TOWN OF NORWICH P.O. Box 376 NORWICH, VERMONT 05055-0376 TEL. (802) 649-1419 Ext. 101 or 102

Agenda for the Selectboard Meeting of Wednesday, August 24, 2016 at 6:30 PM (Times Are Approximate)

(......

- 1) Approval of Agenda (Action Item) 2 minutes
- 2) Public Comments (Discussion) 5 minutes
- 3) Public Input on FY18 Budget (Discussion) 10 minutes
- 4) Interim Town Manager's Report (Discussion) 10 minutes
- 5) Finance Board to Sign Accounts Payable/Warrants (Action Item) 5 minutes
- 6) Fire Department Request to expend up to \$1,077.40 for 3 lengths of new suction hose Withdrawal from designated funds for equipment (Action Item) 5 minutes
- 7) Town Manager's Request to expend up to \$1,174.00 for a new Lenovo E560 laptop computer from the general administration fund. (Action Item) 5 minutes
- 8) Appoint Thad Goodwin as Tree Warden (Discussion/Action Item) 5 minutes
- 9) Error & Omission Andrew Pache Confirmation for Veterans' Exemption (Discussion/Action Item) 10 minutes
- 10) Public Safety Facilities Drawings (Discussion/Action Item) 60 minutes
 - a) Finalize Cost Estimates
 - b) Finalize Options
 - c) Finalize Language for Bond Documents
- 11) Town Manager Search (Discussion/Possible Action Item) 30 minutes
 - a) Review Town Manager Search Timeline
 - b) Review and Finalize Interview Questions (Executive Session May be Required)
 - c) Review Charge and Advertisement for Town Manager Search Committee
- 12) Selectboard Guidelines for FY18 Budget (Discussion/Possible Action Item) 20 minutes
- 13) Correspondence (Discussion/Possible Action Item) 5 minutes
- 14) Selectboard
 - a) Approval of the Minutes of the 7/11/16 Selectboard Meeting (Action Item) 5 minutes
 - b) Review of Next Agendas (Discussion/Possible Action Item) 5 minutes
 - a. American Legion update on new monument
 - b. Hugh and Cheryl Rostad re: Water District
 - c. Treasurer's Quarterly Investments Report and Discussion of New Account
 - d. Selectboard Liaison to Committees
- 15) Executive Session (as needed for Town Manager Search)

Next Regular Meeting - September 14, 2016 at 6:30 PM

To receive email notices of Selectboard meetings and hearings, agendas, minutes and other notices, send an email to <u>manager-assistant@norwich.vt.us</u> requesting to be placed on the Town Email List.

OFFICE OF THE TOWN MANAGER

TO: SELECTBOARD

FROM: DAVE ORMISTON

SUBJECT: JULY 2016 MONTHLY REPORT

DATE: AUGUST 9, 2016

This is the Town Manager's Report for July, 2016. Department specific monthly reports are attached.

General

- Hopson Road In response to comments from the selectboard at our last meeting the DPW has not yet installed speed tables as planned on Hopson Rd. It is understood that we can still lay pavement for the speed tables up until Mid-October. To answer some of the questions raised; the tables are projected to be 30 feet in length (10 ft. incline, 10 ft. flat table, 10 ft. decline) rising to 4 inches high in the middle. The cost per table is estimated to be \$2,500 for a total of \$7,500. We believe at this point that the projected cost will fall within the existing paving budget. Further, the proposed dimensions will allow the Highway Crew to plow the speed tables in the winter and we prefer the permanent table over a temporary one.
- Nancy Kramer's Replacement Resumes were due in to the Administrative Offices on Friday, July 29th. Four candidates were interviewed on Monday, August 8th. A second interview is scheduled for Monday, August 15th. Nancy happily retired from service on Friday, August 5th.
- Town Managers Search On or around July 20th the advertisement for the Norwich Town Manager's Position was posted in the publications approved during the July 11th board meeting. The deadline for submittal of resumes is Friday, September 2nd. The Vermont League of Cities and Towns (VLCT) is overseeing the advertisement and collection of resumes.
- Public Safety Facility the police / fire building remains in the forefront of activity. The preliminary layout was approved at the July 11th selectboard meeting. Since the July 11th meeting Jay White has been busy formulating cost estimates for the proposed design. The cost estimates will be presented to the selectboard on Wednesday, August 24th.
- Fema Alternative Projects In response to the Route 132 Culvert Project being disallowed from the Alternative Projects the town resubmitted the applications substituting a front end loader on June 16th. In a discussion with Mary Andes,

Vermont Department of Public Safety, the State did not forward the material to FEMA until about 30 days later. Norwich will hear, at best, back from the State at the end of August regarding these applications and the request for an extension. At this point, the timeline is in FEMA's control

Assessor

• The Assessor and Clerk began work on the 2016 sales study, which is an analysis by Property Valuation and Review of Norwich sales over a three year period ending on 3/31/16. PV&R solicits the Town's help in ascertaining which sales may not have been reflective of fair market value.

Finance Office

• Delinquent Tax collections through July were \$4,589.58. Delinquent Taxes as of July 31, 2016 are \$133,322. Last year at the end of July they were \$118,782. Interest collections were \$1,724 and penalty collections were \$367.

Fire Department

• The Fire Department responded to 14 incidents between July 23rd and 24th. These were all storm related calls and included a brush fire in Lyme, down power lines and a leaking 500 gallon propane tank.

Police Department

• A new Police SUV has been ordered and is expected to be in within the next few months. It will then go to be "up-fitted" with lights, radios, etc...so that we can put it into service. One of the current sedans has had the police decals removed and is being readied to be put into service as our unmarked car used for officers to take to training at the Vermont Police Academy as well as any out of state training. Once it is put into service the Chevy Impala will be put out to bid.

Public Works

- The windstorm of Saturday, July 23rd caused many trees to come down. At least two weeks were spent on clean up.
- Blacktop started this season's paving projects on July 19th and completed them on Friday, July 29th. Driveway and shoulder rebuilding will be done into the first part of August.

Recreation

• Jill kept busy overseeing more than a dozen summer staff, working in four different programs. Jill also had seven offerings running, for which she hired the Instructors as sub-contractors, versus working on an hourly basis. Jill further reports that "we have an excellent summer staff running our programs, with many return employees".

Zoning & Planning

 The planning Commission continued with mixed-use Site Plan Review and Planned Unit Development criteria, and affordable housing density bonuses for the Route 5 South & River Road Study Areas.

Please see the following full reports from each department for many more updates!

Town of Norwich Assessors' Office Post Office Box 376 <> Norwich, VT 05055-0376 (802) 649 1419 x6 assessing-clerk@norwich.vt.us

Monthly Report - July 2016

- (1) The Clerk submitted the RA-309 (Detailed Reappraisal Compliance Report) and the RA-310 (Report of Reappraised Grand List) to the State. The State used this information and information from the reappraised 411 to calculate the 2016 homestead and non-residential tax rates for the 2016 tax bills.
- (2) The Assessor participated in six appeals of 2016 Grand List values before the Norwich Board of Civil Authority.
- (3) The Assessor and Clerk began work on the 2016 sales study, which is an analysis by Property Valuation and Review of Norwich sales over a three-year period ending on 3/31/16. PV&R solicits the Town's help in ascertaining which sales may not have been reflective of fair market value.
- (4) The Clerk assisted the Fire District by providing information needed to generate the 2016 Fire District Grand List.

Respectfully submitted,

Jonathan Bynum Assessing Clerk

On behalf of

William Krajeski Assessor Town of Norwich

TOWN OF NORWICH FINANCE OFFICE PO BOX 376 NORWICH, VERMONT 05055-0376

rrobinson@norwich.vt.us 802-649-1419 ext 105

August 1, 2016

TO: Dave Ormiston, Interim Town Manager

FROM: Roberta Robinson, Finance Director

RE: Finance Department Monthly Report for July

- Delinquent Tax collections through July were \$ 4,589.58. Delinquent Taxes as of July 31, 2016 are \$133,322. Last year at the end of July they were \$ 118,782. Interest collections were \$ 1,724, and penalty collections were \$367.
- Sent out 1557 tax bills for a total of \$16,399,501. Initial credits for income sensitivity were \$1,277,925. To date there are Late Homestead Penalties of \$4,719.
- Working on the year end close and getting information to the outside auditors for the audit.

Norwich Fire Department

11 Firehouse Lane P.O. Box 376 Norwich, VT 05055-0376

Phone: 802-649-1133

sleinoff@norwich.vt.us Fax: 802-649-1775

Chief: Stephen Leinoff

To:

Dave Ormiston, Interim Town Manager

From:

Stephen Leinoff, Chief

Subject:

Fire Department and Emergency Management Monthly Reports

Date:

August 1, 2016

Fire and FAST Department

The weekend of July 23rd and 24th was tragic and busy for all Upper Valley Fire Departments. Orford Firefighter Charles Waterbury passed away while fighting a three-alarm brush fire in Lyme. Charles was active in community affairs and had 10 years of service with the Orford Fire Department.

Department members were active during the Norwich Fair. We had a "Touch a Truck" event and performed recruiting activities. We had apparatus and personnel standby during the fireworks display.

Chris Maeder was appointed as a firefighter. Chris will join three other new members who will begin Firefighter 1 training in August.

Incidents

We responded to 14 incidents between July 23rd and 24th. These were all storm related calls and included a brush fire in Lyme, down power lines and a leaking 500 gallon propane tank.

Training

Fire training included "hands on training



Upper Valley Fire Apparatus positioned along the procession route for Charles Waterbury's return to Orford. *Photo by Elizabeth S. Rathburn*

Call Types	Month	Year to	Prior Year
		Date	to Date
Structure Fires	2	7	7
Auto Fires	1	1	3
Wildland Fire	1	5	8
Other Fires	0	0	0
Medical	5	43	52
Vehicle Crashes	0	14	15
Hazardous			
Conditions no fire	12	30	20
Service Calls	3	19	9
Good Intent Calls			
	1	11	19
False Alarms	7	17	22
Other	0	0	0
Total	32	144	155

on ventilation and forcible entry. There was not FAST Squad training due to the July 4th holiday.

Emergency Management

The storm on July 23rd -24th created numerous incidents for the Fire, Police and Public Works Department. Most of the work was downed trees and power lines, and traffic related issues. On Saturday and Sunday the Department of Public Works worked nine hours with Green Mountain Power and contractors that they had working with them. They continued tree cleanup starting on Monday, the 25th, with a 4-man crew to clean up an estimated 70 trees that were damaged during the storm—either blew down or had to be taken down.



A large tree fell on a 500 gallon propane tank and caused it to leak. NFD members monitored the area for hazardous gas levels. Fortunately there was no danger to property. Fire apparatus could not access the scene due to a driveway blocked by a large tree on live power lines.



NORWICH POLICE DEPARTMENT



CHIEF OF POLICE DOUGLAS A. ROBINSON

P.O. Box 311 ~ 10 Hazen Street ~ Norwich VT 05055 ~ 802-649-1460 ~ FAX 802-649-1775 ~ E-MAIL drobinso@dps.state.vt.us

David Ormiston Town Manager Tracy Hall // 300 Main St. Norwich, Vermont 05055

August 2, 2016

RE: July 2016 Monthly Report

Dave;

As requested, here are some of the monthly stats of the Police Department from the month of July 2016.

Norwich Officers responded to 142 incidents during the month of July, and of those calls four (4) were outside the officers work schedule meaning officers responded four times (4) to calls during off duty hours.

During the month of July we have been adjusting our hours and changing shifts to accommodate the officers' vacations. The months of July and August have typically been months when vacation time is used for the police members. The shifts are covered with overtime and with the use of part time officers.

The police department continues to work closely with Jay White Architects on the design and cost of a new public safety facility. The officers are looking forward to a ground breaking in 2017. Right now we are trying to determine the best place and cost efficient location to be during the construction phase of the new facility. All avenues are being looked into.

A new Police SUV has been ordered and is expected to be in within the next few months. It will then go to be "up-fitted" with lights, radios etc.. so the we can put it in service. One of the current sedans has had the police decals removed and is being readied to be put into service as our unmarked car used for officers to take to training at the Vermont Police Academy as well as any out of state training. Once it is put into service the Chevy Impala will be put out to bid.

REMINDER: Vermont is and has been a "HANDS-FREE" state, which means NO electronic devices are to be used while driving. Norwich officers have been writing several tickets every week for operators who ignore this law. One such operator was even using their laptop while driving. Distracted driving causes so many accidents please keep your mind on the driving, there are so many bicyclist, pedestrians and kids are using or playing near the roadways.

ACTIVITY

July 2016	2016 YEAR TO DATE	PREVIOUS YEAR
1	1	9
3	33	71
20	67	75
2	15	30
	2016 1 3	July 2016 YEAR TO DATE 1 1 3 33

1.	Over Time Hours	18	hours
2.	Sick Time Hours	12	hours
3.	Vac/Hol/Per Time Hours	135	hours
4.	Part Time Officer Hours	70	hours
5.	Total #of calls responded to	142	calls
6.	Training Hours	0	hours
7.	Grant Funded Hours	0	hours

Respectfully;

D.A.R.

Douglas A. Robinson Chief of Police



TOWN OF NORWICH

DEPARTMENT OF PUBLIC WORKS
26 New Boston Road
Norwich, VT 05055
802-649-2209 Fax: 802-296-0060

Ahodgdon@norwich.vt.us

To: David Ormiston, Interim Town Manager From: Andy Hodgdon, Public Works Director

Subject: Public Works Monthly Report

Date: July 31, 2016

Part of this month's report will come from an excel program that provides statistics for all Public Works functions.

Grant Projects:

- Hook construction continues to work on replacing the deck and making other necessary repairs to Bridge #42. This project is funded by a 2015 VT AOT Structures Grant.
- I received permission from VT AOT to use the remainder of the funds from the structures grant that weren't needed for Bridge #42 for the replacement of Bridge #48 on Bragg Hill. Hook Construction will start this project as soon as work on Bridge #42 is completed.

FEMA Alternate Projects:

• Since the Route 132 box culvert project was rejected, I submitted an alternate request for use of the funds for a piece of equipment-a bucket loader. This went out to bid. The bids are in and I made my recommendation.

Culvert Replacements:

• We completed seven replacement culvert installations during the month of July and did the related ditching.

Transfer Station:

- July 5: We took 2,920 lbs. of scrap metal from old culverts to Evergreen Recycling in Wilder.
- July 8: Safety Kleen picked up 250 gallons of used oil from our shop.
- In June, the recycling rate was 49.5% of all materials collected at the Transfer Station.

Paving:

 Blaktop started this season's paving projects on July 19th and completed them on Friday, July 29th. We will have all of the driveway and shoulder rebuilding to do in the coming weeks.

Tree Cleanup:

• The windstorm of Saturday, July 23rd caused many trees to come down. We spent one week on cleanup and have at least another week to go.

Pending Projects:

- Culvert replacements town-wide.
- Roadside mowing.

NORWICH RECREATION DEPARTMENT

Jill Kearney Niles - Director

649-1419; Ext. 5

Recreation@norwich.vt.us

July 2016 - Monthly Recreation Report

Recreation Program and Staff Update -

I kept busy overseeing more than a dozen summer staff, working in four different programs. We also had seven offerings running, for which I hired the Instructors as subcontractors, versus working on an hourly basis. We have an excellent summer staff running our programs, with many return employees. All the camps that ran in July were a success: Sensational Summer Day Camp, Sports Camps, Fencing, Circus Camp, Media Arts Explorations, Friday Climbing, and Storrs Pond Afternoon Adventures, as well as Adult Boot Camp/Fitness, Pa Kua Chang Kung Fu and Sunrise Yoga. The weekly highlight of my job was observing some of the mini performances that the children do. I always leave feeling fortunate to work in this amazing community that is so loaded with talent and wonderful families.

I met with most of our fall Instructors, and communicated with our autumn youth soccer coaches to consolidate fall programming details for the upcoming season.

Facilities

Huntley Meadow was rented for a few summer camps as well as for High School and Adult Soccer leagues. "The River Valley Club' rented some tennis court time as well. The Huntley Meadow pavilion, as well as the Barrett Meadow bread/pizza oven, was used frequently for private and community events this month. The Bread/pizza Oven Guidelines & Instructions were updated.

It is great to have Andy back, healthy and inspired. Many thanks go out to him and his Buildings & Grounds team for keeping all our outdoor recreation and town facilities beautiful.

Event Planning

Work was done planning our annual Labor Day Road Race, scheduled for Monday, September 5th. Further organizing will continue throughout August to ensure a successful day.

Respectfully submitted by,

Jill Kearney Niles

TOWN OF NORWICH ZONING & PLANNING

August 4, 2016

July 2016 Monthly Report - Director of Planning & Zoning

1. Planning Commission

 Continued with mixed-use Site Plan Review and Planned Unit Development criteria, and affordable housing density bonuses for the Route 5 South & River Road Study areas.

2. DRB

- Issued Notice of Decision approving with conditions a two-lot subdivision on Wallace Road.
- Reviewing application documents for hearings in August and September.

3. Zoning Administrator – Activities included:

- Meetings with landowners on future development plans, permits, and hearings.
- Site visits and office visits regarding permit applications, permit research for properties to be sold, and inspections of possible violations.
- Mid-construction compliance inspection for replacement house in Flood Hazard Area.

4. Historic Preservation Commission

a. Issued RFQs for two grant funded National Register Nomination projects; Goodrich Four Corners Historic District and Mid-Century Modern Historic District. The Commission received proposals and selected two qualified architectural historians to prepare the nominations.

5. Other

- a. Attended:
 - i. TRORC and DEC water quality workshop for update on changes in regulations and funding.
 - TRORC Transportation Advisory Committee meeting on Municipal General Roads Permit/Water Quality program and State Highway paving priorities.
- b. Assisted Norwich Fire District Water Department with updating list of landowners in the Water Source Protection Area.

Phil Dechert

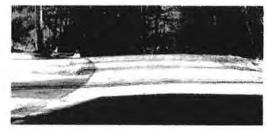
Petition

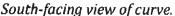
To: Norwich Town Manager

Subject: Dangerous curve on Hopson Road

From: Petitioners (signature sheet on reverse side)

Problem: Hopson Road is often used as a shortcut for motorists, who wish to avoid passing through the downtown area. It is also a popular walking, running and cycling route. Drivers using the road as a shortcut often exceed the posted speed limit of 25 mph. This is a dangerous combination of factors at the curve, just south of 335 Hopson Road.







North-facing view of curve.

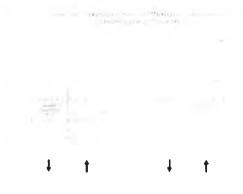
The sightlines around the curve and over the slope at this portion of the road make it difficult to see oncoming traffic, both vehicular and pedestrian. Often, southbound traffic tends toward the middle of the road as it curves to the left, which leads it into the path of northbound traffic.

Vehicles meeting one another often have to take evasive action. Pedestrians and cyclists are often unaware of approaching traffic. An important factor is the <u>presence of young children</u>, living in residences just north of this curve.

Request: That the town install a properly signed and marked speed table, or other effective traffic-calming feature, between the two utility poles—south of the driveway at 335 Hopson Road, to allow traffic and pedestrians time to avoid one another.



Example of a speed table.



Speed table markings.

Printed Name Norwich Address Signature 324 HORSON B. STUART FINKEL Alman 360 Hopson Rd 360 Hopson Rd Jelf Meyer-Lovenson 335 HOPSON Rd. Tot the plus Rd CC 2 Hopon Ro Molin Ziez Hryson Ry 250 HOPSIN RD Lynn Partyk - SX4 Hopson K STEPHEN FLANDERS S. HOLLOWS 317 Haylson 5/1/16317 Harsan bent to com VANCT ECHNORIS Courtney Keep Courtney Keep 249 Hapson Roxad tratavile 330 Hopson Rx ForNie 330 Hopson Kd

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Traffic Calming Measures - Speed Table

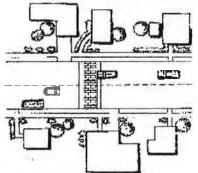
Description:

- long raised speed humps with a flat section in the middle and ramps on the ends; sometimes
 constructed with brick or other textured materials on the flat section
- sometimes called flat top speed humps, trapezoidal humps, speed platforms, raised crosswalks, or raised crossings

Applications:

- local and collector streets
- main roads through small communities
- . typically long enough for the entire wheelbase of a passenger car to rest on top
- work well in combination with textured crosswalks, curb extensions, and curb radius reductions
- can include a crosswalk





Design/Installation issues:

- typically 22 feet in the direction of travel with 6 foot ramps on each end and a 10 foot flat section in the middle; other lengths (32 and 48 feet) reported in U.S. practice
- most common height is between 3 and 4 inches (and reported as high as 6 inches)
- ramps are typically 6 feet long (reported up to 10 feet long) and are either parabolic or linear
- careful design is needed for drainage

Calming Measures







1627 I ("Eye") Street, NW, Suite 600 Washington, DC 20006-3538 USA Phone: 202-785-0060 Fax: 202-785-0609 Send comments to: ite_staff@ite org

SPEED HUMP | SPEED TABLE | RAISED INTERSECTION | CLOSURE | NEIGHBORHOOD TRAFFIC CIRCLE | CHICANE | CHOKER | CENTER ISLAND NARROWING

Potential impacts:

- no effect on access
- speeds are reduced, but usually to a higher crossing speed than at speed humps (typically between 25 and 27 miles per hour)
- traffic volumes have been reduced on average by 12 percent depending on alternative routes available
- collisions have been reduced on average by 45 percent on treated streets (not adjusted for traffic diversion)
- reported to increase pedestrian visibility and likelihood that driver yields to pedestrian

Emergency Response Issues:

- typically preferred by fire departments over 12 to 14-foot speed humps
- generally less than 3 seconds of delay per hump for fire trucks

Typical Cost:

From: Kris Clement <kclemwp6@gmail.com>

Sent: Friday, July 15, 2016 10:12 PM

To: David Ormiston; norwich@lists.vitalcommunities.org **Subject:** Re: [Norwich] FYI - Speed Humps on Hopson Road -?

Hi Dave,

I believe that complete transparency and effective communication are the responsibility of town government, and essential for informed and educated citizens in decision making.

I appreciate your efforts, and look forward to hearing more from you, and from our Selectboard, on the many other relevant community issues.

Regards,

Kris

On Fri, Jul 15, 2016 at 6:36 PM, David Ormiston < <u>DOrmiston@norwich.vt.us</u>> wrote: Kris,

Thank you for taking the time and making the effort to look into the issues of speed tables. Constructive feedback such as this is helpful in remedying the traffic and speed situation for the residents on Hopson Road.

Thank you,
Dave Ormiston
Interim Town Manager
Town of Norwich

Sent from my iPhone

On Jul 15, 2016, at 3:21 PM, Nancy Kramer < NKramer@norwich.vt.us > wrote:

From: norwich@lists.vitalcommunities.org [mailto:norwich@lists.vitalcommunities.org] On Behalf Of

Kris Clement

Sent: Friday, July 15, 2016 3:04 PM **To:** norwich@lists.vitalcommunities.org

Subject: [Norwich] FYI - Speed Humps on Hopson Road -?

At the July 11, 2016 SB meeting our Interim Town Manager Dave Ormiston reported that speed humps will be added to Hopson Road following a petition signed by 17 residents (there are 35

residents on Hopson road). The petition was addressed to the Town Manager, and was not presented to the Town Clerk. SB member Steve Flanders lives on Hopson Road and signed the petition.

Dave Ormiston: 7/11/16 SB meeting - part 2 (CATV8.org)

"We did receive a while back prior to me... I'm actually kinda carrying this thru... a submittal from residents on Hopson Road... actually 17 residents complaining about the thru traffic there... it tends to be a shortcut from the village over to route 5... I have spoken to both Andy and the Chief Doug Robbinson on this and they are in agreement that the residents actually asked for what is called a speed table... it's nicer than say a speed bump... it still allows you to travel but obviously you still need to control your speed in doing so... both Andy and Chief Robinson thought this was an excellent idea... we are meeting over there tomorrow morning... to kinda just touch base on where we are going to locate these... this is on the paving schedule... it's going to fit right in with the paving... based on the communication tomorrow we plan on going forward..."

I spoke with Amy Gamble at the VT Agency of Transportation. She said that speed humps/bumps are not regulated by the state (in the same way speed limits are set) and that it is up to the individual communities to decide. She did mention that an alternative to permanent construction of humps/bumps exits - removable heavy duty rubberized speed humps/bumps that can be taken up for a variety of reasons (e.g. during plowing season).

When replying to a posting, if you receive the list digest, use the "Reply to sender" or "Reply to

You received this message as a subscriber on the <u>norwich@lists.vitalcommunities.org</u> discussion list.

To post to the list send an email message to norwich@lists.vitalcommunities.org. Please include a clear "Subject" line. Your message will be automatically sent to the list and added to the daily digest.

To reach the list administrators please email $\underline{norwich-request@lists.vitalcommunities.org}$. Please DO NOT send help requests to the general list.

From:

Cheri C. Mather < Cheri.C.Mather@hitchcock.org>

Sent:

Saturday, July 16, 2016 6:02 AM

To:

David Ormiston

Subject:

Speed humps, bumps or tables

Hi David, welcome to Norwich. I live on Hopson Road and wasn't involved in the petition mentioned on the Norwich List serve. I suspect this is because I am on the side of Hopson between Elm and Beaver Meadow. I don't know if speed bumps were to be considered for this section of the road (which was paved within the past three years) but I hope they are. Folks drive extremely fast down this section as well and the issue is particularly unsafe at the entrance to pine tree Rd where the sight lines, because of drops and rises on the roadway, don't let the cars see pedestrians in the roadway. This section of Hopson is heavily used by pedestrians as it is part of a very popular walking loop, and I would hate to see someone (or someone's animal) get hit. If this area is not being considered for traffic calming measures, let me know and I will start a petition down on our end.

Thank you for your consideration.

Cheri Mather 163 Hopson Rd. Sent from my iPhone

IMPORTANT NOTICE REGARDING THIS ELECTRONIC MESSAGE:

This message is intended for the use of the person to whom it is addressed and may contain information that is privileged, confidential, and protected from disclosure under applicable law. If you are not the intended recipient, your use of this message for any purpose is strictly prohibited. If you have received this communication in error, please delete the message and notify the sender so that we may correct our records.

Rusty Sachs <usmcbirthdayball@gmail.com></usmcbirthdayball@gmail.com>
Sunday, July 24, 2016 10:12 AM
David Ormiston
and more

Mr Ormiston —

After years of enduring speeders on Hopson Road, it was a breath of fresh air to learn — via a note left in our Valley News box — the town's intention to install three speed bumps along the southern half of the road. The lack of traffic on Hopson has lured folks in a rush to bypass Norwich, and cars frequently tear past houses at forty mph or more, placing pedestrians, kids on bikes, and elderly walkers at significant risk. What good news to see action at last being taken.

But wait! When a road crew arrived a few days following that informal announcement it was not to install speed bumps at all. Rather they widened the road and smoothed it further, enhancing the danger to us residents. And rumor is now that the speed deterrents are indefinitely forestalled.

Please, *please*, PLEASE take whatever steps are needed to **slow** the traffic rather than facilitate speeding! With the new pavement in place, at least five speed bumps are needed. Immediately.

rs

On Jul 23, 2016, at 5:50 PM, David Ormiston < DOrmiston@norwich.vt.us> wrote:

Thank you Rusty.

-Dave Ormiston

Sent from my iPhone

On Jul 23, 2016, at 1:57 PM, USMC Birthday Ball < usmcbirthdayball@gmail.com > wrote:

Mr Ormiston —

PS: Welcome to town!

rs

From:

patty@shultzonline.com

Sent:

Sunday, July 24, 2016 10:24 PM

To:

David Ormiston

Subject: Speed tables

Hi Dave. I have a house on Hopson Rd and am very interested in speed tables to calm the speeding traffic. Over the years speeding on the section from Rt. 5 to Elm St has increased. People do not seem to abide by the posted speed. I think the speed tables would help deal with this problem. The other thing is that Hopson Rd is very popular with runners, walkers, and bikers as well as cars, so the speed tables would foster the safety of all who use Hopson Rd. Thank you, Patty Shultz (708 Hopson Rd)

Sent from my iPhone

From:

Shultz, Ed <ed.shultz@Vanderbilt.Edu>

Sent:

Monday, July 25, 2016 8:32 AM

To:

David Ormiston

Subject:

Hopson Road

Having a house on Hopson road for 25+ years, raising children and having their children visit, I am concerned with the increased traffic at higher speeds that I've observed over the years. As I understand it, some thought has gone into some road changes to slow traffic and perhaps even divert some. I would support this effort and wanted my feelings to be known to those trying to decide on the right course.

Thank You,

Ed Shultz 308 Hopson Road Norwich

From:

Lynn E. Patyk < Lynn.E.Patyk@dartmouth.edu> /

Sent:

Wednesday, July 27, 2016 12:34 PM

To:

David Ormiston

Subject:

speed tables on Hopson road

Dear Mr. Dormiston,

As a resident of Hopson Road, I am deeply disappointed to hear that the installation of speed tables has been suspended. We expected the work to be done when the road was repaved, thus minimizing disruption, and looked forward to the security that the speed tables would bring. As it is, a nice, smooth road provides an even more attractive "race track" for those speeders who complained about the "inconvenience" that the speed tables would pose. I am deeply dismayed that the Town of Norwich seems to care more about the convenience of scofflaws who want to exceed the 25 mile per hour speed limit than about the safety of children, bikers, joggers, and dog-walkers on this beautiful but narrow road.

I would ask you to call a meeting for interested parties to ask questions and discuss the speed tables, and that we hold this meeting in the next week so that the work is not delayed to the end of summer and beyond. This meeting should be well advertised on the Norwich listsery. Both the town surveyor and the police established that the road needed not one but THREE speed tables because of the blind curves and routine speeding violations. It's absurd that the interests of people who want to use the road as a speedway and recklessly endanger the lives of others should prevail over the residents who signed the petition to make their road safe.

Sincerely,

Lynn Patyk 324 Hopson Road

From:

KA Hersey <khersey@seeingmind.com>

Sent:

Saturday, July 30, 2016 8:38 AM

To:

David Ormiston

Subject:

Correction to Plea for Safety on Hopson Road

Mr. Ormiston,

Please see a corrected version of my previous letter, below. My apologies. —Kelley

Good Morning, Mr. Ormiston,

I am a Norwich resident who lives at a critical turn on Hopson Road — critical because my world centers around my only son, an active, gregarious, happy, 8-year-old who, given his age and gender, is often impetuous to a fault. Last year, my husband and I bought him a new mountain bike for his 8th birthday which he treasures for its agility and maneuverability. Although we love the spot in town where we built a house two years ago, now that we're here we are finding that its best feature — proximity to neighbors, to town, and to Marion Cross Elementary School — is a feature we don't feel comfortable enjoying. We do not let our son ride his bike alone on Hopson Road.

My husband and I are both much older parents than most. In 2007 I had our only child, a healthy, beautiful boy. With one of us a retired teacher and the other of us working from home, we were able to choose anywhere in the Northeast to relocate when our son was old enough for school. We settled in Norwich, I was invited to join the School Board, and I am deeply committed to our child's education and to our Dresden Schools and kids.

I am only passing along all of these details because they are most of what informs my perspective of life in Norwich. We chose the community for its excellent public school system. We choose Norwich because it is clean, it supports healthy family lifestyles, we share its political and cultural values, and because it has a nearly perfect public safety rating.

So I was thrilled, this past summer, when I noticed two people from the Town of Norwich in front of our house who told me that Hopson Road would finally be getting not one speed bump but three — something, I thought, that could well be the only solution to the rash of reckless drivers who force me to bike behind my son whenever he wants to ride one short mile to MCS. At last, I thought, we'll be able to live here the way we wanted to when we bet on making this place our home.

Now I hear that there is opposition to installing speed bumps on what every resident knows is a convenient, commuter cut-through to avoid Main Street traffic and police. What objections might there be? The posted speed limit on Hopson is 25 mph. I assume this means our Town and our police support this limit and are willing to back it up when it's ignored.

Perhaps our Town makes its policy decisions based on citizens needing or hoping, occasionally, to break the law. Maybe, instead, our Town make policy decisions based on unfettered convenience for drivers to drive without regard for anything such as a speed bump (or a child) that happens to be in their path? What possible more persuasive argument might there be floating around the fringes of the listserv or debated quietly at an under-attended Town Meeting that would ever justify those quiet, irrational arguments if, one day, one child — my child even — were hit by a speeding motorist? Please try to imagine that very real possibility and your and every Norwich public decision-maker's lifelong guilt if you are unable to imagine our lifelong grief.

Thank you for taking the time to read my letter and for considering, the next time this decision arises at Town Meeting, the very real and simple implications of your choice.

Kelley Hersey Norwich Resident 330 Hopson Road

From:

KA Hersey < khersey@seeingmind.com>

Sent:

Monday, August 01, 2016 7:47 AM

To:

David Ormiston

Subject:

Speed Bumps on Hopson Road

Mr. Ormiston, my name is Darius and I live at 330 Hopson Road. I would like to ride my bike on Hopson Road. I would like to ride it all by myself but I can't because the cars go way too fast and my Mom says I can't. When I ask her why, she says because I might get hit. Please put in speed bumps so the cars won't go too fast.

Thank you. The end.

Darius Faudie

From:

Katherine Riley < kmfraofremsr@gmail.com>

Sent:

Friday, August 05, 2016 8:40 PM

To:

David Ormiston

Subject:

Hopson Road speed bumps

Dear Mr. Ormiston,

I have heard that a decision to put speed bumps on Hopson Road has recently been rescinded for some unclear reason and I am writing to urge you to allow the speed bumps to be put in place. My children and I often walk or ride our bikes on Hopson and we frequently encounter cars going over 40 miles an hour. It is terrifying, not to mention illegal. The speed bumps on Rip Road in Hanover have proven highly effective, making the roads safe while reducing the need for police oversight and thus saving the town money. Surely if proof is needed that cars speed on Hopson before action can be taken, then it would be possible to put in a speed trap that measures the speeds of cars on that road. Given such proof, any detractors could then surely be convinced that speed bumps are preferable to the cost of a substantially increased police presence.

I look forward to hearing from you specifically about why the speed bump decision isn't going forward, and whether action can be taken to prove that cars do speed on Hopson Road.

Thank you,

Kate Riley 108 McKenna Road Norwich, VT

From:

Enrico Riley <enricoriley@gmail.com>

Sent:

Friday, August 05, 2016 8:44 PM

To: Subject:

David Ormiston Hopson Road

Dear Mr. Ormiston,

My wife and I are residents of Norwich and are often on Hopson Road because our son has a very good friend who lives there. The boys are not allowed to ride their bikes alone on the road whenever they are playing on Hopson, given the one blind curve at an uphill, just after Rt. 5, and the recklessness of so many drivers exceeding the speed limit.

We heard that there has been talk of putting in speed bumps but that currently that talk seems to be favoring no speed bumps at all; we think having them would be a great idea, and probably the only one that might work to slow people down. We have noticed that the speed limit is posted and is only 25 miles per hour. What possible objection might anyone have, given the posted limit of 25 miles per hour?

Thank you for considering making a favorite play spot safer for my son and other children on Hopson Road.

Sincerely,

Enrico Riley

From:

Fred Faudie <ffaudie@seeingmind.com>

Sent:

Sunday, August 07, 2016 10:49 AM

To:

David Ormiston

Subject:

speed bumps on Hopson Road

Dear Mr. Ormiston,

My wife Kelley, myself and our 8 year old son Darius live at 330 Hopson Road at one of the blind corners.

In addition to providing access to the homes on it, Hopson is a popular street for both resident and non-resident walkers, joggers, school teams, summer ski practice, horse riders, and bikers. My family, our neighbors, and our friends and visitors use the street for many of these activities. The street has a posted speed limit of 25 miles per hour. With the narrowness of Hopson, with its numerous spots of narrow or no shoulder, with its blind corners, with its changes of slope, with its troublesome intersections, and with its obstructed views, the ubiquitous speeders endanger everyone, including themselves, using the street no matter what their choice of locomotion.

Since the resurfacing, the general speed of most people using our residential street as a convenient cut through has increased from what it was before the resurfacing. It was clear to our Police Department before the resurfacing that there was a speeding problem on our street and they conducted speed traps. But these of necessity were intermittent and their effects were equally intermittent.

The speed tables would function constantly and with far more effectiveness than signs and speed traps have shown, to have people observe the posted speed limit and to stop their endangering the rest of us. It would seem only reasonable that we request the Town of Norwich, its administrators, and its Select Board, act to insure the safety of its residents and others making lawful use of Hopson and to put that safety before the convenience of those violating the law and endangering us all.

Yours truly, Frederic L. Faudie 330 Hopson Road Norwich, VT 05055 802-649-2489

From:

Laurie Morrison < lrejmorrison@gmail.com>

Sent:

Tuesday, August 09, 2016 2:15 PM

To:

David Ormiston

Subject:

Hopson RD speed bumps

To Whom It may Concern:

It is my understanding that the planned speed bumps are not going to be installed.

I am **strongly** in support of having speed bumps on Hopson Rd between Rt 5 and Elm ST. This is a popular walking/cycling route which has become a dangerous road as it is often used as a short cut with people driving much too fast!

Thank you for your consideration in this matter.

Laurie Morrison

Hopson Rd resident

From:

Tracy Nadeau <addison.carter2007@gmail.com>

Sent:

Wednesday, August 10, 2016 7:45 AM

To:

David Ormiston

Subject:

Speed tables on hobson road

To whom it may concern,

As a mother of two 8 year olds iam in favor of the insulation of three speed tables on Hobson rd. We as a town need to do what we can to keep our children and fellow neighbors safe. I also live on a road where people frequently speed.

Thank you for you time TRACY NADEAU

From:

Anne McGowan <annekmcgowan@gmail.com>

Sent:

Wednesday, August 10, 2016 9:17 AM

To:

David Ormiston

Subject:

Hopson Road Speed tables

Hello Mr. Ormiston,

I am writing to support the initiative to install speed tables to prevent/discourage speeding on Hopson Road.

I actually live on Bullock Road, but due to the speed of cars on Goodrich Four Corners, I often choose to exercise by walking in town, including on Hopson Road, where the speed limit is supposed to be safer for pedestrian traffic. However, I have often noted motorists driving well over the speed limit.

Please consider the speed tables for the safety of all.

Thank you, Anne McGowan 47 Bullock Rd Norwich

From:

Nancy Osgood <nancy.p.osgood@valley.net>

Sent:

Wednesday, August 10, 2016 10:35 AM

To: Subject: David Ormiston Hopson Road

Dear Dave,

I am writing in response to Kelley Hersey's request that speed tables be placed on Hopson Road. I use that road frequently – not to speed to some place – but rather to have a more visually pleasing return to Norwich. I am well aware of the narrowness of the road and the necessity to proceed carefully and slowly. The safety of dog walkers and cyclists and pedestrians is paramount. I hope you will reintroduce this idea to the Selectboard.

Sincerely,

Nancy Osgood 191 Pattrell Road Norwich

From:

Allison Moskow <allisonmoskow@gmail.com>

Sent:

Wednesday, August 10, 2016 10:53 AM

To: Subject: **David Ormiston**

Hopson Road Safety

Please install the necessary safety speed reminders to auto traffic on Hopson Road for our children's well being. Families with pets often walk along the road so slowing down traffic presents as an immediate concern. Thank you,

Allison Moskow
30 Elm Street



Allison Shutz Moskow PO Box 1185 Norwich VT 05055 Cell: 781-258-8565

From:

NSTUSA@aol.com

Sent:

Thursday, August 11, 2016 8:47 AM

To:

David Ormiston

Subject:

Request for Speed Table on Hopson Road

Hi Dave,

Now that Hopson Road has been paved and is a well-used road, I would be in favor of one or two speed tables on the road to slow down the cars and make the road safer. It is a narrow road and people do walk it constantly. People also ride bikes on the road and it is used by pets as well.

I think it's a good idea.

Good luck with your new job!

Thank you and best regards,

John C. Starosta 64 Hickory Ridge

From:

Brooke Trottier <brooke@btrottierlaw.com>

Sent:

Monday, August 15, 2016 12:20 PM

To:

David Ormiston

Subject:

Hopson Road speed bumps

Hello Mr. Ormiston,

I am writing to let you know that I am in support of speed bumps on Hopson Road. I find this road was a little scary to drive on previous to the new pavement due to drivers often in a rush and speeding on the road. The road is narrow and curvy. Speed bumps will help to keep us all safe.

I would even be in support of speed bumps on Turnpike Road, where I live. With the new pavement, it has turned into a highway. I passed someone the other day who must have been doing 60mph in a 35mph zone. We all use Turnpike to run and bike on. Drivers need to slow down.

Thank you for your time and consideration,

Brooke Hague Trottier Attorney At Law 16 Beaver Meadow Road, Suite 10 PO Box 543 Norwich, VT 05055

Phone: (802) 889-9401 Fax: (802) 889-9402

Email: brooke@btrottierlaw.com

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Please consider the environment before printing this e-mail

From:

Corlan Johnson < corlan@valley.net>

Sent:

Monday, August 15, 2016 3:39 PM

To:

David Ormiston

Subject:

Re: [Norwich] Traffic Calming on Hopson Road

Thank you. Seems like a good idea. Also, a stop sign on elm at hopson and a yield sign on pPine Tree might help. I often use hopson..live on Sargent st.

Corlan Johnson

Sent from my iPad. Please excuse spelling and terseness...and assume thanks.

On Aug 15, 2016, at 2:53 PM, David Ormiston < DOrmiston@norwich.vt.us> wrote:

Traffic Calming on Hopson Road

This is to update people using Hopson Road about the potential for using speed tables for calming traffic on the southern segment of that road.

This spring, the town manager's office received a petition from Hopson Road residents requesting traffic-calming measures at a blind curve on the southern part of Hopson Road – a speed table was suggested. The petitioners were concerned about the safety of children, pets, walkers, runners, and cyclists at that point in the road.

The Institute of Transportation Engineers describes speed tables as being long, raised speed humps with a flat section in the middle and ramps on the end. The speed table being considered for Hopson Road would be 30 feet in the direction of travel with 10-foot ramps on each end and a 10-foot flat section in the middle. The height would rise to 4 inches in the middle hump. Speed tables are effective for reducing speeds to 25 miles per hour — the speed limit on Hopson Road. They reportedly increase pedestrian visibility and the likelihood that drivers yield to pedestrians.

Upon receiving the Hopson Road petition I asked the Norwich Chief of Police and the Director of Public Works to advise me on what would be an appropriate measure for the southern part of Hopson Road. They suggested three speed tables, spaced along that segment. The Chief of Police acknowledges the frequency of traffic, in particular, during the school year and the Director of Public Works has long observed the frequency and speed on that narrow segment of road. A further consideration is that this section has been repaved and made smoother and potentially faster, this summer.

Here are some of my considerations about whether to install speed tables on Hopson Road:

1. **Cost:** Each speed table costs about \$2,500. Presently, we feel that these would fall within the budget for FY 2017.

From:

Hillary Roberts < hill.roberts@gmail.com>

Sent:

Monday, August 15, 2016 7:52 PM

To:

David Ormiston

Subject:

Hopson Road Speed Tables?

Hello,

My name is Hillary Roberts and I live at 256 Hopson Road. I signed the petition for the speed tables and had been expecting them to be added at the same time that the repaving was done? Are we now looking at 2017?

Thanks,

Hillary Roberts

From:

Jen Shepherd <jshepz@hotmail.com>

Sent: To: Monday, August 15, 2016 10:01 PM David Ormiston

Subject:

RE: [Norwich] Traffic Calming on Hopson Road

Hi Dave,

What a nice email! I appreciate your interest in hearing from others. My friend lives on Hopson and she has been telling me about how fast people drive there.

I have the same concern, as I live on Church Street. I am amazed that I rarely see anyone observe the 25 mph speed limit, rather most people drive anywhere from 40-55 mph. I have an eight year old daughter and a dog, and it is so scary and frustrating to see about 90% whiz by far over the marked 25 mph limit. We walk to school every day and I often feel like an irresponsible parent to walk with my daughter on a road that people drive so fast on. My house is across from the digital sign that shows people how fast they are driving, yet no one slows down. This has been a big concern for me and I know my neighbors feel the same way. What would we need to do to get speed tables on our end of Church Street? I am positive that if it only required a petition that everyone on this street would sign it.

Again, I appreciate your willingness to hear from others. Just let me know if there is something I can do to get a similar safety measure taken for our street.

Best, Jen Shepherd 164 Church Street

From: DOrmiston@norwich.vt.us

To: norwich@lists.vitalcommunities.org

CC: NKramer@norwich.vt.us

Date: Mon, 15 Aug 2016 18:53:42 +0000

Subject: [Norwich] Traffic Calming on Hopson Road

Traffic Calming on Hopson Road

This is to update people using Hopson Road about the potential for using speed tables for calming traffic on the southern segment of that road.

This spring, the town manager's office received a petition from Hopson Road residents requesting traffic-calming measures at a blind curve on the southern part of Hopson Road — a speed table was suggested. The petitioners were concerned about the safety of children, pets, walkers, runners, and cyclists at that point in the road.

The Institute of Transportation Engineers describes speed tables as being long, raised speed humps with a flat section in the middle and ramps on the end. The speed table being considered for Hopson Road would be 30

From:

Reese Madden < j.reese.madden@gmail.com>

Sent:

Tuesday, August 16, 2016 6:11 AM

To: Subject: David Ormiston Traffic calming

Hi Dave - interested for Turnpike Road.

Reese Madden 223 Turnpike

From:

Jay Benson <jkbenson3@gmail.com>

Sent:

Tuesday, August 16, 2016 6:34 AM

To:

David Ormiston

Subject:

Speed tables and safety priorities

Dave

My name is Jay Benson and I live 8 Spur Lane, off of Four Wheel Drive. Thank you for your emails to the list server and for your service to the town, I appreciate the succinct and clear explanations.

My question is more around the priority of other safety related capital improvement projects. For years there have been discussions around building a sidewalk along Church street. As you know there no sidewalk to the north of the school, where as there is a sidewalk on all other access directions to the school. Many years ago this project was on the "to-do" list then it was quietly dropped off. My understanding is that a fair amount of money (much more than 3 speed tables) was spent on engineering drawings.

Every day I see kids/runners/adults walking along the side of a busy road (Rt 5/Church St.) Often they need to walk in the lane of traffic due to cars parking along the northbound side of Church street (despite the no parking signs)

Could you please do me a favor and find out what happened to this project and to the priority of enforcing /enhancing the parking at Marion Cross?

Kind regards

Jay

c) 603-219-3475

8-16-16

David Orniston Norwich Town Manager

Dear David,

As owners of three apartments on Hopson Rd. for over thirty years Ann and I have witnessed the very significant increase in traffic flow including automobiles, trucks, bicyclists, pedestrians and baby carriages that has occurred. Years ago most of the cars belonged to residents living on Hopson who were familiar with the road and the fact that sight lines are poor and that in several stretches the shoulder of the road is by necessity non existent creating a hazardous predicament for pedestrians and bicyclists.

With the growth of commercial activities on route 5 Hopson has unfortunately become a convenient by-pass for motorists and the situation becomes more dire with each passing year.

The Town has been responsive to the neighbor's concerns. The road is well maintained, the posted speed limit is 25mph and the area is patrolled at reasonable intervals. Despite these efforts the situation deteriorates and we urge the Town to take additional steps in order to avert a calamity.

Sincerely,

Dean and Ann Seibert,

386 Main St. and 360 Hopson Rd.

Dean Sei Sent.

(Dun Tubert

From:

Bill Aldrich <williamaldrich@comcast.net>

Sent:

Tuesday, August 16, 2016 7:24 AM

To: Subject: David Ormiston
Carpenter Street!

Good Morning Dave, We haven't met yet but I hope to stop in sometime and say "Hello"!

My family has lived on Carpenter St. since 1935 and at the beginning, our house #34, was a dead-end. Since 1960 it has extended to Rt.#5. The street is the narrowest of streets here or at least, it was. We have approximately 12 school or pre-school kids living on Carpenter. It is known as a short-cut like Hopson Rd. I've alerted Doug numerous times about speeders, mostly student renters of one house on Carpenter.

I am a volunteer at the historical society and do work outside that house! Any given day, many don't acknowledge the STOP sign in front of the Book Store! They are speeding toward the Interstate, cars, trucks, motorcycles, etc. Many are "Women" and I know Doug knows that as well!!!!! Many STOP signs are just a "slow down" for many and not a STOP sign.

I don't have any answers other than to have Doug's people camp out in these areas! I rarely see the police cars patrolling Main St. but maybe our budget doesn't allow that to happen. Many years ago, in Mass. I was at a town where a child was hit near a school. If you were traveling OVER 15 MPH you got a ticket, even at 16 MPH. Maybe that needs to happen here and it might even pay the salary of the Officer!

I'll drop in sometime soon and say Hello!

Welcome to Norwich!

Bill Aldrich

From:

Amy Somerstein <amy.somerstein@gmail.com>

Sent:

Tuesday, August 16, 2016 7:47 AM

To: Subject: David Ormiston speed bumps

Just curious but where exactly are the proposed speed bumps going to go? I'm a cyclist and the section of Hopson from Elm Street to Beaver Meadow is one of my favorite downhills.. is that where you're planning to put the speed bumps? Personally I would hate to start seeing speed bumps show up all over town. They're expensive to put in and I suspect will be a pain for the snow plows and expensive for the road crews to maintain. \$7500 is not necessarily a huge tax hit, but multiply that by everybody who notices people drive too fast on their road along with the increased maintenance — it's not something I want to be spending my tax dollars on.

I'd rather see better police enforcement of the speed limit on Hopson. My son received 2 speeding tickets on Beaver Meadow as a teenager and you can bet he still slows down when he comes home to visit and drives on that road. I live on Hazen Street and there are a few people (one in particular) who take the road WAY too fast. But I do *not* want speed bumps on Hazen! Just my opinion...

From:

Jessica Eakin <jceakin12@gmail.com>

Sent:

Tuesday, August 16, 2016 8:00 AM

To: Subject: David Ormiston
Traffic Calming

Dear Mr. Ormiston,

Thank you for your posting on the listserv about traffic calming measures on Hopson. I like to drive that way not as a cut-through, but as a change of pace where I get to go slow and get a change of scenery. I would equate Hopson to Rip Road in Hanover. Both are narrow, residential roads with homes close to the road and many children. Rip has speed tables and these large signs asking people to slow down. Personally, I think adding speed tables to Hopson makes sense.

I live at 55 Turnpike Road with my husband and two children. Speed past our house is a common issue, which is why we have a fence in our front yard. We wanted something to stop our kids and balls from running out into the road. It's also nice that we have the sidewalk for our children to bike on. That being said, a sign reminding people to slow down or reminding people that children (a lot of children) live and walk along this area would be nice, especially given the number of out of town people that are in a rush to get to Huntley in the fall and spring.

The other spot I would point out is the cross walk that crosses Main Street near Koch Road. I haven't let my son bike to school yet because of that cross walk on weekday mornings. When I was home with him and biked and walked him to school we daily had people run through that cross walk and not stop. It would be great to have one of those signs in that cross walk to slow people down.

Thanks for soliciting feedback.

Sincerely,

Jessica Eakin

From:

Rusty Sachs <usmcbirthdayball@gmail.com>

Sent:

Tuesday, August 16, 2016 8:02 AM

To: Subject: David Ormiston Speed bumps

Mr Ormiston —

The tentative plan to install speed tables on Hopson Road is woefully inadequate, both in scope and effectiveness.

Four-inch bumps thirty feet long are a minor annoyance to the speeders seeking a short-cut, insufficient to slow them. With only three locations, drivers can easily accelerate to 40 mph or more between them.

The town should create at least five speed bumps or ditches with at least six inches of grade increment, of the sort now present on Tuck Drive in Hanover between Wheelock Street and Tuck School. Anything less is a surrender to speeders disguised as concern for residents.

Rusty Sachs

From:

Richard Akerboom < boomer@sylsoft.com>

Sent:

Tuesday, August 16, 2016 8:22 AM

To:

David Ormiston

Subject:

No speed tables on hops on road

I travel on hopson road regularly and oppose the addition of speed tables.

Rich Akerboom River road Norwich

Sent from my mobile

Nancy Kramer

From:

norwich@lists.vitalcommunities.org on behalf of Kris Clement <kclemwp6@gmail.com>

Sent:

Tuesday, August 16, 2016 7:55 AM

To:

David Ormiston; norwich@lists.vitalcommunities.org

Subject:

Re: [Norwich] Traffic Calming on Hopson Road

Dave,

At the last SB meeting, and only as part of the TM report, you announced that speed humps were on the paving schedule on Hopson Road, this was not an agenda item for SB members to discuss. However, after a lengthy discussion, Selectboard members requested that before anything goes forward, the remaining residents of Hopson Road should be contacted.

Less than 50% of the residents of Hopson road signed the 'petition' to the TM - as requested by the SB, have you had direct communication with the remaining 18 residents of Hopson Road that did not sign the petition?

All too often the people who should be involved aren't!

Over the years we have had a number of people who, after just moving into our neighborhood, suggest that our dirt road be paved! (Dirt roads in Vermont, go figure!) Nonetheless, they didn't like the effects it had on their car and speed has always been an issue, but fortunately they represented the minority voice on our road. But, than again, I guess if a SB member lived on our road and wanted it paved who knows....?

And, our road is used as a short cut for many, many people too! What road isn't?

On Mon, Aug 15, 2016 at 2:53 PM, David Ormiston < DOrmiston@norwich.vt.us> wrote:

Traffic Calming on Hopson Road

This is to update people using Hopson Road about the potential for using speed tables for calming traffic on the southern segment of that road.

This spring, the town manager's office received a petition from Hopson Road residents requesting traffic-calming measures at a blind curve on the southern part of Hopson Road – a speed table was suggested. The petitioners were concerned about the safety of children, pets, walkers, runners, and cyclists at that point in the road.

From:

CRAF <chad.finer@gmail.com>

Sent:

Tuesday, August 16, 2016 9:21 AM

To:

David Ormiston

Subject:

Traffic Calming on Hopson Road

just curious as to how these traffic calming structures effect snow plowing in the winter.

chad finer

Brigham Hill Rd

From:

Elisabeth Russell <elisabethwaterworth@gmail.com>

Sent:

Tuesday, August 16, 2016 9:29 AM

To: Subject: David Ormiston

Traffic calming

David-

I think any traffic calming measures are good. Knowing my own habits, I am surprised how hard it can be to drive 25MPH. I think the electronic speed monitors (not sure of proper name) coming into town and on Church St. really are effective. What would be the advantage of the speed tables? Cost?

(The drainage ditch/bump that Andy has installed on Cossingham at the top of "Duffy's Cliff" is the best speed deterrent I've seen as the young women race up to meet friends at the Cossingham Farm Trailhead! I know that it is unique and wouldn't work in most situations.)

Liz Russell

11 Cossingham Rd.

From:

Patricia Shultz <pattyshultz@icloud.com>

Sent:

Tuesday, August 16, 2016 10:00 AM

To:

David Ormiston

Subject:

Thank you

Thank you for pursuing the safety of all with these speed tables! It is important for folks to walk and jog close to town and not be afraid of being hit by speeding vehicles. We are definitely in favor of them. Thank you, Patty Shultz

Sent from my iPhone

From:

Daniel J. Gottlieb < Daniel. J. Gottlieb@dartmouth.edu>

Sent:

Tuesday, August 16, 2016 10:29 AM

To: Subject:

David Ormiston speed tables, etc

Dave,

Thanks for the detailed and reasoned post. I'm a constant bike rider all over town and see a lot of people walking and biking on Hopson and Elm Street. I tend to think the speed tables are a reasonable idea, though I don't think they will assuage the fears of parents and others. The key is to reduce the number of cars on these roads. I don't think speed is the really major issue here- it's the width of the roads and the fact that people walk 2 and 3 abreast with their dogs. I'm not saying they don't have the right to- just that the combination is an issue and you're going to get severely hurt if you're hit by a car going 25 or 35mph.

I think there's an additional measure the town could do-education drivers about the new buffer law that went into effect 7/1. I believe it requires ~4' between cars and pedestrians and bikes. We could use those large electronic signs on occasion, perhaps post a new street sign in town and inform the police that they need to enforce this new law. I'm willing to bet our police hasn't pulled over a single person for breaking this law.

With regard to the concerns of parents with kids on the roads, I don't think speed tables will eliminate that issue. Parents will be concerned about their kids on these roads because they're steep and thin and they have cars on them. Again, getting hit at 25 vs. 35 probably does not make all that much difference- it's bad news either way. The best way to make people feel safe is to reduce the number of cars on these roads. If we want to do that, we need to make it really inconvenient- with those old school nasty speed bumps.

Daniel Gottlieb, MS

The Dartmouth Institute for Health Policy and Clinical Practice

Dartmouth Hitchcock Medical Center

Williamson Translational Research Building

Lebanon, NH 03766

daniel.j.gottlieb@dartmouth.edu

Tel: 603-653-0805 fax: 603-653-0896

http://tdi.dartmouth.edu

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Half the lies they tell me aren't true- Yogi Berra

From:

Signe Taylor <signe.taylor@gmail.com>

Sent: To: Tuesday, August 16, 2016 11:17 AM David Ormiston; Joel Stettenheim

Subject:

Lower Speed Limit on New Boston Road?

Good morning,

I read your posting on the Norwich List serve about adding speed tables to Hopson Road with great interest. I often walk on Hopson Road with friends, many times accompanied by my dog. While I have never encountered any speeding vehicles, it is a very common road to use for doing a Norwich 3 mile loop. I fully support adding these graduated speed bumps.

I also wanted to ask about how we could raise the question of lowering the speed limit on New Boston Road? We live at 994 New Boston, which is about a half mile from the intersection with Lake Norford where New Boston becomes a dirt road.

People very often SPEED along New Boston, going much, much faster than 40 mile per hour speed limit. I believe with the current speed limit, many drivers think anything under 55 is not going get them into trouble.

New Boston is an extremely narrow road with almost no shoulder on either side. It winds and has tall trees which further block visibility. It's also a road that is often used by bicyclists, pedestrians and free style skaters training for Nordic skiing. Nearly every time I drive it, I need to swerve into the other lane to avoid someone exercising on the road. With the current speed limit, which is not well-enforced (and I'm not making any accusations here, I know there's lots of roads in Norwich, so this is just an observation), I think New Boston Road is a major accident waiting to happen.

I believe if the speed limit was lowered to 35, that would make the road much safer. Drivers who currently whiz by at above 50 miles per hour would likely slow down to a little over 40, which is a much safer speed for the road. In addition to lowering the speed limit, I think it would be great if the town added one of those speed monitors near one of the speed limit signs. I believe many drivers will be surprised to see how far they are above the limit.

Please let me know if you have any questions about this idea or suggestions for how to pursue it.

Many thanks for your attention and consideration.

Signe Taylor & Joel Stettenheim 994 New Boston Road Norwich, VT 05055

From:

Melanie M. Michel < Melanie.M.Michel@hitchcock.org>

Sent:

Tuesday, August 16, 2016 12:18 PM

То:

David Ormiston

Subject:

speed tables on Hopson

Hi Dave,

Thank you for investigating the possibility of speed tables on Hopson. My family and I live at 11 Brookside Drive, immediately after the curve on the north end of Hopson. We have a 4 year old and a 9 year old. I am terrified that someone is going to hit my children with a car while speeding up or down Hopson. To this end, my kids have to have a parent with them just to leave our driveway and cross the street. And they are never allowed to walk on Hopson unaccompanied because I am afraid that one of the speeding drivers won't see them and will hit them before anyone can react. I have spoken with Chief Doug about the issue of speeding on Hopson and I have gotten one of the Step 2 Kids that the police give away to warn drivers that children are playing in the area. I haven't seen much of an impact on the way that drivers use Hopson. It is amazing to me the amount of speed that some drivers are able to obtain on a road that has such heavy foot traffic.

My family and I would welcome the possibility of speed tables. We are also happy to talk with you and/or the select board about our views, if that would be useful.

Thank you for exploring this issue and for working to keep pedestrians on Hopson safe.

Best regards,

Melanie Michel

11 Brookside Drive

Melanie Michel, MSN, MPH, RN-BC, CHPN

Clinical Care Specialist

ImagineCare

Dartmouth Hitchcock Medical Center

35 Centerra Parkway

Lebanon, NH 03756

From:

Matthew Golec <mattgolec@gmail.com>

Sent:

Tuesday, August 16, 2016 3:06 PM

To:

David Ormiston

Cc:

Louise Davies Golec

Subject:

Speed tables or other calming measures on Hopson Rd.

Hello,

We live at 112 Hopson and do see people driving faster than they should along this road. We would support speed tables or other traffic-calming measures to prevent drivers from barreling along Hopson.

Thank you,

Matt and Louise Golec 112 Hopson Rd.

From:

Jeffrey Slayton <oldbridgeroad@hotmail.com>

Sent:

Tuesday, August 16, 2016 3:15 PM

To: Cc: David Ormiston Rachel Coombs

Subject:

Speed Tables on Hopson Road

Dear Mr. Ormiston,

My wife and I have lived at 149 Hopson Road for 5 years now. We have three young children ages 10, 3, and 1. We agree with what many of our neighbors have communicated about people driving too fast. Driving 10 or 15 mph over the speed limit on the interstate is one thing but 10 or 15 mph over the speed limit on Hopson feels alarming and dangerous as a pedestrian or biker. In the paper today someone mentioned that speed tables are too aggressive and we should increase patrols by police officers. We disagree. Better to gently and ongoingly remind drivers to slow down via speed tables then trying to scare drivers with occasional tickets.

Thank you for your consideration,

Jeffrey Slayton & Rachel Coombs

From:

Shoshana Hort <sjh44@earthlink.net>

Sent:

Tuesday, August 16, 2016 4:37 PM

To:

David Ormiston

Subject:

traffic calming measures- YES!!

In response to your list serve post.

I am very interested in traffic calming measures in our town and specifically on Beaver Meadow Road from Hopson to Moore lane. Cars drive too fast despite the 25 mph speed limit and the many bikers, walkers and joggers who use that route. Especially terrifying are the trucks barreling down from Beaver Meadow.

I live at the corner of Dutton Hill and I am always amazed how fast cars come around that blind turn despite the 25 mph posted speed limit. There is a steady stream of walkers, joggers and bikers who have to dive for the lawns.

Sincerely, Shoshana Hort 149 Beaver Meadow Road

From:

Clare Hogg <chogg365@gmail.com>

Sent:

Tuesday, August 16, 2016 6:05 PM

To:

David Ormiston

Subject:

Traffic Calming on Hopson Road

Not sure what the cost differential is in terms of purchase, installation and maintenance but I like the flashing speed signs on entering Norwich and think they are effective as a reminder to slow down. Not sure the speed "bumps" would be easy to plow in the winter. I use Hopson about once a day but don't notice cars speeding. Good idea to get feedback as input

From:

Jenny Barba <jennyhbarba@gmail.com>

Sent:

Tuesday, August 16, 2016 11:39 PM

To:

David Ormiston

Subject:

Hopson Rd

Dave,

What is the cost difference in installing the speed bumps vs a flashing speed monitor light (like the one on Turnpike Rd). Do these work to deter speeding? Is that a potential first step?

Jenny Barba

Jenny H. Barba cell: 415.215.3558

email: jennyhbarba@gmail.com

The house is included in a non-published historic walking tour of Main Street, but is not included in the current, shorter tour published and available in town: Historic Walking Tour, Norwich, Vermont.

All of this remodeling work is fully legal from a historical standpoint, and the owner has been fully open in undertaking the work.

Norwich's Main Street is listed on the National Register of Historic places. This Double House is a Contributing Structure to the District. Listing on the National Register, however, does not restrict changes an owner makes to a property.

Villages and Towns in Vermont can, if they so choose, enact a local historic ordinance and designate specific historic districts. If this were done, owners planning significant changes to the exterior of historic structures in such a district would need to have such changes approved by a local historic district board. I am *not* proposing a local district – in my experience exploring a local district works well only with significant leadership and support from the affected property owners.

One possible step to assist owners is to be sure they have access to knowledgeable architectural advice concerning exterior changes to their structures. This needs to occur while they are still considering plans – before they have contracted or begun work. The Norwich Historical Commission will be considering possible ways to offer such informal, free, non-binding advice to owners considering exterior work on historic structures such as those in this National Register District. (Information is also available on-line, e.g.

https://www.nantucketpreservation.org/resources/preserving-your-old-house/the-case-for-historic-windows

Peter Brink, Vice-Chair, Norwich Historic Preservation Commission

428 Hawk Pine Road Norwich, VT 05055 home: 802-649-7029

Reply to sender -- Reply to list -- Back to top

11. Re: [Norwich] Traffic Calming on Hopson Road

From: Ernie Ciccotelli <ernieciccotelli@gmail.com>

Date: Tue, 16 Aug 2016 09:54:46 -0400

Hi,

I am going to make two separate comments in my post here related to the post titled "Traffic Calming on Hopson Road".

1. This first comment is going to be of a more general nature: The post "Traffic Calming on Hopson Road" is a good, if relatively small, example of the manner in which Norwich now solves all its problems, and the reason why we have the problems to begin with. Every problem is resolved by throwing money at it. No longer do we ever even consider trying to alter people's behavior or expectations. Just spend more of the taxpayers' money (also known as "other people's money" or OPM, for short) for the benefit of small sections of the Town.

The reason why we have the problem to begin with has to do with the growth and demographic changes of the Town. As the Town has changed from a rural small town and grown into a bedroom community of Hanover/Dartmouth, it has become a town dominated by affluent transients, whose lifestyle and expectations of a community clash with the lifestyle and expectations of people who have lived large parts of their lives in Vermont and in the Town, and for whom Norwich really is home.

2. This second comment more specifically relates to the "Traffic Calming on Hopson Road" post: In the first place, why does the solution to a relatively simple and common problem devolve into one of spending money? Conventionally and historically, Norwich has never shied away from using policing as a means of keeping peace on the Towns roads. For example, living in the Beaver Meadow area, a part of the Town which tends to contain more working class people that most of the rest of the Town, which required travelling almost the entire length of Beaver Meadow Road, I frequently encountered "speed traps" in the morning on the way towork. Route 5 frequently has speed policing, as does Church Street, which has the same speed limit as Hopson Road. Why is policing less desirable than placement of permanent road construction features that cost the Town money, than policing, which might actually change people's driving behavior and attitudes? At least ticketing poor driving brings in some money, and although it may be a net expense, at least there is a little compensation to the Town for the services it provides, which in this case is assuring safer roads.

Norwich seems to have become a place that uses technology instead of common sense. We all have seen the electronic speed limit signs informing us we are going over the speed limit or not. Although I have no idea how much they cost, I will say it is too much, because they are frequently non-functional. Personally, I think they are a good idea, since when they are working, they get me to pay more attention to my speed. But until they are more or less bullet proof AND cheap, they aren't really worth installing.

Could this particular solution have anything to do with special treatment of certain townspeople? At least one Selectboard member lives on Hopson Road, and the member has been very much a part of the crowd demanding that the Town increase its spending, for instance, on the Public Services Palaces that had been proposed in the past.

The amount spent, \$7500 for 3 speed bumps...I mean speed tables...is not a lot of money, in and of itself. But just because it can fit into the budget, does not mean that that money should be spent, or will be well spent. What it really means is that budget money is meant to be spent, with no concern for saving and possibly building a surplus. Except for several Town Hall employees, wages in the region are not going up, so why are taxes? Could it have to do with the fact that for a number of Norwich residents, cost is no object, and for anyone else in the Town for which cost matters, "oh well, you're now the minority"? Maybe it is now time to start reducing budgets, at least the municipal budget, since that is the part of our taxes us townspeople can actually control, since we have virtually no control over our education budget.

>>>Policing is the solution to the problem. We have a good police force available, and we haven't been using them for this problem very effectively for a while. What we also have are people who need to learn to drive carefully, and speed tables will do nothing for that problem. We are going to have to place "traffic calming" features on every road in Town. I frequent Kendall Station Road, and I can testify that few of the many cars travelling up and down the road observe the 25 mph speed limit. Same for Chapel Hill Road South, and the Beaver Meadow section of Beaver Meadow Road has long needed to have slower traffic. Church Street would be a good candidate, as would Main Street. I'm sure there are other neighbor hoods that could use traffic calming too.

Thanks for reading, Ernie

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On 8/15/2016 2:53 PM, David Ormiston wrote:
> *Traffic Calming on Hopson Road*
>
> **
>
> This is to update people using Hopson Road about the potential for
> using speed tables for calming traffic on the southern segment of that
> road.
> This spring, the town manager's office received a petition from Hopson
> Road residents requesting traffic-calming measures at a blind curve on
> the southern part of Hopson Road – a speed table was suggested. The
> petitioners were concerned about the safety of children, pets,
> walkers, runners, and cyclists at that point in the road.
> The Institute of Transportation Engineers describes speed tables as
> being long, raised speed humps with a flat section in the middle and
> ramps on the end. The speed table being considered for Hopson Road
> would be 30 feet in the direction of travel with 10-foot ramps on each
> end and a 10-foot flat section in the middle. The height would rise
> to 4 inches in the middle hump. Speed tables are effective for
```

> reducing speeds to 25 miles per hour – the speed limit on Hopson Road.

From:

Carmen McCampbell <nina.mccampbell@icloud.com>

Sent:

Wednesday, August 17, 2016 6:43 AM

To: Subject: David Ormiston Hopson Road

Hi Dave,

Thank you so much for your excellent descriptions of the effects of the proposed speed bumps on Hopson Rd. I am strongly in favor of them!

We used to live at 34 Hopson, which is at the other end, but sitting on our porch there 10-20 years ago we often saw the speeders! Now we live on Tilden Hill and have had to place "drive slowly" signs to help protect kids, dogs, wildlife, walkers, joggers, and ourselves!!

My grandchildren, on Hopson Lane, love to ride their bikes on the end of Hopson Rd that you are currently considering. Since I drive there often, I see the many dog walkers, bikers, and people out for a leisurely stroll on that road who certainly can't appreciate rushing cars!

I hope the bumps will be approved. And thank you!! Best wishes,

Nina McC

Sent from my iPhone

From:

Julia Dickenson < dickensondavis@comcast.net>

Sent:

Wednesday, August 17, 2016 7:35 AM

To:

David Ormiston

Subject:

Hopson Rd

Hi Dave,

I am a resident on Hopson (#28, closer to Beaver Meadow).

I never saw, or signed, a petition and have only heard about the speed hump idea on the list serve & in the Valley News. I'm definitely in favor of people slowing down on our road - but not in favor of speed humps. This summer I have seen some cops on Hopson monitoring the morning & afternoon traffic (when I commute to work via Hopson), which I think is a great reminder for people to slow down.

Thanks, Julia Dickenson

From: Janice Lavoie < janice.lavoie@gmail.com>
Sent: Wednesday, August 17, 2016 8:34 AM

To: David Ormiston

Subject: Fwd: Speed Bumps and

Hello Dave,

I sent this to Steve yesterday and asked him to pass it on because I did not have your e-mail address. I saw it on the listserve this morning.

Janice Lavoie

Sent from my iPhone

Begin forwarded message:

From: Janice Lavoie < janice.lavoie@gmail.com>

Date: August 16, 2016 at 1:50:29 PM EDT

To: Stephen Flanders < stephen.flanders@icloud.com>

Subject: Speed Bumps and

Hello Steve,

Before I share some of my concerns on the List Serve, I'll start with you and hope you share with other members of the Select Board and the Town Manager.

- 1. I believe there is speeding on Hopson Road and there is also speeding on Church Street and many other streets. I can't tell you how many times I've almost been hit walking into town and trying to retrieve my mail. So, can we have speed bumps on Church Street starting at Carpenter and leading onto Main? Also, it's dangerous to cross the street near Tracy Hall. Drivers are on their cell phones and not paying attention. I think we need a speed bump there too. I too would like to ride by bike safely on Church Street.
- 2. What happened to the side walk we were supposed to have on Church Street? Dennis McCullough and I were discussing this a few days before he died suddenly. He was going to look into it. We both wondered if the money was spent elsewhere???? Can you give an update on this please?
- 3. Why has there been no mowing on Church Street? Not only does the side of the road look shabby, but it's hard to see pulling out of the driveways on the rt hand side of Church. I heard that the PW department would not be mowing the drainage areas around the village because it has become too difficult!!!! Is this true?
- 4. Why did my taxes increase so much? Is the increase (mine \$2000) going to pay for the fire and police structures or will there be another tax increase? Where is the increased money being spent? We also pay an additional tax living "in town" and now a surcharge on our taxes because we live in the village. Where does the money go???

It seems like the squeaky wheel gets the attention in town; The town which has become a gated community.

- 5. I'm baffled by this town. People who are struggling to survive don't dare to speak up and they just move. I've talked with people who have been bullied when they voice concerns about the school budget, the salary of the some town employees, the prospect of increased tax because of the pool. etc
- 6. I've been an educator my whole life, now living on retirement, and it's very difficult and discouraging to live here. I expect the gate to be locked as I drive over the bridge any day now.
- 7. I don't believe in being politically correct and I encourage others to speak up. Political correctness to me in a way of silencing.

These are some of my frustrations.

Sincerely,

Janice Lavoie

On Sun, May 22, 2016 at 8:51 AM, Janice Lavoie janice.lavoie@gmail.com wrote: It will be interesting to see how it all plays out. I would be willing to make a donation, as I did for the Huntley Playground. Thank you for the information. I appreciate being heard. Janice

Sent from my iPhone

On May 21, 2016, at 5:29 PM, Stephen Flanders < stephen.flanders@icloud.com wrote:

Hi Janice,

Thanks for getting back to me with your thoughts.

At the risk of second-guessing what a committee might find (if one is stood up), we know that a dam (expensive) is out of consideration. So, two possibilities spring to mind: A brook-fed pond or a swimming float with beach on the Connecticut or Ompompanoosuc (like what Dartmouth has on the Connecticut).

The first thing that I would look for in all this would be *donations of private funds* and in-kind labor. From what I hear, I think that there would be a good prospect for that. A pool is an amenity, not a necessity like a public safety building or town garage.

If there is some proposal brought forward, there will be plenty of opportunity for public comment and no tax dollars would be spent without voter approval.

Cheers, Steve

On May 21, 2016, at 2:57 PM, Janice Lavoie janice.lavoie@gmail.com> wrote:

Hello Steve,

From: Ted Jabbs <trjabbs@comcast.net>
Sent: Wednesday, August 17, 2016 9:36 AM

To: David Ormiston
Subject: Speeding in Norwich

Greetings to Dave, Interim Town Manager:

I am Theodore Jabbs, residing at 451 Main St, Norwich. Based on my close observation of traffic on Main St, I suggest that Main St needs two traffic tables, one placed just north of Dan and Whit's and the other at the bottom of the hill leading to Union Village. I say this based on these facts: I have lived on Main St. since 2009 and every spring for several weeks I must paint my front fence which runs parallel to Main St.; hence, I sit in my chair painting while traffic passes close by me for hours each day. Based on that experience (and gardening in my front yard 7 months each year) I estimate that at least 75 percent of all traffic on Main St is speeding (over 35mph), often grossly speeding, when it passes my house. Excess speeds are greater for those heading south coming off the Union Village Hill but, so too, does traffic pick up speed as it heads north on Main the further it gets from the center of Norwich. Traffic tables would be an ideal solution since they would be permanently in place; and, snow plows can easily negotiate them in winter. In Latin America speed bumps are referred to as "dead policemen" as though a police car were permanently in place as a reminder to slow down. In summary: Main Street suffers from a gross amount of speeding and speed tables would be an ideal means of addressing the speeding problem (and protecting the many children who walk along Main St just a few feet away from the speeding traffic).

Thank you for inviting comments regarding speeding on the streets of Norwich. Theodore Jabbs

<manager@norwichfarmersmarket.org>

- 31. cherry shelf unit Dan Meerson <dcmeerson@gmail.com>
- 32. cherry shelf unit photo Dan Meerson <dcmeerson@gmail.com>
- 33. Desk for sale MDalton <madelinedalton24@comcast.net>
- 34. Tires for sale MDalton <madelinedalton24@comcast.net>
- 35. Storage Unit Needed Near Hanover Ian Rose <ian@skinnypancake.com>
- 36. ISO white board & rug Leslie Rimmer < leslie.rimmer@gmail.com>
- 37. for sale boys 3 pc suit + shirt, size 16 Audra Charron <audracharron@gmail.com>
- 38. Office furniture for sale jennifer cote <jennlcote@me.com>
- 39. Harmony Hotel & Dave Clark at the Boho! Rebecca Bailey <rebecca.f.bailey@me.com>
- 40. Young Man's Preppy Wardrobe Vineyard Vines and more Evelyn Swett Miller
- <kaleidoscope65@gmail.com>
- 41. Veggies & Treats Stand Bragg Hill Rd Thurs. Carole Lang lawsonlang@gmail.com
- 42. ISO old but working iPhone (carrier: Verizon) Leah Eickhoff < leah.eickhoff@gmail.com>

BEGIN DIGEST:

1. Re: [Norwich] Traffic Calming on Hopson Road

From: Jennifer Snyder <jsnyder@cbredpath.com>

Date: Wed, 17 Aug 2016 07:10:17 -0400

Hello,

We live on Hopson. Speed is awful! As an owners of dogs, a walker, a runner; cars flying by is intimidating.

Doesn't the town of Norwich own a portable/power speed monitor? Why not have that set up here on Hopson? What is the cost of a permanent monitor? It seems to us that those are incredibly effective and would eliminate the opposition against speed tables. Perhaps that is something we should explore as a community. Rumor has it that unless someone is going more than 15mph over the speed limit on Hopson, nothing really happens. That puts a driver at 40mph! You definitely do not see 40mph going down Main Street.

Jeff Fogg & Jennifer Snyder

Sent from my iPhone

Reply to sender -- Reply to list -- Back to top

2. Free Intro to Irish Dance

From: <marytheresaconnolly@hotmail.com> Date: Wed, 17 Aug 2016 04:54:57 -0700

First Class Free!

Learn to Irish Dance (a la Riverdance)
Lively traditional Irish music, tons of fun, great exercise!
Classes start Sept 7 at Dancers Corner in WRJ.
Beginners welcome; accepting all levels.
I offer classes in several types of Irish Dance.

Hours:

M, T, Th, F -- Open 6:00 am to 2:00 pm Saturday -- Open 8:00 am to 2:00 pm Sunday Brunch from 8:00 am to 1:00 pm

?Subject=This week at Hattie's Cafe -- AND Saturday Night Locally Sourced Dinner'> Reply to sender

- Reply to - Back to list top

37. Re: [Norwich] Traffic Calming on Hopson Road

From: molly riordan <marymriordan@hotmail.com>

Date: Fri, 19 Aug 2016 02:26:43 +0000

I feel for the residents of Hopson Rd. We live in the second house on Union Village Rd, where the speed changes from 25-40 directly across from our house. That's 40-25 if you are coming downhill into town. At the bottom of the hill is a speed reader. I commonly see it indicating speeds well above 50mph. This is just before turnpike/Main Street, one of the busiest intersections in town. Of course, we chose to live here while knowing the road is busy and take precautions to keep safe.

What we have in common with Hopson, and probably to a much higher degree, is that we live on a very well used biking and walking route. I worry for the pedestrians and cyclists.

I think speed tables are a reasonable discussion for for Hopson. I also like the idea of "not a thru road" signage. As for speed readers, the residents of Hopson might as well take ours as it doesn't seem to be doing much good over here. I don't fault anyone for being concerned about their neighborhood, this is a big problem all about town.

Be safe, and drive slowly!

Molly Riordan

Reply to sender -- Reply to list -- Back to top

38. Lawn Tractor For Sale

From: don mccabe <don mccabe@comcast.net>

Date: Thu, 18 Aug 2016 22:35:12 -0400

Craftsman GT 3000 lawn tractor, 48" deck, Koheler 23 hp, blades sharpened, steering linkage replaced, new Diehard battery. Clean. \$395. Email or call Don. 802-649-5921.

Reply to sender -- Reply to list -- Back to top

39. Re: [Norwich] PC MEETING

From: Ernie Ciccotelli <ernieciccotelli@gmail.com>

Date: Fri, 19 Aug 2016 00:03:41 -0400

That's OK John, we had a Development Review Board (DRB) meeting tonight, anyway. People should also come to those, too. The DRB is the board that enforces the regulations that the Planning Committee comes up with, and its meetings are where people would get to see how the regulations are enforced, or just as likely, see how the regulations are gamed.

Nancy Kramer

From:

mbaghd <mbaghd@aol.com>

Sent:

Thursday, August 18, 2016 8:38 PM

To: Cc: David Ormiston
Nancy Kramer

Subject:

Hopson Road speed tables

Dear Mr. Ormiston:

A friend, also a Norwich resident, suggested to me a couple of days ago when we were discussing the proposed Hopson Road speed tables, that she thought it might be more effective to put one of those electronic signs that tell you the speed you are going in place on Hopson Road rather than the construction of the speed "tables". I thought about it, and I agree with her. I know I always check my speed on the one positioned as we come into the village, and slow down if I am going too fast.

Can we try that instead? I don't like the idea of constructing those bumps very much. It's expensive, I'm not sure it would be very effective, and it seems to me a possible driving hazard.

Thank you,
Margaret Baghdoyan
Norwich Meadows Condos

Norwich Fire Department

11 Firehouse Lane P.O. Box 376 Norwich, VT 05055-0376

Phone: 802-649-1133

sleinoff@norwich.vt.us Fax: 802-649-1775

To: Dave Ormiston, Interim Town Manager

From: Stephen Leinoff, Chief

Subject: Use of Designated Equipment Funds

Date: August 11, 2016

Chief: Stephen Leinoff

I am requesting permission to use funds from the Designated Fund for Equipment to replace the hard suction hose on Tanker 1. We use this hose to draft water out of static water sources (dry hydrants, and ponds). The suction hose on Tanker 1 is 14 years old. The couplings on the suction hose are not airtight. This makes it difficult, or in some cases impossible, to draw a vacuum to draft water.. This hose is critical for rural water supply. This hose will be compatible with future apparatus purchases. The cost (lowest price) for three lengths of hose with shipping is \$1,077.40. We replaced the suction hose on Engine 1 and Engine 2 earlier this year.

The current balance in the designated equipment fund is \$56,695.80. This request is to expend up to \$1,077.40 for three lengths of new suction hose.

Thank you for considering this request.



66 Firemens way Poughkeepsie NY 12603 United States

Date Quote # Expires

6/20/2016 QT1029682 7/20/2016

Sales Rep

Hazen, Richard A

PO#

Shipping Method

FedEx Ground

Bill To NORWICH FIRE DEPT P.O. BOX 376 Norwich VT 05055 **United States**

Ship To NORWICH FIRE DEPT 300 MAIN ST Norwich VT 05055 **United States**

Item	Alt. Item#	Units	Description	QTY	Unit Sales Price	Amount
MF45L1			MAXIFLEXHARD4.5X10LHFXRLM	3	305.80	917.4

Subtotal 917.40 **Shipping Cost (FedEx Ground)**

160.00

This Quotation is subject to any applicable sales tax and shipping & handling charges that may apply. Tax and shipping charges are considered estimated and will be recalculated at the time of shipment to ensure they take into account the most current local tax information.

All returns must be processed within 30 days of receipt and require a return authorization number and are subject to a restocking fee.

Custom orders are not returnable. Effective tax rate will be applicable at the time of invoice.







DATE: JUNE 21, 2016

Firematic Supply Co. 651 Brook Street Rocky Hill CT 06067 kobrien@firematic.com

TO Norwich Fire Department Attn: Chief Steve Leinoff PO Box 376 Norwich VT 05055

SALESPERSON	QUOTE #	SHIPPING METHOD	SHIPPING TERMS	DELIVERY DATE	PAYMENT TERMS	DUE DATE
Kevin O'Brien	065-2016	Truck	FOB	3 weeks	From invoice	

QTY	ITEM #	DESCRIPTION	UNIT PRICE	NFD COST	LINE TOTAL
3	HARHSH-50-45NH-10		\$624.00	\$335.00	\$1,005.00

QUOTE VALID FOR 30 DAYS

SUBTOTAL

\$1,005.00

SHIPPING & HANDLING

\$110.00

TOTAL

\$1,115.00

New England Emergency Equipment, LLC

P.O.Box 97 Hancock, NH 03449

QUOTE

Date	Estimate #
6/22/2016	532

Name / Address

Norwich Fire Department P.O. Box 376 Norwich, VT 05055 Ship To

Norwich Fire Department 300 Main Street Norwich, VT 05055

Requested By	Terms	Rep	FOB
Chief	Net 30	ТВ	

Item	Description	Qty	Cost	Total
II	Suction Hose HSH-50-45NH-10 5" PVC FLEX-LITE WITH 4.5" NH LH SW FEMALE X 4.5" NH RL MALE Harrington Brand	3	384.00	1,152.00
	Freight Additional			
		,		

Quote Good For 30 Days

Phone #	Fax#
603-525-8057	603-525-8067

Total

\$1,152.00

Shipping should be about \$160.00.

Larry

From: dingeemachine@comcast.net [mailto:dingeemachine@comcast.net]

Sent: Monday, June 13, 2016 2:37 PM

To: Steve Leinoff **Subject:** Hose

Hi Steve,

Your price on MaxiFlex hose No. MF45L1 would be \$360.00 each length, plus shipping.

Please let us know if you would like us to order this for you.



System Plus Computers, Inc 12 Centerra Parkway, Suite 20 Lebanon, New Hampshire 03766 United States www.spci.com (P) 603-643-5800 (F) 603-643-9900

Pate ug 03, 2016 03:51 M EDT	Expiration Date 2016-11-11
oc # 2911 - rev 1 of 1	·
escription hinkPad E560 & T46 orwich	iOs for Town of

Customer

Town of Norwich (NORWI3) Ormiston, David Tracy Hall, 300 Main Street PO Box 376 Norwich, VT 05055 United States (P) 8026491116

Bill To

Town of Norwich Ormiston, David Main Street PO Box 376 Norwich, VT 05055 **United States** (P) 802-649-0122 (F) 802-649-0123

Ship To Town of Norwich Ormiston, David Main Street PO Box 376 Norwich, VT 05055 **United States** (P) 802-649-0122 (F) 802-649-0123

Customer PO:

Special Instructions:

Terms: Undefined Ship Via: **UPS** Ground

Customer Contact Ormiston, David (P) 802-649-1419 ext. 1 DOrmiston@norwich.vt.us

Carrier Account #:

#	Description	Part #	Tax	o lay ii	Jnit Price	Total
1	Lenovo ThinkPad E560 20EV Core i5 6200U / 2.3 GHz - Win 7 Pro 64-bit - 4 GB RAM - 500 GB HDD - DVD-Writer - 15.6" 1366 x 768 (HD) - HD Graphics 520 - 802.11ac - graphite black	20EV002FUS	Yes	1	\$695.00	\$695.00
2	Lenovo DDR3L - 4 GB - SO-DIMM 204-pin - 1600 MHz / PC3L-12800 - 1.35 V - unbuffered - non-ECC - for S200; ThinkCentre M600; ThinkPad 11; L460; L560; P40 Yoga; P50; T460; ThinkPad Yoga 11	0B47380	Yes	1	\$60.00	\$60.00
3	Lenovo Depot Repair with Accidental Damage Protection Extended service agreement - parts and labor - 3 years - pick-up and return - for ThinkPad E440; E460; E465; E540; E560; E560p; E565; ThinkPad Edge E431; E445; E531; E545	5PS0A23752	Yes	1	\$155.00	\$155.00
4	Microsoft Office Home and Business 2016 Box pack - 1 PC - medialess - Win - English - North America	T5D-02375	Yes	1	\$225.00	\$225.00
5	Trend Micro AntiVirus + Security 2016 Box pack (1 year) - 1 PC - Win	TINN0269	Yes	1	\$39.00	\$39.00
					Subtotal \$	1,174.00
6	Lenovo ThinkPad T460s 20F9 Ultrabook - Core i5 6200U / 2.3 GHz - Win 7 Pro 64-bit - 4 GB RAM - 128 GB SSD - no ODD - 14" IPS 1920 x 1080 (Full HD) - HD Graphics 520 - 802.11ac, Bluetooth - WWAN upgradable	20F90039US	Yes	1	\$899.00	\$899.00
7	Lenovo DDR4 - 4 GB - SO-DIMM 260-pin - 2133 MHz / PC4-17000 - 1.2 V - unbuffered - non- ECC ThinkPad T460s - total RAM = 8GB - price includes installation	4X70J67434	Yes	1	\$60.00	\$60.00
8	Lenovo ePac Depot Repair with Accidental Damage Protection Extended service agreement - parts and labor - 3 years - pick-up and return - for Thinkpad 13; ThinkPad E45X; L460; L560; T450; T460; T540; T560; W54X; W550; X250; X260	5PS0A14089	Yes	1	\$149.00	\$149.00
9	Microsoft Office Home and Business 2016 Box pack - 1 PC - medialess - Win - English - North America	T5D-02375	Yes	1	\$225.00	\$225.00
10	Trend Micro AntiVirus + Security 2016 Box pack (1 year) - 1 PC - Win	TINN0269	Yes	1	\$39.00	\$39.00

Description

Part # Tax Qty Unit Price Total

Subtotal \$1,372.00

These prices do NOT include applicable taxes, insurance, shipping, delivery, setup fees, or any cables or cabling services or material unless specifically listed above. All prices are subject to change without notice. Supply subject to availability.

\$2,546.00 Total:

Tue July 19 2016

Yes, I would hike To continue To serve as Norwich Tree wurden.

Thad B Goodwin

Nancy Kramer

From: Jonathan Bynum

Sent: Tuesday, August 02, 2016 3:27 PM **To:** David Ormiston; Nancy Kramer

Subject: Errors & Omissions request from the Board of Listers **Attachments:** Pache Eligibility Letter 2016.pdf; 32 VSA 3802(11).pdf

Hi Dave & Nancy,

Drew Pache is eligible for the Veterans' Exemption but as a new resident was unaware of this benefit and missed the May 1st filing deadlne. The State has certified that he is indeed eligible (see attached letter), and told him that it was at the discretion of the Listers and Selectboard whether the exemption would be applied for 2016. At last night's meeting, The Listers voted to send this to the Selectboard for consideration as a Error & Omission (see motion below):

Michaelides **moved** (2nd Blum) to present to the Selectboard as an Error & Omission the confirmation of eligibility for the Veterans' Exemption of Andrew Pache. Motion **passed 3-0**.

If the Selectboard approves this change, this would allow the \$40,000 Veterans' exmeption to be applied to the Paches' tax bill, so reducing the taxable assessed value by \$40,000.

Thank you, Jonathan Bynum Finance Assistant Town of Norwich

Please note that any response or reply to this electronic message may be subject to disclosure as a public record under the Vermont Public Records Act.

Minutes of the Meeting of the Norwich Board of Listers 1 August 2016, 5 pm, Tracy Hall

Present: Cheryl A. Lindberg (Chair), Liz Blum, Lee Michaelides (Listers); Jonathan Bynum (Clerk & Scribe)

Also present: Linda Cook, Kyler Hella

Lindberg opened the meeting at 5:03 pm.

1. Review and Approval of Agenda

Michaelides moved (2nd Blum) to approve the agenda as distributed. Motion passed 3-0.

2. Public Comments

Lindberg briefly explained the functions of the Board of Listers to Hella.

3. Approval of Minutes of Lister Deliberative Session of 13 & 14 June 2016 and Lister Meeting of 16 June 2016

Blum **moved** (2nd Michaelides) to approve the minutes of the Lister Deliberative Session of 13 & 14 June 2016 as distributed. Motion **passed 3-0**.

Blum **moved** (2nd Michaelides) to approve the minutes of the Lister Meeting of 16 June 2016 as distributed. Motion **passed 3-0**.



4. Possible Errors & Omissions: (a) 15-020.000, Andrew & Tiffany Pache, 256 Dutton Hill Road

The Paches submitted paperwork from the State confirming that Mr. Pache is eligible to receive the Veterans' exemption in 2016. The Paches had missed the May 1st deadline for applying for this exemption, as they were unaware of it until the Listers informed them during the grievance process. There was discussion of whether the Errors & Omissions statute, 32 VSA §4261, allows the Listers to request that the Selectboard make such a change. Michaelides **moved** (2nd Blum) to present to the Selectboard as an Error & Omission the confirmation of eligibility for the Veterans' Exemption of Andrew Pache. Motion **passed 3-0**.

5. Errors & Omissions—Classification Change Only (PV&R Form 4261)

Michaelides moved (2nd Blum) to adopt Form 4261 as distributed. Motion passed 3-0.

6. Lister Page on Town Website and Lister References in Town Information

Lindberg feels that the Listers are largely missing from the Town website. The webpage is listed as "Assessor/Listers" under "Departments," unlike other elected Boards which have their own webpage under "Boards & Committees." This same tendency occurs in other Town materials, such as the Town Report. Blum **moved** (2nd Michaelides) to request that the Lister page be displayed as "Lister/Assessor" under "Boards" on the Town website effective immediately and to have other Town documents changed to "Lister/Assessor." Motion **passed 3-0.**



STATE OF VERMONT OFFICE OF VETERANS AFFAIRS 118 State Street, Montpelier, VT 05620-4401

Toll Free: (888) 666-9844; Phone: (802) 828-3379; Fax: (802) 828-5932

Operating Hours: Monday – Friday, 7:30 a.m. – 4:00 p.m.

www.veterans.vermont.gov

June 29, 2016

Andrew Pache 296 Dutton Hill Rd Norwich, VT 5055

450-142-11930 (SPAN)



CONFIRMATION OF ELIGIBILITY FOR PROPERTY TAX EXEMPTION - 2016

Our review of the military and veterans affairs records submitted has established that the applicant named above has met the criteria in 32 VSA § 3802 (11) for property tax exemption for disabled veterans and their survivors.

We will forward this verification of eligibility to your town for purposes of granting the exemption.

You do not need to take any further action this year.

You will need to submit the Summary of Benefits letter that you receive from the U.S. Dept. of Veterans Affairs annually to continue to be verified eligible for this benefit. We will notify you next year when it is time to do this. In 2016 you will receive information and an application to reapply.

Please feel free to contact our office if you have any questions.

Thank you.

Sincerely,

Vermont Office of Veterans Affairs

Excerpt from Draft Minutes of the Meeting of the Norwich Board of Listers 1 August 2016, 5 pm, Tracy Hall

4. Possible Errors & Omissions: (a) 15-020.000, Andrew & Tiffany Pache, 256 Dutton Hill Road

The Paches submitted paperwork from the State confirming that Mr. Pache is eligible to receive the Veterans' exemption in 2016. The Paches had missed the May 1st deadline for applying for this exemption, as they were unaware of it until the Listers informed them during the grievance process. There was discussion of whether the Errors & Omissions statute, 32 VSA §4261, allows the Listers to request that the Selectboard make such a change. Michaelides **moved** (2nd Blum) to present to the Selectboard as an Error & Omission the confirmation of eligibility for the Veterans' Exemption of Andrew Pache. Motion **passed 3-0**.

8/10/2016

Vermont Laws

VERMONT GENERAL ASSEMBLY

The Vermont Statutes Online

Title 32: Taxation And Finance

Chapter 129: Grand Tax Lists

Subchapter 006: Corrections In Grand List After Return

§ 4261. Correcting omission from grand list

When real or personal estate is omitted from the grand list by mistake, or an obvious error is found, the listers, with the approval of the Selectboard, before December 31, may supply such omissions or correct such errors and make a certificate thereon of the fact; provided, however, the listers may make a correction resulting from the filing or rescission of a homestead declaration without approval of the Selectboard. (Amended 2005, No. 38, § 14, eff. June 2, 2005.)

Vermont Laws

The Vermont Statutes Online

Title 32: Taxation And Finance

Chapter 125 : Exemptions

VERMONT GENERAL ASSEMBLY

Subchapter 001: Exemptions

§ 3802. Property tax

The following property shall be exempt from taxation:

- (1) Real and personal estate owned by this State, except as otherwise provided, real and personal estate owned by the United States, United States' securities which are specially exempt from taxation by the laws of the United States at the time of making the list; except that this subsection shall not prohibit a federal agency from making payments for taxes on repossessed or voluntarily conveyed single family, multifamily living units or farm properties.
- (2) Real and personal property owned by a post of any veterans' organization chartered by act of Congress of the United States or owned by a corporation the members or stockholders of which are members of such post or its auxiliary, provided such real estate is used for purposes of the post or its auxiliary or such corporation only, is used as the principal meeting place of such post or its auxiliary in the exercise of its functions and activities, and is not leased or rented for profit; and real and personal property owned by and used for the purpose of its work by a nonprofit organization chartered by act of the Congress of the United States, such as a Red Cross, boy scout, girl scout, or boy or girl organization.
- (3) Personal estate owned by inhabitants of this State situated and taxed in another state.
- (4) Real and personal estate granted, sequestered or used for public, pious or charitable uses; real property owned by churches or church societies or conferences and used as parsonages and personal property therein used by ministers engaged in full time work in the care of the churches of their fellowship within the State; real and personal estate set apart for library uses and used by the public and private circulating libraries, open to the public and not used for profit; lands leased by towns or town school districts for educational purposes; and lands owned or leased by colleges, academies, or other public schools or leased by towns for the support of the gospel; and lands and buildings owned and used by towns for the support of the poor therein; but private buildings on such lands shall be set in the list to the owners thereof, and shall not be exempt. The exemption of lands owned or leased by colleges, academies, or other public schools, shall not apply to lands or buildings rented for general commercial purposes, nor to farming or timberlands owned or leased thereby; but this provision shall not affect the exemption of so-called school or college lands, sequestered to such use prior to January 28, 1911.

7/22/2016 Vermont Laws

Subdivision (5) repealed effective January 1, 2017.

- (5) Real and personal property held by and for the benefit of college fraternities and societies and corporations owning such property, but this exemption shall not apply to property held for investment purposes. The exemption from taxation of real and personal property held by and for the benefit of college fraternities and societies and corporations owning such property shall not be construed as exempting lands, buildings, or property other than a fraternity or society house, the land occupied thereby, the land adjacent thereto and used as a lawn, playground, or garden, and the household furniture, and equipment in actual use in such fraternity or society house. In the event that a fraternity or society loses its charter from the affiliated national organization or university, the fraternity or society shall automatically and immediately be ineligible for the exemption.
- (6) Buildings, land, and personal property owned and occupied by a Young Men's Christian Association or a Young Women's Christian Association for the purposes of its work, the income of which is entirely used for such purposes.
- (7) Lands used for cemetery purposes and the structures thereon, trust funds and other property belonging to or held by cemetery associations, and the lots of the proprietors thereof.
- (8) Household furniture and equipment of every person not regularly used as income producing property; household provisions; personal wearing apparel and ornament; private and professional libraries; shrubs and plants located in a commercial greenhouse or nursery; fowl; sheep; cattle; horses; goats; swine; bees; hay and produce sufficient to winter out the stock; tractors and other machinery of a farmer, not used for hire or contract purposes; real and personal farm property constructed and used for the storage of manure and designed to avoid water pollution; tools and implements of a mechanic or farmer; aircraft, automobiles, and motor vehicles, but not including trailer coaches; and motorized highway-building equipment and road-making appliances as defined in 23 V.S.A. § 4(19) and (31) required to be registered as motor vehicles.
- (9) Grounds and property owned and occupied by agricultural societies so long as the same are used annually for agricultural fairs.
 - (10) Repealed.
- (11)(A) Real and personal property to the extent of \$10,000.00 of appraisal value, except any part used for business or rental, occupied as the established residence of and owned in fee simple by a veteran, his or her spouse, widow, widower, or child, or jointly by any combination of them, if one or more of them are receiving disability compensation for at least 50 percent disability, death compensation, dependence and indemnity compensation, or pension for disability paid through any military department or the Veterans Administration if, before May 1 of each year, there is filed with the Office of Veterans Affairs:
 - (i) A written application therefor.

7/22/2016 Vermont Laws

- (ii) A written statement from the Military Department or the Veterans Administration showing that the compensation or pension is being paid. Only one exemption may be allowed on a property. Application for an exemption under this section based upon permanent disability is only required to be filed with the Office of Veterans Affairs before May 1 of the first year for which the exemption is sought, and the exemption shall remain on the grand list until title to the property is transferred.
- (B) The terms used in this subdivision shall have the same definitions as in 38 U.S.C. § 101, except that:
- (i) the definitions shall apply as if federal law recognized a civil union or a civil marriage in the same manner as Vermont law;
- (ii) such definitions shall not be construed to deny eligibility for exemption in the case where such exemption is based on retirement for disability and retirement pay is received from a federal agency other than the Veterans Administration; and
 - (iii) the age and marital status limits in 38 U.S.C. § 101(4)(A) shall not apply.
- (C) An unremarried widow or widower of a previously qualified veteran shall be entitled to the exemption provided in this subdivision whether or not he or she is receiving government compensation or pension. By majority vote of those present and voting at an annual or special meeting warned for the purpose, a town may increase the veterans' exemption under this subsection to up to \$40,000.00 of appraisal value. Any increase in exemption shall take effect for the taxable year for which it was voted, and shall remain in effect for future taxable years until amended or repealed by a similar vote.
- (12) Real and personal property exclusively installed and operated for the abatement of pollution of the waters of the State of Vermont or waters within the purview of the New England Interstate Water Pollution Control Compact in accordance with engineering principles approved by the Vermont Water Resources Board. This type of property shall be exempt as long as its operation meets with the approval of the Secretary of Natural Resources.
 - (13), (14) Repealed.]
- (15) Real and personal property owned by a charitable, nonprofit organization devoted to the welfare, protection, and humane treatment of animals, including any premises of a custodian or caretaker which is attached to or is located on the grounds of such an animal shelter.
- (16) Real and personal property owned by a federally qualified health center or a free standing, federally designated rural health clinic, provided such center or clinic is governed by a community board of directors; offers care on a sliding scale based on ability to pay; is owned and operated on a nonprofit basis; is unconditionally dedicated to public use which directly benefits an indefinite class of the public and confers a benefit on society. Notwithstanding any provision of law to the contrary, this exemption shall apply without the need for a vote of the town or municipality in which such property is located.

7/22/2016 Vermont Laws

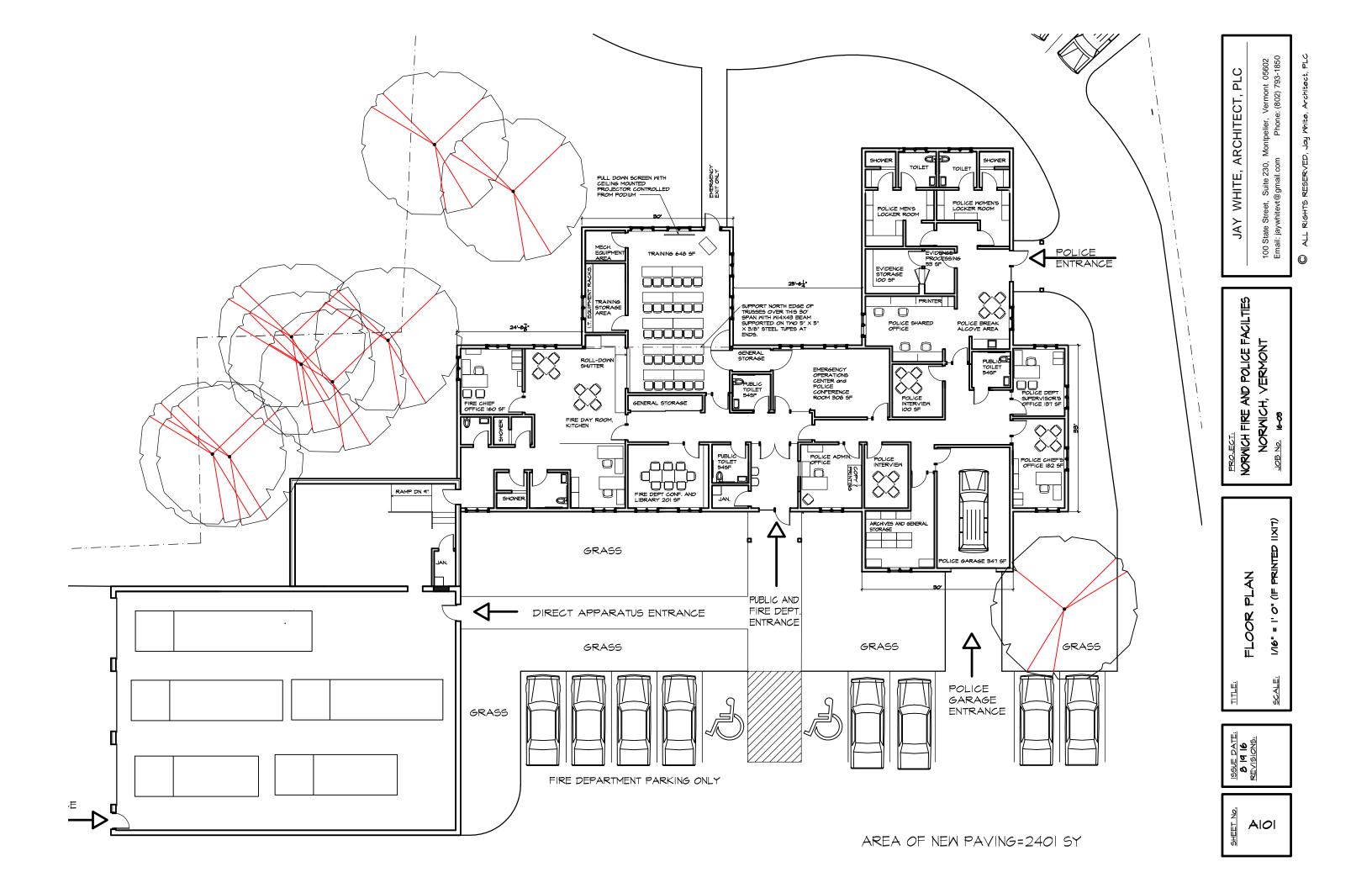
(17) Real and personal property, except land, composing a renewable energy plant generating electricity from solar power which has a plant capacity of less than 50 kW and is either:

- (A) operated on a net-metered system; or
- (B) not connected to the electric grid and provides power only on the property on which the plant is located.
- (18) Repealed.] (Amended 1959, No. 62, eff. March 26, 1959; 1961, No. 216, §§ 1, 2, eff. July 13, 1961; 1962, No. 3 (Sp. Sess.), § 1, eff. Aug. 2, 1962; 1963, No. 23, eff. March 28, 1963; 1963, No. 29, eff. April 2, 1963; 1963, No. 30, eff. April 2, 1963; 1963, No. 147; 1964, No. 16 (Sp. Sess.); 1965, No. 33, eff. April 20, 1965; 1966, No. 21 (Sp. Sess.), § 2, eff. March 3, 1967; 1967, No. 156, eff. April 15, 1967; 1971, No. 28, eff. Jan. 1, 1972; 1973, No. 9, § 1, eff. date, see note set out below; 1973, No. 91, eff. for the tax year beginning April 1, 1974 and thereafter; 1975, No. 101, § 3, eff. April 30, 1975; 1975, No. 160 (Adj. Sess.); 1977, No. 16, § 2, eff. March 22, 1977; 1977, No. 71, § 1, eff. date April 23, 1977 (first be effective for property taxes assessed for the year 1977); 1977, No. 170 (Adi. Sess.); 1977, No. 172 (Adi. Sess.); 1981, No. 70, eff. May 1, 1981; 1981, No. 222 (Adj. Sess.), § 10; 1987, No. 76, § 18; 1987, No. 147 (Adj. Sess.), § 1, eff. April 13, 1988; 1989, No. 26; 1991, No. 43; 1991, No. 187 (Adj. Sess.); 1991, No. 203 (Adj. Sess.), § 1, eff. May 27, 1992; 1993, No. 134 (Adj. Sess.), § 1, eff. April 26, 1994; 1995, No. 3, § 1, eff. March 9, 1995; 1995, No. 105 (Adj. Sess.), § 1; 1999, No. 49, § 44, eff. June 2, 1999; 1999, No. 91 (Adj. Sess.), § 23; 2005, No. 38, § 28; 2005, No. 207 (Adj. Sess.), § 25, eff. May 31, 2006; 2007, No. 190 (Adj. Sess.), § 23, eff. June 6, 2008; 2009, No. 1 (Sp. Sess.), § H.28, eff. June 2, 2009; 2011, No. 45, § 13q, eff. May 24, 2011; 2011, No. 111 (Adj. Sess.), § 1, eff. May 8, 2012; 2011, No. 127 (Adj. Sess.), § 2, eff. Jan. 1, 2013; 2013, No. 73, § 27, eff. June 5, 2013; 2013, No. 73, § 28, eff. Jan. 1, 2014; 2013, No. 174 (Adj. Sess.), §§ 26, 69, eff. Jan. 1, 2015; 2013, No. 200 (Adj. Sess.), § 21a; 2013, No. 200 (Adj. Sess.), § 22, eff. Jan. 1, 2017.)

SUMMARY OF ESTIMATED PROBABLE COST FOR DESIGN OPTIONS BEING CONSIDERED TOWN OF NORWICH FIRE AND POLICE FACILITY FIREHOUSE LANE, NORWICH, VERMONT

SUMMARY PREPARED BY Jay White, Architect from estimates provided by consultants
August 19, 2015

	Item Description				COST PER ITEM
SE BUILDING	G (2015 VERMONT COMMERCIAL BUILDING ENERGY S	STANDARDS) DESIGN OPTION			
	SITE WORK (Same for Base Design or Net Zero Option)	F D. d	1	1 . 6200/	6205
	BASE DESIGN BUILDING COST	From Pathways (option w/o reservoir)	but with 15% contingency inst (5913 sf building calculates to		\$395,
	BASE DESIGN BUILDING COST	From Upland Spread Sheet	(5913 St building calculates to	o \$133/SI W/O SITE WORK)	\$786,
	BASIC DESIGN OPTION, BUILDING AND SITE WORK				\$1,181,
	A/E fees		of construction costs		\$70,
	Permit fees (omit if parking has standard pavement and 30 parking	g spaces)	From Pathways statement		\$20,
	Total BASE	BUILDING DESIGN OPTION including E	Building cost, Site cost, AE cost,	and 41 parking spaces	\$1,272,7
ET ZERO DES	IGN OPTION will add these additional items				
	and Cost Estimate				
7-20-10	Slab insulation from R10 to R20			adds	\$13.
7-20-20	Rigid installation			adds	\$
7-21-10	Roof upgrade from R49 to R60, and walls from R23 to R40			adds	\$25,
7-25-20	Added Category: Air Sealing and Testing			adds	\$3.
	Wrap apparatus building with foam panels			adds	\$16.
	Add more apparatus roof insulation	Not recommended as the roof is fairly new and	recently insulated to current 201		\$16,
	Replace Apparatus Garage Doors with new insulated doors with	and the first in thirty new and			
0-30-13	vision panels in two of the panels			adds	\$7.
8-54-21	Marvin Window Upgrade	Not recommended due to cost, heavier windo	ow lift and more likely seal failure	with triple glazing.	\$39.
	12 Zone Heat Pump			adds	\$13.
	Structural Modifications to trusses			adds	\$1.
	Thermal Envelope at HRU's enclosure			adds	\$3.
	Added Electrical for Low ambient ar source heat pump			adds	\$3.
	Generator Upgrade	Not recommended, due to cost. Keep some oi	1 b t in building for an anger		\$40.
20-00-93	Generator Opgrade			•	
			ECOMMENDED NET ZERO		\$87
		6%	of recommended net zero option	ungrades	\$5
TIONS LIST		ZERO DESIGN OPTION including Building	•		
RFP Item #	Total NET 2 THAT THE SELECTBOARD ASKED US TO CONSIDER IN	ZERO DESIGN OPTION including Building	•	ons, Site, and AE cost	\$1,365 Cost to add:
2.5.1	Total NET 7 THAT THE SELECTBOARD ASKED US TO CONSIDER IN Allowance for new furniture	ERO DESIGN OPTION including Building NTHE RFP From Exterus Business Furntiture	•	ons, Site, and AE cost Recommended	\$1,365. Cost to add:
2.5.1 2.5.2	Total NET 7 THAT THE SELECTBOARD ASKED US TO CONSIDER IN Allowance for new furniture Concrete walks to entrance door instead of asphalt	ERO DESIGN OPTION including Building NTHE RFP From Exterus Business Furntiture 648 sf at \$3.00 more per sf than asphalt	, Recommended Net Zero Option	Recommended Recommended	\$1,365. Cost to add:
2.5.1 2.5.2 2.5.3	Total NET 2 THAT THE SELECTBOARD ASKED US TO CONSIDER IN Allowance for new furniture Concrete walks to entrance door instead of asphalt Granite curbs	ERO DESIGN OPTION including Building NTHE RFP From Exterus Business Furntiture 648 sf at \$3.00 more per sf than asphalt No curbs are recommended in order to get more	Recommended Net Zero Option	Recommended Recommended Not recommended	\$1,365. Cost to add: \$37. \$2.
2.5.1 2.5.2 2.5.3 2.5.4	Total NET 2 THAT THE SELECTBOARD ASKED US TO CONSIDER IN Allowance for new furniture Concrete walks to entrance door instead of asphalt Granite curbs Traffic Control System at Main Street	ERO DESIGN OPTION including Building NTHE RFP From Exterus Business Furntiture 648 sf at \$3.00 more per sf than asphalt No curbs are recommended in order to get mor LED yellow flashers on signs instead of traffic	Recommended Net Zero Option	Recommended Recommended	\$1,365 Cost to add: \$37 \$2
2.5.1 2.5.2 2.5.3 2.5.4 2.5.6	THAT THE SELECTBOARD ASKED US TO CONSIDER IN Allowance for new furniture Concrete walks to entrance door instead of asphalt Granite curbs Traffic Control System at Main Street Fire apparatus tank fill in Fire Station	ERO DESIGN OPTION including Building NTHE RFP From Exterus Business Furntiture 648 sf at \$3.00 more per sf than asphalt No curbs are recommended in order to get mor LED yellow flashers on signs instead of traffic Estimate from Dan Dupras email of 8/18	Recommended Net Zero Option	Recommended Recommended Not recommended	\$1,365 Cost to add: \$37 \$2
2.5.1 2.5.2 2.5.3 2.5.4	Total NET 2 THAT THE SELECTBOARD ASKED US TO CONSIDER IN Allowance for new furniture Concrete walks to entrance door instead of asphalt Granite curbs Traffic Control System at Main Street	ERO DESIGN OPTION including Building NTHE RFP From Exterus Business Furntiture 648 sf at \$3.00 more per sf than asphalt No curbs are recommended in order to get mor LED yellow flashers on signs instead of traffic	re even site drainage	Recommended Recommended Not recommended	\$1,365,
RFP Item # 2.5.1 2.5.2 2.5.3 2.5.4 2.5.6 2.5.6	Total NET 7 THAT THE SELECTBOARD ASKED US TO CONSIDER IN Allowance for new furniture Concrete walks to entrance door instead of asphalt Grantic curbs Traffic Control System at Main Street Fire apparatus tank fill in Fire Station LED lighting in place of high energy efficient fluorescent lighting Insulating walls of Fire Appratus Building	From Exterus Business Furntiture 648 sf at \$3.00 more per sf than asphalt No curbs are recommended in order to get mot LED yellow flashers on signs instead of traffic Estimate from Dan Dupras email of 8/18 We are using LED in both design options due to their much lower cost in recent years and in order to meet 2015 code requirments on watts/sf we are allowed. Listed in NET ZERO option above, so not care	re even site drainage light, From TAPCO	Recommended Recommended Not recommended Recommended Recommended Recommended Recommended Recommended	\$1,365. Cost to add: \$37. \$2.
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PROJECT:
NORWICH FIRE AND POLICE FACILTIES
NORWICH, VERMONT
JOB No. 16-08

100 State Street, Suite 230, Montpelier, Vermont 05602 Email: jaywhitevt@gmail.com Phone: (802) 793-1850

JAY WHITE, ARCHITECT, PLC

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SOUTH ELEVATION NORTH ELEVATION I/16" = I' O" (IF PRINTED IIXIT)

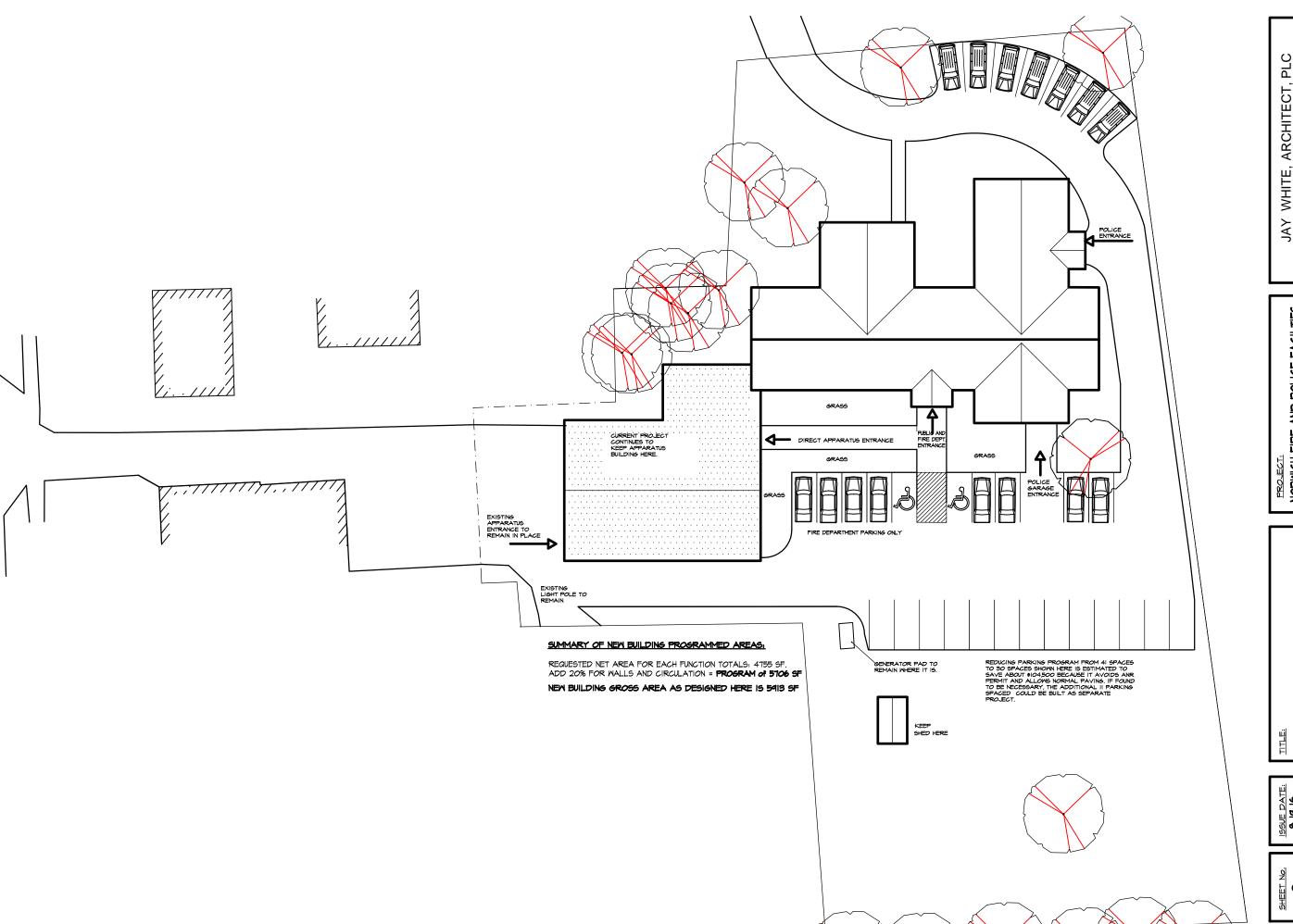
ISSUE DATE: **8 |9 |6**REVISIONS:

A201

NORTH ELEVATION

Montpelier, Vermont 05602 Phone: (802) 793-1850

A202



JAY WHITE, ARCHITECT, PLC

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PROJECT:

NORWICH FIRE AND POLICE FACILITIES

NORWICH, VERMONT

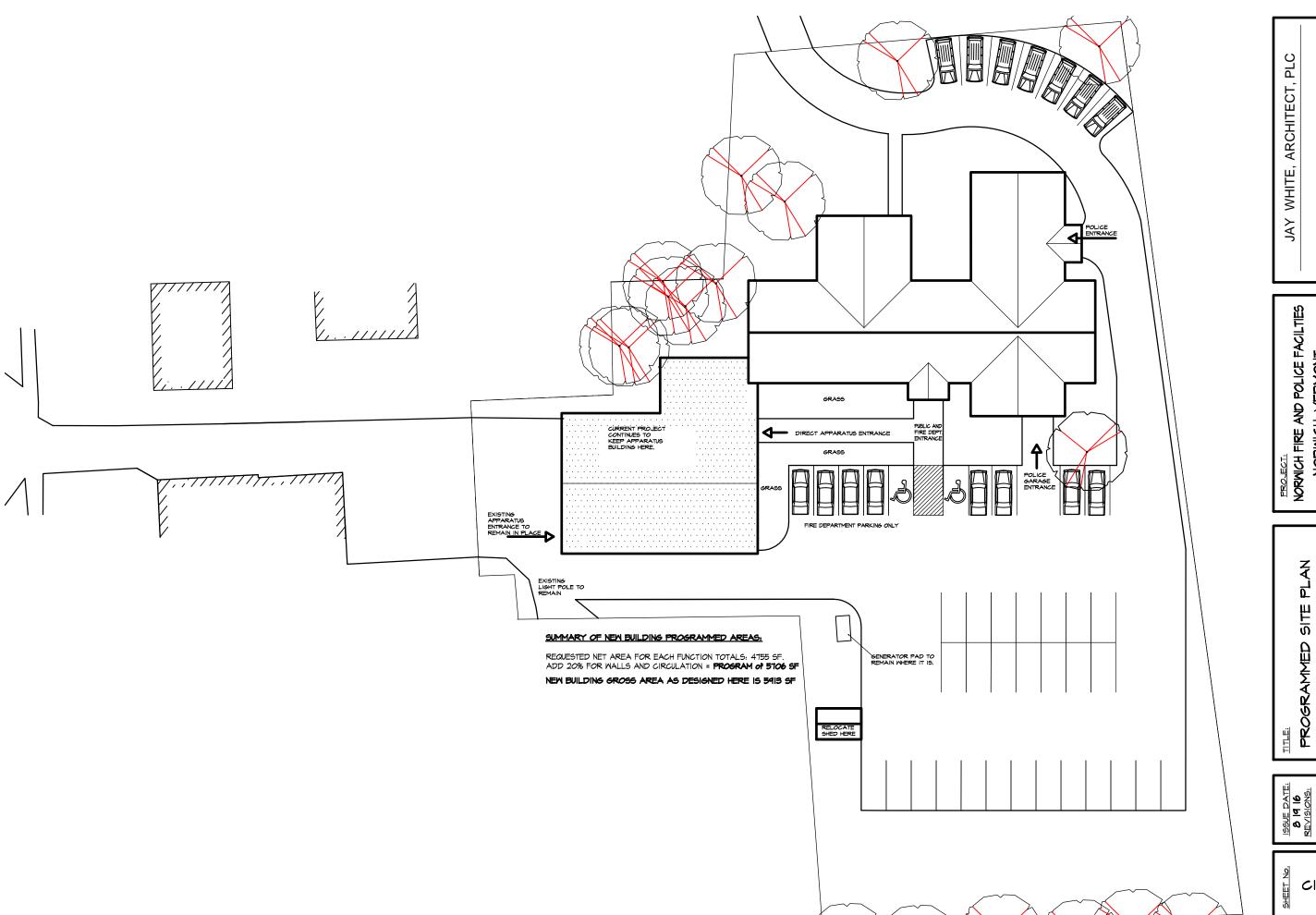
JOB No. 16-08

= 1' O" (IF PRINTED IIXIT) SITE PLAN

RECOMMENDED 1/32

ISSUE DATE: **8 |9 |6**REVISIONS:

CI ALT



JAY WHITE, ARCHITECT, PLC

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PROJECT:

NORWICH FIRE AND POLICE FACILITIES

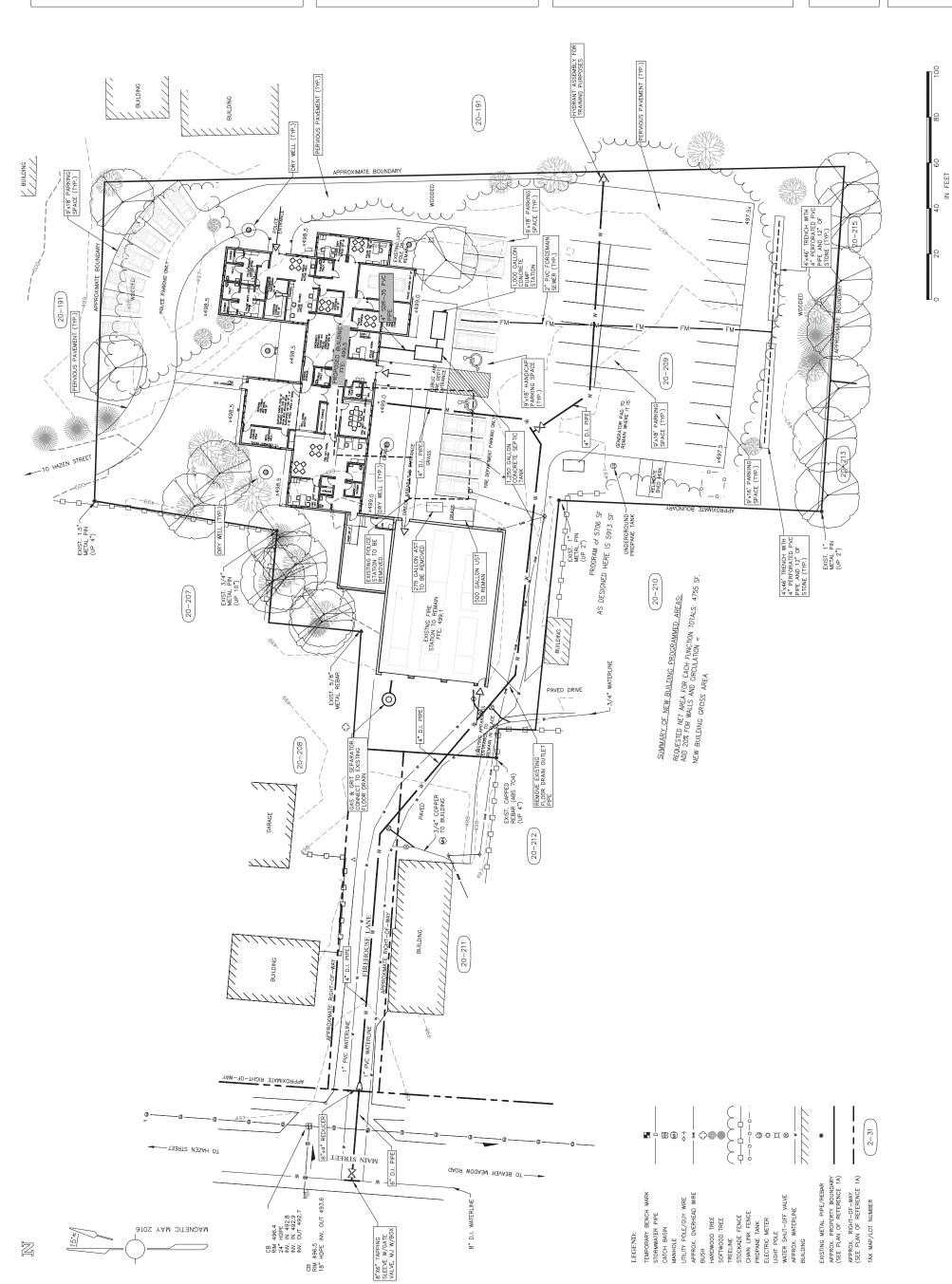
NORWICH, VERMONT

JOB No. 16-08

SITE PLAN

1/32" = 1' O" (IF PRINTED 11X17) PROGRAMMED

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JAY WHITE, ARCHITECT, PLC

100 State Street, 9 Email: jaywhitevt@

PROJECT:

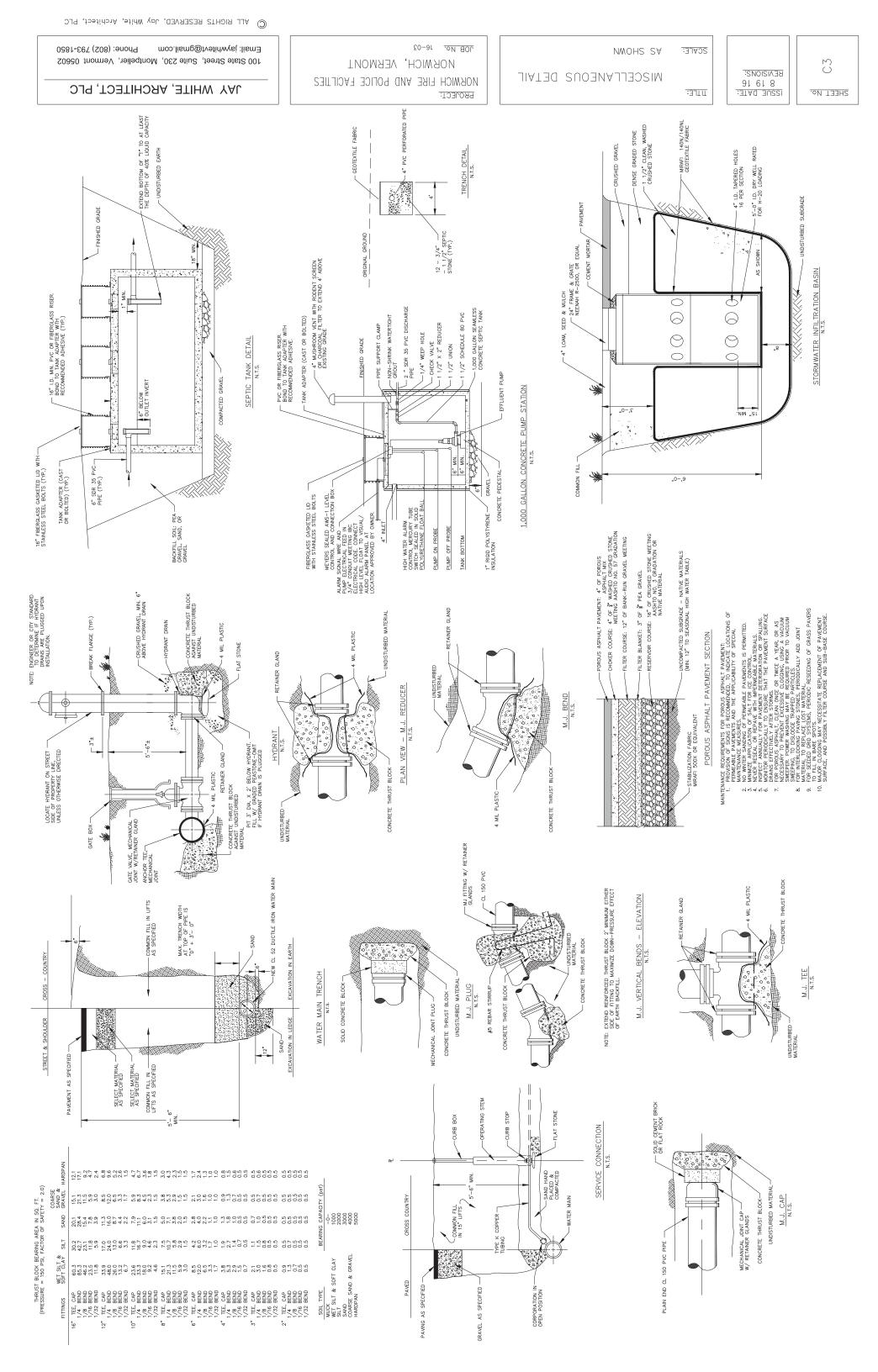
NORWICH FIRE AND POLICE FACILTIES

JOB NO. 16-03

SITE: SCALE: AS SHOWN

ISSUE DATE:

SHEEL NO. 1 SSUE



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SLIMSURFACE 5-INCH ROUND PHILIPS LIGHTOLIER LED 90-CRI 2700K 650-LM 0.9 SA WPLED26Y (WALLPACK) - ALED26Y CAST FINNED METAL HOUSING, MACHINED ONE WHITE MULTI-CHIP LIGHT (AREA LIGHTER) METAL HEAT SINK, 1 CIRCUIT BOARD EMITTING DIODE (LED), TILTED 33 8 RAB LIGHTING, INC. 0.9 WITH 1 LED, MOLDED PLASTIC REFLECTOR -DEGREES FROM VERTICAL BASE-SD WITH SEMI-SPECULAR FINISH, CLEAR UP POSITION. FLAT GLASS LENS IN CAST BROWN PAINTED METAL FRAME 1 ZL1N_L24_1500LM_L_LEN S_MVOLT_30K_80_CRI.ies ZL1N L24 1500LM L/LENS MVOLT ZL1N 24" LENGTH 1500 LUMENS NO 0.9 17.8 1883 4 Lithonia Lighting DIFFUSER 3000 K 80 CRI SE cription Symbol Avg Max Min Max/Min Avg/M

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 & \begin{al $^{\dagger} 0.0 \, ^{\dagger} 0.1 \, ^{\dagger} 0.2 \, ^{\dagger} 0.3 \, ^{\dagger} 0.5 \, ^{\dagger} 0.7 \, ^{\dagger} 0.8 \, ^{\dagger} 1.0 \, ^{\dagger} 0.9 \, ^{\dagger} 0.8 \, ^{\dagger} 0.5 \, ^{\dagger} 0.4 \, ^{\dagger} 0.3 \, ^{\dagger} 0.2 \, ^{\dagger} 0.1 \, ^{\dagger} 0.1 \, ^{\dagger} 0.2 \, ^{\dagger} 0.3 \, ^{\dagger} 0.5 \, ^{\dagger} 0.4 \, ^{\dagger} 0.3 \, ^{\dagger} 0.2 \, ^{\dagger} 0.1 \, ^{\dagger} 0.1 \, ^{\dagger} 0.2 \, ^{\dagger} 0.3 \, ^{\dagger} 0.5 \, ^{\dagger} 0.5$ $7.4^{+}7.9^{+}5.0^{+}2.8^{+}1.7^{+}1.0^{+}0.6^{+}0.4^{+}0.2^{+}0.1^{+}0.1$ **7.2 7.9 7.5 7.3 .0 1.9 1.9 1.1 1.0 1.7 1.4 1.0 1.2 1.0 1.1** † 0.0 † 0.0 † 0.0 † 0.0 † 0.0 † 0.1 † 0.2 † 0.4 † 1.0 † 2.3 † 4.8 † 7.2 † 6.4 † 3.6 † 1.6 † 0/ $^{\circ}$ 1 $^{\circ}$ 5/ $^{\circ}$ 3 † 0.2 † 0.2 † 0.2 † 0.2 † 0.2 † 0.1 † 0.1 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$4.0 \stackrel{+}{5}.2 \stackrel{+}{4}.5 \stackrel{+}{3}.2 \stackrel{+}{2}.1 \stackrel{+}{1}.8 \stackrel{+}{0}.7 \stackrel{+}{0}.4 \stackrel{+}{0}.2 \stackrel{+}{0}.1 \stackrel{+}{0}.1$ 2.2/45 +5.3 +4.3 +2.7 +1.5 0.9 0.5 +0.2 50.10 0.1 [†]0.0 [†]0.0 [†]0.0 [†]0.0 [†]0.0 [†]0.0 [†]0.0 [†]0.0 6 + 8.6 + 6.4 + 3.5 + 1.8 + 0.9 + 0.5 + 0.3 + 0.1 + 0.1 M.0 [†]0.9 [†]0.7 [†]0 $^{\dagger}0.0\,^{\dagger}0.0\,^{\dagger}0.0\,^{\dagger}0.0\,^{\dagger}0.0\,^{\dagger}0.0\,^{\dagger}0.0\,^{\dagger}0.0\,^{\dagger}0.0\,^{\dagger}0.0\,^{\dagger}$ **5450059.5**'.6 ⁺1.8 + 0.9 + 0.5 + 0.3 + 0.1 + 0.1 5 6.5 4.9 2.8 1,5 0.8 0.4 0.2 0/1 0.1 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0.4 ¹1.8 ²2.6 ²2.5 ¹1.8 ¹1.1 ¹0.6 ¹0.4 ¹0.2 ¹0.1 ¹0.0

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⁺0.0 [†]0.0

⁺0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.

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[†]0.0 †

Calc Zone #1 + 0.5 fc | 10.0 fc | 0.0 fc | N/A | N/A

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Plan View - ELECTRICAL SITE LIGHTING

JAY WHITE, ARCHITECT, PLC

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August 19, 2016

NORWICH FIRE AND POLICE FACILITIES

Outline Specifications and Architectural Basis of Design

Division 1: General Conditions

- 1. Building will be slab on grade, one story and wood-framed meeting all current codes including the 2015 Vermont Commercial Building Energy Standards. The recommended building exceeds those codes in two significant ways:
 - a. The building will be fully sprinklered, even though this is not required in the codes.
 - b. We have identified several additional upgrades and features to get the building closer to NET ZERO energy efficiency and the cost of doing each item. Most, but not all, of those features are included in our Summary of Recommendation Spread Sheet attached to this report, which explain why we are not recommending some options.
- 2. Normal General Conditions and permitting for commercial projects this size are factored into the cost estimates.

Division 2, Site Work:

- 1. Pathways Consulting has prepared an extensive civil engineering design and related details used in their Estimate of Probable Cost, attached to this report.
- 2. There are two site plans presented for consideration;
 - Drawing C1 shows a total of 41 parking spaces. The seven identified for police use only are located north of the building, near the police entrance. All others are south of the building.
 - Drawing C1 Alt. show the Archiect's Recommended Site Plan, which is identical to C1, except it recommends that we only build 30 parking spaces instead of 41. To build the additional 11 spaces, the Agency of Natural Resources requires a porous paving surface and expensive underground drainage and permitting process, all of which is estimated to cost an additional \$105,000 to the project cost. Since the current site only has 10 spaces, it seems to us that it makes sense to consider modifying the parking program to only build 30 as part of this project, instead of 41 spaces now, with the knowledge that the other spaces could be built as shown on drawing C1 at a later date for much less money if they are truly needed.
- 3. Both site plans correct drainage problems at Firehouse Lane and its intersection at Main Street. The Project includes re-paving Firehouse Lane because it will be dug into to bury a new 4" water line (required by the sprinkler system), a new 6" water line required by the Fire District, and a new Electrical Service required to feed the energy efficient Electric Heat Pump System that will heat and cool the building most of the time.

- 4. Both site plans have a 50 foot turning radius onto Hazen Street in order for fire trucks to be able to use that entrance to the site if necessary. This is unlikely, but in the event Firehouse lane is blocked for maintenance or some other reason, it may be good to have this additional way to get fire trucks in and out of the property, since the cost is the same.
- 5. Landscaping is not fully defined, but intent is that what is not paved will be grass. There will be a gravel drip area next to the building. One new tree is planned near the southeast corner to add shade and interest to the design.
- 6. Site lighting is completely shielded and on timer controls. Color temperatures are all a warm 3000K as we are close to a residential area and we do not want this areas to look like a bright beacon, but all roads, walks and parking areas are fully lit and engineers as explained on the drawing of lighting in the Engineering Services of Vermont's Lighting Plan. The existing pole light near the southwest corner of the apparatus building will remain in place and continue to light that area, but the pole should be straightened and re-set.

If the recommend site plan with less parking is accepted to save the \$105,000 savings offered in it, the southern-most light in the Lighting Plan will be omitted.

Division 3, Concrete:

- 1. All of the building is slab-on-ground, 1-story, construction. The slabs are insulated to meet the current code, but add more insulation to get closer to Net Zero design as indicated on the costing spread sheets.
- 2. Concrete walks are recommended, but asphalt walkways will suffice. Aprons in front of both the public entrance and the police entrance under their respective porticos will not be asphalt, as concrete is required for stability at these entrances.
- 3. No curbs are recommended in order to reduce concentration of drainage, reduce construction cost, and make it easier for plowing and maintenance.
- 4. All concrete is normal, 3000psi strength.

Division 4, Unit Masonry:

1. There is none on the project.

Division 5, Metal Fabrications:

1. One steel wide flange beam, supported on two steel posts buried in the exterior walls will be required to support the trusses of the main roof ridge over the Training Room.

Division 6, Carpentry:

1. Exterior walls will all be 2x8 wood studs supporting simple wood trusses supported on the exterior walls and one steel beam across the Training Room. This will allow relocation of interior walls in the future that are not around restrooms or shower rooms.

- 2. All roofs will be supported with wood trusses space 24" o.c. and with a roof pitch of 8:12.
- 3. All trusses will have ½" thick oriented strand board applied to the underside of the bottom chord of the trusses, so it can support attic insulation.
- 4. All trusses will be supported at 11' above the floor,
- 5. All window and door exterior rough openings are at 9' above the floor as shown on the exterior elevations.
- 6. All ceilings will be accessible 2x2 acoustic panel ceilings, with 20" of space above the ceilings and below the OSB sheathing, so that all electrical, plumbing, sprinkler lines and small air ducts to serve the locker rooms and restrooms can be in this space, with all parts of it fully accessible above the removable acoustical ceiling panels.
- 7. Interior walls will be mostly 2x4 wood studs, but some will be 2x6 studs where required for plumbing.
- 8. Interior wall finishes will be mostly 5/8" painted sheetrock, except in the restrooms which will have porcelain tile up to 4' above a porcelain tile floor. Shower rooms will have porcelain tile walls supported on 5/8" water-proof Sheetrock.
- 9. All exterior walls on the new building will have Hardie Panels, pre-finished in two different colors and textures as indicated on the elevations.
- 10. All exterior trim will be solid PVC white trim, so it never needs painted.

Division 7, Thermal and Moisture Protection:

- 1. All roofs on the new building will have architectural series asphalt roofing shingles, charcoal grey in color.
- 2. Insulation in the roof and in the walls vary in specification; more is used and in the Net Zero Design Option but wood framing remains the same in both options. In the base option, we will achieve the require R23 with loose cellulose poured in the 2x8 wall cavities with an interior vapor barrier, and an exterior weather sheet under the Hardie panels.
 - In the Net Zero option we will use a closed cell urethane foam insulation to get an R42 between the 2x8 wood wall studs, but will not need a vapor barrier.
- 3. Flashing will be painted aluminum.
- 4. In the Net Zero Design Option, we will provide Kingspan "Azetco" 4" thick urethane foam panel sandwiches between steel skins. These will be screwed to the existing apparatus building, and cover the metal as well as the concrete wall below it. We are not proposing to add panels to the brick front, as that wall is mostly doors, and energy saving in doing so would be minimal. The intent is to get daylight through two panels of the new apparatus doors, but cover all of the existing windows in the building. Intent here is to get as simple as covering as possible, with minimal detailing or texture, so the building does not compete with or try to mimic the new office building.

Division 8a, Windows:

- 1 All windows will be Marvin Integrity Composite double hung pairs of windows under a fixted glass upper light, as indicated on the drawings. Windows will be pre-finished both inside and out.
- 2. We are not recommending the much more expensive triple pane windows to get to a full Net Zero option because of the high cost and concern that doing so makes the harder to operate and have twice the risk of broken seals over the years. But we have included a price for upgrading to triple glazed windows on our enclosed spread sheets if the Selectboard wants to do that.

Division 8b, Doors:

- 1. Exterior personnel doors will be Therma-tru insulated fiberglass doors with insulated Low E glass.
- 2. Interior personnel doors will be 1 3/4" solid core composite doors. Offices will have fixed sidelights next to most doors in order to bring in more daylight to the interior spaces and provide a more open, airy feeling in the spaces. Door frames are painted wood with 1x4 wood casings.
- 3. Where locks are necessary, we recommend Schlage BE365CAM716, Camelot Electronic Keypad Single Cylinder Deadbolts. This technology is less expensive than maintaining a confusing master key system, and avoids the expense of replacing keys and changing locks as personnel change, and is easily programmable.
- 4. Where locks are not necessary we will have passage sets. Lever handles will be provided on all doors. No panic hardware is necessary.
- 5. Doors requiring closers will have them at the tops of the doors. All doors will have door stops, wall mounted where possible.
- 6. The Police garage doors will be Overhead Door Sectional Steel Doors 596, with a R value of R17.4. For privacy and security, we are not providing any vision panels in these doors but can if it is more desirable to have daylight in the garage.
- 7. In the Net Zero Design upgrade, we will replace the existing apparatus building doors with Overhead Door Sectional Steel Doors 596, but with vision panels the full size in two panels per door in the apparatus building. This will add more daylight between the trucks and be more energy efficient and less expensive than upgrading the windows, where leakage around the metal walls is a difficult problem to solve anyway.

Division 9, Finishes:

1. Interior walls are all 5/8" painted sheetrock except in the showers and toilet rooms. In the showers, the walls are waterproof sheetrock, supporting 3/8" thick porcelain tiles. They showers all have a fiberglass base with a flange that is an inch high behind the tile and sealed with caulking. The toilet rooms have 3/8" porcelain tile wainscot, supported on waterproof sheetrock up to 4' above the floor.

2. Floors are:

Fire Department Kitchen and corridor leading over to the apparatus building are commercial grade sheet vinyl.

Police garage is sealed concrete.

Vestibule is carpet tile walk-off mat.

Police entrance is carpet tile walk-off mat width of door and its sidelight; the rest of their office area is carpet tile.

Janitor closet floor, boiler room floor, and I.T. room floors are commercial grade sheet vinyl. Restroom floors and shower room floors (outside the fiberglass floor of showers) is 3/8" thick thin set porcelain tile.

- 3. Ceilings throughout are 24x24 lay-in acoustical tile set at 9' 3" above the floor, right at the top of the window casing header trim, except in the garage. The garage will have the oriented strand board exposed and not painted.
- 4. Wall bases are 4" coved vinyl bases throughout, except in restrooms and shower rooms where there is porcelain tile wainscot in restrooms and full height porcelain tile walls in shower rooms.

Divisions 10, Specialties and Division 11, Equipment:

1. The Fire Dept kitchen has:

Sink

Garbage Disposal

Dishwasher

Oven under 6 burner range

Microwave oven above range

Full size refrigerator

Upper and lower cabinets

Plastic laminate counter top and backsplash.

2. Police Kitchenette has:

Sink

Garbage Disposal

Under-counter refrigerator

Microwave over

Upper and lower cabinets

Plastic laminate counter top and backsplash

- 3. Police officer counters are built-in plastic laminate.
- 4. The reception window is a fixed glass security window with slot underneath. It is designed so it is mostly sound proof, but open in the frames so you can hear through it. This is same as Royalton Police Dept. if you want to check it out.
- 5. The shutter at the Fire Department kitchen is an aluminum roll down shutter that completely blocks the view when lowered; it is not a grille or grate.
- 6. Toilet rooms will have;

Mirror

Efficient electric hand drier

Soap dispenser

Sink

Comfort height elongated toilet

Grab bars in handicapped restrooms, which is all but one in the fire department.

7. Janitor closets will have:

Mop Sink Hooks above mop sink Two fixed shelves for cleaning supplies.

- 8. Vestibule will have two drinking fountains at two different heights.
- 9. Evidence Room will have built in pass through cabinet doors with locks on each side, and shelf in between to put evidence on that is small enough to fit there.

Division 12: Furniture:

1. Cost estimate of \$37,500 from Exterus Business Furniture is based on all furniture shown on Sheet A101. It is similar to what they have installed in other municipal offices recently.

Division 15 and 16, Mechanical, Electrical and Plumbing:

1. Mechanical, Electrical and Plumbing systems are described in the "Basis of Design" from Engineering Services of Vermont.



9 Washington Street Rutland, Vermont 05701 Tel: 802-855-8091

June 1, 2016 ESVT Project No. 16092

Norwich Fire & Police Facilities Norwich, Vermont August 12, 2016

Proposed Basis of Design, Divisions 26/27/28 Electrical

We have prepared the following basis of design for the electrical systems for the proposed Norwich Fire & Police Facilities Norwich, VT. We have based this basis of design on the proposed concept drawings prepared by Jay White Architect and through our meetings and correspondence related to this project with the Architect.

1. General

- a. Provide a complete electrical system in accordance with all applicable codes, to include electrical service, electrical distribution, general power, lighting, lighting controls, telecommunications systems, communications and fire alarm systems as appropriate for this multi-floor senior living apartment building. Codes applicable to the electrical work on this project are the Code of Ordinances of the Town of Waterbury, Vermont which include, but are not limited to:
 - i. State of Vermont, 2012 Fire and Building Safety Code
 - ii. IBC-2012, International Building Code, with State of Vermont amendments
 - iii. NFPA 1-2012, Fire Code, with State of Vermont amendments
 - iv. NFPA 101-2012, Life Safety Code, with State of Vermont amendments
 - 1. Chapter 38 New Business Occupancies
 - v. NFPA 72-2010, National Fire Alarm Code, with State of Vermont amendments
 - vi. NFPA 70-2011, National Electrical Code (NEC), with State of Vermont amendments
- b. Provide electrical installation, specifically lighting, lighting controls and maximum voltage drops meeting the requirements of the 2015 Vermont State Commercial Energy Standards (CBES) and the Federal Energy Code, as appropriate.

- c. Provide coordination with Efficiency Vermont to implement energy savings measures that are practical and cost effective for the building and its use and to obtain maximum available incentive dollars for the measures that are implemented.
- d. Coordinate with design and construction teams towards constructing this building to be passive house certified.
- e. Coordinate with power and telecommunication utility companies and their requirements as necessary.
- f. Coordinate with contractors of other trades (general, civil/site, mechanical, plumbing, temperature control) as necessary to provide an overall professional and complete project.

2. Electrical Service and Distribution

- a. Provide coordination with Green Mountain Power (GMP) for electrical service to the building. All aspects of the service wiring installation shall be as per GMP requirements. The contractor shall obtain the latest version of the Vermont Utilities Service Requirement Manual available on line at www.greenmountainpower.com.
- b. The existing overhead single phase electrical service routed from Main Street to the west to the Apparatus Building will be replaced.
- c. A single phase service originating from a GMP pole top transformer on Main Street will route underground parallel with the new water line under Firehouse Lane.
 - i. Three conduits will be provided parallel to the electrical service wiring for telecommunications services to the building.
 - ii. Ductbank under the roadway will be encased in concrete.
 - iii. Power and telecommunications ductbank will be 10' clear from the water piping.
 - iv. Minimum 36" to top of ductbank conduits
 - v. Routing of services underground from utility pole on Main Street to the Firehouse Lane may need to be coordinated with neighbors and easements may need to be obtained.
- d. Electric service is preliminarily sized as 600 Amp, 120/240V, 3 phase, 4 wire.
- e. Refer to the Preliminary One Line Diagram (at end of report) for the arrangement of distribution.
 - i. An estimated 130KW LP Gas fired standby power generator will be provided to support the electrical load of the building in the event of a loss of utility power, replacing the existing LP Gas fired generator. Provided with Level 1 enclosure, battery charger, battery heater, block heater, remote annunciator and circuit breaker on generator.

- ii. Distribution will be divided, with loads separated into circuit breaker panelboards to serve lighting loads, mechanical loads and receptacle/miscellaneous loads. This is necessary to allow for monitoring these three types of loads as required by the Efficiency Vermont Net Zero Building Guide for Commercial New Construction.
- iii. Monitoring will be provided through the installation of an electronic monitoring system with web-based access and interface to a building information management (BIM) system. Basis of design will be products from eGauge, EG3000 with Powered Enclosure Kit. (www.eGauge.net)

f. Wiring Methods:

- i. Follow all applicable codes and use good electrical construction practices when determining types of wiring methods and sizing of conductors and conduit. Install all power, control and signal wiring using methods as follows.
 - Underground Wiring or Beneath Concrete Slab: Individual conductors in schedule 40 PVC rigid non-metallic conduit (RNC) for direct burial; transition to schedule 80 PVC RNC (heavy wall) where conduit rises to be exposed above grade or concrete slab, from a minimum of 24" below finished grade.
 - 2. Exposed Exterior Wiring: Individual conductors in galvanized steel rigid metal conduit (RMC).
 - 3. Exposed Wiring in Utility Areas (Boiler, Electrical, etc.): Individual conductors in electrical metallic tubing (EMT) with set screw fittings.
 - 4. Concealed Feeder and Homerun Wiring: Individual conductors in electrical metallic tubing (EMT) with set screw fittings.
 - 5. Concealed Branch Circuit Wiring: Type MC (metal clad) cable with integral equipment ground conductor.
 - 6. Final connections to mechanical/vibrating equipment will be maximum 3' flexible metallic conduit (FMC) in dry areas and liquid tight flexible metallic conduit (LFMC) in damp/wet areas.
- ii. All wiring in finished areas will be routed concealed and devices will be flush/recessed mounted. Wiring in the utility areas will be exposed where no wall finish exists. Wiring routed exposed on vertical surfaces will be routed vertically; horizontal wiring will be routed at the ceiling level of these spaces, not on the walls.
- iii. Service conductors shall be aluminum conductors, with type XHHW insulation. Feeder conductors shall be copper, with type XHHW insulation. Branch circuit conductors shall be copper with type THHN/THWN-2 insulation.

iv. An insulated equipment ground conductor shall be provided within all raceways, boxes and enclosures. A bare equipment ground conductor is acceptable within all cables.

3. Lighting

- a. In general, all spaces will be illuminated utilizing LED (light emitting diode) light source luminaires.
- b. Interior lighting controls will utilize occupancy sensors as well as manual switches. All spaces will have manual switches to turn lights on. Lights may be turned off manually, or turn off automatically after a set time after the occupancy sensor no longer senses presence. Upon entering the space, the lights must be manually turned as is required by the Energy Code. This operation is identified as "vacancy control" as opposed to "occupancy control" which allows the occupancy sensors to automatically turn the lights on.
- c. Exterior lighting will be a combination of building mounted and pole mounted LED light source luminaires. All exterior luminaires will be full cut-off with no lighting above 90 degrees (horizontal).
 - i. Refer to the Exterior Lighting Calculation drawing EL1 prepared for permitting, dated 08/11/2016.
- d. Exterior lighting will be controlled through an astronomic timeclock controller with photocell input.
 - i. Building mounted lighting will be photocell on, timeclock off.
 - ii. Pole mounted lighting will be photocell on, timeclock off and will incorporate controls to dim output to 50% after a set amount of time with light coming back up to 100% output using motion sensors on the poles. Upon not sensing activity, lighting will reduce back down to 50% output.
- e. The life safety lighting within the building (exit and emergency lighting) will be provided throughout the public areas of the building and in the utility spaces as necessary. Exit signage will be LED type with integral batteries for self-powered operation upon loss of utility power. Emergency lighting fixtures will be a combination of battery packs with integral lighting heads, powering remote light head units as necessary and battery/inverters in the luminaires themselves.
 - Self-testing life safety lighting equipment will be specified. This equipment will test itself to ensure that it is operational within the parameters of applicable Code, and will sound a signal in the event it is no longer properly operational.
- f. Luminaire selection and layout will be in collaboration with the Architect. Luminaires will be selected to be Energy Star or Design Lights Consortium listed.

4. General Power

a. General use receptacles shall be generally spaced a maximum of 12' on center. Private offices will have one receptacle on each wall.

- b. Ground fault interrupting type receptacles and/or circuit breakers shall be provided as necessary within the Kitchens and Bathrooms.
- c. All receptacles will be specification grade 20A 120VAC duplex NEMA type 5-20R.
- d. Weatherproof receptacles will be located around the exterior of the building as appropriate.
- e. Power connections shall be provided to all new HVAC and plumbing equipment provided as part of this project, as well as all 120 VAC systems control wiring.
- f. Power feeds will be provided to all building equipment.

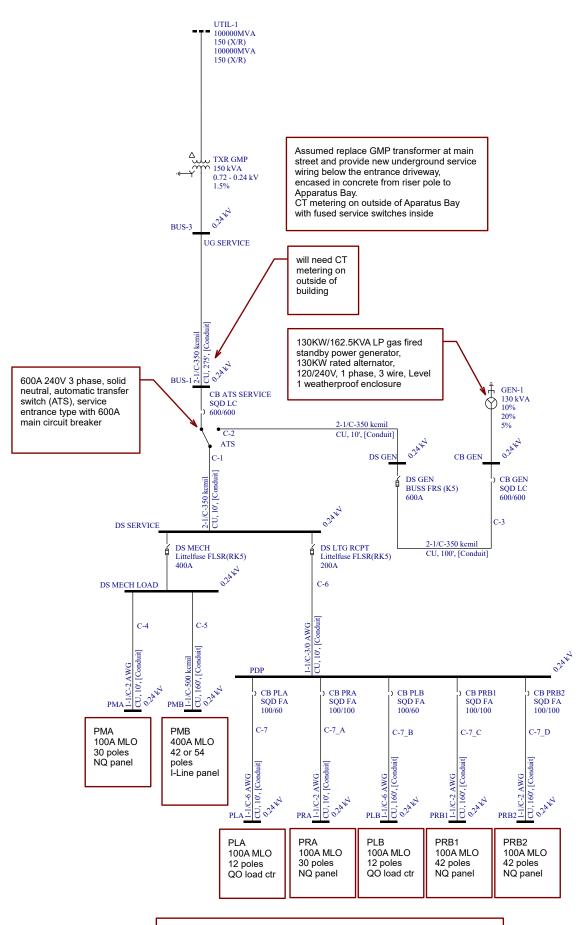
5. Life Safety Systems

- a. Life safety lighting was addressed in the Lighting portion of this design concept.
- b. A manual fire alarm system will be provided with manual stations and audible/visual signals throughout the building. Automatic initiation of the fire alarm system will be provided from sprinkler system flow switch(s), smoke detectors in the storage and utility spaces and hood fire protection system in the Kitchen. The fire alarm system will provide supervisory functions as necessary to monitor the sprinkler system, corridor carbon monoxide sensors and kitchen hood fire protection system. The fire alarm system will include a remote annunciator at the main entrance to the building and will have a digital communicator to send the alarm signal offsite.
 - i. System audible signal with visual strobe will be throughout the building.
 - ii. Carbon monoxide sensors will be provided nearby fuel burning equipment and garage areas, powered by and monitored by the fire alarm system.

6. Telecommunications:

- a. Service conduits with pullwires shall be provided in the conduits from the utility riser pole underground to a backboard at the telecommunications area (I.T. equipment area).
- b. Voice (telephone) and Ethernet (data) cabling will be provided throughout the building from wall jacks back to punchdown in wall mount racks in the I.T. equipment area. All cabling will be complete from wall jack to punchdown and tested per TIA/EIA requirements. Each wall device will contain two jacks/cables. Two wall devices per private office as well as devices located in open offices and conference and meeting rooms.
- c. CATV wall jacks and cabling will be provide complete to the I.T. equipment area similar as described for voice and Ethernet cabling.
 - i. Telephone will utilize CAT6 cabling
 - ii. CATV will utilize RG6 cabling

- iii. Wall racking will be specified installed on the backboard along with patch panels for both telephone and CATV. All cables will be punched down in the panels and labeled by unit.
- iv. Cabling will be complete from the patch panels through to the wall devices in the units. All cabling will be tested upon completion of installation.
- d. A door access intercom system shall be provided for the main public entrance door. The door access intercom system shall include outside station with call pushbutton, speaker and camera. A monitor and control will be located inside at the police admin office which will allow the visitor to be seen on a monitor and communicated with through speaker/microphone and the main door released to allow access. Basis of design is products from AiPhone.



NORWICH FIRE/POLICE FACILITY - PRELIMINARY ONE LINE ELECTRICAL DISTRIBUTION DIAGRAM ENGINEERING SERVICES OF VERMONT, LLC 08/11/2016



9 Washington Street Rutland, Vermont 05701 802-855-8091

www.EngineeringVermont.com

August 15, 2016 ESVT Project No. 16092

Jay White, Architect, PLC 100 State Street Suite 230 Montpelier, VT 05602

Basis of Design – Mechanical & Plumbing Systems

We have prepared the following basis of design for the mechanical and plumbing systems for the proposed Norwich Fire and Police Facilities in Norwich, VT. We have based this on the proposed concept drawings prepared by Jay White Architect, PLC. We have included a base complaint building description as well as a NET ZERO building description.

I. BASE BUILDING – 2015 CBES CODE COMPLIANT BUILDING:

- 1. Building Envelope Description:
 - a. <u>Existing Fire Station</u>- Existing building thermal envelope remains as is including doors, windows and existing thermal insulation systems.
 - b. New Construction:
 - i. Walls: R-23 wood framed wall with blown in cellulose insulation.
 - ii. Roof: R-49 Roof with blown in roof insulation in attic.
 - iii. Below Grade Walls: R-10 continuous insulation
 - iv. Slab on Grade R-10 for 48" below slab
 - v. Overhead Doors: R-10
 - vi. Windows U Values:
 - 1. Fixed U=0.36
 - 2. Operable: 0.43
 - 3. Entrance Doors: 0.77
 - vii. Windows SHGC Values:
 - 1. Orientation S,E, or W=0.40
 - 2. Orientation N=0.53
 - viii. Building air sealed to achieve a maximum infiltration rate of 0.50

CFM/SF at 50 Pascal.

2. MECHANICAL SYSTEMS

a. Mechanical Systems:

- i. The base building mechanical systems include constant volume single zone LP gas fired heating unit with DX Cooling. The systems shall meet the following specific requirements for energy compliance:
 - 1. All systems air provided with mechanical ventilation, provided in accordance with ASHRAE Standard 62.1-2013. Each system shall utilize a class 1 low leakage motorized damper for the outdoor air intake.
 - Systems with a cooling capacity of 54,000 BTUH or less shall exclude economizer cooling. Systems with a cooling capacity of 54,000 BTUH or more shall be provided with economizer cooling.
 - All air systems shall be constructed using galvanized sheet metal ductwork constructed and sealed in accordance with SMACNA Standards for 2" pressure class.
 - 4. All supply and return ductwork located in unconditioned spaces shall be insulated with 3" thick, R-8 fiberglass duct insulation.
 - 5. All supply and return ductwork located in outside the building envelope shall be insulated with 6" thick, R-12 fiberglass duct insulation.
 - 6. Supply and outside air ductwork located above suspended ceilings shall be insulated with 1 ½" thick fiberglass duct insulation.
 - 7. Provide grilles resisters and diffusers for distribution of air.
 - 8. All duct take offs shall include manual volume dampers with locking-quadrant handles.
 - 9. All systems shall be balanced using a certified air balancer.

ii. Kitchen Exhaust Systems:

1. Dishwasher Exhaust; Provide a 200 CFM exhaust fan over the dishwasher ducted to the exterior.

iii. Propane Gas System:

1. Provide (1) 1,000 gallon underground LP gas tank. Provide gas regulators and low pressure gas distribution to all furnaces and gas cooking equipment. All piping shall be schedule 40 black steel piping with malleable iron fittings.

iv. Controls:

 Provide standalone programmable thermostat with economizer controls for each furnace system to control heating, cooling and fans.

b. Mechanical Zones and Systems Sizes:

i. Zone 1: Existing Fire Apparatus Garage

46,000 BTUH Heating, unit efficiency=80% 18,300 BTUH Cooling, unit efficiency= 10.80 EER

ii. Zone 2: Existing Fire Storage

13,300 BTUH Heating, unit efficiency=80% 4,800 BTUH Cooling, unit efficiency= 10.80 EER

iii. Zone 3: Fire Department Office and Day Room

46,200 BTUH Heating, unit efficiency=80% 32,800 BTUH Cooling, unit efficiency= 10.80 EER

iv. Zone 4: Fire Department Conference and Library

7,900 BTUH Heating, unit efficiency=80% 11,100 BTUH Cooling, unit efficiency= 10.80 EER

v. Zone 5: Training and Public Meetings

25,200 BTUH Heating, unit efficiency=80% 31,100 BTUH Cooling, unit efficiency= 10.80 EER

vi. Zone 6: Police Admin Office, Corridor, Toilets

22,100 BTUH Heating, unit efficiency=80% 13,500 BTUH Cooling, unit efficiency= 10.80 EER

vii. Zone 7: Emergency Operations Center

11,400 BTUH Heating, unit efficiency=80% 13,500 BTUH Cooling, unit efficiency= 10.80 EER

viii. Zone 8: Police Archives and Interview Rooms

32,900 BTUH Heating, unit efficiency=80% 19,600 BTUH Cooling, unit efficiency= 10.80 EER

ix. Zone 9: Police Garage

25,800 BTUH Heating, unit efficiency=80% 7,800 BTUH Cooling, unit efficiency= 10.80 EER

x. Zone 10: Police Chief and Supervisor Office

8,900 BTUH Heating, unit efficiency=80% 9,900 BTUH Cooling, unit efficiency= 10.80 EER

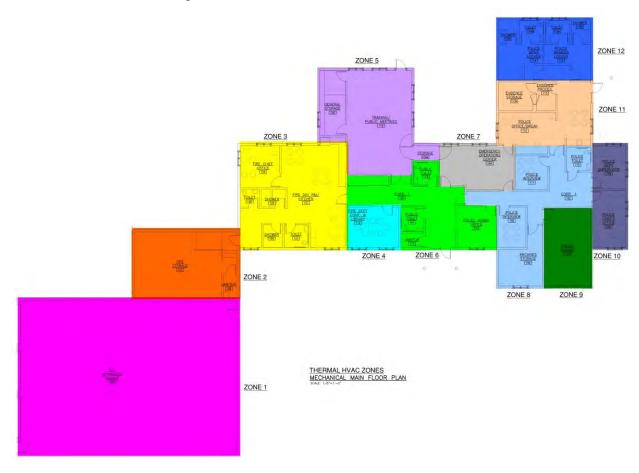
xi. Zone 11: Police Office and Break Room

23,300 BTUH Heating, unit efficiency=80% 20,300 BTUH Cooling, unit efficiency= 10.80 EER

xii. Zone 12: Police Locker Room

37,300 BTUH Heating, unit efficiency=80% 14,200 BTUH Cooling, unit efficiency= 10.80 EER

c. HVAC Zoning Plan:



a. <u>Fire Station Ventilation System:</u> Demand controlled exhaust and intake system which provides 0.50 CFM/SF when elevated levels of Carbon Monoxide or Nitrous Oxide exist in truck bays.

II. NET ZERO BUILDING:

- 1. Building Envelope Description:
 - a. Existing Fire Station:
 - i. Walls: R-18, 2.5" thick Aztec panels over existing walls with 3" fiberglass.
 - ii. Roof: 5" polyiso over original steel roof with original 3" vinyl faced batts insulation on the interior R-39 total.
 - iii. Below Grade Walls: no insulation
 - iv. Slab on Grade no Insulation
 - v. OH Doors: R-15
 - b. New Police Department:
 - i. Walls: R-40 wood framed wall 3" continuous insulation with blown in cellouse insulation.
 - ii. Roof: R-60 Roof with blown in roof insulation in attic.
 - iii. Below Grade Walls: R-30
 - iv. Slab on Grade R-20 continuous insulation
 - v. Windows SHGC Values:
 - 1. Orientation S,E, or W=0.40
 - 2. Orientation N=0.0.53
 - vi. Building air sealed to achieve a maximum infiltration rate of 0.10 CFM/SF at 50 Pascal.
 - vii. OH Doors: R-15.

2. MECHANICAL SYSTEMS

- a. Mechanical Systems:
 - i. The Net Zero building mechanical systems include a low ambient air source heat pump systems with back-up electric resistance heat. Dedicated outdoor air systems with ultra-high efficiency heat recovery systems will be provided for fresh air. The systems shall meet the following specific requirements for energy compliance:
 - Dedicated outdoor air heat recovery units shall be utilized to provide fresh air. Systems shall have a 90% thermal efficiency and shall utilize ECM fan motors. All systems air provided with

- mechanical ventilation, provided in accordance with ASHRAE Standard 62.1-2013. Each system shall utilize a class 1 low leakage motorized damper for the outdoor air intake.
- 4. All air systems shall be constructed using galvanized sheet metal ductwork constructed and sealed in accordance with SMACNA Standards for 2" pressure class.
- 5. All supply and return ductwork located in unconditioned spaces shall be insulated with 3" thick, R-8 fiberglass duct insulation.
- 6. All supply and return ductwork located in outside the building envelope shall be insulated with 6" thick, R-12 fiberglass duct insulation.
- 7. Supply and outside air ductwork located above suspended ceilings shall be insulated with 1 ½" thick fiberglass duct insulation.
- 8. Provide grilles resisters and diffusers for distribution of air.
- 9. All duct take offs shall include manual volume dampers with locking-quadrant handles.
- 10. All systems shall be balanced using a certified air balancer.
- ii. Kitchen Exhaust Systems:
 - 1. Dishwasher Exhaust; Provide a 200 CFM exhaust fan over the dishwasher ducted to the exterior.
- iii. Controls:
 - 1. Provide standalone programmable thermostat with economizer controls for each heat pump system to control heating, cooling and fans.
- b. Mechanical Zones and Systems Sizes:
 - Zone 1: Existing Fire Apparatus Garage
 50,100 BTUH Heating, 3.17 COP @ 47 deg. F.
 12,500 BTUH Cooling, unit efficiency= 10.75 EER
 - ii. Zone 2: Existing Fire Storage

13,900 BTUH Heating, 3.17 COP @ 47 deg. F. 3,400 BTUH Cooling, unit efficiency= 10.75 EER

iii. Zone 3: Fire Department Office and Day Room

53,000 BTUH Heating, 3.17 COP @ 47 deg. F. 30,400 BTUH Cooling, unit efficiency= 10.75 EER

- iv. Zone 4: Fire Department Conference and Library
 - 9,800 BTUH Heating, unit efficiency, 3.17 COP @ 47 deg. F. 9,400 BTUH Cooling, unit efficiency= 10.75 EER
- v. Zone 5: Training and Public Meetings
 - 37,400 BTUH Heating, unit efficiency, 3.17 COP @ 47 deg. F. 31,700 BTUH Cooling, unit efficiency= 10.75 EER
- vi. Zone 6: Police Admin Office, Corridor, Toilets

22,800 BTUH Heating, unit efficiency, 3.17 COP @ 47 deg. F. 11,700 BTUH Cooling, unit efficiency= 10.75 EER

- vii. Zone 7: Emergency Operations Center
 - 11,400 BTUH Heating, unit efficiency, 3.17 COP @ 47 deg. F. 9,400 BTUH Cooling, unit efficiency= 10.80 EER
- viii. Zone 8: Police Archives and Interview Rooms

27,700 BTUH Heating, unit efficiency, 3.17 COP @ 47 deg. F. 14,200 BTUH Cooling, unit efficiency= 10.75 EER

ix. Zone 9: Police Garage

4,500 BTUH Heating, unit efficiency, 3.17 COP @ 47 deg. F. 3,900 BTUH Cooling, unit efficiency= 10.75 EER

- x. Zone 10: Police Chief and Supervisor Office
 - 7,400 BTUH Heating, unit efficiency, 3.17 COP @ 47 deg. F. 7,600 BTUH Cooling, unit efficiency= 10.75 EER
- xi. Zone 11: Police Office and Break Room

22,400 BTUH Heating, unit efficiency, 3.17 COP @ 47 deg. F. 15,700 BTUH Cooling, unit efficiency= 10.75 EER

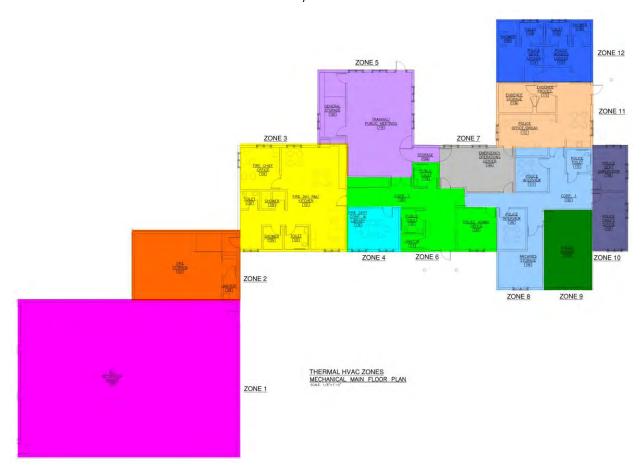
xii. Zone 12: Police Locker Room

37,900 BTUH Heating, unit efficiency, 3.17 COP @ 47 deg. F. 9,400 BTUH Cooling, unit efficiency= 10.75 EER

- c. Dedicated Outdoor Air Heat Recovery Systems:
 - i. HRU-1: Zones Served: Zone 3,4,5 and 6.
 - 1. 870 CFM fan at 1" ESP.
 - ii. HRU-2: Zones served: 6,8,9,10,11

1. 965 CFM fan at 1" ESP.

d. <u>Fire Station Ventilation System:</u> Demand controlled exhaust and intake system which provides 0.50 CFM/SF when elevated levels of Carbon Monoxide or Nitrous Oxide exist in truck bays.



III. PLUMBING WORK:

1. Domestic Water System:

- a. Provide a new 2" domestic water service sized for 75 GPM, the service will be required to serve the proposed fixtures. This service shall be provided with a new meter PRV and backflow preventer
- b. Provide new domestic water distribution to all plumbing fixtures including connections to existing branch lines serving the existing toilet rooms.
- c. Domestic water distribution piping shall be type L copper using lead free solder type joints. Runouts to individual plumbing fixtures 1" and less may be PEX piping.
- d. All domestic water piping shall be insulated. Cold water piping shall be insulated

- with 1" thick ASJ fiberglass pipe insulation. All domestic hot water piping shall be insulated with 1 ½" thick ASJ fiberglass pipe insulation.
- e. Base Bid Water Heater: Provide a 119 gallon gas fired water heater rated with a 240 gallon per hour recovery at 100 deg. F. temp. rise. Water heater shall be a high efficiency seal combustion unit. Provide new thermostatic mixing valve and hot water recirculation pump.
- f. Net Zero Water Heaters: Provide two (2) Rheem Prestige 80 gallon, ProPH80 T2 RH245, rated at 86 GPH first hour rating.

2. Sanitary Waste and Vent Systems:

- a. Provide new sanitary waste and vent piping systems for all plumbing fixtures, connect existing plumbing for the first floor toilet rooms to the new plumbing systems.
- b. Provide a grease interceptor for the Kitchen rated for 50 GPM, unit shall be installed flush with the floor. All plumbing fixtures in the Kitchen shall be provided with 12"x12" floor receptor with ID waste drain for dishwasher and sinks located in the kitchen.

3. Plumbing Fixtures:

- a. Water Closets: Flush valve standard height with open front seat less cover.
- b. Accessible Water Closets: Flush valve ADA height with open front seat less cover.
- c. Accessible Lavatory: Sink will be provided with counter top, provide single lever faucet with grid strainer, install for ADA compliance.
- d. Shower Stall: Gelcoat one-piece roll-in shower with grab bars. Provide thermostatic mixing valve with standard shower head and hand held shower with diverter valve.
- e. Kitchen Sink: Provide commercial grade three bay stainless steel pot sink with stainless steel legs. Provide drain kick drains, swing spout, hand spray and ID waste drain pipe to floor receptor.
- f. Kitchen Hand Sink: Provide wall mounted hand sink with single lever faucet.



9 Washington Street Rutland, Vermont 05701 802-855-8091 www.EngineeringVermont.com

August 15, 2016 ESVT Project No. 16092

Jay White, Architect, PLC 100 State Street Suite 230 Montpelier, VT 05602

Attn: Jay White, Architect

Re: Town of Norwich Fire Police Facility

Preliminary Modelling Results

Dear Jay,

We have developed the following preliminary energy modelling for a base building and a NET ZERO building. This is based on the mechanical systems and construction R-Values described in the attached Basis of Design. The results will need to be compared to the available solar system capacity in order to determine if this building will meet the NET ZERO requirements.

The results of this preliminary modelling are as follows:

BASE BUILDING:

Annual Component Cost:

1. Annual Costs

	Annual Cost		Percent of Total
Component	(\$)	(\$/f t²)	(%)
Air System Fans	3,200	0.346	14.3
Cooling	684	0.074	3.1
Heating	7,098	0.768	31.8
Pumps	0	0.000	0.0
Heat Rejection Fans	0	0.000	0.0
HVAC Sub-Total	10,982	1.188	49.2
Lights	3,189	0.345	14.3
Electric Equipment	2,253	0.244	10.1
Misc. Electric	3,365	0.364	15.1
Misc. Fuel Use	2,522	0.273	11.3
Non-HVAC Sub-Total	11,329	1.225	50.8
Grand Total	22,311	2.413	100.0

Note: Cost per unit floor area is based on the gross building floor area.

Energy Consumption

2. Energy Consumption by Energy Source

Component	Site Energy (kBTU)	Site Energy (kBTU/ft²)	Source Energy (kBTU)	Source Energy (kBTU/ft²)
HVAC Components				
Electric	86,285	9.332	308,159	33.328
Natural Gas	0	0.000	0	0.000
Fuel Oil	0	0.000	0	0.000
Propane	258,362	27.942	258,362	27.942
Remote Hot Water	0	0.000	0	0.000
Remote Steam	0	0.000	0	0.000
Remote Chilled Water	0	0.000	0	0.000
HVAC Sub-Total	344,646	37.274	566,521	61.269
Non-HVAC Components				
Electric	195,556	21.149	698,414	75.534
Natural Gas	0	0.000	0	0.000
Fuel Oil	0	0.000	0	0.000
Propane	91,798	9.928	91,798	9.928
Remote Hot Water	0	0.000	0	0.000
Remote Steam	0	0.000	0	0.000
Non-HVAC Sub-Total	287,353	31.077	790,211	85.462
Grand Total	632,000	68.351	1,356,732	146.731

ANNUAL ENERGY INTENSITY 68.4 KBTU/SF OR 632,000 KBTU

NET ZERO BUILDING MODEL:

Annual Component Cost:

1. Annual Costs

	Annual Cost		Percent of Total
Component	(\$)	(\$/f t²)	(%)
Air System Fans	142	0.015	0.9
Cooling	766	0.082	4.8
Heating	4,111	0.438	25.8
Pumps	0	0.000	0.0
Heat Rejection Fans	0	0.000	0.0
HVAC Sub-Total	5,020	0.534	31.5
Lights	2,051	0.218	12.9
Electric Equipment	2,293	0.244	14.4
Misc. Electric	6,581	0.701	41.3
Misc. Fuel Use	0	0.000	0.0
Non-HVAC Sub-Total	10,926	1.163	68.5
Grand Total	15,945	1.697	100.0

Note: Cost per unit floor area is based on the gross building floor area.

Energy Consumption

2. Energy Consumption by Energy Source

Component	Site Energy (kBTU)	Site Energy (kBTU/ft²)	Source Energy (kBTU)	Source Energy (kBTU/ft²)
HVAC Components				
Electric	112,242	11.949	400,866	42.674
Natural Gas	0	0.000	0	0.000
Fuel Oil	0	0.000	0	0.000
Propane	0	0.000	0	0.000
Remote Hot Water	0	0.000	0	0.000
Remote Steam	0	0.000	0	0.000
Remote Chilled Water	0	0.000	0	0.000
HVAC Sub-Total	112,242	11.949	400,866	42.674
Non-HVAC Components				
Electric	243,638	25.937	870,135	92.631
Natural Gas	0	0.000	0	0.000
Fuel Oil	0	0.000	0	0.000
Propane	0	0.000	0	0.000
Remote Hot Water	0	0.000	0	0.000
Remote Steam	0	0.000	0	0.000
Non-HVAC Sub-Total	243,638	25.937	870,135	92.631
Grand Total	355,880	37.885	1,271,001	135.305

ANNUAL ENERGY INTENSITY 37.9 KBTU/SF OR 355,880 KBTU

Please call if you have any questions, or need more information.

Respectfully,

Engineering Services of Vermont

Daniel W. Dupras, P.E.

Mechanical Engineer, Principal

Transmitted: Via Email

1655 NORWICH ESTIMATE

Company Job Specifications

01 General Conditions						
01-21-00 Allowances						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
01-21-16.50 Contingency	OTHER	1 Each	10,000	0	10,000	
	01-2	21-00 Allowances Totals:	10,000	0	10,000	
						l
01-30-00 ADMINISTRATIVE REQIREMENTS						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
Plans & copies	MATERI	plans & copies: 1	600	0	600	
01-30-00 ADM	VINISTRATIV	REQIREMENTS Totals:	600	0	600	
01-31-00 Project Mgmt. & Coordination						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
01-31-13 Project Management and Coordination	LABOR	1 Each	15,000	0	15,000	
On-site Supervision						
01-31-13.200240 On Site Supervisor	LABOR	24 Weeks	21,600	0	21,600	
01-31-00	Project Mgm	t. & Coordination Totals:	36,600	0	36,600	
01-51-00 Temporary Utilities						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
01-51-16 Temporary Fire Protection	OTHER	Fire Protection: 1 Weeks	325	0	325	
	01-51-00 Te	mporary Utilities Totals:	325	0	325	
01-52-00 Construction Facilities						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
01-52-13 Field Offices and Sheds	OTHER	Estimate: 6 Weeks	900	0	900	
01-52-16 First Aid Facilites	OTHER	Estimate: 6 Weeks	150	0	150	
01-52-19 Sanitary Facilities	OTHER	temp.toilets: 6 Months	690	0	690	
0	1-52-00 Const	ruction Facilities Totals:	1,740	0	1,740	
01-54-00 Construction Aids						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
01-54-16.500100 All-terrain Forklift	EQUIP	3 Months	5,250	0	5,250	
01-54-19 Temporary Cranes	EQUIP	5 Days	6,000	0	6,000	
Crane and Operator						
01-54-20 Man Lift	EQUIP	3 Months	5,100	0	5,100	
01-54-23 Temp. Scaffolding & Platforms	EQUIP	15 Weeks	2,250	0	2,250	
01-54-39 Small Tools and Equipment	MATERI	1 Each	3,200	0	3,200	
	01-54-00 C	onstruction Aids Totals:	21,800	0	21,800	
01-56-26 Temporary Fencing						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
01-56-30 4 Foot Orange PerimeterFencing	LABMAT	1 Each	500	0	500	
Stakes and ties for approx. 400 lf						

August 16, 2016 1 of 9

0	1-56-26 Te	mporary Fencing Totals:	500	0	500	
01-58-13 Project Identification						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sgr Ft
01-58-13.50 Project Sign	MATERIA	1 Each	750	0	750	
, ,	-58-13 Proj	ect Identification Totals:	750	0	750	
01-74-00 Cleaning & Waste Management						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
01-74-13 Progress Cleaning		24 Weeks	2,400	0	2,400	ψ7 Oqi i t
01-74-19 Constr. Waste Mgmt. & Disposal	LABMAT		3,600	0	3,600	
Final Cleaninig		cleaning: 5000 Sq Ft	2,250	0	2,250	
	_	ste Management Totals:	8,250	0	8,250	
01-76-00 Protecting Installed Construction						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
Temp. protection of carpets & finishes	LABMAT		1,000	0	1,000	
01-76-00 Protect	ting Instal	led Construction Totals:	1,000	0	1,000	
01-80-00 PERFORMANCE REQUIREMENTS						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
01-80-10 Construction Bonding	OTHER	1 Each	12,000	0	12,000	
Bonding Cost = 18.70/1000 for first 500k, then 11.00/1000 for = 9350, plus 11.0 x 200 = 2200, total = 9350 + 2200 = 11550		700,000 job = 18.70 x 500				
		REQUIREMENTS Totals:	12,000	0	12,000	
						I
			Cost Est	Markup	Total Est	\$ / Sqr Ft
	01 Ge	neral Conditions Totals:	93,565	0	93,565	
02 Existing Conditions 02-40-00 DEMOLITION AND STRUCTURE MOVING						
	01	0 "	0 151			A / O F/
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
02-40-20 Demolish Existing Police Structure and Dispose	LABMAT	1 Each	20,000	0	20,000	\$ / Sqr Ft
02-40-20 Demolish Existing Police Structure and Dispose 02-40-25 Relocate Police Shed	LABMAT	1 Each 1 Each	20,000	0	20,000 800	\$ / Sqr Ft
02-40-20 Demolish Existing Police Structure and Dispose 02-40-25 Relocate Police Shed	LABMAT	1 Each	20,000	0	20,000	\$ / Sqr Ft
02-40-20 Demolish Existing Police Structure and Dispose 02-40-25 Relocate Police Shed	LABMAT	1 Each 1 Each	20,000	0	20,000 800	\$ / Sqr Ft
02-40-20 Demolish Existing Police Structure and Dispose 02-40-25 Relocate Police Shed	LABMAT LABMAT AND STRU	1 Each 1 Each	20,000 800 20,800	0 0	20,000 800 20,800	
02-40-20 Demolish Existing Police Structure and Dispose 02-40-25 Relocate Police Shed 02-40-00 DEMOLITION	LABMAT LABMAT AND STRU	1 Each 1 Each CTURE MOVING Totals:	20,000 800 20,800 Cost Est	0 0 0 Markup	20,000 800 20,800 Total Est	
02-40-20 Demolish Existing Police Structure and Dispose 02-40-25 Relocate Police Shed 02-40-00 DEMOLITION 03 - Concrete	LABMAT LABMAT AND STRU	1 Each 1 Each CTURE MOVING Totals:	20,000 800 20,800 Cost Est	0 0 0 Markup	20,000 800 20,800 Total Est	
02-40-20 Demolish Existing Police Structure and Dispose 02-40-25 Relocate Police Shed 02-40-00 DEMOLITION 03 - Concrete 03-30-00 CAST-IN-PLACE CONCRETE	LABMAT LABMAT AND STRU 02 Exi	1 Each 1 Each CTURE MOVING Totals: sting Conditions Totals:	20,000 800 20,800 Cost Est 20,800	0 0 0 0 Markup 0	20,000 800 20,800 Total Est 20,800	\$ / Sqr Ft
02-40-20 Demolish Existing Police Structure and Dispose 02-40-25 Relocate Police Shed 02-40-00 DEMOLITION 03 - Concrete 03-30-00 CAST-IN-PLACE CONCRETE Cost Item	LABMAT LABMAT AND STRU 02 Exi Class	1 Each 1 Each CTURE MOVING Totals: sting Conditions Totals: Quantity	20,000 800 20,800 Cost Est 20,800	0 0 0 Markup 0	20,000 800 20,800 Total Est 20,800	
02-40-20 Demolish Existing Police Structure and Dispose 02-40-25 Relocate Police Shed 02-40-00 DEMOLITION 03 - Concrete 03-30-00 CAST-IN-PLACE CONCRETE Cost Item 03-30-10 Footings	LABMAT LABMAT AND STRU 02 Exi	1 Each 1 Each CTURE MOVING Totals: sting Conditions Totals: Quantity	20,000 800 20,800 Cost Est 20,800	0 0 0 0 Markup 0	20,000 800 20,800 Total Est 20,800	\$ / Sqr Ft
02-40-20 Demolish Existing Police Structure and Dispose 02-40-25 Relocate Police Shed 02-40-00 DEMOLITION 03 - Concrete 03-30-00 CAST-IN-PLACE CONCRETE Cost Item 03-30-10 Footings Footing size = 1'-4"x10"x430lf= 17.7 = 18cuyd	LABMAT LABMAT O2 Exi Class LABMAT	1 Each 1 Each CTURE MOVING Totals: sting Conditions Totals: Quantity 18 Cu Yds	20,000 800 20,800 Cost Est 20,800 Cost Est 6,300	0 0 0 Markup 0 Markup 0	20,000 800 20,800 Total Est 20,800	\$ / Sqr Ft
02-40-20 Demolish Existing Police Structure and Dispose 02-40-25 Relocate Police Shed 02-40-00 DEMOLITION 03 - Concrete 03-30-00 CAST-IN-PLACE CONCRETE Cost Item 03-30-10 Footings Footing size = 1'-4"x10"x430lf= 17.7 = 18cuyd 03-30-15 Foundation Frost Wall	LABMAT LABMAT O2 Exi Class LABMAT	1 Each 1 Each CTURE MOVING Totals: sting Conditions Totals: Quantity	20,000 800 20,800 Cost Est 20,800	0 0 0 Markup 0	20,000 800 20,800 Total Est 20,800	\$ / Sqr Ft
02-40-20 Demolish Existing Police Structure and Dispose 02-40-25 Relocate Police Shed 02-40-00 DEMOLITION 03 - Concrete 03-30-00 CAST-IN-PLACE CONCRETE Cost Item 03-30-10 Footings Footing size = 1'-4"x10"x430lf= 17.7 = 18cuyd 03-30-15 Foundation Frost Wall 8"x4'-0"x430lf= 43cuyd	LABMAT LABMAT O2 Exi Class LABMAT LABMAT	1 Each 1 Each CTURE MOVING Totals: Sting Conditions Totals: Quantity 18 Cu Yds 43 Cu Yds	20,000 800 20,800 Cost Est 20,800 Cost Est 6,300	Markup Markup 0	20,000 800 20,800 Total Est 20,800 Total Est 6,300	\$ / Sqr Ft
02-40-20 Demolish Existing Police Structure and Dispose 02-40-25 Relocate Police Shed 02-40-00 DEMOLITION 03 - Concrete 03-30-00 CAST-IN-PLACE CONCRETE Cost Item 03-30-10 Footings Footing size = 1'-4"x10"x430lf= 17.7 = 18cuyd 03-30-15 Foundation Frost Wall 8"x4'-0"x430lf= 43cuyd 03-30-20 Interior Building Slab	LABMAT LABMAT O2 Exi Class LABMAT LABMAT	1 Each 1 Each CTURE MOVING Totals: sting Conditions Totals: Quantity 18 Cu Yds	20,000 800 20,800 Cost Est 20,800 Cost Est 6,300	0 0 0 Markup 0 Markup 0	20,000 800 20,800 Total Est 20,800	\$ / Sqr Ft
02-40-20 Demolish Existing Police Structure and Dispose 02-40-25 Relocate Police Shed 02-40-00 DEMOLITION 03 - Concrete 03-30-00 CAST-IN-PLACE CONCRETE Cost Item 03-30-10 Footings Footing size = 1'-4"x10"x430lf= 17.7 = 18cuyd 03-30-15 Foundation Frost Wall 8"x4'-0"x430lf= 43cuyd	LABMAT LABMAT O2 Exi Class LABMAT LABMAT	1 Each 1 Each CTURE MOVING Totals: Sting Conditions Totals: Quantity 18 Cu Yds 43 Cu Yds	20,000 800 20,800 Cost Est 20,800 Cost Est 6,300	Markup Markup 0	20,000 800 20,800 Total Est 20,800 Total Est 6,300	\$ / Sqr Ft

August 16, 2016 2 of 9

					1	
			Cost Est	Markup	Total Est	\$ / Sqr Ft
		03 - Concrete Totals:	46,900	0	46,900	
05 - Metals						
05-12-00 Structural Steel Framing						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
05-12-20 Structural Steel for Building	MATERI	1 Each	1,290	0	1,290	
30 foot I-Beam to carry truss load. Capitol Steel quote 32 foot W14-43 with 2 HSS 5"x5"x1	0' steel post					
05-12-23 On Site Fabrication	LABMAT	1 Each	300	0	300	
Flange welding, post plates, nuts and bolts	•					
05-12-25 I-Beam Installation	LABOR	8 Hours	320	0	320	
4 men / 2 hrs @ 45/hr, machinery included in overhead	l .	l			l .	I.
0.5	5-12-00 Structu	ral Steel Framing Totals:	1,910	0	1,910	
			I.		L	I
			Cost Est	Markup	Total Est	\$ / Sqr Ft
		05 - Metals Totals:	1,910	0	1,910	
					•	
06 - Wood, Plastics, and Composites						
06-10-00 ROUGH CARPENTRY						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ff
06-10-10 Rough Shell Framing Material	MATERI	1 Each	15,225	0	15,225	
2x8x12' Construction ext walls. Upper and lower plates, (8220)2x4x12 Interior partitions (7022)	studs,jacks, co	rners,headers				
06-10-20 Rough Shell Framing / Build and Set Ext & IntV	Valls LABOR	384 Hours	15,360	0	15,360	
06-10-25 Miscelleneous Blocking and Framing	MATERI	1 Each	2,000	0	2,000	
Backing for cabinets and accessories 2x6,2x8 etc.	l .	l			l .	I.
06-10-26 Misc Framing Installation	LABOR	40 Hours	1,600	0	1,600	
06-10-35 Rake Overhang and Jett Work Material	MATERI	1 Each	2,500	0	2,500	
06-10-40 Frame Rake Overhang and Jettwork	LABOR	64 Hours	2,560	0	2,560	
	06-10-00 ROU	GH CARPENTRY Totals:	39,245	0	39,245	
					l	I.
06-16-00 Sheathing						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr F
06-16-10 Zip Sheathing Wall	MATERI	206 Each	4,944	0	4,944	
Walls and Gables with 12' wall height 06	•				•	
06-16-12 Wall Sheathing Installation	LABOR	96 Hours	3,840	0	3,840	
Install sheathing and cut out windows and doors. 4 mer	3 days = 60 sh	eets/day		L	<u>I</u>	<u>I</u>
06-16-20 Roof Sheathing	MATERI	275 Each	8,814	0	8,814	
5/8th T&G zip roof	l .	l			l .	I.
06-16-21 Roof Sheathing Installation Labor	LABOR	128 Hours	5,120	0	5,120	
06-16-22 Zip Tape	MATERI	32 Rolls	960	0	960	
			23,678	0	23,678	
	06	-16-00 Sheathing Totals:	23,070	-		
	06	-16-00 Sheathing Totals:	23,076		l .	
06-17-00 Shop-Fabricated Structural Wood	06	-16-00 Sheathing Totals:	23,076			
06-17-00 Shop-Fabricated Structural Wood Cost Item	Class	-16-00 Sheathing Totals: Quantity	Cost Est	Markup	Total Est	\$ / Sqr F
*		Quantity		Markup 0	Total Est	\$ / Sqr F
Cost Item	Class	Quantity	Cost Est	•		\$ / Sqr F
Cost Item 06-17-15 Wood Trusses 8/12 Pitch	Class MATERI	Quantity 1 Each	Cost Est 22,500	0	22,500	\$ / Sqr Ff

August 16, 2016 3 of 9

06-41-00 Architectural Wood Casework						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
06-41-10 Window Extension Jambs and Sills	MATERIA	1 Each	765	0	765	
1x6 Sill 135lf @ 1.81 = 245, 1x4 extension jamb 460lf @ 1.	13 = 520					
06-41-12 Office Door Sidelite Frames and Roll-Up Door	MATERIA	356 Linear Ft	644	0	644	
1x6 jamb stock						
06-41-14 Door and Sidelite Casing	MATERIA	1092 Linear Ft	1,234	0	1,234	
12 Doors with sidelites,552lf 15 doors without sidelites, 540lf						
06-41-20 1x4 Window Trim	MATERIA	590 Linear Ft	667	0	667	
22lf x 27 window units						
06-41-22 Misc Wood Trim	MATERIA	275 Linear Ft	311	0	311	
06-41-23 Misc Woodwork Install	LABOR	20 Hours	800	0	800	
Allow 20hrs						
06-41-50 Install Interior Trim	LABOR	160 Hours	6,400	0	6,400	
2 men 10 days	1	1				
06-41-00 Aı	rchitectural	Wood Casework Totals:	10,821	0	10,821	
			·			
06-47-00 Exterior Wood Trim						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
06-47-11 Hardi-Panel Soffit	MATERIA	1167 Linear Ft	1,937	0	1,937	
06-47-12 Labor to Install Hardi Soffit	LABOR	64 Hours	2,560	0	2,560	
2m/4days						
06-47-13 5/4x4 Fascia Shadow	MATERIA	50 Each	2,100	0	2,100	
06-47-14 Fascia, Frieze, Bottom Board	MATERIA	104 Each	14,664	0	14,664	
5/4x12x20						
06-47-15 Install 5/4x12 Fascia, Frez and 5/4x12 Bottom Board	d LABOR	240 Hours	9,600	0	9,600	
3 men 10 days = 240hrs	•					
06-47-30 Historic Sill, Corner, Door and Window Trim	MATERIA	1 Each	4,117	0	4,117	
Sill 420 If @5.05 =2121, Corner 5/4x8x20 9pcs @ 91.10 = 8 28 @ 42=1176	320, Window	and Door Trim 5/4x4x20				
06-47-51 Install Sill, Corners, Window and Door Trim	LABOR	168 Hours	6,720	0	6,720	
06-47-85 Drainage Plain - Weather Trak 5X200	MATERIA	6 Rolls	834	0	834	
(06-47-00 Ex	terior Wood Trim Totals:	42,532	0	42,532	
			1			
			Cost Est	Markup	Total Est	\$ / Sqr Ft
06 - Woo	d, Plastics,	and Composites Totals:	142,616	0	142,616	
07 - Thermal and Moisture Protection						
07-20-00 THERMAL PROTECTION						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
07-20-10 Rigid Foundation Insulation	MATERIA	55 Each	2,255	0	2,255	
2"x4'x8' XPS Insulation Board						
07-20-15 1" Rigid Foundation Board	MATERIA	9 Each	193	0	193	
07-20-20 Foundation Insulation Install	LABOR	24 Hours	960	0	960	
07-20-25 Miscellaneaous Can Foam	LABMAT		320	0	320	
07-20-	-00 THERM	AL PROTECTION Totals:	3,728	0	3,728	
07-21-00 Thermal Insulation						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
07-21-10 Thermal Envelope	LABMAT	1 Each	18,000	0	18,000	

As specified for 2x8x12 framing, Cellulose in wall with vapor ceiling.	barrier with	15" cellulose blown in over				
07-21-11 Interior Sound Attenuation	LABOR	1 Each	3,000	0	3,000	
between wall sound attenuation insulation. Estimate of pote	ential quote			<u> </u>		<u>I</u>
·	•	nermal Insulation Totals:	21,000	0	21,000	
						I
07-30-00 STEEP SLOPE ROOFING						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
07-30-10 Roofing Prep	LABOR	64 Hours	2,560	0	2,560	
Install drip edge, ice and water shield, roofing paper					l .	
07-30-12 Grace Ice and Water	MATERIA	8 Rolls	1,160	0	1,160	
07-30-14 Tri-Flex Roof Paper	MATERIA	7 Rolls	840	0	840	
07-30-20 Asphalt Shingle Roofing	MATERIA	84 Roofing Sqr	7,140	0	7,140	
30yr Architecturals	I					I.
07-30-25 Roofing Installation	LABOR	240 Hours	9,600	0	9,600	
-	00 STEEP S	SLOPE ROOFING Totals:	21,300	0	21,300	
			1		1	ı
07-46-00 Siding						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
07-46-26 Hardboard Clapboard Siding	MATERIA	1926 Sq Ft	7,993	0	7,993	
07-46-30 Hardie Shingle Board Siding	MATERIA	3311 Sq Ft	12,681	0	12,681	
07-46-35 Siding Installation	LABOR	360 Each	14,400	0	14,400	
3 men 15 days		l			I.	l .
		07-46-00 Siding Totals:	35,074	0	35,074	
		•				
07-60-00 FLASHING & SHEET METAL						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
07-60-10 Roof Drip Edge	MATERIA	50 Each	600	0	600	
07-60-20 Exterior Window, Door and Trim Flashing	LABOR	2 Each	250	0	250	
Aluminum Coil Stock 2'x50' oll	•				•	•
07-60-25 Fabricate and Install Flashing	LABOR	8 Hours	320	0	320	
1man 1 day		<u> </u>			I.	l .
07-60-00 F	LASHING	& SHEET METAL Totals:	1,170	0	1,170	
						l
			Cost Est	Markup	Total Est	\$ / Sqr Ft
07 - Therr	nal and Mo	isture Protection Totals:	82,272	0	82,272	
					I	I.
08 - Openings						
08-16-00 Composite Doors						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
08-16-10 Fiberglass Entry Doors with Transom and Sidelite	MATERIA		3,886	0	3,886	
On double unit 6068 and two single units 3068					<u> </u>	1
08-16-11 Fiberglass Entry Unit with no Transom or Sidelite	MATERIA	1 Each	677	0	677	
1 unit 3068						l .
08-16-20 Exterior Door Installation	LABOR	8 Hours	320	0	320	
08-16-26 Exterior Door Hardware Installation	LABOR	8 Hours	320	0	320	
08-16-30 Interior Solid Core Masonite Doors		27 Each	4,725	0	4,725	
	(1 = 1 (1)	1	1,720		1,720	<u> </u>
3068 2x4 wall prehung door			1			
3068 2x4 wall prehung door 08-16-31 Interior Door Hardware	MATERI	27 Each	2,295	0	2,295	

August 16, 2016 5 of 9

08-16-32 Interior Door Hardware Installation	LABOR	16 Hours	640	0	640	
	08-16-00	Composite Doors Totals:	12,863	0	12,863	
08-30-00 SPECIALTY DOORS & FRAMES						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
08-30-10 Police Garage Door	LABMAT	1 Each	2,500	0	2,500	
9090 with track and opener, insulated no glass						
08-30-0	0 SPECIALTY DO	OORS & FRAMES Totals:	2,500	0	2,500	
08-33-00 Coiling Doors & Grilles						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
08-33-10 Roll-up Aluminum Pass-thru Door	LABMAT	1 Each	2,900	0	2,900	
Unit 8040						
	08-33-00 Coilin	g Doors & Grilles Totals:	2,900	0	2,900	
08-54-00 Composite Windows						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
08-54-20 Fiberglass Windows	MATERI	23 Each	25,300	0	25,300	
Marvin Integrity with transom as specified.						
08-54-25 Window Installation Prep	LABMAT	23 Each	1,495	0	1,495	
Flexible flashing and tape. 45.00 material 20 labor each	ch					
08-54-30 Window Installation	LABOR	24 Hours	960	0	960	
3 men 1 day						
3 men 1 day	08-54-00 Cor	nposite Windows Totals:	27,755	0	27,755	
3 men 1 day	08-54-00 Cor	nposite Windows Totals:	27,755	0	27,755	
3 men 1 day	08-54-00 Cor	nposite Windows Totals:	27,755 Cost Est	0 Markup	27,755 Total Est	\$ / Sqr Ft
3 men 1 day	08-54-00 Cor	nposite Windows Totals: 08 - Openings Totals:				\$ / Sqr Ft
3 men 1 day	08-54-00 Cor		Cost Est	Markup	Total Est	\$ / Sqr Ft
3 men 1 day 09 - Finishes	08-54-00 Con		Cost Est	Markup	Total Est	\$ / Sqr Ft
	08-54-00 Cor		Cost Est	Markup	Total Est	\$ / Sqr Ft
09 - Finishes	08-54-00 Con		Cost Est	Markup	Total Est	
09 - Finishes 09-29-00 Gypsum Board	Class	08 - Openings Totals:	Cost Est 46,018	Markup 0	Total Est 46,018	
09 - Finishes 09-29-00 Gypsum Board Cost Item	Class LABMAT	08 - Openings Totals: Quantity	Cost Est 46,018 Cost Est	Markup 0	Total Est 46,018 Total Est	
09 - Finishes 09-29-00 Gypsum Board Cost Item	Class LABMAT	08 - Openings Totals: Quantity 19400 Sq Ft	Cost Est 46,018 Cost Est 27,160	Markup 0 Markup	Total Est	
09 - Finishes 09-29-00 Gypsum Board Cost Item	Class LABMAT	08 - Openings Totals: Quantity 19400 Sq Ft	Cost Est 46,018 Cost Est 27,160	Markup 0 Markup	Total Est	
09 - Finishes 09-29-00 Gypsum Board Cost Item 09-29-20 Wall Board Installation	Class LABMAT	08 - Openings Totals: Quantity 19400 Sq Ft	Cost Est 46,018 Cost Est 27,160	Markup 0 Markup	Total Est	\$ / Sqr Ft
09 - Finishes 09-29-00 Gypsum Board Cost Item 09-29-20 Wall Board Installation	Class LABMAT 09-29-0	Quantity 19400 Sq Ft 0 Gypsum Board Totals:	Cost Est 46,018 Cost Est 27,160 27,160	Markup 0 Markup 0 0 0	Total Est 46,018 Total Est 27,160 27,160	\$ / Sqr Ft
09 - Finishes 09-29-00 Gypsum Board Cost Item 09-29-20 Wall Board Installation 09-31-00 Thin-Set Tiling Cost Item	Class LABMAT 09-29-0 Class LABMAT	Quantity 19400 Sq Ft 0 Gypsum Board Totals: Quantity 1166 Sq Ft	Cost Est 46,018 Cost Est 27,160 27,160 Cost Est	Markup Markup 0 Markup 0 Markup	Total Est	\$ / Sqr Ft
09 - Finishes 09-29-00 Gypsum Board Cost Item 09-29-20 Wall Board Installation 09-31-00 Thin-Set Tiling Cost Item 09-31-01 Tile Allowance - Installed	Class LABMAT 09-29-0 Class LABMAT	Quantity 19400 Sq Ft 0 Gypsum Board Totals: Quantity 1166 Sq Ft	Cost Est 46,018 Cost Est 27,160 27,160 Cost Est	Markup Markup 0 Markup 0 Markup	Total Est	\$ / Sqr Ft
09 - Finishes 09-29-00 Gypsum Board Cost Item 09-29-20 Wall Board Installation 09-31-00 Thin-Set Tiling Cost Item 09-31-01 Tile Allowance - Installed	Class LABMAT 09-29-0 Class LABMAT	Quantity 19400 Sq Ft O Gypsum Board Totals: Quantity 1166 Sq Ft	Cost Est 46,018 Cost Est 27,160 27,160 Cost Est 17,490	Markup 0 Markup 0 Markup 0 Markup 0	Total Est	\$ / Sqr Ft
09 - Finishes 09-29-00 Gypsum Board Cost Item 09-29-20 Wall Board Installation 09-31-00 Thin-Set Tiling Cost Item 09-31-01 Tile Allowance - Installed	Class LABMAT 09-29-0 Class LABMAT and corridor 366 09-31-0	Quantity 19400 Sq Ft O Gypsum Board Totals: Quantity 1166 Sq Ft	Cost Est 46,018 Cost Est 27,160 27,160 Cost Est 17,490	Markup 0 Markup 0 Markup 0 Markup 0	Total Est	\$ / Sqr Ft
09 - Finishes 09-29-00 Gypsum Board Cost Item 09-29-20 Wall Board Installation 09-31-00 Thin-Set Tiling Cost Item 09-31-01 Tile Allowance - Installed 464sqft wall +336 bath and toilet floor + Fire day room	Class LABMAT 09-29-0 Class LABMAT and corridor 366 09-31-0	Quantity 19400 Sq Ft O Gypsum Board Totals: Quantity 1166 Sq Ft	Cost Est 46,018 Cost Est 27,160 27,160 Cost Est 17,490	Markup 0 Markup 0 Markup 0 Markup 0	Total Est	\$ / Sqr Ft
09 - Finishes 09-29-00 Gypsum Board Cost Item 09-29-20 Wall Board Installation 09-31-00 Thin-Set Tiling Cost Item 09-31-01 Tile Allowance - Installed 464sqft wall +336 bath and toilet floor + Fire day room	Class LABMAT 09-29-0 Class LABMAT and corridor 366 09-31-0 cmblies Class	Quantity 19400 Sq Ft 0 Gypsum Board Totals: Quantity 1166 Sq Ft	Cost Est 46,018 Cost Est 27,160 27,160 Cost Est 17,490 17,490	Markup 0 Markup 0 Markup 0 0	Total Est 46,018 Total Est 27,160 27,160 Total Est 17,490	\$ / Sqr Ft
09 - Finishes 09-29-00 Gypsum Board Cost Item 09-29-20 Wall Board Installation 09-31-00 Thin-Set Tiling Cost Item 09-31-01 Tile Allowance - Installed 464sqft wall +336 bath and toilet floor + Fire day room 09-53-00 Acoustical Ceiling Suspension Asse Cost Item 09-53-20 Suspended Ceiling Tile and Grid System	Class LABMAT 09-29-0 Class LABMAT and corridor 366 09-31-0 mblies Class LABMAT	Quantity 19400 Sq Ft 0 Gypsum Board Totals: Quantity 1166 Sq Ft O Thin-Set Tiling Totals: Quantity Quantity	Cost Est 46,018 Cost Est 27,160 27,160 Cost Est 17,490 17,490 Cost Est	Markup 0 Markup 0 Markup 0 0 Markup 0 Markup	Total Est	\$ / Sqr Ft
09 - Finishes 09-29-00 Gypsum Board Cost Item 09-29-20 Wall Board Installation 09-31-00 Thin-Set Tiling Cost Item 09-31-01 Tile Allowance - Installed 464sqft wall +336 bath and toilet floor + Fire day room 09-53-00 Acoustical Ceiling Suspension Asse Cost Item 09-53-20 Suspended Ceiling Tile and Grid System	Class LABMAT 09-29-0 Class LABMAT and corridor 366 09-31-0 mblies Class LABMAT	Quantity 19400 Sq Ft Ogypsum Board Totals: Quantity 1166 Sq Ft Oguntity Quantity Quantity 4215 Each	Cost Est 46,018 Cost Est 27,160 27,160 Cost Est 17,490 17,490 Cost Est 16,860	Markup 0 Markup 0 0 Markup 0 Markup 0 Markup 0	Total Est	\$ / Sqr Ft
09 - Finishes 09-29-00 Gypsum Board Cost Item 09-29-20 Wall Board Installation 09-31-00 Thin-Set Tiling Cost Item 09-31-01 Tile Allowance - Installed 464sqft wall +336 bath and toilet floor + Fire day room 09-53-00 Acoustical Ceiling Suspension Asse Cost Item 09-53-20 Suspended Ceiling Tile and Grid System	Class LABMAT 09-29-0 Class LABMAT and corridor 366 09-31-0 mblies Class LABMAT	Quantity 19400 Sq Ft Ogypsum Board Totals: Quantity 1166 Sq Ft Oguntity Quantity Quantity 4215 Each	Cost Est 46,018 Cost Est 27,160 27,160 Cost Est 17,490 17,490 Cost Est 16,860	Markup 0 Markup 0 0 Markup 0 Markup 0 Markup 0	Total Est	\$ / Sqr Ft
09 - Finishes 09-29-00 Gypsum Board Cost Item 09-29-20 Wall Board Installation 09-31-00 Thin-Set Tiling Cost Item 09-31-01 Tile Allowance - Installed 464sqft wall +336 bath and toilet floor + Fire day room 09-53-00 Acoustical Ceiling Suspension Asse Cost Item 09-53-20 Suspended Ceiling Tile and Grid System 09-53-00 Acoustical	Class LABMAT 09-29-0 Class LABMAT and corridor 366 09-31-0 mblies Class LABMAT	Quantity 19400 Sq Ft Ogypsum Board Totals: Quantity 1166 Sq Ft Oguntity Quantity Quantity 4215 Each	Cost Est 46,018 Cost Est 27,160 27,160 Cost Est 17,490 17,490 Cost Est 16,860	Markup 0 Markup 0 0 Markup 0 Markup 0 Markup 0	Total Est	\$ / Sqr Ft \$ / Sqr Ft
09 - Finishes 09-29-00 Gypsum Board Cost Item 09-29-20 Wall Board Installation 09-31-00 Thin-Set Tiling Cost Item 09-31-01 Tile Allowance - Installed 464sqft wall +336 bath and toilet floor + Fire day room 09-53-00 Acoustical Ceiling Suspension Asse Cost Item 09-53-20 Suspended Ceiling Tile and Grid System 09-53-00 Acoustical 09-65-00 Resilient Flooring	Class LABMAT 09-29-0 Class LABMAT n and corridor 366 09-31-0 mblies Class LABMAT al Ceiling Susper	Quantity 19400 Sq Ft 0 Gypsum Board Totals: Quantity 1166 Sq Ft Quantity 1165 Sq Ft Quantity 4215 Each sion Assemblies Totals:	Cost Est 46,018 Cost Est 27,160 27,160 Cost Est 17,490 17,490 Cost Est 16,860 16,860	Markup 0 Markup 0 0 Markup 0 Markup 0 0	Total Est	

August 16, 2016 6 of 9

09-68-00 Carpeting						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
09-68-10 Carpet Tile	LABMAT	2925 Sq Ft	11,700	0	11,700	
09-68-20 Carpet Tile Entrance Mat	LABMAT	200 Sq Ft	1,200	0	1,200	
	09	9-68-00 Carpeting Totals:	12,900	0	12,900	
00 04 00 Painting						
09-91-00 Painting Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
09-91-30 Interior Painting	LABMAT	Quantity	21,000	o Iviai Kup	21,000	φ/ Sqi i t
09-91-30 Interior Familing		ା ଅଧିକା 09-91-00 Painting Totals:	21,000	0	21,000	
			Cost Est	Markup	Total Est	\$ / Sqr Ft
		09 - Finishes Totals:	97,265	0	97,265	
10 - Specialties						
10-14-00 Signage						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
10-14-20 Room Signage	LABMAT		1,800	0	1,800	ψ / Oqi / t
10-14-50 Location Identification Sign	LABMAT		900	0	900	
		10-14-00 Signage Totals:	2,700	0	2,700	
10-28-00 Toilet, Bath & Laundry Accessories					,	
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
10-28-13 Toilet Accessories	LABMAT		3,685	0	3,685	
10-28-00	Toilet, Bath & Laun	ndry Accessories Totals:	3,685	0	3,685	
10-44-00 Fire Protection Specialties						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
10-44-10 Fire Extinguisher Cabinets	LABMAT	4 Each	1,400	0	1,400	
4						
	10-44-00 Fire Prote	ction Specialties Totals:	1,400	0	1,400	
10-51-00 Lockers		T	T 1			T
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
10-51-10 Police Lockers		12 Each	5,400	0	5,400	
10-51-25 Coat Racks 10-51-30 Installation of Racks and Lockers	MATERIA LABOR	2 Each 16 Hours	300 640	0	300 640	
10-51-30 Installation of Racks and Lockers		10-51-00 Lockers Totals:	6,340	0	6,340	
			,			1
			Cost Est	Markup	Total Est	\$ / Sqr Ft
		10 - Specialties Totals:	14,125	0	14,125	
11 - Equipment						
11-26-00 Unit Kitchens		0	04-5-1	NA	T-4-1-5 :	0.10 5:
Cost Item 11.26-10 Appliance Allowance Al	Class LABOR	Quantity 1 Each	Cost Est	Markup 0	Total Est	\$ / Sqr Ft
11-26-10 Appliance Allowance AL Range/Oven (900), Dishwasher (450), Disposal(15			4,000		4,000	
Hood.(125)	,, reingerator/Fre	ezei (1000), Kalige				
	11-26-		4,000	0	4,000	

August 16, 2016 7 of 9

			Cost Est	Markup	Total Est	\$ / Sqr Ft
		11 - Equipment Totals:	4,000	0	4,000	
12 - Furnishings						
12-30-00 CASEWORK						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
12-30-20 Miscelleneaous Cabinetry and Countertops	LABMAT	1 Each	20,000	0	20,000	
	12-30	0-00 CASEWORK Totals:	20,000	0	20,000	
			ı			1
			Cost Est	Markup	Total Est	\$ / Sqr Ft
		12 - Furnishings Totals:	20,000	0	20,000	
13 - Special Construction						
13-36-00 Towers	_		T	•	1	1
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
13-36-00 Communication Tower AL	LABMAT		11,000	0	11,000	
35 foot tower for communication equipment with concrete ba	se, no wirir	<u>-</u>			ı	1
		13-36-00 Towers Totals:	11,000	0	11,000	
			Cost Est	Markup	Total Est	\$ / Sqr Ft
	13 - Spe	cial Construction Totals:	11,000	0	11,000	
21 - Fire Suppression						
21-10-00 WATER-BASED FIRE-SUPPRESSION SYS	TEMS					
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
21-10-10 Within the Structure Sprinkler System	LABMAT	1 Each	23,000	0	23,000	
Water Tap and Feed from Street included in Site.					1	T
21-10-00 WATER-BASED FIRE	-SUPPRE	SSION SYSTEMS Totals:	23,000	0	23,000	
						1
			Cost Est	Markup	Total Est	\$ / Sqr Ft
	21 -	Fire Suppression Totals:	23,000	0	23,000	
22 - Plumbing						
22-00-00 PLUMBING		I	ı		1	1
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
22-55-10 Plumbing Rough and Finish	LABMAT		35,000	0	35,000	
	22-0	00-00 PLUMBING Totals:	35,000	0	35,000	
			Cost Fat	Montain	Total Fat	¢ / C~- 54
		22 Dlumbing Totals	35,000	Markup 0	Total Est 35,000	\$ / Sqr Ft
		22 - Plumbing Totals:	35,000	L 0	35,000]
22 Hooting Ventilating and Air Canditioning						
23 - Heating, Ventilating, and Air Conditioning		/AO\				
23-00-00 HEATING, VENTILATING, & AIR-CONDITIO		, , , , , , , , , , , , , , , , , , ,	0 15 1		T	0.0 =:
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
23-00-01 HVAC -Hot Water Baseboard Heating	LABMAT	1 Each	39,000	0	39,000	
12 zones	1	1,- ,	.=			ı
23-10-20 HVAC - AC	LABMAT	1 Each	45,000	0	45,000	
Ducted Central Air System above suspended ceiling					ı	1
23-00-00 HEATING, VENTILATING, & A	AIR-CONDI	TIONING (HVAC) Totals:	84,000	0	84,000	

August 16, 2016 8 of 9

			Cost Est	Markup	Total Est	\$ / Sqr Ft
23 - Hea	ting, Ventilating, and	Air Conditioning Totals:	84,000	0	84,000	
26 - Electrical						
26-00-00 ELECTRICAL						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
26-00-00 Electrical Subcontract	LABMAT	1 Each	43,000	0	43,000	
26-00-50 Fire Alarm System	LABMAT	1 Each	9,000	0	9,000	
26-00-90 Exterior Light Fixture Allowance	MATERI	1 Each	8,500	0	8,500	
	26-00	-00 ELECTRICAL Totals:	60,500	0	60,500	
			Cost Est	Markup	Tatal Cat	\$ / Sqr Ft
			Cost Est	Markup	Total Est	\$ / Sqi Ft
		26 - Electrical Totals:	60,500	Warkup 0	60,500	\$ / Sqi Fi
		26 - Electrical Totals:		•		∌/Sqi Ft
32 - Exterior Improvements		26 - Electrical Totals:		•		\$7 Sqi Ft
32 - Exterior Improvements 32-00-00 EXTERIOR IMPROVEMENTS		26 - Electrical Totals:		•		\$7 SQI FL
•	Class	26 - Electrical Totals: Quantity		•		
32-00-00 EXTERIOR IMPROVEMENTS	Class LABOR		60,500	0	60,500	
32-00-00 EXTERIOR IMPROVEMENTS Cost Item		Quantity	60,500 Cost Est	0 Markup	60,500 Total Est	
32-00-00 EXTERIOR IMPROVEMENTS Cost Item 32-00-10 Landscaping and Plantings	LABOR	Quantity	60,500 Cost Est	0 Markup	60,500 Total Est	
32-00-00 EXTERIOR IMPROVEMENTS Cost Item 32-00-10 Landscaping and Plantings	LABOR	Quantity 1 Each	60,500 Cost Est 3,500	Markup	60,500 Total Est 3,500	\$ / Sqr Ft
32-00-00 EXTERIOR IMPROVEMENTS Cost Item 32-00-10 Landscaping and Plantings	LABOR	Quantity 1 Each	60,500 Cost Est 3,500	Markup	60,500 Total Est 3,500	
32-00-00 EXTERIOR IMPROVEMENTS Cost Item 32-00-10 Landscaping and Plantings	LABOR 32-00-00 EXTERIOR	Quantity 1 Each	60,500 Cost Est 3,500 3,500	Markup 0	Total Est 3,500	\$ / Sqr Ft
32-00-00 EXTERIOR IMPROVEMENTS Cost Item 32-00-10 Landscaping and Plantings	LABOR 32-00-00 EXTERIOR	Quantity 1 Each	Cost Est 3,500 3,500 Cost Est	Markup 0 Markup	Total Est 3,500 3,500 Total Est	\$ / Sqr Ft
32-00-00 EXTERIOR IMPROVEMENTS Cost Item 32-00-10 Landscaping and Plantings	LABOR 32-00-00 EXTERIOR	Quantity 1 Each	Cost Est 3,500 3,500 Cost Est	Markup 0 Markup	Total Est 3,500 3,500 Total Est	\$ / Sqr Ft

August 16, 2016 9 of 9

1655 NORWICH ESTIMATE NET ZERO OPTION

Company Job Specifications

01 General Conditions						
01-21-00 Allowances	C	0	01	N4!	T-4-1 = 1	0.10 =
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr F
01-21-16.50 Contingency	OTHER	1 Each	10,000	0	10,000	
	01-2	21-00 Allowances Totals:	10,000	0	10,000	
01-30-00 ADMINISTRATIVE REQIREMENTS		Τ				
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr F
Plans & copies		plans & copies: 1	600	0	600	
01-30-00 AD	DMINISTRATIVI	REQIREMENTS Totals:	600	0	600	
01-31-00 Project Mgmt. & Coordination						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr F
01-31-13 Project Management and Coordination	LABOR	1 Each	15,000	o Iviai Kup	15,000	φ / Sqi i
On-site Supervision	LADUR	I Lacii	13,000	0	13,000	
· ·	LABOR	24 Weeks	21 600	0	21,600	
01-31-13.200240 On Site Supervisor	LABOR	t. & Coordination Totals:	21,600 36,600	0	36.600	
01-31-0	u Project Wgm	i. & Coordination Totals:	30,000	U	36,600	
01-51-00 Temporary Utilities						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr F
01-51-16 Temporary Fire Protection	OTHER	Fire Protection: 1 Weeks	325	0	325	Ψ7 Oqi i
01-31-10 Temporary Fire Frotection		mporary Utilities Totals:	325	0	325	
	01-51-00 16	imporary offitties rotals.	323	U	323	
01-52-00 Construction Facilities						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr F
01-52-13 Field Offices and Sheds	OTHER	Estimate: 6 Weeks	900	o Iviai Kup	900	φ / 3qi i
01-52-16 First Aid Facilities	OTHER	Estimate: 6 Weeks	150	0	150	
01-52-19 Sanitary Facilities	OTHER	'	690	0	690	
	01-52-00 Const	ruction Facilities Totals:	1,740	0	1,740	
01-54-00 Construction Aids						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr F
01-54-16.500100 All-terrain Forklift	EQUIP	3 Months	5,250	0	5,250	•
01-54-19 Temporary Cranes	EQUIP	5 Days	6,000	0	6,000	
Crane and Operator			2,000		2,000	
01-54-20 Man Lift	EQUIP	3 Months	5,100	0	5,100	
01-54-23 Temp. Scaffolding & Platforms	EQUIP	15 Weeks	2,250	0	2,250	
01-54-39 Small Tools and Equipment	MATERI		3,200	0	3,200	
2. 2. 2. 2. C.	l .	onstruction Aids Totals:	21,800	0	21,800	
			2.,000		1 -1,000	
01-56-26 Temporary Fencing						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr F
01-56-30 4 Foot Orange PerimeterFencing	LABMAT	•	500	0	500	•
Stakes and ties for approx. 400 lf		l .			L	

August 17, 2016 1 of 10

0	01-56-26 Temporary Fencing Totals					
<u> </u>		,,	500	0	500	<u>I</u>
01-58-13 Project Identification						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
01-58-13.50 Project Sign	MATERI	1 Each	750	0	750	
	-58-13 Proj	ect Identification Totals:	750	0	750	
01-74-00 Cleaning & Waste Management	_					
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
01-74-13 Progress Cleaning	LABMAT	24 Weeks	2,400	0	2,400	
01-74-19 Constr. Waste Mgmt. & Disposal	LABMAT	4 Each	3,600	0	3,600	
Final Cleaninig		cleaning: 5000 Sq Ft	2,250	0	2,250	
01-74-00 Clea	ining & Wa	ste Management Totals:	8,250	0	8,250	
04.70.00 Protecting Installed Constitution						
01-76-00 Protecting Installed Construction	01-	0	045	N 4!	T-4-15 (0.0 5
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
Temp. protection of carpets & finishes	LABMAT		1,000	0	1,000	
U1-/6-UU Protec	ung instal	lled Construction Totals:	1,000	0	1,000	<u> </u>
01-80-00 PERFORMANCE REQUIREMENTS						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
01-80-10 Construction Bonding	OTHER	1 Each	12,000	Warkup 0	12,000	φ/ Oqi i-t
Bonding Cost = 18.70/1000 for first 500k, then 11.00/1000 for			12,000	- 0	12,000	<u> </u>
= 9350, plus 11.0 x 200 = 2200, total = 9350 + 2200 = 11550						
01-80-00 PERFC	RMANCE	REQUIREMENTS Totals:	12,000	0	12,000	
			Cost Est	Markup	Total Est	\$ / Sqr Ft
	01 Ge	neral Conditions Totals:	93,565	0	93,565	
02 Existing Conditions						
02-40-00 DEMOLITION AND STRUCTURE MOVING	•					
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
02-40-20 Demolish Existing Police Structure and Dispose	LABMAT		20,000	0	20,000	
02-40-25 Relocate Police Shed	LABMAT		800	0	800	
02-40-00 DEMOLITION	AND STRU	JCTURE MOVING Totals:	20,800	0	20,800	
			0-151	N4- 1	T-4 15 1	0.40 =
	00 5	lether Or wellther Tetaler	Cost Est	Markup	Total Est	\$ / Sqr Ft
	U2 EX	isting Conditions Totals:	20,800	0	20,800	
102 Conorete						
03 - Concrete						
03-30-00 CAST-IN-PLACE CONCRETE	Class	Quantity	Cost Fat	Mentor	Total Cat	¢ / 0~~ 5:
Cost Item 03-30-10 Footings	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
LUG-GU-TU FOODIOS	A H (// A	18 Cu Yds	6,300	0	6,300	
	LADIVIAT	L				
Footing size = 1'-4"x10"x430lf= 17.7 = 18cuyd		42 Cu Vd-	45.050	^	45.050	<u> </u>
Footing size = 1'-4"x10"x430lf= 17.7 = 18cuyd 03-30-15 Foundation Frost Wall		43 Cu Yds	15,050	0	15,050	
Footing size = 1'-4"x10"x430lf= 17.7 = 18cuyd 03-30-15 Foundation Frost Wall 8"x4'-0"x430lf= 43cuyd	LABMAT		,		<u>'</u>	
Footing size = 1'-4"x10"x430lf= 17.7 = 18cuyd 03-30-15 Foundation Frost Wall 8"x4'-0"x430lf= 43cuyd 03-30-20 Interior Building Slab	LABMAT	43 Cu Yds 73 Cu Yds	15,050 25,550	0	15,050 25,550	
Footing size = 1'-4"x10"x430lf= 17.7 = 18cuyd 03-30-15 Foundation Frost Wall 8"x4'-0"x430lf= 43cuyd	LABMAT		,		<u>'</u>	
Footing size = 1'-4"x10"x430lf= 17.7 = 18cuyd 03-30-15 Foundation Frost Wall 8"x4'-0"x430lf= 43cuyd 03-30-20 Interior Building Slab Area= 30x81=2430,+ 30x23=690,+ 33x73=2409,+ 33x16=52 Total 6057 x .333= 75cuyd less 2 cuyd shelf = 73 cuyd	LABMAT		,		<u>'</u>	

August 17, 2016 2 of 10

		• • • • • •	Cost Est	Markup	Total Est	\$ / Sqr Ft
		03 - Concrete Totals:	46,900	0	46,900	
05 - Metals						
05-12-00 Structural Steel Framing						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
05-12-20 Structural Steel for Building	MATERIA	1 Each	1,290	0	1,290	
30 foot I-Beam to carry truss load. Capitol Steel quote 32 foot W14-43 with 2 HSS 5"x5"x10'	' steel post					
05-12-23 On Site Fabrication	LABMAT	1 Each	300	0	300	
Flange welding, post plates, nuts and bolts						
05-12-25 I-Beam Installation	LABOR	8 Hours	320	0	320	
4 men / 2 hrs @ 45/hr, machinery included in overhead	<u> </u>					
	12-00 Structu	ral Steel Framing Totals:	1,910	0	1,910	
			.,0.0		.,	
			Cost Est	Markup	Total Est	\$ / Sqr Ft
		05 - Metals Totals:	1,910	0	1,910	
			1	<u> </u>	1	
06 - Wood, Plastics, and Composites						
06-10-00 ROUGH CARPENTRY						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
06-10-10 Rough Shell Framing Material	MATERI	,	15,225	Warkup 0	15,225	Ψ/OqiFt
2x8x12' Construction ext walls. Upper and lower plates, s			13,223		13,223	
(8220)2x4x12 Interior partitions (7022)	studs,jacks, coi	ners,neaders				
06-10-20 Rough Shell Framing / Build and Set Ext & IntWa	alls LABOR	384 Hours	15,360	0	15,360	
06-10-25 Miscelleneous Blocking and Framing	MATERI	1 Each	2,000	0	2,000	
Backing for cabinets and accessories 2x6,2x8 etc.						
06-10-26 Misc Framing Installation	LABOR	40 Hours	1,600	0	1,600	
06-10-35 Rake Overhang and Jett Work Material	MATERI	1 Each	2,500	0	2,500	
06-10-40 Frame Rake Overhang and Jettwork	LABOR	64 Hours	2,560	0	2,560	
,	06-10-00 ROU	GH CARPENTRY Totals:	39,245	0	39,245	
06-16-00 Sheathing						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
Cost Item 06-16-10 Zip Sheathing Wall	Class MATERI	-	Cost Est 4,944	Markup 0	Total Est 4,944	\$ / Sqr Ft
		·				\$ / Sqr Ft
06-16-10 Zip Sheathing Wall		·				\$ / Sqr Ft
06-16-10 Zip Sheathing Wall Walls and Gables with 12' wall height 06	MATERI.	206 Each 96 Hours	4,944	0	4,944	\$ / Sqr Ft
06-16-10 Zip Sheathing Wall Walls and Gables with 12' wall height 06 06-16-12 Wall Sheathing Installation	MATERIA LABOR 3 days = 60 sh	206 Each 96 Hours	4,944	0	4,944	\$ / Sqr Ft
06-16-10 Zip Sheathing Wall Walls and Gables with 12' wall height 06 06-16-12 Wall Sheathing Installation Install sheathing and cut out windows and doors. 4 men 3	MATERIA LABOR 3 days = 60 sh	206 Each 96 Hours eets/day	3,840	0	4,944 3,840	\$ / Sqr Ft
06-16-10 Zip Sheathing Wall Walls and Gables with 12' wall height 06 06-16-12 Wall Sheathing Installation Install sheathing and cut out windows and doors. 4 men 3 06-16-20 Roof Sheathing	MATERIA LABOR 3 days = 60 sh	206 Each 96 Hours eets/day	3,840	0	4,944 3,840	\$ / Sqr Ft
06-16-10 Zip Sheathing Wall Walls and Gables with 12' wall height 06 06-16-12 Wall Sheathing Installation Install sheathing and cut out windows and doors. 4 men 3 06-16-20 Roof Sheathing 5/8th T&G zip roof	LABOR 3 days = 60 sh MATERI LABOR	96 Hours eets/day 275 Each	3,840 8,814	0	3,840 8,814	\$ / Sqr Ft
06-16-10 Zip Sheathing Wall Walls and Gables with 12' wall height 06 06-16-12 Wall Sheathing Installation Install sheathing and cut out windows and doors. 4 men 3 06-16-20 Roof Sheathing 5/8th T&G zip roof 06-16-21 Roof Sheathing Installation Labor	LABOR MATERI LABOR MATERI LABOR MATERI	96 Hours eets/day 275 Each	3,840 8,814 5,120	0 0	4,944 3,840 8,814 5,120	\$ / Sqr Ft
06-16-10 Zip Sheathing Wall Walls and Gables with 12' wall height 06 06-16-12 Wall Sheathing Installation Install sheathing and cut out windows and doors. 4 men 3 06-16-20 Roof Sheathing 5/8th T&G zip roof 06-16-21 Roof Sheathing Installation Labor	LABOR MATERI LABOR MATERI LABOR MATERI	96 Hours eets/day 275 Each 128 Hours 32 Rolls	3,840 3,840 8,814 5,120 960	0 0 0 0 0	3,840 3,840 8,814 5,120 960	\$ / Sqr Ft
06-16-10 Zip Sheathing Wall Walls and Gables with 12' wall height 06 06-16-12 Wall Sheathing Installation Install sheathing and cut out windows and doors. 4 men 3 06-16-20 Roof Sheathing 5/8th T&G zip roof 06-16-21 Roof Sheathing Installation Labor	LABOR MATERI LABOR MATERI LABOR MATERI	96 Hours eets/day 275 Each 128 Hours 32 Rolls	3,840 3,840 8,814 5,120 960	0 0 0 0 0	3,840 3,840 8,814 5,120 960	\$ / Sqr Ft
06-16-10 Zip Sheathing Wall Walls and Gables with 12' wall height 06 06-16-12 Wall Sheathing Installation Install sheathing and cut out windows and doors. 4 men 3 06-16-20 Roof Sheathing 5/8th T&G zip roof 06-16-21 Roof Sheathing Installation Labor 06-16-22 Zip Tape	LABOR MATERI LABOR MATERI LABOR MATERI	96 Hours eets/day 275 Each 128 Hours 32 Rolls	3,840 3,840 8,814 5,120 960	0 0 0 0 0	3,840 3,840 8,814 5,120 960	
06-16-10 Zip Sheathing Wall Walls and Gables with 12' wall height 06 06-16-12 Wall Sheathing Installation Install sheathing and cut out windows and doors. 4 men 3 06-16-20 Roof Sheathing 5/8th T&G zip roof 06-16-21 Roof Sheathing Installation Labor 06-16-22 Zip Tape 06-17-00 Shop-Fabricated Structural Wood	MATERI. LABOR 3 days = 60 sh MATERI. LABOR MATERI. 06	206 Each 96 Hours eets/day 275 Each 128 Hours 32 Rolls -16-00 Sheathing Totals:	3,840 3,840 8,814 5,120 960 23,678	0 0 0 0 0	3,840 8,814 5,120 960 23,678	
06-16-10 Zip Sheathing Wall Walls and Gables with 12' wall height 06 06-16-12 Wall Sheathing Installation Install sheathing and cut out windows and doors. 4 men 3 06-16-20 Roof Sheathing 5/8th T&G zip roof 06-16-21 Roof Sheathing Installation Labor 06-16-22 Zip Tape 06-17-00 Shop-Fabricated Structural Wood Cost Item	LABOR Adays = 60 sh MATERI LABOR MATERI 06	206 Each 96 Hours eets/day 275 Each 128 Hours 32 Rolls -16-00 Sheathing Totals:	3,840 8,814 5,120 960 23,678 Cost Est	0 0 0 0 0 0	3,840 8,814 5,120 960 23,678	
06-16-10 Zip Sheathing Wall Walls and Gables with 12' wall height 06 06-16-12 Wall Sheathing Installation Install sheathing and cut out windows and doors. 4 men 3 06-16-20 Roof Sheathing 5/8th T&G zip roof 06-16-21 Roof Sheathing Installation Labor 06-16-22 Zip Tape 06-17-00 Shop-Fabricated Structural Wood Cost Item 06-17-15 Wood Trusses 8/12 Pitch	LABOR Adays = 60 sh MATERI LABOR MATERI O6 Class MATERI	206 Each 96 Hours eets/day 275 Each 128 Hours 32 Rolls -16-00 Sheathing Totals: Quantity 1 Each	4,944 3,840 8,814 5,120 960 23,678 Cost Est 22,500	0 0 0 0 0 0 0 Markup	4,944 3,840 8,814 5,120 960 23,678 Total Est 22,500	\$ / Sqr Ft

August 17, 2016 3 of 10

06-41-00 Architectural Wood Casework						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
06-41-10 Window Extension Jambs and Sills	MATERIA	1 Each	765	0	765	
1x6 Sill 135lf @ 1.81 = 245, 1x4 extension jamb 460lf @ 1	.13 = 520				I	I
06-41-12 Office Door Sidelite Frames and Roll-Up Door	MATERIA	356 Linear Ft	644	0	644	
1x6 jamb stock	·				l	ı
06-41-14 Door and Sidelite Casing	MATERIA	1092 Linear Ft	1,234	0	1,234	
12 Doors with sidelites,552lf 15 doors without sidelites, 540lf	,					
06-41-20 1x4 Window Trim	MATERIA	590 Linear Ft	667	0	667	
22lf x 27 window units						
06-41-22 Misc Wood Trim	MATERIA	275 Linear Ft	311	0	311	
06-41-23 Misc Woodwork Install	LABOR	20 Hours	800	0	800	
Allow 20hrs	•				•	•
06-41-50 Install Interior Trim	LABOR	160 Hours	6,400	0	6,400	
2 men 10 days	·				l	
06-41-00 A	rchitectural	Wood Casework Totals:	10,821	0	10,821	
						1
06-47-00 Exterior Wood Trim						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
06-47-11 Hardi-Panel Soffit	MATERIA	1167 Linear Ft	1,937	0	1,937	
06-47-12 Labor to Install Hardi Soffit	LABOR	64 Hours	2,560	0	2,560	
2m/4days					1	
06-47-13 5/4x4 Fascia Shadow	MATERIA	50 Each	2,100	0	2,100	
06-47-14 Fascia, Frieze, Bottom Board		104 Each	14,664	0	14,664	
5/4x12x20			,		1	1
06-47-15 Install 5/4x12 Fascia,Frez and 5/4x12 Bottom Boa	rd LABOR	240 Hours	9,600	0	9,600	
3 men 10 days = 240hrs	<u> </u>			<u> </u>	1 '	l
06-47-30 Historic Sill, Corner, Door and Window Trim	MATERIA	1 Each	4,117	0	4,117	
Sill 420 If @5.05 =2121, Corner 5/4x8x20 9pcs @ 91.10 = 28 @ 42=1176	820, Window	and Door Trim 5/4x4x20				
06-47-51 Install Sill, Corners, Window and Door Trim	LABOR	168 Hours	6,720	0	6,720	
06-47-85 Drainage Plain - Weather Trak 5X200	MATERIA	6 Rolls	834	0	834	
	06-47-00 Ex	terior Wood Trim Totals:	42,532	0	42,532	
			Cost Est	Markup	Total Est	\$ / Sqr Ft
06 - Wo	od, Plastics,	and Composites Totals:	142,616	0	142,616	
						•
07 - Thermal and Moisture Protection						
07-20-00 THERMAL PROTECTION			1			
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
07-20-10 Rigid Foundation Insulation	MATERIA	375 Each	15,375	0	15,375	
2"x4'x8' XPS Insulation Board				Γ	T	T
07-20-15 1" Rigid Foundation Board	MATERIA	9 Each	193	0	193	
07-20-20 Foundation Insulation Install	LABOR	48 Hours	1,920	0	1,920	
07-20-25 Miscellaneaous Can Foam	LABMAT		320	0	320	
07-20	0-00 THERM	AL PROTECTION Totals:	17,808	0	17,808	
07-21-00 Thermal Insulation						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
		-	43,100	0		

August 17, 2016 4 of 10

ceiling. 07-21-11 Interior Sound Attenuation	LABOR	1 Each	3,000	0	3,000	<u> </u>
between wall sound attenuation insulation. Estimate of		1 Each	3,000	0	3,000	
between wan sound attenuation insulation. Estimate of	· ·	nermal Insulation Totals:	46,100	0	46,100	
	07-21-00 11	lerinar insulation Totals.	40,100		40,100	
07-25-00 WEATHER BARRIERS						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
07-25-20 Air Sealing	LABMAT		3,500	0	3,500	
1 man 80 hrs, perimeter sealing construction joints wind Spray foam cans 12@15 180	ow and door op	enings. Caulk 24@7 168,				l
	07-25-00 WEA	THER BARRIERS Totals:	3,500	0	3,500	
07-30-00 STEEP SLOPE ROOFING	l ou	I a	0			
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
07-30-10 Roofing Prep	LABOR	64 Hours	2,560	0	2,560	
Install drip edge, ice and water shield, roofing paper	1	T			ı	
07-30-12 Grace Ice and Water	MATERIA		1,160	0	1,160	
07-30-14 Tri-Flex Roof Paper	MATERI		840	0	840	
07-30-20 Asphalt Shingle Roofing	MATERIA	84 Roofing Sqr	7,140	0	7,140	
30yr Architecturals		T			T	
07-30-25 Roofing Installation	LABOR	240 Hours	9,600	0	9,600	
07-	30-00 STEEP \$	SLOPE ROOFING Totals:	21,300	0	21,300	
07-46-00 Siding						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
07-46-26 Hardboard Clapboard Siding		1926 Sq Ft	7,993	0	7,993	1
07-46-30 Hardie Shingle Board Siding		3311 Sq Ft	12.681	0	12,681	
07-46-35 Siding Installation	LABOR	360 Each	14,400	0	14,400	
3 men 15 days					<u> </u>	<u> </u>
07-46-63 Fabricated Panel Assemblies with Siding	LABMAT	2400 Sq Ft	14,400	2,400	16.800	
Kingspan Azteco Insulated Wall Panel for Apparatus Bu Not including front façade.		1 11 11 1	,	,	.,	
07-46-65 Apparatus Building Roof Insulation Add	LABMAT	4300 Sq Ft	16,899	0	16,899	
5 inches of iso board somehow installed under roof	•				•	•
		07-46-00 Siding Totals:	66,373	2,400	68,773	
OZ CO CO EL ACUINO O CUEET METAL						
07-60-00 FLASHING & SHEET METAL Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
07-60-10 Roof Drip Edge	MATERI	Quantity 50 Each		•	600	φ/SqiFi
			600	0		
07-60-20 Exterior Window,Door and Trim Flashing Aluminum Coil Stock 2'x50' oll	LABOR	2 Each	250	0	250	
	LADOD	8 Hours	320	0	320	1
07-60-25 Fabricate and Install Flashing	LABOR	8 Hours	320	0	320	
1man 1 day 07-60-	00 FLASHING	& SHEET METAL Totals:	1,170	0	1,170	
07-00-			1,170	<u> </u>	1 1,170	<u> </u>
			Cost Est	Markup	Total Est	\$ / Sqr Ft
07 - T	nermal and Mo	isture Protection Totals:	156,251	2,400	158,651	
08 - Openings						

August 17, 2016 5 of 10

Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
08-16-10 Fiberglass Entry Doors with Transom and Sidelite	MATERIA	1 Each	3,886	0	3,886	
On double unit 6068 and two single units 3068						•
08-16-11 Fiberglass Entry Unit with no Transom or Sidelite	MATERIA	1 Each	677	0	677	
1 unit 3068						•
08-16-20 Exterior Door Installation	LABOR	8 Hours	320	0	320	
08-16-26 Exterior Door Hardware Installation	LABOR	8 Hours	320	0	320	
08-16-30 Interior Solid Core Masonite Doors	MATERIA	27 Each	4,725	0	4,725	
3068 2x4 wall prehung door						
08-16-31 Interior Door Hardware	MATERIA	27 Each	2,295	0	2,295	
Hand sets no closers						
08-16-32 Interior Door Hardware Installation	LABOR	16 Hours	640	0	640	
	08-16-00 C	Composite Doors Totals:	12,863	0	12,863	
			•		•	
08-30-00 SPECIALTY DOORS & FRAMES						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
08-30-10 Police Garage Door	LABMAT	1 Each	2,500	0	2,500	
9090 with track and opener, insulated no glass						
08-30-15 Fire Station Garage Doors	LABMAT	3 Each	7,500	0	7,500	
3 12'x12' Insulated Doors with two tiers of glass.						
08-30-00 SPE	CIALTY DO	ORS & FRAMES Totals:	10,000	0	10,000	
08-33-00 Coiling Doors & Grilles						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
08-33-10 Roll-up Aluminum Pass-thru Door	LABMAT	1 Each	2,900	0	2,900	
Unit 8040						
08-33	-00 Coiling	Doors & Grilles Totals:	2,900	0	2,900	
08-54-00 Composite Windows						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
08-54-21 Marvin Clad Ultimate Windows	LABOR	23 Each	39,951	0	39,951	
Low E2 w/Argon						
08-54-25 Window Installation Prep	LABMAT	23 Each	1,495	0	1,495	
Flexible flashing and tape. 45.00 material 20 labor each						
08-54-30 Window Installation	LABOR	24 Hours	960	0	960	
3 men 1 day						
08-	-54-00 Com	posite Windows Totals:	42,406	0	42,406	
			Cost Est	Markup	Total Est	\$ / Sqr Ft
		08 - Openings Totals:	68,169	0	68,169	
09 - Finishes						
09-29-00 Gypsum Board						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
09-29-20 Wall Board Installation	LABMAT	19400 Sq Ft	27,160	0	27,160	
	09-29-0	0 Gypsum Board Totals:	27,160	0	27,160	
09-31-00 Thin-Set Tiling						
Cost Item	_					
	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft

August 17, 2016 6 of 10

464sqft wall +336 bath and toilet floor + Fire day room at	nd corridor 366					
,	09-31-0	00 Thin-Set Tiling Totals:	17,490	0	17,490	
		<u> </u>	1			I
09-53-00 Acoustical Ceiling Suspension Asseml	blies					
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
09-53-20 Suspended Ceiling Tile and Grid System	LABMAT	4215 Each	16,860	0	16,860	
09-53-00 Acoustical C	eiling Suspen	sion Assemblies Totals:	16,860	0	16,860	
09-65-00 Resilient Flooring						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
09-65-19 VCT Flooring	LABMAT	530 Sq Ft	1,855	0	1,855	
	09-65-00 R	Resilient Flooring Totals:	1,855	0	1,855	
09-68-00 Carpeting		T			1	1
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
09-68-10 Carpet Tile		2925 Sq Ft	11,700	0	11,700	
09-68-20 Carpet Tile Entrance Mat	l .	200 Sq Ft	1,200	0	1,200	
	09	9-68-00 Carpeting Totals:	12,900	0	12,900	
09-91-00 Painting	T _a ,	I a				A 10 51
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
09-91-30 Interior Painting	LABMAT		21,000	0	21,000	
		09-91-00 Painting Totals:	21,000	0	21,000	
			Cost Est	Markup	Total Est	\$ / Sqr Ft
		09 - Finishes Totals:	97,265	0	97,265	ψ7 Oqi i t
		00 - 1 misnes rotais.	37,203	0	37,203	
10 - Specialties						
10-14-00 Signage						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
10-14-20 Room Signage	LABMAT	· · · · · · · · · · · · · · · · · · ·	1,800	0 Narkup	1,800	φ/ Sqi i t
10-14-50 Location Identification Sign	LABMAT		900	0	900	
10 14 00 Eccation Identification Cign		10-14-00 Signage Totals:	2,700	0	2,700	
			2,700		2,700	
10-28-00 Toilet, Bath & Laundry Accessories						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
10-28-13 Toilet Accessories	LABMAT		3,685	0	3,685	, -,
10-28-00 Toile	et, Bath & Laun	ndry Accessories Totals:	3,685	0	3,685	
	•				<u> </u>	I
10-44-00 Fire Protection Specialties						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
10-44-10 Fire Extinguisher Cabinets	LABMAT	4 Each	1,400	0	1,400	
4				-	•	
10-44	4-00 Fire Prote	ction Specialties Totals:	1,400	0	1,400	
10-51-00 Lockers						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
10-51-10 Police Lockers	MATERIA	12 Each	5,400	0	5,400	
10-51-25 Coat Racks	MATERIA	2 Each	300	0	300	
10-51-30 Installation of Racks and Lockers	LABOR	16 Hours	640	0	640	

August 17, 2016 7 of 10

	,	10-51-00 Lockers Totals:	6,340	0	6,340	
			Cost Est	Markup	Total Est	\$ / Sqr Ft
		40. On a lattice Tatalan		<u> </u>		φ/ Sqi i t
		10 - Specialties Totals:	14,125	0	14,125	
11 - Equipment						
11-26-00 Unit Kitchens						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
11-26-10 Appliance Allowance AL	LABOR	1 Each	4,000	0	4,000	φησητι
Range/Oven (900), Dishwasher (450), Disposal(150), Re			4,000	0	4,000	
Hood.(125)	mgoratom ro	0201 (1000), 1 kango				
	11-26-	00 Unit Kitchens Totals:	4,000	0	4,000	
			Cost Est	Markup	Total Est	\$ / Sqr Ft
		11 - Equipment Totals:	4,000	0	4,000	
12 - Furnishings						
12-30-00 CASEWORK		T				
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
12-30-20 Miscelleneaous Cabinetry and Countertops	LABMAT		20,000	0	20,000	
	12-30	0-00 CASEWORK Totals:	20,000	0	20,000	
			Cost Est	Markup	Total Est	\$ / Sqr Ft
		40. Eussiahin na Tatala		o Iviai Kup		φ/ Sqi i t
		12 - Furnishings Totals:	20,000	0	20,000	
40. 0						
13 - Special Construction						
13-36-00 Towers	101	T				410 =
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
13-36-00 Communication Tower AL	LABMAT		11,000	0	11,000	
35 foot tower for communication equipment with concrete	base, no wirir					
		13-36-00 Towers Totals:	11,000	0	11,000	
			04-	N 4 =1	T-4-1 E-4	Φ / Ο Ε4
	40.0		Cost Est	Markup	Total Est	\$ / Sqr Ft
	13 - Spec	cial Construction Totals:	11,000	Markup 0	Total Est 11,000	\$ / Sqr Ft
24 Fire Suppression	13 - Spec	cial Construction Totals:		•		\$ / Sqr Ft
21 - Fire Suppression	·	cial Construction Totals:		•		\$ / Sqr Ft
21-10-00 WATER-BASED FIRE-SUPPRESSION SY	STEMS		11,000	0	11,000	
21-10-00 WATER-BASED FIRE-SUPPRESSION SY Cost Item	'STEMS Class	Quantity	11,000 Cost Est	0 Markup	11,000 Total Est	
21-10-00 WATER-BASED FIRE-SUPPRESSION SY Cost Item 21-10-10 Within the Structure Sprinkler System	STEMS	Quantity	11,000	0	11,000	
21-10-00 WATER-BASED FIRE-SUPPRESSION SY Cost Item 21-10-10 Within the Structure Sprinkler System Water Tap and Feed from Street included in Site.	'STEMS Class LABMAT	Quantity 1 Each	11,000 Cost Est 23,000	0 Markup 0	11,000 Total Est 23,000	
21-10-00 WATER-BASED FIRE-SUPPRESSION SY Cost Item 21-10-10 Within the Structure Sprinkler System	'STEMS Class LABMAT	Quantity 1 Each	11,000 Cost Est	0 Markup	11,000 Total Est	
21-10-00 WATER-BASED FIRE-SUPPRESSION SY Cost Item 21-10-10 Within the Structure Sprinkler System Water Tap and Feed from Street included in Site.	'STEMS Class LABMAT	Quantity 1 Each	11,000 Cost Est 23,000 23,000	Markup 0	11,000 Total Est 23,000 23,000	\$ / Sqr Ft
21-10-00 WATER-BASED FIRE-SUPPRESSION SY Cost Item 21-10-10 Within the Structure Sprinkler System Water Tap and Feed from Street included in Site.	Class LABMAT	Quantity 1 Each SSION SYSTEMS Totals:	11,000 Cost Est 23,000 23,000 Cost Est	Markup 0 Markup	11,000 Total Est 23,000 23,000 Total Est	\$ / Sqr Ft
21-10-00 WATER-BASED FIRE-SUPPRESSION SY Cost Item 21-10-10 Within the Structure Sprinkler System Water Tap and Feed from Street included in Site.	Class LABMAT	Quantity 1 Each	11,000 Cost Est 23,000 23,000	Markup 0	11,000 Total Est 23,000 23,000	\$ / Sqr Ft
21-10-00 WATER-BASED FIRE-SUPPRESSION SY Cost Item 21-10-10 Within the Structure Sprinkler System Water Tap and Feed from Street included in Site. 21-10-00 WATER-BASED FI	Class LABMAT	Quantity 1 Each SSION SYSTEMS Totals:	11,000 Cost Est 23,000 23,000 Cost Est	Markup 0 Markup	11,000 Total Est 23,000 23,000 Total Est	\$ / Sqr Ft
21-10-00 WATER-BASED FIRE-SUPPRESSION SY Cost Item 21-10-10 Within the Structure Sprinkler System Water Tap and Feed from Street included in Site. 21-10-00 WATER-BASED FI	Class LABMAT	Quantity 1 Each SSION SYSTEMS Totals:	11,000 Cost Est 23,000 23,000 Cost Est	Markup 0 Markup	11,000 Total Est 23,000 23,000 Total Est	\$ / Sqr Ft
21-10-00 WATER-BASED FIRE-SUPPRESSION SY Cost Item 21-10-10 Within the Structure Sprinkler System Water Tap and Feed from Street included in Site. 21-10-00 WATER-BASED FILE 22 - Plumbing 22-00-00 PLUMBING	/STEMS Class LABMAT RE-SUPPRES	Quantity 1 Each SSION SYSTEMS Totals: Fire Suppression Totals:	11,000 Cost Est 23,000 23,000 Cost Est 23,000	Markup 0 Markup 0	Total Est 23,000 23,000 Total Est 23,000	\$ / Sqr Ft
21-10-00 WATER-BASED FIRE-SUPPRESSION SY Cost Item 21-10-10 Within the Structure Sprinkler System Water Tap and Feed from Street included in Site. 21-10-00 WATER-BASED FI	Class LABMAT	Quantity 1 Each SSION SYSTEMS Totals: Fire Suppression Totals: Quantity	11,000 Cost Est 23,000 23,000 Cost Est	Markup 0 Markup	11,000 Total Est 23,000 23,000 Total Est	\$ / Sqr Ft \$ / Sqr Ft \$ / Sqr Ft

August 17, 2016 8 of 10

			Cost Est	Markup	Total Est	\$ / Sqr Ft
		22 - Plumbing Totals:	35,000	0	35,000	
			1			
23 - Heating, Ventilating, and Air Conditioning						
23-00-00 HEATING, VENTILATING, & AIR-CONDITIO	NING (H	/AC)				
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
23-00-50 High Efficiency Heat Pump System Ducted AL	LABMAT	1 Each	150,000	0	150,000	
12 zone system with insulated duct work						
23-00-00 HEATING, VENTILATING, & A	IR-CONDI	TIONING (HVAC) Totals:	150,000	0	150,000	
			•			
23-72-00 Air-to Air Energy Recovery Equipment						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
23-72-10 Heat Recovery Units AL	LABMAT	2 Each	13,000	0	13,000	
2 units approx. 900 cfm installed	•				•	
23-72-20 Structural Modifications to House HRU's	MATERIA	1 Each	1,200	0	1,200	
Truss modifications		•				•
23-72-30 Added Area of Thermal Envelop Around HRU's	LABOR	1 Each	3,000	0	3,000	
Spray Foam Enclosures	I.				ı	<u>I</u>
23-72-00 Air-to Air Er	nergy Rec	overy Equipment Totals:	17,200	0	17,200	
			1		ı	1
			Cost Est	Markup	Total Est	\$ / Sqr Ft
23 - Heating, Ventila	ating, and	Air Conditioning Totals:	167,200	0	167,200	
26 - Electrical						
26-00-00 ELECTRICAL						
Cost Item	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
26-00-00 Electrical Subcontract	LABMAT	1 Each	46,000	0	46,000	
Add for HRU"s Heat Pump system supplemental wiring	•					•
26-00-35 Service Upgrade to Power Mechanical Systems AL	LABMAT	1 Each	31,000	0	31,000	
Power system upgrades and panel installations as listed ESV	/T				•	•
26-00-50 Fire Alarm System	LABMAT	1 Each	9,000	0	9,000	
26-00-90 Exterior Light Fixture Allowance	LABMAT	1 Each	8,500	0	8,500	
26-00-95 Generator Upgrade for Net Zero AL	LABMAT	1 Each	40,000	0	40,000	
New Generator for net zero	•				•	-
	26-00	00 ELECTRICAL Totals:	134,500	0	134,500	
			•		•	•
			Cost Est	Markup	Total Est	\$ / Sqr Ft
		26 - Electrical Totals:	134,500	0	134,500	
32 - Exterior Improvements						
32 - Exterior Improvements 32-00-00 EXTERIOR IMPROVEMENTS						
	Class	Quantity	Cost Est	Markup	Total Est	\$ / Sqr Ft
32-00-00 EXTERIOR IMPROVEMENTS	Class LABMAT	,	Cost Est 3,500	Markup 0	Total Est 3,500	\$ / Sqr Ft
32-00-00 EXTERIOR IMPROVEMENTS Cost Item		•				\$ / Sqr Ft
32-00-00 EXTERIOR IMPROVEMENTS Cost Item 32-00-10 Landscaping and Plantings Tree's and Shrubberies	LABMAT	•				\$ / Sqr Ft
32-00-00 EXTERIOR IMPROVEMENTS Cost Item 32-00-10 Landscaping and Plantings Tree's and Shrubberies	LABMAT	1 Each	3,500	0	3,500	\$ / Sqr Ft
32-00-00 EXTERIOR IMPROVEMENTS Cost Item 32-00-10 Landscaping and Plantings Tree's and Shrubberies	LABMAT	1 Each	3,500	0	3,500	\$ / Sqr Ft

August 17, 2016 9 of 10

	Cost Est	Markup	Total Est	\$ / Sqr Ft
Totals:	1,039,800	2,400	1,042,200	

August 17, 2016 10 of 10

SCHEMATIC ENGINEER'S OPINION OF PROBABLE COST (OPTION 2 WITH RESERVOIR COURSE)

FOR TOWN OF NORWICH FIRE AND POLICE FACILITY FIREHOUSE LANE, NORWICH, VERMONT

PREPARED BY PATHWAYS CONSULTING, LLC (Project No. 12703)

August 8, 2016

	SITE WORK				
	Item Description	Quantity	Unit	Unit Cost	Total Cost
1.00	GENERAL SITE WORK				
1.01	Saw Cut Existing Pavement (Roadway)	200	LF	\$3.00	\$600.00
1.02	Common Excvation Site to Subgrade (Inclusive of Removal of Pavement)	2,700	CY	\$12.00	\$32,400.00
1.03	Site Fine Grading	1	LS	\$6,000.00	\$6,000.00
1.04	Clearing and Grubbing	1	LS	\$5,000.00	\$5,000.00
1.05	Gravel (Assume 12" Below Walkways)	45	CY	\$27.00	\$1,215.00
1.06	Crushed Gravel (Assume 6" in Walkways)	23	CY	\$30.00	\$690.00
1.07	Bituminous Concrete Pavement Walkway (Assume 3" Thickness)	25	TN	\$120.00	\$3,000.00
1.08	Porous Asphalt Pavement (Assume 4" Thickness)	2,160	SY	\$32.00	\$69,120.00
1.09	Choker Course Porous Pavement Section 4" of 3/4" Washed Crushed Stone	250	CY	\$42.00	\$10,500.00
1.10	Filter Course Porous Pavement Section 12" of Gravel	760	CY	\$27.00	\$20,520.00
1.11	Filter Blanket Porous Pavement Section 3" of 3/8" Pea Gravel	190	CY	\$60.00	\$11,400.00
1.12	Reservoir Course (Option 2) Porous Pavement Section 16" of Crushed Stone AASHTO No. 3	1,010	CY	\$40.00	\$40,400.00
1.13	Mirafi 500X Filter Fabric Porous Pavement Section	2,300	SY	\$1.50	\$3,450.00
1.14	Screened Loam (Assume 4")	230	CY	\$40.00	\$9,200.00
1.15	Hydroseeding	2,000	SY	\$3.50	\$7,000.00
1.16	Parking Lot Stripping	960	LF	\$1.50	\$1,440.00
1.17	Handicap Parking Symbols	2	EA	\$150.00	\$300.00
1.18	Handicap Parking Signs	2	EA	\$150.00	\$300.00
	WORK TOTAL				\$222,535.00
2.00	SITE WATER				
2.01	6" Ductile Iron Water Main	45	LF	\$80.00	\$3,600.00
2.02	4" Ductile Iron Water Main	515	LF	\$60.00	\$30,900.00
2.03	3/4" Copper Service Pipe	60	LF	\$80.00	\$4,800.00
2.04	Ductile Iron MJ Fittings	400	LBS	\$4.00	\$1,600.00
2.05	Hydrant Assembly	1	EA	\$3,500.00	\$3,500.00
2.06	8"x6" Tapping Sleeve and Valve	1	EA	\$3,500.00	\$3,500.00
2.07	4" Ductile Iron Gate Valve	1	EA	\$1,300.00	\$1,300.00
2.08	3/4" Corporation	3	EA	\$300.00	\$900.00
2.09	3/4" Curb Stop	3	EA	\$300.00	\$900.00
2.10	Main Street Trench Patch (Assume 10' Wide) Gravels and Asphalt	60	SY	\$35.00	\$2,100.00
2.11	Main Street Traffic Control (Flaggers, Signage etc.)	1	AL	\$2,000.00	\$2,000.00
SITE WATER T					\$55,100.00
3.00	SITE SEWER				
3.01	4" SDR35 PVC Sewer Line	25	LF	\$50.00	\$1,250.00
3.02	2" PVC Forcemain	140	LF	\$45.00	\$6,300.00
3.03	(2) 4'x46' Sewer Trench with 4" Perforated PVC Pipe and 12" of Stone	92	LF	\$75.00	\$6,900.00
3.04	1,250 Gallon Septic Tank	1	LS	\$7,500.00	\$7,500.00
3.05	1,000 Gallon Pump Station	1	LS	\$9,000.00	\$9,000.00
3.06	Oil Gas Grit Separator Storage Tank for Floor Drain Connection	1	LS	\$5,500.00	\$5,500.00
SITE SEWER TO 4.00	SITE DRAINAGE				\$36,450.00
	Drywells SITE DRAINAGE	5	EA	\$5,500.00	\$27,500.00
SITE DRAINAG		ı J	LA	φ <i>3</i> ,300.00	\$27,500.00 \$27,500.00
5.00	EROSION AND SEDIMENT CONT	ROLS		L	947,500.00
5.01	Silt Fence	500	LF	\$3.50	\$1,750.00
5.02	Infiltration Basin Inlet Protection	5	EA	\$300.00	\$1,500.00
5.03	Stabilized Construction Entrance	1	LS	\$1,500.00	\$1,500.00
5.04	Miscellaneous Erosion Control (Daily Dust Control, etc.)	1	AL	\$2,000.00	\$2,000.00
EROSION AND	SEDIMENT CONTROL TOTAL				\$6,750.00
6.00	FIREHOUSE LANE REPAVING				
6.01	Removal of Existing Pavement	670	SY	\$3.50	\$2,345.00
6.02	Hardpak Shim: Assume 3" Thickness	65	CY	\$40.00	\$2,600.00
6.03	Fine Grading	1	LS	\$2,500.00	\$2,500.00
6.04	Bituminous Concrete Pavement 3" Thickness	120	TN	\$90.00	\$10,800.00
	NE REPAVING TOTAL MOBILIZATION/DEMOBILIZATION AND MISCELLANE	OHE WAR	ZAND	CLEANUD	\$18,245.00
7.00		OUS WORL			P2 (125 12
7.01	Mobilization & Demobilization (Assume 7.5% of the work)	1	LS	\$26,125.13	\$26,125.13
7.02	Miscellaneous Work and Cleanup (Assume 2.5% of the work)	1	LS	\$8,708.38	\$8,708.38
MOBILIZATIO	N/DEMOBILIZATION AND MISCELLANEOUS WORK AND CLEANUP TOTAL				\$34,833.50

ENGINEER'S SCHEMATIC OPINION OF PROBABLE CONSTRUCTION PROJECT COST 20% CONSTRUCTION COST CONTINGENCY TOTAL ENGINEER'S SCHEMATIC OPINION OF PROBABLE COST

\$401,413.50 \$80,282.70 \$481,696.20

NOTE: This Schematic Engineer's Opinion of Probable Cost (EOPC) was established from the Town of Norwich Fire and Police Facility Schematic Site Plan, dated August 2016, completed by Pathways Consulting (Pathways). In providing this EOPC, the Client understands that Pathways has no control over the cost or availability of labor, equipment, or materials, or over market conditions or the Contractor's method of pricing, and that this EOPC was developed on the basis of our experience with other projects of similarity. Pathways makes no warranty, express or implied, that the bids or the negotiated cost of the Work will not vary from this EOPC. Upon completion of the preliminary design phase of the project, Pathways will revise this EOPC to revised and/or modified design conditions and updated construction costs. (Option 2 includes the Reservoir Course in the Porous Pavement Section depicted on the drawings). This EOPC reflects site work up to 5' from buildings and does not include demolition of existing buildings or releation of the existing AST tank.

DECLARATION OF OFFICIAL INTENT OF THE TOWN OF NORWICH TO REIMBURSE CERTAIN EXPENDITURES FROM PROCEEDS OF INDEBTEDNESS

WHEREAS, the Town of Norwich, Vermont (the "Issuer") intends to construct public safety building improvements to be considered by the Issuer at a special meeting thereof held on November 8, 2016 (the "Project"); and

WHEREAS, the Issuer expects to pay certain capital expenditures (the "Reimbursement Expenditures") in connection with the Project prior to the issuance of indebtedness for the purpose of financing costs associated with the Project on a long-term basis;

WHEREAS, the Issuer reasonably expects that for that part of the Project consisting of design and construction costs, debt obligations in an amount not expected to exceed \$_____ will be issued and that certain of the proceeds of such debt obligations will be used to reimburse the Reimbursement Expenditures; and

WHEREAS, the Issuer declares its reasonable official intent to reimburse prior expenditures for the above-described part of the Project with proceeds of a subsequent borrowing:

NOW THEREFORE, the Issuer declares:

- <u>Section 1</u>. The Issuer finds and determines that the foregoing recitals are true and correct, and that all of the capital expenditures covered by this Resolution were or will be made not earlier than 60 days prior to the date of this Resolution.
- <u>Section 2</u>. This declaration is made solely for the purposes of establishing compliance with the requirements of Section 1.150-2 of the Treasury Regulations. This declaration does not bind the Issuer to make any expenditure, incur any indebtedness, or proceed with the Project.
- Section 3. The Issuer hereby declares its official intent to use proceeds of indebtedness to reimburse itself for Reimbursement Expenditures, within 18 months of either the date of the first expenditure of funds by Issuer for such Project or the date that such Project is placed in service, whichever is later (but in no event more than three years after the date of the original expenditure of Issuer funds for such Project), and to allocate an amount not to exceed \$______ of the proceeds thereof to reimburse itself for its expenditures in connection with the Project.

Section 4. The Issuer's debt obligations for the aforementioned purpose will not be "private activity bonds" within the meaning of Section 141 of the Internal Revenue Code of 1986.

<u>Section 5</u>. All prior actions of the officials and agents of Issuer that are in conformity with the purpose and intent of this Resolution and in furtherance of the Project shall be and the same hereby are in all respects ratified, approved and confirmed.

<u>Section 6.</u> All other resolutions of the legislative body of the Issuer, or parts of resolutions, inconsistent with this Resolution are hereby repealed to the extent of such inconsistency.

<u>Section 7.</u> It is hereby found that all discussions and deliberations of the legislative body of the Issuer leading to the adoption of this Resolution occurred at one or more meetings of the legislative body conducted pursuant to public notice and open to public attendance.

Section 8. This declaration shall take effect from and after its adoption.

The undersigned, Town Clerk of the Issuer, hereby certifies that the foregoing is a full, true and correct copy of the declaration of the legislative body of said Issuer duly made at a meeting thereof held on the date, specified below, and that said declaration has not been amended, modified or revoked.

	August 24, 2016
Town Clerk	_

RESOLUTION CERTIFICATE

I, Bonnie J. Munday, certify that I am the duly elected and qualified Clerk of the Town of Norwich, a municipal corporation located in the County of Windsor, State of Vermont; that I have custody of the books, records and seal of said Town; and that the following is a true and exact copy of a Resolution duly adopted at a meeting of the Selectboard of the said Town, duly called, noticed and held on August 24, 2016, at which a quorum of members of the Board was present and voting; and that the same remains in full force and effect, and has not been amended, rescinded, abridged, modified or contested in any way:

· · · · · · · · · · · · · · · · · · ·	rest and necessity demand certain improvements public safety building and improvements to the cofDollars
the costs of constructing such improvem	that the cost of completing the Town's share of nents, after application of available state and n of available reserves, will be too great to be paid and
obligation bonds of the Town in the amo (\$) to pay for its cost of th any state or federal grants-in-aid and oth	that a proposal for the issuance of general punt not to exceed Dollars e same, subject to reduction through the receipt of her financial assistance, should be submitted to meeting thereof to be duly called and held for
incurring bonded indebtedness and the i of Norwich for the purpose of construction	that all acts relating to the proposition of ssuance of general obligation bonds of the Town ing and operating said improvements within the dance with the provisions of Chapter 53 of Title
	that the attached Warning and form of Ballot be ideration of the above-stated proposition of neurring bonded indebtedness therefor.
Dated: August 24, 2016	ATTEST:
SEAL	Danaia I Manday Taran Olank
	Bonnie J. Munday, Town Clerk

WARNING

The legal voters of the Town of Norwich, Vermont, are hereby notified and warned to meet at the Tracy Memorial Hall in the Town of Norwich on Tuesday, November 8, 2016, between the hours of seven o'clock (7:00) in the forenoon (a.m.), at which time the polls will open, and seven o'clock (7:00) in the afternoon (p.m.), at which time the polls will close, to vote by Australian ballot upon the following Article of business:

ARTICLE I

exceed \$, subject to reduct	of the Town of Norwich in an amount not to tion from available grants-in-aid, be issued ling construction, the aggregated estimated
-	h are further notified that voter qualification, special meeting shall be as provided in Chapters notated.
	h are further notified that an informational , 2016 at in the Town of , for the purpose of explaining the proposed
Adopted and approved at a regular meet duly called, noticed and held on August 24, 201 records of the Town of Norwich on August 25,	
ATTEST:	
Bonnie J. Munday Town Clerk	
	Town of Norwich Selectboard

OFFICIAL BALLOT

TOWN OF NORWICH

SPECIAL MEETING NOVEMBER 8, 2016

ARTICLE I

Shall general obligation	bonds or notes of the	Town of Norwich in an amount not to
exceed \$, subject to reduction	on from available grants-in-aid, be
issued to finance the cos	t of public safety bui	lding construction, the aggregated
estimated cost thereof be	eing \$	_?
If in favor of th make a cross (x	e bond issue, i) in this square:	
If opposed to the make a cross (x	ne bond issue, a) in this square:	

CERTIFICATE OF POSTING

PUBLICATION AND VOTE

The undersigned, being the Clerk of the Town of Norwich, does certify that:

- (1) The attached Resolution (Exhibit I) was duly adopted at a duly warned meeting of the Selectboard of the Town of Norwich held on August 24, 2016.
- (2) The attached Warning (Exhibit II) was duly approved and adopted at a duly warned meeting of the Selectboard of the Town of Norwich held on August 24, 2016.
- (3) The attached form of Ballot (Exhibit III) was duly approved and adopted at a duly warned meeting of the Selectboard of the Town of Norwich held on August 24, 2016 for use at the special meeting of the Town of Norwich held on November 8, 2016.
- (4) The attached Warning (Exhibit II) was published in the Valley News, a newspaper published in Lebanon, New Hampshire, and generally circulating in the County of Windsor and in the Town of Norwich and said Warning appeared in said newspaper on October 18, October 25 and November 1, 2016.
- (5) The attached Resolution (Exhibit I) and Warning (Exhibit II) were received for record and recorded on August 25, 2016, in the records of the Town of Norwich.
- (6) The attached Warning (Exhibit II), Ballot (Exhibit III) and current voter checklist were posted in the following public places in the Town of Norwich from October 7, 2016 through November 8, 2016, the date of the special Town meeting.

Town Clerk's Office	

(7)	The vote by Australian ballot (Exhibit III) on the proposition stated therein was:		
	ARTI	CLE I	
	IN FAVOR		
	OPPOSED		
	BLANK		
	SPOILED		
	TOTAL VOTES		
(8)	No petition has been filed seeking reconsideration or rescission of the action taken at said special meeting nor is there any litigation pending or threatened in any state or federal court contesting or challenging either the proceedings set forth in Paragraphs (1) through (7) of this Certificate, the works of improvement so authorized or, the issuance of bonds of the Town to finance the same.		
DATED:	December, 2016		
а		e J. Munday Clerk	

DECLARATION OF OFFICIAL INTENT OF THE TOWN OF NORWICH TO REIMBURSE CERTAIN EXPENDITURES FROM PROCEEDS OF INDEBTEDNESS

WHEREAS, the Town of Norwich, Vermont (the "Issuer") intends to construct public safety building and energy efficiency improvements to be considered by the Issuer at a special meeting thereof held on November 8, 2016 (the "Project"); and

WHEREAS, the Issuer expects to pay certain capital expenditures (the "Reimbursement Expenditures") in connection with the Project prior to the issuance of indebtedness for the purpose of financing costs associated with the Project on a long-term basis;

WHEREAS, the Issuer reasonably expects that for that part of the Project consisting of design and construction costs, debt obligations in an amount not expected to exceed \$_____ will be issued and that certain of the proceeds of such debt obligations will be used to reimburse the Reimbursement Expenditures; and

WHEREAS, the Issuer declares its reasonable official intent to reimburse prior expenditures for the above-described part of the Project with proceeds of a subsequent borrowing:

NOW THEREFORE, the Issuer declares:

- <u>Section 1</u>. The Issuer finds and determines that the foregoing recitals are true and correct, and that all of the capital expenditures covered by this Resolution were or will be made not earlier than 60 days prior to the date of this Resolution.
- Section 2. This declaration is made solely for the purposes of establishing compliance with the requirements of Section 1.150-2 of the Treasury Regulations. This declaration does not bind the Issuer to make any expenditure, incur any indebtedness, or proceed with the Project.
- Section 3. The Issuer hereby declares its official intent to use proceeds of indebtedness to reimburse itself for Reimbursement Expenditures, within 18 months of either the date of the first expenditure of funds by Issuer for such Project or the date that such Project is placed in service, whichever is later (but in no event more than three years after the date of the original expenditure of Issuer funds for such Project), and to allocate an amount not to exceed \$______ of the proceeds thereof to reimburse itself for its expenditures in connection with the Project.

Section 4. The Issuer's debt obligations for the aforementioned purpose will not be "private activity bonds" within the meaning of Section 141 of the Internal Revenue Code of 1986.

<u>Section 5</u>. All prior actions of the officials and agents of Issuer that are in conformity with the purpose and intent of this Resolution and in furtherance of the Project shall be and the same hereby are in all respects ratified, approved and confirmed.

<u>Section 6.</u> All other resolutions of the legislative body of the Issuer, or parts of resolutions, inconsistent with this Resolution are hereby repealed to the extent of such inconsistency.

<u>Section 7.</u> It is hereby found that all discussions and deliberations of the legislative body of the Issuer leading to the adoption of this Resolution occurred at one or more meetings of the legislative body conducted pursuant to public notice and open to public attendance.

Section 8. This declaration shall take effect from and after its adoption.

The undersigned, Town Clerk of the Issuer, hereby certifies that the foregoing is a full, true and correct copy of the declaration of the legislative body of said Issuer duly made at a meeting thereof held on the date, specified below, and that said declaration has not been amended, modified or revoked.

	August 24, 2016
Town Clerk	

RESOLUTION CERTIFICATE

I, Bonnie J. Munday, certify that I am the duly elected and qualified Clerk of the Town of Norwich, a municipal corporation located in the County of Windsor, State of Vermont; that I have custody of the books, records and seal of said Town; and that the following is a true and exact copy of a Resolution duly adopted at a meeting of the Selectboard of the said Town, duly called, noticed and held on August 24, 2016, at which a quorum of members of the Board was present and voting; and that the same remains in full force and effect, and has not been amended, rescinded, abridged, modified or contested in any way:

RESOLVED, that the public interest be made, namely construction of a new existing fire station, at an estimated cost (\$), and public safety estimated cost of	public safety building t of building energy effici	and improvements to the Dollars ency improvements at an
BE IT FURTHER RESOLVED, the costs of constructing such improven federal grants-in-aid, and the application out of the annual revenue of the Town;	nents, after application n of available reserves,	of available state and
BE IT FURTHER RESOLVED, obligation bonds of the Town in the agg Dollars (\$) to pay for its creceipt of any state or federal grants-insubmitted to the legal voters of the Tow and held for that purpose on November	gregate amount not to e sost of the same, subject aid and other financial on at a special meeting	xceedt to reduction through the assistance, should be
BE IT FURTHER RESOLVED, incurring bonded indebtedness and the is of Norwich for the purpose of construct corporate limits of the Town be in accorda, Vermont Statutes Annotated; and	issuance of general oblining and operating said	igation bonds of the Town improvements within the
BE IT FURTHER RESOLVED, adopted for use in connection with consmaking said public improvements and in	ideration of the above-	stated proposition of
Dated: August 24, 2016	ATTEST:	
SEAL		
	Bonnie J. Munday, T	own Clerk

WARNING

The legal voters of the Town of Norwich, Vermont, are hereby notified and warned to meet at the Tracy Memorial Hall in the Town of Norwich on Tuesday, November 8, 2016, between the hours of seven o'clock (7:00) in the forenoon (a.m.), at which time the polls will open, and seven o'clock (7:00) in the afternoon (p.m.), at which time the polls will close, to vote by Australian ballot upon the following Articles of business:

ARTICLE I

Shall general obligation bonds or notes of exceed \$, subject to reduction to finance the cost of public safety building being \$?	
ARTI	CLE II
If Article I shall be approved, shall the generation of Norwich approved in Article I be cost of installing energy efficiency improvements a goal that the energy uses of the built resources, the estimated cost of such energy \$211,000.	e increased by \$ to finance the vements at the new public safety building ldings would be from renewable
The legal voters of the Town of Norwich registration and absentee voting relative to said spaces, 51 and 55 of Title 17, Vermont Statutes Annotes	
The legal voters of the Town of Norwich meeting will be held on, October, Norwich at seven o'clock (7:00) in the evening, f improvements and the financing thereof.	2016 at in the Town of
Adopted and approved at a regular meeting duly called, noticed and held on August 24, 2016 records of the Town of Norwich on August 25, 20	
ATTEST:	
Bonnie J. Munday Town Clerk	
	Town of Norwich Selectboard

OFFICIAL BALLOT

TOWN OF NORWICH

SPECIAL MEETING NOVEMBER 8, 2016

ARTICLE I

Shall general obligation bonds or notes of the Town of Norwich in an amount not to exceed \$, subject to reduction from available grants-in-aid, be issued to finance the cost of public safety building construction, the estimated cost thereof being \$?			
If in favor of the bond issue, make a cross (x) in this square:			
If opposed to the bond issue, make a cross (x) in this square:			
ARTICLE II			
If Article I shall be approved, shall the general obligation bonds or notes of the Town of Norwich approved in Article I be increased by \$			
If in favor of the bond issue, make a cross (x) in this square:			
If opposed to the bond issue, make a cross (x) in this square:			

CERTIFICATE OF POSTING PUBLICATION AND VOTE

The undersigned, being the Clerk of the Town of Norwich, does certify that:

- (1) The attached Resolution (Exhibit I) was duly adopted at a duly warned meeting of the Selectboard of the Town of Norwich held on August 24, 2016.
- (2) The attached Warning (Exhibit II) was duly approved and adopted at a duly warned meeting of the Selectboard of the Town of Norwich held on August 24, 2016.
- (3) The attached form of Ballot (Exhibit III) was duly approved and adopted at a duly warned meeting of the Selectboard of the Town of Norwich held on August 24, 2016 for use at the special meeting of the Town of Norwich held on November 8, 2016.
- (4) The attached Warning (Exhibit II) was published in the Valley News, a newspaper published in Lebanon, New Hampshire, and generally circulating in the County of Windsor and in the Town of Norwich and said Warning appeared in said newspaper on October 18, October 25 and November 1, 2016.
- (5) The attached Resolution (Exhibit I) and Warning (Exhibit II) were received for record and recorded on August 25, 2016, in the records of the Town of Norwich.
- (6) The attached Warning (Exhibit II), Ballot (Exhibit III) and current voter checklist were posted in the following public places in the Town of Norwich from October 7, 2016 through November 8, 2016, the date of the special Town meeting.

*	
-	

(7)	The vote by Australian therein was:	The vote by Australian ballot (Exhibit III) on the propositions stated therein was:		
		ARTICLE I	ARTICLE II	
	IN FAVOR			
	OPPOSED			
	BLANK			
	SPOILED		-	
	TOTAL VOTES		-	
(8)	action taken at said sp threatened in any state proceedings set forth i	No petition has been filed seeking reconsideration or rescission of the action taken at said special meeting nor is there any litigation pending or threatened in any state or federal court contesting or challenging either the proceedings set forth in Paragraphs (1) through (7) of this Certificate, the works of improvement so authorized or, the issuance of bonds of the Town to finance the same.		
DATED:	December, 2016			
		Bonnie J. Munday Town Clerk		

Request for Proposals (RFP) Architectural and Estimates of Probable Costs Services Fire and Police Facilities Town of Norwich, Vermont

1. PURPOSE

- 1.1 The Town of Norwich (Town) is seeking proposals to provide architectural, engineering and estimates of probable costs services for upgrading the Fire Station and replacing the Police Station on the existing site.
- 1.2 The two buildings are:
- 1.2.1 Fire Station located at 11 Firehouse Lane
- 1.2.2 Police Station located at 10 Hazen Street
- 1.3 The program for the fire and police facilities is attached.
- 1.4 A 2004 survey of the site is attached.

2. SCHEMATIC DESIGN AND DEVELOPMENT OF ESTIMATES OF PROBABLE COSTS

- 2.1 At the completion of this project there should be a schematic site plan, floor plans and elevations with sufficient detail to accurately estimate probable costs of the facilities for the purpose of bonding the proposed improvements. The estimates of probable cost shall include the following, as a minimum, itemized where practical:
- **2.2** Elements in support of the combined facilities, including a Police Station and administrative offices for the Fire Department consistent with the attached program and upgrades to the existing Fire Station including:
- 2.2.1 Owners costs
- 2.2.2 Site preparation and landscaping
- 2.2.3 Removing the existing Police Station and foundations
- 2.2.4 Remove the existing septic for the Fire and Police Stations.
- 2.2.5 Remove two oil tanks
- 2.2.6 Relocate emergency generator and underground propane tank
- 2.2.7 Relocate the existing police storage shed
- 2.2.8 Install fire sprinklers in the existing Fire Station and new Police Station including a connection the public water system on Main Street.
- 2.2.9 Fire Alarm system with control panel and dialer
- 2.2.10 Replace the boiler for the Fire Station or incorporate in the heating system for the new police and fire administrative building
- 2.2.11 Repave driveway and apron from Fire Station to Main Street
- 2.2.12 New septic system
- 2.2.13 Storm Drainage system
- 2.2.14 Estimate of annual operation and maintenance costs of new and remodeled facilities

- 2.3 **Baseline energy option,** a building, including required upgrades to the Fire Station that meets the minimum requirements of the 2015 Vermont Commercial Building Energy Standards and common best practices including the following:
- 2.3.1 Propane heating including the Fire Station
- 2.3.2 Central air conditioning for the administrative building
- 2.3.3 High efficiency fluorescent lighting
- 2.3.4 Bituminous concrete (asphalt) paving with parking space striping and without curbs or wheel stops
- 2.3.5 Thirty-five foot radio tower attached to side of building with capacity for three 20' antennas mounted at top
- 2.3.6 Fire Department floor drains to oil/water separator and 10,000 gallon pump out tank
- 2.3.7 Exterior security lighting
- 2.3.8 Alarm and security system
- 2.4 **Net-zero energy option,** a building, including required upgrades to the Fire Station, that meets the minimum requirements of the 2015 Vermont Commercial Building Energy Standards, common best practices and the new building net-zero ready including the items in the *baseline energy option*—providing capital and life-cycle cost differentials—with the following upgrades:
- 2.4.1 Air exchange heat pumps in place of propane heating
- 2.4.2 LED lighting in place of high efficiency fluorescent lighting
- 2.5 **Options list:** Provide itemized costs *including capital and life-cycle cost differentials for energy conservation items* of the following.
- 2.5.1 Functionality: Allowance for new furniture for new building
- 2.5.2 Functionality: Concrete walks to entrance doors in place of asphalt.
- 2.5.3 Functionality: Granite curbs
- 2.5.4 Functionality: Traffic control system that meets the requirements of the MUTCD at Fire Department entrance to Main Street
- 2.5.5 Functionality: Fire apparatus tank fill in Fire Station
- 2.5.6 Energy conservation: LED lighting in place of high efficiency fluorescent lighting
- 2.5.7 *Energy conservation:* Insulating the walls of the Fire Station to meet the minimum requirements of the 2015 Vermont Commercial Building Energy Standards
- 2.5.8 *Energy conservation:* Replacing Fire Station windows with double-pane windows to meet the minimum requirements of the 2015 Vermont Commercial Building Energy Standards
- 2.5.9 Energy conservation: Replace Fire Station overhead doors with insulated doors
- 2.5.10 Security: Key card entrance control system with the ability to be programmed for controlling access to the police and fire portions of the building and other secure areas
- 2.5.11 Security: Exterior security cameras

- 2.5.12 Security: Interior security cameras in interview rooms and lobby
- 2.6 It is anticipated that the following meetings will be necessary:
- 2.6.1 A least three meetings with the Town Manager and the Police and Fire Chiefs.
- 2.6.2 At least three meetings with the Selectboard.
- 2.6.3 At least one public forum

3. CODES AND STANDARDS

- 3.1 At a minimum the following codes, standards or regulations shall be used during these studies:
- 3.1.1 Applicable OSHA Regulations.
- 3.1.2 Vermont Fire & Building Safety Code.
- 3.1.3 2015 Vermont Commercial Building Energy Standards
- 3.1.4 NFPA 101.
- 3.1.5 NFPA 1.
- 3.1.6 Vermont Agency of Natural Resources Rules.

4. INSURANCE REQUIREMENTS

4.1 All contractors and subcontractors are required to maintain insurance coverage and list the Town as an additional insured in accordance with the minimum amounts listed below. Prior to the start of any work, the Town shall be furnished with an insurance certificate as proof that coverage is in place.

a) General Liability \$1,000,000 per occurrence b) Property Damage \$1,000,000 per occurrence c) Personal Injury \$1,000,000 per occurrence

d) Automotive Liability \$500,000 per occurrence

e) Worker's Compensation (Statutory Requirement)

5. PRE-PROPOSAL MEETING

A mandatory pre-proposal conference will be held on September 24, 2015 at 1030 hours at the Norwich Town Hall located at 300 Main Street, Norwich, Vermont. The conference is intended to clarify the proposal requirements and provide an opportunity for questions and answers. If necessary, an addendum to this Request for Proposals will issued following the pre-proposal conference. All questions related to this Request for Proposals and addenda, if needed, shall be in writing and addressed to the Town Manager.

6. PROPOSALS

- 6.1 All proposals shall include the following:
- 6.1.1 Project cost.
- 6.1.2 Additional costs if additional meetings or public forums are needed.
- 6.1.3 Project schedule.

RFP – Planning and Architectural Services Page 4 of 4

- 6.1.4 Examples of similar projects.
- 6.1.5 Contact names and telephone numbers of previous clients.
- 6.1.6 Name and resume of Project Manager.
- 6.1.7 Resumes of all key personnel.
- 6.1.8 Familiarity with the referenced codes, standards or regulations and national standards for similar facilities.
- 6.2 The Town of Norwich has the right to reject any or all proposals if doing so is in the best interest of the Town.
- 6.3 All questions on this RFP should be directed to the Town Manager Neil Fulton at:
- 6.3.1 Email: nfulton@norwich.vt.us.
- 6.3.2 Phone 802-649-1419 X102.
- 6.4 Interested firms shall submit an original, 8 copies and an electronic version on a CD of their proposal no later than 1500 hours on October 8, 2015 to:

Neil R. Fulton Town Manager Town of Norwich 300 Main Street Post Office Box 376 Norwich, VT 05055



Norwich Town Manager Search Timeline as of: 7/18/16

April 15

VLCT: Proposal Submitted (mailed hard copies for Selectboard and Interim Manager), included:

- Proposal Letter
- Sample Employment Ads
- Sample Job Descriptions
- Town Manager Search Guidance
- Agreement

May 11

Selectboard Meeting with VLCT:

Review Search Process

June 22

Selectboard Meeting with VLCT: Planning meeting at Norwich Town Offices:

- Review responses to Selectboard questions
- Review Timeline
- Review Advertising Strategy
- Selectboard representative appointed to coordinate with VLCT
- Service Agreement signed

July 11

Selectboard: Review and finalize:

- Final Employment Ad
- Final Job Description
- Finalize Timeline
- Review and discuss Town Manager Search Committee recruitment ad and charge. Town will handle committee recruitment and logistics.
- Discuss possible travel budget for in-person interviews

July 18 – 20

VLCT: Post ads in all publications both print and electronic (Run for 6 weeks)

Number applications upon receipt

August 17

VLCT: Send town sample interview questions and guidance for Aug. 24 meeting packet

August 24

Selectboard Meeting:

- Discuss VLCT sample interview questions and finalize questions to ask in each interview round
- VLCT review interview guidance

Sept. 2 - 9 VLCT: Following Application Deadline: 9/2/16

- Applications reviewed; summary sheet completed with years of experience for each criteria
- Applications bundled, printed and copied

Sept. 14 Selectboard Meeting:

- Review applications for Town Manager Search Committee and appoint committee members
- VLCT attend meeting and review process with committee and distribute application packets

Sept. 15-20 TM Search Committee

 Review applications and select candidates for 1st round interviews (10-12, and 2-3 alternates)

Sept. 21 TM Search Committee Meeting

- Committee meets to review applications and recommend list of 1st round interviewees
- List of 1st round interviewees and alternates sent to VLCT
- 1st round interview schedule established (generally 30 minutes per interview,
 15 minutes for discussion)
- Interview format identified: phone conference / Webcam (Skype, Facetime, etc.)
 / in person
- Interview questions and guidance discussed

Sept. 22 – 26 *VLCT*

- Schedules interviews and coordinates with candidates
- Provides TM Search Committee/Selectboard with interview schedule and candidate information

Sept. 28 – Oct. 4 TM Search Committee/Selectboard:

1st round interviews conducted

Oct. 4 Selectboard Meeting with VLCT: At meeting, following final interview

- Selectboard provides list of 2nd round interview candidates (4-6 and 1-2 alternates)
- Discuss interview method and schedule (Generally 1 hour per, and 15 minutes for discussion). If this will be the final round, consider tour of town office and town.
- Review interview questions
- Discuss travel costs for candidates out of state.

Oct. 5 – 8 *VLCT*

- VLCT compiles 2nd round interview itineraries including: duration, locations, meetings with staff and elected officials, and other logistics.
- Schedules interviews with 2nd round candidates
- Applicants not interviewed for 1st round notified of status

Oct. 10 – 14 *Selectboard*

2nd round interviews conducted

Oct. 14 Selectboard Meeting with VLCT: At meeting following final interview

- Selectboard provides VLCT with finalist candidates (1-2) for background and reference checks.
- Next steps in process reviewed

Oct. 14 – 21 VLCT: Initiates civil and criminal background checks and conducts reference checks, and reports findings to Selectboard.

Selectboard: Discuss possible terms of employment with finalist

Late October Selectboard: Offers employment contract at duly warned meeting.

Possible start date, early November, 2016 - dependent on how much notice finalist needs to give or if relocation is required.

Charge for the Advisory Town Manager Search Committee

The advisory Town Manager Search Committee is charged with assisting the Selectboard's search for a new Town Manager. The Committee will:

- Review all applications for Town Manager received by the Vermont League of Cities and Towns.
- Recommend 8 10 candidates (with 2 3 alternates) for first round interviews.
- Help conduct first round interviews.
- Recommend 3 6 candidates to the Selectboard for 2nd round interviews.
- Be available to attend Committee meetings and candidate interviews.
- Maintain confidentiality throughout the process.
- Meet with Selectboard for discussion as appropriate.

Committee members will be appointed by the Selectboard at its meeting on September 14, 2016. The Committee is a public body under 1 V.S.A. Section 310. Meetings and interviews will be conducted in Executive Session to consider the appointment of a public employee per 1 V.S.A. Section 313(a)(3).

Town Volunteers Needed

The Selectboard is seeking one Department Head, one business owner in Norwich and five residents to serve on an advisory Town Manager Search Committee.

Anyone interested in serving on this Committee is encouraged to fill out a Town of Norwich application available online at http://norwich.vt.us/wp-content/uploads/2012/06/NorwichApplicationForm2.pdf or at the Town Manager's Office and submit it via:

- Email: Selectboard@norwich.vt.us,
- U.S. mail: Town of Norwich, Selectboard, P.O. Box 376, Norwich, VT 05055
- Fax: 802-649-0123 or
- drop it off at the Town Manager's Office.

Applications are due by 4 pm September 8, 2016. The Selectboard will conduct interviews and make appointments at its September 14th Selectboard meeting.



7-18-16 Approved Job Ad – Norwich Town Manager

The Town of Norwich, Vermont, seeks an engaging, collaborative, and experienced Town Manager. Norwich (pop. 3,414) is a charming New England community located across the Connecticut River from Dartmouth College and is close to both Interstates 89 and 91. The Town has a strong tradition of community involvement and access to the arts, cultural, and recreational amenities of the Upper Valley.

The Town Manager reports to Norwich's five-member Selectboard and is responsible for the Town's daily operations. The manager directly supervises approximately 38 full-time, part-time, and seasonal employees, administers a budget of \$4.7 million, and oversees all financial, public works, public safety, personnel, economic development, recreation, and community relations matters for the Town.

A detailed job description is posted here: http://norwich.vt.us/wp-content/uploads/2012/06/TM01-Town-Manager.pdf

Salary range is \$84,000 to \$88,000, commensurate with experience and education, and includes an excellent benefits package. Bachelor's degree in a relevant field required; Master's in public administration or business management or equivalent experience in municipal management desired. Three to five years of experience in governmental operations at a supervisory level preferred.

To apply, please email a cover letter, resume, and contact information with three references by Friday, September 2, 2016, to municipal recruitment@vlct.org with "Norwich Town Manager Search" as the subject line. Alternatively, you may send the application materials to:

Vermont League of Cities and Towns Municipal Assistance Center 89 Main Street, Suite 4 Montpelier, VT 05602-2948.

MEMORANDUM

TO: NORWICH SELECTBOARD FROM: STEPHEN N. FLANDERS

SUBJECT: SETTING BUDGETARY GUIDELINES

DATE: AUGUST 1, 2016 **CC:** TOWN MANAGER

1. *Budgetary guidelines* – On August 24th the selectboard meets to consider budgetary cost guidelines. Recently approved budgets have reflected maintaining the current level of services. These received voter approval by about 70%

- 2. *NFC guidance* The selectboard's guidance to the Norwich Finance Committee, as set forth in its charge, has the following options for setting budgetary guidance, which I'll comment on, below:
 - Ability to pay Identify indices that represent the health of the local economy and affect the community's ability to pay taxes.
 - Change of cost index Identify appropriate cost indices that reflect municipal or educational costs. This allows an estimate of a budget that maintains the current level of services.
 - Budgetary headroom Identify budgetary values that would maintain the current municipal and education tax level on a given property.
- 3. Ability to pay The community has expressed both a willingness and an ability to pay the municipal taxes that have resulted from recent budgets with its voting for budgets. Note that there are circuit breakers that give tax relief to residents with lower incomes.
- 4. Change of cost index In predicting future municipal costs, one can apply a variety of cost indices, e.g. consumer price index, construction cost index, and municipal cost index. Norwich has a variety of costs the each have their own basis for projection.

The primary driver of costs in the budget is the step and track system. Because of union contracts, the only way to reduce compensation in the bargaining unit is to eliminate a position. Additionally, are the projections of the costs of benefits, especially insurance. Outside the bargaining unit, the option exists to reduce time that a position works or to backfill an open position at a lower grade.

Another category of town expense is the purchase of goods and services. It would be unwise to budget for an insufficient amount of sand or salt to address winter and spring maintenance.

A third category of town expense is reserve funds that put away money to take care of town capital assets, thereby avoiding financing future purchases with bonds or loans. Lowering funding for reserve funds would mean that the town was positioning itself to not be able to replace equipment, as it wears out or allowing asphalt paving to deteriorate beyond the point of economical repair.

5. Budgetary headroom — While some people focus on the differences between budgets, the more meaningful discussion is on the resulting difference in taxes that a property must pay as a result of a budgetary change. A rule of thumb here is that new construction increases the value of the grand list by 1% per year, allowing the town budget to grow by that amount without a change in the tax payed by a given property.

Another point to remember on budgetary headroom is that budgets should include sufficient funds to cover likely contingencies, such as a bad winter or spring for road maintenance.

- 6. Budget execution In covering budgetary contingencies, the selectboard relies on the town manager to only spend what's reasonable and appropriate, thereby leaving an undesignated fund balance that will allow offsetting taxes and carrying over a 16% balance, when the tax rate is set in July.
- 7. Recommendation Consequently, I recommend that the selectboard opt for the town manager to present a budget that maintains the current level of service. I would ask that any selectboard member, who wishes to see a reduction from that standard, identify what they would ask the town manager not to include in the budget. It is unfair to ask the town staff to identify cuts in core services, since this is really a political decision that rests on a board that has seen several budgets in detail.
- 8. *Possible motion* "I move that the town manager present a budget to the selectboard that maintains the current level of service."

DRAFT Minutes of the Selectboard Meeting of Monday, July 11, 2016 at 6:30 PM

Members present: Linda Cook, Chair; Christopher Ashley; Stephen Flanders; Dan Goulet; Mary Layton (by phone), Vice-Chair; Dave Ormiston, Interim Town Manager; Nancy Kramer, Assistant to the Town Manager.

There were about 9 people in the audience.

Also participating: Abby Friedman (by phone), Steve Leinoff, Cheryl Lindberg, Bonnie Munday, Demo Sofronas, Carl Tracy, Jay White.

Cook opened the meeting at 6:32 pm.

- 1. Approval of Agenda (Action Item). The Selectboard, by consensus, approved the Agenda.
- 2. Public Comments. There were no public comments.
- 3. Interviews/Appointments Committee to Identify Community Pool Options (Discussion/Action Item). Tracy was present and interviewed by the Selectboard. Ormiston read parts of emails from Lilienthal and Gold and stated that Sterling had asked that his application be pulled. After discussion, Ashley **moved** (2nd Flanders) to appoint Jim Gold, Mark Lilienthal and Carl Tracy to the Committee to Identify Community Pool Options. **Motion passed.**
- 4. Meeting with Abby Friedman from VLCT Re: Town Manager Search Process (Discussion/Possible Action Item). Town Manager Job Description: After changing Assessor to Contract of Assessor in section 9.1, Ashley **moved** (2nd Flanders) to accept the job description as amended. **Motion passed.** Town Manager Ad: After discussion regarding salary, Layton **moved** (2nd Goulet) to approve the ad with a salary range of 24A to 24C rounded using the FY17 Grade and Step Plan. **Motion passed 3 to 2** (yes Cook, Goulet and Layton; no Ashley and Flanders). After combining items listed as Early and Late August and setting the date as August 24, the Selectboard by consensus approved the timeline. Advertising: After agreeing to add the "7 days Newspaper", Ashley **moved** (2nd Flanders) to approve up to \$3,300 for advertising for the Town Manager position. **Motion passed.** Advisory Town Manager Search Committee: After discussion, the bullet "Abide by the town Committee Policy" was struck and a bullet "Meet with Selectboard for discussion as appropriate" was added. An ad for Committee membership was changed to one Department Head, one business owner in Norwich and five residents, as agreed to at the June 22nd Selectboard meeting.
- 5. Public Safety Facilities (Discussion/Possible Action Item). Jay White, Project Architect, was present and said he had reviewed the comments submitted by the two Department Heads and Selectboard members. White said he is looking for consensus for a plan to allow for a new future apparatus building. White passed out and reviewed new drawings he had worked on that morning dated 7/12/16. Munday spoke about the timeline for the November 8th election saying she needed the bond information approved at the Selectboard's August 24th meeting in order to align the bond vote with the November election for ballots. White said he should have a budget for the project by mid-August if the Selectboard reaches general consensus tonight. The Selectboard then discussed the EOC/Police conference room space in the drawings. Flanders said he would like a tabulation of the programmed space vs. the designed space. Afterwards, Layton **moved** (2nd Goulet) to combine the EOC and the Police conference room in the plans. **Motion passed 3 to 2** (yes Cook, Goulet and Layton; no Ashley and Flanders). Ashley made the point that this

motion changed the Selectboard approved program. Layton **moved** (2nd Goulet) to approve the general direction of the design with the changes made by Jay White keeping the footprint in the plans dated 7/12/16 and received July 11, 2016. **Motion passed 4 to 1** (yes – Cook, Flanders, Goulet and Layton; no – Ashley).

- 6. Set FY17 Municipal Tax Rate (Discussion/Action Item). Ormiston reviewed the Town of Norwich Property Tax Rates sheet provided in the packet stating his proposal leaves 16% in the Undesignated Fund. Flanders reviewed his tax setting considerations stating that voters affirmed this budget with its tax rate by nearly 70%. Afterwards, Ashley **moved** (2nd Flanders) to set the Town tax rate at \$0.4926, the Local Agreement rate at \$0.0051 for a total Town tax rate of \$0.4977. **Motion passed.**
- 7. Interim Town Manager's Report (Discussion). Written report in packet and on the Town website. No actions taken.
- 8. Adopt Norwich Town Service Officer Job Description (Discussion/Action Item). After very little discussion, Flanders **moved** (2nd Goulet) to adopt the Norwich Town Service Officer Job Description. **Motion passed.**
- 9. Financial Management Questionnaire Discussion with Cheryl Lindberg (Discussion/Possible Action Item). Lindberg explained the document and some questions were asked. Afterwards, Ashley **moved** (2nd Flanders) to receive the Financial Management Questionnaire and authorize the Chair to sign. **Motion passed.**
- 10. Selectboard
 - a) Approval of Bill from DesMeules, Olmstead & Ostler (Discussion/Action Item). Ashley **moved** (2nd Goulet) to authorize the Interim Town Manager to pay the bill of \$420.00 from the Professional Services line item. **Motion passed**.
 - b) Approval of the Minutes of the 6/22/16 Selectboard Meeting (Action Item). After some discussion, Flanders **moved** (2nd Goulet) to approve the minutes of the June 22, 2016 Selectboard meeting with the changes outlined in Flanders email dated June 27, 2016. **Motion passed 4 to 1** (yes Ashley, Flanders, Goulet and Layton; no Cook).
 - c) Review of Next Agendas (Discussion/Possible Action Item). Items on the agenda for August 24th will include: Public Safety Facilities, bond paperwork, Town Manager search, public input on FY18 budget and Selectboard guidelines for FY18 budget.

Goulet moved (2 nd Flanders) to adjourn.	Motion passed.	Meeting adjourned at 10:31 pm.
Approved by the Selectboard on		
By Nancy Kramer Assistant to the Town Manager		

Linda Cook Selectboard Chair

Next Regular Meeting – August 24, 2016 at 6:30 PM

PLEASE NOTE THAT CATV RECORDS ALL REGULAR MEETINGS OF THE NORWICH SELECTBOARD.

Nancy Kramer

From: Stephen Flanders < stephen.n.flanders@gmail.com>

Sent: Friday, July 15, 2016 6:11 PM

To: Nancy Kramer

Cc: Ashley Christopher; Cook Linda; Layton Mary; Goulet Dan; David Ormiston

Subject: Re: SB Draft 7/11 Minutes--Flanders revision for next SB meeting approval

Thank you, Nancy.

Please have your successor include the following proposed revision (showing deleted and added material) to para. 6 in the next SB packet:

6. Set FY17 Municipal Tax Rate (Discussion/Action Item). Ormiston reviewed the Town of Norwich Property Tax Rates sheet provided in the packet stating his proposal that included a proposed tax rate of \$0.4977, which would leave an Undesignated Fund Balance of leaves 16% of the FY 17 budget. in the Undesignated Fund. Flanders reviewed his tax setting considerations stating noted that voters affirmed this the FY 17 budget with its projected total town tax rate of \$0.5461 by nearly 70% and that the proposed tax rate would substantially improve upon the expectation of the voters, even considering the effects of the town-wide reassessment on an average property's value. Afterwards, Ashley moved (2nd Flanders) to set the Town tax rate at \$0.4926, the Local Agreement rate at \$0.0051 for a total Town tax rate of \$0.4977. Motion passed.

Sincerely, Steve F.

Stephen Flanders, Member of the Norwich Selectboard 317 Hopson Road Norwich, Vermont 05055

802-649-1134 (Home)

Any response or reply to this electronic message may be subject to the Vermont Public Records Act. Any views expressed in this e-mail are mine and may not reflect those of the board. Vermont statutes confer no special powers to individual selectboard members. Statutory selectboard powers arise from actions of the body at warned, public meetings with a few exceptions.

On Jul 15, 2016, at 10:48 AM, Nancy Kramer <nkramer@norwich.vt.us> wrote:

Are up on the Town website under Selectboard at http://norwich.vt.us/wp-content/uploads/2014/06/draftminutes-071116.pdf.

Nancy

Nancy Kramer Assistant to the Town Manager Town of Norwich (802) 649-1419 ext. 101 P.O. Box 376