# Arc Ecology

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SUBJECT: Treasure Island Ferry Terminal

When the TIDA Board decides where to build Treasure Island's ferry terminal, you will be doing more than choosing between two possible locations. The choice, we believe, will mold the new identity of TI. In one location, the TI ferry terminal could anchor surrounding development that would be an extension of San Francisco's compact, pedestrian-oriented downtown. In the other, it would provide a secondary transportation link to the mainland for a new, car-dependent commuter neighborhood.

Terminal location remains a controversial issue unsettled because a community process has not been convened to articulate and refine San Francisco's vision for Treasure Island since the Reuse Plan was completed in 1996. Changes in the real estate market and in the Navy's conveyance rules in addition to new information have required revisions to the Reuse Plan. In effect, the Reuse Plan has been overhauled by Treasure Island Community Development, LLC (TICD) through the RFP process. Now the public needs to stand back to evaluate whether the details of TICD's proposal represent the best possible adaptation to changed conditions. (See ATTACHMENT 1:TREASURE ISLAND LAND USE PLAN: THE SHIFT FROM COMMUNITY PLANNING TO DEVELOPMENT PROPOSAL.)

**Recommendation: A Planning Workshop to Define the Larger Context of the Ferry Terminal**

Accordingly, we urge the TIDA to invite the public to a well-publicized public workshop, organized around state of the art concepts and experience in waterfront design, transit-oriented development, and ferry operations, plus any other topic considered central to the future identity of Treasure Island. The agreement that emerges from this process should be the basis for a decision on the optimum location of the ferry terminal.

## Selecting the Location for the TI Ferry Terminal

The TICD proposal assumes the terminal will be built at the Pier One Site at the southeast corner of the island, the site furthest away from the San Francisco Ferry Building. There are additional disadvantages to the Pier One Site. The close views from this site are of the Bay Bridge and Yerba Buena Island. The site's close neighbor is Clipper Cover Marina, a land use unlikely to be served by the terminal to any significant degree, since boaters are far more likely to arrive by car than by ferry. Most housing will be more than ½ mile away – the distance transportation planners believe people are willing to walk on a regular basis.

In contrast, a West Shore Site would be within sight of Downtown. In addition to positioning the terminal near the center of TI development, this location could host hotels and the surrounding commercial district that would function as part of Downtown. With minor modifications to the TICD plans[1], this site could also be within walking distance from most housing, especially if the densest housing was targeted within this radius.

Nevertheless, despite the obvious land use and transportation advantages of the West Shore Site, significant tradeoffs need to be factored into the decision. These were succinctly defined during preparation of the Reuse Plan (completed in 1996), by ROMA Design Group. They favored a terminal on the West Shore, but cautioned that it might cost more.[2] However ROMA did not calculate the costs of the two sites, and as an apparent consequence, the Reuse Plan recommends both locations: Pier One to serve the theme park planned for that corner of the island, especially for East Bay trips, and the West Shore to link to the Ferry Building.

Since then the theme park is no longer considered feasible, but without any additional exploration of the cost differences, the Pier One Site became the assumed location. TICD's land use plan accordingly is designed with the terminal at Pier One.

Only after the Citizens Advisory Committee asked TIDA to revisit the comparative advantages of each site, Concept Marine Associates explored the cost issue previously raised by ROMA. Their study, however imperfect,[3] identifies lower capital costs as the main advantage of the Pier One site, due to an existing pier that could provide lateral support for new pier facilities, and greater protection from the weather. The West Shore Site is exposed to strong prevailing winds, which would necessitate an expensive breakwater and more bay fill than the Pier One Site..

Concept Marine also identified advantages of the closer West Shore Site in terms of travel time and operating costs. In addition, they proposed an alternative southern route to Pier One that would reduce, but not eliminate the time and cost differences. There are, however, unresolved questions about the environmental feasibility of this alternative southern route. (See **ATTACHMENT 2: CRITIQUE OF CONCEPT MARINE ASSOCIATES, SUPPLEMENT**, comments about page 7.)

Unfortunately the Concept Marine study does not annualize capital costs to allow the higher capital costs for the West Shore to be compared to the higher operating costs for the Pier One Site. Our exercise in amortizing the capital costs (based on Concept Marine's numbers and reasonably conservative assumptions[4]) demonstrates that **the West Shore would likely be the cheaper site;** the $250 thousand in lower annual capital costs for the Pier One site would be more than offset by $340 thousand in higher operating costs for the south route, even more by the $430 thousand additional operating costs of the north route.

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[1] The modifications would be consistent with Public Trust exchange that is the subject of current legislation.

[2] San Francisco Office of Military Base Conversion, Planning Department, *Naval Station Treasure Island Reuse Plan, Draft Plan*, July 1996, Figure 3, Illustrative Plan, page xxvii.

[3] Our concerns about the validity of the Concept Marine Supplement are addressed in **ATTACHMENT 2: CRITIQUE OF CONCEPT MARINE ASSOCIATES, SUPPLEMENT**. (Concept Marine Associates, Inc, *Supplement to Treasure Island Ferry Terminal Location Study*, July 2004).

[4] For a rough calculation of annualized costs, we assume capital costs midway between Concept Marine's low and high estimates, financed with a 30 year redevelopment bond at 6% annual interest and an interest rate equivalent to the discount rate. See **ATTACHMENT 3: COMPARISON OF CAPITAL AND OPERATING COSTS**

**Annualized capital costs[1] of terminal and breakwater**

| | |
|---|---|
| West Shore Site | $819,723 |
| Pier One Site | $563,124 |
| **Difference** | **$256,599** |

**Difference in annual operating costs between Pier One routes and the West Shore route**

| **DIFFERENCE BETWEEN** | Route to West Shore |
|---|---|
| North Route to Pier One | $ 431,690 |
| South Route to Pier One | $ 340,142 |

## The terminal site should be selected for its contribution to over-all TI redevelopment.

Lower long-term costs by themselves would not justify choosing the West Shore Site. Costs should be considered as a constraint on the selection; i.e., the better site should be chosen unless higher costs would cause the project to become infeasible. Since it is clear that the difference in costs is not great enough to be a decisive factor, the discussion of the terminal location needs to focus on the main question that has been overlooked: **What is the contribution of each location to the successful redevelopment of TI - to its future identity as a socially, environmentally, and economically sustainable community?**

The Concept Marine study does not address this question. Nor have any consultants with expertise in land use planning been asked to explore this threshold issue since ROMA first recommended the West Shore.

In part the absence of public discussion of fundamental land use questions followed the decision to delegate planning to the RFP process. This problem will be compounded by a schedule that currently proposes to address land use and transportation issues *after* the location of the ferry terminal has been finalized.

## The location of the ferry terminal will establish the potential for sustainable development of TI.

More significant than the apparent lower costs of the West Shore Site are the apparent advantages it offers in defining a strongly integrated relationship between TI and Downtown, both for visitors and residents. Shops and restaurants clustered around a West Shore terminal, accessible via a visibly short, direct ferry route will enable them to be marketed as Downtown destinations – a trip easily contemplated just for lunch or dinner. For tourists with a more time to spare, a visit to TI should be comparable to visiting Golden Gate Park for walking, bicycling, bird watching, museums, etc., but with the added attraction of a Bay cruise.

To strengthen TI's connection to the Downtown, a dense hotel and commercial district needs to be nearby, moved to the West Shore from the proposed location in the northeastern corner of the island. Like the ferry route, the hotels would become visible from - and function as a part of - downtown. Room rates

would reflect downtown convenience[5] paired with waterfront ambience – a package otherwise prohibited in San Francisco by voter initiative (Measure H).

In comparison, a Pier One terminal maximizes the distance – both as perceived and as measured - from Downtown. The physical distance from the Downtown of this location would be multiplied by the visual separation; hotels, shops, and restaurants tucked away in the far corner of TI will seem even further away than they are.

A Pier One terminal would not serve residents any better than visitors. Under TICD's proposal, about half the residential land lies beyond easy walking distance. A terminal on the West Shore (as well as pending Public Trust legislation) would allow a majority of units to be concentrated within a radius of ½ mile. (See ATTACHMENT 4: WALKING RADIUS: COMPARISON OF WEST SHORE TERMINAL - for an illustration of the potential walkability of each site.) Less dense residential development could be reserved for locations beyond the walking radius.

A point on which there is general agreement is that TI's successful development will require good ferry access. The Reuse Plan, the EIS and EIR, the TICD proposal, and the WTA all project optimistically high rates of ridership.

However there is less consensus about how to achieve such high rates of use. The Reuse Plan, and associated EIS, and EIR, assumed high rates of ferry travel would be consistent with TI's development as a major recreational destination. The TICD proposal assumes the same high rate of use even though their plans call for TI to be developed primarily as a residential neighborhood.. TICD estimates ferry ridership[6] between TI and the Ferry Building by 150% - 250% over WTA's most recent projections[7].

Transportation studies based on rapid transit (ATTACHMENT 5: ARTICLE DESCRIBING BENEFITS OF TRANSIT WITHIN WALKING DISTANCE) tell us that if more residents live within walking distance of the terminal, ferry ridership rates will be higher and car usage will be lower. A trip to San Francisco via a West Shore terminal could be made without a wait for a bus or shuttle, finding a parking space, or enlisting a willing chauffeur. Ultimately the ridership rate will determine whether ferry service will be economically viable or instead siphon off San Francisco's limited public transportation resources.

In contrast to the West Shore Site, the Pier One Site at the physical periphery of the island sends a powerful message that ferry travel is not functionally central to TI's identity. A remote terminal sacrifices much of the market and use value to be gained from TI's proximity to the Downtown for both visitors and residents. Much like Sausalito, TI would be viewed as a day's excursion rather than a place to have lunch. For residents, a terminal at the far end of the island will communicate that they could be marooned unless they have a car available at all times.

## Land use, transportation, and design implications of the alternative sites need to be systematically analyzed.

Whether TI's identity is to be as an extension of San Francisco's Downtown or as an out-of-the-way residential neighborhood needs to be a deliberate urban planning choice. The decision is too important to

[5] A brief review of a small sample of hotel rates suggests that downtown first class hotels generally charge a premium of about 50% over comparable accommodations outside the Downtown.
[6] TICD, *Final Response to Request for Proposals: Treasure Island*, January 2, 2003, pages 6 and 7
[7] San Francisco Bay Area Water Transit Authority, *Final Implementation and Operations Plan*, July 2003, page 25.

make by default, or to be based on out-of-date plans for a theme park, or mistaken assumptions about costs. A focused planning process is needed to determine the relationship between TI and the rest of San Francisco..

## A Workshop on Urban Design and Transportation Impacts of Ferry Terminal Location is urgently needed.

In a conventional land use planning process, the public would have actively participated in shaping TI's character before a developer proposed the specifics of a project.. The result would be policies controlling whether the center of TI would be a seamless extension of Downtown, or developed instead as a more diffuse residential neighborhood. Had the planning process proceeded in such orderly fashion, detailed decisions, such as the location of specific facilities would have been guided by more general land use policies. Selecting the best location for the ferry terminal would have been a relatively straightforward affair.

TI's planning has not proceeded according to this logic. Instead decisions about details – such as the location of the ferry terminal – precede land use policies. This sequence suggests that general planning policies will be inferred from specific detailed decisions. Frequently the problem with such an inductive process is that it minimizes the role of the public in land use planning.

In reality, the complexities of TI redevelopment call for both deductive and inductive logic. For some decisions, the sequence is beyond TIDA's control, such as those controlled by the specifics of toxic waste, soil conditions, and landmarks. General statewide policy –the Public Trust - determines housing location.

In other instances, such as the selection of a site for the ferry terminal, TIDA has the ability to decide details according to a general plan for TI but the current process forfeits this opportunity. Even though the location of the ferry terminal will shape and limit subsequent land use choices, the current schedule calls for it to be finalized ahead of land use and transportation policies. This schedule risks an overall land use plan for TI that is determined by default rather than design.

To reduce this risk without upsetting the schedule, TIDA needs to promptly host a workshop facilitated by urban design and transportation experts first to identify the kinds of place TI could feasibly become, and secondarily, to understand the implications for the terminal site. The purpose of the workshop would be to ensure a TIDA decision that is informed by state of the art urban planning knowledge and active public participation.

We look forward to your response. Please let us know if we can assist in any way.

Yours truly,

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Citizens Advisory Board

Attachments:
ATTACHMENT 1:TREASURE ISLAND LAND USE PLAN: THE SHIFT FROM COMMUNITY PLANNING TO DEVELOPMENT PROPOSAL

**ATTACHMENT 2: CRITIQUE OF CONCEPT MARINE ASSOCIATES, SUPPLEMENT TO TREASURE ISLAND FERRY TERMINAL LOCATION STUDY**

**ATTACHMENT 3: COMPARISON OF CAPITAL AND OPERATING COSTS**

ATTACHMENT 4: WALKING RADIUS: COMPARISON OF WEST SHORE TERMINAL

ATTACHMENT 5: ARTICLE DESCRIBING BENEFITS OF TRANSIT WITHIN WALKING DISTANCE

## ATTACHMENT 1:TREASURE ISLAND LAND USE PLAN: THE SHIFT FROM COMMUNITY PLANNING TO DEVELOPMENT PROPOSAL

To date, the TI planning process has occurred mainly in two chapters. In the first, after an extensive public planning process, the Citizens' Advisory Committee recommended the Draft Reuse Plan, which was endorsed by the City in 1996 in modified form as a preferred planning alternative.[8] With the help of ROMA, the CAC systematically reviewed opportunities and constraints, identified tradeoffs, and considered alternatives. This planning effort was informed by comprehensive studies, including. ROMA's analysis of ferry issues, much of which is still relevant

The second chapter of the TI planning process has been tied to TICD's proposal. A half decade after the Reuse Plan was completed, in the context of a dramatically altered real estate market, TIDA issued a Request for Proposals. The RFP intentionally left open questions about changes to the Reuse Plan's overall vision in order to free TICD to propose a development that would be economically viable. TICD's response has become the basis for subsequent public dialog, which has taken the form of tweaking the proposal to make it more consistent with RFQ criteria. There is much value in the work performed by TICD in constructing a (presumably) financially feasible alternative, especially with improvements requested by the CAB and TIDA. Nonetheless, a public discussion has not yet focused on the larger public policy question of whether the vision represented by the TICD plan is the best possible expression of San Francisco's development policies.

In the transition from the first to the second stage of the planning process six years later, the vision for TI redevelopment changed substantially. The Reuse Plan emphasizes economic development and public recreation/entertainment, with supporting residential uses.

> *"In the future, Naval Station Treasure Island can play an important role in supporting San Francisco's economic base, enhancing its image and identity, expanding the range of recreational and entertainment opportunities, and adding to the overall livability of the city and region."* [9]

The TICD land use proposal, in contrast, envisions a new San Francisco residential neighborhood in an open-space setting.

> *"Described and illustrated in this proposal is TICD's concept to transform Treasure Island from a closed military base to a public, vibrant neighborhood, benefiting the City and County of San Francisco and the entire Bay Area."*[10]

The fact that the identity proposed for TI has undergone changes is not, in itself, a problem. The need to strengthen housing as the economic driver of the plan is probably inarguable, given the island's high infrastructure costs and the collapse of the market for non-residential real estate.

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[8] The Urban Land Institute briefly became involved and recommended a plan with that in essence substituted a golf course for housing. Although the influence of this plan has been negligible, it is interesting to note that it called for immediate use of Pier One for ferry service, with a new pier to be constructed on the West Shore at full development to provide "closer and quicker service to the downtown ferry terminal." The "Illustrative Reuse Plan" produced in this report shows Pier One as a "Ferry Service Dock", and a new breakwater and ferry dock with adjacent tourist hotel on the West Shore. (ULI, *Treasure Island Naval Station San Francisco, California: An Evaluation of Reuse Opportunities and a Strategy for Development and Implementation*, September 15-20, 1996, page 31)

[9] *Naval Station Treasure Island Reuse Plan*, Draft Plan, July 1996, page xiii.

[10] Treasure Island Community Development, LLC, Response to Request for Proposals, July 2, 2002, page 1

It *is* a problem, however, that the public has played such a weak role in charting the changes. The public, including the CAB played a role in articulating RFP requirements. They subsequently critiqued TICD's initial proposal leading to incremental changes to make it more responsive to RFP objectives. But in the transmutation of TI from recreation/entertainment center to residential neighborhood, there has been no forum for the public to explore the range of currently feasible options. It is apparent that housing needs to be a more important land use, and with the Public Trust exchange legislation, it is now generally clear where housing can be developed, but there remains a range of possibilities about mix and location of housing densities, and other land uses that will determine TI's identity and its relationship to the rest of San Francisco. Lost in this RFP-driven planning process is an opportunity for the public to think about ways City policies (General Plan, Sustainability Plan, Transit First, etc) should be extended to TI.

Beyond the collapse of San Francisco's demand for non-residential development, two other important changes to the context of the project make it advisable to revisit the overall planning of TI. Federal law governing property transfer has radically changed.

- Conveyance at appraised value has replaced the No Cost Economic Development Conveyance (EDC) as the preferred transaction. Both the Reuse Plan and the TICD proposal internalized EDC limits on housing construction – limits that not longer apply.
- Evolving concepts of Active Living Communities, designed for walking as an antidote to obesity and other pathologies of sedentary life styles, has reinforced the gains of a related movement for Transit-Oriented Development, and opened up important marketing opportunities.

## ATTACHMENT 2: CRITIQUE OF CONCEPT MARINE ASSOCIATES, SUPPLEMENT TO TREASURE ISLAND FERRY TERMINAL LOCATION STUDY

Page 7: **Statement that Southern Route is feasible and viable is premature given unresolved environmental and safety impacts**.

In their first study, concept Marine identified the reasons why WTA assumed a circuitous route:

> "The current WTA plans show a route from the Pier One site on TI to the San Francisco Ferry Building that travels around the north end of the site, due in part to the presence of the environmentally sensitive seal haul-outs and feeding grounds located both on and south of Yerba Buena Island, and to avoid possible congestion due to ship traffic at the Outer and Inner Entrances to the Port of Oakland." *Concept Marine Associates, November 2003, page 20*.

In the supplementary study, Concept Marine announces that an unidentified person associated with WTA is now prepared to disregard these impacts.

> "As part of preparing this Supplemental Report, CMA consulted with the Water Transit Authority (WTA) to discuss the issue of travel times. One of the issues discussed was the possibility of a southern route from Pier One around Yerba Buena Island as an alternative to the previously considered northern route from Pier One around Treasure Island. The WTA believes that a southern route is feasible and viable and, therefore, should be analyzed. " (*Concept Marine Associates, Inc, July 2004,page 7)*

To further investigate potential environmental problems that the Southern route might cause, we consulted Appendix A to the *Supplement*, which includes excerpts from the WTA *EIR for Expanded Ferry Service.* Unfortunately, relevant text following page 3.3-15 is missing, partway through the discussion of the impacts of ferry wakes on seal haulouts at Yerba Buena Island. We therefore consulted a complete copy of the EIR, and found the following mitigation for the WTA preferred project (which assumes the northern route):

> **Mitigation WW-4.1:** As discussed in Mitigation B-14.1 in the Biology Section, the National Marine Fisheries Service (NMFS) currently has guidelines for avoidance of marine mammals to reduce disturbance. For seals and sea lions, the minimum avoidance distance for haul-out sites is 30 meters (this distance, however, does not take vessel speed or wash into account).
>
> Distances discussed from the literature show that, in general, seals tend to flush at greater distances than those in the NMFS guidelines. Given the site-specific information available for San Francisco Bay (Castro Rocks), it is recommended that ferry routes should be at least 100 to 250 meters from the Castro Rocks and Yerba Buena Island haul-out sites to reduce disturbance to the animals at these locations (see Biology Mitigation B-14.1).
>
> **Impact After Mitigation:** Impact WW-4 would be less than significant after successful implementation of the above mitigation measure.

It is premature for TIDA to assume that a Pier One site for the ferry terminal could be approached via the southern route which comes much closer to the haulout area, until additional analysis confirms compliance with mitigation WW-4.1 above. The analysis should also consider any additional navigational risk incurred by the southern route as ferries move into the Outer Harbor Entrance Channel in their efforts to avoid the buffer zone for harbor seals.

Pages 7 - 10: **CMA has over-estimated Trip Duration and Travel Cycle Time Between the West Shore Site and San Francisco Ferry Building.**

Concept Marine's projections of the time needed to travel between TI and the Ferry Building by ferry have been consistently higher than estimates provided by professionals with practical experience in ferry operations. Initially

Concept Marine projected that a round trip would require 52 minutes from Pier One, and 39 minutes from the West Pier.[11] Apparently after consulting with Anderson Associates, they revised the numbers downwards to 41 and 30 minutes respectively. However the estimate for the 1.6 nautical mile trip to the West Shore Site still seems high in comparison to the cycle times for existing ferry services,.[12]

Projections of cycle time clearly obviously reflect underlying assumptions. The memorandum to Concept Marine staff by Art Anderson Associates[13] indicates that they believe that terminal facilities could be designed to reduce the cycle time projected by Concept Marine for the West Shore Site: "To achieve a faster turn-around time, the vessels and docks would have to be designed as a single system to expedite mooring and deployment of the gangway. Also, the access width should be increased from 6 feet to 10 feet. These assumptions are based on extensive discussions with local operators and have been used in several other feasibility and planning studies."

We sought the independent opinion of someone with extensive experience managing ferry operations. Marty Robbins , who oversees ferry operations for the City of Vallejo provided the estimate below, which is compared to the estimates of Concept Marine. His estimates are consistently lower than those of Concept Marine – most dramatically so for the West Shore Site.

[11] Concept Marine Associates, Inc, *Treasure Island Ferry Terminal Location Study*, November 2003, page 22.

[12] The following summary of existing Bay Area ferry service was excerpted from the inventory prepared for the WTA by Pacific Transit Management.

*Water Transit Authority* *July, 2001*
*Draft Working Paper* *Page 9*
*Inventory of Water Transit Facilities and Services*

**TABLE 1.1 PROFILE OF EXISTING BAY AREA WATER TRANSIT SERVICES**

| Route | Distance (Nautical Miles) | Sponsor/Operator | Travel Time | Minimum Cycle Time* on Current Schedule |
|---|---|---|---|---|
| Larkspur – SF Ferry Building | 11 | GGBH&TD | 38 kt catamaran: 30 min.<br>20 kt monohull: 45 min. | 38 kt catamaran: 70 min.<br>20 kt monohull: 110 min. |
| Sausalito – SF Ferry Building | 6 | GGBH&TD | 30 minutes | 15 kt monohull: 70 min. |
| Sausalito - Tiburon - SF Fisherman's Wharf** | 6 | Blue & Gold Fleet | SF - Tib: 20 minutes<br>SF - Saus: 20 minutes | 80 minutes |
| Tiburon - SF Ferry Building | 6 | Blue & Gold Fleet | 20 minutes | 50 minutes |
| Vallejo - SF Ferry Building** | 24 | City of Vallejo / Blue & Gold Fleet | 55 minutes | 2 hours |
| Alameda/Oakland - SF Ferry Building/ Wharf | 6 | City of Alameda & Port of Oakland / Blue & Gold Fleet | Alameda – Ferry Bldg: 20 min.<br>Oakland - Ferry Bldg: 30 min. | 65 minutes**** |
| Alameda Harbor Bay - SF Ferry Building | 8 | City of Alameda / Harbor Bay Maritime | 25 minutes | 60 minutes |

[13] March 9 2004, Memorandum from Andy Bennett of Art Anderson Associates to Greg Reid, provided as Appendix M in Concept Marine Associates, July 2004

**Cycle Times for Round Trip from TI to FB in minutes**

| ROBBINS ESTIMATE OF CYCLE TIME | | | | CONCEPT MARINE ESTIMATE OF CYCLE TIME[14] | | |
|---|---|---|---|---|---|---|
| | West | North | South | West | North | South |
| depart TI | 1 | 1 | 1 | 1.50 | 1.50 | 1.50 |
| **maneuver** | **1** | **1** | **1** | **2.08** | **0.39** | **0.39** |
| free route | 3.8 | 11.0 | 6.5 | 4.32 | 11.37 | 6.90 |
| approach FB | 1 | 1 | 1 | 3.50 | 3.50 | 3.50 |
| load/unload | 3 | 3 | 3 | 3.40 | 3.40 | 3.40 |
| depart FB | 1 | 1 | 1 | 2.08 | 2.08 | 2.08 |
| free route | 3.8 | 11.0 | 6.5 | 4.32 | 11.37 | 6.90 |
| **maneuver** | **1** | **1** | **1** | **5.00** | **3.50** | **3.50** |
| load/unload | 3 | 3 | 3 | 3.40 | 3.40 | 3.40 |
| Total Cycle Time | 18.7 | 33.1 | 24.0 | 29.60 | 40.51[15] | 31.57[16] |

A major difference between the two sets of projections is maneuvering time required at TI. Robbins does not believe an experienced pilot would need the two minutes projected by Concept Marine in departing TI, or the five minutes for returning.

pages 11 – 14: **CMA has drawn Passenger Travel Time Between TI and Oakland and Berkeley into the discussion even though WTA priorities through 2025 do not include such service.**

In an effort to promote the advantages of the Pier One Site, Concept Marine includes travel times and operating expenses for TI-Oakland and TI-Berkeley services. These advantages would be theoretical rather than real for a very long time. The Water Transit Authority's current plans (2005 – 2014) have excluded such links. Nor do these routes appear on the list that WTA has assembled for their Future Plan (through 2025). [17]

pages 13 – 14: **Concept Marine's conclusion the number of ferry vessels needed would be the same for both locations is questionable.**

It is not altogether clear how Concept Marine arrived at the conclusion that two vessels are needed no matter which site is chosen. Based on the cycle times they have assumed, it appears that the West Shore, and possibly the south route could manage with a single vessels in service at any given time. To ensure reliability, we agree that it is advisable to have a second ferry available as backup during repairs and maintenance. However, the same logic dictates that the north route would require three ferries, so that there would be backup for the two vessels needed to achieve 30-minute headways..

Further questions are raised by statements made by Concept Marine at the August Citizens Advisory Board meeting. We were told that back-up ferries may be provided on a regional basis by the WTA. Such an arrangement could allow a single ferry to serve the West Shore terminal and two ferries to serve Pier One..

[14] Concept Marine estimates have been converted to minutes and categories reconciled with the Robbins calculations to enable comparison.
[15] Difference in total (.19 hour) attributable to rounding
[16] Difference in total (.23 hour) attributable to rounding
[17] San Francisco Bay Area Water Transit Authority, *Final Implementation and Operations Plan*, July 2003, page 20

pages 16 - 17: **Operating Costs are improperly documented**.
Concept Marine has given a false impression of the source used to document the largest component of operating costs – the labor of the crew. The text suggests that cost numbers were provided by "ferry specialists at Art Anderson & Associates, Seattle, Washington." even though Concept Marine did not use the costs of the ferry crew that Anderson provided in their analysis. Although they state that "background information and costs regarding ferry operations prepared by the WTA were also reviewed," they do not document data, if any, comes from this source. No WTA sources for this information are included in the bibliography or technical appendices.

The practical effect of Concept Marine's unexplained rejection of Anderson's numbers is to reduce the operating cost advantage of the West Shore Site. The numbers that Concept Marine substitutes show a much smaller difference in labor costs between the West Shore Site and Pier One than the Anderson analysis. Anderson estimates the annual costs of the crew at $410 thousand for West Shore, compared to $767 thousand for Pier One (north route) – about 53%. Concept Marine estimates the costs of the crew at $1.6 million for the West Shore Site, or 85% of the 1.9 million estimated for Pier One (the same for both north and south routes).

The difference between Anderson numbers and Concept Marine numbers seems to be the result of a different methodology for calculating labor costs. Anderson uses an approach that is standard in the transit industry, that spreads labor costs over service hours, while Concept Marine seems to assume that labor costs would be the same at both site except for the expense of an extra crew member who will be responsible for shooing away windsurfers, sailboarders, and marina traffic on Pier One routes

What is not addressed by Concept Marine and only hinted at by Anderson is that service with 30-minute headways could be provided by a single crew to the West Shore Site but not to Pier One via the north route, and questionably via the south route. (The Anderson memo recommends the second ferry for the West Shore Site as backup.)

page 20: **Concept Marine considers only trip length in the discussion of ridership advantage**.
Concept Marine concludes that there would be no difference in ridership because differences in trip time are small. Aside from disagreeing that the differences are insignificant (see our comments above challenging their numbers); we also disagree that this is the major factor influencing ridership. Ridership will be lower if the terminal is located at Pier One because it is not a central location that relates strongly to Downtown.

## ATTACHMENT 3: COMPARISON OF CAPITAL AND OPERATING COSTS

| **CMA estimate of Terminal and Breakwater CAPITAL COSTS[18]** | **PIER ONE** | **WEST SHORE** | **DIFFERENCE** |
|---|---|---|---|
| Low estimate | $ 5,569,900 | $ 7,845,600 | $ 2,275,700 |
| High Estimate | $ 9,932,720 | $ 14,721,109 | $ 4,788,389 |
| Average of high and low estimate | $ 7,751,310 | $ 11,283,355 | $ 3,532,045 |
| amortized average cost, assuming 30 year redevelopment bond financing at 6% interest, with discount rate equivalent to inflation | $563,124 | $819,723 | $256,599 |

| **CMA estimate of ANNUAL OPERATING COSTS[19]** | | |
|---|---|---|
| north route | $ 2,427,511 | |
| south route | $ 2,335,963 | |
| east route | | $ 1,995,821 |

| **Difference between** | Route to West Shore Site |
|---|---|
| north route to Pier One | $ 431,690 |
| south route to Pier One | $ 340,142 |

| **Art Anderson estimate of Operating Costs[20]** | | | |
|---|---|---|---|
| north route | | $ 1,214,531 | |
| east route | | $ 712,997 | |
| difference | | | $ 501,534 |

[18] CMA Supplement, Tables 1-2, pages 6-7
[19], op cit, Tables 9-11, page 17
[20] op cit, Appendix M

## ATTACHMENT 4: WALKING RADIUS: COMPARISON OF WEST SHORE TERMINAL

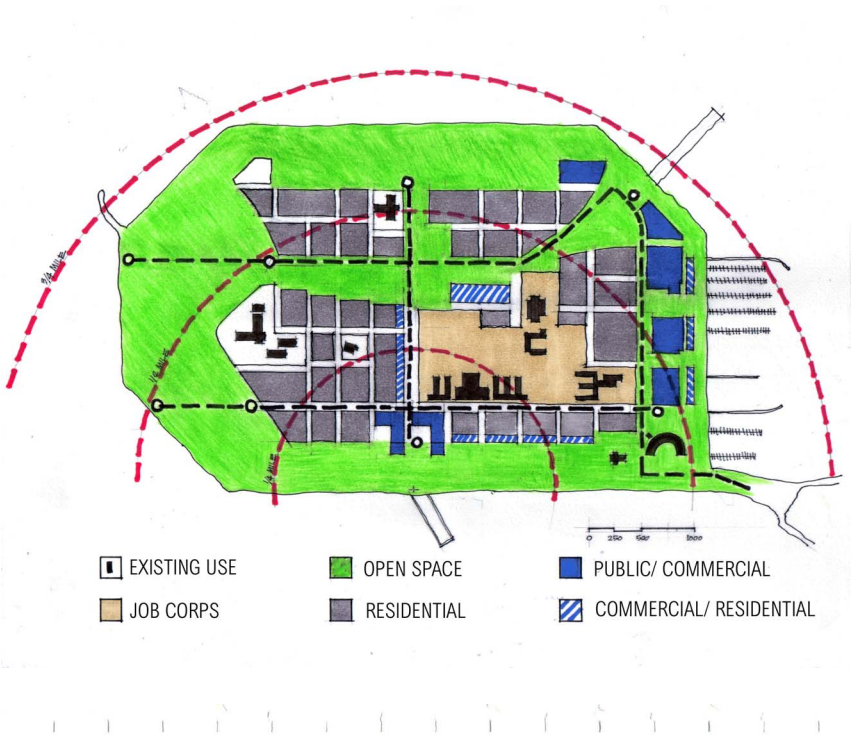



**Figure 15: Land Use Plan with Quarter Mile Bands – Pier One Site**

## ATTACHMENT 5: ARTICLE DESCRIBING BENEFITS OF TRANSIT WITHIN WALKING DISTANCE

**Washington Business Journal - August 25, 2003**
**http://washington.bizjournals.com/washington/stories/2003/08/25/editorial3.html**

WASHINGTON BUSINESS JOURNAL

**OPINION**

From the August 22, 2003 print edition

Guest Comment

# I. DEVELOPMENT AROUND TRANSIT GOOD FOR DRIVERS, TOO

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Contributing Writer

It's a perennial debate: On the one hand advocates of mass transit argue that transit is an essential strategy for combating congestion. On the other, road advocates maintain that since only a minority of travelers use transit, we're better off expanding roads that serve most people. What if there was convincing evidence that building transit benefits everybody, whether or not they use the system?

New evidence just developed for the forthcoming book "The New Transit Town" begins to make this case. The catch is that it requires both the construction of a transit system, and an effort by local government to encourage development around stations. When that's the case, everybody wins, even people who choose to live in single-family neighborhoods and drive everywhere they go.

The example is Arlington County, which has pursued a program of focusing commercial development and multifamily housing within walking distance of the Rosslyn-Ballston Metrorail Corridor for 30 years while protecting adjacent single-family neighborhoods.

The study, by the consulting firm TransManagement for the national Center for Transit-Oriented Development, looked at population, traffic and development trends in Arlington County. The approach has been quite successful, with 22.5 million square feet of office development now in place in the corridor, more than 3 million square feet of retail within walking distance of the five stations, and a doubling of households over the 30 years. What's more, the trend shows no sign of abating. Office rents command a premium over other suburban locations and vacancy rates remain lower. New housing starts are booming, with more than 1,500 units under construction at this time.

At the same time, traffic on arterial and neighborhood streets has not increased commensurate with the development around the stations. In fact, a survey of new multifamily housing in the corridor yielded only one auto trip for every six units in the morning peak and one for every eight units in the afternoon peak hour, far lower than the average for such projects.

All this development is good news for Metro, which has seen ridership grow by more than 50 percent. Unlike neighboring Orange Line stations, where 57 percent of riders arrive by automobile, necessitating the construction of expensive parking, 73 percent of Rosslyn-Ballston patrons walk to Metro, with only

13 percent driving. This is a huge savings for Metro and the taxpayers who subsidize it, as patrons who walk are the cheapest form of access, requiring neither a parking space nor subsidized bus service.

The financial results are equally impressive. The development around the five stations has an assessed value of more than $9 billion, generating 32.8 percent of the county's real estate tax revenue from only 7.6 percent of its land area. As a result, Arlington County has lowest real estate property tax rates of any county in Northern Virginia -- and that's one way that transit benefits every resident of the county, whether they use transit or live near MetroRail.

In fact the enduring popularity of transit-oriented real estate in Arlington County is beginning to cause concern for county officials, as the high demand is driving prices up. Demographic evidence and common sense support the conclusion that this comes from demand exceeding supply, and not some insidious takeover by the gentry. Dowell Myers of the University of Southern California has estimated that up to one-third of the demand for new housing over the next couple of decades is likely to be for townhomes, apartments and other forms of dense housing, far more than the market is supplying.

As a result, since transit-oriented neighborhoods in Arlington, the District and Bethesda are in demand, prices go up. The answer is to increase supply overall through transit-oriented development, and happily, many jurisdictions are proposing to do just that. Often, though, nearby residents oppose such projects, fearing added traffic.

Perhaps the Arlington County example can help to convince opponents of transit-oriented developments that they too gain -- in reduced taxes, less traffic, and increased access to amenities. Indeed, the untold part of the Arlington County story is that increased density near Metro has provided the county with the tax base that allows it to sustain and enhance existing residential neighborhoods.

The Arlington experiment shows that development around transit is a key part of the region's tool kit for growth. With MetroRail long established in the region and the desirability of housing near transit proven in the marketplace, it is time to get past the auto vs. transit debate and began to recognize that the region's transit system is a world-class asset for the Washington region.

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