



**Miller & Associates**  
CONSULTING ENGINEERS, P.C.

1111 Central Ave. Kearney, NE 68847-6833

Tel: 308-234-6456

Fax: 308-234-1146

[www.miller-engineers.com](http://www.miller-engineers.com)

November 7, 2007  
Kearney, Nebraska

Mayor and City Council  
City of Lexington  
P.O. Box 70  
406 East 7th Street  
Lexington, NE 68850

Re: Spring Creek Reinforced Concrete Box Culvert  
Project No. 127-A1-072-07

Dear Council Members:

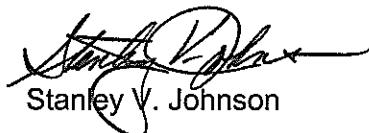
Presented herewith are the Drawings and Specifications for the above referenced project. We will be in attendance at your Council Meeting to answer any questions you may have regarding this project. Upon your approval we would propose the City open bids on December 5, 2007 at 2:00 P.M. with the required advertising taking place in the interim. An advertisement for bids is attached for your publication.

The Engineer's Opinion of Probable Construction Cost ranges between \$150,000 and \$190,000.

The work involved will be substantially complete on or before June 1, 2008.

Should you have any questions regarding this project, please do not hesitate to contact us.

Respectfully submitted,  
MILLER & ASSOCIATES  
CONSULTING ENGINEERS, P.C.



Stanley V. Johnson

SVJ/jh

Enclosure

## ADVERTISEMENT FOR BIDS

Separate sealed BIDS will be received at the City Clerk's Office by the City Clerk, in City Hall, City of Lexington, 406 East 7th Street, Lexington, Nebraska on December 5, 2007 until 2:00 PM, Local Time, and then such BIDS shall be publicly opened and read aloud in the City Council Chambers for furnishing all equipment, labor, materials and appurtenances required to construct a Triple 12' x 6' x 50' Reinforced Concrete Box Culvert, approximately 224 S.Y. of Concrete Pavement and other such work as may be incidental to **SPRING CREEK REINFORCED CONCRETE BOX CULVERT, LEXINGTON.**

Bids received after the specified time of closing will be returned unopened. The Owner will accept only those sealed bids, either hand delivered or received via U.S. Mail or other commercial carrier. Items transmitted by facsimile or electronically will not be accepted.

The Contract Documents may be examined at the following locations:

Miller & Associates, 1111 Central Avenue, Kearney, NE 68847  
City of Lexington, 406 East 7<sup>th</sup> Street, Lexington, NE 68850  
FW Dodge Division, 11422 Miracle Hills Drive, Suite 206, Omaha, NE 68154  
Lincoln Builders Bureau, 5910 South 58th Street, Suite C, Lincoln, NE 68516

Copies of the Contract Documents may be obtained at the office of Miller & Associates, Consulting Engineers, P.C. located at 1111 Central Avenue, P.O. Box 306, Kearney, Nebraska 68847, Telephone 308/234-6456 upon payment of \$45.00 for each half-size set. Full-size sets of documents can be obtained for a deposit of \$60.00. Documents will not be available electronically. Any PLAN HOLDER, upon returning the CONTRACT DOCUMENTS within fourteen (14) days of the BID OPENING, and in good condition, will be refunded \$10.00.

Each BIDDER will be required to submit with his proposal, a certified check, cashier's check or bid bond made payable, without condition, to the City Clerk, Lexington, Nebraska, in an amount equal to five percent (5%) of the proposal.

(SEAL)

**CITY OF LEXINGTON**  
(OWNER)

ATTEST:

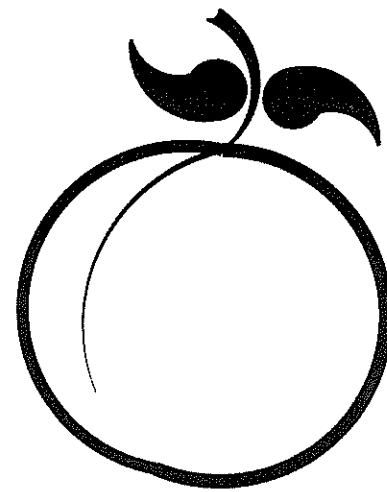
\_\_\_\_\_  
City Clerk

By \_\_\_\_\_  
Mayor

DRAWINGS FOR

# SPRING CREEK

## REINFORCED CONCRETE BOX CULVERT



# LEXINGTON, NEBRASKA

## 2007

M & A PROJECT NO. 127-A1-072



**MILLER & ASSOCIATES**  
Consulting Engineers P.C.



SET NO. \_\_\_\_\_  
DRAWING NO. 18199

**SPRING CREEK REINFORCED CONCRETE BOX CULVERT**  
**LOCATION MAP & TYPICAL CROSS SECTION**  
 CITY OF LEXINGTON, NEBRASKA

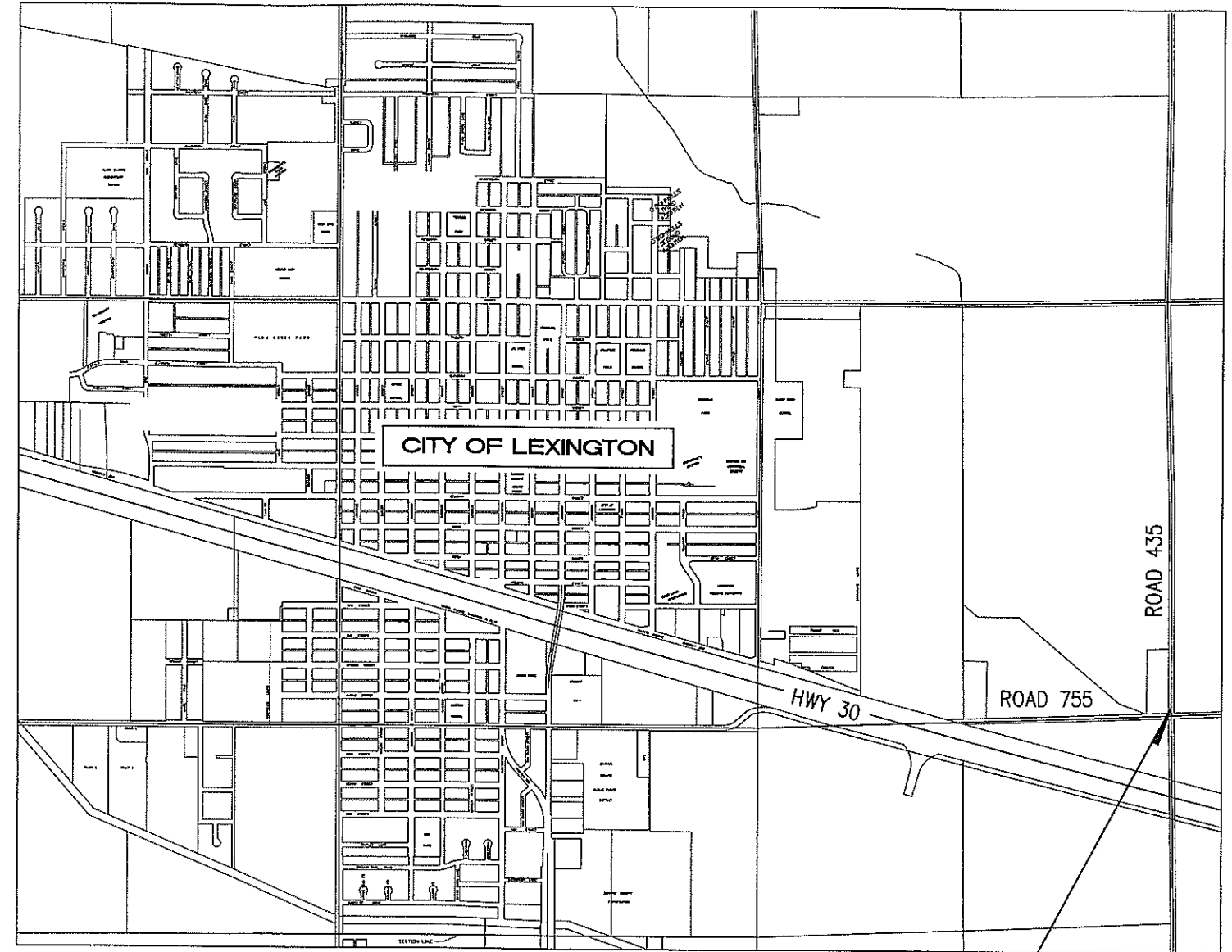


**VERIFY SCALES**  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

SCALE: AS SHOWN  
 PROJECT NO. 127-A1-072  
 DATE: OCTOBER, 2007  
 FIELD BOOK 932 M&A DWG NO. 18198  
 DRAWN BY: LMH APRVD BY: SVJ  
 SHEET 2 OF 10

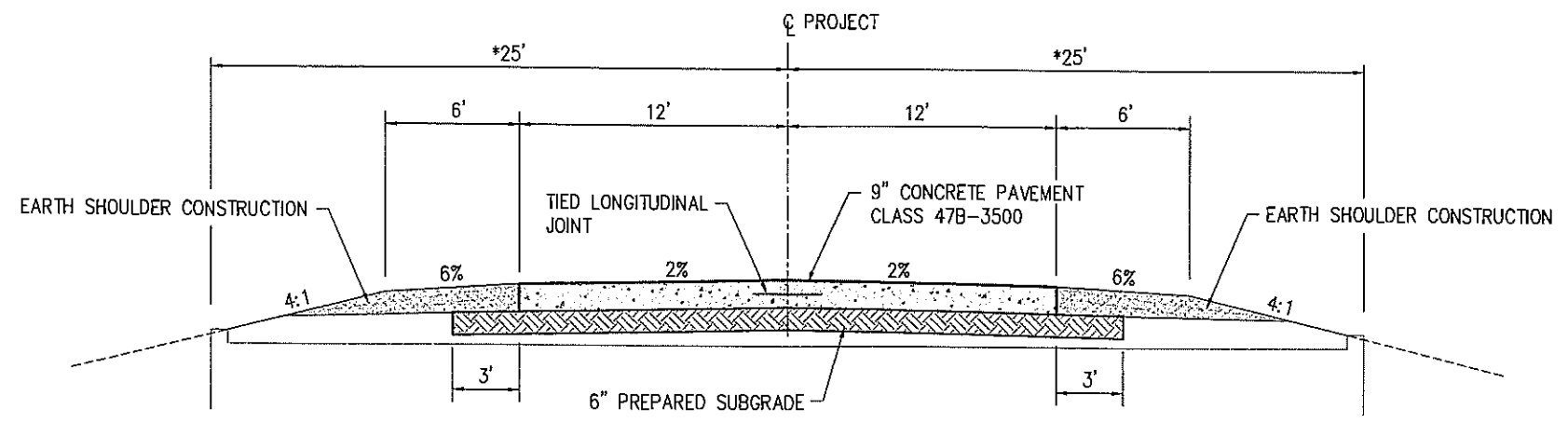
INDEX OF DRAWINGS	
SHT. NO.	DESCRIPTION
1	TITLE SHEET
2	LOCATION MAP/TYPICAL CROSS SECTION/INDEX
3	PLAN & PROFILE
4	CONSTRUCTION DETAILS
5	CULVERT LAYOUT
6	CONCRETE APRON DETAILS
7	PAVEMENT DETAILS
8	CULVERT CROSS SECTIONS
9	CULVERT CROSS SECTIONS
10	ROADWAY CROSS SECTIONS

QUANTITIES		
MOBILIZATION	1	L.S.
DEWATERING	1	L.S.
REMOVE ASPHALT SURFACE	224	S.Y.
EXCAVATION FOR BOX CULVERTS	818	C.Y.
SUBGRADE PREPARATION	224	S.Y.
9" CONCRETE PAVEMENT, CLASS 47B-3500	224	S.Y.
CLASS 47B-3000 CONCRETE FOR BOX CULVERTS	198.60	C.Y.
REINFORCING STEEL FOR BOX CULVERTS	27,023	LBS.
EARTH SHOULDER CONSTRUCTION	1.6	STA.
SEEDING & MULCH	1	L.S.



**LOCATION MAP**  
NO SCALE

PROJECT LOCATION



**TYPICAL CROSS SECTION**  
NO SCALE

\* DIMENSIONS MARKED THUS ARE MEASURED ALONG CENTERLINE OF PROPOSED REINFORCED CONCRETE BOX CULVERT.



104

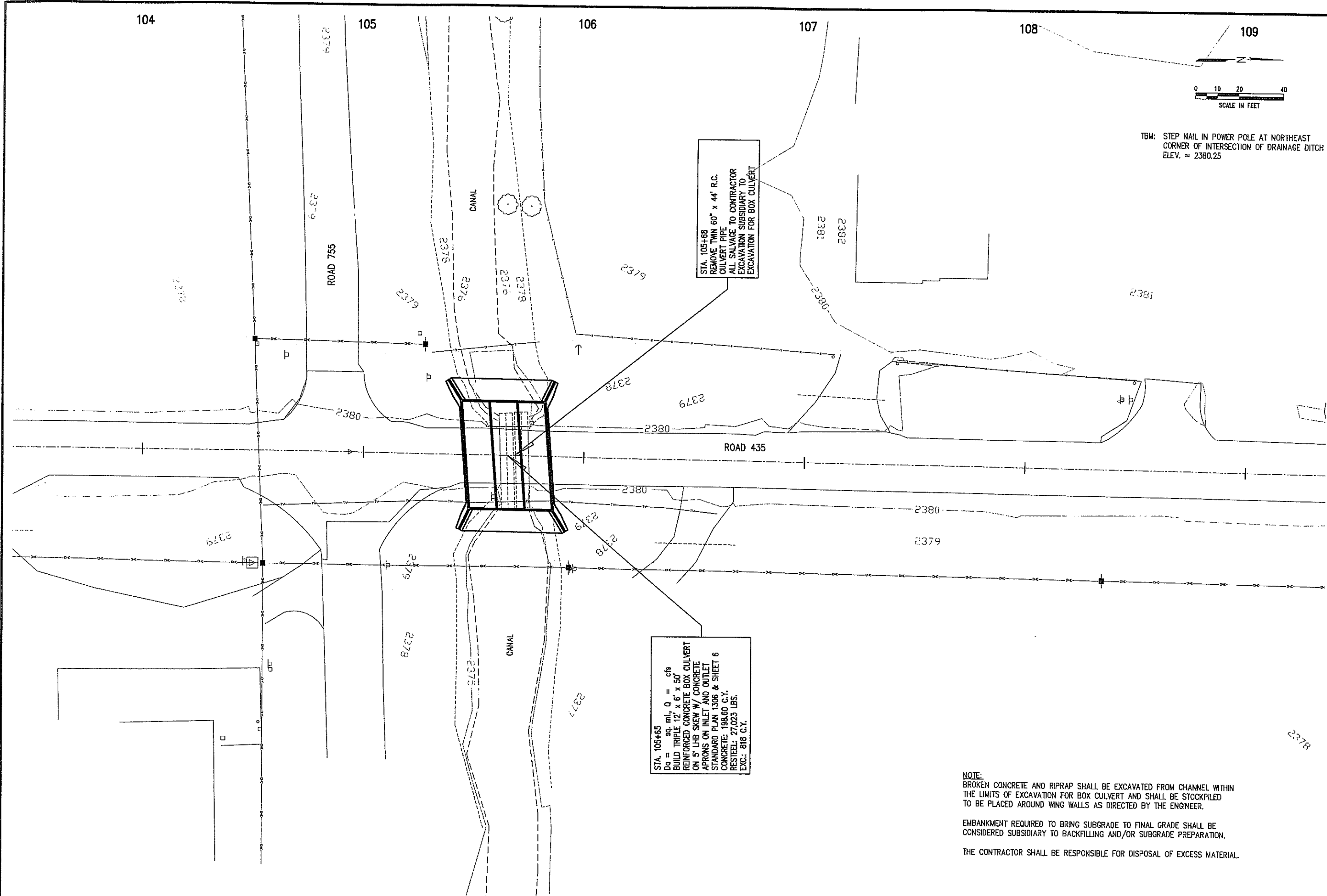
105

106

107

108

109



STA. 105+68  
 REMOVE TWIN 60" x 44" R.C.  
 CULVERT PIPE  
 ALL SALVAGE TO CONTRACTOR  
 EXCAVATION SUBSIDIARY TO  
 EXCAVATION FOR BOX CULVERT

STA. 105+65  
 DO = 0' 0" 1/4" 08  
 BUILD TRIPLE 12' x 9' x 50"  
 REINFORCED CONCRETE BOX CULVERT  
 ON 5" LHB SKEW W/ CONCRETE  
 APRONS ON INLET AND OUTLET  
 STANDARD PLAN 1306 & SHEET 6  
 CONCRETE: 198.60 C.Y.  
 RESTEEL: 27,023 LBS.  
 EXC.: 818 C.Y.

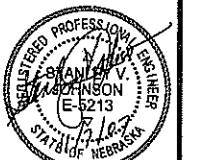
TBM: STEP NAIL IN POWER POLE AT NORTHEAST  
 CORNER OF INTERSECTION OF DRAINAGE DITCH  
 ELEV. = 2380.25



REVISIONS	BY

**M&A**  
 Miller & Associates  
 Consulting Engineers, P.C.  
 Kearney, NE (308) 234-6456  
 McCook, NE (308) 345-3710

SPRING CREEK REINFORCED CONCRETE BOX CULVERT  
**CONSTRUCTION DETAILS**  
 CITY OF LEXINGTON, NEBRASKA



**VERIFY SCALES**

BAR IS ONE INCH ON ORIGINAL DRAWING  
 0 1" = 1'

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

SCALE: AS SHOWN  
 PROJECT NO. 127-A1-072  
 DATE: AUG., 2007  
 FIELD BOOK 932 M&A DWG NO. 18196  
 DRAWN BY: JLB APY'D BY: SVJ  
 SHEET 4 10

**NOTE:**  
 BROKEN CONCRETE AND RIPRAP SHALL BE EXCAVATED FROM CHANNEL WITHIN THE LIMITS OF EXCAVATION FOR BOX CULVERT AND SHALL BE STOCKPILED TO BE PLACED AROUND WING WALLS AS DIRECTED BY THE ENGINEER.

EMBANKMENT REQUIRED TO BRING SUBGRADE TO FINAL GRADE SHALL BE CONSIDERED SUBSIDIARY TO BACKFILLING AND/OR SUBGRADE PREPARATION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF EXCESS MATERIAL.

NOV 04, 2007 14:34:27 Localize: G:\projects\127-A1-072\m&a\sh-01.dwg

TBM: STA. 105+95, 50' RT.  
STEP NAIL IN POWER POLE  
ELEV. 2380.25

STA. 105+80

STA. 105+70

STA. 105+65

STA. 105+60

STA. 105+50

STA. 105+40

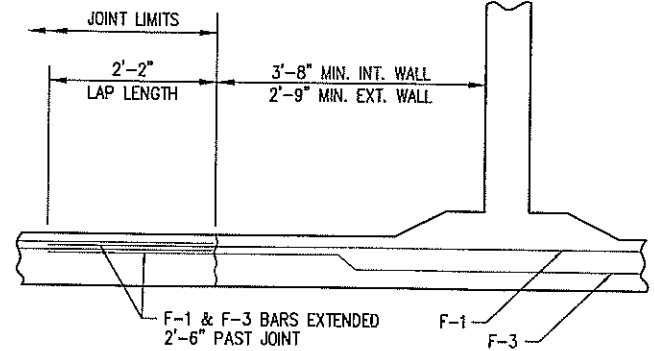
CL. RC BOX CULVERT

CONCRETE APRON

CULVERT PLAN

SCALE: 1" = 5'

OPTIONAL CONSTRUCTION JOINT LIMITS

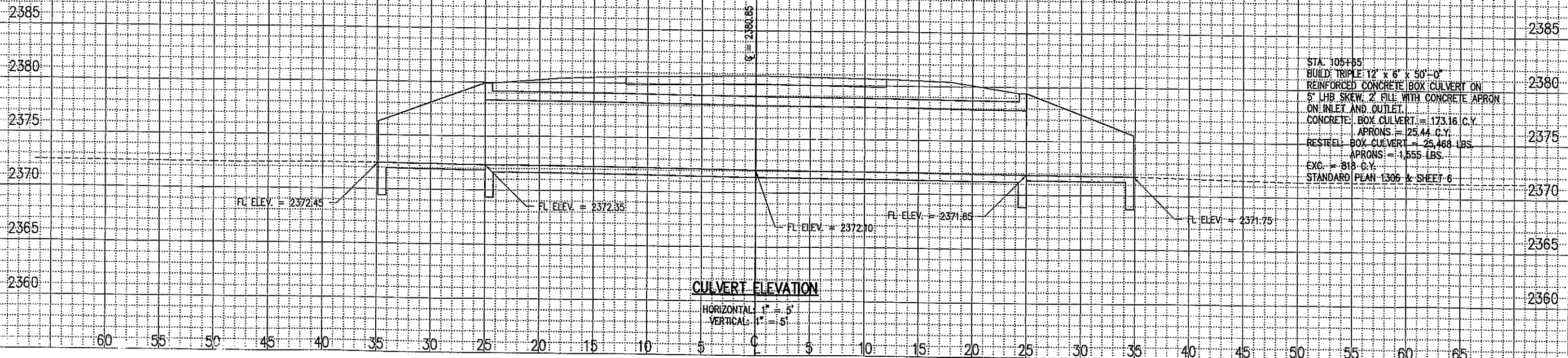


CONSTRUCTION JOINT DETAIL

SCALE: NONE

NOTE:  
OPTIONAL CONSTRUCTION JOINT WILL ONLY BE PERMITTED  
IN THE FLOOR AND APRONS OF THE BOX CULVERT.  
NO PAY ALLOWANCES WILL BE MADE FOR ADDITIONAL  
STEEL USED IN MAKING SPICES.

CONCRETE APRON



CULVERT ELEVATION

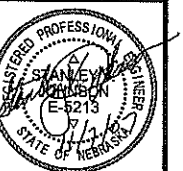
HORIZONTAL: 1" = 5'  
VERTICAL: 1" = 5'

STA. 105+65  
BUILD TRIPLE 12' x 6' x 50'-0"  
REINFORCED CONCRETE BOX CULVERT ON  
5' LHB SKEW. 2' FILL WITH CONCRETE APRON  
ON INLET AND OUTLET.  
CONCRETE BOX CULVERT = 123.16 C.Y.  
APRONS = 25.44 C.Y.  
RESTEEL BOX CULVERT = 25,468 LBS.  
APRONS = 1,555 LBS.  
EXC. = 318 C.Y.  
STANDARD PLAN 1306 & SHEET 6

REVISIONS BY

**M&A**  
Miller & Associates  
Consulting Engineers, P.C.  
Kearney, NE (308) 234-6455  
McCook, NE (308) 345-3710

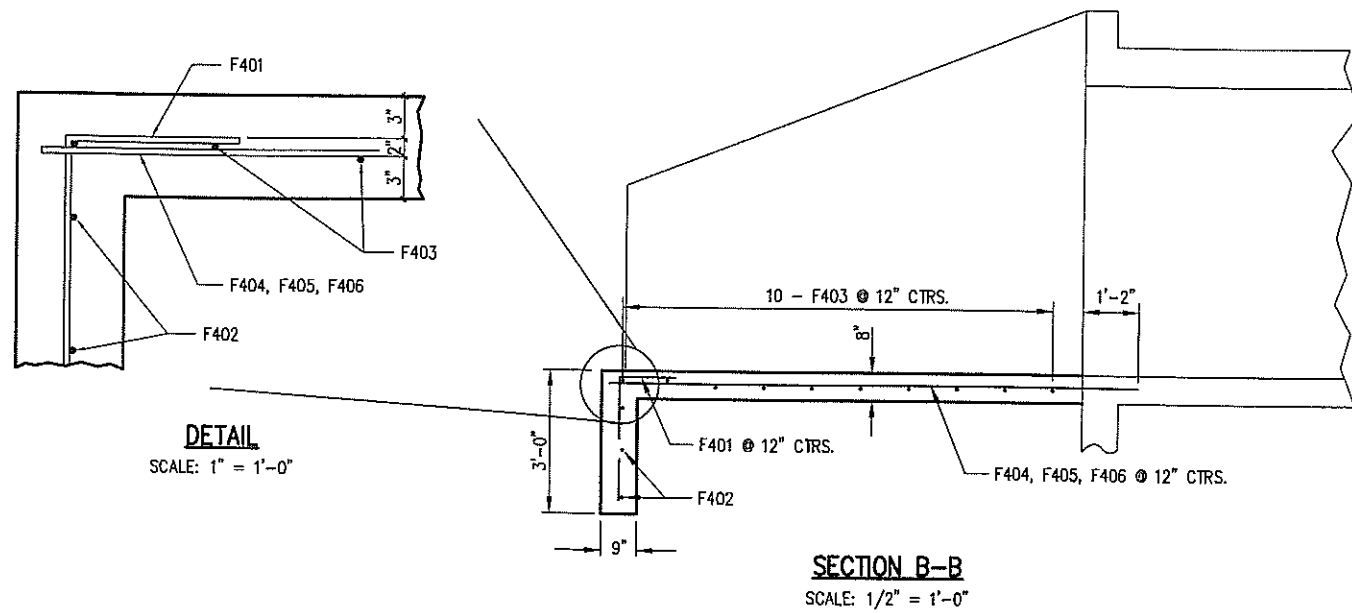
SPRING CREEK REINFORCED CONCRETE BOX CULVERT  
**CULVERT LAYOUT**  
CITY OF LEXINGTON, NEBRASKA



VERIFY SCALES  
BAR IS ONE INCH ON ORIGINAL DRAWING  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

SCALE: 1" = 20'  
PROJECT NO. 127-A1-072  
DATE: OCTOBER, 2007  
FIELD BOOK 932 M&A DWG NO. 18195  
DRAWN BY: LMH APRVD BY: SVJ  
SHEET 5 OF 10

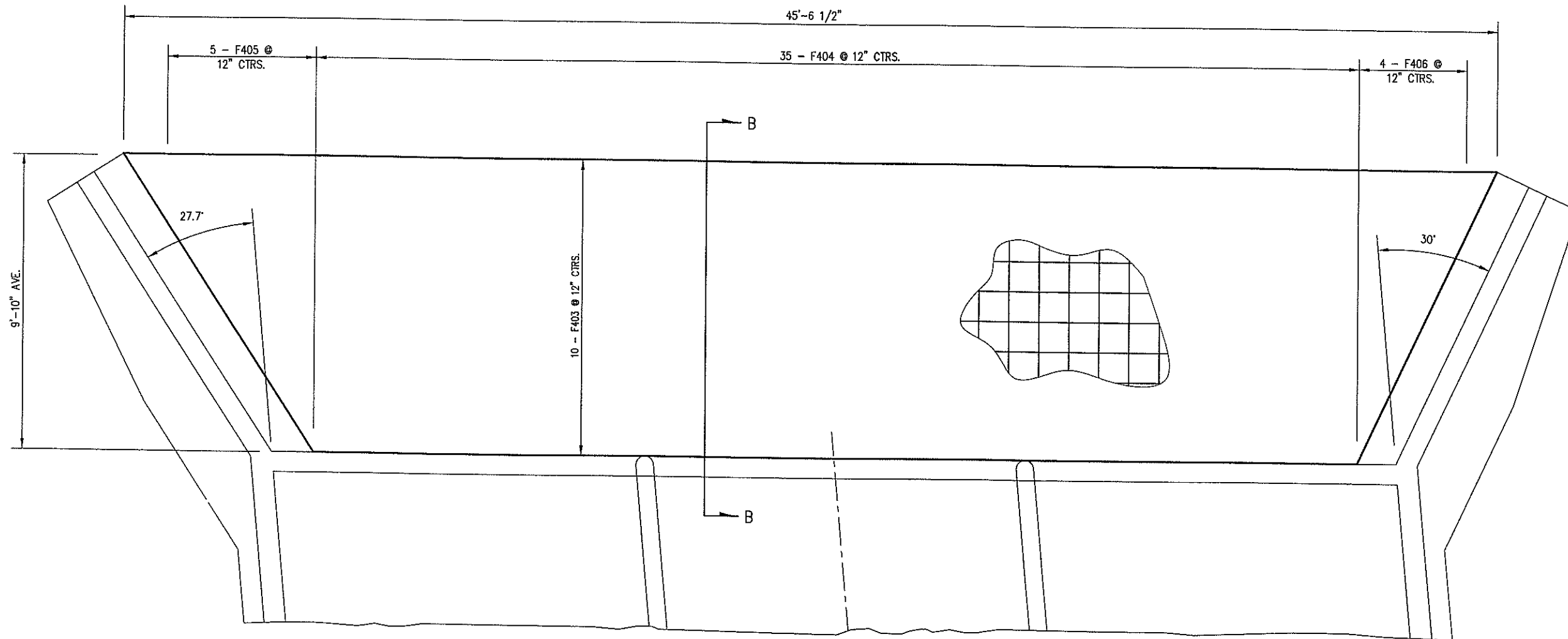
10/01/2007 11:19:33 C:\Projects\127-A1-072\DWG\Sheet-05.dwg



APRON QUANTITIES FOR TWO ENDS  
 CONCRETE = 25.44 C.Y.  
 REINFORCING STEEL = 1,555 LBS

BENDING DIAGRAMS		BILL OF BARS				
MARK	NO.	LENGTH	TYPE	WEIGHT		
FOOTING						
F401	88	3'-9"	BENT	220		
F402	6	48'-0"	STR	192		
F403	20	42'-7" AVE	STR	569		
F404	70	10'-9"	STR	503		
F405	10	6'-1" AVE	STR	40		
F406	8	5'-9" AVE	STR	31		
TOTAL				1,555		
BARS SETS						
MARK	MAX LENGTH	MIN LENGTH	NO SETS	BARS PER SET		
F403	47'-8"	37'-6"	2	10		
F405	9'-2"	3'-0"	2	5		
F406	8'-6"	3'-0"	2	4		

NOTES:  
 FOR DETAILS AND NOTES NOT SHOWN SEE STANDARD PLAN 1306  
 QUANTITIES DO NOT INCLUDE LAP LENGTHS. NO ALLOWANCES WILL  
 BE MADE FOR ADDITIONAL STEEL USED IN MAKING SPLICES.



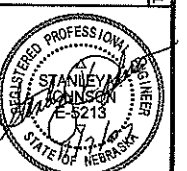
PARTIAL PLAN  
 SCALE: 1/2" = 1'-0"

REVISIONS	BY



Miller & Associates  
 Consulting Engineers, P.C.  
 Kearney, NE (308) 234-8456  
 McCook, NE (308) 345-3710

SPRING CREEK REINFORCED CONCRETE BOX CULVERT  
**CONCRETE APRON DETAILS**  
 CITY OF LEXINGTON, NEBRASKA



VERIFY SCALES  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

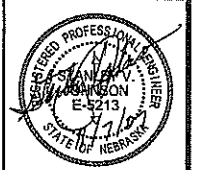
SCALE:	1" = 20'
PROJECT NO.	127-A1-072
DATE:	OCTOBER, 2007
FIELD BOOK	M&A DWG NO.
932	18194
DRAWN BY:	APRVD BY:
LMI	SVJ
SHEET	OF
6	10



REVISIONS	BY

**M&A**  
 Miller & Associates  
 Consulting Engineers, P.C.  
 Kearney, NE (308) 234-6455  
 McCook, NE (308) 345-3710

SPRING CREEK REINFORCED CONCRETE BOX CULVERT  
**PAVEMENT DETAILS**  
 CITY OF LEXINGTON, NEBRASKA



**VERIFY SCALES**  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

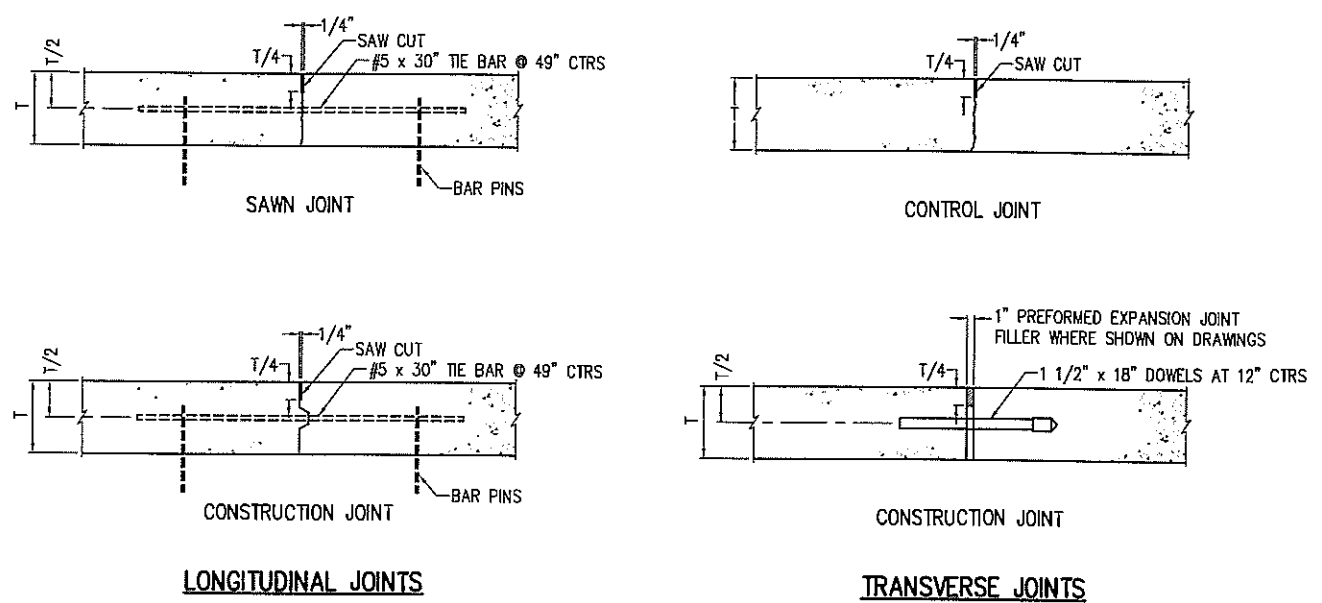
SCALE: AS SHOWN

PROJECT NO. 127-A1-072

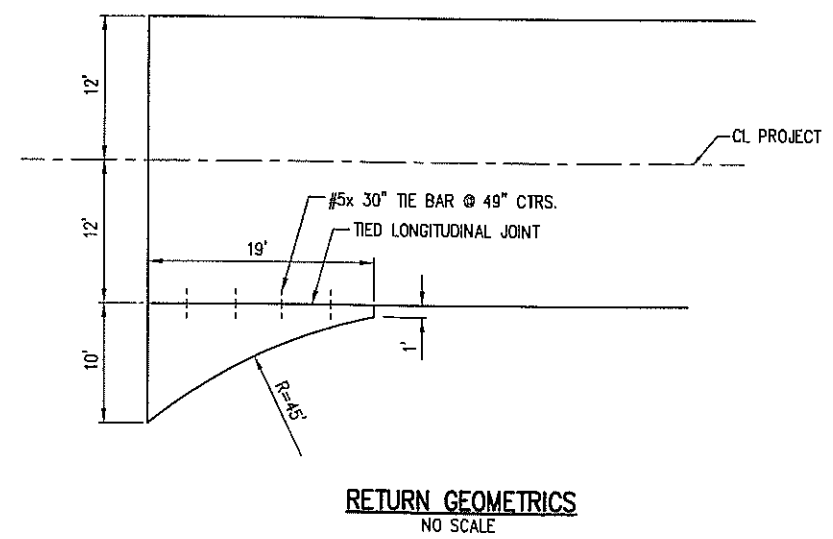
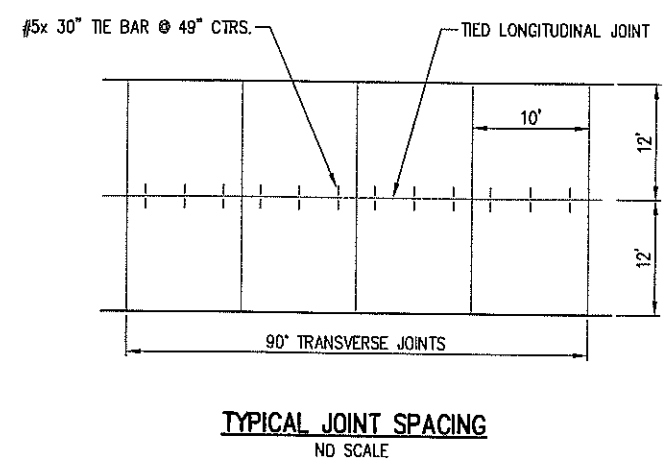
DATE: OCTOBER, 2007

FIELD BOOK 932	M&A DWG NO. 18193
DRAWN BY: LMH	APRVD BY: SVJ

SHEET 7 OF 10



**CONCRETE JOINT DETAILS**  
NO SCALE

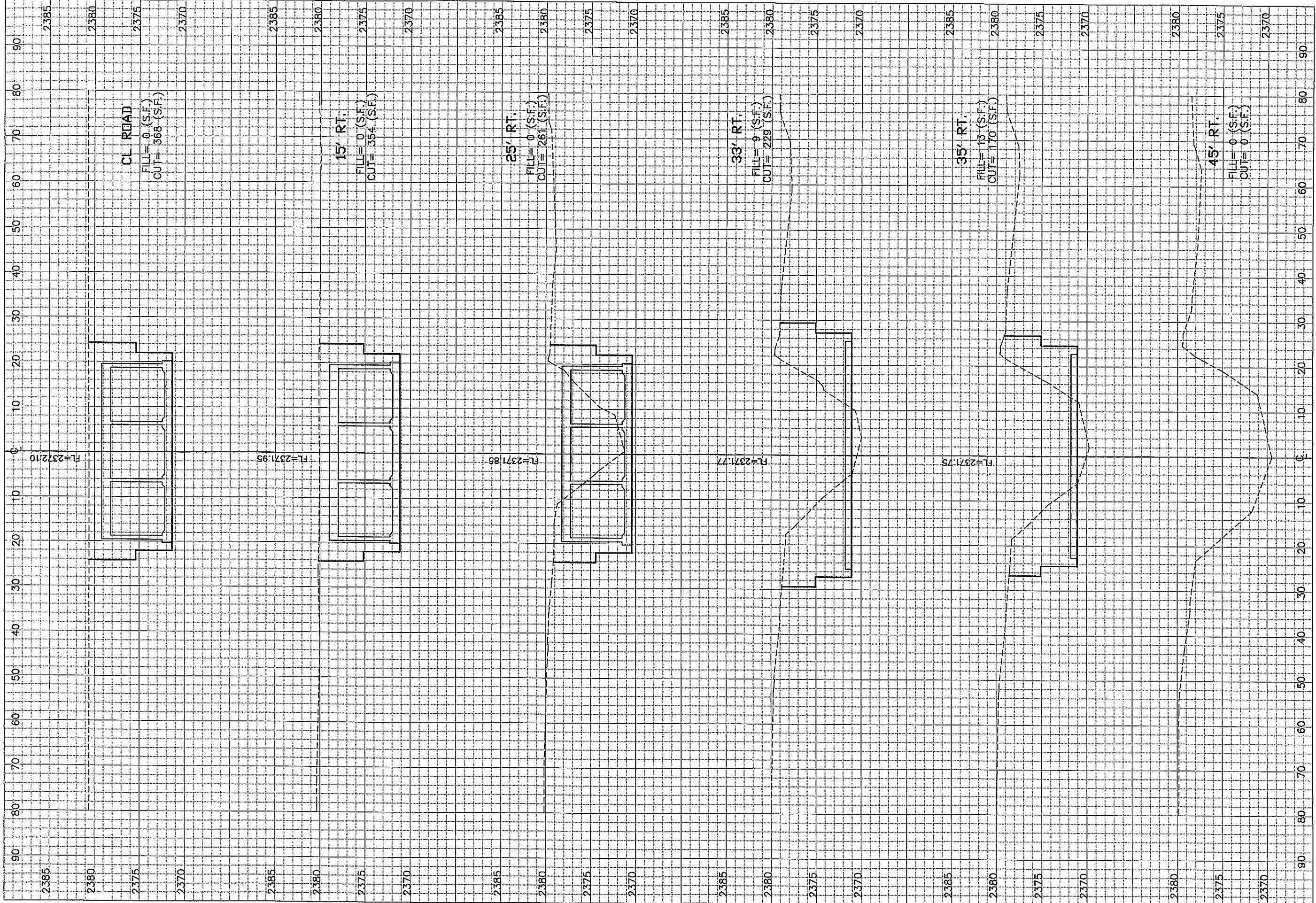


COMPACTION REQUIREMENTS					
CLASS III (SEE SPECIFICATIONS)					
SOIL TYPE	DEPTH BELOW FINISH SUBGRADE	PERCENT DENSITY	MOISTURE REQUIREMENTS		
			MINIMUM	MAXIMUM	
EMBANKMENT/ROADWAY GRADING TO BE SURFACED, INCLUDING DRIVEWAYS	SILT-CLAY	UPPER 3 FEET	96±3	OPT. +3%	OPT. +3%
	" "	AT DEPTHS GREATER THAN 3 FEET	95 MIN.	**	OPT. +2%
EMBANKMENT/ROADWAY GRADING NOT TO BE SURFACED	GRANULAR	ALL DEPTHS	100 MIN.	**	**
	SILT-CLAY	ALL DEPTHS	95 MIN.	**	OPT. +2%
SUBGRADE PREPARATION SHOULDER SUBGRADE PREPARATION	SILT-CLAY	THE UPPER 6" OF SUBGRADE SOIL	96±3	OPT. +3%	OPT. +3%
	GRANULAR	" "	100 MIN.	**	**
FOUNDATION COURSE	--	--	100 MIN.	(SEE SPECIFICATION)	
EMBANKMENT OF DRIVEWAYS NOT SURFACED	ALL	ALL DEPTHS	CLASS 1	(SEE SPECIFICATION)	

\*\* MOISTURE AS NECESSARY TO OBTAIN DENSITY

OCT 24, 2007 15:24:37 Location: C:\projects\127-A1-072\Drawings\127-A1-072.dwg

NOV 02, 2007 11:18:35 Location: C:\Projects\127\127-AI-072\DWG\Sht-08.dwg



REVISIONS	BY

**M&A**  
 Miller & Associates  
 Consulting Engineers, P.C.  
 Kearney, NE (308) 234-6466  
 McCook, NE (308) 345-3710

SPRING CREEK REINFORCED CONCRETE BOX CULVERT  
**CULVERT CROSS SECTIONS**  
 CITY OF LEXINGTON, NEBRASKA



VERIFY SCALES  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

SCALE: VERT. - 1"=5'  
 HORIZ. - 1"= 10'

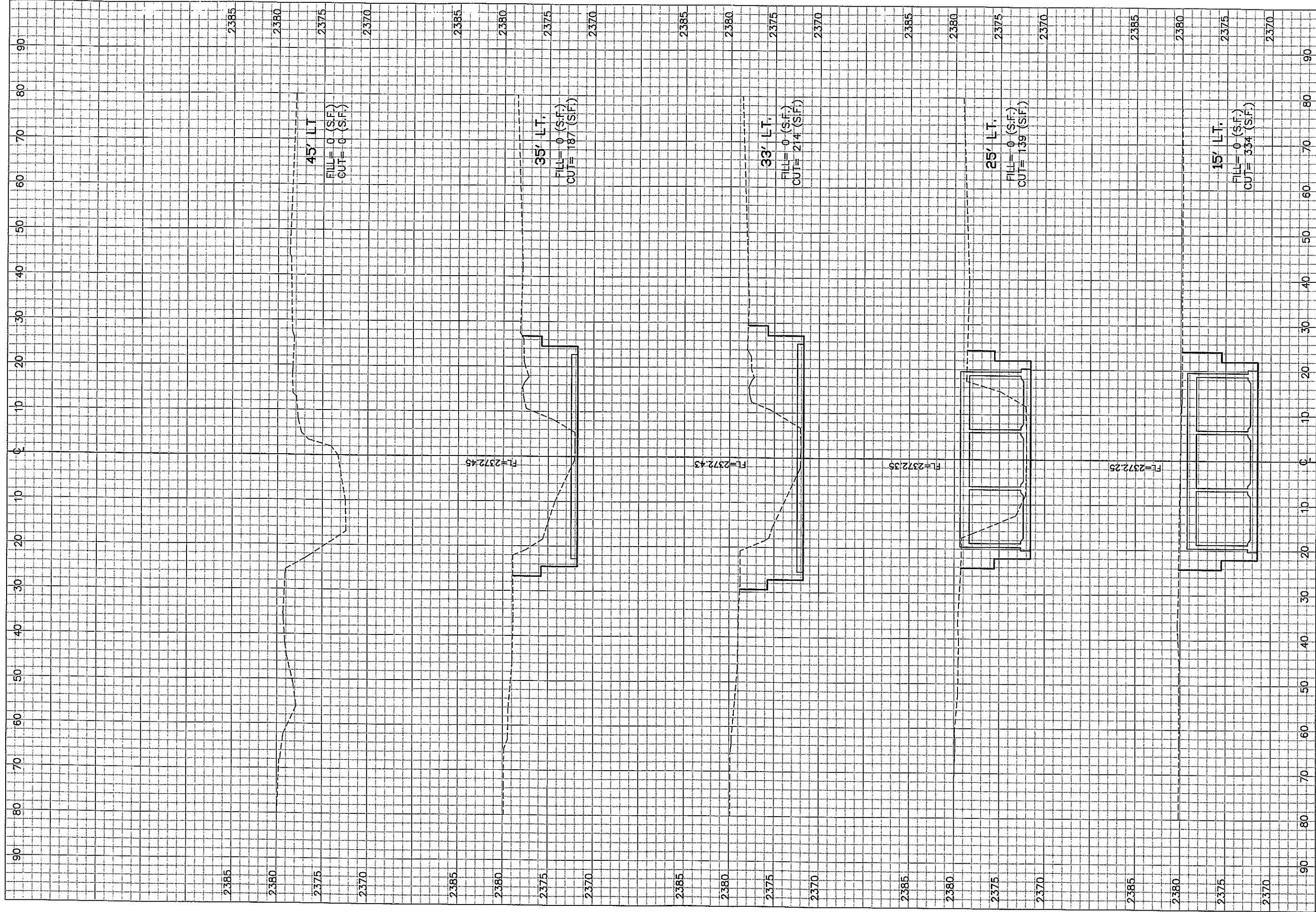
PROJECT NO.  
 127-AI-072

DATE:  
 OCTOBER, 2007

FIELD BOOK 932	M&A DWG NO. 18192
DRAWN BY: J.B.	APRVD BY: SVJ
SHEET	OF

8 10

This document, and the ideas and designs incorporated herein, as an instrument of professional service, is the property of Miller & Associates and is not to be used in whole or in part, for any other project without the written authorization of Miller & Associates.



REVISIONS BY

**M&A**  
Miller & Associates  
Consulting Engineers, P.C.  
Omaha, NE (308) 234-6466  
McCook, NE (308) 345-3710

SPRING CREEK REINFORCED CONCRETE BOX CULVERT  
**CULVERT CROSS SECTIONS**  
CITY OF LEXINGTON, NEBRASKA

This document, and the ideas and designs incorporated herein, as an instrument of professional service, is the property of Miller & Associates and is not to be used in whole or in part, for any other project without the written authorization of Miller & Associates.

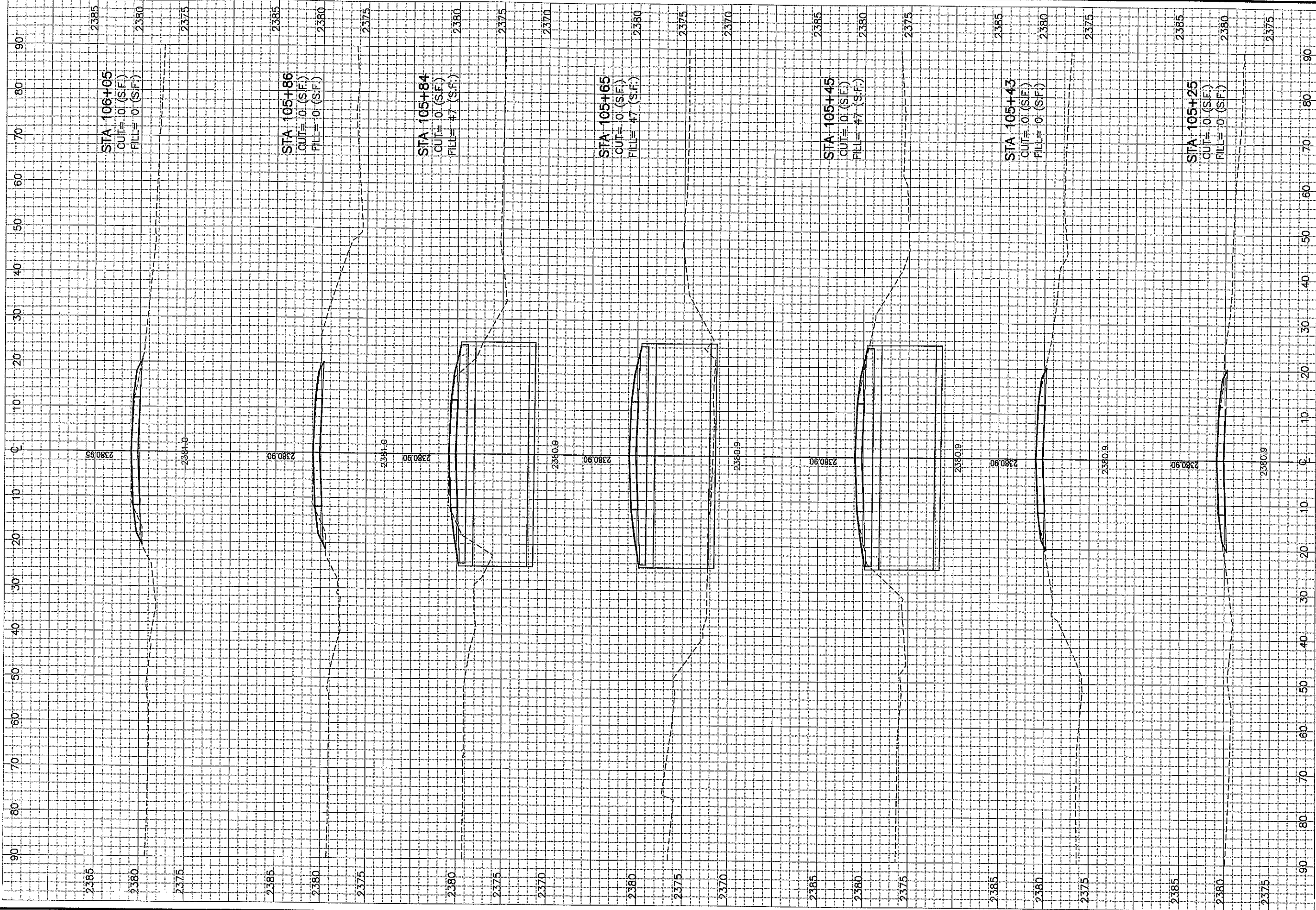


**VERIFY SCALES**  
BAR IS ONE INCH ON ORIGINAL DRAWING  
0 1"  
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

SCALE: VERT. - 1"=5'  
HORIZ. - 1"= 10'

PROJECT NO. 127-A1-072  
DATE: OCTOBER, 2007

FIELD BOOK 932 M&A DWG NO. 18191  
DRAWN BY: JLB APPROV BY: SVJ  
SHEET 9 OF 10

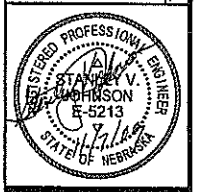


REVISIONS BY


**M&A**  
 Miller & Associates  
 Consulting Engineers, P.C.  
 Kearney, NE (308) 234-6456  
 McCook, NE (308) 345-3710

SPRING CREEK REINFORCED CONCRETE BOX CULVERT  
**ROADWAY CROSS SECTIONS**  
 CITY OF LEXINGTON, NEBRASKA

This document, and the ideas and designs incorporated herein, are the property of Miller & Associates and is not to be used in whole or in part, for any other project without the written authorization of Miller & Associates.



**VERIFY SCALES**  
 BAR IS ONE INCH ON ORIGINAL DRAWING  
 0" = 1"  
 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

SCALE: VERT- 1" = 5'  
 HORIZ- 1" = 10'

PROJECT NO.  
 127-A1-072

DATE:  
 OCTOBER, 2007

FIELD BOOK 932 M&A DWG NO. (18190)  
 DRAWN BY: JLB APRVD BY: SVJ  
 SHEET 10 10