

690 Chesterfield Pkwy W • Chesterfield MO 63017-0760
Phone: 636-537-4000 • Fax 636-537-4798 • www.chesterfield.mo.us

Architectural Review Board Staff Report

Meeting Date: November 9, 2023

From: Petree Powell, Assistant City Planner
Shilpi Bharti, Planner

Location: West of River Valley Drive

Description: **224 River Valley Drive (River Bend Elementary):** An Amended Site Development Plan, Amended Architectural Elevations, and the Architect’s Statement of Design for an elementary school building zoned “R2” Residential District located west of River Valley Drive.

PROPOSAL SUMMARY

WSP-USA, on behalf of Parkway School District, has submitted an Amended Site Development Plan, Architectural Elevations, and the Architect’s Statement of Design. The Amended Site Development proposal provides for two building additions, vestibule and site improvements to the existing elementary school.

Specifically, two (2) of the building additions are proposed on the south side of the existing building. The addition includes a kindergarten classroom and fine arts addition. A new enclosed entrance and vestibule will be provided at the front that is located on the east side of the building. Other improvements include: playground next to the proposed kindergarten addition, replacing the drive lane asphalt and sidewalks; replacing a portion of the existing track surface; and equipment to the rear playground; replacing the play surface east of the rear playground; and adding a new ADA ramp to provide access to a below grade storm shelter that will be below the new kindergarten addition.



Figure 1: Subject Site

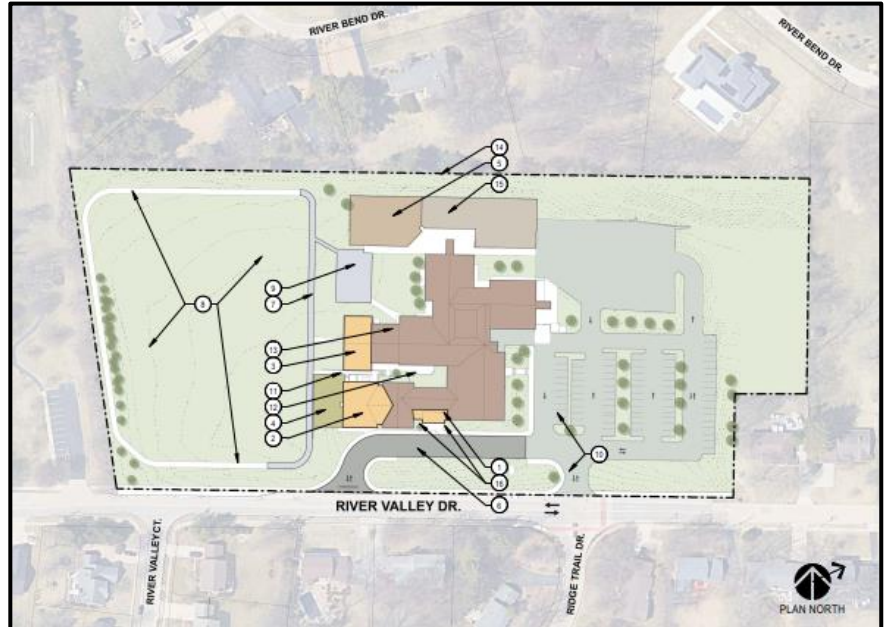
SITE HISTORY

The site is zoned “R2- Residential District” and surrounded by R2 residential district. The building on the site was constructed prior to City was incorporated. In 2020, the site plan was amended to provide 30 parking spaces on the north side of the building.

STAFF ANALYSIS

The Unified Development Code’s Architectural Review Design Standards are broken down into two (2) areas of review: Site Design & Building Design. The general requirements for Site Design include Site Relationships, Topography & Parking, Circulation & Access, and Retaining Walls while the general requirements are for Building Design include Scale, Design, Materials & Colors, Landscape Design & Screening, Signage, and Lighting.

The UDC has specific provisions regarding the redevelopment of existing buildings. All additions and exterior renovations to existing structures shall advance such structures toward further compliance with the provisions of UDC’s Architectural Review Design Standards. Exterior additions must also be incorporated into one (1) cohesive design with the existing structure. The proposed addition will have same building material and color as existing school building.



Site Relationship

The new addition to the building will be of similar height and structure to the existing building.

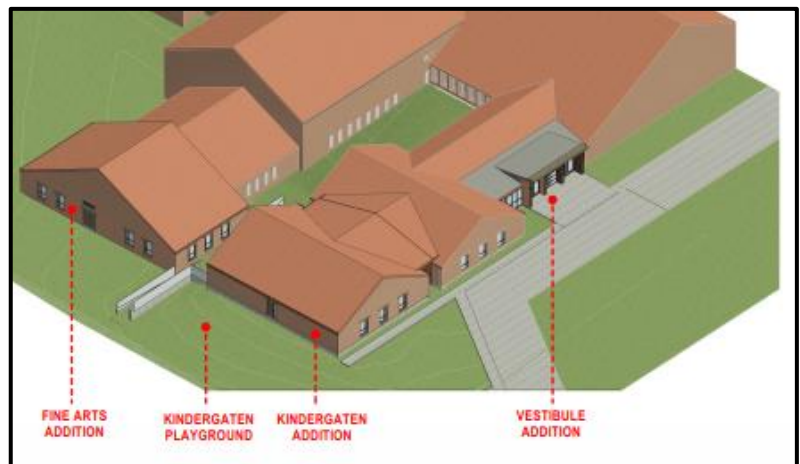


Figure 3. Bird’s Eye View

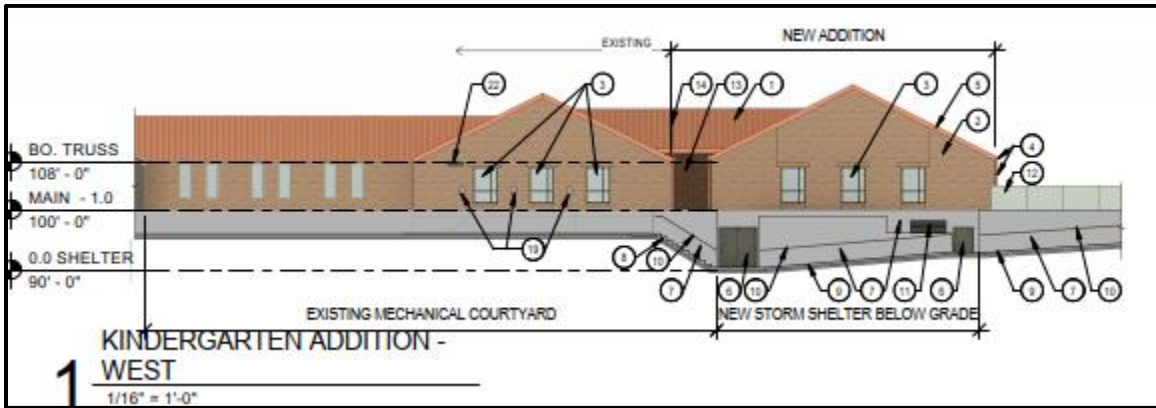


Figure 4. Kindergarten Addition West Elevation

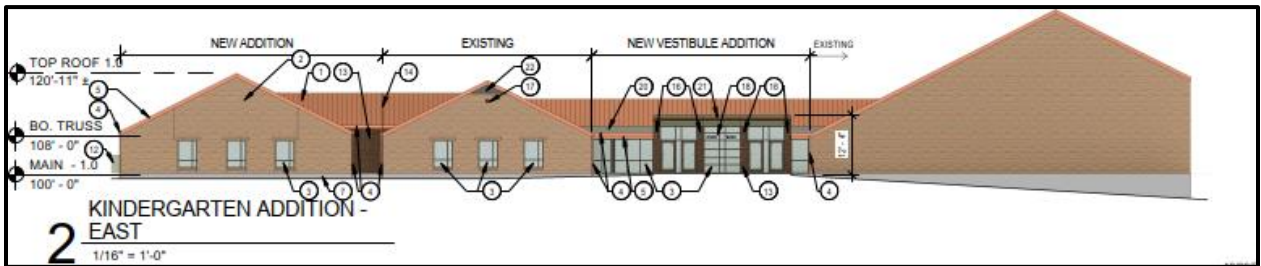


Figure 5. Kindergarten Addition East Elevation



Figure 6. Fine Arts Addition West Elevation

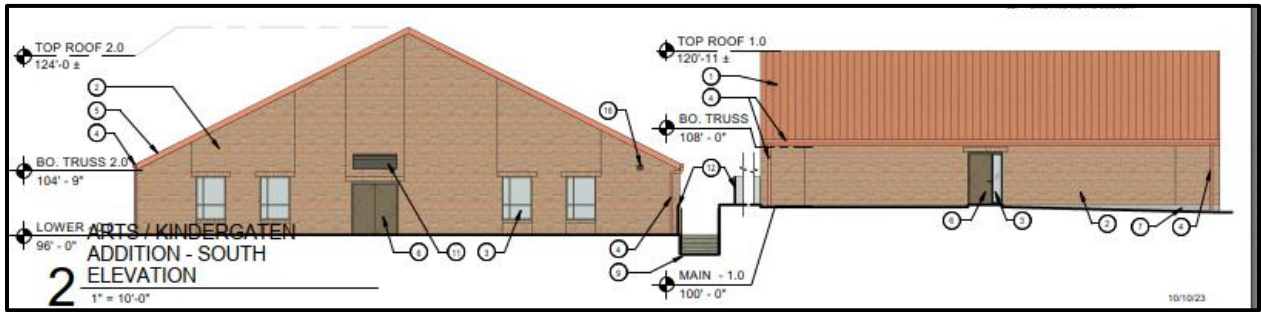


Figure 7. Fine Arts and Kindergarten Additions- South Elevations

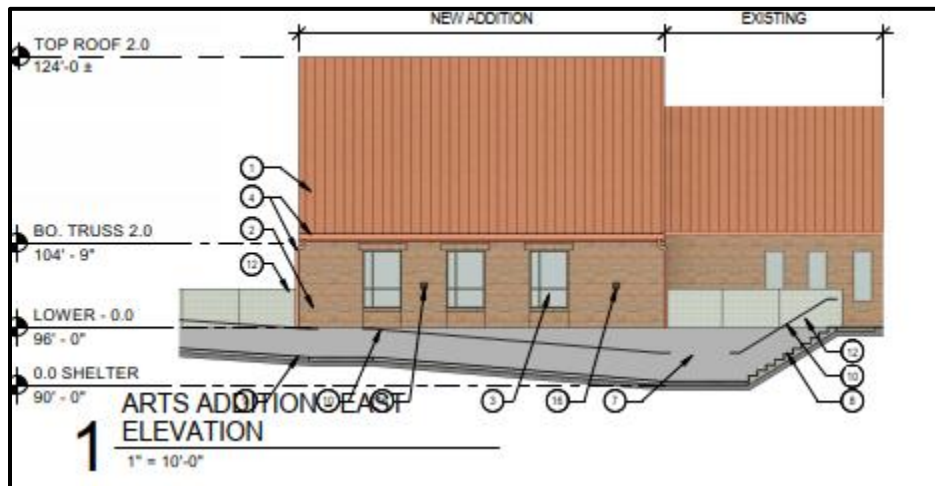


Figure 8. Fine Arts Addition East Elevation

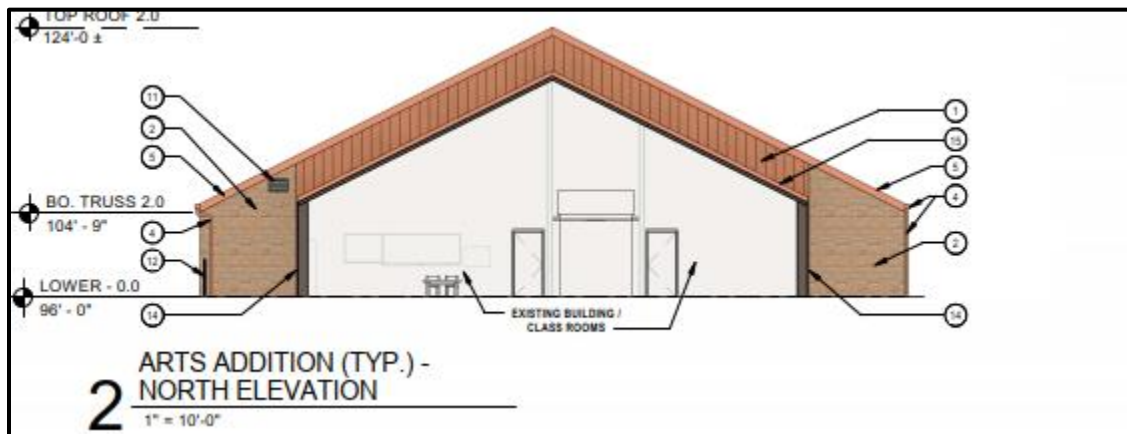


Figure 9. Final Arts Addition- North Elevation

Topography & Parking

The site is relatively flat. A new retaining wall is proposed on the south side of the new kindergarten playground and building addition. This short wall of approximately three (3) feet in height provides the necessary slope to accommodate the new playground surface and equipment. Site improvements are limited to pavement replacement at the main bus drop-off drive at the front of the school. There is no change in the parking.

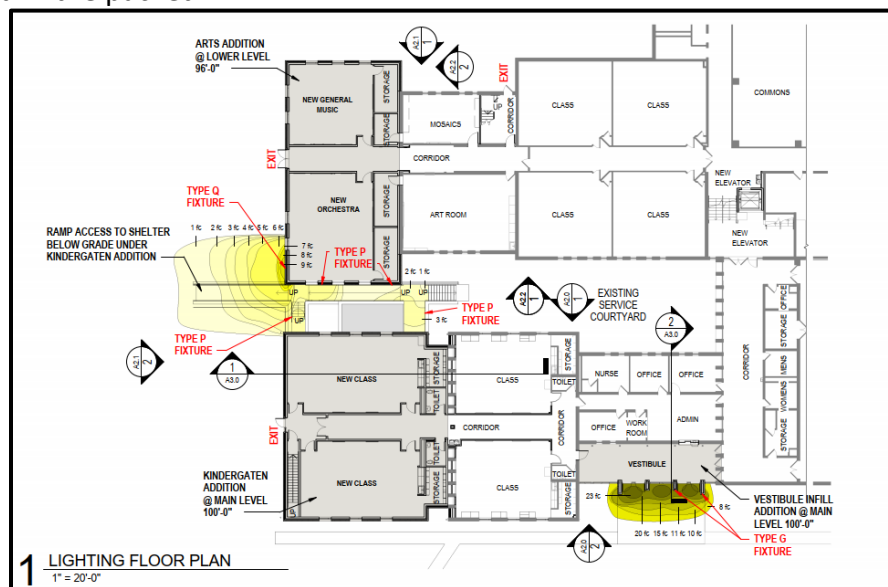
Design, Materials, & Colors

The proposed addition is of similar scale and design to the existing building. The new primary entrance utilizes accent brick pilasters, with a vertical proportion. This same accent brick is utilized as a buffer between the two kindergarten classrooms. New windows are provided in the existing kindergarten wing to mimic the character and spacing of the entry vestibule pilasters. They replace the windows lost on the southside of the classrooms where the new addition attaches. They also eliminate what is currently a large blank façade. The primary brick, glass, roof and roof edge materials are selected to match the existing structure.

The primary building material is brick veneer and metal roof to match the existing structure to the greatest extent possible. Aluminum and glass have also been selected to match the existing structure and compliment the design of the facility. New windows are a dark bronze color finish in an aluminum storefront system with insulated glazing. The new roofs on the additions will be standing seam metal roofs to match the existing roofs. Prefinished metal fascia will be in a color to match the standing seam roofs.

Lighting

There are five wall pack lights proposed with this development. Cut sheets of light fixtures are included in the packet.



Figures 10: Lighting Plan

RENDERING



DEPARTMENT INPUT

Be advised, this project is still going through development review by City Staff and will not proceed to the Planning Commission until all outstanding items have been addressed. All recommendations made by the Architectural Review Board will be included in Staff's report to the Planning Commission.

MOTION

The following options are provided on the Architectural Review Board for consideration relative to this application:

"I move to forward the Amended Site Plan, Architectural Elevations, and the Architect's Statement of Design for River Bend Elementary as presented, with a recommendation for approval (or denial) to the Planning Commission."

"I move to forward the Amended Site Plan, Architectural Elevations, and the Architect's Statement of Design for River Bend Elementary to the Planning Commission with a recommendation for approval with the following recommendations..."

Attachments:

1. Architectural Review Packet Submittal



Architectural Review Board
City of Chesterfield

**Subject: River Bend Elementary
Statement of Design**

WSP is pleased to submit for your consideration the site improvements and building additions proposed for River Bend Elementary. These improvements were designed to provide a more secure facility, better classroom organization and improved student accessibility. In doing so, we've also addressed the City of Chesterfield general requirements for site and building design.

Site Relationships. We have continued the existing site organization while improving the pedestrian school entrance. The secure vestibule provides for a more readily identifiable "front door". It is a primarily glass clad vestibule to enhance the passive security characteristics while providing both an indoor and outdoor gathering space before being granted access to the school. The new front doors are framed by brick pilasters utilizing decorative wall sconces to further accent the entry point. The new additions continue the character and proportions of the existing school, being respectful to the overall scale already in place.

Circulation System and Access. The existing pedestrian and vehicular access strategy currently in place at the school has been working well and is not impacted by these proposed improvements. Site improvements are limited to pavement replacement at the main bus drop-off drive at the front of the school.

Topography. The proposed site improvements utilizes existing topography to its fullest resulting in minimal changes.

Retaining Walls. A new retaining wall is proposed on the south side of the new kindergarten playground and building addition. This short wall of approximately 3' in height provides the necessary slope to accommodate the new playground surface and equipment.

Scale. The kindergarten addition, facing the primary entrance, aligns with the character and scale of the existing kindergarten classrooms. Similarly, the new entry vestibule enhances the primary entrance sequence by introducing accent brick and glass to provide a buffer between the existing kindergarten and existing gymnasium elements. The fine arts addition, proposed within the site, also mimics the scale of the existing facility.

Design. The new primary entrance utilizes accent brick pilasters, with a vertical proportion to increase the visual texture and morning shadows onto and through the new glass façade. This same accent brick is utilized as a buffer between the two kindergarten classrooms; allowing each to become its own element. New windows are provided in the existing kindergarten wing to mimic the character and spacing of the entry vestibule pilasters. They also eliminate what was once a large, blank façade. The primary brick, glass, roof, and roof edge material are selected to match the existing.

Materials and Colors. The primary building materials of brick veneer and metal roof are selected to match the existing to the greatest extent possible. Accent brick has been introduced that provides additional character and depth to coordinate and transition between the proposed and existing structures. Aluminum and glass have also been selected to match existing and compliment the design of the facility.

Landscape Design and Screening. The proposed site improvements and building additions do not affect any existing landscape elements or provide an opportunity for additional landscaping. They do include improvements to playground areas to create a safer, more enjoyable playground for the school.



Signage. The proposed projects do not include any new or modifications to existing site or building signage. The primary entrance does incorporate vinyl film applied to the interior glass pane indicating River Bend. This film is anticipated to be a white, translucent film allowing for light to pass through it while subtly identifying the entry point.

Lighting. The proposed projects do not impact any existing site lighting. All parking and roadway lighting remains in its current location. Decorative wall sconces, as included in the packet, are provided at the main entrance to help identify the entrance. Traditional egress lights adjacent to the exit doors at the two new building additions are provided as well.

It is our hope that you will be in agreement that the proposed site improvements and building additions at River Bend Elementary have been designed in accordance with the design standards set forth while positively impacting the existing facility.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Jason Mayfield'.

Jason Mayfield, AIA
Vice President
WSP USA, Inc.

PARKWAY SCHOOL DISTRICT **RIVER BEND ELEMENTARY** ADDITIONS, RENOVATIONS & SITE IMPROVEMENTS

CITY OF CHESTERFIELD **ARCHITECTURAL REVIEW BOARD** SUBMITTAL DRAFT 10-19-2023

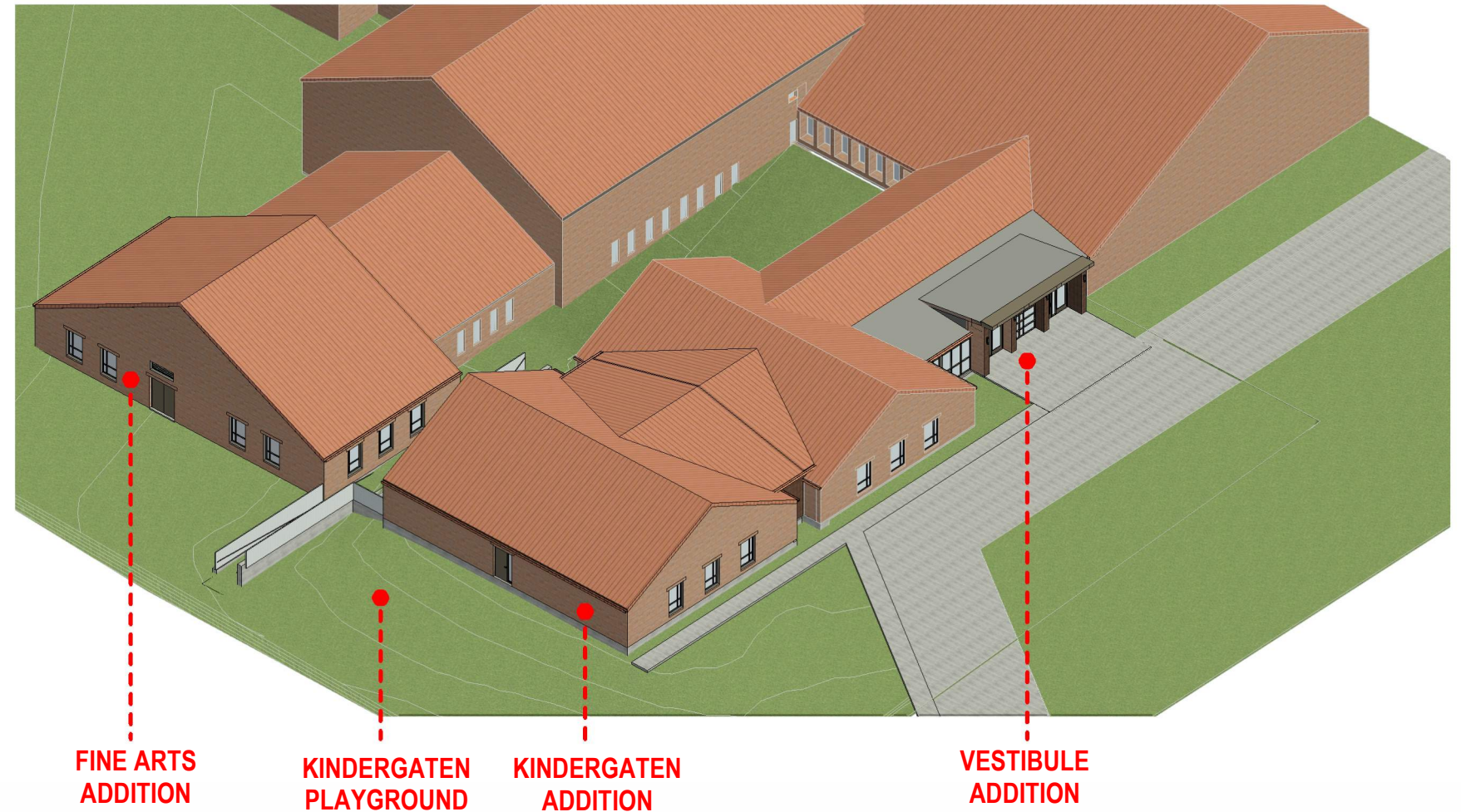
SCOPE OF WORK

THE OVERALL PROJECT SCOPE OF WORK FOR THIS SCHOOL IS A MULTI-PHASE PROJECT CONSISTING OF THE FOLLOWING:

- A. INTERIOR RENOVATIONS INCLUDING ELEVATOR TO PROVIDE ADA ACCESS AND FIRE SPRINKLER SYSTEM INSTALLATION.
- B. BUILDING ADDITIONS TO PROVIDE
 - a. NEW SECURE PRIMARY ENTRANCE
 - b. NEW KINDERGARTEN CLASSROOMS AND LOWER LEVEL STORM SHELTER
 - c. NEW FINE ARTS ADDITION
- C. SITE IMPROVEMENS TO FACILITATE THE ADDITIONS, FRONT ENTRY DRIVE PAVEMENT REPLACEMENT, AND NEW PLAYGROUNDS TO REPLACE EXISTING.

SHEET INDEX

A0.0	COVER
A0.1	PROJECT LOCATION AREA
A0.2	EXISTING CONTEXT VIEWS
A1.0	SITE PLAN
A1.1	LIGHTING FLOOR PLAN
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A2.1	EXTERIOR ELEVATIONS
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A4.0	MATERIAL SAMPLES



A0.0

COVER

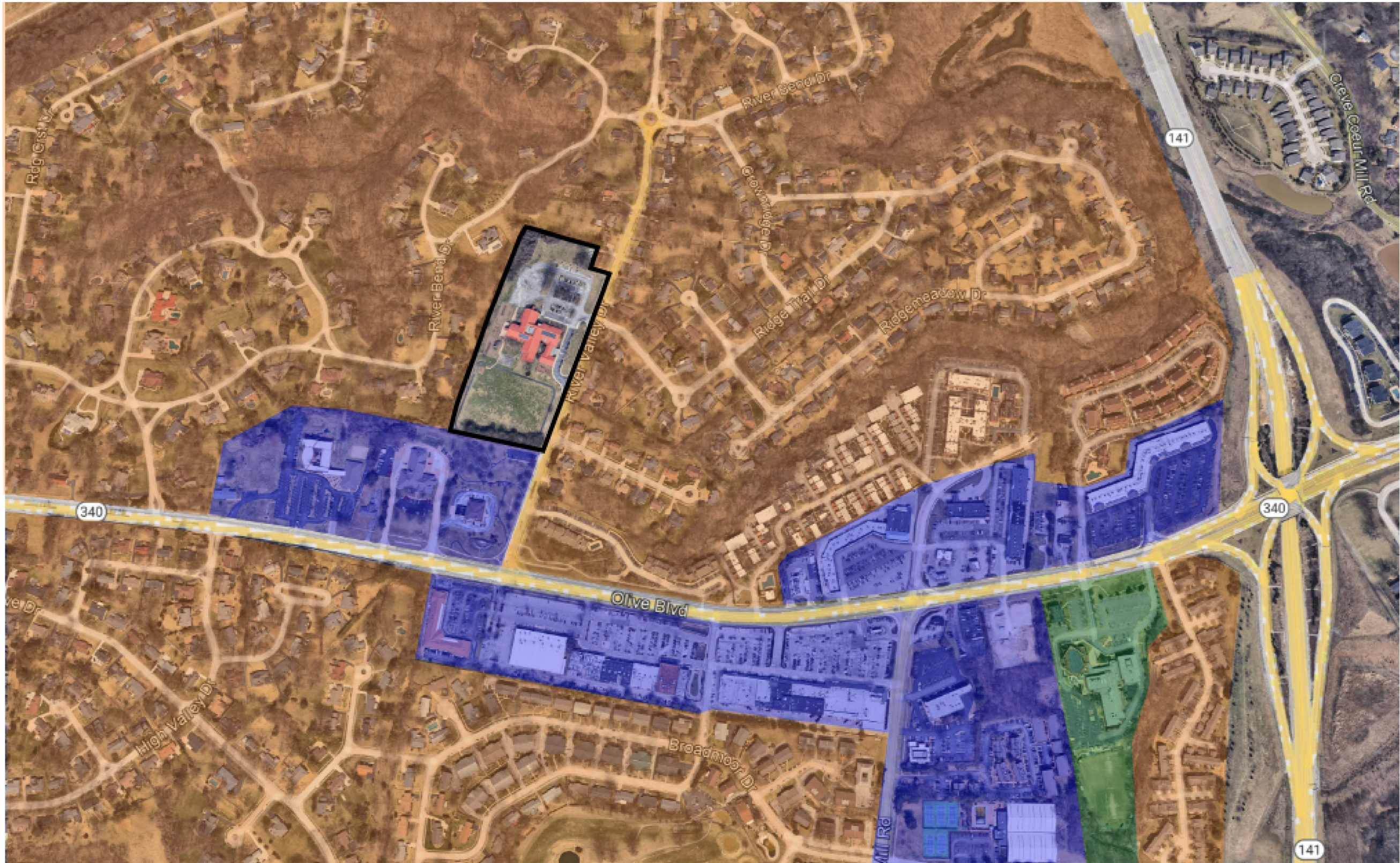
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ADDITIONS, RENOVATIONS & SITE
IMPROVEMENTS

224 River Valley Drive
Chesterfield, MO 63017

10/18/23





- ADJACENT USES**
- RESIDENTIAL
 - COMMERCIAL
 - SCHOOL



PLAN NORTH

10/18/23



A0.1

PROJECT LOCATION AREA

30902493.003

ADDITIONS, RENOVATIONS & SITE IMPROVEMENTS

224 River Valley Drive
Chesterfield, MO 63017





NORTH VIEW



SOUTH VIEW



EAST VIEW



WEST VIEW



A0.2

EXISTING CONTEXT VIEWS

30902493.003

ADDITIONS, RENOVATIONS & SITE IMPROVEMENTS

224 River Valley Drive
Chesterfield, MO 63017

10/10/23





GENERAL NOTES:

1. ALL LANDSCAPE AND TREES ILLUSTRATED ARE EXISTING TO REMAIN.
2. ALL PARKING AND PARKING LOT LIGHTING TO REMAIN UNLESS NOTED OTHERWISE.

KEYNOTES - SITE PLAN

NOT ALL KEYNOTES MAY BE USED ON THIS SHEET

1. NEW SECURE, PRIMARY ENTRANCE VESTIBULE.
2. NEW KINDERGARTEN ADDITION.
3. NEW FINE ARTS ADDITION.
4. NEW KINDERGARTEN PLAYGROUND SURFACE AND EQUIPMENT.
5. NEW ELEMENTARY PLAYGROUND SURFACE AND EQUIPMENT.
6. REPLACED DRIVE LANE ASPHALT AND SIDEWALKS.
7. REPLACE TRACK SURFACE.
8. EXISTING TRACK SURFACE AND PLAYFIELD TO REMAIN.
9. REPLACE ASPHALT PLAY SURFACE.
10. EXISTING PARKING LOT AND CURB CUT TO REMAIN.
11. NEW ADA RAMP ACCESS TO STORM SHELTER BELOW KINDERGARTEN ADDITION
12. EXISTING SERVICE COURT YARD TO REMAIN
13. EXISTING BUILDING TO REMAIN
14. PROPERTY LINE
15. EXISTING ELEMENTARY PLAYGROUND EQUIPMENT AND SURFACE TO REMAIN
16. EXISTING LANDSCAPING TO REMAIN

10/10/23



A1.0

SITE PLAN

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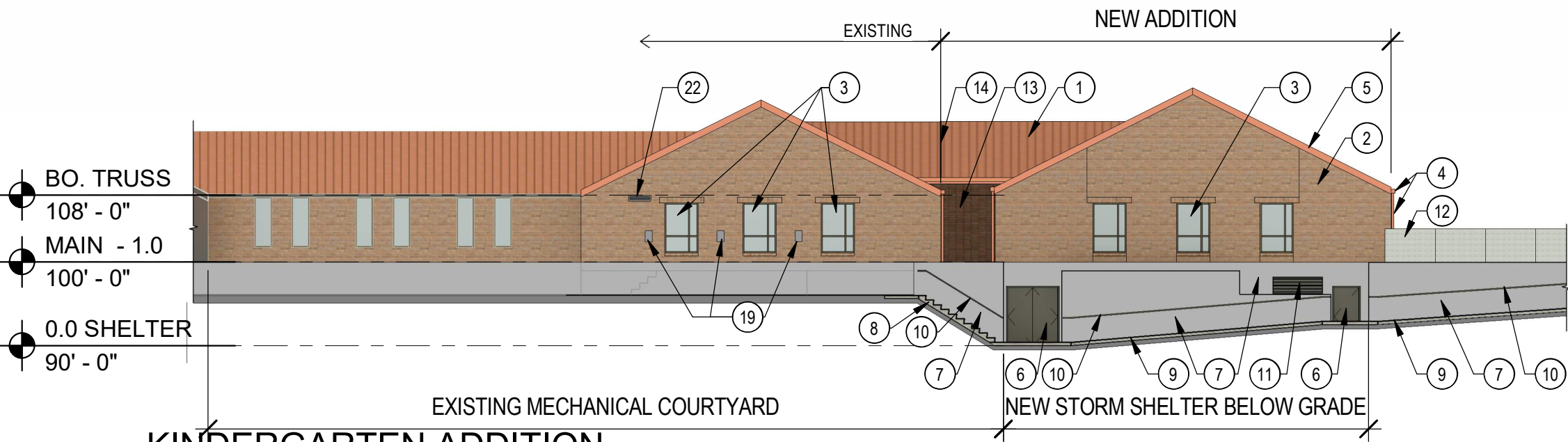
ADDITIONS, RENOVATIONS & SITE IMPROVEMENTS

224 River Valley Drive
Chesterfield, MO 63017

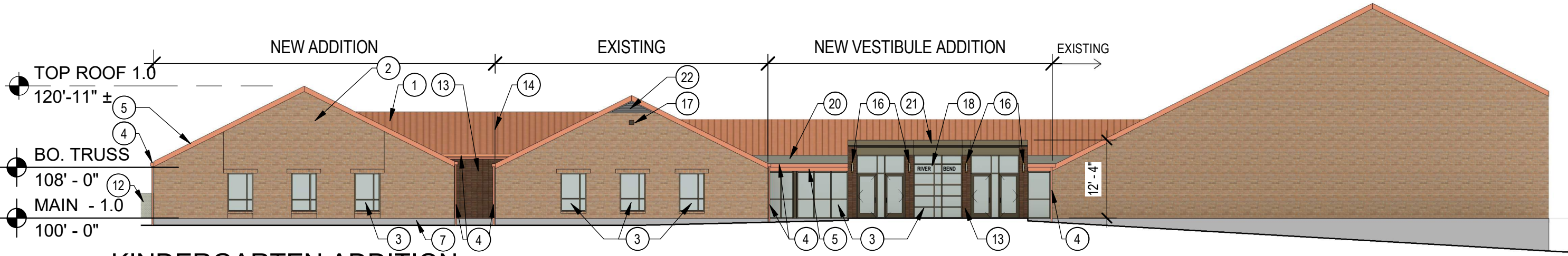


KEYNOTES - EXTERIOR ELEVATIONS

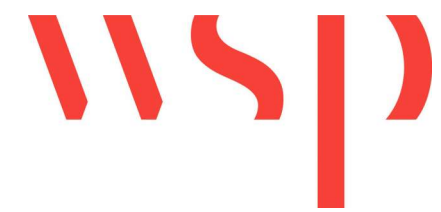
- # NOT ALL KEYNOTES MAY BE USED ON THIS SHEET
1. STANDING SEAM METAL ROOF PANEL TO MATCH EXISTING.
 2. MASONRY VENEER BRICK TYPE-1 TO MATCH EXISTING.
 3. NEW BRONZE COLOR FINISH ALUMINIUM STOREFRONT SYSTEM W/ INSUL. GLAZING.
 4. PRE-FINISHED METAL GUTTER & DOWNSPOUT; COLOR TO MATCH STANDING SEAM / EXISTING.
 5. PRE-FINISHED METAL FASCIA; COLOR TO MATCH STANDING SEAM ROOF / EXISTING.
 6. PAINTED BRONZE COLOR HM DOOR / FRAME.
 7. CONCRETE FOUNDATION WALL; SEAL FINISH.
 8. CONCRETE STAIR ON GRADE.
 9. CONCRETE RAMP ON GRADE.
 10. STEEL HANDRAIL; GALVANIZED / PAINTED W/ BLACK COLOR.
 11. METAL LOUVER.
 12. CHAINLINK METAL FENCE.
 13. MASONRY VENEER BRICK TYPE-2 (STACK BOND)
 14. PRE-MANUF. EXPANSION JOINT COVER.
 15. SHEET METAL EXPANSION JOINT ASSEMBLY COLOR TO MATCH STANDING SEAM PANEL
 16. EXTERIOR LIGHT FIXTURE; SEE CUT SHEET FOR MORE INFO.
 17. EXISTING EXTERIOR LIGHT FIXTURE.
 18. VINYL FILM GRAPHIC SIGN LETTERS; APPLIED TO GLASS PANEL @ INTERIOR SIDE (9 SF 1'-3"X 7'-4").
 19. RELOCATED EXISTING CONDENSING UNITS WALL MOUNT DISCONNECT SWITCHES.
 20. NEW ROOFING MEMBRANE BEYOND.
 21. CUSTOM ALUMINIUM ROOF PROFILE PANEL; BRONZE COLOR.
 22. EXISTING METAL LOUVER.



1 KINDERGARTEN ADDITION - WEST
1/16" = 1'-0"



2 KINDERGARTEN ADDITION - EAST
1/16" = 1'-0"



A2.0

EXTERIOR ELEVATIONS

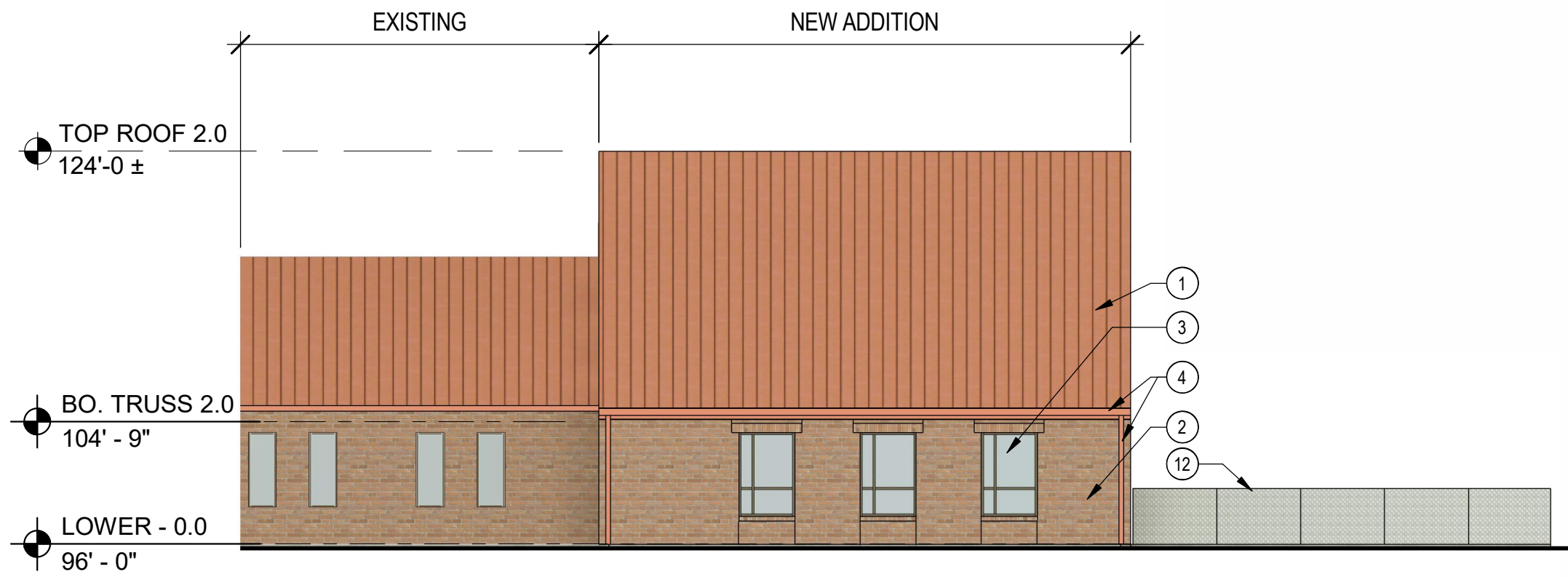
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ADDITIONS, RENOVATIONS & SITE IMPROVEMENTS

224 River Valley Drive
Chesterfield, MO 63017



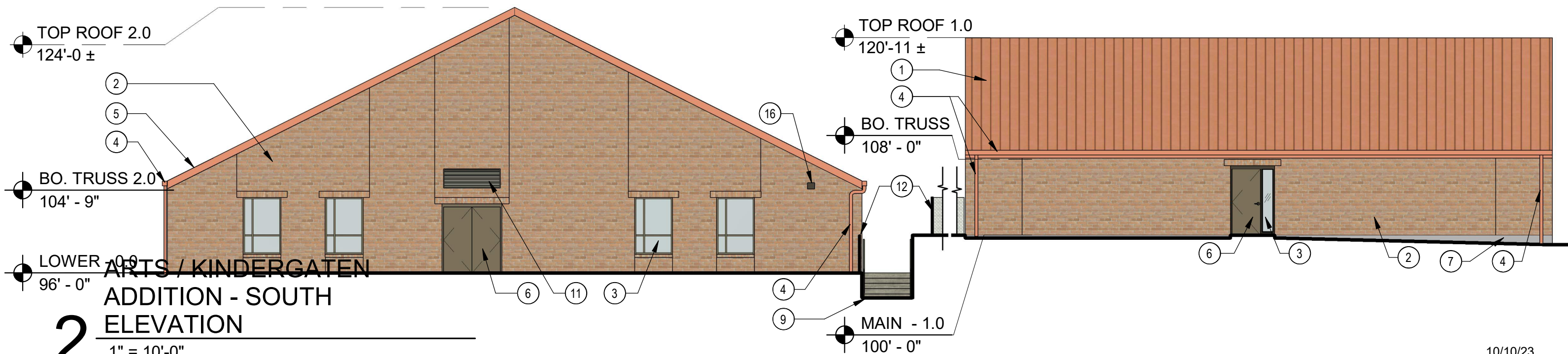
10/06/23



1 ARTS ADDITION - WEST ELEVATION
1" = 10'-0"

KEYNOTES - EXTERIOR ELEVATIONS

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 20. NEW ROOFING MEMBRANE BEYOND.
 21. CUSTOM ALUMINIUM ROOF PROFILE PANEL; BRONZE COLOR.
 22. EXISTING METAL LOUVER.



2 ARTS / KINDERGATEN ADDITION - SOUTH ELEVATION
1" = 10'-0"

10/10/23



A2.1

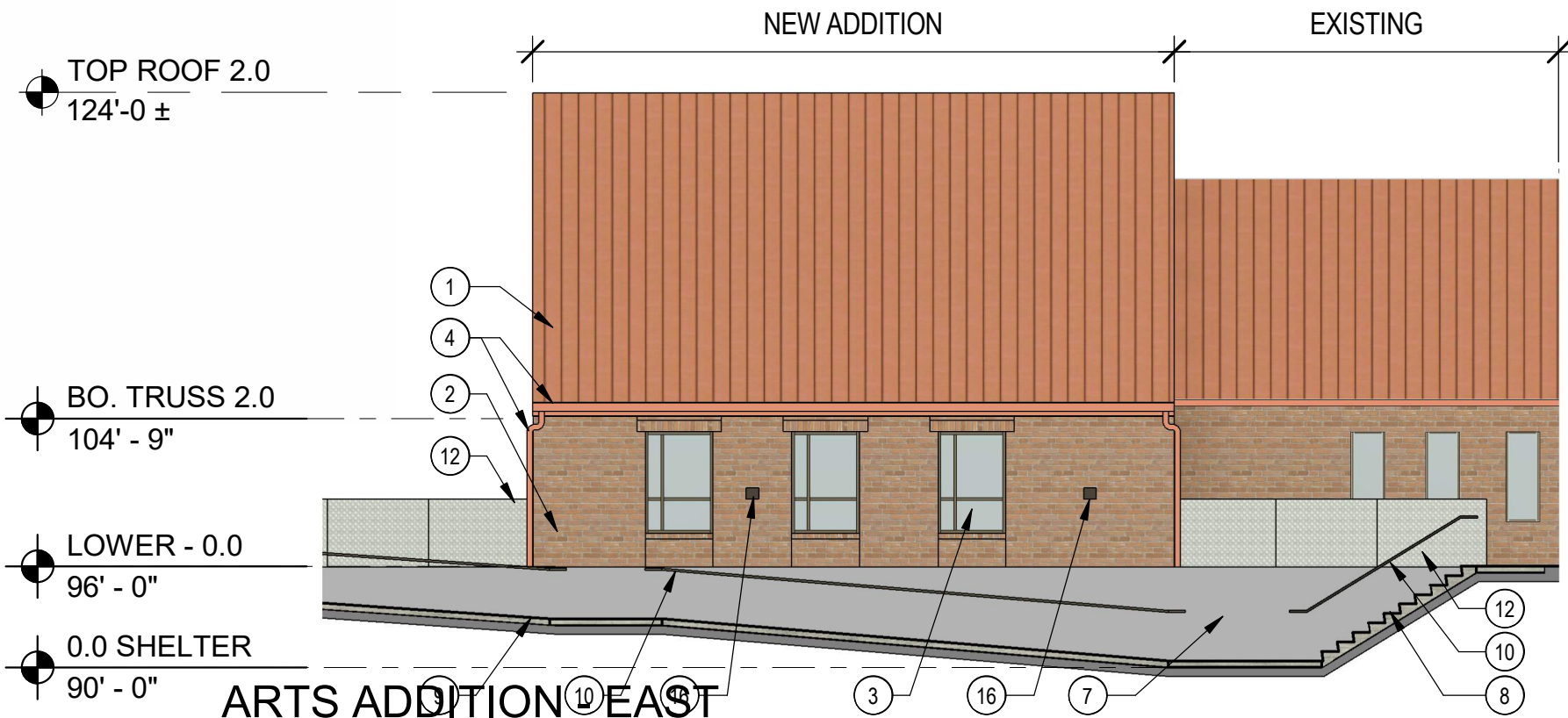
EXTERIOR ELEVATIONS

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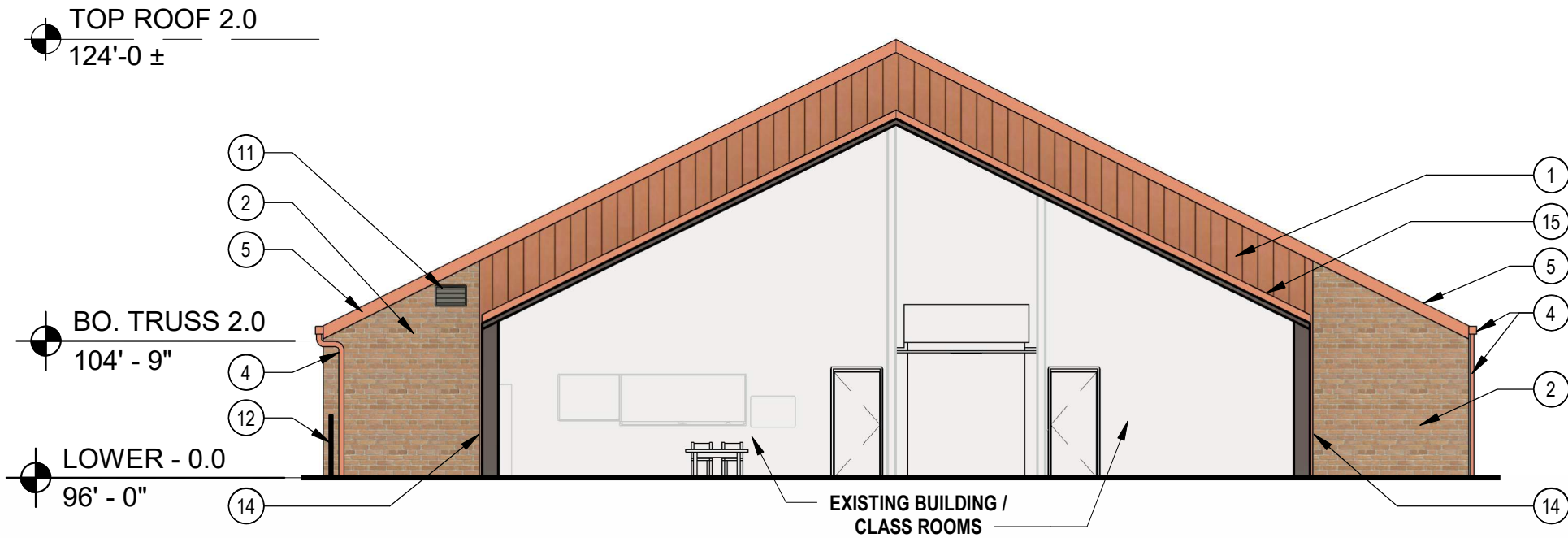
ADDITIONS, RENOVATIONS & SITE IMPROVEMENTS

224 River Valley Drive
Chesterfield, MO 63017





1 ARTS ADDITION EAST ELEVATION
1" = 10'-0"



2 ARTS ADDITION (TYP.) - NORTH ELEVATION
1" = 10'-0"

KEYNOTES - EXTERIOR ELEVATIONS

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 19. RELOCATED EXISTING CONDENSING UNITS WALL MOUNT DISCONNECT SWITCHES.
 20. NOW ROOFING MEMBRANE BEYOND.
 21. CUSTOM ALUMINIUM ROOF PROFILE PANEL; BRONZE COLOR.
 22. EXISTING METAL LOUVER.



A2.2

EXTERIOR ELEVATION

30902493.003

ADDITIONS, RENOVATIONS & SITE IMPROVEMENTS

224 River Valley Drive
Chesterfield, MO 63017



10/10/23



PROPOSED STREET VIEW



EXISTING STREET VIEW

10/26/23



A9.0

RENDERING

30902493.003

ADDITIONS, RENOVATIONS & SITE
IMPROVEMENTS

224 River Valley Drive
Chesterfield, MO 63017

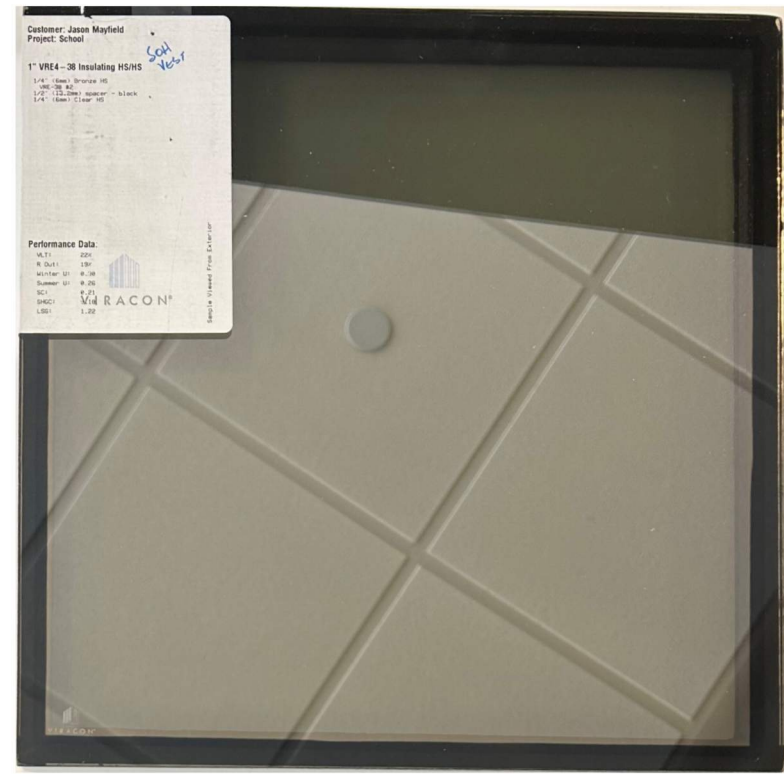




MASONRY BRICK VENEER TO MATCH EXISTING



MASONRY VENEER BRICK TYPE-2 (STACK BOND)



BRONZE TINTED GLAZING FOR ALL NEW WINDOWS AND STOREFRONT



STANDING SEAM METAL ROOF TO MATCH EXISTING



DARK BRONZE ALUMINUM MULLIONS FOR ALL WINDOWS AND STOREFRONT



A4.0

MATERIAL SAMPLES

30902493.003

ADDITIONS, RENOVATIONS & SITE IMPROVEMENTS

224 River Valley Drive
Chesterfield, MO 63017



10/11/23

VARELLO 485 L

Wall Mounted Luminaire

DESCRIPTION

The simple cylindrical form of VARELLO blends subtly with a broad range of architecture. The heavy wall extruded aluminum housing, fitted top and bottom with precision-machined lens rings, provides subtle direct and indirect illumination. Matte acrylic window highlights the luminaire and serves as an illuminated focal point. Top and bottom lenses are clear tempered glass. Luminaire is finished in finely textured paint. Hardware is stainless steel.



PROTECTED BY



Date: _____ Type: **G** Catalog Number: **VL 485 LED WW UNV-W-MB-BRZ-N**
 Project Name: **PARKWAY RIVERBEND ELEMENTARY**

ORDERING INFORMATION

LUMINAIRE						
MODEL	CCT	CONTROL	VOLTAGE	OPTIC- DOWN	OPTIC- UP	FINISH (Primar®)
VL485LW Varello 485L	30K 3000K	ON-OFF On-Off	UNV 120-277v	NB 13° Down	NB 13° Up	DG Dark Grey
	40K 4000K	DIM 0-10v Dimming		MB 27° Down	MB 27° Up	GG Graphite Grey
				WB 59° Down	WB 59° Up	SG Silver Grey
				N None	N None	BL Black
						DB Dark Bronze
						CC Custom RAL Color

SPECIFICATIONS

HOUSING

Cylindrical housing is machined from 6060 extruded aluminum alloy tubing. Upper and lower lens rings are precision machined from 6060 aluminum and sealed to the housing with one-piece die-cut closed cell silicone gaskets. Upper and lower tempered glass lenses are sealed to the lens rings with one-piece closed cell silicone gasket. Luminaire with cast aluminum bracket mounts to wall surface with factory-supplied wall anchors and hardware. All hardware is stainless steel.

OPTICS

Optics include single CoB LED with reflector and diffusing lens. Available distributions include narrow 13°, medium 27°, or wide 59° beam spreads.

ELECTRICAL

Electronic LED driver supplies 350mA drive current to LED module with input voltage range from 120v through 277v at 50/60Hz. Power consumption is 28 watts. Optional 0-10v DC dimming is available on request.

DELIVERED LUMENS PER LIGHT SOURCE (UP OR DOWN) / CRI = 80

3000K	4000K
13° BEAM / 1554 LMS	13° BEAM / 1658 LMS
27° BEAM / 1491 LMS	27° BEAM / 1592 LMS
59° BEAM / 1451 LMS	59° BEAM / 1547 LMS

NOTE : Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of HessAmerica. Consult factory for current technical data.

FINISH

Standard finishes are finely textured matte silver grey metallic, dark grey, graphite grey, matte black, or dark bronze. Special colors available on request.

CERTIFICATION

CSA Certified for Wet Locations

WARRANTY

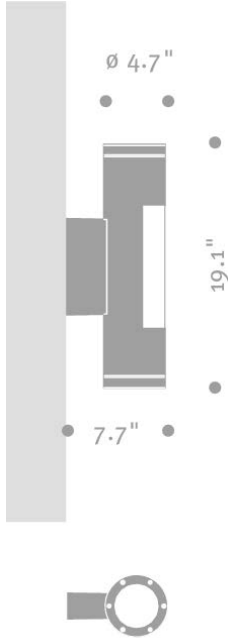
Limited product warranty period including the LEDs is five years. Driver shall carry the manufacturer's limited warranty.

VARELLO 485 L

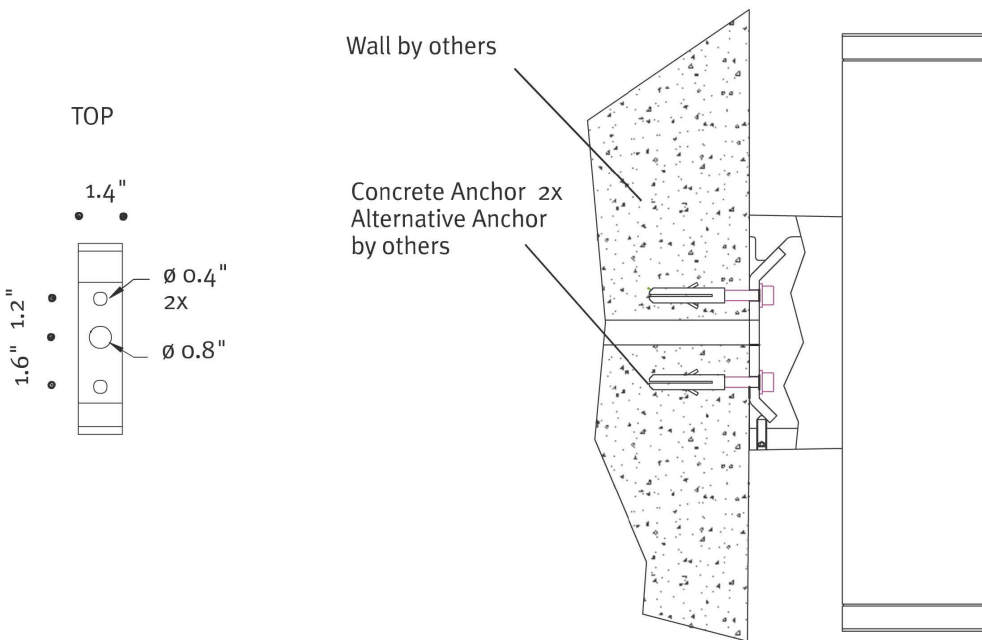
Wall Mounted Luminaire

DIMENSIONS

All dimensions are shown in inches unless otherwise noted.



MOUNTING DETAILS



VARELLO 485 L

Wall Mounted Luminaire

.hess

APPLICATION



Exterior Egress Lights at shelter ramp

Project	PARKWAY RIVERBEND ELEMENTARY	Catalog #	IST-SA1F-830-U-T4FT-BK	Type	Q
Prepared by		Notes		Date	



McGraw-Edison

Impact Elite LED

Wall Mount Luminaire

Interactive Menu

- Ordering Information [page 2](#)
- Product Specifications [page 2](#)
- Energy and Performance Data [page 3](#)
- Control Options [page 4](#)

Product Certifications



Quick Facts

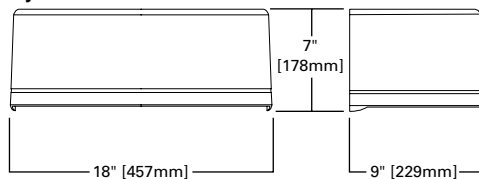
- 10 Optical Distributions
- Lumen packages range from 2,459 to 8,123 (20W - 66W)
- Efficacy up to 143 lumens per watt

Connected Systems

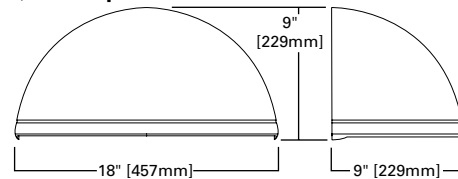
- WaveLinX
- Enlighted

Dimensional Details

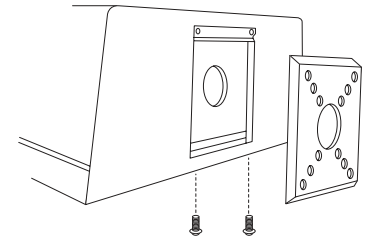
Cylinder



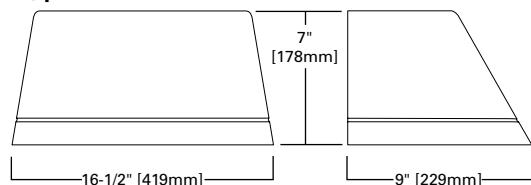
Quarter Sphere



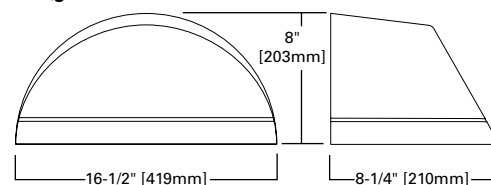
Hook - n - Lock



Trapezoid



Wedge



NOTES:

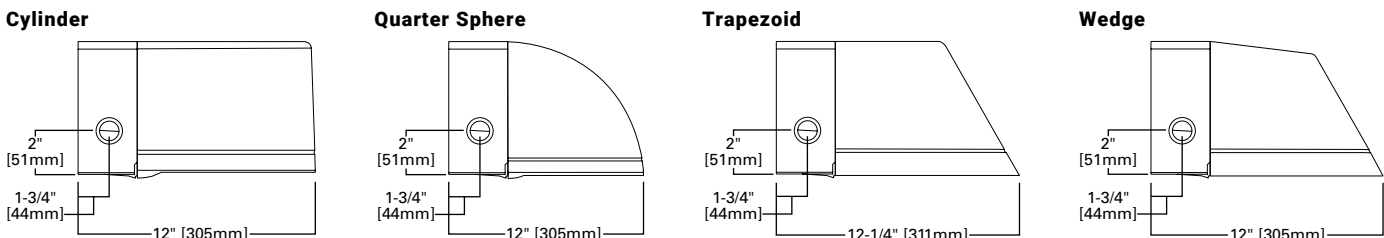
1. IDA Certified for 3000K CCT and warmer only.

Ordering Information

SAMPLE NUMBER: ISC-SA1F-740-U-T3-BZ

Product Family ¹	Light Engine		Color Temperature	Voltage	Distribution	Finish
	Configuration	Drive Current				
ISC=Impact Elite LED Small Cylinder ISS=Impact Elite LED Small Quarter Sphere IST=Impact Elite LED Small Trapezoid ISW=Impact Elite LED Small Wedge BAA-ISC=Impact Elite LED Small Cylinder Buy American Act Compliant ²⁴ TAA-ISC=Impact Elite LED Small Cylinder Trade Agreements Act Compliant ²⁴ BAA-ISS=Impact Elite LED Small Quarter Sphere Buy American Act Compliant ²⁴ TAA-ISS=Impact Elite LED Small Quarter Sphere Trade Agreements Act Compliant ²⁴ BAA-IST=Impact Elite LED Small Trapezoid Buy American Act Compliant ²⁴ TAA-IST=Impact Elite LED Small Trapezoid Trade Agreements Act Compliant ²⁴ BAA-ISW=Impact Elite LED Small Wedge Buy American Act Compliant ²⁴ TAA-ISW=Impact Elite LED Small Wedge Trade Agreements Act Compliant ²⁴	SA1=1 Square	A=350mA B=450mA C=600mA D=800mA E=1000mA F=1200mA ²	722=70CRI, 2200K 727=70CRI, 2700K 730=70CRI, 3000K 735=70CRI, 3500K 740=70CRI, 4000K 750=70CRI, 5000K 760=70CRI, 6000K 827=80CRI, 2700K 830=80CRI, 3000K AMB=Amber, 590nm ^{3,4}	U=120-277V 1=120V 2=208V 3=240V 4=277V 8=480V ^{2,5} 9=347V ²	T2=Type II T3=Type III T4FT=Type IV Forward Throw T4W=Type IV Wide SL2=Type II w/Spill Control SL3=Type III w/Spill Control SL4=Type IV w/Spill Control SLL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right RW=Rectangular Wide Type I	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White
Options (Add as Suffix)	Controls and Systems Options (Add as Suffix)		Accessories (Order Separately) ²⁵			
X=Driver Surge Protection (6kV) Only ¹⁷ 20K=Series 20kV UL 1449 Surge Protective Device CBP=Battery Pack with Back Box, Cold Weather Rated ^{13,15} CBP-CEC=Battery Pack with Back Box, Cold Weather Rated, CEC compliant ¹³ HSS=Factory Installed House Side Shield ¹⁶ ULG=Uplight Glow ^{6,7} LCF=Light Square Trim Plate Painted to Match Housing TR=Tamper Resistant Hardware CC=Coastal Construction ²² HA=50°C High Ambient ⁸ AHD145=After Hours Dim, 5 Hours, 50% ⁹ AHD245=After Hours Dim, 6 Hours, 50% ⁹ AHD255=After Hours Dim, 7 Hours, 50% ⁹ AHD355=After Hours Dim, 8 Hours, 50% ⁹	BPC=Button Type Photocontrol (120, 208, 240 or 277V, Must Specify Voltage) PR7=NEMA 7-PIN Twistlock Photocontrol Receptacle ^{2,6,7} SPB1=Dimming Occupancy Sensor with Bluetooth Interface, <8' Mounting ^{12,23} SPB2=Dimming Occupancy Sensor with Bluetooth Interface, 8'-20' Mounting ^{12,23} SPB4=Dimming Occupancy Sensor with Bluetooth Interface, 21'-40' Mounting ^{12,23} MS/DIM-LXX=Motion Sensor for Dimming Operation ^{7,10,11,12} LWR-LW=Enlighted Wireless Sensor, Wide Lens for 8'-16' Mounting Height ^{6,12,13} LWR-LN=Enlighted Wireless Sensor, Narrow Lens for 16'-40' Mounting Height ^{6,12,13} ZW=WaveLinx-Enabled Module and 4-PIN Receptacle ⁷ ZD=WaveLinx-Enabled Module with DALI Driver and 4-PIN Receptacle ⁷ ZW-SWPD4XX=WaveLinx Control Module and Wireless Sensor - 7'-15' ^{7,18,20} ZW-SWPD5XX=WaveLinx Control Module and Wireless Sensor - 15'-40' ^{7,18,20} ZW-WOBXX=WaveLinx Control Module and LC Bluetooth Sensor - 7'-15' ^{7,18,20} ZW-WOFXX=WaveLinx Control Module and LC Bluetooth Sensor - 15'-40' ^{7,18,20} ZD-SWPD4XX=WaveLinx with DALI Driver and Wireless Sensor - 7'-15' ^{7,18,20} ZD-SWPD5XX=WaveLinx with DALI Driver and Wireless Sensor - 15'-40' ^{7,18,20} ZD-WOBXX=WaveLinx with DALI Driver and LC Bluetooth Sensor - 7'-15' ^{7,18,20} ZD-WOFXX=WaveLinx with DALI Driver and LC Bluetooth Sensor - 15'-40' ^{7,18,20}		MA1253=10kV Circuit Module Replacement MA1254-XX=Thruway Back Box - Impact Elite Trapezoid MA1255-XX=Thruway Back Box - Impact Elite Cylinder MA1256-XX=Thruway Back Box - Impact Elite Quarter Sphere MA1257-XX=Thruway Back Box - Impact Elite Wedge FSIR-100=Wireless Configuration Tool for Occupancy Sensor WOLC-7P-10A=WaveLinx Outdoor Control Module (7-pin) ^{7,19} SWPD4-XX=WaveLinx Wireless Sensor, 7' - 15' Mounting Height ^{7,18,20,21} SWPD5-XX=WaveLinx Wireless Sensor, 15' - 40' Mounting Height ^{7,18,20,21}			
<p>NOTES:</p> <ol style="list-style-type: none"> DesignLight Consortium® Qualified. Refer to www.designlights.org, Qualified Products List under Family Models for details. Not available with ULG option. Choose Drive Current "B" for Amber 590nm, which is provided at 500mA drive current only. Narrow-band 590nm +/- 5nm for wildlife and observatory use. Choose drive current A; supplied at 500mA drive current only. Exact luminaire wattage available in IES files. Available with 5WQ, 5MQ, SL2, SL3 and SL4 distributions. Can be used with HSS option. 480V not to be used with ungrounded or impedance grounded systems. Not available with ISS or ISW. Cannot be used in conjunction with other control options. Suitable for 50°C provided no options other than motion sensor are included and driver output set to 1000mA or less. Requires the use of photocontrol. Not available with 350mA drive current. See After Hours Dim supplemental guide for additional information. Replace LXX with L08 (<8' mounting), L20 (8'-20' mounting) or L40W (21'-40' mounting). The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Cooper Lighting Solutions for more information. Includes integral photocell. Enlighted wireless sensors are factory installed and require network components in appropriate quantities. Battery pack operating temperature of -20C to +40C. Operates downlight for 90-minutes. Must specify 120V or 277V. Not for use with 5NQ, 5MQ, 5WQ or RW optics. A black trim plate is used when HSS is selected. Removes additional surge module. Replace XX with sensor color (WH, BZ, or BK). Requires PR7. For WaveLinx applications, WAC Gateway required to enable field-configurability. Order WAC-PoE and WPOE-120 (10V to PoE injector) power supply if needed. Gateway not required for WaveLinx Lite Commercial (LC) applications. Requires ZW or ZD receptacle. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654. Smart device with mobile application required to change system defaults. See controls section for details. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements. For BAA or TAA requirements, Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information. 						

Thruway Back Box



Product Specifications

Construction

- Heavy-wall, die-cast aluminum housing and removable hinged door frame
- Optional tamper-resistant fasteners offer vandal resistant access

Optics

- High-efficiency injection-molded AccuLED optics technology
- 10 optical distributions
- IDA Certified (3000K CCT and warmer only)

Electrical

- Standard with 0-10V dimming
- Standard with Cooper Lighting Solutions proprietary circuit module designed to withstand 10kV of transient line surge

- Suitable for operation in -40°C to 40°C ambient environments. Optional 50°C high ambient (HA) configuration
- Suitable for operation in -40°C to 40°C ambient environments. Optional 50°C high ambient (HA) configuration.

Mounting

- Utilizes "Hook-N-Lock" mounting mechanism, securing to a gasketed and zinc plated mounting attachment
- Two black oxide coated Allen set screws concealed but accessible from below

Finish

- Super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness

- RAL and custom color matches available
- Coastal Construction (CC) option available

Warranty

- Five year limited warranty, consult website for details. www.cooperlighting.com/legal

Energy and Performance Data

 View Impact Elite IES files

1 Light Squares (AF)		Cylinder (ISC) and Quarter Sphere (ISS)						Trapezoid (IST) and Wedge (ISW)					
Drive Current (mA)		350	450	600	800	1000	1200	350	450	600	800	1000	1200
Power (Watts)	120-277V	20.1	25.4	34.2	45.2	58.2	66.0	20.1	25.4	34.2	45.2	58.2	66.0
Current (A)	120	0.17	0.22	0.29	0.38	0.48	0.56	0.17	0.22	0.29	0.38	0.48	0.56
	277V	0.09	0.10	0.13	0.17	0.21	0.25	0.09	0.10	0.13	0.17	0.21	0.25
Power (Watts)	347V or 480V	23.3	28.7	36.6	49.5	60.7	70.1	23.3	28.7	36.6	49.5	60.7	70.1
Current (A)	347V	0.07	0.08	0.11	0.15	0.18	0.21	0.07	0.08	0.11	0.15	0.18	0.21
	480V	0.05	0.06	0.08	0.11	0.13	0.16	0.05	0.06	0.08	0.11	0.13	0.16
Optics (4000K, 70 CRI)													
T2	Lumens	2,802	3,500	4,618	5,778	7,231	7,895	2,772	3,475	4,576	5,733	7,175	7,834
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	Lumens Per Watt	139	138	135	128	124	120	138	137	134	127	123	119
T3	Lumens	2,778	3,470	4,578	5,729	7,169	7,827	2,731	3,424	4,508	5,648	7,069	7,718
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	Lumens Per Watt	138	137	134	127	123	119	136	135	132	125	121	117
T4FT	Lumens	2,751	3,436	4,534	5,673	7,099	7,751	2,762	3,462	4,559	5,712	7,149	7,805
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	Lumens Per Watt	137	135	133	126	122	117	137	136	133	126	123	118
T4W	Lumens	2,780	3,473	4,582	5,733	7,174	7,833	2,739	3,434	4,522	5,665	7,089	7,740
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	Lumens Per Watt	138	137	134	127	123	119	136	135	132	125	122	117
SL2	Lumens	2,763	3,451	4,554	5,698	7,130	7,785	2,730	3,422	4,507	5,646	7,066	7,715
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2
	Lumens Per Watt	137	136	133	126	123	118	136	135	132	125	121	117
SL3	Lumens	2,745	3,429	4,524	5,660	7,084	7,734	2,709	3,396	4,472	5,603	7,012	7,655
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	Lumens Per Watt	137	135	132	125	122	117	135	134	131	124	120	116
SL4	Lumens	2,680	3,348	4,417	5,526	6,916	7,551	2,666	3,342	4,401	5,514	6,900	7,534
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	Lumens Per Watt	133	132	129	122	119	114	133	132	129	122	119	114
SLL	Lumens	2,447	3,057	4,033	5,046	6,315	6,895	2,459	3,083	4,059	5,086	6,365	6,949
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2
	Lumens Per Watt	122	120	118	112	109	104	122	121	119	113	109	105
RW	Lumens	2,883	3,601	4,751	5,945	7,440	8,123	2,818	3,533	4,652	5,828	7,294	7,964
	BUG Rating	B2-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B2-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1
	Lumens Per Watt	143	142	139	132	128	123	140	139	136	129	125	121

Lumen Maintenance (TM-21)

Drive Current	Ambient Temperature	25,000 hours*	50,000 hours*	60,000 hours*	100,000 hours**	Theoretical L70 hours**
Up to 1A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.7%	98.3%	98.1%	97.4%	> 1.9M
	50°C	98.2%	97.2%	96.8%	95.2%	> 851,000
1.2A	25°C	99.4%	99.0%	98.9%	98.3%	> 2.4M
	40°C	98.5%	97.9%	97.7%	96.7%	> 1.3M

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99

* Supported by IES TM-21 standards

** Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, explaining proper use of IES TM-21 and LM-80.

Control Options

0-10V (DIM)

This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (BPC and PR7)

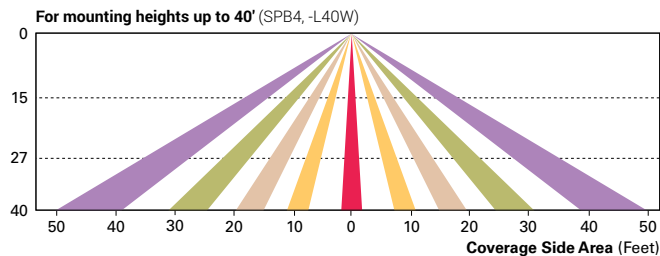
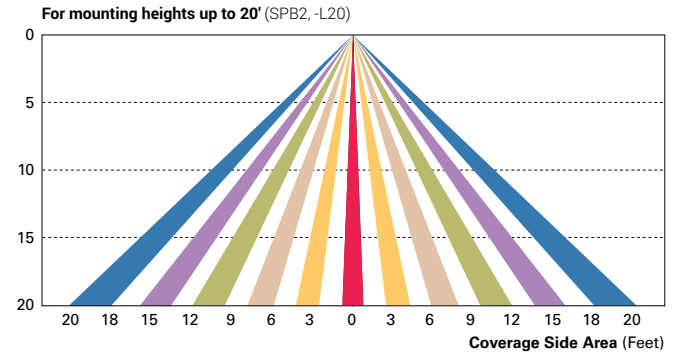
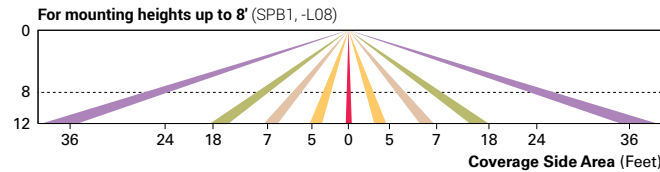
Optional button-type photocontrol provides a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels.

After Hours Dim (AHD)

This feature allows photocontrol-enabled luminaires to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a "dusk-to-dawn" period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

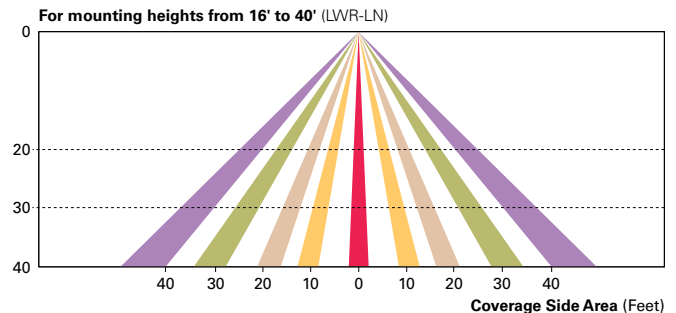
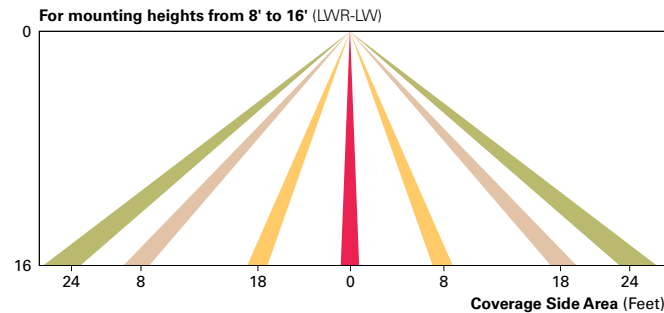
Dimming Occupancy Sensor (SPB, MS/DIM-LXX and MS-LXX)

These sensors are factory installed in the luminaire housing. When the SPB or MS/DIM sensor options are selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. The MS-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The SPB sensor is factory preset to dim down to approximately 10% power with a time delay of five minutes. The MS/DIM occupancy sensors require the FSIR-100 programming tool to adjust factory defaults.



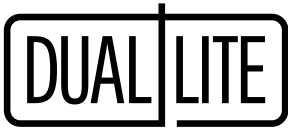
Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN)

Enlighted is a connected lighting solution that combines a broad selection of energy-efficient LED luminaires with a powerful integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects valuable data about building performance and use. Software applications turn the granular data into information through energy dashboards and specialized apps that make it simple and help optimize the use of building resources, beyond lighting.



WaveLinX Wireless Outdoor Lighting Control Module (WOLC-7P-10A)

The 7-pin wireless outdoor lighting control module enables WaveLinX to control outdoor area, site and flood lighting. WaveLinX controls outdoor lighting using schedules to provide ON, OFF and dimming controls based on astronomic or time schedules based on a 7 day week.



FEATURES

Application

The PG is an indoor/outdoor, die-cast architectural emergency unit. It is a wet location listed, emergency luminaire with high-output LED technology that provides path of egress illumination for mounting over entrance/exit ways and perimeter walkways. Spectron® self-testing/self-diagnostic electronics are included standard. A battery heater for cold temperature operation is available as an option.

Construction

Housing and mounting plate are constructed of 0.125" die-cast aluminum and 0.125" closed-cell, medium density, neoprene gasket. The acrylic lens allows 92% light transmission. The reflector is electro-polished aluminum with 95% reflectance. Housing finish is powder coated electro-deposition paint available in four colors: dark bronze, white, platinum silver and black.

Installation

Universal housing knockouts for mounting to standard 31/2" and 4" octagon and 4" square electrical boxes. A 1/2" - 1/4 NPT threaded conduit opening is provided at the top of the housing and sealed with a closure plug. The back plate mounts to the wall surface using installer supplied hardware. The housing "snaps" to the back plate by a "pin and socket" arrangement, and is secured with two Fillister head screws. AC Lockout feature prevents battery discharge prior to initial unit power-up saving installation time.

Lamps

Four high-output, long life LED lamps arranged in redundant pairs.

Compliances

- UL 924 Listed (emergency models only)
- UL Wet Location Listed
- NFPA 101 Life Safety Code
- NFPA 70 National Electrical Code
- OSHA
- U.S. Patent No. D627,916

Warranty

- Fixture: 5 Years Full
- Battery: 2 Years Full, 8 Years Pro Rata
- Lifetime LED Warranty

Catalog Number	PGZ-HTR	
Comments		Type TYPE P



White



Dark Bronze



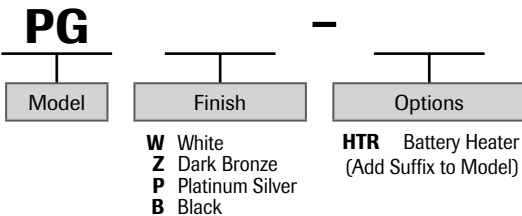
Platinum Silver



Black

Reference "Remote Heads and Fixtures" specification sheet for information on matching PG remote

ORDERING GUIDE



PGR Remote LED

SPECIFICATIONS

Electronics

Upon failure of the normal utility power, a solid-state transfer switch automatically activates the emergency lamp. Upon resumption of the normal utility power, the battery is disconnected from the load and recharged through a solid-state charging unit. A low voltage battery disconnect feature protects the battery from severe damage during prolonged power failures. Spectron® self-testing/self-diagnostic circuitry provides automatic system testing on a monthly and semi-annual basis. Manual testing is available at any time using the push-to-test button: push once for a 60-second system test; push twice for a 90-minute system test.

Number of Lamps: Four high output LEDs

Lamp Configuration: Two sets of 2 LEDs provide illumination. In the unlikely event that any single LED should fail the remaining LEDs will continue to function.

Lamp Type: Solid state high output LEDs

Lamp Color: Cool White, 6350K

Total Lamp Output: 405 Lumens

Input: 120/277VAC, 60 Hz

Battery Charger: Temperature compensating, constant current

Transfer: Solid state

Functional Circuitry: AC lockout, transformer isolation, transient surge protection, low voltage battery disconnect, brownout detection, time delay retransfer

Battery Recharge Cycle: per UL time standards

Test Means: Integral test switch

Battery: Sealed, maintenance-free Nickel-Cadmium

Operating Temperature Range for Models without Heater: 0°C to 50°C (32°F to 122°F)

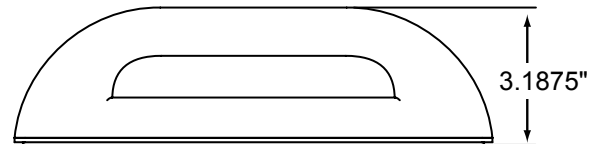
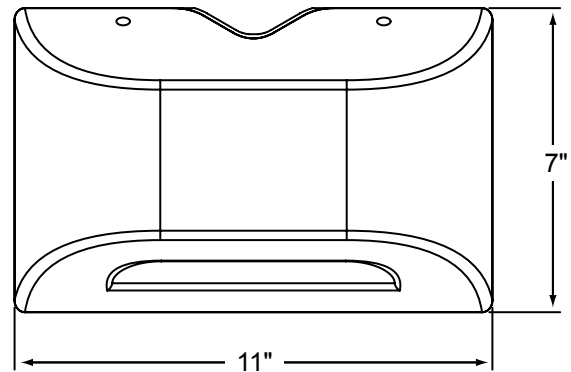
Operating Temperature Range for Models with Heater: -30°C to 50°C (-22°F to 122°F)

Power Consumption

Models Without Heater		Models With Heater	
120VAC	2.78 watts	120VAC	15.2 watts
277VAC	2.88 watts	277VAC	15.7 watts

Power factor, average: 0.8 (lagging)

DIMENSIONS



ILLUMINATION PATTERN

SINGLE UNIT COVERAGE

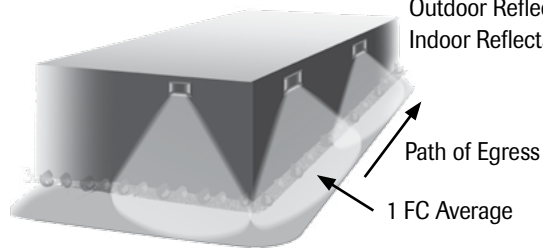
Mounting Height: 9'
Outdoor Reflectance: 0/30/10
Indoor Reflectance: 80/50/20



	Indoor	Outdoor
1 FC Average (W x D)	33' X 10'	27' X 10'
1 FC Minimum (W x D)	10' X 10'	9' X 10'

MULTIPLE UNIT SPACING

Mounting Height: 9'
Illuminated Path Depth: 6'
Outdoor Reflectance: 30/10
Indoor Reflectance: 80/50/20



	Indoor	Outdoor
1 FC Average	44'	33'
1 FC Minimum	16'	15'