



King County

**Metropolitan King County Council
Budget and Fiscal Management Committee**

Agenda Item No.: 10
Proposed No.: 2010-0085

Date: March 16, 2010
Prepared By: Polly St. John

STAFF REPORT

SUBJECT:

Proposed Motion 2010-0085 responds to a proviso included in the 2010 budget for the Facilities Management Division Internal Service Fund. The proviso restricted \$200,000 in the appropriation until the Council approved a report "on the feasibility, cost and effectiveness of installing an electronic reader-board and signage in multiple languages to assist citizens in accessing services and court facilities in the King County Courthouse".

SUMMARY:

Approval of Proposed Motion 2010-0085 would accept the feasibility report, which was received on time, and release \$200,000 in appropriation authority that was restricted in the FMD fund. This staff report provides an overview of the report and possible alternatives presented within the report for consideration by the Council. *The Council is not asked to act upon the alternatives presented in the report.*

The feasibility report examines the objectives for changes in Courthouse signage, as well as possible installation scenarios and the costs associated with reader-boards and signage in multiple languages. The report highlights three alternatives for Council consideration as signage policies are deliberated. These options could be considered as stand-alone solutions or they could be used in combination with each other.

1. Consistent with the 2010 adopted budget, rely on existing signage and discontinue staffing the information desk on April 1, 2010.
2. Subject to bargaining with the affected labor unit, use transitional duty employees to staff the information desk through the end of 2010.
3. Subject to a supplemental appropriation request, install up to eight flat screen monitors in the first floor lobby.

BACKGROUND:

The Courthouse has an array of visitors on a daily basis that includes attorneys, jurors, parties in court cases, and citizens utilizing other county services or attending Council hearings. Courthouse security screens roughly 6,500 entries into the building each day. The largest portion of directional aid is for citizens with matters before the Superior and District Courts.

Directional assistance currently consists of the information desk attendant on the first floor, two building directories located at the first and second floor entries, Sheriff postings on the first floor, Council agendas on the tenth floor, and Superior and District Court calendars that are posted in public areas at both the first and second floor entrances. Additionally, there is limited signage for the Administration Building tunnel and the jury assembly area on the first floor, as well as small signage near an immediate area of a location, such as the Law Library or Family Law check-in desk. All rooms in the building are labeled with room signs, depicted as a directional letter followed by a digit number, i.e. W-291.

During 2010 budget deliberations, the Council reduced funding for the Courthouse Information Desk position in order to achieve General Fund savings of about \$60,000 and expressed interest in pursuing a technological solution that would assist citizens unfamiliar with the downtown core complex – and the Courthouse specifically – to navigate the building. Concerns were also raised that without an Information Desk attendant, people entering the Courthouse would interrupt the security screening staff from their work to ask for directions and information. Consequently, the Council funded the desk attendant for the first three months of 2010 (at 0.25 FTE and \$15,042) and asked for this signage report to identify options for helping route citizens within the Courthouse without impairing the security screening area.

ANALYSIS:

Types of Signage

Signage is intended to efficiently direct the public to the functions and services within a building. The transmitted report is entitled “King County Courthouse Electronic Multilingual Signage Feasibility, Cost and Effectiveness” and identifies three basic types of signage:

1. *Informational Signage*: This type advises the user of the functions and services that are located within a facility and includes specific building activities and schedules, such as posted court calendars, transportation information, and notices.
2. *Directional Signage*: This type provides instruction on how to reach an intended destination, i.e., way finding orientation and navigation. These signs consist of written instructions, directional symbols, and maps.
3. *Location Labeling*: Label signs describe the function or occupant of a particular space by identifying the location, such as room numbers and window markers.

The report identifies objectives and best practices for easily useable signage to direct the public. The goals can be summarized as signs that should be welcoming, clearly visible and help visitors locate their destination without asking for assistance. Signage should be “user friendly”, informational, and directional while providing for smooth circulation of pedestrian traffic at entrances and at elevator queues.

Technologies

There are two categories of electronic signage technology: passive “airport” style reader boards and interactive touch screens. Reader boards generally display court calendar and case information, as well as static information such as the location of Council Chambers. Touch screen systems map pathways and give specific directions to a location. Advanced

touch screen systems are capable of linking court dockets and allow users to select specific case information and routing.

1. Reader Boards: Electronic reader boards are fixed-location display monitors. In a courthouse setting, they are usually dedicated to the display of case and courtroom calendar information. Matters appear on the monitors listed by case title and party name along with the courtroom assigned. Reader board system hardware is fairly basic: the monitors, mounting hardware, a CPU (or two) with video card(s) for each of the monitors, and a data connection from the computer(s) to the network. The monitors are typically 32-inch to 50-inch LCD flat screens.
2. Touch Screens: A more advanced technology uses touch screen kiosks with directed way finding. In a courthouse setting, kiosks can provide interactive information to users seeking specific courtrooms, the location and time of court hearings, office locations, and phone numbers. Many touch screen systems feature directional way finding from the kiosk to the user's destination. Some systems include printers to provide written copies of information and maps. Touch screens can also be programmed to assist in multiple languages. They are more expensive, require greater staff and support resources, and serve lower volumes of people than electronic reader boards. Generally, touch screen systems require a vendor contract, as the routing systems are proprietary and require programming of detailed building information for way finding.

Current King County Efforts

Past proposals for a comprehensive way finding system –including electronic signage such as flat panel reader board displays – have not been funded; although, there has been general consensus that Courthouse signage and way finding could be improved. The current budget crisis has highlighted the opportunity to consider other alternatives. Some efforts are already funded and underway; however, they have not been implemented within an overall Courthouse plan.

The Superior and District Courts have both received Trial Court Improvement Account (TCIA) funds that have been directed toward improved signage. The Superior Court updated selected Courthouse room and door signage to include multiple languages in high volume areas such as the Plea Court. The District Court is installing electronic reader boards that display court calendars at selected locations. The District Court anticipates that two or three monitors dedicated to District Court calendars will be placed in the Courthouse that will be funded from the TCIA funds. (The Courthouse will be the final location to install these monitors.)

Other County Solutions

The use of electronic signage technology is increasingly common in courthouses. Regional county courthouses – particularly those with a high volume court – typically feature reader board systems because they reach a large volume of visitors more quickly than touch screens. Some Federal Courts have touch screen systems. Another usage factor is cost: touch screen way finding systems, like those in the Federal Courthouses in Seattle and Portland, feature proprietary vendor software systems that are more expensive than reader board technology. Many Washington county court systems use electronic reader board technologies that were developed “in-house” to save costs.

Pierce County, Cowlitz County, and Snohomish County have experience implementing reader board systems and have reported high levels of satisfaction with their systems. Costs vary depending upon the number of screens needed and the type of software system used. *According to the report, discussions with other regional court administrators, signage vendors, and King County staff suggest that implementing "airport-style" electronic signage showing case information and courtroom assignments drawn from court docket databases could be a fairly simple and cost-effective improvement in Courthouse signage.*

Issues

Some issues exist for both technologies and are listed below:

1. Interaction with the public – Reader boards are not interactive and will not provide directions to desired locations or general information regarding county functions within the Courthouse or the downtown complex.
2. Number of Monitors and placement – The space required to display the amount of needed information for daily court matters and other static data will require up to eight monitors. Particularly on the first floor of the Courthouse, space could become an issue.
3. Multilingual – Electronic case calendar display boards could periodically change column headers among languages while displaying the same case information. Vendor supplied software has capabilities for multiple languages and translations. However, the high volume of information for display could outweigh the need for translation. It should be particularly noted that although touch screen options are better suited to multilingual usage, none of the vendors surveyed provided an "off the shelf" system. (Other than English and Spanish, vendors do not maintain staff for specific instructions in various languages.)
4. Proprietary vendors and support costs – The costs of electronic signage vary widely depending upon the specific requirements and project assumptions. Electronic reader boards that show basic case information through simple web applications are significantly less expensive than developing or purchasing integrated multi-departmental case information display systems. For touch screen displays, the information is very dependent upon the programming. Providing answers to increasingly more complex questions requires significant detail and usually increases vendor and/or staff costs.
5. Costs – There are very little on-going operational costs associated with reader boards. Once they are installed, the system can be updated through a web based application and maintained by technology staff. Touch screen systems are usually proprietary and vendors require contracts for ongoing system support. Reprogramming – particularly if using multilingual machines – represent additional costs.

Implementation and Operational Costs

As noted above, electronic signage costs vary widely depending upon the project assumptions used. Electronic reader boards showing basic case information through simple web applications were significantly less expensive than developing or purchasing

integrated multi-departmental case information display systems. According to the report, eight reader boards installed at each Courthouse entry would range in cost from \$44,000 for "in house" to \$112,000 for vendor provision. (It should be noted that two of the eight have already been included in the District Court TCIA funds.) The report estimates that initial reader board costs for eight screens would be approximately \$56,000.

The report assumes that operating costs will be incurred by the Courts, the Council and Facilities Management, who would be responsible for tenant directory information. Staff has asked about other user information such as for the Prosecuting Attorney and the Sheriff. The report assumes that the Courts and the Council would have regularly changing information such as dockets and committee meetings. Most of the functions for the PAO and Sheriff remain static. However, the existing information desk staff cost is allocated across all Courthouse tenants.

Upfront costs for installation, programming and training are determined by the type of system installed. Initial vendor estimates for system programming and training ranged from roughly \$6,500 to over \$31,000; some vendors itemize costs for system development, while others include development costs on a per-monitor basis. Given the historic nature of the courthouse, installation costs could be above average. Data and electrical cabling alone could cost from \$5,000 to \$10,000 at each monitor array location.

Preliminary vendor information for "start up" hardware and primary software costs for touch screen kiosks were estimated from approximately \$20,000 to over \$30,000 for the first unit. Additional units were around \$14,000. Prices can be higher depending on the system needs. Including multilingual options can increase these costs dramatically, on the order of \$7,000 or more per additional language. Based on the vendor information provided, the direct vendor cost for installing a touch screen at each of the 3rd and 4th Avenue KCCH entrances would start in the range of \$38,000.

Challenges

The overall goal of providing informational signage within a public facility such as the Courthouse is compounded by several factors: (1) a multilingual populace, (2) security screening for weapons and (3) historical building preservation.

1. Multilingual Signage: Adding a multilingual signage object to assist non-English speakers can be difficult. The Superior Court Interpreter Office offers services in 128 different languages to those who have Superior Court proceedings. No signage can include the native languages of all courthouse visitors and including too many languages can make signage differentiation confusing for all visitors. Signage systems must balance their overall efficiency for all visitors against their effectiveness in providing information directed to assist users in a particular language. Multilingual way finding also increases costs.
2. Security Screening: Approximately 6,500 people pass through Courthouse security daily. It is important to keep the weapons screening area as uncongested as possible and free from directional provision. To achieve this goal, placement of electronic signage could become difficult – particularly on the first floor.

3. Historical Building Preservation: The Courthouse is designated as a historical building and must meet certain preservation requirements. The preservation of the architecture and arrangement of the building could hamper placement of electronic signage. Historical preservation discussions have not occurred regarding signage, but would most likely need to be a part of any placement discussions.

Comparison of Technologies

The report acknowledges that the success of signage systems is dependent upon the initial goals for implementation. A comparison of the touch screen and reader board technologies – using identified objectives – was well illustrated in the report and is duplicated below for discussion purposes:

Signage Objective:	Reader Board Pros/Cons:	Touch Screen Pros/Cons:
Promote welcoming and easy access to courthouse functions and departments	Pros: <ul style="list-style-type: none"> • reader boards are easily located by general public • easily accommodates system changes/upgrades • can provide a single stop for case information from multiple sources 	Pros: <ul style="list-style-type: none"> • interactively provides information tailored to user needs • can accommodate system changes/upgrades • can provide a single stop for building and campus information Cons: <ul style="list-style-type: none"> • can be complex to develop and implement • can be hard to locate
Seamlessly route most visitors to major building destinations without assistance	Pros: <ul style="list-style-type: none"> • reaches broad audience • may reduce court clerk workload through reduced calendar printing/posting Cons: <ul style="list-style-type: none"> • can only display limited directions / way finding • does not eliminate need for additional information resources 	Pros: <ul style="list-style-type: none"> • can provide detailed information, especially directions • may reduce resource workload (info. desk, call center, etc.) Cons: <ul style="list-style-type: none"> • reaches narrow audience • ineffective for high viewer and/or user volumes • may not eliminate additional informational resource need
Easily direct all courthouse visitors to locations that have additional information and assistance	Pros: <ul style="list-style-type: none"> • allows for some multilingual information and direction Cons: <ul style="list-style-type: none"> • can only display simple and/or limited information • limited multilingual options 	Pros: <ul style="list-style-type: none"> • can provide detailed multilingual information and way finding Cons: <ul style="list-style-type: none"> • limited operational flexibility (esp. w/ multilingual options) • limited to a few languages

Signage Objective:	Reader Board Pros/Cons:	Touch Screen Pros/Cons:
Promote smooth circulation of pedestrian traffic, especially near building entrances, and prevent elevator queuing and lobby crowding	<p>Pros:</p> <ul style="list-style-type: none"> • can display real-time information (trials, hearings, locations, etc.) • allows immediate update of information/status changes • allows review of information from many angles/spaces 	<p>Pros:</p> <ul style="list-style-type: none"> • can display real-time information (trials, hearings, locations, etc.) <p>Cons:</p> <ul style="list-style-type: none"> • only allows one user at a time
Comprehensive, legible, aesthetically consistent, and appealing	<p>Pros:</p> <ul style="list-style-type: none"> • common technology • relatively low cost <p>Cons:</p> <ul style="list-style-type: none"> • requires some maintenance and operational resources • installation challenges presented in a historical courthouse 	<p>Pros:</p> <ul style="list-style-type: none"> • conventional technology <p>Cons:</p> <ul style="list-style-type: none"> • requires ongoing maintenance and operational resources • high cost
Assist non-English speakers in determining their destination and the easiest route there	<p>Pros:</p> <ul style="list-style-type: none"> • allows some multilingual information and direction • non-English users know English spelling of name, room numerals <p>Cons:</p> <ul style="list-style-type: none"> • very limited multilingual information/way finding options 	<p>Pros:</p> <ul style="list-style-type: none"> • can provide detailed information and routes in multiple languages: locations, directions, maps <p>Cons:</p> <ul style="list-style-type: none"> • limited to select language set • advanced options limit language flexibility • can create false sense of sufficient non-English assistance
Implementing costs and operating costs	<p>Pros:</p> <ul style="list-style-type: none"> • can be inexpensive, especially when developed in-house • lower implementing, operating costs than touch screens <p>Cons:</p> <ul style="list-style-type: none"> • can include ongoing staff cost for daily information updates • may have lower impact on Information Desk needs, costs 	<p>Pros:</p> <ul style="list-style-type: none"> • implementation costs scalable, especially when part of vendor contract w/ reader boards • likely less expensive over the long run than Information Desk FTE costs <p>Cons:</p> <ul style="list-style-type: none"> • expensive to implement, especially multilingual options • ongoing vendor operating/support costs

Alternatives

Coordinated signage and way finding programs are important for all Courthouse users. However, because the majority of Courthouse users are associated with District and Superior Court case matters, it would be advisable to coordinate any selected alternatives as the project moves forward. The report provides the following “next step” alternatives for consideration by the Council:

1. Discontinue staffing the Information Desk on April 1, 2010. Consistent with the 2010 budget, discontinue staffing of the 1st floor Informational Desk, relying on existing KCCH signage and court calendar placement. *No action by the County Council would be required to implement this alternative.*
2. Staff the Information Desk through 2010 with transitional duty staff. Initiate discussions with the affected labor bargaining unit to reach agreement providing, on an interim basis at least through 2010, transitional duty staff possibly from other bargaining units to staff the Information Desk. *No action by the County Council would be required to implement this alternative, with implementation taking up to two months.*
3. Installation of up to 8 flat screen monitors at the KCCH 3rd Avenue entrance. Working with Superior Court, District Court, Council, and FMD staff, acquire and install up to 8 flat screen monitors at an estimated cost of up to \$56,000, with operating costs assumed to be absorbed by these entities. *Council action will be required to implement this alternative as a funding source would need to be identified and additional appropriation approved. Implementation could take up to 6 months.*

REASONABLENESS:

Adoption of Proposed Motion 2010-0085 would accept the report that was required by proviso and would release the \$200,000 expenditure restriction upon the Facilities Management Internal Service Fund appropriation unit. Approval of the transmitted report would appear to be a reasonable policy and business decision.

INVITED:

- Kathy Brown, Director, FMD
- Terri Flaherty, FMD
- Justin Anderson, FMD
- Tricia Crozier, District Court
- Paul Sherfey, Superior Court
- Krista Camenzind, OMB

ATTACHMENTS:

1. Proposed Motion 2010-0085, including Attachment A. King County Courthouse Electronic Multilingual Signage Feasibility, Cost, and Effectiveness
2. Transmittal Letter, dated January 29, 2010



KING COUNTY

Signature Report

March 15, 2010

Motion

Attachment 1

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

Proposed No. 2010-0085.1

Sponsors Patterson

1 A MOTION accepting a report on courthouse electronic
2 signage including multiple language options as required in
3 Ordinance 16717, Section 112, Proviso P1.

4 WHEREAS, the King County Courthouse, located in downtown Seattle, is a
5 protected historical landmark and King County's signature building structure, and

6 WHEREAS, a multitude of activities occur within the King County Courthouse,
7 including court hearings and trials, council hearings, filing of claims, law enforcement
8 investigation and evidence work and internal and public legal services and information,
9 among countless other activities, and

10 WHEREAS, many visitors to the King County Courthouse have limited
11 proficiency in the English language, and

12 WHEREAS, the 2010 King County Budget Ordinance, Ordinance 16717, Section
13 112, providing the appropriation for the facilities management division internal service
14 fund, contains a proviso requiring a report on the feasibility, cost and effectiveness of
15 installing an electronic reader-board and signage in multiple languages to assist citizens
16 in accessing services and court facilities in the King County Courthouse, and restricts
17 expenditure of \$200,000 from the appropriation until the council approves the report by
18 motion, and

19 WHEREAS, the executive has transmitted to the council with this motion a report
20 on the feasibility, cost and effectiveness of electronic signage options in the King County
21 Courthouse, and

22 WHEREAS, the report includes investigation of installing such signage in
23 multiple languages;

24 NOW, THEREFORE, BE IT MOVED by the Council of King County:

25 The report on the feasibility, cost and effectiveness of electronic signage options
26 in the King County Courthouse, Attachment A to this motion, is hereby approved.

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

Robert W. Ferguson, Chair

ATTEST:

Anne Noris, Clerk of the Council

APPROVED this ____ day of _____, _____.

Dow Constantine, County Executive

Attachments: A. King County Courthouse Electronic Multilingual Signage Feasibility, Cost, and Effectiveness

**King County Courthouse Electronic Multilingual Signage
Feasibility, Cost, and Effectiveness**

Proviso Response Report

King County 2010 Budget Ordinance: FMD Internal Service Fund Proviso 1

(Ordinance 16717, Section 112, Proviso 1)

January 29, 2010

Executive Summary

The 2010 King County Budget Ordinance, Section 112, provides the appropriation for the Facilities Management Division's Internal Service Fund. Proviso 1 of the Fund appropriation reads (in pertinent part) as follows:

“Of this appropriation, \$200,000 shall not be expended or encumbered until the council approves by motion a report on the feasibility, cost and effectiveness of installing an electronic reader-board and signage in multiple languages to assist citizens in accessing services and court facilities in the King County Courthouse. The report shall be submitted no later than January 31, 2010.”

During the deliberations of the Public Safety and General Government Budget Panel, the County Council reviewed the Executive's proposed elimination of the King County Courthouse Information Desk position. Concerns were raised by council members regarding the difficulty of navigating the courthouse complex in general, and the importance of keeping the weapons screening area as uncongested as possible. Council members were concerned that without an Information Desk attendant, people entering the King County Courthouse (KCCH) would interrupt the security screening staff from their work to ask for directions and information. It was hoped that a technological solution was available to avoid this potential problem.

This report addresses Proviso 1. The report presents the general objectives of courthouse signage, the current signage and related information in the KCCH, and changes already underway. A detailed overview of the technology and costs for different types of electronic signage, along with anecdotal comments from other courts in the region is provided. Information on potential options to implement electronic signage in multiple languages is also presented.

Best practices advocate providing courthouse signage featuring clear visual elements to help visitors locate their designation without asking for assistance. For the KCCH, implementing such practices can be challenging because of the diverse multilingual populace visiting the facility each day, the high volume of legal proceedings heard daily, and the varied governmental functions located in the facility.

KCCH security performs roughly 6,500 screenings each day. Most screenings are for KCCH visitors. From entry onward, these guests need information about where to go and the route there. Existing signage and way finding aids consist primarily of an Information Desk staffed during business hours for an annual cost of \$60,168, building directories located on the 1st and 2nd floor, and Superior Court and District Court calendars placed in various receptacles in selected public areas. During the 2010 budget reconciliation, staffing for the Information Desk was funded at .25 FTE and \$15,042, presumably for the first three months of 2010.

Since 2004, Superior Court and the Facilities Management Division (FMD) have advanced proposals for 1st and 2nd floor electronic directory signs, development of a comprehensive

way finding system and a flat panel reader board display. While these proposals were ultimately unfunded, a general consensus exists that signage and way finding in the courthouse needs significant improvement.

Two recent efforts, already funded and underway, will improve KCCH signage. Superior Court updated selected KCCH room and door signage with additional languages using moneys allocated from the Trial Court Improvement Account (TCIA). District Court is installing reader boards displaying court calendars at each of their courthouses using moneys allocated from the TCIA. Two or three monitors dedicated to District Court calendars will be placed in the KCCH.

Electronic signage technology is increasingly common in courthouses. Pierce County's, Cowlitz County's and Snohomish County's uses of electronic signage technologies are described later in the report.

Two types of courthouse electronic signage are primarily used: 1) passive "airport" style reader boards displaying court calendars and case information, and 2) interactive touch screen kiosks providing a full array of information, i.e. court calendars, office directories, maps, directions. Electronic reader boards are large computer monitors running a display program from a remote computer. Touch screens feature interactive applications that provide specific information based on the user's requests.

Preliminary vendor information suggests that with multiple monitor purchase, reader board monitors can cost from \$2,750 to \$7,000 each. Vendor planning assumptions suggest showing the daily Superior and District Court hearings scheduled in the courthouse might require an eight monitor array. Preliminary costs for an eight monitor array from reader board display systems vendors ranged between \$53,000 and \$63,000. Annual management and maintenance can be vendor extras, as are King County project costs. Display management and maintenance can be done in house using existing resources, if the expectation is for daily updates in English. Should the information be presented in multiple languages, programming would be more challenging and could require special outside expertise. Locating reader boards on the KCCH 1st and 2nd floors may be difficult because of the courthouse's landmark designation and the limited mounting areas.

Touch screen kiosks are interactive monitors that allow visitors to pose questions and receive information at the kiosk. Touch screen kiosks have significant start up costs as vendor proprietary software is normally needed. The first kiosk is estimated to cost at least \$29,000 or more, with each subsequent kiosk anticipated at roughly \$14,000. Additional vendor charges would be required for annual programming, software upgrades and maintenance costs. None of the vendors contacted had "off the shelf" multilingual touch screens. Other than English and Spanish, vendors noted limited in-house language expertise. Non-English language programming could cost \$7,000 or more per language.

Electronic reader board systems using multiple languages are relatively straightforward to design, implement, and maintain, based on existing computer systems. County court staff in counties with electronic reader board systems reported high levels of satisfaction. There are, however, some limitations. As reader boards are not interactive, directions to specific locations and directed information regarding non-court functions located in the courthouse are difficult to provide. Courthouse signage systems providing clear visual elements that help visitors locate their destinations require multiple tools: informational signage presenting the functions and services in the facility, directional signage providing way finding and navigation, and location labeling. Reader boards satisfy one of these signage needs – the location of court proceedings and other information as displayed.

Following the analysis of reader board and touch screen applicability in the KCCH, the “next step” alternatives are as follows:

1. Discontinue staffing the Information Desk on April 1, 2010. Consistent with the 2010 budget, discontinue staffing of the 1st floor Informational Desk, relying on existing KCCH signage and court calendar placement. No action by the County Council would be required to implement this alternative.
2. Staff the Information Desk through 2010 with transitional duty staff. Initiate discussions with the affected labor bargaining unit to reach agreement providing, on an interim basis at least through 2010, transitional duty staff possibly from other bargaining units to staff the Information Desk. No action by the County Council would be required to implement this alternative, with implementation taking up to two months.
3. Installation of up to 8 flat screen monitors at the KCCH 3rd Avenue entrance. Working with Superior Court, District Court, Council, and FMD staff, acquire and install up to 8 flat screen monitors at an estimated cost of up to \$56,000, with operating costs assumed to be absorbed by these entities. Council action will be required to implement this alternative as a funding source would need to be identified and additional appropriation approved. Implementation could take up to 6 months.

Given the importance of a coordinated signage and way finding program for the KCCH, the alternative(s) selected must be coordinated with the District Court and Superior Court efforts already underway.

Introduction

To evaluate the feasibility, cost, and effectiveness of potential multilingual electronic signage options in the KCCH, signage generally, electronic signage technology, and various options were considered. This report describes different types of signage, courthouse signage objectives, and how current signage compares with meeting those objectives. Passive and interactive technologies, their differences, their potential use in the KCCH, and their applicability to serving non-English speakers are described. Anecdotal information from other Washington counties and signage vendors is included as well.

Staff research and analysis concludes with a general comparison and evaluation of the potential options for improving courthouse signage. It recommends that simpler, low cost, passive directional signage be improved in the courthouse, and that electronic reader boards be considered as a major component of an ongoing program for upgrading courthouse signage.

Signage Types

Signage consists of three basic types: informational, directional, and location labeling.

Informational Signage: Informational signage advises the user of the functions and services located in the facility. This category includes signage containing specific building activities and schedules. The KCCH, building directories, and general departmental information signs are included in this category, as well as posted court calendars, transportation information, and King County Sheriff's notices.

Directional Signage: Directional signage provides instruction on how to reach an intended destination, i.e., way finding orientation and navigation. These signs consist of written instructions, directional symbols, and maps. High-quality directional signage systems provide for way finding at each step in a journey: at the building entry, to the floor, and to the room. Directional signage can also instruct a visitor on what to do at a particular location, e.g. direct someone to check-in for a court hearing.

Location Labeling: Label signs describe the function or occupant of a particular space by identifying the location. Room numbers and window markers with departmental titles are examples of labels.

While signage and labeling provide visual and written information, the need for staffed information desks is an important component to a way finding program. Informational staff performs the functions of both informational and directional signage by helping visitors determine where to go and the route to get there.

Courthouse Signage Objectives and Best Practices

KCCH signage provides the principal means of directing the public to the functions and services within the building. The signs and signage system are intended to provide a coordinated and efficient system of information, direction and recognition throughout the courthouse. Courthouse signage should achieve a series of basic objectives:

- Signage should promote welcoming and easy access to courthouse functions and departments;
- Informational and directional signage should seamlessly route most visitors to major building destinations without asking for assistance;
- Signage should easily direct all courthouse visitors to locations offering additional information and assistance;
- Signage should promote smooth circulation of pedestrian traffic, especially near building entrances, and prevent elevator queuing and lobby crowding; and
- Signage should be comprehensive, legible, aesthetically consistent, and appealing.

Multilingual Considerations for Signage Objectives: Overlaying the general signage objectives are the needs specific to serving a multilingual populace. Although signage in multiple languages assists readers of the provided languages, no signage can include the native languages of all courthouse visitors. Including too many languages can make signage differentiation difficult, confusing all visitors. To meet these multiple objectives, signage systems must balance their overall efficiency for all visitors against their effectiveness in providing information directed to assist users in a particular language.

Courthouse Signage Best Practices: Best practices in signage systems advocate that signage in public facilities provide clear visual elements that help visitors locate their destination without asking for assistance. From the courthouse entrance, courthouse environments should present a sense of safety and security while also visibly demonstrating equal access to all visitors. Doing so can be challenging in historical buildings like the KCCH, given its age, architecture, and arrangement.

The increased importance now placed on family courts and services, assisting pro-se (self-represented) individuals, mediation, and facilitation makes effective courthouse signage even more essential. Courthouse users today are more likely to be unfamiliar with the legal system and the building and less likely to be a frequent building visitor.

Co-location of the King County Council and other government functions in the KCCH increases the importance of providing sufficient information and direction to building visitors. Maintaining principles of transparency and open government requires public engagement. Visitors to the council chambers and other locations should have no difficulty locating their desired destination.

Perception of Current Courthouse Signage; Past Proposals; Recent Changes

Anecdotal comments from attorneys, court visitors, and the general public suggest that courthouse information and way finding signage does not meet the objectives outlined above. Since 2004, courthouse proposals for 1) electronic directory signs for the 1st and 2nd floor, 2) the development of a comprehensive way finding system, and 3) flat panel reader board displays have been developed by Superior Court and FMD staff. While the Executive did not recommend funding for these proposals due to higher priority items, a general consensus exists that signage in the KCCH needs significant improvements.

More recently, Superior Court completed a project updating selected KCCH room and door signage with additional languages. The new signs are located at high-volume courts and services, such as the Plea Court and the Family Law Court check-in window. Superior Court allocated \$10,700 of their 2009 TCIA fund to install the multilingual signage in the KCCH, and at the Alder Youth Services Center (YSC) and the Maleng Regional Justice Center (MRJC). The TCIA is funded by the county in amounts equal to that received from the state for partial reimbursement of district court judges. Superior Court and District Court prepare recommendations for its use and the County Council approves the necessary appropriation...

Superior Court staff started the project by developing a list of locations that required replacement of the English text signs with multilingual signage. Superior Court interpreters determined the languages of need for KCCH visitors, as well as at the YSC and MRJC. The new KCCH signs include the previous English text, as well as text in Russian, Somali, Spanish, and Vietnamese. These languages were chosen by recommendation of the Superior Court Interpreter Services office as the most requested languages for Superior Court KCCH interpreter matters in 2007.

Text rendering presented challenges in creating the signage. Tailoring the font to the correct characters in the multiple languages consistent with the signage software required coordination between Superior Court staff, interpreters skilled in the languages, and KCCH Building Services staff. The KCCH portion of the multilingual signage project work was recently completed at a cost of approximately \$3,000. Work is underway for the YSC and MRJC signage.

Current Operations and Signage

Roughly 6,500 people pass through KCCH security daily. KCCH visitors consist of an extremely wide range of individuals. General groups include:

✓ the general public	✓ jurors
✓ criminal defendants	✓ law library patrons
✓ lawyers	✓ parties in civil and family law cases
✓ persons seeking protection orders	✓ visitors for court or Council hearings

✓ witnesses(including law enforcement officers and the general public)	✓ users of a myriad of services: CASA programs, housing justice, etc.
✓ persons seeking information on dissolutions or other family law matters	✓ King County, State, and non-profit social service agency officials, employees, and volunteers

Current KCCH Informational Signage: The KCCH signage program presently features a number of general information sources and signage including the following items:

- The Information Desk, located between security and the elevator lobby on the 1st floor (with staffing limited to the first three months of 2010),
- Two building directories, located behind the Information Desk on the 1st floor and along the wall near the 4th Avenue entrance security on the 2nd floor,
- King County Sheriff's postings on the west end of the 1st floor lobby,
- County Council agendas and information across from the council chamber on the 10th floor,
- Superior Court and District Court calendar baskets, mounted on the walls in the 1st and 2nd floor elevator lobbies, containing hard copy printouts of the daily Superior Court calendar and weekly District Court calendar.

Court calendars are printed by both Superior and District Courts for the calendar receptacles in the public areas. Superior Court calendars are placed once or twice a day, in the morning and after the lunch break. Copies of the calendar are taken by the public for locating their matter and courtroom.

Superior Court's calendar lists information across a number of columns: judge name; position assigned; courtroom; whether the matter is a jury assignment or not; and a case or calendar assignment. Case and calendar assignment can be general or specific: particular trials or motions are listed by case title, but high volume calendars are listed as the calendar title, e.g. Criminal Motions, Plea/Sentence Calendars.

District Court's calendars list different information than Superior Court across the columns: the defendant/party's name; the case number; the schedule time and room number, and case type. District Court prepares its calendar weekly. A reference copy is placed in the receptacles every Monday.

Current KCCH Directional Signage: Directional signage in the KCCH is limited. The 1st floor directional signage is limited to a large instruction in English showing the location of the Administration Building tunnel, and a small sign next to the jury assembly room doors. Elevator lobbies have small signs in English with arrows to building room numbers. Other KCCH directional signage is in the immediate area of the particular location, e.g. next to the Family Law check-in desk, or from the hallway adjacent to courtroom 1201.

Current KCCH Location Labels and Signs: Almost all rooms in the building are labeled with room signs, depicted as a directional letter followed by a three-digit number, i.e. W-291. As the numbering system is not sequential, it can be confusing to visitors. Location labels for most major offices and departments in the building also include the department or general function of the area. A few locations also feature simple informational and/or directional signage: the Family Law front desk features a multilingual sign instructing persons to check-in alongside the room number and name.

Information Desk: The Information Desk is staffed during business hours. In 2010 staffing was reduced to the first three months in 2010. Information on the Superior Court and District Court calendars and the King County Council agenda for the day is available at the Desk. The staff person is knowledgeable about the various departments and operations in the courthouse, as well as the functions in other buildings in the county and adjoining city campuses.

Challenges to non-English Speakers: Many KCCH visitors are not native English speakers. Some have little to no proficiency in English. Determining where to go and navigating the KCCH can be particularly challenging for these individuals. For example, the Superior Court Interpreter Office offers services in 128 different languages to those who have Superior Court proceedings.

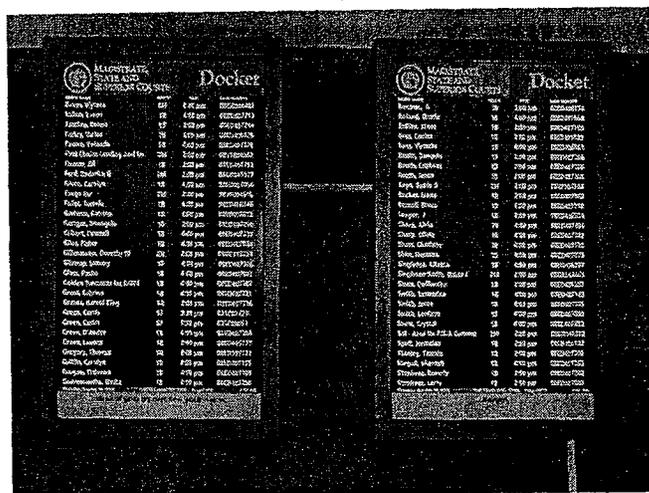
Electronic Signage Technologies: Passive Versus Interactive

Courthouse electronic signage technologies generally consist of two categories: passive “airport” style reader boards displaying court calendars and case information, and interactive touch screens providing directional information to users. These touch screen systems map the pathway and give directions from the location of the touch screen to the user’s specific destination. Advanced courthouse systems link court dockets with the touch screens, allowing users to select their specific case at the touch screen and be provided routing information. Each of these technologies is described later in this section.

Electronic Signage in Courthouses: Use of electronic signage technology is increasingly common in courthouses. Regional county courthouses typically feature reader board systems, while Federal Courts have touch screen systems. As county courts are high-volume courts, reader boards are used as they reach a larger volume of visitors more quickly than touch screens. Another factor is cost: touch screen way finding systems, like those in the Federal Courthouses in Seattle and Portland, feature proprietary vendor software systems that are more expensive than reader board technology. As detailed later in this report, among the Washington county court systems that have implemented electronic reader board technologies, many were developed in-house to save costs.

Electronic Reader Board Technology

Electronic reader boards are fixed-location display monitors. In a courthouse setting, they are usually dedicated to the display of case and courtroom calendar information. Matters appear on the monitors listed by case title and party name along with the courtroom assigned. The information shown can be much the same as the current paper copies of Superior and District Court calendars provided in the KCCH. These display monitors are akin to airport monitors displaying flight arrivals and departures with gate information, i.e. "airport-style" reader boards. For example, the picture below is the recently installed Fulton County, Georgia electronic docket display system for their State and Superior Courts, as displayed in the Justice Center Tower.



Reader board system hardware is fairly basic: the monitors, mounting hardware, a CPU (or two) with video card(s) for each of the monitors, and a data connection from the computer(s) to the network. The monitors are typically 32-inch to 50-inch LCD¹ flat screens. Depending on the location, the monitors may need to be placed within an enclosure to prevent damage.

The monitors are programmed and designed to display information using a web-based application. A web application is a software program or package that can be accessed through the internet, using a web browser such as Internet Explorer. The software and database reside on a central server. Because the information displayed is web-based, changing the display motif and updating the information shown can done remotely from anywhere the server can be reached.

¹ A liquid crystal display (LCD) is a thin, flat panel used for electronically displaying information such as text, images, and moving pictures. It is an electronically-modulated optical device made up of any number of pixels filled with liquid crystals and arrayed in front of a light source (backlight) or reflector to produce images in color or monochrome. Among its major features are its lightweight construction, portability, and ability to be produced in much larger screen sizes than those practical for construction of traditional cathode ray tube (CRT) display technology.

Three electronic signage firms provided very preliminary cost information for an electronic reader board system. Basic costs for a 16 monitor "airport-style" court case display system ranged from about \$75,000 to almost \$120,000. These systems include proprietary vendor-developed display software.

Lower cost systems featuring fairly simple information displays have been created in other courthouses using in-house expertise. Vendors provide comprehensive systems, generally offering more detailed functionality and integration between different courts, locations, and display types.

District Court Reader Board Vendor Contract: District Court recently approved a contract to provide electronic reader boards at all King County District Court locations. Twenty-one 40-inch display monitors and vendor supplied information display software will be provided. Implementation is in two phases:

- Phase One – the vendor delivers and installs six monitors, along with mounting hardware, application development, and user training.
- Phase Two – the vendor delivers 15 monitors along with mounting hardware. Installation and system integration will be performed by county staff.

Phase One costs \$47,991. Phase One installation is scheduled for three District Court courthouses: Renton, Bellevue, and Issaquah. Each location will receive two monitors. Phase Two costs \$43,505. The schedule for the Phase Two installations has not been determined. District Court will proceed location-by-location until all courthouses have display monitors. Phase Two monitors will advance as quickly as District Court clerks at each location are prepared to implement the system and work orders for installation of the monitors are completed.

District Court's plan provides that the KCCH will be the final location to install their monitors. Flexibility included in District Court's vendor contract allows for either two or three LCD screens to be dedicated to showing District Court's matters in the KCCH. District Court has not decided where their KCCH monitors will be installed.

District Court's total vendor contract of \$91,496 was funded by their allocation from the TCIA. During contract negotiations, District Court obtained a substantial cost reduction through the use of existing county servers rather than vendor-provided servers.

The vendor reader board software will display case information by party name, room number, hearing time, and judge at each District Court. These display options may be changed or customized later as part of the system development and implementation.

Other Washington County Court Experiences: Discussions with other regional court administrators, signage vendors, and King County staff suggest that implementing “airport-style” electronic signage showing case information and courtroom assignments drawn from court docket databases could be a fairly simple and cost-effective improvement in KCCH signage. Pierce County, Cowlitz County, and Snohomish County have experience implementing electronic reader board systems.

Pierce County: Pierce County’s primary reader board system dates back to 2002. Initially, Pierce County developed system specifications, and then received vendor proposals of over \$122,000 for the projected work. After reducing the scope, Pierce County completed the job in-house at an estimated cost of \$18,000. The project hardware consisted of two PCs, twelve monitors, four network cards, two cable drops, and two cabinets holding six of the monitors each. The reader boards are driven by a web display application that was developed in a little over two weeks. Pierce County’s project had the notable benefit of Linx, Pierce County’s proprietary court docket information system, which provides case data in a uniform format used by the display application.

The Pierce County web application merges docket information from Superior and District Courts and the Tacoma Municipal Court for the courthouse reader board display. The application pulls docket information from Linx and combines it with the Tacoma Municipal Court case docket database from Washington State’s Judicial Information System. The application then displays the case information alphabetically by party name on monitor banks in the 1st and 2nd floor lobbies of the County-City Building. The information is divided up among the monitors alphabetically. Clerks update docket information throughout the day. Display updates with courtroom changes occur every 15 to 30 minutes.

Pierce County’s arraignment courtroom, which has a high volume of hearings each day, has its own set of monitors adjacent to the courtroom entry. These monitors show only the arraignments scheduled for that day. Arraignments are also shown at the main lobby monitors.

The benefit of Pierce County’s display approach is that it provides immediate information to all persons at the courthouse entry. Parties do not need to know their specific court or type of matter to find out where to go on the monitors. The reader board signage system effectively meets Pierce County’s objective of providing basic information to a large volume of courthouse visitors efficiently.

Cowlitz County: Cowlitz County staff is implementing their new reader board displays. When complete, the Cowlitz County system will feature up to five monitors. The system will display the court calendar for each courtroom on a dedicated monitor that chronologically lists the day’s matters. As with Pierce County, the information will update every 15 to 30 minutes. Testing of the displays is complete and monitors are being

activated this month. Staff is now working on the Superior Court display monitors. Project costs are estimated to be over \$12,500.

Snohomish County: Snohomish County estimates the cost of their electronic reader board project at roughly \$125,000 over the last five years. Snohomish County's costs include development costs for placing electronic reader boards in multiple buildings across the county campus, including two courthouses and their Administration Building. A total of eight courthouse reader boards are dedicated to court calendar information. The monitors are located at particular Superior Court and District Court departments. The cases displayed are first grouped according to the particular court, and then into trials and non-trial hearings. Snohomish County's system provides flexibility, allowing for a different alignment and display of court cases and calendars.

Potential Reader Board Placement in the KCCH: Potential locations for reader board placement are in large part determined by the type of information displayed. Generally, court display systems reference case information by party name or case title. Monitors are dedicated to specific ranges of the alphabet or specific courts and departments. The greater the number of courtrooms and court calendars, the more complex the organization. Understandably, including high-volume calendars and additional courts with separate docketing systems adds another complexity layer.

General approaches to the display of information include:

- ✓ All Superior Court and District Court Daily Calendars on the same monitor(s), either reported serially or merged together and reported alphabetically by party name. These types of monitors should be placed to be readily accessible to visitors entering the KCCH. This approach is similar to the Pierce County model.
- ✓ Case and courtroom information reported on separate monitors specifically designated for Superior Court or District Court. These types of monitors could be placed on floors specific to the court type or be placed accessible to visitors entering the KCCH. This approach is similar to the Snohomish County and Cowlitz County models and the current District Court plan.
- ✓ Monitors could also be used to aid in way finding in the KCCH by providing the location of other building tenants, i.e. the County Council, the Prosecuting Attorney's Office; the Department of Judicial Administration, the Law Library, and Superior Court's Family Law Information Center. These monitors could be separated from the courts' system(s), or could be integrated into one system.

Staff reviewed potential locations on the 1st and 2nd floors of the KCCH for reader board installation. The 1st floor presents particular challenges: the artwork throughout the lobby and along the hallway walls eliminates most surface areas from consideration. The 1st floor lobby is also a designated feature of significance in the KCCH's landmark

designation. Installation of reader board monitors could potentially require a Certificate of Appropriateness (COA), especially in the main elevator lobby.

Additionally, reader boards would need to be installed in an area that would not increase the already difficult and congested ingress and egress to the building. This is a particular problem during "rush hours" at the 3rd Avenue Entrance on the 1st floor. Safety and security is paramount, and the screening area must be kept free-flowing to the greatest extent possible given the restrictions in an historic building with century old architecture.

FMD, in response to an initiative in progress under the auspices of the Security Oversight Panel, is currently installing two flat screens at the 3rd Avenue entrance to the KCCH. Placement is as near to the entrance doors as possible. These screens will be dedicated solely to providing information on how to go through the screening process. Combining way finding information on these screens would likely cause greater congestion and slowing of screening lines, which already cause delays during peak hours. For this reason, informational monitors will have to be placed in the KCCH lobby, past the screening stations.

Staff identified 1st floor locations with enough potential space for a reader board bank of eight 40-inch screens. While the area above the elevators might work, this area could conflict with the historic preservation of the KCCH, and is not ideal. Similarly, the area currently used by the King County Sheriff and Metro for public notices and transit information would not be readily obvious to new KCCH visitors. The prime location is the area currently used by the Information Desk. The existing wall could be moved forward, with the screens then inset into the new wall.

The 2nd floor features more potential options for a reader board display though access would be limited with a 4th Avenue Entrance closure. As with the 1st floor, the 2nd floor lobby is a designated feature of significance and could require a COA. Reader boards could be installed along the entry hallway, above the elevators, or in a display mounted in the center of the lobby.

Electronic Reader Board Issues

Number of Monitors Needed and Their Placement: "Airport"-style case calendar display systems refresh regularly. The monitor displays at most courthouses continually roll over, showing additional names and locations every few moments. The timing cannot be too fast, or parties will not be able to find their names in time. Too slow, and people lose patience. Vendors suggest that monitors should roll over no faster than about every seven to ten seconds, and it should not take persons more than a minute to find their name and courtroom assignment.

With these guidelines, the number of KCCH courtrooms, and the high volume of cases, a vendors estimated that a minimum of six monitors would be needed at each reader board

bank. Depending upon the case information included, the optimal number is likely around eight. Vendor representatives provided that a rule of thumb is about one 40-inch monitor per 125 names displayed. This allows for roughly 21 lines of information (i.e. parties, case names, etc.) rolling over every 10 seconds – thereby showing the party’s name or case title once each minute for 10 seconds. As DJA estimates the average daily number of parties in Superior Court matters between 775 and 810, the need would be approximately 6 monitors using the vendor formula. Including District Court matters increases the number of monitors to eight. Adding more lines, reducing the rollover time, or extending the overall wait period to longer than a minute allows for more case information on fewer reader boards.

Use of Multilingual Electronic Reader Board Signage: Options for multilingual signage intrinsically depend on the type of information displayed. Electronic case calendar display boards could periodically change column headers among languages while displaying the same case information. Vendor supplied software has capabilities for multiple languages and translations.

Electronic Reader Board System Costs: The costs of electronic signage vary widely depending upon the specific requirements and project assumptions. To refine these costs, further detail on specific project requirements is needed. Electronic reader boards showing basic case information through simple web applications were significantly less expensive than developing or purchasing integrated multi-departmental case information display systems.

Assuming a total of eight reader boards installed at each entry, total hardware costs would likely range from \$44,000 to \$112,000. The following chart summarizes initial estimates for the potential hardware costs per entrance. Note two monitors could be provided by District Court through their existing vendor contract.

Number of Monitors				
Floor	Superior and District Courts	Council and Other	Total Monitors	Monitor Capital Cost
1 st or 2 nd	6	2	8	\$22,000 – \$56,000

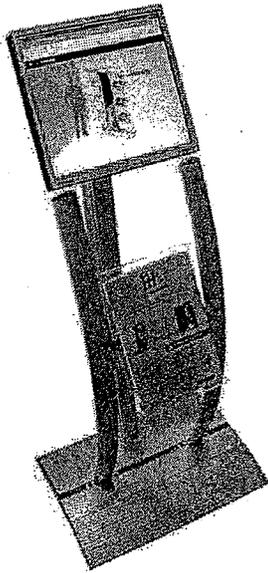
As noted above, District Court already has a total of 21 40-inch monitors included in its existing vendor contract. As the project progresses, these monitors will be allocated among District Court sites; it is assumed two or three will be installed in the KCCH.

Upfront costs for installation, programming and training are determined by the type of system installed. Initial vendor estimates for system programming and training ranged from roughly \$6,500 to over \$31,000; some vendors itemize costs for system development, while others include development costs on a per-monitor basis. Given the historic nature of the courthouse, installation costs could be above average. Data and electrical cabling alone could cost from \$5,000 to \$10,000 at each monitor array location.

Once established, it is assumed that the operating costs would be absorbed by the courts, which would be responsible for their case calendar information; the County Council, who would be responsible for the council information reported; and by FMD, who would be responsible for tenant directory information.

Touch Screen Technology

A more advanced technology uses touch screen kiosks with directed way finding. In a courthouse setting, kiosks can provide interactive information to users seeking specific courtrooms, the location and time of court hearings, office locations, and phone numbers. Many touch screen systems feature directional way finding from the kiosk to the user's destination. Some systems include printers to provide written copies of information and maps. Touch screens can also be programmed to assist in multiple languages. The examples below show a typical touch screen kiosk and actual touch screens used by Maryland's Prince George's County Circuit Court.



While touch screens are utilized in some regional Federal Courthouses, they are more expensive, require greater staff and support resources, and serve lower volumes of people than electronic reader boards. Generally, touch screen systems require a vendor contract, as the routing systems are proprietary and require programming of detailed building information for way finding.

Vendor-provided touch screen hardware includes the touch screen LCD monitor and a dedicated CPU with the vendor software. Depending on the touch screen location, vendors also provide the complete touch screen kiosk: the touch screen housing, ventilation, and locked access to the monitor and CPU. Power and data to the touch screen location must be provided by King County.

A few vendors were asked to provide very preliminary cost information for a touch screen way finding system featuring two touch screens using English text and three additional languages – suggested as one with a Roman alphabet and two other alphabets. Based on preliminary vendor information, “start up” hardware and primary software costs for touch screen way finding kiosks were estimated from approximately \$20,000 to over \$30,000 for the first unit. Additional units were around \$14,000. Prices can be higher depending on the system needs. Including multilingual options can increase these costs dramatically, on the order of \$7,000 or more per additional language.

There is significant variability on how touch screen features are priced among providers: 1) between the functions packaged with the core software, 2) included as add-ons to the software, and 3) the costs for system installation. Specific kiosk options, way finding software, and language features are addressed differently by each vendor. Based on the vendor information provided, the direct vendor cost for installing a touch screen at each of the 3rd and 4th Avenue KCCH entrances would start in the range of \$38,000. This price does not include the costs for data and power to the kiosk/touch screen locations, installation, taxes, or specialized functions beyond basic way finding and building information. Also this figure is for the touch screen kiosk and software alone, and does not include related county force costs, contingencies, taxes, or installation costs.

The touch screen cost above also does not include ongoing vendor support costs. These costs can range from roughly \$1,200 to over \$4,500 annually, depending on the support services provided. Because actual costs depend so much upon the particular system specifications, a procurement process specifying the particular languages and required functions is necessary to provide a reliable quote.

Potential Touch Screen Placement in the KCCH: As touch screens provide specialized, detailed information to users, they should be located in easily accessible areas, but not places that are subject to crowding or high traffic volumes. In public buildings, vendors recommend installation near entrances, by electronic reader boards and information desks so that users can easily locate them. LCD screens allow for slim profile kiosks that can be placed in hallways near lobby areas, but outside the main pedestrian pathway. Kiosks can also be ADA compliant, depending on the location and functions offered.

In the KCCH, touch screens could be placed in the 1st and 2nd floor lobby areas fairly easily: across or adjacent to the Information Desk on the 1st floor, and along the wall of the elevator lobby on the 2nd floor. The artwork on the 1st floor elevator lobby may preclude placing a kiosk in that area.

Types of Information Provided by Touch Screens and Courthouse Uses: The interactive functionality of touch screen systems allows for a large range of options:

- Facility and “neighborhood” maps and information
- Directory information for both individuals and departments/services
- Customizable start page announcements
- Case calendar and other hearings information and location
- Way finding, with graphical and written directions to the location selected
- Direct dial phones or speakerphones individuals or departments
- Multilingual display and direction capabilities

As noted above, touch screen systems are vendor-provided. The underlying software is proprietary. Vendors then tailor their software system to the specific client, depending on the particular client needs and specifications. Adapting the software to the client requirements consists of five general aspects:

- The look and feel of the touch screen graphical interface: pictures, fonts, etc.
- Inputting directory and facility information: department locations and floor maps
- Integrating the software with docket and court calendaring information systems, if necessary for touch screen information and way finding options
- Determining processes and procedures for editing and updating changes in directory information and building layouts, e.g. user training, remote support, etc.
- Developing and including multilingual information and way finding options

In a courthouse, touch screens can usefully provide more detailed information than electronic reader boards or general signage because of their interactivity. Users confused regarding where to go can obtain directions unavailable from passive signage. Way finding maps can visually diagram the path to a particular court or office.

Other general information helpful to courthouse visitors can also be featured: transit options, traffic, and weather conditions. Touch screens are attractive in assisting multilingual users, because they can be programmed to assist persons in their native language. They also can include functions helpful for ADA-related access concerns.

Touch Screen Issues

Type and Amount of Information for the Touch Screen Display: Although the advantage of touch screens is in their ability to provide individually tailored information, the level of interaction depends upon the level of detail in the system programming. For many users, providing basic answers to commonly asked questions provides sufficient information for the next step, e.g. selecting “Where can I get information on filing for divorce?”, followed by a way finding map to the Family Law Information Center. Touch screens can only be

as helpful as their programming. Providing answers to increasingly complex questions and needs, requires extensive programming and system detail – and related vendor and internal staff costs.

Number of Touch Screens and Courthouse Placement: A significant operational challenge for courthouse touch screens is volume of use. Because a touch screen can only serve one person at a time, touch screens are ineffective in crowded areas with large volumes of people. If other information sources are not present, people will queue for the touch screen, causing delays. For this reason, vendor representatives did not recommend the use of touch screens alone in a high-volume courthouse setting. Touch screens are better suited as a secondary system in support of other information sources and signage.

Touch Screen Uses for Multilingual Courthouse Visitors: An appeal of touch screens is in their potential to provide information in multiple languages to assist non-English speakers. Multilingual programming of touch screens is fairly common. However, none of the vendors contacted provided an “off the shelf” multilingual touch screen way finding system. Other than in English and Spanish, vendors apparently do not maintain staff to provide specific instructions and directions in various languages. Instead, language information is added during system development, as negotiated in the vendor contract. These software add-ons can be expensive, depending upon the number of languages and whether the information is to be provided by the vendor or provided to the vendor by King County translators and staff.

Another aspect of multilingual touch screen programming is the application. Each additional language included in a touch screen software system adds greater complexity to the system, but reaches a narrower segment of the population. No touch screen can adequately serve any more than a fraction of the 128 languages serviced by the Superior Court Interpreter’s Office.

Proprietary Vendor Touch Screen System Costs: As touch screen systems are proprietary, vendor contracts typically include ongoing system support costs. This support generally includes updating basic information (building name directories, judge courtroom assignments, etc.), but not changing detailed way finding information, such as altered floor maps from remodels and office moves. Clients either reprogram the information themselves, or contract with the vendor for the work. Reprogramming way finding information in multiple languages would present additional costs.

Summary Comparison of Electronic Reader Board and Touch Screen Technologies

Judging the success of any electronic signage system depends upon the system goals. Comparing the positives and negatives of each technology with courthouse signage objectives as shown in the table below, illustrates the ways both technologies could improve courthouse signage.

King County Courthouse Electronic Signage Proviso Response

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Date: January 29, 2010

Signage Objective:	Reader Board Pros/Cons:	Touch Screen Pros/Cons:
<p>Promote welcoming and easy access to courthouse functions and departments</p>	<p>Pros:</p> <ul style="list-style-type: none"> • reader boards are easily located by general public • easily accommodates system changes/upgrades • can provide a single stop for case information from multiple sources 	<p>Pros:</p> <ul style="list-style-type: none"> • interactively provides information tailored to user needs • can accommodate system changes/upgrades • can provide a single stop for building and campus information <p>Cons:</p> <ul style="list-style-type: none"> • can be complex to develop and implement • can be hard to locate
<p>Seamlessly route most visitors to major building destinations without assistance</p>	<p>Pros:</p> <ul style="list-style-type: none"> • reaches broad audience • may reduce court clerk workload through reduced calendar printing/posting <p>Cons:</p> <ul style="list-style-type: none"> • can only display limited directions / way finding • does not eliminate need for additional information resources 	<p>Pros:</p> <ul style="list-style-type: none"> • can provide detailed information, especially directions • may reduce resource workload (info. desk, call center, etc.) <p>Cons:</p> <ul style="list-style-type: none"> • reaches narrow audience • ineffective for high viewer and/or user volumes • may not eliminate additional informational resource need
<p>Easily direct all courthouse visitors to locations that have additional information and assistance</p>	<p>Pros:</p> <ul style="list-style-type: none"> • allows for some multilingual information and direction <p>Cons:</p> <ul style="list-style-type: none"> • can only display simple and/or limited information • limited multilingual options 	<p>Pros:</p> <ul style="list-style-type: none"> • can provide detailed multilingual information and way finding <p>Cons:</p> <ul style="list-style-type: none"> • limited operational flexibility (esp. w/ multilingual options) • limited to a few languages
<p>Promote smooth circulation of pedestrian traffic, especially near building entrances, and prevent elevator queuing and lobby crowding</p>	<p>Pros:</p> <ul style="list-style-type: none"> • can display real-time information (trials, hearings, locations, etc.) • allows immediate update of information/status changes • allows review of information from many angles/spaces 	<p>Pros:</p> <ul style="list-style-type: none"> • can display real-time information (trials, hearings, locations, etc.) <p>Cons:</p> <ul style="list-style-type: none"> • only allows one user at a time

King County Courthouse Electronic Signage Proviso Response

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Date: January 29, 2010

Signage Objective:	Reader Board Pros/Cons:	Touch Screen Pros/Cons:
Comprehensive, legible, aesthetically consistent, and appealing	<p>Pros:</p> <ul style="list-style-type: none"> • common technology • relatively low cost <p>Cons:</p> <ul style="list-style-type: none"> • requires some maintenance and operational resources • installation challenges presented in a historical courthouse 	<p>Pros:</p> <ul style="list-style-type: none"> • conventional technology <p>Cons:</p> <ul style="list-style-type: none"> • requires ongoing maintenance and operational resources • high cost
Assist non-English speakers in determining their destination and the easiest route there	<p>Pros:</p> <ul style="list-style-type: none"> • allows some multilingual information and direction • non-English users know English spelling of name, room numerals <p>Cons:</p> <ul style="list-style-type: none"> • very limited multilingual information/way finding options 	<p>Pros:</p> <ul style="list-style-type: none"> • can provide detailed information and routes in multiple languages: locations, directions, maps <p>Cons:</p> <ul style="list-style-type: none"> • limited to select language set • advanced options limit language flexibility • can create false sense of sufficient non-English assistance
Implementing costs and operating costs	<p>Pros:</p> <ul style="list-style-type: none"> • can be inexpensive, especially when developed in-house • lower implementing, operating costs than touch screens <p>Cons:</p> <ul style="list-style-type: none"> • can include ongoing staff cost for daily information updates • may have lower impact on Information Desk needs, costs 	<p>Pros:</p> <ul style="list-style-type: none"> • implementation costs scalable, especially when part of vendor contract w/ reader boards • likely less expensive over the long run than Information Desk FTE costs <p>Cons:</p> <ul style="list-style-type: none"> • expensive to implement, especially multilingual options • ongoing vendor operating/support costs

County court staff in counties with electronic reader board systems reported high levels of satisfaction with their systems. They conveyed that the reader boards made for less clerk work in preparing the court docket (to varying degrees depending on the system), and provided sufficient way finding information to the vast majority of court visitors.

Electronic Read Board Systems using multiple languages is relatively straightforward to design, implement and maintain. There are limitations. As reader boards are not interactive, directions to desired locations and general information regarding other county functions located in the KCCCH are not provided. Courthouse signage systems providing clear visual elements that help visitors locate their destinations require multiple tools; information signage providing functions and services in the facility; directional signage

providing way finding and navigation and location labeling. Reader boards satisfy one of these signage needs – location of court proceedings and other information as displayed.

Following the analysis of reader board and touch screen applicability to the KCCH, the “next step” alternatives are as follows:

1. Discontinue staffing the Information Desk on April 1, 2010. Consistent with the 2010 budget, discontinue staffing of the 1st floor Informational Desk with reliance on the available signage and court calendar placement. No action by the County Council would be required to implement this alternative.
2. Staff the Information Desk through 2010 with transitional duty staff. Initiate discussions with the affected labor bargaining unit to reach agreement providing on an interim basis at least through 2010 for transitional duty staff possibly from other bargaining units to staff the Information Desk. It is an FMD staff understanding that there are sufficient employees within the county in transitional duty state to enable the Information Desk to be staffed through 2010. As the existing appropriation covering the transitional duty staff would be used, additional appropriation authority would not be required. No action by the County Council would be required to implement this alternative. Implementation would require 1) reaching agreement with the affected bargaining unit, 2) selecting the transitional duty staff, and 3) providing the appropriate training. It is estimated that implementation would take up to 2 months should agreement be reached with the bargaining unit.
3. Installation of up to 8 flat screen monitors at the KCCH 3rd Avenue entrance. Working with Superior Court, District Court, Council and FMD staff, acquire and install up to 8 flat screen monitors for installation for an estimated cost up to \$56,000 with operating costs assumed to be absorbed by these entities. Council action will be required to implement this alternative as a funding source would need to be identified and additional appropriation approved. Updated cost estimates and adopted additional appropriation could take up to 3 months. An additional 3 months could be required for purchase, programming and installation. This alternative could be implemented in conjunction with either alternative #1 or alternative #2. In other words, the reader boards can be installed whether or not the Information Desk is staffed.

Given the importance of a coordinated signage and way finding program for the KCCH, the alternative (s) selected must be coordinated with efforts already underway by District Court and Superior Court.

January 29, 2010

The Honorable Bob Ferguson
Chair, King County Council
Room 1200
COURTHOUSE

Dear Councilmember Ferguson:

Attached to this transmittal is a report, submitted in response to a 2010 Budget Proviso for the Internal Service Fund of the Facilities Management Division (FMD), Department of Executive Services. The proviso, P1 of Ordinance 16717, Section 112, calls for a report on potential electronic multilingual signage options in the King County Courthouse (KCCH).

The proviso reads as follows:

“Of this appropriation, \$200,000 shall not be expended or encumbered until the council approves by motion a report on the feasibility, cost and effectiveness of installing an electronic reader-board and signage in multiple languages to assist citizens in accessing services and court facilities in the King County Courthouse. The report shall be submitted no later than January 31, 2010.”

The report examines the feasibility, cost, and effectiveness of potential electronic signage options in the KCCH. Multilingual possibilities in electronic signage are also evaluated.

Most KCCH visitors, whether attorneys, jurors, parties in court cases, or citizens utilizing the range of services in the building, are unfamiliar with the building layout and design. They depend upon easily finding help in determining where they need to go and how to get there. The 1st floor Information Desk, building signage, and courthouse staff provide this assistance. During the 2010 Budget process, funding for Information Desk staff was cut to three months. Without action, KCCH visitor assistance options will be limited after April 1, 2010.

Comprehensive building signage assists most visitors in reaching their destinations without additional help. Other Washington county courthouses display court case information on large “airport”-style monitors. The report’s review of signage options includes three alternatives:

1. Discontinue staffing the Information Desk on April 1, 2010. Discontinue staffing of the 1st floor Information Desk consistent with the 2010 Budget, relying on existing KCCH signage and printed calendars. No implementation action by Council is required.
2. Staff the Information Desk through 2010 with transitional duty staff. Start discussions with the affected labor bargaining unit with the intent to come to agreement on providing “transitional duty” staff (short-term work assignments for employees with temporary medical restrictions precluding performance of essential job functions), possibly from other bargaining units, on an interim basis. No implementation action by Council is required. Implementation could take up to two months.
3. Installation of flat screen monitors at the KCCH 3rd Avenue entrance. Install up to 8 flat screen monitors in the 1st floor lobby. Costs are estimated at up to \$56,000, with operating costs absorbed by the Courts, Council, and FMD. Council action is required to implement this alternative, identifying a funding source and approving appropriation. Implementation could be implemented in conjunction with either alternative 1 or 2 above, and could take up to six months.

Given these tough budget times, we must consider options that allow the county to do more with less. We must also maintain our customer service commitment. Implementing alternatives 2 and 3 together balances these needs. Information Desk staffing should continue only if transitional duty assignments are feasible, along with installation of an electronic reader board array. Together these steps will enhance the experience of KCCH visitors, while also increasing our flexibility in meeting future customer service needs resourcefully.

If you have any questions regarding the report information, please call Kathy Brown, Director, Facilities Management Division, at (206) 296-0631.

Sincerely,

Dow Constantine
King County Executive

Enclosure:

cc King County Council Members
ATTN: Tom Bristow, Chief of Staff
Anne Noris, Clerk of the Council
Fred Jarrett, Deputy County Executive, Office of the Executive
Toni Rezab, Acting Director, Office of Management and Budget (OMB)
Sid Bender, Capital Budget Supervisor, OMB
Bob Cowan, Acting County Administrative Officer, Dept. of Executive Services (DES)
Kathy Brown, Director, Facilities Management Division, DES