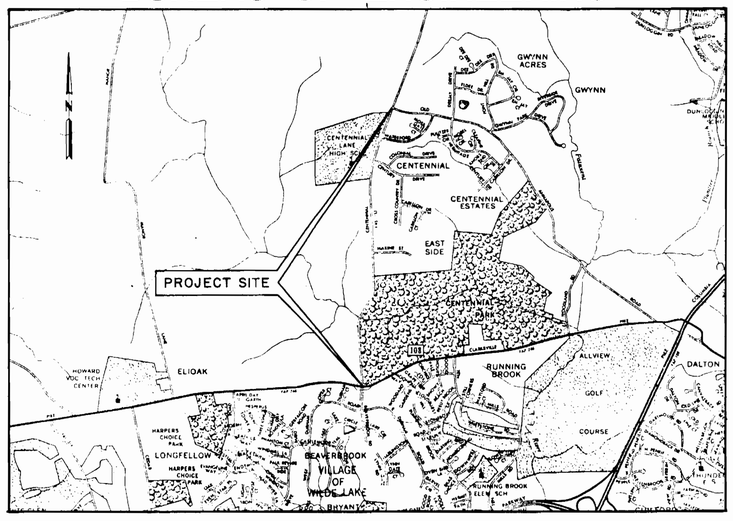
HOWARD COUNTY, MARYLAND
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

INDEX OF SHEETS



LOCATION MAP
SCALE: 1"=2000'

LEGEND

FULL DEPTH BIT. CONC. PAVEMENT

SHOULDER

CERTIFICATION BY THE DEVELOPER

"I/WE CERTIFY THAT ALL DEVELOPMENT AND/OR CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN, AND THAT THE RESPONSIBLE PERSONAL INVOLVED IN THIS CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT THE DEPARTMENT OF NATURAL RESOURCES APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT.

SIGNATURE OF DEVELOPER _____ DATE _____

CERTIFICATION BY THE ENGINEER

"I 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"

SIGNATURE OF ENGINEER _____ DATE _____

REVIEWED FOR HOWARD S.C.D.
NAME
AND MEETS TECHNICAL REQUIREMENTS

SIGNATURE _____ DATE: 4-1-86
U.S. SOIL CONSERVATION SERVICE

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

APPROVED _____ DATE 4/1/86
HOWARD S.C.D.

CENTENNIAL LANE
MARYLAND ROUTE 108 TO OLD ANNAPOLIS ROAD

CAPITAL PROJECT J-4015 AND S-6050

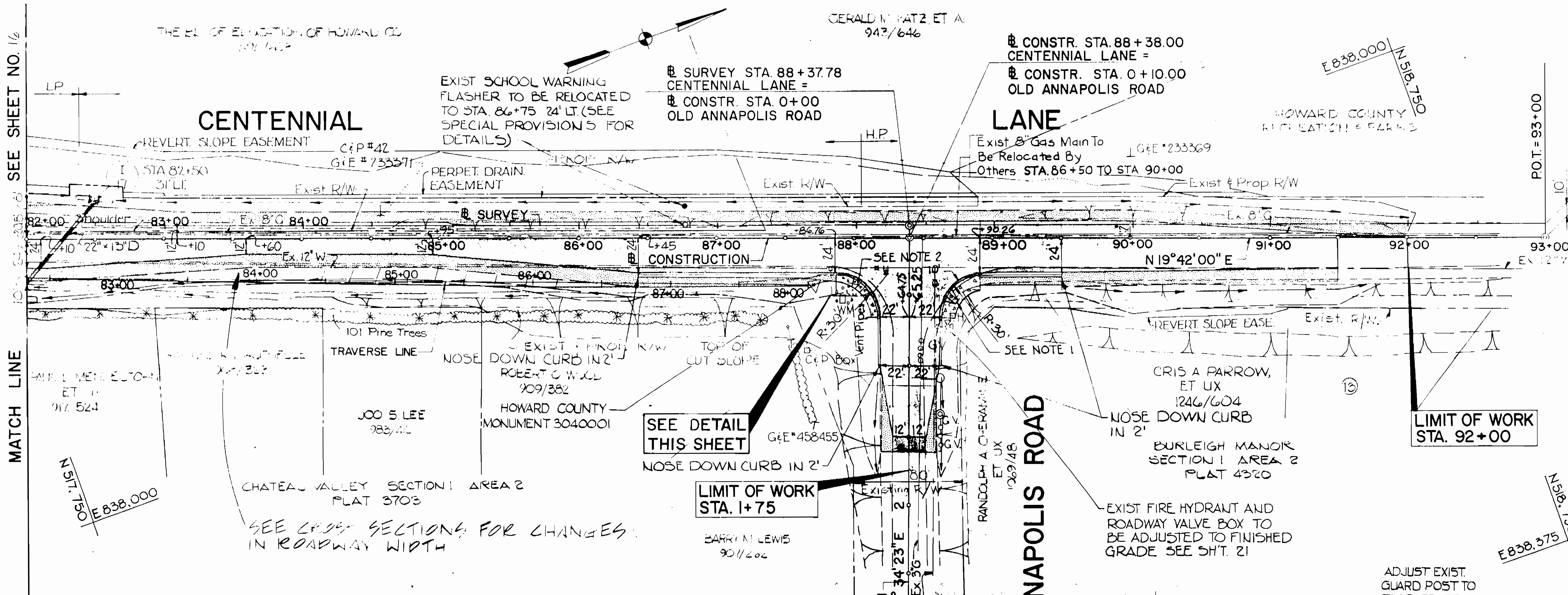
PROJECT LENGTH = 1.56 MILES
ROADWAY CLASSIFICATION: MINOR ARTERIAL
DESIGN SPEED = 40 M.P.H.

44-1471

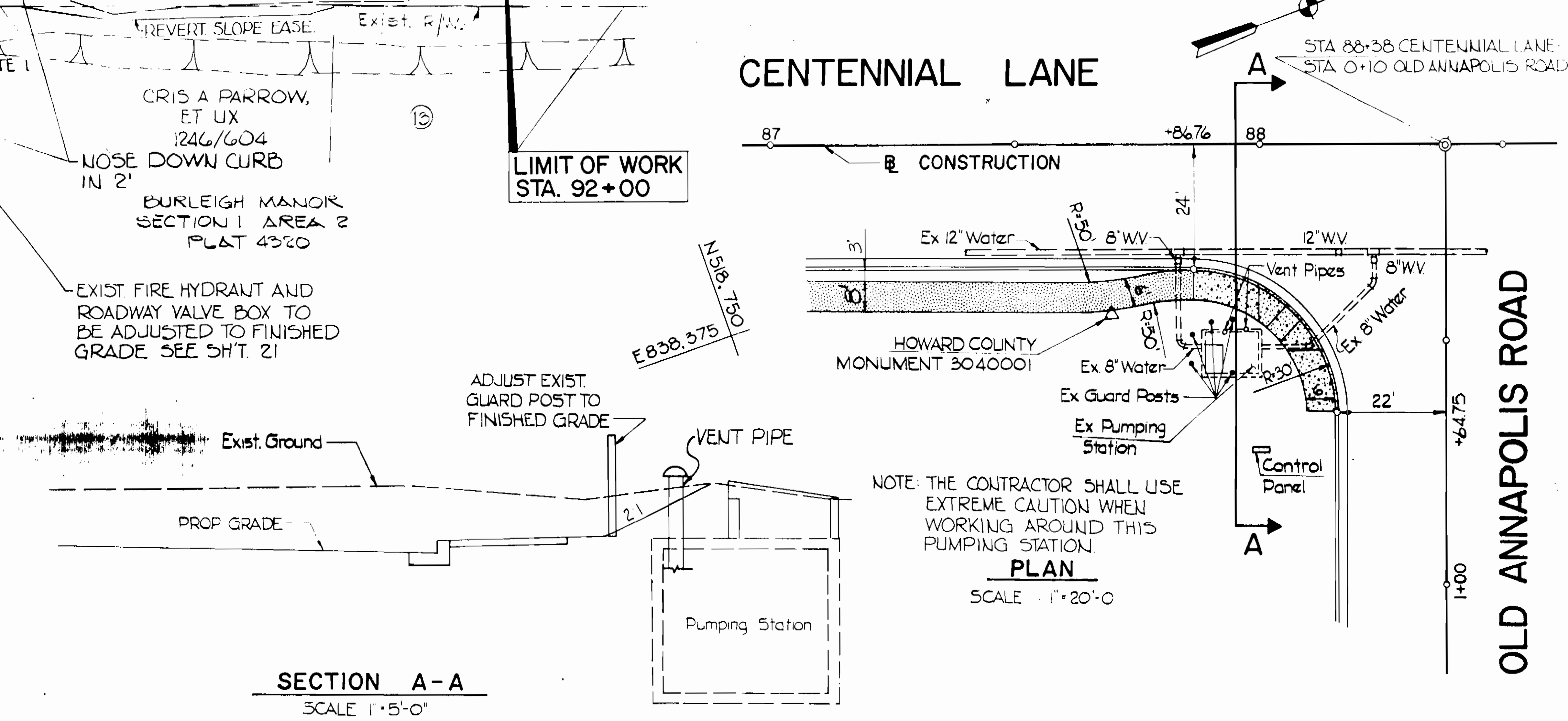
44-1471

NOTES:
1. TYPE A SIDEWALK RAMP. SEE HOWARD CO. STD R-4.01
2. TYPE D SIDEWALK RAMP. SEE HOWARD CO. STD R-4.04

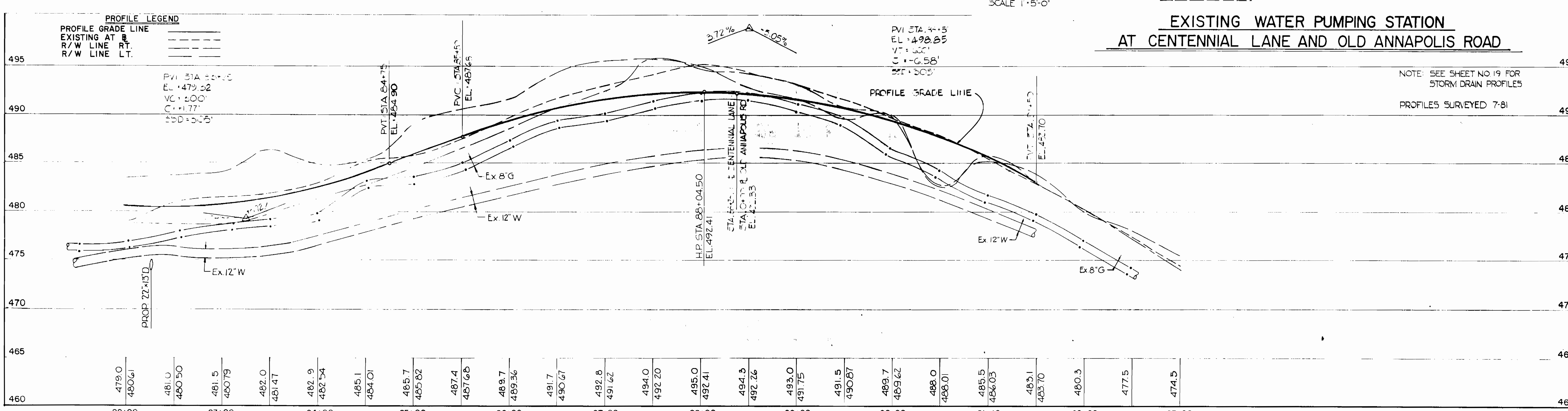
DITCH CONSTRUCTION SCHEDULE				
LOCATION	LENGTH	TYPE	LINING	DEPTH OF LINING
STA 82+00 TO 82+38 LT.	38 L.F.	SURFACE DRAIN DITCH	SOD	1.25'
STA 82+62 TO 92+00 LT.	938 L.F.	SURFACE DRAIN DITCH	SOD	1.25'
STA 82+02 TO 86+45 RT.	443 L.F.	SURFACE DRAIN DITCH	SOD	1.25'
STA 89+50 TO 91+70 RT	220 L.F.	SURFACE DRAIN DITCH	SOD	1.25'
OLD ANNAPOLIS ROAD				
STA 1+12 TO 1+75 LT & RT	126 L.F.	SURFACE DRAIN DITCH	SOD	1.25'



STRUCTURE SCHEDULE					
NUMBER	TYPE	TOP EL.	INV. IN	INV. OUT	REMARKS
I-17	TYPE 'K'	478.30	---	474.51	H.C. STD. 4.12 + 4.13



EXISTING WATER PUMPING STATION AT CENTENNIAL LANE AND OLD ANNAPOLIS ROAD



CONTRACT NO. 44-1471

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS DATE — CHIEF, BUREAU OF ENGINEERING DATE

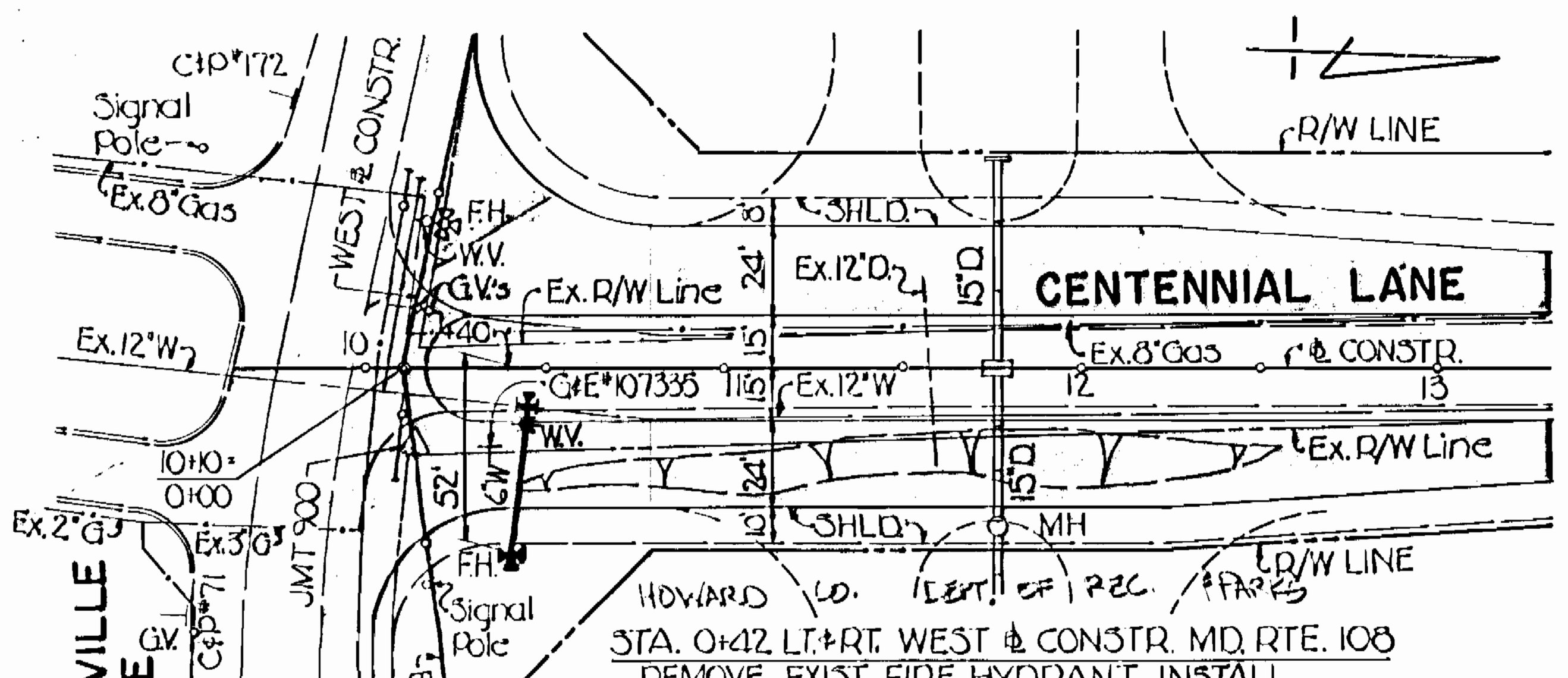
CHIEF, ROADS, BRIDGES & STORM DRAINAGE DIVISION 3/25/86 DATE

Johnson, Mirmiran & Thompson, P. A.
ENGINEERS • PLANNERS • SURVEYORS • LANDSCAPE ARCHITECTS
1526 YORK ROAD • BALTIMORE, MARYLAND • 21093 • (301)821-6500

PLAN & PROFILE
STA. 82+00 TO STA. 95+
CENTENNIAL LANE

MARYLAND ROUTE 108 TO OLD ANNAPOLIS ROAD
CAPITAL PROJECT J-4015
ELECTION DISTRICT NO. 2
HOWARD COUNTY, MARYLAND

DRAWING NO. 17 OF 25	SCALE HORIZ. 1"=50' VERT 1"=5'	DES. B.D.B. DRW. S.L. CHK. D.T.C.

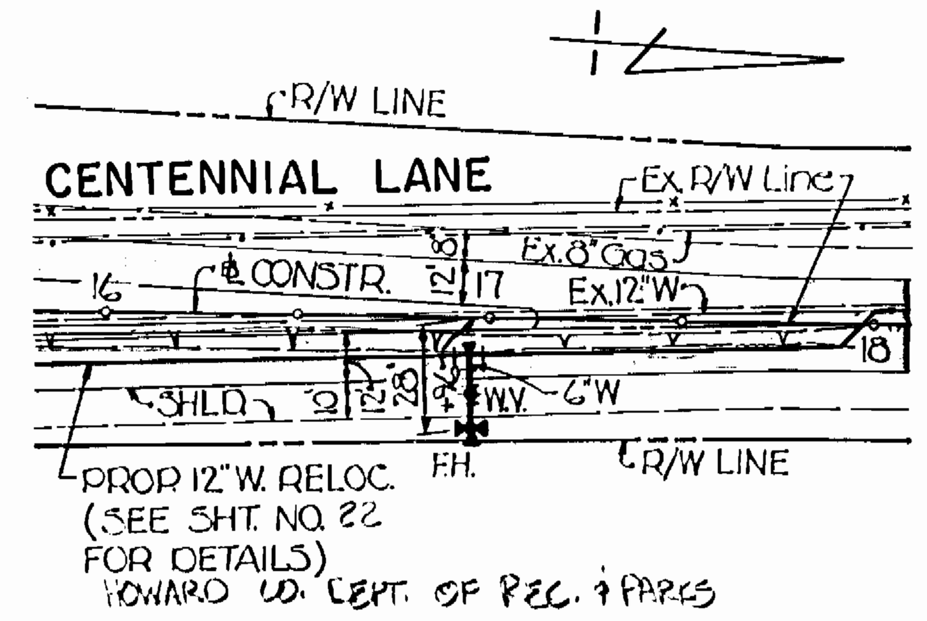


HOWARD CO. DEPT. OF REC. & PARKS

STA. 0+12 LT.+RT. WEST ℄ CONSTR. MD. RTE. 108
REMOVE EXIST. FIRE HYDRANT. INSTALL 6" CAP AND BUTTRESS.

STA. 10+10 RT. ℄ CONSTR. CENTENNIAL LANE
INSTALL 12"×6" TAPPING SLEEVE AND VALVE AND BUTTRESS AT EXISTING 12" WATER MAIN. RESET EXISTING HYDRANT. BURY LINE ELEV. •417.57. STRAP FIRE HYDRANT TO MAIN IN ACCORDANCE WITH STD. NO. W2.11. INSTALL 40 L.F. OF 6" WATER MAIN.

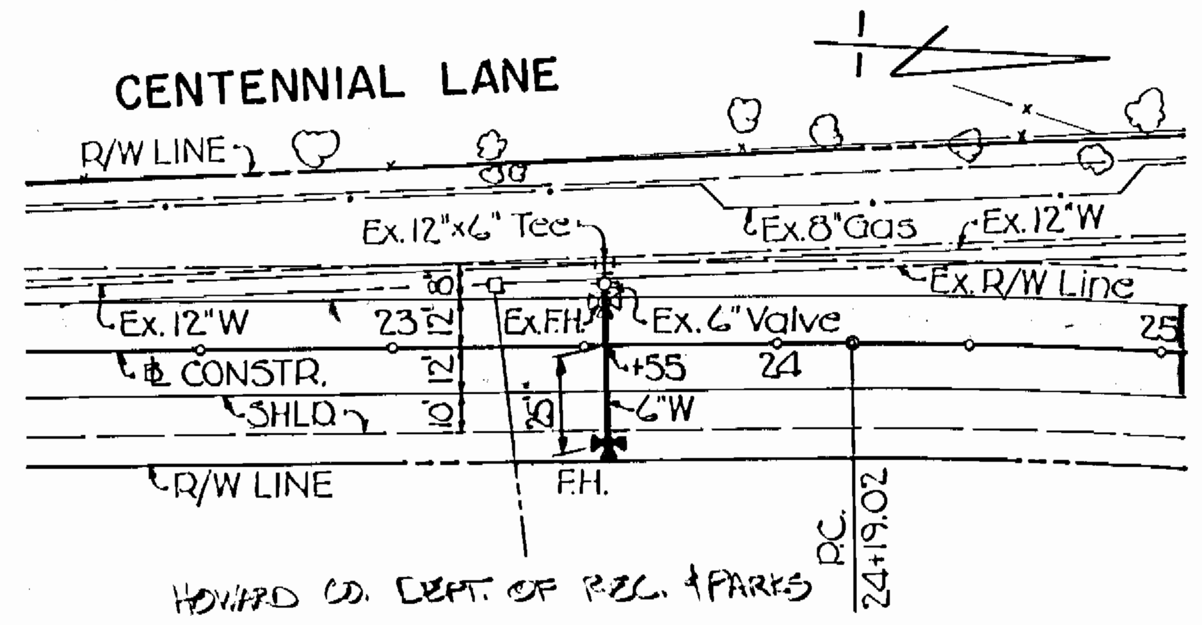
① STA. 10+40 ℄ CONSTR. CENTENNIAL LANE



HOWARD CO. DEPT. OF REC. & PARKS

STA. 8+50 - 12" WATER MAIN
INSTALL 12"×6" TEE AND BUTTRESS AT ELEV. 413.0, INSTALL 18 L.F. 6" WATER MAIN, INSTALL 6" VALVE AND ROADWAY VALVE BOX, INSTALL FIRE HYDRANT AS SHOWN, BURY LINE ELEV. •416.23. STRAP FIRE HYDRANT TO MAIN IN ACCORDANCE WITH STD. NO. W2.11

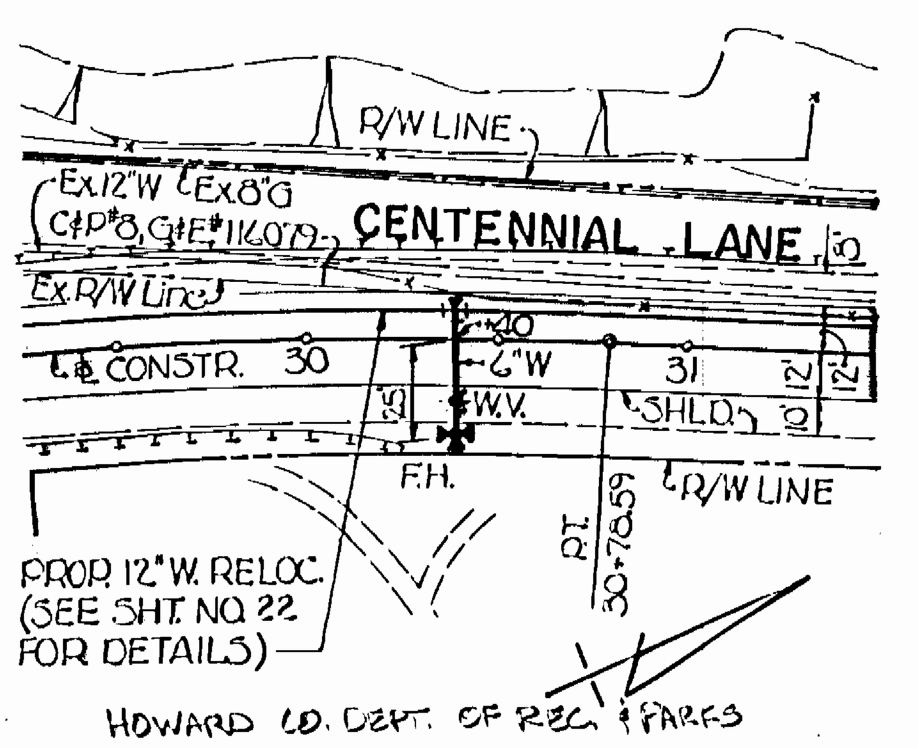
② STA. 8+50 ℄ 12" WATER MAIN



HOWARD CO. DEPT. OF REC. & PARKS

STA. 23+55 LT. & RT. ℄ CONSTR.
REMOVE EXISTING FIRE HYDRANT AND RESET AS SHOWN, BURY LINE ELEV. •378.04, INSTALL 40 L.F. 6" WATER MAIN FROM EXISTING 6" VALVE, ADJUST ROADWAY VALVE BOX TO MEET FINISHED GRADE. STRAP FIRE HYDRANT USING ALTERNATE METHOD, SEE STD. NO. W2.13

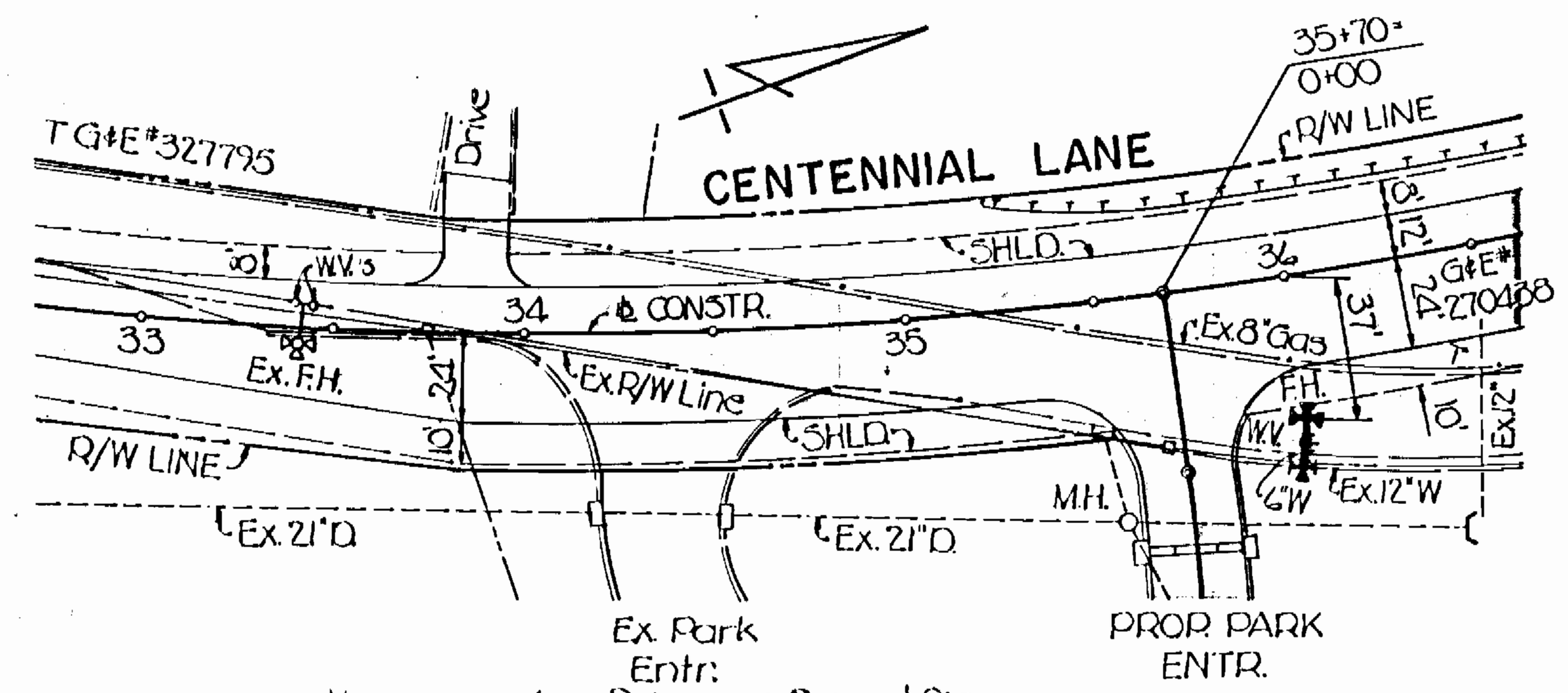
③ STA. 23+55 ℄ CONSTR. CENTENNIAL LANE



HOWARD CO. DEPT. OF REC. & PARKS

STA. 9+66 - 12" WATER MAIN
INSTALL 12"×6" TEE AND BUTTRESS AT ELEV. 362.8, INSTALL 30 L.F. 6" WATER MAIN, INSTALL 6" VALVE AND ROADWAY VALVE BOX, INSTALL FIRE HYDRANT AS SHOWN, BURY LINE ELEV. •365.73. STRAP FIRE HYDRANT TO MAIN IN ACCORDANCE WITH STD. NO. W2.11

④ STA. 9+66 ℄ 12" WATER MAIN

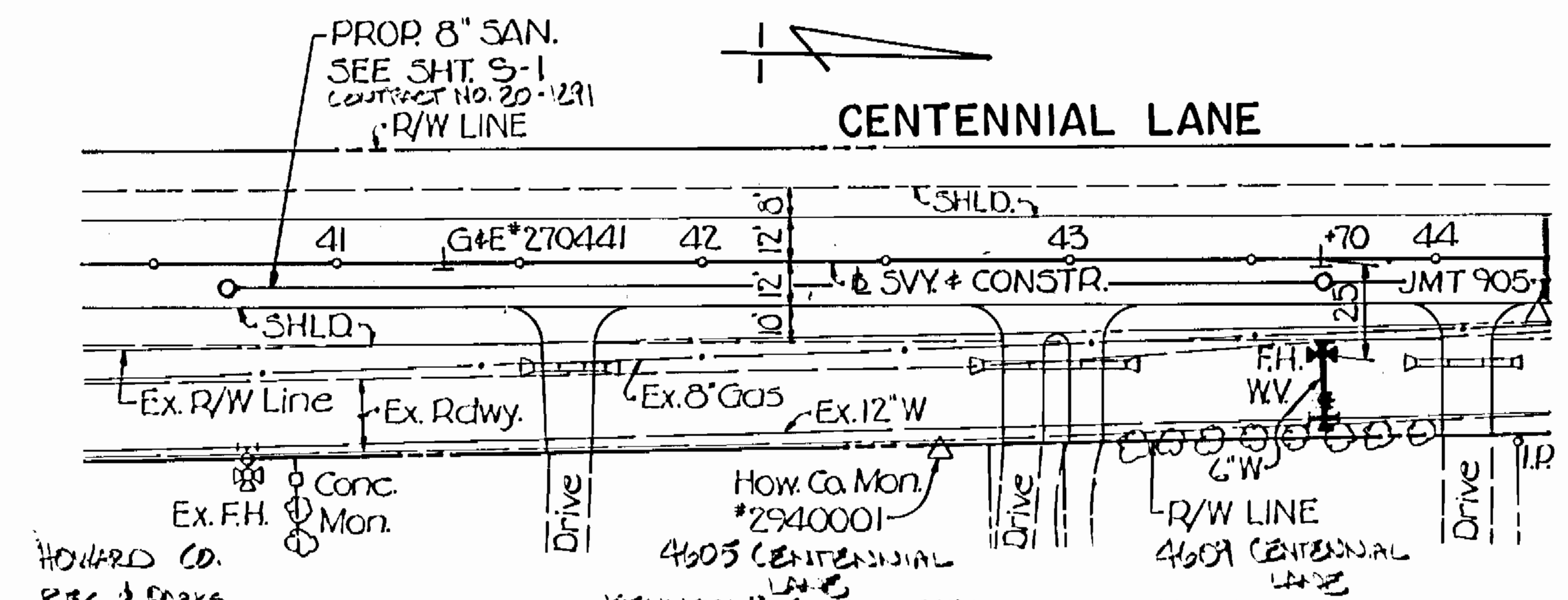


HOWARD CO. DEPT. OF REC. & PARKS

STA. 33+12 LT. ℄ CONSTR. CENTENNIAL LANE
REMOVE EXISTING FIRE HYDRANT. INSTALL 6" CAP AND BUTTRESS.

STA. 36+00 RT. ℄ CONSTR. CENTENNIAL LANE
INSTALL 12"×6" TAPPING SLEEVE AND VALVE AND BUTTRESS AT EXIST. 12" WATER MAIN. RESET EXIST. HYDRANT. BURY LINE ELEV. •388.97. INSTALL 12 L.F. 6" WATER MAIN. STRAP FIRE HYDRANT TO MAIN IN ACCORDANCE WITH STD. NO. W2.11

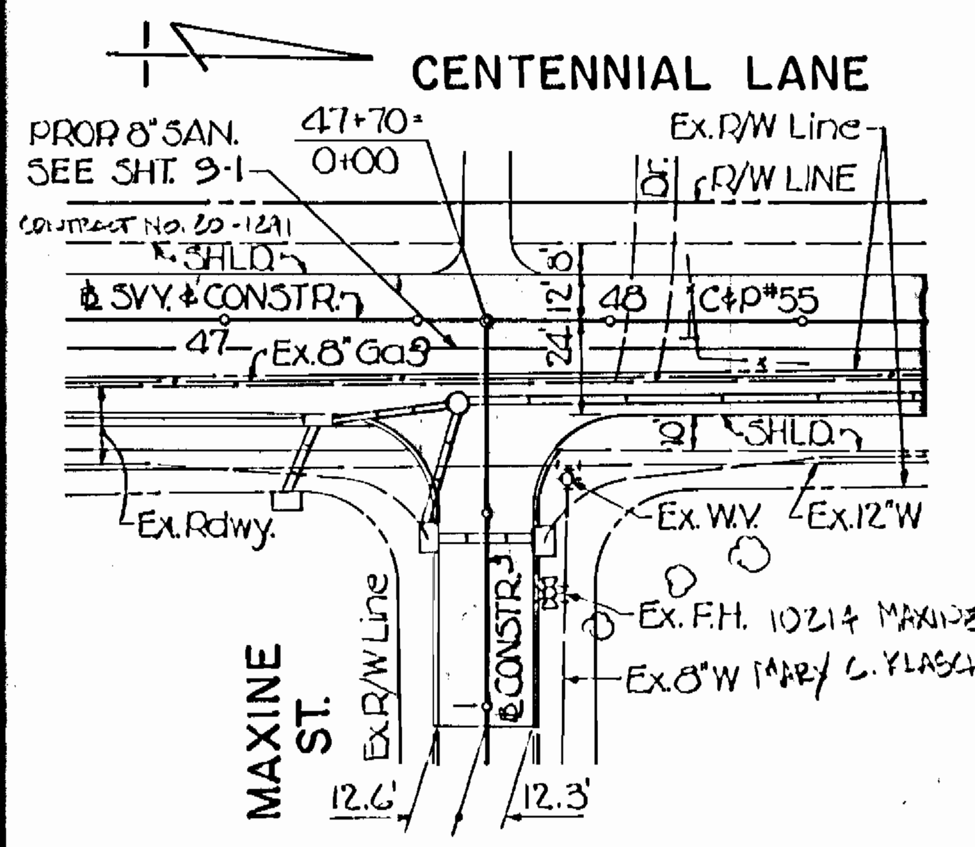
⑤ STA. 36+00 ℄ CONSTR. CENTENNIAL LANE



STA. 40+75 RT. ℄ CONSTR. CENTENNIAL LANE
REMOVE EXISTING FIRE HYDRANT. INSTALL 6" CAP AND BUTTRESS.

STA. 43+70 RT. ℄ CONSTR. CENTENNIAL LANE
INSTALL 12"×6" TAPPING SLEEVE AND VALVE AND BUTTRESS AT EXIST. 12" WATER MAIN. RESET EXIST. HYDRANT. BURY LINE ELEV. •416.28. INSTALL 18 L.F. 6" WATER MAIN. STRAP FIRE HYDRANT TO MAIN IN ACCORDANCE WITH STD. NO. W2.11.

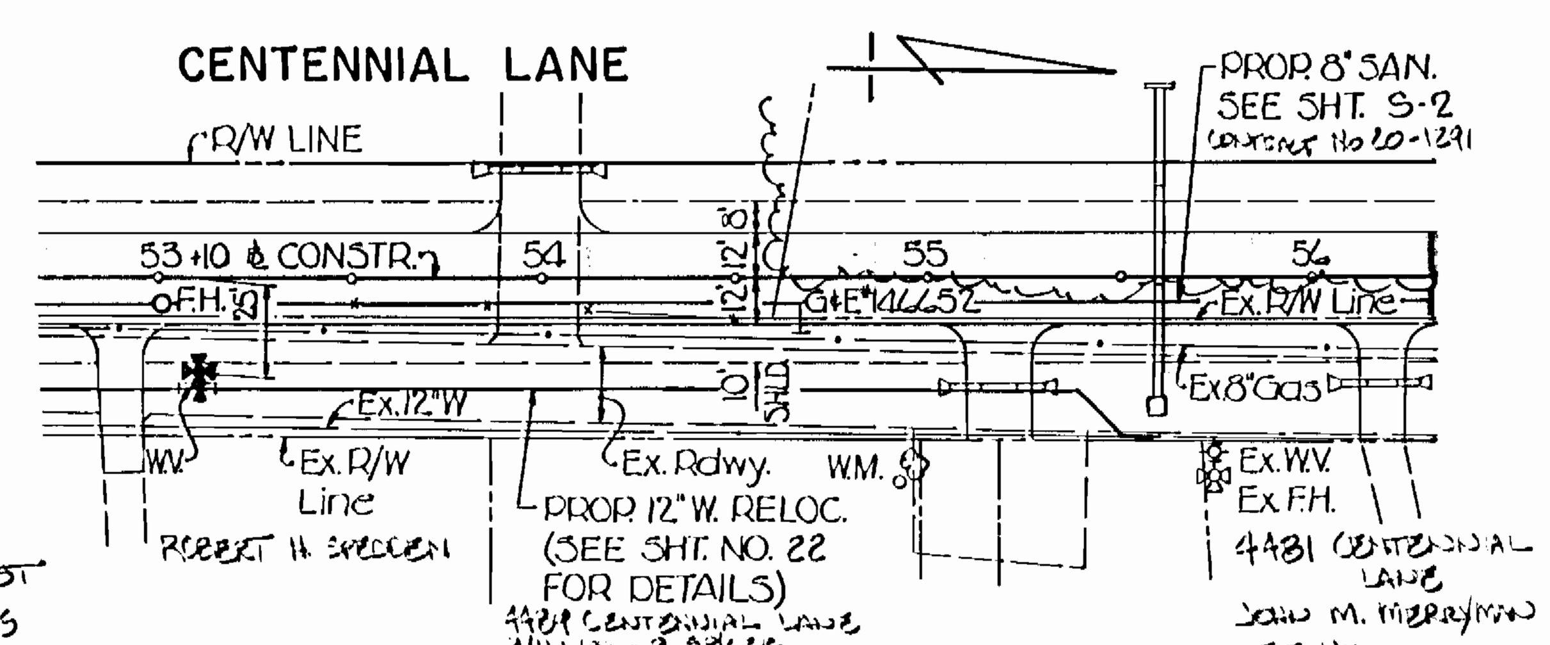
⑥ STA. 43+70 ℄ CONSTR. CENTENNIAL LANE



STA. 0+40 LT. ℄ CONSTR. MAXINE ST.
ADJUST EXISTING VALVE BOX TO MEET NEW GRADE.

STA. 0+71 LT. ℄ CONSTR. MAXINE ST.
ADJUST EXIST. FIRE HYDRANT TO MEET NEW GRADE. BURY LINE ELEV. •413.36. ADJUST EXIST. VALVE BOX TO MEET NEW GRADE - TOP ELEV. •413.41

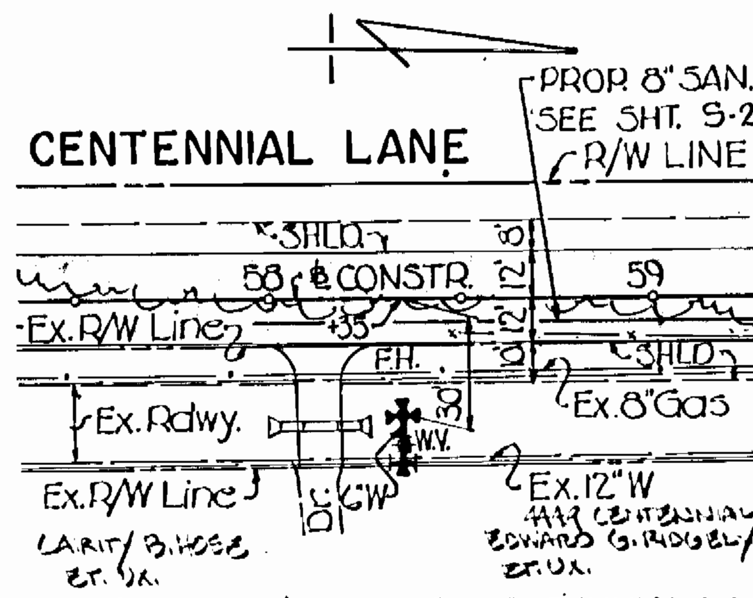
⑦ STA. 0+71 ℄ CONSTR. MAXINE ST.



STA. 55+75 RT. ℄ CONSTR. CENTENNIAL LANE
REMOVE EXISTING FIRE HYDRANT. INSTALL 6" CAP AND BUTTRESS.

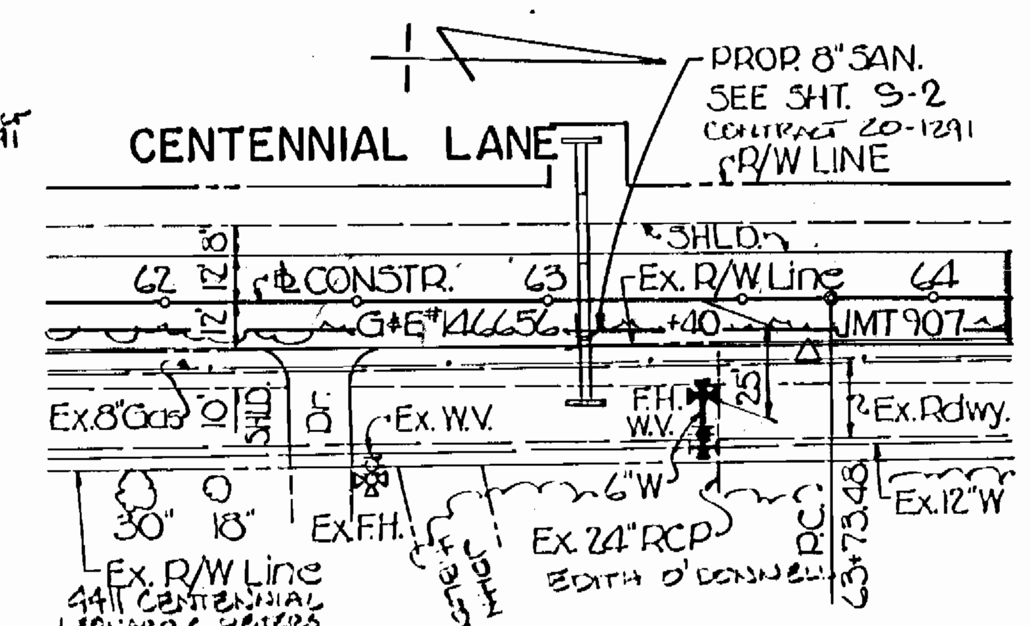
STA. 7+07 LT. 12" WATER MAIN
INSTALL 12"×6" TEE AND BUTTRESS AT ELEV. 410.0, INSTALL 5 L.F. OF 6" WATER MAIN, INSTALL 6" VALVE AND ROADWAY VALVE BOX, INSTALL FIRE HYDRANT AS SHOWN, BURY LINE ELEV. •415.21. STRAP FIRE HYDRANT TO MAIN IN ACCORDANCE WITH STD. NO. W2.11.

⑧ STA. 6+25 ℄ 12" WATER MAIN



STA. 58+35 ℄ CONSTR. CENTENNIAL LA.
INSTALL 12"×6" TAPPING SLEEVE AND VALVE AND BUTTRESS AT EXISTING 12" WATER MAIN. INSTALL FIRE HYDRANT. BURY LINE ELEV. •419.93. INSTALL 12 L.F. 6" WATER MAIN. STRAP FIRE HYDRANT TO MAIN IN ACCORDANCE WITH STD. NO. W2.11.

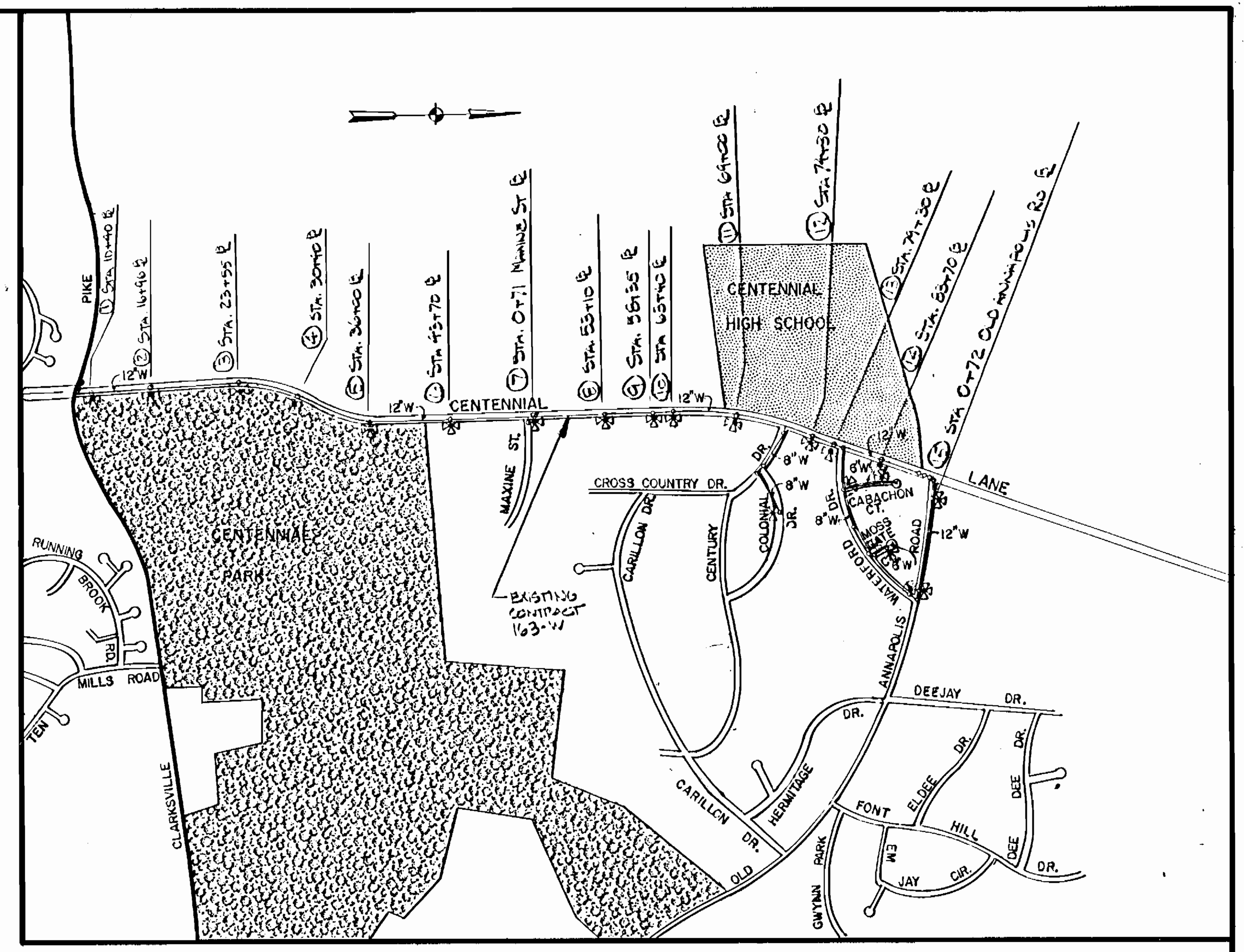
⑨ STA. 58+35 ℄ CONSTR. CENTENNIAL LANE



STA. 62+55 ℄ CONSTR. CENTENNIAL LANE
REMOVE EXISTING FIRE HYDRANT. INSTALL 6" CAP AND BUTTRESS.

STA. 63+40 ℄ CONSTR. CENTENNIAL LANE
INSTALL 12"×6" TAPPING SLEEVE AND VALVE AT EXIST. 12" WATER MAIN. RESET EXISTING HYDRANT. BURY LINE ELEV. •435.02. INSTALL 14 L.F. 6" WATER MAIN. STRAP FIRE HYDRANT TO MAIN IN ACCORDANCE WITH STD. NO. W2.11.

⑩ STA. 63+40 ℄ CONSTR. CENTENNIAL LANE



LOCATION MAP

SCALE 1"=1,000'

GENERAL NOTES

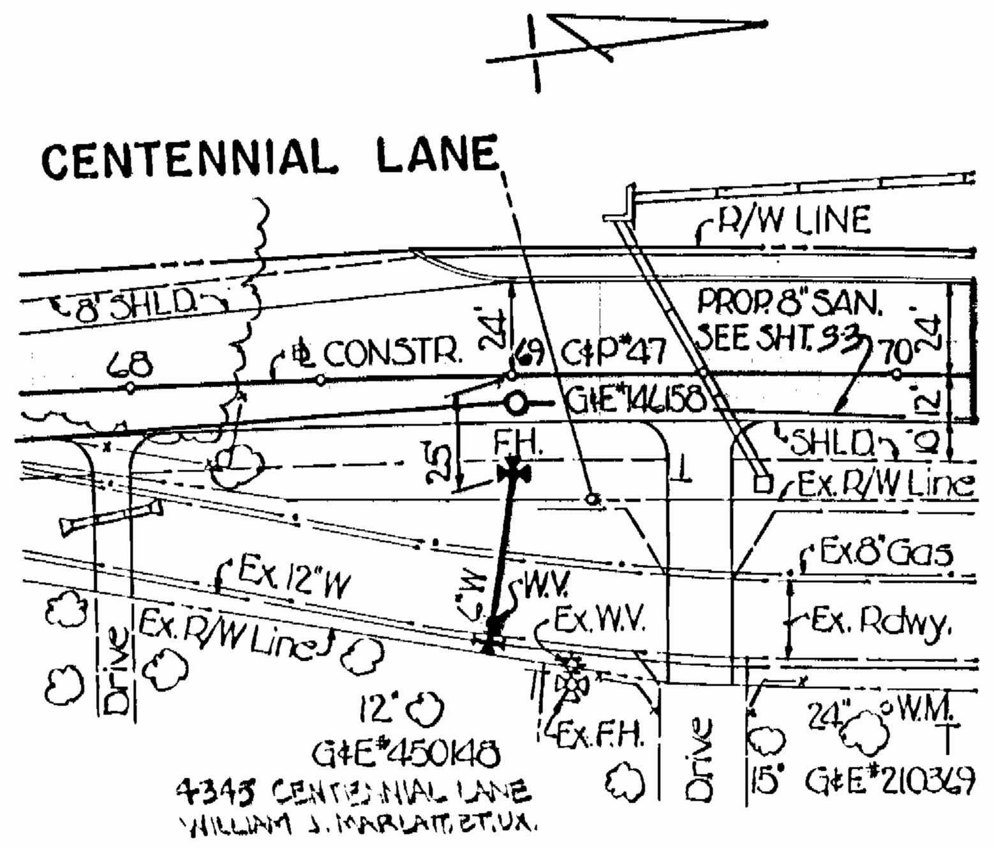
FOR WATER MAIN CONSTRUCTION

1. Approximate locations of existing utilities are shown. The contractor shall take all necessary precautions to protect the existing utilities and maintain uninterrupted services, any damage to existing utilities shall immediately be repaired to the satisfaction of the Engineer at the Contractor's expense.
2. All pipe elevations are shown as invert elevations.
3. Clear all utilities by a minimum of 6". Clear all poles by 2' - 0" minimum or tunnel as required. The owner has contacted the utilities 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 money owed the Contractor. The Contractor shall coordinate with the utility companies to schedule the bracing of the poles.
4. 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. The Contractor shall have a copy of Volume IV on the job.
5. 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.
6. Contractor shall notify the following utilities or agencies at least five working days before starting work shown on these plans:

   State Highway Administration - 531-5533
   Baltimore Gas & Electric - Contractor Services 561-2585
   Baltimore Gas & Electric - Underground Damage Control - 234-5621
   Baltimore Gas & Electric - Trouble Shooting - 298-9013
   Miss Utility - 1-559-0100
   Colonial Pipeline Company - 795-1390
   Bureau of Utilities, Howard County Dept. of Public Works - 992-2366
7. All water mains to be D.I.P. unless otherwise noted.
8. Top of all water mains to have a minimum of 3½' cover unless otherwise noted.
9. Valves adjacent to tees shall be strapped to tees.
10. All fittings shall be buttressed or anchored with concrete in accordance with the Standard Details unless otherwise provided for on the drawings.
11. 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 fire hydrants to be compacted in accordance with Section 1003 of the Standard Specifications.
12. All water house connections shall be for an inside meter setting.
13. The Contractor shall not operate any water main valves on the existing system.
14. All roadway valves and manholes shall be adjusted to finished grade by the contractor. The price for adjusting existing roadway valves and manholes shall be included in the price bid for the bituminous concrete items.
15. All horizontal controls are based on Maryland State Coordinates. All vertical controls are based on U.S.G.S. data.

CAPITAL PROJECT J-4015

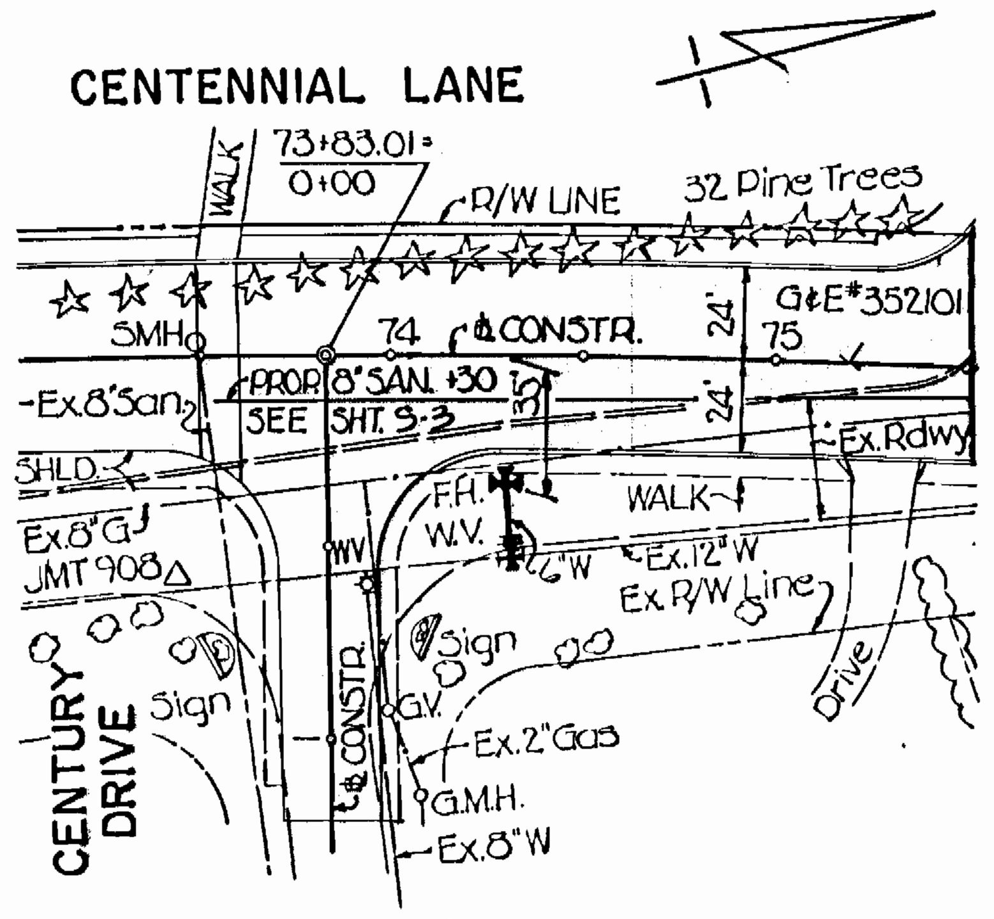
DEPARTMENT OF PUBLIC WORKS HOWARD COUNTY, MARYLAND	Johnson, Mirmiran & Thompson, P.A. 310 GLENEAGLES COURT • BALTIMORE, MARYLAND 21204 (301) 821 6500	DES: B.D.B. DRN: R.W.S. CHK: D.T.C. DATE: JAN. 1985	FIRE HYDRANT RELOCATION PLAN	MARYLAND ROUTE 108 TO OLD ANNAPOLIS ROAD CONTRACT NO. 44-1471	SCALE 1"=50' SHEET 20 OF 25
DIRECTOR OF PUBLIC WORKS 4-1-86 DATE; CHIEF, BUREAU OF ENGINEERING 4.1.86 DATE		BY / NO. / REVISIONS / DATE			
CHIEF, BUREAU OF UTILITIES 4/1/86 DATE; CHIEF, UTILITY DESIGN DIVISION 3/25/86 DATE					



STA. 69+15 RT. ¢ CONSTR. CENTENNIAL LA.
REMOVE EXISTING FIRE HYDRANT. INSTALL 6" CAP AND BUTTRESS.

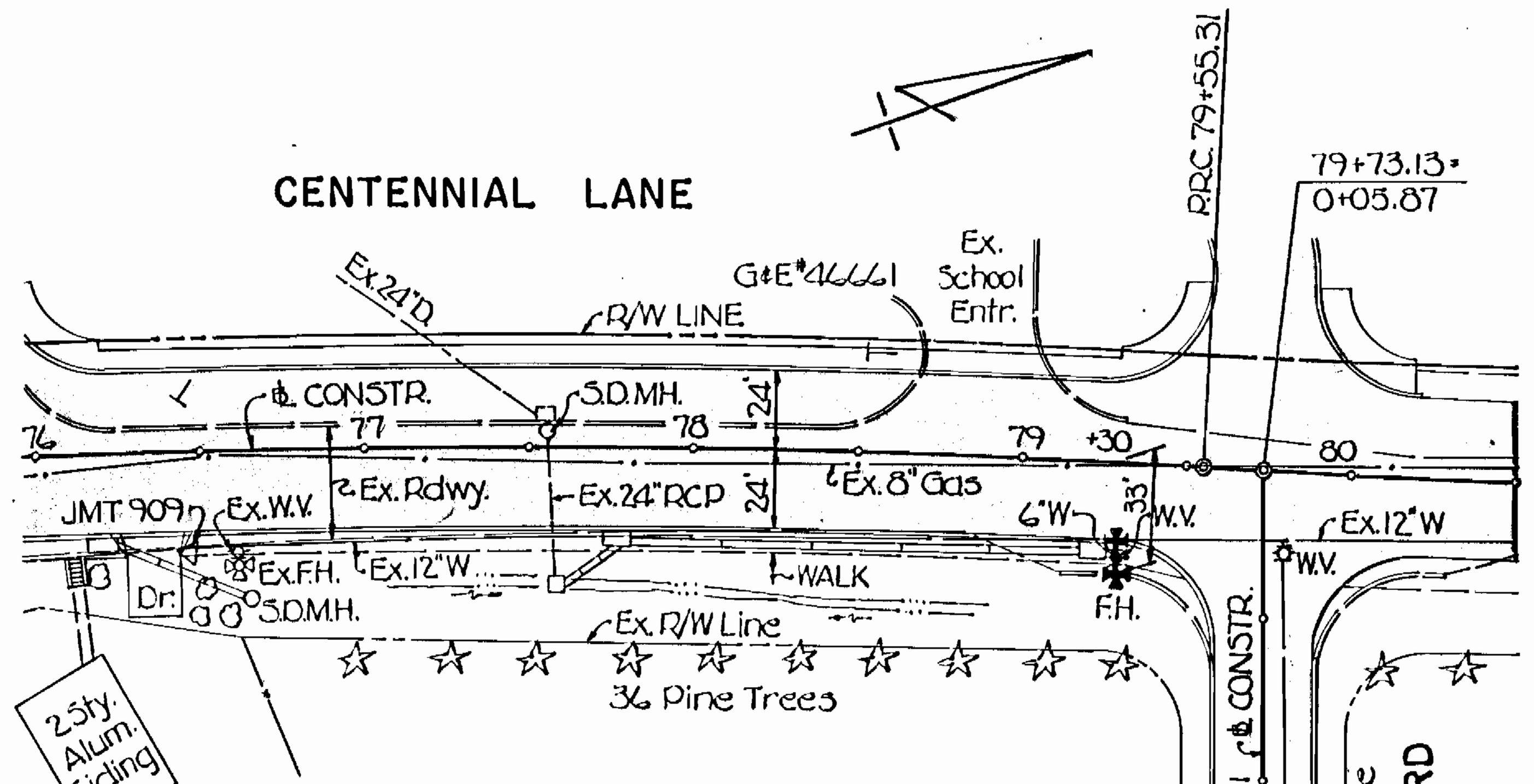
STA. 69+00 RT. ¢ CONSTR. CENTENNIAL LA.
INSTALL 12"x6" TAPPING SLEEVE AND VALVE AND BUTTRESS AT EXISTING 12" WATER MAIN. RESET EXISTING FIRE HYDRANT. BURY LINE ELEV. = 463.54. INSTALL 42 LF-6" WATER MAIN. STRAP FIRE HYDRANT TO MAIN USING ALTERNATE METHOD, SEE STD. NO. W2.13.

(11) STA. 69+00 ¢ CONSTR. CENTENNIAL LANE



STA. 74+30 RT. ¢ CONSTR. CENTENNIAL LA.
INSTALL 12"x6" TAPPING SLEEVE AND VALVE AND BUTTRESS AT EXISTING 12" WATER MAIN. INSTALL FIRE HYDRANT. BURY LINE ELEV. = 484.73. INSTALL 14 LF-6" WATER MAIN. STRAP FIRE HYDRANT TO MAIN IN ACCORDANCE WITH STD. NO. W2.11. ADJUST EXISTING 8" VALVE ON CENTURY DRIVE TO FINISHED GRADE.

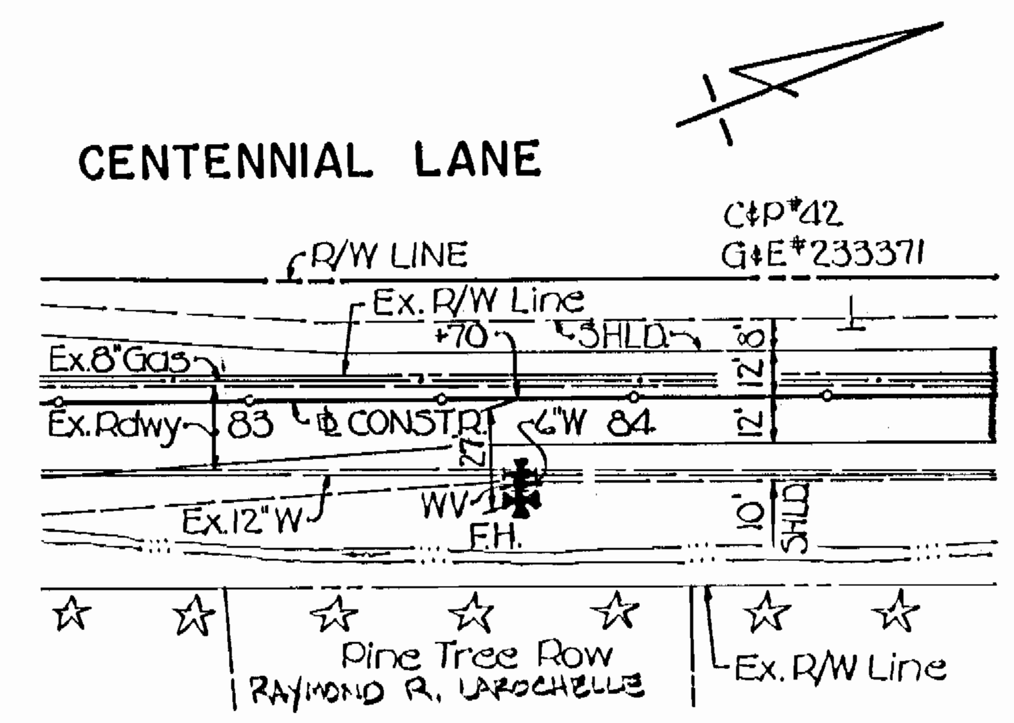
(12) STA. 74+30 ¢ CONSTR. CENTENNIAL LANE



STA. 76+60 RT. ¢ CONSTR. CENTENNIAL LANE
REMOVE EXISTING FIRE HYDRANT. INSTALL 6" CAP AND BUTTRESS.

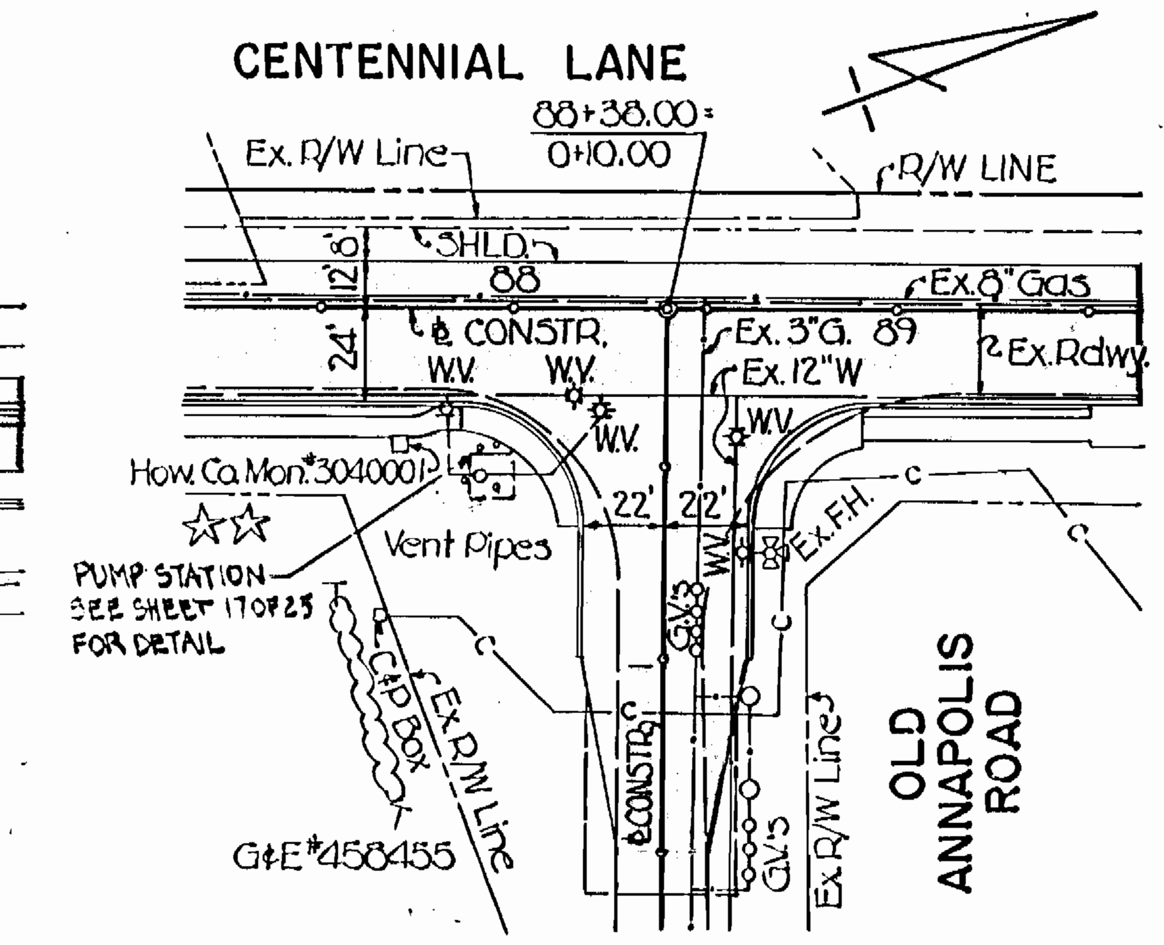
STA. 79+30 RT. ¢ CONSTR. CENTENNIAL LANE
INSTALL 12"x6" TAPPING SLEEVE AND VALVE AND BUTTRESS AT EXISTING 12" WATER MAIN. RESET EXISTING HYDRANT. BURY LINE ELEV. = 480.99. INSTALL 10 LF-6" WATER MAIN. STRAP FIRE HYDRANT TO MAIN IN ACCORDANCE WITH STD. NO. W2.11.

(13) STA. 79+30 ¢ CONSTR. CENTENNIAL LANE



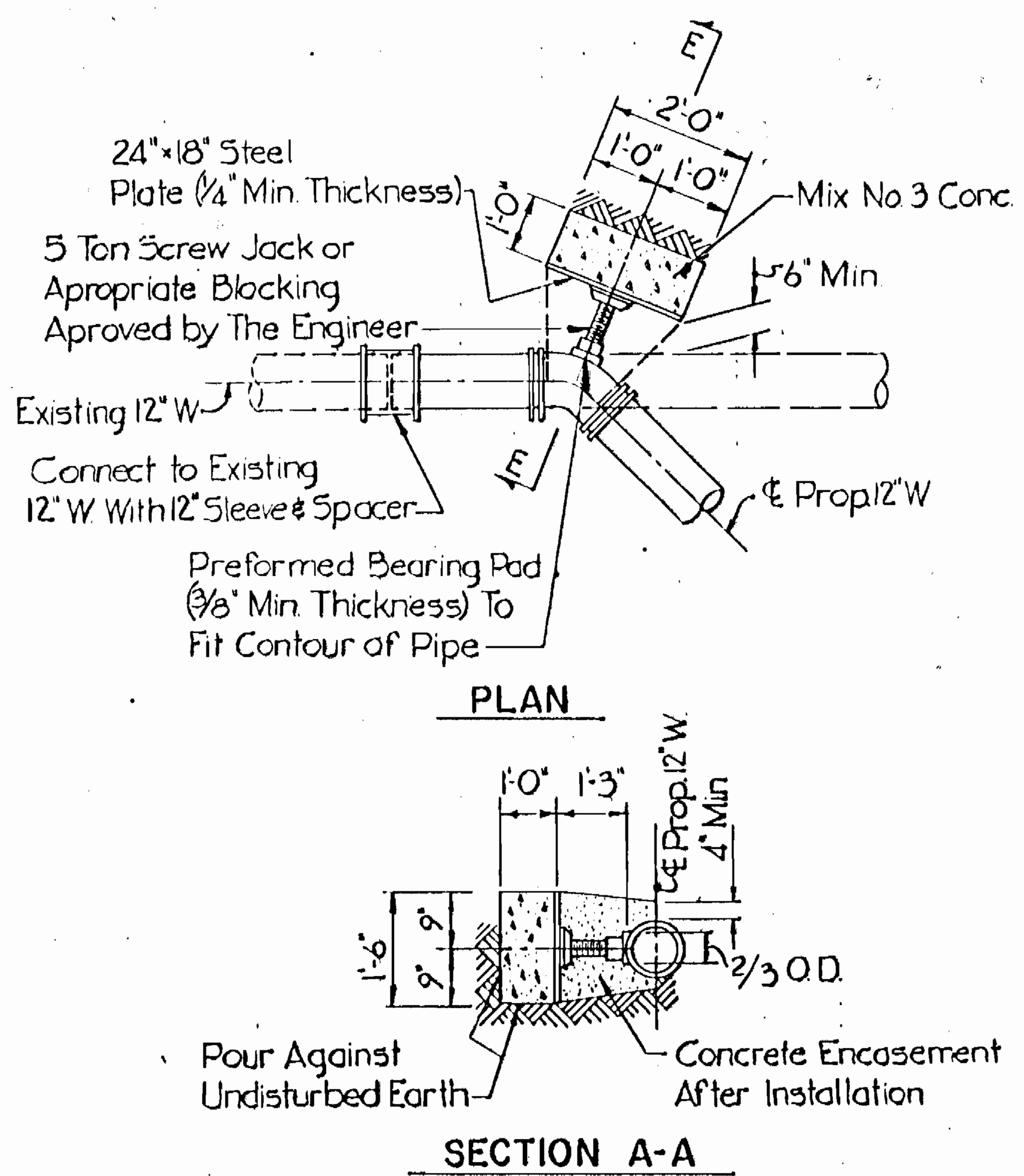
STA. 83+70 RT. ¢ CONSTR. CENTENNIAL LA.
INSTALL 12"x6" TAPPING SLEEVE AND VALVE AND BUTTRESS AT EXISTING 12" WATER MAIN. INSTALL FIRE HYDRANT. BURY LINE ELEV. = 479.65. INSTALL 6 LF-6" WATER MAIN. STRAP FIRE HYDRANT TO MAIN IN ACCORDANCE WITH STD. NO. W2.11.

(14) STA. 83+70 ¢ CONSTR. CENTENNIAL LANE



STA. 0+72 LT. ¢ CONSTR. OLD ANNAPOLIS ROAD
ADJUST EXISTING FIRE HYDRANT TO FINISHED GRADE. BURY LINE ELEV. = 492.97. ADJUST EXISTING ROADWAY VALVE BOXES TO FINISHED GRADE ON OLD ANNAPOLIS ROAD AND CENTENNIAL LANE.

(15) STA. 0+72 ¢ CONSTR. OLD ANNAPOLIS ROAD



DETAIL A
45° PREPOURED BUTTRESS
NOT TO SCALE

SEQUENCE OF WATER MAIN RELOCATION
STATION 13+40 TO STATION 18+10

1. Construct the prepoured buttresses at the bends at station 5+00 and station 9+59.94 of the 12" Water Main.
2. Construct the 12" Water Main and temporarily cap and block the ends at the location shown on the plan.
3. Test and chlorinate the new main.
4. Close the valves at station 9+56± and station 33+44.5-7' left. Cut the existing pipe and make connection with 12" sleeve and spacer. Open valves and put the main back in service.
5. Remove the existing 12" Water Main from Station 13+50 to Station 18+00.

SEQUENCE OF WATER MAIN RELOCATION
STATION 25+83 TO STATION 32+90

1. Construct the prepoured buttresses at the bends at station 5+10 and station 12+05.78 of the 12" Water Main.
2. Construct the 12" Water Main and temporarily cap and block the ends at the location shown on the plan.
3. Test and chlorinate the new main.
4. Close the valves at station 9+56± and station 33+44.5 - 7' left. Cut the existing pipe and make connection with 12" sleeve and spacer. Open valves and put the main back in service.
5. Cap and abandon the existing 12" Water Main from Station 26+00 to 28+25 and 29+00 to 32+73 and remove the existing 12" Water Main from Station 28+25 to Station 29+00.

SEQUENCE OF WATER MAIN RELOCATION
STATION 51+10 TO STATION 55+60

1. Construct the prepoured buttresses at the bends at Station 5+10 and Station 9+51.59 of the 12" Water Main.
2. Construct the 12" Water Main and temporarily cap and block the ends at the locations shown on the plan. Install 3/4 inch service connection and corporation cock.
3. Test and chlorinate the new main.
4. Close the valves at station 33+44.5-7' left and station 59+90-43.5' right. Cut the existing pipe and make connection with 12" sleeve and spacer. Open valves and put the main back in service.
5. Remove the existing 12" Water Main from Station 51+32 to Station 55+33.

Notes:

1. The Contractor shall do everything possible to minimize the length of time for water service shut down. In no case shall the Water Main be shut down for more than six (6) hours at a time.
2. It will be the responsibility of the Contractor to notify all water customers of the County, in writing, who will be without service, a minimum of 48 hours in advance of the scheduled shutdown.
3. The Contractor shall notify the Bureau of Utilities of Howard County, in writing, at least one (1) week prior to making any tie-in to the existing system.
4. The Contractor shall not operate any water main valve on the existing system.
5. The water main may not be shut down during peak periods May thru September.

CAPITAL PROJECT J-4015

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS	4-1-86	CHIEF, BUREAU OF ENGINEERING	4-1-86
CHIEF, BUREAU OF UTILITIES	4/1/86	CHIEF, UTILITY DESIGN DIVISION	3/25/86

Johnson, Mirmiran & Thompson, P.A.

1-25-85

DES: B.D.B.
DRN: R.W.S.
CHK: D.T.C.
DATE: JAN. 1985

BY	NO.	REVISIONS	DATE

FIRE HYDRANT RELOCATION PLAN

MARYLAND ROUTE 108 TO OLD ANNAPOLIS ROAD
CONTRACT NO. 44-1471

SCALE 1"=50'
SHEET 21 OF 25


B.M.#2840003 (HOWARD CO.) ELEV. 442.433
3/4" REBAR 0.60' BELOW SURFACE, 20'± NORTH OF ℄ OF RTE. 108 AND 45'± WEST OF ℄ OF GRAVEL DRIVE TO HOUSE OF JAMES CLARK, JR.
MARYLAND RT. 108
CENTENNIAL LANE
JAMES CLARK, JR. 295/1
STA. 13+40-10.7' RT. ℄ CENT. LN. STA. 4+90-12" WATER MAIN INSTALL 12" SLEEVE & SPACER @ ELEV. 418.3
RIGHT OF WAY LINE
TEMP. CAP & BLOCK
REMOVE EXIST. 12" W
℄ CONSTRUCTION
EX. 12" W. Contr. No. 16.5-W
PROP. 12" W (D.I.P.)
RIGHT OF WAY LINE
HOWARD CO. DEPT. OF REC. & PARKS 781/592
STA. 8+50 12" WATER MAIN - INSTALL 12"x6" F.H. TEE AND BUTTRESS @ ELEV. 408.5 SEE SHT. 20 OF 24 FOR DETAILS OF FIRE HYDRANT INSTALLATION
STA. 18+10-5.0' LT. ℄ CENT. LN. STA. 9+69.94 12" WATER MAIN INSTALL 12" SLEEVE & SPACER @ ELEV. 406.7
STA. 18+00-5.0' LT. ℄ CENT. LN. STA. 9+59.94 12" WATER MAIN INSTALL 12"-1/8 HORIZ. BEND AND PREPOURED BUTTRESS @ ELEV. 407.4
TEMP. CAP & BLOCK
STA. 13+50-10.7' RT. ℄ CENT. LN. STA. 5+00-12" WATER MAIN INSTALL 12"-1/8 HORIZ. BEND AND PREPOURED BUTTRESS @ ELEV. 418.6
STA. 13+62-22.7' RT. ℄ CENT. LN. STA. 5+16.97-12" WATER MAIN INSTALL 12"-1/8 HORIZ. BEND AND BUTTRESS @ ELEV. 418.5
STA. 17+88-7.0' RT. ℄ CENT. LN. STA. 9+42.97 12" WATER MAIN - INSTALL 12"-1/8 HORIZ. BEND AND BUTTRESS @ ELEV. 408.6
PLAN
NOTE: SEE SHT. 21 FOR WATER MAIN DETAILS AND SEQUENCE OF CONSTRUCTION FOR WATER MAIN RELOCATIONS.
PROP. GRADE
Ex. Ground
PROP. 12" D.I.P.
PROFILE
STA. 25+83-40' LT. ℄ CENT. LA. STA. 5+00-12" WATER MAIN INSTALL 12" SLEEVE & SPACER @ ELEV. 343.0
STA. 25+93-42.3' LT. ℄ CENT. LA. STA. 5+10-12" WATER MAIN INSTALL 12"-1/16 HORIZ. BEND & PREPOURED BUTTRESS @ ELEV. 361.7
STA. 6+87, 12" WATER MAIN INSTALL 12" 1/8 HOR. BEND AND PRE-POUR BUTTRESS, 8.2' COVER
B.M.#102 ELEV. 353.71 RR SPIKE IN G&E POLE #116079 EAST OF CENTENNIAL LA., 284' FROM J.M.T. TRAVERSE PT. 902
JAMES CLARK, JR. 9170299/1
DONALD R. JAMES, ET UX 803/283
GLEN E. WEBB, ET UX 689/808
CAP & ABANDON EXIST. 12" W
REMOVE EXIST. 12" W
1 Sty Brick
CRIMP PIPE
HOWARD CO. DEPT. OF REC. & PARKS LAW DOCKET A3652
TEMP. CAP & BLOCK
PLAN
STA. 7+05, INSTALL 12" 1/8 HOR. BEND & PRE-POUR BUTTRESS 8.2' COVER
STA. 32+90-10' LT. ℄ CENT. LA. STA. 12+15.78-12" WATER MAIN INSTALL 12" SLEEVE & SPACER @ EL. 370.5
STA. 32+80-11.5' LT. ℄ CENT. LA. STA. 12+05.78-12" WATER MAIN INSTALL 12"-1/8 HORIZ. BEND & PREPOURED BUTTRESS @ ELEV. 369.3
TEMP. CAP & BLOCK
STA. 11+98-12" WATER MAIN INSTALL 12"-1/8 HORIZ. BEND & BUTTRESS @ ELEV. 368.6
℄ PROP. BOX CULVERT
PROFILE
JOHN J. MOOSEBERGER, ET AL 436/412
MARTHA A. McINTYRE, ET AL 1055/493
STA. 7+07-12" WATER MAIN INSTALL 12"x6" F.H. TEE AND BUTTRESS @ ELEV. 410.0. SEE SHT. 20 OF 26 FOR DETAILS OF FIRE HYDRANT INSTALLATION
PROP. 8" SAN. SEE SHTS. 3-1 & 5-2
STA. 55+33.5-28' RT. ℄ CENT. LA. STA. 9+28.26-12" WATER MAIN INSTALL 12"-1/8 HORIZ. BEND AND BUTTRESS @ ELEV. 407.9
STA. 51+51.5-28' RT. ℄ CENT. LA. STA. 5+26.26-12" WATER MAIN INSTALL 12"-1/8 HORIZ. BEND & BUTTRESS @ ELEV. 407.7
2 Story Block & Frame
1 Sty Alum. Bldg.
JOHN M. MERRYMAN, ET UX 257/592
LARRY D. HOSE, ET UX 342/415
B.M.#100 ELEV. 415.28 R.R. SPIKE IN G&E POLE #146634 ON THE WEST SIDE OF CENTENNIAL LANE AND 700'± NORTH OF MAXINE STREET.
STA. 5+26.26 INSTALL 12" 1/8 HORIZ. BEND BUTTRESS @ EL. 407.7
STA. 9+61.59 INSTALL 12" SLEEVE & SPACER @ ELEV. 408.4
STA. 5+00 INSTALL 12" SLEEVE & SPACER @ EL. 406.9
STA. 7+07 INSTALL 12"x6" F.H. TEE & BUTTRESS @ ELEV. 410.0
STA. 9+28.26 INSTALL 12"-1/8 HORIZ. BEND & BUTTRESS @ ELEV. 407.9
STA. 9+51.59 INSTALL 12"-1/8 HORIZ. BEND & PREPOURED BUTTRESS @ ELEV. 408.1
STA. 5+10 INSTALL 12"-1/8 HORIZ. BEND & PREPOURED BUTTRESS @ EL. 407.5
3.5' MIN. COV.
PROFILE

QUANTITIES

ITEM	QUANTITY	UNIT
6" D.I.P.	261	L.F.
12" D.I.P.	1,658	L.F.
6" VALVE	13	EA.
RELOCATE EXISTING HYDRANTS	8	EA.

CAPITAL PROJECT J-4015

DEPARTMENT OF PUBLIC WORKS
HOWARD COUNTY, MARYLAND

DIRECTOR OF PUBLIC WORKS — DATE 4-1-86
CHIEF, BUREAU OF ENGINEERING — DATE 4-1-86
CHIEF, BUREAU OF UTILITIES — DATE
CHIEF, UTILITY DESIGN DIVISION — DATE 3/15/86

Johnson, Mirmiran & Thompson, P.A.
810 GLENEAGLES COURT • BALTIMORE MARYLAND 21204
(301) 821-6500

DES: B.D.B.
DRN: A.M.R.
CHK: D.T.C.
DATE: JAN. 1985

BY	NO.	REVISIONS	DATE

WATER MAIN RELOCATION
PLAN AND PROFILE

MARYLAND ROUTE 108 TO OLD ANNAPOLIS ROAD
CONTRACT NO. 44-1471

SCALE
PLAN: 1"=50'
PROFILE: H 1"=100' V 1"=10'
SHEET 22 OF 23

AS-BUILT 2-7-89