

STORM WATER IMPROVEMENTS TO SERVE Thunderbird Office Park Addition

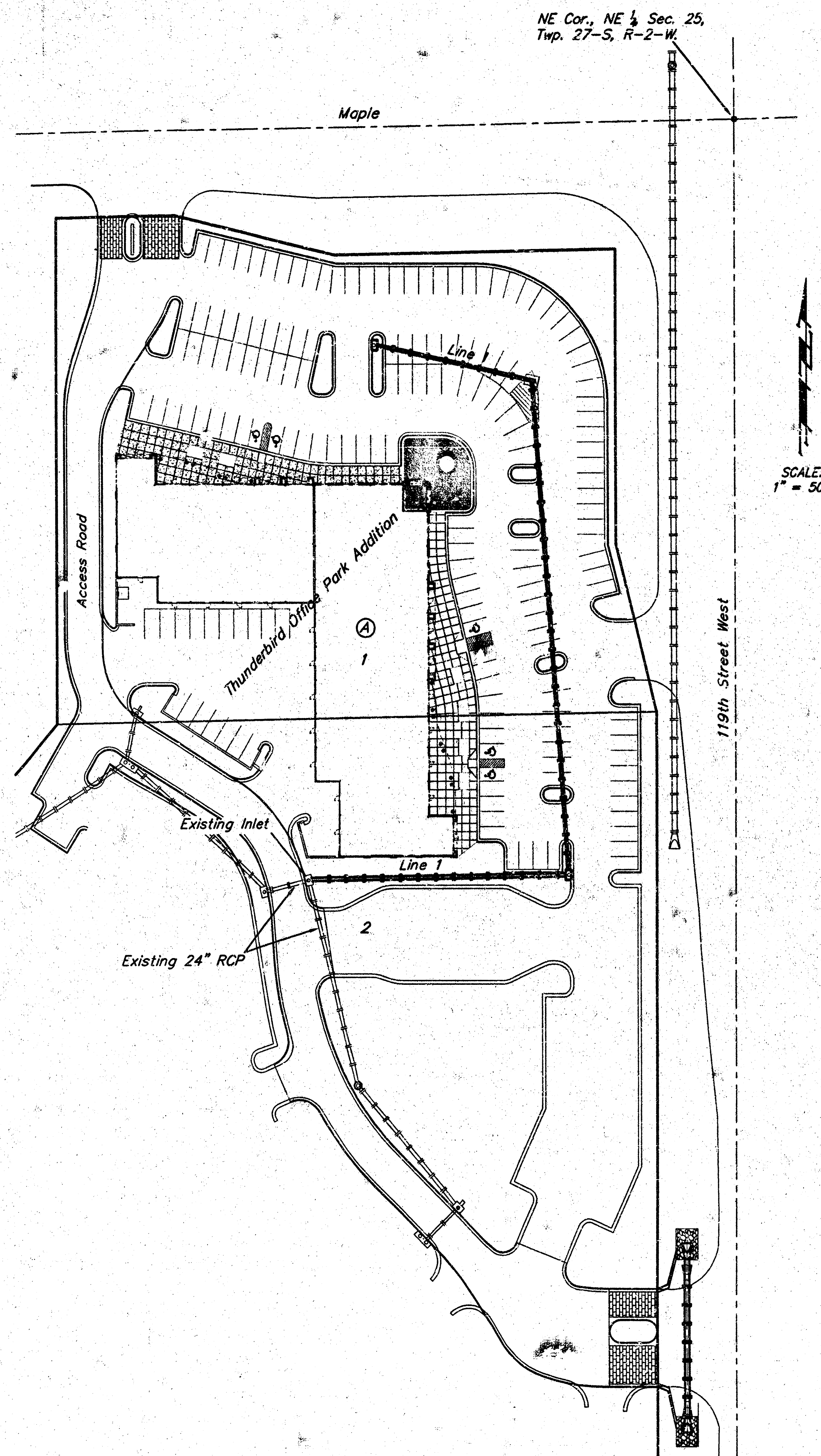
Block A, Lot 1

Private Project Number: 1467 PPS (607861)

CITY OF WICHITA, KANSAS

Jim Armour, P.E. City Engineer

August 2004



SCALE:
1" = 50'

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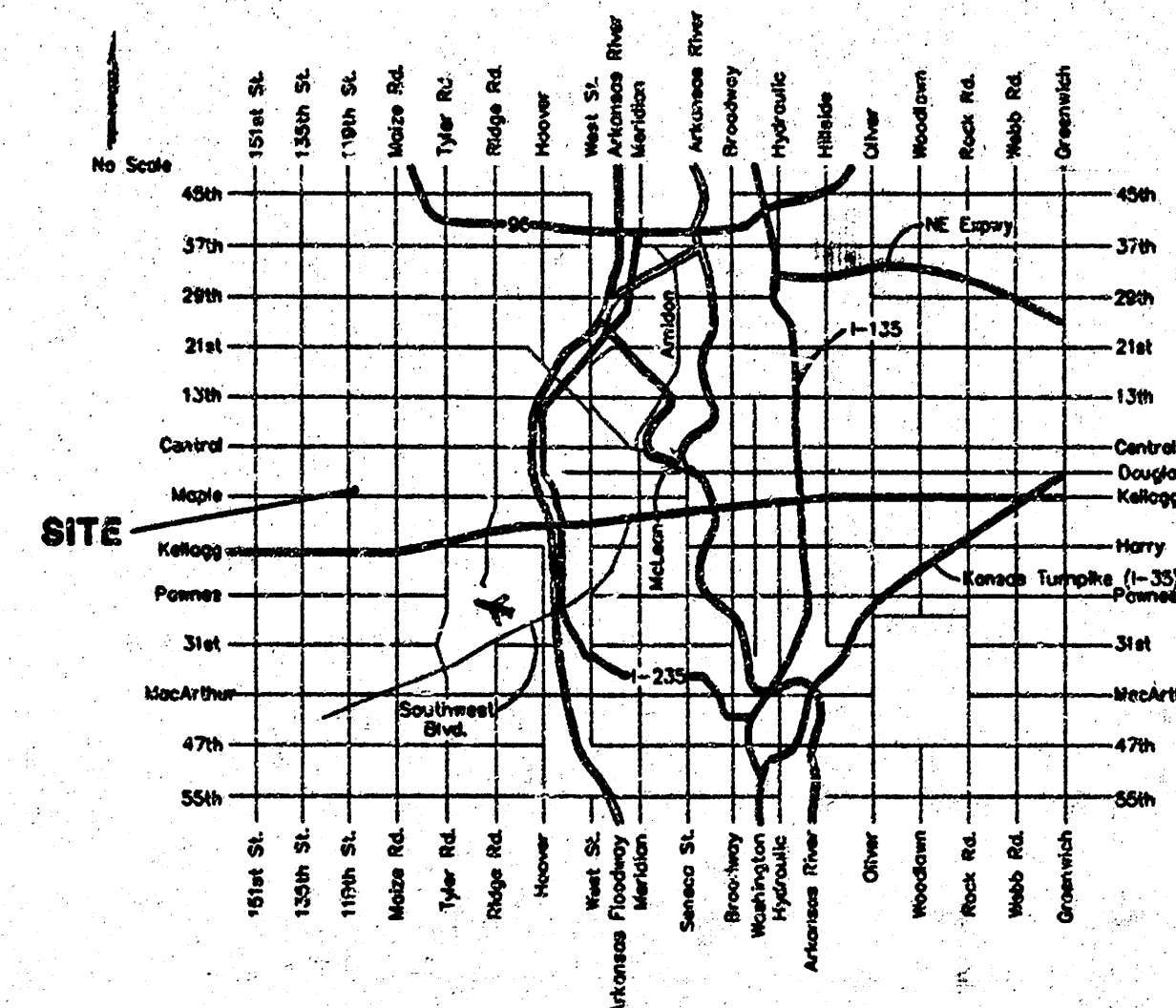
APPROVED AS NOTED
BY CITY ENGINEER OF WICHITA

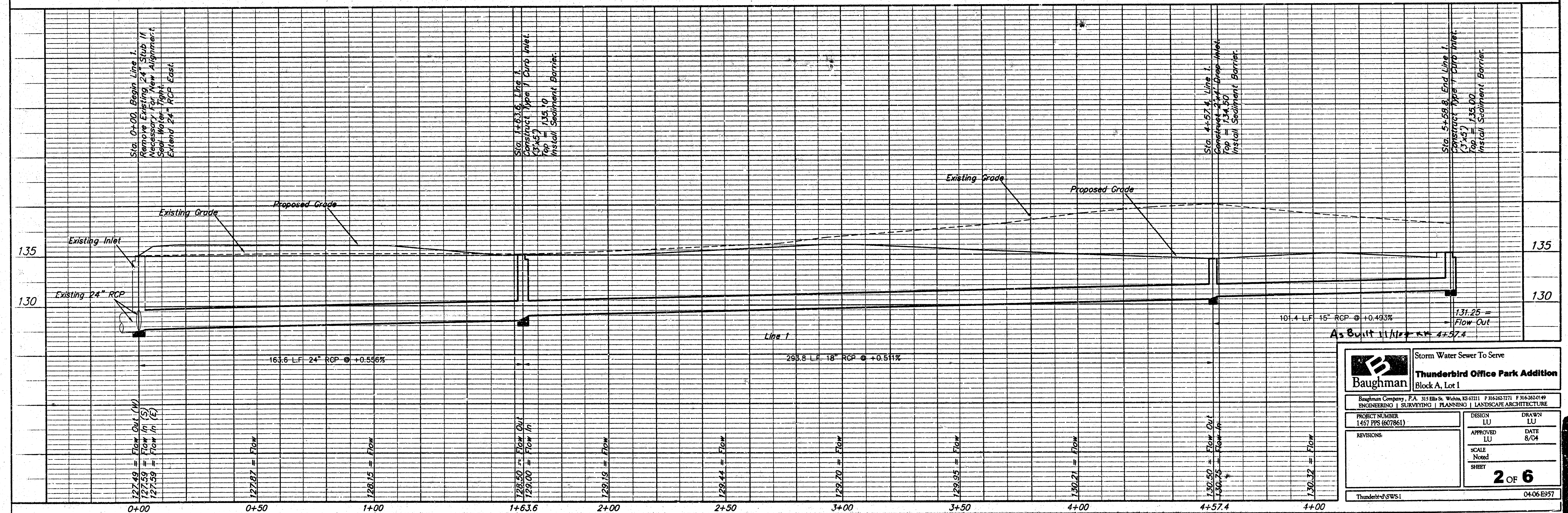
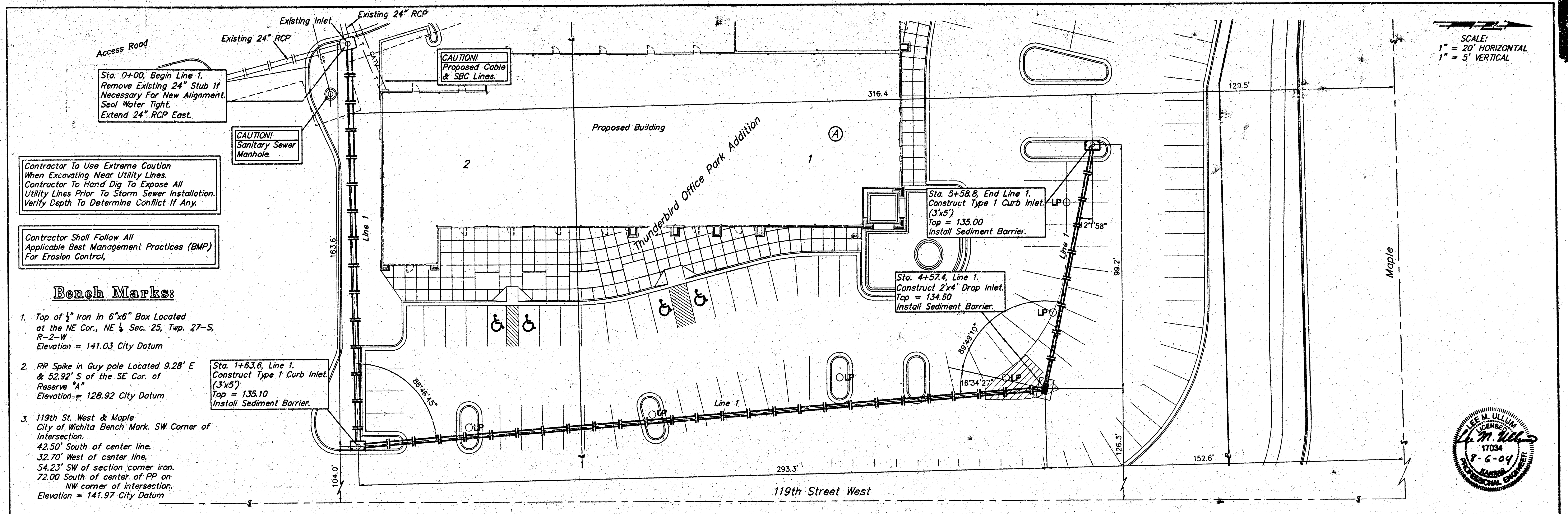
Storm Sewers VRH 8/19/04

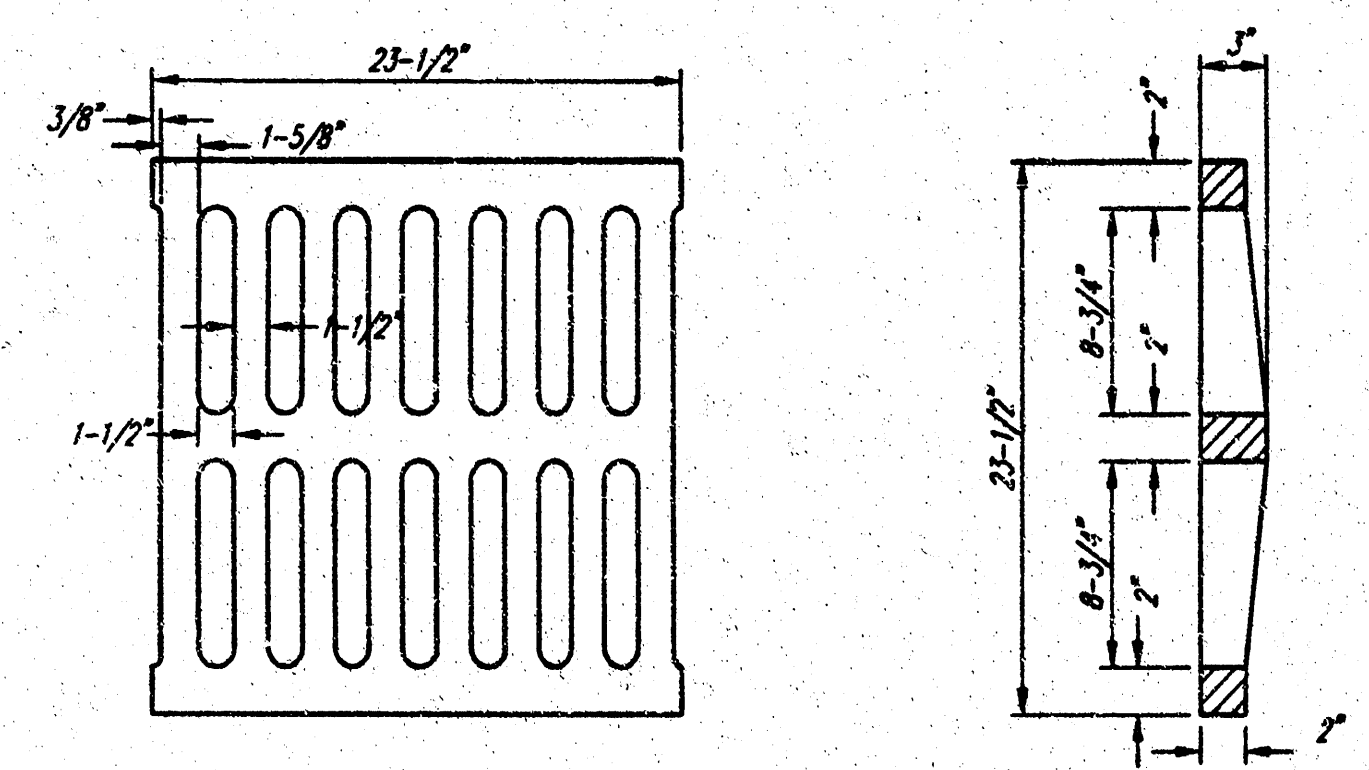
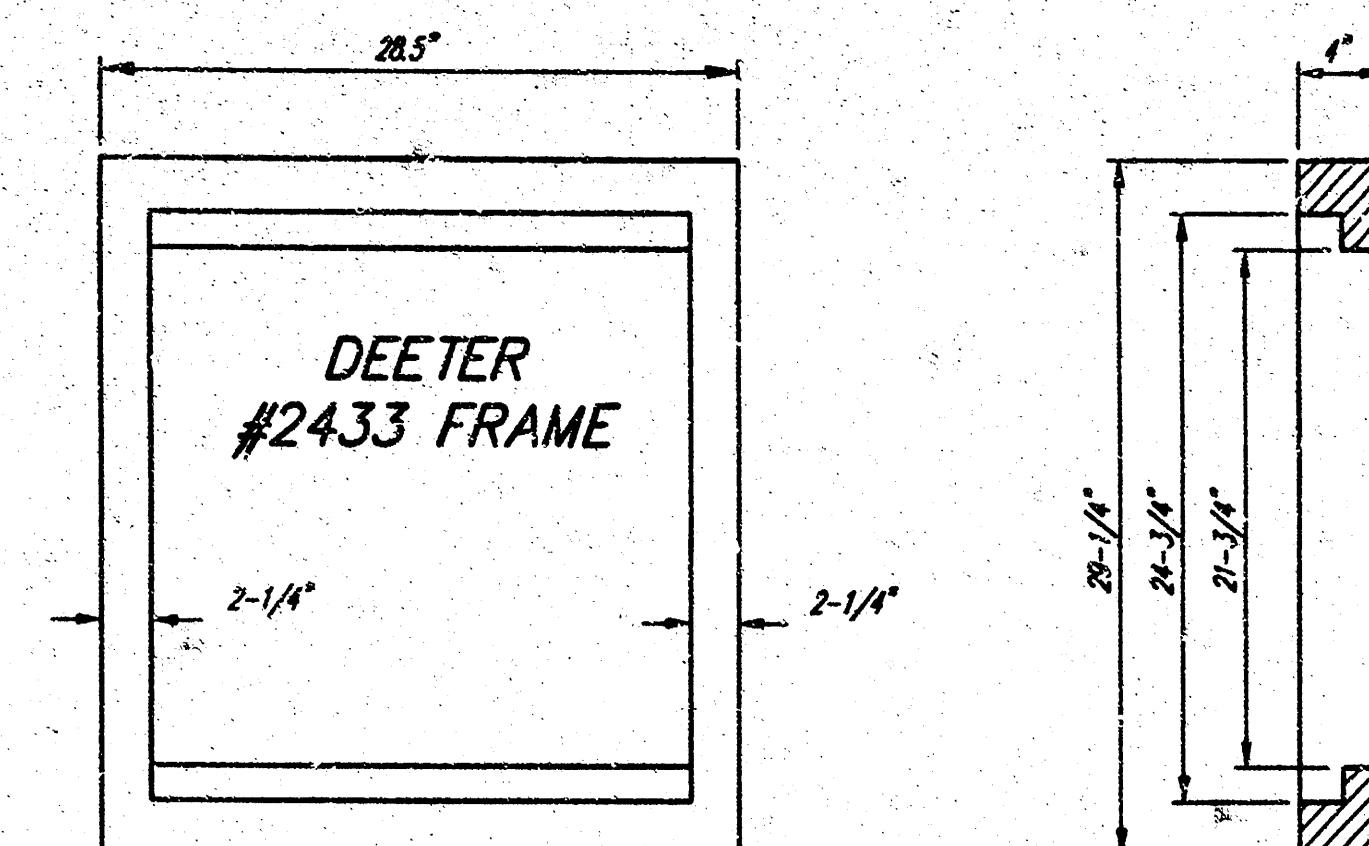
NOTE TO CONTRACTORS

Installation, inspection and testing for this project is to be provided by a Licensed Consulting Engineering Firm under contract with the Owner/Developer. Said inspection to be in accordance with the City of Wichita standard construction engineering practices and certified by a Licensed Professional Engineer. No work shall be performed in dedicated easements or public right-of-way by the Contractor without such inspection nor shall any work be commenced without written authorization by the City Engineer. All Construction and Materials shall comply with the City of Wichita Specifications and Standards (on file and available in the City Engineer's Office).

Location Map

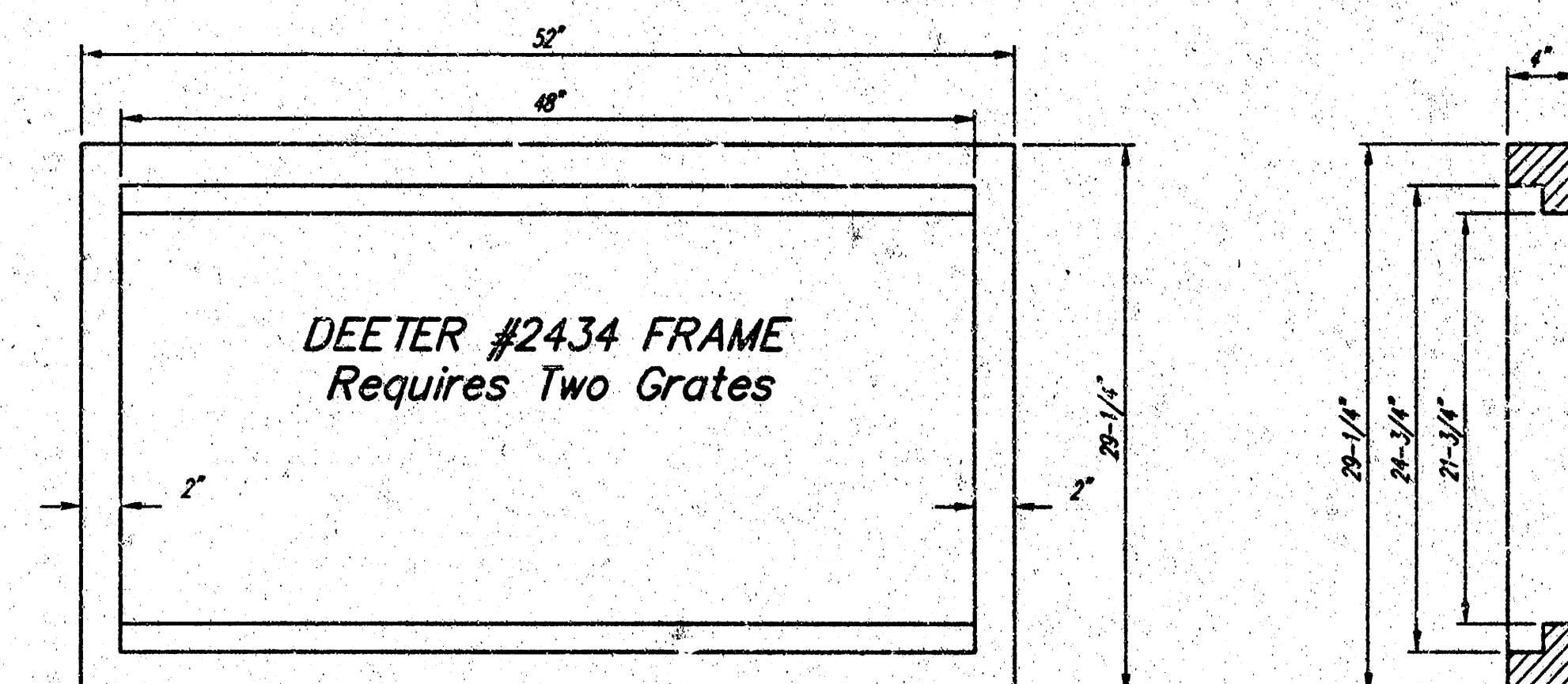




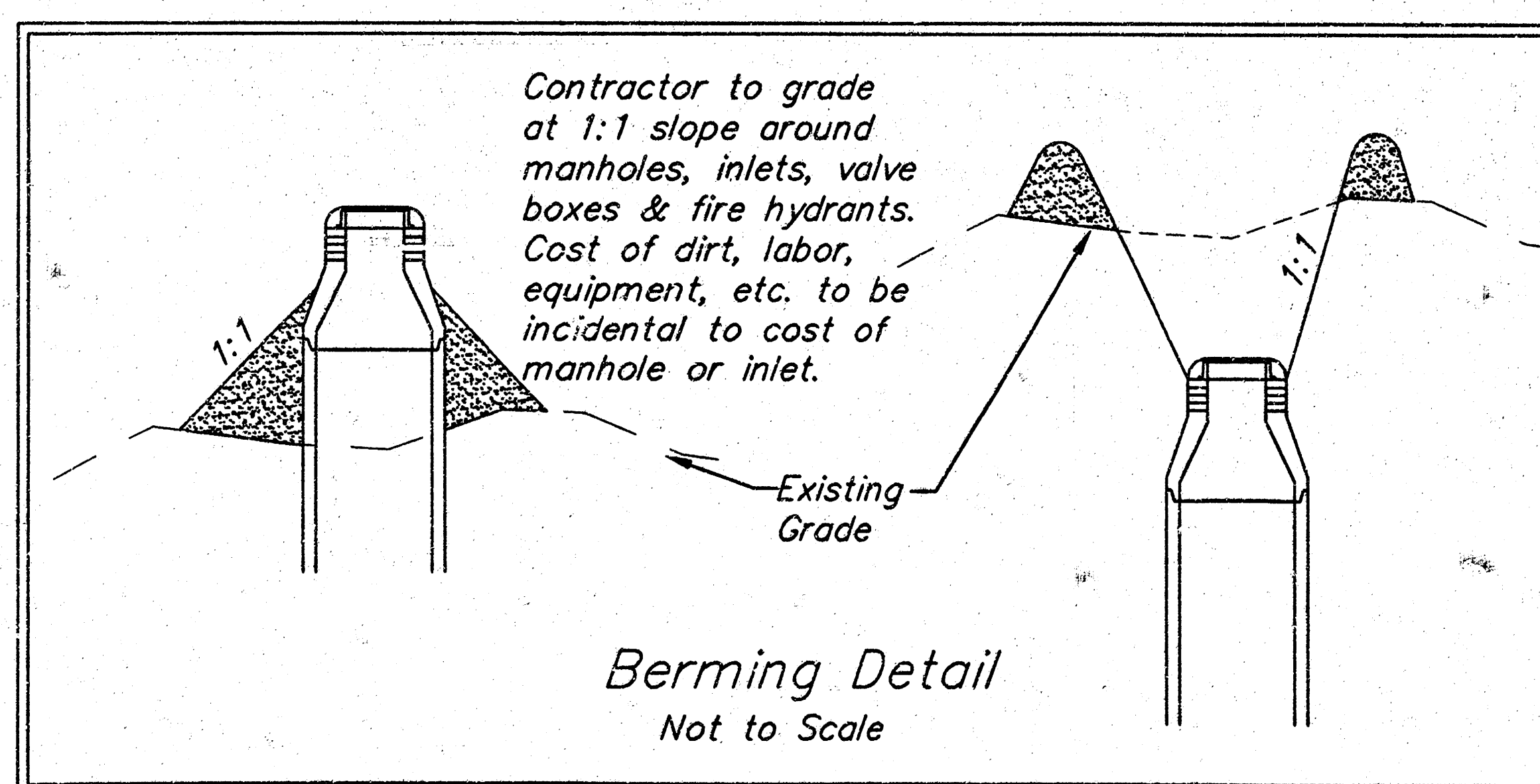


DEETER #2433 GRATE

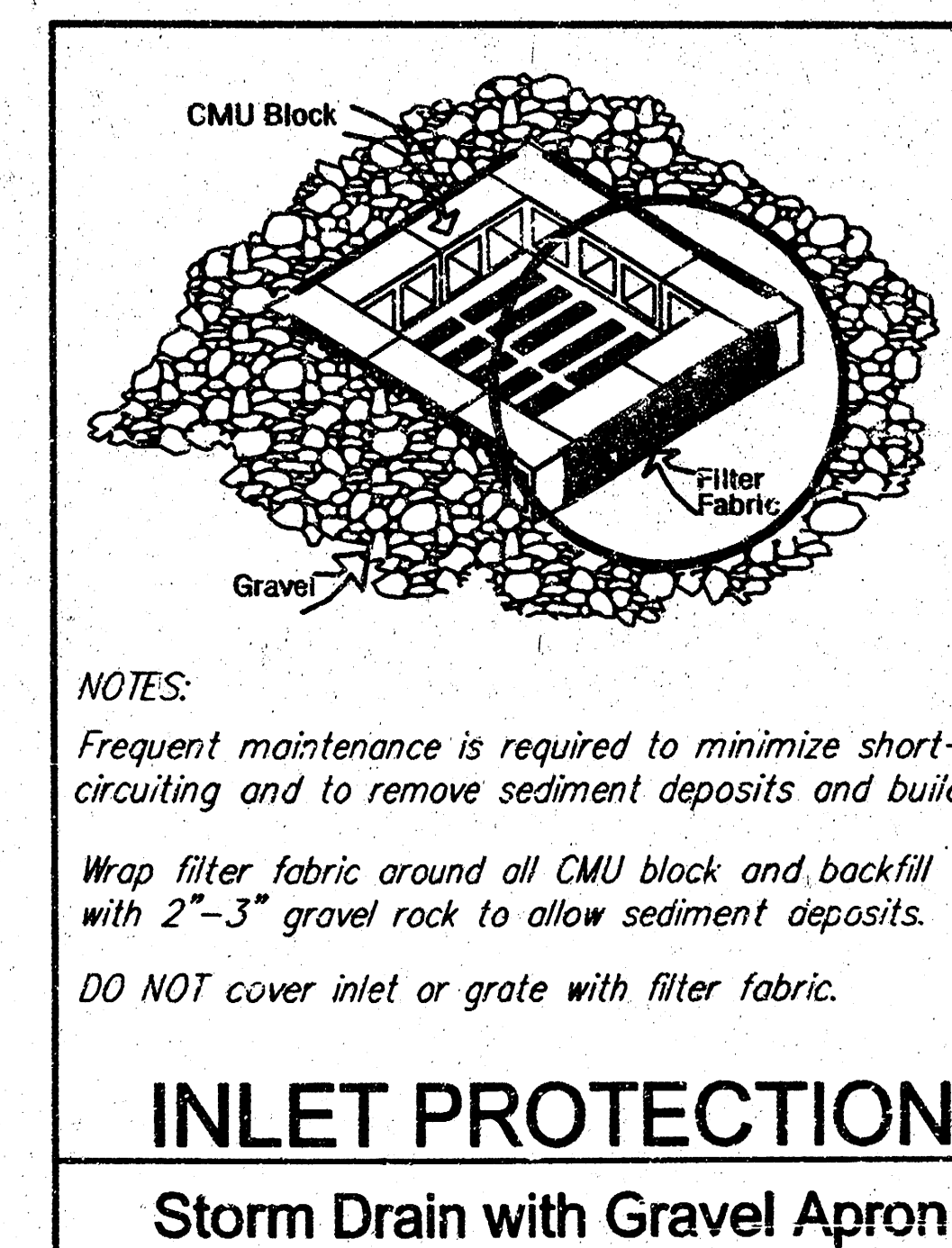
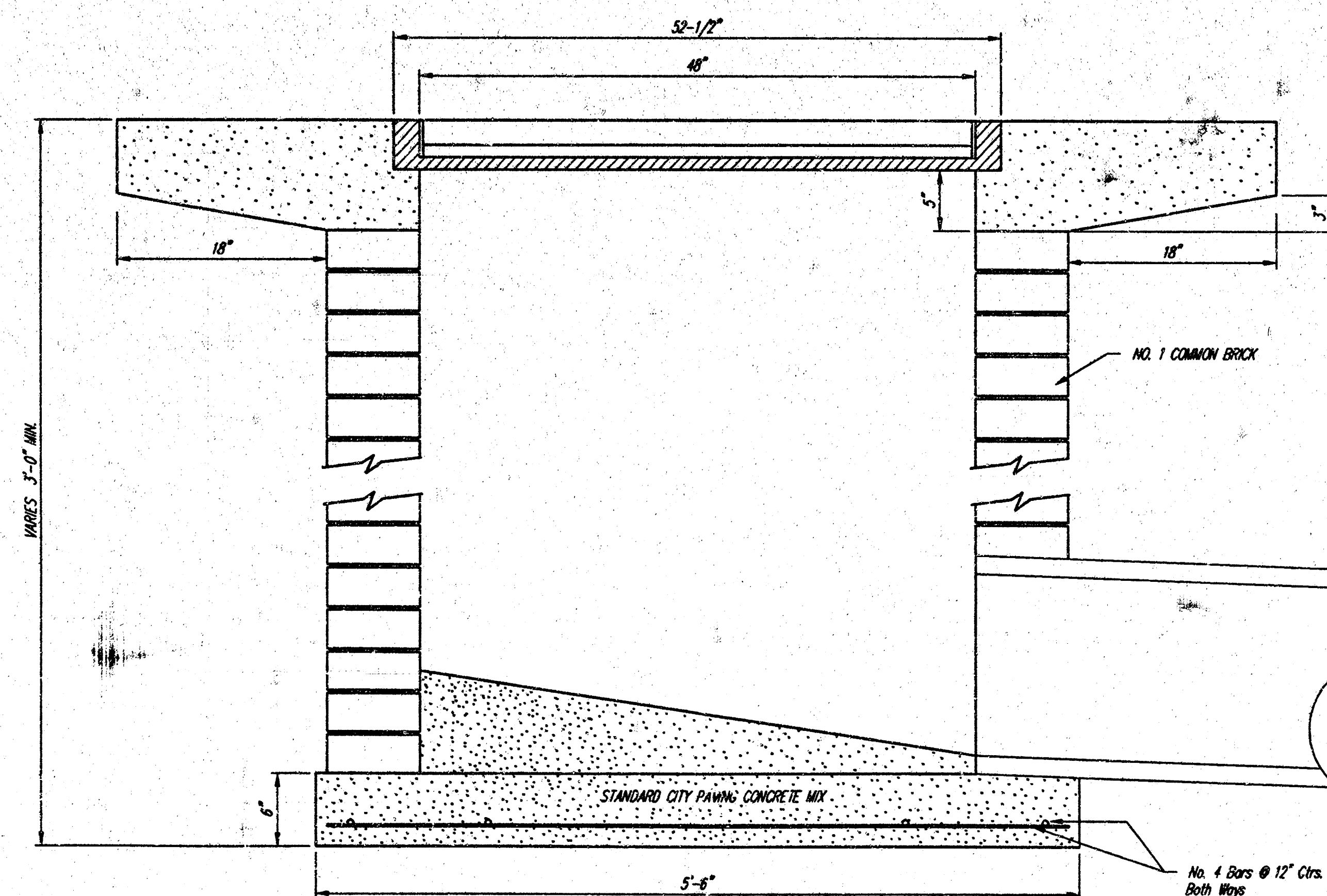
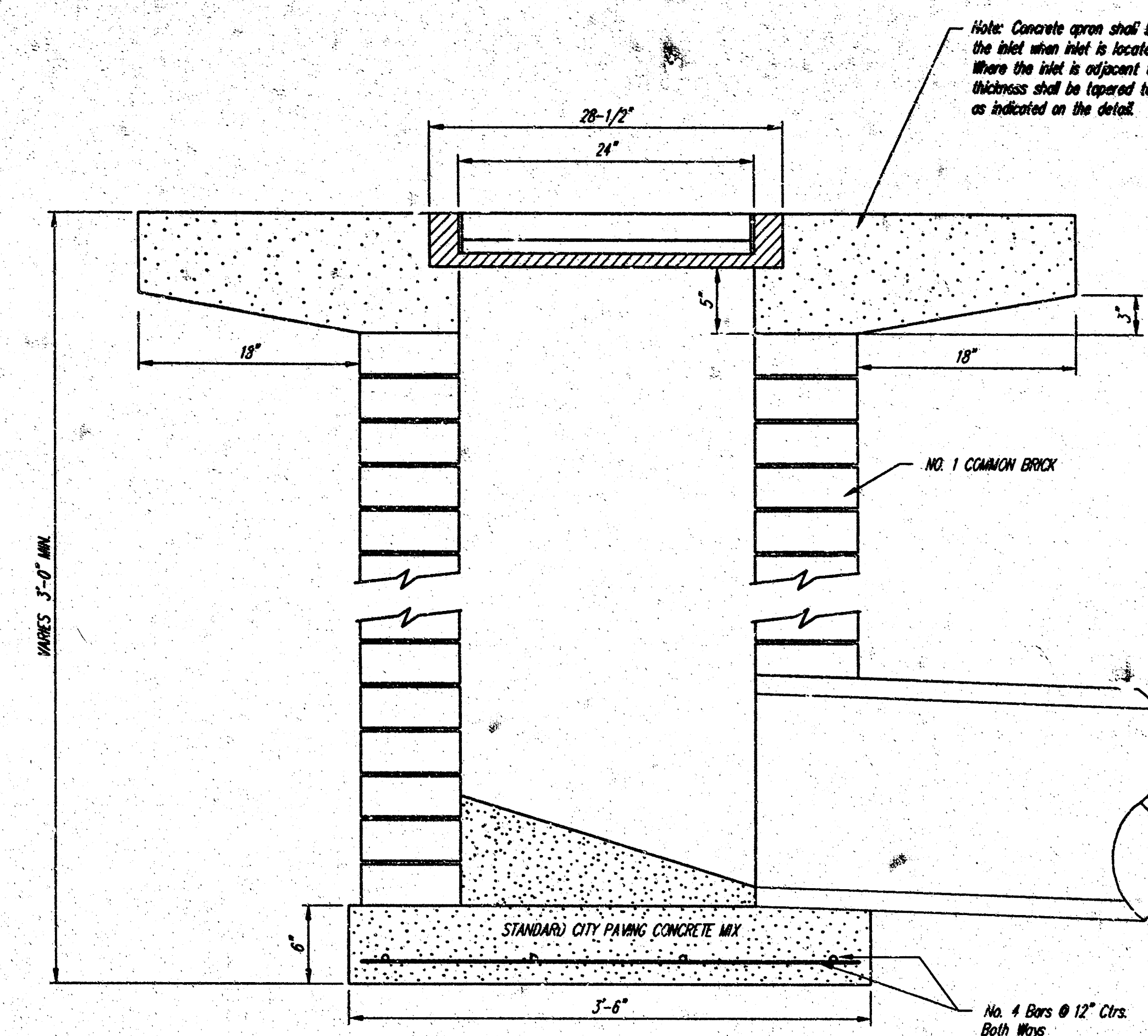
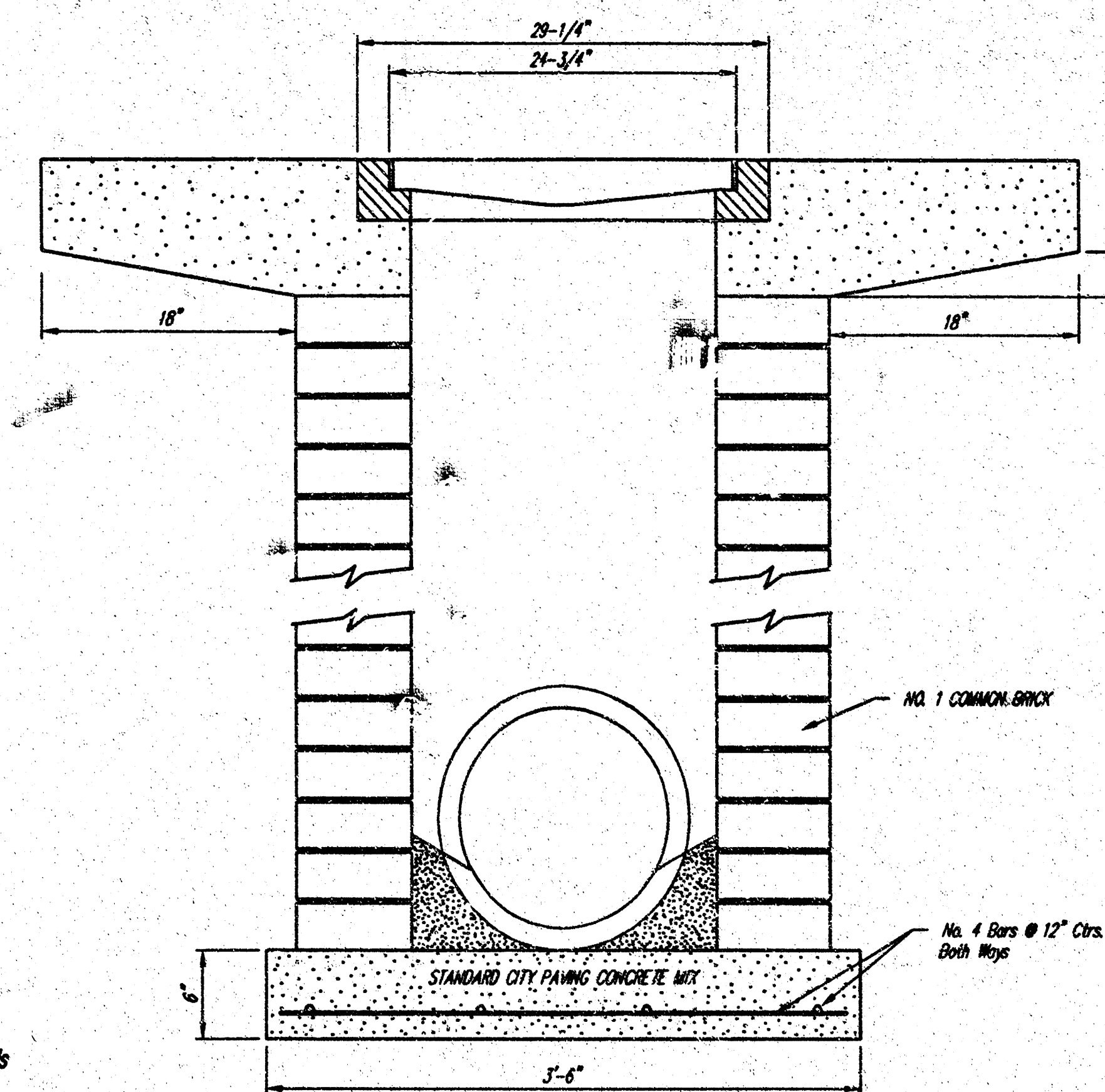
24" x 24" Frame and Grate Detail



Double 24" x 24" Frame Detail

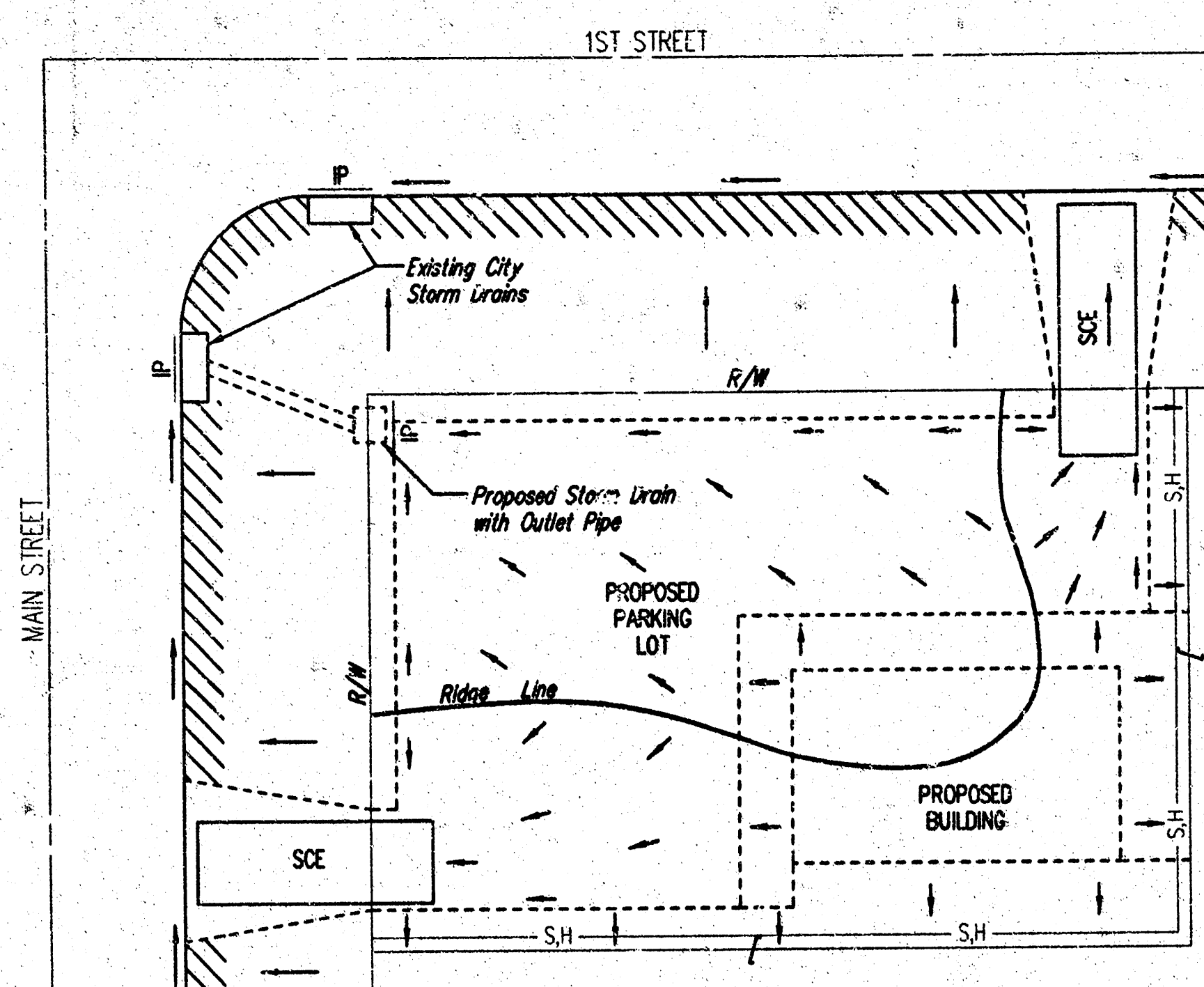


NOTE: Grates shall be imprinted on the top surface with "CITY OF WICHITA" using letters at least 1" in height. Other marking methods may be approved by the engineer.



STANDARD DROP INLET DETAIL				
BAUGHMAN COMPANY P.A. ENGINEERING, SURVEYING, & PLANNING 316-262-7271 • 315 ELLIS • WICHITA, KANSAS 67211				
PROJECT NUMBER 1467 PPS (607861)				SHEET 4
DESIGN STAFF	DRAWN STAFF	APPROVED STAFF	DATE 8/04	SCALE NONE

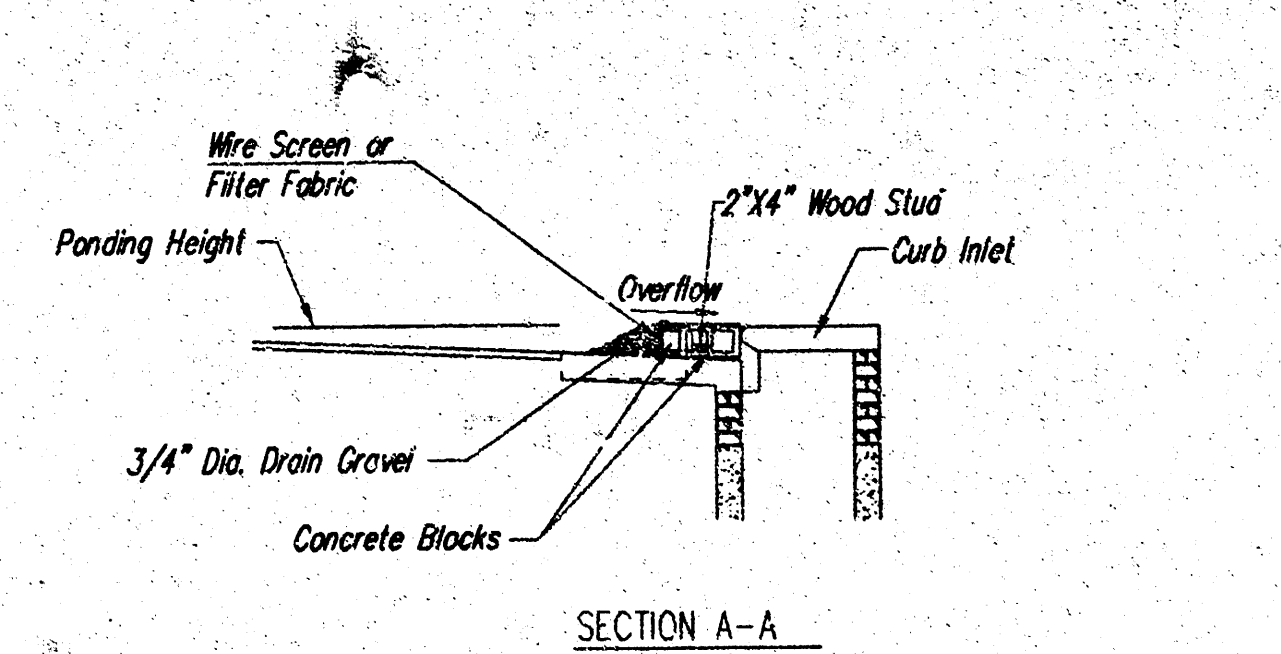
Standard Detail 14-01-135



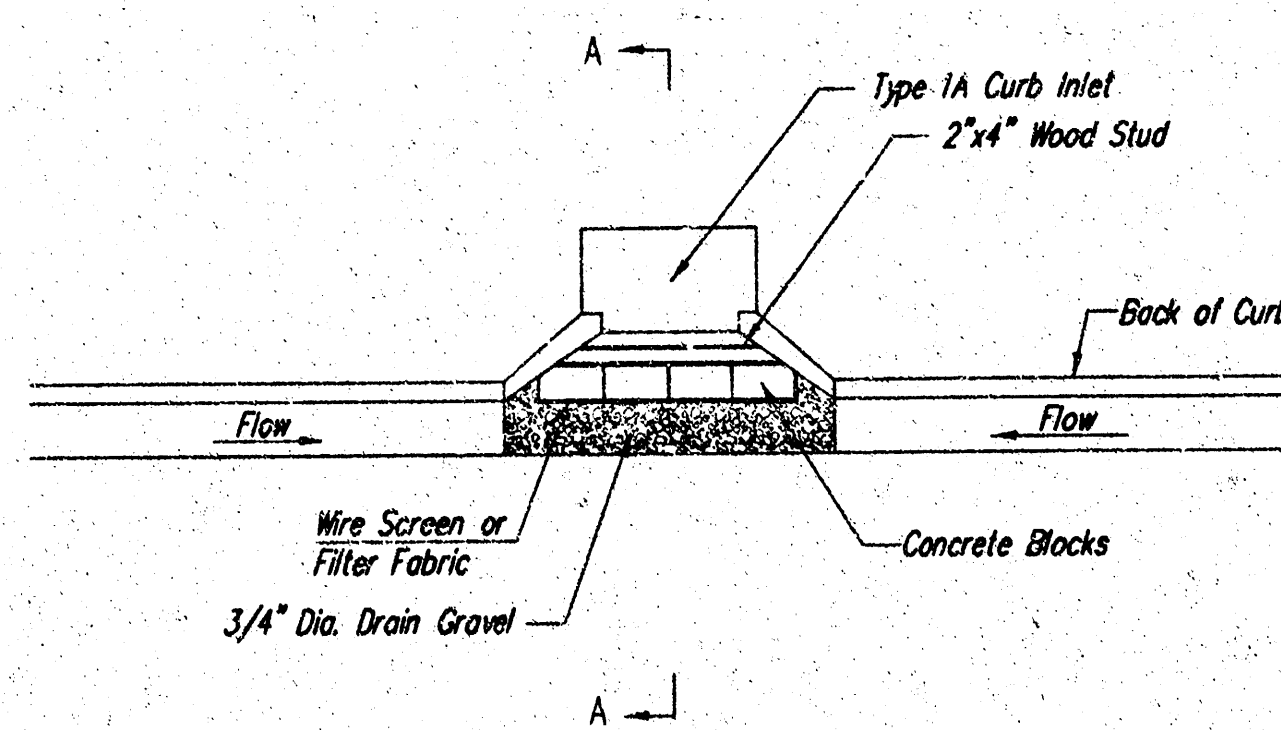
- LEGEND**
- Flow Direction
 - IP Inlet Protection - to be provided at all inlets subject to silt laden runoff.
 - SH - Silt Fence or Hay Bale Barrier - to be installed along property lines where runoff from construction site can run onto other properties.
 - SCE Stabilized Construction Entrance - to be used at all locations where vehicles or equipment enter or exit property.
 - Back of Curb Protection - to be installed whenever curb is backfilled to less than 3 inches from top and disturbed earth exists adjacent thereto. (See City Standard Details.)

General Notes

1. This standard detail sheet is a part of your building permit. The BMP's shown on this sheet are considered minimum standards. Whenever sediment enters the streets, storm sewers, ditches, or ponds, contractor will install additional BMP's, as needed, to correct the problem.
2. Follow these general principals on all commercial building sites.
3. The soil erosion BMP's shown hereon must be in place at all times during construction until such time as the site is re-established with paving or grass.
4. Failure to install, protect, and maintain BMP's are violations of Section 16.32 of the City Code and will subject the contractor to the penalties provided therein. Included with your permit is an orange "notice" sign that must be posted on-site in a conspicuous place at all times during construction. This sign is provided to assist you in the maintenance of BMP's.
5. Back of Curb Protection: Can include hay bale, silt fence, or Corflex barrier, as shown on City BMP standard details. This BMP must remain in place until the area between the curb and right-of-way line has been permanently stabilized.
6. The General Contractor is responsible for the installation and maintenance of all BMP's.
7. Should the site abut a lake, BMP's will be installed to prevent sediment from entering the lake.
8. Any mud inadvertently tracked onto any street will be cleaned up by the general contractor at the end of each day's work.



SECTION A-A



SECTION B-B

CURB INLET GRAVEL FILTERS (INLET PROTECTION-RESIDENTIAL STREETS ONLY)

NOTE: Other types of curb inlet protection may be approved by the city so long as equal protection is provided.

A gravel inlet filter shall be installed at sump locations on residential streets. This type of protection is not to be used on arterial or collector streets at any time that it would pose an undue traffic hazard.

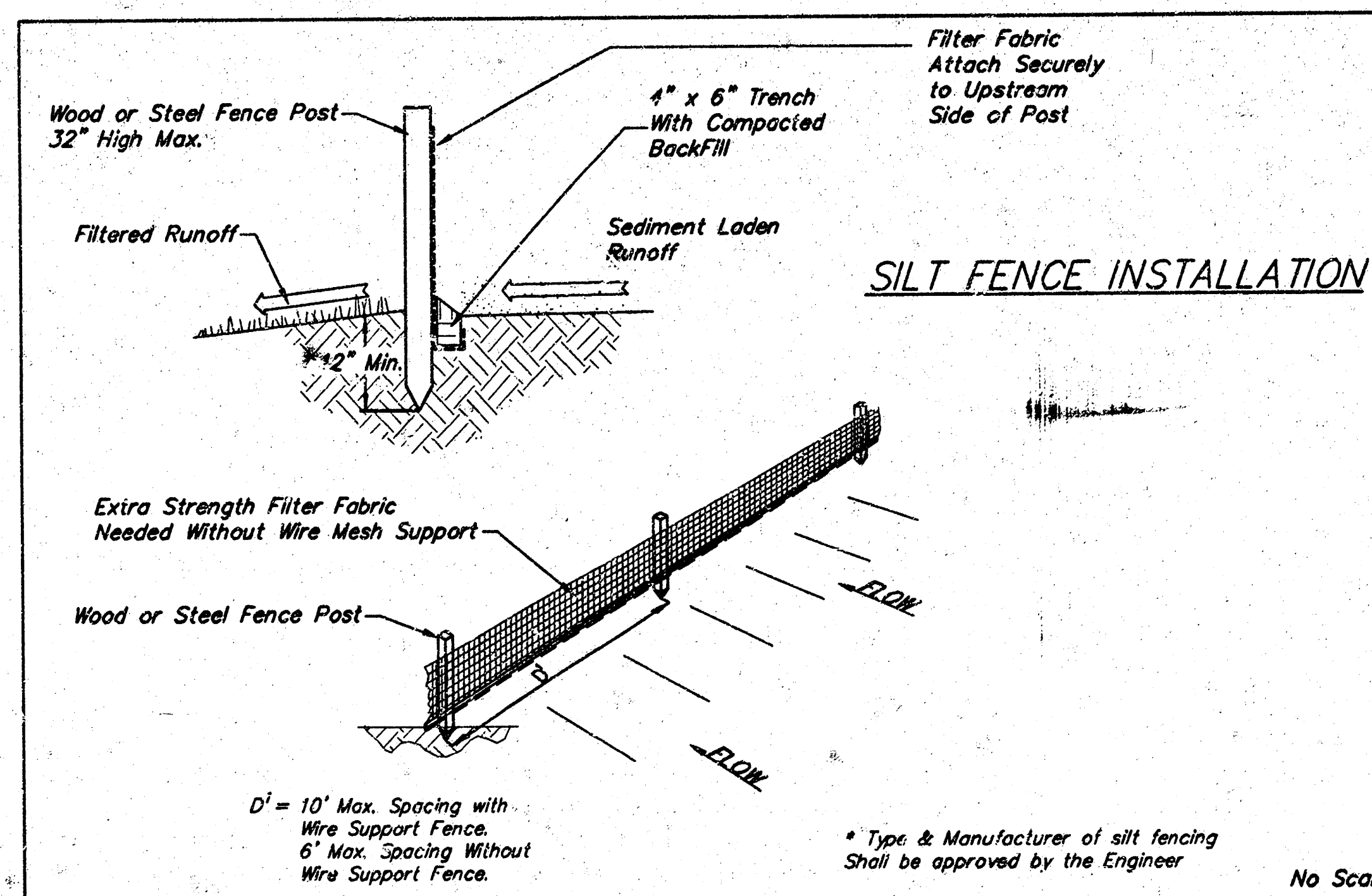
Instructions for Installing:

- STEP 1: Place concrete blocks around the inlet as shown on drawing. Insert 2x4 board as shown.
- STEP 2: Wrap 1/2" mesh wire screen around the concrete blocks.
- STEP 3: Place 1" to 1-1/2" diameter rock around the blocks and wire screen. Be sure the rock extends down from the top of the concrete block.
- STEP 4: To prevent damage to vehicles, signs warning drivers about the structures may be necessary. An alternative installation is the use of gravel bags supported by a 2x4 board to prevent clogging.

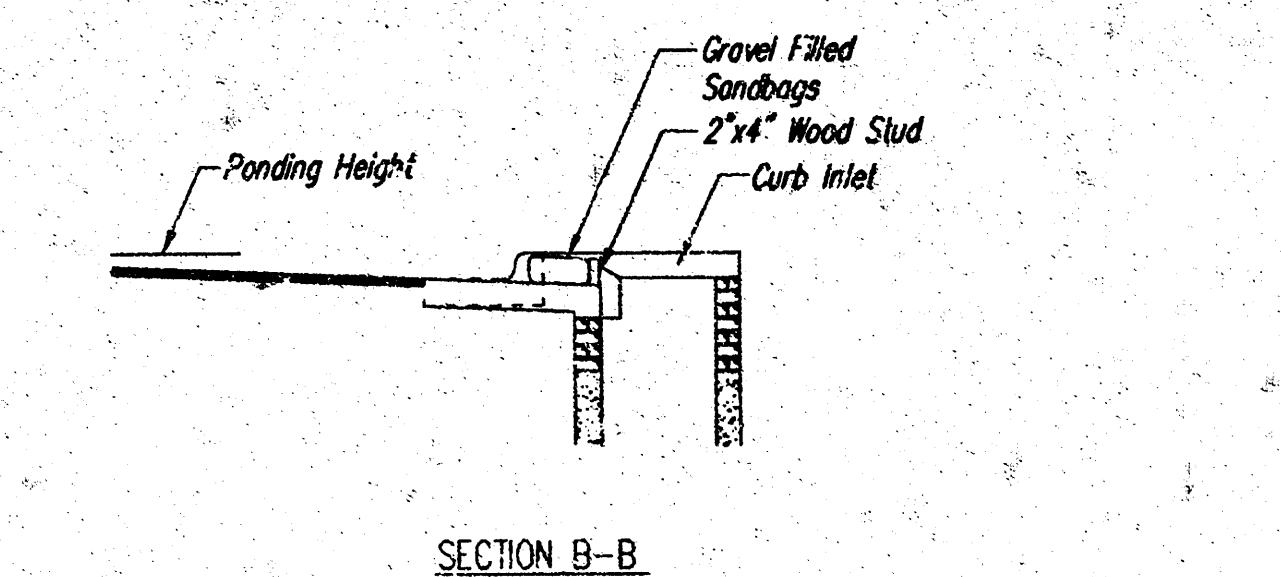
Use of rock with diameters smaller than 1" in the bag may result in clogging of pores and reduce the amount of water flowing into an inlet.

Maintenance:

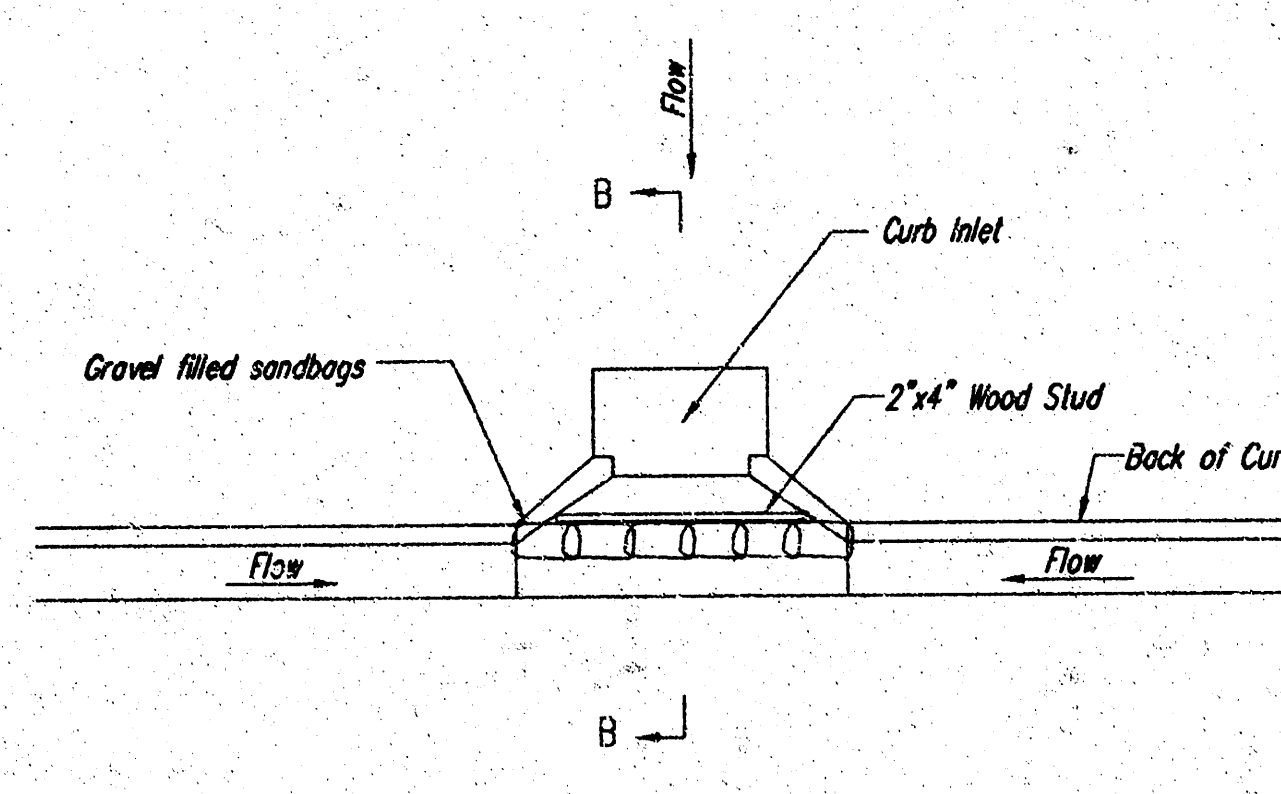
All curb inlet gravel filters shall be inspected and repaired after each runoff event. Sediment deposits are to be removed once material is within 8 cm (3 inches) of the top of any block. Periodically, the gravel shall be raked to increase infiltration and filtering of runoff waters. Accumulated sediment is to be removed immediately from roads and streets.



No Scale

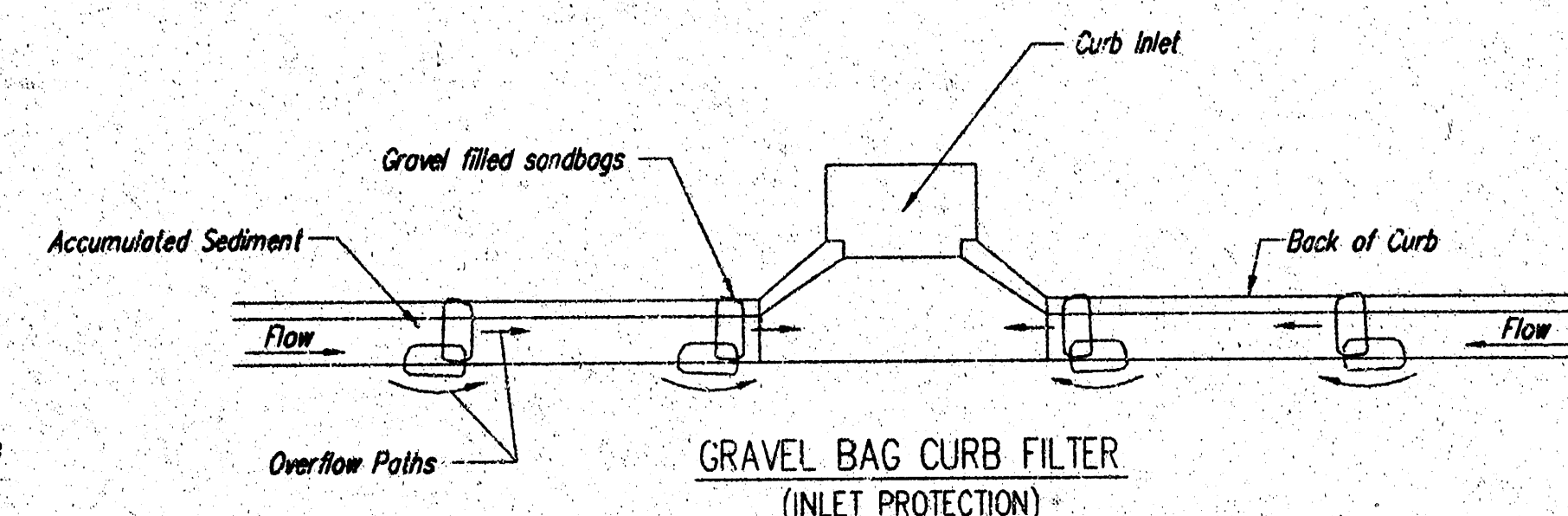


SECTION C-C



CURB INLET SANDBAG FILTERS (INLET PROTECTION)

NOTE: Other types of curb inlet protection may be approved by the City so long as equal protection is provided.



GRAVEL BAG CURB FILTER (INLET PROTECTION)

NOTE: Place two or more sets of bags in a manner that results in maximum support. The flow line bag must be lower than top of curb.

CURB SEDIMENT TRAPS

When inlets are located on streets having a grade (i.e., sump conditions do not exist), installing gravel (or sand) bags in the gutter flow line to create small sediment traps can be considered. Gravel bags are recommended over sand bags to allow for drainage.

If the spacing between bags becomes too loose, little sediment may be trapped. Spacing of bags should be completed using the table or graph that illustrates placement distances based upon street slope. When installed in the gutter, bag tops must be lower than the sidewalk.

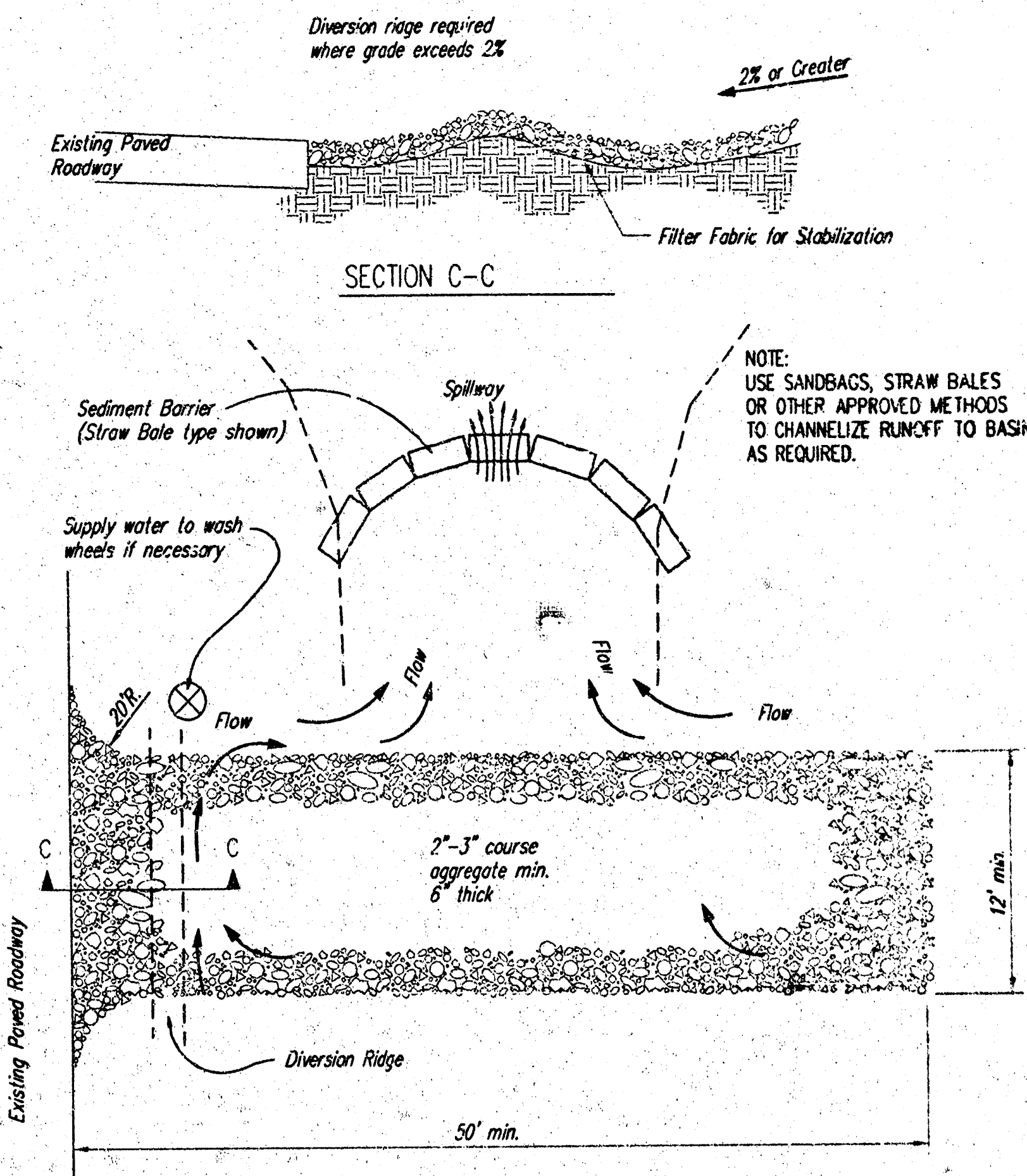
Spacing:

Gravel bags are to be placed according to street grades using the following table or graph that appears below.

GRADE (%)	SPACING (FEET)
0.5	75
1.0	45
2.0	18
3.0	12
4.0	9
5.0	6

Maintenance:

Collected sediment shall be removed after every runoff event. Bags that are destroyed by vehicular traffic or through natural deterioration are to be immediately replaced.



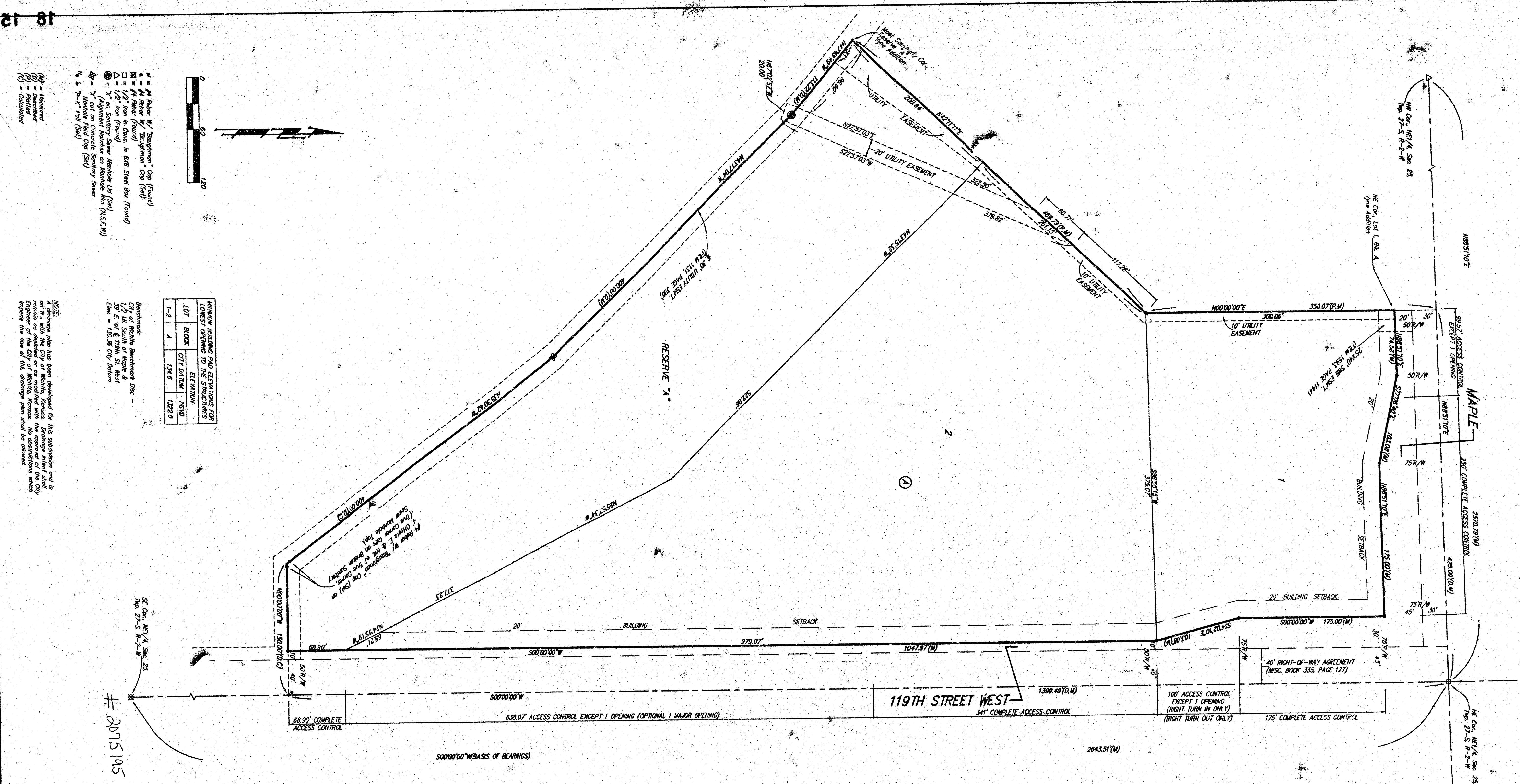
STABILIZED CONSTRUCTION ENTRANCE

NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN, AS SHOWN ABOVE.
4. DRIVE ENTRANCES ONTO RESIDENTIAL LOTS WILL NOT BE REQUIRED TO HAVE THE SEDIMENT BARRIER SHOWN, BUT WHEEL WASHING MAY BE REQUIRED IF STABILIZED ENTRANCE IS NOT SUFFICIENT TO KEEP MUD FROM BEING TRACKED ONTO ADJACENT STREET. ENTRANCE SHALL EXTEND FROM BACK OF CURB TO DWELLING.

	SOIL EROSION BMP DETAILS	
	CHRISTOPHER M. CARRIER, P.E. STORM WATER ENGINEER	
	PROJECT NUMBER 1467 PPS (607861)	QA NO. NA
	DATE 8/04	SHEET 5 OF 6

THUNDERBIRD OFFICE PARK
AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS



State of Kansas) SS
Sequelah County)

We, Burghman Company, P.A., Surveyors in
forested country and office do hereby certify that we have surveyed and
platted "HUNDEBUD CREEK PARK," on land owned by Whittila, Sequelak
County, Kansas and that the accompanying plat is a true and correct
exhibit of the property surveyed, described as beginning at the NE corner
of the NE 1/4 of Sec. 23, Twp. 27-S., R.-2-W. of the 6th P.M., Sequelak
County, Kansas; thence S07°00'10"W along the east line N35°32'42"E,
1389.49 feet; thence N49°00'00"E, 400.00 feet; thence N42°48'49"W,
400.00 feet; thence N42°11'11"E along the southeast 1/4 of lot 1, Block A,
N1/2 SE 1/2 sec. 24, Twp. 27-S., R.-2-W. of the 6th P.M., Sequelak County, Kansas;
thence N42°11'11"E along the southeast 1/4 of lot 1, Block A, in
the City of Lawrence, Kansas; thence S89°59'39"E along the south line of said
lot 1, thence N02°00'00"E along the east line of said lot 1, and as
extended north, 350.07 feet to the point on the north line of said NE 1/4.
Thence N48°51'10"E along the north line of said NE 1/4, 425.03 feet to the
point of beginning, all being subject to road rights--way of record.

Existing public assessments and deductions
being recited by virtue of K.S.A. 12-512(b).

Burghman Company, P.A

Know all men by these presents that we, the undersigned, have caused the land in the surveyors certificate to be plotted into Lot 5, a Block, Streets, and a Reserve to be known as THE WINDWARD OFFICE PARK, an addition to Wichita, Sedgewick County, Kansas. The utility easements are hereby granted to the City of Wichita for construction and maintenance of use of the public. Reserve #1 is hereby dedicated for floodway drainage purposes, and open space. The utility easements or other structures shall be constructed or placed on or within said Reserve #1, nor shall any fill, change of grade, creation or channel, or any other work be carried on without the permission of the City Engineer of the City of Wichita, Kansas. Reserve #1 shall be owned and maintained by the owner of Lot 2, Block A. All abutters rights of access shall be as depicted on the face of the plot and are hereby granted to the City of Wichita, Kansas. The permitted opening locations shall be as determined by the City Engineer of the City of Wichita, Kansas. The minimum building foot dimensions for the lot opening to the structures shall be as indicated on the face of the plot.

Pauline Owen, Member
of William Owen

State of Kansas) SS The foregoing instrument acknowledged before me, this 22nd day of February, 2002, by Charles H. Harris III, Member of Spring Creek Resources, LLC, on behalf of the limited liability company.

Charles H. Harris III, Notary Public
JUDITH M. TERNHANE
My Comm. Expires 11-7-2005
My Exp. 11-7-2005

State of Kansas) SS The foregoing instrument acknowledged before
Sequoyia County) me, this 11th day of MARCH, 2002, by J. William Owen and Brenda
Owen, husband and wife,
JUDITH M. TERHAINE
Notary Public for the State of Kansas
My Exp. 11-7-2005

Quilley N. Wilkerson, Notary Public
JUDITH M. TERHAINE

My Exp. 11-7-2005

This plot of "THUNDERBOLT OFFICE PARK", an addition to Wichita, Sedgewick County, Kansas has been submitted to and approved by the Wichita-Sedgewick County Metropolitan Area Planning Commission, Wichita, Kansas.

Dated this 28th day of December, 1981.

Wichita-Sedgewick County Metropolitan Area Planning Commission

Wm. S. H. H. H. _____, Clerk
L. O. McPherson _____, Secretary
Wm. S. H. H. H. _____, Secretary
Marn S. H. H. _____, Secretary

This plan approved and all dedications shown hereon accepted by the City Council of the City of Wichita, Kansas, this 2nd day of April, 2002.

At the Direction of the City Council

 _____, City Manager
[Signature]
William D. Jones

_____, City Clerk
[Signature]
Pat Burnett

Received in accordance with K.S.A. 58-2005
on this 13th day of March, 2002.

John K. Balle
Trece L. Balle, L.S. #126
Deputy County Surveyor
Sedgewick County, Kansas

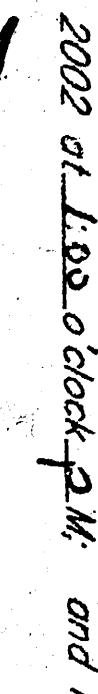
Entered on transfer record this 10th day
of April, 2002.
Don Bruce, County Clerk

State of Kansas)
Sequoia County)
Filed for record in
of April.

SS This is to certify that this plat has been
the office of the Register of Deeds, this 1st day
2002 of a clock P.M. and is duly recorded.



 Bill Meek, Register of Deeds

 Linda Kitzke, Deputy

 **BAUGHMAN COMPANY P.A.**
ENGINEERING, SURVEYING, & PLANNING
318-262-7271 • 318 ELLIS • MONTELEONE, TEXAS 75201
C/O 471 INDEPENDENT AVE. DALLAS, TEXAS 75205

[illegible]