

Public Safety and Transportation Committee

Agenda

July 13^h, 2006

(6:00 – 7:30 PM)



Sound Transit

Respond to Sound Transit Letter regarding Station Location?

Input on SCATBd Policy questions

Arterial Maintenance Program – Update

Bid Opening Scheduled for July 14th

Grant Applications - Status

PSRC Countywide Program – Presentation to KCPEC Subcommittee - Update

(Kent-Des Moines Road, 16th Ave. S. to 24th Ave. S.)

TIB Applications

Kent-Des Moines Road, 16th Ave. S. to 24th Ave. S. – Construction

South 216th Street Corridor – Design

16th Ave. S. Phase 2 – Design

24th Ave. S., S. 216th St. to Kent Des Moines Road - Design

North Twin Bridge

Load Rating

Update

Posting to be done in July

Expansion Joint Work

Budget Amendment Discussion

16th Ave. S. - Status

95% Plan Review in August

R/W Status

Condemnation – Upcoming agenda Item

Highline Water District Construction Plans – BID Date

PSE – July 24th

City Owned Gravel Roads

Development of Flag Lots

Written response to Ed Snyder?

Neighborhood Traffic Calming Program

Overview

Need for Educational/Informational tools

Adjustment to use of CIP budget

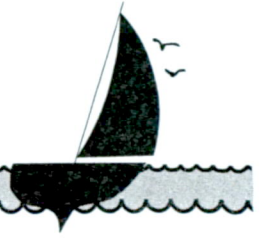
2006 Slide Repairs – Status

Arterial Streets C.I.P.



City of Des Moines

DEPARTMENT OF PUBLIC WORKS
21650 11TH AVENUE SOUTH
DES MOINES, WASHINGTON 98198-6317
(206) 870-6522 www.desmoineswa.gov FAX (206) 870-6596



July 14, 2006

Mr. Ed Snyder
17407 7th Pl SW
Normandy Park, WA 98166

RE: PROPERTY LOCATED @ 22650 24TH AVE S IN DES MOINES

Dear Mr. Snyder:

The purpose of this letter is to address the concerns raised at the June 22nd City Council meeting regarding the access requirements for subdivisions within the City of Des Moines. During the "Comments from the Public" portion of that meeting, you addressed the City Council and asked them to consider allowing easement access in order to facilitate the subdivision of the property located at 22650 24th Avenue South.

City staff has looked into this request and reviewed the characteristics of the property. It is unclear to staff of how the development as described to the City Council would comply with the following development regulations:

1. DMMC § 17.36.020 (4) requires that every lot shall have a minimum of 20 feet of frontage on a street that is fully improved and approved by the city.
2. DMMC § 17.36.040 (2) a panhandle vehicular access must have a minimum width of 20 feet and shall serve only one lot. Additionally, the area of the vehicular access strip shall not be included in the computation of lot area.
3. DMMC § 17.36.040 (3) requires that no lot shall have an easement across another lot for vehicular access.
4. DMMC § 17.36.060 (1) all vehicular access within the subdivision will be provided by a public right-of-way or private access tract (private street).
5. The Des Moines Street Development Standards (DMMC 12.28) require that all private streets have a minimum tract width of 25 feet. Additionally, the pavement must be setback 5 feet from adjacent properties which do not obtain access from the private street; therefore, the tract could be as large as 32 feet in width.

These sections of the Des Moines Municipal Code would have to be revised in order to allow the type of development as described to the City Council on June 22nd. The City Street Development Standards would also have to be revised and changed to be compliant with the Des Moines Municipal code.

Attached to this letter for your information are copies of the pertinent DMMC code sections which would need to be revised and changed to facilitate your request.

Your request was also brought before the Public Safety and Transportation Committee for their review and consideration on July 13th, 2006. After reviewing the information, the committee members concluded that at this time, the revisions to the DMMC code sections needed to facilitate your request should not be brought before the full council for further consideration.

Thank you for your comments, and please feel free to call me at (206)870-6568 if you have any questions.

Respectfully,

Grant L. Fredricks, P. E.
Planning, Building and Public Works Director

Attachments

Copy: Dan Brewer, P.E., City Transportation Engineer
Robert Ruth, Development Services Manager

service that portion of the plan for which the building permit will be issued shall be installed, inspected, and accepted by the city, or in the alternative, a performance security has been deposited with the city in accordance with DMMC 17.40.090. [Ord. 931 § 52, 1992.]

Chapter 17.36

LAYOUT AND DESIGN OF SUBDIVISIONS AND SIMILAR REQUIREMENTS

Sections

- 17.36.010 Applicability.
- 17.36.020 Lot standards.
- 17.36.030 General layout.
- 17.36.040 Access – General.
- 17.36.050 Access – Rights-of-way.
- 17.36.060 Access – Private streets within vehicular access tracts.
- 17.36.070 Access – Pedestrian ways.
- 17.36.080 Utilities and related improvements – General.
- 17.36.090 Utilities and related improvements – Water system.
- 17.36.100 Utilities and related improvements – Surface water.
- 17.36.110 Utilities and related improvements – Sanitary sewer.
- 17.36.120 Utilities and related improvements – Undergrounding.
- 17.36.130 Utilities and related improvements – Easements.
- 17.36.140 Provision for public and semipublic lands.
- 17.36.150 Parks.
- 17.36.160 Natural features – General.
- 17.36.170 Natural features – Land adjacent to Puget Sound.
- 17.36.180 Natural features – Significant vegetation.
- 17.36.190 Subdivision names.

17.36.010 Applicability.

The provisions of this chapter apply to each subdivision, short subdivision, subdivision alteration, subdivision vacation and, to the extent possible, each binding site plan, modified subdivision, and modified short subdivision within the city. For the purposes of this chapter, the term “subdivision” also includes “short subdivision,” “subdivision alteration,” “subdivision vacation,” “binding site plan,” and “modified subdivision.” The provisions of this chapter shall also apply to any subdivisions approved in conjunction with

17.36.020

a planned unit development (PUD) pursuant to Title 18 DMMC, unless the provisions are specifically varied by the PUD. [Ord. 931 § 53, 1992.]

17.36.020 Lot standards.

(1) General. All lots within a subdivision shall meet the minimum size and dimension requirements of Title 18 DMMC for the zone classification assigned to the property proposed to be subdivided.

(2) Configuration. Lots shall be shaped so that reasonable use and development is possible. Where topography, natural features, and the existing development pattern permit, the depth of lots less than 15,000 square feet in area shall be at least equal to, but not more than twice the width of the lot.

(3) Orientation. Where topography, natural features, and the existing development pattern permit, side lot lines generally shall be at right angles to the street upon which the lot faces, except that on curved streets they shall be at a right angle to the tangent of the curve.

(4) Frontage. Every lot shall have a minimum of 20 feet of frontage on a street that is fully improved and approved by the city.

(5) Corner Lots. All corner lots shall be five feet wider than the minimum lot width required by the underlying zone.

(6) Odd Lots. Subdivisions having lots with an irregular shape and unable to be classified under Title 18 DMMC shall show setback lines for such lots and provide covenants requiring such setbacks with recording of the final plat. [Ord. 931 § 54, 1992.]

17.36.030 General layout.

(1) General. The subdivision shall be designed to allow for reasonable subdivision and use of adjoining properties, including, but not limited to considerations related to surface water management, all utilities, and pedestrian and vehicular access. While the subdivision should generally conform to the city's grid pattern and street plan, innovative layouts will be considered based on the general requirements of this chapter.

(2) Maximum Length. Where topography, natural features, and the existing development

pattern permit, blocks shall not exceed 500 feet in length. Blocks that are more than 750 feet in length should allow for midblock pedestrian ways pursuant to DMMC 17.36.070.

(3) Project Integration. All proposed subdivisions shall be designed to provide pedestrian and vehicular connections to adjoining developed or vacant properties when such connections will result in improved access or planned access and be in the public interest. [Ord. 931 § 55, 1992.]

17.36.040 Access – General.

(1) All lots shall have direct legal access to either a right-of-way or a private street within a vehicular access tract meeting the requirements of this chapter. Access shall be to a right-of-way unless extension of a right-of-way to a lot is constrained by topography, or the existing development pattern. The city shall determine whether access will be by right-of-way or vehicular access tract on a case-by-case basis; provided, that in no instance shall a vehicular access tract serve more than four lots.

(2) An owned vehicular access having a minimum width of 20 feet shall be permitted to serve one lot only (e.g., panhandle or flag lot). The area of the vehicular access strip shall not be included in the computation of lot area.

(3) No lot shall have an easement across another lot for vehicular access.

(4) Access to lots which abut two or more rights-of-way or vehicular access tracts shall be established on a case-by-case basis. Generally, lots shall obtain access from the right-of-way having the least amount of through traffic. [Ord. 931 § 56, 1992.]

17.36.050 Access – Rights-of-way.

(1) General. All rights-of-way within and abutting the subdivision shall be improved in accordance with the standards set forth in chapter 12.28 DMMC.

(2) Designation of Rights-of-Way. If a new right-of-way is proposed within a subdivision, the public works director shall classify the right-of-way based on the projections for that right-of-way using the right-of-way definitions established in "City of Des Moines

Street Development Standards" as adopted by chapter 12.28 DMMC.

(3) Dedication. The city may require the dedication of rights-of-way to serve adjacent properties in order to provide a safe and efficient circulation system within the city.

(4) Construction of Street System Improvements on Rights-of-Way Abutting the Subdivision and Off-Site from the Subdivision. Such street system improvements as are defined in chapter 12.44 shall be constructed on rights-of-way abutting the subdivision and off-site from the subdivision as directed by the city council in the course of discretionary review of the subdivision. The subdivision applicant required to construct off-site street system improvements are entitled to reimbursement as provided in chapter 12.44 DMMC. [Ord. 1003 § 1, 1993; Ord. 931 § 57, 1992.]

17.36.060 Access – Private streets within vehicular access tracts.

(1) General. If vehicular access within the subdivision will be provided by means other than rights-of-way, the subdivision shall establish tracts which provide the legal right of access to each of the lots served and establish joint maintenance responsibilities. The city may require that the legal right of access be granted to other adjoining properties in order to provide a safe and efficient circulation system within the city. The ownership of vehicular access tracts is shared by owners of all lots having the right to access through the tracts.

(2) Private Streets. All private streets within the subdivision shall be improved in accordance with the standards set forth in chapter 12.28 DMMC.

(3) Other Improvements. The city may require additional or other requirements for private streets within vehicular access tracts, if necessary to address unusual circumstances.

(4) Lot Area. The area of vehicular access tracts shall not be included in the computation of lot area for any lot. [Ord. 1003 § 2, 1993; Ord. 931 § 58, 1992.]

17.36.070 Access – Pedestrian ways.

The city may require the installation of pedestrian ways within dedicated rights-of-way or tracts in any of the following circumstances:

(1) If a pedestrian way is indicated as appropriate in the comprehensive plan.

(2) If the pedestrian way is reasonably necessary to provide efficient pedestrian access to a school, park, business district, or transit stop or to integrate pedestrian travel throughout the neighborhood.

(3) To provide a midblock connection between parallel streets where the total length of a block is 750 feet or more. [Ord. 931 § 59, 1992.]

17.36.080 Utilities and related improvements – General.

All utility system improvements shall be designed and installed in accordance with all standards of the applicable serving utility. [Ord. 931 § 60, 1992.]

17.36.090 Utilities and related improvements – Water system.

The subdivision shall be served by a system which provides potable water service to each lot created. The system shall provide adequate fire flow, as specified by the fire marshal, and all firefighting infrastructure and appurtenances required by city codes. [Ord. 931 § 61, 1992.]

17.36.100 Utilities and related improvements – Surface water.

(1) General. The subdivision shall be served by a permanent surface water control system designed to accommodate runoff from all land within the subdivision and convey any runoff which passes through the subdivision in accordance with the surface water management program requirements of Titles 11 and 18 DMMC.

(2) Tracts Required. All surface water detention and above-ground conveyance improvements shall be located in separate tracts which provide for surface water functions. The area dedicated under this section shall become the property of the city, which

Dan Brewer

From: Grant Fredricks
Sent: Wednesday, July 12, 2006 5:27 PM
To: _Council
Cc: Tony Piasecki; Sue Bowman; Dan Brewer; Frank Olson
Subject: FW: can you help?

Mr.. Kebede has asked that the City Council be provided the attached copy of his May email communications with the City. He plans to speak to Council at tomorrow's (7/13) City Council meeting about these issue and ask why we aren't paving streets like his instead of overlaying currently paved streets.

I spoke by phone Mr. Kebede in June. We talked about:

- Litter pick up. I told him that City crews would respond if we received calls about dumping along this street, and gave him Frank Olson's (our Maintenance Superintendent) phone number. I also mentioned that we would schedule the Department of Correction's crews in to do clean up if warranted. Frank has asked his staff to more closely monitor the condition of this section of 25th Ave S.
- Unpaved residential streets. I told him that we would be developing an inventory of unpaved residential streets (this is becoming a pretty long list since gravel roads are currently allowed in our street standards), and that we would discuss with the Public Safety & Transportation Committee different strategies to manage these (we plan to start that discussion with PS&T at tomorrow night's Committee meeting). But I also mentioned to Mr.. Kebede that our streets needs are in excess of \$100 million, and that as a result, many critical infrastructure needs are not currently affordable.

Two other facts bear on this situation:

1. Mr.. Kebede's property values and probably his home purchase price reflected this situation. So he probably paid less and is being taxed less because of the road condition.
2. He has the ability under our Code to form a local improvement district with his neighbors to pave this road section without waiting on the City to do it.

Dan Brewer or I would be happy to answer any further questions any Council Members might have.

Grant

From: Daniel Kebede
Sent: Friday, May 12, 2006 11:20 AM
To: Jeanette Kebede
Subject: Can you please

Dear Mrs. Sue Bowman:

A few weeks ago I sent you the following letter. I am resending the message as a courtesy in case it got buried in your inbox. I realize that you are busy, but I would greatly appreciate hearing from you in the near future.

Since moving to the Seattle area six years ago, I have been happy to be a resident of our beautiful Des Moines. Three years ago when my wife and I decided to buy a house, we chose to stay in Des Moines and now reside at 24202 25th Ave S. We love where we live and we have no desire to live anywhere else, but Des Moines.

However, we would like to bring to your attention some unpleasant circumstances in our neighborhood. The east

07/13/2006

The following information was obtained from the records of the Department of the Interior, Bureau of Land Management, regarding the land owned by the United States in the State of California, and the same is hereby published for the information of the public.

The following is a list of the land owned by the United States in the State of California, and the same is hereby published for the information of the public.

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side of our house faces a green area outside of a Des Moines city park. South 242nd Street, which leads to the park, is a halfway paved, halfway gravel road. (The portion of South 242nd Street that is adjacent to our home is paved. The remaining portion that dead ends at the park entrance is gravel.) The paved portion of the road is periodically cleaned by street cleaners. However, the street cleaners turn around when they reach the gravel road. As a result, the gravel portion of S 242nd Street is constantly littered with trash (alcohol bottles and cans, cigarette butts, fast-food trash, etc.).

I take pride in our neighborhood and for the past three years have been regularly picking up the trash along the gravel road. This is a disgusting and discouraging experience. Once somebody brought a huge car speaker and dumped it outside of the park. Although I had a difficult time fitting it into my car, I paid to dispose of it properly at the dump. When people see trash along the road, they assume it is ok to add their trash to the pile. I could have only cleaned my area and forget the other mess, right? Wrong. Not if you live where I live. The problem is the litter outside of the park and on South 242nd Street will--thanks to the frequent wind and rain--find a way to come right to my garage door. You have no idea how many times I have had to throw out used condoms (which no doubt originated from the trash on this road) right outside of my garage door. In other words, I feel that I have no choice except to clean up everybody's mess.

Since a few of my neighbors have lived here longer than I have, I asked them why this road is not paved. They told me that in the past, they attended Des Moines City Council meetings to encourage the city to pave the road. But they were told this road is private, not public. With all due respect, this is a *public* road. Even school buses use South 242nd Street! And the adjacent Des Moines Park is not private either.

My request to you is that the City Council arrange for the paving of South 242nd Street. I know that this costs money, but I have seen several roads in very good condition recently be *repaved* (i.e., 16th Ave S, S 223rd and 7th Ave S, 6th Ave S and S 222nd St, S 225th St). I am sure you have the budget to do this small street. If I am not mistaken, we all pay the same tax. Please help us keep *all* of Des Moines beautiful. Thank you.

Sincerely,

Daniel Kebede
24202 25th Ave S
Des Moines, WA 98198
(206) 592-0458

On Street	From	To	Length	Width	Comments
001 Pl S	S 199 St	S 201 St			
003 Av S	S 216 St				
003 Av S	S 212 St	S 213 St			
004 Pl S	S 213 St	S 216 St			
005 Av S	S 204 St				
005 Av S	S 222 St				
006 Av S	S 200 St	South			
007 Av S	S 236 St	S 239 St			
007 Pl S(alley)	S 219 St	S 220 St			
007 Pl S(alley)	S 225 St	S 226 St			
007 Pl S(alley)	S 223 St				
008 Av S	S 219 St	S 223 St			
008 Pl S(alley)	S 207 St	S 208 St			
009 Av S	S 248 St	S 251 St			
009 Pl S(alley)	S 220 St	S 223 St			
009 Pl S(alley)	S 206 St	S 207 St			
009 Pl S(alley)	S 223 St	S 226 St			
010 Av S	S 281 St	South			
010 Av S	S 222 St	S 223 St			
010 Av S	S 251 St	North			
010 Av S	S 206 St				
010 Av S	S 251 St				
010 Av S	S 204 St	S 206 St			
010 Pl S	S 220 St	S 223 St			
010 Pl S	S 220 St	S 223 St			
011 Pl S	S 240 St	S 242 St			
012 Av S	S 251 St	S 252 St			
012 Av S	Apple Ln	Hummingbird Ln			
018 Av S	S 243 St	North			
018 Pl S	S 243 St	North			
019 Av S	S 243 St	North			
023 Av S	S 240 St	S 241 St			
025 Av S	S 242 St	South			
027 Av S	S 245 St	S 246 St			
S 206 St	009 Av S	010 Av S			
S 207 St	009 Av S	010 Av S			
S 209 St	009 Av S	East			
S 209 St	008 Av S	West			
S 211 St	013 Av S				
S 212 St	DMMD	East			
S 212 St	005 Av S	006 Av S			
S 212 St	005 Av S	007 Av S			
S 220 St	019 Av S	East			

S 225 St	030 Av S	
S 241 St	019 Av S	021 Av S
S 242 St	024 Av S	PHS
S 244 St	010 Av S	West
S 245 St	MVD	011 Av S
S 245 St	009 Av S	
S 245 St	MVD	East
S 246 St	027 Av S	West
S 247 St	MVD	East
S 248 St	008 Av S	010 Av S
S 249 St	MVD	East
S 249 St	MVD	West
S 252 St	011 Av S	013 Av S

Half streets shall not intersect other half streets unless so approved by the Public Works Director.

C. Reconstruction

When a half street is eventually completed to a whole street, the completing builder shall reconstruct the original half street as necessary to produce a proper full-width street of designated section. Centerline shall coincide with the center of the total right-of-way unless otherwise approved by the Public Works Director.

D. Right-of-Way Easements

The obtaining of any right-of-way or easements needed to accomplish the above shall be the responsibility of the owning builder or developer.

VII. Unpaved Streets In Pre-existing Single-family Plats

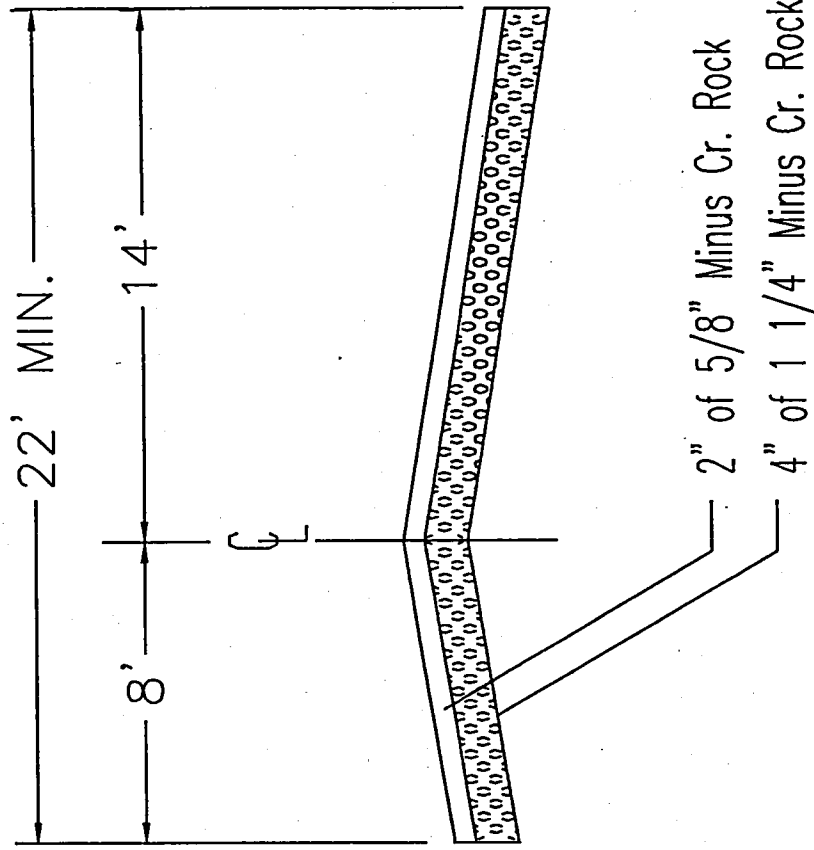
This section is provided to set minimum street development requirements for single family residential construction in pre-existing plats with unpaved streets and to provide existing property owners on unpaved streets a minimal street surface and drainage standard. These minimal standards do not apply to other types of developments other than one lot single-family residential construction in pre-existing plats.

A. Minimum Requirements:

For the construction of a single-family residence on one lot in a pre-existing plat the following street system improvements are required:

1. In the case of a development site fronting an unpaved street, the property owner shall enter into an agreement with the city waiving the right of the property owner under RCW 35.43.180 to protest formation of a local improvement district for the construction of full street system improvements and must fulfill requirement number two below.
2. In all cases, the developer shall provide the minimal street improvement as shown in Figure A-11. These improvements shall be constructed along the frontage of the development site to the nearest paved public road.
3. In the case of a corner lot development site, fronting both paved surface and unpaved surface, or where the development site is contiguous to existing paved surface, the developer is required to construct a paved street surface and drainage, as shown in Figure A-10, on the unpaved half-street section fronting the site.
4. At the time full street system improvements are constructed through participation in a local improvement district, the city council, in its discretion, may waive one or more of the street system improvement requirements. Full street system improvements may include curbs, gutters, sidewalks, and landscaping. However, at a minimum, street improvements will be required as shown in Figure A-12.

Minimum Requirements For Unpaved Roads



Drainage requirements to be determined through plan review.

City of Des Moines

ORD#1153

Effective Date
12/15/95

Revision Date

FIGURE A-11

Price Escalation Is Stuck in High Gear

Rising crude prices and changes at refineries limit supplies

Rising crude oil costs and refinery improvements are giving asphalt prices a steady push upward. In May, asphalt costs were 48% higher than a year ago, according to the Bureau of Labor Statistics' Producer Price Index. And ENR's 20-city average price for liquid asphalt is up 42% for the year.

The aggregate binder accounts for 40% to 60% of a paving project's total cost, says Mike Pack, president of Frehner Construction Co., North Las Vegas. Dan Gallagher, vice president of operations for Thornton, Ill.-based Gallagher Asphalt Corp., says it is paying \$405 per ton compared to \$170 a year ago.

The nation's refineries view liquid asphalt as a waste byproduct from the production of gasoline, diesel and kerosene. With light-sweet crude oil prices reaching \$72.40-per-barrel in May—a 23% year-to-year increase—producing lighter-grade petroleum products is more profitable. Earlier this year, “there just wasn’t an incentive to make asphalt,” says Angelia Graves, a spokeswoman for Findlay, Ohio-based Marathon Petroleum Co. LLC.

Refiners are adding catalytic cracking units, which maximize fuel production but leave little crude leftover for liquid asphalt. With ultra-low-sulfur emission retrofits and coker installations planned for 2008-10, fewer refineries are even offering liquid asphalt. “It’s not about getting a price,” Pack says. “It’s about finding a supplier who can supply you.”

After last year’s lag, liquid asphalt prices could range \$400 to \$600 per short ton over the next 12 months, say sources. “The price of asphalt is no longer going to be [for] a bottom-of-the-barrel waste product, based on the conversion value of running it through a cat cracker,” says Jeff Reed, president and CEO of Basic Resources Inc., Modesto, Calif.

Skyrocketing costs are forcing some states to cancel or shelve highway project plans. The Florida Dept. of Transportation was hit with “sticker shock” when bids came in 12% over estimate in 2005, says Ananth Prasad, the department’s chief engineer. It’s now seeing bids 26% over estimates, he adds.

The Nevada Dept. of Transportation recently canceled a project and delayed another when bids were 12% to 15% higher than expected, says Deputy Director Rudy Malfabon. The agency consequently is looking at using thinner road overlays, recycling asphalt and coating low-volume routes with a chip-sealant.

States where asphalt supplies are constrained are seeing fewer bidders due to the risks involved, says Don Wessel, general manager of Poten & Partners Inc., a New York City-based energy consultant. That’s especially the case when a price escalation clause for materials inflation is not available in contracts, he adds.

Transportation also is becoming an issue. West Coast states normally receive liquid asphalt from Rocky Mountain refineries by rail, but overburdened lines now are prompting some owners and contrac-

Asphalt, PG-58

	1Q	2Q	3Q	4Q	% CHG. YEAR
1996	121.24	119.14	119.62	122.92	-0.1
1997	132.75	131.47	132.67	127.36	+10.3
1998	128.33	125.35	120.28	116.43	-4.7
1999	116.49	120.86	122.23	129.63	-3.6
2000	143.15	156.11	156.99	158.42	+29.2
2001	154.17	148.04	144.98	143.27	-5.2
2002	142.76	157.63	162.49	159.42	+6.5
2003	174.87	178.48	185.72	166.79	+13.2
2004	166.76	173.46	185.86	187.72	-2.8
2005	187.58	190.34	197.27	208.03	+9.7
2006	221.88	269.51			+41.6

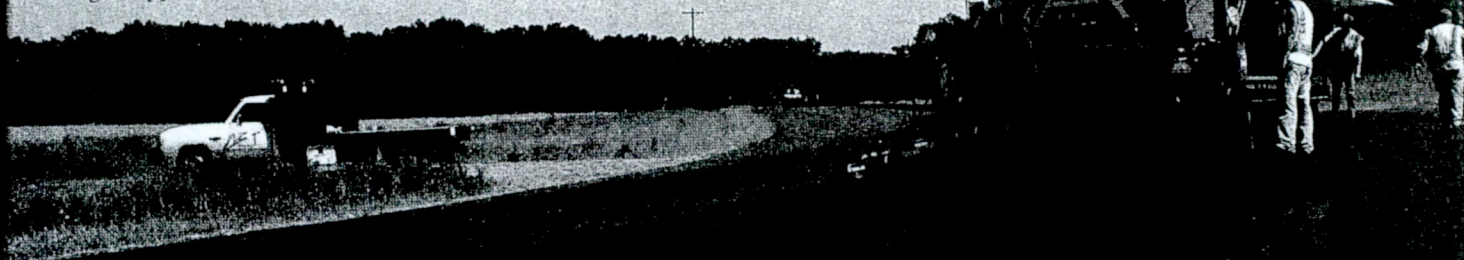
SOURCE: ENR CONSTRUCTION ECONOMICS DEPT. PRICES ARE 20-CITY AVERAGE. PERCENT CHANGES ARE JUNE VS. JUNE.

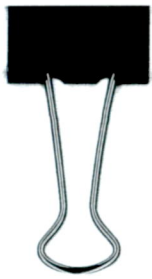
tors to pay for truck shipments from farther away.

Last year, refiners also experienced trouble installing equipment to make cleaner fuels in compliance with federal regulations that went into effect June 1, says Nasreen P. Tasker, editor of the *Argus Asphalt Report*, Trumbull, Conn. The longer than expected downtimes resulted in less liquid asphalt production and fewer supplies.

Such shortages helped push prices for liquid asphalt in southern California from \$185 per ton to \$375 over the last two years, says Tasker. In Arizona it rose from \$185 to \$360. ■

PHOTO BY TUDOR HAMPTON FOR ENR





SOUTH COUNTY AREA TRANSPORTATION BOARD (SCATBd)
SOUND TRANSIT PHASE 2 SCENARIOS

Tuesday, June 27, 2006

QUESTIONS FOR DISCUSSION

1. Does SCATBd want to recommend scenarios that focus on capital more than operating? For example, extensions of light rail south compared to new or expansion of existing regional express bus routes?
2. What is SCATBd's preference for focusing on the regional spine (light rail) compared to dispersed investments (parking facilities)?
3. How much does SCATBd want to recommend for ST2 investments versus planning for or securing right of way for ST3?
4. Does SCATBd want to rule out the lower tax levels? If so, would SCATBd recommend only .4 and .5, or also .3 scenarios? (The RTID is considering a .1% sales tax increase plus a .8% MVET increase for the Blueprint for Progress.)
5. Would SCATBd want to recommend that ST identify revenues for a 25 year period, rather than a 20-year period? If so, the RTID plan also would need to be expanded to 25 years.
6. Does SCATBd want to weigh in on the assumption that construction will occur simultaneously in the east, south and north corridors?

= 13B

DRAFT

SOUTH COUNTY AREA TRANSPORTATION BOARD (SCATBd)

TECHNICAL ADVISORY COMMITTEE (TAC)

DISCUSSION PAPER ON ST2 AND RTID

At the June 27 meeting, SCATBd discussed the sample investment scenarios under consideration by the Sound Transit Board. Although no formal positions were taken, Board members agreed that the No action and .1% sales tax increase scenarios should not be analyzed further or issued for public comment. Members also agreed that the broad interpretation of subarea equity focusing on benefit rather than geographic area should be used in refining the .3%, .4% and .5% for public review.

The Sound Transit Board will approve several scenarios for public review at the July 13 meeting. These will be discussed at the July 18 SCATBd meeting, and SCATBd may choose to provide formal input to the Sound Transit Board. Also in July, SCATBd should discuss the recommendations made by the RTID Executive Board in the "Blueprint for Progress." Since the ST2 and RTID projects will be integrated into one plan during the fall, SCATBd may want to weigh in on the development of that proposal. The following is provided to help the TAC develop a framework for SCATBd's discussion on July 18.

Questions for discussion:

Tax rate: At the June 27 meeting, SCATBd members expressed support for a tax increase of .4% or .5% for ST2. Each .1% increment of sales tax results in an average annual tax increase of \$25 per household. The RTID is also considering an additional .1% sales tax increase, plus an increase in MVET of 0.8%. At the highest level for Sound Transit, the combined package would result in an average annual tax increase of about \$320 per household.

- **Can an average annual tax rate increase of \$320 per household be supported?**
- **What is the appropriate tax rate for the joint package?**

ST2 Projects: The highest tax rate ST2 scenario indicates that light rail can be extended as far south as the Port of Tacoma using Pierce County contributions. This would also include additional parking at Auburn and a permanent station at Tukwila. The tradeoff would be limited investments in bus enhancements and other smaller projects.

- **What is SCATBd's preferred terminus for light rail? Are other investments needed to support this terminus?**
- **What other projects need to be in a package?**
- **Can projects be prioritized?**

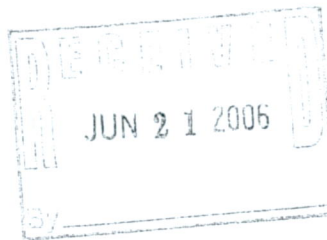
RTID Projects: In January, 2006, the Regional Transportation Investment District (RTID) Executive Board released a “Blueprint for Progress” outlining its recommendations for funding highway projects as part of a regional transportation package, totaling approximately \$4.5 billion in King County, for the following investments:

Project	Proposed RTID Investment in millions
SR 99: Alaskan Way Viaduct	\$ 800
I-405	\$1,330
SR520 Bridge Replacement	\$ 800
I-5 Improvements and SR 509 Extension	\$ 870
SR 167	\$ 420
I-5 Improvements at SR 18 (Federal Way Triangle)	\$ 50
Additional Investments and Contingency	\$ 237
Total	\$4,507

The 2006 legislature required that the RTID develop a funding proposal for the SR 520 bridge replacement and HOV project that assures full project funding for seismic safety and corridor connectivity between I-5 and I-405. The Blueprint for Progress would fund only the bridge replacement.

- **How should the “Blueprint for Progress” be adjusted to shift more money to SR 520, in order to complete the project as directed by the State Legislature?**
- **Should additional taxes be recommended to fully fund this project?**
- **Should other projects be added to the list? If so, what projects?**

What other questions would be helpful for SCATBd’s discussion?



CC: CITY COUNCIL
TONY

June 15, 2006

Mr. Tony Piasecki
City of Des Moines
Administration
21630 11th Avenue South, Suite A
Des Moines, WA 98198-6398

Dear Mr. Piasecki:

On behalf of the Sound Transit Board, I want to thank you for your April 10, 2006 letter responding to my request that you review and comment on Sound Transit 2 (ST2) project scopes and cost estimates that could affect your jurisdiction. As you know, Sound Transit has identified a set of projects that could be part of our next phase of investments, known as ST2. We believe that it is important to establish a common understanding of the project scope, and the cost estimates that are based on that scope, before we finalize a plan and take it to the voters. This should minimize the potential for confusion later, if and when voters approve funding for ST2.

In your letter, you advised of the City's interest in having the light rail extension through Des Moines run along I-5 rather than SR 99. Thank you for sharing your concern, and I appreciate your efforts to help us address such a significant and complex issue at this early stage of planning for ST2 projects. Though I realize that Sound Transit staff has been consulting with you, your council and your staff, I want to again explain why the projects that extend light rail from Sea-Tac to Tacoma were scoped as an aerial alignment along SR 99. Please note that the scope and cost estimates for this set of projects have been updated and are now numbered S27, S28, S29/S30 and S2. They can be viewed on our ST2 website at www.soundtransit.org/st2.

As you know, major capital projects such as transit rail lines must go through an extensive environmental review process before a final design and cost estimate is developed. Extending light rail through Des Moines would require such review and would include a thorough evaluation of alignment alternatives. Given that we are in a very early stage of planning, it is more appropriate to develop a "representative" alignment to use as the basis for developing a cost estimate rather than developing multiple alignments, scopes and cost estimates.

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Joni Earl

Mr. Tony Piasecki
June 15, 2006
Page Two

Our objective is to develop a cost estimate that is robust enough to encompass the range of alternative routes and help the Sound Transit Board understand the scale of the investment and its potential benefits and impacts without getting into details that would be more thoroughly examined at a future date. In addition, we want to provide affected communities with that same information so that they can provide the type of comments and suggestions that the City of Des Moines has provided. We will be using your comments in the next stage of work on the project.

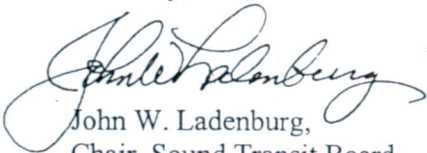
Specifically, the ST2 planning team is currently developing a scope and cost estimate for a light rail extension that would predominately follow Interstate 5 while serving stations at or near the freeway. This new information will aid in understanding the similarities and differences between the SR 99 and I-5 routes, including whether there are any significant cost differences.

As I noted in my letter to you in March, Sound Transit will be coordinating with the Regional Transportation Investment District (RTID) to present a joint proposal for transit and road investments in November 2007. The Sound Transit Board plans to identify a set of potential draft plan options for public comment this summer. We will use public comment to help us identify a preferred package of ST2 investments this fall. Throughout our process we will continue to seek input from you and other local jurisdictions in our district.

Eric Chipps, Senior Planner for ST2 in the South Corridor can answer any questions may have about project S23. He can be reached at (206) 398-5020 or by email at chippse@soundtransit.org.

On behalf of the Sound Transit Board and staff, thank you again for your involvement and support.

Sincerely,



John W. Ladenburg,
Chair, Sound Transit Board

c: Sound Transit Board Members
Joni Earl, Chief Executive Officer
Paul Matsuoka, Chief Policy and Planner Officer
Eric Chipps, Senior Planner
Marcia Walker, Board Administration
Dan Brewer, City Transportation Engineer
Grant Fredricks, Planning, Building & Public Works Director
Denise Lathrop, Planner II
Leonard Madsen, Special Projects Manager



Sound Transit's regional network of express buses, commuter rail, light rail and transit facilities connects communities in King, Pierce and Snohomish counties.

South Corridor Potential ST 2 Projects

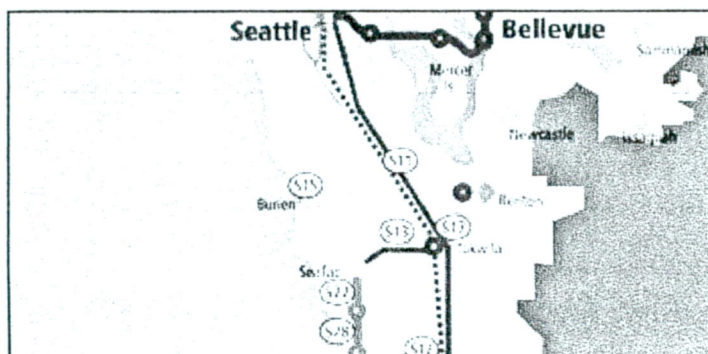
Thousands of commuters in the South Corridor rely on Sound Transit to get them to and from work every day on Sounder commuter rail, ST Express buses and Tacoma Link light rail. Potential Sound Transit 2 projects could expand these popular services.

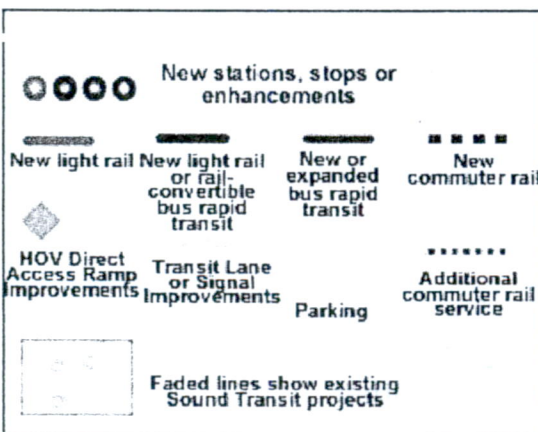
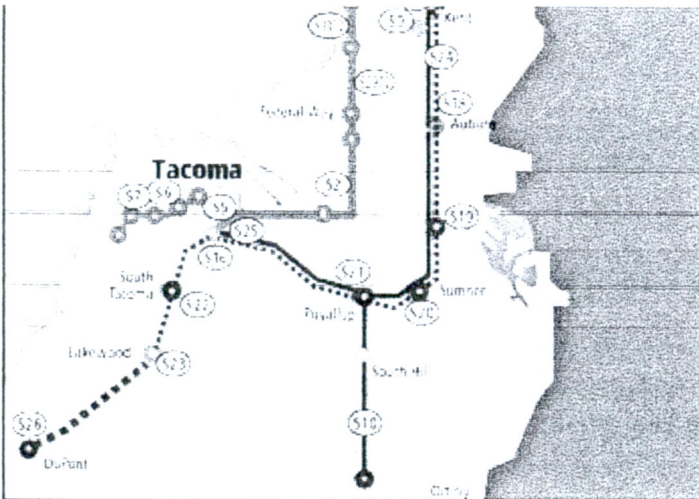
Possibilities for Sounder commuter rail include extending service south to DuPont with an expanded station there, and adding mid-day and weekend service between Pierce and King counties. Other potential Sounder projects include an improved station with more parking at Tukwila, and more parking at stations in Lakewood, Tacoma, Puyallup, Sumner and Auburn.

For light rail, potential projects could extend Link service beyond Sea-Tac International Airport as far as Tacoma, with stops serving communities along the route. Other projects could extend the existing Link system in downtown Tacoma Link westward as far as Tacoma Community College.

ST Express proposals include new routes serving Sounder stations when Sounder is not in service, a new park-and-ride lot in the Meridian/South Hill area, and improved transit access to and from Kent Station. Other enhancements include expanded service on existing routes and more parking at the Burien Transit Center.

The current information is updated through May 25, 2006. To view a memorandum that provides more information on the latest revisions, click [HERE](#).





Future Possibilities-South

Map & Project List

FLY_ST2_projects-south.pdf

Documents in PDF format require the free  Adobe Reader to view.

Guide to reading these pdf documents>>

S2 LRT: Kent-Des Moines Road to Tacoma Dome Station

Cost estimates for LRT segments between Federal Way and Tacoma will be updated in **S02_Link_Ext_Kent_DM-Tacoma_v1.pdf (37kb)**

S3 Planning Study of potential Link Corr So. King

S03_Planning_Study_of_Potential_Future_Link_S_King_v2.pdf (49kb)

S5 Conversion of Tacoma Link to Central Link tech

S05_Conversion_of_Tacoma_Link_to_Central_Link_Tech_v2.pdf (47kb)

S6 Link ext - W Tacoma w/ Central tech

S06_Link_Ext_to_W_Tacoma_with_Central_Link_Tech_v2.pdf (48kb)

S7 Link ext - W Tacoma w/ Tacoma tech

S07_Link_Ext_to_W_Tacoma_with_Tac_Link_Tech_v2.pdf (49kb)

S9 HOV ramps on 167 - Kent

S09_HOV_Access_Ramps_on_SR_167_at_Smith-Kent_v3.pdf (143kb)

S10 TSP on SR 161

S10_TSP_on_SR_161__new_pnr__express_to_Sounder_Stns_v2.pdf (32kb)

S11 Shadow service Tacoma - Seattle

S11_Shadow-Tacoma-Seattle_v2.pdf (31kb)

S12 TSP on SR 516

S12_Express_Bus_Transit_Signal_Priority_on_SR_516-Kent_v2.pdf (47kb)

S13 TSP on LT lane RT 560

S13_Express_Bus-Signal_Prior_LT_Lane_Rt_560_Tuk_v2.pdf (45kb)

S15 Burien Parking Garage

S15_Parking_Garage_at_Burien_TC_v2.pdf (133kb)

S15b ST support of Burien Parking Garage (Alt)

S15B_ST_Support_for_Parking_Garage_at_Burien_TC_v2.pdf (134kb)

S16 Tacoma Dome surface parking expansion

S16_Surface_Parking_Expansion_at_Tacoma_Dome_Stn_v2.pdf (138kb)

S17 Permanent station at Tukwila

S17_Permanent_Station_at_Tukwila_v2.pdf (160kb)

S18 Auburn Parking Garage

S18_Parking_Garage_at_Auburn_Station_v2.pdf (134kb)

S18b Auburn Parking Garage (Alt)

S18B_Parking_Garage_at_Auburn_Station_v1.pdf (135kb)

S19 Permanent station at N Sumner

S19_New_Station_in_North_Sumner_v2.pdf (141kb)

S20 Garage/ped bridge at Sumner

S20_Parking_Garage_and_Ped_Bridge_at_Sumner_Stn_v2.pdf (140kb)

S21 Garage/ped bridge at Puyallup

S21_Parking_Garage_and_Ped_Bridge_at_Puyallup_Stn_v2.pdf (128kb)

S22 Garage/ped bridge at S Tacoma

S22_Parking_Garage_and_Ped_Bridge_at_South_Tacoma_Stn_v2.pdf (138kb)

S23 Garage/ped bridge at Lakewood

S23_Parking_Garage_at_Lakewood_Station_v2.pdf (130kb)

S23b Garage/ped bridge at Lakewood (Alt)

S23B_Parking_Garage_at_Lakewood_Station_v2.pdf (131kb)

S24 Sounder - expand peak/off-peak service on weekends

S24_Sounder-Expand_service_plus_track_imp_v2.pdf (29kb)

S25 Res Junction - Freighthouse upgrade

S25_Res_Junction-Freight_Sq_Track_Upgrade_v2.pdf (41kb)

S26 Ext of Sounder to Dupont

S26_Ext_of_Sounder_to_DuPont_plus_track_upgrde_station_v2.pdf (121kb)

S27 LRT Airport to S200th

S27_LRT_Ext_Airport_to_S__200th_v2.pdf (47kb)

S28 LRT S 200th to Kent-Des Moines Rd

S28_South_200th_to_Kent-DM_Road_v2.pdf (54kb)

S29T2 LRT Kent-Des Moines Rd to Fed Way TC

S29T2_Link_Ext_Kent_DM-317th_St_v2.pdf (283kb)

S33T2 LRT Maintenance base - ext to Fed Way TC

S33T2_maint_Base-added_veh_for_Link_Ext_317th_St_v2.pdf (55kb)

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Link LRT: Extension from South 200th Street to Kent/Des Moines Road

Project Number	S28
Subarea	South King
Primary Mode Impacted	Link
Facility Type	Link Service
Version Number	2.0
Date Last Modified	5/12/2006

Project Locator Map



Short Project Description

Extension of the Central Link light rail system for approximately 2.4 miles from S. 200th Street to a new station near Kent-Des Moines Road. For costing purposes, the alignment is assumed to be aerial primarily along SR 99.

The project will include all necessary components such as infrastructure and systems, stations, and vehicles.

Project Purpose: To extend reliable high capacity transit connection from Sea-Tac Airport further into South King County.

Cost and Schedule

Cost (In Millions of 2005\$); pre-conceptual estimate only

Schedule

	Low	High
Agency Admin	\$15.8	\$18.2
Environmental Clearance and PE	\$9.0	\$10.4
Final Design, Specs, and	\$22.5	\$25.9
ROW Acquisition	\$36.8	\$42.4
Construction	\$195.4	\$224.7
Vehicles	\$0.0	\$0.0
Contingency	\$18.0	\$20.7
Total	\$297.6	\$342.2

Proposed
Schedule Not Yet Developed

Design Basis

Conceptual

Annual O&M*	\$5.0
-------------	-------

* In Millions of 2005 dollars

Environmental Documentation Required

- ☒ Environmental Impact Statement Required
☐ Environmental Assessment Required
☐ Environmental Checklist Required

Relationships to Other Projects

Relationship	Project
Dependent on	Link LRT Extension from Sea-Tac Airport to S. 200th Station (Project S27).
Dependent on	Vehicles as identified in Project S28T1
Impacted by	Alignment crosses route of planned extension of SR 509. Need to coordinate with WSDOT on use of its right-of-way.

Link LRT: Extension from South 200th Street to Kent/Des Moines Road

Project Partners

Agency

KC Metro	
WSDOT UCO	
WSDOT Public Transportation	
City of SeaTac	
City of Kent	
City of Des Moines	
Highline Community College	

Long Description:

This capital project scope and the companion capital cost estimate, are intended to include the entire project development cycle cost (agency and project administration, design, all aspects of property acquisitions, permits, agreements, construction, testing, commissioning, and contingencies) from project initiation through the start-up of revenue operations.

Project Description:

At this stage of project development, a representative alignment was used to develop a cost estimate. The final alignment and station locations would be determined through project level design and environmental review. The base cost estimate includes design allowance contingency, construction change order contingency, and unallocated contingency.

This project is related and similar to project S28T1, except this project does not include a maintenance and operations base. Sufficient capacity is expected to be provided at the Central Link maintenance and operation facility.

Extend Link LRT service south from S. 200th Station to Kent Des Moines Road (SR 516) along Highway 99 to a station located adjacent to Highline Community College.

Project Elements Included:

- Link LRT service extended approximately 2.4 miles south from S. 200th Station to south of Kent/Des Moines Road.
- Alignment is assumed to be aerial.
- After leaving S. 200th St Station, the alignment would continue along the west side of SR 99 with an aerial profile.
- Column placement in the west side of the SR 99/International Boulevard 100-foot right-of-way is assumed to require shifting the travel lanes and sidewalks approximately 6 feet to the east.
- In the Kent/Des Moines area, a center platform aerial station with a ground level plaza (similar to Airport Station) would be located near the Highline Community College site.
- Park-and-ride capacity of 500 spaces for use by light rail patrons.
- Features at the park-and-ride garage to limit use of the facility to Link riders
- Elevated pedestrian walkway between the parking garage and station.
- 1 percent for art per ST policy
- Vehicular access improvements at the Highline CC station including one new traffic signal and one upgrade of an existing traffic signal.
- Road widening and traffic signal modifications at four SR 99 intersections at S. 208th St., S. 216th St., S. 220th St., and Kent-Des Moines Road
- 10 minute headways in peaks; 15 minutes in base period.
- 4-car trains in peak; 3-car trains in base
- LRT vehicles included in capital cost of Project S33T1
- Track crossover north of the Highline CC Station

Utilities

- Relocation of the existing high voltage power line (no undergrounding)

Link LRT: Extension from South 200th Street to Kent/Des Moines Road

Mitigation

- The final project scope will include all mitigation(s) committed to by ST in pertinent, future project-level environmental documents.

Exclusions

- Additional maintenance and operations base
- Non-structural architectural and aesthetic elements in excess of the ST art program
- Public restrooms
- Underground of utilities
- Community development funding
- Central command and control for operations

Permits Required

- Building, electrical, mechanical, utility, construction-related

Agreements Required

- City of Kent, City of Des Moines, Highline Community College

ST has developed scope definitions for ST2 project proposals for the purposes of developing cost estimates, implementation schedules, a financial plan, and the estimation of project benefits. This scope definition should not be construed as a commitment that all defined features will be included in the final developed project.

Evaluation Measures

Measure	Measurement/ Rating	Notes
Average Weekday Ridership		ST staff to provide
Capital Cost	\$297.6 - \$342.2	in Millions of 2005\$
Annual Operating Cost	\$5.0	in Millions of 2005\$; final O&M costs are for this project are subject to change, and will be recalculated when the full extent of the ST2 LRT system is identified.
Travel Time & Reliability	TBD	
Connectivity & Integration	High	# transit routes: 1 ST; 7 Metro
Land Use & Development	High	
Customer Experience	High	
Risk Avoidance	Medium	

Key Issues and Benefits

Issues:

- An aerial alignment along SR 99 was selected as the representative alignment for estimation purposes in order to account for the potentially greater impacts and costs of constructing a light rail system along a highly developed and urbanized traffic corridor.
- Due to column placement, aerial alignment along SR 99/Pacific Highway would impact property access and parking
- Alternative alignment following SR 509 and I-5 would reduce impacts to SR 99, but make serving Highline Community College more difficult.
- Ability to limit use of the park-and-ride spaces to Sound Transit users is dependent on an unspecified enforcement program.

Benefits:

- Provides connection of Seattle and Kent-Des Moines area with light rail transit, consistent with Sound Transit's Long Range Plan.
- New light rail station near Highline Community College increases transit accessibility to a large activity center and traffic generator.

Link LRT: Extension from Kent-Des Moines Road to Federal Way Transit Center - Terminal

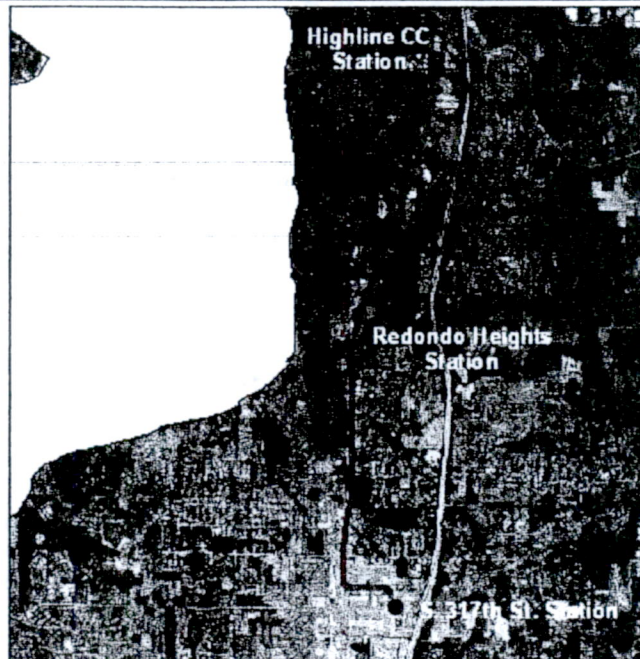
Project Number	S29T2
Subarea	South King
Primary Mode Impacted	Link
Facility Type	Link Service
Version Number	2.0
Date Last Modified	5/12/2006

Short Project Description

Extension of the Central Link light rail system for approximately 5.5 miles from Kent-Des Moines Station to S 317th (at existing Federal Way Transit Center), including new stations at Redondo Heights (S 272nd Street) and Federal Way (S 317th). The S 317th St Link station would serve as an interim terminal for this extension.

For costing purposes, the alignment is assumed to be aerial primarily along SR 99. (A light rail extension project between S. 200th Station and Kent-Des Moines has been defined and costed separately - Project S28).

Project Purpose: To extend reliable high capacity transit service further south.

**Cost and Schedule**

Cost (In Millions of 2005\$); conceptual estimate only

Schedule

	Low	High
Agency Admin	\$35.3	\$40.6
Environmental Clearance and PE	\$20.1	\$23.1
Final Design, Specs, and	\$50.2	\$57.8
ROW Acquisition	\$82.2	\$94.5
Construction	\$435.9	\$501.3
Vehicles	\$0.0	\$0.0
Contingency	\$40.2	\$46.2
Total	\$663.9	\$763.5

Proposed
Schedule Not Yet Developed

Design Basis

Preliminary

Annual O&M* **\$10.0**

* In Millions of 2005 dollars

Environmental Documentation Required

- ☒ Environmental Impact Statement Required
☐ Environmental Assessment Required
☐ Environmental Checklist Required

Relationships to Other Projects

Relationship	Project
Dependent on	Requires extension of light rail to Kent-Des Moines (see Project S28).
Dependent on	Project S33T2 - additional LRV's and maintenance and operations base to support extension.

Link LRT: Extension from Kent-Des Moines Road to Federal Way Transit Center - Terminal

Project Partners

Agency

KC Metro	
WSDOT	
City of Kent	
City of Des Moines	
Highline Community College	
City of Federal Way	

Long Description:

This capital project scope and the companion capital cost estimate, are intended to include the entire project development cycle cost (agency and project administration, design, all aspects of property acquisitions, permits, agreements, construction, testing, commissioning, and contingencies) from project initiation through the start-up of revenue operations.

Project Description:

At this stage of project development, a representative alignment was used to develop a cost estimate. The final alignment and station locations would be determined through project level design and environmental review. The base cost estimate includes design allowance contingency, construction change order contingency, and unallocated contingency.

The project is related to Project S2 - Link LRT: Kent-Des Moines Road to Tacoma Dome.

Construct an extension of Link light rail transit from the Kent Des Moines area/Highline Community College (see Project S28) to S. 317th Street in Federal Way (vicinity of existing Federal Way Transit Center). For cost estimation purposes, the line is assumed to be elevated, primarily following an SR 99 alignment, and would include two new stations in Federal Way - at S 272nd Street/SR 99 (Redondo Heights) and at S 317th Street (existing Federal Way Transit Center).

Project Elements Included:

- Link LRT service extended approximately 5.5 miles south from Kent/Des Moines Station to the existing Sound Transit Federal Way Transit Center at S 317th Street (An extension of Link light rail from S. 200th Station to Kent-Des Moines Station has been defined and costed separately; Project S28).
- Alignment is assumed to be aerial.
- After leaving Kent-Des Moines Station, the representative alignment would continue along the west side of SR 99/Pacific Highway with an aerial profile. A station would be provided on Pacific Highway south of S 272nd Street to serve the Redondo Heights Station/Park-and-Ride facility. After leaving the Redondo Heights Station, the alignment would continue along the east side of SR 99 to S 316th Street. The alignment would then continue easterly in an alignment between S 312th and S 316th Street until it reaches the vicinity of Sound Transit's Federal Way Transit Center at S 317th Street. The S 317th Street station would serve as an interim terminal for this extension.
- Two new stations are assumed - at the existing Redondo Heights Park-and-Ride lot with an aerial center platform/ground level plaza, and at the existing Federal Way Transit Center with an aerial center platform/ground level plaza
- New 500-space parking structure at the Redondo Heights Link Station. Existing surface park-and-ride lot has 714 stalls
- New pedestrian bridge connecting the Redondo Heights Link station with the parking structure
- New pedestrian bridge connecting the S 317th Street Link station with the existing park-and-ride structure
- Features at the S 317th Street station to reflect that it is a terminus such as more extensive passenger drop-off areas
- 1 percent for art per ST policy
- Road widening and traffic signal modifications at 14 SR 99/Pacific Highway intersections
- Roadway modifications for sidewalk and curb reconstruction to shift roadway centerline to the east to accommodate column placement on the west side of the street within the right-of-way
- 10-minute headways in peaks; 15 minutes in base period
- 4-car trains in peak; 3-car trains in base
- LRT vehicles included in capital cost of Project S33T2
- Maintenance facility included in capital cost of Project S33T2

Other design features assumed in the cost estimate include:

- Two track crossovers - north of the Redondo Heights Station and north of the 317th Street Station
- Two tail tracks in the vicinity of the S 317th Street station, with a pocket track in between. The tracks would be long enough for a 4-car train.

Utilities

- Relocation of the existing high voltage power line (no undergrounding)

Link LRT: Extension from Kent-Des Moines Road to Federal Way Transit Center - Terminal

Right-of-Way

- Right-of-way needed for roadway widening at 14 signalized intersections; allowances for additional right-of-way costs from temporary construction easements or column placement have been included in the cost estimates.

Mitigation

• The final project scope will include all mitigation(s) committed to by ST in pertinent, future project-level environmental documents.

Exclusions

- Major roadway reconstruction to accommodate support columns for the aerial track (only minor pavement reconstruction has been costed - up to 6 feet wide including striping and sidewalk replacement on one side of the street)
- Non-structural architectural and aesthetic elements in excess of the ST art program
- Public restrooms
- Track improvements
- Undergrounding of overhead utilities
- Community development funding
- Non-structural architectural and aesthetic elements in excess of the ST art program
- Central command and control for operations

Permits Required

- Building, electrical, mechanical, utility, construction-related

Agreements Required

Agreements with WSDOT and affected jurisdictions

ST has developed scope definitions for ST2 project proposals for the purposes of developing cost estimates, implementation schedules, a financial plan, and the estimation of project benefits. This scope definition should not be construed as a commitment that all defined features will be included in the final developed project.

Evaluation Measures

Measure	Measurement/ Rating	Notes
Average Weekday Ridership	(to be determined)	
Capital Cost	\$663.9 - \$763.5	in Millions of 2005\$
Annual Operating Cost	\$10.0	in Millions of 2005\$; final O&M costs are for this project are subject to change, and will be recalculated when the full extent of the ST2 LRT system is identified.
Travel Time & Reliability	TBD	
Connectivity & Integration	High	
Land Use & Development	High	
Customer Experience	High	
Risk Avoidance	Low	

Key Issues and Benefits

Issues:

- An aerial alignment along SR 99 was selected as the representative alignment for estimation purposes in order to account for the potentially greater impacts and costs of constructing a light rail system along a highly developed and urbanized traffic corridor.
- Due to column placement, aerial alignment along SR 99/Pacific Highway would impact property access and parking.
- Alternative alignment following I-5 would reduce impacts to SR 99 but would make serving communities along SR 99 more difficult.
- Some costs associated with rebuilding sidewalks and curbs to shift the street centerline to the east are included; costs associated with major street re-building are not included in the project scope.

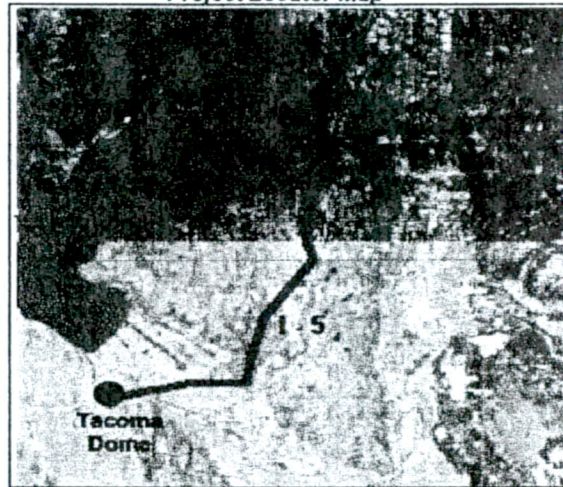
Benefits:

- Extends light rail service further south; consistent with Sound Transit's Long Range Plan.
- Serves the north **and central** areas of Federal Way.

Link LRT: Kent-Des Moines Road to Tacoma Dome Station

Project Number	S2
Subarea	South King
Primary Mode Impacted	Link
Facility Type	Link Service
Date Last Modified	12/8/2005

Project Locator Map



Short Project Description

Extension of the Central Link light rail system for approximately 15.4 miles from Kent-Des Moines Station to Tacoma (Tacoma Dome Station) including 5 new stations. For costing purposes, the alignment is assumed to be aerial primarily along SR 99. (A light rail extension project between S. 200th Station and Kent-Des Moines has been defined and costed separately - Project S8).

Project Purpose: To extend Link LRT service further south.

Cost and Schedule

Cost (In Millions of 2005\$); pre-conceptual estimate only

Schedule

	Low	High
Agency Admin	\$136.6	\$157.1
Environmental Clearance and PE	\$70.6	\$81.2
Final Design, Specs, and	\$177.8	\$204.5
ROW Acquisition	\$370.5	\$426.1
Construction	\$1,540.7	\$1,771.8
Vehicles	\$141.4	\$162.6
Contingency	\$147.0	\$169.1
Total	\$2,584.6	\$2,972.3

Proposed
Schedule Not Yet Developed

Breakdown of Capital Costs by Segment (in Millions)

	Low	High
Kent/Des Moines-Redondo	\$402.7	\$463.1
Redondo Heights-Federal Way	\$520.3	\$598.3
Federal Way-SW Federal Way	\$402.7	\$463.1
SW Federal Way-Fife	\$705.0	\$810.8
Fife-Tacoma Dome	\$553.9	\$637.0
Total	\$2,584.6	\$2,972.3

Design Basis

Based on per-mile cost of Project S1

Annual O&M*	\$17.1
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* In Millions of 2005 dollars

Environmental Documentation Required

- ☒ Environmental Impact Statement Required
☐ Environmental Assessment Required
☐ Environmental Checklist Required

Relationships to Other Projects

Relationship	Project
Dependent on	Connecting Federal Way to Seattle requires extension of light rail to Kent-Des Moines (see Projects S1 and S27).
Impacted by	Alignment crosses route of planned extension of SR 167. Need to coordinate with WSDOT on use of its right-of-way.

Link LRT: Kent-Des Moines Road to Tacoma Dome Station

Project Partners

Agency

KC Metro	
Pierce Transit	
WSDOT	
City of SeaTac	
City of Kent	
City of Des Moines	
Highline Community College	
City of Federal Way	
City of Fife	
Puyallup Tribe	
City of Tacoma	

Long Description:

This capital project scope and the companion capital cost estimate, are intended to include the entire project development cycle cost (agency and project administration, design, all aspects of property acquisitions, permits, agreements, construction, testing, commissioning, and contingencies) from project initiation through the start-up of revenue operations.

Project Description:

Construct an extension of Link light rail transit from the Kent Des Moines area (Highline Community College) to downtown Tacoma (Tacoma Dome Station). For cost estimation purposes, the line is assumed to be elevated, primarily following an SR 99 alignment, and will include stations at Redondo Heights, Federal Way, South Federal Way, Fife, and Tacoma.

Project Elements Included:

- Link LRT service extended approximately 15.4 miles south from Kent/Des Moines Station adjacent to Highline Community College to the Tacoma Dome Station. (An extension of Link light rail from S. 200th Station to Kent-Des Moines Station has been defined and costed separately)
- Alignment is expected to be aerial
- After leaving Kent-Des Moines Station, the alignment would continue along the west side of SR 99/Pacific Highway with an aerial profile. The alignment crosses Pacific Highway at S. 316th Street to serve the Federal Way Transit Center and returns to the west side of Pacific Highway south of S. 324th Street.
- Five new stations at the Redondo Heights Park-and-Ride, Federal Way Transit Center, South Federal Way Park-and-Ride, Fife, and Tacoma Dome station are assumed to be center platform aerial stations with ground level plazas. The terminus station in Tacoma includes a mezzanine and is assumed to be located on the north side of the Tacoma Dome Transit Center Parking Garage,
- An elevated pedestrian walkway between the parking garage and Tacoma Dome mezzanine station will provide connections to the existing Tacoma Link and Sounder system through the parking garage.
- New 500 space parking structure at the Fife Station.
- New rail-only bridge crossing the Puyallup River.
- 1% for art
- Road widening and traffic signal modifications at 32 SR 99/Pacific Highway intersections.
- 10 minute headways in peaks; 15 minutes in base period.
- 4-car trains in peak; 3-car trains in base
- 40 additional light rail vehicles (35 in service; 5 spares)
- New maintenance and operations base; located south and east of the Kent-Des Moines Station. An 18-acre site south of S. 240th St. and east of SR 99 (former Midway Drive-In Theater site) has been assumed for the maintenance facility. The right-of-way and initial construction cost has been previously assumed in the S. 200th to Kent-Des Moines project description. The facility will accommodate the 40 additional LRV's required for this service.

Other design features assumed in the cost estimate include:

- Five track crossovers north of each station
- Right-of-way needed for roadway widening at 32 signalized intersections

Utilities

- Relocation of the existing high voltage power line (no undergrounding)

Link LRT: Kent-Des Moines Road to Tacoma Dome Station

Mitigation

- The final project scope will include all mitigation(s) committed to by ST in pertinent, future project-level environmental documents.

Exclusions

- Non-structural architectural and aesthetic elements in excess of the ST art program
- Public restrooms
- Track improvements
- Undergrounding of overhead utilities
- Community development funding
- Non-structural architectural and aesthetic elements in excess of the ST art program
- Central command and control for operations
- Additional park-and-ride capacity is assumed at any of the stations, except for the new 500-space parking structure at the Fife Station

Permits Required

- Building, electrical, mechanical, utility, construction-related

Agreements Required

Agreements with WSDOT and affected jurisdictions

ST has developed scope definitions for ST2 project proposals for the purposes of developing cost estimates, implementation schedules, a financial plan, and the estimation of project benefits. This scope definition should not be construed as a commitment that all defined features will be included in the final developed project.

Evaluation Measures

Measure	Measurement/ Rating	Notes
Average Weekday Ridership	28,000	
Capital Cost	\$2584.6 - \$2972.3	in Millions of 2005\$
Annual Operating Cost	\$17.1	in Millions of 2005\$
Travel Time & Reliability		
Connectivity & Integration	High	# transit routes: 3 ST, 7 Metro
Land Use & Development		
Customer Experience		
Consistency with Plans		
Public Support		
Risk Avoidance	Low	

Key Issues and Benefits

Issues:

- Project could be separated into smaller stand-alone segments (e.g., Tacoma to Federal Way) but ridership would be lower and separate maintenance facility would have to be constructed to serve that segment.
- Due to column placement, aerial alignment along SR 99/Pacific Highway would impact property access and parking.
- Alternative alignment following I-5 would reduce impacts to SR 99 but would make serving communities along SR 99 more difficult.
- An aerial alignment along SR 99 was selected as the representative alignment for estimation purposes in order account for the potentially greater impacts and costs of constructing a light rail system along a highly developed and urbanized traffic corridor.
- Bus services providing same connections may need to be reduced, restructured or eliminated (e.g., ST Express Route 574.)
- Depending on station locations, the existing park-and-ride lots in potential station areas may be used, or, may have to be redesigned or relocated.

Benefits:

- Completes connection of Seattle and Tacoma with light rail transit service, consistent with Sound Transit's Long Range Plan.
- Serves the Federal Way urban core, Fife and other growing communities in South King County and north Pierce County

[illegible]

1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the problem.

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For the purpose of this study, the following hypotheses were formulated:

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1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

[illegible]

1. The first step in the process of identifying a problem is to recognize that a problem exists. This is often done by comparing current performance with a desired state or goal. If there is a discrepancy, a problem is identified.

1. *How many people are there in your family?*