

City of Broken Arrow

Drainage Advisory Committee



PROJECT REPORT

DATE:	9 June 2023
NAME	Nathanael Kohl
ADDRESS / LOCATION	1304 W El Paso St Broken Arrow, OK 74012
WATERSHED	Haikey Creek
ESTIMATE	\$30,000.00
CASE NO.	23-003

DESCRIPTION

The proposed project is located East of Aspen Creek I subdivision on the north west side of Park Grove Cemetery.

A citizen called the City concerned about erosion behind her fence in a channel flowing from the Park Grove Cemetery to Park Grove Creek. Park Grove Cemetery is City owned. Staff met the citizen on site to observe the effects of the storm water. The flow from the storm sewers from the cemetery appeared to have caused downcutting in the stream and erosion along the bank. The erosion has exposed the under ground utilities.

The storm sewer system for the cemetery was designed in 1998. The outlet pipe is 24 inches. The 1% exit velocity from the pipe is 10.5 ft/s. This is considered erosive velocity. The plans also show riprap was to be installed at the end of the pipe to slow the velocity down. The riprap is not visible due to the excessive vegetation present at the outfall.

BENEFIT

Protect the utilities that are being exposed due to downcutting and erosion from the runoff coming from the City owned cemetery

RECOMMENDATION

Staff recommends that the channel be cleaned of vegetation from the outfall to the next City owned property and to mitigate the exposed utilities and erosion prone areas with additional riprap.

COMPLETED BY: Nathanael Kohl

DATE: 12 June 2023

Kohl, Nathanael

From: Wilson, Patrick
Sent: Wednesday, May 10, 2023 8:43 AM
To: Kohl, Nathanael
Subject: Fwd: *NEW SUBMISSION* Drainage Advisory Committee Project Application

Patrick Wilson, PE, CFM
Stormwater Division Manager
City of Broken Arrow

Sent via the Samsung Galaxy Note10, an AT&T 5G Evolution capable smartphone
Get [Outlook for Android](#)

From: BrokenArrowOK.gov webmaster <webmaster@brokenarrowok.gov>
Sent: Wednesday, May 10, 2023 8:35:16 AM
To: Wilson, Patrick <PWilson@brokenarrowok.gov>; Engineering & Stormwater <engineering.stormwater@brokenarrowok.gov>
Subject: *NEW SUBMISSION* Drainage Advisory Committee Project Application

Drainage Advisory Committee Project Application

Submission #: 2424931
IP Address: 107.77.200.9
Submission Date: 05/10/2023 8:35
Survey Time: 24 minutes, 56 seconds

You have a new online form submission.

Note: all answers displaying "*****" are marked as sensitive and must be viewed after your login.

Owner Name

melissa marshall

Phone

6208701037

Email

mmar16@yahoo.com

Owner Mailing Address

1304 W El Paso St
Broken Arrow, OK 74012

Address of Property with Drainage Problem

1304 W El Paso St

Broken Arrow, OK

Location of Drainage Issue on Property

East/rear of lot

Description of Problem

Requesting assistance with severe land erosion to the rear lot line of 1304 W. El Paso St. and Park Grove Cemetery due to city storm drainage. Unfortunately the water drainage has caused dire straits to the back side of the property due to loss of soil. An easement with the property is required to the utility of Broken Arrow. The property owner's fence is at risk and the owner is limited to the span where the fence can be placed due to the easement and also sewer lines that run on the property. The property easement is eroding so far that it is limiting access to workers and their ability to work in the easement safely. Not only is erosion an issue but the gas meter to the property is in the base of the storm water drainage. Also, upon taking pictures of the area, discovery of an orange pipe/line is now showing in the bottom of this eroded area which is very concerning.

Please attach photos depicting the Drainage Issue

[BE1565E5-D4CC-4C7B-86E0-DF7F16D0F246.jpeg](#)

[E92BC7EF-A09F-4BB4-9A83-A8BBE9A58CC9.jpeg](#)

[CCA9D5DA-A6FE-47BE-9E82-6E7FD788FD99.jpeg](#)

[BAB58A81-0F78-4F4F-9EE8-DAED23D95B7B.jpeg](#)

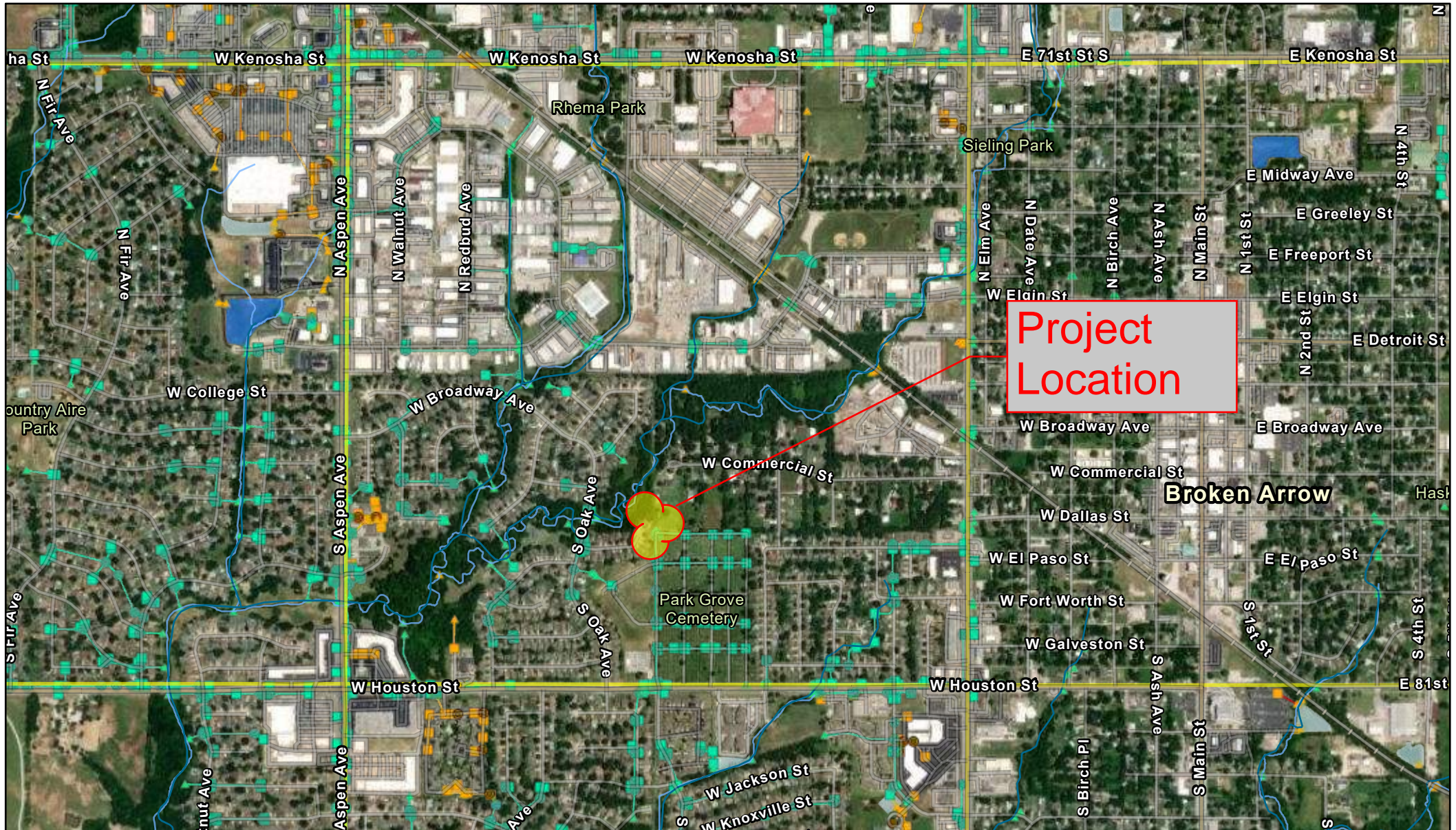
[BFCF7624-54E8-4748-8F37-BABEDE01660B.jpeg](#)

Thank you,

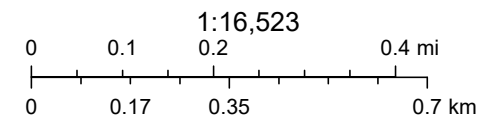
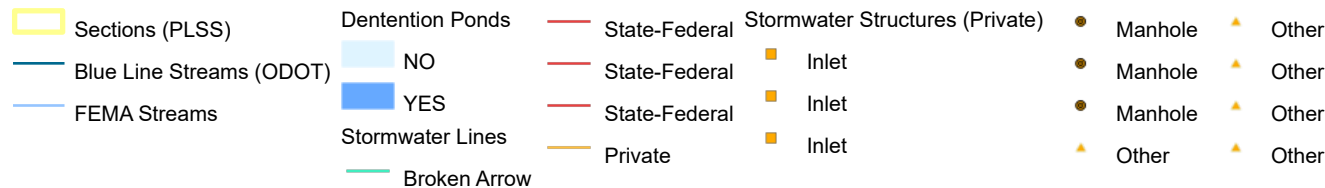
City of Broken Arrow

This is an automated message generated by Granicus. Please do not reply directly to this email.

Location Map



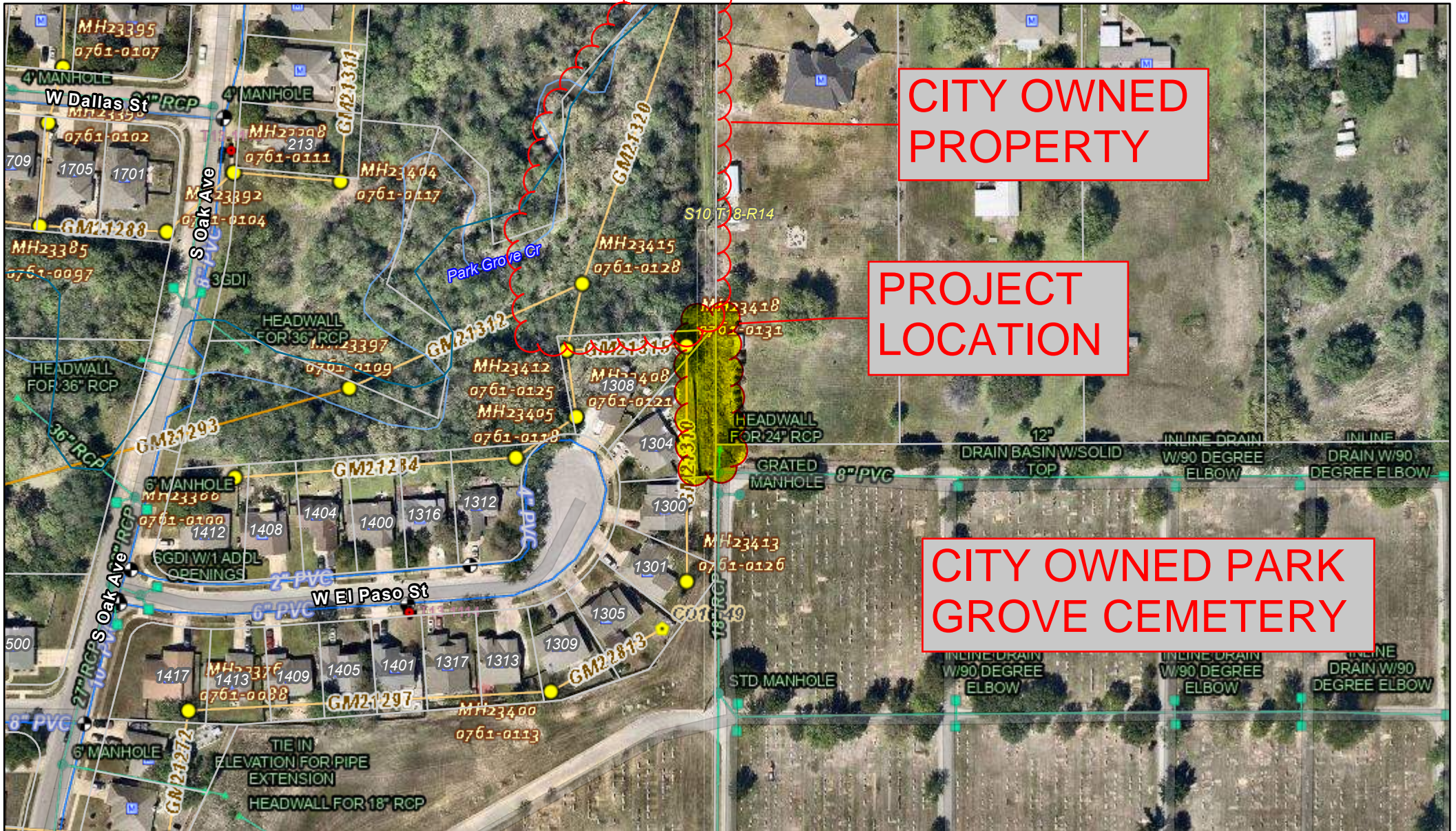
6/22/2023, 2:26:17 PM




















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City of Broken Arrow

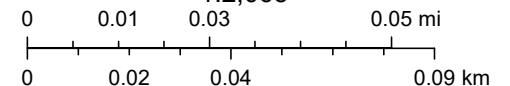
Stormwater Utility Map



6/22/2023, 2:18:44 PM

-  Parcels
  Sections (PLSS)
  Blue Line Streams (ODOT)
  FEMA Streams
-  Address Points
 Stormwater Lines
  Broken Arrow
  Stormwater Structures
  Inlet
-  Inlet
  Manhole
  Manhole
  Other
-  Other
 GravityMain
  Polyvinyl Chloride
  Vitrified Clay
-  Manhole No Inspection
  CleanOut No Inspection

1:2,065



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City of Broken Arrow

CURVE TABLE

NO.	PT. OF CURVE	R/C	CHORD	DELTA	TANGENT	CHORD BEG.
C12	25.00'	39.27'	35.36'	88°00'00"	25.00'	N43°31'34"E
C13	325.00'	36.88'	36.86'	6°51'17"	13.46'	N85°05'55"E
C14	325.00'	36.88'	36.86'	6°51'17"	13.46'	N85°05'55"E
C15	325.00'	36.88'	36.86'	6°51'17"	13.46'	N85°05'55"E
C16	275.00'	33.61'	33.59'	7°00'00"	16.83'	N68°43'38"E
C17	275.00'	33.61'	33.59'	7°00'00"	16.83'	N68°43'38"E
C18	25.00'	39.27'	35.36'	88°00'00"	25.00'	N43°31'34"E
C19	225.00'	9.40'	9.40'	2°23'36"	4.70'	N87°19'46"E
C20	225.00'	9.40'	9.40'	2°23'36"	4.70'	N87°19'46"E
C21	225.00'	61.70'	61.51'	15°42'42"	31.84'	N65°44'42"E
C22	225.00'	61.65'	61.46'	15°41'58"	31.82'	N65°44'42"E
C23	25.00'	39.27'	35.36'	88°00'00"	25.00'	N43°31'34"E
C24	300.00'	76.33'	76.11'	14°57'36"	39.39'	N51°07'25"E
C25	300.00'	76.33'	76.11'	14°57'36"	39.39'	N51°07'25"E
C26	300.00'	76.33'	76.11'	14°57'36"	39.39'	N51°07'25"E
C27	325.00'	75.68'	75.51'	13°28'33"	38.81'	N51°07'25"E
C28	325.00'	75.68'	75.51'	13°28'33"	38.81'	N51°07'25"E
C29	275.00'	13.86'	13.86'	2°53'17"	6.93'	N87°08'28"E
C30	275.00'	13.86'	13.86'	2°53'17"	6.93'	N87°08'28"E
C31	275.00'	36.82'	36.83'	8°06'32"	19.40'	N84°28'18"E
C32	355.00'	18.11'	18.11'	2°55'21"	9.06'	N14°18'06"E
C33	355.00'	18.11'	18.11'	2°55'21"	9.06'	N14°18'06"E
C34	355.00'	18.11'	18.11'	2°55'21"	9.06'	N14°18'06"E
C35	150.00'	55.77'	55.45'	21°09'43"	28.21'	N12°53'34"E
C36	150.00'	55.77'	55.45'	21°09'43"	28.21'	N12°53'34"E
C37	150.00'	55.77'	55.45'	21°09'43"	28.21'	N12°53'34"E
C38	150.00'	55.77'	55.45'	21°09'43"	28.21'	N12°53'34"E
C39	25.00'	39.27'	35.36'	88°00'00"	25.00'	N43°31'34"E
C40	241.38'	77.00'	76.68'	18°16'42"	38.83'	N58°02'20"E
C41	241.38'	77.00'	76.68'	18°16'42"	38.83'	N58°02'20"E
C42	241.38'	77.00'	76.68'	18°16'42"	38.83'	N58°02'20"E
C43	241.38'	77.00'	76.68'	18°16'42"	38.83'	N58°02'20"E
C44	241.38'	77.00'	76.68'	18°16'42"	38.83'	N58°02'20"E
C45	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C46	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C47	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C48	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C49	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C50	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C51	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C52	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C53	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C54	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C55	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C56	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C57	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C58	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C59	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C60	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C61	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C62	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C63	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C64	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C65	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C66	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C67	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C68	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C69	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C70	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C71	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C72	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C73	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C74	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C75	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C76	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C77	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C78	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C79	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C80	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C81	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C82	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C83	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C84	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C85	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C86	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C87	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C88	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C89	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C90	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C91	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C92	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C93	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C94	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C95	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C96	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C97	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C98	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C99	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E
C100	52.00'	17.18'	17.10'	18°55'38"	8.57'	N79°03'45"E

LEGEND

- MATCH LINE
- HOUSE SETBACK LINE
- UTILITY EASEMENT
- EASEMENT BY SEPARATE INSTRUMENT

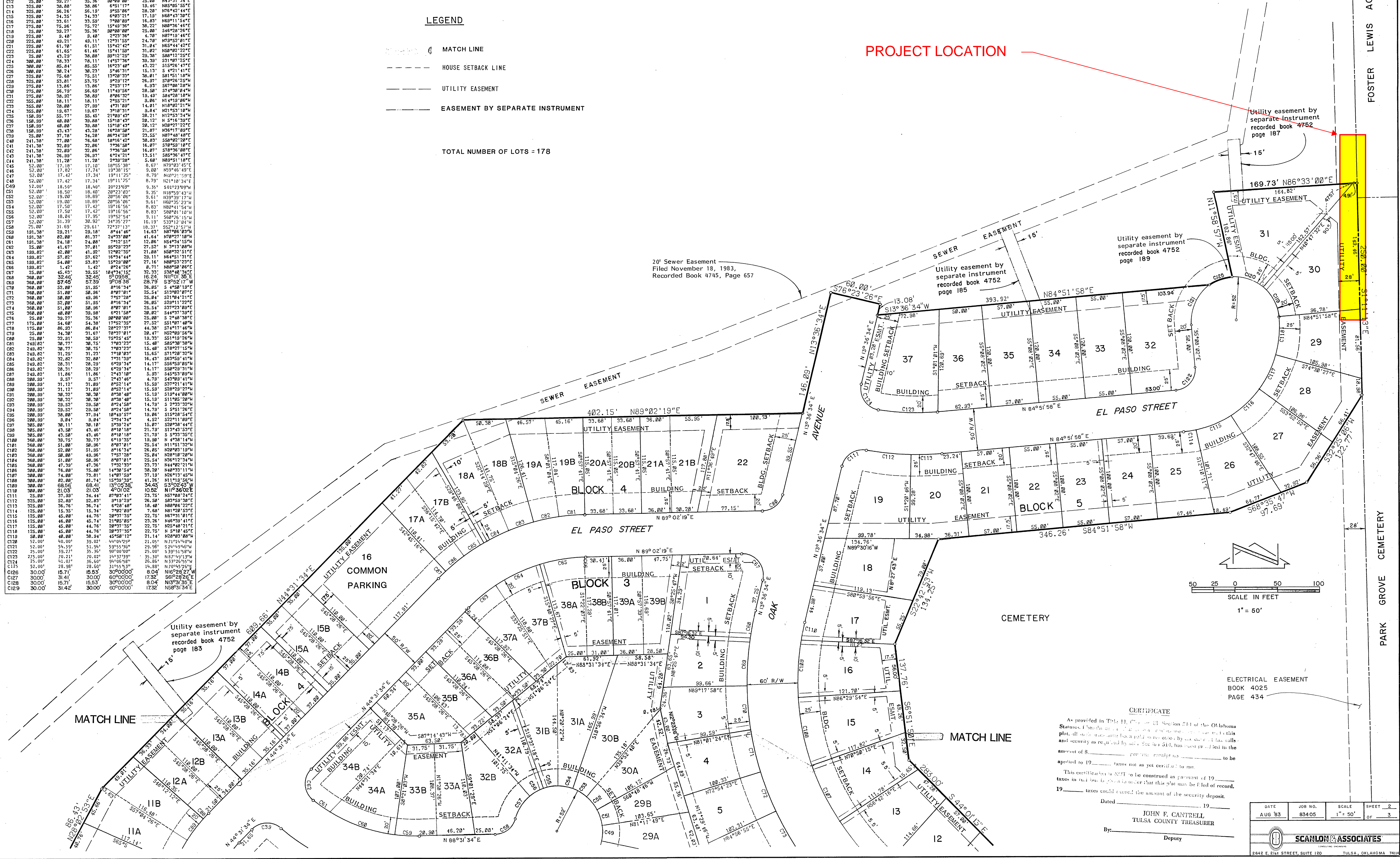
TOTAL NUMBER OF LOTS = 178

The approval of this plat does not guarantee that connections will be permitted to the Hailey Creek Wastewater Treatment Plant. The owner of each lot is responsible for obtaining from the City Engineer of Broken Arrow, a connection contract and/or connection permit certifying to capacity. If capacity is not available, connection of the lot will not be permitted.

ASPEN CREEK I

A SUBDIVISION IN THE CITY OF BROKEN ARROW, TULSA COUNTY, OKLAHOMA
A PART OF THE INDIAN BASE AND MERIDIAN SW 1/4 OF SECTION 10, T-18-N, R-14-E
PUD #31 SHEET 2 OF 3

PROJECT LOCATION



FOSTER LEWIS ACRES

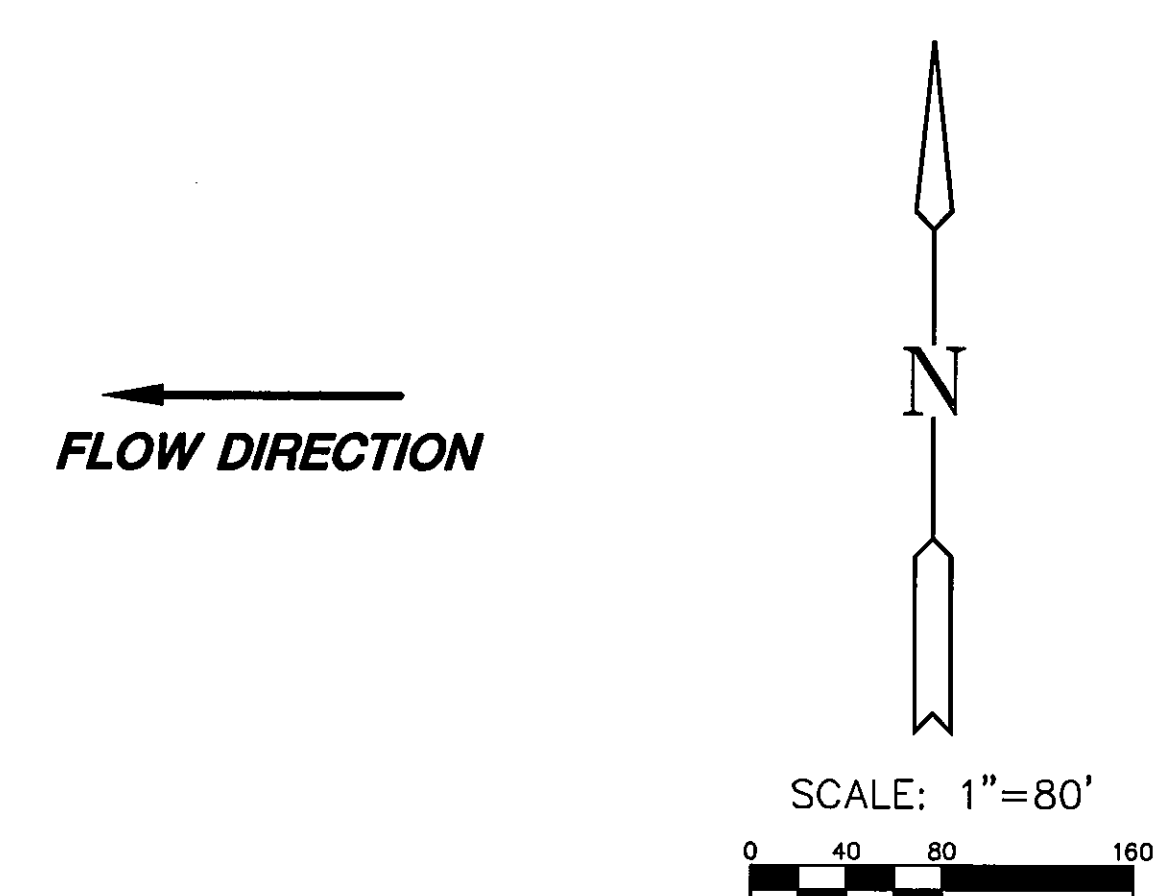
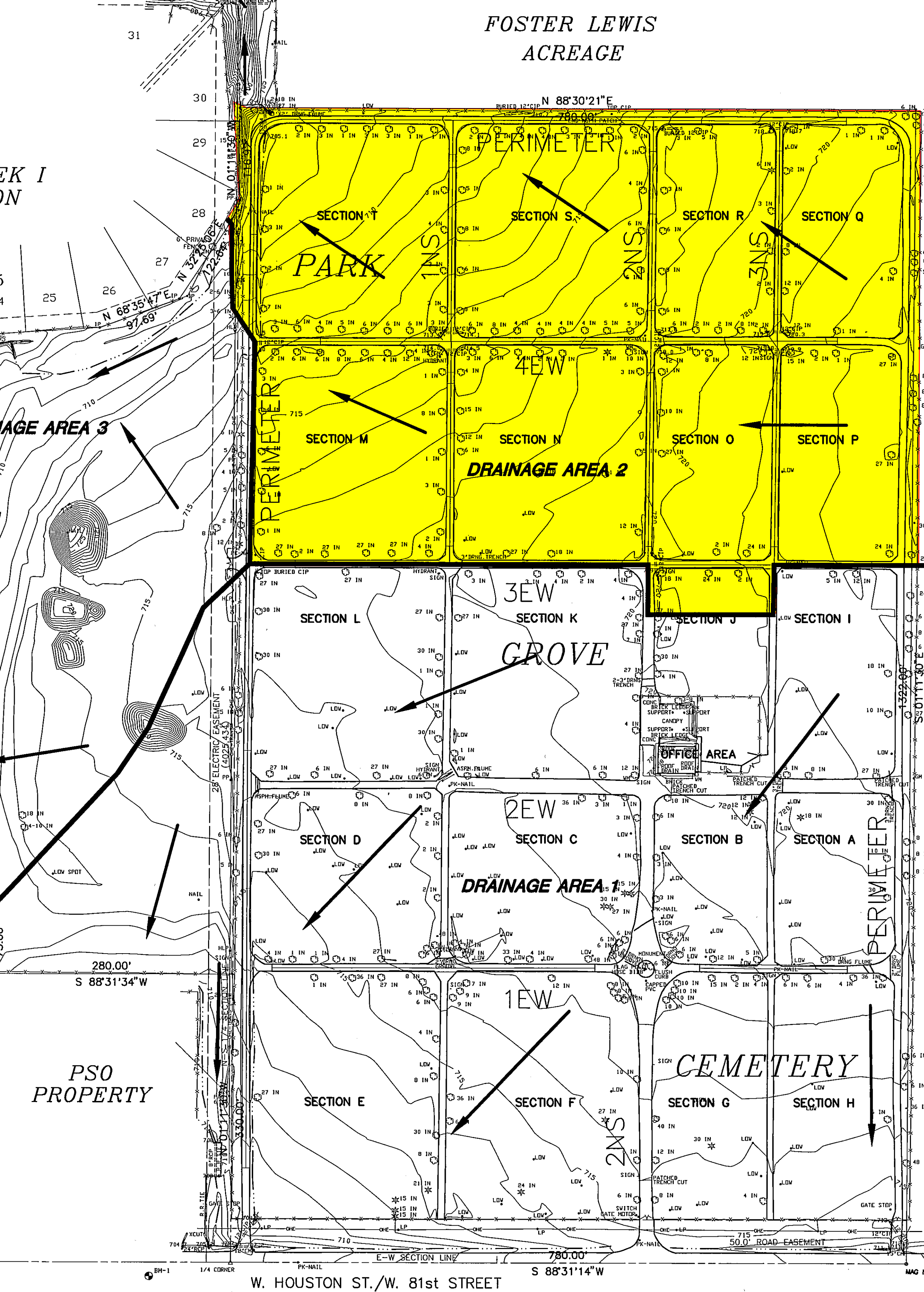
PARK GROVE CEMETERY

DRAINAGE AREA NO.	DRAINAGE AREA (ACRES)	RUNOFF COEFF. 10YR / 100YR	REACH LENGTH (FEET)	AVERAGE SLOPE (%)	T _c (MIN.) 10YR / 100YR	I ₁₀ (IN./HR.)	Q ₁₀ (CFS)	I ₁₀₀ (IN./HR.)	Q ₁₀₀ (CFS)
1	15.9	0.35/0.55	1075	1.4	39.6/29.0	3.33	18.5	5.72	50.0
2	9.6	0.35/0.55	925	1.8	33.8/24.8	3.70	12.4	6.24	32.9
3	6.0	0.35/0.55	570	3.7	20.9/15.4	4.79	10.1	7.39	24.4

ASPEN CREEK I SUBDIVISION

BLOCK 5

ASPEN CREEK I SUBDIVISION

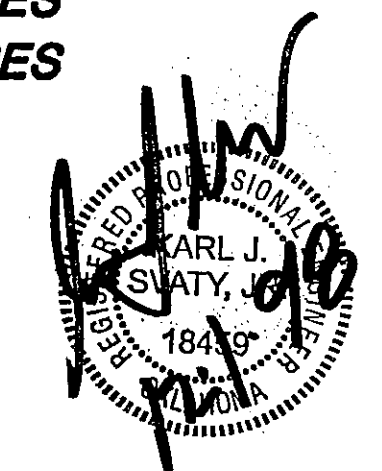



MEADOW HEIGHTS ADDITION

DRAINAGE AREA ACREAGE

DRAINAGE AREA 1 = 15.9 ACRES
DRAINAGE AREA 2 = 9.6 ACRES
DRAINAGE AREA 3 = 6.0 ACRES

BENCHMARK: O.D.O.T. BRASS MONUMENT #T-72-971
IN SOUTH HEADWALL ELEV. = 707.572
(1" I.P.)





MID-KANSAS ENGINEERING CONSULTANTS, INC.
411 N. WEBB ROAD
WICHITA, KS. 67206
316-684-9600

PARK GROVE CEMETERY EXPANSION
BROKEN ARROW, OKLAHOMA
PROJECT NAME

DRAINAGE MAP
SHEET TITLE

KJS DESIGN BY:	DPG/MLW DRAWN BY:	KJS CHECKED BY:
MARCH, 1998 DATE	97106 JOB NO.	4 / 29 SHEET/OF







