

COYOTE VALLEY SPECIFIC PLAN

PRINCIPLES ♦ STRATEGIES ♦ FILTERS

SCHOOL PLANNING GOALS AND STRATEGIES

GOAL #1 – First Class Schools to Enhance Coyote Valley Community

GOAL #2 – Efficient Use of Land to Optimize Project Feasibility

- Fixed Assumptions
 1. Students per Classroom
 2. Square Footage per Student
 3. Playfield/Hardcourt Area per Student

- Flexible Assumptions
 1. Students per School
 2. Single-Level vs. Multi-Level Schools
 3. Joint Use of Playfields/Hardcourts
 4. Rooftop Hardcourt Areas
 5. Structured, Reduced, or Shared Parking

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SCHOOL PLANNING STRATEGIES

| | | <u>Typical</u> | <u>Efficient</u> |
|--|------|----------------|------------------|
| ▪ Students per School – (Number of Schools) | Elem | 600 (8) | 800 (6) |
| | Mid | 800 (3) | 1,200 (2) |
| | High | 1,500 (2) | 3,000 (1) |
| ▪ Building Stories -- | Elem | 1 | 2 or 3 |
| | Mid | 1 | 2 or 3 |
| | High | 1 | 3 |
| ▪ Joint Use Fields -- | | None | up to 80% |
| ▪ Rooftop Hardcourts (Elem Only) -- | | None | up to 40% |
| ▪ Structured Parking -- | | None | up to 100% |
| ▪ Reduced or Shared Parking -- | | None | up to 100% |

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STUDENTS PER SCHOOL

| | | <u>Smaller</u> | <u>Larger</u> |
|---|------|----------------|---------------|
| Assumptions – (Students and Schools) | Elem | 600 (8) | 800 (6) |
| | Mid | 800 (3) | 1,200 (2) |
| | High | 1,500 (2) | 3,000 (1) |

Larger Schools Results –

Land Consumption -- save 20 acres (10%)

Construction Costs -- lower due to economies of scale

Operations and Maintenance -- lower due to economies of scale

Phasing -- more difficult, due to larger increments of development

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BUILDING STORIES

Examples – Galarza Elementary
and Horace Mann Elementary,
San Jose



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BUILDING STORIES

| | | <u>Single Story</u> | <u>Multi-Story</u> |
|---------------|------|---------------------|--------------------|
| Assumptions – | Elem | 1 | 2 |
| | Mid | 1 | 3 |
| | High | 1 | 3 |

Multi-Story Strategy Results –

Land Consumption -- save 11 acres (5%)

Construction Costs – comparable to Single Story

Operations and Maintenance – higher due to elevators

Phasing – comparable to Single Story

Other -- primary grades (K-2 or K-3) must be on ground floor

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JOINT USE FIELDS

Examples – Natomas USD,
Sacramento



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JOINT USE FIELDS

| | | <u>Stand Alone</u> | <u>Share with Parks</u> |
|---------------|------|--------------------|-------------------------|
| Assumptions – | Elem | None | 80% |
| | Mid | None | 80% |
| | High | None | 80% |

Shared Strategy Results –

Land Consumption -- save 80 acres (40%)

Construction Costs – possibly lower if shared with City Parks

Operations and Maintenance – possibly lower if shared with City Parks

Phasing – departmental coordination required may cause delays

Other -- City Parks may maintain at higher standards than Schools

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ROOFTOP HARDCOURTS

Example – Horace Mann Elementary, San Jose



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ROOFTOP HARDCOURTS

| | | <u>Surface</u> | <u>Rooftop</u> |
|---------------|------|----------------|----------------|
| Assumptions – | Elem | None | 40% |
| | Mid | None | None |
| | High | None | None |

Rooftop Strategy Results –

Land Consumption -- save 3 acres (1.5%)

Construction Costs – higher for re-inforced/waterproof roof

Operations and Maintenance – higher than ground level courts

Phasing – comparable to Surface

Other -- primary grades can't use rooftops, must be on ground floor

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STRUCTURED PARKING

Example – Polytechnic High School, Long Beach, CA



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STRUCTURED PARKING

| | | <u>Surface</u> | <u>Structured</u> |
|---------------|------|----------------|-------------------|
| Assumptions – | Elem | None | 100% |
| | Mid | None | 100% |
| | High | None | 100% |

Structured Strategy Results –

Land Consumption -- save 15 acres (7.5%)

Construction Costs – higher than Surface parking

Operations and Maintenance – higher than Surface parking

Phasing – comparable to Surface

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SHARED OR REDUCED PARKING

| | | <u>Standard</u> | <u>Shared/Reduced</u> |
|---------------|------|-----------------|-----------------------|
| Assumptions – | Elem | None | 50% |
| | Mid | None | 50% |
| | High | None | 50% |

Shared/Reduced Strategy Results –

Land Consumption -- save 11 acres (5%)

Construction Costs – lower than Standard

Operations and Maintenance – lower than Standard

Phasing – may need transit/ped/bike routes in place before reduction

Other – potential conflicts with certain uses at peak hours



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SCHOOL PLANNING OPTIONS SUMMARY

Efficient School Designs can Reduce Land Consumption by 40 - 50%

Ranking of Methods to reduce land consumption:

1. Joint Use Fields (80 acres)
2. Larger Schools (20 acres)
3. Structured Parking (15 acres)
4. Building Stories (11 acres)
5. Shared/Reduced Parking (11 acres)
6. Rooftop Playgrounds (3 acres)