



BOARD OF SUPERVISORS AGENDA ITEM REPORT
CONTRACTS / AWARDS / GRANTS

☐ Award ☒ Contract ☐ Grant

Requested Board Meeting Date: 07/02/19

* = Mandatory, information must be provided

or Procurement Director Award ☐

***Contractor/Vendor Name/Grantor (DBA):**

Burns Wald-Hopkins Shambach Architects, Inc.

***Project Title/Description:**

Architectural and Engineering Design Services: Southeast Library (XSELIB)

***Purpose:**

Amendment: Contract No. CT-FM-18-090. This amendment modifies the scope of work and increases the contract amount by \$9,709.00 for a cumulative not-to-exceed amount of \$327,226.00. Administering Department: Facilities Management.

This amendment incorporates audiovisual design services into the contract.

***Procurement Method:**

Pursuant to Solicitation for Qualifications No. 264262, on 10/17/17 the Board of Supervisors awarded a contract for this project in the amount of \$317,517.00 for a contract term of 10/17/17 to 12/31/19.

Attachment: Amendment No. One (1)

***Program Goals/Predicted Outcomes:**

Design and construct a new 9,000 square foot library, with associated site improvements, on Mary Ann Cleveland Way.

***Public Benefit:**

Provide the Vail community with a full service branch library. The Vail region was identified in 2006 as under served due to rapid growth in southeastern Pima County.

***Metrics Available to Measure Performance:**

The project remains within budget and construction is completed by the Fall of 2020.

***Retroactive:**

No.

To: CoB- 4-18-19
Ver. - 4
pgs - 27
U1

Contract / Award Information

Document Type: _____ Department Code: _____ Contract Number (i.e., 15-123): _____
Effective Date: _____ Termination Date: _____ Prior Contract Number (Synergen/CMS): _____
☐ Expense Amount: \$* _____ ☐ Revenue Amount: \$ _____

***Funding Source(s) required:**

Funding from General Fund? ☐ Yes ☐ No If Yes \$ _____ % _____

Contract is fully or partially funded with Federal Funds? ☐ Yes ☐ No

If Yes, is the Contract to a vendor or subrecipient? _____

Were insurance or indemnity clauses modified? ☐ Yes ☐ No

If Yes, attach Risk's approval.

Vendor is using a Social Security Number? ☐ Yes ☐ No

If Yes, attach the required form per Administrative Procedure 22-73.

Amendment / Revised Award Information

Document Type: CT Department Code: FM Contract Number (i.e., 15-123): 18-090
Amendment No.: One (1) AMS Version No.: Four (4)
Effective Date: 07/02/19 New Termination Date: _____

Prior Contract No. (Synergen/CMS): _____

☒ Expense or ☐ Revenue ☒ Increase ☐ Decrease Amount This Amendment: \$ 9,709.00

Is there revenue included? ☐ Yes ☒ No If Yes \$ _____

***Funding Source(s) required:** FM-Capital Projects Non-Bond

Funding from General Fund? ☐ Yes ☒ No If Yes \$ _____ % _____

Grant/Amendment Information (for grants acceptance and awards) ☐ Award ☐ Amendment

Document Type: _____ Department Code: _____ Grant Number (i.e., 15-123): _____
Effective Date: _____ Termination Date: _____ Amendment Number: _____

☐ Match Amount: \$ _____ ☐ Revenue Amount: \$ _____

***All Funding Source(s) required:**

***Match funding from General Fund?** ☐ Yes ☐ No If Yes \$ _____ % _____

***Match funding from other sources?** ☐ Yes ☐ No If Yes \$ _____ % _____

***Funding Source:** _____

***If Federal funds are received, is funding coming directly from the Federal government or passed through other organization(s)?** _____

Contact: Scott Loomis 06/12/2019
Department: Procurement
Department Director Signature/Date: _____ 6/13/19 Telephone: 520-724-8272
Deputy County Administrator Signature/Date: _____ 6/13/19
County Administrator Signature/Date: _____ 6/14/19
(Required for Board Agenda/Addendum Items)

PIMA COUNTY FACILITIES MANAGEMENT DEPARTMENT

PROJECT: Architectural and Engineering Design
Services: Southeast Library (XSELIB)

CONSULTANT: Burns Wald-Hopkins Shambach Architects, Inc.
261 N. Court Avenue
Tucson, Arizona 85701

CONTRACT NO.: CT-FM-18-090

AMENDMENT NO.: One (1)

FUNDING: FM-Capital Projects Non-Bond

CONTRACT TERM: 10/17/17 - 12/31/19	ORIGINAL CONTRACT AMOUNT:	\$ 317,517.00
TERMINATION PRIOR AMENDMENT: n/a	PRIOR AMENDMENT(S):	\$ -
TERMINATION THIS AMENDMENT: 12/31/19	AMOUNT THIS AMENDMENT:	\$ 9,709.00
	REVISED CONTRACT AMOUNT:	\$ 327,226.00

CONTRACT AMENDMENT

WHEREAS, COUNTY and CONSULTANT have entered into the Contract referenced above; and

WHEREAS, additional design services are required to incorporate the addition of audiovisual design; and

WHEREAS, remaining balance of \$7,649.00 in design contingency will be applied to additional design services; and

WHEREAS, COUNTY and CONSULTANT agree to modify the Contract to add additional funds for the additional services, pursuant to Article 4 – Compensation and Payment.

NOW, THEREFORE, it is agreed as follows:

CHANGE: **ARTICLE 4 – COMPENSATION AND PAYMENT**, second paragraph as follows:

FROM: "CONSULTANT's total CPFF will be allocated among the major tasks contemplated by this Contract in such manner that each major deliverable will have associated with it a not-to-exceed cost, plus a fixed fee amount, incorporated herein as **EXHIBIT "B" – COMPENSATION SCHEDULE (31 pages)**."

TO: "CONSULTANT's total CPFF will be allocated among the major tasks contemplated by this Contract in such manner that each major deliverable will have associated with it a not-to-exceed cost, plus a fixed fee amount, incorporated herein as **EXHIBIT "B" – COMPENSATION SCHEDULE (31 pages)**, and **EXHIBIT "B-1" – ADDITIONAL SERVICES (25 pages)**."

CHANGE: **ARTICLE 4 – COMPENSATION AND PAYMENT**, fourth paragraph as follows:

FROM: "The total of all payments to CONSULTANT for services provided under this Contract will not exceed Three Hundred Seventeen Thousand Five Hundred Seventeen Dollars and Zero Cents (\$317,517.00)."

TO: "The total of all payments to CONSULTANT for services provided under this Contract will not exceed Three Hundred Twenty Seven Thousand Two Hundred Twenty Six Dollars and Zero Cents (\$327,226.00)."

G.

ATTACH: EXHIBIT "B-1" - ADDITIONAL SERVICES (25 pages)

This Amendment shall be effective on July 2, 2019.

All other provisions of the Contract, not specifically changed by this Amendment, shall remain in effect and be binding upon the Parties.

IN WITNESS WHEREOF, the Parties have affixed their signatures to this Amendment on the dates written below.

COUNTY:

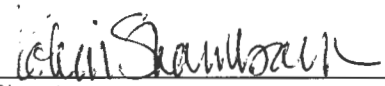
Chairman, Board of Supervisors

Date

ATTEST:

Clerk of the Board

CONSULTANT:



Signature

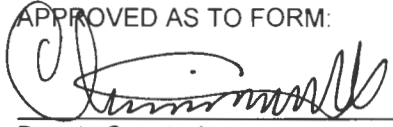
ROBIN SAMBACH PRINCIPAL

Name and Title (Please Print)

6/18/2019

Date

APPROVED AS TO FORM:



Deputy County Attorney

CHRISTOPHER STRAUB

Name (Please Print)

6-13-2019

Date



June 11, 2019

**Pima County Facilities Management
New Building Services
150 W. Congress St., 3rd Floor
Tucson, Arizona 85701**

Attn: Ken Imoehl, R.A., LEED AP

**Re: Architectural and Engineering Design Services Southeast Branch Library
Audio Visual Consulting Additional Services No 003 -
Pima County Contract No. CT-FM-18*090.
BWS Project Number 1715.000 2.1**

Dear Ken:

Per your request, we are submitting this proposal for audiovisual services. We understand this will be deducted from the Design Fee Contingency; however, the amount does exceed the available contingency as indicated below.

Per your previous comments the proposed consultant has reduced the scope except for the intermediate construction visit. The Sextant Group typically completes this site walk to verify infrastructure such as conduit path and backbox locations prior to the GC closing up walls with sheetrock. It is a good practice that mitigates a fair amount of risk in the construction process, it tends to save change orders from electrical contractors or GC's should they miss something that was specified. We recommend including this site visit.

The Sextant Group proposal also included \$700 in reimbursable expenses, but it appears that can be covered by the reimbursable line item already included in the project.

Please see the attached detailed fee development information.

Additional Compensation: A Fixed Fee of \$17,358 per the attached Fee Summary which includes a design contingency of \$5,000.

Design Fee Contingency:	\$25,000
Additional Service No 001:	\$ 7,304
Additional Service No 002:	\$10,047
Additional Service No 003	\$17,358
Design Contingency needed	-\$9,709

Ken, we are looking forward to completing new Southeast Library. Please let us know if you have questions or concerns.

BURNS WALD-HOPKINS SHAMBACH ARCHITECTS

261 North Court Avenue

Tucson, Arizona 85701

Tel: 520.795.2705 Fax: 520.795.6171

WWW.BWSARCHITECTS.COM

Sincerely,
BWS Architects

A handwritten signature in black ink, reading "Robin Shambach". The signature is written in a cursive, flowing style with a large initial "R".

Robin Shambach AIA LEED AP
Principal

June 11, 20109

Pima County

Southeast Library

FEE SUMMARY

Additional Service No 003

BWS Architects	\$2,558
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Consultants

KC MECH	\$0
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MEI Electrical/IT Special Systems	\$0
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Grenier Structural	\$0
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Grenier (Civil)	\$0
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McGann (Landscape)	\$0
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Compusult Estimating (DD Rev and 30% CD)	\$0
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Sextant Group	\$9,800
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Subtotal Consultants Fee	\$9,800
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Total Services	\$12,358
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Design Contingency Increase	\$5,000
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Total Increase	\$17,358
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Date: 06/11/19 Project Southeast Library Additional Service No 003 BWS Architects							
ITEM	Principal	Project Designer	Project Architect	Specifier/Estimator	Architectural Designer	Admin/Cerical	TOTALS
Hourly Rate	51	51	35	34	22	25	
Meetings	6	0	6	0	0	0	12
Project Management	4	0	0	0	0	0	4
Coordination	0	0	6	0	0	0	6
Record Drawings	0	0	0	0	0	0	0
Total Hours	10	0	12	0	0	0	22
LABOR EXTENSION	\$ 510	\$ -	\$ 420	\$ -	\$ -	\$ -	\$ 930
Overhead 1 + 1.50	\$ 765.00	\$ -	\$ 630.00	\$ -	\$ -	\$ -	\$ 1,395.0
SUB-TOTAL LABOR	\$ 1,275.0	\$ -	\$ 1,050.0	\$ -	\$ -	\$ -	\$ 2,325.00
PROFIT @ 10%	\$ 127.50	\$ -	\$ 105.00	\$ -	\$ -	\$ -	\$ 233
TOTAL	\$ 1,403	\$ -	\$ 1,155	\$ -	\$ -	\$ -	\$ 2,558

June 10, 2019

Ms. Robin Shambach
Managing Principal
BWS Architects
251 N. Court Ave
Tucson, AZ 85701

Re: Pima County SE Library
Proposal for Audiovisual Consulting Services. s190249. (Revision 2)

Dear Robin,

Thank you for inviting The Sextant Group to submit this proposal for audiovisual consultation services for the SE Library for Pima County.

The Sextant Group approaches Library spaces with forward thinking and an intrinsic understanding of how technology is increasingly impacting the nature of spaces within buildings themselves, and how these various spaces are designed. Emerging technologies and blended online learning not only impact how we interact with others but are also changing users' expectations of the spaces themselves.

This proposal is based on documents we received dated May 14, 2019. Having reviewed the Audiovisual plan markups referenced in your request, we have an excellent insight into this project and our proposal will reflect all stated needs without exception.

We are sensitive to the aesthetic considerations of the project; particular attention will be given to the careful and thoughtful integration of the equipment with the architecture.

Pima County is committed to making improvements utilizing newer technologies that will enable the Library to expand its growing technology requirements. Specifically, the project will include the following spaces:

- ✦ Study Rooms (3)
- ✦ Staff Conference Room
- ✦ Multi-Purpose Room

We propose design and consultation services for the following:

- ✦ **Audiovisual Systems**, including audio, video, display, conferencing, collaboration, presentation, control and related systems such as Digital Signage. Our scope of work includes all aforementioned, relevant spaces and systems in the facility.

As proposed, our services include Planning and Programming, Schematic Design, Design Development, Construction Documents, Technology Systems Design and Specification and Construction Administration.

PROCESS: AUDIOVISUAL SYSTEMS

Technical Discovery This is an abbreviated Planning and Programming Session to catch up with the project now in CD Phase.

1. Review existing documentation submitted by the Owner describing current audiovisual systems, standards, preferences and future plans.
2. Meet with the Owner and Architect to ascertain the functional, aesthetic, sustainability and budgetary requirements and aspirations of the Audiovisual Systems.
3. Submit a final Audiovisual Program based on information provided at the meeting. The final document, upon acceptance by the Owner, will be used as a guideline for planning and design efforts as the project progresses.



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TECHNOLOGY CONSULTANTS
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4. Submit a high level OPC (Opinion of Probable Cost)

Infrastructure Design (Construction Documents)

1. Assist the Architect in the development of sightlines, room geometries, floor plans, seating plans, equipment locations, adjacencies, and ceiling heights to enable optimal use of the audiovisual systems.
2. Submit to the Architect, for coordination with appropriate members of the Design Team, guidelines for the following elements *as related to the audiovisual systems*: AC power, HVAC, vibration and structural needs, lighting performance, dimming, dimming control, window treatments, equipment security, telecommunications, and specialty furnishings. Our input for these elements as related to audiovisual systems will be options to consider, not final designs or specifications.
3. Submit to the Architect, or contribute to the Revit model, for inclusion into the Construction Documents package, model elements and detailed drawings illustrating infrastructure required to support the Audiovisual Program. The drawing set will be comprised of floor plans, ceiling plans, select elevations, riser diagrams and associated details as needed. Illustrated will be elements typically provided by the General Contractor and/or Electrical Contractor, such as cable pathways, conduit destinations and sizes, back boxes, floor boxes, power locations, equipment locations, blocking, backing, projection screens, architectural integration details and other information as needed to convey the design intent.
4. Submit to the Architect, for inclusion into the Project Specifications for the base building bid, CSI-format specifications for facilities-related audiovisual components. These specifications will include items that are typically provided by the General Contractor and/or Electrical Contractor such as projection screens and projector lifts. *Note*: this phase does *not* include specification of complete audiovisual systems.

Systems Design and Bidding

1. Update the Opinion of Probable Cost for the installed audiovisual systems at 100% Construction Documents. This will take the High Level OPC provided previously and detail products and quantity based on systems design.
2. Once the Owner has approved the Audiovisual Systems budget, submit to the Architect and Owner, for release to specialty audiovisual contractors, competitive bidding documents for the audiovisual systems. The documents will include:
 - ✦ General bidding terms and conditions as needed
 - ✦ Narrative system descriptions
 - ✦ Functional block diagrams showing major audiovisual components indicating signal flow and equipment interconnectivity
 - ✦ Connection points to related systems such as data networks, lighting dimming systems, or other systems as needed
 - ✦ Control software descriptions
 - ✦ Detailed equipment lists with specific manufacturers, makes and models numbers for all of the major components necessary for the successful implementation of the systems design
 - ✦ Specification detailing the technical performance, installation, warranty coverage, training, documentation and project close-out procedures. *Note*: All information will be of sufficient detail as to allow the Owner or Architect to solicit competitive bids from specialty contractors. Duplication, advertising, distribution, receipt, award and other administrative tasks related to the bid packages are provided by others.
3. Meet with the Owner via web conference to review the audiovisual systems design documentation.



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4. Generate one set of updates to the audiovisual systems design documentation, based on Owner feedback. Submit final bid specification package, to be released either as a stand-alone package or as an attachment to procurement administration documents, such as CSI Division 00 / 01 or a standard Terms & Conditions document, prepared by the Architect, Owner or others.
5. Provide a list of qualified audiovisual bidders, if needed.
6. Provide answers to technical questions from bidders during the bidding process.
7. Review bid responses for compliance to design and specification.
8. Submit bid analysis and bid award recommendation.

Construction Administration

1. Respond to relevant RFIs, Shop Drawings and other project submittals for compliance with design documentation, as related to our design scope and responsibilities.
2. ~~Observe and report on the General Contractor's and Electrical Contractor's work-in-progress, on-site, as related to our design scope and responsibilities.~~
3. Meet with the Audiovisual Contractor and Owner via web conference to review Shop Drawings submitted by the Audiovisual Contractor. Review functional capabilities and characteristics of the system for compliance with Owner requirements.
4. Observe and report on the completed audiovisual systems and final documentation. Submit Punch List Report detailing results.

Phase	Qty.	Location	Meeting Purpose
Programming	1	Site	Project Kick-off; Consultant Coordination meeting - User interviews to ascertain functional requirements; tour relevant facilities
SD / DD / CD	2	Arch. Office	Technology drawing coordination
CA	1	Telephone/ Web Conference	95% review of Audiovisual system designs and specifications
CA	1	Telephone/ Web Conference	Review of Audiovisual submittals with the Audiovisual Contractor and Owner prior to approval
CA	1	Site	Pre-sheetrock Infrastructure Inspection
CA	1	Site	Final Technology System Punch Listing
CA	5	Telephone/ Web Conference	Various Project Coordination and Communication Calls/Meetings
TOTAL:	12		

* Note: meetings listed as "Arch. Office" are planned for the Phoenix office.



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SCOPE OF WORK ASSUMPTIONS

This scope of work is based on the following assumptions:

- a) We will adhere to the Owner standards and preferences as applicable.
- b) SCHEDULE AND BUDGET:
 - ✦ We expect to receive relevant revit models a minimum of ten working days prior to the due date of our initial deliverable and three working days prior to due dates of subsequent deliverables. Our infrastructure drawings will be submitted for incorporation into the final Construction Document set by the Architect or others.
 - ✦ Our Construction Administration services assume that construction will not be phased, with a single opening date planned.
 - ✦ We expect the budget for installed Audiovisual Systems to be inclusive of the aforementioned spaces. Any significant increase of project footprint may result in a request for additional fees.
 - ✦ In the event that the project is placed on hold for a period longer than six months we may request a remobilization fee upon the restart of the project.
 - ✦ Unless otherwise stated, our engagement concludes ten working days after issuance of our punch list report(s).
- c) REVIT DELIVERABLES:
 - ✦ We anticipate delivering official drawing submissions a total of four occasions. These are anticipated to be preliminary CD, CD final set for review, CD bid set and CD conformed set for construction, or similar milestones as determined by the Architect. These will be delivered in PDF and Revit format. In addition, we anticipate updating the Revit model every two weeks during the Construction Document phase for team coordination purposes.
 - ✦ Use of a cloud-based Revit collaboration tool (e.g., BIM 360 Team/Collaboration for Revit or "C4R") is not included but is available for an additional fee; fee will be determined by the project team requirements.
 - ✦ Our Revit families are developed to a level of LOD 200, with select items to LOD 300, as defined in AIA E202 but are not of render quality. Expected contributions to the technology infrastructure drawings are items such as floor penetrations, floor boxes, technology junction boxes, security cameras, access card readers, emergency phones, conduits 2" diameter or larger, cable trays and baskets. Coordination of these infrastructure elements with technology components are shown in detail drawings and elevations where relevant.
 - ✦ For the purposes of coordination with other trades and to facilitate clash detection by the Architect, our Revit contributions will also include architecturally significant elements such as projectors, optical beam paths, projector lifts, flat panel displays, lecterns or presenter workstations, video camera sightlines and locations, large loudspeaker arrays, and equipment racks as needed.
 - ✦ Items not illustrated in the Revit model include conduit below 2" diameter, mounting hardware, bracing, fire-stopping, cabling and other items that do not influence the architecture or other Design Team contributions. These items may be illustrated in detail drawings and elevations or addressed in the specifications as needed.
 - ✦ Select elements may be represented in the Revit model during design to facilitate coordination with the Design Team but removed from the final construction documents to help clarify the scope of specialty technology contractors.
- d) All deliverables will be submitted electronically. Our drawings, specifications, reports and other submittals are considered to be "Instruments of Service" as defined by the AIA (American Institute of Architects) contractual documents for use solely and exclusively for this project.



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- e) All technology bid packages will be of sufficient detail to allow competitive bidding from specialty contractors. The Owner or others will duplicate, distribute, award and otherwise administrate all bids.
- f) During Construction Administration, we anticipate no more than two reviews per submittal type of Shop Drawings, product data, cut sheet packages, DSP signal flows, control system surfaces, test results and other documentation as submitted by the various Contractors.
- g) Our reports, program documents and audiovisual specifications will be submitted in PDF format intended to be used as stand-alone documents or as attachments/appendices to documents prepared by the Architect, Owner or others.
- h) The following services are *excluded* from our base scope of work. Many of these design elements are available as additional services.
 - ✦ Related to our Audiovisual Systems scope of work: Paging, Sound Masking, IPTV/TV Reception/Distribution head-end, AR/VR/XR Production and Playback Systems, Audiovisual Control System Software Development
 - ✦ Acoustic, including: 3D Acoustical Modeling, Specialty Vibration Control, Structural and Ground-Borne Vibration Reduction, Environmental Noise Control, Noise Ordinance Compliance, Construction Noise Control, Electronic Variable Acoustic Systems, product specifications
 - ✦ IT/Structured Cabling including: Telecom Outside Plant, Voice/Data System electronics, Data Center design, Distributed Antenna System (DAS), Cellular Distributed Antenna System (DAS), building-wide Li-Fi systems, building-wide PoE Lighting Systems, Telecommunications Transition plan, Master Clocks/Bell Systems, Specialty Networks not on the building LAN
 - ✦ Building Security including: dedicated/staffed security monitoring center or room, Doors/Door Hardware, Area of Refuge, Gunshot Detection System
 - ✦ Technical Lighting Systems including: Daylight Studies, Window Treatments, Architectural Lighting
 - ✦ Library-specific technologies such as Automatic Retrieval/Automatic Storage systems, RFID book/asset "checkout" systems, digitization stations, specialized databases, library administrative software and so on
 - ✦ General: Technical Millwork construction details, creation of full "cut-sheet" packages, processing of vendor payment applications, cable ID/labeling on drawings, record drawings or as-built drawings, code compliance, demolition plans, swing space, pilot test spaces, tours of off-site facilities, PE/AIA stamping, LEED certification information, post-occupancy services
- i) If additional services are required, we will offer those services under a separate fixed fee proposal, or on a time and materials basis, based on rates current at the time of the assignment.
- j) We reserve the right to withdraw this proposal after 90 days.



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Proposal Fee Breakdown

	<i>Fee Totals</i>
Construction Documents	\$ 3,750
AV Systems Design	\$ 2,150
Construction Administration	\$ 3,900
Labor Total	\$ 9,800
Estimated Expenses	\$ 700
Total	\$ 10,500

The scope of work and fees are proposed as a complete project. Fees are broken out above for convenience and administrative purposes only. If a subset of the disciplines and/or phases are accepted, the above fees may require a negotiated adjustment.

Payment terms are Net 30 days or per terms of the prime agreement. Typical expenses are included above.

If this is acceptable, please have an officer of the firm sign and date this proposal or submit an AIA contract or similar contract instrument with this document as an attachment.

Please address contract documents to:

Mr. Patrick M. Padovan, Vice President
The Sextant Group, Inc.
700 Waterfront Drive, Suite 200
Pittsburgh, PA 15222
ppadovan@TheSextantGroup.com / 412.323.8580 x111

If you wish to discuss this further, please contact me at 412.323.8580 x108 or jcook@TheSextantGroup.com.

Thank you for your consideration, Robin. We look forward to a highly successful project together.

Sincerely,
THE SEXTANT GROUP, INC.

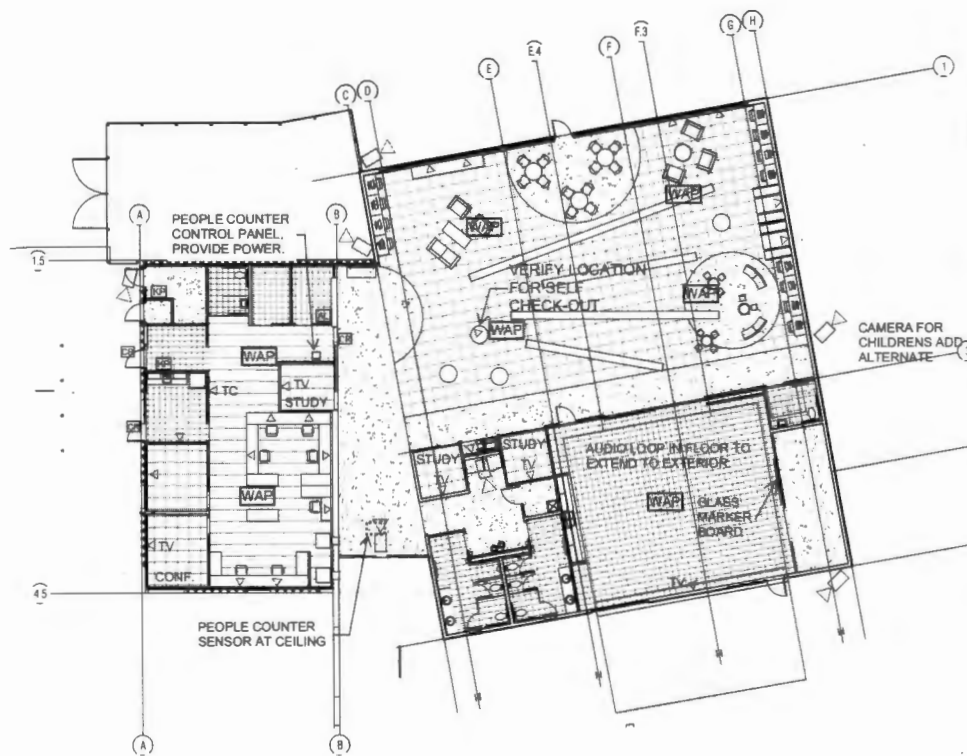
John A. Cook
Vice President

Accepted by:

Print name

Date

STATEMENT OF IMPARTIALITY: The Sextant Group is an independent consulting firm and as such does not derive revenue from any representation, manufacture, sale or installation of any product, and has no ongoing affiliation with any entity that sells or installs Audiovisual Structured Cabling IT Telecom, Security Lighting or Acoustical products or related systems or services



- CR** CARD READER. CFCI, PC TO PROVIDE CUT SHEET
- SC** SECURITY CAMERA. OFOI, GC TO INSTALL CABLE.
- WAP** WIRELESS ACCESS POINT. OFOI GC TO INSTALL 2 CABLES.
- TV** TV LOCATIONS, SEE ADDITIONAL INFO BELOW
- TC** TIME CLOCK. OFOI, GC TO INSTALL DATA CABLE.
- KP** ALARM KEYPAD. OFOI
- AL** ALARM MAIN PANEL. GC TO INSTALL POWER & DATA. OFOI PANEL.
- STUDY ROOMS:** 42" TV W/ WIRELESS ADAPTER, WALL INPUTS FOR HDMI, USB, VGA, POWER/VOLUME/SOURCE INTERFACE PLATE.
- STAFF CONFERENCE:** 55" TV W/ WIRELESS ADAPTER, WALL INPUTS FOR HDMI, USB, VGA, POWER/VOLUME/SOURCE INTERFACE PLATE. PROVIDE WEB CAMERA.
- MULTIPURPOSE RM:** 86" TV W/ WIRELESS ADAPTER, WALL INPUTS FOR HDMI, USB, VGA, POWER/VOLUME/SOURCE INTERFACE PLATE. SOUND SYSTEM SHALL HAVE SEPARATE CONTROLS FOR INTERIOR SPEAKER(S), EXTERIOR SPEAKERS, OR BOTH AREAS.
- NEED INTRUSION ALARM AT EXTERIOR DOORS AND POSSIBLY MOTION AT LARGE WINDOWS. INCLUDE SENSOR AND SECOND KEYPAD IN ELECTRIC ROOM. FIRE RISER SHALL NOT HAVE SENSOR.**
- PIMA COUNTY WILL PROVIDE CUT-SHEETS ON EQUIPMENT**

SOUTHEAST LIBRARY SPECIAL SYSTEMS SCOPE

Note: Conduit & boxes for IT are already part of original scope

ITEM	CFCI	OFCI	OFOI	Basis Of Design
1 Data/Phone/Cable				
a. Cabling/Devices/Wall plates	X			
2 Card Readers				Apti-Q
a. Conduit/Boxes/Power	X			
b. Equipment/Wiring	X			
3 CCTV System				
a. Conduit/Boxes/Cabling	X			
b. Cameras/Equipment			X	
4 Hearing Loop System				Listen Loop Technology
a. Conduit/Boxes/Equipment	X			Harris Hearing Loop
5 TV/Audio				
a. Conduits/Boxes/Equipment	X			See plan
6 Intrusion Alarm				
a. Power/Low Voltage cabling	X			
b. Equipment			X	
7 People Counter				Amseco
a. Power to Counter Display	X			
b. Equipment			X	

Pima County will provide a basis of design (cut-sheets) for all equipment.

Pima County will provide direction on locations and function of items.

Legend

CFCI = Contractor Furnished, Contractor Installed

OFCI = Owner Furnished, Contractor Installed

OFOI = Owner Furnished, Owner Installed

aptiQ

aptiQ®

Multi-technology readers



Overview

aptiQ multi-technology readers by Allegion are designed to simplify your access control solutions. Transition your system from proximity to smart card technology at your own pace without having to change out readers as new technologies are available. aptiQ readers handle all applicable ISO standards (14443A, 14443B, 15693), are FIPS 201-1 compliant and are versatile enough to read 125kHz proximity and 13.56MHz contactless smart cards in a single unit. aptiQ multi-technology readers interface with aptiQ smart credentials (MIFARE® Classic and MIFARE DESFire™ EV1) and can read the card serial numbers of a variety of smart cards from other manufacturers, making your next upgrade in technology simple and seamless. Additionally, aptiQ readers are already NFC compatible and able to communicate with NFC-enabled phones whenever you're ready to take that step.

aptiQ multi-technology readers use an open architecture platform designed to work with industry standards and common access control system interfaces. Multiple aptiQ reader form factors are designed to fit a variety of placement needs, with an attractive modern design which will complement any facility's architecture and décor. aptiQ readers are very easy to install with the quick-connect design and a standard wiring color scheme that most technicians are already accustomed to. But if you do have questions, you'll never worry about lack of service or assistance. As always, our knowledgeable sales and support staff is ready to assist you with any design or technology questions you may have.

Note: Magnetic stripe multi-technology readers also available.

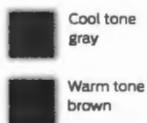
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Features and benefits

- Accommodates interior, exterior, metal, and non-metal installation environments
- Recognizes most proximity credentials, and aptiQ smart credentials (MIFARE® Classic and MIFARE DESFire™ EV1)
- FIPS 201-1 compliant
- NFC compatible, reads aptiQmobile™ credentials
- Quick-connect design for easy installation
- Simple wiring – color scheme is identical to most readers in the market
- Easy-to-install mounting bracket
- Tri-state LED (red, green, amber) visual indicator and audio feedback representing status and activity information, easily discernible for the audibly or visually impaired
- Wiegand output for simple interface with most access control panels
- Multiple reader cover color options
- Limited lifetime warranty
- Multi-technology readers may also be ordered with RS-485 capability

						
Model*	PR10	SM10	MT11	MT15	MTK15	
Reader type	Proximity mini-mullion*	Smart mini-mullion*	Multi-technology mullion	Multi-technology single gang	Multi-technology single gang keypad	
Frequency	125 kHz	13.56 MHz	13.56 MHz and 125 kHz			
FIPS 201-1 compliant	No	Yes				
Standard default PIV output	N/A	75 bit PIV**				
Standards	N/A	ISO 14443A, 14443B, 15693				
Certifications	FCC Certification • IC Certification • UL 294 Listed • R&TTE Directive (15 EU Countries) • CE Mark • IP65					
Voltage range	5-16 VDC					
Power supply	Linear DC					
Current requirement (at 12 VDC and 25 C; mAmps)	Avg. 65 mA Peak 110 mA	Avg. 95 mA Peak 195 mA	MT11 Avg. 100 mA Peak 170 mA	MT11-485 Avg. 115 mA Peak 145 mA	MT15 & MT15-485 Avg. 120 mA Peak 200 mA	MTK15 and MTK15-485 Avg. 120 mA Peak 230 mA
Read range	Proximity: Up to 3" (7.5 cm)	MIFARE: Up to 3" (7.5 cm) DESFire EV1: Up to 2" (5.1 cm)	Proximity: Up to 5" (12.7 cm) MIFARE: Up to 4" (10 cm)	Proximity: Up to 5" (12.7 cm) MIFARE: Up to 4" (10 cm)	DESFire EV1: Up to 2" (5.1 cm) PIV credential: Up to 2.5" (6.5 cm)	
Cable specification	18 AWG, 5 conductor stranded/shielded					
System interfaces	Wiegand	Wiegand / Clock & Data	Wiegand / Clock & Data / RS-485*** (OSDP)			
Cabling distance	Wiegand output: 500 ft. (152 m)					
Physical dimensions (H x W x D)	4.26" x 1.72" x 0.81" 10.8 cm x 4.4 cm x 2.1 cm	4.26" x 1.72" x 0.81" 10.8 cm x 4.4 cm x 2.1 cm	5.91" x 1.72" x 0.81" 15 cm x 4.4 cm x 2.1 cm	5.1" x 3.25" x 0.76" 12.9 cm x 8.3 cm x 1.9 cm	5.1" x 3.25" x 0.76" 12.9 cm x 8.3 cm x 1.9 cm	
Operating temperatures	-40° to 158°F (-40° to 70°C)					
Weight	4.1 oz	3.9 oz	5.7 oz	9.1 oz	9.3 oz	
Material	PBT Polymer					
Technologies supported in default mode						
Schlage Proximity	■		■	■	■	
XceedID™ Proximity	■		■	■	■	
HID® Proximity	■		■	■	■	
GE/CASI ProxLite®	■		■	■	■	
AWID® Proximity	■		■	■	■	
LenelProx®	■		■	■	■	
aptiQmobile		■	■	■	■	
Schlage MIFARE®		■	■	■	■	
XceedID MIFARE®		■	■	■	■	
aptiQ smart cards using MIFARE™ Classic		■	■	■	■	
aptiQ smart cards using MIFARE DESFire™ EV1		■	■	■	■	
DESFire® CSN		■	■	■	■	
HID iCLASS® CSN		■	■	■	■	
Inside Contactless PicoTag® CSN		■	■	■	■	
ST Microelectronics® CSN		■	■	■	■	
Texas Instruments Tag-It® CSN		■	■	■	■	
Phillips I-Code® CSN		■	■	■	■	

Color options



- * Some features and benefits listed on the front may not be applicable to the smart-only and proximity-only readers.
- ** Other output options available through configuration.
- *** RS-485 model numbers include "-485" after the original model number. For example, MT11-485 is the RS-485 version of the multi-technology mini-mullion reader. Multi-drop, Open Standard Device Protocol (OSDP).

About Allegion

Allegion (NYSE: ALLE) is a global pioneer in safety and security, with leading brands like CISA®, Interflex®, LCN®, Schlage® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion produces a range of solutions for homes, businesses, schools and other institutions. Allegion is a \$2 billion company, with products sold in almost 130 countries. For more, visit www.allegion.com.

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Quick Overview

The Oval Window Satellite III Induction Loop System may be interfaced with an existing public address system to provide coverage of up to 300 seats per system. It is a cost effective system for a wide range of applications - auditoriums, houses of worship, theaters.

Harris Communications is committed to providing products that best meet the needs of our customers. To facilitate a free review of your site specifications before you order, please [fill out the following form](#).

[Product Description](#) [Additional Information](#) [Accessories](#) [Product Reviews](#)

Harris Communications is committed to providing products that best meet the needs of our customers. In order to comply with international standards pertaining to the installation and performance of large-area induction loop systems, the manufacturer (Oval Window Audio) will briefly review your site specifications before your order is finalized. To facilitate this free service, please [fill out the following form](#) with the installer/project manager's name, email address and telephone number.

The Satellite III Induction Loop System may be interfaced with an existing public address system to provide coverage of up to 300 seats per system. Multiple Satellite III systems may be combined to provide a coverage area that is larger than 300 feet around. An Induction Loop Receiver is included for monitoring the system's performance.

It connects to the audio line level output of most sound systems and is compatible with t-coil hearing aids, cochlear implants and induction loop receivers. The Satellite III is a cost effective system for a wide range of applications - auditoriums, houses of worship, theaters and other public venues. For best results, the loop perimeter for one Satellite III loop system should not exceed approximately 300 feet, and the height not greater than 12 feet. The Satellite II is designed to interface with PA mixers or wireless microphone systems.

Please call 1-800-825-6758 for express delivery options, or to add additional items to your order. There is a \$59.00 flat ground shipping fee for each Satellite III system ordered. Three year warranty (90 day warranty on headphones).

Includes:

- (1) Satellite III Loop Amplifier with built-in 2 space rack mount
- (1) Induction loop receiver with headphones and LED signal display
- Compatible with t-coil equipped hearing aids and cochlear implants
- (1) 500 foot spool of 14 gauge loop wire (actual loop size should not exceed 325 feet)
- (1) Phono plug patch cord
- "Hearing Help Available" Signage
- Instructions



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ListenLOOP

Powered by Ampetronic

The D-Series MultiLoop network managed and DANTE enabled drivers make management easy.



Consultant and Design Toolbox

KEY PRODUCTS



ListenLOOP makes it possible to offer a personal and discreet listening experience to anyone with a telecoil technology in their hearing aid or cochlear implants without additional equipment.



NEW

C5-1N

C Series Single Loop Networkable Driver (5.0 Amps)

5.0 Amps RMS current loop output, plus ample voltage headroom, making it suitable for a wide range of applications.



NEW

C7-1N

C Series Single Loop Networkable Driver (7.0 Amps)

7.0 Amps RMS current loop output, plus ample voltage headroom, making it suitable for a wide range of applications.

CATEGORIES

Compliance Systems (LOOP)

Drivers

Receivers

Accessories

Loopworks Measure

Cable

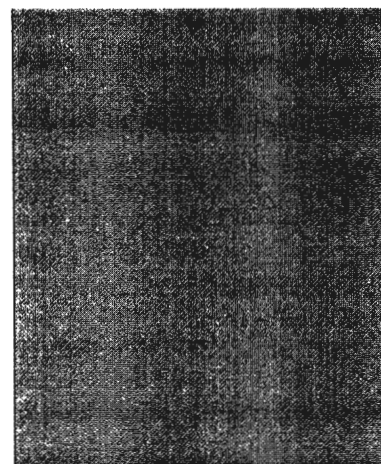
TalkPerfect



R1 \$321.00 MSRP

Loopworks Measure Receiver

The R1 simply plugs into the headphone jack of the iOS device and along with the free downloadable App turns the i-Device into a Loopworks Measuring Receiver.



Hearing Loop Solutions

Visit this www.hillhearing.com for information on hearing loop solutions.



An induction loop is provided for the benefit of hearing aid users. To use please switch your hearing aid to 'T'

84888900 100
 84888900 100
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2. **Lehrstuhl für Organische Chemie**

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RESOURCES

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VIDEO ListenLoop Overview

VIDEO: Ambetronic D Series Hearing Loop / Induction Loop Drivers Features & Benefits



As a person with severe hearing loss, I am very grateful for this amazing technology. I have benefited from the Hearing Loop several times. It's simple; it's effective and most important it helps me to hear clearly! Thank you Listen Technologies.

— KRISTEL SCORESBY

COUNSELOR, ARISE COUNSELING CENTER

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Listen Technologies

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Eden
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1016
USA

Phone: +1 (435) 333-6400
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what you're
looking for.

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learning more about
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☐ I was referred to you
by a social media post.

☐ Other

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Country

City

State

Zip

Website

Business

Industry

Company

Position

Phone

Country

City

State

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Website

Business

Industry



VDP-100

Video-Eye People Counter™

Instruction Manual and User's Guide



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Phone (800) 325-3936, Fax (314) 878-7264
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Contents

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1	Description
2	Features
3	Complete Kit Parts List
4	Precautions
5	Installation Procedures
6	Front Panel Controls and Names
7	The Counter Display Settings
8	The Video Sensor Settings
9	Troubleshooting
10	Specifications

10. Specifications

System Specifications

Model Name	VDP-100 Video-Eye People Counter™		
Operating Voltage	Video Sensor Unit	12V DC	
	Counter Display	12V AC / 15VA	
Power Consumption	Stand by	400mA	
	In Alarm	600mA	
Size (h x w x d)	Video Sensor Unit	5.1" x 3.1" x 1.8" (130 x 80 x 47 mm)	
	Counter Display	4" x 3.3" x 1.2" (102 x 85 x 31 mm)	
Traffic Detection Method	by a Motion Detection Video Camera		
Image Sensor	1/4 inch Color CMOS Sensor		
Lens Angle	90 degree		
Sensor Image Resolution	Horizontal 300 lines		
Video Format	NTSC		
Processor	BF531 Digital Signal Processor		
Counter	6 digits (999,999) of independent Entry / Exit Dual Counter		
Chime Sound	Two distinctive chime sounds announcing entry / exit event		
Chime Type	Volume Adjustable Electronic Chime(0~85db)		
Operating Temperature	14℉		
Required Illumination	Recommend 7 LUX~3,000 LUX (Indoor Use)		
Installation Heights	Recommend to install between 7~14 feet high from the floor		
Detection Area	10 feet wide when installed at 8 feet high		
	17 feet wide when installed at 14 feet high		

Wires Specifications

Connector Cable	Two 26 ft. AWG # 22 wires for 12V DC Output
	Two 26 ft. AWG # 24 wires for Signal Output

* Wires of AWG # 20 or more are required for connecting the Counter Display and the Video Sensor Unit at over 300 ft.

Power Cord	Two 6 ft. AWG # 22 wires for 12V AC Output
------------	--

Power Transformer Specifications

Power Transformer	Input	120V AC, 60Hz
	Output	12V AC

Thank you for purchasing AMSECO VDP-100 Video-Eye People Counter™. Please read this manual thoroughly before making connections and operating the unit. Following the instructions in this manual will enable you to obtain optimum performance from the system.

Please retain this manual for future reference.

9. Troubleshooting

Condition: Cannot get the system power on.

Check the power cable connections both of power transformer and the Counter Display terminal.
Check whether the in-line switch is ON.
Make sure your power source is 120V AC 60Hz.

Condition: Counter is ON but the status LED of the Video Sensor Unit is off.

Check the wiring connection of the counter unit terminal and 4P connector.
In case you have extended the length of wires, check whether you have used wires of required gage (AWG # 24 by 100 ft. / AWG #22 or above for over 100 ft)

Condition: Status LED is ON and blinking on traffic events, but the Counter doesn't count at all.

Check the signal cable connections.

Condition: Counter is not accurate.

Ensure you have installed the system in the environment as required in this instruction manual such as illumination condition, installation heights or the floor condition. *Move the installation position or reduce the illumination of the room if the shadows of people generate false counting.*

Check whether the Video Sensor unit is facing in parallel with the floor.

Condition: Can't get the Chime Sounds.

Check the volume control.
Check the Speaker connector in the Video Sensor Unit.

Condition: I get the ENTRY chime sounds and counts when EXIT events occur, while getting EXIT chime sounds and counts on ENTRY events.

Check whether you have installed the Video Sensor Unit in the correct direction. Rounded end of the Unit must face the door (heading EXIT direction) for proper operations.

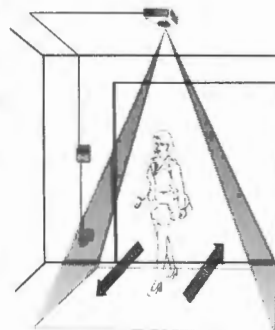
1. Descriptions

AMSECO VDP-100 Video-Eye People Counter™ is the digital image tracking technology based people traffic counter and door announcer system integrating a Video Camera as a detecting sensor. The system distinguishes and counts entry / exit traffic events simultaneously by its unique Object's Motion Detection Algorithm, and provides the users very useful information on accumulated entry / exit traffic counts in offices, retail shops, department stores, or any other facility as well as announcing people's entry or exit events with pleasant chime sounds.

You can also use the VDP-100 as a monitoring camera by simply connecting its video output to any NTSC monitor.

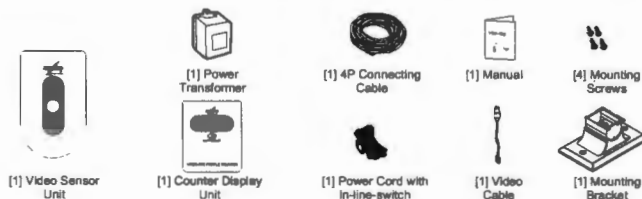
2. Features

- Entry / Exit Distinguishable People Counter discriminating the object's moving direction and counting entry / exit events separately
- Six Digit Resettable Counter capable of displaying up to 999,999 counts of the entry or exit events
- Two Distinctive Chime Sounds to announce Entry and Exit Event separately
- Adjustable Chime Volume
- Easier Installations not requiring additional reflector installations or adjustments
- Ceiling Mount
- CMOS Color Video Camera integrated
- Digital Signal Processor (DSP) driven system
- NTSC Video Output ready to be used as the monitoring camera
- Counter Memory Back-up from accidental Power failure
- Tamper Protection from blocking camera's view



3. Complete Kit Parts List

Upon opening of the package please ensure the following parts are enclosed properly before installation.



Precautions

4. Precautions

It is important that you carefully read these installation instructions before starting the installation. While the installation procedures are very simple, there are guidelines to follow to ensure that the system will operate properly. The guidelines are as follows:

- 1) The Video Sensor Unit and the Counter Display Unit should be mounted onto a flat, firm surface
- 2) USE only AMSECO 12V AC transformer provided together and wires as specified in this Instructions
- 3) For the maximum accuracy of the counter it is strongly recommended that you install the system in the environment satisfying the following conditions:

Recommended Installation Conditions

Install the Video Sensor Unit in the illumination intensity between 7 Lux to 3,000 Lux.



Outdoor Installations. The product is designed for indoor use only.



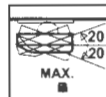
The Video Sensor Unit is recommended to be installed maximum 14 feet high above the floor.



DO NOT install the video sensor unit above the floor facing directly into the sun light or other bright lights. The shadow or reflections caused by strong lights may generate false counting.



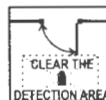
Recommend to install the Video Sensor Unit exactly in parallel with the floor so that the camera gets a bird's-eye view of the Detection Area. Adjust the angle of the Unit by the maximum.



DO NOT adjust the angle of the Video Sensor Unit over 20 degrees from normal angle.



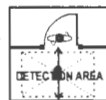
Refer to the dimensions of Detection Area for each installation height (Fig. 1) and clear the Detection Area from any movement of objects other than intended traffic.



DO NOT install the Unit too close to the door so that the door intrudes the Detection Area, or the Detection Area crosses the door.



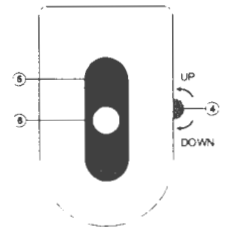
Refer to the dimensions of Detection Area for each installation height on page 5 (Fig. 1), and place the Camera unit so that the passage is fully covered by the detection area.



The Counter Settings / The Camera / Controller Settings

Video Sensor Unit

- 4) Volume Control: Adjusts the chime volume.
(Clockwise : volume down / Counterclockwise : volume up)
- 5) Status LED: Lights on when the system is ON
Blinks upon ENTRY / EXIT events
- 6) Camera Lens

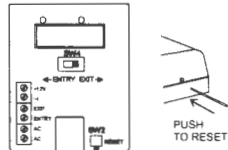


7. The Counter Display Settings

SW2 COUNTER RESET: Resets both ENTRY / EXIT Counter

* Counter Reset button is designed to be reached through the pinhole under the Counter Display Unit to prevent accidental reset. Please use a paperclip or a similar sharp element inside the pinhole to press the reset button.

SW4 ENTRY/EXIT: Switches the display to ENTRY/EXIT counter



8. The Video Sensor Settings

VR1: Volume Control

SW1 RESET: System reset switch

JP1: ENTRY Chime sound selection jumper

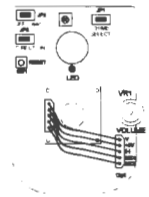
- ☒ JP2 ON = high tone sound (Factory Setting)
- ☐ JP2 OFF = low tone sound

Note: EXIT Chime sound stays unchanged regardless the Jumper setting.

JP2: CAMERA View block warning mode deactivation Jumper

When Camera View block mode is activated, the system generates alarm sounds of repeated chimes if the Camera View is fully blocked over 10 seconds.

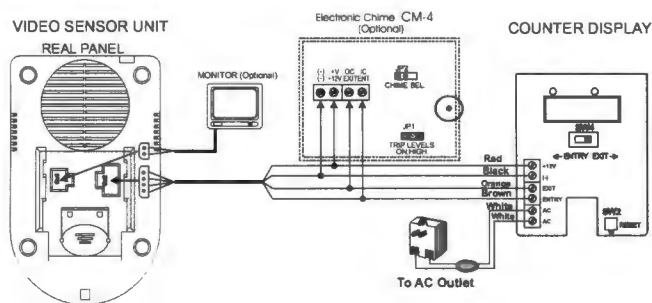
- ☒ JP2 ON : Camera View block warning mode deactivated (Factory Setting)
- ☐ JP2 OFF : Camera View block warning mode activated



Although the system is designed to prevent false triggering of Camera View block warning during nights or under dark environment, we recommend to turn the power switch off during the nights or dark environment when the Camera View block warning mode is activated.

5) Wiring Diagrams

Refer to the following wiring diagram and make sure your connections are correct before turning on the system.



Video Sensor Unit

- | | |
|-----------------------------------|------------------------------|
| Cn1: Connector to CMOS Camera | Cn3: Chime Speaker Connector |
| V: Video Signal Input | |
| (-): Ground | |
| +5V: DC 5V Power Output | |
| AGC1: Automatic Gain Control 1 | |
| AGC2: Automatic Gain Control 2 | |
| Cn2: Connector to Counter Display | Cn4: Connector to Monitor |
| (-): Ground | V: Video Signal Output |
| +12V: 12V DC Input | (-): Ground |
| EXIT: (-) Exit | |
| ENTRY: (-) Entry Signal output | |

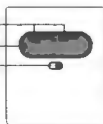
Counter Display

- | |
|--|
| +12V: 12V DC Output |
| (-): Ground for DC Output |
| EXIT: (-) Signal Input for Exit Events |
| ENTRY: (-) Signal Input for Entry Events |
| AC: 12V AC Input |
| AC: 12V AC Input |
| BZ1: Unused |
| (Reserved for future use) |

6. Front Panel Controls and Names

Counter Display

- Digital Counter LED Display : displays the accumulated number of entry / exit events depending on the status of Entry / Exit indication switch.
- Entry / Exit indication switch:
At ENTRY position - the LED display indicates the number of entry events.
At EXIT position - the LED display indicates the number of exit events.
- Counter Display Status Indicator:
① Indicate whether the counter is displaying ENTRY counts or EXIT counts.
② ENTRY or EXIT LED blinks for 5 seconds when entry or exit events occur.



5. Installation Procedures

1) Plan the Installation: Decide the Position of Camera / Controller Unit First

VDP-100 senses the people's movement in a certain Detection Area and analyzes the traffic in the Area using motion tracking technology. It is important to locate the Video Sensor Unit 1) to fully utilize the Detection Area of VDP-100, and 2) to clear the area from any movements confusing the counter.

Detection Area of the VDP-100 is different depending on the installation heights from the floor, and therefore **we recommend you determine the detection area of the VDP-100 at your intended installation height, and find the best location of your VDP-100 before starting any other installation procedure.**

Please decide the best position of VDP-100 in the following steps before starting any installation :

Step 1) Refer to Fig. 1 and find the dimensions of detection area at your intended installation height

Step 2) Stand facing the center of the door, and assume a square of detection area on the floor.

Step 3) Make sure people will cross at least 2/3 of the detection area when they enter.

Step 4) Make sure that the detection area is not crossing the door or the wall. Move the VDP-100 if necessary.

Step 5) Make sure the area is clear from any unnecessary movement.

Step 6) The ceiling right above the center of the detection area is where you install your VDP-100 Video Sensor Unit.

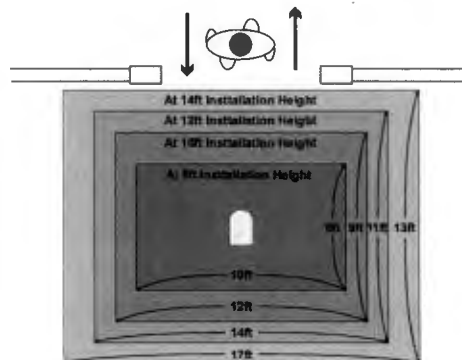


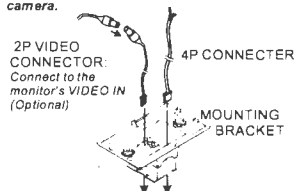
Fig. 1 Installation Heights and Detection Area

Installation Procedures

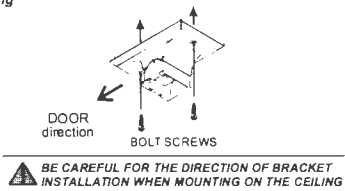
2) Installation of the Video Sensor Unit

Step 1) Refer to page 5 and decide the position to install the Video Sensor Unit.

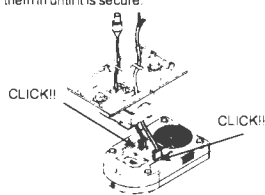
Step 2) Pass the 4-pin Connector and Video Connector through the holes in the mounting bracket. Make a hole by removing the tab on the intended side of the bracket for wire-through if necessary. *You can connect the Video Connector with your monitor if you want to use the VDP-100 as a monitoring camera.*



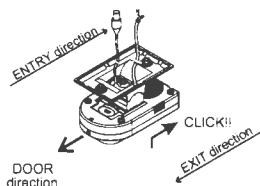
Step 3) Using the two screws provided, secure the Mounting Bracket at the location that the Video Sensor Unit is to be installed. (Refer to the *Plan the Installation* on page 5 to decide an optimal position for the Video Sensor Unit.)



Step 4) Connect the 4-pin connector and video connector to the Video Sensor Unit by snapping them in until it is secure.



Step 5) Secure the Mounting Bracket and the Video Sensor Unit by sliding the unit into the guide rails of the bracket until it is secured. Make sure the round part of the Video Sensor Unit is facing the door.



Step 6) Pull the wires to the Counter Display Unit and move to the Counter Display Installations stage

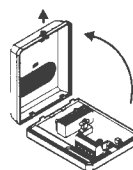
3) Installation of the Counter Display Unit

Step 1) Decide a place to install the Counter Display within the reach of a Power Source.

WARNING: PLEASE INSTALL THE COUNTER DISPLAY CLOSE TO THE VIDEO SENSOR UNIT SO THAT THE WIRE LENGTH BETWEEN THE UNITS DOES NOT EXCEED 300 FEET. (AWG # 20 OR LARGER GAUGE WIRES ARE REQUIRED FOR CONNECTIONS OVER 300 FEET.)

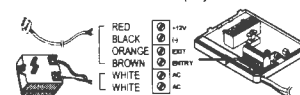
Installation Procedures

Step 2) Open the front panel of the Counter Display shifting the screw up at the bottom of the unit.



Step 3) Using the 6-ft. Power Cord with in-line-switch, connect the pre-stripped wires to the 12V AC 20VA transformer terminals. Strip the insulation on the opposite ends of the wires approximately 1/4 inch, and insert into the terminals on the Counter Display marked AC12V INPUT.

Step 4) Refer to the *Wiring Diagram* on page 8, and connect the end of the 4-pin Connector Cable to the terminals on the Counter Display.

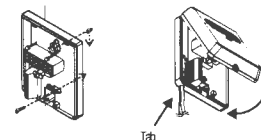


WARNING: DO NOT PLUG THE TRANSFORMER INTO AC OUTLET AT THIS TIME

WARNING: FOR ADDITIONAL EXTENSIONS OF POWER CORDS USE ONLY WIRES OF AWG # 22 OR ABOVE.

Step 5) Remove the tab on the bottom of the Counter Display if necessary to arrange the wires, and Secure the Counter Display to the intended location using two screws provided.

Close the cover and secure it with the screw.



4) Turning ON / Testing the System

Step 1) Plug-in the AC Transformer to AC outlet and turn the in-line switch ON. Make sure the red LED of the Video Sensor Unit and LED display of the Counter Display is ON upon turning on the system. Check the wiring and power sources if it is not.

Step 2) Walk across the detection area and check whether the counter and chime sounds are working. (Ding-dong on ENTRY / Ding on EXIT) Adjust the angle of view a bit if necessary. Check over the installation procedures and precautions in this Instruction Manual if the system does not work properly.

WARNING: VDP-100 SHOWS ITS BEST PERFORMANCE WHEN THE VIDEO SENSOR UNIT IS INSTALLED IN PARALLEL WITH THE FLOOR SO THAT THE CAMERA HAS A BIRDS-EYE VIEW ON THE AREA. DO NOT ADJUST THE ANGLE UNLESS IT IS NECESSARY.

Step 3) Refer to page 9 of this manual, and adjust the chime volume and other user options if necessary.

Step 4) Now your VDP-100 Video-Eye People Counter™ is ready

SOUTHEAST LIBRARY SPECIAL SYSTEMS SCOPE

Note: Conduit & boxes for IT are already part of original scope

ITEM	CFCI	OFCI	OFOI
1 Data/Phone/Cable			
a. Cabling/Devices/Wall plates	X		
2 Card Readers			
a. Conduit/Boxes/Power	X		
b. Equipment/Wiring	X		
3 CCTV System			
a. Conduit/Boxes/Cabling	X		
b. Cameras/Equipment			X
4 Hearing Loop System			
a. Conduit/Boxes/Equipment	X		
5 TV/Audio			
a. Conduits/Boxes/Equipment	X		
6 Intrusion Alarm			
a. Power/Low Voltage cabling	X		
b. Equipment			X
7 People Counter			
a. Power to Counter Display	X		
b. Equipment			X

Pima County will provide a basis of design (cut-sheets) for all equipment.
Pima County will provide direction on locations and function of items.

Legend

CFCI = Contractor Furnished, Contractor Installed

OFCI = Owner Furnished, Contractor Installed

OFOI = Owner Furnished, Owner Installed