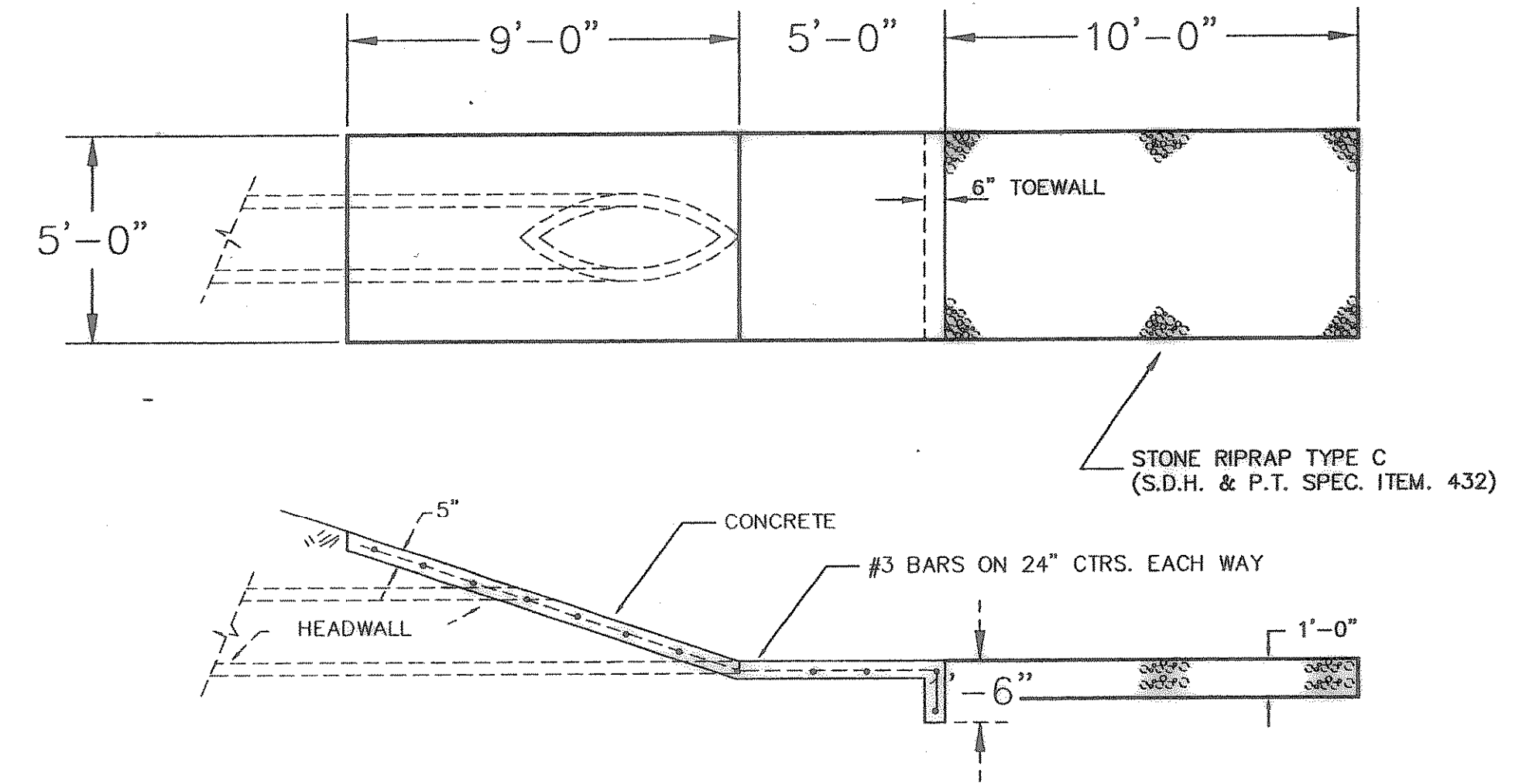
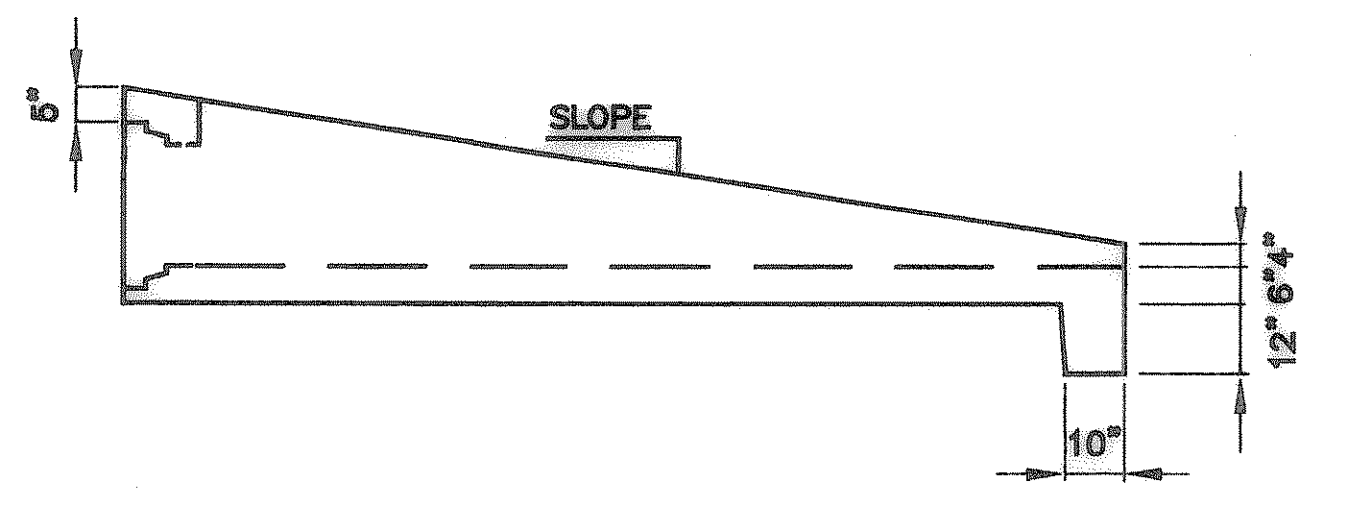
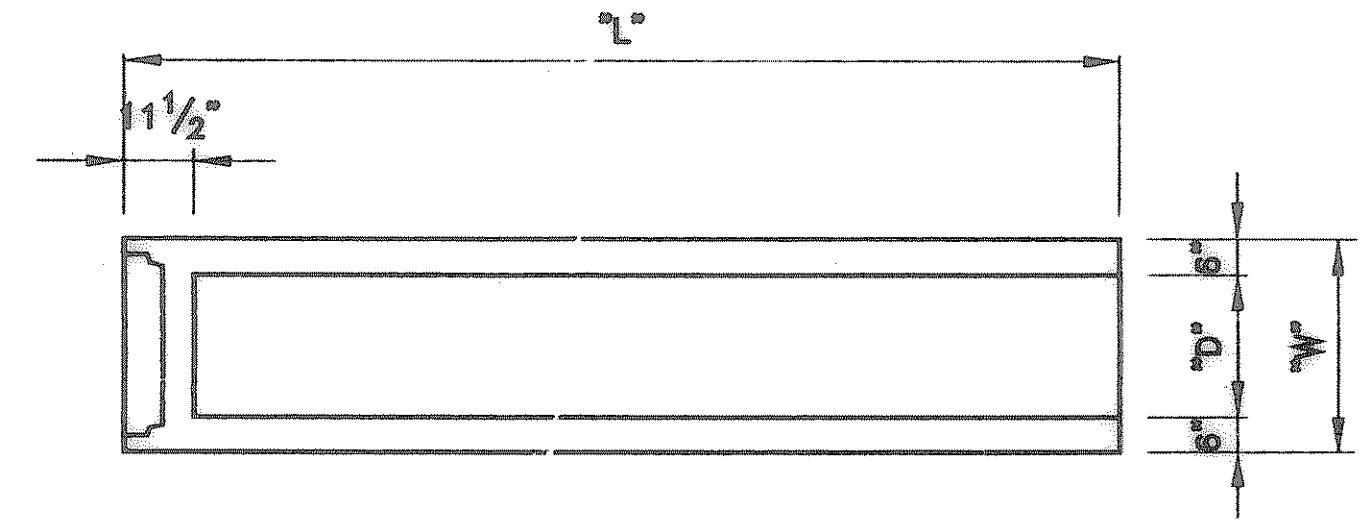


DROP INLET
(OPTIONAL IN PLACE OF AREA DRAIN)



HEADWALL END TREATMENT
TYPICAL FOR ALL HEADWALLS

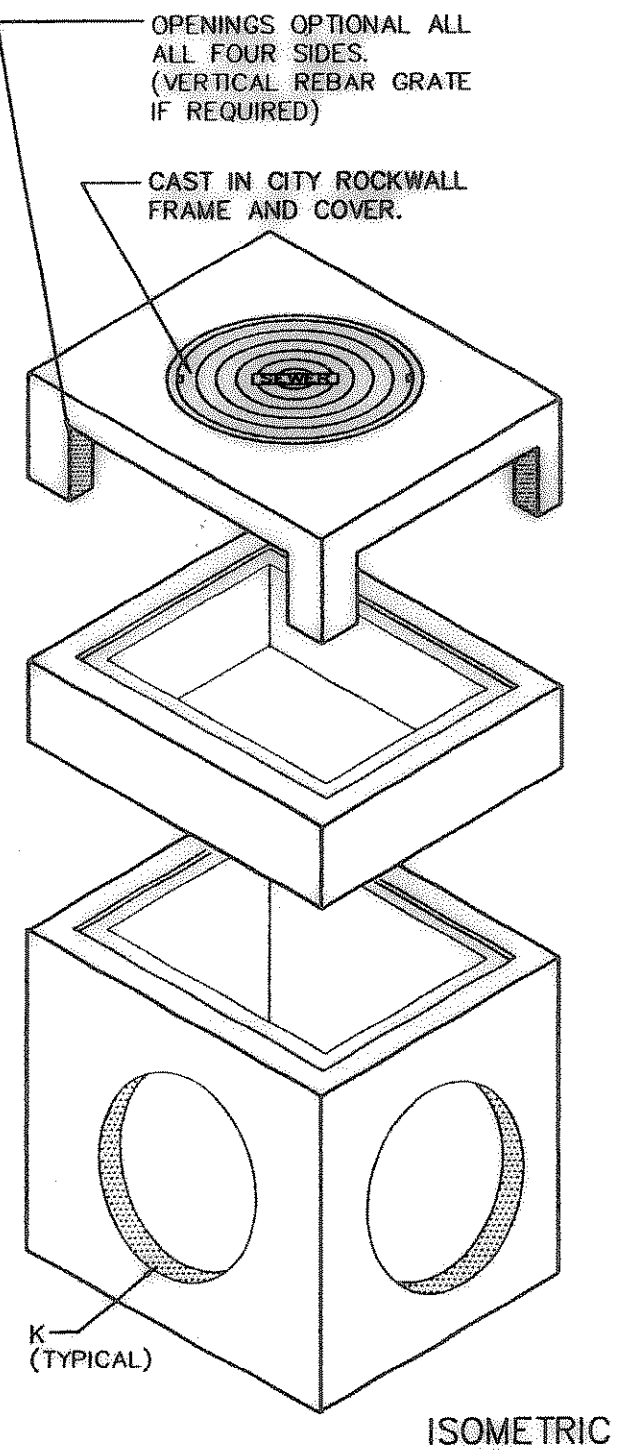
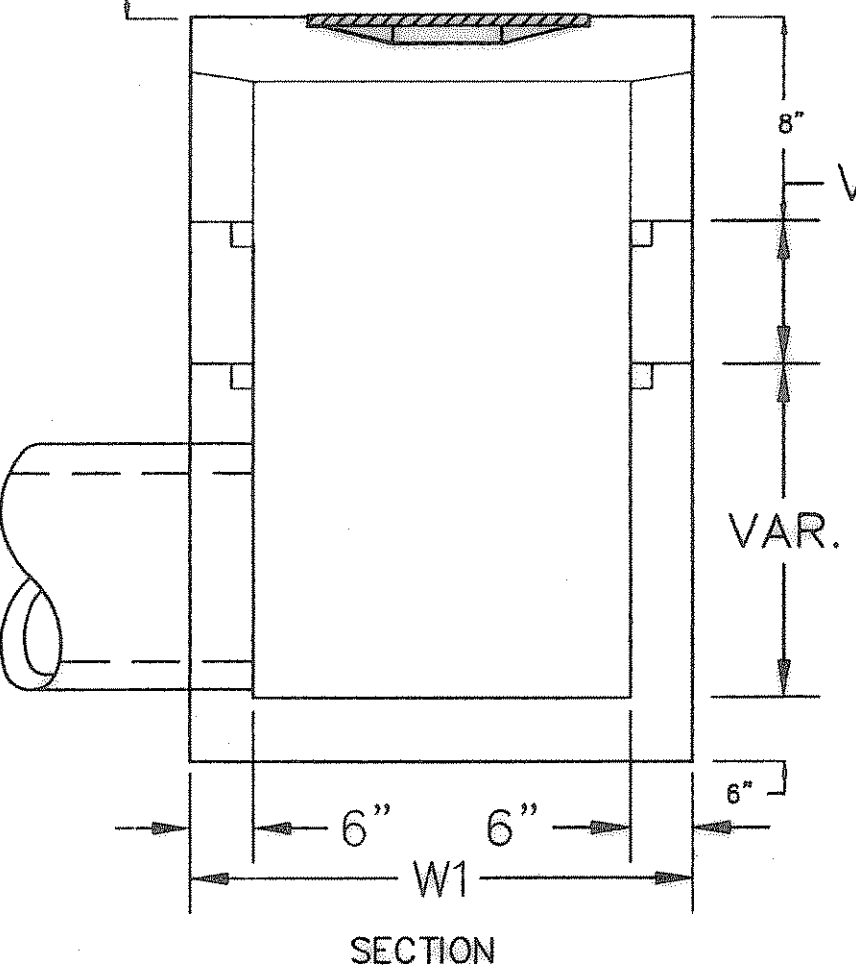
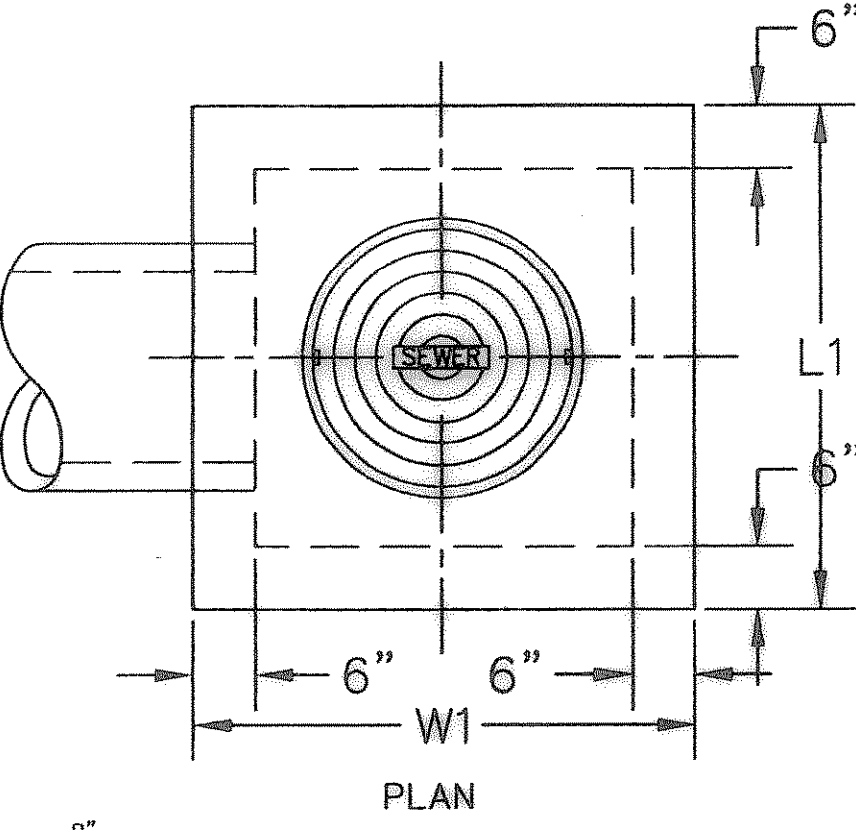


"D"	SLOPE	"W"	"L"	WT.
18"	6'-0"	2'-6"	10'-8"	8000#
24"	6'-0"	3'-0"	14'-0"	8000#
36"	6'-0"	4'-0"	21'-0"	10000#

TEXAS HIGHWAY DEPARTMENT
SAFETY END TREATMENTS

SPECIFICATIONS
CONCRETE: Class 1 concrete with of design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional riser to required depth. Rated for H-20 Loading.
REINFORCEMENT: Grade 60 reinforced. No. 4 steel rebar to conform to ASTM A615 on required centers or equal.
C.I. CASTINGS: Cast iron frames and grates are manufactured of grey cast iron conforming to ASTM A48-76 Class 30.

SLOPING HEADWALLS
NOT TO SCALE



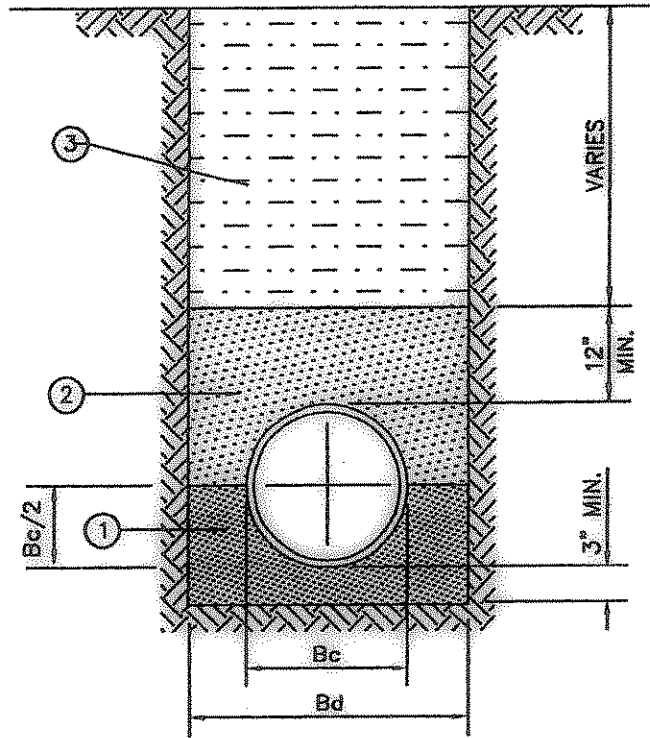
TYPE	L1	W1	K
E-3'	4'-0"	4'-0"	32"
E-4'	5'-0"	5'-0"	48"

SPECIFICATIONS
CONCRETE: Class 1 concrete with of design strength of 4500 PSI at 28 days. Unit is of monolithic construction at floor and first stage of wall with sectional riser to required depth. Rated for H-20 Loading.
REINFORCEMENT: Grade 60 reinforced. No. 4 steel rebar to conform to ASTM A615 on required centers or equal.
C.I. CASTINGS: Cast iron frames and grates are manufactured of grey cast iron conforming to ASTM A48-76 Class 30.

"Y" INLET DETAIL
NOT TO SCALE

These Drawings have been modified to conform to the Construction Records.
 Glenn Engineering Corporation
 By: [Signature] Date: 11-15-04

STORM SEWER DETAILS
N.T.S.



- FINE GRADATION CRUSHED STONE - TOP LAYER IS TO BE PLACED TO GRADE TO PROVIDE UNIFORM SUPPORT OF PIPE BARREL. EXCAVATE BELL HOLES.
- SELECT MATERIAL FREE OF ROCKS, CLUMPS OR DEBRIS LARGER THAN 6" IN GREATEST DIMENSION. COMPACT TO 90% STANDARD PROCTOR DENSITY. UNDER STRUCTURES, ROADWAYS AND PAVEMENT, USE NON-GRANULAR MATERIAL COMPACTED TO 95% STANDARD PROCTOR DENSITY. (NO SAND PERMITTED ABOVE STONE)
- SELECT MATERIAL FREE OF ROCKS, CLUMPS OR DEBRIS LARGER THAN 6" IN GREATEST DIMENSION. COMPACT TO 90% STANDARD PROCTOR DENSITY. UNDER STRUCTURES, ROADWAYS AND PAVEMENT, COMPACT TO 95% STANDARD PROCTOR DENSITY.

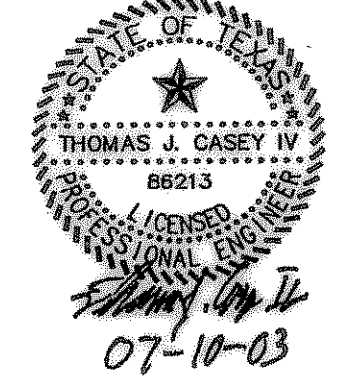
CLASS "B+" EMBEDMENT
NOT TO SCALE
ROOF DRAIN LINES AND STORM SEWER LINES

GLENN ENGINEERING
 PHONE 972-777-9811 FAX 972-777-8778
 100 DECKER COURT - SUITE 900 IRVING, TEXAS 75038

DATE: May 8, 2003
 DRAWN BY: TUC
 CHECKED: TUC
 CADD NO: 144102110
 REVISION: May 23, 2003

**SPRINGER ELEMENTARY SCHOOL
 ROCKWALL INDEPENDENT SCHOOL DISTRICT
 ROCKWALL, TEXAS**

FINAL PLANS FOR BIDDING AND CONSTRUCTION



SHW Group Inc.
Architects + Engineers

SHEET NUMBER: C
 2.16
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 SET NUMBER