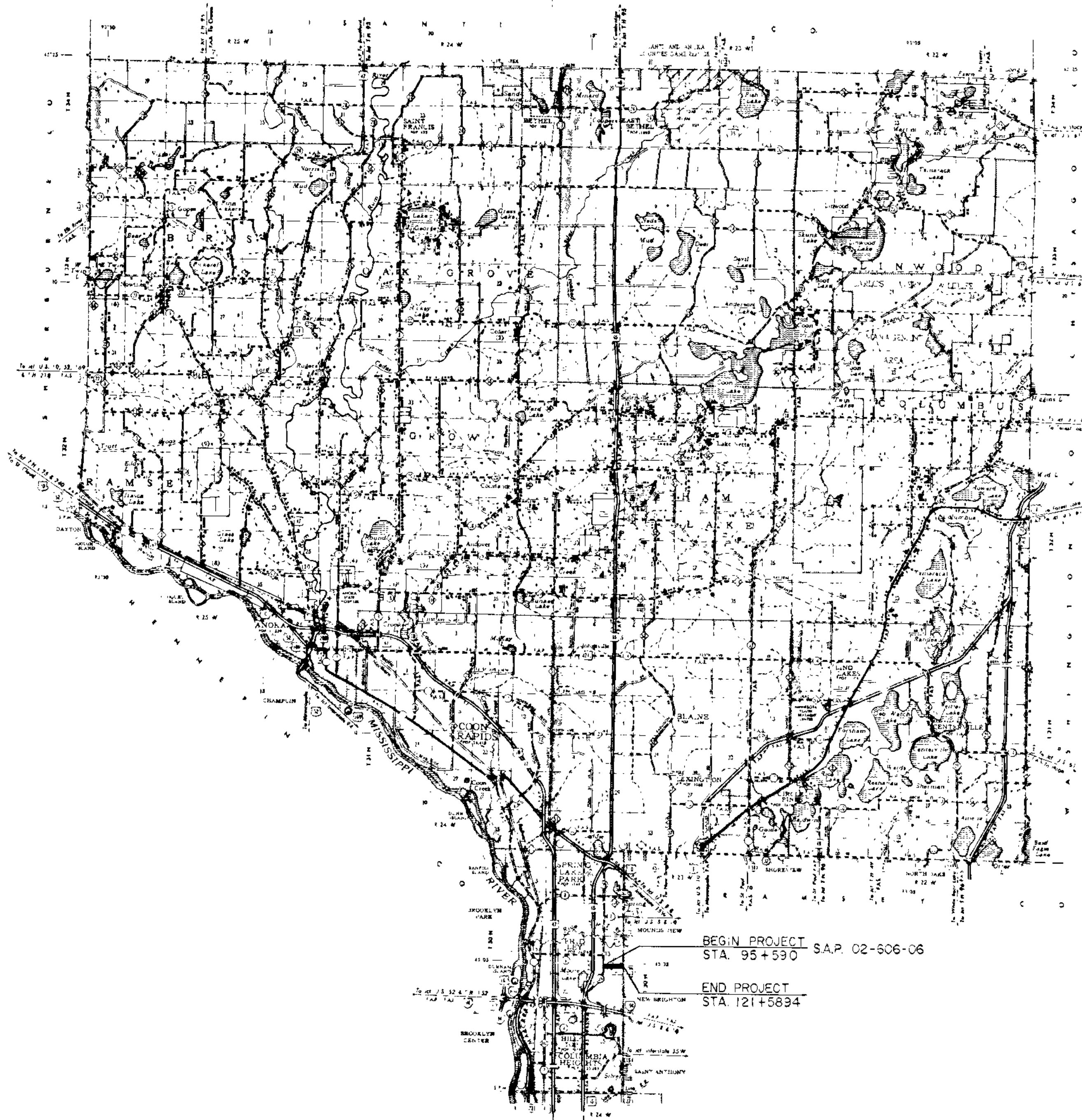


CONVENTIONAL SIGNS

STATE LINE	-----
COUNTY LINE	-----
TOWNSHIP OR RANGE LINE	-----
SECTION LINE	-----
QUARTER LINE	-----
SIXTEENTH LINE	-----
RIGHT OF WAY LINE	-----
PRIVILEGE RIGHT OF WAY LINE	-----
RIGHT OF ACCESS LINE	-----
PROPERTY LINE (EVALUATION LINE)	-----
VACATED PLAT OR PROPERTY	-----
DEPARTMENT OF CITY LIMITS	-----
"BANK" HIGHWAY CENTER LINE	-----
RETAINING WALL	-----
RAILROAD	-----
RAILROAD RIGHT OF WAY LINE	-----
RIVER OR CREEK	-----
DRY RUN	-----
GRAVEL PIT	-----
ELECTRIC POWER LINE	-----
TELEPHONE OR TELEGRAPH LINE	-----
JOINT TELEPHONE AND POWER	-----
POWERS	-----
TELEPHONE CABLE (Aerial)	-----
TELEPHONE CABLE UNDERGROUND	-----
POWER CABLE UNDERGROUND	-----
SAS (CAN)	-----
COLOUP	-----
GRAVEL PIT	-----
GRAVEL SAND	-----
MAINTENANCE FENCE	-----
WOODEN WIRE FENCE	-----
CHAIN LINK FENCE	-----
RAILROAD SIGN FENCE	-----
STONE WALL OR FENCE	-----
WATER PIPE	-----
SEWER PIPE	-----
DRAIN TILE	-----
SPRINGS	-----
MAISM	-----
"HUBS"	-----
WATER	-----
BRUSH	-----
NURSERIES	-----
CATCH BASIN	-----
MANHOLE	-----
PIPE (STEEL)	-----
STREET LIGHT	-----
RAILROAD CROSSING SIGN	-----
RAILROAD CROSSING BEAM	-----
ELECTRIC WARNING SIGN	-----
CROSSING DATE	-----
CATTLE GUARD	-----
UNDERPASS Highway Over	-----
UNDERPASS Highway Under	-----
SP-204	-----
BUILDING (One Story Frame)	-----
FRAME CONCRETE	-----
STONE	-----
BRICK	-----
STUCCO	-----
IRON PIPE OR POB	-----
WONUMENT STONE CONCRETE OR METAL	-----
ADDED HUB	-----
GRAVEL PIT	-----
LAND PIT	-----
BARROW PIT	-----
ROCK QUARRY	-----
MEANDER CORNER	-----

Fed. Proj. No. _____
 STATE OF MINNESOTA
 DEPARTMENT OF HIGHWAYS
 CONSTRUCTION PLAN FOR STORM SEWER, GRAD'NG, BASE & BITUMINIOUS SURFACING
County State Aid Highway No. 6
 Between C.S.A.H. NO. 35 And EAST CO. LINE
 From A PT. 30' E. OF NW COR. SW 1/4, SE 1/4, SEC. 13, T. 30, R. 24 To NE COR. OF SE 1/4, SE 1/4, SEC. 13, T. 30, R. 24



GROSS LENGTH	2,600	FEET	0.492	MILES
BRIDGES LENGTH	00	FEET	0.00	MILES
EXCEPTIONS LENGTH	00	FEET	0.00	MILES
NET LENGTH	2,600	FEET	0.492	MILES

INDEX OF SHEETS

Sheet No. 1	Title Sheet & Layout Map
No. 2	Est. Quantities & Typical Sec.
No. 3 To 4	Plan & Profile
No. 5 To 7	Cross Sections

SCALE PLAN 1" = 50'
 PROFILE - HORIZ. 1" = 50'
 VERT. 1" = 5'

DESIGN DESIGNATION
 ADT (CURRENT YEAR) 1800
 ADT (FUTURE YEAR) 4200
 T (HEAVY COMMERCIAL) 150-300
9 Ton Design
 Design Speed 40 MPH
 Design Speed not achieved at:
 STA _____ TO STA _____ MPH
 STA _____ TO STA _____ MPH

--- SPECIFICATIONS ---
 THE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION", DATED JAN. 1, 1968,
 AND "SUPPLEMENTAL SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED JULY 1, 1969, SHALL GOVERN.

ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

E. J. Lundheim COUNTY ENGINEER DATE 6-11-70
 ANOKA COUNTY REG. NO. 2551
 RECOMMENDED FOR APPROVAL Richard B. Murphy 6-17-70 DISTRICT STATE AID ENGINEER
 RECOMMENDED FOR APPROVAL C. E. Wilhelm 6-22-70
 APPROVED 6/23/70 Robert M. Gog STATE AID ENGINEER

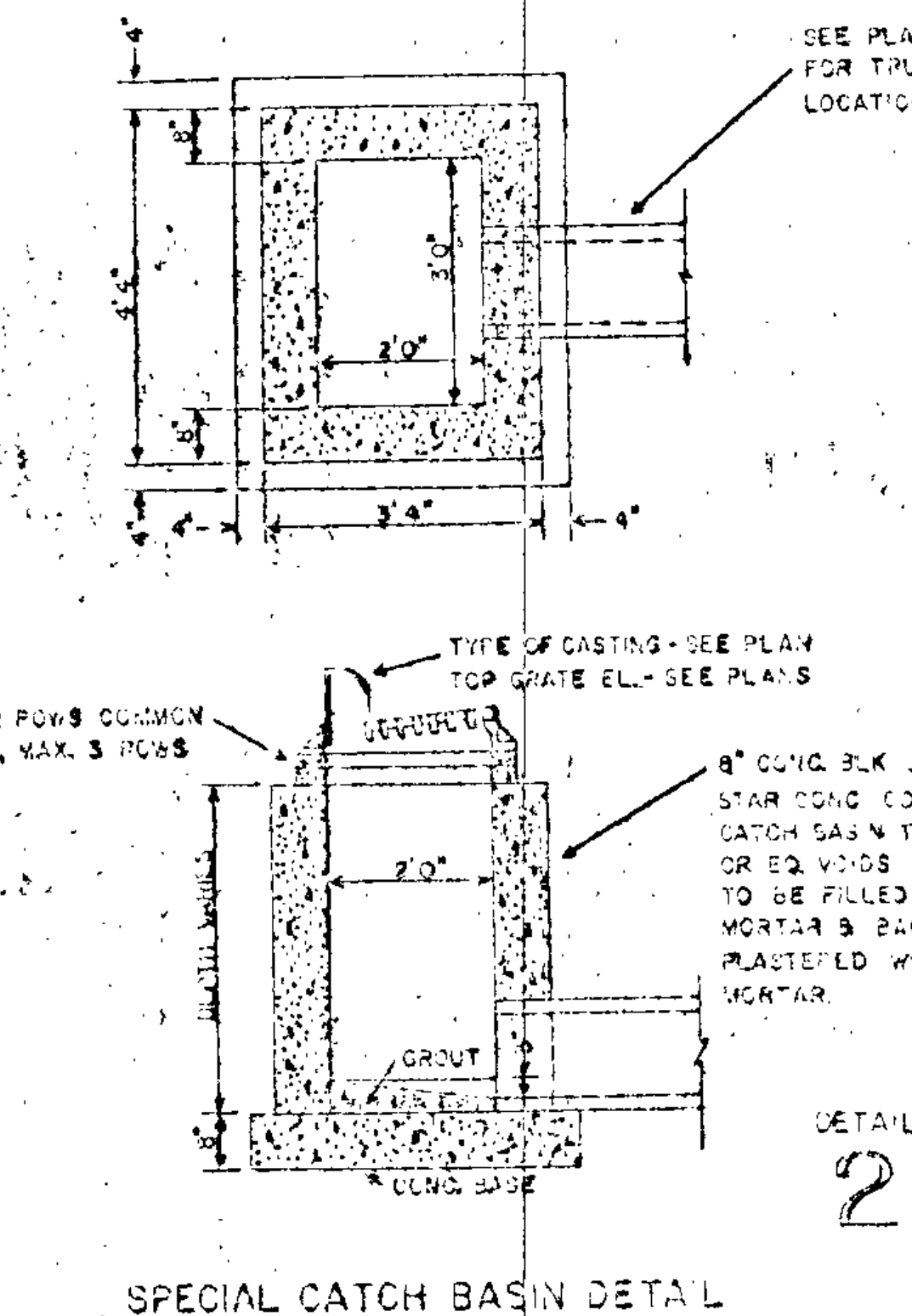
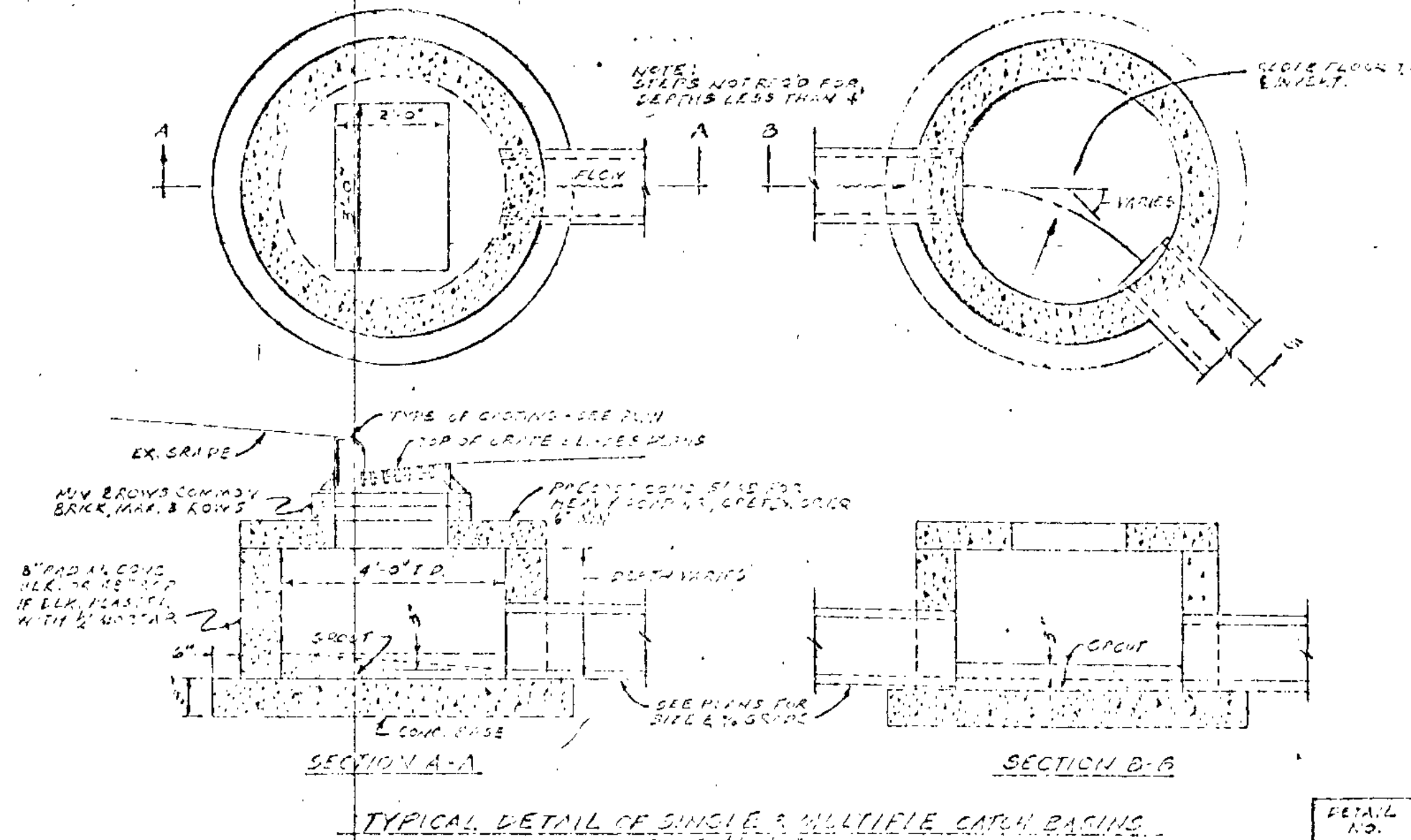
Minn. Proj. No. _____ County Proj. No. _____
 State Proj. No. _____ S. A. P. 02-606-06

The following Standard Detail plates, approved by the Bureau of Public Roads, shall apply on this project.

STANDARD DETAIL PLATES	
PLATE NO.	DESCRIPTION
3000F	REINFORCED CONCRETE PIPE
3006A	GASKET JOINT FOR R.C. PIPE
3014D	REINFORCED CONCRETE PIPE ARCH
3040C	CORRUGATED METAL PIPE
3100F	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3123F	METAL APRON FOR C.M. PIPE
4000S	MANHOLE OR CATCH BASIN
4002D	MANHOLE OR CATCH BASIN
40054	MANHOLE OR CATCH BASIN
4006G	MANHOLE OR CATCH BASIN
4101B	RING CASTING FOR MANHOLE OR CATCH BASIN
4110D	COVER CASTING FOR MANHOLE
4126D	CATCH BASIN FRAME CASTING
4149C	GRATE CASTING FOR CATCH BASIN
4161E	CURB BOX CASTING FOR CATCH BASIN
7100D	CONCRETE CURB & GUTTER
8000C	STANDARD BARRICADES
8008D	CONTRACTORS SIGN
9001A	SPECIFICATION REFERENCE TO STANDARD PLATES

STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES
2031.503	FIELD LABORATORY TYPE C	EACH	1
2101.502	CLEARING	TREE	114
2101.507	GRUBBING	TREE	93
2104.501	REMOVE PORTABLE CULVERTS	L.M. FT.	220
2104.508	REMOVE PAVEMENT	SQ. YD.	49
2107.503	REMOVE CURB AND CUTTER	L.M. FT.	62
2107.506	REMOVE SIDEWALK	SQ. FT.	102
2107.510	REMOVE FENCE	L.M. FT.	114
2107.521	RESET FENCE	L.M. FT.	114
2105.501	COMMON PAVEMENT	SQ. YD.	8479
2105.501	SALVAGED BITUMINOUS MIXTURE	SQ. YD.	1400
2105.501	WATER	MGAL.	75
2211.501	AGGREGATE BASE, CLASS 5	TON	1060
2331.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	185
2331.524	BASE COURSE MIXTURE	TON	8200
2331.533	BIT. MIXTURE FOR DRIVEWAY REPAIR	TON	48
2341.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	74
2341.508	WEARING COURSE MIXTURE	TON	1135
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL.	1350
2358.501	BITUMINOUS MATERIAL FOR PRIME COAT	GAL.	4050
2501.511	15" METAL PIPE CULVERT	LIN. FT.	92
2501.511	INSTALL METAL CULVERTS	L.M. FT.	24
2501.512	15" METAL APRONS	APRON	10
2501.516	15" CONCRETE APRON	APRON	1
2503.502	24" RC SEWER CLASS IV	LIN. FT.	209
2503.502	18" RC SEWER CLASS II	LIN. FT.	293
2503.502	24" SPAN RC PIPE ARCH SEWER CLASS	LIN. FT.	207
2503.502	26" SPAN RC PIPE ARCH SEWER CLASS	LIN. FT.	450
2506.506	CONSTRUCT MANHOLE, DESIGN C	LIN. FT.	4.5
2506.506	CONSTRUCT CATCH BASIN DESIGN A	LIN. FT.	5.0
2506.506	CONSTRUCT CATCH BASIN DESIGN B	LIN. FT.	22.5
2506.506	CONSTRUCT CATCH BASIN DESIGN C	LIN. FT.	4.3
2506.507	CONSTRUCT CATCH BASIN, DESIGN D	LIN. FT.	0.8
2506.511	RECONSTRUCT MANHOLES	LIN. FT.	21.3
2506.516	CASTING ASSEMBLIES	ASSEMBLY	11
2506.522	ADJ. FRAME & RING CASTINGS	ASSEMBLY	10
2506.522	ADJ. WATER GATE HOUSINGS	HOUSING	4
2521.501	4" CONCRETE WALK	SQ. FT.	73
2531.501	CONCRETE CURB & GUTTER DESIGN B-B	L.M. FT.	60
2531.507	3" CONCRETE DRIVEWAY PAVEMENT	SQ. YD.	28
504.501	F&I 6" WATER MAIN	L.M. FT.	13
104.574	MOVE HYDRANT	HYDRANT	4
2575.501	ROADSIDE SIELDING	GRE	0.3
2575.505	SOILING	SQ. YD.	3.70
2575.511	WALKWAY MATERIAL TYPE 5	TON	0.20
2575.531	TOP SOIL	CUM. YD.	73
2575.531	1 1/2" DRAGAGE	LINEAR	0.3



- BASIS OF PLANNED QUANTITIES
- 2211 AGGREGATE BASE, CLASS 5 145 LBS. PER CU. FT. COMPACTED
 - 2331 PLANT MIXED BITUMINOUS BASE COURSE BASE COURSE MIXTURE 100 LBS. PER SQ. YD. PER INCH THICKNESS BITUMINOUS MATERIAL FOR MIXTURE 3.5% BY WEIGHT
 - 2341 PLANT MIXED BITUMINOUS WEARING COURSE BITUMINOUS MIXTURE 165 LBS. PER SQ. YD. BITUMINOUS MATERIAL FOR MIXTURE 5.2% BY WEIGHT
 - 2357 BITUMINOUS MATERIAL FOR TACK COAT 0.05 GAL. PER SQ. YD.
 - 2358 BITUMINOUS MATERIAL FOR PRIME COAT 0.30 GAL. PER SQ. YD.

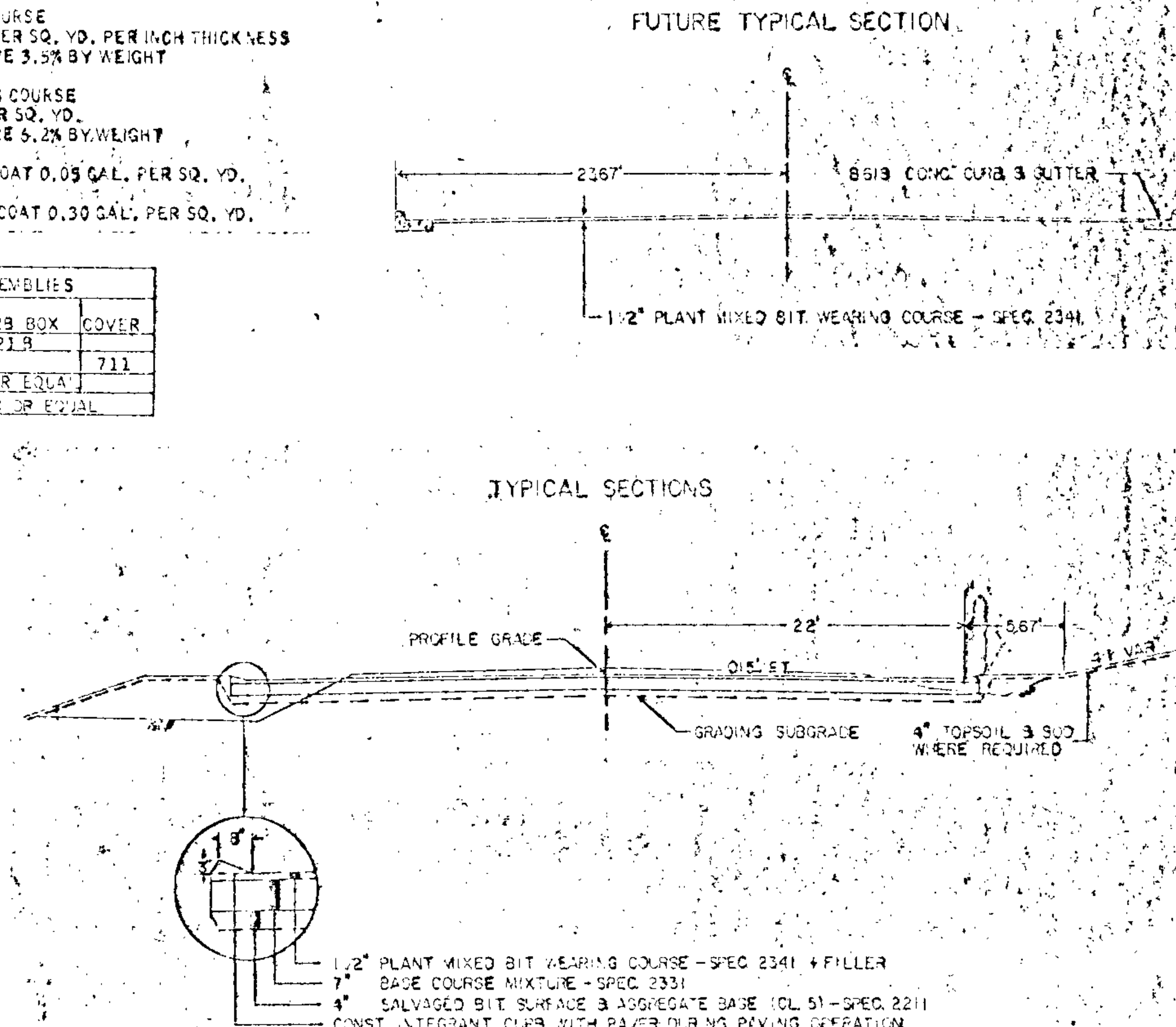
CASTING ASSEMBLIES				
KEY	FRAME	GRATE	CURB BOX	COVER
A	801	410	221A	
B	700-7			711
C	NETMAH R-329-B OR EQUIV.			
D	NETMAH R-3245-6MG OR EQUIV.			

ADJ. FRAME & RING CASTINGS		
ITEM	STATION	LOCATION
M.H.	25+63	C
M.H.	92+35	C
M.H.	102+35	C
M.H.	108+34	C
M.H.	108+41	C
M.H.	111+10	C
M.H.	115+09	C
M.H.	118+29	C
M.H.	121+45	C
M.H.	121+57	15.7 LT.

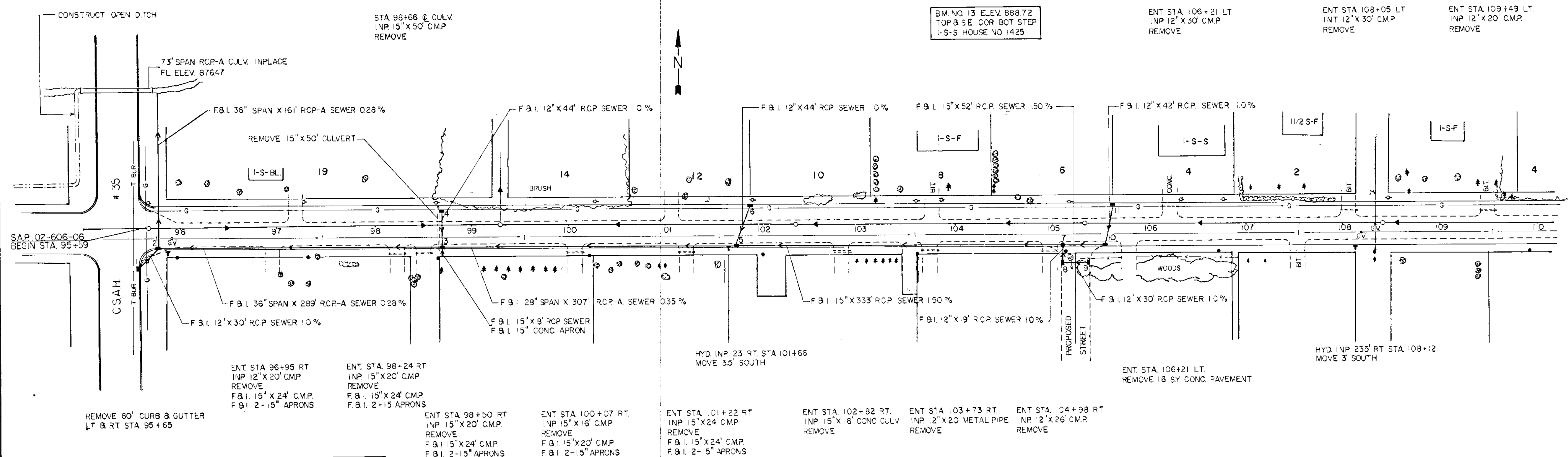
ADJ. WATER GATE HOUSINGS		
STATION	LOCATION	
95+21	10' RT.	
108+20	10' RT.	
109+34	1' RT.	
121+45	10' RT.	

SAN. SEWER MANHOLES		
STATION	LOCATION	RECONSTRUCT LIM. FT.
99+35	C	5.5'
102+35	C	5.5'
108+34	C	5.0'
111+40	C	5.3'
TOTAL		21.3'

STORM SEWER SYSTEM													
NO.	STATION	LOCATION	REMARKS	TYPE	DESIGN	LIN. FT.	REMOVE	TOP	OUTLET	F&I CAST. ASSEMBLY	DRAINS TO	F&I R.C. PIPE 12" 15"	F&I R.C. PIPE ARCH 20" 36" SPAN SPAN
1	95+57	45.0 RT.		C.B.	NO. 2	5.5		881.30	278.00	D	C.B. 2	30	
2	95+77	20.9 RT.		C.B.	A-1	5.9		893.22	877.17	A	OPEN DITCH	1	161
3	98+66	21.7 RT.	F&I 15"x3" APRON RT.	C.B.	NO. 1	4.0		891.74	876.00	C	C.B. 2	3	289
4	98+66	21.7 RT.		C.B.	NO. 2	3.1	15'x50'	891.74	876.00	C	C.B. 3	14	
5	101+73	20.9 RT.		C.B.	C-1	3.7		893.31	879.27	A	C.B. 3		207
6	101+88	20.9 LT.		C.B.	C-1	3.0		893.47	880.34	A	C.B. 5	11	
7	103+06	20.9 RT.		M.H.	C-1	4.5		899.19	884.62	B	C.B. 5	333	
8	105+10	40.0 RT.		C.B.	C-1	3.3		899.08	885.05	A	M.H. 7	13	
9	105+40	40.0 RT.		C.B.	C-1	3.3		899.08	885.26	A	C.B. 3	30	
10	105+58	20.9 RT.		C.B.	C-1	4.3		870.14	865.40	A	M.H. 7	52	
11	105+63	20.9 LT.		C.B.	C-1	4.0		879.23	865.07	A	C.B. 10	12	
												279	593
												507	450



PLAN
 DATE: 11/11/11
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 NO. [Number]



PLAN
 DATE: 11/11/11
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 NO. [Number]

