

June 13, 2018

Town of Lynnfield
Zoning Board of Appeals
C/O Mr. John Fallon, Acting Chairman
55 Summer Street
Lynnfield MA, 01940

**Re: Special Permit – Groundwater Protection District
Proposed Addition at 20 Stanley Road
Lynnfield, MA**

Dear Members of the Board:

On behalf of the applicant, Bryan Materazzo, The Morin-Cameron Group, Inc. (MCG) prepared a technical report in support of the proposed single-family residence additions at 20 Stanley Road in Lynnfield, Massachusetts. The subject parcel (Assessor's Map 24, Parcel 944) is located within the Groundwater Protection District. Under section 9.3.6.3 of the Town of Lynnfield Zoning Bylaws ("Bylaws"), a Special Permit is required to render impervious more than 15% of the subject property. To satisfy the requirements of this Special Permit, a subsurface groundwater recharge system has been designed to mitigate the runoff volume from the increased impervious area. As the increase in impervious area is less than 600 square feet, a drainage study of the 2, 10 and 100 year storm events is not required.

According to item 13.a of the Town of Lynnfield Rules of the Zoning Board of Appeals, *"The site plan shall be submitted in accordance with the procedures set forth in Section 7.4 of the Zoning Bylaw..."* A discussion of the manner in which this application meets the Site Plan Approval requirements is included herein. The submittal includes the following:

- Site Plan of Land in Lynnfield, Massachusetts – 20 Stanley Road prepared by The Morin-Cameron Group, Inc. on June 13, 2018
- Architectural Elevations and Floor Plans
- Exterior Lighting Sample Cut Sheets

Existing Conditions

The subject property consists of 11,285+/- square feet (SF) and is located in the Single Residence A zoning district. Currently on the site is an existing single-family dwelling with paved driveway, walkways, shed, deck, and landscaping. These existing features are shown on the *Site Plan* included herewith.

The site slopes up from the southwestern property line to the northeastern property line; at 2% on the southwestern side of the property to 5% on the northeastern side of the property as illustrated by the topography shown on the *Site Plan*. According to the Natural Resources Conservation Service (NRCS) soils maps, the on-site soil is a Paxton Fine Sandy Loam, which has

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a glacial till parent material and is considered to be Hydrologic Soil Group C. The existing leachfield passed a Title 5 inspection and is not a mounded system, which indicates that the groundwater elevation is deep enough to support the proposed shallow groundwater recharge systems.

The property is situated in a FEMA flood Insurance Zone "X", which is above the 500 year elevation as shown on FEMA Flood Insurance Rate Map 25009C0391F, dated July 3, 2012. There are no bordering vegetated wetlands (BVWs) located on or within 100 feet of the subject property.

Proposed Improvements

The project consists of two additions to an existing dwelling: a 6'-6" x 44'-4" (288 SF) front porch addition and a 26'-6" x 34' (900 SF) garage addition on the northeastern side of the existing building. A portion of the existing building will be demolished in the location of the garage addition. The project also includes removing existing walkway area on the southeastern and northeastern sides of the building in the location of the proposed additions. A new gravel walkway will be added on the side of the garage, and a pervious patio area will be added in the rear of the garage. An 18" wide x 12" deep stone drip edge is proposed along the length of the front porch addition. A Cultec 100HD recharge system is proposed to connect to the existing gutters and downspouts in the back yard. The existing septic system components, site landscaping and trees will be preserved.

Groundwater Recharge & Stormwater Management

The proposed project represents an increase of 525 square feet of impervious area as shown on the *Site Plan*. The proposed groundwater recharge systems were designed to mitigate the increased runoff from the new impervious areas. As shown on the calculations on the *Site Plan*, the recharge systems actually have the capacity to store and infiltrate the recharge volume for the *entire* roof area, which far exceeds what is typically required for groundwater recharge systems. The systems will be comprised of a subsurface recharge chamber surrounded by drain rock which will capture, store and infiltrate runoff from the portion of the roof area pitching towards the back yard. Stormwater runoff from the roof pitching to the front yard will be captured by an 18" x 12" crushed stone infiltration trench running along the proposed front porch. As a result of the proposed recharge systems, stormwater runoff flowing to the road and neighboring parcels will be reduced. The interests of the Groundwater Protection District will be protected by ensuring that the subject property provides infiltration of clean roof runoff into the local aquifer.

Site Plan Approval Discussion

The following section includes a breakdown of the Site Plan Approval submission requirements, with a project specific statement after each item. As described in Section 7.4 of the Bylaws: *"said application shall include a site plan which shows all existing and proposed features, including as a minimum the following:"*

1. *All landscaping features such as screening in the form of fences, walls, planting areas, walks and other barriers.*
 - The *Site Plan* includes locations of all existing trees, shrubs and fences on the subject property. The majority of these features will be retained to provide landscaping and screening benefits.
2. *Suitable landscaping adequate to screen parking and service areas from public and private ways and adjacent properties.*
 - A parking lot and service areas are not proposed with this application.

3. *All outside uses.*
 - The outside grounds will remain in their current state, which is typical for single-family residential use.
4. *Existing and proposed structures and buildings together with all set back distances, side line and rear yard depth.*
 - All of this information is shown on the *Site Plan* and the associated *Plan of Land* for 20 Stanley Road prepared by Eastern Land Survey Associates, Inc.
5. *Parking spaces with calculations showing the minimum number required under the Zoning Bylaw. All handicap spaces shall be marked in conformity with State and Federal requirements.*
 - There is no parking requirement specified in the Zoning Bylaw for a single-family residential dwelling. Garage parking and driveway parking will be provided. Handicap parking is not required for this use.
6. *Loading, service, refuse and trash disposal areas.*
 - There are no loading or service areas associated with this use. Solid waste disposal will be by curbside pickup.
7. *Proposed and existing ways, driveways and driveway openings.*
 - All of this information is shown on the *Site Plan*.
8. *All facilities for sewage and waste disposal and their type.*
 - The approximate location of the existing septic system is shown on the *Site Plan*, all of which passed a Title 5 inspection. No changes are proposed to the septic system.
9. *All outside lighting including the direction and intensity of said lighting.*
 - Typical residential fixtures, including walls sconces, flood lights and recessed can lights will be used, and sample cut sheets are included herewith.
10. *Any land thereon which lies within the "Wetland Buffer Zone."*
 - There are no bordering vegetated wetlands or buffer zones on the subject property.
11. *The addition of less than 600 square feet of impervious area shall require the applicant to specify a means to infiltrate the increase the recharge volume of rainfall runoff for the site resulting from the proposed alteration. Computations prepared by a registered professional engineer in support of the design of these preventative means shall be provided with the application. Said means, such as holding ponds, dry wells, or other equivalent permanent methods shall be shown including the location of all structures and piping with their invert elevations.*
 - This project includes the addition of 525 square feet of impervious area. Refer to the Groundwater Recharge & Stormwater Management section above, and to the *Site Plan* for the calculations, location, elevation and construction details for the groundwater recharge system and piping from the roof downspouts.

This report and supporting documents provide information to facilitate review and discussion of the proposed home additions at 20 Stanley Road under the Special Permit requirements and Site Plan Approval requirements of the Bylaws. Should you have any questions or comments or require further information, please do not hesitate to contact the undersigned at (978) 887-8586.

Sincerely,

THE MORIN-CAMERON GROUP, INC.

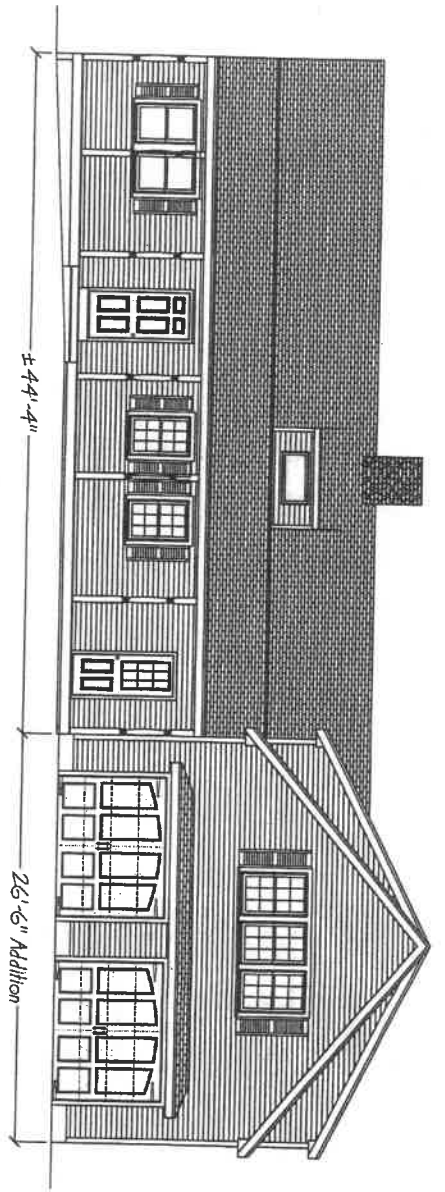


Michael C. Laham, PE
Project Manager

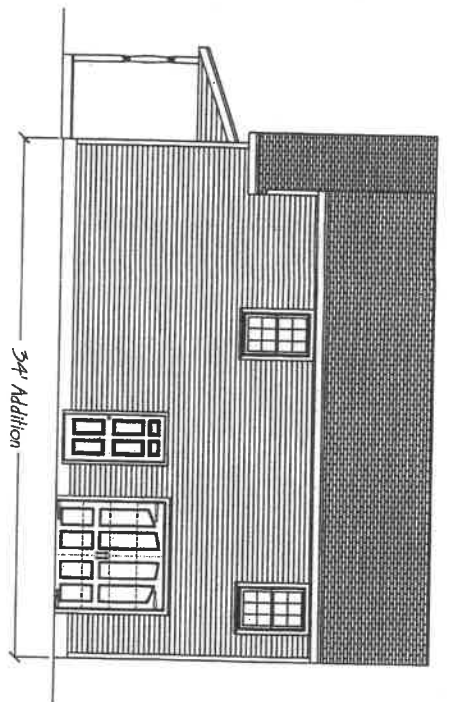
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Attachments

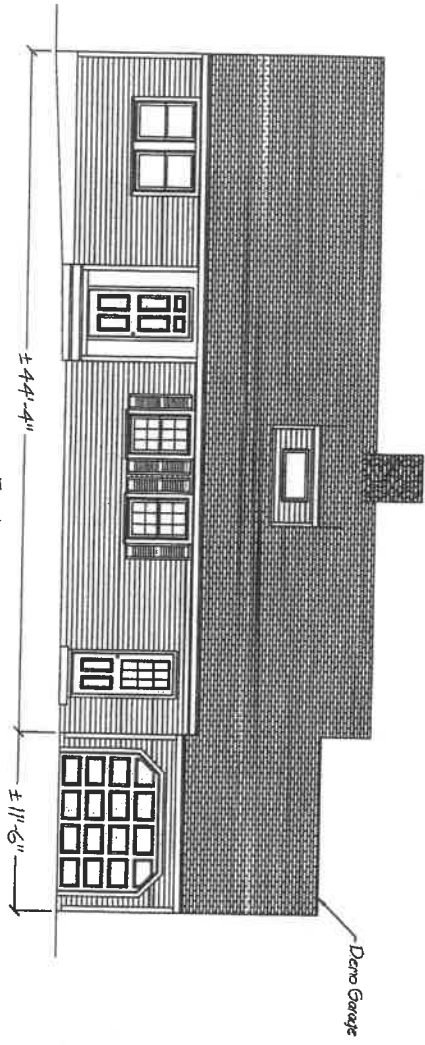
cc: Bryan Materazzo



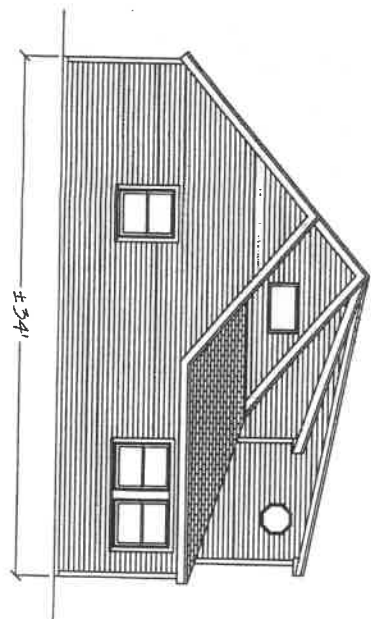
Proposed Front Elevation
Scale: 1/8" = 10"



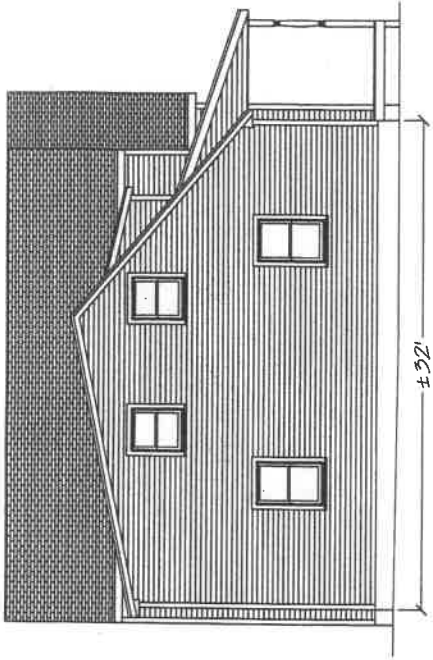
Proposed Right Elevation
Scale: 1/8" = 10"



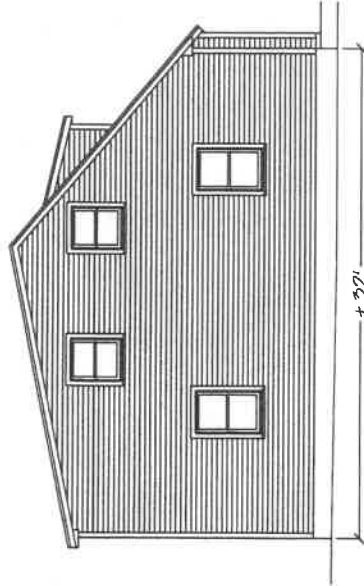
Existing Front Elevation
Scale: 1/8" = 10"



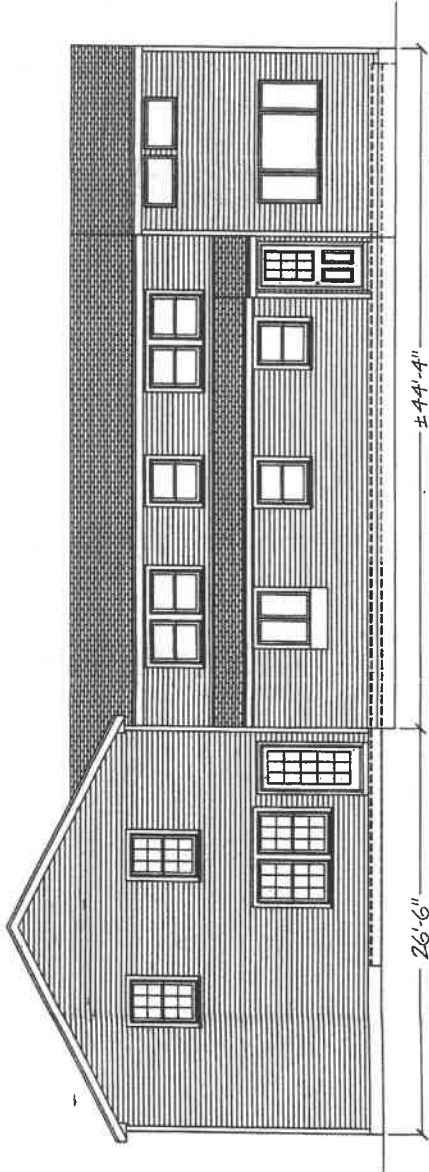
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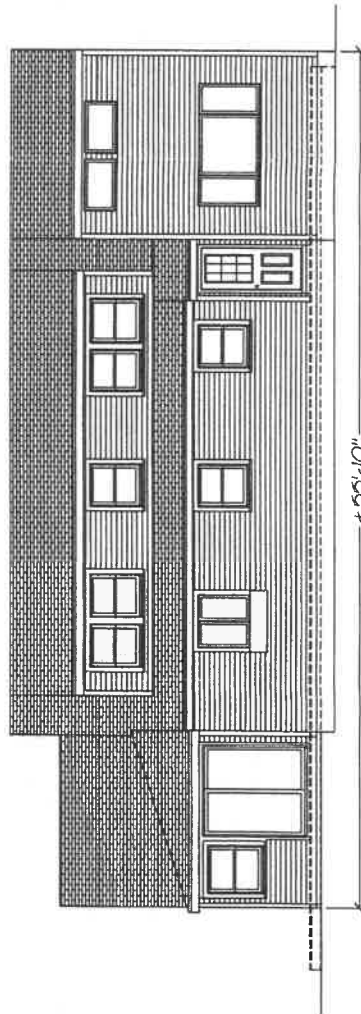
Proposed Left Elevation
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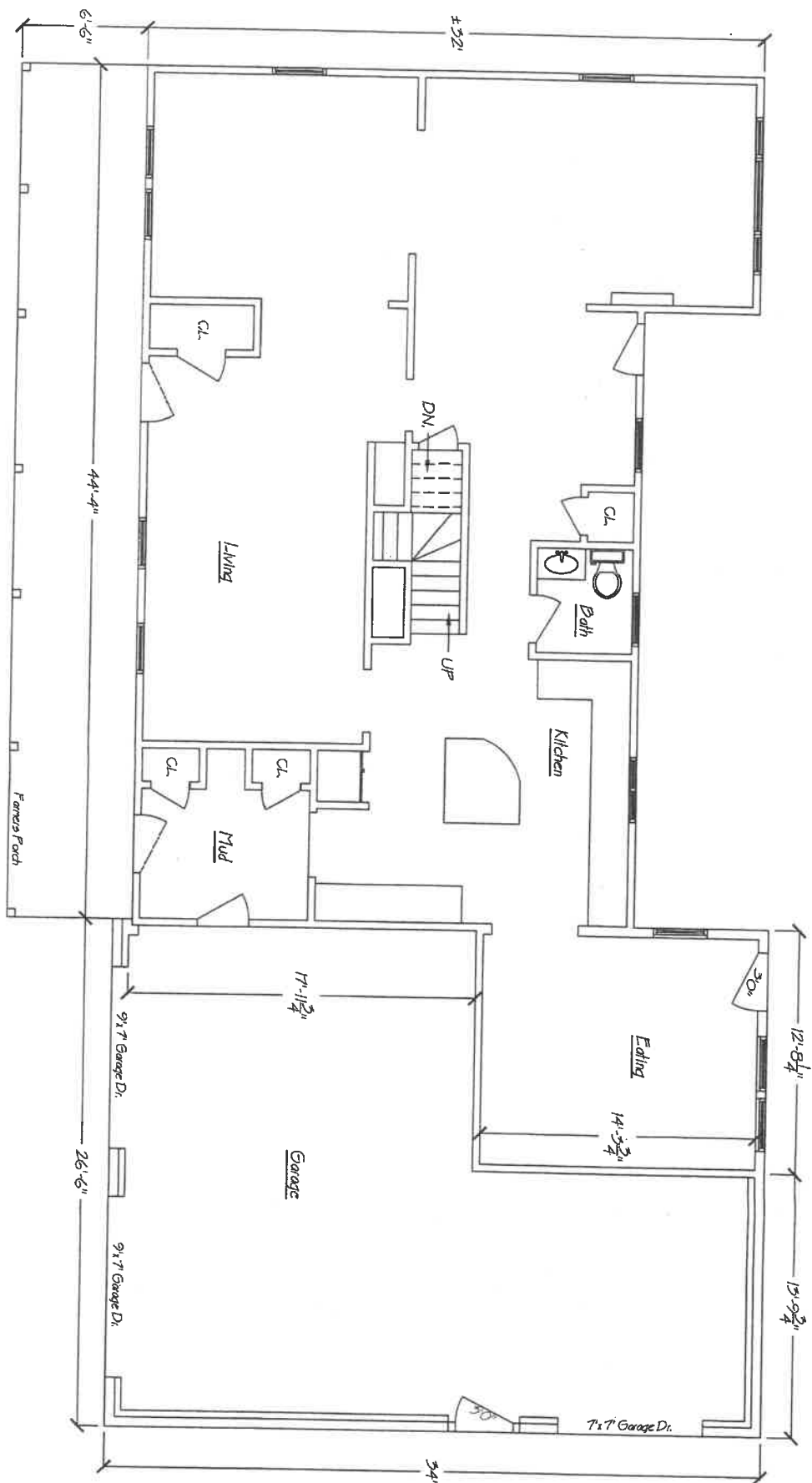
Existing Left Elevation
Scale: 1/8" = 10"



Proposed Rear Elevation
Scale: 1/8" = 10"

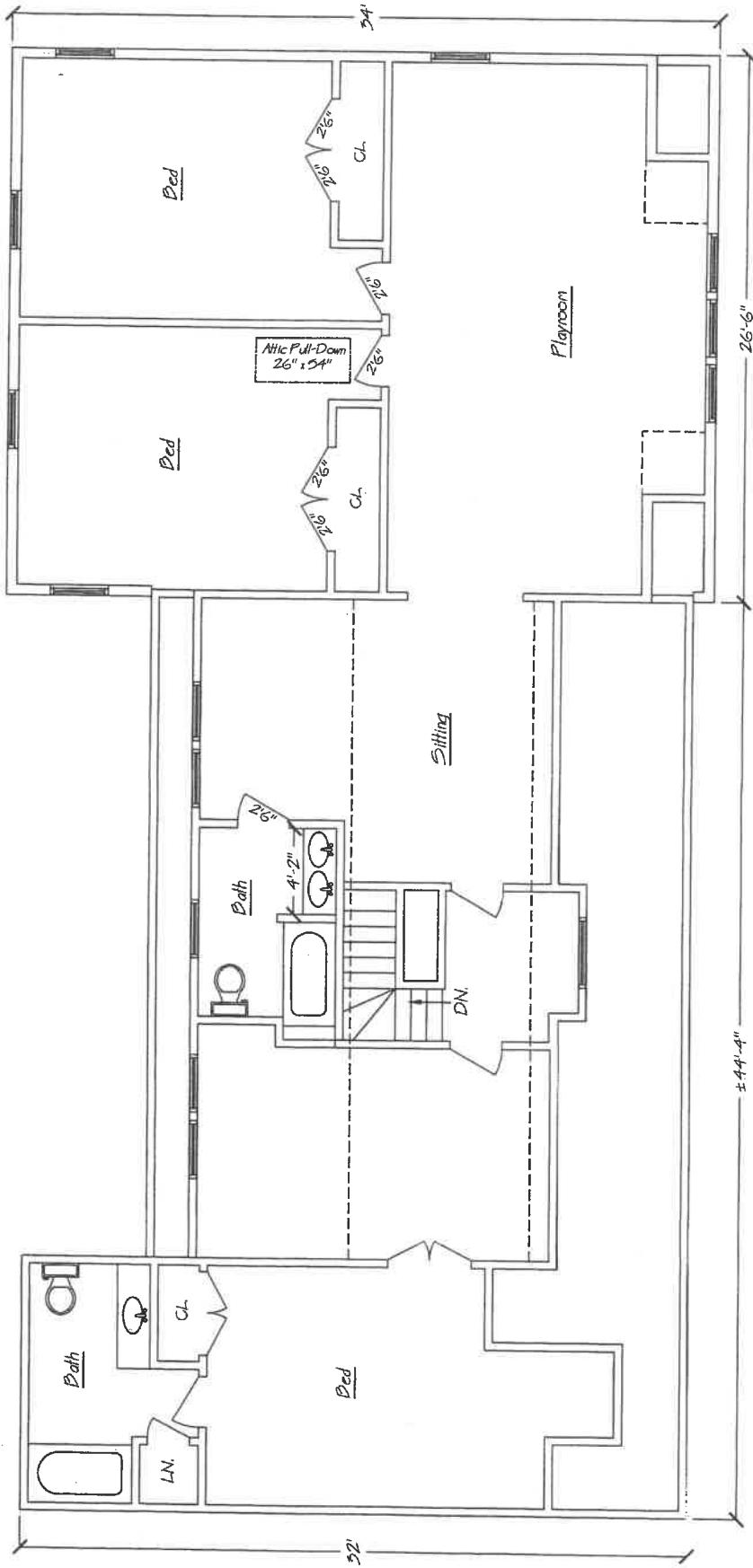


Existing Rear Elevation
Scale: 1/8" = 10"



1st Floor Proposed
 Scale: 3/16" = 10"

1



2nd Floor Proposed
 Scale: 3/16" = 10"
 1

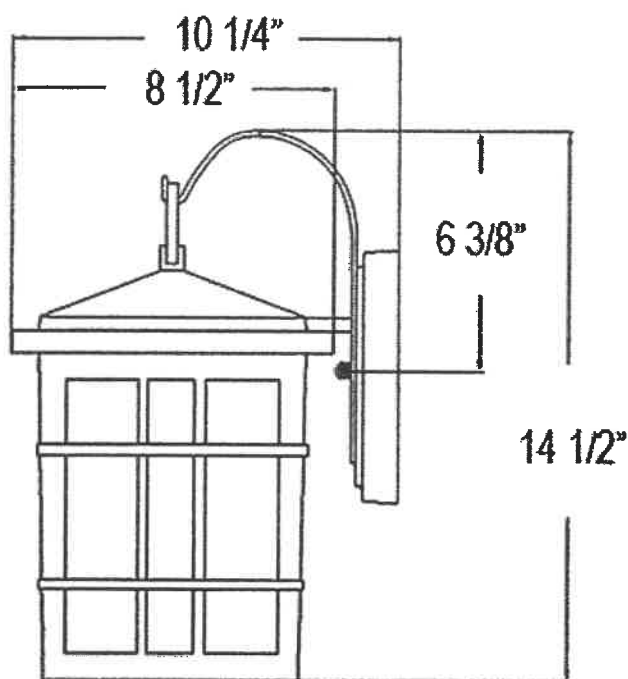
Sample Wall Sconce Light Fixture

The frosted amber seeded glass, rectangular accents, and box shapes borrow from classic Mission styling. The multi-paned design complements traditional, transitional and modern decor.

KEY FEATURES

- Lantern style shades offer a timeless and appealing look
- Seeded glass shades replicate the look of colonial glass
- 1 Year Limited
- Requires: (1) 100W Incandescent Bulb

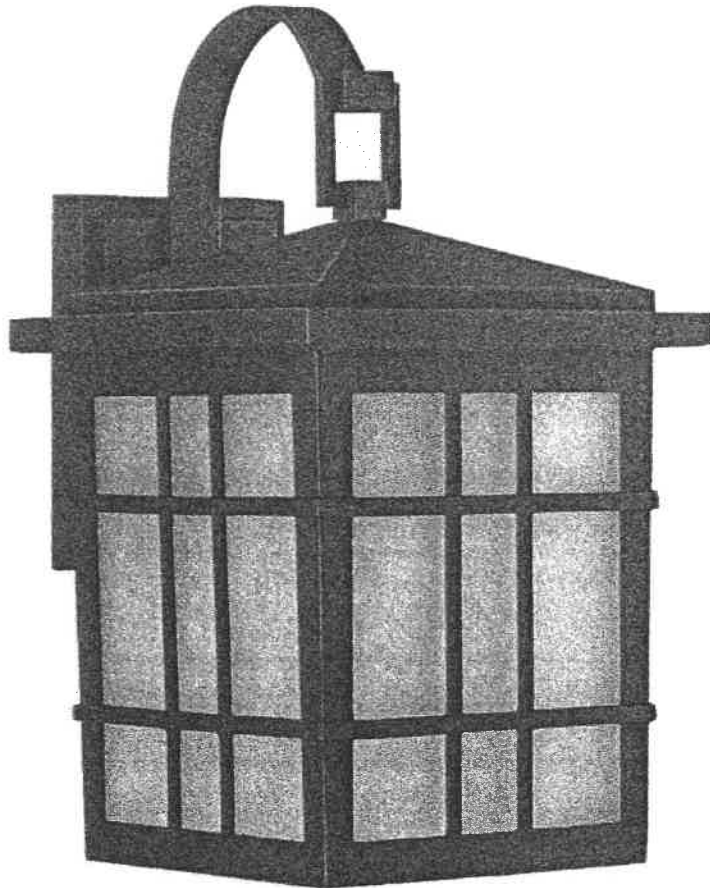
DIMENSIONS



- Height: 14.5"
- Width: 8.5" (measured from furthest point left to furthest point right on fixture)
- Extension: 10.25" (measured from mounting surface to furthest protruding point on fixture)
- Backplate Height: 6.63"
- Backplate Width: 4.38"
- Full Backplate: No

ELECTRICAL SPECIFICATIONS

- Number of Bulbs: 1
- Bulb Base: Medium (E26)
- Bulb Included: No
- Watts Per Bulb: 100
- Wattage: 100
- Voltage: 110v
- Energy Star: No
- ETL Listed: Yes
- ETL Rating: Wet Location



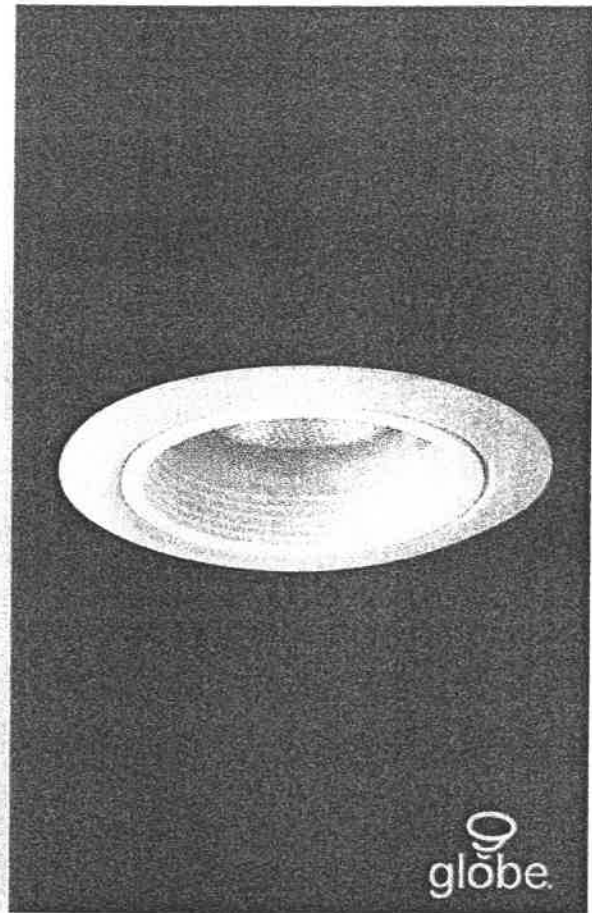
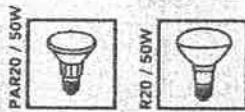
Sample Recessed Light Fixture



INDOOR / OUTDOOR

**DIMMABLE
RECESSED LIGHTING**
WHITE FINISH
WHITE BAFFLE

HOLE SIZE 3 7/8"



Specifications

Dimensions

Aperture width (in.)	3.875	Product Height (in.)	5.12
Housing depth (in.)	5.25	Product Width (in.)	7.09
Product Depth (in.)	4.84	Size	4 in.

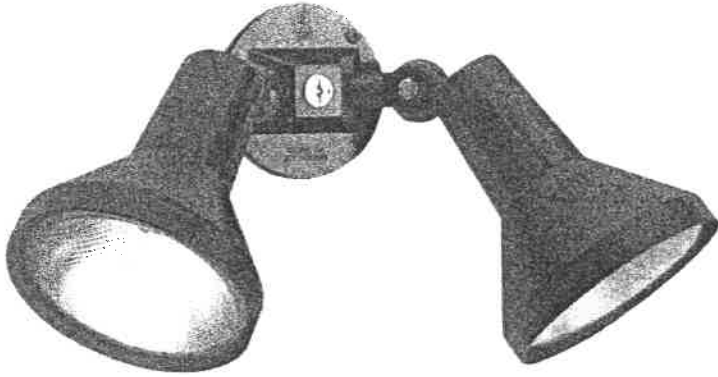
Details

Adjustable Lamp Head	No	Number of Housings Included	1
Fixture Finish	White	Package Quantity	1
Fixture Material	Aluminum	Product Weight (lb.)	.82lb
Fixture finish family	White	Recommended Light Bulb Shape Code	PAR20
Light Bulb Type Included	No Bulbs Included	Reflector Finish Family	White
New Construction or Remodel	Remodel	Returnable	90-Day

Warranty / Certifications

Certifications and Listings	CSA Listed	Manufacturer Warranty	5 Years
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Sample Flood Light Fixture



2-Lights 15" Security Light, PAR38 Outdoor Flood Lights with Adjustable Swivel

Fixture Type Outdoor Security Light	Collection No
Style Utility	Finish Dark Bronze
Width 15"	Shade Material Aluminum
Extension 8"	Number of Lights 2-Lights
Max Wattage 150 Watts	Lamp Type Halogen
Bulb Type PAR38 Bulb	Bulb Base Medium Base
Bulb Included No	Replaceable Light Source Yes
Certification UL Listed	Safety Rated Wet Location