530 n. stone ave. tucson, az 85705 520.622.0192

AN

project recommendation



carmen bartholomew | david everson | elizabeth rendon

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RECOMMENDATION PROJECT



NTENT & IMPLEMENTATION

The intent of this project is to expand the presence of the Mat Bevel Institute to Stone Avenue, inherently presenting the artwork of very unique artists' to the public. Through the creation of an outdoor space people can freely interact with the artwork designed, thereby becoming more intimately aware and understanding the process that moves from inspiration to reality. The dynamic nature in which the outdoor plaza space engages the public is through specific and direct sight lines, which moves vehicular traffic into the institute. The pedestrian is drawn through the playfulness of apertures, which are moments of engagement into the space visually. The creation of a park-like theater provided for on the west side of the building, reflects the values and the goals held by the Mat Bevel Institute. This space is the sculpture garden, the outdoor performance theater, the outdoor cafe, and more; it is the place where people can see the process of making art occur again and again.

phase 1

concrete work

- salvage existing concrete slab for later placement on texturized areas

- pour all concrete slabs to indicated elevations included in phase 1; concrete ramps at the entry should be also poured according to the slope indicated

- the concrete slab adjacent to the west wall of the existing building, must have partially embedded anchor bolts, which will serve to secure the steel screen wall to the ground

- pour in place all the concrete planters in phase 1
- erect a 12' concrete wall at the western edge of the property
- angle existing sidewalk to run alongside the wall

landscaping

- plant trees at indicated points on the west side of the site
- vegetation to be planted in the concrete planters is indicated on the site plan
- all vegetation planted will require an irrigation system to provide water for at least 2 years

facade improvements

- a steel screen wall 2' in front of the existing building, will be connected to the concrete slab, through the anchor bolts, which were placed in the slab when it was being poured)

- construct the steel panel fence to encompass and protect southern edge

temporary edges

- contain and protect north edge of plaza area, through a chain link fence until phase 2 can be executed

phase 2

concrete work

- concrete slabs indicated in phase 2 to be poured
- Bevel symbol to be etched into new hardscape surface. which is in front of the new screen wall expansion
- remaining concrete planter to be poured in place

facade improvements

- screen wall extended from the existing building's façade of north edge of the site, almost touching the adjacent building to the north

- a roll away steel panel gate to be designed and built, to contain and protect the expanded plaza space

landscaping

- vegetation to be planted in planters accordingly, once the concrete cures

on-site parking

- asphalt to be poured in southern parking lot
- parking spaces to be stripped over asphalt and railroad ties to be placed in accordance with parking spaces

phase 3

- new building designed and constructed on the north side of the site to serve as an expansion to the Mat Bevel Institute

shade trees

Palo Brea Blue Palo Verde

shrubs

Mexican Flame Anisacanthus Desert Marigold Red Bird of Paradise **Penstemon Species** Baja Ruellia Blue Chihuahuan Sage Globe Mallow

accents

ETATION

HEG

Huachuca Agave **Golden Barrel Cactus** Santa Rita Prickly Pear

ground cover

Calyophus Blackfoot Daisy Verbena Wildflower Mix

Cercidium floridum floridum (C. torreyanum) Blue palo verde

Fabaceae (Leguminosae) family



rows 15 to 30 feet (4.5 to 9 m) high, with equal spread. Slow Grows 15 to 20 feel (45 to 9 m) high, with equal spread. Slow for molerate growth, depending on water supply. Rounded and low-branched decidious tree native to the Sonoran and Mojave Deserts of Arisma and southere California in the United States and Sonora, northern Shaaloa and Baja California in Mesico. Dense-growing, spiny to uga, branches and trutks are a distinctive blue-green color: the lower trusk on older trees is gray. Fine-textured foliage is decidious in any and rold spelis. The tree may be leafless most of the year, but the greeness of truly and branches give it an evergreen appearance. Masses of fragmant braight yellow pea-shaped flowers literally overlay the entitic tree is spring these give way to 1/2- to 3-inch (4+ to 7,5-cm) long bean pods that are flat and constricted at intervals. G

Cercidium praecox praecox Sonoran palo verde, Palo brea Fabaceae (Leguminosae) family



A COLD HARDINESS e zones. This is a cold hardy species of Aniscanthus

A radiant splash of flower color appears over a long season.
 Serves admirably as a point of emphasis or color plant in shrub borders and foundation plantings.
 Attracts hummingbirds and butterflies when in bloom.

CULTURAL REQUIREMENTS
 Exposure: Full sup promotes profuse flowering. Plants grow well in part state but flowering is infiniteshed.
 Water: Water every week or two from spring into late fall for best flower display.
 Solit: God drainage.

Soll: Good drainage.
 Propagation: Seed or cuttings.
 Maintenance: Frune back severely in late winter to promote new growth, which causes plant to flower more heavily.

POSSIBLE PROBLEMS Not attractive in the winter landscape. Plants look better only after spring growth is well developed.

Grows 3 to 4 feet (1 m) high, with equal spread. Moderate to apad growth. Orange-red tabular flowers 11/2 inches (4 cm) long and four-boded near the tip appear midisummer into late fail. Mounding declarous shrub with trying rene leaves that are also 11/2 inches (4 cm) long? Native to southern Texas and northern Parice.

Anisacanthus quadrifidus wrightii Flame anisacanthus

Aconthaceae family



The next several pages are taken from the following source, which provided vital information about vegetation in this particular region. For more information regarding vegetation refer to this source.

Jones, Warren & Charles Sacamano. Landscape Plants for Dry Regions: More than 600 Species from around the World. Tucson, AZ: Fisher Books, 2000.

COLD HARDINESS Low and intermediate zones and warmer locations in high zone. Moderately frost tolerant.

A LANDSCAPE VALUE

- Picturesque beauty and charm when in full bloom
 Stunning spring color accent or spectmen tree for
 and parks.
 Privacy screens, medians and buffer zones. nen tree for streets
- · Train as a small tree for filtered shade over patios.

Te CULTURAL REQUIREMENTS

CULTURAL REQUIREMENTS
 Exposure: A tree of remarkable durability. Withstands great, heat and intense reflected sin.
 Water: Drought tolerant once established, but being native to desert washes, trees need a thorough sosiking of the root zone once or twice during the warm season, Young trees benefit from irrigiation every month of two until large enough to serve the intended function. Nost tolerant species of palo verde for lawn and other regularly irrigiated situations.
 Will forerate sakaline soils but also adapts to lawns.
 Torpagation Sect.
 Maintenance: To train as a small tree, gradually remove lower branches over a period of several years. It is usually necessary to remove low-growing branches once or twice each year if you want an above-the-head campy.

Same as Cercidium praecox glaucum.

POSSIBLE PROBLEMS Fallen flowers and bean pods of

 Failen flowers and bean pods create litter.
 Small thorso on twigs and branches may be a hazard.
 Rouk borer", mistletoe and witches "brown caused by gall mitles are the most serious pest problems encountered in its native regions.

COLD HARDINESS Low zone and protected microclimates of intermediate zone. Sensitive to hard frost, which causes some branch die-back*

Same as Cerektian process glaucum. Same as Cerektian process glaucum. Exposure: Full to reflected sun. • Water: Water every month or two until established and of functional size, then water onely during long droughts. • Soils, Adapted to and tolerant of a wide range of soils. • Propagation: Seed. • Maintenance: Prune to maintain tree form and balanced branching structure.

Possible problems
 Seed-pod litter.
 Low-banging spiny branches are a bazard in foot-traffic areas.
 Toiong trees vulnerable to rabbit damage.
 Toiong trees vulnerable to frost damage in some locations.

For the second second

Baileya multiradiata

Desert marigold Asteraceae (Compositae) family



To 1 froit (30.5 cm) high or higher, with equal spread. Moderate to rapid growth with abundant water. Evergreen perennial notive from Southern California into Texas, southern Utah and northern Metaco. Forms a 6-inet (15-cm) high clump of soft, woolly gray leaves, plinately* parted at ground level, becoming

Penstemon species Desert beard tongue, Desert penstemon

Scrophulariaceae family

SW a hoat Tenns 122.18



COLD HARDINESS Low and intermediate zones and warm microclimates of high zone. Moderately frost hardy but cold will stop blooming for a period.

- LANDSCAPE VALUE
 Undemanding percential of rugged character for hot, summy exposed situations.
 Has the potential to flower over a long period.
- Wildflower, desert and rock gardens
 Revegetation of disturbed sites.

CULTURAL REQUIREMENTS Exposure: Full to reflected sun and heat. Water: Drought tolerant: Blooms more freely and longer and reseeds more heavily if given extra water during extended day

Soil: Most soils with good draina

 Son: Aust sons with good namage.
 Propagation: Seed.
 Maintenance: Readily naturalized in the landscape; minimum maintenance. Cut back tired basal* growth in winter to renew. nisht

POSSIBLE PROBLEMS Short-lived but reseeds so easily there are always new plants to replace the dead plants.

entire along the lower stems. Solitary bright yellow daisylike flowers 1 to 2 incites $\{2.5$ to 5 cm) in diameter on slender erect stems to 1 foot $\{30.5$ cm till or taller appear from spring into fail. Plants may below year-round in low-elevation to cations where soil moisture is adequate.

COLD HARDINESS

Low and intermediate zones or all three zones, depending on species. Tolerates moderate to severe frost depending on species. Low

- Street medians.
 Commercial land
- CULTURAL REQUIREMENTS Exposure: Full sun. Plants grow somewhat sprawly in partial
- Exposurer Full sun, rains grow someware reporter, an preservor of filtered shade. or filtered shade.
 Water: Water every month or two during the growing season Harvested surface runoff may supply all of the supplemental-water needed the rest of the year.
 Soliri Adapte to sandy or growarely soils but not heavy wet soils.
 Propagation: Seed or, in some species, by division.
 Valantenance: Alter seeds have been dispersed, prune bloom stalks to a basal clump of leaves.

POSSIBLE PROBLEMS Lives three to four years but long drought may kill it sooner.

Lives three to four years but long drought may kill it sooner. Prosteman, such as those associated with gardens of the temperate ames, are few and far between when choosing species suited to the warm, dry regions. However, there are soccertons and these along with species native to the deser-tion of the second with species native to the deser-sion of the second with species native to the deser-sion of the second with species native and the second varies and maintenance. These everyments here traceous'r perennials may be annual in long, dry periods' develop a clump of basal saves and one in may apriphed hower statisk. Leaves to were not here those thats. Leaves on the flower statisk are without their common base. Prover clusters are slender, vertical and 4 to 20 inches (10 to 51 rm) long. The two-lipped undupted bases vary in color according to species and appear mostly in spring continuous in source in a lew cases. Height and spread varies among species, inti all grow as a moderate rate. The trap dense base in the species noted otherwise.



A COLD HARDINESS

accent for arid, transitional and oasis

tandscapes. • Informal shrub borders and mass plantings. • Striking floral display against a plain wall during the warm

months. • Naturalizes to a limited extent on favorable sites. • Combine with other plants that are attractive during the winter months to disguise its winter dormancy.

monus to disgube no white outsiders?
 CULTURAL REQUIREMENTS
 Exposure: Fuil or reflected sun to part shade.
 Waters: Drought resistant but water every week or two during the warm season for maximum flowering.
 Solie Most soils with good drainage.
 Propagation: Seed.
 Mintenance: Stems die back with hard winter frost but plant regrows rapidly once the weather warms in spring. For a denser, more compact plant and heavier flowering, treat like a persential by prining the plant back to within a few inches of the ground in late winter, in coldest areas, mulch base of plant over winter to protect plant crown.

POSSIBLE PROBLEMS

Ripe seeds are poisonous.
 Plant looks ragged in winter.

Grows 4 to 10 feet (1 to 3 m) high, spreading 4 to 6 feet (1 to 3 m), Rapid growth with regular irregation. Lush tropical-lookin shinh native to the West Indies and Mexico and a workhorse color plant in the Southwest United States. Rounded to vase-shaped. with scattered prickles along the stems. Feathery foliage is semiokine

Russelia equisetiformis Coral fountain

Scrophulariaceae Inmily



Caesalpinia pulcherrima

Red bird of paradise



evergreen in warm winter areas, deciduous elsewhere. During the warmer months, branches are tipped with clusters of dazzling, orange-red flowers, each bloom highlighted by long curved red stamens* to 2½ inches (6.5 cm) long. Bean poids 3 to 4 Inches (7.5 to 10 cm) long are poisonous. Mature plant size greatly affected by soil moisture and severity of winter cold.

COLD HARDINESS

Low zone and warm microclimates of intermediate zone. Damaged or cut to the ground by freezing temperatures but recovers quickly in sprine

A LANDSCAPE VALUE

A bright spot of red and green cascading from planters or containers.
 Foundation planting.

Tropical effects.
 Tied up on supports, vinelike.

ECULTURAL REQUIREMENTS
 Exposure: Pull sun and reflected heat to part shade.
 Water: Water every week or two during the warm season but revery month to two one established.
 Solit: Gurden soli will good drainage.
 Propagation: Cutaling taken in spring.
 Maintenance: Pertilize on a regular basis year-round.

POSSIBLE PROBLEMS berved

Contain-His shrubby perential from 3 to 6 feet (1 to 2 m) high-and to 4 feet (1 m) wide. Grows at a moderate to rapid rate. Bright green angular storms are almost leafbess. When present, leaves are tiny and scalelike: Wwird en dubalt movers 4/cto i nich (2 to 2 5 cm) iong are scattered along the green stens, biooming almost continuously during the warm season. This cultivated form has turned out to be more tolerant of stressful and conditions than expected and has performed surprisingly well in and gardens. Native to Mexico.

A COLD HARDINESS ee zones. Tolerates severe frost

Low perennial border-type plant that adds a touch of tight blue to the landscape.

· Low foundation plantings · Edging and groundcover for small areas.

Exage and groundwork for animal areas:
 Construct Reconcentration
 Exposure: Full sum but not exposed to stressful simulations.
 Waters: Drought tolerance, but entipys a garden environment with water every week or two during the warm season, even more often in low somes to prolonge blooming and maintain appearance.
 Soll: Needs good well-drained solf.
 Propagation: Seed or cuttings.
 Waintenance: Gut back old bloom stems.

POSSIBLE PROBLEMS

Short-lived .
Somewhat temperamental and erratic in performance.

S mall evergreen shrub that grows at a moderate rate to 2 feet [61 cm) in height, with equal spread, Leaves are gray green as howers are blue, blooming from summer into fall. Both are small. Native to the higher zones of the Chihaahuan Desert. ind

Salvia chamaedryoides Blue Chihuahuan sage Lamiaceae (Labiatae) family









Sphaeralcea ambigua

Globe mallow



Plants with the same common name globe mallow are a large, mostly perennial group of eclorful flowering plants that contribute much to the Sonoran and Chibuahuan Desert scene-there are namerous species that have potential landscape value S. ambigua and its varieties are perhaps the most typical and will serve here to identify the qualities that characterize this group. In general, these plants are loose and shrubby and grow all a moderate rate to 3 leet (1 m) in height and spread. Gray-green

COLD HARDINESS Low and intermediate zones and milder locations in the high zone A LANDSCAPE VALUE

Desert perennial garden.
 Colorful foundation planting.

Revegetation.
 Containers.

CULTURAL REQUIREMENTS

- Cuttbract Recontenents
 Exposure: Full sun,
 Water: Onlie drought resistant. Water once or twice a season to
 stimulate more bloom and good follage:
 Soli: These plants grow on a variety of desert soils, generally
 with good dramage but not necessarily. In clay soil: allow to be
 almost dry before watering again.
 Progagation: Seed. Can be grown from cuttings to preserve
 color on led from eateritizes.
- or leaf type selections
- Maintenance: Groom after bloom falls

POSSIBLE PROBLEMS

May look rough and sparse when stressed or after heavy bloom,
 Short-lived.

to almost white leaves are deeply lobed. Small typical matlow biossoms (sometimes referred to as "wild holtblocks") to a variety of colors (red, orange, rose; plikin and white) are arranged along upright stems among the gray leaves. The landscape effect of this contrast, is striking. A big flower show occurs in spring hol some bloom can be seen almost any month in the year. Selection for Boune color and to this and holt on home more instructions how flower color and foliage types has been done in some quarters but this is only a small step toward utilizing the great potential this group of plants has for selection and plant breeding.

A COLD HARDINESS

A LANDSCAPE VALUE

Interesting rosettes* are smaller than average for agaves.
 Most at home in describe plant compositions.
 Good foreground plant, especially fine in rock gardens.

Good corregroups paint, especially the in rock gardens.
 Stypestre: Full sum to light shade.
 Stypestre: Full sum to light shade.
 Water: Water once or twice a season for healthy appearance in low-rainfall areas, especially during the hot eason.
 Solt: Any soil with good drainage.
 Propagation: Offsets' or seed.
 Maintenance: Little maintenance except to remove and replace deal plant after it blooms. Dry bloom stalk is attractive and can remain as long as it stands.

POSSIBLE PROBLEMS The agave weevel* is a potential post, buil infestations are rare. Otherwise no known problems.

Grows 1½ to 2 feet (46 to 61 cm) high, spreading 2 to 2½ feet (61 to 76 cm). Slow growth: A handsome clump-forming section with a dense rosiette of sloret gray leaves, Leaf edges hear dark thors and stout splates at the tip. Noseties are often broader than they are tail and offset plants crowd against the parent plant. Boom stalk ranges from 12 to 18 feet (3.5 to 3.5 m) tail and is branched at the tip. Flower buds are plak, opening to pure yellow in lise spring or early summer. Native to southeast Arizona and northern Mexico.

Agave parryi huachucensis

Huachuca agave Annyncene family



Low and intermediate zones. Other *Echinocactus* species are hardy in all three zones.

- The most "gardenesque" of all the Echinocactus and less deserty
- Bold accent.
 Combines well with other cacti and succulents to create striking plant compositions. • Containers.

CULTURAL REQUIREMENTS

- COULTURAL REQUIREMENTS
 Exposure Folls min blight shade.
 Water: Water every month or two, more frequently during the warm season. Some of the other species require less to no supplemental water.
 Soff: Gritty well-drained soff.
 Propagation: Seed.
 Maintenance: No maintenance.

- Possible PROBLEMS
 Can scorch in reflected-heat situations (*E. grusonil* only).
 Will row with poor drainage.
 Cardees bandling can result in scarring and mulilation that will
 never disappear or grow over.

All members of this genus take the traditional barrel shape landscape. *E. grassuli* is perhaps for most striking for its globe shaped truth and vertical this lined with thick rows of golden

Echinocactus grusonii Golden barrel cactus

Cartarene family



spikes, a very interesting pattern and color in the landscape. Other species may have red, pink or plain spines. Plowers appear in a ring, garland-fike on the top in spring, fruit follows. Grows slowly to 3 feet (1 m) high (after many years), spreading 2 feet (61 cm).

Opuntia basilaris

Beaver tail cactus, Beaver tail prickly pear Coctaceae family



eavers may not be common in the native habitat of this cactus but its flattened oval stems, or pads, resemble the tail of that imal. Reaches about 1 foot (30.5 cm) high and spreads to 4 feet m). Grows at a moderate pace. Densely overed with flate half; e glochids⁴, the pads are hub-gray, occasionally with a red or rplish tint, and grow from 3 to as much as 8 inches (7.5 to B

A LANDSCAPE VALUE

Low-growing untreadable groundcover
 Good color plant.
 Combined with desert wildflowers.

· In contains

 CULTURAL REQUIREMENTS
 Exposure: Full sum to light fillered shade.
 Water: Water every week to every rought months duri the warm season, depending on how quickly your sold Plants rot if soli stays too wet. Water in winter only dur too dre south. long dry spells. Soil: Well-drained soil.

 Propagation: Seed.
 Maintenance: A short-lived percential that reseeds under Avorable conditions, Loggy plants can be cut back in autumn to relivenate plant, but you'll need to replace them from time to time. To extend flowering period, remove faded bloom.

POSSIBLE PROBLEMS

A low-mounding perennial that rapidly grows between 8 inches are $(0.25 \pm 0.61 \text{ cm})$ tight and wide. Narrow gray leaves are $(0.5 \pm 0.61 \text{ cm})$ tight and wide. Narrow gray leaves are $(0.5 \pm 0.61 \text{ cm})$ to $(0.5 \pm 0.61 \text{ cm})$ across have yellow centers and aquear intermittently during witters that are nearly foss-free. Booms more heavily from spring into early full and only at this time where whiter Prots are common. Native to northern Mexico and from Arizona to Texas.

Landscape Design Example-



Gin ihm University of Artzonia compute, winner blooming Cassias in combination with bold succlimes add closerange interest at the base of a fall palm.

COLD HARDINESS

A LANDSCAPE VALUE

Low barrier.
 Naturalizing in desert areas to which it is adapted.
 Accent or local point.

CULTURAL REQUIREMENTS • Exposure: Full sun and hot-desert environments with drying

winds. • Water: Watering once or twice a season during prolonged droughts may enhance plant growth and flowering but irrigation is seldom necessary for survival. • Soll: Any soll with good drainage, including poor sterile types. • Propagation: Pad (stem) cuttings. • Maintenance: Use tongs, not gloves, to handle plant parts.

POSSIBLE PROBLEMS Cochineal* scale infestations may become heavy enough to ceouire control measures.

20.5 cm) long and 4 to 6 inches (10 to 15 cm) wide. New growth originates mostly from lower arcss of existing stems and near the plant basic to give this *Oputatis* its characteristic low-spreading form. Although thornless, beaver tail prickly pear is well protected by (my barbed briskes that grow in crowled clumps called arcelaes² on the pad surface. Once lodged in the skin, these are pathnl and difficult to remove. Prom spring into early sammer. Nowers 4 to 6 inches (10 to 15 cm) across and intensely rose-purple to pink hoven on the high edge of pads. When mature, the way have a strong of the strong strong and balance and balance California in Mexico.

Blackfoot daisy Asteraceae (Compositae) family



Calylophus hartwegii

Colylophus Onograceae family



A COLD HARDINESS

in evergreen in coldor winter areas All three zones. May not rem of intermediate or high zone.

- Informal perennial garden subject.
 Rock gardens.
 Drought-tolerant, meadowlike groundcover. · Blooms well in containers.

- CONTRACT REQUIREMENTS
 Exposure: Full sun, reflected heat to part shado
 Water: Quite drought resistant but needs water every week or two during the warm season to stay in bloom
 Soil: Tulerates poor soil as long as it drains well.
 Propagation: Seed, cuttings or divisions.
 Maintenance: Remove spent flowers and trim tollage lightly-to encourage Rowerine.
- encourage flowering:

POSSIBLE PROBLEMS Foliage becomes dult and somewhat off-color in colder winter locations: Sometimes becomes deciduous in the cold winters in high zone. cold winters of the

 $T_0\,1\%$ feet (40 cm) high, spreading to 3 feet (1 m). Moderate growth rate. A woody perennial that forms is sprewling clump with narrow vergreen leaves and single butter yellow blooms that resemble night-blooming primrose (to which it is related). Presh reaconge requires comma generation (in which it is released). Fresh sets of builts open each revening to replace the inst-closed flowers that bhomest the night before. The flower show starts in early spring. With periodic (rimming to remove some old growth and internitient water, caldpoints flowers throughout most of the warm season.

Low and intermediate zones. Cold winters cause planted areas to look bare for two or more months but spring regrowth is rapid with

CULTURAL REQUIREMENTS

We cutrupal, nequinements
Exposure: Full to reflected sum.
Water: Moderately drought tolerant as an established plant but, satisfactory landscape performance is dependent on water every mouple weeks to every month.
Solib Grows well in a wide range of sandy to rocky, alkaline, and-region solis if water is available and the soil combains little mranife matter.

mganic matter;
 Propagation: Seed or cuttings.
 Maintenance: Prune tack frost-damaged plants in fate winn Naturalizes readily even if existing plants are lost over winter fresh vigorous stand can be established from seedings by periodic irrigation of the site.

POSSIBLE PROBLEMS

None observed

Evergreen flat-growing perennial 6 to 12 inches (15 to 30,5 cm) high and 2 to 5 feet (61 cm to 1.5 m) wide. Grows rapidly with regular water. Dark green leaves 1-inch (2.5 cm) long are divided

Verbena pulchella gracilior (V. tenuisecta)

Moss verbena



Into three parts, finely and pinnately* cut. Small flower clusters are blue to purple or violet comertimes pink or white) and bloom from late whiter into fail in owarm (ion-desert locations. Phoreps are most abundant in spring on drier sites. Native to South America.



phase 1

27 Ground Cover

200 s.f. wildflower mix

cost: \$46,884

\$945

\$500

-

amound along			
ground plane	the second fact		¢15 000
6000 square foot recycled concrete slab	\$2.50 per sq. foot	-	\$15,000 \$3025
1100 square foot sidewalk	\$2.75 per sq. foot	-	\$30Z9
existing façade improvements			
1080 square feet of stucco w/ paint	\$2.40 per sq. foot	-	\$2592
concrete patching as necessary			
Cut through existing south masonry wall		-	\$1500
Two metal doors at entrance	\$500 each	-	\$1000
walls and planters			
56 feet, 12 feet high, 8" thick concrete wall	\$6.00 per sq. foot	-	\$2688
2' high, 6" wide concrete planters - 468 linear feet	\$6.00 per sq. foot	-	\$2808
27 recycled railroad ties	\$16 each	-	\$432
steel fencing/screen wall			
180 linear feet of steel frame fencing	\$6.50 per sq. foot	-	\$1170
2 rotating, walk-through gates	φυ.ου μει sq. ιουι	-	ψΠ/Ο
1 20' rollaway steel gate			
120 4' x 4' open grip steel panels (100%)	\$3.50 per sq. foot	-	\$5760
800' of light gauge steel C channels	\$4.00 per lin. Foot	-	\$3200
Adequate Nuts, bolts, and washers	\$0.04 each	-	\$200
8 Anchor Bolts	\$8.00 each	-	\$64
Labor cost of on site welding	\$75 per hr.	-	\$500
80' of 1.5" x 1.5" tube steel	\$0.91 per lb.	-	\$1200
	· •		
vegetation - professionally planted including drip ir	rigation		
4 Palo Brea trees	\$250 each	-	\$1000
3 Blue Palo Verde trees	\$250 each one	-	\$750
36 Shrubs	\$50 each	-	\$1800
15 Accents	\$50 each	-	\$750

\$35 each

\$2.50 per sq. foot

phase 2

cost: \$31,874

ground plane 8700 sq. feet of asphalt surface 3000 sq. feet concrete slab	\$1.50 per sq. foot \$2.50 per sq. foot	-	\$13,050 \$7500
planters 2' high, 6" wide concrete planters - 100 linear feet	\$6.00 per sq. foot	-	\$600
steel screen wall 30 4' x 4' open grip steel panels 900' of light gauge steel C channels (50%) 200' of 1.5" x 1.5" tube steel Adequate Nuts, bolts and washers Labor costs of on site welding 8 Anchor bolts	\$3.50 per sq. foot \$4.00 per lin. Foot \$0.91 per lb. \$0.04 each \$75 per hr. \$8 each	- - - -	\$1680 \$3600 \$2500 \$200 \$500 \$64
vegetation 1 Palo Brea tree 23 Shrubs 3 Accents 18 Ground Cover	\$250 each \$50 each \$50 each \$35 each	- - -	\$250 \$1150 \$150 \$630
total cost of phase 1 & phase 2: * labor costs are included		\$	78,758
phase 3			
exterior lighting 6 Light Posts	\$2800 each	-	\$16,800
new building 5400 square foot building north of existing	\$65 per sq. foot	-	\$351,000

SITE ANALYSIS









EXECUTIVE SUMMARY.

The Mat Bevel Institute is requesting the City of Tucson Back To Basics grant funding in the amount of \$75,000 for permanent infrastructure improvements and landscape enhancements to the historic property located at 530 N. Stone Avenue in downtown Tucson, Arizona. The monies will be used to improve the physical property, restore the historic value of the building, and beautify the area through creation of a visually appealing "green-art" zone along one of the city's oldest corridors, Stone Avenue. Located strategically at the intersection of two key corridors slated for development, Stone Avenue and planned Aviation Highway (now Sixth Street), the project supports existing city efforts for long-term improvements in this area. In addition, this intersection marks the north entrance to downtown Tucson and the south entrance to the Stone Avenue Corridor.

Organizational Structure:

The Mat Bevel Institute is a community based, non-profit 501(c)(3) organization dedicated to the purpose of artistic inspiration and "Building Community Through Art" in Tucson, Arizona. To this end, the Mat Bevel Institute provides a culturally diverse community space for artistic, educational, musical and family-oriented events. In addition, the Institute is a theater and a working artist's studio where people can see the development of art from inspiration to completion. The Institute's focus on using "found objects" to create art raises awareness of conservation, creativity, resourcefulness and art as a reflection of the surrounding culture.

Grant Request Purpose and Objectives Overview:

The Mat Bevel Institute's project for Back To Basics grant funding is designed to improve the façade and surrounding landscape while restoring historic value to the property located at 530 N. Stone. The establishment of a "green zone" with trees and plants, in conjunction with the installation of a sculptic fence that contains a sculpture garden, will provide pleasing, inspiring, entertaining public art for vehicular, bicycle and pedestrian traffic. Recycled materials and conservation techniques will be employed, when possible, in order to manage costs, encourage creativity and preserve resources.

This Back To Basics grant request reflects Phase I of a long-term plan to create green-art zones, or gardens, in the block that is defined by Sixth Street, Stone Avenue, Speedway Boulevard and Seventh Avenue. These zones will showcase both permanent and changing public art in open spaces for the enjoyment of residents and visitors alike. The green-art zones will also have containment capabilities so that public events can be held in this historic arts district neighborhood, adjacent to the downtown economic and government center of Tucson.

Mat Bevel Institute's property improvement and landscape plan integrates several key ingredients including:

- Support of existing City of Tucson efforts.

 Integrates long-term development of the Aviation Corridor with eventual plans for pedestrian pathways, retail business, parking and public art at Stone and Sixth
 Partners with Tucson Department of Transportation's Planning &
 Engineering Division to implement the Stone Avenue Corridor recommendations on streetscape enhancements, pedestrian and traffic improvements, economic development, historic preservation and overall visual appeal
- 2. Preservation of historic property along one of the city's oldest corridors
- 3. Creation of "green-art" zones in the historic arts warehouse district with capacity for public use, adjacent to the commercial and governmental center of Tucson
- 4. Utilization of recycled materials and conservation techniques, whenever possible

PROJECT DESCRIPTION.

The Mat Bevel Institute's grant proposal, which improves the historic property located at 530 N. Stone, establishes several key partnerships with the City of Tucson Department of Transportation's Planning & Engineering Division, LavaWorks, WestWordVision and the University of Arizona's School of Planning in the College of Architecture, Planning and Landscape Architecture. In addition, the project has the support of the West University Neighborhood Association.

The Tucson Department of Transportation will offer assistance to ensure compliance with the Stone Avenue Corridor Study recommendations. In addition, although this portion will not be completed under this grant application, Mat Bevel Institute will work in partnership with the Tucson Department of Transportation to implement streetscape improvements within the next 2 years. Mat Bevel Institute with LavaWorks and WestWordVision will be responsible for the landscaping, fence, sculpture garden and façade improvements. The University of Arizona's School of Planning in the College of Architecture, Planning and Landscape Architecture will develop plans and designs. The West University Neighborhood Association will assist in cultivating a volunteer participant network and will also offer valuable input into the long-term strategic objectives of the area. The plan encompasses several key improvements including:



Sculpture Garden and Landscaping:

A Mat Bevel sculpture garden will be installed in the unused cement pad located immediately to the west of the building at 530 N. Stone. Improvements to this area, and the adjacent area next to the sidewalk, include grading of some of the existing cement pads, addition of plants, trees, rocks, soils and a brick walking path, integration of a water harvesting system, design and installation of sculptures and lighting system. Ample parking is located to the north and south of the garden.

Art Fence and Gate:

An art fence and gate installation at the front of the property will encompass the sculpture garden, making it available as an outdoor work space and performance venue. The fence will utilize LavaWorks' patented Lava product and technology to form the wall base with wrought iron post work and Mat Bevel's unique found-object sculptures and kinetic lighting system.





Façade Improvement:

In order to beautify the neighborhood and preserve the historic character of the property, the historic brick on the exterior of the building will be restored to its original condition through sandblasting. Damaged bricks will be repaired and vine-like plants such as bougainvillea will be added to the building. Adjacent building wall surfaces to the north and south of 530 N. Stone will be sandblasted or painted.



CAPITAL DISBURSEMENT. Budget:		
Sculpture Garden/Landscaping:	\$	35,000
Façade Improvements:		30,000
Containment Fence & Gate:		45,000
Lighting:		20,000
Planning/Permitting/Engineering:		10,000
Foundation Removal/Regrading:		20,000
TOTAL BUDGET:		160,000
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Cash Commitments:		
Rebecca R. Ruopp, Parsons Brinckerhoff	\$	100
Alianza	\$	100
Paula Schaper	\$	200
PRO Neighborhoods (grant in application):	\$	5,000
TOTAL CASH COMMITMENT:	\$	5,400
		·
In-Kind Commitments:		
City of Tucson Department of Transportation's		
Planning & Engineering Division (consultation):	\$	1,000
Tucson Water's Water Conservation Manager, Fernando		
Molina (consultation):	\$	500
Eco3000 (plants, soils, rocks, landscaping):	\$	4,000
Tucson Clean & Beautiful (trees):	\$ \$	500
Aqua Vita (120 gallons drinking water):	\$	1,560
Cultivated Ground (landscape consultation/design):	\$	5,000
University of Arizona's School of Planning in the		
College of Architecture, Planning and Landscape		
Architecture outreach program Community Planning		
& Design Workshop (plans):	\$	5,000
WestWordVision (work/delivery truck/materials		
coordination):	\$	5,000
John Mount (welding):	\$	4,000
LavaWorks (construction management/equipment):	\$	20,000
Mat Bevel (artistic direction/sculptures/lighting		
design):	\$	30,000
Sherwin Williams (paint):	\$	100
Dunn-Edwards (paint):	\$	100
TOTAL IN-KIND COMMITMENT:	\$	76,760
Back To Basics Requested Amount.	\$	75,000

TIME LINE.

Beginning November 1, 2002 and concluding by June 15, 2003

Design/Planning/Permitting:	3 months
Demolition/Clean-up:	1 month
Installation/Landscaping:	3.5 months

CURRENT CONDITION OF 530 N. STONE AVENUE Perspective: Looking south at downtown Tucson with Stone Avenue to the right



PROPOSED IMPROVEMENTS TO FAÇADE AND GROUNDS AT 530 N. STONE AVENUE Perspective: Looking northeast at the Catalina Mountains with Stone Avenue to the left



building surfaces will be sandblasted in order to restore them to their original historic condition. Brick repairs will be made, where necessary, and climbing vines such as bougainvillea will be added to introduce colorful living plants

parking resurfacing -

the area in front of the sculpture garden, adjacent to the sidewalk, will be landscaped with trees, cacti and other plants

a sculpture garden with an artistic containment fence provide public art and an outdoor venue

parking surfaces on either side of the center sculpture garden will be demolished and regraded to ensure safe vehicular, bicycle and pedestrian traffic













Project:

Street Frontage and façade improvements, at the corner of Stone Ave. and Sixth Street, must respond appropriately to future road improvements intended for the area

Values:

Dedicated to artistic inspiration: "Building Community through Art"; promotion of creativity, conservation, and resourcefulness through the use of artwork, which serves as a reflection of the surrounding culture.

Activities:

- 1. a theater, promoting a culturally diverse community for artistic, educational, musical, and family-oriented events;
- 2. a working artists' studio, where people can see the development of art from inspiration to completion

Goals:

Creation of a park-like atmosphere; integration of trees, plants, and sculptures; "sculpture garden"

- design should be attractive to the community and city
- to bring people into the institute
- to attract and to convey artwork to the public
- edge adjacent to Stone Ave. to be predominately developed and improved

Ideas on Project:

- transparent fence to define area (note: fence as artwork, working in conjunction with artists to design)
- use of existing slab- sandblasting, painting, etc. to articulate surface

•configuration of 8 trees in a compass; holes in the concrete slab would be cut for the trees

- indigenous trees for shade, probably palo verdes and/or mesquites
- neon signs, bright and bold coloring, flashing lights: reflecting qualities of artwork
- outdoor area to serve as a transition and linking space for people, place for special events and activities to occur
- study connection between inside and outside spaces
- central element in outdoor space
 - •such as a light post, incorporating solar powered artwork (ex. Butterfly)

Future Considerations:

- Conversion of interior space into an intimate café; about 65 people, due to the number of bathrooms to service guests. Sculptures will be used to define space, allowing the artwork to become an integral part of the experience; hours of operation would be around 6 to midnight.
- Stone Corridor Roadway Improvements- changes will occur within next year, 2004 (refer to supplemental drawings for specifics)
- Barraza-Aviation Parkway- will widen and decrease the elevation at Stone Ave. and Sixth Street- changes will occur between 14-20 years (refer to supplemental drawings for specifics)



make presence of institute to public known; address the street



stone edge conditions







PHOTOGRAPHS | SITE











PHOTOGRAPHS





nw corner: structural concerns, consult with structural engineer on any changes to corner









PHOTOGRAPHS













PHOTOGRAPHS

a view of stone ave. from mat bevel site







ARTWORK **PHOTOGRAPHS**







ARTWORK **PHOTOGRAPHS**











Call the Tucson Arts District Partnership at 624-9977 for more information about these and other Arts District programs.

Tucson Warehouse Historic District



NOMINATION TO THE NATIONAL REGISTER OF HISTORIC PLACES, PREPARED FOR **THE TUCSON ARTS DISTRICT PARTNERSHIP** BY AZTLAN ARCHAEOLOGY, INC.

BY AZILAN ARCHAEOLOGY, INC. ENVIRONMENTAL CONSULTANTS, APRIL 1999



Tucson Arts District Parnership P.O. Box 3009 Tucson, AZ 85702 (520) 624-9977

All photographs courtesy of Arizona Historical Society.

WAREHOUSE HISTORIC

DISTRICT:



November, 2

The Tucson Arts District Partnership, Inc.

The Tucson Arts District Partnership, Inc. is a nonprofit, charitable organization incorporated in 1989. The organization is governed by a Board of Directors representing arts, business, economic development, tourism, historic preservation and neighborhood interests.

Mission and Purpose

The Tucson Arts District Partnership, Inc. is the principal development and management entity for the Tucson Arts District, a multi-faceted arts, cultural and commercially based downtown revitalization project. The work of the Arts District Partnership is designed to provide a focused arena for the community's wealth of arts and cultural resources while rejuvenating the city center by creating a framework through the arts in which economic growth can occur.

Art Space Development Loan Program

The Tucson Arts District Partnership, Inc. offers low interest loans for the purchase and/or physical improvement of properties for arts uses. Some loans are available on properties located throughout the Arts District; loans of over \$75,000.00 have been issued through the Art Space loan program since 1992.

The Warehouse District Loan Program initiated in 1997 specifically targets the creation of new arts uses in the warehouse district. Loans of over \$161,000.00 have contributed to 5 projects with multiple studio, gallery and performance spaces. Additional funds are available to support additional new arts projects within the area.

Committee and Workshops

Advice on project development is offered by the Arts District's Art Space Committee and through technical workshops held throughout the year. The Art Space Committee is comprised of community members representing diverse professions. This year's workshops focus on grant opportunities available in areas surrounding downtown for environmental assessment, the permitting and inspection process for developing live/work space, and an assessment of downtown real estate opportunities.

Information and Referral

The Arts District staff provides information about available spaces for studios, live/work opportunities, galleries, performances and arts related businesses. Property assessment to identify potential art spaces and match users with these spaces is ongoing.

Tours

Warehouse District walking tours focus on the development of the area related to the arrival of the railroad in 1880. Current tours focus on structures built for storage of goods and commercial uses with visits to a few of the artist studios now located in the area. A new tour, currently planned to be offered in the spring of 2001, will focus on structures whose construction specifically relates to railroad use such as the Southern Pacific Railroad Depot, additional railroad structures, and nearby hotel properties.

Tucson Warehouse Historic District

The Tucson Warehouse Historic District was officially listed on the National Register of Historic Places in October 1999. The area's significance derives from Tucson's role as the primary distribution center for goods for Tucson and southern Arizona in the first half of the 20th century, and the resulting growth and economic development. The architecture of the area is a distinct group of buildings that, in design and construction, embody their association with railroad uses.

Union Pacific Railroad Depot (Formerly Southern Pacific Railroad Depot)

The depot property was acquired by the City of Tucson in 1998. Built in 1907 to replace the earlier wood frame station, the depot originally had symmetrical, highly ornamented facades. An expansion and remodeling in 1941-42 created the current Mission style two-story structure. The City of Tucson's Transportation Department, following a public involvement process, has developed the Downtown Tucson Intermodal Center Master Plan with the depot functioning both as a central hub of transit and a destination. A historical and structural analysis for the depot complex is underway with renovation to follow in the future.

Future

Spaces for arts uses continue to be in demand in the downtown area with warehouses comprising a significant opportunity for adaptive reuse of large open spaces. Many of the largest warehouse structures previously identified for potential development now contain arts uses or arts uses plus additional commercial businesses. A significant opportunity exists with artists' continued use of the warehouses along Toole, Stone and Sixth Street whose ownership is planned to be transferred from the State of Arizona to local control in the near future.


History

When the railroad arrived in Tucson on March 20, 1880, great changes were predicted for the community of 7,000 residents. But over the next two decades, very little changed. As one local businessman commented, "We stood practically still from 1884 and 1896-a period of 12 years. During that time, I don't believe there was a single house built in Tucson. Everybody was downhearted, discouraged and disgusted."

The Southern Pacific train depot had been located 3/4 of a mile from town and was surrounded by desert in 1880. Over the next several years, only a hotel and three warehouses would be built near the depot.

Then in 1890, J. Knox Corbett opened a lumber yard on the north side of the tracks. Shortly after that, a few residences and then some commercial establishments





Adobe house at 5th Avenue and 8th Street, identified as birthplace in 1891 of Juanita Romero Cordova from "Places-Tucson-Streets-General" #90611

were built in the area. At the same time, large warehouse buildings were constructed along Toole Avenue to hold the produce, dry goods and other merchandise which was coming into the growing city.



Building at 211-213 E. 6th Street, ca. 1910, from "Portrait-Huerta-Castro Family" #62678

Tucson's first public transportation system, incorporated in 1897 and consisting of mule-drawn streetcars, ran through the warehouse area along Stone Avenue as part of the route connecting the depot with town and the University of Arizona which had been founded in 1891.

By 1920 there were over 100 residences, a large number of retail businesses and numerous warehouses on either side of the tracks between 4th and 9th Avenues. In 1916, the 4th Avenue underpass had been opened allowing for greater commercial development north of the tracks. This resulted in new businesses being built which forced residential units to be demolished.



Firestone Store, 1931, from "Buehman Collection Tucson-Business-Gasoline File 1527" #25, 185

In 1930 6th Avenue was an Auto Mall with three new car dealerships within one block. Sixth Street was lined with auto repair businesses and service stations could be found on Stone Avenue north of the tracks. The streetcar system, which had been electrified in 1906, made its final run on December 31, 1930 at midnight leaving the car barn on Stone, making a trip to the University and then back. In that same year, the 6th Avenue underpass was opened, making access into and out of downtown even easier. Six years later the Stone Avenue underpass would be built, completing the series of subways under the tracks in the warehouse district.



Sixth Avenue looking north shortly after construction in 1930, from "Places-Pictures-Tucson-Subways," #64576

As more and more businesses located in the district, the number of residential units declined. Eventually only a few homes remained in the area, located along Herbert Avenue south of 6th Street. As the residences were removed, the retail businesses which had been established to serve them also began to disappear from the district.

While World War II brought substantial changes to the warehouse district in the form of ration coupons and no new automobiles to sell, by the late 1940s the district had returned to its place of commercial importance. In 1947 a new four door Chevrolet could be purchased for under \$1,400 from O'Rielly's on 6th Avenue and a Coke was 5 cents at the Crystal Bottling Company.

In 1955 a proposal was made to move the railroad tracks south and west out of the downtown area. This would have completely changed the warehouse district but Southern Pacific rejected the plan. By the end of the 50s, some businesses had left the district while others had opened branch outlets in the newly developing parts of Tucson.

The 1960s and 70s saw the warehouse district in a period of decline and deterioration. Fire destroyed some buildings and a lack of maintenance of the aging structures was a serious problem. Also by this time many of the major businesses had left the district and some buildings were vacant, inviting vandalism.

In 1982 a proposal was made to build the last mile of the Aviation Parkway project through the center of the warehouse district. The State of Arizona purchased many buildings for eventual demolition but leased them back to artists and others on a temporary basis. Over time, however, community opposition led to plans for the last mile of the parkway being dropped so the buildings of the warehouse district were saved. In April 1993, an electric trolley connecting the warehouse district with the university campus was reborn as Old Pueblo Trolley.

Today the Tucson Arts District Partnership is working to preserve and improve the warehouse district for use by artists and other small businesses. It has led the effort to have the district listed on the National Register of Historic Places and is working to ensure that the buildings are maintained. In the future it hopes to see the district become, once again, a center of activity for the community.



stonecypher Bakery prior to 1939 from "Buehman Collection Tucson-Business-Miscellaneous" #29013

Tucson's warehouse district has seen many changes since 1880. Its future possibilities lie with preserving its past and adapting its buildings to meet today's needs. The historic character of the area, its existing arts uses and location within the Tucson Arts District make this area ideal for future arts and compatible uses. By accomplishing this, the Tucson Arts District Partnership is working to make tomorrow's warehouse district an exciting and interesting place to be.

By David Devine



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	N Jay			Argentina Polo & Leather	
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	Othersideart, Jack Bybee Alexandra Jones			Diane Mansfield Colligan	
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100	Richard Zelens			Carolyn King Dawne Osborne/Wendy Sumner	
#25	Tucson Arts District Studios ## *	Page 5		Gavin Troy	
	Dawn Carlson			Sarah Kucerova	
	Stephanie Shank			Andrew Rogers	
	Carreras Art Studio			Flam Chen	
	Maurice J. Sevigny John Martin			Silver Bus	
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Sta 33+15 to Sta 36+60





STONE AVE

6th St. - Wetmore

Study Background

with Summary of Objectives & Recommendations

Stone Avenue's History

Stone Avenue is a historically important roadway corridor in central Tucson. As one of the oldest corridors in the city, it has accommodated a range of uses through the years. In the late 19th century, a streetcar line ran along Stone Avenue and served as a primary attraction for industrial and commercial enterprises. These businesses, which were originally scattered among residences along Stone Avenue, eventually dominated the street front. Over time the corridor transformed into the center of automotiverelated businesses, ranging from dealerships to specialty services to junkyards. In the early 1900's, the avenue was designated as part of State Highway 80 and later Highway 89. Stone Avenue was in its heyday. Motels, restaurants, and other uses catering to travelers located along the roadway. Then, in the 1950's Interstate 10 was built. Travelers bypassed Stone Avenue, and the corridor began to deteriorate. The large automotive dealerships moved, and the motels and restaurants closed or downscaled. What remained were small businesses, such as automotive specialty services and discount retail, interspersed with some institutional, social service, and residential uses. Today, the avenue no longer carries a state highway designation, and all public responsibilities for the corridor rest with the City of Tucson.



Stone Avenue Citizen Task Force monthly meeting.

How the Study Got Started: The Stone Avenue Coalition

Although Stone Avenue's vitality has dwindled over the years, it remains a highly visible north/south corridor into Downtown Tucson, and it serves as the common link for neighborhoods that lie to the east and west of the avenue from 6th Street to Wetmore Road. These neighborhoods have offset their limited financial resources with time, energy, and a commitment to improving their surroundings. In recent years, however, the residents have observed that the deterioration along Stone Avenue is making their efforts to improve the neighborhoods increasingly difficult. To combat this trend, eight neighborhood associations came together to form the Stone Avenue Coalition. The coalition was dedicated to pursuing improvements on Stone Avenue that would benefit both residents and businesses and return the avenue to its historical prominence as a gateway corridor.

The coalition approached the City of Tucson for help. Impressed with the dedication of the coalition and recognizing the importance of the corridor to the city as a whole, the Mayor & Council funded a multidisciplinary study with the goal of identifying a series of actions that could be implemented over time to upgrade Stone Avenue.

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GOALS	Strengthen corridor continuity & identity	Contribute to beautification of corridor	Contribute to "greening" of corridor	Increase shade	Encourage pedestrian activity	Encourage bicycle activity	Encourage increased bus use	Provide uses that meet neighborhood needs	Strengthen individual neighborhood identity	Celebrate and preserve historic resources	Encourage economic development	Increase after-hour activity	Limit right- of-way impact on adjacent properties	Seek measures to calm traffic	Маке заfer	Relieve congestion
Four-travel-lane cross section with varying length landscape islands and continuous bike lanes and sidewalks. Continuous, ADA accessible, 6-foot sidewalks Reduction in number of access points along Stone Avenue	00		C		00	0				0			0		C	C
Landscape islands at various intervals Raised median pedestrian crossings (e.g., PELICAN) Raised median bicycle crossings (e.g., TOUCAN)	0	0	0	0	0	0								000	00	
5-foot bike lanes with signage, markings, and/or colored blue Local street north/south bicycle route alternatives Street trees	0 0	C	C	C	C	00								0	00	
Pedestrian nodes Green nodes Markers noting points of historic and other interest along pedestrian way	000	00	00	00	000	0	0		0	0						
Landscaping of adjacent drainage ways Wideming confined to major intersections Traffic signal timing adjustments		0	0		0)							0
Underground utilities and fix sagging lines where possible Bus pullouts at locations of heavy use or transfers High quality bus shelters at all stops	0 0	0		0			00								0	
Additional bus service Public art integrated in nodes and artistic treatment of functional elements Neighborhood entry markers	00	0					0		0						1	
Special treatment of high point at Jacinto to accentuate north/south views Special gateway treatment at Stone/Speedway intersection Special district designation to allow more flexible acoung, design guidelines, and financial incentives to encourage economic development	000	00	0	0	0 0	0			0	0	0					
Creative alternatives to existing parking accommodations Vacant lot and underutilized property development and redevelopment Mixed-use development (prototype)	000	00		0	0 0			0			000	0 0				
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Study Background



STONE AVE

50 St. - Wetmore

Roadway Improvements

Cross Section, Intersections, Access Control, & Parking

Goal

To provide improvements that address vehicular operational issues in balance with improvements to increase alternative mode access, as well as contribute to the livability; aesthetics, safety, and economic vitality of the corridor.



Vehicles headed south on Stone and pedestrians walking east across Stone at Stone/Speedway intersection.

Recommendations

Adopt a typical cross section for the corridor comprised of four travel lanes and a center lane with landscape islands of varying lengths and locations, and, on both sides of the road, continuous bicycle lanes and sidewalks.

The recommended cross section offers enhanced pedestrian crossing opportunities and traffic calming benefits through the extensive use of landscape islands. Further "greening" of the corridor, public art, and pedestrian, bicycle, and transit amenities will be integrated into the improvements.



In those areas where landscape islands are introduced, the existing center-turn lane will be eliminated. Special attention will need to be given to designing this configuration to address safety and capacity issues.

Balance the provision of moderate capacity improvements for vehicular flow at major intersections with user-friendly pedestrian and bicycle crossings.

All intersection design should include high-standard provisions for making pedestrian and bicyclist crossing at the intersections easier and safer. Such provisions should address signal timing that allows pedestrians to make complete crossings of the intersections in one green signal phase and facilitates the crossing of people with disabilities. To best promote alternative modes of transportation while providing moderate capacity improvements at the larger intersections along Stone Avenue, the number of lanes added should be minimized. Intersection approaches should have no more than two through lanes with single left-turn and rightturn lanes. In the case of the **Stone/Speedway and Stone/Grant intersections**, each should have no more than dual left-turn lanes, two through lanes, and one right-turn lane (or some combination of this number of lanes).

Control access from cross streets and driveways to improve flow and safety for all transportation modes along Stone Avenue.

Improved control of access will reduce potential conflict points between all users of the roadway and sidewalk area, and should provide increased opportunities for landscaping by minimizing the number of driveways along the corridor.

Driveway Openings The City of Tucson should work with property owners to evaluate the number of driveways per property and, where feasible, to reduce that number to meet, or preferably to exceed, current city standards. Unused curb cuts for driveways should be closed, and any redeveloped or rezoned properties should be brought into compliance with code requirements for driveways and on-site parking. Closing of curb cuts can also, in some cases, allow properties to increase the number of on-site parking spaces by reducing the number of parking aisles. The city, in coordination with property owners, should pursue the consolidation of curb cuts for driveways and, where feasible, the joint use of driveways serving adjoining properties.

Roadway Improvements

Recommendations Continued

Local Street Intersections Neighborhoods along the corridor are laid out primarily in a simple grid pattern, which results in an excessive number of local street intersections with Stone Avenue in some locations. The spacing of local street intersections is closest along the more historic southern portion of the corridor where the block lengths are short. The number of local street intersections could be reduced to help minimize traffic intrusion into the adjoining neighborhoods and to help improve the operational performance of Stone Avenue.

The City of Tucson has a process in place for assessing the feasibility of fully or partially closing a local street. Included is the collection of neighborhood traffic data with which a strategy for access management can be prepared jointly by the neighborhoods and city staff. In developing an access management plan, the city considers such factors as access to neighborhoods and commercial areas, traffic intrusion into the neighborhoods, emergency and service vehicle access, and pedestrian, bicycle, and transit use. Where parking is affected by streetscape enhancements, replace lost spaces through assemblage of property, through reorganization of off-street parking areas for more efficient parking, and/or through



the utilization of fully or partially closed streets for angled parking.

Some parking spaces will be lost when the recommendation for continuous sidewalks is implemented. Alternative parking arrangements should be developed in close consultation with affected property and business owners.

Questions and Answers on Transportation Issues Related to the Stone Avenue Corridor

How much traffic is there along the corridor on a typical weekday? In 1999, the traffic ranged from about 20,000 vehicles per day near the Tucson Mall to about 32,000 vehicles per day near the Downtown. According to surveys, nearly 20 percent of all trips within the corridor are by bicycling, walking, and taking public transit.

How well does the corridor function today? Based on the volumes and the current four-travel-lane cross section, Stone Avenue operates at an acceptable level of service. During rush hour, however, several signalized intersections perform poorly. The most congestion occurs in the roadway segment between Drachman Street and Speedway Boulevard. The intersections along the corridor north of Sixth Street operate acceptably, with the exception of the Stone/ Speedway and Stone/Grant intersections, which exceed congestion standards.

How is the corridor used? Surveys indicate that residential neighborhoods, businesses, and institutions within the area between Oracle Road and First Avenue rely extensively on Stone Avenue. The avenue is not used as a major commuter route per se, but does serve as a link for traffic traveling between major east-west and north-south routes. Stone Avenue is a busy Sun Tran bus route, with transit centers at each end of the corridor. It is also a new bike route due to the recent striping of portions of Stone Avenue to include bike lanes. An actively used bike route crosses Stone Avenue at University Boulevard, and another bike route crosses at Blacklidge Drive.

What is the traffic forecast for Stone Avenue? Regional traffic forecasts for the Year 2020 indicate that the number of vehicles per day in the busiest segment of Stone Avenue could increase by about one-third. These forecasts are based on very aggressive assumptions about increased employment in the Downtown area. Parallel corridors, including First Avenue and Oracle Road, are expected to have similar traffic volume growth rates.

How well will the corridor work in the future if the recommendations presented in this Study Card are implemented? The Study Team believes that the corridor will function acceptably and safely, while concurrently supporting goals of neighborhood protection, economic development, and aesthetic enhancement.

> Have questions about the study results? Contact the City of Tucson Comprehensive Planning Task Force at 791-4505.

> > 10.00 20001



STONE AVE

Urban Design Concepts

Seek opportunities to celebrate the history of

use of older buildings, unusual signage, and other

as pavement, into both public and private projects. Where appropriate, use artistic treatments to help strengthen the identities of the neighborhoods.

distinctive elements within the corridor.

Stone Avenue through preservation and creative

Incorporate individual pieces of public art and

artistic treatment of functional elements, such

st. - Wetmore Recommendations, Urban Form Analysis, & Prototype Developments

Recommendations

1 Require design that (a) reinforces urban character, including densities that provide sufficient population to support increased alternative transportation use and a greater mix of commercial and retail uses, and (b) promotes urban form that allows easy access to adjacent land uses by pedestrians and clear visibility of the uses for all passers-by. Design proposals for properties adjacent to Stone Avenue should demonstrate sensitivity to nearby neighborhoods.

2 Focus on vacant lots and underutilized properties to fill in gaps along the corridor (i.e., infill development) with the objective of stabilizing land uses and encouraging economic development where needed most.

Urban Form Analysis

Stone Avenue is an urban corridor made up of varied land uses, block types and sizes, and multiple parcel arrangements and sizes. The urban form analysis helps in understanding the corridor's constituent parts and the corridor as a whole. The analysis process is introduced

in the diagram below and further elaborated in the following pages.



Urban Design Concepts

Prototype Developments

- Q How do we better use existing commercial buildings short on parking?
- A Urban Mini-Plaza Prototype featuring renovated buildings framing an outdoor plaza area that integrates pedestrian activities with some parking. [See Study Card titled Adaptive Reuse Development Prototype]



Cut-Away View of Building-Plaza-Building

This illustration shows the adaptive reuse of existing commercial buildings by having them open onto a pedestrian-friendly plaza that provides off-street parking.

Q How do we increase density to support neighborhood retail, increase the use of alternative transportation, and create a more active street front during and after work hours?

A Mixed-Use Development Prototype combining residential, retail, and office uses. (See Study Card titled Mixed-Use Development Prototype.)



COMPLETE'SCHEME FULL BLOCK, TYPE A OR B, ZONES 1&2



DIVISION OF PROTOTYPE



"PARTIAL" SCHEME 1/2 BLOCK, TYPE A OR B, ZONES 1 & 2

Plan View Diagrams

These diagrams show the possible layouts of a mixed-use development and how this prototype has the flexibility to fit on multiple sites along Stone Avenue.





STONE AVE

Landscape Islands

6th St. – Wetmore

Recommendation

Optimize the number and length of constructed landscape islands down the center of Stone Avenue.

What Are Landscape Islands?

Landscape islands are "minimedians" consisting of cutouts in the asphalt within the limits of the center lane. These cutouts will vary in length and can be at grade for water harvesting or raised with curbing. Landscape islands, which are intended to be primarily spaces for landscape, serve the following important functions:

- Provide visual relief from large expanses of paving.
- Contribute to the "greening" of the corridor.
- Create a ribbon of continuity along the corridor.
- Help calm traffic by creating the appearance of a narrowing in the roadway.
- Contribute to the overall vibrancy, safety, and desirability of the area.



Street trees are closely spaced within the island to emphasize the sense of green and shade. (See Study Card titled Street Trees.)

A concrete header at grade or a raised curb protects the edge of the asphalt. Customized guardrails are used to protect the cars from the trees and the trees from the cars. These rails can be treated as public art and designed to complement both their immediate location and the overall aesthetics of the corridor. Accent lighting incorporated into the landscape islands can spotlight the street trees and art rails and provide nighttime interest.

Plant Palette

Recommended Plant Palette



Street Trees

Acacia smallii -Southwestern Sweet Acacia Brachychiton populneus – Bottle Tree

Quercus buckleyii -Red Oak

Accent Shrubs

Dasylirion wheeleri - Desert Spoon

Hesperaloe parviflora - Red Yucca Agave vilmoriniana -Octopus Agave



Agave weberi - Smooth Edged Agave





Pilot Project Nodes

Pilot Project Nodes offer an opportunity to introduce unique plant species not found in this list, as well as experimental

Desert Spoon

growing techniques. Such projects should contribute to the overall effort to create a distinct, greener, self-sustaining, and more beautiful corridor. These projects could be initiated by neighborhoods or businesses and funded through

sources that support special projects. Pilot project species and/ or growing techniques that prove successful should be considered for integration into the Stone Avenue landscape on a more regular basis.

Have questions about the study results? Contact the City of Tucson Comprehensive Planning Task Force at 791-4505.

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Green and Pedestrian Node Trees

Acacia smallii - Southwestern Sweet Acacia Cercidium floridum - "Desert Museum" - Desert Museum Palo Verde

Eucalyptus spathulata - Narrow Leaf Gimlet Olneya tesota - Ironwood Prosopis glandulosa - Honey Mesquite

Prosopis velutina - Native Mesquite

Color Shrubs

- Calliandra californica -Baja Fairy Duster Caesalpinia pulcherrima - Red Bird
- Cassia spp. Cassia Dasylirion wheeleri -
- Desert Spoon Hesperaloe parvifolia -
- Red Yucca Lantana spp. - Trailing
- Lantana Leucophyllum spp.-
- Texas Ranger, Sage Salvia spp. - Salvia, Sage
- Verbena rigida Verbena



















circulation framework and character zones



surrounding businesses on stone ave.

EXISTING USES

SITE INFO







C-3 commercial zone

The purpose of the C-3 zoning provides for mid-rise development of general commercial uses that serve the community and region, located downtown or in other major activity center areas. Residential and other related uses are also permitted.

The following land use classes are permitted in this zone:

<u>-Commercial use groups are as follows</u>: administrative and professional office "34"; alcoholic beverage service "33"; animal service "33"; automotive-service and repair "33"; billboard "32"; building and ground maintenance "33"; communications "34"; construction service "33"; day care "34"; entertainment "34"; financial service "34"; food service "33"; funeral service "33"; medical service-extended health care "34"; medical service-major "34"; medical service-outpatient "34"; personal service "33"; research and product development "34"; technical service "34"; major and minor trade service and repair "33"; transportation service-land carrier "34"; and travelers' accommodations-lodging "34".

<u>-Retail trade use groups are as follows</u>: construction material sales "34"; food and beverage sales "34"; general merchandise sales "34"; heavy equipment sales "33"; swap meets and auctions "33"; and vehicle rental and sales "34".

<u>-Civic use groups are as follows</u>: civic assembly "34"; correctional use-supervision facility "8"; cultural use "34"; educational use – elementary and secondary schools "34"; educational use- instructional schools and postsecondary institution "34"; membership organization "33"; postal service "34"; protective service "34"; and religious use "34".

-Industrial use groups are as follows: craft work "33"; processing and cleaning "33"; and salvaging "33".

-Recreational use groups are as follows: golf course "1"; neighborhood recreation "33"; and recreation "34".

<u>-Residential use groups are as follows</u>: family dwelling "S"; group dwelling "33"; residential care services- adult care service or physical and behavioral health sciences "33"; residential care services-shelter care of victims of domestic violence "33"; and residential care services-rehabilitation service or shelter care "33".

<u>-Restricted adult activities use group are as follows</u>: adult commercial services "33"; adult recreation "33"; and adult retail trade "33". <u>-Storage use groups are as follows</u>: commercial storage "34"; and personal storage "34".

-Utilities use groups are as follows: distribution systems "33".

<u>-Wholesaling use groups are as follows</u>: business supply and equipment wholesaling "34"; construction/heavy equipment wholesaling "34"; and food and beverage wholesaling "34".

The following special exception land uses are not permitted within this zone, unless approved through the special approval procedure noted for the Land Use Code, and are subject to other conditions:

-Residential use groups are as follows: resident care services-rehabilitation service or shelter care "31".

<u>-Civic use groups are as follows</u>: correctional use: -custodial faculty "8"; and educational use-elementary and secondary schools "34".

<u>-Commercial services use group are as follows</u>: alcoholic beverage service-large bar "33"; communications "34"; entertainmentdance hall "33"; food service, limited to soup kitchen "33"; and medical services-outpatient, limited to a blood donor center "33". <u>-Retail trade use groups are as follows</u>: food and beverage sales-large retail establishment "34"; and general merchandise saleslarge retail establishment "34".

Secondary land uses within this zone are as follows:

general home occupation applications and general farming agricultural uses are permitted as secondary land uses to family dwelling; general manufacturing, heavy equipment manufacturing, perishable goods manufacturing, precision manufacturing, and primary manufacturing are permitted as secondary land uses to the commercial services, retail trade, or wholesaling use group; religious cemeteries and salvaging are permitted as secondary land uses to religious use; hazardous material storage is permitted as a secondary land use to a permitted land use; perishable goods manufacturing is permitted as a secondary land use to alcoholic beverage services; salvaging is permitted as a secondary land use to educational use; and salvaging is permitted as a secondary land use to all uses in the commercial services and retail trade use groups.







public services to and from the site

BYD. Source of the second statements

Shade Trees

The following list of trees are possible choices for the area, but as with all landscape requires time to grow and develop into the shading element they are intended for in the designed outdoor space.



Sweet Acacia (Huisache) Acacia farnesiana

Height: 10-20 feet Spread: to 20 feet

- -tiny fragrant yellow-orange flowers arranged in fluffy balls; bloom period vary with region
- tolerates heat, drought
- fast growing with adequate water



Chilean Mesquite

Prosopis chilensis Height: 15-30 feet

- Spread: to 40 feet
 - not a native mesquite, but commonly planted in southwest deserts
 - fast-growing with bright green and fine-textured foliage
 - maintenance required to stake and develop height and permanent framework more rapidly



Common Mesquite

Prosopis juliflora

Height: 15-30 feet

Spread: to 40 feet

- tolerant of heat and drought, though grows slowing under these conditions
- responses in a similar way as the Chilean Mesquite



Netleaf hackberry (Palo Blanco)

Celtis reticulata

Height: 10-40 feet Spread: 10-40 feet

- deciduous tree, thick canopy of green lives
- dense summer shade
- produces a tiny, hard red berries, relished by many birds
- fairly tolerant of drought and poor soils with adequate moisture



Blue Palo Verde Cercidium floridum

Height: 15-30 feet Spread: 15-30 feet

- drought resistant, but slow growing
- watering as young tree to encourage growth
- spectacular flower displays



Foothills Palo Verde (Little-leaf palo verde) Cercidium microphyllum Height: 6-20 feet Spread: to 6-20 feet

- most abundant of desert trees in southern Arizona
- tiny yellow-green leaflets
- remarkable ability to withstand heat, drought, caliche, and poor soil, but slow to develop under these conditions



Mexican Palo Verde (Jerusalem thorn) Parkinsonia aculeata Height: 20-40 feet Spread: 20-40 feet

- survives drought, heat and poor soils, but often lost as a young tree as a result of palo verde root borer attack
- develops so rapidly from seed, it is often planted directly in permanent location