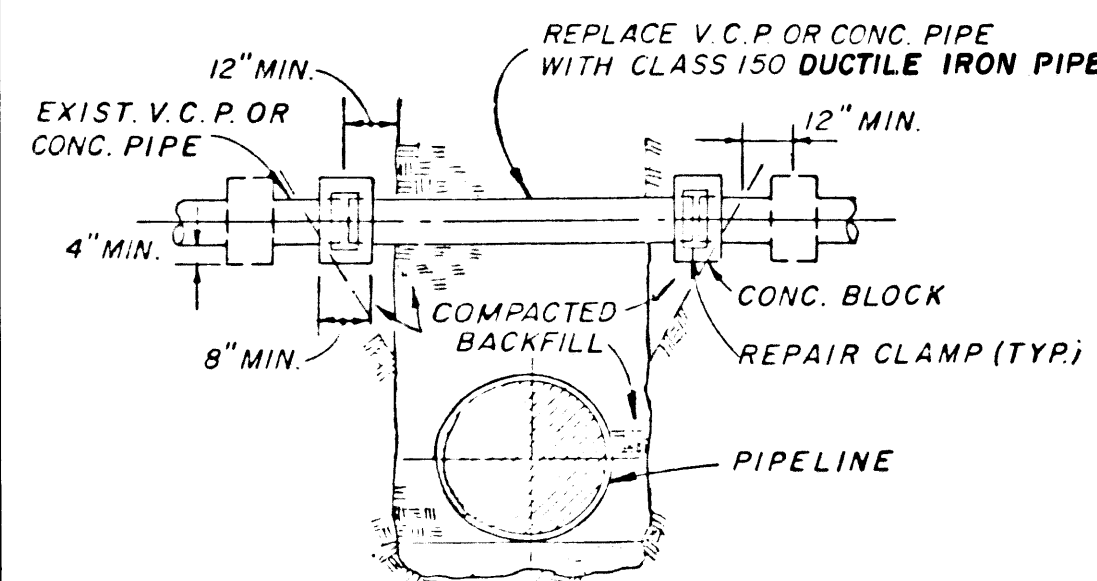
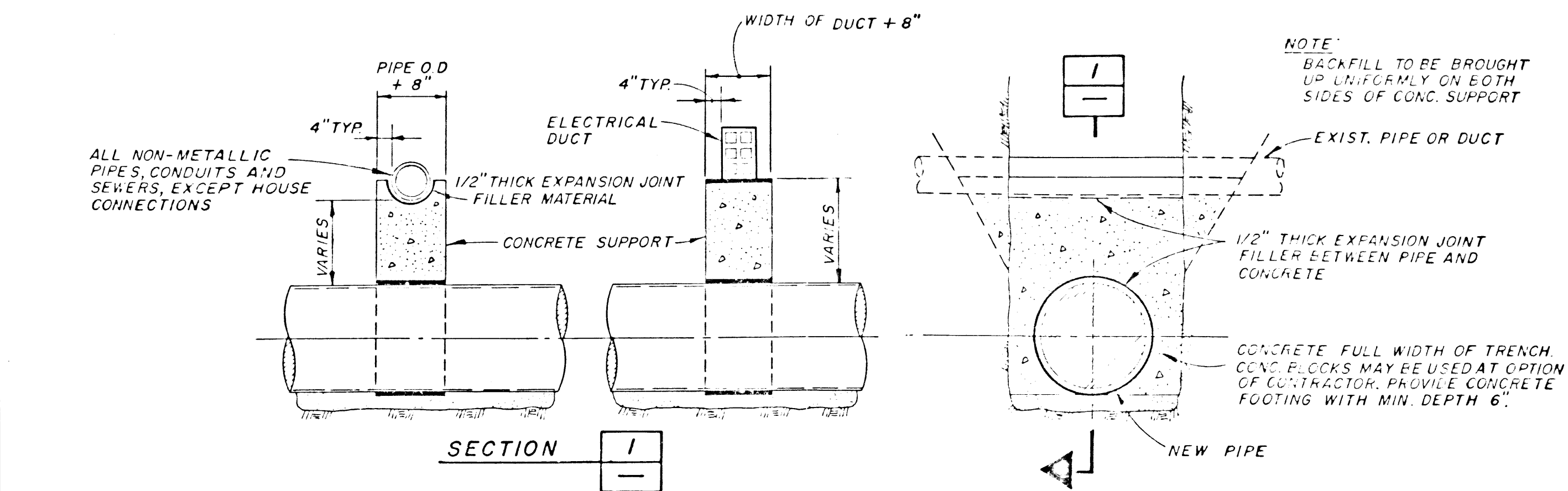


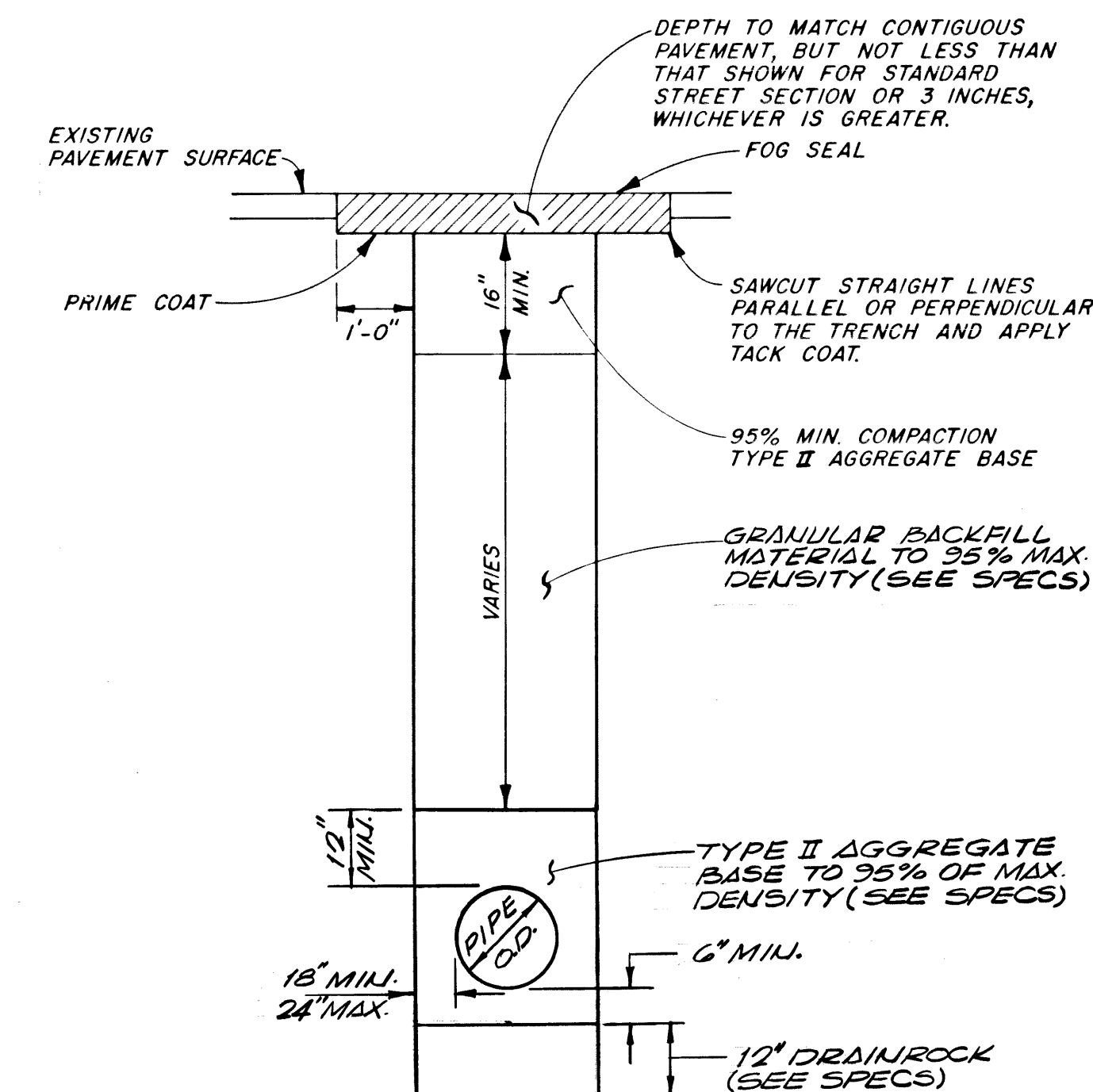


HOUSE SEWER CONNECTION
ACROSS PIPE TRENCH

UNDERGROUND UTILITY SUPPORT DETAILS

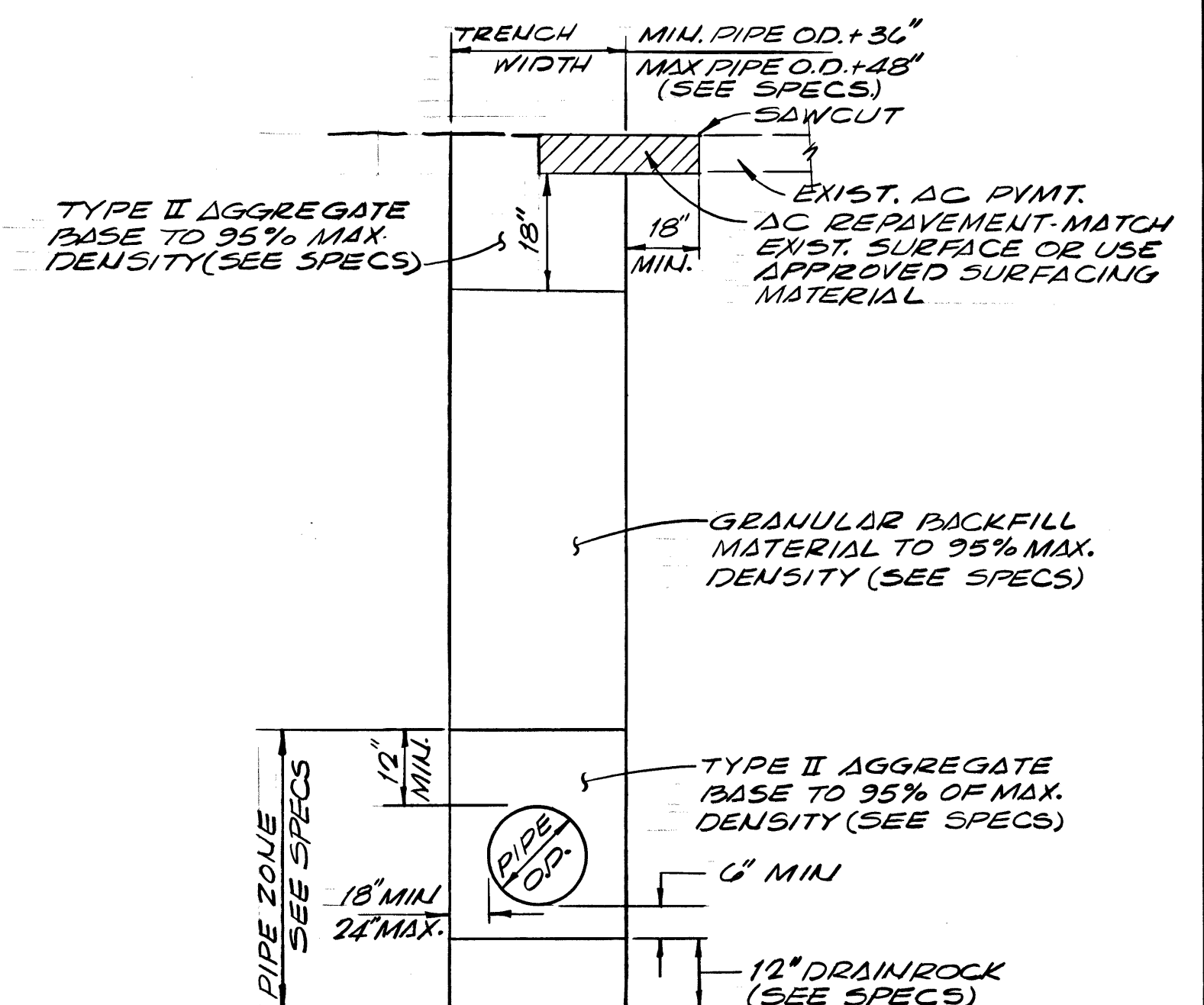
A

- NOTES:
1. UNDERGROUND UTILITY SUPPORTS ARE TO BE PROVIDED WHERE SHOWN ON PLAN OR PROFILE.
 2. EXISTING PIPE OR DUCT SHALL BE FIRMLY SUPPORTED DURING INSTALLATION OF NEW PIPE AND SUPPORT.



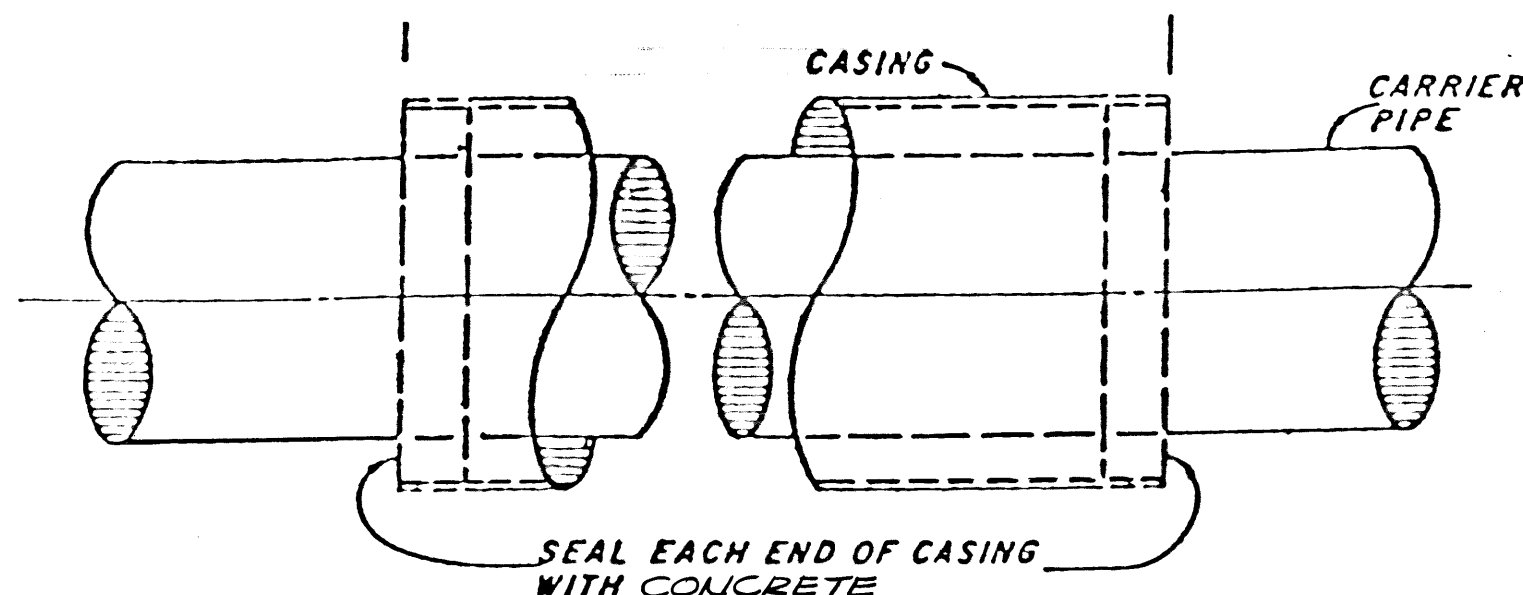
- NOTE:
1. TRENCH WIDTH, BEDDING AND PIPE ZONE REQUIREMENTS FOR UTILITY INSTALLATIONS SHALL CONFORM TO THE RESPECTIVE AGENCY REQUIREMENTS.
 2. FOR UNPAVED AREAS SEE SPEC.

TRENCH SECTION
STA. 44+00 - 65+29.18



- NOTES:
1. EDGES OF PATCH TO BE STRAIGHT AND UNIFORM (EDGES TO BE SAWCUT).
 2. ALL EXCESS EXCAVATED MATERIAL TO BE HAULED AWAY AND DISPOSED OF OFF THE HIGHWAY RIGHT OF WAY UNLESS OTHERWISE PERMITTED BY THE ENGINEER.

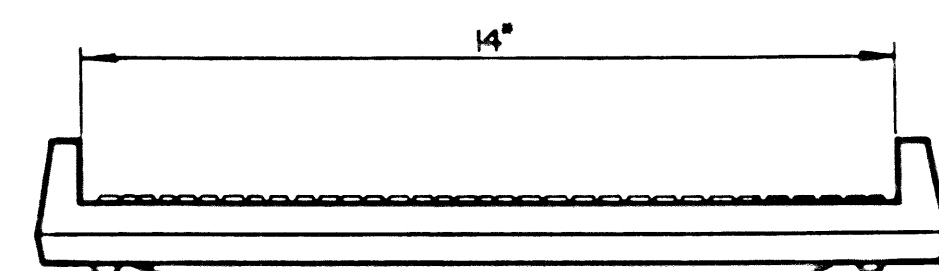
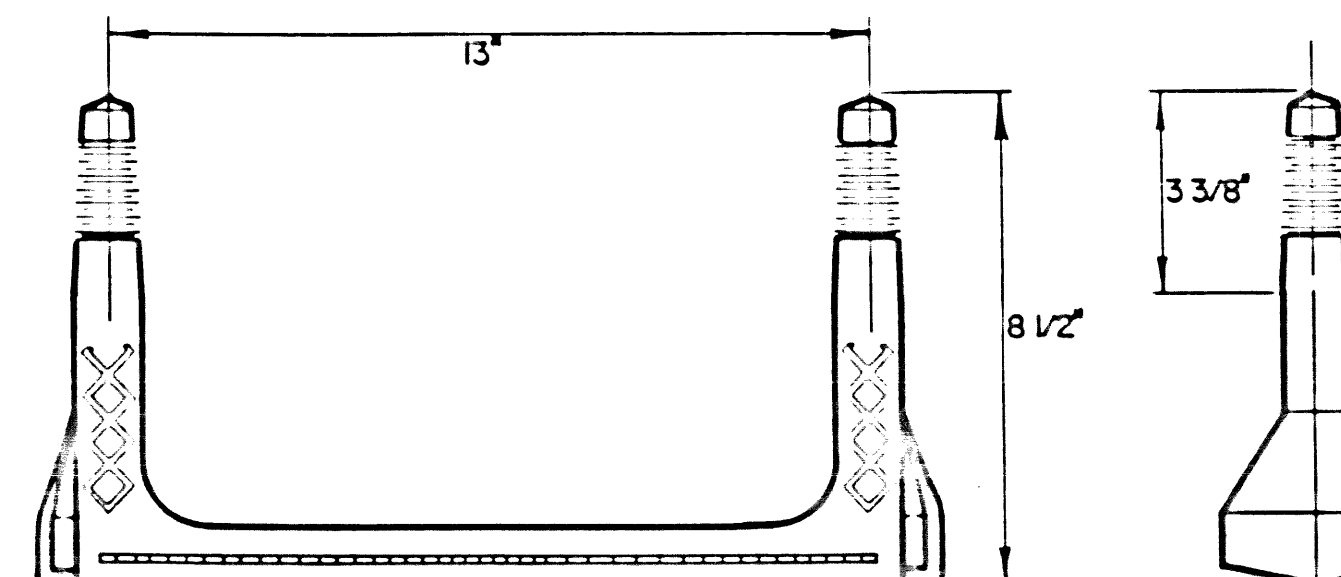
TRENCH SECTION
STA. 0+00 - 44+00



- NOTES:
1. CARRIER PIPE SHALL BE TESTED BEFORE FILLING CASING WITH SAND.
 2. SKIDS SHALL BE SECURELY ATTACHED TO CARRIER PIPE WITH STEEL BANDS. MINIMUM TWO BANDS PER SKID.
 3. SKIDS SHALL BE NOTCHED TO RECEIVE STEEL BANDS.
 4. SKIDS SHALL BE ROUNDED OR BEVELED ON LEADING EDGE.
 5. SKIDS SHALL BE GREASED BEFORE PIPE INSTALLATION.
 6. AS AN ALTERNATE TO REDWOOD SKIDS CONTRACTOR MAY USE PREFABRICATED PLASTIC CASING SKIDS ATTACHED AROUND CARRIER PIPE.
 7. AS AN ALTERNATE CONTRACTOR MAY USE A STANDARD PULL-ON OR WRAP-AROUND SYNTHETIC RUBBER END SEAL.

PIPE INSTALLATION IN CASING

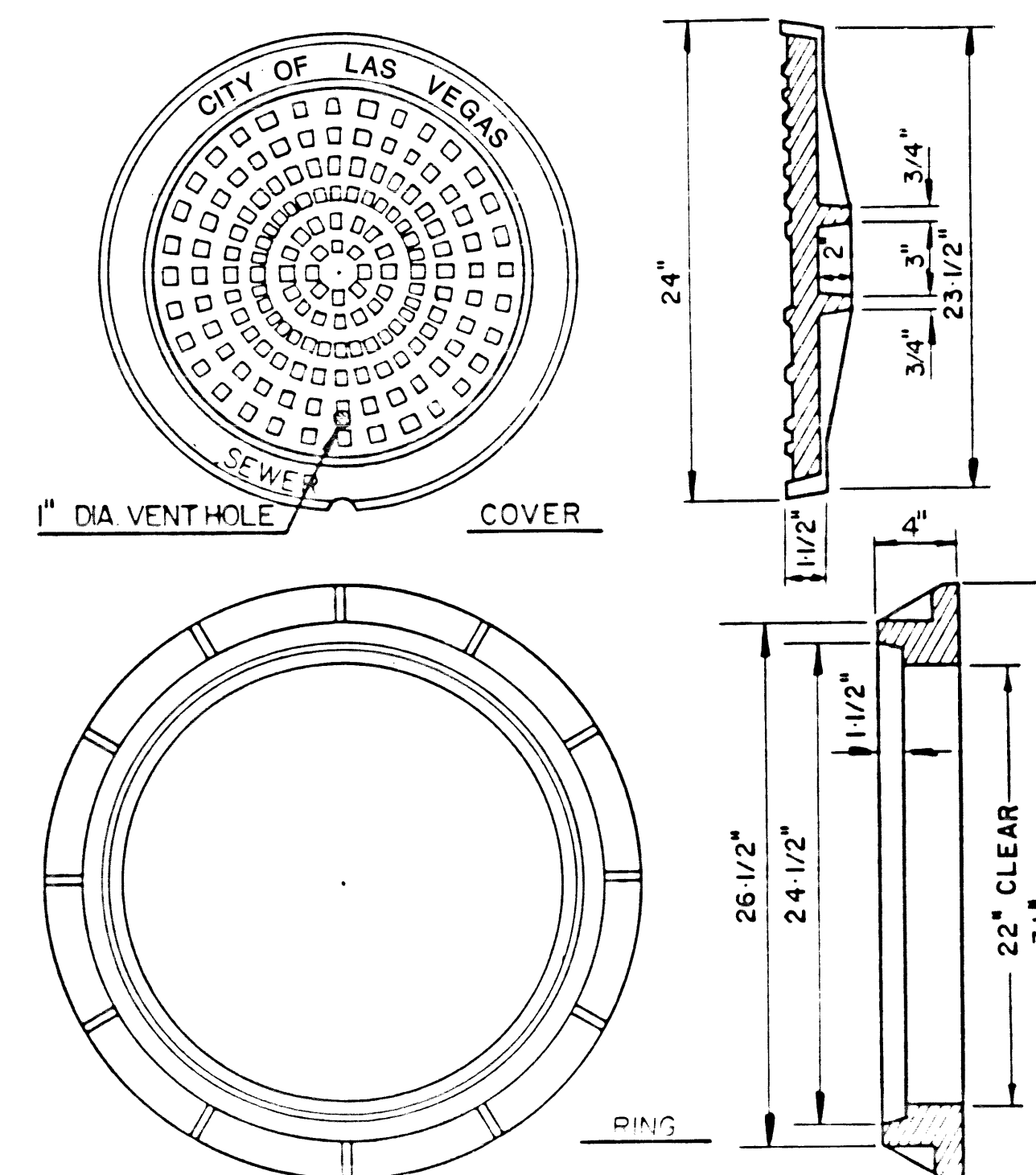
B



GENERAL NOTES

1. MANHOLE STEP SHALL CONFORM TO ASTM C-478
2. ALUMINUM STEPS SHALL BE SOLID, MADE FROM MATERIAL IN CONFORMANCE WITH ASTM B221 B221 (ALLOY 6005-T3)
3. REINFORCED PLASTIC STEPS SHALL BE POLYPROPYLENE PLASTIC, No. 3 DEFORMED STEEL ROD (GRADE 60/ASTM A-615)

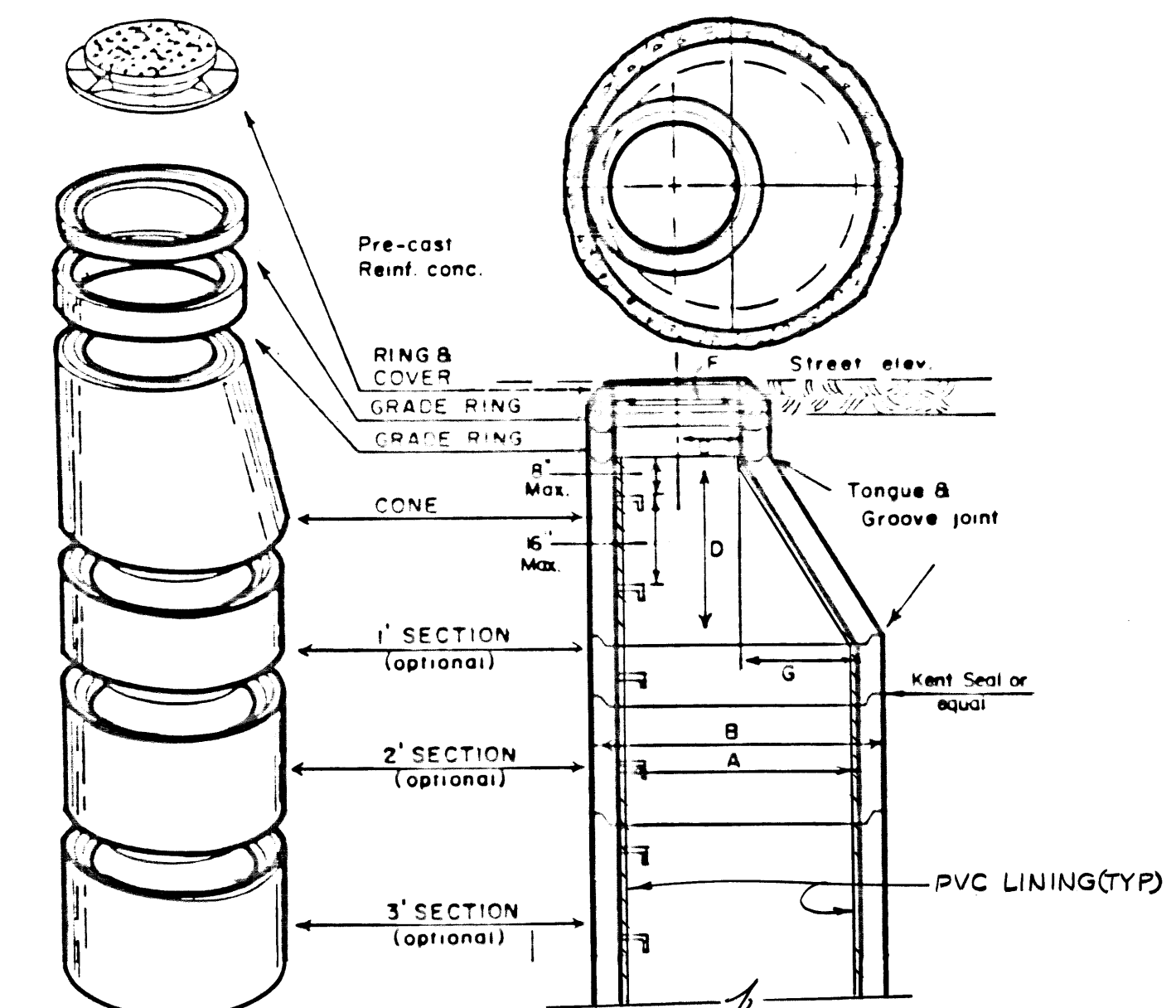
MANHOLE STEPS



NOTES

1. RING AND COVER TO BE ALHAMBRA FOUNDRY CO. TYPE A1310 OR EQUAL
2. CAST IRON SHALL HAVE MINIMUM TENSILE STRENGTH OF 30,000 LBS/SQ INCH
3. FRAME AND COVER MACHINED TO FIT.
4. WEIGHT OF FRAME AND COVER 330 LBS. MINIMUM

MANHOLE COVER AND RING

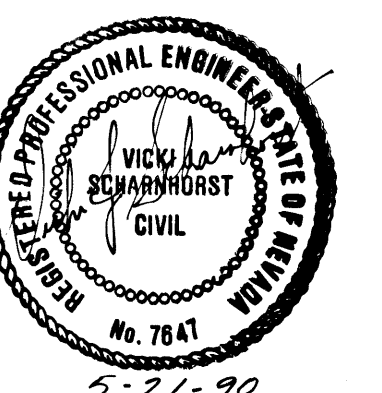


- NOTES:
1. PRECAST CONCRETE SECTIONS SHALL CONFORM TO ASTM DESIGNATION C-478 AS LAST AMENDED. ALL CEMENT TO BE TYPE V.
 2. MANHOLE COVER SHALL BE ALIGNED AS SHOWN ON PLANS.
 3. MANHOLES SHALL BE COMPLETELY PVC LINED (SEE SPECS) THROUGH THE TOP OF THE CONE SECTION SO THAT THE END RESULT IS A SMOOTH, CONTINUOUS, COMPLETE SURFACE THROUGHOUT.

TABLE OF DIMENSIONS										
SIZE	A	B	C	D	E	F	G	H	J	K
48"	48	60 1/2	36	6	24	23	-	-	-	-

STANDARD ECCENTRIC MANHOLE

C



JMM James M. Montgomery
Consulting Engineers, Inc.
(702) 878-8010
Las Vegas, Nevada

APPROVED _____ DATE _____
APPROVED _____ DATE _____

CITY OF LAS VEGAS
DOWNTOWN SEWER INTERCEPTOR PHASE II
MISCELLANEOUS DETAILS

SHEET
11
OF 22 SHEETS

21-1-17 307-V554-2