

DEP-DCP Laboratory
9 Windsor Avenue
Windsor, Connecticut
PROJECT: BI- 2B - 256

BID OPENING

1:00 PM

June 15, 2011

ADDENDUM NUMBER 01

May 23, 2011

The following clarifications are applicable to drawings and specifications for the project referenced above.

ITEM 1

Attached at the end of this Addendum are the Pre-Bid Walk-through Meeting Report and Attendee List.

ITEM 2

Specification Section 01 12 19

Delete: "F. Prolog Project Management" in its entirety

Add: "F. PMWeb Project Management:

1. The State of Connecticut Department of Public Works (CTDPW) is using **PMWeb** as the project management collaborative software tool for this project.
2. The General Contractor is required to utilize PMWeb for the duration of this project, including project closeout (i.e. Contract Duration + 90 days) and shall provide all project information via this program. This includes, but is not limited to contracts, applications for payment, change orders, requests for information, submittals, daily reports, etc.
3. The General Contractor is required to purchase **five (5)** full PMWeb licenses to be utilized on the CT DPW PMWeb Hosted System from PSSGroup, Inc. and maintain the licenses, software support, and hosting services through the duration of this project. These licenses will be assigned to members of the project team. At end of the project, these licenses shall be turned over to the CT DPW. The cost for the licenses, support of the licenses, and hosting fees shall be included by the General Contractor in the General Conditions costs for this project.

4. The General Contractor shall provide for two (2) days of formal PMWeb training as directed by the Construction Administrator or DPW Project Manager for the Construction Administrator, Owner, and their representatives. Training will be conducted at the DPW Training Room at the State Office Building, at 165 Capitol Avenue, Hartford, CT 06106. The training shall be coordinated through the DPW Project Manager and DPW **PMWeb** Staff. The cost for the training shall be included by the General Contractor in the General Conditions costs for this project.
5. The General Contractor shall contact PSSGroup, Inc. for the licenses and training at <http://www.pmweb.com> [**Phone:** (617) 207-7080] **Fax:** (978) 246-0248.
6. Connecticut Department of Public Works (CTDPW) will be establishing a project specific email "file" address for this project. The General Contractor shall send an electronic "file" copy of all project documents to this email address, to include but not limited to all project correspondence, project emails, forms, etc.
7. The General Contractor shall electronically scan all documents not created in PMWeb. These scanned document files shall be uploaded and maintained in the PMWeb Document Management System for this project and linked to the corresponding record in PMWeb.

Item 3

Drawings TS-1 through TS-11:

- Delete: Drawings TS-1 through TS-11, dated 11/19/2010, in their entirety.
- Add: a. TS-1 - "Demolition Plan", dated 5/23/2011.
 b. TS-2 - "Pavement Marking and Signing Plan", dated 5/23/2011.

Item 4

Specification Section 344000:

- Delete: Specification Sections 34 40 00 in its entirety.
- Add: Specification Section 34 40 10 "Maintenance and Protection of Traffic".

Item 5

Add: Specification Section 01 21 00, as follows:

“01 21 00 ALLOWANCES

- A. Related Documents: Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

The Contractor's costs for unloading and handling, labor, installation costs, storage, insurance, overhead and profit and other expense related to the Allowance item shall be included in the Lump Sum Bid Amount and not in the Allowance unless stated otherwise is the Allowance Schedule of this section.

Architect/Engineer:

1. *Consult with Contractor, Owner and City of Hartford for consideration of schedules for Work to be completed and maintenance of traffic.*
2. *Prepare Change Order.*

Construction Administrator Responsibilities:

- A. *Consult with Architect/Engineer, Owner, Contractor, Project Manager and Agency Representatives, as well as the City of Hartford for consideration of schedules and maintenance of traffic.*
- B. *Prepare Change Order.*

General Contractor Responsibilities:

1. *Consult with Architect/Engineer, Owner, City of Hartford and Construction Administrator in selection of Products and Suppliers.*
2. *On notification of Construction Administrator execute purchase agreement with the City of Hartford.*
3. *Arrange for access and coordination of Work with the City of Hartford.*
4. *If the actual cost of an Allowance item is more or less than the given amount, the Contract Sum will be adjusted by Change Order.*
5. All Work associated with the maintenance of traffic, as specified in Division 34 Section "Maintenance and Protection of Traffic shall be included in the Base Bid, and is not included in the Allowance.

Allowance Schedule:

1. *Include the Stipulated sum of \$ 4,500 to reimburse the City of Hartford for time spent de-energizing the traffic signal and removing the traffic signal lights, cabling and span wires.*

Item 6

Drawings A2.2 and P1.2 and P3.1

Add: Wall Mounted stainless steel hand sink at south wall, east of the workbench.
Refer to SK-MEP3.4-1, SK-P1.2-1, SK-P3.1-1 and SK-P3.1-2, all dated 05/23/11.

Item 7

Drawing 2 / A8.6:

Modify: Detail 2 / A8.6 as indicated in SKA-1/A8.6-1, dated 5/23/2011.

Item 8

Add: Specification Section 233416.1 "Laboratory Exhaust Fans"

All questions must be in writing (not phone or e-mail) and must be forwarded to the consulting Architect/Engineer (TLB Architecture, Fax Number 860-526-9020) with copies sent to the DPW Project Manager (Tom Surprenant, Fax Number 860 -713-7270).

End of Addendum Number One



Gail Blythe, Associate Fiscal Administrative Officer
Department of Public Works

M E E T I N G R E P O R T

May 18, 2011
DEP / DCP Lab, 9 Windsor Ave. - State Project Number BL-2B-256
TLBA Project No. 28-006

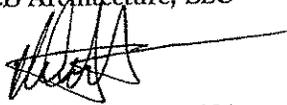
Meeting: Bid Phase - 01
Re: Security Systems Coordination

Distribution	Attending	
Thomas Surprenant	X	State of CT, DPW Project Manager
David Grigely	X	State of CT, DPW Facilities
Robert Hofferth	X	State of CT - DEP- Engineering
Ana Maria Feliciano	X	State of CT, DCP Metrology
Eric Mak	X	TLB Architecture, LLC
Mike Fortuna	X	TLB Architecture, LLC

Project Record: This report constitutes our understanding of topics discussed and/or conclusions reached at this meeting. If exceptions are taken to the content of this report, please notify this office immediately, as this will become a part of the project record.

1. A sign-in sheet was passed around for all attendees to indicate their attendance, as this Pre-Bid Walk-through was mandatory. The sign-in sheet is attached to this report.
2. Mr. Surprenant noted that the Bids are due no later than 1:00 PM on June 15, 2011.
3. The Bid shall include one Supplemental Bid for additional site paving, as indicated in the Contract Documents.
4. Bidders shall be aware of Prevailing Wage Requirements, as well as CHRO requirements. Any questions with regard to these requirements shall be directed to the Department of Labor and CHRO respectively.
5. It was noted that the construction schedule is 270 calendar days.
6. Mr. Fortuna gave an overview of the project Scope and Design, followed by a tour of the facility. All areas of the site, building and roof were available for tour by attendees.
7. All questions during the Bid Phase must be in writing to DPW, as indicated in the Contract Documents. Responses will be in writing and will be made available to all Bidders via Addendum.
8. It was noted that the Project must secure bonding and that the date of Bond approval is not known at this time. The earliest the Project can be approved would be the July Bond Commission Meeting, followed by an estimated 60-day Contracting period, for a September start.

Respectfully Submitted,
TLB Architecture, LLC



Michael P. Fortuna, AIA
Principal

c: T. Surprenant (for distribution to DPW and DCP), E. Ott (for distribution to DEP), M. Fortuna, T. St. Denis (for distribution to BVH IS), K. Leach, Prolog, file

S:\PROJECTS\2008-06_DEP_DCP Laboratory\Bid Phase\Meeting Report-01_Pre-Bid Walk-through.doc

ADDENDUM NO. 1 - Page 5 of 38

TLBA

TLB Architecture, LLC . 92 West Main Street . Chester, CT 06412 . 860.526.9448 . 860.526.9020 Fax . www.tlbarchitecture.com

Meeting sign-in-sheet

Meeting Date: 5/18/2011

Project No: BI-2B-256
Project Name: DEP/DCP LABORATORY
9 WINDSOR AVE, WINDSOR, CT

PREBID CONFERENCE

Name - Print	Tom Surprenant	Telephone #	860-713-5932	Email Address	thomas.surprenant@ct.gov
Company Name	DPW	Fax #	860-713-7270	Website Address	www.
Street Address	165 Capitol Ave	Cell Phone #	860-214-5627		
City, St. Zip	Hartford, CT. 06106				

Name - Print	<u>MIKE GARNEREAU</u>	Telephone #	<u>860-291-9948</u>	Email Address	<u>M.GARNEREAU@WIMOLVENTOR.COM</u>
Company Name	<u>W.J. MOUNTFORD CO.</u>	Fax #	<u>860-289-6382</u>	Website Address	www.
Street Address	<u>170 Commerce Way</u>	Cell Phone #			
City, St. Zip	<u>Santa Windsor, CT 06074</u>				

Name - Print	<u>FRED MEIER</u>	Telephone #	<u>860-6464170</u>	Email Address	<u>AKMEIER@AOL.COM</u>
Company Name	<u>ALMA CONST. CO., INC</u>	Fax #	<u>860-6466209</u>	Website Address	www.
Street Address	<u>34 SANCICO DRIVE</u>	Cell Phone #			
City, St. Zip	<u>MANCHESTER, CT 06042</u>				

Name - Print	<u>Mike Henzy</u>	Telephone #	<u>860-242-8886</u>	Email Address	<u>Mike.Henzy@Pdssec.com</u>
Company Name	<u>PDS Engineering & Const</u>	Fax #	<u>860-242-8887</u>	Website Address	www.
Street Address	<u>107 Old Windsor Road</u>	Cell Phone #			
City, St. Zip	<u>Bloomfield, CT 06002</u>				

Name - Print	<u>Moe Villano</u>	Telephone #	<u>860-571-8912</u>	Email Address	<u>Mvillano@CTcarpentry.com</u>
Company Name	<u>CT Carpentry Corp</u>	Fax #	<u>860-571-8911</u>	Website Address	<u>www.ctcarpentry.com</u>
Street Address	<u>18 SD Sisco Drive</u>	Cell Phone #			
City, St. Zip	<u>Rocky Hill, CT 06067</u>				

Meeting sign-in-sheet

Meeting Date: 5/18/2011

Project No: BI-2B-256
 Project Name: DEP/DCP LABORATORY
 9 WINDSOR AVE, WINDSOR, CT

PREBID CONFERENCE

Name - Print	Michael A. Vitello	Telephone #:	203-378-1876	Email Address:	MVITELLO@STATE.BRIDGEPORT-CT.CON
Company Name	State Contractor G	Fax #:	203-378-8319	Website Address:	WWW.
Street Address	335 Ferryway Parkwood	Cell Phone #	203-610-4734		
City, St. Zip	Stamford, Ct. 06615				

Name - Print	Jacqui Delgado	Telephone #:	(203) 335-4204	Email Address:	mwojciuk@holzercollective.com
Company Name	Holzer Construction	Fax #:	(203) 368-3425	Website Address:	WWW.
Street Address	596 John St	Cell Phone #			
City, St. Zip	Bridgewater CT 06604				

Name - Print	Matt Keough	Telephone #:	203-481-3496	Email Address:	MKeough@asecondlineandson.com
Company Name	A. Secondline & Son Inc	Fax #:	203-483-8800	Website Address:	WWW.
Street Address	71 Ocean Rd	Cell Phone #			
City, St. Zip	Brantford CT 06249				

Name - Print	CRAIG GILMORE	Telephone #:	860-642-0700	Email Address:	PETZ@9DONOVAN.COM
Company Name	G. DONOVAN ASSOC.	Fax #:	860-642-7994	Website Address:	WWW.
Street Address	634 RT 32	Cell Phone #			
City, St. Zip	FRANKLIN, CT 06249				

Name - Print	STEPHEN FARR	Telephone #:	860-928-1925	Email Address:	STEPHENF@BARRINCORP.COM
Company Name	BARR INCORPORATED	Fax #:	860-928-7868	Website Address:	WWW.
Street Address	508 Pomfret Street	Cell Phone #	860-933-9466		
City, St. Zip	RUTLAND CT 06250				

Meeting sign-in-sheet

Meeting Date: 5/18/2011
 Project No: BI-2B-256
 Project Name: DEP/DCP LABORATORY
9 WINDSOR AVE, WINDSOR, CT

PREBID CONFERENCE

Name - Print	<u>DAVID DRAKE</u>	Telephone #	<u>860-347-4600</u>	Email Address	<u>DAVID@KRONENBERGZSOUS.COM</u>
Company Name	<u>KRONENBERGZ SOUS</u>	Fax #	<u>860-343-0300</u>	Website Address	<u>WWW.KRONENBERGZSOUS.COM</u>
Street Address	<u>175 INDUSTRIAL PARK RD</u>	Cell Phone #			
City, St, Zip	<u>MIDDLETOWN, CT</u>				

Name - Print	<u>PETER ELSNER</u>	Telephone #	<u>860-832-8335</u>	Email Address	<u>Diegae.Scopeconstruction.com</u>
Company Name	<u>SCOPE CONSTRUCTION Co, INC</u>	Fax #	<u>860-832-8388</u>	Website Address	<u>WWW.SCOPECONSTRUCTION.COM</u>
Street Address	<u>P.O. Box 1466 / 416 STATE RD</u>	Cell Phone #	<u>860-655-2077</u>		
City, St, Zip	<u>NEW BRITAIN CT 06050</u>				

Name - Print	<u>RAY SUITE</u>	Telephone #	<u>860-284-7630</u>	Email Address	<u>RSUITE@KBEBUILDING.COM</u>
Company Name	<u>KBE BUILDING</u>	Fax #	<u>860-284-0121</u>	Website Address	<u>WWW.</u>
Street Address	<u>30 BATTISON PARK RD</u>	Cell Phone #			
City, St, Zip	<u>FARMINGTON, CT 06032</u>				

Name - Print	<u>Matthew Cikel</u>	Telephone #	<u>(203) 234-2353</u>	Email Address	<u>TK@Rta@BantonConstruction.com</u>
Company Name	<u>Banton Construction</u>	Fax #	<u>(203) 234-0010</u>	Website Address	<u>WWW.BANTONCONSTRUCTION.COM</u>
Street Address	<u>339 Washington Ave</u>	Cell Phone #	<u>403 980-1091</u>		
City, St, Zip	<u>North Haven CT 06473</u>				

Name - Print	<u>RAY TRIBUZIO</u>	Telephone #		Email Address	
Company Name	<u>LUPACHINO SALVATORE</u>	Fax #		Website Address	<u>WWW.</u>
Street Address	<u>15 NORTH WOODS DRIVE</u>	Cell Phone #			
City, St, Zip	<u>Bloomfield, Ct 06002</u>				

Meeting sign-in sheet

Meeting Date: 5/18/2011
 PREBID CONFERENCE

Project No: BI-2B-256
 Project Name: DEP/DCP LABORATORY
 9 WINDSOR AVE, WINDSOR, CT

Name - Print	MYLES COMPANY	Telephone #	860-509-3025	Email Address	mylesconway@newfieldconstruction.com
Company Name	NEWFIELD	Fax #	953-1712	Website Address	WWW.
Street Address	225 NEWFIELD AVE	Cell Phone #			
City, St, Zip	HARTFORD, CT 06106				

Name - Print	RON STACY	Telephone #	860-571-0555	Email Address	rstacy@millenniumbudget.com
Company Name	MILLENNIUM BUDGET	Fax #	571-0550	Website Address	WWW.
Street Address	50 INWOOD RD	Cell Phone #	614-4257		
City, St, Zip	BRIDGE HAVEN, CT 06607				

Name - Print	Brett Nemeth	Telephone #	203 235 770	Email Address	b.nemeth@larsabj.com
Company Name	La Rosa Buildings Group	Fax #	203 630 1998	Website Address	WWW.LARSABJ.COM
Street Address	163 Research Plank	Cell Phone #	860 938 5759		
City, St, Zip	Middletown, CT				

Name - Print	SAM ELY	Telephone #	860-445-3556	Email Address	SELY@A-2CORP.COM
Company Name	A/Z CORPORATION	Fax #		Website Address	WWW.
Street Address	46 Norwich/Westerly Rd	Cell Phone #			
City, St, Zip	N. STONINGTON, CT				

Name - Print	Jason Budbee JR	Telephone #	860 823 1780	Email Address	Bids@nutmegcompanies.com
Company Name	Nutmeg Companies Inc.	Fax #	860 885-1421	Website Address	WWW.NUTMEGCOMPANIES.COM
Street Address	31 New London Pike	Cell Phone #	860 625 5480		
City, St, Zip	Norwich CT 06360				

Meeting sign-in-sheet

Meeting Date: 5/18/2011

Project No: BI-2B-256

Project Name: DEP/DCP LABORATORY

9 WINDSOR AVE, WINDSOR, CT

PREBID CONFERENCE

Name - Print	Tom Surprenant	Telephone #	860-713-5932	Email Address	thomas.surprenant@ct.gov
Company Name	DPW	Fax #	860-713-7270	Website Address	www.
Street Address	165 Capitol Ave	Cell Phone #	860-214-5627		
City, St, Zip	Hartford, CT, 06106				

Name - Print	Jack Pennelli	Telephone #	203-234-7355	Email Address	estimating@bentonconstruction.com
Company Name	Benton Construction	Fax #	203-274-0010	Website Address	www.
Street Address	774 Washington Ave	Cell Phone #	203-675-9331		
City, St, Zip	North Haven CT 06473				

Name - Print	ADAM ANNULCI	Telephone #	860-644-2427	Email Address	ADAM@ANNULCI.COM
Company Name	ORLANDO ANNULCI & SONS INC	Fax #	860-644-6505	Website Address	WWW.ANNULCI.COM
Street Address	147 HALE ROAD PO Box 610	Cell Phone #	860-982-4471		
City, St, Zip	MANTICESTER, CT 06040				

Name - Print	Sandra Rubino	Telephone #	203-888-8164	Email Address	efacchinio@haynesconstruction.com
Company Name	Haynes Constr. Company	Fax #	203-888-5358	Website Address	www.
Street Address	32 Progress Ave.	Cell Phone #			
City, St, Zip	Seymour, CT 06483				

Name - Print	ANA MARIA FELICIANO	Telephone #	860-713-6165	Email Address	ANA.FELICIANO@CT.GOV
Company Name	DCP	Fax #	860-713-2136	Website Address	www.
Street Address	165 CAPITOL AVE.	Cell Phone #			
City, St, Zip	HARTFORD, CT 06106				

Meeting sign-in-sheet

Meeting Date: 5/18/2011
PREBID CONFERENCE

Project No: BI-2B-256
 Project Name: DEP/DCP LABORATORY
9 WINDSOR AVE, WINDSOR, CT

Name - Print	Tom Surprenant	Telephone #:	860-713-5932	Email Address:	thomas.surprenant@ct.gov
Company Name	DPW	Fax #:	860-713-7270	Website Address:	WWW.
Street Address	165 Capitol Ave	Cell Phone #:	860-214-5627		
City, St. Zip	Hartford, CT. 06106				

Name - Print	Taj Amir Akbar Rahman	Telephone #:	860 298-8665	Email Address:	raKwaan@aol.com
Company Name	SSE ENVIRONMENTAL	Fax #:		Website Address:	WWW.
Street Address	806 WINDSOR STREET	Cell Phone #:	860 983 6459		
City, St. Zip	Hartford CT 06112				

Name - Print	John Humes	Telephone #:	860-496-4282	Email Address:	Johnhumes@aigind.com
Company Name	OIG INDUSTRIES INC	Fax #:	860-626-6482	Website Address:	WWW.
Street Address	112 way st	Cell Phone #:	860-209-6011		
City, St. Zip	Torington CT 06790				

Name - Print	PAUL SAPAZIN	Telephone #:	860. 456. 4576	Email Address:	PSAPAZIN@SAPAZIN.COM
Company Name	SAPAZIN GENERAL CONT	Fax #:	860. 456. 8937	Website Address:	WWW. SAPAZIN.COM
Street Address	W COMMERCE DR	Cell Phone #:	860. 250. 3628		
City, St. Zip	NORTH WINDHAM, CT 06250				

Name - Print	Guillermo Herrera	Telephone #:	(860) 285-0772	Email Address:	Centauru LLC@56oglobal.net
Company Name	Centauru LLC	Fax #:		Website Address:	WWW.
Street Address	50 Arlington St	Cell Phone #:	860/805-3120		
City, St. Zip	Hartford, CT 06106				

Pre-Bid Walk Through

May 18, 2011

9 Windsor

materials.com

Name - Print: CHRISTOPHER BREWER
 Company Name: GALASSO MATERIALS
 Street Address: 60 SOUTH MAIN ST.
 City, St. Zip: EAST GRANBY, CT 06025

Telephone #: 860 653 2524
 Fax #: 860 653 5943
 Cell Phone #: (860) 850 0957

Email Address: ~~cbrewer@galassomaterials.com~~
 Website Address: www.

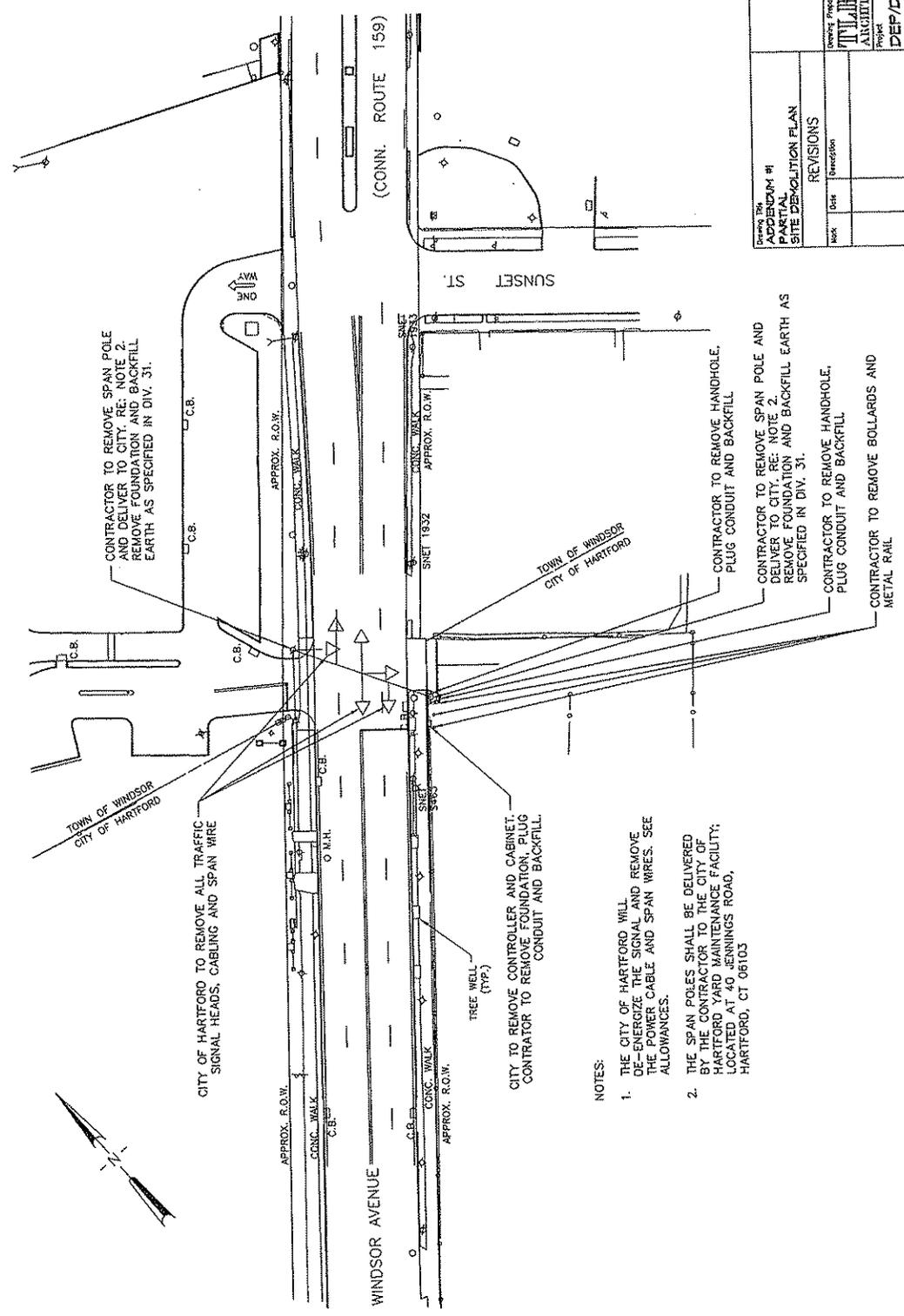
Name - Print: ROBERT D HOFFERTH SR.
 Company Name: DRP ENGINEERING UNIT
 Street Address: 163 GREAT HILL RD
 City, St. Zip: RYLAND CT.

Telephone #: 860 - 9800
 Fax #:
 Cell Phone #:
 Email Address: ROBERT.HOFFERTH@CT
 Website Address: www.

Name - Print:
 Company Name:
 Street Address:
 City, St. Zip:
 Telephone #:
 Fax #:
 Cell Phone #:
 Email Address:
 Website Address: www.

Name - Print:
 Company Name:
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 City, St. Zip:
 Telephone #:
 Fax #:
 Cell Phone #:
 Email Address:
 Website Address: www.

Name - Print:
 Company Name:
 Street Address:
 City, St. Zip:
 Telephone #:
 Fax #:
 Cell Phone #:
 Email Address:
 Website Address: www.



- NOTES:
1. THE CITY OF HARTFORD WILL DE-ENERGIZE THE SIGNAL AND REMOVE THE POWER CABLE AND SPAN WIRES. SEE ALLOWANCES.
 2. THE SPAN POLES SHALL BE DELIVERED BY THE CONTRACTOR TO THE CITY OF HARTFORD YARD MAINTENANCE FACILITY, LOCATED AT 40 SENNINGS ROAD, HARTFORD, CT 06103

TRAFFIC ENGINEERING SOLUTIONS, P.C.
 193 LEXINGTON ROAD
 GLASTONBURY, CT 06033
 (860) 657-3579

STATE OF CONNECTICUT DEPARTMENT OF PUBLIC WORKS		Date: 02/25/2018 Scale:
Drawing Prepared By: J. J. B. ARCHITECTURE, I.L.C.	State Seal:	Drawn By: J. J. B.
Project: DEP/DCP LABORATORY 4 WINDSOR AVENUE WINDSOR, CONNECTICUT	Approved By: [Signature]	Drawing No.: TS-1
Revision:	Project No.: 1801000001	Date:

Attachment No. 1 - PA. 13 of 39

SECTION 344010 - MAINTENANCE and PROTECTION OF TRAFFIC

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
- B. All material and construction methods shall conform to the following current State of Connecticut, Department of Transportation (D.O.T.) documents, which can be accessed on the D.O.T. website.
 - 1. Standard Specifications for Roads, Bridges and Incidental Construction (Form 816).
 - 2. Supplemental Specifications to Form 816.
 - 3. Special Provisions to Form 816, with edits and indicated in attachment to this Section.
 - 4. Standard Installation and Guide Detail Sheets.

1.2 WORK INCLUDED

- A. Basic Summary - The purpose of this project is to remove the existing traffic control signal at the intersection shown on the plan and to perform other work necessary in the roadway, shoulders and highway rights of way, as indicated on the drawings. Maintain traffic patterns on the roadways during the removal and subsequent related sitework, as herein specified, or as directed by the Authorities Having Jurisdiction.

1.3 PERMITS and APPROVALS

- A. Secure approvals - The Contractor shall obtain an Encroachment Permit from The Connecticut Department of Transportation District 1 office located at 1107 Cromwell Avenue in Rocky Hill for any work within the State's right of way. The Contractor shall obtain an Obstruction Permit from the City of Hartford in order to block vehicular or pedestrian traffic while working on the traffic signal installation. The Contractor also will need an Excavation Permit from the City of Hartford for any excavation within the roadway or sidewalk area. For excavation work the Contractor will also be required to be Licensed by the City of Hartford. For City Permits the contractor shall contact Duane Roberts at (860) 757-9972.

ITEM #0971001A - MAINTENANCE AND PROTECTION OF TRAFFIC

Article 9.71.01 - Description is supplemented by the following:

The Contractor shall maintain and protect traffic as follows and as limited in the Special Provision "Prosecution and Progress."

The Contractor shall maintain and protect normal traffic operations on all roadways within the project. Excepted therefrom will be those periods, during the allowable periods, when the Contractor is actively working at which time he shall maintain traffic as follows:

All Roads

The Contractor shall maintain and protect at least one lane of traffic in each direction on a paved travel path of not less than 13 Feet (11 Foot wide travel lane with a 2 Foot wide shoulder).

Excepted from the above will be the following:

1. Those periods when the Contractor is erecting or removing overhead traffic signal spans or overhead signs, at which time the Contractor will be permitted to halt traffic for the period necessary to secure or remove the signal span, signal heads or signs, but in no case shall this period be greater than fifteen minutes. The Contractor shall allow all stored vehicles to proceed through the work area before halting traffic for another fifteen-minute period. Alternatively, the Contractor will be permitted to maintain and protect at least an alternating one-way traffic operation on a paved travel path not less than 12 feet in width. The time at which this operation is to take place will be determined by the City of Hartford Traffic Engineer and shall coincide with periods of low traffic volumes during the day.

Article 9.71.03 - Construction Method: Add the following:

SIGNING

The Contractor shall maintain all existing overhead and side-mounted signs throughout the project limits during the duration of the project. The Contractor shall temporarily relocate existing signs and sign supports as many times as deemed necessary and install temporary sign supports and foundations if necessary and as directed by the Engineer.

When all work is completed, the Contractor shall remove existing signs and install new signs as shown on the Signing and Pavement Marking Plans contained in the contract plans.

TRAFFIC SIGNALS

The Contractor shall keep each traffic signal in the project limits operational at all times during construction.

The Contractor shall install final pavement markings and signing prior to the proposed traffic signal being made fully operational.

The Contractor will be responsible for the removal of pavement markings as called for on the project plans or as directed by the City of Hartford Traffic Engineer. All pavement markings that conflict

ITEM # 0971001A

with the proposed pavement marking as shown on the plans shall be removed as expeditiously as possible. This work will be included in the lump sum price for the traffic signal installation.

Construction signing and Flag Persons shall be used during periods that one or more lanes are closed to traffic in accordance with the attached Connecticut DOT Traffic Control Plans.

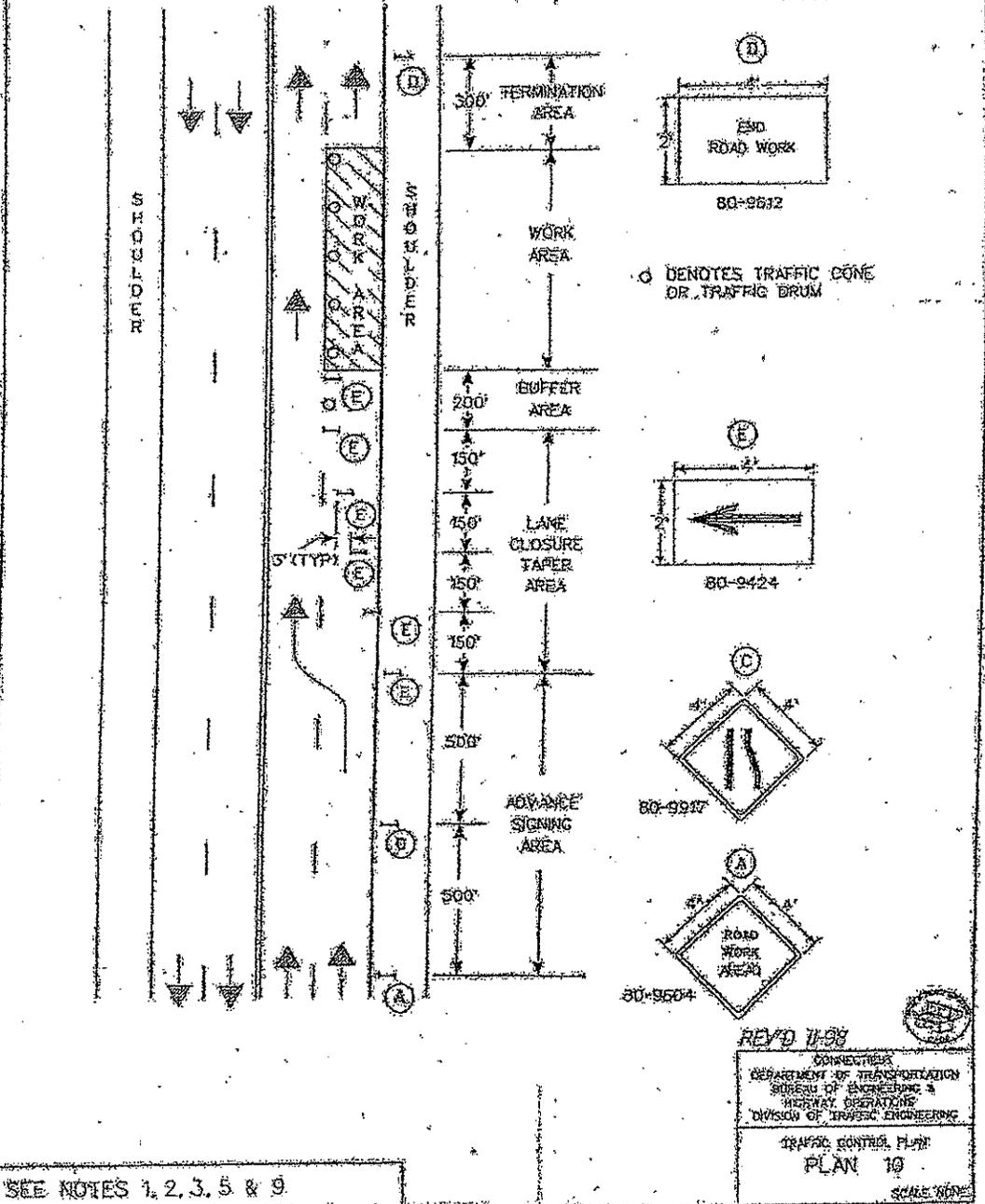
SIGNING PATTERNS

The Contractor shall erect and maintain all signing patterns in accordance with the traffic control plans contained herein. Proper distances between advance warning signs and proper taper lengths are mandatory. 42 Inch Traffic Cones or Traffic Drums are to be utilized to continue a lane closure on expressways.

ITEM #0971001A

WORK IN RIGHT LANE
4 LANE UNDIVIDED HIGHWAY

SIGN FACE
88 SQ. FT (MIN)

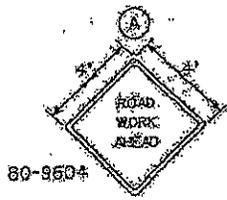
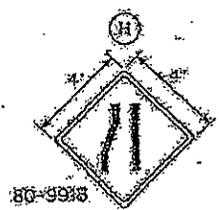
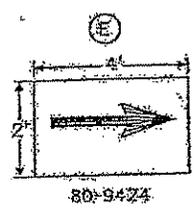
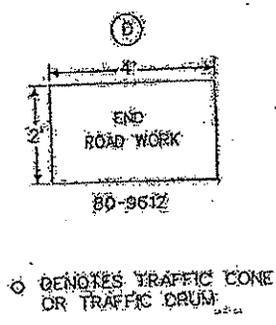
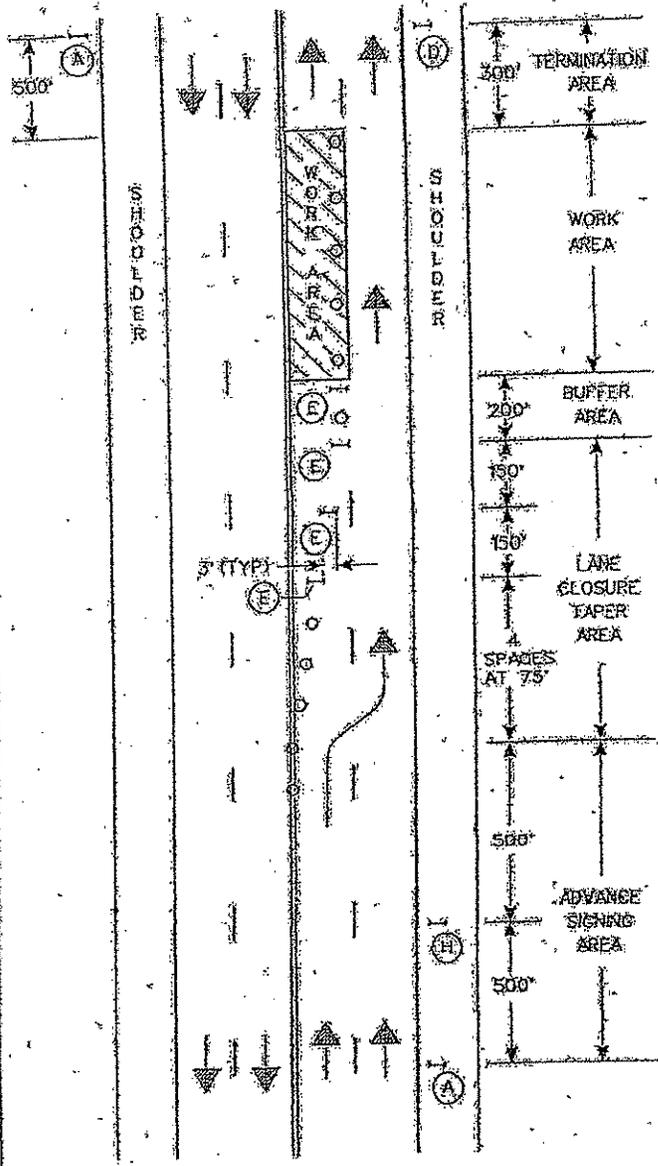


SEE NOTES 1, 2, 3, 5 & 9

REV'D 11-88
CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING &
HIGHWAY OPERATIONS
DIVISION OF TRAFFIC ENGINEERING
TRAFFIC CONTROL PLAN
PLAN 19
SCALE NONE
APPROVED: [Signature] DATE: 11/1/88
PRINCIPAL ENGINEER
ITEM: 2871001A

**WORK IN LEFT LANE
4 LANE UNDIVIDED HIGHWAY**

**SIGN FACE
88 SQ. FT (MIN)**

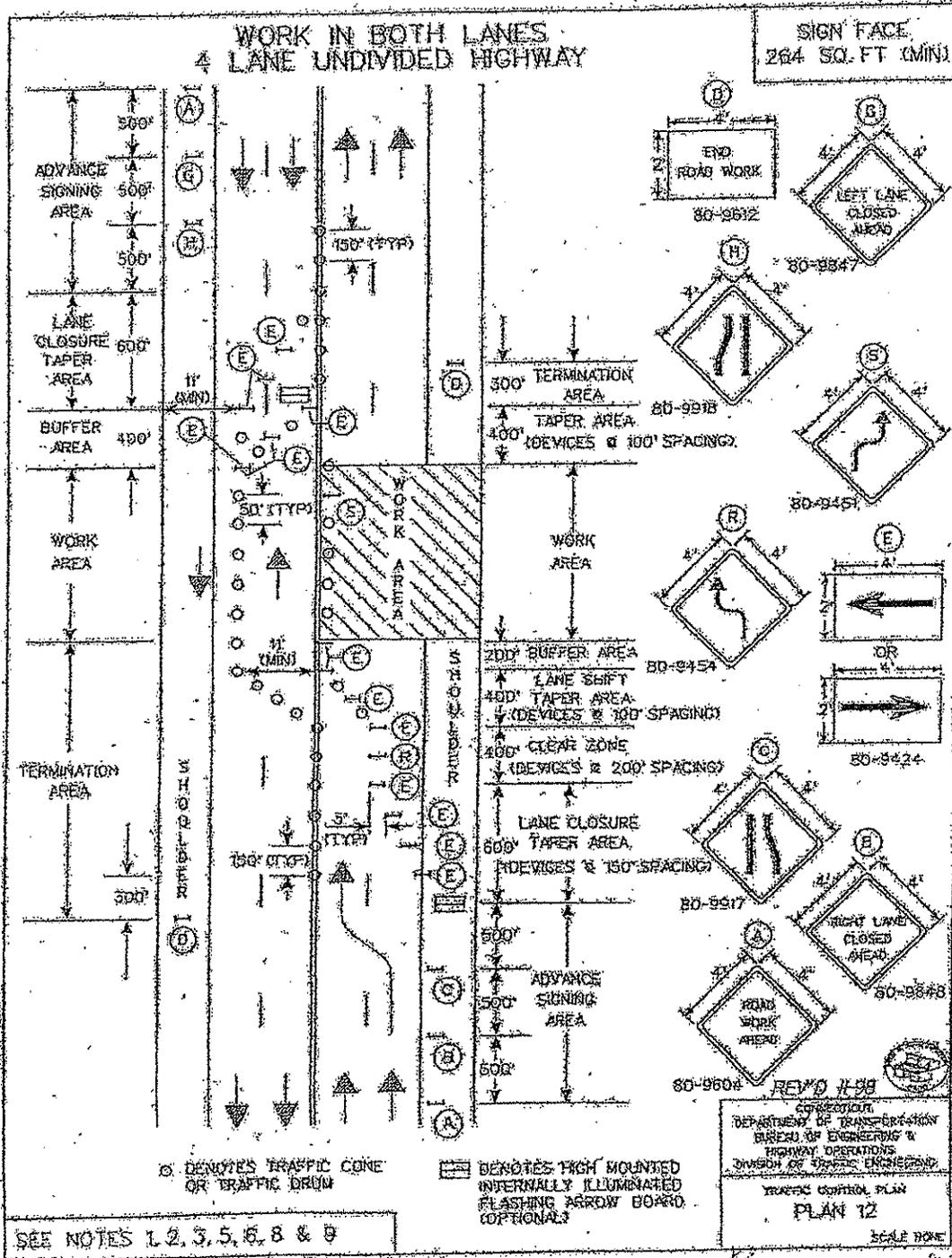


NOTE:
PLACE THE FIRST TWO TRAFFIC CONES ON THE CENTER LINE THEN PROVIDE ONE FOOT OFFSET BETWEEN THE REMAINING TRAFFIC CONES.

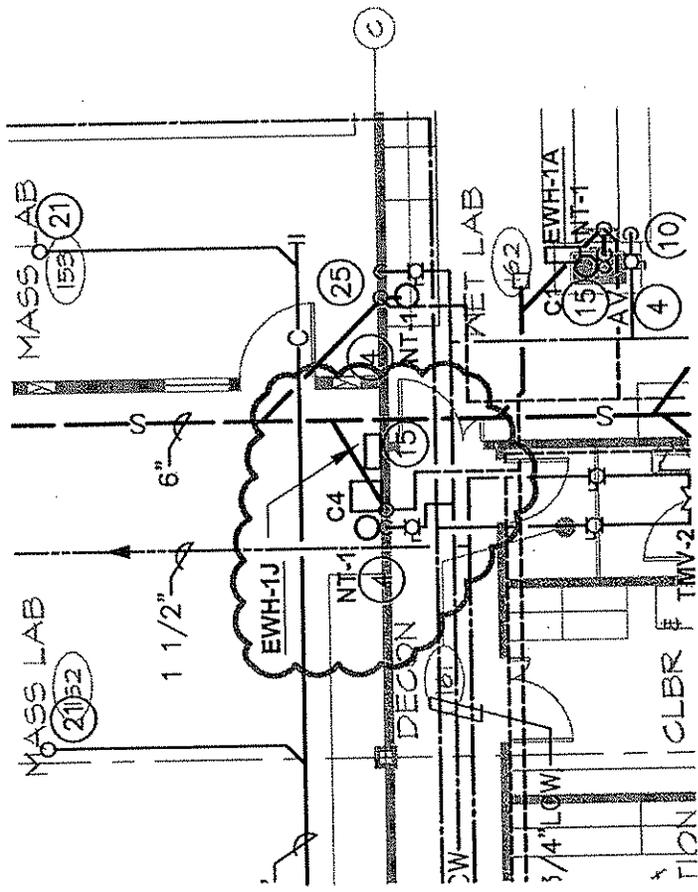
SEE NOTES 1, 2, 3, 5 & 9

REV'D 11-98
CONNECTICUT
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENGINEERING &
HIGHWAY OPERATIONS
DIVISION OF TRAFFIC ENGINEERING
TRAFFIC CONTROL PLAN
PLAN 11
SCALE NONE

APPROVED: *[Signature]* DATE: *11/1/98*
PRINCIPAL ENGINEER
MFM #ST1001A



APPROVED: *[Signature]* DATE: *11/15/83*
 PROJECT ENGINEER
 ITEM #971001A

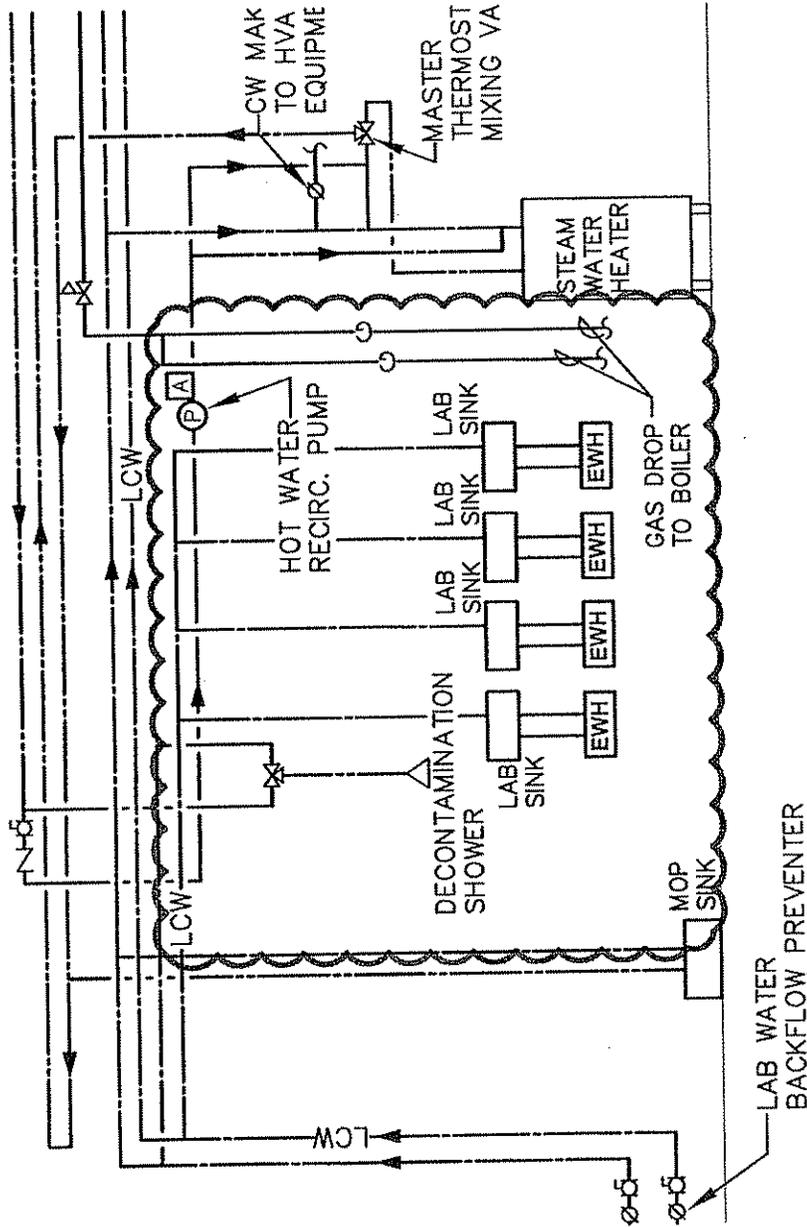


JOB TITLE: DEP/DCP LABORATORY 9 WINDSOR AVE		REVISION INFO	ADD. #1	DRAWING NUMBER
SHEET TITLE: PLUMBING BUILDING 2 1ST FLOOR		REFERENCE DRAWING	P1.2	SK-P1.2-1
JOB NUMBER	SCALE	DATE	DRAWN BY	
21-09-136	NONE	05/23/2011	MT	

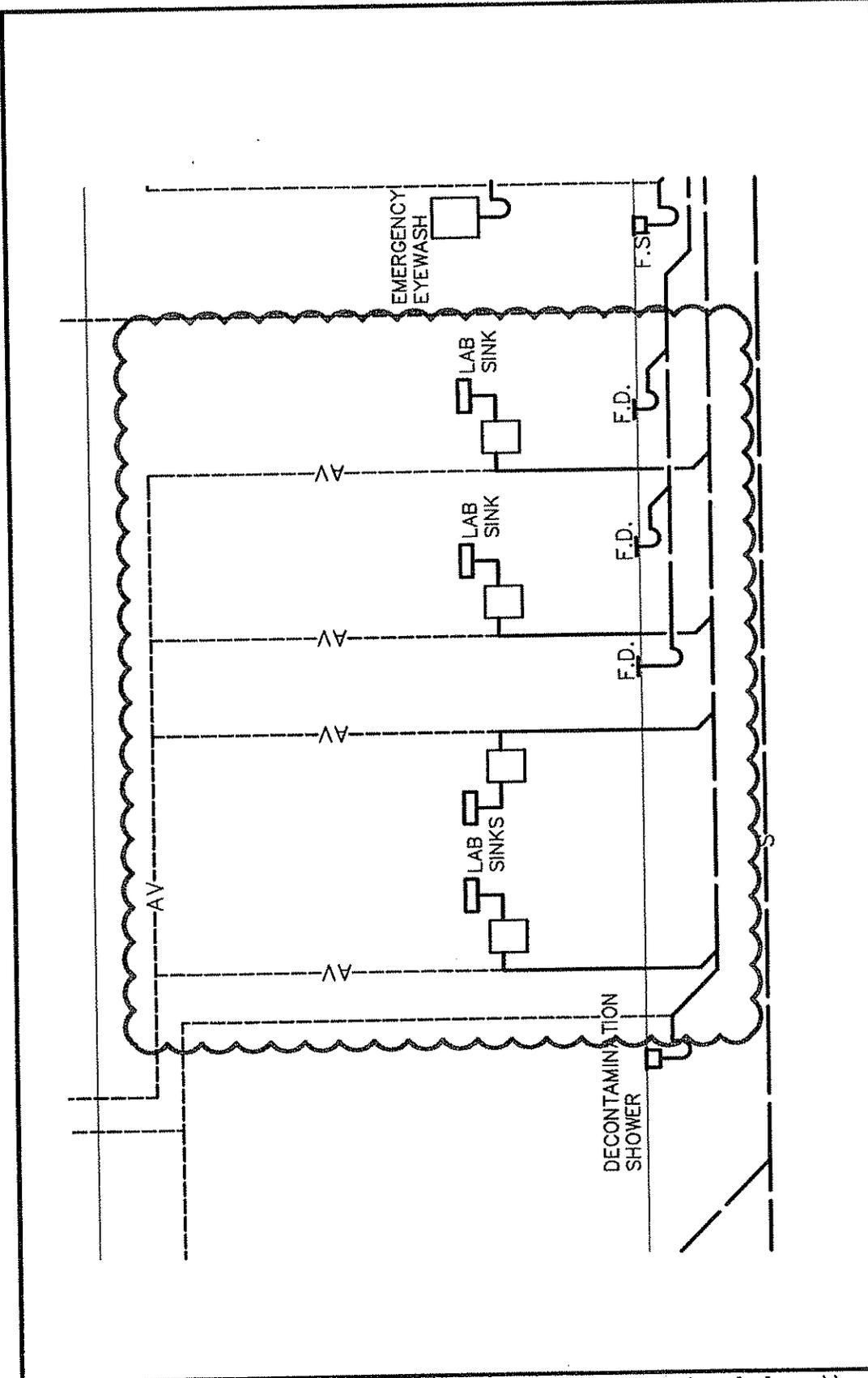
BMH
integrated
SERVICES

CIVIL STRUCTURAL MECHANICAL,
ELECTRICAL, COMMISSIONING AND TECHNOLOGY

50 Griffin Road South
Bloomfield, CT 06002
Tel: (860) 265-9771
Fax: (860) 242-0226



JOB TITLE: DEP/DCP LABORATORY 9 WINDSOR AVE		REVISION INFO ADD. #1		DRAWING NUMBER SK-P3.1-1	
SHEET TITLE: PLUMBING SUPPLY RISER		REFERENCE DRAWING P.3.1			
JOB NUMBER 21-09-136	SCALE NONE	DATE 05/23/2011	DRAWN BY MT		
 50 Griffin Road South Bloomfield, CT 06002 Tel: (860) 286-8171 Fax: (860) 242-0288		CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL, COMMISSIONING AND TECHNOLOGY			



JOB TITLE: DEP/DCP LABORATORY 9 WINDSOR AVE		REVISION INFO ADD. #1	DRAWING NUMBER SK-P3.1-2
SHEET TITLE: PLUMBING DRAINAGE RISER		REFERENCE DRAWING P.3.1	
JOB NUMBER 21-09-136	DATE 05/23/2011	DRAWN BY MT	
	SCALE NONE		
50 Griffin Road South Bloomfield, CT 06002 Tel: (860) 266-9171 Fax: (860) 244-0238  BVH integrated services CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL, COMMISSIONING AND TECHNOLOGY			

PLUMBING FIXTURE SCHEDULE

TYPE	FIXTURE	SOIL	VENT	COLD	HOT	MOUNT	DESCRIPTION	NOTES
"C4"	SINK	1 1/2"	1 1/2"	1/2"	1/2"	WALL	ELKAY #ELV1817 STAINLESS STEEL LAVATORY WITH GRID STRAINER ASSEMBLY. WADE #520-M36 FOOT SUPPORTED CARRIER. ELKAY #LK500GN05T4 FAUCET WITH SWIVEL/RIGID GOOSENECK SPOUT, VANDAL RESISTANT LAMINAR FLOW MODERATOR, 4" WRIST BLADE HANDLES.	①

SCHEDULE NOTES:

- ① COORDINATE FIXTURE MOUNTING HEIGHT INFORMATION WITH ARCHITECT'S DRAWINGS.

PLUMBING EQUIPMENT SCHEDULE

ITEM #	EQUIPMENT	DESCRIPTION	NOTES
EWH-1J	ELECTRIC WATER HEATER	EEMAX #EMT4 "MINI-TANK" POINT-OF-USE WATER HEATER, 4 GALLON CAPACITY, 6 YEAR TANK WARRANTY, 2 YEAR PARTS WARRANTY.	
TAG	VOLTAGE-- ϕ	HP	KW
EWH-1J	120-1	20A-1P	SLDPM
	1.4		(2) #12 & (1) #12 GND IN 3/4"C.

SCHEDULE NOTES:

- ① TYPICAL FOR EACH UNIT.
- ② PROVIDE 20A TOGGLE SWITCH FOR DISCONNECTING MEANS AT UNIT.

JOB TITLE: DEP/DCP LABORATORY 9 WINDSOR AVE

50 Griffin Road South
Bloomfield, CT 06002
Tel: (860) 265-9171
Fax: (860) 242-2036



CIVIL, STRUCTURAL, MECHANICAL,
ELECTRICAL, COMMISSIONING AND TECHNOLOGY

DRAWING NUMBER

SK-MEP3.4-1

REVISION INFO

ADD. #1

REFERENCE DRAWING

MEP3.4

DRAWN BY

MT

DATE

05/23/2011

SCALE

NONE

JOB NUMBER

21-09-136

SECTION 233416.1 - LABORATORY EXHAUST FANS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

- A. Section Includes: For each product.

1. Epoxy coated, high-plume dilution laboratory exhaust fans.
2. FRP, high-plume dilution laboratory exhaust fans.
3. Heat recovery unit with filters
4. Heat recovery coils

1.03 ACTION SUBMITTALS

- A. Product Data:

1. Include rated capacities, furnished specialties, and accessories for each fan.
2. Certified fan performance curves with system operating conditions indicated.
3. Certified fan sound-power ratings.
4. Motor ratings and electrical characteristics, plus motor and electrical accessories.
5. Material thickness and finishes, including color charts.
6. Dampers, including housings, linkages, and operators.

- B. Shop Drawings:

1. Include plans, elevations, sections, and attachment details.
2. Include details of equipment assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
3. Include diagrams for power, signal, and control wiring.
4. Design Calculations: Calculate requirements for selecting vibration isolators and seismic restraints and for designing vibration isolation bases.

5. Vibration Isolation Base Details: Detail fabrication, including anchorages and attachments to structure and to supported equipment. Include auxiliary motor slides and rails, and base weights.

1.04 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings: Show fan room layout and relationships between components and adjacent structural and mechanical elements. Show support locations, type of support, and weight on each support. Indicate and certify field measurements.
- B. Field quality-control reports.

1.05 PROJECT CONDITIONS

- A. Field Measurements: Verify dimensions by field measurements. Verify clearances.
- B. Do not operate fans until ductwork is clean, filters are in place, bearings are lubricated, and fans have been commissioned.

1.06 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For centrifugal fans to include in emergency, operation, and maintenance manuals.

1.07 REFERENCE STANDARDS

- A. The latest published edition of a reference shall be applicable to this Project unless identified by a specific edition date.
- B. All reference amendments adopted prior to the effective date of this Contract shall be applicable to this Project.
- C. All materials, installation and workmanship shall comply with the applicable requirements and standards addressed within the following references:
 1. AMCA 99 - Standards Handbook.
 2. AMCA Publication 111 - Laboratory Accreditation Program.
 3. ANSI/AMCA Standard 210 - Laboratory Methods of Testing Fans for Rating.
 4. AMCA Publication 211 - Certified Ratings Program - Product Rating Manual for Fan Air Performance.
 5. AMCA Standard 260 - Laboratory method of Testing Induced Flow Fans for Rating.
 6. AMCA Standard 300 - Reverberant Room Method for Sound Testing of Fans.

7. AMCA Publication 311 - Certified Ratings Program - Product Rating Manual. For Fan Sound Performance.
8. AMCA Publication 500D - Laboratory Methods of Testing Dampers for Rating.
9. AMCA Publication 511 - Air Performance and Air Leakage.
10. AMBA - Method of Evaluating Load Ratings of Bearings ANSI-11.
11. ANSI/AMCA Standard 204 - Balance Quality and Vibration Levels for Fans.
12. AMCA Standard 500-D-98 - Laboratory Methods of Testing Dampers For Rating.
13. AMCA Standard 500-L-99 - Laboratory Methods of Testing Louvers For Rating.
14. SMACNA - Medium Pressure Plenum Construction Standard.
15. ANSI Z9.5 - Laboratory Design.

1.08 QUALITY ASSURANCE

A. The following quality assurance requirements apply to all fans described and furnished under this Section:

1. Performance ratings: Conform to AMCA Standard 211 and 311. Fans must be tested in accordance with AMCA 210, 260 and 300 in an AMCA accredited laboratory and the high plume exhaust fan shall be licensed to bear the AMCA seal for Certified Sound and Air Performance. Acceptable manufacturers whose equipment is not licensed to bear the AMCA seal for Certified Sound and Air Performance must submit air and sound performance tests conducted by an independent third party, and stamped by a registered professional engineer.
2. Fans designated or classified for Type B Spark Resistant Construction must conform to AMCA 99 requirements.
3. Each assembled fan shall be test run at the factory at the specified fan rpm with CFM per watt, and vibration signatures shall be recorded and documented. Vibration signatures are to be measured at each bearing location in the horizontal, vertical, and axial planes. The maximum allowable fan vibration shall not be greater than 0.08 inches per second at the peak velocity; filter-in reading as measured at the fan rpm. The report with documented test results shall be included with the shipment for each fan.
4. The manufacturer shall also provide, at the Owner and Engineer's option, witness testing of fan inlet tests measured in an AMCA accredited laboratory (AMCA Publication 111-99), in accordance with AMCA 210. Witness fan discharge and entrainment airflow, using a modified AMCA 210 test set up where the fan inlet is placed in the open and the fan outlet (which includes the induction stack) is connected to the airflow test apparatus. This total fan

outlet airflow test shall verify the entrainment airflow rate, which is the dilution performance by subtracting the measured fan inlet airflow rate from the fan outlet airflow rate. This performance test shall be performed as part of the product submittal phase of the Project.

5. Minimum design airflow rates, static pressure, and plume heights as referenced on the Drawings.
 - a. A minimum plume height shall be accomplished at the scheduled design airflow rate and analytically established from ASHRAE Laboratory Design Guide, Equation 9-2.
 - b. The plume height shall be visually indicated by inducing smoke at the fan inlet and also at the air inlet side of the induction ring.
 - c. The vertical plume height is determined and measured where the diluted smoke no longer continues a vertical path parallel with the centerline fan outlet or induction ring nozzle.

1.09 MAINTENANCE MATERIAL SUBMITTALS

- A. Belts: One set for each belt-driven unit.

PART 2 - PRODUCTS

2.01 Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or a comparable product by one of the following:

- A. Greenheck, Inc.
- B. M.K. Plastics, Inc.
- C. Strobic Fan Co., Inc.

2.02 PERFORMANCE REQUIREMENTS

- A. AMCA Compliance:
 1. Comply with AMCA performance requirements and bear the AMCA-Certified Ratings Seal.
 2. Operating Limits: Classify according to AMCA 99.
- B. Unusual Service Conditions:
 1. Duty: Corrosive, Radioisotope

- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- D. Capacities and Characteristics:
 - 1. Housing Material: Reinforced steel Shaped fiberglass-reinforced plastic.
 - 2. Special Housing Coating: Epoxy.
 - 3. Wheel Material: Stainless steel.
 - 4. Drive Type: Belt.
 - 5. Motor:
 - a. Motor Enclosure: Totally enclosed, fan cooled.

2.03 ENERGY RECOVERY PLENUM BASE:

- A. The unit shall be constructed on an all-aluminum or stainless steel structural base. The base shall be designed to distribute loads properly to a suitable mounting surface and be braced to support internal components without sagging, pulsating or oil canning.
- B. The unit base shall be provided with sloped sumps in areas as indicated on the drawings. Sumps to be welded and guaranteed waterproof to serve as a drain pan to prevent building water damage from the unit. Sump to be double-sloped (min. 1/4" per foot) towards units drains to positively remove condensate from the unit.
- C. The base floor shall be minimum 3/16" thick plate welded at all joints and to structural members. Floor material shall have safety-tread surface. The base floor shall be designed for a minimum live load of 100 pounds per square foot throughout the unit. The base floor is to be supported with adequate stiffening members to prevent oil canning. Caulking, gaskets and mechanical fasteners to guarantee seals and water tightness of joints will not be acceptable.
- D. The perimeter support members shall be a minimum of 6" structural member properly sized to support all major components and the housing during rigging, handling and operation of the unit.
- E. The underneath side of the base pan and base perimeter shall be insulated with minimum 2" thick 1.5-pcf high density polyisocyanurate foam insulation to form a vapor barrier. Vapor barrier is then protected by a 0.040" thick aluminum sheet attached to the bottom of the base.

- F. Each section of the unit base shall contain a minimum 1" NPT drain to facilitate system washdown, maintenance and condensate removal. Areas in the base where potential standing water cannot be removed through drains or weep holes are not acceptable. Clean out drains shall be provided with removable caps of non-corrosive material.
- G. All equipment within air handling unit shall be provided with a minimum 2" high base to raise equipment off unit floor for housekeeping. Equipment mounted directly on unit floor is unacceptable.
- H. Supply air openings to be framed with 2" high water dam continuously welded to the pan to allow proper duct connections and to prevent moisture from entering the openings. Framed openings shall be provided with removable aluminum or 304 stainless steel grating designed and fabricated for a live load of 100 pounds per square foot. Galvanized or painted steel grating will not be accepted.
- I. All unit base service openings shall be framed with a minimum 2" high water dam continuously welded to the floor. All pipe and electric conduit chases with openings to building or elements shall be covered with thin gage aluminum or 304 stainless steel. Penetrations by contractors shall be sealed by the respective contractor.
- J. Fastening to floor plate or joining of unit sections to be accomplished by bolting through gasketed joints above the floor line or continuously welding. Fasteners which penetrate base floor plate are not acceptable.
- K. Unit to be provided with properly located permanent lifting plates or removable lifting lugs for each section to adequately allow rigging of the unit sections in place.

2.04 ENERGY RECOVERY UNIT CASING

- A. Air handling unit casing shall be built up from the unit base with panels. The unit manufacturer shall be the manufacturer of the panel system. Panels shall be load bearing and capable of forming the enclosure without additional structural members. Panels shall be joined together with independent joining member and fastened with closed end aluminum rivets or stainless steel fasteners. Plated fasteners will not be accepted.
- B. All panels shall be double wall all-aluminum construction with minimum 0.040" exterior and interior skin thicknesses. Interior finish to be smooth, mill finish; exterior finish to be a low-reflective textured mill finish. Each panel shall contain an integral frame or be properly supported by a structural framing system. Panel

shall have continuous tight seal at the interior and exterior skins completely encapsulating the insulation.

- C. The minimum panel thickness shall be 2-1/2" thick with 3-pcf high density polyisocyanurate foam insulation. The panel R value shall be a minimum of 12 or greater.
- D. Thickness of the panel skin, core density, rib structural frame spacing shall be regulated to eliminate panel pulsation and restrict the maximum deflection to 1/200 of any span at design load of 1-1/2 times the design positive or negative pressure plus snow and wind loading.
- E. Casing system shall be guaranteed to assure the owner that system capacity, performance, and cleanliness standards specified are not compromised. Leakage to be guaranteed at no more than 1% of the design volume at 1-1/2 times the design operating pressure or 30 CFM, whichever is greater.
- F. All casing walls shall be of panel construction, including but not limited to the fan discharge walls, mixing section walls and divider wall to the access corridor.
- G. Any equipment flashing, internal partitions or other attachments to the casing shall be made in such a way as to ensure a permanent leak-tight connection. Attachments that are bolted, screwed, or welded to or through the casing creating air bypass, air leakage or rust propagation areas are not acceptable.
- H. All ductwork penetrations through unit enclosure shall be provided with framed openings of size and arrangement as indicated on drawing.
- I. Pipe and conduit penetrations through the unit casings shall be provided by the unit manufacturer and be properly sealed prior to leaving the factory. Penetrations sealed by simply caulking around extension are not acceptable.
- J. Provide minimum 24" wide access doors for access to all internal components. Access doors shall be installed to open against the greatest pressure relative to air pressure on each side of access door.
- K. Access doors shall be of the same construction as panels described above.
- L. The access doors shall incorporate two continuous separate gasket seals around the entire periphery of the door. Gasket material shall be UV-resistant, closed cell neoprene; gaskets shall be attached by adhesive and not mechanically held in place. Single gasket seals will not be accepted.
- M. Each access door shall contain a thermopane safety glass window (min. 10" square).

- N. Each access door shall have a built-in capped static pressure probe port for ease of pressure readings across various internal components.
- O. Each access door shall be mounted with a corrosion-resistant continuous piano hinge and shall have a least two (2) non-corrosive handles operable from either side.
- P. Removable access panels shall be provided as indicated on the drawings for service and maintenance. Access panels shall be of the same construction as panels described above. Removable access panels shall be designed and constructed such that removal and replacement may be accomplished without disturbing adjacent panels. Airtight integrity must be maintained.
- Q. A Bypass air damper shall be provided and shall be opposed-blade design, and the damper and inlet louver for each inlet elbow/plenum shall be fabricated of aluminum.
- R. A fan isolation damper fabricated of epoxy coated aluminum shall be provided.

2.05 ENERGY RECOVERY ROOF SYSTEM

- A. Unit roofs for outdoor units are to be sloped a minimum of 1/4" per foot to assure positive run-off. Roof to on door side and drain away from door side.
- B. The entire roofing system shall be a polymer membrane permanently bonded to the unit roof. Membrane to be minimum 0.045" thick. Standing seam roofing system will not be acceptable.
- C. Unit shall be provided with a non-corrosive rain gutter system with downspouts to guide unit roof water run-off to the building roof. Units incorporating roof systems without controlled water run-off accommodations are not acceptable.

2.06 ENERGY RECOVERY FILTER SECTIONS

- A. Provide all filters of number, size and capacity as required for air handling system indicated on drawings and as stated in these specifications. Filters to be selected for a maximum face velocity of 500 fpm.
- B. Filters shall have nominal rating of 500 fpm. Each cell shall be 24" x 24", or 12" x 24". Initial pressure drop shall not exceed that indicated. Media shall be approved and listed as Underwriters Laboratories Class 2 when tested according to UL Standard 900 and as described below:
- C. Pre filters: 2" thick MERV 7 efficiency (per ASHRAE Test Standard 52.2-2007)

- D. Filter frames shall be stainless steel construction. Frames to be provided with closed cell neoprene gasketing and all associated clips required to hold filter cells.
- E. Filter holding frames shall be installed and individually sealed to prevent leakage around frames. Filter banks shall be reinforced with vertical stiffeners to assure rigidity. Unit manufacturer shall provide flashing between filter banks and unit casings to prevent air leakage or bypass around the frames. Installation techniques, sealing methods, and structural reinforcement eliminate unfiltered air bypass and assure system cleanliness based on filter efficiencies specified.
- F. Unit manufacturer shall provide and install a Dwyer series 2000 magnehelic gauge complete with stainless steel static pressure tips and accessories for indicating the operating pressure drop of each filter bank. Indicating range of gauge shall be selected at two times the final resistance of the filter bank. Unit manufacturer shall provide two (2) sets of pre filter media with the unit for installation by others.
- G. Acceptable filter frame and filter manufacturers: American Air Filter, Farr

2.07 ENERGY RECOVERY GLYCOL COIL SECTION

- A. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:
 - 1. Aerofin.
 - 2. Coilmaster.
 - 3. Greenheck.
 - 4. Heatcraft.
- B. Provide glycol/water coils of number, size and capacity as required for exhaust air system indicated on drawings and as stated in these specifications. Coils to be selected with maximum face velocity of 500 fpm; maximum head pressure loss of 20 ft.
- C. Coils shall have minimum 0.025" thick, 5/8" diameter, copper tubes, 0.0075" aluminum fins, and non-ferrous headers with min. 1/2" dia. MPT drain and vent connections. Coil casings shall be minimum 16 gauge 304 stainless steel. Coil fin spacing shall not exceed 10 fpi.
- D. The entire coil is to be Electrofin coated to provide corrosion resistance.
- E. Coils shall be circuited to provide the required performance; the use of internal restrictive devices, or turbulators, to obtain turbulent flow will not be acceptable.

- F. Coils shall be tested to 250 psig under water and shall be guaranteed for 200 psig working pressure.
- G. Coils shall be individually supported by a stainless steel rack system. This rack shall allow any one (1) coil to be removed through the unit casing, normal to the direction of air flow, without disturbing any other coil. Coils stacked one on top of the other will not be accepted.
- H. Each coil shall include a sloped, positive-draining IAQ stainless steel condensate pan assembly. Drain pan to be constructed from minimum 16 gauge 304 stainless steel material. Coils shall set above the condensate pan for ease of removal. Intermediate condensate drain pan shall be minimum 1-1/2" deep; extending at least 3" upstream and at least 12" downstream of the coil face. Each drain pan shall be individually piped down to the bottom pan; lower drain pan to be provided with a drain connection of sufficient size to remove condensate extended to the unit exterior for connection by others.
- I. Where necessary to prevent moisture carryover, each coil shall have aluminum or stainless steel moisture eliminators provided on the downstream side. Cooling coils condensate pans shall be designed and manufactured to incorporate future eliminators without any field modification.
- J. Supply and return connections are to be extended and sealed through the casing wall; drain and vent connections shall be terminated internally. (optional) piped with ball valves and hose bibs for the drain.
- K. Provide removable access panels in the unit casing on each side of the unit for ease of coil removal.

2.08 MOTORS

- A. Comply with NEMA designation, temperature rating, service factor, and efficiency requirements for motors specified in Section 230513 "Common Motor Requirements for HVAC Equipment."

2.09 SOURCE QUALITY CONTROL

- A. Sound-Power Level Ratings: Comply with AMCA 301, "Methods for Calculating Fan Sound Ratings from Laboratory Test Data." Factory test fans according to AMCA 300, "Reverberant Room Method for Sound Testing of Fans." Label fans with the AMCA-Certified Ratings Seal.

- B. Fan Performance Ratings: Establish flow rate, pressure, power, air density, speed of rotation, and efficiency by factory tests and ratings according to AMCA 210/ASHRAE 51, "Laboratory Methods of Testing Fans for Certified Aerodynamic Performance Rating."

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install fans level and plumb.
- B. Disassemble and reassemble units, as required for moving to the final location, according to manufacturer's written instructions.
- C. Lift and support units with manufacturer's designated lifting or supporting points.
- D. Curb Support: Install roof curb on roof structure, level and secure, according to "The NRCA Roofing and Waterproofing Manual," Low-Slope Membrane Roofing Construction Details Section, Illustration "Raised Curb Detail for Rooftop Air Handling Units and Ducts." Install and secure centrifugal fans on curbs, and coordinate roof penetrations and flashing with roof construction. Secure units to curb support with anchor bolts.
- E. Install units with clearances for service and maintenance.
- F. Label fans according to requirements specified in Section 230553 "Identification for HVAC Piping and Equipment."

3.02 CONNECTIONS

- A. Drawings indicate general arrangement of ducts and duct accessories. Make final duct connections with flexible connectors. Flexible connectors are specified in Section 233300 "Air Duct Accessories."
- B. Install ducts adjacent to fans to allow service and maintenance.
- C. Install piping from scroll drain connection, with trap with seal equal to 1.5 times specified static pressure, to nearest floor drain with pipe sizes matching the drain connection.

3.03 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
- B. Manufacturer's Field Service: Engage a factory-authorized service representative to test and inspect components, assemblies, and equipment installations, including connections.
- C. Perform the following tests and inspections with the assistance of a factory-authorized service representative:
 - 1. Verify that shipping, blocking, and bracing are removed.
 - 2. Verify that unit is secure on mountings and supporting devices and that connections to ducts and electrical components are complete. Verify that proper thermal-overload protection is installed in motors, starters, and disconnect switches.
 - 3. Verify that cleaning and adjusting are complete.
 - 4. Disconnect fan drive from motor, verify proper motor rotation direction, and verify fan wheel free rotation and smooth bearing operation. Reconnect fan drive system, align and adjust belts, and install belt guards.
 - 5. Adjust belt tension.
 - 6. Adjust damper linkages for proper damper operation.
 - 7. Verify lubrication for bearings and other moving parts.
 - 8. Verify that manual and automatic volume control and fire and smoke dampers in connected ductwork systems are in fully open position.
 - 9. See Section 230593 "Testing, Adjusting, and Balancing For HVAC" for testing, adjusting, and balancing procedures.
 - 10. Remove and replace malfunctioning units and retest as specified above.
- D. Test and adjust controls and safeties. Controls and equipment will be considered defective if they do not pass tests and inspections.
 - 1. Adjust minimum air flow to meet minimum stack height requirements, but no lower than 3000 feet per minute.
- E. Prepare test and inspection reports.

3.04 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain centrifugal fans.

END OF SECTION
05/23/11

INVITATION TO BID

FOR PROJECTS ESTIMATED TO COST MORE THAN \$500,000.00

ADV. NO.: 11-16

ADV. DATE: May 6, 2011

SEALED BIDS FROM CONTRACTORS WHO HAVE BEEN PREQUALIFIED IN THE DAS CLASSIFICATION NOTED BELOW SHALL BE ADDRESSED TO THE DEPARTMENT OF PUBLIC WORKS - STATE OF CONNECTICUT FOR:

Project Title:	DEP-DCP Laboratories 9 Windsor Avenue Windsor, Connecticut
Project Number:	BI-2B-256
DAS Classification:	Group B – General Building Construction
Special Requirement:	Experience in constructing laboratory building and systems
Cost Estimate Range:	\$2,800,000. – \$3,000,000.
Plans & Specs Ready For Sale Date:	May 11, 2011
A NON-REFUNDABLE FEE OF PER SET IS REQUIRED	\$ 216.00 Checks should be made payable to “ Treasurer, State Of Connecticut ” and should <i>include</i> the prospective bidder’s correct mailing address, email address, telephone and fax numbers. USE A SEPARATE CHECK FOR EACH PROJECT.
Examination or Purchase of Plans & Specs	at the State Of Connecticut, Department Of Public Works, Plans And Specifications Section, Room No. G-36, 165 Capitol Avenue, Hartford, CT 06106 , during the hours of 7:30 A.M. to 3:00 P.M. (Monday-Friday) or by addressing a request to the above address with your FedEx number.
Pre-Bid Conference:	All prospective bidders are required to attend a MANDATORY Pre-Bid Conference
Pre-Bid Conference Time	to be held AT 9:00 AM
Pre-Bid Conference Date	ON May 18, 2011
Pre-Bid Conference Location	AT DEP – DCP, 9 Windsor Avenue, Windsor, Connecticut, DEP Laboratory.
Pre-Bid Conference Registration	All prospective bidders are required to <i>properly</i> register. <i>Proper</i> registration means that the attendee has <i>signed</i> his or her name to the official roster and <i>listed</i> the name and address of the company he or she represents on the official roster no later than the designated start time of the pre-bid conference. No attendee will be allowed to register <i>after</i> the advertised start time of the pre-bid conference. Bids submitted by contractors who have <i>not properly</i> registered and attended the pre-bid conference shall be <i>rejected</i> as non-responsive .
Pre-Bid Conference Contact	N/A
BID OPENING DATE:	June 15, 2011
Receipt of Bid Package	Bids will be received at the State Office Building, 165 Capitol Avenue, Hartford, CT, 06106 in Room No. G-36

	UNTIL 1:00 P.M. on the date shown above and thereafter publicly opened and read aloud in Room No. G-32.
Bid Results:	Bid results are posted on the DPW Website in approximately two (2) days after the bid opening date.
Set-Aside Participation	25%
Including MBE	6.25%
Gift And Campaign Contribution Certification	If awarded the subject contract and the contract has a value of \$50,000 or more the contractor will be required to sign and submit, at the time of contract execution, a Gift And Campaign Contribution Certification . See the DPW home page, http://www.ct.gov/dpw , click on Affidavits . For the purposes of signing the Certification, the “date DPW began planning” the subject project or services is such date noted below.
Date DPW Began Planning the Subject Project:	1/23/07
Summary and Affidavit Regarding State Ethics	Any one seeking a contract with a value of more than \$500,000 shall provide with their bid an Ethics Affidavit <i>located</i> at CT DPW Website (www.ct.gov/dpw). Failure to provide this affidavit with the bid proposal shall result in rejection of the bid.
Bid Security	As security , <i>each bid</i> must be accompanied by a CERTIFIED CHECK made payable to “ Treasurer, State of Connecticut, ” or the bid must be accompanied by a BID BOND , in the form required by the awarding authority and having surety thereto such Surety Company or Companies as are authorized to do business in this State and/or accepted by the Commissioner of the Department of Public Works for an amount not less than 10% of the bid.
Bidders are advised that <i>both</i> the DEPARTMENT OF ADMINISTRATIVE SERVICES PREQUALIFICATION CERTIFICATE and UPDATE STATEMENT must accompany the bid proposal for projects <i>estimated to exceed</i> Five Hundred Thousand Dollars (\$500,000.00) (C.G.S. 4b-91 as amended). <i>Failure to supply them with the bid will result in rejection of the bid</i>	
Department of Administrative Services (DAS) Contractor Prequalification Program: http://www.das.state.ct.us/Purchase/New_PurchHome/Busopp.asp	
To access Executive Orders: http://www.ct.gov/governorrell/cwp/browse.asp?a=1719&bc=0&c=18433	
To access the Department of Public Works Web Site: http://www.ct.gov/dpw	

Performance and Labor and Material Bonds to be furnished by the bidder awarded the contract shall be an amount not less than 100% of the contract price.

The Commissioner reserves the right to do any of the following without liability, including but not limited to: (a) waive technical defects in the bid proposal as he or she deems best for the interest of the State; (b) negotiate with a contractor in accordance with Connecticut General Statutes Section 4b-91; (c) reject any or all bids; (d) cancel the award or execution of any contract prior to the issuance of the “Notice To Proceed;” and, (e) advertise for new bids.

Nonresident contractors: *At the time of contract signing a certificate from the Commissioner of Revenue Services must be provided which evidences that C.G.S. 12-430 for non-resident contractors has been met. For details call the Department of Revenue Services at (860) 541-3280, ext. 7.*

EXECUTIVE ORDERS:

The Contract is subject to the provisions of Executive Order No. Three of Governor Thomas J. Meskill, promulgated June 16, 1971, concerning labor employment practices, Executive Order No. Seventeen of Governor Thomas J. Meskill, promulgated February 15, 1973, concerning the listing of employment openings and Executive Order No. Sixteen of Governor John G. Rowland promulgated August 4, 1999, concerning violence in the workplace, all of which are incorporated into and are made a part of the Contract as if they had been fully set forth in it. At the Contractor's request, the Client Agency shall provide a copy of these orders to the Contractor. The Contract may also be subject to Executive Order No. 7C of Governor M. Jodi Rell, promulgated July 13, 2006, concerning contracting reforms and Executive Order No. 14 of Governor M. Jodi Rell, promulgated April 17, 2006, concerning procurement of cleaning products and services, in accordance with their respective terms and conditions.

This contract is subject to the provisions of the Department of Public Works **Sexual Harassment Policy** ("Policy") and, as such, the contract may be canceled, terminated, or suspended by DPW for violation of or noncompliance with said Policy. Said document is hereby incorporated herein by reference and made a part hereof as though fully set forth herein. This policy may be found at the Department of Public Works Website at <http://www.ct.gov/dpw>, under **Publications**.

All **technical** questions must be in writing (not phoned or emailed) and faxed to the **Architect/Engineer** with a **copy** to the **DPW Project Manager** listed below.

Architect/Engineer/
Consultant: TLB Architecture, LLC Fax No: 860-526-9020

Construction
Administrator To Be Determined Fax No:

DPW Project Manager: Thomas Surprenant Fax No: 860-713-7270

All **bid** questions should be addressed to the **Officer** listed below.

Associates Fiscal
Administrative Officer: Gail Blythe Fax No: (860) 713-7395

Contract Time Allowed: 270 Calendar Days

Liquidated Damages: \$ 1,461.00 Per Calendar Day beyond Substantial Completion
\$ 1,374.00 Per Calendar Day beyond ninety (90) days after Substantial Completion

Prevailing Wage Rates: Prevailing wages are required on this project, in accordance with the schedule provided in the **bid documents**, pursuant to Connecticut General Statutes Section 31-53 (a) through (h), as amended.

Each contractor who is awarded a contract on or after October 1, 2002 shall be subject to provisions of the Connecticut General Statutes, Section 31-55a concerning **annual adjustments** to prevailing wages.

Wage Rates will be posted each **July 1st** on the **Department of Labor website: www.ctdol.state.ct.us** . Such prevailing wage adjustment shall not be considered a matter for any contract amendment.

The wages paid on an hourly basis to any mechanic, laborer or workman employed upon the work herein contracted to be done and the amount of payment or contribution paid or payable on behalf of each such employee to any employee welfare fund, as defined in subsection (h) of section 31-53 of the Connecticut General Statutes, shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such employees to any such employee welfare fund shall pay to each employee as part of his wages the amount of payment or contribution for his classification on each pay day.

Procurement
Department of Public Works