

CONVENTIONAL SIGNS

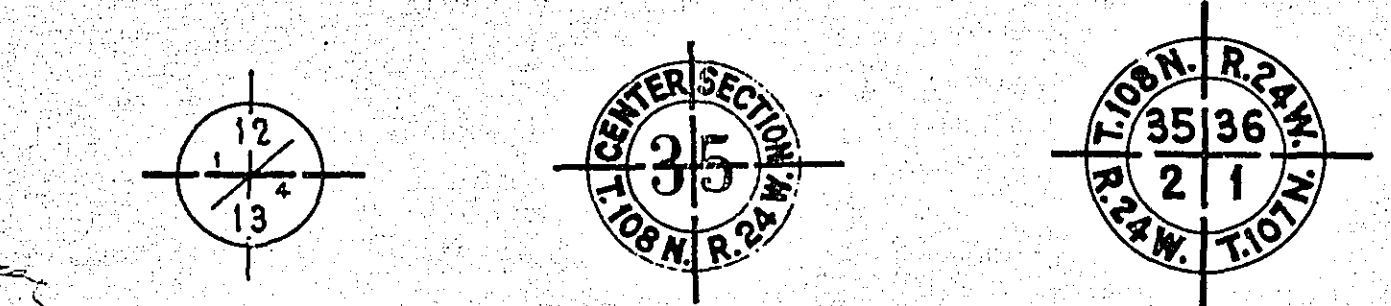
STATE LINE	-----	TIMBER	-----
COUNTY LINE	-----	BRUSH	-----
TOWNSHIP OR RANGE LINE	-----	ORCHARD	-----
SECTION LINE	-----	ROCK LEDGE	-----
QUARTER LINE	-----	SAND	-----
SIXTEENTH LINE	-----	EDGE OF CUT	-----
RIGHT-OF-WAY LINE	-----	TOE OF EMBANKMENT	-----
PRESENT ROAD 1/2 W. LINE	-----	CATCH BASIN	-----
LIMITED ACCESS	-----	MANHOLE	-----
PROPERTY LINE (Except Line Lines)	-----	DROP INLET	-----
VACATED PLATTED PROPERTY	-----	FIRE HYDRANT	-----
CORPORATE OR CITY LIMITS	-----	ARC LAMP	-----
TRUNK HIGHWAY CENTER LINE	-----	OTHER LAMPS (State Kind)	-----
RETAINING WALL	-----	RAILROAD CROSSING SIGN	-----
STEAM RAILROAD	-----	RAILROAD CROSSING BELL	-----
ELECTRIC RAILROAD	-----	ELECTRIC WARNING SIGN	-----
RAILROAD RIGHT-OF-WAY LINE	-----	CROSSING GATE	-----
CREEK	-----	CATTLE GUARD	-----
RAPIDS OR WATERFALL	-----	OVERHEAD (Highway Over)	-----
DRY RUN	-----	UNDERPASS (Highway Under)	-----
DRAINAGE DITCH	-----	ABUTMENT, WALL & PIER	-----
HIGH TENSION LINE	-----	BRIDGE	-----
POWER POLE LINE	-----	CULVERT	-----
TELEPHONE OR TELEGRAPH LINE	-----	BUILDING (One Story Frame)	-----
TELEPHONE CONDUIT	-----	C-CONCRETE S-STONE T-TILE B-BRICK ST-STUCCO	-----
GUARD RAIL	-----	HEDGE	-----
WIRE FENCE	-----	IRON PIPE	-----
RAILROAD SNOW FENCE	-----	STONE MONUMENT	-----
BOARD OR HIGHWAY SNOW FENCE	-----	WOOD STAKE OR HUB	-----
STONE WALL OR FENCE	-----	MEANDER CORNER	-----
GAS MAIN	-----		
WATER PIPE	-----		
SEWER PIPE	-----		
DRAIN TILE	-----		
GRAVEL PIT	-----		
SAND PIT	-----		
CLAY PIT	-----		
ROCK QUARRY	-----		
SPRINGS	-----		
MARSH	-----		

**OFFICE OF COUNTY ENGINEER
RAMSEY COUNTY**
CONSTRUCTION PLAN FOR GRADING AND PAVING
LARPENTEUR AVENUE
FROM ARONA AVE. TO FERNWOOD ST.
STA. 6+75.2 STA. 39+34
S.A.P. 62-606-02 (C.S.A.H. 30)

GROSS LENGTH 3258.8 FEET 0.6172 MILES
BRIDGES-LENGTH 0 FEET MILES
EXCEPTIONS-LENGTH 0 FEET MILES
NET LENGTH 3258.8 FEET 0.6172 MILES

PLAN, 1 inch = 100 Feet
PROFILE, Horiz. 1 inch = 100 Feet. Vert. 1 inch = 10 Feet.
WORKING PLANS { Horiz. 1 inch = 100 Feet
Vert. 1 inch = 10 Feet
Cross-Sections 1 inch = 10 Feet
LAYOUT, 1 inch = 2640 Feet

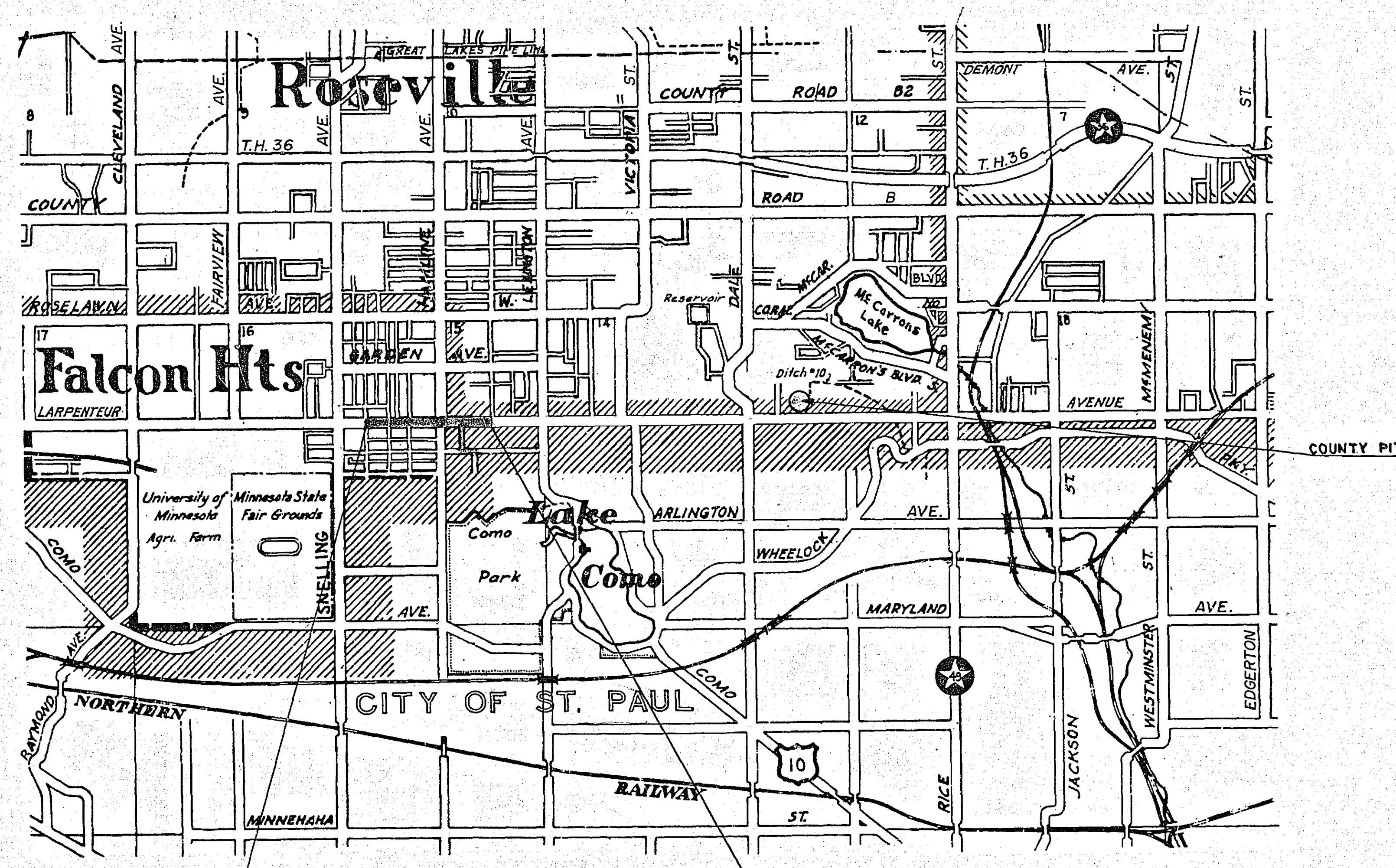
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ESTIMATE, SEWER SUMMARY, SPECIAL DETAILS
3	TYPICAL SECTIONS & PANEL LAYOUT
4-5	PLAN SHEETS
5-6	SEWER PLAN
7	RELOCATION OF TRAFFIC SIGNAL (HAMLINE AVENUE)
8	MANHOLE & PUMP STATION DETAILS
9-16	CROSS SECTIONS



NOTE: SECTION NUMBERS READ FROM THE SOUTH

PIT DATA

COUNTY PIT NO. _____	Located in _____	Dead Haul _____
PIT NO. _____	Located in _____	Dead Haul _____
PIT NO. _____	Located in _____	Dead Haul _____
PIT NO. _____	Located in _____	Dead Haul _____



BEG. OF PROJ.
STA. 6+75
S.A.P. 62-606-02 (C.S.A.H. 30)

END OF PROJ.
STA. 39+34
S.A.P. 62-606-02 (C.S.A.H. 30)

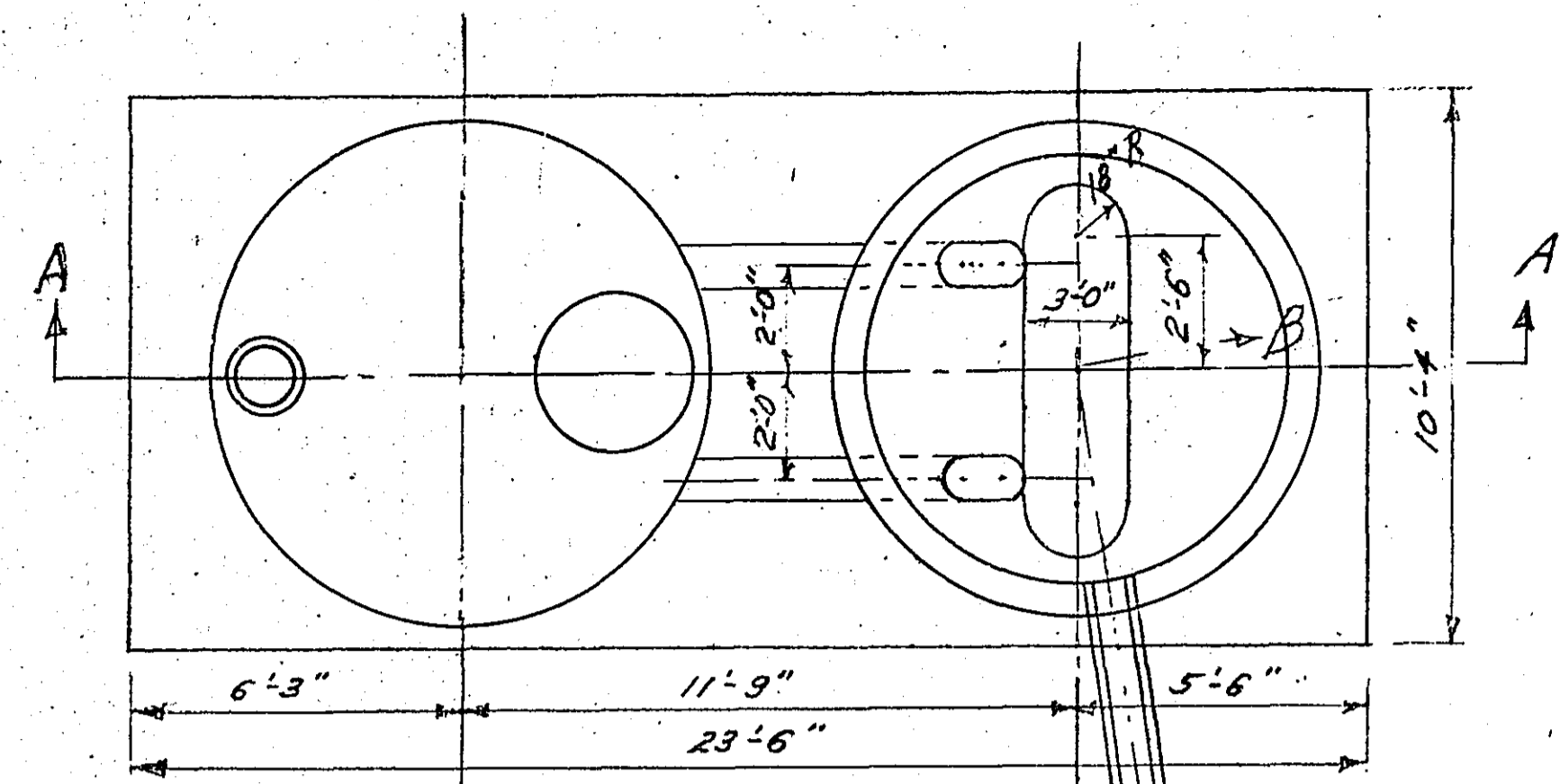
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Harry J. Johnson COUNTY ENGINEER REG. NO. 818 DATE 3/21/58

APPROVED *Edmund J. Mullen* DATE 4-14-58
VICE CHAIRMAN OF RAMSEY COUNTY BOARD

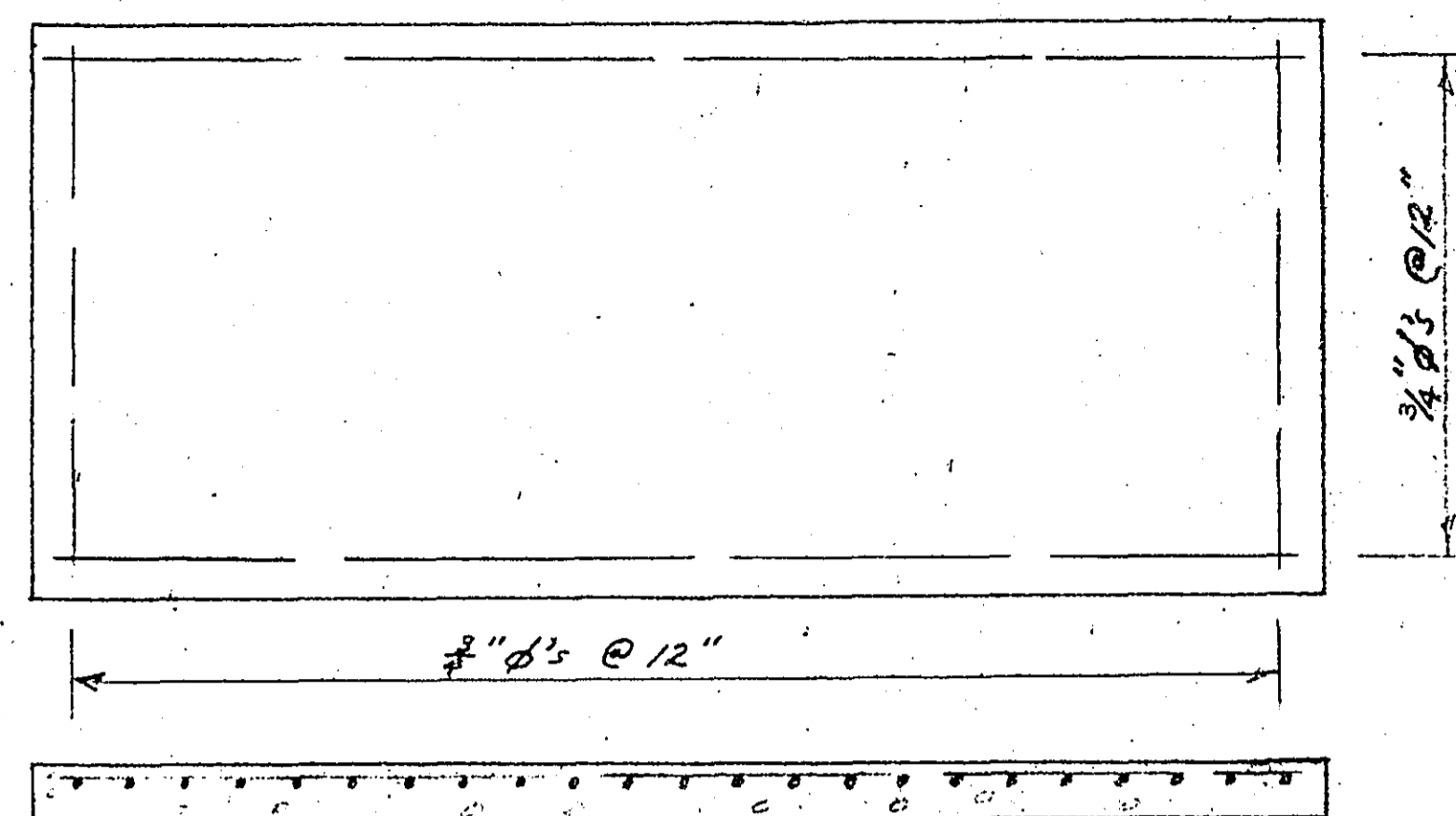
MINNESOTA STATE HIGHWAY DEPARTMENT
RECOMMENDED FOR APPROVAL *W.M. Geller* DATE 4-1-58
DISTRICT ENGINEER
APPROVED *W.M. Geller* DATE 4-1-58
ENGINEER OF COUNTY DIVISION

SPECIFICATIONS
THE "SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED JULY 1, 1947 AND SUBMITTED FOR APPROVAL BY THE DIVISION ENGINEER OF THE BUREAU OF PUBLIC ROADS ON OCTOBER 15, 1947, AS MODIFIED BY "SUPPLEMENT 1" THERETO DATED APRIL 15, 1953 AND SUBMITTED FOR APPROVAL BY THE DIVISION ENGINEER OF THE BUREAU OF PUBLIC ROADS ON MARCH 25, 1953, SHALL GOVERN.

MICRO-FILMED

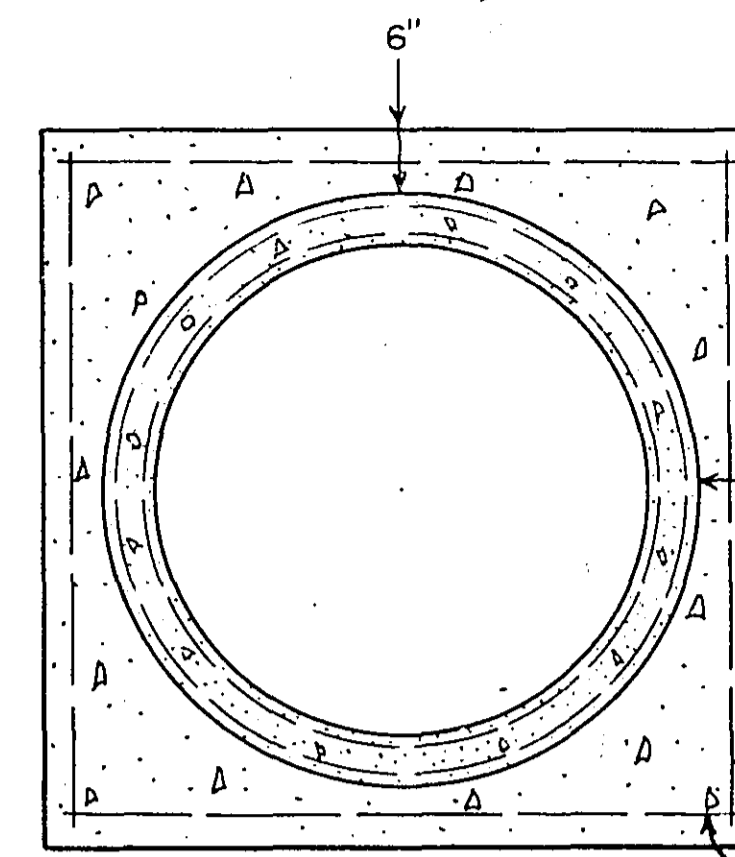


PLAN VIEW
SCALE 1/4"=1'-0"

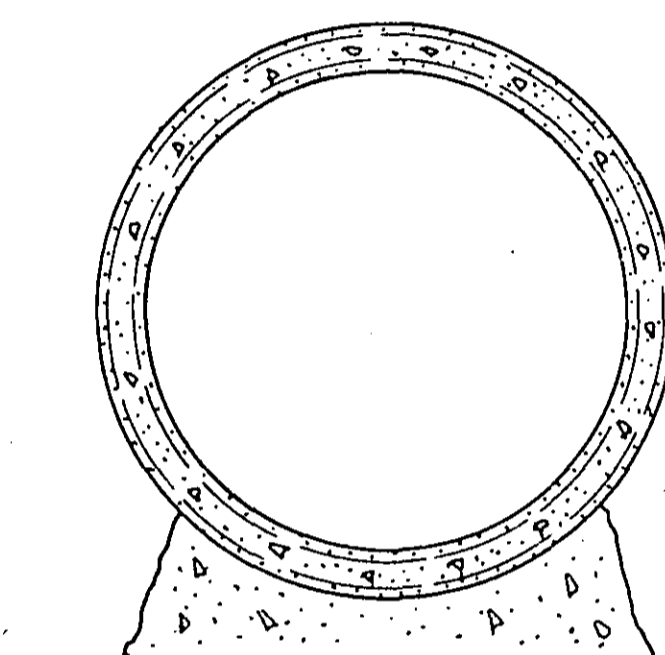
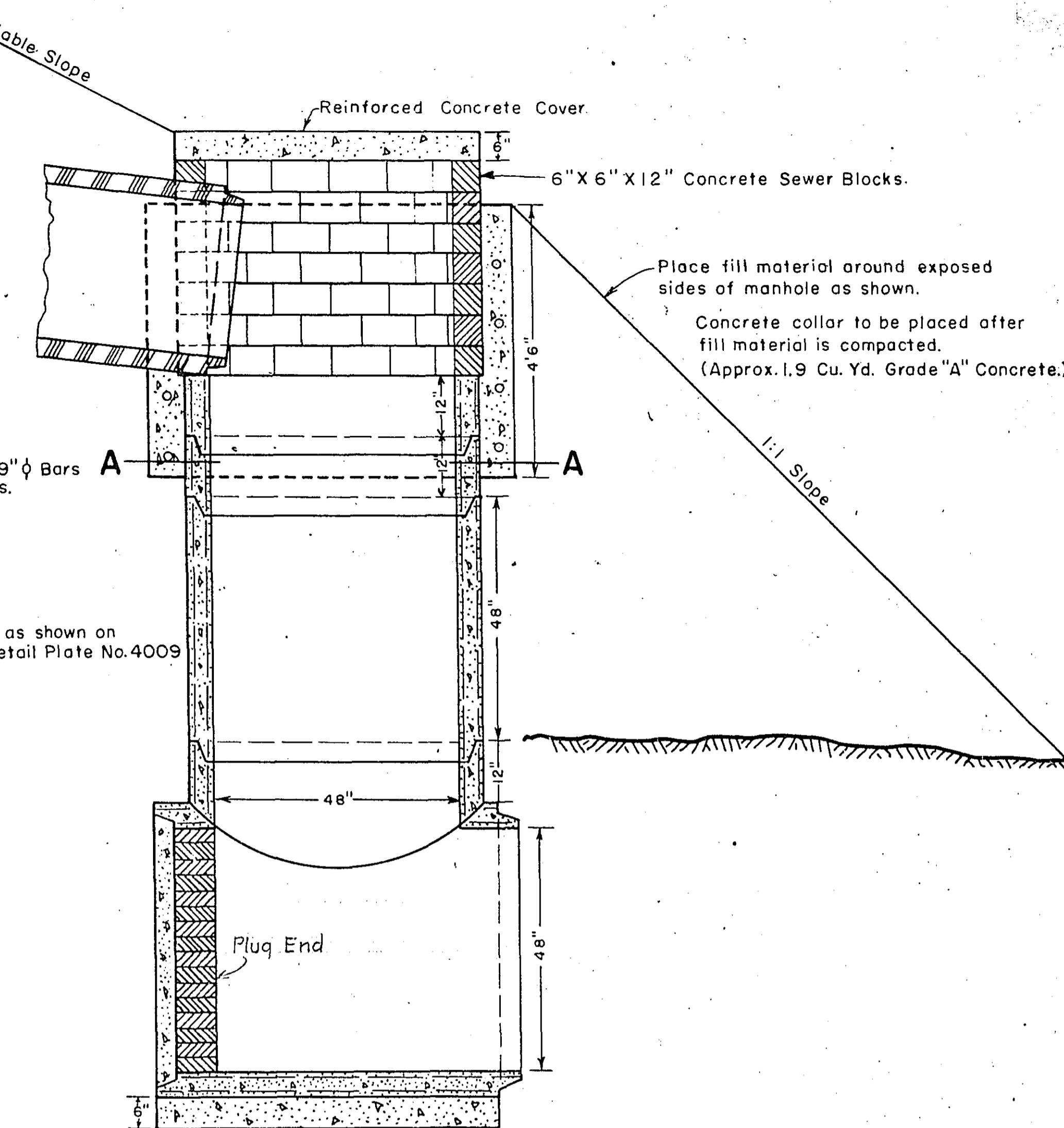


FOUNDATION SLAB REINFORCEMENT

Note: Reinforcement to be 2" clear below top of slab

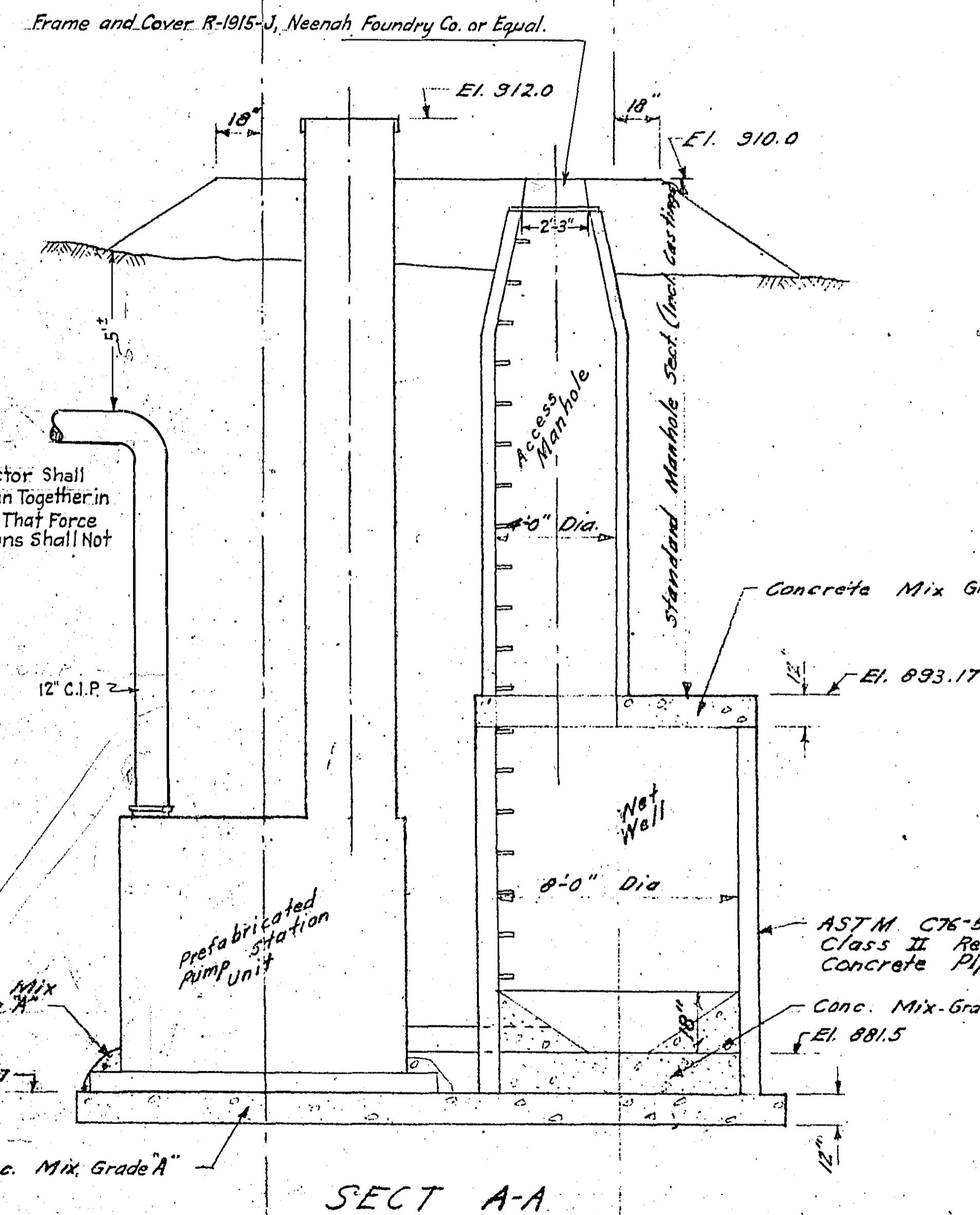


SECTION A-A
CONCRETE COLLAR

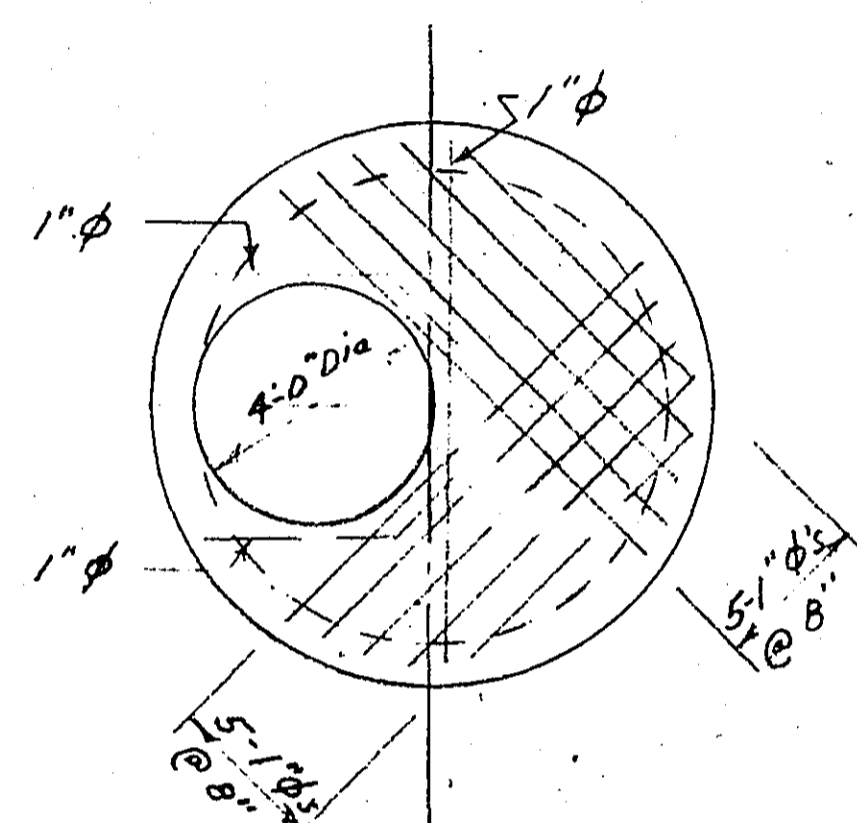


CONCRETE CRADLE

MANHOLE 47 STA. 32+28 LT. 70'



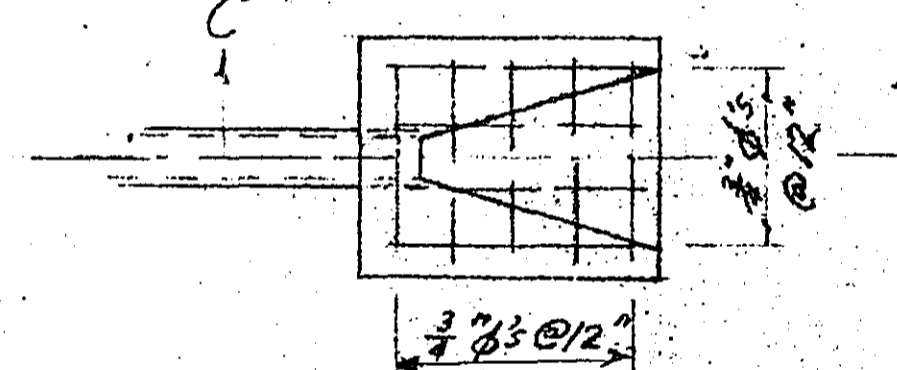
SECT A-A



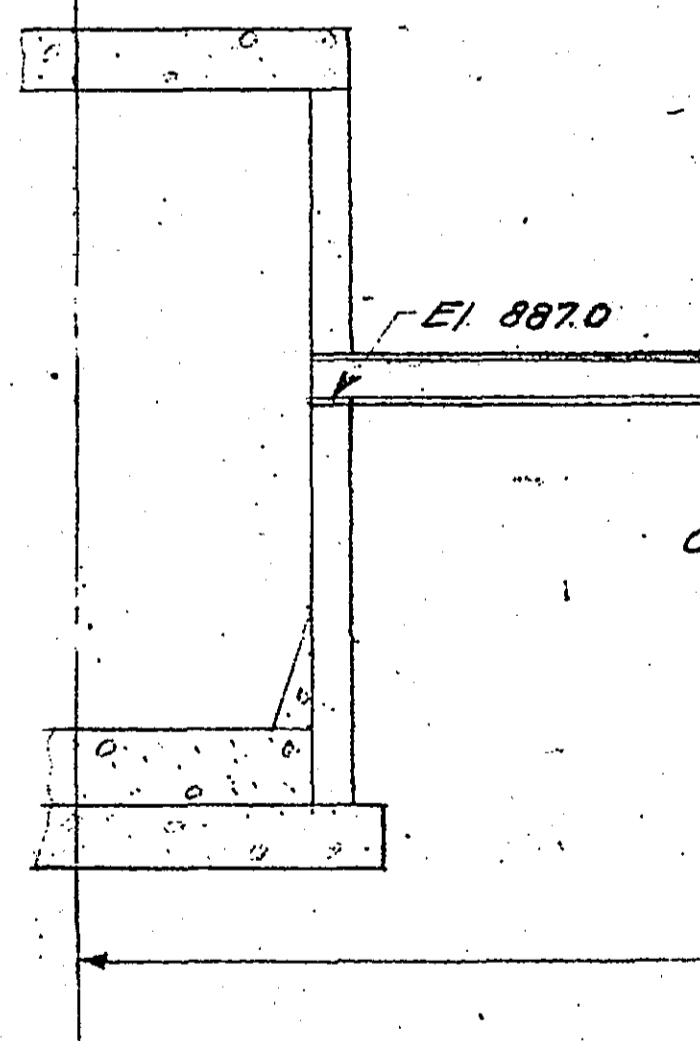
TOP SLAB REINFORCEMENT

Note: Reinforcement to be 2" clear above bottom of slab

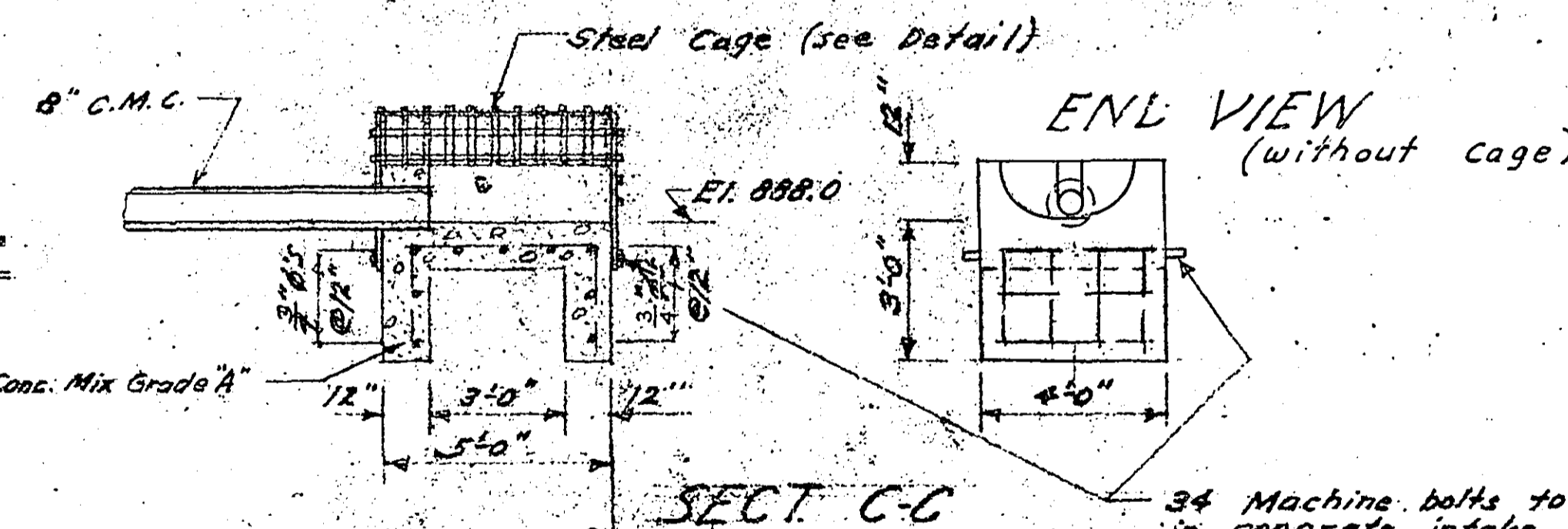
INTAKE STRUCTURE DETAILS (showing reinforcing)



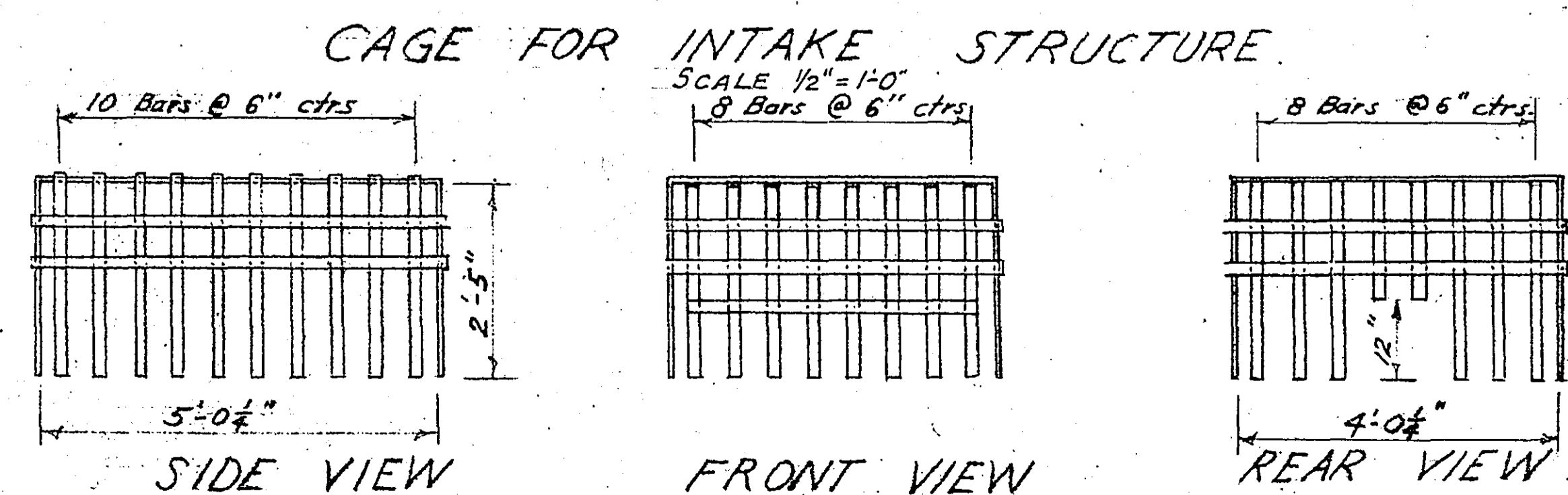
PLAN VIEW (without cage)



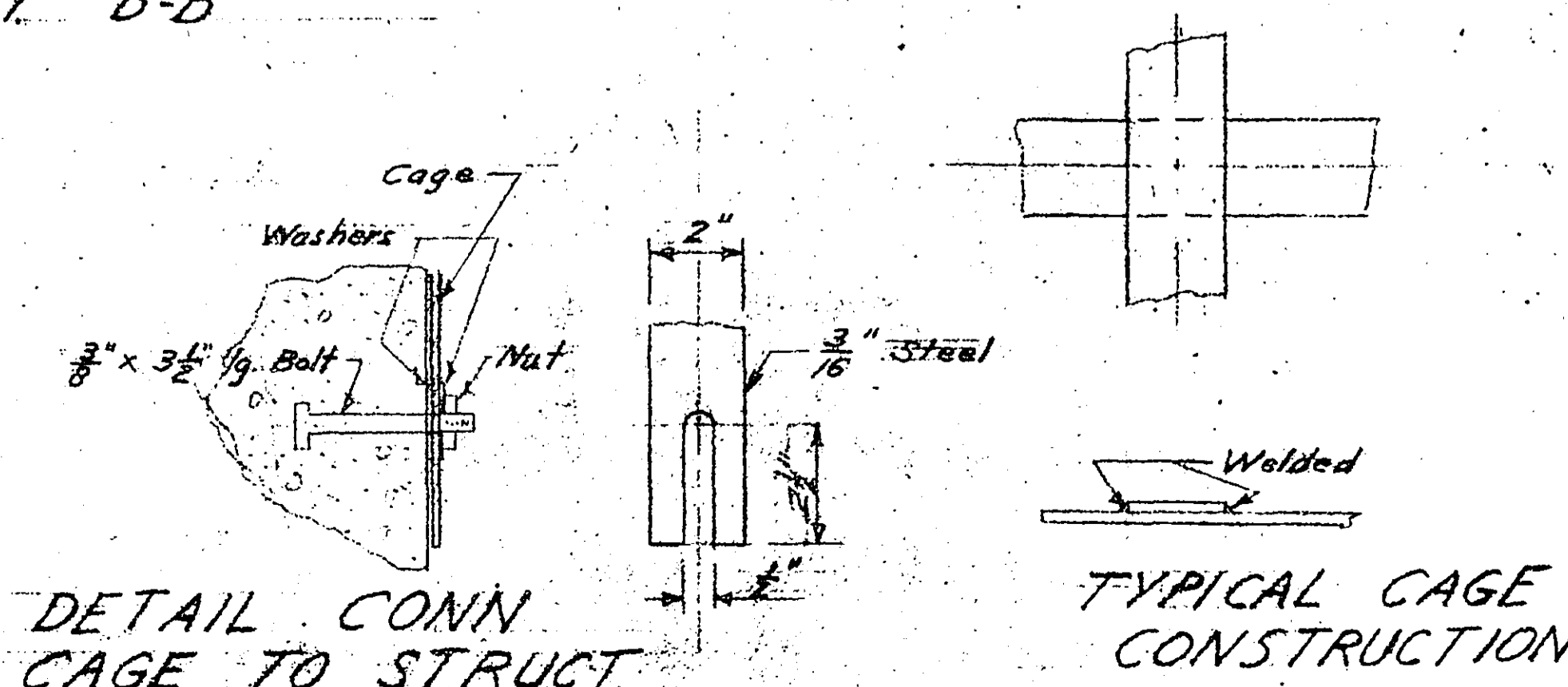
SECT B-B



SECT C-C



Note: Each member of cage to be slotted as per detail

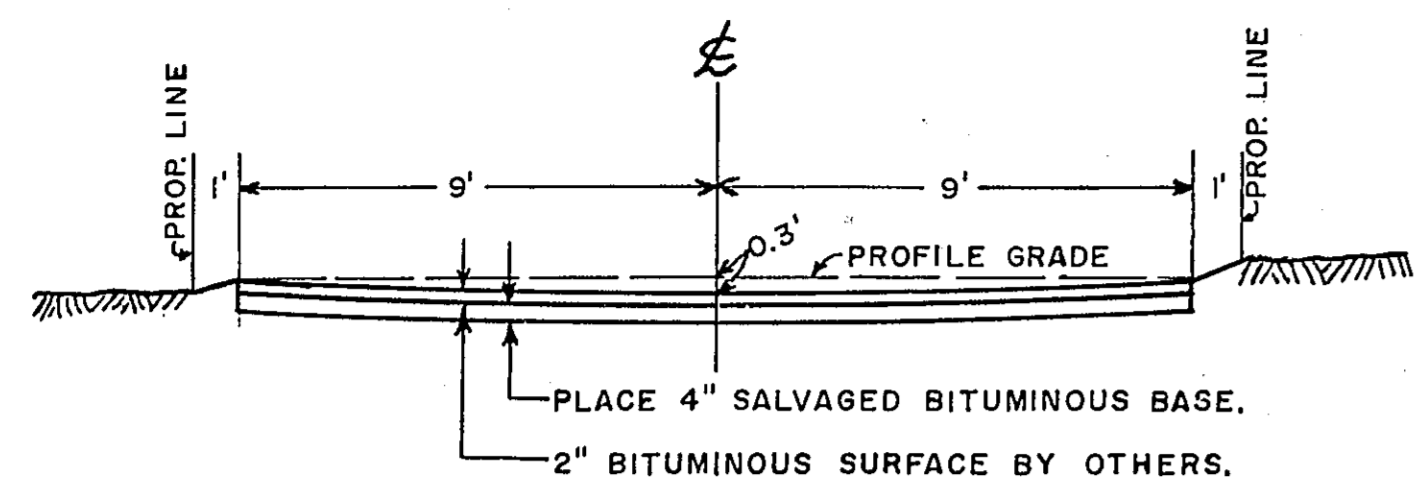


TYPICAL CAGE CONSTRUCTION

TYPICAL SECTIONS

PANEL LAYOUT STREET INTERSECTIONS

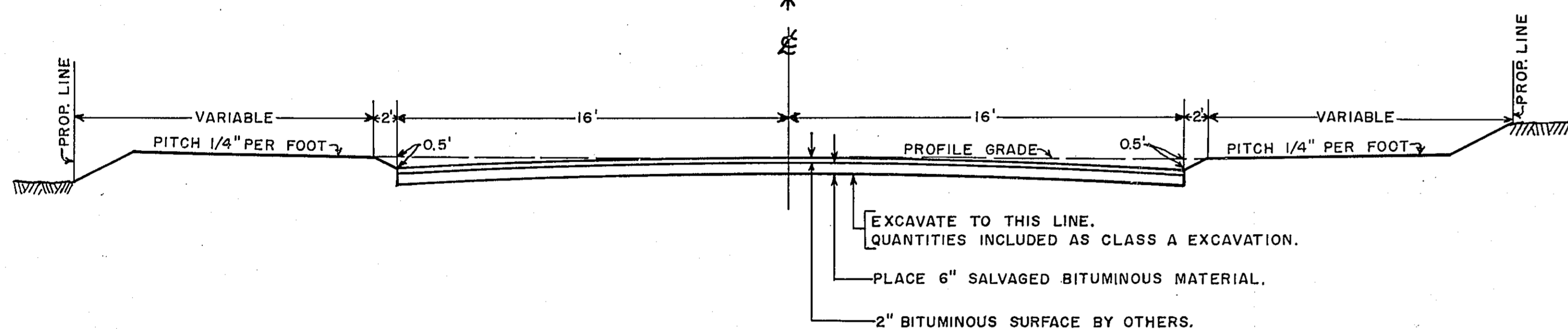
ALLEY RT. STA. 38+38.5



PASCAL AVENUE

ALBERT AVENUE

HOLTON AVENUE



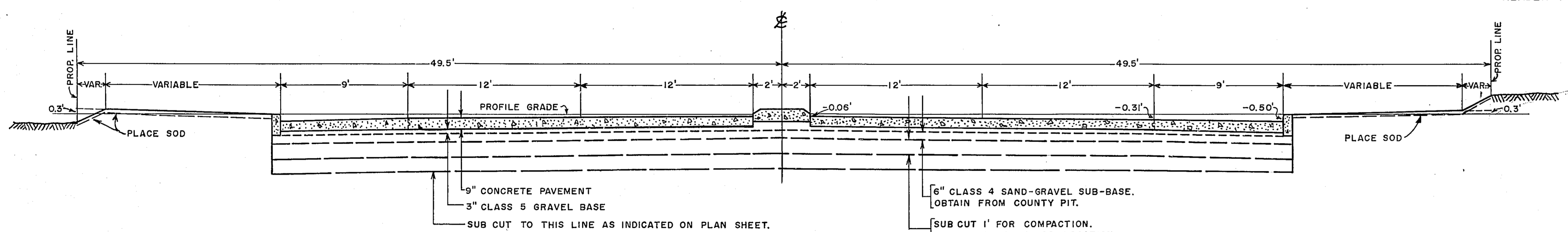
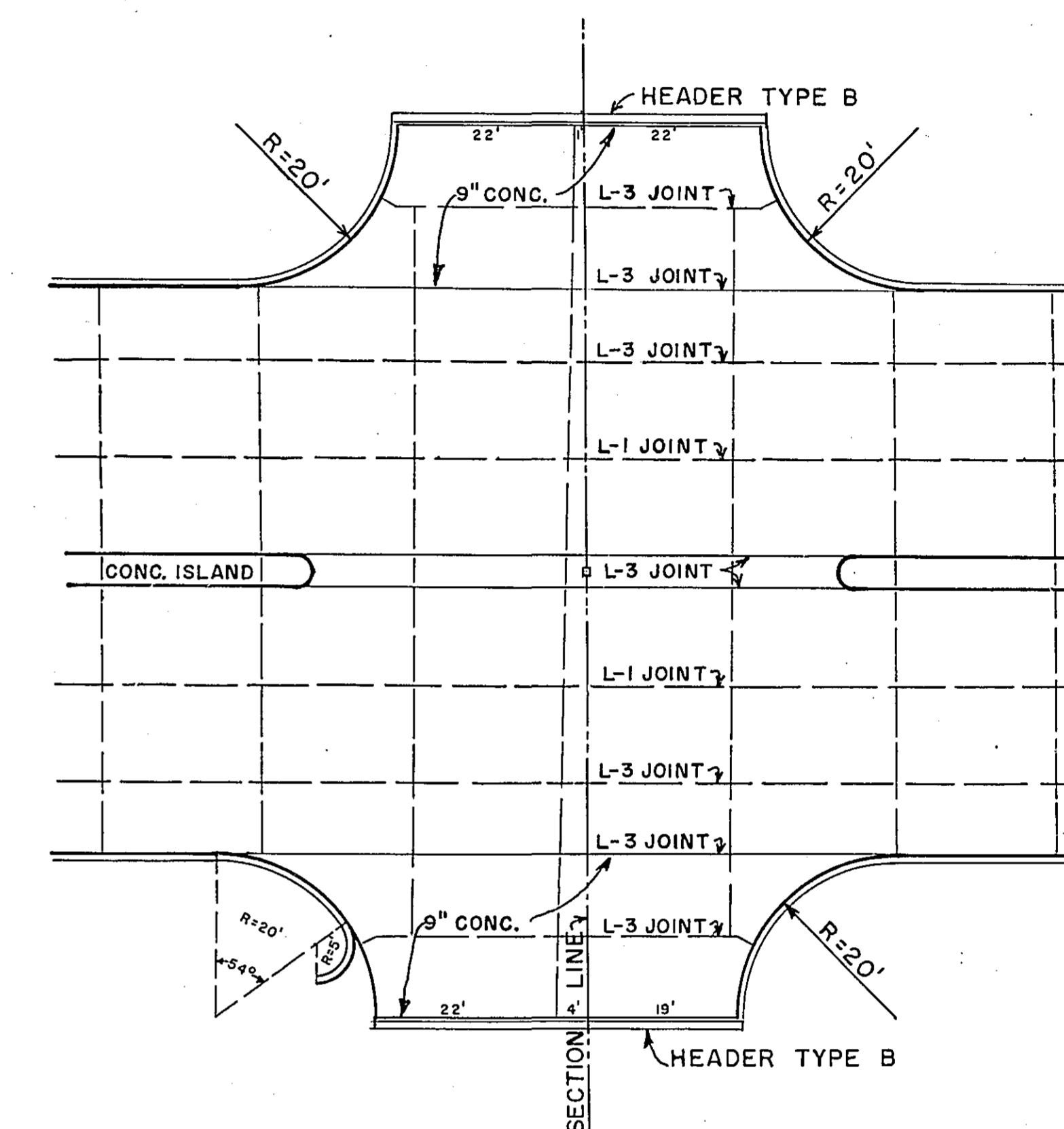
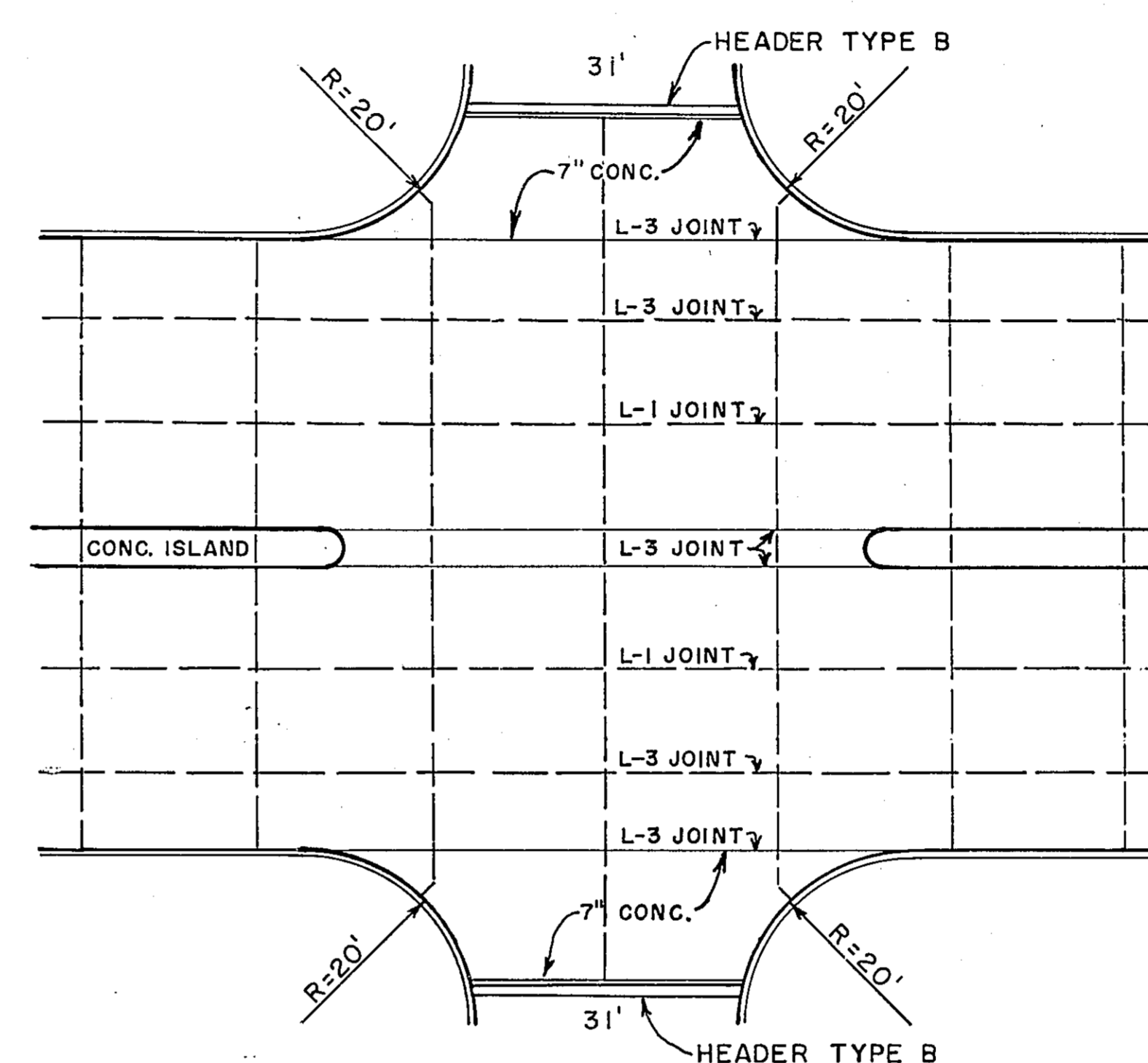
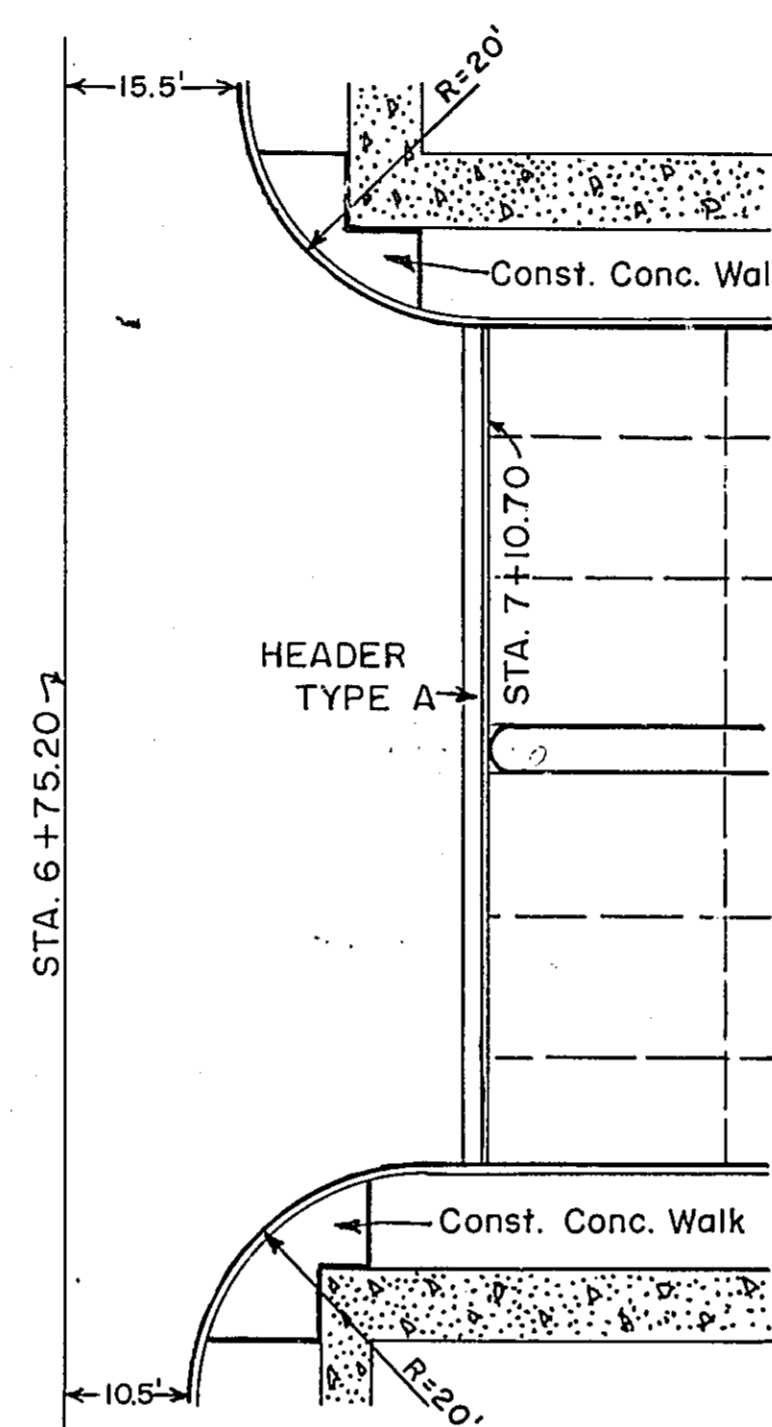
* HAMLINE AVENUE:
GRADE TO WIDTH AS SHOWN ON CROSS SECTION SHEETS.

ARONA AVENUE

PASCAL AVENUE
ALBERT AVENUE

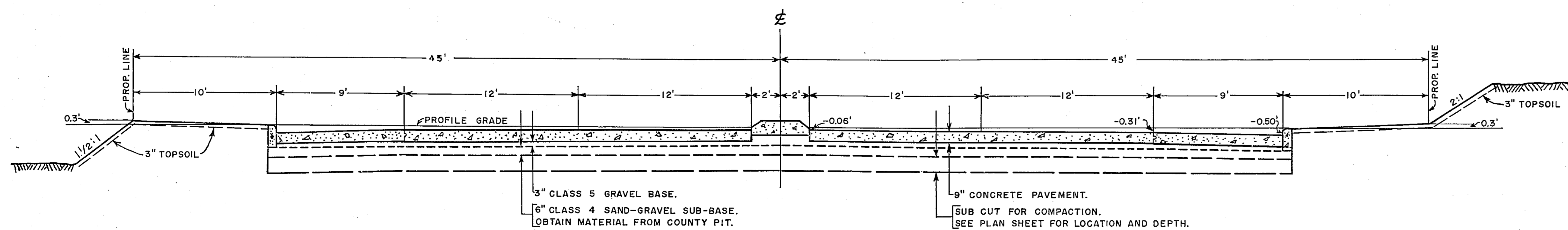
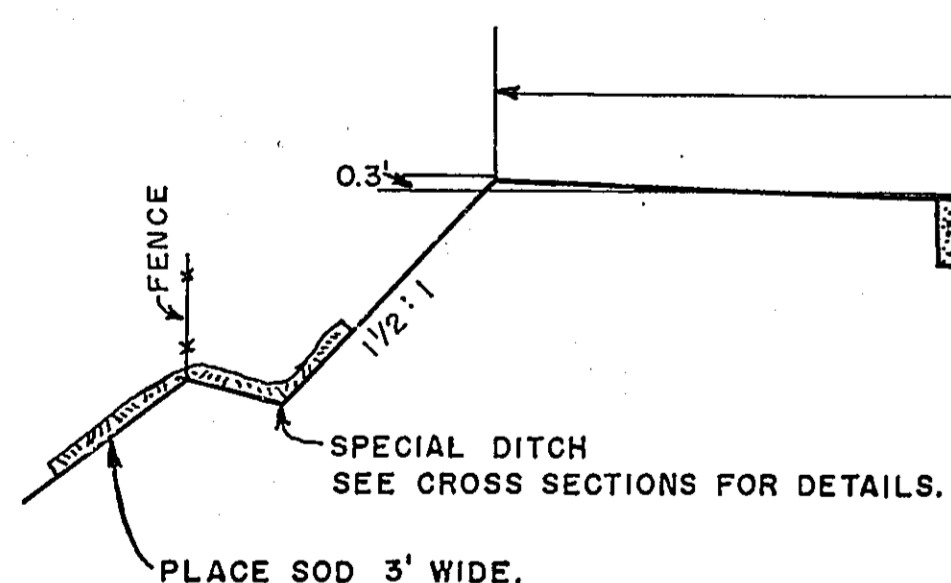
HOLTON AVENUE
HURON STREET

HAMLINE AVENUE



ARONA AVE. TO STA. 27+00

SPECIAL SECTION LEFT STA. 32+37 TO STA. 34+94

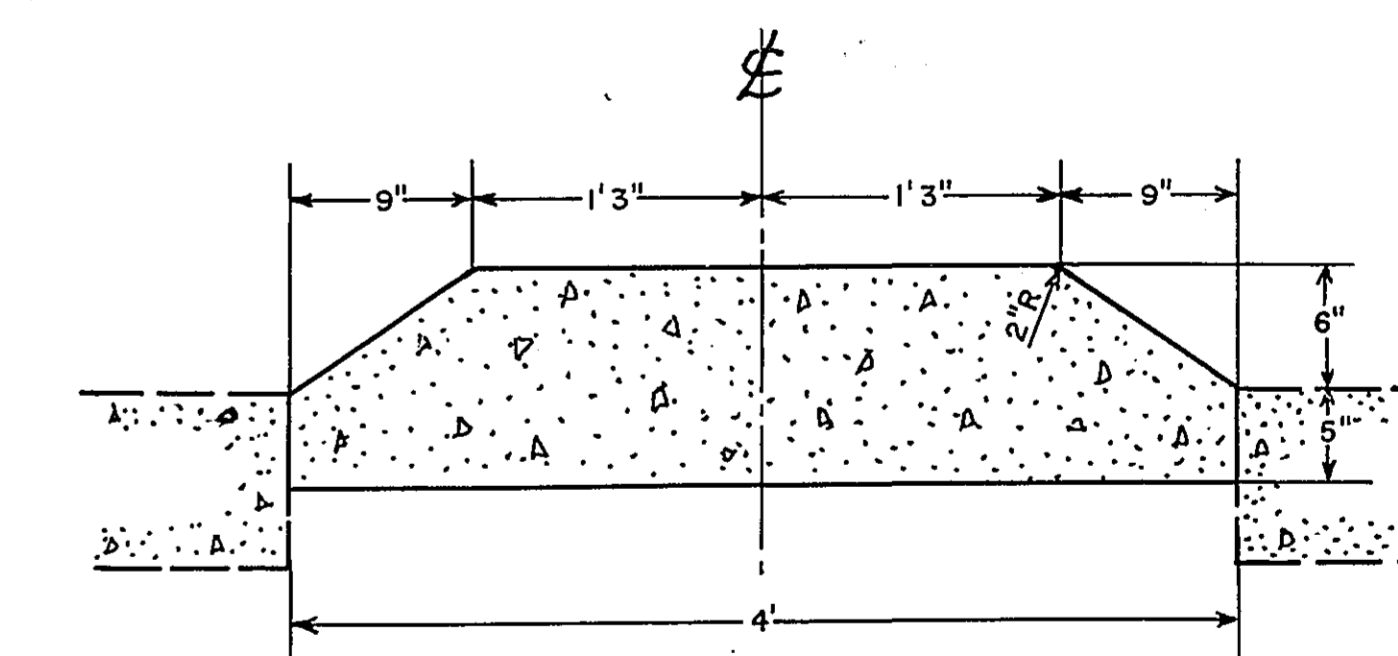


STA. 27+00 TO STA. 39+34

NOTES: USE CLASS C-1 CONTRACTION JOINTS ON THIS PROJECT EXCEPT FROM STA. 7+10.7 TO STA. 9+50.7 WHERE CLASS C-4 CONTRACTION JOINTS SHALL BE USED.

ALL TRANSVERSE CONTRACTION JOINTS IN THE WIDENED PORTION (9' LANE) SHALL BE FORMED WITH REMOVABLE INSERTS.

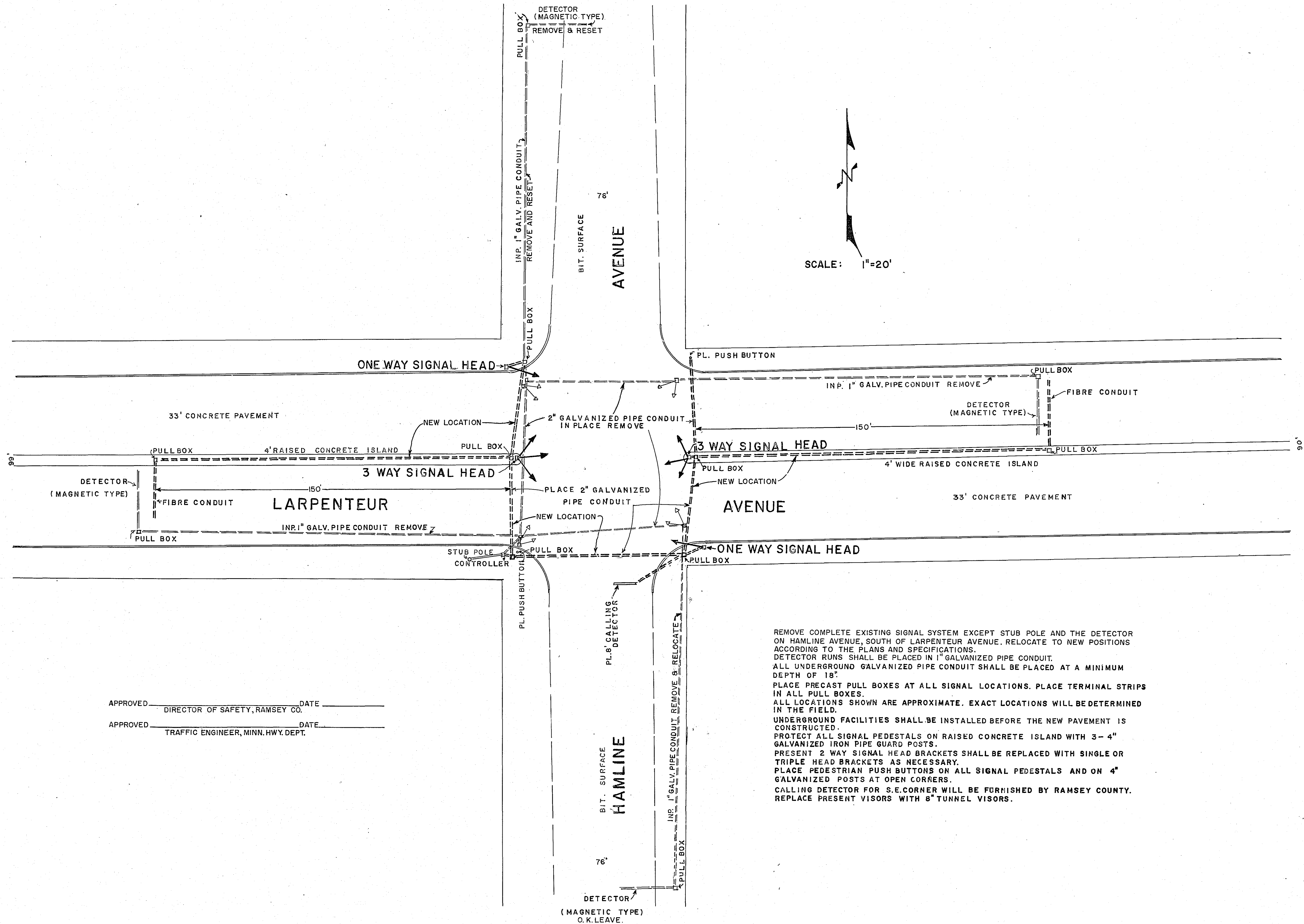
PLACE 1/2" Ø X 10'-0" BARS 2'-0" C-C IN PAVEMENT OVER LATERAL TRENCH EXCAVATIONS. PLACE 1/2" Ø X 8'-0" BARS 2'-0" C-C IN PAVEMENT OVER TRENCH EXCAVATIONS IN WIDENED PORTIONS (9' LANES).



DETAIL OF ISLAND
SCALE: 1" = 1'-0"

PLACE ONE 4" DIA. HOLE ON CONCRETE ISLAND APPROX. 4' FROM ALL ISLAND ENDS.

RELOCATION OF FULL TRAFFIC ACTUATED TRAFFIC SIGNAL SYSTEM

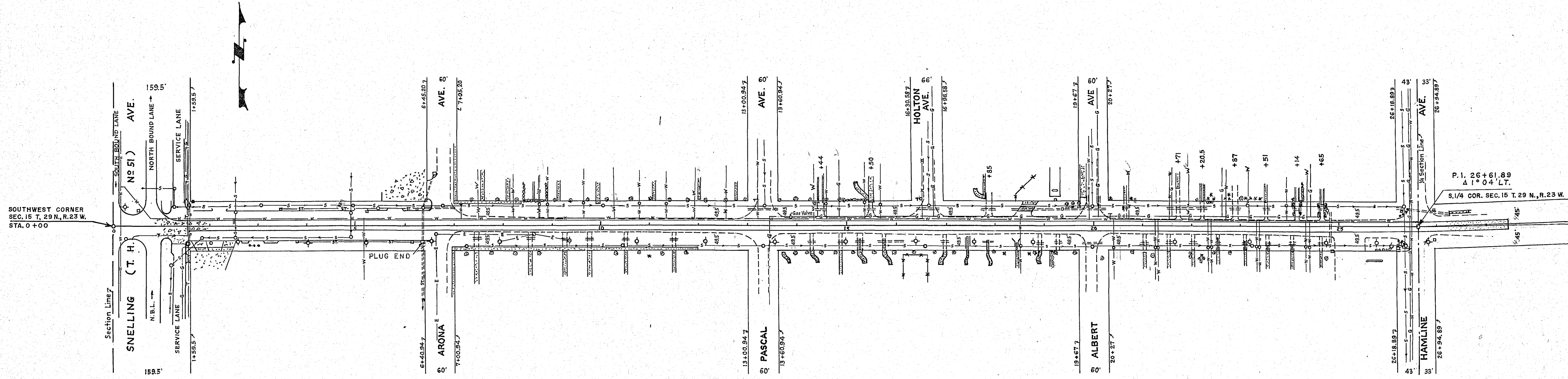


SCALE: 1"=20'

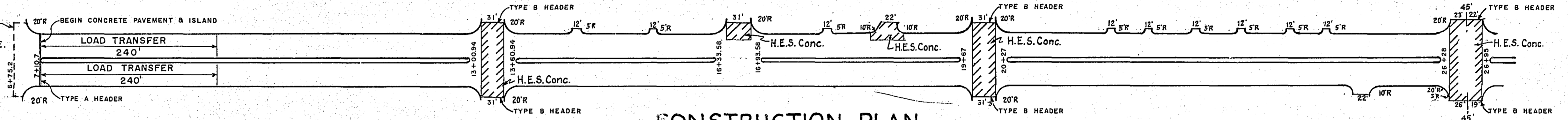
APPROVED: _____ DATE _____
 DIRECTOR OF SAFETY, RAMSEY CO.
 APPROVED: _____ DATE _____
 TRAFFIC ENGINEER, MINN. HWY. DEPT.

REMOVE COMPLETE EXISTING SIGNAL SYSTEM EXCEPT STUB POLE AND THE DETECTOR ON HAMLINE AVENUE, SOUTH OF LARPENTEUR AVENUE. RELOCATE TO NEW POSITIONS ACCORDING TO THE PLANS AND SPECIFICATIONS.
 DETECTOR RUNS SHALL BE PLACED IN 1" GALVANIZED PIPE CONDUIT.
 ALL UNDERGROUND GALVANIZED PIPE CONDUIT SHALL BE PLACED AT A MINIMUM DEPTH OF 18".
 PLACE PRECAST PULL BOXES AT ALL SIGNAL LOCATIONS. PLACE TERMINAL STRIPS IN ALL PULL BOXES.
 ALL LOCATIONS SHOWN ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD.
 UNDERGROUND FACILITIES SHALL BE INSTALLED BEFORE THE NEW PAVEMENT IS CONSTRUCTED.
 PROTECT ALL SIGNAL PEDESTALS ON RAISED CONCRETE ISLAND WITH 3- 4" GALVANIZED IRON PIPE GUARD POSTS.
 PRESENT 2 WAY SIGNAL HEAD BRACKETS SHALL BE REPLACED WITH SINGLE OR TRIPLE HEAD BRACKETS AS NECESSARY.
 PLACE PEDESTRIAN PUSH BUTTONS ON ALL SIGNAL PEDESTALS AND ON 4" GALVANIZED POSTS AT OPEN CORNERS.
 CALLING DETECTOR FOR S.E. CORNER WILL BE FURNISHED BY RAMSEY COUNTY.
 REPLACE PRESENT VISORS WITH 8" TUNNEL VISORS.

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STA. 6+75.2 BEGIN PAVEMENT REMOVAL & SUBGRADE TREATMENT.
 STA. 6+75.2 TO STA. 7+10.7: FINISH TO 6" BELOW PROFILE GRADE.
 6" BITUMINOUS WEARING COURSE TO BE PLACED BY OTHERS.

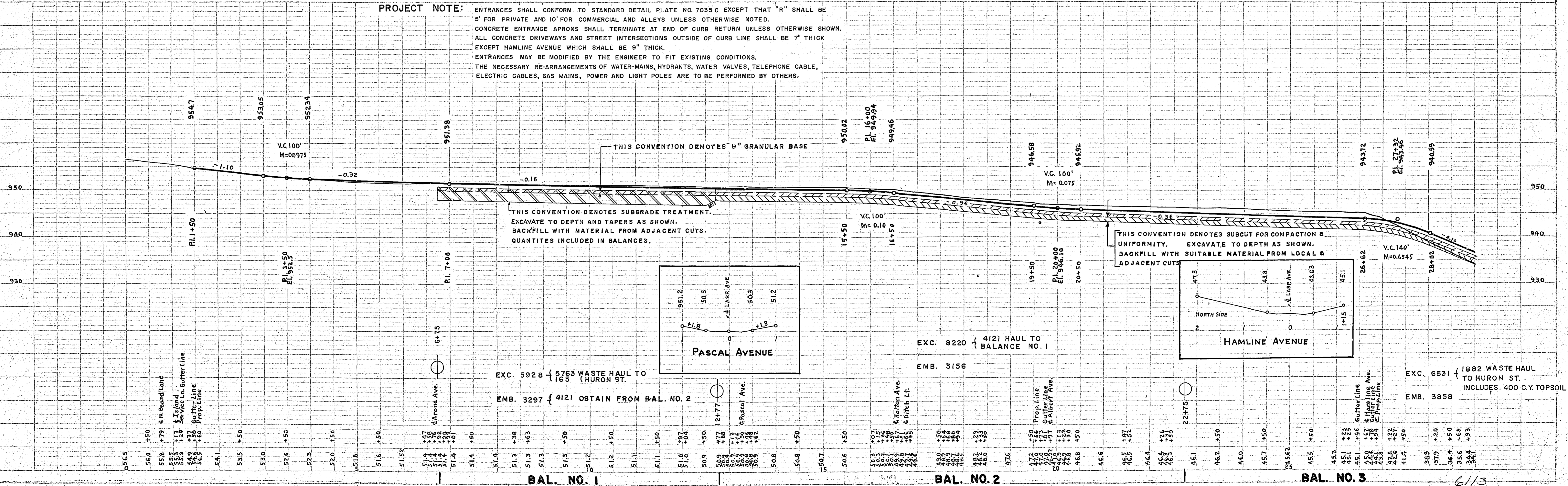


CONSTRUCTION PLAN

PROJECT NOTE:

ENTRANCES SHALL CONFORM TO STANDARD DETAIL PLATE NO. 7035 C EXCEPT THAT "R" SHALL BE 5' FOR PRIVATE AND 10' FOR COMMERCIAL AND ALLEYS UNLESS OTHERWISE NOTED.
 CONCRETE ENTRANCE APRONS SHALL TERMINATE AT END OF CURB RETURN UNLESS OTHERWISE SHOWN.
 ALL CONCRETE DRIVEWAYS AND STREET INTERSECTIONS OUTSIDE OF CURB LINE SHALL BE 7" THICK EXCEPT HAMLINE AVENUE WHICH SHALL BE 9" THICK.
 ENTRANCES MAY BE MODIFIED BY THE ENGINEER TO FIT EXISTING CONDITIONS.
 THE NECESSARY RE-ARRANGEMENTS OF WATER-MAINS, HYDRANTS, WATER VALVES, TELEPHONE CABLE, ELECTRIC CABLES, GAS MAINS, POWER AND LIGHT POLES ARE TO BE PERFORMED BY OTHERS.

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BAL. NO. 1

BAL. NO. 2

BAL. NO. 3

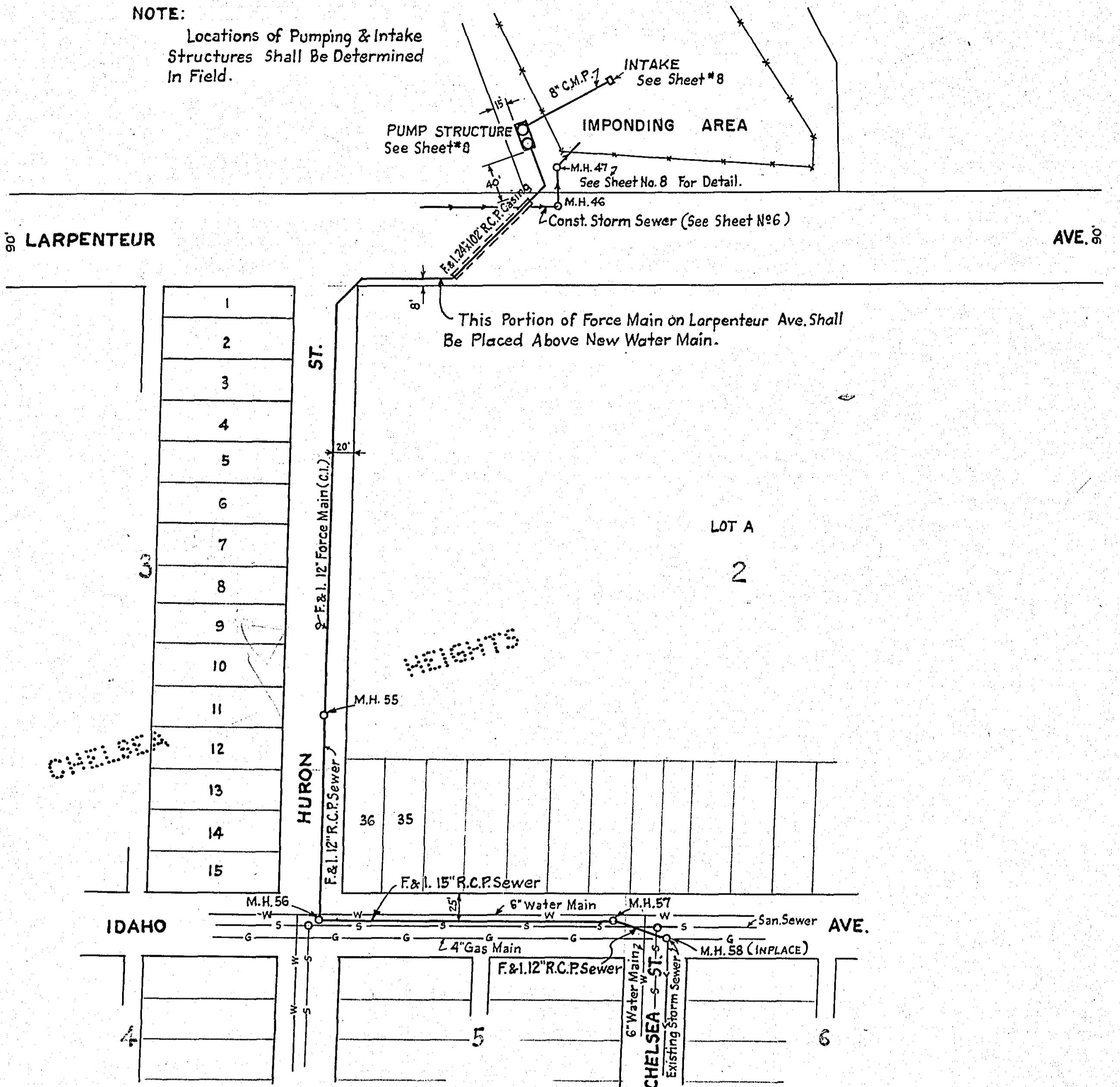
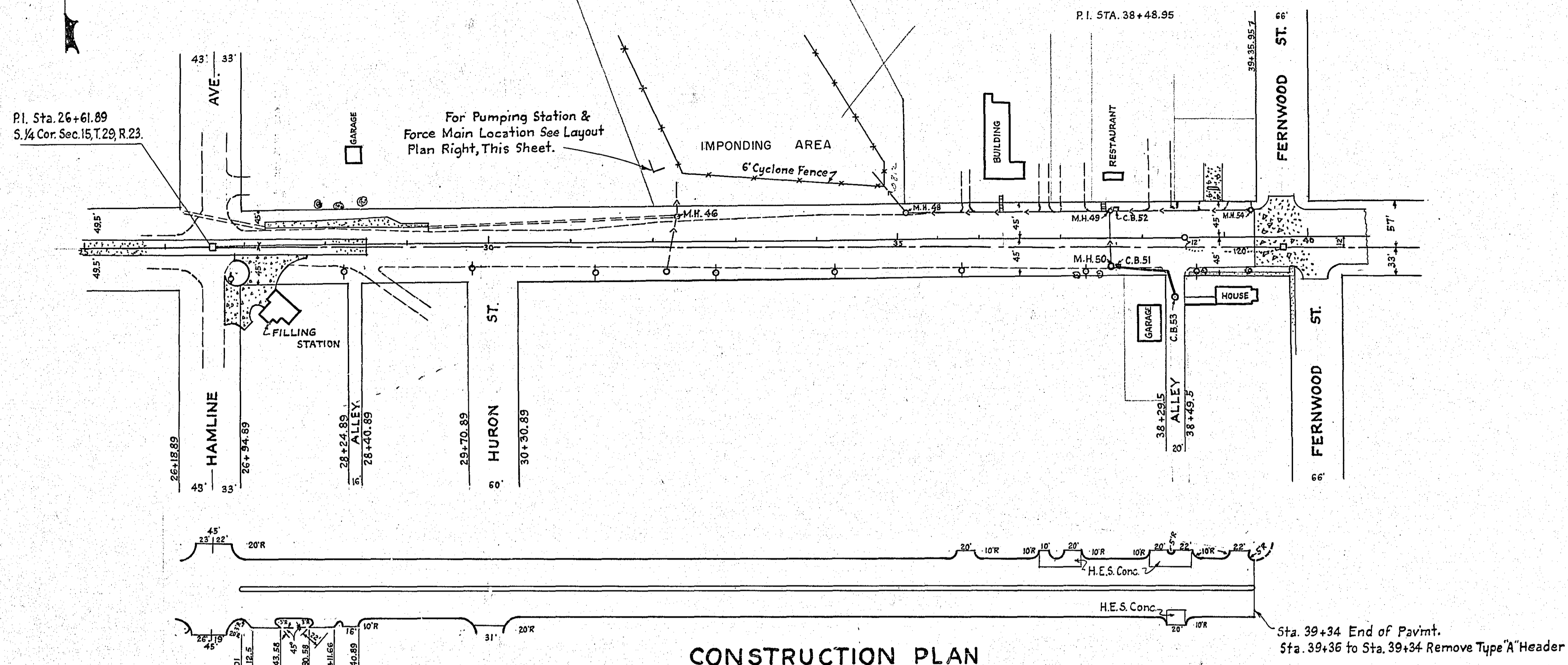
PLATE 1 - PLAN PROFILE (S.D.P. 1-4) STANDARD
 REVISIONS & CHANGE C.F. NEW YORK
 R. & E. CO. 700 940-1000

Sta. 29+25 Lt. to Sta. 32+28 Lt. 34'
Inp. 24" x 304" C.M.
Remove

Sta. 33+50 Lt. 72' to 88' Lt.
F.&I. 12" x 16" C.M.

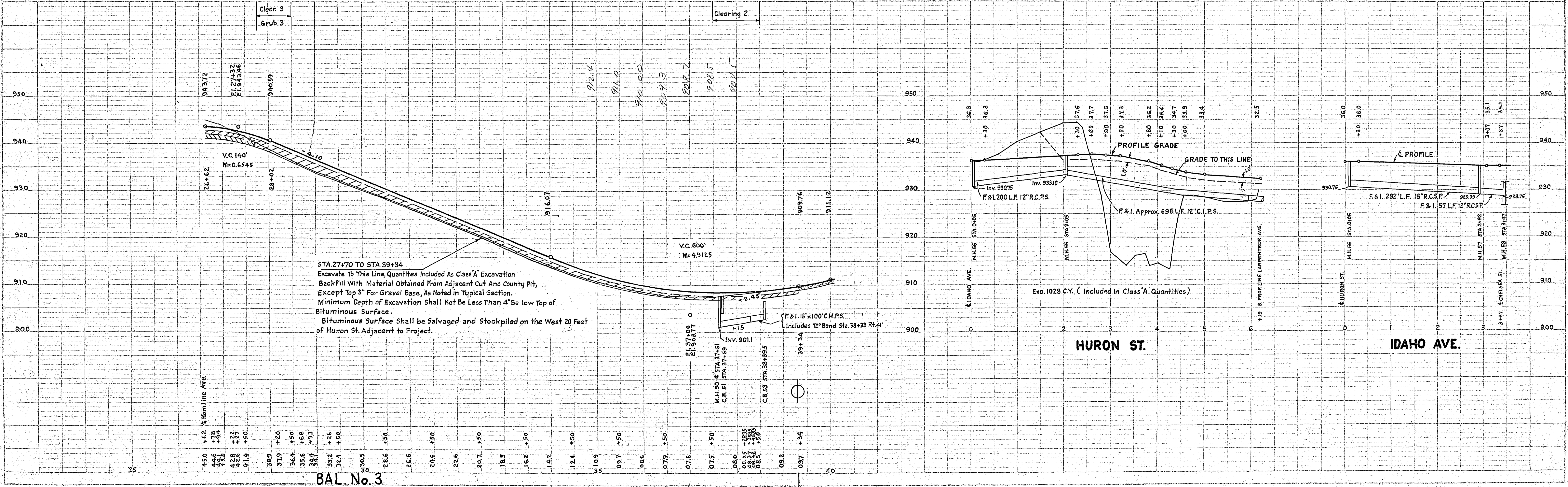
Sta. 39+33 - 38' Lt. to 38' Rt.
F.&I. 3" x 76" Galvanized Conduit
Place Caps on Ends.

NOTE:
Locations of Pumping & Intake
Structures Shall Be Determined
In Field.



CONSTRUCTION PLAN

Sta. 39+34 End of Pavmt.
Sta. 39+36 to Sta. 39+34 Remove Type 'A' Header



BAL. No. 3

HURON ST.

IDAHO AVE.

Exc. 1028 CY. (Included in Class 'A' Quantities)

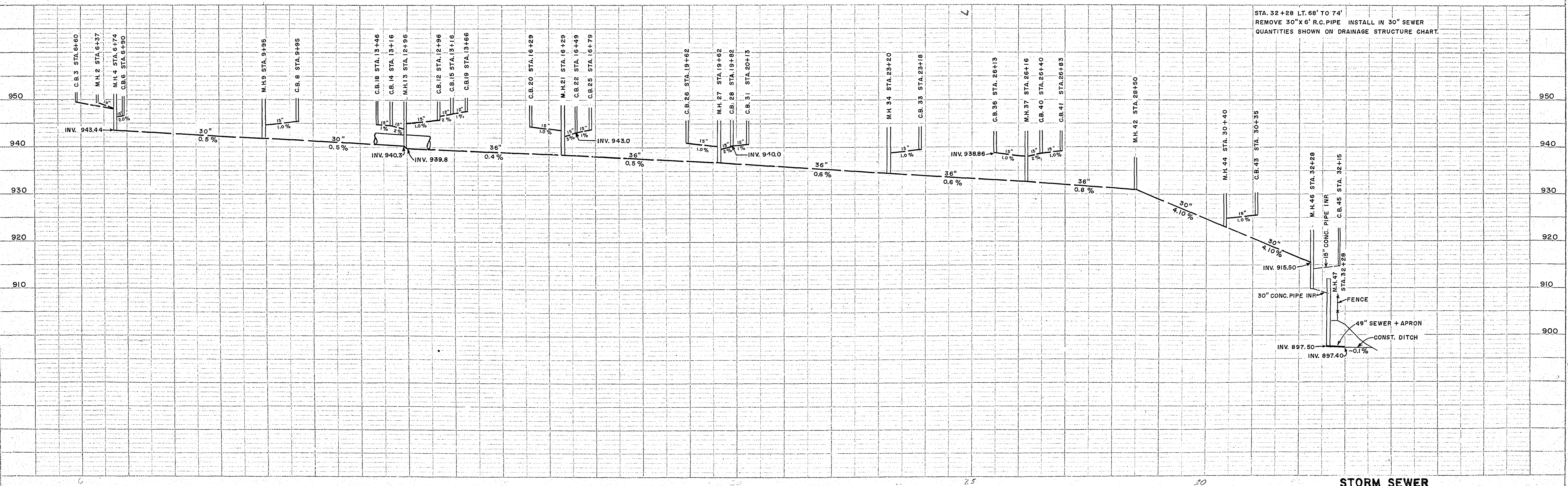
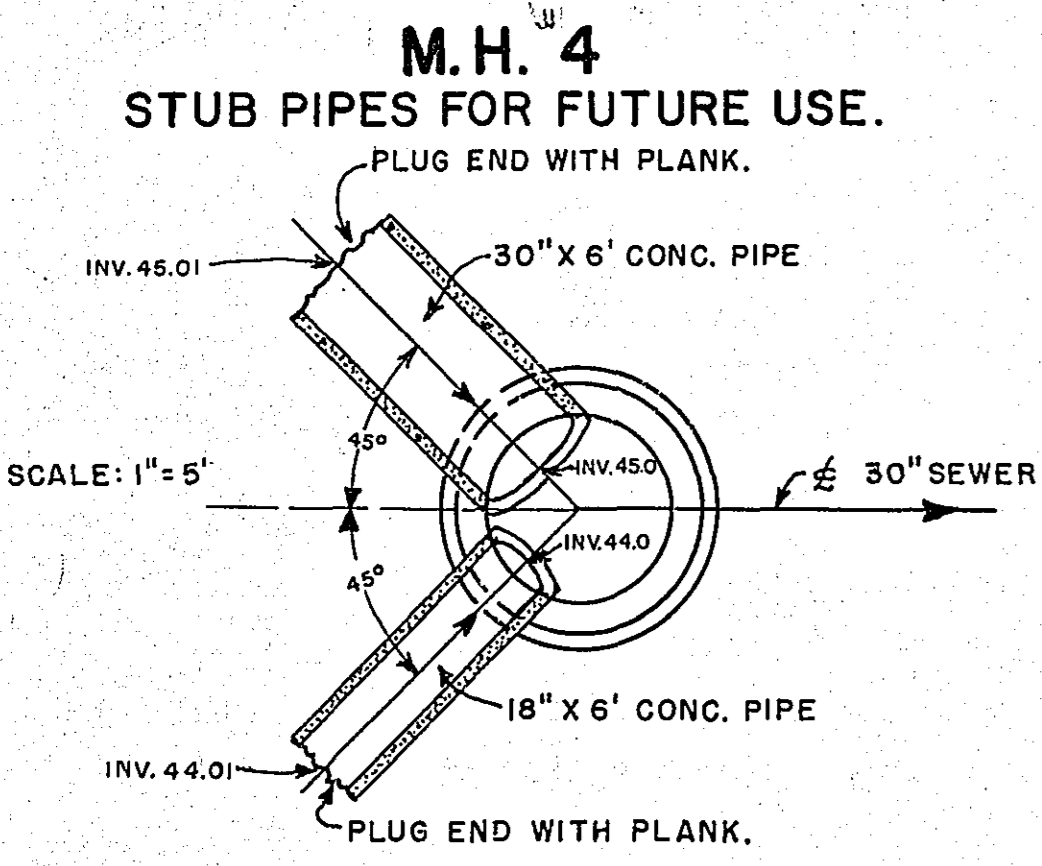
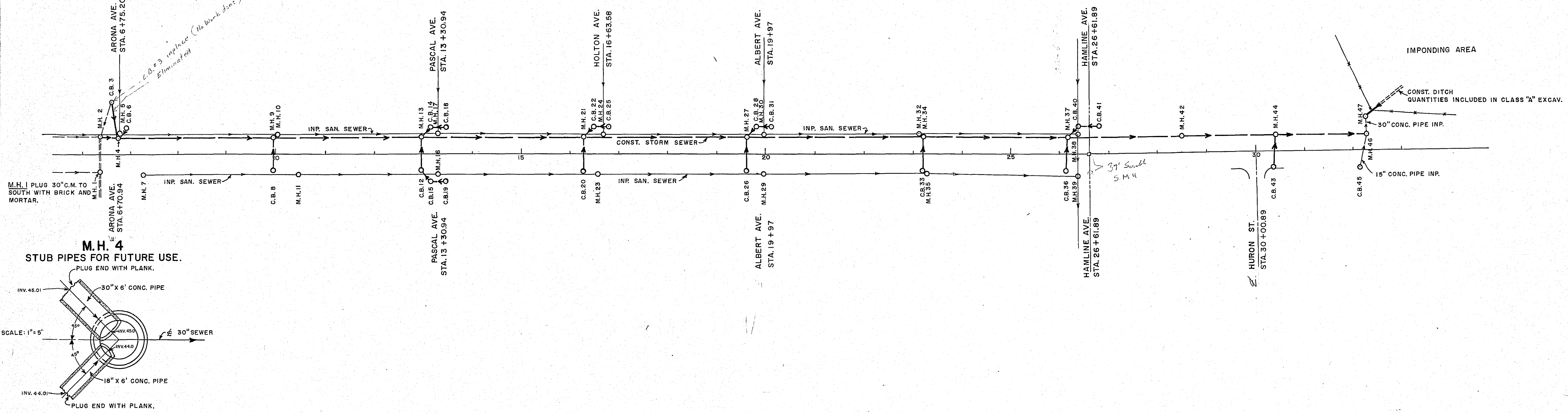
DATE	
BY	
PLAN	SURVEYED
NOTE BOOK	FLIPPED
NO.	17
	BY WAY CHECKED

DATE	
BY	
PROFILE	SURVEYED
NOTE BOOK	FLIPPED
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PLAN	BY	DATE
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INSTALL 70' LIN. FEET 18" C.M. PIPE
M.H. #3 STA. 6+75.20 TO M.H. #4 STA. 6+74



STA. 32+28 LT. 68' TO 74'
REMOVE 30" X 6' R.C. PIPE INSTALL IN 30" SEWER
QUANTITIES SHOWN ON DRAINAGE STRUCTURE CHART.

STORM SEWER