

**City of Newburyport Planning Board  
Application for SITE PLAN REVIEW**

---

Applicant:	K & B Zampell Realty Inc.	Applicant's Counsel: Jeffrey L. Roelofs Law Offices of Jeffrey L. Roelofs, P.C. 44 Merrimac Street Newburyport, MA 01950 Tel: 978-462-7600 jlr@roelofslaw.com
Address:	17 Malcolm Hoyt Drive	
	Newburyport, MA 01950	
Phone:	978-499-5137	
Email:	james.zampell@zampell.com	

**Property Address:** 17 Malcolm Hoyt Drive

Assessor's Map and Lot(s): 82A - 4 Zoning District: Industrial 1 (I1)

Book and Page(s) or Cert.#: Bk 11078, Page 493 (1991)

Type of Project:  Major  Minor

Project Description: 19,087 square-foot building expansion to be used as warehouse. No new parking spaces or access drives are required or proposed. Three building-mounted lights are proposed for the expansion, with no other changes to existing site lighting.

Engineer: Peter J. Ogren, P.E., Hayes Engineering, Inc.

Address: 603 Salem Street  
Wakefield, MA 01880

Phone: 781-246-2800

Email: pogren@hayeseng.com

Owner: [Same as Applicant - above]

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Owner's Signature:   
James C. Zampell, President

April 16, 2020

Newburyport Planning Board  
City Hall  
60 Pleasant Street  
Newburyport, MA 01950

**RE: Application for Major Site Plan Review  
17 Malcolm Hoyt Drive, Newburyport, MA  
Assessor's Map 82A, Lot 4**

Dear Planning Board Members:

This letter and enclosed materials support the application of K & B Zampell Realty, Inc.'s ("Zampell") for Major Site Plan Review for its proposed building expansion at 17 Malcolm Hoyt Drive (also referred to as Malcolm Hoyt Road). This application is submitted pursuant to the City's Zoning Ordinance, Section XV - Site Plan Review.

**APPLICATION MATERIALS**

Enclosed with this letter are the following:

- 2 checks: \$500 check for the application fee and a \$350 check for the publication/abutters fee.
- One full sized copy of the site plans and landscape plan (see below).
- 2 collated copies of the application package, including the following:
  1. Completed and Signed Application for Site Plan Review,
  2. This letter, describing the project and its compliance with applicable Site Plan Review requirements,
  3. Assessor card
  4. MIMAP and other images of the subject property,
  5. Zoning determination (6/18/2019) noting the need for Major Site Plan Review,
  6. Site plans prepared by Hayes Engineering, Inc., dated 2/18/2020 (4 sheets: C1 – C4, 11" x 17"),

7. Architectural plans prepared by John Sava Architects, LLC, dated 2/15/2020 (5 sheets: A-1.1, EX-1.1, A-2.1, A-2.2, and A-5.0, 11" x 17"),
8. Landscape Plan by James K. Emmanuel, Landscape Architects, rev. June 18, 2019 (one sheet, 11" x 17"),
9. "Revised Storm Water Management Calculations with Cornell Study Rainfall Quantities," with Narrative, by Hayes Engineering (rev. 2/10/2020), and
10. Wall pack light spec sheet.

A PDF version of this application package is being submitted separately by email to the Planning Department. A Project Review Fee and CAD plans will also be provided separately in coordination with the Planning Department.

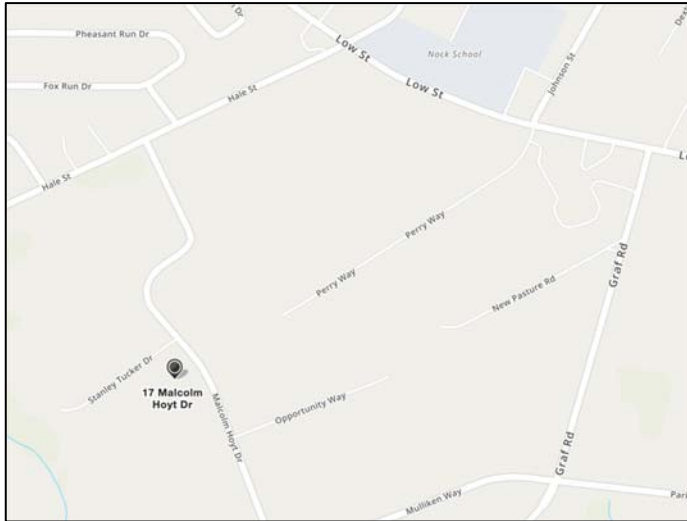
### **OVERVIEW OF ZAMPELL OPERATIONS**

Zampell and affiliates operate the facilities at 17 Malcolm Hoyt Drive, 3 Stanley Tucker Drive and 5 Stanley Tucker Drive. Zampell is an organization established in 1966 that is chiefly involved with the engineering and construction of refractories, insulation, and scaffolding within the industrial sector and facilities maintenance and management within the commercial sector. It is a family-owned business that moved all of its operations to Newburyport during the 1990s. Zampell continues to grow due to its core values of safety, dedication to its employees and customers, and its quality craftsmanship. Zampell now has offices in Massachusetts (headquarters), Maine, Connecticut, Pennsylvania, Florida, Texas, Kentucky, California & Oregon. Zampell also has a subsidiary, Zampell A/S with locations in Jutland and Sjælland in Denmark.

### **OVERVIEW OF PROPERTY AND PROPOSED BUILDING ADDITION**

Zampell is proposing to expand its buildings at 17 Malcolm Hoyt Drive and 3 Stanley Tucker Drive. The 3 Stanley Tucker Drive building expansion is the subject of a separate Site Plan Review application. The objective of both proposed building additions is to provide expanded warehouse space so that Zampell can avoid having to store scaffolding and other materials/equipment in outdoor areas at its properties as it has been compelled to do recently.

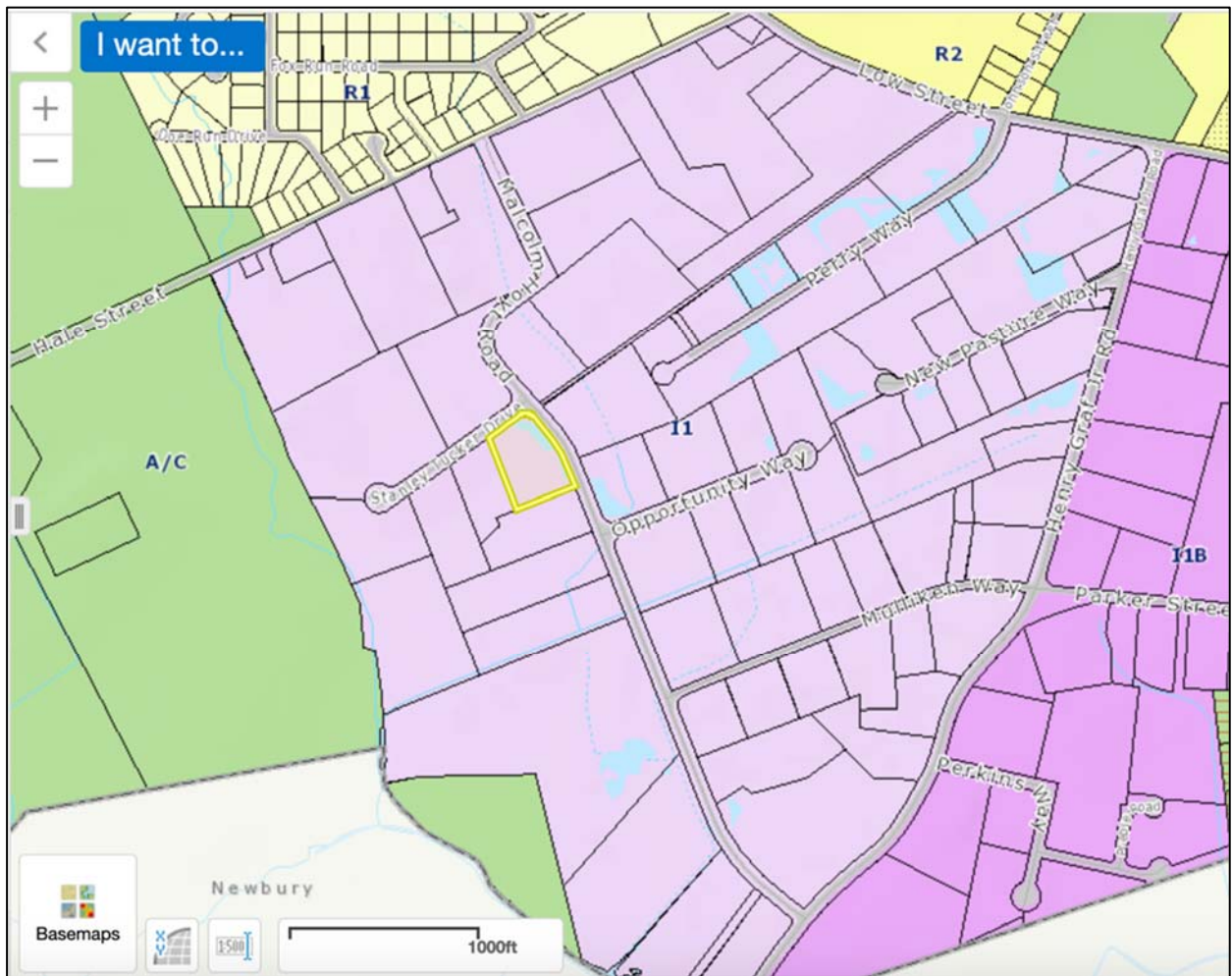
The approximately 3.2-acre property at 17 Malcolm Hoyt Drive is situated at the corner of Malcolm Hoyt Drive and Stanley Tucker Drive within the Industrial 1 zoning district. The location, buildings, zoning boundaries and properties are depicted in the following images:



Roadmap (Mapquest)



Subject Site and Nearby Properties (from MIMAP)



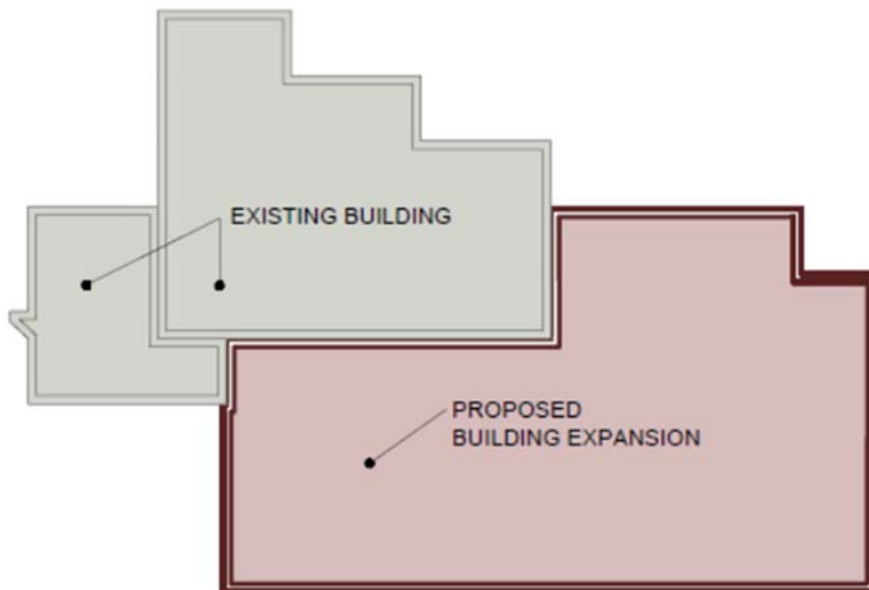
Zoning Boundaries (from MIMAP)

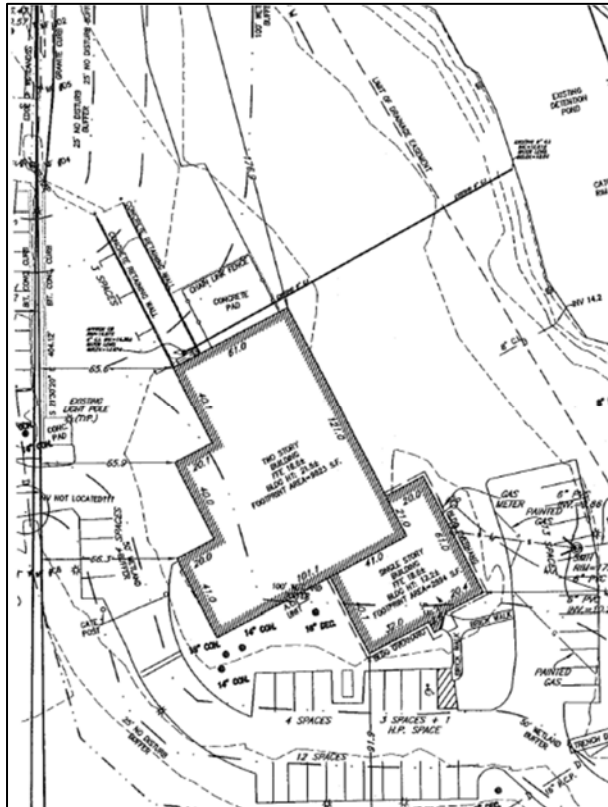




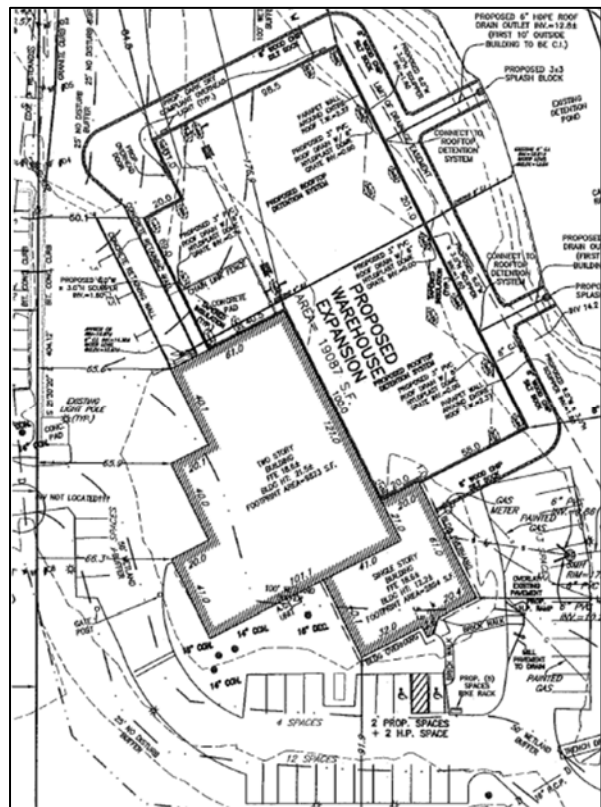
17 Malcolm Hoyt Drive and Nearby Properties (from MIMAP)

The proposed 19,087 square-foot building expansion at 17 Malcolm Hoyt Drive is within the footprint of a “Proposed Future Expansion” included on the site plan that was previously approved in 1987 for the existing building constructed in 1988.





*Existing*



*Proposed*

The proposed expansion has been reviewed and approved by the Newburyport Conservation Commission through an Order of Conditions that the Commission granted in September 2019.

Key attributes of the project are as follows:

- **Traffic:** The proposed 19,087 square foot building expansion will be used for warehouse, with no resulting increase in the number of employees or visitors. As such, the project will not generate any new vehicular traffic.
- **Access and Parking:** No new parking or access drives are required or proposed. The expanded building will be accessed from the existing access drives off of Malcolm Hoyt Drive and Stanley Tucker Drive. The existing 40 parking spaces provide more spaces than required for Zampell's 15 employees and visitors. See the "Parking Calculations" table included on the enclosed site plans (Sheet C1). Parking at the front of the existing building will be reconfigured to provide two handicap spaces instead of the existing one handicap space.
- **Lighting:** New lighting will be limited to 3 building mounted lights, dark sky compliant, installed by the proposed overhead door and on the rear of the addition. No new site lighting is proposed.

- Utilities: The proposed addition will be serviced by the sewer, gas and electric utilities already serving the existing building.
- Water: The only water demand for the existing building and proposed addition are for employee bathrooms. No processed water is or will be used.
- Sprinkler System: A new dedicated sprinkler line from Stanley Tucker Drive will be installed to service the proposed addition.

## **COMPLIANCE WITH SUBMISSION REQUIREMENTS** **SECTION XV-E**

The enclosed plans and materials include the details required by Section XV-E(a) of the Zoning Ordinance, as summarized in the Board's "Site Plan Review Submission Review Check List":

### **Plans and Associated Details**

1. Location and boundaries. The enclosed plans identify the location and boundaries of the property, easements, the zoning district, adjacent streets and ways, applicable information from Section VI, Dimensional Controls, and the location and owners of adjacent properties.
2. Structures. The enclosed plans depict the existing structures and proposed structures, including dimensions, footprint, and total gross floor area, number stories, floor elevations and building height.
3. Signage. No new signage is proposed.
4. Landscaping. A Landscape Plan prepared by a landscape architect is included in the plan set.
5. Traffic. The enclosed plans show demonstrate that appropriate access to the building addition will be provided via the existing drives and that areas beyond the paved surfaces will also provide additional access for fire apparatus. The project will not increase the number of employees at the property or otherwise generate new traffic or parking demands.
6. Parking. The enclosed plans show the location of parking and loading areas, driveways, access and egress points, and a proposed new bicycle rack.
7. Public access. There are no public access locations on the property.
8. Lighting. The enclosed plans and associated materials provide the details of the 3 wall pack, dark sky compliant lights proposed to be installed on the building addition. No new site lighting is proposed.

9. Topography. The enclosed plans show the existing and proposed topography of the site, wetlands and other site features, including proposed landscaping and stormwater management features.
10. Water and waste disposal, drainage and other utilities. The enclosed plans show the locations of sewer and water systems, storm drainage systems and other utilities and connections.

### **Narrative Submittals**

Also enclosed with this Site Plan Review package are narrative submittals that include the additional details and information required by Section XV-E(b) of the Zoning Ordinance, as summarized in the Board's "Site Plan Review Submission Review Check List," as follows:

1. Surface and groundwater pollution.
  - ✓ The enclosed Stormwater Calculations pertain to the impact of stormwater runoff on adjacent and downstream water bodies, subsurface ground water, and water tables – demonstrating compliance with the applicable standards aimed at protecting these resources.
2. Soils.
  - ✓ The enclosed Stormwater Calculations reflect existing soil conditions and demonstrate that the proposed project has been designed to avoid and mitigate potential erosion and sedimentation associated with the operation and maintenance of the proposed facility.
3. Environmental and community impact analysis:
  - ✓ This letter and enclosed materials collectively provide the components of the required environmental and community impact analysis to the extent relevant to this project.
4. Traffic impacts.
  - ✓ Because the proposed expansion will have no impact on traffic, no Traffic Impact Assessment is warranted.
5. Architectural Style.
  - ✓ Architectural details are provided on the enclosed architectural plans.
6. Other permits required.
  - ✓ Other permits required for this project are as follows to the:
    - Conservation Commission
      - Order of Conditions, state and local (issued in Sept. 2019)
    - Department of Public Services
      - Stormwater Management Permit
      - Utility connection approvals



**COMPLIANCE WITH SITE PLAN REVIEW CRITERIA**  
**SECTIONS XV-B AND XV-G**

The proposed development complies with the substantive site plan review criteria and objectives set forth in Section XV-B of the Zoning Ordinance, as summarized in the Board's "Site Plan Review Submission Review Check List," as follows:

- A. Community Character: The proposed development has been situated and designed in a manner that is compatible with the nearby uses in this Industrial 1 zoning district. The proposed building addition will allow Zampell to store scaffolding and other equipment indoors – rather than outdoors – improving aesthetics to the benefit of the surrounding area. The design, style and scale of the proposed addition is appropriate in relation to the existing building and subject site and also in relation to nearby buildings and structures. The project does not involve any new access drives or expand parking areas the site. The proposed stormwater management system will effectively manage stormwater associated with the project.
- B. Traffic, parking and public access: The project will not generate any new traffic or require any new access drives or parking spaces. The proposal includes adding a second handicap parking space and a bike rack. In summary, with reference to the Site Plan Review criteria, the development:
1. Minimizes vehicular traffic and safety impacts of the proposed development on adjacent highways or roads.
  2. Maximizes the convenience and safety of vehicular, bicycle, and pedestrian movement with the neighborhood and site.
  3. Minimizes adverse impacts on neighborhood on/off street and includes incentives for the use of alternatives to single-occupant vehicles.
- C. Health: This development will not involve any substantial noise, vibration, smoke, gas, fumes, odor, dust or other features that would cause any objectionable off-site impacts. Lighting has been appropriately designed to facilitate the safe use of the property, but to protect abutting properties. With reference to the Site Plan Review criteria, the development:
1. Minimizes adverse air-quality impacts, noise, glare, and odors.
  2. Provides for appropriate handling and disposal of hazardous materials and transmissions.
- D. Public services and utilities: The proposed addition will be serviced by the water, sewer, gas and electric utilities serving the existing building, except that a dedicated sprinkler line will be installed from Stanley Tucker Drive to serve the

proposed addition. The only water demand for the existing building and proposed addition are for employee bathrooms. No processed water is or will be used. With respect to stormwater, as discussed in the enclosed stormwater narrative and calculations, rooftop stormwater storage is proposed to mitigate flow from the proposed addition to the existing stormwater management features.

In summary, with reference to the Site Plan Review criteria, the development:

1. Is served with adequate water supply, wastewater systems, and solid waste disposal systems.
2. Is within the capacity of the city's infrastructure as defined by the water and DPW departments.
3. Includes measures to prevent pollution of surface or groundwater, minimizing erosion and sedimentation, as well as measures to prevent changes in groundwater levels, increased run-off, and potential for flooding.
4. Demonstrates an effort to conserve energy and water.

E. Land use planning: The proposed development is consistent with the City's 2017 Master Plan. For example, by expanding the building at this property while also appropriately protecting the nearby wetlands, enhancing the plantings at the site, and properly managing stormwater, the project is aligned with land use planning goal LU-6, as follows:

***Goal LU-6: Enable new and expanded commercial and industrial use at the Business and Industrial Park to generate at least 15% of the city's property tax revenues.***

*The City's Business and Industrial Park is Newburyport's principal area for industrial and office development. Today, several factors are thought to hinder development in the Park, including: insufficient local supply of skilled labor; obsolete building stock; inadequate infrastructure; and lack of promotion. Objectives and actions serving this Goal are meant to remove or surmount these constraints. They focus on adjusting the dimensional and parking regulations to allow greater height and flexibility for buildings to expand their operations. ... By modifying the dimensional regulations and amending the list of allowable uses, the City will be able to expand the area's tax revenue generation potential while ensuring that the Park's wetlands and environmentally-sensitive areas are protected and preserved.*

- F. Open space and environmental protection: The project:
1. Minimizes adverse environmental impacts to such features as wetlands, floodplains, and aquifer recharge areas and minimizes tree, vegetation, and soil removal, and grade changes.
  2. Proposes plantings throughout the property that favor native and drought-tolerant species and avoids invasive plants.

**COMPLIANCE WITH DEVELOPMENT AND PERFORMANCE  
STANDARDS - SECTION XV-H**

The proposed development complies with the development and performance standards set forth in Section XV-H, as summarized in the Board's "Site Plan Review Submission Review Check List," as follows:

1. Pedestrian and vehicular access and traffic impacts. Because the proposed building expansion will be used for warehouse, with no resulting increase in the number of employees or visitors, the project will not generate any new vehicular traffic. No new parking or access drives are required or proposed. The expanded building will be accessed from the existing access drives off of Malcolm Hoyt Drive and Stanley Tucker Drive. The proposed use of the existing driveways and the proposed parking and site circulation layout maximize the convenience and safety of vehicular, bicycle, and pedestrian movement within the site and interconnecting with the adjoining roadways.
2. Site plan and architectural design. The project has been developed to comply with and promote the requirements and objectives of the Newburyport Zoning Ordinance. The proposed development has been designed in a manner that is compatible with adjoining land uses by minimizing adverse environmental impacts, utilizing appropriate stormwater management techniques, providing for safe and efficient vehicular, bicycle, and pedestrian access and circulation, preserving important areas of existing vegetation and including landscaping enhancements. The proposed architectural design is compatible with the character and scale of buildings in the surrounding areas and compatible with the neighboring uses.
3. Lighting. New lighting will be limited to 3 building mounted lights, dark sky compliant, installed by the proposed overhead door and on the rear of the addition. The proposed lighting will protect adjoining properties from detrimental off-site glare or spillover light, while also serving safety and aesthetic objectives on the property. No new site lighting is proposed.
4. Landscaping. Additional plantings, as detailed on the enclosed Landscape Plan, are proposed and have been approved by the Conservation Commission as enhancements to the existing conditions.

5. Stormwater Runoff. Stormwater will be appropriately managed to prevent adverse impacts to neighboring properties and existing stormwater features at and near the site. The proposed stormwater management system has been designed to comply with the Massachusetts Stormwater Management Standards. Stormwater management details are identified in the enclosed plans and are discussed in the enclosed stormwater narrative and calculations.
6. Water Quality. The development has been designed to avoid any negative impact to groundwater quality.
7. Wetlands. The development has been carefully designed to prevent any adverse impacts to wetland resource areas, as the Conservation Commission confirmed through its issuance of an approval Order of Conditions for the project.
8. Erosion Control. Best management practices will be utilized during construction to control erosion and dust to protect wetlands and adjoining properties.
9. Environmental performance standards. The development complies with the performance standards set forth in Section XI of the Zoning Ordinance governing fire and explosive hazards, radioactivity, smoke, air pollution, wastes, vibration, noise, odors and glare.
10. Utilities. Sewer service and water supply utilities will connect to the municipal systems. There are no capacity issues for either service.

### CONCLUSION

For the foregoing reasons, Zampell respectfully requests that the Board grant its request for Major Site Plan Approval.

Please call or email me if you have any questions or need any additional information.

Thank you.

Sincerely,



Jeffrey L. Roelofs

Enclosures



# 17 MALCOLM HOYT RD

**Location** 17 MALCOLM HOYT RD

**MBLU** 82/A 4/ / /

**Owner** K & B ZAMPELL REALTY INC

**Assessment** \$1,058,200

**PID** 5812

**Building Count** 1

## Assessing Distr...

## Current Value

Assessment			
Valuation Year	Improvements	Land	Total
2019	\$615,700	\$442,500	\$1,058,200

## Owner of Record

**Owner** K & B ZAMPELL REALTY INC  
**Co-Owner** ZAR-TECH  
**Address** 17 MALCOLM HOYT DRIVE  
NEWBURYPORT, MA 01950

**Sale Price** \$1  
**Certificate**  
**Book & Page** 11078/0493  
**Sale Date** 12/31/1991  
**Instrument** 1F

## Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
K & B ZAMPELL REALTY INC	\$1		11078/0493	1F	12/31/1991
ZAMPELL JAMES C TR	\$181,200		09320/0189	00	12/14/1987
N A I D	\$0		07108/0137		05/12/1983

## Building Information

### Building 1 : Section 1

**Year Built:** 1988  
**Living Area:** 12,645

Building Attributes	
Field	Description
STYLE	Whse-Indust
MODEL	Industrial
Stories:	1
Occupancy	1

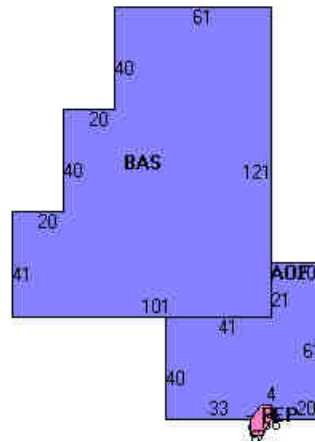
Exterior Wall 1	Concr/Cinder
Exterior Wall 2	Brick/Masonry
Roof Structure	Flat
Roof Cover	Tar & Gravel
Interior Wall 1	Minim/Masonry
Interior Wall 2	
Interior Floor 1	Concr-Finished
Interior Floor 2	
Heating Fuel	Gas
Heating Type	Forced Air-Duc
AC Type	None
Bldg Use	IND BLDG
Total Rooms	
Total Bedrms	00
Total Baths	0
1st Floor Use:	4020
Heat/AC	NONE
Frame Type	MASONRY
Baths/Plumbing	AVERAGE
Ceiling/Wall	CEIL & MIN WL
Rooms/Prtns	AVERAGE
Wall Height	20
% Comn Wall	0

### Building Photo



(http://images.vgsi.com/photos/NewburyportMAPhotos//\01\00\;

### Building Layout



(http://images.vgsi.com/photos/NewburyportMAPhotos//Sketches/

Building Sub-Areas (sq ft)			Legend
Code	Description	Gross Area	Living Area
BAS	First Floor	9,821	9,821
AOF	Office	2,824	2,824
FEP	Porch, Enclosed	72	0
		12,717	12,645

### Extra Features

Extra Features				Legend
Code	Description	Size	Value	Bldg #
SPR1	SPRINKLERS-WET	9821 S.F.	\$21,200	1
SPR2	WET/CONCEALED	2860 S.F.	\$8,700	1
A/C	AIR CONDITION	3060 S.F.	\$3,700	1
LDL1	LOAD LEVELERS	1 UNITS	\$4,400	1
MEZ1	MEZZANINE-UNF	1600 S.F.	\$24,300	1

## Land

### Land Use

**Use Code** 4022  
**Description** IND BLDG

### Land Line Valuation

**Size (Acres)** 3.02  
**Depth** 0  
**Assessed Value** \$442,500

## Outbuildings

Outbuildings						<u>Legend</u>
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
PAV1	PAVING-ASPHALT			30000 S.F.	\$34,500	1
LT5	MERC VAP/FLU			7 UNITS	\$700	1
LT6	W/DOUBLE LIGHT			1 UNITS	\$1,000	1

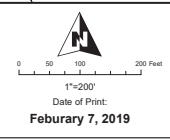
## Valuation History

Assessment			
Valuation Year	Improvements	Land	Total
2018	\$592,300	\$421,600	\$1,013,900

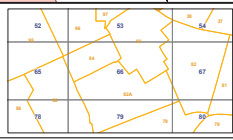
(c) 2019 Vision Government Solutions, Inc. All rights reserved.



**WARNING:** Data and information is provided by the GIS system, with the understanding that it is not guaranteed to be correct or complete. All data is subject to change and periodic updates. The City of Newburyport makes no claims, representations or warranties, express or implied, concerning the validity, reliability or the accuracy of the GIS data and GIS data products furnished by the City specifically including the implied or expressed validity of any uses of such data.



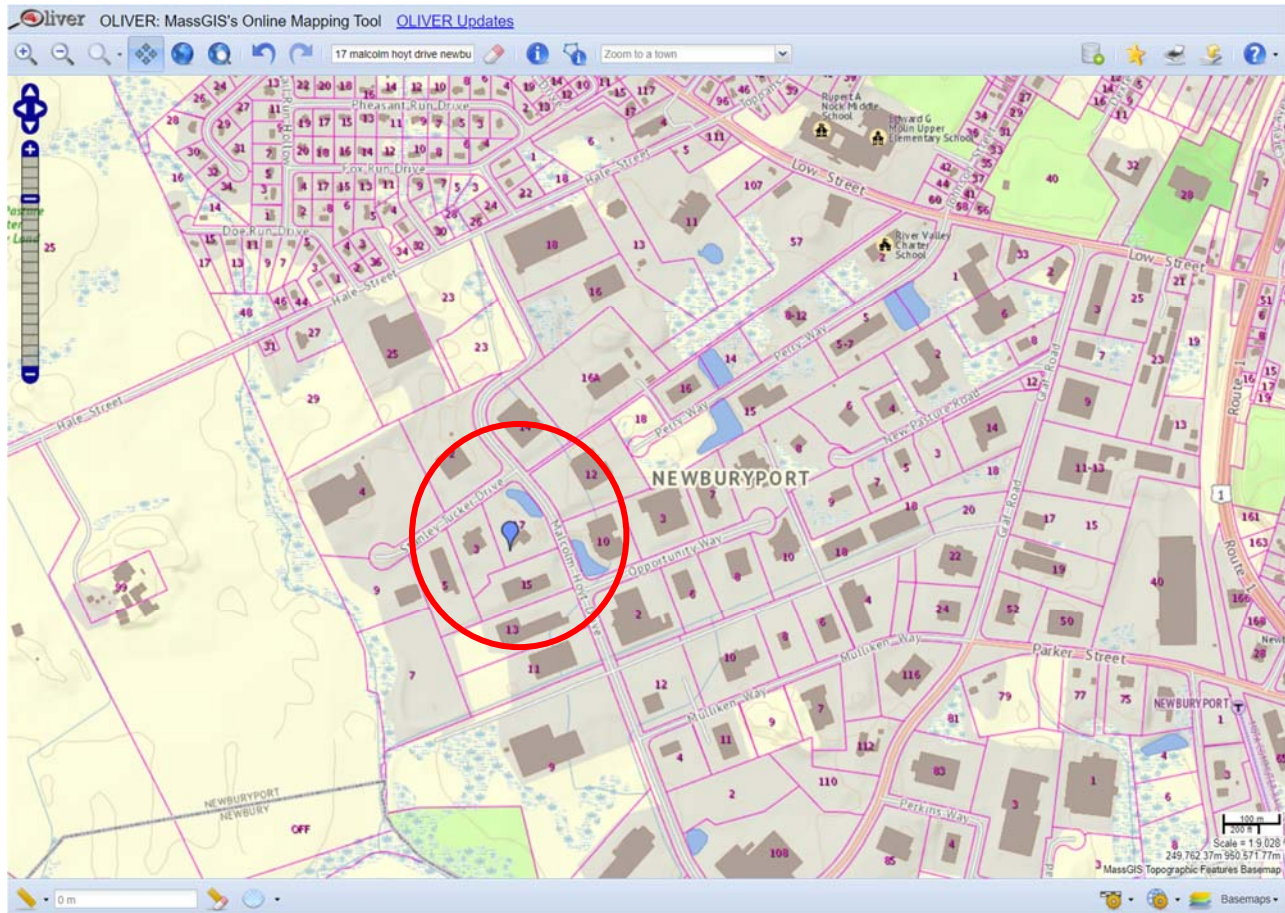
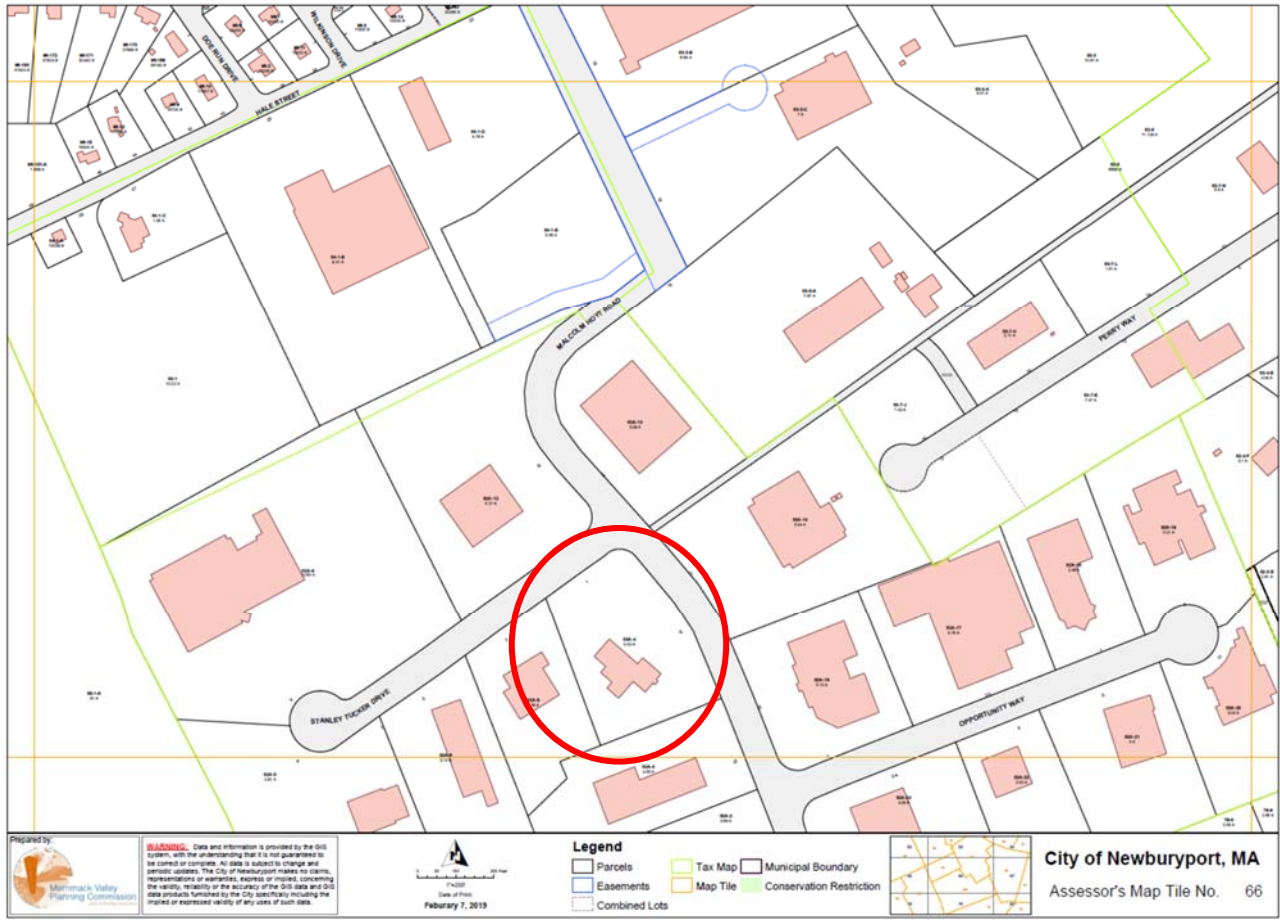
- Legend**
- Parcels
  - Easements
  - Combined Lots
  - Tax Map
  - Map Tile
  - Municipal Boundary
  - Conservation Restriction



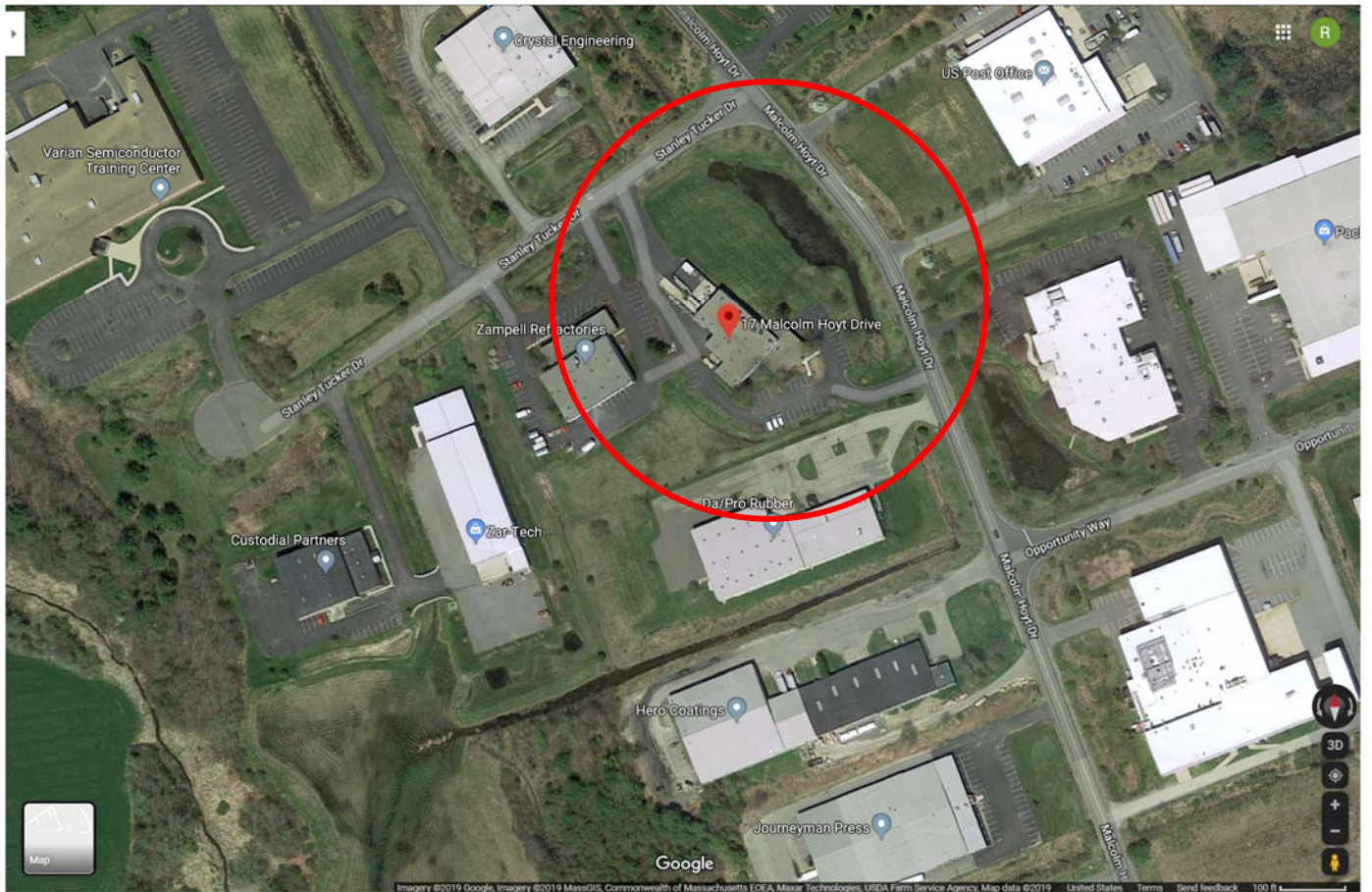
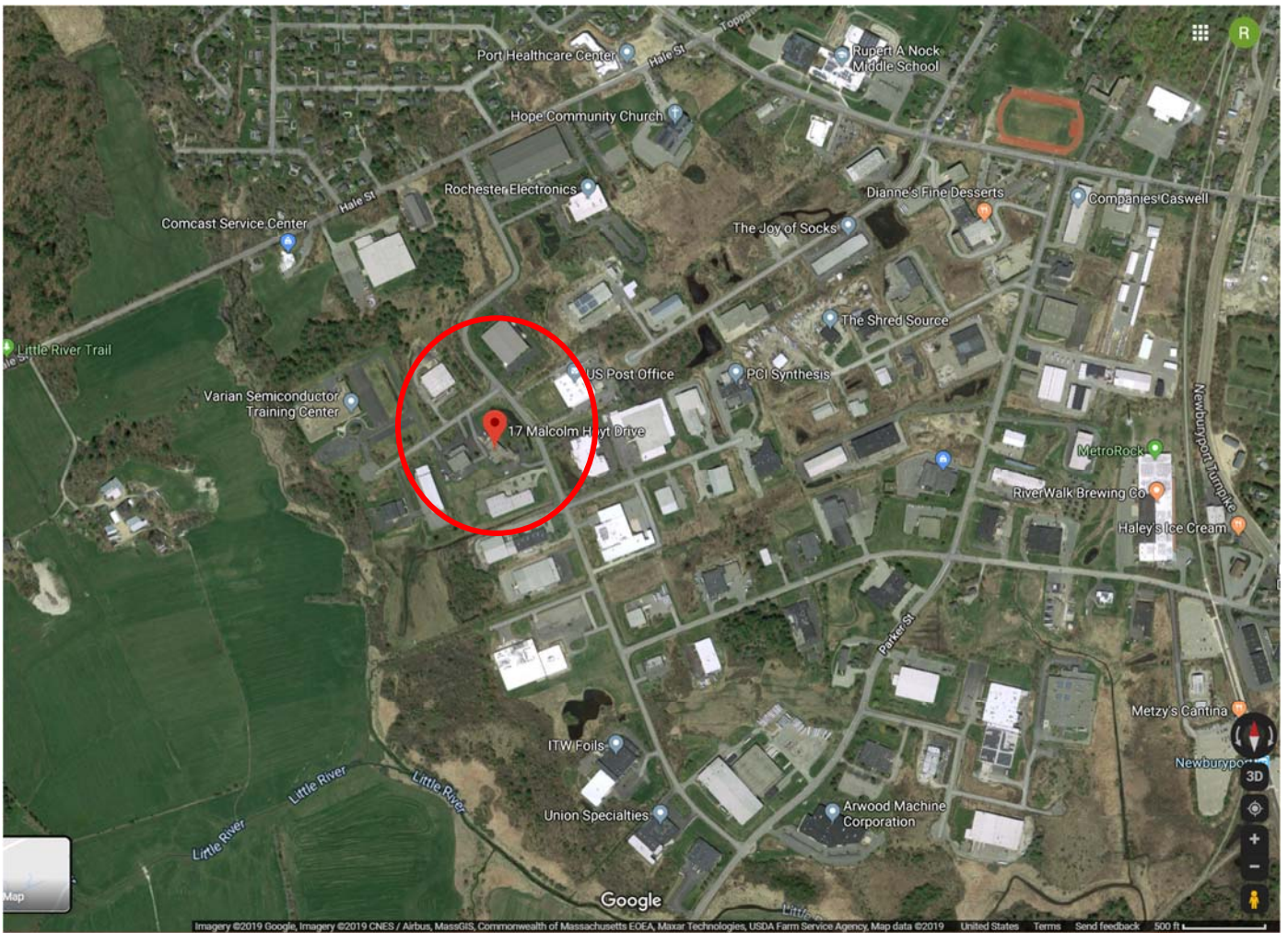
**City of Newburyport, MA**  
Assessor's Map Tile No. **66**



# 17 Malcolm Hoyt Drive (Zampell) – Maps and Images









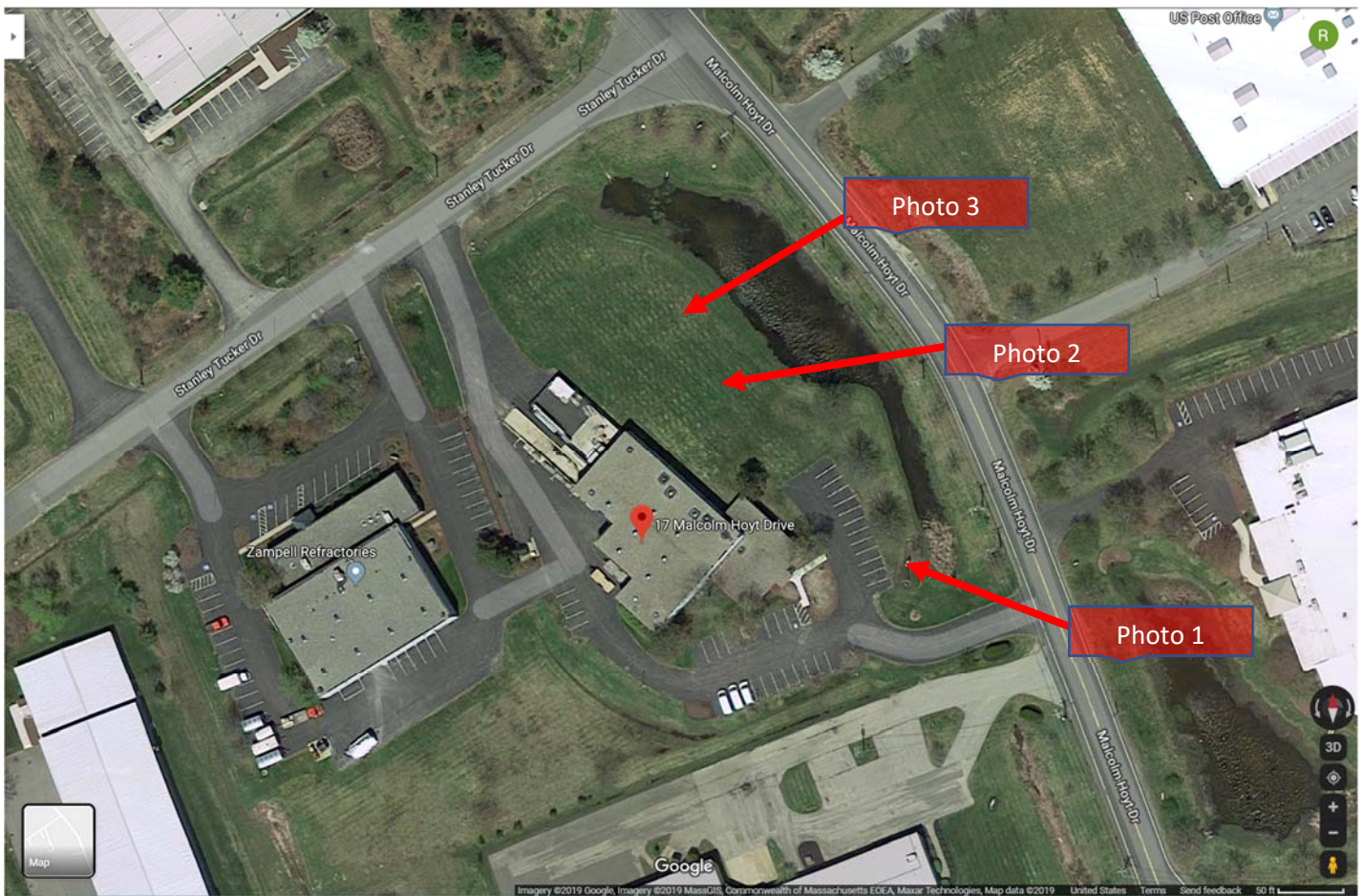


Photo 1 – View from southeast





Photo 2 - view from east



Photo 3 – view from east towards building expansion area



ZONING DETERMINATION

Name: K&BZampell Realty, INC

Address: 17 Malcom Hoyt Drive Zoning District(s): 11

Request: Building expansion >1000sf and >25% of existing gross floor area. Storage only-no additional parking need.

ZONING BOARD REVIEW REQUIRED

Variance

- Dimensional Controls (VI)
Lot Area, Open Space, Front Yard, Lot Frontage, Height, Side Yard, Lot Coverage, Lot Width, Rear Yard, Parking (VII), Modification

Sign Variance

- Signs (VIII)
Type, Size, Lighting, Location

Other

Special Permit

- Table of Use Regulations (V.D) #, Spacing (VI.D), In-Law Apartment (XIIA), Bonus for Multifamily Developments (XVI), Personal Wireless Communication Services (XX), Demolition Control Overlay District (XXVIII)\*, Wind Energy Conversion Facilities (XXVI), Other

Special Permit for Non-Conformities

- Extension or Alteration (IX.B.2)
Parking, Rear Yard, Upward Extension, Lot Coverage, Open Space, Side Yard, Height, Lot Frontage, Lot Area, Front Yard, Use, Over 500 sf. increase (IX.B.3.c), Plum Island Overlay District (XXI-G-3)
FAR, Height, Lot Coverage, Setbacks, Open Space

PLANNING BOARD REVIEW REQUIRED

Special Permit

- Table of Use Regulations (V-D) #, One residential structure per lot (VI.C), Open Space Residential Development (XIV), Water Resource Protection District (XIX), Federal Street Overlay District (XXII), Courts and Lanes (XXIII), Waterfront West Overlay District (XXIV), Towle Complex Redev. Overlay District (XXV), Downtown Overlay District (XXVII)\*, Other

Special Permit for Non-Conformities

- Extension or Alteration (IX.B.2)
Parking, Rear Yard, Upward Extension, Lot Coverage, Open Space, Side Yard, Height, Lot Frontage, Lot Area, Front Yard, Use, Over 500 sf. increase (IX.B.3.c)

Site Plan Review (XV)

- Major, Minor

Smart Growth District (XXIX)

- Plan Approval

HISTORICAL COMMISSION REVIEW REQUIRED

- Demo. Delay, \*Advisory Review

CONSERVATION COMMISSION REVIEW REQUIRED

Signature of Zoning Administrator, Date: 6/18/2019

# SITE PLAN IN NEWBURYPORT, MASS. #17 MALCOLM HOYT DR. PROPOSED BUILDING EXPANSIONS

SITE PLAN APPROVED BY  
THE CITY OF NEWBURYPORT  
PLANNING BOARD

DATE: \_\_\_\_\_

For Registry Use:

Prepared For:

Owner / Applicant

Prepared By:

I CERTIFY THAT I HAVE CONFORMED  
WITH THE RULES AND REGULATIONS  
OF THE REGISTERS OF DEEDS IN  
PREPARING THIS PLAN.

HAYES ENGINEERING, INC.

*Hayes*  
Hayes Engineering, Inc.  
603 Salem Street  
Wareham, MA 01980  
Tel: 781-246-5500  
Fax: 781-246-5500  
www.hayeseng.com

Design By: xxx  
Drawn By: xxx  
Checked By: xxx  
Project File: xxx  
Comp. No: NBT12  
 Issued For Permit  
 Issued For Review  
 Issued For Bid  
 Issued For Construction  
 Not For Construction

No.	Revision	Date
10		
9		
8		
7		
6		
5		
4		
3		
2		
1		

Scale: 1"=200'  
0' 100' 200' 400'  
Date: February 18, 2020

Drawing Title:

SITE PLAN  
#17 MALCOLM HOYT DR.  
NEWBURYPORT, MASS.

Drawing No.:

C1  
INDEX  
SHEET 1 OF 4

**GENERAL NOTES:**

BASE TOPOGRAPHIC INFORMATION AND BOUNDARY INFORMATION SHOWN ON THIS PLAN IS FROM AN ON-THE-GROUND SURVEY PERFORMED ON NOVEMBER 17, 2016 BY EVERETT J. CHANDLER, P.L.S.

HORIZONTAL DATUM IS MASSACHUSETTS STATE PLANE COORDINATE SYSTEM (MSPCS)

THE SITE IS NOT LOCATED IN A FLOOD HAZARD ZONE A OR V AS SHOWN ON FLOOD INSURANCE RATE MAP (FIRM) PANEL No. 2500900117G EFFECTIVE 7/16/2014.

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN COMPILED FROM FIELD SURVEY INFORMATION AND AVAILABLE EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHER, THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES AND DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND VERIFYING THE LOCATIONS, SIZES, AND ELEVATIONS OF ALL EXISTING UTILITIES SHOWN OR NOT SHOWN ON THESE PLANS AND SHALL NOTIFY THE ENGINEER IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED DESIGN AND THE APPROPRIATE REMEDIAL ACTION PRIOR TO PROCEEDING WITH THE WORK.

THE CONTRACTORS ARE RESPONSIBLE FOR CONTACTING DIG SAFE AT (800) 322-4844 PRIOR TO THE START OF ANY CONSTRUCTION

THIS PLAN WAS PREPARED FOR REVIEW BY AND TO OBTAIN APPROVAL FROM PUBLIC AGENCIES AND IS NOT INTENDED AS CONSTRUCTION DOCUMENTS.

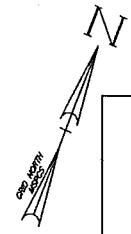
**SITE CONSTRUCTION NOTES:**

ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT (ADA), MASSACHUSETTS ARCHITECTURAL ACCESS BOARD (AAB) STANDARDS, AND ALL LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MOST STRINGENT);

AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES SHALL RECEIVE 6-INCHES OF LOAM AND SEED;

TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD);

IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN;

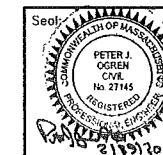


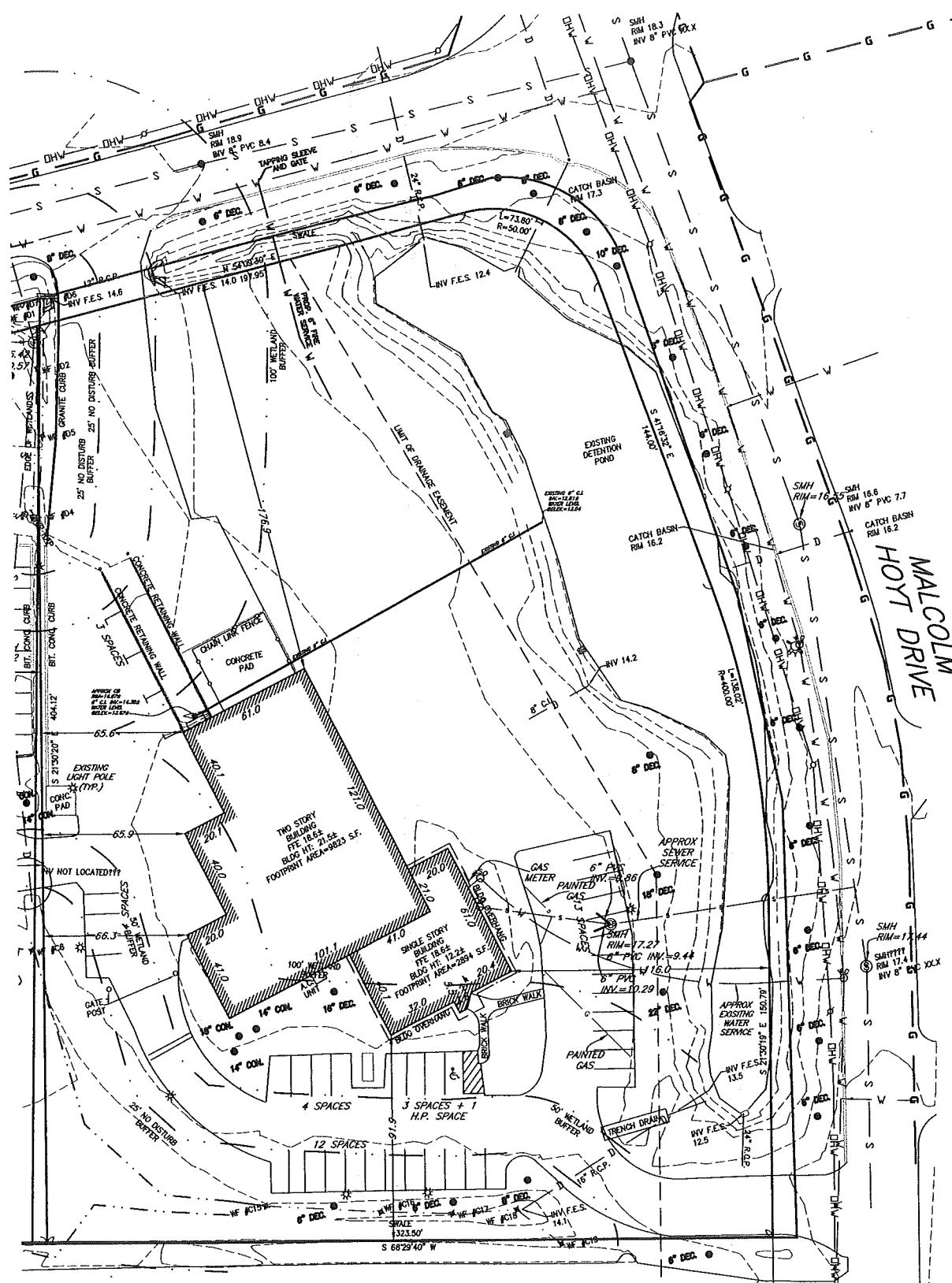
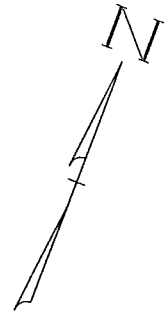
VICINITY MAP  
SCALE: 1"=200'±

ZONING TABLE - #17 MALCOLM HOYT			
ZONE	INDUSTRIAL 1 (MANUFACTURING/LIGHT MANUFACTURING)		
	REQUIRED/ALLOWED	EXISTING	PROPOSED
FRONT YARD SETBACK	50 ft.	116.0 ft.	63.7 ft.
SIDE YARD SETBACK	50 ft.	91.9 ft.	91.9 ft.
REAR YARD SETBACK	50 ft.	65.6 ft.	50.1 ft.
MIN. FRONTAGE	200 ft.	704.56 ft.	704.56 ft.
MIN. LOT AREA	50,000 s.f.	131,727 s.f.	131,727 s.f.
MAX. BUILDING HEIGHT	40 ft.	21.5± ft.	ft.
MAX. LOT COVERAGE	40%	9.7%	24.1%

PARKING CALCULATIONS - #17 MALCOLM HOYT	
PARKING REQUIRED: 0.75 PER EMPLOYEE IN MAXIMUM SHIFT PLUS 1 PER COMPANY VEHICLE = 0.75x15 EMPLOYEES + 0 COMPANY VEHICLES = 11 SPACES REQUIRED	
EXISTING PARKING: 40 SPACES	
REQUIRED H.P. SPACES: for 26-50 Total Spaces = 2 H.P. SPACES	
PROVIDED H.P. SPACES: 2 SPACES	
TOTAL PARKING PROVIDED: 38 SPACES + 2 H.P. SPACES = 40 SPACES	

SHEET INDEX	
PLAN TITLE	SHEET DESIGNATION
INDEX	C1
EXISTING CONDITION	C2
GRADING & DRAINAGE	C3
DETAILS	C4
DETAILS	C5





SITE PLAN APPROVED BY  
THE CITY OF NEWBURYPORT  
PLANNING BOARD

DATE: \_\_\_\_\_

For Registry Use:

I CERTIFY THAT I HAVE CONFORMED  
WITH THE RULES AND REGULATIONS  
OF THE REGISTERS OF DEEDS IN  
PREPARING THIS PLAN.

HAYES ENGINEERING, INC.

Prepared For:

Owner / Applicant

Prepared By:

*Hayes*  
Hayes Engineering, Inc.  
603 Salem Street  
Wakefield, MA 01880  
Ph: 781.246.2800  
Fax: 781.246.7596  
www.hayeseng.com

Design By: xxx  
Drawn By: xxx  
Checked By: xxx  
Project File: xxx  
Comp. No: NBT12

Issued For Permit  
 Issued For Review  
 Issued For Bid  
 Issued For Construction  
 Not For Construction

No.	Revision	Date
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Scale: 1"=30'  
0' 15' 30' 60'

Date: February 18, 2020

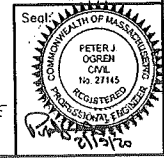
Drawing Title:

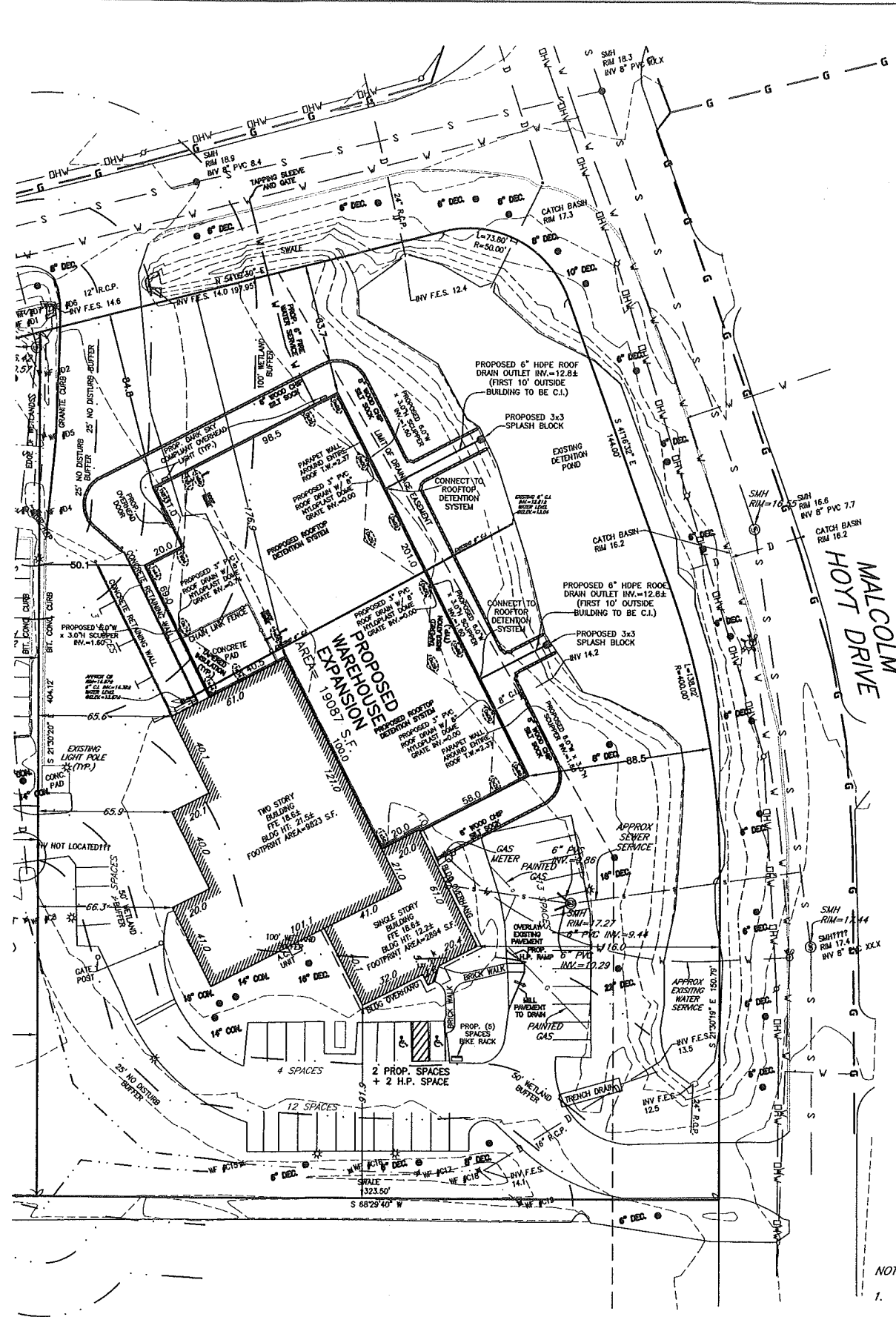
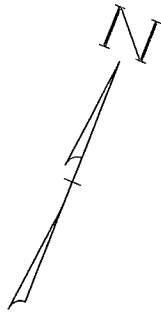
**SITE PLAN  
#17 MALCOLM HOYT DR.  
NEWBURYPORT, MASS.**

Drawing No.:

**C2**  
EXISTING  
SHEET 2 OF 4

- NOTES:
1. BASE TOPOGRAPHIC INFORMATION IS FROM AN ON-THE-GROUND SURVEY PERFORMED ON NOVEMBER 17, 2016 BY EVERETT J. CHANDLER, P.L.S.
  2. PROPOSED SITE ADDITIONS BY HAYES ENGINEERING, INC.
  3. ALL NO-BUILD ZONE DISTURBANCE IS TO BE RE-VEGETATED
  4. NO NEW SIGNS ARE TO BE PLACED ON BUILDINGS
  5. SPOT GRADES ON ROOF ARE ON AN ASSUMED VERTICAL DATUM RELATIVE TO THE PROPOSED ROOF DRAINS AT ELEV.=0.00





SITE PLAN APPROVED BY THE CITY OF NEWBURYPORT PLANNING BOARD

DATE: \_\_\_\_\_

For Registry Use:

I CERTIFY THAT I HAVE CONFORMED WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS IN PREPARING THIS PLAN.

HAYES ENGINEERING, INC.

Prepared For:

Prepared By:

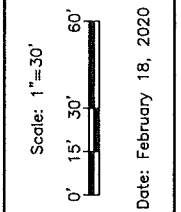
*Hayes*  
 Hayes Engineering, Inc.  
 600 Salem Street  
 Newburyport, MA 01880  
 Ph: 781.246.2820  
 Fax: 781.246.7596  
 www.hayeseng.com

Design By: xxx  
 Drawn By: xxx  
 Checked By: xxx  
 Project File: xxx  
 Comp. No: NBT12  
 Issued For Permit  
 Issued For Review  
 Issued For Bid  
 Issued For Construction  
 Not For Construction

ZONING TABLE - #17 MALCOLM HOYT			
ZONE	INDUSTRIAL 1 (MANUFACTURING/LIGHT MANUFACTURING)		
	REQUIRED/ALLOWED	EXISTING	PROPOSED
DIMENSIONAL CONTROLS			
FRONT YARD SETBACK	50 ft.	116.0 ft.	63.7 ft.
SIDE YARD SETBACK	50 ft.	91.9 ft.	91.9 ft.
REAR YARD SETBACK	50 ft.	65.6 ft.	50.1 ft.
MIN. FRONTAGE	200 ft.	704.56 ft.	704.56 ft.
MIN. LOT AREA	50,000 s.f.	131,727 s.f.	131,727 s.f.
MAX. BUILDING HEIGHT	40 ft.	21.5± ft.	ft.
MAX. LOT COVERAGE	40%	9.7%	24.1%

PARKING CALCULATIONS - #17 MALCOLM HOYT	
PARKING REQUIRED: 0.75 PER EMPLOYEE IN MAXIMUM SHIFT PLUS 1 PER COMPANY VEHICLE = 0.75x15 EMPLOYEES + 0 COMPANY VEHICLES = 11 SPACES REQUIRED	
EXISTING PARKING: 40 SPACES	
REQUIRED H.P. SPACES: for 26-50 Total Spaces = 2 H.P. SPACES	
PROVIDED H.P. SPACES: 2 SPACES	
TOTAL PARKING PROVIDED: 38 SPACES + 2 H.P. SPACES = 40 SPACES	

No.	Revision	Date
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		



Drawing Title:

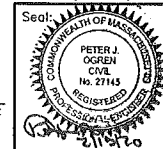
SITE PLAN  
 #17 MALCOLM HOYT DR.  
 NEWBURYPORT, MASS.

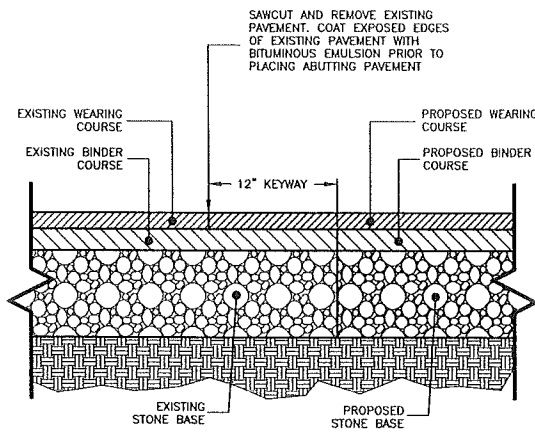
Drawing No.:

C3

GRADING & DRAINAGE SHEET 3 OF 4

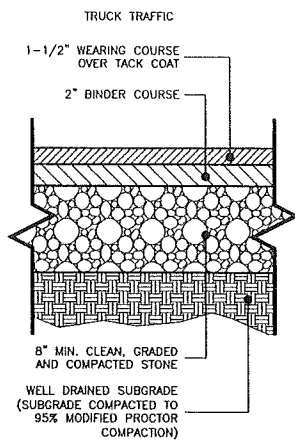
- NOTES:
1. BASE TOPOGRAPHIC INFORMATION IS FROM AN ON-THE-GROUND SURVEY PERFORMED ON NOVEMBER 17, 2016 BY EVERETT J. CHANDLER, P.L.S.
  2. PROPOSED SITE ADDITIONS BY HAYES ENGINEERING, INC.
  3. ALL NO-BUILD ZONE DISTURBANCE IS TO BE RE-VEGETATED
  4. NO NEW SIGNS ARE TO BE PLACED ON BUILDINGS
  5. SPOT GRADES ON ROOF ARE ON AN ASSUMED VERTICAL DATUM RELATIVE TO THE PROPOSED ROOF DRAINS AT ELEV.=0.00





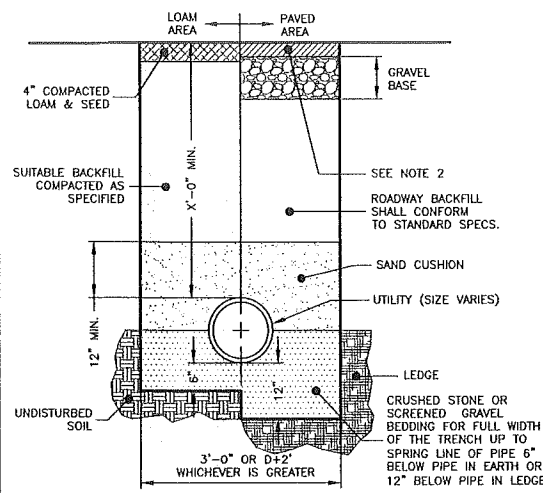
**PAVEMENT KEYWAY**  
NOT TO SCALE

NOTE: THIS PAVEMENT SECTION DETAIL REFLECTS MINIMUM REQUIREMENTS. ENGINEER TO DETERMINE DESIGN BASED ON GEOTECHNICAL DATA.



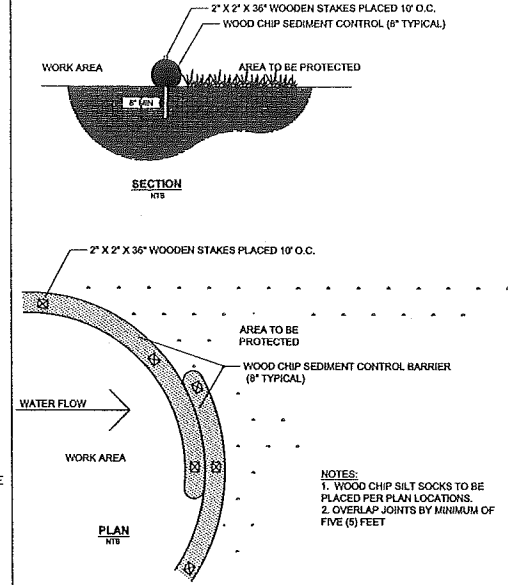
**PAVEMENT SECTION**  
NOT TO SCALE

NOTE: THIS PAVEMENT SECTION DETAIL REFLECTS MINIMUM REQUIREMENTS. ENGINEER TO DETERMINE DESIGN BASED ON GEOTECHNICAL DATA.



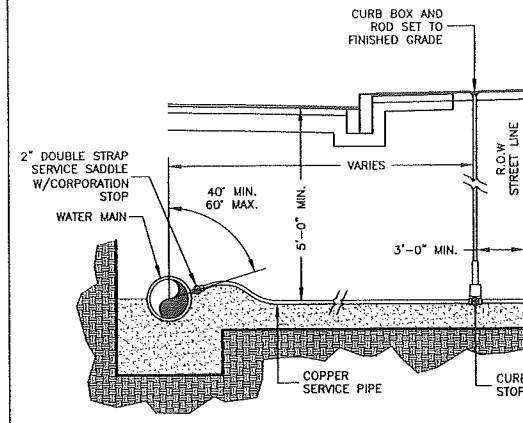
**UTILITY TRENCH**  
NOT TO SCALE

NOTES:  
1. ALL MATERIAL SHALL CONFORM TO CITY/TOWN OF DEPARTMENT OF PUBLIC WORKS.  
2. NEW ROADWAY CONSTRUCTION SHALL CONFORM TO CITY/TOWN SPECIFICATIONS.  
3. IN LIEU OF THE 12" GRAVEL COURSE AND 9" OF CRUSHED GRAVEL, 18" OF CRUSHED GRAVEL OR RECLAIMED STABILIZED BASE MAY BE USED AS A BASE FOR THE PAVEMENT REPAIR.  
4. MATERIAL SHALL BE REPLACED IN KIND WHENEVER POSSIBLE.  
5. A MINIMUM 2' CUTBACK IS REQUIRED AT THE TOP OF THE TRENCH WALL OVER UNDISTURBED MATERIAL.



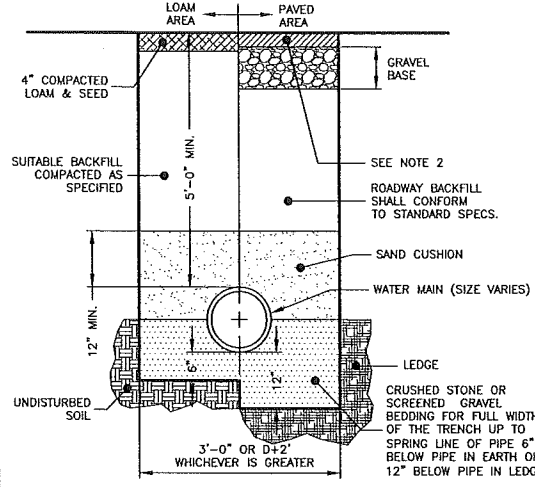
**WOOD CHIP SILT SOCK**  
NOT TO SCALE

NOTES:  
1. WOOD CHIP SILT SOCKS TO BE PLACED PER PLAN LOCATIONS.  
2. OVERLAP JOINTS BY MINIMUM OF FIVE (5) FEET



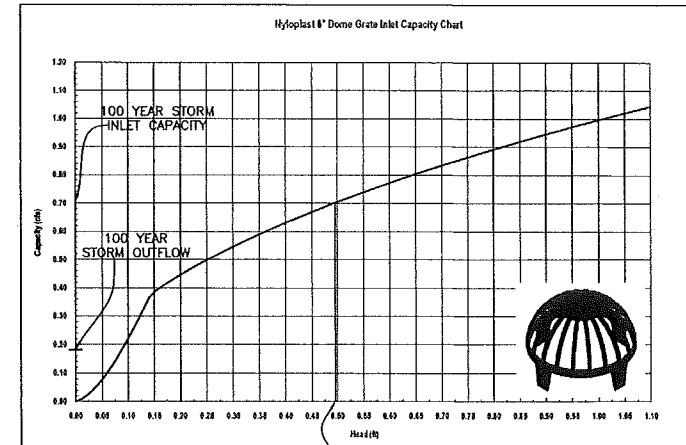
**WATER SERVICE CONNECTION**  
NOT TO SCALE

NOTES:  
1. CORPORATIONS 1-1/2" DIA. AND GREATER SHALL BE INSTALLED USING A TAPPING SADDLE AND SHELL CUTTER.  
2. WHERE WATER SERVICE MUST CROSS SEWER MAIN, MAINTAIN A MINIMUM 18" CLEARANCE ABOVE THE SEWER MAIN WHILE MAINTAINING A DEPTH OF 5'-0" BELOW SURFACE. TO MAINTAIN 18" OF CLEARANCE FROM SEWER, THE 5'-0" DEPTH MAY BE REDUCED BY INSTALLING A 2" LAYER OF RIGID FOAM INSULATION ABOVE THE WATER SERVICE FOR EVERY FOOT THE DEPTH IS REDUCED.  
3. ACTUAL SERVICE LOCATIONS WILL BE DETERMINED IN FIELD TO SAVE SPECIMEN TREES.

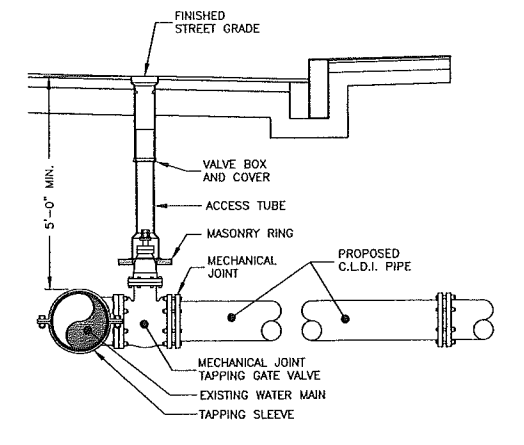


**WATER TRENCH**  
NOT TO SCALE

NOTES:  
1. ALL MATERIAL SHALL CONFORM TO CITY/TOWN OF DEPARTMENT OF PUBLIC WORKS.  
2. NEW ROADWAY CONSTRUCTION SHALL CONFORM TO CITY/TOWN SPECIFICATIONS.  
3. IN LIEU OF THE 12" GRAVEL COURSE AND 9" OF CRUSHED GRAVEL, 18" OF CRUSHED GRAVEL OR RECLAIMED STABILIZED BASE MAY BE USED AS A BASE FOR THE PAVEMENT REPAIR.  
4. MATERIAL SHALL BE REPLACED IN KIND WHENEVER POSSIBLE.  
5. A MINIMUM 2' CUTBACK IS REQUIRED AT THE TOP OF THE TRENCH WALL OVER UNDISTURBED MATERIAL.

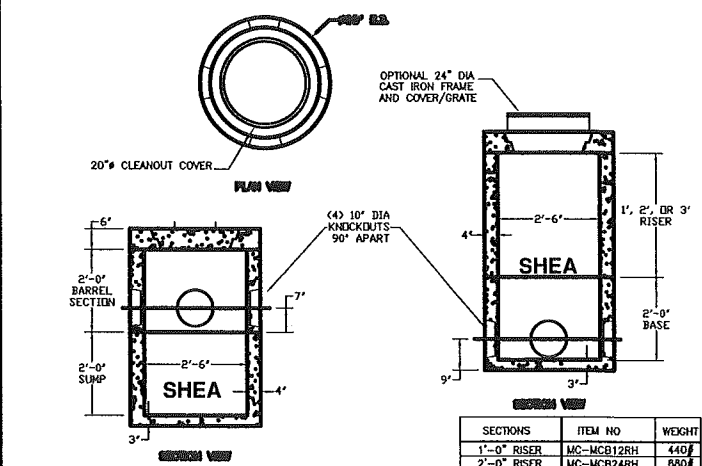


THE CAPACITY OF EACH NYLOPLAST 8" DOME GRATE IS AT LEAST 0.52 CFS GREATER THAN REQUIRED FOR EACH 3.0' OUTLET



**TAPPING SLEEVE & GATE**  
NOT TO SCALE

NOTES:  
1. CONCRETE THRUST BLOCK TO BE USED ONLY WHERE IT WILL BEAR ON UNDISTURBED EARTH.  
2. USE RESTRAINED JOINT FITTINGS OR THE RODS WHERE CONCRETE THRUST BLOCK IS UNACCEPTABLE.  
3. SIZE OF BLOCK OR MEGALUG TO BE DESIGNED FOR SPECIFIC CONDITIONS.



SECTIONS	ITEM NO	WEIGHT
1'-0" RISER	MC-MCB12RH	440#
2'-0" RISER	MC-MCB24RH	850#
3'-0" RISER	MC-MCB36RH	1320#
2'-0" BASE	MC-MCB24SH	1175#
2'-0" BARREL	MC-MCB24BSH	880#
36" COVER	MC-MCB36CH	585#

**MINI MANHOLE**  
NOT TO SCALE

NOTES:  
1. CONCRETE: 5,000 PSI MINIMUM AFTER 28 DAYS.  
2. DESIGNED FOR AASHTO HS-20 LOADING, 1-5 FEET COVER.

Prepared For:  
Owner / Applicant

Prepared By:  
*Hayes*  
Hayes Engineering, Inc.  
603 Salem Street  
Warefield, MA 01880  
Ph: 781.248.2800  
Fax: 781.248.1700  
www.hayeseng.com

Design By: xxx  
Drawn By: xxx  
Checked By: xxx  
Project File: xxx  
Comp. No: NBT12

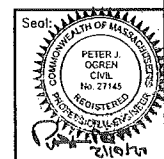
Issued For Permit  
 Issued For Review  
 Issued For Bid  
 Issued For Construction  
 Not For Construction

No.	Revision	Date
1		
2		
3		
4		
5		
6		
7		
8		
9		

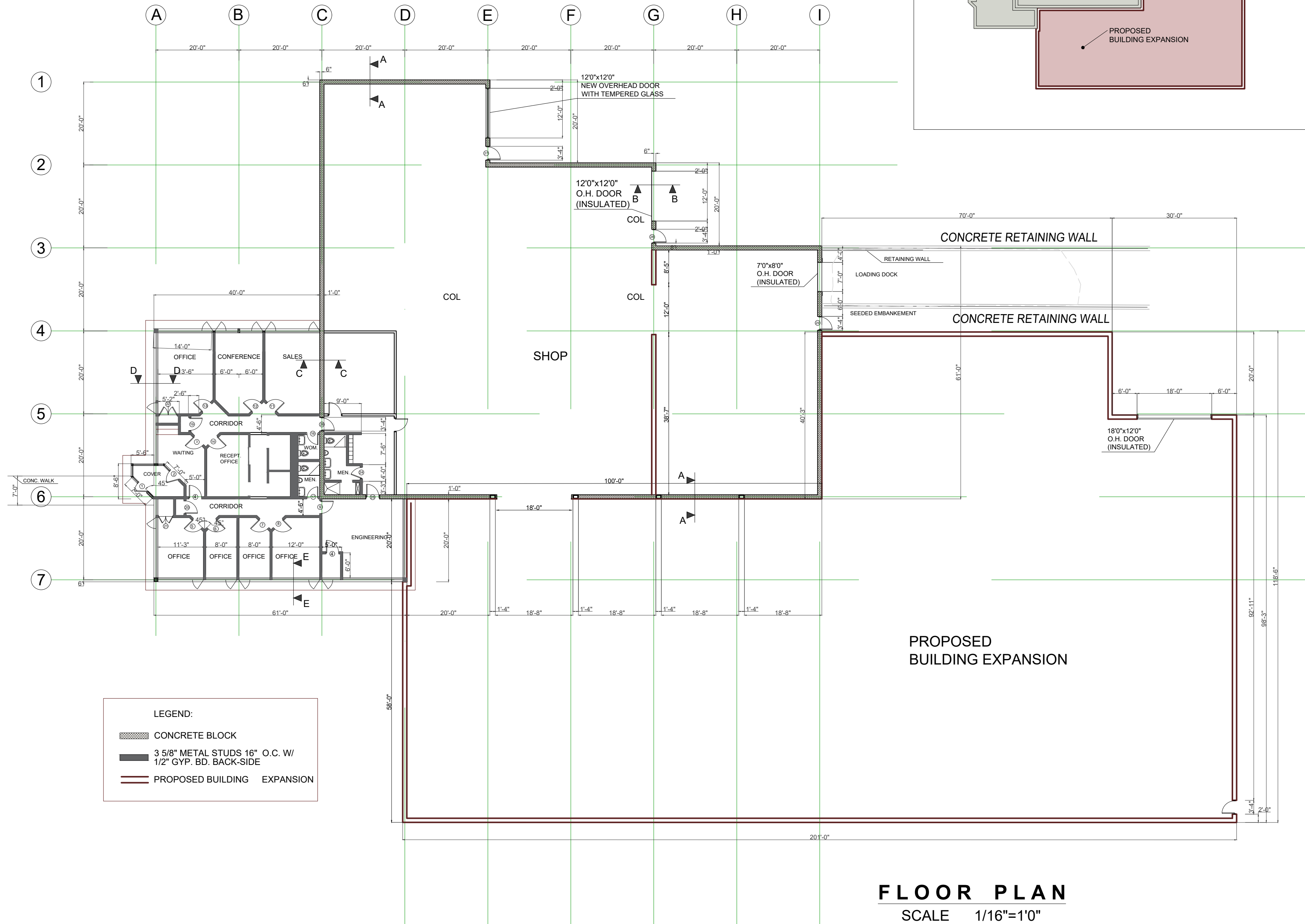
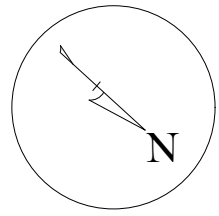
Scale: 1" = NTS  
Date: February 18, 2020

Drawing Title:  
**#17 MALCOLM HOYT DR.  
NEWBURYPORT, MASS.**

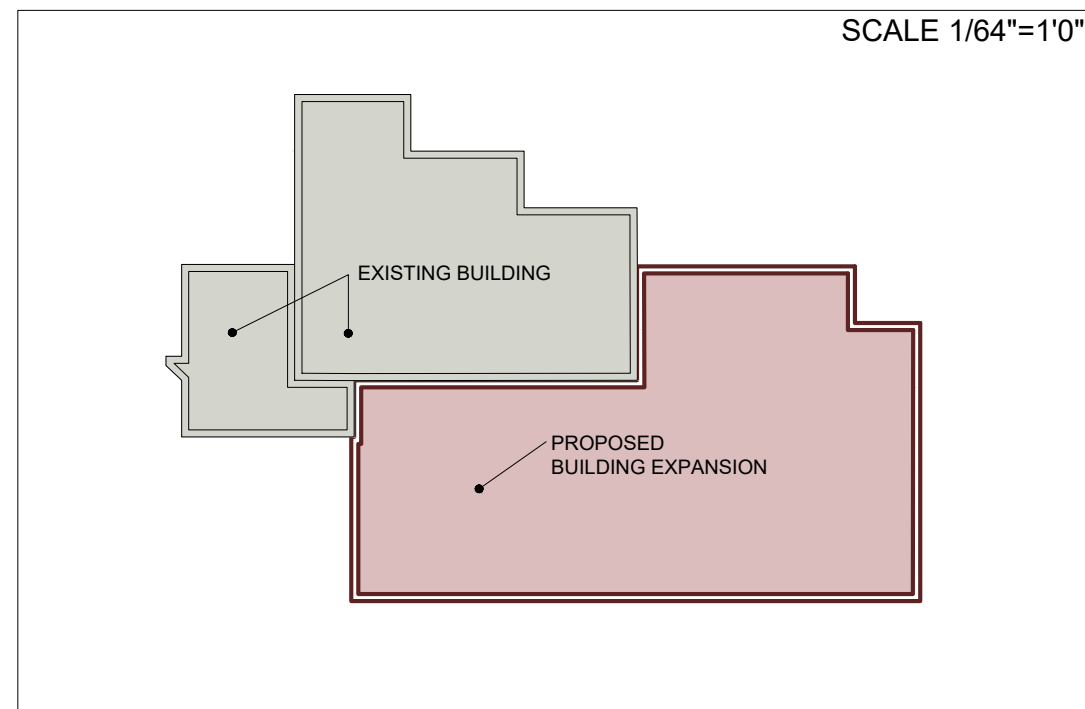
Drawing No.:  
**C4**  
DETAILS  
SHEET 4 OF 4



N:\NBT12\STANLEY TLOCHER\SP5\StanleyTlocher\17MalcolmHoyt\2020\_218\2020\_310205\_PM\_12B



**FLOOR PLAN**  
SCALE 1/16"=1'0"



19L Inn Street  
Newburyport  
Massachusetts 01950  
johnsavaarchitect.com

**JOHN SAVA ARCHITECTS, LLC**

tel (978) 417 9324  
john@johnsavaarchitects.com  
John S. Sava, Principal  
AIA, NCARB

17 Malcolm Hoyt Drive  
**NEWBURYPORT, MA**

**General Notes:**  
GENERAL CONTRACTOR SHALL MAKE ALL SUB-CONTRACTORS AND SUPPLIERS AWARE OF THE REQUIREMENTS OF THESE NOTES.

ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND NATIONAL BUILDING, LIFE SAFETY, ELECTRICAL, AND PLUMBING CODES.

ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL PERMITS NECESSARY FOR COMPLETION OF WORK THROUGHOUT THE CONTRACT DOCUMENTS.

GENERAL CONTRACTOR SHALL LAYOUT IN THE FIELD THE ENTIRE WORK TO BE PERFORMED TO VERIFY ALL EXISTING CONDITIONS AND LOCATIONS BEFORE PROCEEDING WITH WORK.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE CO-ORDINATION OF DIMENSIONAL REQUIREMENTS BETWEEN THE WORK OF REQUIRED TRADES / SUB-CONTRACTORS FOR WORK.

ANY DISCREPANCIES FOUND IN THE PLANS, DIMENSIONS, EXISTING CONDITIONS OR ANY APPARENT ERROR IN THE CLASSIFYING OR SPECIFICATION OF A PRODUCT, MATERIAL OR METHOD OF ASSEMBLY IS TO BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR IMMEDIATELY.

REGARDLESS OF WHETHER OR NOT AN ITEM IS SHOWN OR SPECIFIED, THE GENERAL CONTRACTOR SHALL PROVIDE SAID ITEM IF IT IS NECESSARY FOR THE PROPER INSTALLATION OR FUNCTION OF AN ITEM SHOWN OR SPECIFIED. SUPPLIERS AND SUBCONTRACTORS SHALL INFORM THE GENERAL CONTRACTOR OF THEIR REQUIREMENTS FOR THE WORK OF OTHER TRADES, WHICH MAY NOT BE INDICATED, PRIOR TO SUBMITTAL OF FINAL BID.

DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS AND/OR SIZES. DRAWINGS MAY HAVE BEEN REPRODUCED AT A SCALE DIFFERENT THAN ORIGINALLY DRAWN.

The Development at:  
**PROPOSED ZAMPELL BUILDINGS ADDITION AND RENOVATIONS**

**REVISIONS:**

- Date: 02/13/2020
- Date:
- Date:
- Date:

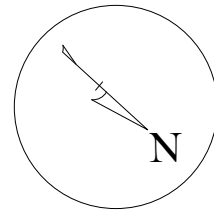
**ISSUE DATES:**

- Date:
- Date:
- Date:
- Date:

Drawing Title:  
**PROPOSED FLOOR PLAN**

Drawing Sheet Number:  
**A-1.1**





19L Inn Street  
 Newburyport  
 Massachusetts 01950  
 johnsavaarchitect.com

JOHN SAVA ARCHITECTS, LLC

tel (978) 417 9324  
 john@johnsavaarchitects.com  
 John S. Sava, Principal  
 AIA, NCARB

17 Malcolm Hoyt Drive  
 NEWBURYPORT, MA

General Notes:  
 GENERAL CONTRACTOR SHALL MAKE ALL  
 SUB-CONTRACTORS AND SUPPLIERS AWARE  
 OF THE REQUIREMENTS OF THESE NOTES.

ALL WORK SHALL BE PERFORMED IN COM-  
 PLIANCE WITH ALL APPLICABLE LOCAL,  
 STATE AND NATIONAL BUILDING, LIFE  
 SAFETY, ELECTRICAL, AND PLUMBING CODES.

ELECTRICAL CONTRACTOR SHALL BE RESPO-  
 NSIBLE FOR SECURING ALL PERMITS NECESSARY  
 FOR COMPLETION OF WORK THROUGH-  
 OUT THE CONTRACT DOCUMENTS.

GENERAL CONTRACTOR SHALL LAYOUT IN  
 THE FIELD THE ENTIRE WORK TO BE PER-  
 FORMED TO VERIFY ALL EXISTING CONDIT-  
 IONS AND LOCATIONS BEFORE PROCEEDING  
 WITH WORK.

GENERAL CONTRACTOR SHALL BE RESPO-  
 NSIBLE FOR THE CO-ORDINATION OF DIMEN-  
 SIONAL REQUIREMENTS BETWEEN THE WORK  
 OF REQUIRED TRADES / SUB-CONTRACTORS.  
 FOR WORK.

ANY DISCREPANCIES FOUND IN THE PLANS,  
 DIMENSIONS, EXISTING CONDITIONS OR ANY  
 APPARENT ERROR IN THE CLASSIFYING OR  
 SPECIFICATION OF A PRODUCT, MATERIAL  
 OR METHOD OF ASSEMBLY IS TO BE  
 BROUGHT TO THE ATTENTION OF THE GEN-  
 ERAL CONTRACTOR IMMEDIATELY.

REGARDLESS OF WHETHER OR NOT AN ITEM  
 IS SHOWN OR SPECIFIED, THE GENERAL CON-  
 TRACTOR SHALL PROVIDE SAID ITEM IF IT IS  
 NECESSARY FOR THE PROPER INSTALLATION  
 OR FUNCTION OF AN ITEM SHOWN OR SPECI-  
 FIED. SUPPLIERS AND SUBCONTRACTORS  
 SHALL INFORM THE GENERAL CONTRACTOR  
 OF THEIR REQUIREMENTS FOR THE WORK OF  
 OTHER TRADES, WHICH MAY NOT BE INDI-  
 CATED, PRIOR TO SUBMITTAL OF FINAL BID.

DRAWINGS SHALL NOT BE SCALED FOR  
 DIMENSIONS AND/OR SIZES. DRAWINGS MAY  
 HAVE BEEN REPRODUCES AT A SCALE DIF-  
 FERENT THAN ORIGINALLY DRAWN.

The Development at:  
**PROPOSED ZAMPELL  
 BUILDINGS ADDITION  
 AND RENOVATIONS**

**REVISIONS:**

- Date: 02/13/2020
- Date:
- Date:
- Date:

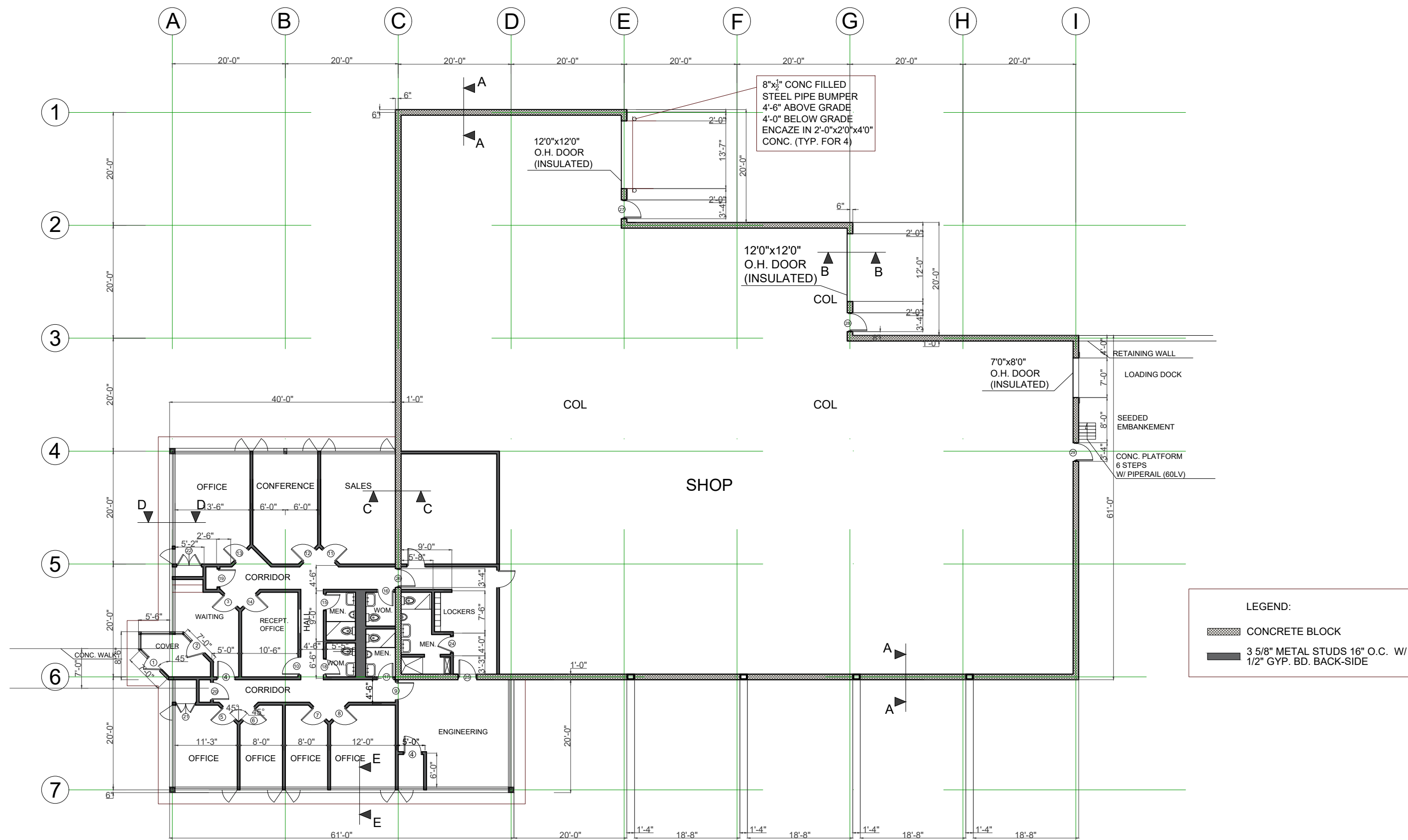
**ISSUE DATES:**

- Date:
- Date:
- Date:
- Date:

Drawing  
 EXISTING FLOOR PLAN

Drawing Sheet Number:

**EX-1.1**



**FLOOR PLAN**  
 SCALE 1/16"=1'0"

19L Inn Street  
 Newburyport  
 Massachusetts 01950  
 johnsavaarchitect.com

JOHN SAVA ARCHITECTS, LLC

tel (978) 417 9324  
 john@johnsavaarchitects.com  
 John S. Sava, Principal  
 AIA, NCARB

17 Malcolm Hoyt Drive  
 NEWBURYPORT, MA

General Notes:  
 GENERAL CONTRACTOR SHALL MAKE ALL SUB-CONTRACTORS AND SUPPLIERS AWARE OF THE REQUIREMENTS OF THESE NOTES.

ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND NATIONAL BUILDING, LIFE SAFETY, ELECTRICAL, AND PLUMBING CODES.

ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL PERMITS NECESSARY FOR COMPLETION OF WORK THROUGHOUT THE CONTRACT DOCUMENTS.

GENERAL CONTRACTOR SHALL LAYOUT IN THE FIELD THE ENTIRE WORK TO BE PERFORMED TO VERIFY ALL EXISTING CONDITIONS AND LOCATIONS BEFORE PROCEEDING WITH WORK.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE CO-ORDINATION OF DIMENSIONAL REQUIREMENTS BETWEEN THE WORK OF REQUIRED TRADES / SUB-CONTRACTORS FOR WORK.

ANY DISCREPANCIES FOUND IN THE PLANS, DIMENSIONS, EXISTING CONDITIONS OR ANY APPARENT ERROR IN THE CLASSIFYING OR SPECIFICATION OF A PRODUCT, MATERIAL OR METHOD OF ASSEMBLY IS TO BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR IMMEDIATELY.

REGARDLESS OF WHETHER OR NOT AN ITEM IS SHOWN OR SPECIFIED, THE GENERAL CONTRACTOR SHALL PROVIDE SAID ITEM IF IT IS NECESSARY FOR THE PROPER INSTALLATION OR FUNCTION OF AN ITEM SHOWN OR SPECIFIED. SUPPLIERS AND SUBCONTRACTORS SHALL INFORM THE GENERAL CONTRACTOR OF THEIR REQUIREMENTS FOR THE WORK OF OTHER TRADES, WHICH MAY NOT BE INDICATED, PRIOR TO SUBMITTAL OF FINAL BID.

DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS AND/OR SIZES. DRAWINGS MAY HAVE BEEN REPRODUCED AT A SCALE DIFFERENT THAN ORIGINALLY DRAWN.

The Development at:  
**PROPOSED ZAMPELL BUILDINGS ADDITION AND RENOVATIONS**

**REVISIONS:**

- Date: 02/13/2020
- Date:
- Date:
- Date:

**ISSUE DATES:**

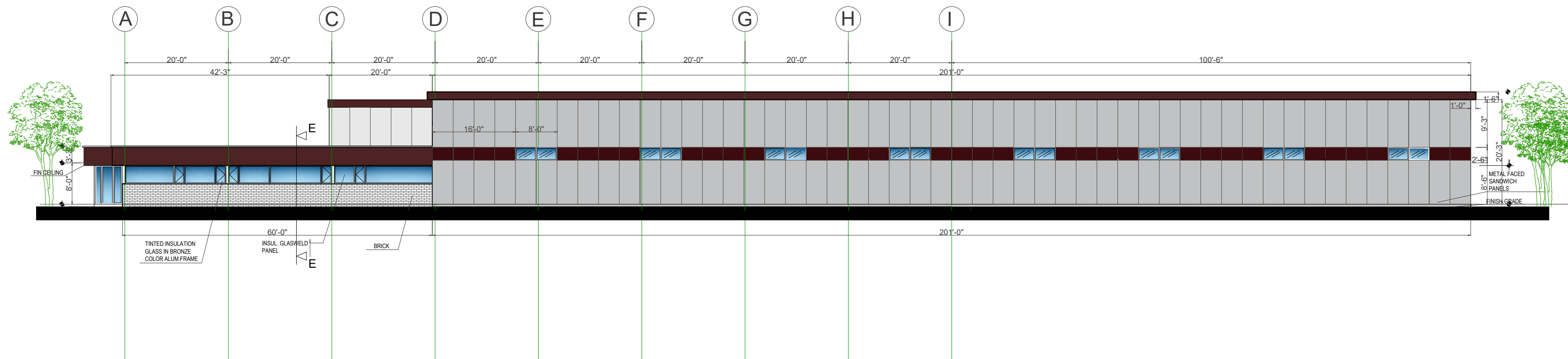
- Date:
- Date:
- Date:
- Date:

Drawing Title:

PROPOSED ELEVATIONS

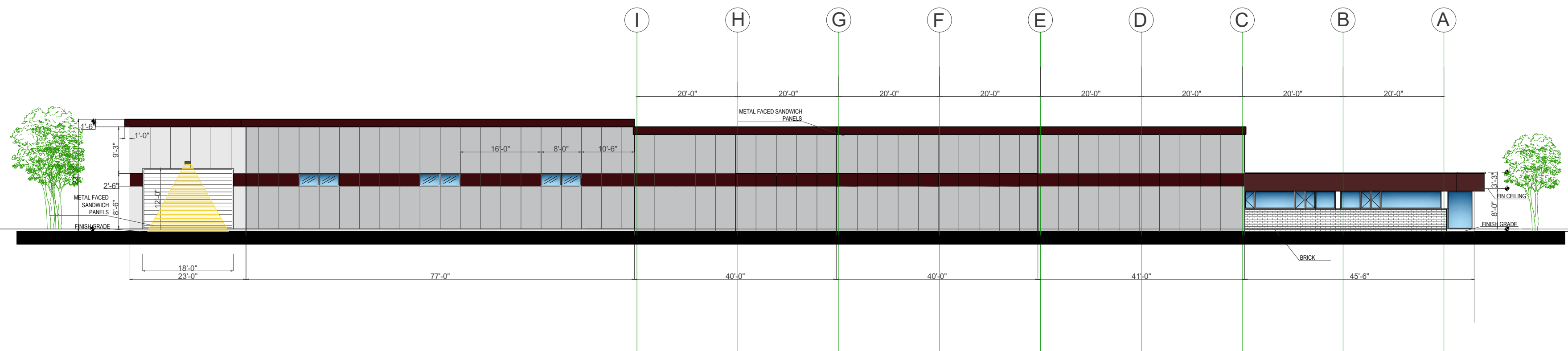
Drawing Sheet Number:

**A-2.1**



**NORTHEAST ELEVATION**

SCALE  $\frac{1}{16}''=1'0''$



**SOUTHWEST ELEVATION**

SCALE  $\frac{1}{16}''=1'0''$

19L Inn Street  
 Newburyport  
 Massachusetts 01950  
 johnsavaarchitect.com

JOHN SAVA ARCHITECTS, LLC

tel (978) 417 9324  
 john@johnsavaarchitects.com  
 John S. Sava, Principal  
 AIA, NCARB

17 Malcolm Hoyt Drive  
 NEWBURYPORT, MA

General Notes:  
 GENERAL CONTRACTOR SHALL MAKE ALL SUB-CONTRACTORS AND SUPPLIERS AWARE OF THE REQUIREMENTS OF THESE NOTES.

ALL WORK SHALL BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND NATIONAL BUILDING, LIFE SAFETY, ELECTRICAL, AND PLUMBING CODES.

ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL PERMITS NECESSARY FOR COMPLETION OF WORK THROUGHOUT THE CONTRACT DOCUMENTS.

GENERAL CONTRACTOR SHALL LAYOUT IN THE FIELD THE ENTIRE WORK TO BE PERFORMED TO VERIFY ALL EXISTING CONDITIONS AND LOCATIONS BEFORE PROCEEDING WITH WORK.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE CO-ORDINATION OF DIMENSIONAL REQUIREMENTS BETWEEN THE WORK OF REQUIRED TRADES / SUB-CONTRACTORS FOR WORK.

ANY DISCREPANCIES FOUND IN THE PLANS, DIMENSIONS, EXISTING CONDITIONS OR ANY APPARENT ERROR IN THE CLASSIFYING OR SPECIFICATION OF A PRODUCT, MATERIAL OR METHOD OF ASSEMBLY IS TO BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR IMMEDIATELY.

REGARDLESS OF WHETHER OR NOT AN ITEM IS SHOWN OR SPECIFIED, THE GENERAL CONTRACTOR SHALL PROVIDE SAID ITEM IF IT IS NECESSARY FOR THE PROPER INSTALLATION OR FUNCTION OF AN ITEM SHOWN OR SPECIFIED. SUPPLIERS AND SUBCONTRACTORS SHALL INFORM THE GENERAL CONTRACTOR OF THEIR REQUIREMENTS FOR THE WORK OF OTHER TRADES, WHICH MAY NOT BE INDICATED, PRIOR TO SUBMITTAL OF FINAL BID.

DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS AND/OR SIZES. DRAWINGS MAY HAVE BEEN REPRODUCED AT A SCALE DIFFERENT THAN ORIGINALLY DRAWN.

The Development at:  
**PROPOSED ZAMPELL BUILDINGS ADDITION AND RENOVATIONS**

**REVISIONS:**

- Date: 02/13/2020
- Date:
- Date:
- Date:

**ISSUE DATES:**

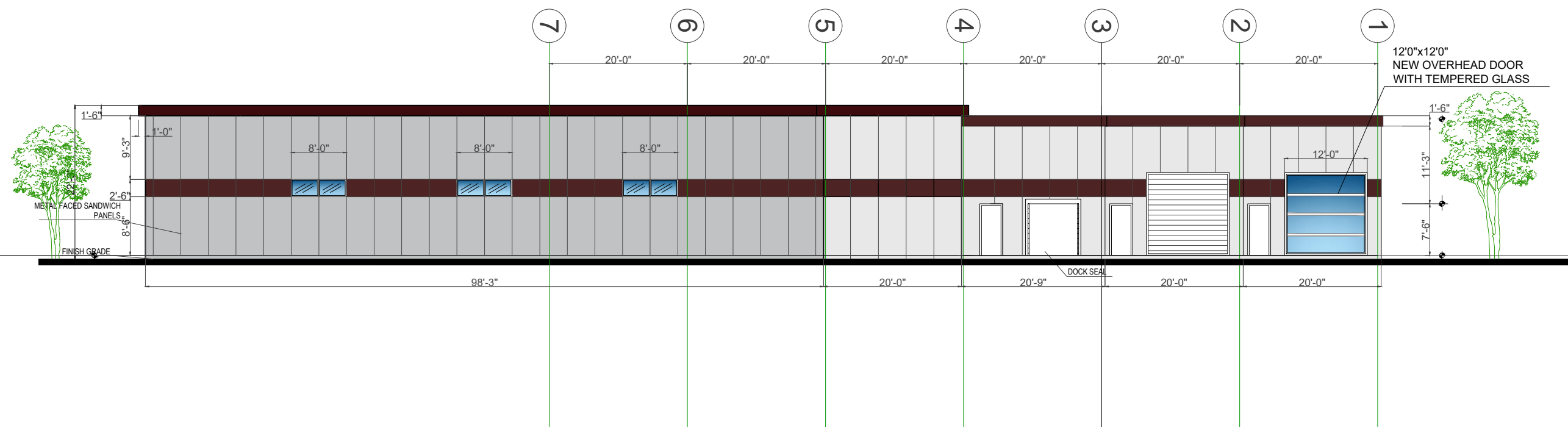
- Date:
- Date:
- Date:
- Date:

Drawing Title:

PROPOSED ELEVATIONS

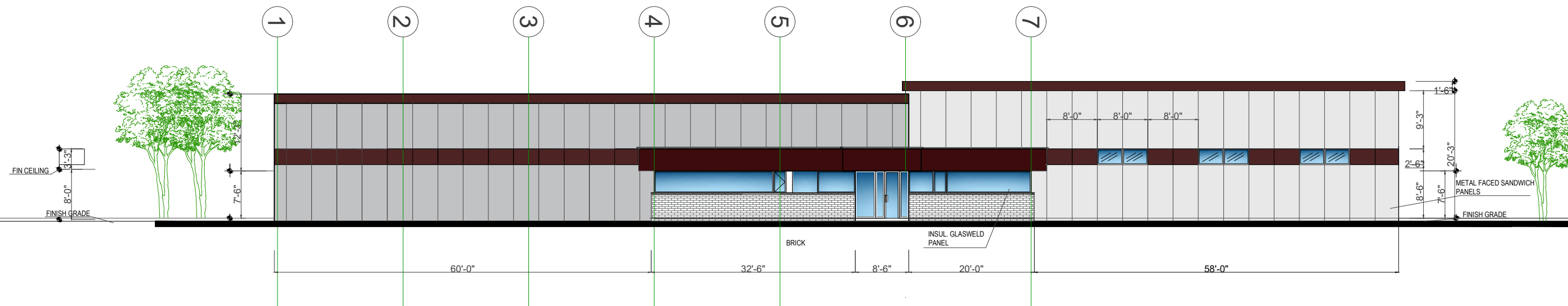
Drawing Sheet Number:

**A-2.2**



**NORTHWEST ELEVATION**

SCALE  $\frac{1}{16}''=1'0''$



**SOUTHEAST ELEVATION**

SCALE  $\frac{1}{16}''=1'0''$





JOHN SAVA  
-ARCHITECTS-  
LLC



JOHN SAVA  
-ARCHITECTS-  
LLC

19L Inn Street  
Newburyport  
Massachusetts 01950  
johnsavaarchitect.com

JOHN SAVA ARCHITECTS, LLC

tel (978) 417 9324  
john@johnsavaarchitects.com  
John S. Sava, Principal  
AIA, NCARB

17 Malcolm Hoyt Drive  
NEWBURYPORT, MA

General Notes:  
GENERAL CONTRACTOR SHALL MAKE ALL  
SUB-CONTRACTORS AND SUPPLIERS AWARE  
OF THE REQUIREMENTS OF THESE NOTES.

ALL WORK SHALL BE PERFORMED IN COM-  
PLIANCE WITH ALL APPLICABLE LOCAL,  
STATE AND NATIONAL BUILDING, LIFE  
SAFETY, ELECTRICAL, AND PLUMBING CODES.

ELECTRICAL CONTRACTOR SHALL BE RESPO-  
NSIBLE FOR SECURING ALL PERMITS NECESSARY  
FOR COMPLETION OF WORK THROUGH-  
OUT THE CONTRACT DOCUMENTS.

GENERAL CONTRACTOR SHALL LAYOUT IN  
THE FIELD THE ENTIRE WORK TO BE PER-  
FORMED TO VERIFY ALL EXISTING CONDI-  
TIONS AND LOCATIONS BEFORE PROCEEDING  
WITH WORK.

GENERAL CONTRACTOR SHALL BE RESPO-  
NSIBLE FOR THE CO-ORDINATION OF DIMEN-  
SIONAL REQUIREMENTS BETWEEN THE WORK  
OF REQUIRED TRADES / SUB-CONTRACTORS.  
FOR WORK.

ANY DISCREPANCIES FOUND IN THE PLANS,  
DIMENSIONS, EXISTING CONDITIONS OR ANY  
APPARENT ERROR IN THE CLASSIFYING OR  
SPECIFICATION OF A PRODUCT, MATERIAL  
OR METHOD OF ASSEMBLY IS TO BE  
BROUGHT TO THE ATTENTION OF THE GEN-  
ERAL CONTRACTOR IMMEDIATELY.

REGARDLESS OF WHETHER OR NOT AN ITEM  
IS SHOWN OR SPECIFIED, THE GENERAL CON-  
TRACTOR SHALL PROVIDE SAID ITEM IF IT IS  
NECESSARY FOR THE PROPER INSTALLATION  
OR FUNCTION OF AN ITEM SHOWN OR SPECI-  
FIED. SUPPLIERS AND SUBCONTRACTORS  
SHALL INFORM THE GENERAL CONTRACTOR  
OF THEIR REQUIREMENTS FOR THE WORK OF  
OTHER TRADES, WHICH MAY NOT BE INDI-  
CATED, PRIOR TO SUBMITTAL OF FINAL BID.

DRAWINGS SHALL NOT BE SCALED FOR  
DIMENSIONS AND/OR SIZES. DRAWINGS MAY  
HAVE BEEN REPRODUCED AT A SCALE DIFF-  
ERENT THAN ORIGINALLY DRAWN.

The Development at:  
**PROPOZED ZAMPELL  
BUILDINGS ADDITION  
AND RENOVATIONS**

**REVISIONS:**

- Date: 02/13/2020
- Date:
- Date:
- Date:

**ISSUE DATES:**

- Date:
- Date:
- Date:
- Date:

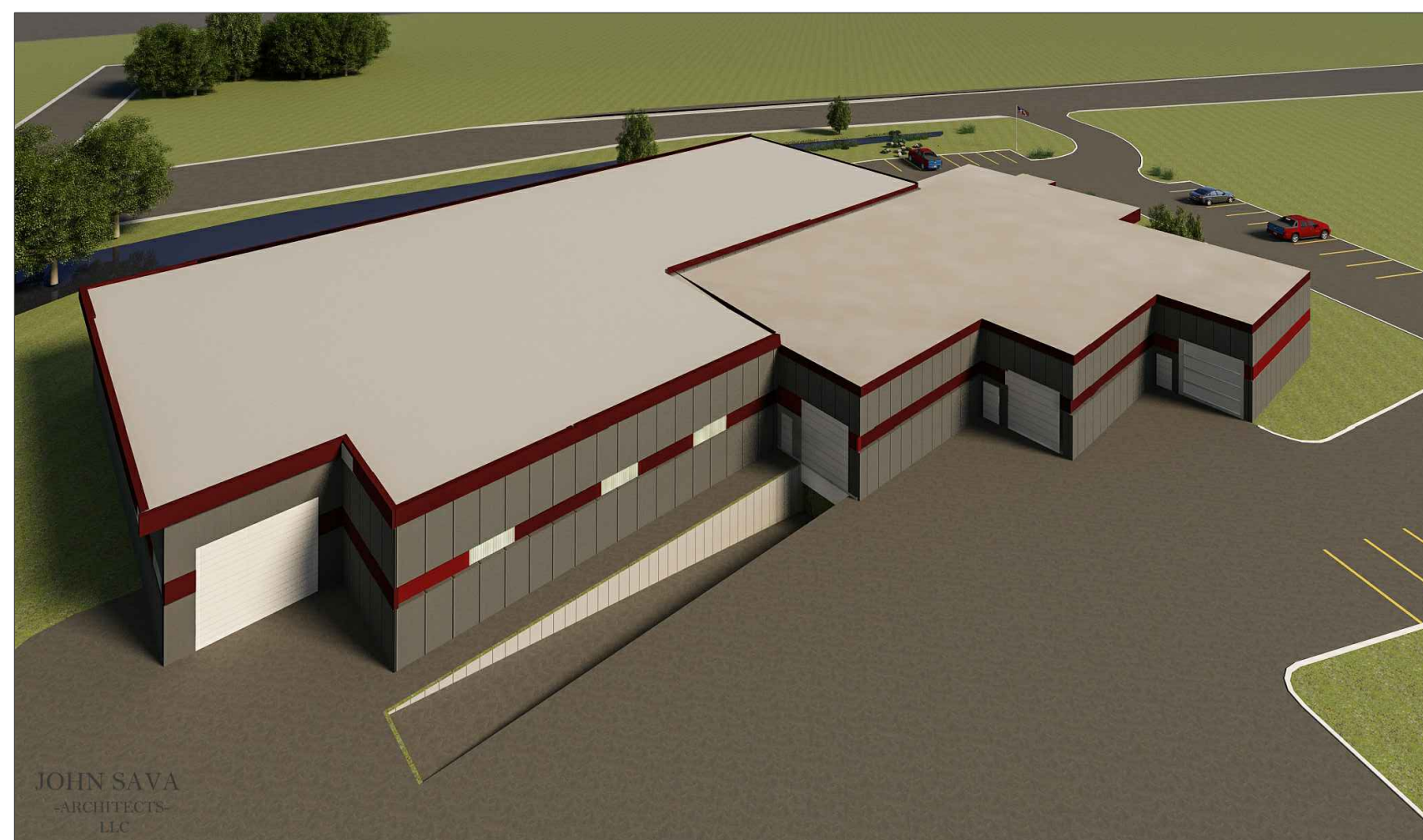
Drawing Title:  
RENDERINGS

Drawing Sheet Number:

**A-5.0**



JOHN SAVA  
-ARCHITECTS-  
LLC



JOHN SAVA  
-ARCHITECTS-  
LLC



JOHN SAVA  
-ARCHITECTS-  
LLC



JOHN SAVA  
-ARCHITECTS-  
LLC



# Plan to Accompany Notice of Intent in NEWBURYPORT, MASS.

Hayes Engineering, Inc.  
Civil Engineers & Land Surveyors  
603 Salem Street  
Wakefield, MA 01880

Telephone: 781.246.2800  
Facsimile: 781.246.7596  
www.hayeseng.com

*Hayes*

Scale: 1" = 20'



May 16, 2019  
Rev. June 18, 2019

## Showing Proposed Building Expansion #17 Malcolm Hoyt Drive

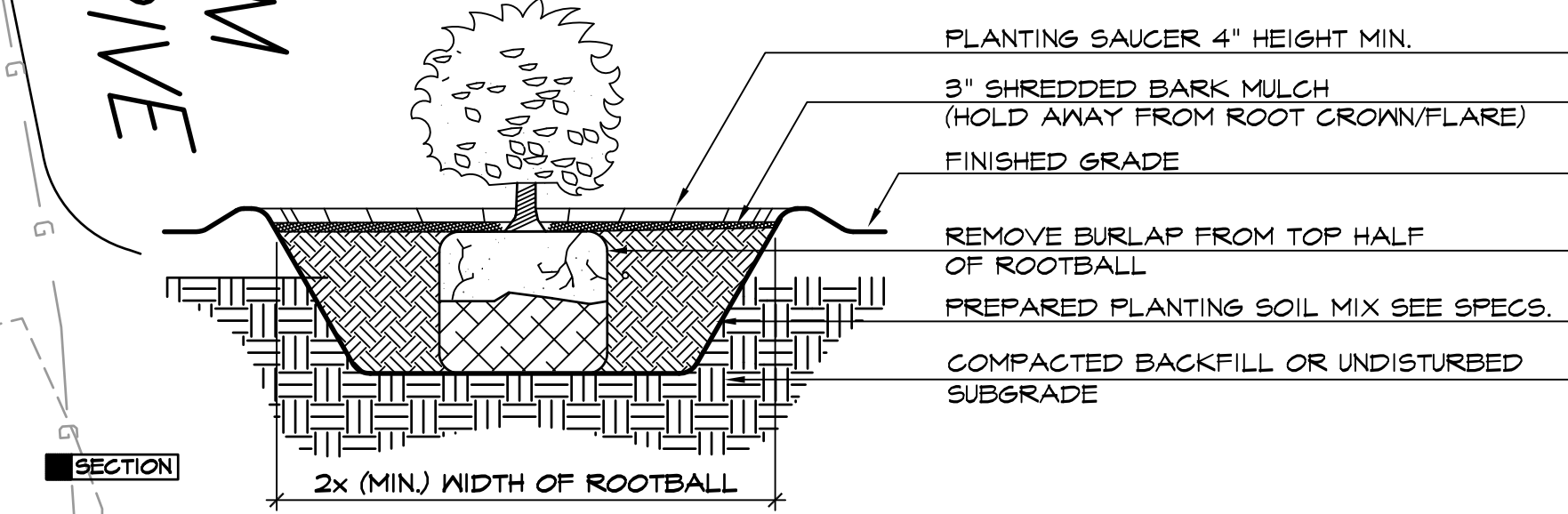
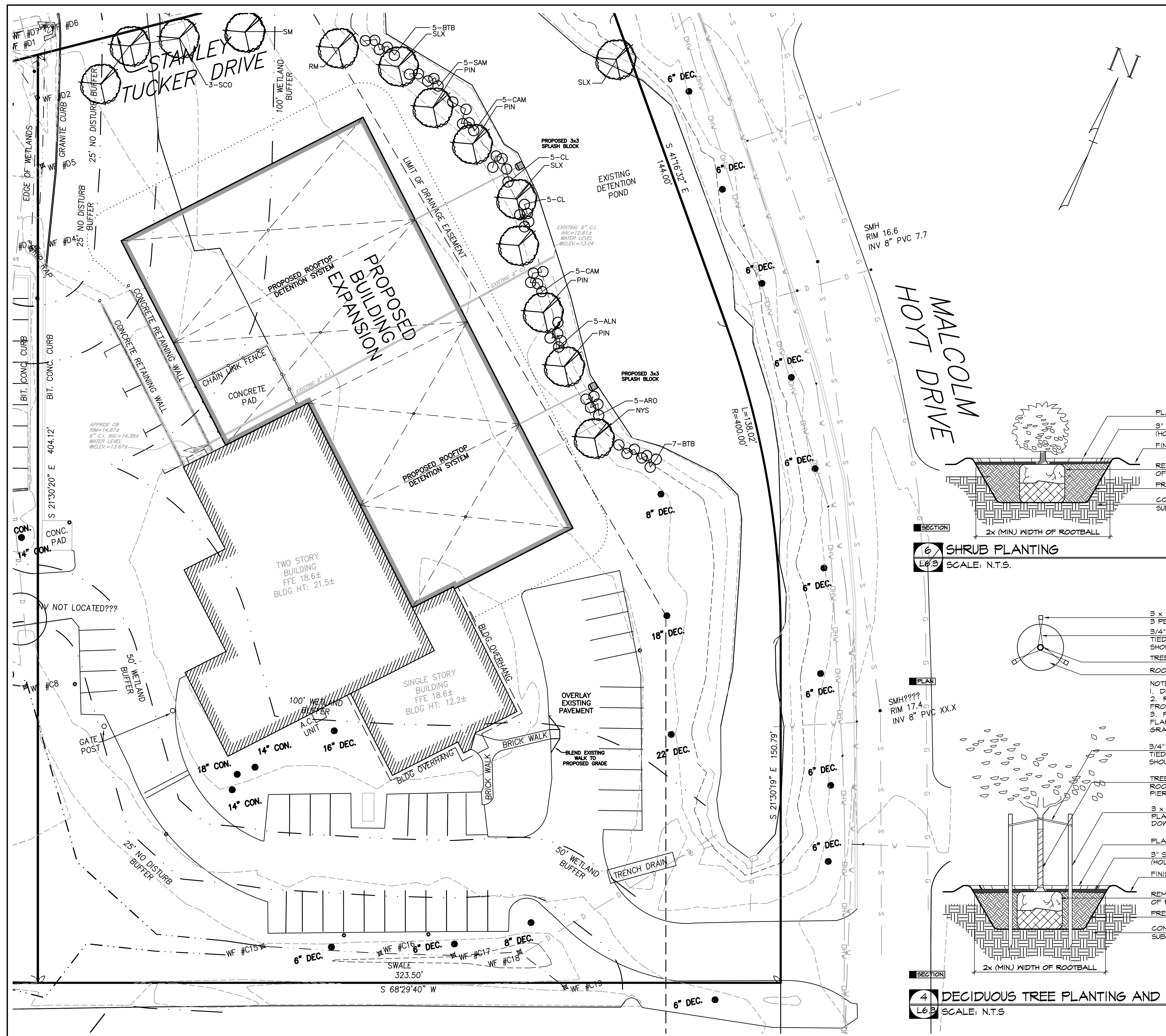
NOTES: BASE TOPOGRAPHIC INFORMATION IS FROM AN ON-THE-GROUND SURVEY PERFORMED ON NOVEMBER 17, 2016 BY EVERETT J. CHANDLER, P.L.S.

PROPOSED SITE ADDITIONS BY HAYES ENGINEERING, INC.

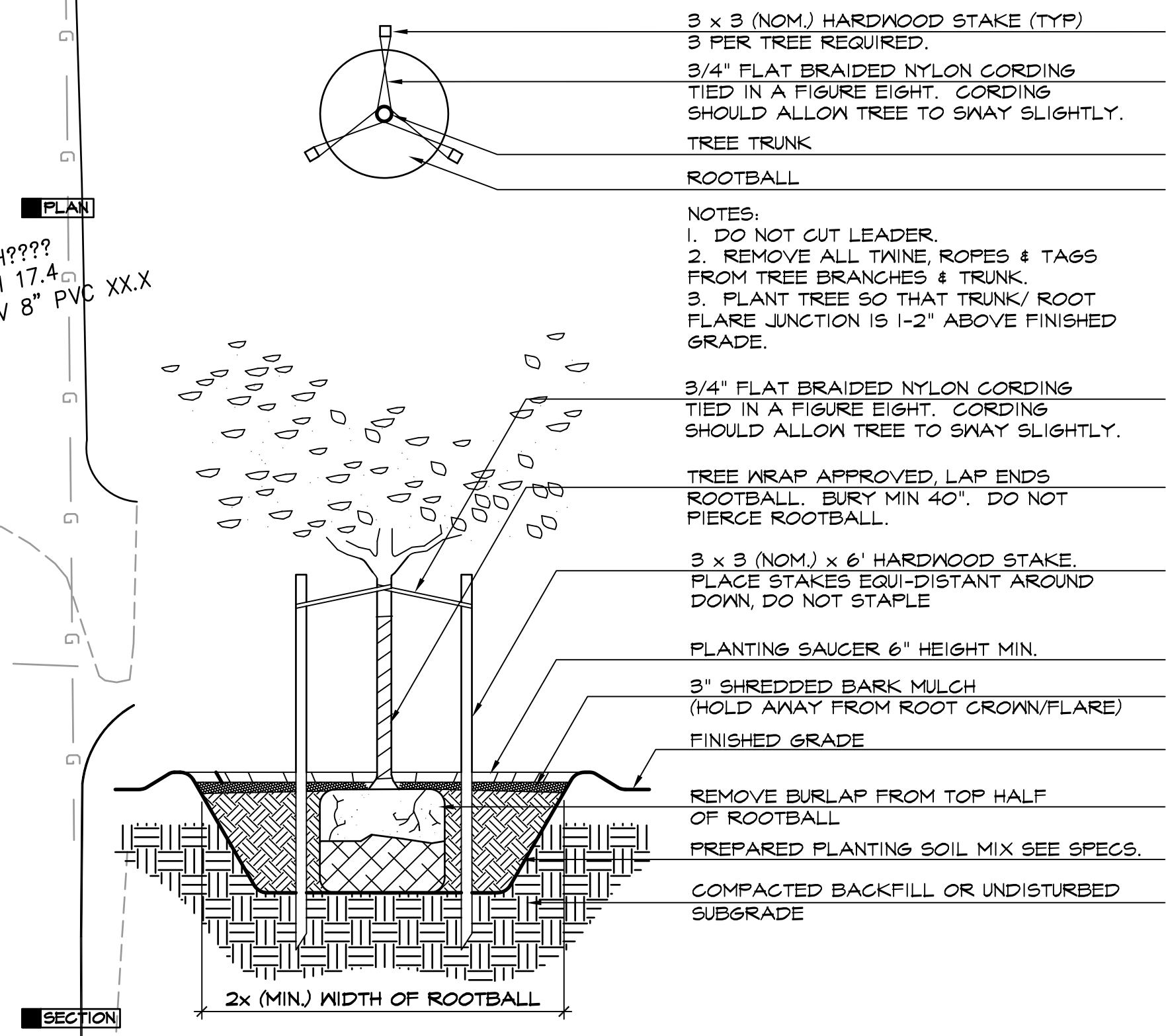
### LANDSCAPE PLAN



james k. emmanuel | associates  
LANDSCAPE ARCHITECTS  
22 Carlton Rd.  
Marblehead, MA 01945  
tel: (781) 622-7487  
fax: (781) 623-4293  
james@jamesemmanuel.com  
www.jamesemmanuel.com



6 SHRUB PLANTING  
SCALE: N.T.S.



4 DECIDUOUS TREE PLANTING AND STAKING  
SCALE: N.T.S.

### Plant Schedule - 17 Malcolm Hoyt Dr.

Qty	Key	Botanical Name	Common Name	Size
<b>TREES:</b>				
1	NYS	Nyssa sylvatica	Tupelo	1.5-2" cal
3	SCO	Quercus rubra	Red Oak	2.5-3" cal
4	PIN	Quercus palustris	Pin Oak	3-3.5" cal
1	SM	Acer saccharum	Sugar Maple	2.5-3" cal
1	RM	Acer rubrum 'Red Sunset'	Red Sunset Maple	3-3.5" cal
3	SLX	Salix nigra	Black Willow	#15 pot
<b>SHRUBS:</b>				
5	ALN	Alnus incana	Speckled Alder	18-24"
5	ARO	Pyrus arbutifolia	Red Chokeberry	18-24"
12	BTB	Cephalanthus occidentalis	Common Buttonbush	2-3"
10	CAM	Cornus amomum	Silky Dogwood	2-3"
10	CL	Clethra alnifolia	Sweet Pepper	2-3"
5	SAM	Sambucus canadensis	Elderberry	18-24"

### PLANTING NOTES

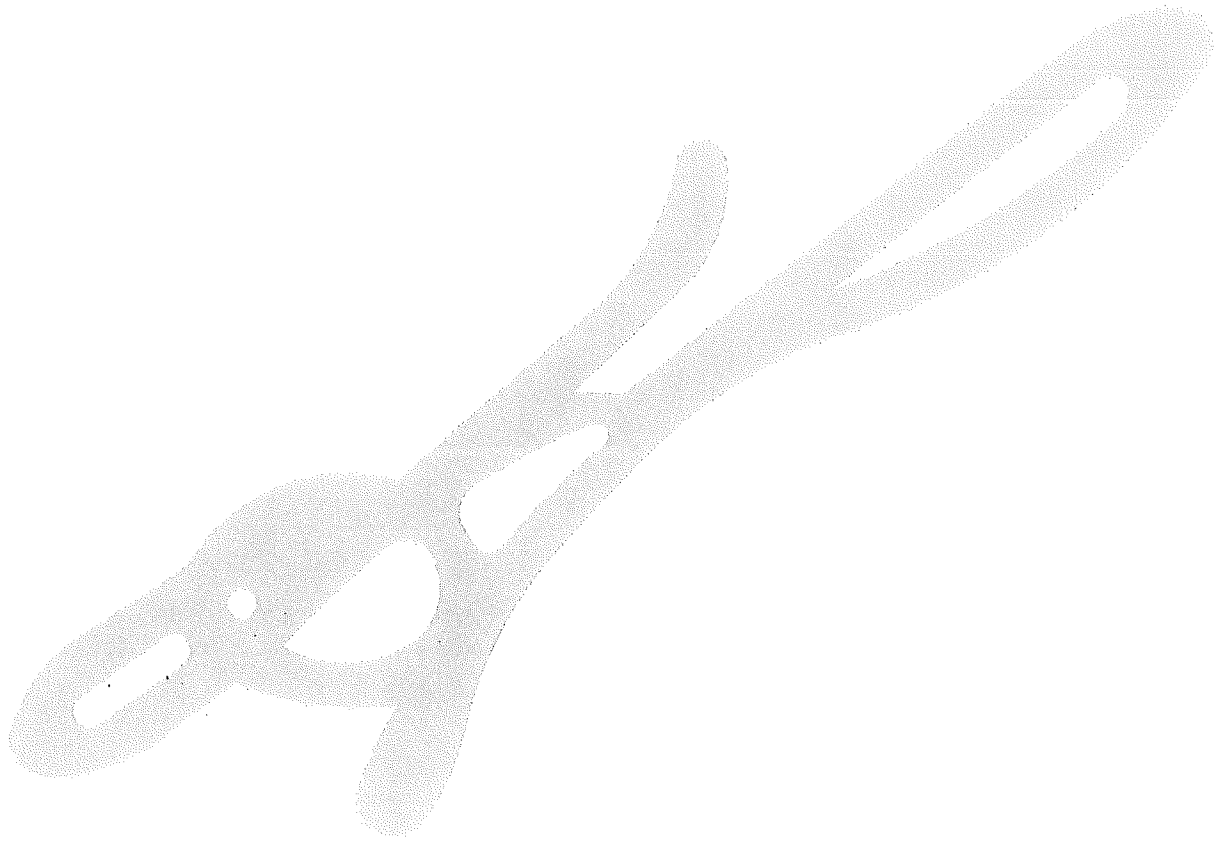
- THE NUMBER OF EACH INDIVIDUAL PLANT TYPE AND SIZE IS PROVIDED IN THE PLANT LIST FOR CONTRACTORS CONVENIENCE ONLY. IF A DISCREPANCY EXISTS BETWEEN THE NUMBER OF PLANTS ON THE LIST AND THE NUMBER SHOWN ON THE DRAWING, THE GREATER NUMBER SHALL APPLY.
- ALL PLANT MATERIAL SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT OR THE OWNER'S REPRESENTATIVE PRIOR TO ARRIVAL ON SITE.
- PLANT MATERIAL SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS TO THE ORIGINAL PLANTING GRADE.
- THE CONTRACTOR SHALL LOCATE AND MARK ALL UTILITIES PRIOR TO PLANTING. ANY CONFLICTS BETWEEN PLANTING AND UTILITIES SHALL BE IMMEDIATELY REPORTED TO THE LANDSCAPE ARCHITECT SO THAT ALTERNATE PLANTING LOCATIONS CAN BE DETERMINED.
- NO SUBSTITUTION OF PLANT MATERIALS WILL BE ALLOWED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL PLANTS AGAINST DAMAGE FROM ON-GOING CONSTRUCTION. PROTECTION SHALL BEGIN AT THE TIME THE PLANT IS INSTALLED AND CONTINUE UNTIL FORMAL ACCEPTANCE OF ALL PLANTING.

### NOTE:

- See Civil Drawings for location and type of erosion control.



# Revised Storm Water Management Calculations with Cornell Study Rainfall Quantities



#17 Malcolm Hoyt Drive  
Newburyport, Massachusetts

June 18, 2019  
July 10, 2019  
February 10, 2020



Narrative for  
Revised Storm Water Management Calculations with Cornell Study Rainfall Quantities  
#17 Malcolm Hoyt Drive  
Newburyport, Massachusetts

February 18, 2020

Zampell Refractories is proposing an approximately 19,087 square-foot building expansion to its existing facility at 17 Malcolm Hoyt Drive. The only changes expected on the site is the construction of the proposed warehouse building facility. No new parking spaces or access lanes are proposed.

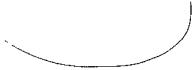
Due to the complexity of the existing drainage system within the industrial park, and the fact that the only increase in imperviousness is in the form of the proposed building expansion, the decision was made that roof-top storage would be logical for flow mitigation. Note that under stormwater management, infiltration in the poorly-drained soils of the park is not required.

The applicant filed the proposed building expansion with the Newburyport Conservation Commission and has received an Order of Conditions in DEP File No. 051-1012, dated September 5, 2019.

Subsequent to the issuance of that Order of Conditions, the project architect working with the manufacturer of the panel building determined that a different configuration of roof drain would be desirable. Specifically, the building manufacturer favored a design which put the emergency scuppers next to the internal drains at the perimeter of the building. As a consequence, the roof storage geometry changed to the configuration contained as required by the Stormwater Management Policy. The required calculations accompany this narrative.

Existing vs. Proposed Peak Flow Rates (Over Proposed Roof Footprint)

Storm	Existing Q (C.F.S.)	Proposed Q (C.F.S.)	Change Q (C.F.S.)
2 Year (3.22")	0.65	0.51	-0.14
10 Year (4.95")	1.37	0.59	-0.78
25 Year (6.32")	1.98	0.63	-1.35
50 Year (7.62")	2.57	0.67	-1.90
100 Year (9.18")	3.28	0.71	-2.57

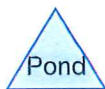
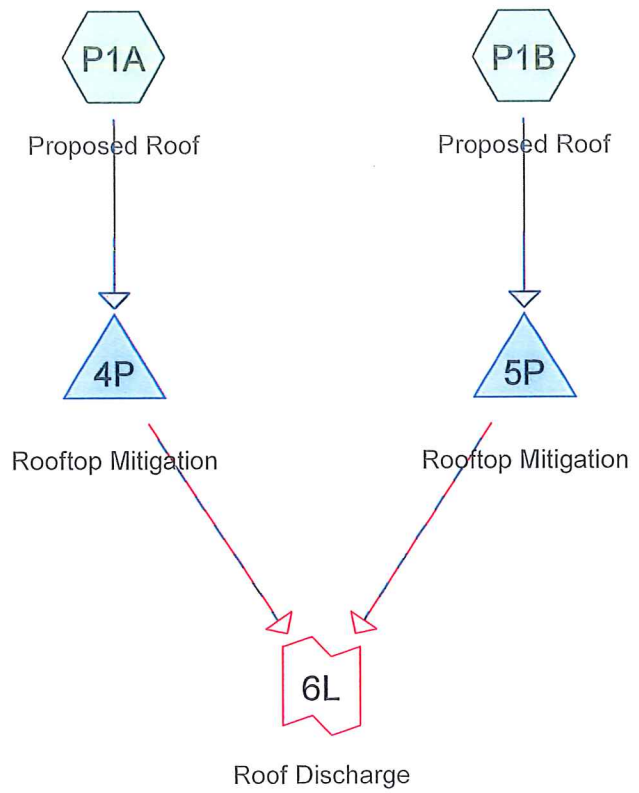


**Existing Conditions  
#17 Malcolm Hoyt**



Existing (Proposed Roof Footprint)

**Proposed Condition  
#17 Malcolm Hoyt**



**Area Listing (all nodes)**

Area (sq-ft)	CN	Description (subcatchment-numbers)
16,191	74	>75% Grass cover, Good, HSG C (E1)
2,896	98	Paved parking, HSG C (E1)
19,087	98	Roofs, HSG C (P1A, P1B)
<b>38,174</b>	<b>88</b>	<b>TOTAL AREA</b>

**Soil Listing (all nodes)**

Area (sq-ft)	Soil Group	Subcatchment Numbers
0	HSG A	
0	HSG B	
38,174	HSG C	E1, P1A, P1B
0	HSG D	
0	Other	
<b>38,174</b>		<b>TOTAL AREA</b>

**Ground Covers (all nodes)**

HSG-A (sq-ft)	HSG-B (sq-ft)	HSG-C (sq-ft)	HSG-D (sq-ft)	Other (sq-ft)	Total (sq-ft)	Ground Cover
0	0	16,191	0	0	16,191	>75% Grass cover, Good
0	0	2,896	0	0	2,896	Paved parking
0	0	19,087	0	0	19,087	Roofs
0	0	38,174	0	0	38,174	<b>TOTAL AREA</b>



Time span=0.00-40.00 hrs, dt=0.01 hrs, 4001 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment E1: Existing (Proposed)**      Runoff Area=19,087 sf   15.17% Impervious   Runoff Depth=1.29"  
Tc=6.0 min   CN=78   Runoff=0.65 cfs   2,049 cf

**Subcatchment P1A: Proposed Roof**      Runoff Area=15,557 sf   100.00% Impervious   Runoff Depth=2.99"  
Tc=6.0 min   CN=98   Runoff=1.12 cfs   3,873 cf

**Subcatchment P1B: Proposed Roof**      Runoff Area=3,530 sf   100.00% Impervious   Runoff Depth=2.99"  
Tc=6.0 min   CN=98   Runoff=0.25 cfs   879 cf

**Pond 4P: Rooftop Mitigation**      Peak Elev=0.31'   Storage=619 cf   Inflow=1.12 cfs   3,873 cf  
Primary=0.39 cfs   3,873 cf   Secondary=0.00 cfs   0 cf   Outflow=0.39 cfs   3,873 cf

**Pond 5P: Rooftop Mitigation**      Peak Elev=1.00'   Storage=94 cf   Inflow=0.25 cfs   879 cf  
Primary=0.12 cfs   879 cf   Secondary=0.00 cfs   0 cf   Outflow=0.12 cfs   879 cf

**Link 6L: Roof Discharge**      Inflow=0.51 cfs   4,752 cf  
Primary=0.51 cfs   4,752 cf

**Total Runoff Area = 38,174 sf   Runoff Volume = 6,800 cf   Average Runoff Depth = 2.14"**  
**42.41% Pervious = 16,191 sf   57.59% Impervious = 21,983 sf**

**Summary for Subcatchment E1: Existing (Proposed Roof Footprint)**

Runoff = 0.65 cfs @ 12.09 hrs, Volume= 2,049 cf, Depth= 1.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.01 hrs  
Type III 24-hr 2 Year Rainfall=3.22"

Area (sf)	CN	Description
16,191	74	>75% Grass cover, Good, HSG C
2,896	98	Paved parking, HSG C
19,087	78	Weighted Average
16,191		84.83% Pervious Area
2,896		15.17% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Min. Tc = 0.1 hours

**Summary for Subcatchment P1A: Proposed Roof**

Runoff = 1.12 cfs @ 12.08 hrs, Volume= 3,873 cf, Depth= 2.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.01 hrs  
Type III 24-hr 2 Year Rainfall=3.22"

Area (sf)	CN	Description
15,557	98	Roofs, HSG C
15,557		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Min. Tc = 0.1 hours

**Summary for Subcatchment P1B: Proposed Roof**

Runoff = 0.25 cfs @ 12.08 hrs, Volume= 879 cf, Depth= 2.99"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-40.00 hrs, dt= 0.01 hrs  
Type III 24-hr 2 Year Rainfall=3.22"

Area (sf)	CN	Description
3,530	98	Roofs, HSG C
3,530		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry, Min. Tc = 0.1 hours

**Summary for Pond 4P: Rooftop Mitigation**

Inflow Area = 15,557 sf, 100.00% Impervious, Inflow Depth = 2.99" for 2 Year event  
 Inflow = 1.12 cfs @ 12.08 hrs, Volume= 3,873 cf  
 Outflow = 0.39 cfs @ 12.34 hrs, Volume= 3,873 cf, Atten= 65%, Lag= 15.5 min  
 Primary = 0.39 cfs @ 12.34 hrs, Volume= 3,873 cf  
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.01 hrs  
 Peak Elev= 0.31' @ 12.34 hrs Surf.Area= 5,891 sf Storage= 619 cf  
 Flood Elev= 1.60' Surf.Area= 45,000 sf Storage= 24,815 cf

Plug-Flow detention time= 8.1 min calculated for 3,873 cf (100% of inflow)  
 Center-of-Mass det. time= 8.1 min ( 764.4 - 756.3 )

Volume	Invert	Avail.Storage	Storage Description
#1	0.00'	24,515 cf	<b>Custom Stage Data (Irregular)</b> Listed below (Recalc) x 2
#2	1.58'	11,850 cf	<b>Custom Stage Data (Pyramidal)</b> Listed below (Recalc)
		36,365 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
0.00	20	20.0	0	0	20
0.10	300	150.0	13	13	1,779
0.20	1,250	300.0	72	85	7,150
0.30	2,840	440.0	199	284	15,395
0.40	4,190	450.0	349	634	16,104
0.50	5,400	455.0	478	1,112	16,467
0.60	6,450	465.0	592	1,704	17,201
0.70	7,400	470.0	692	2,396	17,576
0.80	8,250	480.0	782	3,178	18,333
0.90	9,100	485.0	867	4,045	18,720
1.00	10,000	490.0	955	5,000	19,111
1.10	10,850	500.0	1,042	6,042	19,900
1.20	11,700	510.0	1,127	7,169	20,706
1.30	12,600	520.0	1,215	8,384	21,527
1.40	13,500	530.0	1,305	9,689	22,364
1.50	14,380	540.0	1,394	11,082	23,217
1.58	15,000	545.0	1,175	12,257	23,651

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1.58	15,000	0	0	15,000
2.37	15,000	11,850	11,850	15,387

Device	Routing	Invert	Outlet Devices
#1	Primary	0.00'	<b>3.0" Horiz. Orifice/Grate X 3.00</b> C= 0.600 Limited to weir flow at low heads
#2	Secondary	1.60'	<b>6.0" W x 3.0" H Vert. Orifice/Grate X 3.00</b> C= 0.600



Primary OutFlow Max=0.39 cfs @ 12.34 hrs HW=0.31' (Free Discharge)

↑1=Orifice/Grate (Orifice Controls 0.39 cfs @ 2.67 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=0.00' (Free Discharge)

↑2=Orifice/Grate ( Controls 0.00 cfs)

Summary for Pond 5P: Rooftop Mitigation

Inflow Area = 3,530 sf, 100.00% Impervious, Inflow Depth = 2.99" for 2 Year event  
 Inflow = 0.25 cfs @ 12.08 hrs, Volume= 879 cf  
 Outflow = 0.12 cfs @ 12.24 hrs, Volume= 879 cf, Atten= 53%, Lag= 9.4 min  
 Primary = 0.12 cfs @ 12.24 hrs, Volume= 879 cf  
 Secondary = 0.00 cfs @ 0.00 hrs, Volume= 0 cf

Routing by Stor-Ind method, Time Span= 0.00-40.00 hrs, dt= 0.01 hrs  
 Peak Elev= 1.00' @ 12.24 hrs Surf.Area= 1,087 sf Storage= 94 cf  
 Flood Elev= 1.60' Surf.Area= 9,889 sf Storage= 2,388 cf

Plug-Flow detention time= 3.9 min calculated for 879 cf (100% of inflow)  
 Center-of-Mass det. time= 3.9 min ( 760.2 - 756.3 )

Volume	Invert	Avail.Storage	Storage Description
#1	0.74'	2,321 cf	Custom Stage Data (Irregular) Listed below (Recalc) x 2
#2	1.58'	2,646 cf	Custom Stage Data (Pyramidal) Listed below (Recalc)
		4,966 cf	Total Available Storage

Elevation (feet)	Surf.Area (sq-ft)	Perim. (feet)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
0.74	10	10.0	0	0	10
0.80	30	30.0	1	1	74
0.90	210	80.0	11	12	511
1.00	560	130.0	37	49	1,347
1.10	1,050	160.0	79	128	2,039
1.20	1,500	190.0	127	255	2,875
1.30	2,000	200.0	174	429	3,186
1.40	2,400	230.0	220	649	4,213
1.50	2,900	260.0	265	914	5,383
1.58	3,270	270.0	247	1,160	5,805

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)	Wet.Area (sq-ft)
1.58	3,349	0	0	3,349
2.37	3,349	2,646	2,646	3,532

Device	Routing	Invert	Outlet Devices
#1	Primary	0.74'	3.0" Horiz. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#2	Secondary	1.60'	6.0" W x 3.0" H Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=0.12 cfs @ 12.24 hrs HW=1.00' (Free Discharge)  
↑1=Orifice/Grate (Orifice Controls 0.12 cfs @ 2.44 fps)

Secondary OutFlow Max=0.00 cfs @ 0.00 hrs HW=0.74' (Free Discharge)  
↑2=Orifice/Grate ( Controls 0.00 cfs)

Summary for Link 6L: Roof Discharge

Inflow Area = 19,087 sf, 100.00% Impervious, Inflow Depth = 2.99" for 2 Year event  
Inflow = 0.51 cfs @ 12.30 hrs, Volume= 4,752 cf  
Primary = 0.51 cfs @ 12.30 hrs, Volume= 4,752 cf, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-40.00 hrs, dt= 0.01 hrs

Time span=0.00-40.00 hrs, dt=0.01 hrs, 4001 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment E1: Existing (Proposed)**      Runoff Area=19,087 sf   15.17% Impervious   Runoff Depth=2.67"  
Tc=6.0 min   CN=78   Runoff=1.37 cfs   4,246 cf

**Subcatchment P1A: Proposed Roof**      Runoff Area=15,557 sf   100.00% Impervious   Runoff Depth=4.71"  
Tc=6.0 min   CN=98   Runoff=1.73 cfs   6,110 cf

**Subcatchment P1B: Proposed Roof**      Runoff Area=3,530 sf   100.00% Impervious   Runoff Depth=4.71"  
Tc=6.0 min   CN=98   Runoff=0.39 cfs   1,386 cf

**Pond 4P: Rooftop Mitigation**      Peak Elev=0.40'   Storage=1,301 cf   Inflow=1.73 cfs   6,110 cf  
Primary=0.45 cfs   6,110 cf   Secondary=0.00 cfs   0 cf   Outflow=0.45 cfs   6,110 cf

**Pond 5P: Rooftop Mitigation**      Peak Elev=1.08'   Storage=218 cf   Inflow=0.39 cfs   1,386 cf  
Primary=0.14 cfs   1,386 cf   Secondary=0.00 cfs   0 cf   Outflow=0.14 cfs   1,386 cf

**Link 6L: Roof Discharge**      Inflow=0.59 cfs   7,497 cf  
Primary=0.59 cfs   7,497 cf

**Total Runoff Area = 38,174 sf   Runoff Volume = 11,743 cf   Average Runoff Depth = 3.69"**  
**42.41% Pervious = 16,191 sf   57.59% Impervious = 21,983 sf**





Time span=0.00-40.00 hrs, dt=0.01 hrs, 4001 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment E1: Existing (Proposed)**      Runoff Area=19,087 sf   15.17% Impervious   Runoff Depth=5.04"  
Tc=6.0 min   CN=78   Runoff=2.57 cfs   8,018 cf

**Subcatchment P1A: Proposed Roof**      Runoff Area=15,557 sf   100.00% Impervious   Runoff Depth=7.38"  
Tc=6.0 min   CN=98   Runoff=2.67 cfs   9,568 cf

**Subcatchment P1B: Proposed Roof**      Runoff Area=3,530 sf   100.00% Impervious   Runoff Depth=7.38"  
Tc=6.0 min   CN=98   Runoff=0.61 cfs   2,171 cf

**Pond 4P: Rooftop Mitigation**      Peak Elev=0.53'   Storage=2,514 cf   Inflow=2.67 cfs   9,568 cf  
Primary=0.51 cfs   9,568 cf   Secondary=0.00 cfs   0 cf   Outflow=0.51 cfs   9,568 cf

**Pond 5P: Rooftop Mitigation**      Peak Elev=1.18'   Storage=457 cf   Inflow=0.61 cfs   2,171 cf  
Primary=0.16 cfs   2,171 cf   Secondary=0.00 cfs   0 cf   Outflow=0.16 cfs   2,171 cf

**Link 6L: Roof Discharge**      Inflow=0.67 cfs   11,739 cf  
Primary=0.67 cfs   11,739 cf

**Total Runoff Area = 38,174 sf   Runoff Volume = 19,757 cf   Average Runoff Depth = 6.21"**  
**42.41% Pervious = 16,191 sf   57.59% Impervious = 21,983 sf**

Time span=0.00-40.00 hrs, dt=0.01 hrs, 4001 points  
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment E1: Existing (Proposed)** Runoff Area=19,087 sf 15.17% Impervious Runoff Depth=6.49"  
 Tc=6.0 min CN=78 Runoff=3.22 cfs 10,324 cf

**Subcatchment P1A: Proposed Roof** Runoff Area=15,557 sf 100.00% Impervious Runoff Depth=8.94"  
 Tc=6.0 min CN=98 Runoff=3.22 cfs 11,589 cf

**Subcatchment P1B: Proposed Roof** Runoff Area=3,530 sf 100.00% Impervious Runoff Depth=8.94"  
 Tc=6.0 min CN=98 Runoff=0.73 cfs 2,630 cf

**Pond 4P: Rooftop Mitigation** Peak Elev=0.59' Storage=3,281 cf Inflow=3.22 cfs 11,589 cf  
 Primary=0.54 cfs 11,589 cf Secondary=0.00 cfs 0 cf Outflow=0.54 cfs 11,589 cf

**Pond 5P: Rooftop Mitigation** Peak Elev=1.23' Storage=612 cf Inflow=0.73 cfs 2,630 cf  
 Primary=0.17 cfs 2,630 cf Secondary=0.00 cfs 0 cf Outflow=0.17 cfs 2,630 cf

**Link 6L: Roof Discharge** Inflow=0.71 cfs 14,219 cf  
 Primary=0.71 cfs 14,219 cf

**Total Runoff Area = 38,174 sf Runoff Volume = 24,544 cf Average Runoff Depth = 7.72"**  
**42.41% Pervious = 16,191 sf 57.59% Impervious = 21,983 sf**

# Features & Specifications



**INTENDED USE** – The PLT LED wall pack combines traditional wall pack design with high-output LEDs to provide an energy-efficient, low maintenance LED wall pack suitable for replacing 400W Metal Halide fixtures. The traditional shape helps maintain building aesthetics when replacing only a portion of your building’s wall packs at a time while also eliminating unwanted markings from the removal of older fixtures. These fixtures are designed for outdoor applications such as pedestrian lighting, security lighting, and parking areas.

**CONSTRUCTION** – Rugged cast-aluminum housing with bronze polyester powder paint for lasting durability. Tempered glass lens protects the LEDs and provides even light distribution. Housing is sealed against moisture and environmental contaminants (IP65 rated). Designed to protect each fixture from vandalism and bad weather.

**OPTICS** – High-performance LEDs maintain a 12,800 Lumen output at 5000K for 54,000 hours of use. ≥80 CRI

Standard HID wall packs are reflector based luminaires. This type of fixture loses about 30% of the lamp’s Lumens within the reflector and lamp through "Lumen bounce," meaning 30% of the light never escapes the fixture. These types of lamps also lose Lumens quickly over time through a high Lumen depreciation rate. Comparatively, LED wall packs are designed to have a more directional beam angle than metal halide and high pressure sodium wall pack fixtures so no light is lost within the fixture. These fixtures also do not lose Lumens in the same way, meaning the brightness stays consistent longer, needs to be replaced far less frequently, and can replace a MH fixture that on paper has a much higher Lumen rating.

**ELECTRICAL** – Integral Sosen driver, Input voltage of 100-277 VAC, 50/60Hz.

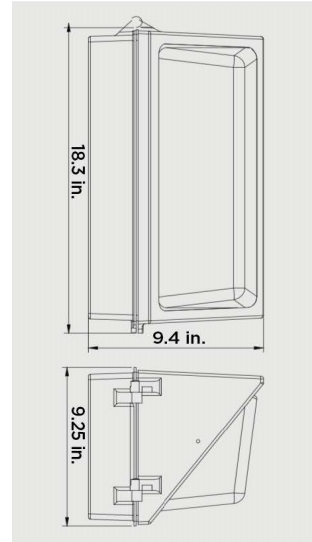
**INSTALLATION** – Designed for wall mounting. Housing is configured for mounting directly over a standard junction box. See Installation Instruction PDF for more information.

**LISTINGS** – ETL Certified to safety standards for wet location. Rated for 40°C to 45°C ambient temperature. DesignLights Consortium® (DLC) qualified product. IP-65 Rated. DLC® Part Number: PLTB64211

**WARRANTY** – 5-year warranty. PLT products that are damaged or defective will be repaired or replaced at PLT’s choosing for a period of 5 years. Contact 1-800-624-4488 for more information.

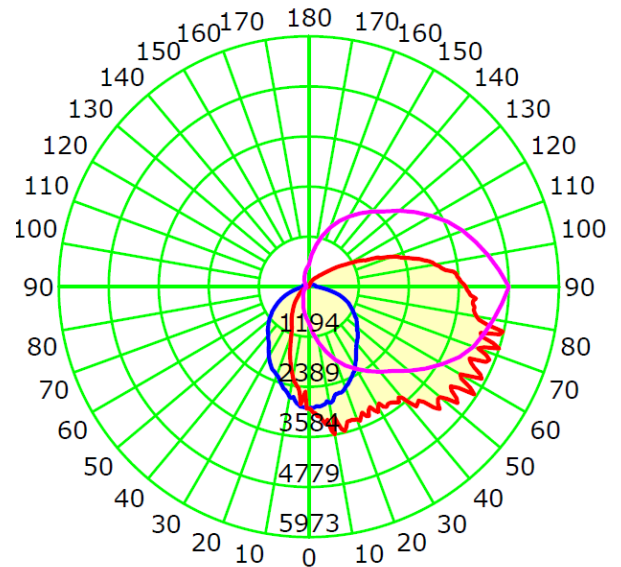
**ADD-ONS** – Pair with timers, photocells, and motion sensors for hassle free bright night time lighting and energy savings during the day without needing to worry about manually turning the fixture on and off. If pairing with a photocell, it must be LED compatible in order to operate properly. If using a conventional photocell, be sure to replace it with one rated for use with LEDs. While conventional light sensors will still work with LED fixtures at first, they will burn out prematurely. The same is true for motion sensors.

If you live in the northern hemisphere, your photocells should face north whenever possible. North-facing light sensors allow for the most balanced on/off schedule based on the arc of the sun. If pointed west, it will turn on and off late and vice versa for east-facing light sensors. Photocells facing the south will be exposed to the most direct sunlight which can burn out the components and cause premature failure. If you want your lights to come on early or late, we recommend pointing the light sensor northeast or northwest, respectfully. The opposite is true south of the equator.



**Dimensions**  
 Height: 9.4 in.  
 Width: 18.3 in.  
 Depth: 9.25 in.  
 Weight: 14.44 lbs

## PHOTOMETRICS



SKU #	Kelvin	Lumens	CRI	Wattage	Voltage	DLC?	Mounting	Life Hours	Warranty
PLT-11194	5000	12,800	80	100	100-277	Yes	Wall	54,000	5 Years