

**Digital Preservation of a Highway
Photolog Film Archive in Connecticut**

Final Report - SPR 2260

Prepared by:

Eric D. Jackson PhD

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James A. Fallon

Division Chief, Design Services

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16. Abstract <p>The Connecticut Department of Transportation has been photologging their transportation network for over forty years. Photologging at a minimum refers to the use of an instrumented vehicle, which is designed to capture successive photographs of the roadway at defined intervals. Connecticut is not unique when it comes to photologging and historical imagery. According to the 1982 National Cooperative Highway Research Program Synthesis of Highway Practice Number 94 on Photologging, "at least 41 states, 29 cities, 6 counties, the U.S. Park Service, and the U.S. Forest Service have used photolog," which at the time was nearly all film-based. At the time of the 1982 report, "more than 500,000 miles" had been collected. Film continued to be used throughout the 1980s and well into the 1990s. In Connecticut this 35mm film archive consists of approximately 11.5 million frames of photologged roadway and railway images, which were collected during the years preceding digital storage (1973-1996) and computer distribution at ConnDOT's research facility in Rocky Hill, CT.</p> <p>The overall objective for this study was to produce high quality digital images from the historical 35-mm film that are easily accessible to potential users at ConnDOT, UConn and any other Digital HIWAY user. This report documents the film transfer process and develops a film transfer workflow that may benefit other states as they begin to preserve and provide more access to their historical footage. Furthermore, upgrades were made to the image viewing software DigitalHIWAY and a stereo camera mount was developed to successfully capture 3D roadway imagery.</p>			
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SI* (MODERN METRIC) CONVERSION FACTORS

APPROXIMATE CONVERSIONS TO SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
LENGTH				
in	inches	25.4	millimeters	mm
ft	feet	0.305	meters	m
yd	yards	0.914	meters	m
mi	miles	1.61	kilometers	km
AREA				
in ²	square inches	645.2	square millimeters	mm ²
ft ²	square feet	0.093	square meters	m ²
yd ²	square yard	0.836	square meters	m ²
ac	acres	0.405	hectares	ha
mi ²	square miles	2.59	square kilometers	km ²
VOLUME				
fl oz	fluid ounces	29.57	milliliters	mL
gal	gallons	3.785	liters	L
ft ³	cubic feet	0.028	cubic meters	m ³
yd ³	cubic yards	0.765	cubic meters	m ³
NOTE: volumes greater than 1000 L shall be shown in m ³				
MASS				
oz	ounces	28.35	grams	g
lb	pounds	0.454	kilograms	kg
T	short tons (2000 lb)	0.907	megagrams (or "metric ton")	Mg (or "t")
TEMPERATURE (exact degrees)				
°F	Fahrenheit	5 (F-32)/9 or (F-32)/1.8	Celsius	°C
ILLUMINATION				
fc	foot-candles	10.76	lux	lx
fl	foot-Lamberts	3.426	candela/m ²	cd/m ²
FORCE and PRESSURE or STRESS				
lbf	poundforce	4.45	newtons	N
lbf/in ²	poundforce per square inch	6.89	kilopascals	kPa

APPROXIMATE CONVERSIONS FROM SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
LENGTH				
mm	millimeters	0.039	inches	in
m	meters	3.28	feet	ft
m	meters	1.09	yards	yd
km	kilometers	0.621	miles	mi
AREA				
mm ²	square millimeters	0.0016	square inches	in ²
m ²	square meters	10.764	square feet	ft ²
m ²	square meters	1.195	square yards	yd ²
ha	hectares	2.47	acres	ac
km ²	square kilometers	0.386	square miles	mi ²
VOLUME				
mL	milliliters	0.034	fluid ounces	fl oz
L	liters	0.264	gallons	gal
m ³	cubic meters	35.314	cubic feet	ft ³
m ³	cubic meters	1.307	cubic yards	yd ³
MASS				
g	grams	0.035	ounces	oz
kg	kilograms	2.202	pounds	lb
Mg (or "t")	megagrams (or "metric ton")	1.103	short tons (2000 lb)	T
TEMPERATURE (exact degrees)				
°C	Celsius	1.8C+32	Fahrenheit	°F
ILLUMINATION				
lx	lux	0.0929	foot-candles	fc
cd/m ²	candela/m ²	0.2919	foot-Lamberts	fl
FORCE and PRESSURE or STRESS				
N	newtons	0.225	poundforce	lbf
kPa	kilopascals	0.145	poundforce per square inch	lbf/in ²

*SI is the symbol for the International System of Units. Appropriate rounding should be made to comply with Section 4 of ASTM E380.
(Revised March 2003)

Table of Contents

Technical Report Documentation Page.....	iii
Background Summary.....	1
Problem Statement.....	1
Objective.....	2
35-mm Film Transfer Workflow	2
35-mm Film Transfer Results	4
Film Transfer Statistics.....	8
1942 Charter Oak Bridge Collapse.....	10
Long Term Film Storage.....	12
3D Photolog Research.....	12
3D Photolog Research Results.....	13
Digital HIWAY Upgrades.....	14
DigitalHIWAY Wayback Machine	14
DigitalHIWAY Google Map Support.....	14
JPEG2000 Image Support.....	17
MAC OS X Support.....	17
Conclusions.....	17
Appendix A: UConn’s RFQ for a Film Transfer Vendor.....	18
Appendix B: Transferred Years and Chapters.....	7

List of Figures

Figure 1: Technicolor Film Transfer Workflow	3
Figure 2: Overall Film Transfer Workflow	4
Figure 3: Route I-84 in 1985 Original Conversion (top) 4K Conversion (bottom)	5
Figure 4: Route 169 in 1985 Original Conversion (top) 4K Conversion (bottom).....	6
Figure 5: Route 15 in 1985 Original Conversion (top) 4K Conversion (bottom).....	7
Figure 6: 1942 Construction and Grand Opening of the Charter Oak Bridge.....	11
Figure 7: Custom Designed and Fabricated 3D Stereoscopic Camera Mounts.....	12
Figure 8: Stereoscopic Photolog Setup	13
Figure 9: Google Map App, Display Location	15
Figure 10: Google Map App, Drag, Drop and Go	16

List of Tables

Table 1: Delivery Schedule of Film to Technicolor.....	8
Table 2: Timeline of images received and processed by UConn.....	9
Table 3: Images Transferred by Year Filmed	10

Background Summary

The Connecticut Department of Transportation has been photologging their transportation network for over forty years. Photologging at a minimum refers to the use of an instrumented vehicle which is designed to capture successive photographs of the roadway at defined intervals. Currently, the photolog van can collect GPS location, high definition front and side view images, pavement rut depth, pavement cracking information and vertical and horizontal curvature. However, the photologging van has seen many updates and the addition of numerous data collection devices since Connecticut's first van was constructed in the 1970s.

Initially photolog images were captured on movie quality film and could only be viewed on one of three filmstrip viewers in the basement of the Department's headquarters. In the 1980s ConnDOT was able to transfer these recorded images to laser disk. This increased the user-base to sixteen customized laserdisc-based stations. The most recent innovation in data storage and viewing was the DVD. This media allows ConnDOT to provide the photolog end product to approximately 500 users.

In addition to improving image quality and storage during new collection, ConnDOT investigated converting photolog film from the 1970s and 1980s to a digital, and more widely accessible media, such as the high definition (HD) Digital Picture Exchange (DPX) file format or Joint Photographic Experts Group (JPEG). It is anticipated that a significant improvement in archive quality and accessibility will lead to greater photolog use at ConnDOT and UConn for tasks involving utility audits, historical studies on pavements, signing, road geometry, utilities, intersections, land use, urban sprawl, as well as improved accident reconstruction, and investigation. The Connecticut State Library considers the photolog archive historically significant and in need of preservation.

Problem Statement

Approximately 11.5 million frames of archive photolog film were collected during the years preceding digital storage and computer distribution at ConnDOT's research facility in Rocky Hill, CT. These images only existed in 35-mm film format and could only be viewed on a positive film viewer or with a film-to-tape-transfer device. The hardcopy indexing of the film made locating the desired image or section of roadway on a 1600 foot roll of film time consuming. Furthermore, if other users wished to view these images, they would have to travel to Rocky Hill and obtain assistance with the viewer and hard copy film. Therefore, the majority of potential users outside of the Rocky Hill office were unaware images date back to 1973, due to the lack of access.

The oldest reels of film have been stored for over 35-years in the Rocky Hill Laboratory complex, which did not possess a climate-controlled room, and was vulnerable to overhead plumbing leaks, humidity, and temperature fluctuation. The result was film rapidly degrading and could have been lost forever.

Connecticut is not unique when it comes to photologging and historical imagery. According to the 1982 National Cooperative Highway Research Program Synthesis of Highway Practice Number 94 on Photologging, "at least 41 states, 29 cities, 6 counties, the U.S. Park Service, and the U.S. Forest Service have used photolog," which at the time was nearly all film-based. At the time of the 1982 report, "more than 500,000 miles" had been collected. Film continued to be used throughout the 1980s and well into the 1990s. From ConnDOT's experience, it can be surmised that much of this film may still exist around the country and is in need of preservation. Existing photolog film represents a national treasure of historic roadway information that is slowly deteriorating and being lost for future use and historical study of our nation's infrastructure.

Objective

The overall objective for this study was to produce high quality digital images from the historical 35-mm film that are easily accessible to potential users at ConnDOT, UConn and any other Digital HIWAY user. Dr. Jackson at the University of Connecticut served as the study manager for the film transfers from 35-mm film to digital media and an additional research study involving the 3D capture of roadway images from the photolog van. Furthermore, Dr. Jackson agreed to document the film transfer process and develop a film transfer workflow that may benefit other states as they begin to preserve and provide more access to their historical footage. This process improved image quality and ease of access to film captured from 1973 to 1996 by converting the early 35-mm film images to a digital format.

35-mm Film Transfer Workflow

The film transfer process began with physical delivery of 441, 1600-foot reels of 35-mm film from the ConnDOT Rocky Hill lab. These reels were then documented and prepared for shipping. The reels were loaded onto pallets and wrapped with plastic wrap. The University of Connecticut placed a request for qualifications (RFQ) from potential film transfer companies for an estimated price to transfer the film on hand (Appendix A). Once the RFQ was closed, the lowest bidder was evaluated for their ability to meet the minimum qualifications. As a result of the evaluation it was determined that the lowest bidder did not currently have the required Spirit 4k Scanner (or an equivalent) they were proposing to buy one once the project was awarded. This violated another requirement that they have at least 5 years of experience with Spirit 4k Scanner (or an equivalent). Therefore, the lowest bidder was removed as a potential contractor and the second lowest bidder was then evaluated, Technicolor out of New York City. Based on Technicolor's qualifications, equipment, expertise and cost of transfer they were selected as the vendor to provide film transfer services for this project.

Once a vendor was selected Dr. Jackson delivered the first batch of film (68 reels) for transfer in person and took a tour of Technicolor's Manhattan studios. The rest of the film were shipped down in 3 shipments (134, 111, and 128 reel batches). The final film shipment also contained four (4) 16-mm reels of footage from the 1941 Charter Oak Bridge collapse that occurred during the bridge's construction which killed 16 workers.

Once Technicolor received each film shipment, they catalogued each reel assigning it a barcode and documented the film contents. Technicolor then stored the film in their climate controlled vault until they were ready to process each reel. The Technicolor process involved adding a leader and footer on the film and replacing every splice on each reel so that the glue from the old splices would not transfer onto the Spirit 4K machine. Each splice was replaced with a cement overlap splice for strength and to prevent wear on the transfer machine. The result of the splicing process resulted in a frame on each side of the old splice being lost on the cutting room floor. However, these losses were acceptable so that the film could be transferred, and in most cases, these were frames from the start or end of a photolog run and may not be useable footage anyway. Once splices were fixed Technicolor cleaned the film and processed it through the Spirit 4K scanner. The scanner is capable of processing 7.5 frames a second. The result is a 50 MB DPX image for every frame on the reel that is 4096 pixels by 3112 pixels. This is a resolution approximately twice that of a high definition television (1920 X 1080 pixels). These DPX images were then transferred to a 1TB LTO-4 tape. Each 1,600 foot reel required two LTO-4 tapes. The resulting tapes were then shipped back to UConn for further processing. Figure 1 outlines the Technicolor workflow while Figure 2 outlines the entire workflow for the film transfer portion of the project.

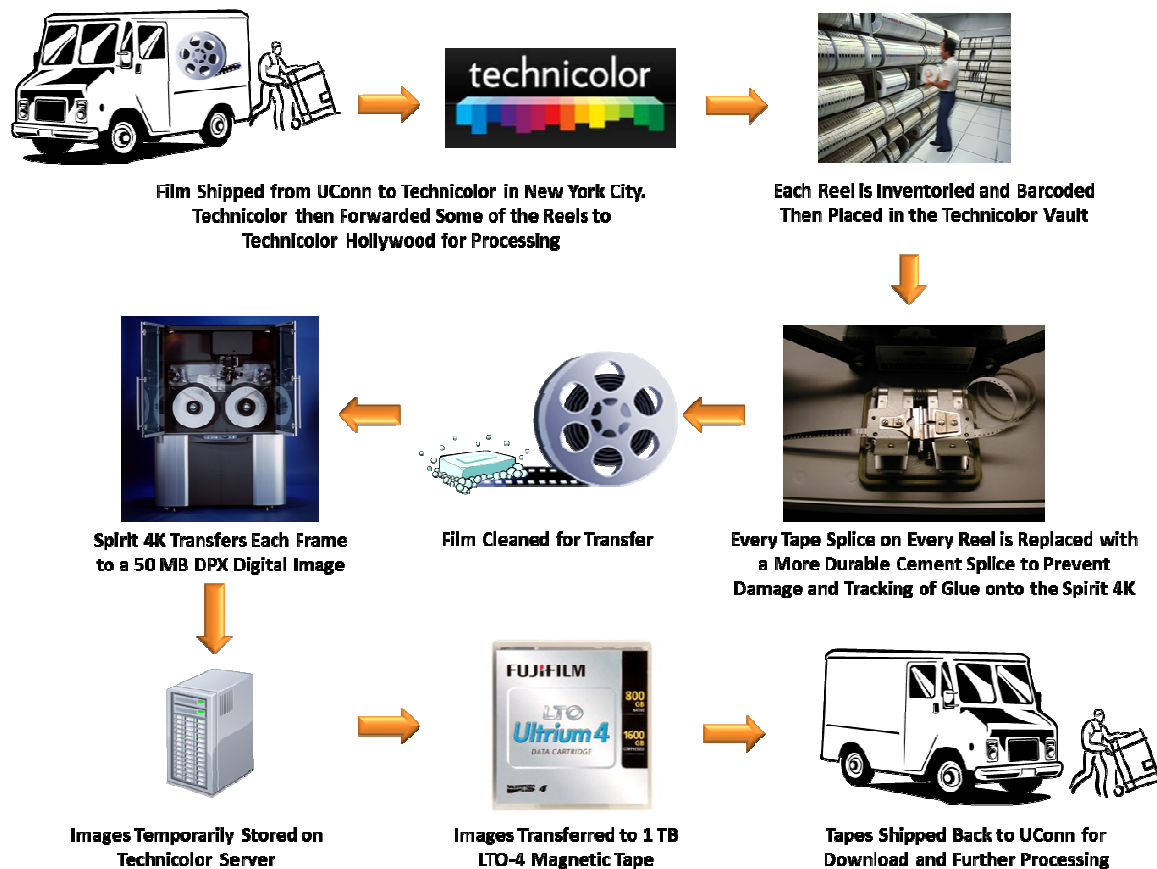


Figure 1: Technicolor Film Transfer Workflow

Once the LTO-4 Tapes were received by UConn, they were then inventoried and placed in a queue for download. The LTO-4 tapes received from Technicolor contain images of such high resolution they are now considered archive quality and can replace the 35mm reels thus reducing long term storage needs. The LTO-4 download process takes significant time and effort. Each LTO-4 tape takes, on average, 4.5 hours to complete. Tape downloads were started every morning and then tapes were changed and a second download was started before leaving for the day. This process occurred every workday for over 2 years.

Once the DPX images were loaded onto an external hard drive they were then converted to JPEG images and reduced in size from 50MB each to, on average 1.2MB each. This still created a high quality JPEG image that cannot be visually distinguished from the DPX file, but made the file more manageable in a network setting. During the JPEG conversion and compression process, the images were also color corrected and contrast adjusted to create the best quality image possible. This was necessary because Technicolor set an overall color scheme and contrast level for the entire reel. This left some images dark and hazy while others were too bright with an odd color balance. The compression software allowed for the color balance and contrast levels to be adjusted for each image in an automated fashion. This process took approximately 4.5 hours per LTO-4 tape as well. The result is a high quality JPEG image that is stored on an external RAID drive that can then be uploaded to a server for deployment.

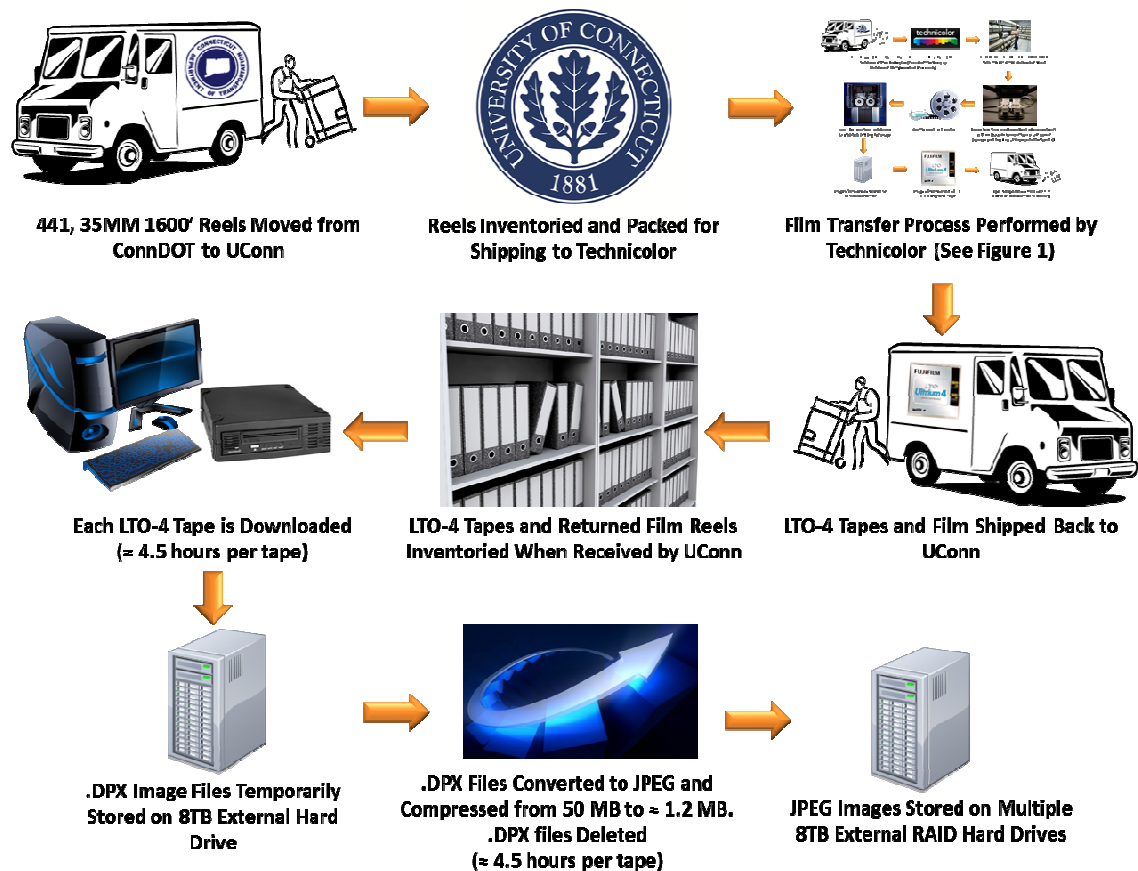


Figure 2: Overall Film Transfer Workflow

35-mm Film Transfer Results

The results of this project were that all 441 reels of ConnDOT's historical 35mm film were converted to high resolution digital imagery for incorporation into ConnDOT's Digital HIWAY software. Furthermore, the 35mm film archive is now preserved on a second media (LTO-4 tape) with ultra-high quality 4K DPX images. Figures 3-5 display the difference in quality from images previously transferred from film in the late 1990's and the 4K images transferred by Technicolor under this project.

Appendix B contains a spreadsheet outlining the film transferred for each year. Every reel of film was removed from the ConnDOT archive and sent to Technicolor. Missing chapters are believed to be lost or misplaced over time and thus, lost forever.



Figure 3: Route I-84 in 1985 Original Conversion (top) 4K Conversion (bottom)



Figure 4: Route 169 in 1985 Original Conversion (top) 4K Conversion (bottom)



Figure 5: Route 15 in 1985 Original Conversion (top) 4K Conversion (bottom)

Film Transfer Statistics

Transfer of the film began in the spring of 2010. Table 1 outlines each delivery of film as sent or hand delivered to Technicolor. The film was packed on a pallet and wrapped in shrink wrap and sent to Technicolor in New York via FedEx freight.

Table 1: Delivery Schedule of Film to Technicolor

YEAR	Chapter(s)	Notes
1988	1-30	
1990	1-30	
1992	1-8	Delivered on Feb 23, 2010 68 reels
1986	4-30	
1987	1-30	Chapter 8 missing
1989	1-30	
1991	1-30	Chapters 2 and 20 missing
1992	9-30	Chapter 10 missing
		Shipped June 14, 2010 134 reels
1970's	Reels 1-11	
1970's	Reels 36-38	
1970's	Reels 40-57	
1970's	Reels 59-69	
1970's	Reels 80-135	
		Shipped June 25, 2010 111 reels
1985	1-30	Chapter 14 missing
1986	1-3 and 11	
1987	8	
1991	2 and 20	
1993	1-30	7 and 21
1994	1-30	
1995	1-30	10, 25, 26 and 30 missing
1996	18a	
1996	20a	
1996	21a	
1996	21b	
1996	22a	
1996	25a	
1996	25b	
1996	26a	
Miscellaneous Reels in Box	Special request ConnDOT Runs	Shipped June 25, 2010 128 reels

Shortly after the first film delivery, the film was processed by Technicolor and then DPX images were sent back to UConn on 1 TB, LTO-4 tapes. Table 2 outlines when tapes were returned and then processed by UConn into JPEG images. The entire project lasted three and a half (3.5) years with the first half year spent on arranging a vendor for the film transfer. The actual transfer of film took three years and a total of 12,798,508 images were processed by Technicolor. The image counts also include the header and trailer of film added to the reels which are necessary to start and end the feed of film through the 4K transfer machine. Therefore, actual roadway images will total a little less than 12 million. These images were returned on 946, 1 TB, LTO-4 tapes with each tape taking on average 8-hours to download the DPX images and then convert to JPEG. The full download and transfer of all LTO-4 tapes took approximately 7,600 hours. Dr. Jackson was able to process 4 tapes each day, which included downloading and converting to JPEGs overnight into the next day. However, every tape was not successful in downloading on the first attempt. There were a total of 59 tapes that would not download and

had to be sent back to Technicolor to be rewritten. The cause of the tape errors is not well known but is thought to be attributed primarily to differences in LTO-4 tape machines used at UConn and Technicolor. The majority of the problems came from tapes written by a particular drive at Technicolor. When the tapes were sent back, Technicolor could download the majority of the tapes that would not work here at UConn. Once Technicolor discontinued use of that particular drive the error tapes dropped dramatically to only a few tapes over the last 2 years of the transfer process.

Table 2: Timeline of images received and processed by UConn

FY	Quarter	Number of Frames Received from Technicolor *	Number of Frames copied from LTO to Hard Drive**	Number of Frames Converted to JPEG
2009	1	0	0	0
2009	2	0	0	0
2010	1	204,000	0	0
2010	2	1,164,000	840,000	600,000
2010	3	1,368,000	1,200,000	960,000
2010	4	1,476,000	1,476,000	1,440,000
2011	1	696,000	900,000	1,020,000
2011	2	612,000	756,000	876,000
2011	3	396,000	540,000	660,000
2011	4	384,000	360,000	480,000
2012	1	1,458,142	1,568,254	1,568,594
2012	2	1,656,025	1,658,695	1,534,852
2012	3	1,904,923	1,969,046	1,964,368
2012	4	1,479,418	1,530,513	1,694,694
	Totals ==>	12,798,508	12,798,508	12,798,508
	Total Job†	12,798,508	12,798,508	12,798,508
	% Complete	100.0%	100.0%	100.0%
	% Proj Time	93%	93%	93%

The results of the film transfer by year can be found in Table 3. In total, a little over 17 TB of storage space is required for the ConnDOT film archive once it was converted from DPX to JPEG. The conversion reduced the 900 TB LTO-4 archive, down to 17 TB of image data. These images are now stored on RAID external drives and a server at the University.

Table 3: Images Transferred by Year Filmed

	Total # of Images	size (Gb)
1942	92,568	59
1984-1973	2,002,350	2,083
1985	762,896	1,464
1986	722,761	785
1987	783,273	1,450
1988	756,102	1,230
1989	1,040,383	894
1990	1,008,690	1,117
1991	1,561,143	1,919
1992	804,279	1,119
1993	735,223	845
1994	731,565	901
1995	655,810	1,104
1996	1,141,465	2,116
Total	12,798,508	17,087

Once Technicolor was done transferring the film and the LTO-4 Tapes had been verified to work, the film was returned in UConn in cardboard boxes and stored until all the images had been processed.

1942 Charter Oak Bridge Collapse

In addition to the photolog imagery, ConnDOT also requested the transfer of 16mm film captured during the 1942 construction of the charter Oak Bridge over the Connecticut River in Hartford Connecticut. During the filming of this footage, the partially constructed bridge collapsed, resulting in the death of 16 workers. While, the actual bridge collapse was not captured on film, the construction, aftermath of the collapse, and the grand opening of the bridge were all documented in this film. The footage from the 6 surviving reels was transferred as still images and movie files. These files are now available for viewing in high definition just in time for the 49th anniversary of the bridge opening. Figure 6 contains a few images from these 6 reels.

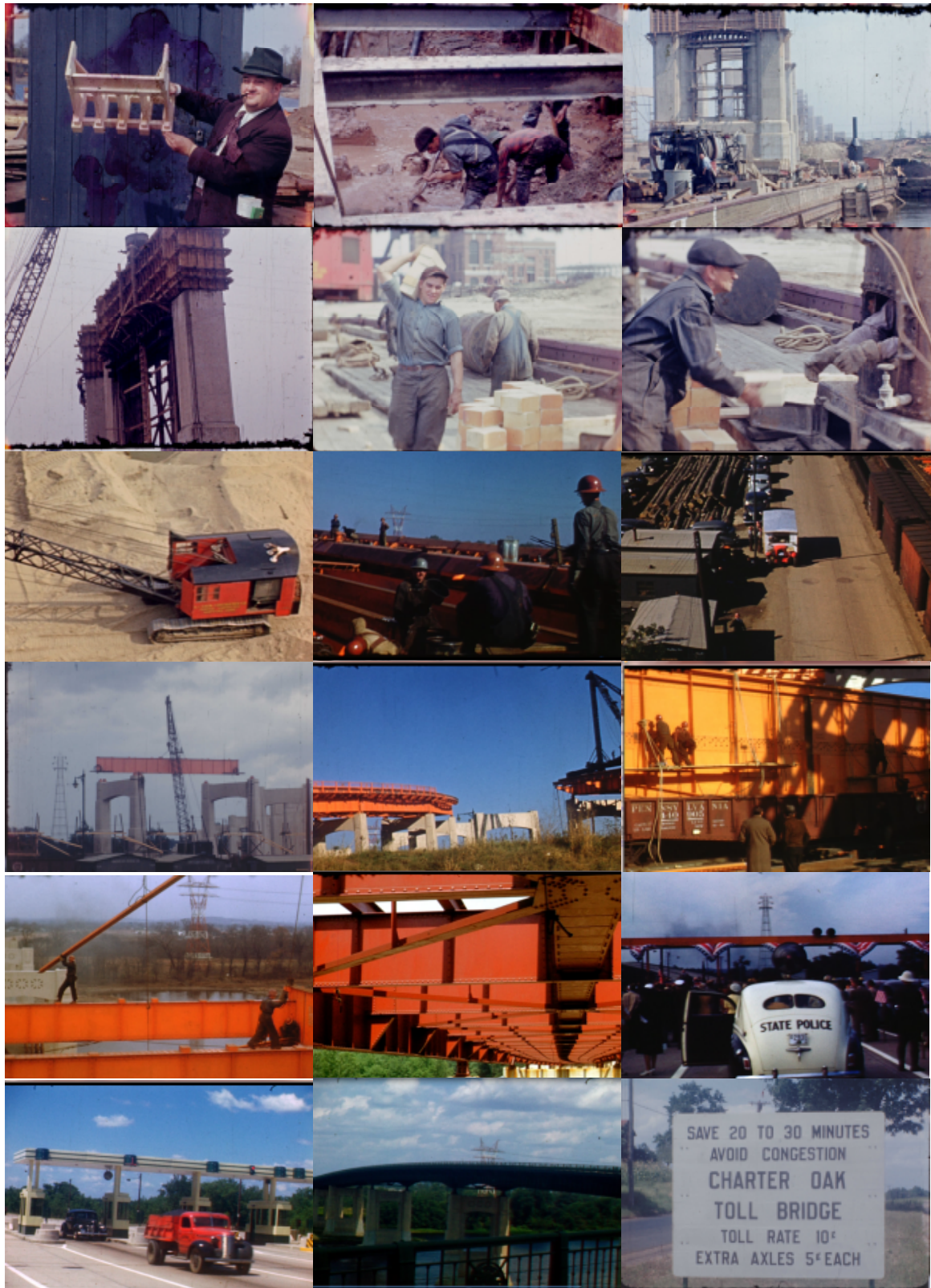


Figure 6: 1942 Construction and Grand Opening of the Charter Oak Bridge

Long Term Film Storage

At the end of the film transfer process Dr. Jackson worked with ConnDOT and the Connecticut State Archivists to secure a location to store the 35mm reels of film. The state archivist agreed to take the film and store it in the climate controlled film vault in Rocky Hill, Connecticut. This will be the long term storage location for the film while the electronic images will be available in digital format for engineers and planners to review with little effort at their own personal computers.

3D Photolog Research

A second objective of this research project was to investigate the ability to collect 3D ground based stereoscopic imagery in a photolog van. This process involved a proof of concept for the use of two HD cameras mounted in the turret of one of the state's photolog vans. This required some reengineering of camera mounts and instrumentation in the van. The first step involved finding a way to mount two cameras in the given space above the driver and operator of the van. The resulting camera mount was designed and constructed at UConn using the ball joint from one of the vans other camera mounts, with some custom designed and machined plates to hold two cameras (Figure 7).

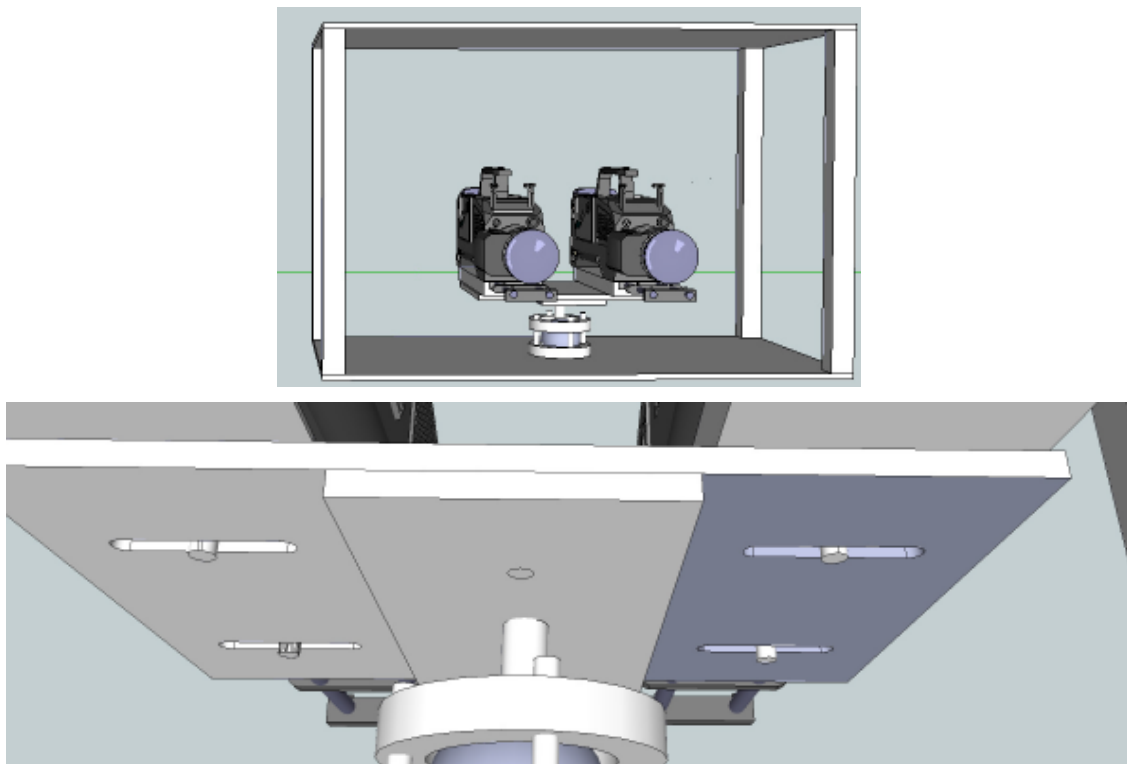


Figure 7: Custom Designed and Fabricated 3D Stereoscopic Camera Mounts

Once the cameras were mounted in the van (Figure 8) the data capture system also had to be customized to record simultaneous data feeds from each camera. This involved splitting the image capture trigger signal into two feeds that would synchronize an image capture at the exact same time in each camera. Previously the van only used one camera, therefore it only needed to capture one image at a time. The addition of a second camera required a second image storage system to be installed to store a stereo pair of images.

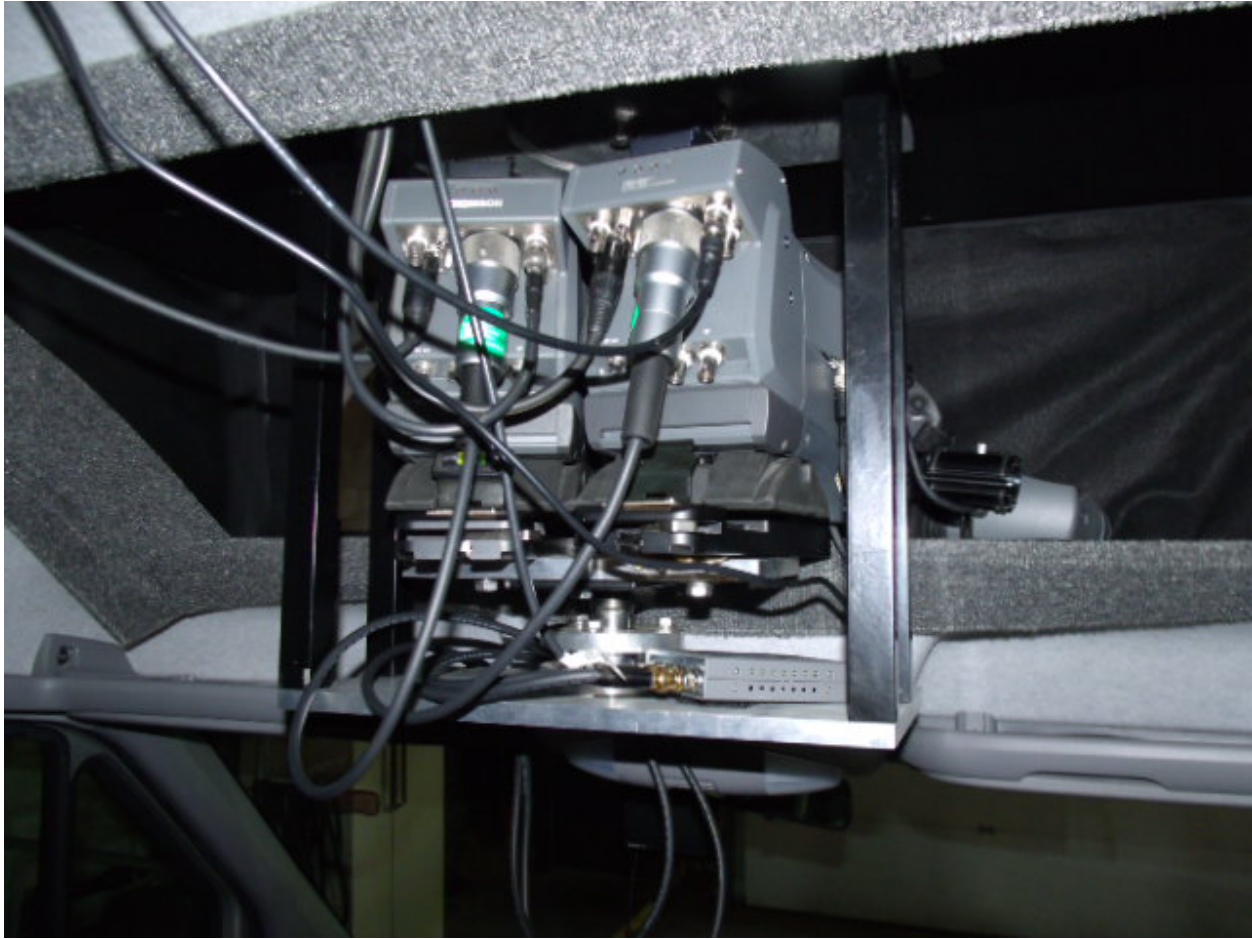


Figure 8: Stereoscopic Photolog Setup

3D Photolog Research Results

Under the new image collection scheme, the van's system was able to capture the right and left "eye" simultaneously. With very little tweaking and testing of the system, dual image capture was successful. The result was a high definition 3D image of the roadway at 5 meter intervals. The resulting images produce a stunning 3D image that give the viewer a feeling of depth perception and the ability to move one's head to the left or right and feel as if they can see around objects in the foreground. To view these 3D images a workstation needs four components:

- 1) 3D capable monitor, which in reality means a monitor with a refresh rate equal to or greater than 120 Hz
- 2) 3D ready graphics card
- 3) 3D glasses
- 4) Computer running Vista or newer operating system. (Professional version glasses will work with Windows XP but cost 6 times the standard glasses with no visible difference in image quality or 3D effect).

Item number 4 is a major hurdle for implementation for ConnDOT since all of their computers run on Windows XP. Standard glasses are under \$125 while the professional versions of 3D

glasses run over \$750 each. Therefore cost effective widespread 3D data collection is not realistic until the department is able to upgrade their PCs to Windows 7 or a newer Windows operating system.

The collection of ground based stereoscopic imagery opens the photolog program to a new level of data collection and research. With stereo images comes the ability to determine distances to and between objects in a picture. This would further the uses of the imagery to allow for higher accuracy in roadway object dimension measures and could lead to the creation of a higher accuracy surveying type tool. This surveying tool could be used in the office as opposed to sending crews out in the field to measure objects and inventory roadway features. However, this project only served as a proof of concept that these types of images could be collected and they can be collected with minimal modifications to the existing photologging vans. The development of surveying, 3D surface and distance measuring tools still needs considerable research and development before they are a reality.

Digital HIWAY Upgrades

Under this research project, substantial upgrades were made to DigitalHIWAY and proof of concept projects were completed to investigate if other forms of web-based media could provide large scale access to ConnDOT's photolog imagery. Each of the tasks, defined below, was completed by David Burns, the license holder of ConnDOT's DigitalHIWAY software.

DigitalHIWAY Wayback Machine

The Connecticut DOT photolog program has a long history in the state of ground based imagery. These images in digital format previously only went back to 1985. Through the digitation process described above, these digital images now go back almost 40 years to 1973. Before the upgrades described below, it was difficult and time consuming to navigate to the exact same location in other years from year currently being viewed. The Wayback Machine developed by Mr. Burns allows for rapid navigation through time while maintaining the same (or approximate) physical location on the roadway. A user can now select a route, milepost and year to view imagery, and then select another year and a popup window will show what that roadway looked like in the years selected. This can be done for multiple years to get a time series development of environment around the roadway or view the pavement degradation and subsequent replacement with respect to time. This tool will provide powerful data for pavement management, urban sprawl and land use research as well as crash data analysis for changes in trends in crash history that may be explained by or correlated with roadway enhancements.

DigitalHIWAY Google Map Support

In an effort to make the photolog images captured each year available to a larger audience, Mr. Burns created a Google map application that would provide users a map based imagery tool to view images and their physical location on a map. This project successfully created a Google map based application that would allow users to select their route on the map and then would open imagery for that section of the roadway. This was a test project for only a small subset of routes in CT, but was successfully able to perform this task for these routes. The Google map interface allows the following operations:

- 1) Display Current Image Location:** Users in digital HIWAY are able to right click and show their current image location on a Google map. As the images advance along in

digital HIWAY, the push pin on the Google map will move along showing the physical location on a MAP (Figure 9).

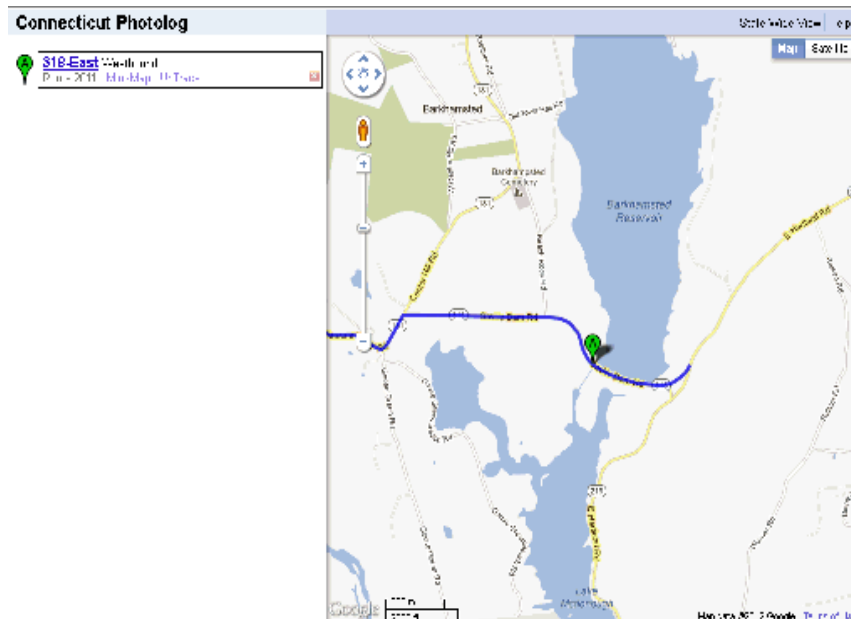
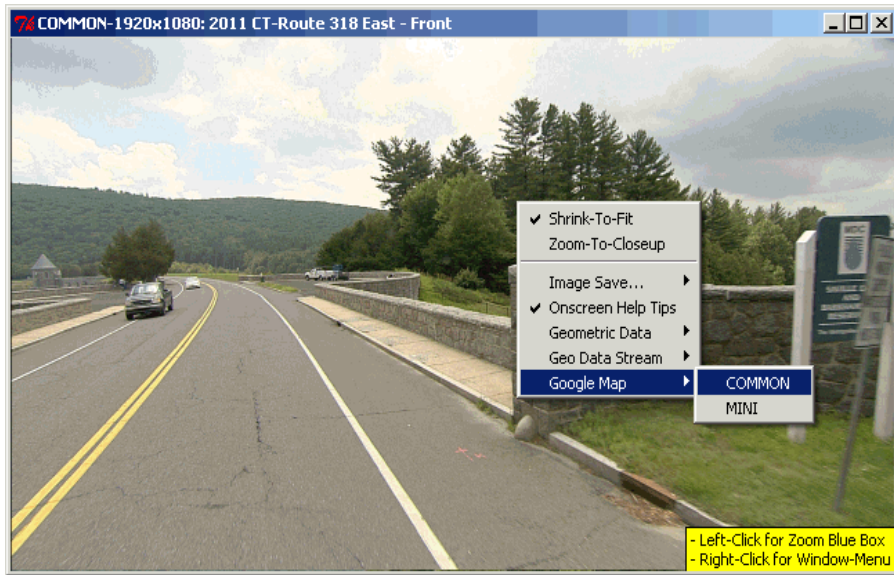


Figure 9: Google Map App, Display Location

- 2) **Drag, Drop and Go:** In the Google map app, users can select the push pin option, then drag and drop the push pin onto the desired location on the route. As a result, the image for that location will appear in Digital HIWAY (Figure 10).

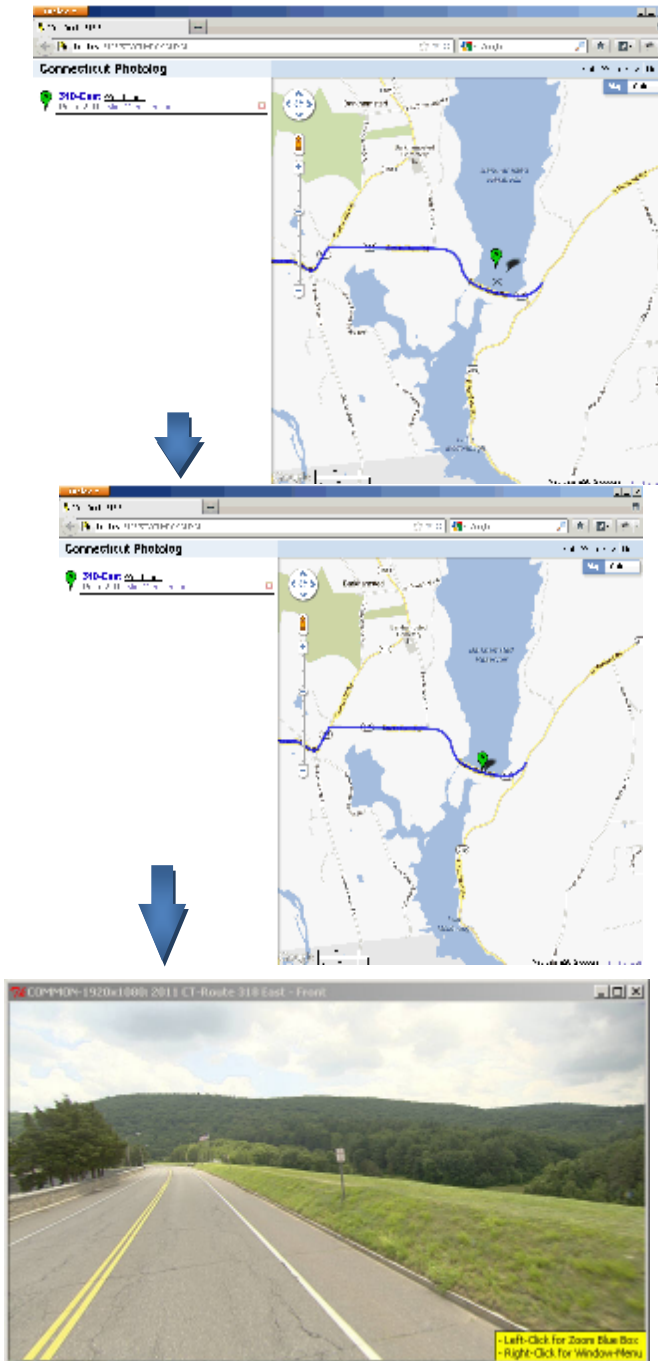


Figure 10: Google Map App, Drag, Drop and Go

- 3) **Map Control and Push Pins:** Within the Google Map Application, users can incorporate multiple push pins, generate subsets of maps and “mini-maps” as well as using the push pin symbols and functionality to view forward and reverse directions of the same route. Users also have the enhanced capability of viewing sections of merged routes that have been photologged more than once in a season due to overlapping route segments.

JPEG2000 Image Support

Digital HIWAY previously only supported the JPEG image format. Revisions to Digital HIWAY now allow the DOT to use JPEG2000 files which have more versatility and allow the Client to retrieve sections of the image instead of the entire JPEG image. This option will save on network resources and allows users to retrieve images faster over the network.

MAC OS X Support

Before this project the Digital HIWAY software was not supported on the MAC operating system. By refining the Digital HIWAY source code (Tcl/Tk), activating the Tk-GUI support for MAC OS X and converting the C-code over to the Apple "XCODE," Digital HIWAY can now be installed and run on MAC machines as well as Windows machines. This allows the DOT to expand the user base for this tool within the DOT, consultants and UConn.

Conclusions

Through this research project ConnDOT and UConn were able to convert over 12 million 35-mm frames of historic roadway imagery into high resolution digital imagery. The digitization of the 35-mm film increases the potential for users to access and view these images through their person computer. Furthermore, this report documents the entire process so that other states that have similar historical footage may follow a similar digitization scheme. This report also documents a successful 3D photolog proof of concept that has the potential to provide unprecedented levels of imagery and measurement of roadway features and geometry due to the stereoscopic effect of dual cameras used in a moving photolog vehicle.

Appendix A: UConn's RFQ for a Film Transfer Vendor



UNIVERSITY OF CONNECTICUT

REQUEST FOR QUOTATION

for

CONNDOT PHOTOLOG FILM TO 4K FILE TRANSFERS

RFQ #B995562-2

Issue Date: October 9, 2009

Bid Due Date:

Thursday, October 29, 2009 @ 2:00 P.M.

Kathleen Joy
Assistant Director, Purchasing
University of Connecticut
3 North Hillside Road, Unit 6076
Storrs, CT 06269-6076
Fax: (860) 486-5051
Email: kathleen.joy@uconn.edu

Introduction

The University of Connecticut (hereinafter referred to as the "University" or "UCONN") is seeking quotations from experienced and qualified vendors to transfer up to 12 million 35 millimeter film frames and produce from each frame a 4096 X 3112 resolution (referred to as "4K") color digital image. Each scanned frame will be transferred and a Digital Picture Exchange (.DPX) file will be created and saved to Generation 4 Linear Tape Open (LTO4) or newer LTO generation should LTO5 or greater become available during the life of the contract.

In soliciting quotations, it is the University's intent to make a single award for file transfers. However, if, in the University's opinion, savings can be realized by making a dual or multiple awards the University will reserve the right to do so. The University will also reserve the right to negotiate by line item, prior to any award, and to place orders in any manner deemed by the University to be in its best interest.

Background

The Connecticut Department of Transportation has been photologging their transportation network for thirty-five years. Photologging at a minimum refers to the use of an instrumented vehicle which is designed to capture successive photographs of the roadway at defined intervals. Currently the photolog van can collect GPS location, high definition front and side view images, pavement rut depth, pavement cracking information and vertical and horizontal curvature. However, the photologging van has seen many updates and the addition of numerous data collection devices since Connecticut's first van was constructed in the 1970s.

Initially photolog images were captured on movie quality film and had to be viewed on three filmstrip viewers in the basement of the department's headquarters. In the 1980s ConnDOT was able to record their collected images to laser disk. This increased the user-base to sixteen customized laserdisc-based stations. With the decrease in laser disk technology in the 1990's, the department was able to offer thirty photolog stations throughout the department. The most recent innovation in data storage and viewing was the DVD. This media allows ConnDOT provide the photolog end product to approximately 500 users.

In addition to improving image quality and storage during new collection, ConnDOT has investigated converting photolog film from the 1970s and 1980s to a digital, and more widely accessible media, such as high definition (HDTV). It is anticipated that a significant improvement in archive quality and accessibility will lead to greater photolog use at ConnDOT and UConn for tasks involving utility audits, historical studies on pavements, signing, road geometry, utilities, intersections, land use, urban sprawl, as well as improved accident reconstruction, and investigation. The

Connecticut State Library considers the archive historically significant and in need of preservation.

Approximately 11.5 million frames of archive photolog film collected during years preceding digital storage and computer distribution exists at ConnDOT's research facility in Rocky Hill, CT. These images only exist in film format and can only be viewed with a film-to-tape-transfer device. The hardcopy indexing of the film makes locating the desired image on the roll of film time consuming. Furthermore, if an UConn student or employees wishes to view these images they must travel to Rocky Hill and have assistance with the viewer and film. Therefore, the majority of potential UConn users are unaware images date back to the 1970s due to the lack of access.

The oldest film has been stored for over 35-years in the Rocky Hill Laboratory complex, which does not possess a climate-controlled room, and is vulnerable to overhead plumbing leaks, humidity, and temperature fluctuation. The film is fading and will eventually be lost forever if an effort is not made to permanently preserve it now.

According to the 1982 National Cooperative Highway Research Program Synthesis of Highway Practice Number 94 on Photologging, "at least 41 states, 29 cities, 6 counties, the U.S. Park Service, and the U.S. Forest Service have used photolog,"ⁱ which at the time was nearly all film-based. At the time of the 1982 report, "more than 500,000 miles"ⁱⁱ had been collected. Film continued to be used throughout the 1980s and well into the 1990s. From ConnDOT's experience, it can be surmised that much of this film may still exist. Existing photolog film represents a national treasure of historic roadway information that is slowly deteriorating and being lost for future use. No research has been done to determine best practices for preserving and making use of archive photolog film.

The overall objective for the UConn portion of the study is to document and develop guidelines on digital preservation of historical Connecticut photolog images that date back to 1973. This will, in turn improve image quality and ease of access to ConnDOT and UConn and by converting the early film images to a digital format. Firstly, the UConn team will address and document the technical parameters, production process and quality control procedures required to convert photolog film libraries to digital image libraries. The resulting technical parameters for implementing larger capacity optical or magnetic storage of images for stand-alone (off-network) photolog users will be reported such that other states and/or users can transfer and preserve their film archives to digital media. Secondly, the project will document and report on how to refine the transfer process such that image quality is maximized. Transfer procedures used will be documented as to how images were restored and corrected for color shifts and other image-quality losses associated with age-related deterioration of the film. Thirdly, The UConn Team will develop guidelines with the assistance of the

Connecticut State Archives on best practices for handling, transporting, and storing of original photolog film. The results of this objective will serve as a guideline for other states or agencies to ensure the longevity of their historical photolog images. Lastly, the project will prepare and publish a final report which could serve as a guideline for use by other states, U.S. Park Service, cities and counties which wish to preserve and make their images readily available.

Section I
General Conditions

1.0 Errors

Vendors shall promptly notify the University of any ambiguity, inconsistency or error which they may discover upon examination of these documents.

1.1 Clarifications

1.1.1 A vendor requiring clarification or interpretation of the RFQ shall make a written request to the University to be received at least seven (7) days prior to the date for receipt of the RFQ (**October 29, 2009**) via facsimile to (860) 486-5051, via email or by mail to:

Kathleen Joy
Purchasing Department
University of Connecticut
3 North Hillside Road, Unit 6076
Storrs, CT 06269-6076
Fax: (860) 486-5051
Email: kathleen.joy@uconn.edu

1.1.2 Any interpretation, correction, or change of this RFQ shall be made by addendum. Interpretations, corrections or changes of the RFQ made in any other manner shall not be binding and vendors shall not rely upon such interpretations, corrections or changes. The University Purchasing Department shall issue any changes or corrections.

1.1.3 Addenda - All addenda shall be mailed or delivered to all that are known to have received the RFQ. No addenda shall be issued later than seven (7) days prior to the date for receipt of RFQ's except an addendum, if necessary, postponing the date for receipt of RFQ's or withdrawing the RFQ.

1.2 Qualification of Bidders

1.2.1 RFQ's will be considered from vendors with a demonstrated history of successfully providing similar services to other institutions of higher education with similar volumes and needs.

1.2.2 Vendors must be prepared to provide any evidence of experience, performance and/or financial surety that the University deems necessary to fully establish the performance capabilities represented in the vendor's RFQ.

1.2.3 The University will reject any RFQ and void any award resulting from this RFQ to a vendor who makes any material misrepresentation in their RFQ.

1.2.4 The University reserves the right to request a vendor site visit and ask for a trial film transfer to confirm the vendor's ability to perform the transfers to the desired quality. The University may use the visit and trial transfer as a basis for accepting or rejecting their RFQ.

1.3 Service and Support Requirements

1.3.1 Vendor must provide a sales representative, on an "as needed" basis, who will provide the following services:

1.3.1.1 assist the University with resolving customer service problems,

1.3.1.2 devote as much time as is necessary to effectively meet the needs of the University as they relate to any contract resulting from this bid solicitation.

1.4 Delivery

1.4.1 Delivery shall be in strict accordance with the instructions listed on each purchase order – direct to the ordering department premises as directed.

1.4.2 The vendor will be responsible for the delivery of commodities in first-class condition at the point of delivery, and in accordance with good commercial practice.

1.5 Pricing

1.5.1 All prices shall remain fixed for the full initial term of the contract, July 1, 2009 through June 30, 2010. Price increases thereafter, and for the duration of this contract, will only be allowed on the annual anniversary date of award and when:

1.5.1.1 the manufacturer issues a new price list,

1.5.1.2 price increases are based on a documented change in the vendor's net cost of products or other discounts allowed and said documentation is provided to the University,

1.5.1.3 the University is notified of the increase a minimum of thirty (30) business days prior to the effective date,

1.5.1.4 price increases have been negotiated between the successful vendor and the University Purchasing Department. However, in the absence of extenuating circumstances, the plus/minus percentage adjustment shall not exceed the percentage increase/decrease in the United States Bureau of Labor Statistics Producer Price Index.

1.6 Ordering Procedure

The University may issue "Blanket Purchase Orders" under the terms and conditions of any agreement established as a result of this RFQ. In addition, Purchase Orders may be issued for specific items.

- 1.7 Taxes
The University of Connecticut is exempt from federal excise taxes, and no payment will be made for any taxes levied on the vendor's employees' wages. The University is exempt from state and local sales and use taxes on the services and/or equipment supplied pursuant to this agreement.
- 1.8 Additional Costs
Costs associated with every aspect of delivery, transportation, labor, materials and service necessary to provide the commodity as specified herein must be included in the net pricing. The University shall not be responsible for any costs incurred by the vendor that are not included in the bid response.
- 1.9 Obligations
The contents of the Request for Quotation (RFQ) and any clarification thereto submitted by the successful vendor shall become a part of the contractual obligation incorporated by reference into the ensuing contract.
- 1.10 Warranty
The vendor shall unconditionally warrant all products as being free from defects and capable of performing to the requirements of this RFQ when operated by the University within the parameters specified in the manufacturer's specifications.
- 1.11 Value
It is estimated that the proposed research will cost a total of approximately \$282,000.00 over a 30-month period of time. This is provided for informational purpose only and should not be construed as a commitment by the University to purchase any specified quantities.
- 1.12 Service
The vendor must be prepared to provide next day response to service calls.
- 1.13 Insurance - Within 10 days of notification of award the successful bidder must provide a certificate of insurance that indicates coverage naming the University of Connecticut as additional insured and indicating coverage for a minimum of:
- 1.13.1 Workers Compensation and Employers' Liability:
Statutory coverage in compliance with the Compensation laws of the State of Connecticut. Coverage shall include Employer's Liability with minimum limits of \$100,000 each accident, \$100,000 disease-each employee and \$500,000 disease-policy limit.
- 1.13.2 Commercial General Liability:
\$1,000,000 Combined Single Limit per occurrence for bodily injury, personal injury and property damage. Coverage shall included Premises and Operations, Independent Contractors, Products and Completed Operations, Contractual Liability and Board Form Property Damage coverage. If a general aggregate is

used, the general aggregate limit shall apply either separately to the project or the general aggregate limit shall be twice the occurrence amount.

1.13.3 Automobile Liability:

\$1,000,000 Combined Single Limit Automobile Liability insurance shall be maintained against claims for damages resulting from bodily injury, including wrongful death, and property damage which may arise from the operations of any owned, leased, hired or non-owned automobiles used by or for the Contractor in any capacity in connection with carrying out this contract.

1.13.4 Minimum Scope of Insurance:

All Liability insurance policies shall be written on an "occurrence" basis only. All insurance coverage is to be placed with insurers authorized to do business in the State of Connecticut and must be placed with an insurer that has an A.M. Best's Rating of no less than A-, VII. All certificates of insurance shall be provided to the University of Connecticut, Purchasing Department. The University of Connecticut shall be named as Additional Insured for liability coverage required under this document. The Contractor's insurer shall have no right of recovery of subrogation against the University of Connecticut and the Contractor's insurance shall be primary coverage. The Certificate Holder Box shall read: University of Connecticut, 3 North Hillside Road, Storrs, CT 06269-6076.

Section II Terms & Conditions

2.0 Term

The initial term of any contract awarded as a result of this RFQ will be for three (3) years from date of award, with the option to extend for two (2) additional one (1) year terms or parts thereof. Such intent to renew shall be conveyed in writing by the Purchasing Department to the vendor sixty (60) days prior to the effective date.

2.1 Payment Terms

The University's payment terms are 2% 15 days net 45 days. These terms shall be honored unless otherwise stated on the Form of Bid (page __). The University will authorize payment to the vendor after providing satisfactory product and receipt of the vendor's invoice.

2.2 Statutory/Regulatory Compliance

The vendor shall keep informed of, and shall provide all permits and comply with all applicable laws, ordinances, rules, regulations, and orders of the state and federal governments or public bodies having jurisdiction affecting any contract which may result from this Request for Quotation.

2.3 Remedies Upon Default

In any case where the vendor has failed to deliver or has delivered non-conforming goods or services, the University shall provide a "notice to cure". If after notice, the vendor continues to be in default, the University may procure goods or services as substitution from another source and charge the cost difference to the defaulting vendor.

2.4 Collection for Default

The Attorney General shall be requested to make collection from any defaulting vendor pursuant to the preceding paragraph.

2.5 Immunity from Liability

Every person who is a party to this agreement is hereby notified and agrees that the University, and its agents, are immune from liability and suit for or from the vendor's activities involving third parties and arising from any contract which may result from this solicitation.

2.6 Indemnification

The vendor agrees to jointly and severally indemnify and hold the University, its agents and successors, and assigns harmless from and against all liability, loss, damage or expense, including reasonable attorney's fees which the state may incur or sustain by reason of the failure of the vendor to fully perform and comply with the terms and obligations of this agreement.

2.7 Contract Termination for Cause

The University may terminate any resulting contract for cause by providing a Notice to Cure to the Supplier citing the instances of noncompliance with the contract.

2.7.1 The Supplier shall have ten (10) days to reply to the Notice to Cure and indicate why the contract should not be terminated and recommend remedies to be taken.

2.7.2 If the Supplier and the University reach an agreed upon solution, the Supplier shall then have thirty (30) days after such agreement is reached to cure the noncompliance cited in the Notice to Cure.

2.7.3 If a mutually agreed upon solution cannot be reached within ten (10) days after receipt of Notice to Cure by the Supplier, the University reserves the right to terminate the agreement.

2.7.4 If the mutually agreed upon solution is not implemented within thirty (30) days from the date of agreement, the University reserves the right to terminate the contract.

2.8 Termination for Convenience

2.8.1 The University may terminate performance of work under the Contract in whole or in part wherever, if for any reason the University shall determine that such termination is in the best interest of the University and/or the State of Connecticut.

2.8.2 This Contract shall remain in full force and effect for the entire term of the contract period stated in Section 2.0 unless cancelled by the University, by

providing the Contractor 30 days written notice of such intention. If the University elects to terminate the Contract pursuant to this provision, the Contract Administrator and/or designee shall notify the Contractor by certified mail, return receipt requested. Termination shall be effective as of the close of business on the date specified in the notice.

2.9 Prevailing Law

The terms and provisions of this RFQ and any ensuing contract shall be construed in accordance with the laws of the State of Connecticut.

2.10 Promotion

Unless specifically authorized in writing by University Communications on a case by case basis, vendor shall have no right to use, and shall not use, the name of The University of Connecticut, its officials or employees, or the Seal of the University: (a) in any advertising, publicity, promotion; nor (b) to express or to imply any endorsement of contractor's products or services; nor (c) to use the name of the state, its officials or employees of the University seal in any manner (whether or not similar to uses prohibited by subparagraphs (a) and (b) above), except only to manufacture and deliver in accordance with this agreement such items as are hereby contracted by the University.

2.11 Order Placement

Once a contract is issued, the University will place orders using individual or blanket orders with releases issued by designated persons who will be identified in said orders. Purchase orders will be issued by the University Purchasing Department.

2.12 Status of Orders

It is anticipated that the bidder will establish a comprehensive process for monitoring the status of all orders, delivery schedules, etc. Any delays must be brought to the attention of the University within 24 hours prior of quoted delivery date.

2.13 Invoices/Acknowledgements/Packing Slips

Each of these documents must be itemized and show the purchase order number. Additionally, invoices must be itemized and presented in a format acceptable to the University.

2.14 Packaging

All items, unless otherwise stipulated on the purchase order will be shipped boxed/packaged to conform to appropriate national motor freight classifications, including supplements and re-issues. The option to have items shipped wrapped shall be available. Each piece shall be tagged with the manufacturer's standard identification, production and or expiration dates.

2.15 Freight

Unless otherwise noted, prices shall include delivery and transportation charges fully prepaid FOB destination. No extra charges for packing or packages will be allowed. No fuel surcharges will be allowed. There shall be no minimum order amounts.

2.16 Shipments

All shipments to the University locations are to be complete single shipments when possible.

2.17 Work Hours

The hours at which the work shall be performed is at the discretion of the vendor. However, Normal delivery hours are defined to be between the hours of 8:30 AM to 4:00 PM Monday through Friday.

2.18 Responsibility of Those Performing the Work

2.18.1 The firm shall be responsible for the acts and omissions of all the firm's employees and all subcontractors, their agents and employees and all other persons performing any of the work under a contract with the vendor.

2.18.2 The firm shall at all times enforce strict discipline and good order among the firm's employees and shall not employ any unfit person or anyone not skilled in the task assigned.

2.18.3 Incompetent or incorrigible employees shall be dismissed from the project by the firm when so determined by the University, and such persons shall be prohibited from returning to the project without the written consent of the University.

2.18.4 Contractor may be requested, at its own expense, to provide the University with a national criminal background check of each employee to be assigned, before employee is to begin work on site. Contractor shall be responsible to provide all background check reports to Contract Coordinator within ten days. Contractor's employees may be rejected by the Contract Coordinator based on these background checks.

2.19 Protection of Property

The bidder shall adequately protect the University's personal property during all phases of delivery. The bidder shall at all times keep the premises free from accumulation of waste materials or rubbish caused by their operation and shall be responsible for the collection, removal and disposal of such waste and packaging from the site, and for the proper recycling of same when required.

2.20 Standard Wage Rates

Contractors must comply with all provisions of Substitute Senate Bill No. 1056, **Public Act No. 99-142, An Act Setting Standard Rate Wages for Certain Service Workers**. Information regarding this Public Act and when it applies can be obtained from DOL's web site: <http://www.ctdol.state.ct.us/wgwkstnd/99-142guide.htm>. Questions concerning the provisions and implementation of this act should be referred to Gary W. Pechie, Director, Connecticut Department of Labor, Wage and Workplace Standards Division, 200 Folly Brook Blvd., Wethersfield, CT 06109-1114, (860) 263-6790 or his designated representative.

2.21 Executive Order No. 3

This Contract is subject to the provisions of **Executive Order No. 3 of Governor Thomas J. Meskill promulgated June 16, 1971**, and, as such, this contract may be cancelled,

terminated or suspended by the State Labor Commissioner for violation of or noncompliance with said Executive Order No. Three, or any state or federal law concerning nondiscrimination, notwithstanding that the labor commissioner is not a party to this contract. The Parties to this Contract, as part of the consideration hereof, agree that said Executive Order No. Three is incorporated herein by reference and made a part hereof. The Parties agree to abide by said Executive Order and agree that the state labor commissioner shall have continuing jurisdiction in respect to contract performance in regard to nondiscrimination, until the contract is completed or terminated prior to completion. The Contractor agrees, as part consideration hereof, that this Contract is subject to the Guidelines and Rules issued by the state labor commissioner to implement Executive Order No. Three, and that it will not discriminate in its employment practices or policies, will file all reports as required, and will fully cooperate with the State of Connecticut and the state labor commissioner.

2.22 Executive Order No. 17

This Contract is subject to the provisions of **Executive Order No. 17 of Governor Thomas J. Meskill promulgated February 15, 1973**, and, as such this Contract may be cancelled, terminated or suspended by the contracting agency or the State Labor Commissioner for violation of or noncompliance with said Executive Order No. Seventeen, notwithstanding that the Labor Commissioner may not be a party to this Contract. The Parties to this Contract, as part of the consideration hereof, agree that Executive Order No. Seventeen is incorporated herein by reference and made a part hereof. The Parties agree to abide by said Executive Order and agree that the contracting agency and the State Labor Commissioner shall have joint and several continuing jurisdiction in respect to contract performance in regard to listing all employment openings with the Connecticut State Employment Service.

2.23 Executive Order No. 16

This Contract is subject to the provisions of **Executive Order No. 16 of Governor John G. Rowland promulgated August 4, 1999**, and, as such, the Contract may be canceled, terminated or suspended by the state for violation of or noncompliance with said Executive Order No. Sixteen. The Parties to this Contract, as part of the consideration hereof, agree that

(a) The Contractor shall prohibit employees from bringing into the state work site, except as may be required as a condition of employment, any weapon or dangerous instrument as defined in (b):

(b) Weapon means any firearm, including a BB gun, whether loaded or unloaded, any knife (excluding a small pen or pocket knife), including a switchblade or other knife having an automatic spring release device, a stiletto, any police baton or nightstick or any martial arts weapon or electronic defense weapon. Dangerous instrument means any instrument, article, or substance that, under the circumstances, is capable of causing death or serious physical injury.

(c) The Contractor shall prohibit employees from attempting to use, or threaten to use, any such weapon or dangerous instrument in the state work site and employees shall be prohibited from causing, or threatening to cause, physical injury or death to any individual in the state work site.

(d) The Contractor shall adopt the above prohibitions as work rules, violations of which shall subject the employee to disciplinary action up to and including discharge. The Contractor shall insure and require that all employees are aware of such work rules.

(e) The Contractor agrees that any subcontract it enters into in furtherance of the work to be performed hereunder shall contain provisions (a) through (d) of this Section.

2.24 Executive Order No. 7C

This Contract is subject to **Executive Order No. 7C of Governor M. Jodi Rell, promulgated on July 13, 2006**. The Parties to this Contract, as part of the consideration hereof, agree that:

(a) The State Contracting Standards Board (“the Board”) may review this contract and recommend to the state contracting agency termination of the contract for cause. The state contracting agency shall consider the recommendations and act as required or permitted in accordance with the contract and applicable law. The Board shall provide the results of its review, together with its recommendations, to the state contracting agency and any other affected party in accordance with the notice provisions in the contract no later than fifteen (15) days after the Board finalizes its recommendation. For the purposes of this Section, “for cause” means:

(1) a violation of the State Ethics Code (Conn. Gen. Stat. Chapter 10) or Section 4a-100 of the Conn. Gen. Statutes or

(2) wanton or reckless disregard of any state contracting and procurement process by any person substantially involved in such contract or state contracting agency.

(b) For the purposes of this Section, “contract” shall not include real property transactions involving less than a fee simple interest or financial assistance comprised of state or federal funds, the form of which may include but is not limited to grants, loans, loan guarantees, and participation interests in loans, equity investments and tax credit programs. Notwithstanding the foregoing, the Board shall not have any authority to recommend the termination of a contract for the sale or purchase of a fee simple interest in real property following transfer of title.

(c) Notwithstanding the contract value listed in Conn. Gen. Stat. §§ 4-250 and 4-252, all procurements between state agencies and private entities with a value of \$50,000 (fifty thousand dollars) or more in a calendar or fiscal year shall comply with the gift and campaign contribution certification requirements of section 4-252 of the Connecticut General Statutes and section 8 of Executive Order Number 1. For purposes of this section, the term “certification” shall include the campaign contribution and annual gift affidavits required by section 8 of Executive Order Number 1.

2.25 Ethical Considerations

The proposing vendor must certify that no elected or appointed official or employee of the University benefited, or will benefit financially or materially from the proposed services. The University may terminate any contract resulting from this RFQ, if it is determined that gratuities of any kind were either offered to, or received by, any University officer or employee contract to this policy. The authorized signatory of a submitted bid automatically attests this to be true.

The laws of the State of Connecticut provide it is a felony to offer, promise or give anything of value or benefit to a State employee with intent to influence that employee’s acts, opinion, judgment or exercise of discretion with respect to that employee’s duty.

Evidence of violation of this statute will be turned over to the proper prosecuting attorney.

2.26 Mandatory Affidavits

The Office of Policy and Management has created new ethics forms effective August 1, 2007 to assist executive branch agencies in complying with the State of Connecticut's current contracting requirements, pursuant to the Connecticut General Statutes and Executive Orders of Governor M. Jodi Rell.

The University will require the applicable mandatory affidavits to be completed by the Vendor at the time of bid response **and** contract award. The required affidavits are enclosed as part of this document. Detailed information regarding the requirement of such affidavits can also be found on the Office of Policy and Management website: http://www.ct.gov/opm/cwp/view.asp?a=2982&q=386038&opmNav_GID=1806

2.27 SEEC Requirements:

With regard to a State contract as defined in P.A. 07-1 having a value in a calendar year of \$50,000 or more or a combination or series of such agreements or contracts having a value of \$100,000 or more, the authorized signatory to this submission in response to the State's solicitation expressly acknowledges receipt of the State Elections Enforcement Commission's notice advising prospective state contractors of state campaign contribution and solicitation prohibitions, and will inform its principals of the contents of the notice. [SEEC Form 11].

2.28 Non-Discrimination Certification:

"The Office of the Attorney General has approved the attached nondiscrimination certification form to assist executive branch agencies in complying with the State of Connecticut's contracting requirements, pursuant to the Connecticut General Statutes § 4a-60(a)(1) and § 4a-60a(a)(1), as amended by Public Act 07-245 and Sections 9 and 10 of Public Act 07-142.

By law, a contractor must provide the State with documentation in the form of a company or corporate policy adopted by resolution of the board of directors, shareholders, managers, members or other governing body of such contractor to support the nondiscrimination agreement and warranty under C.G.S. §§ 4a-60a and 46a-68h."

Please refer to: <http://www.ct.gov/opm/cwp/view.asp?a=2982&Q=390928> for more information. This was effective 6/25/07 however the form has just become available to us.

2.29 Whistle Blower Protection:

In accordance with the University's compliance program, the University has in place an anonymous ethics and compliance reporting hotline service - 1-888-685-2637. Any person who is aware of unethical practices, fraud, violation of state laws or regulations or other concerns relating to University policies and procedures can report such matters

anonymously. Such persons may also directly contact the University's compliance office at: Office of Audit, Compliance, and Ethics, 9 Walters Avenue, Unit 5084, Storrs, CT 06269-5084; Phone 860-486-4526; Fax 860-486-4527. As a provider of goods and/or services to the University, you are hereby required to notify your employees, as well as any subcontractors, who are involved in the implementation of this contract, of this reporting mechanism.

2.30 Signature Authorization Documentation:

Signature authorization documentation must be included in your bid response under the following guidelines in reference to the individual signing this bid.

- If the contractor is an individual, who is signing the bid in his/her individual capacity, then no signature authorization documentation is required.
- With the exception of an individual, signing in his/her individual capacity, **ALL** contractors must provide some type of signature authorization documentation clearly stating who is authorized to sign the bid on the contractor's behalf.
- Documentation must clearly state when and how such authorization was given.
- Documentation must state that the authorization is still in full force and effect.
- Documentation must be signed by someone other than the individual signing the bid **ON OR AFTER** the date the bid is signed.
- Corporate Resolution, Secretarial Certification or Ratification are acceptable forms of signature authorization documentation.

Samples and further information are on the University of Connecticut Purchasing Department's web page: <http://www.purchasing.uconn.edu/corpres/corpres.html>

Section III Submittal of Bids

3.0 **Each firm, by submitting a Request for Quotation, represents that the firm has:**

- 3.0.1 Read and completely understands the RFQ documents and attachments thereto.
- 3.0.2 Is familiar with the conditions under which services would be provided, including availability and cost of goods and labor.
- 3.0.3 Understands and agrees that all RFQ's must conform to the instructions and conditions contained herein to receive consideration.

3.1 Information Requirement

- 3.1.1 Any catalogs or price sheets that pertain to this RFQ must be included for this RFQ to be deemed responsive.
- 3.1.2 Complete specifications of **alternate methods** to those specified must be included with the RFQ response to allow for proper evaluation. Samples of same may be required and shall be provided at no cost to the university within five (5) business days of receipt of faxed/emailed request.

3.2 Exceptions to Terms and Conditions/Specifications

The vendor shall clearly state, in the RFQ, any exceptions to or deviations from these terms and conditions and/or specifications; otherwise, the vendor will be held responsible for compliance with all requirements listed herein. Bidders shall provide a separate, itemized list of any and all exceptions. Such list must be cross-referenced to the corresponding numbered item in this RFQ.

3.3 References

All offers shall include three (3) references currently using services of the type being offered in a university environment. Please include name, title, telephone number and email address of a contact person at each institution. **Reference checks will be performed electronically: please notify your references of this future electronic transaction.**

3.4 Multiple RFQ's

The University is seeking RFQ's that meet its requirements as outlined in this RFQ. If more than one method of meeting these requirements is proposed, each should be labeled "primary", "secondary", etc. and submitted separately.

3.5 Submittal of RFQ's

3.5.1 Responses must be submitted **in duplicate** to the University of Connecticut Purchasing Department, 3 North Hillside Road, Unit 6076, Storrs, CT 06269-6076. RFQ's submitted by mail must be in an envelope clearly identified with the name and address of the bidder and the designation "RFQ #B995562-2, **CONNDOT Photolog Film to 4K File Transfers**". **All submittals must be received by 2:00 P.M. on Thursday, October 29, 2009.**

3.5.2 No responsibility will be attached to any person for the premature opening of any RFQ that is not properly identified.

3.5.3 Unless otherwise noted elsewhere in this document, all materials submitted in response to this RFQ shall become the property of the University of Connecticut upon delivery. All materials are to be appended to any formal documentation that would further define or expand the contractual relationship of the University and the bidder.

3.5.4 The University reserves the right to reject any or all bids received. Non acceptance of a bid shall mean that another bid was deemed more advantageous to the University, or that all bids were rejected. Firms whose bids are not accepted shall be notified after a binding contractual agreement between the University and the selected vendor exists, or after the University has rejected all RFQ's.

3.5.5 A vendor shall promptly notify the University of any ambiguity, inconsistency or error which they may discover upon examination of the RFQ documents.

3.5.6 The complete response to this RFQ shall include the following documentation:

3.5.6.1 Completed, signed Form of Bid ,

- 3.5.6.2 List of exceptions to terms and conditions (if any),
- 3.5.6.3 References,
- 3.5.6.4 Bidder Contract Compliance Monitoring Report,
- 3.5.6.5 Non-Discrimination Certificate,
- 3.5.6.6 Original signed and notarized mandatory affidavits (Form 1,5),
- 3.5.6.7 Signature Authorization Documentation,
- 3.5.6.8 An original and one copy of your response.

3.6 Minor Technicalities

The University reserves the right to reject any or all RFQ submitted for consideration, in whole or in part, and to waive minor technicalities, irregularities, or omissions, if, in its judgement, the best interest of the University will be served. Non-acceptance of an RFQ shall mean that another RFQ was deemed more advantageous to the University, or that all RFQ's were rejected.

3.7 Incomplete Information

Failure to complete or provide any of the information requested herein, including all requested literature, detailed performance and operating specifications and/or additional information as indicated, may disqualify a vendor for reasons of non-responsiveness.

3.8 Modification or Withdrawal of RFQ's will be execute as follows:

- 3.8.1 An RFQ shall not be modified, withdrawn or canceled by the bidder for a sixty (60) day period following the time and date assigned for the receipt of RFQ's and the vendor so agrees in submitting an RFQ.
- 3.8.2 Prior to the time and date assigned for receipt, RFQ's submitted early shall be modified or withdrawn only by written notice to the University. Such notice shall be received by the University prior to the designated date and time for receipt of RFQ's. Withdrawn RFQ's may be submitted up to the time designated for receipt of RFQ's provided they are then fully in conformance with these terms and conditions.

Section IV Award

4.0 Contract Award

- 4.0.1 The University reserves the right to award a contract not based on price alone but on the basis of the RFQ which best meets the needs of the University. The University also reserves the right to award by item, groups of items or total RFQ.
- 4.0.2 It is the University's intent to make a single award. If at any time during the contract period, the successful vendor is unable to provide the products that meet the University's requirements, the University will be authorized to contact the next lowest bidder. If the next lowest bidder can meet the University's requirements at the same price schedule submitted in response to this Request for Quotation, the University Purchasing Department will be authorized to issue a purchase order to meet the emergency requirements.
- 4.0.3 Any vendor awarded a contract resulting from this solicitation shall be subject to annual performance evaluations by the University. Such evaluations will constitute a review of the vendor's performance relative to timeliness, accuracy, quality, and cost competitiveness.
- 4.0.4 It should be noted that any contract resulting from this Request for Quotation will not be an exclusive contract.

4.1 Assignment/Modification

Neither party shall have the right to assign any Agreement without the written consent of the other party. Neither may this agreement be modified except by written instrument signed by both parties hereto, upon thirty (30) days written notice to the other party.

4.2 Presentation

Potential firms may be asked to discuss their written responses to this document at a presentation on the Storrs campus on dates mutually agreed upon by the firm and the University. If a firm is requested to make a presentation, the firm will make the necessary arrangements and bear any costs associated with the demonstration/evaluation.

4.3 Nonappropriation of Funds

Notwithstanding any other provision of this RFQ or any ensuing contract, if funds anticipated for the continued fulfillment of the contract are at any time not forthcoming or insufficient, either through the failure of the Connecticut Legislature to provide funds or alteration of the program under which funds were provided, then the University shall have the right to terminate the contract without penalty by giving not less than thirty (30) days written notice documenting the lack of funding. Unless otherwise agreed to, the contract shall become null and void on the last day of the fiscal year for which appropriations were received; except that if an appropriation to cover the costs of this contract becomes available within sixty (60) days subsequent to termination under this clause, the University agrees to re-establish a contract with the firm whose contract was terminated under the same provisions, terms and conditions of the original contract.

**Section V
Specifications**

5.0 To receive consideration, the successful bidder shall meet the following service requirements:

- 5.0.1 The University shall supply the contractor with up to 12 million frames of 35mm film on reels up to 1600-feet in length (approximate). The film will be edited by the University using industry standard film editing supplies.

- 5.0.2 From each 1600' reel of film, the contractor shall produce a set of LTO4 tapes containing all film frames scanned to 4096x3112 (4K) pixel resolution color digital images. Each scanned frame will be saved as a Digital Picture Exchange (.DPX) file. The contractor shall provide the University with two (2) copies of each LTO4 tape set for each 1600' reel transferred. A one-to-one, film reel-to-LTO tape set correlation must be maintained throughout the transfer process. No unique tape set shall be populated with additional images from another 1600' reel.

- 5.0.3 One (1) LTO4 tape set will be considered a "master" copy. The second copy will be considered a duplicate work copy. The contractor shall ship all tapes to the following address:

Connecticut Transportation Institute
University of Connecticut
270 Middle Turnpike Unit 5202
Storrs, CT 06269
Attention: Eric Jackson

5.1 Basis of Award

The contract shall be awarded to a contractor that can demonstrate at least five years of experience performing services similar in scope and quantity to those detailed herein. The contractor must demonstrate that the aforementioned experience should include the use of the following minimum transfer equipment:

Thomson Grass Valley Spirit 4K High Performance Film Scanner

and/or ARRISCAN 4K Film Scanner

5.1.1 References, proposed transfer equipment, and proposed workflow should be listed on the proposal schedules. There shall be one primary contractor and one alternate contractor. Should the primary contractor be unable to fulfill the terms of contract, the alternate contractor shall undertake scanning, digital image creation, and all associated services and products as described herein. Orders shall be placed through the issuance of a purchase order. Verbal notification can be given provided that a purchase order number is provided. In the event the primary contractor cannot meet the obligations and schedules of a purchase order they shall notify UCONN within three (3) calendar days.

5.2 Film Type, Reel Length

UCONN will provide the vendor with 35mm film reels in approximately 1600' lengths with additional trailer and leader attached to each end of the reel to insure film is protected and will be in accordance with transfer setup and transfer device operations.

5.3 Film Shipping

UCONN will pay for one-way shipping to the transfer facility. Contractor shall provide and pay for shipping of all film, digital tapes, any other media, hard drives, disks, and other material returned to UCONN regardless of reason for return. The University expects there will be a maximum of 250 film shipments.

5.4 Source Media

35mm film

5.5 Film Editing

UCONN will edit all source material in-house, utilizing film industry standard film editing equipment and supplies. The contractor must ensure that all film they receive from UCONN is appropriately edited and prepared for immediate cleaning and transfer. In the event that UCONN does not provide properly editing film, the contractor must immediately notify UCONN prior to the contractor repairing the film or returning the film back to UCONN. UCONN staff will work with the contractor to determine and carry out the best course of action.

5.6 Transfers

Contractor shall scan and create up to 12 million .DPX files. Film must be cleaned by contractor prior to transfer. Transfer device parameters should be adjusted at the colorist's discretion to produce the best overall image, while maintaining a time-efficient transfer process.

5.7 UCONN reserves the right to attend scheduled transfer sessions to for any reason. Appropriate advance notice will be provided to the contractor prior to the scheduled transfer.

5.8 Replication

Contractor shall produce one master LTO4 tape set and one replicate LTO4 tape set.

5.9 Production and Turnaround Schedule: Contractor shall produce each LTO4 tape set and its replicate within ten (10) days of the receipt of all contractor-approved UCONN-source material.

The University expects that the Vendor to provide a preliminary schedule of film transfers that is approved by the University. The University would like to have half to the images transferred before July 2010 and the remaining half transferred before March 2012.

UCONN may submit multiple 1600'-film reels at one time for transfer. This shall not significantly delay the final production, shipment and delivery of the LTO masters and replicates. In the event, that a significant delay does occur, or that the primary-Contractor indicates a significant delay shall occur, UCONN reserves the right to switch to a secondary-Contractor.

5.10 Packaging - Contractor shall provide the following packaging:

The LTO master tape set shall be shipped to UCONN in rigid, secure, waterproof packaging. The LTO duplicate work copy shall be shipped with its corresponding film reel to UCONN in rigid, secure, waterproof packaging.

5.11 Shipping

All University-project-related material shall be returned to the University in a suitable carton. Shipment of the LTO tapes and film from the contractor's facility shall be made via acceptable carrier. The University's film shall be returned with its mate LTO4 tape set. Costs for shipment of all returned media and additional material and insurance costs shall be borne by the contractor. The University has

approximately 500 rolls of film. Shipments to and from the contractor will be made in 2-4 roll shipments, thus resulting in approximately 250-125 shipments of film. All materials returned to the University by the contractor shall be shipped to:

Connecticut Transportation Institute
University of Connecticut
270 Middle Turnpike Unit 5202
Storrs, CT 06269
Attention: Eric Jackson

5.12 Insurance

All LTO tapes containing UCONN electronic property shall be insured by the Contractor for the replacement value, should they become lost or damaged in transit. This would include the cost to reproduce the master tape set, replicate tape set and any other contractor-related production cost.

5.13 Final Acceptance and Payment

Designated UCONN representatives shall review each LTO tape set as it is received. All data must be accessible for transfer to working drives at UCONN. Data dropout or inability to read any tape shall allow UCONN to reject that title. They shall be returned to the contractor, together with the 1600' film reel and corresponding LTO-tape set for the production of a new LTO tape set and or its replicate, at no cost to UCONN.

Payment shall be made on the basis of each tape set with its corresponding duplicate, accepted by UCONN. The payment-price shall include all labor, materials, handling costs, postage and shipping etc., pertinent to the complete production of each LTO along with its corresponding replicates. This applies to all additional products and services that might be procured.

The University's payment terms are 2% 15 Days, Net 45 Days unless otherwise indicated by Contractor on the Form of Bid.

5.14 Additional Products and Services

The contractor shall provide the following products and or services:

Additional Film Transfer

Contractor shall provide a unit cost for each additional LTO4 master produced in excess of the original 625.

5.15 Substitute Products/ Approved Equal

When a brand name is specified, it shall be construed solely for the purpose of indicating the standard or performance, aesthetic effect, quality, and features desired unless expressly stated elsewhere herein. Any other manufacturer will constitute an alternate and must be approved prior to acceptance. Any bid containing a brand that is not of comparable aesthetic effect, quality, performance and features desired must have been represented as a substitute and will not be accepted as an "equal". Any failure to properly represent a bid shall be considered justification for rejecting an offer as non-compliant. The University shall make the final determination regarding the acceptance and/or equivalency of the proposed alternate(s) to these specifications upon its review of the specifications, product data, submittals, and/or sample (if requested) or other information submitted in support of the proposed alternate(s). The University shall further reserve the right to reject any item or group of items determined to be non-compliant as a result of this evaluation.

**Section VI
FORM OF BID
RFQ# B995562-2
CONNDOT Photolog Film to 4K File Transfers**

To: The University of Connecticut
10/29/2009
Purchasing Department
3 North Hillside Road, Unit 6076
Storrs, CT 06269-6076

The undersigned bidder, in response to your Request for Quotation for the above referenced contract, having examined the Request for Quotation, hereby proposes to provide CONNDOT Photolog Film to 4K

1

1. in accordance with the RFQ attached hereto.

Bidder acknowledges receipt of the following addenda that are a part of the RFQ documents:

#1 _____ #2 _____ #3 _____
date date date

2. Bidder understands that the University reserves the right to reject any and all RFQ's, waive irregularities or technicalities in any RFQ, and accept any RFQ in whole or in part which it deems to be in its best interest.
3. Bidder agrees that this RFQ shall be good and may not be withdrawn for a period of sixty (60) calendar days after the public opening and reading of the RFQ's.
4. Bidder hereby certifies that: (a) this RFQ is genuine and is not made in the interest of or on behalf of any undisclosed person, firm or corporation; (b) the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham RFQ; (c) the bidder has not solicited or induced any person, firm or corporation to refrain from bidding; and (d) the bidder has not sought by collusion to obtain any advantage over any other bidder or over the University.
5. Pricing: Pricing must be inclusive of freight.
6. Payment Terms: _____

Signed this _____ day of _____, 2009

Firm Name: _____

Address: _____

Duly Authorized: _____

Print Name: _____

Title: _____

Email: _____

**PART VII
REFERENCES**

Proposals should include three institutions, of similar or the same size, where your organization is currently providing **CONNDOT Photolog Film to 4K File Transfers**

of the type you are quoting for the University of Connecticut. Please include name, e-mail address and telephone number of a contact person at each institution. **Reference checks will be performed electronically: please be sure the e-mail address provided is current and the reference has been notified of this forthcoming electronic transmission.**

References:

Reference #1

Company	

Contact	_____ Telephone No.

Title	_____ Email

Reference #2

Company	

Contact	_____ Telephone No.

Title	_____ Email

Reference #3

Company	

Contact	_____ Telephone No.

Title	_____ Email

Part VIII
BIDDER'S QUALIFICATION STATEMENT
PAGE 1 of 3

All vendors are required to file this form, properly completed, WITH THEIR RESPONSE. Failure of a vendor to answer any question or provide required information may be grounds for the awarding authority to disqualify and reject their proposal. If a question or request for information does not pertain to your organization in any way, use the symbol "NA" (Not Applicable). Use additional 8 1/2" x 11" sheets with your letterhead as necessary.

1. Indicate exactly the name by which this organization is known:

Name _____.

2. How many years has this organization been in business under its present business name?

Years? _____.

3. Indicate all other names by which this organization has been known and the length of time known by each name:

1. _____

2. _____

3. _____

4. What is the primary commodity/service provided by this business? How many years has this organization been in business providing this commodity/service?

Commodity/Service _____

Years? _____

BIDDER'S QUALIFICATION STATEMENT

PAGE 2 of 3

5. This firm is a: _____ Corporation _____ Partnership _____ Sole Proprietorship
_____ Joint Venture _____ Other
_____ Women Owned _____ Minority Business _____ Set Aside Contractor

6. **Provide names** all supervisory personnel, such as Principals, Supervisors, and Sales Representatives, who will be **directly** involved with the contract on which you are now a bidder. Indicate the number of years of experience and number of years of which they have been in a Supervisory capacity.

Name	Years	Years/supervisor	Telephone/Fax #'s
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_____	_____	_____	_____

_____	_____	_____	_____

7. Trade References: Names, addresses and telephone numbers of several firms with whom your organization has regular business dealings:

(Attach additional sheet if necessary)

BIDDER'S QUALIFICATION STATEMENT

PAGE 3 of 3

8. Has your organization ever failed to complete a contract, or has any officer or partner of your organization ever been an officer or partner of another organization that failed to complete a contract? If so, indicate the circumstances leading to the project failure and the name of the company which provided the bonding for the failed contract(s):

9. List all legal or administrative proceedings currently pending or concluded adversely within the last five years which relate to procurement or performance of any public or private service/maintenance contracts.

1. _____ Attached 2. _____ N/A

Dated at _____

this _____ day of _____ 2009

Name of Organization: _____

Address: _____

Telephone: _____ Fax: _____

Signature _____

(Print Name) _____

Title _____

Part IX

COMMISSION ON HUMAN RIGHTS AND OPPORTUNITIES

CONTRACT COMPLIANCE REGULATIONS

NOTIFICATION TO BIDDERS

The contract to be awarded is subject to contract compliance requirements mandated by Sections 4a-60 and 4a-60a of the Connecticut General Statutes; and, when the awarding agency is the State, Sections 46a-71(d) and 46a-81i(d) of the Connecticut General Statutes. There are Contract Compliance Regulations codified at Section 46a-68j-21 through 43 of the Regulations of Connecticut State Agencies, which establish a procedure for awarding all contracts covered by Sections 4a-60 and 46a-71(d) of the Connecticut General Statutes.

According to Section 46a-68j-30(9) of the Contract Compliance Regulations, every agency awarding a contract subject to the contract compliance requirements has an obligation to "aggressively solicit the participation of legitimate minority business enterprises as bidders, contractors, subcontractors and suppliers of materials." "Minority business enterprise" is defined in Section 4a-60 of the Connecticut General Statutes as a business wherein fifty-one percent or more of the capital stock, or assets belong to a person or persons: "(1) Who are active in daily affairs of the enterprise; (2) who have the power to direct the management and policies of the enterprise; and (3) who are members of a minority, as such term is defined in subsection (a) of Section 32-9n." "Minority" groups are defined in Section 32-9n of the Connecticut General Statutes as "(1) Black Americans . . . (2) Hispanic Americans . . . (3) persons who have origins in the Iberian Peninsula . . . (4) Women . . . (5) Asian Pacific Americans and Pacific Islanders; (6) American Indians . . ." An individual with a disability is also a minority business enterprise as provided by Section 4a-60g of the Connecticut General Statutes. The above definitions apply to the contract compliance requirements by virtue of Section 46a-68j-21(11) of the Contract Compliance Regulations.

The awarding agency will consider the following factors when reviewing the bidder's qualifications under the contract compliance requirements:

- (a) the bidder's success in implementing an affirmative action plan;
- (b) the bidder's success in developing an apprenticeship program complying with Sections 46a-68-1 to 46a-68-17 of the Administrative Regulations of Connecticut State Agencies, inclusive;
- (c) the bidder's promise to develop and implement a successful affirmative action plan;
- (d) the bidder's submission of employment statistics contained in the "Employment Information Form", indicating that the composition of its workforce is at or near parity when compared to the racial and sexual composition of the workforce in the relevant labor market area; and
- (e) the bidder's promise to set aside a portion of the contract for legitimate minority business enterprises. See Section 46a-68j-30(10)(E) of the Contract Compliance Regulations.

INSTRUCTIONS AND OTHER INFORMATION

The following BIDDER CONTRACT COMPLIANCE MONITORING REPORT must be completed in full, signed, and submitted with the bid for this contract. The contract awarding agency and the Commission on Human Rights and Opportunities will use the information contained thereon to determine the bidders compliance to Sections 4a-60 and 4a-60a CONN. GEN. STAT., and Sections 46a-68j-23 of the Regulations of Connecticut State Agencies regarding equal employment opportunity, and the bidders' good faith efforts to include minority business enterprises as subcontractors and suppliers for the work of the contract.

1) Definition of Small Contractor

Section 4a-60g CONN. GEN. STAT. defines a small contractor as a company that has been doing business under the same management and control and has maintained its principal place of business in Connecticut for a one year period immediately prior to its application for certification under this section, had gross revenues not exceeding ten million dollars in the most recently completed fiscal year, and at least fifty-one percent of the ownership of which is held by a person or persons who are active in the daily affairs of the company, and have the power to direct the management and policies of the company, except that a nonprofit corporation shall be construed to be a small contractor if such nonprofit corporation meets the requirements of subparagraphs (A) and (B) of subdivision 4a-60g CONN. GEN. STAT.

2) Description of Job Categories (as used in Part IV Bidder Employment Information)
(Page 2)

<p>MANAGEMENT: Managers plan, organize, direct, and control the major functions of an organization through subordinates who are at the managerial or supervisory level. They make policy decisions and set objectives for the company or departments. They are not usually directly involved in production or providing services. Examples include top executives, public relations managers, managers of operations specialties (such as financial, human resources, or purchasing managers), and construction and engineering managers.</p> <p>BUSINESS AND FINANCIAL OPERATIONS: These occupations include managers and professionals who work with the financial aspects of the business. These occupations include accountants and auditors, purchasing agents, management analysts, labor relations specialists, and budget, credit, and financial analysts.</p> <p>COMPUTER SPECIALISTS: Professionals responsible for the computer operations within a company are grouped in this category. Examples of job titles in this category include computer programmers, software engineers, database administrators, computer scientists, systems analysts, and computer support specialists</p> <p>ARCHITECTURE AND ENGINEERING: Occupations related to architecture, surveying, engineering, and drafting are included in this category. Some of the job titles in this category include electrical and electronic engineers, surveyors, architects, drafters, mechanical engineers, materials engineers, mapping technicians, and civil engineers.</p> <p>OFFICE AND ADMINISTRATIVE SUPPORT: All clerical-type work is included in this category. These jobs involve the preparing, transcribing, and preserving of written communications and records; collecting accounts; gathering and distributing information; operating office machines and electronic data processing equipment; and distributing mail. Job titles listed in this category include telephone operators, payroll clerks, bill and account collectors, customer service representatives, files clerks, dispatchers, shipping clerks, secretaries and administrative assistants, computer operators,</p>	<p>BUILDING AND GROUNDS CLEANING AND MAINTENANCE: This category includes occupations involving landscaping, housekeeping, and janitorial services. Job titles found in this category include supervisors of landscaping or housekeeping, janitors, maids, grounds maintenance workers, and pest control workers.</p> <p>CONSTRUCTION AND EXTRACTION: This category includes construction trades and related occupations. Job titles found in this category include boilermakers, masons (all types), carpenters, construction laborers, electricians, plumbers (and related trades), roofers, sheet metal workers, elevator installers, hazardous materials removal workers, paperhangers, and painters. Paving, surfacing, and tamping equipment operators; drywall and ceiling tile installers; and carpet, floor and tile installers and finishers are also included in this category. First line supervisors, foremen, and helpers in these trades are also grouped in this category..</p> <p>INSTALLATION, MAINTENANCE AND REPAIR: Occupations involving the installation, maintenance, and repair of equipment are included in this group. Examples of job titles found here are heating, ac, and refrigeration mechanics and installers; telecommunication line installers and repairers; heavy vehicle and mobile equipment service technicians and mechanics; small engine mechanics; security and fire alarm systems installers; electric/electronic repair, industrial, utility and transportation equipment; millwrights; riggers; and manufactured building and mobile home installers. First line supervisors, foremen, and helpers for these jobs are also included in the category.</p> <p>MATERIAL MOVING WORKERS: The job titles included in this group are Crane and tower operators; dredge, excavating, and lading machine operators; hoist and winch operators; industrial truck and tractor operators; cleaners of vehicles and equipment; laborers and freight, stock, and material movers, hand; machine feeders and offbearers; packers and packagers, hand; pumping station operators; refuse and</p>
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mail clerks, and stock clerks.	recyclable material collectors; and miscellaneous material moving workers.
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3) Definition of Racial and Ethnic Terms (as used in Part IV Bidder Employment Information)

<p><u>White</u> (not of Hispanic Origin)- All persons having origins in any of the original peoples of Europe, North Africa, or the Middle East.</p> <p><u>Black</u>(not of Hispanic Origin)- All persons having origins in any of the Black racial groups of Africa.</p> <p><u>Hispanic</u>- All persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.</p>	<p><u>Asian or Pacific Islander</u>- All persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes China, India, Japan, Korea, the Philippine Islands, and Samoa.</p> <p><u>American Indian or Alaskan Native</u>- All persons having origins in any of the original peoples of North America, and who maintain cultural identification through tribal affiliation or community recognition.</p>
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BIDDER CONTRACT COMPLIANCE MONITORING REPORT

PART I - Bidder Information

(Page 3)

Company Name Street Address City & State Chief Executive	Bidder Federal Employer Identification Number _____ Or Social Security Number _____
Major Business Activity (brief description)	Bidder Identification (response optional/ definitions on page 1) -Bidder is a small contractor. Yes__ No__ -Bidder is a minority business enterprise Yes__ No__ (If yes, check ownership category) Black__ Hispanic__ Asian American__ American Indian/Alaskan Native__ Iberian Peninsula__ Individual(s) with a Physical Disability__ Female__ - Bidder is certified as above by State of CT Yes__ No__ - DAS Certification Number _____
Bidder Parent Company (If any)	
Other Locations in Ct. (If any)	

PART II - Bidder Nondiscrimination Policies and Procedures

1. Does your company have a written Affirmative Action/Equal Employment Opportunity statement posted on company bulletin boards? Yes__ No__	7. Do all of your company contracts and purchase orders contain non-discrimination statements as required by Sections 4a-60 & 4a-60a Conn. Gen. Stat.? Yes__ No__
2. Does your company have the state-mandated sexual harassment prevention in the workplace policy posted on company bulletin boards? Yes__ No__	8. Do you, upon request, provide reasonable accommodation to employees, or applicants for employment, who have physical or mental disability? Yes__ No__
3. Do you notify all recruitment sources in writing of your company's Affirmative Action/Equal Employment Opportunity employment policy? Yes__ No__	9. Does your company have a mandatory retirement age for all employees? Yes__ No__
4. Do your company advertisements contain a written statement that you are an Affirmative Action/Equal Opportunity Employer? Yes__ No__	10. If your company has 50 or more employees, have you provided at least two (2) hours of sexual harassment training to all of your supervisors? Yes__ No__ NA__
5. Do you notify the Ct. State Employment Service of all employment	11. If your company has apprenticeship programs, do they meet

openings with your company? Yes__ No__	the Affirmative Action/Equal Employment Opportunity requirements of the apprenticeship standards of the Ct. Dept. of Labor? Yes__ No__ NA__
6. Does your company have a collective bargaining agreement with workers? Yes__ No__ 6a. If yes, do the collective bargaining agreements contain non-discrimination clauses covering all workers? Yes__ No__ 6b. Have you notified each union in writing of your commitments under the nondiscrimination requirements of contracts with the state of Ct? Yes__ No__	12. Does your company have a written affirmative action Plan? Yes__ No__ If no, please explain. 13. Is there a person in your company who is responsible for equal employment opportunity? Yes__ No__ If yes, give name and phone number. _____ _____ _____

Part III - Bidder Subcontracting Practices

<p>1. Will the work of this contract include subcontractors or suppliers? Yes__ No__</p> <p>1a. If yes, please list all subcontractors and suppliers and report if they are a small contractor and/or a minority business enterprise. (defined on page 1 / use additional sheet if necessary)</p> <p>1b. Will the work of this contract require additional subcontractors or suppliers other than those identified in 1a. above? Yes__ No__</p>
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PART IV - Bidder Employment Information
(Page 4)

Date:

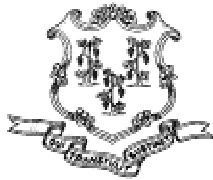
JOB CATEGORY	OVERALL TOTALS	WHITE (not of Hispanic origin)		BLACK (not of Hispanic origin)		HISPANIC		ASIAN or PACIFIC ISLANDER		AMERICAN INDIAN or ASKAN NATIVE	
		Male	Female	Male	Female	Male	Female	Male	Female	male	female
Management											
Business & Financial Ops											
Computer Specialists											
Architecture/Engineering											
Office & Admin Support											
Bldg/ Grounds Cleaning/Maintenance											
Construction & Extraction											
Installation, Maintenance & Repair											
Material Moving Workers											
TOTALS ABOVE											
Total One Year Ago											
FORMAL ON THE JOB TRAINEES (ENTER FIGURES FOR THE SAME CATEGORIES AS ARE SHOWN ABOVE)											
Apprentices											
Trainees											

PART V - Bidder Hiring and Recruitment Practices

1. Which of the following recruitment sources are used by you? (Check yes or no, and report percent used)				2. Check (X) any of the below listed requirements that you use as a hiring qualification (X)		3. Describe below any other practices or actions that you take which show that you hire, train, and promote employees without discrimination
SOURCE	YES	NO	% of applicants provided by source			
State Employment Service					Work Experience	
Private Employment Agencies					Ability to Speak or Write English	
Schools and Colleges					Written Tests	
Newspaper Advertisement					High School Diploma	
Walk Ins					College Degree	
Present Employees					Union Membership	
Labor Organizations					Personal Recommendation	
Minority/Community Organizations					Height or Weight	
Others (please identify)					Car Ownership	
					Arrest Record	
					Wage Garnishments	

Certification (Read this form and check your statements on it CAREFULLY before signing). I certify that the statements made by me on this BIDDER CONTRACT COMPLIANCE MONITORING REPORT are complete and true to the best of my knowledge and belief, and are made in good faith. I understand that if I knowingly make any misstatements of facts, I am subject to be declared in non-compliance with Section 4a-60, 4a-60a, and related sections of the CONN. GEN. STAT.


(Signature)	(Title)	(Date Signed)	(Telephone)
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M. JODI RELL
GOVERNOR

STATE OF CONNECTICUT
EXECUTIVE CHAMBERS

MEMORANDUM

To: Vendors Conducting Business with the State of Connecticut
From: M. Jodi Rell, Governor 
Subject: State Ethics Policy
Date: September 28, 2004

As you are undoubtedly aware, state government is striving to improve how it conducts its business. The task force charged with analyzing the state contracting process recently recommended to me several areas which require improvement. I expect to implement a number of those recommendations. Your assistance is needed in order to facilitate change.

While the state ethics code does not prohibit gifts to state employees altogether—for example, the law permits employees to accept a gift in celebration of a major life event and up to \$50 per calendar year in food and beverage—the intent of the code is clear. State employees should not just avoid impropriety, but even the mere appearance of impropriety, and should forego accepting gifts from those with whom the state does business.

I would also call your attention to section 1-84(m) of the Connecticut General Statutes, which prohibits state employees from accepting gifts from those who do business, or seek to do business, with the employee's agency or department. Vendors and prospective vendors are also prohibited from knowingly giving gifts to state employees in violation of this section.

My request to you is this, no matter how well-intentioned or appreciative you may be of an employee's assistance, I would ask that you refrain from offering a state employee a gift of any kind, including, but not limited to, meals and beverages. Offering a gift to an employee puts the employee in the rather uncomfortable position of having to decline the gift or ascertain its monetary value and consult with an attorney and/or the state Ethics Commission.

I expect—and indeed the residents of this state deserve—state government employees to adhere to the highest ethical standards, which may entail more stringent practices than even the ethics code provides. With your assistance, the state should be well on its way to restoring the public's faith in state government.

I would appreciate it if you would communicate this message to your employees. Thank you for your cooperation and understanding.

NOTICE TO EXECUTIVE BRANCH STATE CONTRACTORS AND PROSPECTIVE STATE CONTRACTORS OF CAMPAIGN CONTRIBUTION AND SOLICITATION BAN

This notice is provided under the authority of Connecticut General Statutes 9-612(g)(2), as amended by P.A. 07-1, and is for the purpose of informing state contractors and prospective state contractors of the following law (*italicized words are defined below*):

Campaign Contribution and Solicitation Ban

No state contractor, prospective state contractor, principal of a state contractor or principal of a prospective state contractor, with regard to a state contract or state contract solicitation with or from a state agency in the executive branch or a quasi-public agency or a holder, or principal of a holder of a valid prequalification certificate, shall make a contribution to, or solicit contributions on behalf of (i) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of Governor, Lieutenant Governor, Attorney General, State Comptroller, Secretary of the State or State Treasurer, (ii) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (iii) a party committee;

In addition, no holder or principal of a holder of a valid prequalification certificate, shall make a contribution to, or solicit contributions on behalf of (i) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of State senator or State representative, (ii) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (iii) a party committee.

Duty to Inform

State contractors and prospective state contractors are required to inform their principals of the above prohibitions, as applicable, and the possible penalties and other consequences of any violation thereof.

Penalties for Violations

Contributions or solicitations of contributions made in violation of the above prohibitions may result in the following civil and criminal penalties:

Civil penalties--\$2000 or twice the amount of the prohibited contribution, whichever is greater, against a principal or a contractor. Any state contractor or prospective state contractor which fails to make reasonable efforts to comply with the provisions requiring notice to its principals of these prohibitions and the possible consequences of their violations may also be subject to civil penalties of \$2000 or twice the amount of the prohibited contributions made by their principals.

Criminal penalties—Any knowing and willful violation of the prohibition is a Class D felony, which may subject the violator to imprisonment of not more than 5 years, or \$5000 in fines, or both.

Contract Consequences

Contributions made or solicited in violation of the above prohibitions may result, in the case of a state contractor, in the contract being voided.

Contributions made or solicited in violation of the above prohibitions, in the case of a prospective state contractor, shall result in the contract described in the state contract solicitation not being awarded to the prospective state contractor, unless the State Elections Enforcement Commission determines that mitigating circumstances exist concerning such violation.

The State will not award any other state contract to anyone found in violation of the above prohibitions for a period of one year after the election for which such contribution is made or solicited, unless the State Elections Enforcement Commission determines that mitigating circumstances exist concerning such violation.

Additional information and the entire text of P.A 07-1 may be found on the website of the State Elections Enforcement Commission, www.ct.gov/seec. Click on the link to "State Contractor Contribution Ban."

1973 to 1984														
1	31	61	91	121	151	181	211	241	271	301	331	361	391	421
2	32	62	92	122	152	182	212	242	272	302	332	362	392	422
3	33	63	93	123	153	183	213	243	273	303	333	363	393	423
4	34	64	94	124	154	184	214	244	274	304	334	364	394	424
5	35	65	95	125	155	185	215	245	275	305	335	365	395	425
6	36	66	96	126	156	186	216	246	276	306	336	366	396	426
7	37	67	97	127	157	187	217	247	277	307	337	367	397	427
8	38	68	98	128	158	188	218	248	278	308	338	368	398	428
9	39	69	99	129	159	189	219	249	279	309	339	369	399	429
10	40	70	100	130	160	190	220	250	280	310	340	370	400	430
11	41	71	101	131	161	191	221	251	281	311	341	371	401	431
12	42	72	102	132	162	192	222	252	282	312	342	372	402	432
13	43	73	103	133	163	193	223	253	283	313	343	373	403	433
14	44	74	104	134	164	194	224	254	284	314	344	374	404	434
15	45	75	105	135	165	195	225	255	285	315	345	375	405	435
16	46	76	106	136	166	196	226	256	286	316	346	376	406	436
17	47	77	107	137	167	197	227	257	287	317	347	377	407	437
18	48	78	108	138	168	198	228	258	288	318	348	378	408	438
19	49	79	109	139	169	199	229	259	289	319	349	379	409	439
20	50	80	110	140	170	200	230	260	290	320	350	380	410	440
21	51	81	111	141	171	201	231	261	291	321	351	381	411	441
22	52	82	112	142	172	202	232	262	292	322	352	382	412	442
23	53	83	113	143	173	203	233	263	293	323	353	383	413	443
24	54	84	114	144	174	204	234	264	294	324	354	384	414	444
25	55	85	115	145	175	205	235	265	295	325	355	385	415	445
26	56	86	116	146	176	206	236	266	296	326	356	386	416	446
27	57	87	117	147	177	207	237	267	297	327	357	387	417	447
28	58	88	118	148	178	208	238	268	298	328	358	388	418	448
29	59	89	119	149	179	209	239	269	299	329	359	389	419	449
30	60	90	120	150	180	210	240	270	300	330	360	390	420	450