PLANNING DEPARTMENT
Town of Durham
8 Newmarket Road
Durham, NH 03824-2898
Phone (603) 868-8064
www.ci.durham.nh.us

HISTORIC DISTRICT COMMISSION

*Application for *AMENDMENT**

to Certificate of Approval

Town of Durham, New Hampshire

Date: **October 26, 2015**

Property information

Property address/location: **23-35 Main Street** Tax map and lot #: **Map 5, Lots 1-6, 1-7 and 1-8**

Name of project (if applicable): **Orion Student Housing 23-35 Main Street**

Property owner

Name (include name of individual): **William Fideli (Orion UNH LLC)**

Mailing address: **225 Franklin Street, Boston, MA 02110**

Telephone #: **(617)217-2121** Email address: **fideli@orion-sh.com**

Applicant (if different from property owner)

Name (include name of individual): **Adam Wagner AIA (DeStefano Architects PLLC)**

Mailing address: **23 High Street, Portsmouth, NH 03801**

Telephone #: **(603)431-8701** Email address: **awagner@destefanoarchitects.com**

Architect/Designer (if applicable)

Name (include name of individual): **Lisa DeStefano AIA (DeStefano Architects PLLC)**

Professional Designation: **Principal Architect, Owner**

Mailing address: **23 High Street, Portsmouth, NH 03801**

Telephone #: **(603)431-8701** Email address: **ldestefano@destefanoarchitects.com**

Contractor (if applicable)

Name (include name of individual): **Jeff Luter (Fulcrum Associates)**

Mailing address: **5 Tech Circle, Amherst, NH 03031**

Telephone #: **(603)930-3596** Email address: **jluter@fulcrum-nh.com**

(over)

Proposed changes (check all that apply)

Describe proposed changes – Modifications to previously approved HDC application dated 04/03/14 and modified on 08/6/15 and 9/3/15. The following is an itemized list of corrections and adjustments as provided to the applicant by the Town Planner, Michael Behrendt.

25 Main Street.

- Shutters. Shutters will be added to the nine windows on the front façade. They will be wood and hung with stamped steel hardware to give the appearance of operability as approved on August 6, 2015. The color for the shutters will be "eggplant" as approved on September 3, 2015.

- Dormers. The windows in the two dormers will be replaced with 6/6 windows as originally approved.

35 Main Street.

- Front steps, Stone Wall and Building Foundation. Sketches have been provided to illustrate and detail the front steps. The stoop and stair treads and risers will be clad in granite per the previously approved plans. The previously approved stone retaining wall has been extended around the Grange side of the property to cover a portion of the exposed building foundation. It will be a mortared stone wall similar to what was previously there. A handrail has been added because it is required by building code and shall be made of black steel that gives a similar appearance to wrought iron.

Building A.

- Shutters and Signage. Two shutters will be added to the front elevation as previously approved by the HDC. The wall sconce light fixtures will be removed and the egress lighting, which is required by code, shall be from a concealed fixture located in the canopy. The sign shall be removed from this location and a signage package will be submitted by owner at a later date.

- Retaining Wall. Details of the proposed retaining wall have been submitted with this application. A granite block retaining will, constructed of salvaged granite that was saved during demolition, is proposed to run parallel to Main Street. A planting bed will separate this area from the sidewalk**.** A small area of pre-engineered retaining wall will be added adjacent to the rubble foundation of 21 Main Street for erosion control and stabilization.

- Lights. A lighting fixture specification has been attached to this application. The fixture matches the appearance of the fixture previously approved by the HDC,

which was subsequently discontinued by the manufacturer. The proposed fixture also provides the option for shielding as requested by the abutter. Fixtures along the property line between Building A and 21 Main Street will be replaced with this fixture.

Building B.

- Dormers. Per the approval of the HDC on September 3, 2015, the triangular sections just beyond the dormer windows will be replaced with clapboard siding and be painted yellow to match the main siding of the building.

Building C.

- Color. Building C will be repainted to Chestnut Brown siding with Khaki Brown trim per the HDC approval.

Building D.

- Color. Building D will be repainted to Boothbay Blue siding with Khaki Brown trim per the HDC approval.

Site and General Issues

- Wall, dumpster, transformer and Generator. The utility company required that a second transformer be added to the site after construction had commenced. Due to minimum clearance requirements this required that the generator be relocated to behind Building B, the dumpster enclosure to be moved closer to 35 Main Street and the new transformer be located between the dumpster enclosure and Building B. These revisions, along with a widening of the concrete section for the trash truck maneuvering were submitted to the Durham Planning Department on August 29, 2014 for administrative approval (see attached letter). The Durham Fire Department has since requested that the dumpster enclosure be made of non-combustible materials. The proposed solution is attached herewith which includes added vegetation to screen the transformer and cladding the CMU dumpster enclosure with the same brick that is used elsewhere on site. The attached site plan also shows the new generator pad location behind Building B which is out of sight from all public ways. Cut sheets of the generator have been included for reference.

- Signage. All non-approved signage shall be removed from the site and a signage package will be submitted by owner at a later date.

- Vents. Vents poking through the roof that are visible from the public way will be painted black.

Proposed starting date: **Currently under construction**

Submission of application

This application must be signed by the property owner, the applicant/developer (if different from property owner), *and/or* the agent.

I hereby submit this application to the Town of Durham Historic District Commission pursuant to the Town of Durham Historic District Ordinance and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant/developer (if different from property owner) or as agent, I attest that I am duly authorized to act in this capacity and submit this application.

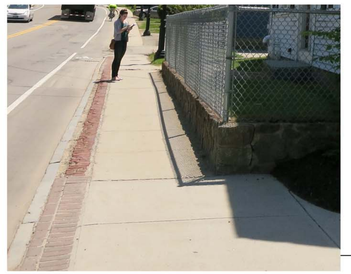
Name: Adam L. Wagner AIA

Signature: _____ Date: October 26, 2015

Circle all that apply: *property owner - developer - architect/designer - contractor - agent*

** Please note that the applicant or a representative must attend the HDC meeting to present the application and answer any questions. If nobody attends the meeting then the HDC may not take any action on the application.*

OLD STONE WALL

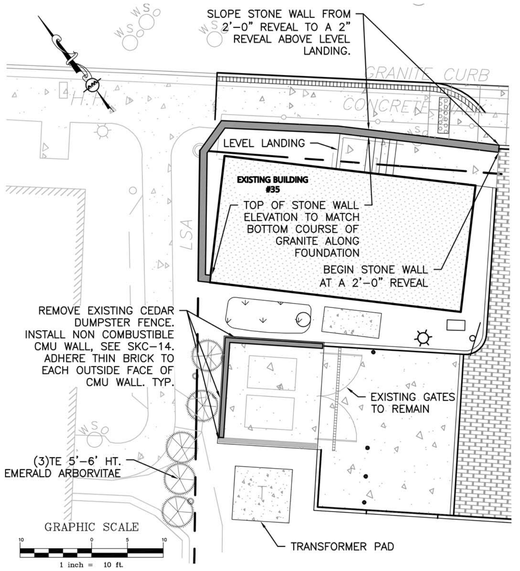


#35 MAIN ST. NORTH ELEVATION

SCALE: 1/8" = 1'-0"

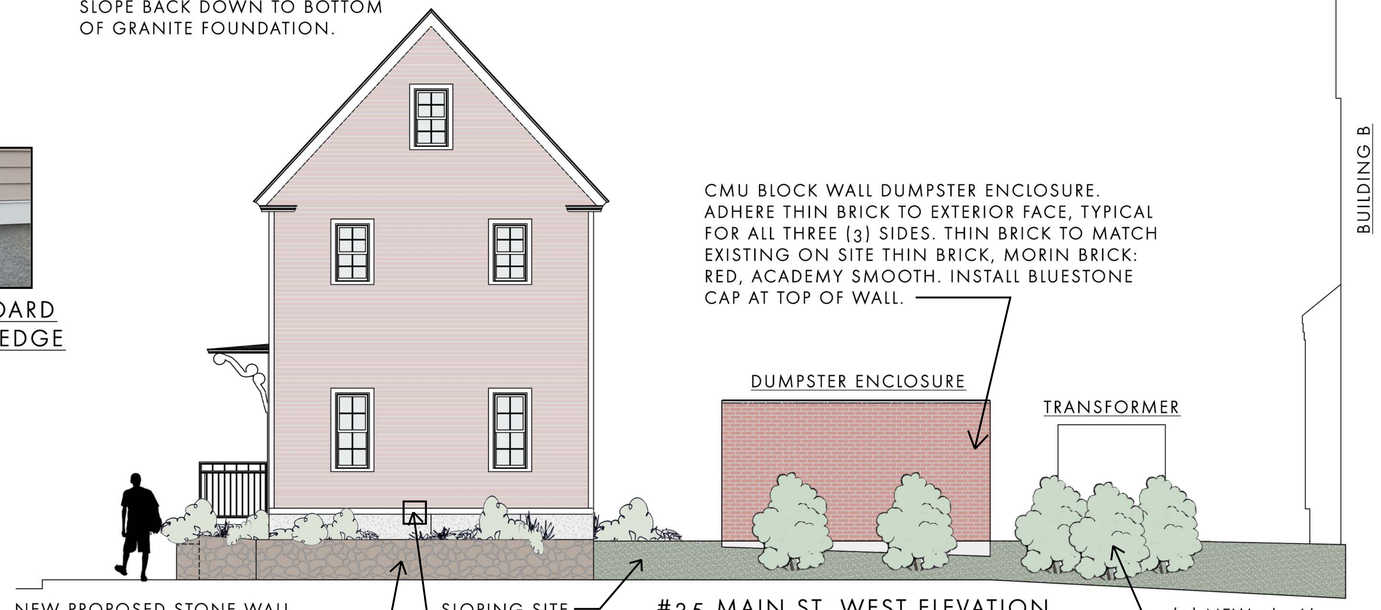
PROPOSED STONE WALL. SIMILAR TO OLD STONE WALL. SLOPE STONE WALL FROM 2'-0" TO 2" ABOVE STAIR LANDING. SLOPE BACK DOWN TO BOTTOM OF GRANITE FOUNDATION.

36" HIGH GUARDRAIL PER INTERNATIONAL RESIDENTIAL CODE, POWDER COATEDBLACK.



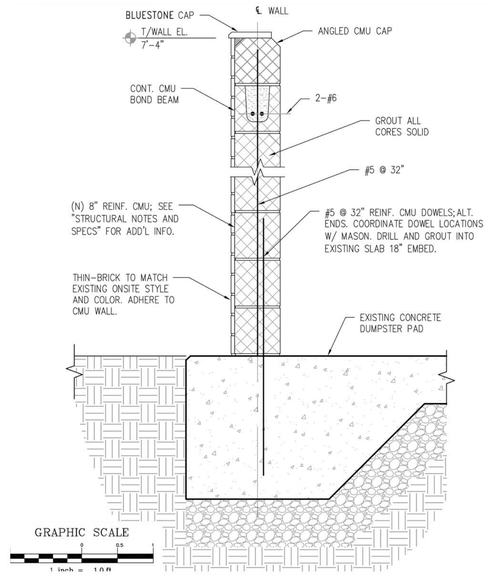
#35 MAIN ST. SITE PLAN

6" SKIRTBOARD WITH DRIP EDGE



#35 MAIN ST. WEST ELEVATION

SCALE: 1/8" = 1'-0"



DUMPSTER ENCLOSURE WALL DETAIL

ORION STUDENT HOUSING AT UNH

MAIN STREET, DURHAM NEW HAMPSHIRE

#35 MAIN STREET ELEVATIONS

SCALE: AS NOTED

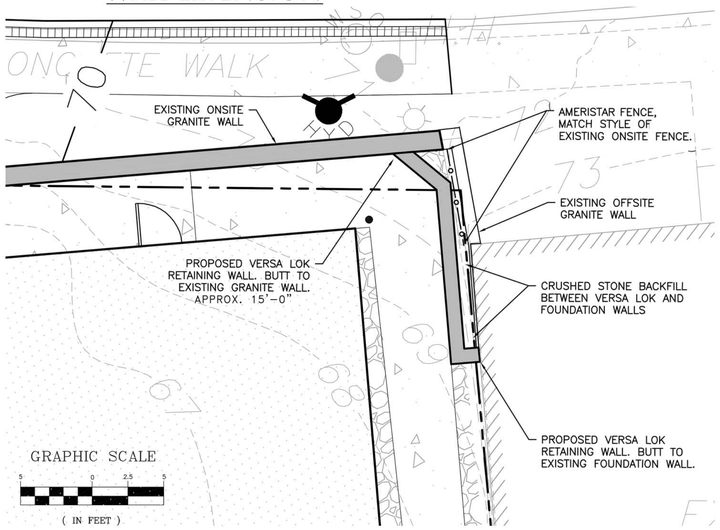
PROJECT NO. 201315

PAGE 1 OF 2

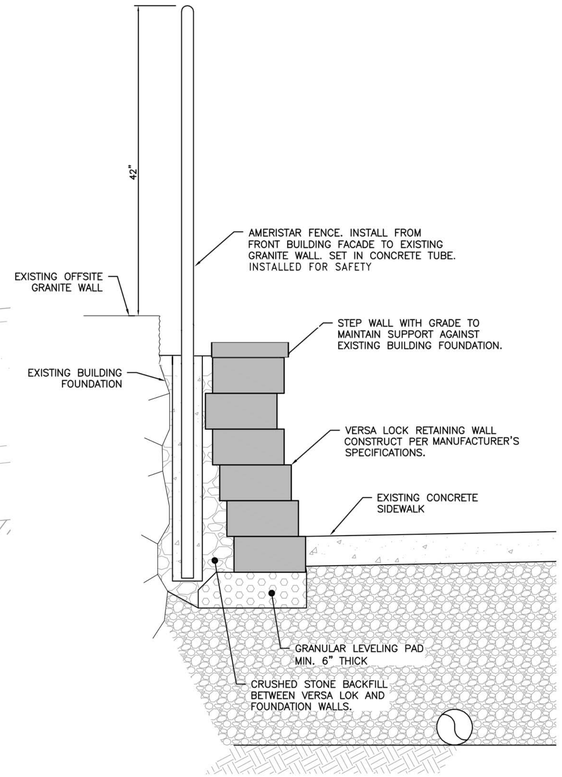
5 NOVEMBER 2015

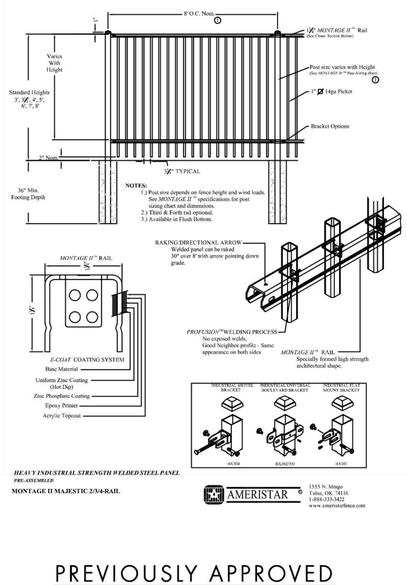
DeStefano Architects

ABUTTER FOUNDATION & WALL EXTENSION



PROPOSED VERSA-LOK RETAINING WALL





PREVIOUSLY APPROVED AMERISTAR FENCE

BUILDING A PREVIOUSLY APPROVED LIGHT FIXTURE

BUILDING A PROPOSED LIGHT FIXTURE

LITHONIA LIGHTING
D-SERIES SIZE 1
(WITH LIGHT SHIELDS)

VIEW FROM INTERIOR WALKWAY

VIEW FROM MAIN STREET SIDEWALK

EXISTING GRAINTE RETAINING WALL

STANDARD, WEATHERED UNIT

(COLOR TO MATCH GRANITE WALL)

EXAMPLES OF VERSA-LOK RETAINING WALL

ORION STUDENT HOUSING AT UNH

MAIN STREET, DURHAM NEW HAMPSHIRE

BUILDING A RETAINING WALL & LIGHT FIXTURES

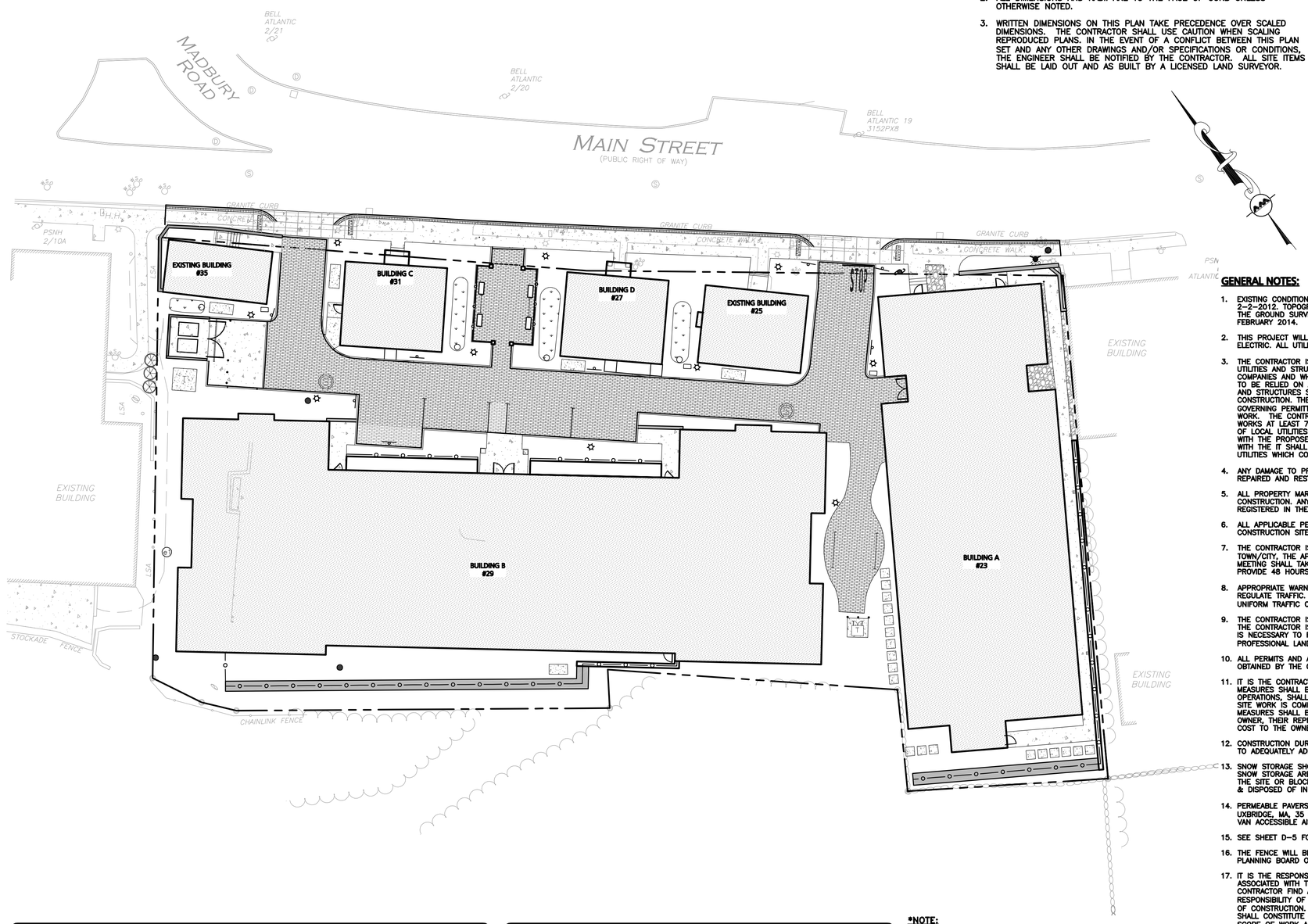
SCALE: AS NOTED

PROJECT NO. 201315

PAGE 2 OF 2

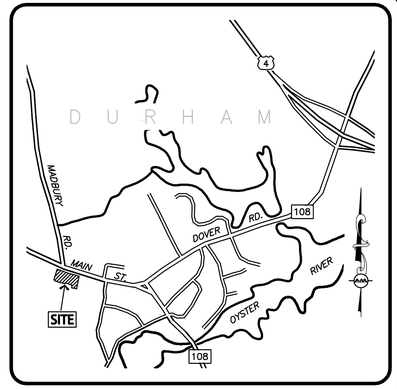
5 NOVEMBER 2015

DeStefano Architects



LAYOUT NOTES:

1. CURB RADII SHALL BE AS SHOWN ON THE PLAN.
2. ALL DIMENSIONS AND RADII ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
3. WRITTEN DIMENSIONS ON THIS PLAN TAKE PRECEDENCE OVER SCALED DIMENSIONS. THE CONTRACTOR SHALL USE CAUTION WHEN SCALING REPRODUCED PLANS. IN THE EVENT OF A CONFLICT BETWEEN THIS PLAN SET AND ANY OTHER DRAWINGS AND/OR SPECIFICATIONS OR CONDITIONS, THE ENGINEER SHALL BE NOTIFIED BY THE CONTRACTOR. ALL SITE ITEMS SHALL BE LAID OUT AND AS BUILT BY A LICENSED LAND SURVEYOR.



LOCUS MAP

SCALE: 1"=1,000'

GENERAL NOTES:

1. EXISTING CONDITIONS BASED ON PLAN ENTITLED "EXISTING FEATURES PLAN" BY MSC, DATED 2-2-2012. TOPOGRAPHIC AND SUPPLEMENTAL PHYSICAL FEATURES WERE COMPILED FROM AN ON THE GROUND SURVEY PERFORMED BY ALLEN & MAJOR ASSOCIATES, BETWEEN DECEMBER 2012 AND FEBRUARY 2014.
2. THIS PROJECT WILL BE SERVED BY PUBLIC SEWER, WATER, NATURAL GAS, TELEPHONE, CABLE AND ELECTRIC. ALL UTILITY LINES WILL BE INSTALLED UNDERGROUND.
3. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIGSAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK. THE CONTRACTOR SHALL ALSO CONTACT THE TOWN OF DURHAM DEPARTMENT OF PUBLIC WORKS AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF LOCAL UTILITIES. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
4. ANY DAMAGE TO PRIVATE OR PUBLIC PROPERTIES DUE TO THE CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED AND RESTORED BY THE CONTRACTOR AT THEIR OWN EXPENSE.
5. ALL PROPERTY MARKERS AND STREET LINE MONUMENTS SHALL BE PROPERLY PROTECTED DURING CONSTRUCTION. ANY DAMAGE TO THESE ITEMS SHALL BE REPAIRED AND RESTORED BY A SURVEYOR REGISTERED IN THE STATE OF NEW HAMPSHIRE AT THE CONTRACTORS EXPENSE.
6. ALL APPLICABLE PERMITS AND AN APPROVED SET OF PLANS SHALL BE AVAILABLE AT THE CONSTRUCTION SITE.
7. THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A PRECONSTRUCTION MEETING WITH THE TOWN/CITY, THE APPROPRIATE UTILITY COMPANIES, THE OWNER AND OWNER'S REPRESENTATIVE. THE MEETING SHALL TAKE PLACE PRIOR TO THE START OF CONSTRUCTION AND THE CONTRACTOR MUST PROVIDE 48 HOURS NOTICE TO ALL ATTENDEES PRIOR TO THE START OF THE MEETING.
8. APPROPRIATE WARNING SIGNS, MARKERS, BARRICADES AND/OR FLAGMEN SHALL BE PROVIDED TO REGULATE TRAFFIC. CONSTRUCTION TRAFFIC CONTROL SHALL BE IMPLEMENTED PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE LOCAL AUTHORITY.
9. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ADDITIONAL BENCHMARK INFORMATION IF REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING BENCHMARKS. IF IT IS NECESSARY TO RELOCATE A BENCHMARK, IT SHALL BE RELOCATED BY A NEW HAMPSHIRE PROFESSIONAL LAND SURVEYOR AND DONE SO AT THE CONTRACTOR'S EXPENSE.
10. ALL PERMITS AND APPROVALS NECESSARY FROM AGENCIES GOVERNING THE WORK SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORK.
11. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY SITE WORK OR EARTHWORK OPERATIONS, SHALL BE MAINTAINED DURING CONSTRUCTION, AND SHALL REMAIN IN PLACE UNTIL ALL SITE WORK IS COMPLETE AND GROUND COVER IS ESTABLISHED. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED IF DETERMINED NECESSARY BY ON SITE INSPECTIONS BY THE OWNER, THEIR REPRESENTATIVES, OR REGULATORY AGENCIES HAVING JURISDICTION AT NO ADDITIONAL COST TO THE OWNER.
12. CONSTRUCTION DURING WET WEATHER OR WINTER CONDITIONS IS TO BE ANTICIPATED AND PROVISIONS TO ADEQUATELY ADDRESS THESE CONDITIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
13. SNOW STORAGE SHOWN FOR CONCEPTUAL PURPOSES ONLY. SNOW SHALL BE TAKEN OFF-SITE ONCE SNOW STORAGE AREAS ON SITE BECOME INADEQUATE, AND BEGINS TO BLOCK ACCESS TO AND FROM THE SITE OR BLOCKS THE USE OF ON-SITE PARKING. ANY EXCESS WILL BE TRUCKED OFF-SITE & DISPOSED OF IN ACCORDANCE WITH TOWN OF DURHAM AND NHDES GUIDELINES.
14. PERMEABLE PAVERS TO BE ECO-PRIORA (STYLE) SIERRA AND GRANITE (COLORS) BY UNILOCK, UXBRIDGE, MA, 35 COMMERCE DRIVE (508-278-4536). THE MAJORITY SHALL BE SIERRA WHILE THE VAN ACCESSIBLE AISLE AND PARKING SPACES SHALL BE MARKED WITH GRANITE COLOR PAVERS.
15. SEE SHEET D-5 FOR SIGN DETAILS.
16. THE FENCE WILL BE MADE OF THE HEAVY DUTY METAL MATERIAL THAT WAS PRESENTED TO THE PLANNING BOARD ON JANUARY 8, 2014.
17. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE START OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DRAWINGS, SPECIFICATIONS, OR RELATIVE CODES, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT PRIOR TO START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE ENGINEER AND/OR ARCHITECT SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AND/OR DESIGN INTENT OF THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
18. THE DESIGN ENGINEER WAIVES ANY AND ALL RESPONSIBILITY AND LIABILITY FOR PROBLEMS WHICH ARISE FROM FAILURE TO FOLLOW THESE PLANS, SPECIFICATIONS, AND/OR THE DESIGN INTENT THEY CONVEY, OR FOR PROBLEMS WHICH ARISE FROM OTHERS' FAILURE TO OBTAIN AND/OR FOLLOW THE GUIDANCE OF THE DESIGN ENGINEER WITH RESPECT TO ANY ERRORS, OMISSIONS, INCONSISTENCES, AMBIGUITIES, OR CONFLICTS WHICH ARE DISCOVERED OR ALLEGED.
19. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION AND FOR CONDITIONS AT THE SITE. THESE PLANS, PREPARED BY ALLEN & MAJOR ASSOCIATES DO NOT EXTEND TO OR INCLUDE SYSTEMS PERTAINING TO THE SAFETY OF THE CONSTRUCTION CONTRACTOR OR THEIR EMPLOYEES, AGENTS OR REPRESENTATIVES IN THE PERFORMANCE OF THE WORK, OR THE OWNER'S EMPLOYEES, CUSTOMERS, OR THE GENERAL PUBLIC. THE SEAL OF THE ENGINEER AS INCLUDED IN THE PLAN SET DOES NOT EXTEND TO ANY SUCH SAFETY SYSTEMS THAT MAY NOW OR HEREAFTER BE INCORPORATED INTO THESE PLANS. THE CONSTRUCTION CONTRACTOR SHALL PROVIDE THE APPROPRIATE SAFETY SYSTEMS WHICH MAY BE REQUIRED BY THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), STATE, AND LOCAL REGULATIONS.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

LEGEND:

PROP. PROPERTY LINE	SIDEWALK
SIGN	COBBLESTONE PAVERS
BOLLARD	ADA ACCESSIBLE RAMP
BUILDING	ADA DET. WARNING SURFACE
BUILDING ARCHITECTURE	SNOW STORAGE
BUILDING INTERIOR WALLS	SETBACK LINE
CURB	BLACK IRON FENCE
RETAINING WALL	TRANSFORMER
LIGHT POLE	

DURHAM ZONING SUMMARY TABLE

CENTRAL BUSINESS(CB) WITHIN HISTORIC DISTRICT

ITEM	REQUIRED	PROPOSED
LOT AREA (MIN.)	5,000 SF	47,676 SF
FRONTAGE (MIN.)	50'	305.68'
FRONT YARD SETBACK (MAX.)	15'*	1.51'
SIDE YARD SETBACK (MIN.)	NA	2.31'
REAR YARD SETBACK (MIN.)	NA	4.28'
BUILDING HEIGHT (MAX.)	50'**	36.6'
TOTAL ON-SITE IMPERVIOUS AREA	NA	32,504 SF
TOTAL PERVIOUS PAVER	NA	7,055 SF
TOTAL RESIDENTIAL UNITS	52***	52

***NOTE:**
175-41. CENTRAL BUSINESS DISTRICT (CB)
SECTION F:
BUILDING SETBACK – THE FRONT WALL OF THE PRINCIPAL BUILDING SHALL BE LOCATED WITHIN FIFTEEN (15) FEET OF THE FRONT PROPERTY LINE. FOR CORNER LOTS, THIS REQUIREMENT SHALL APPLY TO ALL FRONTAGES ABUTTING A PUBLIC STREET. UP TO FIFTY PERCENT (50%) OF THE FRONT FAÇADE MAY BE RECESSED BEYOND THE MAXIMUM SETBACK DISTANCE IF THE SPACE BETWEEN THE FRONT WALL AND THE FRONT PROPERTY LINE IS USED AS PEDESTRIAN AREA IN ACCORDANCE WITH PARAGRAPH 4. BELOW. THE EXPANSION OR MODIFICATION OF AN EXISTING BUILDING SHALL BE EXEMPT FROM THIS REQUIREMENT IF THE PLANNING BOARD FINDS THAT CONFORMANCE WITH THIS REQUIREMENT WOULD NOT BE CONSISTENT WITH THE CHARACTER OF THE EXISTING BUILDING.

****NOTE:**
175-54. DIMENSIONAL STANDARDS TABLE
CENTRAL BUSINESS(CB) 50' MAX ALLOWED W/ PLANNING BOARD APPROVAL

*****NOTE:**
ALLOWED RESIDENTIAL UNIT CALCULATION:
1 UNIT PER 900 SQUARE FEET OF LOT AREA
47,676 SQUARE FEET / 900 = 52.97 DWELLING UNITS

R: \PROJECTS\1925-01\CIVIL\DRAWINGS\CURRENT\C-1925-01_C-1_LAYOUT & MATERIALS.DWG

DeSTEFANO ARCHITECTS
23 High Street
Portsmouth, NH 03801
P: 603.431.8701
F: 603.422.8707

REV	DATE	DESCRIPTION
2	10-26-15	HDC COORDINATION PLAN
1	09-04-14	REVISIONS DURING CONSTRUCTION

APPLICANT\OWNER:
ORION UNH LLC
225 FRANKLIN STREET, 26TH FLOOR
BOSTON, MA 02110

PROJECT:
ORION
STUDENT HOUSING
25/35 MAIN STREET
DURHAM, NEW HAMPSHIRE

PROJECT NO.	1925-01	DATE:	06-09-14
SCALE:	1" = 20'	DWG. NAME:	LAYOUT
DRAFTED BY:	SM	CHECKED BY:	RPC

PREPARED BY:

ALLEN & MAJOR ASSOCIATES, INC.
civil & structural engineering ◆ land surveying
environmental consulting ◆ landscape architecture
www.allenmajor.com
250 COMMERCIAL STREET
SUITE 1001
MANCHESTER, NH 03101
TEL: (603) 627-5500
FAX: (603) 627-5501
WOBURN, MA ◆ LAKEVILLE, MA ◆ MANCHESTER, NH

DRAWING TITLE:
LAYOUT & MATERIALS PLAN

SHEET No.
C-1

ALLEN & MAJOR
ASSOCIATES, INC.
250 Commercial Street
Suite 1001
Manchester, NH 03101
Tel: (603) 627-5500
Fax: (603) 627-5501

August 29, 2014

Michael Behrendt
Director of Planning and Community
Development, Town of Durham
15 Newmarket Road
Durham, NH 03824
cc: Tom Johnson

RE: A&M Project #1925-01
Orion Student Housing
25-35 Main Street
Durham, NH 03824

Dear Mr. Behrendt:

On behalf of Orion UNH LLC, Allen & Major Associates requests the administrative approval of a site plan amendment to the Orion Student Housing project located at 25-35 Main Street. The revisions to the site plans include the following:

- Relocation of the backup generator and associated concrete pad to the rear of Building B.
- The pervious paver section in front of the dumpster enclosure has been widened by 2 feet.
- The dumpster enclosure and associated concrete pad has been shifted 8.5 feet to the northeast. The portion of the dumpster enclosure wall facing Building B will be constructed of noncombustible materials.
- A transformer and associated concrete pad will be located between the dumpster enclosure and Building B.
- The retaining wall proposed to run parallel to the 21 Main Street property line has been extended by 45 feet to the northeast.

Please find attached revised C-1, C-2 and a new D-7 sheet, which display the changes outlined above. Note that dimensions have been given to ensure that proper safety clearances from the transformer as well as access to the side and rear of Building B will be maintained.

Please feel free to contact our office with any questions or concerns.

Very truly yours,

Robert P. Clarke

ALLEN & MAJOR ASSOCIATES, INC.

D-Series Size 1
LED Wall Luminaire

Catalog Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

d-series

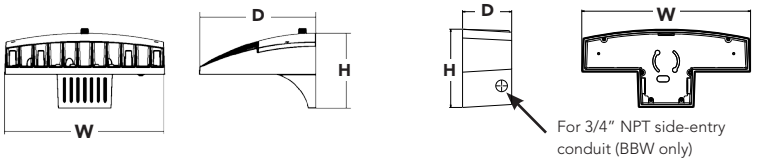
Specifications

Luminaire

Width:	13-3/4" (34.9 cm)	**Weight:**	12 lbs (5.4 kg)
Depth:	10" (25.4 cm)		
Height:	6-3/8" (16.2 cm)		

Back Box (BBW, ELCW)

Width:	13-3/4" (34.9 cm)	**BBW Weight:**	5 lbs (2.3 kg)
Depth:	4" (10.2 cm)	**ELCW Weight:**	10 lbs (4.5 kg)
Height:	6-3/8" (16.2 cm)		



Introduction

The D-Series Wall luminaire is a stylish, fully integrated LED solution for building-mount applications. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and up to 74% in energy savings over comparable 250W metal halide luminaires, the D-Series Wall is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Ordering Information

EXAMPLE: DSXW1 LED 20C 1000 40K T3M MVOLT DDBTXD

DSXW1 LED									
Series	**LEDs**	**Drive Current**	**Color temperature**	**Distribution**	**Voltage**	**Mounting**	**Control Options**	**Other Options**	**Finish** *(required)*
DSXW1 LED	10C 10 LEDs (one engine) 20C 20 LEDs (two engines)	350 350 mA 530 530 mA 700 700 mA 1000 1000 mA (1 A)	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted	T2S Type II Short T2M Type II Medium T3S Type III Short T3M Type III Medium T4M Type IV Medium TFTM Forward Throw Medium ASYDF Asymmetric diffuse	MVOLT [1] 120 [1] 208 [1] 240 [1] 277 [1] 347 [2] 480 [2]	**Shipped included** (blank) Surface mounting bracket BBW Surface-mounted back box (for conduit entry) [3]	**Shipped installed** PE Photoelectric cell, button type [4] DMG 0-10V dimming driver (no controls) PIR 180° motion/ambient light sensor, <15' mtg ht [5] PIRH 180° motion/ambient light sensor, 15-30' mtg ht [5] ELCW Emergency battery backup (includes external component enclosure) [6]	**Shipped installed** SF Single fuse (120, 277 or 347V) [7] DF Double fuse (208, 240 or 480V) [7] HS House-side shield [8] SPD Separate surge protection [9] **Shipped separately** BSW Bird-deterrent spikes WG Wire guard VG Vandal guard DDL Diffused drop lens	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white DSSTXD Textured sandstone

NOTES

1 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options), or photocontrol (PE option).
2 Only available with 20C, 700mA or 1000mA. Not available with PIR or PIRH.
3 Back box ships installed on fixture. Cannot be field installed. Cannot be ordered as an accessory.
4 Photocontrol (PE) requires 120, 208, 240, 277 or 347 voltage option. Not available with motion/ambient light sensors (PIR or PIRH).
5 PIR specifies the Sensor Switch SBGR-10-ODP control; PIRH specifies the Sensor Switch SBGR-6-ODP control; see Motion Sensor Guide for details. Includes ambient light sensor. Not available with "PE" option (button type photocell). Dimming driver standard. Not available with 20 LED/1000 mA configuration (DSXW1 LED 20C 1000).
6 Cold weather (-20C) rated. Not compatible with conduit entry applications. Not available with BBW mounting option. Not available with fusing. Not available with 347 or 480 voltage options. Emergency components located in back box housing. Emergency mode IES files located on product page at www.lithonia.com
7 Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option. Not available with ELCW.
8 Also available as a separate accessory; see Accessories information.
9 See the electrical section on page 3 for more details.

Accessories

Ordered and shipped separately.

DSXWHS U	House-side shield (one per light engine)
DSXWBSW U	Bird-deterrent spikes
DSXW1WG U	Wire guard accessory
DSXW1VG U	Vandal guard accessory

LITHONIA LIGHTING

One Lithonia Way • Conyers, Georgia 30012 • Phone: 800.279.8041 • Fax: 770.918.1209 • www.lithonia.com

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K					40K					50K					AMBER				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
10C (10 LEDs)	530mA	20 W	T2S	1,843	1	0	1	92	1,956	1	0	1	98	1729	1	0	1	86	1,264	0	0	1	63
			T2M	1,756	1	0	1	88	1,864	1	0	1	93	1,648	1	0	1	82	1,205	0	0	1	60
			T3S	1,822	0	0	1	91	1,934	0	0	1	97	1,710	0	0	1	86	1,250	0	0	1	63
			T3M	1,804	1	0	1	90	1,914	1	0	1	96	1,693	1	0	1	85	1,237	0	0	1	62
			T4M	1,767	1	0	1	88	1,876	1	0	1	94	1,658	0	0	1	83	1,212	0	0	1	61
			TFTM	1,837	0	0	1	92	1,950	0	0	1	98	1,724	0	0	1	86	1,260	0	0	1	63
			ASYDF	1,642	1	0	1	82	1,743	1	0	1	87	1,541	1	0	1	77	1,127	0	0	1	56
	700mA	27 W	T2S	2,272	1	0	1	84	2,409	1	0	1	89	2,421	1	0	1	90	1,544	0	0	1	57
			T2M	2,165	1	0	1	80	2,296	1	0	1	85	2,307	1	0	1	85	1,472	0	0	1	55
			T3S	2,247	1	0	1	83	2,382	1	0	1	88	2,394	1	0	1	89	1,527	0	0	1	57
			T3M	2,224	1	0	1	82	2,358	1	0	1	87	2,370	1	0	1	88	1,512	0	0	1	56
			T4M	2,179	1	0	1	81	2,310	1	0	1	86	2,322	1	0	1	86	1,481	0	0	1	55
			TFTM	2,265	1	0	1	84	2,401	1	0	1	89	2,413	1	0	1	89	1,539	0	0	1	57
			ASYDF	2,025	1	0	1	75	2,147	1	0	1	80	2,158	1	0	1	80	1,376	1	0	1	51
	1000mA	40 W	T2S	3,011	1	0	1	75	3,190	1	0	1	80	3,202	1	0	1	80	2,235	1	0	1	58
			T2M	2,870	1	0	1	72	3,040	1	0	1	76	3,051	1	0	1	76	2,130	1	0	2	55
			T3S	2,978	1	0	1	74	3,155	1	0	1	79	3,166	1	0	1	79	2,210	1	0	2	57
			T3M	2,948	1	0	1	74	3,123	1	0	1	78	3,134	1	0	1	78	2,187	1	0	2	56
			T4M	2,888	1	0	1	72	3,059	1	0	1	76	3,071	1	0	1	77	2,143	1	0	2	55
			TFTM	3,002	1	0	1	75	3,180	1	0	1	80	3,192	1	0	1	80	2,228	1	0	2	57
			ASYDF	2,684	1	0	1	67	2,843	1	0	1	71	2,854	1	0	1	71	1,991	1	0	2	51
20C (20 LEDs)	530mA	36 W	T2S	3,649	1	0	1	101	3,876	1	0	1	108	3,429	1	0	1	95	2,504	1	0	1	70
			T2M	3,478	1	0	1	97	3,694	1	0	1	103	3,267	1	0	1	91	2,387	1	0	1	66
			T3S	3,609	1	0	1	100	3,833	1	0	1	106	3,390	1	0	1	94	2,477	1	0	1	69
			T3M	3,572	1	0	1	99	3,794	1	0	1	105	3,356	1	0	1	93	2,451	1	0	2	68
			T4M	3,500	1	0	2	97	3,717	1	0	2	103	3,288	1	0	1	91	2,402	1	0	1	67
			TFTM	3,638	1	0	1	101	3,864	1	0	1	107	3,418	1	0	1	95	2,496	1	0	1	69
			ASYDF	3,252	1	0	2	90	3,454	1	0	2	96	3,056	1	0	2	85	2,232	1	0	1	62
	700mA	47 W	T2S	4,502	1	0	1	96	4,776	1	0	1	102	4,794	1	0	1	102	3,065	1	0	1	65
			T2M	4,290	1	0	1	91	4,552	1	0	1	97	4,569	1	0	1	97	2,921	1	0	1	62
			T3S	4,452	1	0	1	95	4,723	1	0	2	100	4,741	1	0	2	101	3,031	1	0	1	64
			T3M	4,407	1	0	2	94	4,675	1	0	2	99	4,693	1	0	2	100	3,000	1	0	1	64
			T4M	4,318	1	0	2	92	4,581	1	0	2	97	4,598	1	0	2	98	2,939	1	0	1	63
			TFTM	4,488	1	0	2	95	4,761	1	0	2	101	4,779	1	0	2	102	3,055	1	0	1	65
			ASYDF	4,012	1	0	2	85	4,257	1	0	2	91	4,273	1	0	2	91	2,732	1	0	1	58
	1000mA	74 W	T2S	5,963	1	0	1	80	6,327	1	0	1	84	6,351	1	0	1	85	4,429	1	0	1	61
			T2M	5,683	1	0	2	76	6,029	1	0	2	80	6,052	1	0	2	81	4,221	1	0	2	58
			T3S	5,896	1	0	2	79	6,256	1	0	2	83	6,280	1	0	2	84	4,380	1	0	2	60
			T3M	5,837	1	0	2	78	6,193	1	0	2	83	6,216	1	0	2	83	4,335	1	0	2	59
			T4M	5,719	1	0	2	76	6,067	1	0	2	81	6,090	1	0	2	81	4,248	1	0	2	58
			TFTM	5,944	1	0	2	79	6,307	1	0	2	84	6,330	1	0	2	84	4,415	1	0	2	60
			ASYDF	5,314	1	0	2	71	5,638	2	0	2	75	5,660	2	0	2	75	3,947	1	0	2	54

Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.98

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the **DSXW1 LED 20C 1000** platform in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	0.95	0.93	0.88

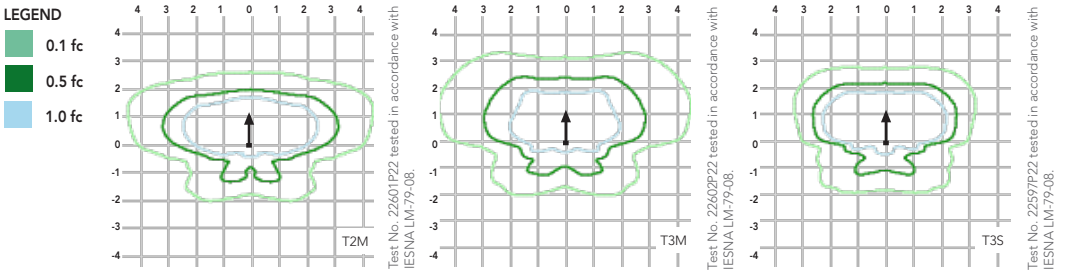
Electrical Load

LEDs	Drive Current (mA)	System Watts	Current (A) 120V	208V	240V	277V	347V	480V
10C	350	14 W	0.13	0.07	0.06	0.06	-	-
	530	20 W	0.19	0.11	0.09	0.08	-	-
	700	27 W	0.25	0.14	0.13	0.11	-	-
	1000	40 W	0.37	0.21	0.19	0.16	-	-
20C	350	25 W	0.23	0.13	0.12	0.10	-	-
	530	36 W	0.33	0.19	0.17	0.14	-	-
	700	47 W	0.44	0.25	0.22	0.19	0.15	0.11
	1000	75 W	0.69	0.40	0.35	0.30	0.23	0.17

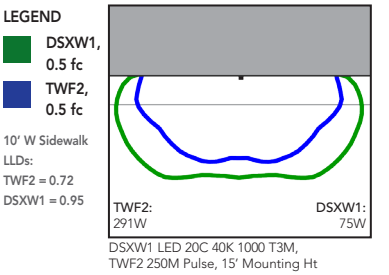
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Wall Size 1 homepage.

Isofootcandle plots for the DSXW1 LED 20C 1000 40K. Distances are in units of mounting height (15').



Distribution overlay comparison to 250W metal halide.



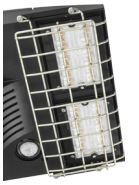
DSXW1 LED 20C 40K 1000 T3M, TWF2 250M Pulse, 15' Mounting Ht

Options and Accessories

T3M (left), ASYDF (right) lenses

HS - House-side shields

BSW - Bird-deterrent spikes



WG - Wire guard

VG - Vandal guard

DDL - Diffused drop lens

FEATURES & SPECIFICATIONS

INTENDED USE
The energy savings, long life and easy-to-install design of the D-Series Wall Size 1 make it the smart choice for building-mounted doorway and pathway illumination for nearly any facility.

CONSTRUCTION
Two-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance. The LED driver is mounted to the door to thermally isolate it from the light engines for low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65).

FINISH
Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in textured and non-textured finishes.

OPTICS
Precision-molded proprietary acrylic lenses provide multiple photometric distributions tailored specifically to building mounted applications. Light engines are available in 3000 K (80 min. CRI), 4000 K (70 min. CRI) or 5000 K (70 CRI) configurations.

ELECTRICAL
Light engine(s) consist of 10 high-efficacy LEDs mounted to a metal-core circuit board to maximize heat dissipation and promote long life (L88/100,000 hrs at 25°C). Class 1 electronic drivers have a power factor >90%, THD <20%, and a minimum 2.5KV surge rating. When ordering the SPD option, a separate surge protection device is installed within the luminaire which meets a minimum Category C Low (per ANSI/IEEE C62.41.2).

INSTALLATION
Included universal mounting bracket attaches securely to any 4" round or square outlet box for quick and easy installation. Luminaire has a slotted gasket wireway and attaches to the mounting bracket via corrosion-resistant screws.

LISTINGS
CSA certified to U.S. and Canadian standards. Rated for -40°C minimum ambient.

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org to confirm which versions are qualified.

WARRANTY
Five year limited warranty. Full warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.

GENERAC® | INDUSTRIAL POWER

SD030

2.4L

Industrial Diesel Generator Set

EPA Certified Stationary Emergency

Standby Power Rating
30 kW 38 kVA 60 Hz

Prime Power Rating*
27 kW 34 kVA 60 Hz

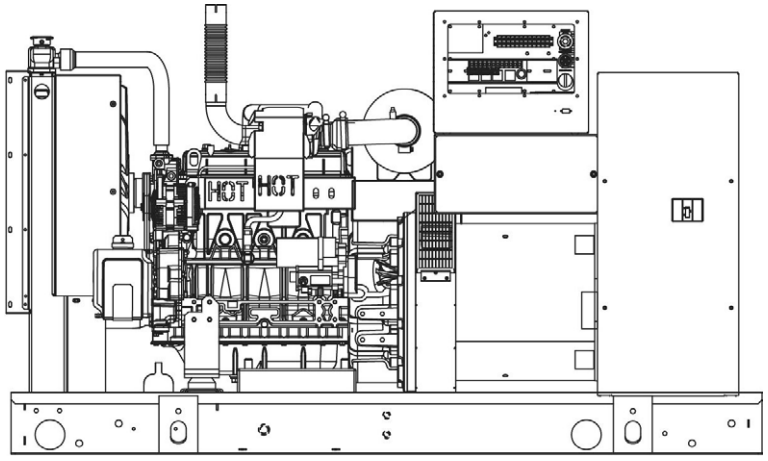


Image used for illustration purposes only

*EPA Certified Prime ratings are not available in the U.S. or its Territories

Codes and Standards

Generac products are designed to the following standards:

UL2200, UL508, UL142, UL498

NFPA70, 99, 110, 37

NEC700, 701, 702, 708

ISO9001, 8528, 3046, 7637, Pluses #2b, 4

NEMA ICS10, MG1, 250, ICS6, AB1

ANSI C62.41

Powering Ahead

For over 50 years, Generac has led the industry with innovative design and superior manufacturing.

Generac ensures superior quality by designing and manufacturing most of its generator components, including alternators, enclosures and base tanks, control systems and communications software.

Generac's gensets utilize a wide variety of options, configurations and arrangements, allowing us to meet the standby power needs of practically every application.

Generac searched globally to ensure the most reliable engines power our generators. We choose only engines that have already been proven in heavy-duty industrial application under adverse conditions.

Generac is committed to ensuring our customers' service support continues after their generator purchase.

GENERAC | INDUSTRIAL POWER

SD030

Standard Features

ENGINE SYSTEM

General

- Oil Drain Extension
- Air Cleaner
- Fan Guard
- Stainless Steel flexible exhaust connection
- Critical Exhaust Silencer (enclosed only)
- Factory Filled Oil
- Radiator Duct Adapter (open set only)

Fuel System

- Fuel lockoff solenoid
- Primary fuel filter

Cooling System

- Closed Coolant Recovery System
- UV/Ozone resistant hoses
- Factory-Installed Radiator
- Radiator Drain Extension
- 50/50 Ethylene glycol antifreeze
- 120 VAC Coolant Heater

Engine Electrical System

- Battery charging alternator
- Battery cables
- Battery tray
- Solenoid activated starter motor
- Rubber-booted engine electrical connections

ALTERNATOR SYSTEM

- UL2200 GENprotect™
- 12 leads (3-phase, non 600 V)
- Class H insulation material
- Vented rotor
- 2/3 pitch
- Skewed stator
- Auxiliary voltage regulator power winding
- Amortisseur winding
- Brushless Excitation
- Sealed Bearings
- Automated manufacturing (winding, insertion, lacing, varnishing)
- Rotor dynamically spin balanced (get tolerance)
- Full load capacity alternator
- Protective thermal switch

GENERATOR SET

- Internal Genset Vibration Isolation
- Separation of circuits - high/low voltage
- Separation of circuits - multiple breakers
- Silencer Heat Shield
- Wrapped Exhaust Piping
- Silencer housed in discharge hood (enclosed only)
- Standard Factory Testing
- 2 Year Limited Warranty (Standby rated Units)
- 1 Year Limited Warranty (Prime rated units)
- Silencer mounted in the discharge hood (enclosed only)

ENCLOSURE (if selected)

- Rust-proof fasteners with nylon washers to protect finish
- High performance sound-absorbing material
- Gasketed doors
- Stamped air-intake louvers
- Air discharge hoods for radiator-upward pointing
- Stainless steel lift off door hinges
- Stainless steel lockable handles
- Rhino Coat™ - Textured polyester powder coat

TANKS (if selected)

- UL 142
- Double wall
- Vents
- Sloped top
- Sloped bottom
- Factory pressure tested (2 psi)
- Rupture basin alarm
- Fuel level
- Check valve in supply and return lines
- Rhino Coat™ - Textured polyester powder coat
- Stainless hardware

CONTROL SYSTEM

Control Panel

- Digital H Control Panel - Dual 4x20 Display
- Programmable Crank Limiter
- 7-Day Programmable Exerciser
- Special Applications Programmable PLC
- RS-232/485
- All-Phase Sensing DVR
- Full System Status
- Utility Monitoring
- Low Fuel Pressure Indication
- 2-Wire Start Compatible
- Power Output (kW)
- Power Factor
- kW Hours, Total & Last Run
- Real/Reactive/Apparent Power
- All Phase AC Voltage
- All Phase Currents
- Oil Pressure
- Coolant Temperature
- Coolant Level
- Engine Speed
- Battery Voltage
- Frequency
- Date/Time Fault History (Event Log)
- Isochronous Governor Control
- Waterproof/sealed Connectors
- Audible Alarms and Shutdowns
- Not in Auto (Flashing Light)
- Auto/Off/Manual Switch
- E-Stop (Red Mushroom-Type)
- NFPA110 Level I and II (Programmable)
- Customizable Alarms, Warnings, and Events
- Modbus protocol
- Predictive Maintenance algorithm
- Sealed Boards
- Password parameter adjustment protection
- Single point ground
- 15 channel data logging
- 0.2 msec high speed data logging
- Alarm information automatically comes up on the display

Alarms

- Oil Pressure (Pre-programmable Low Pressure Shutdown)
- Coolant Temperature (Pre-programmed High Temp Shutdown)
- Coolant Level (Pre-programmed Low Level Shutdown)
- Low Fuel Pressure Alarm
- Engine Speed (Pre-programmed Over speed Shutdown)
- Battery Voltage Warning
- Alarms & warnings time and date stamped
- Alarms & warnings for transient and steady state conditions
- Snap shots of key operation parameters during alarms & warnings
- Alarms and warnings spelled out (no alarm codes)

SD030

Configurable Options

ENGINE SYSTEM

General
- ○ Oil Make-Up System
- ○ Oil Heater
- ○ Industrial Exhaust Silencer

Fuel System
- ○ Flexible fuel lines
- ○ Primary fuel filter

Engine Electrical System
- ○ 10A UL battery charger
- ○ 2.5A UL battery charger
- ○ Battery Warmer

ALTERNATOR SYSTEM

- ○ Alternator Upsizing
- ○ Anti-Condensation Heater
- ○ Tropical coating
- ○ Permanent Magnet Excitation

CIRCUIT BREAKER OPTIONS

- ○ Main Line Circuit Breaker
- ○ 2nd Main Line Circuit Breaker
- ○ Shunt Trip and Auxiliary Contact
- ○ Electronic Trip Breakers

GENERATOR SET

- ○ Gen-Link Communications Software (English Only)
- ○ 8 Load Position Load Center
- ○ 2 Year Extended Warranty
- ○ 5 Year Warranty
- ○ 5 Year Extended Warranty

ENCLOSURE

- ○ Weather Protected
- ○ Level 1 Sound Attenuation
- ○ Level 2 Sound Attenuation
- ○ Steel Enclosure
- ○ Aluminum Enclosure
- ○ 150 MPH Wind Kit
- ○ 12 VDC Enclosure Lighting Kit
- ○ 120 VAC Enclosure Lighting Kit
- ○ AC/DC Enclosure Lighting Kit
- ○ Door Alarm Switch

TANKS (Size on last page)

- ○ Electrical Fuel Level
- ○ Mechanical Fuel Level
- ○ 54 Gal (204.4 L) Usable Capacity
- ○ 132 Gal (499.7 L) Usable Capacity
- ○ 211 Gal (798.7 L) Usable Capacity
- ○ 300 Gal (1135.6 L) Usable Capacity
- ○ 8" Vent Extension
- ○ 13" Vent Extension
- ○ 19" Vent Extension

CONTROL SYSTEM

- ○ 21-Light Remote Annunciator
- ○ Remote Relay Panel (8 or 16)
- ○ Oil Temperature Sender with Indication Alarm
- ○ Remote E-Stop (Break Glass-Type, Surface Mount)
- ○ Remote E-Stop (Red Mushroom-Type, Surface Mount)
- ○ Remote E-Stop (Red Mushroom-Type, Flush Mount)
- ○ Remote Communication - Modem
- ○ Remote Communication - Ethernet
- ○ 10A Run Relay
- ○ Ground fault indication and protection functions

Engineered Options

ENGINE SYSTEM

- ○ Coolant heater ball valves
- ○ Block Heaters
- ○ Fluid containment pans

CONTROL SYSTEM

- ○ Spare inputs (x4) / outputs (x4) - H Panel Only
- ○ Battery Disconnect Switch

ALTERNATOR SYSTEM

- ○ 3rd Breaker System

GENERATOR SET

- ○ Special Testing
- ○ IBC Seismic Certification

ENCLOSURE

- ○ Motorized Dampers
- ○ Door switched for intrusion alert
- ○ Enclosure ambient heaters

TANKS

- ○ Overfill protection valve
- ○ UL2085 Tank
- ○ ULC S-601 Tank
- ○ Stainless Steel Tank
- ○ Special Fuel Tanks (MIDEQ and FL DEP/DERM, etc.)
- ○ Vent Extensions

Rating Definitions

Standby – Applicable for a varying emergency load for the duration of a utility power outage with no overload capability.
Prime – Applicable for supplying power to a varying load in lieu of utility for an unlimited amount of running time. A 10% overload capacity is available for 1 out of every 12 hours. The Prime Power option is only available on International applications.

Power ratings in accordance with ISO 8528-1, Second Edition dated 2005-06-01, definitions for Prime Power (PRP) and Emergency Standby Power (ESP).

GENERAC | INDUSTRIAL POWER

SD030 application and engineering data

ENGINE SPECIFICATIONS

General

Make	Generac
EPA Emissions Compliance	Stationary Emergency
EPA Emissions Reference	See Emissions Data Sheet
Cylinder #	4
Type	In-Line
Displacement - L (cu in)	2.4 (146.46)
Bore - mm (in)	90 (3.54)
Stroke - mm (in)	94 (3.70)
Compression Ratio	21.3:1
Intake Air Method	Turbocharged
Cylinder Head Type	Cast Iron
Piston Type	Aluminum

Engine Governing

Governor	Electronic Isochronous
Frequency Regulation (Steady State)	± 0.25%

Lubrication System

Oil Pump Type	Gear
Oil Filter Type	Full Flow
Crankcase Capacity - L (qts)	6.2 (6.52)

Cooling System

Cooling System Type	Closed Recovery
Water Pump Flow	Pre-Lubed, Self Sealing
Fan Type	Pusher
Fan Speed (rpm)	2698
Fan Diameter mm (in)	560 (22)
Coolant Heater Wattage	1500
Coolant Heater Standard Voltage	120 VAC

Fuel System

Fuel Type	Ultra Low Sulfur Diesel Fuel
Fuel Specifications	ASTM
Fuel Filtering (microns)	5
Fuel Inject Pump	Distribution Injection Pump
Fuel Pump Type	Engine Driven Gear
Injector Type	Mechanical
Fuel Supply Line - mm (in)	7.94 (0.31)
Fuel Return Line - mm (in)	7.94 (0.31)

Engine Electrical System

System Voltage	12 VDC
Battery Charging Alternator	Std
Battery Size	See Battery Index 0161970SBY
Battery Voltage	12 VDC
Ground Polarity	Negative

ALTERNATOR SPECIFICATIONS

Standard Model	390
Poles	4
Field Type	Revolving
Insulation Class - Rotor	H
Insulation Class - Stator	H
Total Harmonic Distortion	< 5%
Telephone Interference Factor (TIF)	< 50
Standard Excitation	Synchronous
Bearings	Single Sealed Cartridge
Coupling	Direct, Flexible Disc
Load Capacity - Standby	100%
Prototype Short Circuit Test	Yes

Voltage Regulator Type	Digital
Number of Sensed Phases	All
Regulation Accuracy (Steady State)	± 0.25%

SD030 operating data

POWER RATINGS

	Standby	
Single-Phase 120/240 VAC @1.0pf	30 kW	Amps: 125
Three-Phase 120/208 VAC @0.8pf	30 kW	Amps: 104
Three-Phase 120/240 VAC @0.8pf	30 kW	Amps: 90
Three-Phase 277/480 VAC @0.8pf	30 kW	Amps: 46
Three-Phase 346/600 VAC @0.8pf	30 kW	Amps: 36

STARTING CAPABILITIES (sKVA)

sKVA vs. Voltage Dip

		480 VAC						208/240 VAC					
Alternator	kW	10%	15%	20%	25%	30%	35%	10%	15%	20%	25%	30%	35%
Standard	35	24	36	48	60	72	84	18	27	36	45	54	63
Upsize 1	40	27	41	54	68	81	95	20	31	41	51	61	71
Upsize 2	50	34	52	69	86	103	120	26	39	52	65	77	90

FUEL CONSUMPTION RATES*

Fuel Pump Lift - ft (m)
3 (1)

Total Fuel Pump Flow (Combustion + Return)
4.5 gph

Diesel - gph (lph)

Percent Load	gph (lph)
25%	0.92 (3.5)
50%	1.45 (5.5)
75%	1.96 (7.4)
100%	2.74 (10.4)

* Fuel supply installation must accommodate fuel consumption rates at 100% load.

COOLING

		Standby
Coolant Flow per Minute	gpm (lpm)	10 (38)
Coolant System Capacity	gal (L)	2.8 (10.95)
Heat Rejection to Coolant	BTU/hr	111,000
Inlet Air	cfm (m3/hr)	4,500 (7647)
Max. Operating Radiator Air Temp	F° (C°)	122 (50)
Max. Ambient Temperature (before derate)	F° (C°)	104 (40)
Maximum Radiator Backpressure	in H_2O	0.5

COMBUSTION AIR REQUIREMENTS

		Standby
Flow at Rated Power	cfm (m3/min)	90 (2.55)

ENGINE

		Standby
Rated Engine Speed	rpm	1800
Horsepower at Rated kW**	hp	51
Piston Speed	ft/min (m/min)	1110 (338)
BMEP	psi	153

** Refer to "Emissions Data Sheet" for maximum bHP for EPA and SCAQMD permitting purposes.

EXHAUST

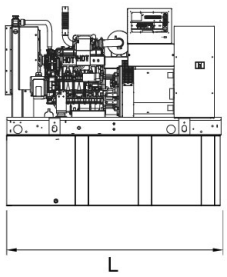
		Standby
Exhaust Flow (Rated Output)	cfm (m^3/min)	230 (391)
Max. Backpressure (Post Silencer)	inHg (Kpa)	1.5 (5.1)
Exhaust Temp (Rated Output)	°F (°C)	850 (454)
Exhaust Outlet Size (Open Set)	mm (in)	63.5 (2.5)

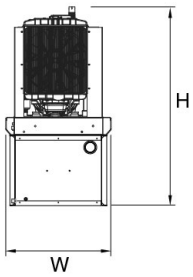
Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions. Please consult a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528 and DIN6271 standards.

GENERAC | INDUSTRIAL POWER

SD030

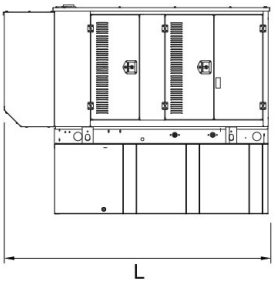
dimensions and weights*

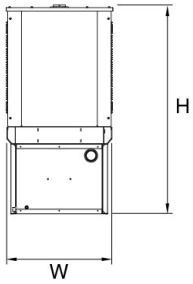




OPEN SET

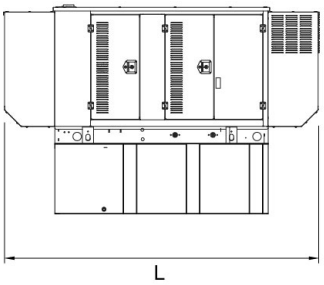
RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Tank & Open Set
NO TANK	-	76 (1930.4) x 38 (914.4) x 46 (1168.4)	2060 (934)
20	54 (204.4)	76 (1930.4) x 38 (914.4) x 59 (1498.6)	2540 (1152)
48	132 (499.7)	76 (1930.4) x 38 (914.4) x 71 (1803.4)	2770 (1257)
77	211 (798.7)	76 (1930.4) x 38 (914.4) x 83 (2108.2)	2979 (1351)
109	300 (1135.6)	93 (2362.2) x 38 (914.4) x 87 (2209.8)	3042 (1380)

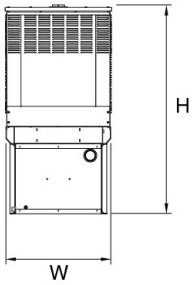




STANDARD ENCLOSURE

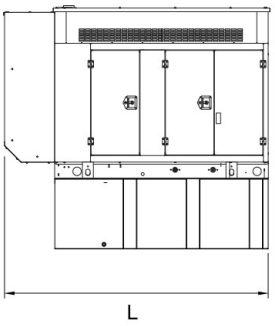
RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Enclosure Only	
			Steel	Aluminum
NO TANK	-	95 (2413) x 38 (965.2) x 50 (1270)	302 (137)	191 (87)
20	54 (204.4)	95 (2413) x 38 (965.2) x 63 (1600.2)		
48	132 (499.7)	95 (2413) x 38 (965.2) x 75 (1905)		
77	211 (798.7)	95 (2413) x 38 (965.2) x 87 (2209.8)		
109	300 (1135.6)	95 (2413) x 38 (965.2) x 91 (2311.4)		

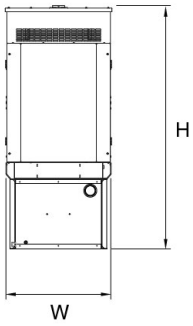




LEVEL 1 ACOUSTIC ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Enclosure Only	
			Steel	Aluminum
NO TANK	-	113 (2870.2) x 38 (965.2) x 50 (1270)	455 (206)	288 (131)
20	54 (204.4)	113 (2870.2) x 38 (965.2) x 63 (1600.2)		
48	132 (499.7)	113 (2870.2) x 38 (965.2) x 75 (1905)		
77	211 (798.7)	113 (2870.2) x 38 (965.2) x 87 (2209.8)		
109	300 (1135.6)	113 (2870.2) x 38 (965.2) x 91 (2311.4)		





LEVEL 2 ACOUSTIC ENCLOSURE

RUN TIME HOURS	USABLE CAPACITY GAL (L)	L x W x H in (mm)	WT lbs (kg) - Enclosure Only	
			Steel	Aluminum
NO TANK	-	95 (2413) x 38 (965.2) x 62 (1574.8)	460 (209)	291 (132)
20	54 (204.4)	95 (2413) x 38 (965.2) x 75 (1905)		
48	132 (499.7)	95 (2413) x 38 (965.2) x 87 (2209.8)		
77	211 (798.7)	95 (2413) x 38 (965.2) x 99 (2514.6)		
109	300 (1135.6)	95 (2413) x 38 (965.2) x 103 (2616.2)		

*All measurements are approximate and for estimation purposes only. Sound dBA can be found on the sound data sheet. Enclosure Only weight is added to Tank & Open Set weight to determine total weight.

YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please consult a Generac Power Systems Industrial Dealer for detailed installation drawings.