Topological overlay and graphic overplot

ROADBUF.PAT

ROADBUF-ID	INSIDE
0	1
1	100

ZONING.PAT

ZONING-ID	ZONE
0	—
1	IND
2	RES
3	COM
4	RES

ROADBUF.PAT

ROADBUF-ID	INSIDE
0	1
1	100

ZONING.PAT

ZONING-ID	ZONE
0	—
1	IND
2	RES
3	COM
4	RES

GRAPHIC OVERPLOT

TOPOLOGIC OVERLAY

ROADBUF & ZONING
(features remain separate)

RDZONE
(features are combined)

RDZONE.PAT

RDZONE-ID	ZONE	INSIDE
0	—	1
1	IND	1
2	IND	100
3	—	100
4	IND	1
5	—	100
6	RES	100
7	RES	1
8	COM	1
9	RES	1
10	COM	100
11	RES	100
12	—	100
13	RES	1
14	—	100

Point-on-polygon overlay

Well

WELL.PAT

WELL-ID	WELL_CLASS
1	2
2	3
3	2
4	1
5	1

Zone

ZONING.PAT

ZONING-ID	ZONE
0	
1	A
2	B
3	C
4	D

Wellzn

WELLZN.PAT

WELLZN-ID	WELL_CLASS	ZONE
1	2	A
2	3	C
3	2	D
4	1	C
5	1	B

Line-on-polygon overlay

STREAM.AAT

STREAM-ID	STRM_NAME
1	SANTA ANA
2	MILL
3	SANTA ANA

ZONE.PAT

ZONING-ID	ZONE
0	
1	A
2	B
3	C
4	D

STRMZN.AAT

STRMZN-ID	STR_NAME	ZONE
1	SANTA ANA	A
2	SANTA ANA	D
3	SANTA ANA	C
4	SANTA ANA	C
5	SANTA ANA	B
6	MILL	C
.	.	.
.	.	.

Polygon-on-polygon overlay
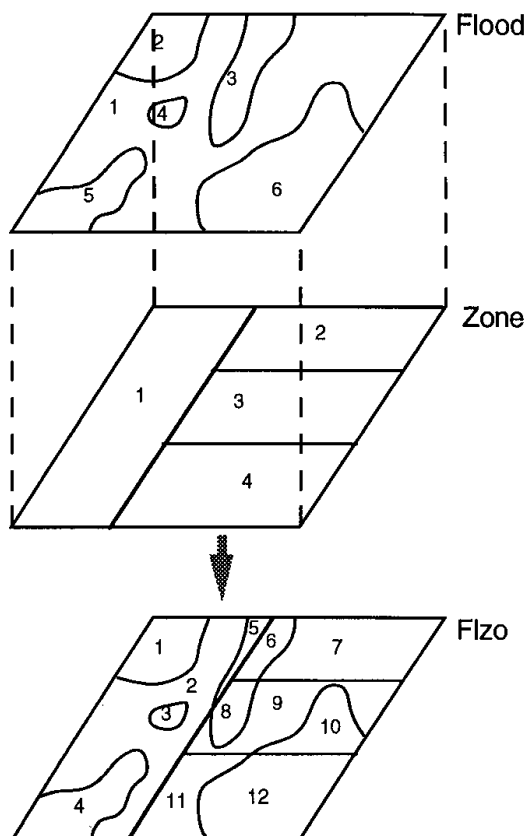
FLOOD.PAT

FLOOD-ID	FLOOD_ZONE
0	-
1	80
2	50
3	10
4	50
5	10
6	10

ZONE.PAT

ZONING-ID	ZONE
0	
1	IND
2	RES
3	COM
4	RES

FLZO.PAT

FLZO-ID	FLOOD_ZONE	ZONE
0	-	-
1	50	IND
2	80	IND
3	50	IND
4	10	IND
5	10	IND
6	10	RES
.	.	.
.	.	.

Three topological overlay operations

■ UNION

■ INTERSECT

■ IDENTITY
(Buffer first)

■ IDENTITY
(Zoning first)
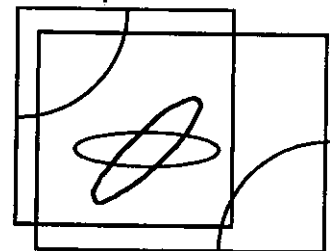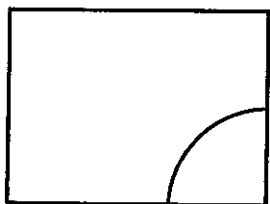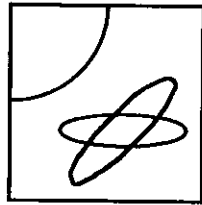
**Zoning
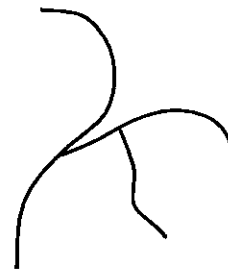+
Road Buffer**

=
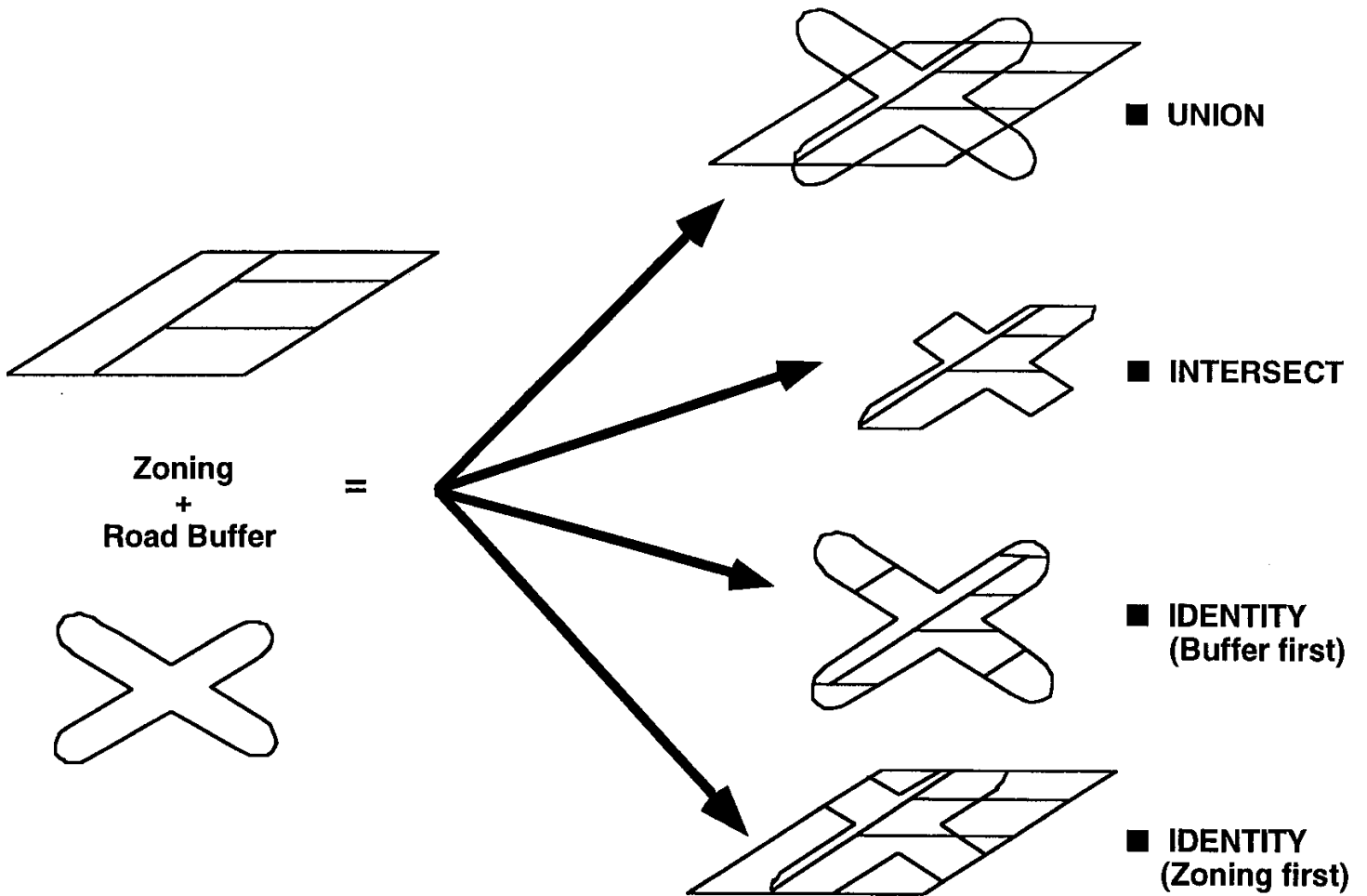
Overlay by Union

<IN-COVER>   <UNION_COVER>   <OUT_COVER>
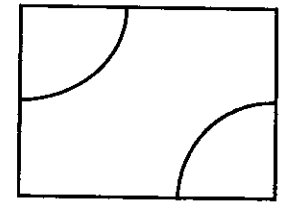

+
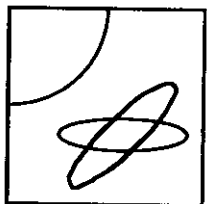
Overlay using INTERSECT

\<IN-COVER\>

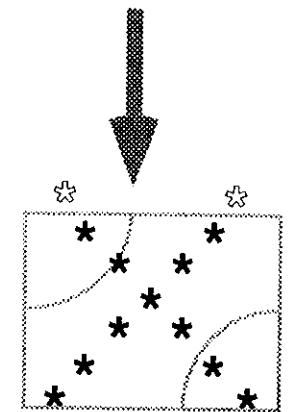**\<INTERSECT_COVER\>**
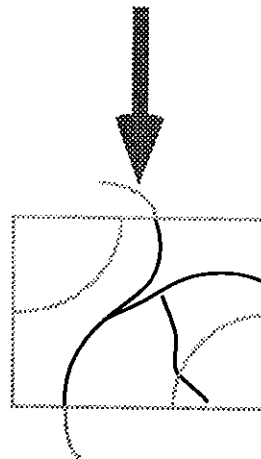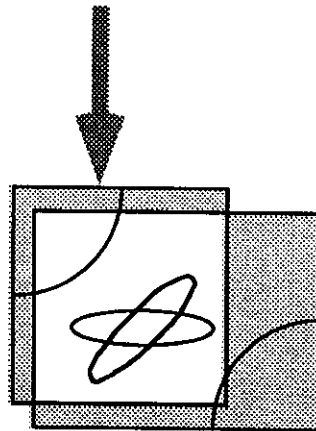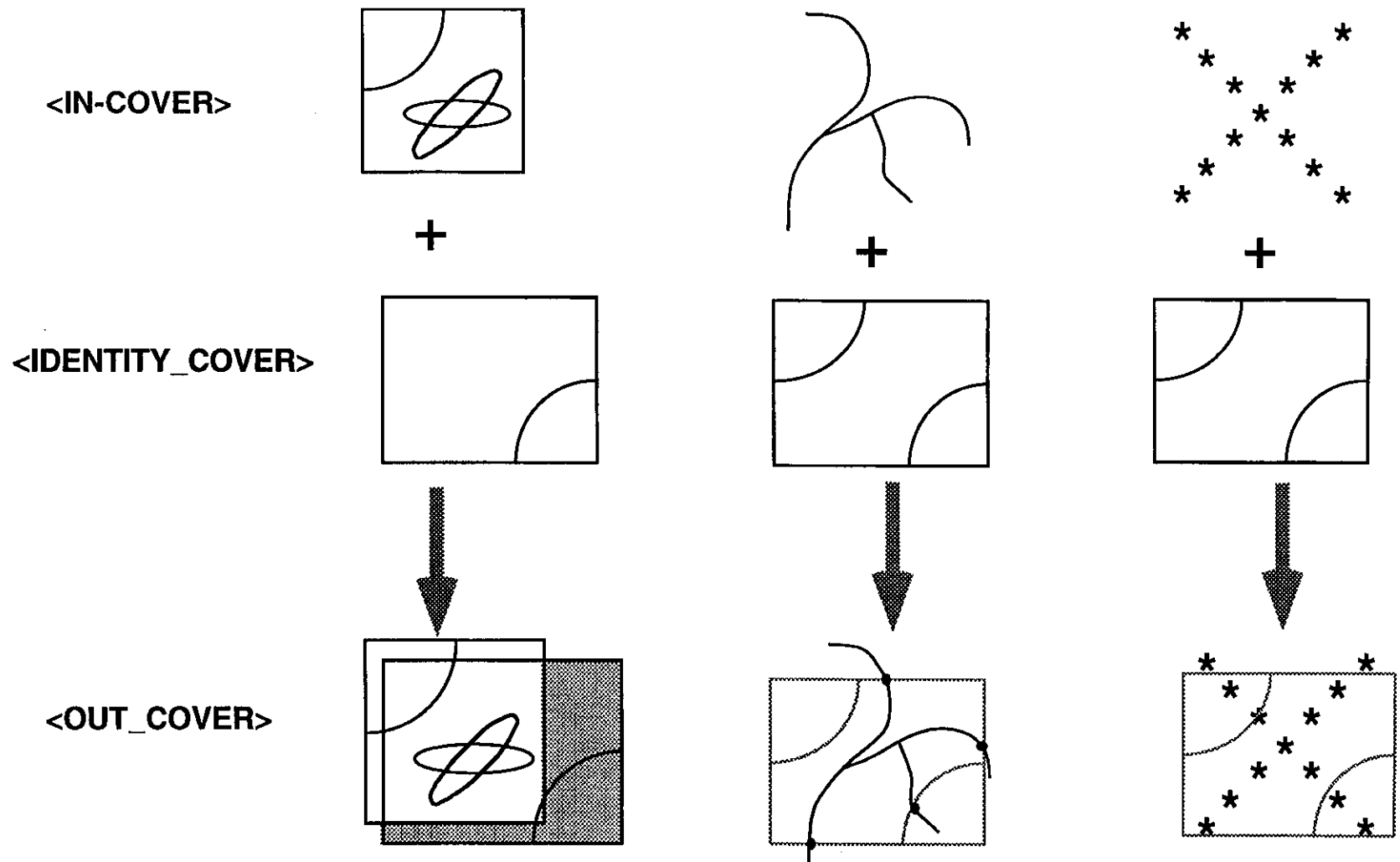
\<OUT_COVER\>
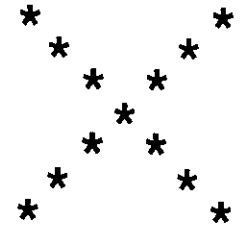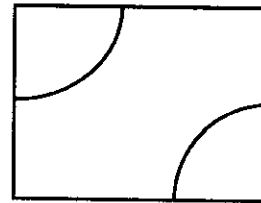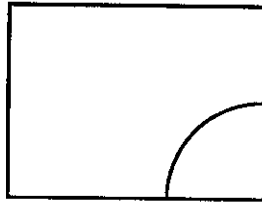
Overlay using IDENTITY

<IN-COVER>

<IDENTITY_COVER>

<OUT_COVER>

Using DISSOLVE

SOIL

A2

A1   C2

C3

B1   B3

SOIL.PAT

SOIL-ID	TYPE	CLASS
0		
1	A	1
2	A	2
3	B	1
4	B	3
5	C	2
6	C	3

Dissolve on Attribute SOILTYPE

Type

SOTYPE

A

C

B

SOTYPE.PAT

SOTYPE-ID	TYPE
0	–
1	A
2	B
3	C

Dissolve on Attribute zoning class

Class

SOCLASS

2

1

3

SOCLASS.PAT

SOCLASS-ID	CLASS
0	0
1	1
2	2
3	3