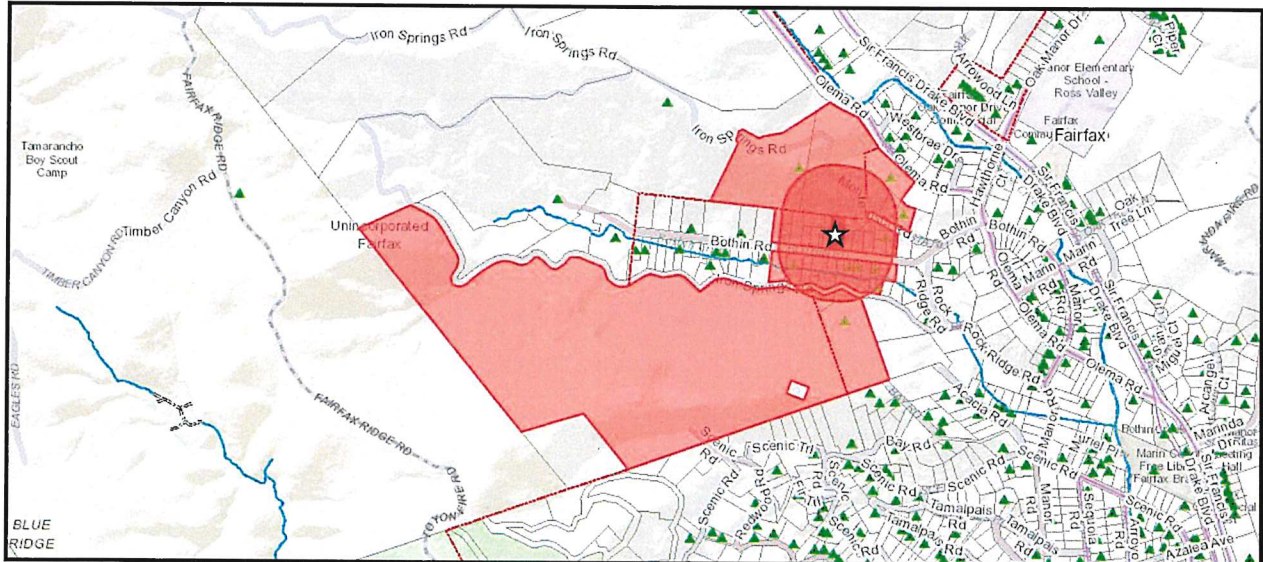


TOWN OF FAIRFAX STAFF REPORT

Department of Planning and Building Services

TO: Fairfax Planning Commission
DATE: August 19, 2021
FROM: Linda Neal, Principal Planner
LOCATION: 104 Bothin Road; APN # 001-082-70
ZONING: Residential Single-family RS 6
PROJECT: Two story addition to an existing single-family residence
ACTION: Conditional Use Permit; Application # 21-15
APPLICANT: Gary Millar, Architect
OWNER: Dan and Sandy Howard
CEQA STATUS: Categorically exempt, § 15301(e).



104 BOTHIN ROAD

DESCRIPTION

The project application is for a Conditional Use Permit for the construction of an approximately 262 square-foot, two story addition, facing Bothin Road on the south side of the residence. The addition will include a sewing room and exterior storage closet on the first floor and the remodel and expansion of the second floor living room. A new approximately 68 square-foot deck will be constructed off the east side of the sewing room, and an approximately 200 square foot roof deck will be constructed over the sewing room on the upper floor of the structure accessed from the expanded living room. The project will increase the residence living space from 1,619 square feet to 1,881 square feet.

BACKGROUND

The 14,000 square-foot, 70-foot-wide site slopes up from Bothin Road at an average rate of 38%. The existing four-bedroom, two-bathroom residence was constructed in 1928. The records are not clear on when the 200 square foot, one car garage was constructed.

DISCUSSION

Town Code § 17.076.050 indicates that improvements or modifications to any site not meeting the minimum size and width requirements based on its slope shall require either a Conditional Use Permit or a Hill Area Residential Development Permit. A parcel with a 38% slope would have to be 30,000 square feet in size and 110 feet wide to conform to section 17.076.050(C). The project is less than a 50% remodel, would result in minimal site disturbance and requires only 39 cubic yards of excavation and fill, staff determined the project would require the approval of a Conditional Use Permit.

The project does not constitute a 50% remodel and does not add a bedroom to the structure (see page 1.1 of the plans, "Floor Area Tallies"). Therefore, the project analysis does not have to include the provision of additional parking to the site or the granting of a parking variance to allow the addition/remodel [Town Code § 17.016.040(B)(1) and (2) and (C)(2)(a)]. The project also does not require a Design Review permit because it is not 50% remodel [Town Code § 17.020.030(A)].

Construction will only require the excavation and fill of 39 cubic yards of material. Therefore, the project does not require the approval of a Hill Area Residential Development permit because although the site is in an area of "Multiple Landslides", the project is being proposed in an area of the parcel that has already been disturbed by landscaping and yard improvements. It will require the removal of no mature trees and site excavation is minimal.

The project complies with the regulations of the Residential Single-family RS 6 Zone District as follows:

	Front Setback	Rear Setback	Combined Front/rear Setback	Side Setbacks	Combined Side Setbacks	FAR	Coverage	Height
Required/ Permitted	6 ft.	12 ft.	35 ft.	5 ft. & 5 ft.	20 ft.	.40	.35	28.5 ft., 3 stories
Existing	9 ft. (garage)	123 ft.	132 ft (house + garage)	4 ft. (west side house), 1 (garage)	5 ft.	.12	.12	21 ft.
Proposed	No change	No change	No change	No change	No change	.13	.15	25 ft.

The two-story, house to the west at 110 Bothin Road is located approximately 13 feet west and slightly further from the street than the existing house on the project site at 79 Bothin Road. The addition will be screened from the view of 110 Bothin Road by the existing portion of the 79 Wood Lane structure. 98 Bothin Road to the east of the project site, is located at the front of its site in line with 104 Bothin Road's garage, which will partially screen its view of the addition. The addition does not extend above the roof of the existing structure and reaches 25 feet in height above grade at the top of the roof peak, below the maximum allowable 28.5 feet. An approximately 200 square-foot deck

will be built off the living room addition on the second floor, with most of the deck on the roof top of the lower floor sewing room/storage closet addition, including a small cantilevered deck area enclosed with wood framing and welded wire mesh at the front, southeast corner. A small entry deck and stair is proposed accessing the lower floor sewing room on the east side of the addition.

Residences on similar sized and sloped properties in the Bothin Park neighborhood range in size from a 956 square foot house on a 5,000 square-foot property and a FAR of .19 to a 2,434 square-foot house on a 20,000 square foot property with an FAR of .12.

104 BOTHIN ROAD – COMPARABLE HOUSE NEIGHBORHOOD HOUSE SIZES ON SIMILAR LOTS							
APN #	ADDRESS	LOT SIZE	HOUSE SIZE	# BEDROOMS	# BATHS	GARAGE	FAR
001-082-08	147 BOTHIN	14,250	2,052	3	3	440	.14
001-082-47	195 BOTHIN	14,000	1,292	3	2.5	460	.09
001-082-10	131 BOTHIN	13,500	2,212	3	2	238	.16
001-082-55	196 BOTHIN	20,000	1,518	3	2	0	.08
001-082-56	188 BOTHIN	20,000	2,434	3	3	396	.12
001-082-57	180 BOTHIN	15,000	2,354	5	2	360	.16
001-082-60	150 BOTHIN	20,000	1,141	3	1	220	.06
001-082-65	124 BOTHIN	15,000	1,550	2	1	231	.10
NEIGHBORING HOMES ON DISSIMILAR LOTS							
001-082-32	111 BOTHIN	10,800	1,952	4	3	0	.18
001-082-34	109 BOTHIN	5,000	1,239	3	2	380	.25
001-082-38	101 BOTHIN	5,000	956	2	1	0	.19
001-082-65	124 BOTHIN	15,000	1,550	2	1	231	.10
001-082-66	116 BOTHIN	10,500	970	2	1	0	.09
001-082-67	120 BOTHIN	6,050	1,735	3	2	324	.29
001-082-68	112 BOTHIN	6,050	2,152	5	2	330	.36
001-082-69	110 BOTHIN	6,250	1,056	2	2	0	.17
001-082-72	98 BOTHIN	7,500	1,106	3	1	252	.15
001-082-73	94 BOTHIN	7,500	1,106	3	1	252	.15
001-082-74	90 BOTHIN	7,500	1,254	3	1	311	.17
PROJECT SITE - PROPOSED							
001-082-70	104 BOTHIN	14,000	1,881	3	2	217	.13

The proposed project will result in a 1,881 square foot residential on a 14,000 square-foot parcel with an FAR of .13, so the proposed addition will not result in a structure out of scale with the site or out of character with the neighborhood.

The exterior of the addition will be articulated with horizontal siding on the east and west sides and on most of the south side, painted to match the existing structure. The south facing siding on the upper floor addition, beneath the expanded roof eave, shall be board and batten siding.

No in-depth discussion of the exterior materials or design is included in this report because the project is less than a 50% remodel and does not require the approval of a

design review permit.
Lighting

The proposed lighting plan can be found on page 10 of the project plans dated April 15, 2021, and the architect has included a detailed description, analysis of dark sky compliance and cut sheets for the proposed plan which is attached as Attachment C.

Northern Spotted Owl

The site is within ¼ mile of a known Northern Spotted Owl nesting site so construction shall be prohibited during the Northern Spotted Owl nesting season from February 1st through July 31st, unless a plan for allowing construction activities during this period is submitted by a qualified spotted owl biologist and approved by the State Department of Fish and Wildlife, with documentation of the approval provided to the Town, prior to initiation of any construction activities. All requirements listed in the plan, including potential onsite monitoring, must be met by the applicants at all times. Staff has included this condition in the attached Resolution No. 2021-16.

Other Agency/Department Comments/Conditions

Ross Valley Fire Department

RVFD submitted written requirements which have been incorporated into conditions of approval in the attached resolution and are summarized as follows:

All vegetation and construction materials are to be maintained away from the residence during construction, defensible space shall be provided, a Class A Roof Assembly is required, smoke detectors shall be installed throughout the entire building and be provided with AC power and be interconnected for simultaneous alarm, carbon monoxide alarms shall be provided outside each sleeping area in the immediate vicinity of the bedrooms, address numbers at least 4" tall visible from the street and internally illuminated or illuminated by and adjacent light controlled by a photocell and switched off only by a breaker so it will remain illuminated all night shall be installed and the applicant may propose alternate materials or methods in accordance with section 103.3 of the Wildland Urban Interface Code.

Marin Municipal Water District (MMWD)

MMWD submitted written requirements which have been incorporated into conditions of approval in the attached resolution and are summarized as follows:

All indoor and outdoor requirements or District Code Title 13, Water Conservation must be complied with, backflow prevention requirements must be met. Ordinance 420, requiring installation of grey water recycling system when practicable, must be incorporated into the project building permit plans or an exemption letter from MMWD must be provided to the Town, all MMWD's rules and regulations in effect at the time service is requested must be complied with.

Ross Valley Sanitary District (RVSD)

RVSD submitted written requirements that the project will require trigger the District testing and lateral certification requirements, and all work on the sewer lateral must be done with a Ross Valley Sanitary District (RVSD) permit, after the payment of applicable fees, must be inspected by RVSD Inspectors prior to backfill and must comply with District Codes including Ordinance 100.

Fairfax Public Works, Police Department and Building Department

Staff received no comments from the Public Works, Police or Building Departments.

RECOMMENDATION

Conduct the public hearing.

Move to approve application # 21-15 based on the findings and subject to the conditions listed in the attached Resolution No. 2021-16.

ATTACHMENTS

- A – Resolution No. 2021-16
- B – Photographs of the project site
- C – Millar Architecture lighting plan information and cut sheets for fixtures

RESOLUTION NO. 2021-16

A Resolution of the Fairfax Planning Commission Approving Application No. 21-15 for a Conditional Use Permit for a 262 Square-foot, Two Story Addition to the Existing Single-family Residence at 104 Bothin Road

WHEREAS, the Town of Fairfax has received an application from Dan and Sandy Howard for a 262 square-foot, two story, living room expansion and sewing room/storage closet addition to a single-family residence at 104 Bothin Road on April 15, 2021; and

WHEREAS, the Planning Commission held a duly noticed Public Hearing on August 19, 2021, at which time the Planning Commission took public testimony on the project, reviewed the facts of the proposed project and the project plans, and determined that the project complies with the Conditional Use Permit Regulations; and

WHEREAS, based on the plans and other documentary evidence in the record the Planning Commission has determined that the applicant has met the burden of proof required to support the findings necessary to approve the discretionary Conditional Use Permit; and

WHEREAS, the Commission has made the following findings:

The project is consistent with the 2010-2030 Fairfax General Plan as follows:

Goal LU-7: Preserve community and neighborhood character.

Policy LU-7.1.5: New and renewed residential development shall preserve and enhance the existing character of the Town's neighborhoods in diversity, architectural character, size, and mass.

Conditional Use Permit Findings

- 1) The approval of the use permit shall not constitute a grant of special privilege and shall not contravene the doctrines of equity and equal treatment because the proposed addition will comply with all the setback, floor area ratio, lot coverage and height limits of the Residential Single-family RS 6 Zone where the site is located.
- 2) The development and use of the property, as approved under the use permit, shall not create a public nuisance, cause excessive or unreasonable detriment to adjoining properties or premises, or cause adverse physical or economic effects thereto, or create undue or excessive burdens in the use and enjoyment thereof, any or all of which effects are substantially beyond that which might occur without approval or issuance of the use permit. The project will not increase the height or number of bedrooms in the structure and will not impact neighboring properties visually or increase the use of public parking.

- 3) Approval of the use permit is not contrary to those objectives, goals, or standards pertinent to the particular case and contained or set forth in any master plan, development plan or other plan or policy, officially adopted by the town; and
- 4) Approval of the use permit will result in equal or better development of the premises than would otherwise be the case, and the approval is in the public interest and for the protection or enhancement of the community.

WHEREAS, the Commission has approved the project subject to the applicant's compliance with the following conditions:

1. The project is approved per the architectural plans received by the Town of Fairfax on April 15, 2021, by Millar Architecture pages 1, 1.1, 1.2, 1.3 and 3 through 10.
2. Prior to issuance of any of the building permits for the project, the applicant or his assigns shall provide a lighting plan that shows all exterior fixtures to be the minimum necessary for safety, downward directed, and feature full cutoffs that prevent direct offsite illumination.
3. Prior to issuance of any of the building permits for the project the applicant or his assigns shall:
 - a) submit a construction plan to the Public Works Department which may include but need not be limited to the following:
 - i. Construction delivery routes approved by the Department of Public Works.
 - ii. Construction schedule (deliveries, worker hours, etc.)
 - iii. Notification to area residents
 - iv. Emergency access routes
 - b) Prepare, and file with the Public Works Director, a video tape of the roadway conditions on the public and private construction delivery routes (routes must be approved by Public Works Director).
 - c) Submit a cash deposit, bond, or letter of credit to the Town in an amount that will cover the cost of grading, weatherization, and repair of possible damage (including emergency damage) to public or private roadways. The applicant shall submit contractor's estimates for any grading, site weatherization, and improvement plans for approval by the Town Engineer. Upon approval of the contract costs, the applicant shall submit a cash deposit, bond, or letter of credit equaling 100% of the estimated construction costs.
4. Prior to submittal of the building permit plans, the applicant shall secure written

approval from the Ross Valley Fire Authority, Marin Municipal Water District, and the Ross Valley Sanitary District noting the development conformance with their recommendations.

5. During the construction process the following shall be required:
 - a) All construction-related vehicles including equipment delivery, cement trucks and construction materials shall be situated off the travel lane of the adjacent public right(s)-of-way at all times. This condition may be waived by the Building Official on a case-by-case basis with prior notification from the project sponsor.
 - b) Any proposed temporary closures of a public right-of-way shall require prior approval by the Fairfax Police Department and any necessary traffic control, signage or public notification shall be the responsibility of the applicant or his/her assigns. Any violation of this provision will result in a stop work order being placed on the property and issuance of a citation.
6. Prior to issuance of an occupancy permit the Planning Department shall field check the completed project to verify that it has been constructed per the plans that were approved by the Planning Commission.
7. The roadways shall be kept free of dust, gravel, and other construction materials by sweeping them, daily, if necessary.
8. Any changes, modifications, additions, or alterations made to the approved set of plans will require a modification of Application # 21-15. Modifications that do not significantly change the project, the project design or the approved discretionary permits *may* be approved by the Planning Director. Any construction based on job plans that have been altered without the benefit of an approved modification of Application 21-15 will result in the job being immediately stopped and red tagged.
9. Any damages to the public and/or private portions of Bothin Road, Olema Road or other public or private roadway used to access the site resulting from construction-related activities shall be the responsibility of the property owner.
10. The applicant and its heirs, successors, and assigns shall, at its sole cost and expense, defend with counsel selected by the Town, indemnify, protect, release, and hold harmless the Town of Fairfax and any agency or instrumentality thereof, including its agents, officers, commissions, and employees (the "Indemnitees") from any and all claims, actions, or proceedings arising out of or in any way relating to the processing and/or approval of the project as described herein, the purpose of which is to attack, set aside, void, or annul the approval of the project, and/or any environmental determination that accompanies it, by the Planning Commission, Town Council, Planning Director, Design Review Board or

any other department or agency of the Town. This indemnification shall include, but not be limited to, suits, damages, judgments, costs, expenses, liens, levies, attorney fees or expert witness fees that may be asserted or incurred by any person or entity, including the applicant, third parties and the Indemnitees, arising out of or in connection with the approval of this project, whether there is concurrent, passive, or active negligence on the part of the Indemnitees. Nothing herein shall prohibit the Town from participating in the defense of any claim, action, or proceeding. The parties shall use best efforts, acting in good faith, to select mutually agreeable defense counsel. If the parties cannot reach agreement, the Town may select its own legal counsel and the applicant agrees to pay directly, or timely reimburse on a monthly basis, the Town for all such court costs, attorney fees, and time referenced herein, provided, however, that the applicant's duty in this regard shall be subject to the Town's promptly notifying the applicant of any said claim, action, or proceeding.

11. The applicant shall comply with all applicable local, county, state and federal laws and regulations. Local ordinances which must be complied with include, but are not limited to: the Noise Ordinance, Chapter 8.20, Polystyrene Foam, Degradable and Recyclable Food Packaging, Chapter 8.16, Garbage and Rubbish Disposal, Chapter 8.08, Urban Runoff Pollution Prevention, Chapter 8.32, and the Americans with Disabilities Act.
12. In accordance with Town Code §8.20.060(C)(1) and (2), the operation of any tools or equipment used in construction or demolition work or in property maintenance work between the hours of 6:00 PM and 8:00 AM Monday through Friday, or on weekends and holidays between 4:00 PM and 9:00 AM is prohibited.
13. Conditions placed upon the project by outside agencies may be eliminated or amended with that agency's written notification to the Planning Department prior to issuance of the building permit.

Ross Valley Fire Department

14. All vegetation and construction materials are to be maintained away from the residence during construction.
15. Defensible space shall be provided.
16. A Class A Roof Assembly is required.
17. Smoke detectors shall be installed throughout the entire building and be provided with AC power and be interconnected for simultaneous alarm.
18. Carbon monoxide alarms shall be provided outside each sleeping area in the immediate vicinity of the bedrooms.
19. Address numbers at least 4" tall visible from the street and internally illuminated

or illuminated by and adjacent light controlled by a photocell and switched off only by a breaker so it will remain illuminated all night shall be installed.

20. the applicant may propose alternate materials or methods in accordance with section 103.3 of the Wildland Urban Interface Code.

Marin Municipal Water District (MMWD)

21. All indoor and outdoor requirements or District Code Title 13, Water Conservation must be complied with.
22. Backflow prevention requirements must be met.
23. Ordinance 420, requiring installation of grey water recycling system when practicable, must be incorporated into the project building permit plans or an exemption letter from MMWD must be provided to the Town, all MMWD's rules and regulations if effect at the time service is requested must be complied with.

Ross Valley Sanitary District (RVSD)

24. The project will require trigger the District testing and lateral certification requirements. All work on the sewer lateral must be done with a Ross Valley Sanitary District (RVSD) permit, after the payment of applicable fees, must be inspected by RVSD Inspectors prior to backfill, must comply with District Codes including Ordinance 100 and must obtain a Certificate of Compliance for the lateral prior to the project final inspection.

Miscellaneous

25. The site is within ¼ mile of a known Northern Spotted Owl nesting site so construction shall be prohibited during the Northern Spotted Owl nesting season from February 1st through July 31st, unless a plan for allowing construction activities during this period is submitted by a qualified spotted owl biologist and approved by the State Department of Fish and Wildlife, with documentation of the approval provided to the Town, prior to initiation any construction activities. All requirements listed in the plan, including potential onsite monitoring, must be met by the applicants at all times.

NOW, THEREFORE BE IT RESOLVED, the Planning Commission of the Town of Fairfax hereby finds and determines as follows:

The approval of the Conditional Use Permit is in conformance with the 2010 – 2030 Fairfax General Plan, the Fairfax Town Code and the Fairfax Zoning Ordinance, Town Code Title 17; and

Construction of the project can occur without causing significant impacts on neighboring residences and the environment.

The foregoing resolution was adopted at a regular meeting of the Planning Commission held in said Town, on the 19th day of August 2021 by the following vote:

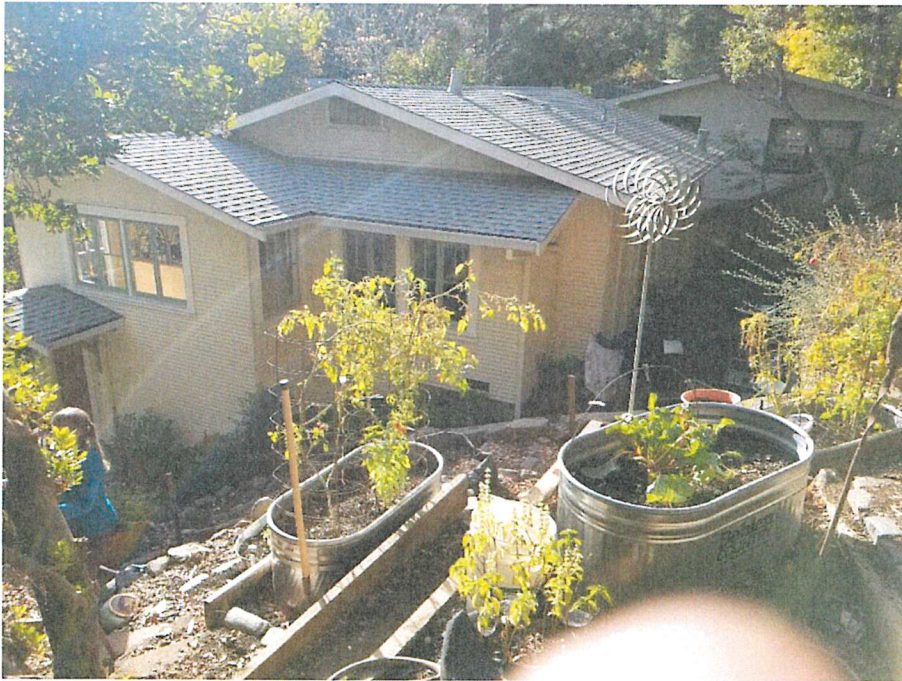
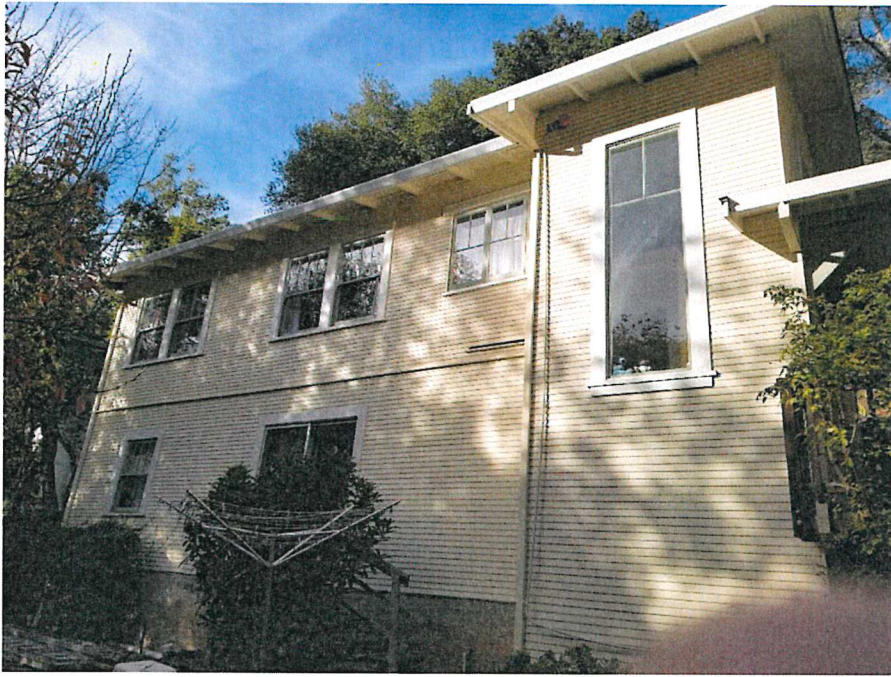
AYES:

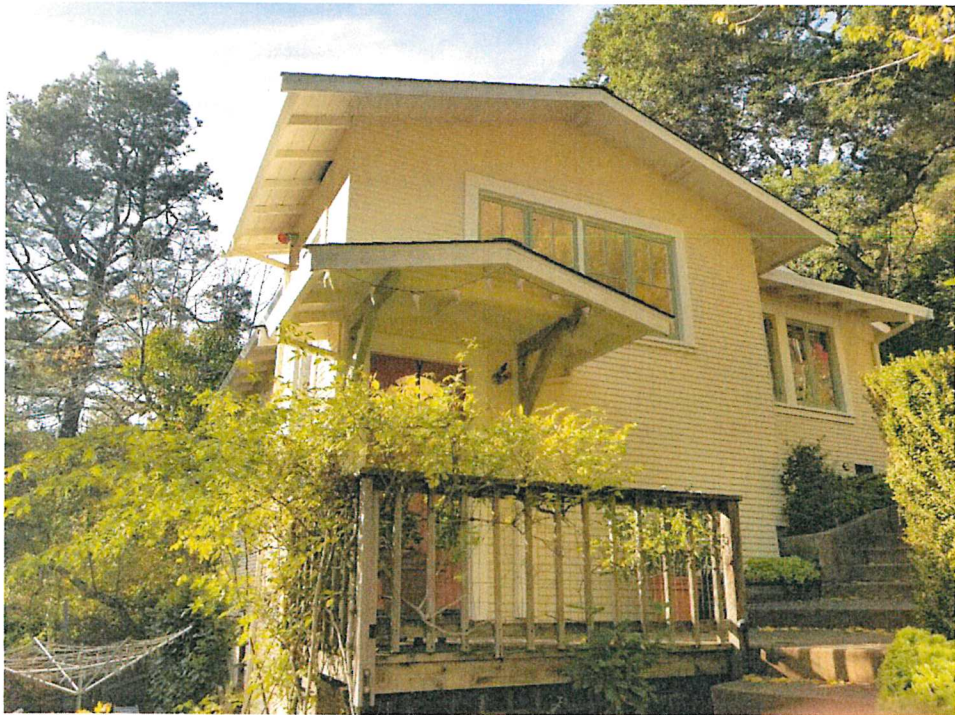
NOES:

Chair Mimi Newton

Attest:

Ben Berto, Director of Planning and Building Services





MILLAR ARCHITECTURE

46 SANTA BARBARA AVENUE
SAN ANSELMO, CA. 94960
PHONE 415-453-6656
MOBILE 415-250-9091
millararch@comcast.net

August 11, 2021

Dan and Sandy Howard
104 Bothin Road
Fairfax, CA 94930

Re: Exterior Lighting Design

A. Overview

Exterior lighting design has traditionally been geared toward the provision of illumination of walkways, stairs and landings for safety reasons. Lighting of the landscape for aesthetic reasons has also been a design goal for exterior lighting. Current design practice for exterior lighting, however, must take the negative impacts of such lighting into consideration, so as to minimize light pollution and trespass in the built environment. The impacts that must be mitigated are those of light spillage beyond property lines, light color and intensity, with special consideration for the limiting of blue light, up-lighting and unshielded lighting that create glare and degrade the night sky.

Without any codified requirement for control of light pollution, policy might fall to blanket statements such as "all exterior light fixtures shall be Dark Sky compliant". Although Dark Sky compliance is a good start toward limiting light pollution, specification of such luminaires does not, in itself, ensure that the lighting design meets goals of mitigation of light pollution. An example of this would be a fixture that has shielding that eliminates up-lighting, but is mounted high on a building without masking the glare experienced when viewed from below. Similarly, Dark Sky ratings are withheld from directional spot lights because insensitive placement of the luminaire can violate the principles of Dark Sky design.

The International Dark-Sky Association (IDA) and the Illuminating Society of North America (IES) have created a Model Lighting Ordinance that I have used to design the exterior lighting for your property. In this guide 5 lighting zones are identified which vary in stringency of lighting restriction according to the sensitivity of the environment in that zone. Under this guide, your project would fall in zone LZ1; the zone that "pertains to areas that desire low ambient lighting levels"¹. Table G, at the end of this paper, gives the recommended lighting limits for Zone LZ1. This lighting zone does not allow shielded flood lights, or landscape lighting. Fully shielded luminaires are limited to an Initial Lamp Lumen of 1,260 lumens. Shielding and lighting limits address the principal requirements for control of light pollution, and are incorporated in my design as follows.

- a. **Shielding:** I have specified only fully shielded luminaires for your project; fixtures that are "constructed and installed in such a manner that all light emitted by the luminaire, either directly from the lamp or a diffusing element, or indirectly by reflection or refraction from any part of the luminaire, is projected below the horizontal plane through the luminaire's lowest light-emitting part"². Shielding of the light source in specified luminaires has been supplied by either recessing the light source within a housing, provision of a collar which conceals the light source, or a fixture shape that conceals the light source from view from above the fixture. Where possible, hex cell louvers have also been specified to reduce glare at the light source.
- b. **Lighting limits:** I have specified lighting limits that fall well below the 1,260 lumen threshold for fully shielded luminaires. LED fixtures have been specified in all cases because of the tremendous energy savings that they provide, and for compliance with the California Energy Code. But to reduce the impact of blue spectrum lighting on the environment, all fixtures are specified with lamps that fall at or below 3000K.

- c. All fixtures are on dimming switches. This enables the user to adjust lighting levels to the lowest possible setting needed to provide the lighting to safely utilize the exterior spaces.

Fixture specifications

The light fixtures specified on drawing sheet 10 are as follows:

- a. Fixture Type 2a- This is a recessed fixture with 2" aperture. The lamp is concealed behind a hex cell louver. It is mounted in the ceiling of the space outside the sliding doors on the main living level, and in the ceiling of the porch outside of the sewing room door. These ceilings are both situated behind leading edge structural headers that help to conceal them from view. The fixture is specified with an LED lamp rated at 800 lumens, with a temperature rating of 2700K.
- b. Fixture Type 4- This is a fully shielded spot light that is intended to provide light for use of the deck outside the living room. Its LED light source is specified at 7 watts/2700K, with light output of no more than 445 lumens. The lamp is located within a collar with a 2 1/4" aperture, at a depth of 3 1/8" from the face of the collar. The lamp is also concealed by a hex cell louver. The luminaire is installed on the wall above the deck, and shall be aimed downward onto the deck surface. The cut-off angle of the collar and the provision of the hex cell louver will block the light source from view at all angles except when standing on the deck and looking directly up into the fixture.
- c. Fixture type 5- This is a Dark Sky rated fixture. It is mounted at approximately 4 feet from ground level to preclude any view of the light source. The fixture provides 880 lumens at 3000K. It provides lighting for travel on the path in front of the addition, and illuminates the landing at the base of the stair from the lower level entry porch.

Fixture Cut Sheets follow.

NIOB-2RPH

2" Iolite Round Pinhole
 Source: 14W to 28W LED
 800lm to 2500lm

Type Fixture type 2b

Project

Catalog No.

Notes

PRODUCT DESCRIPTION

2" Iolite reflectors can be specified for use with Iolite new construction or remodel housings. Fixed pinhole reflector focuses the beam spread through small opening. Also available in adjustable pinhole (NIOB-2RPHA).

FEATURES

- 800lm, 1000lm, 1500lm, 2000lm or 2500lm LED packages
- 2700K, 3000K, 3500K, 4000K, 5000K @ 90+ CRI
- Comfort Dim (warm dimming) also available in 800lm only
- Flood optic, narrow flood and spot optics (included)
- 5-Year limited warranty

SPECIFICATION

Construction: Reflectors are constructed of heat dissipating, die-cast aluminum. The aluminum die-cast LED heat sink is threaded to fit the reflector and transfer heat.

Mounting: Reflector includes friction blades to mount securely to housing.

OPTICS

800-1000lm: Each reflector includes field changeable optics (25° spot, 38° narrow flood and 60° flood - pre-installed). Premium 15° and 25° TIR optics are also available.

1500-2500lm: Each reflector includes field changeable TIR optics (30° spot, 45° narrow flood - pre-installed and 65° flood).

ELECTRICAL

Lumens / Wattage: 800lm / 14W, 1000lm / 14W, 1500lm / 20W, 2000lm / 24W, 2500lm / 28W

Color Temperature: 2700K, 3000K, 3500K, 4000K, 5000K

CRI: 90+ CRI

Operating Temp.: 0°C to 40°C ambient temperature

Lifetime: 50,000 hours @ L70

Comfort Dim: Comfort Dim color tunes the temperature from a bright 3100K, to a romantic and comfortable 2000K on a gradual, even curve. Available in 800lm only.

Dimming: Specified by housing

COMPATIBLE HOUSINGS

Reflectors are compatible with respective Iolite housings manufactured by Nora Lighting.

CATALOG NO.	DESCRIPTION	LUMENS / WATTAGE
NHIOICD-28	ICAT New Construction	800-1000lm / 14W
NHIOICCP-28	Chicago Plenum	800-1000lm / 14W
NHRIICD-28	ICAT Remodel	800-1000lm / 14W
NHIOICD-215	ICAT New Construction	1500lm / 20W
NHIOICCP-215	Chicago Plenum	1500lm / 20W
NHIOICD-220	ICAT New Construction	2000lm / 24W
NHIOICCP-220	Chicago Plenum	2000lm / 24W
NHIOICD-225	ICAT New Construction	2500lm / 28W
NHIOICCP-225	Chicago Plenum	2500lm / 28W

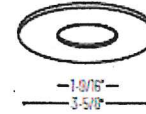
Accessories: Reflectors will accommodate (H) hex louver and (T) translucent deco collar or opaque smoo, no accessory holder is required, see accessories page. Flush mount mud ring is available to give the appearance of a trimless reflector, compatible with new construction housing only.

LABELS AND LISTINGS

- cULus Listed for Wet Locations
- ENERGY STAR certified
- 5-Year Limited Warranty
- RoHS Compliant
- Certified to the high efficacy requirements of California Title 24 JAD-2019



PRODUCT IMAGES & DIMENSIONS



NIO-2RPH
 Round Adjustable Pinhole
 Non-Adjustable



BB
 Black Pinhole
 Black Flange



BMPW
 Black Pinhole
 Matte Powder White Flange



HZMPW
 Haze Pinhole
 Matte Powder White Flange



MPW
 Matte Powder White Pinhole
 Matte Powder White Flange

2" Iolite Round Pinhole - Dedicated Housing Required

Reflector Type	Color Temp.	Finish	Lumens / Wattage
NIOB-2RPH - Round Pinhole	60K = 5000K*	BB = Black / Black	(blank) - 800lm / 14W
	60K = Comfort Dim†	BMPW = Black / Matte Powder White HZMPW = Haze / Matte Powder White MPW = Matte Powder White	
	27K = 2700K		/10 = 1000lm / 14W /NL = 1500-2500lm (varies by housing)
	30K = 3000K		
	35K = 3500K		
	40K = 4000K		
	50K = 5000K		

* 5000K LED modules in 800lm are white supplies last
 † Comfort Dim available in 800lm only and 2" Iolite uses a different dimming curve than 2" & 4" Iolite

Example: NIOB-2RPH60KBB = 2" Iolite Round Pinhole, 5000K, Black Pinhole / Black Flange, 800lm / 14W

Compatible Housings

Housing Type
NHIOICD-28 = ICAT New Construction / 800-1000lm / 14W
NHIOICCP-28 = Chicago Plenum / 800-1000lm / 14W
NHRIICD-28 = ICAT Remodel / 800-1000lm / 14W
NHIOICD-215 = ICAT New Construction / 1500lm / 20W
NHIOICCP-215 = Chicago Plenum / 1500lm / 20W
NHIOICD-220 = ICAT New Construction / 2000lm / 24W
NHIOICCP-220 = Chicago Plenum / 2000lm / 24W
NHIOICD-225 = ICAT New Construction / 2500lm / 28W
NHIOICCP-225 = Chicago Plenum / 2500lm / 28W



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800228

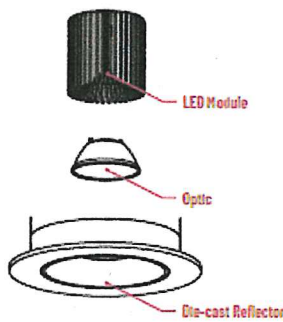
2" Iolite Accessories

2" Iolite Round Pinhole

Type
Project
Catalog No.
Notes

FIELD CHANGEABLE OPTICS

Iolite reflectors include spot, narrow flood and flood optics. Optics can be changed in the field by removing LED module from die-cast reflector. Replacement optics include an optional frosted lens. **Note:** Frosted filter-optics and Premium TIR optics are not compatible with /HL LED modules.



Frosted Filter-Optic

NIO-REFL15FR	15° Optic
NIO-REFL25FR	25° Optic
NIO-REFL35FR	35° Optic
NIO-REFL60FR	60° Optic

Optic assembly includes optional frosted lens. 25°, 35° and 60° optics are included with 800lm and 1000lm reflector. Not compatible with /HL LED module.



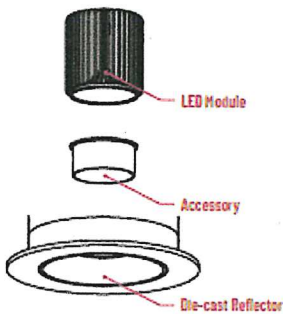
Premium TIR Optics

NIO-REFLTIR15	15° Optic
NIO-REFLTIR25	25° Optic

Not compatible with /HL LED module or Comfort Dim (CDX) technology

ACCESSORIES

Iolite accessories can be added at any point in the design process. Accessories easily install between LED module and die-cast reflector. Luminaire will accommodate (T) hex lower and (C) collar accessory, no accessory holder required.



Translucent Decorative Collar

NIO-AS14(color)	5/8" length
NIO-AS18(color)	3/4" length
NIO-AS26(color)	1" length

Color: AM (amber), BLU (blue), FR (frosted), R (red)

Translucent collars color the aperture with the specified color while producing white general light. Colors are available in different lengths. Use to add interest, create a theme, match a theme or define a space.



Opaque Collar Snoot

NIO-AS14(color)	5/8" length
NIO-AS18(color)	3/4" length
NIO-AS26(color)	1" length

Color: BLK (black), MPW (matte powder white), WH (white)

Opaque snoot greatly reduces aperture brightness while preserving light output. (Note: Black snoot will reduce light)



Hex Cell Louver

NIO-HC	Black
--------	-------

Hex cell louver subtly reduces aperture brightness by reducing light output by about 20%.

FLUSH MOUNT

2" Iolite reflectors can be installed flush with the drywall for a flush mount appearance. A flush mount mud ring is installed after the drywall and a professional drywall finisher floats the ceiling to blend in the mud ring.

Flush Mount Mud Ring



NIO-FMHR-2R	Round Mud Ring
-------------	----------------

Mounts trim flush to ceiling with reflector flange visible. Mud ring attaches to drywall. Requires only for use with NHI01CD-28 or NHI01CCP-28 new construction housings and NIOB-2R reflectors. Dimensions: 7-7/8" diameter 1/2" thick

DELTA STAR LED IP66 RATED

DATE: 9-10-21 PROJECT: Howard TYPE: fixture type 4

CATALOG NUMBER LOGIC: DS-LED-e64-SP-A9-BZP-12-11-A



**Designed for use with LED transformer. Requires magnetic low voltage dimmer.*

***Please see Adjust-e-Lume photometry to determine desired intensity.*

****The 360SL cost is already included in the price of UPM, UPM dust, and Power Canopy.*

CATALOG NUMBER LOGIC

Example: B - DS - LED - e64 - SP - A7 - BZP - 12 - 11 - A - 360SL

MATERIAL

(Blank) - Aluminum B - Brass S - Stainless Steel

SERIES

DS - Delta Star

SOURCE

LED - with Integral Dimming Driver (25W min. load when dimmed)*

LED TYPE

e64 - 7W LED/2700K e66 - 7W LED/4000K

e65 - 7W LED/3000K e74 - 7W LED/Amber

OPTICS

NSP - Narrow Spot (13°) MFL - Medium Flood (23°)

SP - Spot (16°) WFL - Wide Flood (31°)

ADJUST-E-LUME® OUTPUT INTENSITY**

A9 (Standard), A8, A7, A6, A5, A4, A3, A2, A1

FINISH (See page 2 for full-color swatches)

Standard Finishes (BZF, BZW, BLP, BLW, WHP, WHW, SAP, VER)

Premium Finish (ABP, AMG, AQW, BCM, BGE, BPP, CAP, CMG, CRI, CRM, HUG, MDS, NBP, OCP, RMG, SDS, SMG, TXF, WCP, WIR)

Also available in RAL Finishes

Brass Finishes (MAC, POL, MIT)

Stainless Steel Finishes (MAC, POL)

LENS TYPE

I2 - Soft Focus I3 - Rectilinear

SHIELDING

11 - Honeycomb Baffle

CAP STYLE

A - 45°

B - 90°

C - Flush Lens

D - 45° Less Weephole (Interior use only)

E - 90° Less Weephole (Interior use only)

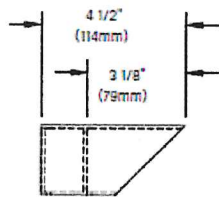
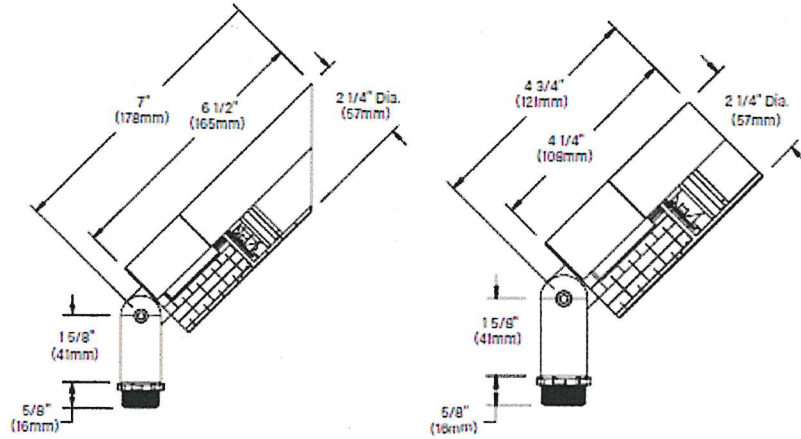
F - 90° with Flush Lens

OPTIONS

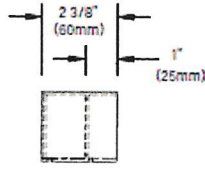
360SL - Knuckle Mounting System***

DELTA STAR LED IP66 RATED

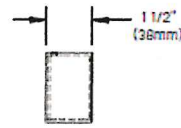
DATE: 8-10-21 PROJECT: Howard TYPE: Fixture type 4



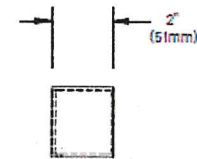
A/D CAP



B/E CAP



C CAP



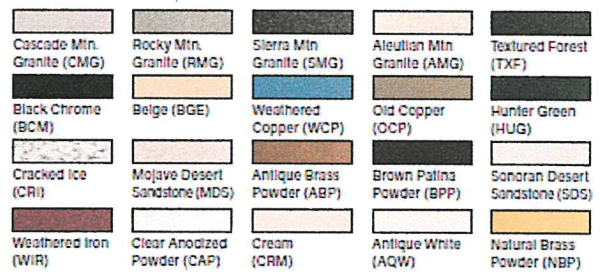
F CAP

STANDARD FINISHES



[Click Here](#) to view larger, full-color swatches of all available finishes on our website.

PREMIUM FINISHES



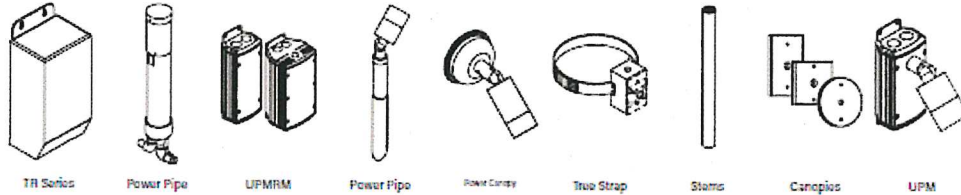
B-K LIGHTING **MADE IN THE USA** 569.438.5800 | INFO@BKLIGHTING.COM | BKLIGHTING.COM

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DELTA STAR LED IP66 RATED

DATE: 8-10-21 PROJECT: Howard TYPE: Fixture type 4

Accessories (Configure separately)



SPECIFICATIONS

ELECTRICAL	<p>WATTAGE 7W LED</p> <p>WIRING XLPE, 18GA, 50C, 600V, rated and certified to UL3321.</p> <p>REMOTE TRANSFORMER For use with 12VAC remote transformer or magnetic transformers only. B-K Lighting cannot guarantee performance with third party manufacturers' transformers.</p>
PHYSICAL	<p>MATERIALS Furnished in copper-free aluminum (6061-T6), brass (360) or stainless steel (304).</p> <p>BODY Unibody design with enclosed, water-proof wireway and integral heat sink is fully machined from solid billet.</p> <p>KNUCKLE LOCK Knuckle is integral to the body and features an interior taper machined from solid billet and a second, reverse angle taper allowing full 180° vertical adjustment without the use of aim-limiting serrated teeth. High temperature, silicone "O" Ring provides water-tight seal and compressive resistance to maintain fixture position. Design withstands 73 lbs. static load prior to movement for optical alignment with a 1/2" pipe thread for mounting. Optional 360SL provides bi-axial source control with 360° horizontal rotation in addition to vertical adjustment.</p> <p>CAP Fully machined and accommodates two (2) lens or lower media.</p> <p>LENS Shock-resistant, tempered glass lens is factory adhered to fixture cap and provides hermetically sealed optical compartment.</p> <p>LED Integrated solid state system and modular design with electrical disconnects allow for easy field upgrade and maintenance. High power, forward throw source complies with ANSI C78.377 binning requirements and exceeds ENERGY STAR* lumen maintenance requirements. LM-80 certified components. Integral, constant current driver. 12VAC/VDC Input. 50/60Hz. Proprietary input control scheme achieves power factor correction and eliminates inrush current (limited to <250mA non-dimming). Output, overvoltage, open-circuit, and short circuit protected. Conforms to Safety Std. C22.2 No. 25013-12.</p> <p>DIMMING Line voltage dimmable via magnetic low voltage dimmer with dedicated neutral conductor. Remote magnetic transformer with LED loads should be loaded to 25% of the transformer VA (watts) rated value.</p> <p>ADJUST-E-LUME Integral electronics allow for dynamic lumen response at the individual fixture. Indexed (100% to 25% nom.) lumen output. Maintains output at desired level or may be changed. Specify factory preset output intensity.</p> <p>OPTICS Interchangeable OPTIKIT modules permit optical field changes. Color-code: Narrow Spot (NSP) = red; Spot (SP) = green; Medium Flood (MFL) = yellow; Wide Flood (WFL) = blue.</p> <p>HARDWARE Tamper-resistant, stainless steel hardware. LOCK aiming screw is black oxide treated for additional corrosion resistance.</p> <p>FINISH StarGuard, our 15-stage chromate-free process cleans and conversion coats aluminum components prior to application of Class 'A' TGIC polyester powder coating and is RoHS compliant. Powder coat or metal finish options available for brass material and metal finish option only for stainless steel material.</p> <p>WARRANTY 5-year limited warranty.</p> <p>CERTIFICATION & LISTING ITL tested to IESNA LM-79 UL Listed. Certified to CAN/CSA/ANSI Standards. RoHS compliant. Suitable for indoor or outdoor use, in wet locations, and for installation within 4' of the ground. IP66 Rated. Made in the USA with sustainable processes.</p>



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LAMP & DRIVER DATA (e64, e65, e66, e74)

DATE: 8-10-21 PROJECT: Howard TYPE: Fixture type 4

CATALOG NUMBER/LOGIC: DS-LED-e64-SP-A9-BZP-12-11-A

DRIVER DATA	Input Volts	InRush Current	Operating	Dimmable	Operation Ambient Temperature
	12VAC/DC 50/60Hz	<250mA (non-dimmed)	700mA	Magnetic Low Voltage Dimmer	-22 F-19.4 F (-30 C - 90 C)

LM79 DATA				L70 DATA		OPTICAL DATA			
BK No.	CCT (Typ.)	CRI (Typ.)	Input Watts (Typ.)	Minimum Rated Life (hrs.) 70% of initial lumens (L ₇₀)		Angle	CBCP	Delivered Lumens	Multiplier
e64	2700K	80	7	50,000		13°	5993	456	0.87
	2700K	80	7	50,000		16°	4546	445	0.87
	2700K	80	7	50,000		23°	1726	397	0.87
	2700K	80	7	50,000		31°	1131	399	0.87
e65	3000K	80	7	50,000		13°	6131	466	0.89
	3000K	80	7	50,000		16°	4650	455	0.89
	3000K	80	7	50,000		23°	1766	406	0.89
	3000K	80	7	50,000		31°	1157	409	0.89
e66	4000K	80	7	50,000		13°	6889	524	
	4000K	80	7	50,000		16°	5225	511	
	4000K	80	7	50,000		23°	1984	456	
	4000K	80	7	50,000		31°	1300	459	
e74	Amber	80	7	50,000		13°	3,927	299	0.57
	Amber	80	7	50,000		16°	2,978	291	0.57
	Amber	80	7	50,000		23°	1,131	260	0.57
	Amber	80	7	50,000		31°	741	262	0.57

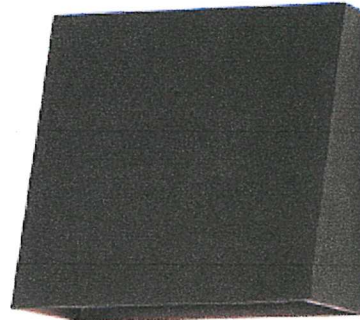
OPTICS

Optic	Angle
NSP - Narrow Spot	13°
SP - Spot	16°
MFL - Medium Flood	23°
WFL - Wide Flood	31°

Pathfinder | 52120ABZ

Job Name: Howard Fixture type 5

Comments: _____



PRODUCT DESCRIPTION

With solid Die-Cast Aluminum construction and powered by a range voltage input driver, Pathfinder is a high performance down light for commercial and residential installations. Available in Black, Architectural Bronze, or Metallic Silver there is sure to be a style to fit most any installation.

MEASUREMENTS

DIMENSION : 5.5" W x 5.5" H x 4" Ext
 BACK PLATE : 5.5" W x 5.5" H x 2.75" HCO
 HANGING WEIGHT : 2.2 lb

LAMPING

INPUT VOLTAGE : 120-277V
 LUMENS : 830 Rated (820 Del.)
 BULB : 1 x 15W LED PCB Integrated, 15W Total
 BULB INCLUDED : (Integrated)
 DIMMABLE : Dimmable at 120V with ELV
 CRI : 80 CRI
 COLOR_TEMP : 3000K
 LIGHTING_DIRECTION : Down

FINISHES OPTION

 Architectural Bronze
 Black
 Silver

MATERIAL

Die Cast Aluminum

RATINGS

cETLus
 Wet Location
 For Outdoor DARKSKY



ADDITIONAL

INSTALL UP/DOWN: Up/Down
 OPERATING TEMPERATURE:
 -20°C (-4°F), 40°C (104°F)

Always consult a qualified electrician before installing any lighting product.



WESTERN DISTRIBUTION CENTER (HEADQUARTER)
 253 NORTH VINELAND AVE | CITY OF INDUSTRY, CA 91746

EASTERN DISTRIBUTION CENTER
 4200 SHIRLEY DR. | ATLANTA, GA 30336

P. 626.956.4200 | F. 626.956.4225 | maximlighting.com

Reference: From Model Lighting Ordinance, by Illuminating Engineering Society and International Dark-Sky Association, June 15, 2011.

Table G - Residential Lighting Limits

Lighting Application	LZ 0	LZ 1	LZ 2	LZ 3	LZ 4
Row 1 Maximum Allowed Luminaire Lumens* for Unshielded Luminaires at one entry only	Not allowed	420 lumens	630 lumens	630 lumens	630 lumens
Row 2 Maximum Allowed Luminaire Lumens* for each Fully Shielded Luminaire	630 lumens	1,260 lumens	1,260 lumens	1,260 lumens	1,260 lumens
Row 3 Maximum Allowed Luminaire Lumens* for each Unshielded Luminaire excluding main entry	Not allowed	315 lumens	315 lumens	315 lumens	315 lumens
Row 4 Maximum Allowed Luminaire Lumens* for each Landscape Lighting	Not allowed	Not allowed	1,050 lumens	2,100 lumens	2,100 lumens
Row 5 Maximum Allowed Luminaire Lumens* for each Shielded Directional Flood Lighting	Not allowed	Not allowed	1,260 lumens	2,100 lumens	2,100 lumens
Row 6 Maximum Allowed Luminaire Lumens* for each Low Voltage Landscape Lighting	Not allowed	Not allowed	525 lumens	525 lumens	525 lumens

* Luminaire lumens equals Initial Lamp Lumens for a lamp, multiplied by the number of lamps in the luminaire

Footnotes:

1. Model Lighting Ordinance, User's Guide, page 7
2. Model Lighting Ordinance, Ordinance Text, page 35