FHWA REG NO.	STATE	PROJECT NO.	YEAR	SHEET NO.	SHEETS
7	KANSAS	54-87-TE-0039-01	1997	37	43

IRRIGATION ZONE CHART — 8 STATION SCORPIO (MIR5000s)

	I.D. LETTER	CONTROL STATION	GPM	VALVE SIZE	ZONE TYPE
CONTROLLER "A"		1			PUMP START
	ZONE A-2	2	2.0	3/4"	DRIP EMITTER
	ZONE A-3	3	7.4	3/4"	DRIP EMITTER
	ZONE A-4A	4	6.6	3/4"	DRIP EMITTER
	ZONE A-4B	4	3.5	3/4"	DRIP EMITTER
	ZONE A-5	5	5.0	3/4"	DRIP EMITTER
	ZONE A-6	6	3.7	3/4"	DRIP EMITTER
	ZONE A-7A	7	6.5	3/4"	DRIP EMITTER
	ZONE A-7B	7	3.3	3/4"	DRIP EMITTER

IRRIGATION ZONE CHART — 16 STATION SCORPIO (MIR5000s)

	I.D. LETTER	CONTROL STATION	GPM	VALVE SIZE	ZONE TYPE
CONTROLLER "B"		1			PUMP START
	ZONE B-2	2	45.5	2"	GEAR ROTOR SPR.
	ZONE B-3	3	45.3	2"	GEAR ROTOR SPR.
	ZONE B-4	4	45.3	2"	GEAR ROTOR SPR.
	ZONE B-5	5	48.9	2"	GEAR ROTOR SPR.
	ZONE B-6	6	40.4	2"	POP-UP SPRAY HEAD
	ZONE B-7	7	38.4	2"	POP-UP SPRAY HEAD
	ZONE B-8	8	38.3	2"	POP-UP SPRAY HEAD
	ZONE B-9	9	39.7	2"	POP-UP SPRAY HEAD

IRRIGATION ZONE CHART — 16 STATION IRRINET (MIR5000i)

	I.D. LETTER	CONTROL STATION	GPM	VALVE SIZE	ZONE TYPE
CONTROLLER "C"		1			PUMP START
	ZONE C-2	2	42.4	2"	POP-UP SPRAY HEAD
	ZONE C-3	3	42.3	2"	POP-UP SPRAY HEAD
	ZONE C-4	4	42.2	2"	POP-UP SPRAY HEAD
	ZONE C-5	5	42.0	2"	POP-UP SPRAY HEAD
	ZONE C-6	6	41.8	2"	POP-UP SPRAY HEAD
	ZONE C-7	7	36.3	2"	POP-UP SPRAY HEAD
	ZONE C-8	8	42.3	2"	POP-UP SPRAY HEAD
	ZONE C-9	9	41.2	2"	POP-UP SPRAY HEAD
	ZONE C-10	10	42.9	2"	POP-UP SPRAY HEAD
	ZONE C-11	11	42.9	2"	POP-UP SPRAY HEAD
	ZONE C-12	12	40.9	2"	GEAR ROTOR SPR.
	ZONE C-13	13	40.9	2"	GEAR ROTOR SPR.
	ZONE C-14	14	38.5	2"	GEAR ROTOR SPR.

IRRIGATION ZONE CHART — 8 STATION SCORPIO (MIR5000s)

	I.D. LETTER	CONTROL STATION	GPM	VALVE SIZE	ZONE TYPE
CONTROLLER "D"		1			PUMP START
	ZONE D-2	2	42.4	2"	GEAR ROTOR SPR.
	ZONE D-3	3	42.9	2"	GEAR ROTOR SPR.
	ZONE D-4	4	23.4	1 1/2"	POP-UP SPRAY HEAD
	ZONE D-5	5	42.2	2"	POP-UP SPRAY HEAD
	ZONE D-6	6	42.9	2"	POP-UP SPRAY HEAD
	ZONE D-7	7	42.9	2"	POP-UP SPRAY HEAD
	ZONE D-8	8	44.3	2"	POP-UP SPRAY HEAD

IRRIGATION ZONE CHART — 8 STATION SCORPIO (MIR5000s)

	I.D. LETTER	CONTROL STATION	GPM	VALVE SIZE	ZONE TYPE
CONTROLLER "E"		1			PUMP START
	ZONE E-2	2	2.5	3/4"	DRIP EMITTER
	ZONE E-3A	3	7.4	3/4"	DRIP EMITTER
	ZONE E-3B	3	3.7	3/4"	DRIP EMITTER
	ZONE E-4A	4	7.7	3/4"	DRIP EMITTER
	ZONE E-4B	4	3.8	3/4"	DRIP EMITTER
	ZONE E-5A	5	2.5	3/4"	DRIP EMITTER
	ZONE E-5B	5	6.9	3/4"	DRIP EMITTER
	ZONE E-6A	6	3.4	3/4"	DRIP EMITTER
	ZONE E-6B	6	6.8	3/4"	DRIP EMITTER
	ZONE E-7	7	6.9	3/4"	DRIP EMITTER
	ZONE E-8A	8	7.2	3/4"	DRIP EMITTER
	ZONE E-8B	8	3.6	3/4"	DRIP EMITTER

IRRIGATION ZONE CHART — 8 STATION SCORPIO (MIR5000s)

	I.D. LETTER	CONTROL STATION	GPM	VALVE SIZE	ZONE TYPE
CONTROLLER "F"		1			PUMP START
	ZONE F-2	2	42.9	2"	POP-UP SPRAY HEAD
	ZONE F-3	3	33.0	2"	POP-UP SPRAY HEAD
	ZONE F-4	4	42.7	2"	POP-UP SPRAY HEAD
	ZONE F-5	5	39.7	2"	POP-UP SPRAY HEAD
	ZONE F-6	6	42.6	2"	POP-UP SPRAY HEAD
	ZONE F-7	7	42.9	2"	POP-UP SPRAY HEAD
	ZONE F-8	8	41.8	2"	POP-UP SPRAY HEAD

SUMMARY OF IRRIGATION SYSTEM QUANTITIES

ITEM	UNIT	QUANTITY
IRRIGATION WELL W/ SUBMERSIBLE PUMP	EACH	6
2" REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY & ENCLOSURE	EACH	6
2" FLOW SENSOR	EACH	6
1" MANUAL DRAIN VALVE	EACH	33
AUTOMATIC DRAIN VALVE	EACH	AS REQ.
LATCHABLE VALVE BOX	EACH	AS REQ.
2" GATE/ISOLATION VALVE	EACH	22
PVC SLEEVE		
3"	LF.	825
4"	LF	35
6"	LF	35
1" CLASS 200/SDR21 PVC MAINLINE	LF.	8,675
1 1/2" CLASS 200/SDR21 PVC MAINLINE	LF.	330
2" CLASS 200/SDR21 PVC MAINLINE	LF.	7,000
CLASS 160/SDR26 PVC LATERAL		
3/4"	LF.	14,090
1"	LF.	900
1 1/4"	LF.	590
1 1/2"	LF.	415
2"	LF.	165
BRASS ELECTRIC REMOTE CONTROL VALVE		
3/4"	EACH	20
1 1/2"	EACH	1
2"	EACH	34

SUMMARY OF IRRIGATION SYSTEM QUANTITIES

ITEM	UNIT	QUANTITY
MIR5000I CONTROL CLOCK W/ ELECTRICAL SUPPLY AND SURGE/LIGHTNING PROTECTION	EACH	1
MIR5000S CONTROL CLOCK W/ ELECTRICAL SUPPLY AND SURGE/LIGHTNING PROTECTION	EACH	5
RAINSWITCH	EACH	6
SOIL MOISTURE SENSOR	EACH	4
CONTROL WIRE	LF.	AS REQ.
4" POP-UP SPRAY SPRINKLER WITH CHECK VALVE (TORO 570 SERIES)	EACH	813
LARGE RADIUS GEAR DRIVEN ROTOR SPRINKLER, FULL AND PART CIRCLE W/ CHECK VALVE (TORO 700C SERIES)		234
1" DRIP ZONE FILTER	EACH	20
DRIP ZONE LINE FLUSHING VALVE	EACH	27
AIR/VACUUM RELIEF VALVE	EACH	20
NETAFIM DRIPLINE	LF.	33,260

NOTE: QUANTITY LENGTHS SHOWN ONLY FOR HORIZONTAL UNDERGROUND CONSTRUCTION, TRENCHING AND BACKFILLING REFERENCE ONLY.

RELATED BID ITEMS:

LANDSCAPE UNDERDRAIN SYSTEM – LUMP SUM – SEE RECAP. SHEET 17
LANDSCAPE IRRIGATION SYSTEM – LUMP SUM – SEE RECAP. SHEET 37

IRRIGATION NOTES:

1. ALL IRRIGATION WORK PERFORMED AND EQUIPMENT INSTALLED BY THE CONTRACTOR IS TO BE IN COMPLIANCE WITH LOCAL CODES AND RESTRICTIONS AND THE PROJECT SPECIFICATIONS.
2. THE IRRIGATION PLAN IS A SCHEMATIC DRAWING TO REPRESENT DESIRED WATER COVERAGE. FIELD ADJUSTMENTS MAY BE NECESSARY TO AVOID UNSEEN OBSTACLES AND SIMPLIFY INSTALLATION.
3. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE PROJECT ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION WHICH WILL ILLUSTRATE TYPE OF HEAD, VALVE LOCATION, PIPING AND ACCESSORIES, SHOW DESIGN PRESSURE, VALVE SIZES, GPM REQUIREMENTS AND PIPE SIZES. ALSO INCLUDE CATALOG CUT SHEETS ON ALL EQUIPMENT.
4. THE CONTRACTOR WILL VERIFY THE STATIC PRESSURE AND VOLUME OF THE SITE WELL WATER SUPPLY. EACH IRRIGATION ZONE IS DESIGNED TO PROVIDE 30–35 PSI AT THE SPRINKLER HEAD WITH A MAXIMUM OF 50 GPM TOTAL ZONE VOLUME.
5. IRRIGATION WELLS AND SUBMERSIBLE PUMPS, GATE (OR GLOBE) VALVE, REDUCED PRESSURE ZONE BACKFLOW PREVENTION ASSEMBLY, ENCLOSURE AND MANUAL DRAIN VALVES ARE TO BE LOCATED IN (6) SIX AREAS AS SHOWN ON THE PLANS. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR ALL THE ABOVE ITEMS. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION COSTS OF WELLS AND PUMPS.
6. THE SYSTEM CONSISTS OF SEPARATE GEAR DRIVEN ROTOR TURF SPRINKLERS, SMALL RADIUS TURF SPRAY SPRINKLERS AND DRIP IRRIGATION ZONES. EACH WITH SEPARATE VALVES AND STATIONS ON THE CONTROLLER.
7. THE CONTROLLERS ARE TO BE ONE TORO MIR5000i (IRRINET) CONTROLLER WITH CONNECTION (RADIO-BASED) TO EXISTING COMPUTER CONTROL UNIT (MIR5000C) LOCATED AT THE CITY OF WICHITA. SATELLITE CONTROLLERS SHALL BE (5) FIVE MIR5000S (SCORPIO) CONTROLLERS WITH CONNECTION (RADIO-BASED) TO THE IRRINET CONTROLLER. CONTROLLERS SHALL HAVE ENOUGH STATIONS TO RUN ZONES AS SHOWN IN ZONE SCHEDULE PLUS (2) TWO INPUT STATIONS FOR THE CONNECTION OF SENSORS. ALL CONTROLLERS SHALL HAVE ELECTRICAL SURGE PROTECTORS.
8. ELECTRICAL SERVICE TO IRRIGATION CONTROLLER AND SUBMERSIBLE PUMPS IS SUBSIDIARY TO IRRIGATION SYSTEM. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS, EQUIPMENT, FEES, PERMITS AND LABOR TO SUPPLY ELECTRICAL SERVICE TO IRRIGATION ELECTRONICS.
9. ALL ABOVE GROUND IRRIGATION EQUIPMENT BOXES (ELECTRICAL BOXES, RPZ ENCLOSURES, ETC.) ARE TO BE PAINTED DARK GREEN TO MATCH TORO MIR CONTROLLER. PAINT BEFORE INSTALLATION. TOUCH UP ANY DAMAGED AREAS AFTER INSTALLATION.
10. EACH WATER MAIN SHALL HAVE A DATA INDUSTRIAL IR SERIES FLOW SENSOR INSTALLED DOWN STREAM OF THE WELL PUMP AND RPZ AND BE CONNECTED TO THAT ZONE'S CONTROLLER.
11. TORO RAIN SENSOR SHALL BE LOCATED AT EACH CONTROLLER, ATTACHED TO CONTROLLER PEDESTAL. WIRE SO RAINSWITCH SO THAT IT INTERRUPTS VALVE COMMON WIRE AND LEAVES CLOCK ACTIVATED.
12. THE IRRIGATION ZONE THAT THE CONTROLLER PEDESTAL IS LOCATED WITHIN SHALL BE THE LAST ZONE ON THE CONTROLLER.
13. IRRIGATION CONTROLLERS ARE TO BE INSTALLED AS PER MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS. INSTALL ON CONCRETE PAD. ELECTRICAL SERVICE TO IRRIGATION CONTROLLERS TO BE PROVIDED BY A LICENSED ELECTRICIAN.
14. ELECTRIC REMOTE CONTROL VALVES ARE TO BE TORO 216 SERIES BRASS VALVES. LOCATE WITHIN A LATCHABLE VALVE BOX WITH GRAVEL FILL UNDER VALVES TO THE DEPTH OF 4 INCHES BELOW. TORO 216 VALVE TO BE USED ON ALL TURF ZONES.
15. ELECTRIC REMOTE CONTROL VALVES ARE TO BE TORO 254 SERIES PLASTIC VALVES. LOCATE WITHIN A LATCHABLE VALVE BOX WITH GRAVEL FILL UNDER VALVES TO THE DEPTH OF 4 INCHES BELOW. TORO 254 VALVE TO BE USED ON ALL DRIP ZONES.
16. SOIL MOISTURE SENSORS SHALL HAVE SEPARATE COMMON WIRE FOR DRIP IRRIGATION ZONES LOCATED ADJACENT TO BRIDGE ABUTMENTS. SOIL MOISTURE SENSOR SHALL INTERRUPT VALVE COMMON WIRE AND LEAVE CLOCK ACTIVATED.
17. ALL UNDERGROUND WIRE SPLICES ARE TO BE MADE WITH 3M DBY DIRECT SPLICE KIT. LOCATE SPLICES WITHIN VALVE BOXES OR IN SPECIAL BOXES FOR SPLICES. ROLL 12" OF EXTRA WIRE AT SPLICE.
18. AUTOMATIC DRAIN VALVES ARE TO BE LOCATED AT ALL LOW POINTS OF IRRIGATION LATERAL LINES. WHEN LOW POINT IS AT END OF LINE, LOCATE VALVE A MINIMUM OF 12" FROM END SPRINKLER HEAD OR AS REQUIRED IN DETAIL 6 SHEET 35. MANUAL DRAIN VALVES ARE TO BE LOCATED AT THE ENDS AND LOW POINTS OF THE IRRIG. MAINLINES. BOTH TYPES OF DRAINS ARE TO BE PLACED ON TOP OF ONE CUBIC FOOT OF GRAVEL FILL. MANUAL DRAIN VALVES ARE TO BE INSTALLED IN COVERED VALVE BOXES FOR EASY ACCESSIBILITY.
19. ISOLATION VALVES ARE TO BE INSTALLED IN LATCHABLE VALVE BOXES WITH ONE CUBIC FOOT OF GRAVEL FILL BELOW VALVE.
20. LOCATE ALL DRAIN VALVES, ISOLATION VALVES, FLOWMETERS, REMOTE CONTROL VALVES, AND IRRIGATION IRRIGATION MAINLINES A MINIMUM OF 5' BEHIND ADJACENT CURBLINES.
21. PROVIDE PVC SLEEVES FOR IRRIGATION PIPES AND/OR CONTROL WIRING THAT CROSSES UNDER WALKS, STREETS AND CONCRETE WALLS AS SHOWN ON PLANS. COMBINE PIPING WHENEVER POSSIBLE TO SAVE ON SLEEVING MATERIALS. HOWEVER, SEPARATE LOW VOLTAGE WIRE FROM 110 VOLTAGE WIRES A MINIMUM OF 5' FT. EXTEND SLEEVES A MINIMUM OF 2'-0" FROM THE BACK OF CURBS INTO PLANTING BEDS, AND 10'-0" ON THE BORING END OF THE SLEEVE. SEE RECAP THIS SHEET.
22. ALL IRRIGATION SPRINKLER ARC RADIUS AND ARC SIZE SHALL BE ADJUSTED AT COMPLETION OF INSTALLATION TO PREVENT ALL WET PAVEMENT POSSIBILITIES AND EXCESS WATER RUN-OFF. HIGH WIND CONDITIONS SHALL BE A FACTOR IN THE ABOVE ADJUSTMENT.
23. NOTIFY THE CITY ENGINEER OF ANY MAJOR DISCREPANCIES BETWEEN THE IRRIGATION PLANS AND THE FIELD LAYOUT. ANY DEVIATIONS FROM CONSTRUCTION DOCUMENTS ARE TO BE MADE ONLY WITH WRITTEN APPROVAL FROM THE CITY ENGINEER.
24. CONTRACTOR TO FURNISH PROJECT ENGINEER WITH A SET OF REPRODUCIBLE, AS-BUILT IRRIGATION PLANS. PROJECT ENGINEER TO SEND A COPY TO KDOT METRO ENGINEER.
25. CONTRACTOR TO FURNISH INFORMATION ON COMPUTER CONTROL SYSTEM TO KDOT METRO ENGINEER.

DRIP IRRIGATION NOTES:

DRIP EMITTER ZONES REQUIRE A TORO PRV SERIES DRIP PRESSURE REGULATOR. AND A TORO DF SERIES DISC FILTER WITH 140 MESH SCREEN. LOCATE AFTER EACH DRIP ZONES VALVE.

DRIP EMITTER TUBE SHALL BE NETAFIM SELF CLEANING, SUBSURFACE PRESSURE COMPENSATING DRIP EMITTER LINE OR APPROVED EQUAL.

USE THE FOLLOWING GUIDELINES WHEN INSTALLING DRIP SYSTEM IN CLAY SOIL TYPE:

DRIPPER FLOW:	.92 GPH
DRIPPER SPACING:	18" O.C.
ROW SPACING:	18" O.C.
BURIAL DEPTH:	2"–3"
APPLICATION RATE:	.66"/HR.

TECH FLOW PRESSURE COMPENSATING EMITTERS MAY BE USED WITH MICRO TUBING AND INSECT CAPS TO DIRECT WATER TO AREAS THAT REQUIRE SPOT IRRIGATION. (I.E. NEW TREES IN PLANTING BEDS.) SEE SITE PLANS FOR LOCATIONS OF EXTERIOR EMITTERS. SEE DETAILS 16 & 17 ON SHEET 36.

DRIP IRRIGATION LINE SHALL BE INSTALLED BELOW GRADE. THE SINGULAR EMITTERS STATED ABOVE MAY BE INSERTED INTO THESE LINES. POLYETHYLENE RESIN EMITTER DISTRIBUTION TUBING SHALL DISTRIBUTE WATER TO THE CROWN OF THE PLANTS. EACH SURFACED END OF THE DISTRIBUTION TUBING WILL BE FITTED WITH AN INSECT CAP AND ELEVATED AT A MINIMUM OF 2" ABOVE GRADE.

LINE FLUSHING VALVES ARE TO BE LOCATED AT THE ENDS OF EACH RUN OF NETAFIM DRIP EMITTER TUBING. INSTALL IN 6" VALVE BOX WITH 1 CUBIC FOOT GRAVEL SUMP.

LEGEND:

- A — TORO "SCORPIO" SATELLITE CONTROLLER (MIR5000s)
- MIR 5000I — TORO "IRRINET" FIELD CONTROLLER (MIR5000I)
- MS-2 — SOIL MOISTURE SENSOR (CONTROLLER AT IRRIG. CONTROLLER & SOIL SENSOR IN PLANT BED)
- WELL A — IRRIGATION WELL AND SUBMERSIBLE PUMP
- REDUCED PRESSURE ZONE BACKFLOW PREVENTER LOCATION (RPZ)
- F.S. — FLOW SENSOR
- B-2 / 2" 45.5 — ELECTRIC CONTROL VALVE DESIGNATOR: VALVE NAME; VALVE SIZE – VOLUME IN GALLONS PER MINUTE
- ELECTRIC REMOTE CONTROL VALVE
- D.V. — MANUAL DRAIN VALVE (APPROX. LOCATION)
- PVC SLEEVE UNDER HARDSCAPE – SCHED. 40
- IRRIGATION MAINLINE – CLASS 200
- DRIP MAINLINE – CLASS 200
- IRRIGATION LATERAL – CLASS 160
- I.V. — ISOLATION GATE VALVE LOCATION
- FULL TORO 570 4" POP-UP SPRAY SPRINKLER WITH CHECK VALVE
- 180 DEG. TORO 570 4" POP-UP SPRAY SPRINKLER WITH CHECK VALVE
- SIDE STRIP TORO 570 4" POP-UP SPRAY SPRINKLER WITH CHECK VALVE
- PART CIRCLE TORO SUPER 700 GEAR DRIVEN POP-UP SPRAY SPRINKLER WITH CHECK VALVE
- FULL CIRCLE TORO SUPER 700 GEAR DRIVEN POP-UP SPRAY SPRINKLER WITH CHECK VALVE
- DRIP EMITTER TUBING (SYMBOL FOR AREAS)
- FILTER AND PRESSURE REGULATOR ASSEMBLY FOR DRIP ZONE
- FLUSH VALVE FOR DRIP IRRIGATION ZONE
- NEW TREE TO BE DRIP IRRIGATED

RECAP OF SLEEVES (ENCASEMENT PIPE)

SHT NO	C/L STA.	NORTH SOUTH OF C/L	DIA. OF SLEEVE	LENGTH OF SLEEVE	DIA. OF PIPE IN SLEEVE *	NO. OF WIRES IN SLEEVE
29	128+00	N	3"	40'	1"	
30	128+25–129+40	N	3"	115'	1"	
30	130+75–131+20	N	3"	45'	1"	
31	132+75–133+85	N	3"	110'	1"	
31	136+75–137+40	N	6"	65'	1"	
32	138+25	S	6"	40'	1"	
32	139+50–140+55	N	6"	105'	1"	
29	142+50–143+00	N	3"	50'	1"	
29	144+75	N	3"	55'	1"	
29	148+50	S	3"	55'	1"	
29	151+00–151+45	N	3"	45'	1"	
29	151+50	N	3"	45'	1"	
29	151+75	S	4"	40'	2"	
29	159+00	S	6"	45'	1" & 2"	

* IRRIGATION PIPE THROUGH SLEEVE IS TO BE SCHEDULE 40 PVC. THE SLEEVES ARE ALSO TO BE SCHEDULE 40 PVC.

NOT ALL SLEEVES LISTED ABOVE ARE PART OF THIS PROJECT.

SEE THE KDOT SPECIAL PROVISIONS FOR BORING UNDER ROADS. USE SCHEDULE 40 PVC SLEEVES WITH A 42" MINIMUM DEPTH OF BURY BELOW THE BOTTOM OF GRANULAR SUB-BASE OF THE ROADWAY. EXTEND SLEEVES A MINIMUM OF 2' BEYOND BACK OF CURB. PERMANENTLY MARK LOCATIONS OF SLEEVES ON THE BACK OF CURB. SHOW DIMENSIONED LOCATIONS OF BOTH ENDS OF ALL SLEEVES ON AS BUILT DRAWINGS.

BID ITEMS:

3" IRRIGATION SLEEVE (PVC) JACKED OR BORED 690 LN.FT.
4" IRRIGATION SLEEVE (PVC) JACKED OR BORED 40 LN.FT.
6" IRRIGATION SLEEVE (PVC) JACKED OR BORED 45 LN.FT.

REGISTERED LANDSCAPE ARCHITECT — KEVIN M. MATHEW — No. 439 — 7-31-97 — STATE OF KANSAS

KANSAS DEPARTMENT OF TRANSPORTATION

KELLOGG AND WEST STREET
IRRIGATION NOTES AND SCHEDULES

PROJECT NO. # 101227

Wilson Darnell Mann
architecture site planning interiors
Wichita, Kansas

DESIGNED BY:	WDM, PA	CHECKED BY:	LME
DRAWN BY:	SKW	DATE: 7/31/97	SHEET 37 OF 43

2-17-97
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NONE