



AGENDA
PLANNING AND ZONING COMMISSION MEETING
CITY OF CREVE COEUR, MISSOURI
MONDAY, NOVEMBER 2, 2020

6:30 PM

As a precautionary measure to help prevent exposure and spread of COVID-19, the Planning and Zoning Commission scheduled for Monday November 2, 2020, at 6:30 p.m. will be livestreamed online.

The Council Chambers will be closed to the public; however, citizens are encouraged to participate and submit public comments in the following ways:

1. **Video Livestream** — Watch a live video broadcast of the Planning and Zoning Commission meeting here: <https://us02web.zoom.us/j/86495689002>. The public will be required to provide a name and email address to enter the meeting. The email address will not be saved or used to contact you. Citizens will have the opportunity to make public comments live during the meeting using the video livestream program ([How to Participate in Online Public Meetings](#)).
2. **Teleconference** — Call in to the meeting by dialing 1-301-715-8592/// Webinar ID: webinar ID: 864 9568 9002.
3. **Email** — Public comment may also be emailed to the City no later than 5:00 p.m. on Monday, November 2, 2020. Submit public comments to Whitney Kelly, City Planner, at wkelly@crevecoeurmo.gov.
4. **Live Audio** — Listen to a live audio broadcast of the Planning and Zoning Commission meeting by visiting the [Agendas & Minutes](#) page and clicking on the "Audio" link at the start of the meeting (audio only).

For agenda items that require a public hearing, the City's court reporter will swear in all persons who wish to speak on the application, however, the Planning and Zoning Commission may vote to suspend this rule for agenda items where significant public participation is expected in recognition of the logistical constraints of audio/ video conferencing. When the Chair believes it is in the best interest of the Commission to suspend this requirement, he/she shall call for a vote of the Commission to affirm the suspension prior to opening the public hearing. If the requirement is suspended, speakers in the hearing will nonetheless be expected to be truthful.

Members of the public will have three (3) minutes to provide comments. The Commission will utilize a timer that is visible to the public to monitor the time, subject to limits of technology. The Chair reserves the right to end the public comment for that individual if the time allowance is not being respected. The Chair will also have the discretion to end public comment for an individual for disruption of the hearing. Citizens are encouraged to select one or two members of a group to address the Commission as a spokesperson. Time limits for spokespersons may be extended at the discretion of the Chair.

Reports, documents, plans, and related materials are available for examination at the Creve Coeur Government Center, 300 North New Ballas Road, prior to the meeting.

Special disabled service may be arranged by contacting the Office of the City Administrator in advance.

CALL TO ORDER

ROLL CALL

Ms. Beth Kistner (Chair)
Mr. Tim Carney
Ms. Muriel Hall
Mr. James Myers
Mr. Gene Rovak
Mr. Larry Potashnick
Mr. Todd Streiler
Mr. Carl Lumley, City Attorney
Mr. Jason Jaggi, Director of Community Development
Ms. Whitney Kelly, City Planner
Ms. Jessica Stutte, Planning Assistant/Recording Secretary

ACCEPTANCE OF THE AGENDA

APPROVAL OF MINUTES

1. October 19, 2020 Planning and Zoning Commission Draft Meeting Minutes

PUBLIC COMMENT

An opportunity for members of the public to address the Planning and Zoning Commission regarding issues or concerns not already on the agenda for this meeting. Those wishing to speak will be asked to limit comments to three minutes and to complete a speaker card.

UNFINISHED BUSINESS

(None)

NEW BUSINESS

1. Application #20-032: Public Facility Site Development Plan Approval for a Building Addition and the Redevelopment of Spoede Elementary School at 425 N. Spoede Road

Rick Keisker, of Ittner Architects, has submitted an application on behalf of the Ladue School District, for the addition and renovation of the Spoede Elementary School, at 425 N. Spoede Road. The new building will total approximately 84,316 square feet, and the existing building, with the exception of the Gymnasium that was completed in 2003, will be torn down once the new building is completed. Section 400.030 requires Planning and Zoning Commission review of public facilities. The Commission shall review the location, extent and character of the proposed public facility in relation to the City's comprehensive plan and in consideration of the applicable standards established for site development plans and subdivision improvement plans. The review includes, but is not

limited, to, making a determination as to whether the proposed project is consistent with the plan and complies with the Zoning Code if applicable. City Council action is not required.

WORK AGENDA

(None)

DEPARTMENT REPORTS

Director of Community Development

ADJOURNMENT

Pursuant to Section 610.022 RSMO, the Planning and Zoning Commission could, at any time during the meeting, vote to close the public meeting and move to closed session to discuss matters relating to litigation, legal actions and/or communications from the City Attorney as provided under Section 610.021(1) RSMo. and/or personnel matters under Section 610.021(13) RSMo. and/or employee matters under Section 610.021(3) RSMo. and/or real estate matters under Section 610.021(2) or other matters as permitted by Chapter 610.

Posted: _____
Jason W. Jaggi
Director of Community Development



DRAFT MINUTES
PLANNING AND ZONING COMMISSION MEETING
CITY OF CREVE COEUR, MISSOURI
MONDAY, OCTOBER 19, 2020
6:30 PM

CALL TO ORDER

Ms. Kistner called the meeting to order at 6:30pm.

ROLL CALL

Beth Kistner	Commission Chair	(Remote)
Gene Rovak	Commission Member	(Remote)
Tim Carney	Commission Member	(Remote)
Muriel Hall	Commission Member	(Remote-Late)
Larry Potashnick	Commission Member	(Remote)
James Myers	Commission Member	(Remote)
Todd Streiler	Commission Member	(Remote-Late)

The following staff were also present: Carl Lumley, City Attorney; Jason Jaggi, Director of Community Development; Whitney Kelly, City Planner; Jessica Stutte, Planning Assistant/ Recording Secretary; and, Chris Tumbarello, IT Coordinator.

ACCEPTANCE OF THE AGENDA

Mr. Carney made a motion to accept the agenda. Mr. Potashnick seconded. All in favor.

APPROVAL OF MINUTES

1. October 5, 2020 Planning and Zoning Commission Draft Meeting Minutes

Mr. Potashnick made a motion to accept the minutes for October 5th, 2020. Mr. Rovak seconded. All in favor.

PUBLIC COMMENT

None

UNFINISHED BUSINESS

None

NEW BUSINESS

1. PUBLIC HEARING. Application #20-030: Conditional Use Permit for Pathways to Independence and LifeBridge Partnership, Services for the Elderly and Persons with Disabilities (NAICS 624120), at 11457 Olde Cabin Road

Those speaking to the request were sworn in.

Ms. Karen Schuster of Life Bridge Partnership spoke to the application and the non-profits requesting to use the space. She said the space would be mostly for administrative work, but they would occasionally conduct client training meetings there.

Mr. Rovak asked if any renovations were needed.

Ms. Schuster said renovations were not needed.

Ms. Kelly went over the request. She said given the low impact of the request staff recommends approval subject to the conditions contained in the staff report. She explained the purpose of the landscaping condition on rental property.

Mr. Lumley offered the items for exhibit into the record and the public hearing was closed.

Mr. Rovak made a motion to recommend approval subject to the conditions in the staff report. Mr. Carney seconded. All in favor.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Gene Rovak, Commission Member
SECONDER:	Tim Carney, Commission Member
AYES:	Kistner, Rovak, Carney, Hall, Potashnick, Myers, Streiler

2. Application #20-031: Minor Site Plan for a for a Fence Within the Front-Yard Setback Along Barbezieux Drive for the Property Addressed as 832 Ariege Drive

Mr. Paul Myers, homeowner, said the fence was pre-existing. He said they were just trying to replace the fence that had been there for 20+ years. He said the neighbor on Barbezieux agreed with his proposal to switch out what would be the rear portion of the fence.

Mr. J. Myers said he viewed the property, and it was 6 ft except for the rear portion which was 4 ft. He said the new poles in place appeared to be for a 6 ft fence.

Ms. Kelly went over the project and applicable code provisions. She said the fence line would be out of place as the request had the fence going past the sight lines of other fences in the neighborhood. She showed where the fence would be if it were at the recommended 20 feet. She said they had received 2 comments from neighbors across the street who were opposed to the fence.

Mr. Streiler asked about what the Commission could approve.

There was some discussion regarding the fence and the distance to the tree.

Ms. Kistner proposed moving the fence line toward the tree.

Mr. J. Myers suggested a lower fence and open style.

Ms. Kistner asked if they needed the 6 ft privacy fence or if a 4 ft fence would be sufficient.

Mrs. Myers said 4 ft would work.

Mr. Rovak asked if the fence could enclose the tree.

Ms. Kelly pointed out the only portion under review was the area along Barbezieux.

Mr. Dan Tierney suggested planting bushes on the Barbezieux side of the fence.

Mr. Douglas Robinson said he does not see a problem with replacing a fence that should be grandfathered in.

Ms. Linda Rezny suggested putting a box around the tree.

Mr. Streiler recommended keeping the fence where it is and to add bushes to provide coverage for the opposing neighbors. He asked if the neighbor wanted the fence between the two yards to be 4 or 6 feet.

Mr. J. Myers said he thought a 4 ft fence was a reasonable request but that a 6 ft fence would be too much for the neighborhood. He said he was sympathetic to retaining the tree.

Ms. Kistner said she feels terrible for the homeowner in this situation, but it can set a negative precedent.

Mr. Carney agreed that a 15 ft setback was a generous compromise to allow for the tree while also providing a legitimate reason for the allowance.

Mr. Streiler said he would like the tree to have as much space as possible.

Mr. Streiler made a motion to approve a site plan for a 4 ft, sight proof, wood fence to be located 15 feet from the property line to keep the tree inside the fence, along Barbezieux Drive for the property addressed 832 Ariege Drive as discussed at the meeting, landscaping provided subject to staff approval. Mr. Rovak seconded. All in favor.

RESULT:	APPROVED [UNANIMOUS]
MOVER:	Todd Streiler, Commission Member
SECONDER:	Gene Rovak, Commission Member
AYES:	Kistner, Rovak, Carney, Hall, Potashnick, Myers, Streiler

WORK AGENDA

1. Proposed East Olive Corridor Zoning Updates: Overlay District and C-Single Family District Review Work Session

Mr. Jaggi said he wanted to return discussion of the East Olive Corridor with the Commission. He said the Commission looked at this in February 2020. He showed a map of the area and refreshed the Commission on what had been discussed. He said he wanted to discuss buffers and building materials. He said of the 13 residentially zoned properties that front Olive, 7 are vacant, have been demolished or are for sale. He said no single-family development is occurring. He said a resident had pointed out that there were indentures in the area.

Ms. Kistner asked Mr. Jaggi where indentures could be an impediment.

Mr. Jaggi showed the properties that had indentures which would only allow single-family redevelopment on Sona Ln. He said he was not sure about the Olive Crest Subdivision because the indentures were not legible.

Mr. Potashnick asked if the properties were rezoned would the indentures have precedent.

Mr. Jaggi confirmed they would.

Mr. Streiler said moving the corridor in a different direction was a smart decision. He said market driven with a plan for 10-20 years is the way to go. Other commissioners concurred. Mr. Potashnick indicated that this would be a difficult area to promote development due to lot sizes and indentures.

There was discussion regarding the potential of that area and the possibilities.

Mr. Paul Gada urged the Commission to be sensitive to the neighbors.

Ms. Linda Rezny said the neighbors need to get together to figure out what it is that they want from that area, so they are prepared to discuss in the future.

Mr. Jaggi said he thought he had gotten the information he needed from the Commission.

DEPARTMENT REPORTS

Ms. Kistner recused herself due to employment at Mercy.

Mr. Jaggi said Mercy had asked staff to approve changing the brick from tan to mixed brick color at the Pratt Cancer center to tie in with other buildings. Mr. Jaggi showed a rendering. He said if there were no concerns staff was prepared to approve the request at staff level. No concerns were expressed.

He said the next meeting will review Spode School on November 2nd. He said the process is different and the School Board would give final review not City Council.

ADJOURNMENT

Mr. Potashnick made a motion to adjourn. All in favor. Meeting closed at 8:37pm.



city of CREVE COEUR

300 North New Ballas Road • Creve Coeur, Missouri 63141
(314) 432-6000 • Fax (314) 872-2539 • Relay MO 1-800-735-2966
www.creve-coeur.org

APPLICATION TO PLANNING AND ZONING COMMISSION #20-032: PUBLIC FACILITY SITE DEVELOPMENT PLAN APPROVAL FOR A BUILDING ADDITION AND THE REDEVELOPMENT OF SPOEDE ELEMENTARY SCHOOL AT 425 N. SPOEDE ROAD

FOR THE MEETING OF: Monday, November 2, 2020

LOCATION: 425 N. Spoele Road, Zoned A Single Family Residential.

REQUEST: Rick Keisker, of Ittner Architects, has submitted an application on behalf of the Ladue School District, for the addition and renovation of the Spoele Elementary School, at 425 N. Spoele Road. The new building will total approximately 84,316 square feet, and the existing building, with the exception of the Gymnasium that was completed in 2003, will be torn down once the new building is completed.

ADDITIONAL INFORMATION: Section 400.030 requires Planning and Zoning Commission review of public facilities. The Commission shall review the location, extent and character of the proposed public facility in relation to the City's comprehensive plan and in consideration of the applicable standards established for site development plans and subdivision improvement plans. The review includes, but is not limited, to, making a determination as to whether the proposed project is consistent with the plan and complies with the Zoning Code if applicable. City Council action is not required. Spoele Elementary School has operated at this location since 1955 and consists of 9.79 acres; and, as a result, there are some pre-existing non-conformities on the site, including encroachments into the buffer areas, and an existing site coverage of 34.5%. The proposal will reduce the overall site coverage to 31.4%. Existing enrollment is 384 students for the 2020/2021 school year. The capacity for the new school has been designed for 520 students.

Key Issues:

- Does the request further the goals and/or implement the Comprehensive Plan?
- Does the request follow the Design Guidelines?
- Does the request meet with the requirements for a conditional use?

Comprehensive Plan References

- Campus & Institutional Districts
 - Civic (CV)

Planning References

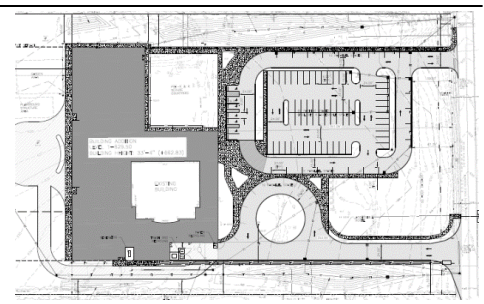
- Section 400.030. Approval of Public Facilities

Zoning Code References

- Section 405.250: A-Single Family Residential
- Section 405.540: Landscaping
- Section 405.680: Lighting
- Section 405.1080: Site Concept, Site Development, and Minor Site Plan Approval

APPLICANT: Rick Keisker
Ittner Architects
611 North 10th Street, Suite 200
St. Louis, MO 63101

**APPLICANT'S
REPRESENTATIVE:** Ladue School District
9703 Conway Road
St. Louis, MO 63124



REPORT PREPARED BY: Whitney Kelly, AICP, City Planner

DATE: 10/28/2020

ATTACHMENTS: Applicant's revised materials submitted October 26, 2020
Renderings, Photos and Photometrics submitted 10-2-1020
Revised Site Plan emailed on 10-29-2020
Public Comment Received

PROPOSAL

The Ladue School District is seeking to redevelop Spoede Elementary School, with a near complete demolition of the existing school, with the exception of the gymnasium. According to the Applicants, the proposed building design incorporates the existing finished floor of the gym, allows for the continued use of the existing building during construction, and is arranged both to improve site circulation off of North Spoede Road and to open an outdoor play area to the west. The new building will modernize the educational experience and help facilitate the school district's approach to academic instruction. The new building will also include an ICC-500 compliant tornado storm shelter which will double as the Pre-K academic area of the building. This modernization is an effort by the school district to provide equity across the school district for its student population. The proposed site improvements include a new parking lot; improved parent/guardian drop-off and pickup drive aisles; a dedicated bus drop-off and pick-up drive aisle; improved shipping and receiving access; improved site access for emergency personnel; a play area dedicated to pre-k and kindergarten students; and on-site storm water detention areas.

The new 84,316 square foot building is located approximately 353.95 feet from Spoede Road (where the existing school is approximately 125 feet from Spoede Road) and 50 feet from the north and south property lines, with the sidewalk on the north and south sides of the building, and the emergency access along the south, encroaching into the residential buffer yard area. The existing non-conforming site coverage is 34.5% and the proposed site coverage would decrease the site coverage to 31.4%.



Figure 1: Rendering from N. Spoede Road at the North Entrance



Figure 2: Canopy Rendering



Figure 3: Rendering of the South Entrance Bus Drop-off area.

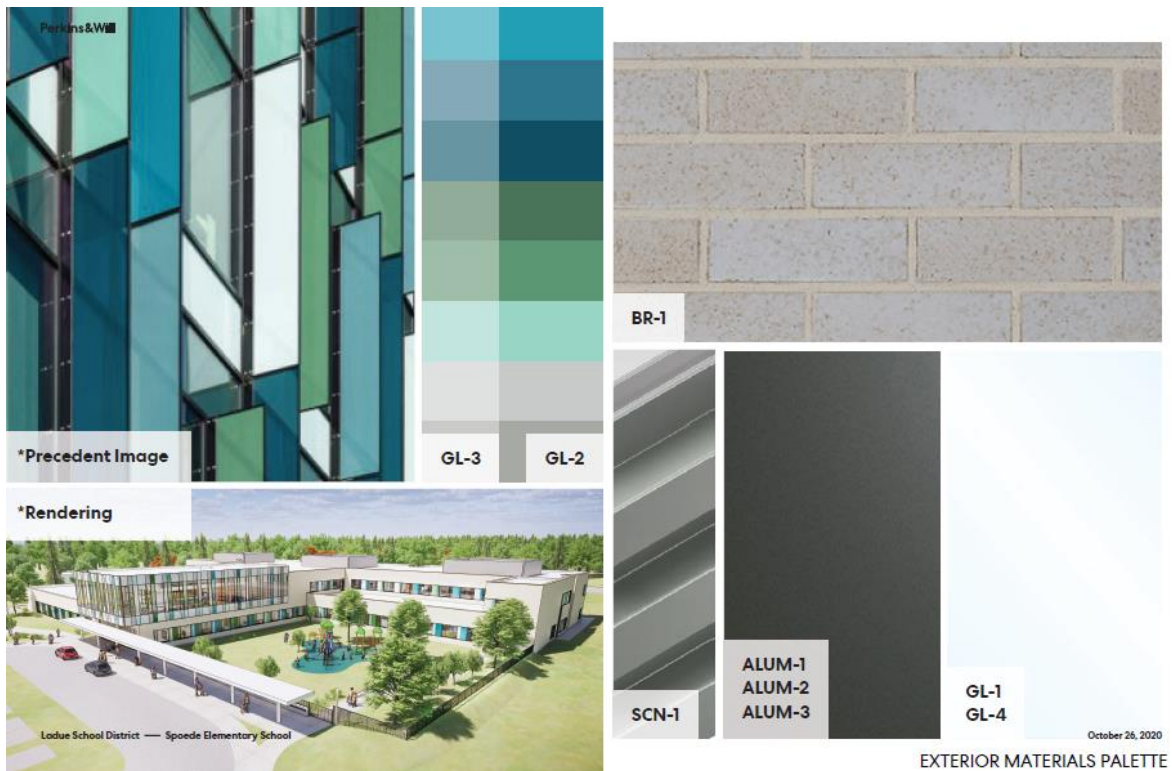


Figure 4: Building Materials Image

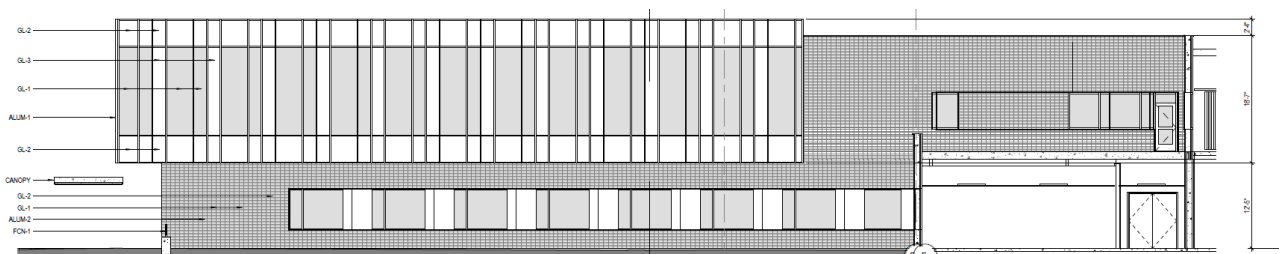


Figure 5: North Elevation

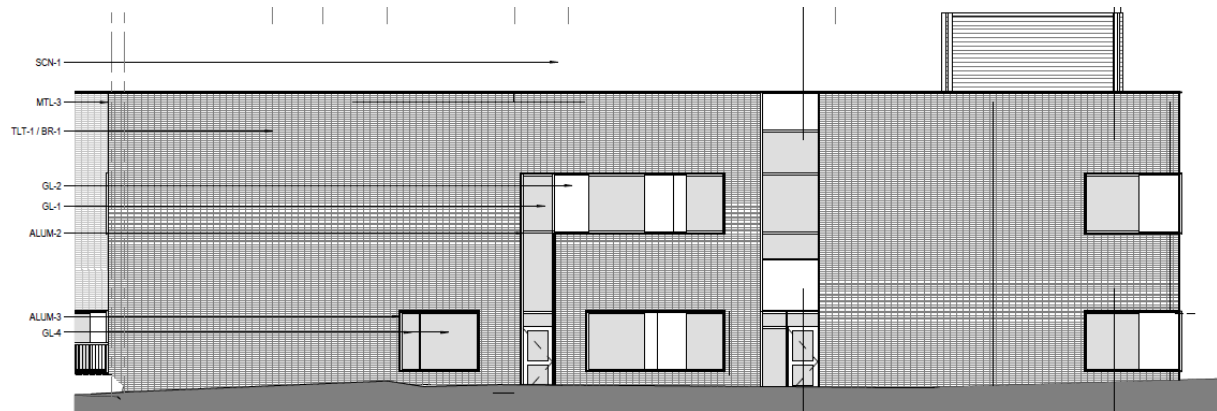


Figure 6: North Elevation

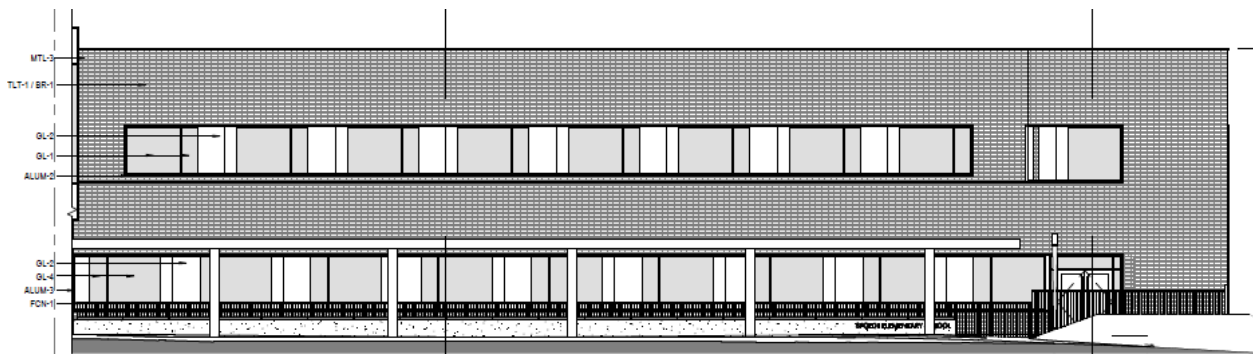


Figure 7: East Elevation

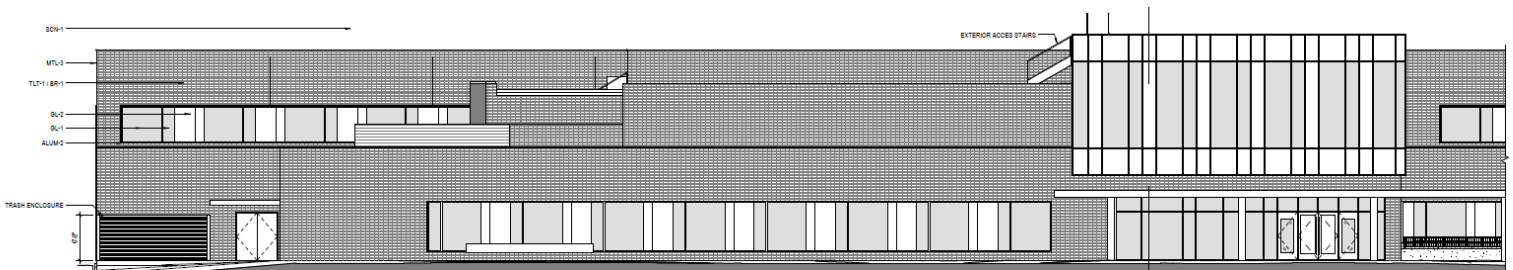


Figure 8: East Elevation



Figure 9: West Elevation



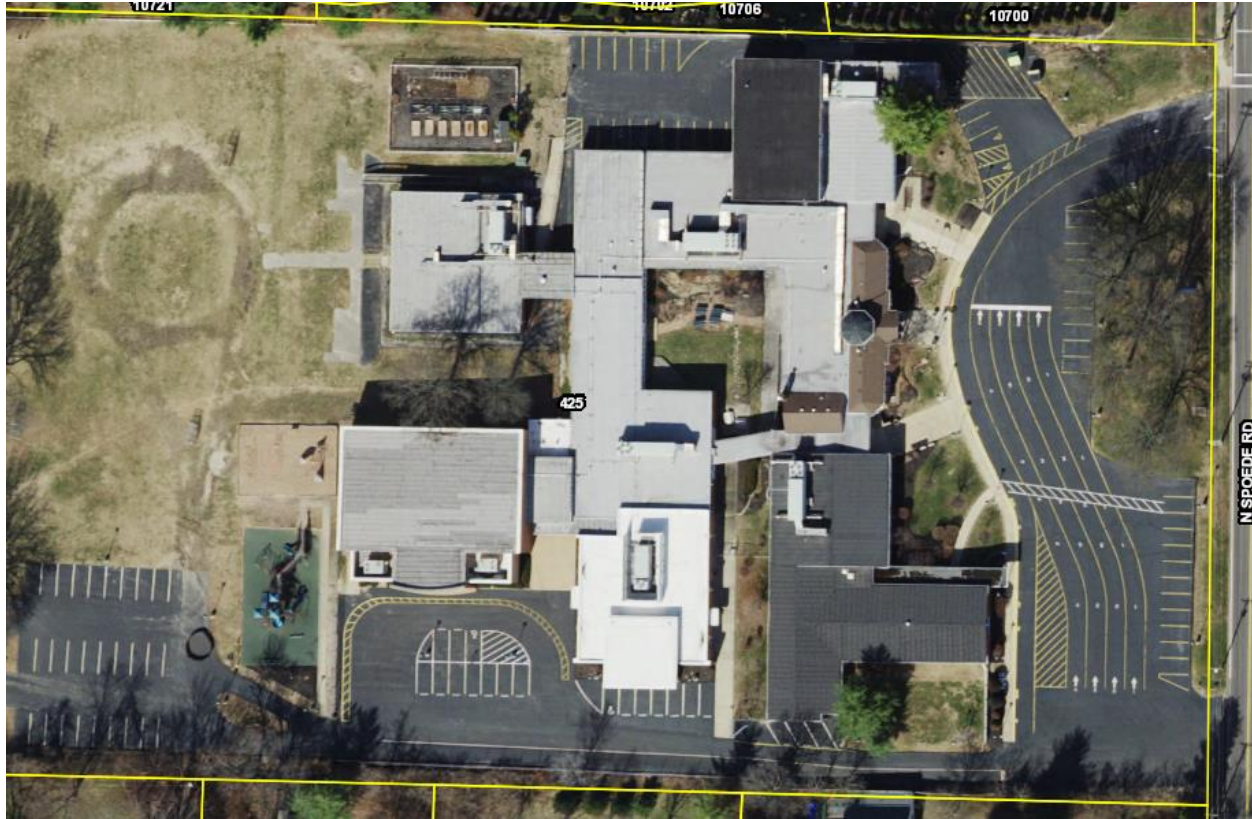


Figure 12: GIS Image of the existing school development

LAND USE AND ZONING OF SURROUNDING PROPERTIES

The adjacent zoning and land uses are as follows:

DIRECTION	USE	ZONED	SEPARATED BY
North	Residential	A-RDD Single Family Residential	NA
South	Residential	A Single Family Residential	NA
East	Residential	A Single Family Residential	Spoede Road
West	Residential	A Single Family Residential	NA

COMPREHENSIVE PLAN REVIEW

Spoede Elementary School is included in the Civic (CV) Place Type of the Campus and Institutional District that is a community place or overlay district intended for institutional uses – including schools, churches, religious facilities, and public facilities – comprised of a single primary building with optional ancillary buildings on a single lot (p. 57). The Civic place types should protect established, existing residential neighborhoods from potential negative impacts of non-residential land uses while allowing flexibility on the interior of the site (p. 106). The recommendations for the Lot Development Standards include: Establish Primary Street and Secondary Street setbacks that are compatible with neighboring residential and commercial place type districts; setbacks should be developed separately for each civic and institutional place type, to reflect each place type’s articulated Vision. When lots directly abut other lots of a different residential Community Place Type, a landscape buffer, measured horizontally from the lot boundary, should be provided; and, when located in primarily residential areas, establish a “green edge” landscape zone, measured horizontally from the lot boundary, along all street frontages to maintain compatibility with surrounding development character. Buildings shall be prohibited from this landscape

zone. (P. 110). This is largely consistent with the buffer yard requirements in the Zoning Code discussed further below.

The site is preexisting non-conforming, where the existing parking lot and building are within the buffer yard. The proposed new building will sit behind the existing building, near the center of the site, due to the need to have the school in session while construction will be occurring. Once the new school is built the existing school will be torn down, and the front will become parking and school bus parking. The proposed new building is built to the 50 foot side yards at the north and south, however the walk ways around the building are within the buffer yard, at 45 feet along the north property line, as well as the emergency access drive on the south which is approximately 22.82 and 22.76 feet from the south property line.

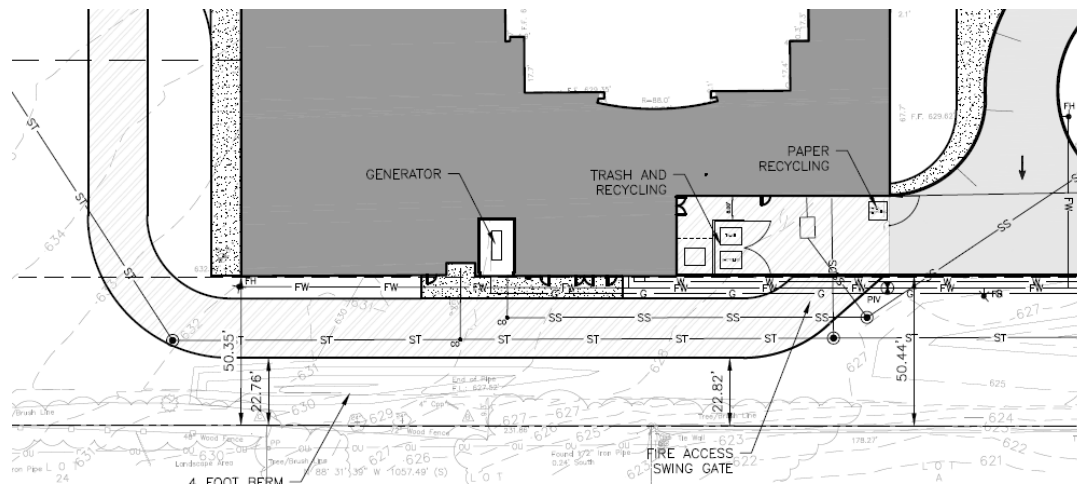


Figure 13: Close-up of the Site Development Plan showing the access drive along the south property line.

While the proposed site plan does not provide for a consistent setback along Spoede Road with the surrounding residential properties, and the service drive is within the recommended landscaped buffer area, the proposal does represent an improvement in other areas over the existing, by decreasing the amount of coverage within the buffer yard, reducing the overall site coverage, and providing enhanced landscaping along N. Spoede Roads, and along the north and south property lines, to screen parking areas and service drive, from the adjacent properties.

DESIGN GUIDELINES ANALYSIS

Structures:

The City's Design Guidelines encourage interesting, articulated and high-quality structures, that are designed with an architectural and urban scale compatible with the neighboring developments, primary building entrances should be clearly defined and provide a sense of entry, oriented to the street and provide protection from the elements, such as recesses, roof overhangs, projecting canopies and other similar features. Further, materials are to be of good architectural character, where natural, traditional building materials are encouraged, and architectural consistency of colors, materials and detailing are to be provided between all building elevations. Material or color changes should occur at a change of plane and changes at the outside corners of structures that give the impression of "thinness" and artificiality of the material are discouraged. The proposed building is clad mostly with brick and is well designed and articulated with quality materials that generally meets with the Design Guideline recommendations. However, it is noted that the school presents a more modern institutional aesthetic than the surrounding residential developments and is a significant departure from the design of the existing school which is more traditional.

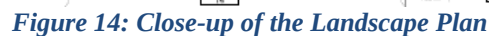
The Design Guidelines recommend that building elements, such as parapet walls, penthouses or screen walls should be treated as an integral part of the architecture, incorporating similar design, detail and materials as the primary structure. All rooftop equipment, including, but not limited to, satellite and other

telecommunication equipment, air handling units, elevator equipment, cooling towers and exhaust fans are to be screened from view. Building screens should be part of the architectural design with similar detailing and materials and not appear as add-ons. The drawings indicate that the three different screened areas do not fully meet with these recommendations as they appear as add-ons to the roof and are not well-integrated., two of which are visible in the renderings from Spoede Road. The elevations are also showing several roof access ladders and roof staircases that are visible.

The Applicants have indicated they reduced the visual profile of the ladders; however, and one might be able to see these elements but due to the massing of the gym, the maintenance stairs are not visible from the public way. They have also indicated that they will also specify that these stairs are to be painted a color to mimic the neighboring brick walls. The rooftop screens are also a metal ribbed material, in a color similar to match the building. Staff recommends that the rooftop screening should be a flat material, versus the ribbed, so that it blends in better with the materials found in other areas of the building. The Commission should discuss the overall design of the school and the rooftop screening with the Applicants regarding how the proposal fits in with the surrounding neighborhood, and if the roof top screening is adequately addressed.

Site Plan:

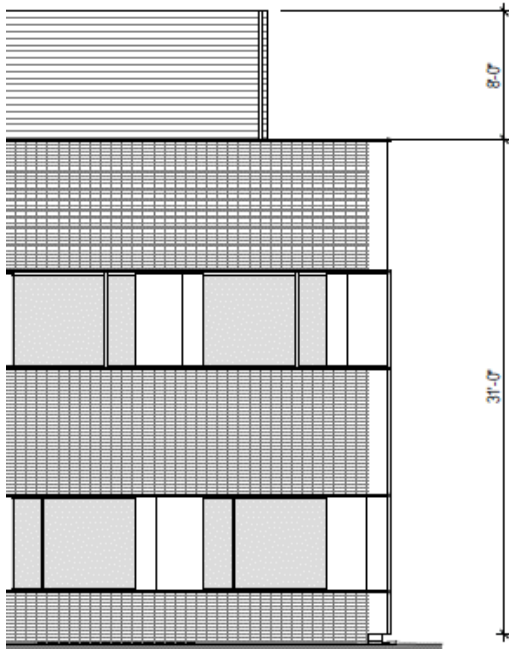
The Design Guidelines also suggest that parking lots need to be broken up into smaller spaces with landscaped pedestrian linkages; and that parking areas located to the side or rear of commercial buildings are encouraged. The proposed layout moves all of the parking to the front, with the building near the center of the site. It is not uncommon for institutional uses within residential districts to have some parking located in front of the building; however, this proposal places all of the parking in front, which is not typical. This is likely a function of the relatively narrow site and required buffers as well as the desire by the school district to construct the new building while the existing building remains functional. The parking located in front is balanced by the proposal providing well landscaped frontages along N. Spoede Road, and along the north and south property lines, and within the parking lots to provide headlight screening of the parking area, and along the access drive. However, the plans do show that the large, 24-30" trees are to be removed, and new trees are to be placed near these areas. Staff would recommend that further consideration be given for these large trees to be protected and maintained within the landscape.



Schools are a conditional use in all of the residential zoning districts. However, as a government entity with their own elected legislative body (i.e. the school board), public schools are reviewed under Section 400.030 Approval of Public Facilities. Section 400.030(B)(2) provides that the Planning and Zoning Commission shall consider the application under the applicable standards established for site development plans and subdivision improvement plans including, but not limited to, making a determination as to whether the proposed project is consistent with the plan and complies with the Zoning Code if applicable.

Attachment: 20-032.Spoede Elem Redev.Staff Report.11-2-2020 (#20-032: Spoede Elementary Redevelopment)

recreation areas are not being proposed, and the existing landscaping along the property line of the outdoor play areas is remaining. The building and parking lot lighting is reviewed further below.



Section 405.250(E)(3)(b) states that the maximum structure height for schools, churches and other places of worship is 50 feet. In addition, such uses shall meet a sky exposure plane requirement. The sky exposure plane will be measured from a line located thirty-five (35) feet above grade and fifty (50) feet from the property line on the conditional use site and will have a slope of thirty degrees (30°) rising towards the center of the site. No portion of the building or structure shall penetrate this sky exposure plane.

The building height is approximately 33' 4" for the front glass area, however in some areas the mechanical screening is above this height, where the building is 31 feet, and the mechanical screening is an additional 8 feet, thus a total of 39 feet on the west elevation, well below the maximum height.

Figure 15: Close-up of the West Elevation showing the Building and Mechanical Screen Height

The Applicants have provided a cross section showing that the sky exposure plane is met.



Figure 16: North-South Section showing the Sky Exposure Plane

Maximum site coverage for the A Single-Family Residential District is 25%. As discussed above the site is preexisting non-conforming with a site coverage of 34.5%. The proposed site plan would decrease the site coverage to 31.4%. Staff is also considering presenting a future text amendment to allow all schools additional coverage due to the requirements for these uses such as for parking which require additional coverage beyond the normal requirement for single family homes. A similar amendment was approved for churches and places of worship in 2016.

In addition to Section 405.470, regulations for conditional uses are also found within the underlying zoning district, in this case the A Single-Family Residential district. Section 405.250(E)(4)(a)(c)(e) and (f) of yard and setback requirements requires a minimum front, side and rear yard setback for conditional uses of 50 feet, plus requiring a buffer yard of 25 feet on all sides that abut the single-family use in the residential district. The minimum required buffer yard shall be increased in 5-foot increments, up to a maximum of fifty 50 feet, for each acre of the subject property. All acreage shall be rounded up to the next whole number for buffer yard calculations purposes. An additional two (2) feet of buffer yard shall be provided for every foot of building or structure height exceeding forty-five (45) feet. The buffer yard shall not contain any impervious surface and shall be landscaped and provided with other screening devices as deemed appropriate by the Planning and Zoning Commission. Therefore, for a 9.79-acre property, and the building under 45 feet, the buffer yard is 50 feet, where adjacent to residential developments. As discussed above, the proposed design does not comply with the buffer yard requirements, as the walkway on the north side of the building is at 45 feet, and the asphalt emergency access on the south is at 22.76 feet from the south property line. The Applicant states that the Fire

District would not allow grass-crete permeable pavers, therefore this will be an asphalt drive and will be gated and only be used for emergency vehicle access and refilling the diesel generator and access will be controlled by building operations. While not fully meeting the requirement, we need to point out that it is significantly improved over existing conditions and the use of these encroachments are limited to occasional use.

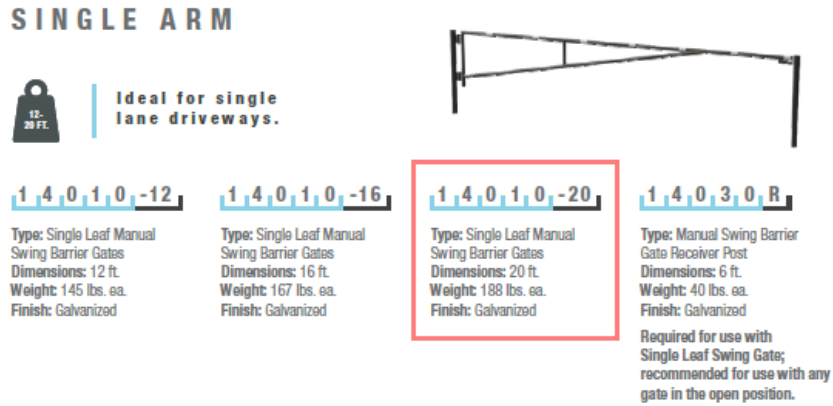


Figure 17: Information regarding proposed gate for the Emergency Access.

Landscaping

As discussed above, Staff finds the overall landscaping to be well designed along N. Spoede Road and along the north and south property lines to provide landscaped screening of the vehicles and the site, and meets with Section 405.540. Street trees are required at a ratio of 1, three-inch tree for every 30 lineal feet of roadway frontage, and throughout the parking area. Where 14 trees are required and 14 trees are provided, per Section 405.540(F)(1). All of the required trees are shown to be 3" caliper.

Section 405.540(F)(3) requires a minimum of ten (10) square feet of interior landscaped area shall be provided within the parking lot for each three hundred fifty (350) square feet of paved area within the parking lot including parking spaces and driving aisles. Total parking area is 31,320.28 sq ft which requires 894.87 sq ft of interior landscaped area, with the interior landscape area provided is 4730.66 sq ft., and where 24 shade trees are provided to comply with Section 405.540(F)(4) for two shade trees within and up to every 100 linear feet of parking for each parking row). The interior landscape areas within the parking lot would be irrigated by an underground irrigation system and the remaining planting areas would be irrigated by hand, as needed, to comply with Section 405.540(F)(10). This section requires that all landscaping shall be permanently maintained in good condition with at least the same quality and quantity of landscaping as initially approved. In order to present a healthy, neat and orderly appearance, all landscaped areas including interior parking lot islands and grass areas shall be provided with adequate irrigation for the maintenance of grass, shrubs, ground covering and other landscaping. An underground irrigation system shall be installed, operated and maintained to meet the intent of this Section.

Sidewalks

Section 405.730 Sidewalks requires that all internal sidewalks shall be safe, clearly defined and direct, buffered from the street vehicular traffic and parking areas by a minimum of 3 foot greenspace or landscape area, provide safe clearly defined and direct access between buildings from the principal building's entrance to the public side walk, and all internal sidewalks in non-residential developments shall be at least 6 feet in width or 8 feet if used as a curb stop, and the use of textured or tinted materials for pedestrian crossings shall be utilized where pedestrian circulation paths cross a vehicular route. All sidewalks within the parking area are shown at 9-feet in width, but in other areas, the internal sidewalk is 5-feet in width with greenspace separation from the road and drive aisles. The site plan submitted on October 26, 2020, indicated that the accessible walkway was located along the south entrance. A revised Site Plan was emailed on October 29, 2020, to show that a 6-foot-wide sidewalk adjacent to the curb

along the west side of Spoede Road is extended the public sidewalk southward to the new walkway. However, this area has utility poles near the curb line, and therefore the sidewalk will need to be beyond these utility poles. Therefore, Staff has included a condition that all sidewalks are to be a minimum of 6 feet in width, and that the sidewalk along N. Spoede Road should be separated from the curb to avoid the utility poles. Public Works has requested that the sidewalk be extended across the southern entrance with a ramp at the south property line and that all sidewalks along N. Spoede Road are to be placed within an easement. Additionally, the internal sidewalks within the parking areas should be extended to the full length of the parallel parking, as shown in Figure 18. Staff has provided conditions to address all of the recommended sidewalk revisions for staff approval as part of the permit review.

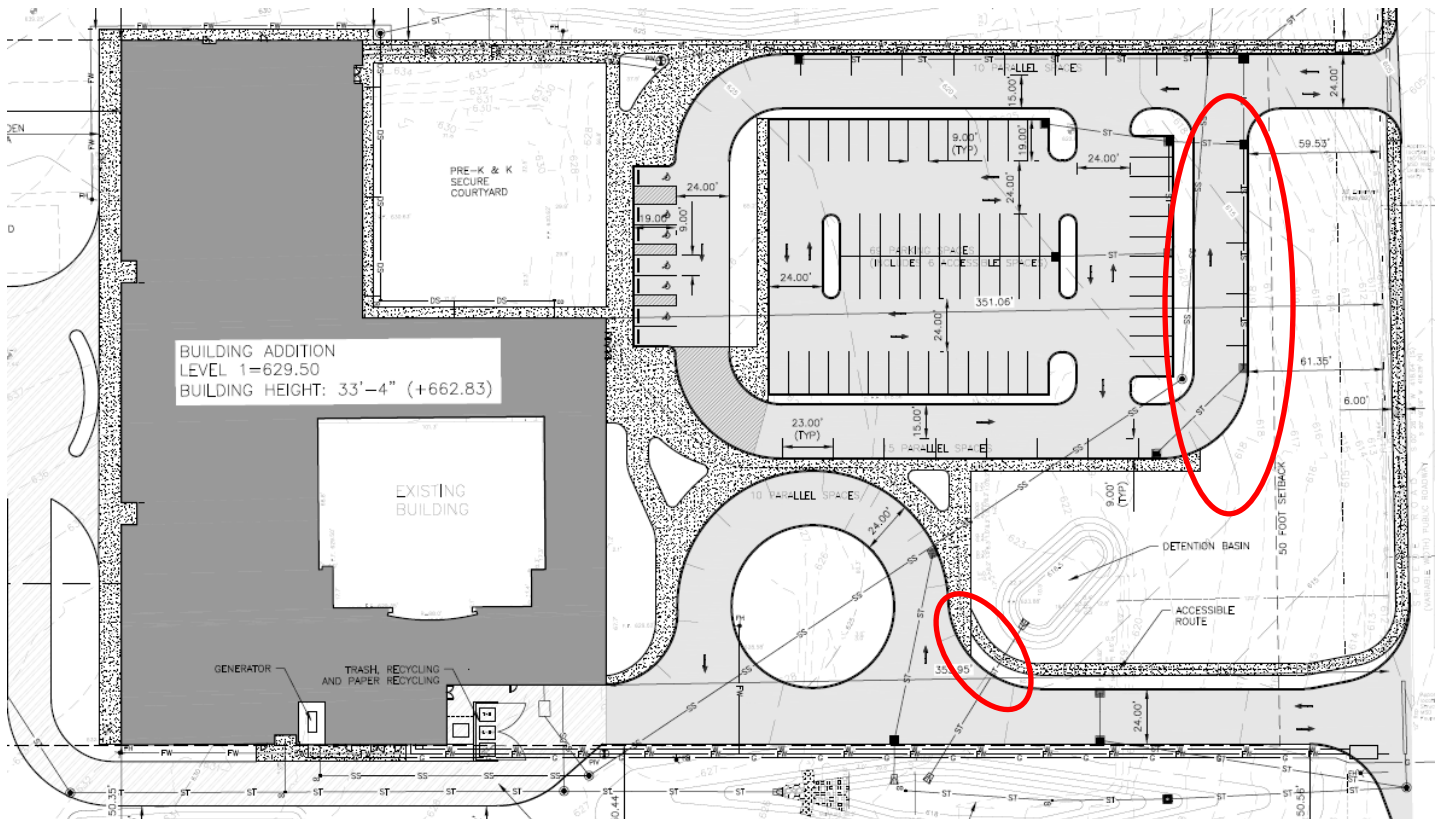


Figure 18: Site Plan emailed on 10/29/2020 showing the sidewalk extension along Spoede Road. The areas in red indicate where the sidewalks should be extended to coincide with full length of the parking spaces.



Figure 19: Google image of the existing south entrance showing the utility poles in the area and grade changes along N. Spoede Road.

Accessory Structures

The City's Design Guidelines recommend that Accessory Buildings and Facilities are to be designed to directly relate in material, character, and detail to the primary building on the site. The drop-off canopy will be composed of architecturally exposed structural steel members that will be painted to match the palette of the building. The underside of the canopy will be a wood-look metal panel with integrated down lighting.

The Design Guidelines also recommend that services and trash or utility areas should be positioned to minimize view and visual impact. Building equipment and utilities are to be located, designed and/or screened to minimize visual impact on public streets, surface parking lots and neighboring properties. Accessory structures, with the exception of the front canopy, are to be behind the building line and if detached shall be a minimum of 10 feet from the principal structure, per Section 405.460(D) Location of Accessory Uses and Structures. If the trash enclosure is attached to the main building than it should comply with the requirements of the principal building. Details of the trash enclosures have not been provided, and it should be noted that the revised site plan emailed on October 29th shows the trash area to be at 45 feet within the building setback and buffer area. The rendering of the south entrance also shows that this area will be visible from Spoede Road. Therefore, Staff has included a condition that any trash and recycling dumpsters shall be located behind the front of the building and properly enclosed with brick materials consistent with the main building for the Zoning Administrator's approval.

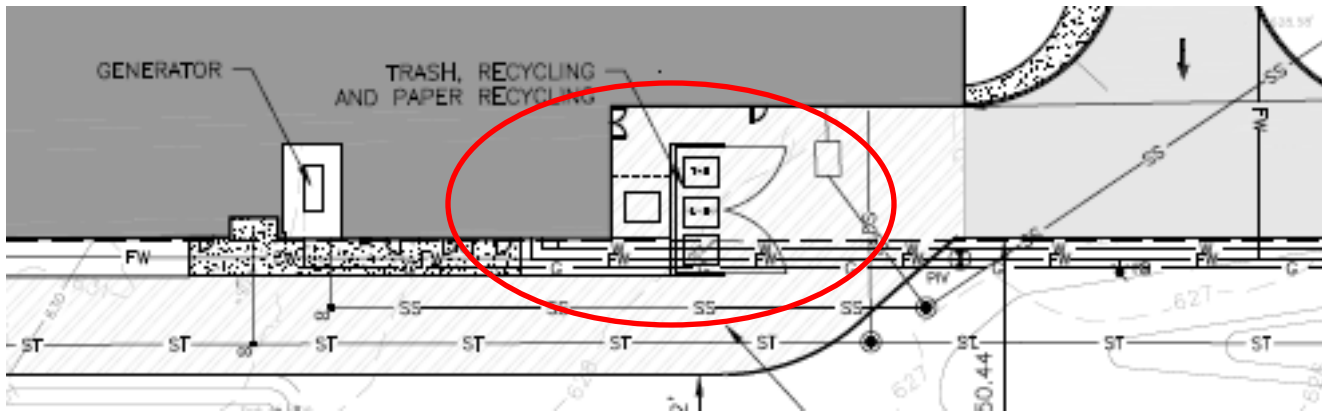


Figure 20: Area for the trash enclosure the Paper Recycling from the revised site plan emailed on 10-29-2020

Parking:

Section 405.820(H)(10)(a)(2) of the Required Off-Street Parking of the Zoning Ordinance for Elementary Schools require a minimum of two (2) spaces per classroom. The Building will have a total of 35 Classrooms. Therefore, a total number of 70 parking spaces is required, and the site plan is showing that 104 spaces are provided.

Lighting:

The proposal includes lighting that is consistent with Section 405.680 Lighting regulations of the Zoning Ordinance. McClure Engineering, the Applicant's lighting engineer, states that the new lighting for the school will include pole mounted fixtures throughout the parking and drive areas. The fixtures will be the LSI LED Enterprise with a 16 feet maximum height, including the base. Designed calculations are targeted for the low end of IES recommendations. The fixtures will be 100% downlight and shielded as required. Design will reflect 0 foot-candles on the property line. These lights are similar to those that were recently approved in 2017, in the dark bronze color.

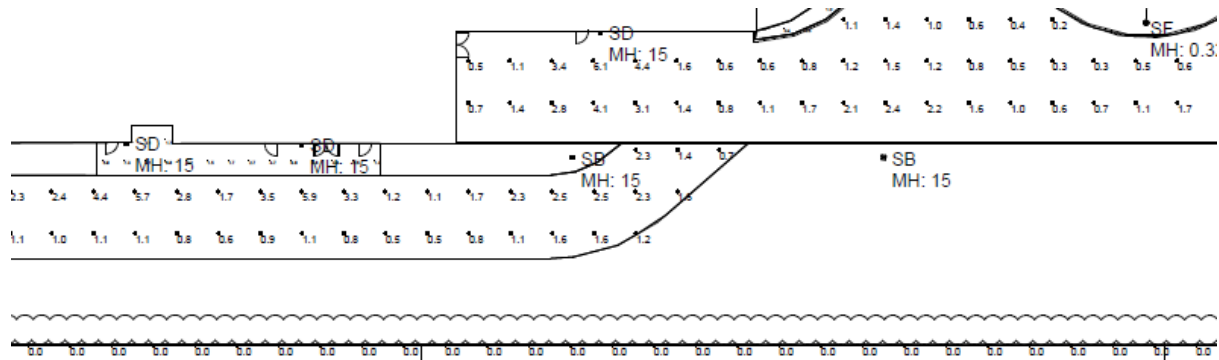


Figure 21: Close-up of the Photometric Plan submitted 10-2-2020 of the access drive closest to the south property line.

Additionally, there are building lights and walkway bollard light fixtures as well, that are of a similar design style throughout the development.



Figure 22: Images of the various lighting fixtures throughout.

Luminaire Schedule							
Symbol	Qty	Label	Lum. Lumens	LLF	Arr. Watts	Total Watts	Description
SA	15	SA	5078	0.900	39.2	588	LSI - ENM4-PT-5W-LED-05L-40
SB	7	SB	5042	0.900	39.2	274.4	LSI - ENM4-PT-2-LED-05L-40
SC	6	SC	5055	0.900	39.2	235.2	LSI - ENM4-PT-FT-LED-05L-40
SD	14	SD	3512	0.900	25	350	LITHONIA - WST LED P2 40K VV MVOLT
SE	9	SE	638	0.900	14.3	128.7	PORTFOLIO - LSR4B15D010BZ EC4#10208040 4LBMB1
SF	2	SF	4821	0.900	92.8	185.6	LBG-120-30K-NS-SI
SG	4	SG	1640	0.900	20	80	LITHONIA - KBA8 LED 16C 350 40K SYM MVOLT

Figure 23: Light Fixture Schedule on Photometric Plan

Stormwater:

Within the proposed landscape buffer yard, on the north and south of the parking areas and bus drop offs are new stormwater basins. The site plan indicates that MSD will likely require full stormwater runoff mitigation as if it were an undeveloped site. The plans show stormwater runoff will be directed to two bioretention basins located along the north and south property lines and a third basin within the front lawn where the water will be cleaned and held. The bioretention basins provide connections to the storm water mains along Spoede Road. All stormwater plans are reviewed by the MSD, and a copy of the permit from MSD will be required prior to the issuance of a site improvement permit from the City.

SUMMARY AND RECOMMENDATION

The submitted site development plan for the new school is generally consistent with the Comprehensive Plan, the Design Guidelines, and the Zoning Code, with the following exceptions:

- The encroachments of the access drive to the rear of the building, and the walkways around the building that are within the required 50-foot buffer yard area
- The sidewalks along North Spoede Road and certain areas within the site require modifications.
- The Commission should determine if the overall modern design and layout is compatible with the surrounding area.

Below are the recommended conditions of approval that are largely consistent with the prior ordinance, but address the revised design for the building with this proposal, that include the separated sidewalk

along N. Spoede Road, the protection of the existing large trees, the material of the rooftop screening, and trash enclosures as discussed within the Staff Report.

1. The Applicant is required to submit a Building Permit application, as required by Article II of the Building Code. Exterior elevations shall be in substantial conformance with the building elevations as received on October 26, 2020, as bound together, and submitted in conjunction with Application #20-032 by Ittner Cordogan Clark Group, and as amended below.
2. The applicant is required to submit Site Improvement Plans, showing all exterior site improvements, for all new construction to the Division of Planning for review, as required by Section 410.380 of the Subdivision and Land Development Regulations (Subdivision Code). The Site Improvement Plans shall be in substantial conformance with the "Site Development Plans," and the "Landscape Plan" received on October 26, 2020, as bound together, and submitted in conjunction with Application #20-032 by Ittner Cordogan Clark Group.
3. All internal sidewalks shall have a minimum width of 6 feet, or 8 feet if used as a curb, in compliance with Section 405.730. The interior sidewalk shall be carried around to the full length of the proposed parallel parking areas.
4. The sidewalk along N. Spoede Road to the accessible pathway at the south entrance shall follow the configuration as shown on the revised Site Plan emailed on October 29, 2020, subject to the following revisions: the sidewalk is to be detached from the curb and placed on the property side of the existing utility poles, located within an easement granted to the City for public use and maintenance, and be extended across the southern entrance with a ramp on the south side subject to final approval by the Public Works Department.
5. Any ground mounted mechanical equipment and the trash enclosures installed for the site shall be, located out of the front yard area and shall be brick-faced to match the building, and maintain the same 50 foot setback as the building, subject to the Zoning Administrator's approval.
6. The rooftop mechanical screening should be a flat metal to better integrate the material with the building.
7. The Applicant shall provide proper tree protection of the existing tree large caliper trees along Spoede Road and comply with Section 405.540 Landscaping of the Zoning Ordinance.
8. An underground irrigation system shall be installed as required under Section 405.540(10). All landscaping shall be maintained per the approved Landscape Plan and any vegetation that is totally or predominantly dead and/or disfigured due to disease or injury shall be replaced as needed and in a prompt and workmanlike manner as dictated by accepted horticultural standards.
9. All lighting shall be in compliance with the Information submitted by McClure Engineering, submitted on October 2, 2020, and shall be installed or modified to be in conformance with Section 405.680, Lighting, of the Zoning Ordinance.
10. All signs and banners shall be in conformance with Article VIII, Sign Regulations, of the Zoning Code, and in substantial compliance with the amended Master Sign Plan discussed above to be submitted for review by the Planning and Zoning Commission and approved by City Council prior to any sign permits being issued.
11. No site development plan or minor site plan approval shall be valid for a period longer than twelve (12) months from the date it is approved, unless within such period a building permit is obtained and substantial construction is commenced. Substantial construction shall be deemed to consist of clearing the site, completion of footings, basement or building slab and inspection of such work, per Section 405.1080 and Section 400.030(A)(5). The Planning and Zoning Commission and the City Council, when required, may grant extensions not exceeding twelve (12) months each upon written request of the original applicant prior to the expiration of such period and resubmission of the application if the application as resubmitted is substantially the same as the initially approved application. However, the Commission and the Council, as applicable, have the power in such cases to attach new conditions to their re-approval or to disapprove the reapplication. Where the application for re-approval contains changes which the Zoning Administrator concludes materially alter the initial application, the Zoning Administrator shall initiate a new site development plan review procedure as stated in Section 405.1080 or a new minor site plan review procedure as stated in Section 405.1080.

ACTION

Should the Commission find the design and site development to be consistent with the Goals and Objectives of the Comprehensive Plan, Design Guidelines and Zoning Code, the following is an example of an appropriate motion:

“I move to recommend approval of Application #20-032 for the Public Facility Site Development Plan for Spoede Elementary School subject to the conditions listed in the Staff Report and Draft Ordinance for the meeting of November 2, 2020” (Specific conditions discussed and approved).

APPENDIX 1: COMPREHENSIVE PLAN

Included and attached by reference. See body of report for specific excerpts.

APPENDIX 2: ZONING CODE

Included and attached by reference. See body of report for specific excerpts.

APPENDIX 3: AERIAL PHOTO

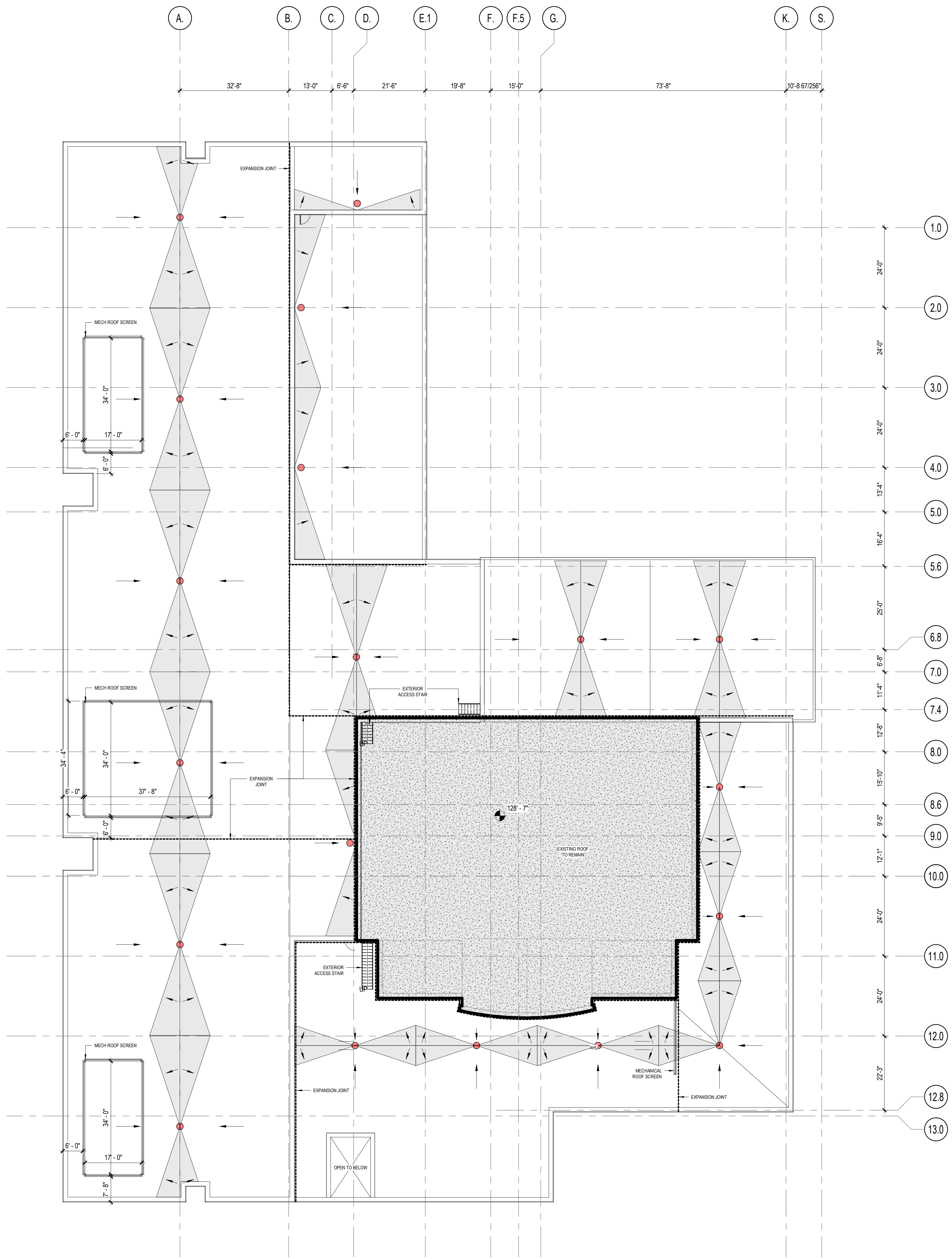
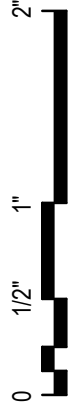
Spoe Elementary School



APPENDIX 4: SITE PHOTOGRAPHS	Photo Date:10/7/2020
	Description: View of the existing building at the south entrance area.
	Description: View looking north at the existing non-conforming paved area at the property line.

	Description: View looking northeast from the existing rear parking lot of the Gymnasium building that will be incorporated into the proposed new building.
	Description: View looking east along the south property line at the existing non-conforming paved area.



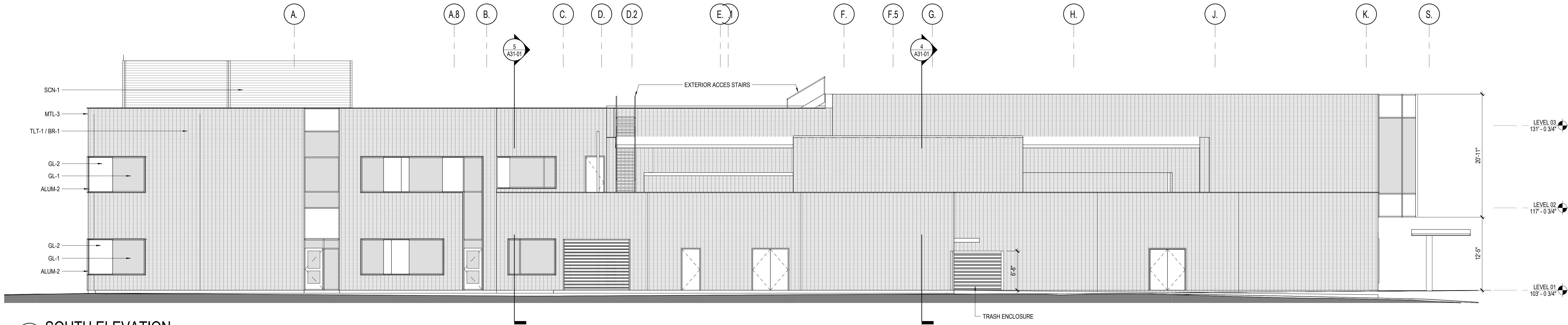


1 OVERALL ROOF PLAN
1/16" = 1'-0"



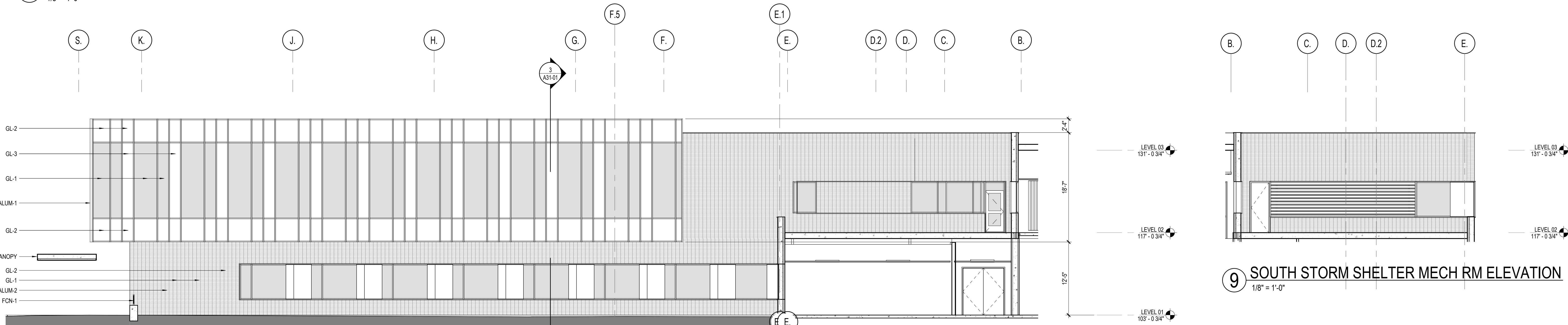
EXTERIOR MATERIAL LEGEND

ALUM-1	ALUMINUM FRAME CURTAIN WALL
ALUM-2	ALUMINUM FRAME STOREFRONT
ALUM-3	FIXED ICC-500 WINDOWS
BR-1	THIN BRICK
TLT-1	SITE CAST CONCRETE PANEL W/ INLaid BRICK (BR-1)
GL-1	INSULATED LOW-E COATED CLEAR VISION GLASS
GL-2	SPANDREL GLASS
GL-3	CLEAR VISION GLASS WITH COLOR INTERLAYER, INSULATED
GL-4	STORM-RATED GLASS
MTL-3	METAL COPING
SNC-1	MECHANICAL ROOF SCREEN
FNC-1	ORNAMENTAL FENCE



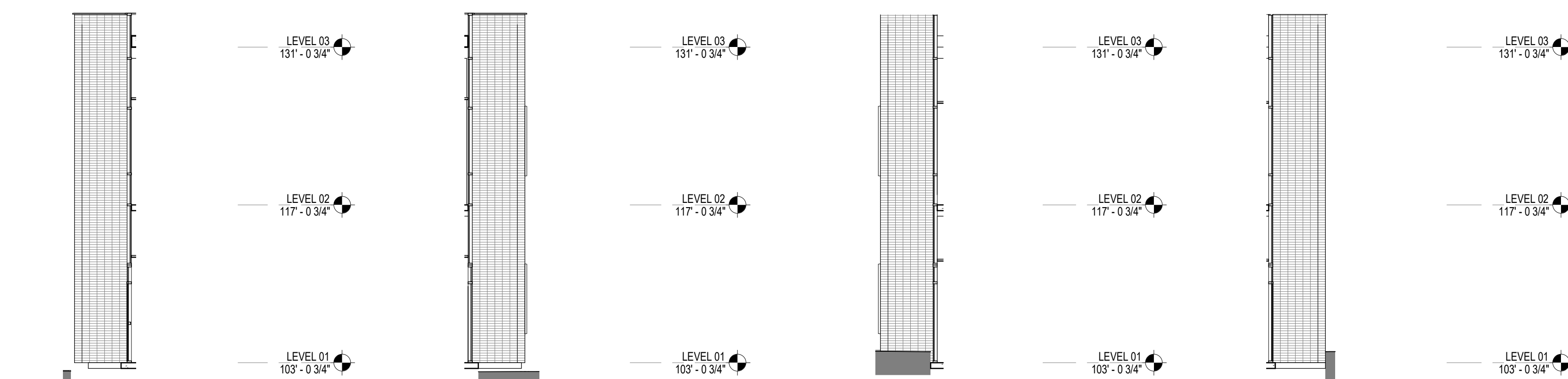
3 SOUTH ELEVATION
1/8" = 1'-0"

4 SOUTH LOADING ELEVATION
1/8" = 1'-0"



2 NORTH ELEVATION
1/8" = 1'-0"

9 SOUTH STORM SHELTER MECH RM ELEVATION
1/8" = 1'-0"

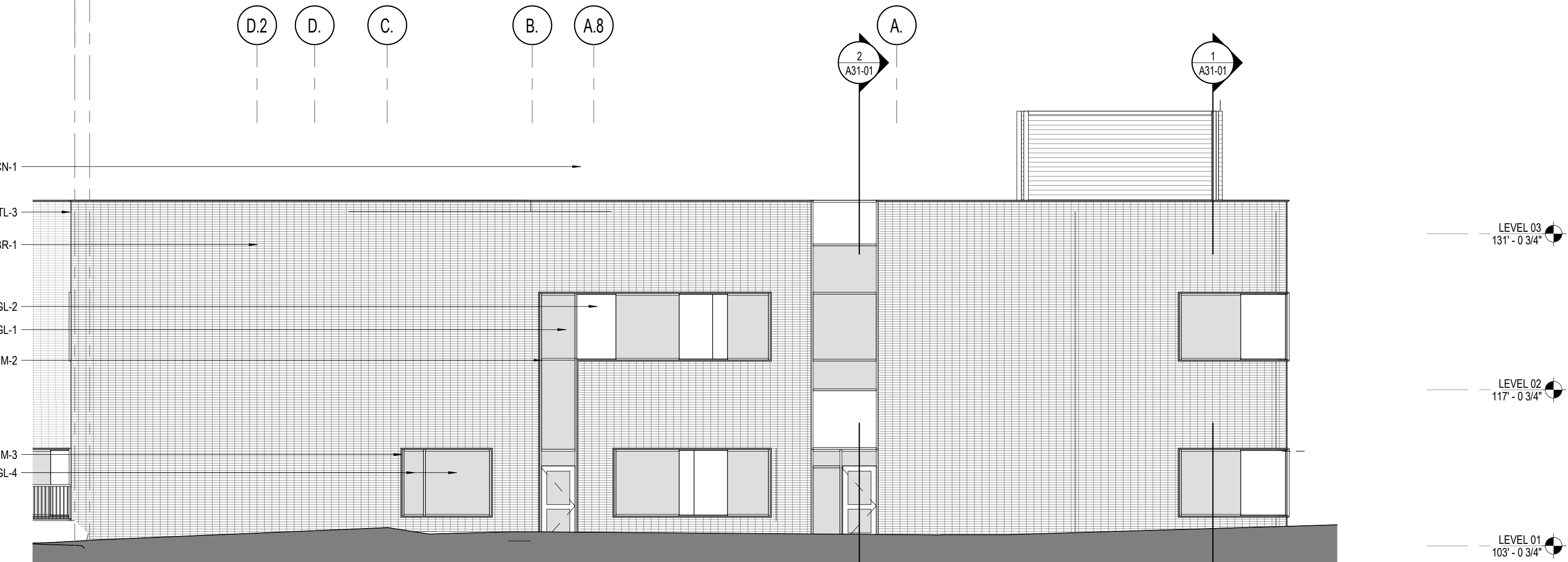


8 S ENTRY E ELEVATION
1/8" = 1'-0"

7 S ENTRY W ELEVATION
1/8" = 1'-0"

6 N ENTRY W ELEVATION
1/8" = 1'-0"

5 N ENTRY E ELEVATION
1/8" = 1'-0"



1 NORTH ELEVATION
1/8" = 1'-0"

EXTERIOR MATERIAL LEGEND

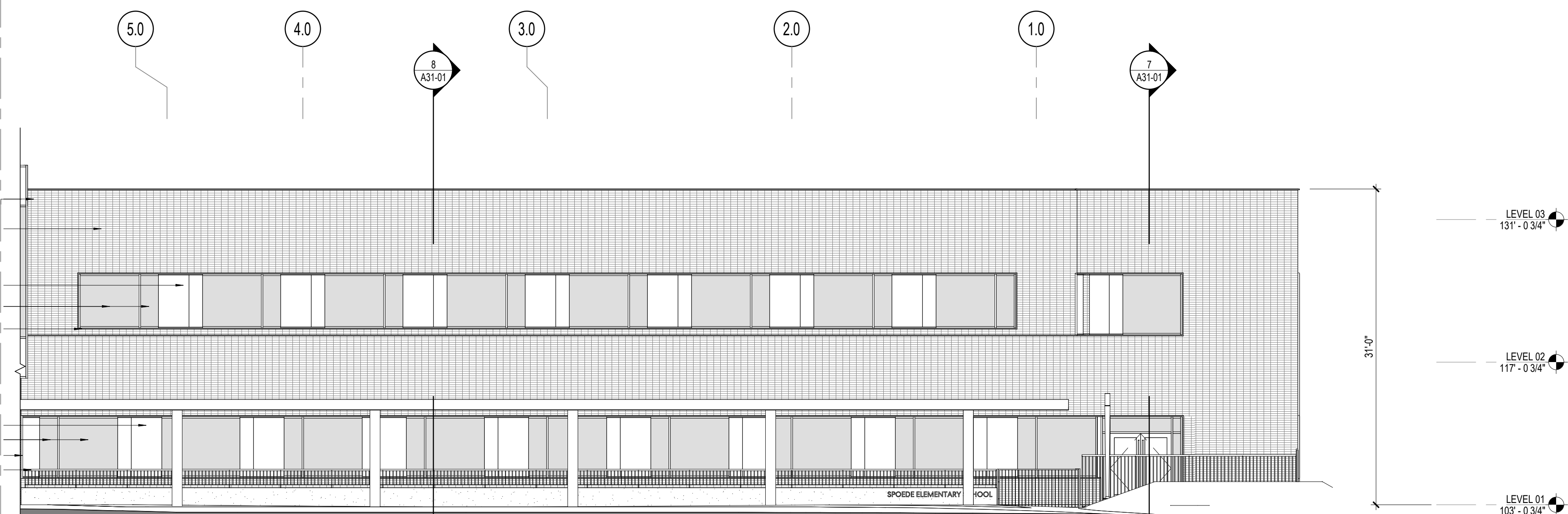
ALUM-1	ALUMINUM FRAME CURTAIN WALL
ALUM-2	ALUMINUM FRAME STOREFRONT
ALUM-3	FIXED ICC-500 WINDOWS
BR-1	THIN BRICK
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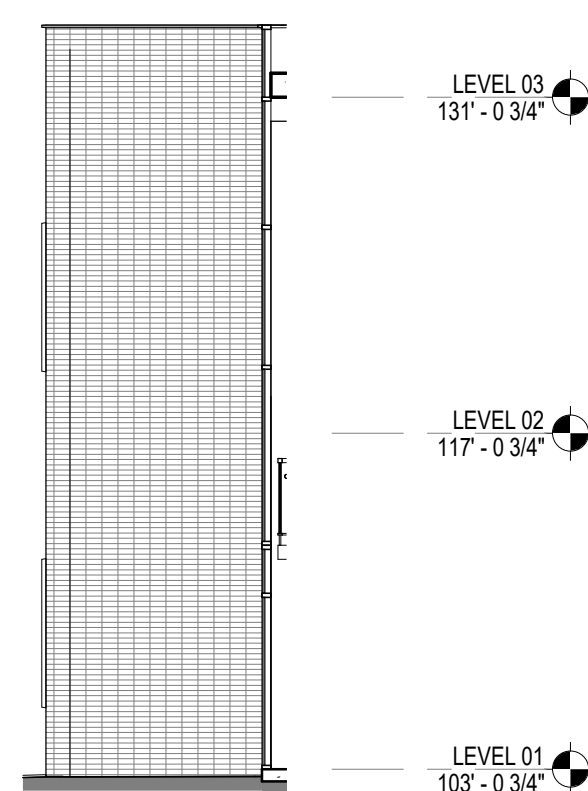
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1/8" = 1'-0"



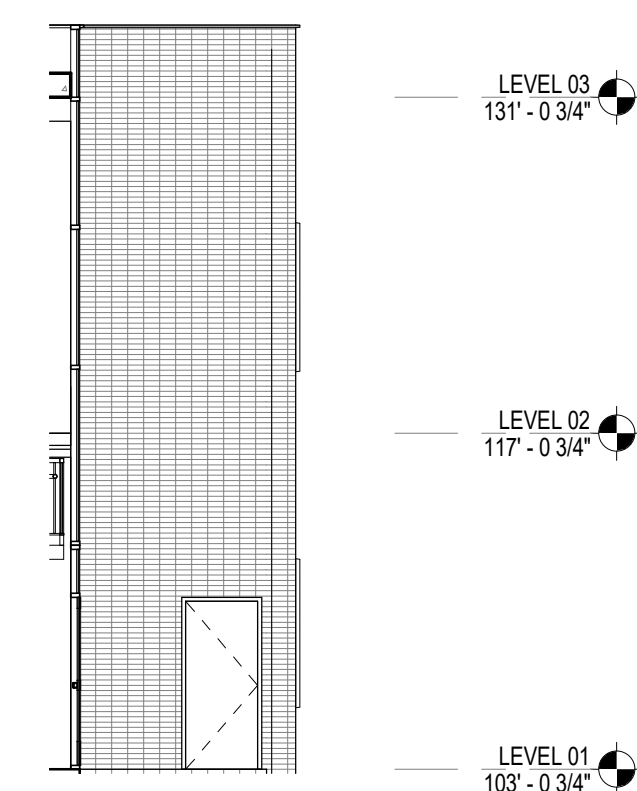
3 WEST ELEVATION
1/8" = 1'-0"



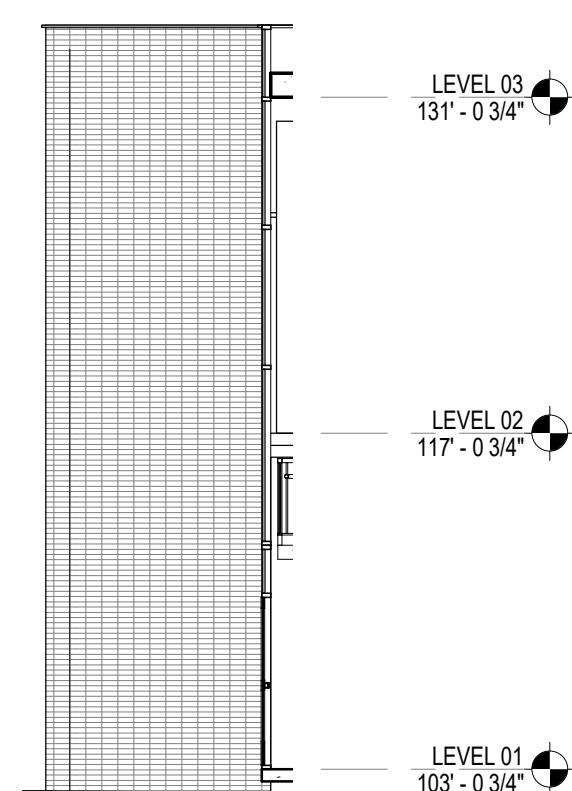
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1/8" = 1'-0"



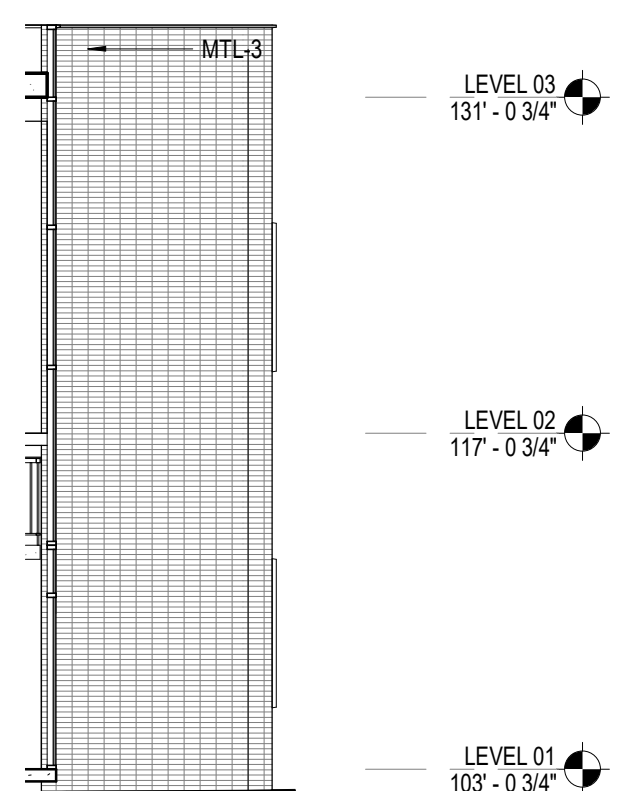
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1/8" = 1'-0"



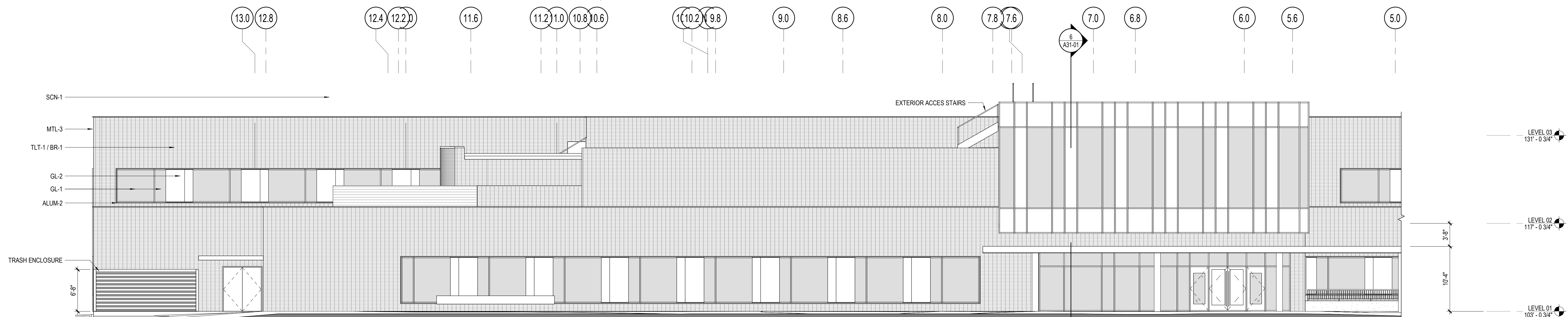
7 W ENTRY(N) N ELEV
1/8" = 1'-0"



6 W ENTRY(S) S ELEV
1/8" = 1'-0"



5 W ENTRY(S) N ELEV
1/8" = 1'-0"



1 EAST ELEVATION
1/8" = 1'-0"

CONSULTANTS

Perkins&Will

The Wigley Building
410 North Michigan Avenue
Suite 1600
Chicago, IL 60611
1-312-755-0770
www.perkinswill.com
Missouri Certificate of Authority No. X0000006

MEP Engineer

MCCLURE ENGINEERING

1000 Clark Avenue
St. Louis, MO 63102
1-314-645-3292
Missouri Certificate of Authority No. 000587

Structural Engineer

DAVID MASON & ASSOCIATES, INC.

800 S. Vandeventer Ave.
St. Louis, MO 63110
1-314-534-1030
Missouri Certificate of Authority No. 001103

Civil Engineer

CIVIL DESIGN, INC.

5220 Oakland Avenue
St. Louis, MO 63110
1-314-853-5570
Missouri Certificate of Authority No. X0000006

ITRIV Architectural/Security

SHEN MILSON & WILKE, LLC.

2 N Riverside Plaza, Suite 1460
Chicago, IL 60606
1-312-559-4585

Food Service

S2O CONSULTANTS, INC.

530 N Wood Street #C
Chicago, IL 60622
1-847-650-4060

SPOEDE ELEMENTARY SCHOOL

425 N. Spoele Road
St. Louis, Missouri 63141



LADUE SCHOOL DISTRICT

9703 Conway Road
St. Louis, MO. 63124

KEYPLAN

DESIGN DEVELOPMENT

2020/10/02

ISSUE CHART

P&Z Review	2020/10/02
NO	ISSUE
Job Number	DATE

TITLE

EXTERIOR ELEVATIONS

SHEET NUMBER

A20-02



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Perkins&Will

The Wigley Building
410 North Michigan Avenue
Suite 1600
Chicago, IL 60611
t. 312.755.0770
www.perkinswill.com
Missouri Certificate of Authority No. X0000006

MEP Engineer

MCCLURE ENGINEERING

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ITTNER Architectural Security

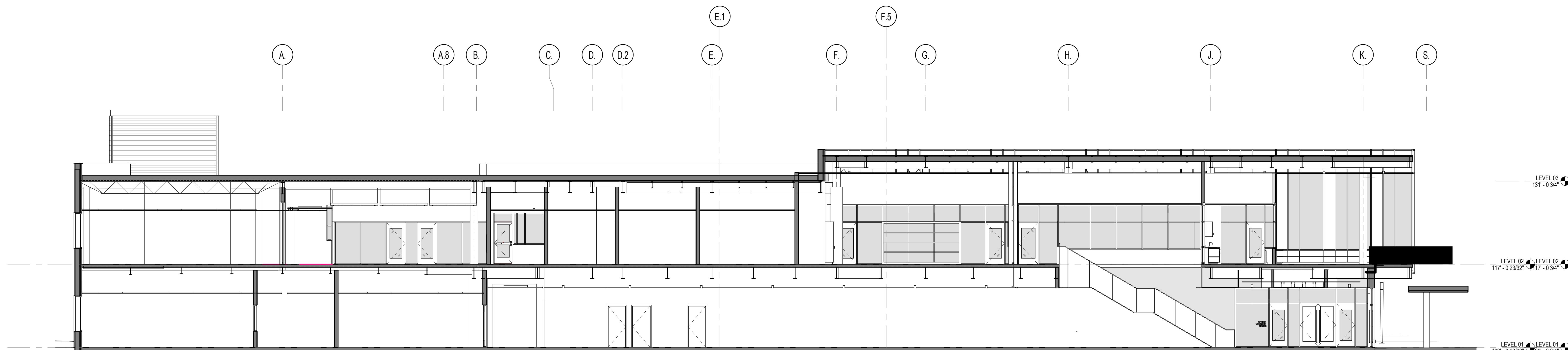
SHEN MILSON & WILKE, LLC.

2 N Riverside Plaza, Suite 1460
Chicago, IL 60606
t. 312.559.4585

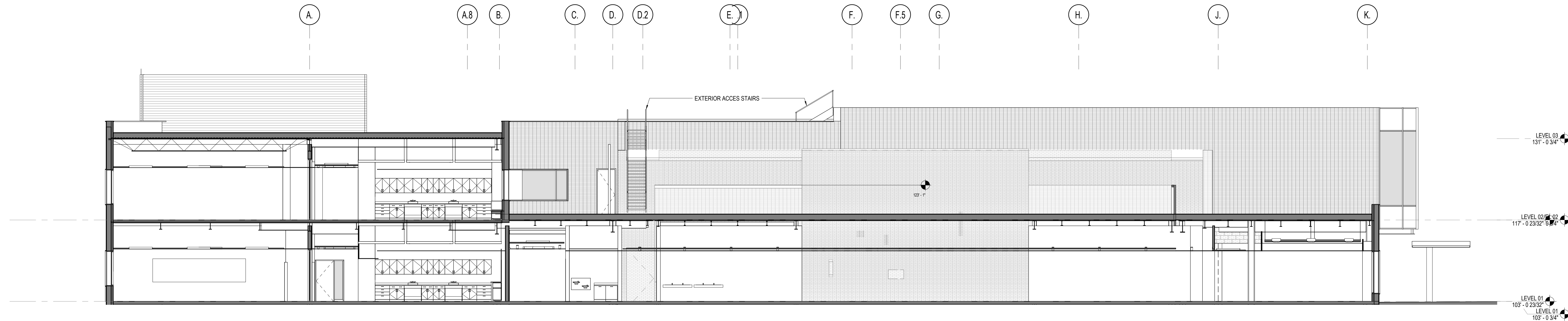
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SZO CONSULTANTS, INC.

530 N Wood Street #C
Chicago, IL 60622
t. 847.650.4060



2 EAST-WEST BUILDING SECTION
1/8" = 1'-0"



1 EAST-WEST BUILDING SECTION
1/8" = 1'-0"

KEYPLAN

**SPOEDE
ELEMENTARY
SCHOOL**

425 N. Spoede Road
St. Louis, Missouri 63141



**LADUE SCHOOL
DISTRICT**

9703 Conway Road
St. Louis, MO. 63124

**DESIGN
DEVELOPMENT**

2020/10/02

ISSUE CHART

P&Z Review		2020/10/02
NO	ISSUE	DATE
Job Number	TITLE	

BUILDING SECTIONS

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A21-01

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Perkins&Will

The Wrigley Building
410 North Michigan Avenue
Suite 1600
Chicago, IL 60611
1.312.755.0770
www.perkinswill.com
Missouri Certificate of Authority No. X0000006

MCCLURE ENGINEERING

1000 Clark Avenue
St. Louis, MO 63102
1.314.645.3292
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DAVID MASON & ASSOCIATES, INC.

800 S. Vandeventer Ave.
St. Louis, MO 63110
1.314.534.1030
Missouri Certificate of Authority No. 001103

CIVIL DESIGN, INC.

5220 Oakland Avenue
St. Louis, MO 63110
1.314.863.5570
Missouri Certificate of Authority No. X000000X

SHEN MILSON & WILKE, LLC.

2 N Riverside Plaza, Suite 1460
Chicago, IL 60606
1.312.559.4585

S2O CONSULTANTS, INC.

530 N Wood Street #C
Chicago, IL 60602
1.847.650.4060

LADUE SCHOOL DISTRICT
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KEYPLAN

DESIGN DEVELOPMENT

2020/10/02

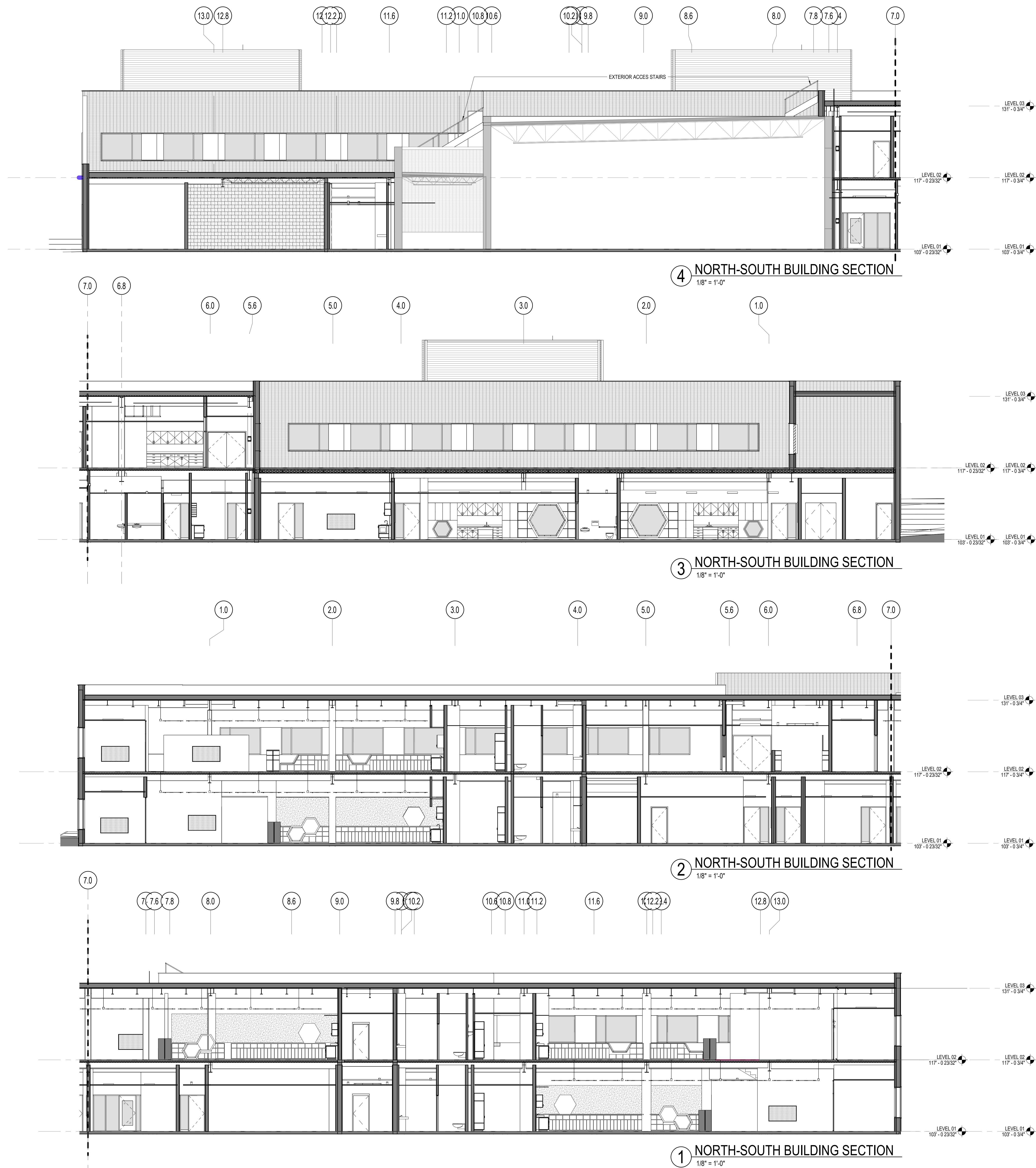
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BUILDING SECTIONS

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CONSULTANTS

Perkins&Will

The Wrigley Building
410 North Michigan Avenue
Suite 1600
Chicago, IL 60611
t 312.755.0770
f 312.755.0775
www.perkinswill.com
Missouri Certificate of Authority No. 00000006

MEP Engineer

MCCLURE ENGINEERING

1000 Clark Avenue
St. Louis, MO 63102
t 314.645.3292
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DAVID MASON & ASSOCIATES, INC.

800 S. Vandeventer Ave.
St. Louis, MO 63110
t 314.534.1030
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5220 Oakland Avenue
St. Louis, MO 63110
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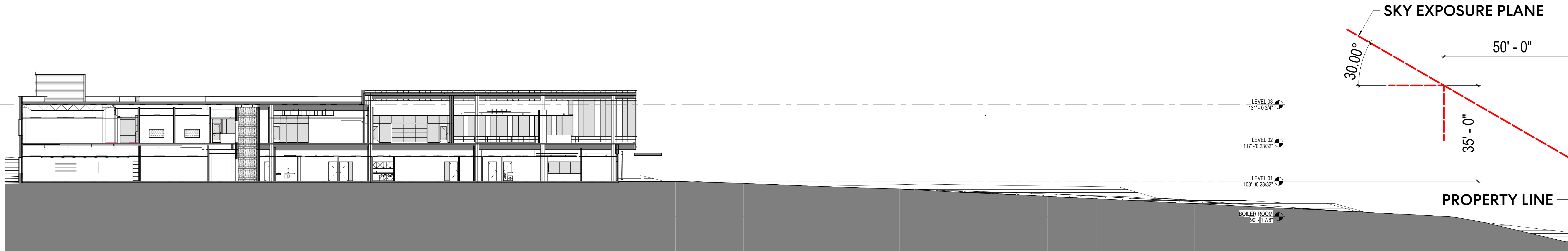
530 N Wood Street #C
Chicago, IL 60602
t 847.650.4060



② NORTH-SOUTH SITE SECTION
1/16" = 1'-0"



③ EAST-WEST SITE SECTION 2
1/16" = 1'-0"



① EAST-WEST SITE SECTION 1
1/16" = 1'-0"

KEYPLAN

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**DESIGN
DEVELOPMENT**

2020/10/02

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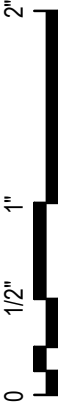
NO	ISSUE	DATE
Job Number		

TITLE

**BUILDING HEIGHT
DIAGRAMS**

SHEET NUMBER

A21-03



5. BUILDING AREA & OCCUPANT LOAD

OCCUPANCY USE:	FLOOR AREA PER OCCUPANT (SF):
EDUCATION	
CLASSROOM	20 NET
CLASSROOM - VOCATIONAL	50 NET
BUSINESS	100 GROSS
ASSEMBLY	
A-2 CAFETERIA	15 NET
A-3 GYMNASIUM (WITHOUT SPECTATOR SEATING)	7 NET
A-3 LIBRARY READING ROOM	50 NET
STAGE / PLATFORM	15 NET
STORAGE & UTILITY	
ACCESSORY STORAGE /	
MECHANICAL EQUIPMENT ROOM	300 GROSS
KITCHEN - COMMERCIAL	200 GROSS

EGRESS ANALYSIS - LEVEL 01						
Occupancy Type	Area	Occupant Load Factor	Occupant Load	Egress Width Factor	Door Width Req'd	Egress Width Factor - Stairs
Stair Width Required						

ASSEMBLY - CAFETERIA	1,896 SF	15 SF	126	0.15	19	0.2	25
ASSEMBLY - GYMNASIUM	6,475 SF	7 SF	925	0.15	139	0.2	185
ASSEMBLY - STAGE	776 SF	15 SF	52	0.15	8	0.2	10
BUSINESS	4,645 SF	100 SF	46	0.15	7	0.2	9
COMMERCIAL KITCHEN	1,183 SF	200 SF	6	0.15	1	0.2	1
ED - CLASSROOM	10,302 SF	20 SF	512	0.15	79	0.2	105
ED - SHOPS & OTHER	6,124 SF	50 SF	122	0.15	18	0.2	26
MECH / EQUIP / STOR	3,924 SF	300 SF	11	0.15	1	0.2	1
Grand total	35,324 SF		1800		272		362

EGRESS ANALYSIS - LEVEL 02						
Occupancy Type	Area	Occupant Load Factor	Occupant Load	Egress Width Factor	Door Width Req'd	Egress Width Factor - Stairs
Stair Width Required						

ASSEMBLY - LIBRARY	2,103 SF	50 SF	42	0.15	6	0.2	8
BUSINESS	565 SF	100 SF	5	0.15	0	0.2	0
ED - CLASSROOM	11,938 SF	20 SF	591	0.15	94	0.2	123
ED - SHOPS & OTHER	4,559 SF	50 SF	91	0.15	14	0.2	19
MECH / EQUIP / STOR	739 SF	300 SF	1	0.15	0	0.2	0
Grand total	19,904 SF		730		114		150

7. ZONING ANALYSIS

ZONING DISTRICT A: SINGLE-FAMILY RESIDENTIAL; WITH CONDITIONAL USE FOR SCHOOL

ITEM	REQUIRED	PROPOSED
F.A.R.	0.3	0.2
LOT AREA	3 ACRES MIN	9.6 ACRES (418,210 SF)
SITE COVERAGE	25% (34.5% EXISTING)	31.4%
BUILDING HEIGHT	50'-0" MAX	33'-4"
LOADING REQUIREMENTS	1 MIN	1
PARKING SPACES	2 PER CLASSROOM [CITY OF CREVE COEUR] 3 [(51.75 TOTAL SPACES) 2010 ADA STANDARDS]	73 SPACES [6 ACCESSIBLE (1 LIFT VAN ACCESSIBLE)]

8. PLUMBING FIXTURE ANALYSIS

OCCUPANCY	NO. OF PERSONS	NO. OF MIF (PERSONS / 2)	WATER CLOSETS		URNALS	LAVATORIES		DRINKING FOUNTAINS	OTHER
			MALE	FEMALE		MALE	FEMALE		
E - EDUCATION	520	260	6	9	3	7	7	2	1
B - BUSINESS	108	54	2	4	1	1	2	1	1
A-2 - ASSEMBLY	142	71	2	3	1	1	1	1	1
A-3 - ASSEMBLY	529	265	3	6	2	2	4	2	1

1. GENERAL INFORMATION

PROJECT INFORMATION:

THIS PROJECT CONSISTS OF THE DEMOLITION OF AN EXISTING ELEMENTARY SCHOOL, EXCEPT FOR THE EXISTING GYMNASIUM, AND THE CONSTRUCTION OF A NEW 2-STORY ELEMENTARY SCHOOL, INCORPORATING THE EXISTING GYMNASIUM.

APPLICABLE ZONING CODE:

CITY OF CREVE COEUR ZONING ORDINANCE CHAPTER 405

APPLICABLE BUILDING CODE:

BUILDING	2015 INTERNATIONAL BUILDING CODE (IBC)
ACCESSIBILITY	2010 ADA STANDARDS
ENERGY	2015 INTERNATIONAL ENERGY CONSERVATION CODE
ELEVATOR	2015 IBC; ASME A17.1-2007
ELECTRICAL	2014 NATIONAL ELECTRIC CODE
PLUMBING	2015 UNIFORM PLUMBING CODE
MECHANICAL	2015 INTERNATIONAL MECHANICAL CODE

2. OCCUPANCY CLASSIFICATION

OCCUPANCY CLASSIFICATION:

PRIMARY	EDUCATIONAL GROUP E
ACCESSORY	BUSINESS GROUP B (REFERENCE 508.2.3); ASSEMBLY GROUP A-2 & A-3 (REFERENCE 303.1.3)

3. CONSTRUCTION TYPE, HEIGHT & AREA

CONSTRUCTION TYPE:

TYPE II-B UNPROTECTED, NON-COMBUSTIBLE CONSTRUCTION, FULLY SPRINKLERED

ALLOWABLE HEIGHT AND BUILDING AREAS:

MAXIMUM ALLOWABLE HEIGHT	50'-0"
ACTUAL BUILDING HEIGHT	33'-4"
MAXIMUM ALLOWABLE AREA PER STORY	53,650 SF*
ACTUAL AREA PER STORY	53,646 SF (LEVEL 01) 30,670 SF (LEVEL 02)

* AREA INCREASE PER SECTION 506.3
FRONTAGE = IF = [FPP - 0.25] W/30
= [(1074/1136 - 0.25) 30/30
= 0.70

SINGLE OCCUPANCY, MULTISTORY
ALLOWABLE AREA = Aa = [A + (INS * IF)]
= [43,500 + (14,500 * 0.70)]
= 53,650

TOTAL BUILDING AREA 84,316 SF

4. FIRE RESISTANCE

BUILDING ELEMENT:	RATING:	REFERENCE:
STRUCTURAL FRAME	0 HR	TABLE 601
BEARING WALLS		
EXTERIOR	0 HR	TABLE 601
INTERIOR	0 HR	
NON-BEARING WALLS AND PARTITIONS		
EXTERIOR < 10' < X < 30' SEPARATION	0 HR	TABLE 602
INTERIOR	0 HR	TABLE 601
SHAFT ENCLOSURES	1HR	713.4
FLOOR CONSTRUCTION	0 HR	TABLE 601
ROOF CONSTRUCTION	0 HR	TABLE 601
PRIMARY FRAME / WALLS SUPPORTING ROOF ONLY	0 HR	TABLE 601 (NOTE A)
INTERIOR WALL AND CEILING FINISHES		
EXIT ENCLOSURES / EXIT PASSAGEWAYS	Class B	TABLE 803.11
CORRIDORS	Class C	TABLE 803.11
ROOMS AND ENCLOSED SPACES	Class C	TABLE 803.11
FLOOR FINISH MINIMUM CRITICAL RADIANT FLUX	Class II	SECTION 804.4

6. EGRESS REQUIREMENTS

MAXIMUM TRAVEL DISTANCE (WITH SPRINKLER SYSTEM)		
E - EDUCATION	250'	TABLE 1017.2
COMMON PATH OF TRAVEL (WITH SPRINKLER SYSTEM)		
E - EDUCATION	75'	TABLE 1006.2.1
MINIMUM CLEAR DOOR WIDTH	32"	1010.1.1
EGRESS WIDTH REQUIRED BASED ON CAPACITY		
STAIR	0.2" PER OCC	1005.3.1 (EXC 1)
OTHER EGRESS COMPONENTS	0.19" PER OCC	1005.3.2 (EXC 1)
NUMBER OF EXITS		
MAX OCCUPANT LOAD FOR SPACES WITH ONE EXIT	49	TABLE 1006.2.1
MIN NUMBER OF EXITS BASED ON OCCUPANT LOAD		TABLE 1006.3.1
1 - 500	2	
501 - 1000	3	
>1000	4	
CORRIDOR WIDTH		
72" WHERE SERVING 100 OCCUPANTS OR MORE. 44" IS REQUIRED OTHERWISE.		1020.2
DEAD ENDS MAXIMUM LENGTH		
E - EDUCATION	50'	1020.4
STAIRWAY WIDTH		
THE REQUIRED CAPACITY OF STAIRWAYS SHALL BE DETERMINED AS SPECIFIED IN SECTION 1005.1, BUT THE MINIMUM WIDTH SHALL BE NOT LESS THAN 44 INCHES.		1011.2
STAIRWAY HEADROOM	80" MINIMUM	1011.3
EXIT ACCESS STAIRWAY ENCLOSURE	NOT REQUIRED	1019.3 ITEM 1



CONSULTANTS

Architect of Record

Perkins&Will

The Wrigley Building
410 North Michigan Avenue
Suite 1600
Chicago, IL 60611
1.312.755.0770
1.312.755.0775
www.perkinswill.com
Missouri Certificate of Authority No. X0000006

MEP Engineer

MCCLURE ENGINEERING

1000 Clark Avenue
St. Louis, MO 63102
1.314.645.3292
Missouri Certificate of Authority No. 000587

Structural Engineer

DAVID MASON & ASSOCIATES, INC.

800 S. Vandeventer Ave.
St. Louis, MO 63110
1.314.534.1030
Missouri Certificate of Authority No. 001103

Civil Engineer

CIVIL DESIGN, INC.

5220 Oakland Avenue
St. Louis, MO 63110
1.314.853.5570
Missouri Certificate of Authority No. X0000006

ITR/VV Architectural/Security

SHEN MILSON & WILKE, LLC.

2 N Riverside Plaza, Suite 1460
Chicago, IL 60606
1.312.559.4585

Food Service

S20 CONSULTANTS, INC.

530 N Wood Street #C
Chicago, IL 60622
1.847.650.4060

SPOEDE

ELEMENTARY

SCHOOL

425 N. Spodee Road
St. Louis, Missouri 63141



LADUE SCHOOL

DISTRICT

9703 Conway Road
St. Louis, MO. 63124

KEYPLAN

DESIGN

DEVELOPMENT

2020/10/02

ISSUE CHART

P&Z Review	2020/10/02
NO	ISSUE
Job Number	DATE

TITLE

CODE COMPLIANCE

DATA

SHEET NUMBER

G00-02



*Precedent Image

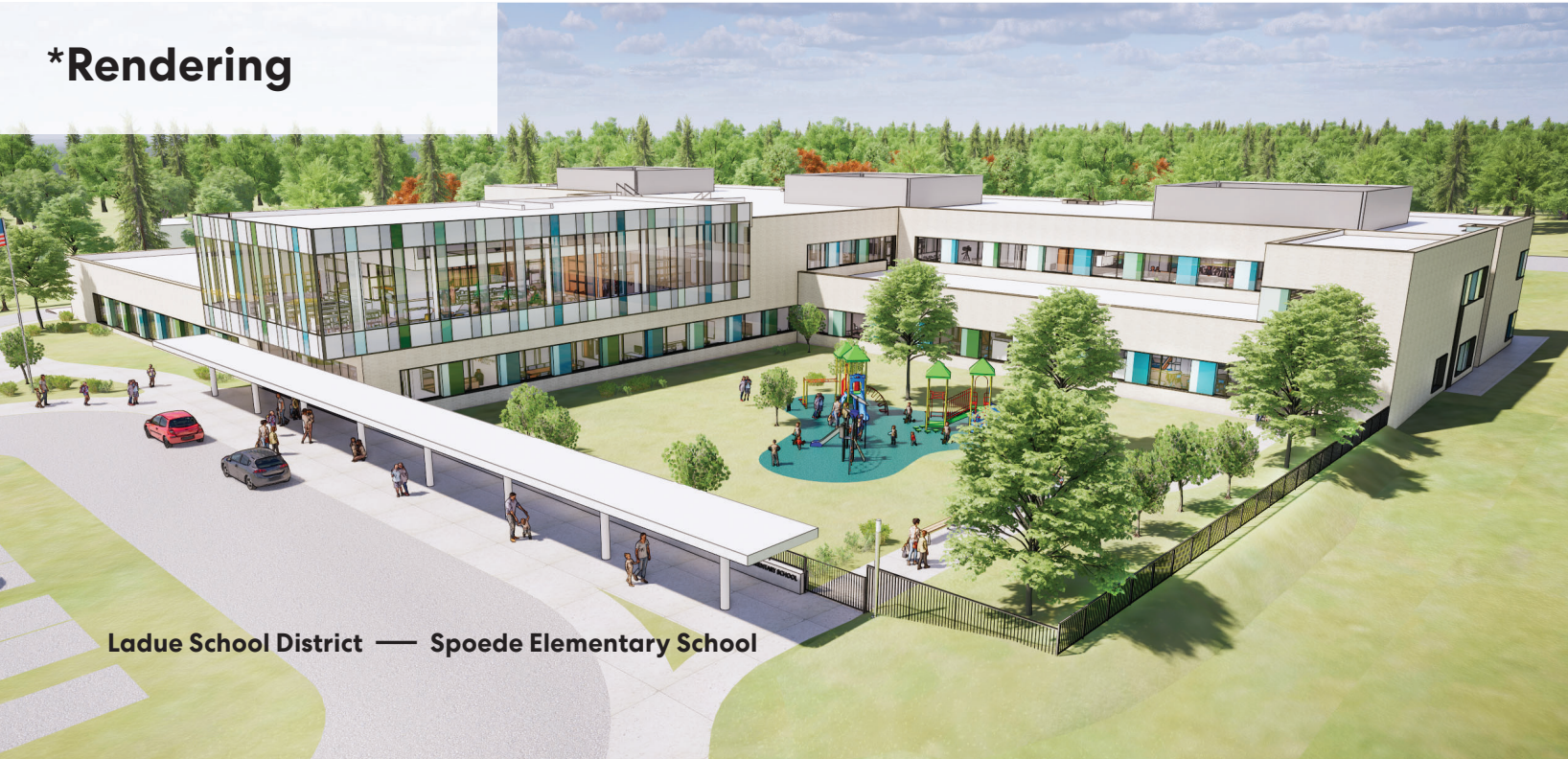


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GL-2

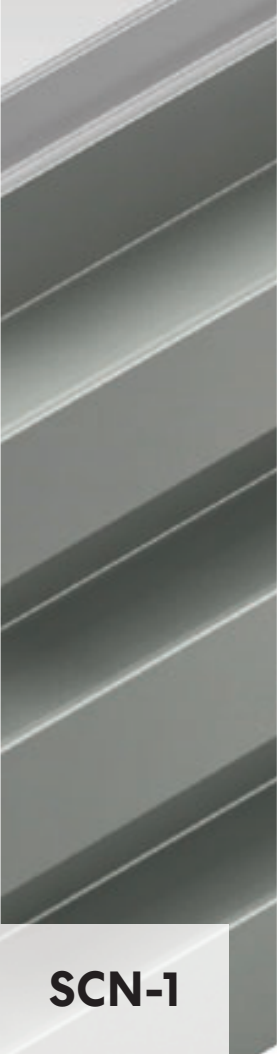


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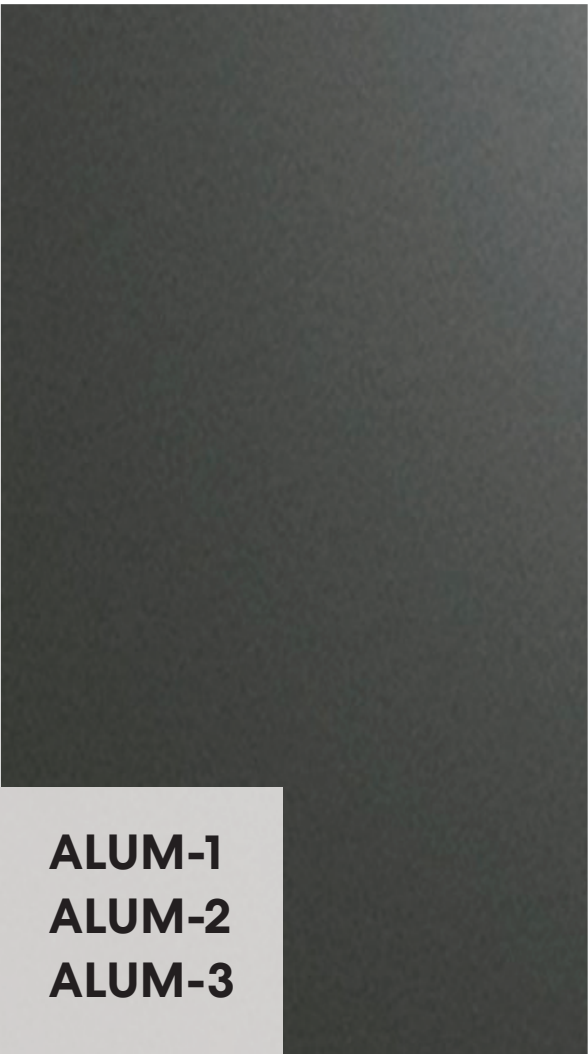


*Rendering

Ladue School District — Spode Elementary School



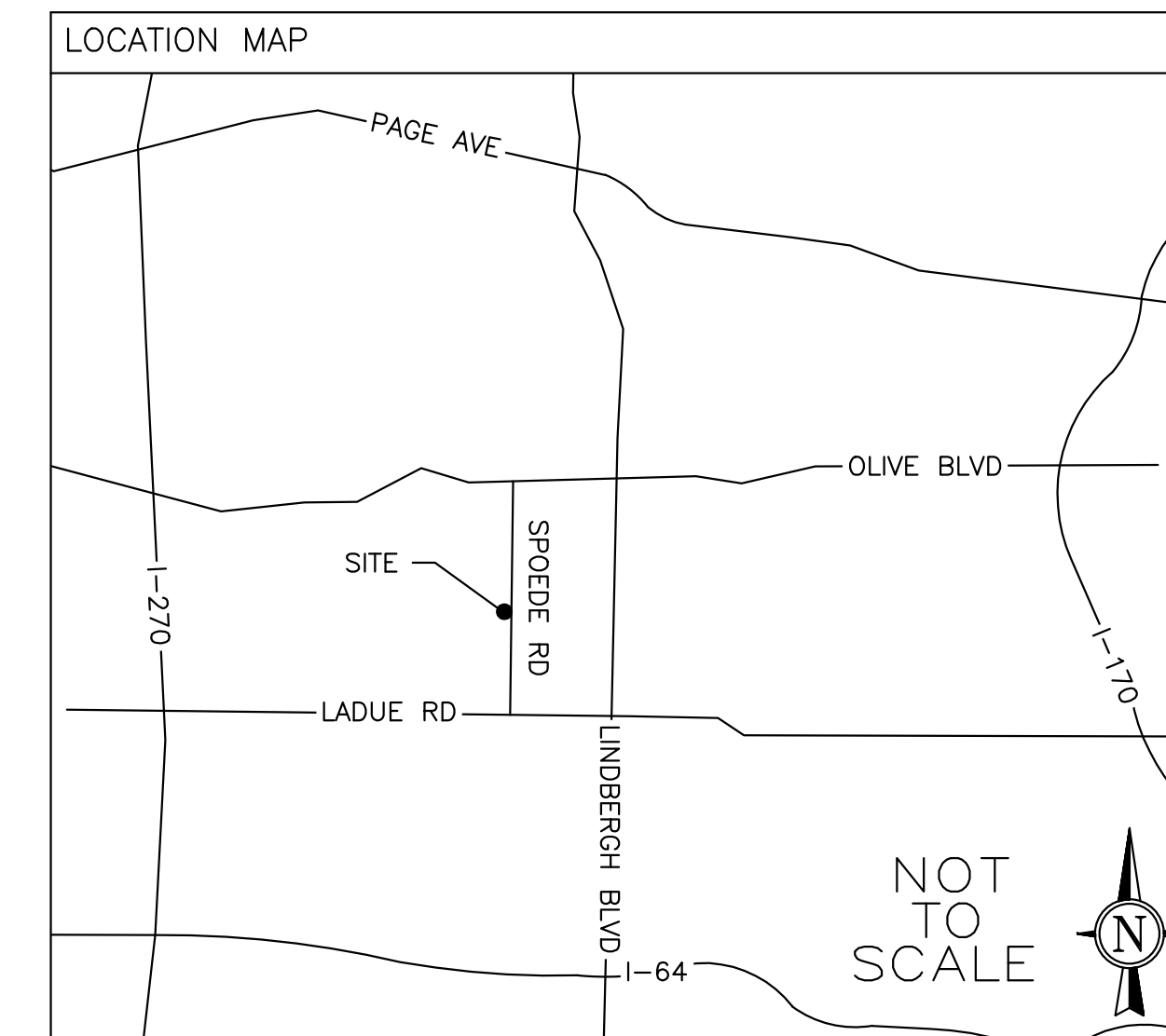
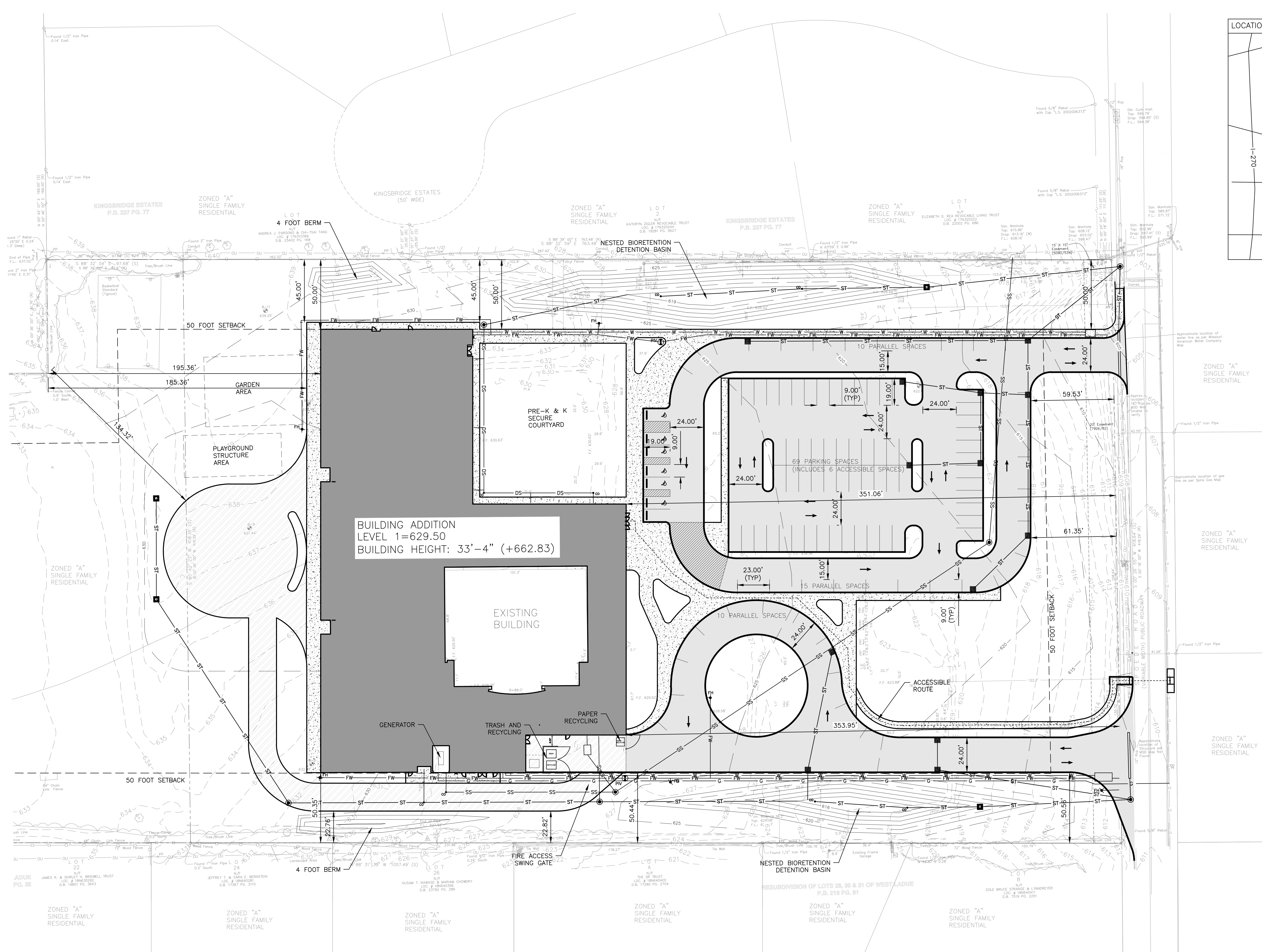
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ALUM-1
ALUM-2
ALUM-3



GL-1
GL-4



10-23-2020

PUBLIC UTILITY CONTACTS

CONTACT TYPE:	COMPANY NAME:	CONTACT PHONE:	STREET ADDRESS:	
STORM/SANITARY:	METROPOLITAN ST. LOUIS SEWER DISTRICT (MSD)	(314) 768-6200	2350 MARKET ST.	ST. LOUIS, MO 63103
ELECTRIC:	AMEREN MISSOURI	(886) 992-6619	1901 CHOUTEAU AVE.	ST. LOUIS, MO 63166
NATURAL GAS:	SPIRE GAS COMPANY	(314) 621-6960	720 OLIVE ST.	ST. LOUIS, MO 63101
WATER:	MISSOURI AMERICAN WATER	(866) 430-0820	727 CRAIG RD.	ST. LOUIS, MO 63141
FIRE DISTRICT:	CREVE COEUR FIRE DISTRICT	(314) 432-5570	11221 OLIVE BLVD.	CREVE COEUR, MO 63141
SCHOOL DISTRICT:	LADUE SCHOOL DISTRICT	(314) 994-7080	9703 CONWAY RD.	ST. LOUIS, MO 63124
WATERSHED:	DEER CREEK WATERSHED			

Differential Summary (15YR, 20 MIN):

The calculations below represent the actual existing vs. proposed.

Existing Drainage	Total Q =	22.13	
Proposed Drainage	Total Q =	20.63	
Differential	Total Q =	-1.50	Decrease

Existing Impervious	Total Acres=	3.68	
Proposed Impervious	Total Acres=	3.25	
Differential	Total Acres=	-0.43	Decrease

Differential Summary (15YR, 20 MIN)(BACK TO GRASS):

It is anticipated that the school is within a troubled watershed and will need to be compared to a greenfield site for St. Louis MSD Calculations.

Existing Drainage	Total Q =	11.48	Back to Grass
Proposed Drainage	Total Q =	9.16	Increase
Differential			

Existing Impervious	Total Acres=	0.00	Back to Grass
Proposed Impervious	Total Acres=	3.25	Increase
Differential	Total Acres=	3.25	Increase

Detention Summary (15YR, 20 MIN):

The calculations below represent the actual existing vs. proposed.

Existing Drainage	Total Volume=	19,921	cu ft
Proposed Drainage	Total Volume =	18,568	cu ft
Differential	Total Volume =	-1,353	Decrease

The calculations below represent a greenfield site vs. proposed.

Existing Impervious	Total Acres=	10,328	cu ft
Proposed Impervious	Total Acres=	18,568	cu ft
Differential	Total Acres=	8,240	Increase

Volume Provided

North Detention Basin Total Volume = 22,051 cu ft

South Detention Basin Total Volume = 14,456 cu ft

Total Storage Volume = 36,507 cu ft

SITE COVERAGE:

THE PROPERTY BOUNDARY IS 417,736 SQ FT (9.59 ACRES).
SITE COVERAGE IS AS FOLLOWS:

EXISTING = 3.31/9.59 = 34.5%

PROPOSED = 3.01/9.59 = 31.4%

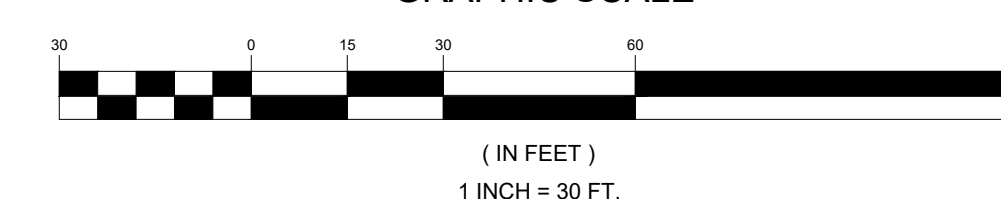
PARKING:

 104 TOTAL PARKING SPACES
 -63 STANDARD PERPENDICULAR SPACES
 -6 ACCESSIBLE PERPENDICULAR SPACES
 -35 PARALLEL SPACES

LEGEND:

— G —	GAS SERVICE
— W —	DOMESTIC WATER SERVICE
— FW —	FIRE WATER SERVICE
— SS —	SANITARY SEWER
— ST —	STORM SEWER
— — —	PROPERTY LINE
	PEDESTRIAN PAVEMENT
	ASPHALT PAVEMENT
	HEAVY DUTY CONCRETE PAVEMENT

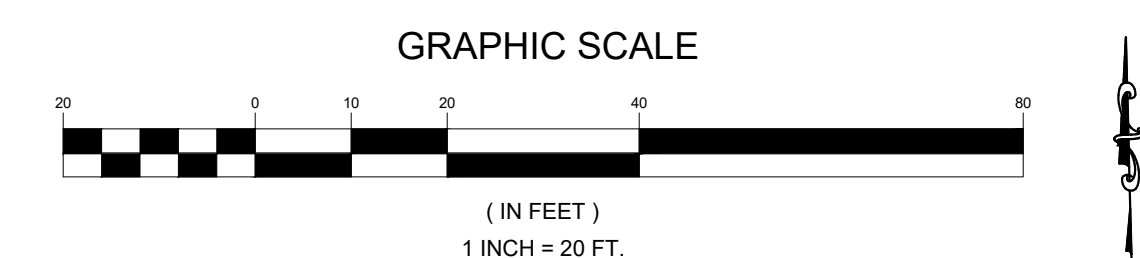
GRAPHIC SCALE



NO	ISSUE	DATE
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Job Number

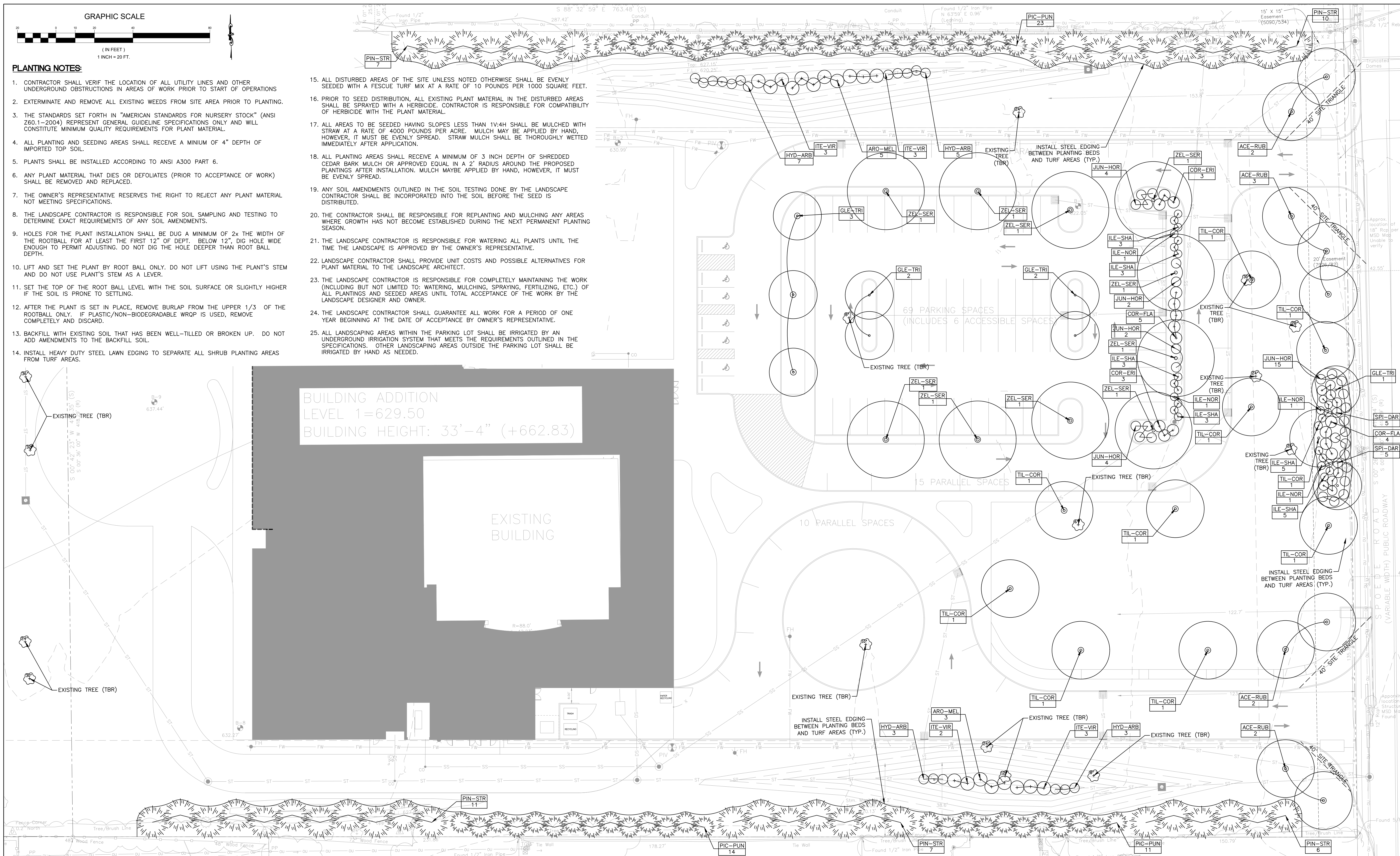
TITLE



PLANTING NOTES:

- CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITY LINES AND OTHER UNDERGROUND OBSTRUCTIONS IN AREAS OF WORK PRIOR TO START OF OPERATIONS
- EXTERMINATE AND REMOVE ALL EXISTING WEEDS FROM SITE AREA PRIOR TO PLANTING.
- THE STANDARDS SET FORTH IN "AMERICAN STANDARDS FOR NURSERY STOCK" (ANSI Z60.1-2004) REPRESENT GENERAL GUIDELINE SPECIFICATIONS ONLY AND WILL CONSTITUTE MINIMUM QUALITY REQUIREMENTS FOR PLANT MATERIAL.
- ALL PLANTING AND SEEDING AREAS SHALL RECEIVE A MINIMUM OF 4" DEPTH OF IMPORTED TOP SOIL.
- PLANTS SHALL BE INSTALLED ACCORDING TO ANSI A300 PART 6.
- ANY PLANT MATERIAL THAT DIES OR DEFOLIATES (PRIOR TO ACCEPTANCE OF WORK) SHALL BE REMOVED AND REPLACED.
- THE OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL NOT MEETING SPECIFICATIONS.
- THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR SOIL SAMPLING AND TESTING TO DETERMINE EXACT REQUIREMENTS OF ANY SOIL AMENDMENTS.
- Holes for the plant installation shall be dug a minimum of 2x the width of the rootball for at least the first 12" of depth. Below 12", dig hole wide enough to permit adjusting. Do not dig the hole deeper than root ball depth.
- LIFT AND SET THE PLANT BY ROOT BALL ONLY. DO NOT LIFT USING THE PLANT'S STEM AND DO NOT USE PLANT'S STEM AS A LEVER.
- SET THE TOP OF THE ROOT BALL LEVEL WITH THE SOIL SURFACE OR SLIGHTLY HIGHER IF THE SOIL IS PRONE TO SETTLING.
- AFTER THE PLANT IS SET IN PLACE, REMOVE BURLAP FROM THE UPPER 1/3 OF THE ROOTBALL ONLY. IF PLASTIC/NON-BIODEGRADABLE WRQP IS USED, REMOVE COMPLETELY AND DISCARD.
- BACKFILL WITH EXISTING SOIL THAT HAS BEEN WELL-TILLED OR BROKEN UP. DO NOT ADD AMENDMENTS TO THE BACKFILL SOIL.
- INSTALL HEAVY DUTY STEEL LAWN EDGING TO SEPARATE ALL SHRUB PLANTING AREAS FROM TURF AREAS.

- ALL DISTURBED AREAS OF THE SITE UNLESS NOTED OTHERWISE SHALL BE EVENLY SEEDED WITH A FESCUE TURF MIX AT A RATE OF 10 POUNDS PER 1000 SQUARE FEET.
- PRIOR TO SEED DISTRIBUTION, ALL EXISTING PLANT MATERIAL IN THE DISTURBED AREAS SHALL BE SPRAYED WITH A HERBICIDE. CONTRACTOR IS RESPONSIBLE FOR COMPATIBILITY OF HERBICIDE WITH THE PLANT MATERIAL.
- ALL AREAS TO BE SEEDED HAVING SLOPES LESS THAN 1V:4H SHALL BE MULCHED WITH STRAW AT A RATE OF 4000 POUNDS PER ACRE. MULCH MAY BE APPLIED BY HAND, HOWEVER, IT MUST BE EVENLY SPREAD. STRAW MULCH SHALL BE THOROUGHLY WETTED IMMEDIATELY AFTER APPLICATION.
- ALL PLANTING AREAS SHALL RECEIVE A MINIMUM OF 3 INCH DEPTH OF SHREDDED CEDAR BARK MULCH OR APPROVED EQUAL IN A 2' RADIUS AROUND THE PROPOSED PLANTINGS AFTER INSTALLATION. MULCH MAYBE APPLIED BY HAND, HOWEVER, IT MUST BE EVENLY SPREAD.
- ANY SOIL AMENDMENTS OUTLINED IN THE SOIL TESTING DONE BY THE LANDSCAPE CONTRACTOR SHALL BE INCORPORATED INTO THE SOIL BEFORE THE SEED IS DISTRIBUTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLANTING AND MULCHING ANY AREAS WHERE GROWTH HAS NOT BECOME ESTABLISHED DURING THE NEXT PERMANENT PLANTING SEASON.
- THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR WATERING ALL PLANTS UNTIL THE TIME THE LANDSCAPE IS APPROVED BY THE OWNER'S REPRESENTATIVE.
- LANDSCAPE CONTRACTOR SHALL PROVIDE UNIT COSTS AND POSSIBLE ALTERNATIVES FOR PLANT MATERIAL TO THE LANDSCAPE ARCHITECT.
- THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR COMPLETELY MAINTAINING THE WORK (INCLUDING BUT NOT LIMITED TO: WATERING, MULCHING, SPRAYING, FERTILIZING, ETC.) OF ALL PLANTINGS AND SEEDED AREAS UNTIL TOTAL ACCEPTANCE OF THE WORK BY THE LANDSCAPE DESIGNER AND OWNER.
- THE LANDSCAPE CONTRACTOR SHALL GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR BEGINNING AT THE DATE OF ACCEPTANCE BY OWNER'S REPRESENTATIVE.
- ALL LANDSCAPING AREAS WITHIN THE PARKING LOT SHALL BE IRRIGATED BY AN UNDERGROUND IRRIGATION SYSTEM THAT MEETS THE REQUIREMENTS OUTLINED IN THE SPECIFICATIONS. OTHER LANDSCAPING AREAS OUTSIDE THE PARKING LOT SHALL BE IRRIGATED BY HAND AS NEEDED.



PLANT MATERIALS

KEY	BOTANICAL/COMMON NAME	METHOD	SIZE	REMARKS
ACE-RUB	ACER RUBRUM "RED SUNSET"	B&B	3" CALIP	TRUNKS MUST BE STRAIGHT & FREE OF DISEASE
GLE-TRI	RED SUNSET RED MAPLE	B&B	3" CALIP	TRUNKS MUST BE STRAIGHT & FREE OF DISEASE
PIC-PUN	GLEDTISIA TRICANTHOS "SKYLINE"	B&B	3" CALIP	TRUNKS MUST BE STRAIGHT & FREE OF DISEASE
PIN-STR	SKYLINE HONEY LOCUST	B&B	6" TALL	TRUNKS MUST BE STRAIGHT & FREE OF DISEASE
TIL-COR	PICEA PUNGENS "FAT ALBERT"	B&B	3" CALIP	TRUNKS MUST BE STRAIGHT & FREE OF DISEASE
ZEL-SER	FAT ALBERT COLORADO SPRUCE	B&B	3" CALIP	TRUNKS MUST BE STRAIGHT & FREE OF DISEASE
	PINUS STROBUS "CONTORTA"	B&B	6" TALL	TRUNKS MUST BE STRAIGHT & FREE OF DISEASE
	CONTORTA EASTERN WHITE PINE	B&B	3" CALIP	TRUNKS MUST BE STRAIGHT & FREE OF DISEASE
	TILIA CORDATA "CHANCELLOR"	B&B	3" CALIP	TRUNKS MUST BE STRAIGHT & FREE OF DISEASE
	CHANCELLOR LITTLE-LEAF LINDEN	B&B	3" CALIP	TRUNKS MUST BE STRAIGHT & FREE OF DISEASE
	ZELKOVA SERRATA "GREEN VASE"	B&B	3" CALIP	TRUNKS MUST BE STRAIGHT & FREE OF DISEASE
	GREEN VASE ZELKOVA	B&B	3" CALIP	TRUNKS MUST BE STRAIGHT & FREE OF DISEASE

KEY	BOTANICAL/COMMON NAME	METHOD	SIZE	REMARKS
ARO-MEL	ARONIA MELANOCARPA "MORTIN"	CONT	5 GAL	FULL HEALTHY PLANT
COR-ERI	IRROQUOIS BEAUTY BLACK CHOKEBERRY	CONT	5 GAL	FULL HEALTHY PLANT
COR-FLA	CORNUS SERICEA "KLMR"	CONT	5 GAL	FULL HEALTHY PLANT
HYD-ARB	ERIKIA THE BLONDE RED TWIG DOGWOOD	CONT	5 GAL	FULL HEALTHY PLANT
ILE-NOR	CORNUS SERICEA "FLAVIRAMEA"	CONT	5 GAL	FULL HEALTHY PLANT
ILE-SHA	FLAVIRAMEA YELLOW TWIG DOGWOOD	CONT	5 GAL	FULL HEALTHY PLANT
ITE-VIR	HYDRANGEA ARBORESCENS	CONT	5 GAL	FULL HEALTHY PLANT
JUN-HOR	SMOOTH HYDRANGEA	CONT	5 GAL	FULL HEALTHY PLANT
SPI-DAR	ILEX GLABRA "CHAMZIN"	CONT	5 GAL	FULL HEALTHY PLANT
	NORDIC INKBERRY	CONT	5 GAL	FULL HEALTHY PLANT
	ILEX GLABRA "SHAMROCK"	CONT	5 GAL	FULL HEALTHY PLANT
	SHAMROCK INKBERRY	CONT	5 GAL	FULL HEALTHY PLANT
	ITEA VIRGINICA "HENRY'S GARNET"	CONT	5 GAL	FULL HEALTHY PLANT
	HENRY'S GARNET VIRGINIA SWEETSPICE	CONT	5 GAL	FULL HEALTHY PLANT
	JUNIPERUS HORIZONTALIS "BAR HARBOR"	CONT	5 GAL	FULL HEALTHY PLANT
	BAR HARBOR CREEPING JUNIPER	CONT	5 GAL	FULL HEALTHY PLANT
	SPIRAEA X MEDIA "DARSNORM"	CONT	5 GAL	FULL HEALTHY PLANT
	SNOW STORM SPIREA	CONT	5 GAL	FULL HEALTHY PLANT

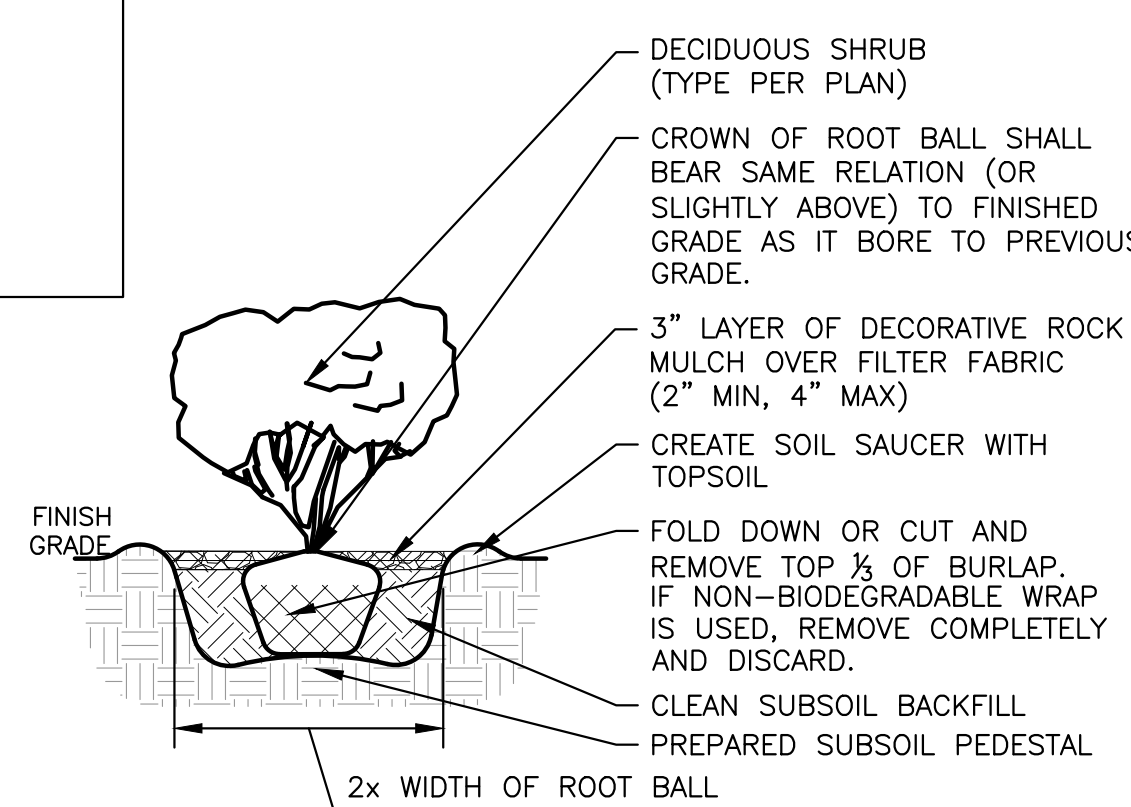
PLANTING REQUIREMENTS:

PARKING LOT PLANTING:

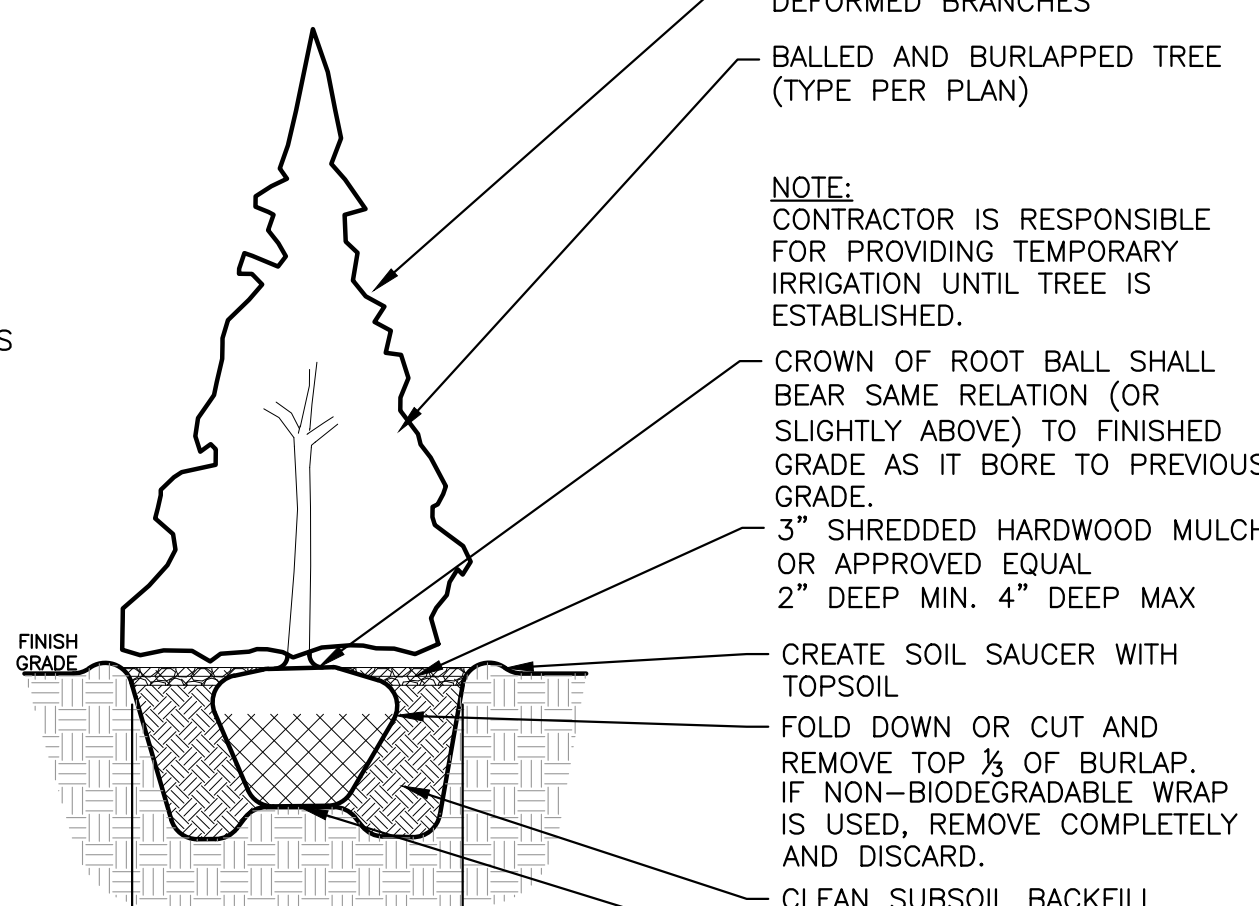
2 SHADE TREE/100 LINEAR FEET OF PARKING
 -419' OF FRONTAGE/30' = 13.97 TREES
 -1,200 LINEAR FEET OF PARKING = 24 TREES
 -24 TREES REQUIRED
 -24 TREES PROVIDED
 10 SF OF INTERIOR LANDSCAPING/350 SQ OF PAVEMENT
 -31320.28 / 350 = 89.48
 89.48x10 = 894.87 SQFT OF INTERIOR LANDSCAPING REQUIRED
 -4,730.66 SQFT OF INTERIOR LANDSCAPING PROVIDED.

FRONTAGE YARD REQUIREMENTS:

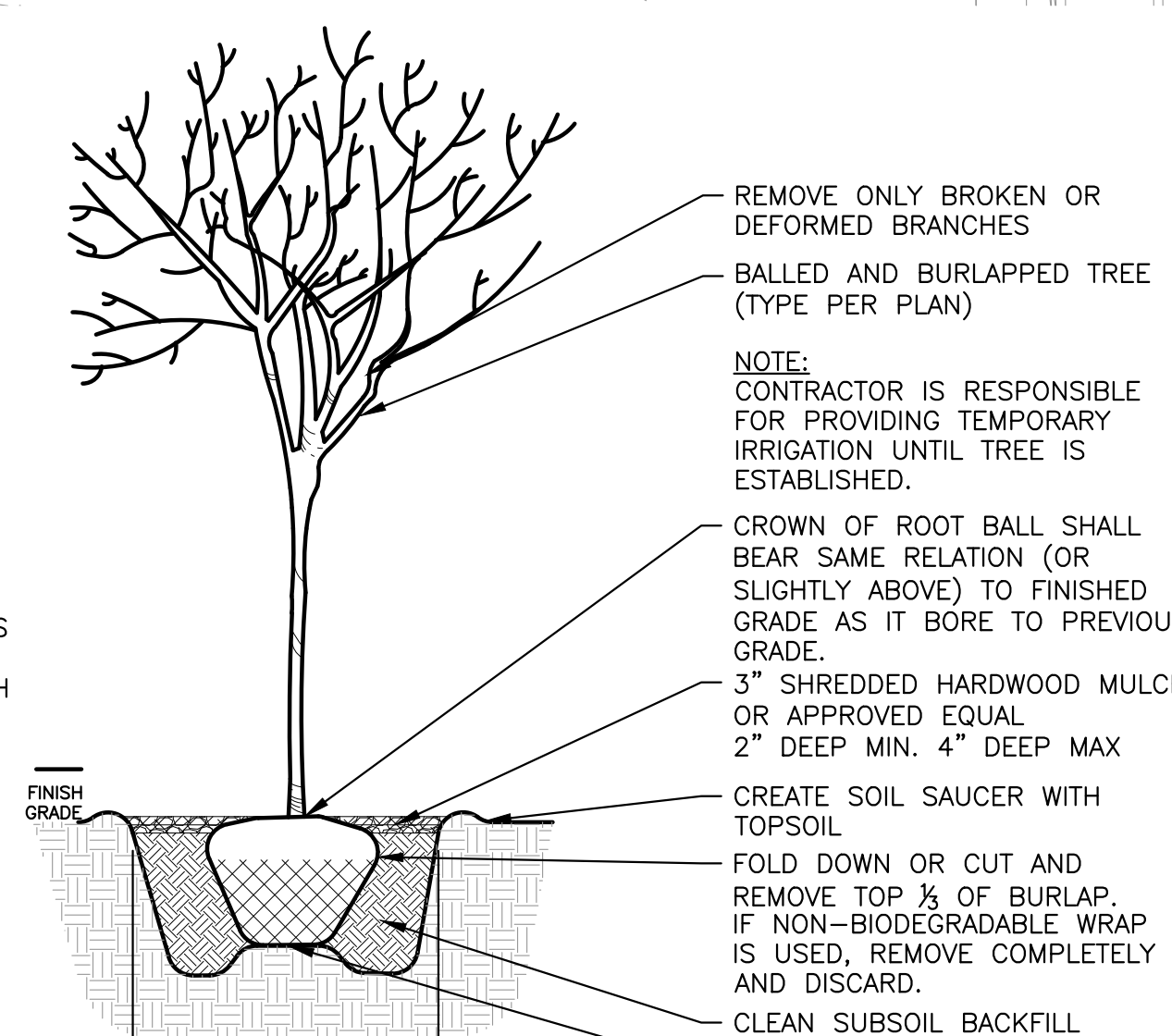
1 STREET TREE EVERY 30' OF FRONTAGE
 -419' OF FRONTAGE/30' = 13.97 TREES
 -14 TREES REQUIRED
 -14 TREES PROVIDED



SHRUB PLANTING DETAIL
NOT TO SCALE



EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE



DECIDUOUS TREE PLANTING DETAIL
NOT TO SCALE



611 N. Tenth Street, Suite 200
 St. Louis, MO 63101
 (314) 421-3542
 www.ittnerarchitects.com
 Missouri Architectural Corporation
 Certificate of Authority No. 00000

CONSULTANTS

Perkins&Will

The Wrigley Building
 410 North Michigan Avenue
 Suite 1600
 Chicago, IL 60611
 (312) 755-0770
 (312) 755-0775
 www.perkinswill.com
 Missouri Certificate of Authority No. 00000000

MCCLURE ENGINEERING

1000 Clark Avenue
 St. Louis, MO 63102
 (314) 645-3262
 Missouri Certificate of Authority No. 00000

DAVID MASON & ASSOCIATES, INC.

800 S. Vandeventer Ave.
 St. Louis, MO 63110
 (314) 534-1030
 Missouri Certificate of Authority No. 001010

CIVIL DESIGN, INC.

5220 Oakland Avenue
 St. Louis, MO 63110
 (314) 683-5570
 Missouri Certificate of Authority No. 001010

SHEN MILSON & WILKE, LLC

2 N. Riverside Plaza, Suite 1460
 Chicago, IL 60606
 (312) 559-4585

S20 CONSULTANTS, INC.

530 N Wood Street #C
 Chicago, IL 60622
 (312) 550-4080



10-23-2020

STEPHEN R. THOLE

MO Registration No. 2017024927

PROJECT

SPOEDE

ELEMENTARY

SCHOOL

425 N. Spoeede Road

St. Louis, Missouri 63141



LADUE SCHOOL

DISTRICT

9703 Conway Road

St. Louis, MO. 63124

KEYPLAN

DESIGN DEVELOPMENT

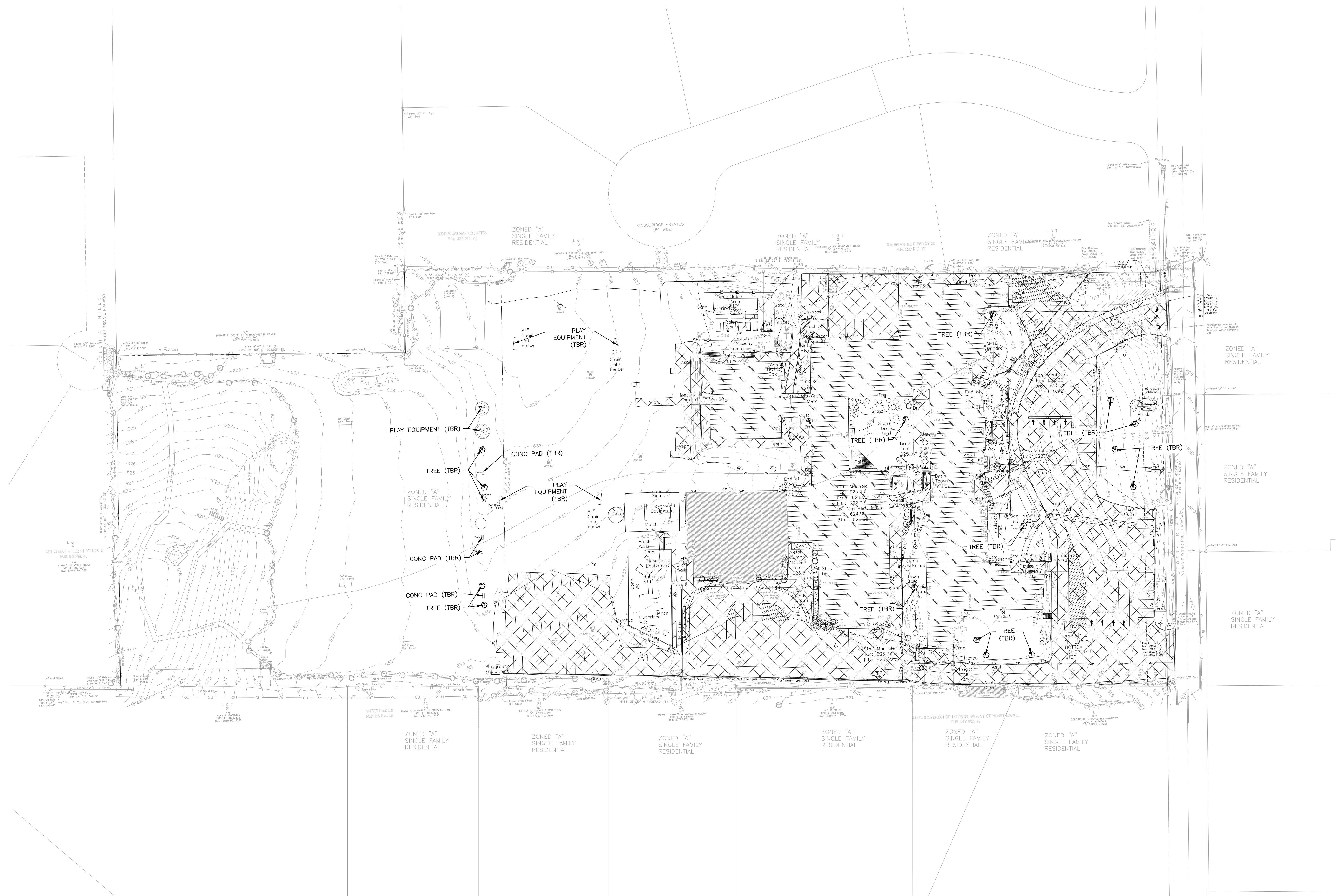
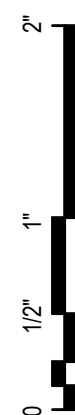
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Job Number		

TITLE

SITE LANDSCAPING PLAN

SHEET NUMBER

L20-01



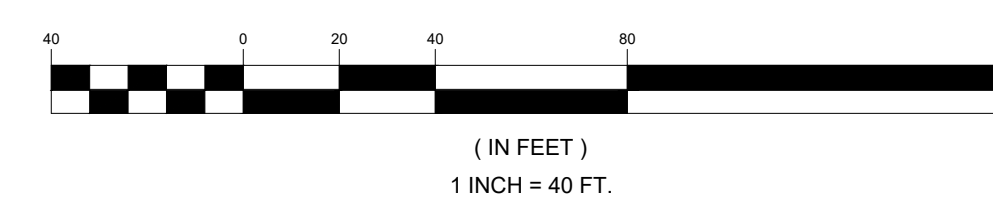
LEGEND:

- PAVEMENT TO BE REMOVED
- BUILDING TO BE REMOVED

NOTE:

1. ITEMS SHOWN IN BOLD ARE TO BE REMOVED

GRAPHIC SCALE



CONSULTANTS

Architect of Record
Perkins&Will

The Wrigley Building
410 North Michigan Avenue
Suite 1600
Chicago, IL 60611
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312.755.0775
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MEP Engineer

MCCLURE ENGINEERING

1000 Clark Avenue
St. Louis, MO 63102
t. 314.645.3262
Missouri Certificate of Authority No. 000001

Civil Engineer

DAVID MASON & ASSOCIATES, INC.

800 S. Vandeventer Ave.
St. Louis, MO 63110
t. 314.534.1030
Missouri Certificate of Authority No. 001100

Civil Engineer

CIVIL DESIGN, INC.

5220 Oakland Avenue
St. Louis, MO 63110
t. 314.663.5570
Missouri Certificate of Authority No. 00000000

Structural Engineer

SHEN MILSON & WILKE, L.L.C.

2 N. Riverside Plaza, Suite 1460
Chicago, IL 60606
t. 312.559.4888

Food Service

SZO CONSULTANTS, INC.

530 N. Wood Street #C
Chicago, IL 60622
t. 947.550.4080



10-23-2020

PROJECT

SPOEDE

ELEMENTARY

SCHOOL

425 N. Spoeede Road

St. Louis, Missouri 63141



LADUE SCHOOL

DISTRICT

9703 Conway Road

St. Louis, MO. 63124

KEYPLAN

DESIGN

DEVELOPMENT

NO.	ISSUE	DATE
Job Number		TITLE

DEMOLITION

PLAN

SHEET NUMBER

C10-01



Attachment: Renderings (#20-032: Spoele Elementary Redevelopment)





Attachment: Renderings (#20-032: Spoele Elementary Redevelopment)

PROJECT REPORT

Project Name: Spoede Elementary School
 425 Spoede Road
 Creve Coeur, MO 63141

Ittner Project No.: 202001.02

Date: October 1, 2020

General Project Description:

The City of Ladue School District is in the early planning and design process to make improvements to three of their school buildings including Spoede Elementary School located at 425 Spoede Road in Creve Coeur, MO. Spoede Elementary School has been a staple of the community since opening in 1955. Additions and renovations were made to the school in the 1960's and 2002 with the most recent addition in 2008. The project property is approximately 9.6 acres with access to the site from Spoede Rd. The school district has a desire to rebuild the school to meet the academic needs of the students and maintain equity throughout the school district.

Attachments:

- Perkins & Will; Project Description / Rational Letter dated October 1, 2020.
- McClure Engineering; Site Lighting Narrative & Cut Sheets dated October 1, 2020.
- Spoede Elementary Site Legal Description.



Perspective of New School Building (looking south-west)

PROJECT REPORT



BUILDING PERSPECTIVE
Perspective of New School Building (looking south-west)

Existing Photos:



View at existing south entrance off Spoele Road (looking along south property line)

Attachment: 10-2-2020 Submittal Rendering, Photos, and Letter (#20-032: Spoele Elementary Redevelopment)

PROJECT REPORT



View at existing south entrance off Spoele Road (looking north-west)



View at existing north entrance off Spoele Road (looking south-west)

Attachment: 10-2-2020 Submittal Rendering, Photos, and Letter (#20-032: Spoele Elementary Redevelopment)

PROJECT REPORT



View at existing north entrance off Spoede Road (looking along north property line)



Existing Front Elevation

Attachment: 10-2-2020 Submittal Rendering, Photos, and Letter (#20-032: Spoede Elementary Redevelopment)

PROJECT REPORT



Existing Front Elevation



View of existing south Gym Addition elevation

Attachment: 10-2-2020 Submittal Rendering, Photos, and Letter (#20-032: Spoele Elementary Redevelopment)

PROJECT REPORT



View of existing playground and Gym Addition looking north-east



View of existing west Gym Addition elevation

PROJECT REPORT



View of existing north Gym Addition elevation

Perkins&Will

Date: 10.1.2020

Re: Creve Coeur Planning and Zoning – Spoede Elementary School Lot Coverage Rationale

Dear Creve Coeur Planning and Zoning Commission,

Please accept this letter as part of our planning and zoning application for the Spoede Elementary School project. As stated in the application this project is a renovation / addition, two-story elementary school building located at 425 North Spoede Road. The project will consist of a near complete demolition of the existing Spoede Elementary School except for the existing gymnasium, which will remain and be incorporated into the new academic building. The proposed building design responds to the location and existing finished floor of the gym and is arranged both to improve site circulation off of North Spoede Road and to maintain open outdoor play area to the west. The new building will modernize the educational experience and help facilitate the school district's approach to academic instruction. The new building will also include an ICC-500 compliant tornado storm shelter which will double as the Pre-K academic area of the building. This modernization is an effort by the school district to provide equity across the school district for its student population.

The proposed site improvements include a new parking lot; improved parent/guardian drop-off and pick-up drive aisles; a dedicated bus drop-off and pick-up drive aisle; improved shipping and receiving access; improved site access for emergency personnel; a play area dedicated to pre-k and kindergarten students; and on site storm water detention areas. The current site condition has many asphalt parking lots that exceed the site set-back boundaries, the new plan would contain all the parking lots within the set-back boundaries and provide a vegetated buffer between North Spoede Road and the new parking areas. The new site plan also reduces the number of site access curb cuts from three to two. The proposed parent/guardian drop-off and pick-up drive aisles are designed to pull standing traffic off North Spoede Road onto the project site, lessening the traffic impact on the surrounding neighborhood. A landscape buffer will be used along the project's southern edge to obscure the emergency site-access drive from the neighboring properties. This drive will be gated for use by emergency vehicles only and is not to be used for daily car traffic. In all, the new site plan represents a major upgrade from what the school district is currently using and greatly improves the boundary conditions for the surrounding residential neighborhood.

We hope that this letter along with the accompanying reference documents provides a better understanding of our proposal. We appreciate your consideration and anticipate your response.

Sincerely,



Bryan Howard, AIA, LEED AP BD+C
Project Architect
Perkins and Will

Attachment: 10-2-2020 Submittal Rendering, Photos, and Letter (#20-032: Spoede Elementary Redevelopment)

McCLURE ENGINEERING

October 1, 2020

Mr. Rick W. Keisker
Wm. B. Ittner, Inc.
611 N 10th St Ste 200
St. Louis, MO 63101

Re: Ladue Spoede Elementary
Creve Coeur Planning and Zoning
Submission

Dear Rick:

Our design for site lighting at the new Spoede Elementary building located at 425 Spoede Road, St. Louis, Missouri 63141 will include pole mounted fixtures throughout the parking and drive areas. The fixtures will be the LSI LED Enterprise with a 16 feet maximum height, including the base. Designed calculations are targeted for the low end of IES recommendations. The fixtures will be 100% downlight and shielded as required. Design will reflect 0 foot-candles on the property line.

Please contact me if you have any questions.

Sincerely,



Austin P Strieker

Attachments
LSI Enterprise Fixture
LSI Round Straight Pole

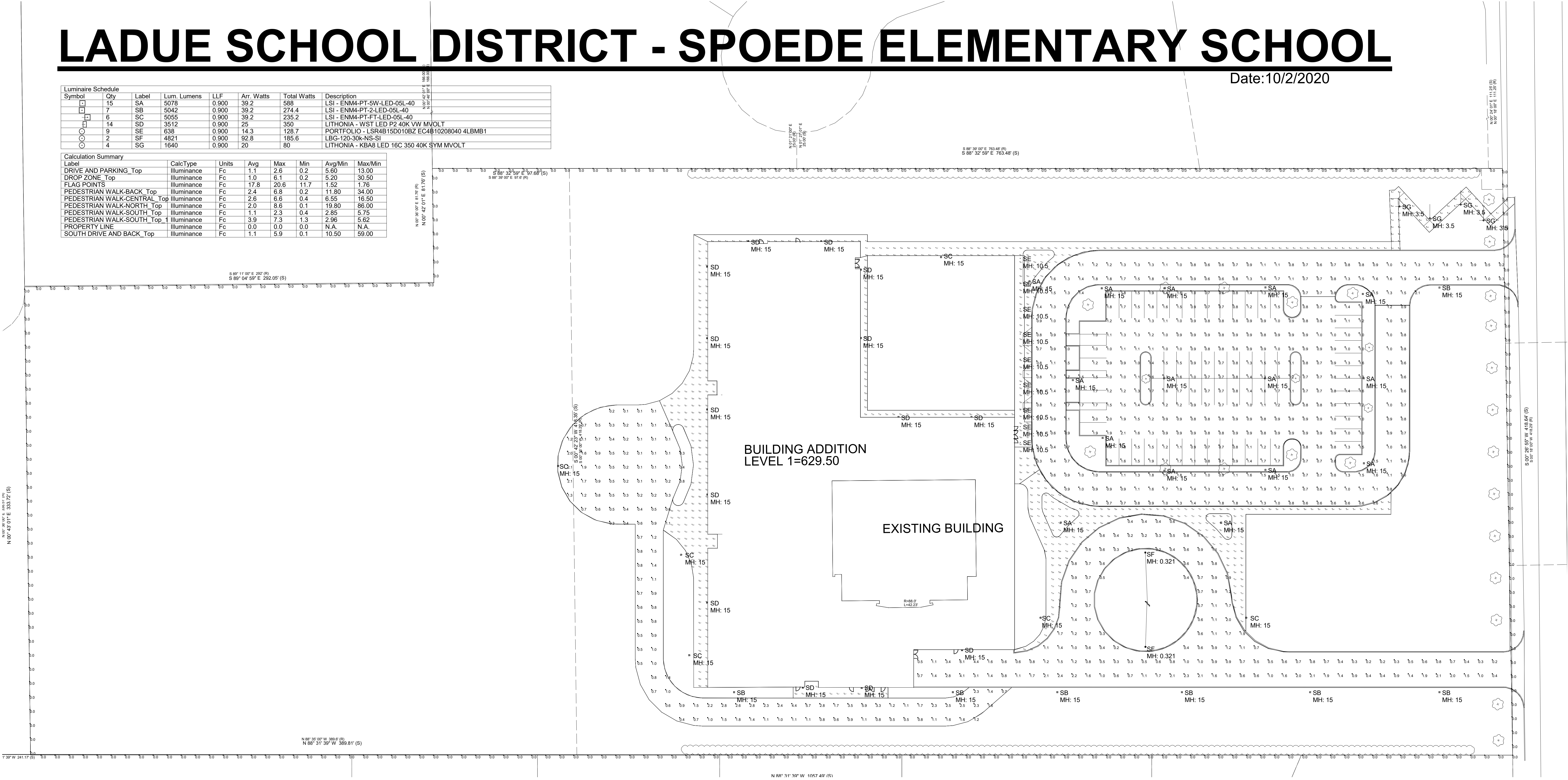
Attachment: Photometric and Lighting Plans Submitted 10-2-2020 (#20-032: Spoede Elementary Redevelopment)

LADUE SCHOOL DISTRICT - SPOEDE ELEMENTARY SCHOOL

Date:10/2/2020

Luminaire Schedule							
Symbol	Qty	Label	Lum. Lumens	LLF	Arr. Watts	Total Watts	Description
□	15	SA	5078	0.900	39.2	588	LSI - ENM4-PT-5W-LED-05L-40
□	7	SB	5042	0.900	39.2	274.4	LSI - ENM4-PT-24-LED-05L-40
□	6	SC	5055	0.900	39.2	235.2	LSI - ENM4-PT-FT-LED-05L-40
□	14	SD	3512	0.900	25	350	LITHONIA - WST LED P2 40K VW MVOLT
○	9	SE	638	0.900	14.3	128.7	PORTFOLIO - LSR4B15D010BZ EC4810208040 4LBM81
○	2	SF	4821	0.900	92.8	185.6	LBG-120-30K-NS-SI
○	4	SG	1640	0.900	20	80	LITHONIA - KBA8 LED 16C 350 40K SYM MVOLT

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
DRIVE AND PARKING_Top	Illuminance	Fc	1.1	2.6	0.2	5.60	13.00
DROP_ZONE_Top	Illuminance	Fc	1.0	6.1	0.2	5.20	30.50
FLAG_POINTS	Illuminance	Fc	17.8	20.6	11.7	1.52	1.76
PEDESTRIAN WALK-BACK_Top	Illuminance	Fc	2.4	6.8	0.2	11.80	34.00
PEDESTRIAN WALK-CENTRAL_Top	Illuminance	Fc	2.6	6.6	0.4	6.55	16.50
PEDESTRIAN WALK-NORTH_Top	Illuminance	Fc	2.0	8.6	0.1	19.60	96.00
PEDESTRIAN WALK-SOUTH_Top	Illuminance	Fc	1.1	2.3	0.4	2.85	5.75
PEDESTRIAN WALK-SOUTH_Top_1	Illuminance	Fc	3.9	7.3	1.3	2.96	5.62
PROPERTY LINE	Illuminance	Fc	0.0	0.0	0.0	N/A	N/A
SOUTH DRIVE AND BACK_Top	Illuminance	Fc	1.1	5.9	0.1	10.50	59.00





Enterprise (ENM4)

LED Decorative Post Top & Area Light



OVERVIEW	
Lumen Range	4,000 - 30,000
Wattage Range	39 - 228
Efficacy Range (LPW)	100 - 157
Weight lbs (kg)	64 (29)

QUICK LINKS

[Ordering Guide](#)[Performance](#)[Photometrics](#)[Dimensions](#)

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing.
- Cast aluminum wiring access door located in lower hub/fitter.
- Rigid die-cast aluminum arms for consistency and strength.
- Precision die cast aluminum heatsink and optical frame.
- Removable spun aluminum cap/driver enclosure is retained by captive stainless steel fasteners and safety cables. Housing and top cap interface is sealed with a one-piece extruded silicone gasket. Tool-less entry option is available.
- All exposed fasteners are black oxide coated stainless steel. Internal fasteners are stainless steel or zinc electroplated steel.
- IP65 rated luminaire protects integral components from harsh environments.
- 1.5G rated for ANSI C136.31 high vibration applications
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.

Optical System

- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated sealed optical chamber in 1 component.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in IES Types 2, 3, 5W and FT.
- Silicone optical material does not yellow or crack with age and provides a minimum light transmittance of 93%.

- Optical distributions are field rotatable (in 90° increments).
- Available in 5000K, 4000K, and 3000K (+/- 275K) color temperatures.
- Minimum CRI of 70. Consult Factory for Higher CRI requirements.
- Integral Louver (IL) option available for improved back-light control without sacrificing street side performance.

Electrical

- High-performance driver features over-voltage, under-voltage, short-circuit and over temperature protection.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L70 Calculated Life: >100k Hours (See Lumen Maintenance on Page 2)
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F)
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Terminal block provided accepts up to 10ga wire, however the luminaire is supplied with a 32' 3 conductor wire harness.
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls

- 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control module
- Optional integral passive infrared Bluetooth™ motion and photocell sensor. Fixtures operate independently and can be commissioned via iOS or Android configuration app (See page 5 for more detail).

Installation

- Post top version mounts to 4" O.D. pole with tenon and secures to pole with 6 stainless steel set screws (32' wire leads provided ease of wiring).
- Side arm version Utilizes LSI's B3 drill pattern

Warranty

- LSI LED Fixtures carry a 5-year warranty.

Listings

- Listed to UL 1598 and UL 8750.
- State of California Title 24.
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the [Qualified Products List at www.designlight.org/QPL to confirm which versions are qualified.
- Meets Buy American Act requirements.
- Suitable For wet Locations.
- IP65 rated Luminaire. IP66 rated optical chamber.
- 1.5G rated for ANSI C136.31 high vibration applications





Enterprise ENM4 LED Decorative Post Top & Area Light

7.1.i

ORDERING GUIDE

[Back to Quick L](#)

TYPICAL ORDER EXAMPLE: **ENM4 LED 3 PT 18L 50 UNV BLK IMSBT1**

Family	Light Source	Distribution	Mounting	Lumen Package	Color Temperature	Voltage	Finish	Option Controls	Options
ENM4 - Enterprise	LED	2 - Type II 3 - Type III 5W - Type 5 Wide FT - Forward Throw (Type IV)	PT - Post Top SA4 - Side Arm Mount for 4" Poles SA5 - Side Arm Mount for 5" Poles	5L - 5,000 Lumens 10L - 10,000 Lumens 18L - 18,000 Lumens 25L - 25,000 Lumens	30 - 3000K 40 - 4000K 50 - 5000K	UNV - Universal Voltage (120-277V) HV - High Voltage (347-480V)	BRZ - Bronze BLK - Black GPT - Graphite MSV - Metallic Silver WHT - White PLP - Platinum Plus SVG - Satin Verde Green	Stand-Alone Control (Blank) - None IMSBT1 - Integral Bluetooth™ Motion and Photocell Sensor max 8-24' mounting height ⁷ IMSBT2 - Integral Bluetooth™ Motion and Photocell Sensor max 25-40' mounting height ⁷	CR7P - 7-Pin Twist Lock Control Receptacle ANS C136.41 ¹ IL - Integral Louver Shield

Accessory Ordering Information

Description	Order Number	Description	Order Number
BK MPT B04 - Bolt on Bracket (for PT 180) For 4" O.D. Round Poles	490025CLR ⁵	FK120 Single Fusing (120V)	FK120 ³
BK MPT B05 - Bolt on Bracket (for PT 180) For 5" O.D. Round Poles	490035CLR ⁵	FK277 Single Fusing (277V)	FK277 ³
IL - Integral Louver Shield (Black only)	654939	DFK208,240 Double Fusing (208V, 240V)	DFK208, 240 ³
PC120 Photocell for use with CR7P option (120V)	159514 ^{2,4}	DFK480 Double Fusing (480V)	DFK480 ³
PC208-277 Photocell for use with CR7P option (208V, 240V, 277V)	122515 ^{2,4}	FK347 Single Fusing (347V)	FK347 ³
PC347 Photocell for use with CR7P option (347V)	122516 ^{2,4}	ALSC UNV TL5 - AirLink 5 Pin Twist Lock Controller	661409
PC480 Photocell for use with CR7P option (480V)	1225180 ^{2,4}	ALSC UNV TL7 - AirLink 7 Pin Twist Lock Controller	661410
WM - Post top wall mount bracket (bronze) C/F for additional finish options	356044	SA WM - Side arm wall mount bracket (bronze) C/F for additional finish options	356106
		Shorting Cap for use with CR7P option	149328

FOOTNOTES:

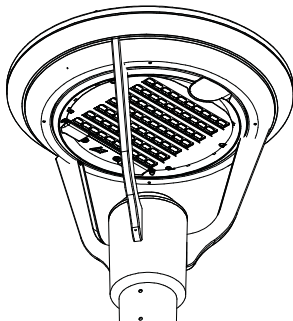
- Control device or shorting cap must be ordered separately. See Accessory Ordering Information.
- Factory installed CR7P option required. See Options.
- Fusing must be located in hand hole of pole.
- These photocells provide Dusk/Dawn, on-off control only. Consult factory for alternate photocells providing additional functionality.
- Order poles with 3" reduced drilling pattern. For PT mounting configurations other than D180, consult factory. Order one bracket per fixture
- Consists of a daylight & motion dual sensor. Field configurable via the LSI app that can be downloaded from your smartphone's native app store. Not available CR7P.
- Not available in HV

Accessories/Options

Integral Louver (IL)

Optional Integral Louver available for improved back-light control without sacrificing street side performance.

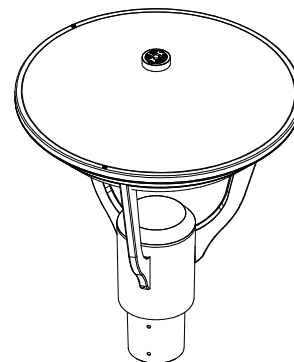
Fixture Shown with Integral Louver (IL)



7 Pin Photoelectric Control

7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock photocontrols or wireless control modules. Control accessories sold separately. Dimming leads from the receptacle will be connected to the driver dimming leads (Consult factory for alternate wiring).

Fixture Shown with CR7P





PERFORMANCE

[Back to Quick L](#)

POST TOP - DELIVERED LUMENS*

Lumen Package	Distribution	3000K CCT			4000K CCT			5000K CCT			Wattage
		Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
5L	2	4563	117	B2-U1-G1	5042	129	B2-U1-G1	5279	135	B2-U1-G1	39
	3	4691	120	B1-U1-G2	5184	132	B1-U1-G2	5427	139	B1-U1-G2	
	FT	4574	117	B1-U1-G2	5055	129	B1-U1-G2	5292	136	B1-U1-G2	
	5W	4595	118	B3-U1-G1	5078	130	B3-U1-G1	5316	136	B3-U1-G1	
10L	2	9089	117	B2-U2-G2	10044	130	B2-U2-G2	10515	135	B2-U2-G2	78
	3	9367	120	B2-U2-G2	10351	134	B2-U2-G2	10837	139	B2-U2-G2	
	FT	9110	117	B2-U2-G2	10067	130	B2-U2-G2	10540	135	B2-U2-G2	
	5W	9140	120	B3-U2-G2	10009	129	B3-U2-G2	10479	134	B3-U2-G2	
18L	2	16633	113	B3-U2-G3	18129	122	B3-U2-G3	18980	128	B3-U2-G3	149
	3	17098	115	B3-U2-G3	18788	126	B3-U2-G3	19670	132	B3-U2-G3	
	FT	16710	112	B3-U2-G3	18361	123	B3-U2-G3	19223	129	B3-U2-G3	
	5W	16760	112	B4-U2-G2	18416	124	B4-U2-G2	19280	129	B4-U2-G2	
25L	2	22912	102	B4-U2-G3	24993	109	B4-U2-G3	26166	115	B4-U2-G3	228
	3	23614	104	B3-U2-G3	25973	114	B3-U2-G3	27192	119	B3-U2-G3	
	FT	22805	100	B3-U2-G4	25083	110	B3-U2-G4	26260	115	B3-U2-G4	
	5W	23629	104	B5-U2-G3	25990	114	B5-U2-G3	27210	119	B5-U2-G3	

SIDE ARM - DELIVERED LUMENS*

Lumen Package	Distribution	3000K CCT			4000K CCT			5000K CCT			Wattage
		Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
5L	2	5269	135	B2-U0-G1	5764	147	B2-U0-G1	6052	155	B2-U0-G1	39
	3	5330	137	B1-U0-G2	5830	w148	B1-U0-G2	6122	157	B1-U0-G2	
	FT	5140	132	B1-U0-G2	5623	143	B1-U0-G2	5904	151	B1-U0-G2	
	5W	5159	132	B3-U0-G1	5643	144	B3-U0-G1	5925	152	B3-U0-G1	
10L	2	10217	131	B2-U0-G2	11176	144	B2-U0-G2	11735	150	B2-U0-G2	78
	3	10640	136	B2-U0-G2	11639	150	B2-U0-G2	12221	157	B2-U0-G2	
	FT	10376	133	B2-U0-G2	11350	146	B2-U0-G2	11918	153	B2-U0-G2	
	5W	10299	133	B4-U0-G2	11183	144	B4-U0-G2	11742	151	B4-U0-G2	
18L	2	18540	124	B3-U0-G3	20281	136	B3-U0-G3	21295	143	B3-U0-G3	149
	3	18805	126	B3-U0-G3	20571	138	B3-U0-G3	21600	145	B3-U0-G3	
	FT	18590	125	B3-U0-G3	20336	136	B3-U0-G3	21353	143	B3-U0-G3	
	5W	18729	126	B4-U0-G2	20488	137	B4-U0-G2	21512	144	B4-U0-G2	
25L	2	25692	114	B4-U0-G3	28564	125	B4-U0-G3	29992	132	B4-U0-G3	228
	3	25722	113	B3-U0-G4	28959	127	B3-U0-G4	30407	133	B3-U0-G4	
	FT	25590	112	B3-U0-G4	28811	126	B3-U0-G4	30252	133	B3-U0-G4	
	5W	25777	113	B5-U0-G3	29021	127	B5-U0-G3	30472	134	B5-U0-G3	

*LEDs are frequently updated therefore values are nominal.

POST TOP AND SIDE ARM - ELECTRICAL DATA (Amps)*

Lumen Package	Wattage	120V	208V	240V	277V	347V	480V
5L	39	0.33	0.19	0.16	0.14	0.11	0.08
10L	78	0.65	0.38	0.33	0.28	0.22	0.16
18L	149	1.24	0.72	0.62	0.54	0.43	0.31
25L	228	1.90	1.10	0.95	0.82	0.66	0.48

*Electrical data at 25C (77F). Actual wattage may differ by +/-10%.

POST TOP AND SIDE ARM - RECOMMENDED LUMEN MAINTENANCE¹

Ambient Temp C	Initial ²	25k hr ²	50k hr ²	75k hr ³	100k hr
0 C	99%	97%	96%	95%	94%
10 C	99%	97%	96%	95%	93%
20 C	99%	97%	95%	94%	92%
25 C	98%	97%	95%	93%	92%
30 C	98%	97%	95%	93%	92%
40 C	98%	97%	95%	93%	91%

- Lumen maintenance values at 40C are calculated per TM-21 based on LM-80 data and in-situ testing.
- In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on durations that are within six times the IESNA LM-80-08 total test duration for the device under testing.
- In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed times the IESNA LM-80-08 total test duration for the device under testing.



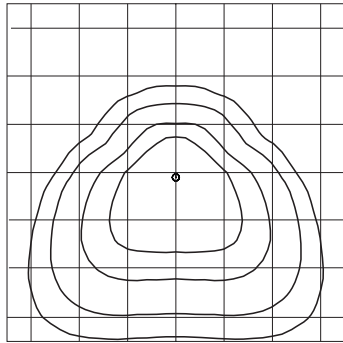


PHOTOMETRICS

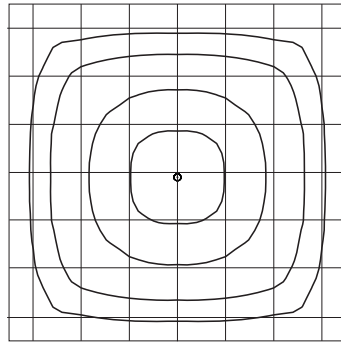
[Back to Quick Link](#)

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

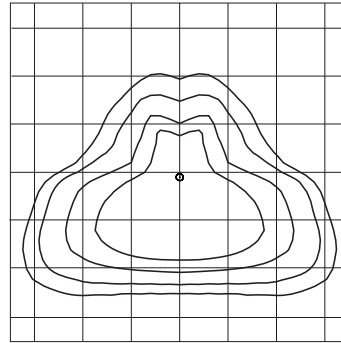
See <http://www.lsi-industries.com/products/led-lighting-solutions.aspx> for detailed photometric data.



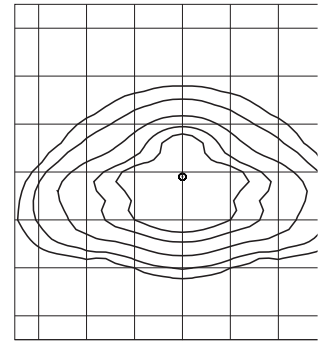
FT



5W

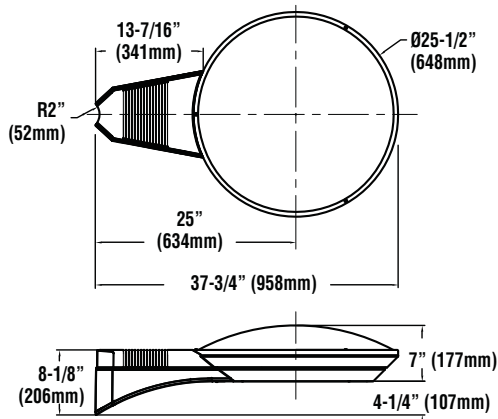


Type 3

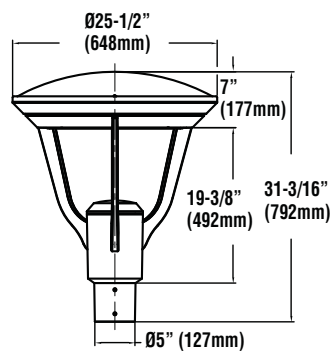


Type 2

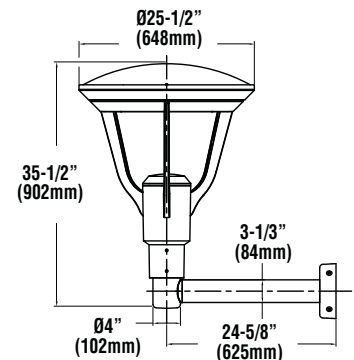
PRODUCT DIMENSIONS

[Back to Quick Link](#)

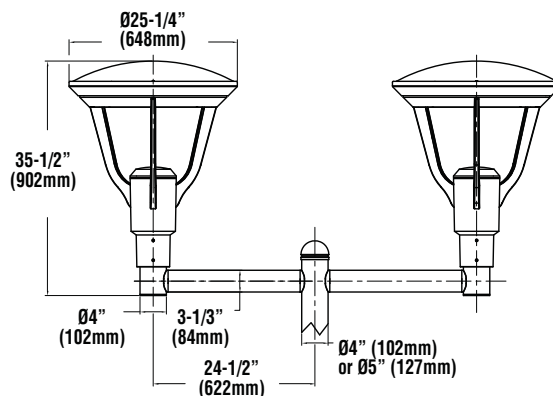
Side Arm Pole Mount
(select 3" reduced drilling pattern)



Post Top
Sliptits 4" Dia. Tenon (4N) or Pole



Post Top with WM Accessory



Post Top with BK MPT B0 (x2)
Mounts to 4" or 5" Dia. D180 Bolt-on Pole
(select 3" reduced drilling pattern)

LUMINAIRE EPA CHART - Crossover Enterprise		
MOUNTING STYLE		
■ PT Single	PT	1.0
■ PT D180° with BK MPT B0 (2)	PT	2.0
■ Single	SA	1.0
■ D180°	SA	2.1
■ D90°	SA	1.8
■ T90°	SA	2.7
■ T120°	SA	2.8
■ Q90°	SA	3.5

SHIPPING WEIGHTS - Crossover Enterprise

Catalog Number	Est. Weight (kg/lbs.)
ENM4 (PT or SA)	29/64





CONTROLS

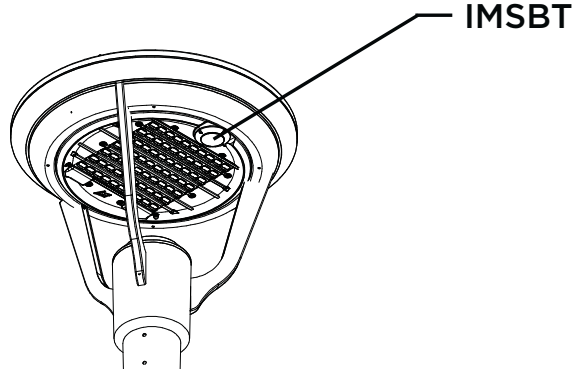
Integral Bluetooth™ Motion and Photocell Sensor (IMSBT)

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is rat for cold and wet locations (-30° C to 70° C). Two unique PIR lenses are available and used based on fixture mounting height. All cont parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

Click the link below to learn more details about IMSBT.

<https://www.lsi-industries.com/documents/datasheets/imsbt-specsheet.pdf>

Fixture Shown with IMSBT





Catalog # : _____

Project : _____

7.1.i

Prepared By : _____

Date : _____

Steel Poles

Round Straight



QUICK LINKS

[Ordering Guide](#)[Configurations](#)[Dimensions](#)[EPA](#)

FEATURES & SPECIFICATIONS

Pole Shaft

- Steel round poles are 4" or 5" in diameter.
- Pole shaft is electro-welded ASTM-A500 Grade C steel tubing with a minimum yield strength of 46,000 psi.
- On Tenon Mount steel poles, tenon is high-strength pipe. Tenon N option is 2-3/8" O.D. x 4-3/4" tall. Tenon 4N option is 4" O.D. x 4-7/8" tall.

Hand-Hole

- Standard hand-hole location is 12" above pole base.
- Poles 18' and above have a 3" x 6" reinforced hand-hole. Shorter poles have 2" x 4" non-reinforced hand-hole.

Base

- Pole base is ASTM-A36 hot-rolled steel plate with a minimum yield strength of 36,000 psi.
- Two-piece square base cover is optional. Decorative base cover is also available.

Anchor Bolts

- Poles are furnished with anchor bolts featuring zinc-plated double nuts and washers. Galvanized anchor bolts are optional.
- Anchor bolts conform to ASTM F 1554-07a Grade 55 with a minimum yield strength of 55,000 psi.

Ground Lug

- Ground lug is standard.

Duplex Receptacle

- Weatherproof duplex receptacle is optional.

Ground Fault Circuit Interrupter

- Self-testing ground fault circuit interrupter is optional.

Finishes

- Every pole is provided with the DuraGrip® Protection System and a 5-year limited warranty:
- When the top-of-the line DuraGrip® Plus Protection System is selected, in addition to the DuraGrip® Protection System, a non-porous, automotive-grade corrosion coating is applied to the lower portion of the pole interior, sealing and further protecting it from corrosion. This option extends the limited warranty to 7 years.

Determining The Luminaire/Pole Combination For Your Application:

- Select luminaire from luminaire ordering information
- Select bracket configuration if required
- Determine EPA value from luminaire/bracket EPA chart
- Select pole height

- Select MPH to match wind speed in the application area (See windspeed maps).
- Confirm pole EPA equal to or exceeding value of luminaire/bracket EPA
- Consult factory for special wind load requirements and banner brackets

Pole Vibration Damper

- A pole vibration damper is recommended in open terrain areas of the country where steady state winds are common.
- Non-tapered poles and lightly loaded poles are more susceptible to destructive vibration if a damper is not installed.

Listings

- UL Listed
- BAA/TAA Compliant

Attachment: Photometric and Lighting Plans Submitted 10-2-2020 (#20-032: Spode Elementary Redevelopment)





ORDERING GUIDE

[Back to Quick L](#)TYPICAL ORDER EXAMPLE: **5RP B5 S07G 24 S PLP DGP**

Pole Series	Mounting Method	Material	Height ⁴	Mounting Configuration	Pole Finish	Options
4RP - 4" Diameter Round Straight Pole 5RP - 5" Diameter Round Straight Pole	Bolt-On Mount¹ - See pole selection guide for patterns and fixture matches. B5 - 5" Traditional Drilling Pattern B3 - 3" Reduced Drilling Pattern B2 - 2" Reduced Drilling Pattern T - Tenon Mount - See pole selection guide for tenon and fixture/bracket matches. I - No Mounting Holes ¹ - Use with: • Greenlee Lifestyle CC, SC & CH mounting styles • Enterprise, Intrepid & Lexington PT Single mounting styles ² • Lifestyle UCLS • Lifestyle UCLD180	S11G - 11 Ga. Steel (5RP only) S10G - 10 Ga. Steel (4RP only) S07G - 07 Ga. Steel (5RP only)	8' 10' 12' 14' 15' 16' 17' 17' 6" 18' 20' 22' 22' 6" 24' 25' 26' 27' 28' 30' 11' 13' Height Restriction, Consult Pole Selection Chart on opposite page	S - Single/Parallel D180 - Double D90 - Double DN90 - Double T90 - Triple TN120 - Triple Q90 - Quad QN90 - Quad N - Tenon Mount 4N - Tenon Mount (5RPT only. For 4" poles, use 4RPI ⁵) 4N-6 - Tenon Mount (5RPT only. For 4" poles use 4RPI)	BRZ - Bronze BLK - Black PLP - Platinum Plus WHT - White SVG - Satin Verde Green GPT - Graphite MSV - Metallic Silver BZA - Alternate Bronze	GA - Galvanized Anchor Bolts SF - Single Flood ⁶ DF - Double Flood ⁶ DGP - DuraGrip® Plus LAB - Less Anchor Bolt OSXX - Pole preparation for PMOS Occupancy Sensor ⁷ Standard SF and DF pole preparations are located 3/4 of the height of the pole from the base, except on 20' poles. Maximum height for SF and DF pole preparations on 20' poles is 13' from the base.

Accessory Ordering Information

Description	Order Number	Description	Order Number
4" SRBC Square Base Cover	158450CLR	MH3 - Mounting Hole Plugs for use with 3" reduced drill pattern (1 sets of 3 plugs)	681126
5" SRBC Square Base Cover	158451CLR	MH2 - Mounting Hole Plugs for use with 2" reduced drill pattern (1 sets of 3 plugs)	725841
4" /5" GBC Decorative Base Cover	483859CLR	BB - Banner Brackets	Consult Factory for EPA calculation
ER2 - Weatherproof Duplex Receptacle (Poles below 18')	122557CLR	PMOS120 - 120V Occupancy Sensor	518030CLR ⁸
ER2 - Weatherproof Duplex Receptacle for Reinforced Hand-hole (Poles 18' and above)	122566CLR	PMOS208/240 - 208, 240V Occupancy Sensor	534239CLR ⁸
GFI - Ground Fault Circuit Interrupter (Poles below 18')	122558CLR	PMOS277 - 277V Occupancy Sensor	518029CLR ⁸
GFI - Ground Fault Circuit Interrupter for Reinforced Hand-hole (Poles 18' and above)	22567CLR	PMOS480 - 480V Occupancy Sensor	534240CLR ⁸
MH5 - Mounting Hole Plugs for use with 5" traditional drill pattern (1 set of 3 plugs)	132336		

FOOTNOTES:

- 1 - See Area Light Brackets - 3" Reduced Drill Pattern and Area Light Brackets - 5" Traditional Drill Pattern spec sheets.
- 2 - For Enterprise, Intrepid and Lexington PT mounting configuration styles, see Tenon Mount (4N) and Greenlee Slipfit Pole Series (4RPI).
- 3 - Standard flat black pole cap provided. Domed Greenlee pole cap will ship with SA4 and SA5 Enterprise, Intrepid and Lexington fixtures, SA Lifestyle fixtures, BK SPT BO, BK MPT BO and UCL brackets.
- 4 - Pole heights will have +/- 1/2" tolerance.

- 5 - For Enterprise, Intrepid and Lexington D180 or other mounting configuration styles using BK SPT BO and BK MPT BO accessories, see chart on Bolt-on Mount 4RPB3 / 5RPB3 DRILLING PATTERN section on pole selection chart.
- 6 - See Flood Lighting Brackets section for choice of FBO brackets.
- 7 - Order PMOS separately. Change "XX" to indicate height and side of pole location for pole preparation. EX: OS18A indicates preparation is to be 18ft. up from pole base on side A. Optimal distance from ground to sensor is 20ft.
- 8 - OSXX option required. Not for use with Metal Halide fixtures.

Attachment: Photometric and Lighting Plans Submitted 10-2-2020 (#20-032: Spoede Elementary Redevelopment)

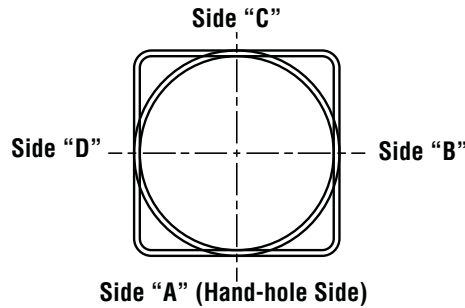




DRILLING LOCATIONS

[Back to Quick L](#)

Sides	A	B	C	D
Hand-hole	X			
Single	X			
D180		X		X
D90	X			X
DN90 ¹				
T90	X	X		X
TN120 ²				
Q90	X	X	X	X
QN90 ³				
Single FBO	X			
Double FBO		X		X

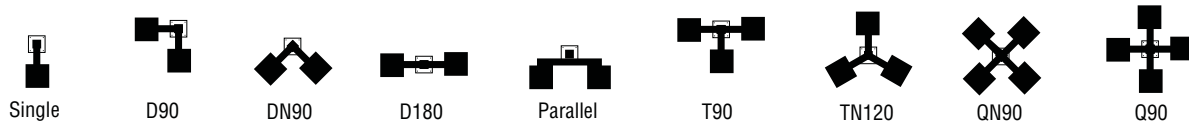


NOTES:

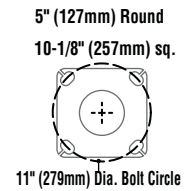
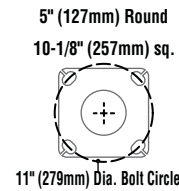
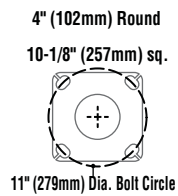
- 1 - Two locations will be 45° to the left and right of Side A.
- 2 - Other two locations will be 120° to the left and right of Side A.
- 3 - Two locations will be 45° to the left and right of Side A and two locations will be 135° to the left and right of Side A.

Consult factory for custom variations. Standard SF and DF pole preparations are located 3/4 of the height of the pole from the base, except on 20' poles. Maximum height for SF and DF pole preparations on 20' poles is 13' from the base.

FIXTURE CONFIGURATIONS



BOLT CIRCLE



Bolt Circle Designator	L	L	M
Bolt Circle	Slotted 11" (279mm)	Slotted 11" (279mm)	Slotted 11" (279mm)
Anchor Bolt Size	3/4" x 30" (19mm x 762mm)	3/4" x 30" (19mm x 762mm)	1" x 36" (25mm x 914mm)
Anchor Bolt Projection	3-1/4" (83mm)	3-1/4" (83mm)	4" (102mm)
Base Plate Opening for Wireway Entry	3-5/8" (92mm)	4-3/4" (121mm)	4-5/8" (117mm)
Base Plate Dimensions	10-1/8" sq. x 3/4" thk. (257mm x 19mm)	10-1/8" sq. x 3/4" thk. (257mm x 19mm)	10-1/8" sq. x 1" thk. (257mm x 25mm)
Pole Gauge	10	11	7

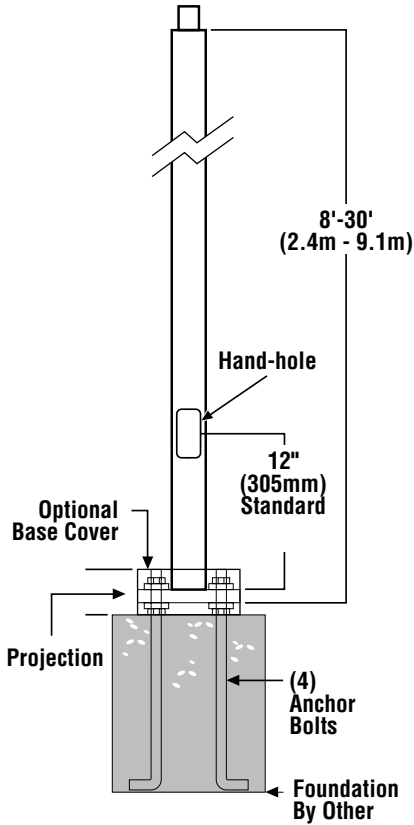
Note: Base plate illustrations may change without notice. Do not use for setting anchor bolts. Consult factory for the appropriate anchor bolt template.





PRODUCT DIMENSIONS

RPT –
N = 2-3/8"(60mm) O.D. x 4-3/4"(121mm) Tenon
4N = 4"(102mm) O.D. x 4-7/8"(124mm) Tenon
4N6 = 4"(102mm) O.D. x 6-3/8"(162mm) Tenon

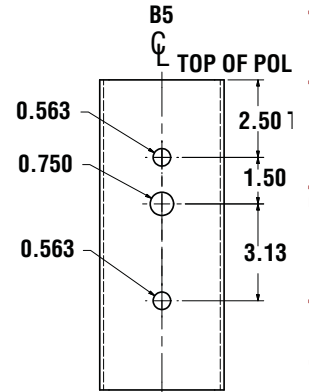
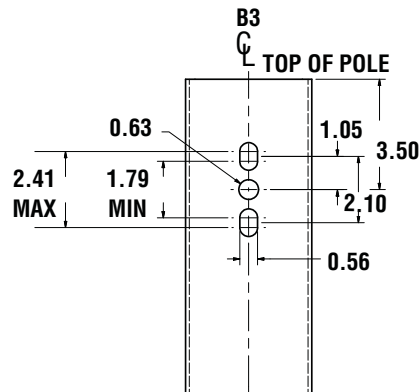
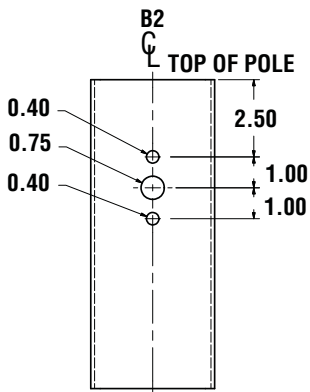


SF –
Single Flood
Pole Preparation



SHIPPING WEIGHTS	
4"(102mm) Dia. 10 Ga. is approximately	6.0 lbs./ft.
5"(127mm) Dia. 11 Ga. is approximately	7.0 lbs./ft.
5"(127mm) Dia. 07 Ga. is approximately	10.0 lbs./ft.
Anchor Bolts (3/4" x 30")(19mm x 762mm)	15 lbs.(7kg)/set
Anchor Bolts (1" x 36")(125mm x 914mm)	30 lbs.(14kg)/set

Bolt-On Mount 2-Bolt Pattern



Attachment: Photometric and Lighting Plans Submitted 10-2-2020 (#20-032: Spoede Elementary Redevelopment)





WIND SPEED

EPA Information

All LSI Industries' poles are guaranteed to meet the EPA requirements listed. LSI Industries is not responsible if a pole order has a lower EPA rating than the indicated wind-load zone where the pole will be located.

CAUTION: This guarantee does not apply if the pole/bracket/fixture combination is used to support any other items such as flags, pennants, or signs, which would add stress to the pole. LSI Industries cannot accept responsibility for harm or damage caused in these situations.

NOTE: Pole calculations include a 1.3 gust factor over steady wind velocity. Example: poles designed to withstand 80 MPH steady wind will withstand gusts to 104 MPH. EPAs are for locations 100 miles away from hurricane ocean lines. Consult LSI for other areas. Note: Hurricane ocean lines are the Atlantic and Gulf of Mexico coastal areas. For application in Florida or Canada, consult factory.

Use ONLY with "Wind Speed Map for ASCE 7-10

POLE ¹	Mtg. Height Length (ft)	Wall Thick (ga)	BOLT CIRCLE			EPA								
			Designator	Dia. (in)	Anchor bolt Dia (in)	110 MPH	115 MPH	120 MPH	130 MPH	140 MPH	150 MPH	160 MPH	170 MPH	180 MI
4" x 10-ga x 14'	14	10	L	11	0.75	6.0	5.2	4.7	3.9	3.2	2.7	2.3	2.0	1.7
4" x 10-ga x 16'	16	10	L	11	0.75	4.3	3.7	3.2	2.6	2.1	1.8	1.4	1.2	1.0
4" x 10-ga x 18'	18	10	L	11	0.75	7.7	6.8	6.0	5.0	4.2	3.5	3.0	2.5	2.2
4" x 10-ga x 20'	20	10	L	11	0.75	6.0	5.2	4.6	3.7	3.1	2.5	2.1	1.8	1.5
4" x 10-ga x 22'	22	10	L	11	0.75	4.6	3.9	3.3	2.6	2.1	1.7	1.4	1.1	0.9
4" x 10-ga x 24'	24	10	L	11	0.75	3.4	2.7	2.2	1.7	1.3	1.0	0.7	0.5	n/a
5" x 11-ga x 16'	16	11	L	11	0.75	8.7	7.9	7.2	6.0	5.0	4.3	3.7	3.2	2.8
5" x 11-ga x 18'	18	11	L	11	0.75	12.2	11.1	10.1	8.5	7.2	6.1	5.3	4.6	4.0
5" x 11-ga x 20'	20	11	L	11	0.75	10.0	9.1	8.2	6.8	5.7	4.9	4.2	3.6	3.1
5" x 11-ga x 22'	22	11	L	11	0.75	8.1	7.3	6.6	5.5	4.5	3.8	3.2	2.8	2.4
5" x 11-ga x 24'	24	11	L	11	0.75	6.5	5.9	5.3	4.3	3.5	2.9	2.4	2.0	1.7
5" x 11-ga x 26'	26	11	L	11	0.75	5.2	4.6	4.1	3.2	2.6	2.1	1.7	1.4	1.1
5" x 7-ga x 18'	18	7	M	11	1.00	19.7	17.9	16.4	13.8	11.7	10.1	8.8	7.7	6.8
5" x 7-ga x 20'	20	7	M	11	1.00	16.5	15.0	13.7	11.5	9.8	8.4	7.3	6.3	5.6
5" x 7-ga x 22'	22	7	M	11	1.00	14.0	12.7	11.5	9.6	8.1	7.0	6.0	5.2	4.6
5" x 7-ga x 24'	24	7	M	11	1.00	11.8	10.6	9.6	8.0	6.8	5.7	4.9	4.2	3.7
5" x 7-ga x 26'	26	7	M	11	1.00	9.9	8.9	8.0	6.7	5.6	4.7	4.0	3.4	2.9
5" x 7-ga x 28'	28	7	M	11	1.00	8.3	7.4	6.7	5.4	4.5	3.7	3.1	2.7	2.3
5" x 7-ga x 30'	30	7	M	11	1.00	6.8	6.1	5.4	4.4	3.6	2.9	2.4	2.0	1.7

All LSI Industries' poles are guaranteed to meet the EPA requirements listed. LSI Industries is not responsible if a pole order has a lower EPA rating than the indicated wind-loading zone where the pole will be located.

CAUTION: This guarantee does not apply if the pole/bracket/fixture combination is used to support any other items such as flags, pennants, or signs, which would add stress to the pole. LSI Industries cannot accept responsibility for harm or damage caused in these situations.

Note:

1- Poles shorter than these listed here in for each gauge have EPA rating equal to or greater than what is provided in this table. To Confirm EPA ratings on shorter poles, contact LSI Industries.





WST LED

Architectural Wall Sconce

Catalog
Number

Notes

Type

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

Specifications

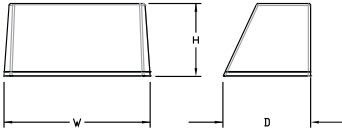
Luminaire

Height: 8-1/2"
(21.59 cm)

Width: 17"
(43.18 cm)

Depth: 10-3/16"
(25.9 cm)

Weight: 20 lbs
(9.1 kg)

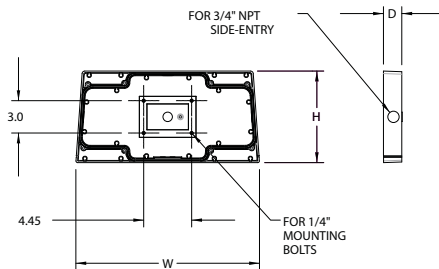


Optional Back Box (PBBW)

Height: 8.49"
(21.56 cm)

Width: 17.01"
(43.21 cm)

Depth: 1.70"
(4.32 cm)

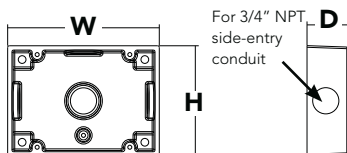


Optional Back Box (BBW)

Height: 4"
(10.2 cm)

Width: 5-1/2"
(14.0 cm)

Depth: 1-1/2"
(3.8 cm)



A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background. DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability¹
- This luminaire is part of an A+ Certified solution for ROAM® or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background¹

To learn more about A+, visit www.acuitybrands.com/aplus.

See ordering tree for details.

A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: [Link to Roam](#); [Link to DTL DLL](#)



A+ Capable options indicated
by this color background.

Ordering Information

EXAMPLE: WST LED P1 40K VF MVOLT DDBTXD

WST LED						
Series	Performance Package	Color temperature	Distribution	Voltage		Mounting
WST LED	P1 1,500 Lumen package	27K 2700 K	VF Visual comfort forward throw	MVOLT ¹	277 ²	Shipped included (blank) Surface mounting bracket Shipped separately BBW Surface-mounted back box ³ PBBW Premium surface-mounted back box ^{3,4}
	P2 3,000 Lumen package	30K 3000 K	VW Visual comfort wide	120 ²	347 ²	
	P3 6,000 Lumen package	40K 4000 K		208 ²	480 ²	
		50K 5000 K		240 ²		

Options		Finish (required)
NLTAIR2 PIR	nLIGHT AIR Wireless enabled motion/ambient sensor for 8'-15' mounting heights ^{5,6}	DDBXD Dark bronze
NLTAIR2 PIRH	nLIGHT AIR Wireless enabled motion/ambient sensor for 15'-30' mounting heights ^{5,6}	DBLXD Black
PE	Photoelectric cell, button type ⁷	DNAXD Natural aluminum
PER	NEMA twist-lock receptacle only (controls ordered separate) ⁸	DWHXD White
PER5	Five-wire receptacle only (controls ordered separate) ⁸	DSSXD Sandstone
PER7	Seven-wire receptacle only (controls ordered separate) ⁸	DDBTXD Textured dark bronze
PIR	Motion/Ambient Light Sensor, 8'-15' mounting height ^{5,6}	DBLBXD Textured black
PIR1FC3V	Motion/ambient sensor, 8'-15' mounting height, ambient sensor enabled at 1fc ^{5,6}	DNATXD Textured natural aluminum
PIRH	180° motion/ambient light sensor, 15'-30' mounting height ^{5,6}	DWHGXD Textured white
PIRH1FC3V	Motion/ambient sensor, 15'-30' mounting height, ambient sensor enabled at 1fc ^{5,6}	DSSTXD Textured sandstone
SF	Single fuse (120, 277, 347V) ²	
DF	Double fuse (208, 240, 480V) ²	
DS	Dual switching ⁹	
DMG	0-10V dimming extend out back of housing for external control (control ordered separate) ¹⁰	
E7WH	Emergency battery backup, Non CEC compliant (7W) ¹¹	
E7WC	Emergency battery backup, CA Title 20 Noncompliant (cold, 7W) ^{11,12}	
E7WHR	Remote emergency battery backup, CA Title 20 Noncompliant (remote 7W) ^{11,13}	
E20WH	Emergency battery pack 18W constant power, Certified in CA Title 20 MAEDBS ¹¹	
E20WC	Emergency battery pack -20°C 18W constant power, Certified in CA Title 20 MAEDBS ^{11,12}	
E23WHR	Remote emergency battery backup, CA Title 20 Noncompliant (remote 20W) ^{11,12,14}	
LCE	Left side conduit entry ¹⁵	
RCE	Right side conduit entry ¹⁵	
Shipped separately		
RBPW	Retrofit back plate ³	
VG	Vandal guard ¹⁵	
WG	Wire guard ¹⁵	

Accessories

Ordered and shipped separately.

WSTVCPBBW DDBXD U	Premium Surface - mounted back box
WSBBW DDBTXD U	Surface - mounted back box
RBPW DDBXD U	Retrofit back plate
DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) ¹⁷
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) ¹⁷
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) ¹⁷

NOTES

- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
- Also available as a separate accessory; see accessories information.
- Top conduit entry standard.
- Not available with VG or WG. See PER Table.
- Reference Motion Sensor table.
- Need to specify 120, 208, 240 or 277 voltage.
- Photocell ordered and shipped as a separate line item from Acuity Brands Controls. Shorting Cap included.

- Not available with Emergency options, PE or PER options.
- DMG option not available with standalone or networked sensors/controls.
- Not available with 347/480V.
- Battery pack rated for -20° to 40°C.
- Comes with PBBW.
- Warranty period is 3-years.
- Not available with BBW.
- Must order with fixture; not an accessory.
- Requires luminaire to be specified with PER, PER5 or PER7 option. See PER Table.

Emergency Battery Operation

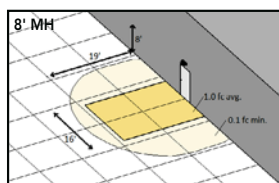
The emergency battery backup is integral to the luminaire — no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product.

All emergency backup configurations include an independent secondary driver with an integral relay to immediately detect AC power loss, meeting interpretations of [NFPA 70/NEC 2008 - 700.16](#)

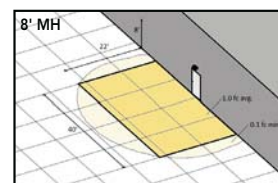
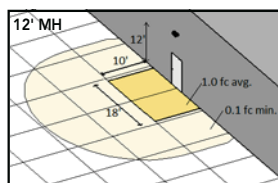
The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time supply power is lost, per [International Building Code Section 1006](#) and [NFPA 101 Life Safety Code Section 7.9](#), provided luminaires are mounted at an appropriate height and illuminate an open space with no major obstructions.

The examples below show illuminance of 1 fc average and 0.1 fc minimum of the P1 power package and VF distribution product in emergency mode.

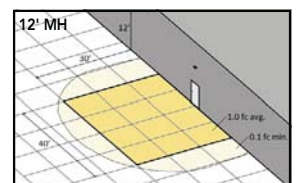
10' x 10' Gridlines
8' and 12' Mounting Height



WST LED P1 27K VF MVOLT E7WH



WST LED P2 40K VF MVOLT E20WH



COMMERCIAL OUTDOOR

One Lithonia Way • Conyers, Georgia 30012 • Phone: 800-705-SERV (7378) • www.lithonia.com
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WST-LED
Rev. 06/09/20

Packet Pg. 64

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	1.03
10°C	50°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98

Projected LED Lumen Maintenance

Values calculated according to IESNA TM-21-11 methodology and valid up to 40°C.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	>0.95	>0.92	>0.87

Electrical Load

Performance package	System Watts	Current (A)					
		120	208	240	277	347	480
P1	11	0.1	0.06	0.05	0.04	---	---
	14	---	---	---	---	0.04	0.03
P1 DS	14	0.12	0.07	0.06	0.06	---	---
P2	25	0.21	0.13	0.11	0.1	---	---
	30	---	---	---	---	0.09	0.06
P2 DS	25	0.21	0.13	0.11	0.1	---	---
P3	50	0.42	0.24	0.21	0.19	---	---
	56	---	---	---	---	0.16	0.12
P3 DS	52	0.43	0.26	0.23	0.21	---	---

Motion Sensor Default Settings

Option	Dimmed State	High Level (when triggered)	Photocell Operation	Ramp-up Time	Dwell Time	Ramp-down Time
*PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	3 sec	5 min	5 min
PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	3 sec	5 min	5 min

*for use with site wide Dusk to Dawn control

PER Table

Control	PER (3 wire)	PER5 (5 wire)		PER7 (7 wire)		
			Wire 4/Wire5		Wire 4/Wire5	Wire 6/Wire7
Photocontrol Only (On/Off)	✓	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM	✗	✓	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
ROAM with Motion	✗	⚠	Wired to dimming leads on driver	⚠	Wired to dimming leads on driver	Wires Capped inside fixture
Futureproof*	✗	⚠	Wired to dimming leads on driver	✓	Wired to dimming leads on driver	Wires Capped inside fixture
Futureproof* with Motion	✗	⚠	Wired to dimming leads on driver	✓	Wired to dimming leads on driver	Wires Capped inside fixture

✓ Recommended

✗ Will not work

⚠ Alternate

*Futureproof means: Ability to change controls in the future.

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.

Performance Package	System Watts (MVOLT ¹)	Dist. Type	27K (2700K, 70 CRI)					30K (3000K, 70 CRI)					40K (4000K, 70 CRI)					50K (5000K, 70 CRI)				
			Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P1	12W	VF	1,494	0	0	0	125	1,529	0	0	0	127	1,639	0	0	0	137	1,639	0	0	0	137
		VW	1,513	0	0	0	126	1,548	0	0	0	129	1,659	0	0	0	138	1,660	0	0	0	138
P2	25W	VF	3,163	1	0	1	127	3,237	1	0	1	129	3,469	1	0	1	139	3,468	1	0	1	139
		VW	3,201	1	0	0	128	3,276	1	0	0	131	3,512	1	0	0	140	3,512	1	0	0	140
P3	50W	VF	6,025	1	0	1	121	6,165	1	0	1	123	6,609	1	0	1	132	6,607	1	0	1	132
		VW	6,098	1	0	1	122	6,240	1	0	1	125	6,689	1	0	1	134	6,691	1	0	1	134



COMMERCIAL OUTDOOR

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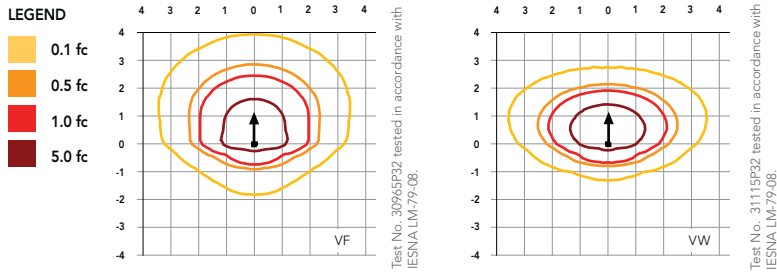
WST-LED
Rev. 06/09/20

Packet Pg. 65

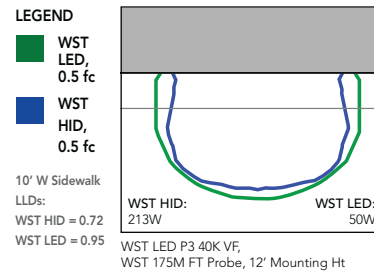
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's [WST LED homepage](#).

Isofootcandle plots for the WST LED P3 40K VF and VW. Distances are in units of mounting height (10').



Distribution overlay comparison to 175W metal halide.



FEATURES & SPECIFICATIONS

INTENDED USE

The classic architectural shape of the WST LED was designed for applications such as hospitals, schools, malls, restaurants, and commercial buildings. The long life LEDs and driver make this luminaire nearly maintenance-free.

CONSTRUCTION

The single-piece die-cast aluminum housing integrates secondary heat sinks to optimize thermal transfer from the internal light engine heat sinks and promote long life. The driver is mounted in direct contact with the casting for a low operating temperature and long life. The die-cast door frame is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP65 rating for the luminaire.

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. Standard Super Durable colors include dark bronze, black, natural aluminum, sandstone and white. Available in textured and non-textured finishes.

OPTICS

Well crafted reflector optics allow the light engine to be recessed within the luminaire, providing visual comfort, superior distribution, uniformity, and spacing in wall-mount applications. The WST LED has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine(s) consist of 98 high-efficacy LEDs mounted to a metal core circuit board and integral aluminum heat sinks to maximize heat dissipation and promote long life (100,000 hrs at 40°C, L87). Class 2 electronic driver has a power factor >90%, THD <20%. Easily-serviceable surge protection device meets a minimum Category B (per ANSI/IEEE C62.41.2).

INSTALLATION

A universal mounting plate with integral mounting support arms allows the fixture to hinge down for easy access while making wiring connections.

LISTINGS

CSA certified to U.S. and Canadian standards. Luminaire is IP65 rated. PIR and back box options are rated for wet location. Rated for -30°C to 40°C ambient.

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

WARRANTY

5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/customer-support/terms-and-conditions

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.

SAMPLE NUMBER: LSR6B15D010MB

Housing	Lumens ¹	Driver	Cylinder Finish
Round LSR6B = LED 6" Aperture, Round Surface Mount LSRWM6B = LED 6" Aperture, Round Surface Wall Mount LSRUD6B = LED 6" Aperture, Surface Wall Mount Up/Down (requires 2 trims and power modules) 1000 & 2000 lumen only, 1000 lumen for W2N Square LSSQR6B = LED 6" Round Aperture, Square Surface Mount (uses round trim) LSSQRWM6B = LED 6" Round Aperture, Square Surface Wall Mount (uses round trim) LSSQRUD6B = LED 6" Round Aperture, Square Surface Wall Mount Up/Down (2 trims and power module required) 1000 -2000 lumen only, 1000 lumen for W2N	10 =1000 lumens 15 =1500 lumens 20 =2000 lumens 30 =3000 lumens ⁸ 40 =4000 lumens ⁸	1000 - 4000 Lumen D010 = 120-277V 0-10V 1% Dimming D010TR = 0-10V or line voltage dimming, 5% to 100% DE010 = 0-10V Linear Dimming, 0% to 100%, 120V-277V D5LT = Fifth Light® (DALI) Logarithmic Dimming, 0% to 100%, 120V-277V DMX = DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V ⁹ DL2 = 1 to 100% Dimming, 120V Lutron® Hi-Lume Forward Phase Dimming DLE = Lutron Ecosystem dimming 1% to 100%, 120V-277V Tunable white 1000-2000 Lumens DE010W2N2050 = 0-10V dimming, 0% to 100%, 120-277V, 2000K - 5000K DE010W2N2765 = 0-10V dimming, 0% to 100%, 120-277V, 2700K - 6500K D5LTW2N2050 = Fifth Light (DALI), 0% to 100%, 120-277V, 2000K - 5000K D5LTW2N2765 = Fifth Light (DALI), 0% to 100%, 120-277V, 2700K - 6500K	P = White MB = Matte Black SL = Painted Silver BZ = Bronze

SAMPLE NUMBER: EU6B10208035

Power Module	Lumen Levels ¹	CRI	Color		
EC6B=6" Cylinder LED Module	1020 =1000, 1500, 2000 lumens 3040 =3000, 4000 lumens (for surface and wall mount only, not up/down)	80 =80 CRI Minimum 90 =90 CRI Minimum 97 =97 CRI Minimum	80 CRI 27 =2700K 30 =3000K 35 =3500K 40 =4000K 50 =5000K	90 CRI 24 =2400K 27 =2700K 30 =3000K 35 =3500K 40 =4000K 50 =5000K	97 CRI 27 =2700K 30 =3000K
	Dim 2 Warm 109030D2W =1000 lumen, 90 CRI, Dim 2 Warm, IC rated 159030D2W =1500 lumen, 90 CRI, Dim 2 Warm, IC rated 209030D2W =2000 lumen, 90 CRI, Dim 2 Warm 309030D2W =3000 lumen, 90 CRI, Dim 2 Warm Tunable white 1020W2N902050 =1000, 1500, 2000 lumens, 90 CRI, tunable white 2000K-5000K 1020W2N902765 =1000, 1500, 2000 lumens, 90 CRI, tunable white 2700K-6500K				

SAMPLE NUMBER: 6LBM3LI

Trim	Distribution ²	Flange	Finish
6LB=6" LED	N =Narrow (30° Beam), Spun Aluminum M =Medium (50° Beam), Spun Aluminum W =Wide (75° Beam), Spun Aluminum S =Shallow (75° Beam), Spun Aluminum CS =Cast Shallow (75° Beam), Die Cast Aluminum SW =Single Wall Wash, Spun Aluminum DW =Double Wall Wash, Spun Aluminum	3=Rimless	LI =Specular Clear ³ H =Semi-Specular Clear ³ WMH =Warm Haze ³ WH =Wheat ³ GPH =Graphite Haze ³ B =Specular Black ³ MW =Matte White MB =Matte Black ⁷ MMS =Matte Metallic Silver ⁶

Accessories

Pendant Kit (up to 45° slope.) P836P =White pendant stem kit P836BZ =Bronze pendant stem kit P836MB =Matte black pendant stem kit P836SL =Silver pendant stem kit	Type Blank =5 conductor for use with 0-10V driver 3C =3 conductor for use with 120 or 277V 5C = conductor for use with D5LT drivers 6C =6 conductor for use with DL3 DMX =No conductors for use with DMX driver ¹⁰	Lengths Blank =36" SP =* specify 6 to 144 in 1" increments
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Aircraft cable

AC120P=120" white aircraft cable kit
P48P=48" white aircraft cable kit
AC120MB=120" black aircraft cable kit
AC48MB=48" black aircraft cable kit

Accessory

LNS6RUD=Round up/down gasketed lens, wet location
LNS6SQUAD=Square up/down gasketed lens, wet location

Notes:

- Nominal Lumens will vary depending on selected color, driver and reflector finish.
- Beam angles are nominal with LI finish trims.
- Not available on CS or BA distributions.
- Only available with Matte White and Matte Black Finishes.
- Only available on BA distribution.

- Available only on CS distributions.
- Available with BA and CS distributions.
- Not available for up/down.
- DMX fixtures default to full on upon loss of DMX signal.

ENERGY

ENERGY DATA
Sound Rating: Class A standards
(Values at non-dimming line voltage)
Minimum Starting Temperature: -30°C (-22°F)
EMV/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)
Input Voltage: UNV (120V - 277V)
Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power)
Input Frequency: 50/60Hz

1000 Lumen D010		1500 Lumen D010	
Input Power: 11W	THD: <14%	Input Power: 15.5W	THD: <13%
120V Input Current: 0.09A	277V Input Current: 0.04A	120V Input Current: 0.13A	277V Input Current: 0.06A

2000 Lumen D010		3000 Lumen D010	
Input Power: 21.2W	THD: <9%	Input Power: 27.6W	THD: <10%
120V Input Current: 0.18A	277V Input Current: 0.08A	120V Input Current: 0.23A	277V Input Current: 0.10A

4000 Lumen D010	
Input Power: 41.6W	THD: <13%
120V Input Current: 0.35A	277V Input Current: 0.15A

Lumens	120V		277V	
	Inrush (A)	Duration (ms)	Inrush (A)	Duration (ms)
1000 Lumen D010	1.02	0.041	2.18	0.021
1500 Lumen D010	1.02	0.042	2.24	0.064
2000 Lumen D010	1.02	0.077	2.43	0.027
3000 Lumen D010	1.15	0.067	3.26	0.027
4000 Lumen D010	1.2	0.088	3.9	0.03

PHOTOMETRY

NARROW (30° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P201217					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD6B15D010					0	2709	0-30	960	80.4	45	677
Module	EU6B10208035					5	2526	0-40	1149	96.2	55	76
Trim	6LBN1LI					15	1468	0-60	1193	99.9	65	26
Lumens	1195					25	708	0-90	1195	100	75	0
Efficacy	83.6 Lm/W					35	299	90-180	0	0	85	0
SC	0.53					45	44					
						55	4					
						65	1					
						75	0					
						85	0					
						90	0					

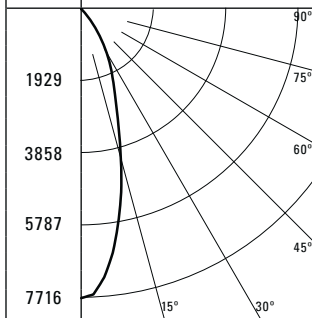
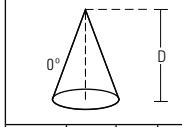
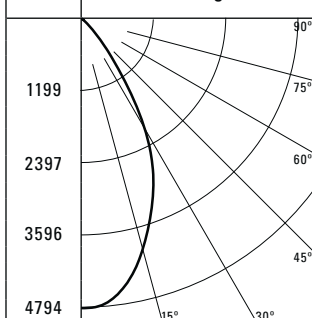
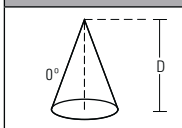
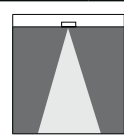
MEDIUM (50° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P201215					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD6B15D010					0	1683	0-30	990	73.6	45	1159
Module	EU6B10208035					5	1661	0-40	1265	94	55	130
Trim	6LBM1LI					15	1386	0-60	1341	99.7	65	87
Lumens	1345					25	993	0-90	1345	100	75	71
Efficacy	94.1 Lm/W					35	430	90-180	0	0	85	0
SC	0.85					45	76					
						55	7					
						65	3					
						75	2					
						85	0					
						90	0					

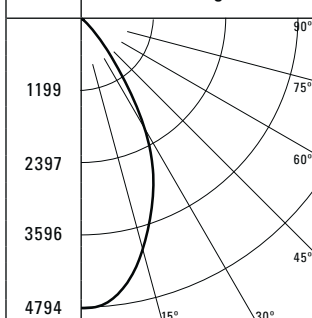
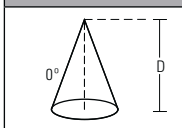
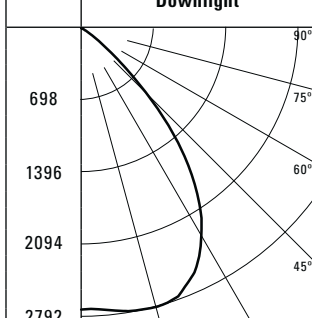
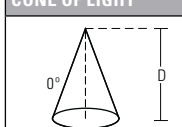
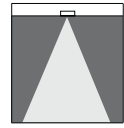
WIDE (75° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P201213					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD6B15D010					0	963	0-30	785	51.7	45	4835
Module	EU6B10208035					5	963	0-40	1207	79.5	55	1055
Trim	6LBW1LI					15	976	0-60	1510	99.4	65	151
Lumens	1519					25	913	0-90	1519	100	75	84
Efficacy	106.2 Lm/W					35	687	90-180	0	0	85	0
SC	1.23					45	316					
						55	56					
						65	6					
						75	2					
						85	0					
						90	0					

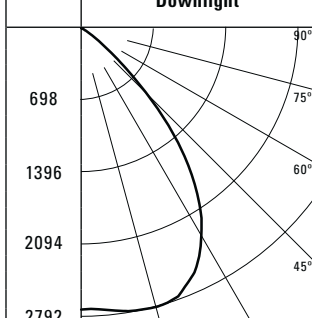
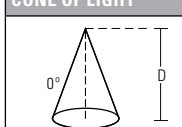
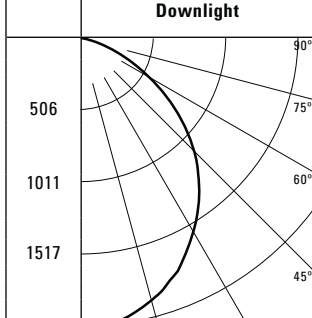
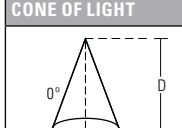
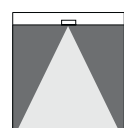
SHALLOW (75° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P201212					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LD6B15D010					0	710	0-30	529	34.2	45	36260
Module	EU6B10208035					5	704	0-40	843	54.5	55	29687
Trim	6LBCS1MMS					15	666	0-60	1377	89	65	20068
Lumens	1546					25	596	0-90	1546	100	75	8318
Efficacy	110.4 Lm/W					35	502	90-180	0	0	85	749
SC	1.16					45	393					
						55	261					
						65	130					
						75	33					
						85	1					
						90	0					

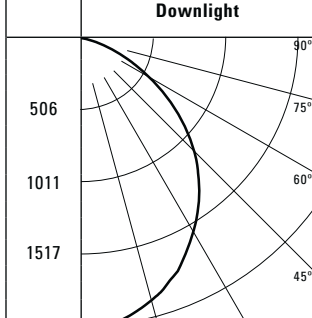
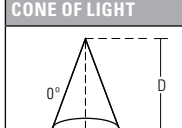
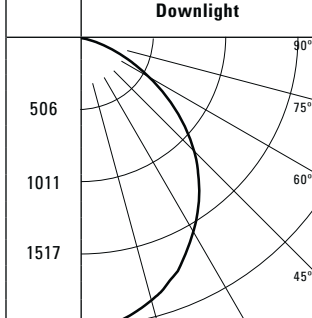
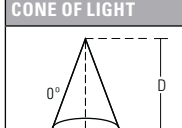
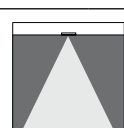
Attachment: Photometric and Lighting Plans Submitted 10-2-2020 (#20-032: Spoede Elementary Redevelopment)

PHOTOMETRY

NARROW (25° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE					
Test Number	P201218					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance				
Housing	LD6B40D010					0	7716	0-30	2735	80.4	45	1928				
Module	EU6B30508035					5	7196	0-40	3274	96.2	55	215				
Trim	6LBN1LI					15	4183	0-60	3399	99.9	65	74				
Lumens	3404					25	2017	0-90	3404	100	75	0				
Efficacy	81.4 Lm/W					35	853	90-180	0	0	85	0				
SC	0.53					45	126	0-180	3404	100						
						55	11									
						65	3									
						75	0									
						85	0									
						90	0									

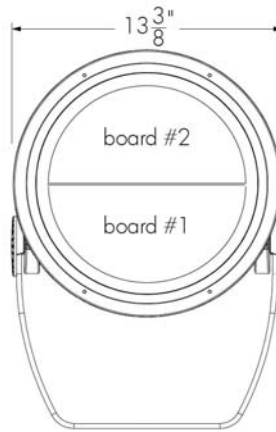
MEDIUM (50° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE					
Test Number	P201216					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance				
Housing	LD6B40D010					0	4794	0-30	2819	73.6	45	3303				
Module	EU6B30508035					5	4731	0-40	3602	94	55	370				
Trim	6LBM1LI					15	3946	0-60	3819	99.7	65	251				
Lumens	3831					25	2829	0-90	3831	100	75	205				
Efficacy	91.7 Lm/W					35	1226	90-180	0	0	85	0				
SC	0.85					45	216	0-180	3831	100						
						55	20									
						65	10									
						75	5									
						85	0									
						90	0									

WIDE (75° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE					
Test Number	P201214					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance				
Housing	LD6B40D010					0	2742	0-30	2236	51.7	45	13769				
Module	EU6B30508035					5	2742	0-40	3439	79.5	55	3006				
Trim	6LBW1LI					15	2778	0-60	4301	99.4	65	430				
Lumens	4326					25	2600	0-90	4326	100	75	234				
Efficacy	103.5 Lm/W					35	1957	90-180	0	0	85	0				
SC	1.23					45	899	0-180	4326	100						
						55	159									
						65	17									
						75	6									
						85	0									
						90	0									

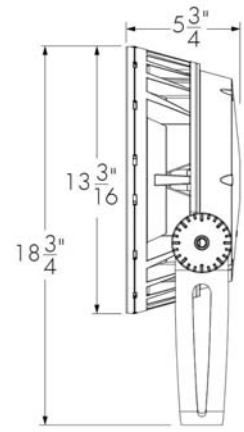
SHALLOW (75° BEAM)		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE					
Test Number	P35144					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance				
Housing	LD6B40D010					0	2022	0-30	1506	34.2	45	17139				
Module	EU6B30508035					5	2005	0-40	2399	54.5	55	14033				
Trim	6LBCS1MMS					15	1897	0-60	3921	89	65	9486				
Lumens	4403					25	1697	0-90	4403	100	75	3933				
Efficacy	105.3 Lm/W					35	1430	90-180	0	0	85	348				
SC	1.16					45	1119	0-180	4403	100						
						55	743									
						65	370									
						75	94									
						85	3									
						90	0									

Project Name _____ Qty _____

Type _____ Catalog / Part Number _____



Front view



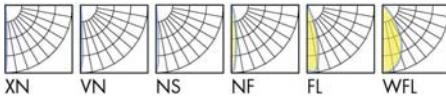
Side view

Photometric Summary

4000K	Delivered output (lm)	Intensity (peak cd)
XN	8,425	593,570
VN	6,313	361,807
NS	6,667	222,046
NF	6,437	44,962
FL	6,286	16,798
WFL	5,635	5,469

Photometric performance is measured in compliance with IESNA LM-79-08.

Optics



Control

ON/OFF 0-10V DMX/RDM

lumen talk EcoSystem Enabled DALI

Rating



Description

The Lumenbeam Grande is a high-performance, 100W luminaire for lighting architectural exteriors and facades. It has numerous options including optics for flood or accent lighting; a choice of color temperatures and colors; various mounting options, accessories, spread lenses and controls.

Features

Color and Color Temperature	2200K, 2700K, 3000K, 3500K, 4000K, 5700K, Red, Green, Blue
Optics (nominal distribution)	4°, 6°, 10°, 20°, 40°, 60°
Optical Option	Linear spread lens horizontal distribution, Linear spread lens vertical distribution
Options	Short Yoke, 3G ANSI C136.31 Vibration Rating for bridge applications, Corrosion-resistant coating for hostile environments
Power Consumption	100 W
Warranty	5-year limited warranty
Performance	
Delivered Output	8,425 lm (4000K, XN optic)
Delivered Intensity	593,570 cd at nadir (4000K, XN optic)
Illuminance at Distance	Minimum 1 fc at 770 ft distance (4000K, XN optic)
Color Consistency	2 SDCM
Color Rendering	CRI 80+
Lumen Maintenance	L70 120,000 hrs (Ta 25 °C)

Physical

Housing Material	Low copper content high pressure die-cast aluminum
Yoke Material	Heavy aluminum (standard yoke included)
Lens Material	Clear tempered glass
Hardware Material	Stainless steel
Surface Finish	Electrostatically applied polyester powder coat
Weight	24 lbs
EPA	Front = 1.6 sq ft, Side = 0.97 sq ft

Electrical and control

Voltage	100 to 277 volts
Fixture Cable	Power and data in 1 cable, 3 ft cord standard (#16-5), other lengths available
Resolution (DMX/RDM)	Per fixture, 8-bit or 16-bit
Control	On/Off control, Lumentalk, 0-10V dimming, DALI dimming, Lutron® EcoSystem® Enabled dimming, DMX/RDM enabled

Environmental

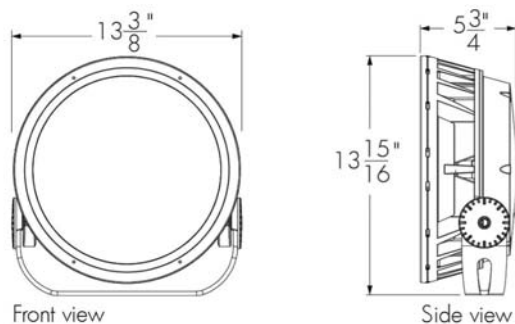
Operating Temperature	-13 °F to 122 °F
IP Rating	IP66
IK Rating	IK09

Accessories (order separately)

Control Boxes	Power and control box - daisy chain configuration, Power and control box - star configuration
Control Systems	Lumentouch 2.0™, Lumencue, Lumentone
Diagnostic and Addressing Tools	LumenID, LumentalkID

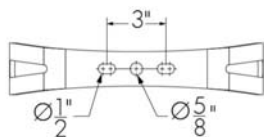
Mounting options

SY - Short yoke

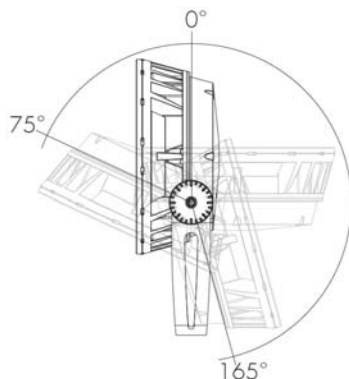


Mounting details

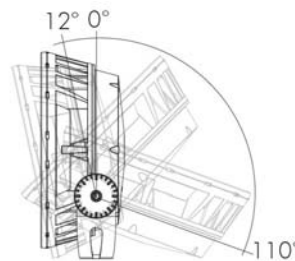
Mounting hole pattern - standard and short yoke



Adjustable pivot limits



Standard yoke

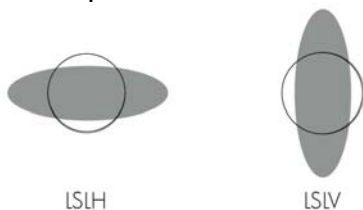


Short yoke

Optical options

LSLH - Linear spread lens horizontal distribution

LSLV - Linear spread lens vertical distribution

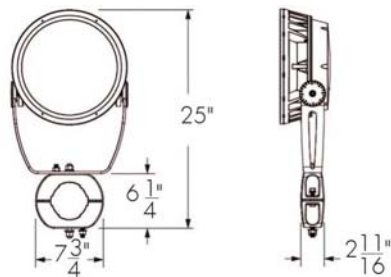


	Beam angle with LSLH/LSLV
XN	5° x 57°
VN	8° x 60°
NS	9° x 60°
NF	18° x 65°
FL	32° x 72°

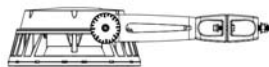
Factory installed, not adjustable on site. Not available for WFL optic.
See 'Optical Accessories' section for field adjustable spread lens (LSLA).

Mounting accessories (order separately)

Round pole mounting accessory



PM4 model shown.
Consult factory for square pole section.



PM4-1, PM4.5-1, PM5-1 - Round pole mounting accessory - single fixture

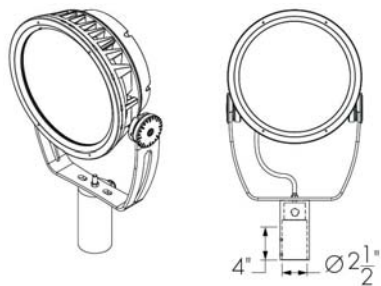


PM4-5, PM4.5-2, PM5-2 - Round pole mounting accessory - twin fixtures
*One bracket assembly is supplied per 2 fixtures unless otherwise specified.

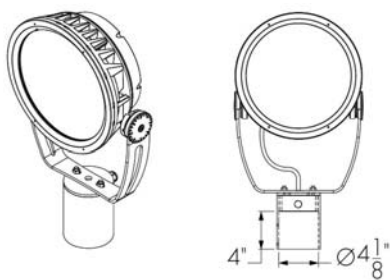
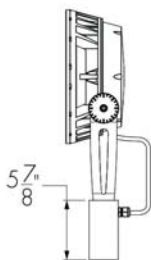
	PM4	PM4.5	PM5
For pole Ø	4" ± 1/16	4.5" ± 1/16	5" ± 1/16

Consult factory for other pole diameters.

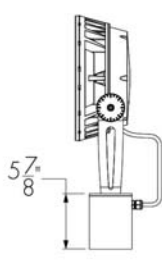
Tenon adapter



TN2 - Tenon adapter to fit on 2 3/8 in O.D. tenon



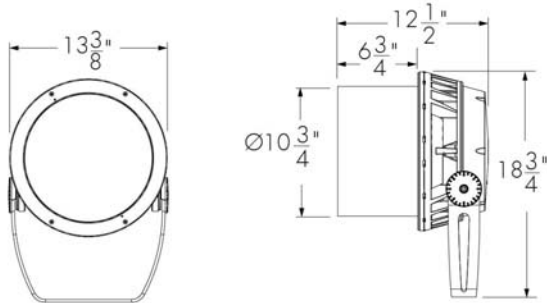
TN4 - Tenon adapter to fit on 4 in O.D. tenon



Optical accessories (order separately)

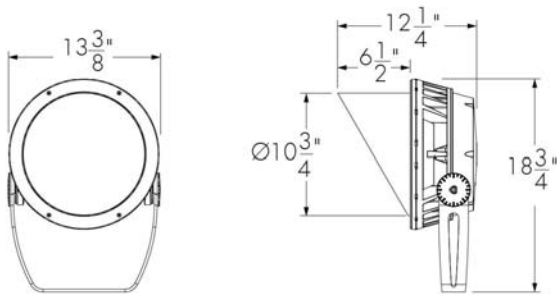
Installed optical accessories will affect the maximum pivot limits for each mounting option, consult factory for details.

SN - Snoot



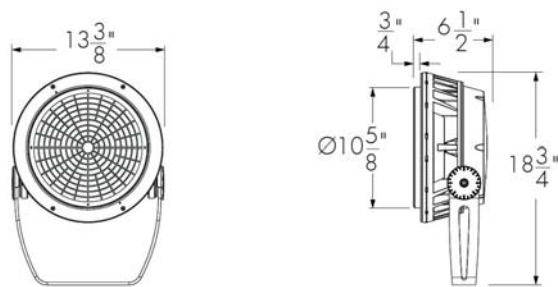
LBGSN-FINISH-BK
Interior surface painted black. Please specify desired exterior FINISH from list of available finishes.

VS - Visor



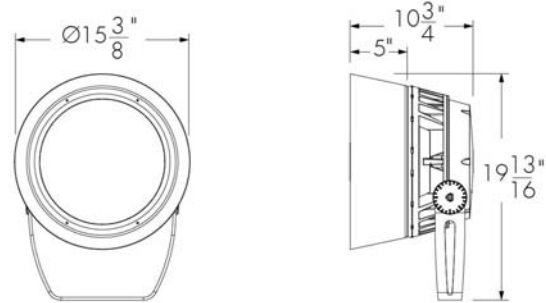
LBGVS-FINISH-BK
Interior surface painted black. Please specify desired exterior FINISH from list of available finishes.

WG - Wire guard



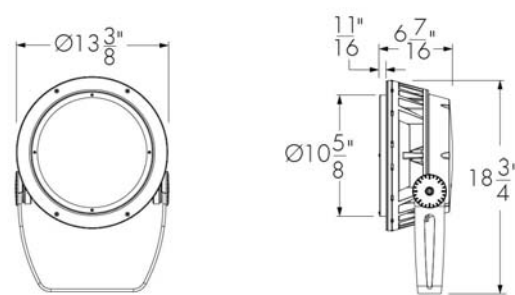
LBGWG-FINISH
Please specify desired exterior FINISH from list of available finishes.

SNW - Snoot wide



LBGSNW-FINISH-BK
Interior surface painted black. Please specify desired exterior FINISH from list of available finishes.

LSLA - Linear spread lens adjustable



LBGLSLA-FINISH
Please specify desired exterior FINISH from list of available finishes.

Accessory combinations

	+	Snoot	Snoot wide	Visor
Linear spread lens adjustable		YES	NO*	YES
Wire guard		YES	NO	YES

Accessory combinations must be ordered together on a single line
Ex: A snoot + wire guard combination order code is LBGSNWG-BK-BK.
*Consult factory for a linear spread lens adjustable + snoot wide combination.

Available exterior finishes for optical accessories

- BK** - Black Sandtex®
- BRZ** - Bronze Sandtex®
- SI** - Silver Sandtex®
- WH** - Smooth white
- BKTX** - Textured black
- BRZTX** - Textured bronze, non-metallic
- GRATX** - Textured medium gray
- GRNTX** - Textured green
- WHTX** - Textured white
- CC** - Custom color and finish (please specify RAL color)*

*Lumenpulse offers a wide selection of RAL CLASSIC (K7) colors with a smooth texture and high-gloss finish. Please consult factory for a list of available K7 colors, other RAL textures and glosses, or to match alternate color charts. Final color matching results may vary.

Attachment: Photometric and Lighting Plans Submitted 10-2-2020 (#20-032: Spoede Elementary Redevelopment)

How to order

1	2	3	4	5	6	7	8
LBG							
9	10	11					

1 . Housing

LBG	Lumenbeam™ Grande
-----	-------------------

2 . Voltage

100	100 volts
120	120 volts
208	208 volts
220	220 volts
240	240 volts
277	277 volts

3 . Color and Color Temperature ⁽¹⁾

22K	2200K
27K	2700K
30K	3000K
35K	3500K
40K	4000K
57K	5700K
RD	Red
GR	Green
BL	Blue

4 . Optic1

XN	Extra Narrow 4°
VN	Very Narrow 6°
NS	Narrow Spot 10°
NF	Narrow Flood 20°
FL	Flood 40°
WFL	Wide Flood 60° ⁽²⁾

5 . Optic2

XN	Extra Narrow 4°
VN	Very Narrow 6°
NS	Narrow Spot 10°
NF	Narrow Flood 20°
FL	Flood 40°
WFL	Wide Flood 60° ⁽²⁾

6 . Optical Option

LSLH	Linear spread lens horizontal distribution ⁽³⁾
LSLV	Linear spread lens vertical distribution ⁽³⁾

7 . Finish

BK	Black Sandtex®
BRZ	Bronze Sandtex®
SI	Silver Sandtex®
WH	Smooth white
BKTX	Textured black
BRZTX	Textured bronze non-metallic
GRATX	Textured medium gray
GRNTX	Textured green
WHTX	Textured white
CC	Custom color and finish (please specify RAL color) ⁽⁴⁾

8 . Control

NO	On/Off control
LT	Lumentalk ⁽⁵⁾
DIM	0-10V dimming
DALI	DALI dimming
ES	Lutron® EcoSystem® Enabled dimming
DMX/RDM	DMX/RDM enabled

11 . Cable Length ⁽⁷⁾

3FT	3 ft ⁽⁷⁾ ⁽⁸⁾
10FT	10 ft
20FT	20 ft
30FT	30 ft
50FT	50 ft
70FT	70 ft
100FT	100 ft

9 . Options

SY	Short Yoke
3GV	3G ANSI C136.31 Vibration Rating for bridge applications
CRC	Corrosion-resistant coating for hostile environments ⁽⁶⁾

10 . Certification

UL	UL compliant
CE	CE compliant

Notes:

⁽¹⁾ Consult factory for availability of static Royal Blue, 6500K and 90+ CRI.

⁽²⁾ Cannot be combined with other optics.

⁽³⁾ Factory installed, not available for 60° optic. Field adjustable spread lens optical accessory available, order separately.

⁽⁴⁾ Lumenpulse offers a wide selection of RAL CLASSIC (K7) colors with a smooth texture and high-gloss finish. Please consult factory for a list of available K7 colors, other RAL textures and glosses, or to match alternate color charts. Final color matching results may vary.

⁽⁵⁾ A Lumentranslator and LumentalkID (LUDLT) must be specified for Lumentalk applications. Consult Lumentranslator and Lumentalk pages and specification sheets for details.

⁽⁶⁾ Use only when exposed to salt spray and harsh chemicals. This option is not required for normal outdoor exposure.

⁽⁷⁾ 3 ft cable length is standard unless otherwise specified.

⁽⁸⁾ Maximum of 3 ft cable length for daisy chain DMX applications with CBX-DS.



KBA8 LED

LED Specification Bollard

Catalog
Number

Notes

Type

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

Specifications

8" Round
(20.3 cm)Height: 42"
(106.7 cm)Weight
(max): 27 lbs
(12.25 kg)

Introduction

The KBA8 Bollard is a stylish, fully integrated LED solution for walkways. 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 70% in energy savings over comparable 100W metal halide luminaires, the KBA8 Bollard is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Ordering Information

EXAMPLE: KBA8 LED 16C 700 40K SYM MVOLT DDBXD

KBA8 LED								
Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Control options	Other options	Finish (required)
KBA8 LED	Asymmetric 12C 12 LEDs ¹ Symmetric 16C 16 LEDs ²	350 350 mA 450 450 mA ^{3,4} 530 530 mA 700 700 mA	30K 3000 K 40K 4000 K 50K 5000 K AMBPC Amber phosphor converted AMBLW Amber limited wavelength ^{3,4}	ASY Asym-metric ¹ SYM Sym-metric ²	MVOLT ⁵ 120 ⁵ 208 ⁵ 240 ⁵ 277 ⁵ 347 ⁴	Shipped installed PE Photoelectric cell, button type DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) ELCW Emergency battery backup ⁶	Shipped installed SF Single fuse (120, 277, 347V) ^{4,7} DF Double fuse (208, 240V) ^{4,7} H24 24" overall height H30 30" overall height H36 36" overall height FG Ground-fault festoon outlet L/AB Without anchor bolts (3 bolt base) L/AB4 4 bolt retrofit base without anchor bolts ⁸	DWHXD White DNAXD Natural aluminum DDBXD Dark bronze DBLXD Black DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white Striping⁹ SDDB Dark bronze SDWH White SDBL Black SDNA Natural aluminum SDTG Tennis green SDBR Bright red SDBUA Dark blue SDYLB Yellow

Accessories

Ordered and shipped separately.

MRAB U Anchor bolts for KBA8 LED⁸

NOTES

- Only available in the 12C, ASY version.
- Only available in the 16C, SYM version.
- Only available with 450 AMBLW version.
- Not available with ELCW.
- 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).
- Not available with 347V. Not available with fusing. Not available with 450 AMBLW.
- Single fuse (SF) requires 120, 277, or 347 voltage option. Double fuse (DF) requires 208 or 240 voltage option.
- MRAB U not available with L/AB4 option.
- Striping is available only in the colors listed.

Performance Data

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.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K					40K					50K					50K				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
12C	350mA	16	ASY	1,126	1	1	1	70	1,210	1	1	1	76	1,217	1	1	1	76					
	530 mA	22	ASY	1,622	1	1	1	74	1,741	1	1	1	79	1,752	1	1	1	80					
	700mA	30	ASY	2,050	1	1	1	68	2,201	1	1	1	73	2,215	1	1	1	74					
	Amber 450	16	ASY																324	0	1	0	20
16C	350mA	20	SYM	1,527	1	0	0	76	1,640	1	0	0	82	1,650	1	0	0	83					
	530 mA	28	SYM	2,186	1	0	0	78	2,348	1	0	1	84	2,362	1	0	1	84					
	700mA	39	SYM	2,744	1	0	1	70	2,947	1	0	1	76	2,965	2	0	1	76					
	Amber 450	20	SYM																374	0	0	0	19

Note: Available with phosphor-converted amber LED's (nomenclature AMBPC). These LED's produce light with 97+% >530 nm. Output can be calculated by applying a 0.7 factor to 4000 K lumen values and photometric files.

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted 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	1.00	0.98	0.97	0.95

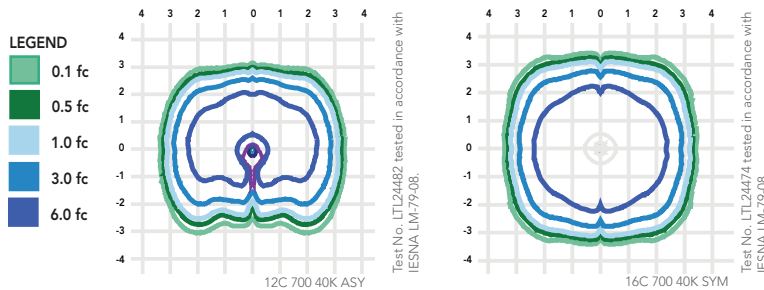
Electrical Load

Light Engines	Drive Current (mA)	System Watts	Current (A)				
			120	208	240	277	347
12C	350	16W	0.158	0.118	0.114	0.109	0.105
	530	22W	0.217	0.146	0.136	0.128	0.118
	700	31W	0.296	0.185	0.168	0.153	0.139
	Amber 450	16W	0.161	0.120	0.115	0.110	0.106
16C	350	20W	0.197	0.137	0.128	0.121	0.114
	530	28W	0.282	0.178	0.162	0.148	0.135
	700	39W	0.385	0.231	0.207	0.185	0.163
	Amber 450	20W	0.199	0.139	0.130	0.123	0.116

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's [KBA8 Bollard homepage](#).

Isfootcandle plots for the KB LED Bollards. Distances are in units of mounting height (3').



FEATURES & SPECIFICATIONS

INTENDED USE

The rugged construction and clean lines of the KBA bollard is ideal for illuminating building entryways, walking paths, and pedestrian plazas, as well as any other location requiring a low mounting height light source with fully cutoff illumination.

CONSTRUCTION

One-piece 8-inch round extruded aluminum shaft with thick side walls for extreme durability, a high-impact clear acrylic lens and welded top cap. Die-cast aluminum mounting ring allows for easy leveling even in sloped locations and a full 360-degree rotation for precise alignment during installation. Three ½" x 11" anchor bolts with double nuts and washers and 3 ¾" bolt circle template ensure stability. Overall height is 42" standard.

FINISH

Exterior parts are protected by a zinc-infused super durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering for maximum retention of gloss and luster. A tightly controlled multi-stage process ensures a minimum 3-mil thickness for a finish that can withstand the elements without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS

Two fully cutoff optical distributions are available: symmetrical and asymmetrical. IP66 sealed LED light engine provides smoothly graduated illumination without any uplight. Light engines are available in standard 4000 K (>70 CRI) or optional 3000 K

(>80 CRI) or 5000 K (67 CRI). Limited-wavelength amber LEDs are also available.

ELECTRICAL

Light engines consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (L95/100,000 hours at 700mA at 25°C). Class 2 electronic drivers are designed for an expected life of 100,000 hours with < 1% failure rate. Electrical components are mounted on a removable power tray.

LISTINGS

CSA certified to U.S. and Canadian standards. Light engines are IP66 rated. Rated for -40°C minimum ambient. Cold-weather emergency battery backup rated for -20°C minimum ambient.

WARRANTY

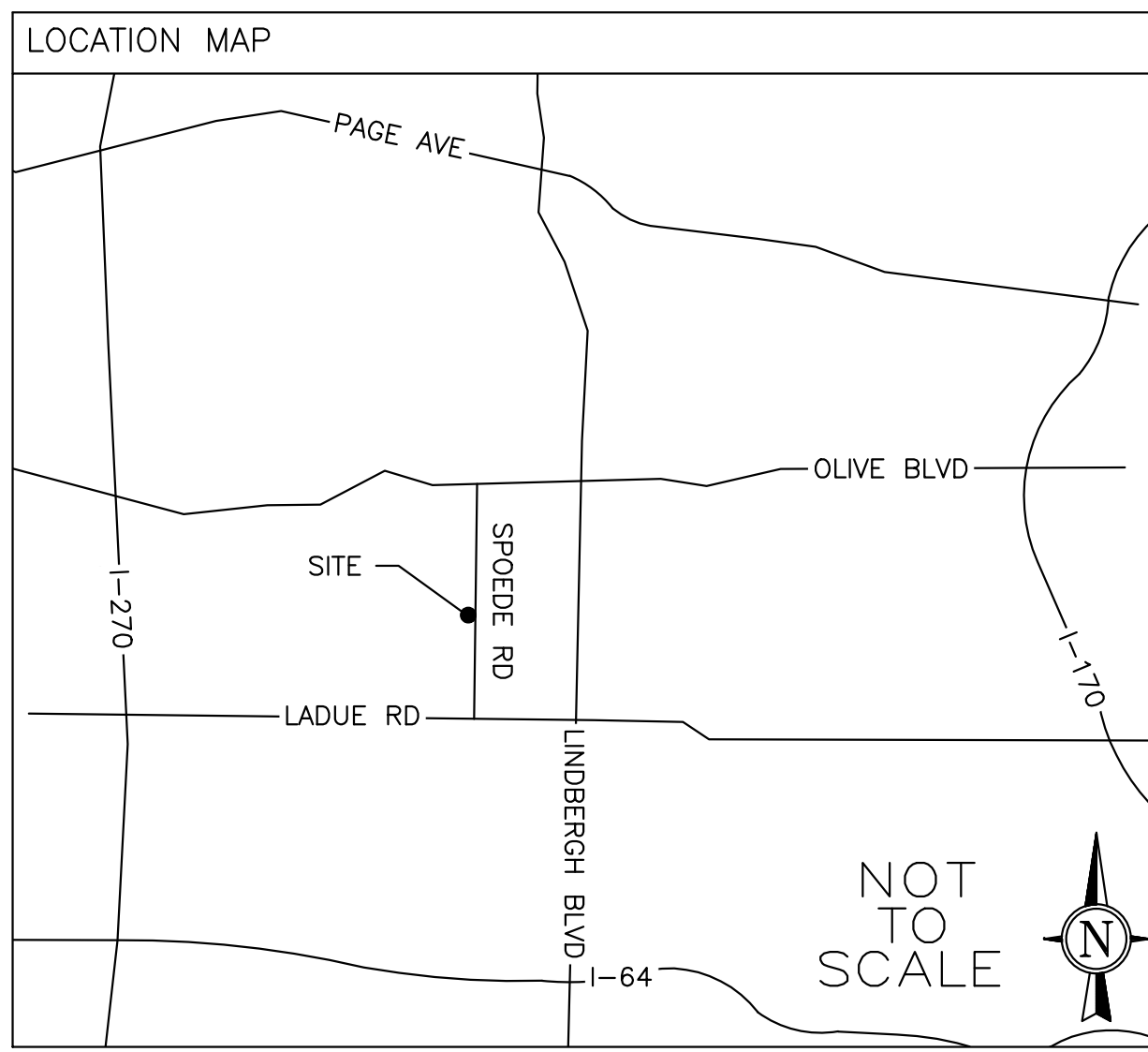
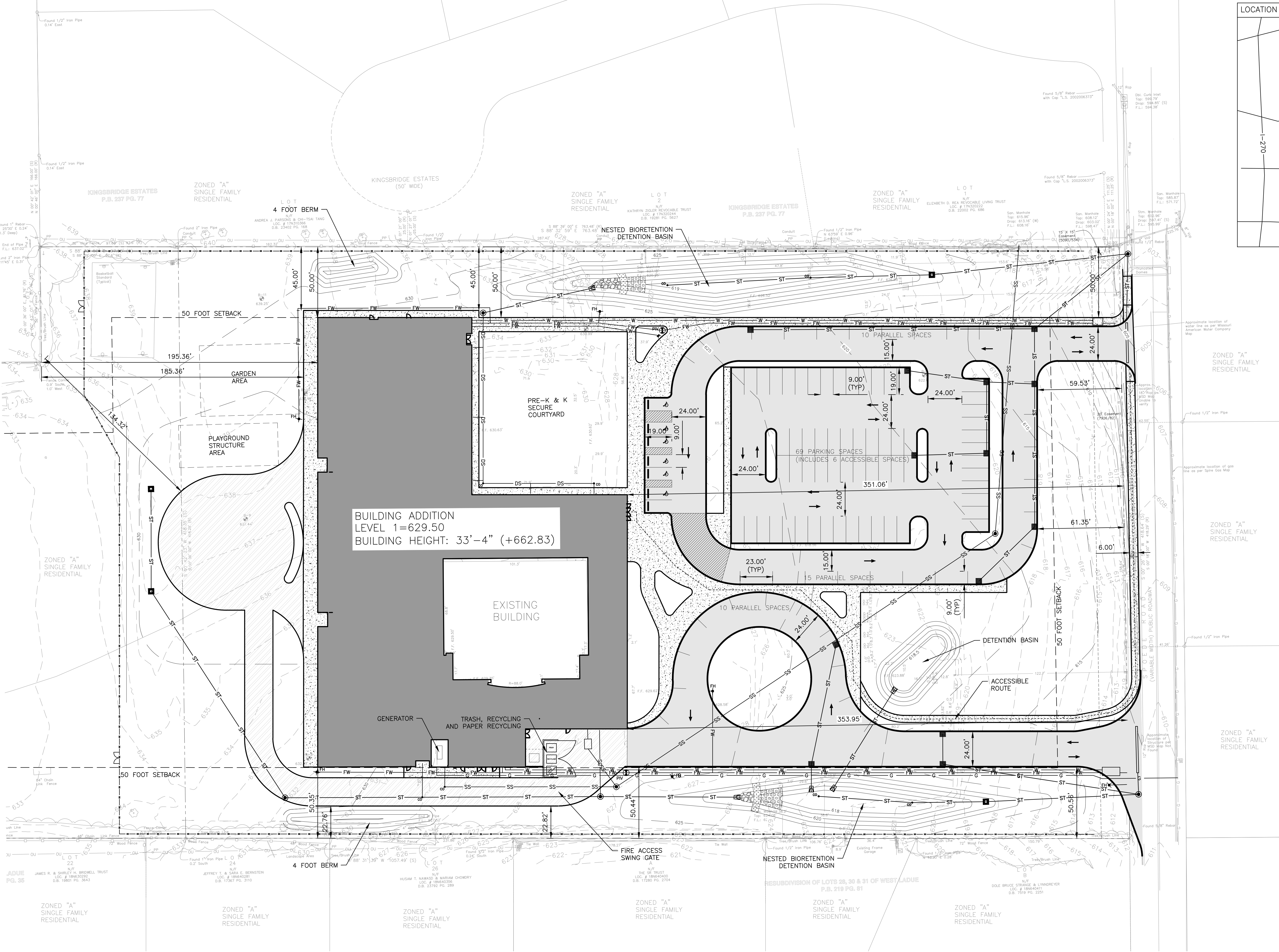
5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

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.





PUBLIC UTILITY CONTACTS

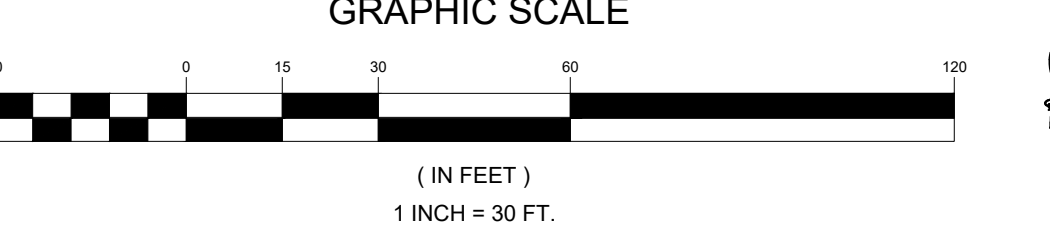
CONTACT TYPE:	COMPANY NAME:	CONTACT PHONE:	STREET ADDRESS:	
STORM/SANITARY:	METROPOLITAN ST. LOUIS SEWER DISTRICT (MSD)	(314) 768-6200	2350 MARKET ST.	ST. LOUIS, MO 63103
ELECTRIC:	AMEREN MISSOURI	(886) 992-6619	1901 CHOUTEAU AVE.	ST. LOUIS, MO 63166
NATURAL GAS:	SPIRE GAS COMPANY	(314) 621-6960	720 OLIVE ST.	ST. LOUIS, MO 63101
WATER:	MISSOURI AMERICAN WATER	(866) 430-0820	727 CRAIG RD.	ST. LOUIS, MO 63141
FIRE DISTRICT:	CREVE COEUR FIRE DISTRICT	(314) 432-5570	11221 OLIVE BLVD.	CREVE COEUR, MO 63141
SCHOOL DISTRICT:	LADUE SCHOOL DISTRICT	(314) 994-7080	9703 CONWAY RD.	ST. LOUIS, MO 63124
WATERSHED:	DEER CREEK WATERSHED			

Differential Summary (15YR, 20 MIN):			
The calculations below represent the actual existing vs. proposed.			
Existing Drainage	Total Q =	22.13	
Proposed Drainage	Total Q =	20.63	
Differential	Total Q =	-1.50	Decrease
Existing Impervious	Total Acres=	3.68	
Proposed Impervious	Total Acres=	3.25	
Differential	Total Acres=	-0.43	Decrease
Differential Summary (15YR, 20 MIN)(BACK TO GRASS):			
It is anticipated that the school is within a troubled watershed and will need to be compared to a greenfield site for St. Louis MSD Calculations.			
Existing Drainage	Total Q =	11.48	Back to Grass
Proposed Drainage	Total Q =	20.63	
Differential	Total Q =	9.16	Increase
Existing Impervious	Total Acres=	0.00	Back to Grass
Proposed Impervious	Total Acres=	3.25	
Differential	Total Acres=	3.25	Increase

Detention Summary (15YR, 20 MIN):			
The calculations below represent the actual existing vs. proposed.			
Existing Drainage	Total Volume=	19,921	cu ft
Proposed Drainage	Total Volume =	18,568	cu ft
Differential	Total Volume =	-1,353	Decrease
The calculations below represent a greenfield site vs. proposed.			
Existing Impervious	Total Acres=	10,328	cu ft
Proposed Impervious	Total Acres=	18,568	cu ft
Differential	Total Acres=	8,240	Increase
Volume Provided			
North Detention Basin Total Volume = 22,051 cu ft			
South Detention Basin Total Volume = 14,456 cu ft			
Total Storage Volume = 36,507 cu ft			
SITE COVERAGE:			
THE PROPERTY BOUNDARY IS 417,736 SQ FT (9.59 ACRES).			
SITE COVERAGE IS AS FOLLOWS:			
EXISTING = 3.31/9.59 = 34.5%			
PROPOSED = 3.01/9.59 = 31.4%			

PARKING:
104 TOTAL PARKING SPACES
-63 STANDARD PERPENDICULAR SPACES
-6 ACCESSIBLE PERPENDICULAR SPACES
-35 PARALLEL SPACES

LEGEND:	
— G —	GAS SERVICE
— W —	DOMESTIC WATER SERVICE
— FW —	FIRE WATER SERVICE
— SS —	SANITARY SEWER
— ST —	STORM SEWER
— — —	PROPERTY LINE
	PEDESTRIAN PAVEMENT
	ASPHALT PAVEMENT
	HEAVY DUTY CONCRETE PAVEMENT



ITTNER
CORDOGAN CLARK GROUP
611 N. Tenth Street, Suite 200
St. Louis, MO 63101
314.421.3542
www.ittnerarchitects.com
Missouri Architectural Corporation
Certificate of Authority No. 000004

Perkins&Will

The Wrigley Building
410 North Michigan Avenue
Suite 1600
Chicago, IL 60611
312.755.0770
312.755.0775
www.perkinswill.com
Missouri Certificate of Authority No. 000000

MCCLURE ENGINEERING
1000 Clark Avenue
St. Louis, MO 63102
t. 314.645.3262
Missouri Certificate of Authority No. 000000

DAVID MASON & ASSOCIATES, INC.
800 S. Vandeventer Ave.
St. Louis, MO 63110
t. 314.534.1030
Missouri Certificate of Authority No. 001100

CIVIL DESIGN, INC.
5220 Oakland Avenue
St. Louis, MO 63110
t. 314.663.5570
Missouri Certificate of Authority No. 000000

SHEN MILSON & WILKE, LLC
2 N Riverside Plaza, Suite 1460
Chicago, IL 60606
t. 312.559.4585

S20 CONSULTANTS, INC.
530 N Wood Street #C
Chicago, IL 60622
t. 947.550.4080

STATE OF MISSOURI
SHEA M. KROTZ
Professional Engineer
PE-2013000593
10-23-2020
SHEA M. KROTZ
MFO Registration No. 2013000593

PROJECT
SPOEDE
ELEMENTARY
SCHOOL
425 N. Spoele Road
St. Louis, Missouri 63141

Ladue Schools
Honoring Tradition ~ Continuing Excellence

LADUE SCHOOL
DISTRICT
9703 Conway Road
St. Louis, MO. 63124

KEYPLAN

DESIGN DEVELOPMENT

NO	ISSUE	DATE
Job Number		TITLE

SITE DEVELOPMENT PLAN

SHEET NUMBER

C20-01



Whitney Kelly <wkelly@crevecoeurmo.gov>

Spoede School

2 messages

Alice Goodman <alicergood@aol.com>
 Reply-To: Alice Goodman <alicergood@aol.com>
 To: wkelly@crevecoeurmo.gov

Thu, Oct 22, 2020 at 12:31 PM

I live at [21 Spoede Lane](#) by the Spoede School and I am AGAINST the addition and renovation of the Spoede Elementary School.

Alice Goodman
[21 Spoede Lane](#)
[63141](#)

Alice Goodman <alicergood@aol.com>
 Reply-To: Alice Goodman <alicergood@aol.com>
 To: wkelly@crevecoeurmo.gov

Thu, Oct 22, 2020 at 12:41 PM

FYI:

From: alicergood@aol.com
 To: wkelly@crevecoeurmo.gov
 Sent: 10/22/2020 12:31:16 PM Central Standard Time
 Subject: Spoede School

[Quoted text hidden]

Attachment: Public Comment Received (#20-032: Spoede Elementary Redevelopment)