

ANNOTATED MINUTES

Wednesday, December 6, 1995 - 9:00 - 11:30 AM
Juvenile Justice Complex
1401 NE 68th Street, Portland

BENCHMARK FORUM TOUR AND WORK SESSION

WS-1 Benchmark Forum on Juvenile Crime: Current Conditions, Systems, Trends and Needs. Presented by Gary Hansen, Elyse Clawson, Gary Oxman, Michael Schrunk, Ray Mathis, William Feyerherm and Lorenzo Poe.

ELYSE CLAWSON, GARY OXMAN, HELEN SMITH, RAY MATHIS, IRIS BELL AND MARY LI PRESENTATION AND RESPONSE TO QUESTIONS AND DISCUSSION WITH ATTENDEES BEVERLY STEIN, SHARRON KELLEY, GARY HANSEN, TANYA COLLIER, DAN SALTZMAN, JIM WILLIAMS, LINDA JARAMILLO, CHRIS TEBBEN, MEGANNE STEELE, SHANE ENDICOTT, GLORIA FISHER, MARK WEINER, CAROLYN MARKS BAX, JIM ANDERSON, RICH SCOTT, BILL MORRIS, RICK JENSEN, PAMELA WEV, JANN BROWN, TODD LOGGAN, AND MARK ROCKWOOD. MS. CLAWSON TO INVITE WILLIAM FEYERHERM TO ATTEND NEXT SESSION SCHEDULED FOR 9:30 AM, TUESDAY, DECEMBER 19, 1995 IN COMMISSION BOARDROOM 602, MULTNOMAH COUNTY COURTHOUSE.

Thursday, December 7, 1995 - 9:30 AM
Multnomah County Courthouse, Room 602
1021 SW Fourth, Portland

REGULAR MEETING

Chair Beverly Stein convened the meeting at 9:35 a.m., with Vice-Chair Sharron Kelley, Commissioners Gary Hansen, Tanya Collier and Dan Saltzman present.

CONSENT CALENDAR

**UPON MOTION OF COMMISSIONER KELLEY,
SECONDED BY COMMISSIONER COLLIER, THE
CONSENT CALENDAR (ITEMS C-1 THROUGH C-5)
WAS UNANIMOUSLY APPROVED.**

NON-DEPARTMENTAL

- C-1 Appointments of Beverly Stein, Sharron Kelley, Donald Londer, Dan Noelle, Michael Schrunk, Roger Vonderharr, Art Knori, Bernie Guisto, Erik Kavarsten, Elyse Clawson, Michael Greenlick, Tamara Holden, Lorenzo Poe, Ray Mathis, Vera Katz, Charles Moose, Avel Gordly, Kris Olsen, Bill Keys, Mike Balter, Bruce Goldberg, Judith Hadley, Bill Hovey, Linda Hutchinson, Linda Jaramillo, Gary Perlstein, Judy-Ellen Low, Gerald McFadden, Steve Moskowitz, Donna Redwing, Chiquita Rollins and Ingrid Swenson to the PUBLIC SAFETY COORDINATING COUNCIL

DEPARTMENT OF ENVIRONMENTAL SERVICES

- C-2 ORDER Authorizing Execution of Deed D951200 Upon Complete Performance of a Contract to Henry H. Pelfrey and Lymnia K. Woods

ORDER 95-249.

- C-3 ORDER Authorizing Execution of Deed D961268 for Repurchase of Tax Acquired Property to Former Owner Carlton Bell

ORDER 95-250.

- C-4 ORDER Authorizing Execution of Deed D961269 for Repurchase of Tax Acquired Property to Former Owner Carol C. Wilcox

ORDER 95-251.

SHERIFF'S OFFICE

- C-5 Package Store Liquor License Renewal for GILL'S JACKPOT FOOD MART, 28210 ORIENT DRIVE, SE, GRESHAM

REGULAR AGENDA

PUBLIC COMMENT

- R-1 Opportunity for Public Comment on Non-Agenda Matters. Testimony Limited to Three Minutes Per Person.

NO ONE WISHED TO COMMENT.

NON-DEPARTMENTAL

- R-2 RESULTS Team Presentation: Unnecessary Reports. Presented by Shery Stump, Employee Services Training Manager and Terry Rudd, Information Services Division.

SHERY STUMP AND TERRY RUDD PRESENTATION ON REDUCTION OF STEPS AND TIME INVOLVED IN STOPPING UNNECESSARY REPORTS PRODUCED BY INFORMATION SERVICES DIVISION, RESULTING IN DECREASED COSTS. JANICE DRULAN STAFF INTRODUCTIONS AND COMMENTS IN APPRECIATION. MR. RUDD AND MS. STUMP RESPONSE TO BOARD QUESTIONS. BOARD COMMENTS IN APPRECIATION.

DEPARTMENT OF ENVIRONMENTAL SERVICES

- R-3 ORDER Authorizing Removal of Certain Tax Foreclosed Properties from the Tax Title Unit Inventory to be Retained and Maintained by Multnomah County Transportation Division for Public Road Purposes

COMMISSIONER COLLIER MOVED AND COMMISSIONER KELLEY SECONDED, APPROVAL OF R-3. COMMISSIONER COLLIER AND ED PICKERING EXPLANATION AND RESPONSE TO BOARD QUESTIONS. COMMISSIONER COLLIER COMMENTS IN APPRECIATION OF THE WORK OF ED PICKERING AND ED ABRAHAMSON. ORDER 95-252 UNANIMOUSLY APPROVED.

- R-4 Second Reading and Adoption of an ORDINANCE Amending Governments Eligible for Refunds of Motor Vehicle Fuel Taxes Imposed by Multnomah County Under MCC 5.30.270

ORDINANCE READ BY TITLE ONLY. COPIES AVAILABLE. COMMISSIONER COLLIER MOVED AND COMMISSIONER KELLEY SECONDED, APPROVAL OF SECOND READING AND

**ADOPTION. NO ONE WISHED TO TESTIFY.
ORDINANCE 842 UNANIMOUSLY APPROVED.**

The regular meeting was adjourned at 10:00 a.m. and the briefing convened at 10:02 a.m.

Thursday, December 7, 1995 - 9:45 AM
OR IMMEDIATELY FOLLOWING REGULAR MEETING
Multnomah County Courthouse, Room 602
1021 SW Fourth, Portland

BOARD BRIEFING

B-1 South/North Project Management Group Design Option Narrowing Final Recommendation Report. Presented by Ed Pickering and Leon Skiles of Metro.

***ED PICKERING, JOHN CULLERTON AND ROSS
ROBERTS PRESENTATION AND RESPONSE TO
BOARD QUESTIONS AND DISCUSSION.***

There being no further business, the meeting was adjourned at 10:52 a.m.

OFFICE OF THE BOARD CLERK
FOR MULTNOMAH COUNTY, OREGON

Deborah L. Bogstad

Deborah L. Bogstad



MULTNOMAH COUNTY OREGON

OFFICE OF THE BOARD CLERK
SUITE 1510, PORTLAND BUILDING
1120 SW FIFTH AVENUE
PORTLAND, OREGON 97204
CLERK'S OFFICE • 248-3277 • 248-5222
FAX • (503) 248-5262

BOARD OF COUNTY COMMISSIONERS		
BEVERLY STEIN •	CHAIR	•248-3308
DAN SALTZMAN •	DISTRICT 1	• 248-5220
GARY HANSEN •	DISTRICT 2	•248-5219
TANYA COLLIER •	DISTRICT 3	•248-5217
SHARRON KELLEY •	DISTRICT 4	•248-5213

AGENDA

MEETINGS OF THE MULTNOMAH COUNTY BOARD OF COMMISSIONERS

FOR THE WEEK OF

DECEMBER 4, 1995 - DECEMBER 8, 1995

Wednesday, December 6, 1995 - 9:00 AM - Work Session.....Page 2
Juvenile Justice Complex
1401 NE 68th, Portland

Thursday, December 7, 1995 - 9:30 AM - Regular MeetingPage 2

Thursday, December 7, 1995 - 9:45 AM - Board BriefingPage 3

*Thursday Meetings of the Multnomah County Board of Commissioners
are *cablecast* live and taped and can be seen by Cable subscribers in Multnomah
County at the following times:*

Thursday, 9:30 AM, (LIVE) Channel 30

Friday, 10:00 PM, Channel 30

Sunday, 1:00 PM, Channel 30

Produced through Multnomah Community Television

*INDIVIDUALS WITH DISABILITIES MAY CALL THE OFFICE OF THE BOARD
CLERK AT 248-3277 OR 248-5222, OR MULTNOMAH COUNTY TDD PHONE 248-
5040, FOR INFORMATION ON AVAILABLE SERVICES AND ACCESSIBILITY.*

AN EQUAL OPPORTUNITY EMPLOYER

Wednesday, December 6, 1995 - 9:00 - 11:30 AM
Juvenile Justice Complex
1401 NE 68th Street, Portland

BENCHMARK FORUM TOUR AND WORK SESSION

WS-1 *Benchmark Forum on Juvenile Crime: Current Conditions, Systems, Trends and Needs. Presented by Gary Hansen, Elyse Clawson, Gary Oxman, Michael Schrunk, Ray Mathis, William Feyerherm and Lorenzo Poe.*

Thursday, December 7, 1995 - 9:30 AM
Multnomah County Courthouse, Room 602
1021 SW Fourth, Portland

REGULAR MEETING

CONSENT CALENDAR

NON-DEPARTMENTAL

C-1 *Appointments of Beverly Stein, Sharron Kelley, Donald Londer, Dan Noelle, Michael Schrunk, Roger Vonderharr, Art Knori, Bernie Guisto, Erik Kavarsten, Elyse Clawson, Michael Greenlick, Tamara Holden, Lorenzo Poe, Ray Mathis, Vera Katz, Charles Moose, Avel Gordly, Kris Olsen, Bill Keys, Mike Balter, Bruce Goldberg, Judith Hadley, Bill Hovey, Linda Hutchinson, Linda Jaramillo, Gary Perlstein, Judy-Ellen Low, Gerald McFadden, Steve Moskowitz, Donna Redwing, Chiquita Rollins and Ingrid Swenson to the PUBLIC SAFETY COORDINATING COUNCIL*

DEPARTMENT OF ENVIRONMENTAL SERVICES

C-2 *ORDER Authorizing Execution of Deed D951200 Upon Complete Performance of a Contract to Henry H. Pelfrey and Lynnia K. Woods*

C-3 *ORDER Authorizing Execution of Deed D961268 for Repurchase of Tax Acquired Property to Former Owner Carlton Bell*

C-4 *ORDER Authorizing Execution of Deed D961269 for Repurchase of Tax Acquired Property to Former Owner Carol C. Wilcox*

SHERIFF'S OFFICE

- C-5 *Package Store Liquor License Renewal for GILL'S JACKPOT FOOD MART, 28210 ORIENT DRIVE, SE, GRESHAM*

REGULAR AGENDA

PUBLIC COMMENT

- R-1 *Opportunity for Public Comment on Non-Agenda Matters. Testimony Limited to Three Minutes Per Person.*

NON-DEPARTMENTAL

- R-2 *RESULTS Team Presentation: Unnecessary Reports. Presented by Shery Stump, Employee Services Training Manager and Terry Rudd, Information Services Division.*

DEPARTMENT OF ENVIRONMENTAL SERVICES

- R-3 *ORDER Authorizing Removal of Certain Tax Foreclosed Properties from the Tax Title Unit Inventory to be Retained and Maintained by Multnomah County Transportation Division for Public Road Purposes*
- R-4 *Second Reading and Adoption of an ORDINANCE Amending Governments Eligible for Refunds of Motor Vehicle Fuel Taxes Imposed by Multnomah County Under MCC 5.30.270*
-

Thursday, December 7, 1995 - 9:45 AM
OR IMMEDIATELY FOLLOWING REGULAR MEETING
Multnomah County Courthouse, Room 602
1021 SW Fourth, Portland

BOARD BRIEFING

- B-1 *South/North Project Management Group Design Option Narrowing Final Recommendation Report. Presented by Ed Pickering and Leon Skiles of Metro. 30 MINUTES REQUESTED.*

MEETING DATE: December 7, 1995

AGENDA NO: C-1

(Above Space for Board Clerk's Use ONLY)

AGENDA PLACEMENT FORM

SUBJECT: Appointments to the Public Safety Coordinating Council

BOARD BRIEFING: _____ DATE REQUESTED: _____

AMOUNT OF TIME NEEDED: _____

REGULAR MEETING: _____ DATE REQUESTED: Thursday, December 7, 1995

AMOUNT OF TIME NEEDED: Consent Calendar

DEPARTMENT: Non-Departmental DIVISION: Chair Beverly Stein

CONTACT: Peter Ozanne TELEPHONE #: 248-3956
BLDG/ROOM #: 106/1515

PERSON(S) MAKING PRESENTATION: N/A


ACTION REQUESTED:

☐ INFORMATIONAL ONLY ☐ POLICY DIRECTION ☒ APPROVAL ☐ OTHER

SUMMARY (Statement of rationale for action requested, personnel and fiscal/budgetary impacts, if applicable):

Statutory and Discretionary Appointments to the Public Safety Coordinating Council per Attached Exhibit

SIGNATURES REQUIRED:

ELECTED OFFICIAL: 
(OR)
DEPARTMENT
MANAGER: _____

CLERK OF COUNTY BOARD
1995 NOV 30 PM 12:35
MULTNOMAH COUNTY
OREGON

ALL ACCOMPANYING DOCUMENTS MUST HAVE REQUIRED SIGNATURES

Any Questions: Call the Office of the Board Clerk 248-3277 or 248-5222

**Proposed Membership of the
Public Safety Coordinating Council**

Chair

Beverly Stein

Statutory Members

Sharron Kelley
Commissioner
Multnomah County

Donald Londer
Presiding Judge
Circuit Court
Multnomah County

Dan Noelle, Sheriff
Multnomah County

Mike Schrunk
District Attorney
Multnomah County

Roger Vonderharr, Mayor
Fairview

Art Kanori
Chief of Police
Gresham

Bernie Guisto
Oregon State Police

Erik Kavarsten, City Manager
Troutdale

Elyse Clawson, Director
Department of Juvenile Justice
Multnomah County

Michael Greenlick
Defense Attorney appointed
by the Circuit Court

Tamara Holden
Director, Department of Community
Corrections, Multnomah County

Lorenzo Poe, Director
Department of Children and Families
Multnomah County

Ray Mathis
Executive Director
Citizens' Crime Commission

Discretionary Members

Vera Katz, Mayor
Portland

Charles Moose
Chief of Police
Portland Police Bureau

Avel Gordly
State Representative
District 19

Kris Olsen
US Attorney

Bill Keys
District Court Judge
Multnomah County

Mike Balter
Boys and Girls Aid Society

Dr. Bruce Goldberg
OHSU

Judith Hadley, Chair
Community Corrections Advisory Committee

Bill Hovey
Citizens' Crime Commission

Linda Hutchinson
Crime Victims United
Attorney

Linda Jaramillo
Violence Prevention Coordinator
Multnomah County

Gary Perlstein, Chair
Administration of Justice Dept.
Portland State University

Judy-Ellen Low
Oregon Domestic Violence Council

Gerald McFadden
Volunteers of America

Steve Moskowitz
Attorney

Donna Redwing
Gay & Lesbian Alliance Against Defamation

Chiquita Rollins
Domestic Violence Coordinator
Multnomah County

Ingrid Swenson
Attorney

DEC 07 1995

MEETING DATE: _____

AGENDA NO: C-2

(Above Space for Board Clerk's Use ONLY)

AGENDA PLACEMENT FORM

SUBJECT: Request Approval of Deed to Contract Purchaser for Completion of Contract.

BOARD BRIEFING: Date Requested: _____

Amount of Time Needed: _____

REGULAR MEETING: Date Requested: _____

Amount of Time Needed: Consent

DEPARTMENT: Environmental Services DIVISION: Assessment & Taxation

CONTACT: Kathy Tuneberg TELEPHONE #: 248-3590

BLDG/ROOM #: 166/200/Tax Title

PERSON(S) MAKING PRESENTATION: Kathy Tuneberg

ACTION REQUESTED:

[] INFORMATIONAL ONLY [] POLICY DIRECTION [X] APPROVAL [] OTHER

SUMMARY (Statement of rationale for action requested, personnel and fiscal/budgetary impacts, if applicable):

Request approval of deed to contract purchaser for completion of Contract #15705 (Property originally purchased at auction).

Deed D951200 and Board Order attached.

12/11/95 ORIGINAL DEED & COPIES OF ALL TO TAX TITLE

SIGNATURES REQUIRED:

ELECTED OFFICIAL: _____

OR

DEPARTMENT MANAGER: *James M. D. [Signature]* *Lance E. K. [Signature]*

ALL ACCOMPANYING DOCUMENTS MUST HAVE REQUIRED SIGNATURES

Any Questions: Call the Office of the Board Clerk 248-3277/248-5222

BOARD OF
COUNTY COMMISSIONERS
1995 NOV 28 AM 9:19
MULTIWAH COUNTY
OREGON

DEED D951200

MULTNOMAH COUNTY, a political subdivision of the State of Oregon, Grantor, conveys to HENRY H. PELFREY and LYNNIA K. WOODS, Grantees, the following described real property, situated in the County of Multnomah, State of Oregon:

LOT D, BLOCK 16 STRATHMORE, a recorded subdivision in Multnomah County, State of Oregon.

The true and actual consideration paid for this transfer, stated in terms of dollars is \$9,100.00.

THIS INSTRUMENT WILL NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY APPROVED USES AND TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES AS DEFINED IN ORS 30.930.

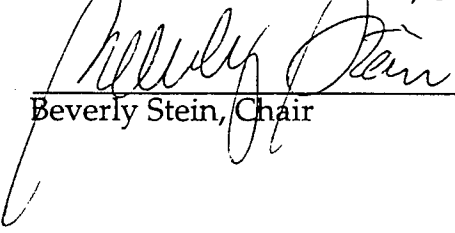
Until a change is requested, all tax statements shall be sent to the following address:

HENRY H. PELFREY & LYNNIA K. WOODS
950 NE 199TH AVE
PORTLAND, OR 97230

IN WITNESS WHEREOF, MULTNOMAH COUNTY has caused these presents to be executed by the Chair of the Multnomah County Board of County Commissioners this 7th day of December, 1995, by authority of an Order of the Board of County Commissioners heretofore entered of record.



BOARD OF COUNTY COMMISSIONERS
MULTNOMAH COUNTY, OREGON


Beverly Stein, Chair

REVIEWED:

Laurence Kressel, County Counsel
for Multnomah County, Oregon


By


Matthew O. Ryan

DEED APPROVED:

Janice Druian, Director
Assessment & Taxation

By


Pat Frahler

After recording, return to Multnomah County Tax Title (166/300)

STATE OF OREGON

)

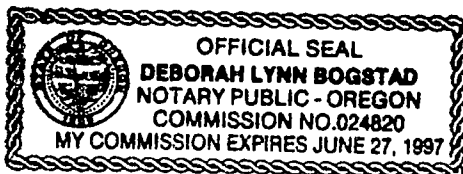
) ss

COUNTY OF MULTNOMAH

)

On this 7th day of December, 1995, before me, a Notary Public in and for the County of Multnomah and State of Oregon, personally appeared Beverly Stein, Chair, Multnomah County Board of Commissioners, to me personally known, who being duly sworn did say that the attached instrument was signed and sealed on behalf of the County by authority of the Multnomah County Board of Commissioners, and that said instrument is the free act and deed of Multnomah County.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first in this, my certificate, written.



Deborah Lynn Bogstad

Notary Public for Oregon

My Commission expires: 6/27/97

MEETING DATE: DEC 07 1995

AGENDA NO: C-3

(Above Space for Board Clerk's Use ONLY)

AGENDA PLACEMENT FORM

SUBJECT: Request Approval of Repurchase Deed to Former Owner

BOARD BRIEFING: Date Requested: _____

Amount of Time Needed: _____

REGULAR MEETING: Date Requested: _____

Amount of Time Needed: 5 minutes

DEPARTMENT: Environmental Services DIVISION: Assessment & Taxation

CONTACT: Kathy Tuneberg TELEPHONE #: 248-3590
BLDG/ROOM #: 166/300/Tax Title

PERSON(S) MAKING PRESENTATION: Kathy Tuneberg

ACTION REQUESTED:

[] INFORMATIONAL ONLY [] POLICY DIRECTION [X] APPROVAL [] OTHER

SUMMARY (Statement of rationale for action requested, personnel and fiscal/budgetary impacts, if applicable):

Request approval of Repurchase Deed to former owner, CARLTON BELL.

Deed D961268 and Board Order attached.

12/11/95 ORIGINAL DEED & COPIES OF ALL
to TAX TITLE

SIGNATURES REQUIRED:

ELECTED
OFFICIAL: _____

OR

DEPARTMENT
MANAGER: James M. Don Betsy William

ALL ACCOMPANYING DOCUMENTS MUST HAVE REQUIRED SIGNATURES

Any Questions: Call the Office of the Board Clerk 248-3277/248-5222

**BEFORE THE BOARD OF COUNTY COMMISSIONERS
FOR MULTNOMAH COUNTY, OREGON**

In the Matter of the Execution of)
Deed D961268 for Repurchase of) **ORDER**
Tax Acquired Property to Former) 95-250
Owner)
)
CARLTON BELL)

It appearing that heretofore Multnomah County acquired the real property hereinafter described through foreclosure of liens for delinquent taxes, and that CARLTON BELL is the former record owner thereof, and has applied to the county to repurchase said property for the amount of \$20,447.08 which amount is not less than that required by Section 275.180 ORS; and that it is for the best interests of the County that said application be accepted and that said property be sold to said former owner for said amount;

NOW, THEREFORE, it is hereby ORDERED that the Chair of the Multnomah County Board of County Commissioners execute a deed conveying to the former owner the following described property situated in the County of Multnomah, State of Oregon:

W 37 1/2' OF LOT 15, BLOCK 6 CITY VIEW PK, a recorded subdivision in the County of Multnomah, State of Oregon.

Dated at Portland, Oregon this 7th day of December, 1995.



**BOARD OF COUNTY COMMISSIONERS
MULTNOMAH COUNTY, OREGON**



Beverly Stein, Chair

REVIEWED:
Laurence Kressel, County Counsel
for Multnomah County, Oregon

By 

Matthew O. Ryan

DEED D961268

MULTNOMAH COUNTY, a political subdivision of the State of Oregon, Grantor, conveys to CARLTON BELL, Grantee, the following described real property, situated in the County of Multnomah, State of Oregon:

W 37 1/2' OF LOT 15, BLOCK 6 CITY VIEW PK, a recorded subdivision in the County of Multnomah, State of Oregon.

The true and actual consideration paid for this transfer, stated in terms of dollars is \$20,447.08.

THIS INSTRUMENT WILL NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY APPROVED USES AND TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES AS DEFINED IN ORS 30.930.

Until a change is requested, all tax statements shall be sent to the following address:

CARLTON BELL 1213 SE MALDEN ST PORTLAND OR 97202-5935

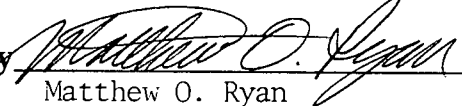
IN WITNESS, WHEREOF, MULTNOMAH COUNTY has caused these presents to be executed by the Chair of the Multnomah County Board of County Commissioners this 7th day of December, 1995, by authority of an Order of said Board of County Commissioners heretofore entered of record.



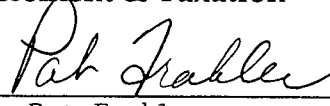
BOARD OF COUNTY COMMISSIONERS
MULTNOMAH COUNTY, OREGON


Beverly Stein, Chair

REVIEWED:
Laurence Kressel, County Counsel
for Multnomah County, Oregon

By 
Matthew O. Ryan

DEED APPROVED:
Janice Druian, Director
Assessment & Taxation

By 
Pat Frahler

After recording return to 166/300/Tax Title

STATE OF OREGON

)

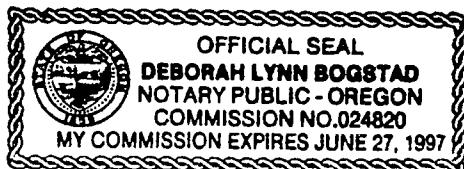
) ss

COUNTY OF MULTNOMAH

)

On this 7th day of December, 1995, before me, a Notary Public in and for the County of Multnomah and State of Oregon, personally appeared Beverly Stein, Chair, Multnomah County Board of Commissioners, to me personally known, who being duly sworn did say that the attached instrument was signed and sealed on behalf of the County by authority of the Multnomah County Board of Commissioners, and that said instrument is the free act and deed of Multnomah County.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first in this, my certificate, written.



Deborah Lynn Bogstad

Notary Public for Oregon

My Commission expires: 6/27/97

MEETING DATE: DEC 07 1995

AGENDA NO: C-4

(Above Space for Board Clerk's Use ONLY)

AGENDA PLACEMENT FORM

SUBJECT: Request Approval of Repurchase Deed to Former Owner

BOARD BRIEFING: Date Requested: _____

Amount of Time Needed: _____

REGULAR MEETING: Date Requested: _____

Amount of Time Needed: 5 minutes

DEPARTMENT: Environmental Services DIVISION: Assessment & Taxation

CONTACT: Kathy Tuneberg TELEPHONE #: 248-3590

BLDG/ROOM #: 166/300/Tax Title

PERSON(S) MAKING PRESENTATION: Kathy Tuneberg

ACTION REQUESTED:

[] INFORMATIONAL ONLY [] POLICY DIRECTION [X] APPROVAL [] OTHER

SUMMARY (Statement of rationale for action requested, personnel and fiscal/budgetary impacts, if applicable):

Request approval of Repurchase Deed to former owner, CAROL C WILCOX.

Deed D961269 and Board Order attached.

12/11/95 ORIGINAL Deed & copies of ALL to TAX TIME

SIGNATURES REQUIRED:

ELECTED
OFFICIAL: _____

OR

DEPARTMENT
MANAGER: _____

Annex M. D. Betty Williams

ALL ACCOMPANYING DOCUMENTS MUST HAVE REQUIRED SIGNATURES

Any Questions: Call the Office of the Board Clerk 248-3277/248-5222

BOARD OF
COUNTY COMMISSIONERS
MULTNOMAH COUNTY
OREGON
1995 NOV 28 AM 9:19

BEFORE THE BOARD OF COUNTY COMMISSIONERS
FOR MULTNOMAH COUNTY, OREGON

In the Matter of the Execution of)
Deed D961269 for Repurchase of) ORDER
Tax Acquired Property to Former) 95-251
Owner)
CAROL C WILCOX)

It appearing that heretofore Multnomah County acquired the real property hereinafter described through foreclosure of liens for delinquent taxes, and that CAROL C WILCOX is the former record owner thereof, and has applied to the county to repurchase said property for the amount of \$4,946.31 which amount is not less than that required by Section 275.180 ORS; and that it is for the best interests of the County that said application be accepted and that said property be sold to said former owner for said amount;

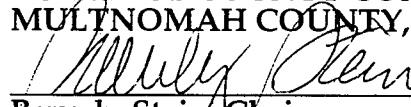
NOW, THEREFORE, it is hereby ORDERED that the Chair of the Multnomah County Board of County Commissioners execute a deed conveying to the former owner the following described property situated in the County of Multnomah, State of Oregon:

LOT 5 BLOCK 2 PALMERS ADD, a recorded subdivision in the County of Multnomah, State of Oregon.

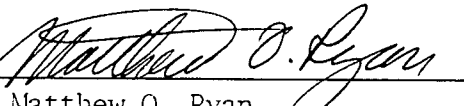
Dated at Portland, Oregon this 7th day of December, 1995.



BOARD OF COUNTY COMMISSIONERS
MULTNOMAH COUNTY, OREGON


Beverly Stein, Chair

REVIEWED:
Laurence Kressel, County Counsel
for Multnomah County, Oregon

By 
Matthew O. Ryan

DEED D961269

MULTNOMAH COUNTY, a political subdivision of the State of Oregon, Grantor, conveys to CAROL C WILCOX, Grantee, the following described real property, situated in the County of Multnomah, State of Oregon:

LOT 5 BLOCK 2 PALMERS ADD, a recorded subdivision in the County of Multnomah, State of Oregon.

The true and actual consideration paid for this transfer, stated in terms of dollars is \$4,946.31.

THIS INSTRUMENT WILL NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY APPROVED USES AND TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES AS DEFINED IN ORS 30.930.

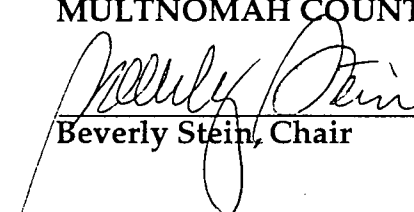
Until a change is requested, all tax statements shall be sent to the following address:

CAROL C WILCOX 6520 SE 74TH AVE PORTLAND OR 97206-7234

IN WITNESS, WHEREOF, MULTNOMAH COUNTY has caused these presents to be executed by the Chair of the Multnomah County Board of County Commissioners this 7th day of December, 1995, by authority of an Order of said Board of County Commissioners heretofore entered of record.



BOARD OF COUNTY COMMISSIONERS
MULTNOMAH COUNTY, OREGON


Beverly Stein, Chair

REVIEWED:

Laurence Kressel, County Counsel
for Multnomah County, Oregon

By 

Matthew O. Ryan

DEED APPROVED:

Janice Druian, Director
Assessment & Taxation

By 

Pat Frahler

After recording return to 166/300/Tax Title

STATE OF OREGON

)

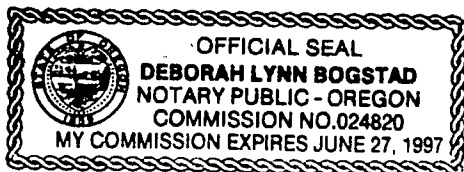
) ss

COUNTY OF MULTNOMAH

)

On this 7th day of December, 1995, before me, a Notary Public in and for the County of Multnomah and State of Oregon, personally appeared Beverly Stein, Chair, Multnomah County Board of Commissioners, to me personally known, who being duly sworn did say that the attached instrument was signed and sealed on behalf of the County by authority of the Multnomah County Board of Commissioners, and that said instrument is the free act and deed of Multnomah County.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first in this, my certificate, written.



Deborah Lynn Bogstad

Notary Public for Oregon

My Commission expires: 6/27/97

MEETING DATE DEC 07 1995

AGENDA NO. C-5

(Above Space for Board Clerk's Use ONLY)

AGENDA PLACEMENT FORM

Subject: OLCC License Renewal

BOARD BRIEFING Date Requested: _____

Amount of Time Needed: _____

REGULAR MEETING Date Requested: _____

Amount of Time Needed: _____

DEPARTMENT Sheriff's Office DIVISION _____

CONTACT Sergeant Bob Barnhart TELEPHONE 251-2431

BLDG/ROOM # 313/124

PERSON(S) MAKING PRESENTATION: Sergeant Bob Barnhart

ACTION REQUESTED:

() INFORMATIONAL ONLY () POLICY DIRECTION ☒ APPROVAL () OTHER

SUMMARY (Statement of rationale for action requested, personnel and fiscal/budgetary impacts, if applicable):

This is an OLCC Package Store License Renewal Application for:

Gill's Jackpot Food Mart
28210 Orient Dr SE
Gresham, OR 97080

The background has been checked on applicant(s):

Sarjeet K. Gill and Sukhdey Gill
and no criminal history can be found on the above.

12/8/95 ORIGINAL TO SGT. BARNHART

SIGNATURES REQUIRED:

ELECTED OFFICIAL: _____

OR

DEPARTMENT MANAGER: _____

ALL ACCOMPANYING DOCUMENTS MUST HAVE REQUIRED SIGNATURES

Any questions call the Office of the Board Clerk, 248-3277/248-5222

1995 NOV 29 PM 1:05
MULTI-MULTI-COUNTY
OREGON

RA Barnhart

Oregon Liquor Control Commission
 PO Box 22297, Portland, OR 97269 -1-800-452-6522
License Renewal Application

IMPORTANT: Failure to fully disclose any information requested, or providing false or misleading information on this form is grounds to refuse to renew the license. Your license expires December 31, 1995

License Type: Package Store - P	District: 1	County/City: 2600	RO#: R19229A	421/203
---------------------------------	-------------	-------------------	--------------	---------

GILL, SARJEET K
 28210 ORIENT DR SE
 GRESHAM OR 97080

Licensee(s) GILL, SARJEET K
 GILL, SUKHDEV S
 Ph 663-2931

Tradename GILL'S JACKPOT FOOD MART
 28210 ORIENT DR SE
 GRESHAM OR 97080

Instructions:

1. Answer all questions completely on the renewal application.
2. Have each partner or an authorized corporate officer sign the renewal application.
3. Have the local governing body endorse the renewal application.
4. Return completed renewal application along with the appropriate license fee due before December 12, 1995 to avoid late fees.

Operational Questions:	Responses:										
(1) Please list a daytime phone number.	Phone Number: 503-663-2931										
(2) Please list all arrests or convictions for any crime, violation, or infraction of any law during the last year even if they are not liquor related for anyone who holds a financial interest in the licensed business. Attach additional sheet of paper to back of form if needed.	<table border="1" style="width:100%"> <thead> <tr> <th>Name</th> <th>Offense</th> <th>Date</th> <th>City/State</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Name	Offense	Date	City/State	Result					
Name	Offense	Date	City/State	Result							
(3) Will anyone share in the profits who is not a licensee? If yes, please give name(s) and explain.	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES & EXPLAIN:										
(4) Were there any changes of ownership (ie: add/drop partners, change to corporations, etc.) not reported to the OLCC in the last year?	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES & EXPLAIN:										
(5) Package Store Licenses with Gas Pumps: Report actual grocery inventory at cost (DO NOT INCLUDE BEER OR WINE).	\$ 22,000.00										

Endorsement - Please take this form to your local governing body that is listed below before you return it to the OLCC

The County of MULTNOMAH recommends that this license be GRANTED X REFUSED on (date) 12/7/95.

Signed: Beverly Stein Title of Signer BEVERLY STEIN, MULTNOMAH COUNTY CHAIR

License Fees and Late Fee Schedule & Amounts - Do not mail cash.	Dollar Amount (\$)
License Fee for Package Store	50.00
TOTAL FEE TO PAY >>>>PLEASE PAY THIS AMOUNT<<<<	50.00
Late Fees	
IF Renewal Application Is Received After December 11, 1995 but before January 01, 1996	Add 12.50 To Total Due
IF Renewal Application Is Received On or After January 01, 1996.	Add 20.00 To Total Due

Print Name	Signature	Date	Social Security #	Date of Birth
SUKHDEV GILL	<u>Sukhdev Gill</u>	11-27-95	541-43-0067	SEP 7. 60
SARJEET GILL	<u>Sarjeet Gill</u>	11-27-95	544-43-2197	AUG 6. 60

MEETING DATE: DEC 07 1995

AGENDA NO: R-2

(Above Space for Board Clerk's Use ONLY)

AGENDA PLACEMENT FORM

SUBJECT: RESULTS Team Presentation: Unnecessary Reports

BOARD BRIEFING: DATE REQUESTED: December 7, 1995

AMOUNT OF TIME NEEDED: 10 minutes

REGULAR MEETING: DATE
REQUESTED: _____

AMOUNT OF TIME NEEDED: _____

DEPARTMENT: _____ DIVISION: Employee Services
will be coordinating these presentations

CONTACT: Shery Stump, Training Manager

TELEPHONE #: 2203

BLDG/ROOM #: 106/1430

PERSON(S) MAKING PRESENTATION: Terry Rudd, Information Services
Division, facilitator of Unnecessary Reports CQI Project Team

ACTION REQUESTED:

[X] INFORMATIONAL ONLY [] POLICY DIRECTION [] APPROVAL []
OTHER

SUMMARY):

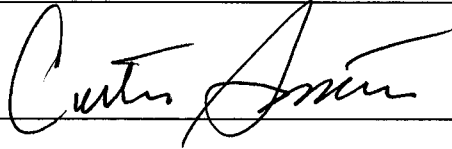
In support of the RESULTS initiative, quality improvement teams have been working to improve County work processes and would like to inform the Board of their progress. The Unnecessary Reports Continuous Quality Improvement Project Team will discuss how they have been able to reduce the number of steps and amount of time involved in stopping unnecessary reports to achieve an annual cost savings of \$21,000.

SIGNATURES REQUIRED:

ELECTED
OFFICIAL: _____

(OR)

DEPARTMENT
MANAGER: _____

A handwritten signature in black ink, appearing to read "Curtis Amun", is written over a horizontal line.

ALL ACCOMPANYING DOCUMENTS MUST HAVE REQUIRED SIGNATURES

Any Questions: Call the Office of the Board Clerk 248-3277 or 248-5222

Unnecessary Reports CQI Project - 10/95

Problem Statement

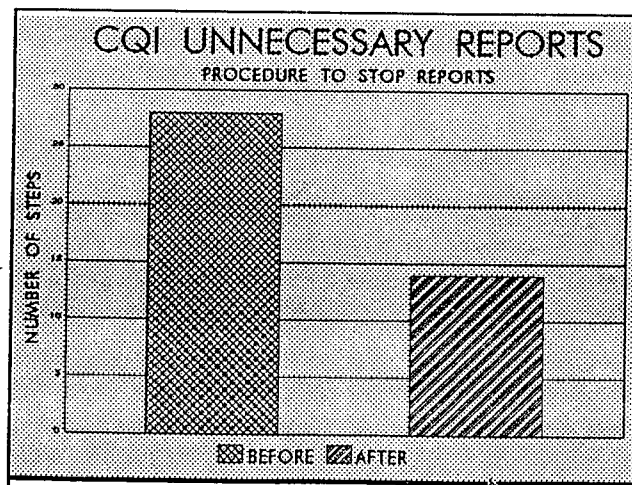
People at A&T are receiving reports that they do not need and do not know what steps to take to stop the reports from being sent

Documented Problem Situation

- 28 step current procedure
- Annual cost of problem \$21,000
- 51 reports to stop
- 13 forms to eliminate

Solution

- New streamlined procedure
- Banner page form recommendation
- Survey twice a year with all reports
- Technical recommendations



Team Members

A&T: Supervisory and clerical staff.

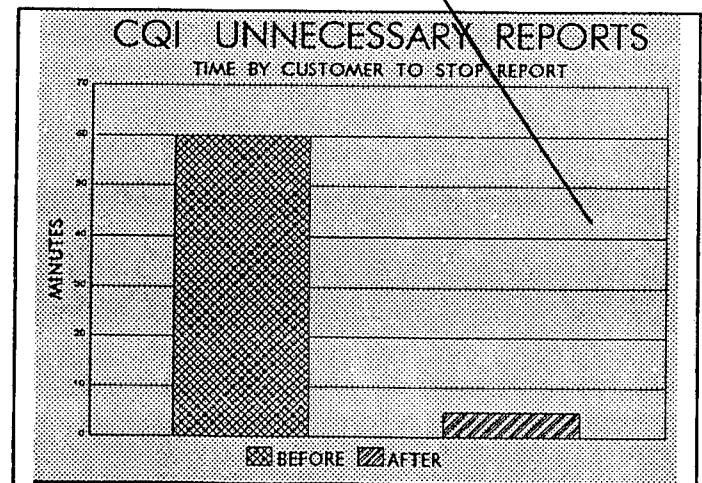
ISD: Distribution and Job Control staff,
Team Leader, Quality Facilitator

Benefits

- New procedure
- Annual cost savings of \$21,000
- Improved communication
- Customer satisfaction
- Work units familiarity with CQI process

Future Action

- Countywide application
- Standardization recommendations
- Internal ISD training
- Monitor / adjust



Unnecessary Reports CQI Project - 10/95

Problem Statement

People at A&T are receiving reports that they do not need and do not know what steps to take to stop the reports from being sent

Team Members

A&T: Supervisory and clerical staff.

ISD: Distribution and Job Control staff,
Team Leader, Quality Facilitator

Documented Problem Situation

- 28 step current procedure
- Annual cost of problem \$21,000
- 51 reports to stop
- 11 forms to eliminate

Benefits

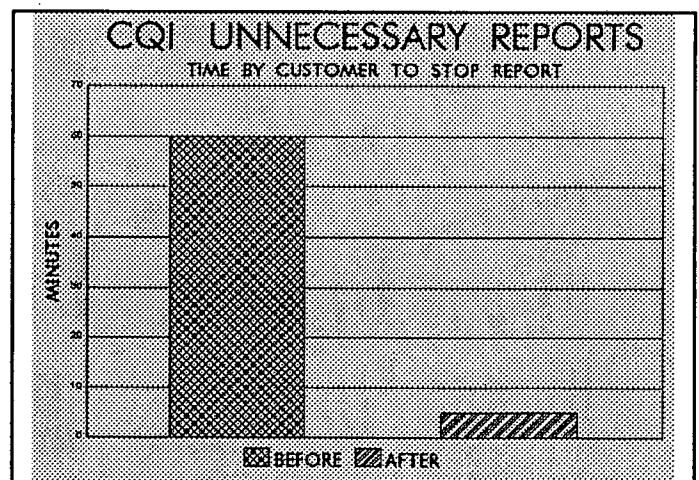
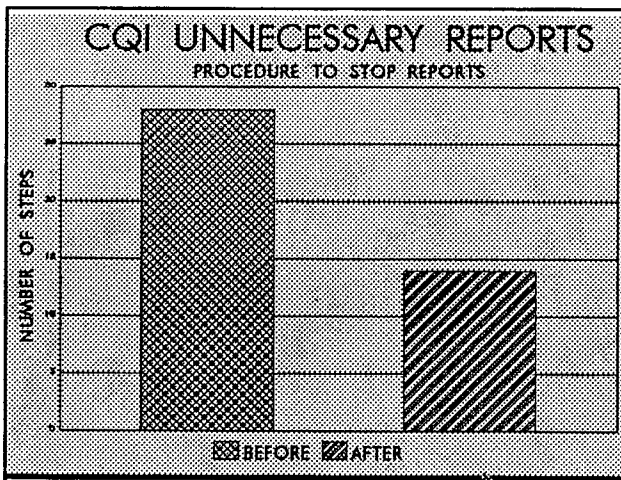
- New procedure
- Annual cost savings of \$21,000
- Improved communication
- Customer satisfaction
- Work units familiarity with CQI process

Solution

- New streamlined procedure
- Banner page form recommendation
- Survey twice a year with all reports
- Technical recommendations

Future Action

- Countywide application
- Standardization recommendations
- Internal ISD training
- Monitor / adjust



MEETING DATE: DEC 07 1995

AGENDA NO: R-3

(Above Space for Board Clerk's Use ONLY)

AGENDA PLACEMENT FORM

SUBJECT: REQUESTING APPROVAL FROM THE BOARD OF COUNTY COMMISSIONERS TO TRANSFER **THREE TAX FORECLOSED PROPERTIES FROM MULTNOMAH COUNTY (Tax Title Unit) TO MULTNOMAH COUNTY (Transportation Division)** FOR PUBLIC PURPOSES

BOARD BRIEFING: Date Requested: _____

Amount of Time Needed: _____

REGULAR MEETING: Date Requested: December 7, 1995

Amount of Time Needed: 5 minutes

DEPARTMENT: Environmental Services DIVISION: Assessment & Taxation

CONTACT: Stephen Kelly TELEPHONE #: 248-3590
BLDG/ROOM #: 166/300 Tax Title

PERSON(S) MAKING PRESENTATION: Kathy Tuneberg & Stephen Kelly

ACTION REQUESTED:

[] INFORMATIONAL ONLY [] POLICY DIRECTION [X] APPROVAL [] OTHER

SUMMARY (Statement of rationale for action requested, personnel and fiscal/budgetary impacts, if applicable):

Multnomah County, Transportation Division submitted Tax Title Applications to acquire three Tax Foreclosed Properties from Multnomah County, Tax Title Unit for public purposes. (Oregon State Law, ORS 271.330 allows the County to retain any property necessary for a public use.)

12/11/95 copies to TAX TITLE & LARRY NICHOLAS;
CERTIFIED TRUE COPY TO RECORDING WITH REQUEST TO
RECORD & TITLE
SIGNATURES REQUIRED: Return to TAX

ELECTED OFFICIAL: _____

acting OR
DEPARTMENT MANAGER: Maren H. Welding Larry E. Nicholas

ALL ACCOMPANYING DOCUMENTS MUST HAVE REQUIRED SIGNATURES

Any Questions: Call the Office of the Board Clerk 248-3277/248-5222

**BOARD OF COUNTY COMMISSIONERS
AGENDA ITEM BRIEFING - STAFF REPORT SUPPLEMENT**

TO: BOARD OF COUNTY COMMISSIONERS

FROM: Kathy Tuneberg,
Assessment & Taxation

Stephen Kelly,
Tax Title Unit

TODAY'S DATE: November 14, 1995

REQUESTED PLACEMENT DATE: December 7, 1995

RE: Request approval from the Board of County Commissioners to transfer three Tax Foreclosed Properties from **Multnomah County (Tax Title Unit)** to **Multnomah County (Transportation Division)** for public use (Road Ways).

I. Recommendation/Action Requested:

That the Board of County Commissioners approve the subject requests for Tax Foreclosed Properties on the behalf of Multnomah County, (Transportation Division) to retain three Multnomah County (Tax Title Unit) properties, for no monetary consideration. State of Oregon law (ORS 271.330) allows the County to retain any property necessary for public use.

II. Background/Analysis:

On March 27, 1995 in accordance ORDINANCE 795 this property was made available on a list of Tax Foreclosed Properties offered to Governmental Agencies for non-housing purposes.

The Government Agency (Multnomah County, Transportation Division) requested these properties within the sixty days required by ORDINANCE 795, (Section VI, C) on May 15, 1995.

There were no duplicate Tax Title Applications requesting these properties. Please see the attached Applications and Site Maps following page 2 of this briefing.

III. Financial Impact:

The Tax Title Fund has incurred minimal expenses associated with preparation of application materials, processing transfer requests and preparation of Board documents. Future costs will include recording a Board Order transferring these three Tax Foreclosed Properties.

IV. Legal Issues:

No legal issue is expected to develop as a result of this action.

V. Controversial Issues:

No public controversy is expected as a result of subsequently approving these transfer requests.

VI. Link to Current County Policies:

There are no conflicts with County policies.

VII. Citizen Participation:

Citizen Participation is not anticipated.

VIII. Other Government Participation:

All public agencies of Multnomah County were invited to participate in this tax foreclosed property transfer process. All Neighborhood Associations within the County were notified of the availability of tax foreclosed properties to Government Agencies for possible transfer.

1995 APPLICATION
for
PUBLIC USE OF TAX FORECLOSED PROPERTY
Multnomah County Tax Title Section

(TAX) NUMBER: R454800540 ADDITION: Kirkland Add

PROP(ERTY ADDRESS): NW 1st Avenue LEGAL1: W 50' of Lot 5, Block 3
SID: 1S3E09AD 1400

AGENCY: Multnomah County-Environmental Services CONTACT: Bob Thomas

DEPARTMENT: Transportation Division TELEPHONE: 248-3838

ADDRESS: 1620 SE 190th Ave., Portland OR 97233 - Bldg. 425 FAX NO.: 248-3321

Larry F. Nicholas, P.E.

AGENCY HEAD NAME

Larry F. Nicholas

AGENCY HEAD SIGNATURE

248-3355

TELEPHONE

May 15, 1995

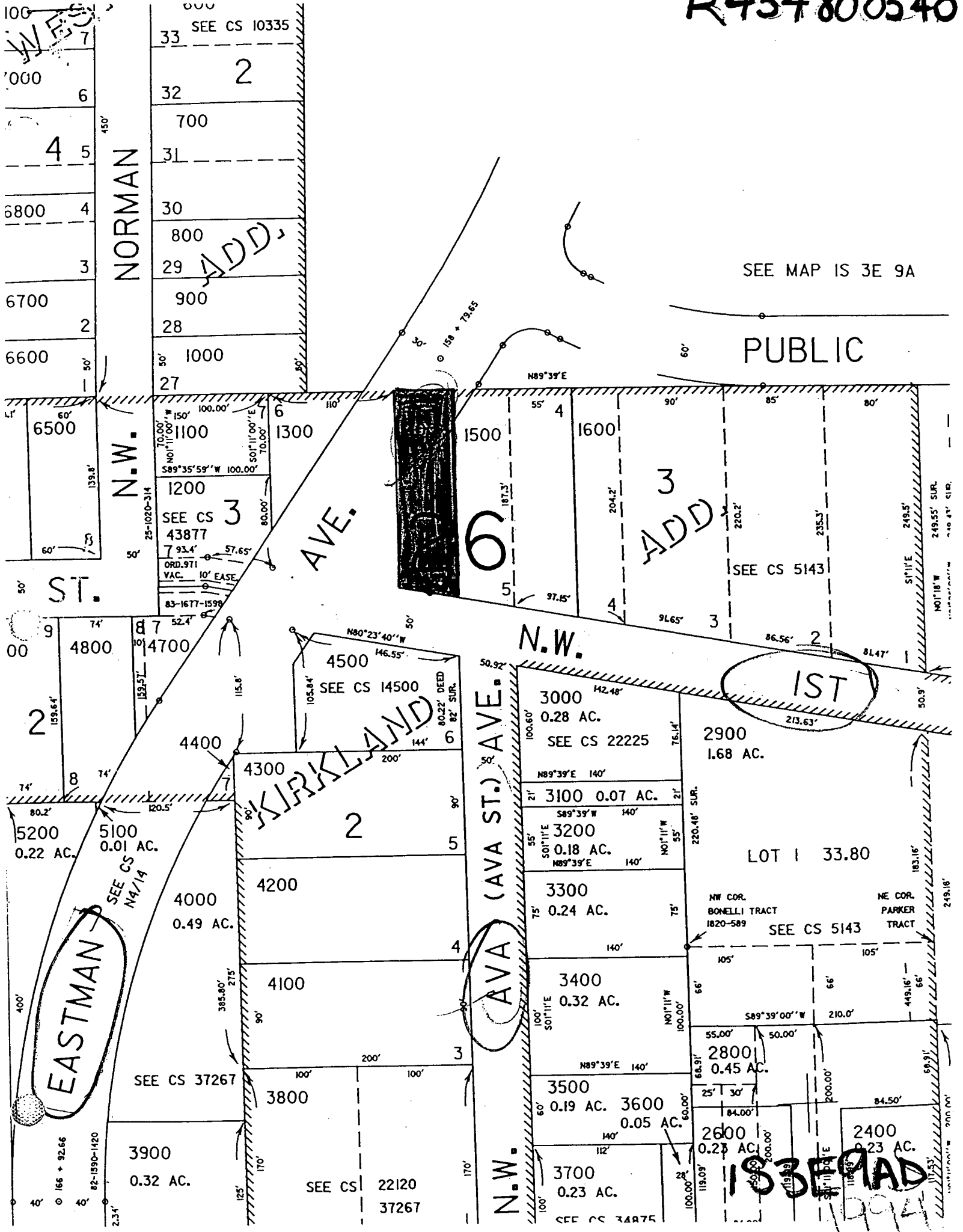
DATE

PROPOSED USE OF PROPERTY: This parcel is vital to the Transportation Division. It is located within the proposed right-of-way of Eastman Avenue which Multnomah County will acquire from the city of Gresham on July 1, 1995.

Currently, Gresham is legalizing Eastman Avenue in preparation for surrendering it to Multnomah County. This parcel, tax title property, is not owned by Gresham and is needed to complete the right-of-way for Eastman Avenue.

Submission of this Application signifies acceptance of the Guidelines, Requirements and Conditions listed on the back of this page. (tt-application)

R454 800540



1995 APPLICATION
for
PUBLIC USE OF TAX FORECLOSED PROPERTY
Multnomah County Tax Title Section

(TAX) NUMBER: R981350150 ADDITION: Section 35, 3N 1W

PROP(ERTY ADDRESS): Gillihan Road LEGAL1: 353N1W TL 15, 1.23 Acres

AGENCY: Multnomah County-Environmental Services CONTACT: Bob Thomas

DEPARTMENT: Transportation Division TELEPHONE: 248-3838

ADDRESS: 1620 SE 190th Ave., Portland OR 97233 - Bldg. 425 FAX NO.: 248-3321

Larry F. Nicholas, P.E.
AGENCY HEAD NAME

248-3355
TELEPHONE

Larry F. Nicholas
AGENCY HEAD SIGNATURE

May 15, 1995
DATE

PROPOSED USE OF PROPERTY: The additional width provided by transferring the properties will provide for right-of-way width to meet ORS and County Code requirements.

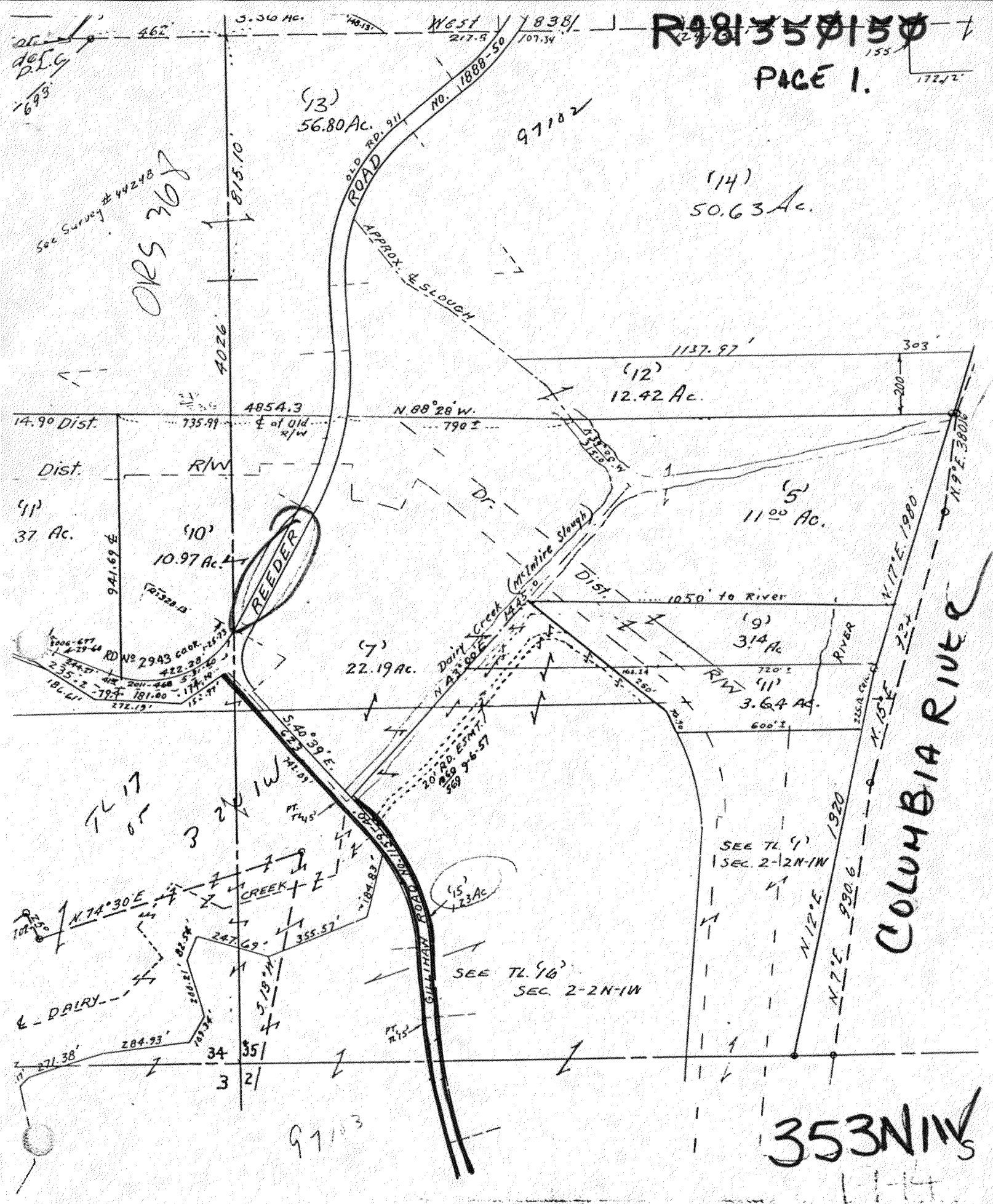
The narrow tax lot adjacent to the east and west sides of the county's Gillihan Road right-of-way is vital to the county's interest and should be transferred to public ownership.

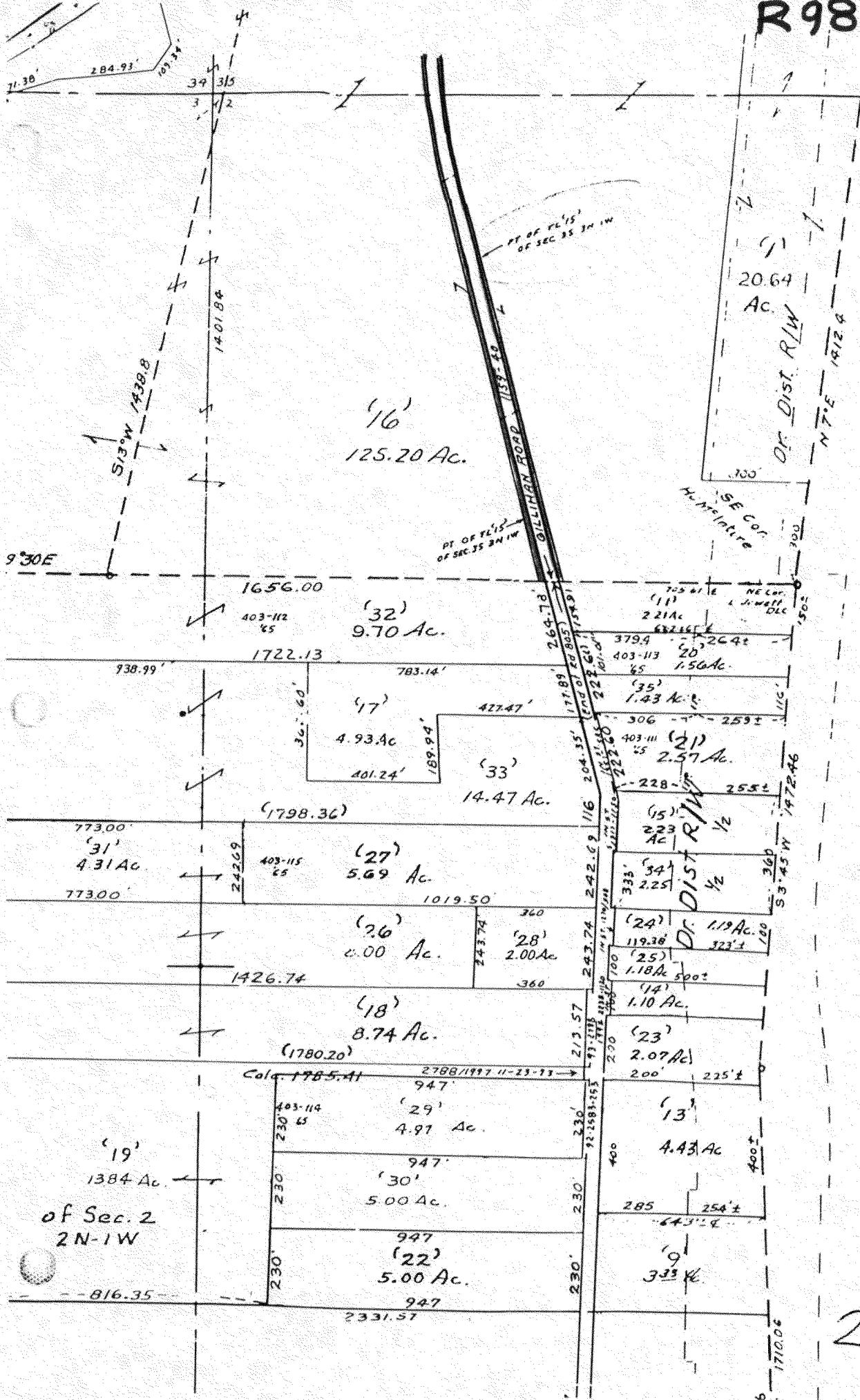
ORS 368 specifies that county road right-of-way should be a minimum of 50 feet. County Code also specifies the 50 foot minimum road right-of-way. Currently, Gillihan Road right-of-way is substandard at 40 feet wide. The additional width provided by transferring the properties will thus provide for right-of-way width to meet ORS and County Code requirements.

Gillihan Road is functionally classified as a Rural Collector Road by the county. County street standards specify 60 foot rural collector road right-of-way width to accommodate the necessary area for travel lanes, shoulders, drainage facilities and utilities. Transferring the adjacent strips of land makes it more possible for the county to better provide the necessary facilities.

Sketch attached.

Submission of this Application signifies acceptance of the Guidelines, Requirements and Conditions listed on the back of this page.





22N1W
1994

✓

1995 APPLICATION
for
PUBLIC USE OF TAX FORECLOSED PROPERTY
Multnomah County Tax Title Section

(TAX) NUMBER: R993240840 ADDITION: Section 24 1S 3E

PROP(ERTY ADDRESS): Stone Road LEGAL1: 241S3E TL 2100, 0.44 Acres
SID: 1S3E 24D 2100

AGENCY: Multnomah County-Environmental Services CONTACT: Bob Thomas

DEPARTMENT: Transportation Division TELEPHONE: 248-3838

ADDRESS: 1620 SE 190th Ave., Portland OR 97233 - Bldg. 425 FAX NO.: 248-3321

Larry F. Nicholas, P.E.

AGENCY HEAD NAME

Larry F. Nicholas

AGENCY HEAD SIGNATURE

248-3355

TELEPHONE

MAY 15, 1995

DATE

PROPOSED USE OF PROPERTY: Dedication for public road purposes

From the attached map of the property, it appears that this parcel was originally intended for public use.

Dedication for public road purposes may benefit future development in the immediate vicinity.

Sketch attached

Submission of this Application signifies acceptance of the Guidelines, Requirements and Conditions listed on the back of this page.

R993240840

1100
17.67 AC.

150'
1000
1.53 AC.

S88°27'35"E 292.65'

1200
1.50 AC.

SEE CS 38839

EASEMENT

N88°27'35"W 292.65'

410.80'

1000

12.5'

1400
9.77 AC.

1300
12.73 AC.

993240840

353

EAST 317.526'
2000
6.90 AC.

2100
0.44 AC.

2200
15.70 AC.

CREEK

2000

60 FEET = 990'

1400

2100

2200

CR*

1S3E24D

1994

24

RD. 681

STONE RD

BEFORE THE BOARD OF COUNTY COMMISSIONERS
FOR MULTNOMAH COUNTY, OREGON

In the Matter of the County Retaining Tax)
Foreclosed Properties for Public Use, by)
transferring from Multnomah County, (Tax) ORDER
Title Unit) to Multnomah County,) 95-252
(Transportation Division))

WHEREAS, Multnomah County, Department of Environmental Services, Transportation Division, has filed a request with Tax Title Unit for the County to retain for public use, the following Tax Foreclosed Properties:

KIRKLAND ADDITION, W 50' of Lot 5, Block 3, Multnomah County, Oregon (Tax Account #: R-45480-0540, Tax Title Deed #: D961271)

SECTION 35, 3N 1W TL. 15, 1.23 Acres, Multnomah County, Oregon (Tax Account #: R-98135-0150, Tax Title Deed #: D961272)

SECTION 24, 1S 3E TL. 2100, 0.44 Acres, Multnomah County, Oregon (Tax Account #: R-99324-0840, Tax Title Deed #: D961273)

AND, WHEREAS, ORS 271.330 allows the County to retain any property necessary for a public use, and

WHEREAS, Multnomah County, Transportation Division has submitted to Tax Title, Foreclosed Property Applications for these properties, shown on attachment Exhibit A, for public road purposes, and

NOW, THEREFORE, IT IS ORDERED, that the above described properties will be removed from the Tax Title Unit inventory and will be retained, and maintained by Multnomah County, Transportation Division, for public road purposes.

APPROVED this 7th day of December, 1995.



BOARD OF COUNTY COMMISSIONERS
MULTNOMAH COUNTY, OREGON

BY Beverly Stein
Beverly Stein, Chair

REVIEWED:

Laurence Kressel, COUNTY COUNSEL
for MULTNOMAH COUNTY, OREGON

Matthew O. Ryan
Matthew O. Ryan

After Recording, Return to: 166/300 Tax Title Unit

* EXHIBIT A *

MULTNOMAH COUNTY TAX TITLE
STATUS REPORT OF PROPERTIES REQUESTED TO BE TRANSFERRED FROM
MULTNOMAH COUNTY (TAX TITLE UNIT) TO MULTNOMAH COUNTY
(TRANSPORTATION DIVISION)

PROPERTY FROM FISCAL YEAR 1994-95

NOVEMBER 6, 1995

General information:

All three Tax Foreclosed Properties listed below have been through the Greenspace Designation Process. One of the three properties received a Greenspace Designation by the Metro Review Committee. Tax Account Number R-99324-0840 received two designations (G = Greenspace Inventory, and P = Park Deficient Area).

Gov't Agency: MULTNOMAH COUNTY (Transportation Division)

<u>Tax Acct. #:</u>	<u>Legal Descript.:</u>	<u>Taxes:</u>	<u>Expenses:</u>	<u>Type of Use:</u>
R-45480-0540	W 50' of Lot 5, Block 3, KIRKLAND ADDITION	\$4,888.20	\$0.00	Road Way Use
R-98135-0150	SECTION 35, 3N 1W TL. 15, 1.23 Acres	\$69.68	\$0.00	Road Way Use
R-99324-0840	SECTION 24, 1S 3E TL. 2100, 0.44 Acres	\$823.54	\$0.00	Road Way Use
<hr/> Totals:		\$5,781.42	\$0.00	

MEETING DATE: NOV 13 10 11 1995 DEC 07 1995

AGENDA NO: ~~PR400~~ R-4

(Above Space for Board Clerk's Use ONLY) _____

AGENDA PLACEMENT FORM

SUBJECT: An ordinance that amends MCC 5.30.270 to allow the County to file for refunds of the Multnomah County Fuel Tax collected on fuel used in County vehicles.

BOARD BRIEFING Date Requested: _____

Amount of Time Needed: _____

REGULAR MEETING: Date Requested: _____

Amount of Time Needed: 5 minutes

DEPARTMENT: Environmental Services DIVISION: F.R.E.D.S.

CONTACT: Tom Guiney TELEPHONE #: 248-5353

BLDG/ROOM #: 425/FREDS

PERSON(S) MAKING PRESENTATION: Tom Guiney

ACTION REQUESTED:

[] INFORMATIONAL ONLY [] POLICY DIRECTION [X] APPROVAL [] OTHER

SUMMARY (Statement of rationale for action requested, personnel and fiscal/budgetary impacts, if applicable):

Recommend approval of an ordinance amending Multnomah County Code 5.30.270(A) allowing the County to file for a refund of County Fuel Taxes paid by the County for fuel used in County vehicles.

12/8/95 copy to Tom Guiney & Ordinance Distribution
list
SIGNATURES REQUIRED:

ELECTED OFFICIAL: _____

OR

DEPARTMENT MANAGER: William E. Nicholas

ALL ACCOMPANYING DOCUMENTS MUST HAVE REQUIRED SIGNATURES

Any Questions: Call the Office of the Board Clerk 248-3277/248-5222

1995 NOV 17 PM 1:00
CLERK OF COUNTY COMMISSIONERS
MULTNOMAH COUNTY
OREGON



MULTNOMAH COUNTY OREGON

DEPARTMENT OF ENVIRONMENTAL SERVICES
FLEET, RECORDS, ELECTRONIC & DISTRIBUTION
SERVICES DIVISION (F.R.E.D.S.)
1620 S.E. 190TH AVE.
PORTLAND, OREGON 97233-5999
(503) 248-5050

BOARD OF COUNTY COMMISSIONERS
BEVERLY STEIN • CHAIR OF THE BOARD
DAN SALTZMAN • DISTRICT 1 COMMISSIONER
GARY HANSEN • DISTRICT 2 COMMISSIONER
TANYA COLLIER • DISTRICT 3 COMMISSIONER
SHARRON KELLEY • DISTRICT 4 COMMISSIONER

MEMORANDUM

TO: BOARD OF COUNTY COMMISSIONERS

FROM: Tom Guiney, F.R.E.D.S. Manager *Tom*
Larry F. Nicholas, P.E., Director of Transportation

TODAY'S DATE: October 26, 1995

REQUESTED PLACEMENT DATE:

RE: Ordinance amending Multnomah County Code 5.30.270(A)

I. Recommendation/Action Requested:

Recommend approval of an ordinance amending Multnomah County Code 5.30.270(A) allowing the County to file for a refund of County Fuel Taxes paid by the County for fuel used in County vehicles.

II. Background/Analysis:

Multnomah County currently collects a \$.03 per gallon tax on fuel sold within the County. The State, cities, and towns are currently allowed under the County Code to obtain a refund from the County for the fuel taxes paid by those governments to the County for fuel purchased for use in their vehicles. The County Code does not currently have a mechanism to allow the County to receive such a refund for County taxes paid on fuel used in County vehicles. This results in the County taxing itself. Since approximately 80% of the revenue from these taxes are passed through to the City of Portland, we are taxing ourselves and passing most of the revenue received to the City of Portland.

III. Financial Impact:

This amendment results in a reduction in Fleet Services expenditures of approximately \$8000 per year and a reduction in Road Fund revenue of an equal amount. Because of the pass through to Portland mentioned above, this action results in a net positive financial impact for the County as a whole.

IV. Legal Issues:

Amends County Code.

V. CONTROVERSIAL ISSUES:

We are not aware of any controversial issues.

VI. Link to Current County Policies:

None

VII. Citizen Participation:

The only citizen participation involved in this proposal will occur at the Board of County Commissioner's meeting on the matter.

VIII. Other Government Participation:

None

AGENDA.SUP

ORDINANCE FACT SHEET

Ordinance Title: Ordinance Amending Multnomah County Code 5.30.270(A) allowing the county to file for a refund of county fuel tax, excluding refunds currently allowed under MCC 5.30.260.

Give a brief statement of the purpose of the ordinance including the rationale for adoption, description of persons benefitted, alternatives explored:

This ordinance will allow the county to file for a refund of the Multnomah County Fuel Tax, excluding refunds currently allowed under MCC 5.30.260. This will eliminate the county from taxing itself for motor vehicle fuel.

What other local jurisdictions have enacted similar legislation?

None.

What has been the experience in other areas with this type of legislation?

None.

What is the fiscal impact, if any?

This action will result in an annualized refund to the Fleet Management Fund of approximately \$8,000 for General Fund vehicles. It will result in a reduction of approximately \$8,000 to the counties Road Fund, of which approximately 80% is transferred to the city of Portland.

(Please use other side if you need more space)

SIGNATURES

Person Filling Out Form: _____

Planning & Budget (if fiscal impact): _____

Department Manager/Elected Official: Leah E. Nicholas

FACTSHET.ORD/BTRJ1323.ORD

REVENUE

CHAPTER 5.30. MOTOR VEHICLE FUEL TAX

- 5.30.010. Definitions.
- 5.30.020. Fee imposed; administration by division.
- 5.30.030. Monthly statement by dealer; amount of fee.
- 5.30.040. License required to be dealer or subdealer in motor vehicle fuel.
- 5.30.050. License applications and issuance.
- 5.30.060. Failure to secure license; penalty.
- 5.30.070. Revocation of license.
- 5.30.080. Cancellation of license.
- 5.30.090. Remedies cumulative.
- 5.30.100. Payment of tax and delinquency penalty.
- 5.30.110. Monthly statement of dealer.
- 5.30.120. Failure to file monthly statement.
- 5.30.130. Billing purchasers.
- 5.30.140. Receipt, payment or sale without invoice or delivery tag prohibited.
- 5.30.150. Transporting motor vehicle fuel in bulk.
- 5.30.160. Exemption of export fuel.
- 5.30.170. Sales to armed forces exempted.
- 5.30.180. Fuel in vehicles coming into county not taxed.
- 5.30.190. Fuel sold or delivered to dealers or subdealers.
- 5.30.200. Refunds.
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- 5.30.260. Refunds to counties and road assessment districts.
- 5.30.270. Refunds to state, cities and towns.
- 5.30.280. Refund of fee on fuel used in transportation of rural free delivery or special delivery mail.
- 5.30.290. Examinations and investigations; correction of reports.
- 5.30.300. Limitation on credit for or refund of overpayment and on assessment of additional fee.
- 5.30.310. Examining books and accounts of carrier of motor vehicle fuel.
- 5.30.320. Records to be kept by dealers.
- 5.30.330. Records to be kept three years.
- 5.30.340. Use of fee.
- 5.30.350. Period of effect of this chapter. [Rpld. by Ord. 189 § 1 (1979)]

5.30.010. Definitions.

As used in this chapter, unless the context requires otherwise:

- (A) *Aircraft fuel* means any gasoline and any other flammable or combustible gas or liquid, by whatever name that gasoline, gas or liquid is known or sold, usable as fuel for the operation of aircraft, except gas or liquid, the chief use of which, as determined by the division, is for purposes other than the propulsion of aircraft.
- (B) *County* means Multnomah County, Oregon.
- (C) *Dealer* means any person who:
 - (1) Imports or causes to be imported motor vehicle fuel for sale, use or distribution in, and after the same reaches the county, but "dealer" does not include any person who imports into the county motor vehicle fuel in quantities of 500 gallons or less purchased from a supplier who is licensed as a dealer under this chapter and who assumes liability for the payment of the applicable license fee to the county; or
 - (2) Produces, refines, manufactures or compounds motor vehicle fuels in the county for use, distribution or sale in the county; or
 - (3) Acquires in the county for sale, use or distribution in the county motor vehicle fuels with respect to which there has been no license fee previously incurred.
- (D) *Distribution* means, in addition to its ordinary meaning, the delivery of motor vehicle fuel by a dealer or subdealer to any service station or into any tank, storage facility or series of tanks or storage facilities connected by pipelines, from which motor vehicle fuel is withdrawn directly for sale or for delivery into the fuel tanks of motor vehicles whether or not the service station, tank or storage facility is owned, operated or controlled by the dealer or subdealer.
- (E) *Division* means the motor vehicles division of the department of transportation.
- (F) *Highway* means every way, thoroughfare and place of whatever nature, open for use of the public for the purpose of vehicular travel.
- (G) *Motor vehicle* means all vehicles, engines or machines, movable or immovable, operated or propelled by the use of motor vehicle fuel.
- (H) *Motor vehicle fuel* means and includes gasoline and any other flammable or combustible gas or liquid, by whatever name that gasoline, gas or liquid is known or sold, usable as fuel for the operation of motor vehicles, except gas or liquid, the chief use of which, as determined by the division, is for purposes other than the propulsion of motor vehicles upon the highways of the State of Oregon. The term shall not include diesel fuel.
- (I) *Person* includes every natural person, association, firm, partnership, corporation or the United States.
- (J) *Service station* means and includes any place operated for the purpose of retailing and delivering motor vehicle fuel into the fuel tanks of motor vehicles.
- (K) *Subdealer* means and includes every person other than a dealer engaging in the business of handling motor vehicle fuel for sale and distribution both within and without the county.

[Ord. 123 § 1 (1976)]

5.30.020. Fee imposed; administration by division.

A business license fee is hereby imposed on every dealer or subdealer. The fee imposed shall be paid monthly to the division, as agent for the county. The division is hereby designated the agent of the county for the purposes of administering the business license fee imposed by this chapter and is authorized to exercise all supervisory and administrative powers with regard to the enforcement, collection and administration of the fee as it is authorized under ORS 319.010 to 319.430 with regard to the business license tax imposed by these provisions.

[Ord. 123 § 2 (1976)]

5.30.030. Monthly statement by dealer; amount of fee.

(A) Subject to subsections (B) and (C) of this section, in addition to any fees or taxes otherwise provided for by law, every dealer and subdealer engaging in his own name, or in the name of others, or in the name of his representatives or agents in the county, in the sale, use or distribution of motor vehicle fuel or withdrawal of motor vehicle fuel for sale, use or distribution within areas in the county within which the county has the power to tax the sale, use or distribution of motor vehicle fuel, shall:

- (1) No later than the 25th day of each calendar month, render a statement to the division of all motor vehicle fuel sold, used, distributed or so withdrawn by him in the county as well as all such fuel sold, used or distributed in the county by a purchaser thereof upon which sale, use or distribution the dealer is liable for the applicable license fee during the preceding calendar month.
- (2) Pay a license fee computed as of October 1, 1981, on the basis of \$0.03 per gallon of such motor vehicle fuel, upon which no license fee has previously been paid or is otherwise due under this chapter, so sold, used, distributed or withdrawn as shown by such statement in the manner and within the time provided in this chapter.

(B) In lieu of claiming refund of the fee paid as to motor vehicle fuel consumed by the dealer or subdealer in nonhighway uses as provided in MCC 5.30.200, 5.30.210 and 5.30.240, or of any prior erroneous payment of license fee made to the county by the dealer or subdealer, the dealer or subdealer may show such motor vehicle fuel as a credit or deduction on the monthly statement and payment of fee.

(C) The license fee shall not be imposed wherever it is prohibited by the constitution or laws of the United States or Oregon.

[Ord. 123 § 3 (1976); Ord. 273 § 1 (1981)]

5.30.040. License required to be dealer or subdealer in motor vehicle fuel.

No dealer shall sell, use or distribute any motor vehicle fuel until he has secured a dealer's license

as required by this chapter. No subdealer shall sell, use or distribute any motor vehicle fuel until he has secured a subdealer's license as required by this chapter.

[Ord. 123 § 4 (1976)]

5.30.050. License applications and issuance.

(A) Every person, before becoming a dealer or subdealer in motor vehicle fuel in the county, shall make an application to the division for a license authorizing such person to engage in business as a dealer or subdealer.

(B) Applications for the license must be made on forms prescribed, prepared and furnished by the division.

(C) The applications shall be accompanied by a duly acknowledged certificate containing:

- (1) The business name under which the dealer or subdealer is transacting business within the county.
- (2) The place of business and location of distributing stations in the county.
- (3) The name and address of the managing agent, the names and addresses of the several persons constituting the firm or partnership and, if a corporation, the corporate name under which it is authorized to transact business and the names and addresses of its principal officers and registered agent.

(D) The application for a motor vehicle fuel dealer's or subdealer's license having been accepted for filing, the division shall issue to the dealer or subdealer a license in such form as the division may prescribe to transact business in the county. The license so issued is not assignable, and is valid only for the dealer or subdealer in whose name issued.

(E) The division shall keep and file all applications with an alphabetical index thereof, together with a record of all licensed dealers and subdealers.

[Ord. 123 § 5 (1976)]

5.30.060. Failure to secure license; penalty.

(A) If any dealer or subdealer sells, distributes or uses any motor vehicle fuel without first filing the certificate and securing the license required by MCC 5.30.050, the license fee shall immediately be due and payable on account of all motor vehicle fuel so sold, distributed or used.

(B) The division shall proceed forthwith to determine, from the best available sources, the amount of such fee, and it shall assess the fee in the amount found due, together with a penalty of 100 percent of the fee, and shall make its certificate of such assessment and penalty. In any suit or proceeding to collect such fee or penalty or both, the certificate is prima facie evidence that the dealer or subdealer therein named is indebted to the county in the amount of the fee and penalty therein stated.

(C) Any fee or penalty so assessed may be collected in the manner prescribed in MCC 5.30.100 with reference to delinquency in payment of the fee or by an action at law, which the division, through the attorney general, shall commence and prosecute to final determination at the request of the division.

[Ord. 123 § 6 (1976)]

5.30.070. Revocation of license.

The division shall revoke the license of any dealer or subdealer refusing or neglecting to comply with any provision of this chapter. The division shall mail by registered mail addressed to such dealer or subdealer at his last known address appearing on the files of the division, a notice of intention to cancel. The notice shall give the reason for the cancellation. The cancellation shall become effective without further notice if within ten days from the mailing of the notice the dealer or subdealer has not made good its default or delinquency.

[Ord. 123 § 7 (1976)]

5.30.080. Cancellation of license.

(A) The division may, upon written request of a dealer or subdealer, cancel any license issued to such dealer or subdealer, the cancellation to be-

come effective 30 days from the date of receipt of the written request.

(B) If the division ascertains and finds that the person to whom a license has been issued is no longer engaged in the business of a dealer or subdealer, the division may cancel the license of such dealer or subdealer upon investigation after 30 days' notice has been mailed to the last-known address of the dealer or subdealer.

[Ord. 123 § 8 (1976)]

5.30.090. Remedies cumulative.

Except as otherwise provided in MCC 5.30.100 and 5.30.120, the remedies provided in MCC 5.30.060 to 5.30.080 are cumulative. No action taken pursuant to those sections shall relieve any persons from the penalty provisions of this chapter.

[Ord. 123 § 9 (1976)]

5.30.100. Payment of tax and delinquency penalty.

(A) The license fee imposed by MCC 5.30.020 and 5.30.030 shall be paid on or before the 25th day of each month to the division which, upon request, shall receipt the dealer or subdealer therefor.

(B) Except as provided in subsection (D) of this section, to any license fee not paid as required by subsection (A) of this section there shall be added a penalty of one percent of such license fee.

(C) Except as provided in subsection (D) of this section, if the fee and penalty required by subsection (B) of this section are not received on or before the close of business on the last day of the month in which the payment is due, a further penalty of ten percent shall be paid in addition to the penalty provided for in subsection (B) of this section.

(D) If the division determines that the delinquency was due to reasonable cause and without any intent to avoid payment, the penalties provided by subsections (B) and (C) of this section shall be waived. Penalties imposed by this section shall not apply when the penalty provided in MCC 5.30.060 has been assessed.

(E) If any person fails to pay the license fee or any penalty provided for by this chapter, the amounts thereof shall be collected from such person for the use of the county. The division, through the attorney general, shall commence and prosecute to final determination in any court of competent jurisdiction an action at law to collect the same.

(F) No dealer who collects from any person the fee provided for in this chapter, shall knowingly and wilfully fail to report and pay the same to the division as required by this chapter.
[Ord. 123 § 10 (1976)]

5.30.110. Monthly statement of dealer.

Every dealer or subdealer in motor vehicle fuel shall render to the division, on or before the 25th day of each month, on forms prescribed, prepared and furnished by the division, a signed statement of the number of gallons of motor vehicle fuel sold, distributed or used by him during the preceding calendar month. The statement shall be signed by one of the principal officers, or by an authorized agent in the case of a corporation; or by the managing agent or owner in case of a firm or association. All statements filed with the division, as required in this section, are public records.
[Ord. 123 § 11 (1976)]

5.30.120. Failure to file monthly statement.

If any dealer or subdealer, except one subject to MCC 5.30.060, fails to file the report required by MCC 5.30.110, the division shall proceed forthwith to determine from the best available source the amount of motor vehicle fuel sold, distributed or used by such dealer or subdealer for the period unreported, and such determination shall be prima facie evidence of the amount of such fuel sold, distributed or used. The division immediately shall assess the license fee in the amount so determined, adding thereto a penalty of ten percent for failure to report. The penalty shall be cumulative to other penalties provided in this chapter. In any suit brought to enforce the rights of the county under this section, the certificate of the division showing the amount of fees, penalties and costs unpaid by any dealer or subdealer and that the

same are due and unpaid to the county is prima facie evidence of the facts as shown.
[Ord. 123 § 12 (1976)]

5.30.130. Billing purchasers.

Bills shall be rendered to all purchasers of motor vehicle fuel by dealers or subdealers in motor vehicle fuel. The bills shall separately state and describe to the satisfaction of the division the different products shipped thereunder and shall be serially numbered except where other sales invoice controls acceptable to the division are maintained. The bills required hereunder may be the same as or incorporated in those required under ORS 319.210.
[Ord. 123 § 13 (1976)]

5.30.140. Receipt, payment or sale without invoice or delivery tag prohibited.

No person shall receive and accept any shipment of motor vehicle fuel from any dealer or subdealer, or pay for the same, or sell or offer the shipment for sale, unless the shipment is accompanied by an invoice or delivery tag showing the date upon which shipment was delivered and the name of the dealer or subdealer in motor vehicle fuel.
[Ord. 123 § 14 (1976)]

5.30.150. Transporting motor vehicle fuel in bulk.

Every person operating any conveyance for the purpose of hauling, transporting or delivering motor vehicle fuel in bulk shall, before entering upon the public highways of the county with such conveyance, have and possess during the entire time of his hauling or transporting such motor vehicle fuel and [an] invoice, bill of sale or other written statement showing the number of gallons, the true name and address of the seller or consignor, and the true name and address of the buyer or consignee, if any, of the same. The person hauling such motor vehicle fuel shall at the request of any sheriff, deputy sheriff, constable, state police or other officer authorized by law to inquire into or investigate such matters, produce and offer

for inspection the invoice, bill of sale or other statement.

[Ord. 123 § 15 (1976)]

5.30.160. Exemption of export fuel.

(A) The license fee imposed by MCC 5.30.020 and 5.30.030 shall not be imposed on motor vehicle fuel:

- (1) Exported from the county by a dealer or subdealer; or
- (2) Sold by a dealer or subdealer in individual quantities of 500 gallons or less for export by the purchaser to an area or areas outside the county in containers other than the fuel tank of a motor vehicle, but every dealer or subdealer shall be required to report such exports and sales to the division in such detail as may be required.

(B) In support of any exemption from license fees claimed under this section other than in the case of stock transfers or deliveries in his own equipment, every dealer or subdealer must execute and file with the division an export certificate in such form as shall be prescribed, prepared and furnished by the division, containing a statement, made by some person having actual knowledge of the fact of such exportation, that the motor vehicle fuel has been exported from the county, and giving such details with reference to such shipment as the division may require. The division may demand of any dealer or subdealer such additional data as is deemed necessary in support of any such certificate, and failure to supply such data will constitute a waiver of all right to exemption claimed by virtue of such certificate. The division may, in a case where it believes no useful purpose would be served by filing of an export certificate, waive the certificate.

(C) Any motor vehicle fuel carried from the county in the fuel tank of a motor vehicle shall not be considered as exported from the county, except that a refund of the fee may be paid on such fuel as provided in paragraph (4) of subsection (A) of MCC 5.30.200.

(D) No person shall, through false statement, trick or device, or otherwise, obtain motor vehicle fuel for export as to which the county fee has not

been paid and fail to export the same, or any portion thereof, or cause the motor vehicle fuel or any portion thereof not to be exported, or divert or cause to be diverted the motor vehicle fuel or any portion thereof to be used, distributed or sold in the county and fail to notify the division and the dealer or subdealer from whom the motor vehicle fuel was originally purchased of his act.

(E) No dealer, subdealer or other person shall conspire with any person to withhold from export, or divert from export or to return motor vehicle fuel to the county for sale or use so as to avoid any of the fees imposed by this chapter.

(F) In support of any exemption from fees on account of sales of motor vehicle fuel in individual quantities of 500 gallons or less for export by the purchaser, the dealer shall retain in his files for at least three years an export certificate executed by the purchaser in such form and containing such information as is prescribed by the division. This certificate shall be prima facie evidence of the exportation of the motor vehicle fuel to which it applies only if accepted by the dealer in good faith. [Ord. 123 § 16 (1976)]

5.30.170. Sales to armed forces exempted.

The license fee imposed by MCC 5.30.020 and 5.30.030 shall not be imposed on any motor vehicle fuel sold to the armed forces of the United States for use in ships, aircraft or for export from the county; but every dealer or subdealer shall be required to report such sales to the division in such detail as may be required. A certificate by an authorized officer of such armed forces shall be accepted by the dealer as sufficient proof that the sale is for the purpose specified in the certificate. [Ord. 123 § 17 (1976)]

5.30.180. Fuel in vehicles coming into county not taxed.

Any person coming into the county in a motor vehicle may transport in the fuel tank of such vehicle motor vehicle fuel for his own use only and for the purpose of operating such motor vehicle without securing a license or paying the fee provided in MCC 5.30.020 and 5.30.030, or complying with any of the provisions imposed upon dealers by this chapter, but if the motor vehicle

fuel so brought into the county is removed from the fuel tank of the vehicle or used for any purpose other than the propulsion of the vehicle, the person is so importing the fuel into the county and shall be subject to all the provisions in this chapter applying to dealers.
[Ord. 123 § 18 (1976)]

5.30.190. Fuel sold or delivered to dealers or subdealers.

(A) A dealer or subdealer selling or delivering motor vehicle fuel to dealers or subdealers is not required to pay a license fee thereon.

(B) The dealer or subdealer in rendering monthly statements to the division as required by MCC 5.30.030 and 5.30.110 shall show separately the number of gallons of motor vehicle fuel sold or delivered to dealers or subdealers.
[Ord. 123 § 19 (1976)]

5.30.200. Refunds.

(A) Any person who has paid any fees on motor vehicle fuel imposed or directed to be paid under this chapter either directly by the collection of the fee by the vendor from the consumer, or indirectly by adding the amount of the fee to the price of the fuel and paid by the consumer, shall be reimbursed and repaid the amount of such fee paid by him, except as provided in MCC 5.30.210 and 5.30.240, if such person has:

- (1) Purchased and used such fuel for the purpose of operating or propelling stationary gas engines, tractors or motorboats if the motorboat is used for commercial purposes at any time during the period for which the refund is claimed; or
- (2) Purchased and used such fuel for cleaning or dyeing or other commercial use, except when used in motor vehicles operated upon any highway; or
- (3) Purchased and exported such fuel from the county, in containers other than fuel supply tanks of motor vehicles; or
- (4) Purchased and exported such fuel in the fuel supply tank of a motor vehicle and has used such fuel to operate the vehicle upon

the highways of another state, if the user has paid to the other state a similar motor vehicle fuel fee or tax on the same fuel, or has paid any other highway use tax the rate for which is increased because such fuel was not purchased in, and the fee or tax thereon paid, to such state.

(B) When a motor vehicle with auxiliary equipment uses fuel and there is no auxiliary motor for such equipment or separate tank for such a motor, a refund may be claimed and allowed as provided by subsection (D) of this section, except as otherwise provided by this subsection, without the necessity of furnishing proof of the amount of fuel used in the operation of the auxiliary equipment. The person claiming the refund may present to the division a statement of his claim and be allowed a refund as follows:

- (1) For fuel used in pumping aircraft fuel, motor vehicle fuel, fuel or heating oils or other petroleum products by a power takeoff unit on a delivery truck, refund shall be allowed claimant for the fee paid on fuel purchased at the rate of three-fourths of one gallon for each 1,000 gallons of petroleum products delivered.
- (2) For fuel used in operating a power takeoff unit on a cement mixer truck or on a garbage truck, claimant shall be allowed a refund of 25 percent of the fee paid on all fuel used in such a truck.

(C) When a person purchases and uses motor vehicle fuel in a vehicle equipped with a power takeoff unit, a refund may be claimed for fuel used to operate the power takeoff unit provided the vehicle is equipped with a metering device approved by the division and designed to operate only while the vehicle is stationary and the parking brake is engaged; the quantity of fuel measured by the metering device shall be presumed to be the quantity of fuel consumed by the operation of the power takeoff unit.

(D) Before any such refund may be granted, the person claiming such refund must present to the division a statement accompanied by copies of the original invoices showing such purchases; provided that in lieu of such invoices, refunds sub-

mitted under paragraph (4) of subsection (A) of this section shall be accompanied by information showing source of fuel used and evidence of payment of fee or tax to the state in which the fuel was used. The statement shall be made over the signature of the claimant, and shall state the total amount of such fuel for which is entitled to be reimbursed under subsection (A) of this section. The division upon the presentation of the statement and invoices, or other required documents, shall cause to be repaid to the claimant from the fees collected on motor vehicle fuel such fees so paid by the claimant.
[Ord. 123 § 20 (1976); Ord. 588 § 2(A) (1988)]

5.30.210. Limitation on applications for refunds.

Applications for refunds made under MCC 5.30.200 and 5.30.240 to 5.30.280 must be filed with the division before the expiration of 15 months from the date of purchase or invoice, except that unused fuel reported as an ending inventory on any claim may be included in a subsequent claim if presented not later than 15 months from the filing date of the claim which established the inventory. All applications for refunds based upon exportation of motor vehicle fuel from this state in the fuel supply tank of a motor vehicle must be filed with the division before the expiration of 15 months from the last day of the month in which the fuel was used, or before the expiration of 15 months from the date of an assessment for unpaid fee or tax by the state in which the fuel was used.
[Ord. 123 § 21 (1976)]

5.30.220. Seller to give invoice for each purchase made by person entitled to refund.

(A) When motor vehicle fuel is sold to a person who claims to be entitled to a refund of the fee imposed, the seller of the motor vehicle fuel shall make and deliver at the time of the sale separate invoices for each purchase in such form and containing any information prescribed by the division.

(B) The invoices shall be legibly written and shall be void if any corrections or erasures appear

on the face thereof. Any person who alters any part of any invoice that will tend to give to the claimant an illegal gain, shall have the entire claim invalidated. The seller shall for a period of at least 18 months retain copies of all invoices and make them available to the division upon request.

(C) The invoices required by this section may be the same as or incorporated in those required under ORS 319.300.
[Ord. 123 § 22 (1976)]

5.30.230. Claims for refunds, investigation.

(A) The division may require any person who makes claim for refund of fee on motor vehicle fuel to furnish a statement, under oath, giving his occupation, description of the machines or equipment in which the motor vehicle fuel was used, the place where used and such other information as the division may require.

(B) The division may investigate claims and gather and compile such information in regard to the claims as it considers necessary to safeguard the county and prevent fraudulent practices in connection with fee refunds and evasions. The division may, in order to establish the validity of any claim, examine the books and records of the claimant for such purposes. The records shall be in such form and contain such information as the division may require. Failure of the claimant to maintain such records or to accede to the demand for such examination constitutes a waiver of all rights to the refund claimed on account of the transaction questioned.
[Ord. 123 § 23 (1976)]

5.30.240. Refund of fee on fuel used in operation of vehicles over certain roads or private property.

(A) Except where a refund is authorized by MCC 5.30.260 or 5.30.270, upon compliance with subsection (B) or (C) of this section the division shall refund, in the manner provided in subsection (B) or (C) of this section, the fee on motor vehicle fuel that is used in the operation of a motor vehicle:

- (1) By any person on any road, thoroughfare or property in private ownership.

- (2) By any person on any road, thoroughfare or property, other than a state highway, county road or city street, for the removal of forest products, as defined in ORS 321.005, or the products of such forest products converted to a form other than logs at or near the harvesting site, or for the construction or maintenance of the road, thoroughfare or property, pursuant to a written agreement or permit authorizing the use, construction or maintenance of the road, thoroughfare or property, with or by:
- (a) An agency of the United States;
 - (b) The state board of forestry;
 - (c) The state forester; or
 - (d) A licensee of any agency named in subparagraph (a), (b) or (c) of this paragraph.
- (3) By an agency of the United States or of the State of Oregon or any county, city or port of the State of Oregon on any road, thoroughfare or property, other than a state highway, county road or city street.
- (4) By any person on any county road for the removal of forest products, as defined in ORS 321.005, or the products of such forest products converted to a form other than logs at or near the harvesting site, if:
- (a) The use of the county road is pursuant to a written agreement entered into with, or to a permit issued by, the state board of forestry, the state forester or an agency of the United States, authorizing such person to use such road and requiring such person to pay for or to perform the construction or maintenance of the county road;
 - (b) The board, officer or agency that entered into the agreement or granted the permit, by contract with the county court or board of county commissioners, has assumed the responsibility for the construction or maintenance of such county road; and
 - (c) Copies of the agreements or permits required by subparagraphs (a) and (b) of this paragraph are filed with the division.

(B) Except for a farmer subject to subsection (C) of this section, the person or agency, as the case may be, who has paid any fee on such motor vehicle fuels imposed or directed to be paid, as provided by this chapter, is entitled to claim a refund of the fee so paid on such fuels or for the proportionate part of the fee paid on fuels used in the operation of such vehicles, when part of the operations are over such road, thoroughfares or property. The proportionate part shall be based upon the number of miles traveled by any such vehicle over such roads, thoroughfares or property as compared to the total number of miles traveled by such vehicle. To be eligible to claim such refund the person or agency, as the case may be, shall first establish and maintain a complete record of the operations, miles traveled, gallons of fuel used and other information, in such form and in such detail as the division may prescribe and require, the source of supply of all fuels purchased or used, and the particular vehicles or equipment in which used. Whenever any such claim is received and approved by the division, it shall cause the refund of fee to be paid to the claimant in like manner as provided for paying of other refund claims.

(C) A farmer who has paid any fee on motor vehicle fuels imposed or directed to be paid, as provided by this chapter, is entitled to claim a refund of the fee paid on such fuels used in farming operations in the operation of any motor vehicle on any road, thoroughfare or property in private ownership. To be eligible to claim such refund a farmer shall maintain in such form and in such detail as the division may prescribe and require, a record, supported by purchase invoices, of all such motor vehicle fuel purchased (including fuel purchased to operate any motor vehicle on the highway) and, for each and every motor vehicle operated on the highway, a record of all fuel used and of all miles traveled on the highway. Whenever any such claim is received and approved by the division, it shall cause the refund of fee to be paid to the claimant in like manner as provided for paying of other refund claims.

(D) As used in subsections (B) and (C) of this section, "farmer" includes any person who manages or conducts a farm for the production of livestock or crops but does not include a person who manages or conducts a farm for the production of

forest products, as defined in ORS 321.005, or the products of such forest products converted to a form other than logs at or near the harvesting site, or of forest trees unless the production of such forest products or forest trees is only incidental to the primary purpose of the farming operation.

[Ord. 123 § 24 (1976)]

5.30.250. Refunds to purchasers of fuel for aircraft.

Whenever any statement and invoices are presented to the division showing that motor vehicle fuel has been purchased and used in operating aircraft engines and upon which the fee on motor vehicle fuel has been paid, the division shall refund the fee paid.

[Ord. 123 § 25 (1976)]

5.30.260. Refunds to counties and road assessment districts.

Any county or road assessment district formed under ORS 371.405 to 371.535, which buys and uses any motor vehicle fuel for the purpose of operating or propelling road maintainers, graders, tractors, trucks and other equipment used in the construction and maintenance of public highways and which has paid any fee on motor vehicle fuel imposed or directed to be paid under this chapter either directly by the collection of the fee by the vendor from the consumer, or indirectly by adding the amount of the fee to the price of the fuel and paid by the consumer, shall be reimbursed and repaid the amount of the fee paid by the county or road assessment district as provided by MCC 5.30.200 to 5.30.250 if such machinery is used exclusively for the maintenance and construction of such public highways.

[Ord. 123 § 26 (1976)]

5.30.270. Refunds to state, cities and towns.

(A) The State of Oregon and any incorporated city or town, by its proper officer or officers, may secure from the county a refund of any and all fees imposed and collected by the county on any motor vehicle fuel purchased and used by the state or such incorporated city or town.

(B) The division may establish rules necessary to safeguard the county in the matter of the fee refunds authorized in this section. Noncompliance with any of such rules by the state or any incorporated city or town claiming refund under this section is grounds for refusal by the division to allow such claims.

(C) The procedure for refund of fees provided by MCC 5.30.200 to 5.30.250 shall apply insofar as applicable to claims for the refunds authorized by this section.

[Ord. 123 § 27 (1976)]

5.30.280. Refund of fee on fuel used in transportation of rural free delivery or special delivery mail.

(A) All fees collected by the county on the sale, use or distribution of any motor vehicle fuel used exclusively in the transportation of rural free delivery mail or special delivery mail of the United States of America shall be refunded to the person paying the fee if the person is engaged solely and exclusively in the transportation of rural free delivery mail or special delivery mail of the United States of America.

(B) Any person engaged solely and exclusively in transportation of rural free delivery or special delivery mail of the United States of America, who buys any motor vehicle fuel and uses it exclusively in the transportation of rural free delivery mail or special delivery mail of the United States of America, and who has paid any fee on motor vehicle fuel, either directly by the collection of the fee by the vendor from the consumer or indirectly by adding the amount of the fee to the price of the fuel and paid by the consumer, shall be reimbursed and repaid the amount of the fee paid by him upon presenting to the division a statement accompanied by the original invoice showing the purchase. The statement shall be made over the signature of the claimant and shall state the total amount of fuel so purchased and used by the consumer for the transportation of rural free delivery mail or special delivery mail of the United States of America. The division, upon the presentation of the statement and the voucher, shall cause to be repaid to the consumer, from the fees

collected on motor vehicle fuels, the fees so paid by the consumer on motor vehicle fuels so used.
[Ord. 123 § 28 (1976)]

5.30.290. Examinations and investigations; correction of reports.

The division, or its duly authorized agents, may make any examination of the accounts, records, stocks, facilities and equipment of dealers, subdealers, service stations and other persons engaged in storing, selling or distributing motor vehicle fuel or other petroleum product or products within this county, and such other investigations as it considers necessary in carrying out the provisions of this chapter. If the examinations or investigations disclose that any reports of dealers, subdealers or other persons theretofore filed with the division pursuant to the requirements of this chapter, have shown incorrectly the amount of gallonage of motor vehicle fuel distributed or the fee accruing thereon, the division may make such changes in subsequent reports and payments of such dealers, subdealers or other persons, or may make such refunds, as may be necessary to correct the errors disclosed by its examinations or investigations.

[Ord. 123 § 29 (1976)]

5.30.300. Limitation on credit for or refund of overpayment and on assessment of additional fee.

(A) Except as otherwise provided in this chapter, any credit for erroneous overpayment of fee made by a dealer or subdealer taken on a subsequent return or any claim for refund of fee erroneously overpaid filed by a dealer or subdealer must be taken or filed within three years after the date on which the overpayment was made to the county.

(B) Except in the case of a fraudulent report or neglect to make a report, every notice of additional fee proposed to be assessed under this chapter shall be served on dealers and subdealers within three years from the date upon which such additional fees become due.

[Ord. 123 § 30 (1976)]

5.30.310. Examining books and accounts of carrier of motor vehicle fuel.

The division or its duly authorized agents may at any time during normal business hours examine the books and accounts of any carrier of motor vehicle fuel operating within the county for the purpose of checking shipments or use of motor vehicle fuel, detecting diversions thereof or evasion of fees in enforcing the provisions of this chapter.

[Ord. 123 § 31 (1976)]

5.30.320. Records to be kept by dealers.

Every dealer or subdealer in motor vehicle fuel shall keep a record in such form as may be prescribed by the division of all purchases, receipts, sales and distribution of motor fuel. The records shall include copies of all invoices or bills of all such sales and shall at all times during the business hours of the day be subject to inspection by the division or its deputies or other officers duly authorized by the division.

[Ord. 123 § 32 (1976)]

5.30.330. Records to be kept three years.

Every dealer and subdealer shall maintain and keep, for a period of three years, all records of motor vehicle fuel used, sold and distributed within the county by such dealer or subdealer, together with stock records, invoices, bills of lading and other pertinent papers as may be required by the division. In the event such records are not kept within the State of Oregon, the dealer or subdealer shall reimburse the division for all travel, lodging and related expenses incurred by the division in examining such records. The amount of such expenses shall be an additional fee imposed under this chapter.

[Ord. 123 § 33 (1976)]

5.30.340. Use of fee.

(A) Except as provided by subdivision (B) of this section the fees collected under this chapter, after deducting the costs of administration and collection, shall be used by the county solely for the purposes prescribed by the Oregon constitution for the use of taxes upon motor vehicle fuel; but may be shared by agreement with a city or cities

situated in whole or in part within its boundaries for those purposes.

- (B) (1) On or before August 15, 1988, and on or before August 15 of each year thereafter, the director of the department of environmental services shall determine as accurately as possible the amount of the motor vehicle fuel tax imposed under MCC 5.30.020 to 5.30.190 during the preceding fiscal year with respect to fuel purchased and used to operate or propel motorboats. The amount determined shall be reduced by the amount of any refunds for motorboats used for commercial purposes actually paid during the preceding year on account of MCC 5.30.200(A)(1).
- (2) The amount of the estimate made under subsection (1) of this section as reduced by refunds shall be credited to a dedicated account in the road fund to be used solely for the acquisition, development, administration, operation, and maintenance of any county-owned or operated facility which serves recreational boaters.
- (3) The county is authorized to enter onto an agreement with the department of transportation of the State of Oregon to administer, collect and deposit all revenue due under this chapter. The department of transportation may be reimbursed for its administrative costs from the funds collected pursuant to this chapter.

[Ord. 123 § 34 (1976); Ord. 273 § 3 (1981); Ord. 588 § 2B (1988)]

5.30.350. Period of effect of this chapter.

[Ord. 123 § 36 (1976); Rpld. by Ord. 189 § 1 (1979)]

1 **BEFORE THE BOARD OF COUNTY COMMISSIONERS**
2 **FOR MULTNOMAH COUNTY, OREGON**

3 ORDINANCE NO. 842

4 An Ordinance amending governments eligible for refunds of Motor Vehicle Fuel Taxes
5 imposed by Multnomah County under MCC 5.30.270.

6 (Language in [brackets/~~strikeout~~] is to be deleted; underlined language is new.)

7 Multnomah County ordains as follows:

8
9 **SECTION I. FINDINGS**

10 The current code imposes a Motor Vehicle Fuel Tax on fuel purchased, and allows certain
11 political subdivisions of the State of Oregon, including the State of Oregon and any incorporated city
12 or town to secure from the county a refund of this tax. This results in the county levying a tax
13 against itself.

14 **SECTION II. CODE AMENDMENTS**

15 A. Multnomah County Code 5.30.270(A) is amended to read as follows:

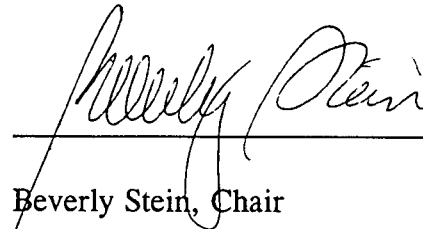
16 5.30.270 Refunds to state, counties, cities and towns.

17 (A) The State of Oregon, counties and any incorporated city or town, by its proper officer
18 or officers, may secure from the county a refund of any and all fees imposed and
19 collected by the county on any motor vehicle fuel purchased and used by the state,
20 counties, or such incorporated city or town.

1 Approved this 7th day of December, 1995, being the date of its second reading before
2 the Board of County Commissioners of Multnomah County, Oregon.

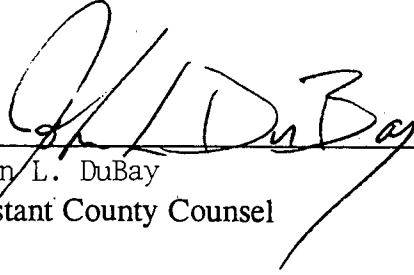


Board of County Commissioners
for Multnomah County, Oregon

8 
Beverly Stein, Chair

9 REVIEWED:

10
11 LAURENCE KRESSEL, County Counsel
12 for Multnomah County, Oregon

13
14 By 
15 John L. DuBay
Assistant County Counsel

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17
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19 BTRJ1323.ORD
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21
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MEETING DATE: DEC 07 1995

AGENDA NO: B-1

(Above Space for Board Clerk's Use ONLY)

AGENDA PLACEMENT FORM

SUBJECT: South/North Transit Corridor Study: Design option Narrowing Recommendation

BOARD BRIEFING Date Requested: December 5, 1995

Amount of Time Needed: 30 minutes

REGULAR MEETING: Date Requested: _____

Amount of Time Needed: _____

DEPARTMENT: Environmental Services DIVISION: Transportation

CONTACT: Ed Pickering TELEPHONE #: 248-3636
BLDG/ROOM #: B425

PERSON(S) MAKING PRESENTATION: Ed Pickering, Sharon Kelly (Metro)

ACTION REQUESTED:

[] INFORMATIONAL ONLY [X] POLICY DIRECTION [] APPROVAL [] OTHER

SUMMARY (Statement of rationale for action requested, personnel and fiscal/budgetary impacts, if applicable):

Local governments are invited to review and endorse the South/North transit design options recommended by the Project Steering Group, prior to the full analysis and decision process of the Draft Environmental Impact Statement.

SIGNATURES REQUIRED:

ELECTED OFFICIAL: _____

OR

DEPARTMENT MANAGER: KBmo Lem E. Nicholas

ALL ACCOMPANYING DOCUMENTS MUST HAVE REQUIRED SIGNATURES

Any Questions: Call the Office of the Board Clerk 248-3277/248-5222

CLERK OF
COUNTY COMMISSIONERS
1995 NOV 28 AM 9:28
MULTNOMAH COUNTY
OREGON



Design Option Narrowing Final Recommendation Report

South/North Project Management Group

October 19, 1995

Metro

Design Option Narrowing Final Recommendation Report

South/North Transit Corridor Study

October 19, 1995

South/North Project Management Group

The preparation of this report was financed in part by the U.S. Department of Transportation, Federal Transit Administration, Oregon Department of Transportation and Washington Department of Transportation. The opinions, findings and conclusions expressed in this report are not necessarily those of either the U.S. Department of Transportation, Federal Transit Administration, Oregon Department of Transportation and Washington Department of Transportation

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Appendix A: Design Options Considered

Appendix B: Design Option Narrowing Process

Appendix C: Design Option Narrowing Criteria and Measures

1.0 Introduction

1.1 PURPOSE OF THE REPORT

This report documents the Project Management Group's (PMG) recommendation to the Steering Group regarding the light rail transit options which merit further study in the Draft Environmental Impact Statement (DEIS). The report will also be forwarded to the Citizens Advisory Committee (CAC) to assist them during their deliberations on the options and adoption of their own recommendations to the Steering Group.

It is important to understand the context of this report. Earlier in Tier I, during the *Scoping Process*, it was determined that the DEIS will address two transportation alternatives for the South/North Corridor: (i) the No-Build Alternative; and, (ii) the Light Rail Transit (LRT) Alternative. Further, in December 1994, with the adoption of the *Tier I Final Report* (Metro: December 1994), Metro Council and the C-TRAN Board of Directors adopted the Phase One Termini and most of the Corridor's alignment alternatives to advance into the Tier II DEIS for further study. Later in the spring of 1995, the alignment alternatives in the remaining segments of the corridor (the south Willamette River crossings and the North Portland alignments) were narrowed. Then finally, in August 1995, following an extensive effort to involve the public in the creation of the Clark County and City of Vancouver Transportation Futures process, C-TRAN amended the northern Phase I terminus (from 99th Street to Veterans Administration (VA) Hospital/Clark College).

This report recommends the:

- [a] LRT alignment design options;
- [b] general location of potential light rail stations or transit centers on each of the proposed alignment options; and
- [c] "Minimum Operable Segments (MOS)";

which are to be addressed in the Draft Environmental Impact Statement.

This report also includes listings of *Issues* regarding the recommended options. These *Issues* identify major areas for further study that may occur between the time this recommendation is proposed and the time DEIS analysis begins. These activities may result in refinements to the recommended alignment, station location and MOS options. Refinements may also occur during the DEIS and the FEIS. Thus, the recommendations set forth in this report are a starting point, not a final proposal.

1.2 STUDY, PUBLIC INVOLVEMENT AND DECISION-MAKING PROCESS

Tier I of the South/North Corridor Transit Study began in April 1993. The bi-state study has included the work of fifteen different governmental entities having some responsibility for the project, including: five cities, four counties, Tri-Met, C-TRAN, Metro, RTC, ODOT, WSDOT and the Port of Portland.

In December 1993, the South/North Steering Group adopted the *Tier I Evaluation Methodology Report* (Metro: December 1993). The *Methodology Report* includes the adopted Goal for the South/North Project: "To implement a major transit expansion program in the South/North Corridor that supports bi-state land use goals, optimizes the transportation system, is environmentally sensitive, reflects community values and is fiscally responsive." The report also adopted the criteria and measures and process to be used to narrow design options that will advance into the DEIS for further study. Appendix A includes a diagram of the Design Option Narrowing process and Appendix B includes a summary table of the Design Option Narrowing Criteria and Measures.

Over the past twelve months, project staff have been engaged in identifying, engineering, costing, projecting ridership and assessing the impacts of alignment design options identified at the beginning of or during Tier I. The results of that work are documented in the *South/North Design Option Narrowing Briefing Document* and the *South/North Design Option Narrowing Technical Summary Report* (Metro: October 1995).

In addition, there has been a myriad of public forums and hearings, Citizen Advisory Committee meetings, Expert Review Panel meetings and technical meetings concerning design options. Hundreds of public comments have been received, catalogued and distributed to project staff and policy-makers. Those public comments are included within the *South/North Design Option Narrowing Public Comments Report* (Metro: September 1995).

The recommendations proposed in this report are based on the results of these technical and public involvement activities. These recommendations and those independently proposed by the Citizens Advisory Committee will be forwarded to the South/North Steering Group. The Steering Group will consider both sets of recommendations, the public comment and the criteria, measures and data in order to determine which design options will be advanced into the Tier II DEIS for further study.

The *Design Option Narrowing Final Report*, as adopted by the Steering Group, will be distributed to the governing body of each of the participating governmental entities. Tier I will conclude when the Steering Group and participating jurisdictions reach a consensus on the design options to advance into the DEIS for further study. Subsequently, the preparation of the DEIS will begin and the process of evaluating and refining the options will continue to occur, this time at a more detailed level of analysis.

1.3 ORGANIZATION OF THE REPORT

Chapter Two of this report defines the two termini for the full length light rail alternative and four potential minimum operable segments. It also identifies the major issues regarding the *MOS's* which still need resolution.

Chapter Three defines one or two alignment options for each of eight segments encompassing the full-length light rail alignment. Potential station locations and major outstanding issues are also identified in each segment.

2.0 Minimum Operable Segments/Terminus Options

2.1 BACKGROUND

The full-length light rail alternative to be examined in the DEIS would run between the vicinity of the Clackamas Town Center in Oregon and the vicinity of the Veterans Administration (VA) Hospital/Clark College in Vancouver, Washington. This alternative is premised on the assumption that:

- [a] the Clark County transportation futures study incorporates a continued interest to examine bi-state light rail options; and
- [b] 50% federal funding for such an option would be secured over two federal authorization cycles requiring the full-length project to be built in two construction segments.

FTA requires that all DEISs include an examination of Minimum Operable Segments (MOS's) for each light rail alternative. MOS's are light rail alignments which are:

- [a] segments of the full length alternative;
- [b] can be operated successfully on an interim or long-term basis; and
- [c] can be extended into the full-length alternative at a later time.

FTA requires MOS's to be studied to:

- [a] assess whether project objectives can be equally or more cost-effectively met by *MOS's* than the more expensive full-length alternatives;
- [b] ensure that there are alternatives which could be constructed if funding sources provide less revenues than initially expected or desired; and
- [c] ensure that there are options which could be built in sequence, over time, if cash flow requirements dictate phased-construction.

In addition, the MOS's provide the opportunity to examine different permanent termini in North Portland if the Clark County transportation futures process determines that light rail is not an appropriate mode in Clark County at this time.

2.2 RECOMMENDED MOS's

These conditions lead to defining a series of MOS's which include:

- [a] One MOS providing a bi-state segment:
 - 1. **Milwaukie Park-and-Ride to V.A. Hospital/Clark College (Vancouver)**
- [b] Three Oregon-only MOS's providing various length extensions into N/NE Portland:
 - 2. **Clackamas Town Center Vicinity to Rose Quarter Vicinity**
 - 3. **Clackamas Town Center Vicinity to Kaiser Clinic Vicinity**
 - 4. **Clackamas Town Center Vicinity to Expo Center Vicinity**

2.3 MOS ISSUES

Four issues regarding MOS's require continued investigation at this time:

- 1. *Design of MOS termini:* The location and design of the three MOS termini in North Portland (Rose Quarter, Kaiser Clinic and Expo Center), including the station and trackage, need to be refined over the next two months.
- 2. *Bus service:* The bus configuration serving the North Portland MOS termini (in the CTC to North Portland MOS's) and the Milwaukie terminus (in the Milwaukie to Vancouver MOS) also need to be defined over the next two months.
- 3. *Park-and-ride configurations:* The configuration of the Expo Center park-and-ride (in the CTC to Expo Center MOS) and the Milwaukie park-and-ride (in the Milwaukie to Vancouver MOS) need to be refined over the next two months.
- 4. *MOS funding plans:* As part of the DEIS, a funding plan will be prepared for each of the MOS options.

3.0 Design Options

3.1 CLACKAMAS TOWN CENTER VICINITY

3.1.1 Clackamas Town Center Vicinity: Recommended Options (See Figures 1 & 2)

In this segment, two design options are recommended to be examined in the DEIS:

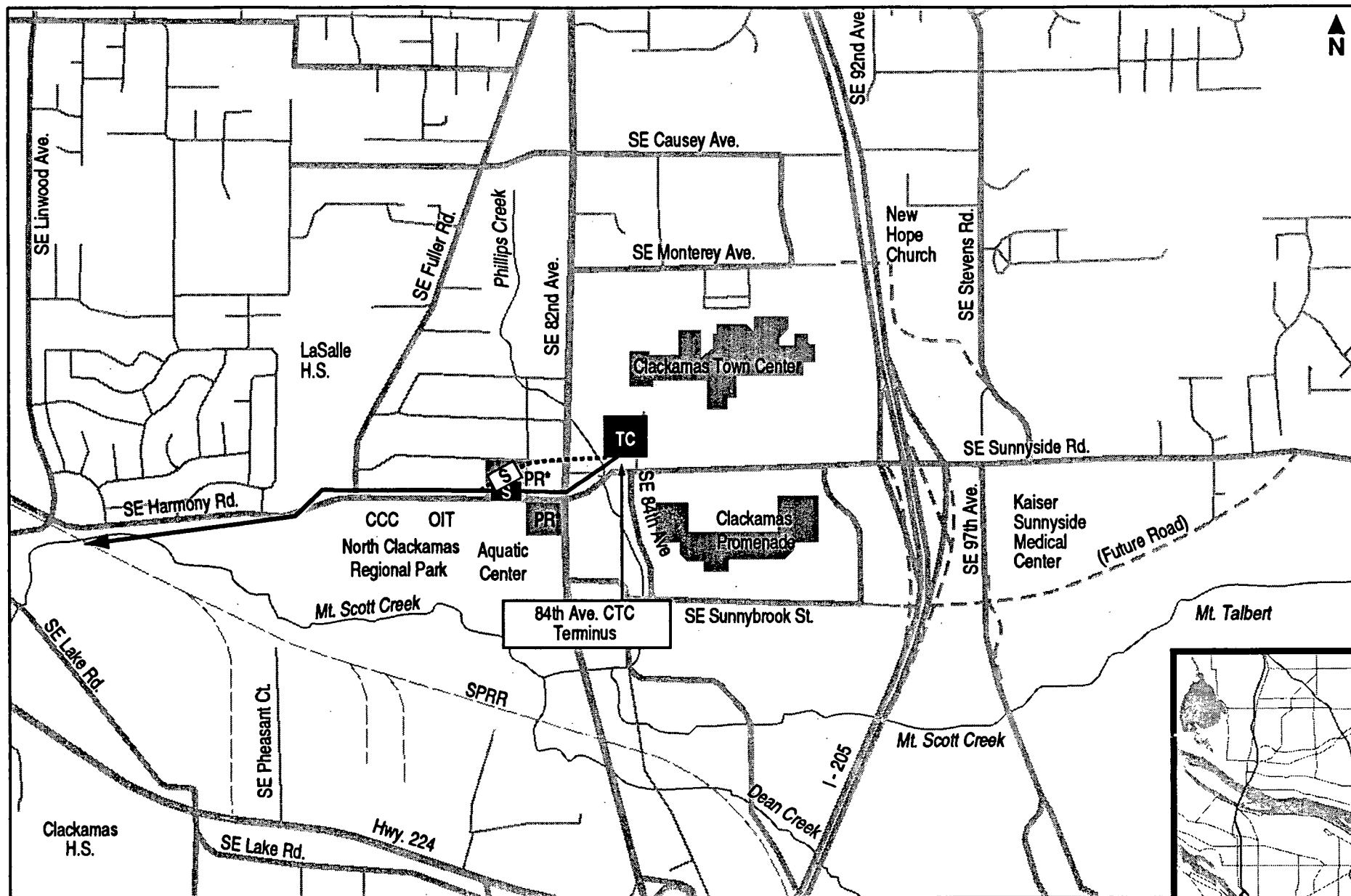
1. *North of Clackamas Town Center Alignment to Sunnyside Area Terminus:* From the S.E. Fuller Road/S.E. Harmony Road vicinity, the alignment would run along the west and north circumference of the Southgate community. It would then cross S.E. 82nd Avenue on an elevated structure and head eastward in the vicinity of S.E. Monterey Avenue to a transit center serving the CTC. From there, the alignment would continue eastward, crossing I-205 on a new structure, to a park-and-ride near the New Hope Church. From the Church, the alignment would run southward, paralleling I-205, crossing S.E. Sunnyside Road and then proceeding eastward to a park-and-ride terminus station.
2. *South of Clackamas Town Center Alignment to S.E. 84th Avenue CTC Terminus:* From the S.E. Fuller Road/S.E. Harmony Road vicinity, the alignment would run eastward along S.E. Harmony Road, to a park-and-ride station just west of S.E. 82nd Avenue. This station would also serve walk-ons from the Southgate community, Aquatic Center and Oregon Institute of Technology. The alignment would then curve slightly northwards to a point near the northern border of S.E. Sunnyside Road, cross S.E. 82nd Avenue and head eastward a short distance to roughly S.E. 84th Avenue to an eastern terminus station and transit center in the CTC parking lot.

3.1.2 Clackamas Town Center Vicinity: Issues

Several issues require continued investigation in this area. As explained earlier, the Town Center area is recommended as the southern terminus of the South/North LRT Project for two primary reasons: (i) the general Town Center area is proposed to be a Regional Center in the Region 2040 Plan and (ii) the Town Center mall itself is a high-transit-ridership node. The Town Center area terminus works best if these opportunities are realized and its success depends on the integration of the LRT alignment with an on-the-ground transit-supportive land use pattern and related (re)development site plans. Six issues need to be resolved which, depending on how they are resolved, may result in changes to the recommended design options in the CTC vicinity:

1. *Southgate community redevelopment:* As part of its urban renewal planning effort, Clackamas County should determine if and how light rail fits into the redevelopment of the Southgate residential area. The currently recommended design calls for an LRT alignment which skirts the residential area. If Clackamas County recommends the adoption of a

Figure 1



Light Rail Design Options: South Terminus

84th Avenue - CTC Terminus
South of Mall

October 1995

- Light Rail Transit (LRT) Design Option
- Station
- Alternative LRT Alignment
- Existing Railroad

- Transit Center
- Park and Ride locations under consideration
- Proposed ODOT/Clackamas County Roadway Modifications

Note: Alignment, station and park and ride locations are currently under study and may change.

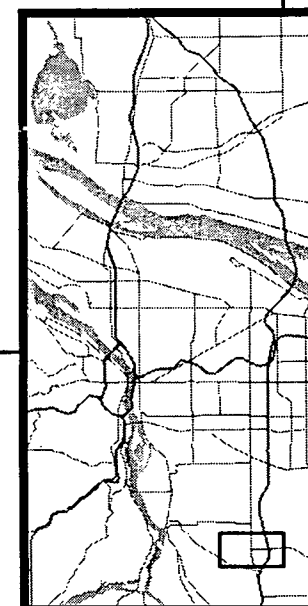
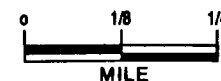
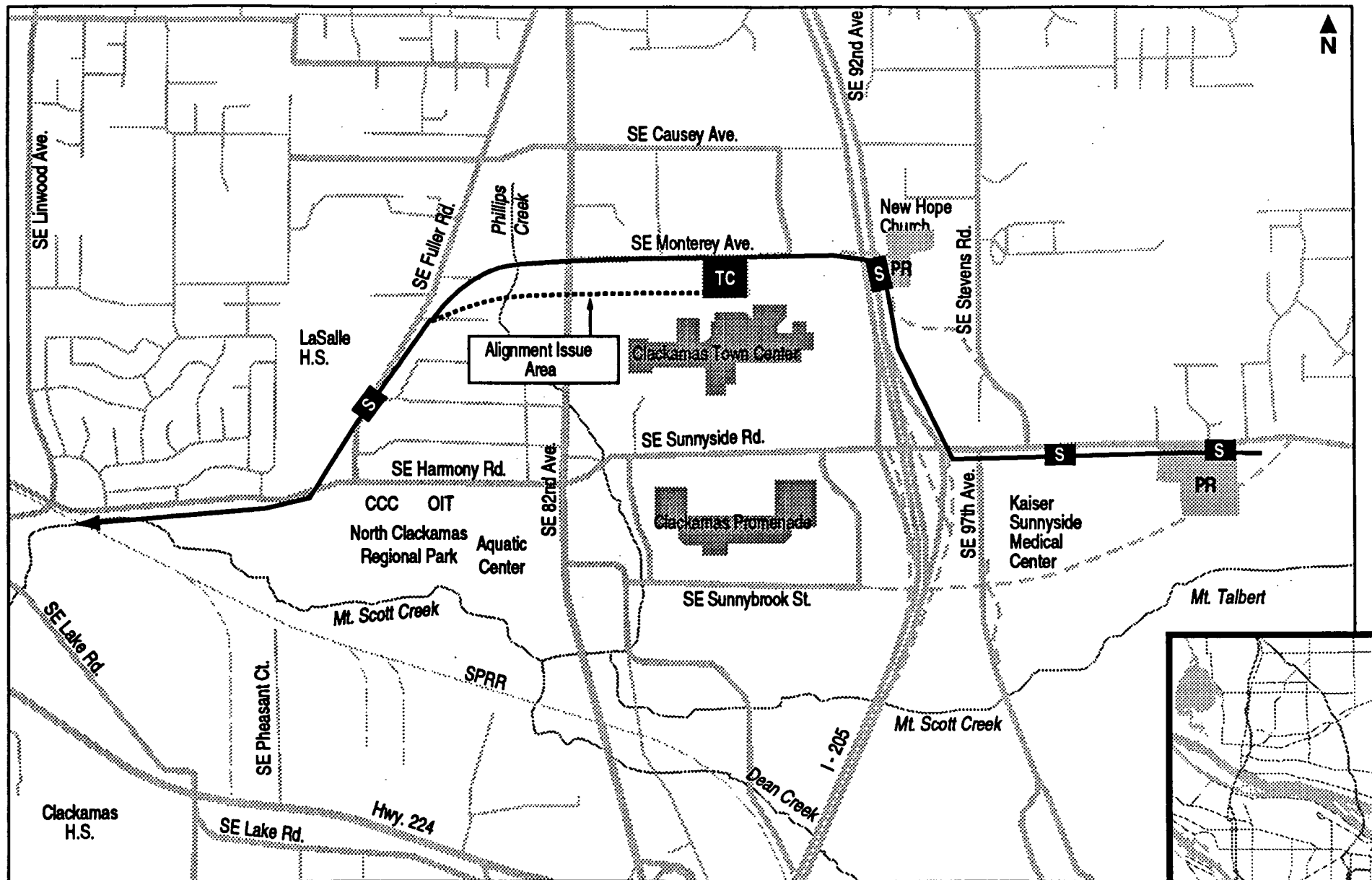


Figure 2










Light Rail Design Options:

South Terminus

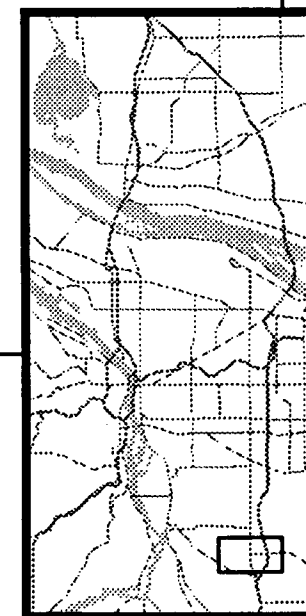
Sunnyside Area Terminus North of Mall

October 1995

-  Light Rail Transit (LRT) Design Option
-  Station
-  Alternative LRT Alignment
-  Existing Railroad

-  Transit Center
-  Park and Ride
-  Proposed ODOT/Clackamas County Roadway Modifications

Note: Alignment, station and park and ride locations are currently under study and may change.



redevelopment plan for the Southgate area which (i) increases residential or mixed-use densities in the area and (ii) calls for a modified LRT alignment through the Southgate area which does not require an inordinate increase in residential displacement, the Steering Group will consider adding such an alignment option to the EIS¹. The Steering Group's action will be viewed in concert with the resolution of the other issues listed in this sub-section.

2. *Future development of the Clackamas Town Center:* The North of Town Center alignment recommended to be included in the DEIS would run along the northern edge of the Town Center parking area parallel to S.E. Monterey Avenue. This alignment is predicated on the expansion of the Town Center northerly towards the proposed LRT station, either by expanding the Mall and/or developing transit-supportive, free-standing buildings on perimeter sites. If plans for such an expansion are not agreed-upon prior to the completion of the DEIS or are not likely to be realized in the foreseeable future, an alignment slightly south of S.E. Monterey Avenue, closer to the existing Mall, will be considered for inclusion in the EIS¹ in lieu of or addition to the currently recommended alignment.

A similar course-of-action is recommended for the South of Town Center alignment. The expansion plans for the Clackamas Town Center mall currently call for the addition of an anchor store at the southern end of the mall between Sears and Meier & Frank. The entrance to this planned expansion would be in the vicinity of the proposed light rail station associated with the South of the Mall alignment. If plans for the mall expansion are not agreed-upon in the foreseeable future, an alignment closer to the entrance of the existing Mall will be considered for inclusion in the EIS¹.

3. *Redevelopment of the area between the New Hope Church and the Sunnyside Medical Center:* The currently recommended alignment in this area runs parallel to and in the vicinity of I-205. An area just to the east of the proposed alignment is currently designated as open space. If Clackamas County (i) recommends that a significant portion of this area be redesignated as a transit-supportive residential or mixed-use area and (ii) calls for a modified LRT alignment through the area, the Steering Group will consider adding such an alignment option to the EIS¹. The Steering Group's action will be viewed in concert with the resolution of the other issues listed in this sub-section.
4. *Extension/expansion of the urban renewal district:* Clackamas County has begun to evaluate whether the existing Clackamas Town Center Urban Renewal Area (CTC URA) should be extended in time (it is now slated to terminate June 30, 1998) and expanded in geographic area (an expansion of approximately 100 acres is statutorily permitted). In order to resolve these issues, the Steering Group recommends that Clackamas County consider amending the CTC urban renewal plan to provide redevelopment and light rail-

¹

The term "EIS" is used here to denote either the DEIS or FEIS, whichever is found most appropriate.

related design features to achieve the purposes of the 2040 Plan and the South/North Project.

5. *Tax increment financing of localized alignment and design features in the Town Center area:* The recommended North of Town Center alignment/Sunnyside Terminus option is currently estimated to cost \$113 million more than the recommended South of Town Center alignment/S.E. 84th Avenue (CTC) terminus option. As studies proceed on the issues mentioned above, the cost of both alignment options may change, as might the cost differential between the options. Given (i) the cost differences between the CTC options and (ii) the shared objectives between the South/North Project and an amended urban renewal plan (if one is adopted), the Steering Group recommends that Clackamas County consider the use of tax increment funds from the amended plan and/or other local funding sources for a portion of the light rail costs in this area.
6. *Future light rail alignment to Oregon City:* Pursuant to the Tier I decision, an effort parallel to the DEIS process will consider alternative ways to extend the South/North LRT to Oregon City in a Phase II project. Two basic alignment options will be considered: the McLoughlin Boulevard corridor from downtown Milwaukie and the I-205 corridor from the CTC vicinity. This study may result in refinements/ modifications to the light rail alignments, station locations and terminus sites/designs in the CTC vicinity which are incorporated in the EIS¹.
7. *Location of eastern-most park-and-ride with the "South of Clackamas Town Center" option:* The precise location of the alignment, station and park-and-ride lot just west of S.E. 82nd Avenue on/near S.E. Harmony Road needs to be refined over the next two months. Options to be considered include locations on both the north and south sides of S.E. Harmony Road.

3.1.3 Clackamas Town Center Vicinity: Rationale

Because, the "South of the Mall" design options are shorter, they are less expensive to build and operate and faster than the "North of the Mall" design options. However, the "North of the Mall" options may better serve land use objectives by assisting in the redevelopment of Southgate area, serving the existing multi-family residential areas to the north of the mall and (as discussed in the *Issues* section) the potentially rezoned lands just east of I-205.

The recommended design options in the Clackamas Town Center (CTC) segment are proposed to frame the fundamental issue in this segment: are the land use benefits of the "North of the Mall" and "east of I-205 terminus" options worth their greater costs and longer travel times? To best assess this issue in the DEIS, the best "North of the Mall" option should be compared against the best "South of the Mall" option.

The S.E. 84th Avenue (CTC) Terminus is the recommended "South of the Mall" option because:

- [a] It would be \$58 - \$182 million (\$YOE) less expensive than the other "South of the Mall" options.
- [b] It would be \$450,000 to \$1,200,000 per year less expensive to operate than the other "South of the Mall" options.
- [c] Its comparative ratio would be about 1.5 - 3.0 times better than the other "South of the Mall" options.
- [d] It would be capable of being extended to the east or the south at a future date, if so desired.

The Sunnyside Terminus is the recommended "North of the Mall" option because:

- [a] It would serve the major growth area along S.E. Sunnyside Road east of I-205, where the other options would not.
- [b] Its number of light rail boardings in the CTC segment would be 64% - 89% greater than the other "North of the Mall" options.
- [c] It would be \$106 million (\$YOE) less expensive to construct, \$180,000 per year less expensive to operate and faster to operate than the Highway 212/224 Terminus option.
- [d] It would be capable of being extended to the south at a future date, if so desired.

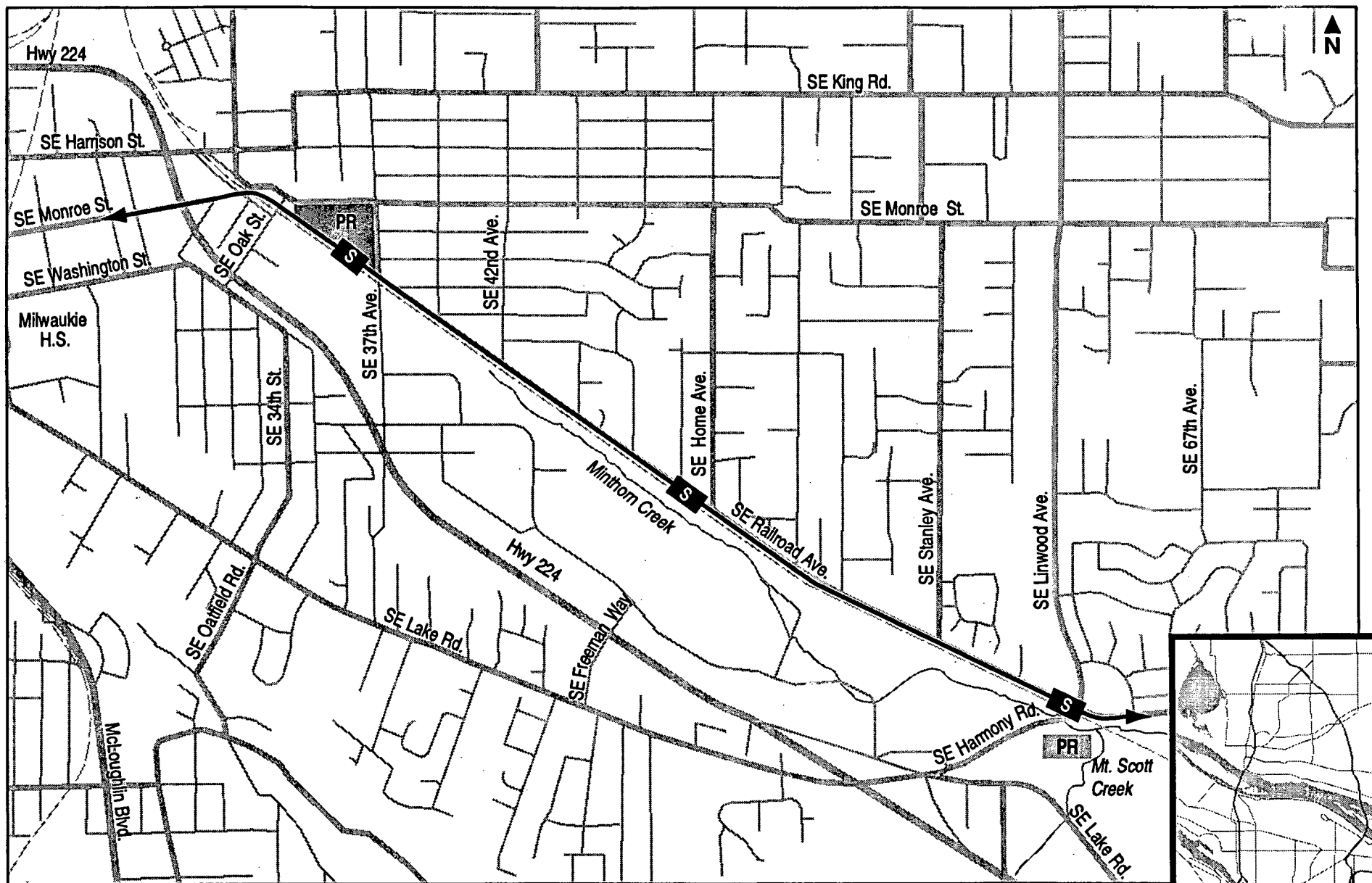
3.2 CTC TO MILWAUKIE

3.2.1 CTC to Milwaukie: Recommended Options (See Figure 3)

In this segment, one design option is recommended to be examined further in the DEIS:

1. *Railroad Avenue:* From the south side of S.E. Harmony Road, the light rail alignment would cross under S.E. Harmony Road east of its intersection with S.E. Linwood and S.E. Railroad Avenues. A potential park-and-ride station would be located at S.E. Harmony Road/S.E. Linwood Avenue. The alignment would proceed westward on the south side of S.E. Railroad Avenue in the public right-of-way adjacent to the Southern Pacific main line. Railroad Avenue would be reconstructed to accommodate the light rail alignment. A station could be located near S.E. Home Avenue to serve the residential area to the north and the industrial area to the south. The alignment would continue adjacent to the SP main line until crossing over the main line in the vicinity of S.E. Oak and S.E. Myrtle

Figure 3



**Light Rail Design Options:
Highway 224
Railroad Avenue**

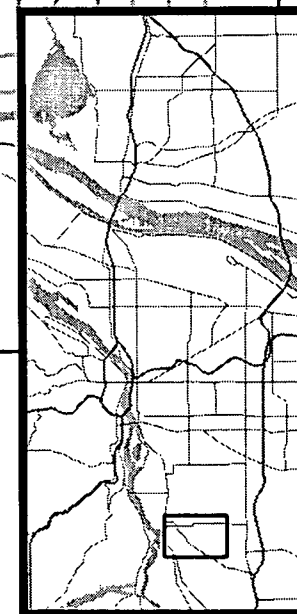
October 1995

- Light Rail Transit (LRT) Design Option
- Station
- Alternative LRT Alignment
- Existing Railroad

- Transit Center
- Park and Ride



Note: Alignment, station and park and ride locations are currently under study and may change.



Streets, just west of the Milwaukie Market Place. A station would serve the area and a potential park-and-ride lot. The structure would overpass Highway 224, landing on S.E. Monroe Street.

3.2.2 CTC to Milwaukie: Issues

Three issues require continued investigation in this area:

1. *Design of Railroad Avenue Collector:* The initial design of the Railroad Avenue option required substantial residential displacement and, as a result, relatively high capital cost due to the relocation and reconstruction of Railroad Avenue. A modified option providing for a Railroad Avenue reconstructed as a "collector" is now proposed. This modification would reduce the possible displacement impacts and capital costs of the option. As the EIS is prepared, project staff will investigate the possibility of using Southern Pacific right-of-way as a method to further reduce possible displacements and costs.
2. *Access to industrial area:* Railroad Avenue parallels the north side of major employment centers along Highway 224. Special consideration will be given to the alignment, station locations and access ways in this segment to ensure that light rail is accessible is to these centers.
3. *Location and design of station in the vicinity of S.E. Railroad Avenue and S.E. Oak Street:* The design and location of the Milwaukie Market Place station will be refined over the next two months to improve its auto access, neighborhood access and cost.

3.2.3 CTC to Milwaukie: Rationale

The S.E. Railroad Avenue option is recommended option in the CTC to Milwaukie segment for inclusion in the DEIS because:

- [a] It would be \$8 to \$23 million (\$YOE) less expensive to construct than the Highway 224 options.
- [b] It would be slightly faster (8 - 19 seconds) to operate and would attract slightly more light rail boardings (30 - 60 per day) in the CTC to Milwaukie segment than the Highway 224 options.
- [c] Its comparative ratio would be 13% to 32% better than the Highway 224 options.
- [d] It would allow for a park-and-ride facility east of the Milwaukie CBD (in the vicinity of S.E. Railroad Avenue and S.E. Oak Street) which would serve the travel shed for the residential area north of S.E. Railroad Avenue. The station also would provide walk-on access to portions of the residential area north of S.E. Railroad Avenue.

3.3 MILWAUKIE

3.3.1 Milwaukie: Recommended Options (See Figure 4)

In this segment, two design options are recommended to be examined in the DEIS:

1. *S.E. Monroe Street to East of the Southern Pacific Tillamook Branch Line:* From the Highway 224 overcrossing, the alignment would proceed westerly on S.E. Monroe Street. S.E. Monroe Street would be configured to operate two tracks of light rail and one westbound traffic lane between S.E. 25th and S.E. 9th Streets.

The alignment would curve northerly in the vicinity of S.E. 25th Street to a transit center just east of the S.P. branch line between S.E. Monroe and S.E. Harrison Streets. The alignment would then proceed adjacent to the east side of the S.P. Branch line, through an existing underpass of Highway 224 and on structure over to the westside of the branch line, to a potential park-and-ride station at S.E. Ochoco Street. The alignment would then continue northerly along the branch line to about S.E. Umatilla Street where it would veer towards S.E. McLoughlin Boulevard as it continues northerly.

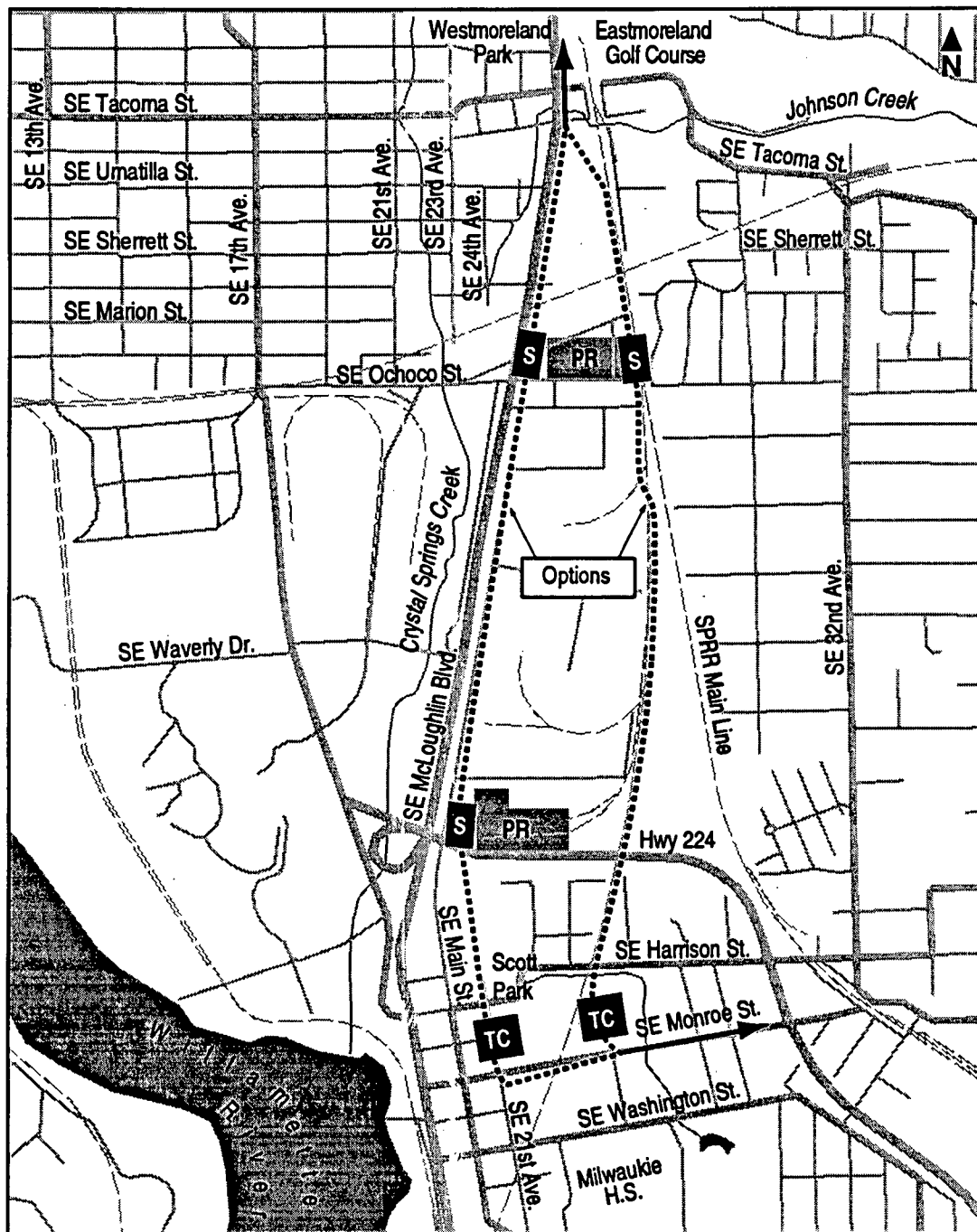
2. *S.E. Monroe to S.E. 21st Avenue/S.E. McLoughlin Boulevard:* From the overcrossing of Highway 224, the alignment would proceed westerly on S.E. Monroe Street. S.E. Monroe Street would be configured to operate two tracks of light rail and one westbound traffic lane between S.E. 25th and S.E. 9th Avenues.

The alignment would pass under the SP branch line and proceed to a transit center at S.E. 21st Avenue. The alignment would then proceed northward to McLoughlin Boulevard, crossing underneath Highway 224 where there could be a park-and-ride station. It would then continue northerly paralleling McLoughlin Boulevard to a park-and-ride station at S.E. Ochoco Street and then continue north.

3.3.2 Milwaukie: Issues

Six issues require continued investigation in this area:

1. *Changes in Comprehensive Plan:* The central Milwaukie area is proposed to be a Regional Center in the Region 2040 Plan. The success of the South/North Project depends, in part, on the integration of the LRT alignment with an on-the-ground transit-supportive land use pattern and related (re)development site plans in Central Milwaukie. As a result, the planning currently underway regarding the Regional Center concept and transportation system plan in Milwaukie may result in changes to the recommended alignment and design options.



Light Rail Design Options: Milwaukie Monroe Street

October 1995

Note: Alignment, station and park and ride locations are currently under study and may change.

- Light Rail Transit (LRT) Design Option
- Station
- Alternative LRT Alignment
- Existing Railroad
- Transit Center
- Park and Ride



Figure 4

2. *Design and location of Milwaukie Transit Center options:* Notwithstanding land use changes resulting from the Regional Center designation, the design and location of the Milwaukie Transit Center for both the S.E. Monroe Street to East of the Southern Pacific Tillamook Branch Line option and the S.E. Monroe to S.E. 21st Avenue option need to be refined over the next two months to maximize local access and to mitigate displacement and traffic impacts.
3. *Extension to Oregon City:* Pursuant to the Tier I decision, an effort parallel to the DEIS process will consider alternative ways to extend the South/North LRT to Oregon City in a Phase II project. One of the options to be considered would use the McLoughlin Boulevard corridor from downtown Milwaukie. This study may result in refinements/modifications to the light rail alignments, station locations and station sites/designs in central Milwaukie which are incorporated in the EIS¹.
4. *Need to consider land use integration in selecting the preferred alignment through central Milwaukie:* The central Milwaukie alignment is predicated on its integration with a Regional Center plan for the area. If such a plan is not agreed-upon prior to the completion of the DEIS or not likely to be realized in the foreseeable future, less expensive alignment options will be considered for inclusion in the EIS¹ in lieu of or addition to the currently recommended alignments.
5. *Park-and-ride lot location north of Milwaukie:* A special study of park-and-ride lot locations and capacity will be undertaken for the north Milwaukie area between Highway 224 and S.E. Tacoma Street. The study will identify potential park-and-ride sites which meet the anticipated demand and will use DEIS-level data to select site(s) for inclusion in the EIS¹. This study will be coordinated with the study proposed under issue 6.
6. *Maintenance facility location north of Milwaukie:* A special study of maintenance facility locations and designs will be undertaken for the north Milwaukie area. The study will identify potential maintenance facility sites and designs which meet the anticipated South/North LRT needs and will use DEIS-level data to select site(s)/design(s) for inclusion in the EIS¹.

3.3.3 Milwaukie: Rationale

One of the fundamental objectives of the South/North LRT Project is to serve the central Milwaukie business district. Two of the options examined in this segment, the SP Main Line option and the Milwaukie Expressway option, would bypass the Milwaukie central business district. As a result, these options fundamentally fail to meet a primary objective of the project and, therefore, are recommended to be eliminated from further consideration.

Each of the three remaining "east-west" alignment options (S.E. Harrison Street, S.E. Washington Street and S.E. Monroe Street) has two "north-south" sub-options (the East of the SP Branch

Line option and the S.E. 21st/Main Street/McLoughlin Boulevard option). For each of the "east-west" alignment options, the following relationship holds for the "north-south" sub-option:

- [a] The SP Branch Line option would be shorter, less expensive to build and operate and faster than the S.E. 21st Street/McLoughlin Boulevard option.
- [b] The S.E. 21st/Main Street/McLoughlin Boulevard option may better serve City of Milwaukie land use objectives by assisting in the redevelopment of the central business district.

As a result, irrespective of which "east-west" option(s) are recommended in the Milwaukie segment, a fundamental issue in this segment is: are the land use benefits of the S.E. 21st/Main Street/McLoughlin Boulevard sub-option worth its greater costs and longer travel times? To best assess this issue, it is recommended that the DEIS examine both "north-south" sub-options for whichever "east-west" sub-option(s) are proposed.

Regarding the "east-west" sub-options in the Milwaukie segment, the S.E. Monroe Street option is recommended for inclusion in the DEIS because:

- [a] It would provide better access and wider coverage to the central business district than the S.E. Harrison Street option.
- [b] It would be \$22 - \$28 million (\$YOE) less expensive to construct than the S.E. Washington Street option (depending on the north-south sub-option selected) and \$4 million (\$YOE) less expensive to construct than the S.E. Harrison Street - S.E. Main Street/McLoughlin Boulevard option (the SP Main Line sub-option would be \$14 million (\$YOE) less expensive with the S.E. Harrison Street option).
- [c] It would be \$360,000 per year less expensive to operate than the McLoughlin Boulevard/21st Avenue and S.E. Washington Street option (depending on the north-south sub-option selected) and \$650,000 - \$710,000 per year less expensive to operate than the S.E. Harrison Street options.
- [d] It would be 70 - 88 seconds faster (depending on the north-south sub-option), attract 170-190 more boardings per day and exhibit a 17-20% better comparative ratio than the S.E. Washington Street option.
- [e] It has greater community support than the other options.

3.4 MILWAUKIE TO PORTLAND CBD

3.4.1 Milwaukie to Portland CBD: Recommended Options (See Figures 5 & 6)

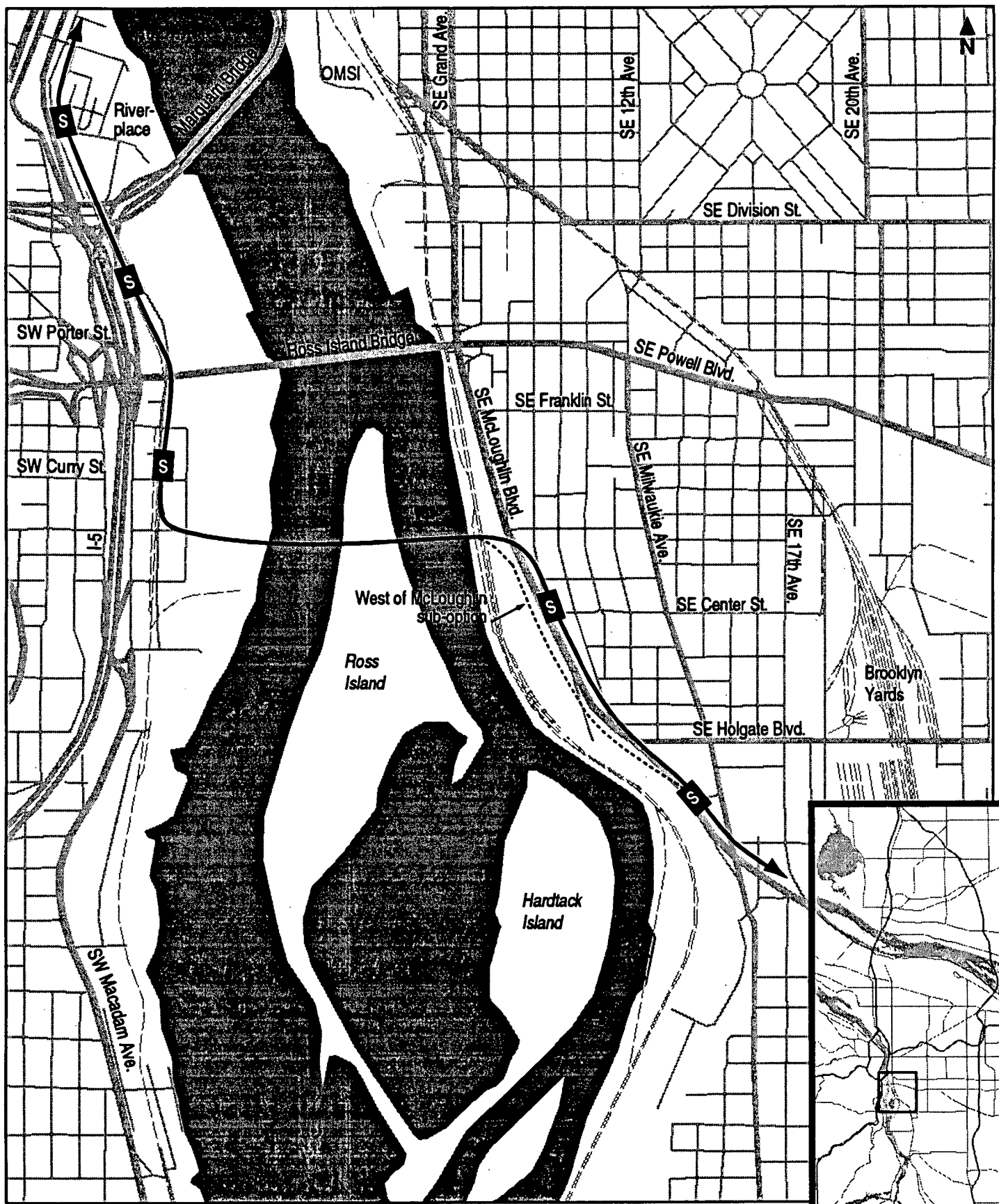
The South/North Project Steering Group determined during the Tier I decision process that both East side/Caruthers Crossing option(s) and Ross Island Crossing option(s) will be carried forward into the DEIS. Thus, the issue at hand is to determine the best East side/Caruthers Crossing option and the best Ross Island Crossing option. Based on the Steering Groups direction, two design options are recommended to be examined in the DEIS in this segment:

1. *West Brooklyn Yards to Caruthers Modified River Crossing:* From the park-and-ride station at S.E. Ochoco Street, the light rail would proceed parallel to McLoughlin Boulevard (between the existing trees and the S.P. railroad) to a potential station at S.E. Bybee Boulevard. The alignment would continue along S.E. McLoughlin to the vicinity of S.E. Harold Street where it would turn and follow the western boundary of the Brooklyn Yards. A station may be located near S.E. Holgate Boulevard. From there the alignment would continue to follow the west side of the Yards to a potential station in the vicinity of S.E. Rhine/Lafayette Street with pedestrian access across the Brooklyn Yards to the East Brooklyn neighborhood.

The alignment would continue north, crossing S.E. Powell Boulevard on an elevated structure. The alignment would parallel the existing railroad tracks, passing over S.E. 11th/12th Avenues, where there would be a potential station. From there, it would continue parallel to the existing railroad tracks to a potential elevated station just south of OMSI.

From the OMSI station, the Caruthers Modified River Crossing would leave the east bank of the Willamette River in the vicinity of Water Avenue and continue on structure to the west side of S.W. Moody Avenue. The alignment would weave between columns supporting the Marquam Bridge towards a station at Riverplace.

2. *North Ross Island River Crossing:* From the park-and-ride station at S.E. Ochoco Street, the light rail alignment would proceed parallel to McLoughlin Boulevard (between the trees and the railroad right-of-way) to potential stations at S.E. Bybee Boulevard, the vicinity of S.E. 16th and S.E. Milwaukie Avenues and S.E. Center Street and McLoughlin Boulevard. From the Center Street station, the alignment would continue north along S.E. McLoughlin a short distance to S.E. Bush Street, cross under S.E. McLoughlin Boulevard and cross the Willamette River on structure in the vicinity of the northern tip of Ross Island. The light rail bridge would land on the west side of S.W. Moody Avenue with a potential station in the vicinity of S.W. Curry Street. The alignment would then follow the west side of S.W. Moody Avenue to a S.W. Porter Street station and then proceed towards a station at Riverplace.



**South
North**
Transit Corridor Study

Light Rail Design Options: **South Willamette River Crossing**

North Ross Island

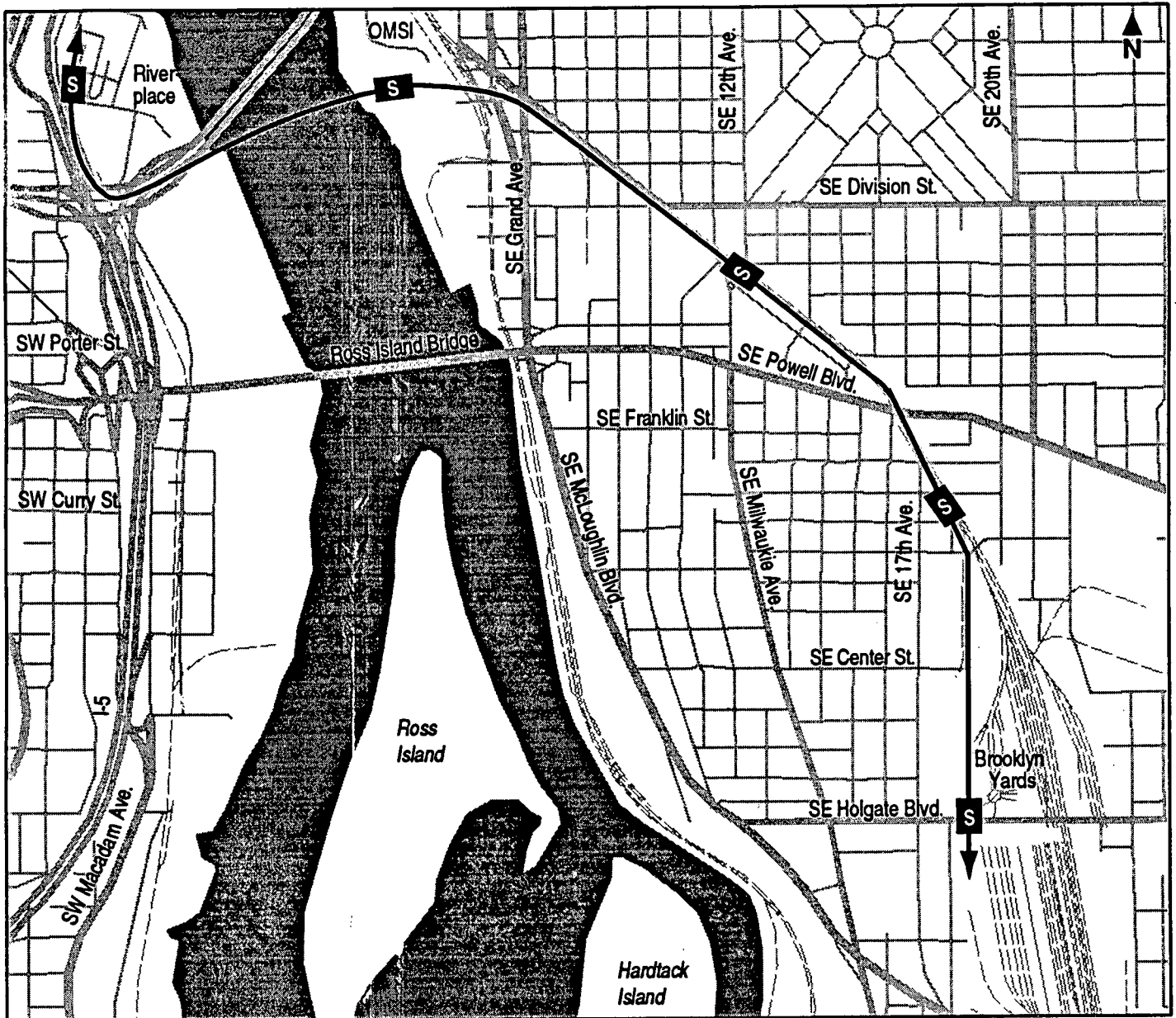
Figure 5

- Light Rail Transit (LRT) Design Option
- Station
- Alternative LRT Alignment
- Existing Railroad

- Transit Center
- Park and Ride



Note: Alignment, station and park and ride locations are currently under study and may change.







South North
Transit Corridor Study

Light Rail Design Options:

South Willamette River Crossing

Caruthers Modified -
West Brooklyn Yards

October 1995

-  Light Rail Transit (LRT) Design Option
-  Station
-  Alternative LRT Alignment
-  Existing Railroad

-  Transit Center
-  Park and Ride



Note: Alignment, station and park and ride locations are currently under study and may change.



Figure 6

3.4.2 Milwaukie to Portland CBD: Issues

Three issues require continued investigation in this segment:

1. *Actual location of the North Ross Island Crossing:* While drawings to date have shown the North Ross Island Crossing option to follow S.W. Gaines Street in the North Macadam area, it is possible that it might be located within a narrow band south of that location. Project staff will work with interested parties to determine an appropriate location to include in the DEIS.
2. *Alternate North Ross Island alignment (West of McLoughlin Boulevard Sub-Option):* A variation on the North Ross Island options would have the light rail alignment proceed north of a potential station at S.E. Holgate Boulevard on the west side of S.E. McLoughlin Boulevard to about S.E. Rhone Street where the light rail alignment would begin to elevate and curve to the west. The North Ross Island bridge would be in the same general vicinity as described above. This sub-option would have additional expense and lower ridership, but could also have less potential residential property displacement in the Brooklyn neighborhood. The West of McLoughlin sub-option will be further developed in parallel to the EIS process.
3. *Choice between the North Ross Island crossing alternative and the West Brooklyn Yards/Caruthers crossing alternative:* This choice will be one of the major issues to be resolved during the DEIS process. An important basis for making this determination will focus on the progress that has been made along both options to plan and develop transit-oriented land uses. Issues of density, timing and certainty of development, parking, integration of light rail with major attractors and similar factors will be taken into consideration.

3.4.3 Milwaukie to Portland CBD: Rationale

The West Brooklyn Yards to Modified Caruthers Bridge option is recommended for inclusion in the DEIS because:

- [a] In comparison to the PTC/McLoughlin Boulevard option, the Brooklyn Yard options would provide significantly better transit access and service to the inner east side neighborhoods, offer five minute walk access to 4,100 - 4,600 more employees (in the year 2015), attract 1,400 - 1,600 more light rail boardings in this segment and exhibit 42% - 57% better comparative ratios.
- [b] The West Brooklyn Yard option would be \$42 million (\$YOE) less expensive to construct, impact less commercial and residential buildings, and exhibit a 10% better comparative ratio than the East Brooklyn Yard option.

- [c] The Caruthers Modified option would cost \$18 million (\$YOE) less to construct, \$370,000 per year less to operate and would be over 1 minute faster than the Caruthers "S" option.
- [d] While estimated to cost \$8 - \$9 million (\$YOE) more to construct than the Caruthers and Caruthers/Marquam options, the Caruthers Modified option would have the least negative impacts on the redevelopment property south of the Marquam Bridge and avoids significant adverse impacts on PDC's two remaining parcels in Riverplace and privately-owned properties south of the Marquam Bridge.

The North Ross Island option is recommended for inclusion in the DEIS because:

- [a] The North Ross Island option would provide the best combination of (re)development potential, ridership and cost of the Ross Island crossing options. This is exhibited by the North Ross Island option having the lowest (best) comparative ratio.
- [b] The South Parallel Ross Island option could have an adverse visual impact on the Ross Island Bridge which is eligible for the National Register of Historic Places. As such, there could be Section 106 (historical resources) problems with the South Parallel Ross Island option.
- [c] The South Parallel Ross Island option would not provide a station in the North Macadam District, the station would have to be north of the existing Ross Island Bridge. In addition, it would attract less 1,800 - 2,000 daily LRT segment boardings, impact 28 - 45 more residential units and exhibit a 31% poorer comparative ratio than the other Ross Island Crossing options.
- [d] The Mid Ross Island Crossing option would cost \$54 million (\$YOE) more to construct than the North Ross Island Crossing option. In addition, the construction of the Mid-Ross Island Crossing option raises a higher risk of negatively impacting the Great Blue Heron rookery buffer area on Ross Island. The North Ross Island crossing would potentially have less impact on the Willamette River ecosystem due to fewer piers in the river as compared to the South Parallel option.
- [e] There is generally stronger community support for the North Ross Island Crossing than for the other Ross Island crossing options.

3.5 PORTLAND CBD

3.5.1 Portland CBD: Recommended Options

The Portland CBD alignment and station locations to be carried forward into the DEIS are recommended under separate cover.

3.6 STEEL BRIDGE TO KAISER MEDICAL FACILITY VICINITY

3.6.1 Steel Bridge to Kaiser Medical Facility Vicinity: Recommended Options (See Figures 7& 8)

In this segment, two design options are recommended to be examined in the DEIS:

1. *East I-5/N. Kerby Avenue:* The alignment would proceed eastward from a slightly relocated Rose Garden transit station, run underneath the I-5 freeway and turn north along the eastern edge of I-5. It would then run along the edge of I-5 to a transit station serving the N.E. Broadway area and adjacent Eliot neighborhood. The alignment would continue along the east edge of I-5, behind the Harriet Tubman Middle School, crossing N. Russell Street on structure, to a station on N. Kerby Avenue between N. Graham and N. Stanton Streets at Emanuel Hospital. The alignment would curve westward, passing over I-5 on structure to a location just west of the freeway and then proceed northerly to the Edgar Kaiser clinic.
2. *N. Wheeler Avenue/N. Russell Street:* The alignment would pass along the eastern edge of the Rose Garden Arena with a potential station north of the arena near N. Weidler. It would cross N. Broadway and N. Weidler at street level and proceed north along the east side of N. Flint Avenue. The alignment would turn westerly at N. Russell Street with a potential station on Russell Street at the south end of the Emanuel Hospital campus. It would elevate on a structure and pass over N. Kerby Avenue, Stanton Yard and N. Mississippi Avenue. The alignment would then curve westward, passing over I-5 on structure to a location just west of the freeway and then proceed north to the Edgar Kaiser clinic.

3.6.2 Steel Bridge to Kaiser Medical Facility: Issues

Three issues require continued investigation in this area:

1. *Design of the N.E. Broadway Station with the East I-5 option:* Initial designs for this station were below-grade (and may not provide a pleasant environment for users or good pedestrian connections between Broadway and the Rose Quarter). Project staff will investigate refined designs which mitigate these concerns.
2. *Design and location of stations on the N. Wheeler Avenue/N. Russell Street:* the station locations along this alignment should be refined during the next two months to ensure that access into the Eliot neighborhood and Emanuel Hospital is maximized.
3. *Mitigate operational issues associated with the N. Wheeler/N. Russell and East I-5 options:* The N. Wheeler Avenue/N. Russell Street and East I-5 options could present difficult operational problems and conflicts between light rail, auto traffic and/or

Light Rail Design Options: Steel Bridge to Kaiser

East I-5 / Kerby

September 1995

Note: Alignment, station and park and ride locations are currently under study and may change.

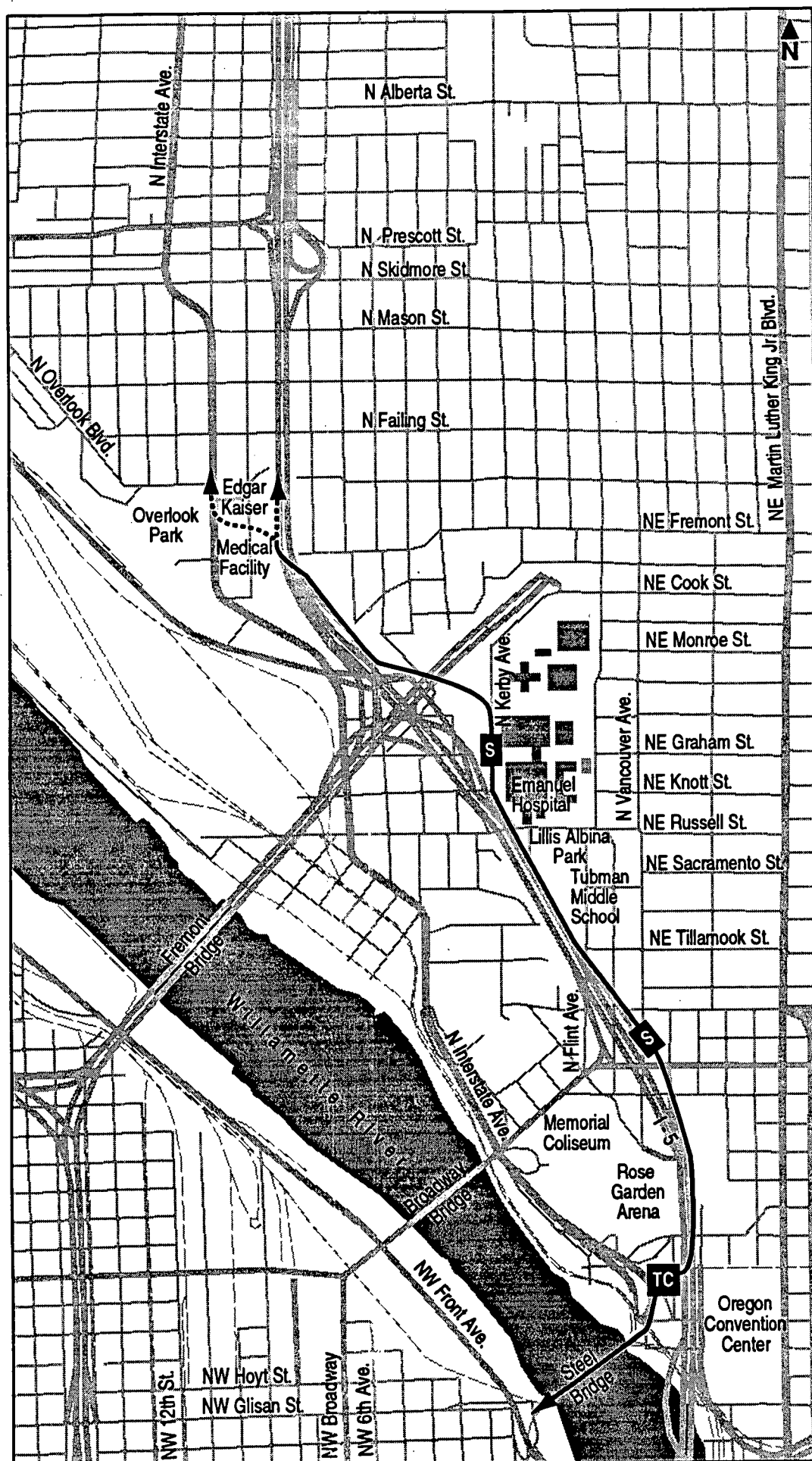
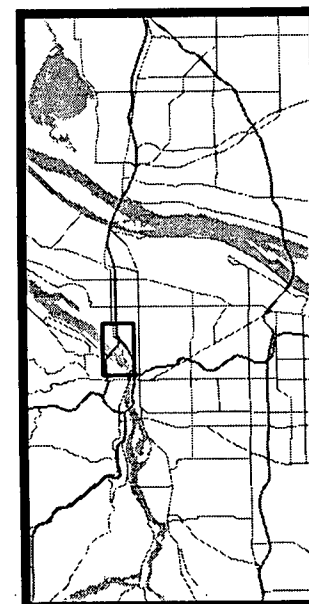
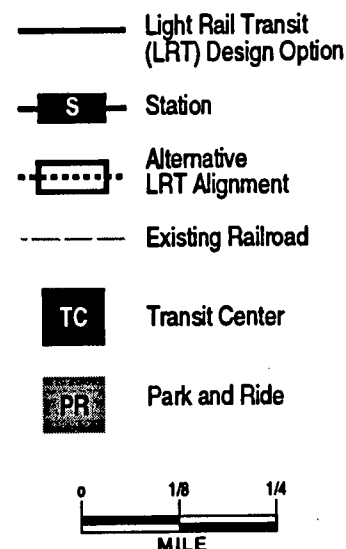


Figure 7

Light Rail Design Options: Steel Bridge to Kaiser

Wheeler / Russell

September 1995

Note: Alignment, station and park and ride locations are currently under study and may change.

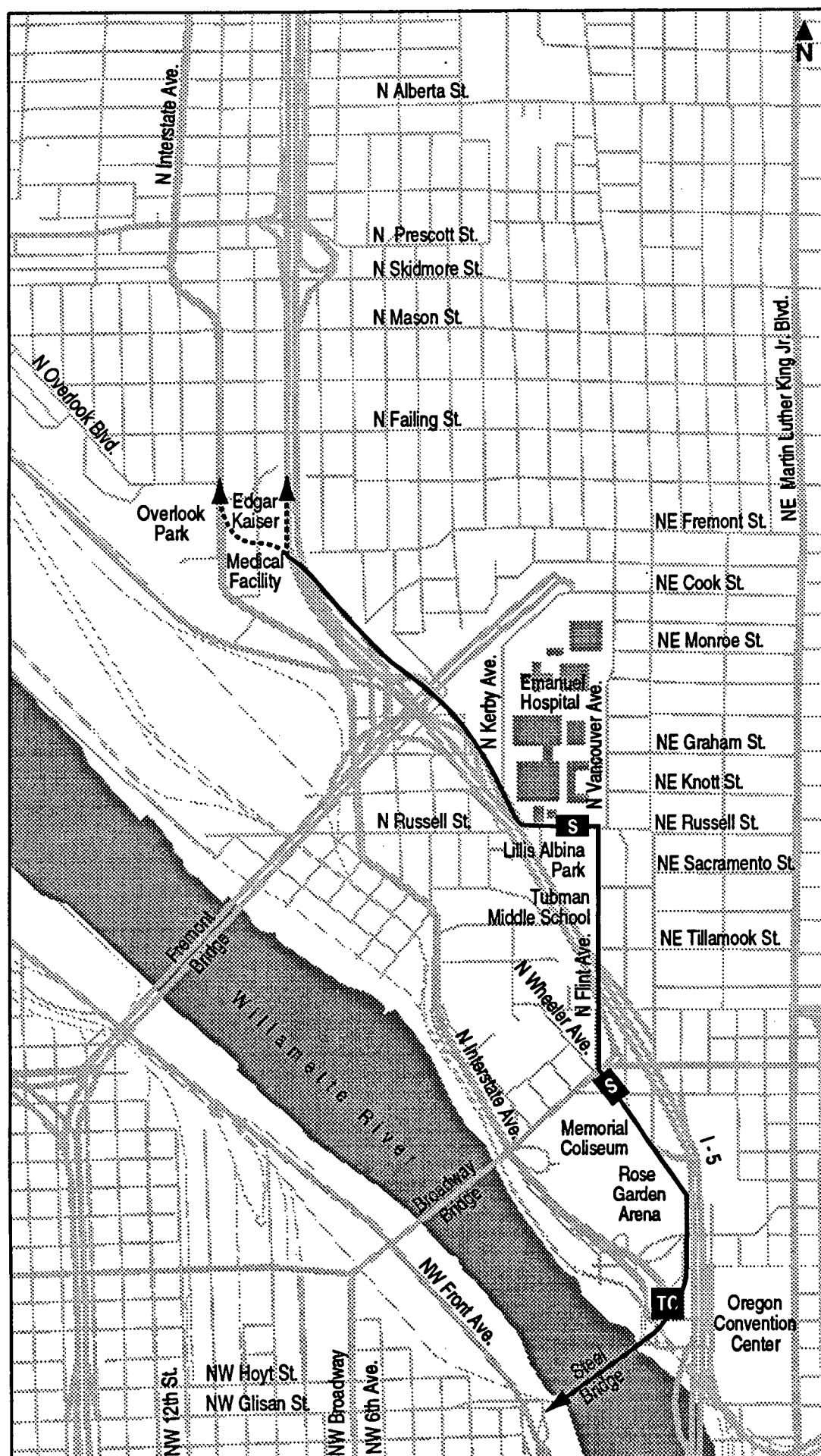
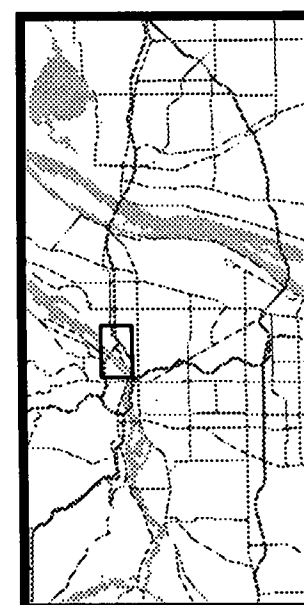
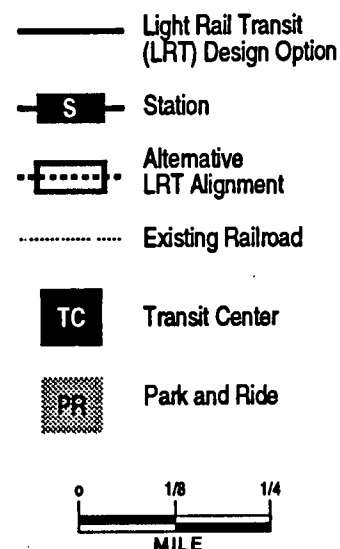


Figure 8

pedestrians. Methods to mitigate these potential problems will be analyzed prior to and during the DEIS process.

4. *In the Broadway/Weidler Interchange Area:* Alignment options for light rail should be incorporated into an integrated design with I-5 and street system improvements in order to improve circulation for automobiles, pedestrian and bicycles and which would optimize bus and LRT operations.

3.6.3 Steel Bridge to Kaiser Medical Facility: Rationale

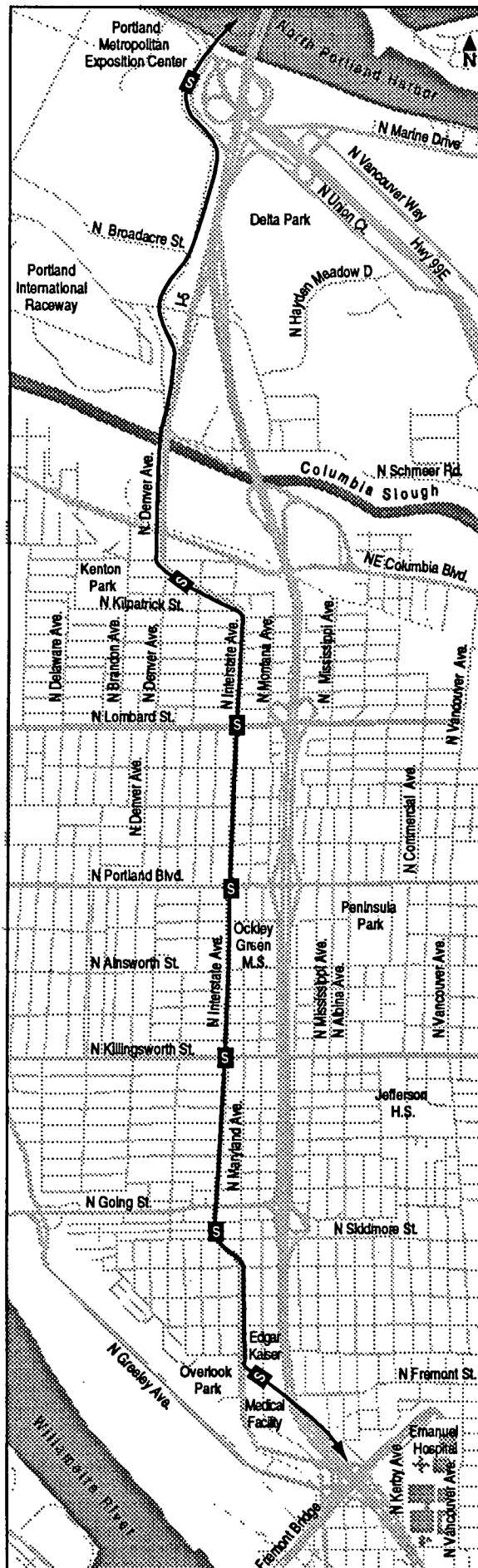
The East I-5/N. Kerby Avenue and N. Wheeler Avenue/N. Russell Street options are recommended for inclusion in the DEIS because:

- [a] The East I-5/N. Kerby Avenue provides the best combination of cost, ridership, travel time and light rail access as evidenced by having the lowest (best) comparative ratio. It would provide stations which would serve both the Eliot neighborhood and the Emanuel Hospital campus. In addition, it would attract the highest light rail boardings in this segment amongst all of the alignment options.
- [b] The N. Wheeler/N. Russell Street option may provide the best access to the Eliot neighborhood and the best redevelopment opportunities amongst all options in this segment. It also provides more flexibility in the station placement within the Eliot neighborhood than would the N. Wheeler/N. Flint option.
- [c] The West I-5 option, while would serve the industrial sanctuary between I-5 and the Willamette River, is not recommended for further study because it would not adequately serve the Eliot neighborhood or Emanuel Hospital which are the priority areas to be served. Light rail users wishing to access Emanuel Hospital or the Eliot neighborhood from the N. Graham Street station would have to walk-up an eighty foot elevation change. Moreover, by servicing the industrial sanctuary, the West I-5 option may create non-industrial redevelopment pressures which contradict City objectives for this area.

3.7 KAISER MEDICAL FACILITY TO EXPO CENTER

3.7.1 Kaiser Medical Facility to Expo Center: Recommended Options (See Figures 9 & 10)

The South/North Steering Group determined that an Interstate Avenue and an I-5 alignment alternative would be advanced into the DEIS for further study and that various design options and crossover combinations of the alignment alternatives would be developed, evaluated and narrowed within the Design Option Narrowing Process.



Light Rail Design Options: Kaiser to Expo Center

Interstate Ave. Alignment - West of Denver

October 1995

Note: Alignment, station and park and ride locations are currently under study and may change.

- Light Rail Transit (LRT) Design Option
- S — Station
- Alternative LRT Alignment
- Existing Railroad
- TC Transit Center
- PR Park and Ride

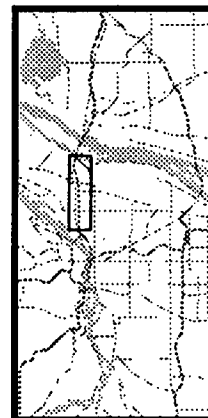
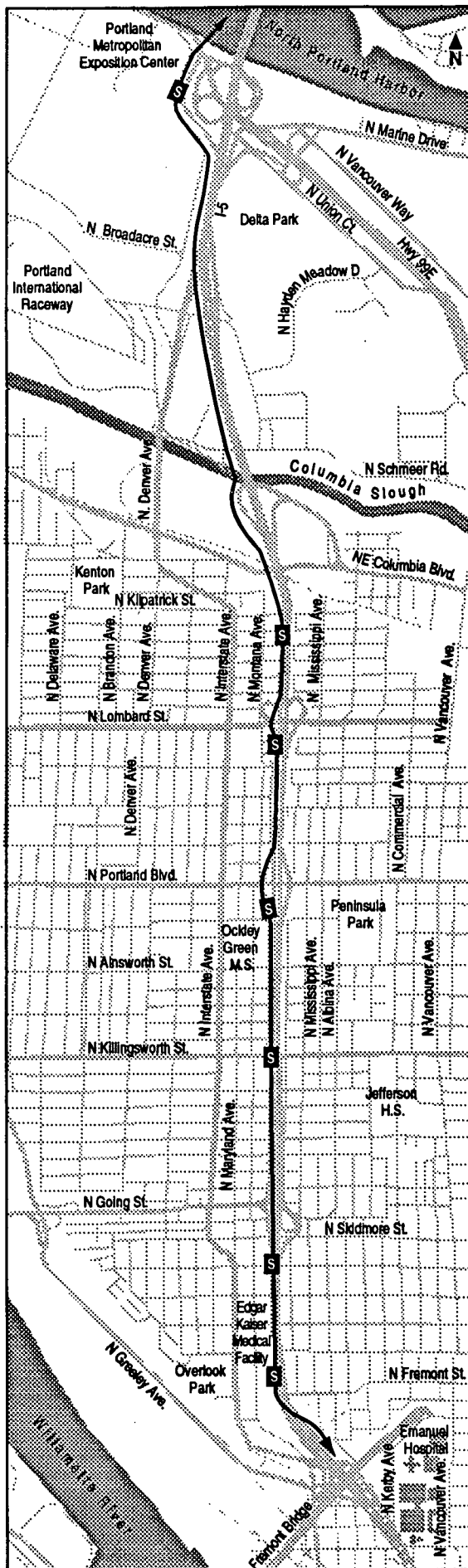


Figure 9



Light Rail Design Options: Kaiser to Expo Center

I-5 Alignment

October 1995

Note: Alignment, station and park and ride locations are currently under study and may change.

- Light Rail Transit (LRT) Design Option
- Station
- Alternative LRT Alignment
- Existing Railroad
- Transit Center
- Park and Ride

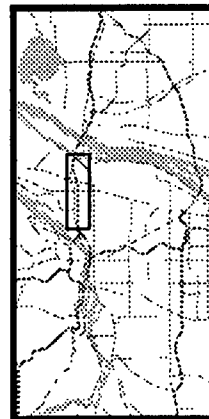


Figure 10

One design option for each alignment alternative is recommended for further study within the DEIS:

1. *All I-5 Alignment:* From Emanuel Hospital, the light rail alignment would pass beneath the I-405 ramps and climb-up along the eastern edge of I-5. From the potential station at the Kaiser clinic, the light rail alignment would proceed north along the top of the western bank of the I-5 freeway to a station south of N. Skidmore Street.

It would then continue north, passing beneath N. Going Street in a box structure, then running above the freeway along N. Minnesota Avenue (west of the freeway ramps) from N. Going Street to a potential station at N. Killingsworth Street. It would then proceed along the top of the freeway bank and then curve west along the freeway ramps to a potential station on the south side of N. Portland Boulevard. The alignment would cross N. Portland Boulevard at street level and continue north along the west bank of the freeway to a potential station on the south side of N. Lombard Street. It would then pass over N. Lombard and the adjacent freeway ramps on a structure and proceed northerly to a potential Kenton station at N. Kilpatrick Street.

From the Kenton station, the alignment would proceed northerly along the west side of the I-5 freeway. It would cross over N. Columbia Boulevard and the Columbia Slough on a bridge, and then lower to ground level. It would then pass Delta Park and begin to elevate for about 1/2 mile and crossover Highway 99 adjacent to Expo Road. An elevated potential station would be located near the Expo Center parking lot.

2. *All Interstate Avenue and West of Denver Avenue Alignment:* From Emanuel Hospital, the light rail alignment would pass beneath the I-405 ramps and climb-up along the eastern edge of I-5. It would crossover I-5 on a structure near N. Fremont Street and then proceed across the Kaiser campus with a diagonal street level station near the existing Town Hall building.

The alignment would then turn onto N. Interstate Avenue near N. Overlook Boulevard. From there, the alignment would proceed northerly in the center of N. Interstate Avenue. One lane of auto traffic in each direction would be provided except at the approaches to N. Going Street and N. Lombard Street where two lanes of traffic in each direction would be provided. All intersections would be crossed at street level. Potential stations would be located at N. Skidmore Street, N. Killingsworth Street, N. Portland Boulevard, N. Lombard Street and the Kenton commercial district.

From the Kenton station, the alignment would follow the west side of N. Denver Avenue viaduct (the "West of Denver" option). It would proceed northerly across N. Columbia Boulevard and the Columbia Slough on a bridge, pass West Delta Park and follow Expo Road to an elevated potential station near the Expo Center parking lot.

3.7.2 Kaiser Medical Facility to Expo Center: Issues

Four issues require continued investigation in this area:

1. *Design of Interstate Avenue option for auto traffic:* The configuration and operation of the traffic lanes on and intersecting Interstate Avenue (in the Interstate Avenue option) will be refined during the next two months.
2. *Choice between the I-5 option and the Interstate Avenue option:* This choice will be one of the major issues to be resolved during the DEIS process. An important basis for making this determination will focus on the ability to plan and develop transit-oriented land uses around stations. Issues of density, timing and certainty of development, parking, integration of light rail with major attractors, equity, capital cost, light rail travel speed/time, reliability, ridership, neighborhood cohesiveness and similar factors will be taken into consideration when evaluating these two options.
3. *Design and location of stations in the Kaiser Medical Facility to Expo Center segment:* The station locations along this segment will be refined during the next two months to ensure that access into the neighborhood is maximized and feeder bus service is efficiently provided.
4. *Crossovers:* The desirability and preferred location for a crossover between the I-5 alignment and the Interstate Avenue alignment has not been determined as part of the Tier I process. At this time, it is recommended that no crossover option be proposed for inclusion in the DEIS. In making this recommendation, the PMG proposes that the DEIS focus on the key issue in this segment -- the relative merits and impacts of the Interstate Avenue and I-5 alignment options. The project will evaluate crossover issues and opportunities if results from the DEIS analysis and station area and economic development studies indicate that development of a crossover option is warranted.
5. *Expo Center and Portland International Raceway Stations:* Through the information developed for the DEIS, an assessment will be made as to the cost-effectiveness of the Expo Center Station. If that analysis concludes that an Expo Center station is not warranted, the alignment over Marine Drive may be redesigned. In addition, a possible future station serving the Portland International Raceway may be included within the design if future analysis indicates that it would be warranted.

3.7.3 Kaiser Medical Facility to Expo Center: Rationale

The Interstate Avenue option would provide a light rail alignment that is more centrally located in North Portland neighborhoods than the I-5 option and may enhance certain land use opportunities. Conversely, the I-5 option would cost less to construct, would provide faster travel speeds to more users, provide better access to neighborhoods east of I-5 and may not be subject to the operational and traffic problems inherent in the Interstate Avenue option. These are

key trade-offs for which information is not yet available to forge a consensus decision. Thus, it is essential that both options be further examined in the DEIS.

3.8 EXPO CENTER TO V.A. HOSPITAL/CLARK COLLEGE VICINITY

3.8.1 Expo Center to V.A. Hospital/Clark College Vicinity: Recommended Options (See Figures 11, 12 & 13)

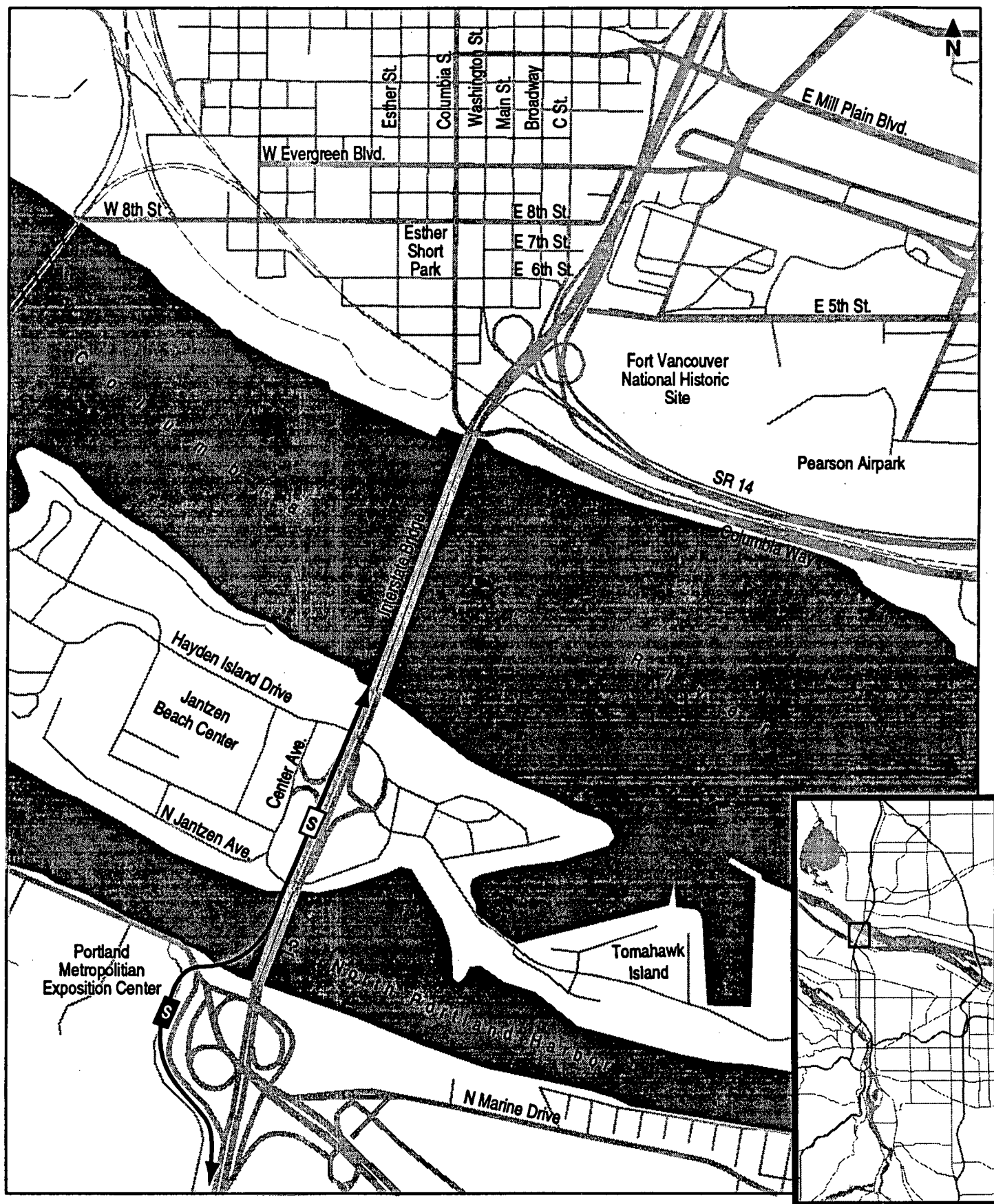
In this segment, one design option is recommended to be examined in the DEIS:

1. *West of I-5/Lift Span Bridge/Washington Street (2-way)/E. McLoughlin Boulevard:* From the Expo Center, the alignment would proceed north over N. Marine Drive, North Portland Harbor and N. Jantzen Avenue on a bridge structure. The alignment would pass under the I-5 ramps (Sub-option B: Under the I-5 Ramps), then continue northerly along the westside of the freeway to a new lift span bridge crossing the Columbia River. The light rail bridge would parallel the westside of the existing I-5 bridge and would be approximately the same height above the river. The bridge would pass over Columbia Way in Vancouver and then would cross under the railroad berm before connecting with Washington Street. Washington Street would operate in a two-way light rail configuration (2-Way on Washington Option). The light rail alignment would proceed northerly on Washington Street to stations at W. 7th Street, between W. 11th and W. 12th Streets and between W. 16th and W. 17th Streets. At McLoughlin Boulevard, the alignment would curve easterly, proceeding along E. McLoughlin Boulevard to the east side of I-5. A station would be potentially located on E. McLoughlin Boulevard between "D" and "E" Streets. The alignment would cross under I-5 and then turn northerly and proceed along the east side of I-5 to a park-and-ride station in the vicinity of the Veterans Hospital. The alignment would then turn easterly, proceeding to the terminus station west of Fort Vancouver Way.

3.8.2 Expo Center to V.A. Hospital/Clark College Vicinity: Issues




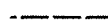
Two issues require continued investigation in this area:

1. *Jantzen Beach Station:* While the alignment would allow for a light rail station in the vicinity of Jantzen Beach, the issue of whether such a station would be part of the initial construction project and, if so, where the station would be located will be assessed during the DEIS process.
2. *Clark County Transportation Futures Process:* The outcome of Clark County's "Transportation Futures" study may necessitate changes to the light rail alignment, station locations, park-and-ride facility design(s) and location(s) and terminus in this segment.



**Light Rail Design Options:
Expo Center to
Hayden Island
West of I-5 (under ramps)**

Figure 11

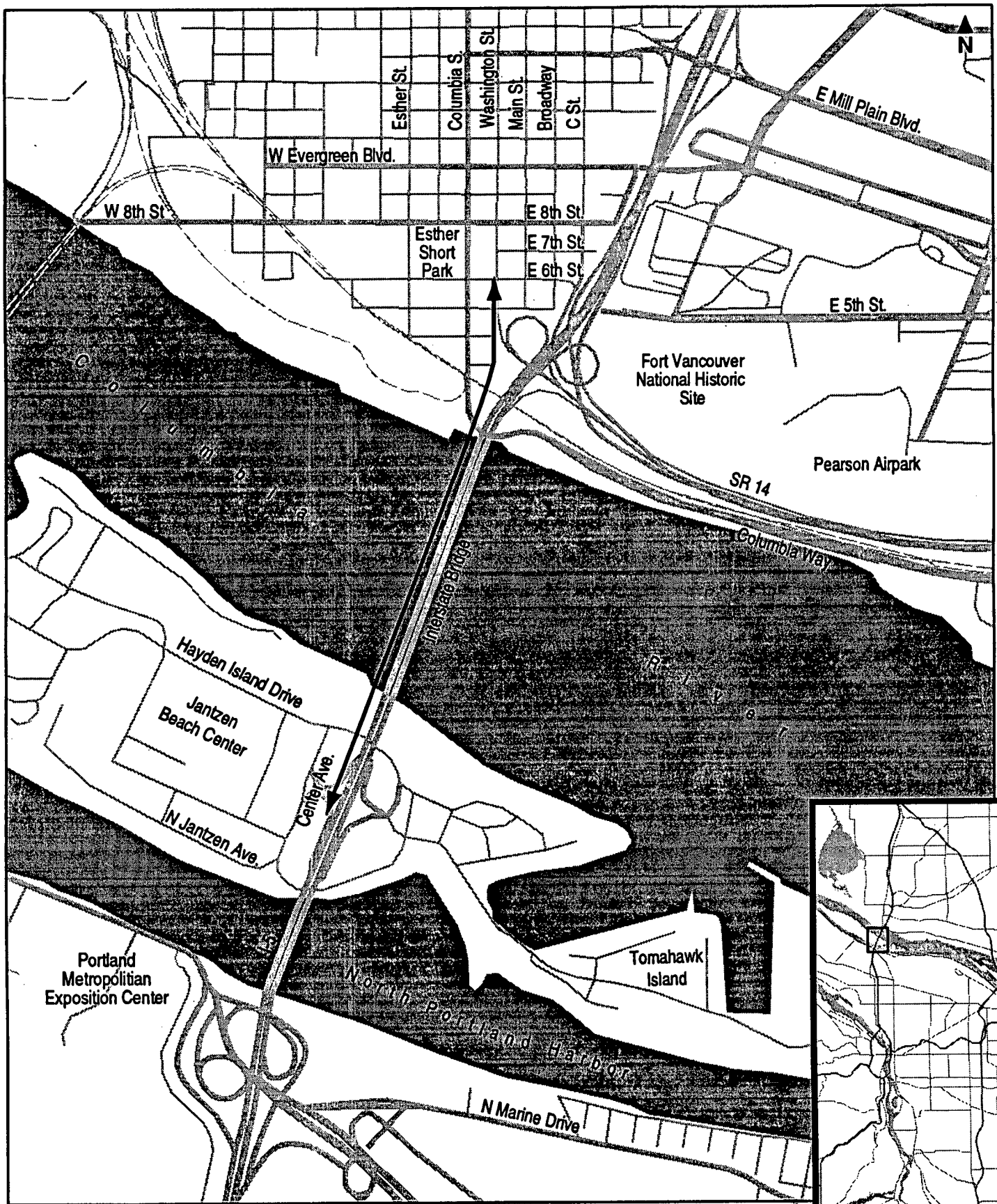
-  Light Rail Transit (LRT) Design Option
-  Station
-  Alternative LRT Alignment
-  Existing Railroad

-  Transit Center
-  Park and Ride



Note: Alignment, station and park and ride locations are currently under study and may change.



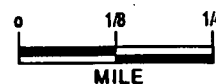


**Light Rail Design Options:
Columbia River
Crossing**
Lift Span Bridge

Figure 12

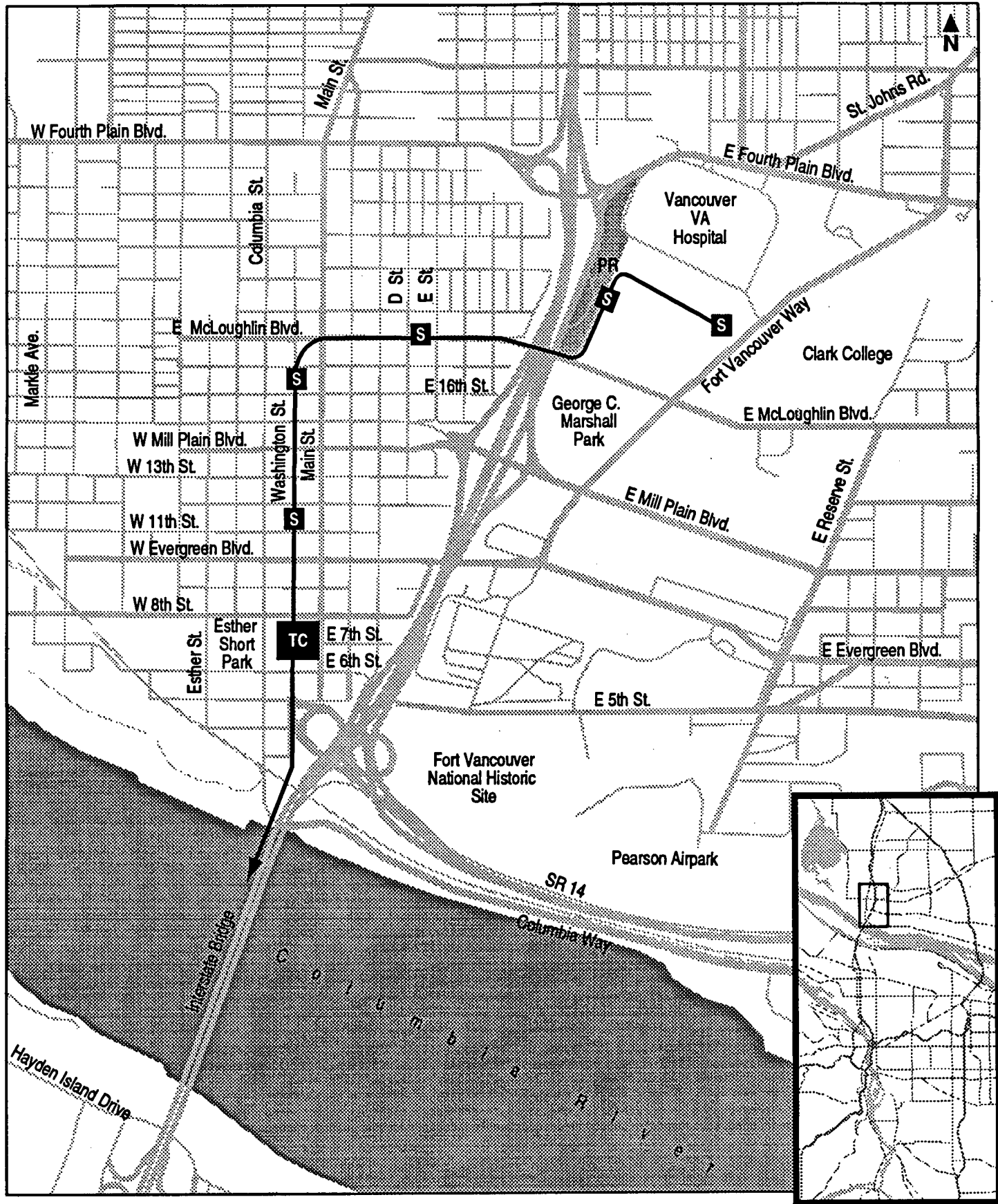
- Light Rail Transit (LRT) Design Option
- Station
- Alternative LRT Alignment
- Existing Railroad

- Transit Center
- Park and Ride



Note: Alignment, station and park and ride locations are currently under study and may change.





**South
North**
Transit Corridor Study

**Light Rail Design Options:
Downtown Vancouver
to VA Hospital/
Clark College**
2-Way on Washington

- Light Rail Transit (LRT) Design Option
- Station
- Alternative LRT Alignment
- Existing Railroad

- Transit Center
- Park and Ride



Note: Alignment, station and park and ride locations are currently under study and may change.



Figure 13

3.8.3 Expo Center to V.A. Hospital/Clark College Vicinity: Rationale

The West of I-5/Lift Span Bridge/Washington Street (2-way)/E. McLoughlin Boulevard alignment is recommended to be included in the DEIS because:

- [a] Between Expo Center and Hayden Island, the West of I-5 Under the Ramps option is recommended for inclusion in the DEIS because it would be the least expensive of the West of I-5 options, it would not create a barrier which divides Hayden Island as do the Center Street and Adjacent to Jantzen Beach Center options and would have the minimum traffic impacts.
- [b] The Lift Span bridge is recommended for inclusion in the DEIS over the Bored Tunnel option because it would be \$101 million (\$YOE) less expensive, would have considerably less adverse impacts on Hayden Island and downtown Vancouver and would provide centrally located access through downtown Vancouver and which would be in proximity to major redevelopment sites. The LRT bridge can be built using techniques that would minimize effects on the Columbia River ecosystem.
- [c] The Two-Way on Washington Street Option is recommended for inclusion in the DEIS because, compared to the other Vancouver CBD alignment options, it would be the least expensive to construct, would exhibit the fastest travel times, would attract the highest ridership, has the highest level of public support and would be the most consistent with the development and redevelopment objectives in downtown Vancouver.



Appendix A

Design Options Considered

Design Option Narrowing by Segment

The following will provide a quick look at the Project Management Group recommendations. Refer to the maps inside to locate specific design options selected by the group for further study.

1. South Terminus (end point)

Recommended options:

- Sunnyside area north of Clackamas Center
- Clackamas Center south of mall

Other option considered:

- Highway 212/224

2. Railroad Avenue/Highway 224

Recommended option:

- Railroad Avenue

Other options considered:

- North of Highway 224
- South of Highway 224

3. Central Milwaukie

Recommended options:

- Monroe Street and 21st Street/McLoughlin
- Monroe Street and SP branch line

Other options considered:

- Washington to 21st/McLoughlin
- Washington Street and SP branch line
- Harrison Street and 21st Street/McLoughlin
- Harrison Street and SP branch line
- Clackamas Highway
- Southern Pacific main line

Between the Milwaukie and River Crossing Segments only a SE McLoughlin Boulevard option is being considered.

4. South Willamette River Crossing

Caruthers Eastside – recommended option:

- West Brooklyn Yards

Caruthers Eastside – other options considered:

- PTC/McLoughlin Boulevard
- East Brooklyn Yards

Caruthers Crossing – recommended option:

- Caruthers (modified)

Caruthers Crossing – other options considered:

- Caruthers "S"
- Caruthers/Marquam

Ross Island Crossing – recommended option:

- North Ross Island

Ross Island Crossing – other options considered:

- South Parallel Ross Island
- Mid Ross Island

5. Downtown Portland

Recommended option:

- Surface alignment on 5th/6th Avenue Transit

Other options considered:

- Separate LRT, bus, auto lanes
- Shared bus, auto lanes

6. Steel Bridge to Kaiser Clinic

Recommended options:

- East I-5 freeway and Kerby Street station
- Wheeler Avenue and Russell Street station

Other options considered:

- Wheeler Avenue and Flint Street station
- West of I-5 Alignment and Graham Street station

7. Kaiser Clinic to Expo Center

Recommended options:

- Interstate Avenue alternative
- All I-5 alternative

Other options considered:

- North Killingsworth crossover
- North Portland Boulevard crossover
- Kenton area crossover

Crossovers may be considered, if needed, during the EIS.

8. Expo Center to Hayden Island

Recommended option:

- West of I-5 freeway (under ramps)

Other options considered:

- Adjacent to Jantzen Beach Center
- Center Avenue

9. Columbia River Crossing

Recommended option:

- Lift span bridge

Other option considered:

- Bored tunnel

10. Downtown Vancouver to VA Hospital/Clark College

Recommended options:

- Two-way on Washington Street
- New terminus near VA Hospital/Clark College

Other options considered:

- Washington/Main Street couplet

In August 1995, following an extensive effort to involve the public in the creation of the Clark County and Vancouver Transportation Futures process, C-TRAN amended the northern Phase I terminus from 99th Street to Veterans Administration Hospital/Clark College. Design options previously developed for the North Vancouver and Clark County segments will be narrowed as part of the future phase two extension process.

11. North Vancouver

Options considered:

- Two-way on Main Street
- Main/Broadway Street couplet to two-way on Main
- Two-way on Broadway to two-way on Main
- McLoughlin Boulevard to East of I-5 freeway

12. Clark County

Options considered:

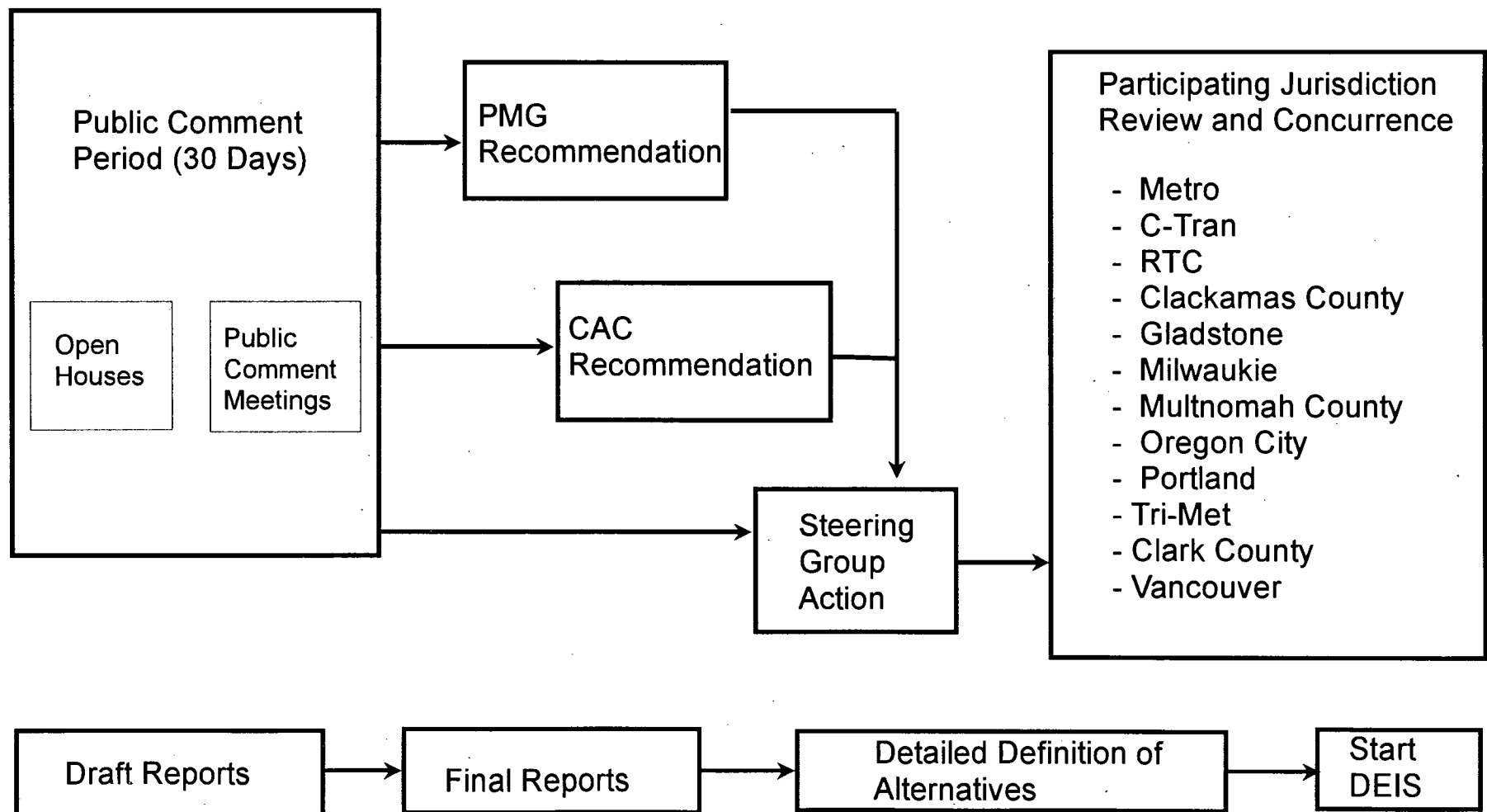
- Stations at 63rd, 72nd, 88th and 105th streets
- Stations at 63rd, 78th, 88th and 105th streets
- Stations at 63rd, 88 and 105th streets
- Stations at 63rd, 72nd, 82nd and 95th streets
- Stations at 63rd, 82nd and 95th streets



Appendix B

Design Option Narrowing Process

South/North Design Option Narrowing Process





Appendix C

Design Options Narrowing Criteria and Measures

Criteria for Evaluating Design Options During Tier I

NARROW MODAL ALTERNATIVES	NARROW ALIGNMENT ALTERNATIVES	NARROW DESIGN OPTIONS	NARROW STUDY TERMINI ALTERNATIVES
<p>Modal Alternatives which result from the Scoping Process will be carried through Tier I</p>	<p>Alignment Alternatives which result from the Scoping Process will be carried through Tier I</p>	<p>Transit Service – <i>Ease of Access</i> – <i>Transferability</i></p> <p>Transit Operations – <i>Modal Compatibility</i></p> <p>Ability to Accommodate Growth – NA –</p> <p>Minimize Traffic and Neighborhood Infiltration – NA –</p> <p>Promote Land Use Desired Patterns and Development – <i>Support Major Activity Centers</i> – <i>Support Bi-State Policies</i></p> <p>Fiscal Stability and Efficiency – <i>Cost</i></p> <p>Engineering Efficiency and Environmental Sensitivity – <i>Environmental Impacts</i> – <i>Design Considerations</i></p>	<p>Study Termini Alternatives which resulted from the Pre-AA Process will be carried through Tier I</p>



Design Option Narrowing Final Report

South/North Steering Group

November 20, 1995



METRO

Design Option Narrowing Final Report

South/North Transit Corridor Study

South/North Steering Group

November 20, 1995

Metro

The preparation of this report was financed in part by the U.S. Department of Transportation, Federal Transit Administration, Oregon Department of Transportation and Washington Department of Transportation. The opinions, findings and conclusions expressed in this report are not necessarily those of either the U.S. Department of Transportation, Federal Transit Administration, Oregon Department of Transportation and Washington Department of Transportation

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1.0 Introduction

1.1 PURPOSE OF THE REPORT

This report documents the light rail transit options selected by the South/North Steering Group to be studied further in the Draft Environmental Impact Statement (DEIS).

It is important to understand the context of this report. Earlier in Tier I, during the *Scoping Process*, it was determined that the DEIS will address two transportation alternatives for the South/North Corridor: (i) the No-Build Alternative; and, (ii) the Light Rail Transit (LRT) Alternative. Further, in December 1994, with the adoption of the *Tier I Final Report* (Metro: December 1994), Metro Council and the C-TRAN Board of Directors adopted the Phase One Termini and most of the Corridor's alignment alternatives to advance into the Tier II DEIS for further study. Later in the spring of 1995, the alignment alternatives in the remaining segments of the corridor (the south Willamette River crossings and the North Portland alignments) were narrowed. Then finally, in August 1995, following an extensive effort to involve the public in the creation of the Clark County and City of Vancouver Transportation Futures process, C-TRAN amended the northern Phase I terminus (from 99th Street to Veterans Administration (VA) Hospital/Clark College).

This report establishes the:

- [a] LRT alignment design options;
- [b] general location of potential light rail stations, transit centers and park-and-ride lots on each of the proposed alignment options; and
- [c] "Minimum Operable Segments (MOS)";

which will be addressed in the Draft Environmental Impact Statement.

This report also includes listings of *Issues* regarding the identified options. Many of these *Issues* identify major areas for further study that may occur between the time this report is approved and the time DEIS analysis begins. These activities may result in refinements to the recommended alignment, station location and MOS options. Refinements may also occur during the DEIS and the FEIS. Thus, the options set forth in this report are a starting point, not a final proposal.

1.2 STUDY, PUBLIC INVOLVEMENT AND DECISION-MAKING PROCESS

Tier I of the South/North Corridor Transit Study began in April 1993. The bi-state study has included the work of 15 different governmental entities having some responsibility for the project, including: five cities, four counties, Tri-Met, C-TRAN, Metro, RTC, ODOT, WSDOT and the Port of Portland.

In December 1993, the South/North Steering Group adopted the *Tier I Evaluation Methodology Report* (Metro: December 1993). The *Methodology Report* includes the adopted Goal for the South/North Project: "To implement a major transit expansion program in the South/North Corridor that supports bi-state land use goals, optimizes the transportation system, is environmentally sensitive, reflects community values and is fiscally responsive." The report also adopted the criteria and measures and process to be used to narrow design options that will advance into the DEIS for further study. Appendix A includes a diagram of the Design Option Narrowing process and Appendix B includes a summary table of the Design Option Narrowing Criteria and Measures.

Over the past 12 months, project staff have been engaged in identifying, engineering, costing, projecting ridership and assessing the impacts of alignment design options identified at the beginning of or during Tier I. The results of that work are documented in the *South/North Design Option Narrowing Briefing Document* and the *South/North Design Option Narrowing Technical Summary Report* (Metro: October 1995).

In addition, there has been a myriad of public forums and hearings, Citizen Advisory Committee meetings, Expert Review Panel meetings and technical meetings concerning design options. Hundreds of public comments have been received, catalogued and distributed to project staff and policy-makers. Those public comments are included within the *South/North Design Option Narrowing Public Comments Report* (Metro: September 1995).

The design options identified in this report for further study within the DEIS are based on the results of these technical and public involvement activities, as well as the consideration of recommendations independently proposed by the South/North Citizens Advisory Committee and the South/North Project Management Group.

The *Design Option Narrowing Final Report*, as adopted by the Steering Group, will be distributed to the governing body of each of the participating governmental entities. Tier I will conclude when the Steering Group and participating jurisdictions reach a consensus on the design options to advance into the DEIS for further study. Subsequently, the preparation of the DEIS will begin and the process of evaluating and refining the options will continue to occur, this time at a more detailed level of analysis.

1.3 ORGANIZATION OF THE REPORT

Chapter Two of this report defines the two termini for the full length light rail alternative and four potential minimum operable segments. It also identifies the major issues regarding the *MOS's* which still need resolution.

Chapter Three defines one or two alignment options for each of eight segments encompassing the full-length light rail alignment. Potential station locations and major outstanding issues are also identified in each segment.

2.0 Minimum Operable Segments/Terminus Options

2.1 BACKGROUND

The full-length light rail alternative to be examined in the DEIS would run between the vicinity of the Clackamas Town Center in Oregon and the vicinity of the Veterans Administration (VA) Hospital/Clark College in Vancouver, Washington. This alternative is premised on the assumption that:

- [a] the Clark County transportation futures study incorporates a continued interest to examine bi-state light rail options; and
- [b] 50% federal funding for such an option would be secured over two federal authorization cycles requiring the full-length project to be built in two construction segments.

FTA requires that all DEISs include an examination of Minimum Operable Segments (MOS's) for each light rail alternative. MOS's are light rail alignments which are:

- [a] segments of the full length alternative;
- [b] can be operated successfully on an interim or long-term basis; and
- [c] can be extended into the full-length alternative at a later time.

FTA requires MOS's to be studied to:

- [a] assess whether project objectives can be equally or more cost-effectively met by *MOS's* than the more expensive full-length alternatives;
- [b] ensure that there are alternatives which could be constructed if funding sources provide less revenues than initially expected or desired; and
- [c] ensure that there are options which could be built in sequence, over time, if cash flow requirements dictate phased-construction.

In addition, the MOS's provide the opportunity to examine different permanent termini in North Portland if the Clark County transportation futures process determines that light rail is not an appropriate mode in Clark County at this time.

2.2 SELECTED MOS's

These conditions lead to defining a series of MOS's which include:

- [a] One MOS providing a bi-state segment:
 - 1. **Milwaukie CBD/Marketplace Park-and-Ride to V.A. Hospital/Clark College (Vancouver)**
- [b] Three Oregon-only MOS's providing various length extensions into N/NE Portland:
 - 2. **Clackamas Town Center Vicinity to Rose Quarter Vicinity**
 - 3. **Clackamas Town Center Vicinity to Kaiser Clinic Vicinity**
 - 4. **Clackamas Town Center Vicinity to Expo Center Vicinity**

2.3 MOS ISSUES

Four issues regarding MOS's require continued investigation at this time:

- 1. *Design of MOS termini:* The location and design of the three MOS termini in North Portland (Rose Quarter, Kaiser Clinic and Expo Center), including the station and trackage, need to be refined over the next two months.
- 2. *Bus service:* The bus configuration serving the North Portland MOS termini (in the CTC to North Portland MOS's) and the Milwaukie terminus (in the Milwaukie to Vancouver MOS) also need to be defined over the next two months.
- 3. *Park-and-ride configurations:* The configuration of the Expo Center park-and-ride (in the CTC to Expo Center MOS) and the Milwaukie park-and-ride (in the Milwaukie to Vancouver MOS) need to be refined over the next two months.
- 4. *MOS funding plans:* As part of the DEIS, a funding plan will be prepared for each of the MOS options.

3.0 Design Options

3.1 CLACKAMAS TOWN CENTER VICINITY

3.1.1 Clackamas Town Center Vicinity: Recommended Options (See Figures 1 & 2)

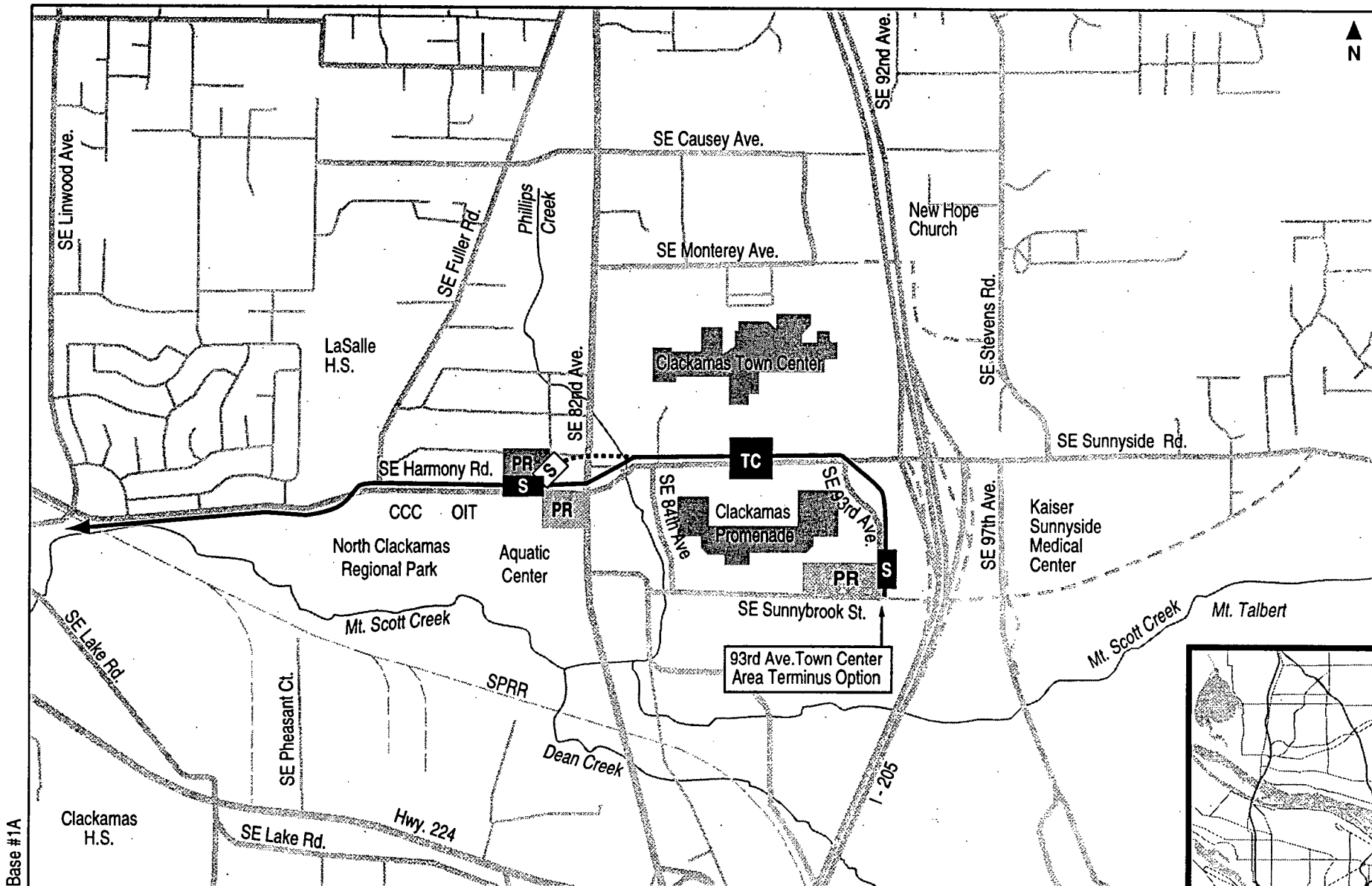
In this segment, two design options will be examined in the DEIS:

1. *North of Clackamas Town Center Alignment to Sunnyside Area Terminus:* From the S.E. Fuller Road/S.E. Harmony Road vicinity, the alignment would run along the west and north circumference of the Southgate community. It would then cross S.E. 82nd Avenue on an elevated structure and head eastward in the vicinity of S.E. Monterey Avenue to a transit center serving the CTC. From there, the alignment would continue eastward, crossing I-205 on a new structure, to a park-and-ride near the New Hope Church. From the Church, the alignment would run southward, paralleling I-205, crossing S.E. Sunnyside Road and then proceeding eastward to a park-and-ride terminus station.
2. *South of Clackamas Town Center Alignment to S.E. 93rd Avenue Town Center Area Terminus:* From the S.E. Fuller Road/S.E. Harmony Road vicinity, the alignment would run eastward along S.E. Harmony Road, to a park-and-ride station just west of S.E. 82nd Avenue. This station would also serve walk-ons from the Southgate community, Aquatic Center and Oregon Institute of Technology. The alignment would then curve slightly northwards to a point near the northern border of S.E. Sunnyside Road, cross S.E. 82nd Avenue and head eastward to a transit center south of the Clackamas Town Center. Bus improvements providing access to the transit center would also be included. The LRT alignment would extend east and cross Sunnyside Road above grade and extend south, parallel to and east of I-205, to a terminus station and park-and-ride lot in the vicinity of 93rd Avenue and Sunny Brook Street.

3.1.2 Clackamas Town Center Vicinity: Issues

Several issues require continued investigation in this area. As explained earlier, the Town Center area is recommended as the southern terminus of the South/North LRT Project for two primary reasons: (i) the general Town Center area is proposed to be a Regional Center in the Region 2040 Plan and (ii) the Town Center mall itself is a high-transit-ridership node. The Town Center area terminus works best if these opportunities are realized and its success depends on the integration of the LRT alignment with an on-the-ground transit-supportive land use pattern and related (re)development site plans. Six issues need to be resolved which, depending on how they are resolved, may result in changes to the design options in the CTC vicinity:

1. *Southgate community redevelopment:* As part of its urban renewal planning effort, Clackamas County should determine if and how light rail fits into the redevelopment of the Southgate residential area. The current design calls for an LRT alignment which skirts the



Base #1A



Light Rail Design Options: South Terminus

Composite

October 1995

- Light Rail Transit (LRT) Design Option
- Station
- Alternative LRT Alignment
- Existing Railroad
- Transit Center
- Park and Ride
- Proposed ODOT/Clackamas County Roadway Modifications

Note: Alignment, station and park and ride locations are currently under study and may change.

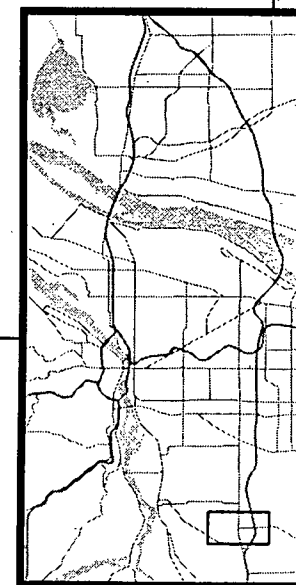
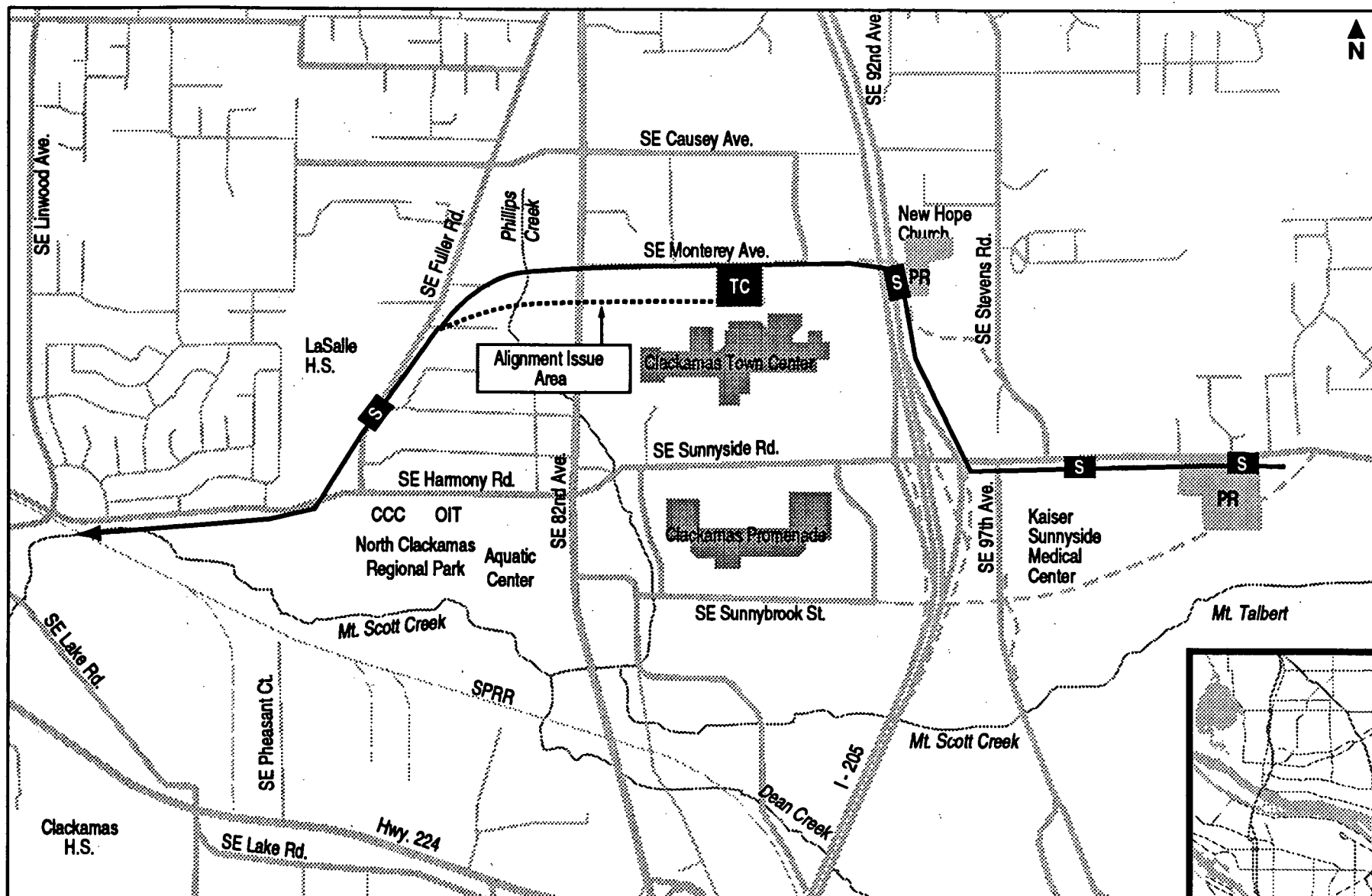


Figure 2



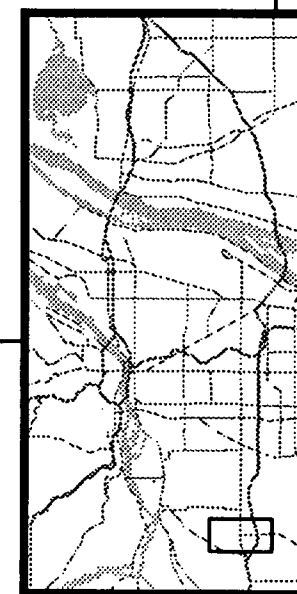
Light Rail Design Options: South Terminus

Sunnyside Area Terminus
North of Mail

October 1995

- Light Rail Transit (LRT) Design Option
- Station
- Alternative LRT Alignment
- Existing Railroad
- Transit Center
- Park and Ride
- Proposed ODOT/Clackamas County Roadway Modifications

Note: Alignment, station and park and ride locations are currently under study and may change.



residential area. If Clackamas County recommends the adoption of a redevelopment plan for the Southgate area which (i) increases residential or mixed-use densities in the area and (ii) calls for a modified LRT alignment through the Southgate area which does not require an inordinate increase in residential displacement, the Steering Group will consider adding such an alignment option to the EIS¹. The Steering Group's action will be viewed in concert with the resolution of the other issues listed in this sub-section.

2. *Future development of the Clackamas Town Center:* The North of Town Center alignment recommended to be included in the DEIS would run along the northern edge of the Town Center parking area parallel to S.E. Monterey Avenue. This alignment is predicated on the expansion of the Town Center northerly towards the proposed LRT station, either by expanding the Mall and/or developing transit-supportive, free-standing buildings on perimeter sites. If plans for such an expansion are not agreed-upon prior to the completion of the DEIS or are not likely to be realized in the foreseeable future, an alignment slightly south of S.E. Monterey Avenue, closer to the existing Mall, will be considered for inclusion in the EIS¹ in lieu of or addition to the current alignment.

A similar course-of-action will be taken for the South of Town Center alignment. The expansion plans for the Clackamas Town Center mall currently call for the addition of an anchor store at the southern end of the mall between Sears and Meier & Frank. The entrance to this planned expansion could be in the vicinity of the proposed light rail station associated with the South of the Mall alignment. If plans for the mall expansion are not agreed-upon in the foreseeable future, an alignment closer to an entrance to the existing Mall will be considered for inclusion in the EIS¹.

3. *Redevelopment of the area between the New Hope Church and the Sunnyside Medical Center:* The current alignment in this area would run parallel to and in the vicinity of I-205. An area just to the east of the proposed alignment is currently designated as open space. If Clackamas County (i) recommends that a significant portion of this area be redesignated as a transit-supportive residential or mixed-use area and (ii) calls for a modified LRT alignment through the area, the Steering Group will consider adding such an alignment option to the EIS¹. The Steering Group's action will be viewed in concert with the resolution of the other issues listed in this sub-section.
4. *Extension/expansion of the urban renewal district:* Clackamas County has begun to evaluate whether the existing Clackamas Town Center Urban Renewal Area (CTC URA) should be extended in time (it is now slated to terminate June 30, 1998) and expanded in geographic area (an expansion of approximately 100 acres is statutorily permitted). In order to resolve these issues, the Steering Group recommends that Clackamas County consider amending the CTC urban renewal plan to provide redevelopment and light rail-related design features to achieve the purposes of the 2040 Plan and the South/North Project.

¹ The term "EIS" is used here to denote either the DEIS or FEIS, whichever is found most appropriate.

5. *Tax increment financing of localized alignment and design features in the Town Center area:* The recommended North of Town Center alignment/Sunnyside Terminus option is currently estimated to cost \$55 million more than the recommended South of Town Center alignment/S.E. 93rd Avenue Town Center Area terminus option. As studies proceed on the issues mentioned above, the cost of both alignment options may change, as might the cost differential between the options. Given (i) the cost differences between the CTC options and (ii) the shared objectives between the South/North Project and an amended urban renewal plan (if one is adopted), the Steering Group recommends that Clackamas County consider the use of tax increment funds from the amended plan and/or other local funding sources for a portion of the light rail costs in this area.
6. *Future light rail alignment to Oregon City:* Pursuant to the Tier I decision, an effort parallel to the DEIS process will consider alternative ways to extend the South/North LRT to Oregon City in a Phase II project. Two basic alignment options will be considered: the McLoughlin Boulevard corridor from downtown Milwaukie and the I-205 corridor from the CTC vicinity. This study may result in refinements/ modifications to the light rail alignments, station locations and terminus sites/designs in the CTC vicinity which are incorporated in the EIS¹.
7. *Location of the 82nd Avenue and Harmony Road park-and-ride with the "South of Clackamas Town Center" option and design of the alignment, stations, transit center and terminus park-and-ride lot east of 82nd Avenue:* The precise location of the alignment, station and park-and-ride lot just west of S.E. 82nd Avenue on/near S.E. Harmony Road needs to be refined over the next two months. Options to be considered include locations on both the north and south sides of S.E. Harmony Road. The precise location of the alignment, stations, transit center and terminus park-and-ride lot east of 82nd Avenue needs to be refined over the next two months.

3.1.3 Clackamas Town Center Vicinity: Rationale

Because, the "South of the Mall" design options are shorter, they are less expensive to build and operate and faster for through-travel than the "North of the Mall" design options. However, the "North of the Mall" options may better serve land use objectives by assisting in the redevelopment of Southgate area, serving the existing multi-family residential areas to the north of the mall and (as discussed in the *Issues* section) the potentially rezoned lands just east of I-205.

The recommended design options in the Clackamas Town Center (CTC) segment are proposed to frame the fundamental issue in this segment: are the land use benefits of the "North of the Mall" and "east of I-205 terminus" options worth their greater costs and longer travel times? To best assess this issue in the DEIS, the best "North of the Mall" option should be compared against the best "South of the Mall" option.

The S.E. 93rd Avenue Town Center Area Terminus is the selected "South of the Mall" option because:

- [a] It would be \$34 and \$124 million (\$YOE) less expensive than the "South of the Mall" options that connect to the Sunnyside Terminus or the Highway 212/224 Terminus options.
- [b] It would provide an additional park-and-ride lot opportunity for the south of CTC alignment over the 84th Avenue CTC terminus option.
- [c] It would be capable of being extended south at a future date, if so desired.

The Sunnyside Terminus is the selected "North of the Mall" option because:

- [a] It would serve the major growth area along S.E. Sunnyside Road east of I-205, where the other options would not.
- [b] Its number of light rail boardings in the CTC segment would be 64% - 89% greater than the other "North of the Mall" options.
- [c] It would be \$106 million (\$YOE) less expensive to construct, \$180,000 per year less expensive to operate and faster to operate than the Highway 212/224 Terminus option.
- [d] It would be capable of being extended to the south at a future date, if so desired.

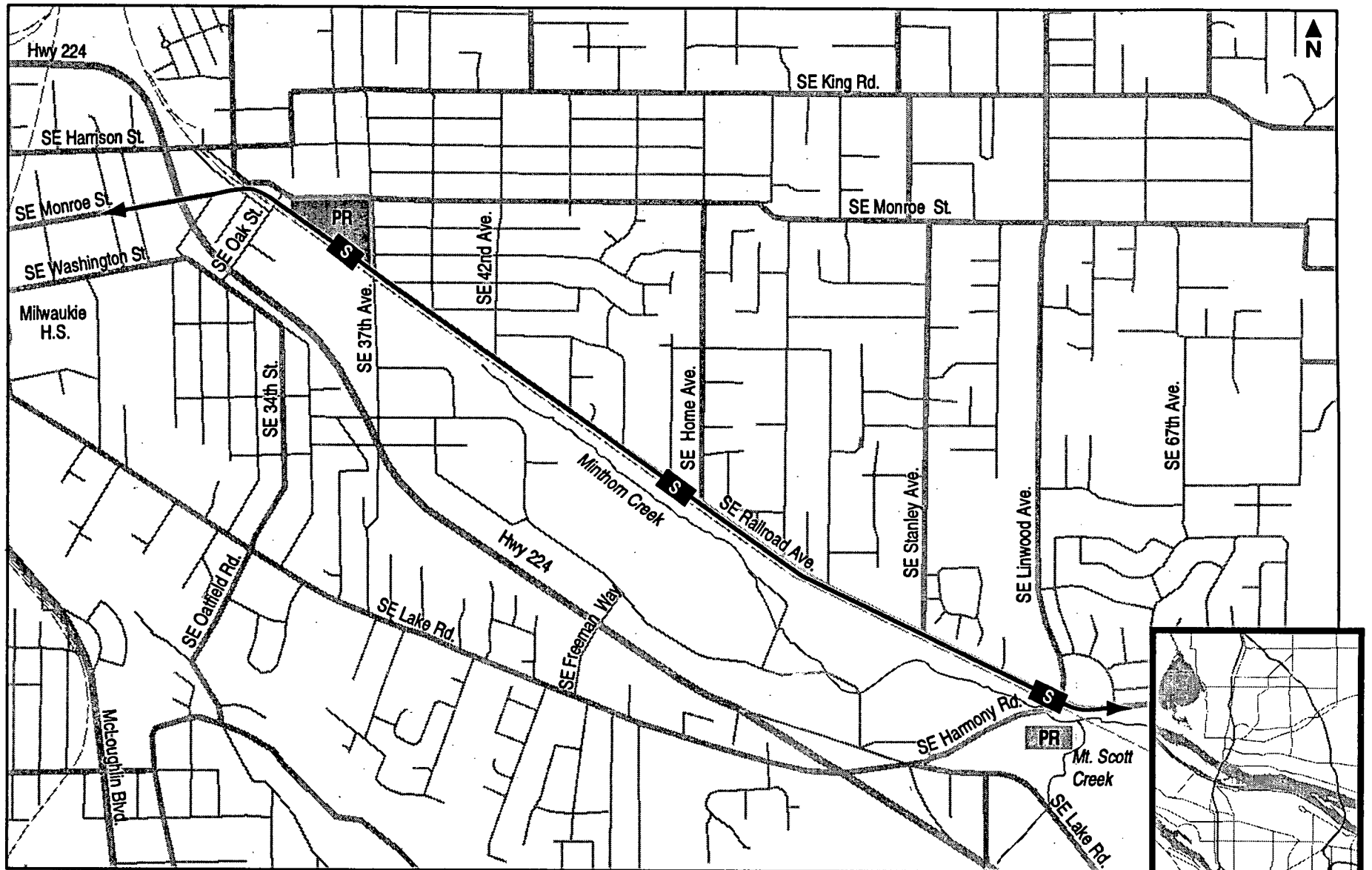
3.2 CTC TO MILWAUKIE

3.2.1 CTC to Milwaukie: Selected Options (See Figure 3)

In this segment, one design option is selected to be examined further in the DEIS:

1. *Railroad Avenue:* From the south side of S.E. Harmony Road, the light rail alignment would cross under S.E. Harmony Road east of its intersection with S.E. Linwood and S.E. Railroad Avenues. A potential park-and-ride station would be located at S.E. Harmony Road/S.E. Linwood Avenue. The alignment would proceed westward on the south side of S.E. Railroad Avenue in the public right-of-way adjacent to the Southern Pacific main line. Railroad Avenue would be reconstructed to accommodate the light rail alignment. A station could be located near S.E. Home Avenue to serve the residential area to the north and the industrial area to the south. The alignment would continue adjacent to the SP main line until crossing over the main line in the vicinity of S.E. Oak and S.E. Myrtle

Figure 3

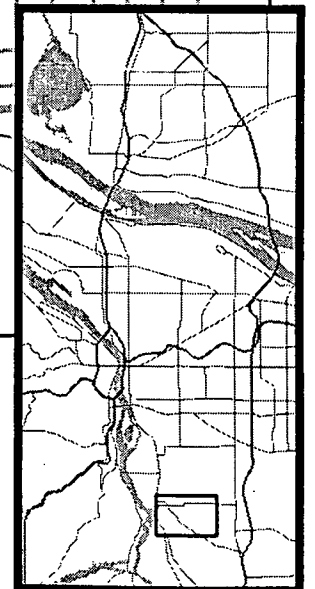
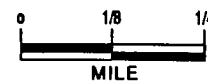


Light Rail Design Options:
Highway 224
Railroad Avenue

October 1995

- Light Rail Transit (LRT) Design Option
- Station
- Alternative LRT Alignment
- Existing Railroad
- Transit Center
- Park and Ride

Note: Alignment, station and park and ride locations are currently under study and may change.



Streets, just west of the Milwaukie Market Place. A station would serve the area and a potential park-and-ride lot. The structure would overpass Highway 224, landing on S.E. Monroe Street.

3.2.2 CTC to Milwaukie: Issues

Three issues require continued investigation in this area:

1. *Design of Railroad Avenue Collector:* The initial design of the Railroad Avenue option required substantial residential displacement and, as a result, relatively high capital cost due to the relocation and reconstruction of Railroad Avenue. A modified option providing for a Railroad Avenue reconstructed as a "collector" is now proposed. This modification would reduce the possible displacement impacts and capital costs of the option. As the EIS is prepared, project staff will investigate the possibility of using Southern Pacific right-of-way as a method to further reduce possible displacements and costs.
2. *Access to industrial area:* Railroad Avenue parallels the north side of major employment centers along Highway 224. Special consideration will be given to the alignment, station locations and access ways in this segment to ensure that light rail is accessible is to these centers.
3. *Location and design of station in the vicinity of S.E. Railroad Avenue and S.E. Oak Street:* The design and location of the Milwaukie Market Place station will be refined over the next two months to improve its auto access, neighborhood access and cost.

3.2.3 CTC to Milwaukie: Rationale

The S.E. Railroad Avenue option is the selected option in the CTC to Milwaukie segment for inclusion in the DEIS because:

- [a] It would be \$8 to \$23 million (\$YOE) less expensive to construct than the Highway 224 options.
- [b] It would be slightly faster (8 - 19 seconds) to operate and would attract slightly more light rail boardings (30 - 60 per day) in the CTC to Milwaukie segment than the Highway 224 options.
- [c] Its comparative ratio would be 13% to 32% better than the Highway 224 options.
- [d] It would allow for a park-and-ride facility east of the Milwaukie CBD (in the vicinity of S.E. Railroad Avenue and S.E. Oak Street) which would serve the travel shed for the residential area north of S.E. Railroad Avenue. The station also would provide walk-on access to portions of the residential area north of S.E. Railroad Avenue.

3.3 MILWAUKIE

3.3.1 Milwaukie: Selected Options (See Figure 4)

In this segment, two design options are selected to be examined in the DEIS:

1. *S.E. Monroe Street to East of the Southern Pacific Tillamook Branch Line:* From the Highway 224 overcrossing, the alignment would proceed westerly on S.E. Monroe Street. S.E. Monroe Street would be configured to operate two tracks of light rail and one westbound traffic lane between S.E. 25th and S.E. 9th Streets.

The alignment would curve northerly in the vicinity of S.E. 25th Street to a transit center just east of the S.P. branch line between S.E. Monroe and S.E. Harrison Streets. The alignment would then proceed adjacent to the east side of the S.P. Branch line, through an existing underpass of Highway 224 and on structure over to the westside of the branch line, to a potential park-and-ride station at S.E. Ochoco Street. The alignment would then continue northerly along the branch line to about S.E. Umatilla Street where it would veer towards S.E. McLoughlin Boulevard as it continues northerly.

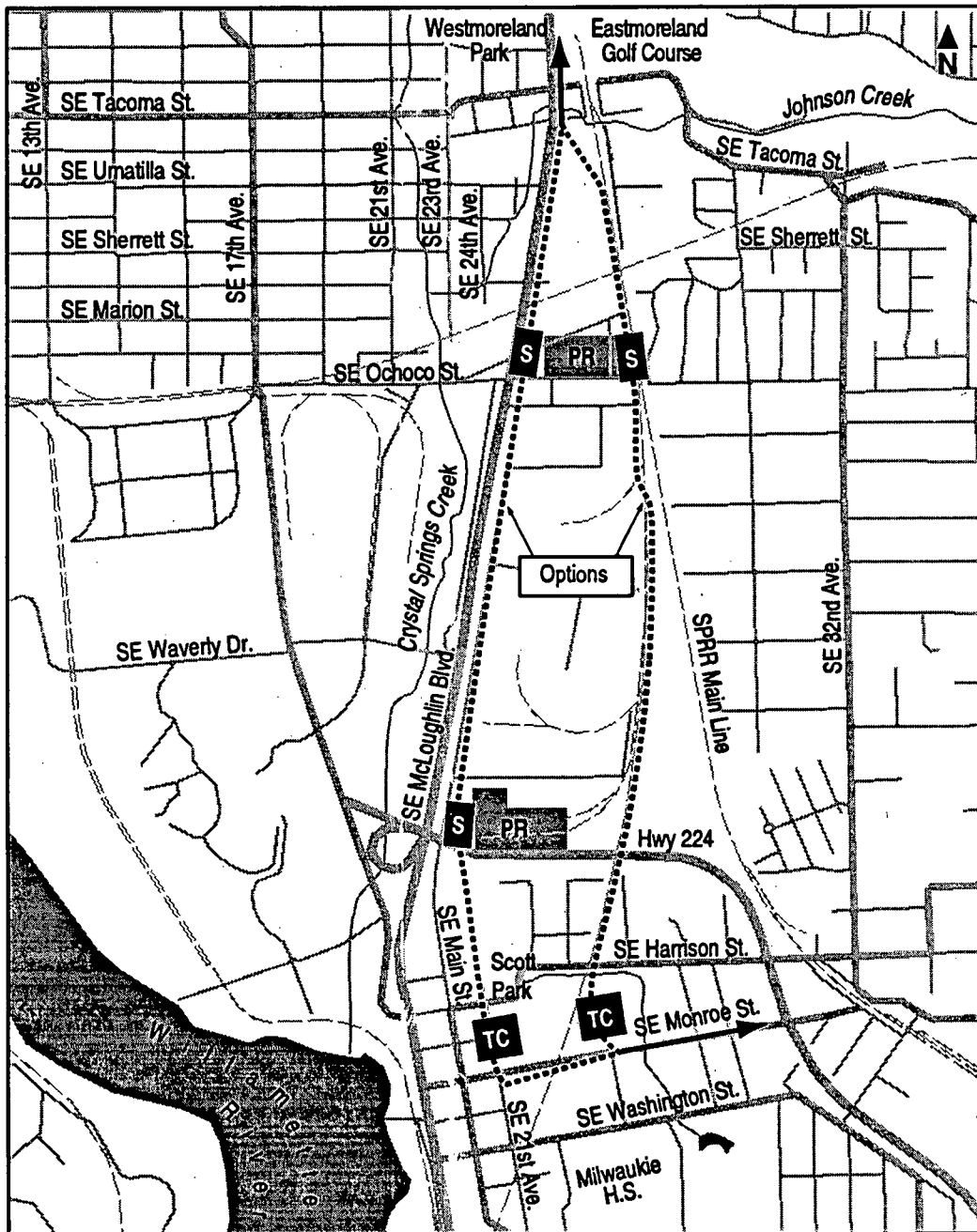
2. *S.E. Monroe to S.E. 21st Avenue/S.E. McLoughlin Boulevard:* From the overcrossing of Highway 224, the alignment would proceed westerly on S.E. Monroe Street. S.E. Monroe Street would be configured to operate two tracks of light rail and one westbound traffic lane between S.E. 25th and S.E. 9th Avenues.

The alignment would pass under the SP branch line and proceed to a transit center at S.E. 21st Avenue. The alignment would then proceed northward to McLoughlin Boulevard, crossing underneath Highway 224 where there could be a park-and-ride station. It would then continue northerly paralleling McLoughlin Boulevard to a park-and-ride station at S.E. Ochoco Street and then continue north.

3.3.2 Milwaukie: Issues

Six issues require continued investigation in this area:




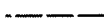


1. *Changes in Comprehensive Plan:* The central Milwaukie area is proposed to be a Regional Center in the Region 2040 Plan. The success of the South/North Project depends, in part, on the integration of the LRT alignment with an on-the-ground transit-supportive land use pattern and related (re)development site plans in Central Milwaukie. As a result, the planning currently underway regarding the Regional Center concept and transportation system plan in Milwaukie may result in changes to the alignment and design options.



Light Rail Design Options: Milwaukie Monroe Street

October 1995

Note: Alignment, station and park and ride locations are currently under study and may change.

-  Light Rail Transit (LRT) Design Option
-  Station
-  Alternative LRT Alignment
-  Existing Railroad
-  Transit Center
-  Park and Ride

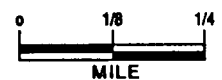


Figure 4

2. *Design and location of Milwaukie Transit Center options:* Notwithstanding land use changes resulting from the Regional Center designation, the design and location of the Milwaukie Transit Center for both the S.E. Monroe Street to East of the Southern Pacific Tillamook Branch Line option and the S.E. Monroe to S.E. 21st Avenue option need to be refined over the next two months to maximize local access and to mitigate displacement and traffic impacts.
3. *Extension to Oregon City:* Pursuant to the Tier I decision, an effort parallel to the DEIS process will consider alternative ways to extend the South/North LRT to Oregon City in a Phase II project. One of the options to be considered would use the McLoughlin Boulevard corridor from downtown Milwaukie. This study may result in refinements/modifications to the light rail alignments, station locations and station sites/designs in central Milwaukie which are incorporated in the EIS¹.
4. *Need to consider land use integration in selecting the preferred alignment through central Milwaukie:* The central Milwaukie alignment is predicated on its integration with a Regional Center plan for the area. If such a plan is not agreed upon by the City of Milwaukie prior to the completion of the DEIS or is not likely to be realized in the foreseeable future, less expensive alignment options serving central Milwaukie will be considered for inclusion in the EIS¹ in lieu of or addition to the currently recommended alignments.
5. *Park-and-ride lot location north of Milwaukie:* A special study of park-and-ride lot locations and capacity will be undertaken for the north Milwaukie area between Highway 224 and S.E. Tacoma Street. The study will identify potential park-and-ride sites which meet the anticipated demand and will use DEIS-level data to select site(s) for inclusion in the EIS¹. This study will be coordinated with the study proposed under issue 6.
6. *Maintenance facility location north of Milwaukie:* A special study of maintenance facility locations and designs will be undertaken for the north Milwaukie and other areas. The study will identify potential maintenance facility sites and designs which meet the anticipated South/North LRT needs and will use DEIS-level data to select site(s)/design(s) for inclusion in the EIS¹.

3.3.3 Milwaukie: Rationale

One of the fundamental objectives of the South/North LRT Project is to serve the central Milwaukie business district. Two of the options examined in this segment, the SP Main Line option and the Milwaukie Expressway option, would bypass the Milwaukie central business district. As a result, these options fundamentally fail to meet a primary objective of the project and, therefore, are recommended to be eliminated from further consideration.

Each of the three remaining "east-west" alignment options (S.E. Harrison Street, S.E. Washington Street and S.E. Monroe Street) has two "north-south" sub-options (the East of the SP Branch

Line option and the S.E. 21st/Main Street/McLoughlin Boulevard option). For each of the "east-west" alignment options, the following relationship holds for the "north-south" sub-option:

- [a] The SP Branch Line option would be shorter, less expensive to build and operate and faster than the S.E. 21st Street/McLoughlin Boulevard option.
- [b] The S.E. 21st/Main Street/McLoughlin Boulevard option may better serve City of Milwaukie land use objectives by assisting in the redevelopment of the central business district.

As a result, irrespective of which "east-west" option(s) are recommended in the Milwaukie segment, a fundamental issue in this segment is: are the land use benefits of the S.E. 21st/Main Street/McLoughlin Boulevard sub-option worth its greater costs and longer travel times? To best assess this issue, it is recommended that the DEIS examine both "north-south" sub-options for whichever "east-west" sub-option(s) are proposed.

Regarding the "east-west" sub-options in the Milwaukie segment, the S.E. Monroe Street option is selected for inclusion in the DEIS because:

- [a] It would provide better access and wider coverage to the central business district than the S.E. Harrison Street option.
- [b] It would be \$22 - \$28 million (\$YOE) less expensive to construct than the S.E. Washington Street option (depending on the north-south sub-option selected) and \$4 million (\$YOE) less expensive to construct than the S.E. Harrison Street - S.E. Main Street/McLoughlin Boulevard option (the SP Main Line sub-option would be \$14 million (\$YOE) less expensive with the S.E. Harrison Street option).
- [c] It would be \$360,000 per year less expensive to operate than the McLoughlin Boulevard/21st Avenue and S.E. Washington Street option (depending on the north-south sub-option selected) and \$650,000 - \$710,000 per year less expensive to operate than the S.E. Harrison Street options.
- [d] It would be 70 - 88 seconds faster (depending on the north-south sub-option), attract 170-190 more boardings per day and exhibit a 17-20% better comparative ratio than the S.E. Washington Street option.
- [e] It has greater community support than the other options.

3.4 MILWAUKIE TO PORTLAND CBD

3.4.1 Milwaukie to Portland CBD: Selected Options (See Figures 5 & 6)

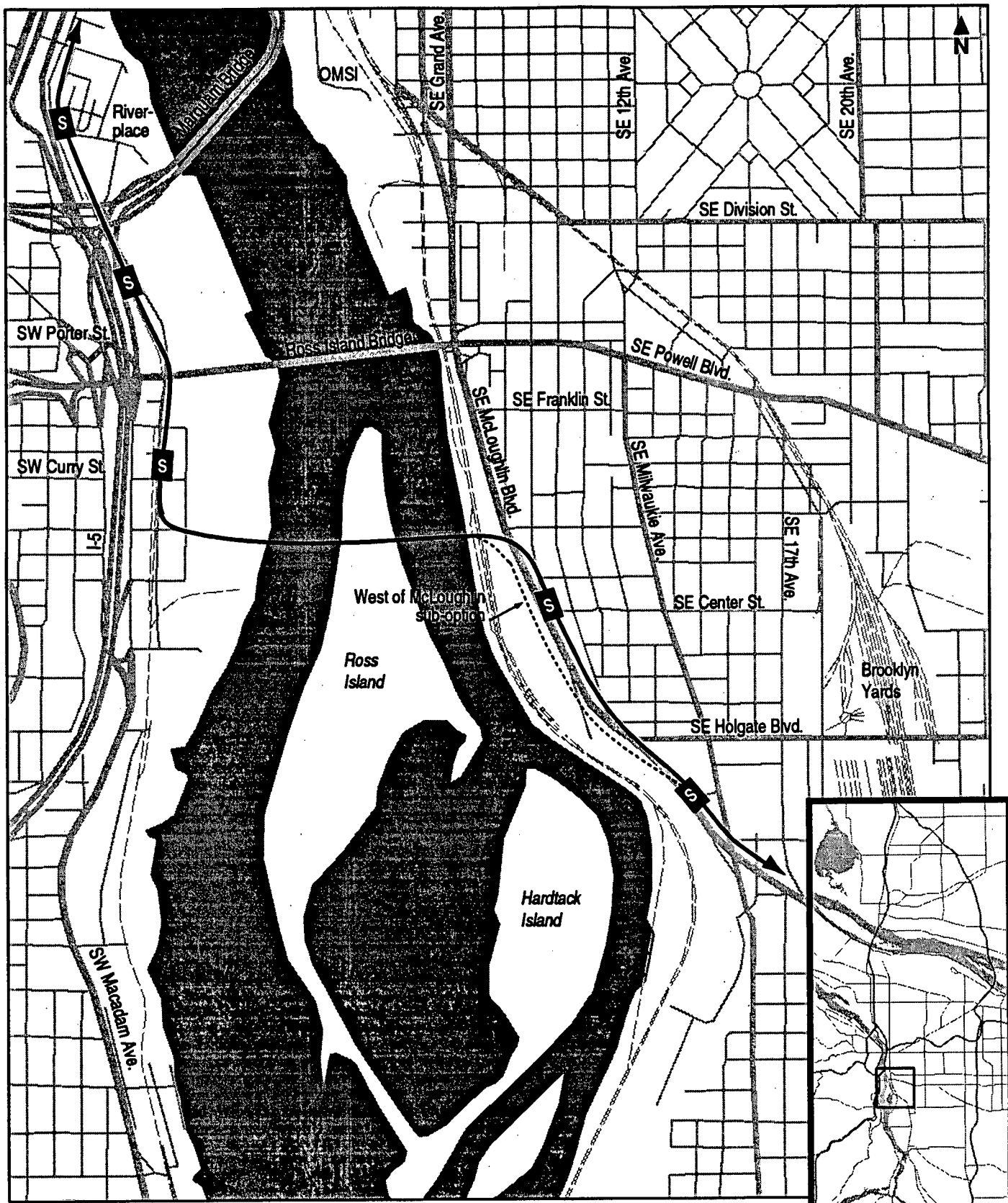
The South/North Project Steering Group determined during the Tier I decision process that both East side/Caruthers Crossing option(s) and Ross Island Crossing option(s) will be carried forward into the DEIS. Thus, the issue at hand is to determine the best Eastside/Caruthers Crossing option and the best Ross Island Crossing option. Based on the Steering Groups direction, two design options are selected to be examined in the DEIS in this segment:

1. *West Brooklyn Yards to Caruthers Modified River Crossing:* From the park-and-ride station at S.E. Ochoco Street, the light rail would proceed parallel to McLoughlin Boulevard (between the existing trees and the S.P. railroad) to a potential station at S.E. Bybee Boulevard. The alignment would continue along S.E. McLoughlin to the vicinity of S.E. Harold Street where it would turn and follow the western boundary of the Brooklyn Yards. A station may be located near S.E. Holgate Boulevard. From there the alignment would continue to follow the west side of the Yards to a potential station in the vicinity of S.E. Rhine/Lafayette Street with pedestrian access across the Brooklyn Yards to the East Brooklyn neighborhood.

The alignment would continue north, crossing S.E. Powell Boulevard on an elevated structure. The alignment would parallel the existing railroad tracks, passing over S.E. 11th/12th Avenues, where there would be a potential station. From there, it would continue parallel to the existing railroad tracks to a potential elevated station just south of OMSI.

From the OMSI station, the Caruthers Modified River Crossing would leave the east bank of the Willamette River in the vicinity of Water Avenue and continue on structure to the west side of S.W. Moody Avenue. The alignment would weave between columns supporting the Marquam Bridge towards a station at Riverplace.

2. *North Ross Island River Crossing:* From the park-and-ride station at S.E. Ochoco Street, the light rail alignment would proceed parallel to McLoughlin Boulevard (between the trees and the railroad right-of-way) to potential stations at S.E. Bybee Boulevard, the vicinity of S.E. 16th and S.E. Milwaukie Avenues and S.E. Center Street and McLoughlin Boulevard. From the Center Street station, the alignment would continue north along S.E. McLoughlin a short distance to S.E. Bush Street, cross under S.E. McLoughlin Boulevard and cross the Willamette River on structure in the vicinity of the northern tip of Ross Island. The light rail bridge would land on the west side of S.W. Moody Avenue with a potential station in the vicinity of S.W. Curry Street. The alignment would then follow the west side of S.W. Moody Avenue to a S.W. Porter Street station and then proceed towards a station at Riverplace.



**South
North**
Transit Corridor Study

Light Rail Design Options: **South Willamette River Crossing**

North Ross Island

Figure 5

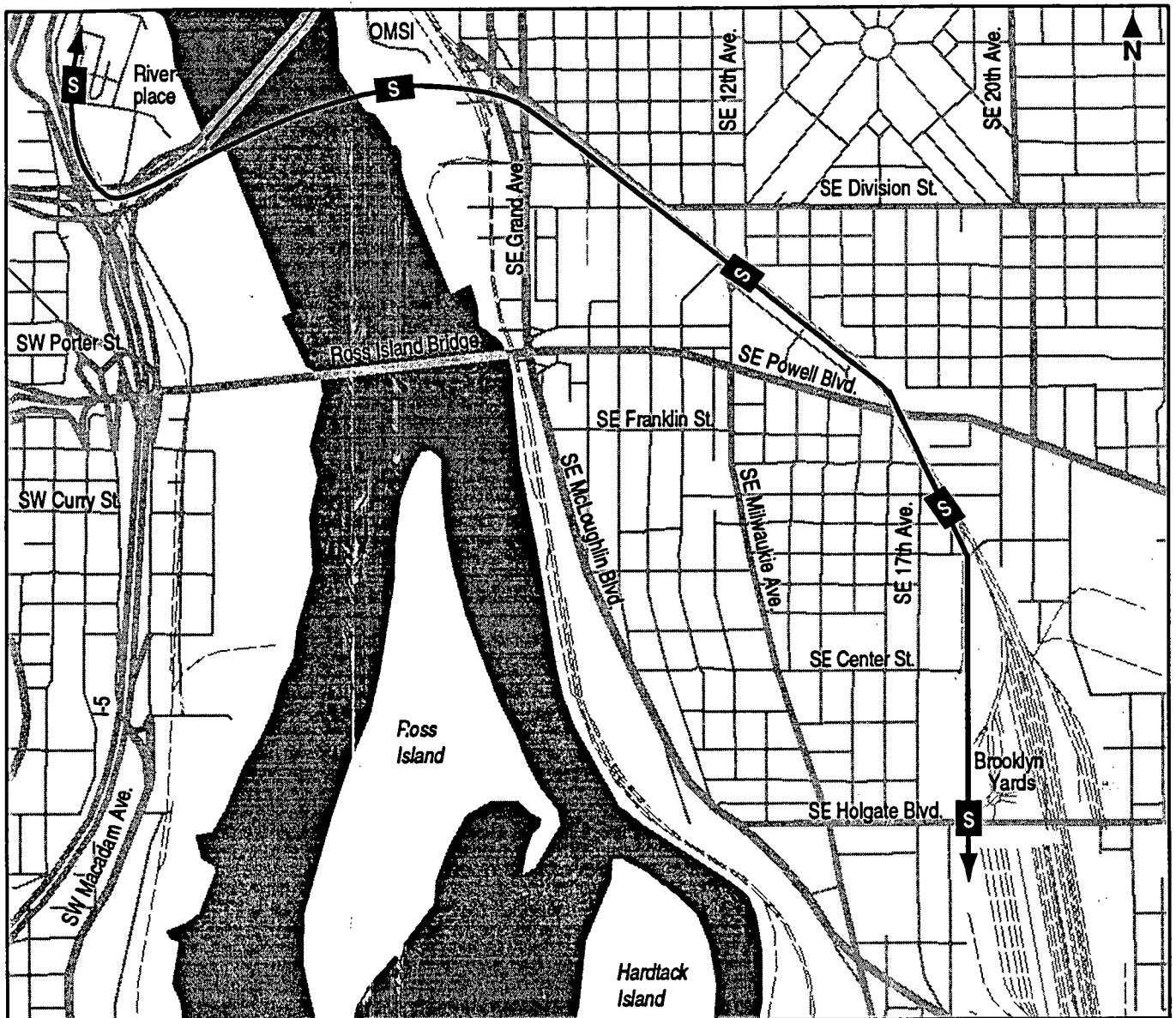
- Light Rail Transit (LRT) Design Option
- S — Station
- Alternative LRT Alignment
- Existing Railroad

- TC Transit Center
- PR Park and Ride



Note: Alignment, station and park and ride locations are currently under study and may change.





**South
North**
Transit Corridor Study

Light Rail Design Options:

South Willamette River Crossing

Caruthers Modified -
West Brooklyn Yards

October 1995

- Light Rail Transit (LRT) Design Option
- S — Station
- Alternative LRT Alignment
- Existing Railroad

- TC Transit Center
- PR Park and Ride



Note: Alignment, station and park and ride locations are currently under study and may change.



Figure 6

3.4.2 Milwaukie to Portland CBD: Issues

Three issues require continued investigation in this segment:

1. *Actual location of the North Ross Island Crossing:* While drawings to date have shown the North Ross Island Crossing option to follow S.W. Gaines Street in the North Macadam area, it is possible that it might be located within a narrow band south of that location. Project staff will work with interested parties to determine an appropriate location to include in the DEIS.
2. *Alternate North Ross Island alignment (West of McLoughlin Boulevard Sub-Option):* A variation on the North Ross Island option would have the light rail alignment proceed north of a potential station at S.E. Holgate Boulevard on the west side of S.E. McLoughlin Boulevard to about S.E. Rhone Street where the light rail alignment would begin to elevate and curve to the west. The North Ross Island bridge would be in the same general vicinity as described above. This sub-option would have additional expense and lower ridership, but could also have less potential residential property displacement in the Brooklyn neighborhood. The West of McLoughlin sub-option will be further developed in parallel to the EIS process.
3. *Choice between the North Ross Island crossing alternative and the West Brooklyn Yards/Caruthers crossing alternative:* This choice will be one of the major issues to be resolved during the DEIS process. An important basis for making this determination will focus on the progress that has been made along both options to plan and develop transit-oriented land uses. Issues of density, timing and certainty of development, parking, integration of light rail with major attractors and similar factors will be taken into consideration.

3.4.3 Milwaukie to Portland CBD: Rationale

The West Brooklyn Yards to Modified Caruthers Bridge option is selected for inclusion in the DEIS because:

- [a] In comparison to the PTC/McLoughlin Boulevard option, the Brooklyn Yard options would provide significantly better transit access and service to the inner east side neighborhoods, offer five minute walk access to 4,100 - 4,600 more employees (in the year 2015), attract 1,400 - 1,600 more light rail boardings in this segment and exhibit 42% - 57% better comparative ratios.
- [b] The West Brooklyn Yard option would be \$42 million (\$YOE) less expensive to construct, impact less commercial and residential buildings, and exhibit a 10% better comparative ratio than the East Brooklyn Yard option.

- [c] The Caruthers Modified option would cost \$18 million (\$YOE) less to construct, \$370,000 per year less to operate and would be over 1 minute faster than the Caruthers "S" option.
- [d] While estimated to cost \$8 - \$9 million (\$YOE) more to construct than the Caruthers and Caruthers/Marquam options, the Caruthers Modified option would have the least negative impacts on the redevelopment property south of the Marquam Bridge and avoids significant adverse impacts on PDC's two remaining parcels in Riverplace and privately-owned properties south of the Marquam Bridge.

The North Ross Island option is selected for inclusion in the DEIS because:

- [a] The North Ross Island option would provide the best combination of (re)development potential, ridership and cost of the Ross Island crossing options. This is exhibited by the North Ross Island option having the lowest (best) comparative ratio.
- [b] The South Parallel Ross Island option could have an adverse visual impact on the Ross Island Bridge which is eligible for the National Register of Historic Places. As such, there could be Section 106 (historical resources) problems with the South Parallel Ross Island option.
- [c] The South Parallel Ross Island option would not provide a station in the North Macadam District, the station would have to be north of the existing Ross Island Bridge. In addition, it would attract less 1,800 - 2,000 daily LRT segment boardings, impact 28 - 45 more residential units and exhibit a 31% poorer comparative ratio than the other Ross Island Crossing options.
- [d] The Mid Ross Island Crossing option would cost \$54 million (\$YOE) more to construct than the North Ross Island Crossing option. In addition, the construction of the Mid-Ross Island Crossing option raises a higher risk of negatively impacting the Great Blue Heron rookery buffer area on Ross Island. The North Ross Island crossing would potentially have less impact on the Willamette River ecosystem due to fewer piers in the river as compared to the South Parallel option.
- [e] There is generally stronger community support for the North Ross Island Crossing than for the other Ross Island crossing options.

3.5 PORTLAND CBD

3.5.1 Portland CBD Options

The Portland CBD alignment and station locations to be carried forward into the DEIS are recommended under separate cover.

3.6 STEEL BRIDGE TO KAISER MEDICAL FACILITY VICINITY

3.6.1 Steel Bridge to Kaiser Medical Facility Vicinity: Selected Options (See Figures 7& 8)

In this segment, two design options are selected to be examined in the DEIS:

1. *East I-5/N. Kerby Avenue:* The alignment would proceed eastward from a slightly relocated Rose Garden transit station, run underneath the I-5 freeway and turn north along the eastern edge of I-5. It would then run along the edge of I-5 to a transit station serving the N.E. Broadway area and adjacent Eliot neighborhood. The alignment would continue along the east edge of I-5, behind the Harriet Tubman Middle School, crossing N. Russell Street on structure, to a station on N. Kerby Avenue between N. Graham and N. Stanton Streets at Emanuel Hospital. The alignment would curve westward, passing over I-5 on structure to a location just west of the freeway and then proceed northerly to the Edgar Kaiser clinic.
2. *N. Wheeler Avenue/N. Russell Street:* The alignment would pass along the eastern edge of the Rose Garden Arena with a potential station north of the arena near N. Weidler. It would cross N. Broadway and N. Weidler at street level and proceed north along the east side of N. Flint Avenue. The alignment would turn westerly at N. Russell Street with a potential station on Russell Street at the south end of the Emanuel Hospital campus. It would elevate on a structure and pass over N. Kerby Avenue, Stanton Yard and N. Mississippi Avenue. The alignment would then curve westward, passing over I-5 on structure to a location just west of the freeway and then proceed north to the Edgar Kaiser clinic.

3.6.2 Steel Bridge to Kaiser Medical Facility: Issues

Three issues require continued investigation in this area:

1. *Design of the N.E. Broadway Station with the East I-5 option:* Initial designs for this station were below-grade (and may not provide a pleasant environment for users or good pedestrian connections between Broadway and the Rose Quarter). Project staff will investigate refined designs which mitigate these concerns.
2. *Design and location of stations on the N. Wheeler Avenue/N. Russell Street:* The station locations along this alignment should be refined during the next two months to ensure that access into the Eliot neighborhood and Emanuel Hospital is maximized.
3. *Mitigate operational issues associated with the N. Wheeler/N. Russell and East I-5 options:* The N. Wheeler Avenue/N. Russell Street and East I-5 options could present difficult operational problems and conflicts between light rail, auto traffic and/or

Light Rail Design Options: Steel Bridge to Kaiser

East I-5 / Kerby

September 1995

Note: Alignment, station and park and ride locations are currently under study and may change.

— Light Rail Transit (LRT) Design Option

— S — Station

— Alternative LRT Alignment

— Existing Railroad

TC Transit Center

PR Park and Ride

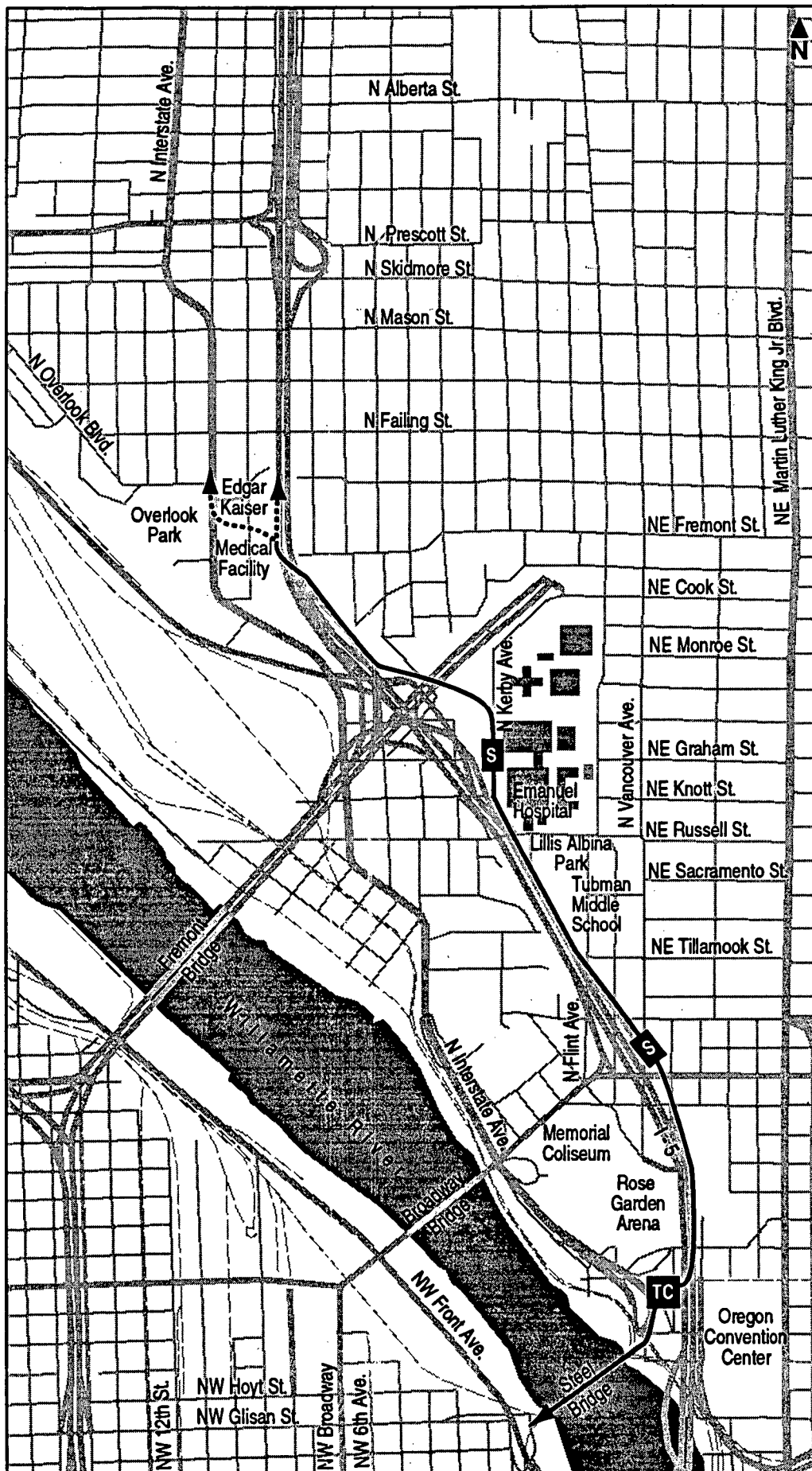
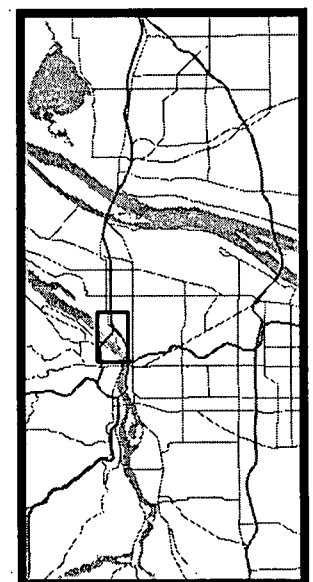








Figure 7

Light Rail Design Options: Steel Bridge to Kaiser

Wheeler / Russell

September 1995

Note: Alignment, station and park and ride locations are currently under study and may change.

-  Light Rail Transit (LRT) Design Option
-  Station
-  Alternative LRT Alignment
-  Existing Railroad
-  Transit Center
-  Park and Ride

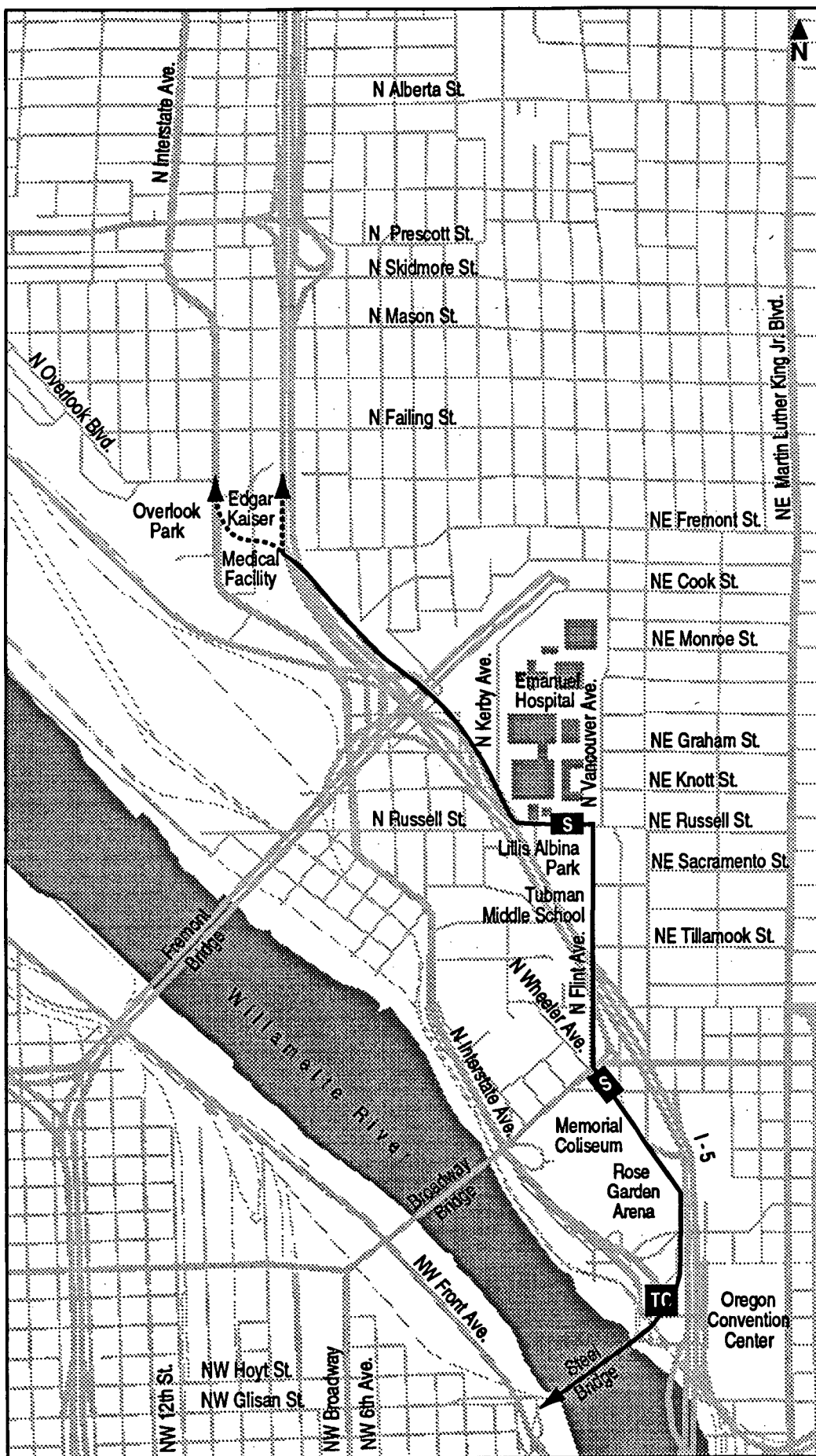
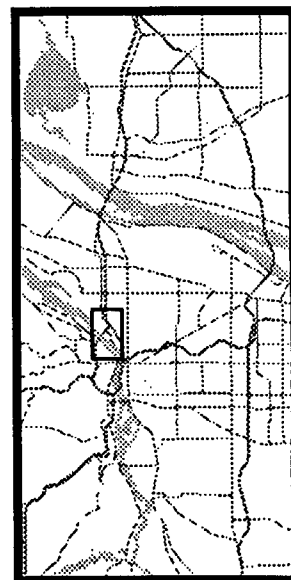


Figure 8

pedestrians. Methods to mitigate these potential problems will be analyzed prior to and during the DEIS process.

4. *In the Broadway/Weidler Interchange Area:* Alignment options for light rail should be incorporated into an integrated design with I-5 and street system improvements in order to improve circulation for automobiles, pedestrian and bicycles and which would optimize bus and LRT operations.

3.6.3 Steel Bridge to Kaiser Medical Facility: Rationale

The East I-5/N. Kerby Avenue and N. Wheeler Avenue/N. Russell Street options are selected for inclusion in the DEIS because:

- [a] The East I-5/N. Kerby Avenue provides the best combination of cost, ridership, travel time and light rail access as evidenced by having the lowest (best) comparative ratio. It would provide stations which would serve both the Eliot neighborhood and the Emanuel Hospital campus. In addition, it would attract the highest light rail boardings in this segment amongst all of the alignment options.
- [b] The N. Wheeler/N. Russell Street option may provide the best access to the Eliot neighborhood and the best redevelopment opportunities amongst all options in this segment. It also provides more flexibility in the station placement within the Eliot neighborhood than would the N. Wheeler/N. Flint option.
- [c] The West I-5 option, while would serve the industrial sanctuary between I-5 and the Willamette River, is not selected for further study because it would not adequately serve the Eliot neighborhood or Emanuel Hospital which are the priority areas to be served. Light rail users wishing to access Emanuel Hospital or the Eliot neighborhood from the N. Graham Street station would have to walk-up an eighty foot elevation change. Moreover, by servicing the industrial sanctuary, the West I-5 option may create non-industrial redevelopment pressures which contradict City objectives for this area.

3.7 KAISER MEDICAL FACILITY TO EXPO CENTER

3.7.1 Kaiser Medical Facility to Expo Center: Selected Options (See Figures 9 & 10)

The South/North Steering Group determined that an Interstate Avenue and an I-5 alignment alternative would be advanced into the DEIS for further study and that various design options and crossover combinations of the alignment alternatives would be developed, evaluated and narrowed within the Design Option Narrowing Process.

One design option for each alignment alternative is selected for further study within the DEIS:

1. *All I-5 Alignment:* From Emanuel Hospital, the light rail alignment would pass beneath the I-405 ramps and climb-up along the eastern edge of I-5. From the potential station at the Kaiser clinic, the light rail alignment would proceed north along the top of the western bank of the I-5 freeway to a station south of N. Skidmore Street.

It would then continue north, passing beneath N. Going Street in a box structure, then running above the freeway along N. Minnesota Avenue (west of the freeway ramps) from N. Going Street to a potential station at N. Killingsworth Street. It would then proceed along the top of the freeway bank and then curve west along the freeway ramps to a potential station on the south side of N. Portland Boulevard. The alignment would cross N. Portland Boulevard at street level and continue north along the west bank of the freeway to a potential station on the south side of N. Lombard Street. It would then pass over N. Lombard and the adjacent freeway ramps on a structure and proceed northerly to a potential Kenton station at N. Kilpatrick Street.

From the Kenton station, the alignment would proceed northerly along the west side of the I-5 freeway. It would cross over N. Columbia Boulevard and the Columbia Slough on a bridge, and then lower to ground level. It would then pass Delta Park and begin to elevate for about 1/2 mile and crossover Highway 99 adjacent to Expo Road. An elevated potential station would be located near the Expo Center parking lot.

2. *All Interstate Avenue and West of Denver Avenue Alignment:* From Emanuel Hospital, the light rail alignment would pass beneath the I-405 ramps and climb-up along the eastern edge of I-5. It would crossover I-5 on a structure near N. Fremont Street and then proceed across the Kaiser campus with a diagonal street level station near the existing Town Hall building.

The alignment would then turn onto N. Interstate Avenue near N. Overlook Boulevard. From there, the alignment would proceed northerly in the center of N. Interstate Avenue. One lane of auto traffic in each direction would be provided except at the approaches to N. Going Street and N. Lombard Street where two lanes of traffic in each direction would be provided. All intersections would be crossed at street level. Potential stations would be located at N. Skidmore Street, N. Killingsworth Street, N. Portland Boulevard, N. Lombard Street and the Kenton commercial district.

From the Kenton station, the alignment would follow the west side of N. Denver Avenue viaduct (the "West of Denver" option). It would proceed northerly across N. Columbia Boulevard and the Columbia Slough on a bridge, pass West Delta Park and follow Expo Road to an elevated potential station near the Expo Center parking lot.

3.7.2 Kaiser Medical Facility to Expo Center: Issues

Four issues require continued investigation in this area:

1. *Design of Interstate Avenue option for auto traffic:* The configuration and operation of the traffic lanes on and intersecting Interstate Avenue (in the Interstate Avenue option) will be refined during the next two months.
2. *Choice between the I-5 option and the Interstate Avenue option:* This choice will be one of the major issues to be resolved during the DEIS process. An important basis for making this determination will focus on the ability to plan and develop transit-oriented land uses around stations. Issues of density, timing and certainty of development, parking, integration of light rail with major attractors, equity, capital cost, light rail travel speed/time, reliability, ridership, neighborhood cohesiveness and similar factors will be taken into consideration when evaluating these two options.
3. *Design and location of stations in the Kaiser Medical Facility to Expo Center segment:* The station locations along this segment will be refined during the next two months to ensure that access into the neighborhood is maximized and feeder bus service is efficiently provided.
4. *Crossovers:* The desirability and preferred location for a crossover between the I-5 alignment and the Interstate Avenue alignment has not been determined as part of the Tier I process. At this time, no crossover option will be studied in the DEIS. In making this determination, the Steering Group notes that the DEIS will focus on the key issue in this segment -- the relative merits and impacts of the Interstate Avenue and I-5 alignment options. Following completion of the results reports for the DEIS, staff will report back to the PMG, CAC and Steering Group to determine which crossover warrants further study.
5. *Expo Center and Portland International Raceway Stations:* Through the information developed for the DEIS, an assessment will be made as to the cost-effectiveness of the Expo Center Station. If that analysis concludes that an Expo Center station is not warranted, the alignment over Marine Drive may be redesigned. In addition, a possible future station serving the Portland International Raceway may be included within the design if future analysis indicates that it would be warranted.

3.7.3 Kaiser Medical Facility to Expo Center: Rationale

The Interstate Avenue option would provide a light rail alignment that is more centrally located in North Portland neighborhoods than the I-5 option and may enhance certain land use opportunities. Conversely, the I-5 option would cost less to construct, would provide faster travel speeds to more users, provide better access to neighborhoods east of I-5 and may not be subject to the operational and traffic problems inherent in the Interstate Avenue option. These are

key trade-offs for which information is not yet available to forge a consensus decision. Thus, it is essential that both options be further examined in the DEIS.

3.8 EXPO CENTER TO V.A. HOSPITAL/CLARK COLLEGE VICINITY

3.8.1 Expo Center to V.A. Hospital/Clark College Vicinity: Selected Options (See Figures 11, 12 & 13)

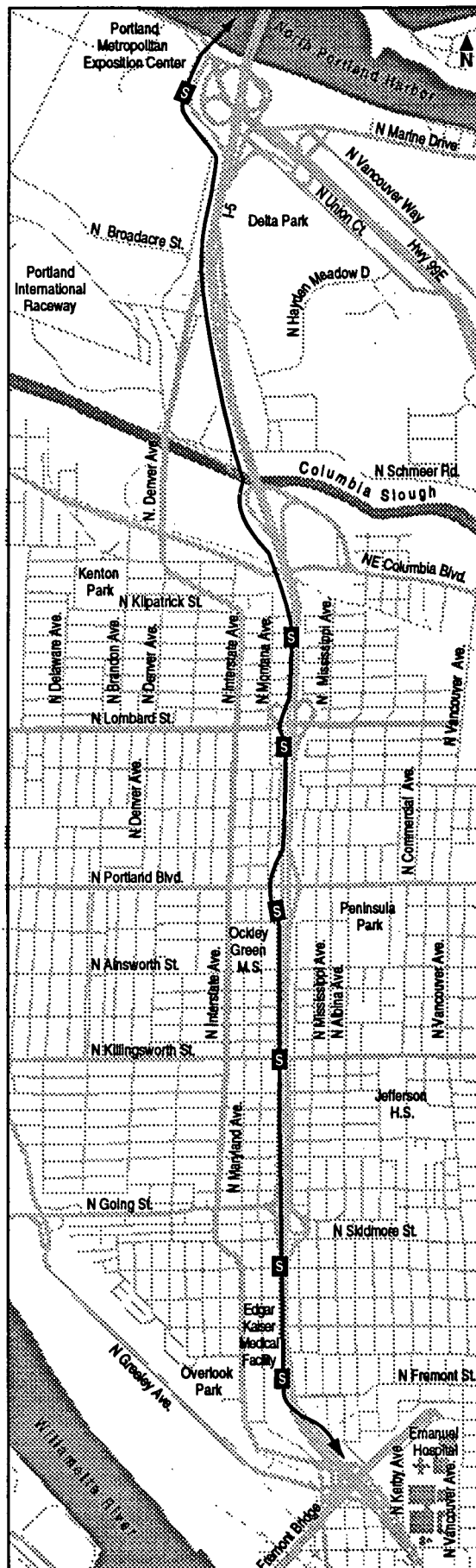
In this segment, one design option is selected to be examined in the DEIS:

1. *West of I-5/Lift Span Bridge/Washington Street (2-way)/E. McLoughlin Boulevard:* From the Expo Center, the alignment would proceed north over N. Marine Drive, North Portland Harbor and N. Jantzen Avenue on a bridge structure. The alignment would pass under the I-5 ramps (Sub-option B: Under the I-5 Ramps), then continue northerly along the westside of the freeway to a new lift span bridge crossing the Columbia River. The light rail bridge would parallel the westside of the existing I-5 bridge and would be approximately the same height above the river. The bridge would pass over Columbia Way in Vancouver and then would cross under the railroad berm before connecting with Washington Street. Washington Street would operate in a two-way light rail configuration (2-Way on Washington Option). The light rail alignment would proceed northerly on Washington Street to stations at W. 7th Street, between W. 11th and W. 12th Streets and between W. 16th and W. 17th Streets. At McLoughlin Boulevard, the alignment would curve easterly, proceeding along E. McLoughlin Boulevard to the east side of I-5. A station would be potentially located on E. McLoughlin Boulevard between "D" and "E" Streets. The alignment would cross under I-5 and then turn northerly and proceed along the east side of I-5 to a park-and-ride station in the vicinity of the Veterans Hospital. The alignment would then turn easterly, proceeding to the terminus station west of Fort Vancouver Way.

3.8.2 Expo Center to V.A. Hospital/Clark College Vicinity: Issues

One issue requires continued investigation in this area:

1. Clark County Transportation Futures Process: The outcome of Clark County's "Transportation Futures" study may necessitate changes to the light rail alignment, station locations, park-and-ride facility design(s) and location(s) and terminus in this segment.



Light Rail Design Options: Kaiser to Expo Center

I-5 Alignment

October 1995

Note: Alignment, station and park and ride locations are currently under study and may change.

- Light Rail Transit (LRT) Design Option
- S — Station
- Alternative LRT Alignment
- Existing Railroad
- TC Transit Center
- PR Park and Ride

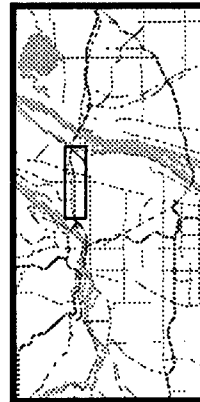
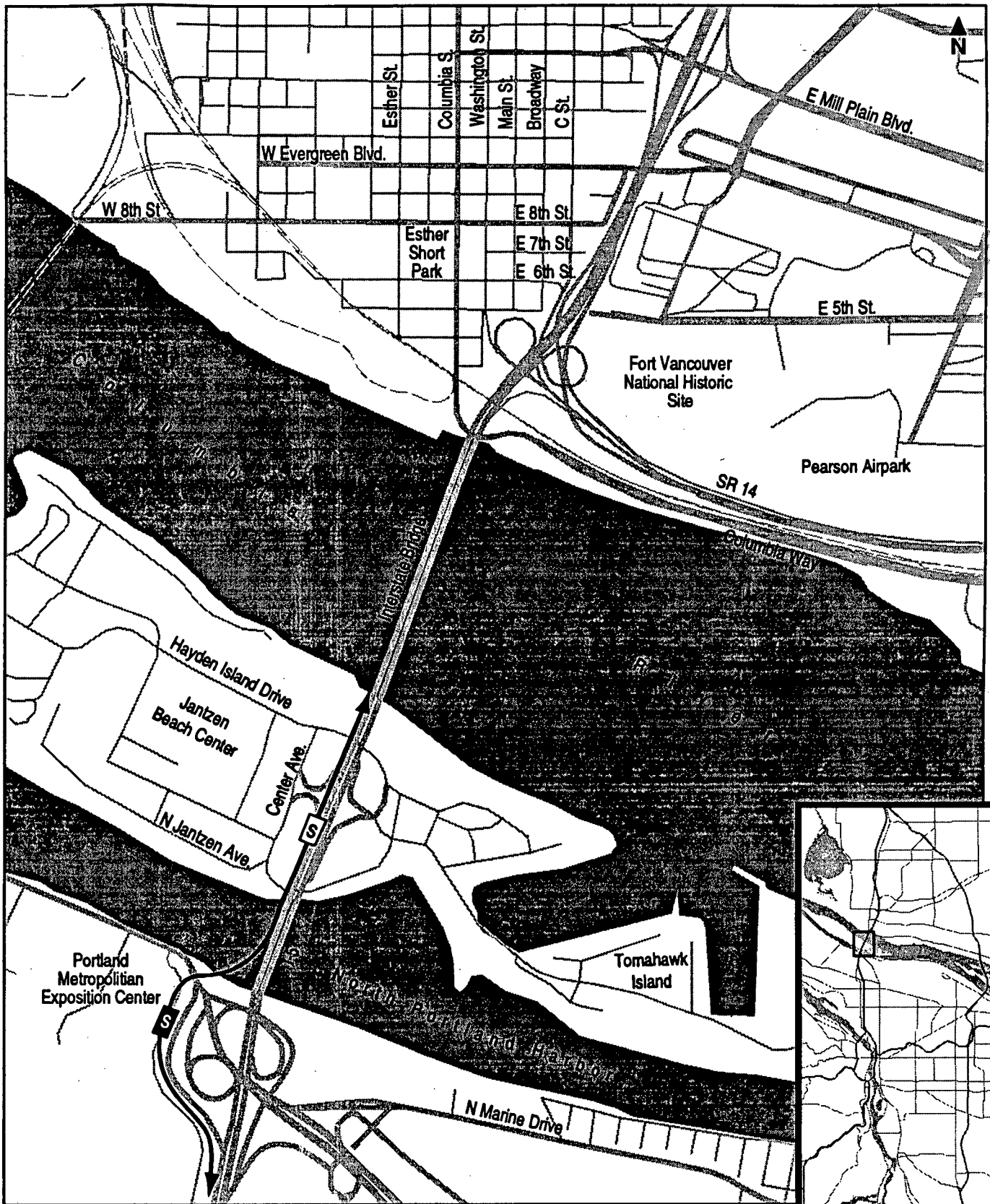


Figure 10

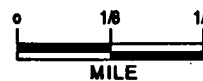


**Light Rail Design Options:
Expo Center to
Hayden Island
West of I-5 (under ramps)**

Figure 11

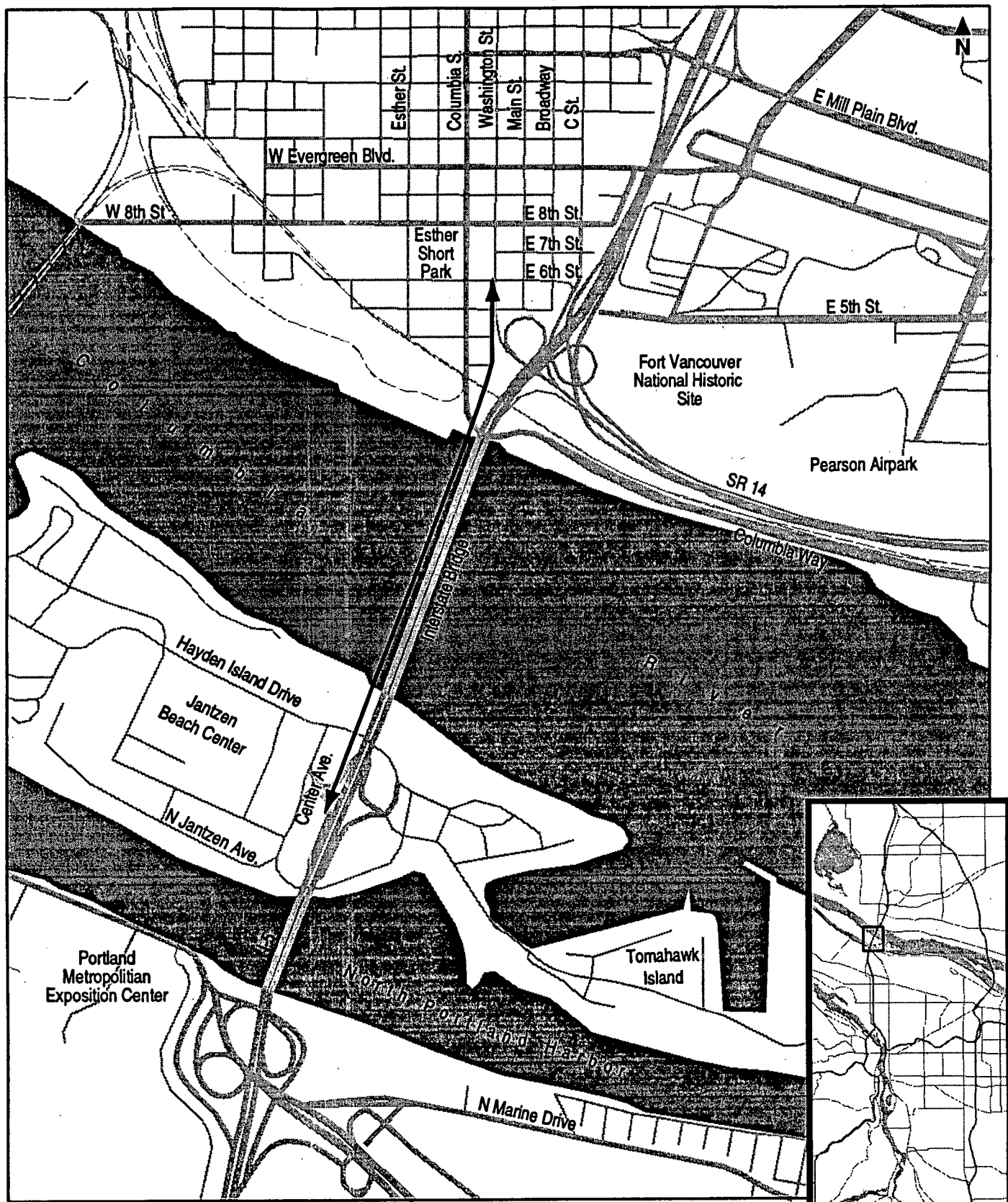
- Light Rail Transit (LRT) Design Option
- Station
- Alternative LRT Alignment
- Existing Railroad

- Transit Center
- Park and Ride



Note: Alignment, station and park and ride locations are currently under study and may change.





**South
North**
Transit Corridor Study

Light Rail Design Options: **Columbia River Crossing**

Lift Span Bridge

Figure 12

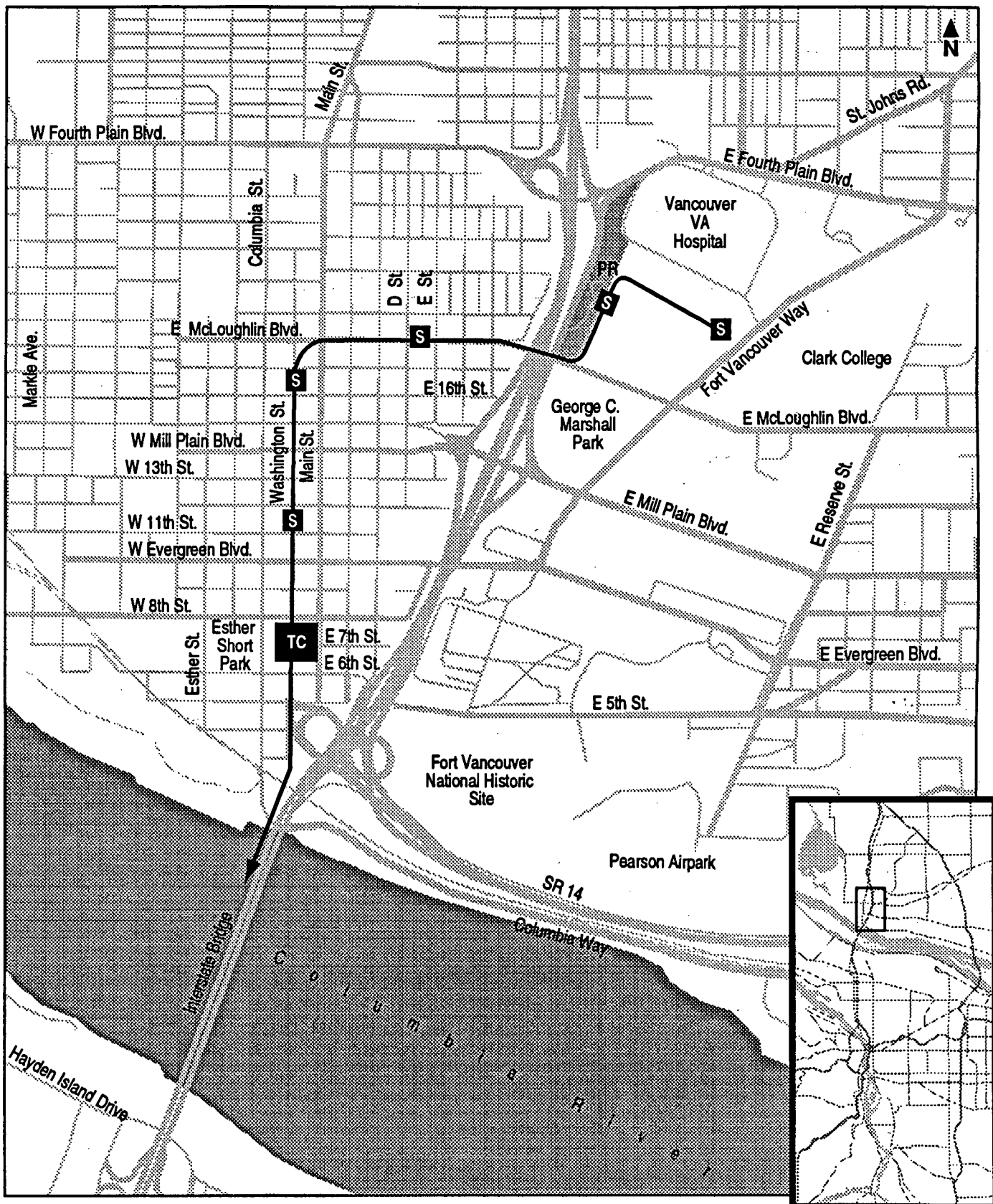
- Light Rail Transit (LRT) Design Option
- Station
- Alternative LRT Alignment
- Existing Railroad

- Transit Center
- Park and Ride



Note: Alignment, station and park and ride locations are currently under study and may change.





South North
Transit Corridor Study

**Light Rail Design Options:
Downtown Vancouver
to VA Hospital/
Clark College**
2-Way on Washington

- Light Rail Transit (LRT) Design Option
- Station
- Alternative LRT Alignment
- Existing Railroad
- Transit Center
- Park and Ride



Note: Alignment, station and park and ride locations are currently under study and may change.



Figure 13

33.8.3 Expo Center to V.A. Hospital/Clark College Vicinity: Rationale

The West of I-5/Lift Span Bridge/Washington Street (2-way)/E. McLoughlin Boulevard alignment is selected to be included in the DEIS because:

- [a] Between Expo Center and Hayden Island, the West of I-5 Under the Ramps option is selected for inclusion in the DEIS because it would be the least expensive of the West of I-5 options, it would not create a barrier which divides Hayden Island as do the Center Street and Adjacent to Jantzen Beach Center options and would have the minimum traffic impacts.
- [b] The Lift Span bridge is selected for inclusion in the DEIS over the Bored Tunnel option because it would be \$101 million (\$YOE) less expensive, would have considerably less adverse impacts on Hayden Island and downtown Vancouver and would provide centrally located access through downtown Vancouver and which would be in proximity to major redevelopment sites. The LRT bridge can be built using techniques that would minimize effects on the Columbia River ecosystem.
- [c] The Two-Way on Washington Street Option is selected for inclusion in the DEIS because, compared to the other Vancouver CBD alignment options, it would be the least expensive to construct, would exhibit the fastest travel times, would attract the highest ridership, has the highest level of public support and would be the most consistent with the development and redevelopment objectives in downtown Vancouver.



Appendix A

Design Options Considered

Design Option Narrowing by Segment

The following provides a quick look at the Project Management Group recommendations. Refer to the maps inside to locate specific design options selected by the group for further study.

1. South Terminus (end point)

Terminus

- Sunnyside area
- 84th Avenue CTC
- 93rd Avenue Town Center area
- Highway 212/224

CTC Alignment

- North of CTC
- South of CTC

2. Railroad Avenue/Highway 224:

- Railroad Avenue
- North of Highway 224
- South of Highway 224

3. Central Milwaukie

- Monroe Street and 21st /McLoughlin
- Monroe Street and SP branch line
- Washington to 21st/McLoughlin
- Washington Street and SP branch line
- Harrison Street and 21st Street/McLoughlin
- Harrison Street and SP branch line
- Clackamas Highway
- Southern Pacific main line

Between the Milwaukie and River Crossing segments, only a SE McLoughlin Boulevard option is being considered.

4. South Willamette River Crossing

Caruthers Eastside

- West Brooklyn Yards
- PTC/McLoughlin Boulevard
- East Brooklyn Yards

Caruthers Crossing

- Caruthers Modified
- Caruthers "S"
- Caruthers
- Caruthers/Marquam

Ross Island Crossing

- North Ross Island
- South Parallel Ross Island
- Mid Ross Island

6. Steel Bridge to Kaiser Clinic

- East I-5 and Kerby Street station
- Wheeler Avenue and Russell Street station
- Wheeler Avenue and Flint Street station
- West of I-5 Alignment and Graham Street station

7. Kaiser Clinic to Expo Center

- All Interstate Avenue alternative
- All I-5 alternative
- North Killingsworth crossover
- North Portland Blvd. crossover
- Kenton area crossover

8. Expo Center to Hayden Island

- West of I-5 freeway (under ramps)
- West of I-5 (over ramps)
- Adjacent to Jantzen Beach Center
- Center Avenue

9. Columbia River Crossing

- Lift span bridge
- Bored tunnel

10. Downtown Vancouver to VA Hospital/Clark College

- Two-way on Washington Street
- Washington/Main Street couplet

In August 1995, following an extensive effort to involve the public in the creation of the Clark County and Vancouver Transportation Futures process, C-TRAN amended the northern Phase I terminus from 99th Street to Veterans Administration Hospital/Clark College. Design options previously developed for the North Vancouver and Clark County segments will be narrowed as part of the future phase two extension process.

11. North Vancouver

- Two-way on Main Street
- Main/Broadway Street couplet to two-way on Main
- Two-way on Broadway to two-way on Main
- McLoughlin Boulevard to East of I-5 freeway

12. Clark County

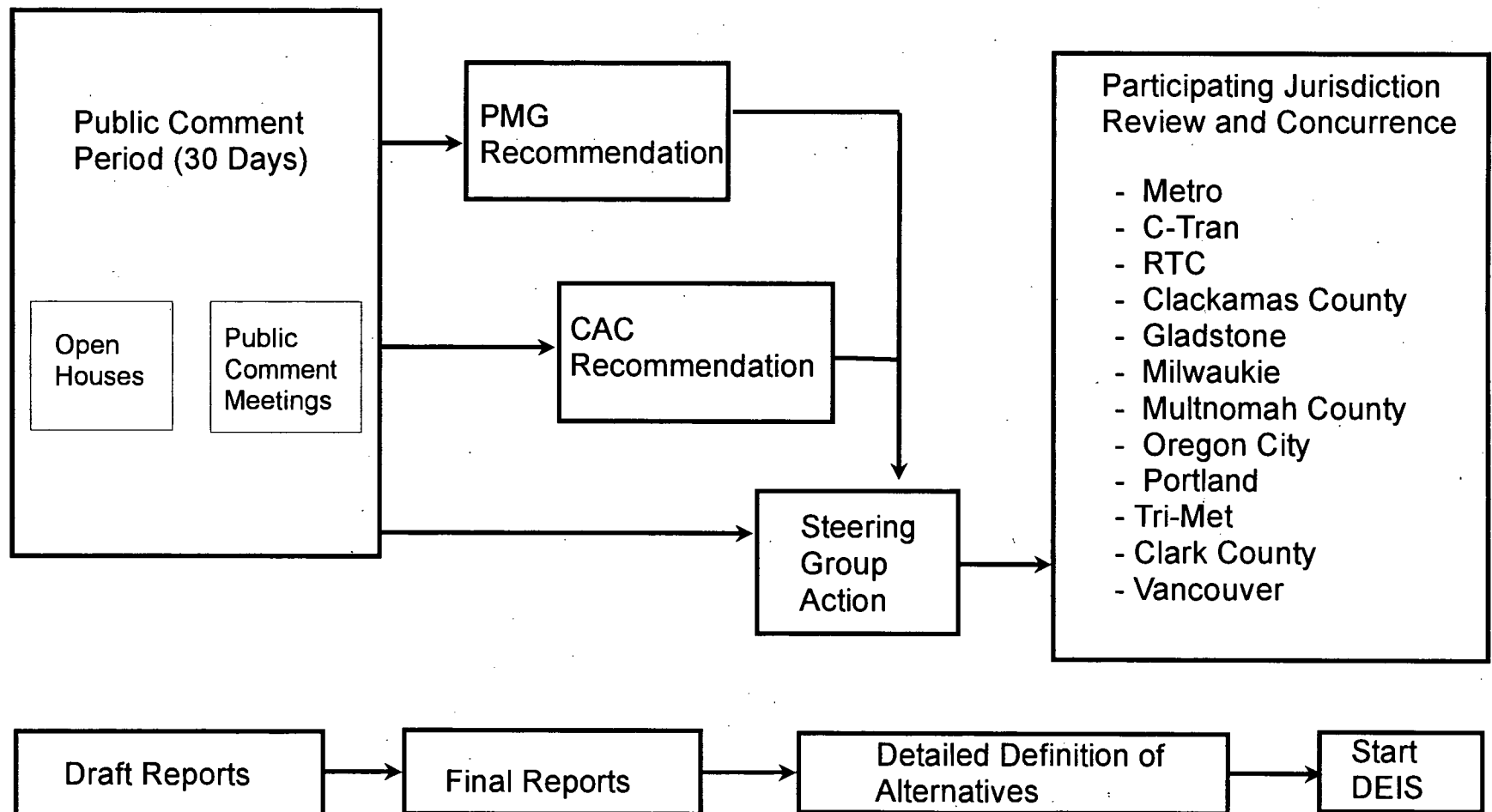
- Stations at 63rd, 72nd, 88th and 105th streets
- Stations at 63rd, 78th, 88th and 105th streets
- Stations at 63rd, 88th and 105th streets
- Stations at 63rd, 72nd, 82nd and 95th streets
- Stations at 63rd, 82nd and 95th streets



Appendix B

Design Option Narrowing Process

South/North Design Option Narrowing Process





Appendix C

Design Options Narrowing Criteria and Measures

Criteria for Evaluating Design Options During Tier I

NARROW MODAL ALTERNATIVES	NARROW ALIGNMENT ALTERNATIVES	NARROW DESIGN OPTIONS	NARROW STUDY TERMINI ALTERNATIVES
<p>Modal Alternatives which result from the Scoping Process will be carried through Tier I</p>	<p>Alignment Alternatives which result from the Scoping Process will be carried through Tier I</p>	<p>Transit Service – <i>Ease of Access</i> – <i>Transferability</i></p> <p>Transit Operations – <i>Modal Compatibility</i></p> <p>Ability to Accommodate Growth – NA –</p> <p>Minimize Traffic and Neighborhood Infiltration – NA –</p> <p>Promote Land Use Desired Patterns and Development – <i>Support Major Activity Centers</i> – <i>Support Bi-State Policies</i></p> <p>Fiscal Stability and Efficiency – <i>Cost</i></p> <p>Engineering Efficiency and Environmental Sensitivity – <i>Environmental Impacts</i> – <i>Design Considerations</i></p>	<p>Study Termini Alternatives which resulted from the Pre-AA Process will be carried through Tier I</p>

Summary of Measurement Criteria CTC Mall Alignment

Criteria	Measure	South of Mall	North of Mall
Promote Desired Land Use and Development			
<i>Service to Activity Centers</i>	Current and Planned Land Use Context	Direct access to CCC/OIT, Aquatic Center on Harmony Road	Closer to CTC public facilities
<i>Walk Market Area Data</i>	Vacant and Redevelopable Acres (Residential/Commercial/Industrial):		
	Within 5 minute walk of LRT stations		
	Sunnyside Terminus	6 / 30 / 0	10 / 16 / 0
	93rd Ave Town Center Area Terminus	1 / 33 / 0	5 / 19 / 0
	Between 5 & 10 min. walk of LRT stations		
	Sunnyside Terminus	76 / 191 / 77	60 / 52 / 40
	93rd Ave Town Center Area Terminus	18 / 73 / 41	36 / 87 / 44
	Households/Employment:		
	Within 5 minute walk of LRT stations		
	Hwy. 212/224	400 / 4,340	860 / 3,400
	Sunnyside Terminus	1,120 / 5,820	1,930 / 4,980
	93rd Ave Town Center Area Terminus	390 / 3,820	840 / 2,870
	Between 5 & 10 min. walk of LRT stations		
	Hwy. 212/224	1,000 / 7,350	2,130 / 9,510
	Sunnyside Terminus	1,450 / 7,680	2,340 / 6,990
	93rd Ave Town Center Area Terminus	840 / 6,040	1,980 / 8,270
<i>Land Use Policies</i>	Local Jurisdiction's Policies County/State/Regional Policies		Greater opportunity for future transit oriented development
Transit Ridership			
<i>Ridership</i>	Walk Market LRT Ridership Potential (Hwy. 212/224/ Sunnyside/ 93rd / 84th)	1,340 / 1,970 / 1,180 / 940	1,210 / 1,980 / 1,060 / N/A
	LRT Travel Time (minutes:seconds) (Hwy. 212/224 / Sunnyside / 93rd / 84th)	7:53 / 6:22 / 4:55 / 3:10	8:55 / 8:00 / 5:57 / N/A
	LRT Ridership Impacts from Run Time Differences (Hwy. 212/224 / Sunnyside / 93rd / 84th)	0 / 0 / 0 / 0	-70 / -110 / -70 / N/A
	Net LRT Segment Boardings (Hwy. 212/224 / Sunnyside / 93rd / 84th)	1,340 / 1,970 / 1,180 / 940	1,140 / 1,870 / 990 / N/A
<i>Reliability</i>	Percentage of Segment within Exclusive ROW At-grade Crossings	97-99%	96-99%
<i>Transferability</i>	Quality of Bus Service/LRT Transfer	Less auto/bus conflicts	Existing Transit Center location

Criteria	Measure	South of Mall	North of Mall
Fiscal Stability and Efficiency			
<i>Costs</i> <i>(in millions of \$)</i>	YOE Capital Costs		
	Hwy. 212/224 Terminus	\$271	\$307
	Sunnyside Terminus	\$181	\$202
	93rd Ave Town Center Area Terminus	\$147	\$183
<i>(From lowest cost design option with the same terminus))</i>	YOE Difference in Capital Costs ¹		
	Hwy. 212/224 Terminus	\$0	\$36
	Sunnyside Terminus	\$0	\$21
	93rd Ave Town Center Area Terminus	\$0	\$36
	84th Ave CTC Mall Terminus	N/A	N/A
	Difference in Annual O&M (1994\$) ¹		
	Hwy. 212/224 Terminus	\$0	\$0.25
	Sunnyside Terminus	\$0	\$0.45
<i>Comparative Ratio</i> ²	Ratio of Annual Cost and Ridership		
	Hwy. 212/224 Terminus	21.3	24.4
	Sunnyside Terminus	14.1	16.7
	93rd Ave Town Center Area Terminus	11.9	14.9
	84th Ave CTC Mall Terminus	7.3	N/A
Engineering Efficiency			
<i>Design Considerations</i>	Level of Engineering Risk or Construction Issues	More Construction impacts to businesses; bridge/berm on north side of Sunnyside from 82nd up to 97th	82nd Avenue bridge, I-5 Bridge, Sunnyside Bridge
Environmental Sensitivity			
<i>Displacements</i>	Residential/Commercial Bldgs./Commercial Units		
	Sunnyside Terminus	31 / 6 / 6	74 / 3 / 3
	93rd Ave Town Center Area Terminus	17 / 6 / 6	72 / 9 / 15
	84th Ave CTC Mall Terminus	27 / 4 / 4	N/A
<i>Neighborhoods</i>	Integration of LRT Service in the Community	Affects south of Southgate Village area	Affects north/east portion of Southgate Village area
<i>Visual</i>	Potential Impacts on Aesthetics of an Area	Structure at Mall/Sunnyside Road	
<i>Noise and Vibration</i>	Potentially Sensitive Receptors		Some residential
<i>Traffic</i>	Traffic Impact Assessment		2 gate crossings of mall traffic

Note: All costs are in millions. Capital costs are for year of expenditure (YOE). Operating and Maintenance (O&M) costs are in 1994 dollars.

¹ Difference from the lowest cost design option. A zero indicates that option as the low cost option.

² Comparative ratio includes *LRT Segment Boardings* plus the following bus transfers to LRT: 1) 930 bus transfer access trips for the Highway 212/224 termini - South of Mall design option; 2) 1,100 bus transfer access trips for Highway 212/224 termini - North of Mall design option; 3) 1,070 for 93rd Avenue, Town Center Area terminus - South of Mall design option; 4) 1,240 for 93rd Avenue Town Center Area terminus - North of Mall design option; 5) 380 bus transfer access trips for the Sunnyside terminus - South and North of Mall design option; and 6) 1,310 bus transfer access trips for 84th Avenue/CTC terminus.

Summary of Measurement Criteria Southern Terminus Options

Criteria	Measure	Hwy. 212/224 Terminus	Sunnyside Terminus	93rd Avenue Town Center Area Terminus	84th Avenue CTC Terminus
Promote Desired Land Use and Development					
<i>Service to Activity Centers</i>	Current and Planned Land Use Context	Terminus located in commercial industrial area	Terminus located near residential/commercial/medical uses	Terminus located near office/commercial uses	Does not serve all of Regional Center
<i>Walk Market Area Data</i>	Vacant and Redevelopable Acres (Residential/Commercial/Industrial):				
	Within 5 minute walk of LRT stations	0-4 / 27-40 / 2	0-11 / 16-30 / 0	0-5 / 19-33 / 0	N/A
	Between 5 & 10 min. walk of LRT stations	5-34 / 97-109 / 65-78	20-45 / 52-191 / 40-77	2-32 / 87-73 / 0-1	
	Households/Employment:				
	Within 5 minute walk of LRT stations				
	South of Mall	400 / 4,340	1,120 / 5,820	390 / 3,820	390 / 2,930
	North of Mall	860 / 3,400	1,930 / 4,980	840 / 2,870	
	Between 5 & 10 min. walk of LRT stations				
	South of Mall	1,000 / 7,350	1,450 / 7,680	840 / 6,040	N/A
	North of Mall	2,130 / 9,510	2,340 / 6,990	1,980 / 8,270	
<i>Land Use Policies</i>	Local Jurisdiction's Policies				
	County/State/Regional Policies				
Transit Ridership					
<i>Ridership</i>	Walk Market LRT Ridership Potential				
	South of Mall	1,340	1,970	1,180	940
	North of Mall	1,210	1,980	1,060	N/A
	LRT Travel Time (minutes:seconds)				
	South of Mall	7:53	6:22	4:55	3:10
	North of Mall	8:55	8:00	5:57	N/A
	LRT Ridership Impacts from Run Time Differences (from North of Mall LRT Ridership)	-70	-110	-70	N/A
	Net LRT Segment Boardings				
	South of Mall	1,340	1,970	1,180	940
	North of Mall	1,140	1,870	990	N/A
<i>Reliability</i>	Percentage of Segment within Exclusive ROW	98%	96%	97%	98%
	At-grade Crossings	5-11	7-13	4-10	2
<i>Transferability</i>	Quality of Bus Service/LRT Transfer	No differences between options	No differences between options	No differences between options	No differences between options

Criteria	Measure	Hwy. 212/224 Terminus	Sunnyside Terminus	93rd Avenue Town Center Area Terminus	84th Avenue CTC Terminus
Fiscal Stability and Efficiency					
<i>Costs (in millions of \$)</i>	YOE Capital Costs				
	South of Mall	\$271	\$181	\$147	\$89
	North of Mall	\$307	\$207	\$183	N/A
<i>(From lowest cost design option with the same terminus)</i>	YOE Difference in Capital Cost ¹	\$182 - \$219	\$92 - \$113	\$58 - 94	0
	Difference in Annual O&M (1994\$) ¹	\$1.20 / \$1.46	\$0.83 / \$1.28	\$0.45 - \$0.71	\$0.00
<i>Comparative Ratio ²</i>	Ratio of Annual Cost and Ridership				
	South of Mall	21.3	14.1	11.9	7.3
	North of Mall	24.4	16.7	14.9	N/A
Engineering Efficiency					
<i>Design Considerations</i>	Level of Engineering Risk or Construction Issues	New underpass of I-205, wetlands, construction impacts on traffic	Bridge of I-205, construction impacts on traffic	Construction impacts on traffic	
Environmental Sensitivity					
<i>Displacements</i>	Residential/Commercial Units	23-72 / 11-15	31-74 / 3-6	17-72 / 6-15	4 / 27
<i>Neighborhoods</i>	Integration of LRT Service in the Community		Direct service to Sunnyside Area		
<i>Noise and Vibration</i>	Potentially Sensitive Receptors	Precision Castparts	Kaiser/Sunnyside		
<i>Ecosystems</i>	Potential Impacts on the Natural Environment	Mt. Scott and Dean Creek			Phillips Creek and CTC detention pond

Note: All costs are in millions. Capital costs are for year of expenditure (YOE). Operating and Maintenance (O&M) costs are in 1994 dollars.

¹ Difference from the lowest cost design option with same central Milwaukie alignment. A zero indicates that option as the low cost option.

² Comparative ratio includes *LRT Segment Boardings* plus the following bus transfers to LRT: 1) 930 bus transfer access trips for the Highway 212/224 termini - South of Mall design option; 2) 1,100 bus transfer access trips for Highway 212/224 termini - North of Mall design option; 3) 1,070 for 93rd Avenue Town Center Area Terminus - South of Mall design option; 4) 1,240 for 93rd Avenue Town Center Area Terminus - North of Mall design option; 5) 380 bus transfer access trips for the Sunnyside terminus - South and North of Mall design options, and 6) 1,310 bus transfer access trips for 84th Avenue CTC Terminus.

Summary of Measurement Criteria Highway 224 Segment

Criteria	Measure	Railroad Ave.	North of Hwy. 224	South of Hwy. 224
Promote Desired Land Use and Development				
<i>Service to Activity Centers</i>	Current and Planned Land Use Context	Near to residential and industrial	Adjacent to industrial/commercial	Adjacent to residential
<i>Walk Market Area Data</i>	Vacant and Redevelopable Acres (Residential/Commercial/Industrial):			
	Within 5 minute walk of LRT stations	6 / 2 / 15	6 / 2 / 17	8 / 1 / 12
	Between 5 & 10 min. walk of LRT stations	41 / 9 / 22	52 / 9 / 27	50 / 11 / 28
	Households/Employment (2015):			
	Within 5 minute walk of LRT stations	500 / 500	460 / 320	500 / 370
	Between 5 & 10 min. walk of LRT stations	1,490 / 2,710	1,520 / 3,150	1,490 / 3,090
<i>Land Use Policies</i>	Local Jurisdiction's Policies	No significant differences		
	County/State/Regional Policies	No significant differences		
Transit Ridership		3 stations	3 stations	3 stations
<i>Ridership</i>	Walk Market LRT Ridership Potential	400	340	370
	LRT Travel Time (minutes:seconds)	3:33	3:41	3:52
	LRT Ridership Impacts from Run Time Differences	0	0	0
	Net LRT Segment Boardings	400	340	370
<i>Reliability</i>	Percentage of Segment within Exclusive ROW	99%	99%	98%
	At-grade Crossings	2	4	5
<i>Transferability</i>	Quality of Bus Service/LRT Transfer	No significant differences	No significant differences	No significant differences

Criteria	Measure	Railroad Ave.	North of Hwy. 224	South of Hwy. 224
Fiscal Stability and Efficiency				
<i>Costs</i> <i>(in millions of \$)</i>	YOE Capital Costs	\$189	\$212	\$197
	YOE Difference in Capital Costs ¹	\$0	\$23	\$8
	Difference in Annual O&M (1994\$) ¹	\$0	\$0	\$0
<i>Comparative Ratio</i>	Ratio of Annual Cost and Ridership	80.9	106.5	91.3
Engineering Efficiency				
<i>Design Considerations</i>	Level of Engineering Risk or Construction Issues	Construction adjacent to SP Main Line	Wetlands, impacts to Hwy. 224	Retaining walls, impacts to Hwy. 224
Environmental Sensitivity				
<i>Displacements</i>	Residential Units/Commercial Buildings/Commercial Units	71 / 5 / 5	46 / 11 / 11	85 / 3 / 6
<i>Neighborhoods</i>	Integration of LRT Service in the Community			
<i>Visual</i>	Potential Impacts on Aesthetics of an Area	Structure near residential area	None identified	None identified
<i>Noise and Vibration</i>	Potentially Sensitive Receptors	No potential receptors	Some potential receptors	Some potential receptors
<i>Ecosystems</i>	Potential Impacts on the Natural Environment	Minimal	Wetlands	Minimal
<i>Hazardous Materials</i>	Potential Hazardous Materials Risk	Confirmed release at Catellus Site	None identified	None identified
<i>Historic</i>	Number of Potential Impacts on Historic and Cultural Resources	2	0	0
<i>Parks</i>	Potential Impacts to Parklands	Campbell School Playground		
<i>Traffic</i>	Traffic Impact Assessment		No significant differences	No significant differences

Note: All costs are in millions. Capital costs are for year of expenditure (YOE). Operating and Maintenance (O&M) costs are in 1994 dollars.

¹ Difference from the lowest cost design option connecting to the same Central Milwaukie alignment. A zero indicates that option as the low cost option.

Summary of Measurement Criteria Milwaukie Segment

Criteria	Measure	Washington to 21st/McLoughlin	Washington to East of SP Branch Line	Monroe St. to 21st/McLoughlin	Monroe St. to East of SP Branch Line
Promote Desired Land Use and Development					
<i>Service to Activity Centers</i>	Current and Planned Land Use Context	Residential/Commercial	Residential/Commercial	Residential/Commercial	Residential/Commercial
<i>Walk Market Area Data</i>	Vacant and Redevelopable Acres (Residential/Commercial/Industrial):				
	Within 5 minute walk of LRT stations	1-2 / 8-9 / 0	3 / 6 / 0	1 / 9 / 0	3 / 3 / 0
	Between 5 & 10 min. walk of LRT stations	7-11 / 17-21 / 0	8 / 26 / 0	7 / 19 / 0	6 / 25 / 0
	Households/Employment (2015):				
	Within 5 minute walk of LRT stations	170-200 / 550	190 / 580	170 / 550	200 / 610
	Between 5 & 10 min. walk of LRT stations	1,025-1,160 / 1,230-1,250	970 / 1,170	1,030 / 1,250	960 / 1,140
<i>Land Use Policies</i>	Local Jurisdiction's Policies County/State/Regional Policies	Direct CBD service; Central to Regional Center	Edge of CBD service; Central to Regional Center	Direct CBD service; Central to Regional Center	Edge of CBD service; Central to Regional Center
Transit Ridership					
<i>Ridership</i>	Walk Market LRT Ridership Potential	760	790	760	810
	LRT Travel Time (minutes:seconds)	6:04	5:12	4:36	4:02
	LRT Ridership Impacts from Run Time Differences	-470	-360	-280	-210
	Net LRT Segment Boardings	290	430	480	600
<i>Reliability</i>	Percentage of Segment within Exclusive ROW	58%	49%	91%	88%
	At-grade Crossings (gated/signalized)	5	6	8	6
<i>Transferability</i>	Quality of Bus Service/LRT Transfer				
Fiscal Stability and Efficiency					
<i>Costs (in millions of \$)</i>	YOE Capital Costs ¹	\$227 - 236	\$202 - 209	\$206 - 216	\$185 - 192
	YOE Difference in Capital Costs ²	\$106	\$79	\$79	\$57
	Difference in Annual O&M (1994\$) ²	\$0.36	\$0.15	\$0	\$0.19
<i>Comparative Ratio³</i>	Ratio of Annual Cost and Ridership	12.2 - 12.6	10.3 - 10.7	10.2 - 10.7	9.1 - 9.4

Criteria	Measure	Harrison to Main St./McLoughlin	Harrison to East of SP Branch Line	Milwaukee Expressway	SP Main Line
Promote Desired Land Use and Development					
<i>Service to Activity Centers</i>	Current and Planned Land Use Context	Residential/Commercial	Residential/Commercial	Residential/Commercial	Industrial/Commercial
<i>Walk Market Area Data</i>	Vacant and Redevelopable Acres (Residential/Commercial/Industrial):				
	Within 5 minute walk of LRT stations	1 / 7 / 0	1 / 3 / 0	1 / 5 / 0	0
	Between 5 & 10 min. walk of LRT stations	1 / 16 / 2	6 / 17 / 4	11 / 22 / 0	0
	Households/Employment (2015):				
	Within 5 minute walk of LRT stations	250 / 420	540 / 200	240 / 370	0
	Within 5 & 10 min. walk of LRT stations	430 / 1,420	510 / 1,630	390 / 1,470	0
<i>Land Use Policies</i>	Local Jurisdiction's Policies	Far edge of CBD service	Far from CBD	Far from CBD	Does not serve CBD;
	County/State/Regional Policies				edge of regional center
Transit Ridership					
<i>Ridership</i>	Walk Market LRT Ridership Potential	750	870	720	350
	LRT Travel Time (minutes:seconds)	4:55	4:30	4:09	2:32
	LRT Ridership Impacts from Run Time Differences	-325	-265	-225	0
	Net LRT Segment Boardings	425	605	495	350
<i>Reliability</i>	Percentage of Segment within Exclusive ROW	93%	93%	99%	99%
	At-grade Crossings	3	3	1	1
<i>Transferability</i>	Quality of Bus Service/LRT Transfer				
Fiscal Stability and Efficiency					
<i>Costs (in millions of \$)</i>	YOE Capital Costs ¹	\$210 - 214	\$171 - 178	\$183 - 192	\$128 - 139
	YOE Difference in Capital Costs ²	\$82	\$43	\$56	\$0
	Difference in Annual O&M from (1994\$) ²	\$0.71	\$0.84	\$0.62	\$0.98
<i>Comparative Ratio ³</i>	Ratio of Annual Cost and Ridership	11.2 - 11.4	9.1 - 9.4	9.7 - 10.1	8.4 - 9.0

Milwaukie Segment (cont.)

Criteria	Measure	Washington to 21st/McLoughlin	Washington to East of SP Branch Line	Monroe St. to 21st/McLoughlin	Monroe St. to East of SP Branch Line
Engineering Efficiency					
<i>Design Considerations</i>	Level of Engineering Risk or Construction Issues	Steep grades, CBD construction impacts; blind tunnel under SP	CBD construction impacts	Steep grades, CBD construction impacts; tunnel under SP	CBD Construction impacts
Environmental Sensitivity					
<i>Displacements</i>	Residential Units/Commercial Units	3-9 / 37-49	5-9 / 37-48	11-18 / 21-22	64-70 / 18-19
<i>Neighborhoods</i>	Integration of LRT Service in the Community				
<i>Visual</i>	Potential Impacts on Aesthetics of an Area	SP branch line undercrossing		SP branch line undercrossing	
<i>Noise and Vibration</i>	Potentially Sensitive Receptors	Several potential sensitive receptors with all downtown options.			
<i>Historic</i>	Number of Potential Impacts on Historic and Cultural Resources	5	1	7	4
<i>Parks</i>	Potential Impacts to Parklands	Scott Park		Scott Park	
<i>Traffic</i>	Traffic Impact Assessment	Mixed traffic	Mixed traffic		

Note: All costs are in millions. Capital costs are for year of expenditure (YOE). Operating and Maintenance (O&M) costs are in 1994 dollars.

¹ The range of capital costs represents the difference in the cost of connecting the design option to the three different design options in the Railroad Avenue/Highway 224 segment.

² Difference from the lowest cost design option connecting to the Railroad Avenue design option. A zero indicates that option as the low cost option.

³ The daily LRT ridership used to develop the *comparative ratio* includes an additional 390 bus transfer trips with the SP Main Line design option. Also, the weekday LRT ridership for the downtown Milwaukie design options includes an additional 3,000 bus transfer from buses south of Milwaukie, while the SP Main Line option includes an additional 2,790 bus transfers from buses south of Milwaukie.

Criteria	Measure	Harrison to Main St./McLoughlin	Harrison to East of SP Branch Line	Milwaukie Expressway	SP Main Line
Engineering Efficiency					
<i>Design Considerations</i>	Level of Engineering Risk or Construction Issues	CBD Construction impacts, long bridge		Long bridge	Negotiating with railroad
Environmental Sensitivity					
<i>Displacements</i>	Residential Units/Commercial Units	21-26 / 23-25	20-23 / 18-21	1-7 / 19-27	0-4 / 18
<i>Neighborhoods</i>	Integration of LRT Service in the Community				
<i>Visual</i>	Potential Impacts on Aesthetics of an Area	Bridge structure in downtown			
<i>Noise and Vibration</i>	Potentially Sensitive Receptors	Several potential receptors in downtown area		Few potential receptors	Few potential receptors
<i>Historic</i>	Number of Potential Impacts on Historic and Cultural Resources	2	1	1	0
<i>Parks</i>	Potential Impacts to Parklands	Scott Park			
<i>Traffic</i>	Traffic Impact Assessment	Regional collector	Regional collector		

Note: All costs are in millions. Capital costs are for year of expenditure (YOE). Operating and Maintenance (O&M) costs are in 1994 dollars.

¹ The range of capital costs represents the difference in the cost of connecting the design option to the three different design options in the Railroad Avenue/Highway 224 segment.

² Difference from the lowest cost design option connecting to the Railroad Avenue design option. A zero indicates that option as the low cost option.

³ The daily LRT ridership used to develop the *comparative ratio* includes an additional 390 bus transfer trips with the SP Main Line design option. Also, the weekday LRT ridership for the downtown Milwaukie design options includes an additional 3,000 bus transfer from buses south of Milwaukie, while the SP Main Line option includes an additional 2,790 bus transfers from buses south of Milwaukie.

Summary of Measurement Criteria Eastside Connection Design Options

Criteria	Measure	PTC/McLoughlin	East Brooklyn Yards	West Brooklyn Yards
Promote Desired Land Use and Development				
<i>Service to Activity Centers</i>	Current and Planned Land Use Context	Serves Brooklyn neighborhood and industrial area	Serves Brooklyn and HAND neighborhood & industrial area	Serves Brooklyn and HAND neighborhood & industrial area
<i>Walk Market Area Data</i>	Vacant and Redevelopable Acres (Residential/Commercial/Industrial):			
	Within 5 minute walk of LRT stations	4 / 10 / 25	4 / 5 / 44	4 / 6 / 40
	Between 5 & 10 min. walk of LRT stations			
	Households/Employment (2015):			
	Within 5 minute walk of LRT stations	900 / 2,430	680 / 7,030	695 / 6,540
	Between 5 & 10 min. walk of LRT stations	1,780 / 7,390	6,330 / 11,460	3,760 / 10,370
<i>Land Use Policies</i>				
	Local Jurisdiction's Policies			
	County/State/Regional Policies			
Transit Ridership		3 stations	3 stations	3 stations
<i>Ridership</i>	Walk Market LRT Ridership Potential	1,990	3,570	3,400
	LRT Travel Time (minutes:seconds)	6:30	6:17	6:25
	LRT Ridership Impacts from Run Time Differences	0	0	0
	Net LRT Segment Boardings	1,990	3,570	3,400
<i>Reliability</i>	Percentage of Segment within Exclusive ROW	99%	100%	99%
	At-grade Crossings	1	0	3
<i>Transferability</i>	Quality of Bus Service/LRT Transfer			

Criteria	Measure	PTC/McLoughlin	East Brooklyn Yards	West Brooklyn Yards
Fiscal Stability and Efficiency				
<i>Costs</i> (in millions of \$)	YOE Capital Costs	\$211	\$279	\$237
	YOE Difference in Capital Costs ¹	\$0	\$68	\$26
	Difference in Annual O&M (1994\$) ¹	N/A	N/A	N/A
<i>Comparative Ratio</i>	Ratio of Annual Cost and Ridership	19.2	13.5	12.3
Engineering Efficiency				
<i>Design Considerations</i>	Level of Engineering Risk or Construction Issues	Questionable fill near OMSI	Questionable fill near OMSI, negotiations with railroads	Questionable fill near OMSI, negotiations with railroads
Environmental Sensitivity				
<i>Displacements</i>	Residential Units/Commercial Buildings/ Commercial Units	28 / 11 / 11 13 / 10 / 10 sub-option	16 / 47 / 49	1 / 38 / 53
<i>Neighborhoods</i>	Integration of LRT Service in the Community	Opposition to Center St. Station		Neighborhood support
<i>Noise and Vibration</i>	Potentially Sensitive Receptors	Residences on east side of McLoughlin		
<i>Ecosystems</i>	Potential Impacts on the Natural Environment	Willamette River edge		
<i>Hazardous Materials</i>	Potential Hazardous Materials Risk	Industrial area	Industrial area	Industrial area
<i>Historic</i>	Number of Potential Impacts on Historic and Cultural Resources	7	3	5
<i>Parks</i>	Potential Impacts to Parklands	Greenway, Riverside Park, PTC Trail		
<i>Traffic</i>	Traffic Impact Assessment	Minor	Minor	Minor

Note: All costs are in millions. Capital costs are for year of expenditure (YOE). Operating and Maintenance (O&M) costs are in 1994 dollars.

¹ Difference from the lowest cost design option. A zero indicates that option as the low cost option.

Summary of Measurement Criteria Caruthers River Crossings

Criteria	Measure	Caruthers/Marquam	Caruthers Modified	Caruthers	Caruthers "S"
Promote Desired Land Use and Development					
<i>Service to Activity Centers</i>	Current and Planned Land Use Context	Serves Riverplace and OMSI	Serves Riverplace and OMSI	Serves Riverplace and OMSI	Serves Riverplace, OMSI and North Macadam
<i>Walk Market Area Data</i>	Vacant and Redevelopable Acres (Residential/Commercial/Industrial):				
	Within 5 minute walk of LRT stations	N/A	N/A	N/A	
	Between 5 & 10 min. walk of LRT stations	N/A	N/A	N/A	
	Households/Employment (2015):				
	Within 5 minute walk of LRT stations	N/A	N/A	N/A	690 / 5,050
	Between 5 & 10 min. walk of LRT stations				
<i>Land Use Policies</i>	Local Jurisdiction's Policies County/State/Regional Policies				
Transit Ridership					1 station
<i>Ridership</i> ³	Walk Market LRT Ridership Potential	N/A	N/A	N/A	2,000
	LRT Travel Time (minutes:seconds)	1:57	1:43	2:00	3:09
	LRT Ridership Impacts from Run Time Differences	N/A	N/A	N/A	-400
	Net LRT Segment Boardings	N/A	N/A	N/A	1,600 ⁴
<i>Reliability</i>	Percentage of Segment within Exclusive ROW	99%	100%	98%	98%
	At-grade Crossings	1	1	3	3
<i>Transferability</i>	Quality of Bus Service/LRT Transfer	same	same	same	same
Fiscal Stability and Efficiency					
<i>Costs</i> (in millions of \$)	YOE Capital Costs ¹	\$132	\$141	\$133	\$159
	YOE Difference in Capital Costs ²	\$0	\$9	\$1	\$27
	Difference in Annual O&M (1994\$) ²	\$0	\$0	\$0	\$0.37
<i>Comparative Ratio</i>	Ratio of Annual Cost and Ridership	N/A	N/A	N/A	N/A

Criteria	Measure	Caruthers/Marquam	Caruthers Modified	Caruthers	Caruthers "S"
Engineering Efficiency					
<i>Design Considerations</i>	Level of Engineering Risk or Construction Issues	Geologic/Seismic	Geologic/Seismic	Geologic	Geologic
Environmental Sensitivity					
<i>Displacements</i>	Residential Units/Commercial Buildings/Commercial Units	0	1	0	0
<i>Visual</i>	Potential Impacts on Aesthetics of an Area	New bridge	New bridge	New bridge	Impacts view from both banks
<i>Ecosystems</i>	Potential Impacts on the Natural Environment	Piers in River	Piers in River	Piers in River	More piers in River
<i>Hazardous Materials</i>	Potential Hazardous Materials sites			Known site	Known site
<i>Historic</i>	Number of Potential Impacts on Historic and Cultural Resources	2	2	2	3
<i>Parks</i>	Potential Impacts to Parklands	Willamette Greenway	Willamette Greenway	Willamette Greenway	Willamette Greenway
<i>Traffic</i>	Traffic Impact Assessment	Grade-crossing at Moody	Grade-crossing at Moody	Grade crossing at Moody and Sheridan	Grade crossing at Moody and Sheridan

Note: All costs are in millions. Capital costs are for year of expenditure (YOE). Operating and Maintenance (O&M) costs are in 1994 dollars.

¹ The capital costs for these bridge options assume a concrete segmental bridge type. Other bridge types may cost more; for example, a through truss bridge would cost \$18M more for Caruthers "S" and about \$15M more for the other options.

² Difference from the lowest cost design option. A zero indicates that option as the low cost option.

³ *LRT segment boardings* for the Caruthers "S" option reflects the increase in South/North LRT riders over the other two options which would require riders to board buses at this location and transfer to South/North LRT at a downtown station. Without accounting for bus transfers to LRT for the other two options, the Caruthers "S" would have approximately 2,600 *LRT segment boardings*.

⁴ *LRT segment boardings* may be over estimated because the Caruthers "S" option may limit the development potential of the property between the Ross Island and Marquam Bridges which could lead to fewer residents and employees being located within walking distance of the LRT station.

Summary of Measurement Criteria Ross Island River Crossings

Criteria	Measure	South and Parallel to Ross Island Bridge	North Ross Island	Mid Ross Island
Promote Desired Land Use and Development				
<i>Service to Activity Centers</i>	Current and Planned Land Use Context	Serves some of North Macadam redevelopment area	Serves all North Macadam redevelopment area	Serves all North Macadam redevelopment area
<i>Walk Market Area Data</i>	Vacant and Redevelopable Acres (Residential/Commercial/Industrial):			
	Within 5 minute walk of LRT stations	5 / 63 / 13	4 / 86 / 14	1 / 88 / 9
	Between 5 & 10 min. walk of LRT stations	not available	not available	not available
	Households/Employment (2015):			
	Within 5 minute walk of LRT stations	1,550 / 6,440	2,250 / 9,230	1,660 / 10,280
	Between 5 & 10 min. walk of LRT stations	not available	not available	not available
<i>Land Use Policies</i>	Local Jurisdiction's Policies	Less supporting	Supports comp plan densities	Supports comp plan densities
	County/State/Regional Policies	Less supporting	Supports 2040	Supports 2040
Transit Ridership		4 stations	5 stations	4 stations
<i>Ridership</i>	Walk Market LRT Ridership Potential	4,490	6,460	6,440
	LRT Travel Time (minutes:seconds)	7:20	8:00	7:27
	LRT Ridership Impacts from Run Time Differences	0	-200	0
	Net LRT Segment Boardings	4,490	6,260 ³	6,440
<i>Reliability</i>	Percentage of Segment within Exclusive ROW	98%	98%	98%
	At-grade Crossings	3	3	3
<i>Transferability</i>	Quality of Bus Service/LRT Transfer	2 transfer stations	2 transfer stations	3 transfer stations
Fiscal Stability and Efficiency				
<i>Costs (in millions of \$)</i>	YOE Capital Costs ¹	\$331	\$351 ⁴	\$405
	YOE Difference in Capital Costs ²	\$0	\$20	\$74
	Difference in Annual O&M (1994\$) ²	\$0	\$0.16	\$0
<i>Comparative Ratio</i>	Ratio of Annual Cost and Ridership	12.7	9.7	10.7

Criteria	Measure	South and Parallel to Ross Island Bridge	North Ross Island	Mid Ross Island
Engineering Efficiency				
<i>Design Considerations</i>	Level of Engineering Risk or Construction Issues	Geological, in-water construction limits	Geological, in-water construction limits	Geological, in-water construction limits, conflict with gravel extraction
Environmental Sensitivity				
<i>Displacements</i>	Residential Units/Commercial Buildings/ Commercial Units	58 / 12 / 14 15 / 13 / 15 sub-option	30 / 13 / 15 15 / 14 / 16 sub-option	13 / 17 / 17
<i>Neighborhoods</i>	Integration of LRT Service in the Community			
<i>Visual</i>	Potential Impacts on Aesthetics of an Area	New bridge	New bridge	New bridge
<i>Noise and Vibration</i>	Potentially Sensitive Receptors	Most: East side of McLoughlin	More: East side of McLoughlin	Few
<i>Ecosystems</i>	Potential Impacts on the Natural Environment	River, but more piers	River, Island	River, Island, Great Blue Heron
<i>Hazardous Materials</i>	Potential Hazardous Materials Risk	Known unremediated sites	Potential along Moody Ave.	Potential along Moody Ave.
<i>Historic</i>	Number of Potential Impacts on Historic and Cultural Resources	3	3	4
<i>Parks</i>	Potential Impacts to Parklands	Willamette Greenway and Riverside Park	Willamette Greenway	Willamette Greenway
<i>Traffic</i>	Traffic Impact Assessment	Moody Ave., Franklin St.	Moody Ave., Center St.	Potential impact on Bancroft

Note: All costs are in millions. Capital costs are for year of expenditure (YOE). Operating and Maintenance (O&M) costs are in 1994 dollars.

¹ Capital cost assumes a concrete segmental bridge. Other bridge types may cost more, for example, a cable stayed (North and Mid Ross Island) or through truss (South Parallel) bridge type would cost between \$18 to \$20 million more.

² Difference from the lowest cost design option. A zero indicates that option as the low cost option.

³ The West of McLoughlin sub-option would eliminate the Center Street station resulting in a decrease in segment LRT boardings to 6,030.

⁴ The West of McLoughlin sub-option would cost \$354M (YOE).

Summary of Measurement Criteria Steel Bridge to Kaiser

Criteria	Measure	Wheeler/Flint Station	Wheeler/Russell Station	East I-5/Kerby Station	West I-5/Graham Station
Promote Desired Land Use and Development					
<i>Service to Activity Centers</i>	Current and Planned Land Use Context	Flint Station serves high density residential	Russell Station serves high density residential	Kerby Station serves center of Emanuel Campus	Graham Station serves industrial sanctuary
<i>Walk Market Area Data</i>	Vacant and Redevelopable Acres (Residential/Commercial/Industrial):				
	Within 5 minute walk of LRT stations	2 / 13 / 7	1 / 13 / 10	2 / 16 / 12	2 / 13 / 27
	Between 5 & 10 min. walk of LRT stations	43 / 37 / 50	54 / 43 / 44	45 / 33 / 35	45 / 36 / 23
	Households/Employment (2015):				
	Within 5 minute walk of LRT stations	340 / 7,400	290 / 7,850	320 / 9,240	210 / 7,920
	Between 5 & 10 min. walk of LRT stations	940 / 3,150	950 / 2,400	1,380 / 8,260	860 / 8,080
<i>Land Use Policies</i>	Local Jurisdiction's Policies	Identified in Albina Community Plan	Identified in Albina Community Plan	Not included in Albina Community Plan	Not included in Albina Community Plan
Transit Ridership		3 stations	3 stations	3 stations	3 stations
<i>Ridership</i>	Walk Market LRT Ridership Potential	2,580	2,680	3,140	2,640
	LRT Travel Time (minutes:seconds)	6:25	6:33	5:16	4:28
	LRT Ridership Impacts from Run Time Differences	-780	-780	-270	0
	Net LRT Segment Boardings	1,800	1,900	2,870	2,640
<i>Reliability</i>	Percentage of Segment within Exclusive ROW	51%	58%	86%	95%
	At-grade Crossings	12	8	5	6
<i>Transferability</i>	Quality of Bus Service/LRT Transfer	Transfers at Rose Quarter Transit Ctr.	Transfers at Rose Quarter Transit Ctr.	Transfers at Rose Quarter Transit Ctr.	Transfers at Rose Quarter Transit Ctr.
Fiscal Stability and Efficiency					
<i>Costs (in millions of \$)</i>	YOE Capital Costs	\$169	\$168	\$146	\$145
	YOE Difference in Capital Costs ¹	\$24	\$23	\$1	\$0
	Difference in Annual O&M (1994\$) ¹	\$0.49	\$0.52	\$0.20	\$0
<i>Comparative Ratio</i>	Ratio of Annual Cost and Ridership	18.1	17.0	9.4	9.9

Criteria	Measure	Wheeler/Flint Station	Wheeler/Russell Station	East I-5/Kerby Station	West I-5/Graham Station
Engineering Efficiency					
<i>Design Considerations</i>	Level of Engineering Risk or Construction Issues	Coordination with I-5 improvements, narrow ROW on Wheeler, difficult access to I-5 alignment	Coordination with I-5 improvements, narrow ROW on Wheeler	Coordination with I-5 improvements	Coordination with I-5 improvements, difficult access to I-5 alignment
Environmental Sensitivity					
<i>Displacements</i>	Residential Units/Commercial Buildings/ Commercial Units	8 / 14 / 15	15 / 12 / 18	7 / 9 / 10	3 / 12 / 74
<i>Noise and Vibration</i>	Potentially Sensitive Receptors	Tubman Middle School, Emanuel, Kaiser	Tubman Middle School, Emanuel, Kaiser	Emanuel, Kaiser	Kaiser
<i>Historic</i>	Number of Potential Impacts on Historic and Cultural Resources	4	4	5	6
<i>Parks</i>	Potential Impacts to Parklands	Lillis Albina Park	Lillis Albina Park	Lillis Albina Park	none
<i>Traffic</i>	Traffic Impact Assessment	Arena parking access, at-grade crossing of Broadway/Weidler	Arena parking access, at-grade crossing of Broadway/Weidler	none	none

Note: All costs are in millions. Capital costs are for year of expenditure (YOE). Operating and Maintenance (O&M) costs are in 1994 dollars.

¹ Difference from the lowest cost design option. A zero indicates that option as the low cost option.

Summary of Measurement Criteria Kaiser to Expo Center

Criteria	Measure	All I-5 Alternative	N. Killingsworth Crossover	N. Portland Blvd. Crossover	Kenton Area Crossover
Promote Desired Land Use and Development					
<i>Service to Activity Centers</i>	Current and Planned Land Use Context	No direct service to Kenton Business District	Direct access to Kenton Business District	Direct access to Kenton Business District	Direct access to Kenton Business District
<i>Walk Market Area Data</i>	Vacant and Redevelopable Acres (Residential/Commercial/Industrial)				
	Within 5 minute walk of LRT stations	16 / 16 / 4	24 / 23 / 5	30 / 23 / 4	26 / 19 / 26
	Between 5 & 10 min. walk of LRT stations	45 / 13 / 5	48 / 7 / 5	44 / 7 / 6	44 / 11 / 6
	Households/Employment (2015):				
	Within 5 minute walk of LRT stations	1,600 / 2,760	2,260 / 3,320	2,210 / 3,520	1,780 / 3,370
	Between 5 & 10 min. walk of LRT stations	3,330 / 2,950	3,350 / 2,340	3,240 / 2,450	3,460 / 2,470
<i>Land Use Policies</i>	Local Jurisdiction's Policies	Identified in Albina Community Plan	Consistent with Albina Community Plan	Consistent with Albina Community Plan	Consistent with Albina Community Plan
Transit Ridership		6 stations	6 stations	6 stations	6 stations
<i>Ridership</i>	Walk Market LRT Ridership Potential	2,110	2,790	2,820	2,430
	LRT Travel Time (minutes:seconds)	11:20	12:32	12:24	12:28
	LRT Ridership Impacts from Run Time Differences	0	-550	-550	-550
	Net LRT Segment Boardings	2,110	2,240	2,270	1,880
<i>Reliability</i>	Percentage of Segment within Exclusive ROW	100%	66%	76%	95%
	At-grade Crossings	10	19	18	16
<i>Transferability</i>	Quality of Bus Service/LRT Transfer	No Kenton transfer	Kenton transfer opportunity	Kenton transfer opportunity	Kenton transfer opportunity
Fiscal Stability and Efficiency					
<i>Costs (in millions of \$)</i>	YOE Capital Costs	\$374	\$434	\$410	\$402
	YOE Difference in Capital Costs ¹	\$0	\$60	\$36	\$28
	Difference in Annual O&M (1994\$) ¹	\$0	\$0.29	\$0.29	\$0.29
<i>Comparative Ratio</i>	Ratio of Annual Cost and Ridership	31.8	34.4	32.4	38.4

Criteria	Measure	All I-5 Alternative	N. Killingsworth Crossover	N. Portland Blvd. Crossover	Kenton Area Crossover
Engineering Efficiency					
<i>Design Considerations</i>	Level of Engineering Risk or Construction Issues	Neighborhood construction impacts	Tight turns on crossovers	Tight turns on crossovers	Tight turns on crossovers
Environmental Sensitivity					
<i>Displacements</i>	Residential Units/Commercial Units	81 / 5	69 / 16	81 / 16	93 / 17
<i>Noise and Vibration</i>	Potentially Sensitive Receptors	Noise walls are possible	Noise walls are possible in I-5 sections	Noise walls are possible in I-5 sections	Noise walls are possible in I-5 sections
<i>Historic</i>	Number of Potential Impacts on Historic and Cultural Resources		2	0	4
<i>Parks</i>	Potential Impacts to Parklands	Low impact risk	Low impact risk	Low impact risk	Low impact risk
<i>Traffic</i>	Traffic Impact Assessment	Few traffic concerns	Traffic concerns at Crossover and in Kenton	Traffic concerns at Crossover and in Kenton	Traffic concerns at Kenton

Notes: All costs are in millions. Capital costs are for year of expenditure (YOE). Operating and Maintenance (O&M) costs are in 1994 dollars.

¹ Difference from the lowest cost design option. A zero indicates that option as the low cost option.

Summary of Measurement Criteria Hayden Island

Criteria	Measure	West of I-5 (over ramp)	West of I-5 (under ramp)	Center Avenue	Adjacent to Jantzen Beach Center
Promote Desired Land Use and Development					
<i>Service to Activity Centers</i>	Current and Planned Land Use Context	Retail Commercial	Retail Commercial	Retail Commercial	Retail Commercial
<i>Walk Market Area Data</i>	Vacant and Redevelopable Acres:				
	Within 5 minute walk of LRT stations	N/A	N/A	N/A	N/A
	Between 5 & 10 min. walk of LRT stations	N/A	N/A	N/A	N/A
	Households/Employment (2015):				
	Within 5 minute walk of LRT stations	N/A	N/A	N/A	N/A
	Between 5 & 10 min. walk of LRT stations	N/A	N/A	N/A	N/A
<i>Land Use Policies</i>	Local Jurisdiction's Policies				
	County/State/Regional Policies				
Transit Ridership					
<i>Ridership</i>	Walk Market LRT Ridership Potential	N/A	N/A	N/A	N/A
	LRT Travel Time (minutes:seconds)	4:04	4:31	4:11	4:19
	LRT Ridership Impacts from Run Time Differences	N/A	N/A	N/A	N/A
	Net LRT Segment Boardings	N/A	N/A	N/A	N/A
<i>Reliability</i>	Percentage of Segment within Exclusive ROW	100%	100%	82%	85%
	Number of At-grade Crossings	0	0	2	2
<i>Transferability</i>	Quality of Bus Service/LRT Transfer	good	good	good	good
Fiscal Stability and Efficiency					
<i>Costs (in millions of \$)</i>	YOE Capital Costs	\$95	\$89	\$81	\$83-\$89
	YOE Difference in Capital Costs ¹	\$14	\$8	\$0	\$2-\$8
	Difference in Annual O&M (1994\$) ¹	\$0	\$0	\$0	\$0
<i>Comparative Ratio</i>	Ratio of Annual Cost and Ridership	N/A	N/A	N/A	N/A

Criteria	Measure	West of I-5 (over ramp)	West of I-5 (under ramp)	Center Avenue	Adjacent to Jantzen Beach Center
Engineering Efficiency					
<i>Design Considerations</i>	Level of Engineering Risk or Construction Issues	Harbor bridge and bridges over roadways; bridge over operating ramps	Harbor bridge and bridges over roadways; tunnel under operating ramps	Harbor bridge and bridges over roadways; bridge over major intersection	Harbor bridge and bridges over roadways; bridge over major intersection
Environmental Sensitivity					
<i>Displacements</i>	Residential Units/Commercial Buildings/ Commercial Units	12 / 7 / 14	12 / 7 / 14	17 / 3 / 3	17 / 3 / 3
<i>Neighborhoods</i>	Integration of LRT Service in the Community	Elevated station has difficult access		Divides floating home community	Divides floating home community
<i>Visual</i>	Potential Impacts on Aesthetics of an Area	Highest impact	Low impact	Moderate impact	Moderate impact
<i>Noise and Vibration</i>	Potentially Sensitive Receptors	Hugs I-5 - away from receptors	Hugs I-5 - away from receptors	Closest to receptors	Closest to receptors
<i>Ecosystems</i>	Potential Impacts on the Natural Environment	Harbor Bridge	Harbor Bridge	Harbor Bridge	Harbor Bridge
<i>Hazardous Materials</i>	Potential Hazardous Materials Risk				
<i>Historic</i>	Number of Potential Impacts on Historic and Cultural Resources	0	0	0	1
<i>Parks</i>	Potential Impacts to Parklands				
<i>Traffic</i>	Traffic Impact Assessment	No impacts	No impacts	Impact to intersection of Center Ave. & ramps	Impacts to mall access and circulation

Note: All costs are in millions. Capital costs are for year of expenditure (YOE). Operating and Maintenance (O&M) costs are in 1994 dollars.

¹ Difference from the lowest cost design option. A zero indicates that option as the low cost option.

Summary of Measurement Criteria Columbia River Crossing

Criteria	Measure	Low Level Lift Span	Bored Tunnel
Promote Desired Land Use and Development			
<i>Service to Activity Centers</i>	Current and Planned Land Use Context	Would serve Hayden Island and Vancouver CBD	Would serve Hayden Island
<i>Walk Market Area Data</i>	Vacant and Redevelopable Acres:	Would serve Lucky Brewery Redevelopment site	Would miss Lucky Brewery Redevelopment site
<i>Land Use Policies</i>	Local Jurisdiction's Policies	Encourages CDB's development	Misses most of downtown
Transit Ridership			
<i>Ridership</i>	Walk Market LRT Ridership Potential	N/A	N/A
<i>Reliability</i>	Percentage of Segment within Exclusive ROW	100%	100%
	Number of At-grade Crossings	N/A	N/A
<i>Transferability</i>	Quality of Bus Service/LRT Transfer	Serves the transit center	4 blocks from transit center
Fiscal Stability and Efficiency			
<i>Costs (in millions of \$)</i>	YOE Capital Costs ¹	\$167	\$268
	YOE Difference in Capital Costs ²	\$0	\$101
	Difference in Annual O&M (1994\$) ²	\$0 - 0.16	\$0
<i>Comparative Ratio</i>	Ratio of Annual Cost and Ridership	N/A	N/A

Criteria	Measure	Low Level Lift Span	Bored Tunnel
Engineering Efficiency			
<i>Design Considerations</i>	Level of Engineering Risk or Construction Issues	Piers in River; in-water construction	Biological, tunneling, dewatering
Environmental Sensitivity			
<i>Displacements</i>	Residential Units/Commercial Buildings	0 / 1	0 / 4
<i>Neighborhoods</i>	Integration of LRT Service in the Community		
<i>Visual</i>	Potential Impacts on Aesthetics of an Area	New bridge	500' and 470' long portals
<i>Ecosystems</i>	Potential Impacts on the Natural Environment	Piers in River	
<i>Historic</i>	Number of Potential Impacts on Historic and Cultural Resources	4	21

Note: All costs are in millions. Capital costs are for year of expenditure (YOE). Operating and Maintenance (O&M) costs are in 1994 dollars.

¹ Capital cost is for a concrete segmental bridge. Other bridge types could cost more. For example, a bow string design over the full length of the bridge could add up to \$60 million (YOE) to the capital costs.

² Difference from the lowest cost design option. A zero indicates that option as the low cost option.

Summary of Measurement Criteria Vancouver CBD to VA Hospital/Clark College

Criteria	Measure	Washington Street from River	Columbia Street from River	Double-track on Washington	Washington/Main St. Couplet
Promote Desired Land Use and Development					
<i>Service to Activity Centers</i>	Current and Planned Land Use Context		Could limit development of brewery	Better serves residential areas and office development	
<i>Walk Market Area Data</i>	Vacant and Redevelopable Acres:				
	Within 5 minute walk of LRT stations	N/A	N/A	N/A	N/A
	Between 5 & 10 min. walk of LRT stations	N/A	N/A	N/A	N/A
	Households/Employment (2015):				
	Within 5 minute walk of LRT stations	N/A	N/A	N/A	N/A
	Between 5 & 10 min. walk of LRT stations	N/A	N/A	N/A	N/A
<i>Land Use Policies</i>	Local Jurisdiction's Policies				
	County/State/Regional Policies				
Transit Ridership					
<i>Ridership</i>	Walk Market LRT Ridership Potential				
	LRT Travel Time (minutes:seconds)	N/A	N/A	2:11	3:00
	LRT Ridership Impacts from Run Time Differences	N/A	N/A	0	-250
	Net LRT Segment Boardings				
<i>Reliability</i>	Percentage of Segment within Exclusive ROW				
	At-grade Crossings				
<i>Transferability</i>	Quality of Bus Service/LRT Transfer				
Fiscal Stability and Efficiency					
<i>Costs (in millions of \$)</i>	YOE Capital Costs	\$34	\$31	\$56	\$87
	YOE Difference in Capital Costs ²	\$3	\$0	\$0	\$31
	Difference in Annual O&M (1994\$) ¹	N/A	N/A	\$0	\$0.22
<i>Comparative Ratio</i>	Ratio of Annual Cost and Ridership	N/A	N/A	N/A	N/A

Criteria	Measure	Washington Street from River	Columbia Street from River	Double-track on Washington	Washington/Main St. Couplet
Engineering Efficiency					
<i>Design Considerations</i>	Level of Engineering Risk or Construction Issues	New opening under railroad	May require widening of existing structure		Higher risk because of impacts to 2 streets; Main St. may be more sensitive to construction impacts
Environmental Sensitivity					
<i>Displacements</i>	Residential Units/Commercial Units			0 / 0	0 / 0
<i>Noise and Vibration</i>	Potentially Sensitive Receptors				Tight turns could result in additional noise
<i>Ecosystems</i>	Potential Impacts on the Natural Environment				
<i>Historic</i>	Number of Potential Impacts on Historic and Cultural Resources			55	59
<i>Parks</i>	Potential Impacts to Parklands		May limit access to waterfront		
<i>Traffic</i>	Traffic Impact Assessment	Potential traffic impacts at 5th & Washington		Supports City proposals to enhance traffic circulation in CBD	Conflicts with future CBD circulation improvements

Note: All costs are in millions. Capital costs are for year of expenditure (YOE). Operating and Maintenance (O&M) costs are in 1994 dollars.

¹ The data in this table represent the portion of this segment between 7th Street and 17th Street. The costs and run times for the portion from 17th Street to VA Hospital/Clark College would be constant for both options.

² Difference from the lowest cost design option. A zero indicates that option as the low cost option.

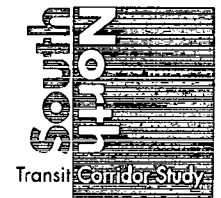
South/North LRT
CBD Alignment Options

December 7, 1995

CBD Oversight Committee



- Created by S/N Steering Group in December 1994
- Identify most promising alignments on 5th/6th Ave.
- Determine whether those designs adequately address established criteria
- If criteria not adequately addressed, develop other options for study in the EIS
- Committee Participation
 - Chaired by Charles Armstrong, CEO Bank of America, Chair, APP Transportation Committee
 - Includes major downtown stakeholders - commercial, retail and residential



Principles and Work

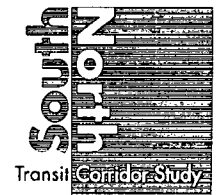


- Major Principles

- Economic viability of downtown
- Efficient for transit-buses and LRT
- Preserve auto access
- Preserve pedestrian environment/architectural integrity

- Committee Work

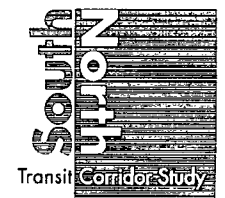
- Met intensively for five months
- Examined alignment options on 5th/6th Avenues in detail
- Discussed/analyzed other options
- Activities included technical analysis, field trip and public meetings



Major Concerns



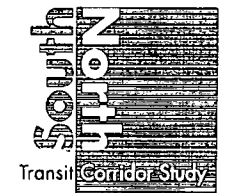
- Construction impacts
- Transit capacity for downtown
- Commitments to bus improvements on off mall streets
- Preserve & enhance the mall environment
- Appropriateness of 5th/6th for LRT



Major Conclusions



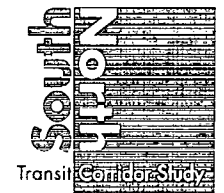
- Recommended option reinforces the goal of the Central City Plan
- Ensures the least construction impacts of the options considered
 - Sidewalk construction
 - Street grade changes
 - Utility changes minimized
- Offers opportunity to reconfigure Central City Transit Service
- Reinforces multi-modal transportation concept
- Criteria for 5th/6th Avenue alignment are met
- Other streets and subway option should not be studied further



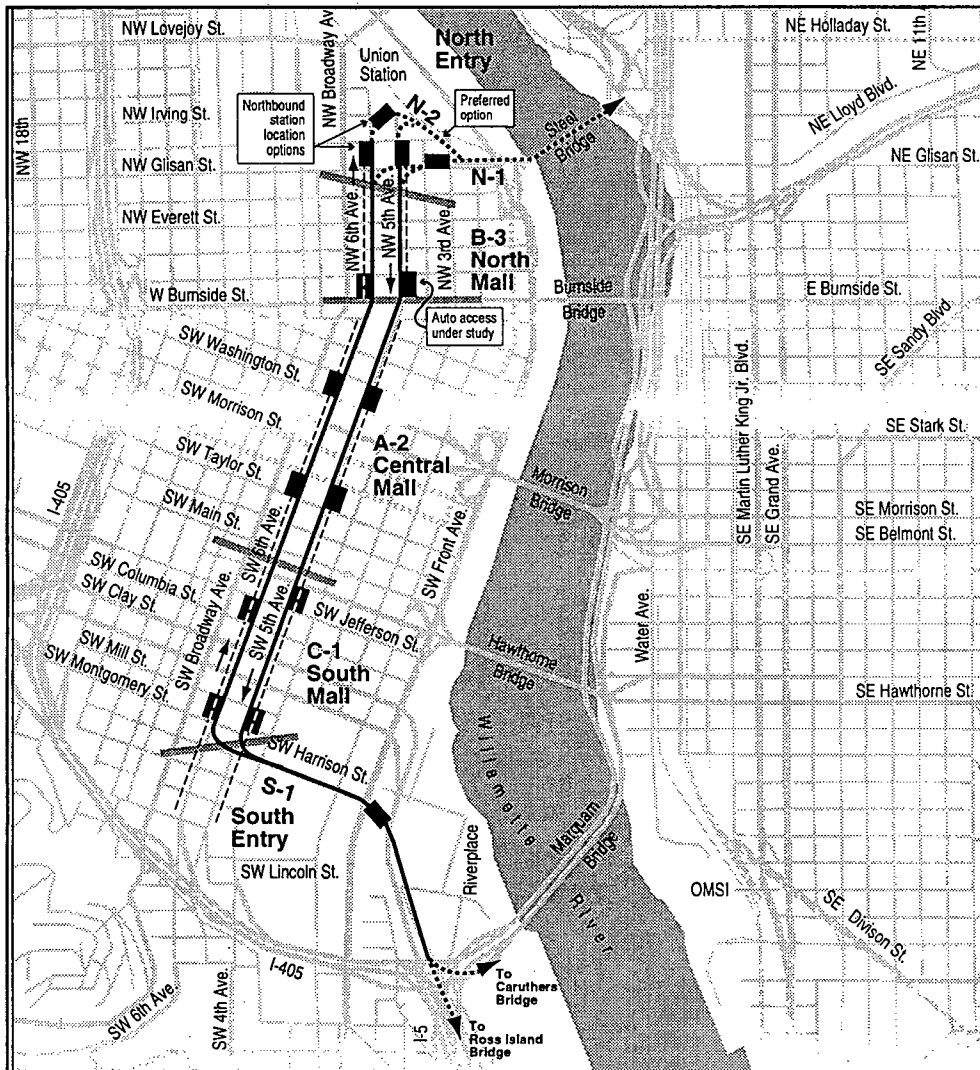
Major Recommendations



- Strongly endorse S/N light rail
- Endorses bi-state project and Clackamas segment if initial funding is limited
- Endorses A-2 Central Mall, B-3 North Mall, C-1 South Entry and N-1 and N-2 North Entries as sole EIS alignment
- Develop Central City streetcar and Transit circulation plan
- Ensure high level of urban design
- Develop detailed construction management and mitigation plan and Downtown Portland Construction District
- Establish committee to oversee construction - public and private participation
- Employ alternative contracting methods and limit construction time



Specific Alignment Recommendations

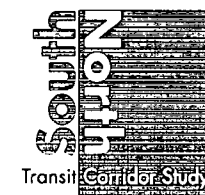


- South Mall
 - LRT in Curb Lane
- Central Mall
 - Auto Lane, LRT/Bus Share, Exclusive Bus
 - Off-Mall Bus Operations
- South Entry
 - Harrison
- North Entry
 - Glisan & Irving

Future Downtown Service Concept



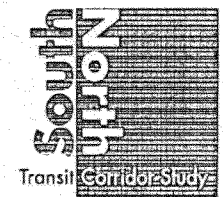
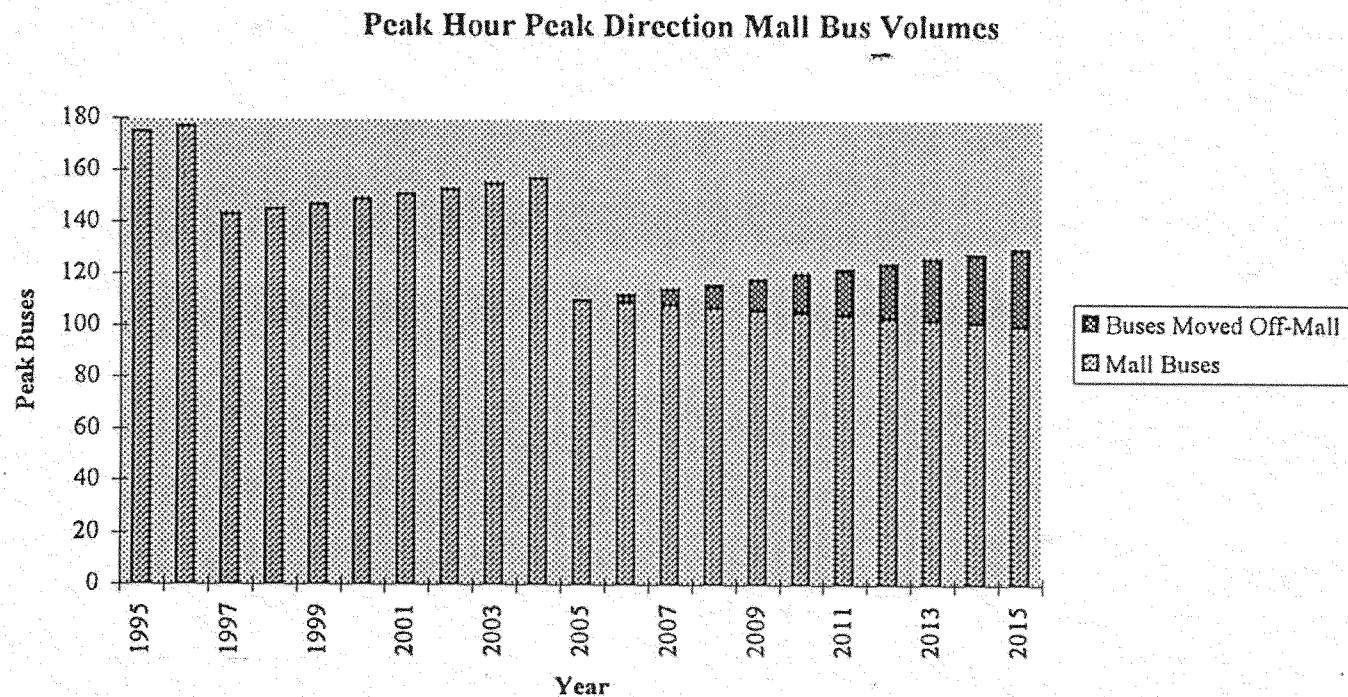
- Changes the way we think about the mall
- Shift in mall ridership from bus to rail
- Compared to no-build, will bring an additional 30,000 riders to CBD in 2015
- Transit Mall remains highest capacity transit corridor in the downtown
- Opportunity to improve coverage
- South/north LRT is a catalyst to implement city policies



Future Conditions



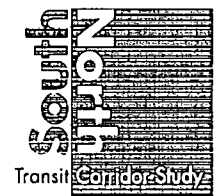
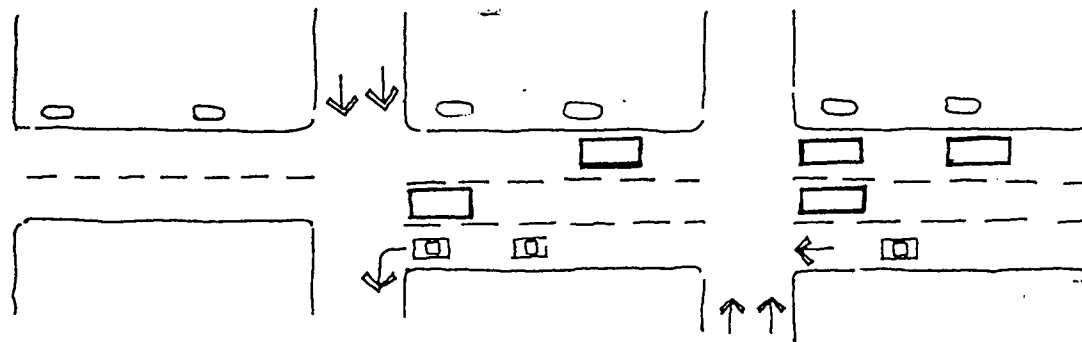
- Bus Volumes On-Mall with a Shift to Off-Mall



Operating Environment Today



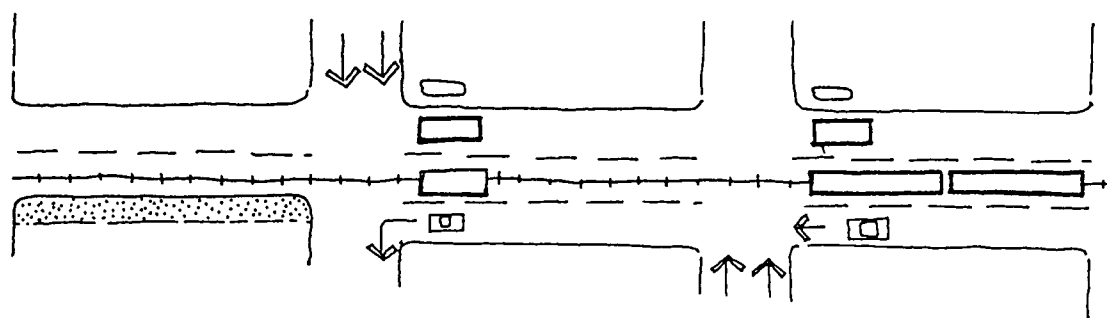
- Two block stop spacing
- Four bus stop groupings
- Leapfrog operation
- Current operation very flexible
- Maximizes bus capacity
- Provides auto access



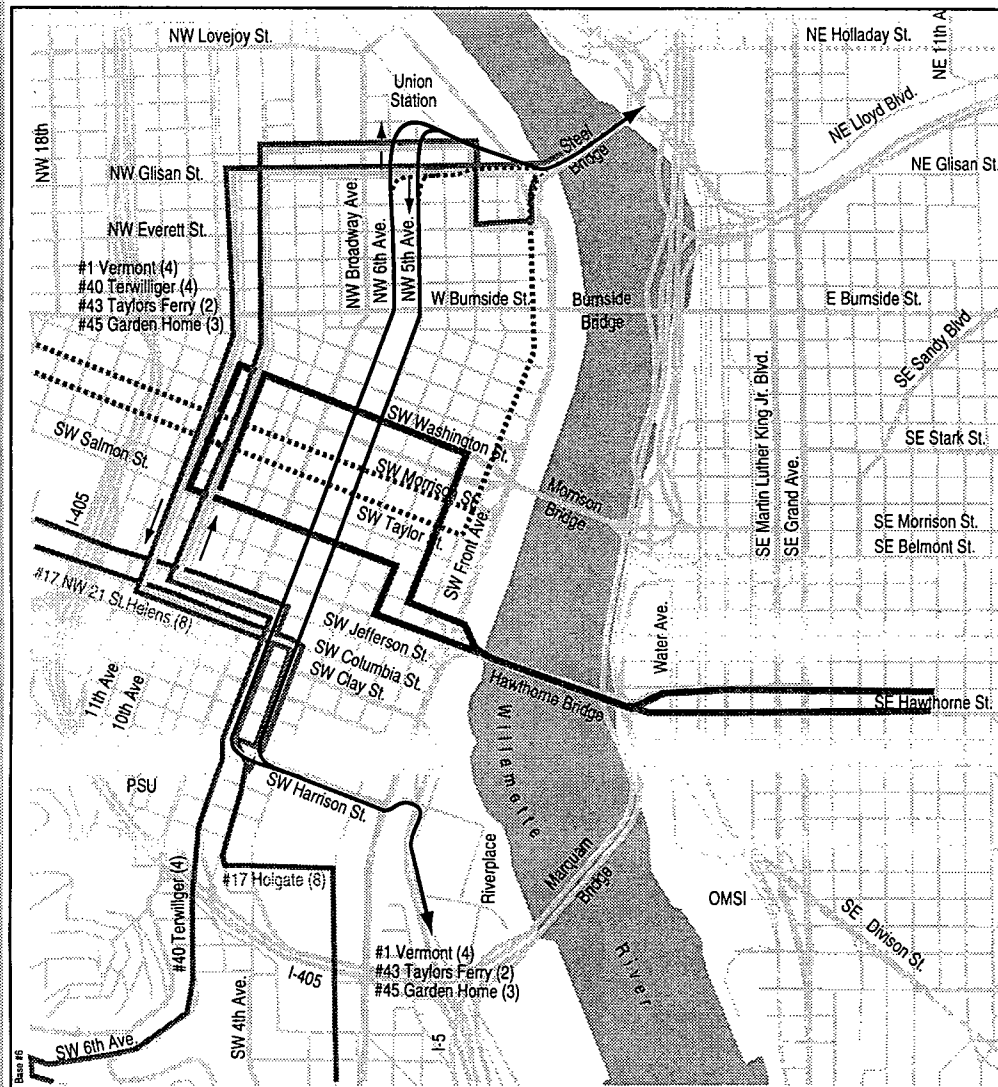
A2: Three Lanes, LRT/Bus Share



- Three block bus stop spacing
- Two bus stop groupings
- LRT priority for operations
- Bus uses LRT lane when train not present
- Signals clear bus lane for LRT
- Construction mainly curb-to-curb
- Streamlines bus operations - improves travel times
- Maintains auto access
- Preserves Mall environment



Off-Mall Bus Plan



- Critical to Tri-Met support of A2 alternative
- Detailed plan to be prepared in next 12 months
- Ensures efficient operations in mixed traffic environment