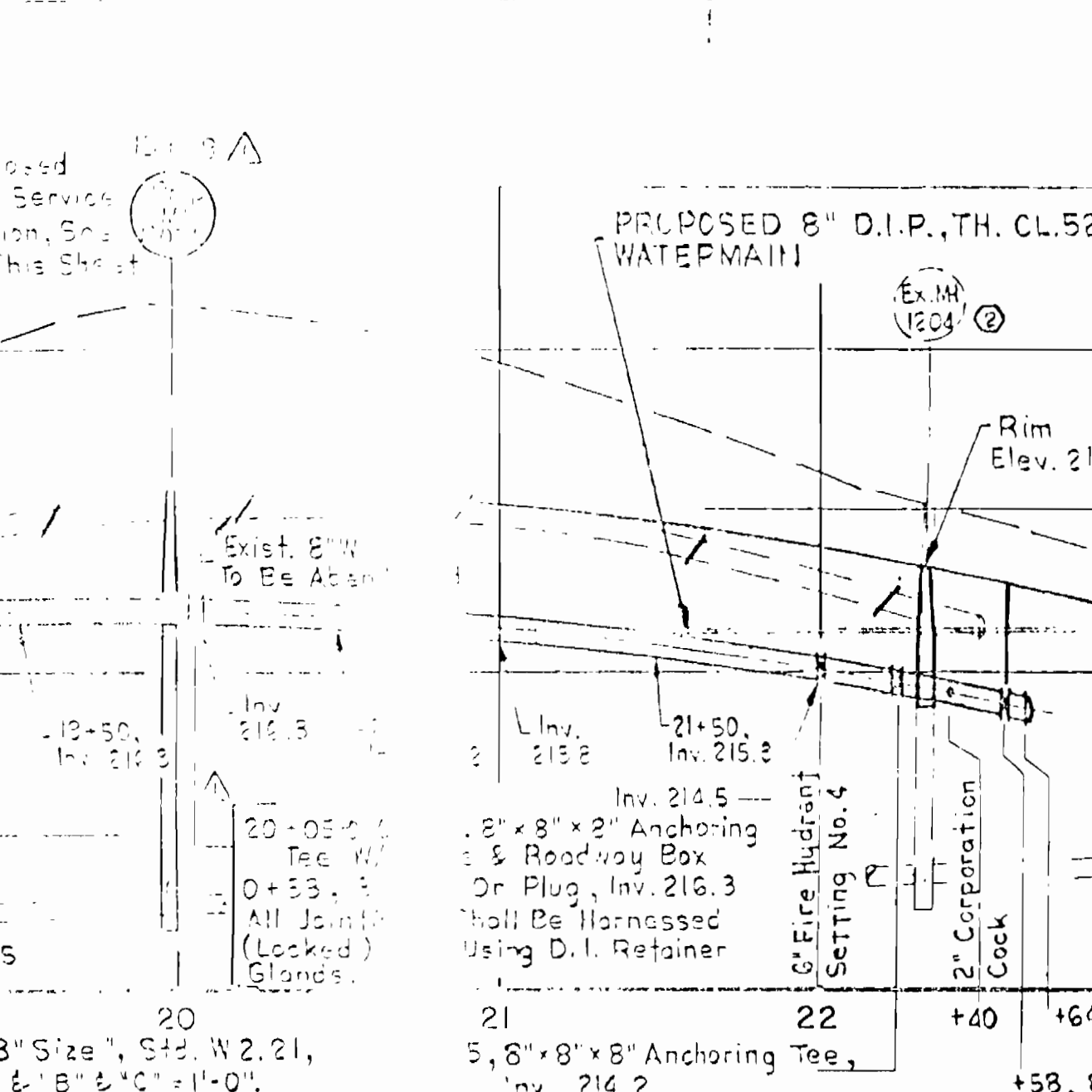
DEPT. OF PUBLIC WORKS  
BALTIMORE, MARYLAND

DATE: 10-11-88

**PLAN**  
Scale: 1"=50'

**PROPOSED 8" D.I.P., TH. CL. 52 WATERMAIN**

Constr. Sta.	Service x Meter Size	Remarks
13+02.25	1" x 3/4"	Remove Existing Mousing. Install 30" L.F. OF 1" COP. TO TIE-IN TO EXISTING PLASTIC SERVICE PIPE.
15+06.00	1" x 3/4"	Remove Existing Meter Valve Service Behind Sidewalk. Install Meter. All As Per Std. As Per Operations For 1/2" COP. TUBES. FITTINGS.
22+25.10	2" x 2"	Remove Existing 2" Main. Follows: 213.0+00.00 to 214.0+49.00.
22+25.10	2" x 2"	Utilize Existing Tee. D. I. P. EXISTING COPPER TUBES TO BE REMOVED EXCEPT SADDLE NEW TIE-INS. TAPPED TO EXISTING COPPER TUBES.

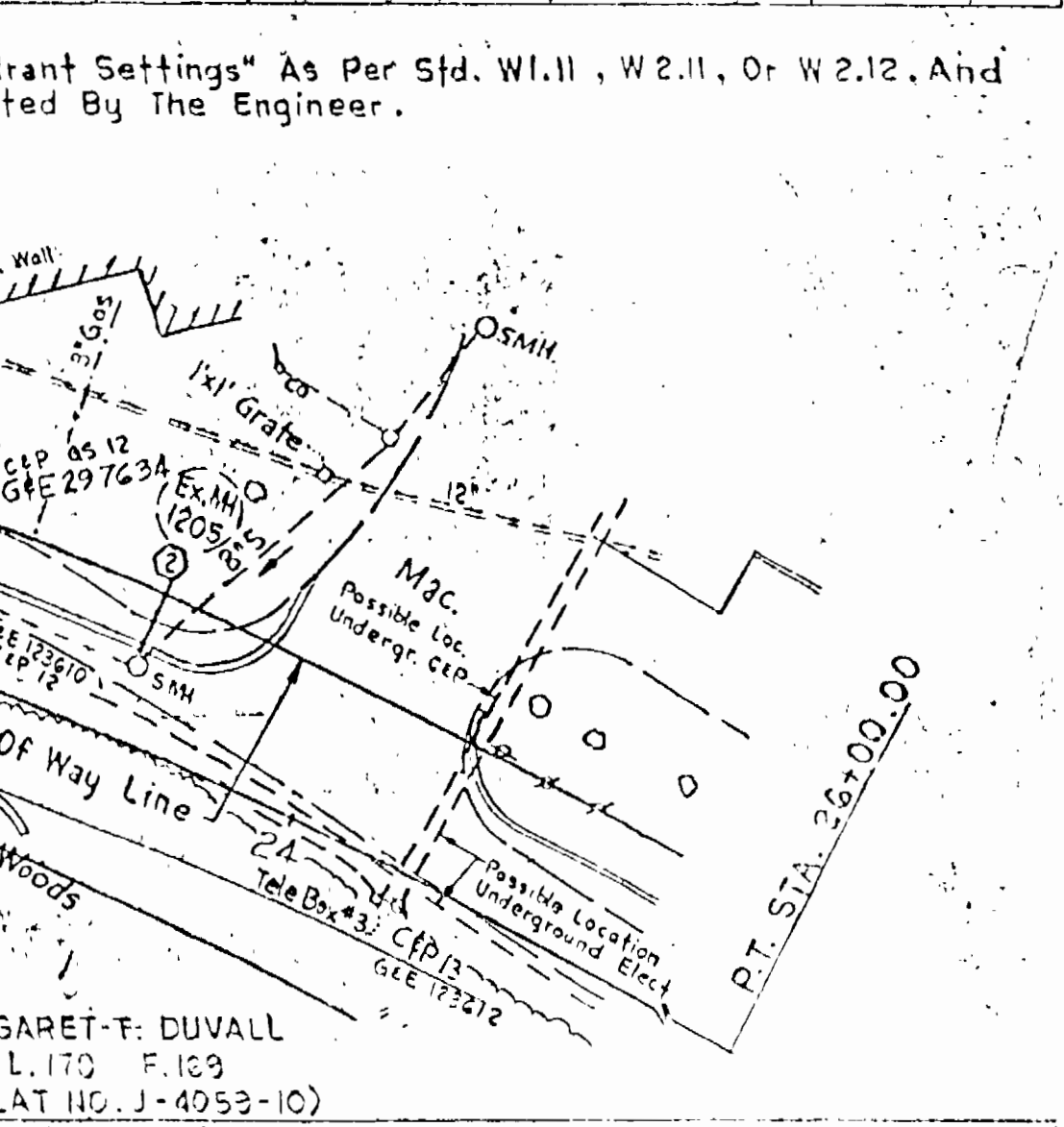


DEPT. OF PUBLIC WORKS  
BALTIMORE, MARYLAND

DATE: 10-11-88

**FIRE HYDRANT SETTING SCHEDULE**

Hydrant No.	Constr. Sta.	Lead Pipe Stationing And Fittings	Hydrant Depth-Of-Bury
1	11+15.10	0+00 8" x 8" x 6" Tapping Sleeve & Valve W/ Roadway Box, Inv. 222.71 0+04 6" x 45° Elbow, Inv. 222.71 0+09.80 6" x 45° Elbow, Inv. 228.5± 0+22± 6" Fire Hydrant, Inv. 228.5±	5'
2	13+60.10	0+00 8" x 8" x 6" Tapping Sleeve & Valve W/ Roadway Box, Inv. 216.9± 0+04 6" x 45° Elbow, Inv. 216.9± 0+06.80 6" x 45° Elbow, Inv. 219.7± 0+16± 6" Fire Hydrant, Inv. 219.7±	5'
3	18+60.10	0+00 8" x 8" x 6" Anchoring Tee & Valve W/ Roadway Box, Inv. 216.0± 0+21± 6" Fire Hydrant, Inv. 216.0±	5'
4	22+00.10	0+00 8" x 8" x 6" Anchoring Tee & Valve W/ Roadway Box, Inv. 214.6± 0+23± 6" Fire Hydrant, Inv. 219.0±	7'



**WATER SERVICE ADJUSTMENTS**

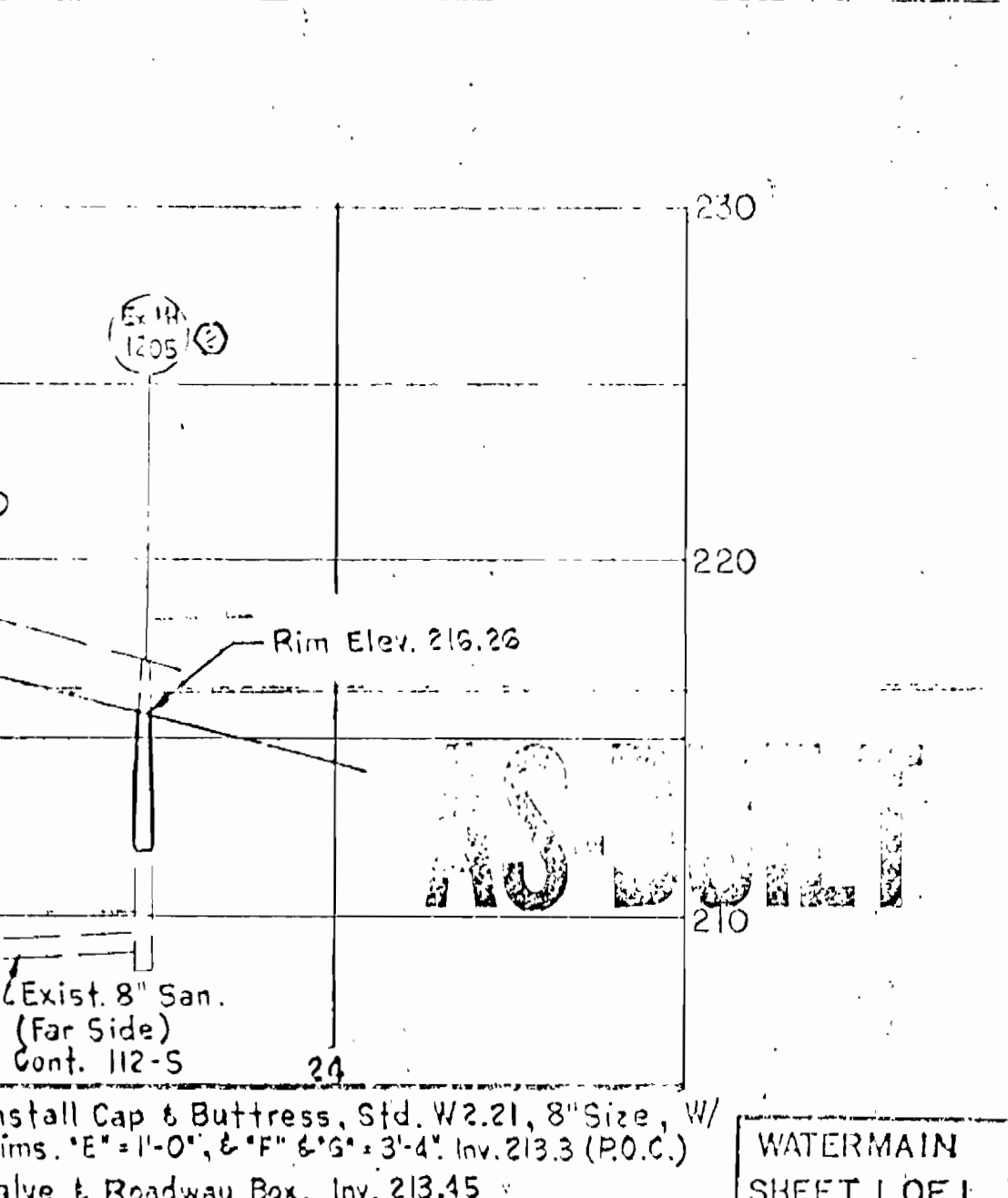
Remarks:

All Contained Items And Reset Vertically Upward To New Project Finished Grade, All As Per Std. W.3.21. Tube And Compression Connectors To Avoid Conflict With Proposed Storm Drain (See Above Std.), And Service Pipe.

5. Contained Items In Their Entirety; Salvage Meter For Reinstallation. Install Totally New 1" x 3/4" Metered Service Behind Sidewalk. Complete, Including Vault With All Contained Items & New Frame & Cover; Re-Install Service Extension At 40' OF 1" COPPER TUBE, FITTINGS, & ADAPTERS TO TIE-IN TO EXISTING PLASTIC SERVICE PIPE NO. 9155, EXCEPT THAT INSTALLATION SHALL BE 3/4" x 3/4" METERED SERVICE, WITH EXTENSION AT 25' OF 1" ADAPTERS TO TIE-IN TO EXISTING COPPER TUBE SERVICE PIPE.

6. 8" Tapping Sleeve & Valve And Install New PROPOSED 8" D.I.P., TH. CL. 52, WATER SERVICE AS 8" ANCHORING TEE & VALVE W/ ROADWAY BOX, INV. 214.2 ON-LINE, INV. 214.7±

7. Existing Systems, Furnish/ Install Elbows, Sleeve & Spacer, And Adapters As Required To Effect Tie-In Into 8" Service, Inv. 216.6±. Install "Buttress For Tee, 8" Size, Std. W.2.23, W/ DIMS. "I" & "J" AT 1'-3" Ea. Buttress For Horiz. Bends (Sta. 0+49) To Suit Elbows Installed, Std. W.2.21 & W/ ALLCN. SOIL BRNG. PRESSURE OF 150 PSI (See Contr. Spec. Prov.) & Install New 2" Corp. Cock; Install 50± L.F. OF 2" COPPER TUBE AND TIE-IN TO PIPE UPSTREAM OF METER SETTING (EXISTING SETTING MAY BE SIMILAR TO AS SHOWN ON STD. W.3.24). If Necessary To Perform Tie-In, And Furnish/ Install All Fittings And Adapters To Effect Such Tie-In. SADDLE INSTALLATION SHALL BE AS PER STD. W.3.21.



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