

A black and white photograph of a landscape. In the foreground, there is a path or a clearing surrounded by dense, dark foliage and trees. The path leads towards a bright, overexposed area in the middle ground, possibly a body of water or a very bright clearing. The background shows a hazy, distant landscape with some structures or hills. The overall scene is somewhat abstract due to the high contrast and grainy texture of the image.

LANDSCAPE DESIGN MANUAL

LANDSCAPE DESIGN MANUAL

THIS MANUAL CONTAINS REFERENCES AND STANDARDS NEEDED TO IMPLEMENT THE REQUIREMENTS OF THE PIMA COUNTY, ARIZONA ZONING CODE; CHAPTER 18.73, LANDSCAPING, BUFFERING AND SCREENING STANDARDS.

PIMA COUNTY DEVELOPMENT SERVICES, PLANNING DIVISION

201 NORTH STONE AVENUE, TUCSON, ARIZONA 85701

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Cover Photo: Plants for Dry Climates, HP Books, Duffield & Jones

BUFFERYARD REQUIREMENTS FOR SECTION 18.73.040

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- A. Illustrations I through VI depict the bufferyards required between two uses. The number of plant units required per one hundred linear feet of yard are specified, and options of these plant units are illustrated which vary by alternate permitted width of the yards. The types of plants for each bufferyard are specified. The requirements may be satisfied by any of the options illustrated.
- B. The "plant unit multiplier" is a factor by which the basic number of plant materials required for a given bufferyard is determined given a change in the width of that yard.
- C. Existing plants may be used to satisfy the requirements.
- D. When a wall, fence or berm is required within a bufferyard, it is identified as a "structure required," and its specifications are given. Required structures are the responsibility of the higher intensity use.
- E. Within a bufferyard containing a fence or masonry wall:
 - 1. At least fifteen percent of the total plants required shall be located between the fence or wall and the higher intensity use;
 - 2. Suitable species and varied heights of plants shall be chosen to effectively break up and absorb sound; and
 - 3. The wall or fence shall be located between the berm and the higher intensity use.
- F. Bufferyard areas not covered with required plants, inorganic groundcover or established ground cover shall be seeded with a desert plant seed mix.

Table 1: BUFFERYARD REQUIREMENTS (Minimum Bufferyard Required)

Proposed Use/Zone	IR	GC	SRA	SR-2	RH	CR-1	ML	GR-1	CR-2	CR-3	SH	CR-4	CR-5	CMB-1	CMH-2	TR-2	TH	MR	RVC	CB-1a	CB-2a	MUa	CPI	CI-1	CI-2	CI-3	Public Street - Front Yard	Public Street - Side or Rear Yard	Scenic Route	Gateway Route	Major Highway				
IR Institutional Residential ²	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a			
GC Golf Course																																			
SR Suburban Ranch ²	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a			
SR-2 Suburban Ranch Estate ²	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a			
RH Rural Homestead ²	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a			
CR-1 Single Residential	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a			
ML Mount Lemmon																																			
GR-1 Rural Residential ²	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a		
CR-2 Single Residential	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a		
CR-3 Single Residential	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	
SH Suburban Homestead	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a		
CR-4 Mixed Dwelling	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	
CR-5 Multiple Residence	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca	Ca
CMH-1 Manufactured and Mobile Home ¹	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	C ¹ _a	
CMH-2 Manufactured and Mobile Home ¹	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	
TR Transitional	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	
TH Trailer Homesite ¹	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	D ¹ _a	
MR Major Resort	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	
RVC Rural Village Center	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	D _a	
CB-1 Local Business	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
CB-2 General Business	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
MU Multiple Use	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	D ² _a	
CPI Campus Park Industrial	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D
CI-1 Light Industrial	F	F	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	F _a	

Streetscape Bufferyards

Existing Adjacent Use/Zone

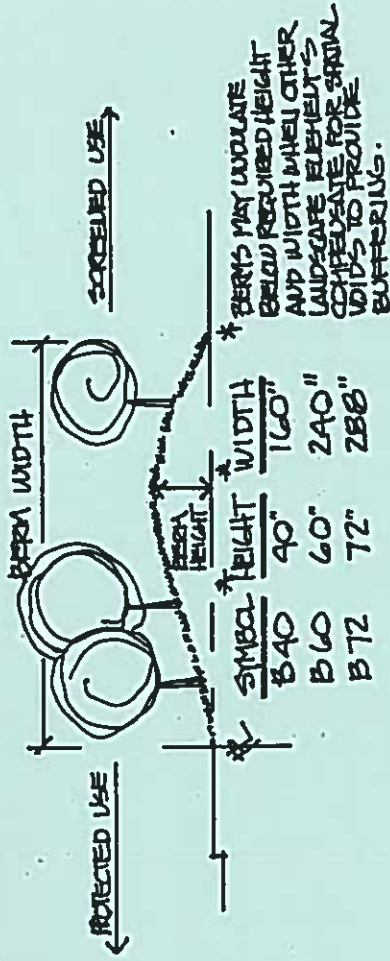
STRUCTURAL ELEMENTS

FENCES AND WALLS

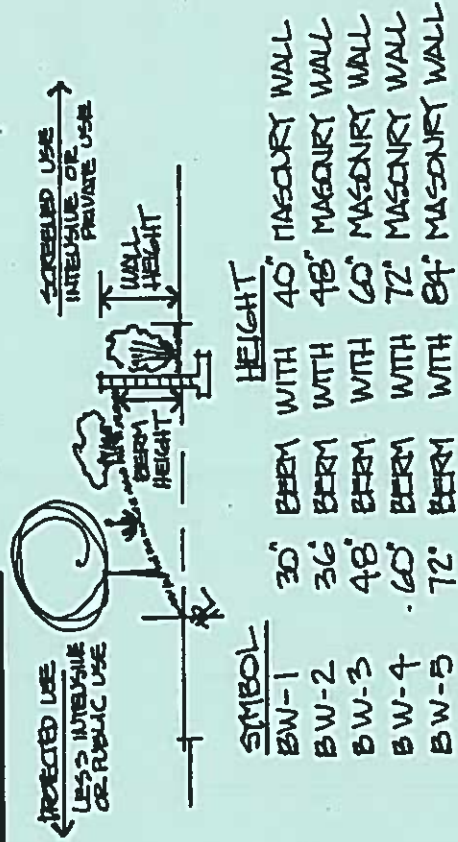
SYMBOL	HEIGHT	MATERIAL
CL 40	40"	CHAIN LINK
CL 60	60"	
CL 72	72"	
CL 84	84"	
CL 96	96"	
OF 40	40"	WOOD-SLATED
OF 60	60"	
OF 72	72"	
CF 40	40"	OPEN WOOD
CF 60	60"	
CF 72	72"	
CF 84	84"	
MW 40	40"	CLOSED WOOD
MW 60	60"	
MW 72	72"	
MW 84	84"	
MW 96	96"	
MW 120	120"	

D = DECORATIVE*
 * DECORATIVE REQUIREMENT FOR MATERIALS TEXTURE, COLOR, FORM AND ARCHITECTURAL CONTEXT.

EARTH BERMS



BERM WALLS



ILLUS. I

STREETSCAPE BUFFERARDS

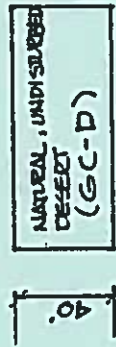
NOTE 1:
 BUFFERYARD MAY BE REDUCED BY 10% OF SPECIFIED WIDTH, EACH 100 FEET FOR EACH APPROVED SCULPTURE OR STREET FURNITURE PIECE APPROVED BY THE DESIGN REVIEW COMMITTEE.

NOTE 2:

SINGLY DESIGNATED, OR COMBINATIONS OF LISTED TYPES OF GEOLDCOOLER (GC) IS REQUIRED FOR ENTIRE BUFFERYARD AREA.

TYPES:

- A. INORGANIC G.C.
- B. ORGANIC FROM PLANTS
- C. DESERT PLANT SEED MIX
- D. UNDISTURBED NATURAL DESERT PLANTS & GRASSES AT LOCALLY-OCCURRING DEPOSITIES.



Plant Unit Multiplier

Structure Required



OF-40, or
CF-40, or
CL-40

REQUIRED PLANT UNITS / 100'

- 6 Canopy Trees
- 6 SHRUBS
- 9 ACCENTS, FLOWER, VINES
- GC - SEE NOTE 2



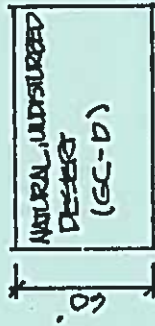
B-40



BW-1

DMW-40

BUFFERYARD A



Plant Unit Multiplier

Structure Required



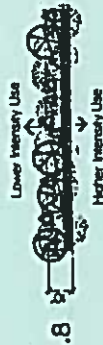
OF-40, or
CF-40, or
CL-40



B-40



BW-1



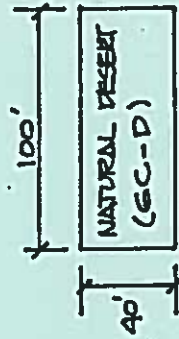
DMW-40

REQUIRED PLANT UNITS / 100'

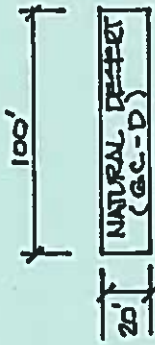
- 10 Canopy Trees
- 10 SHRUBS
- 15 ACCENTS, FLOWER, VINES
- GC - SEE NOTE 2

BUFFERYARD B

MIXED RESIDENTIAL BUFFERYARDS



Plant Unit Multiplier



Plant Unit Multiplier



STRUCTURE REQUIRED

STRUCTURE REQUIRED

REQUIRED PLANT UNITS / 100'

- 5 Canopy Trees
 - 5 SHRUBS
 - 10 ACCENTS
 - FLOWERS
 - VINES
- GC - SEE NOTE 2

REQUIRED PLANT UNITS / 100'

- 10 Canopy Trees
 - 10 SHRUBS
 - 15 ACCENTS
 - FLOWERS
 - VINES
- GC - SEE NOTE 2

B-40,0t
CL-40,0t
OF-40

BW-2,0t
CF-60,0t
OF-72

B-60,0t
CF-60,0t
CL-60

MW-60,0t
BW-5,0t
CF-72,0t
CL-72

DMW-60,0t
BW-2

DMW-60

DMW-72,0t
BW-3

DMW-72

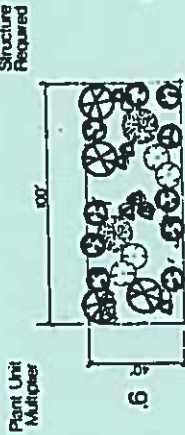
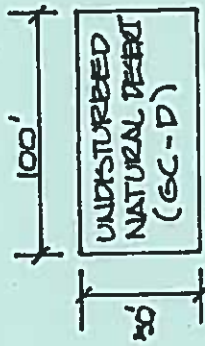
Lower Intensity Use
Higher Intensity Use

BUFFERYARD D

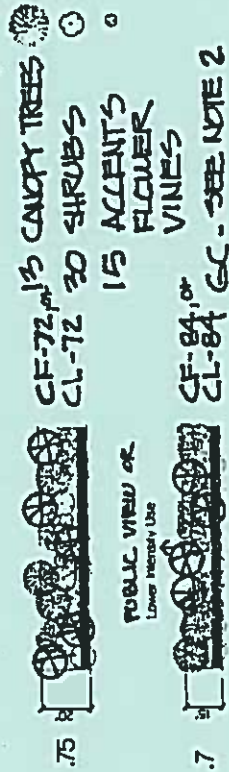
BUFFERYARD C

ILLUS. III

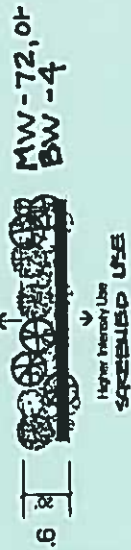
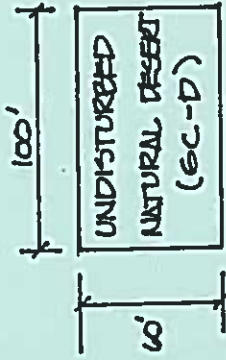
COMMERCIAL & INDUSTRIAL BUFFERYARDS



- REQUIRED PLANT UNITS / 100'
- 10 CANOPY TREES
 - 24 SHRUBS
 - 12 ACCENTS
 - FLOWER VINES
- GC - SEE NOTE 2

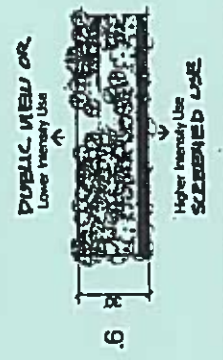
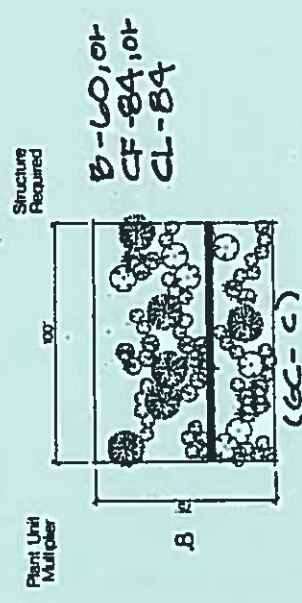
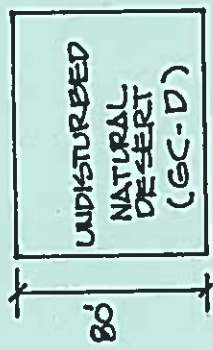
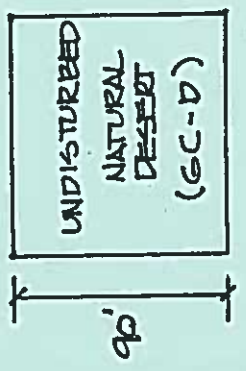


BUFFERYARD E



BUFFERYARD F

HEAVY INDUSTRY BUFFERYARDS



REQUIRED PLANT UNITS / 100'

- 20 CANOPY TREES
- 48 SHRUBS
- 24 ACCENTS
FLOWER
VINES

REQUIRED PLANT UNITS / 100'

- 15 CANOPY TREES
- 36 SHRUBS
- 18 ACCENTS
FLOWER
VINES

BUFFERYARD H

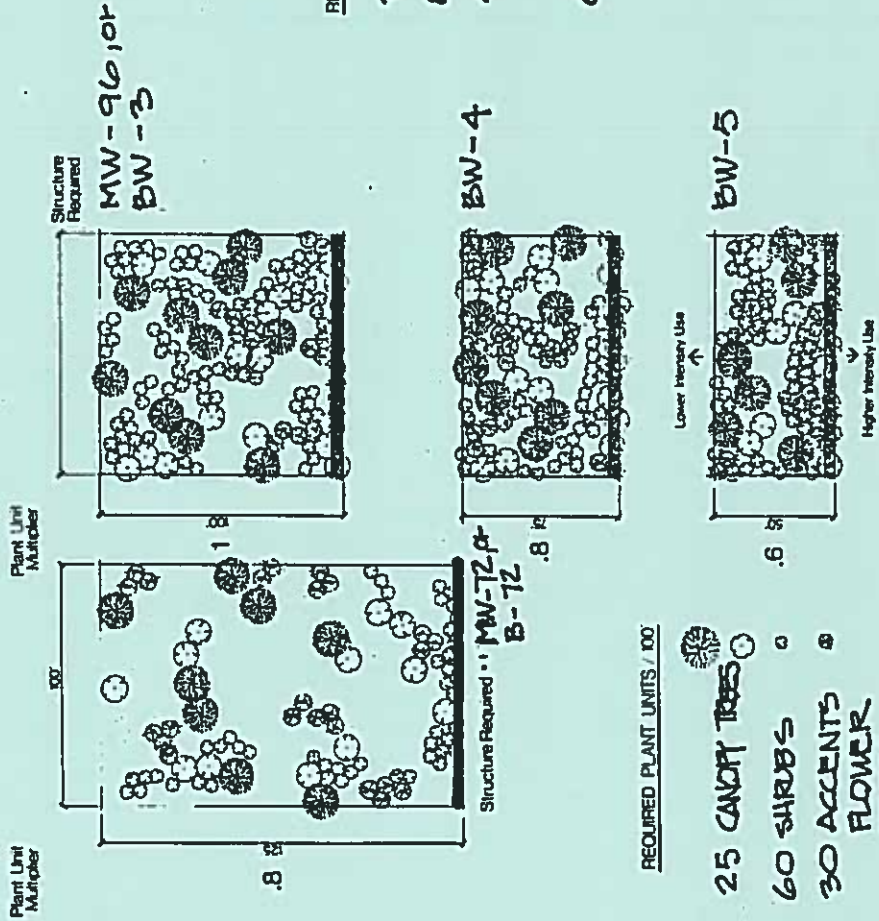
GC-SEE NOTE 2

BUFFERYARD G

GC-SEE NOTE 2

ILLUS. V

SPECIAL BUFFERYARD APPLICATIONS



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200

100

DMW-120

Lower Intensity Use

Higher Intensity Use

1

200

100

ILLUS. VI

BUFFERYARD I

BUFFERYARD J

STREETSCAPE SCULPTURE AND FURNITURE STANDARDS

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A. Sculpture and furniture should:

1. Contain materials, textures, colors and shapes that promote and enhance the cultural and historic context of the region.
2. Be vandal-resistant.
3. Be appropriately scaled to the site.
4. Be functionally located for ease of public access or experience.
5. Be of a design and of materials that are safe to the general public.

MINI-OASIS DESIGN STANDARDS

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- A. Mini-oases shall be reviewed to conform to the following standards and may be approved when the proposed mini-oasis:
1. Is functionally oriented on the site near main buildings or assembly areas where pedestrian activities are designed to occur;
 2. Is designed for maximum, close exposure to proposed users;
 3. Is part of an area of repose, such as a seating, assembly, rest, dining, or employee break area, or is designed to enhance a main pedestrian entryway;
 4. Is located in an area of relative low evaporation potential from wind and heat;
 5. Contains plant materials from the County approved lists that have compatible watering requirements and that are compatible with the environmental zone selected;
 6. Is irrigated to a substantial degree by a water harvesting system or storm water runoff.