

Subdivider: Taylor Morrison of California, LLC

Project Name: District 2

File No. : 100.01.230.1 \*12  
Private Job Account No.: 2825  
Improvement Plan No.: 2-1165  
Tract Nos: 10141, 10145, 10148 & 10149  
Council Approval Date:  
Completion Period: 3 years

**CITY OF MILPITAS**  
**SUBDIVISION IMPROVEMENT AGREEMENT**

THIS AGREEMENT, executed this \_\_\_\_ day of \_\_\_\_\_ 2013, at Milpitas, California, by and between the CITY OF MILPITAS, a municipal corporation of the State of California, (hereafter referred to as “City”) and

**Taylor Morrison, LLC, a California Limited Liability Company** (hereafter referred to as “SUBDIVIDER”):

**RECITALS**

- A. SUBDIVIDER desires to develop certain land in the CITY in accordance with final maps filed with the Milpitas City Council, marked and designated Tract Nos. 10141, 10145, 10148, and 10149 (Taylor Morrison, LLC)
- B. Said map shows certain streets and easements which are offered for dedication for public use.

NOW, THEREFORE, in consideration of the mutual covenants terms and conditions herein contained, and for other valuable consideration, the receipt of which is hereby acknowledged, the parties do hereby agree as follows:

- 1. SUBDIVIDER agrees that it will construct at its sole cost and expense, all those certain improvements listed in the **Improvement Plan No. 2-1165 consisting of approximately \_\_\_\_\_ sheets** and specifications, and Penitencia Creek Trail Improvements Plans approved by said City Council on \_\_\_\_\_, including setting survey monuments and identified by Project/Agency Fund Account No. 2825 (hereby referred to and made a part hereof the same as if set forth at length herein), and as set fourth in the conditions of approval for the SUBDIVIDER.
- 2. No improvement work shall be undertaken by SUBDIVIDER until all plans and specifications have been submitted to the City Engineer and have been approved by him/her in writing nor shall any change be made in said plans and specifications or in the work of improvement to be done under them without the prior written approval of CITY.
- 3. SUBDIVIDER agrees that said improvements will be constructed under and subject to the inspection of and to the satisfaction of the CITY.
- 4. SUBDIVIDER agrees that it will construct said improvements in accordance with the requirements set forth in said “Improvement Plans and Specifications” referred to above, all applicable local, state, and federal codes, ordinances, resolutions and orders of CITY enacted or adopted by said City Council as amended or revised as of the date hereof, and governing statutes of the State of California or of the United States of America.

5. SUBDIVIDER agrees that it will carry out and shall cause its contractors to carry out construction of the said improvements in conformity with all applicable laws and regulations, including without limitation, all applicable federal and state labor laws and standards. To the extent applicable to, **Taylor Morrison, LLC** and its subcontractors and agents, shall comply with California Labor Code Section 1720 et seq. and regulations adopted pursuant thereto ("**Prevailing Wage Laws**") and shall be responsible for carrying out the requirements of such provisions.

SUBDIVIDER shall, and hereby agrees to indemnify, defend (with counsel approved by City/Agency), protect and hold harmless the Indemnitees from and against any and all Claims whether known or unknown, and which directly or indirectly, in whole or in part, are caused by, arise from, or relate to, or are alleged to be caused by, arise from, or relate to, the payment or requirement of payment of prevailing wages, the failure to comply with any state or federal labor laws, regulations or standards in connection with this Agreement, including but not limited to the Prevailing Wage Laws, or any act or omission of Agency, City or Developer related to this Agreement with respect to the payment or requirement of payment of prevailing wages, whether or not any insurance policies shall have been determined to be applicable to any such Claims. It is further agreed that Agency and City do not, and shall not, waive any rights against Developer which they may have by reason of this indemnity and hold harmless agreement because of the acceptance by Agency or City, or Developer's deposit with Agency of any of the insurance policies described in this Agreement.

6. All said improvements shall be completed and ready for final inspection by the CITY **within 36 months of the date of execution of this Agreement**. If SUBDIVIDER shall fail to complete the work required by this Agreement within same time, CITY may, at its option, and after giving ten (10) days written notice thereof to SUBDIVIDER, complete the same and recover the full cost and expense thereof from SUBDIVIDER.
7. Upon the execution of this Agreement, SUBDIVIDER shall file and submit security to CITY as obligee in the penal sum of **Three million three hundred thousand DOLLARS (\$3,300,000.00)** for **public improvements 2-1165 and the Penitencia Creek Trail Improvements**, conditioned upon the full and faithful performance of each of the terms, covenants, and conditions of this Agreement and conditioned upon the full and faithful performance of any and all public improvement work required hereunder.
8. In the event that SUBDIVIDER fails to perform any obligation on its part to be performed hereunder, SUBDIVIDER agrees to pay all costs and expenses incurred by CITY in securing performance of such obligation, and if suit be brought by CITY to enforce this Agreement, SUBDIVIDER, agrees to pay costs of suit and reasonable attorney's fees to be fixed by the Court.
9. Upon the execution of this Agreement, SUBDIVIDER shall file and submit security to CITY, as obligee, in the penal sum of **Three million three hundred thousand DOLLARS (\$3,300,000.00)** for **public improvements 2-1165 and the Penitencia Creek Trail Improvements**, inuring to the benefit of any contractor, his subcontractors and to persons renting equipment or furnishing labor or materials to them for the cost of labor and materials furnished in connection with any and all improvement work required hereunder.
10. SUBDIVIDER agrees to pay all costs for labor or materials in connection with the work of improvement hereunder.
11. Any faithful performance security required hereunder shall be reduced to 10% of the security's original value for one year after the date of final completion and initial acceptance of said work to fulfill the one-year maintenance guarantee period for said improvements.
12. Prior to commencing any work, SUBDIVIDER, agrees to obtain an Encroachment Permit from the Engineering Division and at SUBDIVIDER's expense, provide CITY with a duplicate public general

liability and automobile liability insurance policy with endorsements showing the CITY as additional insured which insures CITY, its officers and employees against liability for injuries to persons or property (with minimum coverage of \$1,000,000 for each person and \$1,000,000 for each occurrence and \$1,000,000 for property damage for each occurrence) in connection with work performed by, for or on behalf of SUBDIVIDER. Said Policy shall: (a) be issued by an insurance company authorized to transact business in the State of California; (b) be written on the Standard California Comprehensive General Liability Policy Form which includes, but not limited to property damage, and bodily injury; (c) be written on an occurrence basis; (d) require thirty (30) days prior written notice to CITY of cancellation or coverage reduction; (e) provide that it is full primary coverage so that if said CITY, its officers and employees have other insurance covered by said policy, said other insurance shall be excess insurance; (f) provide that said CITY; its officers and employees shall not be precluded from claim against other insured parties thereunder; (g) be maintained in effect until final acceptance of SUBDIVIDER's improvements. If SUBDIVIDER does not comply with the provisions of this paragraph, City may (at its election and in addition to other legal remedies) take out the necessary insurance, and SUBDIVIDER shall forthwith repay City the premium therefor.

13. SUBDIVIDER agrees that any general contractor engaged by the SUBDIVIDER for any work of improvement under this Agreement will have:

a) In full force and effect, a Worker's Compensation Insurance as shown by a Certificate of Worker's Compensation Insurance issued by an admitted insurer. Said Certificate shall state that there is in existence a valid policy of Worker's Compensation Insurance in a form approved by the California Insurance Commissioner. The certificate shall show the expiration date of the policy, that the full deposit premium on the policy has been paid and that the insurer will give CITY at least thirty (30) days prior written notice of the cancellation or coverage reduction of the policy.

or

b) In full force and effect, a Certificate of Consent to Self-Insure issued by the Director of Industrial Relations and certified by him to be current, together with a Declaration under penalty of perjury in a form satisfactory to the City Attorney that said Certificate is in full force and effect and that the SUBDIVIDER or its general contractor shall immediately notify the CITY in writing in the event of its cancellation or coverage reduction at any time prior to the completion of all work of improvement.

14. SUBDIVIDER agrees to indemnify and save harmless CITY, City Council, City Engineer or any other officer or employee of CITY from any and all costs, expenses, claims, liabilities or damages, known or unknown, to persons or property heretofore or hereafter arising out of or in any way connected with the act, omission or negligence of SUBDIVIDER, its officers, agents, employees, contractors or subcontractors or any officer, agent or employee thereof.

15. SUBDIVIDER agrees to comply with all special conditions and notes of approval for this development, pay all fees, and costs and expenses incurred by CITY in connection with said subdivision (including, but not limited to: office check of maps and improvement plans, field checking, staking and inspection of street monuments, construction water, wet taps, testing and inspection of improvement). SUBDIVIDER shall maintain Project/Private Job Account No. 3222 for this purpose with additional deposits as required by CITY.

A. Fees to be paid upon execution of this agreement are as follows:

	Type of Fees and Deposits	City Account No.	Calculated Fee
1	Plan Review, Map Review and Inspection Deposit (10% of Engineers Estimate)	P2825-13-2500	\$330,000.00
2	Improvement Reimbursement Fee	310-3614-xx70	N/A
3	Other Fees/Deposits	xxxx-xx-xxx	N/A
		<b>Total =</b>	<b>\$330,000.00</b>

B. Fees to be paid at the time of building permit issuance:

	Type of Fee	City Account No.	Calculated Fee
1	Water Connection Fee: <i>(based on 200 units @ \$1,164 per unit, with \$14,328/AC credit for previous use)</i>	402-3715	\$94,105.00
2	Potable Water Meter Fee	400-3662	TBD
3	Water System Capacity Impact Fee (Fee is as of July 2012, and shall be adjusted per ENR Cost Index at time of payment)	402-3718	N/A
4	Recycled Water Meter Fee	406-3622	TBD
5	Sewer Connection Fee <i>(based on 200 units @ \$1,406 per unit, with \$20,448/AC credit for previous use)</i>	452-3715	\$83,263.00
6	Sewage Capacity Impact Fee (Fee is as of July 2012, and shall be adjusted per ENR Cost Index at time of payment)	452-3718	N/A
7	Main Sewage Pumping Station Impact Fee	455-3718	N/A
8	Storm Drain Connection Fee <i>(based on 9.68 acres @ \$21,562 per acre)</i>	340-3711	\$208,720.00
9	Transit Area Specific Plan I mpact Fees <i>(200 units @ \$29,012 per unit)</i>	350-3718	\$5,802,400.00
10	Park site Fee 1. Park Dedication In-Lieu Fee 2. PUD Park Fee	320-3712	N/A
11	Permit Automation Fee (2.5% of B1-B10)	505-3601	\$154,712.00
		<b>Total =</b>	<b>\$6,343,200.00</b>

C. Estimated Credits and/or Reimbursements due to SUBDIVIDER:

	TASP Credits	Initial "Budgeted" Credit
1	Not Applicable	\$0.00
	<b>Total =</b>	<b>\$0.00</b>

16. Upon completion of the work and before City Initial Acceptance of the work thereof, SUBDIVIDER shall provide the City a complete original mylar of "Record Drawing" showing all the changes from the original plan.
17. Upon completion of the work, and before City Council final acceptance thereof, SUBDIVIDER shall be billed for and pay or shall be refunded the difference between the amount of said costs and expenses in each instance and the amount of said remittance.
18. Any easement or right-of-way necessary for the completion of any of the improvements required of SUBDIVIDER shall be acquired by SUBDIVIDER at its sole cost and expense. In the event that eminent domain proceedings are necessary for the acquisition of any easement or right-of-way, SUBDIVIDER

agrees that he will pay all engineering fees and costs, legal fees and costs, and other incidental costs sustained by CITY in connection with said eminent domain proceedings and any condemnation award and damages (including all costs awarded in said eminent domain proceedings). SUBDIVIDER further agrees that prior to the institution of any eminent domain proceedings and upon ten (10) days written notice from CITY. SUBDIVIDER will deposit such sums as are determined by City Council to be necessary to defray said fees, costs, awards, and damages.

19. CITY will accept on behalf of the public, the dedication of the streets, and easements offered for dedication, and will supply water for sale to and within said subdivision, provided however, that as a condition precedent to said initial acceptance and to supplying water, SUBDIVIDER shall perform the covenants, terms and conditions of this Agreement.
20. SUBDIVIDER hereby irrevocably offers to convey title of the water mains and lines, and appurtenances constructed in or for said subdivision to CITY. Upon final acceptance of said improvements by CITY, said title will be deemed to be accepted by CITY in the event that title has not previously passed to CITY by operation by law.
21. SUBDIVIDER agrees to comply with all requirements set forth on Exhibit "A" (attached hereto, hereby referred to and made a part hereof).
22. This Agreement shall be deemed to include any final conditions imposed by CITY upon the approval of the tentative and final maps related to public improvements of said subdivision.
23. SUBDIVIDER agrees that, upon ten (10) days written notice from CITY, it will immediately remedy, restore, repair or replace, at its sole expense and to the satisfaction of City Engineer, all defects, damages or imperfections due to or arising from faulty materials or workmanship appearing within a period of one-year after the date of initial acceptance of all said improvements. If SUBDIVIDER shall fail to remedy, restore, repair, or replace said defects, damages or imperfections as herein required, CITY may at its option, do so and recover the full cost and expense thereof from SUBDIVIDER.
24. This Agreement shall bind the heirs, administrators, executors, successors, assigns and transferees of SUBDIVIDER. It is agreed and understood that the covenants in this Agreement shall run with the land and are for the benefit of the other lands in the CITY OF MILPITAS, and are made by SUBDIVIDER expressly, its heirs, administrators, executors, successors, assigns and transferees and to the CITY, its successors and assigns.
25. Nothing contained in this Agreement shall be construed to be a waiver, release or extension of any provision heretofore required by ordinance, resolution or order of the City Council of the CITY.
26. Time shall be of the essence of this Agreement. All covenants herein contained shall be deemed to be conditions. The singular shall include the plural; the masculine gender shall include the feminine and neuter gender. All comments presented by SUBDIVIDER hereunder shall be subject to approval of the City Attorney as to form.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, the day and year first above written.

\*Signed and Sealed this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

CITY OF MILPITAS

SUBDIVIDER:

Taylor Morrison, LLC

By: \_\_\_\_\_

Thomas C. Williams, City Manager

By: Taylor Morrison, LLC, a California Limited Liability Company

\*\*By: \_\_\_\_\_  
Name: Jay Pawlek  
Title: Vice President of Land

APPROVED AS TO FORM THIS

\_\_\_\_\_ day of \_\_\_\_\_, 2013

By: \_\_\_\_\_  
Michael J. Ogaz, City Attorney

APPROVED AS TO SUFFICIENCY THIS

\_\_\_\_\_ day of \_\_\_\_\_, 2013

By: \_\_\_\_\_  
Keyvan Irannejad, Chief Building Official

\* Date should be same as date on Page 1 of 6.

\*\* It is essential that the signatures be acknowledged before a California Notary Public and attach proper acknowledgment.

## **EXHIBIT "A"**

1. The Subdivider agrees to complete necessary Water Service Agreements, and pay the connection fees prior to Building Permit issuance.
2. The Subdivider agrees to complete the construction of all public improvements and settings of all Survey Monuments before the City issuance of the Occupancy Permit/Final Inspection of the last residential building.
3. The Subdivider agrees to execute a petition to annex and establish, with respect to the property, the Special taxes levied by a Community Facility District 2008-1 (CFD 2008-1) for the purpose of maintaining the public services, upon execution of this Agreement.
4. The Subdivider agrees to enter into an encroachment permit agreement with the City for future maintenance of private improvements within the public right of way or public service utilities easement.
5. The subdivider agrees to pay the City 2.5% Permit Automation Fee for the applicable fees.
6. The Subdivider agrees to comply with the special conditions and notes of approval for this Subdivision.

**CITY OF MILPITAS  
FAITHFUL PERFORMANCE BOND**

WHEREAS, the Principal has entered into a contract with the City of Milpitas to perform the following work, to wit: \_\_\_\_\_

WHEREAS, said contract (and any City approved plans and specifications in connection therewith) is hereby referred to and made a part hereof, with like force an effect as it herein at length set forth:

NOW, THEREFORE, we the Principal and \_\_\_\_\_, as surety, are held and firmly bound unto the City of Milpitas, California, in the penal sum of **Three million three hundred thousand DOLLARS (\$3,300,000.00)** lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, successors, executors and administrators, jointly and severally, firmly by these presents.

The condition of this obligation is such that if the above bonded principal, it heirs, executors, administrators, successors or assigns, shall well and truly keep and perform the covenants, conditions, and provisions in said agreement and any alteration thereof on his or their part, to be kept and performed, at the time and in the manner therein specified, and shall indemnify and save harmless the City of Milpitas, its officers, agents and employees as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

As part of the obligation secured hereby and in addition to the face amount specified therefor, there shall be included costs and reasonable expenses and fees, including reasonable attorney's fees, incurred by City in successfully enforcing such obligation, all to be taxed as costs and included in any judgment rendered.

The surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the agreement or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition.

IN WITNESS WHEREOF, this instrument has been duly executed by the principal and surety above named on \_\_\_\_\_, 2013.

NOTE: BE SURE BOND DATE DOES NOT PRE-DATE CONTRACT.

SUBDIVIDER: \_\_\_\_\_

SURETY: \_\_\_\_\_

BY: \_\_\_\_\_  
(write name)

BY: \_\_\_\_\_  
(write name)

BY: \_\_\_\_\_  
(type name and office)

BY: \_\_\_\_\_  
(type name and office)

Address of Surety: \_\_\_\_\_  
\_\_\_\_\_

**VERIFICATION**

I declare under the penalty of perjury that I have authority to execute this bond on behalf of the above-named surety.

Executed at \_\_\_\_\_, California, on the \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Type Name)

Address: \_\_\_\_\_  
\_\_\_\_\_

Subscribed and sworn to before me, a )  
Notary Public, this \_\_\_\_\_ day of )  
\_\_\_\_\_, 2013. )  
)  
)  
)  
)  
)

**THIS JURAT MUST BE COMPLETED  
BY A NOTARY IF THE VERIFICATION  
IS EXECUTED OUTSIDE OF CALIFORNIA**

\_\_\_\_\_  
(Sign)

\_\_\_\_\_  
(Type)

**ACKNOWLEDGMENT**

NOTE: A Notary acknowledgment must be completed for signatures of both principal and surety. Use correct form.  
A power of attorney is not enough.

Form Approved:  
\_\_\_\_\_

**CITY OF MILPITAS  
LABOR AND MATERIALS BOND**

WHEREAS, the Principal has entered into a contract with the City of Milpitas to perform the following work, to wit:

WHEREAS, said contract (and any City approved plans and specifications in connection therewith) is hereby referred to and made a part hereof, with like force and effect as it herein at length set forth:

NOW, THEREFORE, said Principal and the undersigned as corporate surety, their heirs, successors, executors and administrators, are held firmly bound, jointly and severally, unto the City of Milpitas California, and all contractors, subcontractors, laborers, materialmen, and other persons employed in the performance of the aforesaid agreement in the sum of **Three million three hundred thousand DOLLARS (\$3,300,000.00)**, for materials furnished or labor thereon of any kind, or for amounts due under the Unemployment Insurance Act with respect to such work or labor, that said surety will pay the same in an amount not exceeding the amount hereinabove set forth, and also in case suit is brought upon this bond, will pay, in addition to the fact amount thereof, costs and reasonable expenses and fees, including reasonable attorney's fees, incurred by City in successfully enforcing such obligation, to be awarded and fixed by the Court, and to be taxed as costs and to be included in the judgment therein rendered.

It is hereby expressly stipulated and agreed that this bond shall inure to the benefit of any and all persons, companies and corporations entitled to file claims under Title 15 (commencing with Section 3082) of Part 4 of Division 3 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

Should the condition of this bond be fully performed, then this obligation shall become null and void, otherwise it shall be and remain in full force and effect.

The surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of said agreement or to the work to be performed thereunder or the specifications accompanying the same shall in any manner affect its obligations on this bond, and it does hereby waive notice of any such change, extension, alteration or addition.

IN WITNESS WHEREOF, this instrument has been duly executed by the principal and surety above named on \_\_\_\_\_, 2013.

NOTE: BE SURE BOND DATE DOES NOT PRE-DATE CONTRACT.

SUBDIVIDER: \_\_\_\_\_

SURETY: \_\_\_\_\_

BY: \_\_\_\_\_  
(write name)

BY: \_\_\_\_\_  
(write name)

BY: \_\_\_\_\_  
(type name and office)

BY: \_\_\_\_\_  
(type name and office)

Address of Surety: \_\_\_\_\_

**VERIFICATION**

I declare under the penalty of perjury that I have authority to execute this bond on behalf of the above-named surety.

Executed at \_\_\_\_\_, California, on the \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Type Name)

Address: \_\_\_\_\_

\_\_\_\_\_

Subscribed and sworn to before me, a )  
Notary Public, this \_\_\_\_\_ day of )  
\_\_\_\_\_, 2013. )  
)  
)  
)  
)  
)  
)

**THIS JURAT MUST BE COMPLETED  
BY A NOTARY IF THE VERIFICATION  
IS EXECUTED OUTSIDE OF CALIFORNIA**

\_\_\_\_\_  
(Sign)

\_\_\_\_\_  
(Type)

**ACKNOWLEDGMENT**

NOTE: A Notary acknowledgment must be completed for signatures of both principal and surety. Use correct form.  
A power of attorney is not enough.

Form Approved:

\_\_\_\_\_

Principal: Taylor Morrison of California, LLC  
Project Name: District 2

Project No. PJ2825  
Bond No. \_\_\_\_\_

**CITY OF MILPITAS  
SURVEY MONUMENTATION BOND**

WHEREAS, the Principal has entered into a contract with the City of Milpitas to install and complete certain designated public improvements, including setting of survey monuments by an engineer or surveyor prior to a certain date.

WHEREAS, said contract (and any City approved plans and specifications in connection therewith) is hereby referred to and made a part hereof, with like force an effect as it herein at length set forth:

NOW, THEREFORE, we the Principal and \_\_\_\_\_, as surety, are held and firmly bound unto the City of Milpitas, California, and that Engineer or Surveyor, who set said survey monuments in the penal sum of **Twenty five thousand Dollars (\$25,000.00)**, lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, successors, executors and administrators, jointly and severally, firmly by these presents.

The condition of this obligation is such that if the above bonded principal, it heirs, executors, administrators, successors or assigns, shall well and truly keep and perform the covenants, conditions, and provisions in said agreement and any alteration thereof on his or their part, to be kept and performed, at the time and in the manner therein specified, and shall indemnify and save harmless the City of Milpitas, its officers, agents and employees as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect.

As part of the obligation secured hereby and in addition to the face amount specified therefor, there shall be included costs and reasonable expenses and fees, including reasonable attorney's fees, incurred by City in successfully enforcing such obligation, all to be taxed as costs and included in any judgment rendered.

The surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the agreement or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition.

IN WITNESS WHEREOF, this instrument has been duly executed by the principal and surety above named on \_\_\_\_\_, 2013.

NOTE: BE SURE BOND DATE DOES NOT PRE-DATE CONTRACT.

SUBDIVIDER: \_\_\_\_\_

SURETY: \_\_\_\_\_

BY: \_\_\_\_\_  
(write name)

BY: \_\_\_\_\_  
(write name)

BY: \_\_\_\_\_  
(type name and office)

BY: \_\_\_\_\_  
(type name and office)

Address of Surety: \_\_\_\_\_

**VERIFICATION**

I declare under the penalty of perjury that I have authority to execute this bond on behalf of the above-named surety.

Executed at \_\_\_\_\_, California, on the \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Type Name)

Address: \_\_\_\_\_  
\_\_\_\_\_

Subscribed and sworn to before me, a )  
Notary Public, this \_\_\_\_\_ day of )  
\_\_\_\_\_, 2013. )

THIS JURAT MUST BE COMPLETED  
) BY A NOTARY IF THE VERIFICATION  
) IS EXECUTED OUTSIDE OF CALIFORNIA  
)  
)

\_\_\_\_\_  
(Sign)

\_\_\_\_\_  
(Type)

**ACKNOWLEDGMENT**

NOTE: A Notary acknowledgment must be completed for signatures of both principal and surety. Use correct form.  
A power of attorney is not enough.

Form Approved:

\_\_\_\_\_

**CITY OF MILPITAS**

**CERTIFICATE RELATING TO WORKER'S COMPENSATION  
INSURANCE PURSUANT TO LABOR CODE SECTION 3800**

(Subdivision)

I, THE UNDERSIGNED, HEREBY CERTIFY that at all times during the performance of any work of improvement under agreement with the City of Milpitas. (Check one of the following):

Any general contractor engaged by me for said work will have in full force and effect Worker's Compensation Insurance pursuant to the attached certificate of Worker's Compensation Insurance issued by an admitted insurer. Said Certificate shall state that there is in existence a valid policy of Worker's Compensation Insurance in a form approved by the California Insurance Commissioner. The certificate shall show the expiration date of the policy, that the full deposit premium on the policy has been paid and that the insurer will give City at least ten days advance notice of the cancellation of the policy (an exact copy or duplicate of the Certificate of Worker's Compensation Insurance certified by the Director of Industrial Relations or the insurer may be attached).

Or has in full force and effect and have attached hereto a Certificate of Consent to Self-insure issued by the Director of Industrial Relations or the insurer may be attached).

I declare under penalty of perjury that the foregoing is true and correct and executed on \_\_\_\_\_  
at \_\_\_\_\_.  
(Date) (City)

By: \_\_\_\_\_

\_\_\_\_\_  
Official Title

On behalf of: \_\_\_\_\_  
Contractor

NOTE: YOUR CERTIFICATE OF WORKER'S COMPENSATION INSURANCE MUST BE ATTACHED AND MUST MEET THE REQUIREMENTS SET FORTH ABOVE.

PLEASE NOTE THAT IF YOU HAVE ANYONE WORKING FOR OR WITH YOU, YOU MAY BE REQUIRED TO HAVE WORKER'S COMPENSATION INSURANCE. FOR FURTHER INFORMATION, CONTACT THE OFFICE OF THE DIRECTOR OF INDUSTRIAL RELATIONS.

**CITY OF MILPITAS**  
**CERTIFICATE OF WORKER'S COMPENSATION INSURANCE**

Pursuant to California Labor Code Section 3800, the undersigned Insurer certifies that it is an admitted Worker's Compensation Insurer, that it has issued a valid policy of Worker's Compensation Insurance in a form approved by the California Insurance Commissioner (bearing policy number \_\_\_\_\_) to \_\_\_\_\_ in connection with the above project, title and subdivider. Said policy is now in full force and effect and the full deposit premium has been paid. At least 10 days advance notice of the cancellation of said policy will be given to the City of Milpitas. The expiration date on said policy is \_\_\_\_\_.

Dated: \_\_\_\_\_

\_\_\_\_\_  
INSURANCE COMPANY

Address: \_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
AUTHORIZED REPRESENTATIVE (Signature)

\_\_\_\_\_  
AUTHORIZED REPRESENTATIVE (Type Name)

Address: \_\_\_\_\_  
\_\_\_\_\_

**VERIFICATION**

I declare under the penalty of perjury that I am authorized to sign this Certificate on behalf of the above-named insurer. Executed at \_\_\_\_\_, California, on the \_\_\_\_\_ day of \_\_\_\_\_, 2013. \*\*

\_\_\_\_\_  
Authorized Signatory (Sign)

\_\_\_\_\_  
(Type Name)

SUBSCRIBED AND SWORN TO BEFORE ME, a Notary Public, this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
(Sign)

\_\_\_\_\_  
(Type Name)

**CERTIFICATE OF GENERAL LIABILITY AND AUTOMOBILE LIABILITY INSURANCE**

The undersigned insurance company certifies to the City of Milpitas, California, that it has issued a general public liability insurance policy, policy number \_\_\_\_\_ to \_\_\_\_\_ in connection with a work of improvement generally described as Street and underground improvement on \_\_\_\_\_. The policy names the City of Milpitas, its officers and employees (as additional insured) and insures said City, officers and employees against liability arising out of activities, including but not limited to, coverage for all work performed by or on behalf of permittee, products and completed operations of the permittee; the premises owned, occupied or used by the permittee; or automobiles owned, leased, hired or borrowed by the permittee in the following minimum amounts and for the following periods:

<u>COVERAGE</u>	<u>POLICY NUMBER</u>	<u>POLICY PERIOD</u>	<u>MINIMUM LIMITS OF LIABILITY</u>
(1) Bodily Injury			\$1,000,000 each person ) \$1,000,000 each occurrence )
			)*
(2) Property Damage			\$1,000,000 each occurrence ) \$1,000,000 aggregate )

**This policy provides:** (1) primary coverage for additional insured parties; if said additional insured have other insurance against loss covered by this policy, the other insurance shall be excess insurance only; (2) that said additional insured parties are not precluded from claim under this policy against other insured parties; and (3) each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City Clerk.

_____ Insurance Company  _____ Authorized Signature (Sign)  _____ Authorized Signature (Type)	Address of Signatory:  _____  _____
--	---

\* If project involves less than \$50,000, City will accept \$300,000/\$50,000

**VERIFICATION**

I declare under the penalty of perjury that I am authorized to sign this Certificate on behalf of the above-named insurer. Executed at \_\_\_\_\_, California, on the \_\_\_\_\_ day of \_\_\_\_\_, 2013. \*\*

\_\_\_\_\_  
 Authorized Signatory (Sign)  
  
 \_\_\_\_\_  
 (Type Name)

SUBSCRIBED AND SWORN TO BEFORE ME, a Notary Public, this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
 (Sign) \_\_\_\_\_  
 (Type Name)

\*\* If this certificate is executed outside of California, it must be sworn to before a Notary Public.

FORM APPROVED: \_\_\_\_\_, 2013, by \_\_\_\_\_

Control No 2013-

RECORDING REQUESTED BY AND  
WHEN RECORDED, MAIL TO:

City of Milpitas  
455 East Calaveras Blvd  
Milpitas CA 95035  
Attn: Land Development Section

---

(SPACE ABOVE THIS LINE RESERVED FOR RECORDER'S USE)

APN 086-33-094  
APN 086-33-095  
APN 086-33-098  
APN 086-33-099

**AGREEMENT AFFECTING REAL PROPERTY RELATED TO COVENANT  
AND RESTRICTION OF ON-SITE PRIVATE UTILITIES**

This Agreement Affecting Real Property Related to Covenant and Restriction of On-Site Private Utilities (“Agreement”) is entered into and effective \_\_\_\_\_ (date) by and between *Taylor Morrison, LLC, a California Limited Liability Company* (Developer) and the City of Milpitas (“City”).

**RECITALS:**

A. Pursuant to the Conditions and Notes of Approval for the subject development to have on-site private utilities, the Developer shall ensure that the Developer’s private utilities shall be operated in a manner to the City’s satisfaction for the purposes of compliance with local codes, regional and state requirements.

B. This Agreement is intended to satisfy the aforementioned requirement.

**NOW, THEREFORE**, in consideration of the recitals and mutual obligations expressed herein, the Parties (City and Developer) agree as follows:

**STATEMENT OF AGREEMENT**

1. Taylor Morrison, LLC, a California Limited Liability Company, owner of the District 2 Project located along McCandless Drive just north of Penitencia Creek (the “Project”), agrees to provide on-site private utilities consistent with the requirements of the City, region and state.

**Control No. 2013-**

Recording requested by  
And When recorded mail to:

City of Milpitas  
455 East Calaveras Blvd  
Milpitas CA 95035  
Attn: Land Development Engineer

Record without fee under  
Section 6103 Government Code  
State of California

## **Covenant and Permit for Encroachment Upon City Right-of-Way**

This authorization (“Permit”) is entered into between the City of Milpitas, a municipal corporation (“City”) and **Taylor Morrison, LLC, a California Limited Liability Company**, (“Permittee”).

### RECITALS

- A. Permittee has requested permission from the City to enter upon, use, and construct improvements within certain portions of the City’s right-of-way along the frontage of McCandless Drive in front of Tract Nos. 10141, 10145, 10148, and 10149 as shown on Exhibit “A” (the Encroachment Area).
- B. Permittee’s use of this “Encroachment Area” will be undertaken for the benefit of the Permittee’s property (the “Benefitted Property”) as shown on Exhibit “A” as Tract Nos. 10141, 10145, 10148, and 10149.
- C. Permittee desires to enter upon the Encroachment Area to construct, install, maintain and replace certain improvements (“the Improvements”), described with greater particularity and as shown in Exhibit “A” and Improvement Plans 2-1165. The improvements include curb/gutter, pavement, landscaping and related irrigation, wet and dry utilities, sidewalk and project entry signs located within the City’s right-of-way.
- D. Replacement, operation and maintenance responsibilities of the sewer system (up to sanitary sewer manhole \_\_\_ on sheet \_\_\_ and \_\_\_ of the private improvement plan) belongs to the Permittee.
- E. Replacement, operation and maintenance responsibilities of storm drain system (up to storm drain manhole \_\_\_ on Sheet \_\_\_ and \_\_\_ of the private improvement plan) belongs to the Permittee.
- F. Replacement, operation and maintenance responsibilities of the water system (within the subdivision to master meter(s)) belongs to the Permittee.

**OWNERS' STATEMENT**

WE HEREBY STATE THAT WE ARE THE OWNERS OF OR HAVE SOME RIGHT, TITLE, OR INTEREST IN AND TO THE REAL PROPERTY INCLUDED WITHIN THE SUBDIVISION SHOWN HEREON; THAT WE ARE THE ONLY PERSONS WHOSE CONSENT IS NECESSARY TO PASS A CLEAR TITLE TO SAID REAL PROPERTY; THAT WE CONSENT TO THE MAKING AND FILING OF THIS SUBDIVISION MAP AS SHOWN WITHIN THE DISTINCTIVE BORDER LINE.

THE REAL PROPERTY DESCRIBED BELOW IS DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES TO THE CITY OF MILPITAS FOR OPERATION, ALTERATION, RELOCATION, MAINTENANCE, REPAIR AND REPLACEMENT OF ALL PUBLIC SERVICE FACILITIES AND THEIR APPURTENANCES, OVER, UNDER, ALONG AND ACROSS THE FOLLOWING:

- 1. PARCEL "A", SHOWN AS "NEWBURY STREET", FOR PUBLIC STREET AND PUBLIC UTILITY PURPOSES.
2. EASEMENTS FOR PUBLIC SERVICE AND UTILITY EASEMENT PURPOSES (PSUE).
3. EASEMENTS FOR EMERGENCY VEHICLE ACCESS PURPOSES (EAE).
4. EASEMENTS FOR OVERLAND DRAINAGE RELEASE OF STORM WATER (ODE).
5. EASEMENTS FOR SIDEWALK EASEMENT PURPOSES (SWE).

THE ABOVE MENTIONED EASEMENTS (PSUE), (EAE), (ODE) AND (SWE) SHALL REMAIN OPEN AND FREE FROM BUILDINGS AND STRUCTURES OF ANY KIND EXCEPT UTILITY SERVICE AND UTILITY STRUCTURES, CURBS, SIDEWALKS, APPURTENANCES TO THE ABOVE, AND ALL LAWFUL UNSUPPORTED BUILDING OVERHANGS. UNOBSTRUCTED CONTINUOUS ACCESS SHALL BE MAINTAINED AT ALL TIMES.

WE HEREBY RETAIN FOR THE PRIVATE USE OF THE LOT OWNERS WITHIN THIS SUBDIVISION, THEIR LICENSEES, VISITORS AND TENANTS, WITH MAINTENANCE BY THE HOMEOWNERS ASSOCIATION AS STATED IN THE DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS CREATED FOR "TRACT 10141, MCCANDLESS DISTRICT 2", THE FOLLOWING:

- 1. PARCELS "B", "C", "D", "E", "F", "G", "H", "I", "J", AND "K" FOR PRIVATE STREETS, SHOWN AS "BLEECKER STREET", "BOND STREET", "DRIVE A", "DRIVE B", "DRIVE E1", "DRIVE E2", AND "DRIVE E3".
2. PARCELS "L", "N", AND "O" FOR PRIVATE RECREATION AND PRIVATE OPEN SPACE PURPOSES (POS). SAID PARCELS SHALL REMAIN FREE FROM HABITABLE STRUCTURES.
3. PARCEL "M" FOR PRIVATE SOLID WASTE HANDLING AND MAINTENANCE FACILITIES. SAID PARCEL SHALL REMAIN FREE FROM HABITABLE STRUCTURES.
4. EASEMENTS FOR PRIVATE UTILITY PURPOSES (PRUE), INCLUDING, BUT NOT LIMITED TO, THE CONSTRUCTION AND MAINTENANCE OF CONDUITS FOR STORM DRAINS, SANITARY SEWERS, WATER LINES, SIDEWALKS, AND APPURTENANCES TO ALL THE ABOVE.

SAID EASEMENTS SHALL REMAIN OPEN AND FREE FROM BUILDINGS AND STRUCTURES AND THEIR APPURTENANCES, EXCEPT FOR IRRIGATION SYSTEMS AND THEIR APPURTENANCES, LAWFUL FENCES, WALKWAYS, AND ALL LAWFUL UNSUPPORTED BUILDING OVERHANGS. UNOBSTRUCTED CONTINUOUS ACCESS SHALL BE MAINTAINED AT ALL TIMES.

OWNER: TAYLOR MORRISON OF CALIFORNIA, LLC, A CALIFORNIA LIMITED LIABILITY COMPANY

BY: \_\_\_\_\_ BY: \_\_\_\_\_

NAME: \_\_\_\_\_ NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_ TITLE: \_\_\_\_\_

**OWNER ACKNOWLEDGMENT**

STATE OF CALIFORNIA }
COUNTY OF \_\_\_\_\_ }ss.

ON \_\_\_\_\_, 2013, BEFORE ME, \_\_\_\_\_, NOTARY PUBLIC

PERSONALLY APPEARED \_\_\_\_\_ WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/THEY EXECUTED THE SAME IN HIS/HER/THEIR AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/THEIR SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND.

NOTARY'S SIGNATURE: \_\_\_\_\_
NAME OF NOTARY (PLEASE PRINT): \_\_\_\_\_
PRINCIPAL COUNTY OF BUSINESS: \_\_\_\_\_
MY COMMISSION NUMBER: \_\_\_\_\_
MY COMMISSION EXPIRES: \_\_\_\_\_

**OWNER ACKNOWLEDGMENT**

STATE OF CALIFORNIA }
COUNTY OF \_\_\_\_\_ }ss.

ON \_\_\_\_\_, 2013, BEFORE ME, \_\_\_\_\_, NOTARY PUBLIC

PERSONALLY APPEARED \_\_\_\_\_ WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/THEY EXECUTED THE SAME IN HIS/HER/THEIR AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/THEIR SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND.

NOTARY'S SIGNATURE: \_\_\_\_\_
NAME OF NOTARY (PLEASE PRINT): \_\_\_\_\_
PRINCIPAL COUNTY OF BUSINESS: \_\_\_\_\_
MY COMMISSION NUMBER: \_\_\_\_\_
MY COMMISSION EXPIRES: \_\_\_\_\_

**TRUSTEE STATEMENT**

WE, FIRST AMERICAN TITLE INSURANCE COMPANY, AS TRUSTEE UNDER THAT CERTAIN DEED OF TRUST RECORDED APRIL 30, 2012 AS DOCUMENT NO. 21646467, OFFICIAL RECORDS OF SANTA CLARA COUNTY, CALIFORNIA, DOES HEREBY CONSENT TO THE PREPARATION AND FILING OF THIS MAP, "TRACT 10141, MCCANDLESS DISTRICT 2", AND JOINS IN ALL DEDICATIONS THEREON.

IN WITNESS WHEREOF, THE UNDERSIGNED HAS EXECUTED THIS STATEMENT ON \_\_\_\_\_, 2013 BY ITS DULY AUTHORIZED OFFICERS AS TRUSTEE: FIRST AMERICAN TITLE INSURANCE COMPANY

BY: \_\_\_\_\_

NAME: \_\_\_\_\_

ITS: \_\_\_\_\_

**TRUSTEE ACKNOWLEDGMENT**

STATE OF CALIFORNIA }
COUNTY OF \_\_\_\_\_ }ss.

ON \_\_\_\_\_, 2013, BEFORE ME, \_\_\_\_\_, NOTARY PUBLIC

PERSONALLY APPEARED \_\_\_\_\_ WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/THEY EXECUTED THE SAME IN HIS/HER/THEIR AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/THEIR SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND.

NOTARY'S SIGNATURE: \_\_\_\_\_
NAME OF NOTARY (PLEASE PRINT): \_\_\_\_\_
PRINCIPAL COUNTY OF BUSINESS: \_\_\_\_\_
MY COMMISSION NUMBER: \_\_\_\_\_
MY COMMISSION EXPIRES: \_\_\_\_\_

**CITY CLERK'S CERTIFICATE**

I, MARY LAVELLE, CITY CLERK OF THE CITY OF MILPITAS, CALIFORNIA, HEREBY CERTIFY THAT SAID CITY COUNCIL OF THE CITY OF MILPITAS, AS GOVERNING BODY OF SAID CITY AT A REGULAR MEETING HELD ON \_\_\_\_\_, 20\_\_\_\_, HAS TAKEN THE FOLLOWING ACTIONS:

- 1. APPROVED THIS FINAL MAP, "TRACT 10141, MCCANDLESS DISTRICT 2".
2. ACCEPTED, SUBJECT TO IMPROVEMENT, ON BEHALF OF THE PUBLIC THOSE PARCELS OF LAND OFFERED FOR DEDICATION FOR PUBLIC USE IN CONFORMITY WITH THE TERMS OF OFFER OF DEDICATION TO WIT:
a.) PARCEL "A", SHOWN AS "NEWBURY STREET", FOR PUBLIC STREET AND PUBLIC UTILITY PURPOSES.
b.) EASEMENTS FOR PUBLIC SERVICE AND UTILITY EASEMENT PURPOSES (PSUE).
c.) EASEMENTS FOR EMERGENCY VEHICLE ACCESS PURPOSES (EAE).
d.) EASEMENTS FOR OVERLAND DRAINAGE RELEASE OF STORM WATER (ODE).
e.) EASEMENTS FOR SIDEWALK EASEMENT PURPOSES (SWE).
3. PURSUANT TO SECTION 66499.20.2 OF THE SUBDIVISION MAP ACT, THE FILING OF THIS MAP SHALL CONSTITUTE ABANDONMENT OF THE FOLLOWING:
a.) THAT PORTION OF THE "LANDSCAPE EASEMENT" GRANTED TO THE CITY OF MILPITAS, IN THE DEED RECORDED DECEMBER 10, 1985, IN BOOK J542, PAGE 2058, OFFICIAL RECORDS OF SANTA CLARA COUNTY, CALIFORNIA, CONTAINED WITHIN THE SUBDIVISION SHOWN HEREON. ALL OTHER PUBLIC STREETS AND EASEMENTS NOT SPECIFICALLY LISTED HEREON FOR ABANDONMENT ARE RETAINED FOR PUBLIC USE.

THE DESIGNATED PRIVATE STREETS ON THIS MAP ARE NOT PART OF THE CITY OF MILPITAS STREET SYSTEM AND ARE NOT ACCEPTED FOR PUBLIC MAINTENANCE.

DATED: \_\_\_\_\_
MARY LAVELLE
CITY CLERK, CITY OF MILPITAS

**RECORDER'S CERTIFICATE**

FILE NO. \_\_\_\_\_ FEE \$ \_\_\_\_\_ PAID. ACCEPTED FOR RECORD AND FILED IN BOOK \_\_\_\_\_ OF MAPS AT PAGES \_\_\_\_\_, SANTA CLARA COUNTY RECORDS, THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_ AT \_\_\_\_\_ M., AT THE REQUEST OF FIRST AMERICAN TITLE COMPANY.

REGINA ALCOMENDRAS, RECORDER
SANTA CLARA COUNTY, CALIFORNIA BY \_\_\_\_\_ DEPUTY

**TRACT 10141
McCANDLESS DISTRICT 2**

A SUBDIVISION FOR CONDOMINIUM PURPOSES
CITY OF MILPITAS
SANTA CLARA COUNTY, CALIFORNIA

A RE-SUBDIVISION OF PARCEL 4 AND PARCEL 5, AS SHOWN ON THE PARCEL MAP FILED DECEMBER 5, 1984, IN BOOK 536 OF MAPS AT PAGES 41 THROUGH 43, RECORDS OF SANTA CLARA COUNTY, CALIFORNIA

Prepared By:
RUGGERI-JENSEN-AZAR & ASSOCIATES
8055 Camino Arroyo, Gilroy, CA 95020

JUNE 2013

**OWNERS' STATEMENT**

WE HEREBY STATE THAT WE ARE THE OWNERS OF OR HAVE SOME RIGHT, TITLE, OR INTEREST IN AND TO THE REAL PROPERTY INCLUDED WITHIN THE SUBDIVISION SHOWN HEREON; THAT WE ARE THE ONLY PERSONS WHOSE CONSENT IS NECESSARY TO PASS A CLEAR TITLE TO SAID REAL PROPERTY; THAT WE CONSENT TO THE MAKING AND FILING OF THIS SUBDIVISION MAP AS SHOWN WITHIN THE DISTINCTIVE BORDER LINE.

THE REAL PROPERTY DESCRIBED BELOW IS DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES TO THE CITY OF MILPITAS FOR OPERATION, ALTERATION, RELOCATION, MAINTENANCE, REPAIR AND REPLACEMENT OF ALL PUBLIC SERVICE FACILITIES AND THEIR APPURTENANCES, OVER, UNDER, ALONG AND ACROSS THE FOLLOWING:

- 1. EASEMENTS FOR PUBLIC SERVICE AND UTILITY EASEMENT PURPOSES (PSUE).
2. EASEMENTS FOR EMERGENCY VEHICLE ACCESS PURPOSES (EAE).
3. EASEMENTS FOR OVERLAND DRAINAGE RELEASE OF STORM WATER (ODE).
4. EASEMENTS FOR SIDEWALK EASEMENT PURPOSES (SWE).

THE ABOVE MENTIONED EASEMENTS (PSUE), (EAE), (ODE) AND (SWE) SHALL REMAIN OPEN AND FREE FROM BUILDINGS AND STRUCTURES OF ANY KIND EXCEPT UTILITY SERVICE AND UTILITY STRUCTURES, CURBS, SIDEWALKS, APPURTENANCES TO THE ABOVE, AND ALL LAWFUL UNSUPPORTED BUILDING OVERHANGS. UNOBSTRUCTED CONTINUOUS ACCESS SHALL BE MAINTAINED AT ALL TIMES.

WE HEREBY RETAIN FOR THE PRIVATE USE OF THE LOT OWNERS WITHIN THIS SUBDIVISION, THEIR LICENSEES, VISITORS AND TENANTS, WITH MAINTENANCE BY THE HOMEOWNERS ASSOCIATION AS STATED IN THE DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS CREATED FOR "TRACT 10145, MCCANDLESS DISTRICT 2", THE FOLLOWING:

- 1. PARCELS "A", "B", AND "F" FOR PRIVATE STREETS, SHOWN AS "CANAL STREET" AND "NEWBURY WAY".
2. PARCELS "C" AND "E" FOR PRIVATE RECREATION AND PRIVATE OPEN SPACE PURPOSES (POS).
3. PARCEL "D" FOR PRIVATE SOLID WASTE HANDLING AND MAINTENANCE FACILITIES.
4. EASEMENTS FOR PRIVATE UTILITY PURPOSES (PRUE), INCLUDING, BUT NOT LIMITED TO, THE CONSTRUCTION AND MAINTENANCE OF CONDUITS FOR STORM DRAINS, SANITARY SEWERS, WATER LINES, SIDEWALKS, AND APPURTENANCES TO ALL THE ABOVE.

SAID EASEMENTS SHALL REMAIN OPEN AND FREE FROM BUILDINGS AND STRUCTURES AND THEIR APPURTENANCES, EXCEPT FOR IRRIGATION SYSTEMS AND THEIR APPURTENANCES, LAWFUL FENCES, WALKWAYS, AND ALL LAWFUL UNSUPPORTED BUILDING OVERHANGS. UNOBSTRUCTED CONTINUOUS ACCESS SHALL BE MAINTAINED AT ALL TIMES.

OWNER: TAYLOR MORRISON OF CALIFORNIA, LLC, A CALIFORNIA LIMITED LIABILITY COMPANY

BY: \_\_\_\_\_ BY: \_\_\_\_\_

NAME: \_\_\_\_\_ NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_ TITLE: \_\_\_\_\_

**OWNER ACKNOWLEDGMENT**

STATE OF CALIFORNIA }
COUNTY OF \_\_\_\_\_ }ss.

ON \_\_\_\_\_, 2013, BEFORE ME, \_\_\_\_\_, NOTARY PUBLIC

PERSONALLY APPEARED \_\_\_\_\_ WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/THEY EXECUTED THE SAME IN HIS/HER/THEIR AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/THEIR SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND.

NOTARY'S SIGNATURE: \_\_\_\_\_
NAME OF NOTARY (PLEASE PRINT): \_\_\_\_\_
PRINCIPAL COUNTY OF BUSINESS: \_\_\_\_\_
MY COMMISSION NUMBER: \_\_\_\_\_
MY COMMISSION EXPIRES: \_\_\_\_\_

**TRUSTEE STATEMENT**

WE, FIRST AMERICAN TITLE INSURANCE COMPANY, AS TRUSTEE UNDER THAT CERTAIN DEED OF TRUST RECORDED APRIL 30, 2012 AS DOCUMENT NO. 21646467, OFFICIAL RECORDS OF SANTA CLARA COUNTY, CALIFORNIA, DOES HEREBY CONSENT TO THE PREPARATION AND FILING OF THIS MAP, "TRACT 10145, MCCANDLESS DISTRICT 2", AND JOINS IN ALL DEDICATIONS THEREON.

IN WITNESS WHEREOF, THE UNDERSIGNED HAS EXECUTED THIS STATEMENT ON \_\_\_\_\_, 2013 BY ITS DULY AUTHORIZED OFFICERS AS TRUSTEE: FIRST AMERICAN TITLE INSURANCE COMPANY

BY: \_\_\_\_\_
NAME: \_\_\_\_\_
TITLE: \_\_\_\_\_

**CITY CLERK'S CERTIFICATE**

I, MARY LAVELLE, CITY CLERK OF THE CITY OF MILPITAS, CALIFORNIA, HEREBY CERTIFY THAT SAID CITY COUNCIL OF THE CITY OF MILPITAS, AS GOVERNING BODY OF SAID CITY AT A REGULAR MEETING HELD ON \_\_\_\_\_, 20\_\_\_\_, HAS TAKEN THE FOLLOWING ACTIONS:

- 1. APPROVED THIS FINAL MAP, "TRACT 10145, McCANDLESS DISTRICT 2".
2. ACCEPTED, SUBJECT TO IMPROVEMENT, ON BEHALF OF THE PUBLIC THOSE PARCELS OF LAND OFFERED FOR DEDICATION FOR PUBLIC USE IN CONFORMITY WITH THE TERMS OF OFFER OF DEDICATION TO WIT:
a.) EASEMENTS FOR PUBLIC SERVICE, UTILITY, AND SIDEWALK PURPOSES (PSUE).
b.) EASEMENTS FOR EMERGENCY VEHICLE ACCESS PURPOSES (EAE).
c.) EASEMENTS FOR OVERLAND DRAINAGE RELEASE OF STORM WATER (ODE).
d.) EASEMENTS FOR SIDEWALK EASEMENT PURPOSES (SWE).
3. PURSUANT TO SECTION 66499.20.2 OF THE SUBDIVISION MAP ACT, THE FILING OF THIS MAP SHALL CONSTITUTE ABANDONMENT OF THE FOLLOWING:
a.) THAT PORTION OF THE "LANDSCAPE EASEMENT" GRANTED TO THE CITY OF MILPITAS, IN THE DEED RECORDED DECEMBER 10, 1985, IN BOOK J542, PAGE 2058, OFFICIAL RECORDS OF SANTA CLARA COUNTY, CALIFORNIA, CONTAINED WITHIN THE SUBDIVISION SHOWN HEREON. ALL OTHER PUBLIC STREETS AND EASEMENTS NOT SPECIFICALLY LISTED HEREON FOR ABANDONMENT ARE RETAINED FOR PUBLIC USE.

THE DESIGNATED PRIVATE STREETS ON THIS MAP ARE NOT PART OF THE CITY OF MILPITAS STREET SYSTEM AND ARE NOT ACCEPTED FOR PUBLIC MAINTENANCE.

DATED: \_\_\_\_\_
MARY LAVELLE
CITY CLERK, CITY OF MILPITAS

**RECORDER'S CERTIFICATE**

FILE NO. \_\_\_\_\_ FEE \$ \_\_\_\_\_ PAID. ACCEPTED FOR RECORD AND FILED IN BOOK \_\_\_\_\_ OF MAPS AT PAGES \_\_\_\_\_, SANTA CLARA COUNTY RECORDS, THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_ AT \_\_\_\_\_ M., AT THE REQUEST OF FIRST AMERICAN TITLE COMPANY.

REGINA ALCOMENDRAS, RECORDER
SANTA CLARA COUNTY, CALIFORNIA BY \_\_\_\_\_ DEPUTY

**OWNER ACKNOWLEDGMENT**

STATE OF CALIFORNIA }
COUNTY OF \_\_\_\_\_ }ss.

ON \_\_\_\_\_, 2013, BEFORE ME, \_\_\_\_\_, NOTARY PUBLIC

PERSONALLY APPEARED \_\_\_\_\_ WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/THEY EXECUTED THE SAME IN HIS/HER/THEIR AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/THEIR SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND.

NOTARY'S SIGNATURE: \_\_\_\_\_
NAME OF NOTARY (PLEASE PRINT): \_\_\_\_\_
PRINCIPAL COUNTY OF BUSINESS: \_\_\_\_\_
MY COMMISSION NUMBER: \_\_\_\_\_
MY COMMISSION EXPIRES: \_\_\_\_\_

**TRUSTEE ACKNOWLEDGMENT**

STATE OF CALIFORNIA }
COUNTY OF \_\_\_\_\_ }ss.

ON \_\_\_\_\_, 2013, BEFORE ME, \_\_\_\_\_, NOTARY PUBLIC

PERSONALLY APPEARED \_\_\_\_\_ WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/THEY EXECUTED THE SAME IN HIS/HER/THEIR AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/THEIR SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

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WITNESS MY HAND.

NOTARY'S SIGNATURE: \_\_\_\_\_
NAME OF NOTARY (PLEASE PRINT): \_\_\_\_\_
PRINCIPAL COUNTY OF BUSINESS: \_\_\_\_\_
MY COMMISSION NUMBER: \_\_\_\_\_
MY COMMISSION EXPIRES: \_\_\_\_\_

TRACT 10145
McCANDLESS DISTRICT 2
A SUBDIVISION FOR CONDOMINIUM PURPOSES
CITY OF MILPITAS
SANTA CLARA COUNTY, CALIFORNIA
A RE-SUBDIVISION OF PARCEL 9 AND PARCEL 10, AS SHOWN ON THE PARCEL MAP FILED DECEMBER 5, 1984, IN BOOK 536 OF MAPS AT PAGES 41 THROUGH 43, RECORDS OF SANTA CLARA COUNTY, CALIFORNIA

Prepared By:
RUGGERI-JENSEN-AZAR & ASSOCIATES
8055 Camino Arroyo, Gilroy, CA 95020
JUNE 2013

**OWNERS' STATEMENT**

WE HEREBY STATE THAT WE ARE THE OWNERS OF OR HAVE SOME RIGHT, TITLE, OR INTEREST IN AND TO THE REAL PROPERTY INCLUDED WITHIN THE SUBDIVISION SHOWN HEREON; THAT WE ARE THE ONLY PERSONS WHOSE CONSENT IS NECESSARY TO PASS A CLEAR TITLE TO SAID REAL PROPERTY; THAT WE CONSENT TO THE MAKING AND FILING OF THIS SUBDIVISION MAP AS SHOWN WITHIN THE DISTINCTIVE BORDER LINE.

THE REAL PROPERTY DESCRIBED BELOW IS DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES TO THE CITY OF MILPITAS FOR OPERATION, ALTERATION, RELOCATION, MAINTENANCE, REPAIR AND REPLACEMENT OF ALL PUBLIC SERVICE FACILITIES AND THEIR APPURTENANCES, OVER, UNDER, ALONG AND ACROSS THE FOLLOWING:

- 1. EASEMENTS FOR PUBLIC SERVICE AND UTILITY PURPOSES (PSUE).
2. EASEMENTS FOR EMERGENCY VEHICLE ACCESS PURPOSES (EAE).
3. EASEMENTS FOR OVERLAND DRAINAGE RELEASE OF STORM WATER (ODE).
4. EASEMENTS FOR SIDEWALK EASEMENT PURPOSES (SWE).

THE ABOVE MENTIONED EASEMENTS (PSUE), (EAE), (ODE) AND (SWE) SHALL REMAIN OPEN AND FREE FROM BUILDINGS AND STRUCTURES OF ANY KIND EXCEPT UTILITY SERVICE AND UTILITY STRUCTURES, CURBS, SIDEWALKS, APPURTENANCES TO THE ABOVE, AND ALL LAWFUL UNSUPPORTED BUILDING OVERHANGS. UNOBSTRUCTED CONTINUOUS ACCESS SHALL BE MAINTAINED AT ALL TIMES.

WE HEREBY RETAIN FOR THE PRIVATE USE OF THE LOT OWNERS WITHIN THIS SUBDIVISION, THEIR LICENSEES, VISITORS AND TENANTS, WITH MAINTENANCE BY THE HOMEOWNERS ASSOCIATION AS STATED IN THE DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS CREATED FOR "TRACT 10148, MCCANDLESS DISTRICT 2", THE FOLLOWING:

- 1. PARCELS "A", "B", "C", "D", "F", "G", "H", AND "I" FOR PRIVATE STREETS, SHOWN AS "BOND STREET", "BLEECKER STREET", "DRIVE C", "DRIVE D1", "DRIVE D2", AND "DRIVE D3".
2. PARCEL "E" FOR PRIVATE RECREATION AND PRIVATE OPEN SPACE PURPOSES (POS). SAID PARCEL SHALL REMAIN FREE FROM HABITABLE STRUCTURES.
3. EASEMENTS FOR PRIVATE UTILITY EASEMENT PURPOSES (PRUE), INCLUDING, BUT NOT LIMITED TO, THE CONSTRUCTION AND MAINTENANCE OF CONDUITS FOR STORM DRAINS, SANITARY SEWERS, WATER LINES, SIDEWALKS, AND APPURTENANCES TO ALL THE ABOVE.

SAID EASEMENTS SHALL REMAIN OPEN AND FREE FROM BUILDINGS AND STRUCTURES AND THEIR APPURTENANCES, EXCEPT FOR IRRIGATION SYSTEMS AND THEIR APPURTENANCES, LAWFUL FENCES, WALKWAYS, AND ALL LAWFUL UNSUPPORTED BUILDING OVERHANGS. UNOBSTRUCTED CONTINUOUS ACCESS SHALL BE MAINTAINED AT ALL TIMES.

OWNER: TAYLOR MORRISON OF CALIFORNIA, LLC, A CALIFORNIA LIMITED LIABILITY COMPANY

BY: \_\_\_\_\_ BY: \_\_\_\_\_
NAME: \_\_\_\_\_ NAME: \_\_\_\_\_
TITLE: \_\_\_\_\_ TITLE: \_\_\_\_\_

**OWNER ACKNOWLEDGMENT**

STATE OF CALIFORNIA }
COUNTY OF \_\_\_\_\_ }ss.

ON \_\_\_\_\_, 2013, BEFORE ME, \_\_\_\_\_, NOTARY PUBLIC

PERSONALLY APPEARED \_\_\_\_\_ WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/THEY EXECUTED THE SAME IN HIS/HER/THEIR AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/THEIR SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND.

NOTARY'S SIGNATURE: \_\_\_\_\_
NAME OF NOTARY (PLEASE PRINT): \_\_\_\_\_
PRINCIPAL COUNTY OF BUSINESS: \_\_\_\_\_
MY COMMISSION NUMBER: \_\_\_\_\_
MY COMMISSION EXPIRES: \_\_\_\_\_

**OWNER ACKNOWLEDGMENT**

STATE OF CALIFORNIA }
COUNTY OF \_\_\_\_\_ }ss.

ON \_\_\_\_\_, 2013, BEFORE ME, \_\_\_\_\_, NOTARY PUBLIC

PERSONALLY APPEARED \_\_\_\_\_ WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/THEY EXECUTED THE SAME IN HIS/HER/THEIR AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/THEIR SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

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WITNESS MY HAND.

NOTARY'S SIGNATURE: \_\_\_\_\_
NAME OF NOTARY (PLEASE PRINT): \_\_\_\_\_
PRINCIPAL COUNTY OF BUSINESS: \_\_\_\_\_
MY COMMISSION NUMBER: \_\_\_\_\_
MY COMMISSION EXPIRES: \_\_\_\_\_

**TRUSTEE STATEMENT**

WE, FIRST AMERICAN TITLE INSURANCE COMPANY, AS TRUSTEE UNDER THAT CERTAIN DEED OF TRUST RECORDED APRIL 30, 2012 AS DOCUMENT NO. 21646467, OFFICIAL RECORDS OF SANTA CLARA COUNTY, CALIFORNIA, DOES HEREBY CONSENT TO THE PREPARATION AND FILING OF THIS MAP, "TRACT 10148, McCANDLESS DISTRICT 2", AND JOINS IN ALL DEDICATIONS THEREON.

IN WITNESS HEREOF, THE UNDERSIGNED HAS EXECUTED THIS STATEMENT ON \_\_\_\_\_, 2013 BY ITS DULY AUTHORIZED OFFICERS AS TRUSTEE: FIRST AMERICAN TITLE INSURANCE COMPANY

BY: \_\_\_\_\_
NAME: \_\_\_\_\_
TITLE: \_\_\_\_\_

**TRUSTEE ACKNOWLEDGMENT**

STATE OF CALIFORNIA }
COUNTY OF \_\_\_\_\_ }ss.

ON \_\_\_\_\_, 2013, BEFORE ME, \_\_\_\_\_, NOTARY PUBLIC

PERSONALLY APPEARED \_\_\_\_\_ WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/THEY EXECUTED THE SAME IN HIS/HER/THEIR AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/THEIR SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND.

NOTARY'S SIGNATURE: \_\_\_\_\_
NAME OF NOTARY (PLEASE PRINT): \_\_\_\_\_
PRINCIPAL COUNTY OF BUSINESS: \_\_\_\_\_
MY COMMISSION NUMBER: \_\_\_\_\_
MY COMMISSION EXPIRES: \_\_\_\_\_

**CITY CLERK'S CERTIFICATE**

I, MARY LAVELLE, CITY CLERK OF THE CITY OF MILPITAS, CALIFORNIA, HEREBY CERTIFY THAT SAID CITY COUNCIL OF THE CITY OF MILPITAS, AS GOVERNING BODY OF SAID CITY AT A REGULAR MEETING HELD ON \_\_\_\_\_, 20\_\_\_\_, HAS TAKEN THE FOLLOWING ACTIONS:

- 1. APPROVED THIS FINAL MAP, "TRACT 10148, McCANDLESS DISTRICT 2".
2. ACCEPTED, SUBJECT TO IMPROVEMENT, ON BEHALF OF THE PUBLIC THOSE PARCELS OF LAND OFFERED FOR DEDICATION FOR PUBLIC USE IN CONFORMITY WITH THE TERMS OF OFFER OF DEDICATION TO WIT:
a.) EASEMENTS FOR PUBLIC SERVICE AND UTILITY PURPOSES (PSUE).
b.) EASEMENTS FOR EMERGENCY VEHICLE ACCESS PURPOSES (EAE).
c.) EASEMENTS FOR OVERLAND DRAINAGE RELEASE OF STORM WATER (ODE).
d.) EASEMENTS FOR SIDEWALK EASEMENT PURPOSES (SWE).

THE DESIGNATED PRIVATE STREETS ON THIS MAP ARE NOT PART OF THE CITY OF MILPITAS STREET SYSTEM AND ARE NOT ACCEPTED FOR PUBLIC MAINTENANCE.

DATED: \_\_\_\_\_ MARY LAVELLE
CITY CLERK, CITY OF MILPITAS

**RECORDER'S CERTIFICATE**

FILE NO. \_\_\_\_\_ FEE \$ \_\_\_\_\_ PAID. ACCEPTED FOR RECORD AND FILED IN BOOK \_\_\_\_\_ OF MAPS AT PAGES \_\_\_\_\_, SANTA CLARA COUNTY RECORDS, THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_ AT \_\_\_\_\_ M., AT THE REQUEST OF FIRST AMERICAN TITLE COMPANY.

REGINA ALCOMENDRAS, RECORDER SANTA CLARA COUNTY, CALIFORNIA BY \_\_\_\_\_ DEPUTY

**TRACT 10148 McCANDLESS DISTRICT 2**

A SUBDIVISION FOR CONDOMINIUM PURPOSES CITY OF MILPITAS SANTA CLARA COUNTY, CALIFORNIA

A SUBDIVISION OF THE DESIGNATED REMAINDER, AS SHOWN ON THE MAP ENTITLED "TRACT 10141, McCANDLESS DISTRICT 2" FILED \_\_\_\_\_, IN BOOK \_\_\_\_\_ OF MAPS, AT PAGES \_\_\_\_\_ THROUGH \_\_\_\_\_, RECORDS OF SANTA CLARA COUNTY, CALIFORNIA

Prepared By: RUGGERI-JENSEN-AZAR & ASSOCIATES 18055 Camino Arroyo, Gilroy, CA 95020

**OWNERS' STATEMENT**

WE HEREBY STATE THAT WE ARE THE OWNERS OF OR HAVE SOME RIGHT, TITLE, OR INTEREST IN AND TO THE REAL PROPERTY INCLUDED WITHIN THE SUBDIVISION SHOWN HEREON; THAT WE ARE THE ONLY PERSONS WHOSE CONSENT IS NECESSARY TO PASS A CLEAR TITLE TO SAID REAL PROPERTY; THAT WE CONSENT TO THE MAKING AND FILING OF THIS SUBDIVISION MAP AS SHOWN WITHIN THE DISTINCTIVE BOUNDARY LINE.

THE REAL PROPERTY DESCRIBED BELOW IS DEDICATED AS AN EASEMENT FOR PUBLIC PURPOSES TO THE CITY OF MILPITAS FOR OPERATION, ALTERATION, RELOCATION, MAINTENANCE, REPAIR AND REPLACEMENT OF ALL PUBLIC SERVICE FACILITIES AND THEIR APPURTENANCES, OVER, UNDER, ALONG AND ACROSS THE FOLLOWING:

- 1. EASEMENTS FOR PUBLIC SERVICE AND UTILITY EASEMENT PURPOSES (PSUE).
2. EASEMENTS FOR EMERGENCY VEHICLE ACCESS (EAE).
3. EASEMENTS FOR OVERLAND DRAINAGE RELEASE (ODE).
4. EASEMENTS FOR SIDEWALK EASEMENT PURPOSES (SWE).

THE ABOVE MENTIONED EASEMENT (PSUE), (EAE), (ODE) AND (SWE) SHALL REMAIN OPEN AND FREE FROM BUILDINGS AND STRUCTURES OF ANY KIND EXCEPT UTILITY SERVICE AND UTILITY STRUCTURES, CURBS, SIDEWALKS, APPURTENANCES TO THE ABOVE, AND ALL LAWFUL UNSUPPORTED BUILDING OVERHANGS. UNOBSTRUCTED CONTINUOUS ACCESS SHALL BE MAINTAINED AT ALL TIMES.

WE HEREBY RETAIN FOR THE PRIVATE USE OF THE LOT OWNERS WITHIN THIS SUBDIVISION, THEIR LICENSEES, VISITORS AND TENANTS, WITH MAINTENANCE BY THE HOMEOWNERS ASSOCIATION AS STATED IN THE DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS CREATED FOR "TRACT 10149, MCCANDLESS DISTRICT 2", THE FOLLOWING:

- 1. PARCELS "A", "B" AND "C" FOR PRIVATE STREETS, SHOWN AS "CANAL STREET".
2. PARCELS "D" AND "E" FOR PRIVATE RECREATION AND PRIVATE OPEN SPACE PURPOSES (POS). SAID PARCELS SHALL REMAIN FREE FROM HABITABLE STRUCTURES.
3. EASEMENTS FOR PRIVATE UTILITY EASEMENT PURPOSES (PRUE), INCLUDING, BUT NOT LIMITED TO, THE CONSTRUCTION AND MAINTENANCE OF CONDUITS FOR STORM DRAINS, SANITARY SEWERS, WATER LINES, SIDEWALKS, AND APPURTENANCES TO ALL THE ABOVE.

SAID EASEMENTS SHALL REMAIN OPEN AND FREE FROM BUILDINGS AND STRUCTURES AND THEIR APPURTENANCES, EXCEPT FOR IRRIGATION SYSTEMS AND THEIR APPURTENANCES, LAWFUL FENCES, WALKWAYS, AND ALL LAWFUL UNSUPPORTED BUILDING OVERHANGS. UNOBSTRUCTED CONTINUOUS ACCESS SHALL BE MAINTAINED AT ALL TIMES.

OWNER: TAYLOR MORRISON OF CALIFORNIA, LLC, A CALIFORNIA LIMITED LIABILITY COMPANY

BY: \_\_\_\_\_ NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_
BY: \_\_\_\_\_ NAME: \_\_\_\_\_ TITLE: \_\_\_\_\_

**OWNER ACKNOWLEDGMENT**

STATE OF CALIFORNIA }ss.
COUNTY OF \_\_\_\_\_

ON \_\_\_\_\_, 2013, BEFORE ME, \_\_\_\_\_

PERSONALLY APPEARED \_\_\_\_\_ WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/THEY EXECUTED THE SAME IN HIS/HER/THEIR AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/THEIR SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

I CERTIFY UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA THAT THE FOREGOING PARAGRAPH IS TRUE AND CORRECT.

WITNESS MY HAND.

NOTARY'S SIGNATURE: \_\_\_\_\_
NAME OF NOTARY (PLEASE PRINT): \_\_\_\_\_
PRINCIPAL COUNTY OF BUSINESS: \_\_\_\_\_
MY COMMISSION NUMBER: \_\_\_\_\_
MY COMMISSION EXPIRES: \_\_\_\_\_

**OWNER ACKNOWLEDGMENT**

STATE OF CALIFORNIA }ss.
COUNTY OF \_\_\_\_\_

ON \_\_\_\_\_, 2013, BEFORE ME, \_\_\_\_\_

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**TRUSTEE STATEMENT**

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IN WITNESS WHEREOF, THE UNDERSIGNED HAS EXECUTED THIS STATEMENT ON \_\_\_\_\_, 2013 BY ITS DULY AUTHORIZED OFFICERS AS TRUSTEE: FIRST AMERICAN TITLE INSURANCE COMPANY

BY: \_\_\_\_\_
NAME: \_\_\_\_\_
ITS: \_\_\_\_\_

**TRUSTEE ACKNOWLEDGMENT**

STATE OF CALIFORNIA }ss.
COUNTY OF \_\_\_\_\_

ON \_\_\_\_\_, 2013, BEFORE ME, \_\_\_\_\_

PERSONALLY APPEARED \_\_\_\_\_ WHO PROVED TO ME ON THE BASIS OF SATISFACTORY EVIDENCE TO BE THE PERSON(S) WHOSE NAME(S) IS/ARE SUBSCRIBED TO THE WITHIN INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE/SHE/THEY EXECUTED THE SAME IN HIS/HER/THEIR AUTHORIZED CAPACITY(IES), AND THAT BY HIS/HER/THEIR SIGNATURE(S) ON THE INSTRUMENT THE PERSON(S), OR THE ENTITY UPON BEHALF OF WHICH THE PERSON(S) ACTED, EXECUTED THE INSTRUMENT.

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PRINCIPAL COUNTY OF BUSINESS: \_\_\_\_\_
MY COMMISSION NUMBER: \_\_\_\_\_
MY COMMISSION EXPIRES: \_\_\_\_\_

**CITY CLERK'S CERTIFICATE**

I, MARY LAVELLE, CITY CLERK OF THE CITY OF MILPITAS, CALIFORNIA, HEREBY CERTIFY THAT SAID CITY COUNCIL OF THE CITY OF MILPITAS, AS GOVERNING BODY OF SAID CITY AT A REGULAR MEETING HELD ON \_\_\_\_\_, 20\_\_\_\_, HAS TAKEN THE FOLLOWING ACTIONS:

- 1. APPROVED THIS FINAL MAP, "TRACT 10149, McCANDLESS DISTRICT 2".
2. ACCEPTED, SUBJECT TO IMPROVEMENT, ON BEHALF OF THE PUBLIC THOSE PARCELS OF LAND OFFERED FOR DEDICATION FOR PUBLIC USE IN CONFORMITY WITH THE TERMS OF OFFER OF DEDICATION TO WIT:
a.) EASEMENTS FOR PUBLIC SERVICE AND UTILITY EASEMENT PURPOSES (PSUE).
b.) EASEMENTS FOR EMERGENCY VEHICLE ACCESS (EAE).
c.) EASEMENTS FOR OVERLAND DRAINAGE RELEASE (ODE).
d.) EASEMENTS FOR SIDEWALK EASEMENT PURPOSES (SWE).

THE DESIGNATED PRIVATE STREETS ON THIS MAP ARE NOT PART OF THE CITY OF MILPITAS STREET SYSTEM AND ARE NOT ACCEPTED FOR PUBLIC MAINTENANCE.

DATED: \_\_\_\_\_
MARY LAVELLE
CITY CLERK, CITY OF MILPITAS

**RECORDER'S CERTIFICATE**

FILE NO. \_\_\_\_\_ FEE \$ \_\_\_\_\_ PAID. ACCEPTED FOR RECORD AND FILED IN BOOK \_\_\_\_\_ OF MAPS AT PAGES \_\_\_\_\_, SANTA CLARA COUNTY RECORDS, THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_ AT \_\_\_\_\_ M., AT THE REQUEST OF FIRST AMERICAN TITLE COMPANY.

REGINA ALCOMENDRAS, RECORDER
SANTA CLARA COUNTY, CALIFORNIA BY \_\_\_\_\_ DEPUTY

TRACT 10149
McCANDLESS DISTRICT 2
A SUBDIVISION FOR CONDOMINIUM PURPOSES
CITY OF MILPITAS
SANTA CLARA COUNTY, CALIFORNIA
A SUBDIVISION OF THE DESIGNATED REMAINDER PARCEL, AS SHOWN ON THE MAP ENTITLED "TRACT 10149, McCANDLESS DISTRICT 2", FILED \_\_\_\_\_, 2013, IN BOOK \_\_\_\_\_ OF MAPS, AT PAGES \_\_\_\_\_ THROUGH \_\_\_\_\_, RECORDS OF SANTA CLARA COUNTY, CALIFORNIA

Prepared By:
RUGGERI-JENSEN-AZAR & ASSOCIATES
8055 Camino Arroyo, Gilroy, CA 95020
JUNE 2013





Transportation  
Consultants

Vision That Moves Your Community

May 30, 2013

Mr. Michael Sullivan  
Sullivan Development Group / SDG Consulting  
142 Pine Wood Lane  
Los Gatos, CA 95032

Via e-mail only: [mike@sdglanddevelopment.com](mailto:mike@sdglanddevelopment.com)

**Subject: Evaluation of Potential Traffic Impacts of Proposed McCandless Drive Closure in the City of Milpitas**

Dear Mr. Sullivan:

This letter report presents the results of TJKM's focused traffic analysis of the proposed closure of McCandless Drive to general traffic along the northerly segment between Great Mall Parkway and Penitencia Creek for a minimum of three months. The purpose of the closure is to allow for the reconstruction of McCandless Drive and also enable construction vehicle circulation along that segment for the District 1 and District 2 projects, without the conflicts of local general traffic. Barriers at the Great Mall Parkway and Penitencia Creek entries to the segment would be placed, permitting only construction traffic to pass through. Based on May 2013 traffic counts, it is estimated that an approximate maximum of 300 vehicles use this segment during typical AM and PM commute peak hours. These vehicles would be expected to use nearby alternate routes for the duration of the roadway closure.

This letter report focuses on traffic operations and queuing impacts on the following six study intersections that would potentially be affected by the street closure:

1. Great Mall Parkway / S. Abel Street
2. Great Mall Parkway / S. Main Street
3. Great Mall Parkway / McCandless Drive
4. Great Mall Parkway / Centre Pointe Drive
5. Montague Expressway / Great Mall Parkway / E. Capitol Avenue
6. Montague Expressway / McCandless Drive / Trade Zone Boulevard

Results of existing conditions analysis both before and after McCandless Drive closure are presented, along with recommended project conditions for the duration of the closure.

### **Existing Conditions (Before McCandless Drive Closure) – Level of Service and Maximum Turn Lane Queues**

Existing Conditions volumes for typical weekday AM and PM peak hours were collected by TJKM in May 2013 at six intersections that would potentially be affected by the McCandless Drive closure. Figure 1 illustrates the location of the proposed roadway closure, Existing Conditions volumes, lane geometry and traffic controls. Table 1 illustrates the results of the LOS analysis under Existing Conditions prior to the proposed McCandless Drive closure. Currently, LOS operations at the study intersections are within acceptable levels, defined as LOS D for City of Milpitas intersections, or LOS E for County expressway intersections such as the two Montague Expressway study intersections.

Pleasanton  
4305 Hacienda Drive  
Suite 500  
Pleasanton, CA  
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Sacramento  
980 Ninth Street  
16th Floor  
Sacramento, CA  
95814-2736  
916.449.9095

Santa Rosa  
1400 N. Dutton Avenue  
Suite 21  
Santa Rosa, CA  
95401-4643  
707.575.5800  
707.575.5888 fax

[tjkm@tjkm.com](mailto:tjkm@tjkm.com)  
[www.tjkm.com](http://www.tjkm.com)

**Table 1: LOS Results – Existing Conditions (No Road Closure)**

Intersection	Before Road Closure			
	AM		PM	
	Delay	LOS	Delay	LOS
Great Mall Pkwy / Abel St	41.2	D	41.4	D
Great Mall Pkwy / Main St	27.4	C	34.9	C
Great Mall Pkwy / McCandless Dr	16.1	B	21.4	C
Great Mall Pkwy / Centre Pointe	13.8	B	18.5	B
Great Mall Pkwy / Montague Expwy	52.5	D	54.1	D
Montague Expwy / Trade Zone	40.7	D	45.6	D

TJKM additionally evaluated 95<sup>th</sup>-percentile (maximum) vehicle queues at left turn and right turn lanes for all six study intersections. Table 2 illustrates the results of this vehicle queue analysis under Existing Conditions prior to the proposed McCandless Drive closure. LOS results under both scenarios are included in Attachment A. In addition, queuing results under both scenarios are included in Attachment B.

Currently, there are spillover conditions at some of the study intersection turn pockets, as shown in bold within Table 2 below.

**Table 2: Queuing Analysis Results – Existing Conditions (No Road Closure)**

Intersection and Turn Pocket	Storage Length (feet)	95 <sup>th</sup> -Percentile Queue Length (feet)	
		AM Peak Hour	PM Peak Hour
<b>Great Mall Parkway / Abel Street</b>			
Eastbound Left Turn	440*	51	369
Westbound Left Turn	220	88	100
Westbound Right Turn	200	61	108
Northbound Left Turn	175	<b>280</b>	120
Northbound Right Turn	270	18	16
Southbound Left Turn	215	121	<b>256</b>
Southbound Right Turn	280	<b>390</b>	17
<b>Great Mall Parkway / Main Street</b>			
Eastbound Left Turn	310	75	292
Westbound Left Turn	285	119	112
Westbound Right Turn	120	45	33
Northbound Left Turn	155	29	28
Northbound Right Turn	50	24	49
Southbound Left Turn	225	164	<b>347</b>
Southbound Right Turn	50	<b>53</b>	38

Intersection and Turn Pocket	Storage Length (feet)	95 <sup>th</sup> -Percentile Queue Length (feet)	
		AM Peak Hour	PM Peak Hour
<b>Great Mall Parkway / McCandless Drive</b>			
Eastbound Left Turn	255*	59	138
Eastbound Right Turn	260	22	61
Westbound Left Turn	230	24	12
Westbound Right Turn	230	75	52
Northbound Left Turn	175	35	67
Southbound Left Turn	300*	70	177
Southbound Right Turn	300	38	51
<b>Great Mall Parkway / Centre Pointe Drive</b>			
Eastbound Left Turn	274	62	83
Westbound Left Turn	418	30	56
Westbound Right Turn	209	101	65
Northbound Left Turn	70	28	28
Southbound Left Turn	276*	44	180
Southbound Right Turn	276	2	24
<b>Great Mall Parkway (N-S) / Montague Expwy (E-W)</b>			
Eastbound Left Turn	500*	111	178
Eastbound Right Turn	400	0	0
Westbound Left Turn	300*	80	208
Westbound Right Turn	400	<b>1186</b>	84
Northbound Left Turn	350*	282	74
Northbound Right Turn	450	82	122
Southbound Left Turn	375*	213	631
Southbound Right Turn	Shared	0	0
<b>Montague Expwy / McCandless Drive / Trade Zone Blvd.</b>			
Eastbound Left Turn	200	51	98
Eastbound Right Turn	250	0	0
Westbound Left Turn	250	114	<b>354</b>
Westbound Right Turn	100	0	0
Northbound Left Turn	515	<b>871</b>	<b>629</b>
Northbound Right Turn	75	<b>99</b>	<b>196</b>
Southbound Left Turn	180	45	53
Southbound Right Turn	200	0	0

Note: 1) \* = two lanes

### Existing Conditions with McCandless Drive Closure – Level of Service and Maximum Turn Lane Queues

Based on current distribution patterns of traffic volumes turning in and out of McCandless Drive, TJKM redistributed existing McCandless Drive volumes to estimate current year conditions with the proposed McCandless Drive closure. Figure 2 illustrates the expected traffic volumes under Existing Conditions with the closure of McCandless Drive. Table 3 illustrates the results of the LOS analysis under Existing Conditions with the proposed McCandless Drive closure. With the proposed roadway closure, LOS operations at the study intersections are expected to remain within acceptable levels (LOS D for City of Milpitas intersections and LOS E for County expressway intersections). During the PM peak period at Great Mall Parkway / Montague Expressway, there will only be an additional 2.3 seconds signal delay above the Existing Conditions.

**Table 3: LOS Results – Existing Conditions With Road Closure**

Intersection	After Road Closure			
	AM		PM	
	Delay	LOS	Delay	LOS
Great Mall Pkwy / Abel St	41.5	D	45.4	D
Great Mall Pkwy / Main St	27.6	C	36.2	D
Great Mall Pkwy / McCandless Dr	14.5	B	16.8	B
Great Mall Pkwy / Centre Pointe	13.8	B	18.7	B
Great Mall Pkwy / Montague Expwy	52.9	D	56.4	E
Montague Expwy / Trade Zone	38.5	D	37.2	D

TJKM additionally evaluated 95<sup>th</sup>-percentile (maximum) vehicle queues at left turn and right turn lanes for all six study intersections under the proposed roadway closure scenario. Table 4 illustrates the results of this vehicle queue analysis under Existing Conditions with the proposed McCandless Drive closure. The LOS and queuing results under this scenario are included in Attachment A and Attachment B, respectively. With the proposed roadway closure and addition of redistributed traffic to turn pockets at the study intersections, queue lengths are expected to remain acceptable, and the existing spillover conditions are expected to remain approximately the same. At Great Mall Parkway / Main Street, the northbound right turn queue length during the PM peak hour is expected to increase and result in a spillover of one vehicle length (based on a conservatively low assumed storage length of 50 feet for this channelized right turn). At Montague Expressway / McCandless Drive / Trade Zone Blvd., the existing spillover queue lengths for two of the turn movements would increase during the PM peak hour, as follows:

- ▶ The westbound left turn spillover queue length is expected to increase by as much as two vehicle lengths, which is approximately ten percent of the current queue length.
- ▶ The northbound right turn spillover queue length is expected to increase by as much as one vehicle length, which is approximately nine percent of the current queue length.

The spillover conditions at the study intersection turn pockets, which other than described above are effectively the same as in the Existing Conditions, are shown in bold within Table 4 below.

**Table 4: Queuing Analysis Results – Existing Conditions With Road Closure**

Intersection and Turn Pocket	Storage Length (feet)	95th Percentile Queue Length (feet)	
		AM Peak Hour	PM Peak Hour
<b>Great Mall Parkway / Abel Street</b>			
Eastbound Left Turn	440*	51	369
Westbound Left Turn	220	88	100
Westbound Right Turn	200	61	108
Northbound Left Turn	175	<b>286</b>	162
Northbound Right Turn	270	18	16
Southbound Left Turn	215	121	<b>256</b>
Southbound Right Turn	280	<b>392</b>	18
<b>Great Mall Parkway / Main Street</b>			
Eastbound Left Turn	310	76	292
Westbound Left Turn	285	145	149
Westbound Right Turn	120	44	33
Northbound Left Turn	155	29	28
Northbound Right Turn	50	24	<b>75</b>
Southbound Left Turn	225	166	<b>347</b>
Southbound Right Turn	50	<b>55</b>	38
<b>Great Mall Parkway / McCandless Drive</b>			
Eastbound Left Turn	255*	59	156
Eastbound Right Turn	260	0	0
Westbound Left Turn	230	0	0
Westbound Right Turn	230	81	57
Northbound Left Turn	175	0	0
Southbound Left Turn	300*	79	204
Southbound Right Turn	300	0	0
<b>Great Mall Parkway / Centre Pointe Drive</b>			
Eastbound Left Turn	274	62	83
Westbound Left Turn	418	30	56
Westbound Right Turn	209	101	65
Northbound Left Turn	70	28	28
Southbound Left Turn	276*	44	180
Southbound Right Turn	276	2	24

Intersection and Turn Pocket	Storage Length (feet)	95th Percentile Queue Length (feet)	
		AM Peak Hour	PM Peak Hour
<b>Great Mall Parkway (N-S) / Montague Expwy (E-W)</b>			
Eastbound Left Turn	500*	116	207
Eastbound Right Turn	400	0	0
Westbound Left Turn	300*	80	208
Westbound Right Turn	400	<b>1197</b>	84
Northbound Left Turn	350*	282	74
Northbound Right Turn	450	82	122
Southbound Left Turn	375*	213	631
Southbound Right Turn	Shared	0	0
<b>Montague Expwy / McCandless Drive / Trade Zone Blvd.</b>			
Eastbound Left Turn	200	22	26
Eastbound Right Turn	250	0	0
Westbound Left Turn	250	131	<b>391</b>
Westbound Right Turn	100	0	0
Northbound Left Turn	515	<b>845</b>	<b>610</b>
Northbound Right Turn	75	<b>103</b>	<b>214</b>
Southbound Left Turn	180	13	12
Southbound Right Turn	200	0	0

Note: 1) \* = two lanes

### Recommended City Conditions

The preceding TJKM analysis concludes that LOS operations and vehicle queues at six local study intersections are expected to remain acceptable with the redistribution of McCandless Drive traffic to other area roadways given the proposed roadway closure. Although not expected, in the event that an LOS standard is exceeded or unacceptable vehicle queues occur during AM or PM peak hours, TJKM recommends the following City conditions for purposes of maintaining acceptable traffic operations during construction:

- ▀ The applicant will monitor traffic at the six study intersections, collecting and analyzing weekday AM and PM peak period traffic volumes (7-9 AM and 4-6 PM, respectively) on a monthly basis during the road closure to determine whether they are reasonably within levels estimated in this study.
- ▀ If the measured traffic volume levels are significantly higher than estimated levels such that significantly increased average intersection delay and/or vehicle queue spillovers at the study intersections result, the applicant will provide City staff with a traffic staging proposal that maintains at least one lane of through traffic on McCandless Drive between Great Mall Parkway and Penitencia Creek for the remaining duration of construction activities.

- ▼ The applicant will cease full road closure on McCandless Drive prior to the onset of the 2013 holiday shopping season at the adjacent Great Mall.

Thank you for providing TJKM with the opportunity to provide this important traffic analysis in Milpitas. If you have any questions concerning this study, please feel free to call me at (925) 264-5034, or Rich Haygood at (925) 264-5025.

Sincerely,



Andrew R. Kluter, PE  
Project Manager

ARK/TC

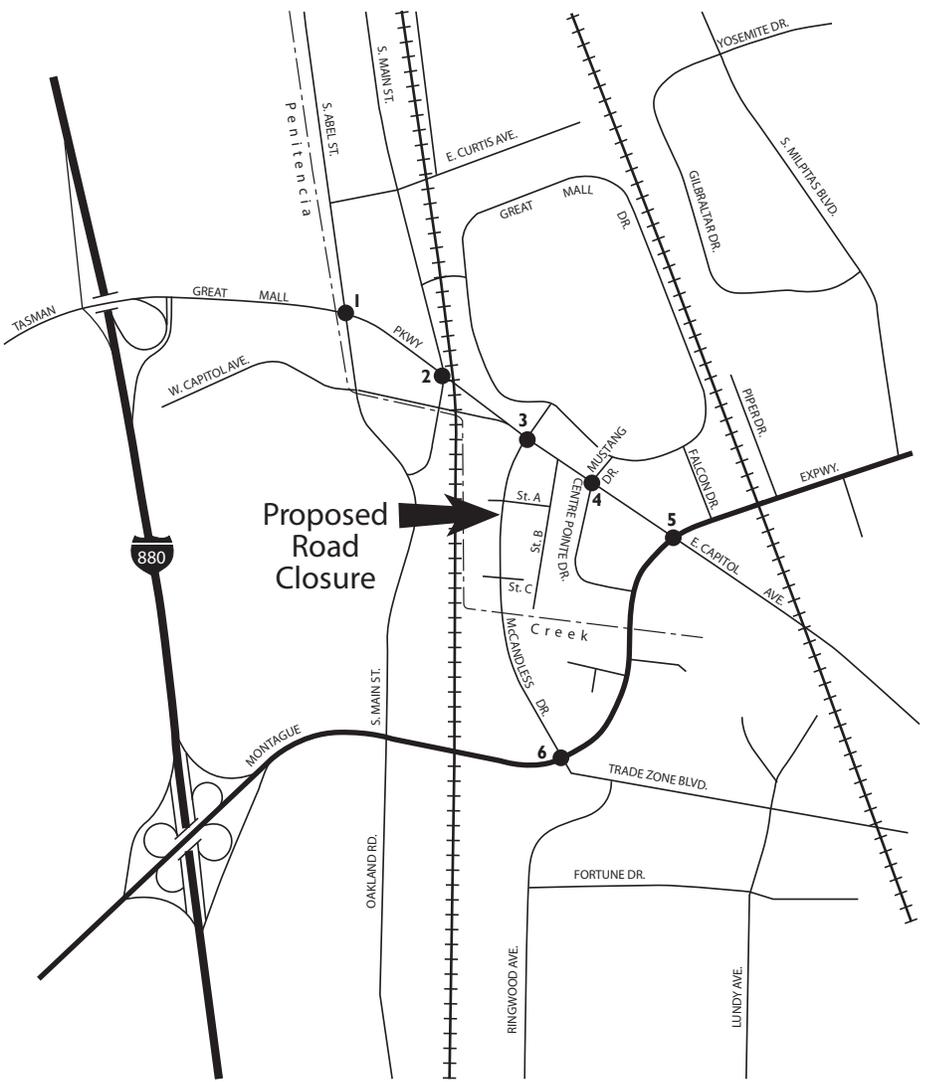
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City of Milpitas – Traffic Impacts of Proposed McCandless Drive Closure  
 Existing Conditions Traffic Volumes, Lane Geometry, and Traffic Controls

Figure 1

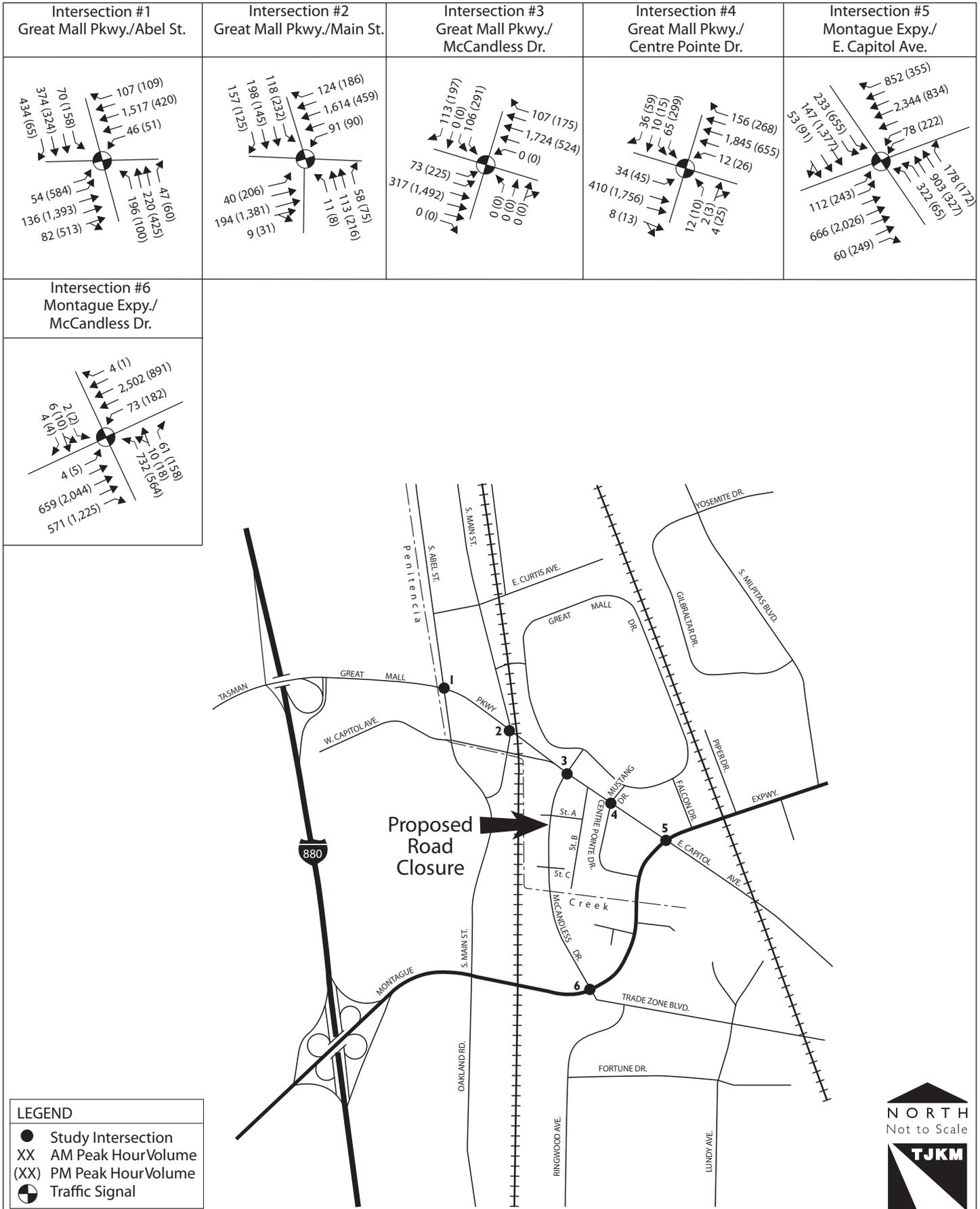
Intersection #1 Great Mall Pkwy./Abel St.	Intersection #2 Great Mall Pkwy./Main St.	Intersection #3 Great Mall Pkwy./ McCandless Dr.	Intersection #4 Great Mall Pkwy./ Centre Pointe Dr.	Intersection #5 Montague Expy./ E. Capitol Ave.
<p>Diagram showing traffic volumes and lane geometry for Intersection #1 (Great Mall Pkwy./Abel St.).</p>	<p>Diagram showing traffic volumes and lane geometry for Intersection #2 (Great Mall Pkwy./Main St.).</p>	<p>Diagram showing traffic volumes and lane geometry for Intersection #3 (Great Mall Pkwy./McCandless Dr.).</p>	<p>Diagram showing traffic volumes and lane geometry for Intersection #4 (Great Mall Pkwy./Centre Pointe Dr.).</p>	<p>Diagram showing traffic volumes and lane geometry for Intersection #5 (Montague Expy./E. Capitol Ave.).</p>

Intersection #6 Montague Expy./ McCandless Dr.
<p>Diagram showing traffic volumes and lane geometry for Intersection #6 (Montague Expy./McCandless Dr.).</p>



LEGEND	
●	Study Intersection
XX	AM Peak Hour Volume
(XX)	PM Peak Hour Volume
⊙	Traffic Signal





**Appendix A – LOS Analysis Sheets – Existing Conditions Before and After Proposed Roadway Closure**

City of Milpitas - McCandless Drive Closure  
Intersection Level of Service Analysis

<i>Intersection</i>	<i>Before Road Closure</i>				<i>After Road Closure</i>			
	<i>A.M.</i>		<i>P.M.</i>		<i>A.M.</i>		<i>P.M.</i>	
	<i>Delay</i>	<i>LOS</i>	<i>Delay</i>	<i>LOS</i>	<i>Delay</i>	<i>LOS</i>	<i>Delay</i>	<i>LOS</i>
Great Mall Pkwy / Abel St	41.2	D	41.4	D	41.5	D	45.4	D
Great Mall Pkwy / Main St	27.4	C	34.9	C	27.6	C	36.2	D
Great Mall Pkwy / McCandless Dr	16.1	B	21.4	C	14.5	B	16.8	B
Great Mall Pkwy / Centre Pointe	13.8	B	18.5	B	13.8	B	18.7	B
Great Mall Pkwy / Montague Expwy	52.5	D	54.1	D	52.9	D	56.4	E
Montague Expwy / Trade Zone	40.7	D	45.6	D	38.5	D	37.2	D

HCM Signalized Intersection Capacity Analysis  
1: Great Mall Pkwy & S. Abel Street

Existing AM  
5/29/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  			 			 	
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3614	5120		1863	5353	1667	1863	3725	1649	1863	3725	1652
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3614	5120		1863	5353	1667	1863	3725	1649	1863	3725	1652
Volume (vph)	54	136	49	46	1517	107	191	220	47	70	374	434
Peak-hour factor, PHF	0.89	0.89	0.89	0.83	0.83	0.83	0.81	0.81	0.81	0.93	0.93	0.93
Adj. Flow (vph)	61	153	55	55	1828	129	236	272	58	75	402	467
RTOR Reduction (vph)	0	32	0	0	0	40	0	0	38	0	0	40
Lane Group Flow (vph)	61	176	0	55	1828	89	236	272	20	75	402	427
Conf. Peds. (#/hr)	5		2	2		5	3					3
Conf. Bikes (#/hr)			1			16			3			1
Turn Type	Prot			Prot		pt+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	5	2		1	6	6 7	3	8	1	7	4	5
Permitted Phases								8				4
Actuated Green, G (s)	14.6	48.7		8.2	42.3	58.2	19.5	29.2	37.4	10.9	20.6	35.2
Effective Green, g (s)	15.6	49.7		9.2	43.3	58.2	19.5	31.2	40.4	10.9	22.6	38.2
Actuated g/C Ratio	0.13	0.42		0.08	0.37	0.50	0.17	0.27	0.35	0.09	0.19	0.33
Clearance Time (s)	5.0	5.0		5.0	5.0		4.0	6.0	5.0	4.0	6.0	5.0
Vehicle Extension (s)	5.0	6.0		4.0	6.0		4.0	4.0	4.0	4.0	6.0	5.0
Lane Grp Cap (vph)	482	2175		146	1981	829	311	993	626	174	720	596
v/s Ratio Prot	0.02	0.03		0.03	c0.34	0.05	c0.13	0.07	0.00	0.04	0.11	c0.10
v/s Ratio Perm									0.01			0.16
v/c Ratio	0.13	0.08		0.38	0.92	0.11	0.76	0.27	0.03	0.43	0.56	0.72
Uniform Delay, d1	44.7	20.0		51.2	35.3	15.6	46.5	33.9	25.4	50.1	42.7	34.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.0		2.2	8.3	0.2	10.8	0.2	0.0	2.3	2.0	5.0
Delay (s)	44.9	20.1		53.4	43.6	15.8	57.3	34.1	25.4	52.5	44.7	39.7
Level of Service	D	C		D	D	B	E	C	C	D	D	D
Approach Delay (s)		25.7			42.1			42.9			42.8	
Approach LOS		C			D			D			D	
<b>Intersection Summary</b>												
HCM Average Control Delay			41.2									HCM Level of Service D
HCM Volume to Capacity ratio			0.81									
Actuated Cycle Length (s)			117.0									Sum of lost time (s) 12.0
Intersection Capacity Utilization			73.8%									ICU Level of Service D
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis  
2: Great Mall Pkwy & S.Main Street

Existing AM  
5/29/2013



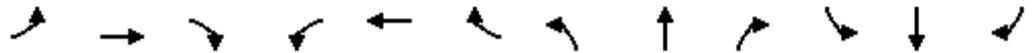
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↕↕↕		↘	↕↕↕	↗	↘	↕↕	↗	↘	↕↕	↗
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	5.0	4.0		4.0	4.0	4.0	3.0	4.0	4.0	1.5	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1863	5310		1863	5353	1667	1863	3725	1667	1863	3725	1667
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1863	5310		1863	5353	1667	1863	3725	1667	1863	3725	1667
Volume (vph)	40	194	9	72	1614	124	11	113	53	118	198	157
Peak-hour factor, PHF	0.78	0.78	0.78	0.91	0.91	0.91	0.76	0.76	0.76	0.90	0.90	0.90
Adj. Flow (vph)	51	249	12	79	1774	136	14	149	70	131	220	174
RTOR Reduction (vph)	0	3	0	0	0	17	0	0	53	0	0	113
Lane Group Flow (vph)	51	258	0	79	1774	119	14	149	17	131	220	61
Confl. Peds. (#/hr)	6		7	7		6	2					2
Confl. Bikes (#/hr)			1			10			2			3
Turn Type	Prot			Prot		pt+ov	Prot		pt+ov	Prot		pt+ov
Protected Phases	5	2		1	6	6 7	3	8	8 1	7	4	4 5
Permitted Phases												
Actuated Green, G (s)	8.6	62.6		8.9	62.9	84.3	3.7	15.8	29.7	16.4	27.0	40.6
Effective Green, g (s)	8.1	63.6		9.4	63.9	85.8	7.7	16.8	30.2	20.4	28.0	41.1
Actuated g/C Ratio	0.07	0.51		0.08	0.52	0.69	0.06	0.14	0.24	0.16	0.23	0.33
Clearance Time (s)	4.5	5.0		4.5	5.0		7.0	5.0		5.5	5.0	
Vehicle Extension (s)	3.0	6.0		3.0	6.0		4.0	4.5		6.0	5.0	
Lane Grp Cap (vph)	122	2730		142	2765	1156	116	506	407	307	843	554
v/s Ratio Prot	0.03	0.05		c0.04	c0.33	0.07	0.01	0.04	0.01	c0.07	c0.06	0.04
v/s Ratio Perm												
v/c Ratio	0.42	0.09		0.56	0.64	0.10	0.12	0.29	0.04	0.43	0.26	0.11
Uniform Delay, d1	55.5	15.3		55.1	21.6	6.3	54.8	48.1	35.7	46.4	39.3	28.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.3	0.1		4.7	1.2	0.1	0.6	0.6	0.1	2.7	0.3	0.2
Delay (s)	57.8	15.4		59.8	22.8	6.4	55.4	48.7	35.8	49.1	39.7	28.8
Level of Service	E	B		E	C	A	E	D	D	D	D	C
Approach Delay (s)		22.4			23.1			45.2			38.4	
Approach LOS		C			C			D			D	

Intersection Summary

HCM Average Control Delay	27.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	123.7	Sum of lost time (s)	5.5
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis  
3: Great Mall Pkwy & McCandless Drive

Existing AM  
5/29/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↕↕↕	↖	↖	↕↕↕	↖	↖	↕↕		↖↗	↕	↖
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0		4.0	5.0	5.0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	0.95		0.97	1.00	1.00
Frbp, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.97	1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3614	5353	1667	1863	5353	1617	1863	3502		3614	1961	1644
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3614	5353	1667	1863	5353	1617	1863	3502		3614	1961	1644
Volume (vph)	68	317	33	7	1724	100	14	12	8	87	38	94
Peak-hour factor, PHF	0.91	0.91	0.91	0.89	0.89	0.89	0.65	0.65	0.65	0.87	0.87	0.87
Adj. Flow (vph)	75	348	36	8	1937	112	22	18	12	100	44	108
RTOR Reduction (vph)	0	0	12	0	0	20	0	11	0	0	0	95
Lane Group Flow (vph)	75	348	24	8	1937	92	22	19	0	100	44	13
Confl. Peds. (#/hr)	11					11	2					2
Confl. Bikes (#/hr)						13						
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		Perm
Protected Phases	5	2		1	6		3	8		7		4
Permitted Phases			2			6						4
Actuated Green, G (s)	6.8	69.2	69.2	1.1	63.5	63.5	3.0	7.8		7.9	13.2	13.2
Effective Green, g (s)	6.8	70.2	70.2	1.1	64.5	64.5	2.5	7.3		8.9	12.7	12.7
Actuated g/C Ratio	0.07	0.67	0.67	0.01	0.62	0.62	0.02	0.07		0.09	0.12	0.12
Clearance Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.5	4.5		5.0	4.5	4.5
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	235	3596	1120	20	3304	998	45	245		308	238	200
v/s Ratio Prot	c0.02	0.07		0.00	c0.36		0.01	0.01		c0.03	c0.02	
v/s Ratio Perm			0.01			0.06						0.01
v/c Ratio	0.32	0.10	0.02	0.40	0.59	0.09	0.49	0.08		0.32	0.18	0.07
Uniform Delay, d1	46.6	6.0	5.7	51.4	12.0	8.1	50.4	45.4		45.0	41.2	40.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.8	0.1	0.0	12.6	0.8	0.2	8.1	0.1		0.6	0.4	0.1
Delay (s)	47.4	6.1	5.7	64.0	12.8	8.3	58.5	45.6		45.6	41.6	40.8
Level of Service	D	A	A	E	B	A	E	D		D	D	D
Approach Delay (s)		12.8			12.7			51.0			42.8	
Approach LOS		B			B			D			D	

Intersection Summary		
HCM Average Control Delay	16.1	HCM Level of Service B
HCM Volume to Capacity ratio	0.48	
Actuated Cycle Length (s)	104.5	Sum of lost time (s) 12.0
Intersection Capacity Utilization	55.9%	ICU Level of Service B
Analysis Period (min)	15	
c Critical Lane Group		

HCM Signalized Intersection Capacity Analysis  
4: Great Mall Pkwy & Centre Pointe Drive

Existing AM  
5/29/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑↑		↙	↑↑↑	↙	↙	↘		↙↘	↑	↙
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	1.00		0.97	1.00	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.95	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.90		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1863	5334		1863	5353	1586	1863	1765		3614	1961	1667
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1863	5334		1863	5353	1586	1863	1765		3614	1961	1667
Volume (vph)	34	391	8	12	1838	156	12	2	4	65	10	36
Peak-hour factor, PHF	0.84	0.84	0.84	0.83	0.83	0.83	0.64	0.64	0.64	0.52	0.52	0.52
Adj. Flow (vph)	40	465	10	14	2214	188	19	3	6	125	19	69
RTOR Reduction (vph)	0	1	0	0	0	37	0	6	0	0	0	60
Lane Group Flow (vph)	40	474	0	14	2214	151	19	3	0	125	19	9
Conf. Peds. (#/hr)	12					12						
Conf. Bikes (#/hr)			2			15						
Turn Type	Prot			Prot		Perm	Prot			Prot		Perm
Protected Phases	5	2		1	6		3	8		7		4
Permitted Phases						6						4
Actuated Green, G (s)	3.8	49.5		0.8	46.5	46.5	2.2	5.1		7.7	11.1	11.1
Effective Green, g (s)	4.3	50.5		1.3	47.5	47.5	2.7	5.1		8.7	11.1	11.1
Actuated g/C Ratio	0.05	0.62		0.02	0.58	0.58	0.03	0.06		0.11	0.14	0.14
Clearance Time (s)	4.5	5.0		4.5	5.0	5.0	4.5	4.0		5.0	4.0	4.0
Vehicle Extension (s)	2.0	4.5		2.0	4.5	4.5	2.5	2.5		2.5	2.5	2.5
Lane Grp Cap (vph)	98	3301		30	3116	923	62	110		385	267	227
v/s Ratio Prot	c0.02	c0.09		0.01	c0.41		0.01	0.00		c0.03	c0.01	
v/s Ratio Perm						0.10						0.01
v/c Ratio	0.41	0.14		0.47	0.71	0.16	0.31	0.03		0.32	0.07	0.04
Uniform Delay, d1	37.4	6.5		39.8	12.2	7.9	38.5	35.9		33.7	30.8	30.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.0	0.0		4.1	0.9	0.1	2.0	0.1		0.4	0.1	0.1
Delay (s)	38.4	6.5		43.9	13.0	8.0	40.6	36.0		34.1	30.8	30.7
Level of Service	D	A		D	B	A	D	D		C	C	C
Approach Delay (s)		9.0			12.8			39.1			32.7	
Approach LOS		A			B			D			C	

Intersection Summary

HCM Average Control Delay	13.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	81.6	Sum of lost time (s)	16.0
Intersection Capacity Utilization	53.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis  
5: Montague Expressway & Great Mall Pkwy

Existing AM  
5/29/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.86	1.00	0.97	0.86	1.00	0.97	0.95	1.00	0.97	0.91	
Frbp, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	0.96	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3614	6745	1645	3614	6745	1641	3614	3725	1607	3614	5187	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3614	6745	1645	3614	6745	1641	3614	3725	1607	3614	5187	
Volume (vph)	105	666	60	78	2344	852	322	903	178	233	147	34
Peak-hour factor, PHF	0.97	0.97	0.97	0.94	0.94	0.94	0.90	0.90	0.90	0.81	0.81	0.81
Adj. Flow (vph)	108	687	62	83	2494	906	358	1003	198	288	181	42
RTOR Reduction (vph)	0	0	0	0	0	175	0	0	134	0	19	0
Lane Group Flow (vph)	108	687	62	83	2494	731	358	1003	64	288	204	0
Confl. Peds. (#/hr)			1	1			2		14	14		2
Confl. Bikes (#/hr)			2			7			11			
Turn Type	Prot		Free	Prot		Perm	Prot		Perm	Prot		
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			Free			6			4			
Actuated Green, G (s)	11.1	88.5	190.0	9.7	87.1	87.1	23.2	52.1	52.1	18.4	47.3	
Effective Green, g (s)	12.6	89.8	190.0	11.2	88.4	88.4	24.7	53.1	53.1	19.9	48.3	
Actuated g/C Ratio	0.07	0.47	1.00	0.06	0.47	0.47	0.13	0.28	0.28	0.10	0.25	
Clearance Time (s)	5.5	5.3		5.5	5.3	5.3	5.5	5.0	5.0	5.5	5.0	
Vehicle Extension (s)	3.0	6.0		3.0	6.0	6.0	3.0	4.0	4.0	3.0	4.0	
Lane Grp Cap (vph)	240	3188	1645	213	3138	763	470	1041	449	379	1319	
v/s Ratio Prot	c0.03	0.10		0.02	0.37		c0.10	c0.27		0.08	0.04	
v/s Ratio Perm			c0.04			c0.45			0.04			
v/c Ratio	0.45	0.22	0.04	0.39	0.79	0.96	0.76	0.96	0.14	0.76	0.15	
Uniform Delay, d1	85.4	29.4	0.0	86.1	43.1	49.0	79.8	67.5	51.4	82.7	55.0	
Progression Factor	1.12	0.82	1.00	1.10	0.75	0.64	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.3	0.2	0.0	1.0	1.9	21.6	7.2	19.6	0.2	8.5	0.1	
Delay (s)	97.2	24.3	0.0	95.9	34.4	53.0	87.0	87.1	51.6	91.2	55.1	
Level of Service	F	C	A	F	C	D	F	F	D	F	E	
Approach Delay (s)		31.7			40.7			82.6			75.4	
Approach LOS		C			D			F			E	

Intersection Summary

HCM Average Control Delay	52.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	97.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis  
6: Montague Expressway & McCandless Drive

Existing AM  
5/29/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑↑	↗	↖	↖	↗	↖	↗	↗
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1863	5353	1632	1863	5353	1633	1770	1778	1667	1770	1863	1646
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1863	5353	1632	1863	5353	1633	1770	1778	1667	1770	1863	1646
Volume (vph)	15	656	541	63	2493	13	727	20	58	12	41	37
Peak-hour factor, PHF	0.88	0.88	0.88	0.93	0.93	0.93	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	17	745	615	68	2681	14	808	22	64	13	46	41
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	12	0	0	0
Lane Group Flow (vph)	17	745	615	68	2681	14	404	426	52	13	46	41
Confl. Bikes (#/hr)			2			1						1
Turn Type	Prot		Free	Prot		Free	Split		Perm	Split		Free
Protected Phases	1	6		5	2		3	3		4	4	
Permitted Phases			Free			Free			3			Free
Actuated Green, G (s)	5.5	107.8	190.0	13.4	115.7	190.0	41.0	41.0	41.0	8.5	8.5	190.0
Effective Green, g (s)	5.5	109.1	190.0	13.4	117.0	190.0	42.0	42.0	42.0	9.5	9.5	190.0
Actuated g/C Ratio	0.03	0.57	1.00	0.07	0.62	1.00	0.22	0.22	0.22	0.05	0.05	1.00
Clearance Time (s)	4.0	5.3		4.0	5.3		5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	54	3074	1632	131	3296	1633	391	393	368	89	93	1646
v/s Ratio Prot	0.01	0.14		c0.04	c0.50		0.23	c0.24		0.01	0.02	
v/s Ratio Perm			c0.38			0.01			0.03			0.02
v/c Ratio	0.31	0.24	0.38	0.52	0.81	0.01	1.03	1.08	0.14	0.15	0.49	0.02
Uniform Delay, d1	90.4	20.0	0.0	85.2	28.1	0.0	74.0	74.0	59.5	86.4	87.9	0.0
Progression Factor	1.00	1.00	1.00	1.09	0.79	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.5	0.2	0.7	2.8	1.4	0.0	54.3	69.8	0.2	1.0	5.5	0.0
Delay (s)	94.9	20.2	0.7	95.3	23.6	0.0	128.3	143.8	59.8	87.4	93.5	0.0
Level of Service	F	C	A	F	C	A	F	F	E	F	F	A
Approach Delay (s)		12.4			25.2			130.8			54.4	
Approach LOS		B			C			F			D	

**Intersection Summary**

HCM Average Control Delay	40.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
 1: Great Mall Pkwy & S. Abel Street

Existing PM  
 5/29/2013

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	 	  			  			 		 	 	 	
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.97	0.91		1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Frbp, ped/bikes	1.00	0.99		1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	3614	5142		1863	5353	1667	1863	3725	1646	1863	3725	1651	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	3614	5142		1863	5353	1667	1863	3725	1646	1863	3725	1651	
Volume (vph)	584	1393	406	51	420	109	68	425	60	158	324	65	
Peak-hour factor, PHF	0.94	0.94	0.94	0.78	0.78	0.78	0.68	0.68	0.68	0.82	0.82	0.82	
Adj. Flow (vph)	621	1482	432	65	538	140	100	625	88	193	395	79	
RTOR Reduction (vph)	0	33	0	0	0	21	0	0	55	0	0	36	
Lane Group Flow (vph)	621	1881	0	65	538	119	100	625	33	193	395	43	
Conf. Peds. (#/hr)	6		5	5		6	6		4	4		6	
Conf. Bikes (#/hr)			11			7			3			1	
Turn Type	Prot			Prot		pt+ov	Prot		pm+ov	Prot		pm+ov	
Protected Phases	5	2		1	6	6 7	3	8	1	7	4	5	
Permitted Phases								8				4	
Actuated Green, G (s)	26.8	43.8		8.6	25.6	47.6	10.3	25.8	34.4	17.0	32.5	59.3	
Effective Green, g (s)	27.8	44.8		9.6	26.6	47.6	10.3	27.8	37.4	17.0	34.5	62.3	
Actuated g/C Ratio	0.24	0.39		0.08	0.23	0.41	0.09	0.24	0.32	0.15	0.30	0.54	
Clearance Time (s)	5.0	5.0		5.0	5.0		4.0	6.0	5.0	4.0	6.0	5.0	
Vehicle Extension (s)	5.0	6.0		4.0	6.0		4.0	4.0	4.0	4.0	6.0	5.0	
Lane Grp Cap (vph)	872	2000		155	1236	689	167	899	592	275	1116	950	
v/s Ratio Prot	c0.17	c0.37		0.03	0.10	0.07	0.05	c0.17	0.00	c0.10	0.11	0.01	
v/s Ratio Perm									0.02			0.02	
v/c Ratio	0.71	0.94		0.42	0.44	0.17	0.60	0.70	0.06	0.70	0.35	0.04	
Uniform Delay, d1	40.0	33.9		50.2	37.9	21.4	50.5	39.8	26.7	46.7	31.6	12.4	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.4	10.0		2.5	0.7	0.3	6.6	2.5	0.1	8.4	0.5	0.0	
Delay (s)	43.5	43.9		52.6	38.6	21.7	57.1	42.4	26.8	55.1	32.2	12.5	
Level of Service	D	D		D	D	C	E	D	C	E	C	B	
Approach Delay (s)		43.8			36.6			42.5			36.5		
Approach LOS		D			D			D			D		
<b>Intersection Summary</b>													
HCM Average Control Delay			41.4									HCM Level of Service	D
HCM Volume to Capacity ratio			0.82										
Actuated Cycle Length (s)			115.2									Sum of lost time (s)	16.0
Intersection Capacity Utilization			73.9%									ICU Level of Service	D
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis  
2: Great Mall Pkwy & Main Street

Existing PM  
5/29/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↕↕↕		↘	↕↕↕	↘	↘	↕↕	↘	↘	↕↕	↘
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	5.0	4.0		4.0	4.0	4.0	3.0	4.0	4.0	1.5	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1863	5332		1863	5353	1667	1863	3725	1667	1863	3725	1667
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1863	5332		1863	5353	1667	1863	3725	1667	1863	3725	1667
Volume (vph)	206	1381	31	62	459	186	8	216	46	232	145	125
Peak-hour factor, PHF	0.95	0.95	0.95	0.97	0.97	0.97	0.91	0.91	0.91	0.87	0.87	0.87
Adj. Flow (vph)	217	1454	33	64	473	192	9	237	51	267	167	144
RTOR Reduction (vph)	0	1	0	0	0	70	0	0	27	0	0	79
Lane Group Flow (vph)	217	1486	0	64	473	122	9	237	24	267	167	65
Conf. Peds. (#/hr)	5		7	7		5	18					18
Conf. Bikes (#/hr)			12			4			5			4
Turn Type	Prot			Prot		pt+ov	Prot		pt+ov	Prot		pt+ov
Protected Phases	5	2		1	6	6 7	3	8	8 1	7	4	4 5
Permitted Phases												
Actuated Green, G (s)	21.0	73.7		8.7	61.4	90.3	1.8	18.0	31.7	23.9	38.6	64.6
Effective Green, g (s)	20.5	74.7		9.2	62.4	91.8	5.8	19.0	32.2	27.9	39.6	65.1
Actuated g/C Ratio	0.14	0.52		0.06	0.43	0.64	0.04	0.13	0.22	0.19	0.27	0.45
Clearance Time (s)	4.5	5.0		4.5	5.0		7.0	5.0		5.5	5.0	
Vehicle Extension (s)	3.0	6.0		3.0	6.0		4.0	4.5		6.0	5.0	
Lane Grp Cap (vph)	265	2760		119	2315	1061	75	490	372	360	1022	752
v/s Ratio Prot	c0.12	c0.28		0.03	0.09	0.07	0.00	c0.06	0.01	c0.14	0.04	0.04
v/s Ratio Perm												
v/c Ratio	0.82	0.54		0.54	0.20	0.12	0.12	0.48	0.06	0.74	0.16	0.09
Uniform Delay, d1	60.1	23.3		65.5	25.5	10.3	66.8	58.1	44.2	54.8	39.8	22.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	17.6	0.8		4.6	0.2	0.1	1.0	1.3	0.1	10.6	0.2	0.1
Delay (s)	77.7	24.0		70.1	25.7	10.4	67.8	59.4	44.3	65.4	39.9	22.7
Level of Service	E	C		E	C	B	E	E	D	E	D	C
Approach Delay (s)		30.9			25.6			57.1			47.4	
Approach LOS		C			C			E			D	
<b>Intersection Summary</b>												
HCM Average Control Delay			34.9				HCM Level of Service			C		
HCM Volume to Capacity ratio			0.60									
Actuated Cycle Length (s)			144.3				Sum of lost time (s)			10.5		
Intersection Capacity Utilization			69.1%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis  
3: Great Mall Pkwy & McCandless Drive

Existing PM  
5/29/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  			 		 		
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	5.0	5.0		4.0	5.0	5.0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	0.95		0.97	1.00	1.00
Frbp, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.98	1.00	1.00		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3614	5353	1623	1863	5353	1633	1863	3605		3614	1961	1645
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3614	5353	1623	1863	5353	1633	1863	3605		3614	1961	1645
Volume (vph)	196	1492	107	2	524	150	31	54	15	253	66	169
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.78	0.78	0.78	0.90	0.90	0.90
Adj. Flow (vph)	206	1571	113	2	552	158	40	69	19	281	73	188
RTOR Reduction (vph)	0	0	33	0	0	80	0	17	0	0	0	152
Lane Group Flow (vph)	206	1571	80	2	552	78	40	71	0	281	73	36
Conf. Peds. (#/hr)	6					6	1					1
Conf. Bikes (#/hr)			10			3						
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	11.1	61.1	61.1	0.9	50.9	50.9	4.7	11.8		12.9	20.5	20.5
Effective Green, g (s)	11.1	62.1	62.1	0.9	51.9	51.9	4.2	11.3		13.9	20.0	20.0
Actuated g/C Ratio	0.11	0.59	0.59	0.01	0.49	0.49	0.04	0.11		0.13	0.19	0.19
Clearance Time (s)	4.0	5.0	5.0	4.0	5.0	5.0	4.5	4.5		5.0	4.5	4.5
Vehicle Extension (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	381	3160	958	16	2641	806	74	387		478	373	313
v/s Ratio Prot	c0.06	c0.29		0.00	0.10		0.02	0.02		c0.08	c0.04	
v/s Ratio Perm			0.05			0.05						0.02
v/c Ratio	0.54	0.50	0.08	0.12	0.21	0.10	0.54	0.18		0.59	0.20	0.11
Uniform Delay, d1	44.6	12.5	9.3	51.8	15.1	14.2	49.6	42.7		43.0	35.8	35.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.6	0.6	0.2	3.5	0.2	0.2	7.8	0.2		1.9	0.3	0.2
Delay (s)	46.2	13.1	9.5	55.3	15.2	14.4	57.4	43.0		44.8	36.1	35.4
Level of Service	D	B	A	E	B	B	E	D		D	D	D
Approach Delay (s)		16.5			15.2			47.5			40.4	
Approach LOS		B			B			D			D	
<b>Intersection Summary</b>												
HCM Average Control Delay			21.4				HCM Level of Service			C		
HCM Volume to Capacity ratio			0.45									
Actuated Cycle Length (s)			105.2				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			55.8%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis  
4: Great Mall Pkwy & Centrepointe Drive

Existing PM  
5/29/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑↑		↙	↑↑↑	↙	↙	↙		↙↙	↑	↙
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	1.00		0.97	1.00	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.97	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.87		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1863	5346		1863	5353	1608	1863	1698		3614	1961	1667
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1863	5346		1863	5353	1608	1863	1698		3614	1961	1667
Volume (vph)	45	1718	13	26	630	268	10	3	25	299	15	59
Peak-hour factor, PHF	0.90	0.90	0.90	0.91	0.91	0.91	0.73	0.73	0.73	0.83	0.83	0.83
Adj. Flow (vph)	50	1909	14	29	692	295	14	4	34	360	18	71
RTOR Reduction (vph)	0	1	0	0	0	166	0	31	0	0	0	52
Lane Group Flow (vph)	50	1922	0	29	692	129	14	7	0	360	18	19
Conf. Peds. (#/hr)	8						8					
Conf. Bikes (#/hr)			9			5						
Turn Type	Prot			Prot		Perm	Prot			Prot		Perm
Protected Phases	5	2		1	6		3	8		7		4
Permitted Phases						6						4
Actuated Green, G (s)	2.2	29.5		1.8	29.1	29.1	0.7	6.4		12.4	18.6	18.6
Effective Green, g (s)	2.7	30.5		2.3	30.1	30.1	1.2	6.4		13.4	18.6	18.6
Actuated g/C Ratio	0.04	0.44		0.03	0.44	0.44	0.02	0.09		0.20	0.27	0.27
Clearance Time (s)	4.5	5.0		4.5	5.0	5.0	4.5	4.0		5.0	4.0	4.0
Vehicle Extension (s)	2.0	4.5		2.0	4.5	4.5	2.5	2.5		2.5	2.5	2.5
Lane Grp Cap (vph)	73	2377		62	2349	706	33	158		706	532	452
v/s Ratio Prot	c0.03	c0.36		0.02	0.13		0.01	0.00		c0.10	0.01	
v/s Ratio Perm						0.08						c0.01
v/c Ratio	0.68	0.81		0.47	0.29	0.18	0.42	0.05		0.51	0.03	0.04
Uniform Delay, d1	32.5	16.5		32.5	12.4	11.7	33.4	28.3		24.7	18.4	18.4
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	19.1	2.4		2.0	0.1	0.2	6.3	0.1		0.4	0.0	0.0
Delay (s)	51.6	18.9		34.6	12.5	12.0	39.6	28.4		25.1	18.4	18.5
Level of Service	D	B		C	B	B	D	C		C	B	B
Approach Delay (s)		19.7			13.0			31.4			23.8	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	18.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	68.6	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis  
5: Montague Expressway & Great Mall Pkwy

Existing PM  
5/29/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.86	1.00	0.97	0.86	1.00	0.97	0.95	1.00	0.97	0.91	
Frbp, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	0.96	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3614	6745	1645	3614	6745	1645	3614	3725	1608	3614	5320	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3614	6745	1645	3614	6745	1645	3614	3725	1608	3614	5320	
Volume (vph)	218	2026	249	222	834	355	65	327	172	655	1377	53
Peak-hour factor, PHF	0.84	0.84	0.84	0.96	0.96	0.96	0.91	0.91	0.91	0.86	0.86	0.86
Adj. Flow (vph)	260	2412	296	231	869	370	71	359	189	762	1601	62
RTOR Reduction (vph)	0	0	0	0	0	221	0	0	113	0	2	0
Lane Group Flow (vph)	260	2412	296	231	869	149	71	359	76	762	1661	0
Confl. Peds. (#/hr)			1	1			1		21	21		1
Confl. Bikes (#/hr)			3			2						5
Turn Type	Prot		Free	Prot		Perm	Prot		Perm	Prot		
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			Free			6			4			
Actuated Green, G (s)	17.9	78.1	190.0	15.2	75.4	75.4	9.3	39.4	39.4	35.0	66.1	
Effective Green, g (s)	19.4	79.4	190.0	16.7	76.7	76.7	10.8	40.4	40.4	37.5	67.1	
Actuated g/C Ratio	0.10	0.42	1.00	0.09	0.40	0.40	0.06	0.21	0.21	0.20	0.35	
Clearance Time (s)	5.5	5.3		5.5	5.3	5.3	5.5	5.0	5.0	6.5	5.0	
Vehicle Extension (s)	3.0	6.0		3.0	6.0	6.0	3.0	4.0	4.0	3.0	4.0	
Lane Grp Cap (vph)	369	2819	1645	318	2723	664	205	792	342	713	1879	
v/s Ratio Prot	c0.07	c0.36		0.06	0.13		0.02	0.10		c0.21	c0.31	
v/s Ratio Perm			c0.18			0.09			0.05			
v/c Ratio	0.70	0.86	0.18	0.73	0.32	0.22	0.35	0.45	0.22	1.07	0.88	
Uniform Delay, d1	82.5	50.1	0.0	84.4	38.8	37.2	86.2	65.2	61.8	76.2	57.8	
Progression Factor	1.33	0.44	1.00	1.05	0.95	1.11	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	4.3	2.6	0.2	7.7	0.3	0.8	1.0	0.6	0.4	53.6	5.5	
Delay (s)	113.9	24.7	0.2	96.2	37.0	41.9	87.2	65.7	62.2	129.8	63.3	
Level of Service	F	C	A	F	D	D	F	E	E	F	E	
Approach Delay (s)		30.1			47.5			67.1			84.2	
Approach LOS		C			D			E			F	

Intersection Summary

HCM Average Control Delay	54.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	98.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis  
6: Montague Expressway & Trade Zone Blvd

Existing PM  
5/29/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↘	↘	↑↑↑	↘	↘	↘	↘	↘	↘	↘
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1863	5353	1632	1863	5353	1631	1770	1792	1667	1770	1863	1646
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1863	5353	1632	1863	5353	1631	1770	1792	1667	1770	1863	1646
Volume (vph)	39	2033	1129	159	876	12	532	63	143	16	124	51
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.96	0.96	0.96	0.84	0.84	0.84
Adj. Flow (vph)	44	2310	1283	181	995	14	554	66	149	19	148	61
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	35	0	0	0
Lane Group Flow (vph)	44	2310	1283	181	995	14	302	318	114	19	148	61
Confl. Peds. (#/hr)	1					1						
Confl. Bikes (#/hr)			2			2						1
Turn Type	Prot		Free	Prot		Free	Split		Perm	Split		Free
Protected Phases	1	6		5	2		3	3		4	4	
Permitted Phases			Free			Free			3			Free
Actuated Green, G (s)	9.4	93.4	190.0	20.4	104.4	190.0	37.5	37.5	37.5	18.7	18.7	190.0
Effective Green, g (s)	10.4	94.4	190.0	21.4	105.4	190.0	38.5	38.5	38.5	19.7	19.7	190.0
Actuated g/C Ratio	0.05	0.50	1.00	0.11	0.55	1.00	0.20	0.20	0.20	0.10	0.10	1.00
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	102	2660	1632	210	2970	1631	359	363	338	184	193	1646
v/s Ratio Prot	0.02	c0.43		0.10	0.19		0.17	c0.18		0.01	0.08	
v/s Ratio Perm			c0.79			0.01			0.07			0.04
v/c Ratio	0.43	0.87	0.79	0.86	0.34	0.01	0.84	0.88	0.34	0.10	0.77	0.04
Uniform Delay, d1	86.9	42.3	0.0	82.8	23.1	0.0	72.8	73.4	64.8	77.1	82.9	0.0
Progression Factor	1.00	1.00	1.00	0.73	2.17	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.0	4.2	3.9	28.6	0.3	0.0	16.7	20.9	0.8	0.3	17.5	0.0
Delay (s)	90.9	46.5	3.9	88.8	50.4	0.0	89.5	94.3	65.6	77.5	100.4	0.0
Level of Service	F	D	A	F	D	A	F	F	E	E	F	A
Approach Delay (s)		32.0			55.6			86.9			71.6	
Approach LOS		C			E			F			E	

Intersection Summary

HCM Average Control Delay	45.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	190.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis  
1: Great Mall Pkwy & S. Abel Street

Existing AM with Closure  
5/30/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  			 			 	
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frbp, ped/bikes	1.00	0.99		1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.94		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3614	5022		1863	5353	1667	1863	3725	1649	1863	3725	1652
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3614	5022		1863	5353	1667	1863	3725	1649	1863	3725	1652
Volume (vph)	54	136	82	46	1517	107	196	220	47	70	374	434
Peak-hour factor, PHF	0.89	0.89	0.89	0.83	0.83	0.83	0.81	0.81	0.81	0.93	0.93	0.93
Adj. Flow (vph)	61	153	92	55	1828	129	242	272	58	75	402	467
RTOR Reduction (vph)	0	53	0	0	0	40	0	0	38	0	0	38
Lane Group Flow (vph)	61	192	0	55	1828	89	242	272	20	75	402	429
Confl. Peds. (#/hr)	5		2	2		5	3					3
Confl. Bikes (#/hr)			1			16			3			1
Turn Type	Prot			Prot		pt+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	5	2		1	6	6 7	3	8	1	7	4	5
Permitted Phases								8				4
Actuated Green, G (s)	14.8	48.9		8.2	42.3	58.2	19.8	29.5	37.7	10.9	20.6	35.4
Effective Green, g (s)	15.8	49.9		9.2	43.3	58.2	19.8	31.5	40.7	10.9	22.6	38.4
Actuated g/C Ratio	0.13	0.42		0.08	0.37	0.50	0.17	0.27	0.35	0.09	0.19	0.33
Clearance Time (s)	5.0	5.0		5.0	5.0		4.0	6.0	5.0	4.0	6.0	5.0
Vehicle Extension (s)	5.0	6.0		4.0	6.0		4.0	4.0	4.0	4.0	6.0	5.0
Lane Grp Cap (vph)	486	2133		146	1973	826	314	999	627	173	716	596
v/s Ratio Prot	0.02	0.04		0.03	c0.34	0.05	c0.13	0.07	0.00	0.04	0.11	c0.10
v/s Ratio Perm									0.01			0.16
v/c Ratio	0.13	0.09		0.38	0.93	0.11	0.77	0.27	0.03	0.43	0.56	0.72
Uniform Delay, d1	44.8	20.2		51.4	35.6	15.8	46.7	34.0	25.4	50.4	43.0	34.8
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.1		2.2	8.7	0.2	11.7	0.2	0.0	2.4	2.1	5.1
Delay (s)	45.0	20.3		53.6	44.2	16.0	58.4	34.2	25.4	52.7	45.1	39.9
Level of Service	D	C		D	D	B	E	C	C	D	D	D
Approach Delay (s)		25.2			42.7			43.5			43.1	
Approach LOS		C			D			D			D	
<b>Intersection Summary</b>												
HCM Average Control Delay			41.5									HCM Level of Service D
HCM Volume to Capacity ratio			0.81									
Actuated Cycle Length (s)			117.5									Sum of lost time (s) 12.0
Intersection Capacity Utilization			74.0%									ICU Level of Service D
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis  
2: Great Mall Pkwy & S.Main Street

Existing AM with Closure  
5/30/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 			 			 	
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	5.0	4.0		4.0	4.0	4.0	3.0	4.0	4.0	1.5	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1863	5310		1863	5353	1667	1863	3725	1667	1863	3725	1667
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1863	5310		1863	5353	1667	1863	3725	1667	1863	3725	1667
Volume (vph)	40	194	9	91	1614	124	11	113	58	118	198	157
Peak-hour factor, PHF	0.78	0.78	0.78	0.91	0.91	0.91	0.76	0.76	0.76	0.90	0.90	0.90
Adj. Flow (vph)	51	249	12	100	1774	136	14	149	76	131	220	174
RTOR Reduction (vph)	0	3	0	0	0	17	0	0	56	0	0	113
Lane Group Flow (vph)	51	258	0	100	1774	119	14	149	20	131	220	61
Conf. Peds. (#/hr)	6		7	7		6	2					2
Conf. Bikes (#/hr)			1			10			2			3
Turn Type	Prot			Prot		pt+ov	Prot		pt+ov	Prot		pt+ov
Protected Phases	5	2		1	6	6 7	3	8	8 1	7	4	4 5
Permitted Phases												
Actuated Green, G (s)	8.6	60.4		11.7	63.5	85.1	3.7	15.7	32.4	16.6	27.1	40.7
Effective Green, g (s)	8.1	61.4		12.2	64.5	86.6	7.7	16.7	32.9	20.6	28.1	41.2
Actuated g/C Ratio	0.07	0.49		0.10	0.52	0.70	0.06	0.13	0.26	0.17	0.23	0.33
Clearance Time (s)	4.5	5.0		4.5	5.0		7.0	5.0		5.5	5.0	
Vehicle Extension (s)	3.0	6.0		3.0	6.0		4.0	4.5		6.0	5.0	
Lane Grp Cap (vph)	121	2621		183	2775	1160	115	500	441	309	841	552
v/s Ratio Prot	0.03	0.05		c0.05	c0.33	0.07	0.01	0.04	0.01	c0.07	c0.06	0.04
v/s Ratio Perm												
v/c Ratio	0.42	0.10		0.55	0.64	0.10	0.12	0.30	0.05	0.42	0.26	0.11
Uniform Delay, d1	55.9	16.8		53.5	21.6	6.2	55.2	48.6	34.1	46.6	39.6	28.9
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.4	0.1		3.3	1.1	0.1	0.6	0.6	0.1	2.6	0.3	0.2
Delay (s)	58.3	16.8		56.8	22.7	6.3	55.8	49.1	34.1	49.2	40.0	29.1
Level of Service	E	B		E	C	A	E	D	C	D	D	C
Approach Delay (s)		23.6			23.3			44.8			38.7	
Approach LOS		C			C			D			D	
<b>Intersection Summary</b>												
HCM Average Control Delay			27.6				HCM Level of Service			C		
HCM Volume to Capacity ratio			0.53									
Actuated Cycle Length (s)			124.4				Sum of lost time (s)			9.5		
Intersection Capacity Utilization			57.9%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis  
3: Great Mall Pkwy & McCandless Drive

Existing AM with Closure  
5/30/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖↗	↖↖↗	↖	↖	↖↖↗	↖	↖	↖↗		↖↗	↖	↖
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	4.0	4.0			4.0	4.0				4.0	4.0	5.0
Lane Util. Factor	0.97	0.91			0.91	1.00				0.97		1.00
Frbp, ped/bikes	1.00	1.00			1.00	0.97				1.00		0.99
Flpb, ped/bikes	1.00	1.00			1.00	1.00				1.00		1.00
Frt	1.00	1.00			1.00	0.85				1.00		0.85
Flt Protected	0.95	1.00			1.00	1.00				0.95		1.00
Satd. Flow (prot)	3614	5353			5353	1619				3614		1644
Flt Permitted	0.95	1.00			1.00	1.00				0.95		1.00
Satd. Flow (perm)	3614	5353			5353	1619				3614		1644
Volume (vph)	73	317	0	0	1724	107	0	0	0	106	0	113
Peak-hour factor, PHF	0.91	0.91	0.91	0.89	0.89	0.89	0.65	0.65	0.65	0.87	0.87	0.87
Adj. Flow (vph)	80	348	0	0	1937	120	0	0	0	122	0	130
RTOR Reduction (vph)	0	0	0	0	0	22	0	0	0	0	0	105
Lane Group Flow (vph)	80	348	0	0	1937	98	0	0	0	122	0	25
Confl. Peds. (#/hr)	11					11	2					2
Confl. Bikes (#/hr)						13						
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	6.6	67.1			56.5	56.5				7.8		18.9
Effective Green, g (s)	6.6	68.1			57.5	57.5				8.8		18.4
Actuated g/C Ratio	0.07	0.71			0.60	0.60				0.09		0.19
Clearance Time (s)	4.0	5.0			5.0	5.0				5.0		4.5
Vehicle Extension (s)	3.0	5.0			5.0	5.0				3.0		3.0
Lane Grp Cap (vph)	250	3817			3223	975				333		317
v/s Ratio Prot	c0.02	0.07			c0.36					c0.03		
v/s Ratio Perm						0.06						c0.02
v/c Ratio	0.32	0.09			0.60	0.10				0.37		0.08
Uniform Delay, d1	42.3	4.2			11.8	8.0				40.7		31.6
Progression Factor	1.00	1.00			1.00	1.00				1.00		1.00
Incremental Delay, d2	0.7	0.0			0.8	0.2				0.7		0.1
Delay (s)	43.1	4.3			12.7	8.3				41.4		31.7
Level of Service	D	A			B	A				D		C
Approach Delay (s)		11.5			12.4		0.0				36.4	
Approach LOS		B			B		A				D	
<b>Intersection Summary</b>												
HCM Average Control Delay			14.5				HCM Level of Service			B		
HCM Volume to Capacity ratio			0.49									
Actuated Cycle Length (s)			95.5				Sum of lost time (s)		12.0			
Intersection Capacity Utilization			47.8%				ICU Level of Service		A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis  
4: Great Mall Pkwy & Centre Pointe Drive

Existing AM with Closure  
5/30/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  					 		
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	1.00		0.97	1.00	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.95	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.90		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1863	5335		1863	5353	1586	1863	1765		3614	1961	1667
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1863	5335		1863	5353	1586	1863	1765		3614	1961	1667
Volume (vph)	34	410	8	12	1845	156	12	2	4	65	10	36
Peak-hour factor, PHF	0.84	0.84	0.84	0.83	0.83	0.83	0.64	0.64	0.64	0.52	0.52	0.52
Adj. Flow (vph)	40	488	10	14	2223	188	19	3	6	125	19	69
RTOR Reduction (vph)	0	1	0	0	0	37	0	6	0	0	0	60
Lane Group Flow (vph)	40	497	0	14	2223	151	19	3	0	125	19	9
Conf. Peds. (#/hr)	12					12						
Conf. Bikes (#/hr)			2			15						
Turn Type	Prot			Prot		Perm	Prot			Prot		Perm
Protected Phases	5	2		1	6		3	8		7		4
Permitted Phases						6						4
Actuated Green, G (s)	3.8	49.5		0.8	46.5	46.5	2.2	5.1		7.7	11.1	11.1
Effective Green, g (s)	4.3	50.5		1.3	47.5	47.5	2.7	5.1		8.7	11.1	11.1
Actuated g/C Ratio	0.05	0.62		0.02	0.58	0.58	0.03	0.06		0.11	0.14	0.14
Clearance Time (s)	4.5	5.0		4.5	5.0	5.0	4.5	4.0		5.0	4.0	4.0
Vehicle Extension (s)	2.0	4.5		2.0	4.5	4.5	2.5	2.5		2.5	2.5	2.5
Lane Grp Cap (vph)	98	3302		30	3116	923	62	110		385	267	227
v/s Ratio Prot	c0.02	c0.09		0.01	c0.42		0.01	0.00		c0.03	c0.01	
v/s Ratio Perm						0.10						0.01
v/c Ratio	0.41	0.15		0.47	0.71	0.16	0.31	0.03		0.32	0.07	0.04
Uniform Delay, d1	37.4	6.5		39.8	12.2	7.9	38.5	35.9		33.7	30.8	30.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.0	0.0		4.1	0.9	0.1	2.0	0.1		0.4	0.1	0.1
Delay (s)	38.4	6.6		43.9	13.1	8.0	40.6	36.0		34.1	30.8	30.7
Level of Service	D	A		D	B	A	D	D		C	C	C
Approach Delay (s)		8.9			12.9			39.1			32.7	
Approach LOS		A			B			D			C	
<b>Intersection Summary</b>												
HCM Average Control Delay			13.8									HCM Level of Service B
HCM Volume to Capacity ratio			0.59									
Actuated Cycle Length (s)			81.6									Sum of lost time (s) 16.0
Intersection Capacity Utilization			53.9%									ICU Level of Service A
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis  
5: Montague Expressway & Great Mall Pkwy

Existing AM with Closure  
5/30/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.86	1.00	0.97	0.86	1.00	0.97	0.95	1.00	0.97	0.91	
Frbp, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.98	1.00	1.00	0.96	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3614	6745	1645	3614	6745	1641	3614	3725	1607	3614	5121	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3614	6745	1645	3614	6745	1641	3614	3725	1607	3614	5121	
Volume (vph)	112	666	60	78	2344	852	322	903	178	233	147	53
Peak-hour factor, PHF	0.97	0.97	0.97	0.94	0.94	0.94	0.90	0.90	0.90	0.81	0.81	0.81
Adj. Flow (vph)	115	687	62	83	2494	906	358	1003	198	288	181	65
RTOR Reduction (vph)	0	0	0	0	0	173	0	0	134	0	34	0
Lane Group Flow (vph)	115	687	62	83	2494	733	358	1003	64	288	212	0
Conf. Peds. (#/hr)			1	1			2		14	14		2
Conf. Bikes (#/hr)			2			7			11			
Turn Type	Prot		Free	Prot		Perm	Prot		Perm	Prot		
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			Free			6			4			
Actuated Green, G (s)	11.4	88.5	190.0	9.7	86.8	86.8	23.2	52.1	52.1	18.4	47.3	
Effective Green, g (s)	12.9	89.8	190.0	11.2	88.1	88.1	24.7	53.1	53.1	19.9	48.3	
Actuated g/C Ratio	0.07	0.47	1.00	0.06	0.46	0.46	0.13	0.28	0.28	0.10	0.25	
Clearance Time (s)	5.5	5.3		5.5	5.3	5.3	5.5	5.0	5.0	5.5	5.0	
Vehicle Extension (s)	3.0	6.0		3.0	6.0	6.0	3.0	4.0	4.0	3.0	4.0	
Lane Grp Cap (vph)	245	3188	1645	213	3128	761	470	1041	449	379	1302	
v/s Ratio Prot	c0.03	0.10		0.02	0.37		c0.10	c0.27		0.08	0.04	
v/s Ratio Perm			c0.04			c0.45			0.04			
v/c Ratio	0.47	0.22	0.04	0.39	0.80	0.96	0.76	0.96	0.14	0.76	0.16	
Uniform Delay, d1	85.3	29.4	0.0	86.1	43.4	49.4	79.8	67.5	51.4	82.7	55.1	
Progression Factor	1.14	0.83	1.00	1.10	0.76	0.65	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.4	0.2	0.0	1.0	1.9	22.6	7.2	19.6	0.2	8.5	0.1	
Delay (s)	98.7	24.6	0.0	95.9	34.7	54.5	87.0	87.1	51.6	91.2	55.2	
Level of Service	F	C	A	F	C	D	F	F	D	F	E	
Approach Delay (s)		32.7			41.3			82.6			74.6	
Approach LOS		C			D			F			E	
<b>Intersection Summary</b>												
HCM Average Control Delay			52.9				HCM Level of Service			D		
HCM Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			190.0				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			97.5%				ICU Level of Service			F		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis  
6: Montague Expressway & McCandless Drive

Existing AM with Closure  
5/30/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1863	5353	1632	1863	5353	1633	1770	1776	1667	1770	1863	1646
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1863	5353	1632	1863	5353	1633	1770	1776	1667	1770	1863	1646
Volume (vph)	4	659	571	73	2502	4	732	10	61	2	6	4
Peak-hour factor, PHF	0.88	0.88	0.88	0.93	0.93	0.93	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	5	749	649	78	2690	4	813	11	68	2	7	4
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	12	0	0	0
Lane Group Flow (vph)	5	749	649	78	2690	4	407	417	56	2	7	4
Conf. Bikes (#/hr)			2			1						1
Turn Type	Prot		Free	Prot		Free	Split		Perm	Split		Free
Protected Phases	1	6		5	2		3	3		4	4	
Permitted Phases			Free			Free			3			Free
Actuated Green, G (s)	1.6	112.0	190.0	14.4	124.8	190.0	41.0	41.0	41.0	3.3	3.3	190.0
Effective Green, g (s)	1.6	113.3	190.0	14.4	126.1	190.0	42.0	42.0	42.0	4.3	4.3	190.0
Actuated g/C Ratio	0.01	0.60	1.00	0.08	0.66	1.00	0.22	0.22	0.22	0.02	0.02	1.00
Clearance Time (s)	4.0	5.3		4.0	5.3		5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	16	3192	1632	141	3553	1633	391	393	368	40	42	1646
v/s Ratio Prot	0.00	0.14		0.04	c0.50		0.23	c0.23		0.00	0.00	
v/s Ratio Perm			c0.40			0.00			0.03			0.00
v/c Ratio	0.31	0.23	0.40	0.55	0.76	0.00	1.04	1.06	0.15	0.05	0.17	0.00
Uniform Delay, d1	93.7	18.0	0.0	84.7	21.6	0.0	74.0	74.0	59.6	90.9	91.1	0.0
Progression Factor	1.00	1.00	1.00	1.01	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	14.6	0.2	0.7	3.5	0.9	0.0	56.5	62.5	0.3	0.7	2.6	0.0
Delay (s)	108.3	18.2	0.7	88.9	22.0	0.0	130.5	136.5	59.9	91.6	93.6	0.0
Level of Service	F	B	A	F	C	A	F	F	E	F	F	A
Approach Delay (s)		10.4			23.9			127.9			64.5	
Approach LOS		B			C			F			E	
<b>Intersection Summary</b>												
HCM Average Control Delay			38.5				HCM Level of Service				D	
HCM Volume to Capacity ratio			0.80									
Actuated Cycle Length (s)			190.0				Sum of lost time (s)				8.0	
Intersection Capacity Utilization			88.8%				ICU Level of Service				E	
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis  
1: Great Mall Pkwy & S. Abel Street

Existing PM with Closure  
5/30/2013

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	 	  			  			 		 	 		
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.97	0.91		1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Frbp, ped/bikes	1.00	0.99		1.00	1.00	1.00	1.00	1.00	0.99	1.00	1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.96		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	3614	5102		1863	5353	1667	1863	3725	1646	1863	3725	1653	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (perm)	3614	5102		1863	5353	1667	1863	3725	1646	1863	3725	1653	
Volume (vph)	584	1393	513	51	420	109	100	425	60	158	324	65	
Peak-hour factor, PHF	0.94	0.94	0.94	0.78	0.78	0.78	0.68	0.68	0.68	0.82	0.82	0.82	
Adj. Flow (vph)	621	1482	546	65	538	140	147	625	88	193	395	79	
RTOR Reduction (vph)	0	41	0	0	0	20	0	0	56	0	0	40	
Lane Group Flow (vph)	621	1987	0	65	538	120	147	625	32	193	395	39	
Confl. Peds. (#/hr)	6		5	5		6	6		4	4		6	
Confl. Bikes (#/hr)			11			7			3			1	
Turn Type	Prot			Prot		pt+ov	Prot		pm+ov	Prot		pm+ov	
Protected Phases	5	2		1	6	6 7	3	8	1	7	4	5	
Permitted Phases								8				4	
Actuated Green, G (s)	26.8	43.8		8.6	25.6	47.6	15.0	24.7	33.3	17.0	26.7	53.5	
Effective Green, g (s)	27.8	44.8		9.6	26.6	47.6	15.0	26.7	36.3	17.0	28.7	56.5	
Actuated g/C Ratio	0.24	0.39		0.08	0.23	0.42	0.13	0.23	0.32	0.15	0.25	0.50	
Clearance Time (s)	5.0	5.0		5.0	5.0		4.0	6.0	5.0	4.0	6.0	5.0	
Vehicle Extension (s)	5.0	6.0		4.0	6.0		4.0	4.0	4.0	4.0	6.0	5.0	
Lane Grp Cap (vph)	881	2003		157	1248	695	245	872	581	278	937	876	
v/s Ratio Prot	c0.17	c0.39		0.03	0.10	0.07	0.08	c0.17	0.00	c0.10	0.11	0.01	
v/s Ratio Perm								0.01				0.01	
v/c Ratio	0.70	0.99		0.41	0.43	0.17	0.60	0.72	0.06	0.69	0.42	0.04	
Uniform Delay, d1	39.4	34.5		49.6	37.3	20.9	46.7	40.2	27.0	46.1	35.8	14.9	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.2	18.2		2.4	0.7	0.3	4.6	3.0	0.1	7.9	0.9	0.0	
Delay (s)	42.6	52.7		52.0	38.0	21.2	51.3	43.3	27.1	54.0	36.6	14.9	
Level of Service	D	D		D	D	C	D	D	C	D	D	B	
Approach Delay (s)		50.3			36.0			43.0			39.1		
Approach LOS		D			D			D			D		
<b>Intersection Summary</b>													
HCM Average Control Delay			45.4									HCM Level of Service	D
HCM Volume to Capacity ratio			0.84										
Actuated Cycle Length (s)			114.1									Sum of lost time (s)	16.0
Intersection Capacity Utilization			76.2%									ICU Level of Service	D
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis  
2: Great Mall Pkwy & Main Street

Existing PM with Closure  
5/30/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	5.0	4.0		4.0	4.0	4.0	3.0	4.0	4.0	1.5	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1863	5332		1863	5353	1667	1863	3725	1667	1863	3725	1667
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1863	5332		1863	5353	1667	1863	3725	1667	1863	3725	1667
Volume (vph)	206	1381	31	90	459	186	8	216	75	232	145	125
Peak-hour factor, PHF	0.95	0.95	0.95	0.97	0.97	0.97	0.91	0.91	0.91	0.87	0.87	0.87
Adj. Flow (vph)	217	1454	33	93	473	192	9	237	82	267	167	144
RTOR Reduction (vph)	0	2	0	0	0	70	0	0	32	0	0	79
Lane Group Flow (vph)	217	1485	0	93	473	122	9	237	50	267	167	65
Conf. Peds. (#/hr)	5		7	7		5	18					18
Conf. Bikes (#/hr)			12			4			5			4
Turn Type	Prot			Prot		pt+ov	Prot		pt+ov	Prot		pt+ov
Protected Phases	5	2		1	6	6 7	3	8	8 1	7	4	4 5
Permitted Phases												
Actuated Green, G (s)	21.0	69.3		12.1	60.4	89.3	1.8	18.0	35.1	23.9	38.6	64.6
Effective Green, g (s)	20.5	70.3		12.6	61.4	90.8	5.8	19.0	35.6	27.9	39.6	65.1
Actuated g/C Ratio	0.14	0.49		0.09	0.43	0.63	0.04	0.13	0.25	0.19	0.28	0.45
Clearance Time (s)	4.5	5.0		4.5	5.0		7.0	5.0		5.5	5.0	
Vehicle Extension (s)	3.0	6.0		3.0	6.0		4.0	4.5		6.0	5.0	
Lane Grp Cap (vph)	267	2616		164	2294	1056	75	494	414	363	1029	757
v/s Ratio Prot	c0.12	c0.28		0.05	0.09	0.07	0.00	c0.06	0.03	c0.14	0.04	0.04
v/s Ratio Perm												
v/c Ratio	0.81	0.57		0.57	0.21	0.12	0.12	0.48	0.12	0.74	0.16	0.09
Uniform Delay, d1	59.5	25.8		62.7	25.7	10.4	66.3	57.6	41.7	54.2	39.3	22.2
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	17.0	0.9		4.4	0.2	0.1	1.0	1.3	0.2	10.2	0.2	0.1
Delay (s)	76.5	26.7		67.2	25.9	10.5	67.3	58.8	41.9	64.5	39.4	22.3
Level of Service	E	C		E	C	B	E	E	D	E	D	C
Approach Delay (s)		33.0			27.1			54.8			46.7	
Approach LOS		C			C			D			D	
<b>Intersection Summary</b>												
HCM Average Control Delay			36.2				HCM Level of Service				D	
HCM Volume to Capacity ratio			0.62									
Actuated Cycle Length (s)			143.3				Sum of lost time (s)				10.5	
Intersection Capacity Utilization			69.1%				ICU Level of Service				C	
Analysis Period (min)			15									
c Critical Lane Group												

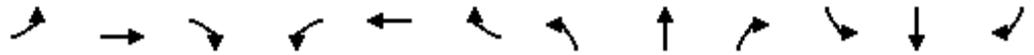
HCM Signalized Intersection Capacity Analysis  
3: Great Mall Pkwy & McCandless Drive

Existing PM with Closure  
5/30/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	4.0	4.0			4.0	4.0				4.0	2000	5.0
Lane Util. Factor	0.97	0.91			0.91	1.00				0.97		1.00
Frbp, ped/bikes	1.00	1.00			1.00	0.98				1.00		0.99
Flpb, ped/bikes	1.00	1.00			1.00	1.00				1.00		1.00
Frt	1.00	1.00			1.00	0.85				1.00		0.85
Flt Protected	0.95	1.00			1.00	1.00				0.95		1.00
Satd. Flow (prot)	3614	5353			5353	1634				3614		1646
Flt Permitted	0.95	1.00			1.00	1.00				0.95		1.00
Satd. Flow (perm)	3614	5353			5353	1634				3614		1646
Volume (vph)	225	1492	0	0	524	175	0	0	0	291	0	197
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.78	0.78	0.78	0.90	0.90	0.90
Adj. Flow (vph)	237	1571	0	0	552	184	0	0	0	323	0	219
RTOR Reduction (vph)	0	0	0	0	0	91	0	0	0	0	0	166
Lane Group Flow (vph)	237	1571	0	0	552	93	0	0	0	323	0	53
Conf. Peds. (#/hr)	6					6	1					1
Conf. Bikes (#/hr)			10			3						
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6						4
Actuated Green, G (s)	11.6	63.5			47.9	47.9				13.3		23.9
Effective Green, g (s)	11.6	64.5			48.9	48.9				14.3		23.4
Actuated g/C Ratio	0.12	0.67			0.50	0.50				0.15		0.24
Clearance Time (s)	4.0	5.0			5.0	5.0				5.0		4.5
Vehicle Extension (s)	3.0	5.0			5.0	5.0				3.0		3.0
Lane Grp Cap (vph)	433	3563			2701	825				533		397
v/s Ratio Prot	c0.07	c0.29			0.10					c0.09		
v/s Ratio Perm						0.06						c0.03
v/c Ratio	0.55	0.44			0.20	0.11				0.61		0.13
Uniform Delay, d1	40.2	7.7			13.3	12.6				38.7		28.8
Progression Factor	1.00	1.00			1.00	1.00				1.00		1.00
Incremental Delay, d2	1.4	0.4			0.2	0.3				2.0		0.2
Delay (s)	41.6	8.1			13.4	12.9				40.6		29.0
Level of Service	D	A			B	B				D		C
Approach Delay (s)		12.5			13.3			0.0			35.9	
Approach LOS		B			B			A			D	
<b>Intersection Summary</b>												
HCM Average Control Delay			16.8				HCM Level of Service			B		
HCM Volume to Capacity ratio			0.44									
Actuated Cycle Length (s)			96.9				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			50.3%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis  
4: Great Mall Pkwy & Centrepointe Drive

Existing PM with Closure  
5/30/2013



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗↗		↘	↗↗↗	↗	↘	↗		↗↗	↗	↗
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.91		1.00	0.91	1.00	1.00	1.00		0.97	1.00	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00	0.97	1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85	1.00	0.87		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1863	5346		1863	5353	1608	1863	1698		3614	1961	1667
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1863	5346		1863	5353	1608	1863	1698		3614	1961	1667
Volume (vph)	45	1756	13	26	655	268	10	3	25	299	15	59
Peak-hour factor, PHF	0.90	0.90	0.90	0.91	0.91	0.91	0.73	0.73	0.73	0.83	0.83	0.83
Adj. Flow (vph)	50	1951	14	29	720	295	14	4	34	360	18	71
RTOR Reduction (vph)	0	1	0	0	0	165	0	31	0	0	0	52
Lane Group Flow (vph)	50	1964	0	29	720	130	14	7	0	360	18	19
Conf. Peds. (#/hr)	8					8						
Conf. Bikes (#/hr)			9			5						
Turn Type	Prot			Prot		Perm	Prot			Prot		Perm
Protected Phases	5	2		1	6		3	8		7		4
Permitted Phases						6						4
Actuated Green, G (s)	2.2	29.9		1.8	29.5	29.5	0.7	6.5		12.4	18.7	18.7
Effective Green, g (s)	2.7	30.9		2.3	30.5	30.5	1.2	6.5		13.4	18.7	18.7
Actuated g/C Ratio	0.04	0.45		0.03	0.44	0.44	0.02	0.09		0.19	0.27	0.27
Clearance Time (s)	4.5	5.0		4.5	5.0	5.0	4.5	4.0		5.0	4.0	4.0
Vehicle Extension (s)	2.0	4.5		2.0	4.5	4.5	2.5	2.5		2.5	2.5	2.5
Lane Grp Cap (vph)	73	2391		62	2363	710	32	160		701	531	451
v/s Ratio Prot	c0.03	c0.37		0.02	0.13		0.01	0.00		c0.10	0.01	
v/s Ratio Perm						0.08						c0.01
v/c Ratio	0.68	0.82		0.47	0.30	0.18	0.44	0.04		0.51	0.03	0.04
Uniform Delay, d1	32.8	16.7		32.8	12.5	11.7	33.6	28.5		24.9	18.6	18.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	19.1	2.6		2.0	0.1	0.2	6.8	0.1		0.5	0.0	0.0
Delay (s)	51.9	19.3		34.8	12.6	11.9	40.4	28.6		25.4	18.6	18.6
Level of Service	D	B		C	B	B	D	C		C	B	B
Approach Delay (s)		20.1			13.0			31.8			24.1	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	18.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	69.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis  
5: Montague Expressway & Great Mall Pkwy

Existing PM with Closure  
5/30/2013

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  		 	  		 	 				
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.86	1.00	0.97	0.86	1.00	0.97	0.95	1.00	0.97	0.91	
Frbp, ped/bikes	1.00	1.00	0.99	1.00	1.00	0.99	1.00	1.00	0.96	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3614	6745	1645	3614	6745	1645	3614	3725	1608	3614	5298	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3614	6745	1645	3614	6745	1645	3614	3725	1608	3614	5298	
Volume (vph)	243	2026	249	222	834	355	65	327	172	655	1377	91
Peak-hour factor, PHF	0.84	0.84	0.84	0.96	0.96	0.96	0.91	0.91	0.91	0.86	0.86	0.86
Adj. Flow (vph)	289	2412	296	231	869	370	71	359	189	762	1601	106
RTOR Reduction (vph)	0	0	0	0	0	226	0	0	112	0	4	0
Lane Group Flow (vph)	289	2412	296	231	869	144	71	359	77	762	1703	0
Conf. Peds. (#/hr)			1	1			1		21	21		1
Conf. Bikes (#/hr)			3			2						5
Turn Type	Prot		Free	Prot		Perm	Prot		Perm	Prot		
Protected Phases	5	2		1	6		7	4		3	8	
Permitted Phases			Free			6			4			
Actuated Green, G (s)	18.7	76.8	190.0	14.8	72.9	72.9	9.3	41.1	41.1	35.0	67.8	
Effective Green, g (s)	20.2	78.1	190.0	16.3	74.2	74.2	10.8	42.1	42.1	37.5	68.8	
Actuated g/C Ratio	0.11	0.41	1.00	0.09	0.39	0.39	0.06	0.22	0.22	0.20	0.36	
Clearance Time (s)	5.5	5.3		5.5	5.3	5.3	5.5	5.0	5.0	6.5	5.0	
Vehicle Extension (s)	3.0	6.0		3.0	6.0	6.0	3.0	4.0	4.0	3.0	4.0	
Lane Grp Cap (vph)	384	2773	1645	310	2634	642	205	825	356	713	1918	
v/s Ratio Prot	c0.08	c0.36		0.06	0.13		0.02	0.10		c0.21	c0.32	
v/s Ratio Perm			0.18			0.09			0.05			
v/c Ratio	0.75	0.87	0.18	0.75	0.33	0.23	0.35	0.44	0.22	1.07	0.89	
Uniform Delay, d1	82.5	51.3	0.0	84.8	40.5	38.7	86.2	63.7	60.5	76.2	57.0	
Progression Factor	1.17	0.56	1.00	1.06	0.94	1.11	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	6.4	3.2	0.2	9.0	0.3	0.8	1.0	0.5	0.4	53.6	5.6	
Delay (s)	103.0	32.1	0.2	98.6	38.4	43.6	87.2	64.2	60.9	129.8	62.6	
Level of Service	F	C	A	F	D	D	F	E	E	F	E	
Approach Delay (s)		35.8			49.1			65.8			83.3	
Approach LOS		D			D			E			F	
<b>Intersection Summary</b>												
HCM Average Control Delay			56.4			HCM Level of Service			E			
HCM Volume to Capacity ratio			0.90									
Actuated Cycle Length (s)			190.0	Sum of lost time (s)			12.0					
Intersection Capacity Utilization			98.4%	ICU Level of Service			F					
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis  
6: Montague Expressway & Trade Zone Blvd

Existing PM with Closure  
5/30/2013

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1863	5353	1632	1863	5353	1631	1770	1779	1667	1770	1863	1646
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.96	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1863	5353	1632	1863	5353	1631	1770	1779	1667	1770	1863	1646
Volume (vph)	5	2044	1225	182	891	1	564	18	158	2	10	4
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.96	0.96	0.96	0.84	0.84	0.84
Adj. Flow (vph)	6	2323	1392	207	1012	1	588	19	165	2	12	5
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	40	0	0	0
Lane Group Flow (vph)	6	2323	1392	207	1012	1	296	311	125	2	12	5
Conf. Peds. (#/hr)	1					1						
Conf. Bikes (#/hr)			2			2						1
Turn Type	Prot		Free	Prot		Free	Split		Perm	Split		Free
Protected Phases	1	6		5	2		3	3		4	4	
Permitted Phases			Free			Free			3			Free
Actuated Green, G (s)	1.7	102.3	190.0	25.8	126.4	190.0	36.7	36.7	36.7	5.2	5.2	190.0
Effective Green, g (s)	2.7	103.3	190.0	26.8	127.4	190.0	37.7	37.7	37.7	6.2	6.2	190.0
Actuated g/C Ratio	0.01	0.54	1.00	0.14	0.67	1.00	0.20	0.20	0.20	0.03	0.03	1.00
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	26	2910	1632	263	3589	1631	351	353	331	58	61	1646
v/s Ratio Prot	0.00	0.43		0.11	0.19		0.17	0.17		0.00	0.01	
v/s Ratio Perm			c0.85			0.00			0.07			0.00
v/c Ratio	0.23	0.80	0.85	0.79	0.28	0.00	0.84	0.88	0.38	0.03	0.20	0.00
Uniform Delay, d1	92.6	35.0	0.0	78.8	12.7	0.0	73.3	74.0	66.0	89.0	89.5	0.0
Progression Factor	1.00	1.00	1.00	0.72	2.63	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.1	2.4	5.9	14.6	0.2	0.0	17.2	22.2	1.0	0.3	2.2	0.0
Delay (s)	98.7	37.3	5.9	71.5	33.7	0.0	90.5	96.2	67.0	89.3	91.6	0.0
Level of Service	F	D	A	E	C	A	F	F	E	F	F	A
Approach Delay (s)		25.7			40.1			87.8			67.3	
Approach LOS		C			D			F			E	
<b>Intersection Summary</b>												
HCM Average Control Delay			37.2				HCM Level of Service				D	
HCM Volume to Capacity ratio			0.85									
Actuated Cycle Length (s)			190.0				Sum of lost time (s)				0.0	
Intersection Capacity Utilization			79.1%				ICU Level of Service				D	
Analysis Period (min)			15									
c Critical Lane Group												

**Appendix B – Queue Length Tables and Analysis Sheets – Existing Conditions Before and After Proposed Roadway Closure**

City of Milpitas - McCandless Drive Closure  
Queue Comparison

**EXISTING CONDITIONS**

Roadway	Intersection	Peak Hour	Queue Length By Lane Group							
			EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR
Great Mall Pkwy	Abel Street	A.M.	51	N/A	88	61	280	18	121	390
		P.M.	369	N/A	100	108	120	16	256	17
	Main Street	A.M.	75	N/A	119	45	29	24	164	53
		P.M.	292	N/A	112	33	28	49	347	38
	McCandless Drive	A.M.	59	22	24	75	35	N/A	70	38
		P.M.	138	61	12	52	67	N/A	177	51
	Centre Pointe Drive	A.M.	62	N/A	30	101	28	N/A	44	2
		P.M.	83	N/A	56	65	28	N/A	180	24
Montague Expwy	A.M.	111	0	80	1186	282	82	213	0	
	P.M.	178	0	208	84	74	122	631	0	
Montague Expwy	McCandless Drive	A.M.	51	0	114	0	871	99	45	0
		P.M.	98	0	354	0	629	196	53	0

**PROPOSED**

Roadway	Intersection	Peak Hour	Queue Length By Lane Group							
			EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR
Great Mall Pkwy	Abel Street	A.M.	51	N/A	88	61	286	18	121	392
		P.M.	369	N/A	100	108	162	16	256	18
	Main Street	A.M.	76	N/A	145	44	29	24	166	55
		P.M.	292	N/A	149	33	28	75	347	38
	McCandless Drive	A.M.	59	0	0	81	0	N/A	79	0
		P.M.	156	0	0	57	0	N/A	204	0
	Centre Pointe Drive	A.M.	62	N/A	30	101	28	N/A	44	2
		P.M.	83	N/A	56	65	28	N/A	180	24
Montague Expwy	A.M.	116	0	80	1197	282	82	213	0	
	P.M.	207	0	208	84	74	122	631	0	
Montague Expwy	McCandless Drive	A.M.	22	0	131	0	845	103	13	0
		P.M.	26	0	391	0	610	214	12	0

**% DIFFERENCE**

Roadway	Intersection	Peak Hour	Queue Length By Lane Group							
			EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR
Great Mall Pkwy	Abel Street	A.M.	0.0%	N/A	0.0%	0.0%	2.1%	0.0%	0.0%	0.5%
		P.M.	0.0%	N/A	0.0%	0.0%	35.0%	0.0%	0.0%	5.9%
	Main Street	A.M.	1.3%	N/A	21.8%	-2.2%	0.0%	0.0%	1.2%	3.8%
		P.M.	0.0%	N/A	33.0%	0.0%	0.0%	53.1%	0.0%	0.0%
	McCandless Drive	A.M.	0.0%	-100.0%	-100.0%	8.0%	-100.0%	N/A	12.9%	-100.0%
		P.M.	13.0%	-100.0%	-100.0%	9.6%	-100.0%	N/A	15.3%	-100.0%
	Centre Pointe Drive	A.M.	0.0%	N/A	0.0%	0.0%	0.0%	N/A	0.0%	0.0%
		P.M.	0.0%	N/A	0.0%	0.0%	0.0%	N/A	0.0%	0.0%
Montague Expwy	A.M.	4.5%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	
	P.M.	16.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Montague Expwy	McCandless Drive	A.M.	-56.9%	0.0%	14.9%	0.0%	-3.0%	4.0%	-71.1%	0.0%
		P.M.	-73.5%	0.0%	10.5%	0.0%	-3.0%	9.2%	-77.4%	0.0%

Queues  
1: Great Mall Pkwy & S. Abel Street

Existing AM  
5/29/2013



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	61	208	55	1828	129	236	272	58	75	402	467
v/c Ratio	0.13	0.09	0.32	0.94	0.15	0.76	0.27	0.09	0.43	0.55	0.80
Control Delay	49.3	19.0	59.2	48.6	9.6	64.0	33.7	5.1	61.6	44.9	38.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.3	19.0	59.2	48.6	9.6	64.0	33.7	5.1	61.6	44.9	38.7
Queue Length 50th (ft)	20	24	39	483	19	166	86	0	54	148	263
Queue Length 95th (ft)	51	61	88	#760	61	280	110	18	121	195	390
Internal Link Dist (ft)		1579		1016			756			920	
Turn Bay Length (ft)	440		220		200	175		270	215		280
Base Capacity (vph)	1061	2311	421	1936	939	376	1055	781	351	915	786
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.09	0.13	0.94	0.14	0.63	0.26	0.07	0.21	0.44	0.59

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Queues  
2: Great Mall Pkwy & S.Main Street

Existing AM  
5/29/2013



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	51	261	79	1774	136	14	149	70	131	220	174
v/c Ratio	0.40	0.09	0.47	0.62	0.11	0.07	0.39	0.16	0.41	0.25	0.25
Control Delay	64.2	15.3	62.1	21.8	3.7	53.5	53.9	9.2	48.3	39.8	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.2	15.3	62.1	21.8	3.7	53.5	53.9	9.2	48.3	39.8	6.0
Queue Length 50th (ft)	37	33	57	323	15	9	56	0	88	66	2
Queue Length 95th (ft)	75	56	119	502	45	29	83	24	164	123	53
Internal Link Dist (ft)		1016		967			401			735	
Turn Bay Length (ft)	310		285		120	155		50	225		50
Base Capacity (vph)	537	3258	294	2846	1241	323	654	606	427	919	927
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.08	0.27	0.62	0.11	0.04	0.23	0.12	0.31	0.24	0.19

Intersection Summary

Queues  
3: Great Mall Pkwy & McCandless Drive

Existing AM  
5/29/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	75	348	36	8	1937	112	22	30	100	44	108
v/c Ratio	0.26	0.09	0.03	0.07	0.57	0.11	0.19	0.07	0.27	0.16	0.34
Control Delay	45.3	9.1	5.9	53.0	17.0	9.3	51.6	24.8	42.5	33.8	9.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.3	9.1	5.9	53.0	17.0	9.3	51.6	24.8	42.5	33.8	9.2
Queue Length 50th (ft)	16	10	0	4	169	9	10	4	21	19	0
Queue Length 95th (ft)	59	94	22	24	656	75	35	12	70	53	38
Internal Link Dist (ft)		967			784			389		222	
Turn Bay Length (ft)	255		260	230		230	175				
Base Capacity (vph)	808	3874	1216	253	3395	1032	172	1233	719	817	747
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.09	0.03	0.03	0.57	0.11	0.13	0.02	0.14	0.05	0.14

Intersection Summary

Queues  
4: Great Mall Pkwy & Centre Pointe Drive

Existing AM  
5/29/2013



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	40	475	14	2214	188	19	9	125	19	69
v/c Ratio	0.24	0.13	0.10	0.65	0.18	0.11	0.04	0.25	0.06	0.21
Control Delay	43.4	9.8	47.2	17.7	9.7	44.1	21.5	35.4	28.0	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.4	9.8	47.2	17.7	9.7	44.1	21.5	35.4	28.0	8.8
Queue Length 50th (ft)	16	13	6	197	15	7	1	24	7	0
Queue Length 95th (ft)	62	114	30	#772	101	28	9	44	15	2
Internal Link Dist (ft)		784		257			354		196	
Turn Bay Length (ft)	274		418		209	70				
Base Capacity (vph)	585	3843	419	3426	1027	428	463	925	567	531
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.12	0.03	0.65	0.18	0.04	0.02	0.14	0.03	0.13

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Queues  
5: Montague Expressway & Great Mall Pkwy

Existing AM  
5/29/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	108	687	62	83	2494	906	358	1003	198	288	223
v/c Ratio	0.45	0.22	0.04	0.39	0.79	0.97	0.76	0.96	0.34	0.76	0.17
Control Delay	101.4	24.5	0.1	99.1	34.7	40.8	90.6	87.0	9.4	96.2	49.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	101.4	24.5	0.1	99.1	34.7	40.8	90.6	87.0	9.4	96.2	49.6
Queue Length 50th (ft)	72	97	0	49	763	830	225	662	11	182	71
Queue Length 95th (ft)	111	113	0	m80	598	#1186	282	#812	82	213	89
Internal Link Dist (ft)		587			524			763			307
Turn Bay Length (ft)	500		400	300		400	350		450	375	
Base Capacity (vph)	399	3187	1645	323	3139	938	533	1040	583	399	1338
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.22	0.04	0.26	0.79	0.97	0.67	0.96	0.34	0.72	0.17

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues  
6: Montague Expressway & McCandless Drive

Existing AM  
5/29/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	17	745	615	68	2681	14	404	426	64	13	46	41
v/c Ratio	0.20	0.24	0.38	0.52	0.80	0.01	1.03	1.08	0.17	0.12	0.42	0.02
Control Delay	92.4	20.6	0.7	100.3	23.5	0.0	123.6	135.8	47.0	87.1	98.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	92.4	20.6	0.7	100.3	23.5	0.0	123.6	135.8	47.0	87.1	98.0	0.0
Queue Length 50th (ft)	21	170	0	90	339	0	~566	~624	50	16	58	0
Queue Length 95th (ft)	51	204	0	m114	412	m0	#808	#871	99	45	113	0
Internal Link Dist (ft)		670			841			82			906	
Turn Bay Length (ft)	200		250	250		100			75	180		200
Base Capacity (vph)	118	3103	1632	255	3370	1633	391	393	380	112	118	1646
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.24	0.38	0.27	0.80	0.01	1.03	1.08	0.17	0.12	0.39	0.02

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues  
1: Great Mall Pkwy & S. Abel Street

Existing PM  
5/29/2013



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	621	1914	65	538	140	100	625	88	193	395	79
v/c Ratio	0.70	0.93	0.35	0.45	0.20	0.51	0.71	0.15	0.69	0.35	0.08
Control Delay	45.3	43.6	59.7	43.0	20.1	61.9	45.5	6.6	63.3	34.0	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.3	43.6	59.7	43.0	20.1	61.9	45.5	6.6	63.3	34.0	2.7
Queue Length 50th (ft)	208	483	44	122	46	68	218	3	131	120	0
Queue Length 95th (ft)	369	#900	100	198	108	120	249	16	256	187	17
Internal Link Dist (ft)		1579		1016			756			920	
Turn Bay Length (ft)	440		220		200	175		270	215		280
Base Capacity (vph)	1195	2276	435	1740	872	359	969	760	382	1134	1024
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.84	0.15	0.31	0.16	0.28	0.64	0.12	0.51	0.35	0.08

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Queues  
2: Great Mall Pkwy & Main Street

Existing PM  
5/29/2013



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	217	1487	64	473	192	9	237	51	267	167	144
v/c Ratio	0.78	0.51	0.45	0.20	0.16	0.05	0.66	0.14	0.71	0.16	0.17
Control Delay	76.1	21.9	73.1	24.8	1.8	65.5	70.1	20.8	63.6	39.4	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.1	21.9	73.1	24.8	1.8	65.5	70.1	20.8	63.6	39.4	3.9
Queue Length 50th (ft)	189	312	56	93	0	7	110	12	222	56	0
Queue Length 95th (ft)	292	411	112	142	33	28	166	49	347	105	38
Internal Link Dist (ft)		1016		928			401			735	
Turn Bay Length (ft)	310		285		120	155		50	225		50
Base Capacity (vph)	514	3088	256	2385	1168	278	573	519	391	1073	984
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.48	0.25	0.20	0.16	0.03	0.41	0.10	0.68	0.16	0.15

Intersection Summary

Queues  
3: Great Mall Pkwy & McCandless Drive

Existing PM  
5/29/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	206	1571	113	2	552	158	40	88	281	73	188
v/c Ratio	0.52	0.47	0.11	0.02	0.21	0.18	0.31	0.20	0.56	0.19	0.39
Control Delay	49.9	15.5	6.8	59.0	19.5	5.0	58.2	32.7	47.3	34.5	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.9	15.5	6.8	59.0	19.5	5.0	58.2	32.7	47.3	34.5	7.2
Queue Length 50th (ft)	60	153	6	1	65	0	23	21	80	40	0
Queue Length 95th (ft)	138	520	61	12	180	52	67	39	177	81	51
Internal Link Dist (ft)		928			806			508		222	
Turn Bay Length (ft)	255		260	230		230	175				
Base Capacity (vph)	816	3320	1033	245	2580	865	170	1285	730	844	815
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.47	0.11	0.01	0.21	0.18	0.24	0.07	0.38	0.09	0.23

Intersection Summary

Queues  
4: Great Mall Pkwy & Centrepointe Drive

Existing PM  
5/29/2013



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	50	1923	29	692	295	14	38	360	18	71
v/c Ratio	0.25	0.75	0.15	0.27	0.32	0.07	0.13	0.47	0.03	0.13
Control Delay	43.3	20.8	44.4	15.8	4.4	46.8	13.8	30.8	19.7	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.3	20.9	44.4	15.8	4.4	46.8	13.8	30.8	19.7	6.2
Queue Length 50th (ft)	10	95	6	25	0	3	1	35	3	0
Queue Length 95th (ft)	83	#782	56	208	65	28	19	180	22	24
Internal Link Dist (ft)		806		275			340		226	
Turn Bay Length (ft)	274		418		209	70				
Base Capacity (vph)	670	3382	514	3128	1052	506	546	1235	795	719
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	142	0	0	0	0	15	32	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.59	0.06	0.22	0.28	0.03	0.07	0.30	0.02	0.10

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Queues  
5: Montague Expressway & Great Mall Pkwy

Existing PM  
5/29/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	260	2412	296	231	869	370	71	359	189	762	1663
v/c Ratio	0.71	0.86	0.18	0.73	0.32	0.42	0.34	0.45	0.42	1.07	0.89
Control Delay	117.2	25.3	0.2	101.5	38.0	5.2	90.4	66.2	18.7	122.9	64.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.1
Total Delay	117.2	25.3	0.2	101.5	38.0	5.2	90.4	66.2	18.7	122.9	76.2
Queue Length 50th (ft)	152	792	0	154	167	1	44	205	46	~546	707
Queue Length 95th (ft)	m178	687	m0	#208	212	84	74	253	122	#631	705
Internal Link Dist (ft)		514			694			754			337
Turn Bay Length (ft)	500		400	300		400	350		450	375	
Base Capacity (vph)	418	2820	1645	322	2724	885	342	921	506	713	1930
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	278
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.86	0.18	0.72	0.32	0.42	0.21	0.39	0.37	1.07	1.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues  
6: Montague Expressway & Trade Zone Blvd

Existing PM  
5/29/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	44	2310	1283	181	995	14	302	318	149	19	148	61
v/c Ratio	0.38	0.87	0.79	0.86	0.33	0.01	0.84	0.88	0.40	0.10	0.77	0.04
Control Delay	93.7	46.3	3.9	94.1	49.4	0.0	92.7	96.3	49.4	83.6	103.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	93.7	46.3	3.9	94.1	49.4	0.0	92.7	96.3	49.4	83.6	103.5	0.0
Queue Length 50th (ft)	54	964	0	237	434	0	368	391	109	23	197	0
Queue Length 95th (ft)	98	854	0	m#354	395	m0	#585	#629	196	53	#362	0
Internal Link Dist (ft)		690			684			107			258	
Turn Bay Length (ft)	200		250	250		100			75	180		200
Base Capacity (vph)	157	2902	1632	216	3109	1631	362	367	377	184	193	1646
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.80	0.79	0.84	0.32	0.01	0.83	0.87	0.40	0.10	0.77	0.04

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues  
1: Great Mall Pkwy & S. Abel Street

Existing AM with Closure  
5/30/2013



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	61	245	55	1828	129	242	272	58	75	402	467
v/c Ratio	0.12	0.11	0.32	0.95	0.15	0.77	0.27	0.09	0.43	0.56	0.80
Control Delay	49.4	16.4	59.5	49.5	9.6	64.7	33.8	5.1	61.8	45.2	39.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.4	16.4	59.5	49.5	9.6	64.7	33.8	5.1	61.8	45.2	39.2
Queue Length 50th (ft)	20	24	39	490	20	172	86	0	54	150	268
Queue Length 95th (ft)	51	63	88	#760	61	286	110	18	121	195	392
Internal Link Dist (ft)		1579		1016			756			920	
Turn Bay Length (ft)	440		220		200	175		270	215		280
Base Capacity (vph)	1058	2282	419	1927	936	376	1055	783	350	912	783
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.11	0.13	0.95	0.14	0.64	0.26	0.07	0.21	0.44	0.60

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Queues  
2: Great Mall Pkwy & S.Main Street

Existing AM with Closure  
5/30/2013



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	51	261	100	1774	136	14	149	76	131	220	174
v/c Ratio	0.40	0.10	0.53	0.62	0.11	0.07	0.39	0.17	0.41	0.25	0.25
Control Delay	65.4	16.4	62.9	21.6	3.6	54.5	54.9	8.8	49.2	40.6	6.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.4	16.4	62.9	21.6	3.6	54.5	54.9	8.8	49.2	40.6	6.1
Queue Length 50th (ft)	38	34	73	323	15	10	57	0	90	67	2
Queue Length 95th (ft)	76	58	145	505	44	29	84	24	166	126	55
Internal Link Dist (ft)		1016		967			401			735	
Turn Bay Length (ft)	310		285		120	155		50	225		50
Base Capacity (vph)	532	3164	299	2873	1246	319	646	617	422	910	921
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.08	0.33	0.62	0.11	0.04	0.23	0.12	0.31	0.24	0.19

Intersection Summary

Queues  
3: Great Mall Pkwy & McCandless Drive

Existing AM with Closure  
5/30/2013



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	80	348	1937	120	122	130
v/c Ratio	0.26	0.09	0.56	0.11	0.30	0.20
Control Delay	42.5	7.0	16.2	9.1	39.8	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.5	7.0	16.2	9.1	39.8	0.7
Queue Length 50th (ft)	18	10	169	10	26	0
Queue Length 95th (ft)	59	81	#718	81	79	0
Internal Link Dist (ft)		967	784			
Turn Bay Length (ft)	255			230		
Base Capacity (vph)	852	4033	3438	1046	760	980
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.09	0.56	0.11	0.16	0.13

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Queues  
4: Great Mall Pkwy & Centre Pointe Drive

Existing AM with Closure  
5/30/2013



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	40	498	14	2223	188	19	9	125	19	69
v/c Ratio	0.24	0.13	0.10	0.65	0.18	0.11	0.04	0.25	0.06	0.21
Control Delay	43.4	9.8	47.2	17.7	9.7	44.1	21.5	35.4	28.0	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.4	9.8	47.2	17.7	9.7	44.1	21.5	35.4	28.0	8.8
Queue Length 50th (ft)	16	14	6	199	15	7	1	24	7	0
Queue Length 95th (ft)	62	119	30	#778	101	28	9	44	15	2
Internal Link Dist (ft)		784		257			354		196	
Turn Bay Length (ft)	274		418		209	70				
Base Capacity (vph)	585	3844	419	3426	1027	428	463	925	567	531
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.13	0.03	0.65	0.18	0.04	0.02	0.14	0.03	0.13

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Queues  
5: Montague Expressway & Great Mall Pkwy

Existing AM with Closure  
5/30/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	115	687	62	83	2494	906	358	1003	198	288	246
v/c Ratio	0.47	0.22	0.04	0.39	0.80	0.97	0.76	0.96	0.34	0.76	0.18
Control Delay	103.0	24.8	0.1	99.1	35.1	42.3	90.6	87.0	9.4	96.2	46.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	103.0	24.8	0.1	99.1	35.1	42.3	90.6	87.0	9.4	96.2	46.0
Queue Length 50th (ft)	77	100	0	49	765	840	225	662	11	182	72
Queue Length 95th (ft)	116	116	0	m80	609	#1197	282	#812	82	213	91
Internal Link Dist (ft)		587			524			763			307
Turn Bay Length (ft)	500		400	300		400	350		450	375	
Base Capacity (vph)	399	3187	1645	323	3126	933	533	1040	583	399	1334
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.22	0.04	0.26	0.80	0.97	0.67	0.96	0.34	0.72	0.18

Intersection Summary

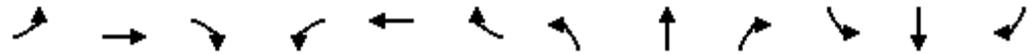
# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues  
6: Montague Expressway & McCandless Drive

Existing AM with Closure  
5/30/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	5	749	649	78	2690	4	407	417	68	2	7	4
v/c Ratio	0.06	0.23	0.40	0.55	0.72	0.00	1.04	1.06	0.18	0.02	0.08	0.00
Control Delay	89.2	17.8	0.7	93.8	19.6	0.0	125.3	129.9	47.1	86.5	88.3	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.2	17.8	0.7	93.8	19.6	0.0	125.3	129.9	47.1	86.5	88.3	0.0
Queue Length 50th (ft)	6	138	0	102	342	0	~574	~600	53	2	9	0
Queue Length 95th (ft)	22	202	0	m131	422	m0	#816	#845	103	13	29	0
Internal Link Dist (ft)		670			841			82			906	
Turn Bay Length (ft)	200		250	250		100			75	180		200
Base Capacity (vph)	118	3277	1632	255	3726	1633	391	393	381	112	118	1646
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.23	0.40	0.31	0.72	0.00	1.04	1.06	0.18	0.02	0.06	0.00

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Queues  
1: Great Mall Pkwy & S. Abel Street

Existing PM with Closure  
5/30/2013



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	621	2028	65	538	140	147	625	88	193	395	79
v/c Ratio	0.70	0.99	0.35	0.45	0.20	0.60	0.71	0.15	0.69	0.42	0.09
Control Delay	45.3	52.3	59.7	43.0	20.1	61.0	45.5	6.6	63.3	37.8	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.3	52.3	59.7	43.0	20.1	61.0	45.5	6.6	63.3	37.8	3.1
Queue Length 50th (ft)	208	~570	44	122	46	100	218	3	131	124	0
Queue Length 95th (ft)	369	#987	100	198	108	162	249	16	256	195	18
Internal Link Dist (ft)		1579		1016			756			920	
Turn Bay Length (ft)	440		220		200	175		270	215		280
Base Capacity (vph)	1195	2267	435	1740	872	376	969	760	382	1011	958
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.89	0.15	0.31	0.16	0.39	0.64	0.12	0.51	0.39	0.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues  
2: Great Mall Pkwy & Main Street

Existing PM with Closure  
5/30/2013



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	217	1487	93	473	192	9	237	82	267	167	144
v/c Ratio	0.78	0.55	0.55	0.20	0.16	0.05	0.66	0.21	0.71	0.16	0.17
Control Delay	76.1	24.5	73.2	24.8	1.8	65.5	70.1	24.2	63.6	39.4	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.1	24.5	73.2	24.8	1.8	65.5	70.1	24.2	63.6	39.4	3.9
Queue Length 50th (ft)	189	323	81	93	0	7	110	28	222	56	0
Queue Length 95th (ft)	292	429	149	142	33	28	166	75	347	105	38
Internal Link Dist (ft)		1016		928			401			735	
Turn Bay Length (ft)	310		285		120	155		50	225		50
Base Capacity (vph)	514	2996	263	2385	1168	278	573	538	391	1073	984
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.50	0.35	0.20	0.16	0.03	0.41	0.15	0.68	0.16	0.15

Intersection Summary

Queues  
3: Great Mall Pkwy & McCandless Drive

Existing PM with Closure  
5/30/2013



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	237	1571	552	184	323	219
v/c Ratio	0.53	0.43	0.20	0.20	0.58	0.30
Control Delay	45.9	10.6	16.7	4.5	44.0	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.9	10.6	16.7	4.5	44.0	1.0
Queue Length 50th (ft)	59	88	47	0	79	0
Queue Length 95th (ft)	156	455	183	57	204	0
Internal Link Dist (ft)		928	806			
Turn Bay Length (ft)	255			230		
Base Capacity (vph)	875	3691	2788	934	787	1025
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.43	0.20	0.20	0.41	0.21

Intersection Summary

Queues  
4: Great Mall Pkwy & Centrepointe Drive

Existing PM with Closure  
5/30/2013



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	50	1965	29	720	295	14	38	360	18	71
v/c Ratio	0.25	0.76	0.16	0.28	0.32	0.07	0.13	0.47	0.03	0.13
Control Delay	43.4	21.0	44.4	15.8	4.4	46.9	13.9	31.0	19.9	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.4	21.1	44.4	15.8	4.4	46.9	13.9	31.0	19.9	6.2
Queue Length 50th (ft)	11	100	6	26	0	3	1	37	3	0
Queue Length 95th (ft)	83	#808	56	217	65	28	19	180	22	24
Internal Link Dist (ft)		806		275			340		226	
Turn Bay Length (ft)	274		418		209	70				
Base Capacity (vph)	665	3379	510	3124	1051	502	542	1224	789	714
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	141	0	0	0	0	12	35	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.61	0.06	0.23	0.28	0.03	0.07	0.30	0.02	0.10

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Queues  
5: Montague Expressway & Great Mall Pkwy

Existing PM with Closure  
5/30/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	289	2412	296	231	869	370	71	359	189	762	1707
v/c Ratio	0.75	0.87	0.18	0.75	0.33	0.43	0.34	0.44	0.40	1.07	0.89
Control Delay	106.6	32.6	0.2	104.0	39.3	5.3	90.4	64.7	18.3	122.5	63.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.8
Total Delay	106.6	32.6	0.2	104.0	39.3	5.3	90.4	64.7	18.3	122.5	86.1
Queue Length 50th (ft)	166	819	0	154	170	1	44	201	44	~546	714
Queue Length 95th (ft)	207	682	0	#208	212	84	74	253	122	#631	731
Internal Link Dist (ft)		514			694			754			337
Turn Bay Length (ft)	500		400	300		400	350		450	375	
Base Capacity (vph)	418	2774	1645	314	2635	868	342	921	506	714	1950
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	310
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.87	0.18	0.74	0.33	0.43	0.21	0.39	0.37	1.07	1.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	6	2323	1392	207	1012	1	296	311	165	2	12	5
v/c Ratio	0.07	0.78	0.85	0.79	0.27	0.00	0.84	0.88	0.44	0.02	0.13	0.00
Control Delay	88.2	36.8	5.9	77.3	30.2	0.0	93.7	98.1	50.2	86.0	89.4	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.2	36.8	5.9	77.3	30.2	0.0	93.7	98.1	50.2	86.0	89.4	0.0
Queue Length 50th (ft)	7	968	0	257	409	0	362	384	121	2	15	0
Queue Length 95th (ft)	26	862	0	m#391	384	m0	#569	#610	214	12	40	0
Internal Link Dist (ft)		690			684			107			258	
Turn Bay Length (ft)	200		250	250		100			75	180		200
Base Capacity (vph)	157	3033	1632	263	3760	1631	358	360	377	121	127	1646
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.77	0.85	0.79	0.27	0.00	0.83	0.86	0.44	0.02	0.09	0.00

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

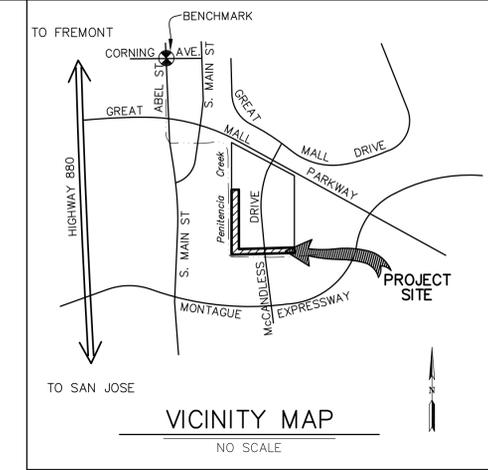
**BENCHMARK**

SOUTHERLY DISK IN MONUMENT WELL AT THE INTERSECTION OF ABEL STREET AND CORNING AVENUE. ELEVATION = 17.124' NGVD29 (19.864' NAVD88)

**EXISTING UTILITY NOTE:**

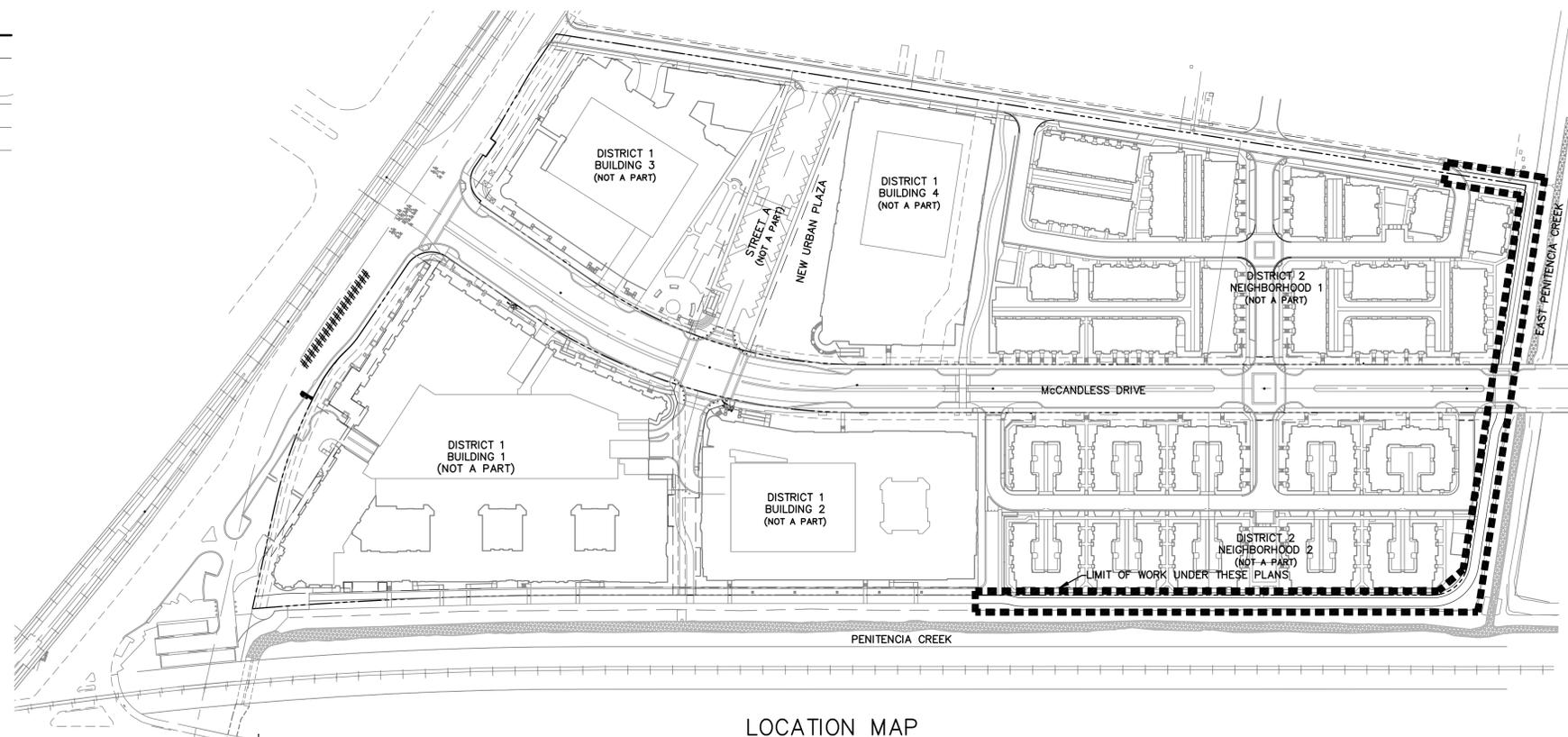
EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF PREPARATION OF THESE PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AT LEAST 2 WORKING DAYS IN ADVANCE OF CONSTRUCTION TO FIELD LOCATE UTILITIES. CALL UNDERGROUND SERVICE ALERT (U.S.A.) AT 1-800-227-2600. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION

# IMPROVEMENT PLANS FOR TAYLOR MORRISON DISTRICT 2 MULTI-USE TRAIL MILPITAS, CALIFORNIA



**LEGEND**

PROPOSED	DESCRIPTION	EXISTING
---	TRACT BOUNDARY	---
---	LOT LINE	---
---	CONTOUR	---
SD	STORM DRAIN	---
W	WATER	---
W-REC	RECYCLED WATER	---
●	MANHOLE	---
■	CATCH BASIN/FIELD INLET	---
⊕	FIRE HYDRANT	---
⊖	WATER VALVE	---
⊕	AIR RELEASE VALVE	---
■	CONCRETE CURB/GUTTER/SIDEWALK	---
2.5%	SLOPE AND DIRECTION	---
---	BUILDING LINE	---
---	ELECTROLYER	---
---	DIRECTION OF FLOW	---
---	RAILROAD TRACKS	---
---	CREEK	---



LOCATION MAP  
NO SCALE

**CIVIL SHEET INDEX**

SHEET NO	TITLE
1	TITLE SHEET
2	CITY GENERAL NOTES
3	PROJECT NOTES & DETAILS
4	MULTI-USE TRAIL PLAN
5	MULTI-USE TRAIL PLAN
6	EROSION CONTROL
7	BEST MANAGEMENT PRACTICES

**ABBREVIATIONS**

AB	AGGREGATE BASE	NTS	NOT TO SCALE
AC	ASPHALT CONCRETE	O.C.	ON CENTER
ACP	ASBESTOS CEMENT PIPE	PAD	PAD ELEVATION
AD	AREA DRAIN	PAV	PAVEMENT
ARV	AIR RELIEF VALVE	PCC	PORTLAND CEMENT CONCRETE
BNDY	BOUNDARY	PL or R	PROPERTY LINE
BC	BEGIN CURVE	PRC	POINT OF REVERSE CURVATURE
B/C	BACK OF CURB	PRUE	PRIVATE UTILITY EASEMENT
BW	BACK OF WALK	PSI	PUBLIC SERVICE UTILITY EASEMENT
C&G	CURB & GUTTER	PT	POINT
CL	CENTERLINE	PVC	POLYVINYL CHLORIDE PIPE
CLF	CHAIN LINK FENCE	PVI	POINT OF VERTICAL INTERSECTION
CO	CLEAN OUT	R	RIGHT or RADIUS
DIA	DIAMETER	RCP	REINFORCED CONCRETE PIPE
DWG	DRAWING	RW or R/W	RIGHT OF WAY
DWT	DRIVEWAY	RET	RETURN
(E)	EAST	S	SLOPE
EC	END CURVE	(S)	SOUTH
ELECT	ELECTROLYER	(SE)	SOUTHEAST
ELEV	ELEVATION	(SW)	SOUTHWEST
EP	EDGE OF PAVEMENT	SCVWD	SANTA CLARA VALLEY WATER DISTRICT
EVA	EMERGENCY VEHICLE ACCESS	SD	STORM DRAIN
EX	EXISTING	SDAD	STORM DRAIN AREA DRAIN
FG	FACE OF CURB	SDMH	STORM DRAIN MANHOLE
FF	FINISH FLOOR	SAD	SEE ARCHITECTS DRAWINGS
FFGF	FINISH FLOOR FRONT OF GARAGE	SLD	SEE LANDSCAPE DRAWINGS
FGI	FLAT GRATE INLET	SPD	SEE PLUMBING DRAWINGS
FH	FIRE HYDRANT	SSD	SEE STRUCTURAL DRAWINGS
FI	FIELD INLET	SS	SANITARY SEWER
FL	FLOW LINE	SSLAT	SANITARY SEWER LATERAL
GB	GRADE BREAK	SSMH	SANITARY SEWER MANHOLE
GR	GRATE	STA	STATION
HOA	HOMEOWNERS' ASSOCIATION	STD	STANDARD
HP	HIGH POINT	SWK	SIDEWALK
IMP	IMPROVEMENTS	TC	TOP OF CURB
INV	INVERT	TDC	TOP OF DEPRESSED CURB
IRR	IRRIGATION	TFC	TOP FLUSH CURB
JT	JOINT TRENCH	TSC	TOP OF CURB & SPILL GUTTER
L	LEFT	TVC	TOP OF VERTICAL CURB
LF	LINEAR FEET	TYP	TYPICAL
LP	LOW POINT	VC	VERTICAL CURB
MAX	MAXIMUM	W	WATER
MIN	MINIMUM	(W)	WEST
(N)	NORTH	WSR or WM	WATER SERVICE
(NE)	NORTHEAST		
NO.	NUMBER		

**SCOPE OF WORK**

1. DISTRICT 2 MULTI-USE TRAIL GRADING AND SURFACE IMPROVEMENTS.



**LOCATION OF UTILITIES**

LOCATION OF UTILITIES SHOWN IS ONLY APPROXIMATE. DETERMINATION OF THE ACTUAL LOCATION IS THE RESPONSIBILITY OF THE CONTRACTOR.  
U.S.A. 1-800-227-2600

**CITY OF MILPITAS STANDARD DETAILS**

DWG. NO. 464 CITY OF MILPITAS DESIGN STANDARD FLAT GRATE STORM INLET

**SOILS ENGINEER:** These plans have been reviewed and found to be in substantial conformance with the intent and purpose of the geotechnical exploration report dated \_\_\_\_\_, prepared by \_\_\_\_\_ Date \_\_\_\_\_  
Firm: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone: \_\_\_\_\_

**CIVIL ENGINEER:** I hereby declare that I am the engineer of work for this project, that I have exercised responsible charge over the design of the project as defined in section 6703 of the business and professions codes, and that the design is consistent with current standards. The design shown hereon is necessary and reasonable and does not restrict any historic drainage flows from adjacent properties nor increase drainage to adjacent properties. The design includes principles and techniques to reduce quantity and improve the quality of storm water runoff, as required by NPDES. I understand that the check of project drawings and specifications by the City of Milpitas is confined to a review only and does not relieve me, as engineer of work, of my responsibilities for project design.  
SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_ FIRM \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone: \_\_\_\_\_



**RJA**  
**RUGGERI-JENSEN-AZAR**  
ENGINEERS • PLANNERS • SURVEYORS  
8055 CAMINO ARROYO GILROY, CA 95020  
PHONE: (408) 848-0300 FAX: (408) 848-0302

**RECOMMENDED FOR APPROVAL:**  
Planning \_\_\_\_\_ Date \_\_\_\_\_  
Fire \_\_\_\_\_ Date \_\_\_\_\_  
Building \_\_\_\_\_ Date \_\_\_\_\_

**Record Drawings**  
To be completed prior to acceptance of work by the City  
Signature + Seal \_\_\_\_\_ Date \_\_\_\_\_  
P.E. No. \_\_\_\_\_ Exp. \_\_\_\_\_  
Public Works Inspector: \_\_\_\_\_

Revisions			
Num.	Date	By	Description

**CITY OF MILPITAS ENGINEERING DIVISION**  
Approved: \_\_\_\_\_ Date \_\_\_\_\_  
City Engineer Date \_\_\_\_\_  
Any changes to this plan shall be approved by the City Engineer  
Sheet 1 of 7

**RESOLUTION NO. \_\_\_\_\_**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MILPITAS  
ANNEXING CERTAIN REAL PROPERTY COMMONLY KNOWN AS  
TRACTS 10141, 10145, 10148, AND 10149 (“DISTRICT 2 PROJECT”) INTO CITY OF MILPITAS  
COMMUNITY FACILITIES DISTRICT NO. 2008-1 ANNEXATION NO. 3**

**WHEREAS**, Taylor Morrison of California, LLC, a California Limited Liability Company, is the owner of certain real property commonly known as Tracts 10141, 10145, 10148, and 10149 (APN Nos. 086-33-099, 086-33-095, 086-33-098 and 086-33-094), more specifically described in the annexation map attached as Exhibit 1.A. to this Resolution; and

**WHEREAS**, on March 20, 2012, the City Council approved the Tentative Map, Site Development Permit, and Conditional Use Permit for Tract 10141, 10145, 10148, and 10149 (“The District 2 Project), a residential subdivision with 200 single-family attached homes, private streets and associated common area improvements located on 9.7 acres on the westerly and easterly sides of McCandless Drive; and

**WHEREAS**, on January 6, 2009 the City Council created by Resolutions 7815 and 7816 and on January 29, 2009 the City Council created by Ordinance 278 the City of Milpitas Community Facilities District No. 2008-1 (“CFD 2008-1”) pursuant to the Mello-Roos Community Facilities Act of 1982, California Government Code Section 53311 *et seq.* Each fiscal year, a special tax is levied on all assessor’s parcels of residential property in CFD 2008-1 in an amount determined by the Council, as described in the attached Exhibit 1.B. to this Resolution; and

**WHEREAS**, pursuant to the Mello-Roos Community Facilities Act, the City Council also established a procedure to allow and provide for the annexation of parcels within the boundaries of CFD 2008-1 in the future without additional hearings, upon the unanimous approval of the owner or owners of each parcel or parcels at the time that parcel or those parcels are annexed, pursuant to Government Code Section 53339.7; and

**WHEREAS**, Taylor Morrison of California, LLC now voluntarily seeks to annex its property to CFD 2008-1 and to be subject to the levy of a special tax there under.

**NOW, THEREFORE**, the City Council of the City of Milpitas hereby finds, determines, and resolves as follows:

1. The City Council has considered the full record before it, which may include but is not limited to such things as the staff report, testimony by staff and the public, and other materials and evidence submitted or provided to it. Furthermore, the recitals set forth above are found to be true and correct and are incorporated herein by reference.
2. Legally valid and unanimous consent to the annexation of real property identified as Assessor’s Parcel Nos. 086-33-094, 086-33-095, 086-33-098 and 086-33-099 into CFD 2008-1 has been given, as set forth in the Consent and Election to Annex Real Property To an Existing Community Facilities District, attached as Exhibit 1. All prior proceedings and actions taken by the City Council pursuant to the Mello-Roos Community Facilities Act and this Resolution were and are valid and in conformity with State and local law.
3. The City Council hereby declares and determines that the territory comprising Annexation No. 3, as described in Exhibit 1.A., is now added to and becomes a part of CFD 2008-1. City staff is hereby directed to include the property in the annual assessment. In no event shall the annual per lot assessment exceed the maximum amount authorized by the engineer’s report for the CFD 2008-1 in any given fiscal year. Exhibit 2 attached hereto is provided to show all parcels that have been annexed to the CFD 2008-1.

4. The City Clerk is hereby directed to record an amendment to the Notice of Special Tax Lien within fifteen (15) days of the adoption of this Resolution in the Office of the County Recorder. The City Clerk is further directed to file a certified copy of the map, attached as Exhibit 1.A., and Exhibit 2, within fifteen (15) days of the adoption of this Resolution in the Office of the County Recorder.
5. The City Clerk shall certify the adoption of this Resolution.
6. This Resolution shall take effect immediately upon adoption.

PASSED AND ADOPTED this \_\_\_\_\_ day of \_\_\_\_\_, 2013 by the City Council by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

ATTEST:

APPROVED:

\_\_\_\_\_  
Mary Lavelle, City Clerk

\_\_\_\_\_  
Jose S. Esteves, Mayor

APPROVED AS TO FORM:

\_\_\_\_\_  
Michael J. Ogaz, City Attorney

## EXHIBIT 1

### CONSENT AND ELECTION TO ANNEX REAL PROPERTY TO AN EXISTING COMMUNITY FACILITIES DISTRICT CITY OF MILPITAS COMMUNITY FACILITIES DISTRICT NO. 2008-1 (PUBLIC SERVICES)

To: CITY COUNCIL OF THE CITY OF MILPITAS IN ITS CAPACITY AS THE LEGISLATIVE BODY OF THE ABOVE ENTITLED COMMUNITY FACILITIES DISTRICT:

1. The undersigned is the owner (the "Owner"), or the duly authorized representative of the Owner, of the real property as described in **Exhibit 1.A.** attached hereto and incorporated herein by reference (the "Property"), and in such capacity, possesses all legal authority necessary to execute this Consent and Election as and on behalf of the Owner in connection with the annexation of the Property to the District (as defined below).

The Owner is: *Taylor Morrison of California, LLC, a California Limited Liability Company*

2. The Owner is aware of and understands the following:
  - A. The City of Milpitas has conducted proceedings pursuant to the "Mello-Roos Community Facilities Act of 1982", (Government Code Section 53311 and following) (the "Act") to form a community facilities district known and designated as COMMUNITY FACILITIES DISTRICT NO. 2008-1 (PUBLIC SERVICES) (the "District") to finance the increased demand for public services (the "Services") resulting from new development within the District. The services to be financed by the CFD comprise services ("Services") authorized to be financed pursuant to Section 53313 and 53313.5 of the Government Code. CFD 2008-01 shall finance Services only to the extent they are in addition to those provided in the territory of CFD 2008-1 before the CFD was created and such Services may not supplant services already available within CFD 2008-1 when the CFD was created. For a full and complete description of the public services, reference is made to the final CFD Report, a copy of which is on file in the Office of the City Clerk. For all particulars, reference is made to said CFD Report.
  - B. The City has also undertaken proceedings pursuant to Article 3.5 of the Act to provide for the future annexation of certain territory, including the Property, to the District. On January 6, 2009, the City held a public hearing as required by the Act, to consider the future annexation of such territory, including the Property, to the District. Notice of such hearing was given in the form and manner as required by law. A protest to such future annexation was not received from 50% or more of the registered voters, or six registered voters, whichever is more, residing in the territory proposed to be annexed in the future or the owners of one-half or more of the area of land in the territory proposed to be annexed in the future. At the conclusion of such public hearing, the legislative body of the City did approve and provide for the annexation in the future upon the unanimous approval of the owner or owners of each parcel or parcels at the time that such parcel or parcels are annexed, without additional hearings.

**THE UNDERSIGNED DOES HEREBY CERTIFY UNDER PENALTY OF PERJURY AS FOLLOWS:**

3. The Owner consents and elects to and expressly approves annexation of the Property to the District and the authorization for the levy of the Special Tax within the Property without further public hearing and without an election conducted pursuant to the provisions of Government Code Section 53339.7 and Article 2 of the Act and the Elections Code of the State of California. Owner agrees and intends that such consent and approval constitutes Owner's election to annex the Property to the District and to approve the authorization for the levy of the Special Tax within the Property.
4. The Owner waives any right, which the Owner may have to make any protest or complaint or undertake any legal action challenging the validity of the proceedings of the City or the District to authorize the future annexation of the Property to the District or the authorization for the levy of the Special Tax within the Property, any necessity, requirement, right or entitlement for further public hearing or election pertaining to the annexation of the Property to the District and the levy of the Special Tax within the Property.
5. The Owner specifically authorizes the levy of the Special Tax on the Property pursuant to the rate and method of apportionment set forth in **Exhibit 1.B.** to pay for the authorized Public Services.

EXECUTED this \_\_\_\_ day of \_\_\_\_\_, 2013, in \_\_\_\_\_, California.

**Taylor Morrison of California, LLC, a California Limited Liability Company**

BY: \_\_\_\_\_  
Jay Pawlek, Vice President of Land

Note:

1. Signatures of property owner(s) or representatives must be notarized.
2. Proof of Authorization to sign is required for Corporations, Partnerships, Limited Liability Companies, Trusts, etc.

**NOTARY ACKNOWLEDGMENT**

STATE OF CALIFORNIA ) COUNTY OF  
SANTA CLARA) ss.

On \_\_\_\_\_, before me, \_\_\_\_\_, Notary Public,  
personally appeared \_\_\_\_\_, personally known to me (or  
proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are  
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in  
his/her/their authorized capacity (ies) and that by his/her/their signature(s) on the instrument, the  
person(s) or the entity (ies) upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Notary Public (This area for official notaries seal)

**EXHIBIT 1.A.**

**CONSENT AND ELECTION TO ANNEX REAL PROPERTY  
TO AN EXISTING COMMUNITY FACILITIES DISTRICT  
CITY OF MILPITAS COMMUNITY FACILITIES  
DISTRICT NO. 2008-1 (PUBLIC SERVICES)**

**ANNEXATION No. 3**

Assessor Parcel No.	Owner
086-33-094, 086-33-095, 086-33-098, and 086-33-099	Taylor Morrison of California, LLC



**EXHIBIT 1.B.**

**CONSENT AND ELECTION TO ANNEX REAL PROPERTY TO  
AN EXISTING COMMUNITY FACILITIES DISTRICT  
CITY OF MILPITAS COMMUNITY FACILITIES  
DISTRICT NO. 2008-1 (PUBLIC SERVICES)**

**RATE AND METHOD OF APPORTIONMENT OF SPECIAL TAX**

A Special Tax as hereinafter defined shall be levied on all Assessor's Parcels of Residential Property in City of Milpitas Community Facilities District No. 2008-1 (Public Services) ("CFD No. 2008-1"), and collected each Fiscal Year commencing after adoption of CFD 2008-1, in an amount determined by the Council through the application of the appropriate Special Tax, as described below. All of the real property in CFD No. 2008-1, unless exempted by law or by the provisions hereof, shall be taxed for the purposes, to the extent and in the manner herein provided.

**A. DEFINITIONS**

The terms hereinafter set forth have the following meanings:

**"Act"** means the Mello-Roos Community Facilities Act of 1982, as amended, being Chapter 2.5, Division 2 of Title 5 of the Government Code of the State of California.

**"Administrative Expenses"** means the following actual or reasonably estimated costs directly related to the administration of CFD No. 2008-1: the costs of computing the Special Taxes and preparing the annual Special Tax collection schedules (whether by the City or any designee thereof or both); the costs of collecting the Special Taxes (whether by the City or otherwise); the costs to the City, CFD No. 2008-1 or any designee thereof of complying with City, CFD No. 2008-1 or obligated persons disclosure requirements associated with the Act; the costs associated with preparing Special Tax disclosure statements and responding to public inquiries regarding the Special Taxes; the costs of the City, CFD No. 2008-1 or any designee thereof related to an appeal of the Special Tax; and the City's annual administration fees and third party expenses. Administrative Expenses shall also include amounts estimated or advanced by the City or CFD No. 2008-1 for any other administrative purposes of CFD No. 2008-1, including attorney's fees and other costs related to commencing and pursuing to completion any foreclosure of delinquent Special Taxes.

**"Affordable Housing"** means any Dwelling Units located on Residential Property that are subject to deed restrictions, resale restrictions and/or regulatory agreements recorded on the property that provide housing for persons that meet the Low, Very Low, and/or Extremely Very Low income levels pursuant to, as applicable, California Health & Safety Code Sections 50093, 50079.5, 50105, or 50106. The Fiscal Year after the January 1 following the termination of the agreement containing covenants or similar instrument, a Dwelling Unit shall no longer be considered Affordable Housing.

**"Annexation Parcel"** means any parcel that is annexed to the CFD after it is formed.

**“Annual Costs”** means for each Fiscal Year, the total of 1) Authorized Services 2) Administrative Expenses; and 3) any amounts needed to cure actual or estimated delinquencies in Special Taxes for the current or previous Fiscal Year.

**“Authorized Services”** mean those services, as listed in the resolution forming the CFD.

**"Assessor's Parcel"** means a lot or parcel shown on an Assessor's Parcel Map with an assigned Assessor's Parcel number.

**"Assessor's Parcel Map"** means an official map of the Assessor of the County designating parcels by Assessor's Parcel number.

**“Base Year”** means the Fiscal Year beginning July 1, 2009 and ending June 30, 2010.

**“Certificate of Occupancy”** means a certificate issued by the City that authorizing the occupancy of a Dwelling Unit.

**"CFD Administrator"** means an official of the City, or any designee thereof, responsible for determining the Special Tax Requirement and providing for the levy and collection of the Special Taxes.

**"CFD"** means City of Milpitas Community Facilities District No. 2008-1 (Public Services) of the City.

**"City"** means the City of Milpitas.

**“Consumer Price Index”** means, for each Fiscal Year, the Consumer Price Index published by the U.S. Bureau of Labor Statistics for All Urban Consumers in the San Francisco-Oakland-San Jose Area, measured as of the month of February in the calendar year that ends in the previous Fiscal Year. In the event this index ceases to be published, the Consumer Price Index shall be another index as determined by the CFD Administrator that is reasonably comparable to the Consumer Price Index for the San Francisco-Oakland-San Jose Area.

**"Council"** means the City Council of the City, acting as the legislative body of CFD No. 2008-1.

**“County”** means the County of Santa Clara.

**“County Median Income”** means the current median income for the County of Santa Clara as determined by the U.S. Department of Housing and Urban Development.

**"Developed Property"** means, for each Fiscal Year, all Assessor's Parcels of Residential and Non-Residential Property for which a Certificate of Occupancy, or equivalent certificate, was issued before February 1 of the prior Fiscal Year, but not earlier than January 1, 2009.

**"Dwelling Unit"** means a building or portion thereof designed for and occupied in whole or part as a residence or sleeping place, either permanently or temporarily, by one family and its guests, with sanitary facilities and one kitchen provided within the unit. Boarding or lodging houses, dormitories, and hotels shall not be defined as Dwelling Units unless the land use permit specifies a residential use.

**"Extremely Low-Income Affordable Housing"** means Affordable Housing suitable for households with incomes at or below 30% of the County Median Income.

**"Fiscal Year"** means the period starting July 1 and ending on the following June 30.

**"Land Use Class"** means the land use class into which an Assessor's Parcel of Residential Property has been assigned.

**"Low-Income Affordable Housing"** means Affordable Housing suitable for households with incomes at or below 80% of the County Median Income.

**"Maximum Special Tax"** means, for each Fiscal Year, the maximum Special Tax, determined in accordance with Section C, below, that can be levied on any Assessor's Parcel of Residential Property.

**"Market-Priced Residential Property"** means Residential Property not classified as Affordable Housing.

**"Non-Residential Property"** means, for each Fiscal Year, any Assessor's Parcel of Developed Property which is not a Residential Property.

**"Property Owner Association Property"** means, for each Fiscal Year, any Assessor's Parcel within the boundaries of CFD No. 2008-1 that is owned by or irrevocably offered for dedication to a property owner association, including any master or sub-association.

**"Proportionately"** means that the ratio of the actual annual Special Tax levy to the Maximum Special Tax is equal for all Assessor's Parcels of Residential Property.

**"Public Property"** means, for each Fiscal Year, (i) any property within the boundaries of CFD No. 2008-1 that is owned by or irrevocably offered for dedication to the federal government, the State, the City or any other public agency; provided however that any property leased by a public agency to a private entity and subject to taxation under Section 53340.1 of the Act, as such section may be amended or replaced, shall be taxed and classified in accordance with its use; or (ii) any property within the boundaries of CFD No. 2008-1 that is encumbered by an unmanned utility easement making impractical its utilization for other than the purpose set forth in the easement.

**"Residential Property"** means, for each Fiscal Year, any Assessor's Parcel of Developed Property for which a Certificate of Occupancy has been issued for purposes of allowing residents to inhabit one or more residential Dwelling Units.

**“Second Family Unit”** means an attached or detached additional residential dwelling unit on a single-family residential Developed Parcel. The Second-Family Unit is not considered a Dwelling Unit in terms of assigning the Maximum Annual Special Tax.

**“Services”** means services that CFD No. 2008-1 is authorized to fund. These services may include: a) police protection services, criminal justice services-jails, detention facilities and juvenile halls, b) fire protection & suppression services and ambulance & paramedic services, c) maintenance and lighting of parks, parkways, streets, roads, street landscaping and open space, d) flood and storm protection services-operation and maintenance of storm drainage systems, and e) services related to removal and remedial action for cleanup of any hazardous environmental substances.

**"Special Tax"** means the special tax to be levied in each Fiscal Year on each Assessor's Parcel of Residential Property to fund the Special Tax Requirement.

**"Special Tax Requirement"** means that amount to be collected in any Fiscal Year for CFD No. 2008-1 to pay for certain costs as required to meet the needs of CFD No. 2008-1 in that Fiscal Year. The costs to be covered shall be the costs of (i) Services, and (ii) Administrative Expenses; less (iii) a credit for funds available to reduce the annual Special Tax levy, if any, as determined by the CFD Administrator.

**"State"** means the State of California.

**“Tax Category”** means the four categories of housing Dwelling Units shown in Table 1.

**“Tax Collection Schedule”** means the document prepared by the Administrator for the County Auditor-Controller to use in levying and collecting the Special Taxes each Fiscal Year.

**“Tax Escalation Factor”** means an annual percentage increase in the Maximum Annual Special Tax Rate per Unit based upon the Consumer Price Index (CPI) (as of February, San Francisco, All Urban Consumers (CPI-U) Index), the CPI (prior calendar year annual average, San Francisco, All Urban Wage Earners and Clerical Workers), or 2 percent, whichever is greater. The Tax Escalation Factor is applied each Fiscal Year following the Base Year.

**“Taxable Parcel”** means any Parcel that is not a Tax-Exempt Parcel

**“Tax-Exempt Parcel”** means a Parcel not subject to the Special Tax. Tax-Exempt Parcels are Public Parcels (subject to the limitations set forth below), Undeveloped Parcels, and nonresidential use parcels, such as commercial, office, industrial, etc.

**"Undeveloped Property"** means, for each Fiscal Year, all property not classified as Residential Property, Non-Residential Property, Public Property, or Property Owner Association Property.

**“Very Low-Income Affordable Housing”** means Affordable Housing suitable for households with incomes at or below 50% of the County Median Income.

**B. ASSIGNMENT TO LAND USE CATEGORIES**

Each Fiscal Year, all Assessor’s Parcels, as applicable within CFD No. 2008-1, shall be classified as Residential Property, Non-Residential Property, Undeveloped Property, Public Property, or Property Owner Association Property. However, only Residential Property shall be subject to annual Special Taxes in accordance with the rate and method of apportionment determined pursuant to Sections C and D below. Residential Property shall be assigned to Land Use Classes 1-4, as listed in Table 1, below.

**C. MAXIMUM SPECIAL TAX RATE**

**1. Developed Property**

a. Maximum Special Tax

The Maximum Special Taxes for Residential Property are shown below in Table 1, based on the Land Use Class in which such Residential Property has been assigned. Under no circumstances shall a Special Tax be levied on Non-Residential Property, or for renovations to an existing Dwelling Unit located on Residential Property.

**TABLE 1**

**Maximum Special Taxes for Developed Property for Base Year 2009-10  
Community Facilities District No. 2008-1**

<b>Land Use Class</b>	<b>Land Use Type</b>	<b>Maximum Special Tax Per Dwelling Unit</b>
1	Market-Priced Residential Property	\$510.00
2	Low- Income Affordable Housing (80% of Market)	\$408.00
3	Very Low-Income Affordable Housing (50% of Market)	\$255.00
4	Extremely Low-Income Affordable Housing	\$0.00

b. Increase in the Maximum Special Tax

On each July 1, commencing on July 1, 2010, the Maximum Special Taxes set forth above shall be increased annually by the greater of the change in the San Francisco-Oakland-San Jose Area Urban Consumer Price Index during the twelve months prior to February of the previous Fiscal Year, or two percent (2%).

**2. Undeveloped Property, Non-Residential Property, Public Property or Property Owner Association Property**

No Special Taxes shall be levied on Undeveloped Property, Non-Residential Property, Property Owner Association Property, Public Property or Residential Property assigned to Land Use Class 4.

**D. METHOD OF APPORTIONMENT OF THE SPECIAL TAX**

Commencing with Fiscal Year 2010-11 and for each following Fiscal Year, the Council or its designee shall levy the annual Special Tax Proportionately for each Assessor's Parcel of Residential Property at up to 100% of the applicable Maximum Special Tax, until the amount of Special Taxes equals the Special Tax Requirement.

**E. EXEMPTIONS**

No Special Tax shall be levied on Undeveloped Property, Non-Residential Property, Public Property, Property Owner Association Property or Residential Property assigned to Land Use Class 4. However, should an Assessor's Parcel no longer be classified as Non-Residential Property, Public Property, Property Owner Association Property, or Residential Property assigned to Land Use Class 4, such Assessor's Parcel, if reclassified as Residential Property assigned to Land Use Classes 1, 2 or 3, shall be subject to the Special Tax. Furthermore, an Assessor's Parcel of Residential Property assigned to Land Use Classes 1, 2 or 3, if reclassified as belonging to a different Land Use Class, shall be subject to the Special Tax associated with its new Land Use Class.

**F. APPEALS AND INTERPRETATIONS**

Any landowner or resident may file a written appeal of the Special Tax on his/her property with the CFD Administrator, provided that the appellant is current in his/her payments of Special Taxes. During the pendency of an appeal, all Special Taxes previously levied must be paid on or before the payment date established when the levy was made. The appeal must specify the reasons why the appellant claims the Special Tax is in error. The CFD Administrator shall review the appeal, meet with the appellant if the CFD Administrator deems necessary, and advise the appellant of its determination. If the CFD Administrator agrees with the appellant, the CFD Administrator shall eliminate or reduce the Special Tax on the appellant's property and/or provide a refund to the appellant. If the CFD Administrator disagrees with the appellant and the appellant is dissatisfied with the determination, the appellant then has 30 days in which to appeal to the Council by filing a written notice of appeal with the City Clerk, provided that the appellant is current in his/her payments of Special Taxes. The second appeal must specify the reasons for the appellant's disagreement with the CFD Administrator's determination. The decision by the Council shall be final. The CFD Administrator may charge the appellant a reasonable fee for processing the appeal.

Interpretations may be made by the Council by ordinance or resolution for purposes of clarifying any vagueness or ambiguity in this Rate and Method of Apportionment.

**G. MANNER OF COLLECTION**

The annual Special Tax shall be collected in the same manner and at the same time as ordinary *ad valorem* property taxes; provided, however, that CFD No. 2008-1 may directly bill the Special Tax, may collect Special Taxes at a different time or in a different manner if necessary to meet its financial obligations. In particular, the Special Tax for Affordable

Housing may be collected off of the tax roll, to facilitate payment of the Special Tax by a party other than the property owner.

**H. TERM OF SPECIAL TAX**

The Special Tax shall be levied in perpetuity as necessary to meet the Special Tax Requirement.

**CERTIFICATION OF ADEQUACY OF CONSENT AND ELECTION TO ANNEX REAL  
PROPERTY TO AN EXISTING COMMUNITY FACILITIES DISTRICT**

**CITY OF MILPITAS**

**COMMUNITY FACILITIES DISTRICT No. 2008-1  
(PUBLIC SERVICES)**

**ANNEXATION NO. 3**

The undersigned is the duly appointed CITY CLERK for the proceedings relating to the annexation of property to the District.

On the \_\_\_\_\_ day of \_\_\_\_\_, 2013, at MILPITAS, California.

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**CITY CLERK  
CITY OF MILPITAS  
STATE OF CALIFORNIA**

**SHEET 1 OF 1**

Filed in the office of the City Clerk of the City of Milpitas this \_\_\_ day of \_\_\_\_\_, 2013.

\_\_\_\_\_  
City Clerk, City of Milpitas

I hereby certify Annexation Map No. 3 as shown within the boundaries of City of Milpitas Community Facilities District No. 2008-1 (Public Services) as originally recorded of maps of assessment and community Book 44 Page 30 Facilities District, O.R. , County of Santa Clara, State of California, was approved by the City Council of the City of Milpitas at a regular meeting thereof, held on the \_\_\_ day of \_\_\_\_\_, 2013, by its Resolution No. \_\_\_\_\_.

\_\_\_\_\_  
City Clerk, City of Milpitas

Filed this \_\_\_ day of \_\_\_\_\_, 2013, at the hour of \_\_\_ o'clock \_\_\_ m., in Book \_\_\_ of Maps of Assessment and Community Facilities Districts at Page \_\_\_ in the office of the County Recorder in the County of Santa Clara, State of California.

\_\_\_\_\_  
County Recorder,  
County of Santa Clara

The boundary of Community Facilities District No. 2008-1 is co-terminous with the boundary of the City of Milpitas in \_\_\_\_\_, 2013.

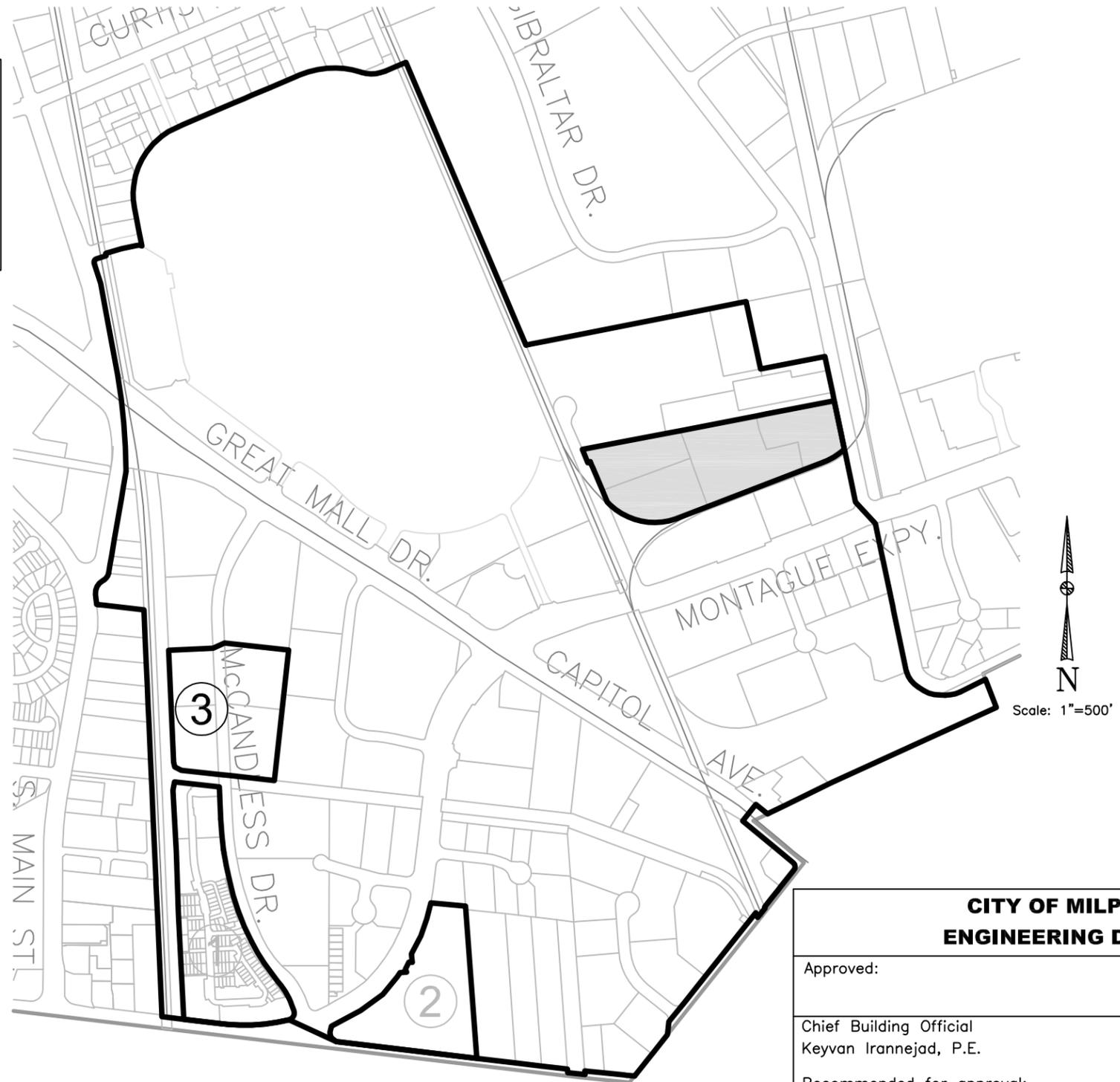
Reference is hereby made to the Assessor maps of the County of Santa Clara for an exact description of the lines and dimensions of each lot and parcel.

The territory included in the Community Facilities District shall include only Santa Clara County Assessor's for the following Annexation Maps :  
Initial formation CFD 2008-1 : 08632033, 08632034, 08632035, 0832036  
Map No. 1: 08641020, 08641021, 08641022  
Map No. 2: 08636043  
Map No. 3: 08633094, 08633095, 08633098, 08633099  
and all publicly owned areas in the City of Milpitas landscaped or capable of being landscaped, such as parks, parkways, street medians, interchange areas, light rail areas, open space and all similar areas. All other areas depicted on this map indicate territory that may be annexed to the Community Facilities District in the future.

**EXHIBIT 2**  
**ANNEXATION MAP NO. 3 AND UPDATE OF ANNEXATION MAP NO. 2 OF CITY OF MILPITAS**  
**COMMUNITY FACILITIES DISTRICT NO. 2008-1 (PUBLIC SERVICES), COUNTY OF SANTA CLARA**  
**STATE OF CALIFORNIA AS RECORDED IN BOOK 44 PAGE 30 OF MAPS OF ASSESSMENT AND**  
**COMMUNITY FACILITIES DISTRICTS, O.R., SANTA CLARA COUNTY**

**Legend**

-  Location of Initial Formation (Assessor Parcel No. 08632033, 08632034, 08632035, 08632036)
-  Boundary of CFD 2008-1
-  Annexation No.



<b>CITY OF MILPITAS ENGINEERING DIVISION</b>	
Approved:	
Chief Building Official Keyvan Irannejad, P.E.	Date
Recommended for approval:	
Land Development Engineer Ebby Sohrabi, P.E.	Date
Drawn By: F.H. File No. CFD 2008-1 Sheet 1 of 1	