EXECUTIVE SUMMARY

Overview

The Facilities Master Plan and the Measure 'E' bond campaign envisioned a parking structure to help alleviate parking congestion at MJC East campus. Because MJC East exists in an urban setting landlocked on every side of campus with surrounding development, parking structures will ultimately become (if not already exists) the only effective solution to alleviate parking congestion without eliminating needed green space. The unfortunate reality with this circumstance is parking structures generally cost more than surface parking lots. Due to this reality, the MJC Measure 'E' Coordinating Committee requested we conduct a parking study to consider other perhaps less costly parking solutions.

This parking study establishes the primary goal, focuses on where imminent and future parking needs exist, considers parking options and compares those options based on criteria to include safety/security, expandability, circulation and cost.

PRIMARY GOAL: This study examines the viable parking options at Modesto Junior College within a total project budget of $12 million to best meet the most critical parking needs.

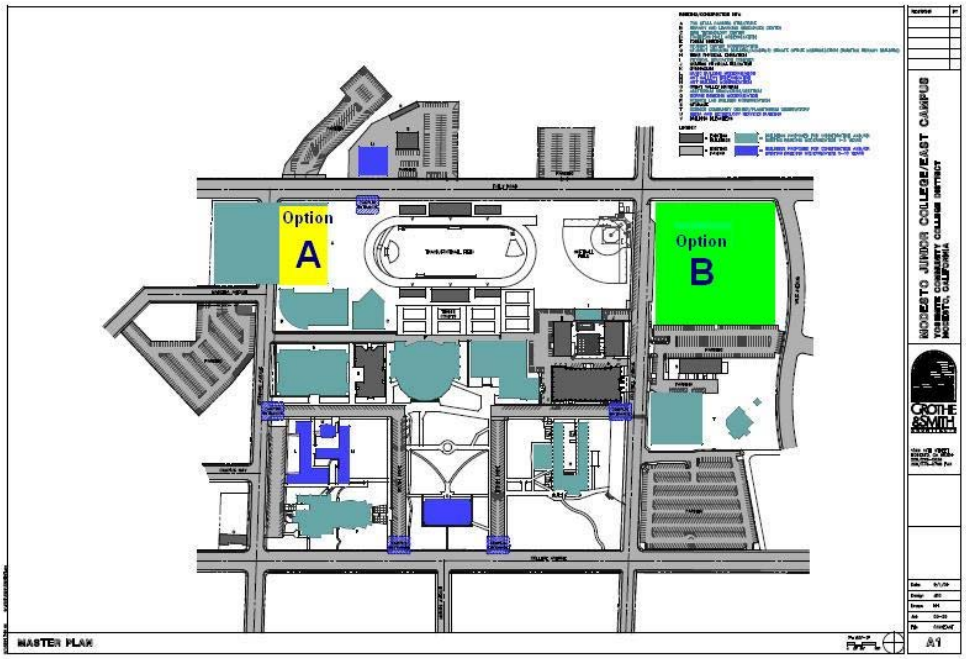
CURRENT PARKING NEEDS: Comparison of Full Time Equivalent Student (FTES) to student parking space counts reveals that MJC East currently has a 2:1 FTES to student space ratio and MJC West has a 1:1 ratio. The current parking condition at MJC East is clearly impacted.

FORECASTED PARKING NEEDS: It is forecasted that MJC East will grow at the State-recognized 3% annual rate. Because of the addition of new departments, MJC West could double by 2012. This would result in approximately ½ FTES per space growth at MJC East and 1 FTES per space growth at MJC West. For planning purposes parking space counts are planned at one parking space per 3 students enrolled, which translates to 1-1/2 FTES per space. Both campuses will likely be in excess of 1-1/2 FTES per space by 2012.

PARKING OPTIONS: The most critical parking need exists at MJC East Campus. Several options were considered including purchasing property from adjacent landowners, Federal funding, considering a joint-use arrangement with the City of Modesto and demolishing existing structures at the Champion property. Two viable options emerged.

OPTION A: Add a 470-space parking structure in place of existing surface parking lot(s) at the Southwest corner of MJC East.

OPTION B: Relocate the existing baseball field at the Northwest corner of MJC East to MJC West; install a 544-space surface parking lot in its place.



SAFETY/SECURITY: A three-year history of incidents reveals an average of 38 incidents occurred per year that would threaten the safety or security of persons and their property on MJC parking lots and an average of 42 incidents occurred annually in two downtown Modesto parking structures. This translates to one incident per 100 parking spaces at MJC parking lots and three incidents per 100 parking spaces in City of Modesto parking structures suggesting surface parking lots are safer and more secure than parking structures. This may not be a representative sample upon which conclusions should be drawn.

EXPANDABILITY: Expansion can be accomplished by adding additional levels to the Option A parking structure or by adding parking structures to any of the parking lots.

CIRCULATION: Option A would enhance accessibility to the core academic and student support facilities, which will improve overall campus circulation. Option B would introduce a significant amount of parking to the Northwest corner of MJC East but would create significant pedestrian traffic across Coldwell Avenue.

COST: Option A would add 470 parking spaces for about $12 million. Option B would add 544 parking spaces for about $9 million. Option A would displace approximately 180 existing parking spaces. Option B would displace the existing baseball field, potentially fracture the athletic program and could negatively impact the aesthetics of the Northwest corner of campus.

Recommendations

Compelling reasoning exists to implement either Option A or Option B. Option A places a large concentration of parking at a location on campus that will best serve the academic needs of students and faculty and complies with the Measure 'E' bond language. Option B will yield the most parking spaces for the budget allowance and statistics suggest is a safer and more secure option.

Selection of the most appropriate option depends upon the District's priorities, legal considerations and political considerations.

The following data, benefits-drawbacks table compiles the main criteria to help facilitate the process through which the best parking option will ultimately be chosen:

Option A – Parking Structure	Option B – Parking Lot
Data:	Data:
Added Parking Spaces: 470	Added Parking Spaces: 544
Displaced Parking Spaces: 180	Displaced Parking Spaces: 0
Total Project Cost: $11,984,421	Total Project Cost: $8,630,716
Cost per Added Space: $25,499	Cost per Added Space: $15,865
Benefits:	Benefits:
• Adjacent to core academic and student support facilities	• Yields more parking spaces for the budget allowance
• Complies with the FMP and Measure 'E' bond language	• Could be a safer and more secure option
Drawbacks:	Drawbacks:
• More expensive option	• Displaces the existing baseball field
• Displaces existing parking spaces	• Could fracture the athletic program
	• Could negatively impact campus aesthetics
	• Signalization of Coldwell Avenue is strongly recommended
	• Legality of departing from the Measure 'E' bond language needs to be tested against Proposition 39

OVERVIEW

Primary Goal

Ample supplies of conveniently located parking will enhance instruction, learning, operations and visiting at MJC campuses. Challenged by limited budgets and limited space, it is prudent to study the factors that will lead to the best decisions for serving MJC's current and future parking needs.

This study examines the viable parking options at Modesto Junior College within a total project budget of $12 million to best meet the most critical parking needs.

Current MJC Parking Condition

To determine where the most pressing current parking need exists, a comparison of Full Time Equivalent Student (FTES) statistics with current student parking space counts was conducted for MJC West and MJC East. The comparison (illustrated below) reveals that on average MJC East has a 2:1 FTES to student space ratio; whereas, MJC West enjoys a 1:1 ratio. The current parking condition at MJC East is clearly impacted.

	East Campus			West Campus		
TERM	*FTES	**Spaces	FTES/Space	*FTES	**Spaces	FTES/Space
Fall 2003	3,150	1662	1.9	1,070	1227	0.9
Fall 2004	4,063	1662	2.4	1,520	1227	1.2
Fall 2005	3,600	1662	2.2	1,496	1227	1.2
Spring 2003	2,879	1662	1.7	919	1227	0.7
Spring 2004	2,959	1662	1.8	959	1227	0.8
Spring 2005	3,767	1662	2.3	1,338	1227	1.1
Average	3,403	1662	2.0	1,217	1227	1.0

* FTES data provided by YCCD Information Technology Department for courses offered on campus and excludes FTE from offsite course offerings.

** Parking space counts provided by YCCD Security Department: Student designated spaces were used for the calculation.

Forecasted MJC Parking Condition

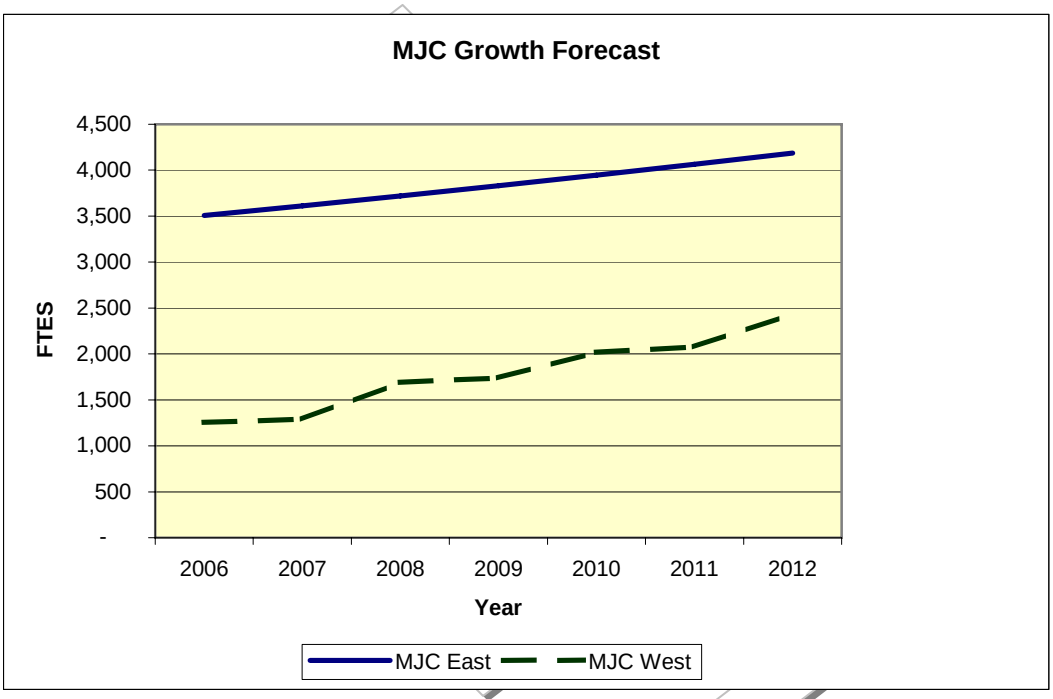
MJC East is currently impacted; however, this condition could shift to MJC West once the Measure 'E' capital program is complete. MJC West will be receiving some significant increases to FTES due to the addition of the Agricultural Department, Allied

Health Life Sciences and perhaps the High Technology Center. Plans for MJC East focus primarily on secondary effects projects and modernizations. The themes for the two campuses appear to be growth of MJC West and maintenance of MJC East.

Translating these themes to an accurate FTES forecast can be a challenge; however, for the purposes of predicting future parking conditions, the following reasonable assumptions can be made:

1. MJC East will likely grow at the State-recognized normal 3% annual growth rate.
2. The additional facilities and departments at MJC West will likely result in 100% FTES growth by the time the new facilities are added and used for their intended purpose.

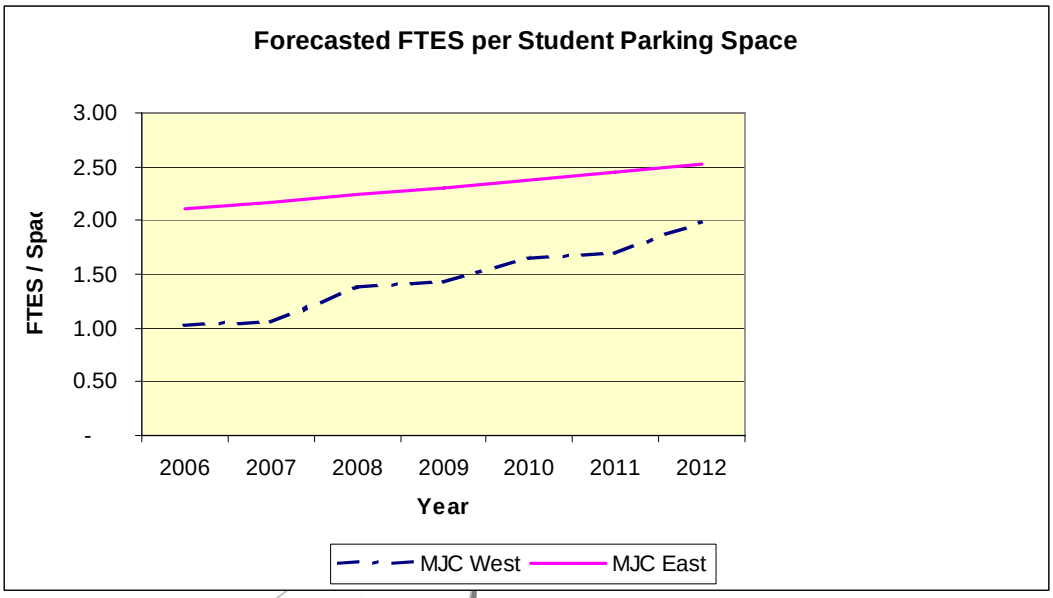
This trend is illustrated in the following graph:



The question becomes how the forecasted FTES growth will impact future parking conditions at MJC East and MJC West. In an attempt to illustrate parking condition changes at each campus over time, the forecasted FTES growth was compared with student parking space counts and applied to the below graph.

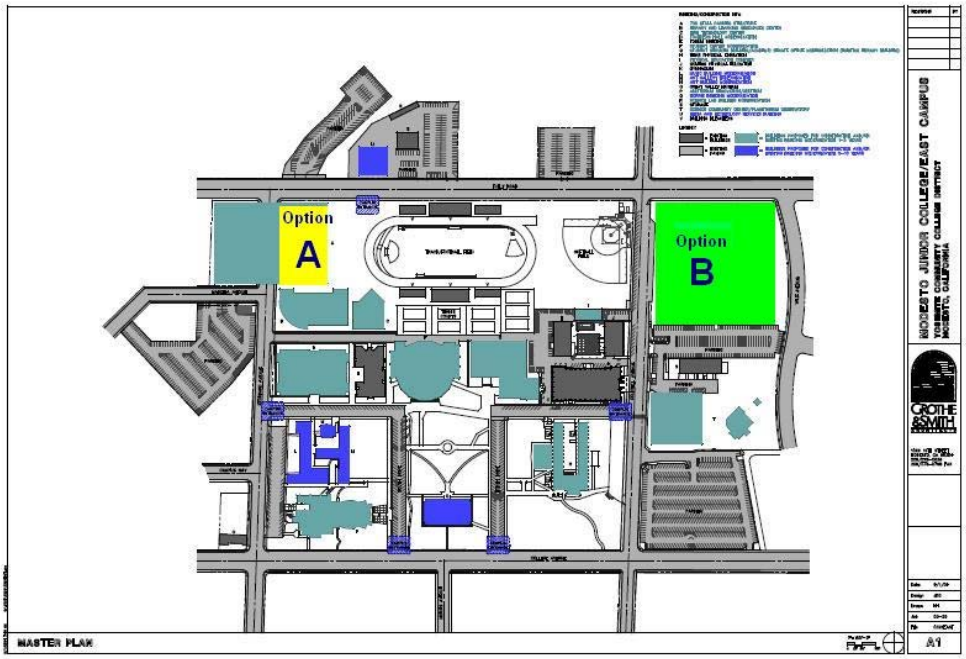
With no change to current student parking counts, parking conditions at MJC East would worsen by ½ FTES per space by the year 2012. In the same time frame, MJC West would approach similar parking conditions that MJC East is currently experiencing.

It is apparent that the most crucial need to improve parking conditions exists at MJC East. Reasonable growth forecasts reveal that parking conditions at MJC West will also need to be addressed by the year 2012 or sooner.



Options for Consideration

Recognizing the pressing parking need resides on MJC East Campus, two viable options emerge. Option A will study adding a parking structure in place of existing surface parking lot(s) at the Southwest corner of MJC East. Option B will study relocating the existing baseball field at the Northwest corner of MJC East to MJC West and installing a surface parking lot in its place. Both options are illustrated below.



Options not Considered

An option to create additional parking by demolishing the Champion buildings across Tully Road was weighed. This option would generate 86 new parking spaces; however, the cost of demolition would challenge the financial feasibility for a relatively few new spaces. This option would also add pedestrian traffic across Tully Road, creating a higher probability of accidents. Due to the above reasoning, this option was eliminated from further study. No other on-campus options appear feasible without eliminating existing structures or green spaces on campus.

Off-campus options could include purchasing additional property from adjacent landowners. This option could be viable depending upon available land to purchase. Joint use with the City of Modesto is also a potential option; however, MJC East is too far from downtown to fulfill the City's greatest need for added parking.

Safety/Security Considerations

The security and safety of staff, students, visitors and their property must be a major consideration in determining the appropriate option to implement. Historical data of incidents in MJC parking lots as well as parking structures in Modesto was used to gauge relative safety/security of surface parking versus parking structures.

A three-year history of incidents on MJC parking lots reveals an average of 38 incidents occur per year that would threaten the safety or security of persons and their property. The City of Modesto supplied incident data for the same time period for the parking structures at 1025 11th Street (Brenden Theaters) and 1101/1150 9th street (Double Tree). This data reveals an average of 42 incidents occurred annually in those two parking structures. Comparing the number of incidents to the number of parking spaces, one incident occurred every 100 parking spaces each year at MJC parking lots while three incidents occurred every 100 parking spaces in City of Modesto parking structures.

Description	Parking Space Quantity*	Average Annual Incidents**	Incidents per 100 Spaces
MJC Parking Lots	3,667	38	1
City Parking Structures	1,504	42	3

* Parking space quantities supplied by MJC Campus Security Department and the City of Modesto

** Incident data was supplied by MJC Campus Security Department and the City of Modesto. 2002, 2003 and 2004 data was used in calculation. Categories of incidents that don't pose a threat to the safety or security of persons and their property were excluded from consideration.

The above comparison of incidents to parking spaces suggests surface parking is safer and more secure than parking structures. This may not be a representative sample of surface parking incidents versus parking structure incidents upon which conclusions should be drawn.

Expandability

Future expansion of parking on campus can be accomplished whether Option A or Option B is chosen.

If Option A is chosen, expansion can be accomplished by adding additional levels to the Option A parking structure. If Option B is chosen, expansion would be accomplished by adding parking structures to any of the parking lots.

Campus Circulation

Implementing Option B would introduce a significant amount of parking to the Northwest corner of MJC East. This would have benefits in giving students, staff and visitors more parking options at the primary access points to campus. This option would also provide substantial parking for sporting events at the gymnasium, football, softball and fields. However, Option B would create significant pedestrian traffic across Coldwell Avenue creating additional risk of accidents as well as inconvenience to pedestrians and motorists. For this reason, Option B includes additional signalization of Coldwell Avenue.

Adding more parking to the Southwest corner of MJC East through implementation of Option A would enhance accessibility to the core academic and student support facilities, which will improve overall campus circulation. If adjacency to core academic and service facilities such as Founders Hall, the Student Center and the Library is a primary goal, then Option A will better serve MJC East.

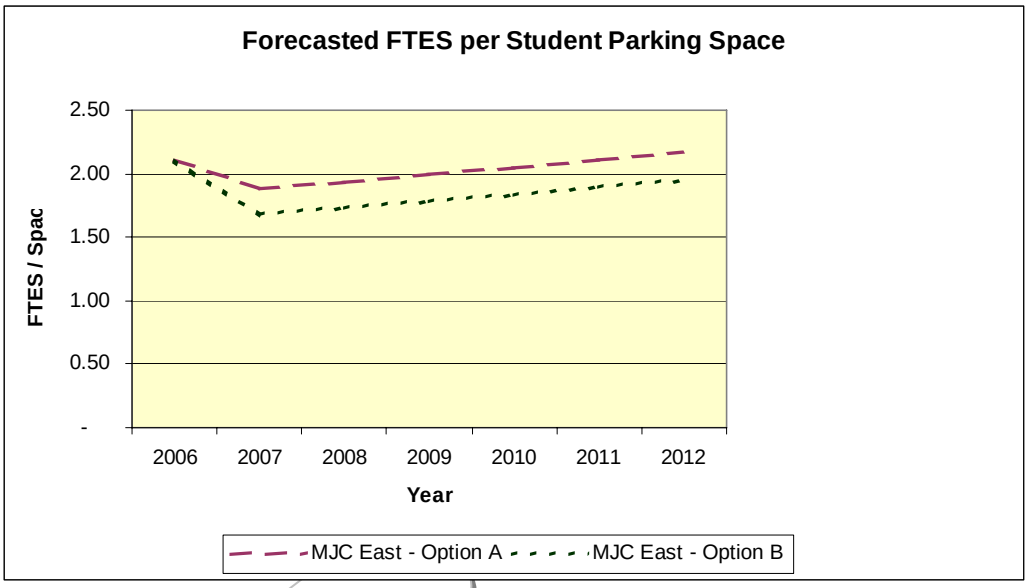
Comparison of Options

Option A will add 470 parking spaces for a project cost of $11,984,421. Option B will add 544 parking spaces for a project cost of $8,630,716.

Both options would accompany other costs as well. Option A would be installed on an existing parking lot resulting in displacement of approximately 180 existing parking spaces.

Option B would result in the displacement of the baseball field adding to land consumption at MJC West and potentially fracturing the athletic program. Option B could also negatively impact the aesthetics of the Northwest corner of the campus.

The below graph illustrates that neither Option A nor Option B would completely alleviate parking congestion at MJC East. Option B would have the largest initial impact, but would effectively just offset forecasted growth through 2012.



Recommendations

Compelling reasoning exists to implement either Option A or Option B. Option A places a large concentration of parking at a location on campus that will best serve the academic needs of students and faculty and complies with the Measure 'E' bond language. Option B will yield the most parking spaces for the budget allowance and statistics suggest is a safer and more secure option.

Selection of the most appropriate option depends upon the District's priorities, legal considerations and political considerations.

To help facilitate the process through which the best parking option will ultimately be chosen, it is recommended the following actions be taken:

1. Prioritize the relative importance of adjacency & circulation, safety & security and cost per added parking space.
2. Test the legal and political implications of departing from the parking structure concept as defined in the Measure 'E' bond campaign.
3. Consider the implications of moving the baseball field away from the core physical education facilities.
4. Consider land consumption implication of relocating the baseball field to MJC West.

It is also recommended that a long term parking strategies be implemented for both MJC West and MJC East. Data suggests parking congestion issues will exist at both campuses within the next 5 to 7 years even with the implementation of the initial parking project.

OPTION A – PARKING STRUCTURE

Description

Option A studies the additional parking space yield, project cost, benefits and drawbacks of installing a parking structure where surface parking currently exists at the Southwest corner of MJC East.

Data

New Parking Spaces Added:	470
Less Existing Parking Spaces Decommissioned:	180
Net Parking Space Yield:	290
Total Project Cost (see estimate):	$11,984,421

Benefits

1. The Southwest corner of the campus is an ideal location for a heavy concentration of parking because of close proximity to student services and academic buildings.

Drawbacks

1. This is an expensive means of creating additional parking.
2. Due to current cost projections, the feasible number of parking spaces for a $12 million project budget will be much less than the planned 730-space parking structure.
3. The parking structure construction operation would create a significant parking shortage during the construction operation.

Assumptions

1. Start of construction is projected at June 1, 2006.
2. Escalation calculations are based on 5% annual increase.
3. Option A estimate is conceptual for budgeting purposes only. Unit prices are based on current estimates on similar projects in the Central San Joaquin Valley.
4. Due to reduction in quantity of parking spaces compared with the planned 730-space structure spanning Stoddard Avenue, the estimate assumes the parking structure to be located on the Northeast corner of Tully Rd. & Stoddard Ave. with no span over Stoddard Ave.

Option A Estimate

Item Description	Unit	Unit Price	Quantity	Total
Hard Construction Costs				
Relocate Underground Utilities	Allowance	50,000.00	1	50,000
Remove Existing Light Poles & Trees	Allowance	10,000.00	1	10,000
Demolition: Site, Paving, Sidewalks & Curbs	Allowance	30,000.00	1	30,000
Scarify, Overexcavate, Recompact, Grade Site	Cy	28.00	7,200	201,600
Sidewalks/Drive Approaches	Sf	8.00	4,100	32,800
Curb & Gutter	Lf	25.00	510	12,750
Asphalt Paving	Sy	25.00	120	3,000
Landscape/Irrigation	Sf	8.00	9,000	72,000
Precast Parking Structure	Space	13,000.00	470	6,110,000
Sub-Total Construction Costs w/o Mark-ups				6,522,150
GCs, O/H&P & Estimating Contingency (25%)				1,630,538
Sub-Total Construction Costs				8,152,688
Escalation at 5% per year to 6/1/06				407,634
Total Bid-Day Construction Cost				8,560,322
Construction Contingency (5% of Bid-Day Cost)				428,016
Total Hard Construction Cost				8,988,338
Soft Costs (25% of Total Project Cost)				2,996,083
Total Project Cost				11,984,421

OPTION B – SURFACE PARKING

Description

Option B studies the additional parking space yield, project cost, benefits and drawbacks of installing a surface parking lot where the baseball field currently exists at the Northwest corner of MJC East. This Option also includes relocation of the baseball field to MJC West, addition of a home/visitor locker building at MJC West and added signalization of Coldwell Avenue to alleviate dangers from heavy pedestrian traffic crossing the street from the parking lots to classrooms.

Data

New Parking Spaces Added:	544
Less Existing Parking Spaces Decommissioned:	0
Net Parking Space Yield:	544
Total Project Cost (see estimate):	$8,630,716

Benefits

1. Because parking under this option can be accomplished relatively inexpensively, other enhancements such as baseball locker rooms and road closures can be added within the project budget.
2. From a campus-wide standpoint, addition of parking at the Northwest corner combined with existing parking at the Northeast and Southwest corners would enhance the adjacency of parking to athletic and academic facilities.
3. The Northwest parking lot would be convenient to the larger assembly areas such as the Gymnasium, softball field and football field.

Drawbacks

1. The MJC East parking project was not originally proposed as a parking lot in lieu of a baseball field to the voters during the Measure 'E' bond campaign. Potential legal and political ramifications would need to be explored before implementing this option.
2. A large parking lot in lieu of a baseball field could negatively impact the aesthetics of the Northwest corner of the campus.
3. Introducing a large concentration of traffic to Tully Road and Coldwell Avenue may negatively impact traffic congestion at this location. A thorough traffic study is recommended.
4. Introducing a large concentration of pedestrian traffic across Coldwell Avenue will necessitate measures such as signalization to prevent accidents.
5. Moving the baseball field to MJC West would result in this facility being split from the core MJC East physical education facilities.

Assumptions

1. Start of construction is projected at June 1, 2006.
2. Escalation calculations are based on 5% annual increase.
5. Option B estimate is conceptual for budgeting purposes only. Unit prices are based on current estimates on similar projects in the Central San Joaquin Valley.
3. The specific location of the baseball field at MJC West is not known at this time. If a location requiring demolition of existing improvements is chosen, additional costs of this activity will need to be taken into account.

Option B Estimate

Item Description	Unit	Unit Price	Quantity	Total
Hard Construction Costs				
Relocate/Upgrade U.G. Utilities - MJC East	Allowance	300,000.00	1	300,000
MJC East Baseball Field Demolition	Allowance	30,000.00	1	30,000
Scarify, Recompact, & Grade Site - MJC East	Cy	28.00	11,100	310,800
Sidewalks/Drive Approaches - MJC East	Sf	8.00	7,000	56,000
Curb & Gutter - MJC East	Lf	25.00	2,000	50,000
Curb - MJC East	Lf	15.00	5,000	75,000
Asphalt Paving - MJC East	Sy	25.00	16,700	417,500
Parking Lot Striping - MJC East	Lf	1.20	15,000	18,000
Parking Lot Lighting - MJC East	Allowance	400,000.00	1	400,000
Parking Lot Island Landscape/Irrig. - MJC East	Allowance	250,000.00	1	250,000
Coldwell Ave. Signalization	Allowance	400,000.00	1	400,000
Clear & Grub - MJC West	Allowance	30,000.00	1	30,000
Scarify, Recompact, & Grade Site - MJC West	Cy	27.00	11,100	299,700
New Sports Irrigation & Grass - MJC West	Sf	3.00	150,000	450,000
Field Sports Clay - MJC West	Sf	5.00	2,500	12,500
Sports Lighting - MJC West	Allowance	300,000.00	1	300,000
Backstop/Dougouts - MJC West	Allowance	50,000.00	1	50,000
Fencing - MJC West	Lf	5.00	1,500	7,500
Concrete Walkways - MJC west	Sf	8.00	5,000	40,000
New Home/Visitors Locker Building - MJC West	Sf	4,000.00	300	1,200,000
Sub-Total Construction Costs w/o Mark-ups				4,697,000
GCs, O/H&P & Estimating Contingency (25%)				1,174,250
Sub-Total Construction Costs				5,871,250
Escalation at 5% per year to 6/1/06				293,563
Total Bid-Day Construction Cost				6,164,813
Construction Contingency (5% of Bid-Day Cost)				308,241
Total Hard Construction Cost				6,473,053
Soft Costs (25% of Total Project Cost)				2,157,663
Total Project Cost				8,630,716