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A few items are denoted with an asterisk (*), which means they are to be scanned for permanent record on the ISYS

File CUP-1996-180

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Name: _____ Rimrock Marketplace - SE Corner 25 1/2 & Highway 6 and 50

r retrieval system. In some instances, items are found on the list but are not present in the scanned electronic development е а file because they are already scanned elsewhere on the system. These scanned documents are denoted with (**) and will s n be found on the ISYS query system in their designated categories. e n Documents specific to certain files, not found in the standard checklist materials, are listed at the bottom of the page. n е d t Remaining items, (not selected for scanning), will be listed and marked present. This index can serve as a quick guide for the contents of each file. XX **Table of Contents *Review Sheet Summary** X X *Application form X **Review Sheets** Receipts for fees paid for anything XX *Submittal checklist X X *General project report Reduced copy of final plans or drawings X Reduction of assessor's map. Evidence of title, deeds, easements X X *Mailing list to adjacent property owners and the second Public notice cards 1.1 Record of certified mail Legal description Appraisal of raw land Reduction of any maps – final copy X X *Final reports for drainage and soils (geotechnical reports) Other bound or non-bound reports Traffic studies X X *Review Comments X X *Petitioner's response to comments *Staff Reports *Planning Commission staff report and exhibits 8 *City Council staff report and exhibits *Summary sheet of final conditions **DOCUMENT DESCRIPTION:** X X Decision Letter - 7/19/2000 - DENIED Traffic Impact Analysis – Revised – 8/9/99 X X Decision Letter – 6/13/2000 - EXPIRED Newspaper Clipping Notice for PC 11/16/99, 12/14/99 XX Decision letter - 12/14/99- CONDITIONALLY APPROVED XX Conceptual Cost Estimate Spreadsheet for Public Improvements for Rimrock Special Imp. Dist. Geotechnical Feasibility Study - 8/1/96 - re: The Wal-Mart X XX CDOT State Hwy Access Permit - Permit # 396261, Feasibility Study (the Log of Boring No. 2-14 and Boring 1-9 396262, 396261 are not scanned Special Warranty Deed - Bk 2199 / Pg 890 - not conveyed to X **X** X City Council Minutes – 12/18/96, 1/17/96 - ** City x X Commitment for Title Ins. - Chicago Title Ins. Co.11/29/96 Agreement between THF Belleville Dev. And HNL Co. - 9/23/96 - not recorded version X X Correspondence X Notice of Public Hearing – sent 11/10/99 XX Planning Commission Minutes - 12/3/96, 12/13/96, 1/22/99, X X Traffic Impact Analysis – 7/24/96 11/16/99, 12/14/99, 6/13/00 - ** X X Proposed Rimrock Marketplace Retail Center X Posting of Public Notice Signs - 7/7/00 X X Original CUP – Approved Site Plan X X Conceptual Site Plans

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DEVELOPMENT APPLICATION

Community Development Department 250 North 5th Street, Grand Junction, CO 81501 (303) 244-1430

\checkmark		
Receipt	 	
Date		
Rec'd By		

We, the undersigned, being the owners of property situated in Mesa County, State of Colorado, as described herein do hereby petition this:

PETITION	PHASE	SIZE	LOCATION		ZONE	LAND USE
Subdivision Plat/Plan	Minor Major Resub					
C Rezone				From:	To:	
Planned Development	ODP Prelim Final					
Conditional Use						
Zone of Annex						
U Variance						
Special Use						
U Vacation						Right-of Way
Revocable Permit						

PROPERTY OWNER	☐ DEVELOPER	I REPRESENTATIVE
THF BELLEVILLE DEVELOPMEN a Missouri Limited Partne	NT, L.P. ership Owner	John L. Rubenstein
Name	Name	Name
. 955 Executive Parkway, Su	uite 210	4350 Shawnee Mission Pkwy, Suite 159
Address	Address	Address
St. Louis, MO 63141		Shawnee Mission, KS 66205
City/State/Zip	City/State/Zip	City/State/Zip
314-878-4044		913-362-1999
Business Phone No.	Business Phone No.	Business Phone No.

NOTE: Legal property owner is owner of record on date of submittal.

We hereby acknowledge And we familie purselves with the rules and regulations with respect to the preparation of this submittal, that the foregoing have re d information is true and co blet to the best of our knowledge, and that we assume the responsibility to monitor the status of the application and the review comments. We/recognize resentative(s) must be present at all required hearings. In the event that the petitioner is not represented, the item hat we · our r all be dropp agehda dditjonal feg charged to cover rescheduling expenses before it can again be placed on the agenda. th and an

Signature of Person Completing Application John L. Rubenstein Date Signature of Property Owner(s) - attach additional sheets if necessary

John J. Rubenstein

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PRE-APPLICATION CONFERENCE

Date: 3/16/98 Conference Attendance: M. Drollinger Kerric Ashlech; Jay Wolverton Proposal: Retail Shopping Center Location: Su Corner Huy GLSO AND 251/2 Rd. Tax Parcel Number: 7945-103-37-001 Review Fee: \$400+\$15/acre (Fee is due at the time of submittal. Make check payable to the City of Grand Junction.)
Additional ROW required? As per enc. Adjacent road improvements required? As per enc. Area identified as a need in the Master Plan of Parks and Recreation? NO Parks and Open Space fees required? NO Recording fees required? YES Half street improvement fees/TCP required? YES State Highway Access Permit required? YES On-site detention/retention or Drainage fee required? YES
Applicable Plans, Policies and Guidelines Jevel. Code
Located in identified floodplain? FIRM panel # Located in other geohazard area? No
Located in established Airport Zone? Clear Zone, Critical Zone, Area of Influence?
While all factors in a development proposal require careful thought, preparation and design, the following "checked" items are brought to the petitioner's attention as needing special attention or consideration. Other items of special concern may be identified during the review process

Access/Parking	O Screening/Buffering	O Land Use Compatibility
• Drainage	Landscaping	 Traffic Generation
O Floodplain/Wetlands Mitigation	O Availability of Utilities	O Geologic Hazards/Soils
O Other		
Related Files: CUP - 1996 - 180	; others nel. 1117 RP-1907-024	; CUP-95-137, CUP-95-

It is recommended that the applicant inform the neighboring property owners and tenants of the proposal prior to the public hearing and preferably prior to submittal to the City.

PRE-APPLICATION CONFERENCE

WE RECOGNIZE that we, ourselves, or our representative(s) must be present at all hearings relative to this proposal and it is our responsibility to know when and where those hearings are.

In the event that the petitioner is not represented, the proposed item will be dropped from the agenda, and an additional fee shall be charged to cover rescheduling expenses. Such fee must be paid before the proposed item can again be placed on the agenda. Any changes to the approved plan will require a re-review and approval by the Community Development Department prior to those changes being accepted.

WE UNDERSTAND that incomplete submittals will not be accepted and submittals with insufficient information, identified in the review process, which has not been addressed by the applicant, may be withdrawn from the agenda.

WE FURTHER UNDERSTAND that failure to meet any deadlines as identified by the Community Development Department for the review process may result in the project not being scheduled for hearing or being pulled from the agenda.

Signature(s) of Representative(s)

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Signature(s) of Petitioner(s)

Location: ITEMS Date Received <u>\$-1-94</u> Receipt # <u>4382</u> File # <u>CUP-96-180</u> DESCRIPTION • Application Fee	SSID REFERENCE	City Community Development	ty Dev. Eng.	ty Eng.	Agent	ation			P	RI oje	E√ ect	/ { : N	≡V arr DI	N ne:_ ST	RIL) 01 30	уГ 		<i>T</i>]	0		A		V	5f		PE	;R)	rAI
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PRE-AP	PLICATION	CONFERENCE

Date: <u>1/2/96</u> Conference Attendance: <u>M. Jrollinger</u> , J. Rubenstein, T. Volkmann, J. Granum Proposal: <u>Anended</u> CUP Location: <u>SE Corner 25/2</u> & D. Hurr 6850
Tax Parcel Number:
Additional ROW required? <u>Ks, w/ subdivisions</u> Adjacent road improvements required? <u>"</u> Area identified as a need in the Master Plan of Parks and Progression? No
Parks and Open Space fees required? No
Recording fees required? W/3vbd/v/sTor
Half street improvement fees/TCP required? w/subdivision and/or SPR Estimated Amount:
Revocable Permit required?
State Highway Access Permit required? 1ES
On-site detention/retention or Drainage fee required? ON site and/or fee as per Eng-
Applicable Plans, Policies and Guidelines Jeve 2 Coole
Located in identified floodplain? FIRM panel # Yes
Located in other geohazard area? As per report
Located in established Airport Zone? Clear Zone, Critical Zone, Area of Influence?
While all factors in a development proposal require careful thought, preparation and design, the following "checked" items are brought to the petitioner's attention as needing special attention or consideration. Other items of special concern may be identified during the review process.
O Access/Parking O Screening/Buffering O Land Use Compatibility
O Drainage O Landscaping O Traffic Generation
O Floodplain/Wetlands Mitigation O Availability of Utilities O Geologic Hazards/Soils
Related Files: $\# 30 - 35$; $\# 137 - 95$

It is recommended that the applicant inform the neighboring property owners and tenants of the proposal prior to the public hearing and preferably prior to submittal to the City.

PRE-APPLICATION CONFERENCE

WE RECOGNIZE that we, ourselves, or our representative(s) must be present at all hearings relative to this proposal and it is our responsibility to know when and where those hearings are.

In the event that the petitioner is not represented, the proposed item will be dropped from the agenda, and an additional fee shall be charged to cover rescheduling expenses. Such fee must be paid before the proposed item can again be placed on the agenda. Any changes to the approved plan will require a re-review and approval by the Community Development Department prior to those changes being accepted.

WE UNDERSTAND that incomplete submittals will not be accepted and submittals with insufficient information, identified in the review process, which has not been addressed by the applicant, may be withdrawn from the agenda.

WE FURTHER UNDERSTAND that failure to meet any deadlines as identified by the Community Development Department for the review process may result in the project not being scheduled for hearing or being pulled from the agenda.

Signature(s) of Petitioner(s)

Signature(s) of Representative(s)

mROCK

JUAN F VENEGAS 2429 H RD GRAND JUNCTION CO 81505-9647

THF BELLEVILLE DEVELOPMENT LPTHF LC955 EXECUTIVE PARKWAY DR STE 21SAINT LOUISMO63141-6363

HARBERT INVESTMENT COMPANY 2354 WESTERN VIEW DR GRAND JUNCTION CO 81503-1440

BETTY RICHARDS 2547 RIVER RD GRAND JUNCTION CO 81505-7209

FROSTLINE USA INC % SECCO INC 2525 RIVER RD GRAND JUNCTION CO 81505-7209

FROSTLINE USA INC C/O SECCO INC 2210 I RD GRAND JUNCTION CO 81505

COLORADO BEVERAGE DISTRIBUTING INC 2557 RIVER RD GRAND JUNCTION CO 81505-7216

COLORADO BEVERAGE DISTRIBUTING INC 2557 RIVER RD GRAND JUNCTION CO 81505-7216

RICHARD J EDWARDS 131 CANARY LN GRAND JUNCTION CO 81503-1543

ROCKY MOUNTAIN BUSINESS PARTNERS 1000 N 9TH ST STE 8 GRAND JUNCTION CO 81501-3107 WP-19916-180

GEORGE D TURNER LINDA C TURNER 351 S REDLANDS RD GRAND JUNCTION CO 81503-1753

MICHAEL W GREGG SUSAN L GREGG 2559 HIGHWAY 6 AND 50 GRAND JUNCTION CO 81505

MICHAEL W GREGG SUSAN L GREGO 2559 HIGHWAY 6 AND 50 GRAND JUNCTION CO 81505

COLORADO RIVERFRONT FOUNDATION INC PO BOX 2477 GRAND JUNCTION CO 81502-2477

DALE R REECE 2065 BLUE WATER DR FRUITA CO 81521-9419

MCCALLUM FAMILY LLC 570 S WESPGATE DR GRAND JUNCTION CO 81505-6920

MCCALLUM FAMILY LLC

GRAND-JUNCTION CO

570 S WESTGATE DR

AUTOZONE INC PO BOX 2198 MEMPHIS TN 38101-2198

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GRAND JUNCTION CO 81505-6920

GRAND JUNCTION CO 81502-1239

BETTY - DBA THE CORNER STORE

GRAND JUNCTION CO 81505-9640

THF-BELLEVILLE DEVELOPMENT LP

955 EXECUTIVE PARKWAY DR STE 21

MO 63141-6363

MCCALLUM FAMILY LLC 570 S WESTGATE DR

HNL COMPANY

HAROLD WOOLARD

PO BOX 1239

1110 24 RD

THF LC

SAINTLOUIS

JOSEPH RICHARD WAKEEN 9943 NW RADCLIFFE RD ALBUQUERQUE NM 87114-4410

ZANSCAR 1048 INDEPENDENT AVE GRAND JUNCTION CO 81505-7185

P LLOYD F HOLMES C/O GULF&WESTRN IND 640 26 RD GRAND JUNCTION CO 81506-1969

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81505-6920

C R BROWN OIL COMPANY C/O MONUMENT OIL 703 23 1/2 RD GRAND JUNCTION CO 81505-9689

GAMBLE ENTERPRISES INC PO BOX 2906 GRAND JUNCTION CO 81502-2906 ELLEN JOHNSON DONALD D JOHNSON CO-TRUSTEES 1155 LAKESIDE DR UNIT 203 GRAND JUNCTION CO 81506-5416

ROCKY MOUNTAIN FORECLOSURE SPEC 2514 OLEASTER CT GRAND JUNCTION CO 81505

HOWARD J NESBITT KEN W NESBITT PO BOX 3609 GRAND JUNCTION CO 81502-3609 ROBERT G WILSON TRUSTEE FOR RAYMOND C HOUCK PO BOX 60221 GRAND JUNCTION CO 81506-8758

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LEE JAY KOLLIGIAN LEO KOLLIGIAN 1100 W SHAW AVE UNIT 128 FRESNO CA 93711-3708

C & K OF MESA COUNTY LLC PO BOX 4150 GRAND JUNCTION CO 81502 DWIGHT R ERICKSON DANNAH M ERICKSON 546 E VALLEY DR GRAND JUNCTION CO 81504-4443

DWAYNE DODD 575 LIBERTY CAP CT GRAND JUNCTION CO 81503-8722

JACK L BOGART PATRICIA E BOGART 2188 W MORRISON CT GRAND JUNCTION CO 81503

C & K OF MESA COUNTY LLC PO BOX 4150 GRAND JUNCTION CO 81502 RANDALL R BOGART LOIS A BOGART 2257 PINE TERRACE CT GRAND JUNCTION CO 81503

C& K-OF-MESA COUNTY LLC PO BOX 4150 GRAND JUNCTION CO 81502

C&KOFMESA COUNTY LLC PO BOX 4150 GRAND JUNCTION CO 84502

SAM'S REAL ESTATE BUSINESS TRUST 702 SW 8TH ST UNIT 6360 BENTONVILLE AR 72716-6209

LKB CORPORATION PO BOX 119 FRISCO CO 80443-0119

CITY OF GRAND JUNCTION COMMUNITY DEVELOPMENT 250 N 5TH ST GRAND JUNCTION CO 81501

COLORADO GAME FISH & PARKS DEPT C/O DEPT OF NATURAL RESOURCES 6060 BROADWAY DENVER CO 80216-1029

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THF BELLEVILLE DEVELOPMENT LP THF LC 955 EXECUTIVE PARKWAY DR STE 21 SAINT LOUIS MO 63141-6363

FROSTLINE USA INC % SECCO INC 2525 RIVER RD GRAND JUNCTION CO 81505-7209

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FROSTLINE USA INC

MICHAEL W GREGG

SUSAN L GREGG

GRAND JUNCTION CO

2559 HIGHWAY 6 AND 50

GRAND JUNCTION CO

C/O SECCO INC

2210 I RD

GAMBLE ENTERPRISES INC PO BOX 2906

MCCALLUM FAMILY LLC

570 S WESTGATE DR

GRAND JUNCTION

HNL COMPANY PO BOX 1239

GRAND JUNCTION

HAROLD WOOLARD

GRAND JUNCTION

1110 24 RD

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C/O MONUMENT OIL

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ROBERT G WILSON TRUSTEE FOR RAYMOND C HOUCK PO BOX 60221 GRAND JUNCTION CO 81506-8758

LEE JAY KOLLIGIAN LEO KOLLIGIAN 1100 W SHAW AVE UNIT 128 93711-3708 FRESNO CA

C & K OF MESA COUNTY LLC PO BOX 4150 **GRAND JUNCTION** CO 81502

C&KOFMESA COUNTY LLC PO BOX 4150 GRAND JUNCTION CO 81502

MICHAEL W GREGG SUSAN L GREGG

2559 HIGHWAY 6 AND 50 GRAND JUNCTION CO 81505

COLORADO RIVERFRONT FOUNDATION INC PO BOX 2477 GRAND JUNCTION CO 81502-2477

THF BELLEVILLE DEVELOPMENT LP THF LC 955 EXECUTIVE PARKWAY DR STE 21 MO SAINT LOUIS -63141-6363

BETTY - DBA THE CORNER STORE

C & K OF MESA COUNTY LLC PO BOX-4150 GRAND JUNCTION -00-81502

C & K OF MESA COUNTY LLC PO BOX 4150 GRAND JUNC LION - CO-81502

AUTOZONE INC SAM'S REAL ESTATE BUSINESS TRUST DALE R REECE 702 SW 8TH ST UNIT 6360 PO BOX 2198 2065 BLUE WATER DR MEMPHIS TN 38101-2198 BENTONVILLE AR 72716-6209 81521-9419 **FRUITA** CO

DONALD D JOHNSON CO-TRUSTEES

CO

CO

1155 LAKESIDE DR UNIT 203

MCCALLUM FAMILY LLC 570 S WESTGATE DR GRAND JUNCTION CO 81505-6920

F HOLMES C/O GULF&WESTRN IND

MCCALLUM FAMILY LLC

GRAND FUNCTION CO

570 S WESTGATE DR

P LLOYD

640 26 RD

ZANSCAR **1048 INDEPENDENT AVE** GRAND JUNCTION CO

ELLEN JOHNSON

GRAND JUNCTION

HOWARD J NESBITT

GRAND JUNCTION

KEN W NESBITT

PO BOX 3609

81505-7185

81506-5416

81502-3609

LKB CORPORATION **PO BOX 119** FRISCO CO 80443-0119

CITY OF GRAND JUNCTION PLANNING DEPARTMENT 250 N 5TH ST GRAND JUNCTION CO 81501

COLORADO GAME FISH & PARKS DEPT C/O DEPT OF NATURAL RESOURCES 6060 BROADWAY DENVER CO 80216-1029



GRAND JUNCTION CO

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DWAYNE DODD 575 LIBERTY CAP CT GRAND JUNCTION CO 81503-8722

JACK L BOGART PATRICIA E BOGART 2188 W MORRISON CT GRAND JUNCTION CO 81503

RANDALL R BOGART LOIS A BOGART 2257 PINE TERRACE CT -GRAND JUNCTION CO 81503

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Rimrock CUP-1996-180

(5/22/00)

LOUIS A PURIN ETAL C/O DALE BEEDE 820 LANAI DR GRAND JUNCTION, CO 81506-1732

CLARABELLE MCELLEY EDWARD 2509 HIGHWAY 6 AND 50 GRAND JUNCTION, CO 81505-7165

C R BROWN OIL COMPANY C/O MONUMENT OIL 703 23 1/2 RD GRAND JUNCTION, CO 81505-9689

HNL COMPANY PO BOX 1239 GRAND JUNCTION, CO 81502-1239

AUTOZONE INC PO BOX 2198 MEMPHIS, TN 38101-2198

ZANSCAR 1048 INDEPENDENT AVE GRAND JUNCTION, CO 81505-7185

HOWARD J NESBITT KEN W NESBITT PO BOX 3609 GRAND JUNCTION, CO 81502-3609

UNITED COMPANIES OF MESA COUNTY INC 618 DIKE RD GRAND JUNCTION, CO 81503-2706

LKB CORPORATION PO BOX 119 FRISCO, CO 80443-0119

SHERRI L KATZ 744 CENTAURI DR GRAND JUNCTION, CO 81506-1806 ERASMO MUNIZ SANDRA MUNIZ 123 UTE AVE GRAND JUNCTION, CO 81501-2214

JOSEPH P SARNAC MARILYN A SARNAC 609 PIONEER RD GRAND JUNCTION, CO 81504-5245

GAMBLE ENTERPRISES INC PO BOX 2906 GRAND JUNCTION, CO 81502-2906

HAROLD WOOLARD BETTY - DBA THE CORNER STORE 1110 24 RD GRAND JUNCTION, CO 81505-9640

JOSEPH RICHARD WAKEEN 9943 RADCLIFFE RD NW ALBUQUERQUE, NM 87114-4410

ELLEN JOHNSON DONALD D JOHNSON CO-TRUSTEES 1155 LAKESIDE DR APT 203 GRAND JUNĆTION, CO 81506-5416

ROBERT G WILSON TRUSTEE FOR RAYMOND C HOUCK PO BOX 60221 GRAND JUNCTION, CO 81506-8758

C & K OF MESA COUNTY LLC PO BOX 4150 GRAND JUNCTION, CO 81502

DALE R REECE 2065 BLUE WATER DR FRUITA, CO 81521-9419

COLORADO GAME FISH & PARKS DEPT C/O DEPT OF NATURAL RESOURCES 6060 BROADWAY DENVER, CO 80216-1029 JAMES GREEN R-TRUSTEES % SUN CITY HOMES 8613 CANYON VIEW DR LAS VEGAS, NV 89117-5821

P LLOYD F HOLMES C/O GULF&WESTRN IND 640 26 RD GRAND JUNCTION, CO 81506-1969

MCCALLUM FAMILY LLC 570 S WESTGATE DR GRAND JUNCTION, CO 81505-6920

THF BELLEVILLE DEVELOPMENT LP THF LC 955 EXECUTIVE PARKWAY DR STE 21 SAINT LOUIS, MO 63141-6363

W R HALL LLC 2522 HIGHWAY 6 AND 50 GRAND JUNCTION, CO 81505-7166

ROCKY MOUNTAIN FORECLOSURE SPECIALISTS LLC 2514 OLEASTER CT GRAND JUNCTION, CO 81505

LEE JAY KOLLIGIAN LEO KOLLIGIAN 1100 W SHAW AVE STE 128 FRESNO, CA 93711-3708

WAL-MART STORES INC #6460 PROPERTY TAX DEPT #8013 702 SW 8TH ST UNIT 6360 BENTONVILLE, AR 72716-6209

VELVA V CARNES PO BOX 3117 GRAND JUNCTION, CO 81502-3117

NINA B SIMPSON ROBERT T SIMPSON 567 22 1/2 RD UNIT 54 GRAND JUNCTION, CO 81503

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MARLIN H SCOTTING ROBERT P PIETRO -ETAL 2566 HIGHWAY 6 AND 50 GRAND JUNCTION, CO 81505-7101

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DWAYNE DODD 575 LIBERTY CAP CT GRAND JUNCTION, CO 81503-8722

JACK L BOGART PATRICIA E BOGART 2188 W MORRISON CT GRAND JUNCTION, CO 81503-2543

MICHAEL W GREGG SUSAN L GREGG 249 COLUMBUS CANYON RD GRAND JUNCTION, CO 81503-1193

DWK INVESTMENTS 855 GUNNISON AVE GRAND JUNCTION, CO 81501-3209

JOSEPH COLEMAN 2452 F RD STE 200 GRAND JUNCTION, CO 81505-1225

BETTY RICHARDS 2547 RIVER RD GRAND JUNCTION, CO 81505-7209

FROSTLINE USA INC % SECCO INC 2525 RIVER RD GRAND JUNCTION, CO 81505-7209

GEORGE D TURNER LINDA C TURNER 351 S REDLANDS RD GRAND JUNCTION, CO 81503-1753

COLORADO RIVERFRONT FOUNDATION INC PO BOX 2477 GRAND JUNCTION, CO 81502-2477 B E THOMPSON P M 634 OURAY AVE GRAND JUNCTION, CO 81501-2740

PATTEN/URBACH PROPERTIES LLC 533 BOGART LN UNIT F GRAND JUNCTION, CO 81505-7144

JUAN F VENEGAS 2429 H RD GRAND JUNCTION, CO 81505-9647

BR-SL LLC 2571 HIGHWAY 6 AND 50 GRAND JUNCTION, CO 81505-7224

SUPERIOR CONTRACTING INC 464 25 1/2 RD GRAND JUNCTION, CO 81505-7105

HARBERT INVESTMENT COMPANY 2354 WESTERN VIEW DR GRAND JUNCTION, CO 81503-1440

BUCK S ODA YO ODA 2561 RIVER RD GRAND JUNCTION, CO 81505-7251

FROSTLINE USA INC C/O SECCO INC 2210 I RD GRAND JUNCTION, CO 81505

COLORADO BEVERAGE DISTRIBUTING INC 2557 RIVER RD GRAND JUNCTION, CO 81505-7216

RANDALL R BOGART LOIS A BOGART 2257 PINE TERRACE CT GRAND JUNCTION, CO 81503 DWIGHT R ERICKSON DANNAH M ERICKSON 546 E VALLEY DR GRAND JUNCTION, CO 81504-4443

S F GROUP INC 304 W MAIN ST GRAND JUNCTION, CO 81505-1606

ALBINO VENEGAS EST 2429 H RD GRAND JUNCTION, CO 81505-9647

MICHAEL W GREGG SUSAN L GREGG 2559 HIGHWAY 6 AND 50 GRAND JUNCTION, CO 81505-7104

SUPERIOR CONTRACTING INC 1901 N 7TH ST GRAND JUNCTION, CO 81501-7417

JUAN F VENEGAS PO BOX 1401 GRAND JUNCTION, CO 81502-1401

CITY OF GRAND JUNCTION 250 N 5TH ST GRAND JUNCTION, CO 81501-2628

ROCKY MOUNTAIN BUSINESS PARTNERS 1000 N 9TH ST STE 8 GRAND JUNCTION, CO 81501-3107

RICHARD J EDWARDS 131 CANARY LN GRAND JUNCTION, CO 81503-1543 2945-103-00-069 JAMES GREEN R-TRUSTEES % SUN CITY HOMES 4700 BOULDER HWY LAS VEGAS, NV 89121

2945-103-00-076 C R BROWN OIL COMPANY

C/O MONUMENT OIL 703 23 1/2 RD GRAND JUNCTION, CO 81505-9689 2945-103-00-144 JACK HALL TRUSTEE 2522 HIGHWAY 6 AND 50 GRAND JUNCTION, CO 81505-7166

2945-103-00-156 HOWARD J NESBITT KEN W NESBITT PO BOX 3609 GRAND JUNCTION, CO 81502-3609

2945-103-00-146 ZANSCAR 1048 INDEPENDENT AVE GRAND JUNCTION, CO 81505-7185

2945-103-27-005 JACK L BOGART PATRICIA E BOGART 2188 W MORRISON CT GRAND JUNCTION, CO 81503

2945-103-28-006 UNITED COMPANIES OF MESA COUNTY INC 618 DIKE RD GRAND JUNCTION, CO 81503-2706

2945-103-32-003 LKB CORPORATION

FRISCO, CO 80443-9999

2945-152-00-001 BELLEVILLE DEVELOPMENT LP

955 EXECUTIVE PARKWAY STE 210 ST LOUIS, MO 63141 2945-103-00-070 CLARABELLE MCELLEY EDWARD 2509 HIGHWAY 6 AND 50 GRAND JUNCTION, CO 81505-7165

2945-103-00-078 GERALD W ARNOLD 356 W KENNEDY AVE GRAND JUNCTION, CO 81505-7141

2945-103-00-150 ELLEN JOHNSON DONALD D JOHNSON CO-TRUSTEES

1155 LAKESIDE DR APT 203 GRAND JUNCTION, CO 81506-5416 2945-103-00-064 LOUIS A PURIN ETAL C/O DALE BEEDE 694 26 1/2 RD GRAND JUNCTION, CO 81506-1448

2945-103-26-001 ROBERT G WILSON TRUSTEE FOR RAYMOND C HOUCK

PO BOX 60221 GRAND JUNCTION, CO 81506-8758 2945-103-28-004 UNITED COMPANIES OF MESA COUNTY INC 618 DIKE RD GRAND JUNCTION, CO 81503-2706

2945-103-28-007 UNITED COMPANIES OF MESA COUNTY INC 618 DIKE RD GRAND JUNCTION, CO 81503-2706

2945-104-00-922 COLORADO GAME FISH & PARKS DEPT C/O DEPT OF NATURAL RESOURCES 6060 BROADWAY DENVER, CO 80216-1029 2945-152-00-002 BELLEVILLE DEVELOPMENT LP

955 EXECUTIVE PARKWAY STE 210 ST LOUIS, MO 63141 2945-103-00-075 P LLOYD F HOLMES C/O GULF&WESTRN IND

640 26 RD GRAND JUNCTION, CO 81506-1969 2945-103-00-141 FRED SCHMID REALTY ASSOCIATES II 3926 S MAGNOLIA WY DENVER, CO 80237

2945-103-00-152 HOLLY LANG 2512 E 1/4 RD GRAND JUNCTION, CO 81505-7200

2945-103-00-143 JOSEPH RICHARD WAKEEN

9943 RADCLIFFE RD NW ALBUQUERQUE, NM 87114-4410

2945-103-26-002 ROBERT G WILSON PO BOX 60221 GRAND JUNCTION, CO 81506-8758

2945-103-28-005 UNITED COMPANIES OF MESA COUNTY INC 618 DIKE RD GRAND JUNCTION, CO 81503-2706

2945-103-32-002 WAL-MART STORES INC #6460 PROPERTY TAX DEPT #8013 702 SW 8TH ST # 6360 BENTONVILLE, AR 72716-8013

2945-151-00-109 MICHAEL W GREGG SUSAN L GREGG 2559 HIGHWAY 6 AND 50 GRAND JUNCTION, CO 81505-7104

2945-152-04-002 FROSTLINE USA INC 2525 RIVER RD GRAND JUNCTION, CO 81505-7209 2945-103-00-081 BELLEVILLE DEVELOPMENT LP

955 EXECUTIVE PARKWAY STE 210 ST LOUIS, MO 63141

2945-151-00-085 JAMES E FUOCO EARL J - PARTNERSHIP 748 N 1ST ST GRAND JUNCTION, CO 81501-2236

2945-152-04-001 FROSTLINE USA INC 2525 RIVER RD GRAND JUNCTION, CO 81505-7209

The Belleville Depelopment LP c/o THF Realty 955 Executive Pkwy., Suite 210 St. Louis, MO 63141

City of Grand Junction Community Development Dept. 250 N 5th Street Grand Junction, C0 81501 2945-103-28-004
 UNITED COMPANIES OF MESA
 COUNTY INC
 618 DIKE RD
 GRAND JUNCTION, CO 81503-2706

2945-151-00-109 MICHAEL W GREGG SUSAN L GREGG 2559 HIGHWAY 6 AND 50 GRAND JUNCTION, CO 81505-7104

2945-152-04-002 FROSTLINE USA INC 2525 RIVER RD GRAND JUNCTION, CO 81505-7209

John L. Rubenstein 4350 Shawnee Mission Pkwy. Suite 159 Shawnee Mission, KS 66205 2945-104-00-922 COLORADO GAME FISH & PARKS DEPT C/O DEPT OF NATURAL RESOURCES 6060 BROADWAY DENVER, CO 80216-1029 2945-152-00-002 BELLEVILLE DEVELOPMENT LP

955 EXECUTIVE PARKWAY STE 210 ST LOUIS, MO 63141

2945-103-28-007 UNITED COMPANIES OF MESA COUNTY INC 618 DIKE RD GRAND JUNCTION, CO 81503-2706

Thomas C. Volkmann, PC 655 N 12th Street Grand Junction, CO 81501

RECEIVED GRAND JUNCTION PLANNING DEPARTMENT

.11.11 0 1 1996

July 3, 1996

Mr. John L. Rubenstein Rubenstein Real Estate Co., LC 4350 Shawnee Mission Parkway Suite 159 Shawnee Mission, Kansas 66205



City of Grand Junction, Colorado 250 North Fifth Street 81501-2668 FAX: (970)244-1599

Dear Mr. Rubenstein:

I enjoyed the opportunity to meet with you yesterday afternoon, after you completed your important meetings with the City of Grand Junction's Planning Division. Please accept this letter as a follow-up to our meeting and the issues briefly touched on.

I understand that you represent the new owners/developers on the project now called the Rim Rock Market Place, a 350,000 square foot retail shopping center along 6 & 50 at about 25 1/2 Road. Your first and most important question centered around the possibility of some sort of incentives from the City of Grand Junction to assist the project. I stated that in the past the City has said no to all new or expanding retail development; because new retail for the most part simply shifts retail activities from one existing business to another. The City Council although supportive of this new shopping center development does not wish to assist it with incentives that have the potential to adversely impact current businesses. I certainly do not want to speak for the City Council, but this has been their consistent position in the past.

The one area that the City of Grand Junction may or may not be able to assist you with is in the creation of a Special Improvement District for selected offsite capital improvements that become part of the City's own systems when completed. I understand that you will be working with our Public Works Department and your own architects to determine the feasibility of this approach to a portion of the project. In the past we have arranged the financing of sewer and street improvement districts and have consistently charged a 8% interest rate and allowed a ten year payback period. Once again I enjoyed meeting with you and want to wish you the best of luck in putting this project together.

Sincerely,

Ron Lappi, Admin. Svcs. & Finance Director

cc: Jody Kliska, PW Engineer Michael Drollinger, CD Planner Mark Achen, City Manager The Honorable Mayor and City Council



ATTORNEY AT LAW

655 North 12th Street Grand Junction, Colorado 81501 Phone: (970) 256-0440 • Fax (970) 256-0457

August 1, 1996

Mr. Michael Drollinger City of Grand Junction Community Development Department 250 North 5th Street Grand Junction, Colorado 81501

Re: THF BELLEVILLE DEVELOPMENT, L.P.

Dear Michael:

Enclosed is the Application package for the Conditional Use Permit amendment application from THF Belleville Development, L.P. The enclosed documents have been organized according to the various comment agencies to which they are to be sent.

Please call me immediately if you need any additional information or if there is any problem with this submittal so we can be certain we get this matter on the Planning Commission agenda for the first week of September, 1996.

Thank you for your continued assistance in this matter.

Very truly yours, THOMAS C. VOLKMANN

TCV:cez Enclosures

GENERAL PROJECT REPORT

GRAND JUNCTION RETAIL DEVELOPMENT THF REALTY, INC. & JOHN RUBENSTEIN REAL ESTATE, LC W & A Project No. 95-137

PROJECT

This site will be utilized for retail sales and related restaurant establishments. The development will include large and small individually connected structures, which have individual exterior entrances. Perimeter outlots will be located to the north and will be developed in conjunction, but not simultaneously.

SITE DESIGN

The site will be developed with retail parking areas and outlot areas to the north. The parking areas will have interior landscaped islands and heavy perimeter landscaping, in accordance with the Grand Junction Standards. An interior public roadway will be constructed to allow access to the retail area and the interior of the outlots.

GRADING/DRAINAGE DESIGN

The existing site has a stormwater drain (Ligrani Drain), which flows off-site water through to the river outfall. This drain will be relocated into a natural series of channels, and partially piped through to its existing outfall, on-site. The proposed paved and building areas will be collected into an underground piped storm system and routed to the outfall of the Ligrani Drain.

UTILITY DESIGN

The sanitary sewer system will be routed to the existing outfall point. and the existing sanitary sewer, which is routed from off-site, will be joined into this system. The fire/water system will be connected to the existing system at the highway and extended through the site to service the proposed buildings. Fire hydrants and devices will be located in the road right-of-way and considered part of the municipal system.

DEVELOPMENT SCHEDULE/PHASING

The project schedule will proceed with the construction of the retail development area and proceed into the development of the outlot areas and additional restaurant/retail areas. The completion of the project is anticipated to occur approximately one year from start of construction.

SIGNAGE PLAN RIMROCK MARKETPLACE

All Signage must meet the requirements contained in Section 5-7 of the Zoning and Development Code (ZDC), as amended. In addition, the following provisions will be part of the signage plan for Rimrock Marketplace:

- 1. One project identification sign may be located along each roadway frontage. For the purposes of this approval, the project identification sign may be located at the Hwy. 6&50 frontage (as identified on the attached site plan) rather than having to be located along the relocated frontage road. The project identification sign along Hwy 6&50 may be a freestanding sign, not to exceed 25 ft. in height and 300 square feet in area. The project identification sign along the 25 1/2 Road frontage shall be limited to a monument signs, not to exceed 6 feet in height and 150 square feet in area.
- 2. Only monument signs (in addition to wall signs), not to exceed 6 feet in height and 150 square feet in area are permitted for identification of uses on the pad sites as identified on the attached site plan.
- 3. Wall mounted signs are permitted in accordance with the sign code. For purposes of signage allowance calculations, the retail center must utilize the relocated frontage road rather than Highway 6&50.
- 4. No roof signs are permitted anywhere in the development.

5. Traffic control signs require the approval of the City Development Engineer.

TRAFFIC IMPACT ANALYSIS

RIMROCK SHOPPING CENTER

GRAND JUNCTION, COLORADO

Leigh, Scott & Cleary, Inc.

LEIGH, SCOTT & CLEARY, INC. TRANSPORTATION PLANNING & TRAFFIC ENGINEERING CONSULTANTS



1889 York Street Denver, CO 80206 (303) 333-1105 FAX (303) 333-1107

July 24, 1996

Mr. John L. Rubenstein Rubenstein Real Estate Co., LC 4350 Shawnee Mission Parkway, Suite 159 Shawnee Mission, KS 66205

> Re: Rimrock Shopping Center Grand Junction, CO (LSC #941421)

Dear Mr. Rubenstein:

We are pleased to submit our updated report of the traffic impacts of the proposed Rimrock Shopping Center in Grand Junction, Colorado.

The traffic study first provides a summary of existing roadway and traffic conditions in the vicinity of the proposed site. It then provides estimates of the amount and directional distribution of traffic that will be generated. Finally, the impacts of the project-generated traffic are evaluated and recommendations are made regarding roadway improvements. An important component of the study is the location and design guidelines for access points that will be necessary to serve this development from the adjacent arterial roadways.

We trust that our findings and recommendations will assist in obtaining approval of the Rimrock Shopping Center. Please call if we can be of additional assistance.

Respectfully submitted,

LEIGH, SCOTT & CLEARY, INC.

Philip/N. Scott III, P.E.

PNS/wd

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APPENDIX A Existing Traffic

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Cou	۱n	te	ΥM	ea	su	٣	08
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	******	** Wee	kly Sum	mary fo	r week	of Dece	ember 1	1, 1994	*** P;	age 1
	Doto Filo	* M1 3	94001 0	ተተተቀቀቀ በ NI	*****	*****	*****	*****	>	****
	Ctation	• DILA	24001.2			1		- 1		
) (111)	Station	: 000	0000000	12		Lane	9(S)	: 1		
	Identification	: 000	0000000	12		Dire	ection	: East/	West Combin	ned
	City/Town	: GRA	ND JUNC	TION		Cour	nty	: MESA		
9	Location	: US-	6/US-50	E/O IN	IDEPEND	ENT				
	*****	*****	******	******	******	*******	******	*******	**********	******
		11	10	13	1 /	1 ⊑	16	1 7	Ukday	Doily
a	Timo	ىلىدىد. جەر 1. ت	ستعشد معرف	т	⊷⊥ اصصا			/ ساد ساد چر چې	witua/	Darry
	I TIIIG	Sun	mon	Tue	Med	inu	r 1 1	Sal	AV9.	AV9.
ŝ										
	01:00					105		209	105	105
1	02:00					91		134	91	84
5	03:00					80		99	80	71
	04:00					99		77	99	82
	05:00					98		86	98	82
50. 53	06:00					223		168	222	190
	03:00					200 (1)		271		470
	07.00					610		<u> </u>	010	4/9
	08:00					1461		591	1461	1128
	09:00					1488		1015	1488	1208
ŝ	10:00					1815		1672	1815	1535
	11:00					2316		2394	2316	1996
~	12:00					2655		2906	2655	2312
	13:00					3104		3198	3104	2674
	14:00					2954		2074	2954	25/9
	14:00					2904		3074	2704	2047
Ð,	15:00					2957		2921	295/	2530
8222	16:00					2626		2843	2626	2282
Ĵ	17:00					2713		2541	2713	2301
	18:00					2548		2199	2548	2134
3	19:00					1669		1855	1669	1457
	20:00					1180		1265	1180	1024
	21:00					1025		1006	1025	876
	22:00					700		890	700	627
*	22:00					100		670	100	424
i i	23.00					402		620	402	434
	24:00					245		చెర	245	223
0										
5	Totals					33260		32384	33260	28383
Í	***********	*****	******	******	******	<******	******	******	**********	*****
9 	% Avg Wkday					100.0		97.4		
	% Avg Day					117.2		114.1		
	AM Peak Hr					12:00		12:00		
1 - J.W.S.	AM Count					2655		2906		
í.								~~~~~~~		
	DM Dook Wy					13.00		13:00		
	CH COURT							2100		
	Pri Count					3104		3170		
1										

1.4

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	*** Wee	kly Sum	mary fo	or week	of Dece	ember 1	1, 1994 >	кжж Р.	age 2
$ \begin{array}{c} x \\ x \\ z \\$	КЖЖЖЖЖЖЖ ∗ M11 ~	·*************************************	(******** \ON	******	*******	******	********	*********	******
Station	- M122	.74025.F	YRN M O		1	(a)	× 1		
JUALION	000 : m		10		Lane	e(S) Sation	• 1. • Eantha	u um al	
					Ulre	SCLION .	- Eastoc	buna	
	- GRA	A (US = EC	N T VO TN		LOUT	ity	- MESA		
	· UD~	0/03-50				******	*****	****	****
*****	•	· ፋ ፋ ፋ ፋ ቶ ቶ ቶ ቶ 1	· ሐሕሐሐሐ ሐ 1 ጋ	· * * * * * * * * * * * * * * * * * * *	·******* 1 ፎ	· ሐሐሕሕሐ ሐ 1 ፌ	********** 1 7	Likday	naily
Time	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Avg.	Avg.
01:00					58		92	58	55
02:00					36		60	36	34
03:00					44		48	44	38
04:00					47		37	47	39
05:00					42		28	42	34
06:00					97		57	97	77
07:00					292		124	292	226
08:00					706		231	706	537
09:00					702		466	702	568
10:00					831		731	831	698
11:00					1025		1055	1025	883
12:00					1296		1320	1296	1114
13:00					1466		1443	1466	1253
14:00					1418		1514	1418	1229
15:00					1519		1508	1519	1300
16:00					1325		1500	1325	1161
17:00					1290		1433	1290	1126
18:00					1198		1220	1198	1030
19.00					809		1014	809	723
20:00					574		1V14 669	574	506
21:00					5/9		507	5/9	471
21.00					040 A10		550	040 ∕10	4/1
22+00					417 200		014 405	417 000	373
23:00					100		405	300	2/0
24:00					123		205	123	\
Totals					16173		16232	16173	13871
*********	******	******	******	******	******	******	******	*********	******
. السيادا بسيين يو					100.0		100 4		
& AV9 WKOAY					116 6		117 0		
% AVY Day					110.0		TTV .O		
AM Peak Hr					12:00		12:00		
AM Count					1296		1320		
PM Peak Hr					15:00		14:00		
PM Count					1,519		1514		
					***		₩ ₩₩ <u>₩</u>		

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Counter Measures

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	*** Wee	kly Sum	nmary fo	or week	of Dece	ember 1	1, 1994 :	*** P	age 1
**********	******	******	<******	*****	*******	******	*******	********	******
Data File	: M12	94024.P	PRN .						
Station	: 000	0000000)11		Lane	e(s)	: 1		
Identificatio	n : 000	0000000)11		Dire	ection	: Westbo	ound	
City/Town	: GRA	ND JUNC	TION		Cour	nty	: MESA		
Location	: US-	6/US-50) E/O IN	DEPENDE	ENT				
******	******	******	<******	*****	*******	<*****	*******	******	******
1	11	12	13	14	15	16	17	Wkday	Daily
Time	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Avg.	Avg.
							····· ···· ···· ···· ····		
01:00					47		117	47	50
02:00					55		74	55	50
03:00					36		51	36	33
04:00					52		40	52	43
05:00					53		58	53	46
06:00					136		111	136	113
07:00					324		147	324	252
08:00					755		360	755	591
09:00					786		549	786	640
10:00					984		941	984	837
11:00					1291		1339	1291	1113
12:00					1359		1586	1359	1197
13:00					1638		1755	1638	1421
14:00					1536		1560	1536	1320
15:00					1438		1419	1438	1230
16:00					1301		1343	1301	1121
17:00					1423		1108	1423	1175
18:00					1350		979	1350	1104
19:00					1000		9/i1	840	73/
19:00					606		596	606	518
20:00					477		J 70 A A Q	477	405
22:00					4// 201		974		400 254
22.00					201 174		3/0	17/	204
23.00					122		101	100	104
24.00					122		131		106
Tatala					17094		14150	1709/	14510
100972	14 14 14 14 14 14 14 14		ملح ملح ملح ملح ملح م	****	T1004	*****	TOTOT	T/004	14010
**************************************	****	*****	******	******	*****	*****	*****	*****	****
* Aug Hkday					100.0		94 5		
* AUG Dov					117 7		111 2		
% HV9 Day					11/./		111.0		
AM Dool Ur					12.00		12.00		
AM Count					1250		1584		
An COUNC					1007		1000		
DM Dool Ur					12.00		13.00		
PM Coust					1400		1755		
Fri Coulic					1000		TX 00		
**********	******	******	******	******	*******	*****	*******	*********	******

Counter Measures

Site Code : N-S Street: SAM'S CLUB ACCESS E-W Street: U.S. 6 & 50

:

Counter Measures

FILE: SAM'SUS6

Movements by: Primary

DATE: 12/15/94

Time Begin	Fri RT	om Nort THRU	;h ⊥T	R	Fro T	m East THRU	; LT		Fri RT	om Sout THRU	h LT	F	rom West THRU	; LT	Vehicle Total
7:00 AM 7:15 7:30 7:45 4R TDTAL 8:00 AM 8:15 8:30 8:45 4R TDTAL	2 5 9 4 20 11 21 9 20 51	0 0 2 0 2 1 2 1 2 0 5	3 4 13 38 5 7 12 17 41	10 11 11 11 11 12 11 12	 5 0 1 3 6 1 3 7 2	100 147 158 222 627 153 149 154 186 642	1 2 3 8 4 0 1 1 6		1 1 0 2 0 1 2 7 10	0 0 1 1 0 0 0 1 1	0 0 0 0 1 0 1 2	0 0 0 0 0 0 0 0 0 0	99 137 158 272 666 172 170 149 171 662	4 11 9 16 40 10 8 6 10 34	220 312 361 547 1440 380 373 346 437 1536
4:00 PM 4:15 4:30 4:45 HR TOTAL	21 35 28 33 117	0 1 2 4 7	23 28 33 23 107	5: 3: 4 4 1	 2 1 1 66	296 308 273 309 1186	3 0 1 1 5	Break	0 2 2 6 10	2 1 0 6 9	0 0 1 0 1	0 0 1 2 3	325 289 300 319 1233	9 21 21 12 63	731 717 703 756 2907
5:00 PM 5:15 5:30 5:45 HR TOTAL	41 22 29 40 132	1 5 0 0 6	36 25 31 30 122	4 4 3 3 1	2 7 3 58	311 308 251 232 1102	1 3 2 8		4 1 3 8	4 0 2 4 10	0 1 0 1	2 1 0 3	336 338 273 266 1213	24 11 12 3 55	802 762 633 621 2818
DAY TOTAL		20	308	4		3557	27			21	4	é	3774	192	8701

Site Code : N-S Street: SAM'S CLUB ACCESS N-S Street: SAM'S CLUB ACCESS

E-W Street: U.S. 6 & 50

:

Counter Measures

PAGE: 1 FILE: SAM'SUS6

Movements by: Primary

DATE: 12/13/94





Site Code : N-5 Street: SAM'S CLUB ACCESS E-W Street: U.S. 6 & 50

:

Counter Measures

PAGE: 1 FILE: SAM'SUS6

Movements by: Primary

DATE: 12/15/94

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 5:00 PM



Counter Measures

Movements by: Primary

PAGE: 1

N-S Street: SAM'S CLUB ACCESS E-W Street: INDEPENDENT

:

Site Code :

FILE: SAM'SIND

DATE:	12/15/94
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Time	From North				From East				From South			Fr	on West	t	Vehicle
Begin	RT	THRU	LT	RT	٦	THRU	LT		RT	THRU	LT	RT	THRU	LT	Total
7:00 AM	. 0	0	0	0)	2	3		 7	3	2	2	1	0	 22
7:15	1	2	0	0)	1	7		15	1	0	0	0	0	27
7:30	0	0	0	Ū)	2	22		15	3	1	2	2	1	49
7:45	0	1	1	Û	1	0	16		22	6	0	5	3	0	54
ir Total	1	3	1		Q	5	48		61	13	3	9	7	i	152
6:00 AM	1	0	0	2		4	17		29	3	0	1	2	0	60
8:15	1	2	0	0)	2	25		21	3	0	2	2	0	58
8:30	1	0	1	2		2	23		13	2	1	0	2	0	48
8:45	0	1	0	0)	3	34		22	10	2	2	2	0	76
ir Total	2	3	1.		4	11	99		85	19	3	5	Ģ	0	242
							Bre	ak -							
4+00 PM	o	17	z	•		7	74		74	77	0	Ę	₹	A	174
4.15	Λ Λ	10 77	1		\	7	20 77		20 7#	07 70	0 7	ц Л	् इ	7	100
4.30	् र	00 70	ł	· · · · · ·	/	i L	- <u>∠</u> / ⊰1		27 77	70 70	2	न र	у 5	4	100
4.45	Б	27	1 A	1	1	0 A	01 72		70	्छ र।	 ∩	् म्	.J A	1	171 175
R TOTAL	18	- <u>7</u> 8	7		3	24	116		100	134	4	17	17	7	545
5:00 PM	ſ	36	1	2	2	7	33		77	43	0	9	4	1	159
5:15	,	30	0		-)	3	17		18	39	1	5	7	ò	117
5:30	-	30	2	. ()	1	29		24	32	•	1	4	0	126
5:45	4	36	ō	-	5	4			21	25	2	3	2	-	132
ir Total	10	132	- 3		5	10	110		 90	139		- 18	- 12	2	534
			-								-			_	
)AY TOTAL	32		12		12	50	373				. 13	49	45	10	1473

Site Code : N-3 Street: SAM'S CLUB ACCESS E-W Street: INDEPENDENT

:

Counter Measures

PAGE: 1 FILE: SAM'SIND

Movements by: Primary

DATE: 12/15/94

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:30 AM - 8:30 AM DIRECTION START PEAK HR VOLUMES PERCENTS ... PEAK HOUR From FACTOR Right Thru Left Total Richt Thru Left 7:30 AM 0.50 2 3 1 5 33 North 50 -17 29 2 8 80 East 7:30 AM 0.83 90 89 South 7:30 AM 0.30 87 15 1 103 84 15 1 22 45 50 5 West 7:30 AM 0.69 10 11 1 Entire Intersection North 7:30 AM 0.50 2 3 1 6 33 50 17 8 80 90 2 East 0.83 2 9 89 0.80 87 15 1 103 84 15 1 South West 0.67 10 11 1 - 22 45 50 5 SAM'S CLUB ACCESS N -E ł 18 2 3 1 2 6. 11 90 INDEPENDENT Θ 80 1 22 INDEPENDENT 11 *77 10103 -87 1 15

SAM'S CLUB ACCESS

Site Code : N-S Street: SAM'S CLUB ACCESS E-W Street: INDEPENDENT

:

Counter Measures

PAGE: 1 FILE: SAM'SIND

Movements by: Primary

DATE: 12/15/94

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:30 PM - 5:30 PM



Site Code : N=S Street, SAM'S CUIR ACCESS

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Counter Measures

PAGE: 1

FILE: SAM'SFRN

N-⊃.	Street:	SAM S	CLUB ACLE	55
₩-E-₩	Street:	SOUTH	FRONTAGE	RD.

Movements by: Primary

DATE: 12/15/94

Time	Fr	om Nor	th	Fr	om East	-	İ	rom (Sout	h	Fr	om Wes	t	Vehicle
Begin	RT	THRU	LT	RT	THRU	LT	RT	TH	RU	LT	RT	Thru	LT	Total
7:00 AM		0	0	i	0	0	0	(0		 0	0	 0	2
7:15	2	Q	0	1	0	0	0	(0	Q	0	i	Q	4
7:30	4	0	0	0	0	0	0	į	0	0	0	1	0	5
7:45	3	0	Û	1	1	0	0	(0	0	0	0	0	5
R TOTAL	10	0	0	3	1	0	1)	0	0	0	2	0	16
🕾 8:00 AM	3	0	3	1	0	0	0	(0	0	0	<u>1</u>	0	8
8:15	1	0	0	0	0	0	0	(0	0	0	0	1	2
8:30	3	0	0	0	0	0	0	(0	Q	0	0	2	5
8:45	1	0	0	2	1	0	0	(0	0	0	0	7	11
AR TOTAL	8	0	3	3	1	Q	i)	0	0	0	1	10	26
~						Bre	ek							
	-		-		_		_							
4:00 PM	2	0	ن -	1	2	0	0	(0	0	0	1	1	10
4:15	1	0	2	0	0	0	د ،	(0	0	0	0	ن م	9
4:30	2	U A	2	1	1	0	0	(0	0	0	0	2	8
4:40 HR TOTAL	5 10	0	2 9	6 8	2 0	0 0	0	3	Q ()	0	0	0 1	۵ 12	19 46
5:00 PM	3	Ū	1	2	0	0	0	i	0	0	0	0	6	12
5:15	6	0	3	1	0	0	0		0	0	0	0	1	11
5:30	1	0	0	0	0	0	Ò	1	0	0	0	0	2	3
5:45	0	0	0	0	Q	0	0	1	0	0	0	1	7	8
HR TOTAL	10	0	4	3	0	0)	0	0	0	1	16	34
DAY TOTAL	28	0	16	17	5	Ò		3	0	0	0	5	38	122

Counter Measures

Site Code : N-S Street: SAM'S CLUB ACCESS E-W Street: SOUTH FRONTAGE RD.

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PAGE: 1 FILE: SAM'SFRN

Movements by: Primary

DATE: 12/15/94

PEAK PERIDD ANALYSIS FOR THE PERIDD: 7:30 AM - 8:30 AM



Counter Measures

Site Code : N-S Street: SAM'S CLUB ACCESS E-W Street: SOUTH FRONTAGE RD.

:

PAGE: 1 FILE: SAM'SFRN

DATE: 12/15/94

Movements by: Primary

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:30 PM - 5:30 PM



Site Code : N-S Street: INDEPENDENT

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Counter Measures

PAGE: 1 FILE: IND&US6

§Ε−₩	Street:	U.S.	6	k	50

Movements by: Primary

DATE: 12/15/94

Time	Fr	om Nor	th	Fr	om Eas	t		Fre	om Sout	h	۶r	on Wes	t	Vehicle
Begin	TS	THRU	LT	RT	THRU	LT		RT	THRU	LT	RT	THRU	LT	Total
5 7:00 AM	<u>1</u>	0	1	4	84	4		4	2	0	0	98	2	200
7:15	0	2	0	3	146	3		1	1	Û	3	147	1	308
7:30	0	2	3	2	150	5		4	1	1	2	160	6	346
. 7:45	1	1	0	2	218	6		8	2	0	2	280	7	527
HR TOTAL	2	6	4	11	608	18		17	6	1	7	685	16	1381
- 8:00 AM	2	1	2	2	159	3		5	0	2	1	174	5	358
8:15	7	6	1	3	158	9		3	2	1	5	174	0	369
8:30	6	0	0	1	155	7		9	0	3	2	146	3	332
8:45	4	0	2	1	201	5		8	0	2	5	171	2	401
HR TOTAL	19	7	6	8	673	24		25	2	8	13	665	10	1460
r *						Bi	reak -							
4:00 PM	2	0	0	L	315	1		8	1	0	7	326	11	672
4:15	4	Q	0	5	330	8		15	1	0	2	295	9	669
si 4: 30	8	1	1	3	291	8		15	0	0	4	306	9	645
4:45	9	1	0	4	335	3		9	1	0	3	324	10	699
HR TOTAL	23	2	1	13	1271	20		47	3	0	16	1251	38	2685
5:00 PM	6	1	1	4	330	10		8	0	1	1	353	9	724
5:15	8	1	1	4	317	11		14	0	0	2	335	4	697
. 5:30	8	2	1	1	268	10		13	1	0	1	281	6	592
5:45	5	1	ī	3	259	10		15	0	0	2	258	7	562
HR TOTAL	28	5	4	12	1174	41		50	1	1	6	1227	26	2575
										- 64 - 21 - 21 - 21 - 21 - 21 - 21 - 21 - 2		*2 *2 *2 *2 *2 *2		
- DAY TOTAL	72	20	15	44	3726	103		139	12	10	42	3828	90	8101
Site Code : N-5 Street: INDEPENDENT

:

E-W Street: U.S. 6 % 50

Counter Measures

PAGE: 1 FILE: IND&US6

Movements by: Frimary

DATE: 12/15/94

PEAK PERIOD ANALYSIS FOR THE PERIOD: 7:30 AM - 8:30 AM DIRECTION START PEAK HR VOLUMES PERCENTS ... FROM PEAK HOUR FACTOR Right Thru Left Total Right Thru Left 7 7:30 AM 10 10 37 26 North 0.48 - 27 37 1 95 3 East 7:30 AM 0.81 10 695 23 728 7:30 AM 20 5 4 29 69 17 14 South 0.73 1 97 2 West 7:30 AM 0.71 10 788 18 816 Entire Intersection 10 10 7 27 37 37 26 North 7:30 AM 0.48 10 695 23 1 95 3 East 0.81 728 69 17 14 20 5 4 29 South 0.73 1 97 2 West 0.71 10 788 18 816 INDEPENDENT N ₩---+ Ŝ -E <u>موجو</u>دین ب ت េ 10 / 27 1O784 U.S. 5 % 50 728 695 23 1Ξ 816 U.S. 6 % 50 788 815 .29 -10 5 | 20 4 4 1

INDEPENDENT

Site Code : _N-S Street: INDEPENDENT

:

Counter Measures

PAGE: 1 FILE: IND&US6

E-W Street: U.S. 6 & 50

Movements by: Primary

DATE: 12/15/94

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:30 PM - 5:30 PM DIRECTION START PERCENTS peak hr VOLUMES FROM PEAK HOUR FACTOR Right Thru Left Total Right Thru Left North 4:30 PM 0.95 31 4 3 38 82 11 8 15 1273 32 1320 1 96 2 East 4:30 PM 0.96 South 4:30 PM 96 2 2 0.80 46 1 1 48 1 97 2 West 4:30 PM 0.94 10 1318 31 1359 Entire Intersection 3i 4 3 38 North 4:30 PM 0.95 82 11 8 15 1273 32 1320 East 0.96 1 96 2 2 South 0.80 46 1 1 48 96 2 West 0.74 10 1318 31 1359 1 97 2 INDEPENDENT N -E <u>~</u> 31 47 3 38 -15 1385 1320 1273 U.S. 6 % 50 32 31 U.S. 6 % 50 1318 1359 1367 10.48 -1 1 46 1 46

INDEPENDENT

Site Code :

:

PAGE: 1 FILE: NFRONT

N-S Street: INDEPENDENT E-W Street: NORTH FRONTAGE PD

Movements by: Primary

Time	Fri	om Nor Typu	th	Fr	om East	t , т	Fr. DT	om Sour	ເກ : -	F۱ ۲۱	'OM Wes'	t	Vehicle	
- DAÂIN	וא 		<u>.</u> : 	Ki		L) 		1089	11 			<u>i</u> .	1914. 	
7:00 AM	0	0	0	1	0	1		2		1	1	ð		
« 7 : 15	0	0	0	1	- 0	3		5		0	ō	ŝ.	 Q	
7:30	0	0	+	0	1	5	8		ġ	0	1		17	
7:45	0	0	0	0	0	2	5	ŝ	Ĵ.	2	3	0	16	
3 HR TOTAL	0	Q	1	2	1	11	22	10	0	1	5	0	54	
3:00 AM	1	3)	0	1	3	ó	2	0	0	3	1	20	
8:15	0	4	0	0	1	9	ġ	2	0	1	0	0	20	
8:30	0	1	1	1	2	4	2	2	0	1	0 0	0	14	
8:45	0	5	1	2	2	1	ō	2	1	0	1	1	16	
HR TOTAL	1	13	2	- 3	- 6	17	11	- 8	1	2	- 1	2	70	
à	-		-	·	·	••	••	•	•	-		-		
						Break								
4:00 PM	2	0	1	1	2	2	11	2	0	0	3	1	25	
4:15	3	Ģ	0	1	0	4	13	÷	2	, Q	4	1	26	
4:30	0	0	1	0	1	8	à	2)	2	3	0	26	
4:45)	1	3	1	5	7	11	3	1	5	7	0	42	
HR TOTAL	5	1	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	3	ò	21	<u>44</u>	3	2	á	17	2	121	
5:00 PM	Q	i.	1	0	1	7	10	3	ð	Ĵ	5		29	
5:15	0	3	-	Û	1	6	5	3	0	1	3	<u>j</u>	24	
5:30	0	1	2	1	1	9	ò	2	0	:	2	-)	25	
5:45	Û	Ĺ	0	1	2	7	3	<u>.</u>	9	J	1	0	25	
HR TOTAL	0	ó	5	2	5	29	29	10	0	2	14	1	103	
• •														
DAY TOTAL	6	20	13	10	21	78	107	36	3	9	40	5	348	

Site Code : N-S Street: INDEPENDENT E-W Street: NCRTH FRONTAGE RD

PAGE: 1 FILE: NFRONT

Movements by: Primary





Site Code : N-5 Street: INDEPENDENT E-W Street: NORTH FRONTAGE RD

Movements by: Primary

DATE: 12/15/94





PAGE: 1 FILE: NFRONT Site Code :

Counter Measures

PAGE: 1

E-W Street: SOUTH FRONTAGE RD

N-S Street: INDEPENDENT

:

Movements by: Primary

Time	Fr	om Nor	th	Fr	om East	L		Fr	om Sou	th	Fr	om Wes	t	Vehicle
Begin	RT	THRU	LT	RT	THRU	LT		RT	THRU	LT	RT	THRU	LT	Total
7:00 AM	3	1	0	0	0	0		0		0	 0	0	5	10
7:15	4	3	2	0	0	0		0	0	0	0	0	2	11
7:30	4	5	0	0	0	0		0	2	0	0	1	4	16
7:45	3	4	2	0	0	0		0	3	0	0	0	7	19
HR TOTAL	14	13	4	0	0	0		0	6	0	0	1	18	56
, 8:00 AM	3	2	0	0	0	0		0	0	0	0	0	7	12
8:15	11	7	2	0	0	0		0	3	1	0	1	3	28
8:30	4	5	0	0	0	3		0	7	1	1	3	5	29
8:45	5	4	1	0	2	1		0	9	0	4	1	1	28
HR TOTAL	23	18	3	0	2	4		0	19	2	5	·5	16	97
							Break -				 			
									_					
4:00 PM	4	4	0	1	0	3		1	7	0	0	4	1	25
4:15	6	4	0	2	4	0		0	5	0	0	3	9	33
4:30	8	4	1	4	4	0		0	5	0	1	0	6	33
4:45	5	2	0	2	7	1		0	1	0	2	6	7	33
HR TOTAL	23	14	1	9	15	4		1	18	0	- 3	13	23	124
5:00 PM	8	3	1	2	1	1		1	2	1	0	3	5	28
5:15	8	5	1	3	3	1		0	3	0	2	3	8	37
5:30	6	6	1	3	6	0		0	2	0	1	2	9	36
5:45	6	6	1	2	4	0		1	3	0	0	1	10	34
HR TOTAL	28	20	4	10	14	2		2	10	1	3	9	32	135
DAY TOTAL	88	65	12	19	31	10		3	53	3	11	28	89	412

Site Code : N-S Street: INDEPENDENT E-W Street: SOUTH FRONTAGE RD

:

Counter Measures

PAGE: 1 FILE: INDEPS

Movements by: Primary





Site Code : N-S Street: INDEPENDENT E-W Street: SOUTH FRONTAGE RD

:

PAGE: 1 FILE: INDEPS

Movements by: Primary





🐸 Site Code :

Movements by: Primary

PAGE: 1

FILE: SH340GRA

DATE: 12/15/94

🐑 E-w Street: SH340/GRAND AVE.

N-5 Street: MULBERRY

:

ime	Fro	m Nor	th	Fr	on Easi	;	Fra	m Sout	:h	Fr	on West	Ċ	Vehicle
Begin	RT	THRU	LT	RT	THRU	LT	RT	THRU	LŢ	RT	THRU	LT	Totai
7:00 AM	21	4	0	1	61	 1	i	0	0	2	170	0	Z61
7:15	27	0	0	Û	76	1	1	()	0	3	222	0	320
7:30	43	0	0	0	61	Z	4	0	0	4	251	0	365
7:45	44	1	1	1	85	2	2	0	0	<u>1</u>	291	0	428
r total	135	5	1	2	283	6	8	Û	Û	10	934	0	1384
3:00 AM	21	0	2	0	87	3	4	0	0	4	272	0	393
8:15	43	2	0	0	87	3	4	0	0	2	245	0	386
8:30	57	3	0	1	79	5	1	0	Q	2	175	0	323
8:45	28	2	0	3	107	3	1	0	0	3	243	0	400
r total	159	7	2	4	360	14	10	Q	0	11	935	Ù	1502
						Brea	k	*****		We also an ap 400 an an 400 air a			-
4:00 PM	125	5	3	9	185	5	Û	0	0	2	253	0	587
4:15	130	1	2	4	153	2	6	5	6	3	272	6	591
4:30	117	õ	10	2	228	1	7	2	4	4	279	7	664
4:45	119	. 1	0	0	200	3	5	0	2	1	299	0	630
r Total	491	7	16	16	766	11	20	7	12	10	1103	13	2472
5:00 PM	97	1	Z	0	262	3	10	1	0	Ó	229	0	605
5:15	106	0	2	0	203	4	11	0	1	2	215	0	545
5:30	105	3	0	0	192	8	5	0	0	1	198	2	514
5:45	103	1	1	0	211	6	7	0	()	2	210	22	565
ir total	411	5	á	0	868	21	35	1	1	5	852	24	2229
								·					

Site Code : N-5 Street: MULBERRY CE-W Street: SH340/GRAND AVE.

:

Counter Measures

PAGE: 1 FILE: SH340GRA



DATE: 12/15/94

PEAK FERIOD ANALYSIS FOR THE PERIOD: 7:30 AM - 8:30 AM



Site Code : N-S Street: MULBERRY SE-W Street: SH340/GRAND AVE.

:

Counter Measures

PAGE: 1 FILE: SH340GRA

Movements by: Primary

DATE: 12/15/94

PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:30 PM - 5:30 PM



Site Code : N-5 Street: SAM'S CLUB ACCESS

PAGE: 1 FILE: MDSAM'S

E-W Street: U.S. 6 & 50

:

Movements by: Primary

Time	Fro	om Nort	;h	Fr	om Eas		Fr	om Sou:	 th	Fr	om Wes	t	Vehicle
Begin	RT	THRU	LT	RT	THRU	LT	RT	Thru	LT	RT	THRU	LT	Total
_11:00 AM	26		27	72	359	2	 ن	2	0	0	286	28	803
11:15	38	2	35	51	319	5	2	2	1	0	299	28	794
11:30	19	2	37	46	382	7	1	Û	1	1	298	43	837
11:45	17	2	24	57	340	6	0	0	1	2	327	24	801
HR TOTAL	100	8	123	236	1400	20	4	4	3	4	1210	123	3235
12:00 PM	22	3	28	50	386	1	2	1	0	0	342	28	863
:12:15	30	1	31	55	420	5	3	2	0	0	311	31	889
12:30	30	0	25	72	394	5	2	6	0	1	402	19	956
12:45	31	0	29	52	344	5	0	1	0	0	323	49	834
HR TOTAL	113	4	113	229	1544	16	7	10	0	1	1378	127	3542
DAY TOTAL	213		236	465	2944		11		3	5	2588	250	6777

Site Code : N-S Street: SAM'S CLUB ACCESS E-W Street: U.S. 6 & 50

:

Counter Measures

PAGE: 1 FILE: MDSAM'S

Movements by: Primary



Site Code : N-3 Street: SAM'S CLUB ACCESS S-W Street: INDEPENDENT

:

- PAGE: 1 FILE: MDSAM'SN

Movements by: Primary

ime	Fr	om Nort	:h	Fro	on East	t	Fro	om Sout	h	Fri	om West		Vehicle
egin	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	Thru	LT	Total
1:00 AM	1	26	2	0	8	25	22	71	9	3	2	0	169
1:15	5	28	0	6	8	35	18	69	4	3	1	7	189
1:30	2	23	1	2	7	32	22	60	7	2	4	2	164
1:45	3	20	3	2	12	26	17	57	7	3	8	2	160
IR TOTAL	11	97	6	10	35	118	79	257	27	16	15	11	682
2:00 PM	2	26	4	1	14	30	20	51	8	7	4	3	170
2:15	0	27	5	0	4	27	16	66	6	5	6	3	165
2:30	5	25	2	1	12	25	20	72	5	1	5	2	175
2:45	7	15	2	1	8	29	32	64	6	13	12	0	189
ir total	14	93	13	3	38	111	88	253	25	26	27	8	699
		196						510		 47	47	10	

:

Counter Measures

PAGE: 1 FILE: MDSAM'SN

Movements by: Primary



Site Code : N-5 Street: SAM'S CLUB ACCESS

E-W Street: SOUTH FRONTAGE RD.

Movements by: Primary

FILE: MDSFRONT DATE: 12/17/94

PAGE: 1

Time Begin	Fri RT	om Nori THRU	th 17	Fr Fr	on Eas THRU	t : T	Frc RT	om Sout	: :h 1 T	Fri ST	om West THRU	; ; ; T	Vehicle Total
						_: 			·				
11:00 AM	2	0	1	0	0	0	0	0	0	0	0	2	69
11:15	4	0	4	4	0	0	0	0	0	0	1	2	15
11:30	6	0	4	0	0	0	0	Q	0	Q	1	2	13
11:45	8	0	3	1	Q	0	0	0	0	0	1	0	13
HR TOTAL	20	0	12	5	0	0	0	0	Û	0	3	6	46
	1	Ŏ	3	1	2	0	0	0	0	0	0	2	9
12:15	4	0	2	0	0	0	0	0 -	0	0	0	5	11
12:30	6	0	0	6	0	0	0	0	0	Q	0	2	14
12:45	5	0	0	0	0	0	0	0	0	Ũ	0	1	6
HR TOTAL	16	0	5	7	2	Û	0	0	0	0	0	10	40
DAY TOTAL		0	17	12		0	0	0	0	0	3	16	86

Site Code : N-S Street: SAM'S CLUB ACCESS E-W Street: SOUTH FRONTAGE RD.

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Counter Measures

PAGE: 1 FILE: MDSFRONT

Movements by: Primary

DATE: 12/17/94

PEAK PERIOD ANALYSIS FOR THE PERIOD: 12:00 PM - 1:00 PM



Site Code : N-S Street: INDEPENDENT

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E-W Street: U.S. 6 & 50

Movements by: Primary

DATE: 12/17/94

Time	Fro	om Nor	 th	Fr	om Eas		Fri	om Sout	:h	Fr	om Wes		Vehicle	
Begin	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	Total	
A11:00 AM	 14	1	3	5	371	9		 ن	1	2	305	17	734	
11:15	18	0	0	4	349	5	11	0	0	2	316	15	720	
11:30	16	0	0	6	370	6	13	Û	Ō	1	329	7	770	
11:45	17	0	3	11	346	1	7	0	1	2	344	17	749	
AR TOTAL	65	1	6	26	1456	21	37	0	2	7	1294	58	2973	
12:00 PM	16	0	3	4	396	8	11	0	1	1	356	4	800	
_i2:15	11	0	1	4	438	8	12	0	i	0	329	18	822	
12:30	15	0	3	5	417	2	10	0	0	3	409	9	873	
12:45	17	2	()	2	366	7	13	0	Ō	2	359	5	773	
HR TOTAL	59	2	7	15	1617	25	46	0	2	6	1453	36	3268	
DAY TOTAL	124	2		41	3073	46	33	0	4	13	2747	94	6241	

PAGE: 1 FILE: MDIND&6

Site Code : N-S Street: INDEPENDENT S-W Street: U.S. 6 & 50

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Movements by: Primary

DATE: 12/17/94

FILE: MDIND&6

PAGE: 1



Site Code :

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Counter Measures

PAGE: 1 FILE: NFRONTIN

N-S Street: INDEPENDENT

Movements by: Primary

DATE: 12/17/94

Time	Fr	om Nor	th	Fr	on Eas	t	Fr	om Saui	th	Fr	om Wes	5	Vehicle
Begin	ŔŢ	Thru	LT	RT	Thru	LT	RT	thru	LT	RT	THRU	LT	Total
11:00 AM	<u>1</u>	 9	0	i	21	9	12	10	0	0		1	
11:15	6	11	3	5	26	7	13	6	0	0	6	1	84
11:30	0	6	4	1	27	10	8	7	0	0	8	1	72
11:45	1	8	2	7	24	12	17	10	1	0	13	0	95
HR TOTAL	8	34	9	14	98	38	50	33	1	0	31	2	319
12:00 PM	2	10	4	4	28	9	5	2	1	Õ	15	4	84
. 12 : 15	1	12	3	3	22	0	16	6	0	0	8	1	72
12:30	0	16	0	2	32	2	9	5	0	0	7	1	74
12:45	0	18	0	4	28	1	4	2	1	0	7	Û	65
HR TOTAL	3	56	7	13	110	12	34	15	2	0	37	6	295
DAY TOTAL	 1i	90	 i6	27	208	50	84		2	0		9	614

Site Code : N-S Street: INDEPENDENT E-W Street: NORTH FRONTAGE RD.

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Counter Measures

PAGE: 1 FILE: NFRONTIN

Movements by: Primary

DATE: 12/17/94

PEAK PERIOD ANALYSIS FOR THE PERIOD: 12:00 PM - 1:00 PM



Site Code :

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👔 X-S Street: INDEPENDENT

:

E-W Street: SOUTH FRONTAGE RD.

Movements by: Primary

DATE: 12/17/94

Time Begin	Frc RT	m Nori THRU	th LT	Fro RT	m East THRU	t LT	Fro RT	m Sout THRU	:h LT	Fre RT	m Wesi THRU	t LT	Vehicle Total
11:00 AM	 7	2	 1	 0	1	 i	1	<u> </u>		<u>1</u>	()	6	24
11:15	6	1	0	0	1	1	Q	1	2	1	3	10	26
11:30	4	3	0	0	2	1	2	1	1	1	5	12	32
-11:45	1	2	0	0	4	1	2	1	0	0	1	7	19
AR TOTAL	20	8	1	0	8	4	5	4	4	3	9	35	101
12:00 PM	8	1	0	0	5	1	0	0	0	0	7	12	34
42:15	3	5	0	0	0	1	1	2	0	Ú	5	11	28
1 2:30	2	2	0	0	4	1	0	2	0	0	3	8	23
12:45	9	2	Ú.	0	4	0	0	2	0	1	3	10	32
_{et} r total	22	11	0	0	13	2	1	7	0	1	18	41	117
DAY TOTAL			 <u> </u>				 5		4				

FILE: MDINDFRN

PAGE: 1

- PAGE: 1
FILE: MDINDFRN

N-S Street: INDEPENDENT E-W Street: SCUTH FRONTAGE RD.

Site Code :

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Movements by: Primary

DATE: 12/17/94

PEAK PERIOD ANALYSIS FOR THE PERIOD: 12:00 FM - 1:00 PM



Gite Code :

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Counter Measures

PAGE: 1

FILE: MD3406RA

SE-W Street: SH340/GRAND AVE.

N-S Street: MULBERRY

;

Movements by: Primary

Time	Fro	m Nori	th	Fr	om Easi		Fr	om Sou ^t	th	Fr	'on Wes'	t	Venicle
Begin	RT	THRU	LT	RT	THRU	LT	RT	Thru	LT	RT	THRU	LT	Total
11:00 AM	 79	 1	4	 12	 118	 6	 ()	 ن	0	1	229	 ()	 450
11:15	41	Í	13	4	126	4	2	0	0	1	228	0	420
41:30	65	2	6	8	151	9	0	Q	0	1	248	0	490
11:45	81	Q	3	8	120	10	Û	Û	0	2	251	0	475
AR TOTAL	266	4	26	32	515	29	2	0	0	5	956	Q	1835
12:00 PM	69	1	3	7	154	7	0	0	0	3	217	0	461
12:15	85	2	6	12	150	6	0	0	0	2	243	Û.	507
12:30	77	0	3	11	147	6	0	0	0	6	225	0	475
12:45	81	3	9	5	127	10	0	1	0	13	220	Û	469
HR TOTAL	312	6	21	35	578	29	0	1	0	25	705	0	1912
pay total	578		47	67	1093	58	2	·	0	30	1861	0	3747

Site Code : N-S Street: MULBERRY

:

E-W Street: SH340/GRAND AVE.

PAGE: 1 FILE: MD340GRA

Movements by: Primary

DATE: 12/17/94

PEAK PERIOD ANALYSIS FOR THE PERIOD: 12:00 PM - 1:00 PM



APPENDIX B Level of Service Analyses

		ari 102 min dir shi dir 141 di				war ili in to ip fotal.	The state way way (1.5 state and	na an 2011, an a contractor (2014) Africa acous	
Stro Anal Are: Comm	vets: (S Vst: MR & Tvue: Nent: 19	(-W) UG s M Other 96 Back6	t v SO Round Plu	S PROJEC	(N= rite 7-23 (SEN2R)	: 3em 2 Name: 5 -76 em 9 NED Tre	uluf Jeanffge Ean Fric		
110 712 717 (s	ant to de caner come come i anna de la seconda de la s	n 1948 and a share ang a san a san ang ang ang ang ang ang ang ang ang a	Met frenk viele gener finde under gener Met in met under Met im in immed mit in ficht beide stater timer aktes inte	1-2 ve: Co les 30 sis (21 of)	dan temperatural of a time mass of a t			e fore and a constraint when love way as y	
			naund i 1995 - Fritania	westbou:	/* : ;	- 1 (or the cr 	1 pro 2015 1 pr 2 min 1 pr 2 min	south his s	
Nel Volu	linge (age		4 1 ⁻ *Go 40}	1 2 70 282	1		1	1 1 43 46	
iloat	e w tett Vels : Time	- 12.00 2.		4.0 44.0 1.00 3.00	101 101 3.0013	4.9 41.9 .09 3.09	4494 44 340013	4.0 14.0 1.00 3100	- 14.5 9 - 3.00
	27 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 1998 - 19	-1297- annual array annua 1997, 996,77 annua 998		lignat Op	er stions	an algan asar waar ugal Para rina Mara d Ma		1147 41 42-4 AN 1	
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<u> </u>	Right		(1 heline to	فالمترية يدغ			
					2 CTM 2 4	اللغاني المسترجع			
Gr æs	19 mil 2 (* 1		XA 43,00		i Graen	in in the second se Second second	34 22.0	(**)	
Græd Keil	an Iow∕AR	7.4 8.4 2.4)A 43.08 > <u>6.</u> 0		i⊖ræen i∀≋iic	12.0 14.0 AR - 5.0) 04 22.0) 4.0	^(A)	
Græd Veij Cyci	en owzałł e Lengt	7.0 3.0 5: 100 3)A 43_00) <u>6</u> .0 Sang Phag	e cambin	(Green lYsiid ation om	12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	3A 221.0) 4.0 #2 #5	A *=	
Græg Kælj Cycl	n cw/AR .e Longt Lane	7.6 5.6 7: 100 : 8:cup:)A 43.00 5.0 Sats Phae Lotersect Ad) Sat	e combin ion Mert: V/c	iGreen IVelic ation of crmance o/C	n 12.0 Swight S.0 Tear: #1 Swamary	0A 22.0 7 4.0 #2 #5	A Boorba	(2011)
Græd Yelj Cycl	sn cw/AR Lengt Lane Myøte	7.0 5.0 F: 100 s Cap)A 43.00) <u>5.</u> 0 Sata Phae Intersect Ad) Sit Flow	e combin ion Perf: V/c Ratic	iGreen lYsiic ation or crmance g/C Ratio	ill. :w/PR S.: Toar: #1 Summary Dwlay	0A 22.0 9 4.0 *2 *5 108	A Re Approa Delay	cn: Loc
Gree Yeij Cycl	an cw/AR a Lengt Lane Mymta L	7.0 5.0 7: 100 s Cap 	0A 43.00 5.0 ssid Phas Intersect Ad) Sit Flow 1770	e combin ion Mert Matic C.208	iGreen lysiic ation or crmance g/C Ratio 0,170	iQ.n n iQ.n nurr: #1 Summerry Delay 7.4	0A 22.0 9 4.0 *2 *5 <u>108</u> 	A 80 Approa 00107 12.3	cn: Loc F
Græd Kæij Cyci	:d cw/AR Lengt Lane Myote L r	7.5 5.6 F: 100 1 Cap Cap 221 1714)A 43.00 5.0 Entersect Ad) Sit Flow 1770 3725	e combin ion Perf: V/c Ratic 0.208 0.344	iGreen iVelic ation or crmance g/C Ratio 0,170 0.460	12.0 NUTRE 50 Summerry Delay 7.4 112.5	0A 22.0 9 4.0 *2 *: <u>108</u> 	A Be Approa Delay 12.3	cn: LOS E
Græd Vælj Cycl	sd cw/AR Lengt Lane Myets L r	7.6 8.6 8. 100 s Cap)A 43.00) <u>6.</u> 0 Lotersect Ad) S.t Flow 1770 3725 1582	e combin ion Yert V/c Ratic 0.208 0.344 0.035	(Green (Yelic ation or g/C Retio 0,170 0.460 0.210	12.0 10.000 - 12.0 10.000 - 12.0 20.000 - 12.0 5.0	0A 22.0 9 4.0 *2 *5 108 	A Sc Approa Delav 12.3	C): LOQ F
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Adjustment Factors

Vehicle	Critical	Follow-up
Maneuver	Gap (tg)	Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.40
Through Traffic Minor Road	5.50	3.30
Left Turn Minor Road	7.00	3.40

HCG: Unsignalized Intersections Release 2.1c BJUSAM56.HLO Page 2

Worksteet for TWSC Intersection

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Stan 1: ST from Minor Street	74 <u>15</u>	
	set one can be parameter the test of the test of the test of the test of	an a suit ant anna the suit anna an suit th
Conflicting Flows: (voh)	447	
Appendix as produced as the second	142 (j. k. j. k	
(1) Support for the set of the set of the support of the set of	and down after	
Mcscawers referencies (heche)	Anna an a Anna Anna An	
Prob. of Guese-Free State:	0. ÷4	
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Step 1: L7 from Major Straet	UE	in and and and and and and and and and an
Step 1: L7 from Major Straet Conflicting Slows: (yph)	V19 722	
Step 1: L7 from Major Straet Conflicting Flows: (vph) Potential Capacity: (pcph)	VD 722 546	£ 2
Step 1: L7 from Major Straet Conflicting Flows: (vph) Potential Capacity: (pcph)	VD 722 545 846	<u>.</u>
Step 1: L7 from Major Straet Conflicting Flows: (vph) Potential Capacity: (pcph) Movement Capacity: (pcph)	722 545 546	
Step 1: L7 from Major Street Conflicting Flows: (vph) Petential Capacity: (pcph) Movement Capacity: (pcph) Prob. of Queue-Free State:	WB 922 545 542 0.94	() * ***

Intersection Performance Summary

Movement		Flow Rate (poph)	Move Cap (peph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Uueue Length (veh)	L08	Approach Delay (sec/van)	
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気度	t Trae		5.4.2		2 , Ç	(). D	<u>i i</u>	an a	

intersection Delay = 0.2 sec/veh

HUE: Unsignalized Intersections Release 2.12 B)USPM96.HUO Page 1 LEIGH. SCOTT & CLEARY, IMC. ISBY York Streat Denver, C2 B0206-Ph: (303) 333-1105 Streats: (N-B) TQA (E-w) US & & SO Major Street Direction... EW Langth of Time Analyzed... EV (min) Analyst..... MEM Date of Analyzis..... 2723/96 Other Information..... 1996 BACKEMBUND PLUS SING-GENERATED TRA FFIC, PM PSAK

Two-way Stop-controlled Intersection

CV's (%) / PCE's /

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SU/RV* & (%)	;				;				;				1			

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Adjustment Factors

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Vehicle	Criticai	Sollow-up
Maneuver	Gap (tg)	Time (t+)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.20
Through frattic Minor Road	6.50	2130
Left Turn Minor Road	7.00	3140

Worksneet for TWSC intersection

Step 1: RT from Minor Street	Mæ	and more state, they are proved at the second state of the second state of the second state of the second state
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Sonflicting Flows: (vph)	and the second	
Potential Capacity: (pcph)	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	
Movement Capacity: (pcph)		
Prob, of Queue-Free State:	$(\mathbb{N}_* \in \mathbb{O})$	
Step 2: LT from Major Street	저불	EB
Conflicting Flows: (vph)	1903	
Potential Capacity: (pcph)	185	
Movement Capacity: (pcph)		
Prob. of Queue-Free State:	0.41	

Intersection Performance Summary

Movement.		Flow Rate (poph)	Move Shared Cap Cap (peph) (peph)		Avg. Total Delay (sec/veh)	95% Gueue Length (veh)	LQS	Approach Úalay (sec/veh	
NΒ	έζ	208	512		11./	2.2	1	11.2	
ЫS	L	109	188		48.4	4,0	j	206	

intersection Delay = 1.8 sec/veh

HUS: Unsignalized intersections Release 2.1c GJUSEA96.HEO Page 1 LEIGH. SCUTT & CLEARY, INC. 1889 York Street Denver, CU 80206-Ph: (303) 333-1105 Streets: (N-S) TGA (E-W) IB A & 50 Major Street Direction... EW Longth of Fime Analyzed. . . 50 (min/ Аналузатички колоники в Мере Date of Analysis..... 7/23/95 Uther Information..... -1996 FACKGROUMD PLUE SITE-GENERATED IRA FFIL, SAT PEAK

Two-way Stop-controlled Intersection

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SU/RV/s (%))				÷			2				÷			
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Adjustment Factors

Vehicie	Critical	Follow-up
Maneuver	Gap (tg/	fimm (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	5.50	3.30
Left Turn Minor Road	7.00	3.40

HCS: Unsignalized Intersections Release 2.1c UJUS3A95.HCU Page 2

Worksheet for TWEC Intersection

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Step 1: Hi from Rincr Street	A. (.).	
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Step 1: LY from Major Street	N 21	1212
Conflicting Flows: (vph) Potential Lapacity: (pcph) Movement Capacity: (pcph) Prot. of Queue-Free State:	1990 146 146 0.00	

Intersection Performance Summary

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Streats: (E-W) GRAND AVE (RTE	340) (N-S) MULBERRY ST/RICE ST
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		490	and and the	0.685	0.400	17.0	E.		
		986	1583	0.045	0.560	5.4			
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		391	1863	0.084	0,210	20.5	<u> </u>		
		602	1583	0.058	0.390	12.7	2/14 2/10 1/10 1/10		
and line		611	1770	0.110	0.290	13.3	find	15.5	l.
		391	1863	0.143	0.210	20.8	Carlo Carlo		
	R	602	1583	0.098	0.380	12.9	Jan .		
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Stree Ansi Area Ucmm	sts: (E-W vet: MRM lype: Ot) ant: 2015	US = ter BACKGI	4, 50 Round Pilus	: FROJEC	(N-3) Fils 7-23- GENERA	SAM S LL Name: SJ 95 PM PE; TED TFAF;	-QE SPMP 1 3 N. T.C		
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НСМ	: 516NA	IZED INTS		N SUMMARY SCOTT &	Værs. Cleaby	ion 2:4e INC.		17-23-19	9
et- Ana Are Com	ects: (B lyst: MP = Type: ment: 24	I-W) US a RM Other D15 BACKGP	& 50 (OUNS PL	us PROJEL	(N-8: F:1e 7-23- T SENER(SAM'S C Name: GJ -94 SA PE ATED TRAF	LUS SSAP15 Ak F1C		
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SE	L T R	358 242 396	1770 1863 1583	0.497 0.896 0.354	0.350 0.130 0.250	18.0 50.0 20.2	c E C	31.6	D
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HCS: Unsignalized Intersections Release 2.1c GJUSAM15.HCO Page 1 LEIGH. HCUTT & CLEARY. INC. 1889 York Street Denver, 28 80206-Ph: (303) 333-1105 (E-W) US 6 % 30 Streets: (N-S) TOA Major Street Direction.... EW Lenuth of Time Analyzed... 60 (min) Date of Analysis..... 7/23/96 Other Information..... 2015 BACKGROUND PLUS SITE-GENERATED TRA FFIC. AM PEAK

Two-way Stoo-controlled Intersection

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	low	Т	R (has.	49 1 4	300 ² 3 N	Autor		R			FC
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Stop/Yield 1		Norther to a second	N I			Ň						
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		a (1) (1)	.95	a tradition	. 75				. 951			
brace : MC/c /%) :					에서 가 국가 성자 가 가 가							
SU/RV's (%)1												
CV7 = (%) 1												
FCE's				L.10					1.101			

Adjustment Factors

Venicle Maneuver		Crit Bed	ical (tg)	Follow-up Time (tf)
Left Turn Major Road		5.,	50	2,10
Right Jurn Minor Road		tria sun ¹ -18	50	2.60
Through Tratfic Minor F	oad		2 /J	3. 3Q
Left Turn Minor Road		1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	00	3.40

g	10.246 2.24.08	mar	149. 1499.	1 10 10 10 10 10 10 10 10 10 10 10 10 10	CHARLES AND A	serve head	1200 3408	THE PARTY AND

Worksheet for TWSC inte	rsection	
Step 1: RI from Minor Street		
Conslicting Flows: (vph) Potential Capacity: (pcph) Movement Capacity: (pcph) Prob. of Gueue-Free State:	446 823 823 0.82	
Step 2: LT from Major Street	WE	EB
Conflicting Flows: (vph) Fotential Capacity: (pcph) Movement Capacity: (pcph) Prob. of Quene-Free State:	921 549 549 0.94	

Intersection Performance Summary

Flow Rate Movement (pcph)	Move Cap (pcph)	Shared Cap (pcph)(Avg. Total Delay sec/veh:	95% Queue Length (veh)	1.09	Approach Delav (sec/veh)
NB R 151 WB L 31	823		5,4	0.8		

intersection Delay = 0.5 sec/veh

HCS: Unergnalized Intersections Release 2.1c GJUSPMID.HCO Page 1 LEIGH, SCOTT & CLEARY, INC. 1889 York Street Denver. CD 60206-Ph: (303) 333-1105 Streets: (N-S) TGA (S-4) US & 3 80 Major Street Direction... EW Length of line Analyzed. Analyst.... MRM Date of Analysis. 7/23/96 Other Information..... 2015 BACKGROUND FLUS SITE-BENERATED TRA FFIC. Ph PEAK Two-way Stop-controlled Intersection : Eastbound | Westbound | Northbound | Southbound ILTRILTRILTR a non trans بنديه بديد وحدوقت and and and the second No. Lanes 1 0 2 1 1 2 0 1 0 1 1 0 0 0 Stop/Yield (Ni Volumes 1796 741 94 1740 De des de 195 NOP 1 1.784

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101.101

Adjustment Factors

.95 .951 .95 .95

11.10

Level free free

Grade

MCT = (%) SU/RV's (%)

CV*=XXX FLE's

Vehicle	Critical Follow-up
Maneuver	Gap (tg) Time (tf)
Left Turn Major Road	5.50 2.10
Right Turn Minor Road	5,50
Through Traffic Minor Road	5.50
Left Turn Minor Road	7.00 3.40

HCS: Unsignalized Intersections Release 2.1c GJUSPM15.HCO Page 2

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	ng 1997 - Bernard Market, and an anna an anna an anna anna anna	and a second second second second second second
Step 1: RT from liner Street	ALC	5 .8
Conflicting Flows: (vpn) Potential Capacity: (poph) Movement Capacity: (poph) Prob. of Gueue-Free State:	944 459 459 0.55	
Step 2: L(from Major Streat	WE	E E E
Conflicting Flows: (vph) Potential Capacity: (pcph) Movement Capacity: (pcph) Prob. of Queue-Free State:	1790 146 146 0.25	

Intersection Ferformance Summary

			Avg.	1 miles		
Flow	Move	Shared	Totai	Queue		Approach
Rate	Cap	Cap	Delay	Langth	Siars from Tene	Delay
Movement (pcph)	(pcph)	(pcph)	(sec/veh)	(v@h)		(sec/vet)
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NB R 204	45.9		In the start	din to Car	14. 14.	
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Intersection Delay = 2.3 sec/veh

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Ph: (303) 3	3.2 - L I	05										
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Two-way Sto	p-cor ======	llissess itrolle setesure	• • • • ci Init =======	1 Ger (19 Geo 1 maai media geo 1 af an ar	LOID FFIC, tion second		FEAR					1999 - 1993 - 1993 1993 - 1993 - 1993 1993 - 1993 - 1995
Two-way Sto	p-cor inestic	ntrolle Stoun T	d Int d Int d I	:er səc Mes L	2015 FFIC. tion tion toour	BALA BAT SAT R	FEAR I EAR Ne	n n mu en en mu nu nu r t h b c T	2 2 1 1 C E ma E ma E ma E ma E ma E ma E ma E ma		uthbo T	
Two-way Sto No. Lanes Stop/Yield	p-cor E: L 0 	atrolle stboun T	d Int d 1 R 1 1 1	ier sec Wet L 1	2015 FFIC. tion tbour 1 2	BACK BAT R Q N		rthbo T	2 = 1 c und R 	Sa L	uthte Q	und R
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Adjust	nent Factors	
Vehicle	Critical	Foilow-up
Maneuver	Gap (tg)	Time (t+)
Left Turn Major Road	5.50	2.40
Right Turn Minor Road	5.50	2.40
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Stee 1: FT from Minor Street		ng ng té ataw kart protesting da da a strag (sing té ataw kart protesting da (sing té ataw (sing té ataw (sing té ataw
Conflicting Flows: (vph) Potantial Capacity: (paph) Movement Capacity: (poph) Prob. of Queue-Free State:	1025 412 443 0.23	
Step 2: LT from Major Street		ter 19 Maria ang panganan ang pang pang pang pang p
Conflicting Flows: (vph) Potential Capacity: (pcph) Movement Capacity: (pcph) Prob. of Queue-Free State:	2185 115 115 0.00	

Intersection Performance Summary

	Flow Rate	Move Cap	Shared Cap	Avg. Total Delay	93% Gueue Length	LDS	Approach Delay
Movement	(p.c.p.h))	(peph)	(peph) (38 86 7777871)	(7)mh)	NA 2015 10-14 (2017 - 1493)	C Constant Constant of the second states of the sec
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Intersection Delay = 17.5 sec/veh

HCM	: SIGNAL	IZED INT	ERSECTION LEIGH.	SUMMARY SCOTT & (Versi Leary,	on 2.4c INC.)7-23-19' -	
Str Ana Are Com	eets: (E lvst: MR a Type: 1 Ment: 20	-W) GRAN M Jther 15 BACKS	ID AVE (RTE ROUND PLU	C40) 3 PROJEC	(N-S) File 7-23- T GENERA	MULBERR Name: (JJ 96 AM PER TED TRAF)	/ 31/R 16AM15 16	ICE SI .HC9	
		i Erianti I Igan	bound R 1	Westbau -	ndi M (L	Northbour T	id R	Scatpba	und N
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	thru		業			nru ×			
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	TR	1934	1720	0.273	0.520	13.9	ß		
ME		5.80	1770	0.094	0.150	9,9	B	9.0	<u><u><u>l</u></u></u>
		1937	27.25	0.513	0.520	9.0	(inclusion) Series		
			1583	0.034	0.520	7.5	land Ang		
NB		537	1634	0.011	0.330	14.5		14.6	Æ.
	TR	550	1667	0.036	0.330	14.7	B		
80	L.	546	1456	0.040	Sal and a	14.7	8	14.7	Jack 1
	TR	545	1653	0.044	0.330	14.7	B		
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HEM: SIEMAL:	2ED INTERSECTION	ON SUMMARY SCOTT & CI	Version Logy, inc	2au 4 C	07-23-1996
Straete: (E- Analyst: MRM Area Type: (Comment: 201	-w) GRAND AVE(R 1 Ither 5 HACKBROUND PI	TE 340) Lus project	(N-E) MU File Nam 7-23-94 GENERATED	LBERRY ST/ e: GUMBPM1 PM PEAr RAFFIC	MICE ST 5. HC4
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HCM	: SIGNA	LIZED IN	NEPSECTION LEIGH,	I SUMMARY Scott &	Verej CLEARY,	on 2.4c INC.		07-23-19	
Str Aca Are Com	ects: (lvst: M a (ype: ment: 2	E-W) ERA RM Otner 015 RACM	ND AVE(RTE GROUND PLL	340) IS PROJEC	(N-8) File 7-2s- f gener/	MULEERR Namo: GJ 95 SA 95 NED 1895	X STZR MGSA15 Ak FIC	ICE 87 .469	
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LEIGH, SCOIT & CLEARY INC. Streets: (E-M) GRAND AVE(RTE 340) (M-B) OLIGERY ST/RICE BI Adalvat: MMM Streets: (E-M) GRAND AVE(RTE 340) (M-B) OLIGERY ST/RICE BI Adalvat: MMM Street (prist) Camment: 2015 SACKGROUND PLUS PHOJECT GENERATED YREATE (EastDowned WestBound Northbound Activity on (L) No. Larges 1 2 % 1 0 Values 110 10085 301 35 1045 170 5 51 120 10.1 Values 110 10085 301 35 1045 170 5 51 120 10.1 Large W (+t) 112.0 112.0 (12.0 12.0 12.0 12.0 12.0 12.0 12.0 12.0	3,60								
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22		580	1707	0.268	0.340	15.7	C	Lind of Car	Same
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Los	t Time/	Cycle, L	= 9.0 =	ec Cri	tical v/	с(х)	= 0.56.		

HC5: Unsignalized Intersections Release 2.1c GJFMAM15.HC0 Face 1 LEIGH, SCOTT & CLEARY, INC. 1889 York Street Denver. 20 80206-Ph: 13035-333-1105 Streets: MH-S: MAIN INT. ACCESS (E-W) FRONTAGE ROAD Major Street Direction... NS Length of Time Analyzed... 60 (min) Two-way Stop-controlled Intersection | Northbound | Southbound | Eastbound | Westbound TL TRILL TRILL TRILL TRILL and shad with a second mean state and a state and state and shad state and state and a state state . 1254 hades and s web remotions whether the rest state state whether No. Lanes (1 1 1 1 1 1 1 1 1 1 < 0 > 0 > 1 < 0Stop/Yield | N| N| | Volumes | 3 79 3| 8 132 22| 13 0 2| 2 9 5
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Adjustment Factors

Vehicle		Cr.	tical	Fallowin
Maneuver		Pap	(t <u>ç</u>)	Time (tf)
Left Turn Major Re)aci	angan offeri. Singer yan an Viladi Tahand yangar Irana Serie ang Man	e e (en music es a) : en andre estar sond andre andre estar ge ()	nan ang an badd deng nanga nanga nanga nang nang nang nan
Right Turn Minor P	load	First Gard	.50	
Through Tratfic Mi	nor Road	in the second	.00	S. 30
Left lurn Minor Ro	pad	4	50	

Worksheet for TWSC Intersection

Step 1: RI from Minor Street	e à cum élipe remain a la confinition anna ann ann ann ann ann ann ann ann	nam guant. A find fand - 201 (1999) Franc (201 (2019) 2019 - 2019 2019 - 2019 2019 - 2019 2019 - 2019 2019 - 2019
Conflicting Flows: (voh)		139
Potential Capacity: (peph	1.257	11.77.
Movement Capacity: (pcph)	the state and st	1177.
Frot. of Queue-Free State:	and the second sec	1.00
Step 2: LT from Major Street		NE
Conflicting Fiews: (vph)	96	162
Potentiai Capacity: (pcph)	Land Apr. 3	1435
Movement Capacity: (pcph)	1 144 June (1)	1435
Prob. of Queue-Free State:	0.99	4.00
Step 3: TH from Minor Street	ŴЭ	
Conflicting Flows: (vph)	256	The second
Potential Capacity: (pcph)	801	820
Capacity Adjustment Factor		
due to Impeding Movements	0.99	0.99
Movement Capacity: (pcph)	795	814
Prob. of Queue-Free State:	1.00	1,90
Step 4: LT from Minor Street	WB	
Conflicting Flows: (vph)	a water and a set of the set of t	11 Juny 1010 1010 1010 1010 1010 1010
Potential Capacity: (peph)	775	760
Major LT. Minor 14		
Impedance Factor:	0.99	0,97
Adjusted Impedance Factor:	0.99	0.99
Capacity Adjustment Factor		
due to Impeding Movements	0.99	0.99
Movement Capacity: (pcph)	144	755

Intersection Performance Summary

Move	ment	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avç. Total Delay (sec/veh)	95% Queue Length (veh)	LCS	Approach Delay (sec7veh)
EB	1	15 0	755 014	<u>,</u>	4.9	0.0	A	4.6
lan ten an ten	R	2	1177 .	> 1177	3.1	0.0	A	
WB WB	L T R	2 0 6	769 795 1257	> > f085 >	3.3	0.0	Ą	.
NB SB	L	3	1435 1560		2.5 2.3	0.0 0.0	A A	0.1 0.1

Intersection Delay = 0.4 sec/veh

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PHF Grade MC's (%) SU/RV's (%)	1. 1 . 1	.98	.9 <u>5</u> 0	.951 1 1	. 7 8	, 95 0		, 95	.95 o		.98	.95 0	99 199
PHF Grade MC's (%) SU/RV's (%) CV's (%)		.95	.95 0	. 451 } } ;	. 95	.95 0		, 95	. 95 0	.951	, 96	.95 0	. 99

Adiustment Pactors

Venicle	Critical	Follow-up
Maneuver	Gap (tg)	Time (t+)
Left Turn Major Road Right Turn Minor Road Through Traffic Minor Road Left Jurn Minor Road	5.00 3.50 5.00 5.00 5.30	2.10 2.40 3.30 3.40

Worksheet for TWSC Intersection

Step 1: RT from Minor Street	nin han an a	and prominent series and and and an and a
Conflicting Flows: (yph)		4.2
Potential Capacity: (pcoh)		
Movement Capacity: (pcph)		(1997) 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -
Prob. of Gueus-Free State:	0.79	1.00
Step 2: LT from Maior Street	ΞĦ	in E
Lonflicting Flows: (vph)	502	341
Potential Capacity: (peph)	9 8 %	744
Movement Capacity: (pcph)	+ #4	A Ze have
Prob. c+ Queue-Free State:	u. 47	1.00
Step 3: TH trom Minor Street	시는	
Conflicting Flows: (vch)	and and an and and and an an and a	10100
Potential Capacity: (pcph)	294	320
Capacity Adjustment Factor		
due to impeding Movements	0.94	0.26
Movement Capacity: (pcuh)	284	3091
Prob. of Gueue-Free State:	1,00	1.00
Step 4: Li rom Minor Screet	in the set of the set	n new news webs to the new of the
Conflicting Flower (von)		
⁹ otentiai Japacity: (peph)		241
Major LI, Minor H		
Impedance Factori	0.76	0.96
Adjustad impedance Factor:		0.97
Capacity Adjustment Factor		
cue to impeding Movements	0.97	6.97
Movement Capacity: pcph)	268	252

Intersection Performance Summary

Mov	ement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. fotal Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
ann tread Ann ann tread mer dau)	37	and and the second s		21.8	1.7	D	
EB EB	R	o 2	309 789	> > 789	4.6	0.0	A	21.3
WB WB WB	L T R	2 0 6	268 284 779) > 1528	6.9	0.0	H	6.9
NB SB		3 32	926 989		3.9 3.8	0.0	A A	0.0 0.2

Intersection Delay = 1.6 sec/veh

HCs: Unsignalized Intersections Release 2.1c GJFMSA15.HCO Page 1 LEIGH, SCUIT & CLEARY. INC. 1889 York Street Denver. CD 80205-Ph: (303) 333-1105

REAK

Two-way Stop-controlled Intersection

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Stop/Yield / Volumes	13	633	N1 131	38	620	N. 101/	101	¢			Q 40
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MC'5 (%) SU/RV'5 (%)			 								
CV's (%) PCE's (:	1.10		1	1.10			1.10	1.10 1	.101	.10	1.10-1.10

Adjustment Factors

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HCS: Ensignations Intersections Release 2.1c ELEMEALS.HE0 Mage 2

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Fried de de la Statel	ne statu (12) and the statu (12) and	and
Step 1: LT from Maker Street		
Conflicting Flowar (sph)	5 50	734
Potential Gapacity: (poph)	31. 3	745
Movement Capacit : (poph)		745
Prob. of Gleue-Free State:	nga naka di ng kana kana naka kana kana kana kana k	and angest scares, prince with the start of the scare and an
Star J: (d from Minor Street	WE	EB
Conflicting Flows: (yph)	1479	1387
Potential Capacity: (peph)	183	204
Capacity Adjustment Factor		
due to Impeding Movements	0.93	0.93
Movement Capacity: (pcph)	170	199
Prob. of Queue-Free State:	1.00	1.90
Step 4: LT From Minor Street	WE	EP
Conflicting Flows: (vph)	1.161	1.447
Potential Capacity: (pcph)	168	154
Major Ll, Minor IH	ана така 1911 - 1912 - 1912 - 1912 - 1912 - 1912 - 1912 - 1912 - 1912 - 1912 - 1912 - 1912 - 1912 - 1912 - 1912 - 1912 -	
impedance Factor:	Q.74	가슴은 것을 다 다 가 수요. 가장은 것은 다 아 두 다 두 다 가
Hojusted Impedance Factors Capacity Adjustment Factor		√.∀4
due to impedino Movements	0.92	0.88
Movement Capacity: (pcph)	155	135
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Intersection Performance Summary

Mov	ement	Flow Rate (poph)	Move Cap (peph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	E03	Approach Delay (sec/veh)
EB EB	lass.	117	135 189		143.3	9.9	۴	127.5
EB	R	15	646	> 646		0.0	B	
WB WB WB	L T R	15 0 44	155 170 537	> > 361 >	12.0	0.7	С	12.0
NB SB	L L	15 44	745 813		4.9 4.7	0.0 0.0	A A	0.1 0.2

Intersection Delay = 9.7 sec/veh

APPENDIX C Progression Analysis

	**** INPUT DATA	SUMMARY \$\$\$\$	
NUMBER OF INTERSECTIONS	LOWER CYCLE Length	UPPER CYCLE LENGTH	CYCLE Increment
q	80	120	10
MASIER INTERSECTION	REFERENCE INTERSECTION	REFERENCE Point	SYSTEMWIDE COST TIME
1	1	BEGIN	3.

(COVER 'EXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER 11-90 MULTIPHASE ARTERIAL PROGRESSION - 140101 VER 1.0 DEC 90

- PROGRESSION MODE.

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TEXAE DEPARTMENT OF HIGHWAYS AND FUBLIC TRANSPORTATION MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90

LEFT JURN SNEAKERS:	DELAY UNLF:
2.0 VEHICLES	TUTAL DELAY
PHASE LOST TIME:	LOS DELAY CRITERIA:
3.0 SECONDS	A - 6.5 SECS/VEH
LEFT TURN PHASING:	C - 12.5 SECS/VEH
APFROACH-BASED	0 - 3210 SEUS/VEH E - 78.0 SECS/VEH E - 79.0 SECS/VEH
	LEFT TURN ENEAKERS: 2.0 VEHICLES PHABE LOST TIME: 3.0 SECONDS LEFT TURN PHASING: APFROACH-BASED

PERMITTED LEFT TURN MODEL: (6) TTI MODEL

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**** INTERSECT Distance 0. F	ICM 1 MEDONALL O TO 1 SPEED T O. MP	S DISTANCE H O, Fi	1 TU 0 T	97650 0. MPH
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ARTERIAL PERMISS	IBLE PHASE SEQUENCE	. CROSI LT	B GT PHAGE S / LEADS	SEQUENCE
DUAL THRUS (2 LT 5 LEADS (2	+6) WITH OVERLAP +5) WITH OVERLAP	1	NO UVERLAP	
	ARTERIAL S	TREET	CROSS STR	
PHASE (NE	MA) 5061 6 10	41 2 31.4	1 4 714	1
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A SIDE QU	EUE CLEARANCE 2 GECS	B SIDE QUE	EUE CLEARANI 2 SECS	
ARTERIAL PERMISS DUAL THRUS (2 LT 5 LEADS (2	IBLE PHASE SEQUENCE +6) WITH OVERLAP +5) WITH OVERLAP	CROSS LT	3 ST PHASE S 7 LEADS (NO OVERLAP	BEQUENCE 4+7)
PHASE (NE VOLUMES (VP SAT FLOW RATE (VP MINIMUM PHASE (SE	ARTERIAL S MA) 5041 6 10 H) 91 1374 HG) 1805 3620 C) 0 25	TREET 41 2 3E4: 0 1519 0 0 3620 0 0 25 0	CROSS STR 1 4 7[4 91 90 1900 3330 15 15	EET 1

(INPUT.DATA) (EXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER 11-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90

**** INPOT DATA CONTINUED ****

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LT 5 LEADS	(2+5)	WITH	OVERL	4P						
			ARTERI	AL STR			CROS	S STRE		
PHASE	(NEMA)	5[4]	ćs -	1641		3141	4	7643	÷	
VOLUMES	(VFH)	141	1481		1329		141	141		
SAT FLOW RATE	(VPHE)	1905	3620		they want to	Q	1900	1905		
MINIMUM PHASE	(SEC)	0	25	0	t Johne Anne tane	Ģ		15		
(INPUT.DATA)										
	EXAS DE	PARTM	ENT OF	HIGHN	AYS AN	D PUPLI	C TRA	NSPORT	ATION	
PASSER 11-90	MUL T	(PHAS)	E ARTE	RIAL PI	COGRES	SIGN -	14510		VER 1.0	020 90
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DIAL FETS	1 che trad tant che dans la dans l	hi The	n vetter bet TUS for bet	land the second		niai	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	C Theat have the Anna Anna Anna Anna Anna Anna Anna Ann	hall have denoted the second	
DIAL THRUS	()-for for s		NUFF4	<u>A</u> P		(s) T T }-	I NUER			
LT 5 LFADE	(245)	WITH	OVERI (1997 1997		· · · · · · · · · · · · · · · · · · ·	a ynne ti Treis i 'r	F9448 \$ 2 \$		
LT 1 LEADS	(1+6)	WITH	OVERL	AP						
		6	ARTERI	AL STRE	ET		CROS	S STRE	ET	
PHASE	(NEMA)	5663	6	1053	2	3051	4	7(5)	8	
VOLUMES	(VPH)	140	1700	400	1640	320	195	160	205	
CAT CI CHI CATE										
	(VPHG)	1805	3620	3330	3620	3330	1900	3330	1900	

PASSER 11-90 MULTIRHAGE ARTERIAL FROGRESSION - 145101 VER 1.0 DEC 90

CINFUT, DATA TEXAS DEPARTMENT OF HIGHWAYS AND FURLID TRANSPORTATION

(ERROR, MGG)

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TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER 11-70 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 70

**** CODING ERROR MESSAGES ****

NO APPARENT CODING ERRORS

	***	* INTERSECT	ION PERFORMAN	CE SUMMARY ***		
	CYCLE LENGIH	= 110 SECE	SYST	EM MAXIMIN CYC	.E = 290 SECS	
ENT NO	CRUSS STREET INTERSECTION	PHASE ART CRS	MIN. DELAY Cycle (Secs)	INTERSECTION V/C RATIO	AVERAGE DELAY (SECS/VEH)	INT NO
1	MCDONALDS	34 74	63 193	.83	14.1 A T	1
ain The A	25 RD. 1MDEPENDENT		175 290 102	1.06 .97	5.7	3 4
NOTE	: PHASE SEQUEN	CE CODE FOR	ARTERIAL (AR	T) CROSS STRE	ET (CR8)	
	1 - LEFT TUR 2 - THROUGH H 3 - LEADING	N FIRST OR FIRST OR GREEN OR	DUAL LEFTS LE DUAL THRUS LE NO. 5 LEADING	ADING OR DU ADING OR DU OR LT	AL LEFTS (1+5) AL THRUS (2+6) 5 LEADS (2+5)	

OR LT 1 LEADS (1+6)

TEXAS DEPARTMENT OF HIGHWAYS AND FUBLIC TRANSPORTATION PASSER 11-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90

CINT. SUMYS

ATTAINABILITY 1.00 - 0.99 - "INCREASE MIN THRU PHASE" 0.99 - 0.70 - "FINE-TUNING NEEDEO" 0.69 - 0.00 - "MAJUR CHANGES NEEDED"

NOTE: ARTERIAL PRODRESSION EVALUATION CRITERIA

4 - LAGGING GREEN OR NO. 1 LEADING

EFEICIENCY

C. Y. C. Lug	land land	NGT	Η	an 1 1	0 9	55.6	Ceres Sensi	¢.	門倫太法	MIN	Sant P	and Fores leads		L L Q	San Jan (12 Land Land 61 Annal	
$\sum_{k=1}^{\infty} \sum_{i=1}^{k+1} \sum_{j=1}^{m+1} \sum_{i=1}^{m+1} \sum_{j=1}^{m+1} \sum_{i=1}^{m+1} \sum_{j=1}^{m+1} \sum_{i=1}^{m+1} \sum_{j=1}^{m+1} \sum_{j=1}^{m+1} \sum_{i=1}^{m+1} \sum_{j=1}^{m+1} \sum_{i=1}^{m+1} \sum_{j=1}^{m+1} \sum_{j=1}^{m+1} \sum_{j=1}^{m+1} \sum_{j=1}^{m+1} \sum_{i=1}^{m+1} \sum_{j=1}^{m+1} \sum_$	CIEN	ί.γ		- 20 Ma - 10 Ma	а ф 3	3h		Ę	GREA		ROG	ha han han	510	N)			
ATA	INAB	I have be	ΥY	224256 1-4848	1 ($\langle M \rangle$			INCR	645	E M	ŢΝ.,	T fort	3014	5H) (9646	
BAND	A			Yeana Da aasaa Ga	* 1 - 1 * 1		j Soj Neog Loop	¢.	VERA	Θ£	SP E	for and	stictor generic	45	for free for		
BAND	H			nines da	hing .	SEC	erst. Inge	fing	VERA		SPE	ene. 2	ug. Aut Vintero	4	in finde		

0.00 - 0.12 - "POUR PROGRESSION" 0.13 - 0.24 - "FAIR PROBRESSION" 0.25 - 0.36 - "9000 PROGREESION" 0.37 - 1.00 - "GREAT PROGRESSION"

**** BEST PROGRESSION SOLUTION SUMMARY **** GRAND JUNCT. US 5 & SC -DISPRICT 07/23/96 RUN NO. 1

(ART. SUMY) TEXAS DEPARTMENT OF HIGHWAYS AND PUELIC TRANSPORTATION PASSER 11-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DE: 90 (SEST. SOLN)

TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER 11990 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90

**** PEST SOLUTION... NEMA PHASE DESIGNATION **** *** INT 1 .0 Sec UPRGET ART ST PHASE SEC IS LT S LEA S (1997) MEDDINALOS .0 % OFFEET CROSS ST PHASE SED IS (1997)

	<u>A</u>	(TERLAL	SIRET				$\left(\begin{array}{c} a_{0,0}\\ a_{0,0}\\ \vdots\\ a_{0,0} \end{array} \right)^{2} \left(\begin{array}{c} a_{0,0}\\ a_{0,0} \end{array} \right)^{2} \left(\begin{array}{c} a_{0,0} \end{array} \right)^{2} \left(\begin{array}{c} a_{0,0}\\ a_{0,0} \end{array} \right)^{2} \left(\begin{array}{c} a_{0,0}\\ a_{0,0} \end{array} \right)^{2} \left(\begin{array}{c} a_{0,0} \end{array} \right)^{2} \left(\begin{array}{c} a_$	
CUNCURRENT PHASES	at a to	2+6	1.+5		di++ 7	the set of the	J+E	10 Maili
PHASE TIME (SECS)	24.25	for had a life	а. С	9 (s	19.1	8 2 O 1	e e e	14.1.2
PHAGE TIME (2)	19.8			Ste day in first	47.4	영상, 이번것	e e e	112.40
	- Sector character of the rations and the fail	yn fann front aitig blang front orden of	man MEALS	In the second	for the for the for the form	nt de la gran de la composition de la compositio	يور مان و عامر المرو ما الاحمار المرود الم	en solval vigity as last solve to a privation
PHASE COMMAN	5141		1143		51.41 St.41		1072411	
PHASE DIRECTION	E SL YER	WETHERU	WS2L FOM	ESTABLE	NUSE Flore	SP (PRU)	SBLTER	MUTHER
PHASE TIME (SEC)		4. 1. 4.		0.90,93			4) 25 25	
Q (C-6A) 10	44	x (4)						1. CC-
LEVEL OF SERVICE								
DELAY (SECS/VEH)	and Hard A	s i ja ja			0			
LEVEL OF SERVICE	244 2400 					김희 주지 여러		
CUELE (VEH/LANE)		ran en p La p La p La p				50°, 19		
STURE (STURS/SR)								
TOTAL INTERSECTION	081.49						e ^{de} la tradición de la companya La completación de la companya de la	The second s
The second second second				Sector B			المراجعة ال ومعه مراجعة المراجعة ا	

영상 : 특별 이 것은 그는 것이 가지?

TEXAS DEPARTMENT OF STREAMS SUID TRANSPORTATION PORCESSION - 145101 VER 1.0 DEC 90

CHUINDED... NEMA PHASE DESIGNATION **** 1.5 SEC OFFSET ART ST PHASE SEQ IS DUAL THRUS (2+6) 1.5 % OFFSET CROBS ST PHASE SEQ IS LT / LEADS (4+7)

	A	TERIAL	STREET			08055	ST A Single T	
CONCURRENT PHASES	2 ada bar	1+6	1 + 15	TOTAL.	4+7	4-+-9	S. da S.	TOTAL
PHASE TIME (SECS)	95.0	.0	.0	95.0	15.0	0	.0	15.0
PHASE TIME (%)	86.4		* Q	86.4	13.6	• Q	.0	13.4
			MEASL	JRES OF	EFFECTIVE	INESS	ada arana 'araba senah sanar arana arete di	ing along made aroug they shall point.
PHASE (NEMA)	5[4]	6	1543	2	3643	4	7143	B
PHASE DIRECTION	EBLTPM	WETHRU	WBL_TPM	EBTHRU	NBLTPM	SETHRU	SELTEM	NETHEU
PHASE TIME (SEC)	.0	95.0	. 0	95.0	.0	15.0	15.0	.0
V/C-RATIO	1763	.45	.00	.50	.00	.44	en den erin	, OQ
LEVEL OF SERVICE	A	A		A		A	A	
DELAY (SECS/VEH)	3.9	2.1	* Q	The section	.0	40.1	37.0	.0
LEVEL OF SERVICE	A	A		A		D	Ð	
QUEUE (VEH/LAME)	.7	3.5	.0	3.8	.0	2.4	1.3	.0
STOPS (STOPS/HR)	28.	1238.	Q.,	1369.	ο.	84.	74.	Ö.
TOTAL INTERSECTION	DELAY	•	FUEL COM	SUMPTIC)N	MINIMU	1 DELAY	CYCLE
4.30 SECS/VEH			106.85	GAL/HR			120 SECS	

(BEST. SOLN)

TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER 11-90 MULTIPHASE ARTERIAL PROBRESSION - 145101 VER 1.0 DEC 90

**** BEST SOCUTION CONTINUED... NEMA PHASE DESIGNATION **** *** INT. 3 99.0 SEC OFFSET ART ST CHASE SEQ IS DUAL THRUS (2+6) 25 RD. 90.0 % OFFSET CROSS ST PHASE SEQ IS LT 7 LEADS (4+7)

	ωľ	(TERIAL	STREET			CROSS	STREET	
CONCURRENT PHASES	The start free	146	1+5	TOTAL	4+7	4+8	ninge Ny segar tend Sant 7 wor	TOTAL
PHASE TIME (SECS)	95.0	Q	a Ca	95.0	15.0	.0	. 0	15.0
PHASE TIME (%)	86.4	• 0	.0	(#£2 » 4	13.6	. O		13.6
			MEASI	RES OF 1	SFFECTIVE	n han han han han han han han han han ha	n wan and start was that and	erna e n'i t-hanna actair, toure, contae andre -
PHASE (NEMA)	5(4)	ta:	1[4]	2	3.4]	4	7143	1 8 1 1
PHASE DIRECTION	EBL TPM	WETHRU	WBLTSM	EBTHRU	NBLTPM	SETHRU	SELTPM	NETHRU
PHAGE TIME (SEC)	.0	95.0	.0	95.0	, Q	15.0	15.0	.0
V/C-RATIO	.45	.49	.00	n 44 41	.00	. 68	. 64	.00
LEVEL OF SERVICE	A	A		奋		B	8	
DELAY (SECS/VEH)	Sail a de	1.4	. 0	2	.0	47.2	43.9	.0
LEVEL OF SERVICE	Â	A		A		£	D	
QUEUE (VEH/LANE)	1 4	ging sings Sam th	* 0	1995 65 - 1997 1998 - 1997	K M	A. a. San	4.2	<u>.</u>
STOPS (STOPS/HR)	Sand Card	2704	Q.	1196.	Q.,	132.	130.	0. S
TOTAL INTERSECTION	Dist. AV	1	FUEL COM	SUMPTICH		MINIMUM	DELAY	CYCLE
5.69 SECS/VEH			120.80	GAL/HR			20 SEC	44 16

(BEST.SOLN)

TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER 11-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90

**** BEST SOLUTION CONTINUED.... MEMA PHASE DESIGNATION **** *** INT. 4 56.6 GEC OFFSET ART ST PHASE SEG IS DUAL LEFTS (1+5) INDEPENDENT 51.5 % OFFSET CROSS ST PHASE SEG IS DUAL LEFTS (3+7)

	Al	TERIAL	STREET			CROSS	STREET	
CONCURRENT FHASES	1 and a strang	1+6	246	TOTAL	3+7	San and an and	4+8	TOTAL
PHASE TIME (SECS)	1. 2. 4	5.5	39.6	78.2	11.2	4.1.2	16.4	31.8
PHASE TIME (%)	11.9	5.0 3	54.2	71.1	10.2	3.8	14.9	28.9
	***** 1.000 ***** ***** *****	dillo acama arman series second and an abbed a	MEAGL	JRES OF	EFFECTIVE	INESS		
PHASE (NEMA)	5[6]	6	1653	erry Am	3[5]	4	7553	8
PHASE DIRECTION	EBLTPP	WETHRU	WBLTPR	EBTHRU	NBLTPR	SBTHRU	SBLTPR	NETHRU
PHASE TIME (SEC)	13.1	65.1	18.6	59.6	15.4	16.4	11.2	20.6
V/C-RATIO	.45	.83	.85	.98	.85	. 84	. 65	. 457
LEVEL OF SERVICE	A	D	D	pron.	en e	D	В	B
DELAY (SECS/VEH)	18.1	19.2	51.2	24.7	56.4	62.7	46.6	41.6
LEVEL OF SERVICE	В	В	D	C	E	2010 	D	D
QUEUE (VEH/LANE)	1.8	12.5	7.1	14.2	6.2	7.3	2.7	5.5
STOPS (STOPS/HR)	119.	1571.	398.	1545.	331.	218.	150.	196.
TOTAL INTERSECTION	DELAY		FUEL COM	SUMPTIO	N	MINIMUN	1 DELAY	CYCLE
29.93 SECS/VEH			125.53	GAL/HR			102 SECS	

(ART, MOE)

TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER 11-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90

**** TOTAL ARTERIAL BYSTEM FERFORMANCE ****

GRAND JUNCT. US 6 & 50

DISTRIC 07/23/94 RUN NO. 1

CYCLE LENGTH = 110 SECS BAND A = 57 SECS BAND B = 65 SECS AVERAGE PROGRESSION SPEED - BAND A = 45 MPH BAND B = 45 MPH

.56 EFFICIENCY 1.00 ATTAINABILITY

AVERAGE INTERSECTION DELAY TOTAL SYSTEM DELAY TOTAL NUMBER VEHICLES 15.3 SECS/VEH 60.7 VEH-HR/HR 14276.

TOTAL SYSTEM FUEL CONSUMPTION TOTAL SYSTEM STOPS MAXIMIN CYCLE 401.89 GAL/HR 11456. STOPS > 120 SECS

(ART, MOE)

TEXAS DEPARTMENT OF HIGHWAYS AND FUBLIC TRANSPORTATION PASSER II-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90

	EFFICIENCY VERSUS	CYCLE LENGTH
	CYCLE LENGTH	CUMULATIVE EFFICIENCY
	80 90	,47 ,52
	100	.52
	110	. 54
	120	.56
BEST SOLUTION	110	.56

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PASSER	11-90 M	ULTIPHASE	ARTER	IAL PRO	LS AND Jeressi	on -		Mar' 01	ur i Gi Lu VER	n 1.0 I)EC 90
RUN NÖ	1 DISTRIC HORIZONTAL VERTICAL	I US SCALE I SLALE I	6 & 50 INCH = INCH =	40 1000 F	 And Andrew State and Andrew S Andrew State and Andrew State a		07/23. nch = nch =	/95 10 6 1	CYCLE :haract .nes)	= 110 ers)	SECONDS
INI 4 INDEPEN E6.63	1 X / X 1	==XXXXXXXX	I X X	anan X∖i	(XXXXXX	хΧ.		= X X X)	(XXXXXX		== XXXXX
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INT 3						н 		н И			
25 RD. 79.05	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	XXXXX XX	1 X X X X X	*******	OX XXX	XXXX •	XXXXX.	*****	XXXXX	XXXXXX	XXXXX
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MEDCHAL 1///XXXXXXXXXXXX D.OS /A/		////XXXXXXXXXXXXX/////XXXX	******
45 MPH 57 SECOND BAND		45 MPH 65 SECOND BAND	
=== DUAL LEFIG (1+5 /// LT 5 LEADS (2+5))	XXX DUAL THRUS (2+ NNN LT 1 LEADS (1+	·6) 6)

APPENDIX D Queuing Analysis

11 (2)

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Queue Calculations

Rimrock Shopping Center Peak-hour, Saturday

Movement: Northbound left-turns on "main" access at US 6 & 50

C	****	Cycle length (sec) = 100
Ge		Effective Green, (sec) = 16
Q		Approach Flow, (veh/hour) 320
q	***	Approach Flow, (veh/sec) = 0.0889
n		Average Queue Length, (# of veh)
Tr	****	Effective Red, (sec) = 84
X	=	Number of vehicles

Z = Average number of vehicles passing a point at during time t.

Assuming vehicles are unblocked and arrive during green and can complete turn.

Z = q*c = 9 Vehicles/cycle

 $P(x) = ((exp^{(-q*Tr)})^{*}(q*Tr)^{x})/(x!) =$

1																		
		1	~	i aa	111	212	11.5	18	122	1201	9 ° .	2.27	1.15	1 ⁹⁴ - S	1	×.,	12	
		13		х.	11	m	5	18	-0	171	1.4	\sim	- 1	البيرة	1	x	-3	
			~	۰.,	61		8 H I	13	C.1	11.3	- W.	100	- 18	ŧ.,	а.		ь£.	
															.8		(Æ.	

X =	0	P(x) = 0.001	0.001	Storage needed
X =	1	P(x) = 0.004	0.005	Storage needed
X =	2	P(x) = 0.016	0.021	Storage needed
X =	3	P(x) = 0.040	0.060	Storage needed
X =	4	P(x) = 0.074	0.135	Storage needed
X =	5	P(x) = 0.111	0.245	Storage needed
X =	6	P(x) = 0.138	0.383	Storage needed
X =	7	P(x) = 0.147	0.530	Storage needed
X =	8	P(x) = 0.137	0.667	Storage needed
X =	9	P(x) = 0.114	0.780	Storage needed
X =	10	P(x) = 0.085	0.865	Storage needed
X =	11	P(x) = 0.058	0.923	Storage needed
X =	12	P(x) = 0.036	0.959	
X =	13	P(x) = 0.021	0.979	
X =	14	P(x) = 0.011	0.990	
X =	15	P(x) = 0.005	0.996	
X =	16	P(x) = 0.003	0.998	
X =	17	P(x) = 0.001	0.999	
X =	18	P(x) = 0.000	1.000	
		Assume vehicle length =	20 ft.	
		Number of vehicles =	11 Ver	nicles
		Queue Length = 20	*# of veh =	220 Feet

Formulae Source:

Poisson and Other Distribution in Traffic, ENO Foundation for Transportation, Saugatuck, 1971, Connecticut, pg. 31.

Queue Calculations

Rimrock Shopping Center Peak-hour, Saturday

Movement: Westbound left-turns on US 6 & 50

с		Cycle length (sec) = 100
Ge	nene Selas	Effective Green, (sec) = 9
Q	=	Approach Flow, (veh/hour) = 240
q		Approach Flow, (veh/sec) = 0.0667
n		Average Queue Length, (# of veh)
Tr		Effective Red, (sec) = 91
and the second second		

X = Number of vehicles

Z = Average number of vehicles passing a point at during time t.

Assuming vehicles are unblocked and arrive during green and can complete turn.

Z = q*c = 7 Vehicles/cycle

 $P(x) = ((exp^{(-q^{*}Tr)})^{*}(q^{*}Tr)^{x})/(x!) =$

Cumulative P(X)

X =	0	P(x) = 0.002	0.002	Storage needed
X =	1	P(x) = 0.014	0.016	Storage needed
X =	2	P(x) = 0.043	0.059	Storage needed
X = 1	3	P(x) = 0.086	0.145	Storage needed
X =	4	P(x) = 0.131	0.276	Storage needed
X =	5	P(x) = 0.159	0.435	Storage needed
X =	6	P(x) = 0.161	0.596	Storage needed
X =	7	P(x) = 0.139	0.735	Storage needed
X =	8	P(x) = 0.106	0.840	Storage needed
X =	9	P(x) = 0.071	0.911	Storage needed
X =	10	P(x) = 0.043	0.955	
X =	11	P(x) = 0.024	0.978	
X =	12	P(x) = 0.012	0.990	
X =	13	P(x) = 0.006	0.996	
X =	14	P(x) = 0.002	0.998	
X =	15	P(x) = 0.001	0.999	
X =	16	P(x) = 0.000	1.000	
		Assume vehicle length	= 20 ft.	
		Number of vehicles =	9 Ver	nicles
		Queue Length =	20 *# of veh =	180 Feet

Formulae Source:

Poisson and Other Distribution in Traffic, ENO Foundation for Transportation, Saugatuck, 1971, Connecticut, pg. 31.

Queue Calculations

Rimrock Shopping Center Peak-hour, Saturday

Movement: Southbound thrus on Independent Ave. at US 6 & 50

C	=	Cycle length (sec) = 100
Ge	=	Effective Green, (sec) = 12
Q		Approach Flow, (veh/hour) = 195
q		Approach Flow, (veh/sec) = 0.0542
n	Ħ	Average Queue Length, (# of veh)
Tr	A600	Effective Red, (sec) = 88
X	nonga alignak	Number of vehicles

Z = Average number of vehicles passing a point at during time t.

Assuming vehicles are unblocked and arrive during green and can complete turn.

Z = q*c = 5 Vehicles/cycle

 $P(x) = ((exp^{(-q^{T}r))*(q^{T}r)^{x})/(x!) =$

Ć	un	านไ	a	tive	э Р	(X)
						18.11	A

v -	•	P(x) = 0.000	0.000	Clarges peeded
\sim	U A	P(x) = 0.009	0.009	
× =	1	P(x) = 0.041	0.049	Storage needed
X =	2	P(x) = 0.097	0.146	Storage needed
X =	3	P(x) = 0.154	0.299	Storage needed
X =	4	P(x) = 0.183	0.482	Storage needed
X =	5	P(x) = 0.174	0.657	Storage needed
X =	6	P(x) = 0.139	0.795	Storage needed
X =	7	P(x) = 0.094	0.890	Storage needed
X =	8	P(x) = 0.056	0.946	Storage needed
X =	9	P(x) = 0.030	0.976	
X =	10	P(x) = 0.014	0.990	
X =	11	P(x) = 0.006	0.996	
X =	12	P(x) = 0.002	0.999	
X =	13	P(x) = 0.001	1.000	
		Assume vehicle length	n = 20 ft.	
		Number of vehicles =	Vet	hicles
		Queue Length =	20 *# of veh =	160 Feet

Formulae Source:

Poisson and Other Distribution in Traffic, ENO Foundation for Transportation, Saugatuck, 1971, Connecticut, pg. 31.
APPENDIX E Accident Diagrams



(COLLISION	I DIAGRA	M	
INTERSECTION OF Rom	ute 6 & 50	AND	independent	Avenue
PERIOD <u>3 Years</u>	FROM	1991	_TO	1994
CITYGrand_Junction	on	PREPARED B	Y	PDM
Frontage Road				
US 6 & 50			6/30/92 C/D	
Frontage Road	Independent	Avenue 9/23/94 c/0	STOP	· · · · · · · · · · · · · · · · · · ·
SYMBOLS	TYPES OF	COLLISIONS	ROAD SUR	FACE/LIGHTING
 MOVING VEHICLE BACKING VEHICLE PEDESTRIAN PARKED VEHICLE INJURY FATALITY 		HEAD ON ANGLE BROADSIDE REAR-END SIDESWIPE-SAME	C DF W W S SF O OT D DA N DA L DA	RY, CLEAR ET NOWY, ICY THER AYLIGHT ARK/NO LIGHTS ARK/LIGHTED
FIXED OBJECT		SIDESWIPE-OPP.	Leigh,	Scott & Cleary

-





(fr. 1)





3377 Hollenberg Drive • Bridgeton, Missouri 63044 • 314-739-2727 • Fax 314-739-5429 Geotechnical • Environmental • Materials

August 1, 1996

FAXED W/ MAIL FOLLOW-UP

THF Realty, Inc. c/o Rubenstein Real Estate Company 4350 Shawnee Mission Parkway, Suite 159 Shawnee Mission, Kansas 66205

Attn: Mr. John Rubenstein

<u>GEOTECHNICAL FEASIBILITY STUDY</u> <u>PROPOSED COMMERCIAL DEVELOPMENT</u> <u>GRAND JUNCTION, COLORADO</u>

Gentlemen:

Transmitted herein is the report of our geotechnical feasibility study performed for the referenced project. This work was performed in general accordance with our June 17, 1996 proposal, as verbally authorized by Mr. Rubenstein.

INTRODUCTION

We understand that the project under consideration consists of the development of a shopping center immediately south of the intersection of U.S. Highway 6 & 50, and Independence Avenue in Grand Junction, Colorado. The proposed shopping center will include a <u>Wal-Mart</u><u>Supercenter</u>, 4 anchor buildings, attached retail, several outlots, and adjacent parking. Currently the total building area is 401,471 square feet. The structures are expected to be of steel-frame and masonry construction with slab-on-grade floors as no basement levels are anticipated. Typical bay spacing between columns and walls is approximately 40 by 55 feet with exterior columns typically spaced 40 feet apart. The typical gravity load on interior and exterior columns is 90 and 45 kips, respectively. Concrete block wall gravity loads range from 3.0 to 4.5 kips per lineal foot (klf). Column and wall loads are not expected to exceed 130 kips and 4.5 klf, respectively. Floor loads are not expected to exceed 125 pounds per square foot (psf).

Mr. John Rubertein August 1, 1996 Page 2

The property lies immediately south of the intersection of U.S. Highway 6 & 50 and Independence Avenue, and the majority is undeveloped. The site is crossed by several low-maintenance roads, fences, sanitary sewers, and drainage ditches. On the north side of the site, along Highway 6 & 50, there are several existing structures. With the exception of the drainage ditches traversing the site, the site is relatively flat with vertical relief across the property of less than 5 feet. The site vegetation consists of high grasses and several willow trees.

The purpose of the study was to investigate the generalized subsurface conditions at the site, and develop preliminary recommendations for the earth-related aspects of the design and construction of the proposed project.

The scope of the study included:

- conducting a limited field exploration program;
- conducting a limited laboratory investigation;
- performing engineering analyses to determine possible foundation schemes, pavement design considerations, high plastic clay considerations, suitability of on-site soils for use in engineered fills, earth slopes, erosion and siltation control; and
- the preparation of this summary report.

It is our understanding that exact size and location of the buildings under consideration for this development have not been finalized at this time. The preliminary layout of the proposed commercial development is depicted in Figure 1 in Appendix A.

PREVIOUS INVESTIGATION

A geotechnical explorations was made in 1994 by Lincoln-Devore, Inc. (LDI) for a shopping center previously considered for this property. We were provided with a copy of the report (*Subsurface Soils Exploration* -2525 Highway 6 & 50 - Grand Junction, Colorado, December 5, 1994) and the boring logs, which have been included in Appendix B for reference.

We reviewed this information prior to undertaking this study and concluded that additional rock coring was not necessary. Thus, the field exploration scope of this study was limited by us to drilling and sampling of the soil overburden as we deemed the prior rock coring data sufficient to develop the conclusions presented herein. Mr. John Rubenstem August 1, 1996 Page 3

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FIELD INVESTIGATION

Fourteen widely spaced test borings were made at the locations shown in Figures 1 through 3. The borings were located in the field and their elevations determined by survey. The borings were advanced to depths of to 5 to 26 feet below the existing ground surface by a truck-mounted rotary drill rig. Four-inch inside-diameter hollow-stem augers were used to advance the borings. Standard penetration tests were conducted on 2.5- to 5.0-foot intervals in the overburden soils. Representative samples of the soils encountered were sealed in glass jars for further inspection and laboratory testing. Relatively undisturbed samples of the cohesive soils were obtained by hydraulically pressing 3.0-inch O.D. Shelby tubes into the soil at selected depths and locations.

The samples were sealed, secured, and transported to our laboratory for inspection and testing. The sampling intervals, soil and rock descriptions, standard penetration data, ground water observations, and other pertinent field information are summarized on the boring logs in Appendix B.

LABORATORY TESTING

The samples were observed and visually classified, and the boring logs were edited as necessary. Moisture content determinations were made for all cohesive samples. The plasticity characteristics of selected samples were determined by performing Atterberg limits tests. The undisturbed samples were extruded from the tubes, and natural moistures and densities determined. Shear strengths were determined for intact undisturbed samples using a motorized (controlled strain) shear vane testing machine. The results of the laboratory testing are presented on the boring logs. Consolidation properties were determined for two intact, undisturbed soil samples using a consolidometer. The void ratio versus pressure test data from the consolidation tests is presented in Figures 6 and 7.

REGIONAL GEOLOGY

The site lies within the youngest formation in Mesa County according to *Mineral Resources Survey of Mesa County* (Stephen D. Schwochow, 1978). This formation from the Quaternary Age consists of alluvial (water-deposited) sediments primarily located in the area river valleys. The formation generally consists of an apron of silt and clay derived from the erosion of the Mancos Shale formation in the upper river valleys overlying a thick layer of gravel deposited by ancient courses of the Colorado River. These deposits of stratified clay, silt, sand, and gravel extend to a depth of approximately 25 feet along the Colorado River. The alluvial composition is heterogeneous and generally segregated according to grain size.

Mr. John Ruber 'ein August 1, 1996 Page 4

GENERALIZED SUBSURFACE CONDITIONS

The subsurface conditions were explored by drilling 14 widely spaced borings at the locations shown in Figure 1. Generalized soil stratigraphies were developed from the borings and are presented in Figures 2 through 4; a legend is provided in Figure 5.

<u>Natural Overburden</u>. The natural soil profile consists cohesive soils grading to granular deposits at depth. The upper cohesive soils generally consist of interbedded clayey silt, silt, and sandy silt with occasional seams of fine sand. The sand seams are typically in the lower portion of the cohesive deposits. The cohesive soils are generally soft to very soft in the upper 5 to 7 feet with occasional deposits of medium stiff consistency in the near-surface zone.

Granular deposits consisting of fine- to medium-grained sand with varying silt content occurs beneath the cohesive soils. The sands are generally very loose to loose with occasional medium dense deposits at depth. Below the sand is a layer of dense to very dense gravel with occasional cobbles.

<u>Bedrock</u>. Refusal of the drilling auger was encountered in Boring 7 made in the building area. The depth to auger refusal was 26 feet below the existing ground surface. The underlying bedrock, although not sampled during this investigation, was judged to consist of shale based on observations of the auger teeth.

<u>Ground Water</u>. Short-term ground water readings made during the field exploration program indicated ground water at depths of 6 to 9.5 feet below the ground surface. Due to the granular nature of the underlying materials, the ground water levels at this site are susceptible to fluctuation based on the level of the Colorado River and seasonal precipitation.

LIQUEFACTION POTENTIAL

Liquefaction of granular soils can be caused by earthquake motion if sufficient strain occurs within the soil mass, producing an excess pore pressure which approaches the effective weight of the overlying soil. Therefore, the soil of concern must be below the ground water level to initiate liquefaction. Other important factors in evaluating liquefaction susceptibility include grain size distribution, relative density of the soil, and the effective confining pressure of the overburden. However, the most important factor is probably the characteristics of the earthquake motion. The magnitude of ground acceleration and the number of stress cycles of strong motion both greatly influence the liquefaction probability. Because of the above factors, loose fine sands below the water table are most susceptible to liquefaction. Mr. John Rubenstein August 1, 1996 Page 5

A liquefaction analysis was beyond the scope of this investigation. The potential may exist at this site for liquefaction of loose fine sands which may be below the water table during an earthquake. However, the location of the site in Zone 1 suggests a limited earthquake risk. Additionally, any subsurface improvement done to provide positive building support (e.g., vibro–replacement, removal and recompaction, etc.) might eliminate the liquefaction potential due to its densifying effect on the suspect sands.

GEOTECHNICAL FEASIBILITY

Our findings indicate that the proposed buildings can be supported on deep foundations. The use of shallow foundations will require removal and recompaction of the soft and loose soils, or preloading. Depending on the depths of grade-raise fill required, phased construction may be necessary to accommodate anticipated settlements due to the weight of the proposed fill. The floors can be of conventional, slab-on-grade construction supported on compacted fill.

Review of the boring data indicates a very soft to soft consistency deposit of silt, varying in depth from approximately existing ground surface to 8.5 feet below grade, generally exists in the proposed building areas. This deposit has natural moisture contents ranging in the upper teens to low 30s. These are above the materials' liquid limits and suggest that these soils are normally consolidated.

Results of consolidation tests performed on two samples obtained from this deposit indicate the deposit has experienced some overconsolidation. However, the added stress induced on this stratum as the result of the planned construction is expected to cause settlements exceeding tolerable limits (on the order of 1.5 to 1.6 inches from the fill, and up to 10 inches from shallow foundation loads and the fill). These and other design-related considerations are discussed in the following sections.

<u>Cohesive Soil Consolidation</u>. Consolidation is the time-related settlement of a soil subjected to load. The load may result from the weight of the soil itself or the imposition of load on the soil, such as applied by a structure or foundation. Consolidation tests were performed in the laboratory to define the magnitude of consolidation for the natural soils at this site. The consolidation tests performed on the natural soil indicated the following current stresses and maximum previous consolidation pressures for the tested samples shown in Figures 6 and 7: Mr. John Ruber August 1, 1996 Page 6

	Current	Max. Previous	
Sample	Vertical	Consolidation	Overconsoli–
<u>Depth, ft.</u>	<u>Stress, psf</u>	<u>Pressure, psf</u>	<u>dation Ratio</u>
5.5	688	1140	1.7
5.5	688	980	1.4
	Sample <u>Depth, ft.</u> 5.5 5.5	Current Sample Vertical <u>Depth, ft.</u> <u>Stress, psf</u> 5.5 688 5.5 688	CurrentMax. PreviousSampleVerticalConsolidationDepth, ft.Stress, psfPressure, psf5.568811405.5688980

The data above indicate that the cohesive soil layer tested will behave as a slightly overconsolidated soil. However, the data present in Table 1, which shows the moisture content of several samples compared with their liquid and plastic limits would indicate that the material is normally consolidated. When the moisture content of a cohesive soil lies roughly halfway between the liquid and plastic limits, it indicates that the clay has some degree of overconsolidation. The maximum consolidation pressure obtained from Figures 6 and 7 will be exceeded by the combined load of approximately 5.7 feet of fill plus the current vertical stress plus the building load. Significant consolidation of this layer will not begin until the expected loads are greater than the maximum previous consolidation pressure.

Based on the water content of the clay in relation to its liquid and plastic limits, as presented in Table 1, it is our opinion that these soils could experience significant consolidation when loaded with additional fill and building weight. A normally consolidated clay acts as if it has never experienced stress other than its own weight. When normally consolidated clays are loaded beyond their maximum previous consolidation pressure (i.e., their current vertical stress), they will experience significant consolidation. Calculations indicate that the weight of both the fill and the building loads on shallow foundations could result in up to 10 inches of consolidation of the existing cohesive soil.

<u>Design Concept</u>. Based on the test boring information, it is our opinion that the soft, cohesive soils and loose sands are unsuitable for the support of the proposed buildings on shallow foundations. It is our opinion that the imposed loads on shallow foundations of the building will induce settlements in excess of those tolerable by the structure if supported by shallow foundations bearing on the existing soils. It is our further opinion that due to the permeability of the *in-situ* soils, the settlement induced by the weight of the proposed fill alone will occur rapidly and likely be completed shortly after the end of fill placement.

We considered a number of options for accomplishing positive support for this facility. These included the use of deep foundations (e.g., vibroreplacement or piles), preloading, and removal of the cohesive soil cap and loose sand with these materials replaced in a controlled fill. Mr. John Rubenstein August 1, 1996 Page 7

<u>Deep Foundations</u>. If a deep foundation system is used, it will be necessary to allow the consolidation of the existing materials to occur prior to installation of the foundations. It will be likely that the estimated 1.5 to 1.6 inches of consolidation will occur rapidly and during placement of the fill material. However, it is recommended that settlement plates be installed to monitor the amount and rate of settlement.

The recommended method of subsurface improvement is vibro-replacement with stone or concrete columns. This method consists of the insertion of a vibratory probe into the interbedded cohesive and granular soils to be improved, compaction of the loose sand by vibration, and densifying a dry concrete or crushed stone into the void created by the vibrator to form a concrete or stone column, respectively. The subsurface improvement is achieved by densifying the loose sand and "knitting together" the upper cohesive soils, thus reducing compressibility (i.e., settlement) and increasing the shear strength of the soil.

The subsurface improvement will be required for the building foundations. The remainder of the proposed construction, including the slab-on-grade floors, is relatively light and can be supported on natural soil or compacted fill.

As an alternative to vibro-replacement, driven or auger-cast piles can be used to support the buildings. Driven piles which would merit consideration would include H-piles, pipe piles, and precast concrete piles. The H-piles are available with or without a steel tip for hard driving conditions. Auger-cast piles are installed by a specialty contractor by drilling to the design depth with hollow-stem augers and injecting a fine aggregate concrete through the hollow stem of the augers as they are withdrawn from the ground. If deep foundations become a consideration, we should be contacted for detailed design recommendations. As discussed elsewhere in this report, the cement used for the concrete in these deep foundation system will be required to be resistant to sulfate attack. This may increase the cost such that precast concrete piles or auger cast piles are uneconomical.

<u>Preloading</u>. The normally consolidated soils will require remedial treatment in order to permit the use of shallow foundations and a conventional slabon-grade floor without detrimental settlement. Preloading, sometimes referred to a surcharging, the building site is a feasible remedial technique. Preloading consists of the addition of weight over the planned area of construction for a period of time. The effect of preloading is that the building or floor load weight is simulated prior to construction, settlements are induced, and the weight is removed and replaced with the building itself. The result is that potentially damaging settlements occur under the preload and not the building. <u>Shallow Foundations</u>. The building can be supported on shallow foundations designed using an allowable net bearing pressure not to exceed 3000 and 2500 pounds per square foot (psf) for individual (column) and continuous (wall) footings, respectively, provided they bear on compacted fill. This will require the removal of the existing soft to very soft cohesive soil to an average depth of 7 to 8 feet below existing grade and the replacement of this material in a controlled fill. Due to the current ground water level of 6 to 9.5 feet, this option will not be feasible without expensive dewatering or a significant drop in the ground water level, the latter of which is unpredictable.

Column and wall footings must have minimum dimensions of 2.5 and 2.0 feet, respectively, for bearing capacity considerations. In using net pressure for design, the weight of the foundation and the backfill over the footing need not be considered. Hence, only the loads applied at or above the finished floor level need be used in dimensioning the foundations.

It is expected that total settlements will be relatively small with good construction technique for shallow foundations and not exceed approximately 3/4 inch. Differential settlement between adjacent columns across a typical bay should not exceed one-half the total settlement. Exterior footings and foundations in unheated areas should be located at least 3.5 feet below final exterior grade for frost protection. Interior footings in heated areas (if any) can be located at a nominal depth below the finished floor provided they bear on compacted fill.

<u>Reactive Soils</u>. Information from the LDI report and *Mineral Resources Survey of Mesa County* indicates that the ground water in the Grand Junction area typically contains quantities of sulfates that will be detrimental to Type I Portland cement.

As recommended in Concrete and Concrete-Making Materials — American Society for Testing and Materials — STP 169C (Paul Klieger and Joseph F. Lamond, 1994), the three main strategies for improving resistance to sulfate solutions are to use an impermeable concrete, use a sulfate-resistant cement, and use pozzolans or slag. Cements designated as being moderately resistant to sulfate attack by ASTM C 150 — Standard Specification for Portland Cement are Type II and Type III cements with not more than 8 percent tricalcium aluminate (C₃A) and Type I cements with pozzolans or slag. Cements designated as having high sulfate resistance are Type III cements containing not more than 5 percent C₃A.

<u>Pavement Design Considerations</u>. The soils at this site, in the undisturbed state and in compacted fills, are suitable for the support of conventional pavement sections. Compacted fills in paved areas should be placed and

Mr. John Rubenstein August 1, 1996 Page 9

densified to a minimum of 95 percent of the material's standard Proctor (ASTM D 698) maximum dry density.

<u>Drainage and Grading</u>. Positive drainage must be provided to minimize infiltration of surface water around areas of fill, roads, the perimeter of the buildings, and beneath the floor slabs. Grades must be sloped away from structures, and surface drainage collected and discharged in such a manner that it is not permitted to infiltrate the near-surface soils.

<u>Earth Slopes</u>. As the vertical relief on this site is relatively small, steep grades will not likely be necessary. However, drainage channels and detention basins will be required. It is recommended that all natural cut slopes be not steeper than 2.5 horizontal (H) to 1 vertical (V). It may be prudent to consider flattening these slopes in order to minimize future maintenance on the slopes. It is our opinion that slopes constructed of compacted fill at this site will not be stable if constructed steeper than 2H to 1V. It is recommended that disturbed slopes be seeded or sodded to establish an adequate vegetative cover for erosion protection from runoff. Steeper slopes may be constructed where space limitations require; however, they will likely require some form of earth reinforcement to be designed by the Geotechnical Engineer.

GENERAL CONSTRUCTION PROCEDURES/RECOMMENDATIONS

A geotechnical engineer must be retained during the earth-related portions of construction to verify compliance with the project documents and the recommendations presented herein.

<u>Site Preparation</u>. The proposed construction site is currently undeveloped and the majority of the site was formerly used for agricultural purposes. The surface of the site must be stripped of all vegetation and organic materials. Although topsoil was only encountered in 2 borings at a depth of 3 inches it is likely present in other areas of the site. Tree stumps and the associated root balls must be undercut entirely and the resulting hole replaced with compacted fill. The strippings can be placed in landscaped areas, stockpiled for later use, or wasted off-site.

A proofroll should be performed prior to the placement of fill to expose soft subgrade areas. These locations will need special consideration to stabilize the subgrade when preparing for the placement of fill, making excavations, or other earth-related construction activities. This should consist of removing standing water or controlling flowing water, undercutting soft saturated materials and accumulated sediments, and stabilizing the subgrade. Stabilizing the subgrade can normally be accomplished by placing a dry lift of soil with tracked equipment, the use of ground stabilization fabric, or a working mat of clean coarse crushed stone or gravel. The need for these Mr. John Rubenst August 1, 1996 Page 10

measures will depend on soil, moisture, and weather conditions at the time of grading and can best be evaluated at that time.

<u>Demolition Considerations</u>. Components and remnants of former structures must be properly demolished and the resulting excavations backfilled with compacted fill. Foundation walls, footings, below-grade utilities, underground facilities (if any), and associated backfill must be removed entirely in proposed building areas to a distance 5 feet beyond structure perimeters. The slabs-on-grade, including the existing concrete-paved irrigation channel traversing the property east to west, can be left in place provided: 1) it is sufficiently broken for drainage, 2) it is verified through hand exploration that natural soil underlies these components, and 3) the slabs and pavements left in place are at least 3 feet below foundation bearing level. Existing below-grade components must be removed to at least 3 feet below subgrade in parking and drive areas. The resulting excavations must be backfilled with compacted material.

<u>Siltation Control</u>. The surface soils at this site are silty in texture and, thus, susceptible to erosion and siltation. Appropriate erosion control measures such as proper site contouring during grading and straw bales or siltation fences must be used during construction. These siltation control devices will likely require periodic maintenance during construction in the form of removing accumulated sediments and re-establishing the siltation device.

<u>Subgrade Considerations</u>. The soils at this site are susceptible to disturbance in the presence of moisture and the traffic of construction. Care should be exercised to maintain the integrity of the subgrade when preparing the site for the placement of fill, making excavations, and other earth-related construction activities. If pumping and rutting occur, activity should be halted until the affected area can be stabilized. This can normally be accomplished with aeration and recompaction, the use of ground stabilization fabric, incorporating admixtures, or placing a working mat of clean coarse crushed stone or gravel.

The need for these measures will depend on soil, moisture, and weather conditions at the time of grading and can best be evaluated at that time. At the time of drilling, near-surface soil moistures were generally above the material's optimum moisture content. Thus, preparation for filling will likely require surface aeration and tracking to establish a firm subgrade to receive fill, as the current subgrade may be susceptible to pumping. Obviously, an increase in site precipitation will likely increase soil moistures, increase the potential for subgrade instability, and, possibly, dictate the need for undercutting and recompaction to stabilize the subgrade.

<u>Fill Materials</u>. The location of the proposed development in the Colorado River flood plain will require a significant volume of fill to be placed to Mr. John Rubenstein August 1, 1996 Page 11

elevate the development to provide proper drainage. With the exception of the topsoil, the on-site material can be used as fill in any location. The topsoil is not acceptable for use in engineered fills which will support foundations or floor slabs.

Off-site materials will be needed due to the amount of fill required for the construction of the building pads. Imported borrow material should be free of organics and deleterious matter with a liquid limit not to exceed 45. It is recommended that testing be performed on possible borrow materials *prior* to construction to determine its engineering properties and suitability for immediate placement in fill areas. Cohesive fill material should be used where it is desired to earth-form foundations.

Depending on moisture conditions at the time of construction, it may be necessary to add water or aerate the fill material to achieve the required compaction. At the time of drilling, the soils were generally above the range conducive for successful compaction; therefore, the need for moisture reduction should be anticipated.

<u>Compaction</u>. On-site and imported fill should be placed in maximum 8-inch loose lift thicknesses and mechanically compacted to at least 95 percent of the material's standard Proctor (ASTM D 698) maximum dry density. Field density tests must be performed as needed by a qualified soils technician to verify compliance with the density requirement.

To minimize stability problems within building pad, it is recommended that compacted fill placed within the upper 3 feet of subgrade have a moisture content not greater than the material's optimum moisture content plus 1 percent. This method is also recommended for fill placed within the upper 3 feet in the parking areas; however, parking areas are not expected to receive as much construction traffic during construction and stability problems are not expected to occur as often if good construction traffic control is exercised. Otherwise, the upper 2 feet of pavement subgrade must be stable and the moisture content at or below optimum content plus 1 percent.

Compaction of any fill or backfill by jetting (sometimes referred to as flooding) is not considered acceptable. The success of this method requires a freedraining fill material and the drainage of the water through and away from a fill area. Jetting in cohesive soils or confined areas will result in the entrapment of water by the fill boundaries (e.g., backfill in a trench) or by cohesive fill materials. This technique will generally not achieve the desired compaction because of nonuniformity, submergence, and the weakening of the resultant fill. Mr. John Rubens August 1, 1996 Page 12

<u>Construction Dewatering</u>. The test holes made at the site indicated the presence of ground water at a depth of 6 to 9.5 feet below the existing ground surface. However, the ground water level may be near the ground surface during extended periods of precipitation or high river levels. Excavations below the ground water level cannot be dewatered by pumping from open excavations due to sloughing and caving of the side slopes and potential boiling (i.e., quick condition) of the base. If excavations below the water level are required it will probably be necessary to accomplish the needed dewatering by pumping from wells.

LIMITATIONS OF STUDY

The analyses, conclusions, and recommendations contained in this report are based on the site conditions described herein and further assume that the exploratory borings are representative of the subsurface conditions throughout the site (i.e., the subsurface conditions everywhere are not significantly different from those disclosed by the borings). If, during construction, subsurface conditions different from those encountered in the exploratory borings are observed or appear to be present beneath excavations, we should be advised at once so that we can review these conditions and reconsider our recommendations where necessary.

If there is a substantial lapse of time from the submittal of this report and the start of work at the site, or if conditions have changed due to natural causes or construction operations at or adjacent to the site, we recommend that this report be reviewed to determine the applicability of the conclusions and recommendations considering the changed conditions and time lapse.

The scope of the investigation reported herein did not include any environmental assessment or investigation for the presence or absence of hazardous or toxic materials in the soil, ground water, or air on, around, or beneath this site. Any notations or statements in this report, including notes on the boring logs, regarding odors or unusual conditions observed are strictly presented for informational purposes only and are not intended as a definitive assessment of potential contaminants present.

We recommend that we be retained to review those portions of the plans and specifications which pertain to foundations and earthwork to determine if they are consistent with our recommendations. In addition, we are available to observe construction, particularly construction of foundations, site grading, and earthwork. We would also be available to make such other field observations as may be necessary.

This report was prepared for the exclusive use of the owner, architect, and engineer for evaluating the design of the structure as it relates to the geotechMr. John Rubens August 1, 1996 Page 12

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This report was prepared for the exclusive use of the owner, architect, and engineer for evaluating the design of the structure as it relates to the geotechMr. John Rubens August 1, 1996 Page 13

nical aspects discussed herein. It should be made available to prospective contractors for information on factual data only and not as a warranty of subsurface conditions included in this report. Unanticipated soil conditions are commonly encountered and cannot be fully determined by taking soil samples from the borings. Such unexpected conditions require that additional expense should be made to attain a properly constructed project. Therefore, some contingency fund is recommended to accommodate such extra costs.

* * * * *

The following are made part of and complete this report:

<u>Appendix A</u>

 Table 1:
 Atterberg Limits Information

Figure 1: Boring Plan

- Figure 2: Generalized Soil Profile/Section A-A
- Figure 3: Generalized Soil Profile/Section B-B
- Figure 4: Generalized Soil Profile/Section C-C
- Figure 5: Soil Profile Legend
- Figure 6: Consolidation Ratio vs. Pressure (Boring 1)
- Figure 7: Consolidation Ratio vs. Pressure (Boring 8)

<u>Appendix B</u> Field Classification System Logs of Borings 1 through 14 Previous Boring Data by LDI

We appreciate the opportunity to be of service to you on this project. If we may be of further assistance, such as providing a detailed geotechnical investigation, please call.

Very truly yours, MIDWEST TESTING, INC.

Robert A. Holmes, É.I.T. Staff Engineer

Richard ln, P.E. Principal

RAH/RDL/mbt

Copies: (4) THF Realty, Inc.

Table 1

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<u>ATTERBERG LIMITS</u> Proposed Commercial Development Grand Junction, Colorado

Boring		Plastic	Moisture	Liquid	<u>(W-PL)</u>
<u>Number</u>	<u>Depth, ft.</u>	<u>Limit</u>	Content (%)	<u>Limit</u>	<u>(LL-PL)</u>
1	3.5-5	22	38	30	2.00
2	1-2.5	20	30	30	1.00
5	6-7.5	24	29	26	2.50
7	3.5-5	24	26	24	N/A
8	3.5-5	26	30	33	0.57





Figure 2



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Figure 3



961851

Figure

.1



961851





Figure 6





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Figure 7

FIELD CLASSIFICATION SYSTEM

BORING METHOD		SHEAR STR	SHEAR STRENGTH DATA		
HSA CFA RB MR RC CA DC	Hollow-stem auger Continuous-flight auger Rollerbit Mud rotary Rock coring Casing advancer Driven casing	UC TX-UU TX-CU V FV T PP	Unconfined compression Unconsolidated-undrained triaxial Consolidated-undrained triaxial Miniature vane Field vane Torvane Pocket penetrometer		
HA	Hand auger	SCP	Static cone penetrometer		

SOIL PARTICLE SIZE

Cohe	sive	Granular or Non-Cohesive							
			Sand			Gravel			
Clay	Silt	Fine	Medium	Coarse	Fine	Medium	Coarse	Cobbles	Boulders
0.00	2mm 0.05	imm 0.02	mm 0.6m	nm 0.25	in. 0.5	in. 1 ir	n. 3	in. 8	h.

STANDARD PENETRATION TEST (ASTM D 1586)

Driving a 3.0-inch O.D. split-spoon sampler 18 inches with a 140-pound hammer free-falling a distance of 30 inches. The number of blows to drive the sampler these three successive 6-inch increments is recorded; the sum of the last two increments being the N-value.

N-VALUE CORRELATION

Granular Soils		Cohesive Soils		
N-Value	Relative Density	N-Value	Consistency	
		0-2	Very soft	
0-4	Very loose	3-4	Soft	
5-10	Loose	5-8	Medium stiff	
11-30	Medium dense	9-15	Stiff	
31-50	Dense	16-30	Very stiff	
Over 50	Very dense	Over 30	Hard	

SOIL CLASSIFICATIONS of samples are made by visual inspection and/or laboratory test results in accordance with the Unified Soil Classification System, the symbol of which is indicated in parentheses following the description.

RELATIVE PROPORTIONS are indicated by the following descriptive terms: trace (0-15%); some (15-35%) and (35-50%).

- STRATA CHANGES are indicated on the boring logs by horizontal lines. A solid line represents an observed change while a dashed line indicates an estimated change.
- GROUND WATER OBSERVATIONS are made at the times and under the conditions stated on the boring logs. Fluctuations may occur due to changes in precipitation, temperature, site topography, etc.

Wal-Mart Feasibility Study Grand Junction, Colorado

Shear Strength from Indicated Test, tat	
COMPLETION DEPTH 15.0 FT. SPT SPT	5
	30
	L
Liquid L Liquid L	mit
□ SURFACE ELEVATION 4545.5 FT. 店 協議主义 3 10 20 30 40 5	0
Brown soft Silt (ML) with trace	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	
Brown medium dense medium	::::
Sand (SP) with trace gravel $\begin{bmatrix} 8 \\ 12 \end{bmatrix}$	
	· · · · ·
Gray, maroon, and white coarse Gravel (GP) with some sand	
	• • • •
Boring terminated at 15.0 feet	
	· · · ·
	· · · ·
WATER LEVEL OBSERVATIONS NOTES	I
DURING DRILLING 9.0 FT.	
AT COMPLETION FT.	
AFTER HRS. FT.	IG INC

REVIEW COMMENTS

Page 1 of 6

FILE #CUP-96-180

TITLE HEADING: Rimrock Marketplace

LOCATION: SW corner 25 1/2 Road & Highway 6 & 50

PETITIONER: The Belleville Development LP

PETITIONER'S ADDRESS/TELEPHONE:

c/o THF Realty 955 Executive, Suite 210 St. Louis, MO 63141 314-878-4044

PETITIONER'S REPRESENTATIVE:

John L. Rubenstein

STAFF REPRESENTATIVE:

Michael Drollinger

NOTE: THE PETITIONER IS REQUIRED TO SUBMIT FOUR (4) COPIES OF WRITTEN RESPONSE AND REVISED DRAWINGS ADDRESSING ALL REVIEW COMMENTS ON OR BEFORE 5:00 P.M., AUGUST 22, 1996.

CITY COMMUNITY DEVELOPMENT		8/9/96
Michael Drollinger	· · · · · · · · · · · · · · · · · · ·	244-1439

- 1. Preliminary Site Plan incomplete please use Submittal Standards for Improvements and Development (SSID) Manual checklist and revise Preliminary Site Plan to include all relevant information on the checklist.
- 2. The landscaping design, particularly with regard to the parking lot landscaping contains significant deficiencies from what is required in Section 5-5-1F ('Parking Lot Landscaping and Lighting') of the Zoning and Development Code (ZDC). Please carefully review the provisions of Section 5-5-1F and redesign the parking lot to meet the Code requirements; compliance with this Code section is expected and will be carefully reviewed with the resubmittal.
- 3. I strongly suggest that you locate the right-of-way line for the proposed realigned frontage road, especially with regard to its relationship with the main parking area. Section 5-5-1F required a minimum landscape buffer of 10 feet in depth from the right-of-way line to the parking lot; it appears that this will impact your site design. Landscaping in the right-of-way is required but does not apply toward the requirements of Section 5-5-1F.
- 4. Please review the requirements of Section 5-5-1F regarding the provision of landscape islands in the parking lot, particularly the size and number required. The preliminary site plan must show that the required number of islands can be provided, staff will not consider administrative variation of this requirement or other requirements of Section 5-5-1F.
- 5. Section 5-5-1F2e requires that pedestrian crossing areas in parking lots, especially near building areas,

CUP-96-180 / REVIEW COMMENTS / page 2 of 6

7. The General Project Report is inadequate; please provide additional detail regarding the development including but not limited to: (1) more detailed phasing since the approval period will be based on this information; (2) anticipated uses in the pad sites; (3) signage; and (4) compliance of this project with the Conditional Use Permit criteria in Section 4-8-1 of the ZDC.

ALL IDENTIFIED ISSUES MUST BE ADDRESSED WITH THE RESUBMITTAL OR THE ITEM WILL BE PULLED FROM THE PLANNING COMMISSION AGENDA. Due to the extent of missing information, staff may require additional time to review the application which will require the removal of the item from the September Planning Commission agenda. It is therefore important that all resubmittal information be provided on or before the August 22, 1996 5PM deadline.

CITY DEVELOPMENT ENGINEER	8/10/96
Jody Kliska	244-1591
TRAFFIC STUDY	

- 1. The latest plan shows a major entrance to the center through the Woolard property. The study assumes left turns in will be allowed at this existing access. Currently the highway striping is such that left turns are not allowed (double yellow lines) and there is limited storage for left turns because of the bifurcation point to the east. CDOT has the final say on this access and it is doubtful this access will be allowed for the center use. In the past CDOT has indicated they will allow the existing access for the existing use only.
- 2. The analysis is showing 10% fewer trips both north and south at the signal than in the previous study. Please provide an explanation, as the distribution has been explained in the past as being based on the MINUTP projections of distribution based on the attractions to and from the north.
- 3. The highway capacity analysis does not appear to take into account pedestrian clearances when determining levels of services. Several analyses show less green time than is necessary or pedestrians to cross highway 6 & 50. The shorter green time works to the advantage of the analyst in demonstrating an acceptable level of service but ignores the needs of the pedestrian user. The proposed geometric changes to the highway will make the crossing length somewhere in the neighborhood of 100', a very wide distance to cross as a pedestrian.
- 4. The passer run for the signal coordination indicates a longer cycle length than the capacity analysis. I would like to see an analysis using Signal94 or similar program which will optimize the signal timing and progression. Signal94 also indicates queue lengths for each lane and movement.
- 5. The recommendations in the traffic study includes improvements to both the north and south leg of the signalized intersection. Please show what these improvements are and what will be needed.
- 6. A scaled sketch showing the proposed geometric improvements at the signal is needed. Dimensions showing the length and width of proposed new lanes and locations of existing accesses must be shown. The submitted plans do not reflect the recommended geometric improvements.
- 7. Pedestrian circulation needs to be addressed. Independent Ave. through the signalized intersection is designated a bicycle route in the multi-modal plan. The plans do not show sidewalks or connections to the site for pedestrians.
- 8. Signal modifications will be required in conjunction with the geometric changes. This needs to be analyzed and quantified.

PLANS

- 9. The frontage road extension needs to be shown on the plans.
- 10. No roadway cross-sections are provided as required in SSID IX-26.
- 11. Notes on utility sheets will need to be consistent with the City and Ute water requirements.

CUP-96-180 / REVIEW COMMENTS / page 3 of 6

12. Please submit plans on standard sheet sizes as required in SSID.

DRAINAGE

- 13. The drainage through the site appears to have changed substantially since the last submittal. No preliminary drainage report was required with this submittal, but the changes shown appear to indicate the need for a revised report. There appears to be substantially more detail on the drainage plans than what is normally seen on preliminary plans. It might be helpful to submit a more detailed report than is normally required to substantiate the submitted plans.
- 14. The City Code requires either on-site detention or payment of a drainage fee in lieu of detention. We need some detailed analysis of drainage and projected runoff to have a meaningful discussion about this requirement.
- 15. There is a 4' ditch shown behind Anchor A into which roof and parking lot drainage is shown to be discharging. Is this large enough to carry the anticipated flows without impacting the adjoining property?
- 16. How will the off-site drainage from the Woolard site be conveyed? It appears it may be cut off by the design of this plan.

CITY UTILITY ENGINEER	8/9/96
Trent Prall	244-1590

PLEASE NOTE: 1996 City of Grand Junction Standard Specifications shall apply for this proposed development. Copies are available for \$10 in the Public Works and Utilities office.

City of Grand Junction standard plan size is 22 x 34.

WATER: UTE

1. Please provide a signoff block for Ute on all water related plans for final submittal. SEWER: CITY

- 1. Due to the constraints the sewer design may place on this project, please resubmit plans complete with profile views. The 15" Venegas sewer is currently on minimal slope. It is difficult to conceive how the 15" line could be replaced with an 8" line that is 1200' longer than the 15" line. Therefore ensure the following for the resubmittal:
 - A. Minimum slope: 0.40%
 - B. Maximum distance between manholes: 400 ft
 - C. Drop across manhole: 0.2' (Pipe may be laid straight through manholes where there is no vertical or horizontal deflections).
 - D. Please provide calculations to show that the capacity of the 15" sewer line capacity is maintained in the proposed 8" line.
 - E. Please reconfigure manhole locations so that they coincide with 6" service lines. For example, for Anchor A, both MH 9 and 10 should be placed where the 6" service lines outlet to 8" mainline.
 - F. Horizontal curves between manholes are not allowed due to the inability to inspect final product. Please reconfigure for straight runs. Manholes may be placed on street centerline or in center of drive lane.
- 2. If grades do not permit 15" sewer reroute, project may be possible with replacement of existing 15" sewer line with 15" PVC inside a steel casing pipe under proposed store footprints. Integrity of existing sewer pipe is also a concern, if this alternative is selected existing pipe shall be replaced across project site.

CUP-96-180 / REVIEW COMMENTS / page 4 of 6

3. For Final plan set please ensure the following notes are on all sewer plans:

- A. Contractor shall have one signed copy of plans and a copy of the City of Grand Junction's Standard Specifications at the job site at all times.
- B. All sewer mains shall be PVC SDR 35 (ASTM 3034) unless otherwise noted.
- C. All sewer mains shall be laid to grade utilizing a pipe laser.
- D. All service line connections to the new main shall be accomplished with full body wyes or tees. Tapping saddles will not be allowed.
- E. 6" services shall be connected directly into manholes.
- F. The contractor shall notify the City inspection 48 hours prior to commencement of construction.
- G. The Contractor is responsible for all required sewer line testing to be completed in the presence of the City Inspector. Pressure testing will be performed after all compaction of street subgrade and prior to street paving. Final lamping will also be accomplished after paving is completed. These tests shall be the basis of acceptance of the sewer line extension.
- H. The Contractor shall obtain City of Grand Junction Street Cut Permit for all work within existing City right-of-way prior to construction.
- I. A clay cut-off wall shall be placed 10 feet upstream from all new manholes unless otherwise noted. The cut-off wall shall extend from 6 inches below to 6 inches above granular backfill material and shall be 2 feet wide. If native material is not suitable, the contractor shall import material approved by the engineer.
- J. Mainline sewer stub outs shall be capped and plugged. Stub out shall be identified with a steel fence post buried 1' below finished grade. As-built surveying of stub out required PRIOR to backfill.
- K. Benchmark ______

CITY FIRE DEPARTMENT	8/13/96
Hank Masterson	244-1414

WATER SUPPLY

- 1. A looped 8" water line is required for this development. The existing 8" line along the frontage road-which is shown as the only feed line to the site-is itself a dead end line. There is a looped 8" line in West Independent Avenue to the west of the Hanson Equipment property. A second connection from on-site lines to this looped line would create an acceptable looped system.
- 2. The fire hydrants proposed along the east side of the property will be blocked by parking spaces. These hydrants must be accessible to the fire department from the interior public road running along the east side of the property. Landscaped peninsulas may be one way to accomplish this.
- 3. The on-site layout of 8" water lines is acceptable. Fire hydrants must be spaced at approximately 300' intervals rather than the 500' foot spacing shown.
- 4. Petitioner must submit a revised utility composite to the fire department showing the required changes.
- 5. Fire department access is acceptable as shown.

CITY POLICE DEPARTMENT	8/13/96
Dave Stassen	244-3587

I would like to take a look at a lighting plan for this project.

CUP-96-180 / REVIEW COMMENTS / page 5 of 6

GRAND JUNCTION DRAINAGE DISTRICT John Ballagh

8/6/96 242-4343

The site is wholly within the Drainage District. The Ligrani Drain is correctly located on the documents provided to the District for review. The Ligrani Drain does pick up seep waters and flows year around.

The concept of relocating the Ligrani Drain and putting some of it in pipe while leaving portions open for "wet pond" detention is certainly an option that can be worked on between the District and the developer. There needs to be resolution of who is going to maintain what in the various reaches of the proposed improvements to the Ligrani Drain. The present policy of the Grand Junction Drainage is that the relocated drain would be maintain by the District if appropriate easement is granted by the property owner to the Grand Junction Drainage District. The District's relocation policy and tiling policy both apply.

Discharge of collected, storm runoff into the Ligrani Drain is possible. The design of the collecting and transporting system is not in final form and needs work before final decision is made about location and design. There should be clear understanding of who operates and maintains which parts of the storm drain system. The Drainage District has procedures for acceptance of systems when easements for O & M are granted and does have standards of construction for facilities. If the internal storm drain system is to be private then that fact needs to be clearly marked in several places on the document of record.

The flat grades of the proposed ponds in the plan will tend to silt rapidly, necessitating frequent cleaning, perhaps yearly, in order to maintain the capacities of the planned facility. The 3:1 side slopes push the flowline of the ponds quite a distance from the top of the pond areas. There is no work platform from which District equipment could reach the low flow channel of the ponds which is scaled of the plans at nearly 30 feet from the top bank of the pond and approximately 10 feet below the surrounding ground level. A bench / work platform could be designed into the side of the ponds in such a way that existing Grand Junction Drainage District equipment (LB 3400) could reach the low flow channel for removal of silt. Transportation and disposal of the excavated channel bed debris may be a problem if trucks hauling slop will have to travel on City streets.

The line proposed from structure 25 to 26 might cause erosion problems to the left side of the proposed pond, even with the rip rap. An alternative would be to take that line into a manhole (not shown) between structures 27 and 28.

The District wants to see the design of structure #2 before construction of that structure begins.

Relocation of a Grand Junction Drainage District drain begins with a written request to the Board of Directors of the District. There is no form but the request must be in writing.

UTE WATER	8/12/96
Gary Mathews	242-7491

1. Contact with Ute Water is needed to discuss water valve locations inside the project.

2. Two water supplies are needed for this project to create a looped system. Backflow prevention is required on all fire systems inside the buildings.

3. Water mains shall be c-900, class 150. Installation of pipe fittings, valves and services including testing and disinfection shall be in accordance with Ute Water standard specifications and drawings.

4. Construction plans required 48 hours before development begins.

5. Polices and fees in effect at the time of application will apply.

CUP-96-180 / REVIEW COMMENTS / page 6 of 6

U S WEST	8/12/96
Max Ward	244-4721

For timely telephone service, as soon as you have a plat and power drawing for your development, please.....

MAIL COPY TO: U S West Communications ATTN: Max Ward P.O. Box 2688 Grand Junction, CO 81505

We need to hear from you at least 60 days prior to trenching.

CITY PROPERTY AGENT

Tim Woodmansee

8/15/96 244-1565

The property is encumbered by numerous easements which need to be relinquished, vacated or relocated. Evidence of such actions should be supplied before any Planning Clearances are issued. How will Petitioner re-establish the BLM brass cap set for the west 1/16th corner of Sections 10 and 15 after anchor building C is constructed? Any other brass caps disturbed during construction will need to be re-established. The validity of the Access Easement Agreement recorded in Book 2212 at Page 990 is questionable. An easement by definition is a non-possessory interest in land of another. Thus it is axiomatic that a landowner cannot obtain an easement in the landowner's own property.

TO DATE, NO COMMENTS RECEIVED FROM:

City Property Agent City Attorney Mesa County Planning Grand Valley Irrigation Public Service Company Colorado Department of Transportation Corp of Engineers


August 19, 1996

Michael Drollinger, AICP Community Development Department City of Grand Junction 250 N. 5th Street Grand Junction, CO. 81501

RE: File # CP-96-180 Rimrock Marketplace Shopping Center Hand Delivered 4 Original Copies

Dear Michael:

I am in receipt of four pages of review comments via fax on August 12,1996 and additional comments via fax on August 16,1996 concerning the above mentioned project. Please allow this letter to serve as our written response to those comments.

CITY COMMUNITY DEVELOPMENT

- 1. The re-submitted plans will show all the relevant information on the plans.
- 2-4. Comments in these sections concern the landscaping requirements as well as parking islands in the parking lot. We endeavor to design the highest quality shopping center with a high regard to the landscaping. However, we are unable to meet the parking requirements of the tenants by incorporating the number of items required by code. If your staff will not consider an administrative variation of this request; then, if necessary, we will petition the City Council for a variance of the code.
- 5. Our plans have been revised to show "stamped" concrete at all the pedestrian crossing areas in the parking lot.
- 6. The plans also show the "building envelope" outlined in a dark line.
- 7. The project would probably be done in two phases. The first phase would be the main buildings containing approximately 430,000 square feet. We are in the process of finalizing our major tenant leases and have not yet determined whether they would like occupancy for the fourth quarter of 1997; or whether that will be pushed back to the end of the first quarter in 1998. Not withstanding the above "time frames" we would build that portion of the entire project at one time.

The second phase of the project would be the development of the "out parcels" or "pads". Whether or not these pads will Page 2 of 6

get developed simultaneously with the development of the major buildings in the back is unknown to us at this time; as we have focused our attention to the development of the 430,000 square feet of buildings.

We anticipate that the uses of the pad sites would be free standing buildings to accommodate restaurants, financial institutions, and individual retailers. Most likely the "floor area ratio" would be between 10-15%. The buildings would not exceed one story in height and would be situated on the site to provide good "site lines" and visibility to highway 6 & 50 without blocking the visibility of the main shopping center behind.

The signage for the project would be as follows: A main shopping center identification sign would be built on outlot number 2. We envision this sign to be a significant sign. There would be two monument signs identified on the plans for the major tenants on the parking lot island adjacent to the interior frontage road. Lastly, there would be small monument signs for the individual pad users on their sites adjacent to the interior frontage road.

It is our feeling that this project is in compliance with the conditional use permit criteria in section 4-8-1 of the ZDC.

- a. We feel the proposed project is compatible with other commercial uses that are in the area. The final building elevations and appearance of the project will be first class. We do not anticipate any adverse noise, dust or odor coming from the side as a result of our development. The traffic impact has been discussed in our traffic reports.
- b. The design features on the site; such as the pedestrian and vehicular circulation have been done in a professional way. The access to the site from additional city streets is being done with the extension of the frontage road to the Southwest.
- c. Proposed accessory uses at this time which would be the development of the pad sites for restaurants, financial institutions and other retailers, is compatible with the project.
- d. The development of the project will not adversely effect public services to any other existing uses in the area.
- e. This section of the code is probably not applicable to this project.
- f. As the "Owner and Operator" of the shopping center, with the sizable investment in the project and our requirement pursuant

Page 3 of 6

to the Leases, we can assure you that the proper maintenance will be provided for.

g. The use does conform to all applicable regulations of the code. The project has previously received a "Conditional Use Permit from the City of Grand Junction. This submission is being done because of the increased size of the project.

CITY DEVELOPMENT ENGINEER

The comments from Jody Kliska concerning the Traffic Study have been forwarded to Phillip N. Scott at Leigh Scott Cleary, Inc. our traffic engineer. He is currently on vacation. I'm sure he can address items 1-8 as they are technical in nature.

Philosophically, it is our desire to design the intersection of Highway 6 & 50 to best serve the community and the shopping center, by the incorporation of acceleration and de-acceleration lanes left hand stacking lanes, and improvements to the signalization; whatever it takes to make the project right.

- 9. The frontage road extension has been shown on the plans.
- 10. The cross sections of the pavement has been shown on the plans.
- 11. The notes on the utility sheets for City and UTE water requirements will be done when our final working drawings are complete.
- 12. The request to submit the plans on a standard sizes as required in the SSID; we are respectfully requesting that we continue to send you sheets on the sizes that we have previously submitted. We will in fact send all final and approved working drawings on the standard size sheets. Because of the size of the project it is very voluminous to try to deal with these smaller sheets at this point.
- 13. We do not feel that there is a need for revised drainage report at this time. The drainage on the site exits the site at the Northwest corner in a 72 inch pipe and proceeds to the Colorado River.

The plans resubmitted will show a change from the earlier plans where we were trying to retain the water above ground. We have been advised by our professional engineers that while the intention seemed to be good, above ground ditches will not work in a cost effective way. Thus, we plan to pipe the water.

14. The City code requires on-site detention or a fee in lieu of

Page 4 of 6

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detention. We will be working directly with the Drainage District and the City to resolve this issue.

- 15. We have been told by our engineers that this ditch behind Anchor A will work and not impact the adjoining property owners.
- 16. We're in the process of trying to finalize our deal concerning the Woolard site. At this time we have proposed a "win win" situation for Mr. Woolard wherein if he works with us on the overall development; then the drainage and access issues will be resolved to his satisfaction. If that cannot be achieved, then we have to revisit that issue.

CITY UTILITY ENGINEER

WATER: UTE

1. The signoff block will be done on all final submittal plans.

SEWER: CITY

1-3. These are all final design plans and will be taken care of in the working drawings and final design plans.

CITY FIRE DEPARTMENT

- 1. We will create a second connection from on-site lines to another water line so that we can create an acceptable system.
- 2. We will re-locate the fire hydrants along the East side of the property so they are acceptable to the Fire Department.
- 3. The fire hydrants will be re-located at intervals of 300 feet so they will be acceptable to the Fire Department.
- 4. We are prepared to submit a revised utility composite prior to the final working drawings.

CITY POLICE DEPARTMENT

1. Dave Stassen indicates he would like to look at the lighting in the project. We can assure you that pursuant to the major tenant's specifications, as well as our own desire to create a well lit and safe environment for the public, the parking lot lighting design will meet with the Police Departments approval.

GRAND JUCTION DRAINAGE DISTRICT

1. The site is within the Grand Junction Drainage District. It is the intent of the Owners to work closely with the Drainage

Page 5 of 6

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4
4

District to create permanent easements for operating and maintenance to the Drainage District.

We have reconsidered our use of open ponds for a portion of the Drainage District. It is our intent that all of the drainage will be in pipes below the surface.

The line proposed from structure 25 to 26 is being re-looked at by our engineers at this time. Furthermore, the District will see all final designs of any structures including structures number 2 before construction begins. We will make a formal written request to the Board of Directors of the District prior to this.

UTE WATER

- 1. We plan the contract UTE Water to discuss the water valve locations inside the project prior to the design of our final working drawings.
- 2. The two water supplies we needed to create the loop system and this coincides with the comments from the City Fire Department.
- 3. The water main shall be C900 Class 150 in accordance with UTE Water standards specifications and drawings. This will be incorporated into our working drawings.
- 4. We will have our final plans specifications for the Water District far in advance of 48 hours before development.
- 5. All policies at time of application will apply, and we plan to comply with all of those policies and pay the applicable fees.

US WEST

We plan to talk to US West prior to the development final working drawings so we can access and make available telephone service to all the tenants.

CITY PROPERTY AGENT

At the time we plat the property we plan to vacate a number of easements inside the property and grant other easements around the perimeter of the property for all the utilities, etc. We accept the fact that final permits cannot be done until this is accomplished. The BLM brass cap is an issue that we will have to review with the engineers, and any other appropriate parties.

Page 6 of 6

The Owners of the project want to work "hand and hand" with the City and all of the appropriate government authorities in seeing that the Shopping Center is built in an aesthically pleasing, and economically viable way. Our submittal is different from the past two submittals which were based on future "if comes". We have committed our resources by acquiring the land and an additional 10 acres and plan to go forward with the project.

We look forward to continue our good working relationship with you and seeing that this project comes to fruition.

Respectfully submitted, RUBENSTEIN REAL ESTATE CO., LC

John Rubenstein

= WILLIAMS, TURNER & HOLMES, P.C.

All Attorneys Admitted in Colorado

Anthony W. Williams Berfielt C. Holmes J. D. Snodgrass William D. Prakken Pawid J. Turner* Mark A. Hermundstad* Susan M. Corle Mark E. Hamilton Kirsten M. Kurath

*Also Admitted in Utah



Michael T. Drollinger, Senior Planner Community Development Department City of Grand Junction 250 No. 5th Street Grand Junction, Co 81502

Dear Mr. Drollinger:

ATTORNEYS AT LAW

Thank you for the opportunity to meet with you and review the plans submitted for the Rimrock Development. As I mentioned in our meeting, this firm represents Mr. Harold Woolard, the owner of the property located at 2541 Highway 6 & 50. Mr. Woolard has concerns relating to the development, which we discussed at our meeting. This letter is intended to document those concerns and formally object to the development, as we understand it to exist in current form.

Mr. Woolard's first concern relates to the drainage on the sight. Recognizing that final drawings do not yet exist, we wish to document Mr. Woolard's concern that the drainage from the site will be away from the Woolard property, as has been the case based on the natural topography and historical flows.

Mr. Woolard's second concern, and probably most important concern, relates to the traffic flows. Mr. Woolard's business is dependent upon the access along the frontage road of his property. Deliveries are made by semi trucks, which enter the frontage road west of Mr. Woolard's property, make their deliveries, and exit eastbound on Highway 6 & 50 at the curb cut at the northeast corner of the Woolard property. There is not room for turn-around for this semi traffic within Mr. Woolard's property. Therefore the closure of the frontage road would have a significant impact on his delivery capability.

Mr. Woolard's property is also accessed by customer traffic from the same locations. Closure of either of the entrances, or of the frontage road, will have significant impact on Mr. Woolard. Mr. Woolard recognizes the City's concern about "stacking" if the frontage road is left open. However, it would seem to be incumbent on the developer to solve this problem in a fashion which does not degrade the Woolard property.

An additional concern is obviously the configuration which places a road on Mr. Woolard's property (to which he has not consented) in proximity very close to the building on the property. In our most recent conversation with Mr. Rubenstein, he

COURTHOUSE PLACE BUILDING 200 N. 6th Street – PO Box 338 Grand Junction, Colorado 81502-0338 Phone 970/242-6262 Fax 970/241-3026

MOAB OFFICE 94 East Grand Avenue Moab, Utah 84532-2830 Phone 801/259-4381 Mr. Drollinger Page 2 August 21, 1996

indicated that he did not need this road. We are not sure at this point what is intended in this area, and request we be placed on any notice lists which you maintain, if an alternative site plan is proposed.

We have also reviewed some of these matters with Mr. Charles Dunn of the Colorado Department of Transportation. We are providing a copy of this letter to Mr. Dunn to be placed in his file, so that these objections are documented for the Department for its review.

Sincerely,

WILLIAMS, TURNER & HOLMES, P. C.

David Tum

David J. Turner

DJT/jf

- c: Charles Dunn, Colorado Department of Transportation
- c: Rubenstein Real Estate Co., LC
- c: Harold Woolard



L^T GH, SCOTT & CLEARY, INC. TRANSPORTATION PLANNING & TRAFFIC ENGINEERING CONSULTANTS

1889 York Street Denver, CO 80206 (303) 333-1105 FAX (303) 333-1107

September 11, 1996

Ms. Jody Kliska, P.E. Development Engineer City of Grand Junction 250 North 5th Street Grand Junction, CO 81501

> Re: Rimrock Shopping Center Traffic (LSC \$941421)

Dear Jody:

In response to your recent staff comments and as follow-up to our meeting of August 22, 1996, we are providing the following supplemental traffic analysis information related to the proposed Rimrock Shopping Center.

- 1. <u>Woolard Property Access</u>: As requested, we have revised our earlier analysis, excluding the previously recommended secondary three-quarter access point along US 6/50. Revised Figures 4 through 13 and updated capacity analyses, enclosed, reflect the elimination of this access point.
- 2. <u>Traffic Distribution</u>: The revised analysis reflects a ten percent shift of traffic from US 6/50 to Independent for east/west motorists where access is oriented towards the east. This assumption recognizes the reduced capacity for westbound left-turns from US 6/50 with the elimination of the Woolard property access.
- 3. <u>Pedestrian Signal Time</u>: The enclosed revised Highway Capacity Analyses reflect pedestrian clearance timing.
- 4. <u>Signal Cycle Length</u>: The revised capacity analyses reflect the 110-second optimum signal cycle length identified in our earlier PASSER analysis.
- 5. <u>Recommended Laneage and Geometric Improvements</u>: It is our understanding that the project's development plan has been modified by Wolverton & Associates, Inc. to reflect current planned traffic improvements.
- 6. <u>Pedestrian Circulation</u>: We are aware of the City's Urban Trails Plan which includes onstreet bicycle lanes along Independent Avenue with a US 6/50 crossing at the Center's signalized main entrance intersection. The Rimrock Center's developer has expressed his intention to incorporate the City's Urban Trail Plan into his site planning efforts.

Ms. Jody Kliska, P.E.

- 7. <u>Traffic Signal Modifications</u>: It is quite clear that significant signal modifications will be required at the project's main entrance intersection in order to accommodate the proposed laneage improvements. The project's developer is prepared to incorporate such changes into his future planning efforts.
- 8. <u>Queuing Analyses</u>: We have revised our earlier queuing calculations (copies enclosed) to reflect the 110-second cycle and revised traffic distribution at the main entrance. Relative to our earlier analyses, the recommended Woolard Property three-quarter access is calculated to require a 150-foot long westbound left-turn lane based on the Traffic Engineering Handbook's criteria being the number of left-turn arrival car lengths during a two-minute interval and use of a Saturday peaking factor of 1.5.

In conclusion, a review of the enclosed materials reveals some traffic movements with Level of Service "E" and "F" operating conditions for projected peak-hour traffic at the project's main entrance intersection. In our opinion, the previously recommended three-quarter secondary access point will significantly improve future traffic flow at this key intersection. Most importantly, this additional access will minimize the backup of southbound Independent approach traffic north of US 6/50 and the potential congestion associated with traffic accessing the nearby Sam's Club site.

* * *

We trust that these supplemental analyses are responsive to your requests and look forward to working with you further on this exciting project.

Sincerely,

LEIGH, SCOTT & CLEARY, INC.

Philip⁹N. Scott III, P.E.

PNS/wd

- Enclosures: Figures 4 13 Capacity Analyses (6) Queuing Calculations
- cc: Mr. John Rubenstein



C:\PROJECTS\941421\RIMROCK.SUP

Rimrock Shopping Center Peak-hour, Saturday

Movement: Northbound left-turn on "main" access at US 6 & 50

с	=	Cycle length (sec)	_	110
Ge	=	Effective Green, (sec)	=	16
Q	=	Approach Flow, (veh/hour)	÷	320
q	Ξ	Approach Flow, (veh/sec)	=	0.0889
n	=	Average Queue Length, (# of veh)		
Tr	=	Effective Red, (sec)	=	94
V		hi wala an af calaban		

X = Number of vehicles Z = Average number of ve

= Average number of vehicles passing a point at during time t.

Assuming vehicles are unblocked and arrive during green and can complete turn.

 $Z = q^*c = 10$ Vehicles/cycle

 $P(x) = ((exp^{-(-q^{Tr}))*(q^{Tr})^{x})/(x!) =$

Cumulative P(X)

X =	0	P(x) = 0.000	0.000	Storage needed
X =	1	P(x) = 0.002	0.002	Storage needed
X =	· 2	P(x) = 0.008	0.010	Storage needed
X =	3	P(x) = 0.023	0.033	Storage needed
X =	4	P(x) = 0.048	0.081	Storage needed
X =	5	P(x) = 0.080	0.161	Storage needed
X =	6	P(x) = 0.111	0.272	Storage needed
X =	7	P(x) = 0.133	0.405	Storage needed
X =	8	P(x) = 0.139	0.543	Storage needed
X =	9	P(x) = 0.129	0.672	Storage needed
X =	10	P(x) = 0.107	0.779	Storage needed
X =	11	P(x) = 0.082	0.861	Storage needed
X =	12	P(x) = . 0.057	0.918	Storage needed
X =	13	P(x) = 0.037	0.954	
X =	14	P(x) = 0.022	0.976	
X =	15	P(x) = 0.012	0.988	
X =	16	P(x) = 0.006	0.994	
X =	17	P(x) = 0.003	0.997	
X =	18	P(x) = 0.001	0.999	
X =	19	P(x) = 0.001	1.000	
		Assume vehicle lengt	h = 20 ft.	
		Number of vehicles =	12 Vehic	les
		Queue Length =	20 * # of veh =	240 Feet

Formulae Source:

Rimrock Shopping Center Peak-hour, Saturday

Movement: Northbound through movement on "main" access at US 6 & 50

			_	440
С	=	Cycle length (sec)	=	110
Ge	=	Effective Green, (sec)	· =	27
Q	=	Approach Flow, (veh/hour)		330
q	=	Approach Flow, (veh/sec)	=	0.0917
n	=	Average Queue Length, (# of veh)		
Tr	=	Effective Red, (sec)	=	83
Х	=	Number of vehicles		

X = Number of vehicles
Z = Average number of vehicles passing a point at during time t.

Assuming vehicles are unblocked and arrive during green and can complete movement.

Z = q*c = 10 Vehicles/cycle

 $P(x) = ((exp^{(-q^{*}Tr)})^{(q^{*}Tr)^{x}})/(x!) =$

Cumulative P(X)

X =	0	P(x) =	0.000		0.000	Storage needed
X =	1	P(x) =	0.004		0.004	Storage needed
X =	2	P(x) =	0.014		0.019	Storage needed
X =	3	P(x) =	0.036		0.055	Storage needed
X =	4	P(x) =	0.069		0.124	Storage needed
X =	5	P(x) =	0.105		0.230	Storage needed
X =	6	P(x) =	0.134		0.364	Storage needed
X =	7	P(x) =	0.145		0.509	Storage needed
X =	8	P(x) =	0.138		0.647	Storage needed
X =	9	P(x) =	0.117		0.764	Storage needed
X =	10	P(x) =	0.089		0.853	Storage needed
X =	11	P(x) =	0:061		0.914	Storage needed
X =	12	P(x) =	0.039		0.953	
X =	13	P(x) =	0.023		0.976	
X =	14	P(x) =	0.012		0.988	
X =	15	P(x) =	0.006		0.995	
X =	16	P(x) =	0.003		0.998	
X =	17	P(x) =	0.001		0.999	
X =	18	P(x) =	0.001		1.000	
		Assum	e vehicle lengt	h = :	20 ft.	
		Numbe	er of vehicles =		11 Vehi	cles
		Queue	Length =	20	* # of veh =	220 Feet

Formulae Source:

Rimrock Shopping Center Peak-hour, Saturday

Movement: Westbound left-turns on US 6 & 50

с	=	Cycle length (sec)	=	110
Ge	=	Effective Green, (sec)	=	10
Q	=	Approach Flow, (veh/hour)	=	400
q	=	Approach Flow, (veh/sec)	=	0.1111
n	=	Average Queue Length, (# of veh)		
Tr	=	Effective Red, (sec)	=	100
Х	Ξ	Number of vehicles		

= Average number of vehicles passing a point at during time t.

Assuming vehicles are unblocked and arrive during green and can complete turn.

Z = q*c = 12 Vehicles/cycle

Ζ

$P(x) = ((exp^{(-q^*Tr))^*}(q^*Tr)^x)/(x!) =$ Cumulative P(X)

X =	0	P(x) = 0.000	0.000	Storage needed
X =	1	P(x) = 0.000	0.000	Storage needed
X =	2	P(x) = 0.001	0.001	Storage needed
X =	3	P(x) = 0.003	0.005	Storage needed
X =,	4	P(x) = 0.009	0.014	Storage needed
X =	5	P(x) = 0.021	0.035	Storage needed
X =	6	P(x) = 0.039	0.074	Storage needed
X =	7	P(x) = 0.062	0.136	Storage needed
X =	8	P(x) = 0.086	0.222	Storage needed
X =	9	P(x) = 0.106	0.329	Storage needed
X =	10	P(x) = 0.118	0.447	Storage needed
X =	11	P(x) = 0.119	0.566	Storage needed
X =	12	P(x) = 0.110	0.676	Storage needed
X =	13	P(x) = 0.094	0.771	Storage needed
X =	14	P(x) = 0.075	0.846	Storage needed
X =	15	P(x) = . 0.056	0.901	Storage needed
X =	16	P(x) = 0.039	0.940	Storage needed
X =	17	P(x) = 0.025	0.965	
X =	18	P(x) = 0.016	0.981	
X =	19	P(x) = 0.009	0.990	
X =	20	P(x) = 0.005	0.995	
X =	21	P(x) = 0.003	0.997	
X =	22	P(x) = 0.001	0.999	
X =	23	P(x) = 0.001	0.999	
X =	24	P(x) = 0.000	1.000	

Assume vehicle length = 20 ft.

Number of vehicles =

16 Vehicles

Queue Length = 20 * # of veh = 320 Feet

Formulae Source:

Rimrock Shopping Center Peak-hour, Saturday

Movement: Southbound left-turns onto US 6 & 50

~	_	Curde length (and)	_	110
C	-	Cycle length (sec)	-	1.10
Ge	=	Effective Green, (sec)	=	8
Q	=	Approach Flow, (veh/hour)	=	160
q	=	Approach Flow, (veh/sec)	=	0.0444
n	=	Average Queue Length, (# of veh)		
Tr	=	Effective Red, (sec)	=	102
14				

X = Number of vehicles

Z = Average number of vehicles passing a point at during time t.

Assuming vehicles are unblocked and arrive during green and can complete turn.

Z = q*c = 5 Vehicles/cycle

 $P(x) = ((exp^{(-q*Tr)})(q*Tr)^{x})/(x!) =$

Cumulative P(X)

X =	0	P(x) = 0.011	0.011	Storage needed
X =	-1	P(x) = 0.049	0.059	Storage needed
X =	2	P(x) = 0.110	0.170	Storage needed
X =	3	P(x) = 0.167	0.337	Storage needed
X =	4	P(x) = 0.189	0.526	Storage needed
X =	5	P(x) = 0.171	0.697	Storage needed
X =	6	P(x) = 0.130	0.827	Storage needed
X =	7	P(x) = 0.084	0.911	Storage needed
X =	8	P(x) = 0.048	0.958	-
X =	9	P(x) = 0.024	0.982	
X =	10	P(x) = 0.011	0.993	
X =	11	P(x) = 0.004	0.997	
X =	12	P(x) = 0.002	0.999	
X =	13	P(x) = 0.001	1.000	
		Assume vehicle length	= 20 ft.	
		Number of vehicles =	7 Vehi	rles
		Queue Length =	20 * # of veh =	140 Feet
				-

Formulae Source:

Rimrock Shopping Center Peak-hour, Saturday

Movement: Southbound through movement on Sams Club access

С	Ξ	Cycle length (sec)	=	110
Ge	=	Effective Green, (sec)	=	27
Q	=	Approach Flow, (veh/hour)	=	160
q	Ξ	Approach Flow, (veh/sec)	=	0.0444
n	=	Average Queue Length, (# of veh)		
Tr	=	Effective Red, (sec)	=	83
Х	=	Number of vehicles		

Ζ = Average number of vehicles passing a point at during time t.

Assuming vehicles are unblocked and arrive during green and can complete movement.

Z = q*c = 5 Vehicles/cycle

X =

X =

X =

X =

X =

0

 $P(x) = ((exp^{-q*Tr}))^{(q*Tr)^x}/(x!) =$

Queue Length =

			Cumulative P()	X)
0	P(x) =	0.025	0.025	Storage needed
1	P(x) =	0.092	0.117	Storage needed
2	P(x) =	0.170	0.287	Storage needed
3	P(x) =	0,209	0.496	Storage needed
4	P(x) =	0.193	0.689	Storage needed
5	P(x) =	0.142	0.832	Storage needed
6	P(x) =	0.087	0.919	Storage needed

X =	5	P(x) = 0.1	42 0.832	Storage needed
X =	6	P(x) = 0.0	87 0.919	Storage needed
X =	7	P(x) = 0.0	46 0.965	
X =	8	P(x) = 0.0	21 0.987	
X =	9	P(x) = 0.0	09 0.995	
X =	10	P(x) = 0.0	03 0.998	
X =	11	P(x) = 0.0	01 1.000	

Assume vehicle length =	20 ft.	
Number of vehicles =	6 6 Vehicles	

20 * # of veh =

Formulae Source:

Poisson and Other Distribution in Traffic, ENO Foundation for Transportation, Saugatuck, 1971, Connecticut, pg. 31.

120 Feet





















WILLIAMS, TORNER & HOLMES, P.C.

ATTORNEYS AT LAW

Il Attorneys Admitted in Colorado

Anthony W. Williams 3erndt C. Holmes I. D. Snodgrass Nilliam D. Prakken David J. Turner* Mark A. Hermundstad* Susan M. Corle Mark E. Hamilton Kirsten M. Kurath

Also Admitted in Utah

December 6, 1996'

HAND DELIVERY

Director of the Grand Junction Community Development Department City of Grand Junction 250 North Fifth Street Grand Junction, CO 81501

Re: Appeal of Action on CUP-96-180 Rimrock Marketplace

Dear Director:

This letter is written to you as the Administrator of the Zoning and Development Code ("Code"). This firm represents Harold Woolard, the owner of the property referred to as the Corner Store at 2541 Highway 6 & 50, Grand Junction, Colorado. This letter is written to appeal the decision of the Planning Commission granting the conditional use permit for Rimrock Marketplace, CUP-96-180, at its 7:00 p.m. meeting on December 3, 1996. This appeal is made pursuant to Section 2-2-2C.3. of the Code.

By way of background and to explain this appeal, on behalf of Mr. Woolard, a number of objections to the issuance of the CUP were made at the December 3 hearing. We believe that the planning staff and the Planning Commission have both attempted to deal fairly with these concerns. The most significant concern involves the proposed closure of the frontage road and access point on Highway 6 & 50 in front of the Corner Store. The Commission recognized the negative impact that such closure would have on the truck traffic and other traffic to the store, and adopted as part of the CUP, a Condition No. 8 which requires the petitioner to provide access to the Corner Store so as not to impede accessibility to the property as currently enjoyed. This, we believe, was intended, and does, provide protection so that the Corner Store will retain its existing vehicular traffic patterns and design, unless a suitable alternative can be designed. The proposed preliminary site plan did not propose a suitable alternative. Therefore, we believe that a new design must be conceived, or the existing frontage road and access point must be left unimpaired. The attorney for the developer has been out of town since such meeting, and we have been unable to confirm that this is also the developer's interpretation.

COURTHOUSE PLACE BUILDING 200 N. 6th Street – PO Box 338 Grand Junction, Colorado 81502-0338 Phone 970/242-6262 Fax 970/241-3026

MOAB OFFICE 94 East Grand Avenue Moab, Utah 84532-2830 Phone 801/259-4381



Director of the Grand Junction Community Development Department Page 2 December 6, 1996

It is difficult to predict exactly how the further development will proceed under the CUP, with respect to the application to the Colorado Department of Transportation ("CDOT"), and through staff reviews. However, since the further staff reviews are essentially administrative, and because it may be very difficult to determine when and whether Mr. Woolard may have a further appeal right if the interpretation is not given its intended effect, we believe it is necessary to lodge this appeal at this time. We intend to negotiate in good faith with the developer, the CDOT representatives, the planning staff, and the City's attorneys. For this reason, it may be appropriate to delay hearing this appeal on the City Council agenda until some of these matters can be clarified. However, we request that this appeal be lodged until we can further consult with these parties. To confirm Mr. Woolard's ratification of this appeal, his signature appears below.

Sincerely,

WILLIAMS, TURNER & HOLMES, P. C.

Harold Woolard

and Turm

David J. Turner

DJT/sn cc: John Shaver, Esq. (same address - reg. mail) Thomas C. Volkmann, Esq.

CITY OF GRAND JUNCTION

PLANNING COMMISSION

STAFF PRESENTATION: Michael Drollinger

AGENDA TOPIC: Appeal of Planning Commission's decision to approve the Rimrock Marketplace Conditional Use Permit (CUP).

SUMMARY: Harold Woolard has appealed (see attached letter) the Planning Commission's decision of December 3, 1996 to approve a Conditional Use Permit for Rimrock Marketplace, a retail center totaling approximately 430,000 square foot plus additional "pad site" development on an approximately 50 acre parcel on Highway 6&50 just west of 25/1/2 and directly south of Sam's Club. Staff is recommending approval of the Conditional Use Permit with conditions.

Z.

ACTION REQUESTED: Decision on appeal.

BACKGROUND INFORMATION:

Location: SW corner 25 1/2 Road & Hwy. 6 & 50

Applicant: THF Belleville Development, L.P. 955 Executive Parkway, Suite 210 St. Louis, MO 63141

Existing Land Use: Vacant

Proposed Land Use: Retail center

Surrounding Land Use: North: Commercial (Sam's Club) South: Railroad East: Vacant West: Commercial (Various)

Existing Zoning: C-1 & C-2

Proposed Zoning: no change

Surrounding Zoning:

North: C-2 South: I-1 (County) East: C-1 West: C-2



Relationship to Comprehensive Plan: The City of Grand Junction Growth Plan identifies the subject parcel in the "Commercial" land use category. The proposed land use is consistent with the Growth Plan recommendation.

Staff Analysis: The staff analysis is divided into three sections: (1) an overview of the proposal; (2) planning analysis of conditional use permit criteria; (3) Development Engineer's analysis of traffic and circulation and (3) staff findings and recommendations:

The Development Proposal

THF Belleville Development is requesting Conditional Use approval of an approximately 430,000 square foot retail center plus additional "pad site" development on an approximately 50 acre parcel on Highway 6&50 just west of 25/1/2 Road and directly south of Sam's Club.

The staff has been in contact with the petitioner from the early stages of the development of the site and circulation layouts which are illustrated on the attached preliminary site development plans. The site development and access plans will be further refined to meet applicable code and review agency requirements and requires Site Plan Review prior to issuance of a Planning Clearance.

The development proposal is detailed in the petitioner's General Project Report and response to comments, both of which are part of this staff report. Briefly, access to the proposed site will be from three points, one at an existing signalized intersection on Highway 6 & 50, one from a proposed extension to the frontage road to be constructed from the vicinity of Gene Taylor's to the subject site, and a third located just east of the Country Store. The major retail users will be located to the rear of the parcel. Smaller "pad" users will be located on sites which are generally to the north of the proposed relocated frontage road and will have their own parking. Service access to the retail center is available to the rear of the buildings. The relocated frontage road will be dedicated as public right-of-way.

Planning Analysis of Conditional Use Permit Criteria

Section 4-8 of the Zoning and Development Code specifies the criteria used to evaluate all uses requiring a special and conditional use permit. The proposed project falls in the use category of "major shopping center" which requires a conditional use permit in the C-1 and C-2 zoning districts. This section contains staff's evaluation of the conditional use criteria based on the proposed project.

It is important to note that a conditional use *is not a use by right*. In general terms, the Planning Commission must evaluate whether the use proposed can function satisfactorily at the subject site without creating significant adverse impacts on surrounding properties or public services. Staff analysis of the specific Code criteria are as follows:

1. The proposed use must be compatible with adjacent uses.

The uses proposed are compatible with those existing in the Hwy. 6&50 corridor.

2. The use shall be approved only if the design features of the site, such as service areas, pedestrian and vehicular circulation, safety provisions, accessory uses, accessways to and from the site, buffering, etc. are sufficient to protect adjacent uses.

Based on staff's review of the preliminary design and traffic analysis, the present circulation design will function within the standards required by City Public Works.

3. Proposed accessory uses must demonstrate that they are necessary and desirable.

No accessory uses are proposed at this time.

4. Adequate public services (e.g. sewage and waste disposal, domestic and irrigation water, gas, electricity, police and fire protection) must be available without the reduction of services to other existing uses.

The petitioner is required to accommodate the concerns of City agencies regarding sewage, waste disposal, and police and fire protection.

5. Other uses complimentary to, and supportive of, the proposed project shall be available including schools, parks, hospitals, business and commercial facilities, transportation facilities, etc.

Availability of support facilities is good. Transportation facilities will require upgrading are subject to City and CDOT approval.

6. The use shall conform to adopted plans, policies and requirements for parking and loading, signs and all other applicable regulations of this Code.

It is staff's recommendation that the issuance of the conditional use permit be contingent upon all applicable Zoning and Development Code requirements being met in the final site plan design. The signage plan and guidelines is acceptable to staff with the conditions as noted in the next section.

Development Engineer's Analysis

Traffic impacts from this development continue to be a major consideration in reviewing this application for a conditional use permit. Engineering review of the entire submittal was conducted including analysis of the latest traffic study supplements, which are attached to this report. This analysis focuses on the traffic aspects of the project and the critical issues which need to be described and addressed.

The latest revisions to the traffic impact analysis yield similar results to the original analysis for the proposed Rimrock center. The original plan and several plans since have shown the major access to the center at the signalized intersection with secondary accesses at varying locations along Highway 6 & 50. The most recent plan and the original traffic report submitted with this proposal are based on having two primary entrance points along Highway 6 & 50. The projected Levels of Service with this access configuration appear to fall within City standards.

Access

Typically developments of this magnitude have more major access points to disperse the traffic rather than concentrating all traffic to one major point. The frontage road connection from this development to the intersection of Mulberry and Broadway is a critical link for this project to function along with the second access point along Highway 6 & 50 located just east of the Country Store.

CDOT Concerns

City Engineering staff met with local CDOT staff in August to discuss the traffic impacts of this project. The developer has not made formal application to CDOT yet; however, the following summary from the meeting is presented to detail CDOT concerns and likely requirements.

- The frontage road must be connected prior to the center opening. CDOT indicated not all right of way exists and will have to be acquired by the developer.
- In conjunction with the frontage road design, CDOT will want to see all access points on- and off-site connecting to the frontage road will work and operate safely. This means adequate stacking distance must be provided. CDOT standards require either a 30' minimum spacing pavement edge to pavement between the frontage road and the mainline highway or an approved barrier.
- An additional traffic analysis which shows the impact on the surrounding highway system. The traffic study to date has not provided an analysis of the traffic impacts on the North Avenue cutoff or the westbound to eastbound U-turn. The analysis must also look at weaving and merging areas on highway 6 & 50 including the westbound movement coming over the structure and the eastbound movements east of the site which exit to North Avenue.
- All highway improvements must be designed and constructed in accordance with the State Highway Access Code.

Capacity Analysis

The capacity analyses for the signalized intersection yield acceptable levels of service. As detailed in section 3.2.6 of the Transportation Engineering Design Standards, the

design standards indicate level of service C will be the design objective for all movements and "under no circumstances will less than level of service D be accepted for site and non-site traffic including existing traffic at build-out of the study area". Of immediate concern is the traffic impact on the north leg of the signalized intersection.

The traffic consultant has proposed modifications to the north side of the highway to reduce the queuing at the intersection. Part of these modifications include construction of double left turn lanes, a through lane and a shared through/right turn lane. The south leg of the intersection will also be modified to include double left turn lanes. The westbound traffic on Highway 6 & 50 is proposed to have double left turns as well.

Queuing

The traffic study did perform queuing analyses for the several movements. The southbound through movement requires a stacking distance of 120' and the southbound left turn movement requires a stacking distance of 140'. Because of the proximity of Independent Avenue to the intersection with the highway, less than the required stacking distance exists. Vehicles will stack up either on Independent Avenue, which is a stop condition before entering the intersection, or in the Sam's Club driveway. To address this concern, the traffic consultant has proposed the changes detailed above, which results in a stacking of about four vehicles or 80'. The proposed changes are shown on the site plan and a sketch is also provided with this report.

Bicycle/Pedestrian Circulation

The 1992 Multi-Modal Plan indicates Independent Avenue is a designated bicycle route linking the city with the riverfront trail, and the crossing of the highway is at this signal. The plans show that the frontage road to the west will be removed and a bicycle/ pedestrian connection will be constructed in its place.

Street sections shown on the plans do not match the current city standard drawings, particularly with respect to the width of sidewalk. Section B-B on the plans does not indicate sidewalk construction on both sides of the street, which is required for pedestrian circulation through the development where there will be development on both sides of the street.

Highway Improvements

The proposed improvements to Highway 6 & 50 are shown on the latest plans submitted. The scale of the drawing is such that it is difficult to assess the details, but it appears to substantially reflect the scope of the improvements.

Issues/Concerns

- CDOT Concerns The developer needs to make application to CDOT for access and comply with their requirements. It is possible CDOT requirements may dictate some site redesign for which the City may require another review of the conditional use permit.
- Queuing Additional improvements to the north side of the intersection will be required to provide the required stacking for the operation of the signal. The petitioner will be responsible for obtaining consent from Sam's Club for the proposed improvements on the north leg of the intersection because the Sam's Club access is affected by the proposed improvements.
- Bicycle/Pedestrian Circulation The plans show the construction of a bicycle/pedestrian facility to continue the designated bicycle route to Independent Avenue which is a requirement of the development of this project.
- Highway Improvements -Additional drawings for highway improvements will be required with the site plan review at an appropriate scale for detailed review. As noted above, CDOT may have additional requirements which may require modification of the site design.

Acquisition of adequate frontage road right of way is the responsibility of the petitioner.

RECOMMENDATION: Approval of the Conditional Use Permit as per the Planning Commission's decision of December 3, 1996. The approval included the following conditions:

- 1. The project is approved for a maximum of 430,000 square feet of retail space (not including the pad sites which will be limited in number by the ability to meet City Zoning Code requirements) to be constructed within the building envelopes identified on the attached site plan. If the proposal should exceed the size limit or the building envelopes proposed, the conditional use permit will subject to reevaluation by the Planning Commission at the discretion of City staff.
- 2. The project signage will be subject to the attached signage guidelines which are based on those proposed by the petitioner and modified by staff.
- 3. The conditional use permit approval is subject to subsequent acceptance of a site plan and subdivision which meets all Zoning and Development Code requirements and are subject to staff approval, review agency approval, and Planning Commission approval as required by Code.
- 4. Staff finds that the circulation improvements identified by the petitioner in the "Traffic Impact Analysis for Rimrock Shopping Center" and the attached Site Plan are necessary for the safe and efficient movement of vehicles to and from the site at

acceptable levels of service (LOS). A condition of this approval is that the funding and construction of the identified improvements are the responsibility of the developer and that all circulation improvements are subject to review and approval by the City and CDOT and must meet all applicable requirements. Significant changes to the design and operation of the circulation network as proposed may require reevaluation of the conditional use permit by the Planning Commission at the discretion of City staff.

- 5. All pad site development is subject to the requirements of the Zoning and Development Code and the adopted signage guidelines for Rimrock Marketplace. Development proposals for the pad sites require Site Plan Review or other permits as may be necessary depending on the proposed use.
- 6. Roadway section B-B on the Site Plan must be modified to show sidewalks on both sides. In addition, all roadway sections must be modified to conform with City specifications.
- 7. The petitioner must supply information which is satisfactory to the Utility Engineer to demonstrate that the capacity of the sewer line has been maintained through the proposed relocation.
- 8. Provide access to the corner store so as not to impede the accessibility presently enjoyed.

h:\cityfil\1996\96-180.src

SIGNAGE PLAN RIMROCK MARKETPLACE

All Signage must meet the requirements contained in Section 5-7 of the Zoning and Development Code (ZDC), as amended. In addition, the following provisions will be part of the signage plan for Rimrock Marketplace:

- 1. One project identification sign may be located along each roadway frontage. For the purposes of this approval, the project identification sign may be located at the Hwy. 6&50 frontage (as identified on the attached site plan) rather than having to be located along the relocated frontage road. The project identification sign along Hwy 6&50 may be a freestanding sign, not to exceed 25 ft. in height and 300 square feet in area. The project identification sign along the 25 1/2 Road frontage shall be limited to a monument signs, not to exceed 6 feet in height and 150 square feet in area.
- 2. Only monument signs (in addition to wall signs), not to exceed 6 feet in height and 150 square feet in area are permitted for identification of uses on the pad sites as identified on the attached site plan.
- 3. Wall mounted signs are permitted in accordance with the sign code. For purposes of signage allowance calculations, the retail center must utilize the relocated frontage road rather than Highway 6&50.
- 4. No roof signs are permitted anywhere in the development.
- 5. Traffic control signs require the approval of the City Development Engineer.


= WILLIAMS, TURNER & HOLMES, P.C.

ATTORNEYS AT LAW

All Attorneys Admitted in Colorado

Anthony W. Williams Berndt C. Holmes J. D. Snodgrass William D. Prakken David J. Turner* Mark A. Hermundstad* Susan M. Corle Mark E. Hamilton Kirsten M. Kurath

*Also Admitted in Utah

December 6, 1996'

RECEIVED GRAND JUNCTICN PLANNING DEPARTMENT

HAND DELIVERY

Director of the Grand Junction Community Development Department City of Grand Junction 250 North Fifth Street Grand Junction, CO 81501

Re: Appeal of Action on CUP-96-180 Rimrock Marketplace

Dear Director:

This letter is written to you as the Administrator of the Zoning and Development Code ("Code"). This firm represents Harold Woolard, the owner of the property referred to as the Corner Store at 2541 Highway 6 & 50, Grand Junction, Colorado. This letter is written to appeal the decision of the Planning Commission granting the conditional use permit for Rimrock Marketplace, CUP-96-180, at its 7:00 p.m. meeting on December 3, 1996. This appeal is made pursuant to Section 2-2-2C.3. of the Code.

By way of background and to explain this appeal, on behalf of Mr. Woolard, a number of objections to the issuance of the CUP were made at the December 3 hearing. We believe that the planning staff and the Planning Commission have both attempted to deal fairly with these concerns. The most significant concern involves the proposed closure of the frontage road and access point on Highway 6 & 50 in front of the Corner Store. The Commission recognized the negative impact that such closure would have on the truck traffic and other traffic to the store, and adopted as part of the CUP, a Condition No. 8 which requires the petitioner to provide access to the Corner Store so as not to impede accessibility to the property as currently enjoyed. This, we believe, was intended, and does, provide protection so that the Corner Store will retain its existing vehicular traffic patterns and design, unless a suitable alternative can be designed. The proposed preliminary site plan did not propose a suitable alternative. Therefore, we believe that a new design must be conceived, or the existing frontage road and access point must be left unimpaired. The attorney for the developer has been out of town since such meeting, and we have been unable to confirm that this is also the developer's interpretation.

COURTHOUSE PLACE BUILDING 200 N. 6th Street – PO Box 338 Grand Junction, Colorado 81502-0338 Phone 970/242-6262 Fax 970/241-3026

MOAB OFFICE 94 East Grand Avenue Moab, Utah 84532-2830 Phone 801/259-4381 Director of the Grand Junction Community Development Department Page 2 December 6, 1996

It is difficult to predict exactly how the further development will proceed under the CUP, with respect to the application to the Colorado Department of Transportation ("CDOT"), and through staff reviews. However, since the further staff reviews are essentially administrative, and because it may be very difficult to determine when and whether Mr. Woolard may have a further appeal right if the interpretation is not given its intended effect, we believe it is necessary to lodge this appeal at this time. We intend to negotiate in good faith with the developer, the CDOT representatives, the planning staff, and the City's attorneys. For this reason, it may be appropriate to delay hearing this appeal on the City Council agenda until some of these matters can be clarified. However, we request that this appeal be lodged until we can further consult with these parties. To confirm Mr. Woolard's ratification of this appeal, his signature appears below.

Sincerely,

WILLIAMS, TURNER & HOLMES, P. C.

Harold Woolard

Quill. Turm

David J. Turner

DJT/sn

cc: John Shaver, Esq. (same address - reg. mail) Thomas C. Volkmann, Esq.



LEIGH, SCOTT & CLEARY, INC. TRANSPORTATION PLANNING & TRAFFIC ENGINEERING CONSULTANTS

1889 York Street Denver, CO 80206 (303) 333-1105 FAX (303) 333-1107

September 11, 1996

Ms. Jody Kliska, P.E. Development Engineer City of Grand Junction 250 North 5th Street Grand Junction, CO 81501

Re: Rimrock Shopping Center Traffic (LSC \$941421)

Dear Jody:

In response to your recent staff comments and as follow-up to our meeting of August 22, 1996, we are providing the following supplemental traffic analysis information related to the proposed Rimrock Shopping Center.

- 1. <u>Woolard Property Access</u>: As requested, we have revised our earlier analysis, excluding the previously recommended secondary three-quarter access point along US 6/50. Revised Figures 4 through 13 and updated capacity analyses, enclosed, reflect the elimination of this access point.
- 2. <u>Traffic Distribution</u>: The revised analysis reflects a ten percent shift of traffic from US 6/50 to Independent for east/west motorists where access is oriented towards the east. This assumption recognizes the reduced capacity for westbound left-turns from US 6/50 with the elimination of the Woolard property access.
- 3. <u>Pedestrian Signal Time</u>: The enclosed revised Highway Capacity Analyses reflect pedestrian clearance timing.
- 4. <u>Signal Cycle Length</u>: The revised capacity analyses reflect the 110-second optimum signal cycle length identified in our earlier PASSER analysis.
- 5. <u>Recommended Laneage and Geometric Improvements</u>: It is our understanding that the project's development plan has been modified by Wolverton & Associates, Inc. to reflect current planned traffic improvements.
- 6. <u>Pedestrian Circulation</u>: We are aware of the City's Urban Trails Plan which includes onstreet bicycle lanes along Independent Avenue with a US 6/50 crossing at the Center's signalized main entrance intersection. The Rimrock Center's developer has expressed his intention to incorporate the City's Urban Trail Plan into his site planning efforts.

Ms. Jody Kliska, P.E.

- 7. <u>Traffic Signal Modifications</u>: It is quite clear that significant signal modifications will be required at the project's main entrance intersection in order to accommodate the proposed laneage improvements. The project's developer is prepared to incorporate such changes into his future planning efforts.
- 8. <u>Queuing Analyses</u>: We have revised our earlier queuing calculations (copies enclosed) to reflect the 110-second cycle and revised traffic distribution at the main entrance. Relative to our earlier analyses, the recommended Woolard Property three-quarter access is calculated to require a 150-foot long westbound left-turn lane based on the Traffic Engineering Handbook's criteria being the number of left-turn arrival car lengths during a two-minute interval and use of a Saturday peaking factor of 1.5.

In conclusion, a review of the enclosed materials reveals some traffic movements with Level of Service "E" and "F" operating conditions for projected peak-hour traffic at the project's main entrance intersection. In our opinion, the previously recommended three-quarter secondary access point will significantly improve future traffic flow at this key intersection. Most importantly, this additional access will minimize the backup of southbound Independent approach traffic north of US 6/50 and the potential congestion associated with traffic accessing the nearby Sam's Club site.

* *

We trust that these supplemental analyses are responsive to your requests and look forward to working with you further on this exciting project.

Sincerely,

LEIGH, SCOTT & CLEARY, INC.

Philip'N. Scott III, P.E.

PNS/wd

Enclosures: Figures 4 - 13 Capacity Analyses (6) Queuing Calculations

cc: Mr. John Rubenstein



C:\PROJECTS\941421\RIMROCK.SUP

Rimrock Shopping Center Peak-hour, Saturday

Movement: Northbound left-turn on "main" access at US 6 & 50

с	=	Cycle length (sec)	. =	110
Ge	=	Effective Green, (sec)	=	16
Q	=	Approach Flow, (veh/hour)	=	320
q	· =	Approach Flow, (veh/sec)	=	0.0889
n	=	Average Queue Length, (# of veh)		
Tr	Ξ	Effective Red, (sec)	. =	94
~				

X = Number of vehiclesZ = Average number of vehicles pase

= Average number of vehicles passing a point at during time t.

Assuming vehicles are unblocked and arrive during green and can complete turn.

Z = q*c = 10 Vehicles/cycle

$$P(x) = ((exp^{-q*Tr}))^{(q*Tr)^x}/(x!) = -$$

>	< = '	0	P(x) =	0.000	0.000	Storage needed
>	< =	1	P(x) =	0.002	0.002	Storage needed
>	< =	· 2	P(x) =	0.008	0.010	Storage needed
>	< =	, 3	P(x) =	0.023	0.033	Storage needed
>	< =	4	P(x) =	0.048	0.081	Storage needed
>	< =	5	P(x) =	0.080	0.161	Storage needed
>	< =	6	P(x) =	0.111	0.272	Storage needed
>	(=	7	P(x) =	0.133	0.405	Storage needed
>	< =	8	P(x) =	0.139	0.543	Storage needed
>	< =	9	P(x) =	0.129	0.672	Storage needed
>	(=	10	P(x) =	0.107	0.779	Storage needed
>	< =	11	P(x) =	0.082	0.861	Storage needed
>	(=	12	P(x) =	. 0.057	0.918	Storage needed
>	(=	13	P(x) =	0.037	0.954	
>	(=	14	P(x) =	0.022	0.976	
X	(=	15	P(x) =	0.012	0.988	
>	(=	16	P(x) =	0.006	0.994	
X	< =	17	P(x) =	0.003	0.997	
X	(=	18	P(x) =	0.001	0.999	
X	< =	19	P(x) =	0.001	1.000	

Assume vehicle length = 20 ft.

Number of vehicles = 12

12 Vehicles

Queue Length = 20 * # of veh = 240 Feet

Formulae Source:

Poisson and Other Distribution in Traffic, ENO Foundation for Transportation, Saugatuck, 1971, Connecticut, pg. 31.

Rimrock Shopping Center Peak-hour, Saturday

Movement: Northbound through movement on "main" access at US 6 & 50

С	Ξ	Cycle length (sec)	=	110
Ge	=	Effective Green, (sec)	=	27
Q	. =	Approach Flow, (veh/hour)		330
q	=	Approach Flow, (veh/sec)	=	0.0917
n	=	Average Queue Length, (# of veh)		
Tr	=	Effective Red, (sec)	=	83

X = Number of vehicles Z = Average number of v

Z = Average number of vehicles passing a point at during time t.

Assuming vehicles are unblocked and arrive during green and can complete movement.

Z = q*c = 10 Vehicles/cycle

$$P(x) = ((exp^{-q*Tr}))^{(q*Tr)^x}/(x!) =$$

Cumulative P(X)

X =	0	P(x) = 0.00	0	0.000	Storage needed		
X =	1	P(x) = 0.00	4	0.004	Storage needed		
X =	2	P(x) = 0.01	4	0.019	Storage needed		
X =	3	P(x) = 0.03	6	0.055	Storage needed		
X =	4	P(x) = 0.06	9	0.124	Storage needed		
X =	5	P(x) = 0.10	5	0.230	Storage needed		
X =	6	P(x) = 0.13	4	0.364	Storage needed		
X =	7	P(x) = 0.14	5	0.509	Storage needed		
X =	8	P(x) = 0.13	8	0.647	Storage needed		
X =	9	P(x) = 0.11	7	0.764	Storage needed	•	
X =	10	P(x) = 0.08	9	0.853	Storage needed		
X =	11	P(x) = 0.06	1	0.914	Storage needed		
X =	12	P(x) = 0.03	9	0.953			
X =	13	P(x) = 0.02	3	0.976			
X =	14	P(x) = 0.01	2	0.988			
X =	15	P(x) = 0.00	6	0.995	· ·		
X =	16	P(x) = 0.00	3	0.998			
X =	17	P(x) = 0.00	1	0.999			
X =	18	P(x) = 0.00	1	1.000			
Assume vehicle length = 20 ft.							
		Number of v	ehicles =	11 Vehi	cles		
Queue Length = 20 * # of veh = 220 Feet							
Form	ulae S	Source Poiss	on and Other	Distribution in	Traffic. ENO Foundat	ion for Trans	portation.

Saugatuck, 1971, Connecticut, pg. 31.

Rimrock Shopping Center Peak-hour, Saturday

Movement: Westbound left-turns on US 6 & 50

с	=	Cycle length (sec) =	110
Ge	=	Effective Green, (sec) =	in 10
Q	=	Approach Flow, (veh/hour) =	400
q	=	Approach Flow, (veh/sec) =	0.1111
n	=	Average Queue Length, (# of veh)	
Tr	=	Effective Red, (sec) =	100
Х	=	Number of vehicles	
Ζ	=	Average number of vehicles passing a point at during time t.	

= Average number of vehicles passing a point at during time t.

Assuming vehicles are unblocked and arrive during green and can complete turn.

Z = q*c = 12 Vehicles/cycle

 $P(x) = ((exp^{(-q^{*}Tr)})^{(q^{*}Tr)^{x}})/(x!) =$

X =	0	P(x) = 0.000	0.000	Storage needed
X =	1	P(x) = 0.000	0.000	Storage needed
X =	2	P(x) = 0.001	0.001	Storage needed
X =	3	P(x) = 0.003	0.005	Storage needed
X =,	4	P(x) = 0.009	0.014	Storage needed
X =	5	P(x) = 0.021	0.035	Storage needed
X =	່ 6	P(x) = 0.039	0.074	Storage needed
X =	7	P(x) = 0.062	0.136	Storage needed
X =	8	P(x) = 0.086	0.222	Storage needed
X =	9	P(x) = 0.106	0.329	Storage needed
X =	10	P(x) = 0.118	0.447	Storage needed
X =	11	P(x) = 0.119	0.566	Storage needed
X =	12	P(x) = 0.110	0.676	Storage needed
X =	13	P(x) = 0.094	0.771	Storage needed
X =	14	P(x) = 0.075	0.846	Storage needed
X =	15	P(x) = .0.056	0.901	Storage needed
X =	16	P(x) = 0.039	0.940	Storage needed
X =	17	P(x) = 0.025	0.965	-
X =	18	P(x) = 0.016	0.981	
X =	19	P(x) = 0.009	0.990	
X =	20	P(x) = 0.005	0.995	
X =	21	P(x) = 0.003	0.997	
X =	22	P(x) = 0.001	0.999	
X =	23	P(x) = 0.001	0.999	
X =	24	P(x) = 0.000	1.000	
		Assume vehicle length	= 20 ft.	
		Number of vehicles =	16 Vehic	les
		Queue Length =	20 * # of veh =	320 Feet

Formulae Source:

Poisson and Other Distribution in Traffic, ENO Foundation for Transportation, Saugatuck, 1971, Connecticut, pg. 31.

Rimrock Shopping Center Peak-hour, Saturday

Movement: Southbound left-turns onto US 6 & 50

С	=	Cycle length (sec)	=	110
Ge	Ξ	Effective Green, (sec)	=	8
Q	=	Approach Flow, (veh/hour)	=	160
q	=	Approach Flow, (veh/sec)	=	0.0444
n	=	Average Queue Length, (# of veh)		
Tr	=	Effective Red, (sec)	=	102
×7				

X = Number of vehicles

Z = Average number of vehicles passing a point at during time t.

Assuming vehicles are unblocked and arrive during green and can complete turn.

Z = q*c = 5 Vehicles/cycle

 $P(x) = ((exp^{-q*Tr}))^{(q*Tr)^x}/(x!) =$

Cumulative P(X)

X =	0	P(x) = (0.011		0.011	Storage needed
X =	-1	P(x) = 0	0.049		0.059	Storage needed
X =	2	P(x) = 0	0.110		0.170	Storage needed
X =	3	P(x) = 0	0.167		0.337	Storage needed
X =	4	P(x) = 0	0.189		0.526	Storage needed
X =	5	P(x) = 0	0.171		0.697	Storage needed
X =	6	P(x) = 0	0.130		0.827	Storage needed
X =	7	P(x) = 0	0.084		0.911	Storage needed
X =	8	P(x) = 0	0.048		0.958	
X =	9	P(x) = 0	0.024		0.982	
X =	10	P(x) = 0	0.011		0.993	
X =	11	P(x) = 0	0.004		0.997	
X =	12	P(x) = 0	0.002		0.999	
X =	13	P(x) = 0	0.001		1.000	
		Assume	vehicle lengt	h =	20 🦛 ft.	
		Number	of vehicles =		7 Vehic	les
		i tumber t				
		Queue L	enath =	20	* # of veh =	140 Feet

Formulae Source:

Poisson and Other Distribution in Traffic, ENO Foundation for Transportation, Saugatuck, 1971, Connecticut, pg. 31.

Queue Calculations Rimrock Shopping Center Peak-hour, Saturday

Movement: Southbound through movement on Sams Club access

с	=	Cycle length (sec)	=	110
Ge	=	Effective Green, (sec)	=	27
Q	=	Approach Flow, (veh/hour)	=	160
q	=	Approach Flow, (veh/sec)	=	0.0444
n	Ξ	Average Queue Length, (# of veh)		
Tr	Ŧ	Effective Red, (sec)	=	83
Х	=	Number of vehicles		

X Z = Average number of vehicles passing a point at during time t.

Assuming vehicles are unblocked and arrive during green and can complete movement.

Z = q*c = 5 Vehicles/cycle

```
P(x) = ((exp^{-q*Tr}))^{(q*Tr)^x}/(x!) =
```

Cumulative P(X)

X =	0	P(x) = 0.025	0.025	Storage needed
X =	1	P(x) = 0.092	0.117	Storage needed
X =	2	P(x) = 0.170	0.287	Storage needed
X =	3	P(x) = 0.209	0.496	Storage needed
X =	4	P(x) = 0.193	0.689	Storage needed
X =	5	P(x) = 0.142	0.832	Storage needed
X =	6	P(x) = 0.087	0.919	Storage needed
X =	7	P(x) = 0.046	0.965	_
X =	8	P(x) = 0.021	0.987	
X =	9	P(x) = 0.009	0.995	
X =	10	P(x) = 0.003	0.998	
X =	11	P(x) = 0.001	1.000	
		Assume vehicle length =	20 ft.	
		Number of vehicles =	6 Vehic	es
		Queue Length = 20	* # of veh =	120 Feet
Form	ulae Sour	ce: Poisson and Other Saugatuck, 1971, C	Distribution in Connecticut, pg.	Traffic, ENO Foundation for Transportation, 31.





















CUP- 96-180

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION Region 3

1-22-1991 9:30MM

222 South Sixth St., Room 317 Grand Junction, CO 81501-2769 (303) 248-7208 Fax No. (303) 248-7254

January 15, 1997

John Rubenstein Rubenstein Real Estate Co., LC 4350 Shawnee Mission Parkway, Suite 159 Shawnee Mission, Kansas 66205

FRUM

Dear Mr. Rubenstein:

We have completed our review of the traffic impact analysis or the Rimrock Shopping Center. We have identified a number of concerns within that report, most notably the projected growth factor used by Leigh, Scott & Cleary was 1.1 while the growth factor as determined by the Colorado Department of Transportation is 1.6 for this area. In addition the study has 20% of the estimated trip distribution at the intersection of State Highway 340 and Mulberry where currently there is not a frontage road system. Before we allow this distribution we will need a commitment from the City of Grand Junction that they will guarantee the acquisition of the needed right of way by use of their Eminent Domain authority. Otherwise the 20 % traffic projection must be incorporated at the other two approaches.

In light of the above the Colorado Department of Transportation will consider your two applications for access as incomplete until a new traffic impact analysis is prepared which addresses the above concerns.

Please have your Traffic Engineers contact Mr. James Nall at 970-248-7213 to insure that all of his concerns are addressed before they finalize the Traffic Impact Analysis for your CDOT access applications.

We will be able to act on your applications quickly when we receive an adequate traffic impact analysis.

Please contact this office if you have any questions.

C. I. Dunn

Access Coordinator

cc: Belleville Development, L.P. file

Post-it" Fax Note 7671	Date
Tourba Didlingen	From TODEULERSEID
Co./Dept.	Co.
Phone #	Phone #
Fax #972-244-1590	Fax#

P. 1





February 19, 1997

Mark K. Achen City Manager City of Grand Junction 250 N. 5th Street Grand Junction, CO. 81501-2668

RE: Proposed Rimrock Marketplace Shopping Center Grand Junction, Colorado

Dear Mark:

As a result of our applications to CDOT for our Highway Access Permits for the above mentioned shopping center, we received the enclosed letter of January 15, 1997 from Mr. C.I. Dunn concerning some specific analysis that he would like to have completed.

On Wednesday, February 12, 1997 I met with Phil Scott, our Traffic Engineer in Denver, to review in detail the processes that need to be undertaken by all parties involved to secure the access permits.

Phil has our authority to do whatever is needed to satisfy CDOT. Furthermore, we want Phil to be our "point man", with all communications going through him; he knows all the "players" at CDOT and understands all the "technicalities" of the issues. Please feel free to call him if you so desire.

Succinctly put, the bottom line is that in Phil's opinion we are going through the normal steps in the permitting process. He has an excellent rapport with all of the people from CDOT involved and feels that nobody from CDOT wants to "kill our deal".

The fact that we are not in any "time crunch" serves all parties well as we are not "pressuring" CDOT to do something that they're not comfortable doing within their "time frames". As you know, when you rush you make mistakes. February 19, 1997 Page 2 Mark K. Achen

We remain confident that this permitting process, if it continues into the Spring time, will not adversely affect our ability to deliver stores to our retailers for a Spring of 1998 opening, at the earliest.

The Owners wanted to keep you informed of our progress. We sincerely appreciate all of the support the City and its staff have provided us thus far and know it will continue until we start moving dirt!!

If you have questions or comments concerning the above, please call.

Best regards REALLESTATE CO., LC RUBENST/EIN John Rubenstein

cc: Michael Drollinger Phil Scott STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION Region 3

222 South Sixth St., Room 317 Grand Junction, CO 81501-2769 (303) 248-7208 Fax No. (303) 248-7254

January 15, 1997

John Rubenstein Rubenstein Real Estate Co., LC 4350 Shawnee Mission Parkway, Suite 159 Shawnee Mission, Kansas 66205

Dear Mr. Rubenstein:

We have completed our review of the traffic impact analysis for the Rimrock Shopping Center. We have identified a number of concerns within that report, most notably the projected growth factor used by Leigh, Scott & Cleary was 1.1 while the growth factor as determined by the Colorado Department of Transportation is 1.6 for this area. In addition the study has 20% of the estimated trip distribution at the intersection of State Highway 340 and Mulberry where currently there is not a frontage road system. Before we allow this distribution we will need a commitment from the City of Grand Junction that they will guarantee the acquisition of the needed right of way by use of their Eminent Domain authority. Otherwise the 20 % traffic projection must be incorporated at the other two approaches.

In light of the above the Colorado Department of Transportation will consider your two applications for access as incomplete until a new traffic impact analysis is prepared which addresses the above concerns.

Please have your Traffic Engineers contact Mr. James Nall at 970-248-7213 to insure that all of his concerns are addressed before they finalize the Traffic Impact Analysis for your CDOT access applications.

We will be able to act on your applications quickly when we receive an adequate traffic impact analysis.

Please contact this office if you have any questions.

C. I. Dunn Access Coordinator

cc: Belleville Development, L.P. file

Michael - for the limbock

ADMINISTRATIVE SERVICES DEPARTMENT

MEMORANDUM

March 3, 1997

TO:

Mark Achen, City Manager Dan Wilson, City Attorney Jim Shanks, Public Works and Utilities Director Kathy Portner, Acting Community Development Director John Shaver, Assistant City Attorney David Varley, Assistant City Manager Mark Relph, Public Works Manager

FROM: Ron Lappi, Admin. Svcs. & Finance Director

SUBJECT: Financing Public Improvements at Rimrock Marketplace

The following and attached have been prepared in response to your e-mail of December 3, 1996 on this same subject. Essentially you asked me to prepare a brief report on some of the issues to be considered in evaluating and responding to the request from the owners/developers of Rimrock Market Place to use a "Special Improvement District" process to pay for the public improvement portion of the project. Detailed design specifications for the project have not yet been done, but an estimated cost of the public improvements of at least \$500,000 appears reasonable.

I do not believe that this mechanism has ever been used here in Grand Junction, but our ability to create a street special improvement district and to finance the improvement using tax exempt debt is very well known. This mechanism based on our own code of ordinances is used for alleys, streets, sewers, water lines, etc.; although we have not always issued public debt. If in-fact the cost of the public improvements for Rimrock Marketplace are over \$500,000, it is of a size that warrants the public issuance of Improvement Bonds, even with their associated costs. As you know most of our recent alley and street improvement districts have simply been financed internally through our own tax resources; but they were all smaller than this project.

The attached comprehensive report from our City Attorney, Dan Wilson, discusses at length the Colorado State Statutes and our local Code of Ordinances relative to the process of creating a district and the issuance of debt under several scenarios. Dan concludes, and I believe correctly, that the City of Grand Junction has to be intimately

Page 2 of 2

Financing Public Improvements at Rimrock Marketplace

involved in the creation of a district and the management of the project itself under most options identified; which may diminish the interest by the developer in using this mechanism. Apparently the only way that the developer could actually manage the project is by the City awarding the contract to him, as though he was the contractor selected to accomplish the work. It may be that neither the developer/owner nor the City Council of the City of Grand Junction is comfortable in pursuing this particular option. Generally all of our special improvement districts are designed by our own engineers or engineers under contract to us, are publicly bid, with the City Council awarding the contract to the lowest responsive and responsible bidder.

This above problem aside, there are other issues that the City should consider and evaluate in its deliberations over this request. Some of the important issues are outlined below.

1) Almost all new development requires some infrastructure public improvements that could be financed through SIDs, and this project could open the door to other requests.

2) Is it appropriate to use tax exempt debt for these public improvements and other like improvements, for streets and other infrastructure costing over \$500,000? Sam's Club was probably half this number, while Mesa Mall could have been a lot more without any financing offered by the City of Grand Junction.

3) Is the tax exempt savings to the developer in this instance sufficient to justify the additional costs to be incurred in the issuance of the tax exempt debt and the creation of a special improvement district?

4) Will the lien on the property be sufficient to guarantee the payment of the debt with confidence? The front range experience with defaulting on retail development has given Colorado a very bad name for these kinds of bonds.

5) Will the City be criticized for assisting an out of state developer to come into Grand Junction and compete with and possibly put out of business other retailers established here that have paid taxes to their local governments for years?

6) Another factor of concern to both the developer and the City is the current interest rate environment for these kinds of bonds. Specifically the spread between tax exempt and taxable debt at the time we are ready to proceed with an award of the project could influence the financial feasibility.

I am sure there are other issues and concerns relative to using the Special Improvement District financing mechanism, but I hope this brief report provides some food for thought.

Thank you,

MEMO

Date: February 27, 1997

To: Ron Lappi

From: Dan Wilson

Re: SIDs or LIDs for construction of improvements in the RimRock development

The question, as I understand it, is whether or not a private developer can directly use the SID or LID process to obtain, for its benefit, favorable financing for required improvements. I use the term "directly" because I also understand that neither the developer nor the City would be interested in using this public financing device unless the public bidding, and oversight, process of construction was avoided. For the City, I suppose the City wouldn't want the responsibility of constructing such developer required improvements, with all the attendant administrative and liability concerns. For the developer, any advantage from the public financing should be minimized by being subject to the process and prices of a public bidding system.

If either assumption is wrong, *i.e.*, if (1) the developer desired to use the processes described below and was willing to abide by all of the detailed bidding rules which apply if a "true" district were being developed, or (2) the City were willing to accept the financial and legal liabilities which would attend if the City attempted to delegate its statutory duties to a private party, then I need to inform you in more detail concerning the rules which would apply. The rules which would apply are, from a private developer perspective, likely to be perceived as quite onerous and unnecessary. Last, I suppose the LID or SID process could yet work if the developer were willing to pay the City substantial sums for the city's involvement; my assumption is, however, that such pricey involvement would more than offset any benefits to be obtained from the financing options made available.

If the developer desired to be the general contract, to whom bids were let, the developer would be in the curious position of having to bid for that privilege!

I.

State statute districts

Title 31, Article 25, Parts 5 and 6 provide two different statutory vehicles which could be used to construct improvements, and allow for the costs of the benefiting improvements to be assessed against a defined, and benefiting, area (in this case, the developer's lands). As the indicated provisions suggest, it is assumed that it would be the City which would be responsible to construct such local improvements. While the language is not explicit (i.e, it doesn't say that) the improvement district is not available for direct use by a private party), when one looks to the entire statute, it appears neither Part 5 nor Part 6 is available

to simply provide financing coupled with private party contracting and construction. Stated another way, if either improvement district is employed, it appears that it must be the City which lets the contracts, after public bid, and supervises the construction.

I have not included other provisions which would describe the process if the City were to let the contracts and cause the work to be performed, based on my assumption that such an effort is not yet timely. If you desire more details about either improvement district process, please let me know. The underlying is my emphasized language--not the statutes!

Selected Part Five Provisions

Sec. 31-25-502. It is lawful for any municipality to construct any of the local improvements mentioned in this part 5 and to assess the cost thereof, wholly or in part, upon the property especially benefited by such improvements. The improvements shall be authorized by ordinance duly adopted and shall be constructed under the direction of the municipal engineer or other officer having similar duties or under the direction of the governing body in accordance with plans and specifications adopted by the governing body.

Sec. 31-25-503. (2) <u>The governing body shall</u> encourage competition by advertising for and <u>receiving bids for such construction</u> and, insofar as possible within the limits of the petition, shall describe all materials by standard or quality in the specifications. [Note the use of the mandatory word "shall."] (10) The governing body is authorized to enter into contracts and agreements with any owner of property within the district or any other person concerning the construction or acquisition of improvements, the assessment of the cost thereof, the waiver or limitation of legal rights, or any other matter concerning the district. [Note: this subsection is very broadly written and could arguably be interpreted to mean the City could contract for the letting of bids, the construction, and the construction supervision. I reach a contrary conclusion because of the other language in Part 5, including the use of 'shall' in various places.]

Sec. 31-25-516. Contracts for construction--bond--default.

(1) Except as provided in this section, all local improvements made under the provisions of this part 5 shall be constructed by independent contract, and all contracts shall be let by the mayor with the approval of the governing body. All such contracts shall be let to the lowest reliable and responsible bidder after public advertisement once a week for three consecutive weeks in a newspaper of general circulation in such municipality; but, after such advertisement, if it is determined by the governing body that the bids are too high or that the proposed improvement can be made by the municipality for less than the bid of the lowest reliable and responsible bidder, such municipality is hereby empowered to provide for doing the work by hiring labor by the day or otherwise and to arrange for purchasing necessary material, all under the

2

supervision of the governing body.

(2) Except when the municipality does the work, no contract shall be made without a surety bond for its faithful performance with sufficient sureties to be approved by the governing body. No surety shall be accepted or approved by the governing body or mayor, other than a corporate surety company, unless he is the owner of real estate in this state, free and clear of all encumbrances, in double the amount of his liability on all bonds upon which he may then be surety. Upon default in the performance of any contract, the governing body may advertise and relet the remainder of the work in like manner without further ordinance and deduct the cost from the original contract price or, with the approval of the governing body, advance any excess out of the funds of the municipality and recover the same by suit on the original bond. In all advertisements the right shall be reserved to reject any or all bids and, upon rejecting all bids, if deemed advisable by the governing body, other bids may be advertised for.

Section 518 allows the Mayor to suspend a contract for the improvements [The implication, of course, is that the City is directly and intimately involved in the practical, day-to-day decisions. If this level of City involvement is acceptable...]

Part 6 provisions

Sec. 31-25-605. At the time of filing the petition or at any time prior to the time of hearing on said petition, a bond shall be filed, with security approved by the governing body, or a cash deposit made sufficient to pay all expenses connected with the proceedings in case the organization of the district is not effected. If at any time during the organization proceedings the governing body is satisfied that the bond first executed or the amount of cash deposited is insufficient in amount, it may require the execution of an additional bond or the deposit of additional cash within a time to be fixed, not less than ten days thereafter, and, upon failure of the petitioners to file or deposit the same, the petition shall be dismissed.

Sec. 31-25-611. (1) The district has the following limited powers:

(a) To have perpetual existence;

(b) To have and use a corporate seal;

(c) To sue and be sued and be a party to suits, actions, and proceedings;

(d) <u>To enter into contracts and agreements</u>, except as otherwise provided in this part 6, affecting the affairs of the district, including contracts with the United States and any of its agencies or instrumentalities. Except in cases in which a district receives aid from an agency of the federal government, a <u>notice shall be published for bids on all construction</u> <u>contracts</u> for work or material or both involving an expense of one thousand dollars or more. <u>The district may reject any and all bids, and, if it</u> <u>appears that the district can perform the work or secure material for less</u> <u>than the lowest bid, it may proceed so to do.</u> [Note that the first sentence suggests that the City could, using this device, contract with the Developer to build the required infrastructure. The balance of the provision, however, strongly suggests otherwise.]

(e) To borrow money and incur indebtedness and evidence the same by certificates, warrants, notes, and debentures and to issue negotiable coupon bonds in accordance with the provisions of this part 6;

(f) <u>To acquire, construct, install, and operate the improvements</u> contemplated by this part 6 and all property, rights, or interests incidental or appurtenant thereto and to dispose of real and personal property and any interest therein, including leases and easements in connection therewith;

(g) To refund any bonded indebtedness of the district without an election; otherwise, the terms and conditions of refunding bonds shall be substantially the same as those of an original issue of bonds of the district;

(h) <u>To have the management, control, and supervision of all the business and</u> affairs of the district and of the acquisition, construction, installation, and operation of district improvements therein;

(i) To exercise the power of eminent domain and dominant eminent domain and, in the same manner provided by law for the condemnation of private property for public use, to take any property necessary to the exercise of the powers granted in this part 6;

(j) <u>To construct and install improvements</u> across or along any public street, alley, or highway and to construct works across any stream of water or watercourses. However, the district shall promptly restore any such street or highway to its former state of usefulness as nearly as possible and shall not use the same in such manner as completely or unnecessarily to impair the usefulness thereof. The use and occupation of streets, alleys, and highways and the construction or installation of improvements by any district shall be in accordance with the provisions of all applicable municipal ordinances and with such reasonable rules and regulations as may be prescribed by the governing body of the municipality affected. Plans and specifications of proposed improvements shall be approved by the governing body of the municipality before construction or installation of improvements is commenced.

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(k) To fix and from time to time to increase or decrease rates, tolls, or charges for any revenue-producing services or facilities furnished by the district and to pledge such revenue for the payment of any indebtedness of the district. Until paid, all rates, tolls, or charges shall constitute a perpetual lien on and against the property served, and any such lien may be foreclosed in the same manner as provided by the laws of this state for the foreclosure of mechanics' liens. With respect to revenue-producing services or facilities, the board shall shut off or discontinue service for delinquencies in the payment of such rates, tolls, or charges or for delinquencies in the payment of taxes levied pursuant to this part 6 and shall prescribe and enforce rules and regulations for connecting with and disconnecting from such services and facilities.

(1) To adopt and amend bylaws not in conflict with the constitution and laws of the state or with the ordinances of the municipality affected for carrying on the business, objects, and affairs of the board and of the district;

(m) To exercise all rights and powers necessary or incidental to or implied from the specific powers granted in this part 6. Such specific powers shall not be considered as a limitation upon any power necessary or appropriate to carry out the purposes and intent of this part 6.

П.

City district (pursuant to ordinance)

A third alternative to construct improvements, and assess the costs against the benefiting lands, is found in Chapter 28 of the City Code. Sections 28-26 through 28-38 concern districts created by the City Council, at the behest of the landowner (the adoption of People's ordinance 33 prohibits such districts without landowner consent). Other provisions deal with landowner generated petitions.

Again, while there is no explicit statement such as "This ordinance shall not be used to construct improvements for a private developer...," read as a whole it appears that the City must be involved and must have operational/construction oversight--more than simply inspection and compliance monitoring.

Sec. 28-26. The council may, in districts to be prescribed, order the construction, reconstruction, replacement, renewal or extension of:

(1) Paving, grading, curbing, guttering or otherwise improving the whole or any parts of any streets, alleys or other rights-of-way in the city or any combination of improvements;

(2) Grades, crosswalks, culverts, drains, manholes, catchbasins,

(3) Sewers and sewer facilities, water main facilities and other lines, street lighting and others;

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(4) Any local improvement and renewals or extensions thereof which benefit the land abutting such improvements, such as sidewalks, water mains;

(5) The necessary construction and the installation of lighting;

(6) Sewage disposal works and renewals or extensions thereof;

(7) Other public works as may be considered necessary and authorized by the city council;

(8) Providing of landscaping and beautification of an area or areas within the district or for the providing of other aesthetic improvements.

Sec. 28-27.(a) In establishing any improvement district, the city council shall observe the following:

(1) Before ordering any improvement, the council shall adopt details and specifications for the improvement; determine the number of installments and the time in which the cost shall be payable; determine the rate of interest on the unpaid installment; and determine the lands to be assessed for the improvements. The city manager shall provide an estimate of the total cost of such improvements and a map of the lands to be assessed, exclusive of the cost of collection and other incidental costs.

(b) Except as provided in this section, <u>all improvements made under the</u> <u>provisions of this article shall be constructed by independent contractors</u> and <u>all contracts shall be procured and let by the city manager</u> with the approval of the city council. The city may, under the provisions of this article, provide for the doing of the work by <u>hiring labor and may arrange</u> for the purchase of the necessary material under the supervision of the city <u>manager</u>. [Note: It appears that the City could hire the developer to perform the labor and buy the materials, however, the City would continue to be involved in all aspects of the projects, not dissimilarly to the "regular" improvement districts process where the oversight and responsibility is clearly the City's.]

(c) Districts may be formed by the city council pursuant to petition(s) of the owners for any improvement provided in this article... On all projects the council shall have discretionary power to elect the type and specifications of the project and materials.

(d) All proceedings by the council may be modified, confirmed or rescinded at any time prior to the adoption of the resolution authorizing the improvements, provided that no substantial change in the district, map details, specifications or estimate shall be made by the city council without further notification equivalent to that made in the first publication of the notice to the property owners.

The second alternative vehicle for local improvement districts is found in the City Code sections beginning with section 28-61.

Sec. 28-62. The petition establishing a district shall set forth the name of the proposed district, a legal description thereof, a statement that if the district is established <u>the city</u> shall acquire, construct, install, finance and operate improvements within the district and defray the costs of doing so by levying special assessments against the property within the district, and a request for the establishment of a district.

The process set forth in 28-86 through 28-90 applies to whichever form of district is selected. Note that, once again, the City is intimately involved throughout the process.

Sec. 28-86. The city council shall proceed with respect to the acquisition, construction or installation of improvements within any district as follows:

(1) Any improvement authorized by this article shall be initiated by resolution of the city council declaring its intention to acquire, construct or install such improvement. Such resolution shall describe with particularity the nature and location of the improvement, refer to plans and specifications and maps on file with the city manager, estimate the costs of the improvement, and specify the manner in which such costs will be defrayed. If the costs are to be defrayed in any part by special assessment against the property benefited, the resolution shall also describe the properties to be assessed, set forth the method of apportioning the total cost among such properties, and state the share of such cost to be assessed against each property. The resolution shall also fix a place and time for public hearing before the city council on the matters contained in the resolution.

(2) The city manager shall give published notice of the adoption of the resolution and of the place and time of the hearing on the matters contained therein. The city manager shall also give mailed notice thereof to all landowners scheduled to bear any portion of the assessment burden, if the scheduled cost is to be defrayed, in whole or in part, by special assessments. Such notice shall describe the matters required to be contained therein by this article. Such notice shall also state that the city council may not proceed if written protests to the acquisition, construction, or installation of the proposed improvements are filed with the city manager on or before the date of the hearing by landowners scheduled to bear 50 percent or more of the assessment burden, if any portion of the scheduled cost is to be defrayed by special assessments.

[Note: I did not include the balance of the provisions verbatim. The general process is not unfamiliar and includes provisions dealing with the collection of unpaid assessment and the bonds which are used to provide the financing.]

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C: Michael D Jims smission file



City of Grand Junction, Colorado 250 North 5th Street 81501-2668 Phone (970) 244-1501 FAX (970) 244-1456

May 7, 1997

Charles Dunn COLORADO DEPARTMENT OF TRANSPORTATION 222 S. 6th St. Grand Junction, CO 81501

Rimroek Marketplace/6 & 50 Frontage Road

Dear Mr. Dunn:

This letter is in response to your request (stated in the April 18, 1997 meeting in your office attended by Jim Shanks and Kneen Ashbeck of the City of Grand Junction (the "City"), John Rubenstein from THF Belleville Development, L.P. (the "Developer"), Phil Scott of Leigh, Scott and Cleary, Inc., and you) for further information regarding the City of Grand Junction's proposed processes relative to the frontage road on the south side of Highway 6 & 50, southeast of the proposed Rimrock Marketplace shopping center.

The City is providing this letter to inform CDOT of the City's normal land use review requirements for the construction of the improvements of the off-site frontage road and its connection with Highway 6 & 50, southeast of the site, in order to facilitate CDOT's issuance of permits for access for the proposed development on to Highway 6 & 50, pursuant to the City approved plans previously provided to you.

The Grand Junction City Council approved a conditional use permit for the proposed shopping center in its meeting of December 18, 1996. A condition of that approval included an access to the east end of the shopping center, thus extending the frontage road to connect with the existing Mulberry Street. As part of the City's process for the final approval of the shopping center, it will require that the Developer design, engineer and provide for the construction of the extension of the frontage road to the east and south to its intersection with Mulberry Street. This will include the improvement and possible relocation of the intersection of that frontage road with Highway 6 & 50, which is currently at the located at the northern end of Mulberry Street.

The City will require that the Developer acquire any real property outside of the existing rightof-way necessary for the proper location and construction of the intersection with Highway 6 & 50 in accordance with City and CDOT specifications. In the event those efforts are unsuccessful, the City Attorney has concluded that the City Council has the legal authority to condemn the necessary property. The improvement of the access along Highway 6 & 50 in this area, as well as the connection Mr. Charles Dunn COLORADO DEPARTMENT OF TRANSPORTATION May 7, 1997 Page - 2 -

of the frontage road with Mulberry Street which gives rise to those improvements, are of clear public benefit and serve a significant public purpose.

The Developer's final approval for the Rimrock project will be conditioned upon it making the necessary arrangements, to the City's complete satisfaction, for the design of the road and the intersection, the acquisition of the property necessary to the improvements, and the construction of the improvements, when the traffic flow so warrants.

The City will require the Developer to post security for such improvements, or to provide other protection, as deemed reasonable by the City, to satisfy these conditions. The City's security requirements are imposed to avoid any potential that the shopping center could be completed without the necessary arrangements in place for the construction of the frontage road and the intersection with Highway 6 & 50, as and when warranted.

The City's process ensures that the Developer cannot proceed with its development unless the City's and CDOT's access requirements are satisfied. I understand that your discussions with the City Attorney concluded with your agreement that you will issue the access permits conditioned upon the Developer satisfying the Mulberry Street access condition, so the City may proceed with its final approval processes, which will, as set forth above, protect CDOT's interests and those of the City.

This letter should give you the assurance you need to issue the permits applied for by the Developer. We appreciate your cooperation in this matter.

Very truly yours,

City of Grand Junction

dan/cdot.doc cc: File



June 1, 1997

Ms. Carrie Ashbeck City of Grand Junction 250 North 5th Street Grand Junction, Colorado 81501

 RE: Application for Approval of Clearing & Grubbing of the Rimrock Marketplace Shopping Center Grand Junction, CO
W & A Project No. 95-137

Dear-Carrie:

Enclosed, are three (3) prints of an Erosion Control and Clearing & Grubbing Plan for the subject project. As Mr. Jeff Belyea in my office mentioned to you, we are submitting this plan in an effort to obtain permission to remove all of the trash and debris from the site and to clear and grub the entire site in preparation of our upcoming site work.

As you can see from our plan, we are proposing silt fence on both sides of the LaGraini drain in an effort to deter silt and debris from entering the drain and leaving the site. Other than this, our intent with this plan is to remove all automobiles, debris, the two remaining structures on the site, and to fully clear and grub the weeds, bushes, etc. from the site. We will also remove the topsoil and stockpile it in a general location for redistribution later into the green areas and the landscape areas on the site.

Finally, as you are aware, we will be raising the site considerably in an effort to raise the finished floor elevations out of the flood plain of the Colorado River. Therefore, during periodic times, we request that we be allowed to bring excess dirt from other sites in the Grand Junction area onto the site for stockpiling for use at a later date.
Ms. Carrie Ashbeck June 1, 1997 Page 2

Carrie, this letter and plan indicates our intentions at this time. As a general update, we are still moving forward and finalizing plans and construction dates with our major tenants. Once that is complete, we will be submitting a full set of construction documents for the site. In the meantime, please review and analyze our request and advise of any questions or comments you might have. I have been instructed by the contractors bidding on this work, that the dump fees, associated with wasting these materials at the dumpsite, will triple as of July 1, 1998. Therefore, we are trying to expedite this plan approval and have this work completed immediately so that we can clear the site as economically as possible. An expedient review on your behalf we be greatly appreciated. Thanks for your assistance, and please do not hesitate to call with any questions.

Sincerely,

Jerry C. Wolverton, Jr., P.E. President

JCW: tp

c: Michael Staenberg, THF Realty, Inc. John Rubenstein, Rubenstein Real Estate Co.

Enclosures: 3 plans

08:34

THOMAS C. VOLKMANN, P.C.

ATTORNEY AT LAW

655 North 12th Street Grand Junction, Colorado 81501 Phone: (970) 256-0440 - Fax (970) 256-0457

November 24, 1997

Mr. Michael Drollinger City of Grand Junction Community Development Department 250 North 5th Street Grand Junction, Colorado 81501

Re: THF BELLEVILLE DEVELOPMENT, L.P. - CUP #96-180

Dear Michael:

This letter is a follow up to our conversation late last week regarding the requested extension by THF Belleville Development, L.P. of the Conditional Use Permit for the Rimrock development. Please accept this letter as a formal written request for that extension.

As your office is aware, this project was issued a Conditional Use Permit on December 18, 1996. Since that date, THF Belleville Development, L.P. has focused its attention on obtaining the CDOT access permits, obtained on or about July 16, 1997, obtaining tenants for the shopping center, and finalizing drawings of the development through Wolverton & Associates, their architects in Atlanta, Georgia.

THF Belleville is in the process of finalizing its drawings on this project. It is anticipated that within the next thirty to sixty days, they will be in contact with your office regarding the commencement of the infrastructure construction, as well as the financing of that work.

THF Belleville requests that the Conditional Use Permit for its shopping center, bearing No. CUP 96-180, be extended for one year, through and including December 18, 1998.

Should you need any further information regarding this matter, please let me know immediately and I will get it to you. I thank you in advance for your assistance in this matter.

Very truly yours

THOMAS C. VOLKMANN

TCV:cez

cc: Mr. John Rubenstein, THF Belleville, L.P.

CITY OF GRAND JUNCTION

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PLANNING COMMISSION STAFF PRESENTATION: Michael Drollinger

AGENDA TOPIC: Rimrock Marketplace Conditional Use Permit (CUP) - request for one year extension.

SUMMARY: Rimrock Marketplace, a retail center located at the SW corner of 25 1/2 Road and Hwy. 6 & 50, was originally approved by Planning Commission and City Council (on appeal) in December, 1996. The petitioner is requesting a one year extension of the CUP approval. Staff recommends approval of the extension with conditions.

ACTION REQUESTED: Decision on extension request.

BACKGROUND INFORMATION:

Location: SW corner 25 1/2 Road & Hwy. 6 & 50

Applicant: THF Belleville Development, L.P. 955 Executive Parkway, Suite 210 St. Louis, MO 63141

Existing Land Use: Vacant

Proposed Land Use: Retail center

Surrounding Land Use: North: Commercial (Sam's Club) South: Railroad East: Vacant West: Commercial (Various)

Existing Zoning: C-1 & C-2

Proposed Zoning: no change

Surrounding Zoning:

North: C-2 South: I-1 (County) East: C-1 West: C-2



<u>**Relationship to Comprehensive Plan:</u>** The City of Grand Junction Growth Plan identifies the subject parcel in the "Commercial" land use category. The proposed land use is consistent with the Growth Plan recommendation.</u>

Staff Analysis: The petitioner is requesting a one year extension of the CUP approval of the Rimrock Marketplace retail center for the reasons detailed in the attached letter. In reexamining the application, staff concludes that the conditions affecting the site have not changed so as to impact the findings of the original approval and conditions required with that approval, therefore, it is staff's recommendation that the extension request be granted.

A summary of the development proposal is provided below.

The Development Proposal

THF Belleville Development is requesting Conditional Use approval of an approximately 430,000 square foot retail center plus additional "pad site" development on an approximately 50 acre parcel on Highway 6&50 just west of 25/1/2 Road and directly south of Sam's Club.

The staff has been in contact with the petitioner from the early stages of the development of the site and circulation layouts which are illustrated on the attached preliminary site development plans. The site development and access plans will be further refined to meet applicable code and review agency requirements and requires Site Plan Review prior to issuance of a Planning Clearance.

The development proposal is detailed in the petitioner's General Project Report and response to comments, both of which are part of this staff report. Briefly, access to the proposed site will be from three points, one at an existing signalized intersection on Highway 6 & 50, one from a proposed extension to the frontage road to be constructed from the vicinity of Gene Taylor's to the subject site, and a third located just east of the Country Store. The major retail users will be located to the rear of the parcel. Smaller "pad" users will be located on sites which are generally to the north of the proposed relocated frontage road and will have their own parking. Service access to the retail center is available to the rear of the buildings. The relocated frontage road will be dedicated as public right-of-way.

RECOMMENDATION: Approval of the Conditional Use Permit extension as per the Planning Commission's decision of December 3, 1996, reaffirmed and amended by City Council on December 18, 1996. The approval included the following conditions:

1. The project is approved for a maximum of 430,000 square feet of retail space (not including the pad sites which will be limited in number by the ability to meet City Zoning Code requirements) to be constructed within the building envelopes identified on the attached site plan. If the proposal should exceed the size limit or the building

envelopes proposed, the conditional use permit will subject to reevaluation by the Planning Commission at the discretion of City staff.

- 2. The project signage will be subject to the attached signage guidelines which are based on those proposed by the petitioner and modified by staff.
- 3. The conditional use permit approval is subject to subsequent acceptance of a site plan and subdivision which meets all Zoning and Development Code requirements and are subject to staff approval, review agency approval, and Planning Commission approval as required by Code.
- 4. Staff finds that the circulation improvements identified by the petitioner in the "Traffic Impact Analysis for Rimrock Shopping Center" and the attached Site Plan are necessary for the safe and efficient movement of vehicles to and from the site at acceptable levels of service (LOS). A condition of this approval is that the funding and construction of the identified improvements are the responsibility of the developer and that all circulation improvements are subject to review and approval by the City and CDOT and must meet all applicable requirements. Significant changes to the design and operation of the circulation network as proposed may require reevaluation of the conditional use permit by the Planning Commission at the discretion of City staff.
- 5. All pad site development is subject to the requirements of the Zoning and Development Code and the adopted signage guidelines for Rimrock Marketplace. Development proposals for the pad sites require Site Plan Review or other permits as may be necessary depending on the proposed use.
- 6. Roadway section B-B on the Site Plan must be modified to show sidewalks on both sides. In addition, all roadway sections must be modified to conform with City specifications.
- 7. The petitioner must supply information which is satisfactory to the Utility Engineer to demonstrate that the capacity of the sewer line has been maintained through the proposed relocation.
- 8. Provide reasonable access to the Corner Store (condition as amended by City Council)

Acquisition of adequate frontage road right of way is the responsibility of the petitioner.

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SIGNAGE PLAN RIMROCK MARKETPLACE

All Signage must meet the requirements contained in Section 5-7 of the Zoning and Development Code (ZDC), as amended. In addition, the following provisions will be part of the signage plan for Rimrock Marketplace:

- 1. One project identification sign may be located along each roadway frontage. For the purposes of this approval, the project identification sign may be located at the Hwy. 6&50 frontage (as identified on the attached site plan) rather than having to be located along the relocated frontage road. The project identification sign along Hwy 6&50 may be a freestanding sign, not to exceed 25 ft. in height and 300 square feet in area. The project identification sign along the 25 1/2 Road frontage shall be limited to a monument signs, not to exceed 6 feet in height and 150 square feet in area.
- 2. Only monument signs (in addition to wall signs), not to exceed 6 feet in height and 150 square feet in area are permitted for identification of uses on the pad sites as identified on the attached site plan.
- 3. Wall mounted signs are permitted in accordance with the sign code. For purposes of signage allowance calculations, the retail center must utilize the relocated frontage road rather than Highway 6&50.
- 4. No roof signs are permitted anywhere in the development.
- 5. Traffic control signs require the approval of the City Development Engineer.











February 18, 1998

Mr. Mark Achen City Manager City of Grand Junction 250 N. 5th Street Grand Junction, CO 81501

RE: Special Improvement District US Hwy 6 & 50 - Grand Junction, CO W&A Job # 95-137

Dear Mark,

As per our meeting on February 10, 1998, I am enclosing a copy of a conceptual plan and conceptual cost estimate depicting the public improvements that would be included in the proposed Special Improvement District associated with the construction of the Rimrock Marketplace Shopping Center on US Hwy 6 & 50 in Grand Junction, CO. The items that are being proposed in the Special Improvement District include the construction of public roadways, including sidewalks, landscaping, irrigation, site lighting within the right-of-way, storm drainage, water line installation, and sanitary sewer installation. A 24" x 36" color coded map is enclosed showing the public improvements as proposed in the project. As you can tell from the plan, the Special Improvement District presently proposes the construction of a frontage road to the southeast connecting to Mulberry Street. This particular item may or may not be included in the Special Improvement District depending on the participation of the adjacent property owners. It's cost has been broken our separately.

Wolverton

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As I discussed with you and several staff members of the City of Grand Junction during my visit on February 10-12, 1998, I wanted to make a preliminary submittal as quickly as possible so that the city staff could review and incorporate any comments or questions. Concurrently, we will be meeting with the adjacent property owners to the southeast to discuss their participation in the Special Improvement District. It is still our intention to make a presentation to the Grand Junction City Council at their work session on March 2, 1998, unless you or the city staff feel it is detrimental to do it at this time.

349 8104 425 349 8105 651 346 8802 093 5600 Oakbrook Parkway • Suite 100 • Norcross, Georgia 30093 • 770-447-8999 • 770-447-9070 Fax www.wolverton-assoc.com

February 18, 1998 Mark Achen Page 2

We look forward to any input from yourself or other staff members with regards to our request. I will keep you updated with regards to participation of the adjacent property owners. In the meantime, should you have any questions or comments, please don't hesitate to call.

Sincerely. w

Jerry (Jay) C. Wolverton, Jr. President

JCW/jts

cc: Don Newton, City Engineer Mark Relph, Public Works Engineer Jody Kliska, Development Engineer Trent Prall, Utility Engineer Tim Woodmansee, Property Agent Michael Drollinger, Senior Planner

> John Rubinstein - John Rubinstein Real Estate Mike Staenberg - THF Realty, Inc. Tom Volkman - Tom Volkman, P.C.



City of Grand Junction, Colorado 250 North Fifth Street 81501-2668 FAX: (970)244-1599

February 24, 1998

Jerry Wolverton, Jr. Wolverton & Associates, Inc. 5600 Oakbrook Parkway Suite 100 Norcross, Georgia 30093

Dear Jerry,

City staff has had the opportunity to discuss the conceptual plan and conceptual cost estimate prepared by your office for the Rimrock Marketplace Shopping Center associated with the developer's request for a special improvement district. To assist the staff in presenting the item to the City Council, the staff is asking that the cost estimate items be further organized and broken out into the following categories:

 The water and sewer costs for all public mains should be included whether the mains are proposed to be in the public r.o.w. or in easements on private property. It appears the cost estimate as submitted already includes all of the mains shown on the conceptual plan. Additional discussion is taking place with the City Utility Engineer to determine which portions of the sewer mains shown would likely be public as well as which water mains would likely be public (regardless of whether they are City water mains or Ute Water mains). We will forward this information to you as soon as possible to correct the final conceptual cost estimate if necessary.
 Please break out the cost of the street construction (pavement, curb, gutter, sidewalk, etc.) for 25 1/2 Road separately. The utility costs should be broken out under the overall water main, sewer main, and drainage costs.

3. The City has not yet determined whether the street connection between Highway 6 & 50 and the frontage road adjacent to the Corner Store property will be public or private. However, for purposes of discussion, the cost for roadway construction for this segment (pavement, curb, gutter, sidewalk, etc. excluding utilities) should be broken out separately. Again, the utility and drainage costs should be included in the overall breakdown of water and sewer main costs and drainage costs.

4. Please break out the costs for the frontage road separately. Provide a cost estimate for the portion to the southeast of the site and another estimate for the portion adjacent to the shopping center property including the short segment up to the intersection with Highway 6 & 50. Include pavement, curb, gutter, sidewalk, grading, soil stabilization, and any other costs related to the road construction excluding utility work. Include utility work under the applicable utility category.

5. It appears all the storm sewer shown on the conceptual plan will be considered public since it the system shown is collecting and conveying runoff from the public streets and the highway. However, the curb and gutter costs should be included under the cost estimate for each segment of roadway construction defined above (25 1/2 Road, secondary access road, frontage road

adjacent to the site, etc.) as opposed to including the total cost in the grading and drainage category.

6. The roadway extensions shown to the west of the frontage road entrance off Highway 6 & 50 were not approved during the CUP review. Therefore, the cost of these roadway connections should not be included in the cost estimate since they are not approved as potential public streets.

7. Break out the costs associated with the improvements at the intersection including the signal work, additional paving/widening, striping, etc. It is understood the design is not final and that these costs will be "ballpark" figures only at this time.

8. The City will be contacting Public Service Company to obtain a preliminary estimate on street lighting.

9. The costs for irrigation and landscaping identified in the conceptual cost estimate are not eligible for inclusion in the request for a Special Improvement District since property owners are required to install and maintain frontage landscaping in the public r.o.w.

Please call me at (970) 244-1443 at your earliest convenience to go over any questions you may have on the items described above. The developer has requested this item be placed on the City Council agenda for next Tuesday March 2. The revised cost estimate needs to be submitted to the City as soon as possible in order to allow the staff time to prepare the Council agenda packet. Thank you in advance for your assistance.

Sincerely,

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Kerrie Ashbeck, P.E. Development Engineer

cc: Michael Drollinger, Community Development File - Rimrock Marketplace Shopping Center

3/6/98

Conceptual Cost Estimate for Public Improvements to serve the "Rimrock Special Improvement District"

Segment	Description	Total Price	Segment	Description	Total Price	Segment	Description	Total Price	Segment	Description	Total Price
A	Grading	\$64,000	В	Grading	\$53,100	С	Grading	\$20,900	D	Grading	\$5,800
	Drainage	\$584,120		Drainage	\$143,000		Drainage	\$49,900		Drainage	\$11,000
	Base & Paving	\$256,560		Base & Paving	\$220,350		Base & Paving	\$84,900		Base & Paving	\$30,300
	Lump sum items	\$37,000		Lump sum items	\$23,750		Lump sum items	\$20,250		Lump sum items	\$8,625
	Miscellaneous	\$136,950		Miscellaneous	\$137,500		Miscellaneous	\$54,500		Miscellaneous	\$24,000
	Water	\$41,920		Water	\$0		Water	\$25,640		Water	\$0
	Sewer	\$0		Sewer	\$0		Sewer	\$0	•	Sewer	\$0
	Fees	\$142,870		Fees	\$73,657		Fees	\$32,651		Fees	\$10,165
	Subtotal	\$1,263,420		Subtotal	\$651,357		Subtotal	\$288,741		Subtotal	\$89,890
	contingency (15%)	\$189,513		contingency (15%)	\$97,704		contingency (15%)	\$43,311		contingency (15%)	\$13,483
	Total \$1,452,933			Total \$749,060			Total \$332,053			Total	\$103,373
Segment	Description	Total Price	Segment	Description	Total Price	Segment	Description	Total Price	Segment	Description	Total Price
7	Grading	\$6,900	F	Grading	\$10,900	C	Grading	\$0	Total	Grading	\$161 600
	Grading	0,,000	-		<i>••••••</i>	G	Orauling	Ψ0		Oraumg	\$101,000
E	Drainage	\$23,000		Drainage	\$0	<u> </u>	Drainage	\$0		Drainage	\$811,020
	Drainage Base & Paving	\$23,000 \$33,975		Drainage Base & Paving	\$0 \$42,550	<u> </u>	Drainage Base & Paving	\$0 \$0 \$0		Drainage Base & Paving	\$811,020 \$668,635
	Drainage Base & Paving Lump sum items	\$23,000 \$33,975 \$8,625		Drainage Base & Paving Lump sum items	\$0 \$42,550 \$4,750		Drainage Base & Paving Lump sum items	\$0 \$0 \$0 \$0		Drainage Base & Paving Lump sum items	\$811,020 \$668,635 \$103,000
	Drainage Base & Paving Lump sum items Miscellaneous	\$23,000 \$33,975 \$8,625 \$25,500		Drainage Base & Paving Lump sum items Miscellaneous	\$0 \$42,550 \$4,750 \$216,000		Drainage Base & Paving Lump sum items Miscellaneous	\$0 \$0 \$0 \$0 \$0		Drainage Base & Paving Lump sum items Miscellaneous	\$101,000 \$811,020 \$668,635 \$103,000 \$594,450
	Drainage Base & Paving Lump sum items Miscellaneous Water	\$23,000 \$33,975 \$8,625 \$25,500 \$0		Drainage Base & Paving Lump sum items Miscellaneous Water	\$0 \$42,550 \$4,750 \$216,000 \$0		Drainage Base & Paving Lump sum items Miscellaneous Water	\$0 \$0 \$0 \$0 \$0 \$93,640		Drainage Base & Paving Lump sum items Miscellaneous Water	\$101,000 \$811,020 \$668,635 \$103,000 \$594,450 \$161,200
	Drainage Base & Paving Lump sum items Miscellaneous Water Sewer	\$23,000 \$33,975 \$8,625 \$25,500 \$0 \$0		Drainage Base & Paving Lump sum items Miscellaneous Water Sewer	\$0 \$42,550 \$44,750 \$216,000 \$0 \$0		Drainage Base & Paving Lump sum items Miscellaneous Water Sewer	\$0 \$0 \$0 \$0 \$93,640 \$128,375		Drainage Base & Paving Lump sum items Miscellaneous Water Sewer	\$811,020 \$668,635 \$103,000 \$594,450 \$161,200 \$128,375
	Drainage Dase & Paving Lump sum items Miscellaneous Water Sewer Fees	\$23,000 \$33,975 \$8,625 \$25,500 \$0 \$0 \$12,495		Drainage Base & Paving Lump sum items Miscellaneous Water Sewer Fees	\$0 \$42,550 \$42,550 \$216,000 \$0 \$0 \$34,961		Drainage Base & Paving Lump sum items Miscellaneous Water Sewer Fees	\$0 \$0 \$0 \$0 \$93,640 \$128,375 \$28,307		Drainage Base & Paving Lump sum items Miscellaneous Water Sewer Fees	\$101,000 \$811,020 \$668,635 \$103,000 \$594,450 \$161,200 \$128,375 \$335,106
	Drainage Dase & Paving Lump sum items Miscellaneous Water Sewer Fees Subtotal	\$0,500 \$23,000 \$33,975 \$8,625 \$25,500 \$0 \$0 \$12,495 \$110,495		Drainage Base & Paving Lump sum items Miscellaneous Water Sewer Fees Subtotal	\$0 \$42,550 \$42,550 \$216,000 \$0 \$0 \$34,961 \$309,161		Drainage Drainage Base & Paving Lump sum items Miscellaneous Water Sewer Fees Subtotal	\$0 \$0 \$0 \$93,640 \$128,375 \$28,307 \$250,322		Drainage Drainage Base & Paving Lump sum items Miscellaneous Water Sewer Fees Subtotal	\$101,000 \$811,020 \$668,635 \$103,000 \$594,450 \$161,200 \$128,375 \$335,106 \$2,963,386
	Drainage Dase & Paving Lump sum items Miscellaneous Water Sewer Fees Subtotal contingency (15%)	\$0,500 \$23,000 \$33,975 \$8,625 \$25,500 \$0 \$0 \$12,495 \$110,495 \$110,495 \$16,574		Drainage Base & Paving Lump sum items Miscellaneous Water Sewer Fees Subtotal contingency (15%)	\$0 \$42,550 \$42,550 \$216,000 \$0 \$0 \$34,961 \$309,161 \$46,374		Drainage Drainage Base & Paving Lump sum items Miscellaneous Water Sewer Fees Subtotal contingency (15%)	\$0 \$0 \$0 \$93,640 \$128,375 \$28,307 \$250,322 \$37,548		Drainage Drainage Base & Paving Lump sum items Miscellaneous Water Sewer Fees Subtotal contingency (15%)	\$101,000 \$811,020 \$668,635 \$103,000 \$594,450 \$161,200 \$128,375 \$335,106 \$2,963,386 \$444,508

March 19, 1998

Mr. Charles I. Dunn, Jr., P.E. Department of Transportation State of Colorado - Region III Right-of-Way 222 South 6th Street Room 317 Grand Junction, CO 81501-2769

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RE: Rimrock Marketplace Grand Junction, CO W&A Job # 95-137

Dear Chuck,

I would like to thank you for taking the time to meet with me to discuss the subject project and specific items dealing with the permits. My understanding of items discussed are as follows:

- 1. A jug handle will be required at the Mulberry Street connection of the proposed frontage road. This jug handle will have to be extended both to the North, as well as the South. Moving the existing connection of Mulberry Street farther to the north will be acceptable, such that we do not impede existing businesses. We will take vacant land for this new construction.
- 2. We discussed the existing access points for the five property owners who presently front 6 & 50, where we will extend the new frontage road. It is my understanding from our discussion that three property owners have permits, while the other two are presently "grand fathered" in. You stated that it would not be a problem to remove their connection to 6 & 50 due to this being controlled by freeway law. This will ease the City's concern such that we do not get into further frontage road problems.
- 3. We are proposing a left turn from 6 & 50 into the site at the Wollard property. The City has a concern of its close proximity to the existing turn around that is being used for snow removal equipment. Your initial reaction was that this turn around could not be removed, due to the fact that your maintenance department uses it. However, you requested the right to review the final drawings to see how the taper for the new turn lane would affect the existing turn around and make any necessary judgments at that time.
- 4. We discussed the stipulation #1 in the permit stating that Wollard's signature would need to be obtained if the frontage were to be closed. However, our alternative is to construct a road from the west tying to his frontage road meeting all CDOT and AASHTO Standards, such that his frontage road is not closed. This would provide an adequate solution and not require us to obtain Mr. Wollards' permission for our proposed road alignments.

Mr. Charles I. Dunn, Jr., P.E. March 19, 1998 Page 2

- 5. We discussed the road design as submitted to the west side of the outlot #1. I mentioned that the City is opposed to this design because it will create another stacking problem at the existing connection of the frontage road to 6 & 50 in front of the Hanson property. You stated that your stance was that portion of the roadway did not have to be constructed and that we could simply use the existing frontage road in it present alignment as access to outlot #1. We do not have to construct a north/south connector adjacent to outlot #1 tying the frontage roads together.
- 6. We discussed the possibility of using some existing right-of-way for parking and landscaping for our development. You stated that we would have to apply for a five-year lease of this property and that it would be appraised for fair market value. You stated that the area could only be used for landscaping and parking and no signage or buildings could be placed in this area.
- 7. We discussed the improvements requested by the City, on Independent Ave. in front of the Sam's property, more particularly the installation of a curb or barrier; such that incoming traffic would be diverted to the east in front of Sam's and would not have direct access to the Sam's or Golden Corral. Your initial reaction was that you did not care for this design, however, you reserved further discussion until a design is submitted for your review and comment.

This letter summarizes my thoughts of the items discussed. Should your opinion of any of these items be different, please notify me as soon as possible. Thank you for meeting with me and clearing up a number of items, with regards to our project. We will be moving forward with construction drawings in the very near future and submitting them for final review. In the meantime, should you have any questions or comments, please do not hesitate to call.

Sincerely,

Jerry C. Wolverton, Jr. President

JCW:jts

cc: Mr. Michael Staenberg - THF Realty, Inc.
Mr. John Rubinstein - John Rubinstein Real Estate
Mr. Tom Volkmann - Tom Volkmann, P.C.
Mr. Michael Drollinger - City of Grand Junction
Mr. Kerry Ashbeck - City of Grand Junction



City of Grand Junction, Colorado 250 North Fifth Street 81501-2668 FAX:(970)244-1599

June 12, 1998

Jerry C. Wolverton, Jr., P.E. Wolverton and Associates, Inc. 5600 Oakbrook Parkway Suite 100 Norcross, Georgia 30093

RE: Application for Approval of Clearing and Grubbing of the Rimrock Marketplace Shopping Center

Dear Jerry:

I received your letter and accompanying plan which define the proposed work to be done for the Rimrock Marketplace Shopping Center site clearing and grubbing. I have also spoken with Joe Macrina and Jeff Belyea of your office regarding this matter. The City requires no permit for clearing and grubbing as you have described it in your letter and on the plan (removal of trash and debris from the site, stockpiling of soil, and clearing of brush and weeds). However, no grading for the development or other development activity can take place on the site nor within the public rights-of-way until the Planning Clearance for the Final Site Plan has been issued by the City Community Development Department. The City does not have a grading permit process and does not allow site grading for development prior to Final Site Plan approval and issuance of a Planning Clearance.

The City does have Ordinances in the Municipal Code which require that property owners manage blowing dust and trash from their properties as well as mud tracking onto the public streets. Although your plan indicates re-seeding of disturbed areas, please keep in mind our arid climate and the subsequent difficulty in establishing vegetative ground cover. We have had a particularly windy Spring and a high number of complaints about blowing dust from construction activity. Any efforts which can be made to minimize disturbance of the topsoil, or to provide phasing of disturbance and re-seeding would be greatly appreciated.

In addition, the Colorado Department of Health has regulations regarding both wind and water erosion. Since the proposed area of disturbance is greater than 5 acres, you must apply for an NPDES (or CDPS) permit from CDOH. Attached is the section from the City's SSID manual giving a brief summary of the requirement as well as an address to contact CDOH. The City will need a copy of the permit application and the State approved permit prior to disturbance of the site surface. I will notify our Code Enforcement officers of the work you propose to do and give them a copy of the plan your office submitted so that they understand the limits of the work allowed on-site at this time and so that they can respond to any questions or complaints they may receive. If you have further questions, please call me at (970) 244-1443. Thank you.

Sincerely,

Kerrie Ashbeck, P.E. Development Engineer

cc: Ivy Williams, Code Enforcement Michael Drollinger, Community Development

- d. The name and phone number of the testing laboratory that will provide materials and other testing;
- e. The name and phone number of the developer's designated project manager and/or construction inspector; and
- f. The name and phone number of the developer's designated Quality Assurance Engineer (see (Page V-1, Paragraph C)) 7

 $\underline{\mathcal{M}} \sim 1$ If any of the above information changes during the course of the project, the developer shall promptly submit notice.

7. <u>Construction Schedules and Update</u> The construction schedule should be detailed enough to indicate the anticipated construction period for major phases of construction. If significant changes or delays occur, an update should be submitted to the City Development Engineer. These schedules will be used in City inspection and planning.

NPDES Construction Activity Permit In accordance with State and Federal regulations effective October 1, 1992, an NPDES (or CDPS) permit is required where construction activity for all phases of a project will disturb more than 5 acres of surface area. The application and approval process must be handled directly with the Colorado Department of Health Water Quality Control Division. A copy of the permit or approval or acceptance letter shall be submitted to the City.

At the time of Manual adoption, the application may be obtained from the Colorado Department of Health at the State Office Building at 222 South 6th Street, Room 232. General Permits require a maximum of 10 days to obtain (which will likely include most projects), and Individual Permits require 180 days.

- 9. <u>Work Within Public ROW Permit</u> Prior to commencement of work within a Public ROW where public facilities such as curb, gutter, sidewalk, or pavement exist, a permit must be obtained from the City Engineer.
- 10. <u>City Lamping of Sewerlines</u> Once the manholes and sewerline installations are complete, and subgrade and base course in roadway areas has been compacted preparatory to paving, the City will lamp the sewerline. Requests should be made by calling 244-1555.
- 11. <u>Flowline Grade Sheets</u> These consist of surveying grade sheets that identify the street name, with stationing consistent with design drawings, showing design and "as-built" grades for gutter flowlines. Grades should be obtained at all points that design grades are required on the approved drawings. Red-lined Roadway Plan and Profile sheets having the same information may be used in lieu of the grade sheets.
- 12. <u>Revised Asphalt Design</u> Roadway pavement must have a cross slope between 1% and 3%, except for areas of pavement warp due to matching existing pavement or at valley gutters.
- 13. <u>City Initial Inspection</u> An inspection performed by the City after all developer-installed improvements are complete. If found to be acceptable, the warranty period on the improvements will begin.
- 14. <u>City Final Inspection</u> An inspection performed by the City after the warranty period expires.

APRIL 1995

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CITY OF GRAND JUNCTION

DATE: January 6, 1999

PLANNING COMMISSION STAFF PRESENTATION: Michael Drollinger

AGENDA TOPIC: Rimrock Marketplace Conditional Use Permit (CUP) – request for one year extension.

SUMMARY: Rimrock Marketplace, a retail center located at the SW corner of 25 ½ Road and Hwy. 6 & 50, was originally approved by Planning Commission and City Council (on appeal) in December 1996. In December of 1997, the applicant received a one-year permit extension to December, 1998. This application is for a second one-year extension to the permit. Staff does not believe that the applicant has made substantial progress on the project in the past year and recommends that a further extension of the permit be granted only if specific performance milestones are set.

ACTION REQUESTED: Decision on extension request.

BACKGROUND INFORMATION:

Location: SW corner 25 1/2 Road & Hwy. 6 & 50

Applicant: THF Belleville Development, L.P. 955 Executive Parkway, Suite 210 St. Louis, MO 63141

Existing Land Use: Vacant

Proposed Land Use: Retail center

<u>Surrounding Land Use:</u> North: Commercial (Sam's Club) South: Railroad East: Vacant West: Commercial (Various)

Existing Zoning: C-1 & C-2

Proposed Zoning: no change

Surrounding Zoning:

North: C-2 South: I-1 (County) East: C-1 West: C-2 **Relationship to Comprehensive Plan:** The City of Grand Junction Growth Plan identifies the subject parcel in the "Commercial" land use category. The proposed land use is consistent with the Growth Plan recommendation.

Staff Analysis: The petitioner is requesting a one year extension of the CUP approval of the Rimrock Marketplace retail center for the reasons detailed in the attached letter.

The project was originally approved by Planning Commission and City Council (on appeal) in December 1996. In December of 1997, the applicant received a one-year permit extension to December 1998. This application is for a second one-year extension to the permit. The Zoning and Development Code requires that developments an uses allowed pursuant to a CUP be:

"developed or established in accordance with the approved development schedule, or within one year of the date of approval if no development schedule is established."

Staff requested that the petitioner provide, with the extension request, documentation to demonstrate the progress made in the past year in "developing or establishing" the project. The materials provided by the petitioner are attached as part of this staff report¹ and have been reviewed by Planning and Engineering staff. Staff has concluded that little additional progress has been made by the applicant in the past year toward development of this project. For example:

- The applicant has not had a preapplication conference with staff to review submittal requirements for the additional approvals required for the project.
- The applicant has not met with staff in over six months to discuss progress in the development of a final design for the project.
- The applicant did not supply any materials to document progress on securing necessary property to construct the frontage road extension with is a condition of approval for the project.
- The plans provided by the applicant as part of the extension request have not changed substantially within the past year.

Summary of Development Proposal

A summary of the development proposal is provided below.

The Development Proposal

¹ Please note that in the interest of space approximately 35 pages of "conceptual cost estimate for public improvements" tables supplied by the petitioner were omitted by staff.

Tianning Commission Staff Report CUP-1996-180: Rimrock Marketplace (1997) Rim THF Belleville Develop THF Belleville Development is requesting Conditional Use approval of an approximately 430,000 square foot retail center plus additional "pad site" development on an approximately 50 acre parcel on Highway 6&50 just west of 25/1/2 Road and directly south of Sam's Club.

The staff has been in contact with the petitioner from the early stages of the development of the site and circulation layouts illustrated on the attached preliminary site development plans. The site development and access plans will be further refined to meet applicable code and review agency requirements and requires Site Plan Review prior to issuance of a Planning Clearance.

The development proposal is detailed in the petitioner's General Project Report and response to comments, both of which are part of this staff report. Briefly, access to the proposed site will be from three points, one at an existing signalized intersection on Highway 6 & 50, one from a proposed extension to the frontage road to be constructed from the vicinity of Gene Taylor's to the subject site, and a third located just east of the Country Store. The major retail users will be located to the rear of the parcel. Smaller "pad" users will be located on sites which are generally to the north of the proposed relocated frontage road and will have their own parking. Service access to the retail center is available to the rear of the buildings. The relocated frontage road will be dedicated as public right-ofway.

RECOMMENDATION: Approval of the Conditional Use Permit extension as per the Planning Commission's decision of December 3, 1996, reaffirmed and amended by City Council on December 18, 1996 with the performance milestones detailed below to December 18, 1999. The approval included the following conditions:

- 1. The project is approved for a maximum of 430,000 square feet of retail space (not including the pad sites which will be limited in number by the ability to meet City Zoning Code requirements) to be constructed within the building envelopes identified on the attached site plan. If the proposal should exceed the size limit or the building envelopes proposed, the conditional use permit will subject to reevaluation by the Planning Commission at the discretion of City staff.
- 2. The project signage will be subject to the attached signage guidelines based on those proposed by the petitioner and modified by staff.
- 3. The conditional use permit approval is subject to subsequent acceptance of a site plan and subdivision which meets all Zoning and Development Code requirements and are subject to staff approval, review agency approval, and Planning Commission approval as required by Code.

- 4. Staff finds that the circulation improvements identified by the petitioner in the "Traffic Impact Analysis for Rimrock Shopping Center" and the attached Site Plan are necessary for the safe and efficient movement of vehicles to and from the site at acceptable levels of service (LOS). A condition of this approval is that the funding and construction of the identified improvements are the responsibility of the developer and that all circulation improvements are subject to review and approval by the City and CDOT and must meet all applicable requirements. Significant changes to the design and operation of the circulation network as proposed may require reevaluation of the conditional use permit by the Planning Commission at the discretion of City staff.
- 5. All pad site development is subject to the requirements of the Zoning and Development Code and the adopted signage guidelines for Rimrock Development proposals for the pad sites require Site Plan Marketplace. Review or other permits as may be necessary depending on the proposed use.
- Roadway section B-B on the Site Plan must be modified to show sidewalks on both sides. In addition, all roadway sections must be modified to conform with City specifications.
- 7. The petitioner must supply information which is satisfactory to the Utility Engineer to demonstrate that the capacity of the sewer line has been maintained through the proposed relocation.
- 8. Provide reasonable access to the Corner Store (condition as amended by City Council)

Acquisition of adequate frontage road right of way is the responsibility of the petitioner.

Performance Milestones/Permit Expiration

Staff recommends for an additional une year extention to the CUP, however weStaff recommends that the following performance milestones be established with the extension of the CUP approval.) Failure to meet any of the performance milestones shall result in immediate expiration of the CUP with no appeal permitted by the applicant; a CUP may only be reestablished following the procedure in Section 4-6 of the Zoning and Development Code.

The performance milestones shall be as follows:

 The applicant must have a preapplication conference for the project with staff no later than February 26, 1999.

- The applicant shall submit a complete application for Site Plan Review (and any other review required by Code for establishment of the development) no later than July 2, 1999.
- City of Grand Junction and Colorado Department of Transportation (CDOT) final approvals must be obtained no later than October 15, 1999. A Development Improvements Agreement (DIA) and appropriate financial guarantees required for public improvements must also be in place by October 15, 1999.
- The applicant must obtain a Planning Clearance for Phase I of the project no later than December 3, 1999.

H:/cityfil/1998/96-180.dot

The performance milestones were established association the accounting for time required the prepare the application for the applicant to and time for staff to review and make a decision on the project

Why is staff not recommending an open-ended extension to the CUP?; there are several reasons. Staff believes that an open-ended approval can not account for changes to several factors that could impact the design and viability of the project.

For example:

- changes in traffic patterns and volumes over time could impact the traffic study assumptions – requiring changes to the analysis and/or number or design of road improvements; a reevaluation of the assumptions and traffic volume changes could not be looked at if the project approval were openended.
- changes in surrounding land uses or development patterns a CUP criteria in evaluation of the land use compatibility of this proposal - could not be taken into account of the approval were open-ended.
- Changes in the City access control and roadway design standards could not be incorporated into the design of the approval were open-ended

changes to land use and zoning regulations – several of the changes proposed with the Zoning Code revisions being considered by the City Council would directly impact this proposal – would not be applicable to this project with an open-ended approval. Future retail centers which would be the construction of the changes for the competitive disadvantage if this project were not required to be subject to the same regulations.

For these reasons staff recommends that the Planning Commission consider the project milestones attached to the staff report. Of course the commission has the authority to accept, modify, or reject the recommendations made by staff.

Michael Drollinger December 1, 1998 Page 4

With regard to your request for a time-line for future applications, although I understand the City's desire for such a time-line, I believe it best that we avoid the creation of such a time-line. My client is, understandably, concerned about the creation of any hard and fast time-line, which may only have to be revised in the future. Of course, the magnitude of infrastructure expense required for this project, as presently approved, places a heightened significance on successful negotiations for tenants within the center, and purchasers for pad sites. It is impossible to create any sense of urgency with prospective tenants or pad purchasers with such a timeline without compromising the commercial and economic viability of the project. For that reason, also, we do not believe it is appropriate to impose hard and fast deadlines on the timing of the remaining development permitting process.

I believe it may be more appropriate, under the circumstances and in light of the complexity and expense of the proposed project, to have them continue to be required to present their progress on the project to the Planning Commission annually for the review of any requested extension of the Conditional Use Permit. Of course, THF Belleville Development, L.P. understands that its Conditional Use Permit remains subject to such review and that, pursuant to Section 4-6-2(F) of the Grand Junction Zoning and Development Code, there are risks of an eventual revocation of the permit which attach to such a soft schedule. However, any locking in of a schedule for various steps in the future development of this property will, in all likelihood, simply require additional adjustment and amendment, requiring more numerous applications with the Planning Department.

Please rest assured that THF Belleville Development, L.P., as the owner of the real estate upon which the Rimrock Shopping Center is to be built, has had, and continues to have, every interest in proceeding as promptly as is commercially feasible with the development and completion of this project.

Please contact me should you desire any additional information regarding this matter. I will look forward to receipt of your staff comments, so we can address them in due course.

Very truly yours

THOMAS C. VOLKMANN

TCV:akr

cc: Jay Wolverton Michael Staenberg John Rubenstein

2-12-98

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- 2524 Blichmann Ave. Grand Junction, CO 81505
- RE: Communications Service Requirements RIMROCK MALL 25 1/2 RD & HWY 6 & 50_

ATTENTION: JAY

This letter will confirm our mutual understanding of items required and procedures necessary for U S West Communications to provide underground communication facilities to an inside terminal located at the above referenced address.

You or your contractor will need to provide the following:

- 1. A 4' x 8' x 3/4" plywood backboard (fire retardent) mounted on the wall of the telephone equipment room inside the building.
- 2. Also at the backboard will be a #6 ground wire the other end of which is attached to the common power ground per NEC requirements.
- 3. One 4" conduit equipped with pull tape using footage markers from this backboard to a U S West closure located on _____? ____ property line at pedestal # ___? ____. This conduit must be rigid metal in the building and PVC Schedule 40 for buried conduit and buried to a minimum depth of 24" below finished grade. All bends will be electrical sweeps (total bends not to exceed 270 degrees). "LB"s or condulets will not be used without prior approval. Conduit shall terminate 3" on the 4 x 8 backboard in the equipment room. Both ends of the conduit should be capped to prevent the entrance of debris during construction. See attached drawing.

4. In addition to the hardware described above, I would appreciate the following information:

	Tentative Construction Schedule		Date
	Conduit, muletape in place	•	
	Backboard, ground in place		
	Date telephone service required		
	Number of pairs required		
Job Super.			Office #

If you should have any questions or concerns regarding these requirements, please do not hesitate to call me. Please be advised that failure to provide the requested material and information in a timely manner could result in substantial delays for U S West to establish service at this location.

Otherwise, please call me at _970-244-4721_ with two working days notice after all items are in place for a site inspection. When ALL items are in place, I will schedule your project with our Construction Department and provide the cable entrance facilities within 14 calendar days. THE TRENCH FOR THE COMMERCIAL SUBDIVISION WILL NEED TO PROVIDED FOR OUR TELEPHONE CABLE AND WE WILL SET PEDESTALS TO FEED EACH BUILDING OR PROPERTY. ENGINEERING AND CONSTRUCTION PROCESS USUALLY TAKES ABOUT 60 DAYS AFTER WE HAVE TRENCHING SCHEMATIC.

Actual telephone service can be provided as soon after that date as can be accommodated by our normal order interval and/or whatever date the communications vendor can arrange.

Sincerely, Map Marg

MAX WARD

COMMUNICATIONS





CONDUIT DETAIL NTS

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PUBLIC SERVICE COMPANY OF COLORADO " A NEW CENTURY ENERGIES COMPANY February 13, 1998

7 1997 FFR estern Division 538 Blichmann Avenue Grand Junction, Colorado 81505

Mr. Jay Wolverton Wolverton & Associates 5600 Oakbrook PKWY Suite 100 Norcross, Georgia 30093

re: Rimrock Subdivision

Dear Jay,

This letter is to inform you that Public Service Company of Colorado has the capacity and intends to provide Electric and Natural Gas service to the development known as "Rimrock Subdivision" in Grand Junction, CO.

If you have any questions or other needs please contact me at 970-244-2693.

Jon Price PSCo February 13, 1998

Mr. Mark K. Achen, City Manager City of Grand Junction 250 North 5th Street Grand Junction, CO 81501-2668

RE: Rimrock Marketplace Shopping Center Grand Junction, CO W & A Project No. 95-137

Dear Mark:

I would like to take this opportunity to thank you for meeting with Mr. John Rubenstein, Mr. Tom Volkmann, and myself to discuss the Special Improvement District for the subject project. Obviously we are excited about the project and look forward to the possible assistance from the City of Grand Junction with regards to the Special Improvement District.

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As we discussed in our meeting, I will be preparing exhibit drawings and cost estimates for these aspects and will forward to your office the week of February 16 for public works, finance department and your review. We will await any comments at that time. After the first submittal I think it will be imperative that we talk to discuss if a March 2 meeting is feasible or if we should wait until March 16 to make a presentation at the City Council's work session.

Mark, once again, thank you for the opportunity to meet. I look forward to working with you on this project. In the meantime, should you have any questions whatsoever, please do not hesitate to contact me.

Sincerely,

Jerry C. (Jay) Wolverton, Jr., P.E. President

JCW:ss

C:

Michael Staenberg, THF Realty John Rubenstein, Rubenstein Real Estate Co. Tom Volkmann, Attorney at Law February 13, 1998

Mr. Michael Drollinger Ms. Jody Kliska City of Grand Junction 250 N. 5th Street Grand Junction, CO 81501

RE: Rimrock Marketplace Shopping Center Grand Junction, CO W & A Project No. 95-137

INCO

Dear Michael and Jody:

I would like to take this opportunity to thank you for meeting with Mr. Rubenstein and myself to discuss the submittal process for the construction drawings for the subject project. It appears that the City has a well defined system in place, which Wolverton & Associates typically finds much easier to follow, as opposed to cities without written guidelines. As I mentioned in our meeting, we are moving forward with construction documents and will be making periodic submittals to your office for review and comment. Michael, your suggestion of exchanging plans frequently and having an open line of communication is very well understood and a theory that Wolverton & Associates adhers to strictly. We do not care for the "blind sides" that can occur at the end of the project if there has not been open dialogue between ourselves and the City. Therefore, we will welcome any and all comments during the review/design process in anticipation of a smooth project.

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Once again, thank you meeting with us. I look forward to working with your office for the development of Rimrock Marketplace Shopping Center. In the meantime, should you have any questions or comments, please do not hesitate to call.

Sincerely,

Jerry C. (Jay) Wolverton, Jr., P.E. President

JCW:ss

c: Michael Staenberg, THF Realty John Rubenstein, Rubenstein Real Estate Ċ

UTE WATER CONSERVANCY DISTRICT

560.25 Road, P.O. Box 460 Grand Junction, CO 81502

Office Telephone: 970-242-7491 FAX: 970-242-9189 Treatment Plant Telephone: 970-464-5563 FAX: 970-464-5443

February 18, 1998

Mr. Jerry C.(Jay) Wolverton, Jr., P.E. President Wolverton & Associates, Inc. 5600 Oakbrook Parkway, Suite 100 Norcross, Georgia 30093

RE: Rimrock Marketplace Shopping Center Grand Junction, CO W & A Project No. 95-137

Dear Jay:

In response to your letter of February 13, this letter is to serve as a letter indicating availability of domestic water for the proposed Rimrock Marketplace Shopping Center. I have included a map of our water system around the subject property. The map shows existing 8-inch water mains in Independent Avenue, south I-70B service road, and at the intersection of 25 Road and Independent Avenue. Additionally, we have an existing 3-inch water line in the railroad ROW from 25 Road and Independent Avenue to the southeast along the south edge of the subject property.

As we discussed the water lines in the shopping center should be looped to insure adequate fire flows. . Required fire flows will have to be determined by the Fire Department and then flow tests can be made to confirm the adequacy of the existing system. After looking at our system maps, my idea of connecting to the existing 10-inch water line in Independent Avenue, north of I-70B, does not appear to be feasible. A better option may be replace the existing 3-inch waterline in the railroad ROW with a new 8-inch main. The waterline that you mention near the Harley Davidson dealership is a City of Grand Junction water line and would not be able to be used for looping.

All water lines would have to be C-900 PVC, Class 150, and constructed to Ute Water's Standard Specifications. Additionally, all water lines on private property would be the property of the shopping center and have to be maintained by the shopping center.

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If you have any questions regarding this please feel free to contact me.

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Very truly yours,

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Edward Tolen Project Engineer

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214 - C. 241
February 18, 1998

Mr. Mark Achen City Manager City of Grand Junction 250 N. 5th Street Grand Junction, CO 81501

RE: Special Improvement District US Hwy 6 & 50 - Grand Junction, CO W&A Job # 95-137

Dear Mark,

As per our meeting on February 10, 1998, I am enclosing a copy of a conceptual plan and conceptual cost estimate depicting the public improvements that would be included in the proposed Special Improvement District associated with the construction of the Rimrock Marketplace Shopping Center on US Hwy 6 & 50 in Grand Junction, CO. The items that are being proposed in the Special Improvement District include the construction of public roadways, including sidewalks, landscaping, irrigation, site lighting within the right-of-way, storm drainage, water line installation, and sanitary sewer installation. A 24" x 36" color coded map is enclosed showing the public improvements as proposed in the project. As you can tell from the plan, the Special Improvement District presently proposes the construction of a frontage road to the southeast connecting to Mulberry Street. This particular item may or may not be included in the Special Improvement District depending on the participation of the adjacent property owners. It's cost has been broken our separately.

Wolverton & Associates

As I discussed with you and several staff members of the City of Grand Junction during my visit on February 10-12, 1998, I wanted to make a preliminary submittal as quickly as possible so that the city staff could review and incorporate any comments or questions. Concurrently, we will be meeting with the adjacent property owners to the southeast to discuss their participation in the Special Improvement District. It is still our intention to make a presentation to the Grand Junction City Council at their work session on March 2, 1998, unless you or the city staff feel it is detrimental to do it at this time.

February 18, 1998 Mark Achen Page 2

We look forward to any input from yourself or other staff members with regards to our request. I will keep you updated with regards to participation of the adjacent property owners. In the meantime, should you have any questions or comments, please don't hesitate to call.

Sincerely,

Jerry (Jay) C. Wolverton, Jr. President

JCW/jts

cc: Don Newton, City Engineer Mark Relph, Public Works Engineer Jody Kliska, Development Engineer Trent Prall, Utility Engineer Tim Woodmansee, Property Agent Michael Drollinger, Senior Planner

> John Rubinstein - John Rubinstein Real Estate Mike Staenberg - THF Realty, Inc. Tom Volkman - Tom Volkman, P.C.

Mr. John L. Rubenstein Manager Rubenstein Real Estate Co.,LC 4350 Shawnee Mission Parkway, Suite 159 Shawnee Mission, Kansas 66205



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City of Grand Junction Administrative Services 250 North 5th Street Grand Junction, CO 81501-2668 FAX: 970-244-1599

Dear John:

I am sorry that I missed your last visit here to Grand Junction, but am very pleased to hear that the Rimrock Marketplace Shopping Center is moving forward on schedule. Mark Achen, City Manager, indicated to me that you are still very interested in pursuing the creation of a Special Improvement District to finance all or a portion of the public improvements necessitated by this project. Mark asked that I share with you some of the specific issues or concerns that may come to light as a result of us assisting with this project. About a year ago I prepared an internal memorandum pointing out some of these issues to the various staff members involved in reviewing this project, after receiving some preliminary legal advice from Dan Wilson, Grand Junction City Attorney.

Listed below are some of these issues that may discourage either you or the City Council from proceeding with a tax exempt financing option for a portion of the development.

1) I understand that the preliminary cost estimates for what might be considered public improvements may be approaching \$1 million, in which case the size certainly would warrant a public versus internal financing option. However to protect the public's interest and insure timely debt payments, the City may require that you up front a portion of the cost and only look to us to help with the remaining portion.

2) Some of the Tax Exempt debt savings may be lost if we have to go to a public bidding process to award this portion of your project to the lowest responsive and responsible bidder; which we would typically do and appears required by our own City Code. Whether you and/or your general contractor would want to bid on this work as a separate contract managed and controlled by the City I do not know.

3) The engineering costs of the public improvement portion would probably have to be paid for up front to either your engineers or our engineers; before the project could even be bid. Also, all public improvement projects in the past were managed by the City staff.

4) The processes and procedures required in 2) and 3) above may extend the time frame for completion of the project to a length unacceptable to you, your investors and client businesses.

5) The City Council will undoubtedly be concerned that giving tax exempt financing assistance to your project may set a difficult precedent for other residential and commercial development.

Customer Service, Community Pride

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Page 2 of 2 Letter to John L. Rubenstein

6) Is the tax exempt savings to the developer in this instance sufficient to justify the additional costs to be incurred in the issuance of the tax exempt debt and the creation of a special improvement district together with the concerns and restrictions outlined above?

I hope the above brief outline helps you to understand some of the apparent legal issues and procedural stumbling blocks that may have to be worked through to accomplish the proposed public financing of a portion of this important project.

If I may be of any assistance to you between now and your appearance at an upcoming City Council workshop feel free to call me at (970) 244-1515.

Sincerely,

Ron Lappi, ´´ Administrative Services and Finance Director

 cc: The Honorable Mayor and City Council Mark Achen, City Manager
 Scott Harrington, Community Development Director Dan Wilson, City Attorney
 Tom Volkmann, Attorney at Law
 Jerry C. (Jay) Wolverton, Jr,. President
 Wolverton and Associates March 19, 1998

Mr. Charles I. Dunn, Jr., P.E. Department of Transportation State of Colorado - Region III Right-of-Way 222 South 6th Street Room 317 Grand Junction, CO 81501-2769

RE: Rimrock Marketplace Grand Junction, CO W&A Job # 95-137

Dear Chuck,

I would like to thank you for taking the time to meet with me to discuss the subject project and specific items dealing with the permits. My understanding of items discussed are as follows:

Wolverton

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- 1. A jug handle will be required at the Mulberry Street connection of the proposed frontage road. This jug handle will have to be extended both to the North, as well as the South. Moving the existing connection of Mulberry Street farther to the north will be acceptable, such that we do not impede existing businesses. We will take vacant land for this new construction.
- 2. We discussed the existing access points for the five property owners who presently front 6 & 50, where we will extend the new frontage road. It is my understanding from our discussion that three property owners have permits, while the other two are presently "grand fathered" in. You stated that it would not be a problem to remove their connection to 6 & 50 due to this being controlled by freeway law. This will ease the City's concern such that we do not get into further frontage road problems.
- 3. We are proposing a left turn from 6 & 50 into the site at the Wollard property. The City has a concern of its close proximity to the existing turn around that is being used for snow removal equipment. Your initial reaction was that this turn around could not be removed, due to the fact that your maintenance department uses it. However, you requested the right to review the final drawings to see how the taper for the new turn lane would affect the existing turn around and make any necessary judgments at that time.
- 4. We discussed the stipulation #1 in the permit stating that Wollard's signature would need to be obtained if the frontage were to be closed. However, our alternative is to construct a road from the west tying to his frontage road meeting all CDOT and AASHTO Standards, such that his frontage road is not closed. This would provide an adequate solution and not require us to obtain Mr. Wollards' permission for our proposed road alignments.

Mr. Charles I. Dunn, Jr., P.E. March 19, 1998 Page 2

- 5. We discussed the road design as submitted to the west side of the outlot #1. I mentioned that the City is opposed to this design because it will create another stacking problem at the existing connection of the frontage road to 6 & 50 in front of the Hanson property. You stated that your stance was that portion of the roadway did not have to be constructed and that we could simply use the existing frontage road in it present alignment as access to outlot #1. We do not have to construct a north/south connector adjacent to outlot #1 tying the frontage roads together.
- 6. We discussed the possibility of using some existing right-of-way for parking and landscaping for our development. You stated that we would have to apply for a five-year lease of this property and that it would be appraised for fair market value. You stated that the area could only be used for landscaping and parking and no signage or buildings could be placed in this area.
- 7. We discussed the improvements requested by the City, on Independent Ave. in front of the Sam's property, more particularly the installation of a curb or barrier; such that incoming traffic would be diverted to the east in front of Sam's and would not have direct access to the Sam's or Golden Corral. Your initial reaction was that you did not care for this design, however, you reserved further discussion until a design is submitted for your review and common.

This letter summarizes my thoughts of the items discussed. Should your opinion of any of these items be different, please notify me as soon as possible. Thank you for meeting with me and clearing up a number of items, with regards to our project. We will be moving forward with construction drawings in the very near future and submitting them for final review. In the meantime, should you have any questions or comments, please do not hesitate to call.

Sincerely,

Jerry Č. Wolverton, Jr. President

JCW:jts

cc: Mr. Michael Staenberg - THF Realty, Inc.
Mr. John Rubinstein - John Rubinstein Real Estate
Mr. Tom Volkmann - Tom Volkmann, P.C.
Mr. Michael Drollinger - City of Grand Junction
Mr. Kerry Ashbeck - City of Grand Junction













April 6, 1998

Mr. Charles Dunn, P.E. State of Colorado Department of Transportation 222 South Sixth Street, Room 317 Grand Junction, Colorado 81501-2769

RE: Meeting Minutes Grand Junction, CO W & A Project No. 95-137

Dear Mr. Dunn:

The following are our meeting minutes, per our meeting on April 3, 1998:

In our meeting, on April 3, 1998, with Charles Dunn and Jim Nall of the State of Colorado Department of Transportation, the following issues were discussed:

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- The proposed frontage road will be under the jurisdiction of the City of Grand Junction and will be designed per Exhibit "B", City of Grand Junction Local Street Standards.
- Analyze alternatives to give the Country Store a "turn around".
- Provide 12 foot spacing (4 foot shoulder on Highway 6 & 50; 4 foot shoulder on Access Drive #1 in front of the Country Store; and 4 foot spacing between the two for guardrail or Jersey Barrier) between the edges of pavement of Access Drive #1 and Highway 6 & 50.
- Phil Scott of Leigh, Scott, & Cleary will analyze the use of a 4:1 taper for the left turn movement at Highway 6 & 50, and Access Drive #2 to increase the storage length. He will also analyze the lane configuration for the intersection improvements in front of Sam's Club.

5600 Oakbrook Parkway • Suite 100 • Norcross, Georgia 30093 • 770-447-8999 • 770-447-9070 Fax www.wolverton-assoc.com Mr. Charles Dunn April 6, 1998 Page 2

These are the Meeting Minutes, as recorded by Wolverton & Associates, Inc.. If you have any comments, please make changes to the above issues and return to us at your earliest convenience.

Sincerely,

Af Belgu

Jeff Belyea, P.E.

JGB: tp

c: Jody Kliska, City of Grand Junction Kerrie Ashbeck, City of Grand Junction Jim Nall, Colorado DOT



April 6, 1998

Mrs. Kerrie Ashbeck, P.E. City of Grand Junction 250 North 5th Street Grand Junction, Colorado 81501

RE: Meeting Minutes Grand Junction, CO W & A Project No. 95-137

Dear Mrs. Ashbeck:

The following are our Meeting Minutes, per our meeting on April 3, 1998:

In our meeting, on April 3, 1998, with Kerrie Ashbeck and Jody Kliska of the City of Grand Junction, the following issues were discussed:

- Access Drive #2 will be a 3-lane section.
- The sidewalk along the right side of Access Drive #1 will be removed.
- Whenever feasible, 4:1 side slopes will be used on the frontage road.
- 25 ½ road will be designed for ultimate condition per Exhibit "A", City of Grand Junction Major Street Standards. (Initially, 22 feet of proposed pavement will be built providing two 11foot lanes.)
- Provide bike path, per Exhibit "B", City of Grand Junction Local Street Standards, up to the main frontage road.
- A 2.0% cross slope will be proposed on all city roads.

Mrs. Kerrie Ashbeck April 6, 1998 Page 2

These are the Meeting Minutes, as recorded by Wolverton & Associates, Inc.. If you have any comments, please make changes to the above issues and return to us at your earliest convenience.

Sincerely,

Balyn H

Jeff Belyea, P.E.

JGB: tp

c: Jody Kliska, City of Grand Junction Charles Dunn, CODOT Jim Nall, CODOT

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Memo

To:	Michael Staenberg, THF Realty	
From:	Joe Macrina, P.E., Wolverton & Associates, Inc	
Subject:	Rim Rock Plaza	
Date:	April 9, 1998	
CC:	John Rubinstein, Rubinstein Real Estate	

Michael:

Based on our meetings with the City of Grand Junction and Charles Dunn from the Colorado DOT last week, we have made several minor revision to the frontage road in front of the Woolard Property and the access drive between outlot #2 and outlot #3. I would like you to review and approve these revisions prior to implementation in the design.

Charles Dunn requested that we provide a cul-de-sac at the end of the frontage road in front of the Woolard Property. In order to provide this turn around, the access drive between the two outlots needs to be realigned to the southeast with Highway 6 & 50.

Charles stated that the frontage road can not end at the Woolard Property in a "dead-end" situation without a cul-de-sac. He has stated that if we install a cul-de-sac as shown that he will approve the plans without any type of consent or approval being required by Woolard.

The realignment of the access drive and the addition of the cul-de-sac result in the loss of approximately 3500sf of area to outlot #3. The remaining outlot area is approximately 59,000 sf, not a considerable impact to the overall outlot size. The attached drawing depicts these changes. If you have any questions, please give me or Jay a call.

MEETING MINUTES

 Project:
 Rimrock Plaza;
 J

 Grand Junction, CO

 Meeting Location:
 City of Grand Junction
 N

Department of Public Works

Job No.: 95-137

Meeting Date: June 30, 1998

Meeting Time: 1:00 PM – 4:00 PM

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Present:

Jody Kliska, CGJ Kerrie Ashbeck, CGJ Michael Drolinger, CGJ Jim Nall, Colorado DOT Joe Macrina, W&A

The following are comments and items discussed during a Rimrock Plaza Coordination Meeting based on the latest set of roadway plans:

- Look at extending the median @ the left turn to Access Drive #2 to discourage left turn movements onto 6 & 50
- Provide raised island @ Access Drive #2 for the right-in/right-out movements
- The City would like to get a concession from Sam's regarding stop condition @ 6 & 50. This will be provided by THF at a later date.
- Status of securing property for the connector road:
 - No contact has been made yet
 - W&A will use the City's eminent domain powers to obtain right-of-way
- The design plans will only require administrative review from the City of Grand Junction staff
- Discussed the access alternatives to Outparcel #1A

Rimrock Meeting June 30, 1998 Page 2

- An ET 2000 Impact Attenuator may be used in conjunction with guardrail to separate traffic adjacent to 6 & 50 and the frontage road to Woolard. CDOT to investigate alternative treatments in this area.
- CDOT Jim Nall to investigate:
 - barrier/treatment between 6 & 50 and access drive #1
 - Clarification of Stipulation #1 to both access permit. Joe Macrina referred to John Rubenstein's letter and the Wolverton meeting minutes with Charles Dunn.
- Talked to Phil Scott as to whether analysis included no turn on red @ 6 & 50/Sam's intersection
- Revisit left-turn lane criteria into access drive #2 with removal of U-turn. Should be approximately 800'- 1000': 45 mph; 50:1 redirect; 400' storage
- Show access to adjacent property owners/business on the main frontage road
- Discuss with Phil Scott the following items:
 - users of U-turn?
 - Removal of the U-turn for general traffic

ACTION ITEMS

- Follow-up with Jim Nall regarding Stipulation #1
- Revise plans for: raised median
 access to outparcel #1A
- Left turn into Access Drive #2 from 6 & 50
- City of Grand Junction to provide letter/memo regarding Preliminary Plan acceptance based purely on an engineering standpoint (i.e. we have satisfied alignment criteria, design criteria, access criteria)
- c: M. Staenberg, THF Realty J. Wolverton, Wolverton & Associates R. Peltier, Wolverton & Associates

DNT

STATE OF COLORADO

DEPARTMENT OF TRANSPORTATION Region 3 Traffic

606 South 9th Street Grand Junction, CO 81501-3794 (970) 248-7230

July 1, 1998

Joseph R. Marcrina Director of Transportation Wolverton and Associates, Inc. 5600 Oakbrook Parkway, Suite 100 Norcross, Georgia 30093

01 JUL 1 4 1998

JAY IYI

Dear Mr. Marcrina:

I am writing in response to your request for an extension of access permit numbers 396261 and 396262. I am happy to inform you that the expiration date for both permits is extended to July 17, 1999. I hope this will facilitate your construction plans.

Please contact me if you have any questions.

Sincerely,

Jim Nall Region 3 Traffic Engineer

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July 2, 1998

City of Grand Junction City Council Members 250 North 5th Street Grand Junction, Colorado 81501-2668

RE: Access to Wollard Property Highway 6 & 50 Grand Junction, CO W & A Project No. 95-137

Dear Council Members:

The purpose of this letter is to explain the sequence of events that have occurred within the last two months with regards to negotiations with Mr. Harold Wollard for access to his property located on Highway 6 & 50, in front of the proposed Rimrock Marketplace Shopping Center. On May 15, 1998, Mr. Tom Volkmann and myself met with Mr. Wollard and his representatives to give him an update of the project's status and to discuss access to his property. In that meeting, an offer was made to Mr. Wollard that THF Realty, Inc., the developer of Rimrock Shopping Center, would construct a public roadway at their cost, meeting all City requirements, with a dedicated public right-of-way that would abut his property to the south and would run the entire frontage of his southern property line. This alternate would allow two access points for his property back to Highway 6 & 50. Also, THF Realty, Inc. would provide stormwater detention for his one acre parcel, as it exists today, and to confirm that utilities (water, sanitary sewer, etc.) of adequate size and capacity are extended to his parcel. A stipulation of THF Realty, Inc. was that they have the right to be able to grade Mr. Wollard's site and to slightly lower it in elevation so it is at a uniform grade with the remainder of the Rimrock Marketplace Shopping Center. This proposal was reviewed by Mr. Wollard and subsequently denied.

At that point, THF Realty, Inc. revised its offer to include all of the above and, in addition, to donate, at no cost to Mr. Wollard, an additional half acre of property so that his property size would be one and one-half acre, total. This property was to be platted and deeded to Mr. Wollard with all legal fees, engineering fees, etc., covered by THF Realty, Inc., and, again, with no cost for the half-acre of land. This offer was denied.

City Council Members July 2, 1998 Page 2

Finally, a third offer was presented to Mr. Wollard, which incorporated both of the original offers, as well as a payment of \$40,000.00 in cash (a sum that Mr. Wollard has stated that he has expended to cover legal fees dealing with this issue). Again, this final offer was rejected.

As you can see, THF Realty, Inc. has been more than equitable in trying to resolve the situation with Mr. Wollard. Therefore, finding no resolution with Mr. Wollard, we have moved forward with engineering plans that provide a publicly dedicated road to the front of Mr. Wollard's property, utilizing the existing right-of-way and providing a cul-de-sac for turn around and access back to Highway 6 & 50. As you can see from the attached letters, this engineering concept has been given preliminary approval by the City of Grand Junction's engineering department, as well as by the Colorado Department of Transportation. From an engineering standpoint, this design provides Mr. Wollard's property with access through a public right-of-way and roadway that is to be constructed by others, at no cost to Mr. Wollard. Furthermore, this roadway grants Mr. Wollard's property access back to the existing traffic signal at Highway 6 & 50, and there is no impediment to his property, whatsoever.

I trust that this letter will assist the City in its judgement that THF Realty, Inc. has made all efforts possible to work with Mr. Wollard to resolve the issue of access to his property. Finding no amicable solution that is fair and equitable to THF Realty, Inc., we have moved forward in preparing a design that meets engineering guidelines and requirements. Based on the attached letters, we find that this design is acceptable. Therefore, we would request the City of Grand Junction to accept our proposal, with regards to resolution of the Wollard situation, as proposed.

Thank you for your consideration in this matter. Should you have any questions or comments, please do not hesitate to contact myself or Mr. Tom Volkmann @ 970/256-0440.

Sincerely.

Jerry C. Wolverton, Jr., P.E. President

JCW: tp

Attachments

C: Mr. Michael Staenberg, President, THF Realty, Inc.

THOMAS C. VOLKMANN, P.C.

ATTORNEY AT LAW

655 North 12th Street Grand Junction, Colorado 81501 Phone: (970) 256-0440 • Fax (970) 256-0457

July 8, 1998

City of Grand Junction City Council Members 250 North 5th Street Grand Junction, Colorado 81501

Dear Council Members

A. .

THF Belleville Development, L.P. hereby submits to the Grand Junction City Council this summary of the topics about which THF Belleville would like to open discussions with the Grand Junction City Council relative to the Rimrock Marketplace, a retail center located at the southwest corner of 25½ and Highway 6 & 50.

This matter is the subject of a Conditional Use Permit issued on December 18, 1996, in City File No. CUP-96-180. That Conditional Use Permit was extended in December of 1997 through December 18, 1998. The current status of the project site is that clearing is being performed on the surface, to remove vegetation, structures, debris, etc. to begin to prepare the site for the construction necessary to develop the project.

THF Belleville is presently in the process of preparing the necessary documentation and drawings to formally apply for the final approvals necessary to the development. However, in the interim, representatives of THF Belleville have had several conversations with Dan Wilson and Ron Lappi regarding the possibility of the creation of an improvement district to finance those portions of the required improvements which constitute public improvements in and around the development site. Attached to this letter are documents entitled "CONCEPTUAL COST ESTIMATE FOR PUBLIC IMPROVEMENTS TO SERVE RIMROCK SPECIAL IMPROVEMENT DISTRICT U.S. HIGHWAY 6 & 50, GRAND JUNCTION, CO," as well as a drawing entitled "PROJECT COST," which drawing outlines in colored overlay those portions of the public improvements which THF Belleville intends to include within the scope of the improvements district.

Of course, THF Belleville is aware that this is a sizeable project, with large public improvements aspects (i.e., the primary entrance road to the site, the 25½ Road improvements, and the connection of the Highway 6 & 50 frontage road with Mulberry Street). In light of the magnitude of the public improvements involved, THF Belleville believes this to be an appropriate project for the creation of an improvements district, to provide a financing arrangement through which these public improvements can be paid for by the benefitted City of Grand Junction City Council Members July 8, 1998 Page - 2 -

property or properties.

In light of the procedures related to the creation, adoption and financing of an improvements district, THF Belleville wanted to get this matter on the table as soon as possible, so all concerned could begin addressing it in general terms. In earlier conversations with Dan Wilson regarding those procedures, the primary concerns expressed in the context of addressing this topic were:

1. Obtaining drawings of the public improvements work to actually be done in connection with the project; and

2. Further addressing of the issues contained in the objections by Mr. Harold Woolard, the owner of *The Corner Store* property, around which the Rimrock Marketplace property be developed, regarding his access.

The enclosed drawing outlines the subject public improvements. Also submitted with this letter is a letter, dated July 2, 1998, from Jay Wolverton of Wolverton & Associates, Incorporated, the engineers working on the project for THF Belleville, setting out the most recent series of exchanges between THF Belleville and Mr. Woolard looking to obtain a resolution of those issues. For the reasons set forth in the letter, it does not appear a resolution is forthcoming. However, we wanted the City Council to be aware of the efforts we have taken to try to resolve those issues, in our effort to address Mr. Wilson's expressed concern.

We appreciate the opportunity to address this issue with the City Council and we look forward to a continued positive working relationship with the City of Grand Junction as this development proceeds.

Very truly yours

THOMAS C. VOLKMANN

TCV:cez Enclosures

Ballemer PAGE

Fax

TO: Thomas C. Volkmann Attorney's Office, City of Grand Junction FROM: RE: SIDs, BIDs, LIDs 07/08/98 10:26 AM DATE: 5 (Including Cover) # Copies: Fax #: 256-0457

Dan Wilson asked me to send you copies of the following **COMMENTS:** flow charts:

-	City Co	de, Chapt	er 28 "	'Public	Improvements"
---	---------	-----------	---------	---------	---------------

- C.R.S. 30-25-501

"Special Improvement Districts"

- C.R.S. 30-25-1201
- C.R.S. 30-25-601

"Business Improvement Districts" "Local Improvement Districts"

The flow charts are an attempt to make the logistics of the statutory mechanisms for local improvements more accessible. The weakness of the flow charts is that they tend to be somewhat oversimplified and lacking in textual analysis. Our hope is that they will serve as a logical starting point for City officials and provoke thoughtful questions that we can then address.

If you have any questions please contact Rob Lamb at the City Attorney's Office.



1





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PAGE 04



SIGNAGE PLAN RIMROCK MARKETPLACE

All Signage must meet the requirements contained in Section 5-7 of the Zoning and Development Code (ZDC), as amended. In addition, the following provisions will be part of the signage plan for Rimrock Marketplace:

- 1. One project identification sign may be located along each roadway frontage. For the purposes of this approval, the project identification sign may be located at the Hwy. 6&50 frontage (as identified on the attached site plan) rather than having to be located along the relocated frontage road. The project identification sign along Hwy 6&50 may be a freestanding sign, not to exceed 25 ft. in height and 300 square feet in area. The project identification sign along the 25 1/2 Road frontage shall be limited to a monument signs, not to exceed 6 feet in height and 150 square feet in area.
- 2. Only monument signs (in addition to wall signs), not to exceed 6 feet in height and 150 square feet in area are permitted for identification of uses on the pad sites as identified on the attached site plan.
- 3. Wall mounted signs are permitted in accordance with the sign code. For purposes of signage allowance calculations, the retail center must utilize the relocated frontage road rather than Highway 6&50.
- 4. No roof signs are permitted anywhere in the development.

5. Traffic control signs require the approval of the City Development Engineer.

THOMAS C. VOLKMANN, P.C.

ATTORNEY AT LAW

655 North 12th Street Grand Junction, Colorado 81501 Phone: (970) 256-0440 • Fax (970) 256-0457

November 2, 1998

Mr. Michael Drollinger City of Grand Junction Community Development Department 250 North 5th Street Grand Junction, Colorado 81501

Re: THF BELLEVILLE DEVELOPMENT, L.P. - CUP #96-180

Dear Michael:

This letter is written to request an extension by THF Belleville Development, L.P. of the Conditional Use Permit for the Rimrock development. Please accept this letter as a formal written request for that extension.

As your office is aware, this project was issued a Conditional Use Permit on December 18, 1996, and subsequently, a one year extension of that Conditional Use Permit through December 18, 1998. Since the granting of the extension, THF Belleville Development, L.P. has focused its attention on finalizing road design, surface clearing in conjunction with a permit issued by the City of Grand Junction, working with prospective tenants for the shopping center, and revising drawings of the development through Wolverton & Associates, their architects in Atlanta, Georgia. In addition, I have met with City representatives on several occasions and appeared at a council workshop to explore the possibility of an improvement district for portions of the public improvements contemplated in conjunction with the build-out of this development.

THF Belleville requests that the Conditional Use Permit for its shopping center, bearing No. CUP 96-180, be extended for one year, through and including December 18, 1999.

Should you need any further information regarding this matter, please let me know immediately and I will get it to you. I thank you in advance for your assistance in this matter.

Very truly

TCV:cez

cc: Mr. Jay Wolverton, Wolverton & Associates Mr. John Rubenstein, THF Belleville, L.P.

THOMAS C. VOLKMANN, P.C.

ATTORNEY AT LAW

655 North 12th Street Grand Junction, Colorado 81501 Phone: (970) 256-0440 • Fax (970) 256-0457

December 1, 1998

Michael Drollinger City of Grand Junction 250 North 5th Street Grand Junction, Colorado 81501

Re: Conditional Use Permit Extension/Rimrock Shopping Center

Dear Michael:

In response to your recent request for additional information regarding our application for an extension of the Conditional Use Permit for the Rimrock Shopping Center, I have enclosed herewith the following documents evidencing work performed pursuant to the current Conditional Use Permit in the proposed development of the Rimrock Property by THF Belleville Development, L.P.:

DATE	DOCUMENT
February 12, 1998	Letter from Max Ward, U.S. West to Jay Wolverton Re: Communications Service Requirements Rimrock Mall
February 13, 1998	Letter from Jon Price, Public Service Co. to Jay Wolverton Re: Electric & Gas Service to Rimrock
February 13, 1998	Letter from Michael Staenberg, THF to Mark Achen, City Manager Re: Rimrock Marketplace Shopping Center
February 13, 1998	Letter from Jay Wolverton to Michael Drollinger, City of G.J. Re: Rimrock Marketplace Shopping Center

Michael Drollinger December 1, 1998 Page 2

February 18, 1998	Letter from Edward Tolen, Ute Water to Jay Wolverton Re: Water lines for proposed Rimrock Ctr.
February 18, 1998	Letter from Jay Wolverton with attachments to Mark Achen, City of G.J. Re: Conceptual Plan and Cost Estimates
NO DATE	Letter from Ron Lappi, City of G.J., Admin. to John Rubenstein Re: Creation of Spec. Imp. Dist.
March 19, 1998	Letter from Jay Wolverton to Charles I. Dunn, Jr. Colo. Dept. of Trans. Re: Rimrock permits
NO DATE	Two (2) Conceptual Cost Estimates & Maps
April 6, 1998	Letter from Jay Wolverton to Charles Dunn, Colo. Dept. of Trans. Re: 4/3/98 meeting minutes
April 6, 1998	Letter from Jay Wolverton to Kerrie Ashbeck P.E., City of G.J. Re: 4/3/98 meeting minutes
April 9, 1998	Memo from Jay Wolverton to Michael Staenberg, THF Realty Re: Rim Rock Plaza road changes
June 30, 1998	Rimrock Meeting Minutes
July 1, 1998	Letter from Jim Nall, Traffic Engineer to Joseph Marcrina, Dir. of Trans. Re: Extension of Permits
July 2, 1998	Letter from Jay Wolverton to City Council Members, City of G.J. Re: Access to Wollard Property

Michael Drollinger December 1, 1998 Page 3

July 8, 1998

Letter from Volkmann to G.J. City Council Members Re: THF Summary of discussion topics

July 8, 1998

FAX from City Attorney's Office to Volkmann RE: SIDs, BIDs, LIDs

In addition to the above documents, the following drawings are submitted, evidencing some of the work performed by or on behalf of Wolverton & Associates, Inc. in connection with this project:

- 1. Demolition Plan, dated 6/98;
- 2. Conceptual Site Plan, dated 6/2/98 (Two (2) alternatives);
- 3. Preliminary Site Plan, dated 8/5/98;
- 4. Color Diagram of Proposed Roadway Improvement, dated 11/25/98;
- 5. Five (5) Roadway Plan Drawings, bearing drawing nos. 5-01, 5-06, 5-07, 5-08, 5-09; and
- 6. A Roadway Plan Drawing reflecting proposed internal street design.

As is evident from a review of the above documents, there have been numerous meetings between representatives of THF Belleville Development, L.P., the City of Grand Junction and CDOT, as well as other development related authorities. Those meetings related to approval processes, permitting time frames, plan productions, and the exchange of pertinent data with regard to the design of the Rimrock Shopping Center. In late summer, 1998, we presented to the City Council at a workshop a proposal for consideration of a Special Improvement District for certain of the infrastructure work required as part of the approval of this project. That meeting, which we had been attempting to schedule for several months, required an extensive budgeting and drafting process to provide some financial parameters for the discussion of such a district. Through that process, the costs of the infrastructure work necessary to development of this project was quantified in the three to four million dollar range. This amount of infrastructure expense mandates careful planning and timing to ensure the viability of the project.

As the City is undoubtedly aware, this project has not progressed at the pace originally intended or desired by THF Belleville Development, L.P. However, its representatives have been pursuing the development of this project with all due diligence. As is evident from the enclosed documentation and the staff's involvement in this matter, to date, this is a very expensive, complicated and time consuming piece of commercial development.

City of Grand Junction

Community Development Department Planning • Zoning • Code Enforcement 250 North 5th Street Grand Junction, CO 81501-2668



Mr. John Rubenstein Rubenstein Real Estate Co., LC 4350 Shawnee Mission Parkway Ste 159 Shawnee Mission, Kansas 66205 February 26, 1999

RE: Rimrock Marketplace

Dear John,

I am writing as a follow-up to our meeting of last Thursday, February 18th to summarize staff's understanding of the next steps to be taken in the review process of the project referenced above. Enclosed please find a copy of the submittal checklist for the Minor Subdivision/Site Plan Review process discussed and the submittal deadline dates for the remainder of 1999. Staff's understanding is as summarized below.

- 1. A Planning Clearance for the project must be issued prior to December 17, 1999 in order to have "established the use" for purposes of the existing Conditional Use Permit.
 - 2. The Planning Clearance may involve only the "development" (infrastructure, parking, landscaping), a phase of the development, or the development in combination with one or more of the proposed buildings.
 - 3. A Site Plan Review, which may be combined with a Minor Subdivision, is required in order for a Planning Clearance to be issued. The review would involve very specific plans for improvements (see checklist) to the site for the entire project, although the project could include a phasing plan.
 - 4. The Minor Subdivision must be accompanied by engineering design of all off-site improvements (revisions to signal, entire frontage road, 25-1/2 Road). An Improvements Agreement and Guarantee must be executed for all of the off-site improvements, whether they are to be phased or not, in order for the subdivision plat to be recorded and/or construction to commence.

Rimrock / February 26, 1998 / Page 2

- 5. A revised traffic study will be required with the submittal to address phasing of the project and identify the thresholds at which the off-site improvements will be required to be constructed.
- Since phasing the project was not discussed as part of the Conditional Use Permit. It will be necessary to request an amendment to the Conditional Use Permit. The Planning Commission could hear the amendment in conjunction with the Minor Subdivision.
- 7. A separate Site Plan Review and/or other planning processes will be required for each subsequent building on the site which is not included in this initial application.

Please do not hesitate to contact me if you have questions regarding this information or the Rimrock project in general.

Sincerely,

Kristen Ashbeck Planner

C: Kerrie Ashbeck, City Development Engineer Jay Wolverton, Wolverton & Associates Community Development File CUP-1996-180
REVISED

RIMROCK SHOPPING CENTER

GRAND JUNCTION, COLORADO

COP-1996-180

LEIGH, SCOTT & CLEARY, INC. TRANSPORTATION PLANNING & TRAFFIC ENGINEERING CONSULTANTS

1889 York Street Denver, CO 80206 (303) 333-1105 FAX (303) 333-1107 E-mail: lscden@ecentral.com



August 9, 1999

Mr. Michael Staenberg THF Realty, Inc. 955 Executive Parkway, Suite 210 St. Louis, MO 63141

> Re: Rimrock Shopping Center Update Grand Junction, CO (LSC #990970)

Dear Mr. Staenberg:

We are pleased to submit our revised report of the traffic impacts of the proposed Rimrock Shopping Center in Grand Junction, Colorado. The report supersedes a March 3, 1997 LSC report which addressed an earlier development plan.

The traffic study first provides a summary of existing roadway and traffic conditions in the vicinity of the proposed site. It then provides estimates of the amount and directional distribution of traffic that will be generated. Finally, the impacts of the project-generated traffic are evaluated and recommendations are made regarding roadway improvements. An important component of the study is the location and design guidelines for access points that will be necessary to serve this development from the adjacent arterial roadway.

We trust that our findings and recommendations will assist in obtaining approval of the Rimrock Shopping Center. Please call if we can be of additional assistance.

Respectfully submitted,

LEIGH, SCOTT & CLEARY, INC.

Bv

Philip M. Scott III, P.E.

PNS/wd

E:\PROJECTS\1999\990970\F-RIRO



Traffic Impact Analysis

Rimrock Shopping Center

Grand Junction, Colorado

Prepared for

THF Realty, Inc. 955 Executive Parkway, Suite 210 St. Louis, MO 63141

Prepared by

Leigh, Scott & Cleary, Inc. 1889 York Street Denver, CO 80206 (303) 333-1105

> August 9, 1999 (LSC #990970)

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The Rimrock Shopping Center is a proposed retail development to be located along the southerly side of US Highway 6 and 50 and west of 25 1/2 Road (extended) in Grand Junction, Colorado. This 49.7-acre project will contain approximately 330,000 square feet of retail space upon buildout.

Leigh, Scott & Cleary, Inc. has been retained to prepare a traffic impact analysis of the development. This report was prepared in accordance with the requirements of the City of Grand Junction. The purpose of this study is to determine the effects on the safety and capacity of surrounding roadways and intersections due to the construction and operation of the Rimrock Shopping Center. Specific steps taken in this analytical process are described as follows:

- A review and analysis of present roadway and traffic conditions in the vicinity of the site. This task included the review of intersection turning movement counts conducted at the intersections of Independent Avenue with US 6/50 and Sam's Club. In addition, an evaluation of the 1991 through 1994 traffic accident history was made.
- A determination of the amount of daily and peak-hour traffic that would be generated by buildout of the proposed development and an analysis of the directional distribution of the proposed traffic on the surrounding roadway system.
- A projection of future background traffic volumes on the adjacent street system for Year 2015.
- A determination of future traffic impacts associated with the proposed development. These impacts are based upon estimates of the total amount of traffic on the surrounding roadway system and the resulting Levels of Service (LOS) at the key access intersections.
- A determination of street and access improvements that will be necessary to mitigate the traffic impacts associated with the proposed development.

The location of the proposed Rimrock Shopping Center is shown in Figure 1. The site is bordered on the northeast and east by the US Route 6 & 50 and on the southeast and south by the D&RGW Railroad. The area surrounding the proposed site is generally comprised of commercial and light industrial uses.

Area Roadways

Major roadways in the vicinity of the site are also illustrated in Figure 1. These roadways are described below along with a brief discussion of anticipated future roadway construction and improvements.

• <u>US Route 6 & 50</u> is a four-lane, undivided roadway which extends from points west to just east of the subject site where the roadway diverges into its individual components. Both of these components and the joint roadway are classified as Principal Arterials in this area. US 6 continues easterly through the Grand Junction Central Business District where it eventually bisects Interstate 70 on the eastern side of the City. US Route 6 and Interstate 70 then shadow each other across the state to where they once again diverge just west of Denver. US Route 50 continues southerly along the west side of Grand Junction towards Montrose where it turns easterly and proceeds across the state.

The main access for the proposed shopping center is to be located at the Independent Avenue signalized intersection with US 6/50 (adjacent to Sam's Club). The US 6/50 intersections with Independent Avenue (Sam's Club), 25 Road, 24 1/2 Road, and the "McDonald's" entrance are all presently controlled by traffic signals. All other intersections in the immediate area are Stop sign controlled.

• <u>Independent Avenue</u> is a two-lane undivided collector route which extends westerly from 1st Street across US 6 & 50 to 24 3/4 Road. 24 3/4 Road is located approximately one mile west of the proposed main access to the development.

Present Traffic Volumes

Peak-hour traffic counts were conducted by Counter Measures, Inc. on April 17 & 19, 1999 in the vicinity of the development site. Figure 2 summarizes the results of these counts. They were conducted during the morning and evening weekday peak travel periods of 6:30 to 8:30 AM and 4:00 to 6:00 PM, respectively. The actual peak-hours occurred from 7:30 to 8:30 AM and from 4:30 to 5:30 PM. Intersection turning movement counts were also conducted during a Saturday peak travel period between the hours of 11:00 AM and 2:00 PM. The actual Saturday peak-hour occurred from 12:45 to 1:45 PM. Printouts of all count data are included as Appendix A to this report.

Proposed Access Plan

As part of the Rimrock development plan, the existing section of US 6/50 South Frontage Road east of Independent Avenue (south) will be eliminated. A major internal roadway which will proceed south and east from the existing US 6/50 signalized intersection will be constructed to serve the development. Direct access to the Rimrock Shopping Center will be via this new internal route at five somewhat equally-spaced access points (see Figure 3). In addition, a second point of limited access along US 6 & 50 is planned about 800 feet east of the signalized Independent (Sam's Club) intersection. This access would replace an existing full access intersection serving an existing retail business (Country Store) which will have future access to and from Rimrock's planned internal road.









SECTION C Traffic Generation

The amount of traffic to be generated by buildout of the Rimrock Shopping Center has been determined using trip generation formulae published by the Institute of Transportation Engineers (ITE) in its report, *Trip Generation*, 6th Edition, 1991. The resulting forecasts are given in Table 1 which shows the number of vehicle-trips expected to be generated by the proposed shopping center at full buildout. The gross leasable area is the basis for the tripgeneration estimate.

			TRIP G Rimr Gran We	Ta ENER/ ock Sh od Junc ekdays	Ible 1 ATION E Iopping Ition, Co & Satu	STIMA Cente plorado irdays	TE r o			
			We	<u>ekday T</u>	irip Gene	ration		Saturo	<u>lay Trip Gen</u> Trips	eration
				Trip	s/Hour @	Peak-l	lour	· _	@ Pea	ak-Hour
ltem	<u>Acres</u>	Quantity (KGLA) ⁽¹⁾	Trips/Day <u>Weekday</u>	A _In	M Out	P In	M Out	Trips/Day <u>Saturday</u>	<u>In</u>	Out
Shopping Center	53.6	330	14,690	198	127	663	718	19,360	986	911

Based on these parameters and the ITE trip generation formulae, the proposed development will generate approximately 14,690 vehicle-trips per day on the average weekday and 19,360 vehicles per day on the average Saturday. During the morning peak hour of the average weekday, there will be about 198 "entering" vehicles and about 127 "exiting" vehicles. During the evening peak hour of the average weekday, there will be about 718 "exiting" vehicles. During the peak hour of the average Saturday, there will be about 986 "entering" vehicles and about 911 "exiting" vehicles.

SECTION D Traffic Distribution and Assignment

Traffic Distribution

The directional distribution of generated vehicular traffic on the roadways providing access to and from the proposed Rimrock Shopping Center is one of the most important elements in planning its specific access requirements and in determining its traffic impacts on surrounding roadways and intersections. Major factors which have influenced the traffic distribution assumptions include:

- <u>The location of the development</u> with respect to its planned land uses, nearby residential areas, and other activity and employment centers. (In this instance, the site is located in the southwestern corner of the Grand Junction area and most resultant travel will be to and from the north, the northeast, and the east.)
- The roadway network serving the site.
- The planned access system within the site.
- <u>The existing traffic distribution system</u> as evidenced by counts conducted on April 17 and 19, 1999 by Counter Measures, Inc.
- The types of land uses to be constructed. (This development will be a shopping center consisting of a total of 330,000 square feet of gross leasable retail space.)
- <u>Computer modeling efforts by Mesa County staff</u> which reflect future traffic projections for the study area.

After considering the combined effects of these factors, specific distribution estimates have been made. The results of these estimates and the percent of development-generated traffic on the surrounding roadway system are shown in Figure 4. The percentages shown are descriptive of the traffic during the evening peak-hour, which is the highest traffic period in the day.

Assignment of Project-Generated Traffic

The assignment of project-generated traffic to the surrounding street system and to the access points is shown in Figure 5 for the peak-hour periods. These assignments are made

by applying the trip generation estimates of Table 1 to the trip distribution percentage factors of Figure 4. The peak-hour traffic volumes are in vehicle-trips per hour. As shown, an estimated 15 percent of the generated traffic will access the site from the Independent Avenue, 55 percent will access the site from eastern US 6 & 50, and 30 percent will access the site from western US 6 & 50.







In this report, traffic impacts are expressed in terms of future intersection operational analyses. Future total traffic volumes in the vicinity of the Rimrock Shopping Center will be the sum of the project-generated traffic and the future "background traffic" which consists of all other traffic that would be on the street system without any development on the subject site.

Background Traffic

The estimates of future weekday and Saturday peak-hour background traffic are shown in Figure 6. The 1999 background traffic volumes are shown in Figure 2. The 2015 traffic volumes estimates are based upon a review of past traffic volume forecasts, traffic volumes on the present roadway system, and MINUTP future traffic projections supplied by the Mesa County Department of Land Use and Transportation. Future 2015 average weekday traffic volumes are, for the most part, based upon existing traffic volumes that have been expanded in accordance with projected traffic patterns in the MINUTP run.

Total Traffic

The combined project-generated and existing background traffic volumes for morning and evening, and Saturday peak-hours are shown in Figure 7. The combined project-generated and future background traffic volumes for morning and evening, and Saturday peak-hours for 2015 are shown in Figure 8.

Intersection Capacity Analysis

The traffic impacts of the Rimrock Shopping Center can be described by evaluating the resulting levels of traffic service (LOS) at the intersections and access points that will be directly affected by the development. Intersection capacities have been analyzed in accordance with the requirements of the current edition of the *Highway Capacity Manual* (HCM), using the "operations" methodology. Traffic volumes used in the analyses include those from Figures 7 and 8. The complete analysis reports are located in Appendix B of this report.

The results of the capacity analyses are shown in Tables 2 and 3. These tables show Level of Service (LOS) near-term traffic conditions and 2015 "peak-hour background plus project-generated traffic" volumes at the three key study intersections. The analyses were conducted for the <u>probable</u> intersection geometry and traffic controls. These analyses were conducted assuming that geometric modifications, described in the "Recommended Improvements" section of this report, are made prior to the buildout of the proposed shopping center.

The signalized intersection of US 6 & 50 with Independent Avenue will have varying levels of service depending on the peak hour analyzed. In both near-term conditions and 2015, the intersection will experience modest delays with a LOS C during the morning peak hour. During the evening peak hour, the Level of Service will remain at LOS C for the near-term and change to LOS D by 2015. During the Saturday peak hour, the intersection will experience an overall LOS C and D for near-term and 2015 traffic, respectively.

At the proposed easterly three-quarter access point along US 6/50, the analyses indicate over-capacity conditions for entering left-turns. This result is thought to be misleading, however, since the nearby main entrance signal is likely to create enough gaps in eastbound through traffic for left-turn demand in excess of that projected.

The construction of this project will also create a new four-way intersection about 400 feet south of the "main" US 6/50 access to the shopping center. This intersection is planned to be a two-way stop configuration. The analyses indicate that this intersection will operate at substantially different levels of service based on the peak hour. The intersection will operate at LOS A during the weekday peak hours, but eastbound left-turns will experience significant delays during the Saturday peak hour.

Signal Progression Analysis

A signal progression analysis was performed for US 6 & 50 using Passer II-90, Version 1.0. The intersections included in this analysis were "McDonald's", 24 1/2 Road, 25 Road, and Independent Avenue (proposed main site access). Since turning movement counts were not available for the three westerly intersections, the volumes were determined by using the Mesa County's MINUTP traffic volume projections for 2015 with the shopping center

scenario. Traffic distribution patterns were determined and the raw traffic volumes were distributed accordingly to represent the 2015 Saturday peak hour.

The results of the analysis show that the arterial will have an efficiency of 0.56 ("great progression"). The attainability rating for this segment of US 6 & 50 is calculated to be 1.00. A copy of the actual progression analysis is available for review in Appendix C.

Queuing Analysis

A queuing analysis was performed in areas where it is thought that waiting traffic might "stack up" into other areas of travel. The highest expected traffic volumes, Saturday 2015 background plus project generated traffic, were used for these analyses.

The first area of concern was the northbound traffic at the intersection of US 6 & 50 with the "main" access road. The analysis of these movements showed that a maximum lane length of 240 feet would be required. This is far less than the 400+ feet available between US 6 & 50 and the adjacent frontage road intersection. The second area of concern was the westbound double left-turn lane from US 6 & 50. It was assumed that 55 percent of the westbound left-turners or 271 vehicles would determine the length of the longest lane. The analysis shows that the limiting storage length would have to be 240 feet. The third and final area of concern was the southbound traffic on Independent Avenue (Sam's) approaching US 6 & 50. The analyses show that the through lane is expected to queue (stack up) 140 feet from the US 6 & 50 intersection. The queuing analysis calculations can be seen in Appendix D.













	INTERSECTIO AM/PM/SAT Existing P Rimrock Grand J	Table 2 N LEVELS OF SERVIO URDAY PEAK-HOURS lus Project Buildout Shopping Center unction, Colorado	CE S		
Intersection Location	Intersection Control	Existing Backgroun Level of Service AM	nd Traffic Plus Proje Level of Service PM	ct Generated Traffic Level of Service Saturday	-
US 6/50 & Independent (North)	Signalized	С	С	С	
US 6/50 & East Site Access	NB Stop	А	A (1)	B (2)	
Internal 4-Way	E/W Stop	А	A (3)	A (3)	
Notes: (1) Eastbound left-turns @ LOS D (2) Eastbound left-turns @ LOS F (3) Westbound left-turns @ LOS D)				

8

	INTERSECTIO AM/PM/SATU Y Rimrock Grand Ju	Table 3 N LEVELS OF SERVIO JRDAY PEAK-HOURS ZEAR 2015 Shopping Center unction, Colorado	CE	
Intersection Location	Intersection Control	2015 Background Level of Service AM	Traffic Plus Project Level of Service PM	Generated Traffic Level of Service Saturday
US 6/50 & Independent (North)	Signalized	С	D	D
US 6/50 & East Site Access	NB Stop	A	A (1)	A (2)
Internal 4-way Intersection	E/W Stop	Α	A (3)	B (4)
Notes: (1) Westbound left-turns @ LOS (2) Westbound left-turns @ LOS (3) Eastbound left-turns @ LOS (4) Eastbound left-turns @ LOS	S E S F D F			

SECTION F Traffic Safety Analysis

Traffic accident records were obtained from the Grand Junction Police Department for a three-year period beginning in 1991. The study area included a mile segment of US 6 & 50. one half mile east and west of the proposed shopping center access. There were a total of twenty-six accidents that occurred within the study area and time period. There were six accidents located at the proposed site access intersection (Independent northern extension), four accidents located at the southern Independent Avenue intersection, five accidents located at the 25 Road intersection, five accidents located at the US 6 & 50 interchange, and six accidents located at non-intersection locations along the study segment. Seventy-seven percent (or 20) of the accidents were of the rear-end type. This type of accident is quite common at busy intersection locations and are generally caused by driver inattention. There were only six injuries included within these twenty rear-end accidents and only one other injury attributed to a off-road accident. The other accidents included two broadside accidents and four off-road accidents. Most of the injuries were minor in nature. This proves that most of the accidents occurred at relatively slow speeds. In conclusion, the frequency and severity of the accidents observed for this study area are of a number to be expected along a busy principal arterial such as this one. Accident diagrams have been prepared and can be found in Appendix E.

This proposed development will require some modification to the existing intersections and roadway system. These improvements will be needed to assure safe and efficient traffic operations and to mitigate traffic impacts.

The US 6 & 50/Independent Avenue (Sam's Club) intersection will need to be modified. The north and south approaches to the intersection should each be improved to include two left-turn lanes, two southbound and one northbound through lanes, and one right-turn lane. The eastbound approach to the intersection should add an exclusive right-turn lane and the westbound approach to the intersection should be modified to include two left-turn lanes, two through lanes, and one right-turn lane. The eastbound US 6 & 50 departure should be modified to include an acceleration lane to accommodate right-turns from the project exit. The existing traffic signal installation will have to be modified accordingly and the existing three-phase signal operation will have to be expanded to eight phases. Figure 9 illustrates the proposed lane configurations and traffic controls for this intersection as well as the adjacent internal access intersection.



Based upon the foregoing analysis, the following conclusions may be made concerning the impact of the proposed Rimrock shopping center development:

- 1. The 49.7-acre development with an assumed 330,000 SF commercial retail development can be expected to generate a total of about 14,690 vehicle-trips during the 24 hours of a typical weekday and about 19,360 vehicle-trips on an average Saturday. During the morning peak-hour, about 198 vehicles will enter the site and about 128 vehicles will exit the site; during the evening peak-hour, about 663 vehicles will enter and about 718 will exit the site. During the saturday peak-hour, about 986 vehicles will enter and 911 will exit the site.
- 2. The project-generated traffic is expected to be oriented to and from the site by the following percentages: 15 percent along the northern extension of Independent Avenue, 55 percent along easterly US 6 & 50, and 30 percent along westerly US 6 & 50.
- 3. There are two accesses planned for this development. The main access will be the extension of Independent Avenue south of the existing US 6/50 signal near Sam's Club. A secondary three-quarter access is planned along US 6/50 about 800 feet east of Sam's Club.
- 4. It is proposed that the existing traffic signal and geometry located at the intersection of US 6 & 50 with Independent Avenue (Sam's Club) be modified to accommodate two left-turn lanes, one northbound and two southbound through lanes, and one right-turn lane at the northbound and southbound approaches; dual left-turn lanes, dual through lanes, and one right-turn lane at the westbound approach; and one left-turn lane, two through lanes, and one right-turn lane at the eastbound approach.
- 5. It is recommended that the proposed unsignalized intersection of US 6 & 50 with the east access be designed to only permit right-turns from the northbound approach as well as left- and right-turns from mainline US 6 & 50. Exiting left-turns should be prohibited at this access. This access would replace an existing full movement driveway located about 200 feet to the west.
- 6. It is anticipated that the proposed intersection between the southerly extension of Independent and the "main" access will be unsignalized with the eastbound and westbound approaches stop controlled.
- 7. Based upon the analyses presented herein, the study intersections will operate at Levels of Service which vary from little or no delays to more significant delays. During most hours of the week, all intersections will operate at very acceptable Levels of Service.

APPENDIX A Existing Count Data

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Site Code : 7

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PAGE: 1 FILE: FRONUS-6

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N-S Street: FRONTAGE RD/INDEPENDENT

E-W Street: US-6/HWY-50

:					Mov	ements by: Pr	imary					[ATE: 4/19/9
Time	Fr	om Nor	 th	Fr	om Eas	t	Fr	om Soul	th	Fr	om Wes	t	Vehicle
Begin	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	Total
6:30	3	0	7	7	137	2.	0	1	0	0	121	4	282
6:45	6	1	6	16	186	0	. 0	1	0	1	136	10	363
HR TOTAL	9	1	13	23	323	2	0	2	0	1	257	14	645
7:00 AM	5	2	9	9	158	1	0	0	0	0	152	14	350
7:15	7	0	8	15	190	2	0	1	1	1	183	13	421
7:30	11	1	13	19	202	1	1	0	2	0	261	24	535
7:45	9	0	18	37	270	0	1	1	0	2	292	22	652
HR TOTAL	32	3	48	80	820	4	2	2	3	3	888	73	1958
8:00 AM	11	0	12	16	181	2	2	2	1	1	206	9	443
8:15	15	2	18	31	173	3	0	0	0	0	200	15	457
						Break							
4:00 PM	26	5	39	40	276	4	8	2	0	0	299	32	731
4:15	20	0	31	48	288	1	6	3	1	2	260	35	695
4:30	17	1	40	40	278	3	6	2	0	2	299	31	719
4:45	23	2	39	38	303	4	6	5	0	1	303	32	756
HR TOTAL	86	8	149	166	1145	12	26	12	1	5	1161	130	2901
5:00 PM	17	3	41	47	314	6	4	4	1	1	317	32	787
5:15	32	1	31	39	324	1	4	3	1	1	282	30	749
5:30	32	1	27	47	264	1	0	2	1	4	272	44	695
5:45	31	0	22	41	247	0	5	2	2	1	212	29	592
HR TOTAL	112	5	121	174	1149	8	13	11	5	7	1083	135	2823
			361			21			10		3795	376	9727

Site Code : 7

N-S Street: FRONTAGE RD/INDEPENDENT

E-W Street: US-6/HWY-50 :

Movements by: Primary

DATE: 4/19/99

PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:30 AM - 8:30 AM

DIRECTION	START	PEAK HR		VOL	.UMES .		P	ERCENT	S
FROM	PEAK HOUR	FACTOR	Right	Thru	Left	Total	Right	Thru	Left
North	7:30 AM	0.79	46	3	61	110	42	3	55
East	7:15 AM	0.76	87	843	5	935	9	90	1
South	7:15 AM	0.60	4	4	4	12	33	33	33
West	7:30 AM	0.82	3	959	70	1032	0	93	7
			Entire I	interse	ection				
North	7:30 AM	0.79	46	3	61	110	42	3	55
East		0.76	103	826	6	935	11	88	1
South		0.50	4	3	3	10	40	30	30
West		0.82	3	959	70	1032	0	93	7
•		FRON		/INC				ω	N + S
		46	3	61 J		176			

US-6/HWY-50

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70

959 1032





1024











Site Code : 7 N-S Street: FRONTAGE RD/INDEPENDENT E-W Street: US-6/HWY-50

:

Movements by: Primary

DATE: 4/19/99

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PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM



Site Code : 7

N-S Street: FRONTAGE RD/INDEPENDENT

E-W Street: US-6/HWY-50

:					Mov	ements by:			0	DATE: 4/17/99			
Time From North			 th	From East			Fr	From South			From West		
Begin	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	Total
11:00 AM	23	0	25	30	281	2	1	1	1	0	188	41	593
11:15	26	1	27	43	232	5	3	2	0	0	224	30	593
11:30	24	2	39	61	268	2	2	0	0	0	240	42	680
11:45	28	0	39	43	263	1	5	0	0	0	236	39	654
HR TOTAL	101	3	130	177	1044	10	11	3	1	0	888	152	2520
12:00 PM	32	1	31	50	258	5	2	1	1	0	212	52	645
12:15	18	1	32	60	270	4	2	1	3	0	247	39	677
12:30	30	7	27	53	308	2	2	1	1	0	233	42	706
12:45	19	0	39	65	297	1	1	1	0	0	277	50	750
HR TOTAL	99	9	129	228	1133	12	7	4	5	0	969	183	2778
1:00 PM	28	0	39	58	267	5	0	1	0	0	246	60	704
1:15	30	0	37	58	321	1	0	1	0	1	261	45	755
1:30	32	0	40	57	285	0	2	5	0	0	256	48	725
1:45	21	2	37	40	271	3	3	2	2	0	262	50	693
HR TOTAL	111	2	153	213	1144	9	5	9	2	1	1025	203	2877
DAT IDIAL	311	14	412	618	3321	31	23	16	8	1	2882	538	81/5

PAGE: 1 FILE: FRONTUS6

DATE: 4/17/00

Site Code : 7 N-S Street: FRONTAGE RD/INDEPENDENT E-W Street: US-6/HWY-50

E-W Street: US-6/HWY-50

Movements by: Primary

PAGE: 1 FILE: FRONTUS6

DATE: 4/17/99



Site Code : 3 N-S Street: WEST ACCESS SAM'S CLUB

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PAGE: 1 FILE: WESTINDE

E-W Street: INDEPENDENT AVE

:					Mov	ements by:	Primary					i	DATE: 4/19/9	
Time	Time From North			Fr	on Eas	t .	Fr	From South			From West			
Begin	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	Total	
6:30	0	0	0	0	1	12	10	2	0	0	0	0	25	
6:45	0	1	0	0	1	11	21	. 6	0	0	0	0	40	
HR TOTAL	0	1	0	0	2	23	31	8	0	0	0	0	65	
7:00 AM	1	2	0	0	3	11	20	1	1	1	1	0	41	
7:15	0	2	0	0	0	13	26	2	1	0	0	0	44	
7:30	0	2	0	0	3	22	36	5	0	1	3	0	72	
7:45	0	3	0	0	4 -	24	52	3	2	2	2	0	92	
HR TOTAL	1	9	0	0	10	70	134	11	4	4	6	0	249	
8:00 AM	0	6	0	1	3	14	23	6	1	2	1	0	57	
8:15	1	5	0	0	4	24	34	6	3	2	2	0	81	
						Brea	k							
4:00 PM	2	31	8	3	6	37	40	36	5	8	8	4	188	
4:15	0	25	4	1	11	28	52	31	2	8	14	3	179	
4:30	2	28	1	0	9	27	47	26	6	7	6	4	163	
4:45	1	24	1	0	8	34	44	27	6	6	8	2	161	
HR TOTAL	5	108	14	4	34	126	183	120	19	29	36	13	691	
5:00 PM	1	21	3	2	6	43	48	31	5	8	12	1	181	
5:15	1	26	6	1	8	27	41	29	5	11	7	2	164	
5:30	1	32	1	2	6	33	52	26	2	8	6	0	169	
5:45	1	18	2	3	5	30	49	24	1	1	6	0	140	
HR TOTAL	4	97	12	8	25	133	190	110	13	28	31	3	654	
						390			40				1797	

Site Code : 3

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Counter Measures

PAGE: 1 FILE: WESTINDE

N-S Street: WEST ACCESS SAM'S CLUB E-W Street: INDEPENDENT AVE

Movements by: Primary

DATE: 4/19/99

PEAK PERIOD ANALYSIS FOR THE PERIOD: 6:30 AM - 8:30 AM



N-S Street: WEST ACCESS SAM'S CLUB

E-W Street: INDEPENDENT AVE

Site Code : 3

PAGE: 1 FILE: WESTINDE -

Movements by: Primary

DATE: 4/19/99




Site Code : 3 N-S Street: WEST ACCESS SAM'S CLUB Counter Measures

PAGE: 1 FILE: WESTSIND

E-W Street: INDEPENDENT AVE :

Novements by: Primary

DATE: 4/17/99

Time	Fr	on Nori	th	Fr	om East	t	Fr	om Soul	th	Fr	om Wes	t	Vehicle
Begin	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	Total
11:00 AM	5	27	2	0	7	23	28	37	4	7	4	0	144
11:15	0	30	2	2	9	26	32	52	9	7	3	3	175
11:30	0	29	3	2	7	28	35	60	7	9	7	0	187
11:45	0	29	0	3	13	32	35	46	3	11	11	2	185
HR TOTAL	5	115	7	7	36	109	130	195	23	34	25	5	691
12:00 PM	2	34	2	0	11	26	37	58	3	8	6	4	191
12:15	1	40	2	3	9	20	38	64	5	9	7	1	199
12:30	2	40	1	2	9	23	38	55	6	8	11	1	196
12:45	0	26	2	1	17	25	38	74	4	10	5	2	204
HR TOTAL	5	140	7	6	46	94	151	251	18	35	29	8	790
1:00 PM	1	34	3	- 1	16	30	49	64	5	7	5	3	218
1:15	5	44	6	. 2	7	25	41	59	7	2	6	3	207
1:30	0	37	1	0	12	43	40	66	9	7	6	0	221
1:45	5	35	5	0	6	33	36	58	3	6	5	2	194
HR TOTAL	11	150	15	3	41	131	166	247	24	22	22	8	840
DAY TOTAL	21	405	29	16	123	334	447	693	65	91	76	21	2321

Counter Measures

PAGE: 1 FILE: WESTSIND

Site Code : 3 N-S'Street: WEST ACCESS SAM'S CLUB

E-W Street: INDEPENDENT AVE

Movements by: Primary

DATE: 4/17/99

PEAK PERIOD ANALYSIS FOR THE PERIOD: 11:00 AM - 2:00 PM

DIRECTION	START	PEAK HR		VOL	UMES .		P	ERCEN	TS
FROM	PEAK HOUR	FACTOR	Right	Thru	Left	Total	Right	Thru	Left
North	1:00 PM	0.80	11	150	15	176	6	85	9
East	12:45 PM	0.81	4	52	123	179	2	29	69
South	12:45 PM	0.97	168	263	25	456	37	58	5
West	11:45 AM	0.82	36	35	8	79	46	44	10
			Entire 1	Interse	ection				
North	12:45 PM	0.72	6	141	12	159	4	89	8
East		0.81	4	52	123	179	2	29	69
South		0.97	168	263	25	456	37	58	5
West		0.82	26	22	8	56	46	39	14



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HCM:	SIGNAI	IZED]	INTER:	SECTI(LEIGH	ON SUN , SCOT	MMARY FT ANI	Ve: D CLE	rsion ARY, I	2.4g NC.		08-	04-19	99
Stre Anal Area Comm	ets: (E yst: JA Type: ent: 20	G-W) US M Other 015 BA(6 &	50 UND PI	LUS PI	ROJEC	(N Fi 8-4 F-GEN	-S) IN le Nan 4-99 A ERATED	IDEPE IDEPE INE: R IM PE IM PE	===== NDENT R1AM1! AK PEAK-I	AVEN 5T.HC	===== UE 9 TRAFF	==== IC
	=======	====== Ea	astbo	und	Wea	stbou	nd	====== Nor	thbo	und	===== So	uthbo	und
			T 	R	L	T 	R		T 	R	L 	Т 	R
No.	Lanes	1	2	1	2	2	1	2	1	1	2	2	1
Volu	mes	45	870	40	99	750	65	38	19	42	60	30	6
Lane	W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTOR	Vols	3 00	3 00	3 00		3 00	0 2 00 2		3 00	0 2 00		3 00	3 00
				-	Signa	al Op	eratio	ons		-	~	_	-
Phas	e Combi	nation	1 1	2	3		4	T . EL		5	6	7	8
FR	Leit			-#-	*		INB	Leit		~	*	*	
	Right			*	*		1	Righ	.+		*	*	
	Peds						1	Peds					
WB	Left		*				İSB	Left		*			
	Thru		*	*			i	Thru	L			*	
	Right		*	*			l	Righ	t			*	
	Peds						1	Peds	;				
NB	Right		*		_		EB	Righ	it :	*	*		
SB	Right				*		WB	Righ	t	*	0.0.1		
Gree	n	12	2.0P :	35.0P	12.01		Gre	een	11.	0P 2	.09 1	9.0P	
Cycl	ow/AR e Lengt	h: 110) seca	s Pha	ase co	ombina	ire. ation	order	: #1	#2 #3	3 #5 :	4.0 #6 #7	
			Int	tersed		Perfo	orman	ce Sum	marv				
	Lane	Group:	A A	ij Sat	t v	7/C	q/(C 200			A	pproa	ch:
	Mvmts	Car)	Flow	Ra	itio	Rat	io D	elay	LOS	S D	elay	LOS
ГD	 T		 >	1770		250	0 10	 na	24 3	 D		 6 2	
БÐ	ь Т	1705	5	3725	0.	565	0.10	82	15 7	C C	T.	0.2	C
	R	993	2	1583	0.	.044	0.62	27	6.0	B			
WB	L	386	5	3539	0.	.293	0.10	09	34.4	D	1	6.4	с
	T	1795	5	3725	Ő.	487	0.48	82	14.8	B	_	· · ·	-
	R	921	L	1583	0.	.078	0.58	82	7.7	В			
NB	L	418	3	3539	0.	.103	0.13	18	32.9	D	2	5.9	D
	Т	373	3	1863	0.	.056	0.20	00	27.1	D			
a n	R	533	5	1583	0.	.088	0.33	36	19.0	C	~	0 0	~
28	ե Ծ	354	t 7	3539	U.	.195	0.10	00 22	34.0	U T	23	0. 2	ע
	T P	0// 161	, 	3723	0. 0	156	0.10	94	20.4 22 A	ע ר			
		-101	-	T.0.0.2	<u> </u>		V.2:	<i></i>	~~ · · V	C			~
		Τr	teree	action	n Dela	av =	17.6	Sec /v	eh Ti	nteree	otio	n LOS	= (°

=== Str Ana Are	eets: (E lyst: JA a Type: (-W) US M Other	56&	50			===== (N Fi 8-	-S) IN le Nam 4-99 P	DEPEN Ne: RI M PEN	NDENT R1PM1! AK	===== AVEN 5T.HC	===== UE 9	===:
Com = = =	ment: 20	15 BA(UND P1 =====	LUS P1	ROJEC'	T-GEN =====	ERATED	PM]	PEAK-1	HOUR =====	TRAFF	IC =====
		Ea L	astboı T	und R	We:	stbou T	nd R	Nor L	thbor T	und R	So L	uthbo T	und R
No. Vol Lan	Lanes umes e W (ft)	 1 75 12.0	2 1486 12.0	1 133 12.0	2 332 12.0	2 1320 12.0	1 130 12.0	2 215 12.0	1 103 12.0	1 237 12.0	2 165 12.0	2 99 12.0	1 179 12.0
RTO Los	R Vols t Time	 3.00	3.00	0 3.00	3.00	3.00	0 3.00	3.00	3.00	0 3.00	 3.00	3.00	0 3.0(
					Signa	al Op	erati	 ons			•	~~~~	
Pha	se Combin	natio	n 1	2	3	-	4		5	5	6	7	8
EB	Left			-1-	*		NB	Left		*	*	-	
	Thru Pight			*	*		1	Digh	i .+-		*	*	
	Peds							Peds	. L				
WB	Left		*				SB	Left		*			
	Thru		*	*			1	Thru	r L			*	
	Right		*	*			i	Righ	t			*	
	Peds						i	Peds	;				
NB	Right		*				EB	Righ	it *	ł.	*		
SB	Right				*		WB	Righ	it ?	k			
Gre	en	16	5.0P 3	35.0P	12.01		Gre	een	(DP 2.	.0P 1	5.0P	
Yel	low/AR	. 11(3.0	6.0	3.0		Ye.	llow/A	R 3.0) 0.	.0	4.0	
Сус	le Lengti	n: 110) secs	s Pha	ase co		ation	order	: #1 	#2 #3	3 #5 	#0 #/ 	
	-	_	Int	tersec	ction	Perf	orman	ce Sum	mary		_		
	Lane (Group	: AC	ij Sat		V/C	g/e		-1	TO		pproa	ch:
			ر 	F10W					eray		ע כ 	eray 	LO2
EB	L	193	3	1770	0.	.430	0.1	09	35.8	D	2	9.8	D
	- T	1795	5	3725	0	966	0.4	82	31.5	D			
	R	993	3	1583	0.	.149	0.62	27	6.4	В			
WB	L	515	5	3539	0.	.738	0.14	45	38.0	D	2	1.1	С
	Т	1930)	3725	0.	. 798	0.5	18	18.3	С			
	R	979	•	1583	0.	.147	0.6	18	6.7	В	-		
NB		418	3	3539	0.	.588	0.1	18	36.5	D	2	9.8	D
	T	305	2	1863	0.	.374	0.1	b4	31.5	D			
CP	к т	233	5	7202	U. 0	.494 531	0.3	30 00	22.1	C n	2	1 0	п
מט	ь т	504	=)	3725	0.	212	0.1	45	31.0	ע	3	1.7	U
	*	542		5125			0.1.		51.5				
	R	407	3	1583	O.	. 481	- 0.2	55	27.2	ת			

- 200 - 19/1/2

342 A

Stre Anal Area Comm	ets: (H yst: JA Type: ent: 20	E-W) US AM Other 015 BACK	6 & 50 GROUND P	LUS PI	ROJEC	(N- Fi 8-4 T-GENI	-S) IN Le Nam 4-99 S ERATED	DEPEN e: RI ATRD <i>I</i> SM I	NDENT R1SM1! AY PEAK-I	AVEN 5T.HC HOUR	UE 9 TRAFF	IC
		Eas	tbound T R	Wes L	stbou T	nd R	Nor L	thbou T	nd R	So L	uthbo T	und R
No. Volu Lane RTOR Lost	Lanes mes W (ft) Vols Time	1 140 1 12.0 1 3.00 3	2 1 614 107 2.0 12.0 0 .00 3.00	2 493 12.0	2 1700 12.0 3.00	1 250 12.0 0 3.00	2 273 12.0 3.00	1 137 12.0 3.00	1 301 12.0 0 3.00	2 160 12.0 3.00	2 143 12.0 3.00	1 16 12. 0 3.0
				Sign:	$\sim 1 0 \infty$	 						
Phas EB	e Combi Left Thru Right	nation	1 2	51gna 3 * *			Left Thru Righ	ب * t	5	6 * *	7 * *	8
WB	Peds Left Thru Right Peds		* * * * *			SB	Peds Left Thru Righ	* t			* *	
NB SB Gree Yell Cycl	Right Right n ow/AR e Lengt	19. 3. h: 110	* OP 34.0P 0 6.0 secs Ph	* 13.0F 3.0 ase co	ombina	EB WB Gre Yel ation	Righ Righ en llow/Al order	t * t * 11.0 R 3.0 : #1	; ;)P 3,) 0, #2 #3	* .OP 1 .O .3 #5	1.0P 4.0 #6 #7	
	Lane Mvmts	Group: Cap	Interse Adj Sa Flow	ction t v Ra	Perfo /c atio	ormanc g/C Rati	ce Sum C Lo De	mary elay	LOS	Aj S Do	pproa elay	ch: LO
EB	L T R	209 1795 1008	1770 3725 1583	 0. 1. 0.	746 049 118	0.11	L8 4 32 ! 36	44.8 51.6 6.0	E E B	4	8.6	E
WB	L T R	611 1998 1008	3539 3725 1583	0. 0. 0.	923 992 276	0.17	73 4 86 3 86	48.2 33.2 6.7	E D B	3:	3.6	D
NB	L T R	450 254 533	3539 1863 1583	0. 0. 0.	693 598 627	0.12 0.13 0.33	27 : 36 : 36 :	38.0 36.7 25.0	D D C	32	2.3	D
CD	L	354	3539	0.	517	0.10	00	36.8	D	33	3.6	D

ST. CONTRACTOR

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HCS: Unsign	alized	l Inte	rsect	tions	Rel	ease	2.1g	RI	R3AM15	5T.HC)	Page 1
LEIGH, SCOTT AND CLEARY, INC. 1889 York Street Denver, CO 80206- Ph: (303) 333-1105												
Streets: (N-S) EAST SITE ACCESS(E-W) US 6/50Major Street Direction EWLength of Time Analyzed 15 (min)Analyst												
Two-way Stop	p-cont	rolle	d Int	ersec	tion	=====	=====	======	=====	=====		=====
	Eas	stboun	đ	Wes	tboun	d	No	rthbou	ınd	Sou	thb	ound
	L	Т	R	L	Т	R	L	Т	R	L	Т	R
No. Lanes Stop/Yield Volumes PHF Grade MC's (%) SU/RV's (%) CV's (%)	0	2 957 .95 0	1 N 20 .95	1 10 .95	2 924 .95 0	0 N	0	0	1 28 .95	0	0	0
PCE's			ĺ	1.10					1.10			

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Intersection	
NB	SB
504 769 769 0.96	
WB	EB
	Intersection NB 504 769 769 0.96 WB

Prob. of Queue-Free State:	0.96	
Step 2: LT from Major Street	 WB	EB
Conflicting Flows: (vph) Potential Capacity: (pcph) Movement Capacity: (pcph) Prob. of Queue-Free State:	1028 481 481 0.98	
T.		

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)(Avg. Total Delay sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
							4.9
NB R	32	769		4.9	0.0	A	
WB L	12	481		7.7	0.0	В	0.1
	I	ntersect	ion Del	ay =	0.1 se	c/veh	

HCS: Unsign	alize	d Inte	rsect	tions	Rel	ease	2.1g	R	R3PM1	5T.HC)	Page 1
LEIGH, SCOTT AND CLEARY, INC. 1889 York Street Denver, CO 80206- Ph: (303) 333-1105												
Streets: (N-S) EAST SITE ACCESS (E-W) US 6/50												
Major Street Direction EW Length of Time Analyzed 15 (min) Analyst												
	Eas	stboun	d	Wes	stboun	ıd	No:	rthbo	und	Sou	thb	ound
	L	T	R	L.	T	R	L	T	R	L	T	R
No. Lanes Stop/Yield Volumes PHF Grade MC's (%) SU/RV's (%) CV's (%) PCE's	0	2 1837 .95 0	1	1 33 .95 1.10	2 1792 .95 0	O N	0	0	1 158 .95 1.10	0	0	0

a caracter

Vehicle	Critical	Follow-up
Maneuver	Gap (tg)	Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC	Intersection	
Step 1: RT from Minor Street	NB	SB
Conflicting Flows: (vph) Potential Capacity: (pcph) Movement Capacity: (pcph) Prob. of Queue-Free State:	967 448 448 0.59	
Step 2: LT from Major Street	WB	EB
Conflicting Flows: (vph) Potential Capacity: (pcph) Movement Capacity: (pcph) Prob. of Queue-Free State:	2003 144 144 0.73	

Intersection Performance Summary

Mov	ement	Flow Rate (pcph)	Move Cap (pcph)	Avg. Shared Total Cap Delay (pcph)(sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB	R	183	448	13.5	2.0	С	13.5
WB	L	39	144	34.0	1.0	E	0.6

Intersection Delay = 0.8 sec/veh

HCS: Unsigna	alize	d Inte	rsect	tions	Rel	lease	2.1g	RI	R3SM1	5T.HC	0	Page 1
LEIGH, SCOTT AND CLEARY, INC. 1889 York Street Denver, CO 80206- Ph: (303) 333-1105												
Streets: (N-S) EAST SITE ACCESS (E-W) US 6/50 Major Street Direction EW Length of Time Analyzed 15 (min) Analyst JAM Date of Analysis 8/4/99 Other Information 2015 BACKGROUND PLUS PROJECT-GENERATED SAT PEAK-HOUR TRAFFIC Two-way Stop-controlled Intersection												
	=== = : Fa	====== stboun	a=====	====: Wo	====== sthour		Northbound Southbound				eeeeee	
	L.	T	R	L L	T	R	L	T	R	L	T	R
No. Lanes Stop/Yield Volumes PHF Grade MC's (%) SU/RV's (%) CV's (%) PCE's	0	2 1986 .95 0	1 99 .95	1 49 .95	2 2463 .95 0	0 N	0	0	1 200 .95 1.10	0	0	0

No.

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC	Intersection	
Step 1: RT from Minor Street	NB	SB
Conflicting Flows: (vph) Potential Capacity: (pcph) Movement Capacity: (pcph) Prob. of Queue-Free State:	1046 409 409 0.43	
Step 2: LT from Major Street	WB	EB
Conflicting Flows: (vph) Potential Capacity: (pcph) Movement Capacity: (pcph) Prob. of Queue-Free State:	2195 114 114 0.50	

Intersection Performance Summary

Move	ement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)(Avg. Total Delay sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB	R	232	409		19.7	3.3	С	19.7
WB	L	57	114		59.7	2.0	F	1.2

Intersection Delay = 1.4 sec/veh

HCS: Unsigna	alized	Inte	rsect	tions	Rel	ease	2.1g	R	R2AM1	5T.HCC) Pa	age 1
LEIGH, SCOTT AND CLEARY, INC. 1889 York Street Denver, CO 80206- Ph: (303) 333-1105												
Streets: (N-	====== -S) IN	===== DEPEN	DENT					=====: (E-W)	WEST	SITE	ACCES	SS
Major Street Direction NS Length of Time Analyzed 15 (min) Analyst												
	Nor	thbou	nd	Sou	thbou	nd	l Eas	stbou	nd	l Wes	tbour	nd
	L	T	R	L	T	R		Т	R	L	T	R
No. Lanes Stop/Yield	1	1	1 N	1	1	1 N	1	1	< 0	0 >	• 1 <	< 0
Volumes PHF Grade MC's (%) SU/RV's (%) CV's (%)	5 .95	80 .95 0	5 .95	10 .95	139 .95 0	20 .95	13 .95	5 .95 0	5 .95	5 .95	5 .95 0	6 .95
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Adjustment Factors

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

S. Lat.

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)	84	146
Potential Capacity: (pcph)	1255	1168
Movement Capacity: (pcph)	1255	1168
Prob. of Queue-Free State:	0.99	0.99
Step 2: LT from Major Street	SB	NB
Conflicting Flows: (vph)	89	167
Potential Capacity: (pcph)	1555	1427
Movement Capacity: (pcph)	1555	1427
Prob. of Queue-Free State:	0.99	1.00
Step 3: TH from Minor Street	WB	EB
Conflicting Flows: (vph)	267	251
Potential Capacity: (pcph)	790	806
Capacity Adjustment Factor		
due to Impeding Movements	0.99	0.99
Movement Capacity: (pcph)	781	796
Prob. of Queue-Free State:	0.99	0.99
Step 4: LT from Minor Street	WB	EB
Conflicting Flows: (vph)	252	252
Potential Capacity: (pcph)	757	757
Major LT, Minor TH		
Impedance Factor:	0.98	0.98
Adjusted Impedance Factor:	0.99	0.99
Capacity Adjustment Factor		
due to Impeding Movements	0.98	0.98
Movement Capacity: (pcph)	742	742

Worksheet for TWSC Intersection

Intersection Performance Summary

Mov	ement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB	L	15	742		5.0	0.0	A	
EB	Т	6	796 >					4.5
EB	R	6	1168 >	947	3.9	0.0	A	
WB	L	6	742 >					
WB	Т	6	781 >	890	4.1	0.0	А	4.1
WB	R	7	1255 >					
NB	L	6	1427		2.5	0.0	A	0.1
SB	L	12	1555		2.3	0.0	A	0.1

Intersection Delay = 0.7 sec/veh

HCS: Unsigna	alized	Inte	rsect	tions	Rel	ease	2.1g	R	R2PM1	5T.HC) Pa	age 1
LEIGH, SCOTT AND CLEARY, INC. 1889 York Street Denver, CO 80206- Ph: (303) 333-1105												
Streets: (N·	Streets: (N-S) INDEPENDENT (E-W) WEST SITE ACCESS											
Major Street Direction NS Length of Time Analyzed 15 (min) Analyst												
	l Nor	thbou	nd	====== Sou	thbou	nd	E Eas	stbou	===== nd	u Wes	stbour	nd
	L	T	R	L	Т	R	L	Т	R	L	Т	R
No. Lanes Stop/Yield	1	1	1 N	1	1	1 N	1	1	< 0	0	> 1 <	< 0
Volumes	5	452	5	33	464	60	72	5	5	5	5	36
PHF Crado	.95	.95	.95	.95	.95	.95	1.95	.95	.95	.95	.95	.95
Glade MC's (응) SU/RV's (응) CV's (응)		U			Ū			Ū	::		U	
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph) Potential Capacity: (pcph) Movement Capacity: (pcph) Prob. of Queue-Free State:	476 795 795 0.95	488 784 784 0.99
Step 2: LT from Major Street	SB	NB
Conflicting Flows: (vph) Potential Capacity: (pcph) Movement Capacity: (pcph) Prob. of Queue-Free State:	481 1011 1011 0.96	551 937 937 0.99
Step 3: TH from Minor Street	WB	EB
Conflicting Flows: (vph) Potential Capacity: (pcph) Capacity Adjustment Factor	1067 301	1009 322
due to Impeding Movements Movement Capacity: (pcph) Prob. of Queue-Free State:	0.96 288 0.98	0.96 308 0.98
Step 4: LT from Minor Street	WB	EB
Conflicting Flows: (vph) Potential Capacity: (pcph) Major LT, Minor TH	1008 276	1026 270
Impedance Factor: Adjusted Impedance Factor: Capacity Adjustment Factor	0.94 0.95	0.94 0.95
due to Impeding Movements Movement Capacity: (pcph)	0.94 261	0.90 243

Worksheet for TWSC Intersection

Intersection Performance Summary

Mov	vement	Flow Rate (pcph)	Move Cap (pcph)	Share Cap (pcph	Avg. d Total Delay d)(sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB	L	84	243		22.4	1.5	D	
EB	Т	6	308	>				20.7
EB	R	6	784	> 442	8.4	0.0	В	
WB	L	6	261	>				
WB	Т	6	288	> 559	7.1	0.3	В	7.1
WB	R	42	795	>				
NB	L	6	937		3.9	0.0	A	0.0
SB	L	39	1011		3.7	0.0	A	0.2

Intersection Delay = 1.9 sec/veh

HCS: Unsigna	alized	Inte	rsect	cions	Rel	ease	2.1g	RI	R2SM1	bT.HC	ч (age 1
LEIGH, SCOT 1889 York S Denver, CO Ph: (303) 33	F AND treet 8020 33-110	CLEAR	Y, IN	NC.								
================	=====		====:	=====	=====	====:	=====	=====:		=====:		=====
Streets: (N-	-S) IN F Dire	DEPEN	DENT	NC			((E-W)	WEST	SITE	ACCE	55
Length of T	ime An	alvze	d	15 (m	in)							
Analyst		•••••		JAM								
Date of Anal	lysis.			8/4/9	9							
Other Inform	nation		• • • •		2015	BACK	GROUNI) PLUS	S PRO	JECT-(GENER	ATED
			а т		SAT P	EAK-I	HOUR '	[RAFF]	(C			
Two-way Stop	======			_ersec	=====	=====	=====		=====	=====		=====
	Nor	thbou	nd	Sou	thbou	nd	Eas	stbour	nd	Wes	stbou	nd
	L	Т	R	L	Т	R	L	Т	R	L	Т	R
No Lanes				1	1	1			~ 0			
Stop/Yield		Ŧ	- N	1	T	N	- 	T .			× 1	
Volumes	5	574	5	49	690	99	91	5	5	5	5	46
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade		0	1		0		ļ	0			0	
MC'S (%)							1					
SU/RV S (8)			1				1					
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

worksheet for iwst int		
Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)	604	726
Potential Capacity: (pcph)	684	594
Movement Capacity: (pcph)	684	594
Prob. of Queue-Free State:	0.92	0.99
Step 2: LT from Major Street	SB	NB
Conflicting Flows: (vph)	609	830
Potential Capacity: (pcph)	879	690
Movement Capacity: (pcph)	879	690
Prob. of Queue-Free State:	0.94	0.99
Step 3: TH from Minor Street	 WB	EB
Conflicting Flows: (vph)	1491	1392
Potential Capacity: (pcph)	180	203
Capacity Adjustment Factor		
due to Impeding Movements	0.93	0.93
Movement Capacity: (pcph)	167	188
Prob. of Queue-Free State:	0.96	0.97
Step 4: LT from Minor Street	 WB	EB
Conflicting Flows: (vph)	1392	1414
Potential Capacity: (pcph) Major LT, Minor TH	165	161
Impedance Factor:	0.90	0.89
Adjusted Impedance Factor:	0.92	0.92
Capacity Adjustment Factor		
due to Impeding Movements	0.91	0.85
Movement Capacity: (pcph)	151	136

Worksheet for TWSC Intersection

Intersection Performance Summary

Mov	ement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB	L	106	136		85.2	4.0	F	
EB	T	6	188 >	•		• •	-	78.1
EB	R	6	594 >	> 286	13.1	0.0	С	
WB	L	6	151 >	•				
WB	T	6	167 >	42.4	10.0	0.5	С	10.0
WB	R	53	684 >	•				
NB	L	6	690		5.3	0.0	в	0.0
SB	L	57	879		4.4	0.1	A	0.3

Intersection Delay = 5.5 sec/veh

=== Str Ana Are Com	eets: (E lyst: JA a Type: ment: EX	-W) US M Other (ISTIN)	===== 5 6 & G PLU	===== 50 S PROJ	===== JECT-(===== Gener	===== (N Fi 8-4 ATED	===== -S) I1 le Nar 4-99 <i>1</i> AM PE <i>1</i>	NDEPEI ne: RI M PEI AK-HOI	===== NDENT R1AM99 AK UR TR2	===== AVEN 9T.HC AFFIC	===== UE 9	====:
===	=======	====== Ea	===== astbo	und	We	stbou	nd	====== Noi	thbo	und	===== _ So	uthbo	und
			Т 	R 	ւ 	T 	R 	L 	'T' 	R 	L 	т 	R
No.	Lanes	1	2	1	2	2	1	2	1	1	2	2	1
Vol	umes	70	979	40	99	826	103	38	19	42	61	30	46
Lan	e W (ft)	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
RTO Los	R Vols	13.00	3 00	3.00	3 00	3 00	0 3 00	13.00	3 00	0300	 3.00	3 00	0 3.00
DL -	na Cambi		. 1	2	Signa	al Ope	eratio	ons	,	-	c	7	0
rna FD		natio	I L	Z	3	4	4 NTD	Toft		2 2	0	/	0
БD	Thru			*	*		I M D	Thru	· ·	•	*	*	
	Right			*	*		1	Righ	ι \+		*	*	
	Peds						l	Pede					
WB	Left		*				ISB	Left	, 	*			
	Thru		*	*			102	Thru	- 1			*	
	Right		*	*			i	Righ	nt			*	
	Peds						i	Peds	3				
NB	Right		*				İ E B	Righ	nt '	k	*		
SB	Right				*		WB	Righ	nt '	*			
Gre	en	19).OP 3	35.OP	12.01	, P	Gre	een	11.(DP 2.	.OP 1	2.OP	
Yel	low/AR	3	3.0	6.0	3.0		Ye	llow/#	AR 3.0) 0.	.0	4.0	
Сус	le Lengt	h: 110) sec	s Pha	ise co	ombina	ation	order	: #1	#2 #3	3 #5 :	#6 #7	
			In	tersec	tion	Perfo	orman	ce Sun	mary				
	Lane	Group	: A	1j Sat	: v	7/C	g/(C	-		A	pproa	ch:
	Mvmts	Car)	Flow	Ra	atio	Rat	io I	elay	LOS	$\mathbf{S} = \mathbf{D}$	elay	LOS
ED	 T				·	404				 D		 7 F	
EВ	ւ Մ	1705	5	1//0	0.	626	0.10	09 00	35.5	D C	T	1.5	C
	I D	1/95	2	3723	0.	044	0.40	02 77	6 0				
ωR	I.	611) 	2530	0. 0	185	0.02	27 73	29 6	ם ת	1	2 9	в
** 1.7	л Т	2032)	3725	0. 0	474	0.1	45	11 8	B	1	4.9	D
	R	1022		1583	0.	112	0.64	45	5.7	B			
NB	L	418	3	3539	Ō.	103	0.1	18	32.9	D	2	6.7	D
	т	254	Ł	1863	0.	.083	0.1	36	31.5	D			
	R	532	2	1583	0.	.088	0.33	36	19.0	С			
SB	L	354	Ł	3539	0.	198	0.10	00	34.6	D	3	1.3	D
	T	440)	3725	0.	080	0.1	18	32.8	D			
	R	360)	1583	0.	.142	0.22	27	25.8	D			-
			iterse	ection	Dera	iy =	TO'1	sec/v	en ir	iterse	2CT10	n LOS	= C

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HCM	1: SIGNAI	LIZED 1	INTER	SECTIC LEIGH,	N SU SCO	MMARY FT AN	Ve D CLE	rsion ARY, I	2.4g NC.		08-	04-19	99
=== Str Ana Are Com	reets: (E lyst: JA a Type: ment: EX	E-W) US M Other MISTING	5 6 & 5 PLU	50 50 S PROJ	JECT-(===== GENER	===== (N- Fi] 8-4 ATED I	====== -S) IN le Nam 4-99 P PM PEA	DEPEN M PEN K-HOU	===== NDENT R1PM99 AK UR TRI	AVEN T.HC	===== UE 9	====:
===		======= Ea L	astbo T	und R	We: L	stbou T	nd R	===== Nor L	thboy T	und R	===== So L	uthbo T	und R
No. Vol Lan RTO	Lanes umes e W (ft) R Vols	 1 125 12.0	2 1267 12.0	1 133 12.0 0	2 332 12.0	2 1219 12.0	1 164 12.0 0 3.00	2 215 12.0	1 108 12.0	1 237 12.0 0 3.00	 2 151 12.0	2 99 12.0	1 8 12. 0
Pha	se Combi	nation	1	2	Signa 3	al Op	eratio 4 I	ons	,	5	6	7	8
EB	Left	macroi		2	*			Left		*	*	,	0
	Thru			*	*			Thru			*	*	
	Right			*	*		I	Righ	t		*	*	
1.17	Peds							Peds					
wв	Leit		*	-			SB	Left	2	k			
	Right		*	*			1	Righ	+			*	
	Peds						1	Peds	L				
NB	Right		*				EB	Righ	t ،	ŧ.	*		
SB	Right				*		WB	Righ	t ،	4			
Gre	en	16	.OP :	35.0P	15.01	ç	Gre	en	11.()P 2.	OP 1	2.0P	
Cyc	le Lengt	h: 110	secs	6.0 s Pha	3.0 se co	ombina	Ye] ation	llow/A order	R 3.(: #1) 0. #2.#3	.0 3 #5	4.0 #6 #7	
			 Tni			 Domfe							
	Lane	Group:	Ad	li Sat			σ/c	e sum	mary		Δ	onroad	·h·
	Mvmts	Cap		Flow	Ra	atio	Rati	o D	elay	LOS	5 D	elay	LOS
гD	 T										•		
5D	ե ጥ	241		1770	0.	576	0.13	16	36.3	D	18	8.6	С
	R	1036		1583	0.	143	0.50	19 5	18.2	C P			
WB	L	515		3539	Ő.	738	0.14	5	38.0	D D	10	a a	C
	T	1930		3725	0.	737	0.51	.8	16.8	č	±.		C
	R	979		1583	0.	186	0.61	.8	6.9	В			
NB	L	418		3539	0.	588	0.11	.8	36.5	D	31	1.2	D
	R	254 280		1203	0.	472	0.13	b .	34.4	D			
SB	L	354		3539	0.	489	0.30	0	44.9 36 5	С П	27	2 6	Л
	Т	440		3725	Ő.	261	0.11	8 3	33.6	D	32		U
	R	403	_	1583	0.	246	0.25	5 2	24.8	Ē			
100+	- Trime /C-		terse	ction	Dela	Y_=	22.0	sec/ve	eh In	terse	ction	LOS	= C
มบรเ	L TTme/C	ycie,	ս =	12.0	sec	Crit	lcal	v/c(x))	= 0.6	93		

Stre Anal Area Comr	eets: (E lyst: JA a Type: nent: EX	-W) US M Other SISTIN	5 6 & G PLU	50 50 S PROJ	JECT-(GENER	(N Fi 8-4 ATED	-S) IN le Nan 4-99 S SATURI	IDEPEN Ne: RI SATRDI DAY PI	NDENT R1SM99 AY EAK-H(AVEN DT.HC	===== UE 9 RAFF1(==== C
		Ea	astbo T	und R	Wes L	stbou T	nd R	====== NO1 L	thbou T	und R	===== So L	uthbo T	und R
No. Volu Lane	Lanes umes W (ft)	1 203 12.0	2 1139 12.0	1 197 12.0	2 493 12.0	2 1170 12.0	1 238 12.0	2 273 12.0	1 137 12.0	1 301 12.0	2 155 12.0	2 148 12.0	1 10 12.
Lost	t Time	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.0
					Signa	al Op	eratio	ons					
Phas	se Combi	natio	n 1	2	3		4	-	į	5	6	7	8
EB	Left			_	*		NB	Left		4	*		
	Thru			*	*		ļ	Thru	L 		*	*	
	Right			*	*			Rigr			×	*	
1.110	reus		*				l i c p	Toft	i 	ŀ			
WD	Thru		*	*				Thru	 1	•		*	
	Right		*	*			1	Righ	it.			*	
	Peds						i	Peds					
NB	Right		*				EB	Righ	it '	*	*		
SB	Right				*		WB	Righ	it *	Ł			
Gree	en -	22	2.0P	23.0P	20.01	þ	Gre	een –	12.0)P 2.	OP 1	2.OP	
Yell	low/AR		3.0	6.0	3.0		Ye	110w/P	R 3.0) 0.	.0	4.0	
Cyc]	le Lengt	h: 110) sec	s Pha	se co	ombina	ation	order	: #1	#2 #3	3 #5 :	#6 #7	
			In	tersec	tion	Perfo	orman	ce Sun	mary				
	Lane	Group	: A	dj Sat	: v	7/C	g/(2	-		A	pproa	ch:
	Mvmts	Car	,	Flow	Ra	atio	Rat	io D	elay	LOS	S D	elay	LOS
ΓD	 T			1770	·	702	0 15		36 7	 D	 2'		
ED	л Т	1660	_)	3725	0.	801	0.44	45	22.0	C C	2.	6 I	C
	R	950)	1583	Ő.	231	0.60	00	7.8	B			
WB	L	708	3	3539	Õ.	797	0.20	00	36.3	D	2	3.4	С
	т	1727	7	3725	0.	790	0.4	54	20.8	С			
	R	907	7	1583	0.	. 291	0.5	73	9.2	В			
NB	L	450)	3539	0.	693	0.12	27	38.0	D	3:	1.3	D
	T	254	ł	1863	0.	.598	0.13	36	36.7	D			
СЪ	K T	576)	1583	0.	580	0.30	o4	22.5	C		1 7	~
эb	ե դր	380	י ר	3337 3775	U. ^	400 201	0.10	18	32.0	ע	3.	1./	ע
	R	440	5	1583	0.	255	0.11	0	22 2	ע כ			
			-	1000	v.		~ • • • •	~ ~		~			

Constant of

A STATE

HCS: Unsigna	alize	d Inte	rsect	tions	Rel	ease	2.10	F F	R3AM9	9T.HC	0 1	Page 1
LEIGH, SCOT 1889 York S Denver, CO Ph: (303) 3	F AND treet 802 33-11	CLEAR 06- 05	Y, II	NC.								
Streets: (N- Major Street Length of T Analyst Date of Ana Other Inform	-S) E t Dir ime A lysis natio	AST SI ection nalyze	TE A(CESS EW 15 (r JAM 8/4/9	nin) 99 EXIST -HOUF	TING I	PLUS FFIC	(E-W) PROJE	US 6, CT-GEI	/50 /ERAT	ED AI	M PEAK
Two-way Stop	o-con	trolle	d Int	terse	ction ======	=====		=====	=====		====:	
	Ea	stboun	d	Wes	stbour	ıd	No	rthbo	und	So	uthbo	ound
	L	T	R	L	T	R	L	Т	R	L	Т	R
No. Lanes Stop/Yield Volumes PHF Grade MC's (%) SU/RV's (%) CV's (%) PCE's	0	2 1066 .95 0	1 N 20 .95	1 .95 1.10	2 1034 .95 0	0 N	0	0	1 28 .95 1.10	0	0	0

Vehicle	Critical	Follow-up
Maneuver	Gap (tg)	Time (tf)
Left Turn Major Road Right Turn Minor Road	5.50 5.50	2.10
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC	Intersection	
Step 1: RT from Minor Street	NB	SB
Conflicting Flows: (vph) Potential Capacity: (pcph) Movement Capacity: (pcph) Prob. of Queue-Free State:	561 720 720 0.96	
Step 2: LT from Major Street	WB	EB
Conflicting Flows: (vph) Potential Capacity: (pcph) Movement Capacity: (pcph) Prob. of Queue-Free State:	1143 417 417 0.97	

Intersection Performance Summary

Movement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)(Avg. Total Delay sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
							5.2
NB R	32	720		5.2	0.0	В	••-
WB L	12	417		8.9	0.0	В	0.1
	I	ntersect	ion Del	ay =	0.1 se	ec/veh	

	1112e	d Inte	ersect	tions	Rei	lease	2.1g	R	R3PM9	9T.HC) P	age 1
LEIGH, SCOTT AND CLEARY, INC. 1889 York Street Denver, CO 80206- Ph: (303) 333-1105												
Streets: (N-S) EAST SITE ACCESS(E-W) US 6/50Major Street Direction EWLength of Time Analyzed 15 (min)Analyst												
Other Inform Two-way Stor	Other Information EXISTING PLUS PROJECT-GENERATED PM PEAK -HOUR TRAFFIC Two-way Stop-controlled Intersection											
	=====	======	=====	=====	======	=====	=====	=====		=====	=====	=====
	Eas	stbour	d	We	stbour	nđ	No	rthbo	ınd	Sou	ithbo	und
	L	т	R	L	т	R	L	Т	R	L	Т	R
No. Lanes Stop/Yield Volumes PHF Grade MC's (%) SU/RV's (%) CV's (%) PCE's	0	2 1609 .95 0	1 N 66 .95	1 33 .95	2 1729 .95 0	0 N	0	0	1 158 .95	0	0	0
									1.10	l 		

Adjustment Factors

Vehicle	Critical	Follow-up
Maneuver	Gap (tg)	Time (tf)
Left Turn Major Road Right Turn Minor Road	5.50 5.50 5.50	2.10 2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

ì

HCS: Unsignalized Intersections Release 2.1g Page 1 RR3PM99T.HC0 LEIGH, SCOTT AND CLEARY, INC. 1889 York Street Denver, CO 80206-Ph: (303) 333-1105 Streets: (N-S) EAST SITE ACCESS (E-W) US 6/50 Major Street Direction.... EW Length of Time Analyzed... 15 (min) Analyst..... JAM Date of Analysis..... 8/4/99 Other Information..... EXISTING PLUS PROJECT-GENERATED PM PEAK -HOUR TRAFFIC Two-way Stop-controlled Intersection | Westbound | Eastbound Northbound | Southbound TR|L T R | L Т R T R ____ ____ ____ ____ ____ ____ ---- ----____ ___~ 2 No. Lanes 0 1 | 1 2 0 0 0 1 | 0 0 0 Stop/Yield | N N Volumes 1609 661 33 1729 1581 PHF .95 .95 .95 .95 .95 0 Grade 0 0

Adjustment Factors

1.10

11.10

MC's (웅) SU/RV's (읭) CV's (%) PCE's

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC	Intersection	
Step 1: RT from Minor Street	NB	SB
Conflicting Flows: (vph) Potential Capacity: (pcph) Movement Capacity: (pcph) Prob. of Queue-Free State:	847 515 515 0.64	
Step 2: LT from Major Street	WB	EB
Conflicting Flows: (vph) Potential Capacity: (pcph) Movement Capacity: (pcph) Prob. of Queue-Free State:	1763 194 194 0.80	

Intersection Performance Summary

Mov	ement	Flow Rate (pcph)	Move Cap (pcph)	Avg. Shared Total Cap Delay (pcph)(sec/veh)	95% Queue Length) (veh)	LOS	Approach Delay (sec/veh)
							10.8
NB	R	183	515	10.8	1.7	С	
WB	L	39	194	23.2	0.7	D	0.4

Intersection Delay = 0.7 sec/veh

HCS: Unsigna	alize	d Inte	ersec	tions	Re	lease	2.1g	R	R3SM99	9T.HC	0 1	Page 1
LEIGH, SCOTT AND CLEARY, INC. 1889 York Street Denver, CO 80206- Ph: (303) 333-1105												
Streets: (N-S) EAST SITE ACCESS (E-W) US 6/50 Major Street Direction EW Length of Time Analyzed 15 (min)												
Analyst		•••••	••••	JAM	,							
Date of Anal	lysis	••••	• • • •	8/4/9	99 EVIC					א כו קוו		
Other Information EXISTING PLUS PROJECT-GENERATED SATURDA												
Two-way Stop	o-con	trolle	d Int	terse	ction							
=======================================	====	=====	=====	=====	======	=====	=====:	====	=====:	=====	====	=====
	Eas	stbour	ıd	Wes	stbour	nd	No	rthbo	und	So	uthbo	ound
	L	Т	R	L	Т	R	L	Т	R	L	т	R
No. Lanes Stop/Yield	0	2	1 N	1	2	0 N	0	0	1	0	0	0
Volumes		1499	99	49	1908		j		200	Ì		
PHF		.95	.95	.95	.95				.95			
Grade		0			0	:	l	0				
MC's (읭)												
SU/RV'S (%)												
しV'S(る) PCE'S				11.10					1.10			

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.50	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.50	3.30
Left Turn Minor Road	7.00	3.40

Worksheet for TWSC	Intersection	
Step 1: RT from Minor Street	NB	SB
Conflicting Flows: (vph) Potential Capacity: (pcph) Movement Capacity: (pcph) Prob. of Queue-Free State:	789 552 552 0.58	
Step 2: LT from Major Street	WB	EB
Conflicting Flows: (vph) Potential Capacity: (pcph) Movement Capacity: (pcph) Prob. of Queue-Free State:	1682 214 214 0.73	

Intersection Performance Summary

Mov	ement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)(:	Avg. Total Delay sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
NB	R	232	552		11.2	2.2	С	11.2
WB	L	57	214		22.8	1.0	D	0.6

Intersection Delay = 0.9 sec/veh

HCS: Unsigna	alized	Inte	rsec	tions	Rel	ease	2.1g	R	R2AM9	9T.HC) Pa	age 1
LEIGH, SCOT 1889 York St Denver, CO Ph: (303) 33	F AND T AND treet 8020 33-110	===== CLEAR 6- 5	Y, I			====	====					====
Streets: (N- Major Street Length of Ti Analyst Date of Anal Other Inform Two-way Stop	-S) IN t Dire ime An lysis. mation	DEPEN alyze	DENT	NS 15 (m JAM 8/4/9 tersec	in) 9 EXIST -HOUR	ING I	PLUS I FFIC	(E-W)	WEST	SITE	ACCES	PEAK
=======================================	====== Nor	===== thbou	nd		===== +hhou	====: nd	===== i Eau	=====:	ind Ind	===== Wo	===== sthouu	===== pd
		T	R		T	R		T	R		T	R
No. Lanes Stop/Yield		1	1 N		1	1 N	1	1	< 0	0	> 1	< 0
Volumes PHF Grade MC's (%) SU/RV's (%) CV's (%)	.95	80 .95 0	5 .95	10 .95 	138 .95 0	20 .95	13 .95	5 .95 0	5 .95	5 .95	5 .95 0	6 .95
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Vehicle		Critical	Follow-up
Maneuver		Gap (tg)	Time (tf)
Left Turn Major Road	Road	5.00	2.10
Right Turn Minor Road		5.50	2.60
Through Traffic Minor		6.00	3.30
Left Turn Minor Road		6.50	3.40

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)	84	145
Potential Capacity: (pcph)	1255	1169
Movement Capacity: (pcph)	1255	1169
Prob. of Queue-Free State:	0.99	0.99
Step 2: LT from Major Street	SB	NB
Conflicting Flows: (vph)	89	166
Potential Capacity: (pcph)	1555	1429
Movement Capacity: (pcph)	1555	1429
Prob. of Queue-Free State:	0.99	1.00
Step 3: TH from Minor Street	WB	EB
Conflicting Flows: (vph)	266	250
Potential Capacity: (pcph)	791	806
Capacity Adjustment Factor		
due to Impeding Movements	0.99	0.99
Movement Capacity: (pcph)	782	796
Prob. of Queue-Free State:	0.99	0.99
Step 4: LT from Minor Street	WB	EB
Conflicting Flows: (vph)	250	252
Potential Capacity: (pcph) Major LT, Minor TH	759	757
Impedance Factor:	0.98	0.98
Adjusted Impedance Factor:	0.99	0.99
Capacity Adjustment Factor		
due to Impeding Movements	0.98	0.98
Movement Capacity: (pcph)	744	742

Worksheet for TWSC Intersection

Intersection Performance Summary

Mov	rement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB	L	15	742		5.0	0.0	 A	
\mathbf{EB}	Т	6	796 >	>				4.5
EB	R	6	1169 >	> 947	3.9	0.0	A	
WB	L	6	744 >	•				
WB	T	6	782 >	≻ 891	4.1	0.0	A	4.1
WB	R	7	1255 >	>				
NB	L	6	1429		2.5	0.0	A	0.1
SB	L	12	1555		2.3	0.0	Α	0.1

Intersection Delay = 0.7 sec/veh

¹

HCS: UNSIGNALIZED INCELSECCIONS Release 2.19 RRZPM991.HCO Pag	ет										
LEIGH, SCOTT AND CLEARY, INC. 1889 York Street Denver, CO 80206- Ph: (303) 333-1105											
Streets. (N-S) INDEPENDENT (E-W) WEST SITE ACCESS											
STREETS: (N-S) INDEPENDENT (E-W) WEST SITE ACCESS Major Street Direction NS											
Length of Time Analyzed 15 (min)											
Analyst JAM											
Date of Analysis 8/4/99											
Other Information EXISTING PLUS PROJECT-GENERATED PM P	EAK										
Two-way Stop-controlled Intersection											
	===										
Northbound Southbound Eastbound Westbound											
	R										
No. Lanes $ 1 1 1 1 1 1 1 1 < 0 0 > 1 < 1$	0										
Stop/Yield N N	-										
Volumes 5 452 5 33 464 66 72 5 5 5 5	36										
PHF .95 </td <td>.95</td>	.95										
SU/RV's (%)											
CV's (%)											
PCE'S 1.10 1.10 1.10 1.10 1.10 1.10 1.10 1	.10										

Adjustment Factors

1.000

8

Critical Gap (tg)	Follow-up Time (tf)		
5.00	2.10		
5.50	2.60		
6.00	3.30		
6.50	3.40		
	Critical Gap (tg) 5.00 5.50 6.00 6.50		

Step 1: RT from Minor Street	WB	EB
Conflicting Flows: (vph)	476	488
Potential Capacity: (pcph)	795	784
Movement Capacity: (pcph)	795	784
Prob. of Queue-Free State:	0.95	0.99
Step 2: LT from Major Street	SB	NB
Conflicting Flows: (vph)	481	557
Potential Capacity: (pcph)	1011	930
Movement Capacity: (pcph)	1011	930
Prob. of Queue-Free State:	0.96	0.99
Step 3: TH from Minor Street	WB	EB
Conflicting Flows: (vph)	1073	1009
Potential Capacity: (pcph)	298	322
Capacity Adjustment Factor		
due to Impeding Movements	0.96	0.96
Movement Capacity: (pcph)	285	308
Prob. of Queue-Free State:	0.98	0.98
Step 4: LT from Minor Street	WB	EB
Conflicting Flows: (vph)	1010	1026
Potential Capacity: (pcph) Major LT. Minor TH	275	270
Impedance Factor:	0,94	0.94
Adjusted Impedance Factor:	0.95	0.95
Capacity Adjustment Factor		
due to Impeding Movements	0.94	0.90
Movement Capacity: (pcph)	260	243

Worksheet for TWSC Intersection

Intersection Performance Summary

Mov	ement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB	L	84	243		22.4	1.5	D	
EB	т	6	308	>				20.7
EB	R	6	784	> 442	8.4	0.0	В	
WB	L	6	260	>				
WB	Т	6	285	> 557	7.2	0.3	В	7.2
WB	R	42	795	>				
NB	L	6	930		3.9	0.0	A	0.0
SB	L	39	1011		3.7	0.0	A	0.2

Intersection Delay = 1.9 sec/veh

HCS: Unsign	alized	l Inte	rsec	tions	Rel	ease	2.1g	R	R2SM9	9T.HC	0 P	age 1
LEIGH, SCOTT AND CLEARY, INC. 1889 York Street Denver, CO 80206- Ph: (303) 333-1105												
Streets: (N-S) INDEPENDENT (F-W) WEST SITE ACCESS												=====
Major Street	STREETS: (N-S) INDEPENDENT (E-W) WEST SITE ACCESS											
Major Street Direction NS Length of Time Analyzed 15 (min) Analyst JAM Date of Analysis 8/4/99 Other Information EXISTING PLUS PROJECT-GENERATED SATURDA Y PEAK-HOUR TRAFFIC Two-way Stop-controlled Intersection												
	l Nor	thbou	nd	Sou	thbou	nd	l Eas	stbou	nd	l Wes	stbour	nđ
	L	T	R	L	T	R	L	Т	R	L	Т	R
No. Lanes Stop/Yield	 1 	1	1 N	1	1	1 N	1	1	< 0	0	> 1	< 0
Volumes	5	574	5	49	690	99	91	5	5	5	5	46
PHF	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Grade MC's (응) SU/RV's (응) CV's (응)	 	0			0			0] []	0	
PCE's	1.10			1.10			1.10	1.10	1.10	1.10	1.10	1.10

Vehicle Maneuver	Critical Gap (tg)	Follow-up Time (tf)
Left Turn Major Road	5.00	2.10
Right Turn Minor Road	5.50	2.60
Through Traffic Minor Road	6.00	3.30
Left Turn Minor Road	6.50	3.40

Step 1: RT from Minor Street	ŴB	EB
Conflicting Flows: (vph) Potential Capacity: (pcph) Movement Capacity: (pcph) Prob. of Queue-Free State:	604 684 684 0.92	726 594 594 0.99
Step 2: LT from Major Street	SB	NB
Conflicting Flows: (vph) Potential Capacity: (pcph) Movement Capacity: (pcph) Prob. of Queue-Free State:	609 879 879 0.94	830 690 690 0.99
Step 3: TH from Minor Street	WB	EB
Conflicting Flows: (vph) Potential Capacity: (pcph) Capacity Adjustment Factor	1491 180	1392 203
due to Impeding Movements Movement Capacity: (pcph) Prob. of Queue-Free State:	0.93 167 0.96	0.93 188 0.97
Step 4: LT from Minor Street	WB	EB
Conflicting Flows: (vph) Potential Capacity: (pcph) Major LT, Minor TH	1392 165	1414 161
Impedance Factor: Adjusted Impedance Factor: Capacity Adjustment Factor	0.90 0.92	0.89 0.92
due to Impeding Movements Movement Capacity: (pcph)	0.91 151	0.85 136

Worksheet for TWSC Intersection

Intersection Performance Summary

Mov	ement	Flow Rate (pcph)	Move Cap (pcph)	Shared Cap (pcph)	Avg. Total Delay (sec/veh)	95% Queue Length (veh)	LOS	Approach Delay (sec/veh)
EB	L	106	136		85.2	4.0	F	
EB	т	6	188 >					78.1
EB	R	6	594 >	286	13.1	0.0	С	
WB	L	6	151 >				_	
WB	Т	6	167 >	424	10.0	0.5	С	10.0
WB	R	53	684 >					
NB	L	6	690 870		5.3	0.0	В	0.0
20	L	57	0/9		4.4	0.1	A	0.5

Intersection Delay = 5.5 sec/veh

APPENDIX C Progression Analysis

(COVER) TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER II-90 VER 1.0 DEC 90 MULTIPHASE ARTERIAL PROGRESSION - 145101

DISTRICT 08/06/99 - PROGRESSION MODE.

GRAND JUNCT. US 6 & 50 RUN NO. 0

**** INPUT DATA SUMMARY ****

UPPER CYCLE

LENGTH

CYCLE

INCREMENT

4 80 120 10 MASTER REFERENCE REFERENCE SYSTEMWIDE INTERSECTION INTERSECTION LOST TIME POINT 1 1 BEGIN 4.0

LOWER CYCLE

LENGTH

(EMBED.DAT)

NUMBER OF

INTERSECTIONS

TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER II-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90

TRAFFIC CONTROL TYPE:	LEFT TURN SNEAKERS:	DELAY UNIT:
PRETIMED OPERATION	2.0 VEHICLES	TOTAL DELAY
IDEAL SATURATION FLOW:	PHASE LOST TIME:	LOS DELAY CRITERIA:
1900 PCPHGPL	4.0 SECONDS	A - 6.5 SECS/VEH B - 19.5 SECS/VEH
ANALYSIS PERIOD:	LEFT TURN PHASING:	C - 32.5 SECS/VEH
		D - 52.0 SECS/VEH
15 MINUTES	APPROACH-BASED	E - 78.0 SECS/VEH
		F - 78.0 SECS/VEH

PERMITTED LEFT TURN MODEL: (6) TTI MODEL

MODEL	COEFFICIENTS:	vo	-	Opp	Sat Flow		(vph)	-	1750
		т	=	LT	Critical Gap	þ	(sec)	=	4.5
		н	=	LT	Headway		(sec)	Ŧ	2.5

(INPUT.DATA)

	TEXAS D	EPARTM	ent of	HIGHW	AYS AN	D PUBL	IC TRA	NSPORTA	TION	
PASSER II-90	MUL	TIPHAS	E ARTE	RIAL P	ROGRES	SION -	14510)1 V	ER 1.0	DEC 90
		**	** INP	UT DAT	A CONT	INUED	****			
********	******	*****	*****	*****	*****	*****	*****	******	*****	
**** INTERS	SECTION	1	McDO	NALDS						
DISTANCE 0 TO 1				EED	DIST	DISTANCE 1 TO		0 S		
0. FT 0. MPH						0. FT		4	0. MPH	
A SIDE	S QUEUE	CLEAR	ANCE		B SI	DE QUE	OF CLF	ARANCE		
	0 5	ECS				0	SECS			
	TCCTDT			INCE		CDOSS			TENCE	
ANIGNIAL PEN	1199100	C FIND	E 3EQU			1033	31 ED 7 TVAT	ROF SEQ	7)	
THE TRADE	(2+5)	WIII	OVERD	ne ND		N	0 OAFL	GAP		
LI J LEADS	(2+3)	WIIU	OVERL	AF.						
ARTERIAL STRE					ET CROSS STREET					
PHASE	(NEMA)	5[5]	6	1[5]	2	3[5]	4	7[5]	8	
VOLUMES	(VPH)	201	1371	0	1109	0	201	237	Ó	
	,,									
SAT FLOW RATE	(VPHG)	1805	3620	0	3620	0	1900	1805	0	

(INPUT.DATA)
TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER II-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90 **** INPUT DATA CONTINUED **** **** INTERSECTION 2 24.5 RD DISTANCE 1 TO 2 SPEED 1400. FT 45. MPH DISTANCE 2 TO 1 SPEED 1400. FT 45. M 45. MPH A SIDE QUEUE CLEARANCE B SIDE QUEUE CLEARANCE 0 SECS 0 SECS ARTERIAL PERMISSIBLE PHASE SEQUENCE CROSS ST PHASE SEQUENCE LT 7 LEADS (4+7) DUAL THRUS (2+6) WITH OVERLAP LT 5 LEADS (2+5) WITH OVERLAP NO OVERLAP ARTERIAL STREET CROSS STREET 3[5] 4 7[5] 0 91 90
 ARTERIAL STREET

 PHASE
 (NEMA) 5[5] 6 1[5] 2

 VOLUMES
 (VPH) 91 1374 0 1519

 SAT FLOW RATE
 (VPHG) 1805 3620 0 3620

 MINIMUM PHASE
 (SEC) 10 25 0 25
8 0 0 1900 3330 Ð 0 15 15 ٥ (INPUT.DATA) TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION VER 1.0 DEC 90 PASSER TT-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 **** INPUT DATA CONTINUED **** *********************** ***** INTERSECTION 3 25 RD. DISTANCE 2 TO 3 SPEED DISTANCE 3 TO 2 6240. FT 45. MPH 6240. FT SPEED 45. MPH A SIDE QUEUE CLEARANCE B SIDE QUEUE CLEARANCE 0 SECS 0 SECS ARTERIAL PERMISSIBLE PHASE SEQUENCE CROSS ST PHASE SEQUENCE LT 7 LEADS (4+7) NO OVERLAP DUAL THRUS (2+6) WITH OVERLAP LT 5 LEADS (2+5) WITH OVERLAP
 ARTERIAL STREET
 CROSS STREET

 PHASE
 (NEMA) 5[5]
 6
 1[5]
 2
 3[5]
 4
 7[5]

 VOLUMES
 (VPH)
 141
 1481
 0
 1328
 0
 141
 141

 SAT FLOW RATE
 (VPHG)
 1805
 3620
 0
 3620
 0
 1900
 1805

 MINIMUM PHASE
 (SEC)
 10
 25
 0
 25
 0
 15
 15
8 0 0 0 (INPUT.DATA) TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER II-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90 **** INPUT DATA CONTINUED **** ***** **** INTERSECTION 4 INDEPENDENT DISTANCE 3 TO 4 SPEED DISTANCE 4 TO 3 3840. FT 45. MPH 3840. FT SPEED 45. MPH A SIDE QUEUE CLEARANCE B SIDE QUEUE CLEARANCE 0 SECS 0 SECS ARTERIAL PERMISSIBLE PHASE SEQUENCE CROSS ST PHASE SEQUENCE DUAL LEFTS (3+7) DUAL LEFTS (1+5) WITH OVERLAP WITH OVERLAP ARTERIAL STREET CROSS STREET (NEMA) 5[5] 6 1[5] 2 3[5] 4 7[5] (VPH) 140 1700 493 1614 273 148 160 PHASE 8 137 VOLUMES SAT FLOW RATE (VPHG) 1805 3620 3330 3620 3330 1900 3330 1900 MINIMUM PHASE (SEC) 10 25 10 25 10 15 10 15

(ART.SUMY) TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER II-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90 **** BEST PROGRESSION SOLUTION SUMMARY **** GRAND JUNCT. US 6 & 50 08/06/99 DISTRICT RUN NO. 0 (MAXIMIN CYCLE = 115 SECS) CYCLE LENGTH =110 SECS EFFICIENCY = .51 ATTAINABILITY = .92 (GREAT PROGRESSION) (FINE-TUNING NEEDED) = 54 SECS BAND A AVERAGE SPEED = 45 MPH AVERAGE SPEED = 45 MPH = 57 SECS BAND B NOTE: ARTERIAL PROGRESSION EVALUATION CRITERIA 0.00 - 0.12 - "POOR PROGRESSION" EFFICIENCY 0.13 - 0.24 - "FAIR PROGRESSION" 0.25 - 0.36 - "GOOD PROGRESSION" 0.37 - 1.00 - "GREAT PROGRESSION" ATTAINABILITY 1.00 - 0.99 - "INCREASE MIN THRU PHASE" 0.99 - 0.70 - "FINE-TUNING NEEDED" 0.69 - 0.00 - "MAJOR CHANGES NEEDED" (INT.SUMY) TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER II-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90 **** INTERSECTION PERFORMANCE SUMMARY **** CYCLE LENGTH = 110 SECS SYSTEM MAXIMIN CYCLE = 115 SECS CROSS STREET PHASE MIN. DELAY INTERSECTION AVERAGE DELAY INT INTERSECTION ART CRS CYCLE (SECS) V/C RATIO (SECS/VEH) NO INT NO -----_____ ______ .79 MCDONALDS 67 1 3 4 19.0 1 24.5 RD 2 2 4 57 - 62 8.8 2 З 25 RD. 34 62 .73 13.2 3 INDEPENDENT 1 115 .96 37.2 4 1 4 NOTE: PHASE SEQUENCE CODE FOR ARTERIAL (ART) CROSS STREET (CRS) 1 - LEFT TURN FIRST OR DUAL LEFTS LEADING OR DUAL LEFTS (1+5) 2 - THROUGH FIRSTOR DUAL THRUS LEADINGOR DUAL THRUS (2+6)3 - LEADING GREENOR NO. 5 LEADINGOR LT 5 LEADS (2+5)4 - LAGGING GREENOR NO. 1 LEADINGOR LT 1 LEADS (1+6)

NO APPARENT CODING ERRORS

**** CODING ERROR MESSAGES ****

(ERROR.MSG) TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER II-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90

(BEST.SOLN)

TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER II-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90

	****	BEST	SOLUTION	NH	ema Phasi	E DESIGNA	TION *	***	
*** INT.	1() SEC	OFFSET	ART	ST PHAS	SE SEQ IS	LT 5	LEADS	(2+5)
McDONALDS	.() %	OFFSET	CROSS	S ST PHAS	SE SEQ IS	LT 7	LEADS	(4+7)
			ARTERIAL	STREET			CROSS	5 STREET	
CONCURRENT	PHASES	2+	5 2+6	1+6	TOTAL	4+7	4+8	3+8	TOTAL
PHASE TIME	(SECS)	22.0	0 64.1	.0	86.1	23.9	.0	.0	23.9
PHASE TIME	(&)	20 (1 58 3	Δ	78 3	21 7	0	n	21 7

PHASE	TIME (%)	20.0	58.3	.0	78.3	21.7	.0	.0	21.7
				MEASU	JRES OF	EFFECTIVE	ENESS		
PHASE	(NEMA)	5[5]	6	1[5]	2	3[5]	4	7[5]	8
PHASE	DIRECTION	EBLTPR	WBTHRU	WBLTPR	EBTHRU	NBLTPR	SBTHRU	SBLTPR	NBTHRU
PHASE	TIME (SEC)	22.0	64.1	.0	86.1	.0	23.9	23.9	.0
V/C-RA	ATIO	.68	.69	.00	.41	.00	.59	.73	.00
LEVEL	OF SERVICE	в	в		А		A	С	
DELAY	(SECS/VEH)	48.9	16.8	.0	5.2	.0	43.7	49.5	.0
LEVEL	OF SERVICE	D	В		A		D	D	
QUEUE	(VEH/LANE)	5.8	9.1	.0	4.3	.0	5.0	6.9	.0
STOPS	(STOPS/HR)	184.	928.	0.	999.	0.	188.	220.	ο.
TOTAL	INTERSECTION	DELAY	1	FUEL CON	SUMPTIC	N	MINIMUN	1 DELAY	CYCLE
18	.95 SECS/VEH			54.20	GAL/HR			67 SECS	5

(BEST.SOLN)

TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER II-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90

	****	BEST	SOLU	CION (CONTINU	JED	NI	ema phi	ASE	DESI	GNAT	ION ****	
*** INT.	2	.0	SEC	OFFS	ET	ART	ST	PHASE	SEQ	IS	DUAL	THRUS	(2+6)
24.5 RD		.0	€	OFFS	ET	CROSS	ST	PHASE	SEQ	IS	LT 7	LEADS	(4+7)

	AJ	RTERIAL	STREET			CROSS	STREET	
CONCURRENT PHASES	2+6	2+5	1+5	TOTAL	4+7	4+8	3+8	TOTAL
PHASE TIME (SECS)	80.4	14.6	.0	95.0	15.0	.0	.0	15.0
PHASE TIME (%)	73.1	13.3	.0	86.4	13.6	.0	.0	13.6
			MEASI	JRES OF	EFFECTIV	ENESS -		
PHASE (NEMA)	5[5]	6	1[5]	2	3[5]	4	7[5]	8
PHASE DIRECTION	EBLTPR	WBTHRU	WBLTPR	EBTHRU	NBLTPR	SBTHRU	SBLTPR	NBTHRU
PHASE TIME (SEC)	14.6	80.4	.0	95.0	.0	15.0	15.0	.0
V/C-RATIO	.53	.55	.00	.51	.00	.48	.27	.00
LEVEL OF SERVICE	А	A		A		A	A	
DELAY (SECS/VEH)	50.3	8.6	.0	2.0	.0	48.7	45.9	.0
LEVEL OF SERVICE	D	В		А		D	D	
QUEUE (VEH/LANE)	2.7	6.6	.0	3.0	.0	2.5	1.3	.0
STOPS (STOPS/HR)	83.	1231.	0.	312.	0.	85.	76.	0.
TOTAL INTERSECTION	DELAY	I	TUEL CON	SUMPTIC	N	MINIMU	I DELAY	CYCLE
8.84 SECS/VEH			97.23	GAL/HR			57 SEC:	3

(BEST.SOLN) TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER II-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90

	****	BEST	SOLUT	TION CONT	TINUED	NE	EMA PHA	ASE	DESI	[GN/	۲T	ION ****	
*** INT.	3	94.7	SEC	OFFSET	ART	ST	PHASE	SEQ	IS	\mathbf{LT}	5	LEADS	(2+5)
25 RD.		86.1	ક	OFFSET	CROSS	ST	PHASE	SEQ	IS	\mathbf{LT}	7	LEADS	(4+7)

	A	RTERIAL	STREET			CROSS	STREET	
CONCURRENT PHASES	5 2+5	2+6	1+6	TOTAL	4+7	4+8	3+8	TOTAL
PHASE TIME (SECS)	17.9	75.0	.0	92.9	17.1	.0	.0	17.1
PHASE TIME (%)	16.3	68.2	- 0	84.5	15.5	.0	.0	15.5
			MEASI	JRES OF	EFFECTIV	ENESS		
PHASE (NEMA)	5[5]	6	1[5]	2	3[5]	4	7[5]	8
PHASE DIRECTION	EBLTPR	WBTHRU	WBLTPR	EBTHRU	NBLTPR	SBTHRU	SBLTPR	NBTHRU
PHASE TIME (SEC)	17.9	75.0	.0	92.9	.0	17.1	17.1	.0
V/C-RATIO	.62	.63	.00	.45	.00	. 62	.66	.00
LEVEL OF SERVICE	В	B		А		В	В	
DELAY (SECS/VEH)	50.1	11.2	.0	3.3	.0	50.9	52.7	.0
LEVEL OF SERVICE	D	В		Α		D	E	
QUEUE (VEH/LANE)	4.1	7.8	.0	3.9	.0	4.0	4.3	.0
STOPS (STOPS/HR)	129.	757.	0.	1197.	0.	136.	133.	0.
TOTAL INTERSECTIO	ON DELAY	1	TUEL CON	SUMPTIC	ON	MINIMUN	1 DELAY	CYCLE
13.20 SECS/VE	EH		132.71	GAL/HR			62 SECS	5

(BEST.SOLN)

TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER II-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90

**** BEST SOLUTION CONTINUED.... NEMA PHASE DESIGNATION **** *** INT. 4 44.8 SEC OFFSET ART ST PHASE SEQ IS DUAL LEFTS (1+5) INDEPENDENT 40.7 % OFFSET CROSS ST PHASE SEQ IS DUAL LEFTS (3+7)

	A	RTERIAL	STREET			CROSS	STREET	
CONCURRENT PHASES	1+5	1+6	2+6	TOTAL	3+7	3+8	4+8	TOTAL
PHASE TIME (SECS)	14.7	7.6	58.1	80.4	12.7	1.9	15.0	29.6
PHASE TIME (%)	13.4	6.9	52.8	73.1	11.5	1.7	13.6	26.9
			MEASU	JRES OF	EFFECTIV	ENESS -		
PHASE (NEMA)	5[5]	6	1[5]	2	3[5]	4	7[5]	8
PHASE DIRECTION	EBLTPR	WBTHRU	WBLTPR	EBTHRU	NBLTPR	SBTHRU	SBLTPR	NBTHRU
PHASE TIME (SEC)	14.7	65.7	22.3	58.1	14.6	15.0	12.7	16.9
V/C-RATIO	.80	.84	.89	.91	.85	.78	.61	.62
LEVEL OF SERVICE	С	D	E	Е	Е	С	в	в
DELAY (SECS/VEH)	68.2	23.0	60.1	32.4	66.4	64.3	52.7	50.8
LEVEL OF SERVICE	E	С	E	С	E	E	E	D
QUEUE (VEH/LANE)	5.4	12.8	9.1	15.5	5.5	5.1	2.6	3.8
STOPS (STOPS/HR)	151.	1579.	504.	1550.	288.	158.	148.	132.
TOTAL INTERSECTION	DELAY	1	FUEL CON	ISUMPTIC	N	MINIMU	M DELAY	CYCLE
37.20 SECS/VEH			132.09	GAL/HR			115 SECS	3

(ART.MOE)

TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER II-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90

**** TOTAL ARTERIAL SYSTEM PERFORMANCE ****

4

GRAND JUNCT. US 6 & 50DISTRICT08/06/99RUN NO. 0CYCLE LENGTH = 110 SECSBAND A = 54 SECSBAND B = 57 SECSAVERAGE PROGRESSION SPEED -BAND A = 45 MPHBAND B = 45 MPH

.51 EFFICIENCY .92 ATTAINABILITY

AVERAGE INTERSECTION DELAY	TOTAL SYSTEM DELAY	TOTAL NUMBER VEHICLES
21.4 SECS/VEH	84.3 VEH-HR/HR	14181.
TOTAL SYSTEM FUEL CONSUMPTION 416.23 GAL/HR	TOTAL SYSTEM STOPS 11168. STOPS	MAXIMIN CYCLE 115 SECS

(ART.MOE)

TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER II-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90

EFFICIENCY VERSUS CYCLE LENGTH

	CYCLE LENGTH	CUMULATIVE EFFICIENCY
	80	.45
	90	.45
	100	.45
	110	.51
	120	.51
BEST SOLUTION	110	.51

(PIN.SET) TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION MULTIPHASE ARTERIAL PROGRESSION - 145101 PASSER II-90 VER 1.0 DEC 90 **** SUMMARY OF PASSER II-90 BEST SIGNAL TIMING SOLUTION **** GRAND JUNCT. US 6 & 50 DISTRICT 08/06/99 RUN NO. 0 CYCLE = 110. SECONDS SPLIT = 1 2 3.OFFSET = 123. DEFAULT(1) : SAME MASTER & SYS INT, OFFSET TO BEGINNING OF MAIN STREET GREEN MAST INT = 1 SYS INT = 1 SYS OFFSET = .0 REF MOVMNT = 0 REF PNT = BEGIN COORD PHASE : 0 OFFSET : INTRSC 1 : McDONALDS . 0 SEC : . 0% *- [MASTER AND SYSTEM INTERSECTION] DUAL-RING PHASE # 2 7 8 5 4 6 1 3 22.0 .0 23.9 64.1 .0 86.1 PHASE SPLIT (SEC) 23.9 . 0 PHASE SPLIT (%) 20.% 58.% 0.% 78.% 0.8 22.% 22.% 0.8 PHASE REVERSAL ------2 1 4 3 LEFT TURN LEAD -----LAG --LAG ----LEAD -----CONCURRENT PHASES 2+52+6 1+6 4+7 4+8 3+8 MAIN CROSS .0 . 0 DURATION (SEC) 22.0 64.1 .0 23.9 86.1 23.9 CYCLE COUNT (SEC) 86.1 .0 22.0 86.1 . 0 . 0 .0 86.1 0.8 CYCLE COUNT (%) 0.% 20.% 78.% 78.8 0.8 0.8 78.% (PIN.SET) TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER II-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90 **** SUMMARY OF PASSER II-90 BEST SIGNAL TIMING SOLUTION **** GRAND JUNCT. US 6 & 50 DISTRICT 08/06/99 RUN NO. 0 CYCLE = 110. SECONDS SPLIT = 1 2 3.OFFSET = 123. DEFAULT(1) : SAME MASTER & SYS INT, OFFSET TO BEGINNING OF MAIN STREET GREEN MAST INT = 1 SYS INT = 1 SYS OFFSET = .0 REF MOVMNT = 0 REF PNT = BEGIN INTRSC 2 : 24.5 RD .0 .0% COORD PHASE : 0 OFFSET : SEC : DUAL-RING PHASE # 5 6 1 2 3 4 7 8 PHASE SPLIT (SEC) 14.6 80.4 .0 95.0 .0 15.0 15.0 .0 PHASE SPLIT (%) 0.% 0.8 13.8 73.8 86.% 14.8 14.8 0.8 PHASE REVERSAL 6 5 2 1 4 3 -----LEFT TURN LAG LAG LEAD LAG --------------4+7 CONCURRENT PHASES 2+6 2+5 1+5 4+8 3+8 MAIN CROSS .0 .0 DURATION (SEC) 80.4 14.6 .0 15.0 95.0 15.0 CYCLE COUNT (SEC) .0 80.4 95.0 95.0 .0 95.0 .0 .0 CYCLE COUNT (%) 0.8 73.% 86.% 86.% 0.8 0.8 0.8 86.8 (PIN.SET) TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER II-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90 **** SUMMARY OF PASSER II-90 BEST SIGNAL TIMING SOLUTION **** GRAND JUNCT. US 6 & 50 DISTRICT 08/06/99 RUN NO. 0 CYCLE = 110. SECONDS SPLIT = 1 2 3. OFFSET = 1 2 3. DEFAULT(1) : SAME MASTER & SYS INT, OFFSET TO BEGINNING OF MAIN STREET GREEN MAST INT = 1 SYS INT = 1 SYS OFFSET = .0 REF MOVMNT = 0 REF PNT = BEGIN INTRSC 3 : 25 RD. COORD PHASE : 0 OFFSET : 94.7 SEC : 86.1% DUAL-RING PHASE # 5 2 6 1 3 7 8 4 75.0 PHASE SPLIT (SEC) 17.9 .0 92.9 .0 17.1 17.1 .0 PHASE SPLIT (%) 16.% 68.% 0.8 84.8 0.8 16.% 16.% 0.8 PHASE REVERSAL 2 4 ---1 3 ----LEFT TURN LEAD --LAG --LAG ---LEAD CONCURRENT PHASES 2+5 2+6 1+6 4+7 4+8 3+8 MATN CROSS DURATION (SEC) CYCLE COUNT (SEC) 17.1 .0 77.6 17.9 75.0 .0 .0 92.9 17.1 94.7 94.7 2.6 77.6 94.7 94.7 77.6 CYCLE COUNT (%) 86.8 2.% 71.8 71.8 86.% 86.% 86.8 71.8

TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION MULTIPHASE ARTERIAL PROGRESSION - 145101 PASSER II-90 VER 1.0 DEC 90

**** SUMMARY OF PASSER II-90 BEST SIGNAL TIMING SOLUTION **** GRAND JUNCT. US 6 & 50 DISTRICT 08/06/99 RUN NO. 0 CYCLE = 110. SECONDS OFFSET = 1 2 3. SPLIT = 1 2 3.DEFAULT(1) : SAME MASTER & SYS INT, OFFSET TO BEGINNING OF MAIN STREET GREEN MAST INT = 1 SYS INT = 1 SYS OFFSET = .0 REF MOVMNT = 0 REF PNT = BEGIN INTRSC 4 : INDEPENDENT COORD PHASE : 0 OFFSET : 44.8 SEC : 40.7% DUAL-RING PHASE # 5 6 1 2 3 7 8 4 PHASE SPLIT (SEC) 14.7 65.7 22.3 58.1 14.6 15.0 12.7 16.9 PHASE SPLIT (%) 13.% 60.% 53.% 13.% 14.% 20.% 12.8 15.8 PHASE REVERSAL --------------------------------LEFT TURN LEAD ----LEAD ----LEAD --LEAD ----CONCURRENT PHASES 1+5 1+6 2+6 3+7 3+8 4+8 MAIN CROSS 58.1 DURATION (SEC) CYCLE COUNT (SEC) 14.7 7.6 12.7 1.9 15.0 80.4 29.6 44.8 59.5 15.2 27.9 29.8 15.2 44.8 CYCLE COUNT (%)

61.%

14.8

54.8

41.8

(PIN.SET)

TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER II-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90 **** SUMMARY OF PASSER II-90 BEST SIGNAL TIMING SOLUTION ****

25.8

27.8

41.8

14.8

GRAND JUNCT. US 6 & 50 DISTRICT 08/06/99 RUN NO. 0

CYCLE = 110. SECONDS SPLIT = 1 2 3.OFFSET = 123.

DEFAULT(2) : SAME MASTER & SYS INT, OFFSET TO BEGINNING OF NEMA PHASE 2 MAST INT = 1 SYS INT = 1 SYS OFFSET = .0 REF MOVMNT = 2 REF PNT = BEGIN

INTRSC 1 : McDONALDS	5	COORD	PHASE	: : 2 OF	FSET :	.0	SEC :	.0%
*- [MASTER AND SYSTEM	INTERS	ECTION]						
DUAL-RING PHASE #	5	6	1	2	3	4	7	8
PHASE SPLIT (SEC)	22.0	64.1	.0	86.1	.0	23.9	23.9	.0
PHASE SPLIT (%)	20.%	58.%	0.%	78.%	0.%	22.8	22.8	0.%
PHASE REVERSAL			2	1	4	3		
LEFT TURN	LEAD		LAG		LAG		LEAD	
CONCURRENT PHASES	2+5	2+6	1+6	4+7	4+8	3+8	MAIN	CROSS
DURATION (SEC)	22.0	64.1	.0	23.9	.0	.0	86.1	23.9
CYCLE COUNT (SEC)	.0	22.0 8	36.1	86.1	.0	.0	.0	86.1
CYCLE COUNT (%)	0.8	20.8	78.%	78.%	0.%	0.8	0.%	78.%

(PIN.SET)

(PIN.SET) TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION MULTIPHASE ARTERIAL PROGRESSION - 145101 PASSER II-90 VER 1.0 DEC 90 **** SUMMARY OF PASSER II-90 BEST SIGNAL TIMING SOLUTION **** GRAND JUNCT. US 6 & 50 DISTRICT 08/06/99 RIN NO. 0 CYCLE = 110. SECONDS SPLIT = 1 2 3.OFFSET = 123. DEFAULT(2) : SAME MASTER & SYS INT, OFFSET TO BEGINNING OF NEMA PHASE 2 MAST INT = 1 SYS INT = 1 SYS OFFSET = .0 REF MOVMNT = 2 REF PNT = BEGIN INTRSC 2 : 24.5 RD COORD PHASE : 2 OFFSET : .0 SEC : .0% DUAL-RING PHASE # 5 6 1 2 3 4 7 8 PHASE SPLIT (SEC) 14.6 80.4 .0 95.0 . 0 15.0 15.0 .0 PHASE SPLIT (%) 73.8 0.% 86.% 0.8 14.8 0.8 13.% 14.8 PHASE REVERSAL 2 6 5 4 1 3 -----LEFT TURN LAG ___ LAG ----LAG ___ LEAD ___ CONCURRENT PHASES 2+6 2+5 1+5 4+7 4+8 3+8 MAIN CROSS . o .0 80.4 DURATION (SEC) 14.6 .0 15.0 95.0 15.0 95.0 CYCLE COUNT (SEC) .0 80.4 95.0 .0 .0 .0 95.0 0.% 86.% CYCLE COUNT (%) 0.% 73.% 86.% 86.8 0.% 0.8 (PIN.SET) TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER II-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90 **** SUMMARY OF PASSER II-90 BEST SIGNAL TIMING SOLUTION **** GRAND JUNCT. US 6 & 50 DISTRICT 08/06/99 RUN NO. 0 CYCLE = 110, SECONDS SPLTT = 1 2 3. OFFSET = 123. DEFAULT(2) : SAME MASTER & SYS INT, OFFSET TO BEGINNING OF NEMA PHASE 2 MAST INT = 1 SYS INT = 1 SYS OFFSET = .0 REF MOVMNT = 2 REF PNT = BEGIN INTRSC 3: 25 RD. COORD PHASE : 2 OFFSET : 94.7 SEC : 86.1% DUAL-RING PHASE # 5 6 2 7 3 4 8 1 17.9 75.0 . 0 92 9 . 0 17.1 PHASE SPLIT (SEC) 17.1 0 PHASE SPLIT (%) 16.% 68.% 0.% 84.% 0.% 16.% 16.% 0.% PHASE REVERSAL 2 1 4 3 --------~ ~ LEFT TURN LEAD --LAG LAG LEAD --4+8 CONCURRENT PHASES 1+6 4+7 3+8 MAIN CROSS 2+5 2+6 DURATION (SEC) 75.0 .0 17.1 .0 92.9 17.9 . 0 17.1 CYCLE COUNT (SEC) 77.6 77.6 94.7 94.7 94.7 2.6 94.7 77.6 CYCLE COUNT (%) 86.8 2.8 71.8 71.8 86.8 86.% 86.% 71.8 (PIN.SET) TEXAS DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION PASSER II-90 MULTIPHASE ARTERIAL PROGRESSION - 145101 VER 1.0 DEC 90 **** SUMMARY OF PASSER II-90 BEST SIGNAL TIMING SOLUTION **** DISTRICT 08/06/99 RUN NO. 0 GRAND JUNCT. US 6 & 50 CYCLE = 110. SECONDS SPLIT = 1 2 3.OFFSET = 1 2 3. DEFAULT(2) : SAME MASTER & SYS INT, OFFSET TO BEGINNING OF NEMA PHASE 2 MAST INT = 1 SYS INT = 1 SYS OFFSET = .0 REF MOVMNT = 2 REF PNT = BEGIN INTRSC 4 : INDEPENDENT COORD PHASE : 2 OFFSET : 44.8 SEC : 40.7% DUAL-RING PHASE # 5 6 1 2 3 4 7 8 PHASE SPLIT (SEC) 14.7 65.7 22.3 58.1 14.6 15.0 12.7 16.9 PHASE SPLIT (%) 20.8 13.% 60.% 53.% 13.% 14.8 12.8 15.8 PHASE REVERSAL --__ ----------------------LEFT TURN LEAD LEAD ---LEAD ___ LEAD ___ CONCURRENT PHASES 1+5 1+6 2+6 3+7 3+8 4+8 MAIN CROSS 7.6 DURATION (SEC) 14.7 58.1 12.7 1.9 15.0 80.4 29.6 CYCLE COUNT (SEC) 22.5 37.2 44.8 102.9 7.5 22.5 102.9 5.6 7.8 34.% CYCLE COUNT (%) 20.8 41.8 94.8 5.8 20.8 94.8 08/06/99 CYCLE = 110 SECONDS US 6 & 50 RUN NO 0 DISTRICT HORIZONTAL SCALE 1 INCH = 60 SECS (1 inch = 10 characters)VERTICAL SCALE 1 INCH = 1000 FEET (1 inch = 6 lines)

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APPENDIX D Queuing Analysis

		Queue Calcula Rimrock Shopping Peak-hour, Satu	ations 3 Center urday	
Movement:	Northbound left-turn or	"main" access at US	S 6 & 50	
C = C Ge = E Q = A q = A n = A Tr = E Y = N Z = A	ycle length (sec) ffective Green, (sec) pproach Flow, (veh/hoi pproach Flow, (veh/sec verage Queue Length, ffective Red, (sec) umber of vehicles verage number of vehi	ur) :) (# of veh) cles passing a point :	= 110 = 18 273 = 0.0758 = 92 at during time t.	
Assum	ning vehicles have a pe	ermissive left-turn mo	ovement.	
Z = q*c =	8 Vehicles/cycle			
P	$(y) = (((exp^{-qt})) \times (qt))$	/^y))/(y!) =		
		Cumulative	P(Y)	
$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{array}{rrrr} P(\mathbf{y}) = & 0.000 \\ P(\mathbf{y}) = & 0.002 \\ P(\mathbf{y}) = & 0.003 \\ P(\mathbf{y}) = & 0.023 \\ P(\mathbf{y}) = & 0.048 \\ P(\mathbf{y}) = & 0.080 \\ P(\mathbf{y}) = & 0.133 \\ P(\mathbf{y}) = & 0.133 \\ P(\mathbf{y}) = & 0.139 \\ P(\mathbf{y}) = & 0.139 \\ P(\mathbf{y}) = & 0.128 \\ P(\mathbf{y}) = & 0.107 \\ P(\mathbf{y}) = & 0.061 \\ P(\mathbf{y}) = & 0.056 \\ P(\mathbf{y}) = & 0.036 \\ P(\mathbf{y}) = & 0.022 \\ P(\mathbf{y}) = & 0.012 \\ P(\mathbf{y}) = & 0.001 \\ P(\mathbf{y}) = & 0.001 \\ P(\mathbf{y}) = & 0.001 \\ P(\mathbf{y}) = & 0.001 \end{array}$	0.000 0.002 0.011 0.034 0.082 0.162 0.273 0.406 0.545 0.673 0.781 0.862 0.918 0.955 0.976 0.988 0.994 0.998 0.999 1.000	Storage needed Storage needed	
As	ssume vehicle length = umber of vehicles =	20 ft. 12 Vehicles	- 240 East	
		20 X NO. OT VEN	- 240 FCCL	<u> </u>
Formulae So	ource: Poisson a	nd Other Distribution	in Traffic, ENO Foundation for Transportat	ion,

Queue Calculations Rimrock Shopping Center Peak-hour, Saturday Movement: Northbound through movement on "main" access at US 6 & 50 = Cycle length (sec) 110 С = Ge = Effective Green, (sec) 16 -Q = Approach Flow, (veh/hour) 137 q Approach Flow, (veh/sec) 0.0381 n = Average Queue Length, (# of veh) 94 Tr = Effective Red, (sec) -Υ Number of vehicles = Ζ z Average number of vehicles passing a point at during time t. Assuming vehicles have a permissive left-turn movement. Z = q*c = 4 Vehicles/cycle $P(y) = (((exp^{(-qt)}) \times (qt)^{y}))/(y!) =$ Cumulative P(Y) 0 P(y) = 0.0150.015 Storage needed Y = Y = P(y) = 0.0640.079 1 Storage needed P(y) = 0.1330.212 Storage needed Y = 2 Y = 3 P(y) = 0.1860.398 Storage needed Y = 4 P(y) = 0.1950.593 Storage needed Y = 5 P(y) = 0.1630.755 Storage needed Y = 6 P(y) = 0.1140.869 Storage needed Y = 7 P(y) = 0.0680.937 Storage needed Y = P(y) = 0.0360.973 8 P(y) = 0.0170.989 Y = 9 10 P(y) = 0.0070.996 Y = P(y) = 0.0030.999 Y = 11 P(y) = 0.0011.000 Y = 12 Assume vehicle length = 20 ft. Number of vehicles = 7 Vehicles Queue Length = 20 x No. of veh = 140 Feet Poisson and Other Distribution in Traffic, ENO Foundation for Transportation, Formulae Source: Saugatuck, 1971, Connecticut, pg. 31.

				Qu Rim P	eue Calcula rock Shopping eak-hour, Satu	tions Center rday	
Move	ement \	Westbound	eft-turns or	ı US 6	& 50		
c Ge Q n Tr Y Z	= C = E = A = A = A = A	ycle length (ffective Gree pproach Flo pproach Flo verage Que ffective Red umber of ve verage num	(sec) en, (sec) w, (veh/hou w, (veh/sec ue Length, ue Length, , (sec) hicles ber of vehic	ir)) (# of vi :les pa	eh) ssing a point at	during time	= 110 = 13.5 271 = 0.0753 = 96.5
7 - 0	Assun	Ning vehicles	s have a pe	rmissiv	e left-turn mov	ement.	
z = q	с- в		(at)) x (at)	(A) (A)			
	F	(y) = (((exp.	(-qı)) x (qı)"	' Y))/(Y 1)	r =	\sim	
v	0	B (4) -	0.000			Storege r	andod
τ= Υ=	1	P(y) = P(y) =	0.000		0.002	Storage r Storage r	needed
Y =	2	P(y) =	0.009		0.011	Storage r	needed
Y =	3	P(y) =	0.024		0.035	Storage r	needed
Y =	4	P(y) =	0.050		0.085	Storage r	needed
Y =	5	P(y) =	0.082		0.167	Storage r	
τ= Υ=	7	$P(\mathbf{y}) = P(\mathbf{y}) =$	0.113		0.200	Storage r	leeded
Y =	8	P(y) =	0.134		0.553	Storage r	reeded
Y =	9	P(y) =	0.128		0.681	Storage r	needed
Ý =	10	P(y) =	0.106		0.787	Storage n	needed
Y =	11	P(y) =	0.080		0.867	Storage r	needed
Y =	12	P(y) =	0.055		0.922	Storage r	needed
Y =	13	P(y) =	0.035		0.957		
Y⇒	14	P(y) =	0.021		0.977		
Y = V -	15	P(y) ≃ P(y) −	0.011		0.969		
Y =	17	P(y) =	0.000		0.998		
Y =	18	P(v) =	0.001		0.999		
Y =	19	P(y) =	0.001		1.000		
	As	ssume vehic	le length =	20	. ft.		
	N	umber of ve	hicles =	12	Vehicles		
		Queue	Length =	20	x No. of veh =	240 Fe	eet
Form	ulae So	ource:	Poisson an	d Othe	er Distribution in	Traffic, EN	NO Foundation for Transporta

Ŀ

Rimrock Shopping Center Peak-hour, Saturday

Movement: Southbound left-turns onto US 6 & 50

с	=	Cycle length (sec)	=	110
Ge	=	Effective Green, (sec)	=	15
Q	=	Approach Flow, (veh/hour)	=	160
q	=	Approach Flow, (veh/sec)	=	0.0444
n	Ξ	Average Queue Length, (# of veh)		
Tr	=	Effective Red, (sec)	=	95
Х	=	Number of vehicles		
Z	=	Average number of vehicles passing a point at during time	t.	

Assuming vehicles are unblocked and arrive during green and can complete turn.

Z = q*c = 5 Vehicles/cycle

$$P(x) = ((exp^{-q^{Tr}}))^{(q^{Tr})^{x}}/(x!) =$$

Cumulative P(X)

x –	0	P(x) = 0.015	0.015	Storage peoded
~ -	0	F(X) = 0.013	0.015	Storage needed
X =	1	P(x) = 0.062	0.077	Storage needed
X =	2	P(x) = 0.131	0.207	Storage needed
X =	3	P(x) = 0.184	0.391	Storage needed
X =	4	P(x) = 0.194	0.586	Storage needed
X =	5	P(x) = 0.164	0.750	Storage needed
X =	6	P(x) = 0.115	0.865	Storage needed
X =	7	P(x) = 0.070	0.935	Storage needed
X =	8	P(x) = 0.037	0.971	
X =	9	P(x) = 0.017	0.988	
X =	10	P(x) = 0.007	0.996	
X =	11	P(x) = 0.003	0.999	
X =	12	P(x) = 0.001	1.000	
X = X =	11 12	P(x) = 0.003 P(x) = 0.001	0.999 1.000	

Assume vehicle length =	20 ft.		
Number of vehicles =	7 Vehicles		
Queue Length = 20) * # of veh = 140	Feet	

Formulae Source:

Poisson and Other Distribution in Traffic, ENO Foundation for Transportation, Saugatuck, 1971, Connecticut, pg. 31.

	Queue Calculations Rimrock Shopping Center Peak-hour, Saturday
Mov	ement: Southbound through movement on Sams Club access
c Ge Q n Tr Y Z	=Cycle length (sec)=110=Effective Green, (sec)=13=Approach Flow, (veh/hour)148=Approach Flow, (veh/sec)=0.0411=Average Queue Length, (# of veh)==Effective Red, (sec)=97=Number of vehicles=97=Average number of vehicles passing a point at during time t
	Assuming vehicles have a permissive left-turn movement.
Z = 0	q*c = 5 Vehicles/cycle
	$P(y) = (((exp^{-(-qt)}) \times (qt)^{y}))/(y!) =$
Y == Y == Y == Y == Y == Y == Y == Y ==	0 $P(y) = 0.011$ 0.011Storage needed1 $P(y) = 0.049$ 0.060Storage needed2 $P(y) = 0.111$ 0.171Storage needed3 $P(y) = 0.167$ 0.339Storage needed4 $P(y) = 0.183$ 0.528Storage needed5 $P(y) = 0.171$ 0.699Storage needed6 $P(y) = 0.129$ 0.828Storage needed7 $P(y) = 0.083$ 0.912Storage needed8 $P(y) = 0.047$ 0.98210 $P(y) = 0.024$ 0.98210 $P(y) = 0.004$ 0.99712 $P(y) = 0.001$ 1.000
Form	Assume vehicle length = 20 ft. Number of vehicles = 7 Vehicles Queue Length = 20 x No. of veh = 140 Feet nulae Source: Poisson and Other Distribution in Traffic, ENO Foundation for Transportation, Saugatuck, 1971, Connecticut, pg. 31.

Sector Sector





	COTTIZIC	ON DIAGRA	Μ
INTERSECTION OF	Route 6 & 50	AND	Independent Avenue
PERIOD3 Years	FROM	1991	_TO1994
CITYGrand J	unction	PREPARED B	YPDM
Frontage Road			
			6/30/92 C/D
US 6 & 50			·
US 6 & 50		dependent renue %23/94 c/0	STOP SIGN
US 6 & 50		Independent Avenue 9/23/94 c/0	
US 6 & 50 10/8/94 C/D Frontage Road NOT TO SCALE SYMBOLS	TYPES	Avenue %23/94 c/0	STOP SIGN ROAD SURFACE/LIGHTING

W. Angeler







August 11, 1999

Mr. Mark Relph City of Grand Junction 250 North 5th St. Grand Junction, CO 81501

RE: Rimrock Market Place Grand Junction, CO W&A Project No. 95-137

Dear Mark:

As per our previous discussions, enclosed are two (2) copies of the revised traffic study for the Rimrock Market Place shopping center. Attached to this traffic study are three (3) separate scenarios which might be utilized as far as site plans for the development.

Wolverton

INCORP

ssociates

ΑΤΕ

OR

As you will recall from our previous meeting, it was the intention of the developer, Mr. Michael Staenberg of THF Belleville Development, L.P., to reduce the square footage to match the public improvements that will be constructed within the limits of their property and in front of Hwy. 6 & 50 only. This traffic study does not include the extension of the frontage road to the southeast for the second connection to Hwy. 6 & 50. As you can see, the site plan has been reduced considerably with regards to square footage. We feel that the improvements made will accommodate the square footage that is proposed on the separate site plans.

At this time we would like for the City to review the study and prepare a list of any questions or comments. Then we would welcome the opportunity to come to the City to sit down and have a meeting regarding the continuation of the project. Should you have any questions or comments during your review, please do not hesitate to call.

Sincerely.

Jerry (Jay) C. Wolverton, Jr. President

JCW:ss_p

c: Michael Staenberg, THF Realty w/encl. Mr. John Rubenstein, John Rubenstein Real Estate w/encl. Mr. Phil Scott, Leigh, Scott & Cleary, Inc.



City of Grand Junction Public Works Department 250 North 5TH Street Grand Junction CO 81501-2668 FAX: (970) 256-4022

October 13, 1999

Mr. Jerry (Jay) Wolverton Jr. Wolverton & Associates Inc. 5600 Oakbrook Parkway, Suite 100 Norcross, Georgia 30093

RE: Rimrock Market Place - Traffic Study

Dear Mr. Wolverton:

Please find our initial comments to your traffic study below. I hope this information is helpful.

1. The study only contains the signal analysis for 2015, not the built condition with today's traffic. It would be helpful to see the data and analysis for this.

2. Although I'm sure the applicant is aware of this, they need to be sure their CDOT access permit is still valid with the current proposal.

3. The signal analysis needs to accommodate pedestrian crossing times, as the signalized intersection is part of the adopted Urban Trails Masterplan. The timing for the north-south movement does not appear to address this.

4. As previously discussed with the developer, permissive dual left turns will not be allowed. The analysis needs to reflect this.

5. The queuing analysis for the westbound left-turn movement assumes permissive left turns. This needs to be re-calculated assuming protected-only left turns.

6. Since the analysis for the buildout condition was not provided, it is assumed the applicant is proposing a 110 second cycle length for the signal. Because this is the critical intersection for the group of signals operating in coordination, all of the intersections along Hwy. 6&50 will need to operate at the same cycle length in order to achieve coordination. This will result in long side street waits.

7. Detailed construction drawings will be required to be submitted with the submittal for final approvals. This will include signal plans, signing and striping plans, and traffic control plans in addition to the street construction plans.

8. It is unusual for a development of this size to only have two access points. The developer needs to be aware that we will operate the signals on the highway to keep traffic flowing on the highway and that this may result in delays on the side streets/accesses.

I will be glad to make our Transportation Engineer and myself available to discuss these comments, and your project, at your convenience.

Sincerely,

loa Im.

Tim Moore Public Works Manager

Xc: Tom Volkmann

Harry Griff, P.C. Douglas E. Larson, P.C.

GRIFF, LARSON, LAICHE & VOLKMANN

Attorneys at Law

Stephen L. Laiche, P.C. Thomas C. Volkmann, P.C.

422 White Ave., Suite 323, Grand Junction, CO 81501 (970) 245-8021 FAX: (970) 245-0590

November 3, 1999

Kris Ashbeck City of Grand Junction Planning Department 250 N. 5th Street Grand Junction, Colorado 81501

Re: Rimrock Marketplace CUP 96-180

Dear Kris:

As we discussed yesterday, this letter is to serve as a formal request for the extension of the above referenced Conditional Use Permit for one year from and after its current expiration date, which my notes reflect is on or about December 18, 1999.

This letter is also to serve as a confirmation that, according to your conversations with John Rubenstein, this matter is presently scheduled to come before the Grand Junction Planning Commission on Tuesday, November 16, 1999.

I am presently rounding up additional information regarding the documentation reflecting the work done on this project since we last appeared before the Planning Commission in January, 1999. I will forward that information upon receiving and organizing it. As you are aware, there have been some changes in the plans regarding this project, including the preparation of a revised traffic study to reflect the size and scope of the shopping center available with the removal from the project of the construction of the frontage road to Mulberry Street. To my knowledge, the City has that study, has commented on it, and may already have additional documentation regarding matters related thereto in its files. In addition, the revised traffic study was forwarded to the Colorado Department of Transportation for its review and comment. Kris Ashbeck November 3, 1999 Page 2

Please let me know if there is any additional information you need in connection with this request. I thank you for your assistance in this matter.

Very truly yours, un

THOMAS C. VOLKMANN

TCV:akr cc: John Rubenstein Jay Wolverton Michael Staenberg



LEIGH, SCOTT & CLEARY, INC. TRANSPORTATION PLANNING & TRAFFIC ENGINEERING CONSULTANTS

1889 York Street Denver, CO 80206 (303) 333-1105 FAX (303) 333-1107 E-mail: lscden@ecentral.com

November 5, 1999

Mr. Tim Moore Public Works Manager City of Grand Junction 250 North 5th Street Grand Junction, CO 81501-2668

> Re: Rimrock Market Place (LSC #990970)

Dear Tim:

As follow-up to our October 22nd telephone conversation and my subsequent conversation with Jody Kliska on November 1st, the following responses relate to your October 13, 1999 letter to Jay Wolverton concerning our Rimrock traffic study.

- 1. <u>Existing Plus Project Analysis</u>: Our analysis did include an analysis of existing plus project traffic which was summarized on Figure 7 and Table 2 of our August 9, 1999 report. Also, the report's appendix section include all related capacity analyses. If this information was omitted from your report copy, we will be happy to send it to you.
- 2. <u>CDOT Permit Validity</u>: It is my understanding that Wolverton & Associates will deal with this subject.
- 3. <u>Pedestrian Crossing Times</u>: In our opinion, the potential for peak-hour pedestrian activity across US 6/50 is very small in spite of the fact that the subject intersection is part of the Urban Trails Master Plan. For the occasional pedestrian who will walk across US 6/50, pedestrian push button activation should provide the necessary north/south signal time for such activity. However, the signal timing reflected in our analysis is intended to be responsive to the typical traffic demand projected for the intersection.
- 4. <u>Permissive Dual Left-Turns</u>: Our analysis assumes "lead/lag" phasing with no permissive green time for left-turn motorists.
- 5. <u>Queuing Analysis</u>: The queuing analyses included with our report were based on incomplete timing and lane assignment information. We have therefore revised the printouts to be consistent with the final report results. As you may note, queue length projections are now shorter than those indicated in our earlier report.

Page 2

- 6. <u>Cycle Length</u>: Based on our analysis, we have concluded that the 110-second signal cycle appears to be the optimum length for the applicable conditions.
- 7. <u>Construction Drawings</u>: It is my understanding that Wolverton & Associates is prepared to submit the required drawings.
- 8. <u>Access</u>: We recognize that this site is limited with respect to its potential for multiple access points.

We trust that this supplemental information is responsive to your letter comments. Please call if we can be of additional assistance.

Sincerely,

LEIGH, SCOTT & CLEARY, INC.

Philip N. Sco Bv:

PNS/wc

Enclosures (5)

cc: Kristin Ashbeck Jody Kliska John Rubenstein Jay Wolverton

F:\PROJECTS\1999\990970\S1-RIRO

Queue Calculations Rimrock Shopping Center

Peak-hour, Saturday

Movement: Westbound left-turns on US 6 & 50

с	=	Cycle length (sec)	=	110
Ge	=	Effective Green, (sec)	=	19
Q	=	Approach Flow, (veh/hour)		271
q	=	Approach Flow, (veh/sec) =	=	0.0753
n	=	Average Queue Length, (# of veh)		
Tr	=	Effective Red, (sec)	=	91
Y	=	Number of vehicles		
Z	Ξ	Average number of vehicles passing a point at during time	t.	

Assuming vehicles are unblocked and arrive during green and can complete turn.

Z = q*c = 8 Vehicles/cycle

 $P(Y) = ((exp^{(-q \times Tr)}) \times (q \times Tr)^{Y})/(Y!) =$

Cumulative P(Y)

Y =	0	P(y) =	0.001	0.001	Storage needed
Y =	1	P(y) =	0.007	0.008	Storage needed
Y =	2	P(y) =	0.025	0.033	Storage needed
Y =	3	P(y) =	0.057	0.090	Storage needed
Y =	4	P(y) =	0.097	0.187	Storage needed
Y =	5	P(y) =	0.133	0.320	Storage needed
Y =	6	P(y) =	0.152	0.472	Storage needed
Y =	7	P(y) =	0.149	0.621	Storage needed
Y =	8	P(y) =	0.127	0.748	Storage needed
Y =	9	P(y) =	0.097	0.845	Storage needed
Y =	10	P(y) =	0.066	0.912	Storage needed
Y =	11	P(y) =	0.041	0.953	
Y =	12	P(y) =	0.024	0.977	
Y =	13	P(y) =	0.012	0.989	
Y =	14	P(y) =	0.006	0.995	
Y =	15	P(y) =	0.003	0.998	
Y =	16	P(y) =	0.001	0.999	
Y =	17	P(y) =	0.000	1.000	

Assume vehicle length = 20 ft.

Number of vehicles =

10 Vehicles

Queue Length =

20 x No. of veh = 200 Feet

Formulae Source:

Poisson and Other Distribution in Traffic, ENO Foundation for Transportation, Saugatuck, 1971, Connecticut, pg. 31.

Rimrock Shopping Center Peak-hour, Saturday

Movement: Southbound left-turns on US 6 & 50

С	=	Cycle length (sec)	=	110
Ge	Ξ	Effective Green, (sec)	=	11
Q	=	Approach Flow, (veh/hour)		88
q	=	Approach Flow, (veh/sec)	Ξ	0.0244
n	=	Average Queue Length, (# of veh)		
Tr	=	Effective Red, (sec)	=	99
Y	=	Number of vehicles		

Z = Average number of vehicles passing a point at during time t.

Assuming vehicles are unblocked and arrive during green and can complete turn.

Z = q*c = 3 Vehicles/cycle

 $P(Y) = ((exp^{(-q \times Tr)}) \times (q \times Tr)^{Y})/(Y!) =$

Cumulative P(Y)

Y =	0	P(y) =	0.089	0.089	Storage needed
Y =	1	P(y) =	0.215	0.304	Storage needed
Y =	2	P(y) =	0.260	0.564	Storage needed
Y =	3	P(y) =	0.210	0.775	Storage needed
Y =	4	P(y) =	0.127	0.902	Storage needed
Y =	5	P(y) =	0.062	0.963	
Y =	6	P(y) =	0.025	0.988	
Y =	7	P(y) =	0.009	0.996	
Y =	8	P(y) =	0.003	0.999	
Y =	9	P(y) =	0.001	1.000	•

Assume ve	hicle length	= 20 ft.
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Number of vehicles =

4 Vehicles

Queue Length =

20 x No. of veh = 80 Feet

Formulae Source:

Poisson and Other Distribution in Traffic, ENO Foundation for Transportation, Saugatuck, 1971, Connecticut, pg. 31.

Rimrock Shopping Center Peak-hour, Saturday

Movement: Southbound through movement on Sam's Club access

с	=	Cycle length (sec)	=	110
Ge	=	Effective Green, (sec)	=	11
Q	=	Approach Flow, (veh/hour)		81
q	=	Approach Flow, (veh/sec)	=	0.0225
n	=	Average Queue Length, (# of veh)		
Tr	Ξ	Effective Red, (sec)	=	99
Y	=	Number of vehicles		
Z	=	Average number of vehicles passing a point at during time	et.	

Assuming vehicles are unblocked and arrive during green and can complete turn.

 $Z = q^*c = 2$ Vehicles/cycle

$P(Y) = ((exp^{(-q \times Tr)}) \times (q \times Tr)^{Y})/(Y!) =$	
Cumulative P(Y))

Y =	0	P(y) =	0.108	0.108	Storage needed
Y =	1	P(y) =	0.240	0.348	Storage needed
Y =	2	P(y) =	0.267	0.615	Storage needed
Y =	3	P(y) =	0.199	0.814	Storage needed
Y =	4	P(y) =	0.111	0.924	Storage needed
Y =	5	P(y) =	0.049	0.974	
Y =	6	P(y) =	0.018	0.992	
Y =	7	P(y) =	0.006	0.998	
Y =	8	P(y) =	0.002	0.999	
Y =	9	P(y) =	0.000	1.000	

Assume vehicle length =	20 fi	Ŀ
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Number of vehicles =

4 Vehicles

Queue Length =

20 x No. of veh = 80 Feet

Formulae Source:

Poisson and Other Distribution in Traffic, ENO Foundation for Transportation, Saugatuck, 1971, Connecticut, pg. 31.

Rimrock Shopping Center Peak-hour, Saturday

Movement: Northbound left-turns on "main" access at US 6 & 50

С	=	Cycle length (sec)	=	110
Ge	Ξ	Effective Green, (sec)	=	14
Q	=	Approach Flow, (veh/hour)		150
q	=	Approach Flow, (veh/sec)	Ξ	0.0417
n	=	Average Queue Length, (# of veh)		
Tr	=	Effective Red, (sec)	=	96
Y	=	Number of vehicles		
Z	=	Average number of vehicles passing a point at during time	et	

Assuming vehicles are unblocked and arrive during green and can complete turn.

$Z = q^*c = 5$ Vehicles/cycle

	P(Y) =	((exp^(-q	x Tr)) x ((a x Tr)^	()/(Y!) =
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Cumulative P(Y)

Y =	0	P(y) =	0.018	0.018	Storage needed
Y =	1	P(y) =	0.073	0.092	Storage needed
Y =	2	P(y) =	0.147	0.238	Storage needed
Y =	3	P(y) =	0.195	0.433	Storage needed
Y =	4	P(y) =	0.195	0.629	Storage needed
Y =	5	P(y) =	0.156	0.785	Storage needed
Y =	6	P(y) =	0.104	0.889	Storage needed
Y =	7	P(y) =	0.060	0.949	Storage needed
Y =	8	P(y) =	0.030	0.97 9	-
Y =	9	P(y) =	0.013	0.992	
Y =	10	P(y) =	0.005	0.997	
Y =	11	P(y) =	0.002	0.999	
Y = .	12	P(y) =	0.001	1.000	

Assume vehicle length = 20 ft.

Number of vehicles =

7 Vehicles

Queue Length =

20 x No. of veh = 140 Feet

Formulae Source:

Poisson and Other Distribution in Traffic, ENO Foundation for Transportation, Saugatuck, 1971, Connecticut, pg. 31.

Rimrock Shopping Center Peak-hour, Saturday

Movement: Northbound through movement on "main" access at US 6 & 50

с	=	Cycle length (sec) -	=	110
Ge	=	Effective Green, (sec)	=	14
Q	=	Approach Flow, (veh/hour)		137
q	=	Approach Flow, (veh/sec) =	=	0.0381
n	=	Average Queue Length, (# of veh)		
Tr	=	Effective Red, (sec) =	=	96
Y	=	Number of vehicles		
Z	=	Average number of vehicles passing a point at during time	t.	

Assuming vehicles are unblocked and arrive during green and can complete turn.

Z = q*c = 4 Vehicles/cycle

$P(Y) = ((exp^(-q x Tr)) x (q x Tr)^Y)/(Y!) =$			
Cumulative I)c	Y)	,

Y =	0	P(y) =	0.026	0.026	Storage needed
Y =	1	P(y) =	0.095	0.121	Storage needed
Y =	2	P(y) =	0.173	0.293	Storage needed
Y =	3	P(y) =	0.211	0.504	Storage needed
Y =	4	P(y) =	0.192	0.696	Storage needed
Y =	5	P(y) =	0.140	0.837	Storage needed
Y =	6	P(y) =	0.086	0.922	Storage needed
Y =	7	P(y) =	0.045	0.967	
Y =	8	P(y) =	0.020	0.987	
Y =	9	P(y) =	0.008	0.996	
Y =	10	P(y) =	0.003	0.999	а.
Y =	11	P(y) =	0.001	1.000	

Ass	ume vehicle length = 20 ft.
Nun	nber of vehicles = 6 Vehicles
Que	ue Length = 20 x No. of veh = 120 Feet
Formulae Source:	Poisson and Other Distribution in Traffic, ENO Foundation for Transportation, Saugatuck, 1971, Connecticut, pg. 31.

CITY OF GRAND JUNCTION

DATE: December 14, 1999

PLANNING COMMISSION STAFF PRESENTATION: Kristen Ashbeck

AGENDA TOPIC: CUP-1996-180 Conditional Use Permit – Rimrock Marketplace

SUMMARY / ACTION REQUESTED: Request for a 1-year extension of Conditional Use Permit. Continued from November 16, 1999 meeting.

BACKGROUND INFORMATION:

Location: Southwest Corner 25-1/2 Road and Highway 6 & 50

Applicant: THF Belleville Development, L.P.

Existing Land Use: Undeveloped

Proposed Land Use: Retail Center

Surrounding Land Use:

North: Commerical – Sam's Club South: Railroad East: Undeveloped West: Commercial

Existing Zoning: Light Commercial (C-1) and Heavy Commercial (C-2)

Proposed Zoning: Same

Surrounding Zoning:

North: C-2 *South:* I-1 *East:* C-1 *West:* C-2

Relationship to Comprehensive Plan: The Growth Plan shows this parcel in the Commercial land use category. The proposed land use is consistent with the Growth Plan.

Staff Analysis:

Project Background. A Conditional Use Permit (CUP) for the Rimrock Marketplace, a proposed retail center located at the southwest corner of 25-1/2 Road and Highway 6 & 50, was originally approved by the Planning Commission and City Council (on appeal) in December 1996. In December of 1997, the applicant received a one-year

extension to December 1998. In January 1999, Planning Commission approved a second one-year extension to the CUP (see minutes attached). The second extension was "subject to the applicant obtaining a final Planning Clearance for Phase 1 of the project no later than December 17, 1999 with the understanding that the sense of the Commission is that we would like to see very substantial progress on this project and we would not look favorably on a further extension if we didn't".

This application is for a third one-year extension of the CUP. The Zoning and Development Code requires that developments and uses allowed pursuant to a CUP be:

"developed or established in accordance with the approved development schedule, or within one year of the date of approval if no development schedule is established."

Staff is aware of the following progress having been made in the past year.

- The applicant and staff met for a preapplication conference for a combined Minor Subdivision and Site Plan Review submittal in February 1999. A summary of that meeting are documented in the attached letter from staff dated February 26, 1999.
- A different representative of the applicant and staff met again in June 1999. Details of the previous meeting were reiterated.
- The applicant submitted a revised Traffic Study to the City in August 1999.
- Staff provided the applicant with comments on the revised Traffic Study in October 1999.

Summary of Development Proposal. The CUP approval was originally for an approximately 430,000 square foot retail center plus additional "pad site" development on an approximately 50-acre parcel-on Highway 6 & 50 just west of 25-1/2 Road anddirectly south of Sam's-Club. With the latest revision to the Traffic Study, the project has been downsized to a total of approximately 339,000 square feet plus additional "pad site" development. This change is intended to illustrate that the new proposal would not require construction of the Highway 6 & 50 frontage road connection to the east to Mulberry Street. Staff comments to the applicant on the revised Traffic Study indicate that additional analysis is needed in order to satisfy staff's concerns. If PC Middle M

STAFF RECOMMENDATION: Staff recommends denial of the extension of the Conditional Use Permit due to failure of the applicant to meet the conditions of approval of the previous extension.

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CUP-1996-180 / December 14, 1999 / Page 3

SUGGESTED PLANNING COMMISSION MOTION:

Mr. Chairman, on item CUP-1996-180, I move that we approve a one-year extension of the Conditional Use Permit for the Rimrock Marketplace to December 17, 2000.

NOTE: Staff is recommending DENIAL of the extension request.

Vallemann: Anni 28,2000. Anni Allen Marine State Marine Marine Cup World Caller 1


December 17, 1999

Mark Achen City Manager City of Grand Junction 215 N. 5th St. Grand Junction, CO 81512-6668

RE: Rimrock Marketplace Shopping Center Grand Junction, Colorado

Dear Mark:

Thank you very much for taking time out of your busy schedule to meet with me prior to the City Planning Commission meeting on December 14, 1999.

Our official announcement of Wal*Mart opening their 2nd store at Rimrock was met with positive response, as the Commission continued to grant the extension of the Conditional Use Permit.

On behalf of the Sheriff, Mike Staenberg, and myself as #1 Deputy, we sincerely appreciate the continuing outstanding working relationship with you, your staff and everyone in Grand Junction!!!

The Millenium should be the year for us to move dirt and make the shopping center become a reality and we look forward to it.

Best regards,

RUBENSTEIN/REAL ESTATE CO., LC

John L. Rubenstein, Manager

C: Mike Staenberg

City of Grand Junction

Community Development Department Planning • Zoning • Code Enforcement 250 North 5th Street Grand Junction, CO 81501-2668

Phone: (970) 244-1430 FAX: (970) 256-4031



RECORD OF DECISION / FINDINGS OF FACT

DATE:	December 22, 1999		
FILE:	CUP-1996-180 Rimrock Marketplace		
LOCATION:	Southwest Corner 25-1/2 Road and Highway 6 & 50		
PETITIONER:	THF Belleville Development, L.P. THF Realty 955 Executive Parkway, Suite 210 St. Louis, Missouri 63141		
REPRESENTATIVE:	John L. Rubenstein Rubenstein Real Estate Co., LC 4350 Shawnee Mission Parkway Suite 159 Shawnee Mission, kansas 66205		
PLANNER:	Kristen Ashbeck		
PROJECT IS:	APPROVED		

The Grand Junction Planning Commission, in accordance with Section 4-6 of the Zoning and Development Code, approved this request for an extension to the development schedule for the Conditional Use Permit for the Rimrock Marketplace at its December 14, 1999 meeting until April 28, 2000. This approval is subject to the applicant submitting a set of final design drawings that meet the minimum requirements of the Submittal Standards for Improvements and Development (SSID) manual to the Community Development Department for review at that time.

Further discussion clarified that if the drawings are not submitted by the April 28, 2000 date, the Conditional Use Permit shall expire. If the April deadline is met, the Conditional Use Permit would continue subject to the applicant's compliance with Code criteria.

City of Grand Junction

Community Development Department Planning • Zoning • Code Enforcement 250 North 5th Street Grand Junction, CO 81501-2668



Phone: (970) 244-1430 FAX: (970) 256-4031



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April 11, 2000

John L. Rubenstein Rubenstein Real Estate Co., LC 4350 Shawnee Mission Parkway Suite 159 Shawnee Mission, Kansas 66205

RE: Rimrock Marketplace

Dear Mr. Rubenstein,

As you are aware, the City of Grand Junction Planning Commission approved an extension for the Conditional Use Permit for the project referenced above with the condition that an acceptable application for the first phase of the project be submitted to the City no later than April 28, 2000. As you are also aware, that date is rapidly approaching. Until a FAX from your engineer a week ago, informing staff that you do intend to submit an application by that date, there has been no communication between the developer or the engineer and the City. There were some major issues that needed to be resolved or at least further discussed such as whether the City agreed with the latest version of the traffic study that would seem to have a major impact on the plans that apparently are being developed.

Therefore, staff has serious concerns that an acceptable application will be forthcoming. Just today, the engineer called to obtain a copy of the City's Stormwater Management Manual—another indication that it is highly unlikely that an acceptable submittal can be completed in just over 2 weeks. It seems it is very likely that the application, if received, will be rejected as incomplete. If this occurs, and as Planning Commission stated, the Conditional Use Permit will expire.

Please call if you have questions about this project.

Sincerely,

G

(NP-1996-180



SENT VIA FACSIMILE (970-244-1599)

April 4, 2000

Ms. Kristen Ashbeck City of Grand Junction Engineering/Planning Department 250 North 5th St. Grand Junction, CO 81501

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PLANNING CRAID COLOR

RE: Rinnrock Market Place Grand Junction, CO W&A Project No. 95-137

Dear Kris:

The purpose of this letter is to advise you that Wolverton & Associates will be submitting full civil engineering drawings for the Rimrock Market Place shopping center, along with Road Improvement Plans for Hwy. 6 & 50 and the frontage road associated with the same, prior to the end of April. This submittal is being made in compliance with the extension of the Special Use Permit that was previously issued on this project. One point of clarification I would like to request your assistance on, is the actual submittal date that this needs to be made. It is our understanding that as long as the drawings are submitted prior to the end of April, 2000, we will be in compliance with the extension that was granted. Please advise if your understanding is the same. Thanks for your assistance. I look forward to working with you for the approval of these plans and the beginning of construction for the same. Should you have any questions or comments, please do not hesitate to call.

Sincerely,

Jerry (Jay) C. Wolverton, Jr. President

JCW:ss

c:

Michael Staenberg, THF Realty (FAX: 314-878-4004) John Rubenstein, John Rubenstein Real Estate (FAX: 913-362-1969) Tom Volkmann, Griff Larson, etal (FAX: 970-245-0590) Joe Macrina, Wolverton & Associates

5600 Oakbrook Parkway ◆ Suite 100 ◆ Norcross, Georgia 30093 ◆ 770-447-8999 ◆ 770-447-9070 Fax www.wolverton-assoc.com

City of Grand Junction

Community Development Department Planning • Zoning • Code Enforcement 250 North 5th Street Grand Junction, CO 81501-2668 Phone: (970) 244-1430 FAX: (970) 256-4031



May 8, 2000

Jøhn L. Rubenstein Rubenstein Real Estate Co., LLC 4350 Shawnee Mission Parkway, Suite 159 Shawnee Mission Kansas 66205

Re: Rimrock Marketplace

Via Certified Mail Return Receipt Requested

Dear Mr. Rubenstein,

This letter is written to acknowledge receipt of an application for a combined Minor Subdivision and Site Plan Review for the project referenced above. The current submittal was made on April 28, 2000. Staff has reviewed the materials and determined that they are not consistent with and otherwise do not fundamentally comply with the approved Conditional Use Permit (CUP) for the property. The Planning Commission action in December 1999 approved an extension of the original approval. That same action provided those final, buildable plans, to City standards, must be filed by the end of April 2000 or the CUP would expire. What was submitted is not consistent with that approval and therefore is rejected. The CUP for the property was conditioned (with emphasis added) as follows:

- The project is approved for a maximum of 430,000 square feet of retail space (not including the pad sites which will be limited in number by the ability to meet City Zoning Code requirements) to be constructed within the building envelopes identified on the attached site plan. If the proposal should exceed the size limit or the building envelopes proposed, the CUP will be subject to reevaluation by the Planning Commission at the discretion of City staff.
- The project signage will be subject to the attached signage guidelines based on those proposed by the petitioner and modified by staff.
- The CUP approval is subject to subsequent acceptance of a site plan and subdivision that meets all Zoning and Development Code requirements and is subject to staff approval review agency approval and Planning Commission approval as required by Code.

- Staff finds that the circulation improvements identified by the petitioner in the "Traffic Impact Analysis for Rimrock Shopping Center" (dated July 1996) and the attached site plan are necessary for the safe and efficient movement of vehicles to and from the site at acceptable levels of service (LOS). A condition of this approval is that the funding and construction of the identified improvements are the responsibility of the developer, and that all circulation improvements are the responsibility of the developer and that all circulation improvements are subject to review and approval by the City and the Colorado Department of Transportation (CDOT) and must meet all applicable requirements. Significant changes to the design and operation of the circulation network as proposed may require reevaluation of the CUP by the Planning Commission at the discretion of City staff.
- All pad site development is subject to the requirements of the Zoning and Development Code and the adopted signage guidelines for Rimrock Marketplace. Development proposals for the pad sites require Site Plan Review or other permits, as may be necessary depending on the proposed use.
- Roadway section B-B on the site plan must be modified to show sidewalks on both sides. In addition, all roadway sections must be modified to conform with City specifications.
- The petitioner must supply information, which is satisfactory to the Utility Engineer to demonstrate that the capacity of the sewer line has been maintained through the proposed relocation.
- Provide reasonable access to the Corner Store (condition as amended by City Council).
- Acquisition of adequate frontage road right-of-way is the responsibility of the petitioner.

It also appears from the proposed subdivision plat that the project cannot proceed because a number of easements across the property have not been vacated and the realignment of the drain line has not occurred.

My review of the submittal discloses that conditions 1 and 4 above are not addressed in the application materials. Generally, building footprints are not consistent with the approved plan and the access/frontage road issue has not been resolved. Per my letter to you dated April 11, 2000, a copy of which is attached, these issues might have been addressed by you and/or your representative(s); there was no response to that letter either before or in the form of the current submittal. Attached you will find a summary of technical deficiencies prepared by staff. Please understand that that list was for our internal use and may not be inclusive of all comments, problems or deficiencies. I

Rubenstein / May 8, 2000 / Page 3

would urge you to contact the City Development Engineer, Mr. Rick Dorris, directly if you require additional information.

Given these problems the City will not accept the application filed on April 28, 2000. Because the extension of the CUP was premised on submittal of a complete application consistent with the approved CUP and that submittal did not occur the CUP has expired.

There will be no further review action taken on the submittal unless you appeal. If you appeal, it will be considered an appeal of an administrative decision and will be heard by the Planning Commission generally in accordance with 2.18C of the 2000 Zoning and Development Code. Staff will not further review your application unless and until the Commission finds that the submittal is complete and meets the conditions of the extension. If you choose to appeal please memorialize that decision in writing to me. Your appeal must be made within 10 days from the date you sign for this letter and must state your disagreement with the administrative conclusion, how the documents submitted are in conformance with the extension, the CUP and other applicable design and development standards.

Please contact me if you have any questions.

Sincerely,

Kristen Ashbeck Planner

pc: CD Director City Attorney City Manager City Development Engineer \checkmark

Harry Griff, P.C. Douglas E. Larson, P.C.

GRIFF, LARSON, LAICHE & VOLKMANN

Attorneys at Law

Stephen L. Laiche, P.C. Thomas C. Volkmann, P.C.

422 White Ave., Suite 323, Grand Junction, CO 81501 (970) 245-8021 FAX: (970) 245-0590

May 16, 2000

Ms. Kristen Ashbeck City of Grand Junction Planning Department 250 North 5th Street Grand Junction, Colorado 81501

HAND DELIVERY

Re: Rimrock Marketplace CUP 96-180/Notice of Appeal

Dear Kristen:

In accordance with your letter of May 8, 2000, please accept this letter as notice of appeal by THF Belleville Development LLP ("THF") of the determination in your May 8, 2000 letter that the submittal by THF on April 28, 2000 failed to comply with the condition on the CUP proposed by the City Planning Commission in its hearing of December 14, 1999. Pursuant to Section 2.18 of the City of Grand Junctions Zoning and Development Code, THF submits the following in support of this appeal:

1. Through Wolverton & Associates, THF's engineering firm on the project, hundreds of pages of drawings were submitted on April 28, 2000, in connection with the subject project. Those drawings, all prepared by Wolverton & Associates, constitute substantial compliance with the standards of the Submittal Standards for Improvements and Development ("SSID") Manual and, accordingly, the condition placed on the extension of the subject CUP in the December 14, 1999 Planning Commission hearing.

2. Your May 8, 2000 letter identifies technical matters which you feel need to be addressed before the application by THF can be approved. That review, revision and approval process was contemplated in the December 14, 1999 meeting of the Planning Commission and should not impact the acceptance of the submittals.

3. It is my understanding that Jay Wolverton will be coming to Grand Junction within the next week to meet with you, Rick Dorris and other staff members with the City of Grand Junction regarding updating the submitted drawings, or, as necessary, submitting additional drawings to further evidence THF's compliance with the Planning Commission's condition and the SSID Manual. Kristen Ashbeck May 16, 2000 Page 2

4. In light of the extensive submittal made by THF in satisfaction of the Planning Commission's condition, THF submits that the decision not to accept the application, evidenced in the May 8, 2000 letter, represented an erroneous finding of fact in interpreting the Planning Commission's condition in the context of THF's submittal. In addition, as evidenced by the voluminous submittal by THF, this is a very complex project, a factor which should also be considered in determining the substantial compliance with the Planning Commission's condition 2.18C(1)(c) of the 2000 Zoning and Development Code.

Based upon the foregoing, THF requests that it be placed on the next available agenda before the Grand Junction City Planning Commission as referenced in the last paragraph of your May 8, 2000 letter, so that the Commission can determine THF's compliance with the conditions imposed by the Planning Commission on THF in the extension of the CUP in the December 14, 1999 meeting.

Should you need any further information regarding this appeal, or regarding the placement of THF on the next Planning Commission hearing agenda, please let me know and I will get it to you immediately.

Very truly yours,

THOMAS C. VOLKMANN

TCV:akr

cc: David Varley, Director Community Development John Shaver, Esq. John Rubenstein Michael Staenberg

CITY OF GRAND JUNCTION

PLANNING COMMISSION

STAFF PRESENTATION: Kristen Ashbeck

AGENDA TOPIC: CUP-96-180 Rimrock Marketplace Conditional Use Permit (CUP)

SUMMARY: Appeal to Planning Commission of staff's determination that the Planning Commission condition was not satisfied. Specifically concerning the condition of approval of extension of the CUP that complete plans be submitted by April 28, 2000.

BACKGROUND INFORMATION						
Location:		Southwest Corner 25-1/2 Road and Highway 6 & 50				
Applicant:		THF Bellville Development, L.P.				
Existing Land Use:		Vacant				
Proposed Land Use:		Retail Center				
Surrounding Land Use:	North	Commercial – Sam's Club				
	South	Railroad				
	East	Undeveloped				
	West	Commercial				
Existing Zoning:		Light Commercial (C-1) and Heavy Commercial (C-2)				
Proposed Zoning:		Same				
Surrounding Zoning:	North	C-2				
	South	C-1 & Light Industrial (I-1)				
	East	C-1				
	West	C-2				
Growth Plan Designation:		Commercial				
Zoning within density range?			Yes		No	

ACTION REQUESTED: Planning Commission review and determination whether condition has been satisfied.

Staff Analysis:

Project Background: A Conditional Use Permit (CUP) for the Rimrock Marketplace, a proposed retail center located at the southwest corner of 25-1/2 Road and Highway 6 & 50, was originally approved by the Planning Commission and City Council (on appeal) in

December 1996: that CUP was for an approximately 430,000 square foot retail center plus additional "pad site" development on an approximately 50-acre parcel.

In December 1997, the applicant received a one-year extension to December 1998. In January 1999 the Planning Commission approved a second one-year extension of the CUP. The second extension was "subject to the applicant obtaining a final Planning Clearance for Phase 1 of the project no later than December 17, 1999 with the understanding that the sense of the Commission is that we would like to see very substantial progress on this project and we would not look favorably on a further extension if we didn't".

In December 1999, the applicant requested a third one-year extension. Planning Commission approved the extension subject to the applicant submitting to the Community Development Department by April 28, 2000, a set of final design drawings that met the minimum requirements of the Submittal Standards for Improvements and Development (SSID) manual (see attached minutes). The City did receive an application for a combined Minor Subdivision and Site Plan Review on April 28, 2000. That application was for a downsized project of a total of approximately 339,000 square feet plus additional "pad site" development.

Review of Application: Staff reviewed the April 28, 2000 submittal and determined that it is not consistent with and otherwise does not fundamentally comply with the approved Conditional Use Permit (CUP) for the property. The reasons for that determination are:

- The Planning Commission action in December 1999 approved an extension of the original approval. The conditions of that approval as well as others that were included as a result of the extension requests are detailed below. The staff found that the April 28, 2000 submittal does not meet the conditions and is for a smaller project with significantly different circulation and access than that first proposed;
- 2) The December 1999 extension of the CUP was conditioned on the applicant providing final, buildable plans, to City standards, by the end of April 2000. If the necessary drawings to SSID standards were not submitted then the CUP would expire.
- 3) It is the staff's determination that what was submitted is not consistent with what the Planning Commission required and therefore the submittal was rejected.
- 4) The CUP for the property was conditioned (with emphasis added) as follows:
- The project is approved for a maximum of 430,000 square feet of retail space (not including the pad sites which will be limited in number by the ability to meet City Zoning Code requirements) to be constructed within the building envelopes identified on the attached site plan. If the proposal should exceed the size limit or the building envelopes proposed, the CUP will be subject to reevaluation by the Planning Commission at the discretion of City staff.

- The project signage will be subject to the attached signage guidelines based on those proposed by the petitioner and modified by staff.
- The CUP approval is subject to subsequent acceptance of a site plan and subdivision that meets all Zoning and Development Code requirements and is subject to staff approval, review agency approval and Planning Commission approval as required by Code.
- The circulation improvements identified by the petitioner in the "Traffic Impact Analysis for Rimrock Shopping Center" (dated July 1996) and the attached site plan are necessary for the safe and efficient movement of vehicles to and from the site at acceptable levels of service (LOS). A condition of this approval is that the funding and construction of the identified improvements are the responsibility of the developer, and that all circulation improvements are the responsibility of the developer and that all circulation improvements are subject to review and approval by the City and the Colorado Department of Transportation (CDOT) and must meet all applicable requirements. Significant changes to the design and operation of the circulation network as proposed may require reevaluation of the CUP by the Planning Commission at the discretion of City staff.
- All pad site development is subject to the requirements of the Zoning and Development Code and the adopted signage guidelines for Rimrock Marketplace. Development proposals for the pad sites require Site Plan Review or other permits, as may be necessary depending on the proposed use.
- Roadway section B-B on the site plan must be modified to show sidewalks on both sides. In addition, all roadway sections must be modified to conform with City specifications.
- The petitioner must supply information, which is satisfactory to the Utility Engineer to demonstrate that the capacity of the sewer line has been maintained through the proposed relocation.
- Provide reasonable access to the Corner Store (condition as amended by City Council).
- Acquisition of adequate frontage road right-of-way is the responsibility of the petitioner.
- 5) The proposed subdivision plat shows that the project is burdened with and cannot proceed because a number of easements across the property have not been vacated. As well the realignment/reconstruction of the Ligrani drain has not occurred and no process for resolving on or off-site drainage has been proposed.

6) It is staff's opinion that the applicant has not met either the letter or the spirit of the conditions of approval with the application that it submitted on April 28, 2000. The building footprints are not consistent with the approved plan and the traffic circulation access/frontage road issue has not been resolved. Apart from the larger issue of the plans not conforming to the CUP, staff also identified significant technical deficiencies in the application (see attached). The technical deficiencies listed are not all that exist; a detailed review did not occur because the problems noted are fundamental. The application on its face is clearly not consistent with SSID. If the Planning Commission finds that the application should proceed a detailed review noting all comments, problems and/or deficiencies will be performed by planning, engineering and legal staff.

For these reasons staff did not accept the application filed on April 28, 2000. Because the extension of the CUP was premised on submittal of a complete application consistent with the approved CUP and that submittal did not occur, staff considers the CUP expired.

SUMMARY: It is staff's opinion that a new CUP application needs to be made, either concurrent with or prior to the subdivision/site plan application. The project as represented and applied for in the April 28, 2000 submittal is not buildable. The application is significantly different from what was originally proposed; substantial problems including but not limited to traffic/circulation, drainage and utility easements have yet to be resolved. The April 28, 2000 application cannot operate under the conditions of approval of the original CUP, primarily due to the changes in the proposed circulation. The Colorado Department of Transportation (CDOT) will require a new access permit, since the previous one was granted based on the previous traffic study that included a service road.

Further extension of the CUP should not occur. The project seems to be a moving target from that originally planned to that now proposed, neither of which have been completely designed nor followed through to the point of being developable as required for the CUP to survive. It is staff's conclusion that it would be of greater benefit to the applicant and the process to pursue a new CUP that better fits the design and scale of the current project.

STAFF RECOMMENDATION: Uphold staff's determination that the April 28, 2000 application is not acceptable and therefore, that the CUP has expired, is null and void and no effect.

RECOMMENDED PLANNING COMMISSION MOTION: Mr. Chairman, on item CUP-1996-180, the Conditional Use Permit for the Rimrock Marketplace, I move that we find that the Applicant has not satisfied the condition imposed on December 14, 1999, that being that the applicant submit a set of final design drawings by April 28, 2000, and further I move that the Planning Commission determine that CUP and any extension previously granted has expired.

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City of Grand Junction

Community Development Department Planning • Zoning • Code Enforcement 250 North 5th Street Grand Junction, CO 81501-2668 Phone: (970) 244-1430 FAX: (970) 256-4031



RECORD OF DECISION / FINDINGS OF FACT

DATE:

June, 20, 2000

FILE:

CUP-1996-180 Rimrock Marketplace

LOCATION:

Southwest Corner 25-1/2 Road and Highway 6 & 50

4350 Shawnee Mission Parkway Suite 159

PETITIONER:

THF Bellville Development, L.P. THF Realty 955 Executive Parkway Suite 210 St. Louis, Missouri 63141

Rubenstein Real Estate Co., LC

Shawnee Mission, Kansas 66205

REPRESENTATIVE:

PLANNER:

Kristen Ashbeck

John L. Rubenstein

STATUS OF CUP:

Expired

The Grand Junction Planning Commission, at its June 13, 2000 meeting, found that: 1) the applicant did not satisfy the condition imposed on December 14, 1999, that being that the applicant submit a set of final design drawings by April 28, 2000; and 2) the Conditional Use Permit and any extension previously granted has expired.

Harry Griff, P.C. Douglas E. Larson, P.C. **GRIFF, LARSON, LAICHE & VOLKMANN**

Attorneys at Law

Stephen L. Laiche, P.C. Thomas C. Volkmann, P.C.

422 White Ave., Suite 323, Grand Junction, CO 81501 (970) 245-8021 FAX: (970) 245-0590

June 23, 2000

HAND DELIVERY

RECEIVED GRAND JUNCTION PLANNING DEPARTMENT

JUN 2 2 2000

Mr. David Varley, Director COMMUNITY DEVELOPMENT DEPARTMENT City of Grand Junction 250 North 5th Street Grand Junction, Colorado 81501

> Re: RIMROCK MARKETPLACE Conditional Use Permit 96/180

PETITION FOR REHEARING

Pursuant to Section 2.18(D) of the Zoning and Development Code, 2000, THF DEVELOPMENT, L.P. ("THF"), through its undersigned counsel and representative, hereby requests a rehearing of the Grand Junction City Planning Commission's Decision, dated June 13, 2000, to the effect that THF's drawing submittal regarding Rimrock Shopping Center failed to satisfy the Planning Commission's conditions regarding that submittal, originally set forth in the Planning Commission's Hearing of December 14, 1999.

In support of this request for a rehearing, THF submits the following:

1. THF submits that the Planning Commission failed to review and consider the extensive drawings submitted by THF in its effort to comply with the conditions from the December 14, 1999 meeting. Although those drawings were part of the Community Development Department's file in connection with the subject Conditional Use Permit, the discussions at the June 13, 2000 hearing made it apparent the members of the Planning Commission had not had those drawings made available to them, so they could better appreciate the extent of THF's substantial compliance with the requirement imposed at the December 14, 1999 hearing.

2. At the December 14, 1999 hearing, reference was made by City Staff that the review of the anticipated drawings to be submitted in compliance with the conditions could be as long as ninety (90) days. However, approximately one (1) week after the submittal of the drawings, the decision was made by City Staff that notwithstanding the scope of THF's drawing submittal, Staff would perform no further review unless directed to do so by the

Planning Commission. Such a cursory review cannot serve as the basis for the determination of the level of compliance of such an extensive submittal.

3. THF, as the Applicant, appeared at the June 13, 2000 hearing, through the undersigned counsel and John Rubenstein, who has been THF's representative throughout the series of hearings on this project, to date. Both Mr. Rubenstein and the undersigned spoke at the hearing on behalf of THF.

For the above reasons, THF respectfully requests a rehearing of this issue to address its level of compliance with the drawing submittal conditions placed upon the Conditional Use Permit extension granted on December 14, 1999.

GRIFF, LARSON, LAICHE & VOLKMANN

Thomas C. Volkmann #17659 422 White Avenue Suite #323 Grand Junction, CO 81501 Telephone: (970) 245-8021 Attorney for THF BELLEVILLE, L.P.

Copy of this Petition Mailed To:

Mr. Michael H. Staenberg, President THF BELLEVILLE DEVELOPMENT, L.P. 2127 Innerbelt Business Center Drive, Suite #200 St. Louis, Missouri 63114

Mr. John Rubenstein RUBENSTEIN REAL ESTATE, INC. 4340 Shawnee Mission Parkway, Suite 159 Shawnee Mission, Kansas 66205

Jerry C. Wolverton, Jr., President WOLVERTON & ASSOCIATES, INCORPORATED 5600 Oakbrook Parkway, Suite 100 Norcross, Georgia 30093



City of Grand Junction, Colorado 250 North Fifth Street 81501-2668 FAX: (970)244-1599

RECORD OF DECISION / FINDINGS OF FACT

DATE:	July 19, 2000		
FILE:	CUP-1996-180 Rimrock Marketplace		
LOCATION:	Southwest Corner 25-1/2 Road and Highway 6 & 50		
PETITIONER:	THF Bellville Development, L.P. THF Realty 955 Executive Parkway Suite 210 St. Louis, Missouri 63141		
REPRESENTATIVE:	John L. Rubenstein Rubenstein Real Estate Co., LC 4350 Shawnee Mission Parkway Suite 159 Shawnee Mission, Kansas 66205		
PLANNER:	Kristen Ashbeck		
REQUEST FOR REHEARING:	Denied		

The Grand Junction Planning Commission, at its July 18, 2000 meeting heard a request for a rehearing for the project referenced above. The Planning Commission found that the applicant failed to meet the criteria of Section 2.18 D. of the Zoning and Development Code regarding a rehearing and denied the request. Therefore, the decision outlined in the previous record of June 20, 2000 shall apply.



DATE: July 18, 2000

STAFF PRESENTATION: Kristen Ashbeck

AGENDA TOPIC: CUP-96-180 Rimrock Marketplace Conditional Use Permit (CUP)

SUMMARY: A request for a rehearing of a denial of an appeal by Planning Commission on June 13, 2000.

BACKGROUND INFORMATION						
Location:		Southwest Corner 25-1/2 Road and Highway 6 & 50				
Applicant:		THF Bellville Development, L.P. Representative: Tom Volkmann				
Existing Land Use:		Vacant				
Proposed Land Use:		Retail Center				
Surrounding Land Use:	North	Commercial – Sam's Club				
	South	Railroad				
	East	Undeveloped				
	West	Commercial				
Existing Zoning:		Light Commercial (C-1) and Heavy Commercial (C-2)				
Proposed Zoning:		Same				
Surrounding Zoning:	North	C-2				
	South	C-1 & Light Industrial (I-1)				
	East	C-1				
	West	C-2				
Growth Plan Designation:		Commercial				
Zoning within density range?		Yes NA No				

ACTION REQUESTED: Planning Commission decision to rehear item.

Staff Analysis:

Project Background: A Conditional Use Permit (CUP) for the Rimrock Marketplace, a proposed retail center located at the southwest corner of 25-1/2 Road and Highway 6 & 50, was originally approved by the Planning Commission and City Council (on appeal) in December 1996: that CUP was for an approximately 430,000 square foot retail center plus additional "pad site" development on an approximately 50-acre parcel.

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In December 1997, the applicant received a one-year extension to December 1998. In January 1999 the Planning Commission approved a second one-year extension of the CUP. The second extension was "subject to the applicant obtaining a final Planning Clearance for Phase 1 of the project no later than December 17, 1999 with the understanding that the sense of the Commission is that we would like to see very substantial progress on this project and we would not look favorably on a further extension if we didn't".

In December 1999, the applicant requested a third one-year extension. Planning Commission approved the extension subject to the applicant submitting to the Community Development Department by April 28, 2000, a set of final design drawings that met the minimum requirements of the Submittal Standards for Improvements and Development (SSID) manual (see attached minutes). The City did receive an application for a combined Minor Subdivision and Site Plan Review on April 28, 2000. That application was for a downsized project of a total of approximately 339,000 square feet plus additional "pad site" development.

Staff reviewed the April 28, 2000 submittal and determined that it was not consistent with and otherwise did not fundamentally comply with the approved Conditional Use Permit for the property and the Planning Commission's condition that required final design drawings to be submitted by April 28, 2000. The applicant appealed staff's decision to the Planning Commission at its June 13, 2000 meeting at which the Planning Commission found that: 1) the applicant did not satisfy the condition imposed on December 14, 1999, that being that the applicant submit a set of final design drawings by April 28, 2000; and 2) the Conditional Use Permit and any extension previously granted has expired (see attached minutes).

The applicant is requesting a rehearing for the reasons stated in the attached letter dated June 23, 2000.

Ng: Vickie temy John

Pibble: motion to approve the request for a reheating-buson

Znd: teny binder Vote: Bx 1-5 for against

KRISTEN A

Harry Griff, P.C. Douglas E. Larson, P.C.

GRIFF, LARSON, LAICHE & VOLKMANN

Attorneys at Law

Stephen L. Laiche, P.C. Thomas C. Volkmann, P.C.

422 White Ave., Suite 323, Grand Junction, CO 81501 (970) 245-8021 FAX: (970) 245-0590

June 23, 2000

HAND DELIVERY

RECEIVED GRAND JUNCTION

Mr. David Varley, Director COMMUNITY DEVELOPMENT DEPARTMENT City of Grand Junction 250 North 5th Street Grand Junction, Colorado 81501

PLANNING DEPARTMENT

JUN 2 2 2000

RIMROCK MARKETPLACE Re: Conditional Use Permit 96/180

PETITION FOR REHEARING

Pursuant to Section 2.18(D) of the Zoning and Development Code, 2000, THF DEVELOPMENT, L.P. ("THF"), through its undersigned counsel and representative, hereby requests a rehearing of the Grand Junction City Planning Commission's Decision, dated June 13, 2000, to the effect that THF's drawing submittal regarding Rimrock Shopping Center failed to satisfy the Planning Commission's conditions regarding that submittal, originally set forth in the Planning Commission's Hearing of December 14, 1999.

In support of this request for a rehearing, THF submits the following:

(1. THF submits that the Planning Commission failed to review and consider the extensive drawings submitted by THF in its effort to comply with the conditions from the December 14, 1999 meeting. Although those drawings were part of the Community Development Department's file in connection with the subject Conditional Use Permit, the discussions at the June 13, 2000 hearing made it apparent the members of the Planning Commission had not had those drawings made available to them, so they could better appreciate the extent of THF's substantial compliance with the requirement imposed at the December 14, 1999 hearing.

At the December 14, 1999 hearing, reference was made by City Staff that the review of the anticipated drawings to be submitted in compliance with the conditions could be as long as ninety (90) days. However, approximately one (1) week after the submittal of the drawings, the decision was made by City Staff that notwithstanding the scope of THF's drawing submittal, Staff would perform no further review unless directed to do so by the

Planning Commission. Such a cursory review cannot serve as the basis for the determination of the level of compliance of such an extensive submittal.

3. THF, as the Applicant, appeared at the June 13, 2000 hearing, through the undersigned counsel and John Rubenstein, who has been THF's representative throughout the series of hearings on this project, to date. Both Mr. Rubenstein and the undersigned spoke at the hearing on behalf of THF.

For the above reasons, THF respectfully requests a rehearing of this issue to address its level of compliance with the drawing submittal conditions placed upon the Conditional Use Permit extension granted on December 14, 1999.

GRIFF, LARSON, LAICHE & VOLKMANN

Thomas C. Volkmann #17659 422 White Avenue Suite #323 Grand Junction, CO 81501 Telephone: (970) 245-8021 Attorney for THF BELLEVILLE, L.P.

Copy of this Petition Mailed To:

Mr. Michael H. Staenberg, President THF BELLEVILLE DEVELOPMENT, L.P. 2127 Innerbelt Business Center Drive, Suite #200 St. Louis, Missouri 63114

Mr. John Rubenstein RUBENSTEIN REAL ESTATE, INC. 4340 Shawnee Mission Parkway, Suite 159 Shawnee Mission, Kansas 66205

Jerry C. Wolverton, Jr., President WOLVERTON & ASSOCIATES, INCORPORATED 5600 Oakbrook Parkway, Suite 100 Norcross, Georgia 30093 Standards must first be approved by City Council. (A local residential street currently calls for attached sidewalks in the City Street Standards).

4. The applicant shall demonstrate if traffic-calming measures are needed for the new extension of Hermosa Drive between 15th Street and 27 ½ Road.

A vote was called and the motion passed unanimously by a vote of 7-0.

A brief recess was called at 9:38 p.m. The hearing reconvened at 9:44 p.m.

Due to the potential for conflict of interest, Commissioner Nall recused himself from participation in the next item.

CUP-1996-180 CONDITIONAL USE PERMIT-RIMROCK MARKETPLACE

An appeal of staff determination that the submittal by THF Belleville Development LLP failed to comply with the condition on the CUP by the City Planning Commission in its hearing of December 14, 1999.

Petitioner: THF Belleville Development LLP

Location: Southwest corner of 25 ¹/₂ Road and Highway 6 & 50

PETITIONER'S PRESENTATION

John Rubenstein, co-petitioner, announced that Lowes HIW, Inc. had agreed to locate at Rimrock Marketplace, making the store the second major enterprise to commit to the site. He reaffirmed his commitment to the project and asked that further extension of the CUP be granted, to allow the development to move forward. It was his intent to "move dirt" by September of 2001.

Tom Volkmann, attorney representing the petitioner, briefly recalled the history of the project and its extension requests. During the last extension request on December 14, 1999, the Planning Commission had required submission of construction drawings by April 28, 2000 as a condition of continued extension. He maintained that, while not complete, a set of drawings had been submitted which represented substantial compliance. The petitioner was not asking for another extension request, he said, only the determination by the Planning Commission that compliance with the previous condition had been achieved.

QUESTIONS

Chairman Elmer asked how many extensions for the project had already been granted, to which Mr. Volkmann replied that three had been given. He reiterated that the current request did not represent a fourth, only the determination of whether the condition of approval for the third extension had been met.

STAFF'S PRESENTATION

Pat Cecil said that drawings submitted on April 28 did not meet the minimum standards as outlined in the SSID manual, as stated they should as a condition in the December 14, 1999 motion. Further, the drawings downsized the project from 430,000 square feet to 339,000 square feet, representing a major change in the plan. In addition, the previously issued CDOT permit had expired. Since CDOT had since adopted new standards, a new and extensive list of compliance criteria had been submitted to the petitioner. Traffic and drainage studies were outdated and would require resubmission and a "host of technical issues had yet to be addressed, not the least of which included easements traversing the property, which had yet to be vacated." It was staff's position that the petitioner had not complied with either the letter or spirit of the approval condition made on December 14, 1999, that construction drawings did not represent a "buildable" project, that substantial problems remain which had yet to be

resolved, and that application for a new CUP, one which would better fit the design and scale of the current project, would be of greater benefit to the applicant and the process. Mr. Cecil asked that staff's original determination be upheld and that the current CUP be considered "expired."

Mr. Shaver read into the record the motion from the December 14, 1999 public hearing.

Rick Dorris said that given the content of the December 14, 1999 motion, he had determined that the drawings submitted on April 28 did not satisfy the condition as outlined in the motion. He reiterated that a number of unresolved issues still remained.

QUESTIONS

Chairman Elmer asked if the CUP could even be extended a fourth time. Mr. Shaver said that no additional extension would be needed if the Planning Commission determined that sufficient compliance with the condition of the December 14 motion had occurred.

Chairman Elmer asked if modification of the current CUP could occur. Mr. Shaver said that if the Planning Commission determined that "substantial compliance" to the December 14 condition had occurred, further discussion could ensue over individual CUP condition modification. Mr. Dorris said that submitted drawings were only 66 to 75 percent complete, which did not take into consideration the lack of a CDOT permit, unvacated easements and outdated traffic and drainage studies. He noted that if staff's determination was upheld, the petitioner must apply for a new CUP and would fall under provisions of the new Code.

Commissioner Ainsworth asked for more detail on the new traffic study. Mr. Dorris said that any new study would come under the scrutiny of, and require approval by, both the City and CDOT. He also noted that if the current CUP were upheld, the Final Plat would be subject to administrative review and would not come back before the Planning Commission.

Commissioner Prinster asked for an outline of minimum SSID standards, which was provided by Mr. Dorris. Mr. Dorris added that a myriad of other details would be added to those minimum standards as well in order to achieve a "buildable" project.

Commissioner Prinster asked Mr. Shaver to outline the criteria of a CUP, which Mr. Shaver provided.

PUBLIC COMMENTS

There were no comments either for or against the request.

PETITIONER'S REBUTTAL

Mr. Volkmann reiterated that he was not asking for an extension request, only a determination that substantial compliance had been achieved. He acknowledged that a lot of work still had to be done and that drawings were incomplete. The petitioner was only asking to be allowed to continue through the process under the conditions of the current CUP.

DISCUSSION

Chairman Elmer asked if the project could work on a smaller scale without the frontage road extension. Mr. Dorris was unsure; the traffic study would serve to answer that and other traffic-related questions. Commissioner Dibble asked staff for a determination on whether the drainage study would require updating. Mr. Dorris said that the previous report would not now meet current City standards. When asked if the plan change was deemed "significant," Mr. Dorris replied affirmatively.

Chairman Elmer felt that submitted drawings did not meet the technical interpretation of the December 14 motion. He was also concerned over the dramatic changes in plan design and over the fate of the frontage road. While the petitioner tried to meet the literal intent of the motion, Mr.Dorris said that he failed to meet it by having everything in place. The concept plan should have been firmly established and all major issues should have been addressed prior to submission of construction drawings which did not occur.

Commissioner Grout said that his intent with the December 14 motion was that submitted drawings meet minimum SSID standards. Not only did the petitioner fail to comply with that requirement, but other significant issues had since arisen. He felt that conditions of the current CUP had not been met and that staff was correct in their determination.

Commissioner Dibble expressed concern that many of the previous studies were outdated and required resubmission; that neither easements had been vacated, nor had a CDOT permit been secured also caused concern. He noted that traffic had increased significantly since the CUP had first been issued. While supportive of the project overall, he felt that the conditions of the current CUP had not been met and a new CUP should be required.

MOTION: (Commissioner Grout) "Mr. Chairman, on item CUP-1996-180, the Conditional Use Permit for the Rimrock marketplace, I move that we find that the applicant has not satisfied the condition imposed on December 14, 1999, that being that the applicant submit a set of final design drawings by April 28, 2000, and I further move that the Planning Commission determine that the CUP and any extension previously granted has expired."

Commissioner Prinster seconded the motion. A vote was called and the motion passed by a vote of 5-1, with Chairman Elmer opposing.

With no further business, the hearing was adjourned at 10:45 p.m.



10:12

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That THF Belleville Development, L.P., a Missouri Limited Partnership, and H.N.L Company, a Partnership are the owners of that real property located in part of the Southwest Quarter of Section 10, and part of the Northwest Quarter of Section 15, Township 1 South, Range 1 West of the Ute Meridian, Mesa County, Colorado, and being more particularly described as follows:

(Original Warranty Deed Book ____, Page ____)

COMMENCING at the Northeast Corner of the Southeast Quarter of the Southwest Quarter (SE1/4 SW1/4) of Section 10, Township 1 South, Range 1 West of the Ute Meridian from whence the Northwest Corner of the Southwest Quarter of the Southwest Quarter (SW1/4 SW1/4) of said Section 10 bears South 90 degrees 00 minutes 00 seconds West, a distance of 2628.48 feet for an assumed Basis of Bearings, with all bearings herein contained being relative thereto; thence South 00 degrees 04 minutes 20 seconds West, a distance of 1303.07 feet to the North Quarter Corner (N1/4) of Section 15; thence N 89 degrees 46 minutes 08 seconds West, a distance of 33.00 feet to the POINT OF BEGINNING; thence South 00 degrees 06 minutes 33 seconds East, a distance of 691.34 feet; thence South 89 degrees 53 minutes 27 seconds West, a distance of 921.73 feet; thence North 40 degrees 31 minutes 22 seconds West, a distance of 505.65 feet; thence North 40 degrees 42 minutes 59 seconds West, a distance of 1449.26 feet; thence North 78 degrees 37 minutes 30 seconds East, a distance of 273.09 feet; thence North 00 degrees 03 minutes 54 seconds East, a distance of 429.52 feet to a point on the south right-of-way line of Independent Avenue; thence along said right-of-way line North 89 degrees 59 minutes 01 seconds East, a distance of 542.78 feet to a point on the southwesterly right-of-way line of Highway 6 & 50; thence along said southwesterly right-of-way line the following five (5) calls: South 61 degrees 21 minutes 21 seconds East, a distance of 72.73 feet; thence South 52 degrees 50 minutes 00 seconds East, a distance of 55.36 feet; thence North 00 degrees 37 minutes 56 seconds East, a distance of 10.52 feet; thence South 52 degrees 50 minutes 00 seconds East, a distance of 351.98 feet; thence South 70 degrees 06 minutes 30 seconds East, a distance of 368.90 feet; thence leaving said southwesterly right-of-way line South 00 degrees 00 minutes 00 seconds East, a distance of 242.78 feet; thence North 90 degrees 00 minutes 00 seconds East, a distance of 250.00 feet; thence North 00 degrees 00 minutes 00 seconds East, a distance of 110.51 feet to a point on the southwesterly right-of-way line of Highway 6 & 50; thence along said southwesterly right-of-way line the following three (3) calls: South 61 degrees 22 minutes 00 seconds East, a distance of 63.13 feet; thence South 45 degrees 47 minutes 30 seconds East, a distance of 524.44 feet; thence South 00 degrees 04 minutes 20 seconds West, a distance of 219.26 feet; thence leaving said southwesterly right-of-way line North 89 degrees 46 minutes 00 seconds West, a distance of 33.00 feet; thence South 00 degrees 04 minutes 20 seconds West, a distance of 130.00 feet to the POINT OF BEGINNING.

Said parcel containing 60.861 acres, as described.























REVISIONS BY







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