

PROJECT NARRATIVE

A. PROJECT PURPOSE

City Heights has long been considered one of the most dangerous and disadvantaged sections of San Diego — an area plagued by gangs, unemployment and the lowest school test scores in the district. More than 72,000 people are crammed into a 3,000-acre triangle at the center of the nation's sixth largest city. Five census tracts are within the Federal Enterprise Community. City Heights is the first stop for many new immigrants from underdeveloped countries, with 40 different cultural groups represented and over 100 dialects spoken. The community is 41 percent Hispanic, 21 percent African-American, 20 percent Asian/Pacific Islander and 18 percent white. Forty percent of adults have not completed high school, compared to 18 percent citywide. The median income is \$20,000 in a region where the median housing price is \$246,000. The majority (65 percent) of City Heights residents live in rental apartments. Thirty-five percent are at poverty level or below, and unemployment is more than double the citywide average (12.6 percent vs. 5.9 percent). Not surprisingly, only 20 percent of the homes have a computerⁱ, far below regional (71 percent)ⁱⁱ and national averages (51 percent).ⁱⁱⁱ

City Heights is particularly hard on young people. A staggering 49 percent of youth live at or below the poverty level. Hoover High School maintains two fully equipped dental chairs because students don't have access to necessary health care. It is the least stable school in the district, with 20 percent turnover in students each year. In an article about City Heights, a reporter noted that, "Everyone who could, both residents and businesses, had moved out long ago. Those left to cope with the drugs, the decay, simply could not afford to live anywhere else. And yet together they are a community, a tapestry of dreams and colors, all living on the edge of despair in the heart of a gilded city that seemed not to notice."^{iv}

City Heights is a microcosm for the lesser-known side of San Diego. Our county, roughly 65 miles square, is one of extremes. The western edge is fully developed with spectacular oceanfront homes, while the eastern half, mountainous and rural, includes sixteen Native American reservations and many small, isolated towns. At the southern end is Mexico which strongly influences our culture, while the north is dominated by fast-growing high-tech businesses. Last year the nonprofit Center on Policy Initiatives documented our "hourglass economy" marked by growth at the high and low ends, and a loss of middle-income jobs. Technology has made one segment wealthy while another part of the population — primarily Hispanic and African-American — work as housekeepers or day laborers. The low end is larger and growing, with 44 percent of San Diego households meeting the HUD definition of low or very low income. Newcomers to San Diego often remark on the discrepancy between the image presented in our economic development efforts ("Technology's Perfect Climate" and of our nonprofit organizations, inner cities, and rural towns.

The Digital Bridge (see Appendix D, page 29) began as a way to connect a group of telecommunications business leaders to the needs of San Diego's underserved communities. The project originated in the Communications Council of San Diego State University and has since grown to become part of the City Heights Educational Pilot, a university-wide program involving more than a hundred faculty members from 40 departments, along with several nonprofit organizations, businesses, and foundations (see Appendix C, page 27). The Pilot established the educational equivalent of a teaching hospital in order to better prepare teachers for the specific challenges of the inner-city; and created a "K-16 journey" for the children of City Heights starting in kindergarten, students learn about the path to middle school, high school and college, so that they understand higher education is achievable. To support the Educational Pilot, the Digital Bridge has implemented a state-of-the-art 40-station community technology center at Hoover High for student use during the day and the community after-hours, with a second lab opening in June 2001. **This proposal requests funds to go the next step, building on what's**

been done in City Heights, tackling what needs to be done, and extending outward to all of San Diego County.

To develop a business plan for expansion, the Digital Bridge convened a series of focus groups in the fall of 2000^v. One hundred twenty-five students, parents, teachers and community members participated, complemented by door-to-door interviews with a sample of 100 residents. This process identified three major problems to be addressed.

1. **Transitioning Young People from School to Work and to the Community.** Through state and private grants, the Digital Bridge has established a strong technology infrastructure at Hoover High. For the 2,100 students who attend Hoover, this may be their only source of access. But when they graduate — or drop out — they lose that support. Without computers in the home, the transition from school to workplace is very difficult. They end up in part-time, dead-end jobs or drift into gangs. Their technology skills go unutilized and they have no way of keeping up to date.
2. **Community Participation in Technology Planning and Economic Development.** Despite being located squarely in the middle of a region that is targeting high-tech business growth, the residents of City Heights have not been engaged in planning their technology future. There are many reasons: Lack of exposure to what technology can offer, language barriers, time, and a general feeling of disempowerment and transience. In 1994, over 600 residents participated in a summit to address the need for change in the critical areas of housing, employment, education and healthcare.^{vi} The plan was updated in 1998, but technology was not considered as a solution, nor has it been articulated for the future. The result is that residents and nonprofit groups are not “at the table” when regional economic development efforts are designed, and technology dollars ultimately flow to other parts of the city^{vii}. This in turn feeds the first problem — students graduate into a community that has not planned for their skills and cannot offer opportunities.
3. **Isolation and Duplication of Nonprofit Groups Serving City Heights and the San Diego Region.** There are more than a thousand nonprofit organizations in San Diego trying to build affordable housing in the nation’s ninth least affordable market, and manage social service programs from one end of the county to the other. They are stretched thin across wide geographic, economic and cultural ranges. They need to access organizational data from many locations. They need to tie into the work of their collaborative partners so that they do not operate at cross-purposes, and so that they can better leverage efforts. They need to learn from the living experiment that is City Heights and the Digital Bridge, so that they can apply the same tools in communities such as San Ysidro, Barrio Logan, and Lincoln Park.

These three problems are interrelated in a spiral that begins in City Heights, with our young people, and extends outward into the entire region. It is a systemic problem that involves schools, employers, community-based organizations and government. Therefore, the Digital Bridge proposes a systemic solution that begins in City Heights and grows outward to engage all these partners.

In 1998, San Diego State University Foundation began transforming an 80,000 square foot building at the center of City Heights into a landmark facility that would serve as both a stabilizing and galvanizing force. The building had previously housed Lloyd’s Furniture, a well-known retailer. When Lloyd’s went out of business the building sat empty for years, a symbol of economic decline. Its purchase and renovation signified that the University was willing to make a significant, long-term investment in the community. Faculty and staff moved their offices into the space which will also house a Reading Clinic, City Heights Community Development Corporation, a youth counseling program, a community-owned credit union, and a business incubator for entrepreneurs. The Digital Bridge proposes to use this building as the hub of a countywide, cross-sector community network. With funding from TOP and our partners, the project will:

1. Create a “smart community tech center” in the Lloyd’s Building (see Appendix J, page 38) a multi-use, flexible facility with moveable walls, wireless laptops, smart boards, groupware, and other tools enabling community members and groups to adapt the space as needed for training, public access, and meetings using technology. The center will function as a hands-on R&D site in which residents learn how to use all types of wireless and broadband services to advance community development.
2. Connect this tech center into a network of technology centers located in apartment complexes, schools, libraries and nonprofit organizations around the county, producing a regional online community dialogue and public space for community problem-solving, idea generation, and training. Use the network to craft new alliances between agencies, with particular emphasis on groups and individuals who might not usually cross paths.
3. Connect the network of tech centers to users in their homes, enabling residents to participate at times and locations convenient to them.
4. Strategically apply the principles of knowledge management to this information-sharing so that the community’s contributions are documented and their role in planning and policymaking becomes institutionalized and replicable. Use this process to nurture the next generation of community leaders.

The expected outcomes for this effort are to:

- ◆ Help the residents of City Heights achieve their vision: “The re-establishment of a deep-rooted community... that attracts new residents and whose inhabitants are planning to stay... a stable community that offers a high quality of life.” Measurements will include home ownership, economic strength, crime rate, student turnover, indication of resident participation and empowerment, community identity, and presence of a community technology plan.
- ◆ Create more technology-related economic opportunities for low-income residents throughout San Diego County by increasing their access, knowledge, skills and utilization of information technology. This will be measured by the number of people participating in neighborhood technology centers, the results of their participation, their interaction in the online community dialogue, and the extent of home computer ownership.
- ◆ Improve the organizational and political effectiveness of San Diego’s nonprofits, as measured by their ability to access information and collaborate with other organizations.
- ◆ Create community technology centers and a community network that are viable, significant assets, as measured by the extent of participation and support across multiple sectors.

B. INNOVATION

The Digital Bridge combines both leading-edge and time-tested approaches. Wireless laptops and modular furniture in the Lloyd’s Building will enable multiple groups to use the space at the same time, in different configurations, breaking the traditional model of a fixed classroom-style computer lab. For example, the Somali Youth and Education Center can conduct Internet training in one portion while the City Heights CDC participates in webcast City Council meetings in another. An hour later, the entire space is reconfigured to accommodate teacher training for San Diego State University or San Diego City College, and then reconfigured again for evening public access. The concept behind this design originated in the community focus groups. Many small businesses and nonprofits lack the capital to buy and sustain advanced technology — and if their need is sporadic, the investment can’t be justified. Sharing a top-notch facility lowers the cost for all involved.

In nonprofit organizations and residents’ homes, the emphasis is on cost-effective and stable technology to deliver innovative content. Here, the Digital Bridge builds on the work of a 1998

TOP grantee, Neighborhood Knowledge Los Angeles, and on asset-mapping programs underway in San Diego. In the El Cajon Business Improvement District, residents are using ArcView GIS software and handheld devices to map the physical infrastructure (broken windows, abandoned houses). A similar program is being conducted along Imperial Avenue in Southeast San Diego. This extremely useful data needs to be combined with other government and nonprofit sources and made available to the region so that informed decisions can be made about resource allocation. The Digital Bridge will help nonprofit organizations and community members learn how to use these existing resources, collecting and publishing data on their own neighborhoods.

Neighborhood Knowledge LA showed the power of putting asset mapping in the hands of residents. The Digital Bridge will go even further through the systemic application of knowledge management — defined as “directing attention to the information, both explicit and tacit, that resides within the organization and its people, and on strategies to increase its presence, value and accessibility.” Knowledge management is more than just collecting stories and best practices; it is a system of incenting and rewarding information-sharing. It is about getting the right knowledge to the right people at the right time through a collection of technologies, tools and philosophies. The approach is being used in leading corporations; we propose to apply it to the San Diego region as a large-scale experiment. Can we capture, code, assemble and share the knowledge in communities such as City Heights, starting from a baseline point and throughout a period of extraordinary transition? What kinds of intellectual capital exist in this neighborhood and others like it? How can we treasure and grow that capital, and apply the process to other communities? Businesses use tools such as contact management software to document relationships and interactions with customers, producing an “electronic paper trail” that any employee can follow. How could grassroots organizers make use of this tool? What if a group of residents used it to document their efforts to improve their community? What effect could this have on their sense of empowerment, coalition-building, and engagement?

C. DIFFUSION POTENTIAL

Throughout the project, the lessons learned in City Heights will be tested in other neighborhoods and results reported. To design our approach, the Digital Bridge researched a previous TOP grantee, The Inner-City Net. Funded in 1995, it created a community network linking social service agencies, schools and libraries in Southeast San Diego. Many of those organizations are now technology leaders as a result of their early exposure. The Inner-City Net staff found diffusion to be challenging — both in researching other communities and in conveying their own experiences. How-to manuals lack the impact and subtlety of personal contact and contextual learning. Public speaking engagements and media coverage were initially time-consuming but paid off by creating a library of materials that could be easily distributed. Based on these observations, we propose to dedicate 20 percent of staff time to:

- ◆ Create a running diary (weblog) documenting the project, and encourage community members and partners to contribute so that the learning process becomes transparent to all.
- ◆ Give conference presentations and technical assistance to other groups during and after the period of the grant. The Inner-City Net staff were surprised by the number of requests that continued to come in long after their TOP grant ended. The Digital Bridge will plan ahead by having PowerPoint presentations ready, and training staff and community members to become project advocates. In addition to presentations at TOP, CTCNet and Association For Community Networking events, the Digital Bridge will pursue conferences where technology might be a new topic — empowerment workshops, faith-based meetings, funder conferences, or cultural events. Our budget anticipates presenting at one national conference per year, and five local or regional conferences.
- ◆ Meet regularly with partners to review progress, barriers, and effects on the community. Several of the Digital Bridge partners sit on influential boards including the City of San Diego Science and Technology Commission which advises the Mayor and City Council. The

Digital Bridge will also conduct outreach to create new partnerships with businesses and community-based organizations, in order to extend the impact of the project throughout the County and create a regional networking model.

D. PROJECT FEASIBILITY

The Digital Bridge is designed to accommodate increasing numbers of users without substantial redesign (see Appendix I, p 37). The “smart community tech center” will occupy 5,000 square feet of the Lloyd’s Building, using a server-based Windows platform and an Orinico wireless network for 100 laptop computers and 25 desktop computers. Wireless allows multiple configurations, adapting to large or small group settings where the room configuration of typical “wired” networks would be a barrier. An adjacent family-oriented “Window to the World” room will feature chairs and tables designed for children as well as adults. To connect this center to homes and nonprofit organizations, the Digital Bridge will partner with the San Diego Futures Foundation (see Appendix E, page 32) and the City Heights Community Development Corporation (see Appendix F, page 33) to place and support refurbished Pentium-class computers in homes and computer centers (mini-labs) throughout the community. Over three years, 36 desktop computers will be located in six housing projects (two per year) while a Home Computer Acquisition Program will distribute 100 desktop computers (33 per year) to City Heights residents. Multilingual computer coaches will be recruited from the community as a way to reward and grow indigenous leadership. Residents, particularly Hoover High students, will be trained to help others through online forums, telephone support and listserves. Similarly, home computer acquisition will be designed to encourage and recognize community participation in computer training, volunteer time, and technology planning. All computers will have cable modems and broadband connectivity provided through Cox Cable with the community website set as the default opening page. It will be multilingual, designed by the community, and will meet accessibility standards for people with disabilities. Access to a community Intranet will also be available to City Heights residents who have completed basic computer and Internet training through the technology center. The Digital Bridge proposes to use training sessions as a method to build and maintain online content. For example, rather than teaching computer skills in isolation, residents will learn how to use digital cameras to capture images of their neighborhood, uploading them and adding text in their native language. The combination of Internet and Intranet content creates scalability and interoperability, enabling residents to participate in continual development. New information can be easily added, and users can access their content from any Internet-connected computer.

Courses will offered in four ten-week cycles each year. Residents can come to the center for in-person instruction, check out CD-ROMs to work at home, or access tutorials online. Tutorials in computer operation, financial literacy, and English as a Second Language are available from the University and will be used for initial course offerings, with more to be created or purchased as the project grows. Demonstrations of email, instant messaging, NetMeeting, webcams, and other forms of multimedia content and Internet telephony are planned so that residents can communicate with friends and family around the world.

Computers for the Lloyd’s Building have been donated by Gateway, and come with three-year maintenance warranties. The Futures Foundation will supply maintenance for all refurbished computers, using student interns under professional supervision. Costs for equipment upgrades are included in our budget, and every effort will be made to secure more donations. Highly confidential information will not be a component of the Digital Bridge but collecting, analyzing, and coding community knowledge will require user permission. Furthermore research from the San Diego Regional Technology Alliance showed that privacy concerns are a deterrent to Internet usage in some ethnic groups. Neighborhood Knowledge LA provides a good model in its online privacy statement and approach to data gathering. We will also show community members how they can protect their privacy online (particularly that of their children) through usernames, passwords and software tools.

San Diego State University Foundation has demonstrated capacity and expertise to support projects of this magnitude. The principal investigator, Dr. Ian Pumpian is the Executive Director of the City Heights Educational Pilot. Dr. Pumpian will provide overall coordination and integration of Digital Bridge activities within the larger change efforts underway in City Heights. Dr. Steve Spencer, Project Director, is experienced in community-based planning and has implemented community technology applications around the world, with special attention to universal access. Steve Hinkle, System Administrator and Web Designer, is an individual with a significant disability who comes from the City Heights community. His technical training and skill at working with new users will be especially valuable.

The Digital Bridge is budgeting ongoing expenses of \$250,000 - \$300,000 per year using other projects as guidelines. Our integration within San Diego State University and our ties in the community provide a solid framework to sustain these costs. Executives from the Communications Council have been involved since 1998, funding the technology centers at Hoover High and a portion of the Lloyd's Building expansion. Their continued support provides a strong base from which to recruit other corporations. Philanthropist Sol Price has funded the Educational Pilot through 2004, ensuring management oversight, while San Diego State University Foundation is contributing facility costs through at least 2006. The Digital Bridge will also test a premise now being researched through the TOP-funded Ars Portalis project — that community networks can become regional assets with measurable value. We believe that we can help local government, businesses and universities reduce expenses that can then be re-invested in the project (cost reduction strategy) while helping incubate new enterprises (revenue growth strategy). Working in partnership with nonprofits throughout San Diego, we will test this premise with an eye towards long-term support from a variety of sectors. While staff turnover and changes are inevitable, we believe that we are creating an attractive common goal that will help keep partners focused — reducing costs associated with decaying neighborhoods and creating a healthy economic environment for residents, businesses and nonprofits.

E. COMMUNITY INVOLVEMENT

As described in the Project Purpose, in 1994 the people of City Heights initiated a renaissance effort which gave rise to the City Heights Educational Pilot and the Digital Bridge. Ongoing and integral partners in the Pilot include the City of San Diego, Price Charities, San Diego Education Association, San Diego State University, San Diego City Schools, Hoover High School, Monroe Clark Middle School, Rosa Parks Elementary, and their respective parent/teacher associations.

Digital Bridge corporate and foundation partners— Cox Communications, Pacific Bell, Qualcomm, Gateway, San Diego Futures Foundation and the Waitt Family Foundation — have committed the computers, servers, and materials to establish the community technology centers and community network. The City Heights Community Development Corporation, a resident-led nonprofit organization, is contributing space, renovation costs, and furniture to establish the mini-labs in exchange for computers, connectivity, training and technical support. City Heights CDC will also provide access and support to micro-businesses throughout the region in partnership with the Business Improvement Associations. As the network grows, more groups will be invited to participate — especially those who can help provide training in multiple languages. As an example, the Cambodian Neighborhood Association has agreed to conduct computer training in exchange for meeting space.

To ensure ongoing community involvement, we will formally establish an Advisory Board composed of members of the existing ad-hoc planning task force, students, parents, business owners and other local leaders expected to benefit from the project. This group will oversee such issues as privacy, culturally-appropriate outreach strategies, online content, and sustainability. They will build on the focus groups and surveys conducted in the fall of 2000 in which the community clearly articulated needs and opportunities. In these sessions, community

members requested a center that would be open during evening and weekend hours with classes at varied times to accommodate work schedules. They wanted computer and Internet training in both group and one-on-one settings, sensitivity to cultural and linguistic representations within the community, and help with low-cost computer acquisition programs. Parents wanted news in their native language and the ability to communicate with home countries or other locations. They also wanted to be able to bring children. Since the Digital Bridge cannot offer licensed childcare, parents volunteered to help staff this portion of the project and share supervision in the “Window to the World” area of the center. Students are interested in research, word processing, games, music, email, chat forums, and scholarship applications. Small business owners and nonprofit staff wanted training, financial management information, meeting space, and a facility that would attract high-end businesses such as web design firms and film production companies. The input from these groups had a direct impact on the physical and program design, from the layout of the “Window to the World” family room to the types of content now being assembled.

Every part of our approach stems from the community-oriented philosophy of our top management, beginning with locating the offices of the Educational Pilot and the Digital Bridge directly in City Heights. Although the campus of San Diego State University is just three miles away, sometimes even a short distance creates a large psychological gap. Now, this is where we work and live, and “end users” are involved at every step. That is not to say we don’t face difficult challenges ahead, but with the lessons learned from establishing technology centers at Hoover High, we are not starting from scratch. We know that past efforts at “fixing” City Heights were seen as top-down and paternalistic, driven by “outsiders” who tried to apply solutions designed for homogenous demographic settings. Our diverse population is much more complex. We know that we need to create a network that will support ownership and commitment, that people feel they built themselves, and that reflects who they are and what they value. We cannot train every resident in every language, but we can provide the space and tools for grassroots groups who can. We can make technology accessible and powerful so residents and nonprofit organizations use it effectively.

The most difficult barrier will be the transient nature of low-income communities in general and City Heights in particular. Redevelopment efforts improve housing stock, but when rents go up faster than residents’ earning power, they are forced to leave. The long-term solution is to help more residents buy homes through the financing and construction programs headed by City Heights CDC and other nonprofits, and to help residents use technology and data to change counterproductive land-use policies. In the short-term, however, the Digital Bridge needs to engage these residents and make community participation worth their time. We are aided by a recently published report from the San Diego Regional Technology Alliance which surveyed 1000 San Diegans, translating the U.S. Department of Commerce studies to a local perspective. RTA identified key beliefs and barriers to computer usage in Hispanics, African-Americans and Asians. Based on this research, our own focus groups, and lessons from other community networks we have developed three strategies.

1. Use students as the “hook” to get parents involved. Focus group participants felt they needed to learn technology in order to be good parents, so our outreach will emphasize how computer skills help the whole family.
2. Recruit respected cultural leaders to serve as role models, providing them with the latest equipment and personalized training, so that they can become advocates in the community.
3. Use computers donated by the Futures Foundation as an enticement and reward for participating in the community network.

F. EVALUATION

An action research model similar to that used by Austin FreeNet is well-suited to the Digital Bridge. Within the general outcomes described in this proposal, community members and

nonprofit groups will set specific benchmarks that they feel are achievable and meaningful (10 percent reduction in student turnover, for example, or 500 families purchasing their own home). These benchmarks will become standards by which to measure the following evaluation questions: How can a regional community network, encompassing several technology centers, produce significant economic benefits? Can it create strong community identities that mobilize action to stabilize highly transient, troubled neighborhoods? Will the results be powerful enough that the community sustains the network after the grant ends?

Methodology will combine annual formative evaluations and a summative evaluation using both quantitative and qualitative data (online and in-person surveys, records of participation, interviews, community statistics). Populations to be surveyed include a sampling of City Heights residents and regional community leaders (nonprofit, educational, business, government and faith-based). The Advisory Board will be consulted to ensure that tools and incentives are culturally appropriate and usable by other nonprofits. Baseline data is available from the City of San Diego, Regional Technology Alliance, City Heights CDC, the Educational Pilot partners, and existing tech centers.

To measure community identity, the Digital Bridge will work with a local teen-oriented tech center, Epicentre, which is developing a common evaluation system to measure affiliation attitudes of young people — for example, whether participation in online communities translates into changed attitudes and behaviors towards a geographic community. Epicentre will be aided by the San Diego Regional Association of Governments, a leading source of local data, and the County of San Diego.

Evaluation tools built into the project include the knowledge management process and the weblog, both of which will identify milestones and confounding factors. If the City of San Diego launches a major economic initiative aimed at increasing business development in City Heights, this would be reflected in the weblog, noting what actions (if any) were caused or supported by the Digital Bridge.

Evaluator Susan Myrland of Interactive Media Management will be involved throughout. Ms. Myrland was a project manager for the TOP-funded Inner-City Net and has consulted on design and evaluation strategies for Missouri Express, Waitt Family Foundation, the Community Technology Foundation of California, and the Texas Telecommunications Infrastructure Fund Board, among many others. Her resume is included (see Appendix A, page 15), and a conceptual framework shown as Appendix I, page 37.

ⁱ SDSU Graduate Study Report. November, 2000

ⁱⁱ San Diego Regional Technology Alliance. "Mapping a Future for Digital Connections: A Study of the Digital Divide in San Diego County," February, 2001, p. 7.

ⁱⁱⁱ National Telecommunications and Information Administration, U.S. Department of Commerce. "Falling Through the Net: Toward Digital Inclusion," August, 2000.

^{iv} SDSU Magazine, "The City Heights Educational Pilot", Summer 2000, p 8.

^v Jin, Queenie, "City Heights Digital Bridge-Essential Business Plan Elements", San Diego State University, November, 2000.

^{vi} City of San Diego, Community and Economic Development Department, Mid-City Communities Plan, April, 1998.

^{vii} City of San Diego, Community and Economic Development Department, City Heights Revitalization Action Plan, November, 1996.