

DIAMOND HILL-JARVIS LIBRARY

The Diamond Hill-Jarvis Library is a branch of the Fort Worth Library located in south Fort Worth. The building occupies a location in a residential district south of Loop 820, 6.52 miles from the Central Library.

Official Name: The Diamond Hill-Jarvis Library

Building Address: 1300 NE 35th Street

Library Facility Code: DHJ

Site Description

The building is situated on a landscaped lot of 1.04 acres, facing 35th Street. The topography of the site slopes gently downward, from the public entrance toward the south. The primary maintenance responsibility for the site falls under the supervision of the City of Fort Worth Parks and Community Services Department. Routine maintenance includes cutting of the grass and landscaping around the building and parking lot. Drawing DHJ-1 illustrates the site of the Diamond Hill-Jarvis Library (11" x 17" overleaf).

Architectural Description

Construction of the building was completed in 1989. The facility appears to be well built and in good condition for its age. No construction drawings of this facility were available for review. Drawing DHJ-2 depicts the Ground Floor of the Diamond Hill-Jarvis Library (11" x 17" overleaf) and the square footage of each room of the Ground Floor (also 11" x 17" overleaf) as tabulated in Table A5.4.1.

Square Footage: There are currently 8,121 building gross square feet (bgsf). There are 7,277 net assignable square feet (nasf) within the facility. The library currently occupies the entire building. Table A5.4.1 contains a room-by-room square footage tabulation for the facility.

Evaluations for both public & staff spaces of the facility

Table A5.4.1

Existing Square Footage Tabulation, Room-by-Room, The Diamond Hill-Jarvis Library

Ground Floor

room no.	room name	square footage net assignable	building gross
101	Lobby	260.98	
102	Circulation Desk	332.46	
103	Children's Reading Area	960.59	
104	Adult Reading Area	1,515.17	
105	Main Library Area	608.00	
106	Open Stack Area	1,905.24	
107	Staff Work Room	593.77	
108	Staff Break Room	163.00	
109	Women's Toilet		129.33
110	Men's Toilet		155.96
111	Janitor Room		35.42
112	Electrical Room		76.27
113	Community Room	563.26	
114	Kitchen	66.42	
115	Storage	115.75	
116	Staff Toilet		28.33
117	Librarian Office	115.40	
118	Storage	32.22	
119	Book Return	26.67	
120	Storage	17.62	
assigned rooms and spaces		7,276.55	
unassigned walls, pipe chases, etc.			844.68
TOTAL			8,121.23
EFFICIENCY			89.60%

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Summary

	<i>floor</i>	<i>net assignable square footage</i>	<i>building gross square footage</i>	<i>efficiency</i>
100	Ground Floor	7,276.55	8,121.23	89.60%
TOTAL		7,276.55	8,121.23	89.60%

The T/PW facilities database attributes 8,000 bgsf to the Diamond Hill-Jarvis Library, which is an approximation of the actual square footage. The T/PW database also shows an actual roof square footage, including the overhangs at the entrance, west and south-facing colonnades, of 8,925 square feet.

Trade Area Population

The population within the 7-minute trade area is 24,162, as determined by the Customer Analytics Consultants.

Driving Distance/Time to Other Libraries

Northside	3.29 miles	12 minutes
Central Library	6.52 miles	14 minutes

Demographics

Households with children	3,202
Persons age 17 and under	7,685
Persons age 18 to 64	14,386
Persons age 65+	2,091
Percent Hispanic	86.1%

Output Measures

The Library Consultants calculated a number of measurements of operating efficiency and their respective rankings among the 15 current FWL libraries, as summarized in Table A5.4.2.

Existing Facility Assessment

Table A5.4.2

Output Measures, Diamond Hill-Jarvis Library

<i>output</i>	<i>measure</i>	<i>ranking</i>
Contacts per capita	11.06	8 of 15
Cost efficiency per contact	\$1.67	9 of 15
Cost efficiency per SF to operate	\$53.28	4 of 15

Collections

The current total collection size is 45,055. At 1.86 items per capita, the collection is just below the minimum standard of 2.00 items per capita.

The responsiveness of collections to younger core customers reveals that the population under 17 years of age is 31.8 percent of the total, and the combined Children's/Teen collections are 52.6 percent of total. The library materials and services more likely to be used at Diamond Hill are Spanish Materials, Juvenile DVDs, Reference, and DVDs.

The space required to house the collections in an ADA/User-Friendly standard is 5,235 square feet, or 65.4% of the total building size.

Computers & Seating

Based on the per capita number of computers provided for the public, the Diamond Hill-Jarvis Library, with 14, slightly exceeds "Basic" when compared to Texas State Library standards.

The current public seating ratio, including computers is one seat per 797 (1:797) collection items. This compares very favorably to the neighborhood library standard of 1:1,500 to 1:1,800 collection items.

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Site & Building Capacity

The Diamond Hill-Jarvis Library currently provides 46 parking spaces on site. At 8,121 gross square feet, 41 parking spaces would be needed in order to meet the minimum standard of one space per 200 bgsf of building, as currently sized.

Staff workspace is 9.75% of total net assignable square feet (nasf) of the building – a significant shortfall when compared to the minimum standard of 15% for buildings of up to 15,000 gross square feet. In terms of square footage, the shortfall equates to 382 nasf less than the minimum need of 1,091 nasf.

Table A5.4.3

Site & Building Capacity, Diamond Hill/Jarvis Library

<i>unit of capacity</i>	<i>current 2010</i>	<i>2010 need to standards</i>	<i>current vs. standards</i>
Net assignable square feet	7,277	10,203	71.3%
Building gross square feet	8,121	12,004	67.7%
Site area, in acres	1.04	1.10	94.3%
Parking spaces	46	52	115.0%

Growth Potential

Adaptability: The building is composed of open spaces, with structural spans ranging from 13 to 42 feet east-to-west and from 22 to 23 feet north-to-south. Changes to the configuration of the spaces appear to be feasible.

Expandability: Additions to the south and the east appear most feasible, using the yard of the adjacent school or a portion of the existing library parking lot for future horizontal expansion. It is not conceivable that vertical expansion could be achieved, given a preliminary analysis of the roof structure and the existing roof top mechanical equipment.

Existing Facility Assessment

Technology Assessment

Historic computer usage at the Diamond Hill/Jarvis Library is presented in Table A5.4.4 for fiscal years 2007 through 2009, for PC logins, PC logins to library visits, and wi-fi connections.

Table A5.4.4

Historic Computer Usage, Diamond Hill/Jarvis Library

<i>service item</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>
PC Logins	22,143	20,143	20,419
PC Logins to Visits Ratio	24.2%	21.6%	24.1%
Wi-Fi Connections	n/a	307	1,101

Computer Network: Power and network connections are available through floor boxes and on pillars in the public area. In some spaces, outlets are provided in raised boxes (tombstones), such as under the staff desks, which limit flexibility in relocating furniture. Floor boxes under tables are subject to damage because they are located where the chairs roll over the cables. Wi-fi was made available in May of 2008.

Public Computers: A summary of the distribution of public computers is provided in Table A5.4.5 below. Computer reservation stations and print release stations are not included in the Adult Services quantity.

Table A5.4.5

Public Computer Distribution, Diamond Hill/Jarvis Library

<i>computer location</i>	<i>quantity</i>
Public Access Catalog (PAC)	1
Adult Services	11
Teen Services	1
Children's Services	1
TOTAL	14

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The one PAC provided is somewhat hidden by a column. Twelve Internet computers are provided, of which one is an express 15-minute Teen Services station. One early literacy station is provided, which has proven very popular. A combination reservation and print release station is provided, which is sufficient. Customers have requested the ability to download music. Staff reports up to four wi-fi users at a time, but not all require power.

Public Technology: A materials security system is installed. A portable TV is available on a cart and is used weekly for gaming programming, usually in the meeting room or sometimes in the public space. A newer TV was to be installed as part of the library's current initiative and was to be installed near the circulation desk. Customers have requested access to a scanner. Some customers need assistance in connecting to the wi-fi service.

Self-Service: No self-check is provided.

Technology for Staff: A total of seven staff computers are provided. Two computers are provided on the Information Desk. If additional space could be available at the Circulation Desk, staff would prefer to add one more computer. One computer is provided in the supervisor's Office. Staff estimates that customers use the inside materials return and outside drive-up materials return about evenly. Materials from the outside return are deposited into a separate room designed for this purpose. The size of this room is too small to accommodate a two or three bin sorter. One computer is located by the return for staff to check-in materials as they are returned. One computer is provided in the Staff Work Room.

Computer Training: Training for the public is not offered now.

Existing Facility Assessment

Study Rooms & Meeting Spaces: No study rooms exist. Power and network jacks are available in the Community Room. A recessed screen is available. A computer projector is available but is not used.

Site Improvements

G2010 Roadways: A loop drive provides access to an exterior book drop into the building. *composite rating: 4.*

G2020 Parking Lots: A striped parking lot for 46 cars, including two spaces reserved for the handicapped, is situated to the north and east of the building. Storm water drainage from paved parking areas is effective during moderate rains. *composite rating: 4.*

G2030 Pedestrian Paving: Handicapped access to the public entrance appears to be compliant, however, one of the other egress points from the building does not provide an accessible route. *composite rating: 3.*

G2040 Site Development: Lighting on the site uses metal halide lamps and appears adequate. No flag pole is provided. One rack for 12 bikes is provided near the public entrance. A back-lit sign is positioned near the corner of 35th Street and Decatur Avenue. *composite rating: 3.*

G2050 Landscaping: A few medium size trees, shrubs and flower beds are planted around the building. *composite rating: 4.*

G3000 Site Utilities: Underground utilities that appear to be available at the site include water, sanitary sewer, storm sewer, gas, power, and telephone. Overhead utilities that appear to be available at the site include cable television. *composite rating: 4.*

Substructure

A1010 Foundations: The building appears to utilize a foundation comprised of steel-reinforced concrete grade beams supported by steel-reinforced concrete pier footings under each column and approximately 14 feet on center around the perimeter. The crawl space appears to be properly vented around the perimeter. No evidence of settlement was observed. *rating: 4.*

B1010 Floor Slabs: Because of the lack of construction drawings, interior concrete floors are estimated to be approximately six-inch thick reinforced precast concrete type, as was standard practice at the time of construction, and based on the existence of crawl space. *rating: 4.*

Building Shell/Exterior Envelope

B1020 Superstructure: The building's superstructure is comprised of load-bearing steel columns, supporting steel beams and open-web steel joists supporting the roof deck. Eight-inch thick concrete masonry unit walls provide lateral bracing around the perimeter. *rating: 4.*

B2010 Exterior Walls: The building uses a glazed brick veneer, presumably backed by metal stud walls in most locations, due to the use of drywall around the interior perimeter. Weep holes are properly spaced around the perimeter. A small amount of cracking at mortar joints is evident at the southwest corner of the building. Insulation is presumed to have been provided within the exterior, but is difficult to verify from visual inspection. *rating: 3.*

B2020 Exterior Windows: Window units are typically fixed (non-operable), with insulated glass in aluminum frames. *rating: 4.*

B2030 Exterior Doors: A storefront with automatic entrance doors is aluminum with vision glass, which does not appear to be tempered. According to staff, the automatic doors malfunction from time-to-time. All other exterior doors in the building are hollow metal in hollow metal frames. *rating: 1.*

B3010 Roofing: The roof of the building is primarily flat, utilizing a two-ply modified bituminous/thermoplastic membrane roofing system, according to the T/PW database. With the lack of construction drawings, the substrate material under the roofing membrane is estimated to be metal decking, as was typical of the time. Roof leaks that have developed over the years appear to have been remedied with the replacement of the roof membrane in 1997. *rating: 4.*

Interior Items

These items were surveyed and rated on a room-by-room basis, and include composite ratings for all rooms in the entire building.

C1020 Interior Doors & Hardware: The interior doors are solid core wood with plastic laminate surfacing in hollow metal frames. Door hardware consists of doorknobs, which are not ADA compliant. No panic hardware is provided on exit doors. *composite rating: 3.*

C3010 Wall Finishes: Predominate wall finishes throughout are bright colored paint on drywall partitions. Toilet Rooms 109 and 110 have ceramic wall tiles. The bright colors do not appear to be a cleaning or maintenance problem. *composite rating: 4.*

C3020 Floor Finishes: Floor covering throughout the building is predominantly carpet tile, with glazed ceramic tile used in high-traffic areas and Toilet Rooms 109 and 110. Generally, floor finishes are in good condition. *composite rating: 3.*

C3030 Ceiling Finishes: The dominant ceiling finish throughout the building is two-foot by four-foot lay-in suspended acoustical ceiling tile, with paint on drywall in the Toilet Rooms 109 and 110, and Janitor Room 111. All ceiling finishes appear to be in very good condition. *composite rating: 4.*

Vertical Movement & Egress

C2010 Stairs/Ramps/Ladders: No fire stairs are required for this one-story building. No roof access is built into the building. *rating: 3.*

D1010 Elevators: No elevator is required for this one-story building. *rating: N/A.*

Z1020 Handicapped Accessibility: The building provides four means of egress at grade level of which all but the east public exit appear to be accessible routes. Toilet Rooms mostly comply, but do not meet all current TAS standards. *rating: 3.*

Equipment & Furnishings

E2010 Millwork & Casework: The cabinetry in each space appears to be original to the building, but is in working condition. The Circulation Desk is too small to function adequately. *composite rating: 2.*

E2020 Furnishings, Fixtures & Equipment: In general, the furnishings in each space are those originally installed when the building opened, and need updating and/or replacing. *composite rating: 2.*

Mechanical System Description

There are four packaged rooftop units (RTU's) with direct expansion refrigeration and natural gas heating for this facility. Rooftop units are all constant volume units.

Plumbing System

D2020 Domestic Water Distribution: Copper piping is utilized throughout the building. Water pressure appears adequate with a 2-inch city water service to the building. *rating: 4.*

D2020 Domestic Water Heater: There are two electric water heaters for this facility. One water heater is suspended in Janitor Room 111 and the other is located under the counter in Kitchen. Both units were installed in 2000. The suspended water heater is A.O. Smith 19-gallon storage, 2500 watts. Both water heater systems do not include a thermostatic mixing valve to limit hot water temperatures to public lavatories. *rating: 3*

D2030 Sanitary Collection: Piping is a combination of PVC and cast iron. *rating: 4.*

D2040 Storm Water Collection: Scuppers provide overflow roof drainage through the east and west parapet walls only. Piping for roof drainage could not be determined. *rating: 3.*

D2090 Natural Gas Piping: Piping is predominantly located on the roof with supports, but is not painted and shows signs of rust. Painting would aid to protect piping. Rooftop unit gas piping is not provided with a gas dirt leg prior to connection to RTU. A dirt leg are required as a means to collect and remove dirt from the gas piping. *rating: 3.*

Air Conditioning System

D3050 Packaged Units: There are four packaged rooftops units that serve various rooms throughout the facility and were installed in 2004. These units are direct expansion (DX) with refrigerant R-22 and natural gas heat exchangers. All units are Trane brand with a total nominal tonnage for the building of 26 tons with a Seasonal Energy Efficiency Ratio (SEER) of 13.0 per unit. The units appear to be in good condition.

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There does not appear to be any humidity controls or capabilities to limit high humidity levels. There is no roof access for this facility. The only access is to have an extension ladder. There is no extension ladder readily available at the site. *rating: 3.*

D3040 HVAC Distribution Systems: All heating, ventilating, and air conditioning (HVAC) systems are ducted supply and partial ducted return air which utilize an above ceiling return air plenum.

The staff indicated there are times when it is warm at Circulation Desk 102. This might be caused by entry/exit traffic into the facility or insufficient airflow to the space. *rating: 3.*

Automatic Temperature Controls

D3060 Automated HVAC Controls: There is no centralized HVAC system control for the facility. *rating: 0.*

Interior Mechanical Items

These items were surveyed and rated on a room-by-room basis, and include composite ratings for all rooms in the entire building.

D2010 Plumbing Fixtures: Men's Toilet 110 has one counter-mounted lavatory, one urinal, and one wall-mounted flush valve handicap accessible water closet. All fixtures are vitreous china and in good condition. Women's Toilet 109 has one counter-mounted handicapped accessible lavatory and two wall-mounted flush valve water closets, with one of the water closets handicap accessible. All fixtures are vitreous china and in good condition. Staff Toilet 116 has one wall-mounted lavatory and one wall-mounted flush valve water closet. Fixtures are not handicap accessible, are vitreous china, and are in good condition.

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Staff Break Room 108 has one stainless steel single compartment sink that is not handicapped accessible. Kitchen 114 has one stainless steel single compartment sink that is not handicapped accessible. There is one floor-mounted mop sink in Janitor Room 111 and in good condition. There is one bi-level stainless steel electric water cooler in the Lobby 101. There is one drinking fountain in Staff Work Room 107. These fixtures are in good condition. *composite rating: 3.*

D3040 Ventilation: Throughout most of the facility, air movement was good. *composite rating: 4*

D3040 Diffusers: Diffusers are predominantly ceiling-mounted and side-wall air devices. Air devices are original to the building and appear to be in good condition. *composite rating: 4.*

D3060 Local Automatic Temperature Control: Thermostat control for the building is individual programmable thermostats. *composite rating: 4.*

Fire Protection System

D4010 Fire Protection Sprinklers: Book Return 119 has a self-contained canister mounted on the ceiling. The remaining part of the facility is not fire protected. *rating: 0.*

Electrical System Description

The electrical distribution system consists of one 600A, 120/208V, 3-phase, 4-wire distribution panel and a 2-section 225A, 120/208V, 3-phase, 4-wire branch circuit panel located in the Electrical Room. The main distribution panel feeds HVAC equipment and the branch circuit panel. Panels are original, dated 1989 and in good condition. Lighting is automatically controlled. The facility has no emergency power system.

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D5010 Service Equipment: The main distribution panel is original equipment. This panel is in good working condition. There is no evidence that feeders need to be replaced. *rating: 4.*

D5010 Power Distribution Panels: The branch circuit panel is original equipment. This panel is in good working condition. There are only six spaces available for additional branch circuits. Although this is enough for normal maintenance and small modifications, it is not enough in case of renovation work. *rating: 4.*

D5020 Lighting and Branch Wiring: There is no evidence that branch circuits, and other conductors need to be replaced. *rating: 4.*

D5040 Emergency Power: Building does not have emergency power distribution system. *rating:: 0.*

Interior Electrical Items

These items were surveyed and rated on a room-by-room basis, and include composite ratings for all rooms in the entire building.

D5020 Receptacles: Floor-mounted receptacles are located throughout the reading and stack areas. *composite rating: 4.*

D5020 Lighting: Two-foot by four-foot fluorescent fixtures are the primary source of illumination. Reading areas have lighting levels of approximately 45 foot-candles (FC) with 20 FC vertical at the book stacks. Staff areas have between 35 and 45 FC. Community Room 113 has 40 FC. Switching in public areas is automatic through time controls. *composite rating: 4.*

Existing Facility Assessment

D5030 Data Infrastructure: Data infrastructure is managed from a wall-mounted cabinet in Staff Work Room 107. This cabinet, typical for most libraries, provides adequate data infrastructure in a limited space. Although adequate for the facility, it is recommended that any future renovations include at least one dedicated space for IT infrastructure. *composite rating: 4.*

D5030 Public Address System: The facility has a public address system. Personnel reports that the system does not work in Community Room 113. *composite rating: 3.*

D5030 Security System: This building has a security system. *composite rating: 4.*

D5040 Fire Alarm: This building has a fire alarm system. There is no evidence of deficiencies. *composite rating: 4.*

D5040 Emergency/Egress Lighting: This building does not have emergency lighting system. *composite rating: 0.*

Additional Systems

The following are systems that are either good practice in library facility design or would be required by current building codes if a renovation or expansion were to be undertaken. They do not presently exist in the building, so it is suggested they be added.

Handicapped Accessibility: Provisions are adequate to access the building, and essential facilities within, but some additional requirements are applicable. Door hardware, toilet room configuration, and some furniture placement within the facility create limited accessibility to many areas.

Install Building Energy Management System: The consultants recommend installation of a building automation system for energy management.

Install Fire Protection: No fire protection system is provided, but should be installed throughout the building.

Install Smoke Detection: This code requirement was applicable to this facility when built, but current codes may require additional system components, depending on the extent of expansion and/or renovation.

Construction Cost Impacts

The building-wide survey includes the identification of issues that may impact the cost of expansion. Examples of these issues include the degree of difficulty of construction on the site, the current state of the local economy, how renovation will impact the operations of a facility, etcetera.

Location: The site is not near a main thoroughfare, but is in a reasonably good location for the delivery of construction materials and labor.

Exiting: Egress points from the building may be too close, per current code.

Site Limitations: Ample adjacent land to the south is available for future horizontal expansion, or for staging of construction, but the land may not be owned by the City of Fort Worth.

Construction Difficulty: No other apparent limitations exist to additional construction at the site. Given no evidence of settlement, sub-surface conditions may be stable. However, a geotechnical analysis of the soil should be conducted prior to any expansion of the facility.

Phasing: A future horizontal addition to the south could be constructed, but not without impact to the existing operations. It is conceivable that an on-site addition could be completed without requiring the Library to relocate to another building, but such a phasing plan would not be advisable.

Asbestos: No asbestos is known to exist in the building or on the site at this time.

Costs to Retrofit Existing Building Systems

Table A5.4.6 provides the unit costs of the various retrofit projects. The unit prices apply to either the overall gross area of the building (bgsf), or net assignable square footage (nasf), as appropriate, to develop the cost for system retrofits.

Analysis. The total cost to retrofit the building systems is \$313,743, or \$38.63 per square foot. When excluding the cost for new furniture of \$81,866, the total cost to retrofit the building systems is reduced to \$231,877. Most of the systems affected would be made more energy efficient, and/or code compliant.

Table A5.4.6

Retrofit of Existing Building Systems, Diamond Hill/Jarvis Library

<i>uniformat code</i>	<i>construction element</i>	<i>rating</i>	<i>weight factor</i>	<i>square footage</i>	<i>unit cost</i>	<i>total cost</i>	<i>comments</i>	
A1010	Foundations	4	0%	8,121	bgsf	\$5.22	\$0	
A1030	Slabs on grade	4	0%	8,121	bgsf	2.65	0	
B1020	Superstructure	4	0%	8,121	bgsf	12.45	0	
B2010	Exterior walls	3	25%	8,121	bgsf	9.55	19,389	repair cracks in mortar joints
B2020	Exterior windows	4	0%	8,121	bgsf	8.11	0	
B2030	Exterior doors	1	75%	8,121	bgsf	4.85	29,540	repair automatic doors as needed
B3010	Roofing	4	0%	8,121	bgsf	6.89	0	roof was replaced in 1997
C1020	Interior doors & hardware	3	25%	7,277	nasf	3.15	5,731	replace doorknobs with levers
C2010	Stairs/ramps/ladders	3	25%	8,121	bgsf	7.55	15,328	add permanent roof access
C3010	Wall finishes	4	0%	7,277	nasf	3.33	0	
C3020	Floor finishes	3	25%	7,277	nasf	3.15	5,731	rotate carpet tiles to hide wear
C3030	Ceiling finishes	4	0%	7,277	nasf	3.28	0	
D2010	Plumbing fixtures	3	25%	7,277	nasf	2.50	4,548	replace select fixtures
D2020	Domestic water distribution	4	0%	8,121	bgsf	1.72	0	
D2020	Domestic water heaters	1	75%	8,121	bgsf	0.25	1,523	add thermostatic mixing valve
D2030	Sanitary collection	4	0%	8,121	bgsf	1.15	0	
D2040	Storm water collection	3	25%	8,121	bgsf	1.77	3,594	add overflow capacity per current code
D3020	Boilers	4	0%	8,121	bgsf	4.78	0	
D3040	Distribution piping	3	25%	8,121	bgsf	1.05	2,132	paint gas piping on roof/add dirt legs
D3040	HVAC ductwork	3	25%	7,277	nasf	3.81	6,931	increase airflow to Circulation Desk
D3040	Ventilation	4	0%	7,277	nasf	2.03	0	
D3050	Air conditioning units	3	25%	7,277	nasf	6.55	11,916	add roof access/humidity controls
D3050	HVAC diffusers	4	0%	7,277	nasf	1.21	0	
D3060	Building temperature controls	0	110%	7,277	nasf	3.15	25,215	install new system
D3060	Local temperature controls	4	0%	7,277	nasf	0.48	0	
D4010	Fire protection system	0	110%	8,121	bgsf	3.90	34,839	install new dry-pipe system
D5010	Electrical service equipment	4	0%	8,121	bgsf	1.97	0	
D5010	Distribution panels	4	0%	8,121	bgsf	3.43	0	
D5010	Branch power distribution	4	0%	8,121	bgsf	2.30	0	
D5020	Lighting fixtures	4	0%	7,277	nasf	3.50	0	

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D5020	Emergency lighting	0	110%	7,277	nasf	0.90	7,204	install new system
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Table A5.4.6 (continued)
Retrofit of Existing Building Systems, Diamond Hill/Jarvis Library

<i>uniformat code</i>	<i>construction element</i>	<i>rating</i>	<i>weight factor</i>	<i>square footage</i>	<i>unit cost</i>	<i>total cost</i>	<i>comments</i>
D5020	Convenience receptacles	4	0%	7,277	nasf	\$2.90	#0
D5030	Data infrastructure	4	0%	8,121	bgsf	3.77	0
D5030	Public address system	3	25%	7,277	nasf	1.55	2,820 extend speakers to Community Room
D5030	Building security system	4	0%	8,121	bgsf	1.10	0
D5040	Fire alarm system	4	0%	8,121	bgsf	1.75	0
D5040	Emergency power	0	110%	8,121	bgsf	1.66	14,829 install new system
E2010	Casework & millwork	4	0%	7,277	nasf	8.22	29,908 modify Circulation Desk
E2020	Furniture & equipment	2	50%	7,277	nasf	22.50	81,866 replace older furniture
G2010	Roadways	4	0%	8,121	bgsf	1.12	0
G2020	Parking lots	4	0%	8,121	bgsf	0.97	0
G2030	Pedestrian paving	4	0%	8,121	bgsf	0.76	0
G2040	Site development	2	50%	8,121	bgsf	1.42	5,766 add flagpole
G2050	Landscaping	4	0%	8,121	bgsf	0.23	0
G3000	Site utilities	4	0%	8,121	bgsf	1.44	0
Z1010	Handicapped access	3	25%	8,121	bgsf	2.43	4,934 address doors, toilets
TOTAL RETROFIT COST						\$313,743	