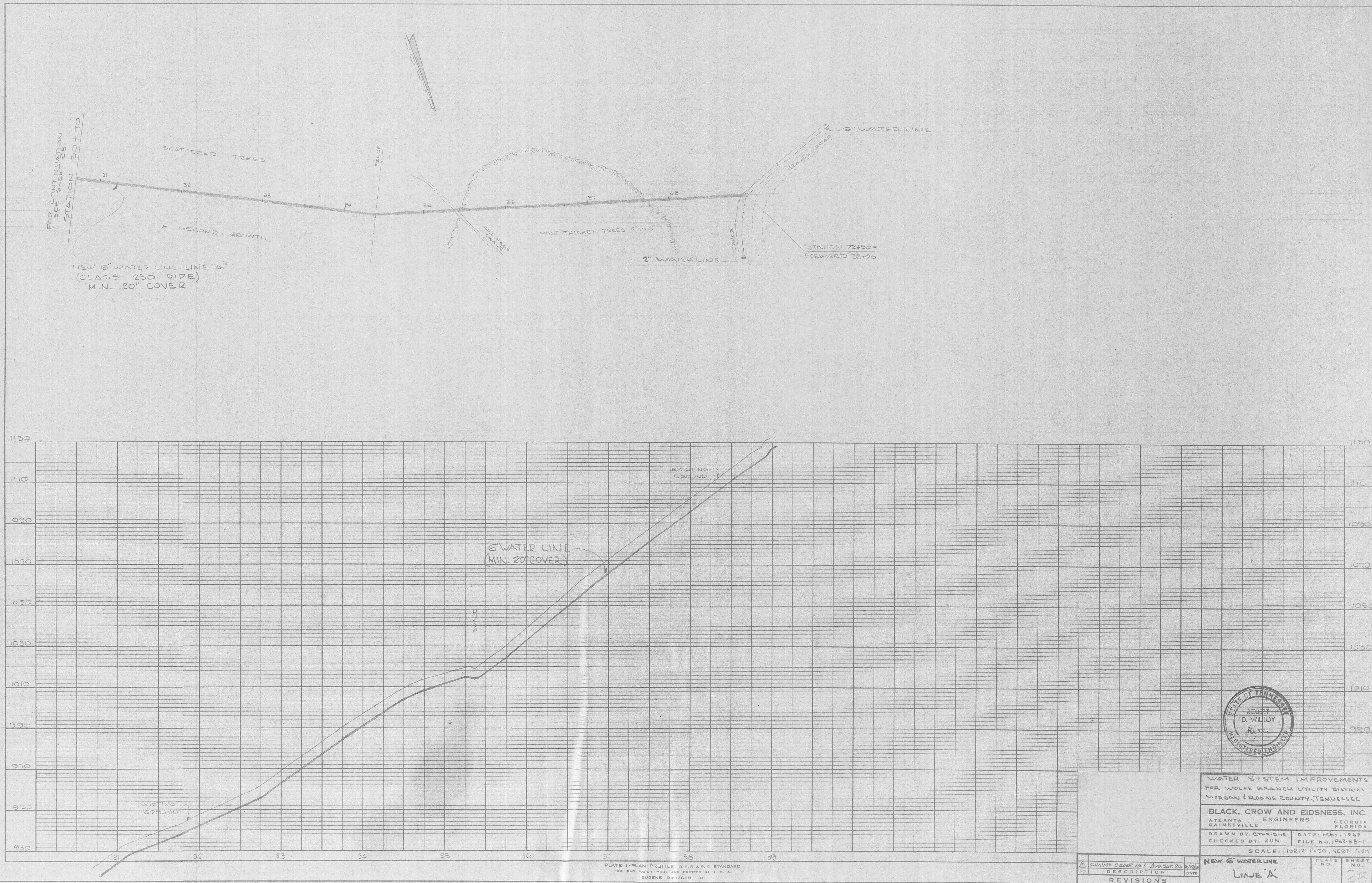


PLAN	SURVEYED	DATE
	PLOTTED	BY
NOTE BOOK	CHECKED	
	BY	
NO.		

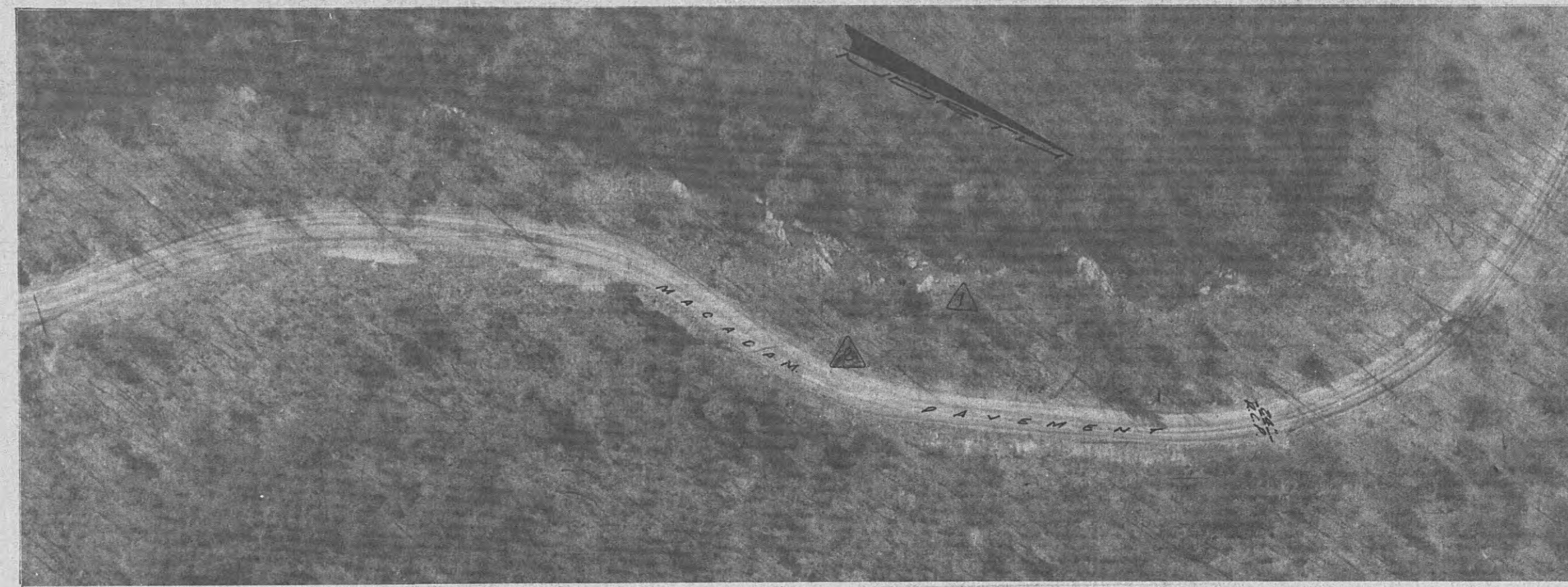
PROFILE	SURVEYED	DATE
	PLOTTED	BY
NOTE BOOK	CHECKED	
	BY	
NO.		



WATER SYSTEM IMPROVEMENTS FOR WOLFE BRANCH UTILITY DISTRICT MORGAN & ROANE COUNTY, TENNESSEE	
BLACK, CROW AND EIDNESS, INC. ATLANTA, GEORGIA ENGINEERS	
DRAWN BY: CMR:RHS	DATE: MAY, 1969
CHECKED BY: RDW	FILE NO.: 962-65-1
SCALE: HORIZ: 1"=50', VERT: 1"=20'	
NEW 6" WATERLINE LINE 'A'	PLATE NO. 26

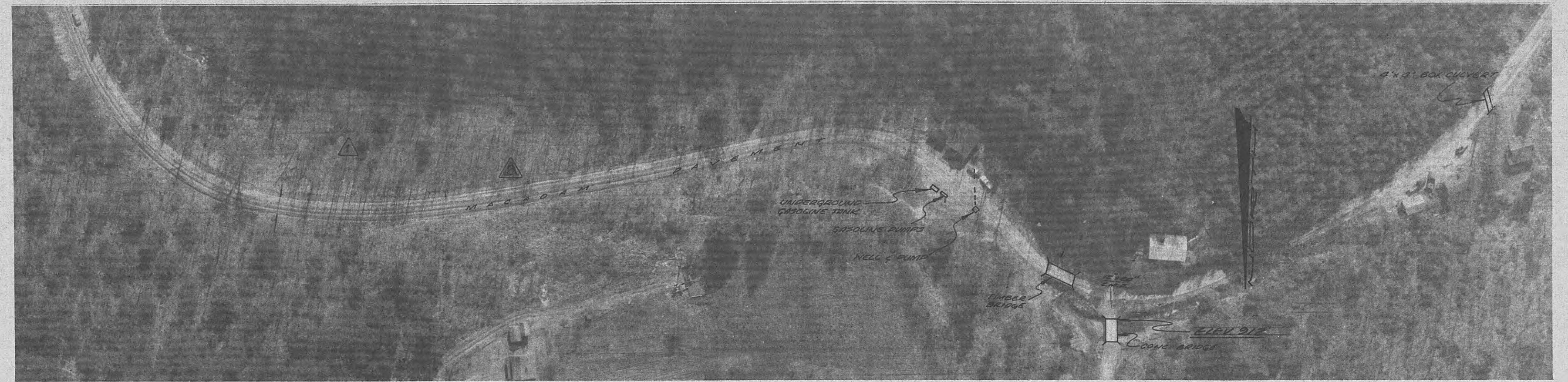
NO.	DESCRIPTION	DATE

PLATE 1-PLAN-PROFILE D.P.R. & R.E. STANDARD
100% RAS PAPER-MADE AND PRINTED IN U.S.A.
EUBENE DIETZGEN CO.



CRAB ORCHARD CHURCH ROAD

NOTE:
PRESSURE REDUCING VALVES REQUIRED
ON SERVICE CONNECTIONS.



CRAB ORCHARD CHURCH ROAD

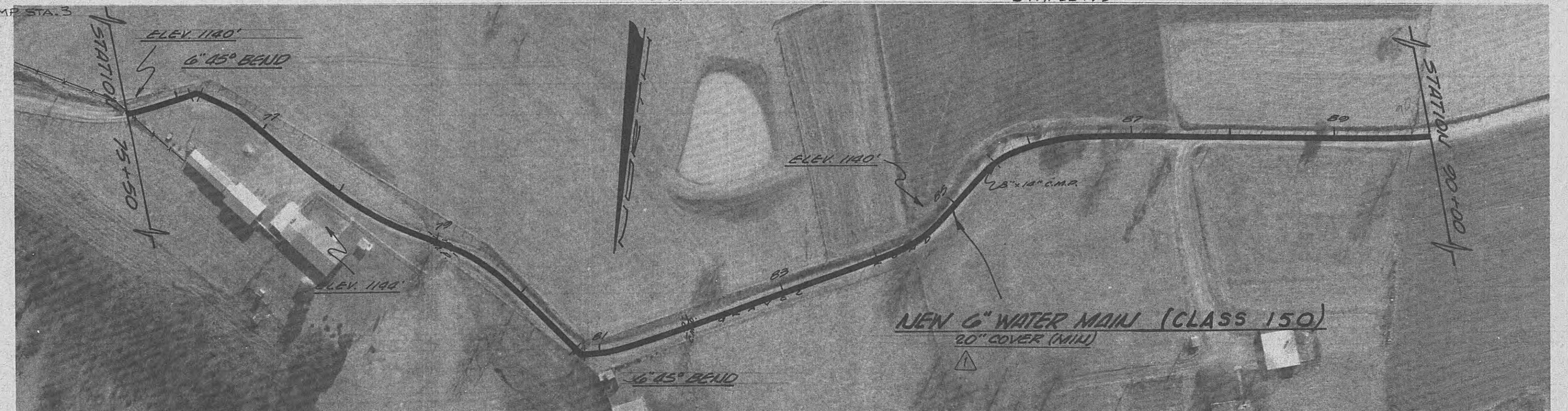
EXISTING GRADE
18" C.M.P.
STA. 51+60
3/4" GALVANIZED WATER LINE
STA. 51+60

EXISTING GRADE
18" C.M.P.
STA. 53+75
12" x 24" C.M.P.
STA. 53+75

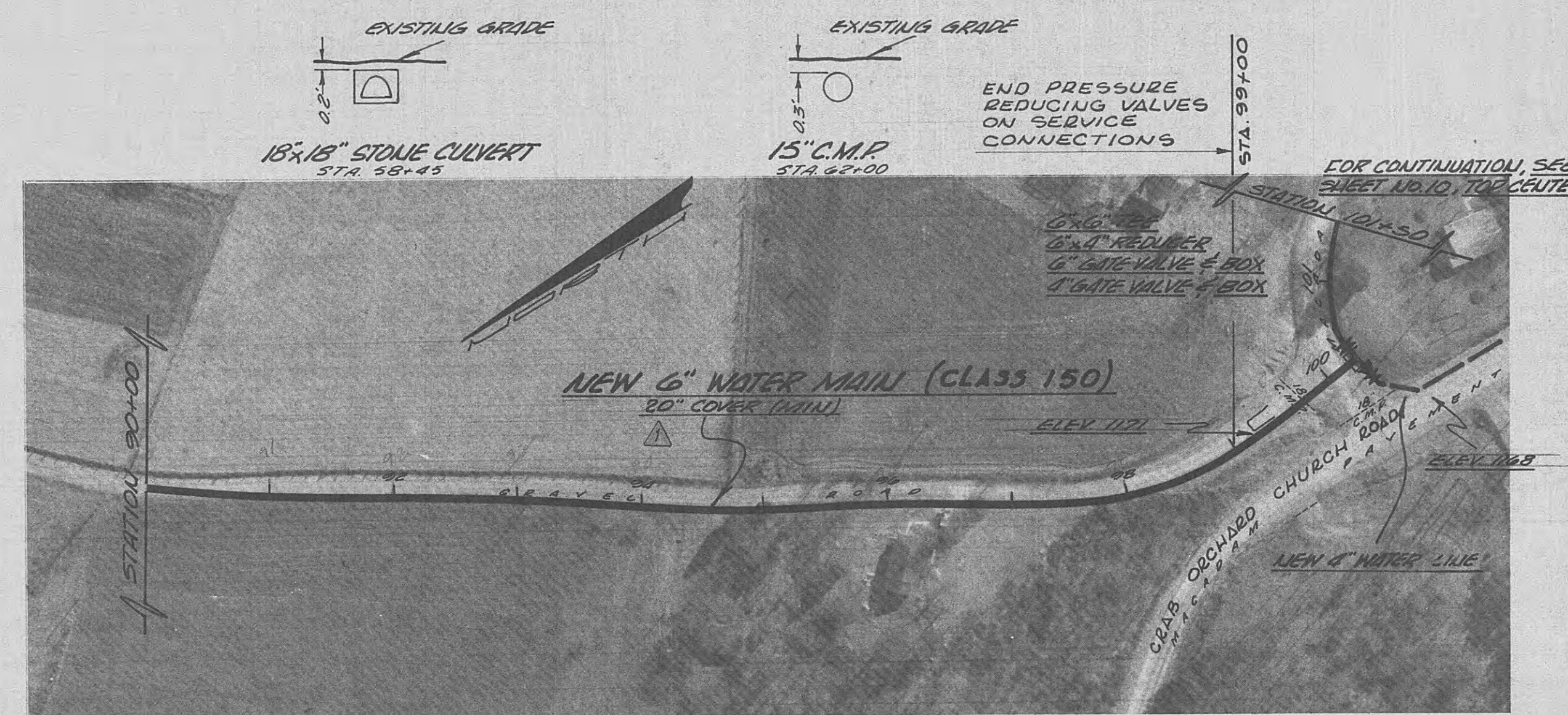
NOTE:
PRESSURE REDUCING VALVES REQUIRED
ON SERVICE CONNECTIONS.



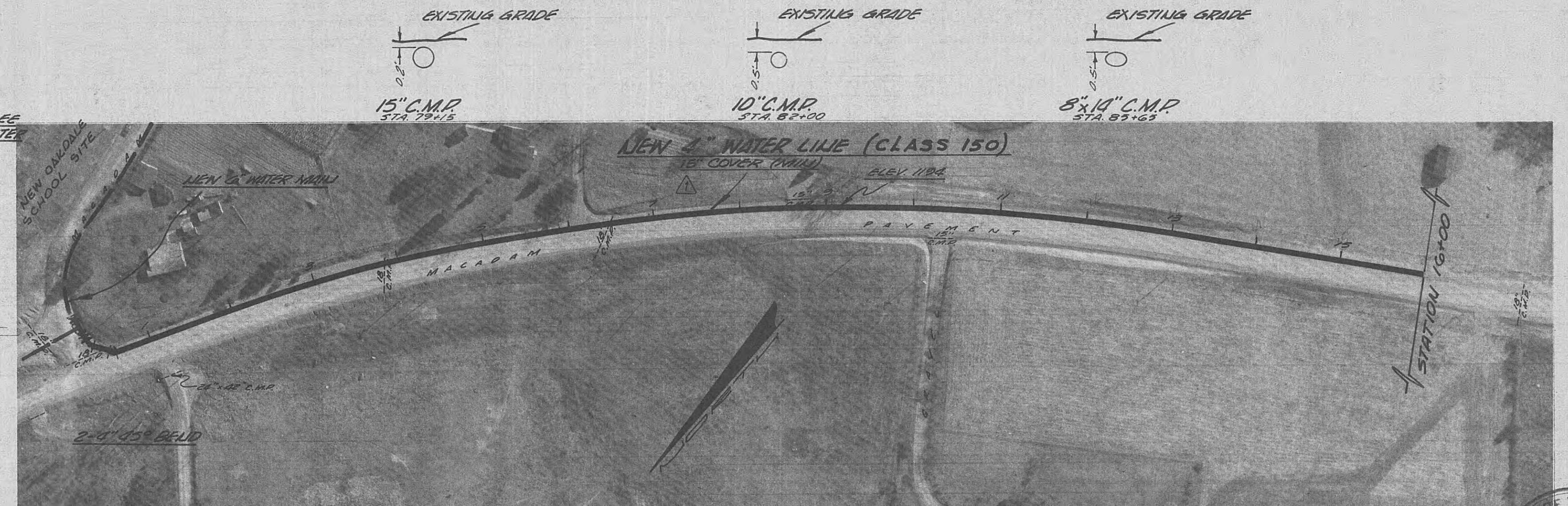
CRAB ORCHARD CHURCH ROAD



CRAB ORCHARD CHURCH ROAD



CRAB ORCHARD CHURCH ROAD



CRAB ORCHARD CHURCH ROAD

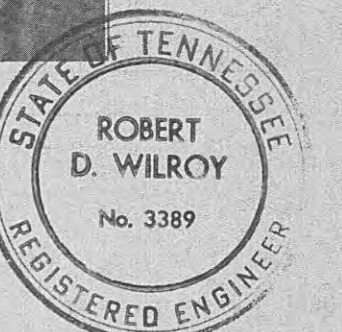
EXISTING GRADE
18" C.M.P.
STA. 99+80

EXISTING GRADE
18" C.M.P.
STA. 0+65

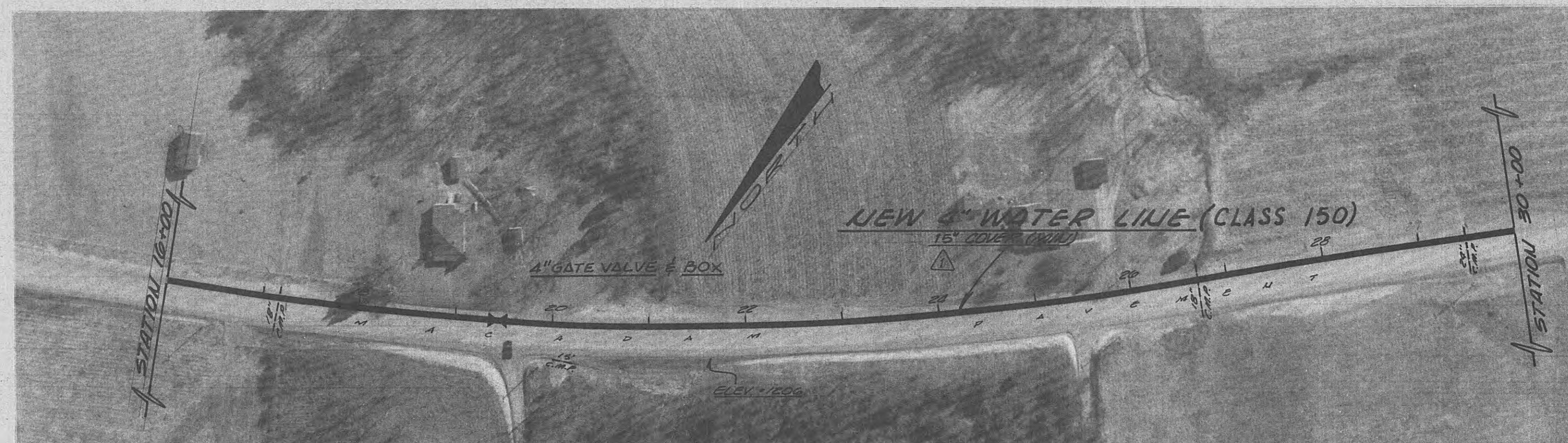
EXISTING GRADE
18" C.M.P.
STA. 3+25

EXISTING GRADE
18" C.M.P.
STA. 6+50

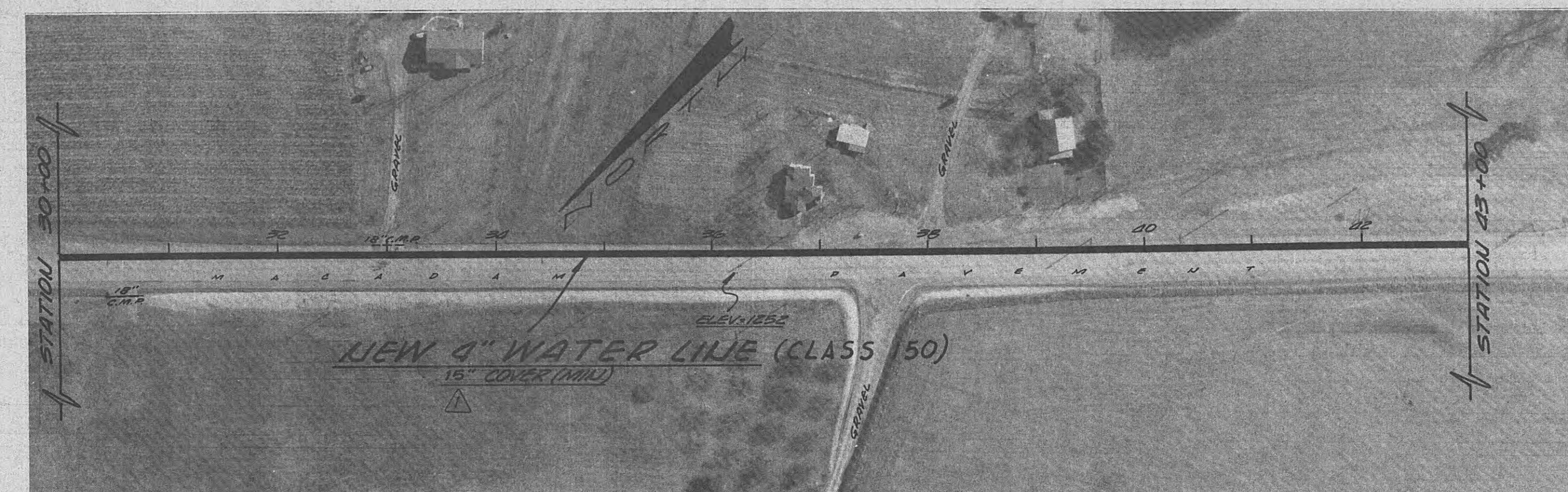
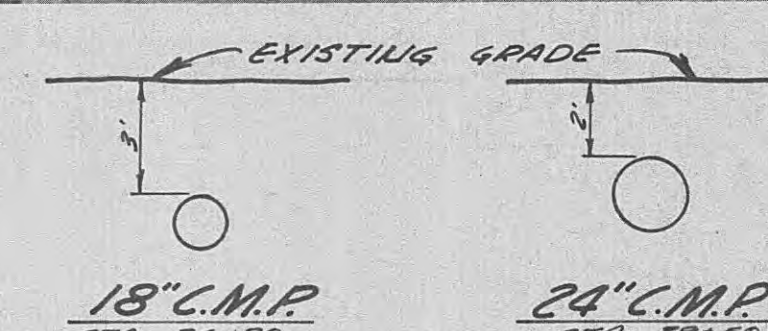
NOTE:
OPEN DITCH MUST BE A
MINIMUM OF 3 FEET
FROM EDGE OF PAVEMENT.



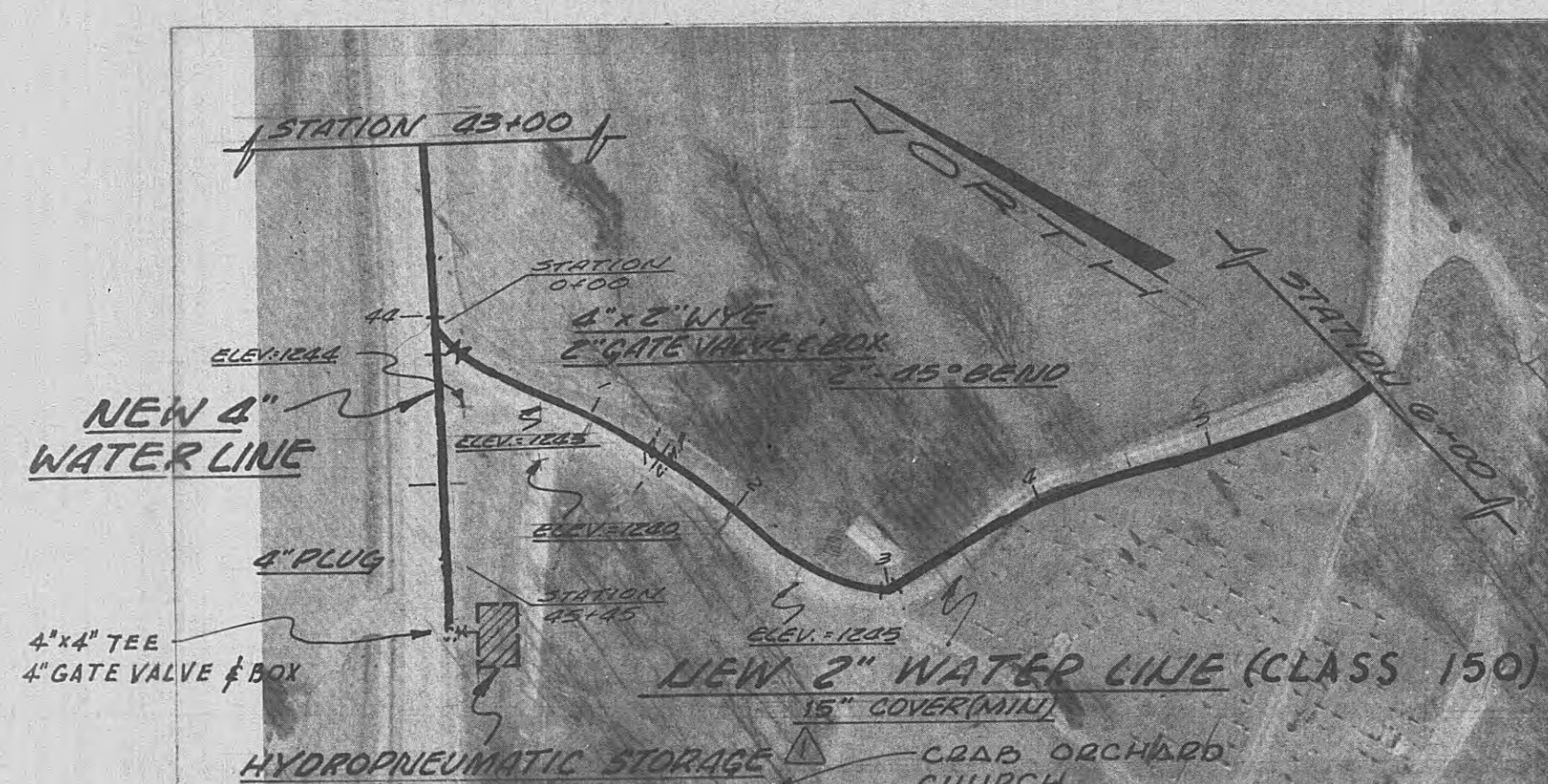
WATER SYSTEM IMPROVEMENTS	
FOR WOLFE BRANCH UTILITY DISTRICT	
MORGAN & ROANE CO'S TENNESSEE	
BLACK, CROW AND EIDSNES, INC.	
ENGINEERS	
GAINESVILLE	FLORIDA
DRAWN BY: J.D.E.	DATE: OCT. 1963
CHECKED BY: C.GRIFFIN	FILE NO.: 442-93-1
SCALE: 1"=100'	
NEW 6" WATER MAIN ALONG CRAB ORCHARD CHURCH ROAD AND ROAD TO NEW OAKDALE SCHOOL	
REVISIONS	SHEET NO. 3



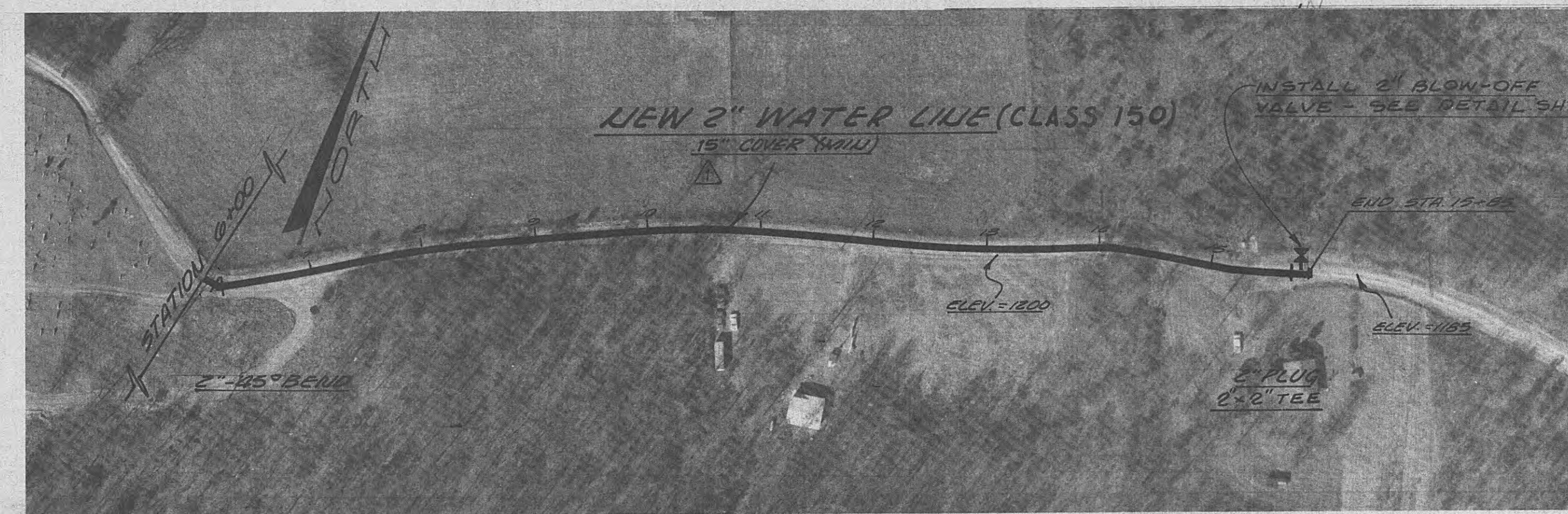
CRAB ORCHARD CHURCH ROAD



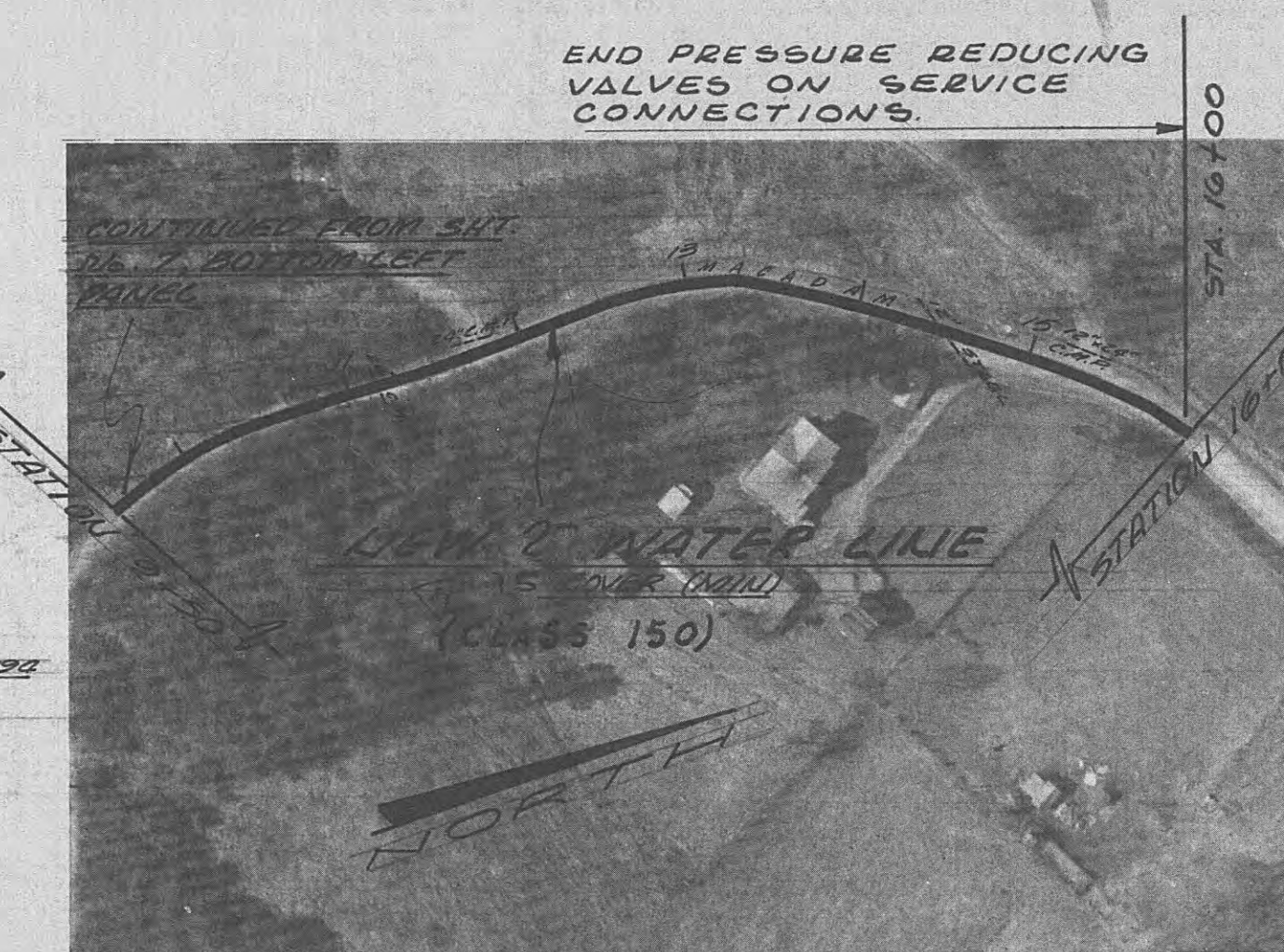
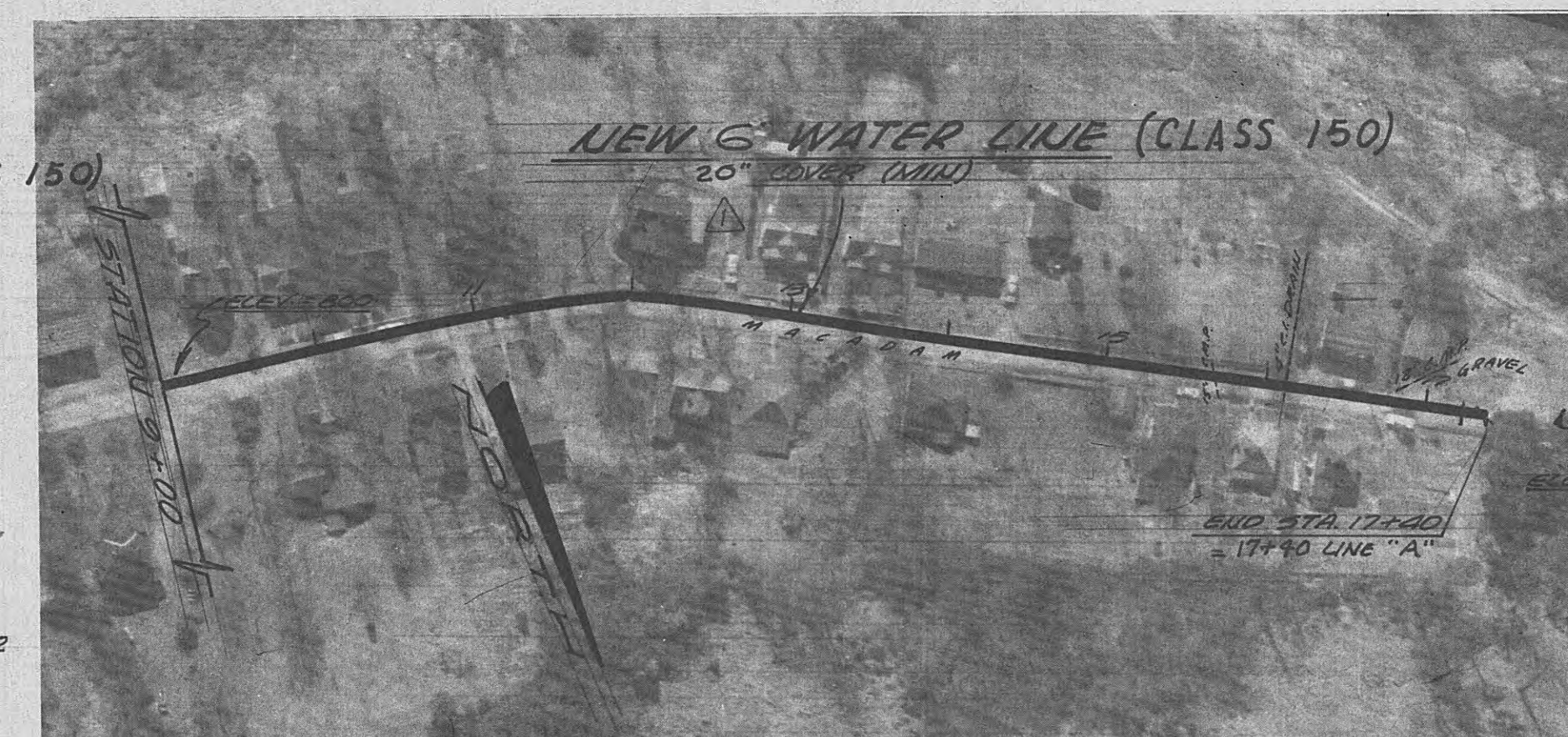
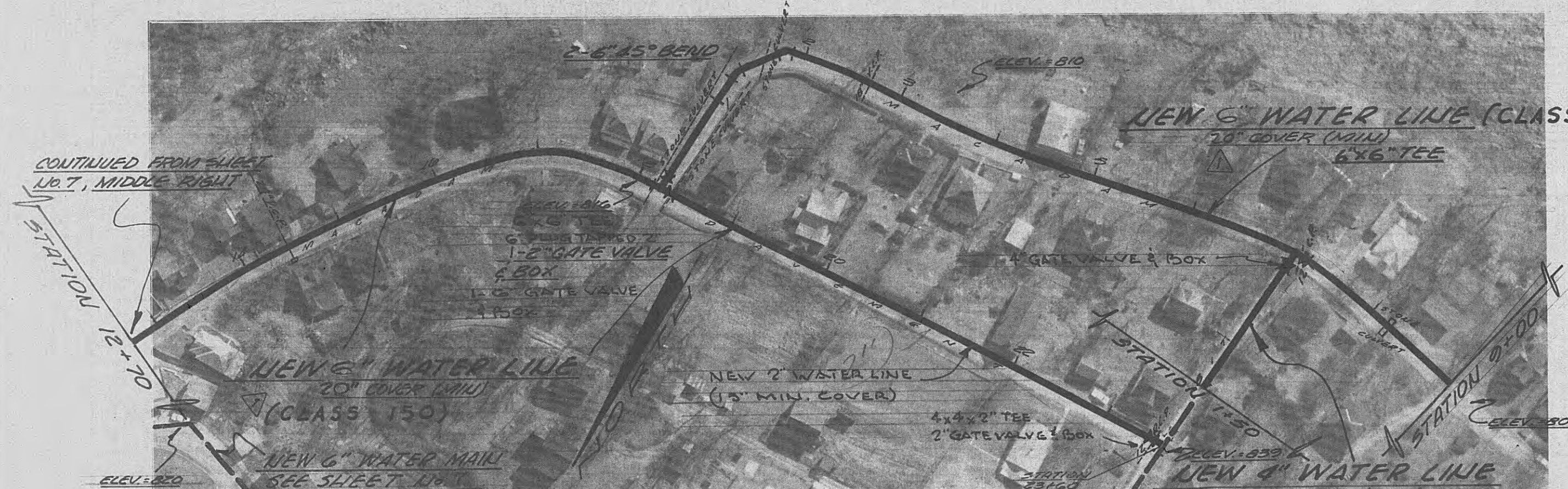
CRAB ORCHARD CHURCH ROAD



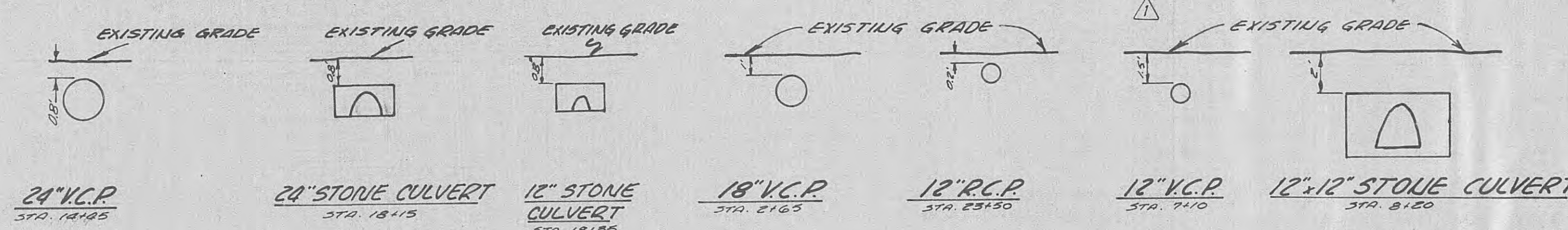
CRAB ORCHARD CHURCH EXTENSION



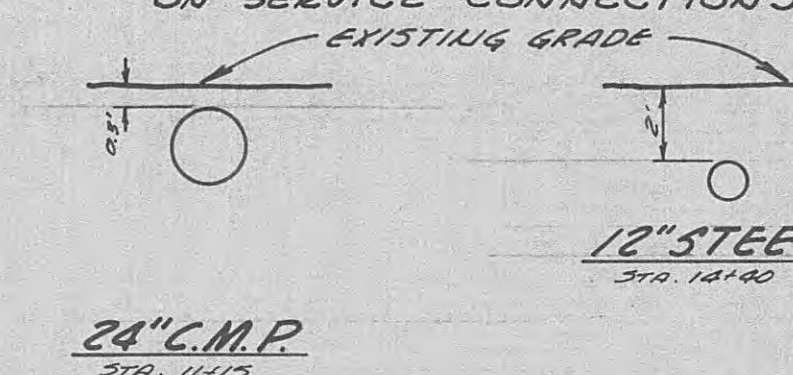
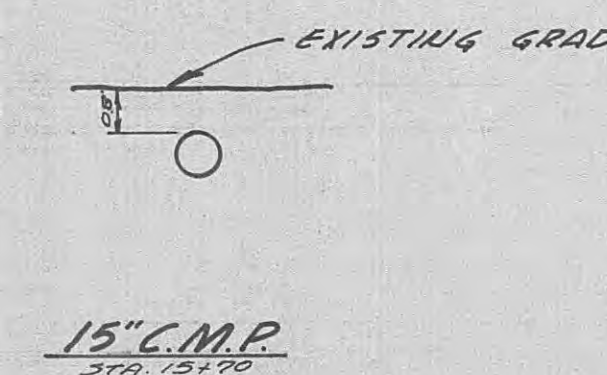
OAKDALE TENNESSEE
(WEST BANK OF RIVER)



NOTE: PRESSURE REDUCING VALVES REQUIRED ON SERVICE CONNECTIONS.



OAKDALE TENNESSEE
(WEST BANK OF EMORY RIVER)



NOTE: OPEN DITCH MUST BE A MINIMUM OF 3 FEET FROM EDGE OF PAVEMENT.

REVISIONS		DESCRIPTION	
1	REVISED PUMP STA. NO. 4	17+00	NEW 4" x 2" WATER LINE ALONG CRAB ORCHARD CHURCH ROAD AND IN OAKDALE
2	REVISED MIN. COVER	17+00	
3	DATE	11/1/68	



WATER SYSTEM IMPROVEMENTS
FOR WOLFE BRANCH UTILITY DISTRICT
MORGAN & ROANE CO'S TENNESSEE
BLACK, CROW AND EIDSNES, INC.
GAINESVILLE FLORIDA
DRAWN BY: J. MARTIN DATE: OCT. 1968
CHECKED BY: G. GARRIN FILE NO.: 402-GB-1
SCALE: 1" = 100' HORIZ.

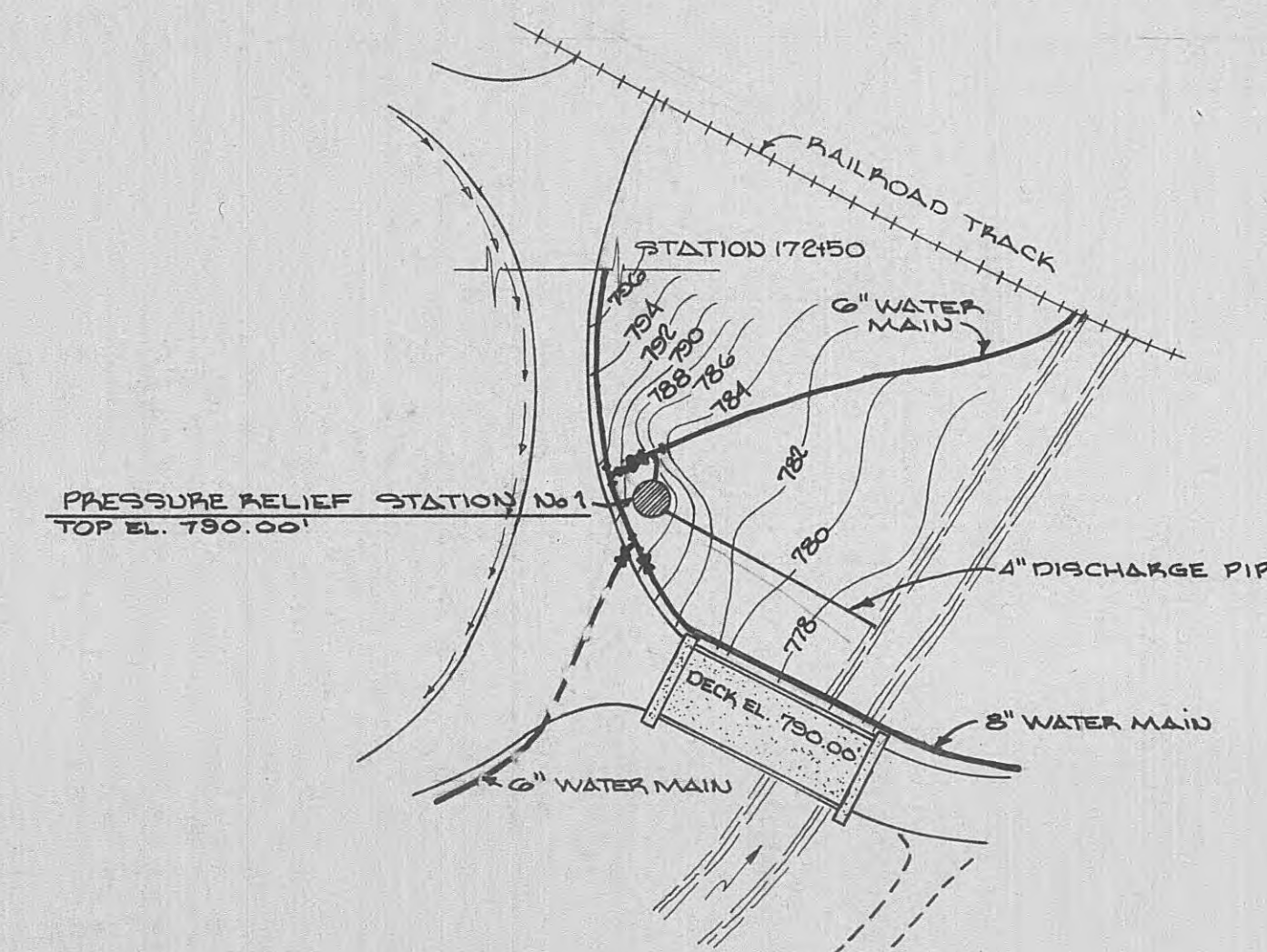
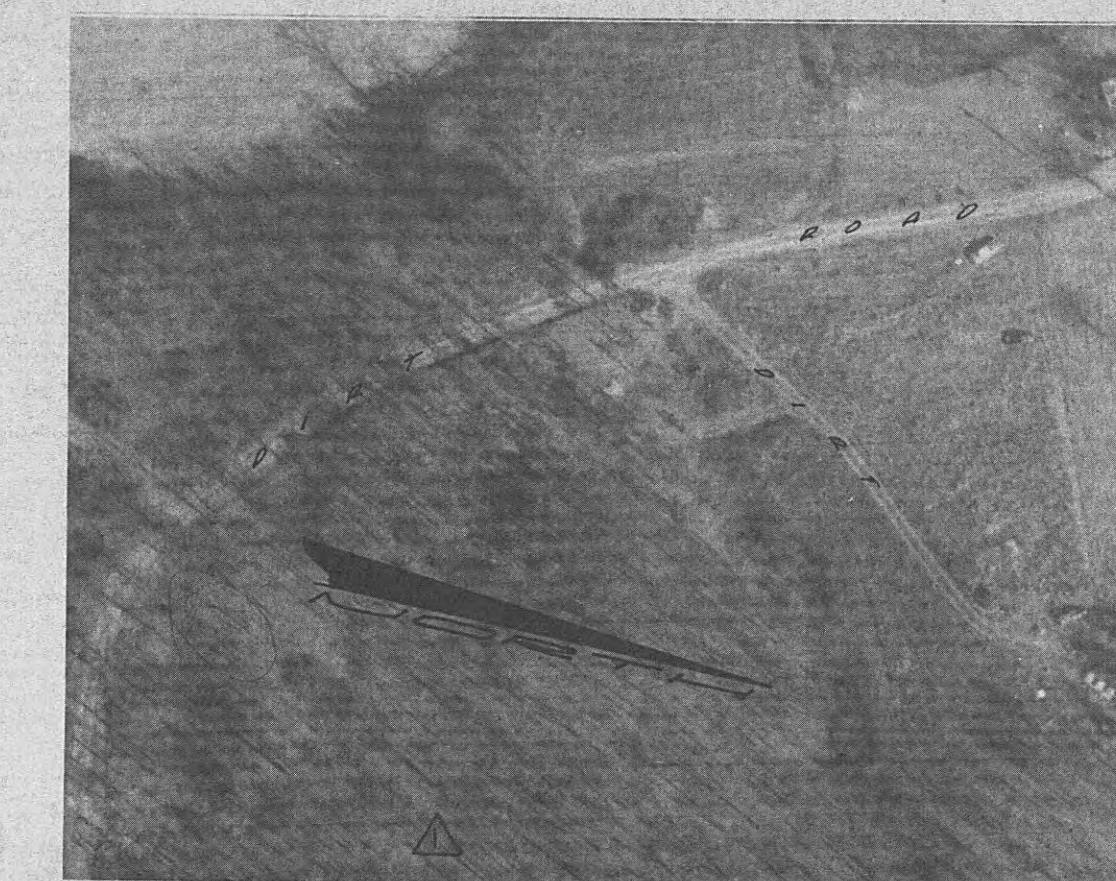


OAKDALE TENNESSEE
(WEST BANK OF EMORY RIVER)

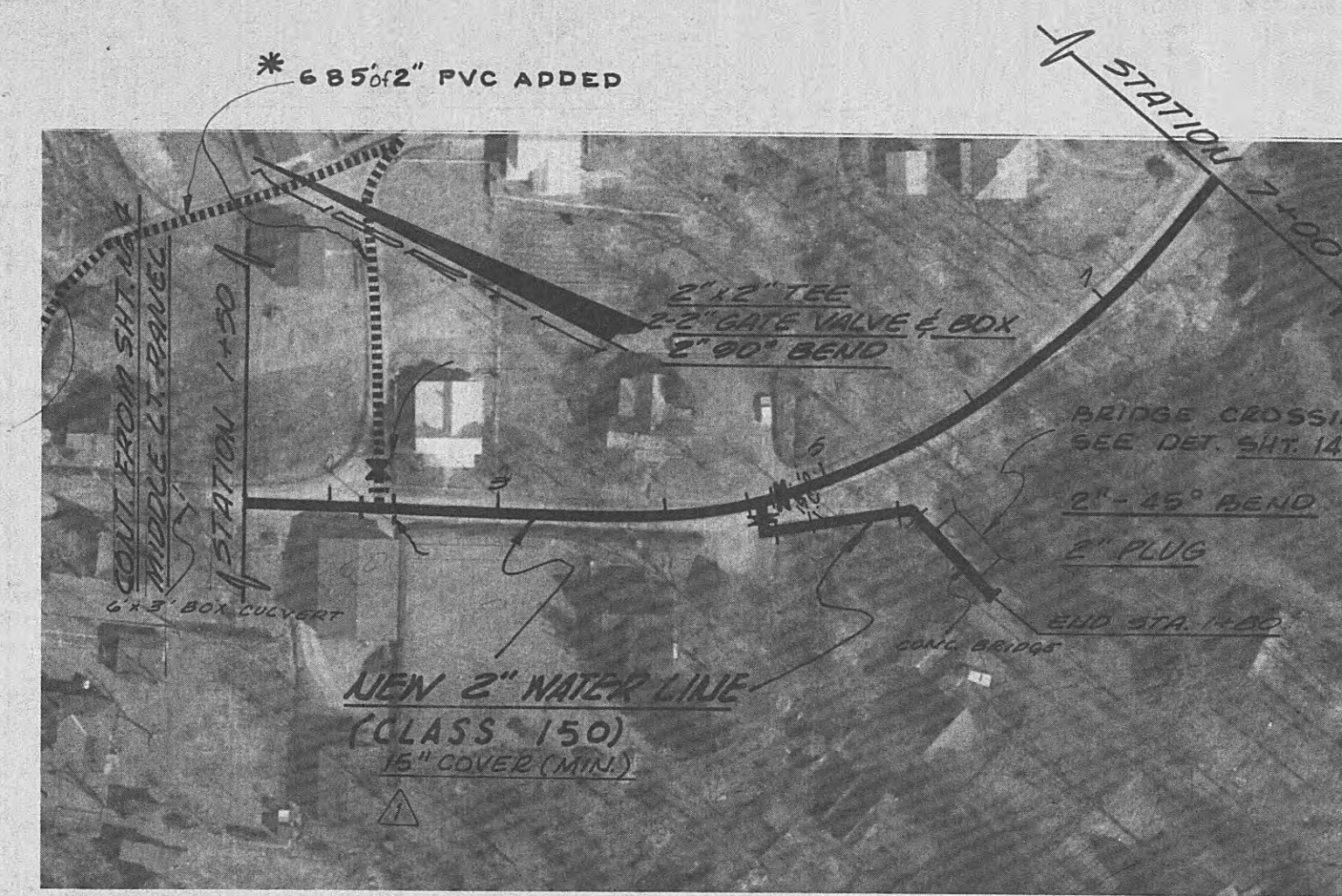
EXISTING GRADE
15" C.M.P.
STA. 20+95



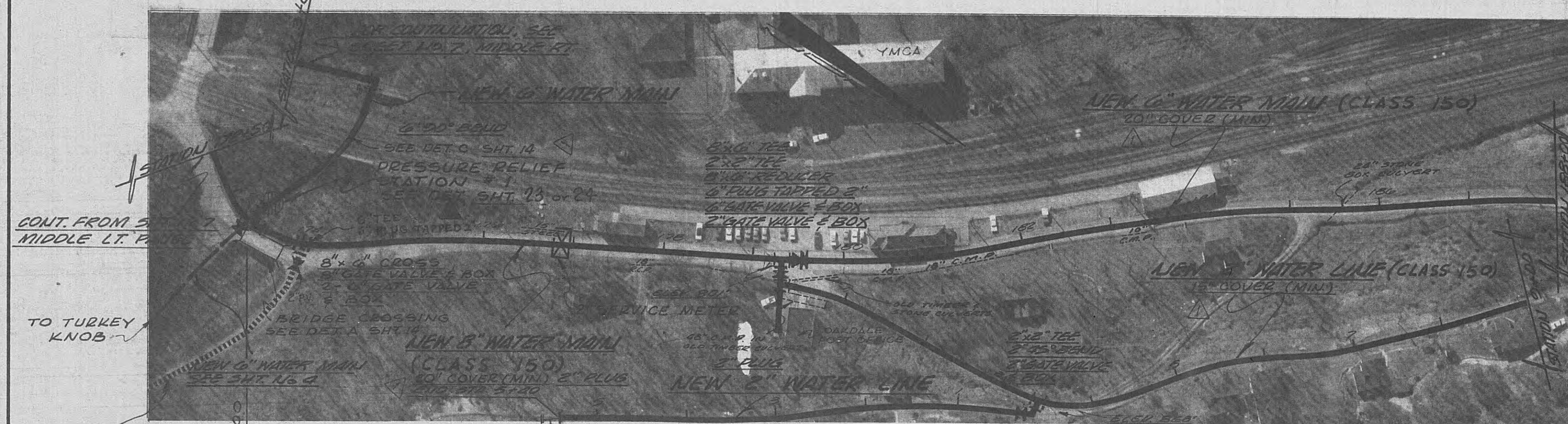
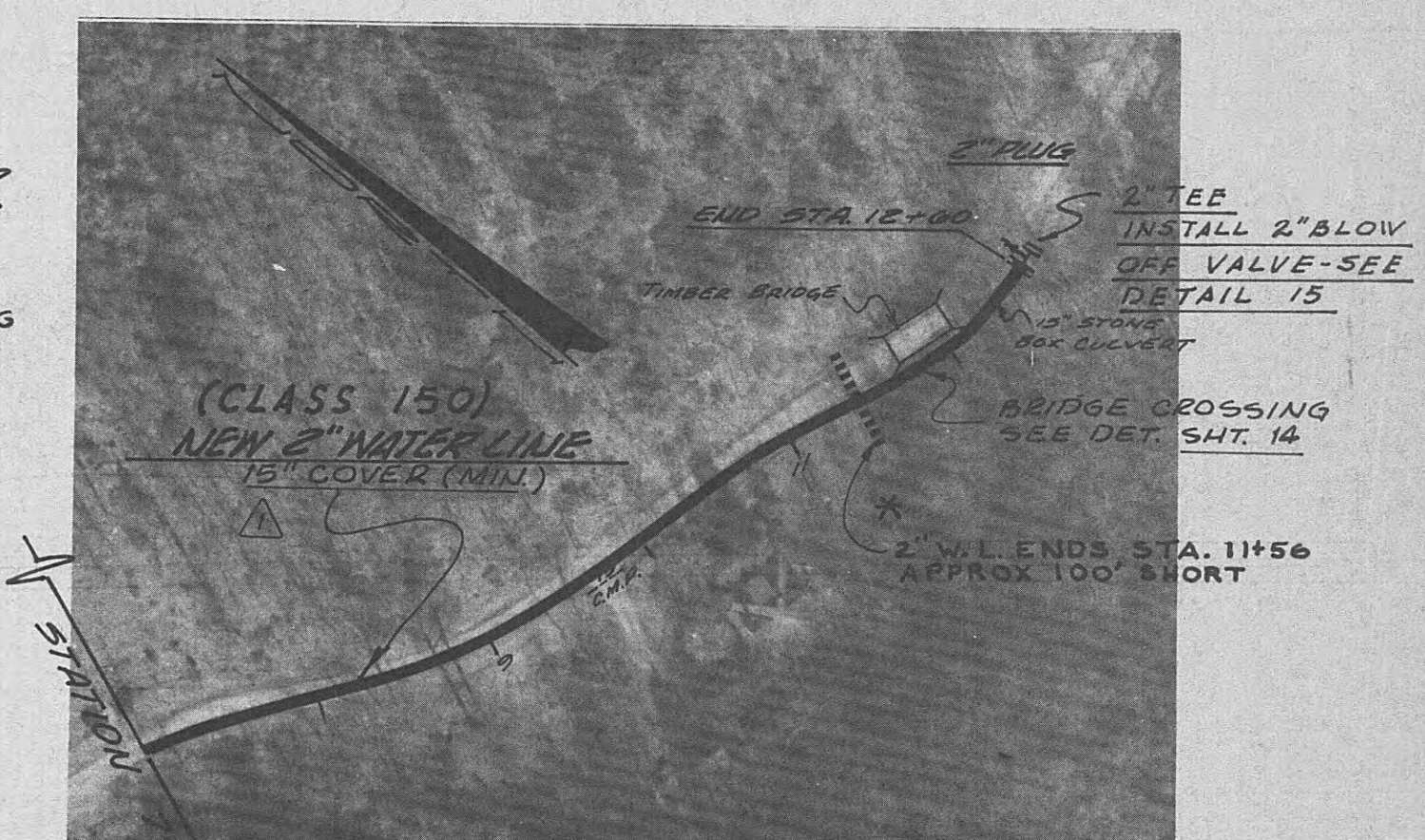
SITE OF NEW OAKDALE SCHOOL
(OFF OF CRAB ORCHARD CHURCH ROAD)



SITE PLAN PRESSURE RELIEF STATION No. 1
SCALE 1"=40'



OAKDALE TENNESSEE
(EAST BANK OF EMORY RIVER)



OAKDALE TENNESSEE
(EAST BANK OF EMORY RIVER)

EXISTING GRADE
24" STONE BOX CULVERT
STA. 103+65



OAKDALE TENNESSEE
(EAST BANK OF EMORY RIVER)

EXISTING GRADE
26" C.M.P.
STA. 100+95

EXISTING GRADE
15" C.M.P.
STA. 100+00

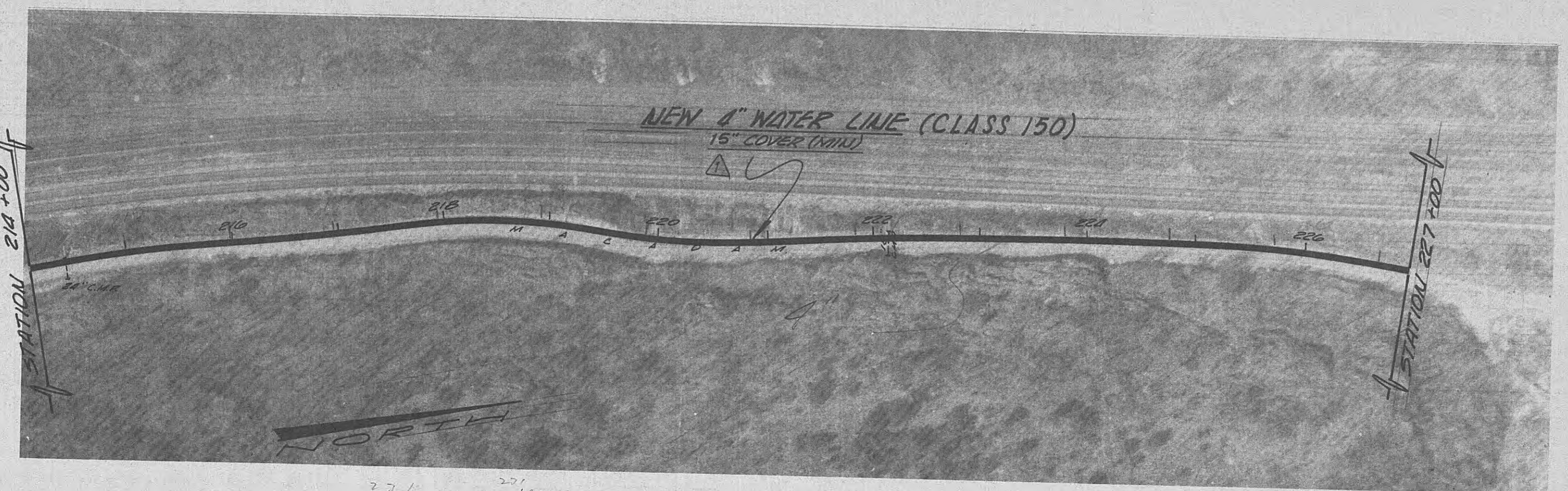
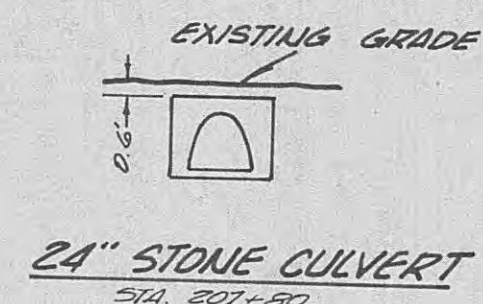
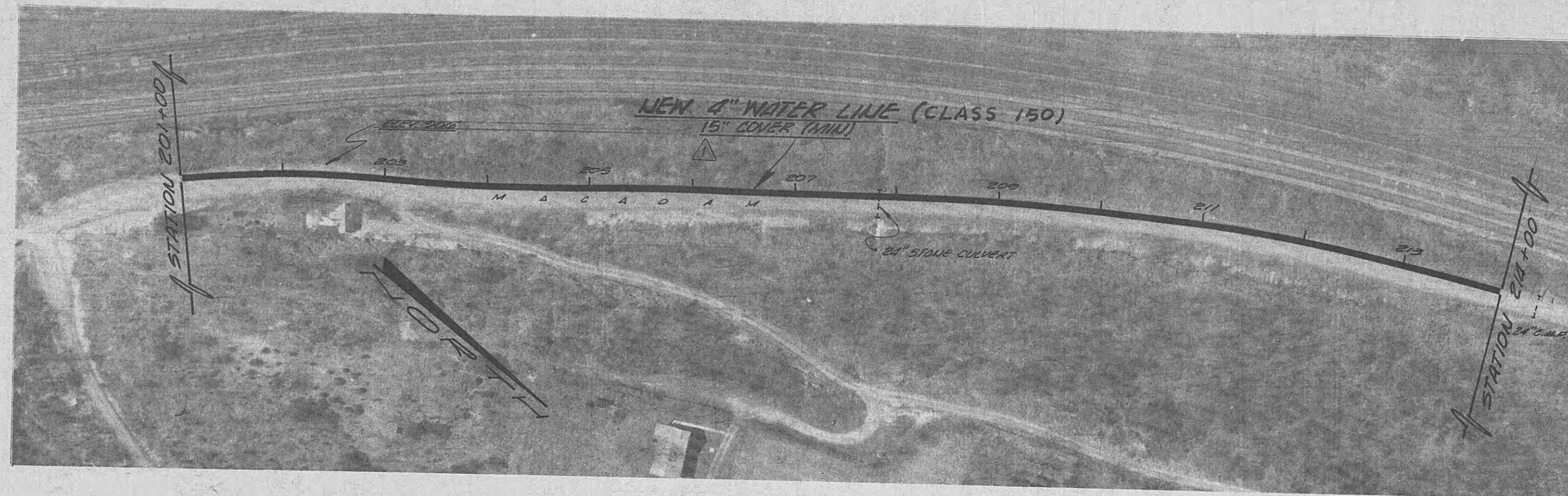
* 170' OF 2" PVC ADDED
BEGIN CLASS 150 PIPE
2" TEE
INSTALL 2" BLOW-OFF VALVE - SEE DET. 15

*..... DENOTES A DEVIATION FROM ORIGINAL PLANS

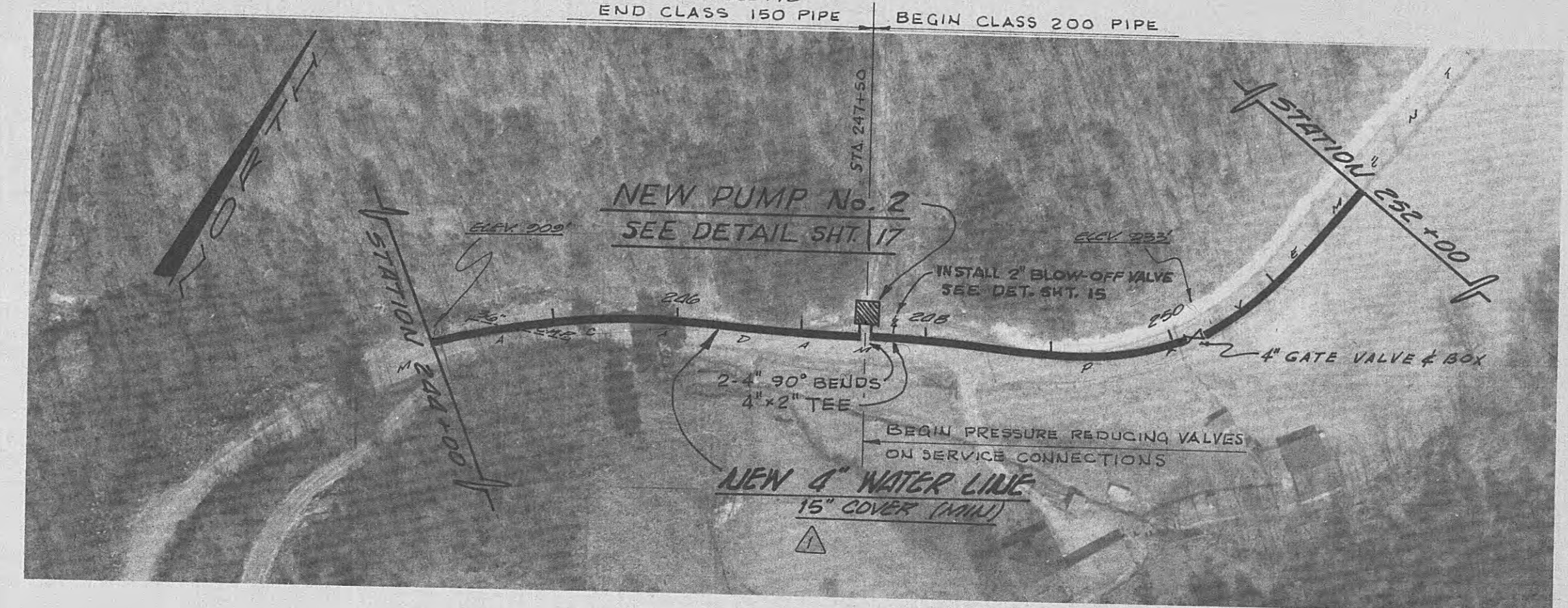
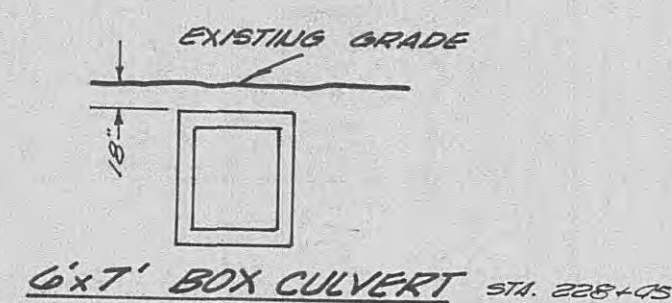
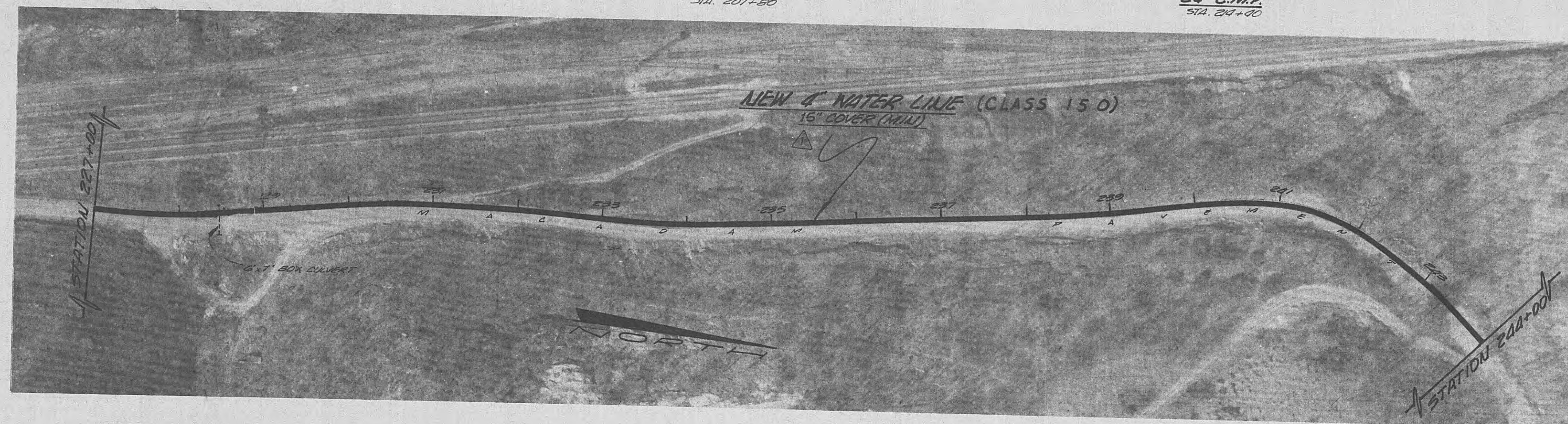
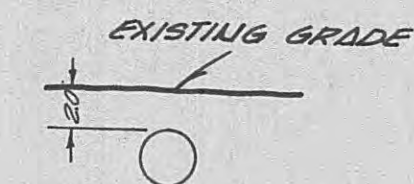
NOTE:
OPEN DITCH MUST BE A MINIMUM OF 3 FEET FROM EDGE OF PAVEMENT.



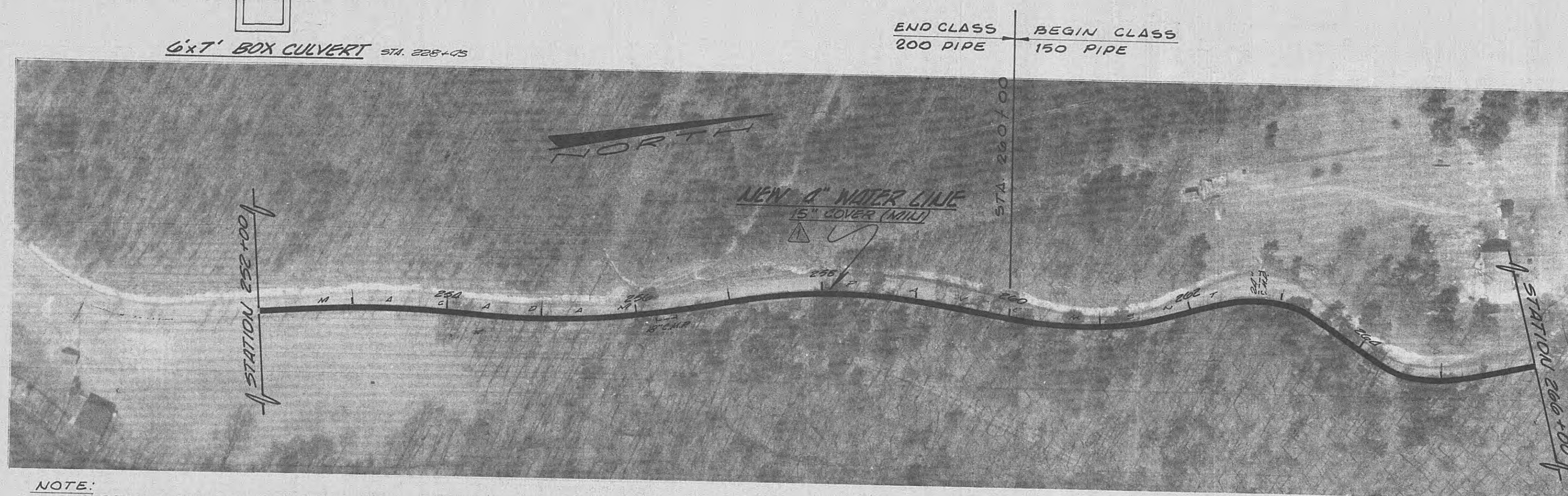
WATER SYSTEM IMPROVEMENTS FOR WOLFE BRANCH UTILITY DISTRICT			
MORGAN & ROONE CO'S		TENNESSEE	
BLACK, CROW AND EIDNESS, INC. ENGINEERS		GAINESVILLE FLORIDA	
DRAWN BY: P.O.E.	DATE: OCT. 1968	FILE NO.: AG2-68-1	
CHECKED BY: J.C.M.M.	DATE: 5/1/69	SCALE: 1"=100'	
REVISIONS		SHEET NO.	
NO.	DESCRIPTION	DATE	NO.
1	CHANGE ORDER NO. 1	6/3/69	10
2	PRESSURE RELIEF STATION #1	4/4/69	
3	GENERAL REVISIONS	5/1/69	



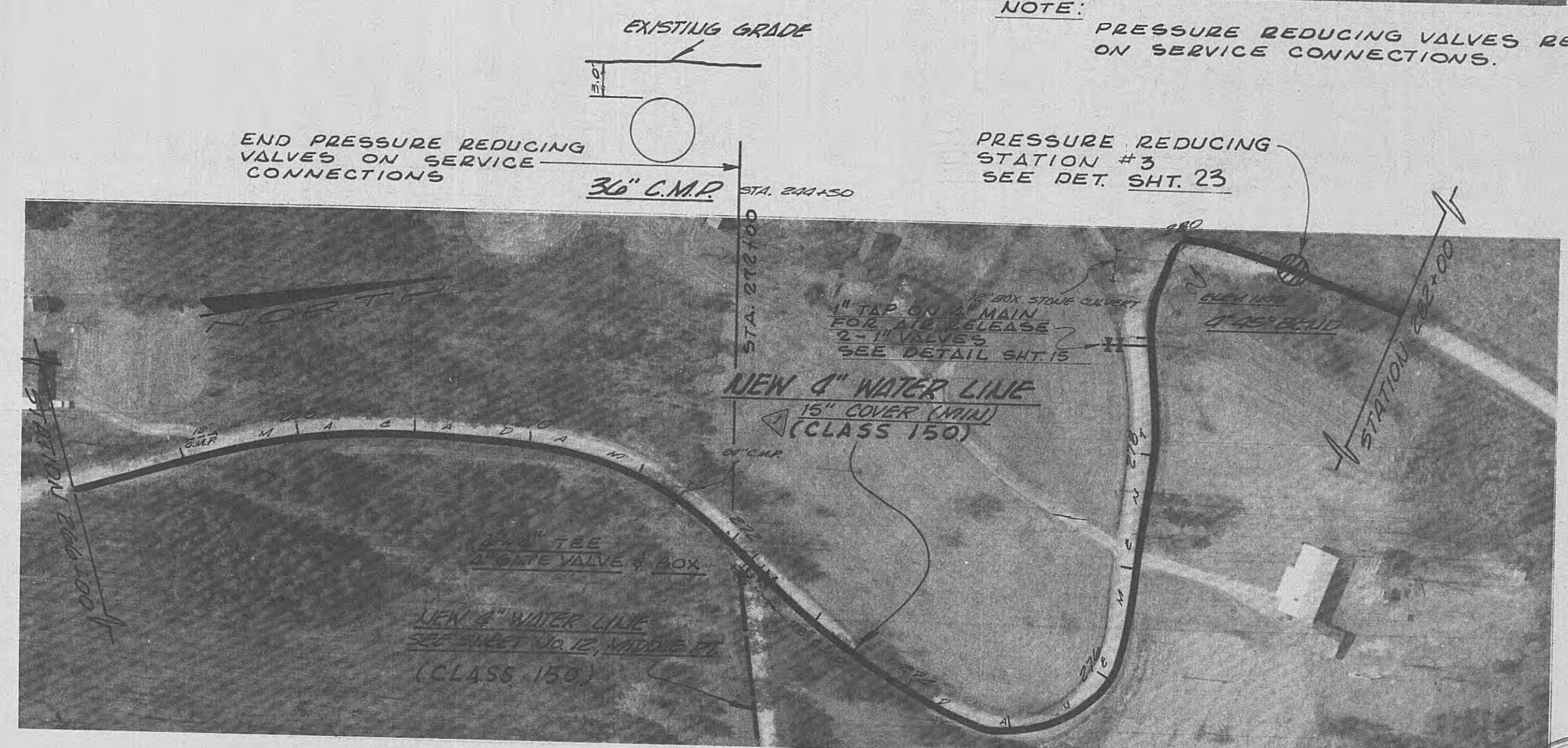
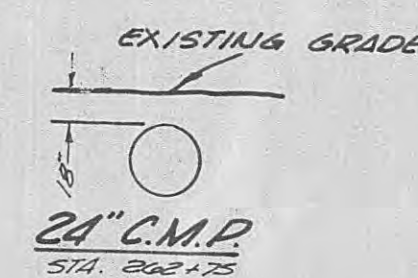
92.0	2.7	2.0	2.0
89.6	2.0	2.0	2.0
87.2	2.0	2.0	2.0
84.8	2.0	2.0	2.0



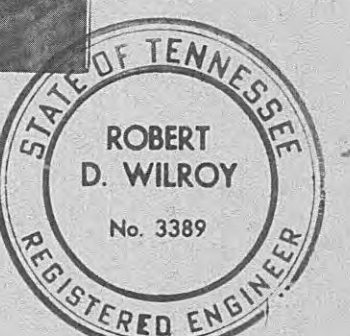
NOTE: PRESSURE REDUCING VALVES REQUIRED ON SERVICE CONNECTIONS.



NOTE: PRESSURE REDUCING VALVES REQUIRED ON SERVICE CONNECTIONS

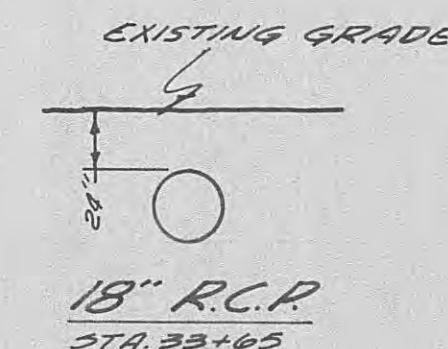
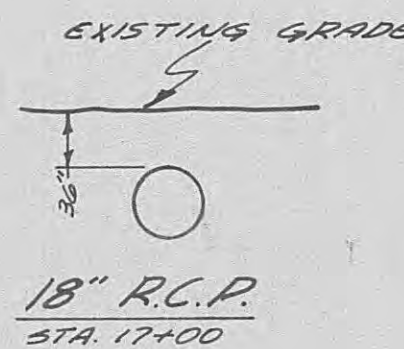
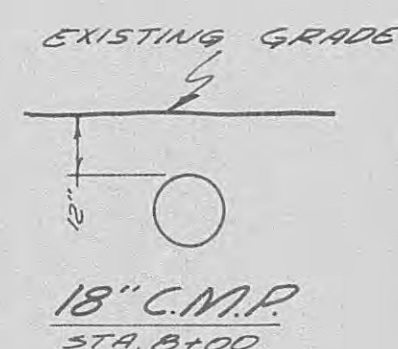
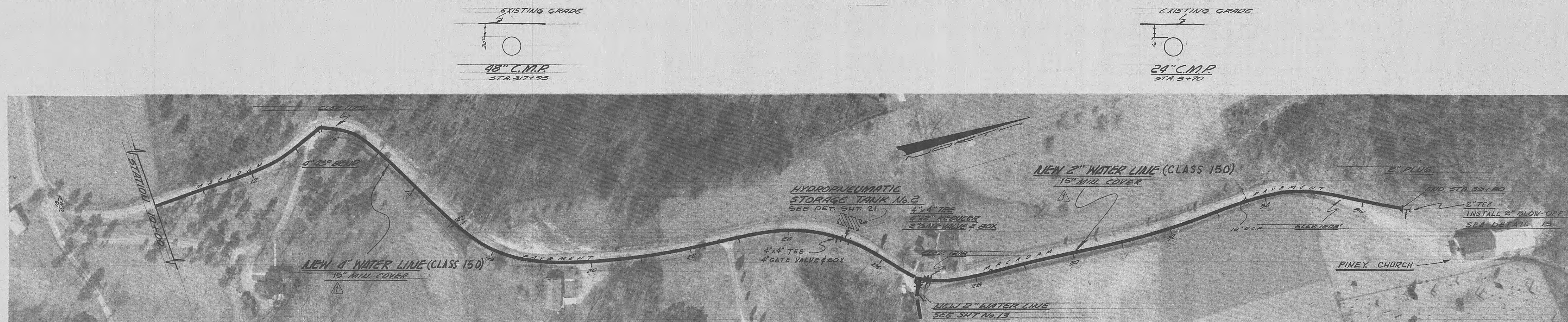
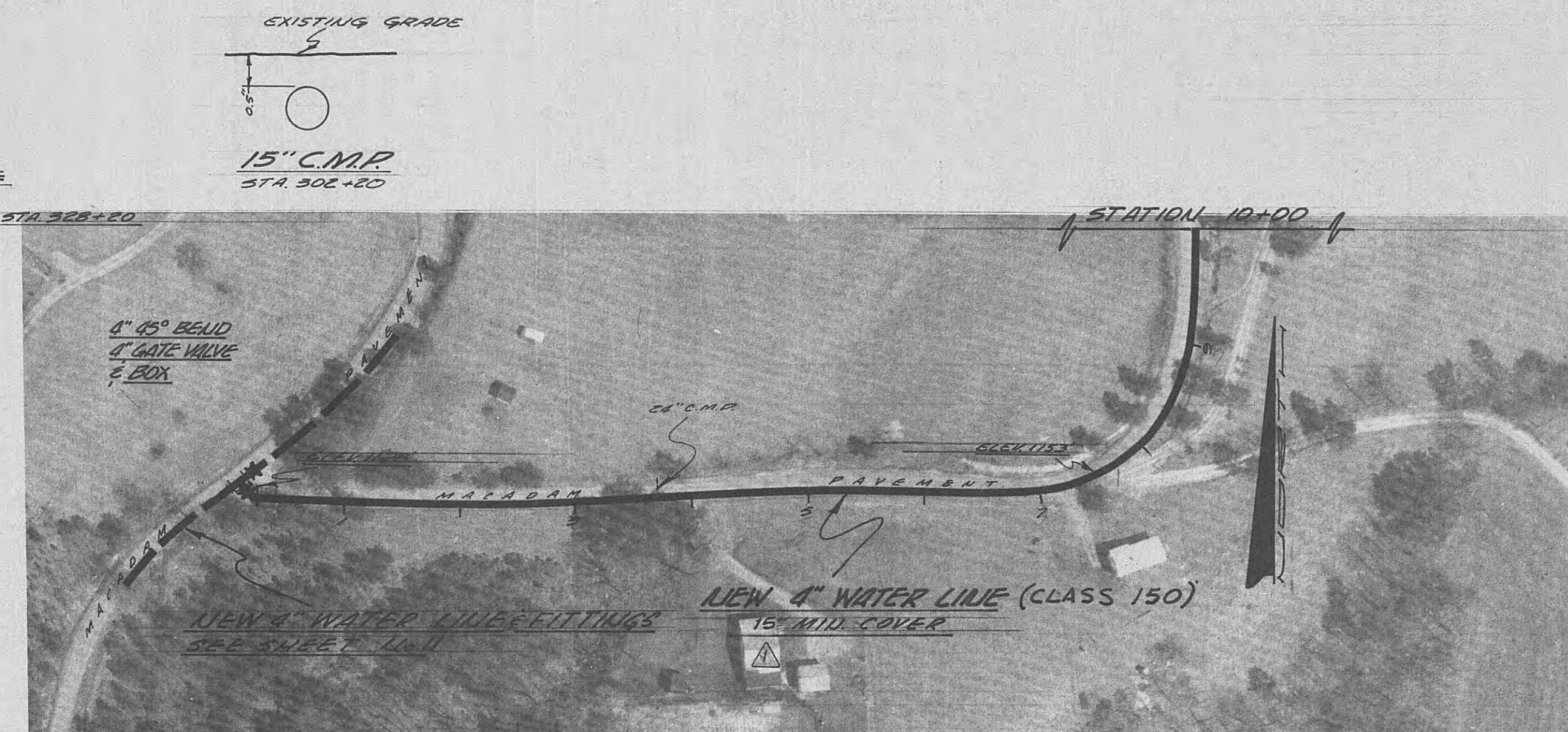
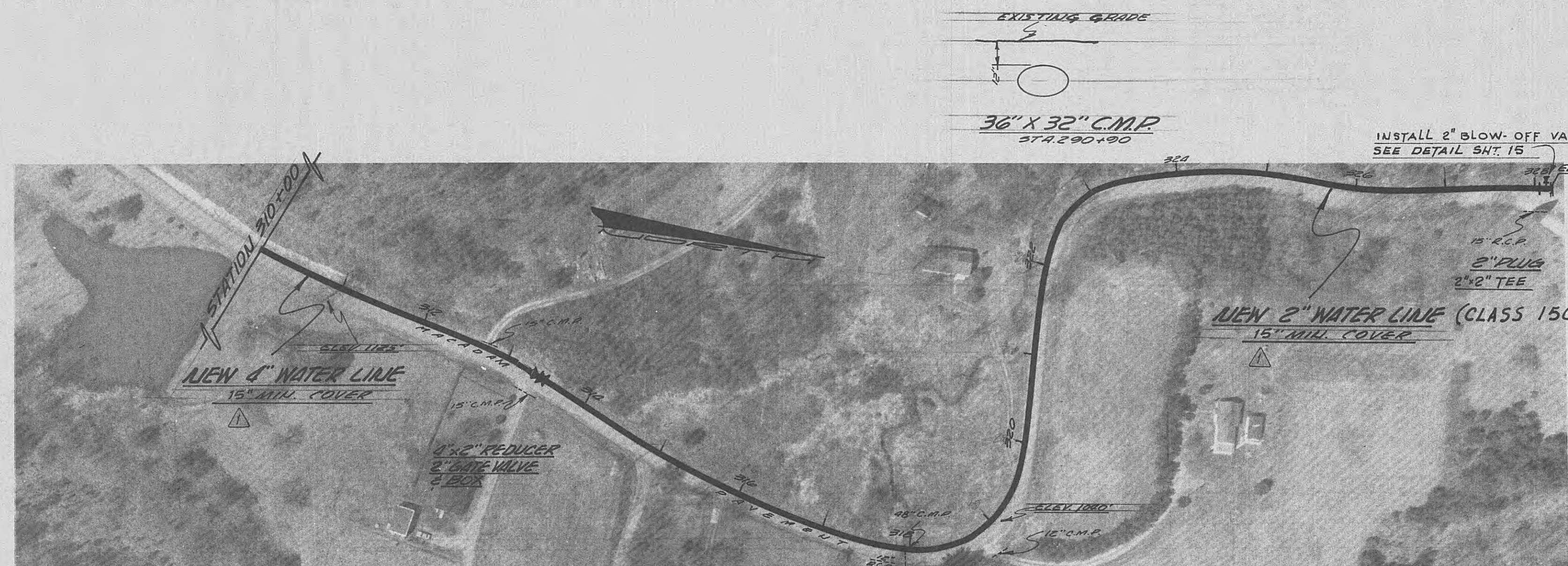
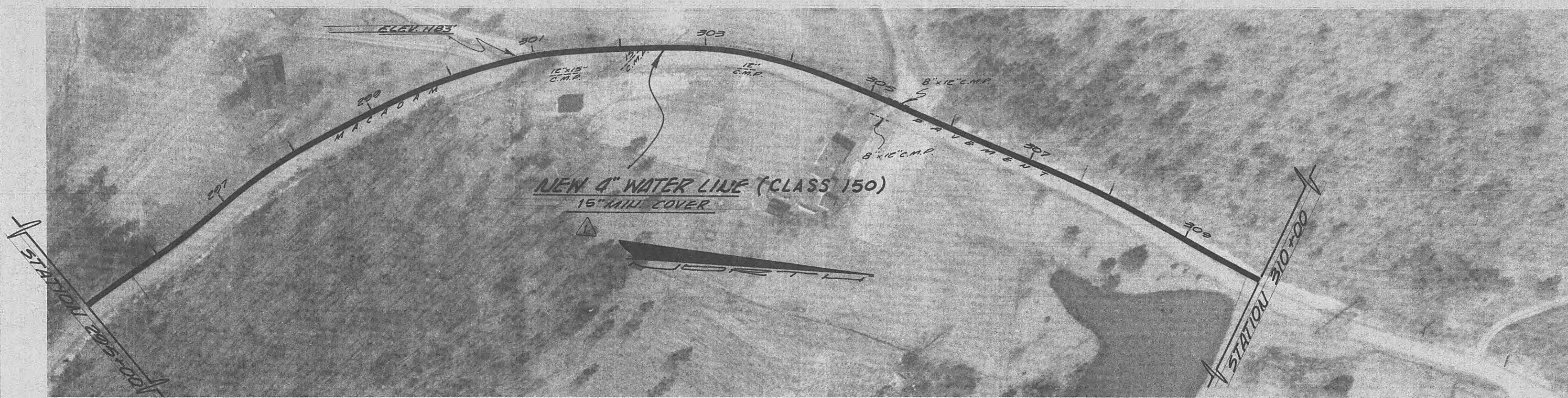


NOTE: OPEN DITCH MUST BE A MINIMUM OF 3 FEET FROM EDGE OF PAVEMENT.



WATER SYSTEM IMPROVEMENTS FOR WOLF BRANCH UTILITY DISTRICT			
BLACK, CROW AND EIDNESS, INC. ENGINEERS			
GAINESVILLE, FLORIDA		DATE: OCT. 1968	
DRAWN BY: D.B. E.M.S.		FILE NO.: 102-68-1	
CHECKED BY: C. GREEN		SCALE: 1"=100'	
NEW 4" WATER LINE ALONG ROAD TO PINEY CHURCH			SHEET NO.

NO.	REVISIONS	DATE
1	REVISED MIN. COVER	3/1/69



NOTE:
OPEN DITCH MUST BE A
MINIMUM OF 3 FEET
FROM EDGE OF PAVEMENT.

NO.	REVISION	DATE
1	REVISED MIN. COVER	11/1/68
2	DESCRIPTION	11/1/68
3	REVISIONS	11/1/68

STATE OF TENNESSEE
REGISTERED ENGINEER
ROBERT D. WILROY
No. 3389

WATER SYSTEM IMPROVEMENTS
FOR WOLFE BRANCH UTILITY DISTRICT
MOOREHEAD, TENNESSEE

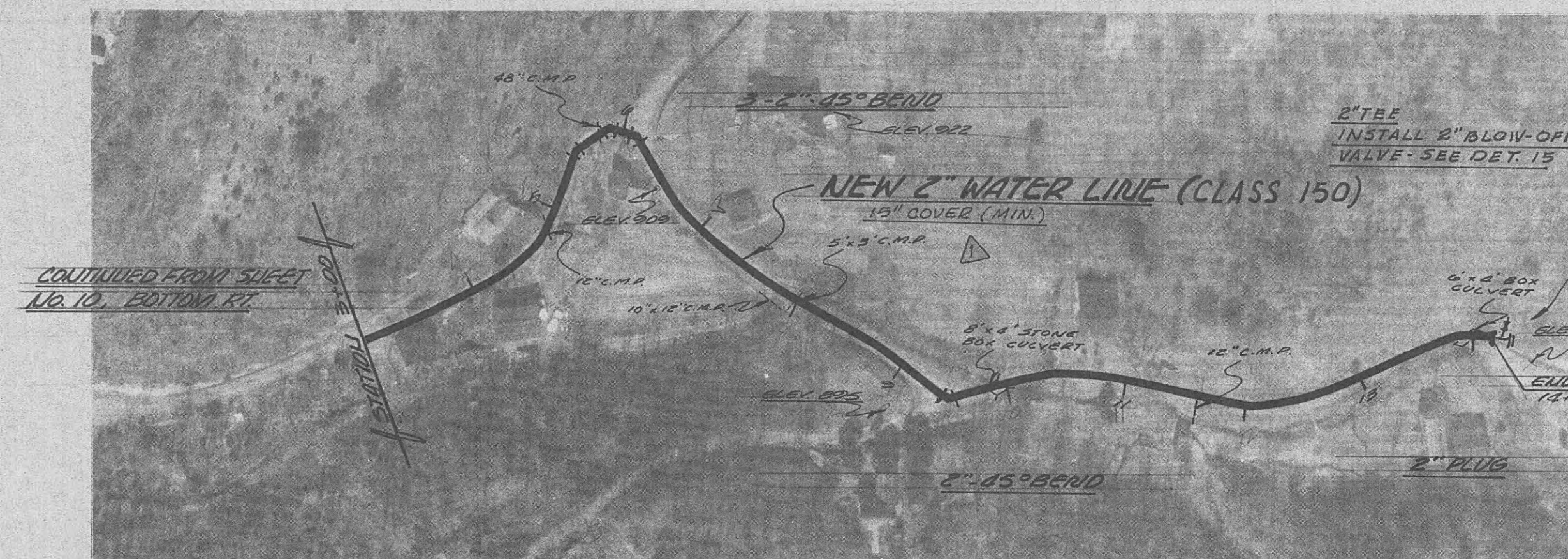
BLACK, CROW AND EIDSNESS, INC.
ENGINEERS
GAINESVILLE, FLORIDA

DRAWN BY: M. HANSON
CHECKED BY: C. GRIFIN
DATE: OCT. 1968
FILE NO.: 442-68-1

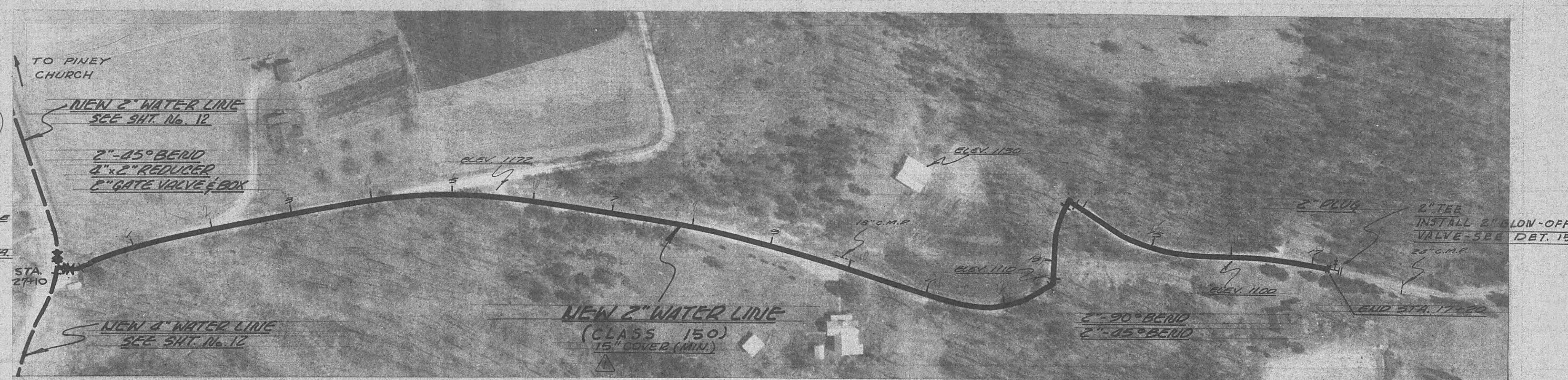
SCALE: 1" = 100' HORIZ.

NEW 2" 4" WATER LINE
ALONG ROAD TO PINEY CHURCH

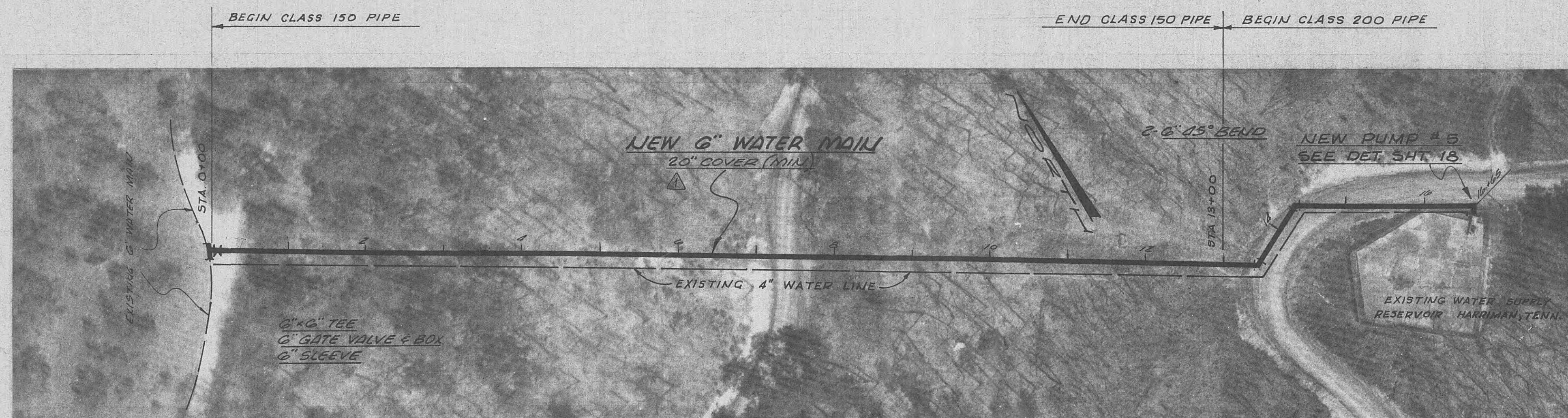
SHEET NO. 12



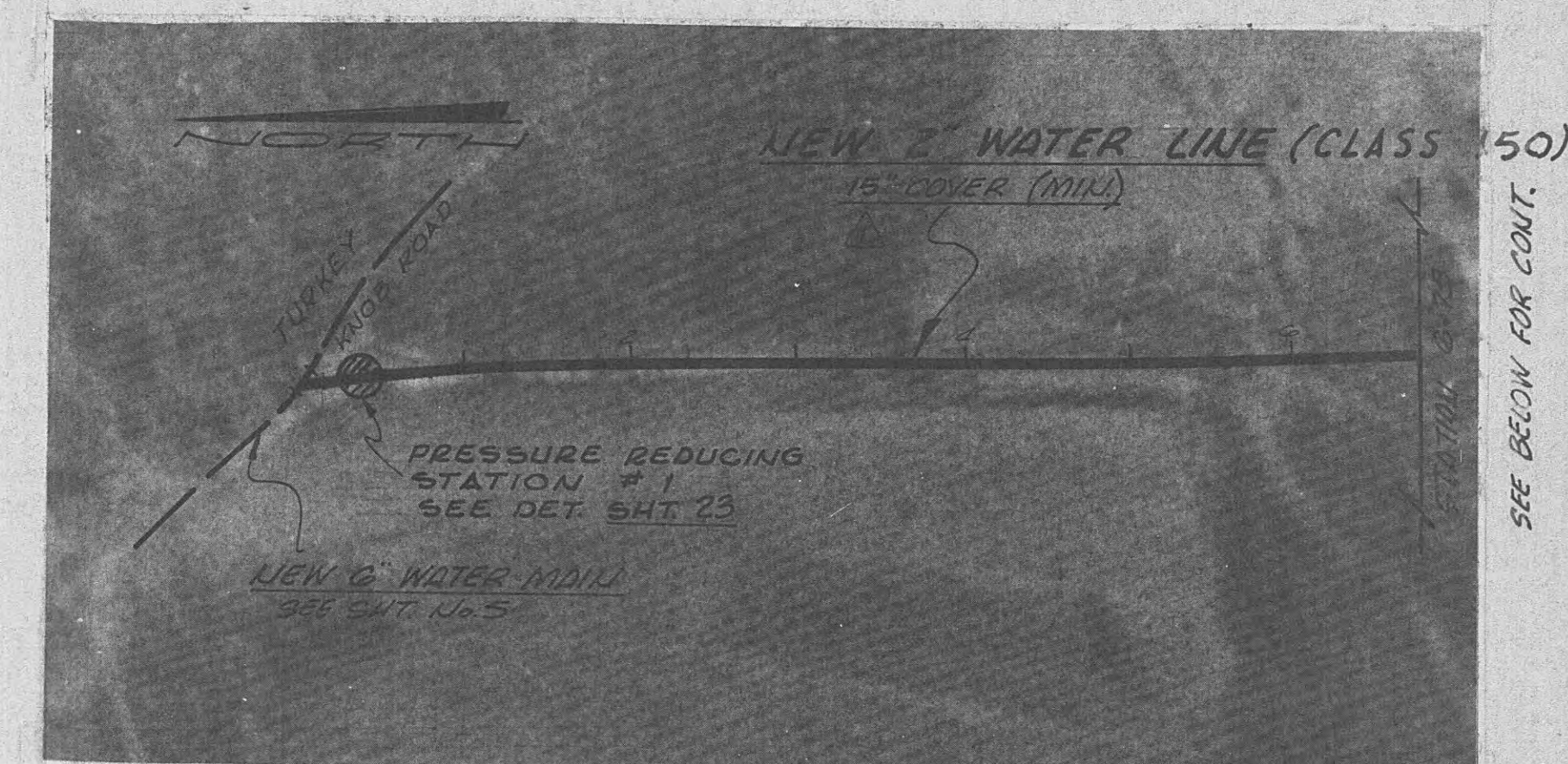
"HOLE IN THE WALL" EXTENSION



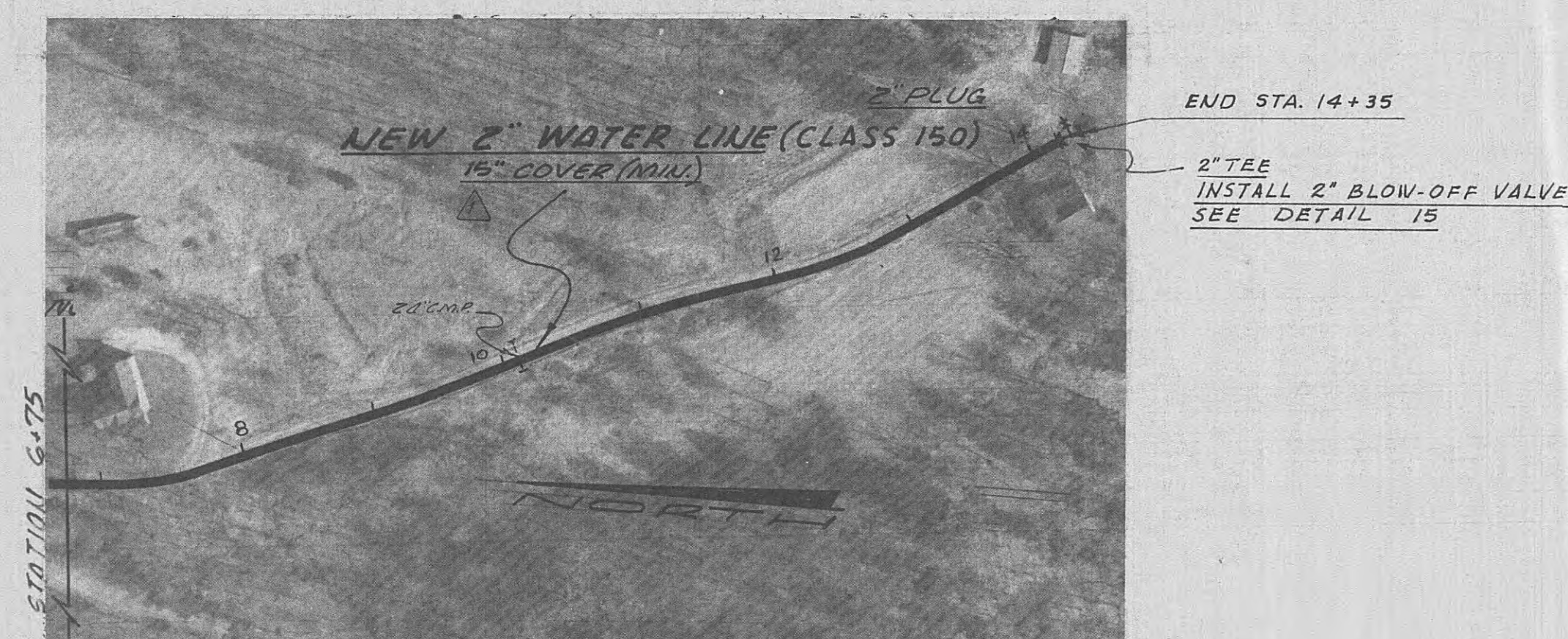
EXTENSION IN PINEY CHURCH AREA



NEW SUPPLY MAIN TO EXISTING RESERVOIR ON WALDEN RIDGE

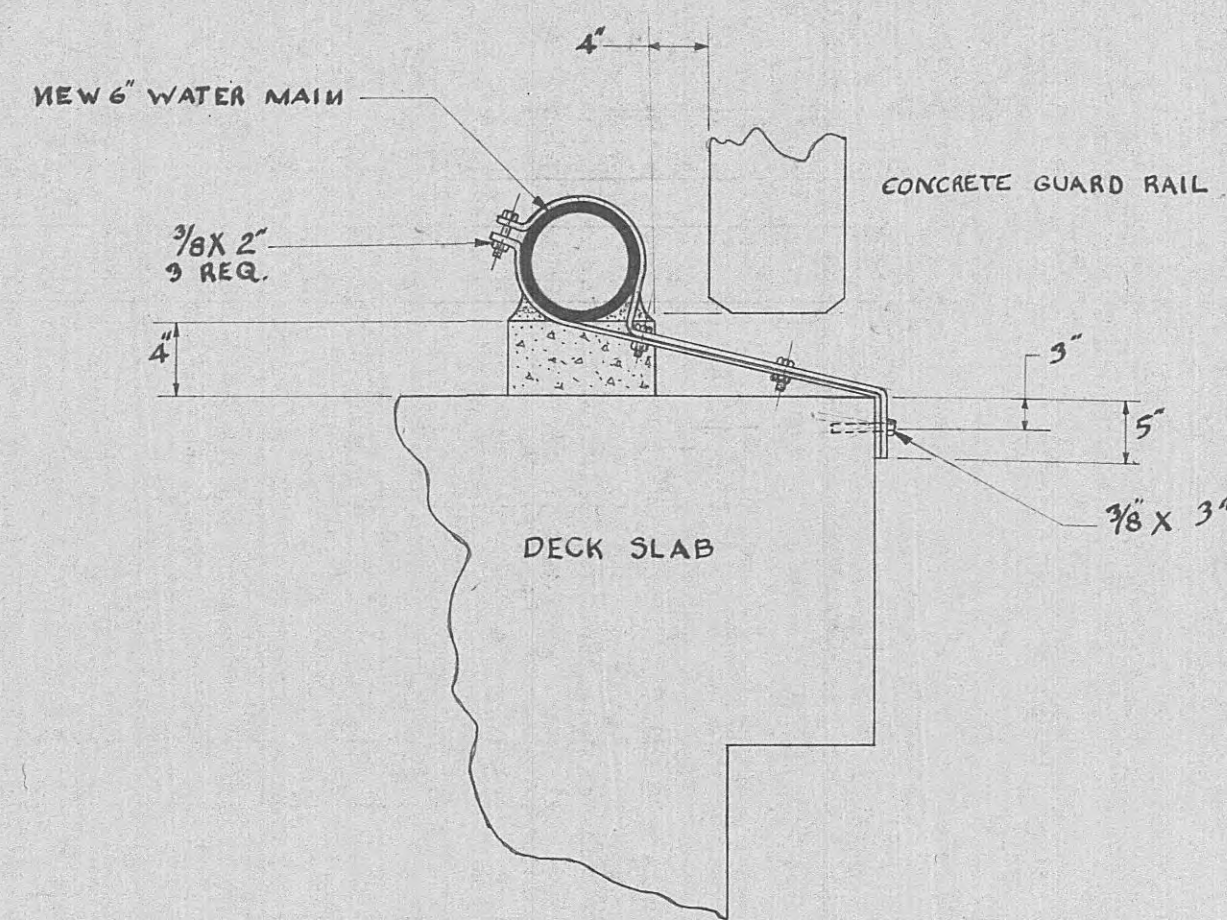


EXTENSION ON TOP OF TURKEY KNOB

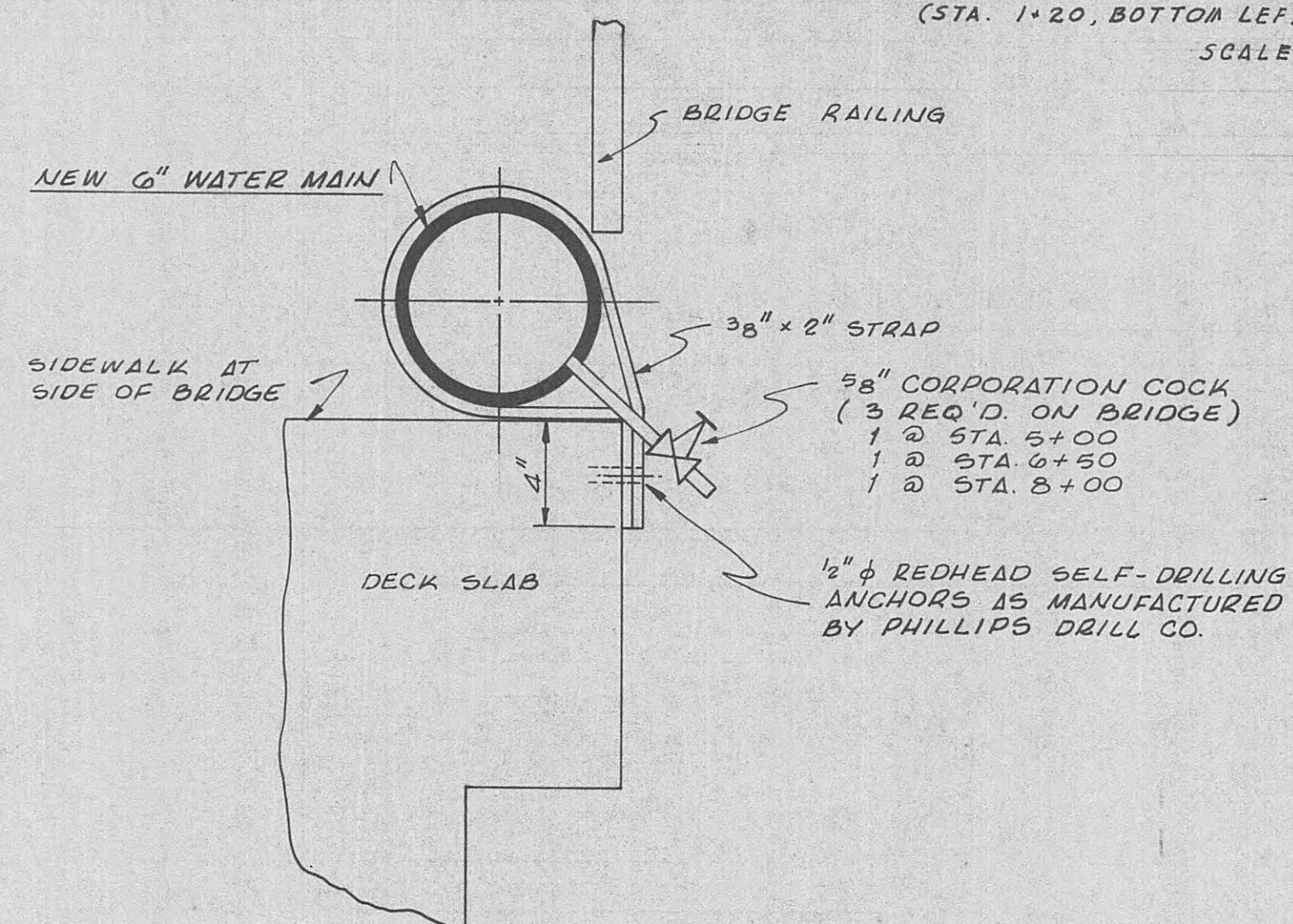


EXTENSION ON TOP OF TURKEY KNOB

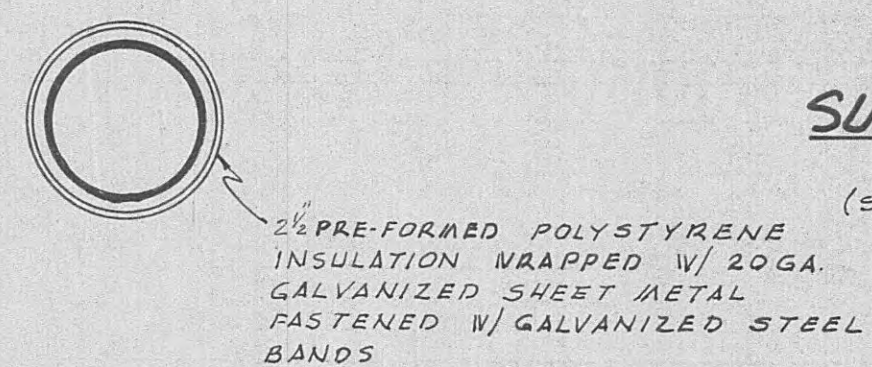
NOTE:
OPEN DITCH MUST BE A
MINIMUM OF 3 FEET
FROM EDGE OF PAVEMENT.



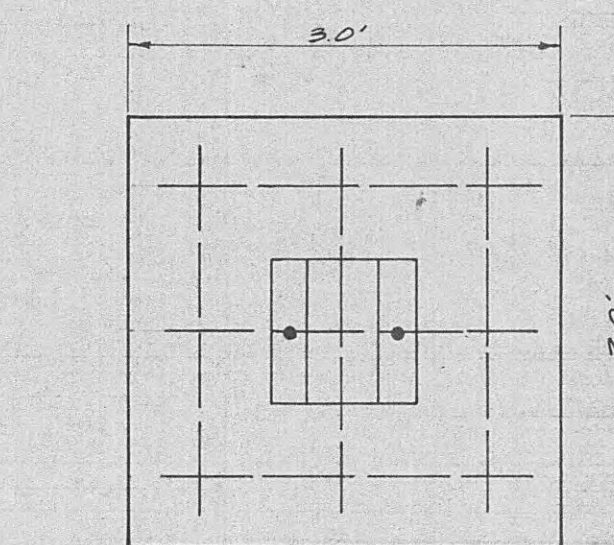
PIPE SUPPORT DETAIL - A
SCALE: NONE



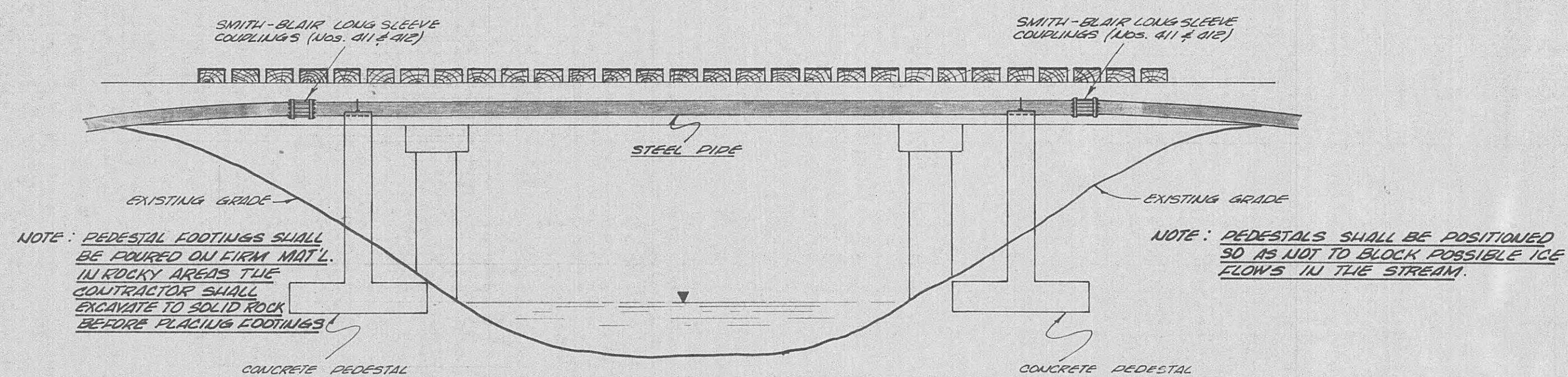
SUPPORT LOCATION DETAIL - B
SCALE: 3/16" = 1"
(SEE SHT. 7 MIDDLE ROW RIGHT PANEL)



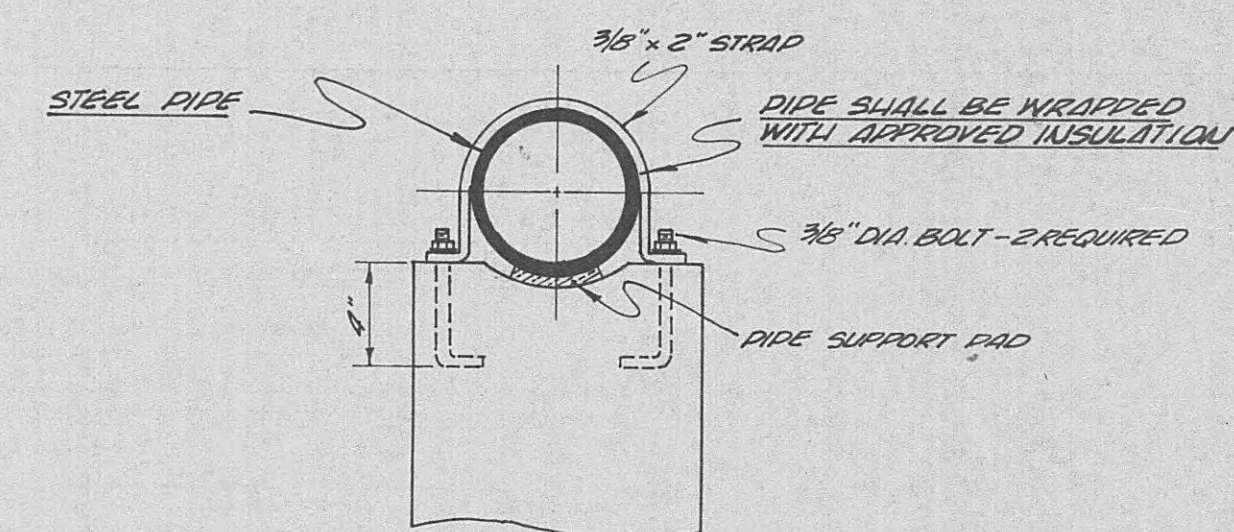
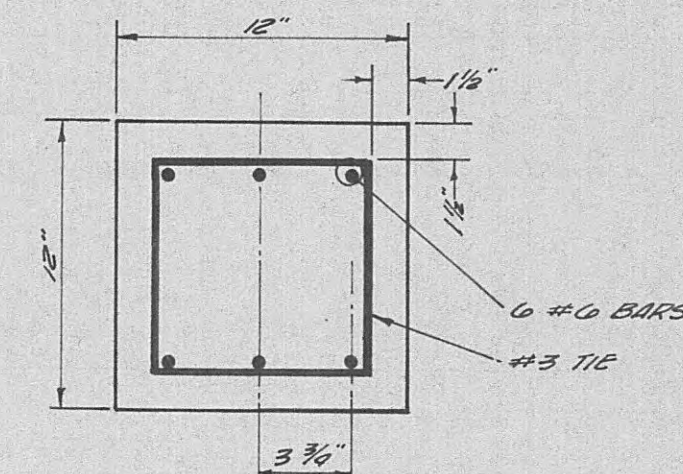
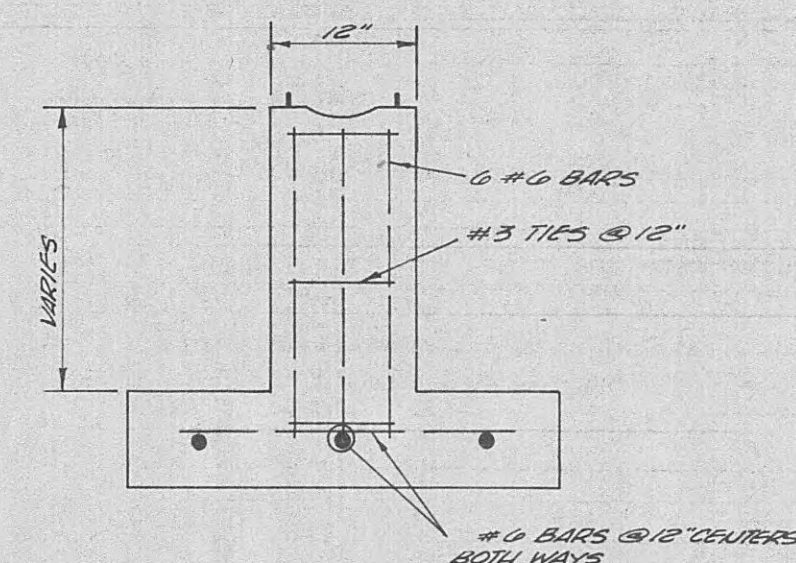
EXPOSED PIPE INSULATION DETAIL
NOT TO SCALE



PEDESTAL REINFORCEMENT DETAIL
SCALE: 3/4" = 1.0'



TYPICAL STREAM CROSSING
NOT TO SCALE



PIPE SUPPORT DETAIL
SCALE: 1/8" = 1"

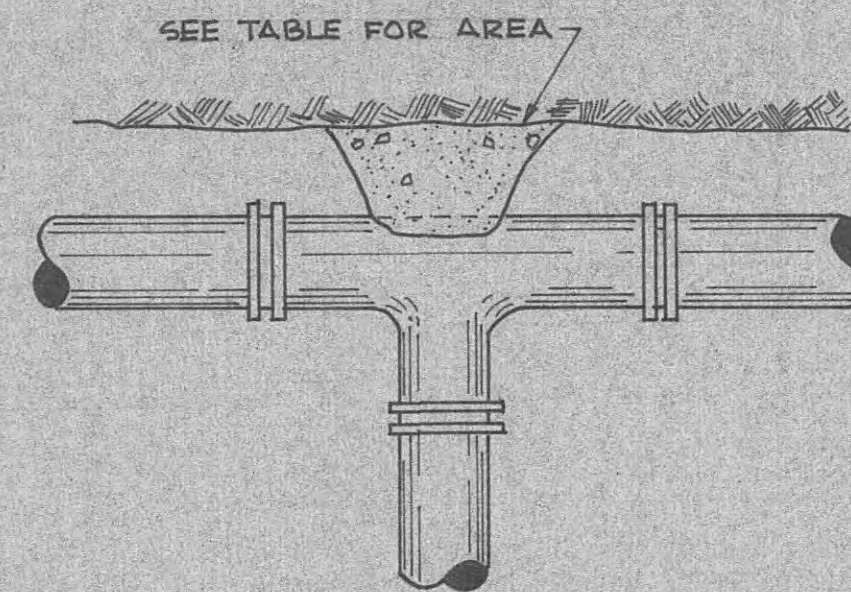


WATER SYSTEM IMPROVEMENTS
FOR WOLFE BRANCH UTILITY DISTRICT
MORRIS & RAINES COUNTIES, TENNESSEE
BLACK, CROW AND EIDSNES, INC.
ENGINEERS
GAINESVILLE, FLORIDA
DRAWN BY: D. BEATTY DATE: OCT. 1969
CHECKED BY: D. BEATTY FILE NO. 442-08-1
SCALE: 1" = 100' HORIZ.

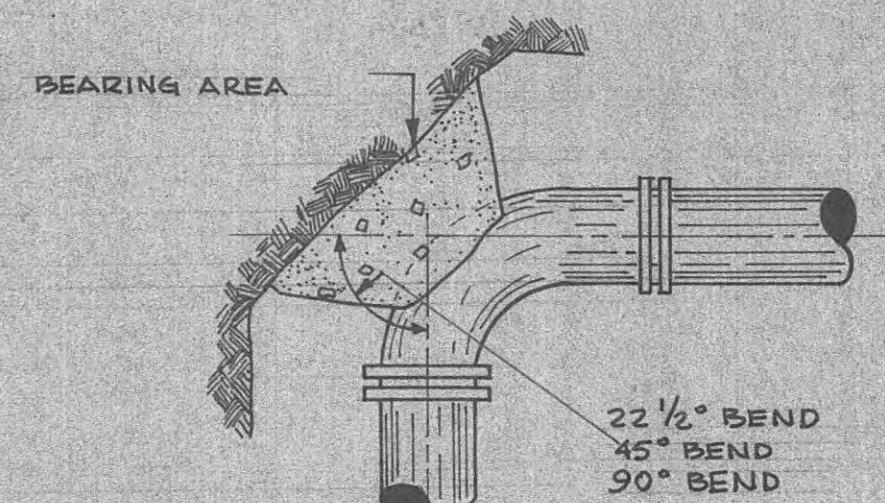
NO.	GENERAL REVISION	DESCRIPTION	DATE
1	GENERAL REVISION	DESCRIPTION	DATE
2	GENERAL REVISION	DESCRIPTION	DATE
3	GENERAL REVISION	DESCRIPTION	DATE
4	GENERAL REVISION	DESCRIPTION	DATE
5	GENERAL REVISION	DESCRIPTION	DATE
6	GENERAL REVISION	DESCRIPTION	DATE
7	GENERAL REVISION	DESCRIPTION	DATE
8	GENERAL REVISION	DESCRIPTION	DATE
9	GENERAL REVISION	DESCRIPTION	DATE
10	GENERAL REVISION	DESCRIPTION	DATE

TYPICAL PIPE SUPPORT DETAILS
FOR BRIDGE CROSSINGS

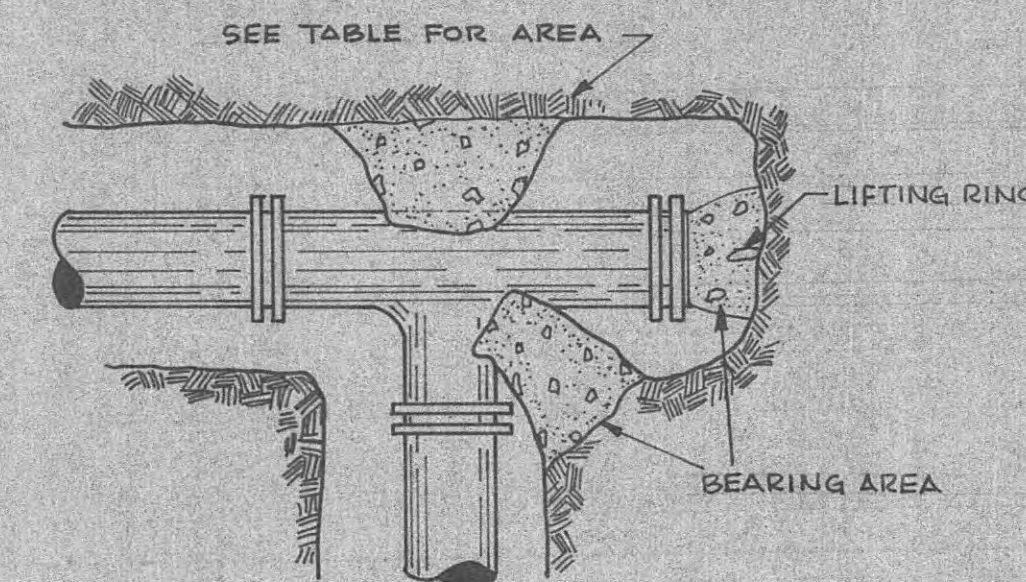
SHEET NO. 14



TYPICAL REACTION BLOCKING-TEE
NO SCALE



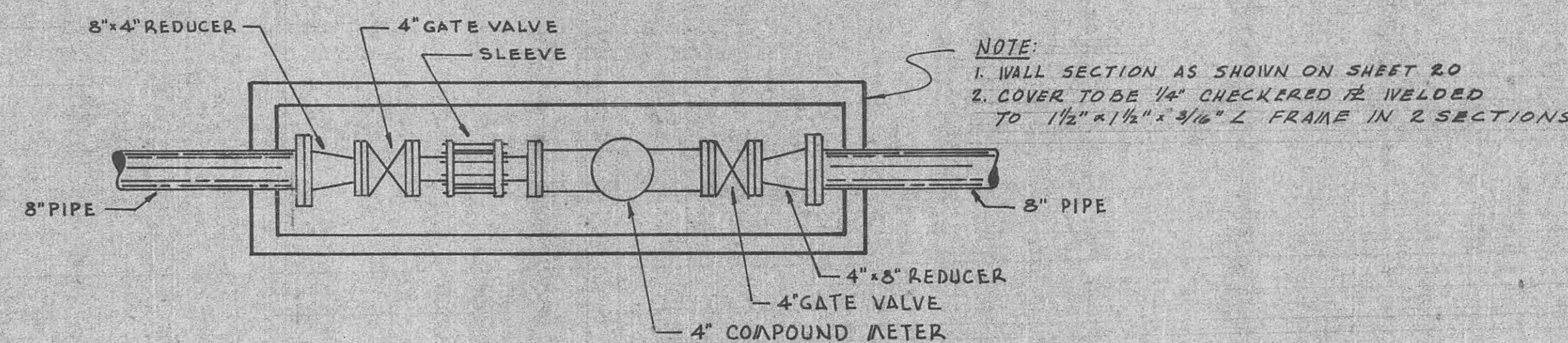
TYPICAL REACTION BLOCKING-BENDS
NO SCALE



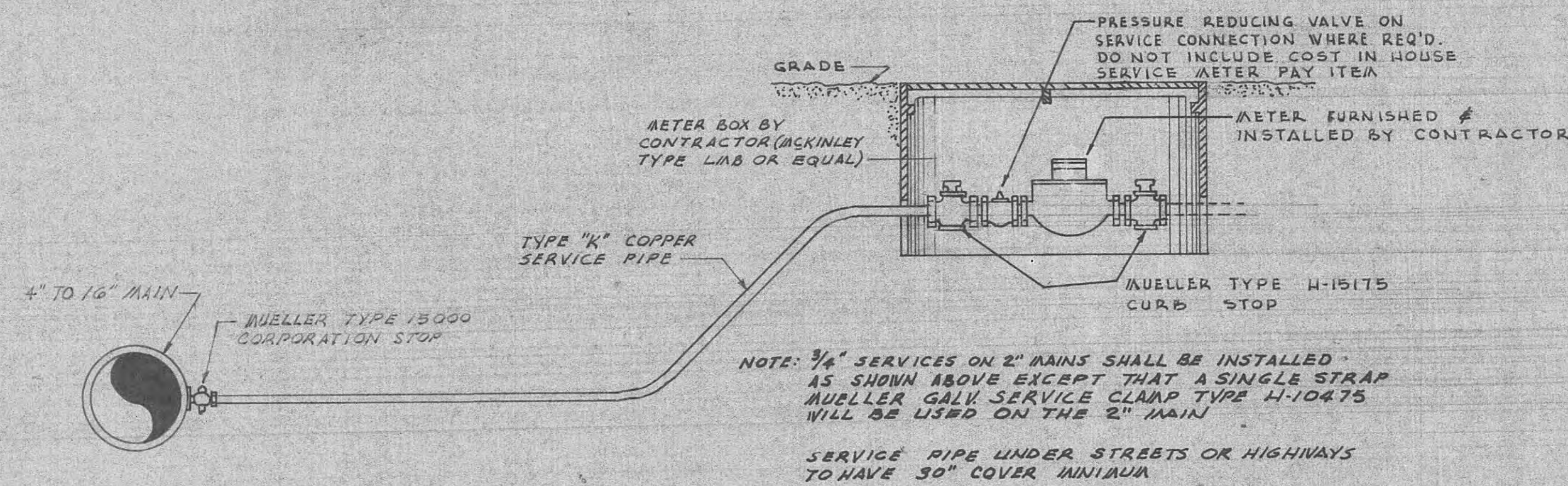
TYPICAL REACTION BLOCKING-BLANKED TEE
NO SCALE

PIPE CLASS	BEARING AREA TABLE (SQUARE FEET)			
	PIPE SIZE	90° BEND	45° BEND	TEE
150	4"	1.6	1.0	1.6
	6"	3.2	2.0	3.6
	8"	6.4	3.5	6.4
200	4"	1.9	1.0	1.9
	6"	4.3	2.3	4.3
	8"	7.6	4.1	7.6
250	4"	2.2	1.2	2.2
	6"	5.0	2.7	5.0
	8"	8.8	4.8	8.8

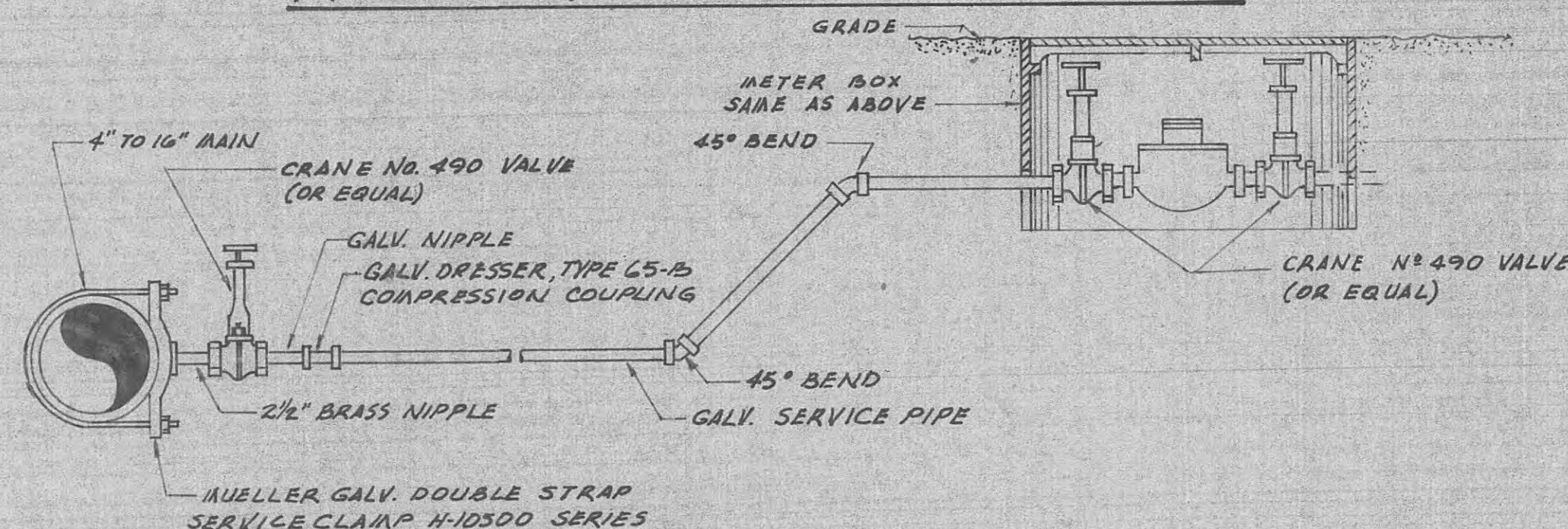
THE FIGURES IN THIS TABLE ARE BASED ON 3000 POUNDS PER SQUARE FOOT SOIL BEARING AGAINST UNDISTURBED TRENCH WALL AND ARE TO REPRESENT THE MINIMUM VERTICAL PROJECTED AREA OF THE REACTION BLOCK IN A PLANE PERPENDICULAR TO A LINE BISECTING THE INCLUDED ANGLE OF THE FITTING



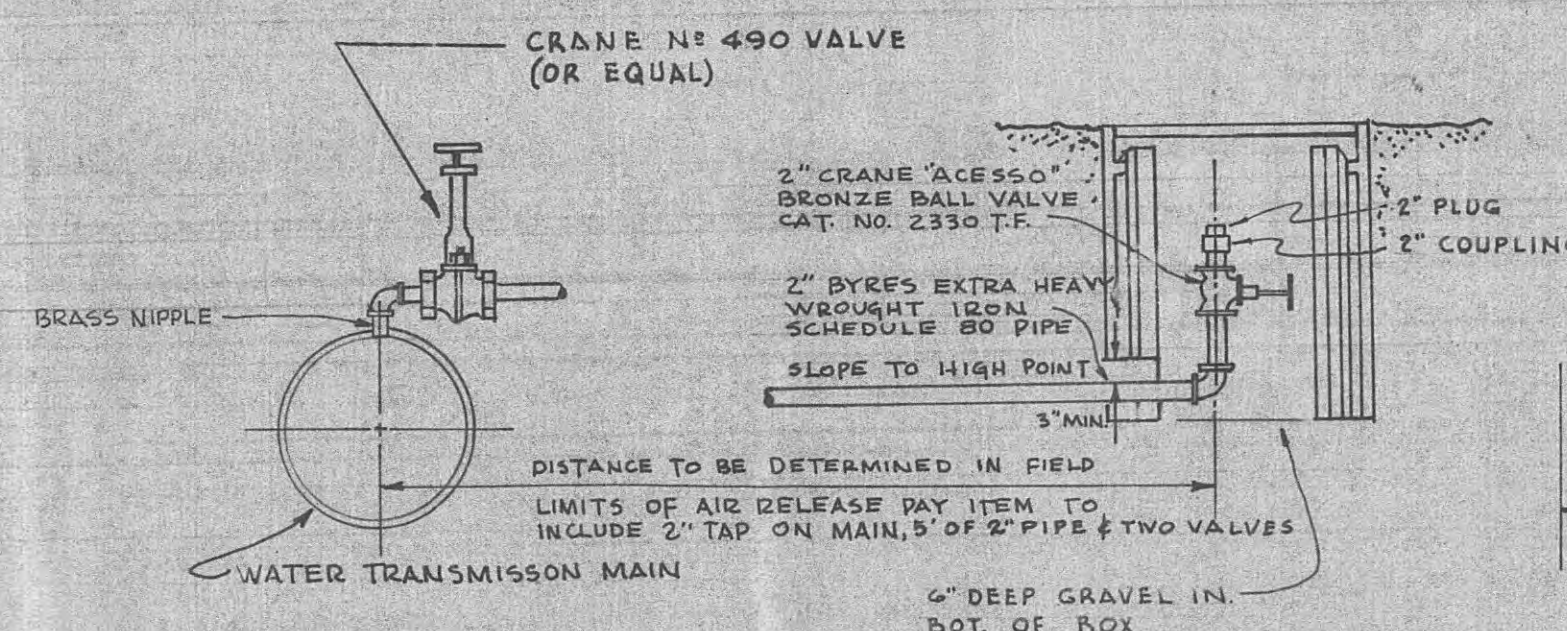
MAIN SERVICE METER
NO SCALE



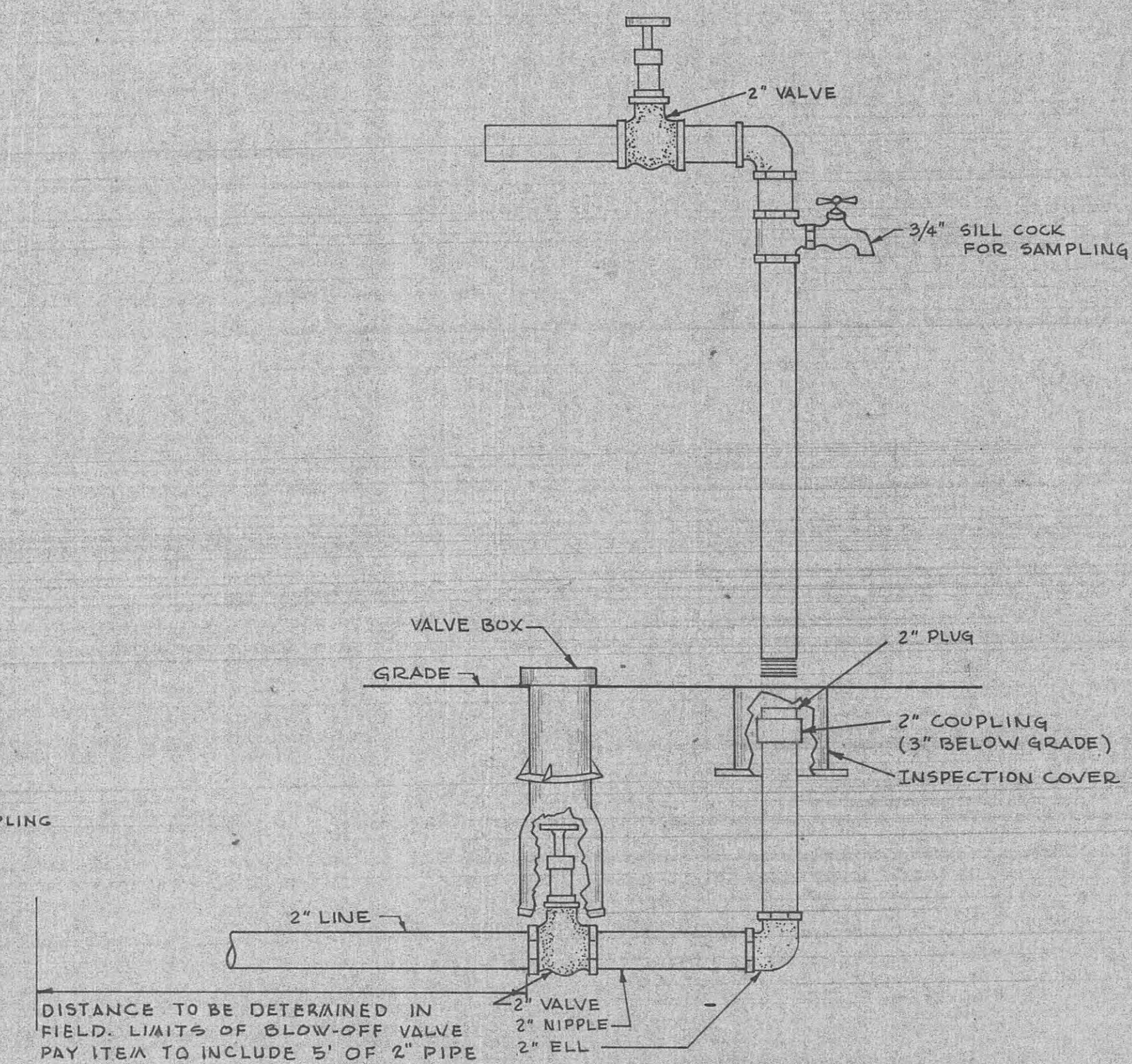
TYPICAL 3/4" AND 1" SERVICE TAPS



TYPICAL 1 1/2" AND 2" SERVICE TAPS



AIR RELEASE DETAIL
NO SCALE



BLOW-OFF VALVE & FLUSH-SAMPLING ARRANGEMENT
NO SCALE



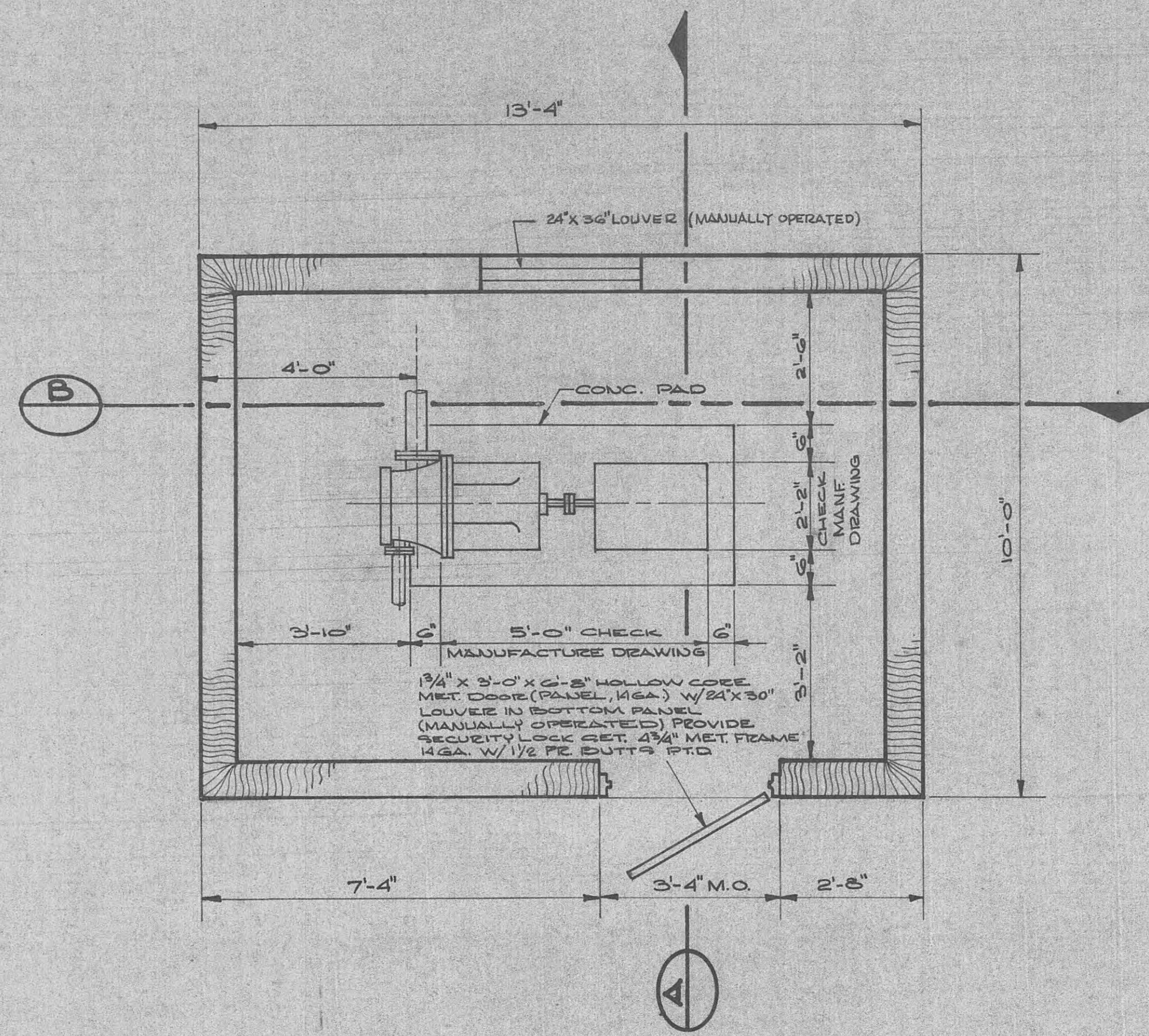
WATER SYSTEM IMPROVEMENTS
FOR WOLFE BRANCH UTILITY DISTRICT
MORGAN & ROANE CO. TENNESSEE

BLACK, CROW AND EIDSNES, INC.
ENGINEERS
GAINESVILLE FLORIDA
DRAWN BY: M.M. DATE: OCT. 1968
CHECKED BY: T.D.R. FILE NO.: 442-68-1
SCALE: AS NOTED

NO.	DESCRIPTION	DATE

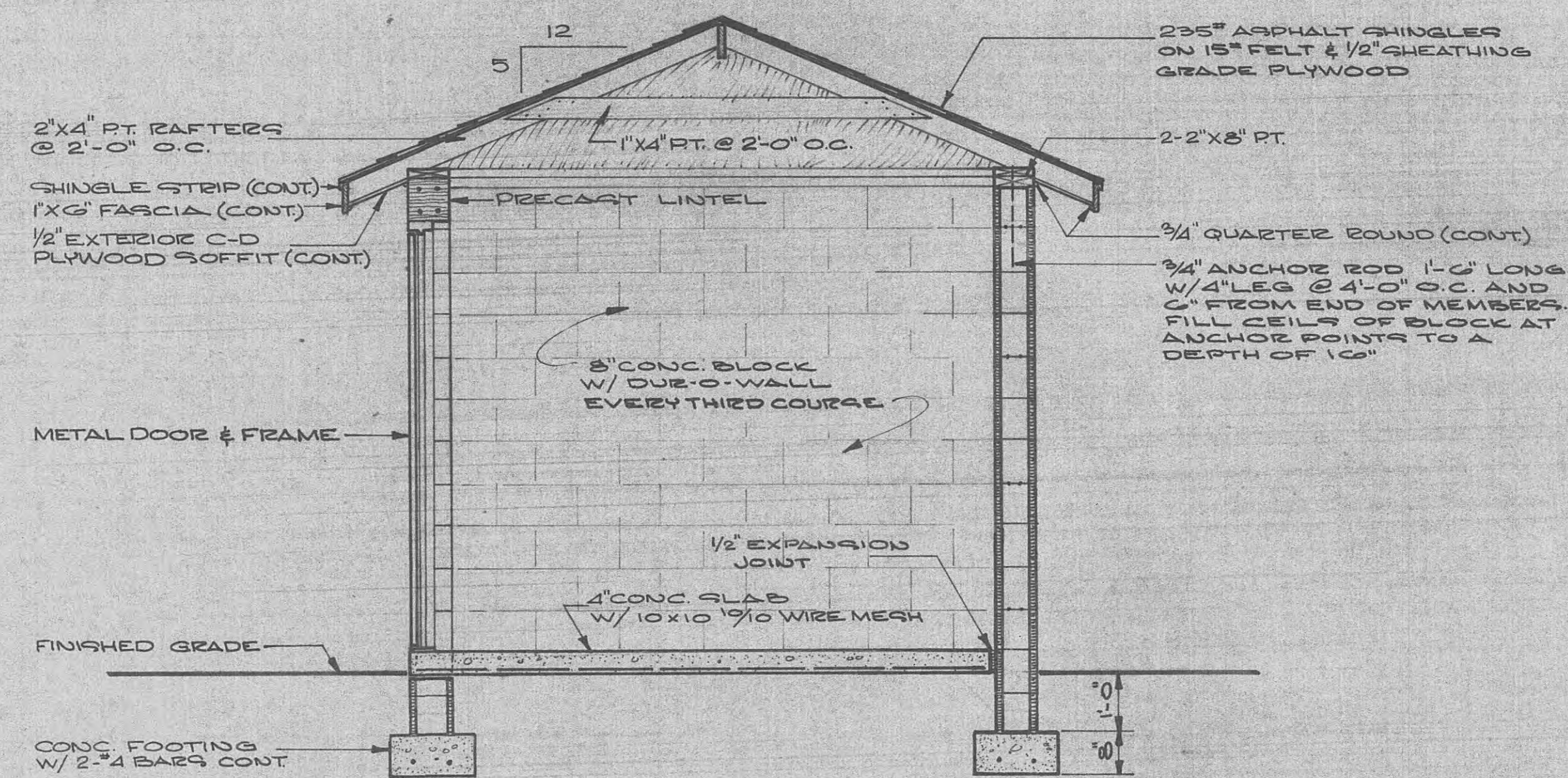
TYPICAL DETAILS

SHEET NO. 15



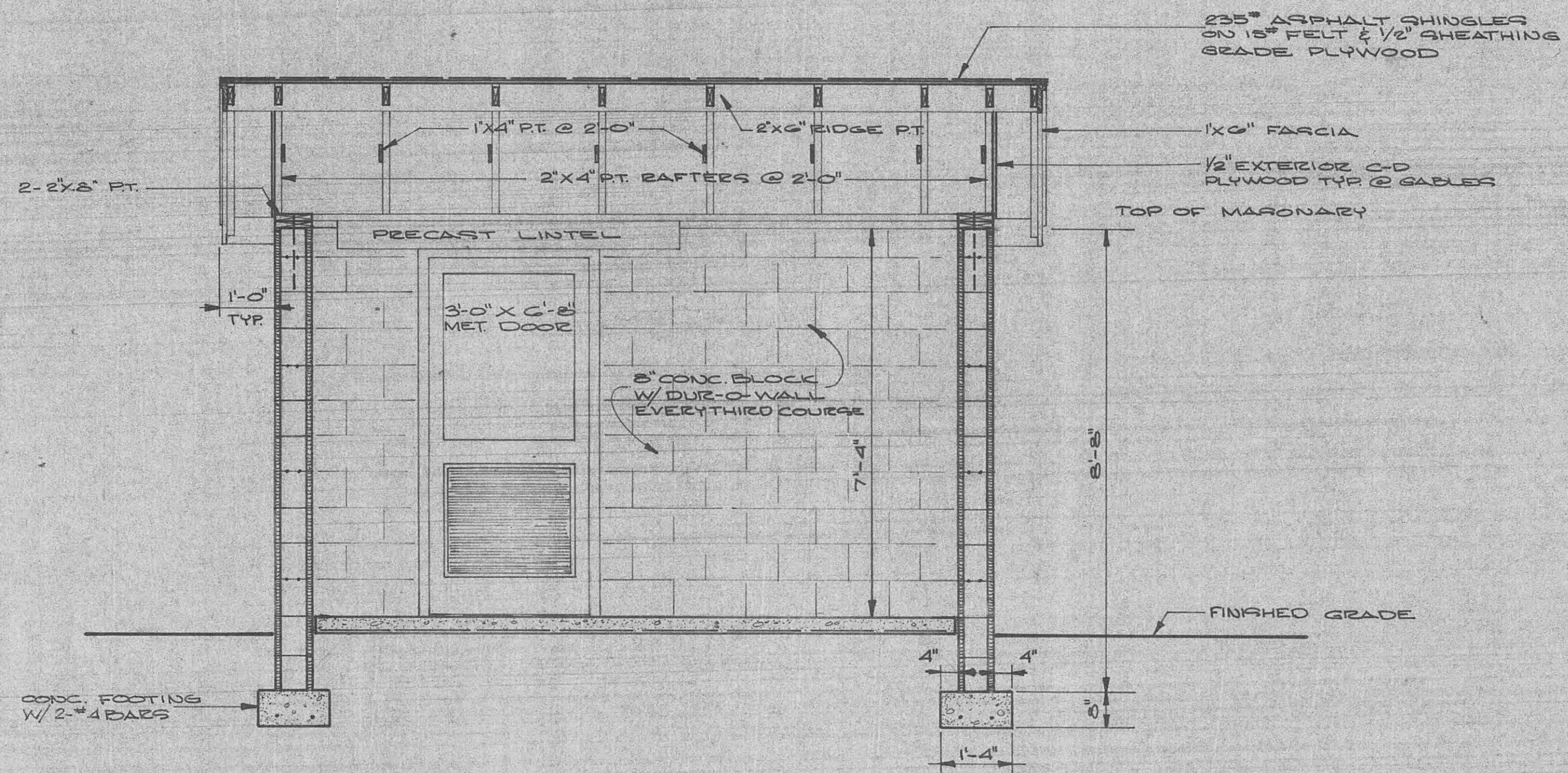
PLAN OF PUMP HOUSE #1, 2, 3 & 4

SCALE 1/2" = 1'-0"



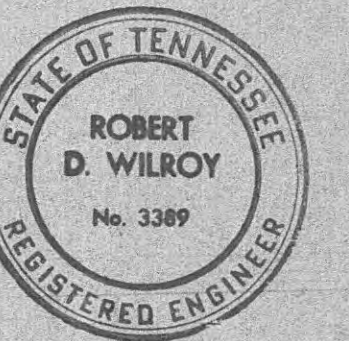
SECTION A

SCALE 1/2" = 1'-0"



SECTION B

SCALE 1/2" = 1'-0"



WATER SYSTEM IMPROVEMENTS
FOR WOLFE BRANCH UTILITY DISTRICT
MORGAN & ROANE CO'S, TENNESSEE

BLACK, CROW AND EIDSNES, INC.
ENGINEERS

GAINESVILLE, FLORIDA

DRAWN BY: T.G.E. DATE: OCT. 1968

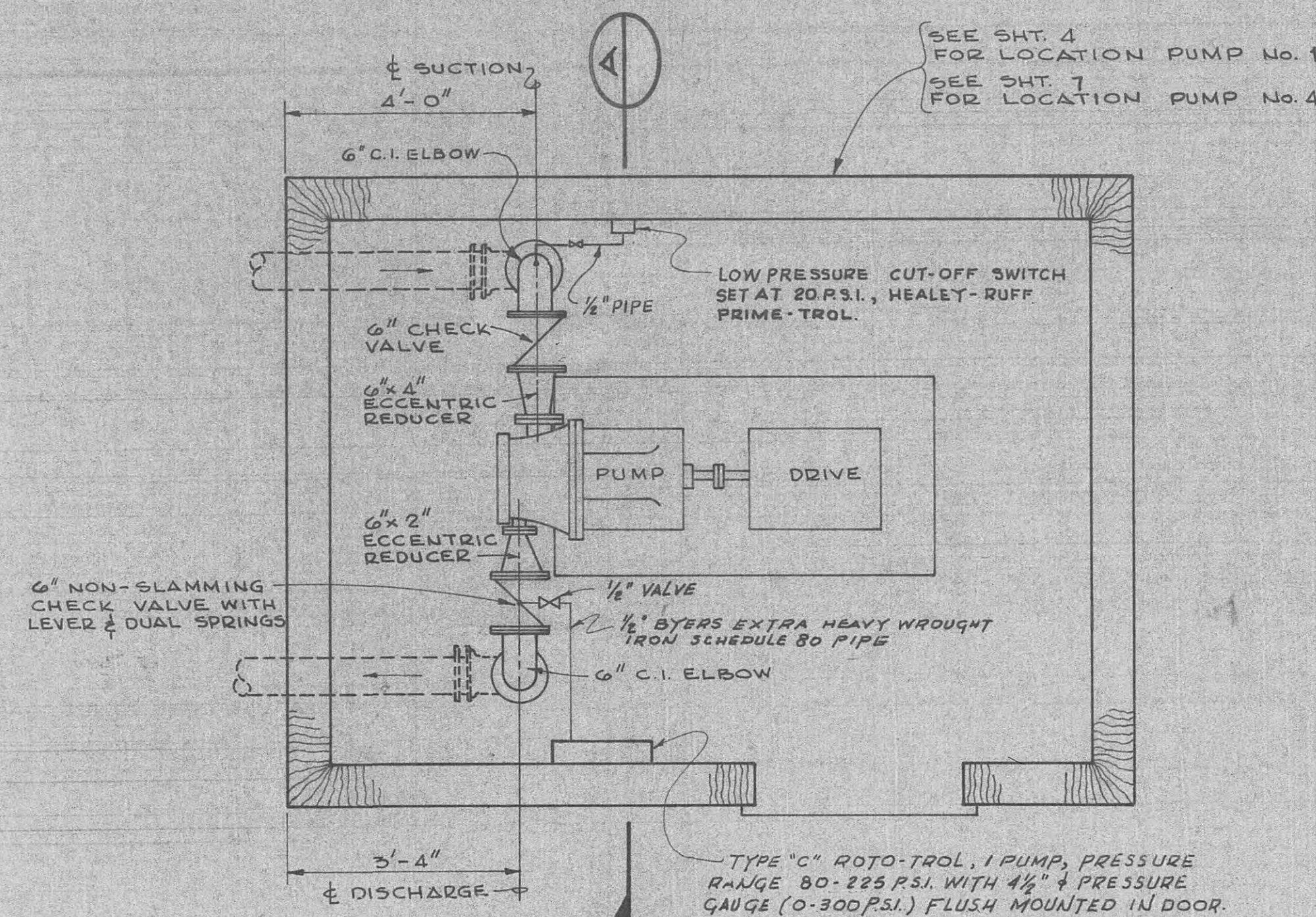
CHECKED BY: T.D.R. FILE NO.: 462-68-1

SCALE: AS NOTED

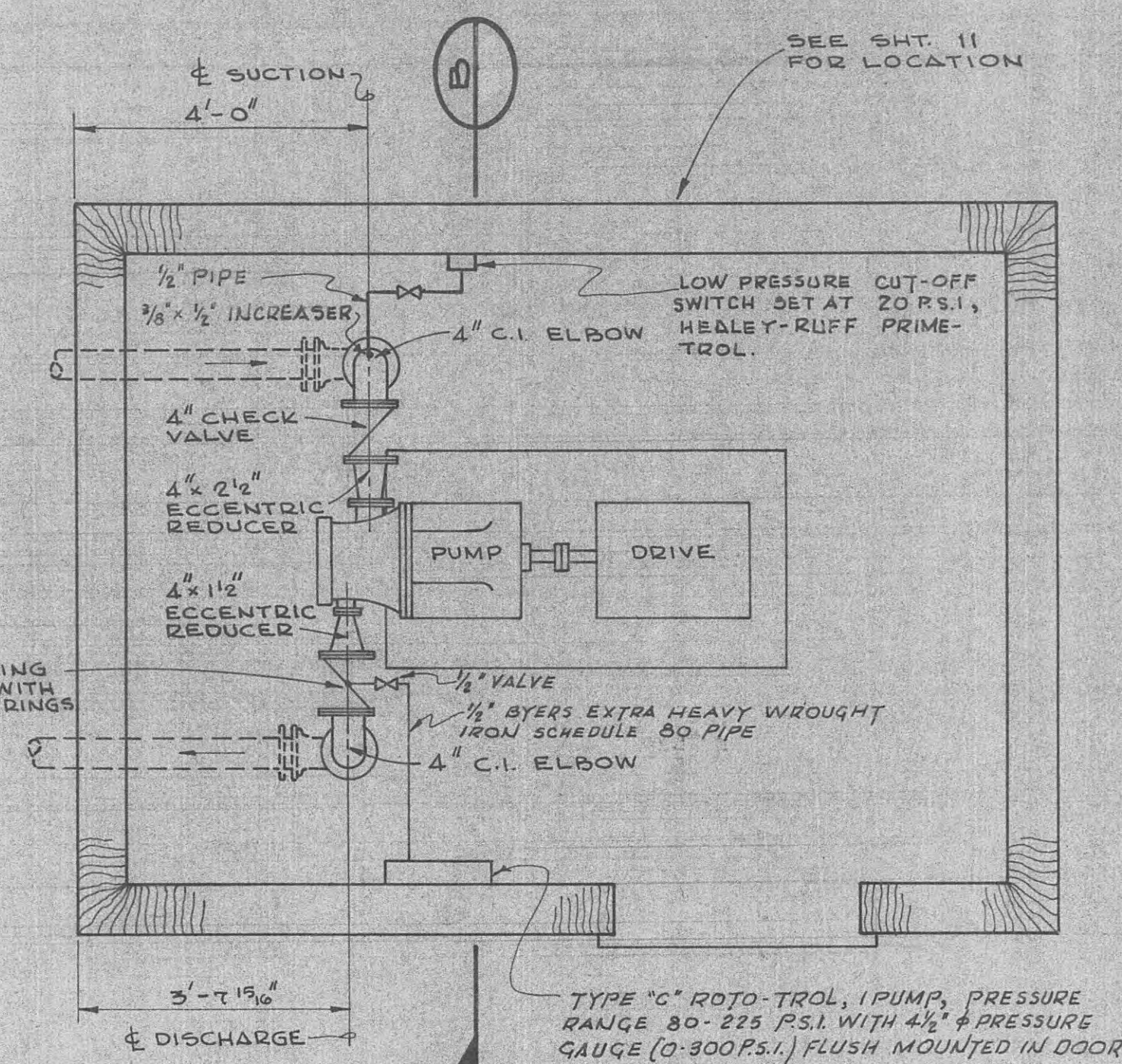
PUMP STATIONS
Nos. 1, 2, 3 AND 4

NO.	DESCRIPTION	DATE

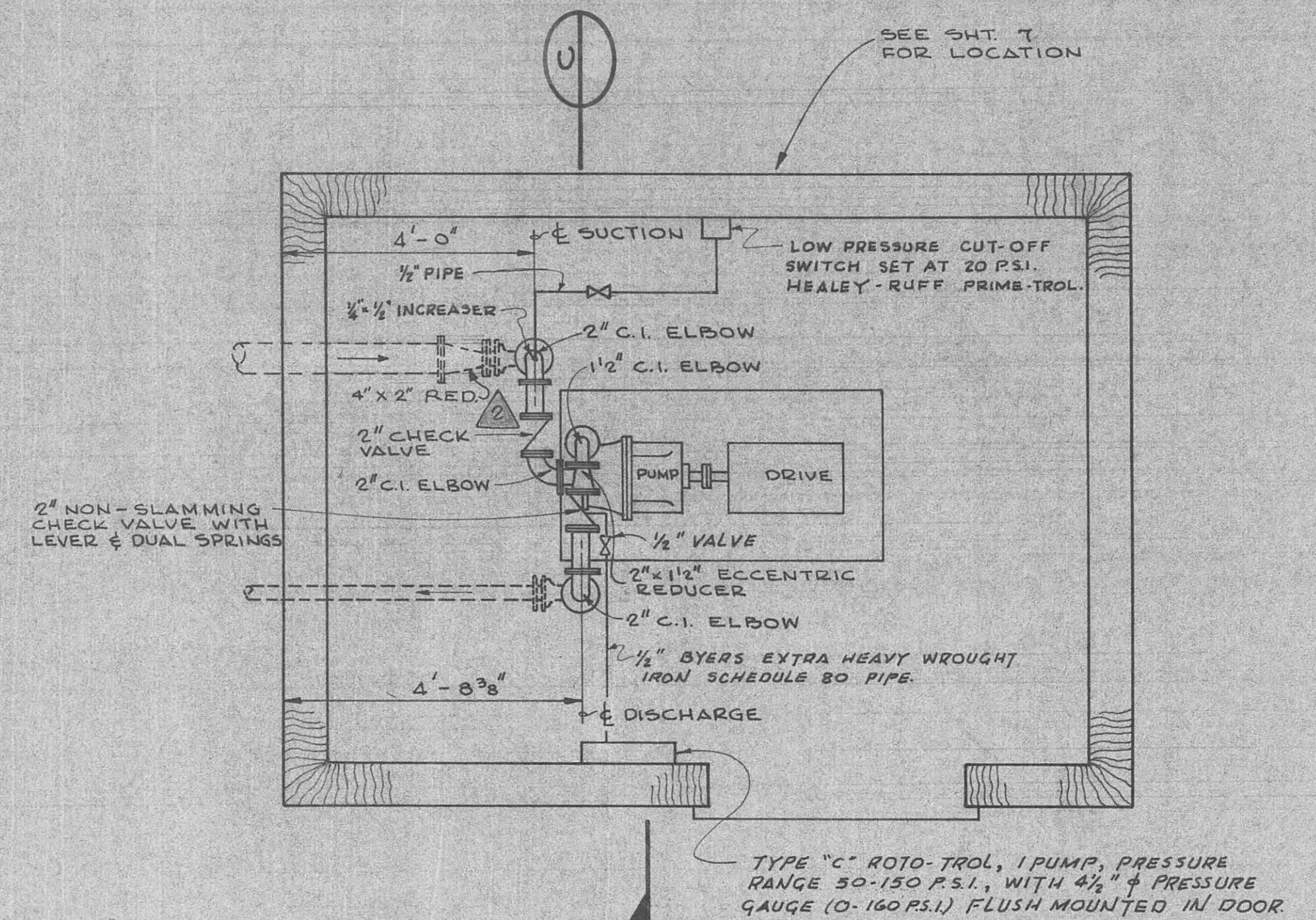
SHEET NO.
16



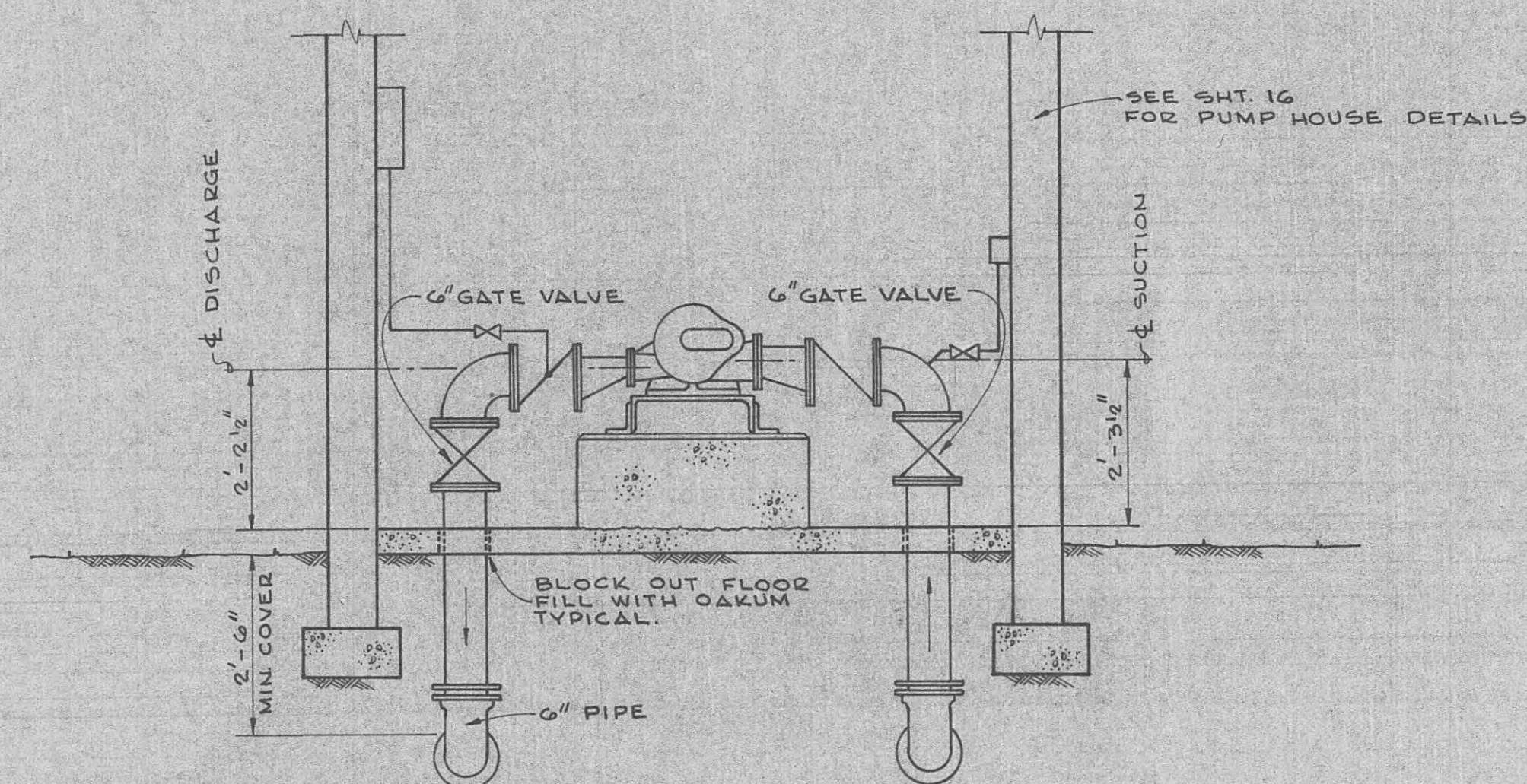
PLAN



PLAN

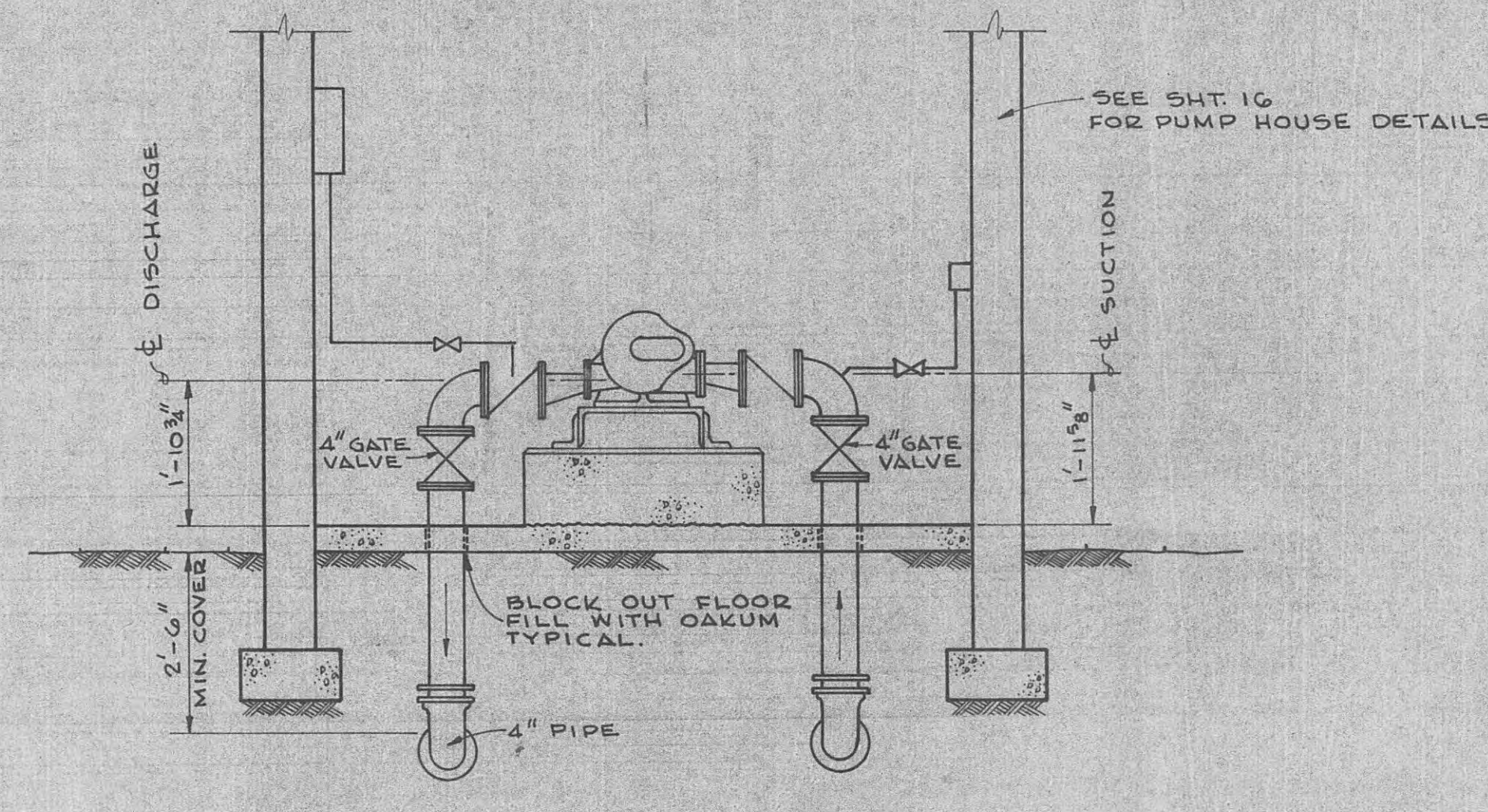


PLAN



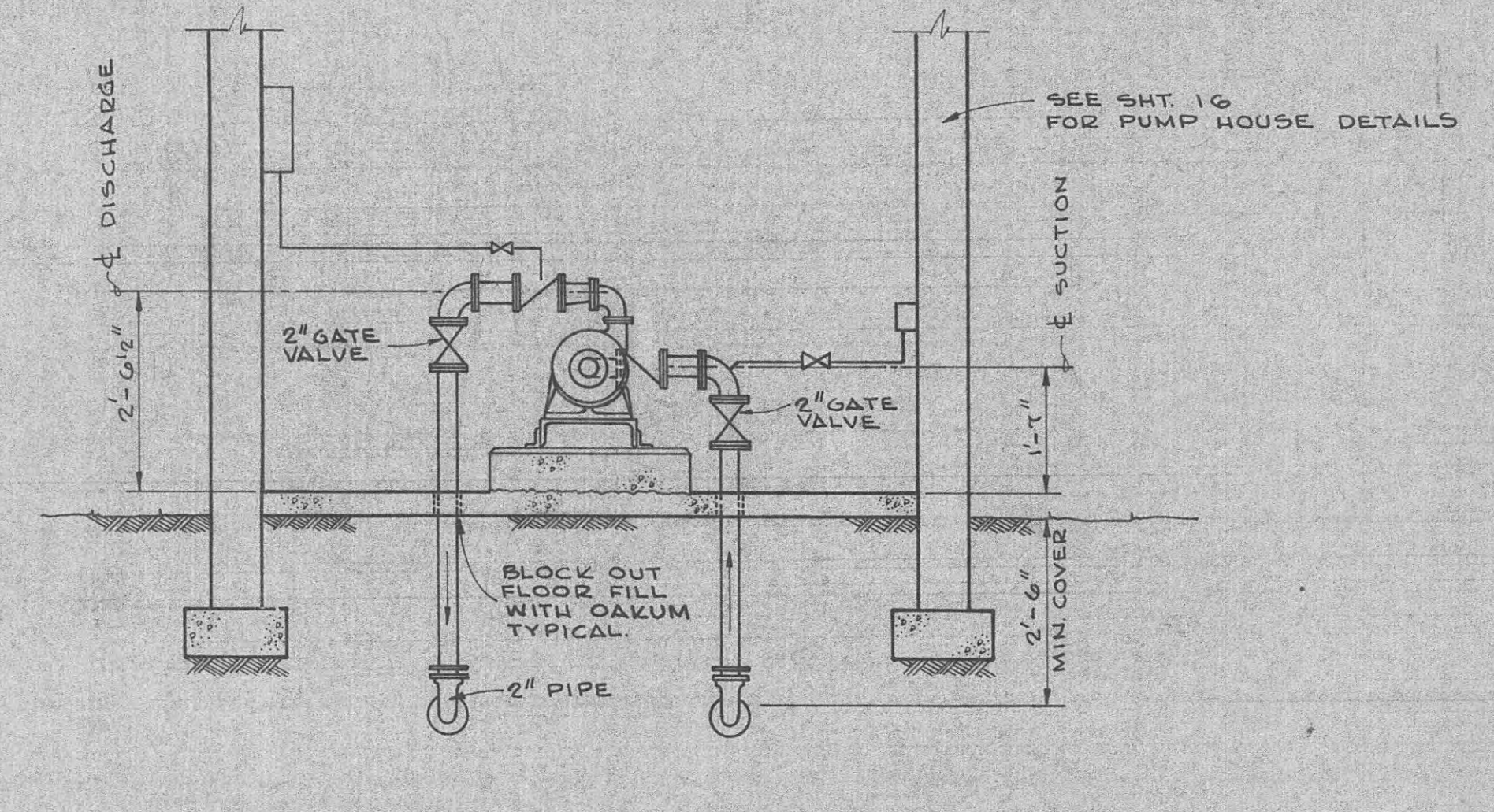
SECTION A

PUMP HOUSE #1 & 4



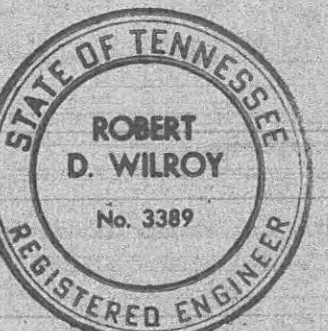
SECTION B

PUMP HOUSE #2



SECTION C

PUMP HOUSE #3



WATER SYSTEM IMPROVEMENTS
FOR WOLFE BRANCH UTILITY DISTRICT
MORGAN & EDWARDS CO. TENNESSEE

BLACK, CROW AND EIDSNES, INC.
ENGINEERS
GAINESVILLE FLORIDA

DRAWN BY: R.M. DATE: OCT. 1968
CHECKED BY: T.D.R. FILE NO.: 462-68-1
SCALE: 1/2" = 1'-0"

NO.	DESCRIPTION	DATE
1	GENERAL REVISION	10/1/68
2	GENERAL REVISION	10/2/68
3	REVISIONS	

PIPING PLANS FOR
PUMP STATIONS
No. 1, 2, 3, AND 4.

SHEET NO.
17

WATER SYSTEM

FOR

WOLFE BRANCH UTILITY DISTRICT

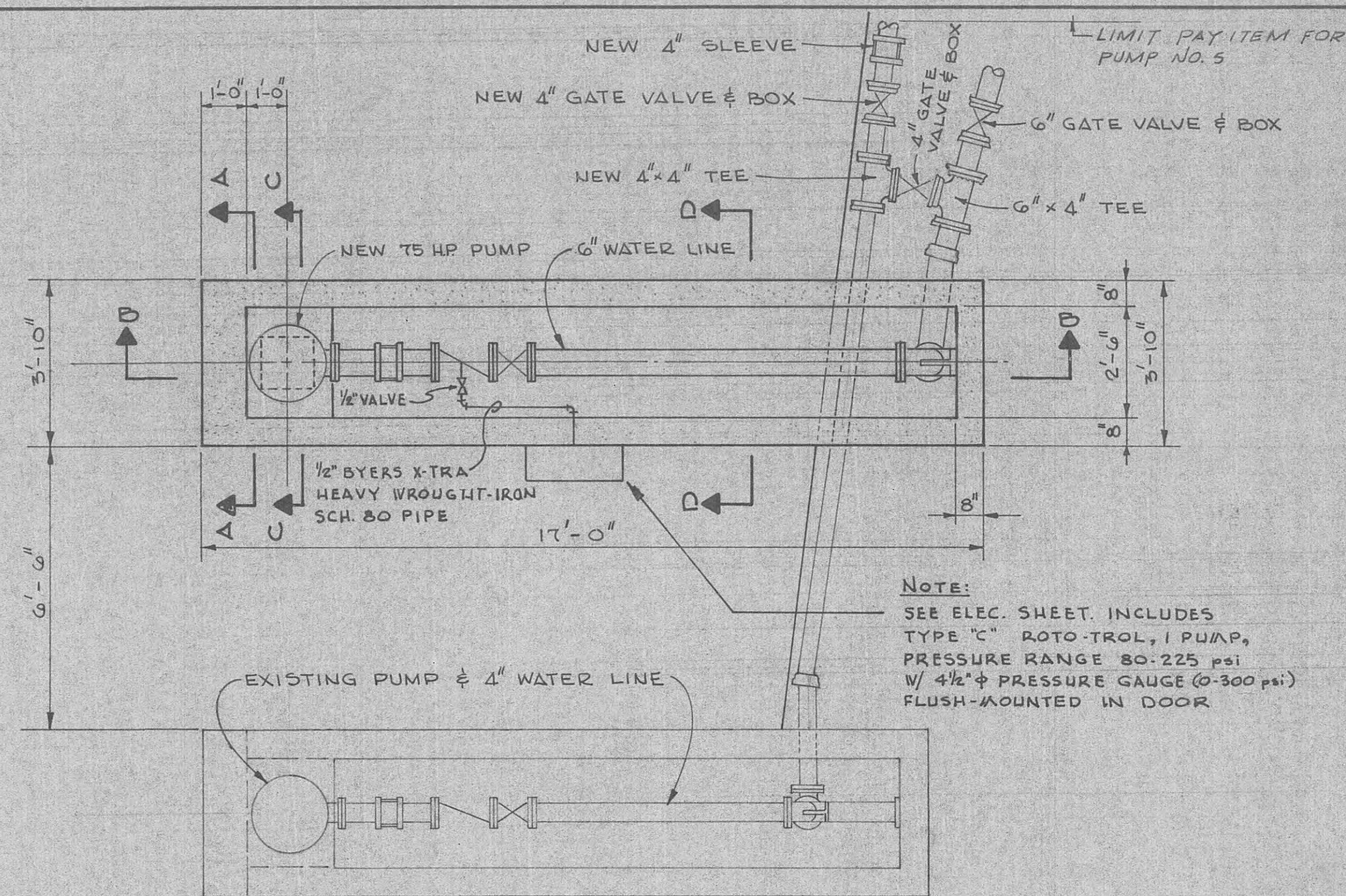
HARRIMAN, TENNESSEE

BLACK CROW AND EIDNESS, INC.

ENGINEERS

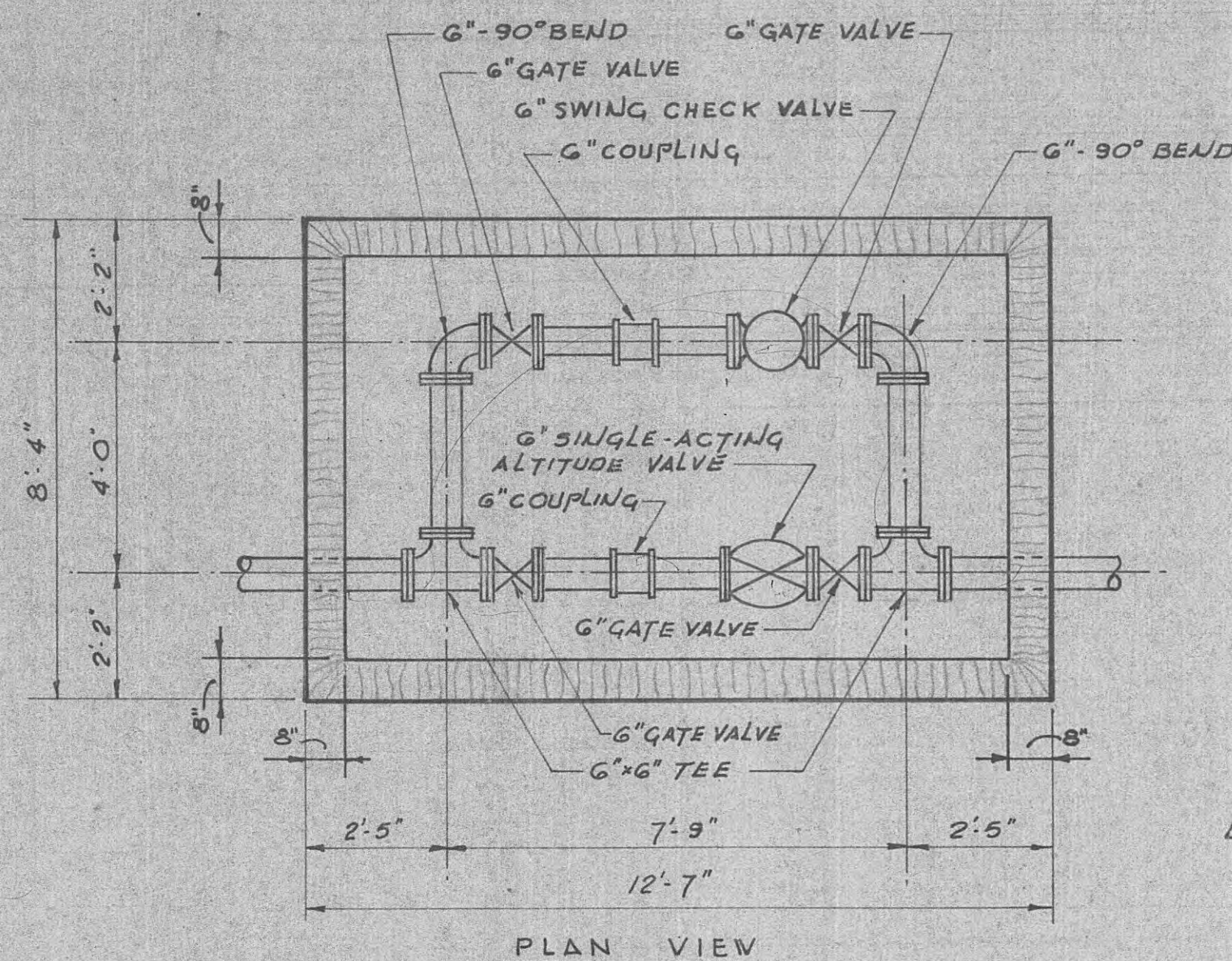
GAINESVILLE, FLORIDA
CLEARWATER, BOCA RATON, NAPLES, FLORIDA
ATLANTA, GEORGIA SAN JOSE, COSTA RICA

PROJECT NO 462 68 1



PLAN OF EXISTING AND NEW PUMP INSTALLATIONS

SCALE 3/8" = 1'-0"

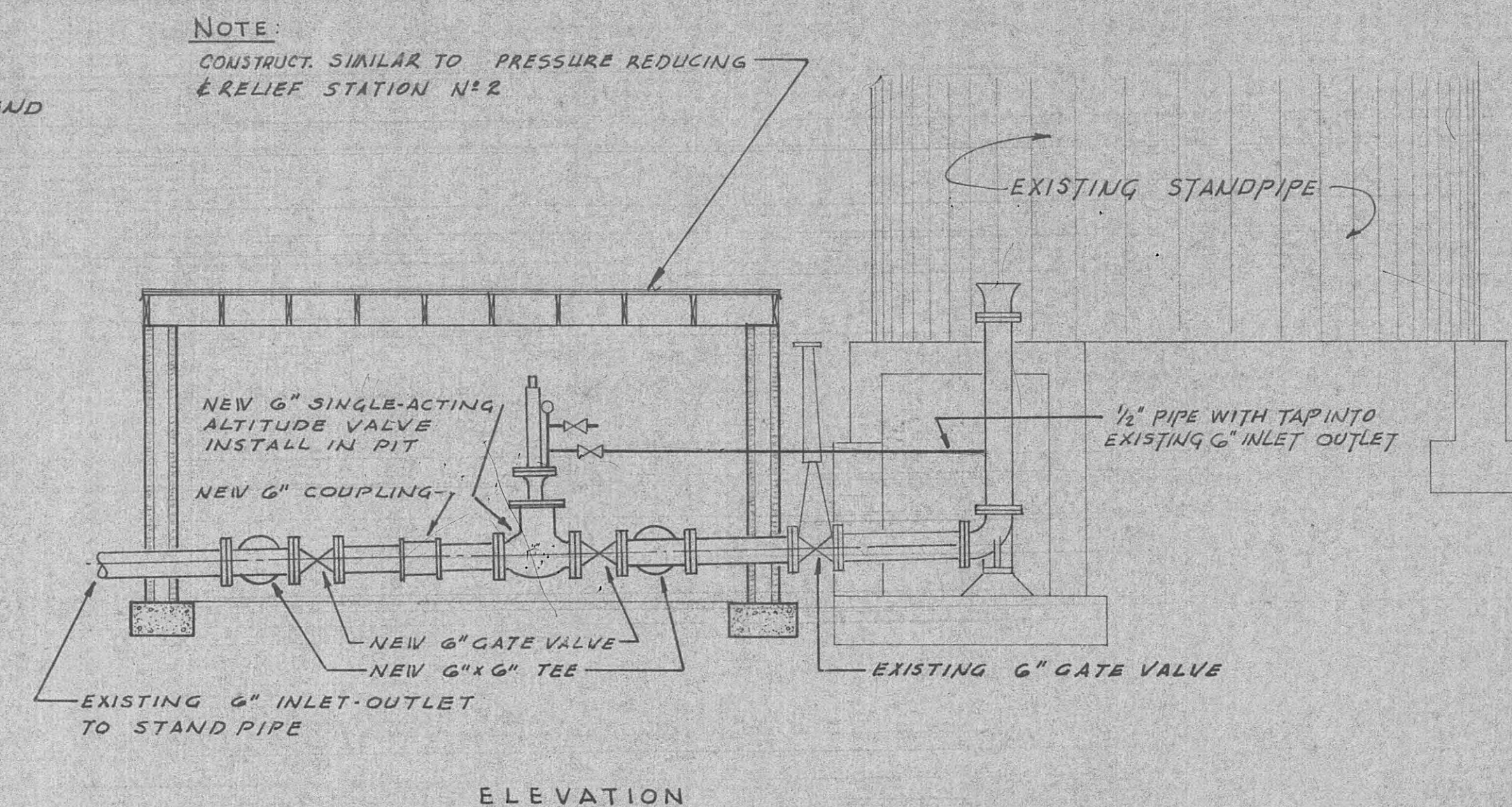


PLAN VIEW

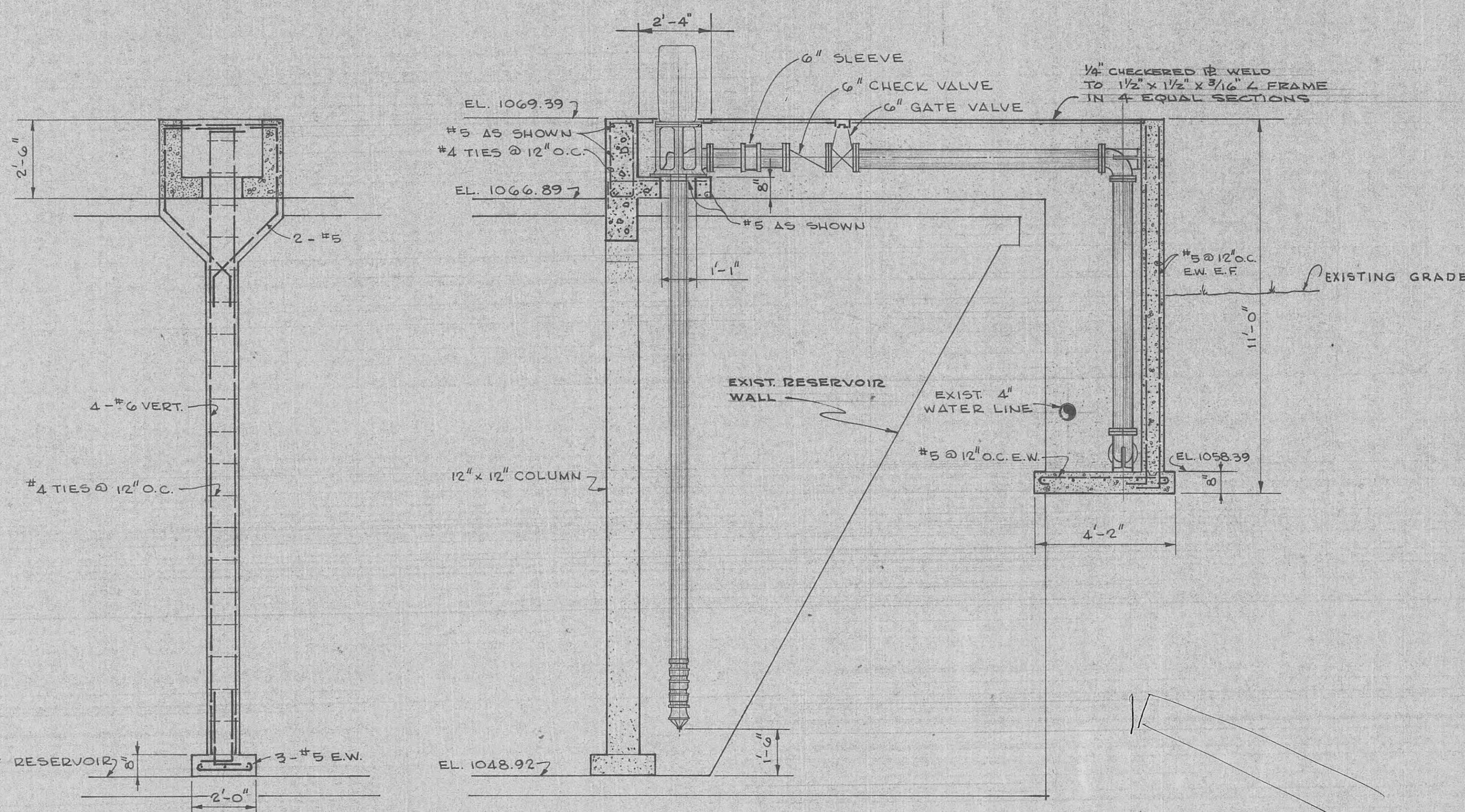
INSTALLATION OF ALTITUDE VALVE AT EXIST. 25,000 GAL. STANDPIPE

SCALE

3/8" = 1'-0"

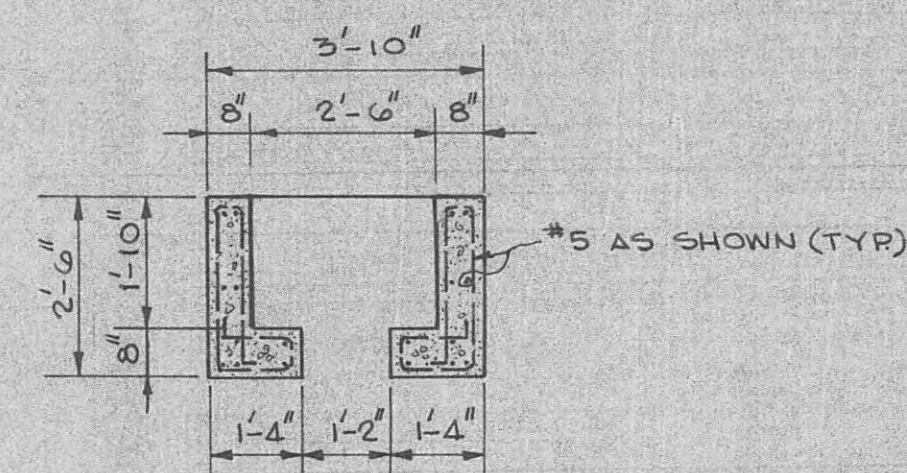


ELEVATION



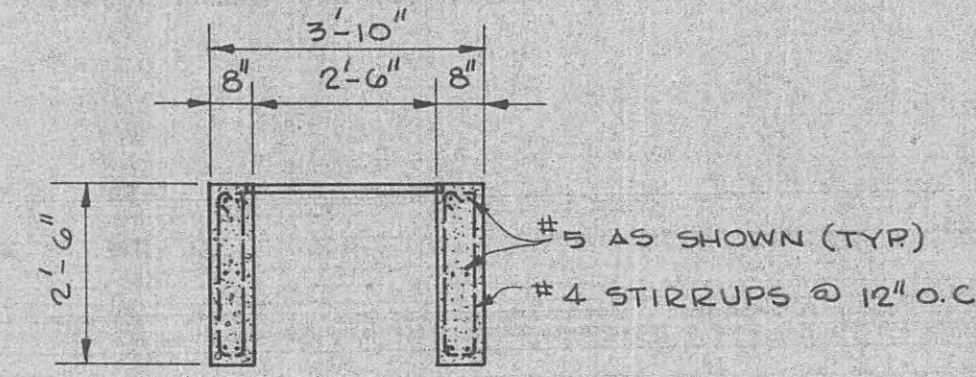
SECTION B-B

SCALE 3/8" = 1'-0"



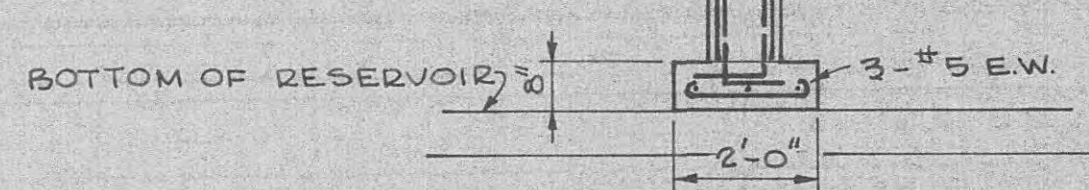
SECTION C-C

SCALE 3/8" = 1'-0"



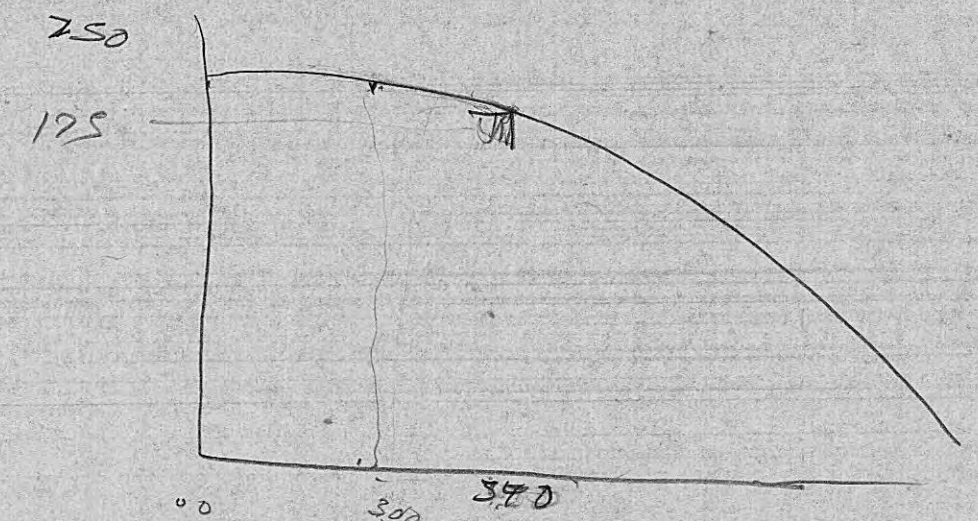
SECTION D-D

SCALE 3/8" = 1'-0"



SECTION A-A

SCALE 3/8" = 1'-0"



NO.	DESCRIPTION	DATE

WATER SYSTEM IMPROVEMENTS
FOR WOLFE BRANCH UTILITY DISTRICT
MORGAN & ROANE CO., TENNESSEE

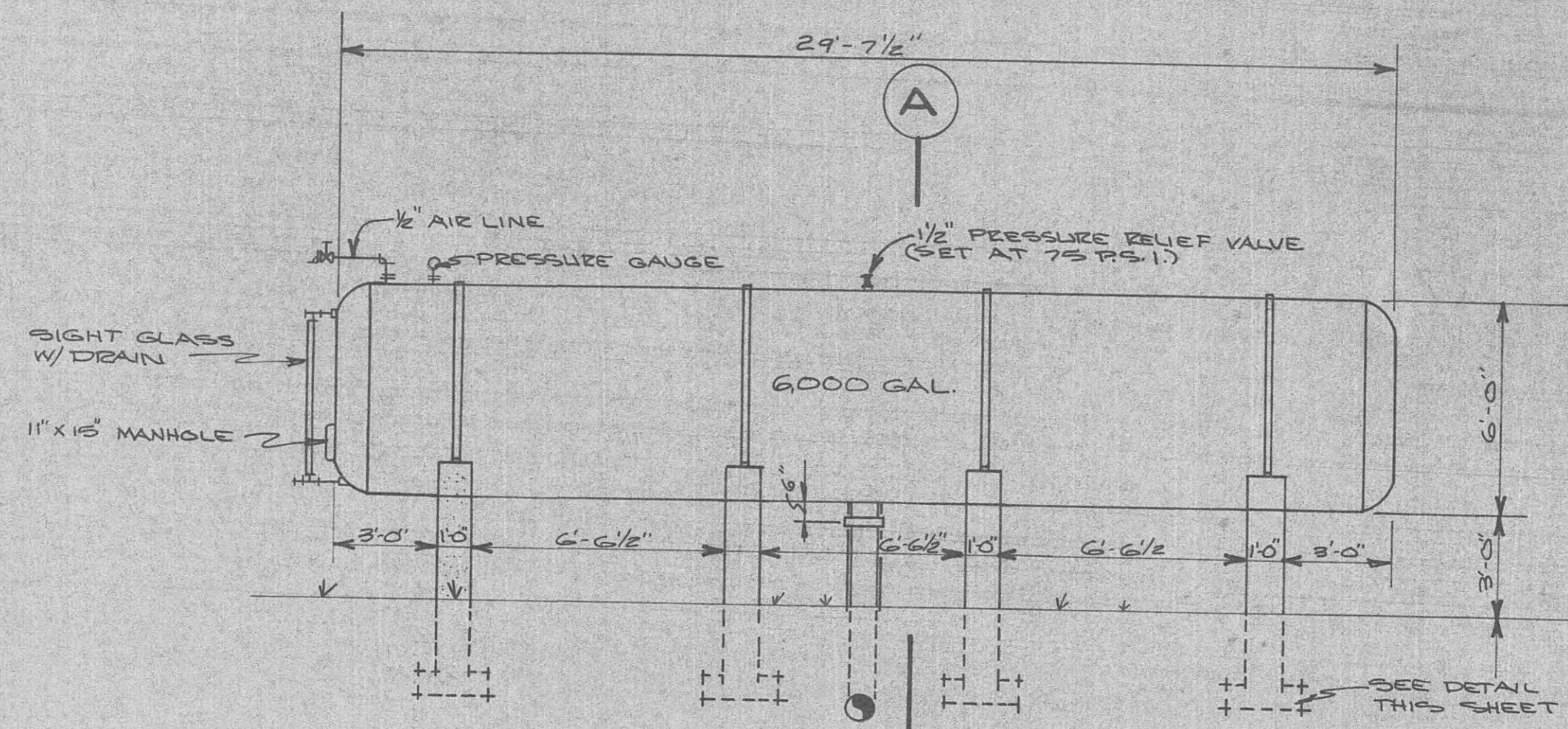
BLACK, CROW AND EIDSNESS, INC.
ENGINEERS
GAINESVILLE FLORIDA

DRAWN BY: B.W. DATE: OCT. 1968
CHECKED BY: T.D.E. FILE NO. 462-68-1
SCALE: AS SHOWN

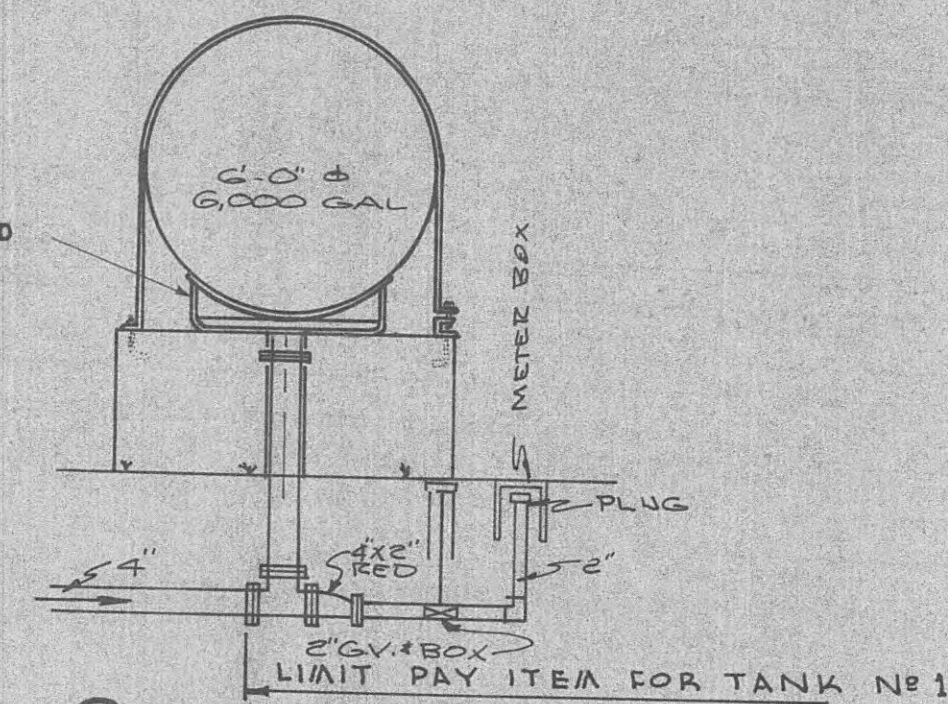
PUMP STATION No. 5

SHEET NO. 18

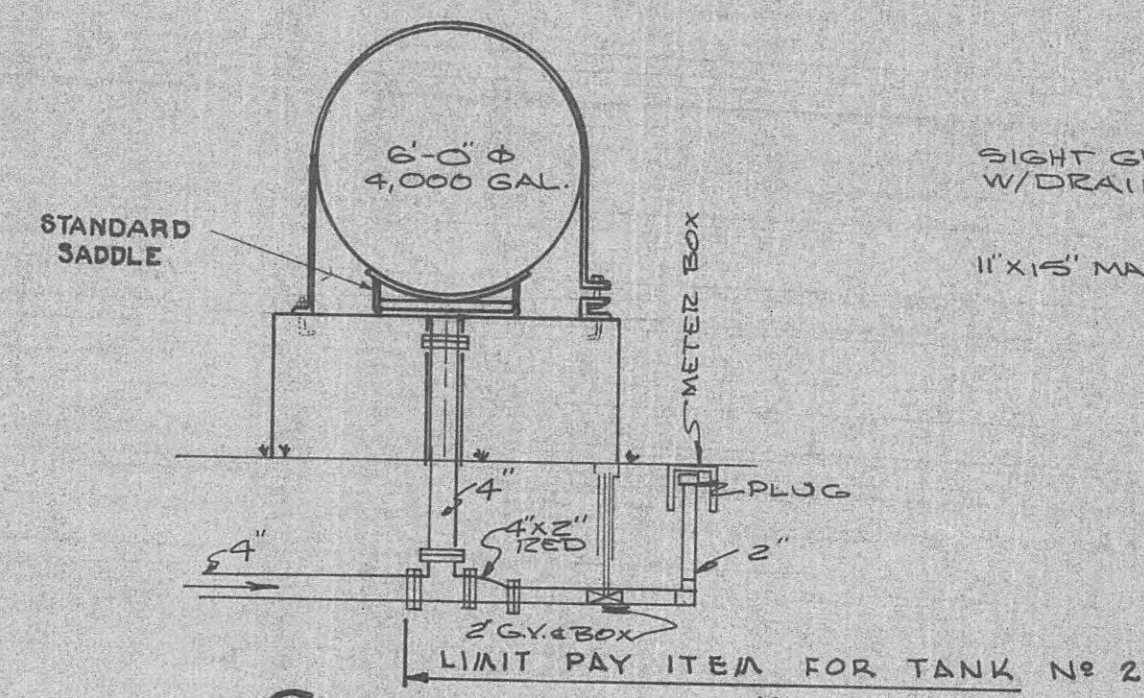




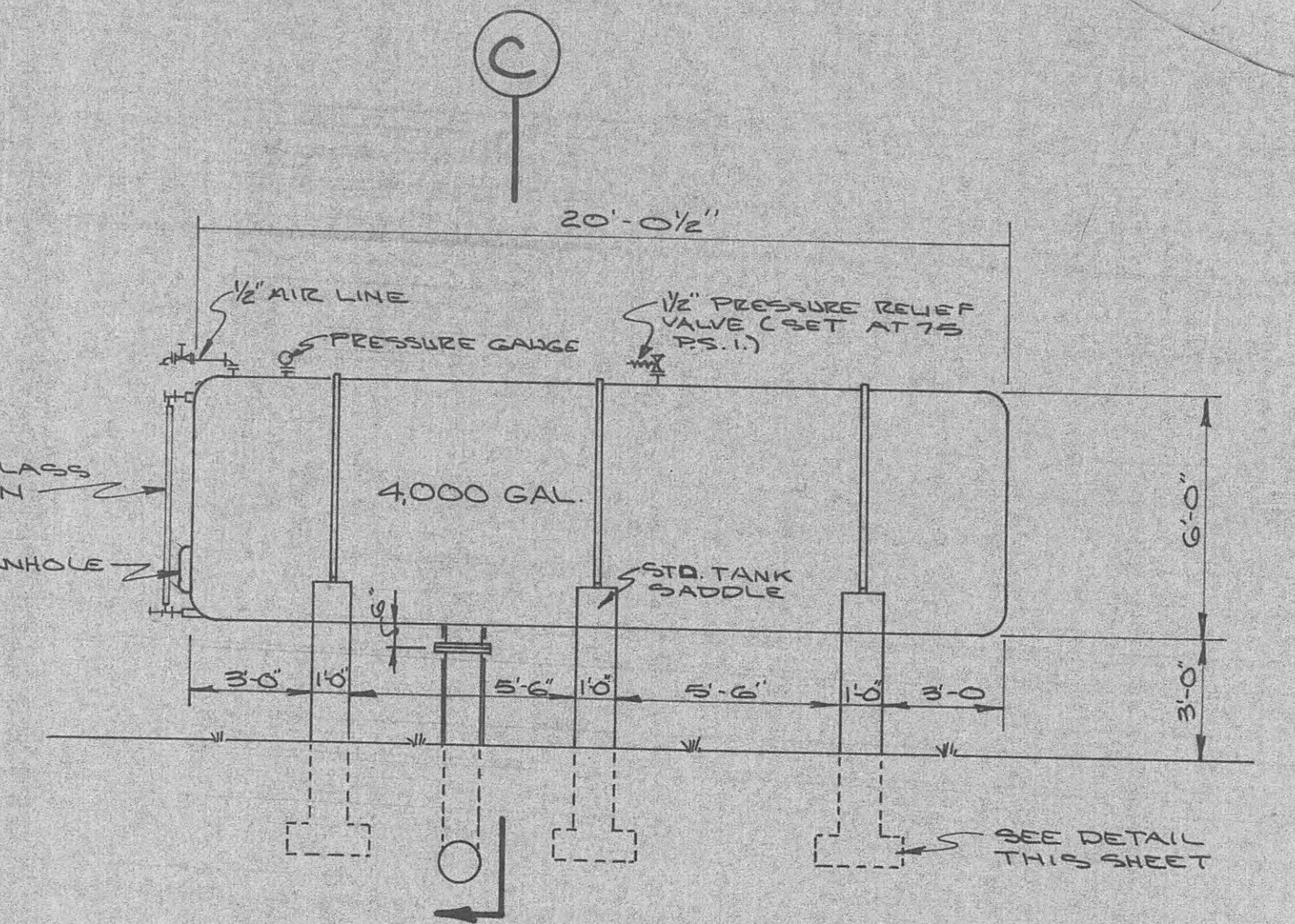
HYDROPNEUMATIC TANK No. 1
SCALE 1/4" = 1'-0"



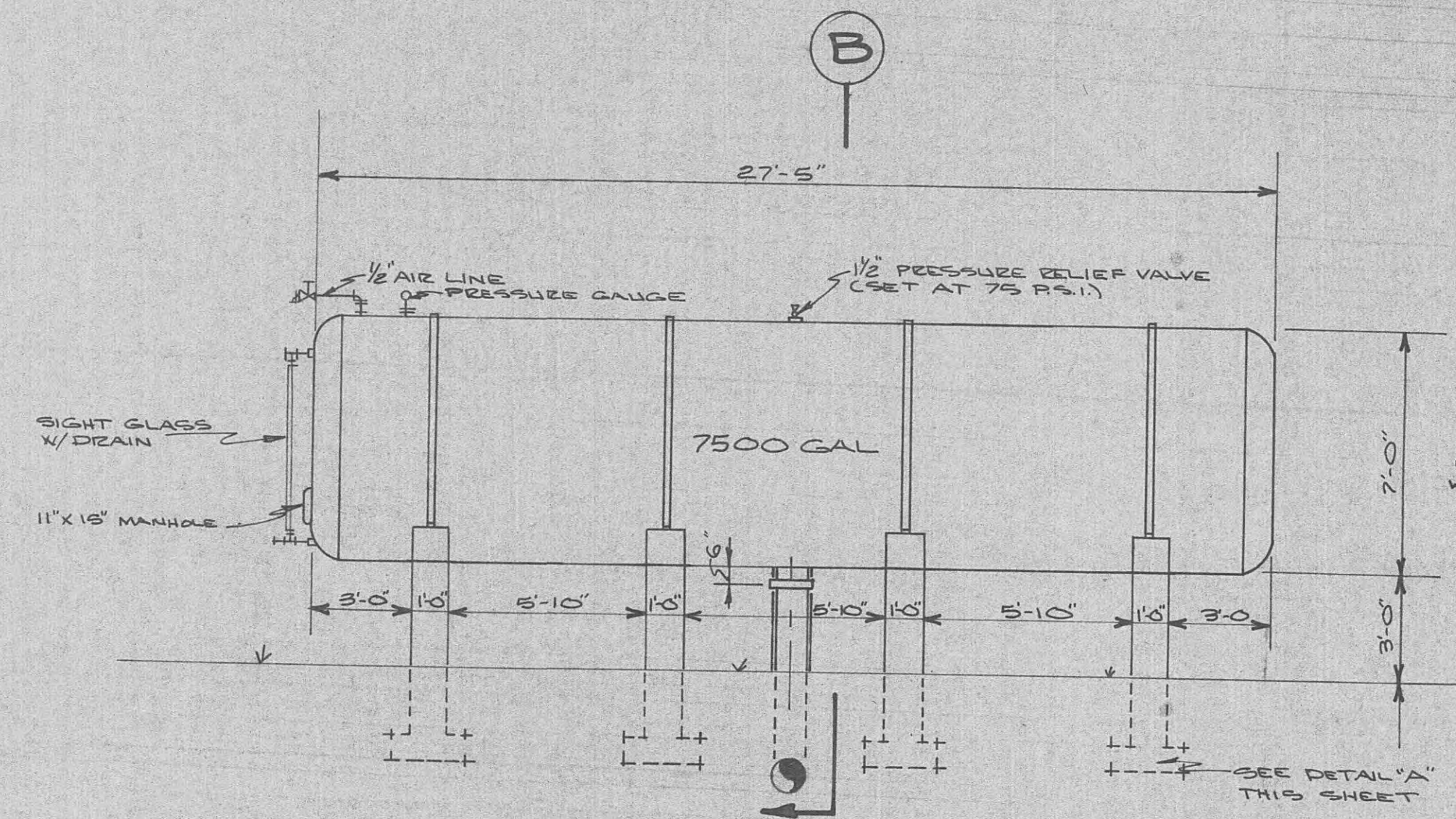
SECTION "A"
SCALE 1/4" = 1'-0"



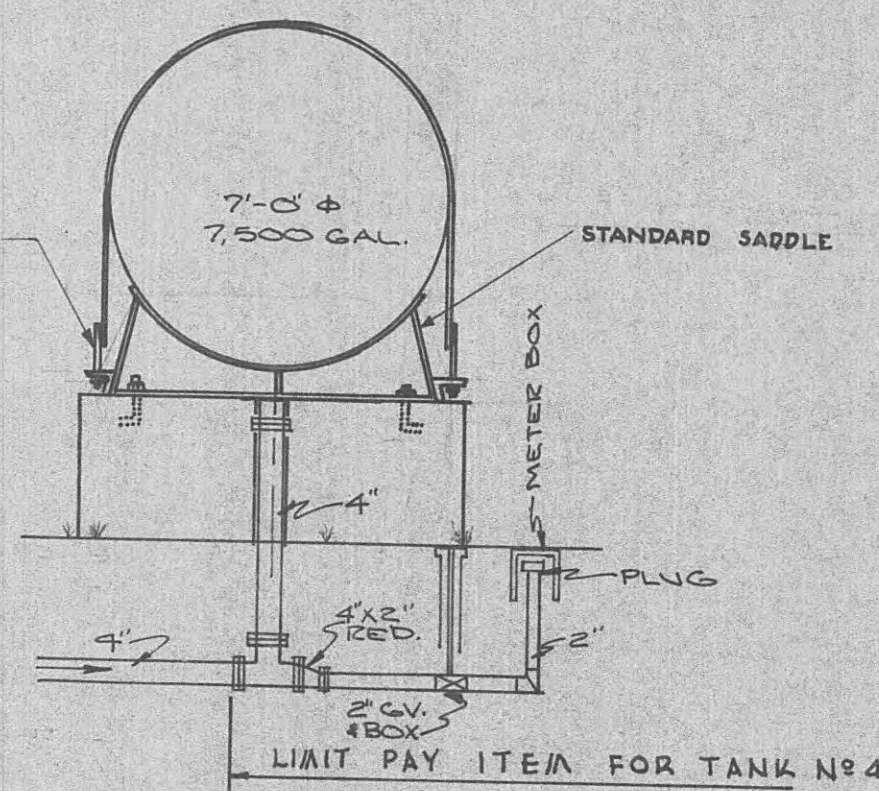
SECTION "C"
SCALE 1/4" = 1'-0"



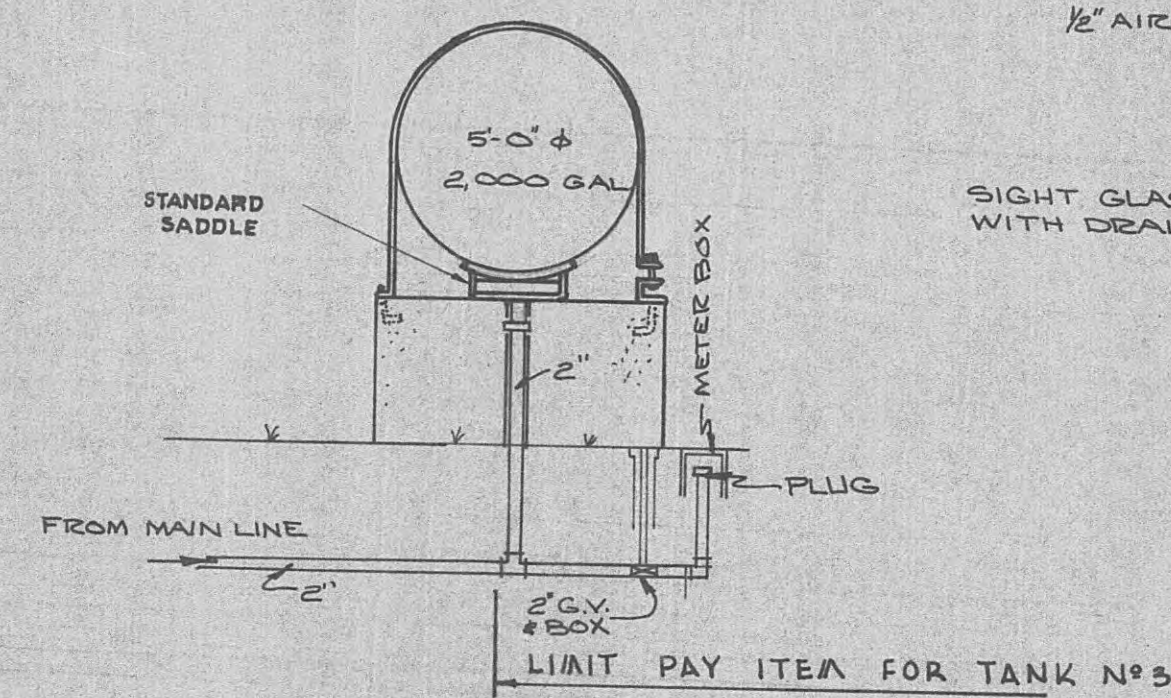
HYDROPNEUMATIC TANK No. 2
SCALE 1/4" = 1'-0"



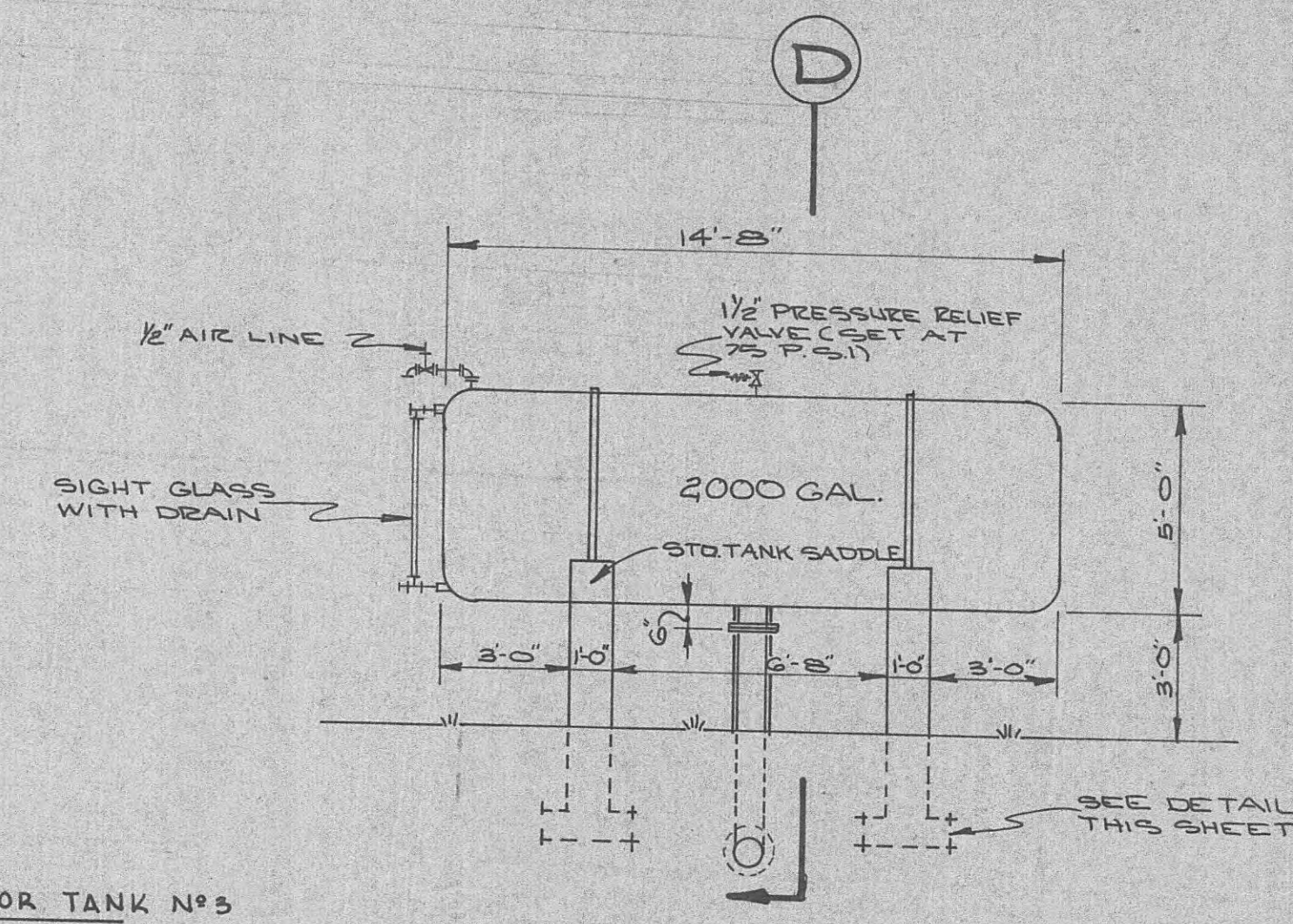
HYDROPNEUMATIC TANK No. 4
SCALE 1/4" = 1'-0"



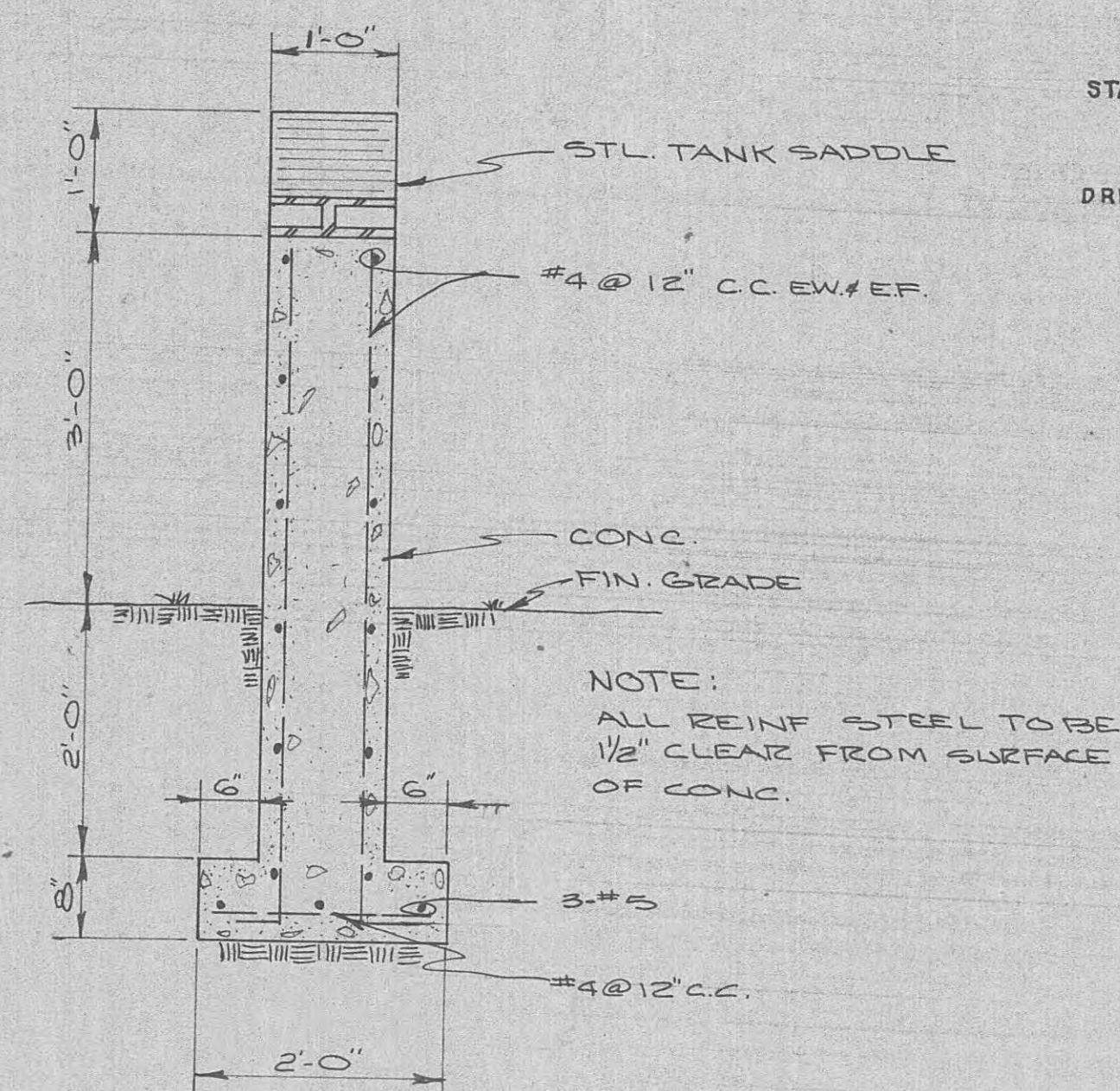
SECTION "B"
SCALE 1/4" = 1'-0"



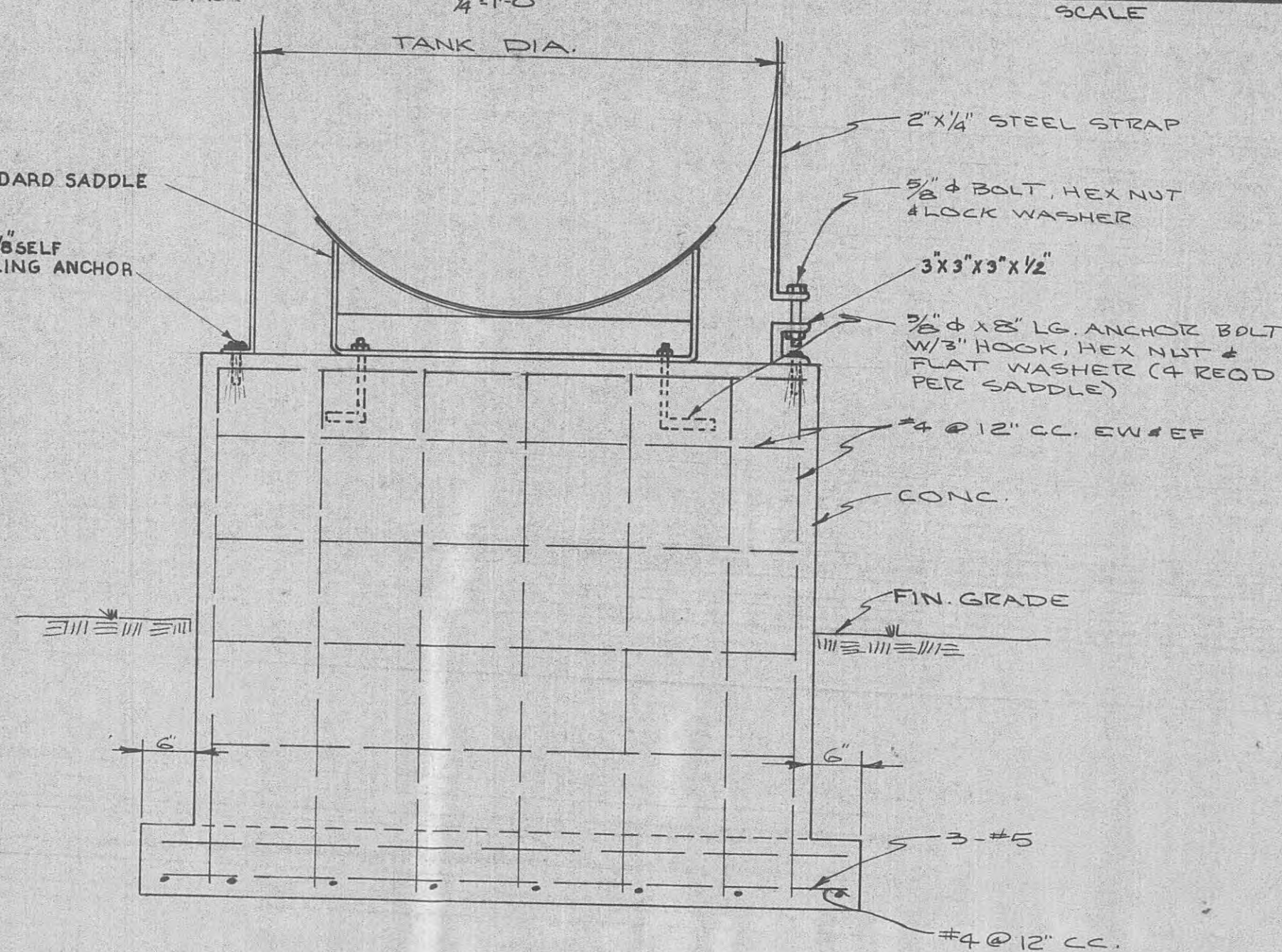
SECTION "D"
SCALE 1/4" = 1'-0"



HYDROPNEUMATIC TANK No. 3
SCALE 1/4" = 1'-0"



SECTION

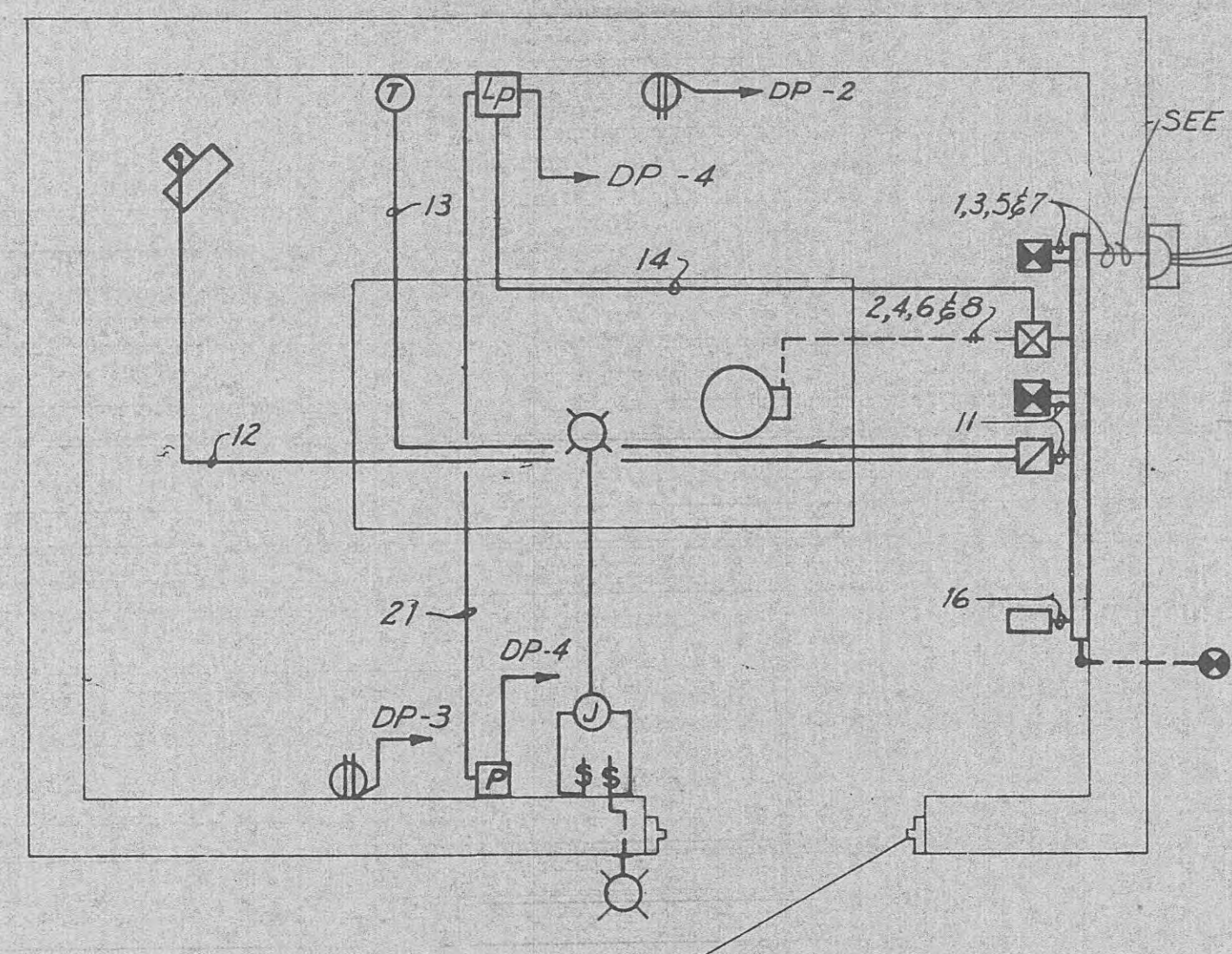


ELEVATION

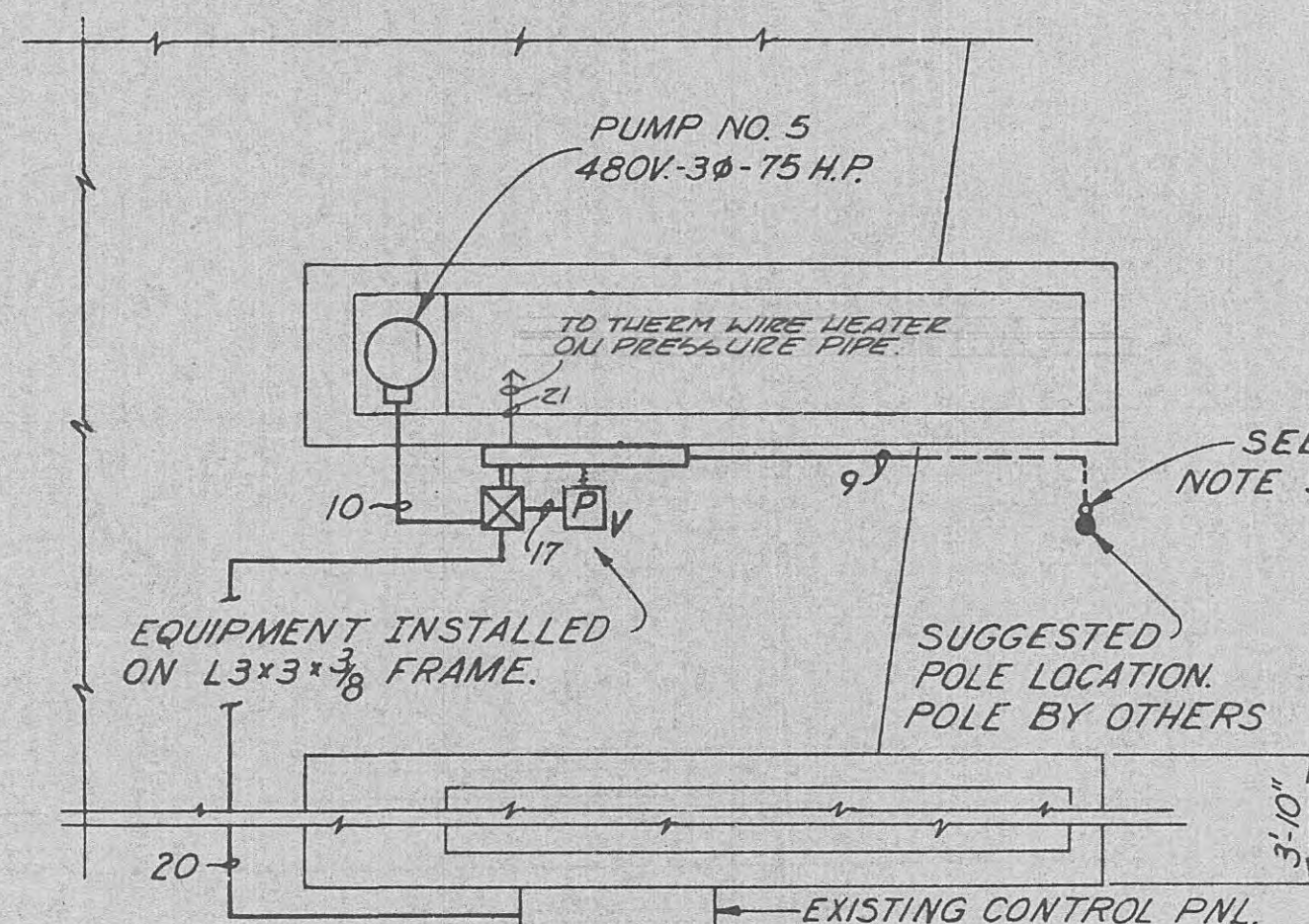
TYPICAL TANK PIER DETAIL
SCALE 1/4" = 1'-0"



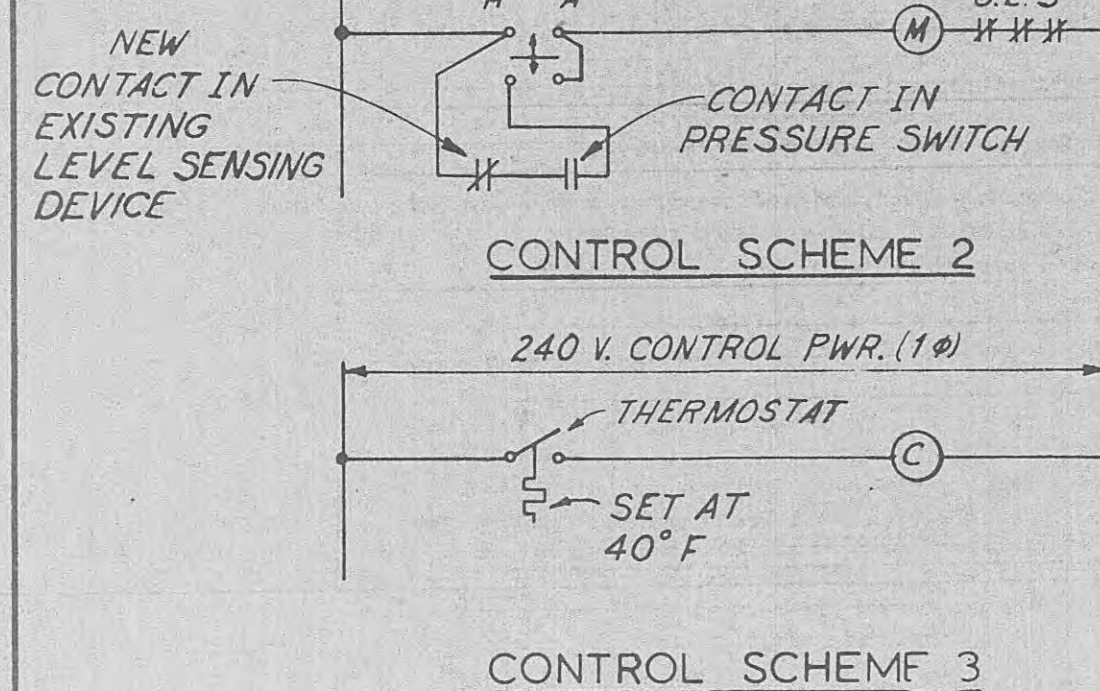
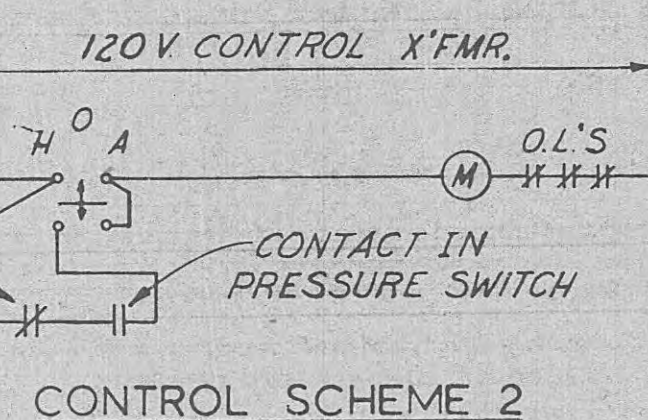
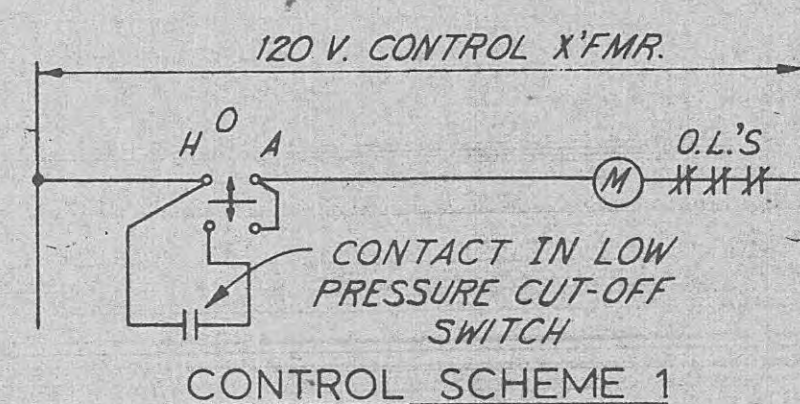
WATER SYSTEM IMPROVEMENTS	
FOR WOLFE BRANCH UTILITY DISTRICT	
MORGAN & ROANE CO., TENNESSEE	
BLACK, CROW AND EIDSNES, INC.	
ENGINEERS	
GAINESVILLE	FLORIDA
DRAWN BY: ZOE	DATE: OCT. '68
CHECKED BY:	FILE NO.: 462-68-1
SCALE: AS SHOWN	
HYDROPNEUMATIC TANK	
DETAILS	
NO.	DESCRIPTION
REVISIONS	
DATE	
SHEET NO.	
21	



TYPICAL POWER PLAN
PUMP STATION NOS. 1, 2, 3 & 4
SCALE: 1/2"=1'-0"



PART PLAN
PUMP STATION NO. 5
SCALE: 1/4"=1'-0"



ALLOW 5'-0" TAILS ON
SERVICE CABLE FOR
TERMINATION BY ELEC.
UTILITY CO.

SEE NOTES 1 AND 3

UTILITY'S METERING
EQUIPMENT FURNISHED
BY UTILITY-INSTALLED
BY CONTRACTOR

120/240 VOLT 3 PHASE,
4 WIRE SERVICE

SINGLE LINE DIAGRAM
PUMP STATION NO. 1

ALLOW 5'-0" TAILS ON
SERVICE CABLE FOR
TERMINATION BY ELEC.
UTILITY CO.

120/240 VOLT 3 PHASE
4 WIRE SERVICE

SINGLE LINE DIAGRAM
PUMP STATION NO. 2

ALLOW 5'-0" TAILS ON
SERVICE CABLE FOR
TERMINATION BY ELEC.
UTILITY CO.

120/240 VOLT 3 PHASE
4 WIRE SERVICE

SINGLE LINE DIAGRAM
PUMP STATION NO. 3

ALLOW 5'-0" TAILS ON
SERVICE CABLE FOR
TERMINATION BY ELEC.
UTILITY CO.

120/240 VOLT 3 PHASE
4 WIRE SERVICE

SINGLE LINE DIAGRAM
PUMP STATION NO. 4

COND. NO.	FROM	TO	VOLTAGE PHASE	AMPS	HP	CABLE DATA	CONDUIT SIZE	REMARKS
1	WEATHERHEAD	MARK NO. (6)	240/3	121.0		4-1/2" #10	2"	POWER, PUMP STA. NO. 1
2	MARK NO. (7)	PUMP NO. 1	240/3	64.0	25	3-1/2" #8	1 1/4"	POWER
3	WEATHERHEAD	MARK NO. (8)	240/3	97.0		4-1/2" #10	2"	POWER, PUMP STA. NO. 2
4	MARK NO. (9)	PUMP NO. 2	240/3	40.0	15	3-1/2" #8	1 1/4"	POWER
5	WEATHERHEAD	MARK NO. (10)	240/3	84.0		4-1/2" #10	2"	POWER, PUMP STA. NO. 3
6	MARK NO. (11)	PUMP NO. 3	240/3	27.0	10	3-1/2" #8	3/4"	POWER
7	WEATHERHEAD	MARK NO. (12)	240/3	135.0		4-1/2" #10	3"	POWER, PUMP STA. NO. 4
8	MARK NO. (13)	PUMP NO. 4	240/3	78.0	30	3-1/2" #8	1 1/4"	POWER
9	WEATHERHEAD	MARK NO. (14)	480/3	93.0		3-1/2" #10	2"	POWER
10	MARK NO. (15)	PUMP NO. 5	480/3	93.0	75	3-1/2" #10	2"	POWER
11	MARK NO. (16)	MARK NO. (5)	240/3	36.0		3-1/2" #8	3/4"	POWER
12	MARK NO. (17)	UNIT HEATER	240/3	36.0	15KW	3-1/2" #8	3/4"	POWER
13	MARK NO. (18)	THERMOSTAT	240/1			2-1/2" #12	1/2"	CONTROL
14	MARK NO. (19)	LOW PRESS. CUT-OFF SW.	120/1			2-1/2" #12	1/2"	CONTROL
15								
16	MARK NO. (20)	MARK NO. (3)	120/240/1	20.8		3-1/2" #10	1 1/2"	POWER
17	PRESSURE SWITCH	MARK NO. (14)	120/1			2-1/2" #12	1/2"	CONTROL, E
18								
19	X.F.M.R. NEUTRAL & WIREWAY	GROUND ROD				1-1/2" #4 BARE	1/2"	GROUND
20	MARK NO. (21)	EXISTING TANK TROL	120/1			2-1/2" #12	1/2"	CONTROL, SEE NOTE 4
21	MARK NO. (22)	THERM WIRE	120/1			2-1/2" #12	1/2"	POWER

ELECTRICAL LEDGEND

- CONDUIT RUN EXPOSED.
- CONDUIT RUN CONCEALED.
- MOTOR; VOLTAGE, PHASE & H.P. AS INDICATED.
- COMBINATION CIRCUIT BREAKER MOTOR STARTER; SEE SCHEDULE FOR DESCRIPTION.
- CIRCUIT BREAKER; SEE SCHEDULE FOR DESCRIPTION.
- MAGNETIC CONTACTOR; SEE SCHEDULE FOR DESCRIPTION.
- TRANSFORMER; SEE SCHEDULE FOR DESCRIPTION.
- UNIT HEATER; 240V-30-15 KVA; CHROMOLOX CAT. NO. LUH 150.
- THERMOSTAT; CHROMOLOX CAT. NO. T-473E.
- JUNCTION BOX, GALVANIZED SHEET STEEL; SIZE AS REQUIRED.
- INCANDESCENT LIGHTING FIXTURE, WALL MOUNTED 6'-0" ABOVE FIN. FLOOR, PRESCOLITE CAT. NO. WB-24 WITH 1 EA. 100W. I.F. PS21 LAMP.
- INCANDESCENT LIGHTING FIXTURE, PENDANT MOUNTED 7'-0" ABOVE FIN. FLOOR, MILLER CAT. NO. AE3013 WITH 1 EA. 500W. I.F. PS35 LAMP.
- DUPLEX RECEPTACLE; 20A, 125V, HUBBELL CAT. NO. 53CM62.
- SINGLE POLE TUMBLER SWITCH; "T" RATED, 20A, 125 V, HUBBELL CAT. NO. 1281-GRY.
- PRESSURE SWITCH; HEALY-RUFF ROTOTROL TYPE 'C' WITH 110V. COILS. FOR CONTROL OF 1 EA. 240V-30 MOTORS. PRESSURE RANGE: 80 TO 225 PSI PUMP NOS. 1, 2, 3, 4. PRESSURE RANGE: 50 TO 150 PSI PUMP NO. 5. SEE CONTROL SCHEME 4.
- PRESSURE SWITCH; SAME AS ABOVE EXCEPT IN NEMA 3R ENCLOSURE.
- DRIVEN GROUND ROD; COPPERWELD 3/4" x 10'-0".
- LOW PRESSURE CUT-OFF SWITCH; HEALY-RUFF PRIME-TROL WITH 110V COILS FOR CUT OFF AT 20 PSI.

EQUIPMENT SCHEDULE

MARK NO.	DESCRIPTION	VOLTAGE PHASE	HP	AMP LOAD	CIRCUIT BREAKER	FRAME SIZE	FRAME AMPS	CONT. AMPS	INST. TRIP AMPS	NEMA SIZE	CONTROL SCHEME	SERVES	REMARKS
(1)													
(2)													
(3)	DIST. PANEL; 6-1P-20A BKRS.	120/240/1											PUMP STATION MISC. POWER
(4)	CIRCUIT BREAKER	240/3	15KW	36.0	ET	EF	100						ITE CAT. NO. EQ12MB
(5)	MAGNETIC CONTACTOR	240/3	15KW	36.0							3		ITE CAT. NO. EF3B040-EE1
(6)	CIRCUIT BREAKER	240/3		121.0	ET	JL	400	225					CHROMOLOX CAT. NO. CP350
(7)	FVNR QB COMB. MOTOR STARTER	240/3	25	64.0	ETI	EF	100	100	750	3	1		ITE CAT. NO. JL3-B225-JL1
(8)	CIRCUIT BREAKER	240/3		97.0	ET	JL	400	150					ITE CAT. NO. A31E2416
(9)	FVNR COMB. MOTOR STARTER	240/3	15	40.0	ETI	EF	100	50	475	2	1		ITE CAT. NO. JL3-B150-JL1
(10)	CIRCUIT BREAKER	240/3		84.0	ETI	EF	100	125					ITE CAT. NO. A31D241F
(11)	FVNR COMB. MOTOR STARTER	240/3	10	27.0	ETI	EF	100	50	330	2	1		ITE CAT. NO. JL3B125-JL1
(12)	CIRCUIT BREAKER	240/3		135.0	ETI	JL	400	250					ITE CAT. NO. A31D241E
(13)	FVNR COMB. MOTOR STARTER	240/3	30	78.0	ETI	EF	100	100	930	3	1		ITE CAT. NO. JL3B250-JL1
(14)	FVNR COMB. MOTOR STARTER	480/3	75	93.0	ETI	FJ3-ACES	225	225	1200	4	2		ITE CAT. NO. A31E2416
(15)													ITE CAT. NO. A50F4B2ACT3L3B3

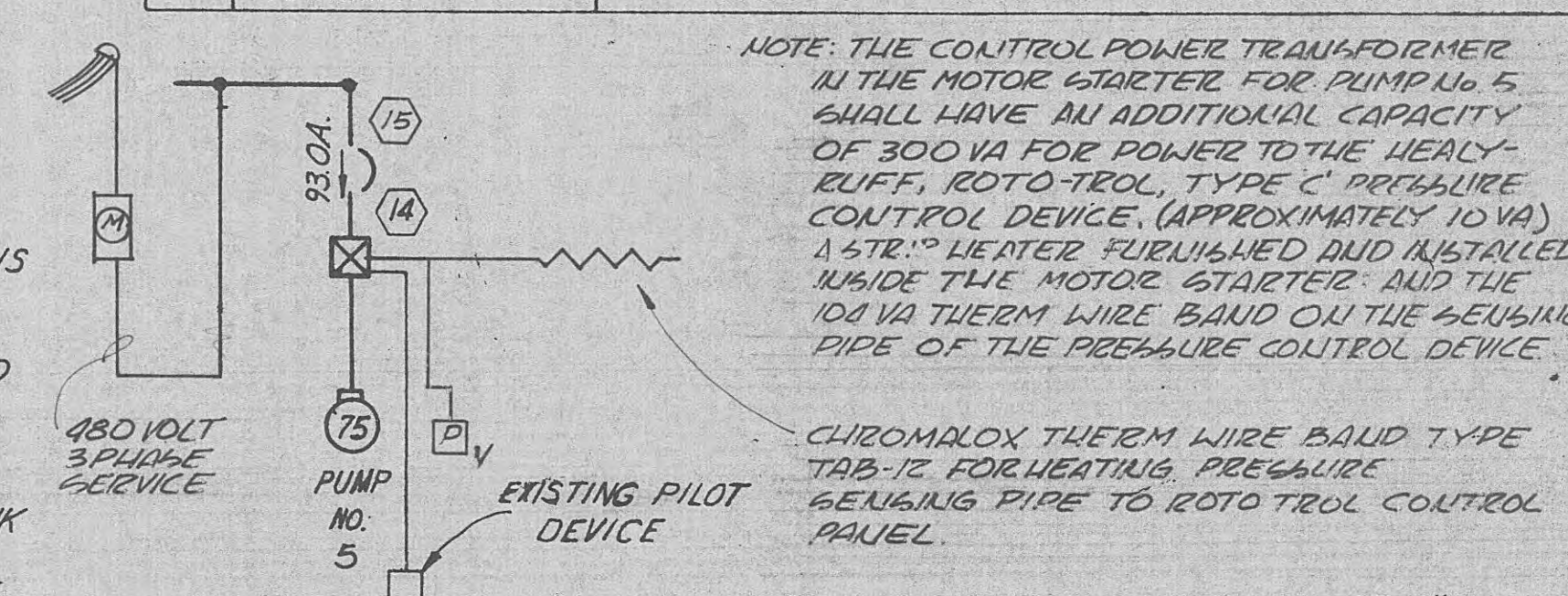
* MOTOR STARTER AND CIRCUIT BREAKER IN NEMA 4 STAINLESS STEEL ENCLOSURE WITH H.O.A. SEL SWITCH AND BARREL TYPE KEYED LOCK.

DPI, DP2, DP3 & DP4 PANEL SCHEDULES

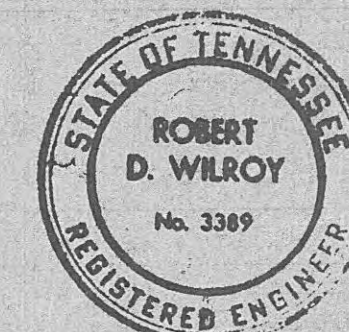
CIR. NO.	PHASE A	PHASE B	CIRCUIT POLES	BREAKER AMPS	WIRE SIZE	CONDUIT SIZE	SERVES
1	600		1	20	2-1/2" #12	1/2"	LIGHTING
2		1200	1	20	2-1/2" #12	1/2"	RECEPTACLE
3	1200		1	20	2-1/2" #12	1/2"	RECEPTACLE
4		100	1	20	2-1/2" #12	1/2"	PRESS. SWITCHES
5	SPARE		1	20			
6		SPARE	1	20			
TOTAL	1800	1300		3.2 KW			
BUS	100 AMP						

NOTES:

- UP TO WEATHERHEAD INSTALLED 2'-6" MIN. ABOVE ROOF.
- FOR LOCATION OF PUMP STATIONS REFER TO SHEET NO. 1.
- ALL WEATHERHEADS INSTALLED 12'-0" MIN. ABOVE GRADE LEVEL.
- INSTALL CONTROL RELAY IN CONTROL CIRCUIT OF EXISTING TANK TROL, TYPE E DR. NEW CONTROL RELAY SHALL HAVE 1-NC CONTACT. VOLTAGE SHALL BE DETERMINED IN THE FIELD.



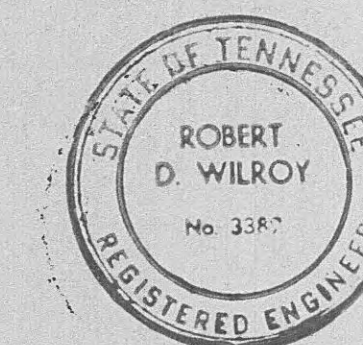
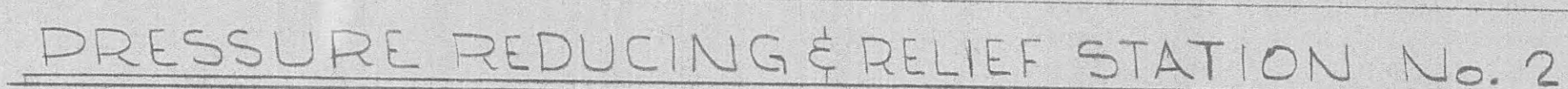
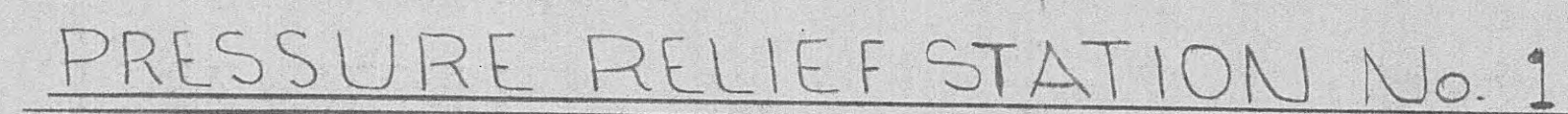
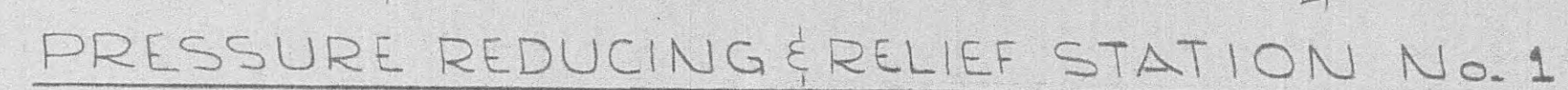
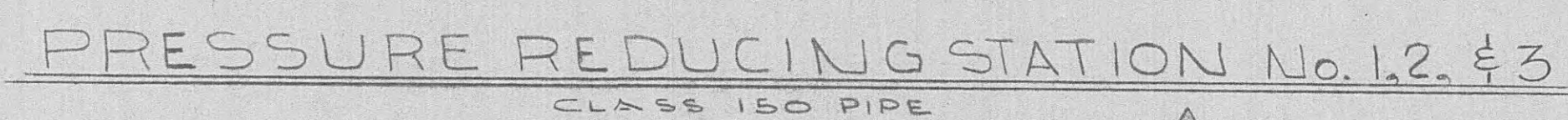
SINGLE LINE DIAGRAM,
PUMP NO. 5



WATER SYSTEM IMPROVEMENTS
FOR WOLFE BRANCH UTILITY DISTRICT
MORGAN & ROANE CO., TENNESSEE
BLACK, CROW AND EIDNESS, INC.
ENGINEERS
GAINESVILLE FLORIDA
DRAWN BY: H.S.R. DATE: OCT 1968
CHECKED BY: S.N.B. FILE NO.: 448-68-1
SCALE: AS SHOWN

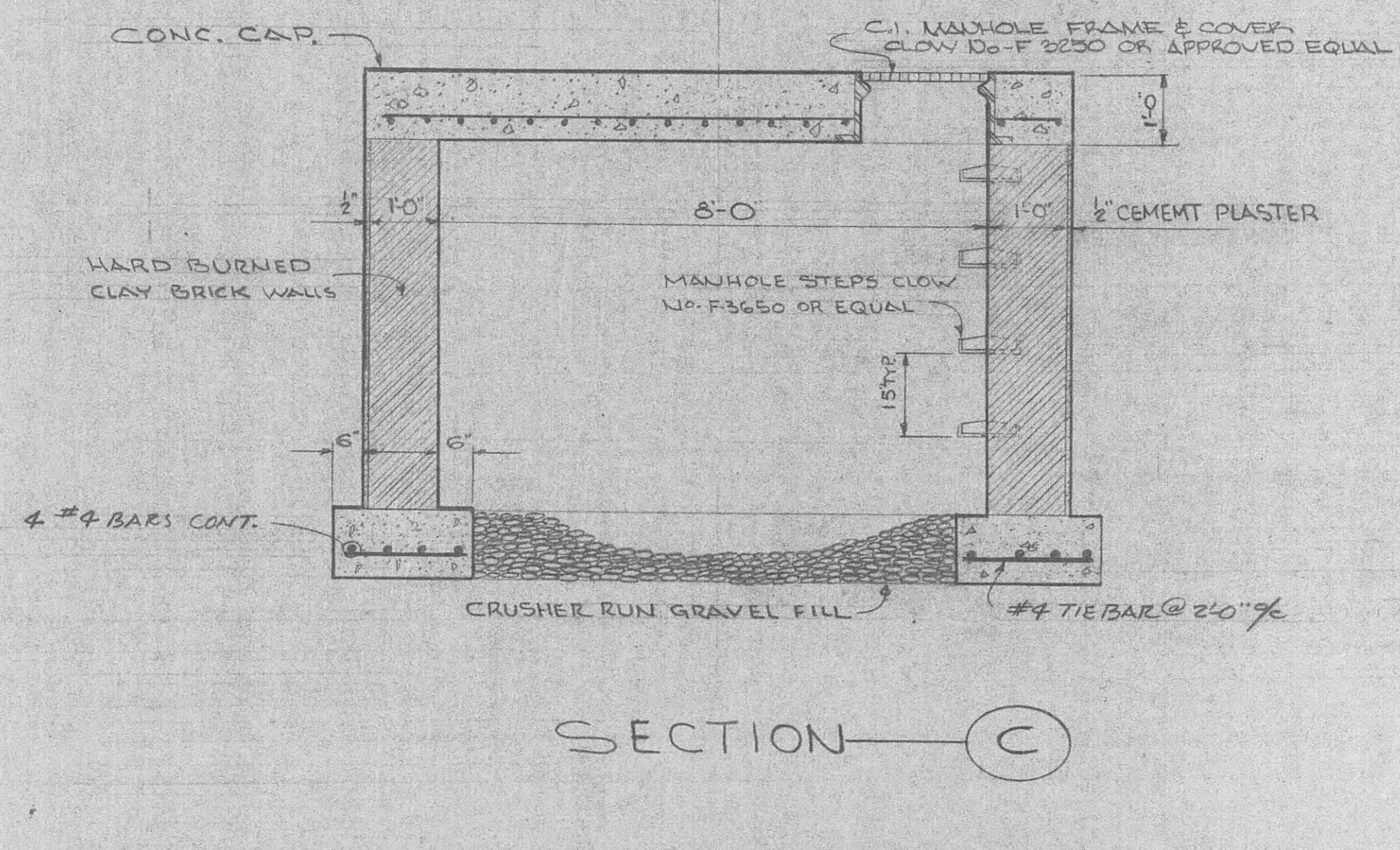
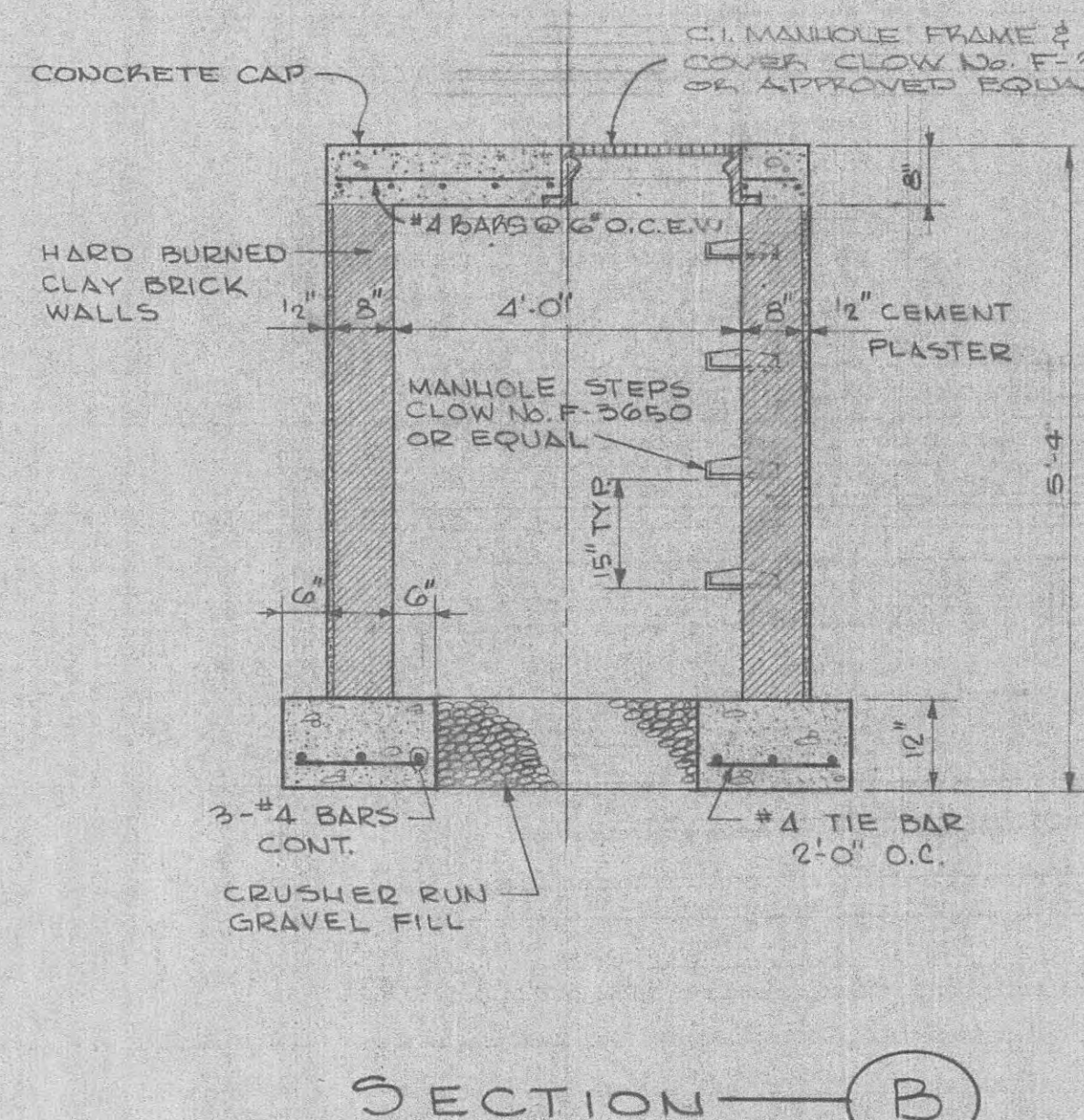
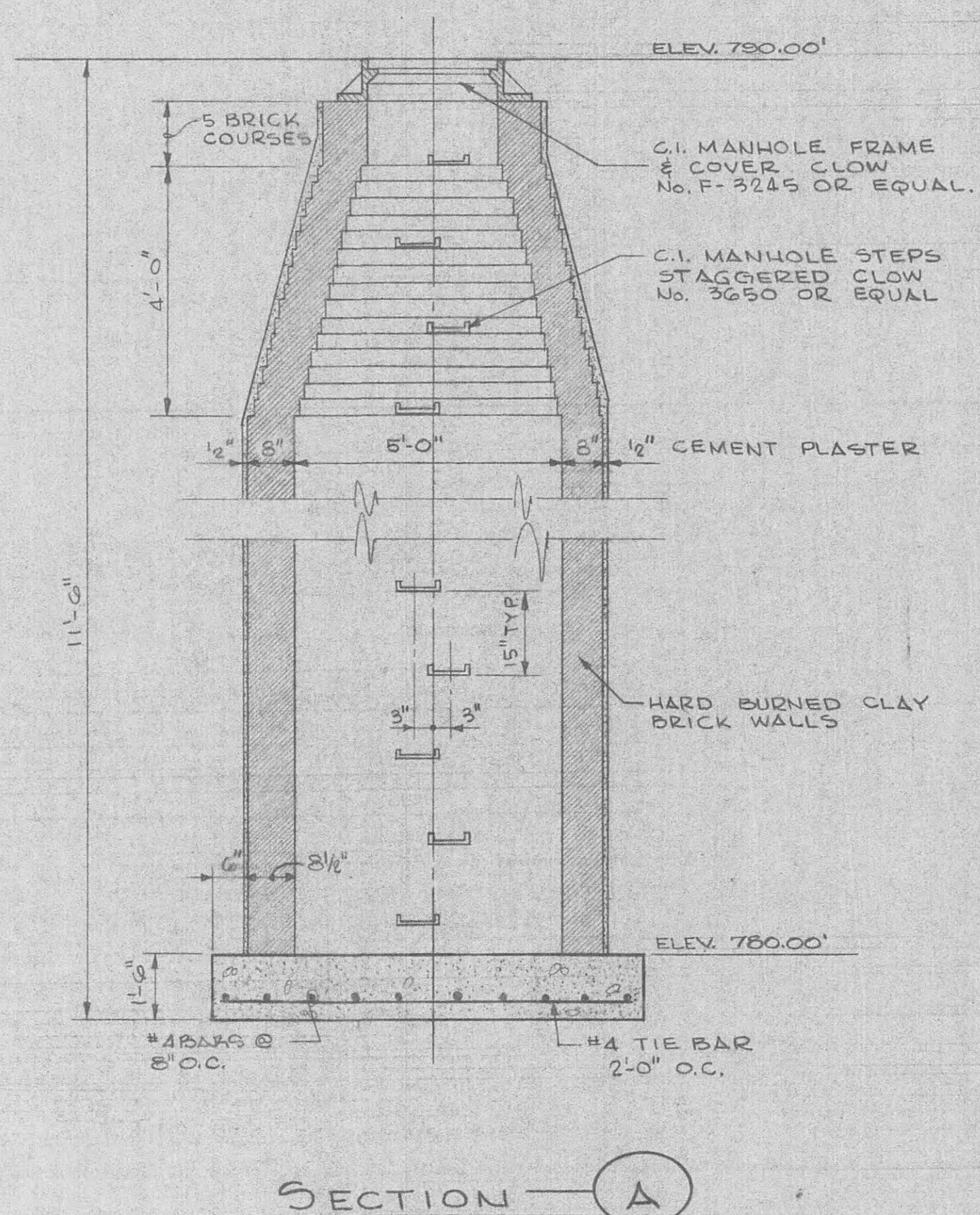
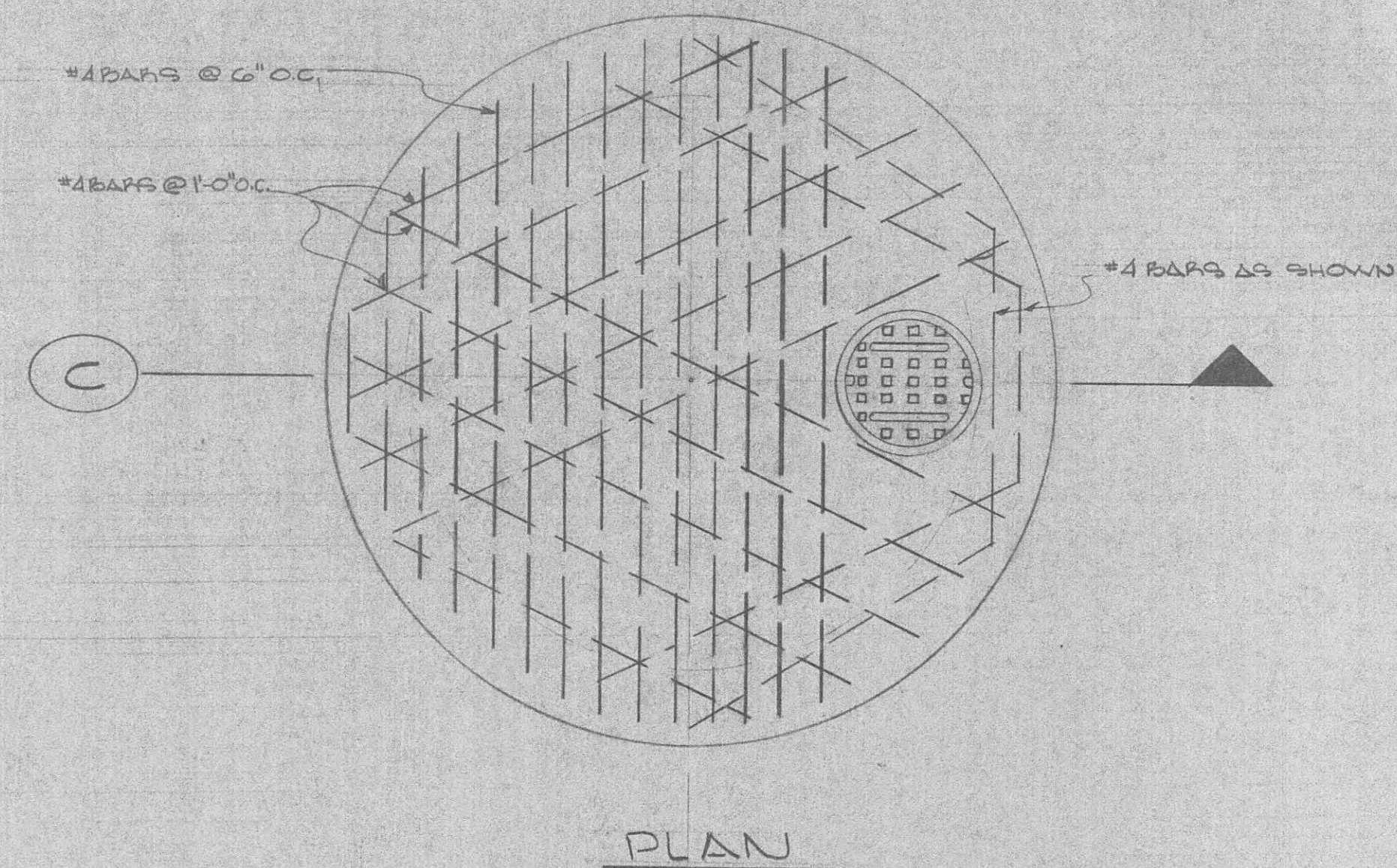
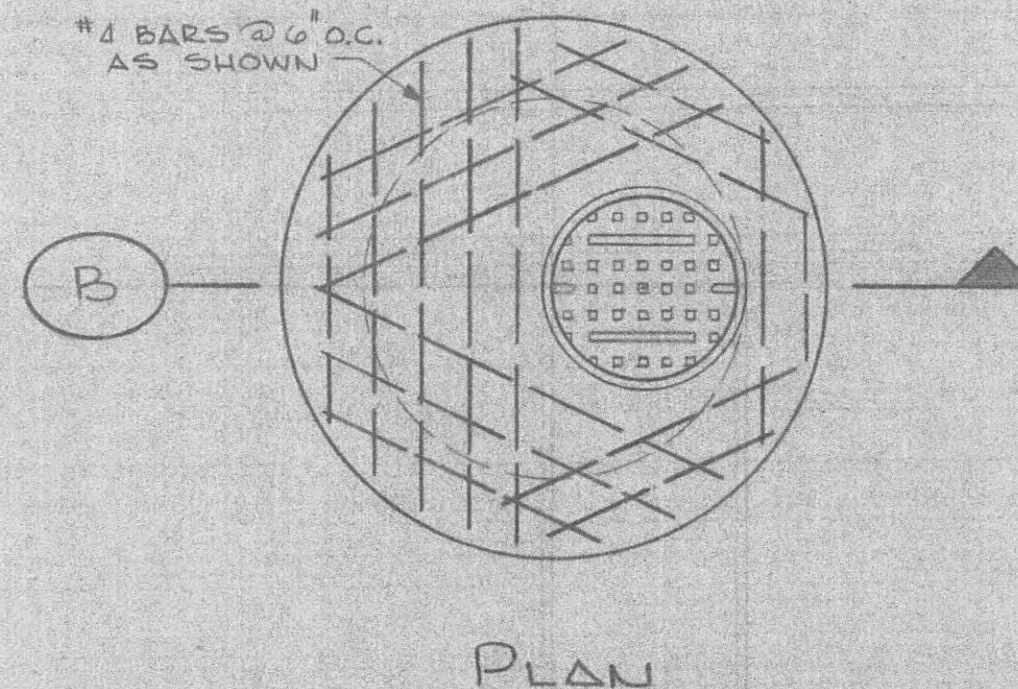
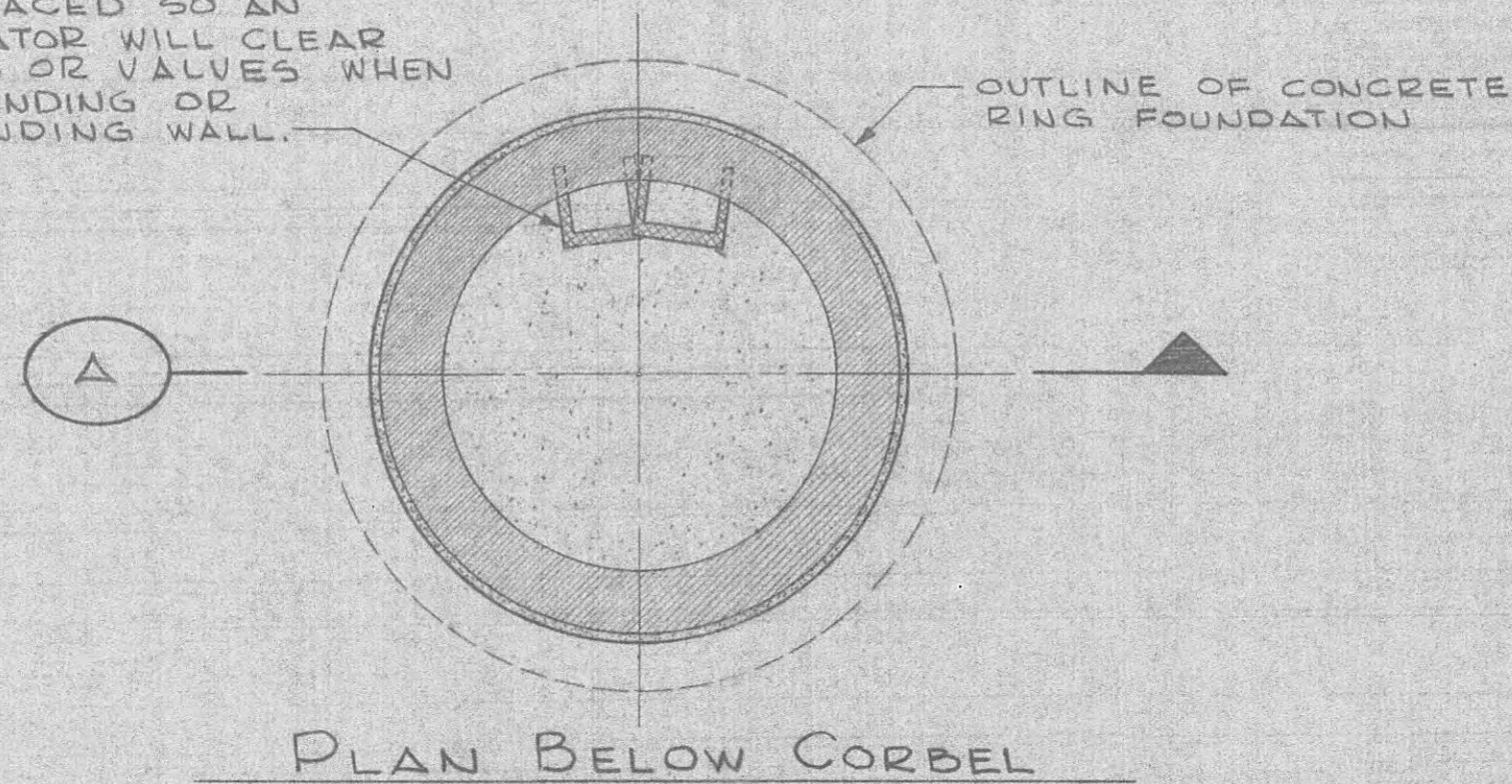
ELECTRICAL PLANS

SHEET NO. 22



TE	PRESSURE RELIEF AND	PLATE	SHEET
	PRESSURE REDUCING STATION PLANS	NO.	NO. 23

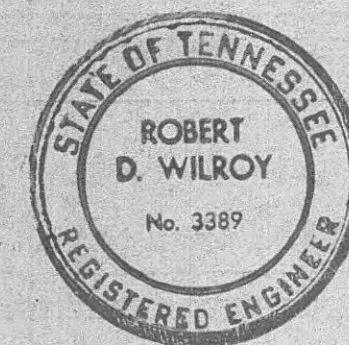
NOTE:
MANHOLE STEPS ARE TO
BE PLACED SO AN
OPERATOR WILL CLEAR
PIPES OR VALVES WHEN
DESCENDING OR
ASCENDING WALL.



DETAILS PRESSURE RELIEF STATION No. 1
SCALE 1/8" = 1'-0"

PRESSURE REDUCING STATION No. 1, 2, & 3
PRESSURE REDUCING & RELIEF STATION No. 1
SCALE 1/8" = 1'-0"

PRESSURE REDUCING & RELIEF STATION No. 2
SCALE: 1/2" = 1'-0"

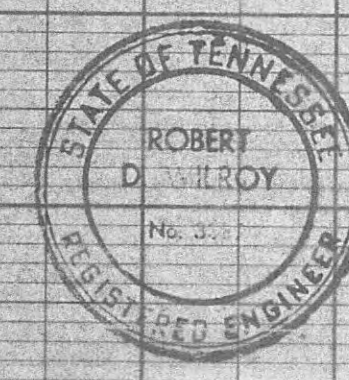
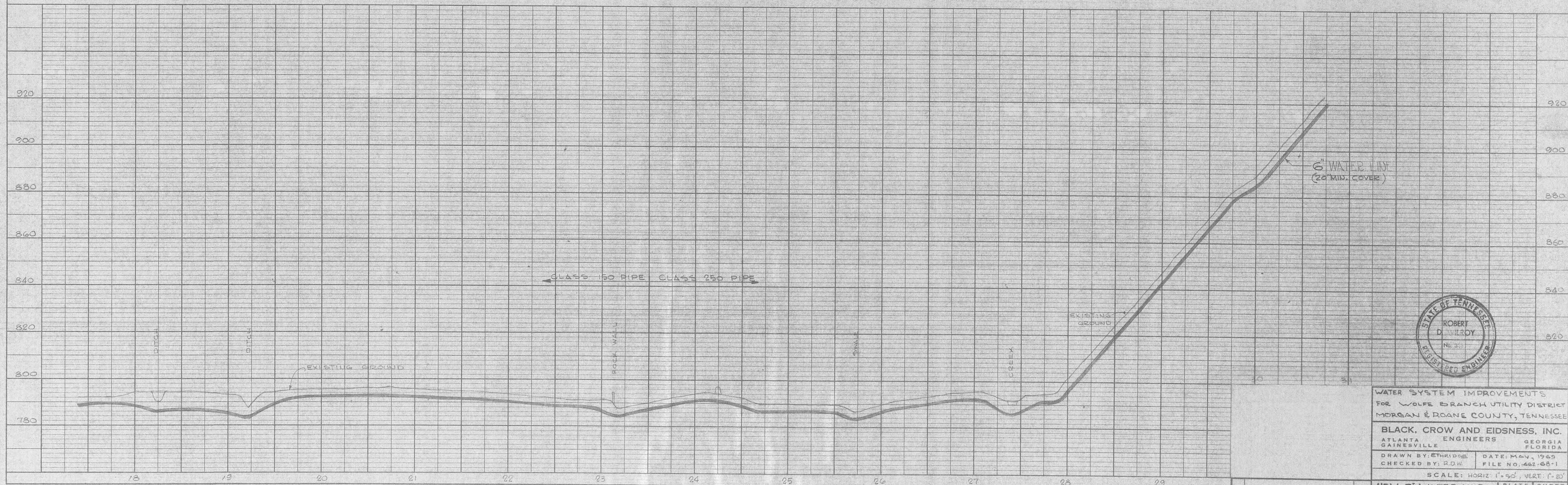
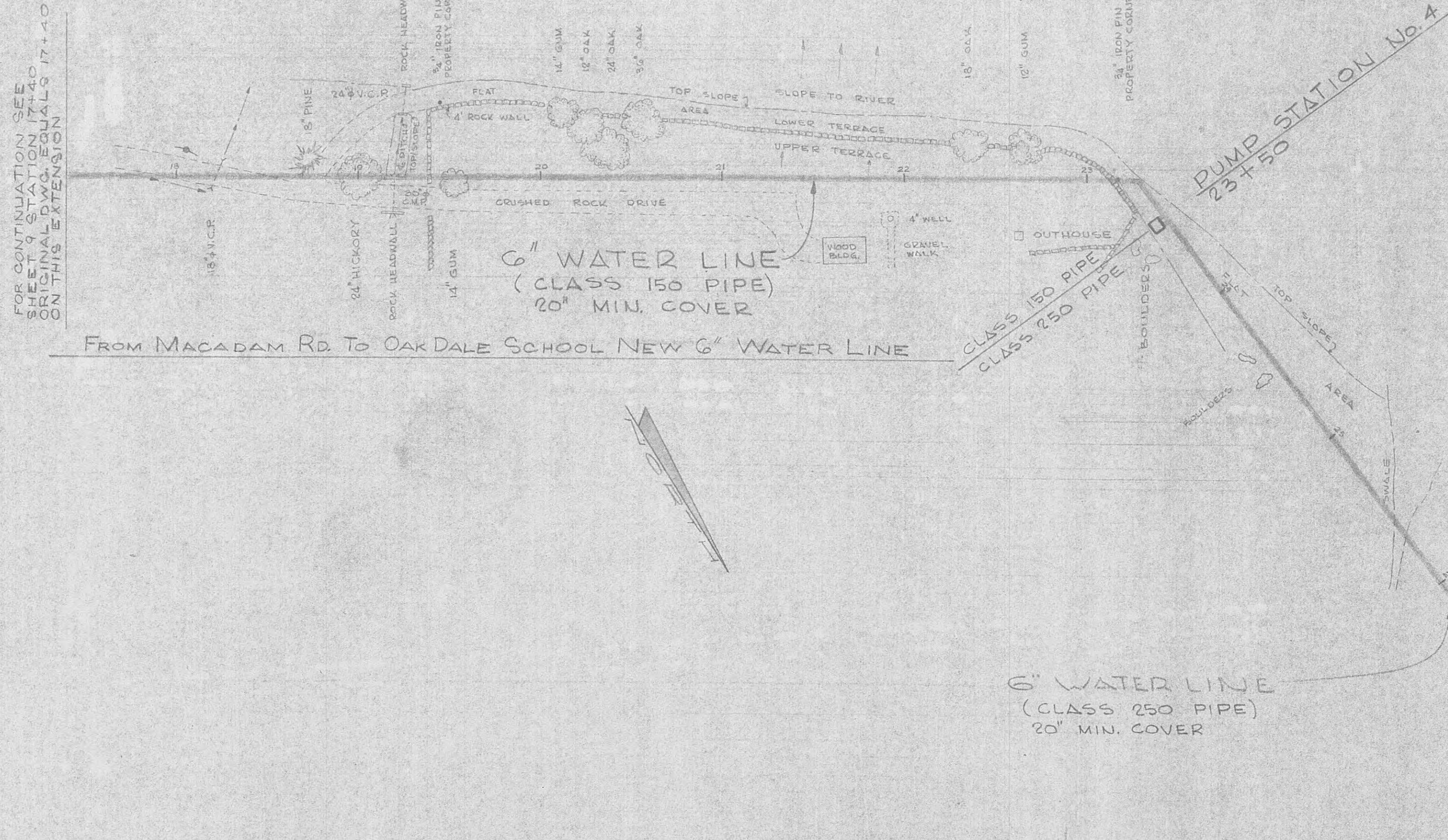


WATER SYSTEM IMPROVEMENTS
FOR WOLFE BRANCH UTILITY DISTRICT
MORGAN & ROANE COUNTY, TENNESSEE
BLACK, CROW AND EIDSNES, INC.
ATLANTA, GEORGIA
GAINESVILLE, FLORIDA
DRAWN BY: E. HARRIS
CHECKED BY: KDW
DATE: MAY, 1969
FILE NO.: 462-BB-1
SCALE: 1/2" = 1'-0"

NO.	DESCRIPTION	DATE	PLATE NO.	SHEET NO.
1	CHANGE OF DES. 101.			24
REVISIONS				
PRESSURE REDUCING & RELIEF STATION SECTIONS & DETAILS				

PLAN	DATE	
	BY	
	SURVEYED	
	NOTE BOOK	

PROFILE	DATE	
	BY	
	SURVEYED	
	NOTE BOOK	



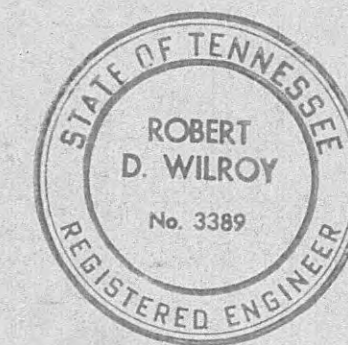
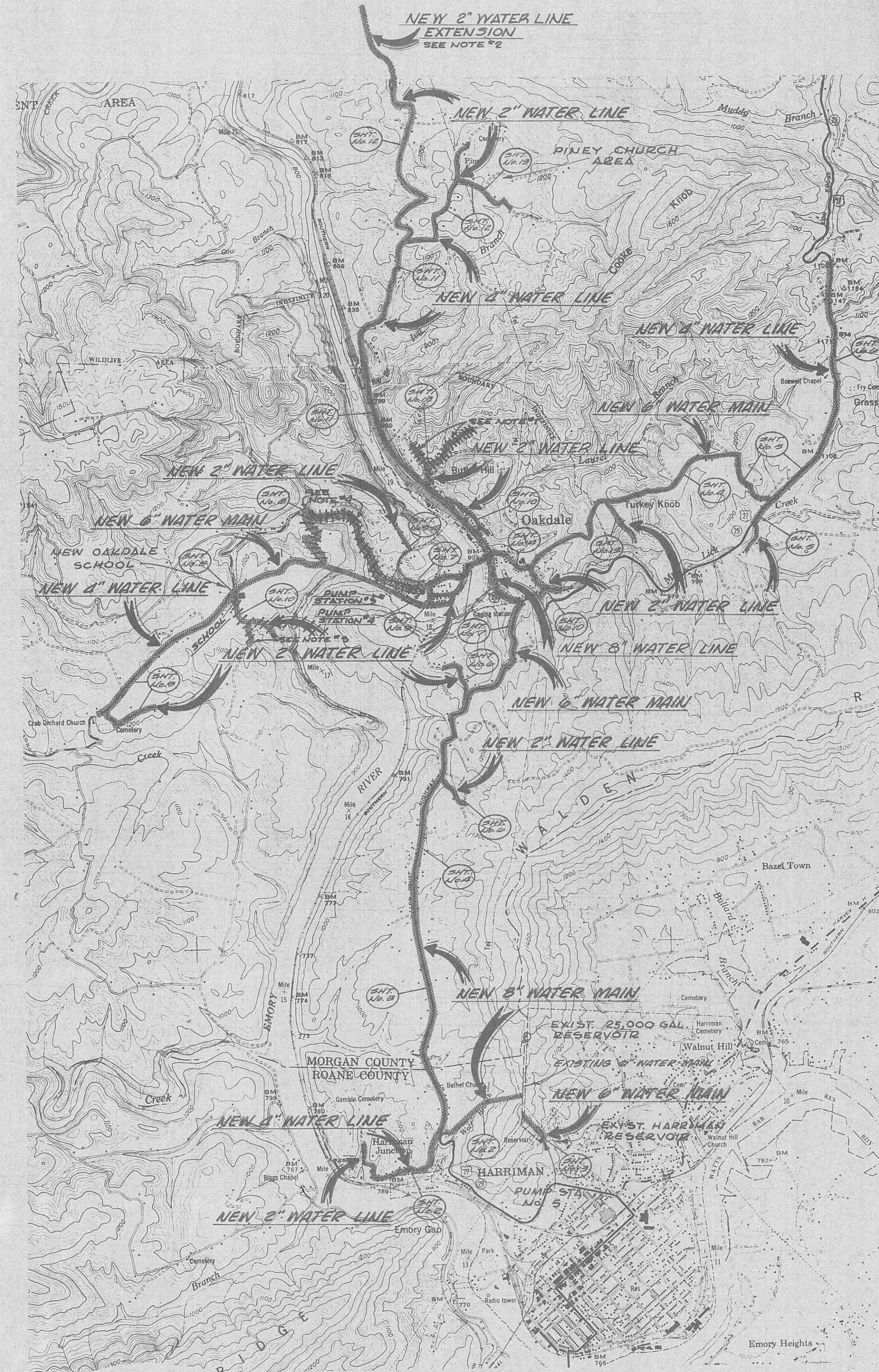
WATER SYSTEM IMPROVEMENTS FOR WOLFE BRANCH UTILITY DISTRICT MORGAN & ROANE COUNTY, TENNESSEE	
BLACK, CROW AND EIDSNES, INC. ATLANTA, GEORGIA ENGINEERS	
DRAWN BY: ETHRIDGE	DATE: MAY, 1965
CHECKED BY: R.D.W.	FILE NO.: 442-68-1
SCALE: HORIZ: 1" = 50' VERT: 1" = 5'	
NEW 6" WATER LINE LINE 'A'	
PLATE NO.	SHEET NO.
	25

PLATE 1-PLAN-PROFILE D.P.R. & R.E. STANDARD
100% RAG PAPER - MADE AND PRINTED IN U. S. A.
EUGENE DIETZGEN CO.

CHARGE ORDER No. 1	DATE
DESCRIPTION	DATE
REVISIONS	

NOTES:

- #1 REMOVE 8" WATER LINE TO HOLE IN WALL, NO CUSTOMERS TO BE SERVED.
- #2 EXTEND 8" WATER LINE 1/2" OUT MACADAM ROAD ADD 4 CUSTOMERS IN APPROX. 1700'
- #3 REMOVE 8" WATER LINE, NO CUSTOMERS TO BE SERVED
- #4 RELOCATE 6" WATER LINE BECAUSE OF ROAD CONSTRUCTION, NO CHANGE OF CUSTOMERS

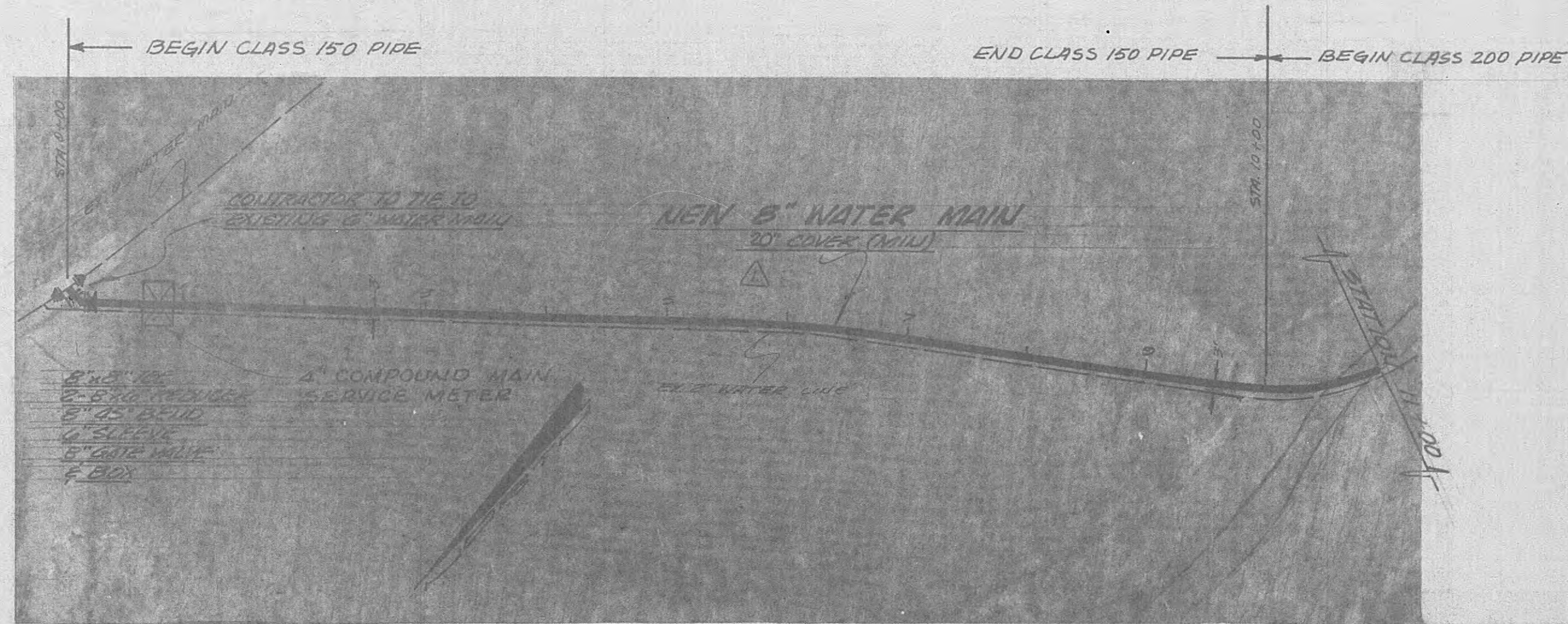


WATER SYSTEM IMPROVEMENTS
For WOLFE BRANCH UTILITY DISTRICT
 MORGAN & ROANE COUNTY'S TENNESSEE
BLACK, CROW AND EIDSNES, INC.
 ENGINEERS
 GAINESVILLE FLORIDA
 DRAWN BY: M. SHAW DATE: OCT. 1968
 CHECKED BY: C. B. WILSON FILE NO.: 442-68-1
 SCALE: APPROX. 1" = 2000'

NO.	CHANGE ORDER	DESCRIPTION	DATE
1	442-68-1	REVISIONS	

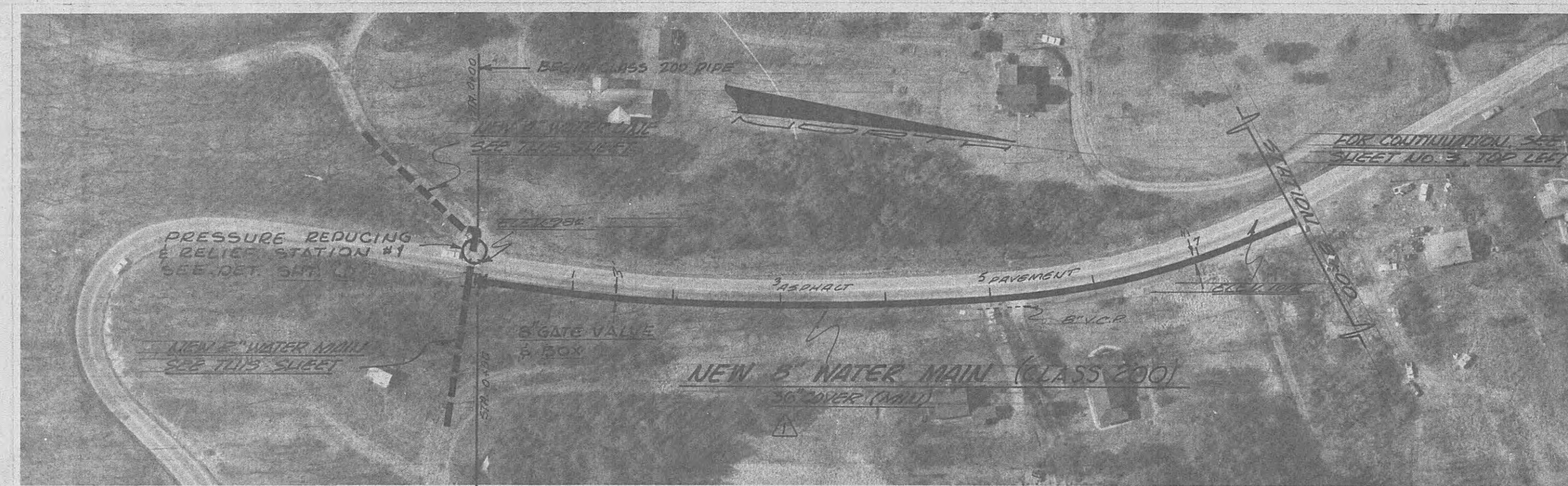
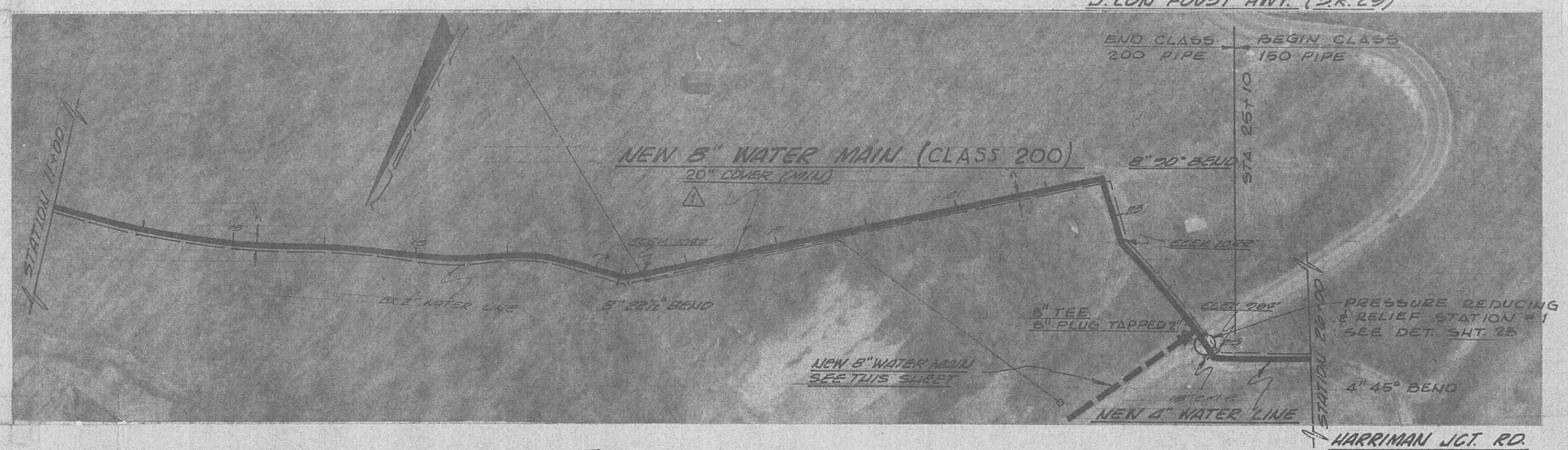
LOCATION MAP

SHEET NO. 1

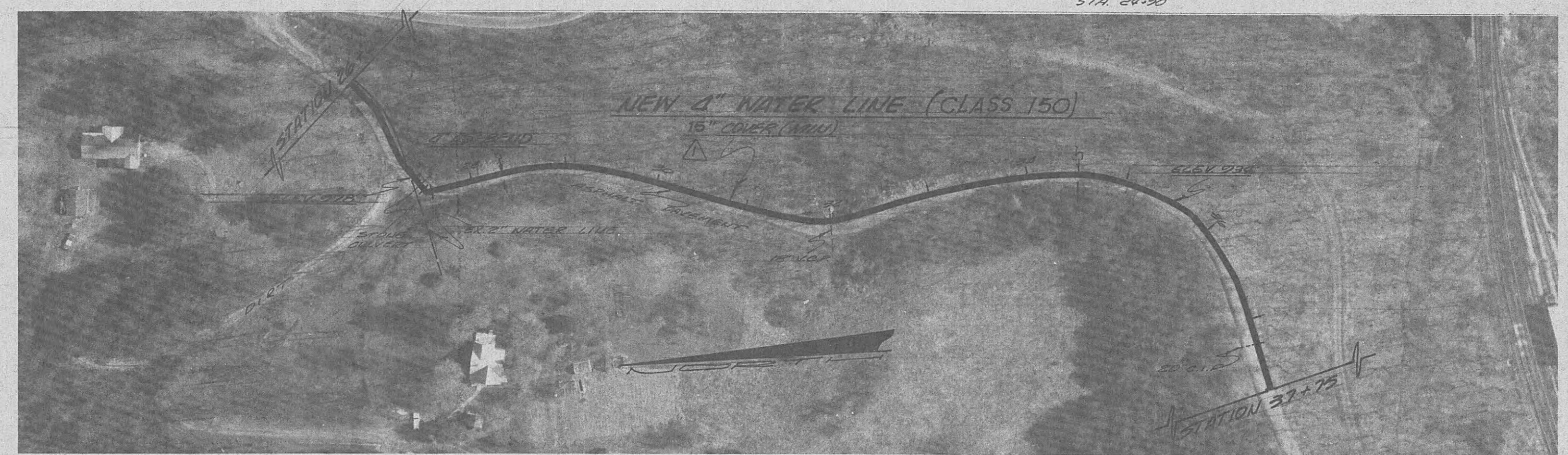


NOTE: CONTRACTOR TO FURNISH & INSTALL $\frac{3}{4}$ " CHECK VALVE IN THE EXISTING SERVICE LINE OF LEONARD E. LADD.

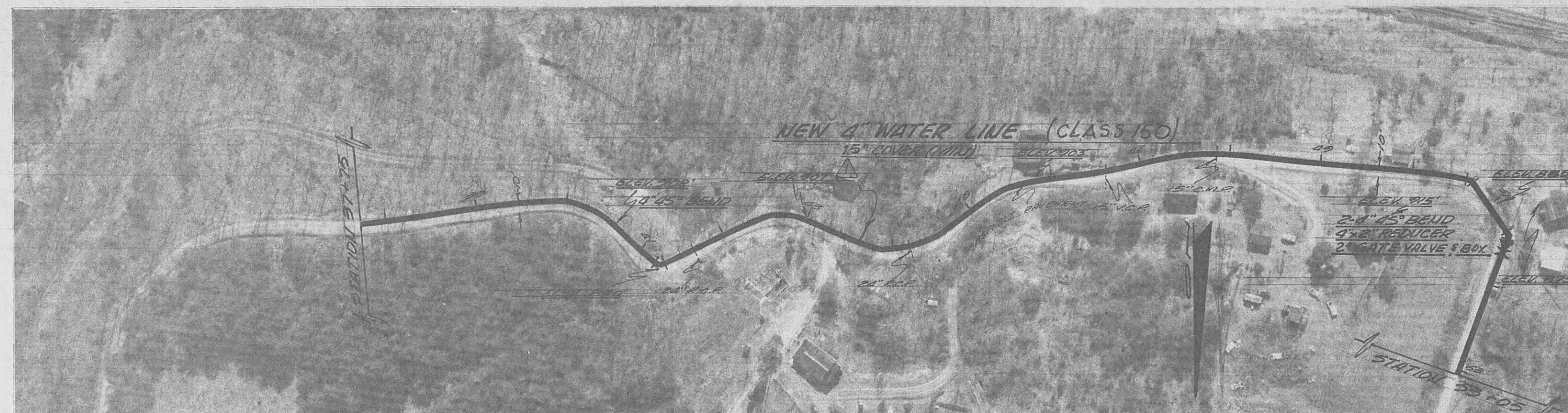
CONNECTION FROM WALDEN RIDGE (TO J. LON FOUST HWY (STATE ROAD 29))



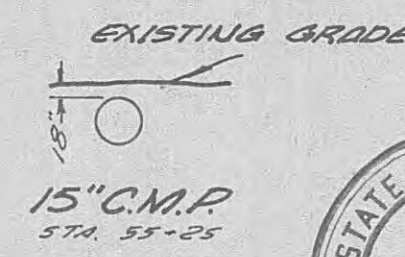
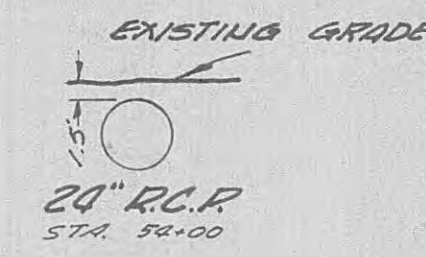
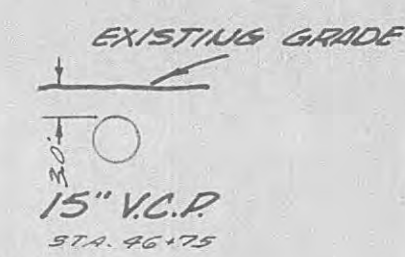
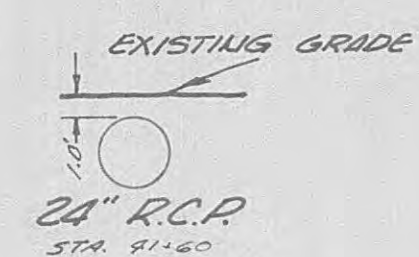
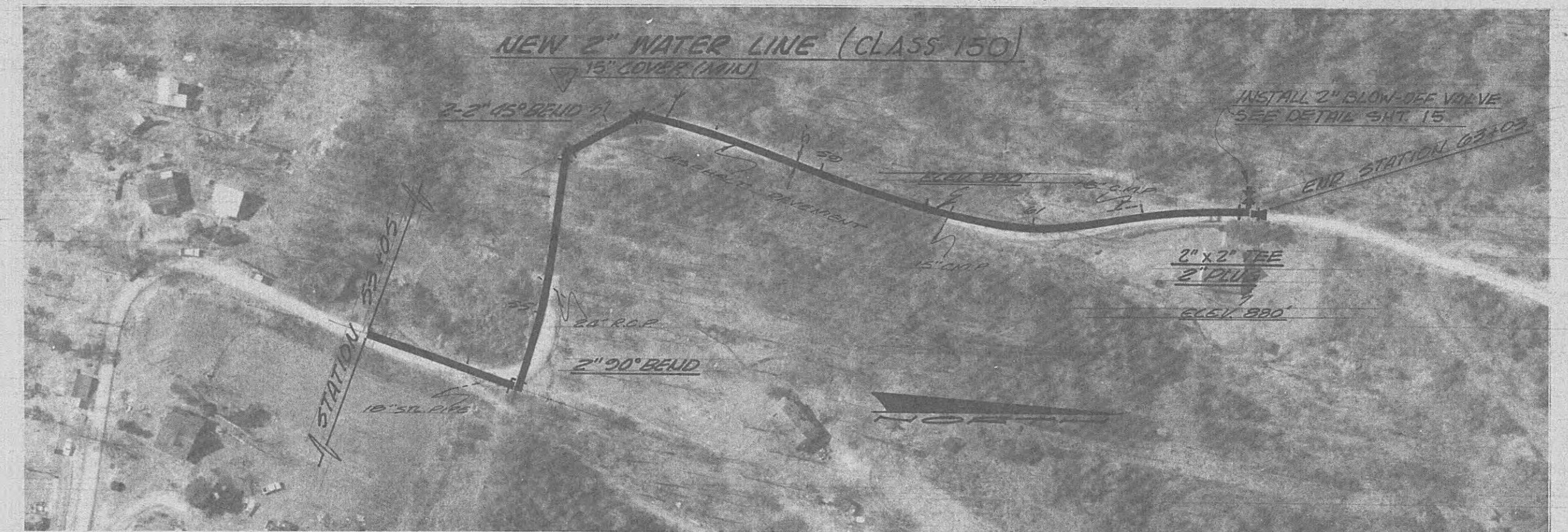
J. LON FOUST HWY. (STATE ROAD 29)



HARRIMAN JUNCTION ROAD

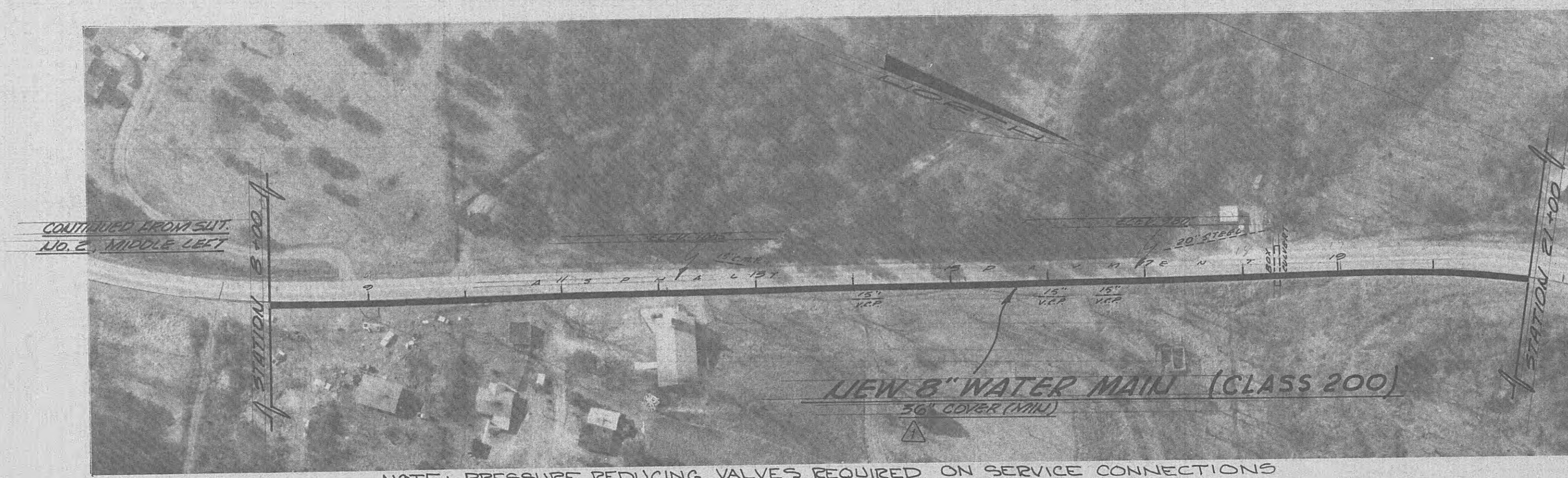


HARRIMAN JUNCTION ROAD



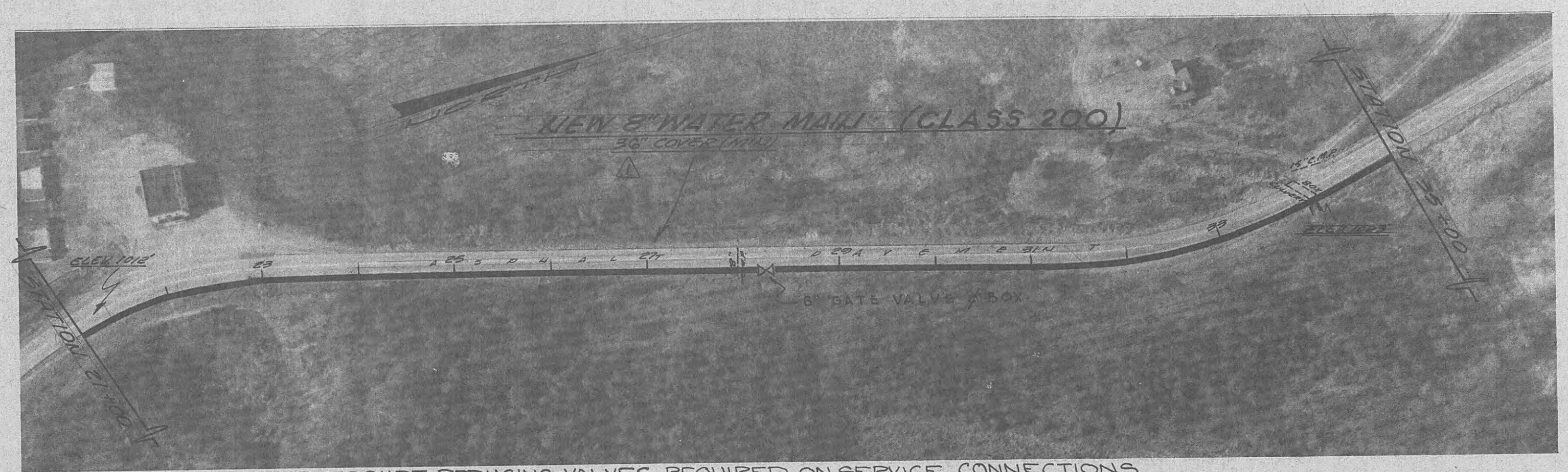
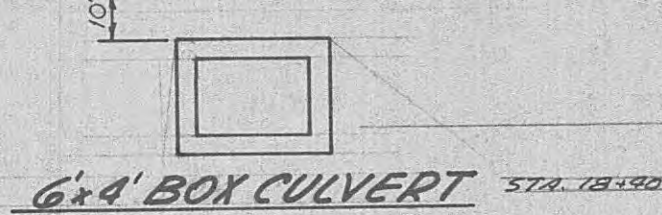
NOTE:
OPEN DITCH MUST BE A
MINIMUM OF 3 FEET
FROM EDGE OF PAVEMENT.

WATER SYSTEM IMPROVEMENTS FOR WOLFE BRANCH UTILITY DISTRICT MARSHALL & ROANE CO'S, TENNESSEE	
BLACK, CROW AND EIDNESS, INC. ENGINEERS GAINESVILLE, FLORIDA	
DRAWN BY: R.M. CHECKED BY: C.G.H.	DATE: OCT. 1968 FILE NO.: 442-68-1
SCALE: 1" = 100'	
REVISIONS NO. DESCRIPTION DATE	SHEET NO. 2



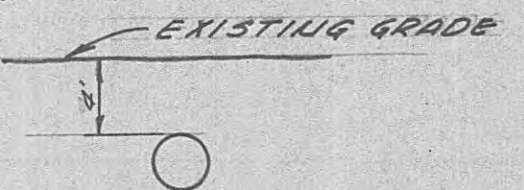
NOTE: PRESSURE REDUCING VALVES REQUIRED ON SERVICE CONNECTIONS

J. L. O. N. F. O. U. S. T. H. W. Y. (STATE ROAD 29)



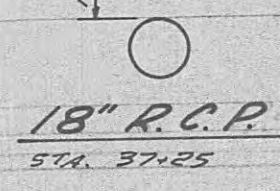
NOTE: PRESSURE REDUCING VALVES REQUIRED ON SERVICE CONNECTIONS

J. L. O. N. F. O. U. S. T. H. W. Y. (STATE ROAD 29)

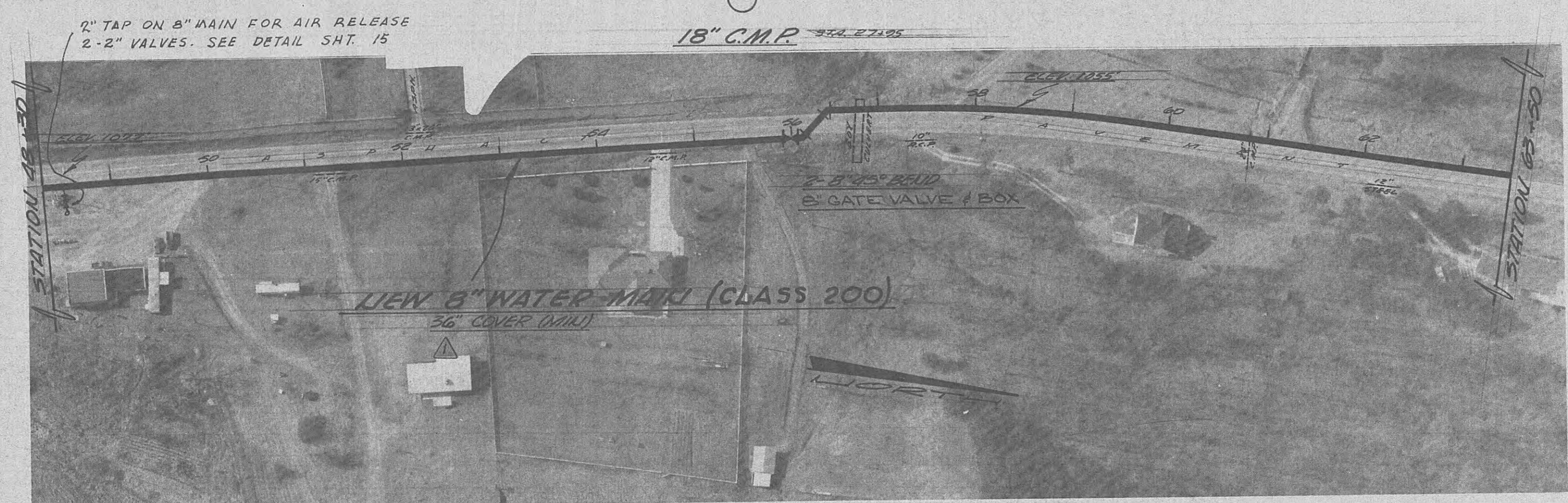


NOTE: PRESSURE REDUCING VALVES REQUIRED ON SERVICE CONNECTIONS

J. L. O. N. F. O. U. S. T. H. W. Y. (STATE ROAD 29)

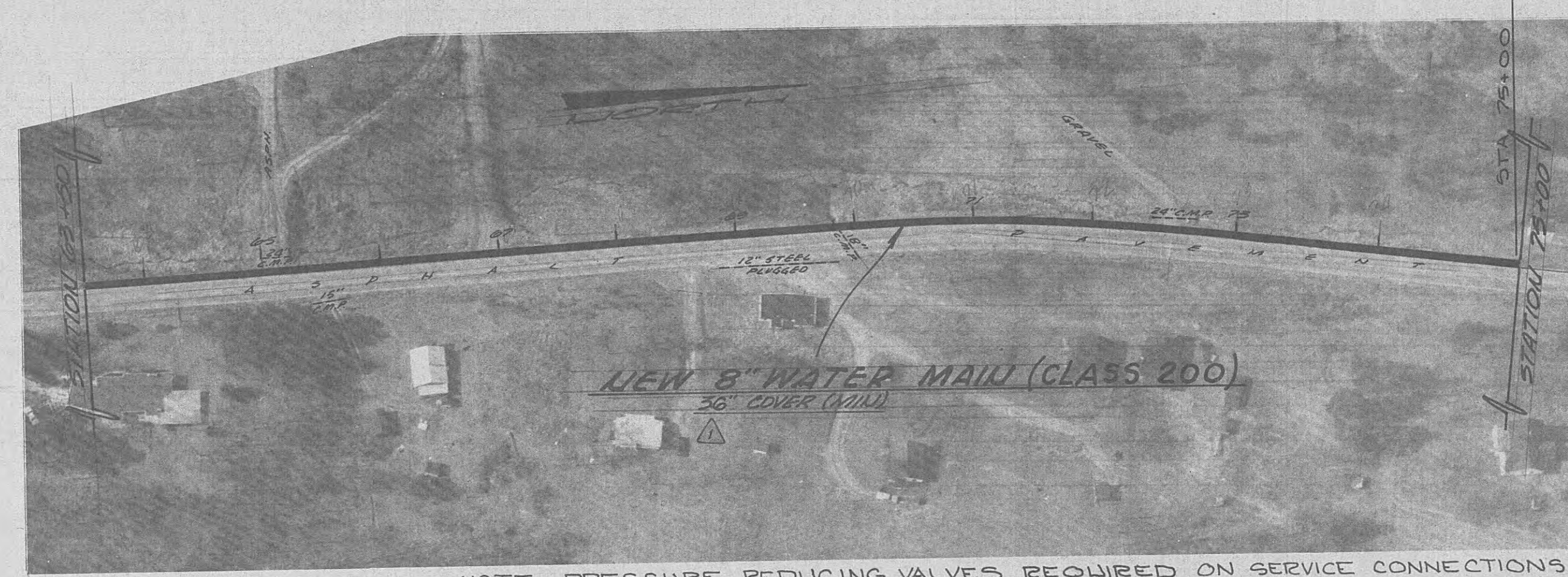
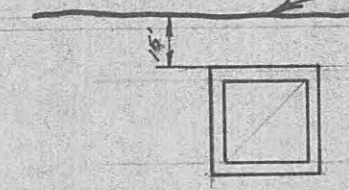


END CLASS 200 PIPE
BEGIN CLASS 150 PIPE



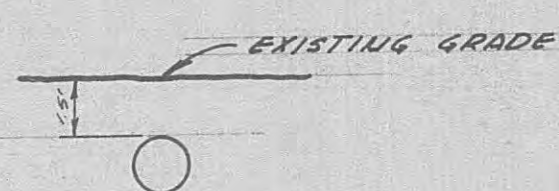
NOTE: PRESSURE REDUCING VALVES REQUIRED ON SERVICE CONNECTIONS

J. L. O. N. F. O. U. S. T. H. W. Y. (STATE ROAD 29)



NOTE: PRESSURE REDUCING VALVES REQUIRED ON SERVICE CONNECTIONS

J. L. O. N. F. O. U. S. T. H. W. Y. (STATE ROAD 29)



NOTE: PRESSURE REDUCING VALVE REQUIRED ON SERVICE CONNECTIONS

J. L. O. N. F. O. U. S. T. H. W. Y. (STATE ROAD 29)

NOTE: OPEN DITCH MUST BE A MINIMUM OF 3 FEET FROM EDGE OF PAVEMENT.



WATER SYSTEM IMPROVEMENTS
FOR WOLFE BRANCH UTILITY DISTRICT
MORGAN & ROSS CO'S. TENNESSEE
BLACK, CROW AND EIDNESS, INC.
ENGINEERS
GAINESVILLE FLORIDA
DRAWN BY: K. ROSELL DATE: OCT. 1968
CHECKED BY: C. GRIFFIN FILE NO.: 462-65-1

NO.	REVISIONS	DATE
1	REVISED MIN. COVER	3/1/69
2	DESCRIPTION	
3	REVISIONS	

SCALE: NEW 8" WATER MAIN ALONG J. L. O. N. F. O. U. S. T. HIGHWAY

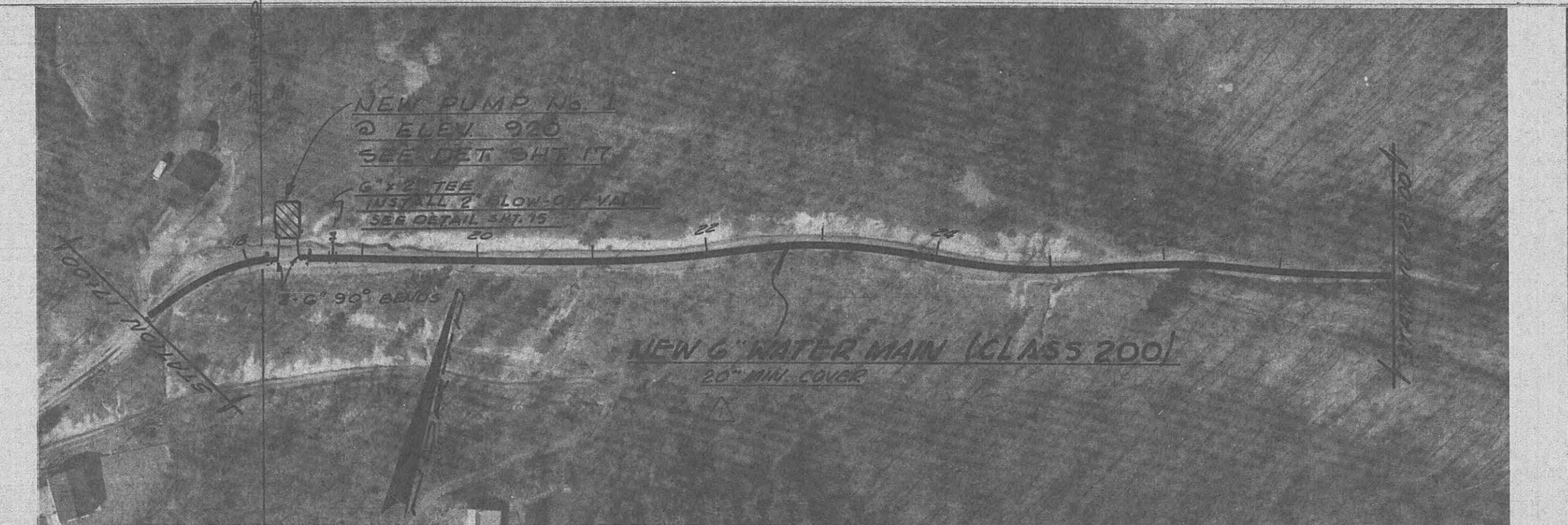
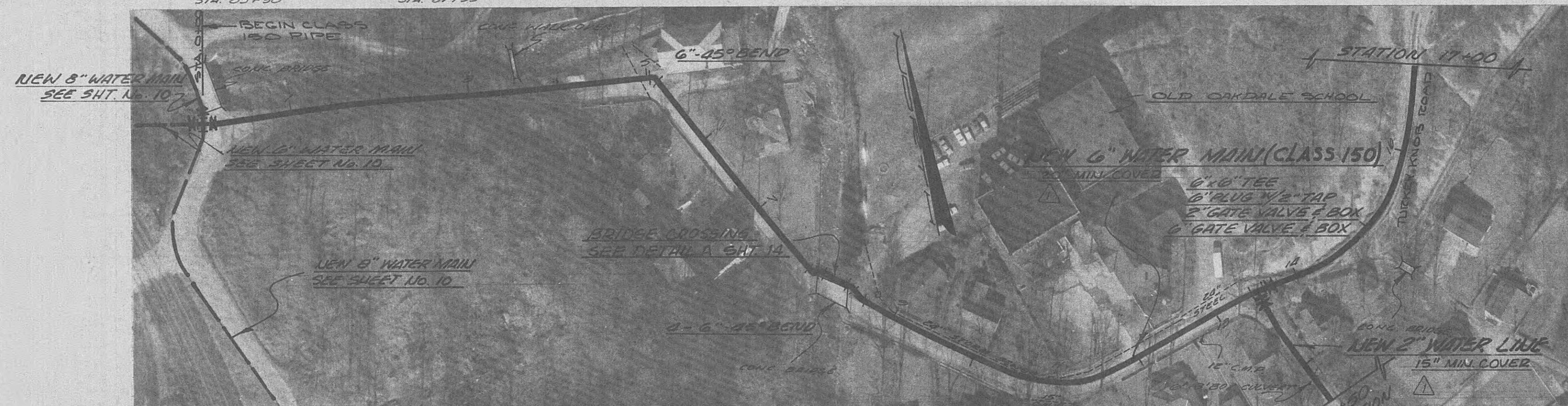
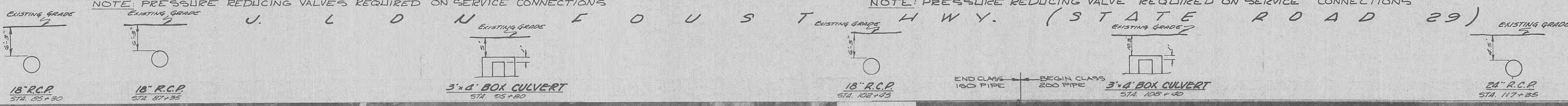
SHEET NO. 3



SEE SHEET NO. 7.

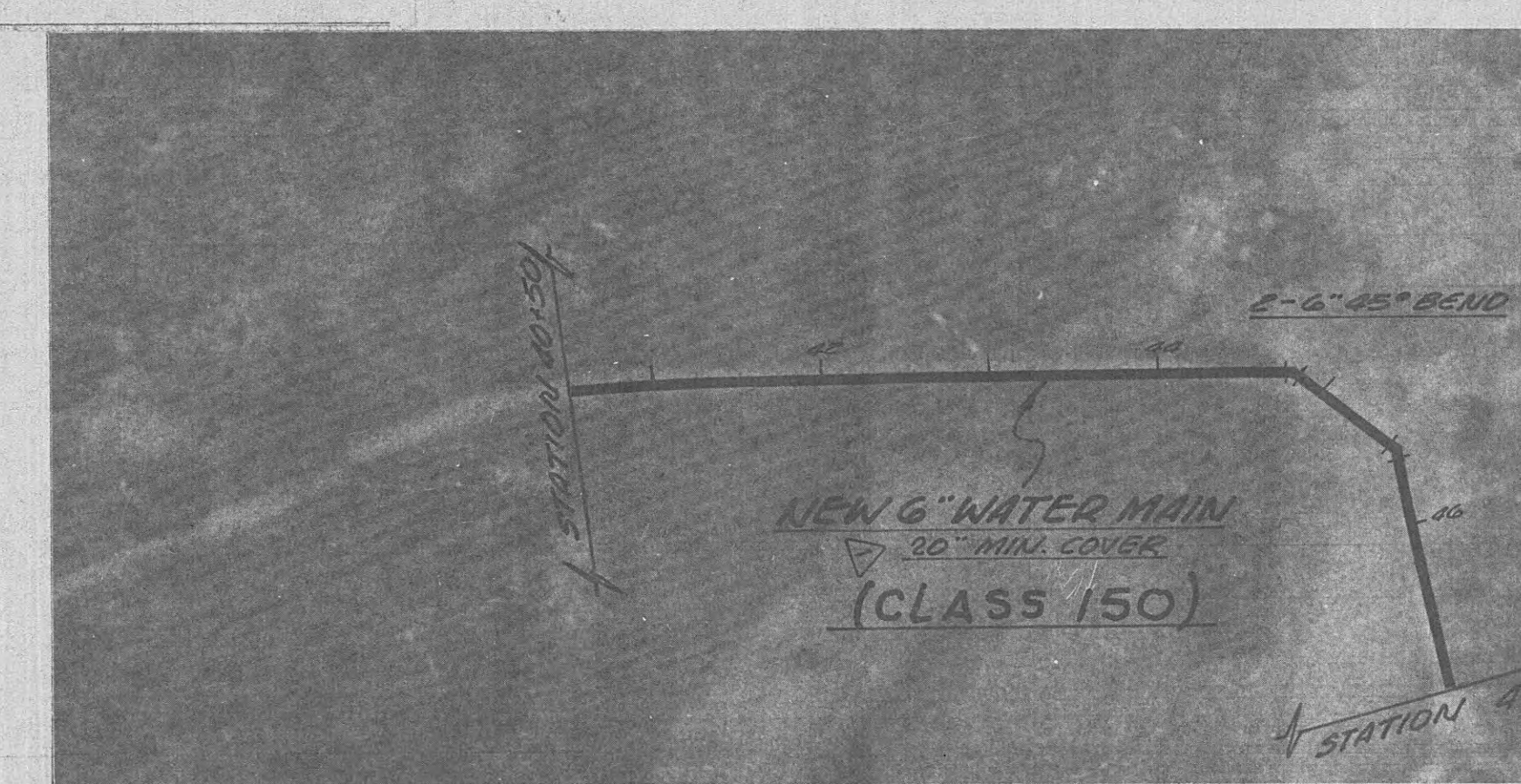
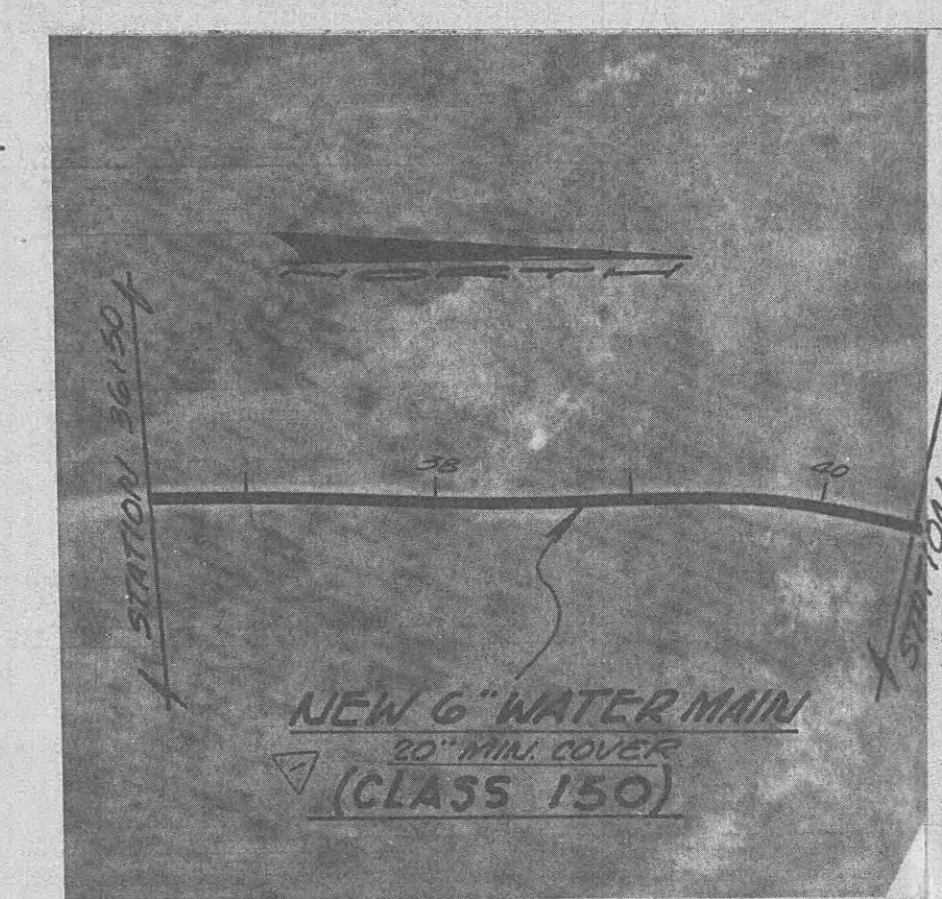
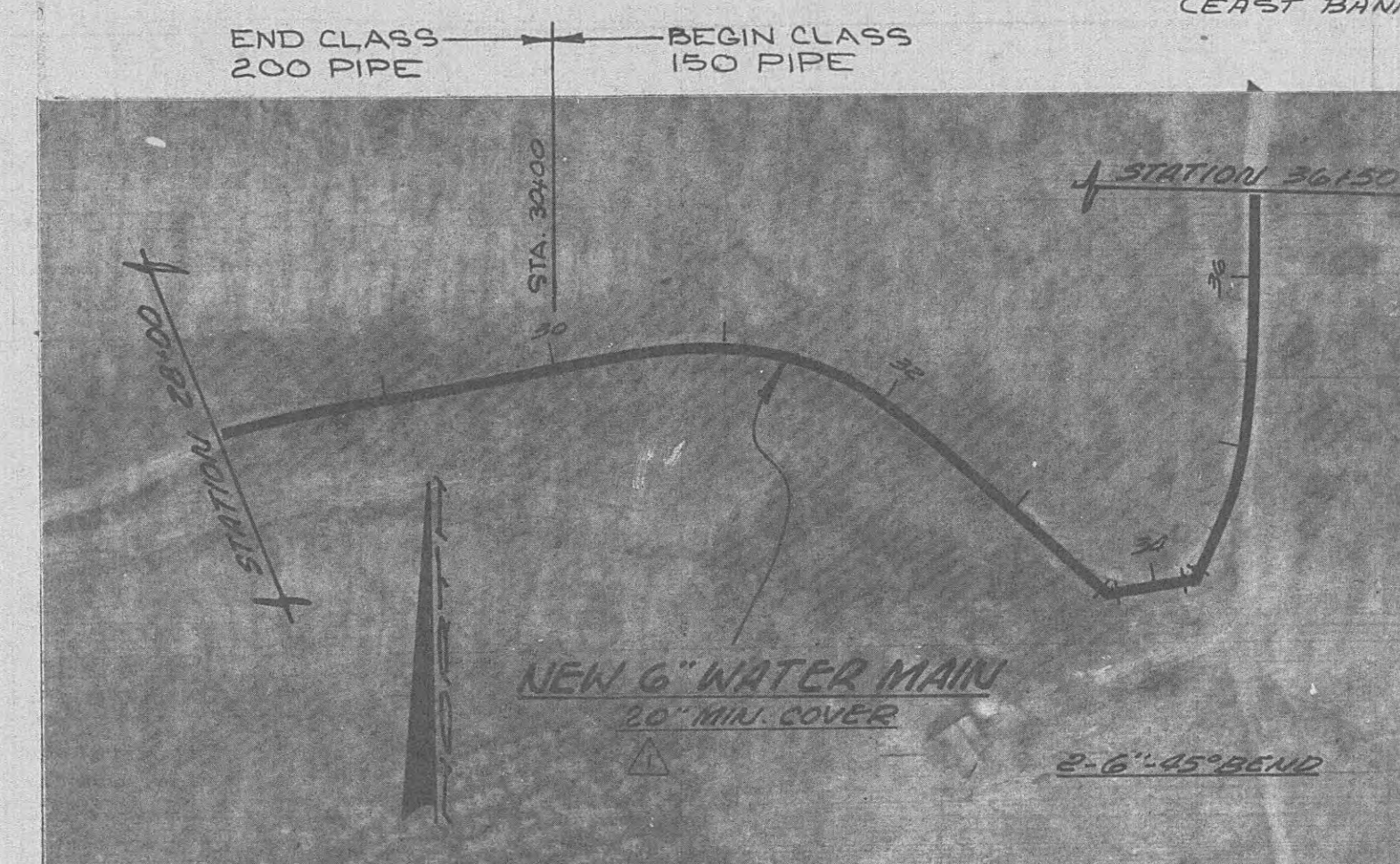
NOTE: PRESSURE REDUCING VALVES REQUIRED ON SERVICE CONNECTIONS

NOTE: PRESSURE REDUCING VALVE REQUIRED ON SERVICE CONNECTIONS



OAKDALE, TENNESSEE
(EAST BANK OF EMORY RIVER)

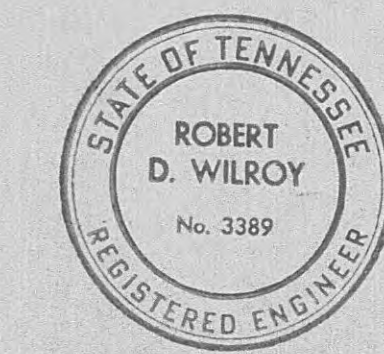
TURKEY KNOB ROAD



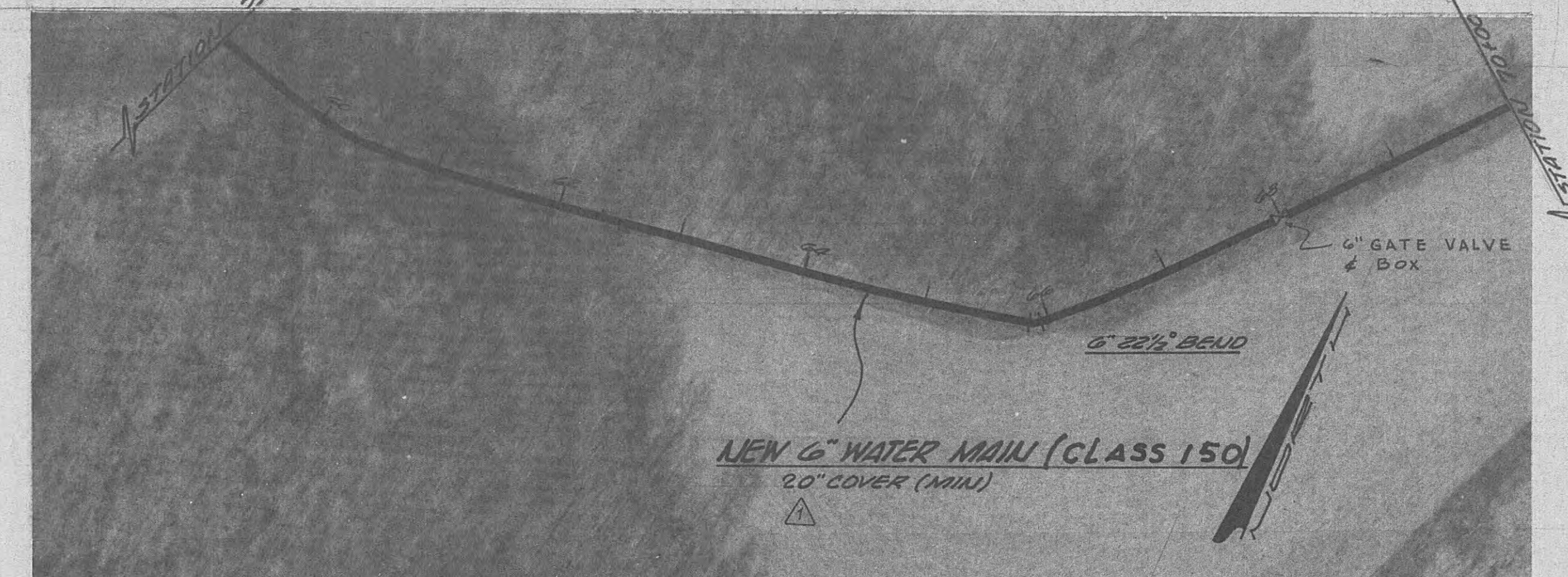
NOTE: PRESSURE REDUCING VALVES REQUIRED ON SERVICE CONNECTIONS

T U R K E Y K N O B R O A D

NOTE:
OPEN DITCH MUST BE A
MINIMUM OF 3 FEET
FROM EDGE OF PAVEMENT.

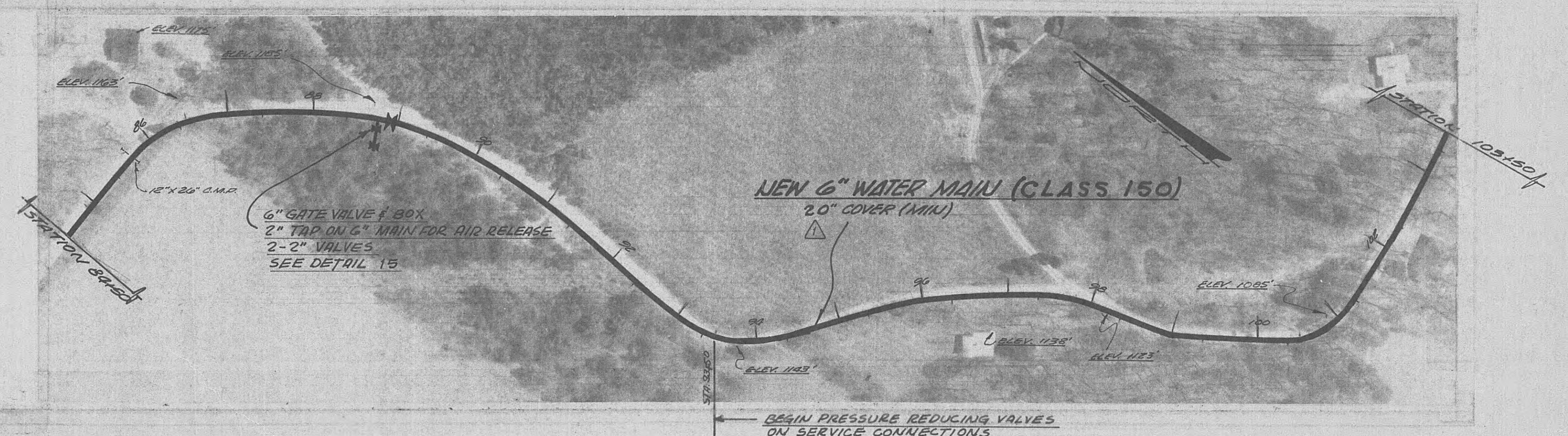


WATER SYSTEM IMPROVEMENTS FOR WOLFE BRANCH UTILITY DISTRICT	
MORGAN & ROANE CO'S, TENNESSEE	
BLACK, CROW AND EIDSNES, INC. ENGINEERS	
GAINESVILLE	FLORIDA
DRAWN BY: J. MARTIS	DATE: OCT. 1968
CHECKED BY: C. GRIFFIN	FILE NO.: 142-68-1
SCALE: 1"=100' HORIZ.	
NEW 8" WATER MAIN ALONG J. LON FOUST HWY. (STATE ROAD #29) & 6" ALONG TURKEY KNOB RD	
NO.	SHEET NO.

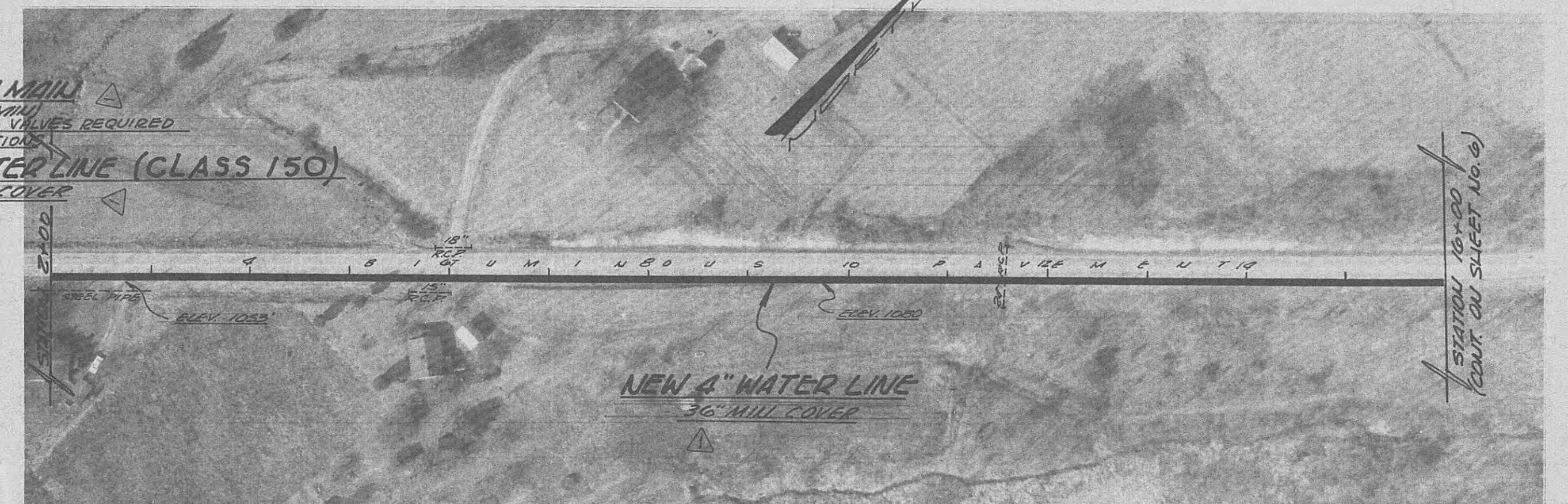
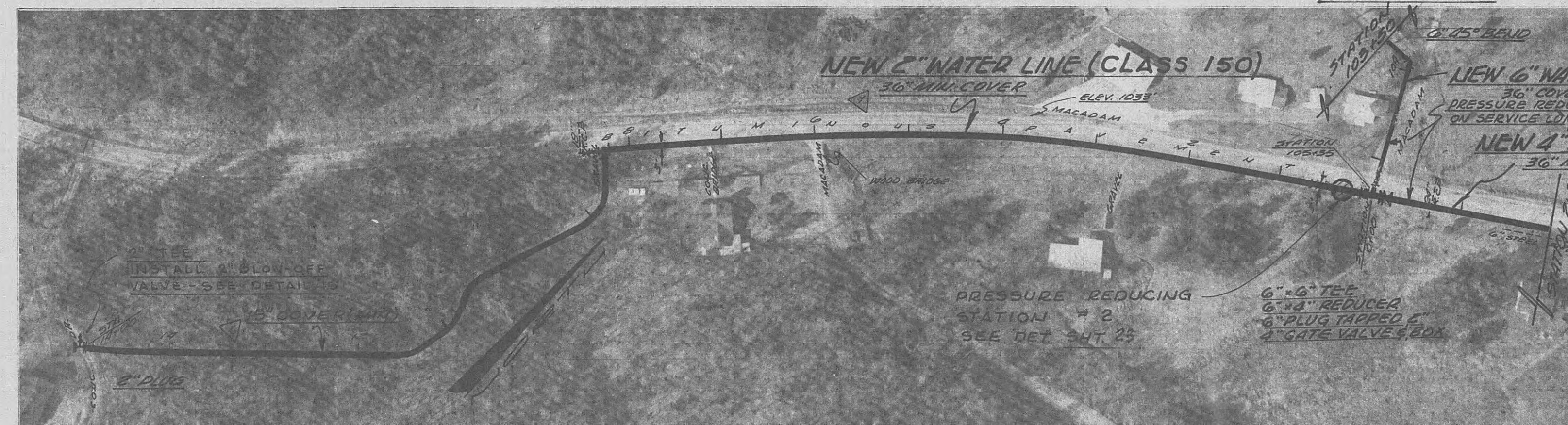


T U R K E Y K N O B R O A D

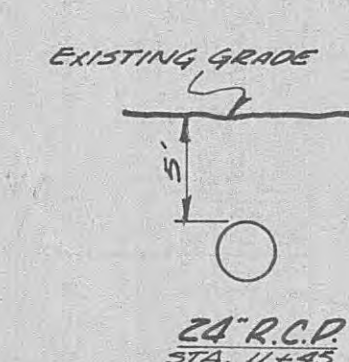
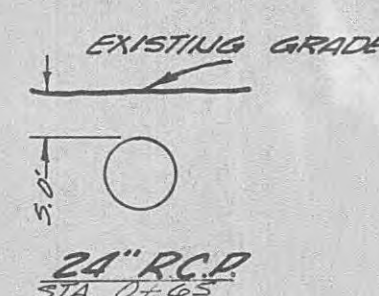
NOTE: PRESSURE REDUCING VALVES REQUIRED ON SERVICE CONNECTIONS



T U R K E Y K N O B R O A D



J. L O N F O U S T H W Y. (S T A T E R O A D 2 9)



NOTE:
OPEN DITCH MUST BE A
MINIMUM OF 3 FEET
FROM EDGE OF PAVEMENT.

NO.	REVISIONS	DATE
1	REVISED MIN. COVER	3/1/68
2	DESCRIPTION	

WATER SYSTEM IMPROVEMENTS
FOR WOLFE BRANCH UTILITY DISTRICT
WOLFE BRANCH, TENNESSEE

BLACK, CROW AND EIDNESS, INC.
ENGINEERS

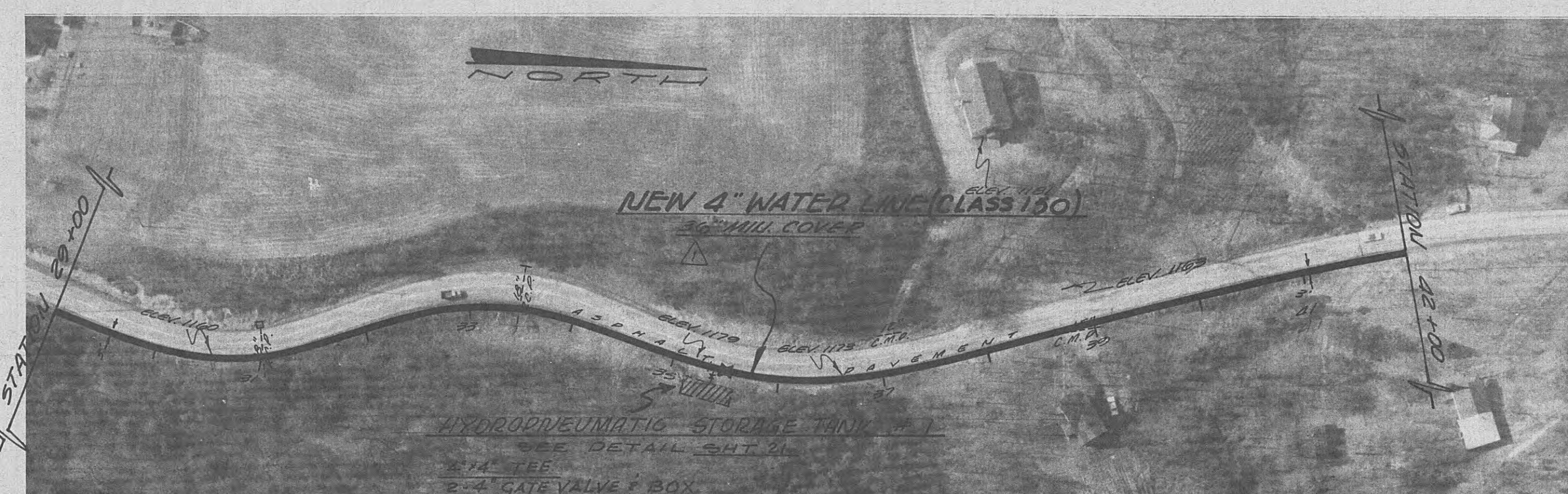
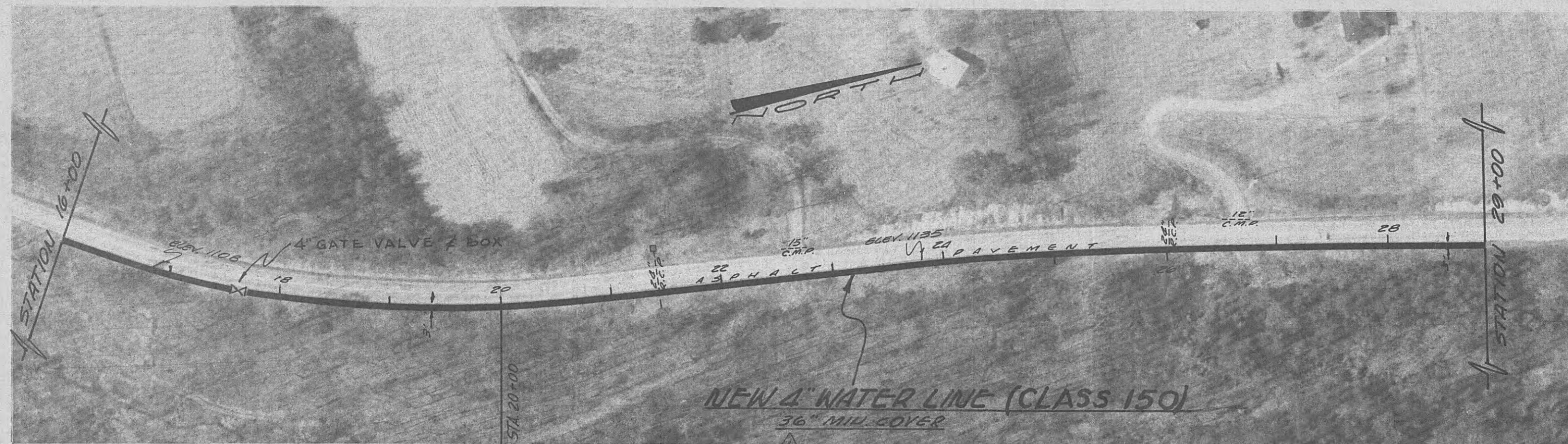
GAINESVILLE FLORIDA

DRAWN BY: J. MARTIS DATE: OCT. 1965
CHECKED BY: C. GRIFFIN FILE NO.: 202-65-1

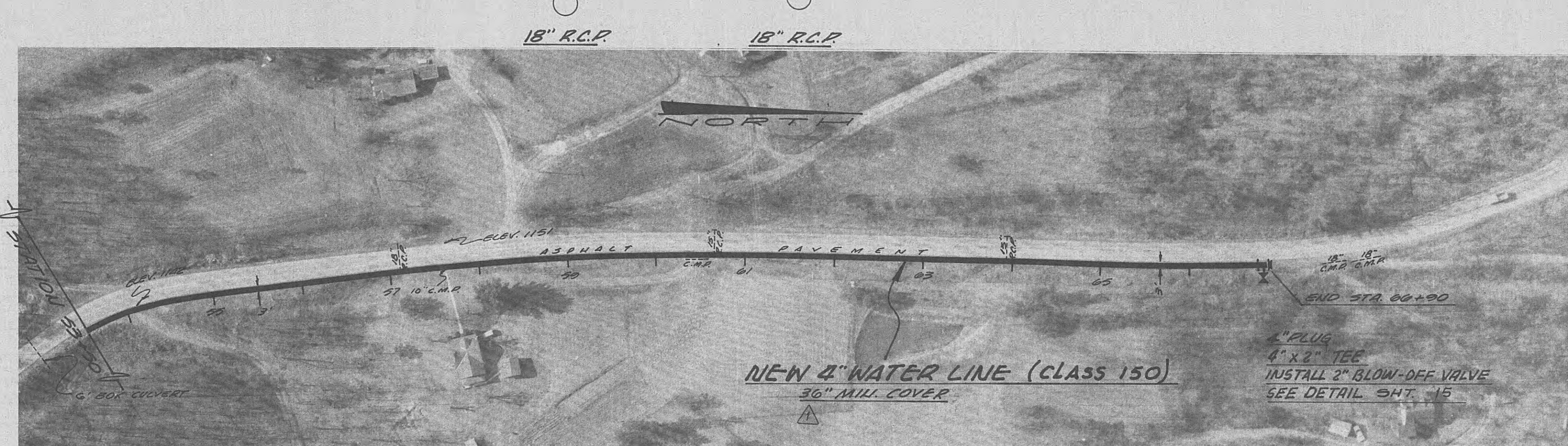
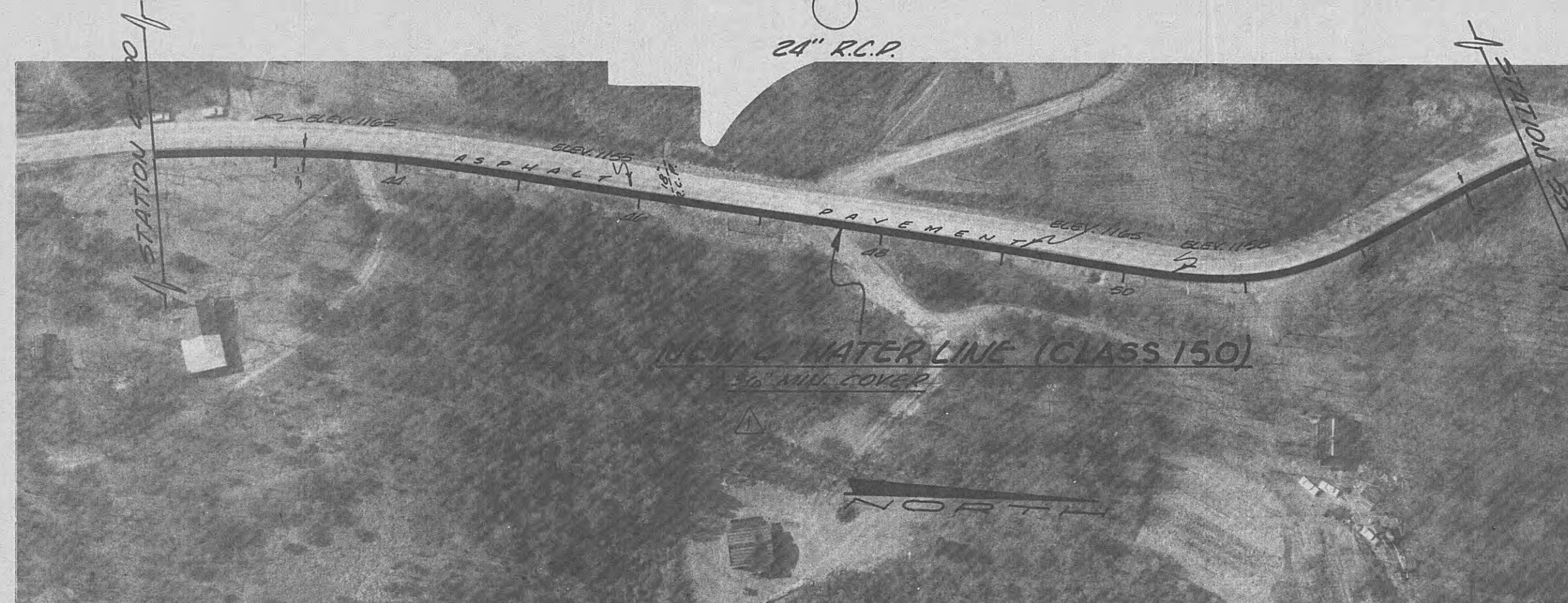
SCALE: 1" = 100' HORIZ.

NEW 2" & 4" WATER LINE ALONG
J. LON FOUST HWY. (S.R. No. 29)
& 6" ALONG TURKEY KNOB RD.

SHEET NO. 5



J. L O N F O U S T H W Y. (S T A T E R O A D 2 9)



J. L O N F O U S T H W Y. (S T A T E R O A D 2 9)



J. L O N F O U S T H W Y. (S . R . N o . 2 9)

NOTE: PRESSURE REDUCING VALVES REQUIRED ON SERVICE CONNECTIONS BELOW ELEV. 1220

J. L O N F O U S T H W Y. (S . R . N o . 2 9)

NOTE: PRESSURE REDUCING VALVES REQUIRED ON SERVICE CONNECTIONS

EXISTING GRADE
13x24" C.M.P.

NOTE: OPEN DITCH MUST BE A MINIMUM OF 3 FEET FROM EDGE OF PAVEMENT.

NO.	REVISIONS
1	REVISED MIN. COVER
2	DESCRIPTION
3	DATE

STATE OF TENNESSEE

ROBERT D. WILROY

REGISTERED ENGINEER

WATER SYSTEM IMPROVEMENTS

For WOLFE BRANCH UTILITY DISTRICT

MORGAN & ROGUE CO'S. TENNESSEE

BLACK, CROW AND EIDNESS, INC.

ENGINEERS

GAINESVILLE FLORIDA

DRAWN BY: J. MARTIS DATE: OCT. 1968

CHECKED BY: C. BRIDGES FILE NO. 162-65-1

SCALE: 1" = 100' HORIZ.

NEW 2" & 4" WATER LINE ALONG J. L O N F O U S T H W Y. (S.R. No. 29)

SHEET NO.

6



WATER SYSTEM IMPROVEMENTS FOR WOLF BRANCH UTILITY DISTRICT MORGAN & ROANE CO.'S, TENNESSEE	
BLACK, CROW AND EIDSNESS, INC. ENGINEERS	
GAINESVILLE, FLORIDA	DATE: OCT. 1962
DRAWN BY: J. MARTIN	CHECKED BY: C. GRIFIN
FILE NO. 100-60-1	
SCALE: 1"=100' HORIZ.	
REVISIONS	DESCRIPTION
1	REVISED PUMP STA. NO. 4
2	MOVED 6" WATER MAIN
3	REVISED MIN. COVER & NOTE
4	DESCRIPTION
5	DATE
6	DATE
7	DATE

1	REVISED PUMP STA. NO. 4	4/30/63
2	MOVED 6" WATER MAIN	3/1/63
3	REVISED MIN. COVER & NOTE	3/1/63
4	DESCRIPTION	DATE
5	DATE	
6	DATE	
7	DATE	