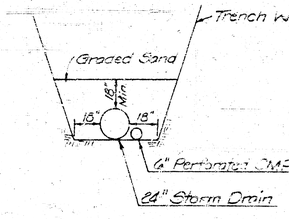
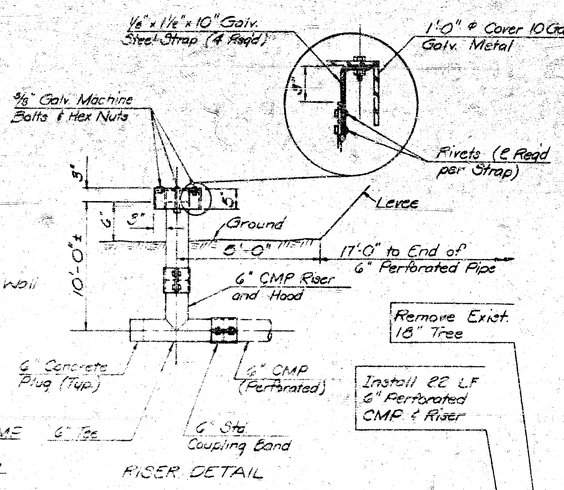
Graded Sand, as noted below, shall meet the following gradation requirements:

SIEVE SIZE	% PASSING
3/8"	100
No. 4	95 - 100
No. 16	45 - 80
No. 50	10 - 30
No. 100	0 - 5



TRENCH DETAIL

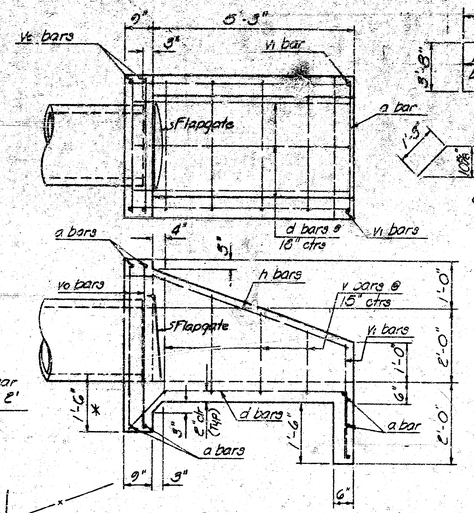


RISER DETAIL

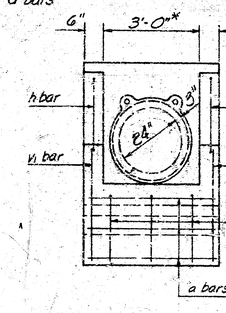
TOE DRAIN DETAILS

LIST OF BARS, DIMENSIONS & QUANTITIES							
Headwall for 24" Pipe							
Bar	a	d	h	v	v_0	v_1	
Number	7	3	2	4	4	2	
Length	3'-8"	1'-6"	3'-11"	#	4'-0"	2'-6"	
Class A Concrete						1.2 Cu. Yds.	
Reinforcing Steel						77 Lbs.	

See Bending diagram for these values.
* NOTE: Dimensions and Quantities may vary to comply with Flapgate manufacturers requirements. All bars are #4.

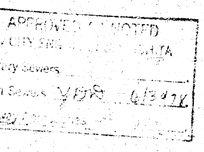


PROFILE

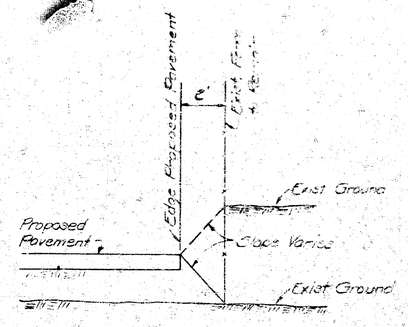


END ELEVATION

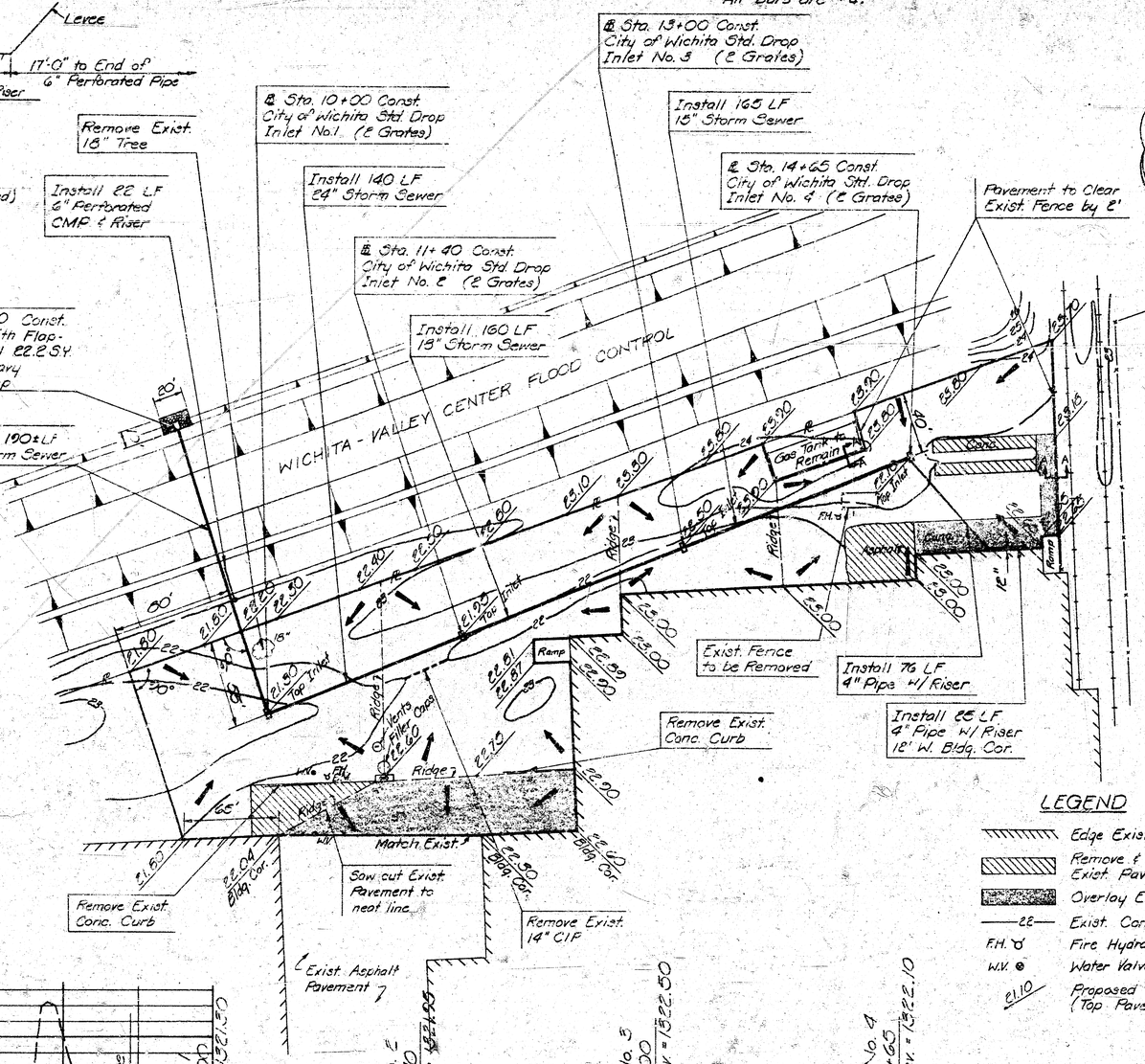
HEADWALL DETAILS



NOTE TO CONTRACTOR
This project [illegible] the s[illegible]



SECTION A-A



LEGEND

- Edge Exist. Building
- Remove & Replace Exist. Pavement
- Overlay Exist. Pavement
- ——ℓℓ—— Exist. Contour
- F.H. Fire Hydrant
- W.V. Water Valve
- 21.10 Proposed Spot Elev. (Top Pavement)

GENERAL NOTES

1. Contractor shall verify utility locations and depths prior to commencing work. Any relocation required will be at the owner's expense.
2. Contractor shall determine property line location prior to commencing work. North edge of pavement shall be located on the property line.
3. All elevations based on Mean Sea Level (MSL) Datum.
4. All spot elevations shown are top of proposed pavement
5. Seeding shall be accomplished between Aug. 15 and Sept. 30 or Feb 15 and Apr 20. Application rates are as follows: 350 lbs/acre Fertilizer (12-24-12); 10 lbs/acre Bromegrass Seed; 6 lbs/acre Sand Lovegrass Seed; 6 lbs/acre Switchgrass Seed; 10 lbs/acre Annual Rye Grass Seed; 2 tons/acre Prairie Hay Mulch
6. All trenching between Sta. 10+00 and Sta. 14+65 may be done by open cut and will be sand backfilled, jetted and the top 12" of the trench shall be replaced with acceptable material and compacted to 95% density (AASHTO T-99) with mechanical tampers.
7. Backfill of trench between Sta. 8+10 and Sta. 10+00 shall be excavated material compacted to 95% of standard AASHTO density at ± 3 percent of optimum moisture content. Backfill shall be placed in 4" max. lifts if hand tamped or 8" max. lifts if machine compacted.
8. All work within Wichita-Valley Center Flood Control (WVCFC) right-of-way shall be coordinated with the Director of WVCFC.
9. Contractor shall construct a temporary cofferdam during Levee cut to protect property from flooding.
10. Contractor shall provide the WVCFC office a list of equipment available at the site on a 24-hour basis should a flood emergency arise.
11. Graded sand backfill required for perforated drain shall be placed in 6" maximum lifts and machine tamped to 70% of relative density as determined by ASTM D 2049.
12. Pipe may be RCP or CMP Fully Paved.

CHARLES S. BROWN LICENSED 7551 KANSAS PROFESSIONAL ENGINEER

APPROVED [signature] Flood Control Engineer
WICHITA - VALLEY CENTER FLOOD CONTROL OFFICE

SHEET NO. 1

No.	Revision	By	Date
1	As per Corps of Engineers Review	SG	8-3-77

LOVE BOX COMPANY

PAVING & STORM DRAIN IMPROVEMENTS

CITY PROJECT NO. 472-76245-80558+000-000

DEAN E. NORRIS, INC.

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
ENGINEERS
WICHITA, KANSAS