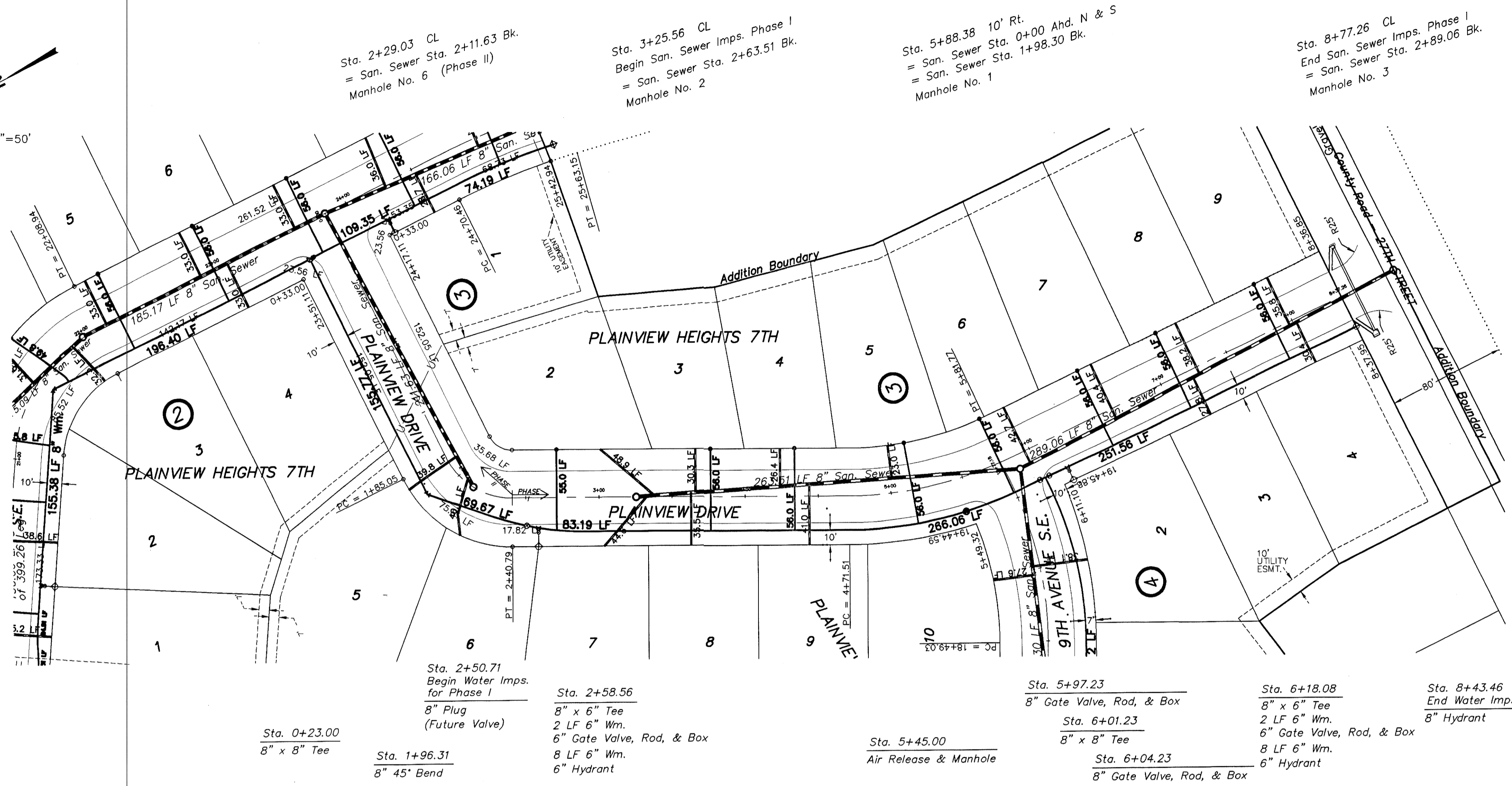


SCALE - 1"=50'



Sta. 2+29.03 CL
= San. Sewer Sta. 2+11.63 Bk.
Manhole No. 6 (Phase II)

Sta. 3+25.56 CL
Begin San. Sewer Imps. Phase I
= San. Sewer Sta. 2+63.51 Bk.
Manhole No. 2

Sta. 5+88.38 10' Rt.
= San. Sewer Sta. 0+00 Ahd. N & S
= San. Sewer Sta. 1+98.30 Bk.
Manhole No. 1

Sta. 8+77.26 CL
End San. Sewer Imps. Phase I
= San. Sewer Sta. 2+89.06 Bk.
Manhole No. 3

Sta. 0+23.00
8" x 8" Tee

Sta. 1+96.31
8" 45° Bend

Sta. 2+50.71
Begin Water Imps. for Phase I
8" Plug (Future Valve)

Sta. 2+58.56
8" x 6" Tee
2 LF 6" Wm.
6" Gate Valve, Rod, & Box
8 LF 6" Wm.
6" Hydrant

Sta. 5+45.00
Air Release & Manhole

Sta. 5+97.23
8" Gate Valve, Rod, & Box

Sta. 6+01.23
8" x 8" Tee

Sta. 6+04.23
8" Gate Valve, Rod, & Box

Sta. 6+18.08
8" x 6" Tee
2 LF 6" Wm.
6" Gate Valve, Rod, & Box
8 LF 6" Wm.
6" Hydrant

Sta. 8+43.46
End Water Imps.
8" Hydrant

WARRANTY/DISCLAIMER

THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING. HOWEVER, NEITHER SWENSON, HAGEN & CO. NOR ITS PERSONNEL CAN OR DO WARRANTY THESE PLANS AS CONSTRUCTED EXCEPT IN THE SPECIFIC CASES WHERE SWENSON, HAGEN & CO. PERSONNEL INSPECT AND CONTROL THE PHYSICAL CONSTRUCTION ON A FULL TIME BASIS.

SAFETY NOTICE TO CONTRACTOR

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL BUSINESS HOURS.

UTILITY NOTICE TO CONTRACTOR

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVES. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. UNDERGROUND LOCATES CAN BE MADE BY USING THE "ONE CALL" NUMBER 1-800-795-0555.

APPROXIMATE WYE LOCATIONS

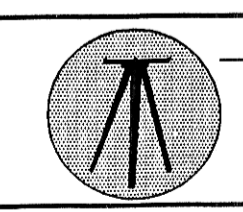
Station	Direction	Lot	Block
MANHOLE # 3 TO MANHOLE # 4			
1+87	N	5	2
2+04	N	6	2

CONSTRUCTION NOTES

- PHASE I IS SCHEDULED TO BE CONSTRUCTED IN THE SUMMER OF 2001.
- PHASE II IS SCHEDULED TO BE CONSTRUCTED IN THE SPRING/SUMMER OF 2002.
- DANGER - OVERHEAD POWER LINES EXIST IN THE VICINITY.
- GRADING SHALL BE DONE BY OTHERS PRIOR TO CONSTRUCTION.
- ALL REMOVAL OR REPLACEMENT OF SOILS, AND ALL HAULING AND OR GRADING TO RESTORE THE FINISH GROUND TO THE ORIGINAL SECTION SHALL BE CONSIDERED INCIDENTAL.
- BACKFILL SHALL BE CLASS "A".
- INSTALL CURB STOPS AND PERMANENT HYDRANTS ON PROPERTY LINE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS INCIDENTAL TO OTHER BID ITEMS.
- THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL SURVEY MONUMENTS. SURVEY MONUMENTS DISTURBED BY THE CONTRACTOR SHALL BE RESET BY A LICENSED PROFESSIONAL SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- SEWER BENDS AND CAPS SHALL BE CONSIDERED INCIDENTAL TO THE 8" x 4" WYE BRANCH BID ITEM.
- VALVES ON HYDRANT LEADS SHALL BE RESTRAINED TO THE HYDRANT TEE.
- SIX INCH WATERMAIN SHALL BE CONSIDERED INCIDENTAL TO THE SIX INCH HYDRANT BID ITEM.

**APPROXIMATE QUANTITIES
PHASE II ONLY**

San. Sewer Items		Quantity
Pitrun Gravel		45 TON
Subcut Gravel		5 TON
Rock Excavation		50 CY
8" San. Sewer		211.6 LF
4" Sewer Service Pipe		79.9 LF
8" x 4" Wye Branch		2 EA
Concrete Manhole		1 EA
Water Items		Quantity
Pitrun Gravel		65 TON
Subcut Gravel		5 TON
Rock Excavation		25 CY
8" Watermain		250.3 LF
8" Gate Valve, Rod & Box		1 EA
6" Gate Valve, Rod & Box		2 EA
Ductile Iron Fittings		(incidental)



SWENSON, HAGEN & CO. P.C.
PLANNING CIVIL ENGINEERING SURVEYING
SITE DESIGN CONSTRUCTION MANAGEMENT
909 BASIN AVE. P.O. BOX 1155 (701) 223-2800
BISMARCK, N.D. 58504 FAX (701) 223-2800
E-mail: manswenson@swensonhagen.com

PLAINVIEW DRIVE
FROM 10TH AVE SE TO THE WEST LOT LINE
OF LOT 4 BLOCK 2

WATER AND SEWER IMPROVEMENT PROJECT 02-09
SHEET NO. 3 OF 3
MANDAN, ND JUNE 28, 2002

ENGINEER'S STAMP

FINAL